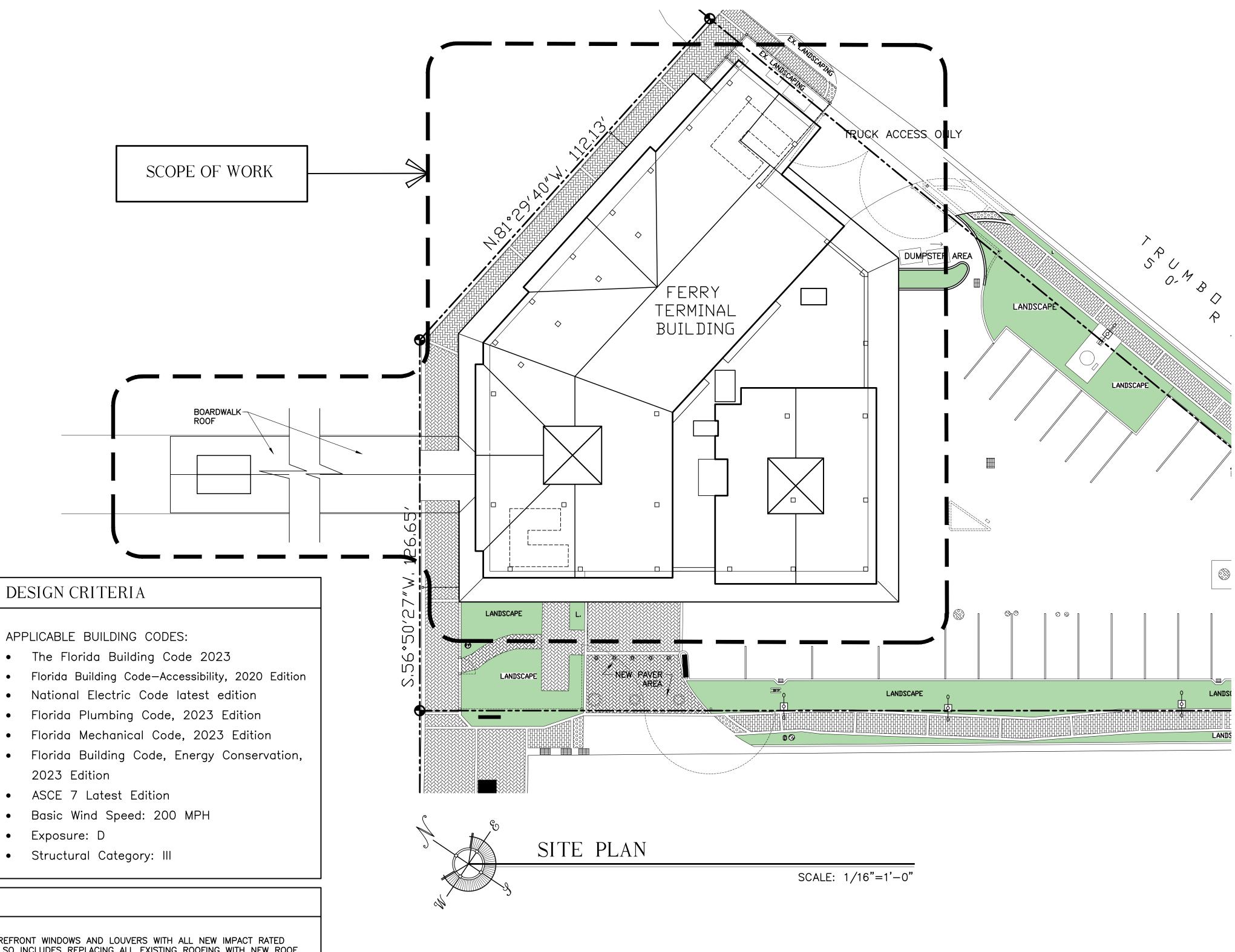
FERRY TERMINAL RENOVATION

100 Grinnell Street KEY WEST, FLORIDA





LIST OF DRAWINGS

- A0.1 COVER PAGE A1.1 PROPOSED GROUND FLOOR PLAN
 A1.2 PROPOSED FIRST FLOOR PLAN
 A1.3 PROPOSED CLEAR STORY PLAN
- A1.4 PROPOSED ROOF PLAN A2.1 ROOF DETAILS A2.2 ROOF DETAILS
- A2.3 ROOF DETAILS A3.1 STOREFRONT/WINDOW SCHEDULE A3.2 LOUVER AND DOOR SCHEDULES
- A4.1 ELEVATOR DETAILS A5.1 SPECIFICATIONS A5.2 SPECIFICATIONS

A5.3 SPECIFICATIONS

- A5.4 SPECIFICATIONS A5.5 SPECIFICATIONS EX1.1 EXISTING GROUND FLOOR PLAN
- EX1.2 EXISTING FIRST FLOOR PLAN EX1.3 EXISTING CLEAR STORY PLAN EX1.4 EXISTING ROOF PLAN EX2.1 EXISTING PHOTOS EX2.2 EXISTING PHOTOS
- S-100 GENERAL NOTES S-101 DETAILS S-102 DETAILS S-103 DETAILS

S-104 DETAILS

- S=105_DETAILS MO.1 MECHANICAL NOTES, LEGEND AND SHEET INDEX M1.1 MECHANICAL FLOOR PLAN AND SCHEDULES M1.3 MECHANICAL ROOF PLAN
- M5.1 MECHANICAL DETAILS M6.1 MECHANICAL SPECIFICATIONS EO.1 ELECTRICAL NOTES, LEGEND AND SHEET INDEX
- E1.1 POWER PLAN AND DETAILS E1.3 ROOF POWER PLAN E4.1 ELECTRICAL SCHEDULES

KEY PERSONNEL

ARCHITECT: STRUCTURAL ENGINEERING WILLIAM P. HORN ARCHITECT, P.A. ARTIBUS DESIGN LLC

WILLIAM P. HORN, RA, LEED AP SERGE MASHTAKOV, PE 915 EATON ST. KEY WEST, FL 33040 3710 N ROOSEVELT BLVD. KEY WEST, FL 33040 TEL. (305) 296-8302 TEL. (305) 304-3512

TETRA TECH, INC. 759 SW FEDERAL HWY, SUITE 314 STUART, FL 34994 TEL. (772) 781–3440 CITY OF KEY WEST

KAREN OLSON DEPUTY DIRECTOR OF PORT & MARINA SERVICES 1300 WHITE STREET KEY WEST, FLORIDA 33040 TEL. (305) 809-3803

- The Florida Building Code 2023
- National Electric Code latest edition

- Florida Building Code, Energy Conservation,
- ASCE 7 Latest Edition
- Basic Wind Speed: 200 MPH
- Exposure: D
- Structural Category: III

SCOPE OF WORK

WORK INCLUDES REPLACING ALL EXISTING EXTERIOR DOORS, STOREFRONT WINDOWS AND LOUVERS WITH ALL NEW IMPACT RATED EXTERIOR DOORS, STOREFRONT WINDOWS AND LOUVERS. WORK ALSO INCLUDES REPLACING ALL EXISTING ROOFING WITH NEW ROOF SYSTEMS AND RE-PAINTING THE ENTIRE EXTERIOR OF THE BUILDING AS PER SPECIFICATIONS. THE EXISTING ELEVATOR WILL BE REPLACED WITH A NEW ELEVATOR. REVIEW THE DRAWINGS AND SPECIFICATIONS FOR THE FULL SCOPE OF WORK.

WILLIAM P. HORN ARCHITECT, P.A.

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FLORIDA

33040

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LICENSE NO. AR 13537

FERRY TERMINAL RENOVATION 100 Grinnell Street KEY WEST, FLORIDA

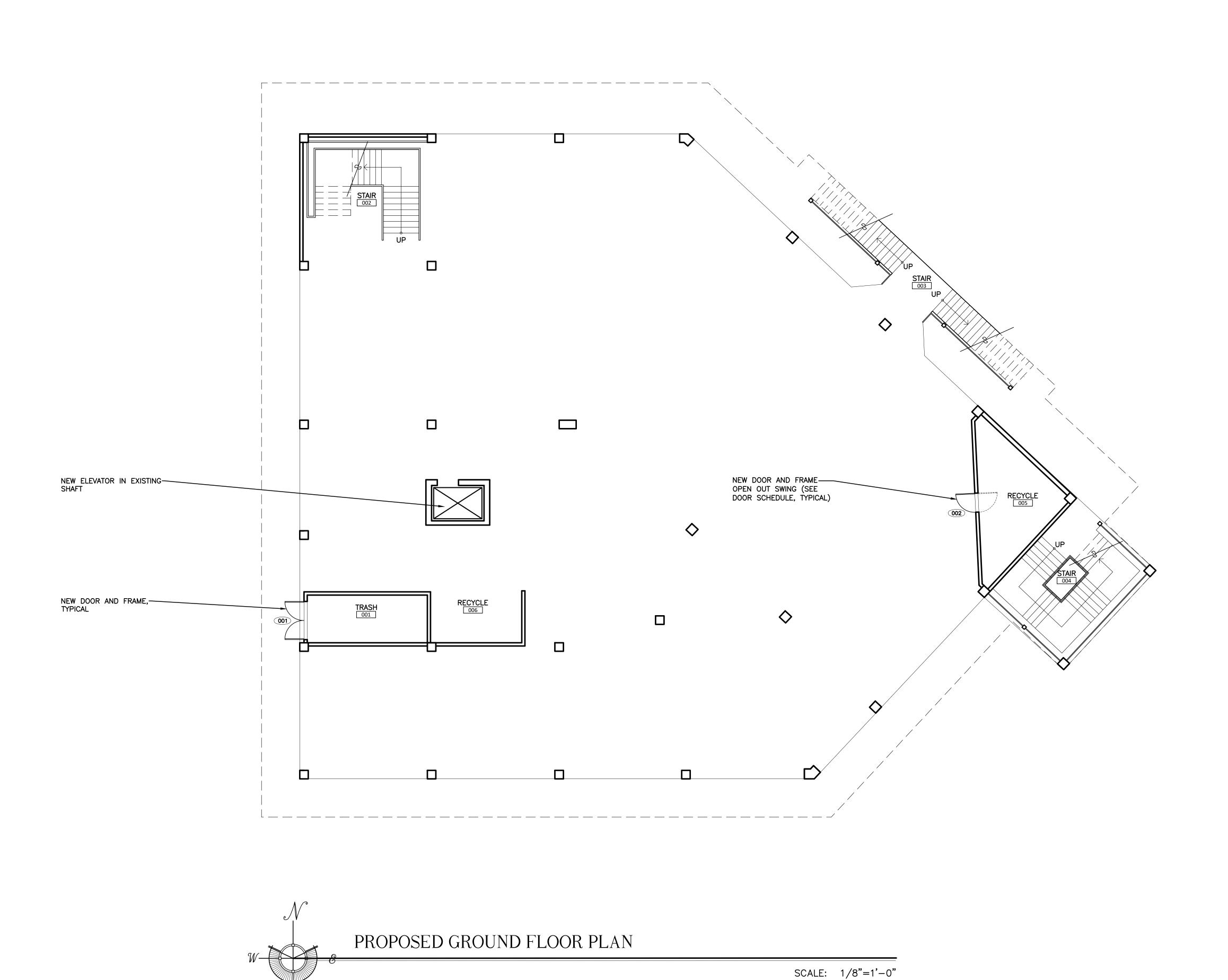
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REVISIONS

DRAWN BY EMA

PROJECT NUMBER 2312



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SEAL

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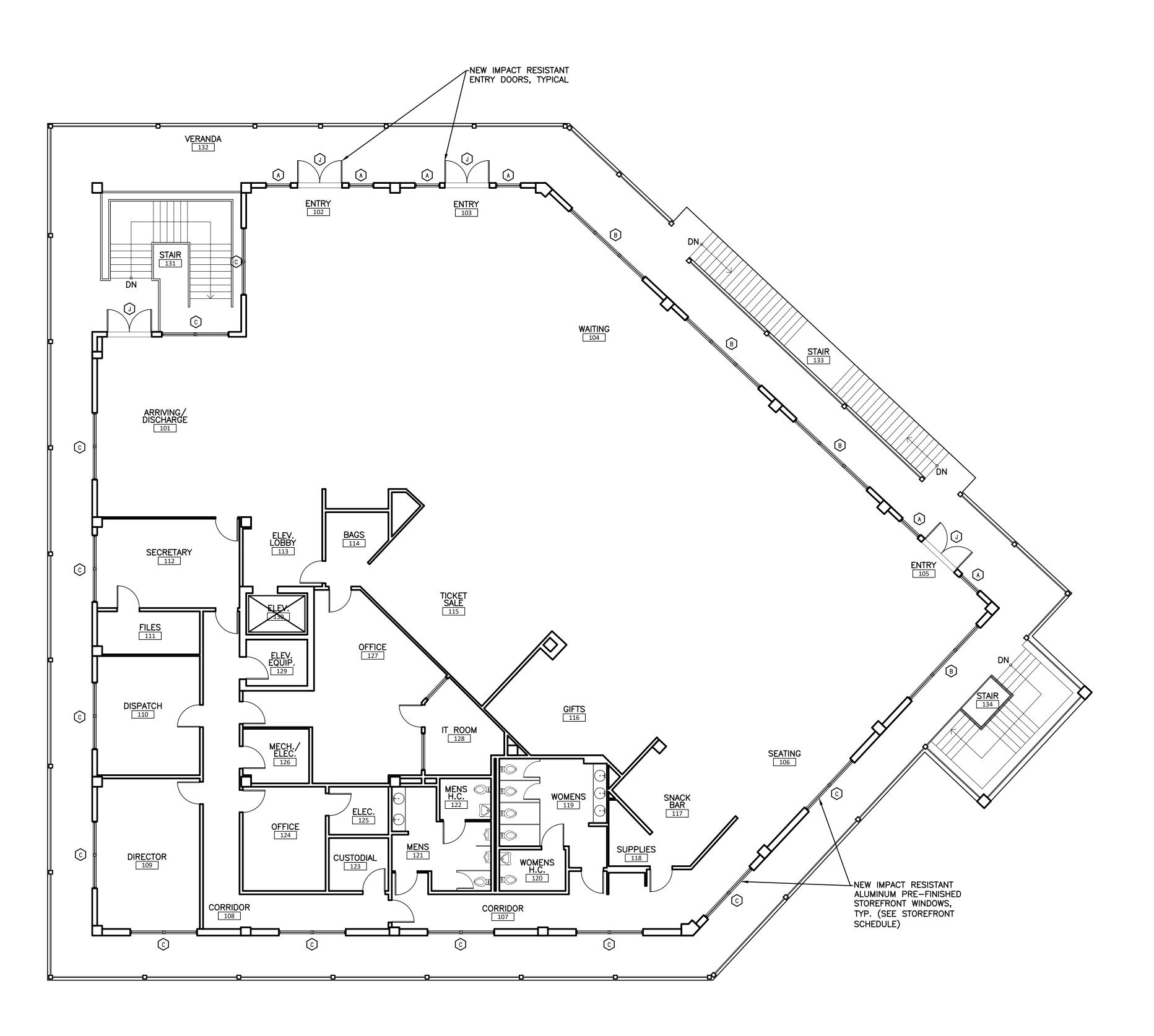
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SEAL

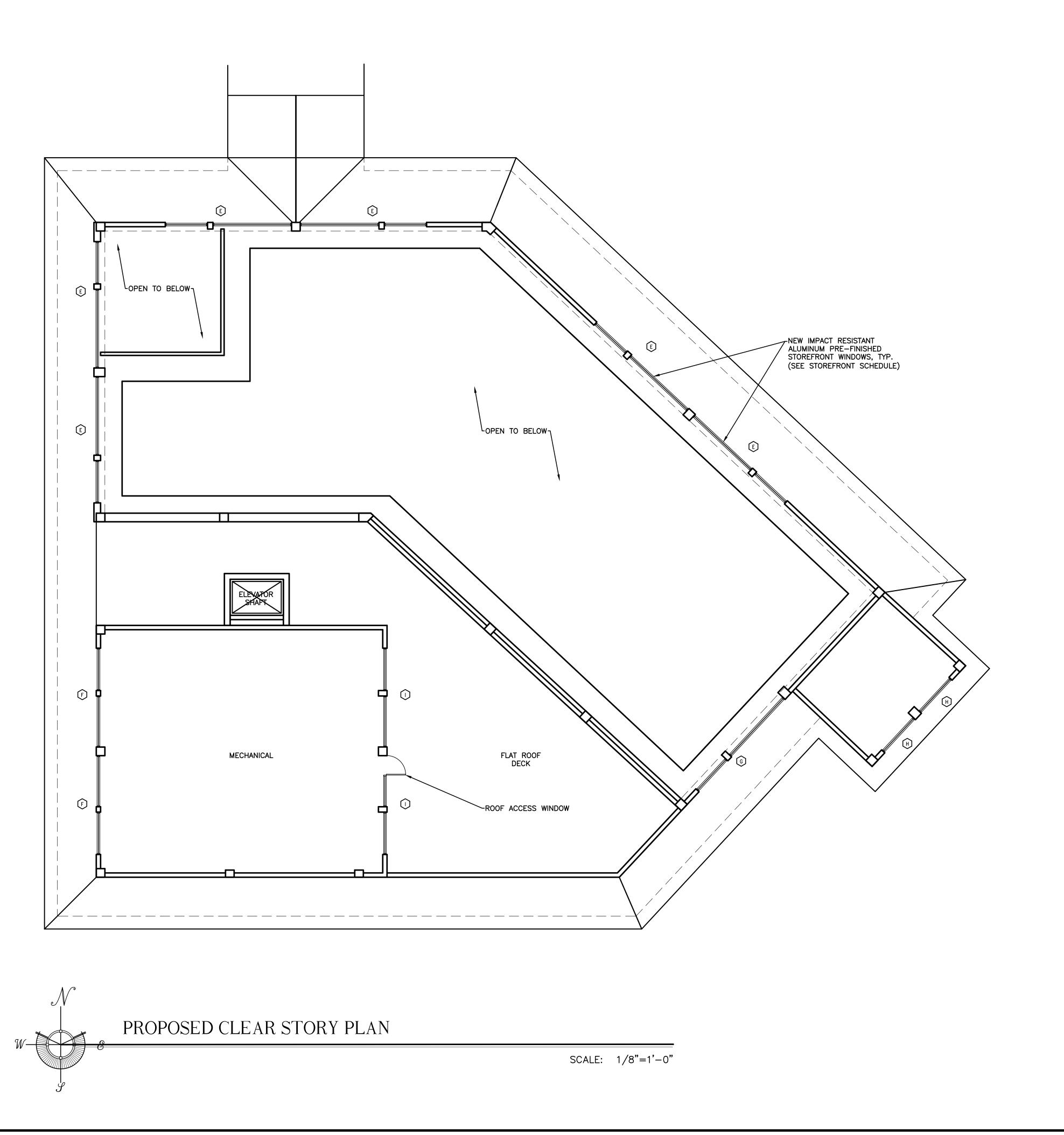
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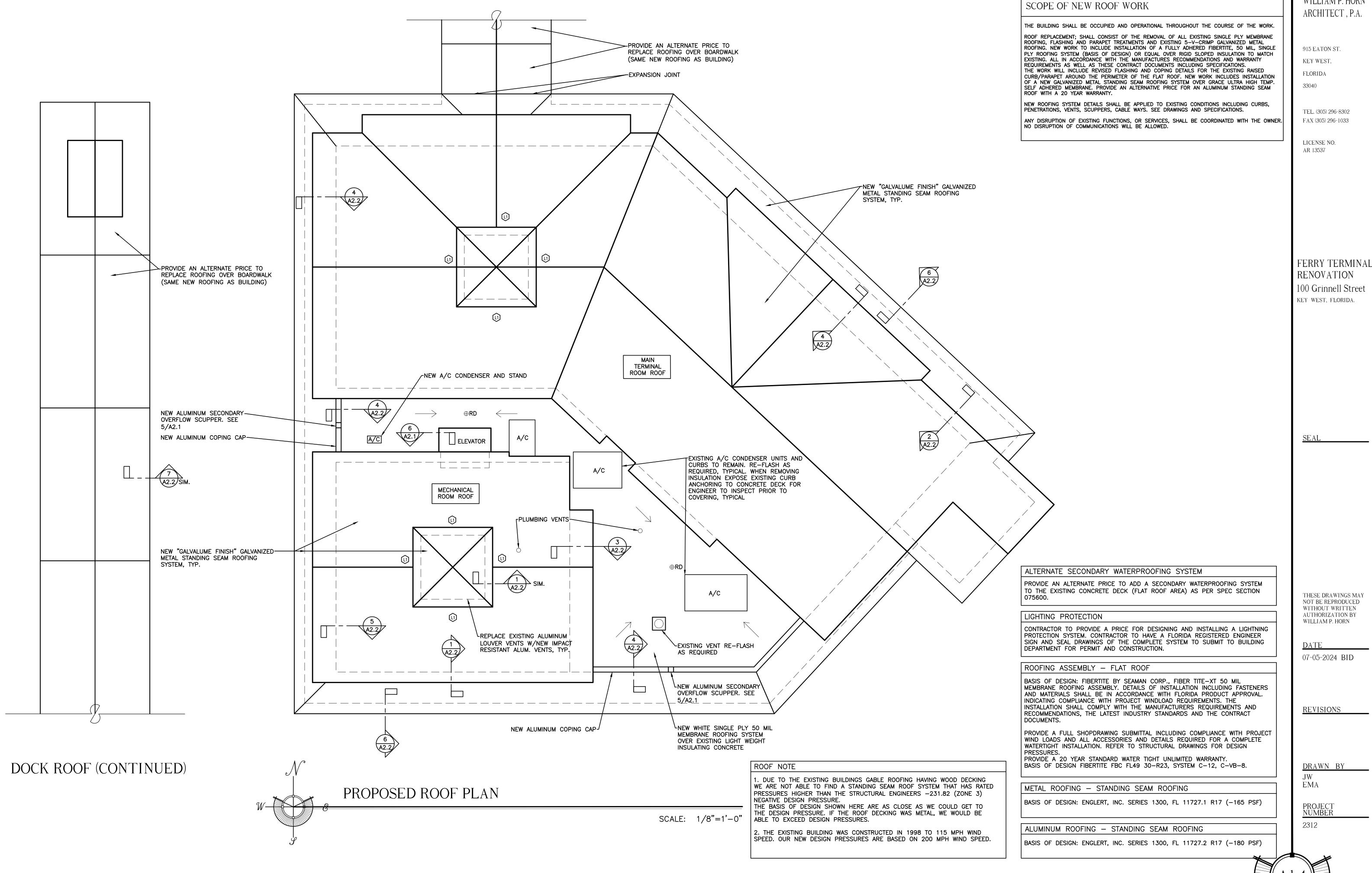
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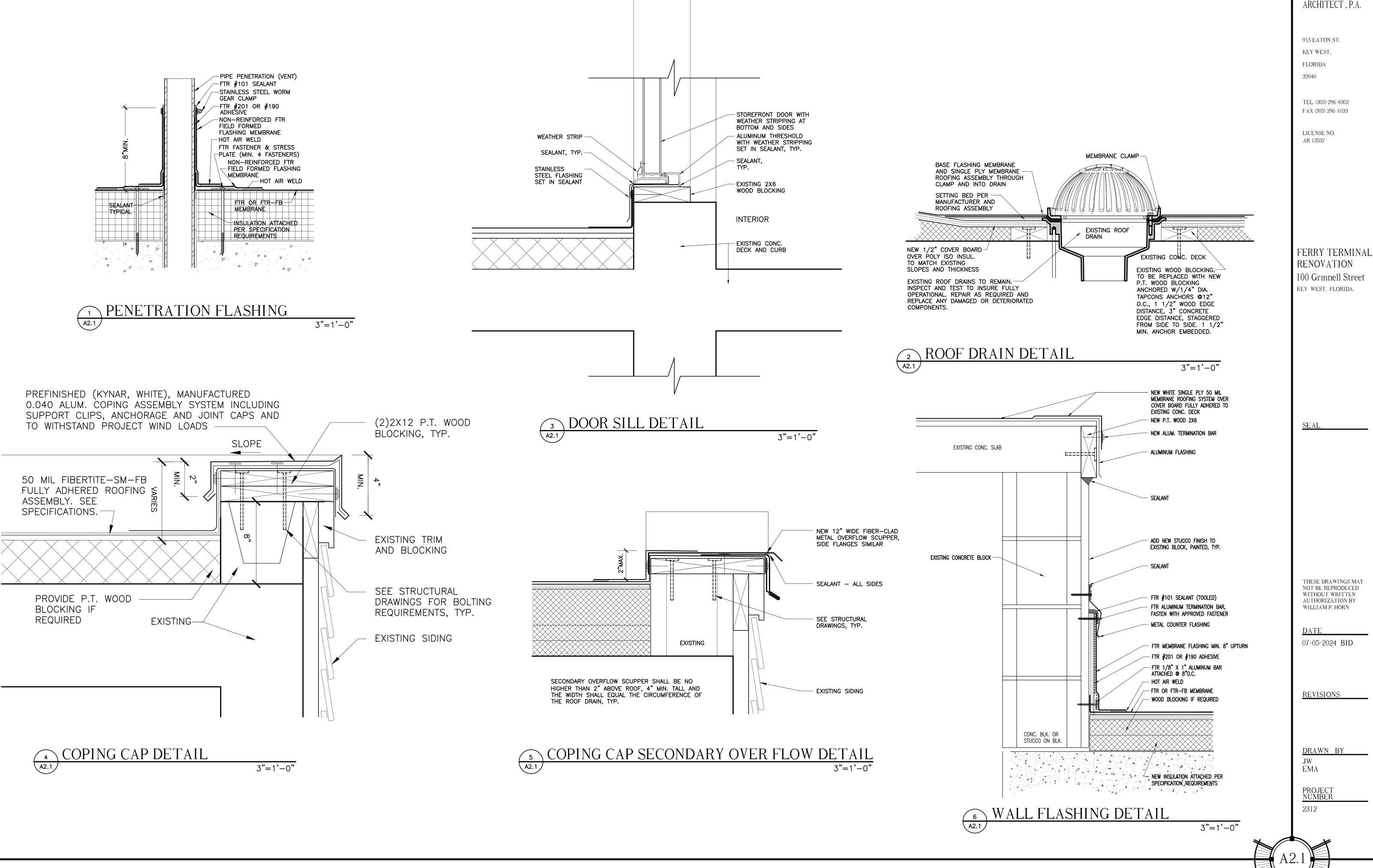
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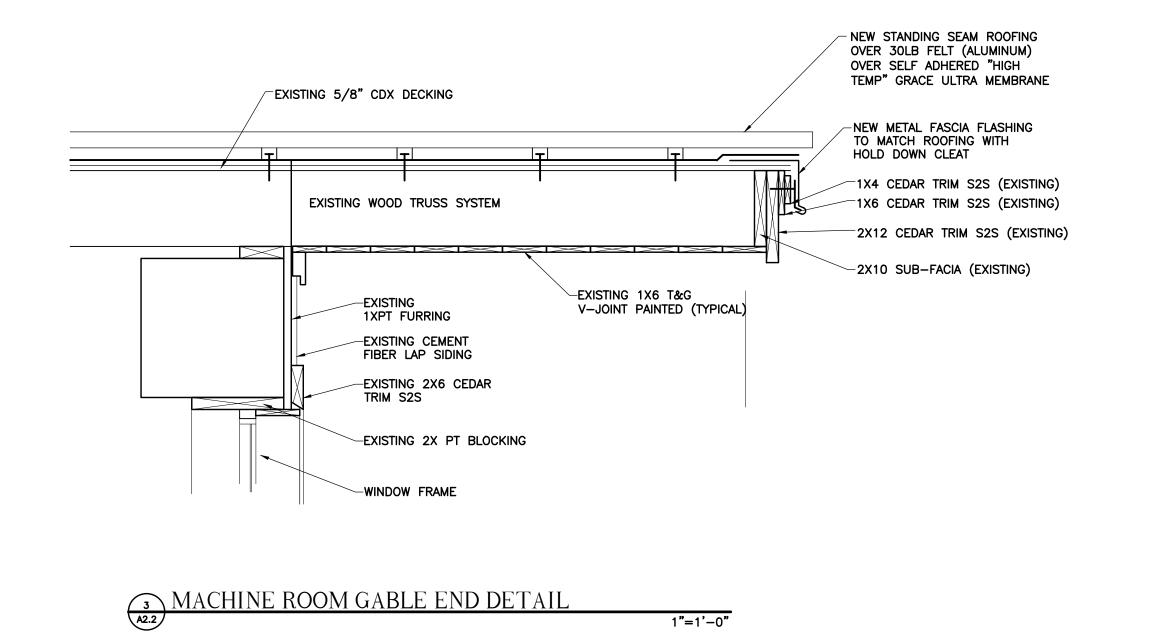


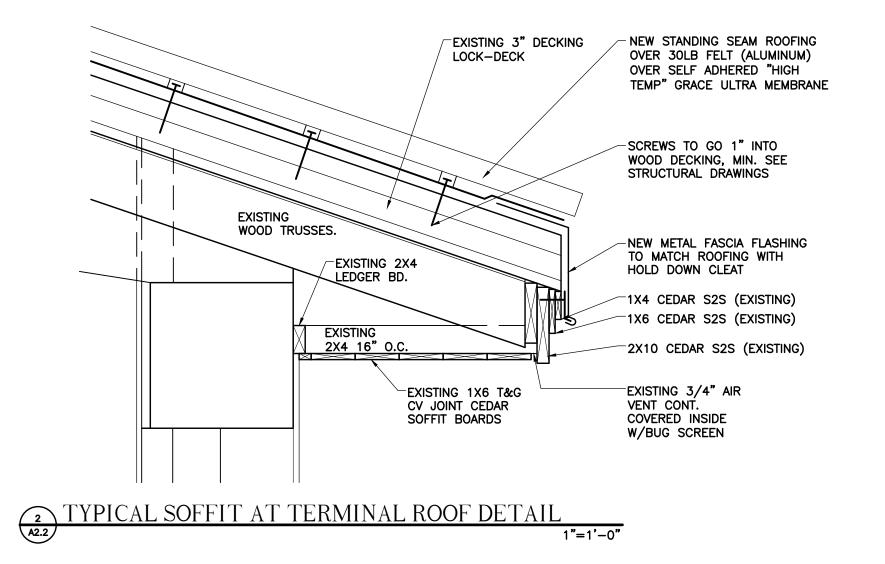
FERRY TERMINAL RENOVATION

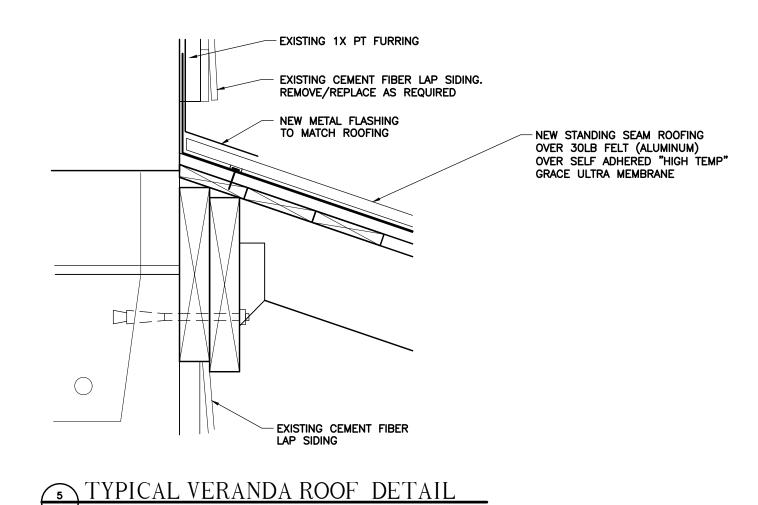
100 Grinnell Street

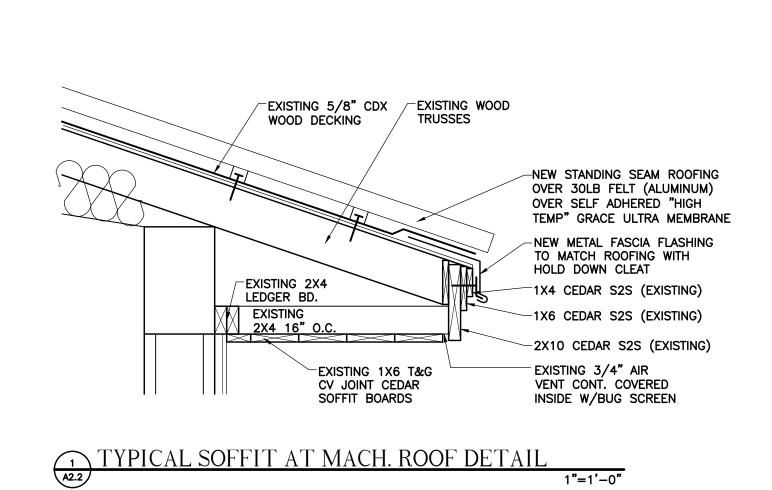
KEY WEST, FLORIDA

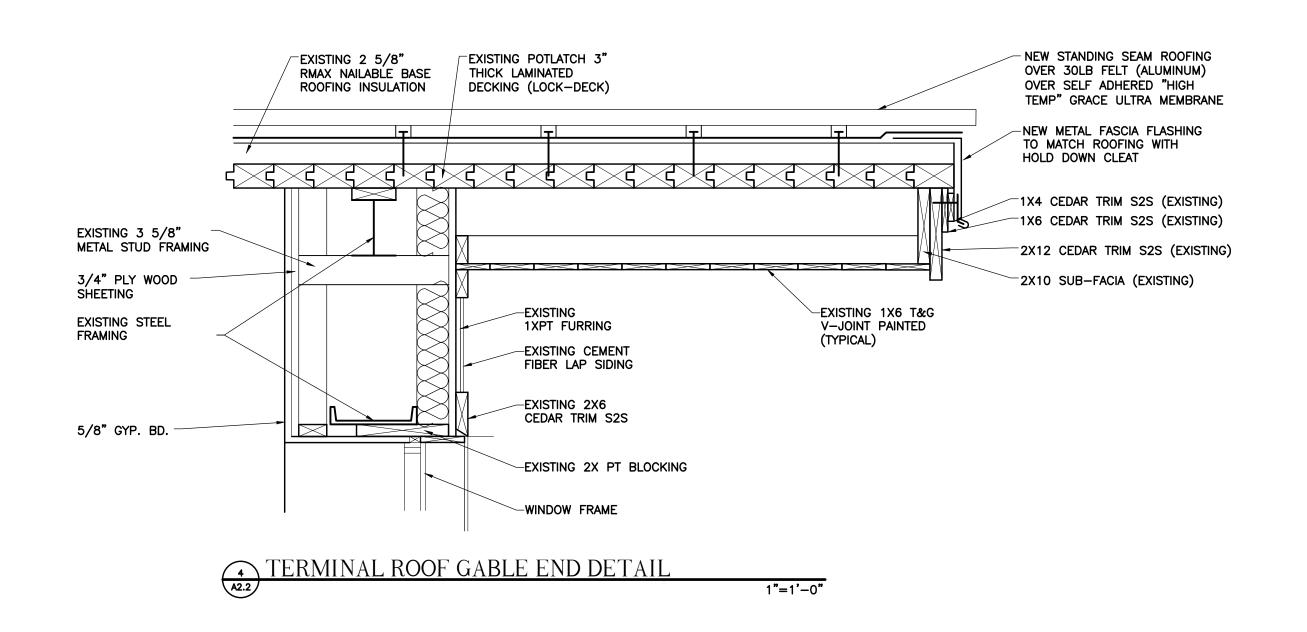
WILLIAM P. HORN ARCHITECT, P.A.

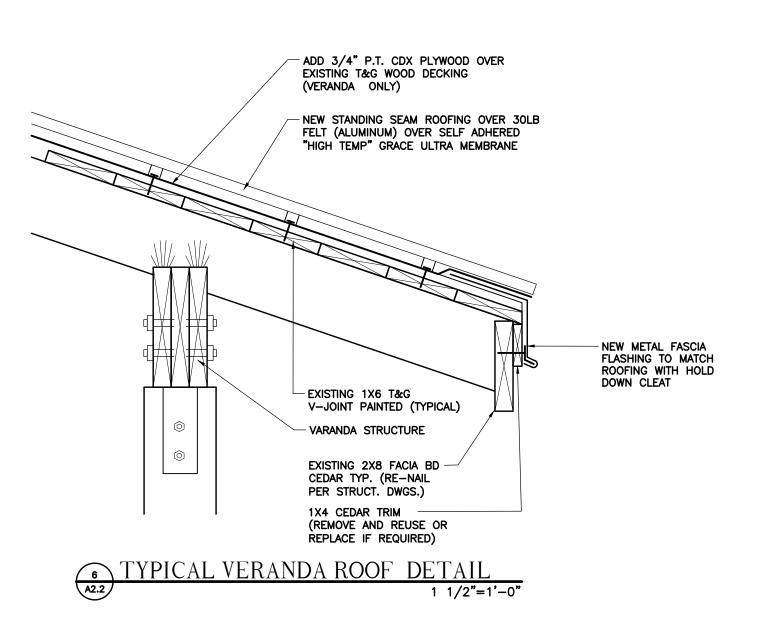


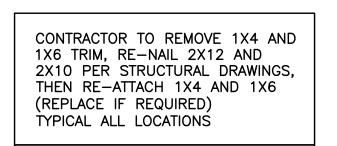




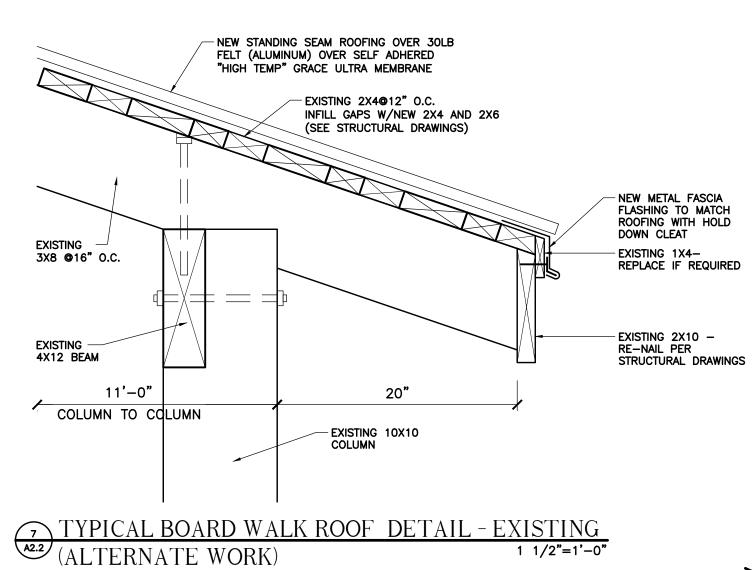








EXISTING CEDAR WOOD TRIM, TYPICAL. PATCH/REPLACE AS REQUIRED.



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FERRY TERMINAL

100 Grinnell Street

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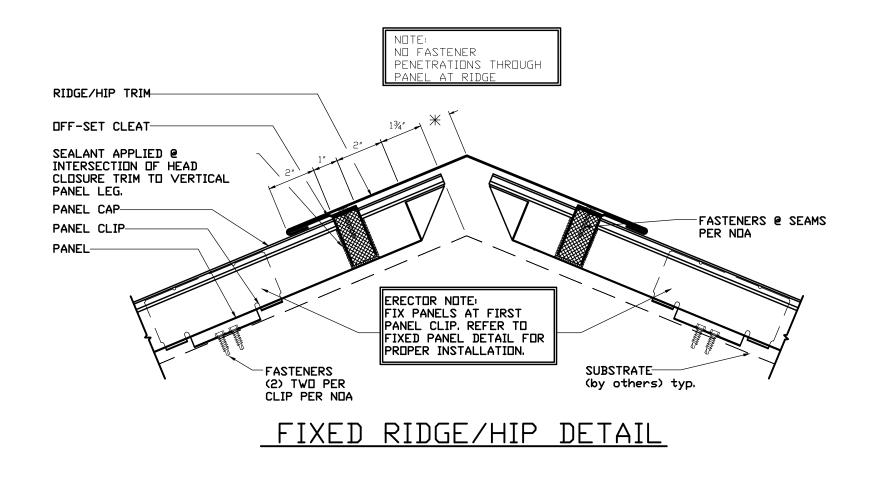
RENOVATION

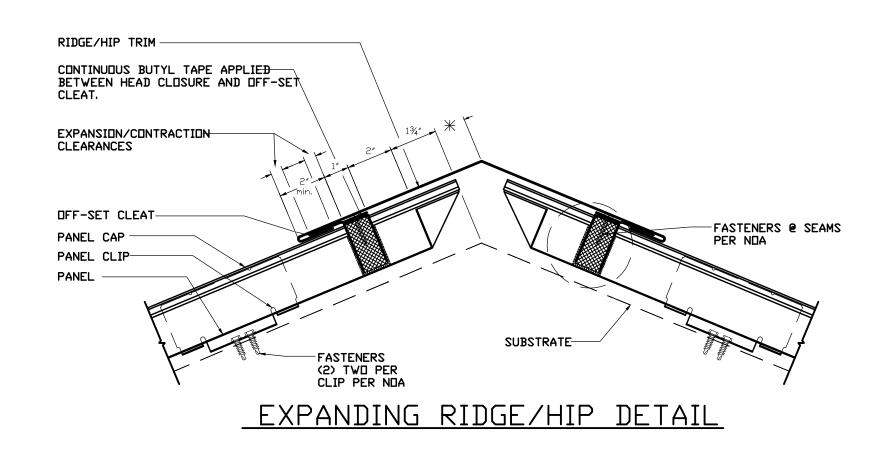
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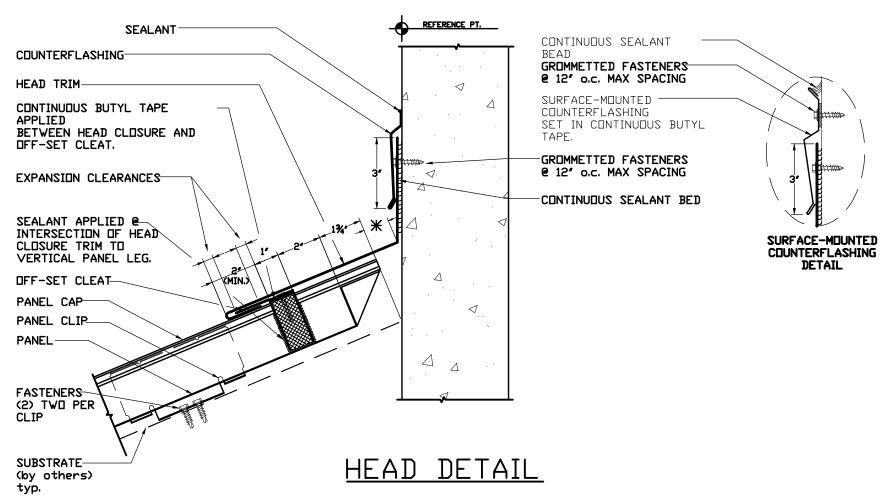
LICENSE NO. AR 13537

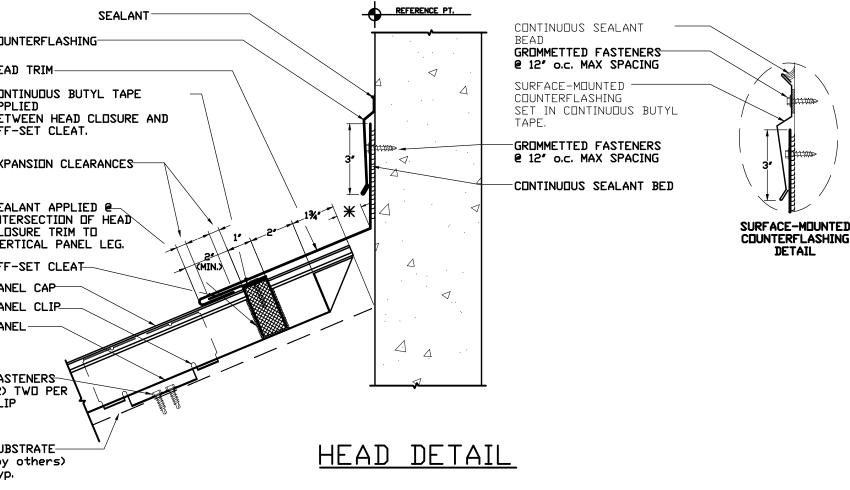
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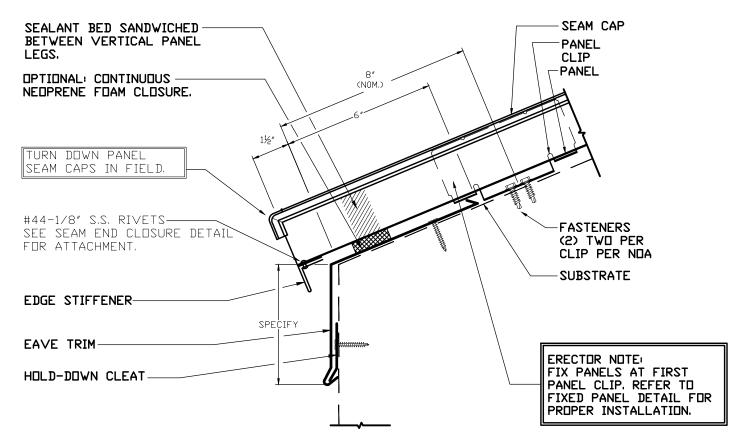
FLORIDA

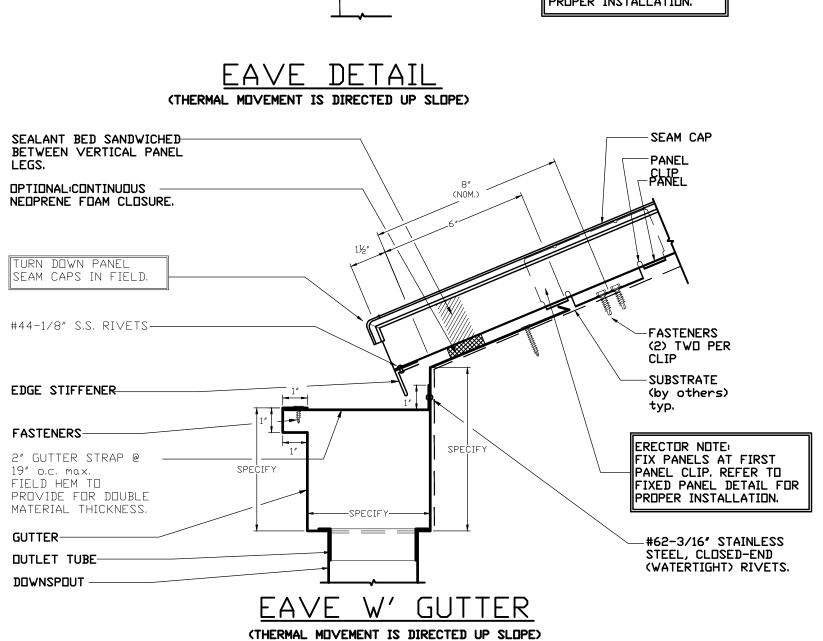


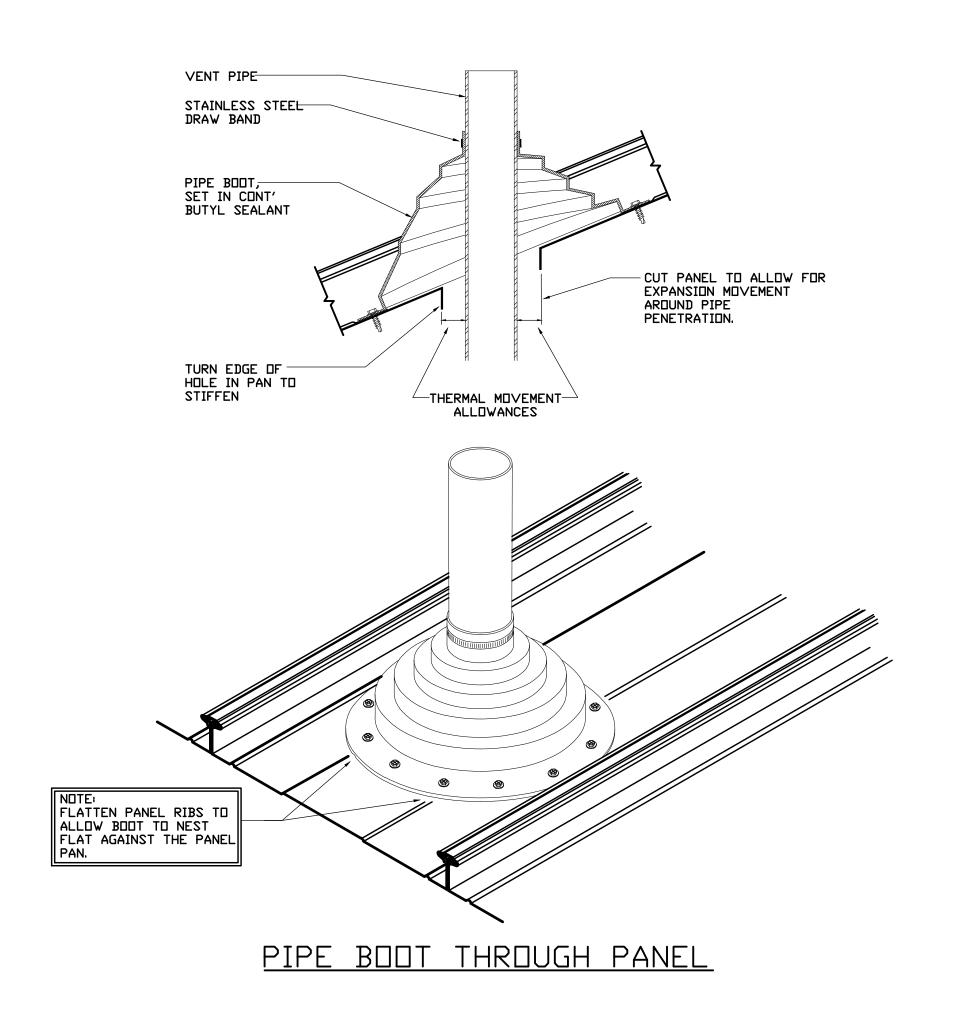


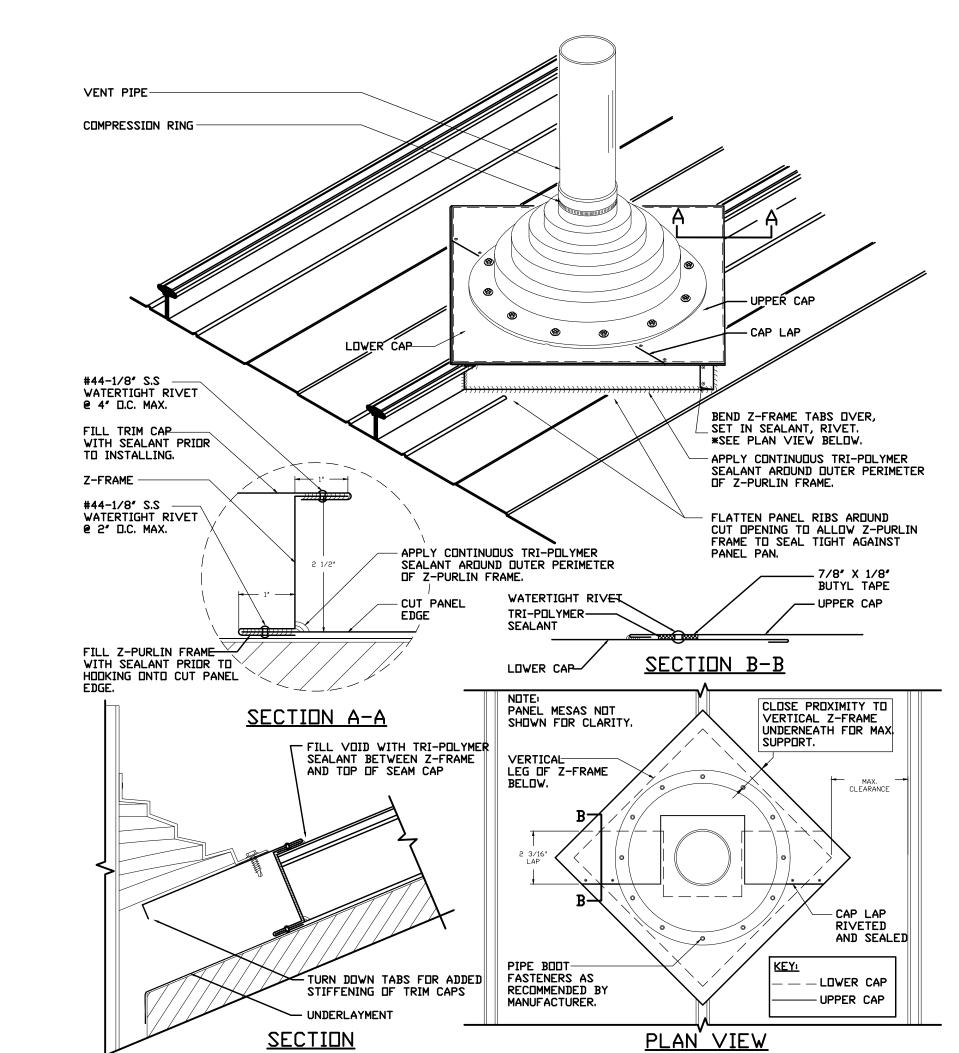












STANDARD STANDING SEAM ROOF DETAILS

SCALE: NTS

PIPE BOOT THROUGH PANEL SEAM

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FERRY TERMINAL

RENOVATION

KEY WEST, FLORIDA.

100 Grinnell Street

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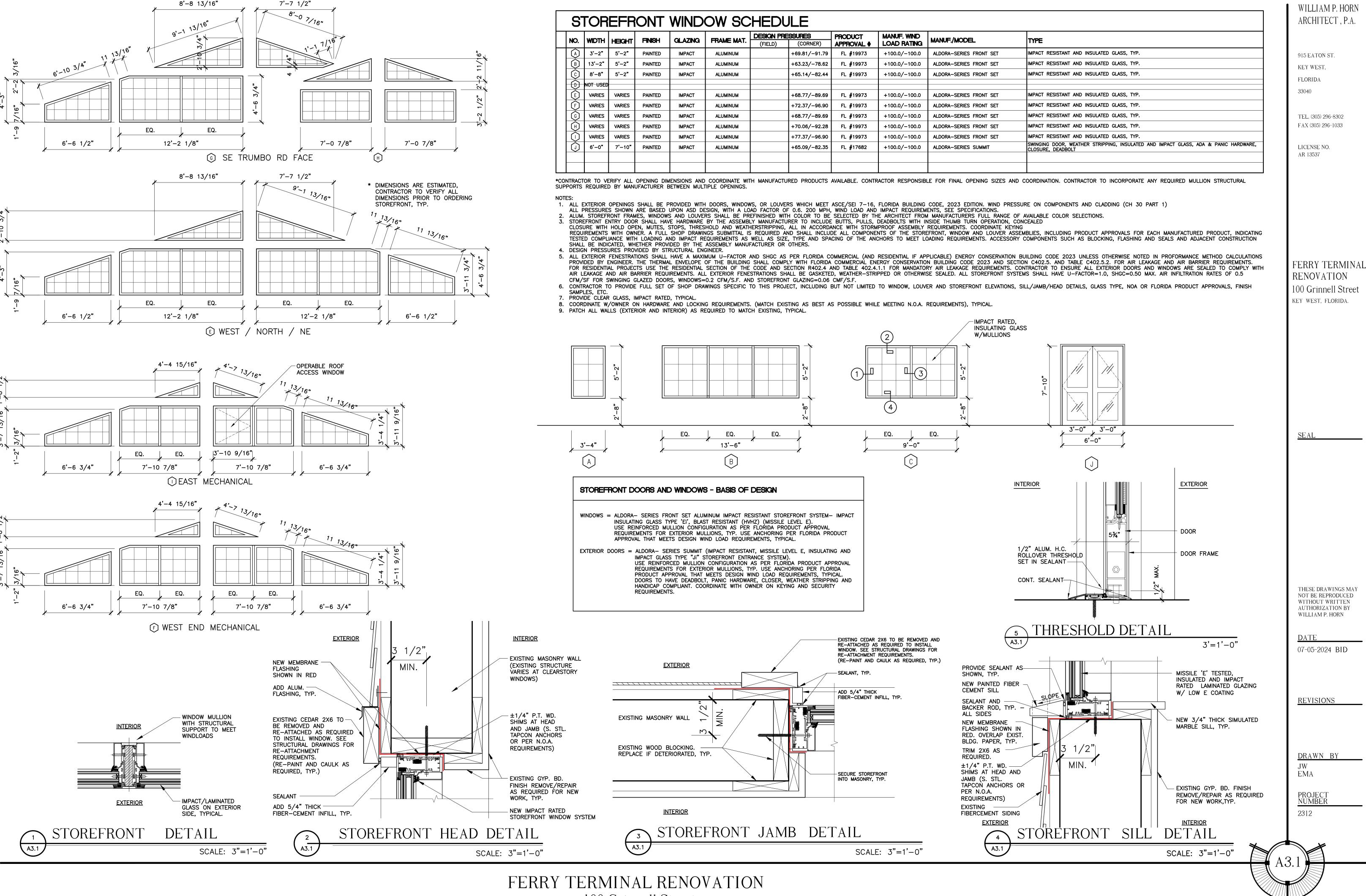
PROJECT NUMBER

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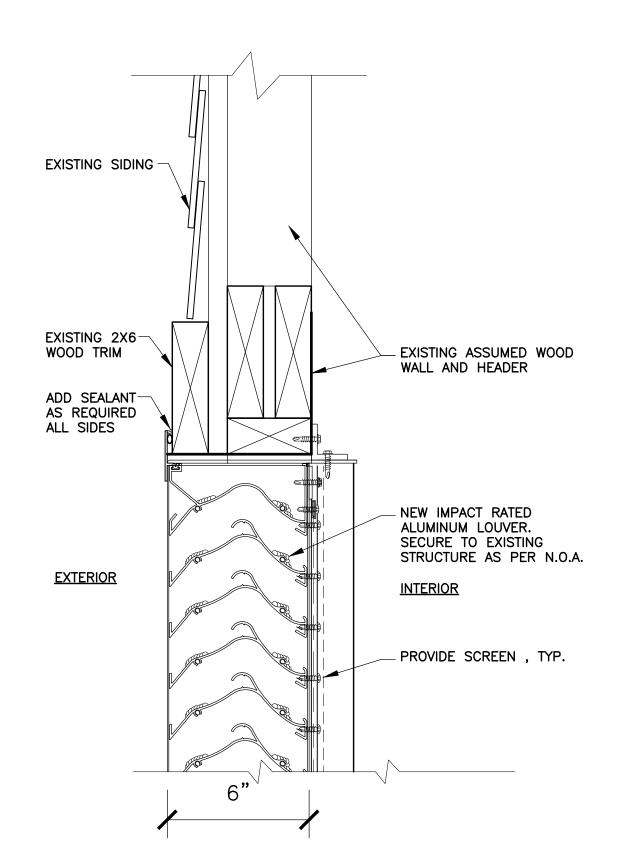
FLORIDA



8'-8 13/16"

100 Grinnell Street

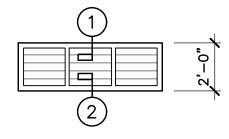
KEY WEST, FLORIDA

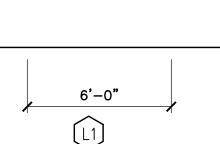


A3.2

LOUVER HEAD DETAIL

(JAMBS AND SILL SIMILAR) SCALE: 3"=1'-0"





L	LOUVER SCHEDULE														
					DESIGN F	PRESSURES	PRODUCT	MANUF. WIND	MANUF./MODEL						
NO.	WIDTH	HEIGHT	FINISH	FRAME MAT.	(FIELD)	(CORNER)	APPROVAL #	LOAD RATING	MANOF./MODEL	DESCRIPTION					
(I)	6'-0"	2'-0"	PRE-FINISHED	ALUMINUM		+68.80/-89.77	N.O.A.#20-1015.04	+120.0/-120.0	RUSKIN COMPANY-MODEL EME520MD	ALUMINUM LOUVER , IMPACT RESISTANT, W/BIRD SCREENS					

*CONTRACTOR TO VERIFY ALL OPENING DIMENSIONS AND COORDINATE WITH MANUFACTURED PRODUCTS AVAILABLE. CONTRACTOR RESPONSIBLE FOR FINAL OPENING SIZES AND COORDINATION. CONTRACTOR TO INCORPORATE ANY REQUIRED MULLION STRUCTURAL SUPPORTS REQUIRED BY MANUFACTURER BETWEEN MULTIPLE OPENINGS.

NOTES:

1. ALL EXTERIOR OPENINGS SHALL BE PROVIDED WITH DOORS, WINDOWS, OR LOUVERS WHICH MEET ASCE/SEI 7-16, FLORIDA BUILDING CODE, 2023 EDITION. WIND PRESSURE ON COMPONENTS AND CLADDING (CH 30 PART 1)

ALL PRESSURES SHOWN ARE BASED UPON ASD DESIGN, WITH A LOAD FACTOR OF 0.6. 200 MPH, WIND LOAD AND IMPACT REQUIREMENTS, SEE SPECIFICATIONS.
2. ALUM. STOREFRONT FRAMES, WINDOWS AND LOUVERS SHALL BE PREFINISHED WITH COLOR TO BE SELECTED BY THE ARCHITECT FROM MANUFACTURERS FULL RANGE OF AVAILABLE COLOR SELECTIONS.

3. A FULL SHOP DRAWINGS SUBMITTAL IS REQUIRED AND SHALL INCLUDE ALL COMPONENTS OF THE STOREFRONT, WINDOW AND LOUVER ASSEMBLIES, INCLUDING PRODUCT APPROVALS FOR EACH MANUFACTURED PRODUCT, INDICATING TESTED COMPLIANCE WITH LOADING AND IMPACT REQUIREMENTS AS WELL AS SIZE, TYPE AND SPACING OF THE ANCHORS TO MEET LOADING REQUIREMENTS. ACCESSORY COMPONENTS SUCH AS BLOCKING, FLASHING AND SEALS AND ADJACENT CONSTRUCTION SHALL BE INDICATED, WHETHER PROVIDED BY THE

ASSEMBLY MANUFACTURER OR OTHERS.

4. DESIGN PRESSURES PROVIDED BY STRUCTURAL ENGINEER.

5. CONTRACTOR TO PROVIDE FULL SET OF SHOP DRAWINGS SPECIFIC TO THIS PROJECT, INCLUDING BUT NOT LIMITED TO WINDOW, LOUVER AND STOREFRONT ELEVATIONS, SILL/JAMB/HEAD DETAILS, GLASS TYPE, NOA OR FLORIDA PRODUCT APPROVALS, FINISH SAMPLES, ETC.
6. PATCH ALL WALLS (EXTERIOR AND INTERIOR) AS REQUIRED TO MATCH EXISTING, TYPICAL.

DOON SCHEDULE	DOOR	SCHEDUL	E
---------------	------	---------	---

		SIZ	E (APPF	10X.)+		DOOR		FRAM	Œ			DESIGN P	RESSURES	MANUF, WIND				
VO .	LOCATION	WIDTH	HEIGHT	THICK	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	HARDWARE	N.O.A. #	(FIELD)			MANUFACTURER	REMARKS		
001	TRASH	7'-0" PAIR	7'-0"	1 3/4"	GALV. METAL	PAINT	Α	GALV. METAL	PAINT	STORAGE	23-0821.19		65.62/-83.40	+90/-90	STEELCRAFT H SERIES	EXTERIOR, SWINGING DOOR, IMPACT RESISTANT, WEATHER STRIPPING, INSULATED, ADA HARDWARE		
002	RECYCLE	3'-0"	7'-0"	1 3/4"	GALV. METAL	PAINT	В	GALV. METAL	PAINT	STORAGE	23-0821.18		68.88/-89.92	+100/-100	STEELCRAFT H SERIES	EXTERIOR, SWINGING DOOR, IMPACT RESISTANT, WEATHER STRIPPING, INSULATED, ADA HARDWARE		
				1														
				+														

*CONTRACTOR TO VERIFY ALL OPENING DIMENSIONS AND COORDINATE WITH MANUFACTURED PRODUCTS AVAILABLE. CONTRACTOR RESPONSIBLE FOR FINAL OR WOOD FRAMED OPENING SIZES AND COORDINATION. CONTRACTOR TO INCORPORATE ANY REQUIRED MULLION STRUCTURAL SUPPORTS REQUIRED BY MANUFACTURER BETWEEN MULTIPLE OPENINGS.

1. ALL EXTERIOR OPENINGS OF THE BUILDING ENVELOPE SHALL BE PROVIDED WITH DOORS AND WINDOWS WHICH MEET ASCE/SEI 7-16, FLA. BUILDING CODE, 2023 EDITION.

WIND PRESSURE ON COMPONENTS AND CLADDING (CH 30 PART 1)
ALL PRESSURES SHOWN ARE BASED UPON ASD DESIGN, WITH A LOAD FACTOR OF 0.6.

200 MPH, WIND LOAD AND IMPACT REQUIREMENTS, SEE SPECIFICATIONS.
2. DOORS SHALL BE PREFINISHED TO BE SELECTED BY THE ARCHITECT FROM THE MANUFACTURERS FULL RANGE OF AVAILABLE COLOR SELECTIONS INCLUDING CLEAR ANODIZED ALUM. COLOR

3. DESIGN PRESSURES ARE PROVIDED BY THE STRUCTURAL ENGINEER.

4. ALL FIRE RATED DOORS TO HAVE A PERMANENTLY AFFIXED LABEL NOTING RATING.
5. ALL EXTERIOR FENESTRATIONS SHALL HAVE A MAXIMUM U-FACTOR AND SHGC AS PER FLORIDA COMMERCIAL (AND RESIDENTIAL IF APPLICABLE) ENERGY CONSERVATION BUILDING CODE 2023 UNLESS OTHERWISE NOTED IN PROFORMANCE METHOD CALCULATIONS PROVIDED BY

6. THE THERMAL ENVELOPE OF THE BUILDING SHALL COMPLY WITH FLORIDA COMMERCIAL ENERGY CONSERVATION BUILDING CODE 2023 AND SECTION C402.5. AND TABLE C402.5.2. FOR AIR LEAKAGE AND AIR BARRIER REQUIREMENTS. CONTRACTOR TO ENSURE ALL EXTERIOR DOORS AND WINDOWS ARE SEALED TO COMPLY WITH AIR LEAKAGE AND AIR BARRIER REQUIREMENTS. FOR RESIDENTIAL PROJECTS USE THE RESIDENTIAL SECTION OF THE CODE AND SECTION R402.4 AND TABLE 402.4.1.1 FOR MANDATORY AIR LEAKAGE REQUIREMENTS. ALL EXTERIOR FENESTRATIONS SHALL BE GASKETED, WEATHER—STRIPPED OR OTHERWISE SEALED.

7. PROVIDE A FULL SET OF PROJECT SPECIFIC SHOP DRAWINGS MEETING DESIGN WIND LOADS FOR EACH OPENING AND INCLUDING ALL ELEVATIONS, JAMB/HEAD/THRESHOLD DETAILS AND ANY REQUIRED NOA'S OR FLORIDA PRODUCT APPROVALS.

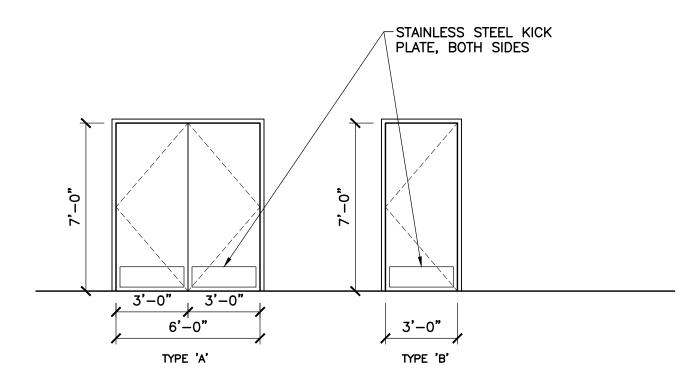
8. ALL METAL EXTERIOR DOORS TO BE INSULATED AND HAVE PROPER WEATHER STRIPPING IN ADDITION TO NOA REQUIREMENTS.

9. CONTRACTOR TO MEET ALL CODE AND N.O.A. (OR FL. PRODUCT APPROVAL) REQUIREMENTS.

10. CONTRACTOR TO PROVIDE FULL SET OF SHOP DRAWINGS SPECIFIC TO THIS PROJECT, INCLUDING BUT NOT LIMITED TO WINDOW, LOUVER AND STOREFRONT ELEVATIONS, SILL/JAMB/HEAD DETAILS, GLASS TYPE, NOA OR FLORIDA PRODUCT APPROVALS, FINISH SAMPLES, ETC.

11. ALL DOOR HARDWARE TO MATCH EXISTING AS BEST AS POSSIBLE (MAINTAIN N.O.A. REQUIREMENTSO. COORDINATE WITH OWNER ON ALL HARDWARE AND REQUIREMENTS.

12. PATCH WALLS (EXTERIOR AND INTERIOR) AS REQUIRED TO MATCH EXISTING, TYPICAL.



2 HEAD DETAIL

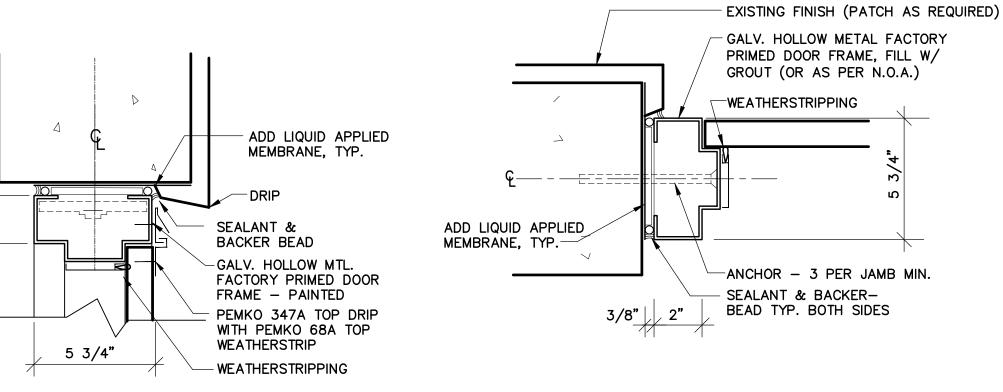
 $A^{3.2}$ EXT. DOOR FRAME-METAL 3''=1'-0''

SWINGING DOORS BASIS OF DESIGN

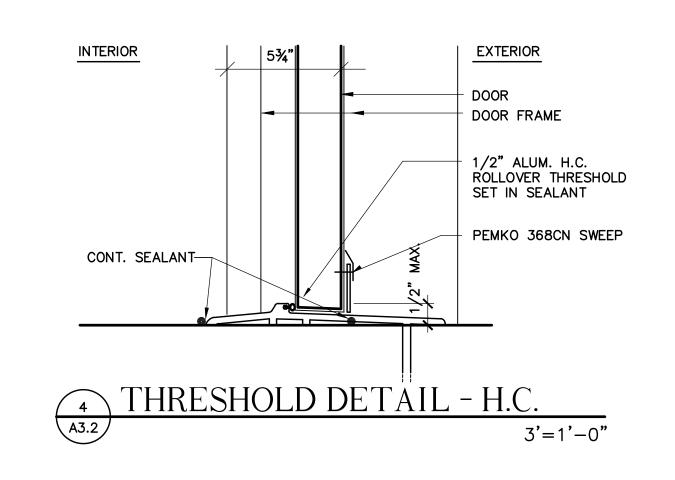
1. SCHLAGE LOCK COMPANY, LLC. — SINGLE FLUSH OUT SWING DOOR

- STEELCRAFT H SERIES FLUSH OUTSWING GALV. METAL DOOR, NOA #23-0821.18 (+100/-100)
2. SCHLAGE LOCK COMPANY, LLC. - DOUBLE FLUSH OUT SWING DOOR

- STEELCRAFT H SERIES FLUSH OUTSWING GALV. METAL DOOR, NOA #23-0821.19 (+90/-90)







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SEAL

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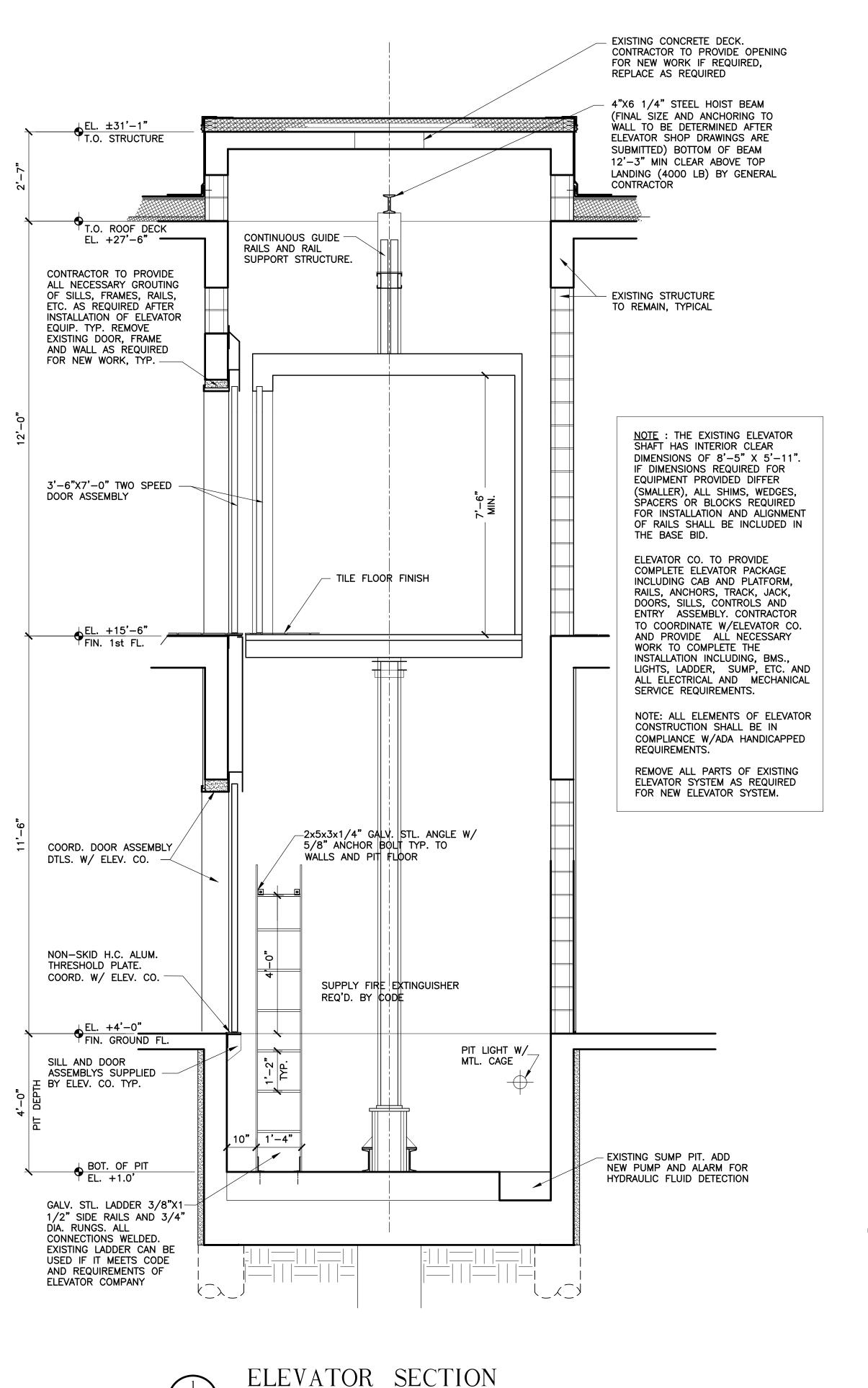
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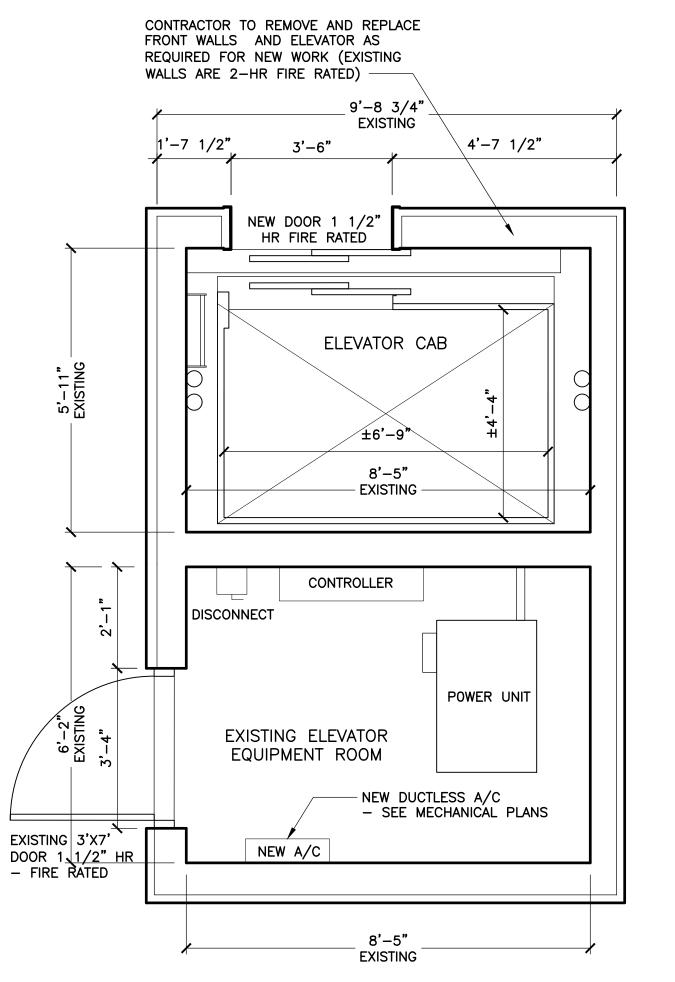
REVISIONS

<u>DRAWN BY</u> JW EMA

PROJECT NUMBER 2312



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



SECTION 142400 - HYDRAULIC ELEVATORS

NEW ELEVATOR (BASIS OF DESIGN):

SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ELEVATOR SYSTEM BY MOWERY - ME200H STANDARD HYDRAULIC ELEVATOR (HOLELESS), OR COMPARABLE PRODUCT BY ONE OF THE FOLLOWING: 1. OTIS ELEVATOR CO.

2. THYSSENKRUPP ELEVATOR

3. SCHINDLER ELEVATOR CORP.

TWO STOP, FRONT OPENING, 2500 LB. CAPACITY, 125 FPM, 11'-6" TRAVEL, 2-STOPS

12'-3" CLEAR OVERHEAD (TO HOIST BM.)

COORDINATE ALL DETAILS OF THE INSTALLATION WITH THE ELEVATOR MANUFACTURER PRIOR TO CONSTRUCTION. PROVIDE A COMPLETE SHOP DRAWING SUBMITTAL FOR REVIEW INCLUDING ALL DETAILS OF CONSTRUCTION, ELECTRICAL REQUIREMENTS AND

PROVIDE ALL REQUIRED FEATURES INCLUDING;

PIT - WITH ACCESS LADDER, PIT LIGHT, ELEC. OUTLET, SUMP AND SUMP PUMP. SHAFT - WITH RAIL SUPPORT, PENETRATIONS, HOIST BM., INFILL AT JAMBS AND SILLS AND MISC. WORK REQUIRED FOR A COMPLETE FINISH

MACHINE ROOM - WITH VENTILATION/COOLING (COORD. W/ MECH. ENG.) COMPLY WITH ALL REQUIRED FIRE DEPARTMENT REQUIREMENTS.

ALL FEATURES SHALL COMPLY WITH STATE OF FLORIDA AND ADA HANDICAPPED REQUIREMENTS AND SHALL BE STRETCHER ACCESSIBLE.

A. QUALIFICATION DATA: FOR INSTALLER.

B. MANUFACTURER CERTIFICATES: SIGNED BY ELEVATOR MANUFACTURER CERTIFYING THAT HOISTWAY, PIT, AND MACHINE ROOM LAYOUT AND DIMENSIONS, AS SHOWN ON DRAWINGS, AND ELECTRICAL SERVICE, AS SHOWN AND SPECIFIED, ARE ADEQUATE FOR ELEVATOR SYSTEM BEING C. SAMPLE WARRANTY: FOR SPECIAL WARRANTY.

CLOSEOUT SUBMITTALS

A. OPERATION AND MAINTENANCE DATA: FOR ELEVATORS TO INCLUDE IN EMERGENCY, OPERATION, AND MAINTENANCE MANUALS. 1. IN ADDITION TO ITEMS SPECIFIED IN SECTION 017823 "OPERATION AND MAINTENANCE DATA", INCLUDE DIAGNOSTIC AND REPAIR INFORMATION AVAILABLE TO MANUFACTURER'S AND INSTALLER'S MAINTENANCE PERSONNEL

B. INSPECTION AND ACCEPTANCE CERTIFICATES AND OPERATING PERMITS: AS REQUIRED BY AUTHORITIES HAVING JURISDICTION FOR NORMAL, UNRESTRICTED ELEVATOR USE.

C. CONTINUING MAINTENANCE PROPOSAL: SUBMIT A CONTINUING MAINTENANCE PROPOSAL FROM INSTALLER TO OWNER, IN THE FORM OF STANDARD ONE-YEAR MAINTENANCE AGREEMENT, STARTING ON DATE INITIAL MAINTENANCE SERVICE IS CONCLUDED. STATE SERVICES, OBLIGATIONS, CONDITIONS, AND TERMS FOR AGREEMENT PERIOD AND FOR FUTURE RENEWAL OPTIONS.

A. MANUFACTURER'S SPECIAL WARRANTY: MANUFACTURER AGREES TO REPAIR, RESTORE, OR REPLACE ELEVATOR WORK THAT FAILS IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD. 1. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, OPERATION OR CONTROL SYSTEM FAILURE, INCLUDING EXCESSIVE MALFUNCTIONS; PERFORMANCES BELOW SPECIFIED RATING; EXCESSIVE WEAR; UNUSUAL DETERIORATION OR AGING OF MATERIALS OR FINISHES; UNSAFE CONDITIONS; NEED FOR EXCESSIVE MAINTENANCE; ABNORMAL NOISE OR VIBRATION; AND SIMILAR UNUSUAL, UNEXPECTED, AND UNSATISFACTORY

2. WARRANTY PERIOD: FIVE YEAR(S) FROM DATE OF SUBSTANTIAL COMPLETION.

PERFORMANCE REQUIREMENTS

A. REGULATORY REQUIREMENTS: COMPLY WITH ASME A17.1/CSA B44. B. ACCESSIBILITY REQUIREMENTS: COMPLY WITH SECTION 407 IN THE U.S. ARCHITECTURAL & TRANSPORTATION BARRIERS COMPLIANCE BOARD'S

ADA-ABA ACCESSIBILITY GUIDELINES AND WITH ICC A117.1. C. NONPROPRIETARY SYSTEMS AND EQUIPMENT: PROVIDE SYSTEMS AND EQUIPMENT THAT CAN BE SERVICES AND REPAIRED BY ALL MAJOR ELEVATOR REPAIR CONTRACTORS.

1. CAR ENCLOSURES:

A. INSIDE HEIGHT: 92 INCHES TO UNDERSIDE OF CEILING. B. FRONT WALLS (RETURN PANELS): SATIN STAINLESS STEEL, NO. 4 FINISH WITH INTEGRAL CAR DOOR FRAMES.

C. CAR FIXTURES: POLISHED STAINLESS STEEL, NO. 8 FINISH D. SIDE AND REAR WALL PANELS: TEXTURED STAINLESS STEEL.

E. REVEALS: SATIN STAINLESS STEEL, NO. 4 FINISH. F. DOOR FACES (INTERIOR): TEXTURED STAINLESS STEEL

G. DOOR SILLS: ALUMINUM, MILL FINISH.

H. CEILING: SATIN STAINLESS STEEL, NO. 4 FINISH. I. HANDRAILS: 1/2 BY 2 INCHES RECTANGULAR SATIN STAINLESS STEEL, NO 4., AT REAR OF CAR.

J. FLOOR PREPARED TO RECEIVE RUBBER FLOOR TILE. 2. HOISTWAY ENTRANCES:

A. HEIGHT: 84 INCHES.

B. TYPE: SINGLE-SPEED SIDE SLIDING. C. FRAMES: SATIN STAINLESS STEEL, NO. 4 FINISH.

D. DOORS: SATIN STAINLESS STEEL, NO. 4 FINISH. E. SILLS: ALUMINUM, MIL FINISH.

OPERATION SYSTEMS A. GENERAL: PROVIDE MANUFACTURER'S STANDARD MICROPROCESSOR OPERATION SYSTEM AS REQUIRED TO PROVIDE TYPE OF OPERATION INDICATED. B. AUXILIARY OPERATIONS: IN ADDITION TO PRIMARY OPERATION SYSTEM FEATURES, PROVIDE THE FOLLOWING OPERATIONAL FEATURES FOR

ELEVATORS WHERE INDICATED: 1. SINGLE-CAR BATTERY-POWERED LOWERING: WHEN POWER FAILS, CAR IS LOWERED TO THE LOWEST FLOOR, OPENS ITS DOOR, AND SHUTS DOWN. SYSTEM INCLUDES RECHARGEABLE BATTERY AND AUTOMATIC RECHARGING SYSTEM.

2. AUTOMATIC DISPATCHING OF LOADED CAR: WHEN CARLOAD EXCEEDS 80 PERCENT OF RATED CAPACITY, DOORS START CLOSING.

HOISTWAY ENTRANCES

A. HOISTWAY ENTRANCE ASSEMBLIES: MANUFACTURER'S STANDARD HORIZONTAL-SLIDING, DOOR-AND-FRAME HOISTWAY ENTRANCES COMPLETE WITH TRACK SYSTEMS, HARDWARE, SILLS, AND ACCESSORIES. FRAME SIZE AND PROFILE SHALL ACCOMMODATE HOISTWAY WALL CONSTRUCTION. 1. WHERE GYPSUM BOARD WALL CONSTRUCTION IS INDICATED, FRAMES SHALL BE SELF-SUPPORTING WITH REINFORCED HEAD SECTIONS. FIRE-RATED HOISTWAY ENTRANCE ASSEMBLIES: DOOR AND FRAME ASSEMBLIES SHALL COMPLY WITH NFPA 80 AND BE LISTED AND LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION BASED ON TESTING AT AS CLOSE-TO-NEUTRAL PRESSURE AS POSSIBLE ACCORDING TO NFPA 252 OR UL 10B.

1. FIRE-PROTECTION RATING: 1 1/2" HOURS.

MAINTENANCE

A. INITIAL MAINTENANCE SERVICE: BEGINNING AT SUBSTANTIAL COMPLETION, MAINTENANCE SERVICE SHALL INCLUDE 12 MONTHS' FULL MAINTENANCE BY SKILLED EMPLOYEES OF ELEVATOR INSTALLER. INCLUDE MONTHLY PREVENTIVE MAINTENANCE, REPAIR OR REPLACEMENT OF WORN OR DEFECTIVE COMPONENTS, LUBRICATION, CLEANING, AND ADJUSTING AS REQUIRED FOR PROPER ELEVATOR OPERATION. PARTS AND SUPPLIES SHALL BE MANUFACTURER'S AUTHORIZED REPLACEMENT PARTS AND SUPPLIES. 1. PERFORM MAINTENANCE DURING NORMAL WORKING HOURS.

2. PERFORM EMERGENCY CALLBACK SERVICE DURING NORMAL WORKING HOURS WITH RESPONSE TIME OF TWO HOURS OR LESS.

EXISTING ELEVATOR:

THE EXISTING ELEVATOR IS A THYSSEN KRUPP 2500 LB, SERIAL #EJ-9167 (CONSTRUCTED IN 1999).

CONTRACTOR TO VISIT SITE AND INSPECT EXISTING CONDITIONS AS NECESSARY FOR THE

ELEVATOR AND MACHINE ROOM PLAN

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

WILLIAM P. HORN

ARCHITECT, P.A.

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07-05-2024 BID

REVISIONS

DRAWN BY EMA

PROJECT NUMBER

01800 - GENERAL REQUIREMENTS

Project Description The Contractor shall furnish all labor and materials required and necessary to provide a complete habitable, weatherproof, safe and secure finish building, suitable for human occupancy in accordance with Specifications, Drawing and Project

The Florida Building Code 2023 Edition, as amended by Governing Local Ordinances and requirements of the State of Florida "Coastal Zone Protection Act", together with applicable requirements of governing public agencies and the following listed codes shall apply to

Florida Existing Building Code, 2023 Edition Florida Building Code-Accessibility, 2023 Edition

Florida Building Code-Energy Conservation, 2023 Edition

National Electric Code Latest Edition

Florida Plumbing Code, 2023 Edition Florida Mechanical Code, 2023 Edition

FEMA- Coordinate all building items required to be above flood elevation for project and other FEMA regulations that apply to the

Contractor shall visit the site to become familiar with existing conditions and requirements of construction prior to bidding. Contractor shall complete new work in conformance with these drawings. Notify Architect if conflicts appear or are uncovered during the progress of the work prior to any field modifications or construction. Deviations from permitted drawings without Architects prior written approval shall be at the Contractors responsibility. Contractor is to verify all dimensions of project prior to proceeding with construction. Notify architect of any conflicts or problems so solutions can be achieved prior to construction. In event of conflict between drawings and specifications the most stringent requirements shall apply. Verification shall include, but not limited to, coordination of existing conditions, buildings and utilities. Notify architect of any conflicts so solution can be worked out prior to construction. Contractor shall provide all subcontractors complete set of drawings, including drawings from other disciplines. Change orders will not be allowed because a subcontractor only looked at drawings for his discipline and not other disciplines. Contractor must review all drawings and notify Architect of any conflicts. If a conflict arises assume worst case scenario for bidding and or Construction (or notify

Architect for clarification prior to bidding). General Contractor is responsible for reviewing the complete set of drawings and specifications and assuring that his and his subcontractors bids include complete work and systems (free of conflict with other contractors and subcontractors).

Contractor and subcontractor shall follow industry standards for each discipline. Drawings do not show every condition, fastener, etc. . If something is not detailed, follow industry standards. Provide complete functioning systems. Contractor needs to coordinate final color selections with owner and architect prior to ordering items. Factory finished items such as roofing, windows and doors need color and finish selections verified in writing by owner and architect prior to ordering.

General Notes: A. Engineer's approval must be secured for all structural substitutions.

- **B.** Verify all openings through floors, roof and walls with mechanical and electrical contractors. Verification of locations, sizes, lintel and required connections are contractor's complete responsibility.
- C. Prior to installation of mechanical and electrical equipment or other items to be attached to the structure, engineer's approval of connections and supports shall be obtained. Unless specifically detailed on architectural and structural drawings, respective sub-contractor shall furnish all hangers, connections, etc., required for installation of his items.
- **D.** Provide all embedded items in structure as noted on architectural, mechanical, electrical as well as structural drawings. Miscellaneous embedded items and anchor bolts shall be furnished by steel supplier and installed by concrete contractor.
- **E.** Contractor to verify all dimensions before proceeding with any new work F. Provide temporary bracing and precautions necessary to withstand all construction and/or wind loads until all field connections are completed and shear walls and decks are in place. All shoring is the responsibility of the contractor including use of a
- **G.** Submit shop and erection drawings for all items required by the drawing or elsewhere In the specifications for written approval. The manufacture or fabrication of any items prior to written approval of shop drawings will be entirely at the risk of the contractor.
- All references to standards to be of the latest issue applicable.
- H. This project is in a coastal salt water environment. Contractor shall consider this in selections of materials used in the exterior and non-air conditioned areas. All materials shall be salt resistant.
- I. Manufactured assemblies; such as roofing, soffits, panels, storefront, doors, windows and other external assemblies incorporated into the project shall require detailed shop drawing submittals. Miami Dade N.O.A'S or Florida product approvals providing tested assembly installation details and windload compliance are required. Manufacturers recommendations and requirements (including warranty requirements) shall be incorporated along with the latest industry standards and best practices. All final color selections or finishes shall be coordinated and verified with the owner and architect prior to ordering (typical). J. Waterproofing, vapor barriers, waterstop, air seals,, etc. shall be as indicated in the Specifications and as per manufacturer and
- industry standards.
- **K.** All penetrations of fire rated construction shall be treated with dampers, seals, collars, etc. L. When working within occupied or partially occupied buildings it is the contractors responsibility to provide safe access and to maintain in operation all features of existing life safety systems including alarms, detectors, lighting and exit ways throughout the course of construction.
- M. If in the event of conflicting, or overlapping requirements in any area of the proposed documents, technical specifications, or drawings, the most stringent condition shall be proposed and constructed.

DIVISION 2 - SITE AND CIVIL WORK

02250 - Demolition shall include the removal of all items as indicated on the drawings, as well as incidental items necessary for new work to progress. All work shall be done in a workman like manner with minimal disturbance to existing to remain; see structural specifications for temporary shoring and bracing. All unwanted material to be removed from the site and properly

disposed of. Unless noted otherwise, patch all areas to remain to match existing in areas damaged by demolition. **DIVISION 3 - CONCRETE - SEE STRUCTURAL DRAWINGS**

DIVISION 4 - MASONRY - SEE STRUCTURAL DRAWINGS

DIVISION 5 - METALS - SEE STRUCTURAL DRAWINGS

DIVISION 6 - WOOD AND PLASTICS

<u>06100 - Rough Carpentry</u> all framing (and truss) lumber shall be dry southern pine, 19% MC, No. 2 or better, (Fb = 975 PSI Minimum). Member sizes noted on drawings are nominal

Provide 1"x4" cross bridging not over 8 feet o.c. for all wood joist and 2 x solid blocking between joist at all supports. Provide 1x4 furring at 16"o.c. for all trusses that will have a finished ceiling below unless clearly written not to have furring in drawings. 06130 Pressure Treated: All wood indicated shall be pressured-treated with chemicals to protect from decay and insects. Dry after treatment. All metal connectors to be by Simpson Strong-Tie Company or equal approved in writing by the engineer and to be stainless steel finish, unless otherwise noted. All connectors to be installed with all Manufacture specified fasteners before loading. All nails used in pressure treated shall be stainless steel. Alternate connector/fastener materials may be approved on submittal of manufacturers data indicating compatibility with specific pressure treatment chemicals used in this project.

Note: It is intended to limit the use of pressure treated wood to avoid need for specialized or stainless steel anchor devises and fasteners. However, pressure treated is to be used in all moist and or exposed locations such as sills on concrete, near grade installations, exposed decks and rails, exterior open stairs, etc. and as required by code. Coordinate any questionable areas with architect.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

<u>07311 - Roofing Underlayment</u>: At all sloped roofing installations, provide a high temperature, self-adhesive, membrane underlayment such as Grace 'Ultra' as manufactured by Grace Construction Products, or equal. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

- a. Carlisle Coating & Waterproofing Inc. b. GCP Applied Technologies Inc.
- c. Henry Company
- The underlayment is intended to function as secondary roof membrane over the decking. As such the membrane shall be continuous over all portions of the roof, with seams laped a minimum of 3" and all penetrations for plumbing vents or other, sealed to the membrane. The membrane shall be self-sealing for small penetrations such as roofing assembly fasteners to the deck (nails or screws).
- The underlayment membrane shall be provided for all sloped roofing assemblies including; V crimp, standing seam, shingles and ceramic tile, unless specifically noted, not to be installed. The contractor shall verify compatibility of roofing materials and anchorage devises with the membrane and coordinate with roofing manufacturers requirements. Note that standing seam aluminum roofing assemblies require an additional layer of 30# felt between the membrane and roof material.

<u>07315 - Roofing Shop Drawings:</u> All roofing assemblies require shop drawing submittals. The submittal shall include all components of the assembly including base sheets (if any), insulation if integral to the assembly, cover board, membranes and attachment, including edge conditions. The submittal shall include N.O.A. test data for the entire assembly, as a unit, or for each component used, including anchorage/ attachment to its supporting substrate on down to the structural deck.

- Documentation that the project specific roofing assembly meets design wind loading is required.
- This can be accomplished by submittal of N.O.A. test data or by signed and sealed certification by a Florida Registered Engineer. Provide manufacturer's requirements and installation instructions for review.

075416 - Single Ply Kee Roofing Systems:

PART 1 GENERAL

- 1.1 SECTION INCLUDES
- A. Adhered Roofing Systems.
- 1.2 RELATED SECTIONS A. SECTION 07 56 00 LIQUID APPLIED POLYMETHYL METHACRYLATE (PMMA) FLASHINGS

1.3 REFERENCES

- A. ASTM International (ASTM):
- 1. ASTM D6754 Standard Specification for Ketone Ethylene Ester Based Sheet Roofing. 2. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
- 3. ASTM C473 Standard Test Methods for Physical Testing of Gypsum Panel Products. 4. ASTM D6164 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Polyester Reinforcements.
- B. American Society of Civil Engineers (ASCE):
- 1. ASCE 7 Minimum Design Loads for Buildings and Other Structures.
- C. FM Approvals (FM):
- 1. FM Standard 4470 Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof
- Assemblies for use in Class 1 and Noncombustible Roof Deck Construction. 2. Loss Prevention Data Sheets 1-28, 1-29.
- D. FBC Florida Building Code.
- E. UL Fire Resistance Directory.
- UL-790 Standard Test Method for Fire Tests of Roof Coverings.
- F. Submit under provisions of Project Administrative Requirements.
- G. Product Data: Storage and handling requirements and recommendations by the roofing manufacturer.
- 2. Dimensioned shop drawings, including roof plan detailing perimeter enhancement, flashing methods, terminations and acceptance by roofing manufacturer.
- 3. Safety Data Sheets (SDS) relating to all products, chemicals and solvents.
- H. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.
- I. Warranty: Specimen warranty from roofing manufacturer with building name and street address included on the document.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 Administrative Requirements.
- B. Product Data:
 - 1. Most recent published technical literature and guide specifications issued by Manufacturer.
- 2. Preparation instructions and recommendations.
- 3. Storage and handling requirements and recommendations.
- 4. Dimensioned shop drawings, including roof plan detailing perimeter enhancement, flashing methods,
- terminations, and acceptance by Manufacturer. 5. Written approval from Manufacturer confirming any accessories submitted, not manufactured or expressly approved in FiberTite literature are acceptable and compatible with the proposed roofing system.
- 6. Safety Data Sheets (SDS) relating to all products, chemicals and solvents.
- 7. Certification that the system specified complies with identifiable building code requirements.
- C. Verification Samples: Two representative units of each type, size, pattern and color.

1.5 QUALITY ASSURANCE

- A. The roofing systems shall be installed only by a roofing contractor authorized by the specified roofing manufacturer.
- B. Roofing contractor's key personnel shall have received specialized training by the roofing manufacturer.
- C. FiberTite Roofing Systems shall be installed in accordance with the most current guide specifications and details as amended or authorized by the roofing manufacturer for specific project requirements.
- D. A quality assurance inspection of the roof system shall be performed by the roofing manufacturer for acceptance and approval. This inspection shall be performed upon completion and certification by the Contractor that the roofing system has reached one hundred (100) percent completion.

1.6 COORDINATION

A. Prior to installation of materials, a pre-roofing conference shall be held with the roofing contractor and Owner or Owner's Representatives to discuss the specified roofing system, coordinate its proper application and the expectations of all parties involved. The authorized roofing contractor and the Owner's representative shall notify all parties prior to the meeting.

- 1.7 DELIVERY, STORAGE, AND HANDLING
 - A. Deliver all materials to the job site in manufacturer's original, unopened containers, with legible labels and in sufficient quantity to allow for continuity of work.
 - B. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
 - C. Materials, having been determined by the Owner's representative to be damaged, shall be immediately removed from the construction site and replaced at no cost to the Owner.

1.8 JOB CONDITIONS

- A. Safety: 1. Take necessary precautions regarding worker health and safety when using solvents, adhesives.
- 2. Worker safety is paramount
- 3. Comply with OSHA requirements for roof construction and fall protection.
- B. Protection: 1. Provide proper protection on newly completed roofing.
- 2. Protect walls, rooftop units, windows and other components during installation.

- 1. Daily production schedules shall be limited to what can be made one hundred (100) percent watertight at the end of each day, including flashing and night seals.

1.9 DESIGN CONDITIONS

- A. Concrete Deck Florida Building Code Non-HVHZ Approvals (FBC)
- 1. KEE Single Ply Membrane with Rigid Insulation and Cover Board a. FiberTite FBC FL4930-R23, System C-12, C-VB-8.
- B. Florida Building Code, Non-High Velocity Hurricane Zone (Non-HVHZ).
- C. Energy Star: Roof System shall comply with the initial and aged reflectivity required by the U.S. Federal
- Government's Energy Star program. D. LEED: Roof system shall meet the reflectivity and emissivity criteria to qualify for one point under the LEED credit
- category, SSc7.2, Heat Island Effect Roof.

1.8 WARRANTY

- A. Upon Inspection and Acceptance by the roofing manufacturer will issue the preauthorized warranty, subject to the terms and conditions of the specimen warranty and contract documents.
- Warranty Type:
- a. Full System Unlimited/NDL Material and Labor Warranty
- b. Warranty to include manufactured copings and edge metal assemblies. Time Period:
- a. Twenty (20) year warranty.
- 3. Maintenance Requirements: Provide a set of instructions included detailing preventative maintenance requirements on the part of the building Owner and noting a list of harmful substances that may damage the FiberTite membrane.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: FiberTite, Seaman Corporation, Web: https://www.fibertite.com
- Alternate Manufacturers:
- a. Tremco b. Garland
- B. Substitutions: Roofing manufacturer must comply in all respects to the specified roofing membrane ASTM standards and local building code to be considered for equivalency.
- C. Requests for substitutions will be considered in accordance with the provisions of this Section and Product

Requirements.

2.2 MEMBRANE

- A. Standards Compliance: ASTM D6754, Current Edition, Standard Specification for Ketone Ethylene Ester (KEE)
- Sheet Roofing B. Field Membrane:
- 4. FiberTite 50mil XT KEE Membrane: Nominal 50mil ketone ethylene ester (KEE) membrane reinforced with polyester reinforcement.
- C. Flashing Membrane:
- 1. FiberTite 50mil KEE Membrane: Nominal 50mil ketone ethylene ester (KEE) membrane reinforced with polyester

2.3 ACCESSORY MATERIALS

- A. Field Membrane Adhesive:
- 2. 190e Bonding Adhesive: VOC compliant solvent borne, contact (two-sided) bonding adhesive, for bonding non-fleece back FiberTite membranes to properly prepared and preauthorized horizontal and vertical substrates.
- B. Flashing Adhesive:
- 3. 190e Bonding Adhesive: VOC compliant solvent borne, contact (two-sided) bonding adhesive, for bonding non-fleece back FiberTite membranes to properly prepared and preauthorized horizontal and vertical substrates.

C. Fasteners:

a. FiberTite Magnum Series: No. 14, buttress threaded, No. 3 Phillips head fastener constructed of case-hardened carbon steel with a reduced diameter drill point and corrosion resistant coating.

4. Securing membranes to structural concrete decks.

- D. FTR Stress Plates: Used to anchor membranes at penetrations.
- 5. FTR Magnum 2S: 2.375-inch Barbed Round Stress Plate; 20-gauge galvanized steel.
- E. Additional Accessory Components:
- 1. Flashing Terminations Sealant: FTR-101. Single-component gun-grade polyether.
- 2. Fabricated Metal Flashing: FiberClad Metal 48 x 120-inch sheets, .040 Aluminum.
- 3. FTR Non-Reinforced Membrane: Field fabrication membrane, 60 mil non-reinforced vinyl membrane. 4. Walkway and Protection Pads: FTR Tuff Trac walkway and protection material with slip-resistant design.
- 5. FTR-Termination Bar: Membrane flashings restraint and termination seals. 0.125 x 1 x 120 inch 6060-T5 extruded aluminum bar with pre-punched slots, 8 inches on center.
- 6. FiberTite Seam Cleaner: FiberTite Seam Cleaner is to be used with clean white cotton cloths or rags to clean contamination from the seam areas of the membrane prior to welding.
- 7. FTR Cover Strips: 50mil KEE 6" x 100' stripping for perimeter enhancement of fasteners and plates in Zones 2
- 8. FTR T Joint Covers: Pre-cut 4 x 4 inches, 60 mil non-reinforced membrane to reinforce areas where three
- overlapping sheets of membrane intersect.
- 9. Forti-lock PMMA Flashing System by FiberTite, Seaman Corporation. 10. Alsan RS LO Primer: Manufactured by Soprema.
- 11. U-Anchor U2400: Tie Down Anchors and Straps for mechanical equipment by FiberTite, Seaman Corporation. 12. FiberTite Coping Cap - Metal Era.040 Aluminum, Standard Color, Kynar 500 Coating.

2.4 VAPOR RETARDERS

- A. Vapor Retarder Concrete Decks:
- Modified SBS Base Sheet
- a. FTR SBS Poly 3.7 by Seaman Corporation.
- 1) ASTM D6164, Type 1, Grade S, FiberTite SBS Membrane. 2. Primer: FiberTite Blackhawk ASTM D41 asphalt primer.
- 3. Cold Process Asphalt for Vapor Barrier: FTR SBS Adhesive. 4. Roof Cement: FiberTite Blackhawk asphalt roof cement.

- 2.5 RELATED MATERIALS
 - A. Wood Nailers: No. 2 or better construction grade lumber. 1. Installation of other types of treated lumber should be verified with a design professional and manufacturer representative.

2.6 INSULATION - CONCRETE DECK

- A. Products must be pre-approved in writing by Manufacturer and comply with minimal characteristics and classification listed for the products below:
- 1. Polyisocyanurate Rigid Insulation: ASTM C1289, Type II, Class 2, Grade 2
- a. FTR-Value H or FTR-Value A Polyisocyanurate Rigid Insulation.
- 1) Minimum thickness one and one-half (1 1/2) inches
- 2) Maximum Forty-eight (48) by Forty-eight (48) inches in dimension 3) Finished tapered slope and crickets at roof line of one-quarter (1/4) inch per foot
- 4) Compressive Strength: 20psi
- 5) Coated Glass Facer Gypsum Cover Board: ASTM C473
- 1) Securock Gypsum Fiber

pressurized container or traditional foam equipment.

a) Millenium PG-1 EF ECO

- 2) Minimum thickness one-quarter (1/4) inch 3) Maximum Forty-eight (48) by Forty-eight (48) inches in dimension
- B. Adhesives for Insulation Attachment: Approved Insulation Adhesives:
- 1) Approved Products:

PART 3 EXECUTION

3.1 GENERAL A. Authorized Roofing Contractor: Ensure strict compliance with manufacturer guide specifications for installation of roofing membrane systems.

a. Polyurethane Adhesive: Either a dual or single component polyurethane, dispensed from a portable

- 1. Provide suitable substrate for proper installation of roofing system, roof insulation and specified components.
- 2. Coordinate installation ensuring system remains watertight at end of each working day.
- B. Application of roofing materials constitutes an agreement that roofing contractor inspected and found the substrate suitable for installation of roofing system.

3.2 SUBSTRATE PREPARATION

- A. Roofing Contractor: Verify the deck condition or existing roof construction is suitable for the specified installation.
- B. Examine surfaces for inadequate anchorage, low areas that will not drain properly, foreign material, wet insulation, unevenness, or any other defect which would prevent the proper execution and quality application roofing system as specified.
- C. Prepared substrate shall be smooth, dry, and free of debris or any other irregularities which would interfere with
- D. Adhesives will not bond to wet, damp or inadequately cured materials.
- E. Do not proceed with any part of the application until all defects and preparation work have been corrected and
- F. Removal of Existing Roof Systems: 1. Remove all existing roofing materials including all lightweight insulating concrete to the structural concrete deck, including all flashings, metal and deteriorated wood blocking and legally dispose off-site.
- 2. Remove only enough roofing to accommodate the day's work and ensure the exposed area can be made one hundred (100) percent watertight at the end of the day or first sign of inclement weather.

G. Structural Concrete:

- 1. Deteriorated decking shall be repaired or replaced with appropriate materials according to standard industry regulations and practices.
- 2. Repair any depressions or areas where reinforcing has become exposed.
- 3. The application of adhesives directly to structural concrete or temporary roofing requires priming prior to 4. When insulation system is to be installed using an approved adhesive.
- cementitious grout or fill and feathered to promote a smooth transition. b. All surface irregularities shall be leveled to ensure complete contact with the decking for insulation bonded

a. Cracks and or camber differentials greater than 3/16 inch shall be repaired using an appropriate

in approved adhesives.

- 3.3 WOOD NAILERS A. Install pressure treated lumber at same heights as insulation layer or adjacent construction plus or minus one-quarter (1/4) inch. Install continuous treated wood nailers at all perimeters, around roof projections and
- B. Wood Nailers Installed Directly on the Substrate: Carefully examine substrates to confirm the entire area provides a suitable fastening surface.
- C. Nailers (WxH): 3.5 x 1.5 inches. Installed and anchored in such a manner to resist a force of two hundred fifty (250)
- lbs per linear foot, of wood blocking in any direction. D. Nailers along parapets, curbs and expansion joints are required.

penetrations as shown in approved details.

3.4 VAPOR RETARDERS

- A. General: 1. Approved vapor retarder, when required or specified, shall be applied only to properly prepared and preapproved
- 2. Install no more than can be covered or made one hundred (100) percent watertight during the same working day.

4. Vapor retarder shall be side lapped, a minimum of three (3) inches and properly shingled to shed water to the

- 3. Vapor retarders shall be installed starting at the low point of the roof deck.
- B. Vapor Barrier Concrete Deck

entire surface of the concrete deck and flashings.

1. Prime deck prior to the application according to manufacturer recommendations after the roof is removed. 2. Install FTR Poly 3.7 SBS Base Sheet using FTR SBS Adhesive cold process Adhesive to adhere one ply to the

3. Shingle in direction of slope of roof to shed water on each area of roof to drains.

3.5 ROOF INSULATION INSTALLATION

roof drains.

1. The finished tapered slope at the single ply membrane must be a minimum of

- one-quarter (1/4) inch per foot in all directions to the primary drainage. 2. Insulation Boards: Maximum four (4) x four (4) feet.
- 3. Gypsum Coverboards: Maximum four (4) x four (4) feet. 4. Install insulation with minimum joint dimensions and tightly butted where possible.
- a. Maximum Joint Widths: three-eights (3/8) inch. b. Damaged Corners: Cut out and replaced with an insulation piece a minimum of twelve (12) by twelve (12)
- inches. Pieces that are cut from larger panels and are smaller than one square foot are not acceptable. 5. Install no more than can be covered during the same working day.
- 6. Taper roof insulation to drain sumps using tapered edge strips.
- a. If insulation layer is one and one-half (1.5) inches or less, taper twelve (12) inches from drain bowl. b. If insulation thickness exceeds one and one-half (1.5) inches, taper eighteen (18) inches from drain bowl. c. Taper boards or pieces must be adhered or mechanically fastened with a minimum of two fasteners per
- 7. When a cover board or multiple layers are installed, each layer must be offset from the previous layer a minimum
- 8. At the end of each working day, provide a watertight cover on all unused insulation as to avoid moisture
- B. Adhered Insulation and Cover Board Concrete Deck 1. Polyurethane Foam Adhesive:
- a. Adhesive shall be applied only to properly prepared and pre-approved substrates, free of any debris, dirt, grease, oil or moisture.
- b. The minimum product temperature at time of application shall be seventy (70) degrees F. c. Adhesives shall not be applied when surface or ambient temperatures are below forty (40) degrees F or above one hundred ten (110) degrees F.
- (48) inches. e. Insulation shall be set into a continuous one-half (1/2) inch bead of adhesive at a minimum rate required by

d. Insulation shall be fully bonded to the substrate with a maximum board size of forty-eight (48) x forty-eight

g. Place the boards onto the adhesive beads and walk on the boards, spreading the adhesive for maximum

- f. Adhesive rates are to be increased in roof perimeter and corner zones according to specific project requirements and manufacturer's design recommendations.
- h. A second walking may be required after 10 minutes to ensure maximum contact and bond strength.

3.6 INSTALLATION OF MEMBRANES

- A. Quality Control: 1. It is the responsibility of the roofing contractor to initiate and maintain a Quality Control program to govern all aspects of the installation.
- which will include but is not limited to the supervision, inspection and probing of all heat welded seams incorporated within roofing system.

2. The project foreman and or supervisor will be responsible for the daily execution of the Quality Control program

3. If inconsistencies in quality of the application of the composite, membrane or welds are found, work shall cease until corrective actions are taken to ensure the continuity the installation.

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PROJEC NUMBE

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100 Grinnell Street KEY WEST, FLORIDA

FERRY TERMINAL RENOVATION

AUTHORIZATION BY WILLIAM P. HORN

- 1. Coordinate work ensuring that sequencing of installation promotes a one hundred (100) percent watertight installation at the end of each day.
- 2. Roofing systems to be designed in accordance with ASCE Standard 7, current edition.
- 3. Restrictions regarding outside ambient air temperature are relative only to the exposure limits of the workers or adhesives when necessary.
- 4. Curing or drying time of the adhesive will be affected by ambient temperatures and must be taken into
- 5. Humidity can affect the drying time of solvent borne adhesives or cause condensation to form on the newly applied
- 6. No moisture may be present on the adhesives prior to mating or application of membranes.
- 7. Adhered membrane systems are to be broomed in place first and then completed by pressing the membrane into the adhesive with a weighted, foam-covered lawn roller or fifty (50) lb linoleum roller. Lawn rollers should be filled with between six (6) and eight (8) gallons of water.
- 8. Roofing systems shall only be installed over properly prepared and sound substrates, free from excessive surface roughness, dirt, debris and moisture.

C. Roofing Membrane Fully Adhered to Insulation

- 1. Single Ply KEE Membrane Adhered with Bonding Adhesive:
- a. Position the roofing membrane and fold the sheet to allow a workable exposure of the underside of the sheet
- b. Apply a one hundred (100) percent continuous coat of bonding adhesive to the exposed bottom side of the membrane and a mirrored area of the substrate.
- c. The amount of membrane and substrate that can be coated with adhesive will be determined by application method, ambient temperature, humidity and available manpower.
- d. Adhesive may be applied by spraying and back rolling or just rolling. Do not dump adhesive or pour from the
- e. Roller applied adhesive shall utilize a solvent resistant three-eights (3/8) inch nap roller, spreading the
- adhesive to ensure a smooth, even one hundred (100) percent coverage of the substrate and membrane. Spray applied adhesive must be spread out by roller to ensure a smooth, even one hundred (100) percent
- coverage of the substrate and membrane with no voids, skips, globs, puddles or similar irregularities. Adhesive coverage should average one hundred (100) square feet per gallon of applied adhesive with a 50 sq
- ft per gallon, net coverage, plus or minus 10 percent, for the membrane and substrate combined. h. Allow the adhesive to dry or cure to a point of being tacky, but not stringy to the touch on both surfaces. Do 3.10 SEALANTS
- not allow adhesive to completely dry out on either surface. When sufficiently cured, carefully maneuver the glued portion of the membrane onto the glued substrate
- surface, avoiding any wrinkles or air pockets. Broom the adhered portion of the membrane to ensure full contact and complete the bonding process by
- firmly pressing the bonded membrane into place with a weighted, foam-covered, lawn roller. k. Repeat the process for the remaining unbonded portion of the membrane, lapping subsequent, adjacent rolls of membrane a minimum of 3 inches, ensuring proper shingling of the membrane to shed water along the
- I. No adhesive shall be applied to the lap seam areas of the membrane. Areas contaminated with adhesive are difficult to clean, will impair proper welding of the seams and require a membrane patch or strip.
- m. Do not use bad or marginal adhesives. Contact the Manufacturer if the quality of the adhesive is suspect.

D. Welding: General:

- a. Field seams exceeding ten (10) feet in length shall be welded with an approved automatic welder.
- b. Field seams must be clean and dry prior to initiating any field welding.
- c. Remove foreign materials from the seams including dirt and oils with Acetone or authorized alternative.
- d. Use clean white cotton cloths and allow approximately five (5) minutes for solvents to dissipate before initiating the automatic welder. Do not use denim or synthetic rags for cleaning.
- e. Welding shall be performed only by qualified personnel to ensure the quality and continuity of the weld. Contaminated areas within a seam will inhibit proper welding and will require a membrane patch or strip.

2. Hot Air Hand Welding:

- a. The lap or seam area of the membrane may be intermittently tack welded to hold the membrane in place.
- b. The back interior edge of the membrane shall be welded first, with a thin, continuous weld to concentrate heat 3.13 COMPLETION along the exterior edge of the lap during the final welding pass.
- The nozzle of the hand-held hot air welder shall be inserted into the lap at a forty-five (45) degree angle to the lap. Once the polymer on the material begins to flow, a hand roller shall be used to apply pressure at a right angle to the tip of the hand welder. Properly welded seams shall utilize a one and one-half (1.5) inch wide 3.14 FINAL INSPECTION FOR WARRANTY nozzle, to create a homogeneous weld, a minimum of one and one-half (1.5) inch in width.
- d. Smaller nozzles may be used for corners, and other field detailing, maintaining a minimum one (1) inch weld.
- 3. Automatic Hot Air Machine Welding:
- a. Proper welding of the FiberTite Membrane can be achieved with a variety of automatic welding equipment.
- b. Follow all manufacturers' instructions for the safe operation of the automatic welder
- c. Follow local code requirements for electric supply, grounding and surge protection.
- d. The use of a dedicated, portable generator is highly recommended to ensure a consistent electrical supply, without fluctuations that can interfere with weld consistency.
- e. Properly welded seams shall utilize a one and one-half (1.5) inch wide nozzle, to create a homogeneous weld, a minimum of one and one-half (1.5) inch in width.

- 1. The job foreman or supervisor shall initiate daily inspections of all completed work which shall include but not limited to, the probing of all field welding with a dull pointed instrument to assure the quality of the application and 1.01 SUMMARY ensure that any equipment or operator deficiencies are immediately resolved.
- 2. Ensure all aspects of installation including sheet layout, attachment, welding and flashing details are in strict accordance with the most current manufacturer recommendations.
- 3. Excessive patching of field seams because of inexperienced or poor workmanship will not be accepted at time of
- final inspection for warranty acceptance.
- 4. Any deviation from pre-approved specifications or details requires written authorization from the roofing manufacturer prior to application to avoid any warranty disqualification.
- 5. It is the Contractor, job foreman, supervisor, or quality control personnel's responsibility to perform a final self-inspection on all seams prior to requesting the inspection for warranty issuance by the roofing manufacturer.

F. T-Joint Cover Installation:

- 1. Installation of T-Joint Covers is mandatory daily on roofing systems nominal 50 mil or greater.
- 2. Install T-Joint Covers, centered and aligned so edges are parallel to roof system seams. 3. The T-Joint Cover shall be one hundred (100) percent welded.

3.7 FLASHING

- A. Clean vents, pipes, conduits, tubes, walls, and stacks to bare metal. Protrusions must be properly secured to roof deck with approved fasteners.
- B. Remove and discard lead, pipes and drain flashing. Flash penetrations according to approved details.
- C. Remove loose or deteriorated cant strips and flashings.
- D. Flash curbs, parapets and interior walls in strict accordance with approved details.
- E. All flashings shall be adhered to properly prepared, approved substrates with bonding adhesive or mastic applied in sufficient quantity to ensure total adhesion.
- F. The base flange of all membrane flashing shall extend out on to the plane of the deck, beyond the wood nailers to a maximum width of eight (8) inches.
- G. Vertical flashing shall be terminated no less than eight (8) inches above the plane of the deck with approved termination bar and counter-flashings or metal cap flashing.
- H. Complete all inside and outside corner flashing details with preformed corners or an approved field fabrication detail.
- I. Probe all seams with a dull, pointed probe to ensure the weld has created a homogeneous bond.
- J. Install penetration accessories in strict accordance with approved details. Ensure penetration accessories have not impeded in any way the working specification. Refer to the related trade for the technical specification

3.8 METAL FLASHING

- A. All perimeter edge details, surface mounted counterflashings are to be a prefabricated counterflashing system supplied by the roofing system manufacturer providing the warranty.
- B. Enlarge existing or add new overflow scuppers with sizes and quantities required according to the drainage calculations submitted for the roofing permit.
- C. Ensure all details extend a minimum of two (2) inches lower than the bottom of the wood nailers.
- D. Fasten all metal flashing to wood nailers or approved substrate with approved fasteners eight (8) inches on center.

E. Forti-Lock Liquid Flashing

- 1. For aberrant penetrations and pitch pan avoidance, follow FiberTite Forti-Lock guidelines and details for substrate preparation and installation of Forti-Lock liquid flashing on pre-authorized aberrant penetrations.
- 2. Forti-Lock Metal Primer: is required for all metal tie-ins and applications with high mechanical stresses, on detail work with small contact areas, metal components with large linear thermal expansion or edge metal terminations.

F. Pitch Pans:

- 1. Every reasonable effort shall be made to eliminate the need for pitch pans including the removal of existing pans.
- 2. In the event of no alternative, fabricate metal pans from clad metal, installed in accordance with roofing manufacturer details, ensuring proper attachment, maintaining a minimum of two (2) inch clearance around the penetration.
- 3. In the event a minimum of two (2) inch clearance cannot be achieved around the penetration or distance from a wall then a PMMA flashing system detail needs to be installed instead of a pitch pan.
- 4. All details with less than a minimum of two (2) inch clearance requires a shop drawing to be approved by the Owner's Representative and approved in writing by the roofing manufacturer that all details comply with the specified warranty.
- 5. Pitch Pans shall be filled with non-shrinking grout to within one (1) inch of the top of the pan. Allow the grout to dry and fill remainder of the pan with pourable urethane sealant.
- 6. Pitch Pans and the sealant will require periodic maintenance by the building Owner's maintenance personnel.

3.9 EXPANSION JOINTS

- A. Flash all expansion joints in accordance with authorized details. Fasten all expansion joint material according to FiberTite specifications. Ensure the expansion material has sufficient material to expand to the widest point in expansion without causing undue stress on the expansion joint material.
- B. If the expansion joint is a preformed system, the manufacturer, description and a drawing illustrating the method of installation must be included when the (FTR-PIN) is submitted.

- A. Apply authorized sealants to all surface mounted counterflashings and per project requirements. Sealants are to shed water while following all manufacturer installation guidelines.
- B. Use primer when recommended by the roofing system manufacturer

- 3.11 TEMPORARY SEALS A. At the end of each working day or at the sign of rain, install temporary, one hundred (100) percent watertight seals where
- the completed new roofing adjoins the uncovered deck or existing roof surface. B. The authorized roofing Contractor shall create and maintain the temporary seal in such a
- C. If water is allowed to enter beneath the newly completed roofing, the affected areas shall be removed and replaced at no additional expense to the building Owner.
- D. Prior to the commencement of work, cut out and remove all contaminated membrane, insulation, roof cement or sealant and properly dispose of offsite.

- A. Walkways and protection pads shall be installed in identical locations to the layout in the approved shop drawings based on the Bid Document roof plan.
- B. Walkway Installation:
- 1. Roofing membrane to receive walkway material shall be clean and dry.
- 2. Cut and position the walkway material as directed by the specifications or agreement.
- 3. Hot air weld the entire perimeter of the walkway to the previously cleaned roofing membrane. Avoid excessive heating of the walkway material to prevent scorching the underlying roofing membrane.

- A. Remove all debris, excess materials and scrap of any kind from the roof and surrounding premises prior to demobilization.
- B. Inspect all field welds, detailing and terminations to ensure a one hundred (100) percent the watertight installation
- A. Upon completion of the project, the authorized roofing contractor shall complete and submit the manufacturer required completion and inspection reports.
- B. Upon receipt of the notice of completion, a roofing manufacturer technical representative will schedule an inspection with a representative of the authorized roofing contractor to thoroughly review the installation and verify compliance with specifications.
- C. Any corrections or modifications necessary for compliance with the specifications and acceptance for warranty will be noted on the final inspection.
- D. Upon completion of all punch list items and final acceptance of the installation, a warranty as authorized by the roofing manufacturer will be issued.

075600 - Liquid Applied Polymethyl Methacrylate (PMMA) Flashings : GENERAL

- A. The secondary waterproofing flashing system shall consist of a cold liquid applied reinforced waterproofing membrane and finish layers as specified.
- B. Work shall include, but is not limited to, the following:
- Preparation of existing flashing substrates.
- 2. Liquid applied, reinforced flashings.
- 3. All related materials and labor required to complete specified waterproofing.

1.02 RELATED SECTIONS

- A. Section 07 54 16 Single Ply KEE Roofing Systems
- 1.03 DEFINITIONS
- A. ASTM D 1079- Standard Terminology Relating to Roofing and Waterproofing.
- B. The National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual, Fifth Edition Glossary.

1.04 REFERENCES

- A. AMERICAN SOCIETY OF CIVIL ENGINEERS Reference Document ASCE 7, Minimum Design Loads for Buildings and Other Structures.
- B. AMERICAN STANDARD OF TESTING METHODS (ASTM):
- 1. ASTM C 836 Standard Specification for High Solids Content, Cold Liquid applied Elastomeric
- Waterproofing Membrane for Use with Separate Wearing Course.
- 2. ASTM C 920 Standard Specification for Elastomeric Joint Sealants C. FLORIDA BUILDING CODE (FBC):
- 2023 Florida Building Code (FBC).
- D. NATIONAL ROOFING CONTRACTORS' ASSOCIATION (NRCA).
- 1. UL 790 Standard Test Methods for Fire Tests of Roof Coverings
- 2. UL 1256 Fire Test of Roof Deck Constructions.

1.05 ACTION SUBMITTALS

- A. Product Data Sheets: Submit manufacturer's product data sheets, installation instructions and/or general requirements for each
- B. Safety Data Sheets: Submit manufacturer's Safety Data Sheets (SDS) for each component.

1.06 INFORMATIONAL SUBMITTALS

A. Submit a letter from the roofing manufacturer indicating the contractor is an authorized applicator

1.07 QUALITY ASSURANCE

- A. MANUFACTURER QUALIFICATIONS:
- 1. Manufacturer shall have 20 years of manufacturing experience.
- 2. Manufacturer shall have trained technical service representatives employed by the manufacturer, independent of sales.
- 3. Manufacturer shall provide site visit reports in a timely manner.
- B. CONTRACTOR QUALIFICATIONS:
- 1. Contractor shall be authorized by the manufacturer to install specified materials prior to the bidding period through satisfactory project
- Applicators shall have completed projects of similar scope using same or similar materials specified
- 3. Contractor shall provide full time, on-site superintendent or foreman experienced with the specified roofing from beginning through satisfactory project completion.
- 4. Applicators shall be skilled in the application methods for all materials.
- 5. Contractor shall maintain a daily record, on-site, documenting material installation and related project conditions.
- 6. Contractor shall maintain a copy of all submittal documents, on-site, available always for reference.
- C. FLASHING SUBSTRATE EVALUATION:
- 1. Contractor shall evaluate substrate moisture content and adhesion of waterproofing materials to substrate throughout the work and record with daily inspection reports or other form of reporting acceptable to the owner or his designated representative and
- a. Moisture content: Evaluate substrate moisture content to determine acceptability for application of the specified liquid applied waterproofing materials. Moisture testing shall be performed by means suitable to the project application, or by testing substrate relative humidity (RH) in accordance with ASTM F 2170 when needed, required, or if substrate moisture content is

b. Adhesion: Evaluate soundness and surface preparation of concrete and masonry substrates. Prepare representative areas

- using specified methods complete with applied primer and waterproofing membrane.
- c. Test for minimum acceptable tensile bond strength values as required in accordance with ASTM D 4541. Evaluate all areas where concrete appears to differ in appearance or consistency, if multiple areas are involved in the scope of work, evaluate each area with a minimum of (3) tests for every 5,000 ft²or as required by project conditions.
- D. SOLVENT CONTAINING ROOF MASTICS, COATINGS & ADHESIVES 1. Cold liquid applied PMMA flashings should not be applied on, over or in conjunction with newly applied solvent containing roof

mastics, coatings, and adhesives. 1.08 DELIVERY, STORAGE AND HANDLING

A. Refer to each product data sheet or other published literature for specific requirements

necessary measures and precautions to comply with exposure requirements.

methods as necessary to accommodate varying project conditions.

- B. Deliver materials and store them in their unopened, original packaging, bearing the manufacturer's name, related standards, and any
- other specification or reference accepted as standard. C. Protect and store materials in a dry, well-vented, and weatherproof location. Only materials to be used the same day shall be removed
- from this location. During cold weather, store materials in a heated location, removed only as needed for immediate use. D. When materials are to be stored outdoors, store away from standing water, stacked on raised pallets or dunnage, at least 4 inches or more above ground level. Carefully cover storage with "breathable" tarpaulins to protect materials from precipitation and to prevent
- exposure to condensation. E. Carefully store roof membrane materials delivered in rolls on-end with selvage edges up. Store and protect roll storage to prevent
- F. Properly dispose of all product wrappers, pallets, cardboard tubes, scrap, waste, and debris. All damaged materials shall be removed from job site and replaced with new, suitable materials.

1.09 SITE CONDITIONS

- 1. The contractor shall be responsible for complying with all project-related safety and environmental requirements
- 2. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified liquid applied or semi-solid roofing materials. When conditions are determined by the contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions. 3. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified hot
- asphalt-applied materials. When conditions are determined by the contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions.

4. The contractor shall refer to product Safety Data Sheets (SDS) for health, safety, and environment related hazards, and take all

- B. ENVIRONMENTAL CONDITIONS: 1. Monitor substrate and material temperature, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade. Ensure conditions are satisfactory to begin work and ensure conditions remain satisfactory
- during the installation of specified materials. Materials and methods shall be adjusted as necessary to accommodate varying project conditions. Materials shall not be installed when conditions are unacceptable to achieve the specified results. 2. Precipitation and dew point: Monitor weather to ensure the project environment is dry before, and will remain dry, during the
- application of roofing materials. Ensure all roofing materials and substrates remain above the dew point temperature as required to prevent condensation and maintain dry conditions. 3. Contractor shall implement odor control measures where required during the application of waterproofing materials and adjust

1.10 WARRANTY

A. Manufacturer Waterproofing Warranty: The manufacturer of the specified roofing membrane shall provide the owner with the manufacturer's warranty according to the specified terms in Section 07 54 16.

- B. The contractor shall guarantee workmanship and shall provide the owner with the contractor's warranty covering workmanship for a
- period of 2 years from completion date. PART 2 PRODUCTS 2.01 MANUFACTURER

A. Basis of Design: FiberTite, Seaman Corporation, Web: https://www.fibertite.com. Alternate Manufacturers: 1. Tremco 2. Garland.

B. Substitutions: Roofing manufacturer must comply in all respects to the specified roofing membrane ASTM standards and local building

C. Requests for substitutions will be considered in accordance with the provisions of this Section and Product Requirements.

- 2.02 LIQUID APPLIED FLASHING SYSTEM
- A. Forti-lock PMMA Flashing System by FiberTite, Seaman Corporation. 1. Forti-lock Liquid Flashing - Summer Grade, Gray Color

2. Forti-lock Catalyst Powder Forti-lock Fleece

2.03 ACCESSORIES

- A. PRIMERS: 1. Soprema Alsan RS LO Primer: Low odor, two-part, epoxy-based primer for concrete, metals, and other approved substrates.
 - a. SOPREMA ALSAN RS LO PRIMER PART A:
 - ii Color: Black b. SOPREMA ALSAN RS LO PRIMER PART B:

i VOC content: 0 g/L

- i VOC content: 0 g/L ii Color: Amber
- B. SUBSTRATE PATCHING & REPAIR: 1. POLYMETHYL METHACRYLATE PASTE (PMMA):
 - a. Soprema Alsan RS Paste: Rapid curing, polymethyl methacrylate (PMMA) paste resin used to fill small cracks and voids on non-traffic bearing substrates prior to the application of PMMA/PMA membranes.
 - i VOC content: 4.4 g/L
 - Color: Pebble Grey

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examination includes visual observations, qualitative analysis, and quantitative testing measures as necessary to ensure conditions are satisfactory to begin and remain satisfactory throughout the project.
- B. The contractor shall examine all waterproofing substrates including, but not limited to decks, walls, curbs, equipment,
- fixtures, and wood blocking.
- C. The applicator shall not begin installation until conditions have been properly examined and determined to be clean, dry and, otherwise satisfactory to receive specified roofing and waterproofing materials.

3.02 FLASHING SUBSTRATE PREPARATION

- A. Before commencing work each day, the contractor shall prepare all substrates to ensure conditions are satisfactory to
- B. Preparation of substrates includes, but is not limited to, the following:

- a. All substrates must be clean, dry, and free from gross irregularities, loose, unsound, or foreign material such as dirt, ice, snow, water, grease, oil, release agents, lacquers, or any other condition that would be detrimental to
- form of scarifying, shot blasting or grinding to achieve a suitable substrate. b. Inspect all substrates and correct defects before application of waterproofing materials. Fill all surface voids 1/16
- a. Concrete shall comply with requirements of ACI 301 and ACI 308.
- c. Adhesion: Adhesion of specified primer and structural substrate shall be 116 psi for non-traffic bearing areas per
- a. Walls shall be structurally sound concrete block or waterproof concrete block construction. b. Liquid applied membrane must not be applied over soft or scaling brick or block, faulty mortar joints, or walls with

broken, damaged, or leaking coping. Areas of spalls, voids, bug holes and other deterioration on vertical surfaces

- shall be repaired as required or recommended
- above or behind the new liquid applied membrane.

d. Relative humidity: Maximum 75 percent per ASTM F2170 unless otherwise approved.

- 4. Metal Substrates: a. Clean and prepare metal to near-white metal in accordance with SSPC - SP3 (power tool clean) to a point
- cleaner to remove oils, debris, or contaminants. b. Stainless Steel Series 300 and 400: Abrade to provide rough, open surface and wipe with solvent cleaner to
- remove oils, debris, or contaminants white rust or is passivated which must be completely removed prior to applying primer or liquid applied waterproofing. This can be confirmed by applying a coat of copper sulfate solution to the prepared and cleaned galvanized/zinc metal. A properly prepared surface will turn black indicating the passivator has been removed. If
- the surface does not turn black, additional abrasive cleaning will be required. d. Adhesion: Examine metal substrates by conducting adhesion testing. Prime with specified metal primer where required to achieve adequate adhesion.
- a. Rigid plastics should be lightly abraded and wiped with solvent cleaner. Extend preparation maximum 1/8 in (3 mm) beyond the specified termination of the liquid applied membrane flashing materials.
- 7. Tie-In to Other Compatible Flashing Surfaces: a. Remove all contaminants and prepare substrate as needed to receive liquid applied waterproofing. b. Lightly scrub surface with an abrasive pad and wipe with acceptable cleaner.

C. Where conditions are found to be unsatisfactory, work shall not begin until conditions are adjusted appropriately. Commencing of work shall indicate contractor's acceptance of conditions.

A. Refer to manufacturer's detail drawings, product data sheets and published general requirements for application rates and

specific installation instructions.

- A. Low Odor Primer Applications:
- amount of primer that can be used within the application time. 2. Apply primer to compatible, clean, and prepared substrate preferably with falling temperature to reduce potential for
- 4. When primer will be left exposed beyond recommended recoat times, broadcast to excess with #1 (0.7 1.2mm) kiln-dried
- layer. After cure, remove loose aggregate and keep dry until subsequent system components are applied.

- A. GENERAL: 1. After priming and before commencing with application of liquid applied waterproofing, the contractor shall patch, level, or
- 1. Contractor shall use proprietary paste or resin-mortar for all patching, leveling or repairs wherever possible. Refer to

2. Non-traffic bearing horizontal or vertical substrates: Use paste or resin-mortar for all substrate leveling, patching and

- Application:
- a. Install paste or resin-mortar over a fully cured primer. b. The substrate shall be dry and free of any dust or loose particles.
- d. When required, combine the paste or resin-mortar with #1 (0.7 1.2mm) kiln-dried quartz aggregate as recommended for deep voids or large areas.
- stir stick until evenly mixed. Do not aerate. Mix only the amount of product that can be used within the application time. f. Apply the catalyzed paste and/or resin-mortar onto the substrate using a smoothing trowel, working the material

e. Mix paste and/or resin-mortar and catalyst approximately 2 minutes using a clean spiral agitator on slow speed or

g. Paste and/or resin-mortar should be placed in lifts no greater than the maximum thicknesses recommended. h. If additional lifts will be required, broadcast top surface of the placed paste or resin-mortar with clean dry #1 (0.7 -

Place next lift once the paste and/or resin-mortar has cured.

proceed with the installation of specified materials.

adhesion of primer and/or resin materials to the substrate. Most surfaces will require mechanical abrasion in the

in (1.5 mm) or greater wide and/or deep with appropriate fill material. Concrete Substrates:

- b. Concrete compressive strength: 3,500 psi for all primers or 2,500 psi minimum when use of a moisture mitigation
- d. Areas of spalls, voids, bug holes and other deterioration on vertical or horizontal surfaces shall be repaired as
- required or recommended Masonry Substrates:
- c. Walls of ordinary hollow tile or other materials which in themselves are not waterproofed, should not be accepted as suitable to receive liquid applied membrane unless properly waterproofed to prevent moisture infiltration from
- maximum 1/8 in (3 mm) beyond the termination of liquid applied membrane materials and wipe with solvent
- c. Galvanized & Zinc-Rich Metals: Galvanized and/or zinc rich metals are coated with either a layer of oil to prevent
- Rigid Plastics (PVC & ABS):
- a. The top surface of existing smooth SBS modified bitumen or Asphalt BUR membrane shall be clean and dry. Remove all dust, dirt, or debris from the surface of the membrane by broom, blower, or power vacuuming.
- c. Adhesion: Examine substrates by conducting adhesion testing. Prime with specified primer where required to achieve adequate adhesion. If acceptable adhesion is not obtained, attempt higher degree of surface abrasio
- 3.03 PRIMER APPLICATION (GENERAL)

B. Examine all substrates and conduct adhesion peel tests as necessary to ensure satisfactory adhesion is achieved. 3.04 EPOXY PRIMER APPLICATION FOR METAL SURFACES

6. Smooth SBS Modified Bitumen and Asphalt BUR Membrane:

- 1. Mix A and B parts using a clean spiral agitator on slow speed or stir stick until evenly mixed. Do not aerate. Mix only the
- pinholes from "off-gassing" and as required to enhance adhesion of new specified waterproofing materials. 3. Apply primer using notched squeegee and roller or brush at the rate published on the product data sheet. Do not allow primer to pond or collect in low areas.
- quartz into the final coat of epoxy primer while still wet at the rate of 30 lb/100 ft² (1.5 kg/m²) as a mechanical bonding

5. Project conditions vary throughout the day. Monitor changing conditions, and the curing time of primers. 6. Allow primer to fully cure and remove excess aggregate before membrane application.

3.05 SUBSTRATE PATCHING, LEVELING & REPAIR

- repair all substrates as required to eliminate bug holes, voids, cavities, low spots, repair cracks or any other condition that may be detrimental to proper application of the liquid applied waterproofing. B. PATCHING, LEVELING & REPAIRS:
- manufacturer's detail drawings, product data sheets and published general requirements for application rates and specific
- c. Mix paste resin and/or resin-mortar using a slow speed agitator prior to pouring into a larger container.
- into the surface for complete coverage and full adhesion.
- 1.2 mm) kiln-dried quartz aggregate at approximately 25% coverage while the paste and/or resin-mortar is wet.

FERRY TERMINAL RENOVATION

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REVISIONS

07-05-2024 BID

DRAWN BY

NUMBE 2312

EMA

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KEY WEST, FLORIDA

FERRY TERMINAL RENOVATION

C. NON-MOVING (STATIC) CRACKS - 1 mm or less:

1. Determine that crack is non-moving. Remove any existing filler and clean out crack by brushing and oil-free compressed air. Fill crack with resin mortar or paste as required.

D. MOVING (DYNAMIC) CRACKS - 1 mm or less:

1. Determine that crack is moving. Remove any existing filler and clean out crack by brushing and oil-free compressed air. 3.09 PROTECTION Fill crack with resin-mortar or paste as required. After the resin-mortar or paste has cured, apply minimum 4 in (100 mm) wide strip of reinforced cold liquid applied membrane centered over crack.

E. MOVING (DYNAMIC) CRACKS - 3 mm or less:

1. Determine that crack is moving. Remove any existing filler and clean out crack by brushing and oil-free compressed air. 07610- Sheet Metal Roofing Fill crack with resin-mortar or paste as required. After the resin-mortar or paste has cured, apply bond breaker tape 5 times in width greater than the maximum anticipated expansion. Then cover with a strip of reinforced cold liquid applied PART 1 - GENERAL membrane centered over crack sized to provided 2 in (50 mm) minimum cover beyond all side of the bond breaker tape but no less than 6 in (150 mm) minimum width.

F. MOVING (DYNAMIC) CRACKS - Greater than 3 mm:

1. Moving cracks greater than 3 mm must be treated as an expansion joint.

3.06 INSTALLATION & STAGING

A. Follow accepted procedure for applying cold liquid applied membrane flashings to substrate. In all cases the substrate is prepared, primed, and flashings are installed to the in-situ waterproofing membrane. When applying broadcast aggregate. the aggregate should not be left subject to the elements and therefore must be top coated with finish the same day of application whenever possible.

B. If work is interrupted for more than 12 hours, use manufacturer's proprietary cleaner to clean and reactivate applied primer, resin mortar, flashing membrane or field membrane transition areas. Cleaner should be allowed a minimum of 20 minutes evaporation time after application and covered within 60 minutes of application or as recommended by the manufacturer.

3.07 FLASHING MEMBRANE APPLICATION

A. General:

1. Refer to manufacturer's detail drawings, product data sheets and published general requirements for application rates and specific installation instructions.

2. Provide a minimum vertical height of 8 in (200 mm) for all flashing terminations wherever possible. Flashing height shall be at least as high as the potential water level that could be reached because of a deluging rain and/or poor slope.

Do not flash over existing through-wall flashings, weep holes and overflow scuppers. 4. All flashing shall be terminated as required by the manufacturer. Cap flashings or counter flashings may be constructed of metal, stone, tile, or other materials properly installed in accordance with industry-accepted practice.

5. Install all flashing membranes before installing field membranes.

6. The primed substrate shall be dry and free of any dust, loose particles, or contaminants. 7. Precut reinforcing fleece to conform to terminations, transitions and penetrations being flashed. Ensure a minimum 2 in (50 mm) overlap of fleece at side laps and extend flashing 4 in (100 mm) minimum horizontally onto deck unless

otherwise specified. Ensure the completed liquid applied flashing membrane is fully reinforced. 8. Wherever possible factory pre-cut fleece pipe penetration and universal corners shall be used.

9. Mix waterproofing resin and catalyst approximately 2 minutes using a clean spiral agitator on slow speed or stir stick until evenly mixed. Do not aerate. Mix only the amount of waterproofing resin that can be used within the application

10. Apply the base coat of catalyzed waterproofing resin onto the substrate using a brush or roller, working the material into the surface for complete coverage and full adhesion. 11. Immediately apply the reinforcing fleece into the wet base coat of resin making sure the smooth side is up. Using a

brush or roller, work the reinforcing fabric into the wet resin while applying the second coat of catalyzed waterproofing resin to completely encapsulate the fleece. Avoid any folds and wrinkles.

12. At membrane tie-ins, clean cured membrane with specified cleaner before application of adjacent membrane. B. Base and Wall Flashings:

1. Install all flashing membranes before installing rigid insulation system and field membranes.

2. The primed substrate shall be dry and free of any dust, loose particles, or contaminants.

3. Precut reinforcing fleece to conform to terminations, transitions and penetrations being flashed. Ensure a minimum 2 in

overlap of fleece at side laps and extend flashing 4 in minimum horizontally onto deck unless otherwise specified. Ensure the completed liquid applied flashing membrane is fully reinforced.

4. Mix waterproofing resin and catalyst approximately 2 minutes using a clean spiral agitator on slow speed or stir stick until evenly mixed. Do not aerate. Mix only the amount of waterproofing resin that can be used within the application

5. Apply the base coat of catalyzed waterproofing resin onto the substrate using a brush or roller, working the material into the surface for complete coverage and full adhesion.

6. Immediately apply the reinforcing fleece into the wet base coat of resin making sure the smooth side is up. Using a brush or roller, work the reinforcing fabric into the wet resin while applying the second coat of catalyzed waterproofing resin to completely encapsulate the fleece. Avoid any folds and wrinkles.

7. At membrane tie-ins, clean cured membrane with specified cleaner before application of adjacent membrane. C. Penetrations & Flashings:

1. Pipes, Conduits, Posts, Supports and Unusual Shaped Penetrations:

a. Pipes, conduits, and other items to be flashed must be separated with $\frac{1}{2}$ in (13 mm) minimum clearance or as recommended by manufacturer to adequate waterproof each individual penetration.

b. All penetrations must be flashed individually. Two or more items ganged together in a flashing will NOT be

c. Flash penetrations using cold liquid applied reinforced membrane or proprietary fibrated flashing resin as recommended. Flashing shall be applied using factory pre--cut fleece wherever possible consisting of a reinforced deck skirt/target flashing applied over a reinforced vertical wrap finger flashing.

a. Flash drains using cold liquid applied membrane. Flashing shall consist of a membrane target extending minimum 12 in (300 mm) horizontally onto the substrate applied over a finger flashing extended into the prepared drain bowl a minimum of 3 in (75 mm).

b. At no time should the cold liquid applied membrane be installed to restrict or reduce the drain inlet in size. c. For new drains, contractor shall include cost of all plumbing work, piping, and connection to existing storm

3. Hot Pipes:

a. Protect cold liquid applied membrane components from direct contact with steam or heat sources when the

in-service temperature exceeds 150F (65.5C). In all such cases flash to an intermediate "cool" sleeve. b. Fabricate "cool" sleeve in the form of a metal cone using non-ferrous metal in accordance with manufacturer

c. Flash sleeve using cold liquid applied reinforced membrane like a standard pipe flashing. Flashing shall consist of a reinforced target applied over a reinforced vertical wrap finger flashing.

4. Flexible Penetrations:

a. Provide a weather-tight gooseneck set in manufacturers resin paste and secured to the deck.

b. Flash gooseneck penetrations using cold liquid applied reinforced membrane as recommended. Flashing shall consist of a reinforced target and reinforced vertical wrap finger flashing.

5. Walls, Curbs and Bases:

a. Flash all walls, curbs and bases using cold liquid applied reinforced membrane. Wherever possible extend flashing up and over tops of walls, curbs, and bases so the membrane terminates on the opposite face of the vertical element.

6. Expansion Joints:

a. Flash all expansion joints with minimum two layers of manufacturers cold liquid applied reinforced membrane applied over an expansion joint compressible filler, expansion tube, backer rod and/or bond breaker tape as recommended by manufacturer.

7. Non-standard Flashing Details:

a. When required, consult manufacturer for recommendations on flashing non-standard conditions, penetrations, or protrusions.

D. Thru-Wall Flashings, Mud-set Masonry, & Poured-In-Place Concrete Bonding/Protection Layer:

1. For all areas to receive new direct applied cement, concrete, or mortar setting bed, apply a supplementary wearing coat

of the membrane manufacturer's cold liquid applied resin. a. Using a lambswool roller, apply an even layer of cold liquid applied resin at the minimum consumption of 30

kiln-dried quartz aggregate into the wet resin to excess for full coverage. b. Allow resin bonding layer to cure as recommended by the membrane manufacturer prior to continuing application or applying loads. Remove excess un-adhered aggregate from surface by broom, vacuum, or

oil-free blower prior to apply overburden.

c. When required, consult manufacturer for recommendations on flashing non-standard conditions, penetrations, or protrusions.

lbs/100 ft² (1.5 kg/m²) or as recommended by the membrane manufacturer and broadcast #1 (0.7 - 1.2mm)

3.08 CLEAN UP

A. Uncured resin is considered a hazardous material. Unused resin must be catalyzed and cured prior to disposal. B. Clean up and properly dispose of waste and debris resulting from these operations each day as required to prevent damages

A. Upon completion of new work (including all associated work), institute appropriate procedures for surveillance and protection of finished work during remainder of construction period. Protect all areas where waterproofing membrane has been installed.

1.1 SUMMARY

A. This Section includes the following:

following test-pressure difference:

1. Standing-seam metal roofing. Metalic coated steel (Base Bid)

2. Standing-Seam metal roofing: aluminum sheet (Alt. #1) PERFORMANCE REQUIREMENTS

A. General: Provide complete sheet metal roofing system, including, but not limited to, metal roof panels, cleats, clips, anchors and fasteners, sheet metal flashing and drainage components related to sheet metal roofing, fascia panels, trim, underlayment, and accessories as indicated and as required for a weathertight installation.

B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual: Architectural Metal Flashing, Condensation and Air Leakage Control, and Reroofing" and SMACNA's Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. Energy Performance: Provide roof panels that are listed on the EPA/DOE's ENERGY STAR "Roof Product List" for steep-slope

roof products. D. Air Infiltration: Air leakage of not more than 0.06 cfm/sg. ft. when tested according to ASTM E1680 or ASTM E283 at the following test-pressure difference:

 Test Pressure: 6.24 lbf/sq. ft. . Water Penetration under Static Pressure: No water penetration when tested according to ASTM E1646 or ASTM E331 at the

1. Test Pressure: 6.24 lbf/sq. ft.

F. Hydrostatic-Head Resistance: No water penetration when tested according to ASTM E2140. G. High Wind Zone Design Approval: Miami-Dade NOA for velocity hurricane zone.

H. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated. I. Thermal Movements: Provide sheet metal roofing that allows for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, hole elongation, overstressing of A. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of sheet metal roofing thermal movements. Base engineering calculation on surface

temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

A. Product Data: For each product indicated. Include details of construction relative to materials, dimensions of individual

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

B. Shop Drawings: Show fabrication and installation layouts of sheet metal roofing, including plans, elevations, and keyed references to termination points. Distinguish between shop- and field-assembled work. Include the following:

1. Details for forming sheet metal roofing, including seams and dimensions. 2. Details for joining and securing sheet metal roofing, including layout of fasteners, clips, and other attachments. Include

pattern of seams. 3. Details of termination points and assemblies, including fixed points.

4. Details of expansion joints, including showing direction of expansion and contraction.

Details of roof penetrations.

6. Details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counterflashings. Details of special conditions.

8. Details of connections to adjoining work.

9. Details of the following accessory items, at a scale of not less than 1-1/2 inches per 12 inches (1:10):

a. Flashing and trim.

C. Coordination Drawings: Roof plans drawn to scale and coordinating penetrations and roof-mounted items. Show the following: 1. Sheet metal roofing and attachments. 2 Purlins and rafters

D. Samples for Initial Selection: For each type of sheet metal roofing indicated with factory-applied color finishes.

1. Include similar Samples of trim and accessories involving color selection. E. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:

1. Sheet Metal Roofing: 12 inches (300 mm) long by actual panel width, including finished seam. Include fasteners, cleats, clips, closures, and other attachments.

2. Trim and Closures: 12 inches (300 mm) long. Include fasteners and other exposed accessories. 3. Accessories: 12-inch- (300-mm-) long Samples for each type of accessory.

F. Qualification Data: For Installer.

G. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for sheet metal roofing portable roll-forming equipment. Include reports for structural performance.

H. Warranties: Special warranties specified in this Section.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Fabricator of sheet metal roofing. B. Custom-Fabricated Sheet Metal Roofing Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate sheet metal roofing similar to that required for this Project and whose products have a record of successful in-service

C. Roll-Formed Sheet Metal Roofing Fabricator Qualifications: An authorized representative of roll-formed sheet metal roofing manufacturer for fabrication and installation of units required for this Project.

D. Sheet Metal Roofing Standard: Comply with SMACNA's "Architectural Sheet Metal Manual." Conform to dimensions and profiles shown unless more stringent requirements are indicated.

E. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and qualities

of materials and execution. 1. Build mockup of typical roof eave, including fascia, and soffit as shown on Drawings; approximately 48 inches (1200 mm) square by full thickness, including attachments, underlayment, and accessories.

2. Approval of mockups is for other material and construction qualities specifically approved by Architect in writing. 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless such deviations are specifically approved by Architect in writing.

4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion. Preliminary Roofing Conference: Before starting roof deck construction, conduct conference at Project site. Comply with requirements for preinstallation conferences in Division 1 Section "Project Management and Coordination." Review methods

and procedures related to roof deck construction and sheet metal roofing including, but not limited to, the following: 1. Meet with Owner, Architect, Owner's insurer if applicable, sheet metal roofing Installer, manufacturer's representative for sheet metal roofing portable roll-forming equipment, metal deck Installer, and installers whose work interfaces with or affects sheet metal roofing including installers of roof accessories and roof-mounted equipment.

2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

3. Review methods and procedures related to sheet metal roofing installation, including portable roll-forming equipment manufacturer's written instructions. 4. Examine purlin and rafter conditions for compliance with requirements, including flatness and attachment to structural

5. Review structural loading limitations of purlins and rafters during and after roofing.

6. Review flashings, special roof details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect sheet metal roofing. 7. Review governing regulations and requirements for insurance, certificates, and testing and inspecting if applicable.

8. Review temporary protection requirements for sheet metal roofing during and after installation. 9. Review roof observation and repair procedures after sheet metal roofing installation.

G. Preinstallation Conference: Conduct conference at Project site. Comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to sheet metal roofing including, but not limited to, the following:

1. Meet with Owner, Architect, Owner's insurer if applicable, sheet metal roofing Installer, manufacturer's representative for sheet metal roofing portable roll-forming equipment, metal deck Installer, and installers whose work interfaces with or affects sheet metal roofing including installers of roof accessories and roof-mounted equipment.

2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

3. Review methods and procedures related to sheet metal roofing installation, including portable roll-forming equipment manufacturer's written instructions.

4. Examine metal deck conditions for compliance with requirements, including flatness and attachment to structural members.

5. Review structural loading limitations of metal deck during and after roofing. 6. Review flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of

other construction that will affect sheet metal roofing. 7. Review governing regulations and requirements for insurance, certificates, and testing and inspecting if

10. Document proceedings, including corrective measures and actions required, and furnish copy of record to

8. Review temporary protection requirements for sheet metal roofing during and after installation. 9. Review roof observation and repair procedures after sheet metal roofing installation.

1.5 DELIVERY, STORAGE, AND HANDLING

each participant.

A. Deliver metal coils, sheet metal roofing pans, components, and other sheet metal roofing materials so as not to be damaged or deformed. Package sheet metal roofing materials for protection during transportation and handling.

B. Unload, store, and erect sheet metal roofing materials in a manner to prevent bending, warping, twisting, and surface damage. C. Stack materials on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal coils and sheet metal roofing materials to ensure dryness. Do not store metal coils or sheet metal roofing materials in

contact with other materials that might cause staining, denting, or other surface damage. D. Protect strippable protective covering on sheet metal roofing from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal roofing installation.

sheet metal roofing that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.

b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.

c. Cracking, checking, peeling, or failure of paint to adhere to bare metal. 2. Finish Warranty Period: 20 years from date of Substantial Completion. (Aluminum Alt.) B. Special Weathertightness Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, within specified warranty

1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, including applicable Florida Product Approval, provide Englert, Inc. Series 1300 FL 11727.1 R17 for steel, FL 11727.2 R17 for Aluminum or a comparable product

by one of the following: 1. ATAS International, Inc.

2. Englert, Inc. Fabral

4. Firestone Building Products

MBCI 6. McElroy Metal, Inc.

7. Merchant and Evans. 8. Morin - A Kingspan Group Company

9. PAC-CLAD; Petersen Aluminum Corporation; a Carlisle company. 10. Garland Company, Inc.

2.2 STANDING SEAM METAL ROOF PANELS

A. Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips inside laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation.

1. Steel Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E1514. 2. Aluminum Panel Systems (Alternate): Unless more stringent requirements are indicated, comply with ASTM

B. Vertical-Rib, Seamed-Joint, Standing-Seam Metal Roof Panels: Formed with vertical ribs at panel edges and a flat

pan between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and mechanically seaming panels together with 180 degree bend. C. Vertical-Rib, Snap-Joint, Standing-Seam Metal Roof Panels (contractor opinion): Formed with vertical ribs at panel

edges and a flat pan between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and snapping panels together. 1. Metallic-Coated Steel Sheet: Aluminum-zinc alloy-coated steel sheet complying with ASTM A792/A792M

Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A755/A755M.

a. Nominal Thickness: Not less than 0.028 inch (1.2 mm).

b. Exterior Finish: Two-coat fluoropolymer.

c. Color: As selected by Architect from manufacturer's full range. 2. Aluminum Sheet (Alternate): Coil-coated sheet, ASTM B209, alloy as standard with manufacturer, with temper

as required to suit forming operations and structural performance required. a. Thickness: Not less than 0.032 inch.

b. Surface: Smooth, flat finish.

c. Exterior Finish: Two-coat fluoropolymer.

d. Color: As selected by Architect from manufacturer's full range.

3. Clips: Two-piece floating to accommodate thermal movement.

a. Material: 0.0625-inch (1.2 mm)-thick, stainless steel sheet.

4. Join Type: Double folded or snap seam. 5. Panel Coverage: 16 to 18 inches.

6. Panel Height: 1.5 to 3.0 inches.

2.3 UNDERLAYMENT MATERIALS

A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 30 mils thick, consisting of slip-resistant, polyethylene-film top surface laminated to a layer of butyl or SBS-modified asphalt adhesive, with release-paper backing. Provide primer when recommended by underlayment

1. Thermal Stability: Stable after testing at 240 deg F; ASTM D1970.

2. Low-Temperature Flexibility: Passes after testing at minus 20 deg F; ASTM D1970.

2.4 MISCELANEOUS MATERIALS

A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other

miscellaneous items as required for a complete roofing system and as recommended by fabricator for sheet metal roofing. B. Fasteners: 316 stainless steel self-tapping screws and other suitable fasteners designed to withstand design loads.

1. Exposed Fasteners: Heads matching color of sheet metal roofing by means of plastic caps or factory-applied coating. 2. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws with hex washer head.

3. Blind Fasteners: High-strength aluminum or stainless-steel rivets. C. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release-paper backing. Provide

permanently elastic, nonsag, nontoxic, nonstaining tape. D. Elastomeric Joint Sealant: ASTM C 920, of base polymer, type, grade, class, and use classifications required to produce joints in sheet metal roofing that will remain weathertight and as recommended by roll-formed sheet metal roofing manufacturer for installation

E. Expansion-Joint Sealant: For hooked-type expansion joints, which must be free to move, provide nonsetting, nonhardening, nonmigrating, heavy-bodied polyisobutylene sealant.

2.5 ACCESSORIES

A. Sheet Metal Roofing Accessories: Provide components required for a complete sheet metal roofing assembly including trim, copings, fasciae, corner units, ridge closures, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of sheet metal roofing, unless otherwise indicated.

1. Closures: Provide closures at eaves and ridges, fabricated of same metal as sheet metal roofing.

2. Clips: Minimum 0.0625-inch- (1.6-mm-) thick, stainless-steel panel clips designed to withstand negative-load requirements. B. Flashing and Trim: Formed from 0.0239-inch thick, zinc-coated (galvanized) steel sheet or aluminum-zinc alloy-coated steel sheet prepainted with coil coating. Provide flashing and trim as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent sheet metal roofing.

C. Pipe Flashing: Premolded, EPDM pipe collar with flexible aluminum ring bonded to base.

recommended by manufacturers of dissimilar metals or by fabricator.

and levels indicated, with exposed edges folded back to form hems.

2.6 FABRICATION

A. Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

C. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements. D. Fabricate sheet metal roofing to allow for expansion in running work sufficient to prevent leakage, damage, and deterioration of the Work. Form exposed sheet metal work to fit substrates without excessive oil canning, buckling, and tool marks, true to line and levels

indicated, and with exposed edges folded back to form hems. 1. Form and fabricate sheets, seams, strips, cleats, valleys, ridges, edge treatments, integral flashings, and other components of metal roofing to profiles, patterns, and drainage arrangements shown and as required for leakproof construction.

E. Sealant Joints: Where movable, nonexpansion-type joints are indicated or required to produce weathertight seams, form metal to

provide for proper installation of elastomeric sealant, in compliance with SMACNA standards F. Metal Protection: Where dissimilar metals will contact each other, protect against galvanic action by painting contact surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as

G. Sheet Metal Accessories: Custom fabricate flashings and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated. Obtain field measurements for accurate fit before shop fabrication

2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.

3. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed,

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line

4. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA 5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories

6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" for application but not less than thickness of

metal being secured.

exposed to view.

2.7 FINISHES, GENERAL A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of

the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other

components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin

D. Steel Panels and Accessories: 1. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF)

manufacturers' written instruction for seacoast and severe environments. 2. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish

consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil. E. Aluminum Panels and Accessories (Alternate): 1. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF) resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin

manufacturers' written instructions for seacoast and severe environments.

PART 3 - EXECUTION

3.1 EXAMINATION A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, sheet metal roofing supports, and other conditions affecting performance of work.

members and anchorages have been installed. 2. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within

1. Examine primary and secondary roof framing to verify that rafters, purlins, angles, channels, and other structural panel support

3. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored, and that provision has been

made for flashings, and penetrations through sheet metal roofing. 4. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.

B. Examine roughing-in for components and systems penetrating sheet metal roofing to verify actual locations of penetrations relative to seam locations of sheet metal roofing before sheet metal roofing installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION A. Install flashings and other sheet metal to comply with requirements specified in Division 7 Section "Sheet Metal Flashing and Trim." B. Install fasciae and copings to comply with requirements specified in Division 7 Section "Sheet Metal Flashing and Trim."

C. Self-Adhering Sheet Underlayment: Install self-adhering sheet underlayment, wrinkle free, on roof sheathing under sheet metal

roofing. Apply primer if required by underlayment manufacturer. Comply with temperature restrictions of underlayment manufacturer

for installation; use primer rather than nails for installing underlayment at low temperatures. Apply at locations indicated below, in shingle fashion to shed water, with end laps of not less than 6 inches (150 mm) staggered 24 inches (600 mm) between courses.

3.3 UNDERLAYMENT INSTALLATION

1. Entire roof surface area D. Install flashings to cover underlayment to comply with requirements specified in Division 7 Section "Sheet Metal Flashing and Trim."

Overlap side edges not less than 3-1/2 inches (90 mm). Roll laps with roller. Cover underlayment within 14 days.

E. Apply slip sheet over underlayment before installing sheet metal roofing where recommended by panel manufacturer.

WILLIAM P. HORN ARCHITECT, P.A.

915 EATON ST.

KEY WEST, FLORIDA

33040

TEL. (305) 296-8302

LICENSE NO.

AR 13537

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FERRY TERMINAL RENOVATION

100 Grinnell Street

KEY WEST, FLORIDA.

THESE DRAWINGS MAY NOT BE REPRODUCED WITHOUT WRITTEN **AUTHORIZATION BY**

WILLIAM P. HORN

REVISIONS

07-05-2024 BID

DRAWN BY

EMA

2312

FERRY TERMINAL RENOVATION 100 Grinnell Street KEY WEST, FLORIDA

WILLIAM P. HORN Provide paint as shown with all materials by Benjamin Moore subject to compliance with requirements, other equal paint manufacturers areas follows: 3.4 INSTALLATION, GENERAL 1.5 SUBMITTALS 3.3 ADJUSTING A. Install metal panels in accordance with high wind zone approval installation instructions. 1. PPG Architectural Finishes, Inc. ARCHITECT . P.A. A. Comply with Division 01. A. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect. B. Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. 2. Sherwin-Williams Company Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of B. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by B. Product Data: Submit manufacturer's product data, including installation instructions. 3. Glidden Professional the Work securely in place, with provisions for thermal and structural movement. Colors and finish shall be selected by owner: C . Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, and details, indicating 1. Shim or otherwise plumb substrates receiving metal panels. 3.4 CLEANING Exterior wood: 915 EATON ST. dimensions, materials, components, fasteners, finish, and accessories. 2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin Primer:Spot prime Knots & surrounding area w/Bin Schulac D. Samples: Submit manufacturer's sample of materials. A. Clean materials promptly after installation in accordance with manufacturer's instructions. installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are KEY WEST, (1 coat) Fresh start 100% Acrylic Superior Primer #046, VOC = 44 g/L 1. Sample Length: Minimum 5-1/2 inches. B. Do not use harsh cleaning materials or methods that could damage finish.Moorgard 100% Acrylic Low Lustre House Paint #W103, VOC = 50 g/L 3. Install screw fasteners in predrilled holes. E. Color Samples: Submit manufacturer's color samples of materials, consisting of complete color chart representing FLORIDA 3.5 PROTECTION manufacturer's full range of available colors. 4. Locate and space fastenings in uniform vertical and horizontal alignment. (2 coats) 33040 1. Submit metal chips of specific colors as requested by the Architect. A. Protect installed materials to ensure that, except for normal weathering, materials will be without damage or deterioration at Exterior Fiber cementitious siding and trim: 5. Install flashing and trim as metal panel work proceeds. time of Substantial Completion. F. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and Primer.....Pre-primed 6. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and Finish:.....Mooregard 100% Acrylic Low Lustre House Paint #W103 trim around openings and similar elements with self-tapping screws. G. Warranty Documentation: Submit manufacturer's standard warranty. TEL. (305) 296-8302 or Moorlife 100% Acrylic Flat House Paint #W105 VOC = 50 g/L 7. Provide weathertight escutcheons for pipe- and conduit-penetrating panels. A. Siliconized Acrylic Caulk - 25 years, paintable, non-staining, mildew resistant. For interior and exterior use, wood and 1.6 QUALITY ASSURANCE masonry, as a filler for cracks voids and holes in preparation for paint or other finish. - See existing wood preparation. (2 coats) FAX (305) 296-1033 C. Fasteners: A. Manufacturer Qualifications: A qualified manufacturer offering products meeting requirements that are ANSI/SPRI B. Polyseamseal all purpose adhesive caulk, paintable, non-staining, mildew resistant. For interior and exterior use as a filler and 1. Steel Roofing: Use 316 stainless-steel fasteners. Exterior stucco or Masonry: (to be painted) FM4435 ES -1 tested. Manufacturer regularly engaged in the manufacturing of materials of similar type to that specified joint seal at tile, tub and counters. 2. Aluminum Roofing: Use 316 stainless-steel fasteners. for a minimum of 10 years. Products shall be manufactured in specified manufacturer's facilities. Products fabricated by Primer:.....Super Spec Masonry Interior/Exterior 100% Acrylic Masonry Sealer LICENSE NO. C. Silicone Rubber Sealant - FSTT-S-001543, class A, one part non-sag low modules silicone rubber sealant. For interior and D. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic installer or other fabricator will not be acceptable unless fabricator can demonstrate to Architect's satisfaction that exterior use in working joints where some movement is anticipated, wood, masonry, metal and glass. #608 VOC = 46 g/L . Use Moore's High Build Acrylic Masonry Primer AR 13537 action by painting contact surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each products have been tested and passed SPRI RE-1, RE-2 and RE-3 Wind Design Standard and meet specified design #N609 VOC= 46 g/L for very porous conditions. Provide backer rod depth control in all joints in excess of 1/4" contact surface, or by other permanent separation as recommended by fabricator of sheet metal roofing or pressures for perimeter and corner zones. Finish:.....(2 coats) Regal select Flat Finish #N400 or Regal select Soft Gloss Finish D. All interior architectural caulks and sealants to have a VOC limit of 250 g/L. manufacturers of dissimilar metals. B. Installer's Qualifications #N403 VOC = 50 g/L. **DIVISION 8 - DOOR AND WINDOWS** E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of 1. Installer regularly engaged in installation of materials of similar type to that specified for a minimum of 5 years. leakage. Cover and seal fasteners and anchors as required for a tight installation. Doors and windows shall be impact resistant and meet wind pressures required by code. Unless otherwise noted, place windows and 2. Use persons trained for installation of materials of similar type to that specified following manufacturer's Galvanized metal and Aluminum (Non Ferrous Metal) doors flushed to the inside face of the wall and add required trim and sill to outside of wall. F. Fascia: Align bottom of sheet metal roofing and fasten with blind rivets, bolts, or self-tapping screws. Flash and installation instructions. Clean surfaces with Super Spec HP oil and grease emulsifier (P83) to remove contaminants seal sheet metal roofing with weather closures where fasciae meet soffits, along lower panel edges, and at 08100 - Doors and Windows shall be manufactured units designed and installed to allow a maximum of 0.5 CFM infiltration per linear C. Testing: Meet specified testing requirements. Primer:.....One coat Super Spec HP D.T.M. Acrylic Semi-Gloss #HP29 VOC = 148 g/L perimeter of all openings foot of operable sash crack and a maximum 0.5 CFM per sq.ft.of exterior door area. Units shall be gasketed, weather-stripped or Finish:.....One coat Super Spec HP D.T.M. Acrylic Semi-Gloss #HP29 VOC = 148 g/L 1.7 DELIVERY, STORAGE, AND HANDLING G. Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer. 08101 - All doors in fire rated walls to be fire rated (3/4 hour for a 1-hour rated wall, 1 ½ hour for a 2-hour wall) and have door closures. A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging. Gypsum Board: 1. Install clips to supports with self-tapping fasteners. 08110 - Standard steel doors and frames: Primer:....Fresh start 100 % Acrylic Superior Primer #046 VOC = 44 G/l. B. Storage and Handling Requirements: 2. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging A. Manufacturers, Basis of Design Product: Subject to compliance with requirements, provide Steelcraft H series single and 1. Store and handle materials in accordance with manufacturer's instructions. double flush outswing doors (NOA 23-0821.18+ NOA 23-0821.19) by Schlage Lock Company, LLC. or a comparable product Finish:............2 coats Regal. Select Matte Finish #N548 or Flat #N547, VOC = 48g/L 2. Keep materials in manufacturer's original, unopened containers and packaging until installation. but are not limited to one of the following: 3. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof Ceilings......Waterborne Ceiling Paint #508, VOC = 50 g/L 3. Store materials in clean, dry area indoors. panel, and factory-applied sealant are completely engaged. 1. Ceco Door: ASSA ABLOY FERRY TERMINAL (2 coats) 4. Do not store materials directly on floor or ground. 4. Watertight Installation: 2. Curries Company; ASSA ABLOY RENOVATION 5. Protect materials and finish during storage, handling, and installation to prevent damage. Structural Steel and Iron: (Ferrous Metal) 3. Fleming Door Products Ltd.; Assa Abloy Group Company a. Apply a continuous ribbon of sealant or tape to seal joints of metal panels, using sealant or tape as 1.8 WARRANTY Primer and Finish...2 Coats Super Spec HP D.T.M. recommend in writing by manufacturer as needed to make panels watertight. 4. Steelcraft; an Allegion brand. 100 Grinnell Street A. Warranty Period, Product: Acrylic Semi-Gloss #HP29, VOC = 45 g/L B. Doors: seamless composite construction standard steel doors for interior and exterior locations (galvanized G90). Doors to be b. Provide sealant or tape between panels and protruding equipment, vents, and accessories. KEY WEST, FLORIDA. 1. Coping: 20 years provided by the Manufacturer of the roofing membrane as a Full provided in the types and styles indicated, and in accordance with ANSI/SDI-100, GRADE III, extra heavy duty, w/minimum 16 System 20 Year NDL Warranty gauge galvanized steel faces. Comply with the applicable requirements of ANSI A115 Series specifications for door and Natural-Finish Woodwork: 3.5 ACCESSORY INSTALLATION Primer.....Benwood stays clear Acrylic Polyurethane frame, preparation for hardware. B. Warranty Period, Finish: High Gloss #W422, VOC = 250 g/L (1 coat) A. General: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal C. Frames to be minimum 16 gage at interior locations and 14 gage at exterior locations, galvanized steel with mitered; welded 1. Limited 30-year warranty for prefinished coil-coated steel and aluminum coated expansion. Coordinate installation with flashings and other components. Finish...... Benwood stays clear Acrylic Polyurethane construction, and concealed anchors to suite wall construction. with Kynar 500 standard colors covering fade, chalk, and film integrity. High Gloss #W422, VOC = 250 g/L (2 coats) 1. Install components required for a complete sheet metal roofing assembly including trim, copings, ridge D. Doors and frames shall be factory primed for field painting. PART 2 - PRODUCTS closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. E. Shop drawing submittal showing fabrication, installation, anchorage and Label Construction Certification of fire-rated Powder Coat Paint Finish System: (Applied in Shop) B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and 2.1 MANUFACTURERS assemblies, is required for approval prior to any fabrication or delivery of material. SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to 1. Electrostatically applied colored polyester powder coating heat cured to chemically bond finish to metal substrate. 08530 - Aluminum Storefront and Doors: provide a completed pre-engineered, pre-finished aluminum store front system, including A. Manufacturer: Metal-Era provided by Seaman Corporation, 1600 Airport Road, Waukesha. Wisconsin 53188. line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather 2. Minimum hardness measured in accordance with ASTM D3363: 2H. mpact resistant insulated, missle level 'E" and low E-glass, aluminum framed systems, including anchorage, capable of withstanding all Phone 800-558-2162. Fax 800-373-9156. www.metalera.com. info@metalera.com. 3. Direct impact resistance tested in accordance with ASTM D2794. Withstand 160 inch-pounds. required loads including wind, impact (large and small missile) and thermal movements. Provide full shop drawings, Signed and Sealed B. Substitutions: Roofing manufacturer must comply in all respects to the specified roofing membrane ASTM 1. Install exposed flashing and trim that is without excessive oil canning, buckling, and tool marks and that is by a Florida Registered Engineer, showing all unit sizes and shape, details of all section profiles and N.O.A. #'s of Systems. Provide 4. Salt spray resistance tested in accordance with ASTM B117: No undercutting, rusting, or blistering after 500 hours in 5 percent salt spray at 95 degrees F and 95 percent standards and local building code to be considered for equivalency. true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing relative humidity and after 1000 hours less than [3/16 inch] [5 mm] undercutting. manufacturers 10 years warranty. and trim to fit substrates and to result in waterproof and weather-resistant performance. 5. Weatherability tested in accordance with ASTM D822: No film failure and 88 percent gloss retention after 1 year exposure in South Florida with test panels tilted at 45 degrees. C. Requests for substitutions will be considered in accordance with the provisions of this Section and Product Manufacturers 2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints 6. Firm with manufacturing and delivery capacity required for the project, shall have successfully completed at least ten projects within the past five years, utilizing finish systems, Requirements. A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (600 mm) of corner or intersection. and techniques as herein specified 2.2 PRODUCTS the Work include, but are not limited to, the following: Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather 7. Supplier must own and operate its own Painting and Finishing facility to assure single source responsibility and quality control B. Basis od Design Product: The design for aluminum-framed systems is based on Aldora Series front set and series summit for doors. A. Copings: Metal-Era Perma-Tite Coping resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) 8. All materials shall be protected during finishing, shipment, site storage and erection to prevent damage to the finished work from other trades. Store materials inside a Subject to compliance with requirements, provide the named product or a comparable product, including but not limited to products by well-ventilated area, away from uncured concrete and masonry, and protected from the weather, moisture, soiling, abrasion, extreme temperatures, and humidity. deep, filled with mastic sealant (concealed within joints). 1. Version: Tapered for Parapet Walls and Flat for Gables. one of the following: 9. Clean all surfaces following installation. If necessary use only a mild soap or detergent solution such as TSP-90 or Ivory with a soft cloth to remove dirt and hand prints. Black C. Pipe Flashing: Form flashing around pipe penetration and sheet metal roofing. Fasten and seal to sheet metal 2. Cover Material: 0.040 aluminum, Standard Color, 1. EFCO Corporation handling marks can be removed using a mixture of isopropyl alcohol and an abrasive cleanser like Comet. Replace units having scratches, abrasions, or other defects, with roofing as recommended by manufacturer. 3. Cover Formed Lengths: 12'-0". Kawneer 4. Concealed Splice Plates: 8 inches wide; with factory-applied, dual, non-curing, isocryl butyl sealant strips at 09940 - Existing wood preparation: Contractor to remove and replace all rotted or damaged wood to match existing (use pressure treated wood). Splice in new boards as inconspicuously 3.6 ERECTION TOLERANCES 3. United States Aluminum as possible and stagger joints as required. Scrape all loose paint of existing wood surfaces, sand smooth prior to prime coat paint. (see paint specification). After prime coat, caulk all A. Installation Tolerances: Shim and align sheet metal roofing within installed tolerance of 1/4 inch in 20 feet (6 mm in 4. Oldcastle Building Envelope, Inc. seams, joints and holes as required prior to finish coats (see sealant specifications). 5. Anchor Clips: 16-gauge stainless steel. Inside Face: Indicated on the Drawings. of matching profiles. Pre-finished organic coating: 3 coat, thermocured system, inhibitive primer, fluoropolymer colorcoat and clear fluoropolymer top coat. 10200 - Aluminum louvers: provide aluminum stormproof and impact resistant louvers with factory fluoropolymer three-coat coating system finish as shown on elevation drawing. Louver 7. Outside Face: Minimum four (4) inches or as indicated on the Drawings. to be horizontal drainable stormproof fixed blade louvers with extruded aluminum frames and stormproof blades. Louver depth of 6 inches min 08710 - Hardware: Furnish and install complete hardware for each condition as manufactured by Schlage; Yale or approved equal. 8. Horizontal Space Provided for Wall Size Variations: 3/8 inch, inside face. 3.7 CLEANING AND PROTECTION ANSI grade 1 or better for heavy commercial use. Finish and style to be selected. All exterior installations to be salt resistant and Extruded aluminum to conform to ASTM B 221, Alloy 6063-t5 or t-52 or T6, fasten louver with non corrosive compatible materials. Provide N.O.A. of Systems. 9. All fasteners shall be supplied by specified manufacturer and installed per manufacturer's A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering. suitable for use in a coastal salt water environment. Manufacturers B. Clean and neutralize flux materials. Clean off excess solder and sealants. written instructions. 08810 - Glass and Glazing provide impact resistant of type required by code for size and location called for. Glazing shall be gasketed Basis of Design Products: Louver designs are based on the products indicated. Subject to compliance with requirements, provide the named product or a comparable product, including C. Remove temporary protective coverings and strippable films, if any, as sheet metal roofing is installed. On 10. FM approved for wind uplift protection or otherwise sealed. Provide safety glass where required by code, and where shown on drawings. All commercial storefront to be but not limited to, products by the following manufacturers: completion of sheet metal roofing installation, clean finished surfaces, including removing unused fasteners, metal tempered safety glass and be of thickness as shown on drawing and required by code. All glass shall have a low E coating. 11. ANSI/SPRI GT-1, 150 psf: 0.040-inch aluminum. 1. Fixed Horizontal Louvers: prefinished aluminum louvers to provide full impact resistance. filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction. **DIVISION 9 - FINISHES** 2.3 FINISHES a. Basis of Design Product: Ruskin Company - model EMES20MD D. Replace panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar 09220- Stucco - Comply with ASTM C 926 for Portland cement base and finish coat mixes using Portland cement - ASTM C 150. 1. Finish: Kynar 500 - Airolite Company (The) minor repair procedures. masonry cement, lime - ASTM C 206, and sand ASTM C 897. Provide min. of three coat system w/scratch coat, brown coat, and finish 2. Color: Selected by Owner's Representative from Standard Color Chart. - American Warming and Ventilating, Inc. 077100 - Roof Specialities: coat. Finish coat shall consist of 1 part Portland cement, 1-1/2 to 2 parts lime, 3 parts sand. Additional base layers may be applied to achieve desired thickness over expanded metal galvanized lath. Provide control joints @ max. 12' to 16' vertically and horizontally, Part 1 GENERAL corners of wall penetrations (coordinate with architect), and at all substrate exp. joints or change of materials. Provide accessories of A. Factory-Fabricated Perma-Tite Coping Accessories - Nystrom Building Products 1.1 SECTION INCLUDES high impact poly vinyl chloride, to include stops casing beads, one and two piece control joints (two piece where movement is required) Miters: - Reliable Products; Hart & Cooley, Inc. A. Copings and corner bead. Expanded metal galvanized lath over a membrane air, moisture barrier shall be provided over all non masonry B. Fascia a. Outside Miters: 90 degrees. substrates. Stucco finish shall go on all concrete or masonry exterior surfaces unless otherwise noted to be skim coat stucco or just - Ruskin Company; Tomkins PLC THESE DRAWINGS MAY NOT BE REPRODUCED **DIVISION 11 - EQUIPMENT - NOT USED** b. Inside Miters: 90 degrees. C. Gutters WITHOUT WRITTEN 09900 - Painting - This section includes surface preparation, painting, and finishing of exposed interior and exterior items and surfaces. **DIVISION 12, 13 & 14 - NOT USED** c. Transition miters. D. Downspouts **AUTHORIZATION BY** Surface preparation, priming, and finish coats specified in this section are in addition to shop priming and surface treatment specified **DIVISION 14 - CONVEYING EQUIPMENT** d. Straight transition miters. WILLIAM P. HORN E. Counter Flashings 1.2 RELATED REQUIREMENTS e. T-miters. 142400 - Hydraulic Elevators A. Paint exposed surfaces whether or not colors are designated in "schedules", except where a surface or material is specifically SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ELEVATOR SYSTEM BY MOWERY - ME200H STANDARD HYDRAULIC ELEVATOR (HOLELESS), OR A. Section 07 54 16 - Single Ply KEE Roofing Systems f. Z-miters. indicated not to be painted or is to remain natural. Where an item or surface is not specifically mentioned, paint the same as COMPARABLE PRODUCT BY ONE OF THE FOLLOWING similar adjacent materials or surfaces. If color or finish is not designated, the architect will select from standard colors or 1.3 REFERENCE STANDARDS g. Step-up miters. 1. OTIS ELEVATOR CO. A. Factory Mutual (FM Global) (www.fmglobal.com): h. Peak/valley miters 07-05-2024 BID 2. THYSSENKRUPP ELEVATOR 1. Painting includes field painting exposed bare and covered pipes and ducts (including color coding), hangers, exposed steel 1. FM 1-49 10.Endcaps: and iron work, and primed metal surfaces of mechanical and electrical equipment. 3. SCHINDLER ELEVATOR CORP. B. Single Ply Roofing Industry (SPRI) (<u>www.spri.org</u>): Right endcaps. 2. Painting is not required on prefinished items, finished metal surfaces, concealed surfaces, operating parts, and labels. TWO STOP, FRONT OPENING, 2500 LB. CAPACITY, 125 FPM, 11'-6" TRAVEL, 2-STOPS 1. ANSI/SPRI/FM 4435/ES-1 - Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems. RE-1, b. Left endcaps. 3. Labels: do not paint over Underwriter's Laboratories, Factory Mutual or other code-required labels or equipment name, 12'-3" CLEAR OVERHEAD (TO HOIST BM.) RE-2 and RE-3 Test. 11. Endwall Flashings, Coping Version: identification, performance rating, or nomenclature plates. COORDINATE ALL DETAILS OF THE INSTALLATION WITH THE ELEVATOR MANUFACTURER PRIOR TO CONSTRUCTION C. International Building Code (IBC) (https://codes.iccsafe.org): Right endwall flashings. B. Submit Data: Manufacturer's technical information, label analysis, and application instructions for each material proposed for PROVIDE A COMPLETE SHOP DRAWING SUBMITTAL FOR REVIEW INCLUDING ALL DETAILS OF CONSTRUCTION, ELECTRICAL REQUIREMENTS AND SAFETY FEATURES 1. Chapter 15, Section 1504.6 Edge Securement for low-slope roofs. (2021 IBC) b. Left endwall flashings. REVISIONS PROVIDE ALL REQUIRED FEATURES INCLUDING; 2. Chapter 15, Section 1504.6.1 Gutter Securement for low-slope roofs. (2021 IBC) 1. List each material and cross-reference the specific coating and finish system and application. Identify each material by the 12. Pilaster caps. 3. Designed and installed for wind loads in accordance with Chapter PIT - WITH ACCESS LADDER, PIT LIGHT, ELEC. OUTLET, SUMP AND SUMP PUMP. manufacturer's catalog number and general classification. 13. Accessory Type: Quicklock SHAFT - WITH RAIL SUPPORT, PENETRATIONS, HOIST BM., INFILL AT JAMBS AND SILLS AND MISC. WORK REQUIRED FOR A COMPLETE FINISH INSTALLATION. D. American Society of Civil Engineers (ASCE-7) Minimum Design Loads for Buildings & Other Structures 2. Samples for initial color selection in the form of manufacturer's color charts. MACHINE ROOM - WITH VENTILATION/COOLING (COORD. W/ MECH. ENG.) 1. Chapter 26, Wind Loads: General Requirements C. Provide samples of each color and materials to be applied, with texture to simulate actual conditions, or representative Part 3 EXECUTION 2. Chapter 30, Wind Loads: Components and Cladding COMPLY WITH ALL REQUIRED FIRE DEPARTMENT REQUIREMENTS. samples of actual substrate. Define each separate coat, including block fillers and primers. Use representative colors when 3.1 EXAMINATION preparing samples for review. Resubmit until required sheen, color, and texture are achieved. E. Miami-Dade County, Florida Notice of Acceptance (NOA) ALL FEATURES SHALL COMPLY WITH STATE OF FLORIDA AND ADA HANDICAPPED REQUIREMENTS AND SHALL BE STRETCHER ACCESSIBLE. 1. Provide a list of material and application for each coat of each sample. Label each sample as to location and application. **INFORMATIONAL SUBMITTALS** A. Examine areas to receive materials. 1.4 PREINSTALLATION MEETINGS DRAWN BY D. Paints and coating used on the interior of the building (i.e., inside of the weather proofing system and applied on - site) shall A. QUALIFICATION DATA: FOR INSTALLER. B. Verify surfaces to support materials are clean, dry, straight, secure, and of proper dimensions. A. Convene preinstallation meeting 2 weeks before start of installation of materials. comply with the following criteria: B. MANUFACTURER CERTIFICATES: SIGNED BY ELEVATOR MANUFACTURER CERTIFYING THAT HOISTWAY, PIT, AND MACHINE ROOM LAYOUT AND DIMENSIONS, AS C. Notify Architect of conditions that would adversely affect installation. EMA 1. Architectural paints, coating and primers applied to interior walls and ceilings: B. Require attendance of parties directly affecting Work of this Section, including Contractor, Architect, installer, and SHOWN ON DRAWINGS, AND ELECTRICAL SERVICE, AS SHOWN AND SPECIFIED, ARE ADEQUATE FOR ELEVATOR SYSTEM BEING PROVIDED. D. Do not begin installation until unacceptable conditions are corrected. manufacturer's representative Do not exceed the VOC content limits established in the Green Seal Standard C. SAMPLE WARRANTY: FOR SPECIAL WARRANTY C. Review the Following: 3.2 INSTALLATION GS-11, Paints, First Edition, May 20, 1993. Primers must meet the VOC limit for **CLOSEOUT SUBMITTALS** Materials. non-flat paint. A. OPERATION AND MAINTENANCE DATA: FOR ELEVATORS TO INCLUDE IN EMERGENCY, OPERATION, AND MAINTENANCE MANUALS. A. Install materials in accordance with manufacturer's instructions at locations indicated on the Drawings. 2. Installation. Flats: 50 g/L 1. IN ADDITION TO ITEMS SPECIFIED IN SECTION 017823 "OPERATION AND MAINTENANCE DATA", INCLUDE DIAGNOSTIC AND REPAIR INFORMATION AVAILABLE B. Remove protective vinyl film immediately before installation. 2312 Adjusting. TO MANUFACTURER'S AND INSTALLER'S MAINTENANCE PERSONNEL. Non-Flats: 100 g/L C. Install materials to provide watertight termination at leading edge of roofing material. Cleaning. B. INSPECTION AND ACCEPTANCE CERTIFICATES AND OPERATING PERMITS: AS REQUIRED BY AUTHORITIES HAVING JURISDICTION FOR NORMAL, UNRESTRICTED 2. Anti-corrosive and anti-rust paints applied to interior ferrous substrates: Do not exceed the VOC content limit of 250 g/L D. Install materials to allow for thermal movement. Protection. **ELEVATOR USE.** established in Green Seal Standard GS-03, Anti-corrosive Paints, Second Edition, January 7, 1997. E. Joint Sealants: Apply joint sealants in accordance with manufacturer's instructions. Coordination with other Work. C. CONTINUING MAINTENANCE PROPOSAL: SUBMIT A CONTINUING MAINTENANCE PROPOSAL FROM INSTALLER TO OWNER, IN THE FORM OF STANDARD ONE-YEAR 3. Clear wood finishes, floor coatings, stains, primers, and shellacs applied to interior elements must no exceed the VOC content MAINTENANCE AGREEMENT, STARTING ON DATE INITIAL MAINTENANCE SERVICE IS CONCLUDED. STATE SERVICES, OBLIGATIONS, CONDITIONS, AND TENAS FOR limits established in South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect AGREEMENT PERIOD AND FOR FUTURE RENEWAL OPTIONS. on January 1, 2004.

A. MANUFACTURER'S SPECIAL WARRANTY: MANUFACTURER AGREES TO REPAIR, RESTORE, OR REPLACE ELEVATOR WORK THAT FAILS IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.

1. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, OPERATION OR CONTROL SYSTEM FAILURE, INCLUDING EXCESSIVE MALFUNCTIONS; PERFORMANCES BELOW SPECIFIED RATING; EXCESSIVE WEAR; UNUSUAL DETERIORATION OR AGING OF MATERIALS OR FINISHES; UNSAFE CONDITIONS; NEED FOR EXCESSIVE MAINTENANCE; ABNORMAL NOISE OR VIBRATION; AND SIMILAR UNUSUAL, UNEXPECTED, AND UNSATISFACTORY CONDITIONS.

2. WARRANTY PERIOD: FIVE YEAR(S) FROM DATE OF SUBSTANTIAL COMPLETION.

PERFORMANCE REQUIREMENTS

A. REGULATORY REQUIREMENTS: COMPLY WITH ASME A17.1/CSA B44.

B. ACCESSIBILITY REQUIREMENTS: COMPLY WITH SECTION 407 IN THE U.S. ARCHITECTURAL & TRANSPORTATION BARRIERS COMPLIANCE BOARD'S ADA-ABA ACCESSIBILITY GUIDELINES AND WITH ICC A117.1.

C. NONPROPRIETARY SYSTEMS AND EQUIPMENT: PROVIDE SYSTEMS AND EQUIPMENT THAT CAN BE SERVICES AND REPAIRED BY ALL MAJOR ELEVATOR REPAIR

ELEVATORS

1. CAR ENCLOSURES:

A. INSIDE HEIGHT: 92 INCHES TO UNDERSIDE OF CEILING. B. FRONT WALLS (RETURN PANELS): SATIN STAINLESS STEEL, NO. 4 FINISH WITH INTEGRAL CAR DOOR FRAMES.

C. CAR FIXTURES: POLISHED STAINLESS STEEL, NO. 8 FINISH.

D. SIDE AND REAR WALL PANELS: TEXTURED STAINLESS STEEL.

E. REVEALS: SATIN STAINLESS STEEL, NO. 4 FINISH.

F. DOOR FACES (INTERIOR): TEXTURED STAINLESS STEEL.

G. DOOR SILLS: ALUMINUM, MILL FINISH.

H. CEILING: SATIN STAINLESS STEEL, NO. 4 FINISH. I. HANDRAILS: 1/2 BY 2 INCHES RECTANGULAR SATIN STAINLESS STEEL, NO 4., AT REAR OF CAR.

J. FLOOR PREPARED TO RECEIVE RUBBER FLOOR TILE.

2. HOISTWAY ENTRANCES:

A. HEIGHT: 84 INCHES.

B. TYPE: SINGLE-SPEED SIDE SLIDING.

C. FRAMES: SATIN STAINLESS STEEL, NO. 4 FINISH.

D. DOORS: SATIN STAINLESS STEEL, NO. 4 FINISH.

E. SILLS: ALUMINUM, MIL FINISH.

OPERATION SYSTEMS

A. GENERAL: PROVIDE MANUFACTURER'S STANDARD MICROPROCESSOR OPERATION SYSTEM AS REQUIRED TO PROVIDE TYPE OF OPERATION INDICATED. B. AUXILIARY OPERATIONS: IN ADDITION TO PRIMARY OPERATION SYSTEM FEATURES, PROVIDE THE FOLLOWING OPERATIONAL FEATURES FOR ELEVATORS WHERE INDICATED:

1. SINGLE-CAR BATTERY-POWERED LOWERING: WHEN POWER FAILS, CAR IS LOWERED TO THE LOWEST FLOOR, OPENS ITS DOOR, AND SHUTS DOWN.

SYSTEM INCLUDES RECHARGEABLE BATTERY AND AUTOMATIC RECHARGING SYSTEM. 2. AUTOMATIC DISPATCHING OF LOADED CAR: WHEN CARLOAD EXCEEDS 80 PERCENT OF RATED CAPACITY, DOORS START CLOSING.

A. HOISTWAY ENTRANCE ASSEMBLIES: MANUFACTURER'S STANDARD HORIZONTAL-SLIDING, DOOR-AND-FRAME HOISTWAY ENTRANCES COMPLETE WITH TRACK

SYSTEMS, HARDWARE, SILLS, AND ACCESSORIES. FRAME SIZE AND PROFILE SHALL ACCOMMODATE HOISTWAY WALL CONSTRUCTION.

1. WHERE GYPSUM BOARD WALL CONSTRUCTION IS INDICATED, FRAMES SHALL BE SELF-SUPPORTING WITH REINFORCED HEAD SECTIONS. B. FIRE-RATED HOISTWAY ENTRANCE ASSEMBLIES: DOOR AND FRAME ASSEMBLIES SHALL COMPLY WITH NFPA 80 AND BE LISTED AND LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION BASED ON TESTING AT AS CLOSE-TO-NEUTRAL PRESSURE AS POSSIBLE ACCORDING TO NFPA 252 OR UL 10B.

1. FIRE-PROTECTION RATING: 1 1/2" HOURS.

MAINTENANCE

A. INITIAL MAINTENANCE SERVICE: BEGINNING AT SUBSTANTIAL COMPLETION, MAINTENANCE SERVICE SHALL INCLUDE 12 MONTHS' FULL MAINTENANCE BY SKILLED EMPLOYEES OF ELEVATOR INSTALLER. INCLUDE MONTHLY PREVENTIVE MAINTENANCE, REPAIR OR REPLACEMENT OF WORN OR DEFECTIVE COMPONENTS, LUBRICATION, CLEANING, AND ADJUSTING AS REQUIRED FOR PROPER ELEVATOR OPERATION. PARTS AND SUPPLIES SHALL BE MANUFACTURER'S AUTHORIZED REPLACEMENT PARTS AND SUPPLIES.

- 1. PERFORM MAINTENANCE DURING NORMAL WORKING HOURS.
- 2. PERFORM EMERGENCY CALLBACK SERVICE DURING NORMAL WORKING HOURS WITH RESPONSE TIME OF TWO HOURS OR LESS.

DIVISION 15 - MECHANICAL - SEE MECHANICAL DRAWINGS

DIVISION 16 - ELECTRICAL - SEE ELECTRICAL DRAWINGS

WILLIAM P. HORN

915 EATON ST.

KEY WEST,

FLORIDA

33040

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FAX (305) 296-1033

LICENSE NO. AR 13537

100 Grinnell Street KEY WEST, FLORIDA.

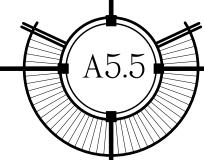
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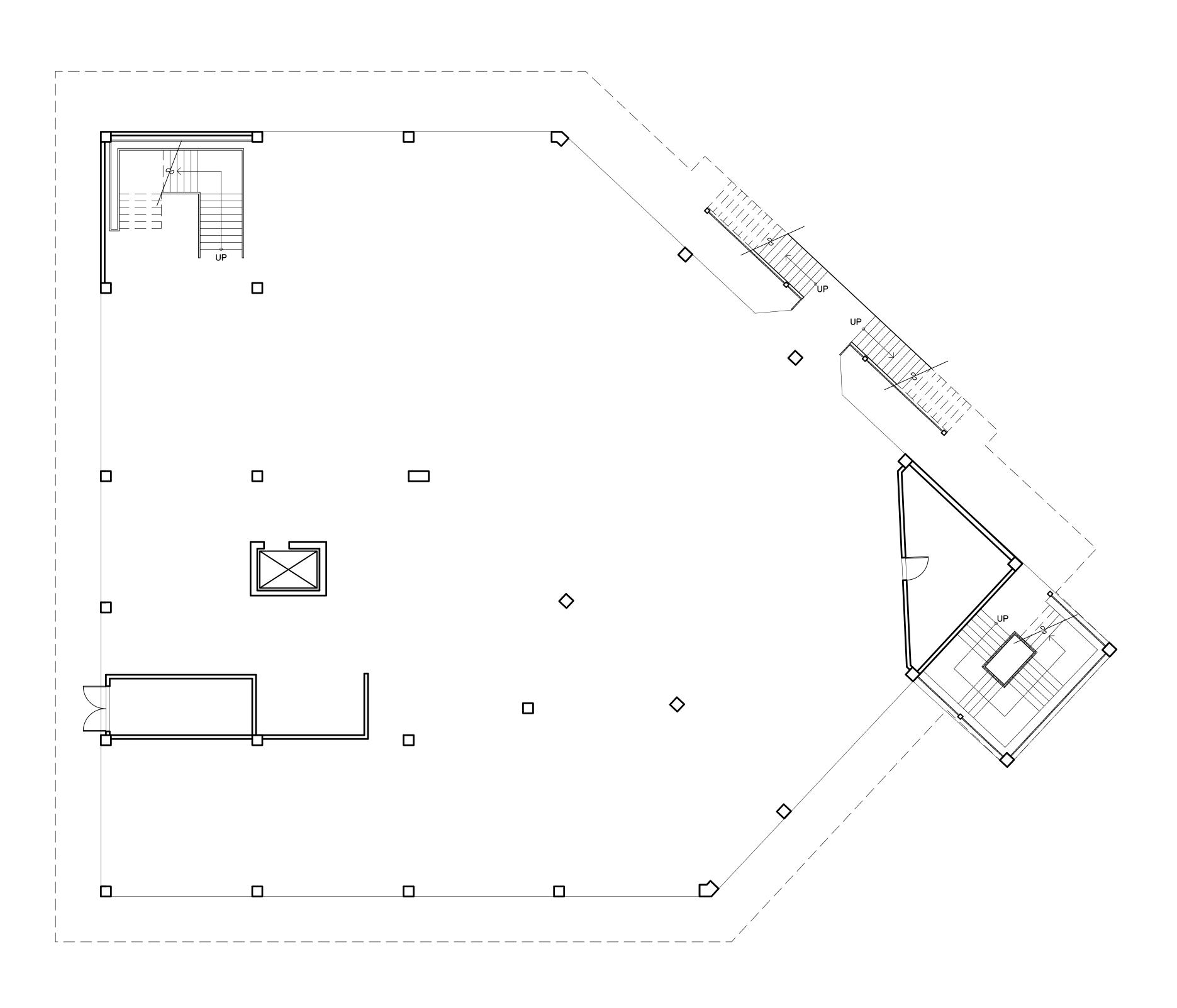
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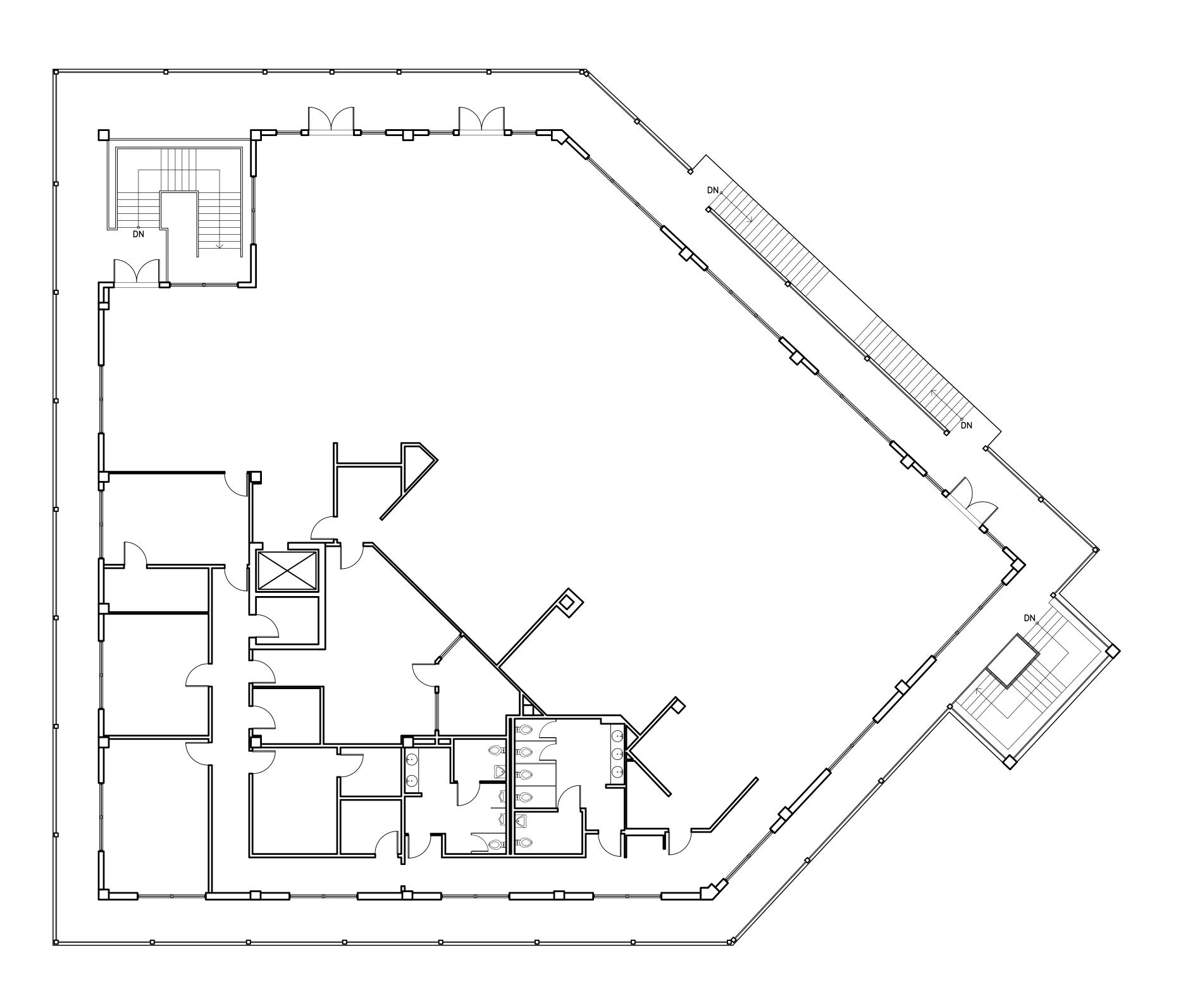
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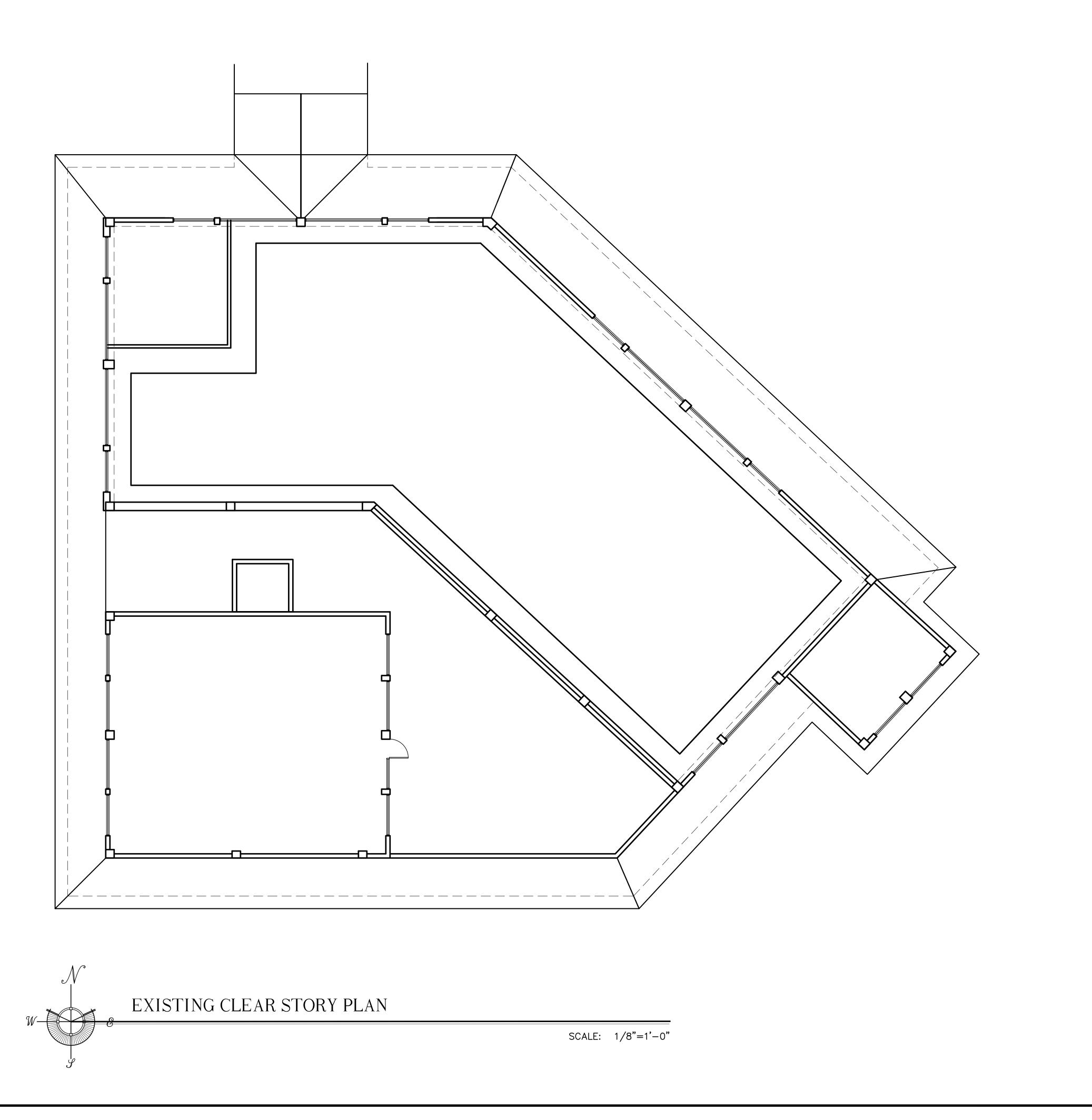
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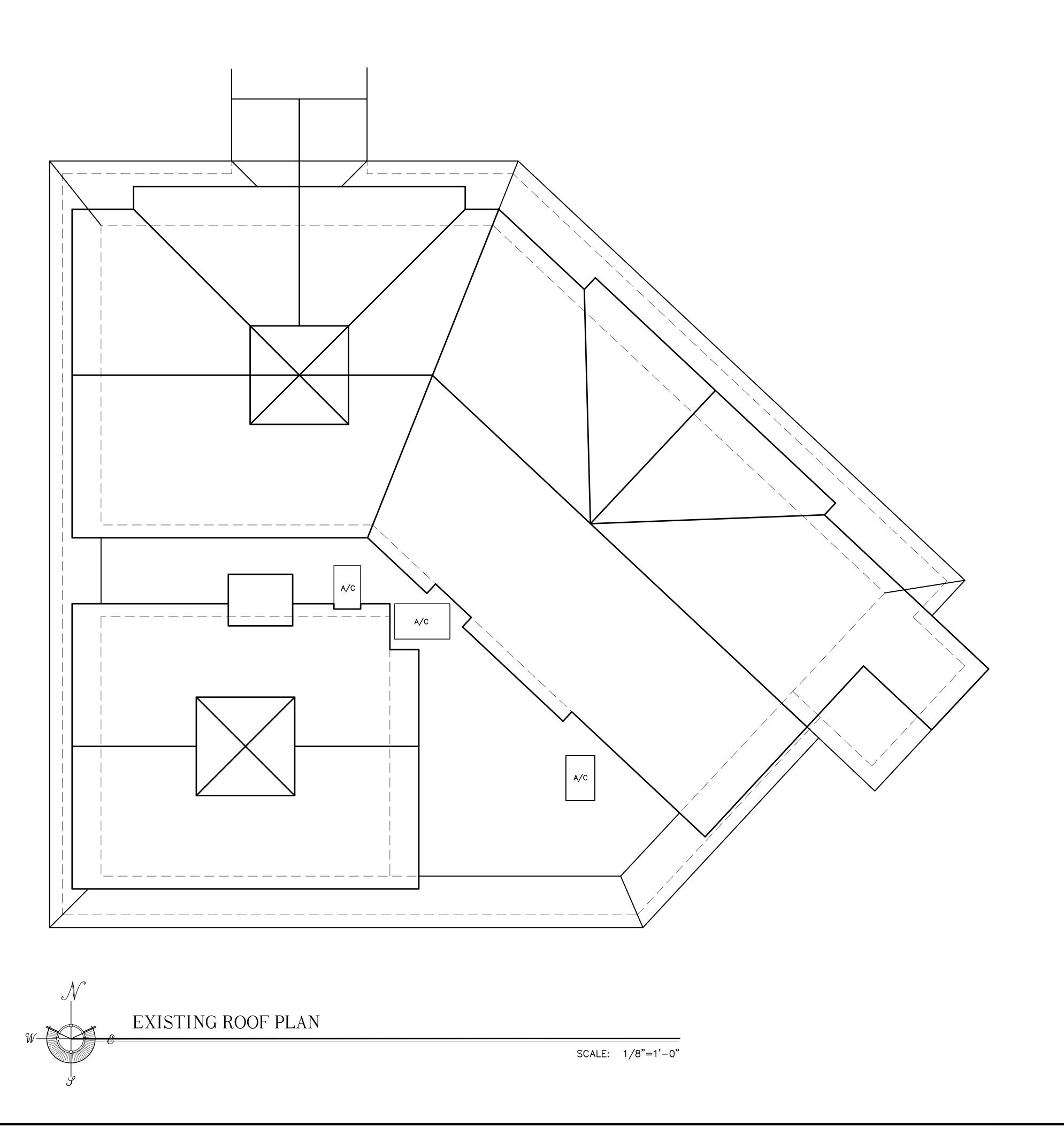
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WILLIAM P. HORN

ARCHITECT, P.A.

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NORTHWEST SIDE EX2.1



EAST SIDE EX2.1



EX2.1 EAST SIDE



6 NORTH SIDE

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ROOF PHOTO

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6 ROOF PHOTO

ROOF PHOTO

EX2.2 ROOF PHOTO

EX2.2

GENERAL REQUIREMENTS:

- 1. PRIOR TO STARTING ANY WORK THE CONTRACTOR SHALL REVIEW THESE PLANS AND SITE CONDITIONS AND NOTIFY THE ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.
- 2. THE ENGINEER IS NOT RESPONSIBLE FOR THE SUPERVISION OF THE CONTRACTOR NOR HIS EMPLOYEES DURING THE CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MEANS AND ESTABLISH METHODS OF THE CONSTRUCTION TO MEET REQUIREMENTS OF ALL APPLICABLE CODES, INDUSTRY STANDARDS AND REQUIREMENTS OF THESE PLANS.
- 3. QUALITY OF THE WORK SHALL MEET OR EXCEED INDUSTRY STANDARD PRACTICES.
- 4. ANY DEVIATIONS FROM THESE PLANS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER.

DESIGN DATA:

- 1. APPLICABLE BUILDING CODE: FBC BUILDING 8TH EDITION (2023)
- 2. APPLICABLE DESIGN LOADS: PER ASCI/SEI 7-22

FLOOR LIVE LOAD: 40 PSF

ROOF LIVE LOAD: 20 PSF (300 LB CONC.)

BASIC WIND SPEED: 200 MPH

EXPOSURE: D

STRUCTURAL RISC CATEGORY: III

FLOOD ZONE: N/A

ALL PRESSURES SHOWN ARE BASED ON ASD DESIGN,

WITH A LOAD FACTOR OF 0.6

3. ASCE 24-14 FLOOD RESISTANT DESIGN AND CONSTRUCTION

HARDWARE:

1. HARDWARE SHALL BE 316 STAINLESS STEEL OR BETTER OR ZMAX GALVANIZED FOR NON EXPOSED SIMPSON PRODUCTS, UNLESS OTHERWISE SPECIFIED.

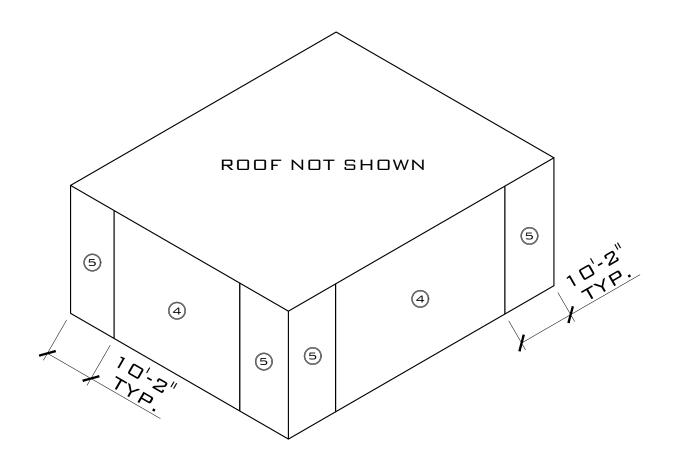
STRUCTURAL LUMBER:

- 1. ALL WOOD MEMBERS SHALL MEET OR EXCEED REQUIREMENTS SPECIFIED IN "ANSI/AF&PA NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION" AND ALL REFERENCED STANDARDS.
- 2. ALL WOOD MEMBERS SHALL BE PRESSURE TREATED SOUTHER PINE NO1 OR GREATER KILN DRIED AS SPECIFIED IN THE STANDARDS, UNLESS OTHERWISE SPECIFIED.
- 3. ALL WOOD MEMBERS EXPOSED TO EXTERIOR, IN DIRECT CONTACT WITH CONCRETE OR STEEL SHALL BE PRESSURE-TREATED (PT) UC3B GRADE PER AWPA STANDARDS.
- 4. ALL FIELD CUTS IN PT LUMBER SHALL BE TREATED ON SITE.
- 5. NAILING SHALL BE IN ACCORDANCE WITH FBC 8TH EDITION (2023). NAILS AND OTHER FASTENERS FOR PT WOOD SHALL BE STAINLESS STEEL OR ACQ APPROVED TREATED.
- 6. SHEATHING SHALL BE 5/8" PT CDX PLYWOOD SHEATHING GRADE, UNLESS OTHERWISE IS SPECIFIED ON THE PLANS. USE 10D RING-SHANK NAILS WITH SPACING OF 4" O.C. ON ALL EDGES AND 4" O.C. IN THE FIELD.

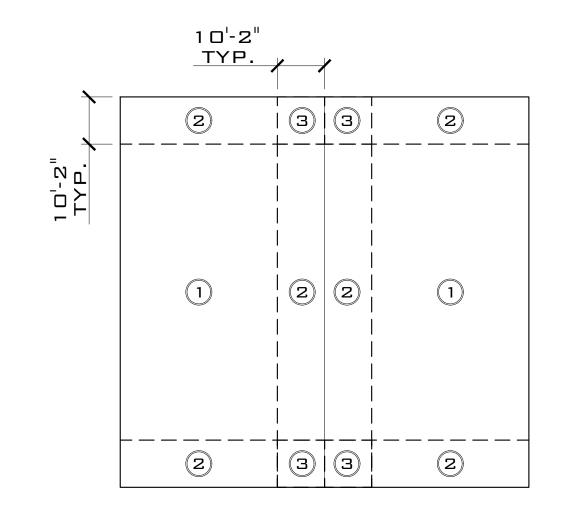
ENCLOSE	ENCLOSED - BUILDING - PITCHED ROOFS														
WIND PRESSURE ON COMPONENTS AND CLADDING (ASCE 7, CH 30 PART 1)															
DESCRIPTION	WIDTH, FT	SPAN, FT	AREA, FT2	MAX P, PSF	MIN P, PSF										
ZONE 1	1	1	1	+47.84	-133.69										
ZONE 2	1	1	1	+47.84	-176.62										
ZONE 3	1	1	1	+47.84	-231.82										
ZONE 4	1	1	1	+72.37	-78.50										
ZONE 5	1	1	1	+72.37	-96.90										

ENGESSED BOILDING FEAT ROOTS														
WIND PRESSURE ON COMPONENTS AND CLADDING (ASCE 7, CH 30 PART 1)														
DESCRIPTION	WIDTH, FT	SPAN, FT	AREA, FT2	MAX P, PSF	MIN P, PSF									
ZONE 1	1	1	1	+28.16	-63.35									
ZONE 1	1	1	1	+28.16	-110.28									
ZONE 2	1	1	1	+28.16	-145.47									
ZONE 3	1	1	1	+28.16	-198.26									
ZONE 4	1	1	1	N/A	N/A									
ZONE 5	1	1	1	N/A	N/A									

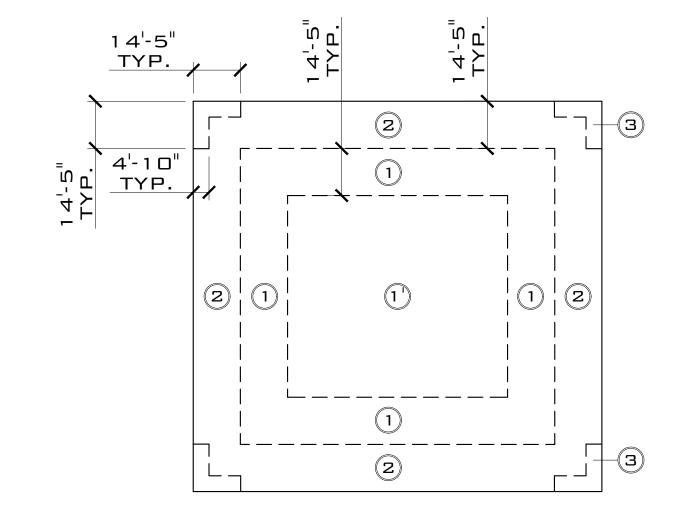
ENCLOSED - BUILDING - FLAT ROOFS



WALL WIND PRESSURE DIAGRAM
SCALE: NTS

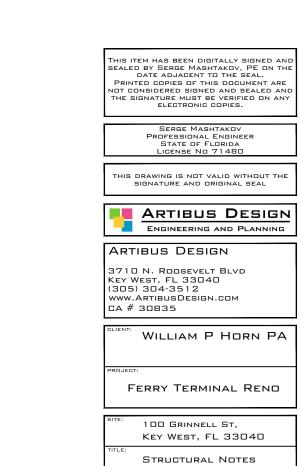


ROOF WIND PRESSURE DIAGRAM
PITCHED ROOFS
GABLE ROOFS
SCALE: NTS

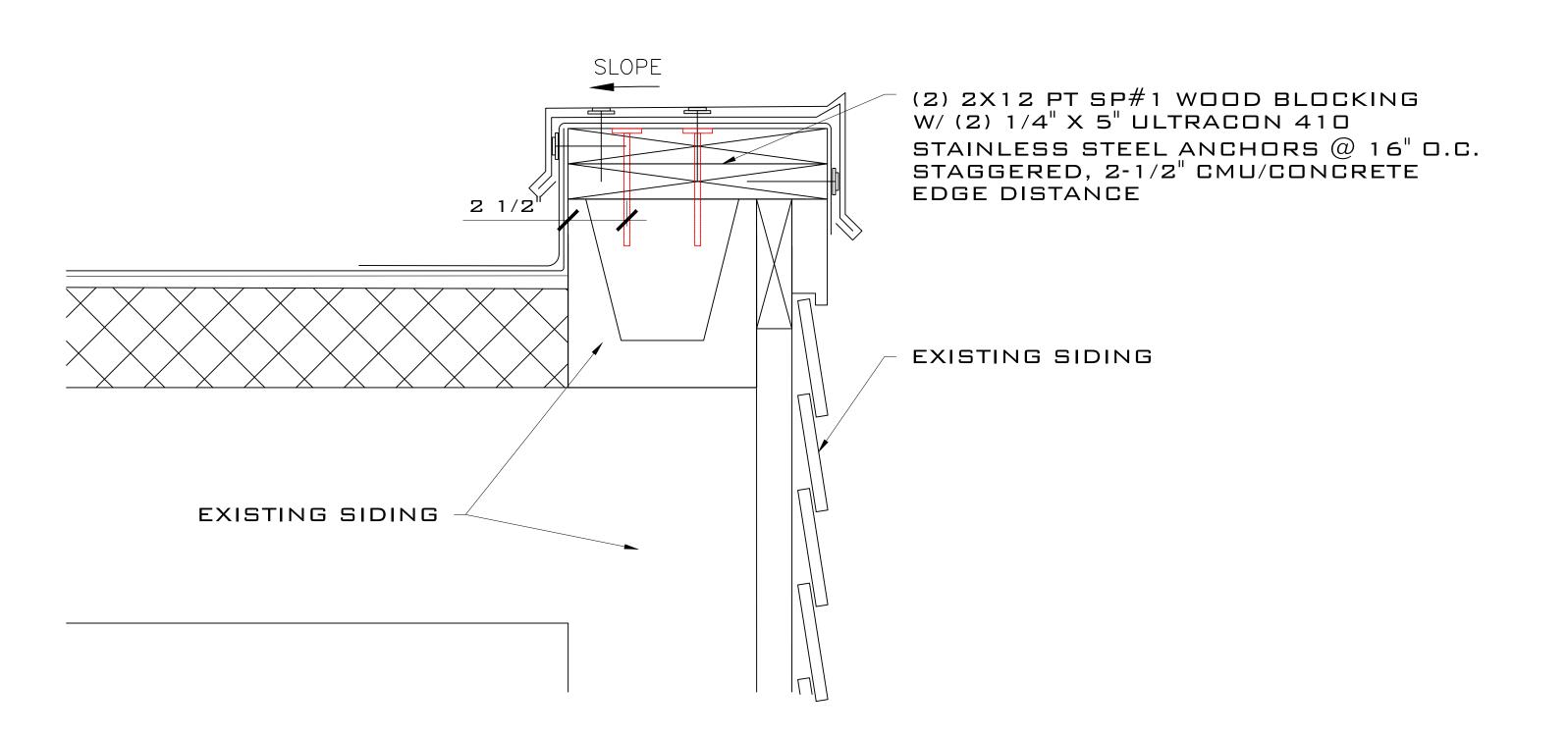


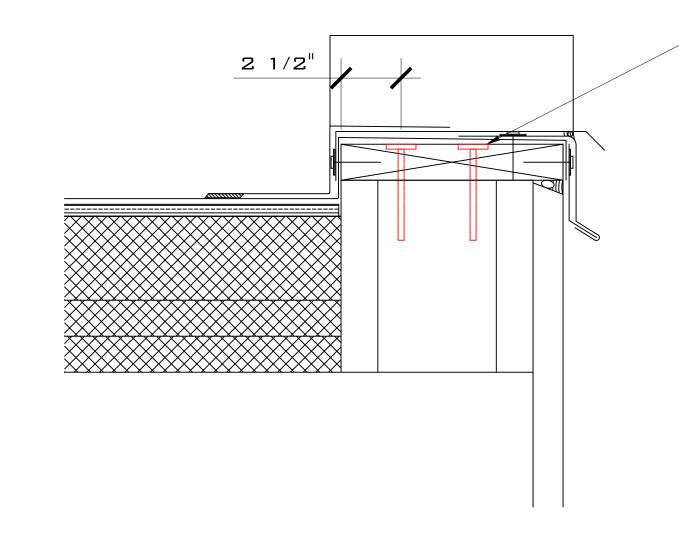
ROOF WIND PRESSURE DIAGRAM
FLAT ROOFS

GABLE ROOFS
SCALE: NTS



2405-09 S-100





(1) 2X12 PT SP#1 WOOD BLOCKING W/ (2) 1/4" X 4" ULTRACON 410 STAINLESS STEEL ANCHORS @ 16" O.C. STAGGERED, 2-1/2" CMU/CONCRETE EDGE DISTANCE

COPING CAP DETAIL
(STRUCTURAL)

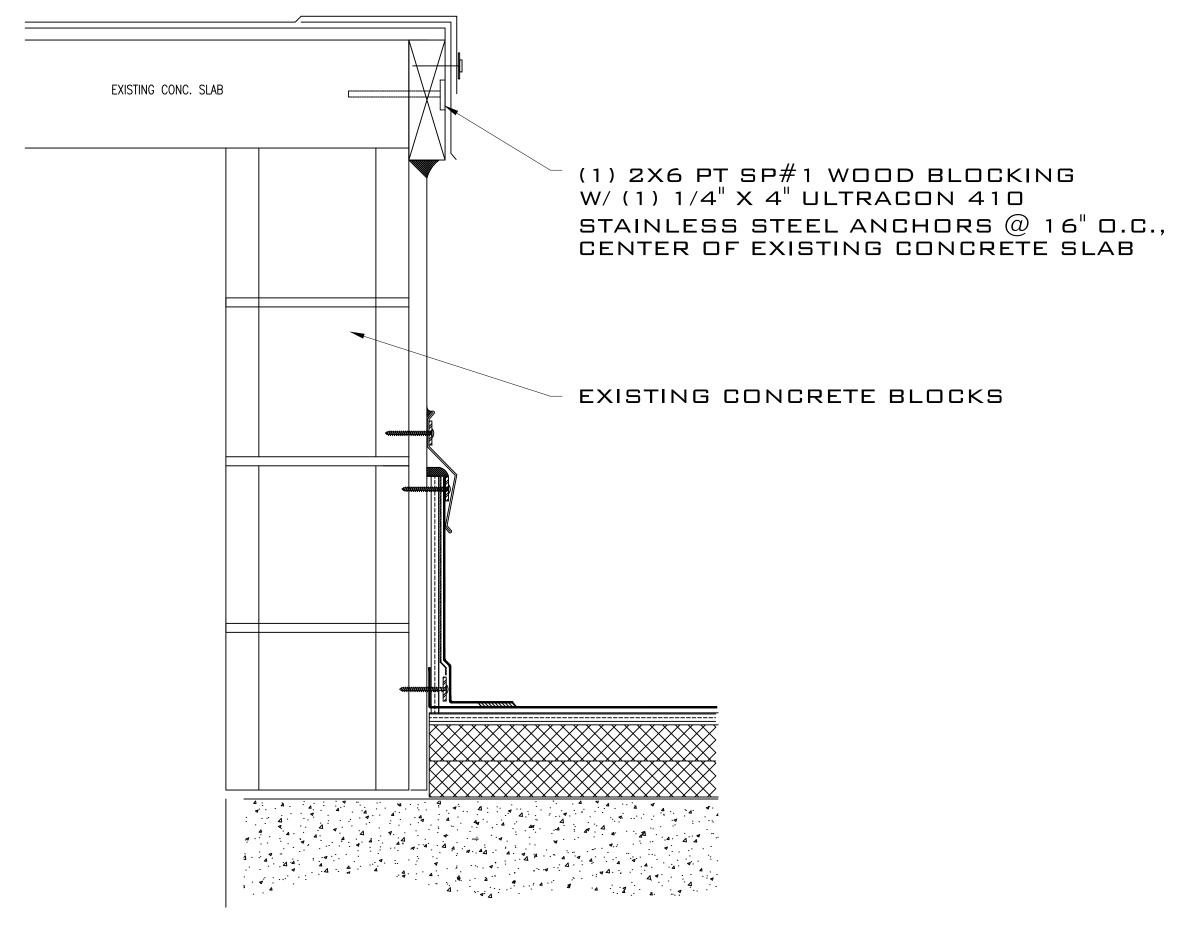
SCALE: NTS

COPING CAP SECONDARY

OVERFLOW DETAIL

(STRUCTURAL)

SCALE: NTS



WALL FLASHING DETAIL
(STRUCTURAL)

SCALE: NTS

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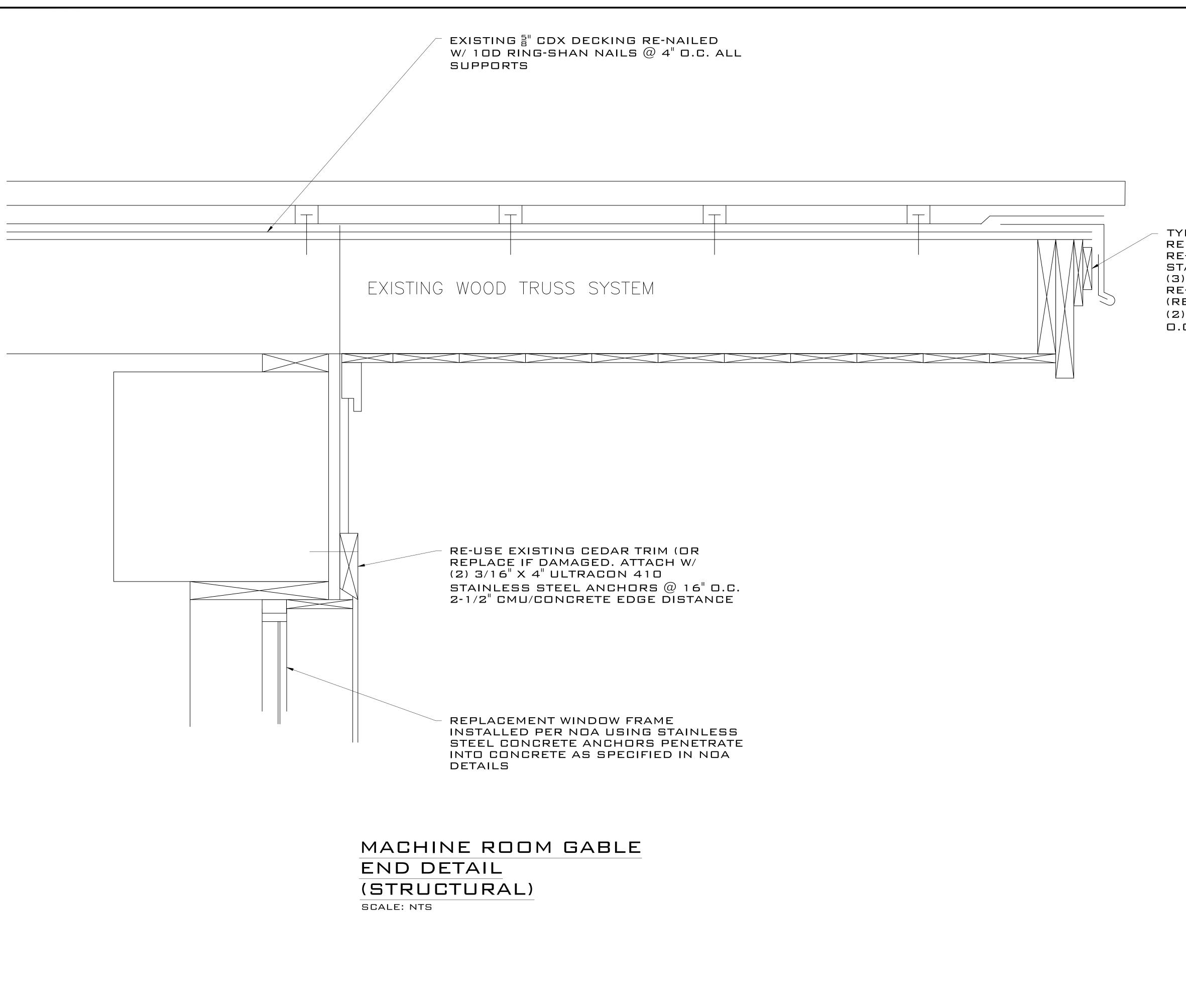
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KEY WEST, FL 33040
(305) 304-3512
www.ARTIBUSDESIGN.COM
CA # 30835

CA # 30835

CLIENT: WILLIAM P HORN PA

FERRY TERMINAL RENO

2405-09 S-101



TYPICAL FOR ALL LOCATIONS
REMOVE 1X4 AND 1X6 TRIM BOARDS
RE-NAIL 2X12 TRIM BOARD W/
STAINLESS STEEL
(3) 10D RING-SHANK NAILS,
RE-ATTACH 1X4 AND 1X6 TRIM
(REPLACE IF REQUIRED) W/
(2) 8D RING-SHANK TRIM NAILS @ 16"
O.C. STAGGERED, 1" EDGE DISTANCE

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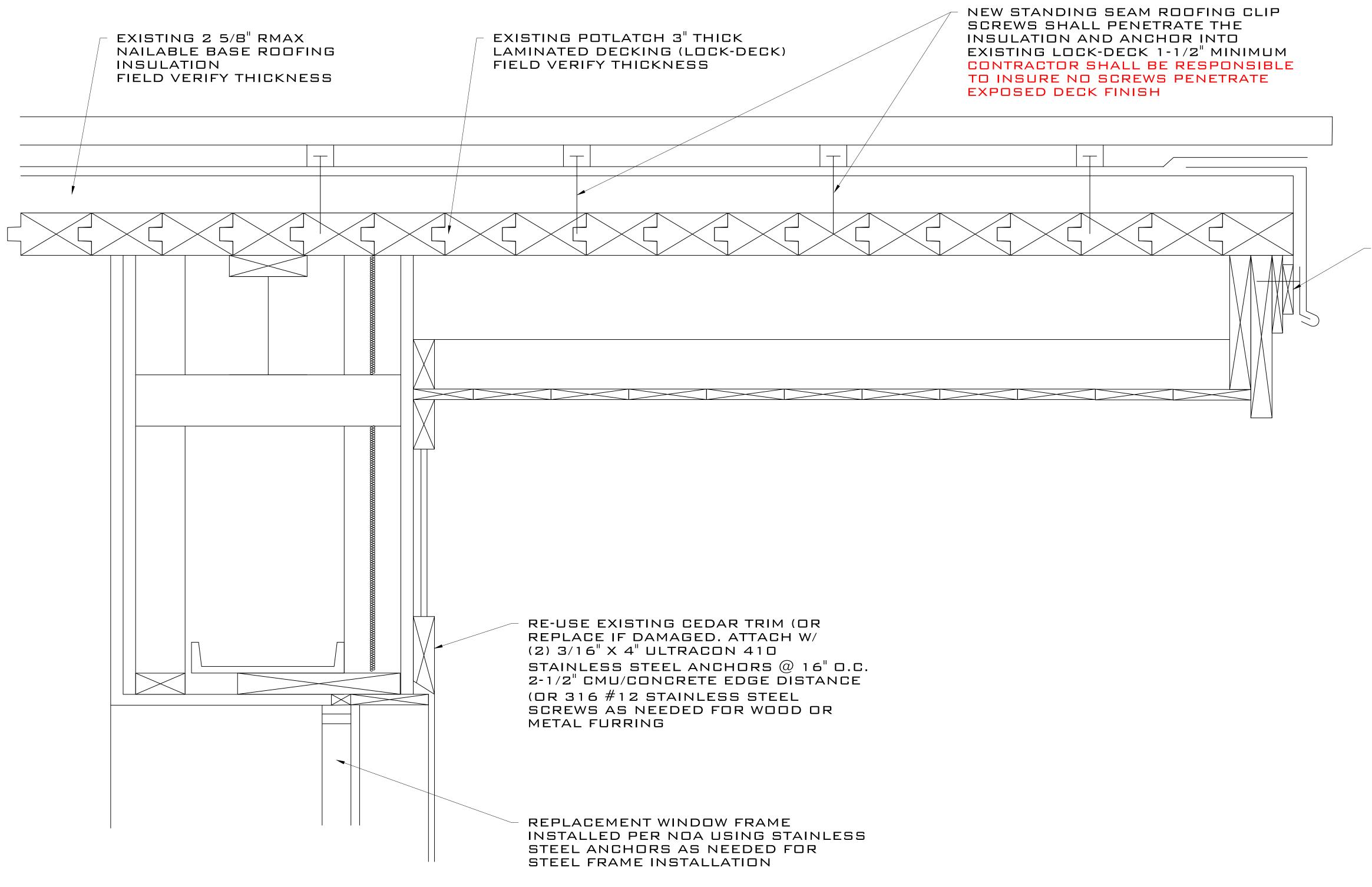
CLIENT: WILLIAM P HORN PA

FERRY TERMINAL RENO

TE: 100 GRINNELL ST,
KEY WEST, FL 33040

TILE:
DETAILS

SCALE AT 24×36: DATE: DRAWN: AS SHOWN 07/10/24 SAM SAM PROJECT NO: DRAWING NO: REVISI 2405-09 S-102 1



TYPICAL FOR ALL LOCATIONS
REMOVE 1X4 AND 1X6 TRIM BOARDS
RE-NAIL 2X12 TRIM BOARD W/
STAINLESS STEEL
(3) 10D RING-SHANK NAILS,
RE-ATTACH 1X4 AND 1X6 TRIM
(REPLACE IF REQUIRED) W/
(2) 8D RING-SHANK TRIM NAILS @ 16"
D.C. STAGGERED, 1" EDGE DISTANCE

TERMINAL ROOF GABLE
END DETAIL
(STRUCTURAL)
SCALE: NTS

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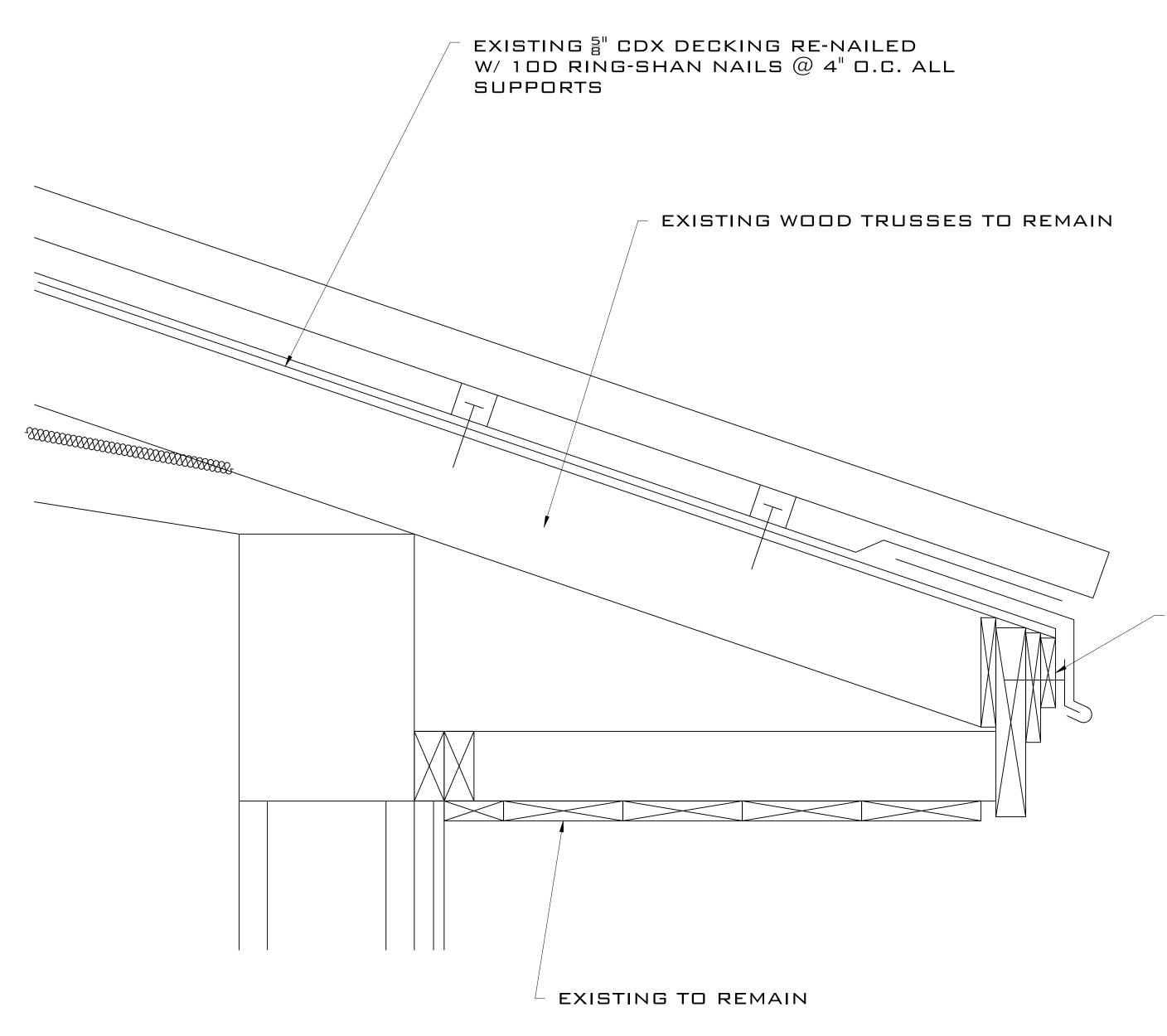
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CLIENT: WILLIAM P HORN PA

FERRY TERMINAL RENO

TE: 100 GRINNELL ST,
KEY WEST, FL 33040
TLE:
DETAILS

SCALE AT 24×36: DATE: DRAWN: CHECK!
AS SHOWN 07/10/24 SAM SAI
PROJECT NO: DRAWING NO: REVISIO
2405-09 S-103 1



TYPICAL FOR ALL LOCATIONS
REMOVE 1X4 AND 1X6 TRIM BOARDS
RE-NAIL 2X12 TRIM BOARD W/
STAINLESS STEEL
(3) 10D RING-SHANK NAILS,
RE-ATTACH 1X4 AND 1X6 TRIM
(REPLACE IF REQUIRED) W/
(2) 8D RING-SHANK TRIM NAILS @ 16"
0.C. STAGGERED, 1" EDGE DISTANCE

SOFFIT AT MACH. ROOF DETAIL
(STRUCTURAL)

SCALE: NTS



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WILLIAM P HORN PA

FERRY TERMINAL RENO

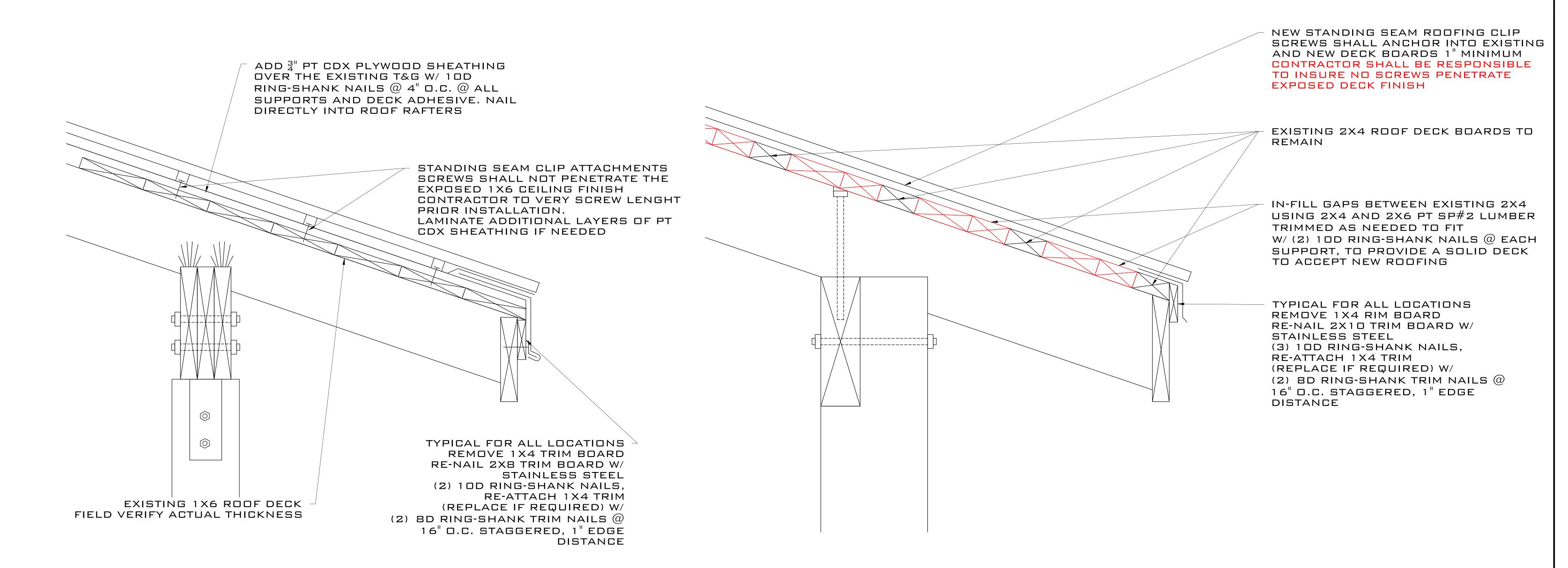
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DETAILS

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VERANDA ROOF DETAIL
(STRUCTURAL)

SCALE: NTS

BOARD WALK ROOF DETAIL
(STRUCTURAL)
(ALTERNATE WORK)

SCALE: NTS

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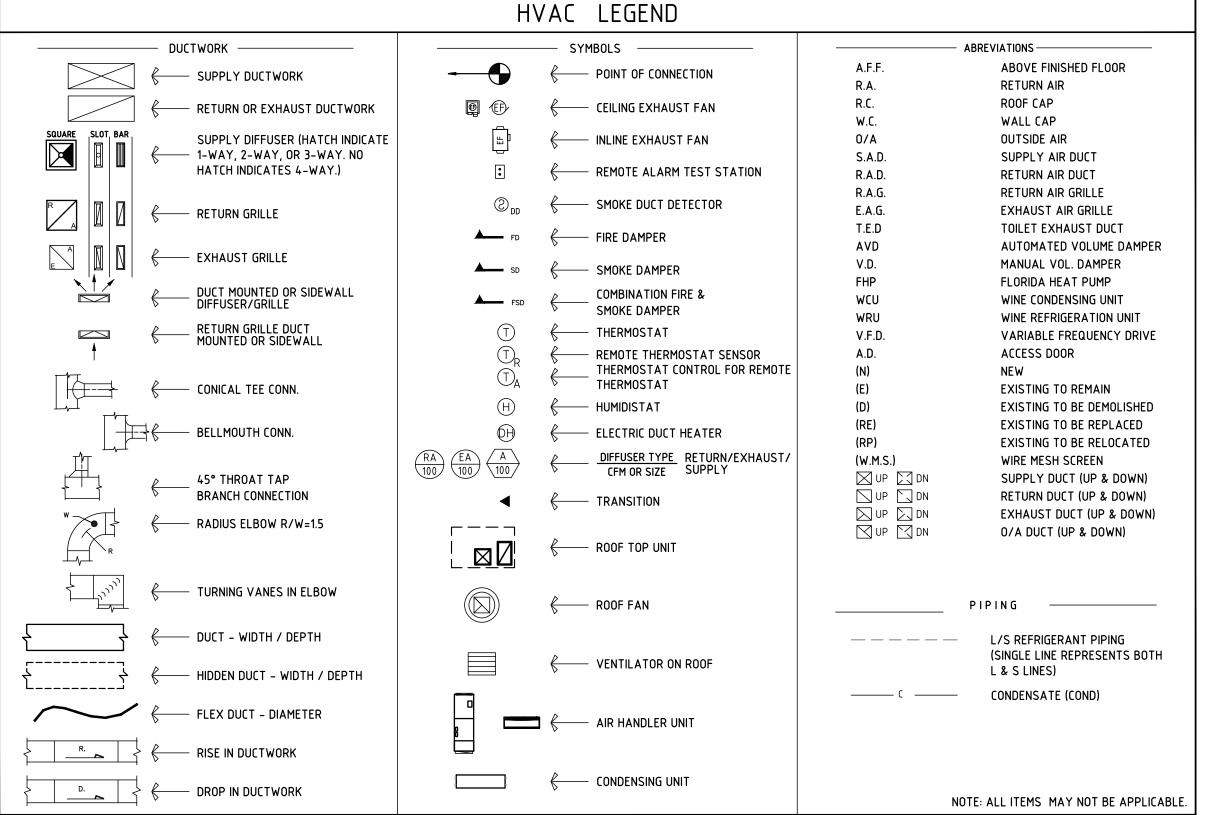
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KEY WEST, FL 33040

HVAC GENERAL NOTES

- HVAC DRAWINGS ARE DIAGRAMMATICAL IN NATURE AND REPRESENT EXISTING CONDITIONS BASED ON DRAWINGS AND SITE OBSERVATIONS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL ACTUAL CONDITIONS INCLUDING, DUCTWORK AND PIPING LOCATIONS AND SIZES.
- DUE TO DRAWINGS BEING DIAGRAMMATICAL IN NATURE RISERS AND DROPS ARE NOT SHOWN CONTRACTOR SHALL INCLUDE THESE IN THE BID – WHERE POSSIBLE ALL RISERS AND DROPS SHALL BE CONSTRUCTED USING 45 DEGREE OR LONG RADIUS ELBOWS.
- 3. PROVIDE AND INSTALL NECESSARY DUCTWORK TRANSITIONS AND PIPING INCREASERS/REDUCERS AS REQUIRED FOR EQUIPMENT CONNECTIONS. CONSULT MANUFACTURER'S DATA FOR ACTUAL DUCTWORK AND PIPING CONNECTIONS SIZES, INCLUDING, BUT NOT LIMITED TO THOSE SHOWN.
- 4. 4 AIR CONDITIONING CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS, MATERIALS, ELEVATIONS AND COUNTS AS SHOWN AND/OR NOTED ON THE DRAWINGS AND INCLUDE IN THE BID ANY AND ALL FABRICATION REQUIRED PRIOR TO INSTALLATION. THE CONTRACTOR SHALL VERIFY SIZE, ELEVATION, AND PRESENT STATE OF ALL EXISTING UTILITIES.
- 5. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY AND ALL EXISTING FIELD CONDITIONS WHICH DEVIATE FROM WHAT WAS SHOWN ON THE PLANS. CONTRACTOR IS RESPONSIBLE TO PROVIDE PRICING FOR A COMPLETE INSTALLATION INCLUDING ANY COSTS ASSOCIATED WITH FIELD CONDITIONS AT THE TIME OF BIDDING.
- 6. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS SO THAT DELIVERY WILL NOT INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME.
- 7. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK SHOWN AND/OR NOTED ON THE DRAWINGS.
- 8. ALL DIMENSIONS ARE IN PHYSICAL UNITS OF INCHES UNLESS OTHERWISE NOTED.
- 9. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL NOTIFY ENGINEER IF DUCT SIZE CHANGES ARE REQUIRED BECAUSE OF EXISTING CONDITIONS.
- 10. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, TESTS, AND ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- 11. AFTER BID SELECTION AND PRIOR TO COMMENCEMENT OF WORK, THE AIR CONDITIONING CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DUCT WORK, EXHAUST FANS, AIR DEVICES, AND EQUIPMENT AS STATED ON SCHEDULES AND OR NOTES. AHRI CERTIFICATES FOR ALL EQUIPMENT SHALL BE INCLUDED IN THE SUBMITTAL PACKAGE. IF THE CONTRACTOR PROPOSES TO USE ANY ARTICLE, DEVICE, PRODUCT, OR MATERIAL WHICH IS NOT AS SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVE TO THE ENGINEER THAT THE PROPOSED SUBSTITUTION IS EQUAL AND WILL FIT ALLOCATED SPACE.
- 12. LOCATION OF AIR CONDITIONING DUCTS AND AIR DEVICES MAY CHANGE. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION. DRAWINGS ARE DIAGRAMMATIC, DO NOT SCALE FOR THE EXACT LOCATION OF DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR DEVICES.
- 13. PROVIDE MANUAL VOLUME DAMPERS AT ALL LOW PRESSURE BRANCH DUCTS TO INDIVIDUAL DIFFUSERS AND GRILLES AND TO ALL LOW PRESSURE BRANCH DUCTS TO REHEAT COILS. PROVIDE DAMPERS AS CLOSE AS POSSIBLE TO BRANCH CONNECTION TO MAIN. SEE DIFFUSER AND GRILLE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 14. NO PIPING, DUCTWORK, OR CONDUIT SHALL BE INSTALLED UNTIL IT IS COORDINATED WITH ALL OTHER TRADES AFFECTED. PROVIDE ALL OFFSETS REQUIRED TO AVOID INTERFERENCE WITH OTHER TRADES; EXISTING CONDITIONS AND WITH THE STRUCTURE, INCLUDING, BUT NOT LIMITED TO THOSE SHOWN.
- 15. SCHEDULE NEW CONSTRUCTION WORK WITH THE OWNER WELL IN ADVANCE. CONSTRUCTION WORK AND DEMOLITION SHALL BE PERFORMED OR REPLACED TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- 6. ALL FINISHES AND SURFACES TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION WORK SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- 17. DO NOT BLOCK TUBE PULL OR SERVICE SPACE ON EQUIPMENT WITH PIPING, DUCTWORK, ETC...
 (FLANGED OR REMOVABLE SECTIONS MAY BE USED IN SOME INSTANCES WHERE TIGHT
 CLEARANCES EXISTS).
- 18. IF NO SIZE IS SHOWN FOR DUCT SERVING DIFFUSER OR GRILLES, USE SIZE SHOWN ON DIFFUSER AND GRILLE SCHEDULE.
- 19. DUCTWORK ROUTED PARALLEL TO A WALL, RATED OR CORRIDOR SHALL BE INSTALLED WITH MINIMUM 6" CLEARANCE TO ALLOW FOR INSPECTION OF WALL PENETRATIONS. CONTRACTOR SHALL PROVIDE 12" CLEARANCE WHERE POSSIBLE, COORDINATE.
- 20. REFER TO DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS.
- 21. CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF EQUIPMENT AND ITEMS TO BE REMOVED TO THE OWNER. ALL ITEMS THAT THE OWNER WISHES TO RETAIN SHALL BE TURNED OVER TO OWNER AND THE REMAINDER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A PROPER MANNER BY CONTRACTOR.
- 22. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL WORK NECESSARY TO PREPARE THE STRUCTURE FOR THE INSTALLATION AND/OR DEMOLITION WORK OF THE MECHANICAL SYSTEMS. ALL HOLES, OPENINGS AND ANY DAMAGED MATERIALS OR SURFACES SHALL BE REPAIRED AND FINISHED TO MATCH EXISTING.
- 23. ALL DEMOLITION WORK SHALL COMPLY WITH NFPA 241 AND THE REQUIREMENTS OF THE OWNER.
- 24. PROVIDE TEMPORARY FILTERS ON ALL RETURN AIR GRILLES AND TRANSFER OPENINGS IN THE WORK AREA.
- 25. EXISTING SYSTEMS SHOWN ON THE DRAWINGS ARE BASED ON AVAILABLE RECORD DRAWINGS. THIS INFORMATION IS ONLY PARTIALLY VERIFIED. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY AND INVESTIGATE ALL CONDITIONS THAT AFFECTS THE WORK PRIOR TO SUBMITTING THE BID.
- 26. INSTALL AHU CONTROL PANELS TO PROVIDE FOR 3'-0" MIN. CLEARANCE IN FRONT OF PANEL.
- 27. UNLESS OTHERWISE NOTED ON PLANS, LOW RETURN AIR GRILLES AND LOW EXHAUST GRILLES SHALL BE 6" TO 8" A.F.F. TO BOTTOM OF GRILLE.
- 28. ALL DIFFUSERS IN SAME SPACE SHALL HAVE THE SAME FULL FACE SIZE USING LARGEST SIZE REQUIRED FROM DIFFUSER AND GRILLE SCHEDULE.
- 29. PROVIDE CLEAR ACCESS TO FIRE DAMPERS, SMOKE DAMPERS, AND VALVES.
- 30. ALL WORK SHALL BE PERFORMED BY A LICENSED AIR CONDITIONING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL. STATE AND LOCAL CODES AND ORDINANCES.

- 31. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY
- 32. THE PLUMBING CONTRACTOR SHALL RUN ALL CONDENSATE DRAINS PER PLUMBING SPECIFICATIONS. (SEE PLUMBING SHEETS)
- 33. COMBUSTIBLE PIPING IS NOT PERMITTED IN RETURN AIR PLENUMS OR CEILING SPACES USED FOR RETURN AIR
- 34. THE AIR CONDITIONING CONTRACTOR SHALL USE RADIUS TURNS WITH A 1.5 CENTERLINE TO WIDTH RATIO (1.5 R/W), VANED ELBOWS, SPLITTER DAMPERS WHERE INDICATED, VOLUME CONTROLS IN ALL BRANCH LINES AND SUPPLY AND RETURN AIR DEVICES (UNLESS OTHERWISE NOTED IN AIR DEVICE SCHEDULE).
- 35. THE AIR CONDITIONING CONTRACTOR SHALL SEAL ALL DUCTS IN AN APPROVED MANNER TO INSURE AGAINST LEAKAGE.
- 36. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID ANY CONFLICTS IN LOCATIONS FOR DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC., IN ORDER TO NOT INTERFERE WITH THE PROGRESS OF CONSTRUCTION.
- 37. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE FLEXIBLE DUCT CONNECTIONS TO ALL FANS, A/C UNITS, OR MECHANICAL EQUIPMENT, EXCEPT FOR EXHAUST HOODS.
- 38. UNLESS NOTED AS EXISTING TO BE REUSED (E) OR RELOCATED (RE), ALL EQUIPMENT, PIPING, DUCTS, REGISTERS, ETC., SHALL BE NEW.
- 39. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR UNDERWRITERS LABEL (UL) WHERE APPLICABLE.
- 40. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE ALL CONTACTORS, STARTERS, VFDs, RELAYS, AND THERMOSTATS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SWITCHES, DISCONNECTS, POWER WIRING AND CONTROL WIRING, UNLESS NOTED OTHERWISE. VFDs SHALL HAVE A MAINTENANCE BYPASS.
- 41. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE 1" THICK MERV 13 (THROW-AWAY TYPE) FILTERS WITH EACH A/C UNIT (UON).
- 42. ALL PENETRATIONS OF FIRE-RATED WALLS, FLOORS OR CEILINGS SHALL BE FIREPROOFED BY A SEALING METHOD AND RATING AS SPECIFIED ON THE DRAWINGS OR AS REQUIRED BY THE LOCAL OR STATE CODES
- 43. AIR HANDLING DEVICES IN EXCESS OF 2000 CFM WILL HAVE A DUCT SMOKE DETECTOR TO STOP THE FAN AND ACTIVATE A HORN AND STROBE LIGHT. ALL EQUIPMENT SHALL BE INTERLOCKED AS REQUIRED BY LOCAL CODES OR FIRE SAFETY OFFICIALS.
- 44.ALL WORK SHALL COMPLY WITH BASE BUILDING LIFE SAFETY/SMOKE CONTROL SYSTEM REQUIREMENTS. PROVIDE ALL NECESSARY WIRING, CONTACTORS, RELAYS, ETC., AS REQUIRED FOR INTERFACE WITH BASE BUILDING SYSTEM.
- 45. THE AIR CONDITIONING CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERFORMED, FREE FROM DEBRIS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.
- 46. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS BUILT DRAWINGS TO THE ENGINEER UPON COMPLETION OF INSTALLATION. IF FIELD CHANGES ARE MADE WHICH DEVIATE FROM ENGINEERING DRAWINGS TO THE EXTENT THAT THE BUILDING DEPARTMENT REQUIRES THESE CHANGES BE INCORPORATED PRIOR TO INSPECTION, THE CONTRACTOR SHALL PROVIDE SKETCHES TO THE ENGINEER FOR INCORPORATION INTO THE BUILDING PLANS. ENGINEERING EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE PAID FOR BY THAT CONTRACTOR.
- 47. AIR CONDITIONING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM DATE OF ACCEPTANCE, AND ALL GUARANTEES AND WARRANTIES SHALL BE DELIVERED TO THE OWNER. COMPRESSORS SHALL HAVE EXTENDED FIVE YEAR WARRANTIES.
- 48. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL EQUIPMENT WITH THE OWNER'S REPRESENTATIVE AND THE ACTUAL EQUIPMENT BEING FURNISHED.
- 49. PRESENT AIR CONDITIONING EQUIPMENT WHERE INDICATED ON THE DRAWINGS IS FOR INFORMATION ONLY AND THE CONTRACTOR SHALL INCLUDE THE INSTALLATION OF CONDUIT AND WIRE AS REQUIRED. THE INSTALLATION OF NEW EQUIPMENT THAT INTERFERES WITH EXISTING SHALL BE REMOVED, RELOCATED, OR RE-ROUTED TO PERMIT COMPLETION OF SUCH WORK.
- 50. SALVAGED MATERIALS, EQUIPMENT, AND DIFFUSERS SHALL BE DELIVERED TO THE OWNER AT HIS PROPERTY AND STORED WITHIN THE BUILDING WHERE DIRECTED. ANY REMOVED MATERIALS OR EQUIPMENT WHICH THE OWNER DOES NOT WISH TO KEEP SHALL BE DISPOSED OF BY THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE OWNER.
- 51. THE AIR CONDITIONING CONTRACTOR SHALL DETERMINE THE EXTENT TO WHICH EXISTING DUCTWORK AND PIPING WILL HAVE TO BE RE-ROUTED, RELOCATED, OR RECONNECTED, AND THE AMOUNT OF ADDITIONAL WORK WHICH MAY BE REQUIRED DUE TO THE PHYSICAL CONDITIONS OF THE DUCTWORK & PIPING SHALL BE PERFORMED UNDER THIS CONTRACT WITHOUT ADDITIONAL CHARGES TO THE OWNER.
- 52. INTERRUPTION OF EXISTING FACILITIES OR SERVICES SHALL BE KEPT TO A MINIMUM AND THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND LABOR REQUIRED WHENEVER TEMPORARY CONDITIONS ARE NECESSARY TO MAINTAIN CONTINUITY OF SERVICE. INTERRUPTION OF SERVICES, THE INSTALLATION OF TEMPORARY FACILITIES, AND THE WORK OF MAKING FINAL CONNECTIONS TO NEW WORK SHALL BE DONE ONLY AT SUCH TIMES AS PERMITTED AND SCHEDULED BY THE OWNER WITHOUT ADDITIONAL COST. THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE SERVICE INTERRUPTIONS WITH THE OWNER & GENERAL CONTRACTOR.
- 53. ALL ROOF MOUNTED EQUIPMENT SHALL BE HVHZ WIND-LOAD RATED WITH SIGNED AND SEALED DOCUMENTS / DRAWINGS FROM AN INDEPENDENT LICENCED FLORIDA PROFESSIONAL ENGINEER.
- 54. ALL ROOF MOUNTED EQUIPMENT SHALL BE MOUNTED ON CURBS OR STANDS. CURBS AND STANDS SHALL BE FLORIDA PRODUCT APPROVED OR MIAMI DADE PRODUCT APPROVED AND HAVE CURRENT NOTICE OF ACCEPTANCE (NOA). CURBS AND STANDS SHALL BE ATTACHED TO THE ROOF STRUCTURE AND THE EQUIPMENT SHALL BE ATTACHED TO THE CURB OR STAND IN ACCORDANCE WITH THE NOA DOCUMENTS.
- 55. IF ANY CONFLICTS OR DISCREPANCIES APPEAR IN THESE DOCUMENTS, THE MORE STRINGENT OF THE REQUIREMENTS ARE TO BE TAKEN.
- 56. CONDENSATE PIPING SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT.
- 57. CONDENSATE LINES TO BE COPPER/PVC DEPENDING ON PROJECT REQUIREMENTS. ALL CONDENSATE PIPING RECEIVING DIRECT CONDENSATE DISCHARGE WITHIN THE BUILDING SHALL BE INSULATED WITH 1/2" ARMAFLEX INSULATION OR EQUAL.



CONTRACTOR GENERAL CONDITIONS NOTES

- 1. RFI'S: CONTRACTOR SHALL SUBMIT RFI'S WITH HIS PROPOSED SOLUTION IN A TIMELY MANNER. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 5 WORKING DAYS TO RESPOND.
- 2. SUBMITTALS AND PRODUCT DATA: CONTRACTOR SHALL PREPARE A SUBMITTAL SCHEDULE FOR APPROVAL BY THE A/E. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 10 WORKING DAYS TO REVIEW SUBMISSIONS. ALL SUBMITTALS, PRODUCT DATA, SHALL BE CLEARLY STAMPED AND INDICATED APPROVED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE CONSULTANT.
- 3. SHOP DRAWINGS: CONTRACTOR SHALL PREPARE A SHOP DRAWING SCHEDULE FOR APPROVAL BY THE A/E. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 10 WORKING DAYS TO REVIEW SHOP DRAWINGS. ALL SHOP DRAWINGS, SHALL BE CLEARLY STAMPED AND INDICATED APPROVED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE CONSULTANT.
- 4. LAYOUT AND COORDINATION DRAWINGS: CONTRACTOR SHALL PREPARE SCALED COMPREHENSIVE COORDINATED LAYOUT DRAWINGS. PROVIDE SECTIONS, GENERAL ARRANGEMENTS, ELEVATIONS INCLUDING ALL DISCIPLINES FOR HIS PROPOSED LAYOUT AND ROUTING PRIOR TO FABRICATION. SUBMIT TO OWNER AND A/E FOR REVIEW AND GENERAL CONFORMANCE. PROVIDE DRAWINGS THAT DEMONSTRATE VIA COORDINATED ELEMENTS AND SYSTEMS WITH STRUCTURE THAT CLEARLY INDICATE PROPOSED SYSTEMS WILL FIT, FUNCTION AS INTENDED, BE FREE OF INTERFERENCES AND CONFORM TO REQUIRED CODE AND MANUFACTURER WORKING AND MAINTENANCE CLEARANCES.
- 5. DEVIATIONS FROM BASIS FOR DESIGN SYSTEMS SHALL BE CLEARLY IDENTIFIED ON ALL SUBMISSIONS.
- 6. SUBSTITUTIONS:

CONTRACTOR.

CONTRACTOR.

- A. CONTRACTOR SHALL PREPARE REQUESTS WITH COMPLETE COORDINATION INFORMATION, INCLUDE ALL CHANGES REQUIRED IN OTHER ELEMENTS OF THE WORK TO ACCOMMODATE THE SUBSTITUTION INCLUDING WORK PERFORMED BY THE OWNER AND THE SEPARATE CONTRACTORS.
- B. PROVIDE COMPLETE SUPPORTING DATA QUALIFYING THE SUBSTITUTION COMPARED TO THE BASIS OF DESIGN SYSTEM. PROVIDE A DETAILED LIST OF ANY VARIANCES, PHYSICAL OR SPATIAL LAYOUTS, ELEVATIONS, ETC. TO THE BASIS OF DESIGN.
- C. PROVIDE A STATEMENT INDICATING THE EFFECT THE SUBSTITUTION WILL HAVE ON THE WORK SCHEDULE IN COMPARISON TO THE SCHEDULE WITHOUT APPROVAL OF THE PROPOSED SUBSTITUTION, INCLUDE INFORMATION REGARDING THE EFFECT OF THE PROPOSED SUBSTITUTION ON THE CONTRACT TIME.
- D. PROVIDE CERTIFICATION BY THE CONTRACTOR TO THE EFFECT THAT, IN THE CONTRACTOR'S OPINION, AFTER THOROUGH EVALUATION, THE PROPOSED SUBSTITUTION WILL RESULT IN WORK THAT IN EVERY SIGNIFICANT RESPECT IS EQUAL TO OR BETTER THAN THE WORK REQUIRED BY THE CONTRACT DOCUMENTS AND THAT IT WILL PERFORM ADEQUATELY IN THE APPLICATION INDICATED.

 E. CONSULTANT'S EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR OR APPROVED BY THE OWNER SHALL BE COMPENSATED TO THE CONSULTANT BY THE
- 7. AS-BUILT DRAWINGS: THE CONTRACTOR SHALL MAINTAIN AND PREPARE A COMPLETE AND ACCURATE SET OF AS-BUILTS DURING THE PROJECT AND ISSUE TO THE A/E AND OWNER AT PROJECT CLOSEOUT. DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL ISSUE SKETCHES OR SCALED DRAWINGS FOR FIELD CHANGES THAT ARE PROPOSED OR MADE WHICH VARY FROM THE BASIS OF DESIGN. CONSULTANT EXPENSES THAT ARE INCURRED DUE TO SERVICES OR REVISIONS REQUIRED BY BUILDING DEPARTMENT, OWNER, CONTRACTOR, AND MANUFACTURER SHALL BE COMPENSABLE TO THE CONSULTANT BY THE
- 8. INSTALLATION, TESTING AND BALANCING, START UP, COMMISSIONING AND PERFORMANCE TROUBLESHOOTING OF SYSTEMS- CONTRACTOR RECOGNIZES HE IS SOLELY RESPONSIBLE FOR PERFORMANCE AND COMPLETION OF THESE SERVICES AS PART OF THE PROJECT REQUIREMENTS. DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL DOCUMENT THE SERVICES COMPLETED TO THE OWNER AND A/E. CONSULTANT EXPENSES THAT ARE INCURRED DUE TO SUPPORTING SERVICES OR REVISIONS REQUIRED BY BUILDING DEPARTMENT, OWNER, CONTRACTOR, AND MANUFACTURER SHALL BE COMPENSABLE TO THE CONSULTANT BY THE CONTRACTOR.
- 9. CONTRACTOR/DELEGATED/SUCCESSOR ENGINEER CONTRACTOR IS ASSIGNED TO PROVIDE DESIGN/BUILD SERVICED FOR SELECTED SYSTEMS. CONTRACTOR'S ENGINEER SHALL COMPLY WITH ALL FAC 61G15
 REQUIREMENTS. DELEGATED/SUCCESSOR ENGINEER SHALL SUBMIT SIGNED/SEALED DRAWINGS TO A/E, TO AGENCIES, RESPOND TO ALL RFI'S, AGENCY COMMENTS, AND BECOME THE DESIGNATED SYSTEM ENGINEER
 OF RECORD.

HVAC DESIGN REQUIRES													
	YES	NO											
DUCT SMOKE DETECTOR(S)		X											
FIRE DAMPER(S)		X											
SMOKE DAMPER(S)		X											
FIRE RATED ENCLOSURE		X											
FIRE RATED ROOF/FLOOR CEILING ASSEMBLY		X											
FIRE STOPPING (SEE ARCH.)		X											
SMOKE CONTROL		X											

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PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND SHALL INCLUDE IN THE BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

SHEET#

DESCRIPTION

M0.1 MECHANICAL NOTES, LEGEND AND SHEET INDEX

M1.1 MECHANICAL FLOOR PLAN AND SCHEDULES

M1.3 MECHANICAL ROOF PLAN

M5.1 MECHANICAL DETAILS

M6.1 MECHANICAL SPECIFICATIONS

SCOPE OF WORK

TENANT IMPROVEMENT: MECHANICAL SCOPE IS LIMITED TO ELEVATOR EQUIPMENT ROOM RENNOVATION WITH MECHANICAL SYSTEMS TO PREVIOUSLY CONDITIONED SPACE AS SCHEDULED AND DRAWN. THIS PROJECT IS EXEMPT FROM ENERGY CALCULATIONS AS PER FBC ENERGY C101.4.2.4.

FLORIDA BUILDING CODE 2023 CONFORMANCE

- CONTRACTOR TO PROVIDE ALL LABOR AND MATERIAL TO CONFORM TO FBC 2023 8TH EDITION, RELATED SECTIONS, AND STANDARDS.
- 2. CONTRACTOR SHALL PROVIDE SERVICES TO TEST AND BALANCE THE SYSTEM.
- 3. CONTRACTOR TO PROVIDE COMPLETE CERTIFICATIONS AND CHECKLISTS AS REQUIRED BY FBC FOR HIS WORK RESPONSIBILITIES.

DEFERRED SUBMITTALS NOTE

DEFERRED SUBMITTALS IN ACCORDANCE WITH 2023 FLORIDA BUILDING CODE, SECTION 107.3.4.1:

WIND LOAD CALCULATIONS HVAC ROOFTOP EQUIPMENT CURBS
 WIND LOAD CALCULATIONS FOR CONDENSING UNITS ROOF STANDS

LIFE SAFETY NOTE

- 1. CONTRACTOR IS CAUTIONED TO REFER TO ARCHITECT'S LIFE SAFETY DRAWINGS FOR RATED WALLS, CONSTRUCTION.
- 2. PROVIDE COMPLETE REQUIRED FIRE DAMPERS, FIRE/SMOKE DAMPERS, RELEASING F.A. SMOKE DETECTORS, HVAC INTERLOCKING ETC. TO MEET AHJ/PERMIT/C.O.O. REQUIREMENTS.
- 3. COORDINATE WITH ALL PROJECT DRAWINGS

UREMENTS.

CONTRACTOR AND MANUFACTURER SHALL PROVIDE ALL ELECTRICAL SYSTEMS FOR ALL EQUIPMENT, INCLUDING MECHANICAL AND PLUMBING EQUIPMENT WITH INTEGRAL DISCONNECTS, INTEGRAL BREAKERS, INTEGRAL MOTOR STARTERS, VFDS, CHILLER PANELS, PACKAGED UNIT PANELS, ETC., AS RATED WITH A SHORT CIRCUIT CURRENT RATING AT LEAST EQUAL TO THE IMMEDIATE UPSTREAM ELECTRIC OVERCURRENT PROTECTIVE DEVICE SHORT CIRCUIT CURRENT RATING.

SCCR NOTE

ADA NOTES

CONTRACTOR SHALL HAVE KNOWLEDGE OF ALL LATEST A.D.A. ACCESSIBILITY CLEARANCE REQUIREMENTS WHILE COORDINATING FIELD ADAPTATIONS AND SHOP DRAWINGS. MAINTAIN 7'-0" CLEAR ABOVE ALL PEDESTRIAN AND VEHICLE PATHWAYS.

STRUCTURAL NOTES

STRUCTURAL OPENINGS SHALL BE AT LEAST 1.5"-2" BIGGER THAN MEP SYSTEM REQUIRED FINISHED DIMENSIONS FOR THE ENTIRE ASSEMBLY. STRUCTURAL ENGINEER / ARCHITECT SHALL CONFIRM OPENINGS ON THEIR DRAWINGS. STRUCTURAL ENGINEER SHALL DIMENSION OPENINGS ON THEIR

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WILLIAM P. HORN

ARCHITECT, P.A

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FERRY TERMINAL

RENOVATION

KEY WEST, FLORIDA.

100 Grinnell Street

LICENSE NO.

AR 13537

KEY WEST,

FLORIDA

33040

DATE

08-07-2024

REVISIONS

DRAWN BY

PROJECT NUMBER

24154

DEERFIELD BEACH, FL 33442

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GERTIFICATE OF AUTHORIZATION NO. 28107

URSULA IAFRATE, P.E. LICENSE #73122

BENJAMIN J. JADOS, P.E. LICENSE #86100

STEPHEN F. ROLLIN, P.E. LICENSE #36428

C O N S U L T I N G

PM: KS P/N 24154

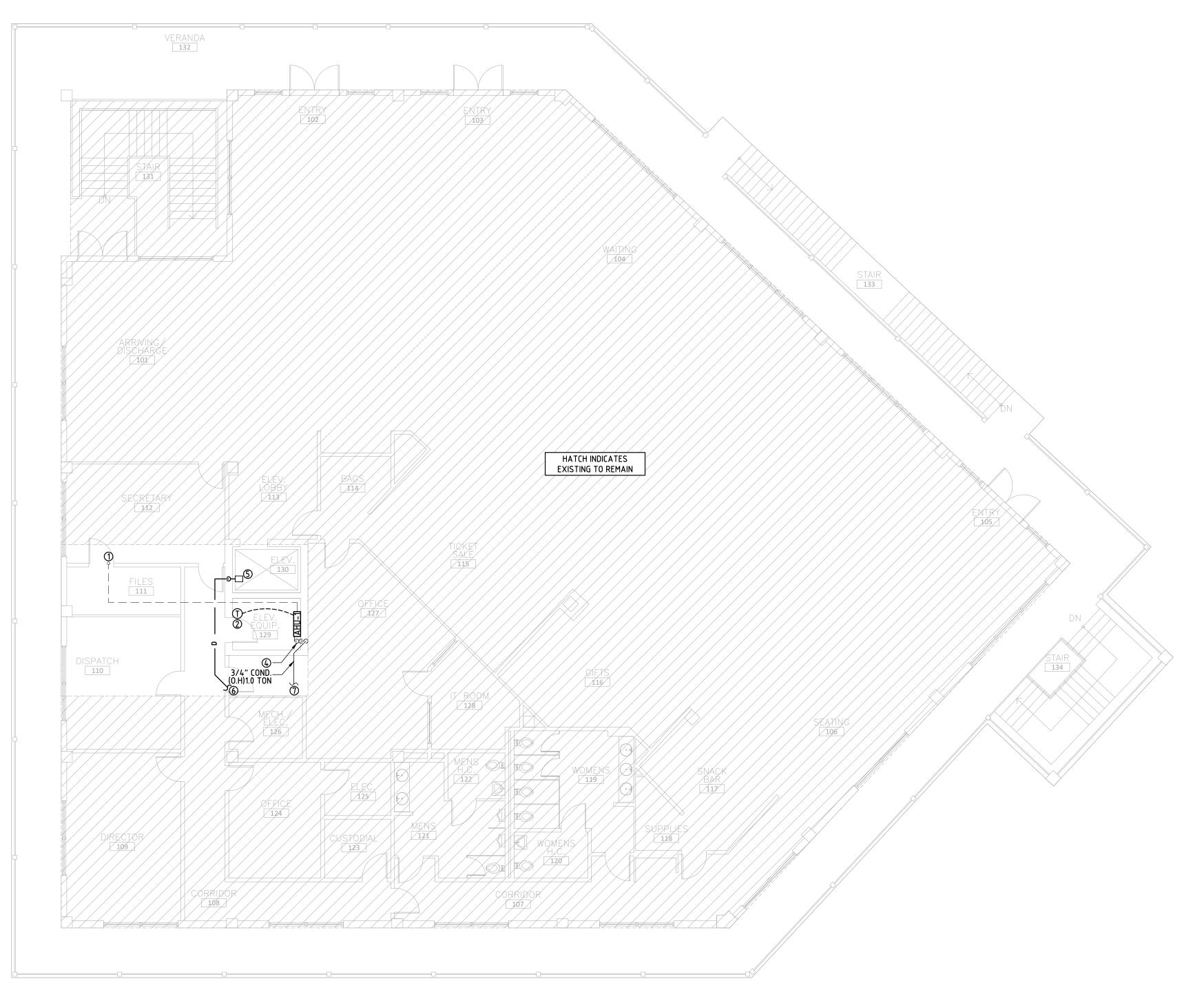
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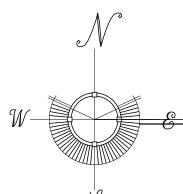
300 Lock Road, Suite #302

E-MAIL: INFO@FAECONSULTING.COM

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M0.1





FIRST FLOOR MECHANICAL PLAN

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

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AIR CONDITIONING SYSTEM SCHEDULE MANUFACTURER TRANE UNIT TAG CU-1 MODEL NO. TRUYA0121KA70NA CONDENSING UNIT DIMENSIONS LxWxH (IN) 32x12x25 WEIGHT (LBS) 92 UNIT TAG AHU-1 MODEL NO. TPKA0A0121LA10A AIR HANDLER UNIT DIMENSIONS LxWxH (IN) 36x10x12 28 12,000 CAPACITY [BTU/H] 10,560 SENSIBLE [BTU/H] 13.3/21.3 EER2/SEER2 SUPPLY AIR 265-325-385 V/P/Hz 208/1/60 CONDENSING UNIT 28 ELECTRICAL BREAKER 15 1.00 AIR HANDLER UNIT SEE NOTE 8 SEE NOTE 8 SUCTION & LIQUID LINES CONNECTION [IN] 1/2 & 1/4

① REFRIGERANT LINES UP TO ROOF. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.

② COOLING PROVIDED FOR 9,876 BTU/HR (2.9 KW) OF EQUIPMENT AT ROOM TEMPERATURE

3 CONNECT NEW 3/4" CONDENSATE LINE TO EXISTING 3/4" CONDENSATE LINE ABOVE

6 CONNECT 2" PUMP DISCHARGE LINE TO EXISTING FLOOR DRAIN IN CUSTODIAL CLOSET. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION.

① CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING CONDENSATE DRAIN PIPING

SERVING AHU'S IN THIS AREA AND TIE IN NEW DRAIN PIPING FROM AHU-1. PROVIDE PIPE

CONNECTION PER FIELD CONDITIONS.

INSULATION INSIDE BUIDLING.

4 CONDENSATE DRAIN P-TRAP. SEE DETAIL ON SHEET M5.1.

(5) ELEVATOR SUMP PUMP. SEE DETAIL ON SHEET M5.1.

FLOOR IN THIS AREA. VERIFY EXACT LOCATION, SIZE, INVERT, DIRECTION OF FLOW &

CONNECTION POINT IN FIELD PRIOR TO CONSTRUCTION AND ADJUST PIPE ROUTING AND

AC EQUIPMENT NOTES:

- 1. VERIFY ALL A/C ELECTRICAL REQUIREMENTS WITH MANUFACTURERS SPEC. PRIOR TO
- INSTALLATION.
- PROVIDE R-410A REFRIGERANT PROVIDE DISCONNECTING MEANS AT AHUs.
- . PROVIDE 7 DAY DIGITAL PROGRAMMABLE T-STAT WITH NIGHT SET-BACK, THERMIDISTAT
- REFRIGERANT LINE SIZE BASED ON 0-100 FT. TOTAL EQUIVALENT LENGTH. SEE MANUFACTURER FOR LONGER LENGTHS.
- 6. COOLING CAPACITY BASED ON 75°F DB, 63°F WB.
- INCLUDE HIGH-EFFICIENCY, VARIABLE SPEED FAN MOTOR. 8. POWER TO AIR HANDLING UNIT IS PROVIDED BY CONDENSING UNIT.
- 9. CONTRACTOR TO PROVIDE QUOTES FOR EQUIVALENT EQUIPMENT.
- 10. PROVIDE UL 508 LISTED FLOAT SWITCH IN DRAIN PAN TO PREVENT CONDENSATE
- 11. PROVIDE COASTAL CORROSION PROTECTION EQUAL TO MODINE "E-FIN PRO SHIELD 10" FOR ALL EVAPORATOR COILS, CONDENSOR COILS, AND METAL HOUSING EXPOSED TO OUTDOORS

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12. PROVIDE INTEGRAL CONDENSATE PUMP.

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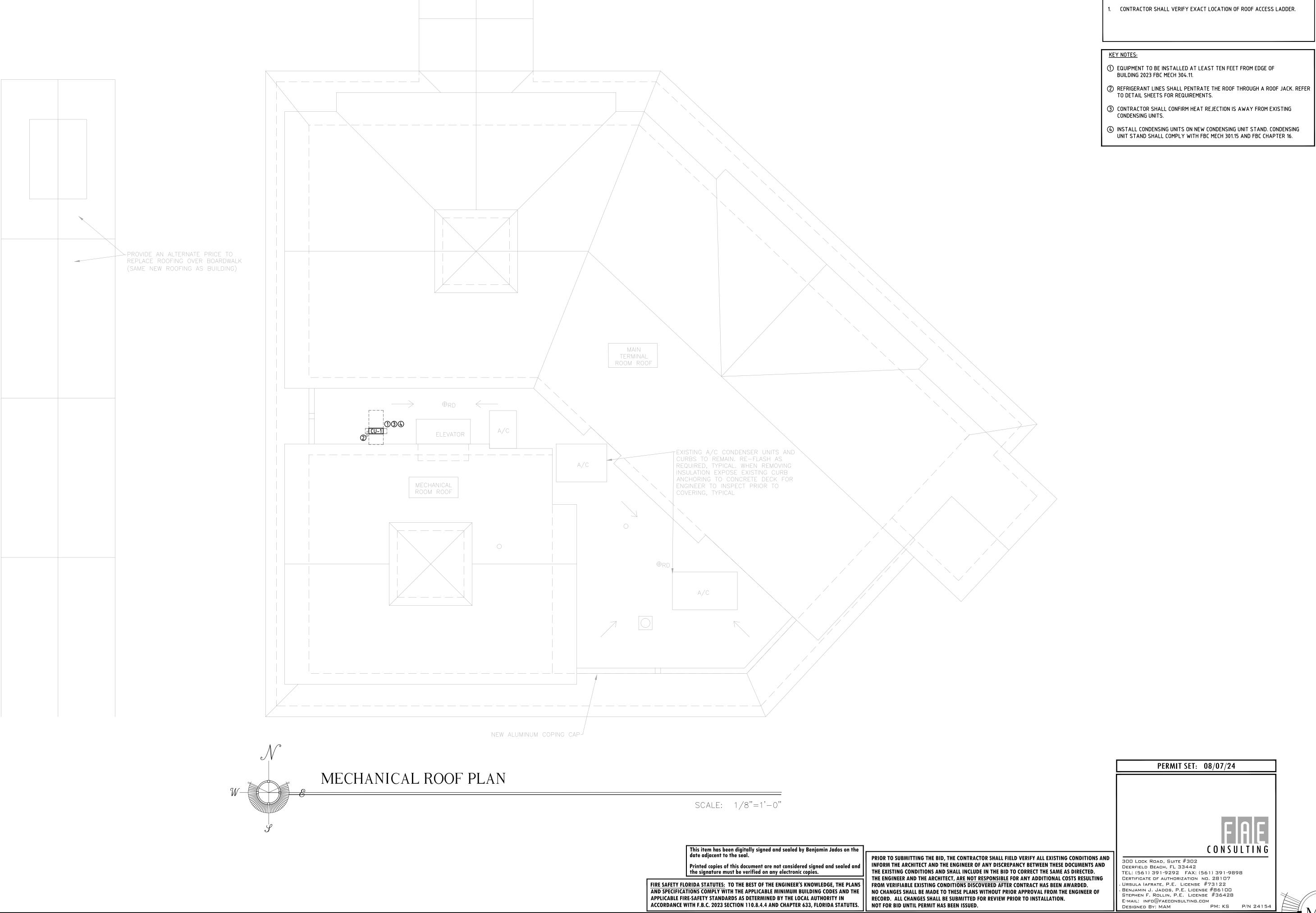
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GENERAL NOTE:

. CONTRACTOR SHALL VERIFY EXACT LOCATION OF ROOF ACCESS LADDER.

915 EATON ST.

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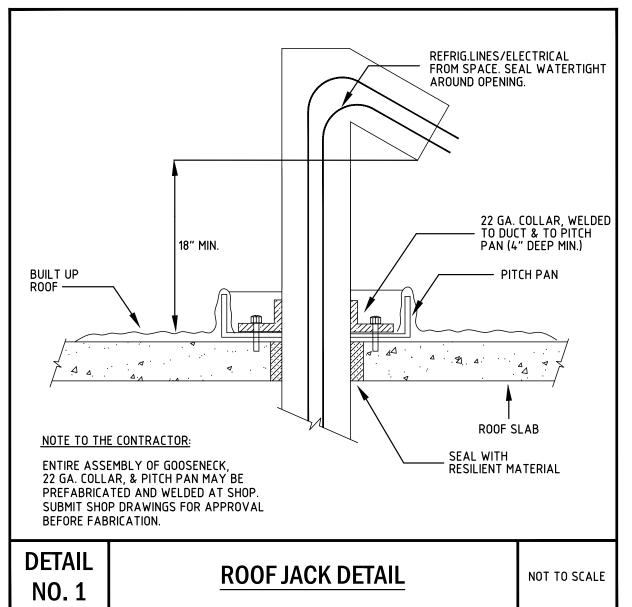
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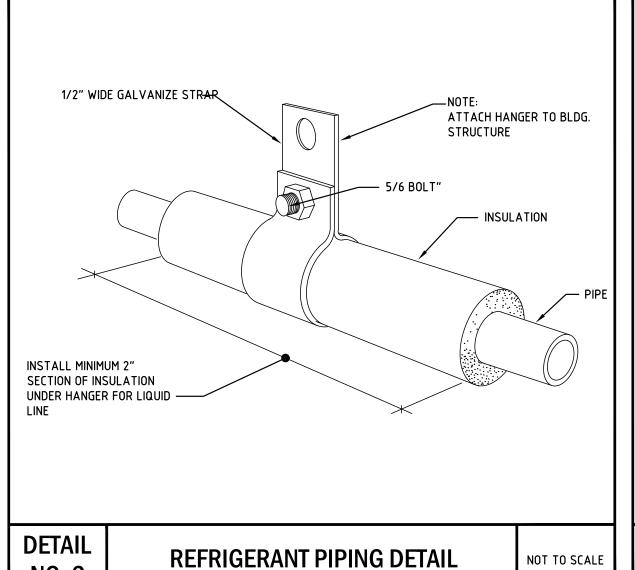
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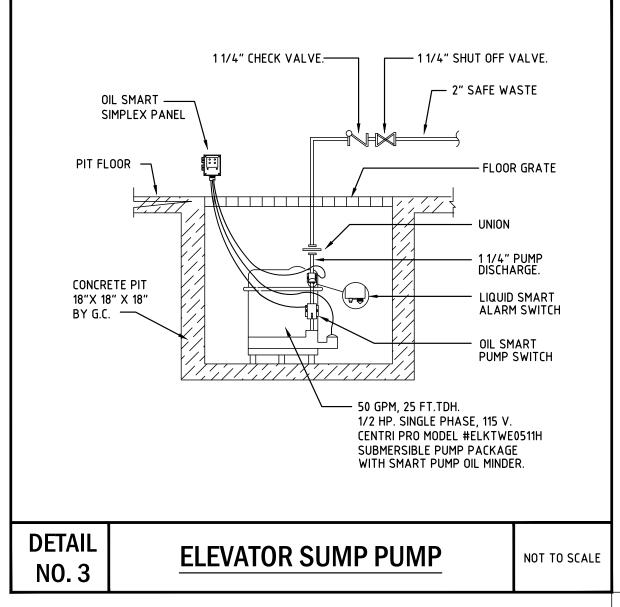
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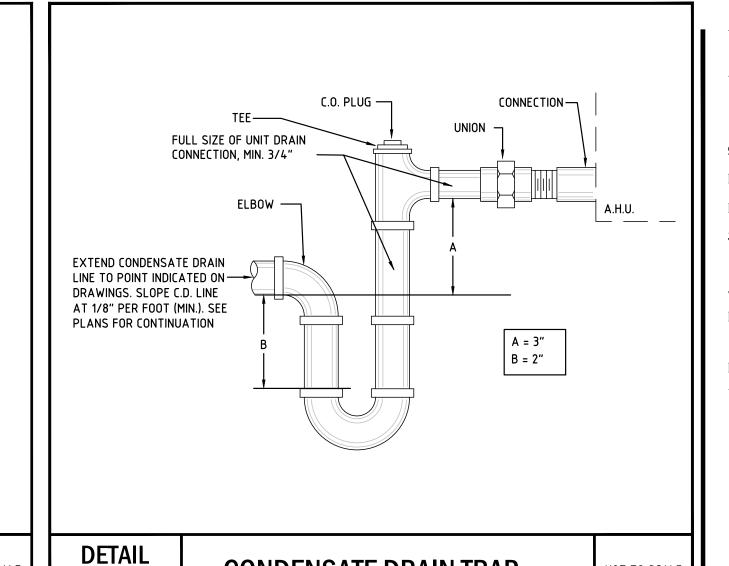
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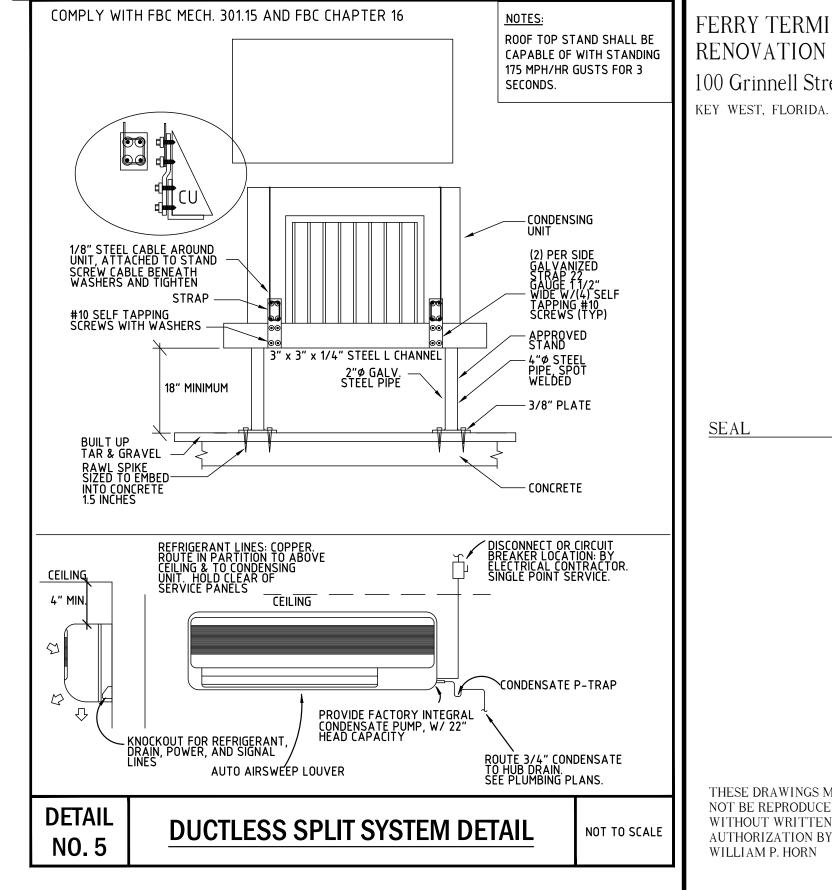


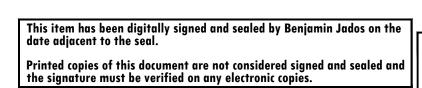






CONDENSATE DRAIN TRAP





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DRAWN BY

PROJECT NUMBER

15010 - BASIC MECHANICAL REQUIREMENTS A. CODES & REFERENCES 2. SMACNA 3. NFPA 101 4. NFPA 90A 5. NFPA 99 B. SCOPE OF WORK AND SYSTEM REPRESENTATIVES. C. REQUIRED SHOP DRAWINGS: 1. INSULATION 2. AIR DEVICES 4. CONTROLS 5. ROOFTOP EQUIPMENT 6. THERMOSTATS 8. FILTERS D. MAINTENANCE MANUALS OWNER WITH 2 COPIES. E. AS-BUILT DRAWINGS AS-BUILT DRAWINGS. AS-BUILTS ARE DELIVERED. F. SUBSTITUTIONS SUBMITTING BIDS. G. WIND LOADS 15050 - BASIC MATERIALS AND METHODS GENERAL CONTRACTOR. 2. MICOR STYLE M FOR DRYWALL 3. MICOR STYLE K FOR PLASTER 4. MINIMUM SIZE 16"x16" B. LABELING

C. FLASHING AND COUNTER FLASHING 1. FLORIDA BUILDING CODE 2023 (WITH AMENDMENTS) 1. FURNISH MATERIALS AND COORDINATE INSTALLATION FOR ALL PENETRATIONS OF ROOF BY ALL DUCT AND PIPE 2. SHEET METAL - 24ga. ASTM A525 3. SHEET LEAD 6 lbs. PER SQ. FT. (WHERE ALLOWED) 4. STAINLESS STEEL 20 ga. 5. SHEET COPPER 24 oz. PER SQ. FT. D. MECHANICAL SYSTEMS CLEANING 1. PROVIDE ALL REQUIRED PERMITS, LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THE SCOPE OF THE PROJECT SHOWN ON THE 1. CLEAN AND TOUCH UP ALL FACTORY FINISHES DRAWINGS AND READY FOR OCCUPANCY AND USE BY OWNER. THE WORK 2. FLUSH ALL HVAC SYSTEMS BEFORE CONNECTION TO EQUIPMENT SHALL INCLUDE BUT IS NOT LIMITED TO: 3. CLEAN ALL CLOSED HVAC SYSTEMS WITH ALKALINE CLEANER CIRCULATED FOR 72 HOURS a. REMOVAL, RELOCATION AND RE-INSTALLATION OF EXISTING EQUIPMENT 4. PRESSURE TEST ALL MECHNICAL PIPING SYSTEMS b. CONNECTIONS TO EXISTING OR NEW EQUIPMENT AND SYSTEMS a. STEAM SYSTEMS 150 psi FOR SIX HOURS b. WATER SYSTEMS 150 psi FOR SIX HOURS c. MODIFICATION OF EXISTING CHILLED OR HOT WATER SYSTEMS, STEAM SYSTEMS, CONDENSATE DRAINAGE, DUCTWORK, TEMPERATURE E. CLEANING TESTING AND ADJUSTING CONTROLS AND LIFE-SAFETY SYSTEMS d. CUTTING AND PATCHING TO REMOVE EXISTING OR INSTALL NEW WORK e. CLEANING AND TESTING 1. THE MECHANICAL CONTRACTOR, AT HIS EXPENSE, SHALL CLEAN, REPAIR, ADJUST, CHECK, BALANCE AND PLACE IN SERVICE THE VARIOUS SYSTEMS f. INSTRUCTION TO OWNER'S PERSONNEL HEREIN SPECIFIED WITH THEIR RESPECTIVE EQUIPMENT, ACCESSORIES AND 2. ALL REMOVAL WORK AND DISRUPTIONS OF EXISTING SERVICES SHALL BE PIPING. HE/SHE SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND COORDINATED AND SCHEDULED IN ADVANCE WITH OWNER'S TOOLS REQUIRED TO PERFORM TESTS REQUIRED BY THESE SPECIFICATIONS AND BY THE GOVERNING AUTHORITIES. 2. NO WORK SHALL BE COVERED OR CONCEALED UNTIL PROPERLY INSPECTED 3. PROVIDE ALL BUILDING PENETRATIONS REQUIRED TO COMPLETE PROJECT. ALL AND TESTED. PENETRATIONS TO BE PATCHED AND SEALED TO BE WATERTIGHT. MAINTAIN FIRE RATINGS OF EXISTING STRUCTURE. F. HANGERS AND SUPPORTS 4. PROVIDE ALL NECESSARY DUCT, EQUIPMENT AND PIPE SUPPORTS AND 1. PROVIDE ALL NECESSARY DUCTWORK, PIPE SUPPORTS, HANGERS, RODS, MATERIALS REQUIRED FOR INSTALLATION. PER THE REQUIREMENTS OF CLAMPS AND ATTACHMENTS TO PROPERLY INSTALL AND SUPPORT LOCAL, STATE OR FEDERAL CODES. DUCTWORK, PIPING AND EQUIPMENT FROM THE BUILDING STRUCTURE. 2. PROVIDE ANY ANGLE IRON OR UNISTRUT AND SUSPENSION RODS REQUIRED TO 5. NOT ALL COMPONENTS REQUIRED ARE INDICATED ON THESE DRAWINGS. REFER INSTALL EQUIPMENT, PIPING AND DUCTWORK TO MANUFACTURERS INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS 3. ALL SUPPORTS EXPOSED TO OUTDOORS SHALL BE CLEANED, PRIMED AND INCLUDING CONNECTION LOCATIONS, TYPES AND SIZES. PROVIDE ISOLATING PAINTED TO PREVENT RUSTING. FINISH COLOR AS SELECTED BY OWNER. VALVES AND UNIONS AT ALL EQUIPMENT CONNECTIONS. 4. THE USE OF BALING WIRE OR PERFORATED METAL STRAPPING IS NOT PERMITTED FOR SUPPORTS. G. WARRANTY/GUARANTEE 1. THE CONTRACTOR SHALL WARRANTY/GUARANTEE AND MAINTAIN THE 3. DUCTWORK COORDINATION DRAWINGS STABILITY OF WORK AND MATERIALS AND KEEP SAME IN PERFECT REPAIR AND CONDITION OF THE PERIOD OF ONE YEAR. 2. DEFECTS OF ANY KIND DUE TO THE FAULTY WORK OR MATERIALS APPEARING DURING THE ABOVE MENTIONED PERIOD MUST BE IMMEDIATELY MADE GOOD BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE ENTIRE SATISFACTION OF THE OWNER AND ENGINEER. SUCH RECONSTRUCTION AND REPAIRS SHALL INCLUDE DAMAGE TO THE FINISH OR FURNISHING OF THE BUILDING RESULTING FROM THE ORIGINAL DEFECT OR REPAIR THERETO. 1. PROVIDE MAINTENANCE MANUALS TO OWNER(S) FOR ALL NEW EQUIPMENT 15242 - VIBRATION ISOLATION A. ACCEPTABLE MANUFACTURERS: CONTAINING ALL OPERATING AND MAINTENANCE DATA, SUBMITTALS, WARRANTEES, DIAGRAMS, AHRI CERTIFICATES, INSPECTION REPORTS AND VALVE LISTS IN A 3 RING BINDER WITH POCKETS FOR DRAWINGS. PROVIDE 1. MASON INDUSTRIES 2. KINETICS NOISE CONTROL 2. PROVIDE AN INDEX INSIDE THE BINDER COVER WITH A LIST OF EACH 3. KORFUND EQUIPMENT ITEM. EACH ITEM SHALL BE INDIVIDUALLY TABBED. 4. AMBER BOOTH 3. PROVIDE A LIST OF ALL REQUIRED REGULAR MAINTENANCE ACTIONS. 4. MAINTENANCE LIST SHALL REFERENCE TABULATED ITEM AND SHALL INCLUDE B. MASON TYPE SLF CONTROL AIR COMPRESSOR, AHU'S (UNLESS INTERNAL), THE TITLE OR PUBLICATION NUMBER FOR THE OPERATION AND MAINTENANCE CENTRIFUGAL FANS MANUAL FOR THAT PARTICULAR MODEL AND TYPE OF PRODUCT. C. MASON SUPER W RUBBER PAD HVAC PUMPS, CHILLERS, AHU'S (IF INTERNAL) D. MASON TYPE HS CEILING SUSPENDED FANS AND AHU'S E. MASON PC30N CLOSEST 2 HANGERS TO AHU'S, PIPING WITHIN 20 PIPE DIAMETERS TO PUMPS 1. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF ALL CHANGES F. INERTIA BASES WHERE SCHEDULED OR SHOWN MADE TO THE CONTRACT DOCUMENTS (AS-BUILT). 2. THE CONTRACTOR SHALL PROVIDE THE ENGINEER 2 SETS OF COMPLETED 15250 - INSULATION A. INSULATION, ADHESIVES, COATINGS, SEALERS, TAPES, ETC. SHALL HAVE A 3. THE PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL ACCURATE FLAME SPREAD OF 25 OR LESS AND SMOKE DEVELOPMENT OF 50 OR LESS IN ACCORDANCE WITH ASTM E-84, NFPA 225, UL 723 AND MEET THE REQUIREMENTS OF NFPA 90A. ALL INSULATING R-VALUES TO MEET THE REQUIREMENTS OF THE FLORIDA ENERGY CODE. 1. EQUIPMENT AND DESIGN OF SYSTEMS INDICATED ON THE DESIGN DRAWINGS B. FLEXIBLE ELASTOMERIC INSULATION, ARMSTRONG "AP ARMAFLEX", MITCHEL, AND WITHIN THESE SPECIFICATIONS SHALL BE CONSIDERED AS "SPECIFIED STANDARD" OF QUALITY. NO SUBSTITUTIONS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER 10 DAYS PRIOR TO BID DATE. 1. CONDENSATE DRAINS - 3/4 " THICK 2. REFRIGERATION MACHINE EVAPORATOR - 2 LAYERS - 3/4 " THICK 2. ANY DEVIATION FROM SPECIFIED EQUIPMENT THAT AFFECTS THE ELECTRICAL 3. REFRIGERATION SUCTION LINES: 3/4 " THICK REQUIREMENTS SHALL BE COORDINATED BY THE MECHANICAL CONTRACTOR AND EQUIPMENT VENDOR WITH THE ELECTRICAL CONTRACTOR PRIOR TO 4. ALL OUTDOOR EXPOSED PIPING INSULATION SHALL BE PAINTED WITH TWO COATS OF ARMAFLEX STANDARD WHITE WB FINISH. PRIOR TO APPLYING THE FINISH, THE INSULATION SHALL BE WIPED CLEAN WITH DENATURED ALCOHOL. THE FINISH SHALL NOT BE TINTED. 5. ALL OUTDOOR EXPOSED PIPING SHALL HAVE THE SEAMS LOCATED ON THE 1. ALL EQUIPMENT TO BE MOUNTED OUTSIDE SHALL BE FURNISHED WITH A NOA LOWER HALF OF THE PIPE. 6. CONTACT MANUFACTURER FOR ALTERNATIVE PRODUCTS. (NOTICE OF ACCEPTANCE) FOR WINDSTORM OR BE FURNISHED WITH AN ENGINEERED DETAIL GOOD FOR THE LOCAL WIND RATE. C. BLANKET TYPE DUCT INSULATION, JOHNS MANVILLE, CERTAINTEED, KNAUF, OWENS CORNING, MINIMUM R=6.0, FOIL FACED KRAFT VAPOR BARRIER: A. ACCESS PANELS - FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY 1. ALL SUPPLY. OUTSIDE AIR AND RETURN WHERE CONCEALED FROM VIEW. R-6 1. PROVIDE FOR ACCESS TO ALL SERVICEABLE EQUIPMENT IN WALLS AND D. SEMI RIGID BOARD TYPE DUCT INSULATION 1.51b DENSITY, CERTAINTEED 1B-300, JOHNS MANVILLE, KNAUF, OWENS CORNING: 1. ALL SUPPLY, RETURN AND OUTSIDE AIR WHERE EXPOSED 2. MINIMUM DUCT INSULATION THICKNESS AND R VALUES ARE AS FOLLOWS: 5. NYSTROM, KARP, J.L. INDUSTRIES OR WILLIAMS PAINT a. SUPPLY AND RETURN AIR IN UNCONDITIONED SPACE: 2" (R-6 MIN.) b. SUPPLY AND RETURN AIR IN CONDITIONED INTERIOR SPACE: 1.5" (R-4.2 1. PROVIDE RIGID PLASTIC EMBOSSED EQUIPMENT NAMETAGS FOR ALL NEW c. OUTSIDE AIR: 2" (R-6 MIN.) EQUIPMENT AND DISCONNECTS. SETON NAMEPLATE CORPORATION. d. Supply air in Ceiling Return air Plenum: 1.5" (R-4.2 min.) 2. PAINT ALL MECHANICAL PIPING IN EQUIPMENT ROOMS, BOILER ROOMS AND e. RETURN AIR IN CEILING RETURN AIR PLENUM: NOT REQUIRED WHERE EXPOSED OR OUTDOORS. MATCH EXISTING COLOR CODES USED ON f. DUCTWORK OUTSIDE OF BUILDING: 3" (R-8 MIN.) SIMILAR SYSTEMS. 3. PROVIDE VALVE TAGS ON ALL NEW AND RELOCATED VALVES. VALVE TAGS E. CONTRACTOR SHALL: SHALL MATCH TAGS USED AT THE EXISTING FACILITY. TAGS TO BE SECURED TO VALVES WITH BRASS CHAINS. PROVIDE UPDATED INFORMATION ON ALL 1. VISIT SITE AT START OF PROJECT AND COORDINATE REQUIRED BALANCING NEW VALVES TO THE EXISTING VALVE CHART. EQUIPMENT AND DAMPERS WITH MECHANICAL CONTRACTOR. 4. PROVIDE PIPE LABELS ON ALL NEW PIPING. PIPE LABELS TO MATCH SIZE, 2. AIR SYSTEMS:

COLOR AND TYPE USED AT THE EXISTING FACILITY AND COMPLY WITH ANSI A1

3.1. LABELS SHALL BE APPLIED CLOSE TO VALVES, CHANGES IN PIPE

DIRECTIONS, BRANCHES, PIPES PASSING THRU WALLS OR FLOORS AND

EVERY 20 FEET IN STRAIGHT RUNS OF PIPING AND AT LEAST ONE TIME PER

c. MEASURE AND REPORT FAN RPM. FAN SUCTION PRESSURE. FAN DISCHARGE PRESSURE, FAN TOTAL PRESSURE AND PRESSURE DROP ACROSS COMPONENTS. DESIGN AND ACTUAL SUPPLY, RETURN, OUTSIDE AND EXHAUST AIR. d. ACTUAL AND DESIGN NAMEPLATE AMPERAGE ON FAN MOTORS. e. PRESSURE DIFFERENTIAL ACROSS DUCT SMOKE DETECTORS. f. ADJUST FANS FOR LOWEST STATIC PRESSURE REQUIRED TO DELIVER TO OUTLETS AS NOTED IN NEBB OR AABC PROCEDURES. g. MEASURE SUPPLY AND RETURN ENTERING AND LEAVING TEMPERATURES (DB/WB) ACROSS EACH COIL AND AT EACH SUPPLY DISCHARGE AND RETURN INLET AT UNIT. SPLIT SYSTEM A/C UNITS ACCEPTABLE MANUFACTURERS C. TRANE D. DAIKIN E. CARRIER A. OUTDOOR UNIT: REFRIGERANT: R-410A. HOUSING: STEEL, PAINTED WITH COASTAL CORROSION PROTECTION. COMPRESSOR: HERMETIC WITH VIBRATION ISOLATION. 4. SERVICE VALVES: SOLID BRASS FOR LIQUID AND SUCTION LINES LOCATED OUTSIDE OF UNIT. 5. CONTROLS: FACTORY WIRED WITH THERMAL AND CURRENT OVERLOAD SENSORS. 6. COIL: ALUMINUM FINS, NON-FERROUS TUBING. FAN: DIRECT DRIVE, PROPELLER TYPE, UPBLAST 8. ACCESSORIES: PRECHARGED TUBING PACKAGE. B. INDOOR UNIT: REFRIGERANT: R-410A. CASE: 20 GAUGE STEEL. ENAMEL PAINT. FAN: FORWARD CURVE CENTRIFUGAL. STATICALLY AND DYNAMICALLY BALANCED. RESILIENTLY MOUNTED. THERMAL OVERLOAD PROTECTION. COIL: ALUMINUM FINS. NON FERROUS TUBING. PRECHARGED WITH SUFFICIENT REFRIGERANT FOR SYSTEM. CONTROLS: 24 VOLT TRANSFORMER AND FAN RELAY. FILTER: THROWAWAY FILTER AND MOUNTING FRAME (MINIMUM MERV 8). HEATER: U.L. LISTED. FACTORY INSTALLED AND WIRED.

NOTE TO CONTRACTOR

CONTRACTOR TO VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY EXISTING CONDITIONS. NOTIFY ARCHITECT/ENGINEER OF ANY SIGNIFICANT DEVIATION FROM PLANS. CONTRACTOR TO COORDINATE ALL MECHANICAL, ELECTRICAL, PLUMBING, STRUCTURAL AND FIRE SPRINKLER WITH EXISTING CONDITIONS.

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THESE DRAWINGS MAY NOT BE REPRODUCED WITHOUT WRITTEN **AUTHORIZATION BY** WILLIAM P. HORN

DATE

08-07-2024

REVISIONS

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PROJEC NUMBER

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PERMIT SET: 08/07/24

This item has been digitally signed and sealed by Benjamin Jados on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and

FIRE SAFETY FLORIDA STATUTES: TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE FIRE-SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH F.B.C. 2023 SECTION 110.8.4.4 AND CHAPTER 633, FLORIDA STATUTES.

the signature must be verified on any electronic copies.

PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND SHALL INCLUDE IN THE BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

RECORD DESIGN AND ACTUAL TOTALS.

a. MAKE CHANGES TO BELTS, PULLEYS, DAMPERS, VOLUME BOXES, ETC. TO

b. BALANCE SUPPLY, RETURN AND EXHAUST AIR OUTLETS WITHIN 10% OF DESIGN WHILE MAINTAINING REQUIRED PRESSURE RELATIONSHIPS.

OBTAIN DESIGN CONDITIONS AS REQUIRED BY TAB PROCEDURES.

COVID-19 PROTOCOL

CLIENT AND CONTRACTOR RECOGNIZE AND AGREE THAT FAE AND CLIENT/CONTRACTOR WILL RESPECT ALL MANDATED COVID-19 AND PANDEMIC PROTOCOLS AND ANY RESULTING DELAYS OR SUSPENSION OF SERVICES SHALL BE RECOGNIZED AS FORCE MAJEURE AND CLIENT/CONTRACTOR (ANY THIRD PARTIES WILL NOT HOLD FAE RESPONSIBLE FOR ANY LIABILITIES, ECONOMIC OR CONSEQUENTIAL DAMAGES THAT MAY BE SUFFERED BY CLIENT/CONTRACTOR OR ANY THIRD

LOW VOLTAGE NOTES

PROVIDE COMPLETE LOW VOLTAGE (LV) SYSTEMS INFRASTRUCTURE INCLUDING, BUT NOT LIMITED TO, SCS (STRUCTURED CABLING SYSTEM), AUDIO/VIDEO, SECURITY AND ACCESS CONTROL, CCTV, VOICE, DATA, BUILDING SYSTEM AUTOMATION, LIFE SAFETY INCLUDING BDA FIRST RESPONDER SYSTEMS (PRE-DESIGN RF STUDIES AND CALCULATIONS FOR UPLINK AND DOWNLINK CONNECTIVITY COORDINATE DESIGN AND PROVIDE ALL SYSTEMS TO MEET OWNER, ARCHITECT, AND PROJECT REQUIREMENTS, (TYPE OF CABLING, CONDUIT SIZES, EQUIPMENT AND OUTLET LOCATIONS) PRIOR TO CONSTRUCTION AND DURING BIDDING OR PRICING PROCESS. THE CONTRACTOR SHALL CONSULT THE OWNER REGARDING SPECIFICATION OF ALL ACTIVE SYSTEMS AND HEAD ENDS FOR DESIGN COORDINATION. CONTRACTOR SHALL DESIGN/BUILD ALL LV SYSTEMS WITH HIS INDEPENDENTLY ENGAGED DELEGATED/SUCCESSOR DESIGN PROFESSIONAL PE AND RCDD. THE CONTRACTOR AND HI INTEGRATOR/DESIGN PROFESSIONAL RECOGNIZE THEY SHALL BE SOLELY RESPONSIBLE AND LIABLE FOR ALL ASPECTS OF THE LV SYSTEMS FROM DESIGN THRU PERMIT, CONSTRUCTION, CERTIFICATE OF OCCUPANCY AND WARRANTY PHASE. THE CONTRACTOR SHALL SOLELY BE RESPONSIBLE TO PRODUCE ALL FLORIDA BUILDING CODE REQUIRED AS BUILDS, O AND M MANUALS AND TEST AND COMMISSION ALL SYSTEMS FOR PROPER PERFORMANCE

CONTRACTOR BIDDING SUPPLEMENTAL NOTES:

CONTRACTOR SHALL ISSUE AN RFI FOR ANY MISSING CIRCUITS IN APPROPRIATE TIME FOR FAE TO RESPOND. IF NO RESPONSE IS PROVIDED, CONTRACTOR SHALL PROVIDE A CIRCUIT AND BREAKER FOR ANY DEVICE THAT IS NOT CIRCUITED ON THE FAE DRAWINGS.

CONTRACTOR SHALL REVIEW ALL EQUIPMENT AND PROVIDE A LOCAL CIRCUIT BREAKER, OSHA REQUIRED SAFETIES AND INTERLOCKING, IF NOT INTEGRATED WITH THE EQUIPMENT. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL TO INSTALL SUCH SYSTEMS IF NOT INDICATED ON THE

CONTRACTOR SHALL PROVIDE CIRCUIT BREAKERS AND UL LISTED AND LABELED BREAKER LOCK OUT DEVICES FOR ALL CIRCUITS SERVING EQUIPMENT

COORDINATION NOTES

CONTRACTOR TO COORDINATE ALL FINAL LOCATIONS, ANY TYPES OF ALL DEVICES, AND EQUIPMENT WITH ARCHITECT PRIOR TO BID AND ROUGH-IN.

CONTRACTOR TO COORDINATE VARIOUS TRADES TO AVOID ABOVE CEILING CONFLICTS.

CONTRACTOR GENERAL CONDITIONS NOTES

- RFI'S: CONTRACTOR SHALL SUBMIT RFI'S WITH HIS PROPOSED SOLUTION IN A TIMELY MANNER. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 5 WORKING DAYS TO RESPON SUBMITTALS AND PRODUCT DATA: CONTRACTOR SHALL PREPARE A SUBMITTAL SCHEDULE FOR APPROVAL BY THE A/E. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 10 WORKING DAYS TO REVIEW SUBMISSIONS. ALL SUBMITTALS, PRODUCT DATA, SHALL BE CLEARLY STAMPED AND INDICATED APPROVED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE
- SHOP DRAWINGS: CONTRACTOR SHALL PREPARE A SHOP DRAWING SCHEDULE FOR APPROVAL BY THE A/E. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 10 WORKING DAYS TO REVIEW SHOP DRAWINGS. ALL SHOP DRAWINGS. SHALL BE CLEARLY STAMPED AND INDICATED. APPROVED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE CONSULTANT.
- LAYOUT AND COORDINATION DRAWINGS: CONTRACTOR SHALL PREPARE SCALED COMPREHENSIVE COORDINATED LAYOUT DRAWINGS. PROVIDE SECTIONS, GENERAL ARRANGEMENTS, ELEVATIONS INCLUDING ALL DISCIPLINES FOR HIS PROPOSED LAYOUT AND ROUTING PRIOR TO FABRICATION. SUBMIT TO OWNER AND A/E FOR REVIEW AND GENERAL CONFORMANCE. PROVIDE DRAWINGS THAT DEMONSTRATE VIA COORDINATED ELEMENTS AND SYSTEMS WITH STRUCTURE THAT CLEARLY INDICATE PROPOSED SYSTEMS WILL FIT, FUNCTION AS INTENDED, BE FREE OF INTERFERENCES AND CONFORM TO REQUIRED CODE AND MANUFACTURER WORKING AND MAINTENANCE CLEARANCES.
- 5. DEVIATIONS FROM BASIS FOR DESIGN SYSTEMS SHALL BE CLEARLY IDENTIFIED ON ALL SUBMISSIONS.
- . SUBSTITUTIONS:
- A. CONTRACTOR SHALL PREPARE REQUESTS WITH COMPLETE COORDINATION INFORMATION, INCLUD ALL CHANGES REQUIRED IN OTHER ELEMENTS OF THE WORK TO ACCOMMODATE THE SUBSTITUTION INCLUDING WORK PERFORMED BY THE OWNER AND THE SEPARATE CONTRACTOR:
- 3. PROVIDE COMPLETE SUPPORTING DATA QUALIFYING THE SUBSTITUTION COMPARED TO THE BASIS OF DESIGN SYSTEM. PROVIDE A DETAILED LIST OF ANY VARIANCES, PHYSICAL OR SPATIAL LAYOUTS, ELEVATIONS, ETC. TO THE BASIS OF DESIGN.
- .. PROVIDE A STATEMENT INDICATING THE EFFECT THE SUBSTITUTION WILL HAVE ON THE WORK SCHEDULE IN COMPARISON TO THE SCHEDULE WITHOUT APPROVAL OF THE PROPOSED SUBSTITUTION, INCLUDE INFORMATION REGARDING THE EFFECT OF THE PROPOSED SUBSTITUTION ON THE CONTRACT TIME.
- D. PROVIDE CERTIFICATION BY THE CONTRACTOR TO THE EFFECT THAT, IN THE CONTRACTOR'S OPINION, AFTER THOROUGH EVALUATION, THE PROPOSED SUBSTITUTION WILL RESULT IN WORK THAT IN EVERY SIGNIFICANT RESPECT IS EQUAL TO OR BETTER THAN THE WORK REQUIRED BY THE CONTRACT DOCUMENTS AND THAT IT WILL PERFORM ADEQUATELY IN THE APPLICATION
- E. CONSULTANT'S EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR OR APPROVED BY THE OWNER SHALL BE COMPENSATED TO THE CONSULTANT BY THE CONTRACTOR.
- AS-BUILT DRAWINGS: THE CONTRACTOR SHALL MAINTAIN AND PREPARE A COMPLETE AND ACCURATE SET OF AS-BUILTS DURING THE PROJECT AND ISSUE TO THE A/E AND OWNER AT PROJECT CLOSEOUT. DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL ISSUE SKETCHES OR SCALED DRAWINGS FOR FIELD CHANGES THAT ARE PROPOSED OR MADE WHICH VAR FROM THE BASIS OF DESIGN. CONSULTANT EXPENSES THAT ARE INCURRED DUE TO SERVICES OR REVISIONS REQUIRED BY BUILDING DEPARTMENT, OWNER, CONTRACTOR, AND MANUFACTURER SHALL BE COMPENSABLE TO THE CONSULTANT BY THE CONTRACTOR.
- . INSTALLATION, TESTING AND BALANCING, START UP, COMMISSIONING AND PERFORMANCE TROUBLESHOOTING OF SYSTEMS- CONTRACTOR RECOGNIZES HE IS SOLELY RESPONSIBLE FOR PERFORMANCE AND COMPLETION OF THESE SERVICES AS PART OF THE PROJECT REQUIREMENTS DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL DOCUMENT THE SERVICES COMPLETED TO THE OWNER AND A/E. CONSULTANT EXPENSES THAT ARE INCURRED DUE TO SUPPORTING SERVICES OR REVISIONS REQUIRED BY BUILDING DEPARTMENT, OWNER, CONTRACTOR AND MANUFACTURER SHALL BE COMPENSABLE TO THE CONSULTANT BY THE CONTRACTOR.
- CONTRACTOR/DELEGATED/SUCCESSOR ENGINEER CONTRACTOR IS ASSIGNED TO PROVIDE DESIGN/BUILD SERVICED FOR SELECTED SYSTEMS. CONTRACTOR'S ENGINEER SHALL COMPLY WITH ALL FAC 61G15 REQUIREMENTS. DELEGATED/SUCCESSOR ENGINEER SHALL SUBMIT SIGNED/SEALED DRAWINGS TO A/E, TO AGENCIES, RESPOND TO ALL RFI'S, AGENCY COMMENTS, AND BECOME THE DESIGNATED SOLE SYSTEM ENGINEER OF RECORD FOR DISCIPLINE RESPONSIBILITY/LIABILITY.

ELECTRICAL SYMBOL LEGEND

FUSE DISCONNECT 110 V RECEPTACLE ■ ELECTRICAL CIRCUIT BREAKER ♣ QUAD-PLEX RECEPTACLE COMBINATION STARTER/BREAKER 110 V SWITCHED RECEPTACLE WR TYPE RECEPTACLE GROUND FAULT CIRCUIT ELECTRICAL PANEL GFI INTERRUPTER ELECTRICAL METER VERIFY MOUNTING HEIGHT WITH OWNER/ARCHITECT PRIOR TO ROUGH IN LIGHTING CONTROL

SPECIAL PURPOSE OUTLET (VERIFY)

PLATE, FLUSH WITH FLOOR

FLOOR TELE/FAX/DATA PORT WITH

(D) CEILING RECEPTACLE

▲ TELE/FAX/DATA PORT **

TV TELEVISION JACK **

POWER POLE

(EF) EXHAUST FAN

THERMOSTAT

CEILING TELE/FAX/DATA PORT**

RECESSED JUNCTION BOX FOR

RECESSED JUNCTION BOX FOR SYSTEM FURNITURE TELEPHONE/DATA

SYSTEM FURNITURE POWER

REMOTE ALARM TEST STATION

SMOKE DUCT DETECTOR

T STEP DOWN TRANSFORMER

CCP CENTRAL CONTROL PANEL

<u>CIRCUITING LEGEND</u>:

✓ :
→ GENERAL BRANCH CIRCUIT

/ COLLECTOR CIRCUITING -

UNSWITCHED

LOW VOLTAGE

AFTER NOTICE TO PROCEED.

PERMITTED WITHIN DEMISING WALLS.

BE MADE WITH FLEXIBLE METAL CONDUIT OR "SEALTIGHT."

SINGLE HOMERUN

DOUBLE HOMERUN

THREE PHASE HOMERUN

★ NOTE: ALL SYMBOLS MAY NOT BE USED FOR THIS PROJECT

* * PROVIDE 1"C WITH PULL WIRE UNLESS OTHERWISE NOTED. STUB UP 6" ABOVE CEILING.

RECEPTACLES ARE TO BE MOUNTED AT 18" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED.

VOLTAGE DROP NOTE

HE CONTRACTOR, AS PART OF HIS PRICING AND BIDDING, SHALL INCLUDE ALL LABOR, MATERIAL

CONTRACTOR'S RESPONSIBILITY TO VERIFY AND INCLUDE ALL HIS BRANCH CIRCUIT, FEEDER, AND

SERVICE CONDUCTOR CONDUITING AND WIRING LENGTHS AND ROUTING BASED ON HIS PROPOSED

OF DESIGN CONDUCTOR LENGTHS AND WIRING SIZES AS THE, MINIMUM, NOT LIMITED TO,

INSTALLATION MEANS AND METHODS. WIRING LENGTHS, SHOWN AS THE BASIS OF DESIGN LENGTHS,

ARE MERELY AN APPROXIMATION BY THE CONSULTANT. THE CONTRACTOR SHALL USE THOSE BASIS

REQUIREMENTS FOR THE PROJECT BIDDING. THE CONTRACTOR, PRIOR TO BIDDING, SHALL CONFIRM

ALL HIS PROPOSED LENGTHS, MAKE ANY AND ALL ADJUSTMENTS AS MAY IMPACT THE ELECTRICAL

PROPOSED CHANGES AND ADJUSTMENTS TO THE ARCHITECT AS PART OF HIS BID RESPONSE. THE

CONTRACTOR SHALL SUBMIT COMPLETE SCALED PROPOSED ROUTINGS FOR SERVICES AND FEEDERS,

SECTIONS FOR CLEARANCES AND COORDINATED AS FREE OF ALL INTERFERENCES, ETC. CONTRACTOR

WIRING NOTES

ABSOLUTELY NO FLEXIBLE CONDUIT IS PERMITTED IN DEMISING WALLS. FLEXIBLE CONDUIT IS

PERMITTED FOR SHORT, FINAL CONNECTIONS ONLY (6'-0" OR LESS). ALL HOME RUNS IN EMT.

TUBING (EMT) AND RIGID GALVANIZED CONDUIT ARE PERMITTED. FLEXIBLE CONDUIT IS NOT

CONDUIT CONNECTIONS TO TRANSFORMERS, VIBRATING AND/OR ROTATING EQUIPMENT, SHALL

TWO OR THREE CONDUCTORS SHARING THE SAME NEUTRAL SHALL HAVE PROTECTION DEVICES

WITH TIES. DISCONNECTION SHALL BE ACCOMPLISHED BY A SINGLE MOVEMENT

CABLE TYPES AC AND NM CABLES ARE NOT ACCEPTABLE. TYPE MC CABLE, ELECTRIC METALLIC

SYSTEMS AND EQUIPMENT FOR CODE COMPLIANCE AND CONSTRUCTABILITY, AND DOCUMENT ALL

QUANTITIES AND CONDUCTORING, SECTIONS THRU BUILDING FOR RACKING, DUCTBANK CROSS

SHALL SUBMIT ALL DOCUMENTATION TO THE ARCHITECT FOR REVIEW NO LATER THAN 3 WEEKS

QUIPMENT AND TERMINATIONS. INCLUDING FPL AND UTILITY REQUIREMENTS AND APPROVALS FOR

ALL CONDUCTORING AND TERMINATIONS, TO SATISFY THE PROJECT REQUIREMENTS. IT IS SOLELY THE

SWITCHES ARE TO BE MOUNTED AT 48" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED.

- TIME CLOCK/PANEL TELEPHONE BOARD **\$** SWITCH
- **\$3** 3-WAY SWITCH
- FLOOR RECEPTACLE/TELE/FAX/DATA WITH COVER PLATE, FLUSH WITH FLOOR **\$4** 4-WAY SWITCH COVER PLATE, FLUSH WITH FLOOR ** DIMMER SWITCH
 - **5m** MANUAL MOTOR STARTER PUSH BUTTON
 - SENSOR DOOR OPENER/CARD READER BY OTHERS ** A ALARM BY OTHERS **

IG ISOLATED GROUND

ASW ABOVE SHOW WINDOW

CM CEILING MOUNTED

AC ABOVE COUNTER

UC UNDER COUNTER

VIF VERIFY IN FIELD

NO SYMBOL NEW

AFF ABOVE FINISHED FLOOR

OWNER/ARCH

WIFI CEILING MOUNTED WIFI

CONNECTION. **

SP WALL MOUNTED SPEAKER. **
MOUNTING HEIGHT BY ADCULTEGT

FLOOR RECESSED JUNCTION BOX

FLUSH WITH FLOOR

MOUNTING HEIGHT BY ARCHITECT

TELEPHONE GROUND BAR

EXISTING - COORDINATE REPLACING COVER PLATES W/

RELOCATED EXISTING -

COORDINATE REPLACING COVER

PLATES W/ OWNER/ARCH

- 8. ALL MATERIALS SHALL BE NEW AND SHALL BEAR U.L. LABELS WHERE APPLICABLE.
- 9. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANSHIP MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTANCE BY ENGINEER/ARCHITECT MUST BE A CONDITION OF THE SUBCONTRACTOR.

GENERAL ELECTRICAL NOTES

DO NOT SCALE THE ELECTRICAL DRAWING. REFER TO THE ARCHITECTURAL PLAN AND

ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT AND CONFIRM WITH OWNERS

REPRESENTATIVES. CONTRACTOR SHALL REFER TO THE ENTIRE SET OF CONTRACT

THE LOCAL AUTHORITIES HAVING JURISDICTION OF THE FOLLOWING: THE NATIONAL

FOR SIZE #10 AND SMALLER. CONDUCTORS LARGER THAN #10 SHALL HAVE "THWN"

BE STRANDED. ALL CONDUCTORS MUST COMPLY WITH ARTICLE 310 OF THE N.E.C.

OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE EDITIONS CURRENTLY ADOPTED BY

ELECTRICAL CODE (NFPA 70), NFPA 72, NFPA 75, THE FIRE PREVENTION CODE INCLUDING

UNLESS OTHERWISE NOTED, ALL CONDUCTORS SHALL BE COPPER, WITH "THHN" INSULATION

INSULATION. ALL CONDUCTORS IN WET LOCATIONS MUST HAVE "THWN" INSULATION. ALL

CONDUCTORS #10 AND SMALLER MAY BE SOLID. ALL CONDUCTORS #8 AND LARGER SHALL

THREADED HUBS IN WET LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED

DISCONNECT SWITCHES SHALL BE H.P. RATED, HEAVY DUTY, QUICK MAKE, QUICK BREAK,

THESE PLANS DO NOT SHOW EVERY MINOR DETAIL OF CONSTRUCTION, THE CONTRACTOR IS

THE ELECTRICAL SYSTEM SHALL BE COMPLETELY AND EFFECTIVELY GROUNDED AS

EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND

MEET ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING

REQUIRED IN ARTICLE 250, NATIONAL ELECTRICAL CODE. THE GROUNDING SYSTEM SHALL BE

TESTED AND SHALL BE PROVIDED TO MEASURE A MAXIMUM OF 5 OHMS. PROVIDE A COPY OF

DOCUMENTS FOR PROJECT COORDINATION.

WITH ENCLOSURES AS REQUIRED BY EXPOSURE.

THE TEST REPORT TO ENGINEER.

NFPA 1 & NFPA 101, NFPA 110, AND THE FBC, AND THE FFPC.

- 10. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER, LIGHT COMPANY, TELEPHONE COMPANY, AND BROADBAND PROVIDER.
- 11. CIRCUITS SHOWN ON PLANS ARE TO DETERMINE LOAD DATA AND PANEL SIZE. THE CONTRACTOR SHALL PROVIDE CIRCUITS TO SUIT JOB CONDITIONS, BALANCE LOADS ON EACH
- 12. SEE NOTES ON PLANS FOR OTHER REQUIREMENTS.
- 13. FURNISH AND INSTALL LIGHTING FIXTURES AND LAMPS AS CALLED FOR ON PLANS, OR AS SELECTED BY OWNER.
- 14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH
- 15. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY PHASE OF THE INSTALLATION WHICH MAY BE DAMAGED.
- 16. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OF PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- 17. CHECK ALL EQUIPMENT FOR PROPER VOLTAGE, PHASE, AND CURRENT BEFORE CONNECTION TO CIRCUITS AND START UP.
- 18. ELECTRICAL CONTRACTOR SHALL CHECK AND VERIFY EQUIPMENT FURNISHED AGAINST THOSE SPECIFIED OR INTENDED AND REVISE BRANCH CIRCUITS AS MAY BE REQUIRED WITH PRIOR APPROVAL OF ENGINEER/ARCHITECT.
- 19. ALL SYSTEMS AND ROUGH-IN SHALL BE CONCEALED IN FINISHED AREAS. COORDINATE WITH
- 20. THE ELECTRICAL PORTION OF THE CONTRACT DOCUMENTS ARE COORDINATED WITH THE BASIS OF DESIGN EQUIPMENT SPECIFIED BY DIVISION 16 AND OTHER DIVISIONS. WHERE THE CONTRACTOR ELECTS TO SUBSTITUTE A PRODUCT IN LIEU OF PROVIDING THE DESIGN BASIS. AND SAID SUBSTITUTION IS ACCEPTED BY THE A/E AND OWNER, THE CONTRACTOR SHALL MAKE ALL CORRECTIONS TO THE ELECTRICAL SYSTEM NECESSARY IN ORDER TO ENSURE A COMPLETE AND OPERATIONAL INSTALLATION OF THE EQUIPMENT AT NO ADDITIONAL COSTS WHERE THE CONTRACTOR'S DECISION TO SUBSTITUTE PRODUCTS OR MODIFY DESIGN REQUIRING A/E SERVICES, THE A/E RESERVES THE RIGHT TO REQUEST COMPENSATION FROM THE CONTRACTOR FOR SAID SERVICES.
- 21. CONTRACTOR SHALL PROVIDE A CONTROLS TRADE SUBCONTRACTOR TO DESIGN AND INSTALL ALL CONTROLS TO MEET THE PROJECT REQUIREMENTS.
- 22. GFCI DEVICES MUST BE READILY ACCESSIBLE. NEC 210.
- 23. ALL ROOFTOP EQUIPMENT AND SUPPORT SHALL BE SECURE TO THE STRUCTURE IN COMPLIANCE WITH THE PROVISION OF FBC CHAPTER 16 (HIGH-VELOCITY HURRICANE ZONES) FBC BUILDING 1522.2.

AIR CONDITIONING EQUIPMENT AND CONTROLS SPECIFICATION

- ELECTRICAL CONTRACTOR SHALL INSTALL ALL CONTROL RACEWAY (CONDUIT), WIRE INSTALLATION, CONNECTIONS ETC. IN ACCORDANCE WITH WIRING DIAGRAMS ON AIR
- A/C / ELECTRICAL PLANS OR DIAGRAMS FURNISHED BY MANUFACTURER OF THE EQUIPMENT. ALL POWER WIRING FOR THE AIR CONDITIONING EQUIPMENT SHALL BE FURNISHED. INSTALLED AND CONNECTED UNDER THIS SECTION OF THE SPECIFICATION.
- MECHANICAL CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR ALL AIR CONDITIONING EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONNECTIONS TO AIR CONDITIONING EQUIPMENT PER MANUFACTURERS SPECIFICATIONS.
- AIR CONDITIONING EQUIPMENT INCLUDES CONDENSER, COMPRESSOR AND FAN, FAN COIL UNITS, ELECTRICAL STRIP HEATER, THERMOSTAT, ETC.

UL LISTING AND NRTL CERTIFICATIONS NOTE

CONTRACTOR/MANUFACTURER SHALL PROVIDE COMPLETE DOCUMENTATION AND CERTIFICATIONS FOR ANY EQUIPMENT THAT HE PROPOSES WITH A NRTL (NATIONALLY RECOGNIZED TESTING LAB) LISTING AND LABELING EQUIVALENT TO THE BASIS OF DESIGN UL LISTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM ACCEPTABILITY BY THE LOCAL AHJ AND AGENCIES FOR THE NRTL LISTING AND CERTIFICATION FOR THE PRODUCTS HE PROPOSES AND DEMONSTRATE SUCH AS

CONTRACTOR IS CAUTIONED TO OBTAIN COMPLETE EQUIPMENT PRODUCT DATA FROM ARCHITECT. PRIOR TO BIDDING AND ROUGH-IN. . CONTRACTOR SHALL PROVIDE NEMA OUTLET TO MEET PROJECT AND EQUIPMENT REQUIREMENTS.

SPECIAL PURPOSE OUTLET NOTES

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies. FIRE SAFETY FLORIDA STATUTES: TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS

This item has been digitally signed and sealed by Ursula lafrate on the

AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE

ACCORDANCE WITH F.B.C. 2023 SECTION 110.8.4.4 AND CHAPTER 633, FLORIDA STATUTES.

APPLICABLE FIRE-SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN

PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND SHALL INCLUDE IN THE BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

GENERAL DEMOLITION NOTES

EQUIPMENT AND LIGHTING FIXTURES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE

INFORMATION SHOWN ON THESE DOCUMENTS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR

TO FIELD VERIFY ELECTRICAL CIRCUIT HOME RUNS TO ALL ELECTRICAL ITEMS SCHEDULED

FOR DEMOLITION AND PERFORM THE WORK AS INTENDED AND DEPICTED ON THE DRAWINGS.

CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN RELOCATING WIRING DEVICES,

THAT OTHER WIRING DEVICES, EQUIPMENT, AND LIGHTING FIXTURES THAT MAY BE

UPDATE ALL ELECTRICAL PANEL BOARD DIRECTORIES THAT ARE AFFECTED BY THE

STORE ITEMS INDICATED TO BE RETURNED TO THE OWNER IN A DRY, CLEAN, AND

COORDINATE ANY ALTERATION AND CHANGES TO THE ELECTRICAL SERVICE WITH THE

PRE SCHEDULE ALL POWER INTERRUPTIONS WITH OWNER. GIVE OWNER 48 HOURS NOTICE

CONTRACTOR IS RESPONSIBLE OF BECOMING FULLY INFORMED AS TO EXISTING CONDITIONS

AT THE SITE. NEITHER THE OWNER NOR THE A/E MAKES ANY REPRESENTATION WARRANTY

CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE NATURE AND EXTENT

ELECTRICAL EQUIPMENT INCLUDING RECONNECT OF SUCH EXISTING ITEMS IS CONSIDERED TO

WILL REMAIN ACTIVE. THE REWIRING SHALL BE INCLUDED UNDER THIS CONTRACT WITHOUT

WHERE CONDUIT IS INACCESSIBLE, REMOVE CONDUCTORS AND CUT BACK CONDUIT FLUSH

SHALL MODIFY EXISTING WIRING AS REQUIRED TO MAINTAIN CONTINUITY OF EXISTING

THE CONTRACTOR IS TO GIVE THE OWNER AN OPPORTUNITY TO ACCEPT ANY ELECTRICAL

ITEMS THAT WERE REMOVED FOR THEIR USE. SALVAGED MATERIALS, AND EQUIPMENT THE

OWNER DOES NOT WISH TO KEEP SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND

SHALL BE DISPOSED OF BY THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING WHERE REQUIRED DURING

DRAWINGS PROVIDED BY THE OWNER AND FIELD INVESTIGATION. THE ACTUAL CONDITIONS

MAY VARY, ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. THE CONDITIONS

SHOWN ARE INTENDED TO SHOW THE LOCATIONS OF THE EXISTING EQUIPMENT, AND IN NO

WAY RELIEVES THE CONTRACTOR FROM PROVIDING ANY AND ALL COORDINATION REQUIRED

THE DEMOLITION PLAN IS NOT INCLUSIVE OF ALL ELECTRICAL DEVICES WITHIN THE PROJECT

AREA. IT IS INTENDED TO PROVIDE THE CONTRACTOR WITH A GENERAL KNOWLEDGE OF THE

EXISTING CONDITIONS WITHIN THE PROJECT AREA. ANY DISCREPANCIES OR CONDITIONS NOT

DISRUPTION TO THESE OTHER SPACES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE

SUPPORTED AND PROVIDED WITH BONDING BUSHINGS IN ACCORDANCE WITH THE NATIONAL

SHOWN ON THIS PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE

ALL CONDUITS SERVING OTHER SPACES OR FLOORS. THAT RUN THROUGH THE PROJECT

AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION, SO AS NOT TO CAUSE ANY

THAT ALL CONDUITS. NEW OR EXISTING WITHIN THE PROJECT AREA ARE PROPERLY

17. THE CONTRACTOR SHALL PHASE DEMOLITION WORK AS REQUIRED OR DIRECTED BY THE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR PATCHING ANY DAMAGE

OF SURFACES AFFECTED, AND SHALL MATCH IMMEDIATE ADJACENT AREAS IN

CONSTRUCTION, MATERIAL, FIRE RATING, FINISH AND COLOR.

COORDINATED WITH OTHER TRADES.

WHICH MAY OCCUR DURING DEMOLITION ACTIVITIES. REPAIRS TO BE DONE TO LOGICAL EDGES

ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR AND SHALL BE

CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE

THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE TAKEN FROM ORIGINAL

TO COMPLETE THE NEW WORK. FIELD CONDITIONS SHALL GOVERN.

CIRCUITRY SUCH THAT NO EQUIPMENT TO REMAIN IS LEFT WITHOUT SERVICE.

WITH SLAB OR WALL. PATCH OPENING TO MATCH EXISTING FINISH. WHERE EXISTING WIRING

EXTENDS OUTSIDE OF THE AREA BY NATURE OF THE ORIGINAL INSTALLATION, CONTRACTOR

BE PART OF THE WORK UNDER THIS CONTRACT. ALL EXISTING OUTLETS SHOWN TO REMAIN

OF THE WORK TO BE PERFORMED AND LOCAL CONDITIONS THAT MAY AFFECT THE WORK.

DUE TO REMOVAL OR CORRECTION TO ANY WALLS OR OTHER CONSTRUCTION

NECESSITATING CAPPING OF EXISTING ELECTRICAL WIRING DEVICES OR ANY OTHER

ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING CODES:

ARRANGEMENTS TO MAINTAIN POWER TO ALL CRITICAL EQUIPMENT AS NEEDED AND

PROTECTED AREA. NOTIFY OWNER WHEN ITEMS ARE READY TO BE REMOVED.

PRIOR TO DISCONNECTING POWER TO ANY PORTION OF THE BUILDING AND MAKE

CONNECTED ON THE SAME CIRCUIT REMAIN OPERATIONAL AND ACTIVE.

DEMOLITION AND/OR RENOVATIONS. DIRECTORIES SHALL BE TYPED.

LOCAL UTILITY COMPANY.

REQUESTED BY OWNER.

AS TO SITE CONDITIONS.

ADDITIONAL COST TO OWNER.

FLORIDA BUILDING CODE

ELECTRICAL CODE.

NATIONAL ELECTRICAL CODE (NEC)

NATIONAL FIRE PROTECTION AGENCY (NFPA)

DEMOLITION AND CONSTRUCTION SCOPE OF WORK.

ELECTRICAL NOTES, LEGEND AND SHEET INDEX POWER PLAN AND DETAILS ROOF POWER PLAN ELECTRICAL SCHEDULES

ELECTRICAL SHEET INDEX

DESCRIPTION

FIRE RATING NOTE

ALL DEVICES PENETRATING FIRE RATED WALLS SHALL BE PROVIDED WITH U.L. APPROVED FIRE RATED ASSEMBLIES. (EQUAL TO WALL FIRE RATING - SEE ARCHITECTURAL DRAWINGS)

SEALING NOTE

SEAL ALL CONDUITS EXTERNALLY WITH APPROVED SEALANTS PER ARCHITECTS SPECIFICATIONS, AND INTERNALLY WITH POLYWATER FST PER NEC 225.27, 300.5G, 300.7A, 505.15(B)-2.

FLORIDA BUILDING CODE 2023 CONFORMANCE

- CONTRACTOR TO PROVIDE ALL LABOR AND MATERIAL TO CONFORM TO FBC 2023, ENERGY COMPLIANCE, RELATED SECTIONS, AND STANDARDS.
- OWNER SHALL PROVIDE SERVICES OF AN INDEPENDENT COMMISSIONING AGENT(CxA) TO PREPARE FUNCTIONAL TEST PROCEDURES (DOCUMENT SYSTEMS PERFORMANCE, WITNESS CONTRACTOR TESTING), AS REQUIRED BY FBC FOR LIGHTING AND HVAC SYSTEMS.
- CONTRACTOR SHALL PROVIDE SERVICES TO TEST, BALANCE AND COMMISSION THE SYSTEM VIJ AN INDEPENDENT AGENT FOR THE MECHANICAL SYSTEMS ENERGY PERFORMANCE.
- CONTRACTOR TO PROVIDE COMPLETE CERTIFICATIONS AND CHECKLISTS AS REQUIRED BY FBC FOR HIS WORK RESPONSIBILITIES

FBC NOTE

- CONTRACTOR SHALL COMPLY WITH FBC (C408.2.5.1). PROVIDE OWNER WITH A RECORD SET DRAWING OF COMPLETE INSTALLATION DRAWINGS.
- CONTRACTOR SHALL COMPLY WITH FBC (C408.2.5.2). PROVIDE OWNER WITH OPERATIONAL MANUALS AND MAINTENANCE MANUALS.
- CONTRACTOR SHALL PREPARE AND PRODUCE ALL BUILDING OPERATIONS AND MAINTENANCE INFORMATION PER FBC (C408.1.1).
- CONTRACTOR SHALL PREPARE AND PRODUCE ALL DATA, DRAWINGS, MANUALS, REPORTS AND INFORMATION REQUIRED PER FBC (C408.3) SECTIONS.

CLEARANCE NOTE

ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED WITH NEC REQUIRED WORKING CLEARANCES. TYPICAL FOR ENTIRE PROJECT.

SCOPE OF WORK

THE PROJECT CONSISTS OF TENANT IMPROVEMENT. NEW POWER AND LIGHTING CIRCUITS WERE DESIGNED .

CODE COMPLIANCE

PERMIT SET: 08/07/24

300 Lock Road, Suite #302

TEL: (561) 391-9292 FAX: (561) 391-9898

CERTIFICATE OF AUTHORIZATION NO. 28107

ENJAMIN J. JADOS, P.E. LICENSE #86100

STEPHEN F. ROLLIN, P.E. LICENSE #36428

JRSULA IAFRATE, P.E. LICENSE #73122

E-MAIL: INFO@FAECONSULTING.COM

DEERFIELD BEACH, FL 33442

DESIGNED BY: MAM

C O N S U L T I N G

FLORIDA BUILDING CODE, 8th EDITION, 2023.

NATIONAL ELECTRICAL CODE. 2020.

THESE DRAWINGS MAY NOT BE REPRODUCED WITHOUT WRITTEN **AUTHORIZATION BY**

WILLIAM P. HORN

DATE

08-07-2024

REVISIONS

DRAWN BY

MAM

PROJEC^{*} NUMBER

24154

FERRY TERMINAL RENOVATION 100 Grinnell Street

KEY WEST, FLORIDA

PART OF THE PRODUCT DATA SUBMISSION AND INSTALLATION.

. CONTRACTOR TO PROVIDE MATCHING NEMA CAP/CORD AS REQUIRED.

TEL. (305) 296-8302 FAX (305) 296-1033

915 EATON ST

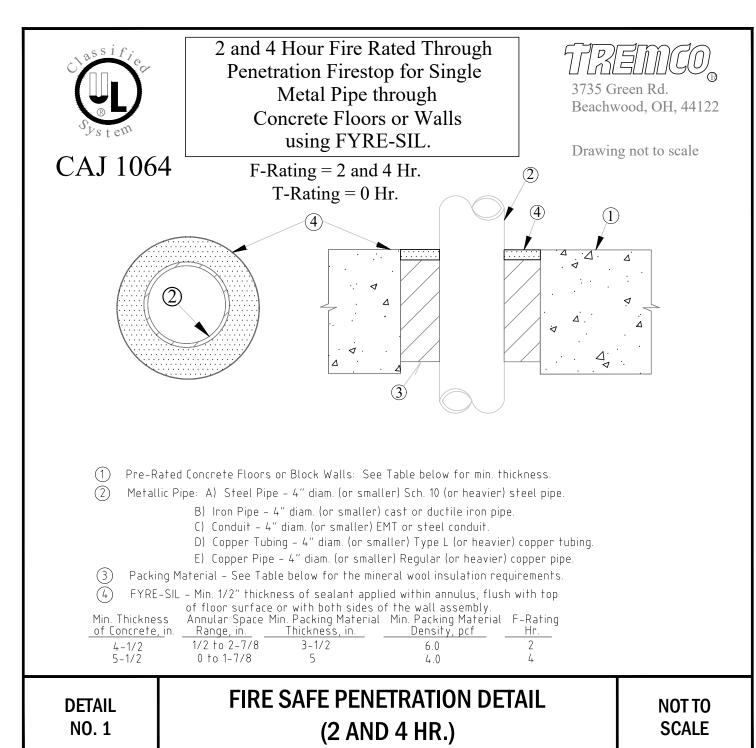
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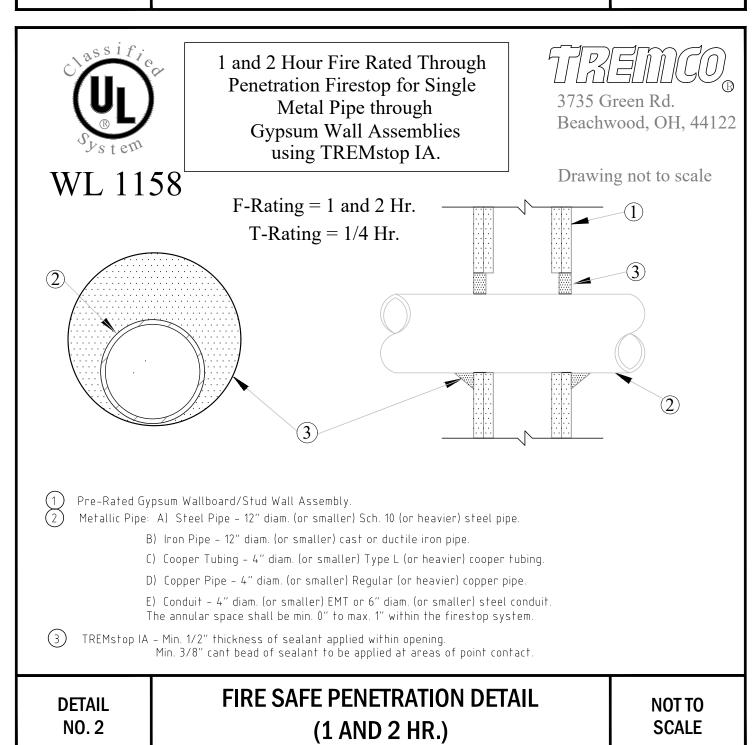
FLORIDA

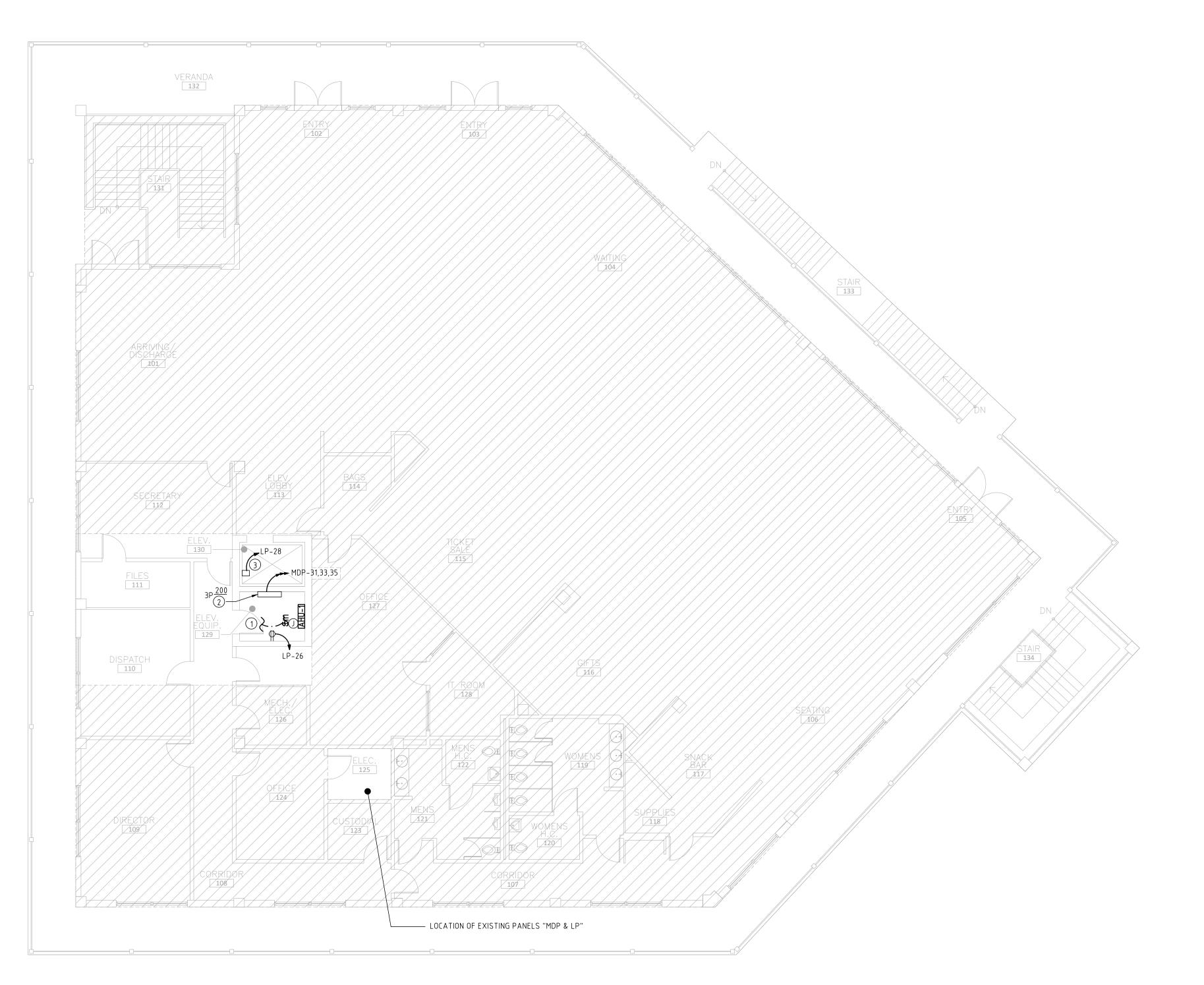
LICENSE NO. AR 13537

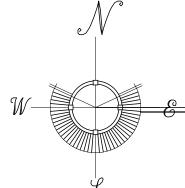
I FERRY TERMINAL

RENOVATION 100 Grinnell Street KEY WEST, FLORIDA









FIRST FLOOR POWER PLAN

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

This item has been digitally signed and sealed by Ursula lafrate on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

FIRE SAFETY FLORIDA STATUTES: TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE FIRE-SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH F.B.C. 2023 SECTION 110.8.4.4 AND CHAPTER 633, FLORIDA STATUTES. INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND 300 LOCK ROAD, SUITE #302 DEERFIELD BEACH, FL 33442 TEL: (561) 391-9292 FAX: (561) 391-9898 CERTIFICATE OF AUTHORIZATION NO. 28107 JRSULA IAFRATE, P.E. LICENSE #73122 BENJAMIN J. JADOS, P.E. LICENSE #86100 STEPHEN F. ROLLIN, P.E. LICENSE #36428 E-MAIL: INFO@FAECONSULTING.COM DESIGNED BY: MAM

WILLIAM P. HORN ARCHITECT, P.A.

SEE ELECTRICAL

NOTES & LEGEND ON

SHEET E0.1

KEY NOTES:

(3) SUMP PUMP SHALL BE RECONNECTED TO EXISTING

(2) PROVIDE FUSES PER MANUFACTURER'S RECOMMENDED NAMEPLATE RATINGS.

BRANCH CIRCUIT AS SHOWN.

1) CIRCUIT AHU-1 TO CU-1

PERMIT SET: 08/07/24

CONSULTING

915 EATON ST.

KEY WEST, FLORIDA 33040

TEL. (305) 296-8302

FAX (305) 296-1033

LICENSE NO. AR 13537

FERRY TERMINAL RENOVATION

100 Grinnell Street KEY WEST, FLORIDA.

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DATE

08-07-2024

WILLIAM P. HORN

REVISIONS

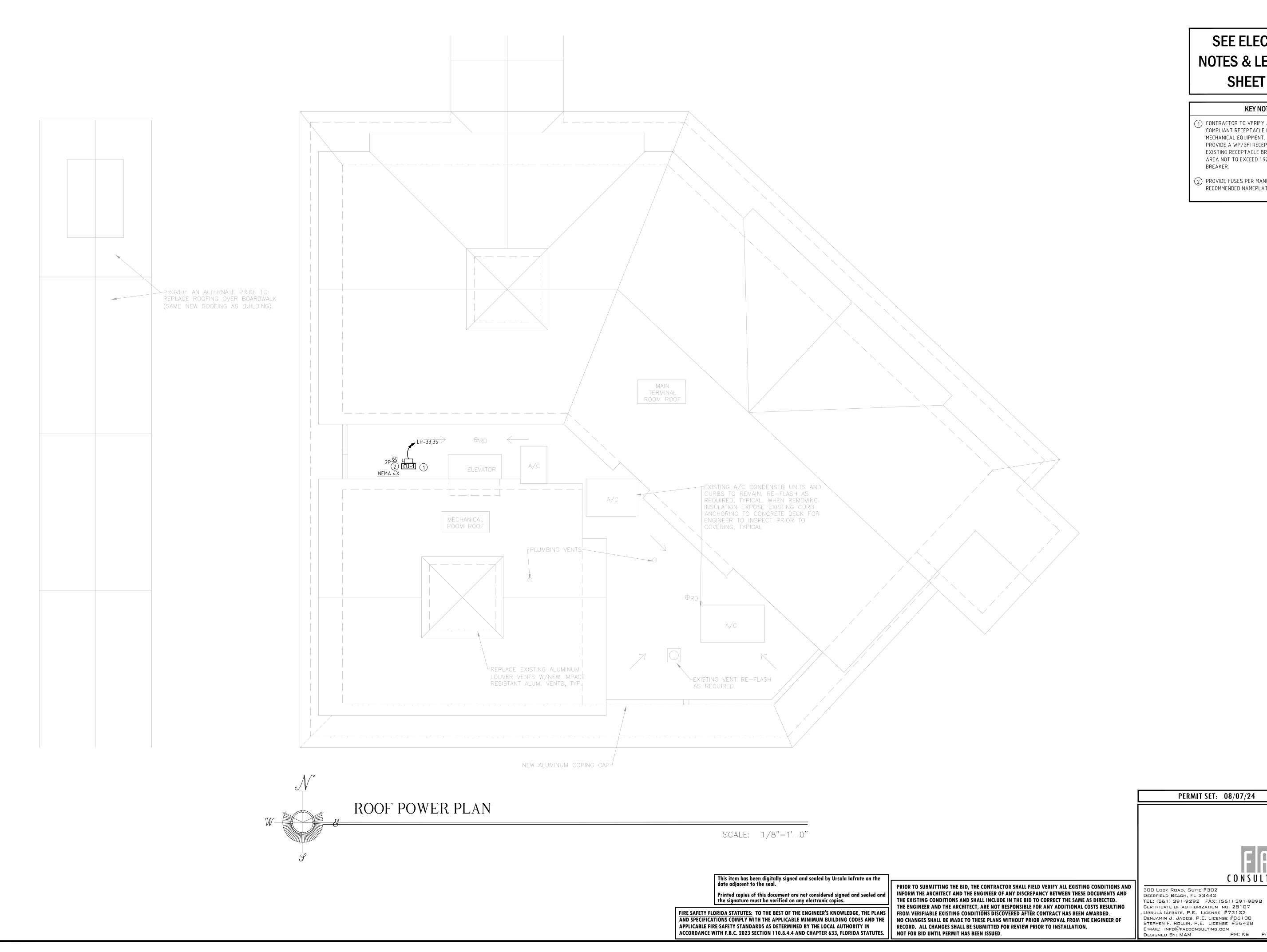
DRAWN BY

PROJEC^{*} NUMBEF

24154

FERRY TERMINAL RENOVATION

100 Grinnell Street KEY WEST, FLORIDA



SEE ELECTRICAL **NOTES & LEGEND ON** SHEET EO.1

KEY NOTES:

(1) CONTRACTOR TO VERIFY AN OPERATIONAL CODE COMPLIANT RECEPTACLE IS LOCATED WITH 25' OF MECHANICAL EQUIPMENT. IF NOT, CONTRACTOR TO PROVIDE A WP/GFI RECEPTACLE AND CONNECT TO EXISTING RECEPTACLE BRANCH CIRCUIT IN THIS AREA NOT TO EXCEED 1.92 KVA ON A 1P-20A BREAKER.

2) PROVIDE FUSES PER MANUFACTURER'S RECOMMENDED NAMEPLATE RATINGS.

WILLIAM P. HORN ARCHITECT, P.A.

915 EATON ST.

KEY WEST,

FLORIDA 33040

TEL. (305) 296-8302

FAX (305) 296-1033

LICENSE NO. AR 13537

FERRY TERMINAL RENOVATION

100 Grinnell Street KEY WEST, FLORIDA.

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DATE

WILLIAM P. HORN

08-07-2024

REVISIONS

DRAWN BY

PROJECT NUMBER

FERRY TERMINAL RENOVATION

100 Grinnell Street KEY WEST, FLORIDA

ИFG	EXISTING								TYPE	EXISTING		KEY NO	TES: 1, 2	2		PANEL RATING	800	AMPS	
OLTS	120/208V 3Φ	94W		_					PANEL	"MDP"					_				•
BUS A (KVA)	BUS B (KVA)	BUS C (KVA)	LOAD	KEY NOTES	COND	WIRE SIZE	GND	AMPS	СКТ	СКТ	AMPS	GND	WIRE SIZE	COND	KEY NOTES	LOAD	BUS A (KVA)	BUS B (KVA)	BUS (KVA
-	, ,		SPACE		-	-	-	-	1	2	-	-	-	-		SPACE	-	, , ,	,
	-								3	4	1							-	
		-							5	6									-
12.0			YANKEE FREEDOM/STORAGE	5	2"	3/0	6	200	7	8	90	8	3	1-1/4"	5	BOAT LIFT	6.5		
	12.0								9	10								6.5	
		12.0							11	12									6.5
8.0			YANKEE FREEDOM/FERRY	5	1-1/4"	3	8	100	13	14	100	8	3	1-1/4"	5	CONC ELECTRIC CARS	7.6		
	8.0								15	16								7.6	
		8.0							17	18									7.6
5.0			AC1	5	1"	6	10	60	19	20	20	-	-	-	5	SPARE	-		
	5.0								21	22								-	
		5.0							23	24									-
11.0			AC2	5	2"	1/0	6	150	25	26	60	-	-	-	5	SPARE	-		
	11.0								27	28								-	
		11.0							29	30									-
9.5			ELEVATOR (25 HP)	3,7	1-1/4"	2	6	110	31	32	150	6	1/0	2"	5	RP PANEL	10.3		
	9.5								33	34								8.7	
		9.5							35	36			<u> </u>						8.5
12.1			LP PANEL	5	2-1/2"	4/0	4	225	37	38	200	4	3/0	2"	5	AC3	15.0		
	11.5								39	40								15.0	
		9.4							41	42									15.0
	TOTALS																		
(VA Фа	KVA ФВ	кva фс			REMARKS														
97.0	94.8	92.5]		1.	MAIN	LUGS ON	ILY. ELECT	RICALC	ONTRACT	OR SHALI	PROVI	DE AN A	CCURATE	PER FIELD	CONDITIONS, TYPED UP PANEL	. SCHEDULE UPC	ON COMPLET	ION OF T
					1														
	CULATIONS PER	R NEC 220			2.										CTION; AI	LL EQUIPMENT'S ELECTRICAL REC	QUIREMENTS SH	IALL BE CONF	IRMED
	A OF RECEPS.	10.0	AT 100%	10.0				CS. VERIF			-								
MAINDE	R OF RECEPS.	16.0	AT 50%	8.0	3.	PROVI	DE PER N	MANUFAC	TURERS	SPECIFICA	ATION. CO	ORDIN	ATE EXA	CT REQUII	REMENTS	WITH ELEVATOR MANUFACTUR	ER.		
	LIGHTING	0.0	AT 125%	0.0	4.	PROVI	DE "HAC	R" RATED	CIRCUIT	BREAKER	₹.								
LAF	RGEST MOTOR	28.5	AT 125%	35.6	5.	EXISTII	NG BRAN	NCH CIRCU	JIT AND	CIRCUIT B	REAKER.								
W	'ATER HEATER	0.0	AT 125%	0.0	6.	NEW B	RANCH	CIRCUIT IN	I EXISTI	NG BRANG	CH CIRCUI	T AND E	BREAKER	₹.					
KITCHEN	I FOLIIDMENT	0.0	ΔΤ 65%	0.0	1 7	DEMON	/E EVICT	ING BREVE	VED ANI	DRU//ID	E NIE/A/ A S	SCHEDI	IIIEN BE	DEAKED CIT	TE IC DENI	ICED FROM 1754 TO 1104 REDIT	CINCTOVEON	EVICTING DA	NIEI

LOAD CALCULATIONS PER I	NEC 220	·	
1ST 10KVA OF RECEPS.	10.0	AT 100%	10.0
REMAINDER OF RECEPS.	16.0	AT 50%	8.0
LIGHTING	0.0	AT 125%	0.0
LARGEST MOTOR	28.5	AT 125%	35.6
WATER HEATER	0.0	AT 125%	0.0
KITCHEN EQUIPMENT	0.0	AT 65%	0.0
REMAINDER OF LOADS		AT 100%	229.7
		TOTAL KVA	283.3
		TOTAL AMPS	786.4
		_	

7. REMOVE EXISTING BREAKER AND PROVIDE NEW AS SCHEDULED. BREAKER SIZE IS REDUCED FROM 175A TO 110A REDUCING LOAD ON EXISTING PANEL

FED FROM EXISTING 3P-800A MAIN BREAKER. MOUNT SURFACE MIN A.I.C. EXISTING AMPS

MFG	EXISTING								TYPE	EXISTING	 3	KEY NO	TES: 1,	2		PANEL RATING	225	AMPS	
VOLTS	120/208V 1¢	93W		-					PANEL						-				_
BUS A	BUS B	BUS C		KEY		WIRE							WIRE		KEY		BUS A	BUS B	BUS C
(KVA)	(KVA)	(KVA)	LOAD	NOTES	COND	SIZE	GND	AMPS	CKT	СКТ	AMPS	GND	SIZE	COND	NOTES	LOAD	(KVA)	(KVA)	(KVA)
2.0	, ,		LIGHTING - SITE	4	3/4"	10	10	30	1	2	30	10	10	3/4"	4	WATER HEATER	2.3	, ,	, ,
	0.6		LIGHTING - SITE	4	1/2"	12	12	20	3	4	1							2.3	
		0.6	LIGHTING - GROUND FLOOR	4	1/2"	12	12	20	5	6	20	12	12	1/2"	4	LIGHTING WAITING ROOM			0.6
0.6			LIGHTING - GROUND FLOOR	4	1/2"	12	12	20	7	8	20	12	12	1/2"	4	LIGHTING WAITING ROOM	0.6		
	0.6		LIGHTING - GROUND FLOOR	4	1/2"	12	12	20	9	10	20	12	12	1/2"	4	LIGHTING WAITING ROOM		0.6	
		0.6	LIGHTING - GROUND FLOOR	4	1/2"	12	12	20	11	12	20	12	12	1/2"	4	LIGHTING TICKETS & GIFTS			0.6
0.6			LIGHTING OFFICES	4	1/2"	12	12	20	13	14	20	12	12	1/2"	4	VERANDA LIGHTS	0.6		
	0.6		MEN BATH	4	1/2"	12	12	20	15	16	20	12	12	1/2"	4	VERANDA LIGHTS		0.6	
		0.6	LIGHTING WAITING ROOM	4	1/2"	12	12	20	17	18	20	12	12	1/2"	4	ELEVATOR SHUNT TRIP			-
0.6			LIGHTING OUTDOOR SIGNS	4	1/2"	12	12	20	19	20	20	12	12	1/2"	4	ELEVATOR CAB	0.6		
	0.6		LIGHTING ROOF MECH	4	1/2"	12	12	20	21	22	20	12	12	1/2"	4	EX FAN BATHROOMS		0.6	
		1.0	TV EAST	4	1/2"	12	12	20	23	24	20	12	12	1/2"	4	EX FAN ELEVATOR MECH ROOM			0.6
1.0			TV MIDDLE	4	1/2"	12	12	20	25	26	20	12	12	1/2"	5	ELEVATOR RECEPTACLE	0.2		
	0.6		DOWNSTAIRS LOBBY ELEVATOR	4	3/4"	10	10	30	27	28	20	12	12	1/2"	5	ELEVATOR SUMP PUMP		1.2	
		0.6	DOWNSTAIRS STORAGE LIGHTS	4	1/2"	12	12	20	29	30	20	-	-	-	4	SPARE			-
-			SPARE	4	-	-	-	20	31	32	20	12	12	1/2"	4	DOCK PUMP	1.5		
	1.1		AHU/CU-1	6	3/4"	10	10	15	33	34	20	12	12	1/2"	4	DOCK LIGHTS		0.6	
		1.1		35 36 20 12 12 1/2" 4 HOSE REAL DOCK												1.0			
-			SPARE	4	-	-	-	50	37	38	30	10	10	3/4"	4	FUEL PUMP IN GROUND	1.5		
	-								39	40								1.5	
		0.6	DOWNSTAIRS STORAGE LIGHTS	4	1/2"	12	12	20	41	42									1.5
	TOTALS																		
KVA Фа	KVA ФВ	кva фс			REMARKS	& KEY N	NOTES												
12.1	11.5	9.4			1.	MAIN I	LUGS ON	NLY. ELECT	TRICAL C	CONTRAC	TOR SHAL	L PROVII	DE AN A	CCURATE	PER FIELD	CONDITIONS, TYPED UP PANEL SC	HEDULE UPO	ON COMPLET	TON OF THE
LOAD CALC	ULATIONS PER	R NEC 220			2.	VERIFY	'ELECTR	ICAL REQU	JIREME	NTS OF AL	L EQUIPN	IENT PRI	OR TO	CONSTRUC	TION; AL	L EQUIPMENT'S ELECTRICAL REQUI	REMENTS SH	HALL BE CON	FIRMED
1ST 10KV	A OF RECEPS.	0.6	AT 100%	0.6		WITH	MFG SPE	CS. VERIF	Y VOLTA	AGE, AMP	ERAGE, A	ND BREA	AKER SIZ	ZES.					
REMAINDE	R OF RECEPS.	0.0	AT 50%	0.0	3.	PROVI	DE PER I	MANUFAC	TURERS	SPECIFIC	ATIONS								
	LIGHTING	12.2	AT 125%	15.3	4.	EXISTI	NG BRAI	NCH CIRCU	JIT AND	CIRCUIT E	BREAKER								
LAR	GEST MOTOR	0.0	AT 125%	0.0	5.	NEW B	RANCH	CIRCUIT II	N EXISTI	NG BRAN	CH CIRCU	IT AND B	BREAKEI	₹.					
W	ATER HEATER	4.5	AT 125%	5.6	6.	PROVI	DE "HAC	R" RATED	CIRCUI	T BREAKEI	₹.								
KITCHEN	I EQUIPMENT	0.0	AT 65%	0.0															
REMAIND	ER OF LOADS		AT 100%	15.6															
ELEC	TRIC VEHICLE	0.0	0.0																
			TOTAL KVA	37.1															
			TOTAL AMPS	178.2															

PERMIT SET: 08/07/24

This item has been digitally signed and sealed by Ursula lafrate on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

FIRE SAFETY FLORIDA STATUTES: TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE FIRE-SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH F.B.C. 2023 SECTION 110.8.4.4 AND CHAPTER 633, FLORIDA STATUTES.

PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND SHALL INCLUDE IN THE BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

MOUNT SURFACE MIN A.I.C. MATCH EXISTING AMPS

300 LOCK ROAD, SUITE #302 DEERFIELD BEACH, FL 33442 TEL: (561) 391-9292 FAX: (561) 391-9898 CERTIFICATE OF AUTHORIZATION NO. 28107 URSULA IAFRATE, P.E. LICENSE #73122 BENJAMIN J. JADOS, P.E. LICENSE #86100 STEPHEN F. ROLLIN, P.E. LICENSE #36428 E-MAIL: INFO@FAECONSULTING.COM DESIGNED BY: MAM PM: KS P/N 24154

915 EATON ST. KEY WEST,

PANEL FEEDER NOTE

NEW AND/OR MODIFIED BRANCH

CIRCUITS IN EXISTING PANEL ARE IDENTIFIED IN BOLD TEXT.

PANEL SCHEDULE INDEX

MDP

THE ELECTRICAL CONTRACTOR SHALL VERIFY THE LENGTH OF ALL 120V RUNS IN FIELD AND SHALL MAINTAIN LESS THAN 3% VOLTAGE DROP. THE WIRE GAUGE MAY NEED TO INCREASE TO #10 AWG MINIMUM

FOR A 20A BREAKER.

FLORIDA 33040

TEL. (305) 296-8302 FAX (305) 296-1033

LICENSE NO. AR 13537

FERRY TERMINAL RENOVATION 100 Grinnell Street

KEY WEST, FLORIDA.

THESE DRAWINGS MAY NOT BE REPRODUCED WITHOUT WRITTEN **AUTHORIZATION BY** WILLIAM P. HORN

DATE 08-07-2024

REVISIONS

DRAWN BY

PROJECT NUMBER

FED FROM PANEL "MDP"