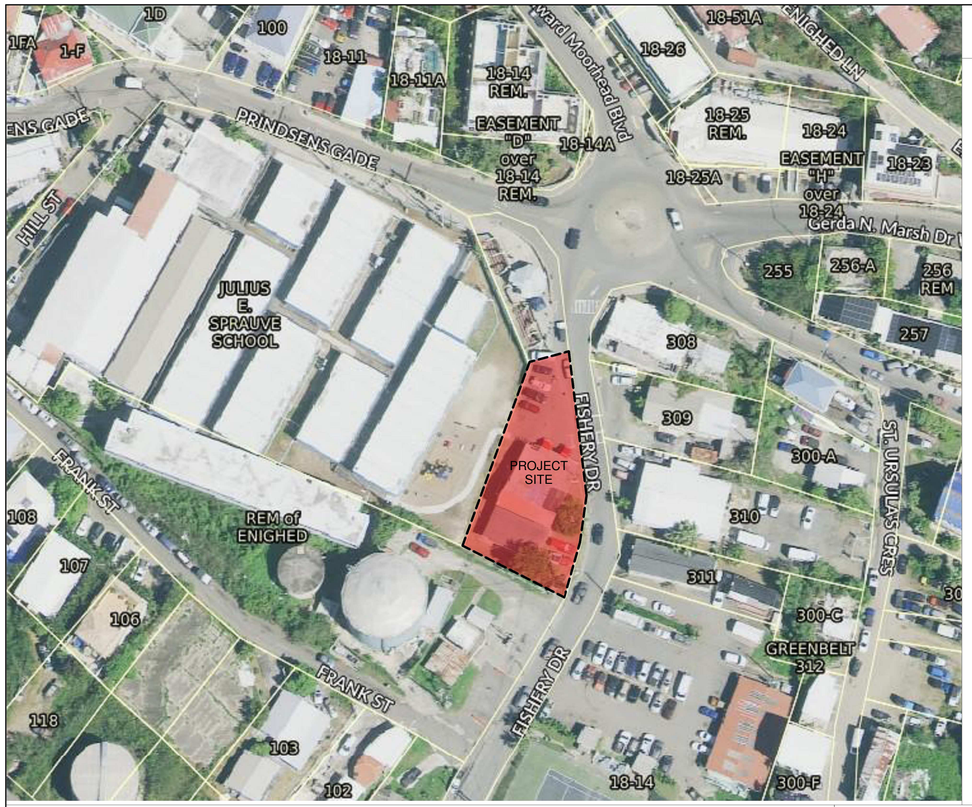


PROJECT DIRECTORY

CRUZ BAY VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

PREPARED BY: JDG Jaredian Design Group — Architects, Engineers and Construction Managers

PREPARED FOR:

GOVERNMENT OF THE UNITED STATES VIRGIN ISLANDS

OFFICE OF DISASTER RECOVERY

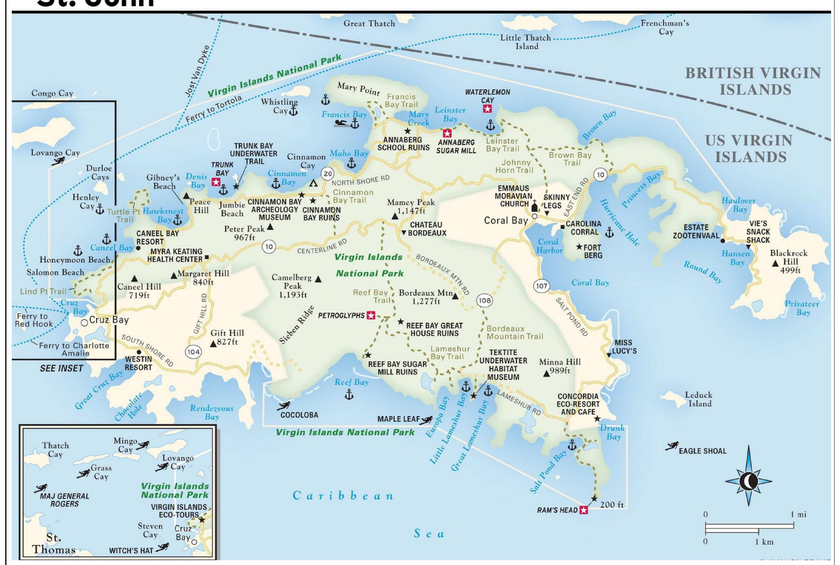
V.I. FIRE AND EMERGENCY MEDICAL SERVICES

PROJECT NO.: 23-005.C

ISSUED FOR: 60% SUBMISSION

ISSUE DATE: 10.03.2025

VICINITY MAP



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INDEX OF DRAWINGS

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GYPSUM BOARD SPECIFICATIONS

PART 1 - GENERAL
1.1 SUMMARY

A. SECTION INCLUDES:
1. INTERIOR GYPSUM BOARD.

1.2 DELIVERY, STORAGE AND HANDLING

A. STORE MATERIALS INSIDE UNDER COVER AND KEEP THEM DRY AND PROTECTED AGAINST WEATHER, CONDENSATION, DIRECT SUNLIGHT, CONSTRUCTION TRAFFIC, AND OTHER POTENTIAL CAUSES OF DAMAGE. STACK PANELS FLAT AND SUPPORTED ON RISERS ON A FLAT PLATFORM TO PREVENT SAGGING.

1.3 FIELD CONDITIONS

A. ENVIRONMENTAL LIMITATIONS: COMPLY WITH ASTM C 840 REQUIREMENTS OR GYPSUM BOARD MANUFACTURER'S WRITTEN INSTRUCTIONS, WHICHEVER ARE MORE STRINGENT.

B. DO NOT INSTALL PAPER-FACED GYPSUM PANELS UNTIL INSTALLATION AREAS ARE ENCLOSED AND CONDITIONED.

C. DO NOT INSTALL PANELS THAT ARE WET, MOISTURE DAMAGED, AND MOLD DAMAGED.
1. INDICATIONS THAT PANELS ARE WET OR MOISTURE DAMAGED INCLUDE, BUT ARE NOT LIMITED TO, DISCOLORATION, SAGGING, OR IRREGULAR SHAPE.
2. INDICATIONS THAT PANELS ARE MOLD DAMAGED INCLUDE, BUT ARE NOT LIMITED TO,FUZZY OR SPLOTCHY SURFACE CONTAMINATION AND DISCOLORATION.

D. INDOOR ENVIRONMENTAL CONTROL:
1. GYPSUM BOARD WITH A PAPER FACE AND A CORE CONTAINING CARBON-BASED OR SUCROSE BINDERS THAT ARE FOOD AND HABITATION FOR MOLD WHEN SUBJECT TO PROLONGED MOISTURE EXPOSURE GYPSUM. REMOVE FROM PROJECT SITE GYPSUM BOARD MEASURING ABOVE 15 PERCENT MOISTURE CONTENT AND GYPSUM BOARD SUBJECT TO CONTINUOUS MOISTURE CONTACT FOR OVER A 3 DAY PERIOD. THIS INCLUDES INSTALLED GYPSUM BOARD.
2. SHOW 1/2 INCH SPACE FROM BOTTOM OF GYPSUM BOARD PANELS AND FLOOR TO PREVENT WATER EXPOSURE FROM WET MOPPING OF FLOORS.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

A. SIZE: PROVIDE MAXIMUM LENGTHS AND WIDTHS AVAILABLE THAT WILL MINIMIZE JOINTS IN EACH AREA AND THAT CORRESPOND WITH SUPPORT SYSTEM INDICATED.

2.2 INTERIOR GYPSUM BOARD

A. GYPSUM WALLBOARD: ASTM C 1396/C 1396M.
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
A. USG CORPORATION
B. AMERICAN GYPSUM.
C. CERTAINTEED CORPORATION.
D. CONTINENTAL BUILDING PRODUCTS, LLC.
E. GEORGIA-PACIFIC BUILDING PRODUCTS.
F. NATIONAL GYPSUM COMPANY.
G. PABCO GYPSUM.
H. TEMPLE-INLAND BUILDING PRODUCTS BY GEORGIA-PACIFIC.
I. APPROVED EQUAL.

2. THICKNESS: 1/2 INCH (12.7 MM).
3. LONG EDGES: TAPERED

B. GYPSUM CEILING BOARD: ASTM C 1396/C 1396M.
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
A. USG CORPORATION
B. CERTAINTEED CORPORATION.
C. CONTINENTAL BUILDING PRODUCTS, LLC.
D. GEORGIA-PACIFIC BUILDING PRODUCTS.
E. NATIONAL GYPSUM COMPANY.
F. PABCO GYPSUM.
G. TEMPLE-INLAND BUILDING PRODUCTS BY GEORGIA-PACIFIC.
H. APPROVED EQUAL.
2. THICKNESS: 1/2 INCH (12.7 MM).
3. LONG EDGES: TAPERED.

2.3 TILE BACKING PANELS

A. CEMENTITIOUS BACKER UNITS: ANSI A118.9 AND ASTM C 1288 OR ASTM C 1325, WITH MANUFACTURER'S STANDARD EDGES.
1. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE USG CORPORATION; USG DUROCK™ BRAND CEMENT BOARD OR A COMPARABLE PRODUCT BY ONE OF THE FOLLOWING:
A. C-CURE.
B. CERTAINTEED CORPORATION.
C. CUSTOM BUILDING PRODUCTS.
D. FINPAN, INC.
E. JAMES HARDIE BUILDING PRODUCTS, INC.
F. NATIONAL GYPSUM COMPANY.
G. APPROVED EQUAL.
2. THICKNESS: 1/2 INCH (12.7 MM).
3. MOLD RESISTANCE: ASTM D 3273, SCORE OF 10 AS RATED ACCORDING TO ASTM D 3274.

2.4 TRIM ACCESSORIES

A. INTERIOR TRIM: ASTM C 1047.
1. MATERIAL: PLASTIC.
2. SHAPES (AS REQUIRED):
A. CORNERBEAD.
B. BULLNOSE BEAD.
C. LC-BEAD: J-SHAPED; EXPOSED LONG FLANGE RECEIVES JOINT COMPOUND.
D. L-BEAD: L-SHAPED; EXPOSED LONG FLANGE RECEIVES JOINT COMPOUND.
E. U-BEAD: J-SHAPED; EXPOSED SHORT FLANGE DOES NOT RECEIVE JOINT COMPOUND.
F. EXPANSION (CONTROL) JOINT.
G. CURVED-EDGE CORNERBEAD: WITH NOTCHED OR FLEXIBLE FLANGES.

2.5 JOINT TREATMENT MATERIALS

A. GENERAL: COMPLY WITH ASTM C 475/C 475M.

B. JOINT TAPE:
1. INTERIOR GYPSUM BOARD: PAPER.
2. TILE BACKING PANELS: AS RECOMMENDED BY PANEL MANUFACTURER.

C. JOINT COMPOUND FOR INTERIOR GYPSUM BOARD: FOR EACH COAT, USE FORMULATION THAT IS COMPATIBLE WITH OTHER COMPOUNDS APPLIED ON PREVIOUS OR FOR SUCCESSIVE COATS.
1. PREFILLING: AT OPEN JOINTS, ROUNDED OR BEVELED PANEL EDGES, AND DAMAGED SURFACE AREAS, USE SETTING-TYPE TAPING COMPOUND.
2. EMBEDDING AND FIRST COAT: FOR EMBEDDING TAPE AND FIRST COAT ON JOINTS, FASTENERS, AND TRIM FLANGES, USE DRYING-TYPE, ALL-PURPOSE COMPOUND.
3. FILL COAT: FOR SECOND COAT, USE DRYING-TYPE, ALL-PURPOSE COMPOUND.
4. FINISH COAT: FOR THIRD COAT, USE DRYING-TYPE, ALL-PURPOSE COMPOUND.

D. JOINT COMPOUND FOR TILE BACKING PANELS:
1. CEMENTITIOUS BACKER UNITS: AS RECOMMENDED BY BACKER UNIT MANUFACTURER.

2.6 AUXILIARY MATERIALS

A. GENERAL: PROVIDE AUXILIARY MATERIALS THAT COMPLY WITH REFERENCED INSTALLATION STANDARDS AND MANUFACTURER'S WRITTEN INSTRUCTIONS. FOR FASTENING CEMENTITIOUS BACKER UNITS, USE SCREWS OF TYPE AND SIZE RECOMMENDED BY PANEL MANUFACTURER.

B. THERMAL INSULATION: AS SHOWN ON DRAWINGS.

C. MOISTURE BARRIER: AS SHOWN ON DRAWINGS.

PART 3 - EXECUTION

3.1 EXAMINATION

A. EXAMINE AREAS AND SUBSTRATES INCLUDING SUPPORT FRAMING, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK.

B. EXAMINE PANELS BEFORE INSTALLATION. REJECT PANELS THAT ARE WET, MOISTURE DAMAGED, AND MOLD DAMAGED.

C. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.2 APPLYING AND FINISHING PANELS, GENERAL

A. COMPLY WITH ASTM C 840.

B. INSTALL CEILING PANELS ACROSS FRAMING TO MINIMIZE THE NUMBER OF ABUTTING END JOINTS AND TO AVOID ABUTTING END JOINTS IN CENTRAL AREA OF EACH CEILING. STAGGER ABUTTING END JOINTS OF ADJACENT PANELS NOT LESS THAN ONE FRAMING MEMBER.

C. INSTALL PANELS WITH FACE SIDE OUT. BUTT PANELS TOGETHER FOR A LIGHT CONTACT AT EDGES AND ENDS WITH NOT MORE THAN 1/16 INCH (1.5 MM) OF OPEN SPACE BETWEEN PANELS. DO NOT FORCE INTO PLACE.

D. LOCATE EDGE AND END JOINTS OVER SUPPORTS, EXCEPT IN CEILING APPLICATIONS WHERE INTERMEDIATE SUPPORTS OR GYPSUM BOARD BACK-BLOCKING IS PROVIDED BEHIND END JOINTS. DO NOT PLACE TAPERED EDGES AGAINST CUT EDGES OR ENDS. STAGGER VERTICAL JOINTS ON OPPOSITE SIDES OF PARTITIONS. DO NOT MAKE JOINTS OTHER THAN CONTROL JOINTS AT CORNERS OF FRAMED OPENINGS.

E. FORM CONTROL AND EXPANSION JOINTS WITH SPACE BETWEEN EDGES OF ADJOINING GYPSUM PANELS.

F. COVER BOTH FACES OF SUPPORT FRAMING WITH GYPSUM PANELS IN CONCEALED SPACES (ABOVE CEILINGS, ETC.), EXCEPT IN CHASES BRACED INTERNALLY.
1. UNLESS CONCEALED APPLICATION IS INDICATED OR REQUIRED FOR SOUND, FIRE, AIR, OR SMOKE RATINGS, COVERAGE MAY BE ACCOMPLISHED WITH SCRAPS OF NOT LESS THAN 8 SQ. FT. (0.7 SQ. M) IN AREA.
2. FIT GYPSUM PANELS AROUND DUCTS, PIPES, AND CONDUITS.
3. WHERE PARTITIONS INTERSECT STRUCTURAL MEMBERS PROJECTING BELOW UNDERSIDE OF FLOOR/ROOF SLABS AND DECKS, CUT GYPSUM PANELS TO FIT PROFILE FORMED BY STRUCTURAL MEMBERS; ALLOW 1/4- TO 3/8-INCH- (6.4- TO 9.5-MM-) WIDE JOINTS TO INSTALL SEALANT.

G. ISOLATE PERIMETER OF GYPSUM BOARD APPLIED TO NON-LOAD-BEARING PARTITIONS AT STRUCTURAL ABUTMENTS. PROVIDE 1/4- TO 1/2-INCH- (6.4- TO 12.7-MM-) WIDE SPACES AT THESE LOCATIONS AND TRIM EDGES WITH EDGE TRIM WHERE EDGES OF PANELS ARE EXPOSED. SEAL JOINTS BETWEEN EDGES AND ABUTTING STRUCTURAL SURFACES WITH ACOUSTICAL SEALANT.

H. ATTACHMENT TO STEEL FRAMING (IF APPLICABLE): ATTACH PANELS SO LEADING EDGE OR END OF EACH PANEL IS ATTACHED TO OPEN (UNSUPPORTED) EDGES OF STUD FLANGES FIRST.

I. WOOD FRAMING: INSTALL GYPSUM PANELS OVER WOOD FRAMING, WITH FLOATING INTERNAL CORNER CONSTRUCTION. DO NOT ATTACH GYPSUM PANELS ACROSS THE FLAT GRAIN OF WIDE-DIMENSION LUMBER, INCLUDING FLOOR JOISTS AND HEADERS. FLOAT GYPSUM PANELS OVER THESE MEMBERS OR PROVIDE CONTROL JOINTS TO COUNTERACT WOOD SHRINKAGE.

3.3 APPLYING INTERIOR GYPSUM BOARD

A. INSTALL INTERIOR GYPSUM BOARD IN THE FOLLOWING LOCATIONS:
1. WALLBOARD TYPE: VERTICAL SURFACES UNLESS OTHERWISE INDICATED.
2. CEILING TYPE: CEILING SURFACES.

B. SINGLE-LAYER APPLICATION:
1. ON CEILINGS, APPLY GYPSUM PANELS BEFORE WALL/PARTITION BOARD APPLICATION TO GREATEST EXTENT POSSIBLE AND AT RIGHT ANGLES TO FRAMING UNLESS OTHERWISE INDICATED.
2. ON PARTITIONS/WALLS, APPLY GYPSUM PANELS VERTICALLY (PARALLEL TO FRAMING), UNLESS OTHERWISE INDICATED OR REQUIRED BY FIRE- RESISTANCE- RATED ASSEMBLY, AND MINIMIZE END JOINTS.
3. FASTENING METHODS: APPLY GYPSUM PANELS TO SUPPORTS WITH SCREWS AS RECOMMENDED BY MANUFACTURER FOR FRAMING CONDITION.

3.4 APPLYING TILE BACKING PANELS

A. CEMENTITIOUS BACKER UNITS: ANSI A108.11, AT FRAMED WALLS FEATURING BACKSPLASHES, SHOWERS, AND SIMILAR LOCATIONS INDICATED TO RECEIVE TILE. IF WALL TYPE IS CONCRETE MASONRY UNIT OR CONCRETE, NO CEMENTITIOUS BACKER UNITS ARE NECESSARY UNLESS NEEDED TO CORRECT WALLS THAT ARE OUT OF PLUMB.

B. WHERE TILE BACKING PANELS ABUT OTHER TYPES OF PANELS IN SAME PLANE, SHIM SURFACES TO PRODUCE A UNIFORM PLANE ACROSS PANEL SURFACES.

3.5 INSTALLING TRIM ACCESSORIES

A. GENERAL: FOR TRIM WITH BACK FLANGES INTENDED FOR FASTENERS, ATTACH TO FRAMING WITH SAME FASTENERS USED FOR PANELS. OTHERWISE, ATTACH TRIM ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

B. CONTROL JOINTS: INSTALL CONTROL JOINTS ACCORDING TO ASTM C 840 AND IN SPECIFIC LOCATIONS APPROVED BY ARCHITECT FOR VISUAL EFFECT.

C. INTERIOR TRIM: INSTALL IN THE FOLLOWING LOCATIONS:
1. CORNERBEAD: USE AT OUTSIDE CORNERS.
2. LC-BEAD: USE AT EXPOSED PANEL EDGES.
3. L-BEAD: USE IF INDICATED ON DRAWINGS.
4. U-BEAD: USE IF INDICATED ON DRAWINGS.
5. CURVED-EDGE CORNERBEAD: USE AT CURVED OPENINGS, IF INDICATED ON DRAWINGS.

3.6 FINISHING GYPSUM BOARD

A. GENERAL: TREAT GYPSUM BOARD JOINTS, INTERIOR ANGLES, EDGE TRIM, CONTROL JOINTS, PENETRATIONS, FASTENER HEADS, SURFACE DEFECTS, AND ELSEWHERE AS REQUIRED TO PREPARE GYPSUM BOARD SURFACES FOR DECORATION. PROMPTLY REMOVE RESIDUAL JOINT COMPOUND FROM ADJACENT SURFACES.

B. PREFILL OPEN JOINTS, ROUNDED OR BEVELED EDGES, AND DAMAGED SURFACE AREAS.

C. APPLY JOINT TAPE OVER GYPSUM BOARD JOINTS, EXCEPT FOR TRIM PRODUCTS SPECIFICALLY INDICATED AS NOT INTENDED TO RECEIVE TAPE.

D. GYPSUM BOARD FINISH LEVELS: FINISH PANELS TO LEVELS INDICATED BELOW AND ACCORDING TO ASTM C 840:
1. LEVEL 4: AT PANEL SURFACES THAT WILL BE EXPOSED TO VIEW UNLESS OTHERWISE INDICATED.

E. CEMENTITIOUS BACKER UNITS: FINISH ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

3.7 PROTECTION

A. PROTECT ADJACENT SURFACES FROM DRYWALL COMPOUND AND PROMPTLY REMOVE FROM FLOORS AND OTHER NON-DRYWALL SURFACES. REPAIR SURFACES STAINED, MARRED, OR OTHERWISE DAMAGED DURING DRYWALL APPLICATION.

B. PROTECT INSTALLED PRODUCTS FROM DAMAGE FROM WEATHER, CONDENSATION, DIRECT SUNLIGHT, CONSTRUCTION, AND OTHER CAUSES DURING REMAINDER OF THE CONSTRUCTION PERIOD.

C. REMOVE AND REPLACE PANELS THAT ARE WET, MOISTURE DAMAGED, OR MOLD DAMAGED.
1. INDICATIONS THAT PANELS ARE WET OR MOISTURE DAMAGED INCLUDE, BUT ARE NOT LIMITED TO, DISCOLORATION, SAGGING, OR IRREGULAR SHAPE.

END OF SECTION

REVISIONS

NO.	DATE	REMARKS
	10/19/2020	50% PROGRESS SET
2	11/24/2020	ISSUED FOR PERMITS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 09.17.2024
DRAWN BY: B.J.S.
CHECKED BY: J.P.W.
APPROVED BY: J.P.W.

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: G1.2

GYPSUM BOARD SPECIFICATIONS

LICENSED ARCHITECT USA ST. THOMAS VIRGIN ISLANDS

ARCHITECTURAL SYMBOLS:

DIRECTION OF NORTH

REFERENCE: TO ENLARGED PLAN, DETAIL OR SECTION — 4 / A8.0 — DETAIL NUMBER / DRAWING NUMBER

REFERENCE: TO WALL TYPE — W2 — WALL TYPE NUMBER

REFERENCE: TO PARTIAL SECTION — 4 / A8.0 — SECTION NUMBER / DRAWING NUMBER

REFERENCE: TO EXTERIOR ELEVATION — A2.0 / 1 — ELEVATION NUMBER / DRAWING NUMBER

REFERENCE: TO WINDOW SCHEDULE — A — NEW WINDOW LETTER

REFERENCE: TO INTERIOR ELEVATION — 10 / 8 A5.0 6 / 7 — ELEVATION NUMBER / ELEVATION NUMBER / DRAWING NUMBER

REFERENCE: TO DOOR SCHEDULE — 102 — NEW DOOR NUMBER

NEW ELEVATION TARGET — TOP OF MASONRY 625.0'

MATCH LINE — A / A-2.0 — MATCH LINE LETTER / SHEET NUMBER

DRAWING TITLE NUMBER — 1 TITLE / X-X SCALE: 1"=10'-0" — SHEET NUMBER

ADDENDUM NUMBER — 1

CHANGE ORDER NUMBER — 1

CLARIFICATION NUMBER — 1

PROJECT RECORD NUMBER — 1

MATERIALS LEGEND:

IN SECTION:

- RIGID INSULATION
- BATT INSULATION
- EARTH / COMPACTED FILL
- COMPACTED GRAVEL FILL
- CAST-IN-PLACE OR PRECAST CONCRETE
- CONCRETE MASONRY UNIT
- PLASTER
- STEEL
- FINISH WOOD
- UNCUT WOOD
- SAWCUT WOOD/ BLOCKING/SHIM
- PLYWOOD

IN ELEVATION:

- PLASTER / CONCRETE

ARCHITECTURAL ABBREVIATIONS:

ACT.	ACOUSTIC CEILING TILE
AES.	ARCHITECTURALLY EXPOSED STEEL
A.F.F.	ABOVE FINISH FLOOR
B.T.W.	BOTTOM OF WALL
BLDG.	BUILDING
CONC.	CONCRETE
CMU.	CONCRETE MASONRY UNIT
CWB.	CEMENT WALL BOARD
DIA.	DIAMETER
EA.	EACH
EL.	ELEVATION
ES.	EXPOSED STRUCTURE
EQ.	EQUAL
EXIST.	EXISTING
F.F.	FINISH FLOOR
FIN.	FINISH
FLG.	FLOORING
FTG.	FOOTING
GALV.	GALVANIZED
GWB.	GYPSUM WALL BOARD
GYP.	GYPSUM
HOR.	HORIZONTAL
MTL.	METAL
MO.	MASONRY OPENING
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
PLYW.	PLYWOOD
PNL.	PANEL
PNT.	PAINT
R.W.L.	RAIN WATER LEADER
PTD.	PAINTED
T.O.W.	TOP OF WALL
T.S.	TUBULAR STEEL
U.N.O.	UNLESS NOTED OTHERWISE
VBC.	VINYL BASECOVE
VCT.	VINYL COMPOSITION TILE
WD.	WOOD

LIFE SAFETY

PROJECT DATA

PROJECT NAME:

OWNER:

LOCATION:

JURISDICTION:

ARCHITECT:

APPLICABLE CODES

BUILDING: INTERNATIONAL BUILDING CODE 2021

FIRE PROTECTION: INTERNATIONAL FIRE CODE 2021

MECHANICAL: INTERNATIONAL MECHANICAL CODE 2021

ELEC: INTERNATIONAL ELEC CODE 2021

PLUMBING: INTERNATIONAL PLUMBING CODE 2021

ACCESSIBILITY: INTERNATIONAL BUILDING CODE 2021

ENERGY: INTERNATIONAL ENERGY

PROJECT DESCRIPTION

PRIMARY CLASS USE:

ZONING:

CONSTRUCTION TYPE:

NO. OF STORIES: 3

BUILDING HEIGHT: 51'-0"
First to Second
Second to Third
Third

BUILDING AREA: 51'-0"
First to Second
Second to Third
Third

SPRINKLED:

AGE:

TABLE 803.5 (IBC)
INTERIOR WALL & CEILING FINISH REQUIREMENTS BY OCCUPANCY

GROUP B: NON-SPRINKLED:
VERTICAL EXITS:
EXIT PASSAGEWAYS:
EXIT ACCESS CORRIDORS:
ROOMS & ENCLOSED SPACES:

FIRE SAFETY LEGEND

REVISIONS

NO.	DATE	REMARKS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 09.17.2024
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: G0.1

DRAWING LIST & LIFE SAFETY

LICENSED ARCHITECT — U.S. & VIRGIN ISLANDS — USA

GENERAL NOTES

1. THE INTENT OF THIS CONTRACT IS TO PROVIDE FOR THE CONSTRUCTION AND COMPLETION OF THE WORK DESCRIBED IN THE DRAWINGS. THE PRECISE DETAILS OF PERFORMING THE WORK ARE NOT STIPULATED EXCEPT AS CONSIDERED ESSENTIAL FOR THE SUCCESSFUL COMPLETION OF THE WORK. FURNISH ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, TRANSPORTATION, AND SUPPLIES NECESSARY TO COMPLETE THE WORK ACCORDING TO THE CONTRACT.
2. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL PROPOSED SOURCES OF MATERIAL BEFORE DELIVERY TO THE PROJECT SITE TO EXPEDITE MATERIAL INSPECTION AND TESTING IF REQUIRED BY THE ARCHITECT. STORED MATERIAL PREVIOUSLY APPROVED FOR PAYMENT MAY AGAIN BE INSPECTED BY THE ARCHITECT FOR COMPLIANCE WITH APPLICABLE CONTRACT SPECIFICATION PRIOR TO BEING INCORPORATED INTO THE WORK.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF ALL STORED MATERIAL.
4. THE CONTRACTOR SHALL PROVIDE ALL SPACE OUTSIDE THE CONSTRUCTION LIMITS NEEDED FOR STORAGE OF MATERIAL. DO NOT USE PRIVATE PROPERTY FOR STORAGE WITHOUT WRITTEN PERMISSION OF THE OWNER OR LESSEE. FURNISH COPIES OF ALL SUCH AGREEMENTS TO THE ARCHITECT. ANY AREA PROVIDED BY THE OWNER FOR THE STORAGE OF MATERIAL SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE END OF THE CONTRACT.
5. THE EXISTING UTILITIES SHOWN ARE FOR INFORMATION ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS, AND THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THEIR LOCATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS IN THE FIELD WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT ON THE PLANS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.
7. WORK THAT DOES NOT CONFORM TO THE CONTRACT, OR TO PREVAILING INDUSTRY STANDARDS WHERE NO SPECIFIC CONTRACT REQUIREMENTS ARE NOTED SHALL BE REMOVED AND REPLACED AT NO COST TO THE OWNER.
8. DO NOT DISTURB AREAS OUTSIDE OF THE LIMITS OF THE AREAS SHOWN ON THE PLANS. DISTURBANCES OUTSIDE THESE LIMITS SHALL BE REPAIRED AND/OR REPLACED AT CONTRACTOR'S EXPENSE.
9. THE CONTRACTOR SHALL PROVIDE DUST CONTROL AND STREET PROTECTION AT ALL TIMES. STREET SHALL NOT BE LEFT IN AN UNSAFE OR MUDDY CONDITION.
10. ALL WORK SHALL BE PERFORMED IN A FINISHED AND WORKMANLIKE MANNER TO THE SATISFACTION OF THE OWNER, AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES.
11. THE ARCHITECT SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO STARTUP OF CONSTRUCTION BY THE CONTRACTOR.
12. DEVIATION OF THESE PLANS AND SPECIFICATIONS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ARCHITECT MAY BE CAUSE THE WORK TO BE REJECTED BY THE ARCHITECT.
13. CONTRACTOR WARRANTS THAT HIS EMPLOYEES, AGENTS, AND SUBCONTRACTORS POSSESS THE EXPERIENCE, KNOWLEDGE AND CHARACTER NECESSARY TO QUALIFY THEM INDIVIDUALLY FOR THE PARTICULAR CONSTRUCTION TECHNIQUES THEY PERFORM IN CONNECTION WITH THE TASKS TO BE PERFORMED UNDER THE CONTRACT. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION BE IN STRICT COMPLIANCE WITH ALL OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), AND LOCAL HEALTH AND SAFETY CODES.
14. THE CONTRACTOR SHALL CHECK, REVIEW, AND VERIFY ALL PLANS, DIMENSIONS, AND SITE CONDITIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS OR ANY VARIATIONS NEEDED IN ORDER TO CONFORM TO CODE, RULES, AND REGULATIONS SHALL BE REPORTED IN WRITING TO THE ARCHITECT.
15. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITIONS OF THE U.S. VIRGIN ISLANDS BUILDING CODE, THE ACI, AND THE ASTM.
16. THE PREMISES SHALL BE KEPT FROM ACCUMULATION OF WASTE MATERIAL AND DEBRIS, AND AT THE END OF THE JOB THE CONTRACTOR SHALL REMOVE ALL RUBBISH, SURPLUS MATERIAL, AND TOOLS AND LEAVE THE WORK AREA BROOM CLEAN.
17. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE AND THE VIRGIN ISLANDS CODE.

GENERAL DEMOLITION AND CONSTRUCTION NOTES

1. **CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND BE FAMILIAR WITH ALL SYSTEMS BEFORE DEMOLITION. ALL DEMOLITION SHALL COMPLY WITH THE RULES & REGULATIONS OF THE FEDERAL, STATE, COUNTRY AND CITY GOVERNMENTS. EXISTING SERVICES SHALL BE MAINTAINED DURING DEMOLITION. ANY SHUTDOWN OF SYSTEMS MUST BE COORDINATED & APPROVED BY THE OWNER. CONTRACTOR SHOULD COORDINATE WORK WITH ALL TRADES & PROVIDE SUPERVISION WHILE WORK IS BEING PERFORMED.**
2. **THE CONTRACTOR SHALL VERIFY WITH THE OWNER, ALL MATERIALS TO BE RETAINED BY THE OWNER & DELIVER & STORE SAME WHERE DIRECTED BY THE OWNER. ALL REMAINING ITEMS BECOME THE PROPERTY OF THE CONTRACTOR & SHALL BE DISPOSED OF IN A LEGAL MANNER.**
3. **DO NOT INTERFERE WITH USE OF ADJACENT AREAS. MAINTAIN FREE & SAFE PASSAGE TO & FROM ADJACENT AREAS. PROVIDE, ERECT & MAINTAIN BARRICADES & LIGHTING AS REQUIRED BY APPLICABLE REGULATORY ADVISORY TO PROTECT OCCUPANTS OF THE BUILDING & WORKERS.**
4. **REMOVE EXISTING ELEMENTS AS INDICATED BY LEGEND. SURFACES OF EXISTING AREAS WHICH HAVE BEEN ALTERED BY DEMOLITION NOT SPECIFICALLY CALLED FOR SHALL BE REPAIRED & FINISHED TO MATCH THE ADJACENT SURFACES. PROTECT ALL EXISTING OR REMAINING SURFACES, FLOORS, WALLS & CEILINGS FROM AREAS OF DEMOLITION & NEW CONSTRUCTION.**
5. **CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS & NOTIFY THE ARCHITECT OF DISSIMILARITIES BEFORE PROCEEDING WITH DEMOLITION WORK. ALL WORK SHALL BE COORDINATED WITH DRAWINGS FOR NEW CONSTRUCTION.**
6. **CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO DEMOLITION OR CONSTRUCTION IN EXISTING AREAS**
7. **ERECT & MAINTAIN DUSTPROOF PARTITIONS AS REQUIRED TO PREVENT THE SPREAD OF DUST, FUMES & SMOKE TO OTHER PARTS OF THE BUILDING. MAINTAIN EXIT REQUIREMENTS, COORDINATE EXACT LOCATION WITH OWNER. ON COMPLETION OF WORK, REMOVE TEMPORARY PARTITIONS & REPAIR DAMAGED SURFACES TO MATCH ADJACENT SURFACES.**
8. **ARRANGE & PAY FOR DISCONNECTING, REMOVING & CAPPING UTILITY SERVICES WITHIN AREAS OF DEMOLITION. DISCONNECT & STUB-OFF, NOTIFY THE AFFECTED UTILITY COMPANY & OBTAIN APPROVAL BEFORE STARTING THIS WORK.**
9. **REMOVE FROM THE SITE ALL CONTAMINATED, VERMIN INFESTED OR DANGEROUS MATERIALS ENCOUNTERED & DISPOSE OF BY LEGAL MEANS. DO NOT ENDANGER THE HEALTH OF WORKERS OF THE PUBLIC.**
10. **THE OWNER RESERVES THE RIGHT TO SALVAGE ANY MATERIAL OR PORTION THEREOF FROM DEMOLISHED MATERIAL BEFORE IT IS DISPOSED OF.**
11. **ALL PLUMBING (POTABLE, SANITARY, ETC.) REQUIRED FOR OTHER FLOORS ABOVE OR BELOW SHALL NOT BE DISRUPTED OR REMOVED. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL SERVICES PRIOR TO REMOVAL OR DISCONNECTION OF ALL SERVICES (ELEC, HVAC, PLUMBING, SECURITY & TEL./DATA) FOR ADJOINING OCCUPIED SPACES SHALL BE MAINTAINED. CONTRACTOR TO MAKE MINOR ADJUSTMENTS AS REQUIRED TO MAINTAIN PLUMBING, ELEC & TEL./DATA TO OCCUPIED AREAS.**
12. **THE CONTRACTOR SHALL REMOVE & DISCARD ALL PLUMBING FIXTURES. THEY SHALL CAP ALL PIPES TEMPORALLY FOR RE-USE.**
13. **WHERE EXISTING WALLS ARE INDICATED TO BE REMOVED, PATCH INTERSECTING WALLS TO REMAIN FLUSH TO ACCEPT NEW FINISH.**
14. **CONTRACTOR SHALL REMOVE & DISCARD ALL DOORS, FRAMES, HARDWARE, ETC. UNLESS SPECIFICALLY NOTED OTHERWISE.**
15. **CONTRACTOR SHALL USE SELF LEVELING COMPOUND IN AREAS WHERE WALLS OR TILES HAVE BEEN REMOVED OR ALTERED IN ORDER TO MAINTAIN A LEVEL SURFACE THROUGHOUT. THEY MUST ALSO USE IT IN AREAS WHERE A TRANSITION IS NEEDED BETWEEN SURFACES THAT ARE DIFFERENT IN MATERIAL OR HEIGHT.**
16. **EXISTING WOOD SHUTTERS TO BE REMOVED AND REFURBISHED.**
17. **CONTRACTOR SHALL REMOVE & REFURBISH ALL JALOUSIE WINDOWS TO THE OUTSIDE OF THE NEW DOUBLE HUNG WINDOWS UNLESS OTHERWISE NOTED.**
18. **CONTRACTOR SHALL REMOVE ALL SHEATHING FROM EXISTING WALLS AND EXPOSING STUDS. SEE WALL DETAILS ON SHEET A5.0.**
19. **THE CONTRACTOR SHALL SURVEY THE EXISTING EQUIPMENT & FURNISHINGS & DISCARD ALL EQUIPMENT & FURNISHINGS NOT DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE TO BE SALVAGED.**
20. **EXISTING BASEBOARD TO BE REMOVED AND DISCARDED.**
21. **CONTRACTOR SHALL REMOVE ALL EXISTING FLOOR TILES DOWN TO EXISTING FLOOR SLAB. THEY SHALL REPAIR AND PATCH EXISTING FLOOR AS REQUIRED FOR THE INSTALLATION OF NEW FLOOR TILES.**
22. **CONTRACTOR SHALL REMOVE ALL LOOSE PORTIONS OF EXISTING MASS MASONRY WALL. INSTALL A SCRATCH COAT OF LIME PLASTER PRIOR TO INSTALLATION OF THE FURRED WALL SYSTEM.**
23. **CONTRACTOR SHALL FOLLOW THE GUIDELINES OUTLINED IN THE LEAD BASED PAINT ABATEMENT SPECIFICATIONS FOR THE FOLLOWING AREAS:**
24. **CONTRACTOR SHALL FOLLOW GUIDELINES OUTLINED IN THE MOLD REMEDIATION SPECIFICATIONS FOR REMEDIATION OF AREAS IDENTIFIED IN THE DRAWINGS FOR REMOVAL AND REPLACEMENT OF WALL AND CEILING SHEATHING.**

REVISIONS

NO.	DATE	REMARKS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

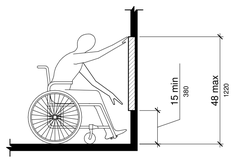
DATE: 09.17.2024
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

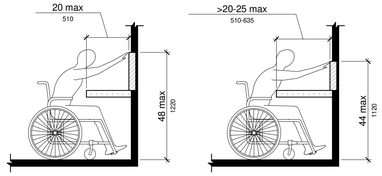
SHEET NO.: G0.2

GENERAL AND DEMOLITION NOTES

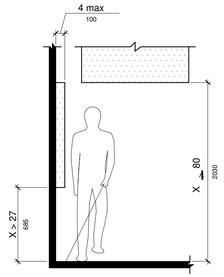
REGISTERED ARCHITECT U.S.V.I.



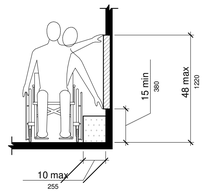
UNOBSTRUCTED FORWARD REACH



OBSTRUCTED HIGH FORWARD REACH



LIMIT OF PROTRUDING OBJECTS



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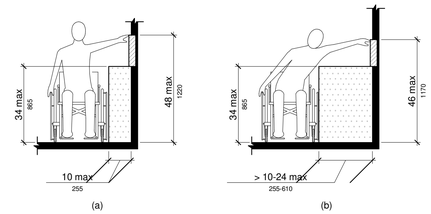

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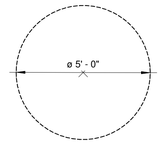
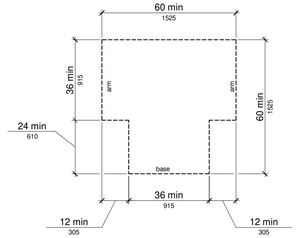
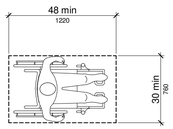


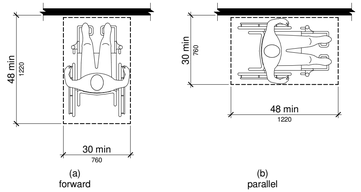
CIRCULAR TURNING SPACE



T-SHAPED TURNING SPACE



CLEAR FLOOR OR GROUND SPACE



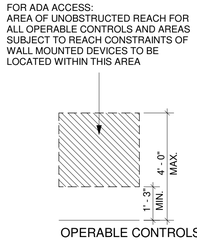
POSITION OF CLEAR FLOOR OR GROUND SPACE

1 BUILDING BLOCKS1

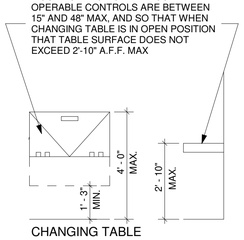
3/8" = 1'-0"

2 FLOOR CLEARANCES1

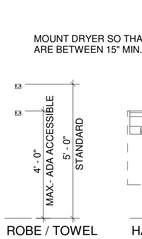
3/8" = 1'-0"



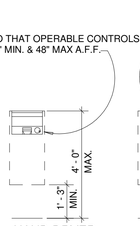
OPERABLE CONTROLS ZONE



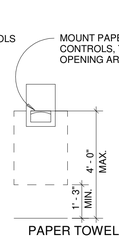
CHANGING TABLE



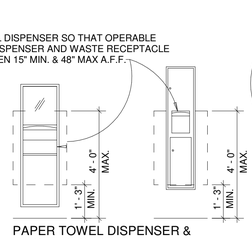
ROBE / TOWEL HOOK



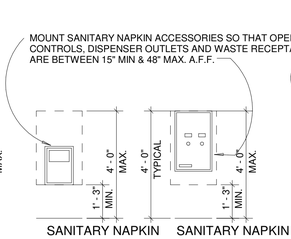
HAND DRYER



PAPER TOWEL DISPENSER

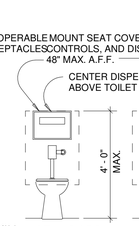


PAPER TOWEL DISPENSER & WASTE RECEPTACLE

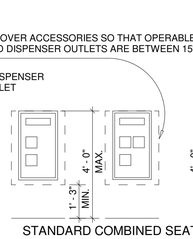


SANITARY NAPKIN DISPOSAL

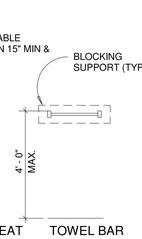
SANITARY NAPKIN DISPENSER



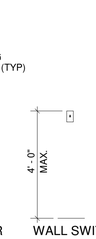
STANDARD SEAT COVER DISPENSER



STANDARD COMBINED SEAT COVER & TOILET TISSUE DISPENSERS



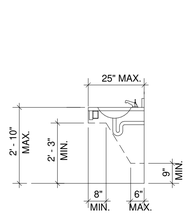
TOWEL BAR



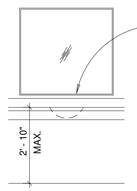
WALL SWITCH

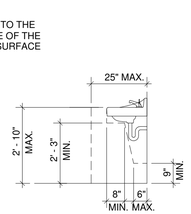
3 MOUNTING HEIGHTS1

3/8" = 1'-0"

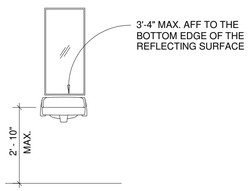


COUNTER WITH DROP IN LAVATORY



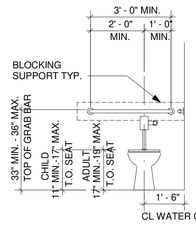


WALL HUNG LAVATORY

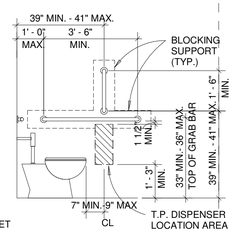


4 ADA SINK & VANITY1

3/8" = 1'-0"



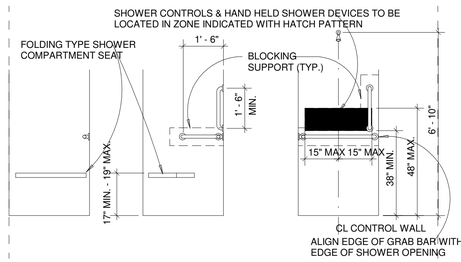
CL WATER CLOSET



ADA TOILET & GRAB BARS - FLOOR MTD.

5 ADA TOILET & GRAB BAR1

3/8" = 1'-0"



SHOWER / ADA SHOWER

6 SHOWER/ ADA SHOWER1

3/8" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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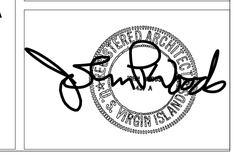
CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	B.J.S.
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	G0.3

ADA REQUIREMENTS & STANDARDS



STRUCTURAL SPECIFICATIONS

1.0 GENERAL

1.00 NOT ALL ITEMS SHOWN IN THESE SPECIFICATIONS ARE UTILIZED ON THESE PROJECTS.

1.01 DRAWINGS SHOW TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. FOR DETAILS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN.

1.02 VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE STARTING WORK. NOTIFY DESIGNER OF RECORD OF ANY DISCREPANCY.

1.03 THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

1.04 ANY BRAND SPECIFIC MATERIALS MAY BE SUBSTITUTED W/ AN EQUIVALENT PRODUCT BY AN ALTERNATE MANUF. IF APPROVED BY THE DESIGNER OF RECORD.

2.0 RESERVED

3.0 REINFORCED CONCRETE

3.01 PRIOR TO CASTING ANY CONCRETE ON GRADE, COMPACT SOILS TO 95% DENSITY.

3.02 ALL CONCRETE WORK SHALL CONFORM TO ACI 301-16, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. DESIGN IS BASED ON ACI 318-14, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.

3.03 UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING MINIMUM 28-DAY COMPRESSIVE STRENGTHS: $f'c$

FOUNDATIONS	3,000 PSI
SLABS-ON-GRADE, STAIRS/STEPS	3,000 PSI
WALLS	4,000 PSI

3.04 USE OF CALCIUM CHLORIDE, CHLORIDE IONS OR OTHER SALTS IN CONCRETE IS NOT PERMITTED.

3.05 CHAMFER OR ROUND ALL EXPOSED CORNERS MINIMUM 3/4".

3.06 DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH SP-066(04): ACI DETAILING MANUAL-2004.

3.07 REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE (YIELD STRENGTH = 60 KSI).

3.08 WELDED WIRE FABRIC (MESH) SHALL CONFORM TO ASTM A185 AND SHALL BE PROVIDED IN FLAT SHEETS. LAP EDGES 3 CROSS WIRES MINIMUM.

3.09 PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR APPROVED; STAGGER SPLICES WHERE POSSIBLE; USE FULL TENSION SPLICE (CLASS "B") FOR CONTINUOUS REINF. AND MATCHING DOWELS U.N.O. LAP SPLICES SHALL BE 57 BAR DIAMETERS FOR BARS SMALLER THAN #7 AND 72 BAR DIAMETERS FOR #7 & LARGER.

3.10 REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE:

A. CONCRETE CAST AGAINST EARTH (NOT FORMED) . . . . . 3"

B. FORMED CONCRETE EXPOSED TO THE EARTH OR WEATHER
- #6 THROUGH #18 BARS . . . . . 2"
- #5 BARS AND SMALLER . . . . . 1½"

C. CONCRETE NOT EXPOSED TO EARTH OR WEATHER
SUSPENDED SLABS AND WALLS
- #11 BARS AND SMALLER. . . . . 1"
- BEAMS (STIRRUPS) AND COLUMNS (TIES) . . . . . 1"

3.11 DO NOT PLACE PIPES OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS. ANY PIPES SHALL BE BETWEEN THE OUTER HORIZONTAL AND VERTICAL LAYERS OF REINFORCMENT.

3.12 DO NOT WELD OR TACK WELD REINFORCING STEEL UNLESS APPROVED OR DIRECTED BY THE STRUCTURAL ENGINEER.

3.13 ALL REINFORCING STEEL PLACEMENT SHALL BE INSPECTED PER IBC 2018.

3.14 REINFORCE SLAB-ON-GRADE AT ALL PENETRATIONS AND AT RE-ENTRANT CORNERS. PLACE THREE #3 BAR x 3'-0 AROUND FLOOR DRAINS. PLACE #4 BAR x 4'-0" (MIN.) AT RE-ENTRANT CORNERS. HOLD REINFORCING 1" CLEAR FROM TOP OF CONCRETE.

3.15 WALLS AND OTHER INTERSECTING ELEMENTS SHALL HAVE CORNER BARS TO PROVIDE

CONTINUITY. USE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) STANDARDS OR AS SHOW N ON THE DRAWINGS.

4.0 SAWN LUMBER

4.01 DESIGN STANDARDS:

AMERICAN FOREST AND PAPER ASSOCIATION, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (ANSI/AF&PA NDS-2018) WITH "NDS SUPPLEMENT", 2018 EDITION.

AMERICAN SOFTWOOD LUMBER STANDARD VOLUNTARY PRODUCT STANDARD PS20-15. APA E30- THE ENGINEERED W OOD ASSOCIATION, "ENGINEERED WOOD CONSTRUCTION GUIDE", AND D510 "PANEL DESIGN SPECIFICATION", LATEST EDITIONS. STRUCTURAL COMPOSITE LUMBER (SCL): EVALUATED IN CONFORMANCE WITH ASTM D 5456 WITH DESIGN VALUES RECOGNIZED IN EVALUATION REPORTS BY ICC EVALUATION SERVICE (ICC-ES) OR PRODUCT REPORTS ISSUED BY APA- THE ENGINEERED WOOD ASSOCIATION.

4.02 ALL WOOD FRAMING MEMBERS INCLUDING BUT NOT LIMITED TO WALL STUDS AND JOISTS, ARE INTENDED TO ACT AS A SYSTEM AS DETAILED IN THE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE SAFETY AND STABILITY OF THE WOOD FRAMING SYSTEMS (I.E. TEMPORARY BRACING IF REQUIRED) DURING CONSTRUCTION.

4.03 ALL SAWN LUMBER SHALL CONFORM TO THE AMERICAN SOFTWOOD LUMBER STANDARD, PS20-15. LUMBER SHALL BE OF THE SPECIES AND GRADE SHOWN BELOW, UNLESS NOTED OTHERWISE:

MEMBER	GRADE	SPACING
WALL STUDS	PRESSURE TREATED: SOUTHERN YELLOW PINE No.1 or No.2	PER DRAWINGS
RAFTERS/JOISTS	PRESSURE TREATED: SOUTHERN YELLOW PINE No.1	PER DRAWINGS
POST/COLUMNS	PRESSURE TREATED: SOUTHERN YELLOW PINE No.1	PER DRAWINGS
SILL PLATE	PRESSURE TREATED: SOUTHERN YELLOW PINE No.1 or No.2	CONTINUOUS
DOUBLE TOP PLATE	PRESSURE TREATED: SOUTHERN YELLOW PINE No.1 or No.2	CONTINUOUS

4.04 ALL ATTACHMENTS OF WOOD FRAMING SHALL NOT BE LESS THAN THAT DESCRIBED IN TABLE 2304.10.1 "FASTENING SCHEDULE" WITHIN THE INTERNATIONAL BUILDING CODE, 2021.

4.06 ALL LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE W ITH THE LATEST GUIDANCE FROM THE AMERICAN WOOD PRESERVERS ASSOCIATION AND HANDLED IN ACCORDANCE WITH THE MANUFACTURER'S SAFETY DATA SHEETS (MSDS).

4.07 FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDENT-TREATED WOODS SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL AND SHALL FOLLOW CURRENT MANUFACTURER'S GUIDELINES BASED ON WEATHER EXPOSURE. STAINLESS STEEL OR HOT-DIPPED GALVANIZED FASTENERS SHALL BE USED TO MATCH THE CONNECTOR TYPE. AT A MINIMUM ALL FASTENERS SHALL BE HOT-DIPPED GALVANIZED MEETING ASTM A153. WHEN FASTENERS ARE USED AT PERMANENTLY EXPOSED EXTERIOR AREAS, FASTENERS SHALL BE STAINLESS STEEL.

4.08 ALL METAL HARDWARE AND FRAMING ACCESSORIES SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, MITEK USP, OR APPROVED EQUAL. ALL ITEMS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION REQUIREMENTS. ALL CONNECTORS SHALL BE MINIMUM HOT-DIP GALVANIZED IN ACCORDANCE W ITH ASTM A653, ASTM A123, OR HIGHER STANDARDS. STAINLESS STEEL CONNECTORS MAY ALSO BE USED IN LIEU OF HOT-DIP GALVANIZED CONNECTORS. ALL NAIL/BOLT HOLES SHALL BE FILLED WITH THE RECOMMENDED FASTENER UNLESS NOTED OTHERWISE. SUBSTITUTIONS MAY ONLY BE MADE WITH APPROVAL OF THE ARCHITECT OF RECORD (A.O.R.).

4.09 WHERE FRAMING HANGERS OR WOOD CONNECTIONS ARE REQUIRED BUT HAVE NOT BEEN SPECIFIED ON THE STRUCTURAL DRAWINGS, CONTACT THE A.O.R. FOR THE APPROPRIATE CONNECTOR TO UTILIZE.

4.10 ALL WALLS SHALL HAVE DOUBLE TOP PLATES AND SHALL BE SPLICED PER THE TYPICAL TOP PLATE SPLICE DETAIL, UNLESS NOTED OTHERWISE. TOP PLATES AT WALL INTERSECTIONS SHALL BE LAPPED AND NAILED WITH (3) 16d NAILS.

4.11 WHERE ROOF MEMBERS OR ROOF TRUSSES ARE CONNECTED TO EXTERIOR WALLS OR WALLS W/ PLYWOOD SHEATHING, THE SPECIFIED HURRICANE CLIP SHALL BE PLACED ON THE SIDE OF THE WALL WITH SHEATHING.

4.12 HOLES FOR BOLTS SHALL BE DRILLED WITH A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT + 1/16". LEAD HOLES FOR LAG SCREWS SHALL BE DRILLED PER NDS-2018. LEAD HOLES FOR WOOD SCREWS LOADED IN WITHDRAWAL AND LOADED LATERALLY SHALL BE BORED IN ACCORDANCE WITH THE NDS-2018.

4.13 ALL BOLTS, CARRIAGE BOLTS, LAG SCREW S, EXPANSION BOLTS, AND EPOXY BOLTS SHALL BE INSTALLED WITH STANDARD CUT WASHERS AND NUTS THAT BEAR DIRECTLY ON THE WOOD.

ALL NUTS SHALL BE TIGHTENED AT THE TIME OF INSTALLATION AND RE-TIGHTENED IF NECESSARY DUE TO WOOD SHRINKAGE, PRIOR TO CLOSE-IN OR AT THE COMPLETION OF THE PROJECT. BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1. WOOD SCREWS SHALL CONFORM TO B18.6.1. ALL BOLTS SHALL CONFORM TO ASTM A307 GRADE A UNLESS NOTED OTHERWISE.

THE MINIMUM STRENGTHS FOR LAG SCREWS AND WOOD SCREWS SHALL BE AS FOLLOWS:

WOOD SCREW DIAMETER-INCHES	MIN. BENDING YIELD STRENGTH (PSI)
0.138 (#6)	100,000
0.151 (#7)	90,000
0.164 (#8)	90,000
0.177 (#9)	90,000
0.190 (#10)	80,000
0.216 (#12)	80,000
0.246 (#14)	70,000

LAG SCREW DIAMETER-INCHES	MIN. BENDING YIELD STRENGTH (PSI)
1/4"	70,000
5/16"	60,000
3/8" AND GREATER	45,000

4.14 WOOD STUDS IN EXTERIOR WALLS AND BEARING PARTITIONS MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 1/4 OF ITS WIDTH, PROVIDED NOT MORE THAN TWO SUCCESSIVE STUDS ARE NOTCHED OR CUT. BUNDLED STUDS UNDER POINTS OF CONCENTRATED LOADS SHALL NOT BE CUT OR NOTCHED. CUTTING AND NOTCHING OF STUDS TO A DEPTH NOT GREATER THAN 40% OF THE WIDTH OF THE STUD IS PERMITTED IN NON-BEARING PARTITIONS SUPPORTING NO LOADS OTHER THAN THE WEIGHT OF THE PARTITION.

4.15 A HOLE MAY BE BORED IN A WOOD STUD UP TO A DIAMETER OF 33% OF THE STUD WIDTH. BORED HOLES NOT GREATER THAN 60% OF THE WIDTH OF THE STUD ARE PERMITTED IN NON-BEARING PARTITIONS OR IN ANY WALL WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCCESSIVE DOUBLE STUDS ARE BORED. IN NO CASE, SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8" TO THE EDGE OF THE STUD, BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF THE STUD AS A CUT OR NOTCH.

4.16 END NOTCHES NOT EXCEEDING 1/4 THE DEPTH ARE PERMITTED FOR 2X FLOOR JOISTS OR RAFTERS. TAPER CUT FROM THE REDUCED DEPTH OF THE MEMBER TO THE FULL DEPTH AT A MINIMUM SLOPE OF (1) HORIZ/(1) VERT. DO NOT SQUARE CUT AN END NOTCH.

4.17 INTERIOR NOTCHES NOT EXCEEDING 1/6 THE DEPTH OF A 2X FLOOR JOISTS OR RAFTER SHALL BE PERMITTED ONLY IN THE OUTER THIRD OF ANY SPAN. NOTCHED ARE NOT PERMITTED IN THE MIDDLE THIRD OF ANY SPAN NOR IN ANY LINTEL MEMBERS.

4.18 THE LENGTH OF NOTCHED IN FLOOR JOISTS SHALL NOT EXCEED 1/3 THE JOIST DEPTH.

4.19 HOLES BORED IN FLOOR JOISTS OR RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED 1/3 THE DEPTH OF THE MEMBER. HOLES SHALL NOT OCCUR WITHIN 12" OF THE EDGE OF ANY BEARING SUPPORT OR CONNECTION.

4.20 NOTCHING OF STRUCTURAL COMPOSITE LUMBER (SCL) BEAMS IS NOT PERMITTED. UP TO 3 ROUND HOLES MAY BE BORED WITHIN THE MIDDLE THIRD OF SPAN AND MIDDLE THIRD OF DEPTH ONLY. CLEAR DISTANCE BETWEEN ANY TWO HOLES SHALL BE NO LESS THAN 2 TIMES THE DIAMETER OF THE LARGER HOLE. MAXIMUM HOLE DIAMETER SHALL NOT EXCEED 1/5 THE BEAM DEPTH NOR 2 INCHES, WHICHEVER IS LESS. HOLES ARE NOT PERMITTED IN CANTILEVERS.

4.21 WHEN NAILS ARE USED AT PERMANENTLY EXPOSED EXTERIOR AREAS, NAILS SHALL BE STAINLESS STEEL (TYPE 316), NAILS THAT ARE NOT EXPOSED TO THE ELEMENTS BUT IN CONTACT WITH PRESERVATIVE TREATMENT LUMBER SHALL BE MINIMUM HOT-DIPPED GALVANIZED MEETING ASTM A153. ALL NAILS FOR STRUCTURAL WORK SHALL BE COMMON WIRE NAILS UNLESS NOTED OR DETAILED OTHERWISE MEETING ASTM F1667. HOLES SHALL BE PRE- DRILLED WHERE NECESSARY TO PREVENT SPLITTING. NAILS SHALL HAVE THE MINIMUM PROPERTIES SPECIFIED IN THE TABLE BELOW:

NAIL TYPE	SHANK DIAMETER-INCHES	MIN. PENETRATION-INCHES	MIN. BENDING YIELD STRENGTH (PSI)
6d	0.113	1.13	100,000
8d	0.131	1.31	100,000
10d	0.148	1.48	90,000
12d	0.148	1.48	90,000
16d	0.162	1.63	90,000
20d	0.192	1.92	80,000

5.0 WOOD STRUCTURAL PANELS

5.01 STRUCTURAL WOOD PANELS SHALL CONFORM TO THE REQUIREMENTS OF ONE OF THE FOLLOWING STANDARDS AND PUBLICATIONS:

A. U.S. PRODUCT STANDARD PS1-09 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD.

B. U.S. PRODUCT STANDARD PS2-10 PERFORMANCE STANDARD FOR WOOD BASED STRUCTURAL USE PANELS.

C. APA PRP-108 PERFORMANCE STANDARDS.

5.02 ROOF AND WALL PANELS SHALL BE APA RATED, SEE DRAWINGS FOR THICKNESS REQUIREMENTS, 5 PLY PLYWOOD WITH A MIN. 32/16 SPAN RATING UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL SHEATHING SHALL BE PRESSURE TREATED.

5.03 FLOOR SHEATHING SHALL BE TONGUE AND GROOVE APA RATED PRESSURE TREATED 5 PLY 3/4" PLYWOOD SHEATHING WITH MIN. 48/24 SPAN RATING. PROVIDE A-C GRADE PLYWOOD AT ALL DECK SHEATHING LOCATIONS.

5.04 ALL FLOOR AND ROOF SHEATHING SHALL BE INSTALLED WITH THE FACE GRAIN PERPENDICULAR TO THE SUPPORTS.

5.05 ALL SHEATHING PANELS SHALL BE INSTALLED WITH END JOINTS STAGGERED UNLESS NOTED OTHERWISE ON DRAWINGS.

5.06 WHERE BLOCKING IS NOT SPECIFICALLY REQUIRED FOR THE ROOF SHEATHING, PLY CLIPS OR TONGUE AND GROOVE PLYWOOD SHALL BE USED.

5.07 SUB-FLOOR SHEATHING SHALL BE UNBLOCKED UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. SUB-FLOOR SHALL BE GLUED DOWN TO THE SUPPORTING MEMBERS AND GLUED AT THE TONGUE AND GROOVE JOINTS.

5.08 ALL NAILS SHALL BE COMMON NAILS. STAINLESS STEEL (TYPE 316) NAILS SHALL BE USED AT PERMANENTLY EXPOSED EXTERIOR AREAS. ALL SCREWS AND NAILS THAT ARE NOT EXPOSED TO THE ELEMENTS BUT IN CONTACT WITH PRESERVATIVE TREATMENT LUMBER SHALL BE MINIMUM HOT-DIPPED GALVANIZED MEETING ASTM A153.

5.09 BLOCKING SHALL BE PROVIDED AT PLYWOOD SHEATHED INTERIOR AND EXTERIOR WALLS. BLOCKING SHALL BE INSTALLED AT ALL WALL PANEL EDGES PERPENDICULAR TO FRAMING MEMBERS.

REVISIONS

NO.	DATE	REMARKS
	10/19/2020	50% PROGRESS SET
2	11/24/2020	ISSUED FOR PERMITS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 09.17.2024
DRAWN BY: B.J.S.
CHECKED BY: J.P.W.
APPROVED BY: J.P.W.

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: G1.0

PROJECT SPECIFICATIONS

JOHN P. WOOD — REGISTERED ARCHITECT — U.S. VIRGIN ISLANDS

6.0 RESERVED

7.0 RESERVED

8.0 MASONRY

8.01 CONCRETE MASONRY DESIGN AND CONSTRUCTION SHALL CONFORM TO TMS 402/602 BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES, 2016.

8.02 PROVIDE NORMAL WEIGHT, HOLLOW , LOAD-BEARING CONCRETE MASONRY UNITS (CMU) CONFORMING TO ASTM C90, GRADE N, TYPE II.

8.03 PROVIDE MASONRY CONSTRUCTION W ITH MINIMUM COMPRESSIVE STRENGTH, f'm=1,500 PSI.

8.04 PROVIDE TYPE "S" MORTAR IN ACCORDANCE W ITH ASTM C270.

8.05 VERTICAL REINFORCING SHALL BE HELD IN POSITION WITH BAR POSITIONERS AT TOP OF THE GROUT POUR AT SPACINGS AS SHOW N ON THE PLANS.

8.06 PROVIDE HORIZONTAL JOINT REINFORCEMENT COMPLYING W ITH ASTM A82, NO. 9 GAUGE OR HEAVIER, LADDER TYPE, ZINC COATED, PLACED 8" ON CENTER BELOW GRADE AND 16" ON CENTER ABOVE GRADE, UNLESS NOTED OTHERWISE. LADDER RUNGS SHALL BE POSITIONED TO COMPLETELY CLEAR CELL OPENINGS. LAP JOINT REINF. 1 FULL CROSS WIRE SPACING PLUS 2" (18" MIN FOR CROSS W IRE SPACING OF 16" OC), BUT NOT LESS THAN 12".

8.07 PROVIDE RUNNING BONDS WITH VERTICAL JOINTS LOCATED AT CENTER OF MASONRY UNITS IN THE ALTERNATE COURSE BELOW.

8.08 PROVIDE FOUNDATION DOWELS W/ HOOKS SIZED AND SPACED TO MATCH CMU VERTICAL REINFORCING. DOWELS SHALL LAP WALL VERTICALS 48 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

8.09 REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.

8.10 PROVIDE FINE GROUT FOR REINFORCED MASONRY IN ACCORDANCE W ITH ASTM C476 WITH MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,000 PSI. GROUT SHALL BE OF FLUID CONSISTENCY, WHICH MEANS AS FLUID AS POSSIBLE FOR POURING WITHOUT SEGREGATION OF THE CONSTITUENT PARTS. GROUT SLUMP SHALL BE 8 TO 10 INCHES. WATER CEMENT RATIO SHALL BE REDUCED AND W ATER REDUCERS USED AS REQUIRED TO MAINTAIN SLUMP WHEN PLACED IN LOW ABSORPTION CMU. FILL ALL CELLS BELOW GRADE W ITH GROUT. ALL GROUT SHALL BE CONSOLIDATED AT THE TIME OF POURING BY VIBRATING AND THEN RECONSOLIDATED AGAIN BY PUDDLING LATER, BEFORE PLASTICITY IS LOST. TYPICALLY WITHIN 10 TO 15 MINUTES. WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF GROUT 1 1/2" BELOW THE TOP OF THE UPPERMOST UNIT.

8.11 CLEANOUT CELLS SHALL BE PROVIDED AT THE BOTTOM OF ALL CELLS TO BE FILLED AT EACH GROUT POUR. ANY OVERHANGING MORTAR OR OTHER OBSTRUCTION OR DEBRIS SHALL BE REMOVED FROM THE INSIDES OF SUCH CELL W ALLS. THE CLEANOUTS SHALL BE SEALED BEFORE GROUTING AND AFTER INPSECTION.

9.0 GYPSUM WALLBOARD

9.01 INSTALL GYPSUM WALL BOARD FINISHIES IN ACCORDANCE WIITH MANUFACTURER'S INSTRUCTIONS.

GENERAL CONSTRUCTION CONSIDERATIONS

1. INSTALL HIP ROOF AS SHOWN ON ROOF PLANS.
2. TIE THE HOUSE DOWN FROM TOP TO BOTTOM WITH HURRICANE/SEISMIC RESISTANT CONNECTORS AND OR THE APPROPRIATE MASONRY/CONCRETE REINFORCIING.
3. SOFFIT OVERHANGS SHALL BE 1 FOOT OR LESS.
4. WOOD WALLS MUST BE PERMANENTLY CONNECTED AND PROPERLY BRACED. MASONRY WALLS MUST BE VERTICALLY AND HORIZONTALLY REINFORCED.
5. ALL WOOD MEMBERS, INCLUDING SHEATHING, SHALL BE PRESSURE TREATED.
6. WINDOW AND DOOR OPENINGS MUST BE PROTECTED FROM WIND LOADS AND DEBRIS IMPACT, USING PERMANENT SHUTTERS OR TEMPORARY PLYWOOD OR METAL PANELS.
8. ALL CONSTRUCTION MUST COMPLY WITH THE LATEST BUILDING CODE. ALL NECESSARY BUILDING PERMITS MUST BE OBTAINED FROM THE U.S.V.I. DEPARTMENT OF PLANNING AND NATURAL RESOURCES PRIOR TO STARTING CONSTRUCTION.

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PROJECT SPECIFICATIONS

LICENSED ARCHITECT U.S.V.I. ST. THOMAS, ST. CROIX & ST. JOHN U.S.A.

DIVISION I- GENERAL REQUIREMENTS AND COVENANTS

1. ONLY APPROVED MATERIALS SHALL BE USED
CONTRACTOR SHALL USE ONLY MATERIALS IN THE WORKS THAT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS, RELEVANT SECTIONS OF FLORIDA DEPARTMENT OF TRANSPORTATION PUBLICATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2000."

2. INSPECTION AND TESTS AT SOURCE OF SUPPLY

2.1 GENERAL: IF THE VOLUME, PROGRESS OF THE WORK, AND OTHER CONSIDERATIONS WARRANT, THE ENGINEER OF RECORD(E.O.R.) MAY INSPECT THE MATERIALS AT THE SOURCE OF SUPPLY.

2.2 COOPERATION BY CONTRACTOR: THE CONTRACTOR SHALL PROVIDE THE E.O.R. WITH FREE ENTRY AT ALL TIMES TO SUCH PARTS OF THE PLANT THAT CONCERN THE MANUFACTURE OR PRODUCTION OF THE MATERIALS ORDERED.

3. CONTROL BY SAMPLES AND TESTS

3.1 PAVEMENT SAMPLES: FOR BOTH BASE COURSE AND SURFACE COURSE PAVEMENTS, THE CONTRACTOR SHALL FURNISH SAMPLES TAKEN FROM THE COMPLETED WORK FROM ANY LOCATION THAT THE E.O.R. INDICATES, AND IMMEDIATELY REPLACE THE AREAS SO REMOVED WITH MATERIALS AND CONSTRUCTION THAT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND TO THE LINE AND GRADE OF THE IMMEDIATE SURROUNDING PAVEMENT SURFACE.

3.2 APPLICABLE STANDARDS: METHODS OF SAMPLING AND TESTING MATERIALS SHALL BE IN ACCORDANCE WITH STANDARDS OF AASHTO OR ASTM.

3.3 SIEVES: USE SIEVES MEETING THE REQUIREMENTS OF AASHTO M 92.

3.4 INSPECTION AT PLANTS: CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ACCESS TO ALL PARTS OF ALL PAVING OR OTHER PLANTS CONNECTED WITH THE WORK TO OBSERVE WEIGHTS OR PROPORTIONS OR CHARACTER OF MATERIALS AND TO DETERMINE TEMPERATURE USED IN PREPARING MATERIALS AND MIXTURES.

3.5 COMPACTION TESTS - PAVEMENT MATERIALS

3.5.1 WHEN REQUESTED BY THE ENGINEER OF RECORD (E.O.R.): NUCLEAR DENSITY OR OTHER APPROVED COMPACTION TESTS SHALL BE CARRIED OUT ON EACH LAYER OF COMPACTED BASE AND EMBANKMENTS. TWENTY-FOUR HOURS NOTICE OF ANY TEST SHALL BE GIVEN TO THE PROJECT ENGINEER AND COPIES OF THE TEST RESULT SHALL BE FORWARDED TO THE E.O.R. AS SOON AS POSSIBLE. THE CONTRACTOR SHALL KEEP COPIES OF THE TIME AND LOCATION OF ALL TESTS.

3.5.2 FIELD-TESTING: SHALL CONFORM TO ASTM STANDARDS OR APPROVED EQUIVALENT. MOISTURE DENSITY CURVES SHALL CONFORM TO ASTM D698-78; SIEVE ANALYSES TO ASTM C136-84A; AND FIELD DENSITIES TO ASTM D2167-84 OR TO ASTM D2922-81.

4. STORAGE OF MATERIALS

4.1 METHOD OF STORAGE: MATERIALS SHALL BE STORED IN SUCH A MANNER AS TO PRESERVE THEIR QUALITY AND FITNESS FOR THE WORK TO FACILITATE PROMPT INSPECTION AND TO MINIMIZE THE NOISE IMPACTS ON SENSITIVE RECEIVERS.

5. DEFECTIVE MATERIALS

5.1 THE FOLLOWING MATERIALS SHALL BE CONSIDERED DEFECTIVE: ALL MATERIALS NOT MEETING THE REQUIREMENTS OF THESE SPECIFICATIONS; MATERIALS THAT ARE OR HAVE BEEN IMPROPERLY STORED; AND MATERIALS THAT ARE MIXED WITH EXCESS OF CLAY, COAL , STICKS, BURLAP, HAY, STRAW, LOAM OR EARTH, OR OTHER DEBRIS.

6. LEGAL REQUIREMENTS AND RESPONSIBNLITY TO THE PUBLIC

6.1 OCCUPATIONAL SAFETY AND HEALTH REQUIREMENTS: THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY FOR THE PROTECTION OF LIFE, HEALTH AND GENERAL OCCUPATIONAL WELFARE OF ALL PERSONS INCLUDING THE CONTRACTORS EMPLOYEES AND AUTHORIZED VISITORS TO THE SITE.

7. SANITARY PROVISIONS

7.1 THE CONTRACTOR SHALL PROVIDE AND MAINTAIN, IN A NEAT AND SANITARY CONDITION, SUCH ACCOMMODATIONS FOR THE USE OF HIS EMPLOYEES AS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS AND REGULATIONS OF THE UNITED STATES VIRGIN ISLANDS (USVI).

8. CONTROL OF CONTRACTOR'S EQUIPMENT

8.1 PROTECTION FROM DAMAGE BY TRACTOR-TYPE EQUIPMENT: THE CONTRACTOR SHALL TAKE POSITIVE MEASURES TO ENSURE THAT TRACTOR-TYPE EQUIPMENT DOES NOT DAMAGE THE ROAD. IF SUCH DAMAGE SHOULD OCCUR, CONTRACTOR SHALL REPAIR IT WITHOUT DELAY, AT NO EXPENSE TO THE OWNER AND SUBJECT TO THE APPROVAL OF THE E.O.R.

9. PRESERVATION OF PROPERTY

9.1 UTILITIES: CONTRACTOR SHALL NOT COMMENCE WORK AT POINTS WHERE THE CONSTRUCTION OPERATIONS ARE ADJACENT TO UTILITY FACILITIES OR OTHER PROPERTY, UNTIL MAKING ARRANGEMENTS WITH THE UTILITY FACILITIES TO PROTECT AGAINST DAMAGE THAT MIGHT RESULT IN EXPENSE, LOSS, DISRUPTION IN SERVICE OR OTHER INCONVENIENCE TO THE PUBLIC OR THE OWNERS.

10. RECORD OF CONSTRUCTION MATERIALS

10.1 GENERAL: FOR ALL CONSTRUCTION MATERIALS USED IN CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL PRESERVE FOR THE E.O.R'S INSPECTION THE INVOICES AND RECORDS OF MATERIALS FOR A PERIOD OF THREE YEARS FROM THE DATE OF COMPLETION OF THE PROJECT. THIS ALSO APPLIES TO MATERIALS PURCHASED BY SUBCONTRACTORS.

DIVISION II- CONSTRUCTION DETAILS

1. CONSTRUCTION EQUIPMENT-GENERAL REQUIREMENTS

1.0 GENERAL: UNLESS RESTRICTED TO A SPECIFIC TYPE BY THE CONTRACT DOCUMENTS OR THE E.O.R., THE CONTRACTOR MAY PERFORM THE WORK USING EQUIPMENT, TOOLS, MACHINERY, ETC., OF HIS OWN CHOOSING. NOTE THAT FACILITIES TO BE CONSTRUCTED UNDER THE CONTRACT ARE ADEQUATE TO SUPPORT ONLY THEIR DESIGN LOADS IN THEIR COMPLETED CONSTRUCTION STAGE. IF THE CONTRACTOR'S EQUIPMENT OR PROCEDURES DURING CONSTRUCTION DAMAGE ANY PART OF THE FACILITY, THE CONTRACTOR SHALL REPLACE OR REPAIR IT AS DIRECTED BY THE E.O.R . AT NO EXPENSE TO THE OWNER.

2. MAINTENANCE OF TRAFFIC

2.1 DESCRIPTION: THE CONTRACTOR SHALL MAINTAIN TRAFFIC WITHIN THE LIMITS OF THE PROJECT FOR THE DURATION OF THE CONSTRUCTION PERIOD, INCLUDING ANY TEMPORARY SUSPENSIONS OF THE WORK. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ANY DETOUR FACILITIES, PROVIDE NECESSARY FACILITIES FOR ACCESS TO RESIDENCES, BUSINESSES, ETC., ALONG THE PROJECT. CONTRACTOR SHALL FURNISH AND APPLY CALCIUM CHLORIDE OR WATER ON THE SUBGRADE, UNSURFACD BASE, OR OTHER UNSURFACED TRAVELED WAYS IN ORDER TO CONTROL DUST DURING THE CONSTRUCTION OPERATIONS.

3. TRAFFIC CONTROL

3.1 STANDARDS: FHWA'S MUTCD PART VI IS THE MINIMUM STANDARDS FOR TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS. CONTRACTOR SHALL UNDERSTAND THE STANDARDS ESTABLISHED IN THE AFOREMENTIONED MANUAL CONSTITUTE THE MINIMUM REQUIREMENTS FOR NORMAL CONDITIONS. THE E.O.R. MAY REQUIRE ADDITIONAL TRAFFIC CONTROL DEVICES, WARNING DEVICES, BARRIERS, OR OTHER SAFETY DEVICES WHERE UNUSUAL, COMPLEX, OR PARTICULARLY HAZARDOUS CONDITIONS EXIST.

3.2 MAINTENANCE OF DEVICES AND BARRIERS-P CONTRACTOR SHALL KEEP TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS IN THE CORRECT POSITION PROPERLY DIRECTED, CLEARLY VISIBLE AND CLEAN AT ALL TIMES. CONTRACTOR SHALL IMMEDIATELY REPAIR, REPLACE OR CLEAN DAMAGED, DEFACED, OR DIRTY DEVICES OR BARRIERS AND HAVE THE E.O.R. APPROVE THEM FOR USE.

4. PREVENITON, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION

4.1 DESCRIPTION: CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES ON THE PROJECT AND IN AREAS OUTSIDE THE RIGHT-OF-WAY WHERE WORK IS ACCOMPLISHED IN CONJUNCTION WITH THE PROJECT, SO AS TO PREVENT POLLUTION OF WATER, DETRIMENTAL EFFECTS TO PUBLIC OR PRIVATE PROPERTY ADJACENT TO THE PROJECT RIGHT-OF-WAY AND DAMAGE TO WORK ON THE PROJECT. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN TEMPORARY EROSION CONTROL FEEATURES OR, WHERE PRACTICAL, CONSTRUCT AND MAINTAIN PERMANENT EROSION CONTROL FEATURES AS SHOWN IN THE PLANS OR AS MAY BE DIRECTED BY THE E.O.R.

5. CLEARING AND GRUBBING

5.1 DESCRIPTION: CONTRACTOR SHALL CLEAR AND GRUB WITHIN THE AREAS OF THE ROADWAY RIGHT-OF-WAY AND OF BORROW PITS, SAND-CLAY BASE MATERIAL PITS, LATERAL DITCHES AND ANY OTHER AREAS SHOWN IN THE PLANS TO BE CLEARED AND GRUBBED. REMOVE AND DISPOSE OF ALL TREES, STUMPS, ROOTS, AND OTHER SUCH PROTRUDING OBJECTS, AND BUILDINGS, STRUCTURES, APPURTENANCES, EXISTING FLEXIBLE ASPHALT PAVEMENT, AND OTHER FACILITIES NECESSARY TO PREPARE THE AREA FOR THE PROPOSED CONSTRUCTION, AND REMOVE AND DISPOSE OF ALL PRODUCT AND DEBRIS NOT REQUIRED TO BE SALVAGED OR NOT REQUIRED TO COMPLETE THE CONSTRUCTION.
CONTRACTOR SHALL ALSO PERFORM MISCELLANEOUS WORK THE E.O.R. CONSIDERS NECESSARY FOR THE COMPLETE PREPARATION OF THE OVERALL PROJECT SITE AS FOLLOWS:

(a) PLUG ANY WATER WELLS THAT ARE ENCOUNTERED WITHIN THE RIGHT-OF-WAY AND THAT ARE TO BE ABANDONED,

(b) LEVEL THE TERRAIN OUTSIDE THE LIMITS OF CONSTRUCTION FOR PURPOSES OF FACILITATING MAINTENANCE AND OTHER POST-CONSTRUCTION OPERATIONS.

(c) TRIM TREES AND SHRUBS WITHIN THE PROJECT RIGHT-OF-WAY THAT ARE IDENTIFIED IN THE PROJECT DOCUMENTS.

6. STABILIZING

6.1 DESCRIPTION: STABILIZE DESIGNATED PORTIONS OF THE ROADBED TO PROVIDE A FIRM AND UNYIELDING SUBGRADE, HAVING THE REQUIRED BEARING VALUE SPECIFIED IN THE PLANS. WHEN SPECIFIED IN THE PLANS, PROVIDE ADDITIONAL STRENGTHENING OF THE SUBBASE BY ADDITIONAL STABILIZING OF THE UPPER PORTION OF THE PREVIOUSLY STABILIZED SUBGRADE, WITHIN THE LIMITS SPECIFIED.

6.2 MAXIMUM PARTICLE SIZE OF MIXED MATERIALS: AT THE COMPLETION OF THE MIXING, ENSURE THAT THE GRADATION OF THE MATERIAL WITHIN THE LIMITS OF THE AREA BEING STABILIZED IS SUCH THAT 97% WILL PASS A 3 1/2" (90MM) SIEVE AND THAT THE MATERIAL DOES NOT HAVE A PLASTICITY INDEX GREATER THAN EIGHT OR LIQUID LIMIT GREATER THAN THIRTY.

6.3 DENSITY REQUIREMENTS: WITHIN THE ENTIRE LIMITS OF THE WIDTH AND DEPTH OF THE AREAS TO BE STABILIZED, OBTAIN A MAXIMUM DENSITY OF 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T180.

7. GRANULAR BASE

7.1 MATERIALS: MATERIALS SHALL MEET THE REQUIREMENTS OF THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) STANDARD. THE CONTRACTOR MAY USE MORE THAN ONE SOURCE OF GRANULAR BASE ON A SINGLE CONTRACT PROVIDED THAT A SINGLE SOURCE IS USED THROUGHOUT THE ENTIRE WIDTH AND DEPTH OF A SECTION OF BASE. OBTAIN APPROVAL FROM THE E.O.R. BEFORE PLACING MATERIAL FROM MORE THAN ONE SOURCE.

7.2 METHOD OF SPREADING: CONTRACTOR SHALL SPREAD THE ROCK UNIFORMLY, REMOVE ALL SEGREGATED AREAS OF FINE OR COURSE ROCK AND REPLACE THEM WITH PROPERLY GRADED ROCK.

7.3 GRANULAR BASE FOR SHOULDER PAVEMENT: UNLESS OTHERWISE PERMITTED, CONTRACTOR SHALL COMPLETE ALL GRANULAR BASE SHOULDER CONSTRUCTION AT ANY PARTICULAR LOCATION BEFORE PLACING THE FINAL COURSE OF PAVEMENT ON THE TRAVELED ROADWAY. WHEN DUMPING MATERIAL FOR THE CONSTRUCTION OF A GRANULAR BASE ON THE SHOULDERS, DO NOT ALLOW MATERIAL CAPABLE OF SCARRING OR CONTAMINATING THE PAVEMENT SURFACE ON THE ADJACENT PAVEMENT. IMMEDIATELY SWEEP OFF ANY GRANULAR MATERIAL THAT IS DEPOSITED ON THE SURFACE COURSE.

7.4 DENSITY REQUIREMENTS: WHEN PROPER MOISTURE CONDITIONS ARE OBTAINED, COMPACT MATERIAL TO NOT LESS THAN 98% OF MAXIMUM DENSITY DETERMINED BY AASHTO T180. COMPACT THE GRANULAR BASE FOR SHOULDER PAVEMENT TO NOT LESS THAN 95% OF MAXIMUM DENSITY DETERMINED BY AASHTO T180.

7.5 PRIMING: CONTRACTOR SHALL APPLY THE PRIME COAT ONLY WHEN THE BASE MEETS THE SPECIFIED DENSITY REQUIREMENTS AND WHEN THE MOISTURE CONTENT IN THE TOP HALF OF THE BASE DOES NOT EXCEED 90% OF THE OPTIMUM MOISTURE OF THE BASE MATERIAL. AT THE TIME OF PRIMING ENSURE THAT THE BASE IS FIRM, UNYIELDING AND IN SUCH CONDITION THAT NO UNDUE DISTORTION WILL OCCUR.

7.6 MAINTAINING: MAINTAIN THE TRUE CROWN AND TEMPLATE, WITH NO RUTTING OR OTHER DISTORTION WHEN APPLYING THE SURFACE COURSE.

8. PRIME AND TACK COATS FOR BASE COURSES

8.1 DESCRIPTION: CONTRACTOR SHALL APPLY PRIME COATS ON PREVIOUSLY PREPARED BASES, AND APPLY TACK COATS ON PREVIOUSLY PREPARED BASES AND ON EXISTING PAVEMENT SURFACES.

8.2 PRIME COAT: FOR PRIME COAT, CONTRACTOR SHALL USE CUTBACK ASPHALT GRADE RC-70 OR RC-250) MEETING REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS, SECTION 916-3.

8.3 COVER MATERIAL FOR PRIME COAT: UNIFORMLY COVER THE PRIME BASE BY A LIGHT APPLICATION OF COVER MATERIAL. THE CONTRACTOR MAY USE EITHER SAND OR SCREENINGS FOR COVER MATERIAL. FOR THE SAND, MEET THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS SECTION 902-2 OR 902-6. AND FOR THE SCREENINGS MEET THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS SECTION 902-5. IF EXPOSING THE PRIMED BASE COURSE TO GENERAL TRAFFIC, APPLY A COVER MATERIAL THAT HAS BEEN COATED WITH 2 TO 4% ASPHALT CEMENT. APPLY THE ASPHALT COATED MATERIAL AT APPROXIMATELY 10 LB /SQ.YD [5.5 KG/SQ. M]. ROLL THE ENTIRE SURFACE OF ASPHALT COATED MATERIAL WITH A TRAFFIC ROLLER AS REQUIRED TO PRODUCE A REASONABLE DENSE MAT.

8.4 TACK COAT: UNLESS THE CONTRACT DOCUMENTS CALL FOR A SPECIFIC TYPE OR GRADE OF TACK COAT, USE UNDILUTED EMULSIFIED ASPHALT GRADES RS-1 OR RS-2 MEETING THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS SECTION 916-4. HEAT RS-1 OR RS-2 TO A TEMPERATURE OF 140 TO 180° F [60 TO 82°C].

8.5 APPLICATION OF PRIME COAT

8.5.1 GENERAL: CONTRACTOR SHALL CLEAN THE SURFACE TO BE PRIMED AND ENSURE THAT THE MOISTURE CONTENT OF THE BASE DOES NOT EXCEED 90% OF THE OPTIMUM MOISTURE. ENSURE THAT THE TEMPERATURE OF THE PRIME MATERIAL IS BETWEEN 100 AND 150° F (40 AND 65° C). APPLY THE MATERIAL WITH A PRESSURE DISTRIBUTOR. DETERMINE THE APPLICATION AMOUNT BASED ON THE CHARACTER OF THE SURFACE. USE AN AMOUNT SUFFICIENT TO COAT THE SURFACE THOROUGHLY AND UNIFORMLY WITH NO EXCESS.

8.5.2 RATE OF APPLICATION: CONTRACTOR SHALL USE A RATE OF APPLICATION THAT IS NOT LESS THAN 0.1 GAL/SQ.YD [0.5 L/SQ.M], UNLESS A LOWER RATE IS DIRECTED BY THE E.O.R.

8.6 APPLICATION OF PRIME COAT

8.6.1 WHERE REQUIRED: IN GENERAL THE E.O.R. WILL NOT REQUIRE A TACK COAT ON PRIMED BASES EXCEPT IN AREAS THAT HAVE BECOME EXCESSIVELY DIRTY AND CANNOT BE CLEANED, OR IN AREAS WHERE THE PRIME HAS CURED TO AN EXTENT THAT IT HAS LOST ALL BONDING EFFECT. GENERALLY, THE E.O.R. WILL REQUIRE A TACK COAT ON HOT BITUMINOUS BASE COURSE BEFORE PLACING THE SURFACE COURSE.

8.6.2 METHOD OF APPLICATION: CONTRACTOR SHALL APPLY THE TACK COAT WITH A PRESSURE DISTRIBUTOR EXCEPT THAT ON SMALL JOBS, IF APPROVED BY THE E.O.R., IT MAY BE APPPLIED BY OTHER MECHANICAL DEVICES OR BY HAND METHODS. HEAT THE BITUMINOIS MATERIAL TO A SUITABLE TEMPERATURE AS DESIGNATED BY THE E.O.R., AND APPLY IT IN A THIN, UNIFORM LAYER.

8.6.3 RATE OF APPLICATION: CONTRACTOR SHALL USE A RATE OF APPLICATION BETWEEN 0.02 AND 0.08 GAL/SQ.YD [0.09 AND 0.36 L/SQ.M].

9. BITUMINOUS SURFACE TREATMENT (INCLUDING MINERAL SEAL COAT)

9.1 DESCRIPTION: CONTRACTOR SHALL CONSTRUCT A WEARING SURFACE OF SEPARATE APPLICATIONS OF BITUMINOUS MATERIAL COVEREED WITH AGGREGATE, EITHER IN SINGLE APPLICATIONS, DOUBLE (ALTERNATE) APPLICATIONS OR TRIPLE (ALTERNATE) APPLICATIONS

9.2 COMPOSITION AND PROPORTIONING: THE COMPOSITION AND PROPORTIONING FOR THE VARIOUS TYPES OF BITUMINOUS SURFACE TREATMENT AND FOR MINERAL SEAL COAT SHALL BE AS PER THE TABLES IN FDOT STANDARD SPECIFICATIONS SECTION 310-2.

9.3 EQUIPMENT:

9.3.1 PRESSURE DISTRIBUTOR: CONTRACTOR SHALL PROVIDE A PRESSURE DISTRIBUTOR THAT IS EQUIPPED WITH PNEUMATIC TIRES HAVING A SUFFICIENT WIDTH OF RUBBER IN CONTACT WITH THE ROAD SURFACE TO AVOID BREAKING THE BOND OR FORMING A RUT IN THE SURFACE. ENSURE THAT THE DISTANCES BETTWEEN THE CENTRES OF OPENINGS OF THE OUTSIDE NOZZLES OF THE SPRAY BAR IS EQUAL TO THE WIDTH OF THE APPLICATION REQUIRED, WITHIN A ALLOWABLE VARIATION OF 2 INCHES [50 MM]. ENSURE THAT THE OUTSIDE NOZZLE AT EACH END OF THE SPRAY BAR HAS AN AREA OF OPENING NOT LESS THAN 25% OR MORE THAN 75% IN EXCESS OF THE OTHER NOZZLES. ENSURE THAT ALL NOZZLES HAVE UNIFORM OPENINGS.

9.3.2 SPREADING EQUIPMENT: CONTRACTOR SHALL PROVIDE SUFFICIENT TRUCKS AD AGGREGATE SPREADERS AT THE SITE OF THE WORK TO ENSURE CONTINUOUS SPREADING OF THE AGGREGATE ON THE UNCOVERED BITUMINOUS MATERIAL. USE A SPREADER OF THE MECHANICAL TYPE THAT IS SELF-SUPPORTED (TOWED) OR SELF-PROPELLED THAT IS CAPABLE OF PRODUCING A SMOOTH, UNIFORM DISTRIBUTION OF THE COVER MATERIAL. DO NOT USE SPREADERS OF THE TYPE ATTACHED DIRECTLY TO THE BACK OF THE TRUCK BODY (TAIL GATE SPREADERS).

9.3.3 ROLLERS: CONTRACTOR SHALL PROVIDE ROLLERS THAT ARE 3 TO 5 TON [2.7 TO 4.5 METRIC TON] STEEL-TIRED OR COMBINATION STEEL AND RUBBER-TIRED. ROLLERS AND SELF-PROPELLED. PNEUMATIC-TIRED TRAFFIC TYPE ROLLERS THAT ARE EQUIPPED WITH AT LEAST SEVEN SMOOTH-TREAD, LOW-PRESSURE TIRES AND CAPABLE OF CARRYING A LOAD OF AT LEAST 8 TONS [7 METRIC TONS]. MAINTAIN THE INFLATION IN THE TIRES SUCH THAT IN NO TWO TIRES THE AIR PRESSURE VARIES MORE THAN 5 PSI [35 KPA]. LOAD THE TRAFFIC LOADER AS DIRECTED BY THE E.O.R.

9.4 APPLICATION OF BITUMINOUS MATERIAL:

9.4.1 DISTRIBUTOR PRESSURE: AFTER CLEANING THE SURFACE TO BE TREATED TO THE SATISFACTION OF THE E.O.R., THE CONTRACTOR SHALL UNIFORMLY SPRAY THE BITUMINOUS MATERIAL OVER THE SURFACE BY MEANS OF A PRESSURE DISTRIBUTOR, WHEN A SURFACE CONSTRUCTED UNDER THIS SECTION IS ON A PAVED SHOULDER, USE A STRINGLINE OR OTHER APPROVED METHOD TO PRODUCE A UNIFORM LINE ALONG THE EDGE OF THE APPLIED BITUMINOUS MATERIAL ADJACENT TO THE TRAFFIC LANES. USE A DISTRIBUTOR THAT MAINTAINS A PRESSURE OF AT LEAST 20 PSI [140 KPA] AND 75 PSI [520 KPA].

9.4.2 APPLICATION TEMPERATURES: FOR ASPHALT CEMENT, MAINTAIN AN APPLICATION TEMPERATURE BETWEEN 300 AND 350° F [150 AND 175° C]. FOR EMULSIFIED ASPHALT MAINTAIN AN APPLICATION TEMPERATURE BETWEEN 100 AND 170° F [38 AND 75° C]. FOR CUT-BACK ASPHALT, MAINTAIN AN APPLICATION TEMPERATURE BETWEEN 175 AND 275° F [80 AND 135° C].

9.4.3 UNIFORMITY OF DISTRIBUTION: CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS TO OBTAIN AN EVEN AND UNIFORM DISTRIBUTIOIN OF BITUMINOUS MATERIAL, AND ADJUST AND OPERATE THE DISTRIBUTOR SO AS TO MAINTAIN UNIFORM, EVEN DISTRIBUTION OF THE MATERIAL BEING APPLIED. IMMEDIATELY REMOVE EXCESSIVE DEPOSITS OF BITUMINOUS MATERIAL UPON THE ROAD SURFACE CAUSED BY STOPPING AND STARTING THE DISTRIBUTOR, BY LEAKAGE OR OTHERWISE.

9.5 SPREADING COVER MATERIAL

9.5.1 SPREADING: SPREAD THE COVER MATERIAL IMMEDIATELY FOLLOWING EACH APPLICATION OF BITUMINOUS MATERIAL. UNIFORMLY DISTRIBUTE THE COVER MATERIAL OVER THE BITUMINOUS SURFACE IN ONE, TWO, OR THREE COURSES AS SPECIFIED. PERFORM SPREADING USING APPROVED MECHANICAL SPREADERS, USING ONLY DIRVERS EXPERIENCED IN THIS TYPE OF WORK FOR DRIVING THE SPREADERS. DO NOT DRIVE TRUCKS OR SPREADERS ON THE UNCOVERED BITUMINOUS MATERIAL.

9.5.2 BROOMING AND DRESSING: IMMEDIATELY AFTER EACH APPLICATION OF COVER MATERIAL, BROOM THE SURFACE IN ORDER TO SECURE A UNIFORM DISTRIBUTION OF COVER MATERIAL AND A SMOOTH SURFACE. PLACE ADDITIONAL AGGREGATE BY HAND ON ANY AREAS NOT PROPERLY COVERED.

9.6 ROLLING AND CURING

9.6.1 GENERAL REQUIREMENTS: IMMEDIATELY AFTER THE SPREADING AND DRAGGING OF EACH APPLICATION OF COVER MATERIAL, ROLL THE ENTIRE SURFACE. BEGIN ROILLING WITHIN 30 MINUTES AFTER SPREADING OF THE COVER MATERIAL. BEGIN ROLLING AT THE EDGES AND PROGRESS TO THE CENTRE OF THE SURFACE. UNIFORMLY LAPPING EACH PRECEDING PASS AND THOROUGHLY COVERING THE ENTIRE SURFACE. DURING ROLLING, PERFORM ADDITIONAL DRAGGING AND HANDBROOMING AS SPECIFIED ABOVE. FIRST ROLL THE ENTIRE SURFACE WITH A TRAFFIC ROLLER, FOLLOWED IMMEDIATELY WITH A STEEL-WHEELED ROLLER. COVER THE ENTIRE SURFACE WITH A STEEL-WHEELED ROLLER. THEN, ROLL THE COVER MATERIAL AGAIN WITH THE TRAFFIC ROLLER, CONTINUE THE ROLLING AS LONG AS IS NECESSARY TO ENSURE THE THOROUGH KEYING OF THE COVER MATERIAL AND TO SECURE A UNIFORMLY CLOSED SURFACE.

9.6.2 SHOULDER PAVEMENT: FOR BITUMINOUS SURFACE-TREATED SHOULDER PAVEMENT, THE E.O.R. MAY REQUIRE ADDITIONAL ROLLING AS HE DEEMS NECESSARY TO COMPENSATE FOR THE LACK OF SUBSEQUENT ROLLING BY HIGHWAY TRAFFIC.

9.7 SURFACE REQUIREMENTS: CONTRACTOR SHALL PROVIDE A FINISHED SURFACE THAT IS UNIFORM AND CONFORMS TO THE LINES, GRADES AND CROSS SECTIONS SHOWN IN THE PLANS. REMOVE ALL PORTIONS OF THE COMPLETED SURFACE THAT ARE DEFECTIVE, ARE NOT PROPERLY FINISHED, HAVE FAT JOINTS, OR ARE NOT IN REASONABLY CLOSE CONFORMANCE WITH THESE SPECIFICATIONS, AND REPLACE THEM WITH A SATISFACTORY SURFACE.

9.8 PROTECTION: AFTER APPLYING THE BITUMINOUS MATERIAL, THE CONTRACTOR SHALL PREVENT TRAFFIC FROM USING THE ROAD UNTIL PLACING AND THOROUGHLY ROLLING THE COVER MATERIAL. IF POSSIBLE COMPLETE THE TRAFFIC OFF THE FINISHED SURFACE FOR AT LEAST 48 HOURS AFTER COMPLETING FINISHING

10. HOT BITUMINOUS MIXTURES

10.1 TRANSPORTATION OF THE MIXTURE: TRANSPORT THE MIXTURE IN TIGHT VEHICLES PREVIOUSLY CLEANED OF ALL FOREIGN MATERIAL. AFTER CLEANING, THINLY COAT THE INSIDE OF THE TRUCK BODIES WITH SOAPY WATER OR AN APPROVED EMULSION CONTAINING NOT MORE THAN 5% OIL. APPLY THE COATING PRIOR TO THE FIRST LOADING EACH DAY AND REPEAT AS NECESSARY THROUGHOUT THE DAY'S OPERATIONS. AFTER THE TRUCK BODIES ARE COATED AND BEFORE ANY MIXTURE IS PLACED THEREIN, RAISE THEM TO DRAIN OUT ANY EXCESS LIQUIDS. COVER EACH LOAD DURING COOL AND CLOUDY WEATHER AND AT ANY TIME THERE IS A PROBABILITY OF RAIN.

10.2 PREPARATION OF APPLICATION SURFACES

10.2.1 CLEANING: PRIOR TO THE LAYING OF THE MIXTURE, CLEAN THE SURFACE OF THE BASE OR THE PAVEMENT TO BE COVERED OF ALL LOOSE OR DELETERIOUS MATERIAL BY THE USE OF POWER BROOMS OR BLOWERS, SUPPPLEMENTED BY HAND BROOMING WHERE NECESSARY.

10.2.2 PATCHING AND LEVELING COURSES: WHEN AN ASPHALT MIX IS TO BE PLACED ON AN EXISTING PAVEMENT OR OLD BASE WHICH IS IRREGULAR, AND WHEREVER THE PLANS INDICATE, BRING THE EXISTING SURFACE TO PROPER GRADE AND CROSS SECTION BY THE APPLICATION OF PATCHING AND LEVELING COURSES.

10.2.3 APPLICATION OVER SURFACE TREATMENT: WHERE AN ASPHALT MIX IS TO BE PLACED OVER NEWLY CONSTRUCTED SURFACE TREATMENT, SWEEP AND DISPOSE OF ALL LOOSE MATERIAL FROM THE PAVING AREA.

10.2.4 COATING SURFACES OF CONTACTING STRUCTURES: PAINT ALL STRUCTURES WHICH WILL BE IN ACTUAL CONTACT WITH THE ASPHALT MIXTURE, WITH THE EXCEPTION OF THE VERTICAL FACES OF THE EXISTING PAVEMENTS AND CURBS OR CURB AND GUTTER, WITH A UNIFORM COATING OF ASPHALT CEMENT TO PROVIDE A CLOSELY BONDED, WATER-TIGHT JOINT.

10.3 PLACING MIXTURE

10.3.1 ALIGNMENT OF EDGES: LAY ALL ASPHALTIC CONCRETE MIXTURES, INCLUDING LEVELING COURSES OTHER THAN ADJACENT TO CURB AND GUTTER AND OTHER TRUE EDGES, BY THE STRINGLINE METHOD TO OBTAIN AN ACCURATE, UNIFORM ALIGNMENT OF THE PAVEMENT EDGE.

10.3.2 TEMPERATURE OF SPREADING: THE CONTRACTOR SHALL MAINTAIN THE TEMPERATURE OF THE MIX AT THE TIME OF SPREADING TO WITHIN +/- 24° F [+/- 14° C] OF THE ESTABLISHED MIX TEMPERATURE ESTABLISHED BY THE CONTRACTOR. AS A MINIMUM, THE ENGINEER WILL TAKE MIX TEMPERATURES OF THE MIX ON THE ROAD IN AN AVERAGE FREQUENCY OF ONE PER FIVE TRUCKS. IF THE TEMPERATURE FAILS TO FALL WITHIN SPECIFIED TOLERANCE CORRECTIVE ACTION MAY NEED TO BE TAKEN.

10.3.3 RAIN AND SURFACE CONDITIONS: IMMEDIATELY CEASE TRANSPORTATION OF ASPHALT MIXTURES FROM THE PLANT WHEN RAIN BEGINS AT THE ROADWAY. DO NOT PLACE ASPHALT MIXES WHILE RAIN IS FALLING, OR WHEN THERE IS WATER ON THE SURFACE TO BE COVERED. AS AN EXCEPTION, THE CONTRACTOR MAY PLACE MIXTURES CAUGHT IN TRANSIT AT THE CONTRACTOR'S RISK IF THE ONLY OPTION IS TO WASTE THE MIXTURE AND PROVIDED THE SURFACE HAS BEEN TACKED AS SPECIFIED PRIOR TO THE RAIN AND THE SURFACE IS BROOMED IN FRONT OF THE SPREADING OPERATION.

10.4 COMPACTING MIXTURE

10.4.1 STANDARD ROLLING PROCEDURE: CONTRACTOR SHALL MEET THE FOLLOWING EQUIPMENT, SEQUENCE , AND COVERAGE REQUIREMENTS:

1. SEAL ROLLING: PROVIDE TWO COVERAGES WITH A TANDEM STEEL-WHEELED ROLLER (EITHER VIBRATORY OR STATIC), WEIGHING 5 TO 12 TONS [4.5 TO 11 METRIC TONS]. FLOOLWING AS CLOSE BEHIND THE SPREADER AS POSSIBLEWITHOUT PICK-UP, UNDUE DISPLACEMENT OR BLISTERING OF THE MATERIAL. USE VIBRATORY ROLLERS IN THE STATIC MODE FOR LAYERS OF 1 INCH [25MM] OR LESS IN THICKNESS.

2. INTERMEDIATE ROLLING: PROVIDE FIVE COVERAGES WITH A SEFL-PROPELLED PNEUMATIC-TIRED ROLLER, FOLLOWING AS CLOSE BEHIND THE SEAL ROLLNG OPERATION AS THE MIX WILL PERMIT.

3. FINAL ROLLING: PROVIDE ONE COVERAGE WITH A TANDUM STEEL-WHEELED ROLLER (STATIC MODE ONLY), WEIGHING 5 TO 12 TONS [4.5 TO 11 METRIC TONS], AFTER COMPLETING THE SEAL ROLLING AND INTERMEDIATE ROLLING, BUT BEFORE THE SURFACE PAVEMENT TEMPERATURE DROPS BELOW 160° F [70°C].

10.4.2 ROLLING PROCEDURES: ENSURE THAT THE INITI

2.2.5 CONSTRUCTION TRAFFIC SHALL NOT USE ANY ROAD FORMATION AT THE BOTTOM OF A CUTTING UNLESS THE CUTTING IS IN ROCK OR THE CONTRACTOR MAINTAINS THE LEVEL OF THE BOTTOM SURFACE AT LEAST 1 FOOT ABOVE FORMATION LEVEL.
THE CONTRACTOR AT HIS OWN EXPENSE SHALL REPAIR ANY DAMAGE TO THE SUB-GRADE ARISING FROM SUCH USE OF THE SURFACE.

2.3 PREPARATION OF FILL AREAS: UNLESS OTHERWISE REQUIRED BY THE CONTRACT THE NATURAL GROUND OVER WHICH FILLING IS TO BE PLACE SHALL BE CLEARED OF ALL LOOSE BOULDERS, GRASS, PRODUCTIVE SOIL, BUSHES, TREES, ROOTS AND OTHER VEGETATION. NO FILLING MATERIAL SHALL BE PLACED UNTIL ALL WATERCOURSES HAVE BEEN DIVERTED OR UNDER DRAINED, ALL POTHOLES OR CAVITIES DISCOVERED SHALL BE OPENED UP, FILLED AND COMPACTED BEFORE ANY FILLING TAKES PLACE.

2.4 FORMING OF EMBANKMENTS: ALL FILLING MATERIAL SHALL BE OBTAINED FROM APPROVED BORROW AREAS OR FROM OTHER SOURCES APPROVED BY THE PROJECT ENGINEER.

2.4.1 EMBANKMENTS SHALL BE FORMED OF MATERIAL DEFINED AS SUITABLE MATERIAL IN CLAUSE 4.1 THE MATERIAL SHALL BE DEPOSITED AND COMPACTED AS SOON AS PRACTICABLE AFTER EXCAVATION IN ACCORDANCE WITH CLAUSE 4.7. EMBANKMENTS SHALL BE BUILT UP EVENLY OVER THE FULL WIDTH AND SHALL BE MAINTAINED AT ALL TIMES WITH A SURFACE OF SUFFICIENT CAMBER AND SUFFICIENTLY EVEN TO ENABLE SURFACE WATER TO DRAIN READILY FROM THEM. DAMAGE TO COMPACTED LAYERS BY CONSTRUCTION TRAFFIC SHALL BE REPAIRED BY THE CONTRACTOR.

2.4.2 THE EXISTING GROUND BELOW EMBANKMENT AREAS SHALL BE CLEARED AS SPECIFIED IN 2.4, AND THEN RIPPED TO A DEPTH OF TWELVE INCHES (12") BELOW EXISTING GROUND LEVEL. THE RIPPED ROCK SHALL THEN BE WELL WALKED IN UNTIL IT WILL PASS A 4" GAUGE AND THOROUGHLY COMPACTED IN ACCORDANCE WITH TABLE 2.1.

2.4.3 ROCK USED, AS FILL SHALL BE OF SUCH SIZE THAT IT CAN BE DEPOSITED IN HORIZONTAL LAYERS, EACH NOT EXCEEDING 18 INCHES LOOSE DEPTH AND EXTENDING OVER THE FULL WIDTH OF THE EMBANKMENTS. MATERIALS SHALL BE SPREAD AND LAID BY A CRAWLER TRACTOR WEIGHING NOT LESS THAN 15 TONS AND COMPACTED IN ACCORDANCE WITH CLAUSE 3.2. EACH LAYER SHALL CONSIST OF REASONABLY GRADED ROCK AND ALL SURFACE VOIDS SHALL BE FILLED WITH BROKEN FRAGMENTS BEFORE THE NEXT LAYER IS PLACED. THE TOP SURFACE AND SIDE SLOPES OF EMBANKMENTS SO FORMED SHALL BE THOROUGHLY BLINDED WITH APPROVED FINE GRADED MATERIALS TO SEAL THE SURFACE.

2.4.4 IF THE CONTRACTOR WISHES TO CONTINUE TO USE THE SURFACE OF EMBANKMENTS FOR CONSTRUCTION TRAFFIC BEFORE TRIMMING TO FORMATION LEVEL HE SHALL BRING UP AND MAINTAIN THE SURFACE TO A LEVEL NOT LESS THAN 6 INCHES ABOVE FORMATION LEVEL. ANY DAMAGE TO THE SUBGRADE CAUSE BY THE USE OF SUCH SURFACE SHALL BE MADE GOOD BY THE CONTRACTOR AT HIS OWN EXPENSE.

2.5 COMPACTION
ALL MATERIAL SHALL BE COMPACTED AS SOON AS PRACTICABLE AFTER DEPOSITION. THE PERCENTAGE COMPACTION SHALL EQUAL OR EXCEED 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.
AS A GUIDELINE TABLE 2.1 GIVES COMPACTION REQUIREMENTS FOR TYPES OF EQUIPMENT, DEPTH OF LAYER AND NUMBER OF PASSES. LISTED BELOW ARE THE DEFINITIONS AND CLASSIFICATIONS ASSOCIATED WITH TABLE 2.1

TABLE 2.1 COMPACTION REQUIREMENTS
D= MAXIMUM DEPTH OF COMPACTED LAYER (INCHES)
N= MINIMUM NUMBER OF PASSES

TYPE OF COMPACTION PLANT	CATEGORY	UNIFORMLY GRADED MATERIAL D	N
MASS PER YD WIDTH OF ROLL:			
SMOOTH-WHEELED ROLLER	OVER 0.71T UP TO 0.91T	5	10*
	OVER 0.91T UP TO 1.80T	5	8*
	OVER 1.81T	UNSUITABLE	
GRID ROLLER	OVER 0.91T UP TO 1.81T	6	10*
	OVER 1.81T UP TO 1.82T	UNSUITABLE	
	OVER 1.82T	UNSUITABLE	
TAMPING ROLLER	OVER 4.41T	10	4
VIBRATING ROLLER	MASS PER YARD WIDTH OF A VIBRATING ROLL:		
	OVER 0.09T UP TO 0.15T	6	16
	OVER 0.15T UP TO 0.24T	6	12
	OVER 0.24T UP TO 0.44T	6	6
	OVER 0.44T UP TO 0.60T	8	10*
	OVER 0.60T UP TO 0.77T	9	12*
	OVER 0.77T UP TO 0.97T	10	10*
	OVER 0.97T UP TO 1.21T	11	8*
	OVER 1.21T UP TO 1.44T	12	8*
	OVER 1.44T UP TO 1.68T	12	6*
	OVER 1.68T	12	4*

2.6 NOTES TO TABLE 2.1

A) THE DEPTH OF COMPACTED LAYER IS THE HEIGHT BY WHICH THE EMBANKMENT IS RAISED BY EACH SUCCESSIVE COMPACTED LAYER.

B) THE NUMBER OF PASSES IS THE NUMBER OF TIMES THAT EACH POINT ON THE SURFACE OF THE LAYER BEING COMPACTED HAS BEEN TRAVERSED BY THE ITEM OF COMPACTION PLANT.

C) THE COMPACTIVE EFFORT OF EACH COMPACTOR IS A FUNCTION OF THE MASS OF THE MACHINE AND THE COMPACTION PLANT IN TABLE 2.1 IS LISTED IN TERMS OF THEIR MASSES. THE MASS PER YARD WIDTH OF ROLL IS THE TOTAL MASS ON THE ROLL DIVIDED BY THE TOTAL ROLL WIDTH. WHERE A SMOOTH-WHEELED ROLLER HAS MORE THAN ONE AXLE. THE MACHINE SHALL BE ASSESSED ON THE BASIS OF THE AXLE GIVING THE HIGHEST VALUE OF MASS PER YARD WIDTH.

D) A TAMPING ROLLER, FOR THE PURPOSE OF THIS SPECIFICATION, IS A MACHINE WITH A ROLL OR ROLLS FROM WHICH 'FEET' PROJECT. THE PROJECTED END AREA OF EACH FOOT SHALL EXCEED 0.11SQ.FT AND THE SUM OF THE AREAS OF FEET SHALL EXCEED 15 PER CENT OF THE AREA OF THE CYLINDER SWEPT BY ENDS OF THE FEET. THE REQUIREMENTS FOR TAMPING ROLLERS APPLY TO MACHINES THAT HAVE 2 ROLLS IN TANDEM. IF ONLY ONE TAMPING ROLL TRAVERSES EACH POINT ON THE SURFACE OF THE LAYER ON ANY ONE PASS OF THE MACHINE, THE MINIMUM NUMBER OF PASSES SHALL BE TWICE THE NUMBER GIVEN IN TABLE 2.1

E) FOR PNEUMATIC-TYRED ROLLERS MASS PER WHEEL IS THE TOTAL MASS OF THE ROLLER DIVIDED BY THE NUMBER OF WHEELS.

F) IN ASSESSING THE NUMBER OF PASSES OF PNEUMATIC-TYRED ROLLER THE EFFECTIVE WIDTH SHALL BE THE SUM OF THE WIDTHS OF THE INDIVIDUAL WHEEL TRACKS TOGETHER WITH THE SUM OF THE SPACING NOT EXCEEDING 10 INCHES. WHERE THE SPACING EXCEEDS 10 INCHES THE EFFECTIVE WIDTH SHALL BE THE SUM OF THE WIDTHS OF THE INDIVIDUAL WHEEL TRACKS ONLY.

G) VIBRATING ROLLERS ARE SELF-PROPELLED OR TOWED SMOOTH WHEELED ROLLERS HAVING MEANS OF APPLYING MECHANICAL VIBRATION TO ONE OR MORE ROLLS.

H) THE REQUIREMENTS FOR VIBRATING ROLLERS ARE BASED ON THE USE OF THE LOWEST GEAR ON A SELF-PROPELLED MACHINE WITH MECHANICAL TRANSMISSION AND A SPEED OF 0.93 -1.55 MPH FOR A TOWED MACHINE, OR A SELF-PROPELLED MACHINE WITH HYDROSTATIC TRANSMISSION. IF HIGHER GEAR SPEEDS ARE USED AN INCREASED NUMBER OF PASSES SHALL BE PROVIDED IN PROPORTION TO THE INCREASE ON SPEED TO TRAVEL.

I) WHERE THE MECHANICAL VIBRATING IS APPLIED TO TWO ROLLS IN TANDEM, THE MINIMUM NUMBER OF PASSES SHALL BE HALF THE NUMBER GIVEN IN TABLE 2.1 FOR THE APPROPRIATE MASS PER YARD WIDTH OF THE ONE VIBRATING ROLL. IF ONE ROLL DIFFERS IN MASS PER YARD WIDTH FROM THE OTHER THE NUMBER OF PASSES SHALL BE CALCULATED AS FOR THE ROLL WITH THE SMALLEST VALUE. ALTERNATIVELY THE MACHINE MAY BE TREATED AS HAVING A SINGLE VIBRATING ROLL MISSING LINE WITH THE HIGHER VALUE.

J) VIBRATING TYPE ROLLERS OPERATING WITHOUT VIBRATION WILL BE CLASSIFIED AS SMOOTH-WHEELED ROLLERS.

K) VIBRATING ROLLERS SHALL BE OPERATED WITH THEIR VIBRATORY MECHANISM OPERATING ONLY AT THE FREQUENCY OF VIBRATION RECOMMENDED BY THE MANUFACTURERS. ALL SUCH ROLLERS SHALL BE EQUIPPED OR PROVIDED WITH A DEVICE AUTOMATICALLY INDICATING THE FREQUENCY AT WHICH THE MECHANISM IS OPERATING.

L) VIBRATING-PLATE COMPACTORS ARE MACHINES HAVING A BASE PLATE TO WHICH IS ATTACHED A SOURCE OF VIBRATION CONSISTING OF ONE OR TWO ECCENTRICALLY WEIGHTED SHAFTS.

M) THE MASS PER UNIT AREA OF BASE-PLATE OF A VIBRATING PLATE COMPACTOR IS CALCULATED BY DIVIDING THE TOTAL MASS OF THE MACHINE IN IT'S WORKING CONDITION BY IT'S AREA IN CONTACT WITH COMPACTED SOIL.

N) VIBRATING-PLATE COMPACTORS SHALL BE OPERATED AT THE FREQUENCY OF VIBRATION RECOMMENDED BY THE MANUFACTURERS. THEY SHALL NORMALLY BE OPERATED AT TRAVELLING SPEEDS OF LESS THAN 0.62MPH BUT IF HIGHER SPEEDS ARE NECESSARY THE NUMBER OF PASSES SHALL BE INCREASED IN PROPORTION TO THE INCREASE IN SPEED OF TRAVEL.

O) VIBRO-TAMPERS ARE MACHINES IN WHICH AN ENGINE-DRIVEN RECIPROCATING MECHANISM ACTS ON A SPRING SYSTEM THROUGH WHICH OSCILLATIONS ARE SET UP IN A BASE-PLATE.

P) POWER RAMMERS ARE MACHINES, WHICH ARE ACTUATED BY EXPLOSIONS IN AN INTERNAL COMBUSTION CYLINDER, EACH EXPLOSION BEING CONTROLLED MANUALLY BY THE OPERATOR.

Q) IN THE CASE OF POWER RAMMERS AND DROPPING WEIGHT COMPACTORS ONE PASS WILL BE CONSIDERED AS MADE WITH THE COMPACTING SHOE HAS MADE ON STRIKE ON THE AREA IN QUESTION.

R) FOR ITEMS MARKED * THE ROLLERS SHALL BE TOWED BY TRACK LAYING TRACTORS. SELF-PROPELLED ROLLERS ARE UNSUITABLE.

S) WHERE COMBINATIONS OF DIFFERENT TYPES OF CATEGORIES OF PLANT ARE USED, THE COMPACTION REQUIREMENTS SHALL BE DECIDED UPON BY THE PROJECT ENGINEER, IN ACCORDANCE WITH TABLE 2.1.

2.7 SUB-GRADE
AT SECTIONS TO BE RECONSTRUCTED OR WHERE CUTTING IS REQUIRED, THE EXISTING FORMATION SHALL BE SCARIFIED TO A DEPTH OF 6" BELOW FORMATION LEVEL.
THE SCARIFIED MATERIAL SHALL THEN BE SHAPED AND ROUGH GRADED, WATERED AND COMPACTED IN ACCORDANCE WITH TAB 6.1 AFTER HARD PLANNING TO ACHIEVE THE REQUIRED CROSS-FALL A FURTHER ROLLING OF ANY LOOSE MATERIAL SHALL BE CARRIED OUT UNTIL A SMOOTH SURFACE LAYER IS ACHIEVED, EXCEPT FOR VERGES. THEY SHALL BE LEFT WITH A ROUGH SURFACE TO RECEIVE THE SUBSEQUENT BASE LAYER.

2.8 BACKFILLING TO RETAINING WALLS
BACKFILL TO RETAINING WALLS SHALL BE PLACED IN LAYERS NOT EXCEEDING NINE INCHES (9") THICK AND THOROUGHLY, BUT NOT EXCESSIVELY, COMPACTED. IF NECESSARY THE MATERIAL SHALL BE WATERED.

2.9 SETTLEMENT
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING GOOD TO THE SATISFACTION OF THE PROJECT ENGINEER ALL SETTLEMENT IN FILLING AND IN BACKFILLING THAT MAY OCCUR UP TO THE END OF THE PERIOD OF MAINTENANCE.

2.10 EARTHWORK TO BE KEPT FREE OF WATER
THE CONTRACTOR SHALL PROVIDE WHERE NECESSARY TEMPORARY WATER COURSE, DITCHES, DRAINS, PUMPING OR OTHER MEANS OF MAINTAINING THE EARTHWORKS FREE OF WATER. SUCH WORK SHALL INCLUDE CARRYING OUT THE WORK OF FORMING THE CUTTINGS AND EMBANKMENTS IN SUCH A MANNER THAT THEIR SURFACES HAVE AT ALL TIMES A SUFFICIENT MINIMUM CROSS FALL AND, WHERE PRACTICABLE, A SUFFICIENT LONGITUDINAL GRADIENT TO ENABLE THEM TO SHED WATER AND PREVENT PONDING.

3 ROAD WORK
3.1 ALL MATERIAL WITHIN THE ROAD ALLOWANCE SHALL BE COMPACTED TO THE SATISFACTION OF THE PROJECT ENGINEER.
3.2 MINIMUM ACCEPTABLE COMPACTION REQUIREMENTS SHALL BE AS FOLLOWS:
3.2.1 ROAD SUB-GRADE 24" BELOW ROAD SUB-BASE OR GREATER: 95% STANDARD PROCTOR DENSITY
3.2.2 ROAD SUB-GRADE LESS THAN 24" BELOW ROAD SUB-BASE: 98% STANDARD PROCTOR DENSITY
3.2.3 ROAD SUB-BASE & BASE: 100% STANDARD PROCTOR DENSITY
D, ASPHALT BASE OR SURFACE COURSE: 97% OF MIX DESIGN DENSITY REGARDLESS OF DEPTH OF ASPHALT BEING PLACED.

3.3. SUB-GRADE PREPARATION: THE ENTIRE ROAD RESERVATION SHALL BE RIPPED ALL OVER TO A DEPTH OF 6" BELOW FORMATION LEVEL; THE RIPPED STONE SHALL THEN BE WELL WALKED IN UNTIL ALL PASS A 4" SCREEN. THE RIPPED STONE SHALL THEN BE ROUGH GRADED, SHAPED, WATERED AND THOROUGHLY COMPACTED TO AT LEAST 95% STANDARD PROCTOR DENSITY. A FURTHER ROLLING OF ANY LOOSE MATERIAL SHALL BE CARRIED OUT UNTIL A SMOOTH SURFACE IS ACHIEVED.

3.4 WHERE UNSTABLE OR ORGANIC SOIL IS FOUND TO EXIST BELOW THE PROPOSED ROAD SUB-BASE, ALL SUCH SOIL AND MATERIAL SHALL BE REMOVED TO A MINIMUM DEPTH OF 4' BELOW FINISH GRADE AND REPLACED WITH APPROVED MATERIAL AS DIRECTED BY THE PROJECT ENGINEER.

3.5 SUB-BASE AND BASE PREPARATION: CLEAN WELL-GRADED STONE FILL PASSING 2" MESH SHALL BE PLACED IN TWO LAYERS OF 4" EACH AND SEPARATELY COMPACTED TO SPECIFIED DENSITY AND PROPER CROSS FALL

3.6 ASPHALT COURSE: FLORIDA TYPE S-I AND S-III SPECIFICATION, AS PER FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION 1982. A 1½" STRUCTURAL COURSE AND A ¾" SURFACE/FRICTION COURSE SHALL BE PLACED AND COMPACTED ACCORDING TO SPECIFIED DENSITY AND PROPER CROSS FALL.

REVISIONS

NO.	DATE	REMARKS

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CRUZ BAY-VIFEMS STATION

ESTATE ENIGHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

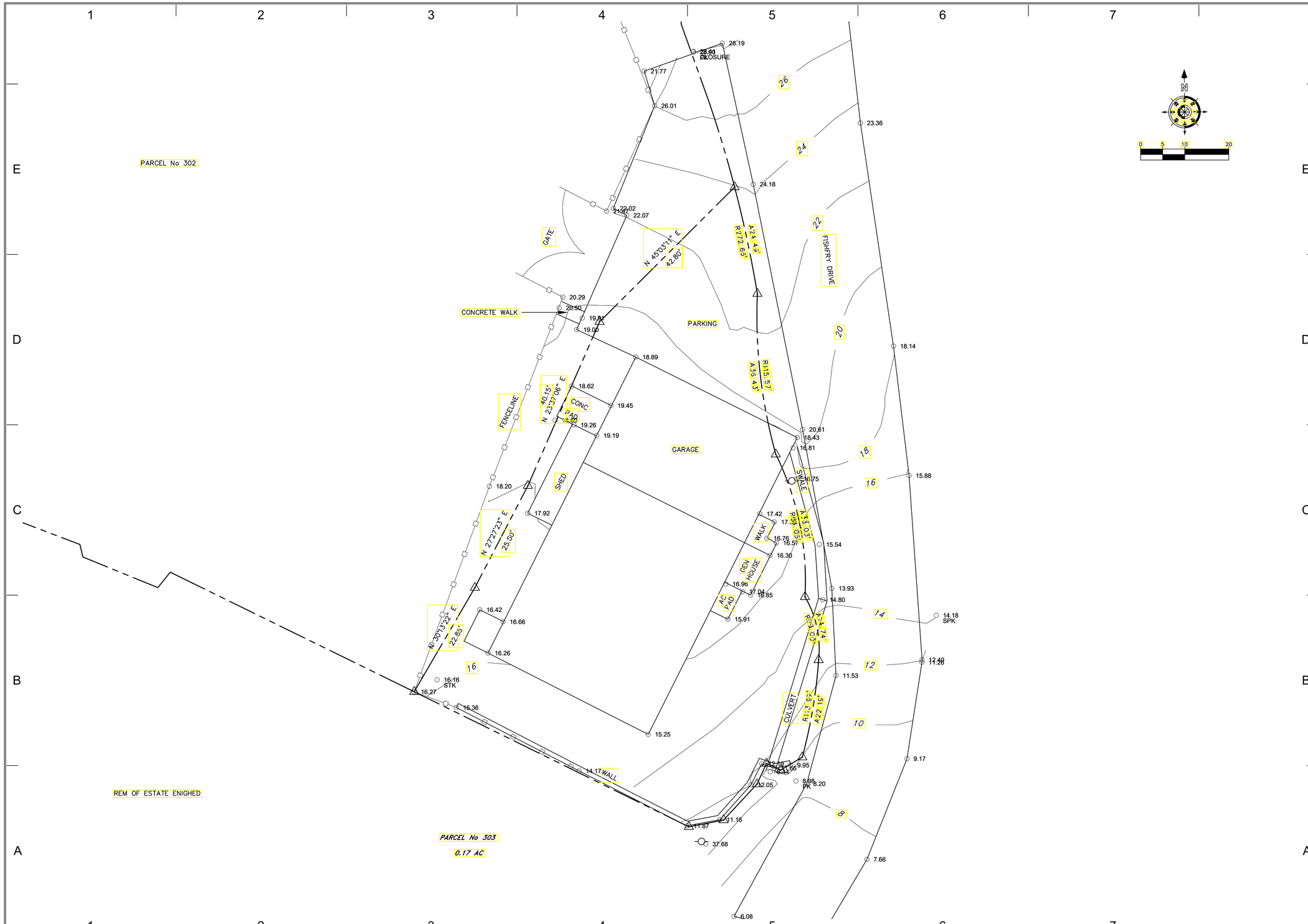
DATE: March, 2025
DRAWN BY: DC
CHECKED BY: DC
APPROVED BY: DC

PROJECT NO.:
CONTRACT NO.:

SHEET NO.: C002

GENERAL NOTES

INTERNATIONAL ENGINEERS
DAMIAN CARTWRIGHT
28851-1B
V.I. U.S.A.



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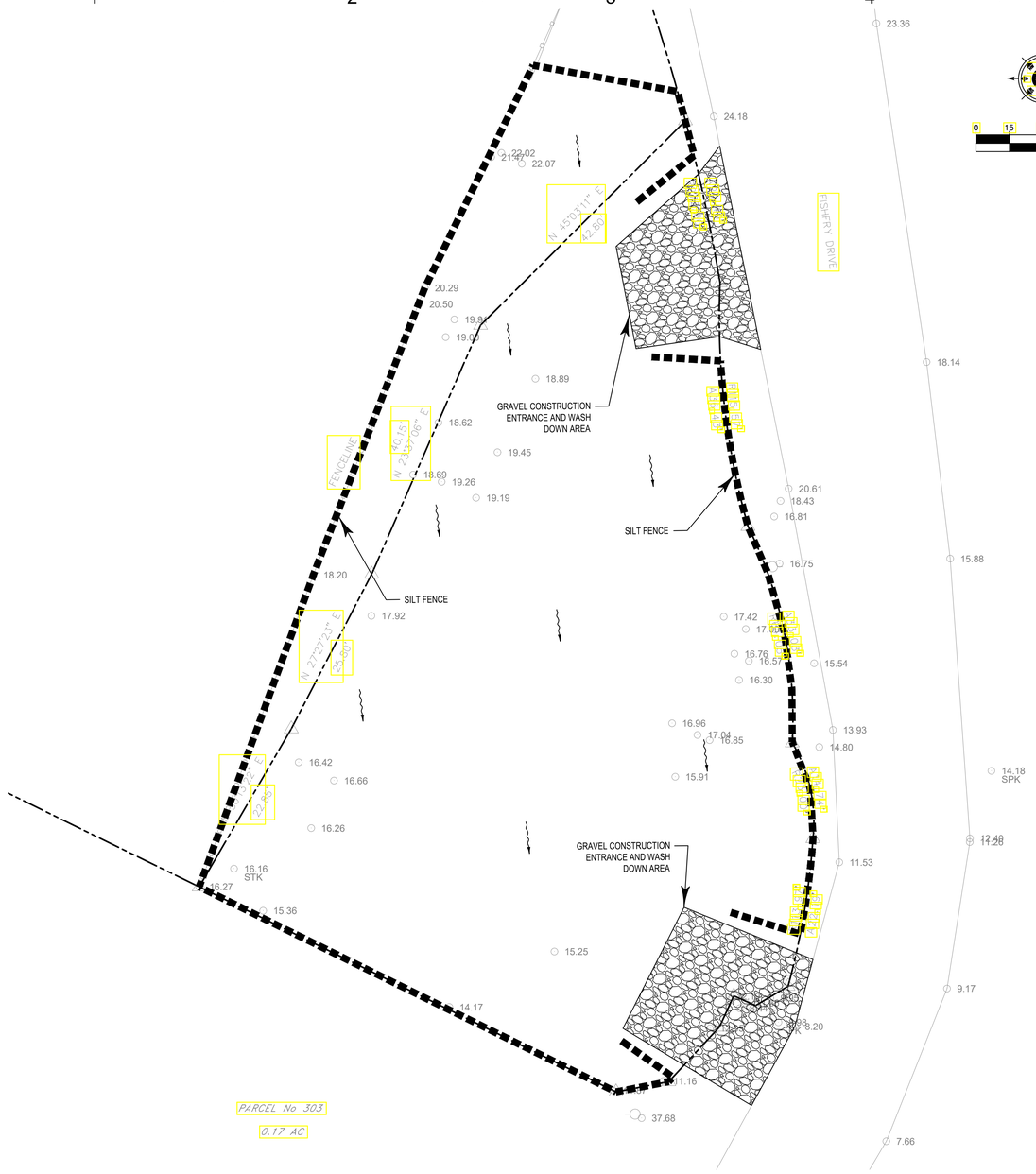
PROJECT NO.:

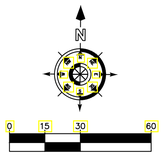
CONTRACT NO.:

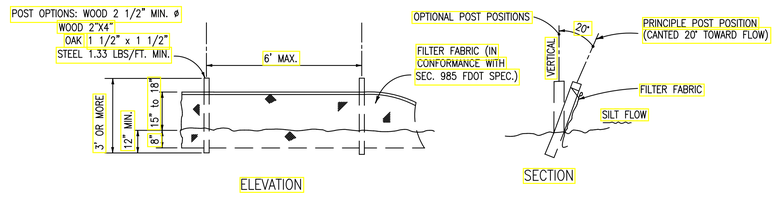
SHEET NO.:
C003

EXISTING CONDITION PLAN

PROFESSIONAL ENGINEER
DAMIAN CARTWRIGHT
28851-19
U.S. VIRGIN ISLANDS

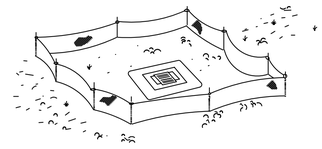






NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

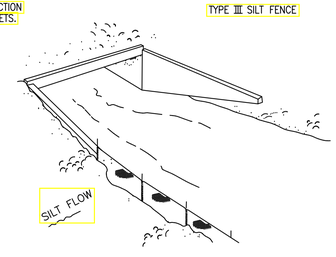
TYPE III SILT FENCE



TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.

NOTE: SPACING FOR TYPE III FENCE TO BE IN ACCORDANCE WITH CHART I , SHEET 1 OF 3 AND DITCH INSTALLATIONS AT DRAINAGE STRUCTURES SHEET 2 OF 3.

TYPE III SILT FENCE



TYPE III SILT FENCE

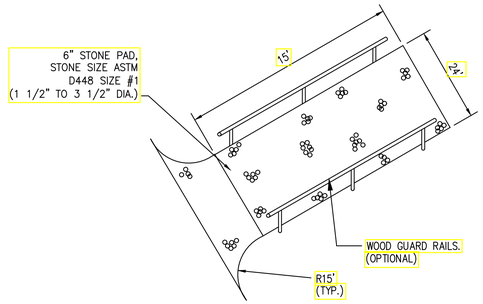
TYPE III SILT FENCE

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

SILT FENCE APPLICATIONS

TYPE III SILT FENCE
AS PER FDOT STANDARD INDEX #102

DETAIL 1
SCALE



CONSTRUCTION ENTRANCE

DETAIL 2
SCALE

LEGEND

- PROPERTY LINE
- SILT FENCE
- DRAINAGE FLOW
- GRAVEL CONSTRUCTION ENTRANCE AND WASH DOWN AREA

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

ESTATE ENIGHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	March, 2025
DRAWN BY:	DC
CHECKED BY:	DC
APPROVED BY:	DC

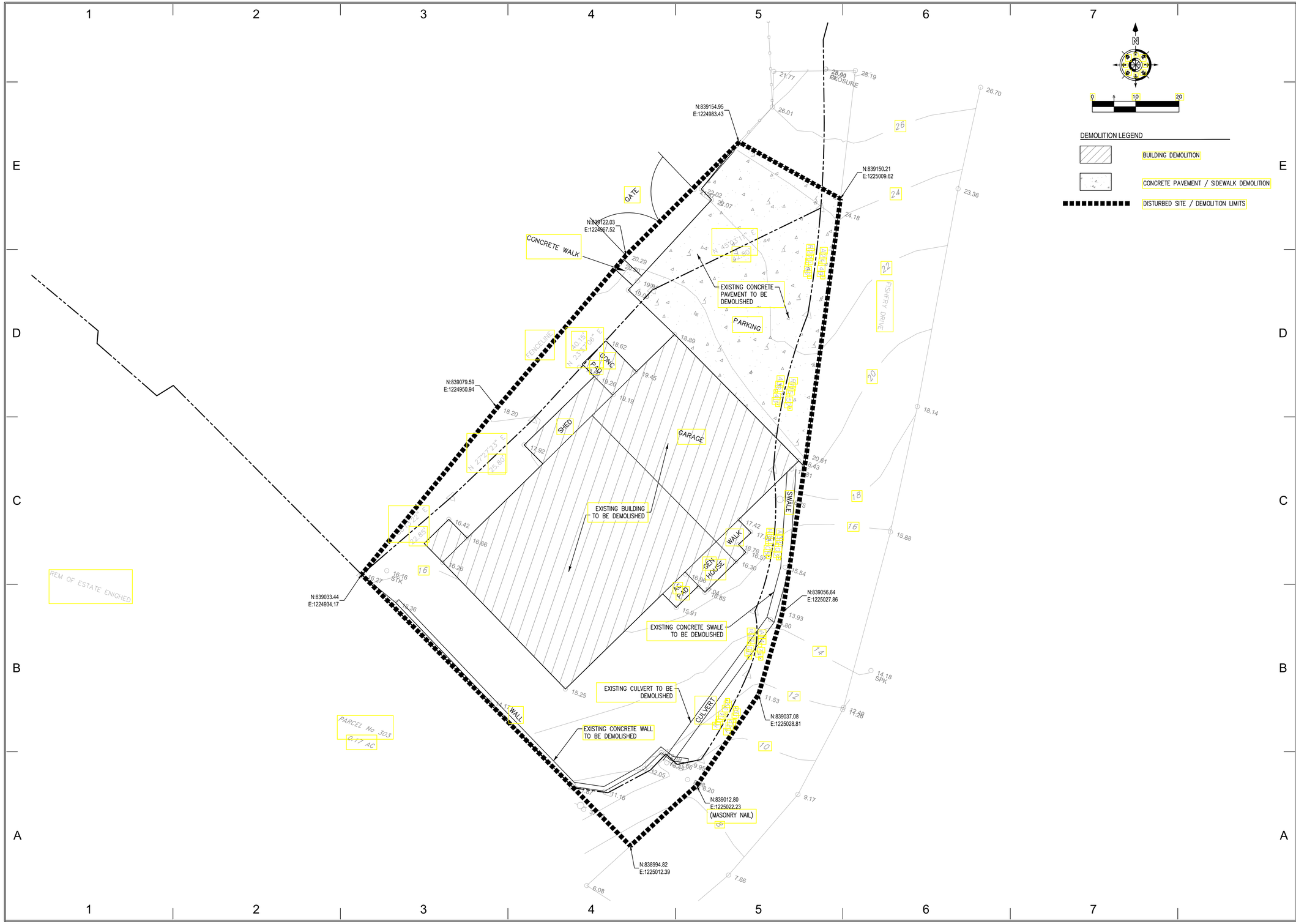
PROJECT NO.:

CONTRACT NO.:

SHEET NO.: C004

STORMWATER POLLUTION PREVENTION PLAN & DETAILS

PROFESSIONAL ENGINEER
DAMIAN CARTWRIGHT
28851-1B
U.S. VIRGIN ISLANDS



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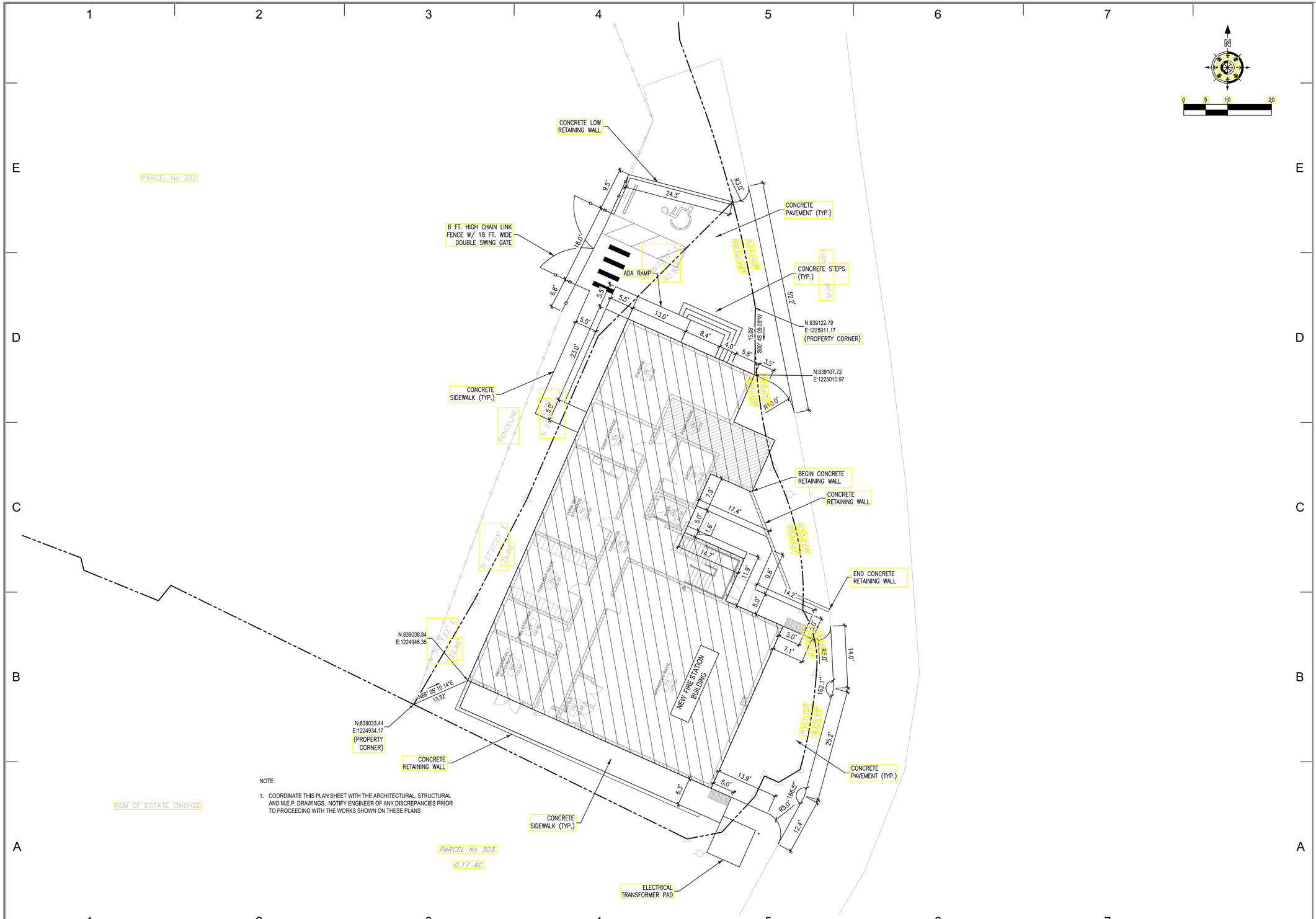
CONTRACT NO.:

SHEET NO.:

DEMOLITION PLAN

C005

PROFESSIONAL ENGINEER
U.S. VIRGIN ISLANDS
DAMIAN CARTWRIGHT
28851-IB



NOTE:

1. COORDINATE THIS PLAN SHEET WITH THE ARCHITECTURAL, STRUCTURAL AND M.E.P. DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORKS SHOWN ON THESE PLANS

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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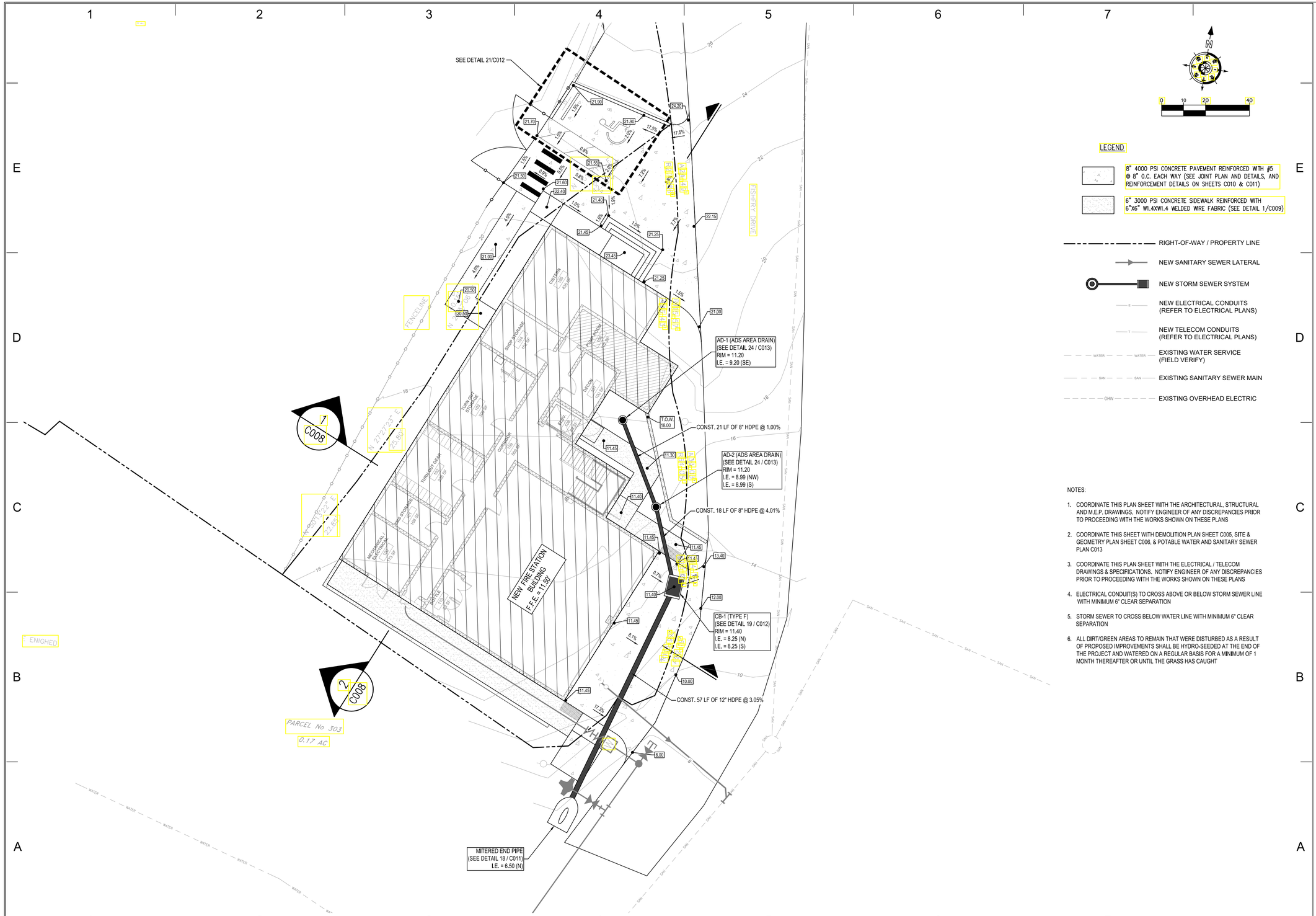
CONTRACT NO.:

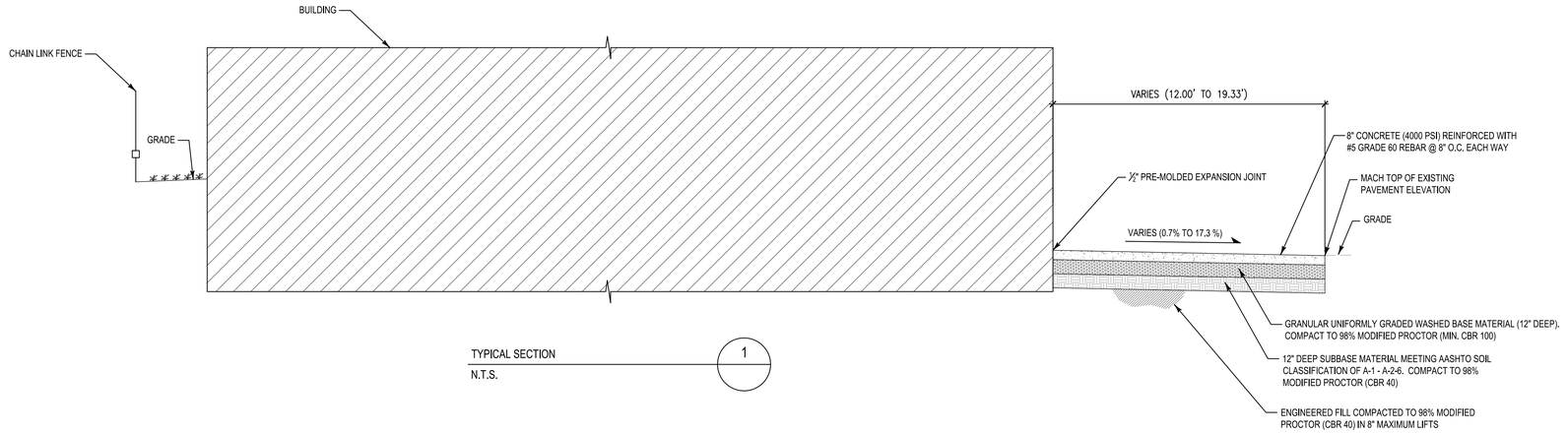
SHEET NO.:

SITE & GEOMETRY PLAN

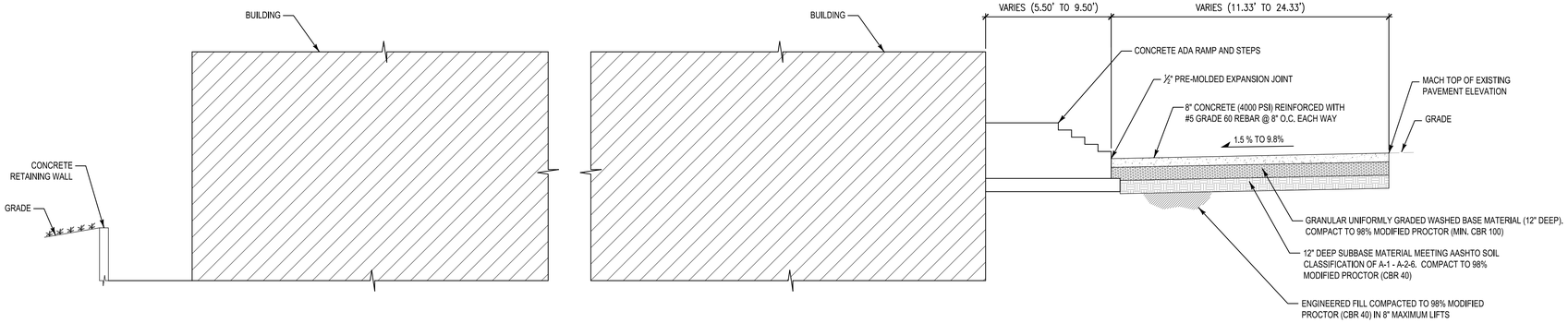
C006

PROFESSIONAL ENGINEER
U.S. VIRGIN ISLANDS
DAMIAN CARTWRIGHT
28851-IB


SEE DETAIL 21/C012
NEW FIRE STATION BUILDING F.F.E. = 11.50'
FISHERY DRIVE
FENCELINE
AD-1 (ADS AREA DRAIN)
(SEE DETAIL 24 / C013)
RIM = 11.20
I.E. = 9.20 (SE)
AD-2 (ADS AREA DRAIN)
(SEE DETAIL 24 / C013)
RIM = 11.20
I.E. = 8.99 (NW)
I.E. = 8.99 (S)
CB-1 (TYPE F)
(SEE DETAIL 19 / C012)
RIM = 11.40
I.E. = 8.25 (N)
I.E. = 8.25 (S)
CONST. 21 LF OF 8" HDPE @ 1.00%
CONST. 18 LF OF 8" HDPE @ 4.01%
CONST. 57 LF OF 12" HDPE @ 3.05%
MITERED END PIPE
(SEE DETAIL 18 / C011)
I.E. = 6.50 (N)
T.O.W.
18.00
N 72°27'23" E
25.50'
N 72°27'23" E
22.65'
7
C008
2
C008
PARCEL No 303
0.17 AC
ENIGHED
BACKFLOW PREVENTOR
DECON
STORAGE
SHED
TURNOUT GEAR
COMPRESSOR
MECHANICAL ELECTRICAL
BOOSTER
CISTERN
STORAGE
SHED
STORAGE
SHED
STORAGE
SHED



TYPICAL SECTION 1
N.T.S.



TYPICAL SECTION 2
N.T.S.

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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ST. JOHN U.S.V.I

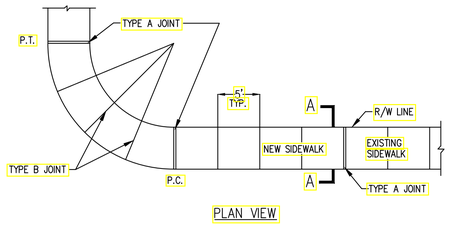
DATE: March, 2025
DRAWN BY: DC
CHECKED BY: DC
APPROVED BY: DC

PROJECT NO.:
CONTRACT NO.:

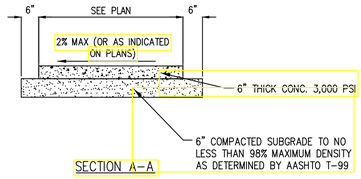
SHEET NO.:
TYPICAL SECTIONS

C008

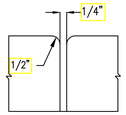
PROFESSIONAL ENGINEER
U.S. VIRGIN ISLANDS
DAMIAN CARTWRIGHT
28851-IB



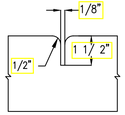
PLAN VIEW



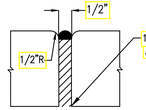
SECTION A–A



TYPE A



TYPE B



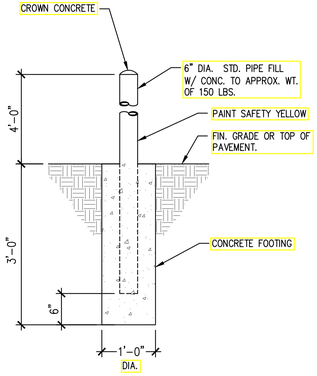
TYPE C

TABLE OF SIDEWALK THICKNESS – T	
LOCATION	
STANDARD SIDEWALK	6"

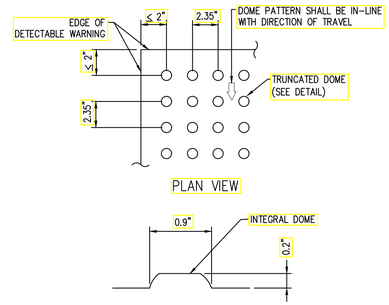
TABLE OF SIDEWALK JOINTS	
	LOCATION
A	P.C. AND P.T. OF CURVES, JUNCTION OF EXISTING AND NEW SIDEWALK.
B	5'–0" CENTER TO CENTER ON SIDEWALK.
C	WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES

NOTES:
1. PLACE W1.4XW1.4 6"x6" WIRE MESH IN THE SIDEWALK
2. STANDARD SIDEWALK TO BE 4000 PSI @ 28 DAYS
3. CURE ALL CONCRETE WITH CLEAN SAND, PLASTIC MEMBRANE, OR OTHER APPROVED METHOD.
4. TOOLED JOINTS TO OCCUR AT INTERVALS EQUAL TO WIDTH OF SIDEWALK
5. SIDEWALK TO HAVE BROOM FINISH PERPENDICULAR TO PATH OF TRAVEL.
6. CONTRACTOR SHALL REPAIR AND RESTORE ALL AREAS WITHIN THE ABUTTING R/W DISTURBED DURING CONSTRUCTION TO A CONDITION EQUAL TO OR BETTER THAN EXISTING AT NO ADDITIONAL COST TO THE OWNER.
7. ALL DEMOLISHED SIDEWALKS AND ADDITIONS ARE TO BE REPLACED WITH CONCRETE SIDEWALK TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.
8. ALL DEMOLISHED SIDEWALK RAMPS ARE TO BE REPLACED AS PER ADA STANDARDS AND INCLUDE ADA COMPLIANT DETECTABLE WARNINGS AT NO ADDITIONAL COST TO THE OWNER.

1 SIDEWALK DETAIL
N.T.S.



2 BOLLARD
N.T.S.



PLAN VIEW

TRUNCATED DOME

3 DETECTABLE WARNING
N.T.S.

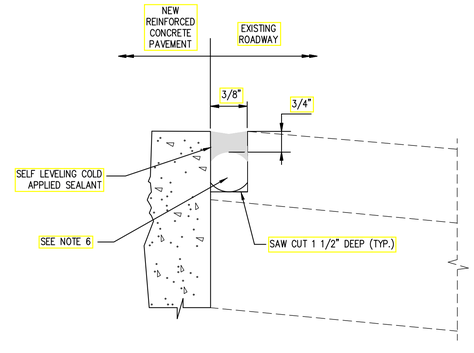
NOTE:
1. CURB RAMP RUNNING SLOPES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 0.02 OR FLATTER.

2. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING OR APPLYING A TRUNCATED DOME MATERIAL IN CONFORMANCE WITH THE U.S. DEPARTMENT OF JUSTICE A.D.A. STANDARDS FOR ACCESSIBLE DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.

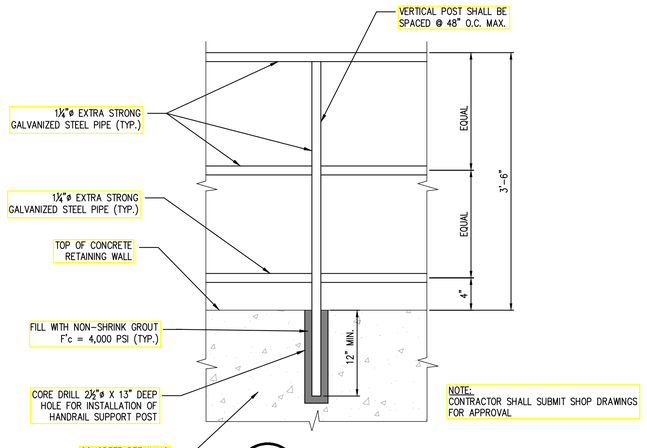
3. WHERE A CURB RAMP IS CONSTRUCTED WITHIN AN EXISTING CURB, CURB AND GUTTER AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITIONS OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE WALK AROUND OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5'.

4. WHERE ADJACENT WALKING SURFACES ARE COLORED OR ARE CONSTRUCTED WITH MATERIALS OTHER THAN STANDARD CLASS I PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH SECTION 522 OF THE SPECIFICATIONS, THE PLAN MUST PROVIDE FOR DETECTABLE WARNING SURFACE COLORS OR MATERIALS THAT PROVIDE THE NECESSARY CONTRAST, EITHER DARK–ON–LIGHT OR LIGHT–ON–DARK. (SAFETY YELLOW OR BRICK RED)

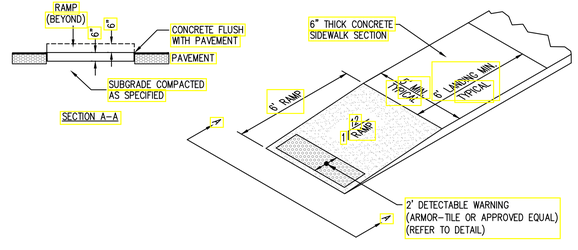
5. RECOMMENDED MANUFACTURER: ENGINEERED PLASTICS, INC. (ARMOR TILE) OLYMPIC TOWERS, 300 PEARL STREET, SUITE 200, BUFFALO, NY 14202. PHONE: (800) 682–2525



4 ASPHALT/CONCRETE PAVEMENT JOINT DETAIL
N.T.S.



5 RAILING DETAIL
NOT TO SCALE



NOTE 1:
REFERENCE FDOT INDEX 304, PAGE 1, GENERAL AND DESIGN NOTES FOR RAMPS IN R.O.W.

NOTE 2:
CONSTRUCT RAMP TO LEAST POSSIBLE SLOPE (MAX = 1:12). CROSS SLOPE OF RAMP AND LANDING SHALL NOT EXCEED 1:50.

NOTE 3:
RAMP GREATER THAN A 6" RISE REQUIRES HANDRAILS.

6 HANDICAP RAMP
N.T.S.

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

BUILDTEC
P.O. BOX 8269
Christiansted, USVI 00823

JDG Jaredian Design Group
Architects, Engineers and Construction Managers
5143 Palm Passage,
Second Floor - Suites B24-25 St. Thomas,
US Virgin Islands 00802
Post Office Box 6218
St. Thomas, U.S. Virgin Islands 00804-6218
telephone: 340.777.1600
e-mail: jarediandesigngroup@gmail.com
website: www.jaredian.com

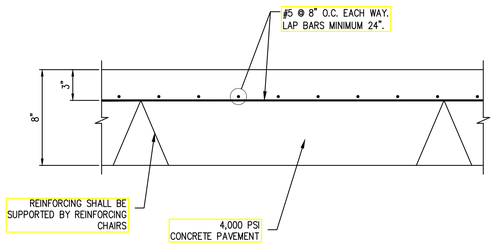
CRUZ BAY-VIFEMS STATION

ESTATE ENIGHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: March, 2025
DRAWN BY: DC
CHECKED BY: DC
APPROVED BY: DC

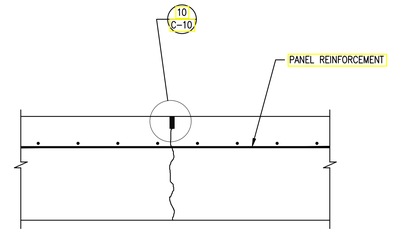
PROJECT NO.:
CONTRACT NO.:

SHEET NO.:
PAVING, GRADING AND DRAINAGE DETAILS
C009

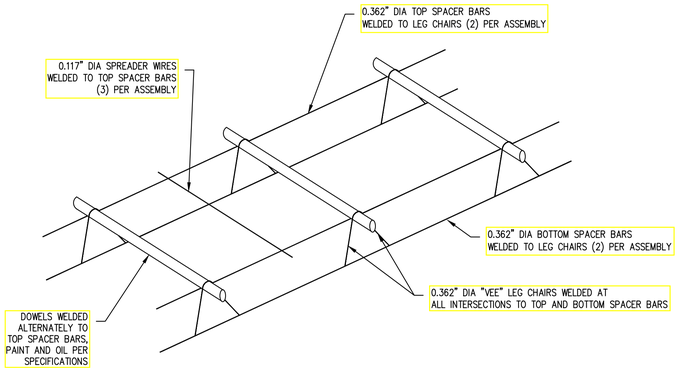


MATERIAL SCHEDULE			
ITEM	SIZE	STANDARD	REMARKS
DOWELS	1 1/4 INCH DIA x 18 INCHES LONG @ 12 INCHES O.C.	ASTM A 615 GRADE 60	EPOXY COATED, INCLUDING ENDS, AASHTO M254
REINFORCED SLABS	#5 REBAR @ 8" O.C. EACH WAY	ASTM A 615 GRADE 60	USE 24 INCH OVERLAP
EXPANSION BOARD	1 INCH WIDTH x DEPTH REQUIRED	ASTM D 1751	USE REMOVABLE CAP FOR JOINT SEAL
DOWEL EPOXY	AS REQUIRED	ASTM C 881, TYPE IV, GRADE 3	CLASS C FOR INSTALLATION ABOVE 60 F CLASS B FOR INSTALLATION 40 F TO 60 F CLASS A FOR INSTALLATION BELOW 40 F
SILICONE SEALANT	SEE DETAILS	ASTM D 5893	TOOLED

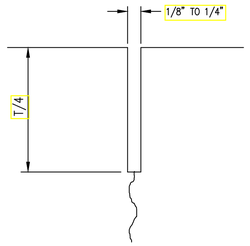
7 REINFORCED CONCRETE PAVEMENT SECTION
N.T.S.



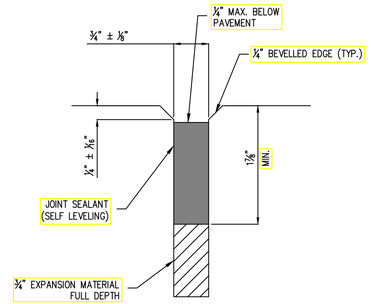
8 TYPE D – DUMMY TRANSVERSE CONTRACTION JOINT
N.T.S.



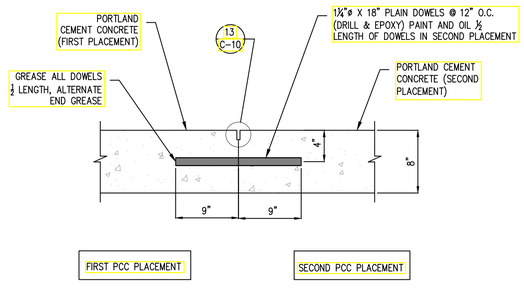
9 TYPICAL DOWEL AND TIE BAR BASKET
N.T.S.



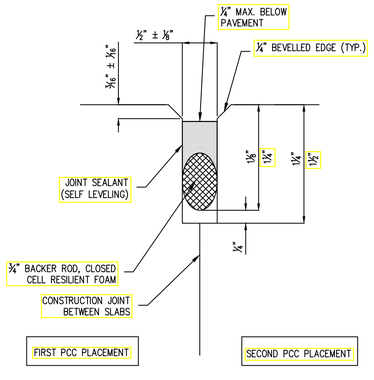
10 INITIAL SAWCUT DETAIL FOR CONTRACTION JOINTS
N.T.S.



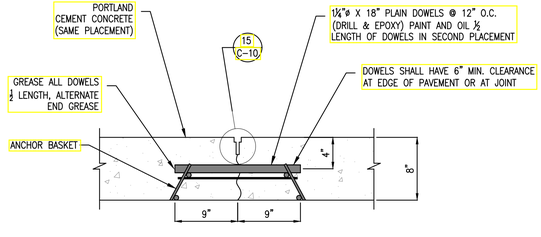
11 EXPANSION/ISOLATION JOINT
N.T.S.



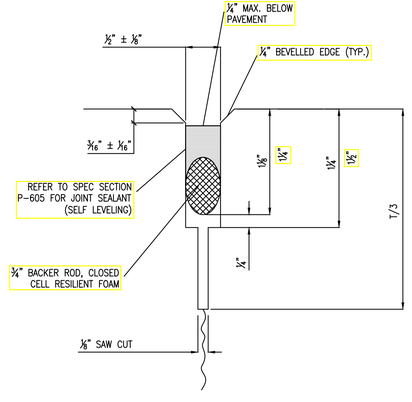
12 TYPE 1 – CONTRACTION JOINT (DOWELED)
N.T.S.



13 TYPE 1 – CONTRACTION JOINT
N.T.S.



14 TYPE 2 – CONTRACTION JOINT (DOWELED)
N.T.S.



15 TYPE 2 – CONTRACTION JOINT
N.T.S.

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

BUILDTEC
P.O. BOX 8269
Christiansted, USVI 00823

Jaredian Design Group
Architects, Engineers and Construction Managers
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website: www.jaredian.com

CRUZ BAY-VIFEMS STATION

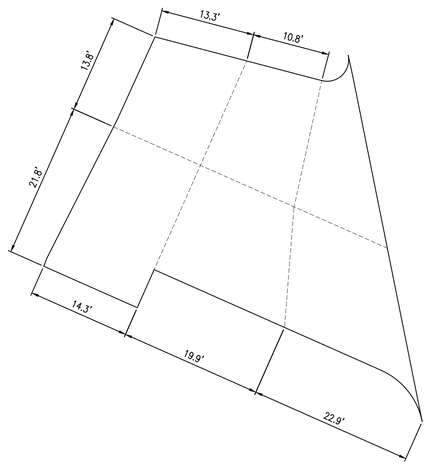
ESTATE ENIGHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: March, 2025
DRAWN BY: DC
CHECKED BY: DC
APPROVED BY: DC

PROJECT NO.:
CONTRACT NO.:

SHEET NO.:
PAVING, GRADING AND DRAINAGE DETAILS
C010

PROFESSIONAL ENGINEER
DAMIAN CARTWRIGHT
28851-IB
U.S. VIRGIN ISLANDS



JOINT SEALING

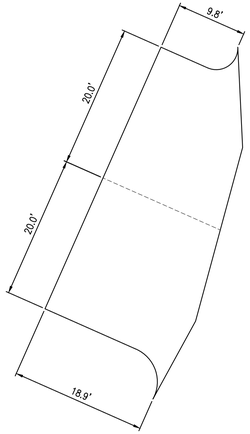
1. ALL CONCRETE SURFACES AND JOINTS SHALL BE FLUSHED CLEAN WITH WATER AFTER BOTH INITIAL AND FINAL SAW– CUTS, PRIOR TO SAWCUT SLURRY DRYING.
2. AFTER SECOND SAWCUT, JOINT FACES SHALL BE SAND BLASTED AND AIR–BLOWN.
3. SEAL RESERVOIR SHALL BE FORMED USING SECOND SAWCUT. SHOULDERED BLADE SHALL NOT BE USED WITH INITIAL SAWCUT.
4. INSERT TEMPORARY BACKER ROD AFTER INITIAL SAWCUT TO PREVENT DEBRIS INTRUSION.
5. FOR ALL JOINTS THE BACKER ROD MATERIAL SHALL BE COMPATIBLE WITH THE COLD POURED SEALANT AND SLIGHTLY OVERSIZED TO PREVENT MOVEMENT DURING THE JOINT SEALANT OPERATION.
6. TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED ONLY WHEN APPROVED BY THE ENGINEER.

DOWEL AND TIE BAR NOTES

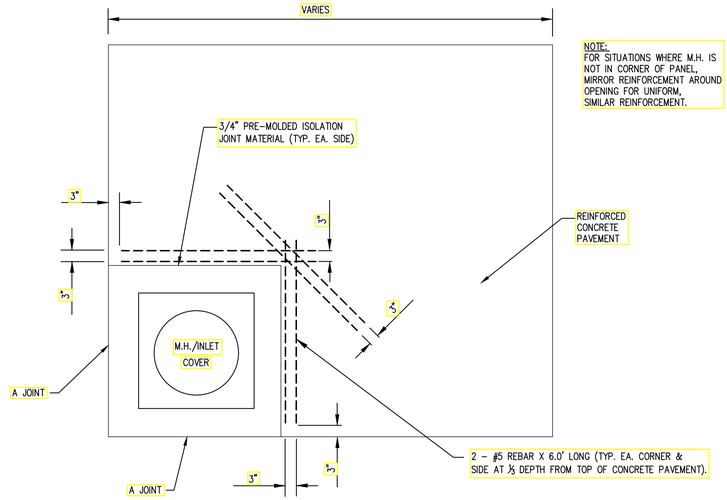
1. DOWEL OR TIE BAR INSERTERS SHALL NOT BE USED.
2. DRILLING METHOD SHALL MAINTAIN DRILL HOLES PARALLEL TO CONCRETE SURFACE AND NORMAL TO JOINT LINE WITHIN 1/4" ± AT END OF DOWEL BAR. USE GANG DRILL WITH 3 OR MORE DRILLS. DRILL HOLE MAXIMUM DEVIATION SHALL NOT EXCEED 1" HORIZONTAL HOLE DIAMETER TO BE APPROXIMATELY 1/8" – 1/4" LARGER THAN DOWEL. MINIMUM THREE DAYS CURE TIME AND 300 PSI FLEXURAL STRENGTH REQUIRED FOR DRILLING NEW CONCRETE.
3. AFTER DRILLING IS COMPLETE, AND PRIOR TO INSTALLATION OF DOWELS, THOROUGHLY CLEAN HOLES BY FLUSHING. ALLOW TO DRY. AIR BLOW TO REMOVE DRILLING DUST, CONCRETE CHIPS, AND ANY MATERIAL DETRIMENTAL TO DEVELOPING BOND.
4. INSERT EPOXY INTO BACK OF DOWEL HOLE BY INJECTION NOZZLE WITH SUFFICIENT EPOXY PLACED SO SLIGHT AMOUNT FORCED OUT WHEN DOWEL INSERTED AND TAPPED TO CORRECT POSITION. DOWEL SHALL BE TURNED WHEN INSERTED AND EPOXY SHALL BE SOLID AROUND BARS WITH NO VOIDS. INSTALL PLASTIC DOWEL RINGS TO RETAIN EPOXY. SMALL WEDGES MAY BE USED TO SUPPORT DOWEL IN CORRECT ALIGNMENT UNTIL EPOXY HARDENS. SUBMIT PROPOSED EPOXY INFORMATION FOR APPROVAL PRIOR TO STARTING WORK.
5. "T" = THICKNESS OF NEW CONCRETE PAVEMENT
6. "d" = DOWEL OR TIE–BAR DIAMETER

LEGEND

- – – – – – TYPE 1 / TYPE 2 CONTRACTION JOINT
- · · · · · · TYPE D DUMMY TRANSVERSE CONTRACTION JOINT

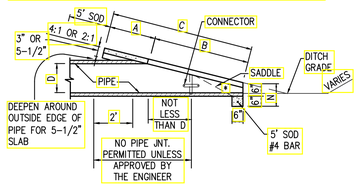


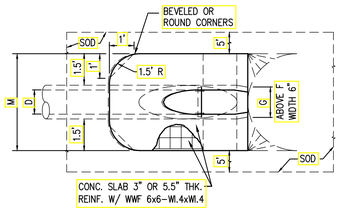
16 CONCRETE PAVEMENT JOINTING PLAN
N.T.S.



17 REINFORCING STEEL LAYOUT IN PAVEMENT SURROUNDING INLETS DETAIL
N.T.S.

STORM SEWER PIPE LENGTHS NOTED IN THE DRAWINGS REFLECT ONLY THE PIPE ITSELF. WHERE A MITERED END SECTION IS INSTALLED ON SAID PIPE, ITS ADDITIONAL PIPE LENGTH SHALL BE INCLUDED IN THE COST OF THE MITERED END SECTION.





18 MITERED END SECTION (MES)
N.T.S.

	DIMENSIONS AND QUANTITIES										
								M			
	D	A	B	C	E	F	G	SINGLE PIPE	DOUBLE PIPE	TRIPLE PIPE	QUAD. PIPE
2:1 SLOPE	15"	1.92'	2.18'	4.10'	2.06'	5'	1.22'	4.63'	7.21'	9.79'	12.37'
	18"	1.97'	2.74'	4.71'	2.56'	6'	1.41'	4.92'	7.75'	10.58'	13.42'
	24"	2.06'	3.85'	5.91'	3.56'	7'	1.73'	5.50'	8.92'	12.33'	15.75'
	30"	2.15'	4.95'	7.10'	4.56'	8'	2.00'	6.08'	10.33'	14.58'	18.83'
	36"	2.25'	6.08'	8.33'	5.56'	9'	2.24'	6.67'	11.75'	16.83'	21.92'
	42"	2.34'	7.21'	9.55'	6.56'	10'	2.45'	7.25'	13.25'	19.25'	25.25'
	48"	2.43'	8.33'	10.76'	7.56'	11'	2.65'	7.83'	14.58'	21.33'	28.08'
	54"	2.52'	9.44'	11.96'	8.56'	12'	2.83'	8.42'	16.08'	23.75'	31.42'
	60"	2.62'	10.56'	13.18'	9.56'	14'	3.00'	9.00'	17.50'	26.00'	34.50'
	66"	2.71'	11.68'	14.39'	10.56'	15'	3.18'	9.58'	18.75'	27.92'	37.08'
	72"	2.80'	12.80'	15.60'	11.56'	16'	3.30'	10.16'	20.16'	30.16'	40.16'
4:1 SLOPE	15"	2.27'	4.09'	6.36'	4.03'	8'	1.22'	4.63'	7.21'	9.79'	12.37'
	18"	2.36'	5.12'	7.48'	5.03'	9'	1.41'	4.92'	7.75'	10.58'	13.42'
	24"	2.53'	7.18'	9.71'	7.03'	11'	1.73'	5.50'	8.92'	12.33'	15.75'
	30"	2.70'	9.25'	11.95'	9.03'	13'	2.00'	6.08'	10.33'	14.58'	18.83'
	36"	2.87'	11.31'	14.18'	11.03'	15'	2.24'	6.67'	11.75'	16.83'	21.92'
	42"	3.05'	13.37'	16.42'	13.03'	17'	2.45'	7.25'	13.25'	19.25'	25.25'
	48"	3.22'	15.43'	18.65'	15.03'	19'	2.65'	7.83'	14.58'	21.33'	28.08'
	54"	3.39'	17.49'	20.88'	17.03'	21'	2.83'	8.42'	16.08'	23.75'	31.42'
	60"	3.56'	19.55'	23.11'	19.03'	23'	3.00'	9.00'	17.50'	26.00'	34.50'
	66"	3.73'	21.62'	25.35'	21.03'	25'	3.18'	9.58'	18.75'	27.92'	37.08'
	72"	3.91'	22.68'	26.59'	23.03'	27'	3.30'	10.16'	20.16'	30.16'	40.16'

*SLOPE– 4:1 MITER – TO ℄ PIPE FOR PIPES 18" AND SMALLER
2:1 FOR PIPES 24" AND LARGER
2:1 MITER – TO ℄ PIPE FOR PIPES 18" AND SMALLER
1:1 FOR PIPES 24" AND LARGER

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

BUILDTEC
P.O. BOX 8269
Christiansted, USVI 00823

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CRUZ BAY-VIFEMS STATION

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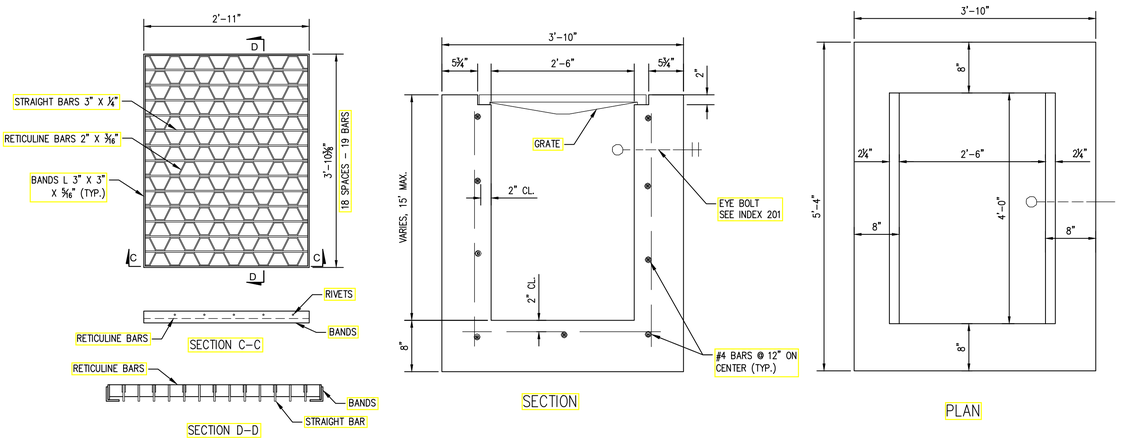
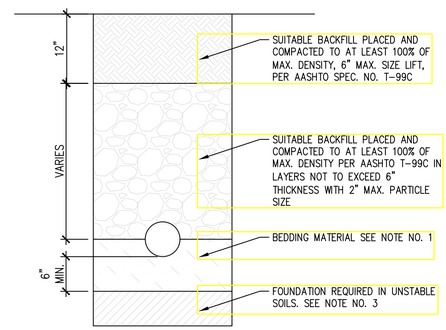
C011

PROFESSIONAL ENGINEER
DAMIAN CARTWRIGHT
28851-IB
U.S. VIRGIN ISLANDS



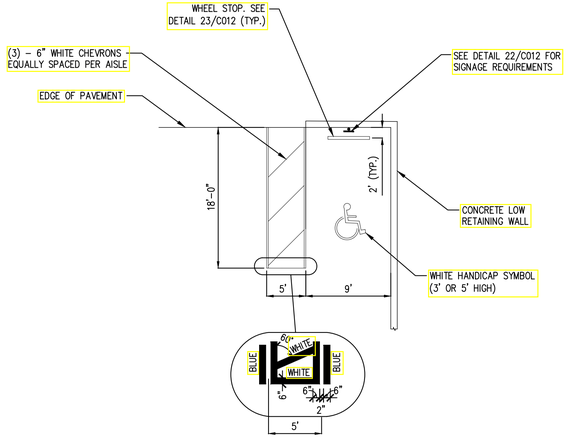
RECOMMENDED MAXIMUM PIPE SIZE:	
2'-6" WALL	18" PIPE
4'-0" WALL	30" PIPE

19 TYPE F INLET
NOT TO SCALE



NOTES:
1. UNLESS OTHERWISE SPECIFIED, BEDDING MATERIAL SHALL CONSIST OF SELECT BACKFILL MATERIAL 2" MAXIMUM PARTICLE SIZE, COMPACTED TO AT LEAST 100% OF MAX. DENSITY, 6" LIFTS, PER AASHTO SPEC. NO. T-99C
2. WHERE REQUIRED, SHEETING AND SHORING SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS.
3. WHERE UNSTABLE SOILS ARE ENCOUNTERED, INCLUDING PEAT, MUCK OR OTHER ORGANIC SOILS, ELASTIC SILT AND CLAYS, A FOUNDATION IS REQUIRED AS DETERMINED BY THE ENGINEER.

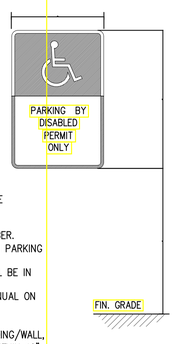
20 TYPICAL TRENCH BACKFILL
NOT TO SCALE



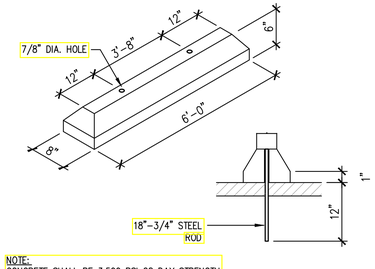
NOTE: FINISHED GRADES OF PAVEMENT IN HC PARKING AND ACCESSIBILITY AISLE SHALL NOT EXCEED 1:50 SLOPE IN ANY DIRECTION. SEE PLAN FOR STYLE OF HANDICAP RAMP
HANDICAP STRIPING SHALL CONFORM TO FDOT INDEX 17346 (LATEST EDITION)

21 HANDICAP STRIPING
N.T.S.

NOTES:
1. ALL LETTERS ARE 1" SERIES "C" PER MUTCD.
2. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
4. FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND & BORDER. CONTRACTOR SHALL VERIFY FINE AMOUNT & ORDINANCE NUMBER.
5. ONE(1) SIGN REQUIRED FOR EACH PARKING SPACE.
6. INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
7. SIGN MAY BE MOUNTED ON BUILDING/WALL, AT PROPER HEIGHT, IF ALIGNED WITHIN 12" OF CENTER OF PARKING SPACE.



22 HANDICAP SIGN
N.T.S.



NOTE:
CONCRETE SHALL BE 3,500 PSI 28 DAY STRENGTH

23 WHEEL STOP
N.T.S.

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

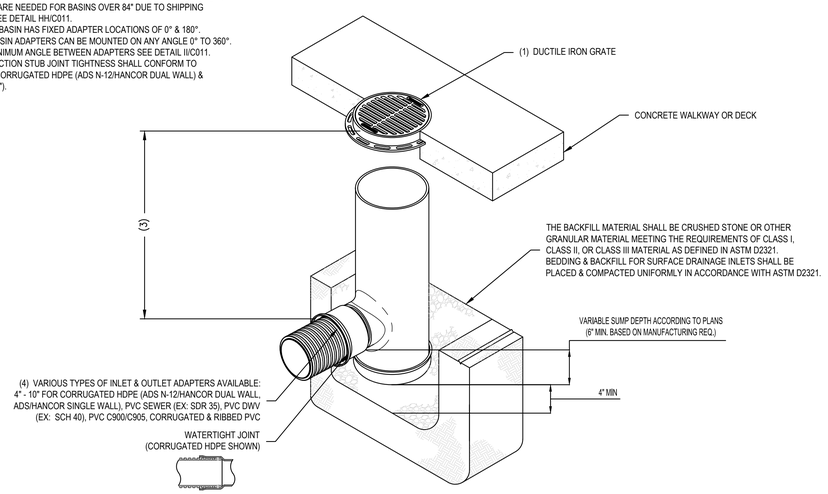
ESTATE ENIGHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: March, 2025
DRAWN BY: DC
CHECKED BY: DC
APPROVED BY: DC

PROJECT NO.:
CONTRACT NO.:

SHEET NO.:
PAVING, GRADING AND DRAINAGE DETAILS
C012

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - CUSTOM DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DETAIL HHIC011.
3 - STANDARD DRAIN BASIN HAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DETAIL II/C011.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL) & PVC SEWER (4" -10").

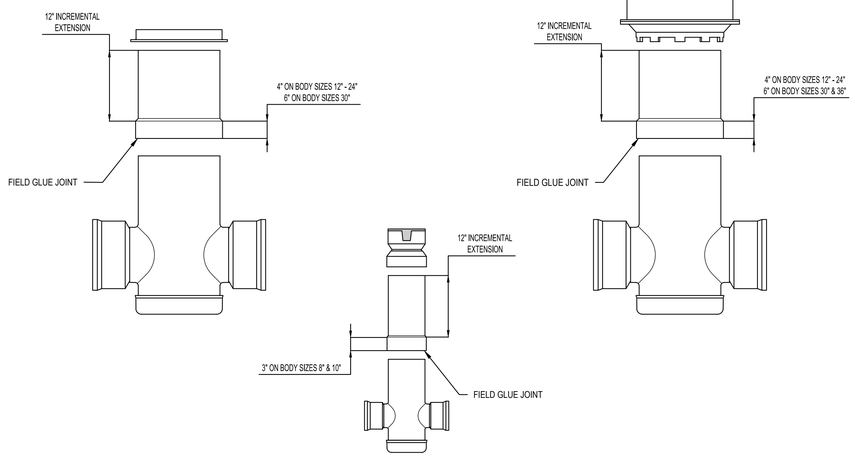


24 ADS NYLOPLAST OR APPROVED EQUAL 10" AREA DRAIN BASIN
NOT TO SCALE

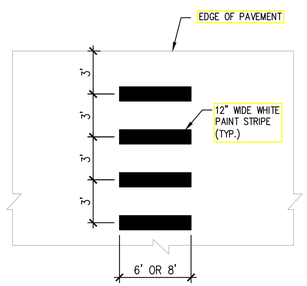
ADAPTER SIZE	8" BASIN	10" BASIN	12" BASIN	15" BASIN	18" BASIN	24" BASIN	30" BASIN	36" BASIN
4" - 4"	**70°**	**55°**	**50°**	**42°**	**35°**	**25°**	**24°**	**20°**
4" - 6"	75°	70°	55°	47°	40°	29°	25°	24°
4" - 8"	**100°**	**80°**	**65°**	**55°**	**45°**	**35°**	**28°**	**27°**
4" - 10"	-	95°	75°	62°	52°	40°	32°	30°
4" - 12"	-	-	**85°**	**70°**	**55°**	**45°**	**40°**	**33°**
4" - 15"	-	-	-	80°	65°	51°	44°	38°
4" - 18"	-	-	-	-	**76°**	**60°**	**50°**	**44°**
4" - 24"	-	-	-	-	-	75°	62°	55°
4" - 30"	-	-	-	-	-	-	**75°**	**73°**
4" - 36"	-	-	-	-	-	-	-	74°
6" - 6"	**90°**	**75°**	**65°**	**55°**	**44°**	**33°**	**30°**	**27°**
6" - 8"	115°	85°	75°	63°	51°	39°	34°	30°
6" - 10"		**105°**	**85°**	**70°**	**55°**	**43°**	**38°**	**33°**
6" - 12"	-	-	95°	75°	63°	48°	45°	36°
6" - 15"	-	-	-	**86°**	**72°**	**56°**	**48°**	**41°**
6" - 18"	-	-	-	-	84°	63°	55°	47°
6" - 24"	-	-	-	-	-	**77°**	**66°**	**52°**
6" - 30"	-	-	-	-	-	-	75°	76°
6" - 36"	-	-	-	-	-	-	-	**76°**
8" - 8"	165°	90°	80°	70°	55°	44°	35°	33°
8" - 10"	-	**115°**	**88°**	**76°**	**63°**	**48°**	**45°**	**36°**
8" - 12"	-	-	102°	83°	70°	52°	48°	40°
8" - 15"	-	-	-	**95°**	**78°**	**60°**	**55°**	**44°**
8" - 18"	-	-	-	-	90°	70°	60°	50°
8" - 24"	-	-	-	-	-	**82°**	**70°**	**62°**
8" - 30"	-	-	-	-	-	-	80°	69°
8" - 36"	-	-	-	-	-	-	-	**75°**
10" - 10"	-	160°	90°	82°	70°	53°	48°	40°
10" - 12"	-	-	**115°**	**85°**	**75°**	**58°**	**50°**	**43°**
10" - 15"	-	-	-	103°	85°	65°	58°	47°
10" - 18"	-	-	-	-	**97°**	**72°**	**65°**	**53°**
10" - 24"	-	-	-	-	-	88°	75°	65°
10" - 30"	-	-	-	-	-	-	**85°**	**72°**
10" - 36"	-	-	-	-	-	-	-	84°
12" - 12"	-	-	**150°**	**90°**	**82°**	**64°**	**56°**	**46°**
12" - 15"	-	-	-	112°	87°	69°	60°	51°
12" - 18"	-	-	-	-	**102°**	**78°**	**68°**	**57°**
12" - 24"	-	-	-	-	-	92°	80°	68°
12" - 30"	-	-	-	-	-	-	**90°**	**76°**
12" - 36"	-	-	-	-	-	-	-	86°
15" - 15"	-	-	-	**150°**	**90°**	**77°**	**69°**	**55°**
15" - 18"	-	-	-	-	110°	84°	75°	61°
15" - 24"	-	-	-	-	-	**98°**	**85°**	**72°**
15" - 30"	-	-	-	-	-	-	96°	85°
15" - 36"	-	-	-	-	-	-	-	**94°**
18" - 18"	-	-	-	-	150°	90°	78°	67°
18" - 24"	-	-	-	-	-	**108°**	**88°**	**75°**
18" - 30"	-	-	-	-	-	-	100°	87°
18" - 36"	-	-	-	-	-	-	-	**100°**
24" - 24"	-	-	-	-	-	150°	90°	85°
24" - 30"	-	-	-	-	-	-	**115°**	**99°**
24" - 36"	-	-	-	-	-	-	-	112°
30" - 30"	-	-	-	-	-	-	**150°**	**116°**
30" - 36"	-	-	-	-	-	-	-	134°
36" - 36"	-	-	-	-	-	-	-	**165°**

25 ADS NYLOPLAST OR APPROVED EQUAL 8" - 36" MINIMUM ANGLE BETWEEN ADAPTERS
NOT TO SCALE

1. NYLOPLAST RISER JOINTS SHALL BE FIELD INSTALLED USING THE GUIDELINES OUTLINED IN ASTM D2855.
2. PVC CEMENT USED SHALL MEET THE REQUIREMENTS OF ASTM D2564.
3. PVC PRIMER USED SHALL MEET THE REQUIREMENTS OF ASTM F656.



26 ADS NYLOPLAST OR APPROVED EQUAL 8" - 36" RISER EXTENSION
NOT TO SCALE



27 SPECIAL EMPHASIS CROSSWALK MARKING DETAIL
N.T.S.

REVISIONS

NO.	DATE	REMARKS

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CRUZ BAY-VIFEMS STATION

ESTATE ENIGHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: March, 2025
DRAWN BY: DC
CHECKED BY: DC
APPROVED BY: DC

PROJECT NO.:
CONTRACT NO.:

SHEET NO.:
PAVING, GRADING AND DRAINAGE DETAILS
C013

PROFESSIONAL ENGINEER
DAMIAN CARTWRIGHT
28851-19
U.S. VIRGIN ISLANDS

GENERAL NOTES:

1. ALL PAVED SURFACES, INCLUDING DRIVEWAYS CROSSED BY THE PROPOSED WATER MAINS SHALL BE SAW CUT TO PROVIDE A CLEAN TRUE EDGE FOR PAVEMENT REPLACEMENT.

2. THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITY TO THE AREA WITHIN THE EXISTING EASEMENTS AND CONSTRUCTION LIMITS UNLESS OTHERWISE APPROVED BY THE OWNER.

3. ROOF DRAINS, FOUNDATION DRAINS, SUMP PUMP DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED. NO BUILDING SHALL BE CONNECTED TO A SEWER LATERAL UNTIL THE BUILDING IS UNDER ROOF.

4. ALL MATERIAL, CONSTRUCTION METHODS AND TESTING PROCEDURES SHALL BE IN CONFORMANCE WITH THE WRITTEN SPECIFICATIONS OF THE V.I. WATER & POWER AUTHORITY (VIWAPA) FOR ALL WATER LINE WORK, AND THE V.I. WASTE MANAGEMENT AUTHORITY FOR ALL SANITARY SEWER LINE WORK (VIWMA).

5. THE SOIL TYPES IN THE AREAS OF THE PROPOSED SEWER LINES WERE VISUALLY OBSERVED FOR THE PRESENCE OF CORROSIVE SOILS. THERE WERE NO CORROSIVE SOILS DETECTED. SHOULD IRON PIPES BE PROPOSED IN AN AREA AND CORROSIVE SOILS ENCOUNTERED, THE PIPE SHALL BE PROTECTED BY AN 8 MIL THICK POLYETHYLENE ENCASEMENT MEETING THE REQUIREMENTS OF ANSI A21.5.

6. ALL WATER AND SEWAGE FACILITIES DESIGNED HEREIN SHALL CONFORM TO THE MATERIALS, SPECIFICATIONS, CONSTRUCTION METHODS AND STANDARD DETAILS SPECIFIED BY VIWAPA AND VIWMA, RESPECTIVELY. IN CASE OF CONFLICTS WITH THE PROJECT'S WRITTEN SPECIFICATIONS OR STANDARD DETAILS, THE MORE STRINGENT SHALL APPLY. THE VIWAPA AND VIWMA SHALL MAKE THE FINAL DECISION IN EACH CASE.

7. ALL SERVICES HAVE BEEN DESIGNED AND DRAWN IN ACCORDANCE WITH BASE SITE LAYOUT PLANS AND LAND SURVEY DRAWINGS PROVIDED BY THE OWNER'S REPRESENTATIVE. BUILDTEC ACCEPTS NO RESPONSIBILITY FOR FIELD ERRORS RESULTING FROM INACCURACIES IN OWNER-PROVIDED SITE PLANS.

8. CONTRACTOR SHALL BEAR RESPONSIBILITY FOR ACCURATE LOCATION OF SEWER LINES AND APPURTENANCES. CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF LOCATIONS OF ALL SEWER AND WATER DISTRIBUTION LINES, APPURTENANCES, HYDRANTS, CLEANOUTS, JUNCTIONS AND BRANCHES.

WATER DISTRIBUTION SYSTEM:

1. ALL WATER MAINS SHALL BE MINIMUM 6-INCH AWWA C-900 PVC WITH DR OF 18. ALL PIPES AND FITTINGS SHALL BE CLASS "C" OR BETTER. JOINTS IN PVC PIPES SHALL BE OF THE RUBBER-RING PUSH-FIT TYPE, EITHER SPIGOT AND SOCKET OR DOUBLE BELL COUPLING.

2. ALL PIPES SHALL BE LAID AND MAINTAINED TO THE REQUIRED LINE AND GRADIENTS WITH FITTINGS, VALVES AND HYDRANTS AT THE REQUIRED LOCATIONS. ALL WATER MAINS SHALL BE LAID TO SUCH DEPTHS WHICH WILL PROVIDE A MINIMUM COVER OF 3'-0" OR AS INDICATED IN THESE DRAWINGS.

3. TRENCHES SHALL BE EXCAVATED TO A MINIMUM WIDTH OF 12" PLUS THE NOMINAL PIPE DIAMETER (6" EACH SIDE), AND TO A DEPTH 4" DEEPER THAN THE PIPE INVERT FOR 4" DIAMETER PIPE OR LESS, AND 6" FOR ALL OTHERS. THE BOTTOM OF THE TRENCHES SHALL BE PROPERLY CLEANED AND LEVELED, AND SELECTED GRANULAR MATERIAL OR SAND PROVIDED UNDER THE PIPES. BELL HOLES SHALL BE PROVIDED AT EACH JOINT TO PERMIT PROPER JOINTING AND TO AVOID THE POSSIBILITY OF BRIDGING BETWEEN JOINTS. EVERY PRECAUTION SHALL BE TAKEN TO ENSURE THAT NO FOREIGN MATERIAL ENTERS THE PIPE WHILE BEING LAID AND THAT RUBBER RINGS ARE PROPERLY INSTALLED IN THE PIPE BELL.

4. GATE OR BUTTERFLY VALVES MAY BE USED AND VARIETY SHALL BE PROVIDED WHERE SHOWN ON THE PLAN. VALVES SHALL BE PROVIDED ON ALL BRANCH MAINS AT THEIR JUNCTIONS WITH PRINCIPAL MAINS. THE FOLLOWING STANDARDS APPLY:
   AWWA C-509 - RESILIENT SEATED GATE VALVES FOR WATER AND SEWERAGE SYSTEMS
   AWWA C-504 - RUBBER SEATED BUTTERFLY VALVES
   ALL VALVES MUST BE SQUARE-NUT OPERATED, NON-RISING STEM FITTED WITH O-RING SEALS.

5. CONCRETE ANCHOR BLOCKS SHALL BE PROVIDED AT ALL TEES, BENDS, CAPS, PLUGS, ETC. TO PREVENT REACTION MOVEMENTS. THE CONCRETE SHALL BE PLACED BETWEEN SOLID GROUND AND THE FITTING TO BE ANCHORED.

6. BACKFILLING SHALL BE CARRIED OUT WITH SUITABLE FINE MATERIAL IN ORDER TO PROVIDE A FIRM AND CONTINUOUS SUPPORT FOR THE PIPE. BACKFILL SHALL BE PLACED BY HAND AND FULLY COMPACTED IN LAYERS NOT EXCEEDING 6" FOR THE FIRST 12" OVER THE PIPE. APPROVED MECHANICAL METHODS MAY BE EMPLOYED FOR BACKFILLING THE REMAINDER OF THE TRENCH. IF SUITABLE BACKFILL MATERIAL IS NOT AVAILABLE IN SUFFICIENT QUANTITY FROM THE TRENCH, THE NECESSARY MATERIAL SHALL BE IMPORTED TO COMPLETE BACKFILLING. WHERE PVC PIPE IS BEING LAID, SAND OR OTHER APPROVED MATERIAL SHALL BE USED FOR BEDDING AND SURROUND, AND FOR THE FIRST 12" ABOVE THE PIPE. IT SHALL BE PLACED BY HAND AND BE FULLY COMPACTED IN 6" LAYERS BEFORE THE REMAINDER OF THE TRENCH IS BACKFILLED IN THE USUAL MANNER.

7. POLYETHYLENE SERVICE PIPES SHALL BE SDR 11, PC 160 PSI, IPS, OD-CONTROLLED IN ACCORDANCE WITH AWWA C901 AND ASTM 3035 (SEE AWWA C-901, TABLE 5), AND SHALL BE COMPATIBLE WITH TALBOT PUSH-FIT FITTINGS. PIPE MUST ALSO BEAR THE NATIONAL SANITATION FOUNDATION (NSF) SEAL FOR POTABLE WATER.

8. THE SERVICE LINES SHALL BE CONNECTED TO THE MAINS BY THE INSERTION OF CORPORATION COCKS, FERRULES OR ANGLE VALVES OF A TYPE APPROVED BY THE VIWAPA.

9. SERVICE LINES SHALL HAVE A MINIMUM COVER OF 2 FEET IN VEHICULAR DRIVEWAYS, PARKING LOTS AND ROADWAYS AND BE PROTECTED BY PVC DUCTING.

10. CONTRACTOR SHALL MAKE BUILDING CONNECTIONS WITH TEE-WYE AND DOUBLE WYE BRANCH CONNECTION TO MAIN SEWER LINE. JOINTS SHALL BE LOCATED TO PERMIT ONE CONNECTION FOR TWO PROPERTIES WHERE POSSIBLE. BUILDING CONNECTIONS PROVIDED BY THE DEVELOPER SHALL EXTEND THREE FEET BEYOND FRONT PROPERTY LINE. BUILDING SEWERS AND CLEAN OUTS SHALL BE STUBBED A MINIMUM THREE FEET BEYOND GRADE TO EASE FUTURE CONNECTIONS. BUILDING SEWER PIPE SHALL BE SIX INCH DIAMETER PVC.

11. BUILDING SEWERS SHALL CONNECT TO MAIN GRAVITY SEWER LINES ONLY. BUILDING LINE CONNECTIONS DIRECTLY TO MANHOLES ARE NOT PERMITTED.

12. FIRE HYDRANTS MUST BE IN ACCORDANCE WITH AWWA C502. HYDRANTS SHOULD HAVE (2) 2 1/2" OUTLET NOZZLES AND (1) 4 1/2" PUMPER NOZZLE WITH STANDARD HOLE THREADS. CAPS MUST BE PROVIDED ON NOZZLES AND ATTACHED BY CHAINS. A STANDARD AWWA OPERATING NUT WITH O-RING TYPE SEAL IS REQUIRED. HYDRANTS SHOULD ALSO BE INSTALLED WITH BREAK-AWAY FLANGE AT BASE. TWO OPERATING KEYS SHALL BE PROVIDED WITH EACH INSTALLED HYDRANT.

13. ALL BURIED VALVES SHALL HAVE CAST IRON TWO- OR THREE-PIECE VALVE BOXES WITH CAST IRON COVERS. VALVE BOXES SHALL BE PROVIDED WITH SUITABLE HEAVY BONNETS AND TO EXTEND TO SUCH ELEVATION AT OR SLIGHTLY ABOVE THE FINISHED GRADE SURFACE. THE BARREL SHALL BE ONE- OR TWO-PIECE SCREW TYPE, HAVING 5 1/4" SHAFT. COVER SHALL HAVE "WATER" CAST INTO THE TOP FOR ALL WATER MAINS. ALL VALVES SHALL HAVE ACTUATING NUTS EXTENDED TO WITHIN SIX INCHES OF THE TOP OF THE VALVE BOX COVER. VALVE BOXES SHALL BE PROVIDED WITH CONCRETE BASES.

14. LOCATION OF FIRE HYDRANTS, VALVES AND OTHER WATER APPURTENANCES SHOWN IN DRAWINGS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE ESTABLISHED ON SITE BY CONTRACTOR AND CONFIRMED BY ENGINEER OF RECORD.

15. ELEVATION OF MANHOLE RIMS ARE APPROXIMATED FROM SURVEYOR'S DRAWINGS. FINAL ELEVATIONS SHALL BE ESTABLISHED ON SITE BY CONTRACTOR AND CONFIRMED BY ENGINEER OF RECORD.

16. SEWER LINE DIRECTIONS ARE APPROXIMATED FROM SURVEYOR'S DRAWINGS. FINAL SEWER LINE BEARINGS SHALL BE ESTABLISHED ON SITE BY CONTRACTOR AND CONFIRMED BY ENGINEER OF RECORD.

17. CONTRACTOR IS RESPONSIBLE FOR LOCATION, REMOVAL AND OR COORDINATION OF EXISTING UTILITIES. THE ENGINEER OF RECORD SHALL BE APPRISED OF ANY CONFLICTS BETWEEN EXISTING UTILITIES AND THE NEW DESIGN PRIOR TO ANY SITE CORRECTION OF NEW DESIGN BY THE CONTRACTOR.

18. CONTRACTOR SHALL PREPARE AS-BUILT DRAWINGS WHICH SHALL BE SUBMITTED TO THE VIWAPA AND VIWMA WITHIN SEVEN DAYS OF PROJECT COMPLETION. FINAL INSPECTION AND APPROVALS WILL NOT BE GRANTED WITHOUT THE SAME.

19. ALL CONSTRUCTION WORKS SHALL BE CARRIED OUT BY COMPETENT CONTRACTORS EXPERIENCED IN THE CONSTRUCTION OF POTABLE WATER AND SANITARY SEWAGE WORKS AND ALL MACHINERY INSTALLATION SHALL BE SUPERVISED, TESTED AND/OR CERTIFIED BY THE MANUFACTURER'S REPRESENTATIVE.

20. ALL WORKS SHALL BE OPEN TO INSPECTION BY THE VIWAPA AND VIWMA THROUGHOUT CONSTRUCTION.

SANITARY SEWER SYSTEM:

1. ALL GRAVITY SANITARY SEWER LINES SHALL BE ASTM D3034 PVC PIPE WITH STANDARD DIMENSION RATIO (SDR) OF 35. SEWER PIPES AND FITTINGS SHALL HAVE BONDED, RESILIENT JOINTS WHICH SHALL RETAIN WATER TIGHTNESS BY COMPRESSION OF THE GASKET MATERIAL AROUND THE ENTIRE PERIPHERY OF THE PIPE.

2. LEAKAGE FOR NEW COPNSTRUCTION, OR SYSTEMS THAT HAVE NEVER BEEN COMMISIONED, SHALL BE ZERO. LEAKAGE INWARD OR OUTWARD FROM EXISTING SEWERS SHALL NOT EXCEED 300 GALLONS PER INCH DIAMETER PER MILE PER DAY.

3. THE MINIMUM ALLOWABLE SIZE OF SEWERS OTHER THAN HOUSE CONNECTIONS SHALL BE EIGHT (8) INCHES DIAMETER.

4. THE FOLLOWING MINIMUM GRADES SHALL BE PROVIDED :

8" DIAMETER SEWERS	0.40%
10" DIAMETER SEWERS	0.28%
12" DIAMETER SEWERS	0.22%
15" DIAMETER SEWERS	0.15%
18" DIAMETER SEWERS	0.12%
21" DIAMETER SEWERS	0.10%
24" DIAMETER SEWERS	0.08%

5. SEWERS SHALL BE LAID WITH UNIFORM SLOPES AND ALIGNMENT BETWEEN MANHOLESAND ON COMPLETION SHALL SHOW A FULL CIRCLE OF LIGHT WHEN LAMPED BETWEEN MANHOLES.

6. MANHOLES SHALL BE INSTALLED AT ALL CHANGES OF GRADE, ALIGNMENT OR SIZE OF SEWER, AT ALL INTERSECTIONS AND DISTANCES NOT GREATER THAN 400 FEET. THE MINIMUM INSIDE DIAMETER OF MANHOLES SHALL BE 48 INCHES.

7. THE MANHOLE FLOOR SHALL HAVE A FLOW CHANNEL MADE TO CONFORM IN SHAPE AND CARRYING CAPACITY TO THAT OF THE SEWERS.

8. FORCE MAINS SHALL BE DUCTILE IRON OR PVC PRESSURE PIPE WITH RUBBER RING, PUSH FIT JOINTS. MINIMUM VELOCITY IN THE FORCE MAINS SHALL BE 2.5 FEET PER SECOND. THE FOLLOWING STANDARDS SHALL APPLY:
   DUCTILE IRON - AWWA C100
   PVC - AWWA C900 (SDR-18)

PUMPING STATION:

1. SEWAGE PUMPING STATIONS SHALL BE CONCRETE WET WELL PUMPING STATION INCORPORATING EASILY REMOVABLE CLOSE-COUPLED SUBMERSIBLE PUMPS.

2. TWO OR MORE PUMPS COMPATIBLE WITH THE STANDARD MODELS USED BY THE CORPORATION (FLYGT), SHALL BE PROVIDED IN EACH PUMPING STATION. WHERE ONLY TWO PUMPS ARE PROVIDED, EACH PMUP SHALL BE CAPABLE OF HANDLING TWICE THE PEAK FLOW AND BE THE SAME MODEL AND IMPELLER SIZE.

3. DEVICES FOR MEASURING SEWAGE FLOWS AND POWER CONSUMPTION SHALL BE INSTALLED AT ALL PUMPING STATIONS.

4. APPROVED STANDBY POWER EQUIPMENT OR FACILITIES TO ALLOW QUICK CONNECTION OF STANDBY POWER EQUIPMENT SHALL BE PROVIDED AT PUMPING STATIONS.

REVISIONS

NO.	DATE	REMARKS

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CRUZ BAY-VIFEMS STATION

ESTATE ENIGHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: March, 2025
DRAWN BY: DC
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PROJECT NO.:
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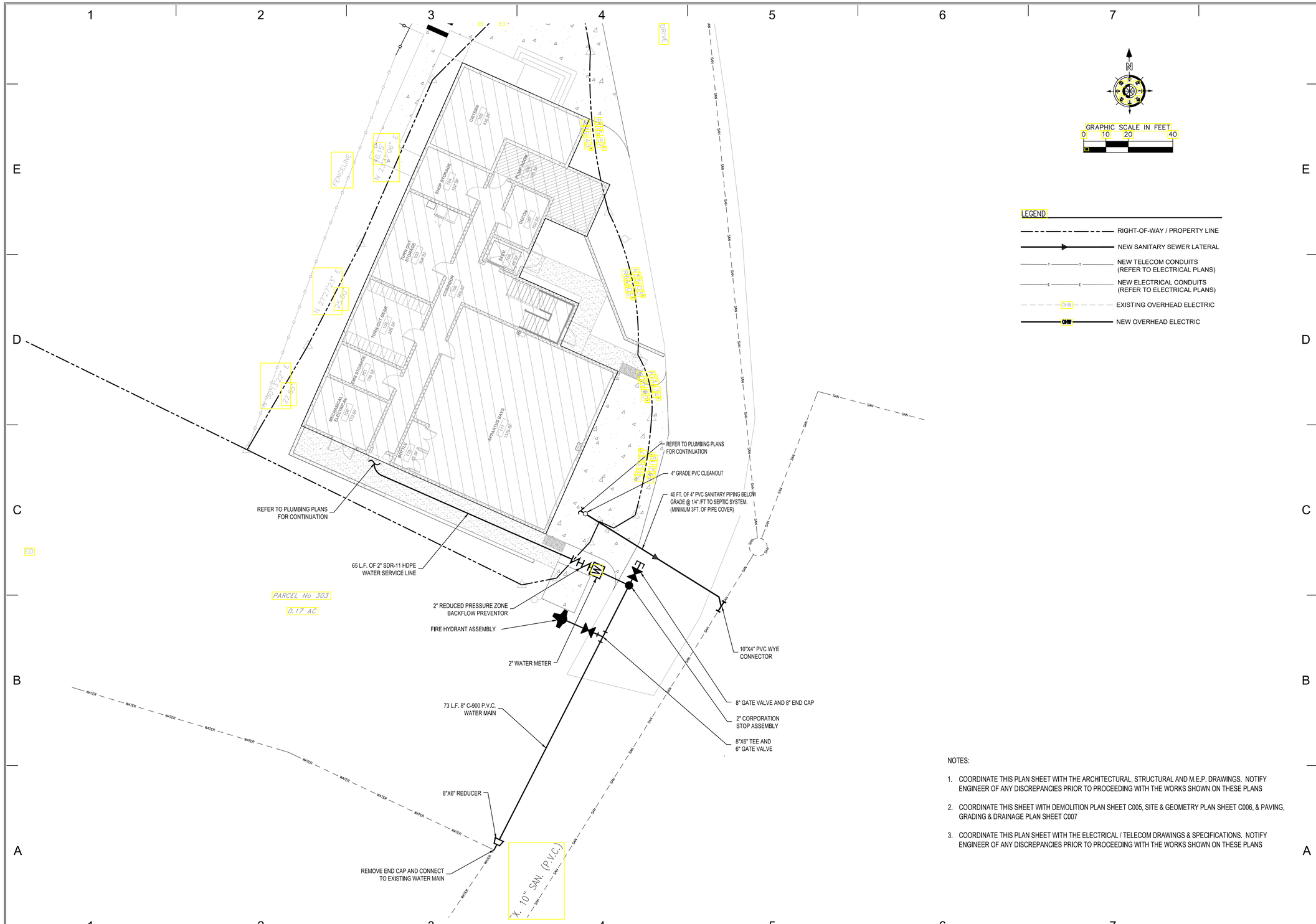
SHEET NO.:
POTABLE WATER AND SANITARY SEWER NOTES

C014

PROFESSIONAL ENGINEER
DAMIAN CARTWRIGHT
28851-IB
U.S. VIRGIN ISLANDS



NOTES:

1. COORDINATE THIS PLAN SHEET WITH THE ARCHITECTURAL, STRUCTURAL AND M.E.P. DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORKS SHOWN ON THESE PLANS
2. COORDINATE THIS SHEET WITH DEMOLITION PLAN SHEET C005, SITE & GEOMETRY PLAN SHEET C006, & PAVING, GRADING & DRAINAGE PLAN SHEET C007
3. COORDINATE THIS PLAN SHEET WITH THE ELECTRICAL / TELECOM DRAWINGS & SPECIFICATIONS. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORKS SHOWN ON THESE PLANS

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CRUZ BAY-VIFEMS STATION

ESTATE ENIGHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

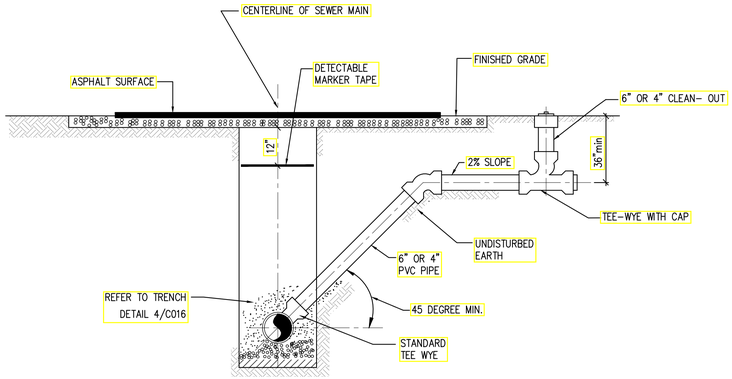
DATE: March, 2025
DRAWN BY: DC
CHECKED BY: DC
APPROVED BY: DC

PROJECT NO.:
CONTRACT NO.:

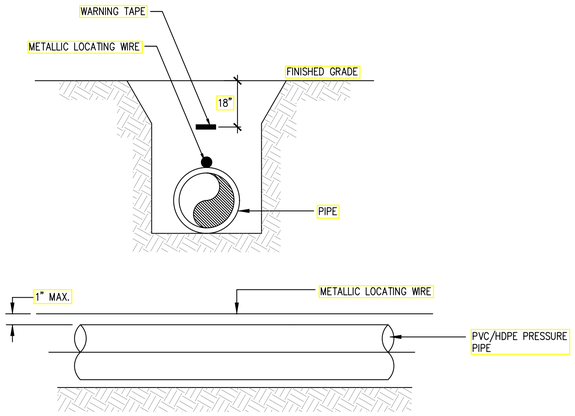
SHEET NO.:
POTABLE WATER AND SANITARY SEWER PLAN

C015

PROFESSIONAL ENGINEER
DAMIAN CARTWRIGHT
28851-19
VIRGIN ISLANDS

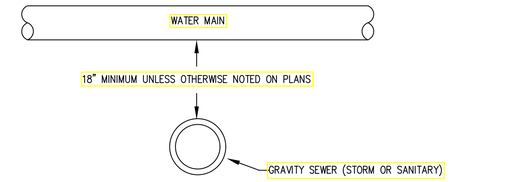


1 SANITARY SEWER LATERAL
NOT TO SCALE



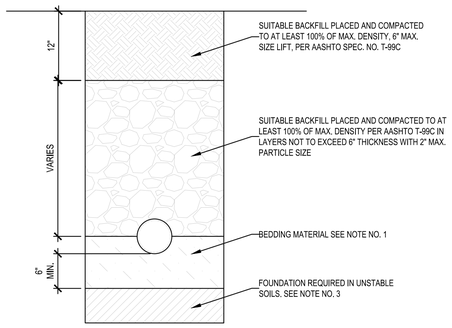
NOTES:
1. PVC/HDPE PRESSURE PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE TAPED TO CENTERLINE OF THE PIPE.
2. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX AND BE CAPABLE OF EXTENDING 3" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
3. USE DUCT TAPE OR PLASTIC TIES AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE.
4. EXTEND METALLIC LOCATING WIRE ALONG STUBBED OUT SERVICE CONNECTIONS
5. WARNING/MARKING TAPE SHALL BE DIRECTLY ABOVE ALL PRESSURE PIPE. TAPE SHALL HAVE 18" COVER

2 PIPE LOCATING WIRE
NOT TO SCALE



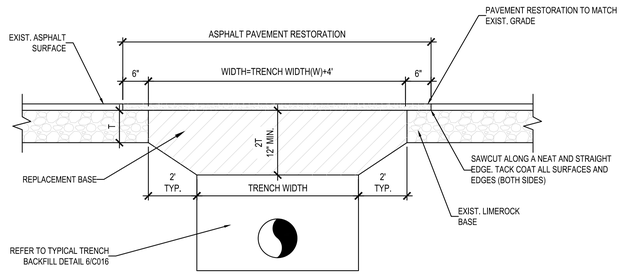
NOTES:
1. A VERTICAL SEPERATION DISTANCE OF A MINIMUM OF 18" MUST BE MAINTAINED.
2. IF MINIMUM VERTICAL SEPERATION IS NOT POSSIBLE THEN THE SEWER MAIN MUST BE ENCASED FOR A DISTANCE 20'-0" CENTERED ON THE POINT OF CROSSING AND SEWER MAIN MUST BE OF WATER QUALITY (i.e. DR. 18 AWWA C900).

3 WATERMAIN CROSSING
NOT TO SCALE



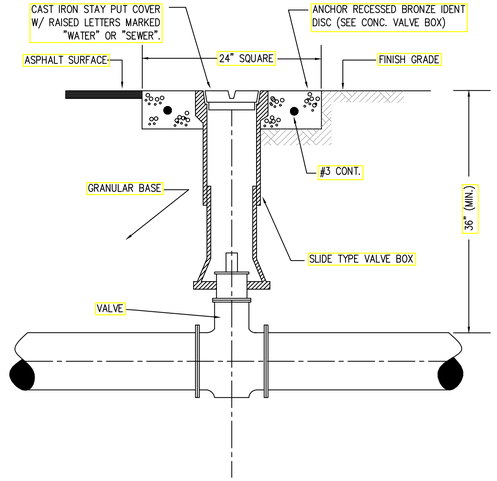
NOTES:
1. UNLESS OTHERWISE SPECIFIED, BEDDING MATERIAL SHALL CONSIST OF SELECT BACKFILL MATERIAL 2" MAXIMUM PARTICLE SIZE, COMPACTED TO AT LEAST 100% OF MAX. DENSITY, 6" LIFTS, PER AASHTO SPEC. NO. T-99C
2. WHERE REQUIRED, SHEETING AND SHORING SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS.
3. WHERE UNSTABLE SOILS ARE ENCOUNTERED, INCLUDING PEAT, MUCK OR OTHER ORGANIC SOILS, ELASTIC SILT AND CLAYS, A FOUNDATION IS REQUIRED AS DETERMINED BY THE ENGINEER.

4 TYPICAL TRENCH BACKFILL
NOT TO SCALE



GENERAL NOTES:
1. REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE. BUT NOT LESS THAN 12".
2. BASE MATERIAL SHALL BE PLACED IN 6 INCH MAXIMUM LAYERS AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO 98% OF MAXIMUM DENSITY, PER AASHTO T-180. BASE MATERIAL SHALL HAVE A MINIMUM LBR OF 100.
3. ASPHALTIC CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE TREATED PAVEMENT JOINTS SHALL BE LAPPED AND FEATHERED. PAVEMENT MATERIAL SHALL BE FDOT TYPE SP-9.5 (FINE MIX) ASPHALTIC CONCRETE STRUCTURAL COURSE (1" THICK). MATCH EXISTING GRADES AT LIMIT OF SAWCUT.
5. UPON COMPLETION OF TRENCHING AND TRENCH/PAVEMENT RESTORATION FOR THE ENTIRE PROJECT, RESURFACE ENTIRE ROADWAY WIDTH WITH FDOT TYPE SP-9.5 (FINE MIX) ASPHALTIC CONCRETE SURFACE COURSE OVERLAY (1" MINIMUM THICKNESS).
6. BID PRICES FOR PIPE AND/OR FRENCH DRAIN SHALL INCLUDE PAVEMENT RESTORATION TO MATCH EXISTING GRADES. CONTRACTOR SHALL NOT LEAVE MORE THAN 1,000-FEET OF EXPOSED LIMEROCK BASE AT ANY TIME DURING THE TRENCH/PAVEMENT RESTORATION PROCESS. ONLY THE FDOT TYPE SP-9.5 (FINE MIX) ASPHALTIC CONCRETE SURFACE COURSE OVERLAY WILL BE PAID SEPARATELY.
7. WHEN TRENCHING OUTSIDE THE PAVEMENT AREA, ASPHALT AND BASE MATERIAL REFERENCED IN GENERAL NOTES 1-5 ARE NOT REQUIRED. RESTORE OR REPLACE ALL PUBLIC OR PRIVATE PROPERTY TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALL IMPACTED AREAS SHALL BE COMPACTED TO 95% DENSITY IN 6-INCH MAXIMUM LIFTS.
8. CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL SOILS INFORMATION TO UNDERSTAND EXISTING CONDITIONS.

5 PAVEMENT RESTORATION
NOT TO SCALE



6 VALVE AND BOX
NOT TO SCALE

REVISIONS

NO.	DATE	REMARKS

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POTABLE WATER AND SANITARY SEWER DETAILS

C016

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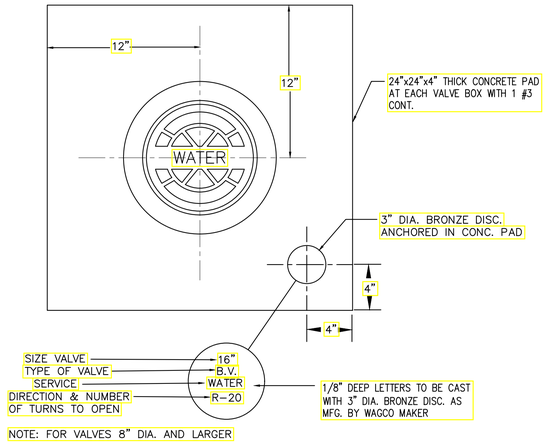
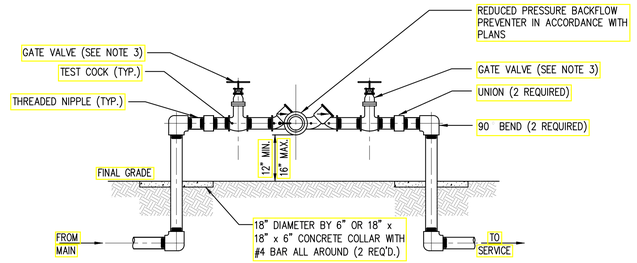
U.S. VIRGIN ISLANDS



7 CONCRETE VALVE PAD
NOT TO SCALE

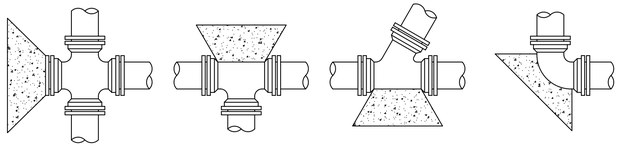


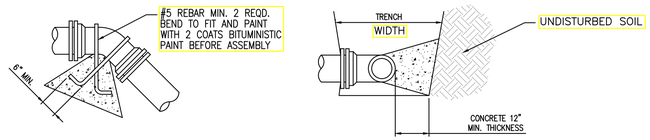
NOTES:

1. ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL OR BRASS. ALL FITTINGS 3" AND LARGER SHALL BE DUCTILE IRON
2. BACKFLOW PREVENTER ASSEMBLIES SHALL BE FEBCO MODEL (SEE BELOW) OR ENGINEER APPROVED EQUAL:

   2" AND SMALLER: 825Y
   2-1/2" AND LARGER: 825YD
3. ON ASSEMBLIES 2" AND LARGER, ISOLATION GATE VALVES ARE INCLUDED IN ASSEMBLY.

8 ABOVE GROUND REDUCED PRESSURE ZONE BACKFLOW PREVENTER ASSEMBLY
NOT TO SCALE





DEADMAN TYPICAL SECTION

NOTES:

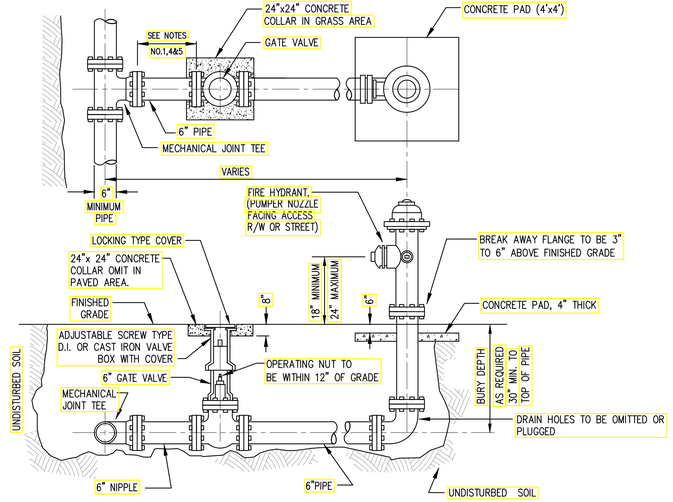
1. THRUST BLOCKS SHALL BE USED IN ADDITION TO MEG-A-LUG RESTRAINED JOINTS FOR ALL PRESSURE PIPE GREATER THAN 12" DIAMETER AND FOR FIRE HYDRANTS AND AT DEAD ENDS IN ACCORDANCE WITH THE "BLOW OFF WITH RESTRAINT BLOCK" DETAIL AND AS APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE ON A CASE BY CASE BASIS.
2. ALL THRUST BLOCKS SHALL BE FORMED. LAID FORMS SHALL BE INSPECTED BY THE OWNER'S REPRESENTATIVE PRIOR TO THE POURING OF CONCRETE AND SHALL ALSO BE INSPECTED BY THE OWNER'S REPRESENTATIVE PRIOR TO COVER- ING. TYPICAL LOCATIONS WHICH REQUIRE CONCRETE REACTIONS (THRUST) BLOCKS, FOR PRESSURE MAINS FOUR INCHES (4") AND GREATER CONCRETE SHALL HAVE 2500 P.S.I. MINIMUM STRENGTH AT TWENTY EIGHT (28) DAYS AND BEAR AGAINST UNDISTURBED STABLE SOILS, AREA OF CONTACT SHALL BE COVERNED BY PIPE SIZE, MAXIMUM PRESSURE IN PIPE, AND BEARING CAPACITY OF SOIL. PROTECT FITTINGS, BOLTS, ETC. BY COVERING WITH 5 MIL. OR GREATER POLYETHYLENE SHEET. CONCRETE SHALL BE A MINIMUM OF TWELVE INCHES (12") THICK.

(PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

PIPE	THRUST BLOCK SOIL BEARING AREA REQUIRED	PIPE	THRUST BLOCK SOIL BEARING AREA REQUIRED	REMARKS
4"	2.0 SQ. FT.	18"	30.0 SQ. FT.	
6"	4.0 SQ. FT.	20"	37.0 SQ. FT.	
8"	6.6 SQ. FT.	24"	53.0 SQ. FT.	VALUES ARE FOR 90° BEND, BASED ON 2000 P.S.F. SAFE BEARING LOAD AND PIPE PRESSURE OF 150 P.S.I. PLUS 33% SAFETY FACTOR FOR OTHER SOILS AND PRESSURES.
10"	10.0 SQ. FT.	27"	80.0 SQ. FT.	
12"	14.0 SQ. FT.	30"	98.0 SQ. FT.	
14"	18.0 SQ. FT.	36"	127.0 SQ. FT.	
16"	24.0 SQ. FT.			

NOT COVERED BY THE ABOVE.

9 THRUST BLOCKS
NOT TO SCALE



NOTES:

1. USE RESTRAINED JOINTS FOR THE ENTIRE ASSEMBLY SHOWN.
2. DUCTILE IRON TO BE USED FOR FIRE HYDRANT ASSEMBLY.
3. GATE VALVE IS NORMALLY LOCATED NEXT TO TEE.
4. THE FIRE HYDRANT ASSEMBLY SHALL CONSIST OF AN APPROVED SHUT OFF VALVE INSTALLED AT THE MAINLINE JUNCTURE, AND SHALL INCLUDE A SECOND VALVE WHENEVER THE LENGTH TO THE FIRE HYDRANT EXCEEDS 16 FEET.

10 FIRE HYDRANT ASSEMBLY
NOT TO SCALE

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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CRUZ BAY QUARTER
ST. JOHN U.S.V.I

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POTABLE WATER AND SANITARY SEWER DETAILS

C017

PROFESSIONAL ENGINEER
DAMIAN CARTWRIGHT
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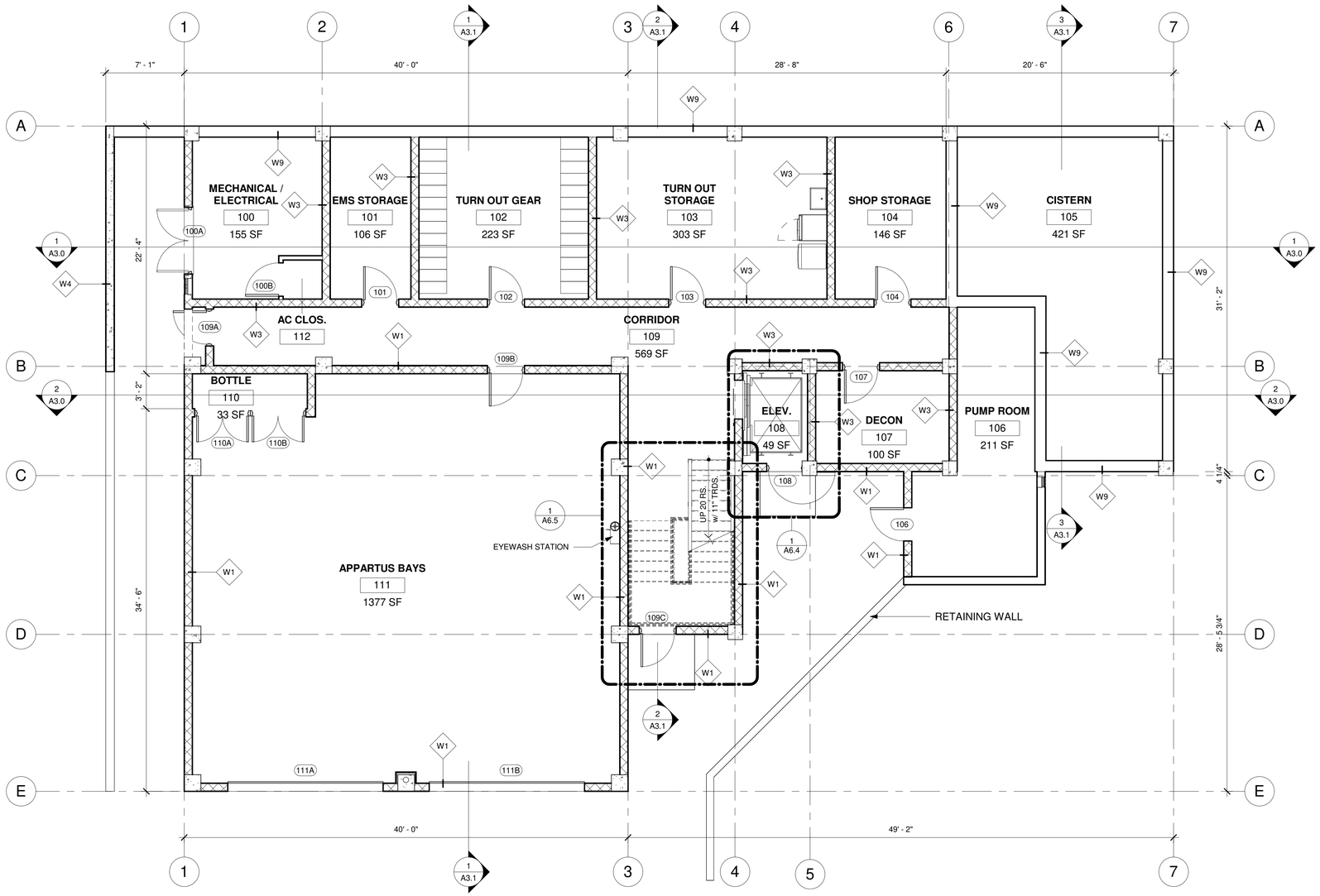
U.S. VIRGIN ISLANDS



1 FIRST LEVEL - IDENTIFICATION PLAN

3/16" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver

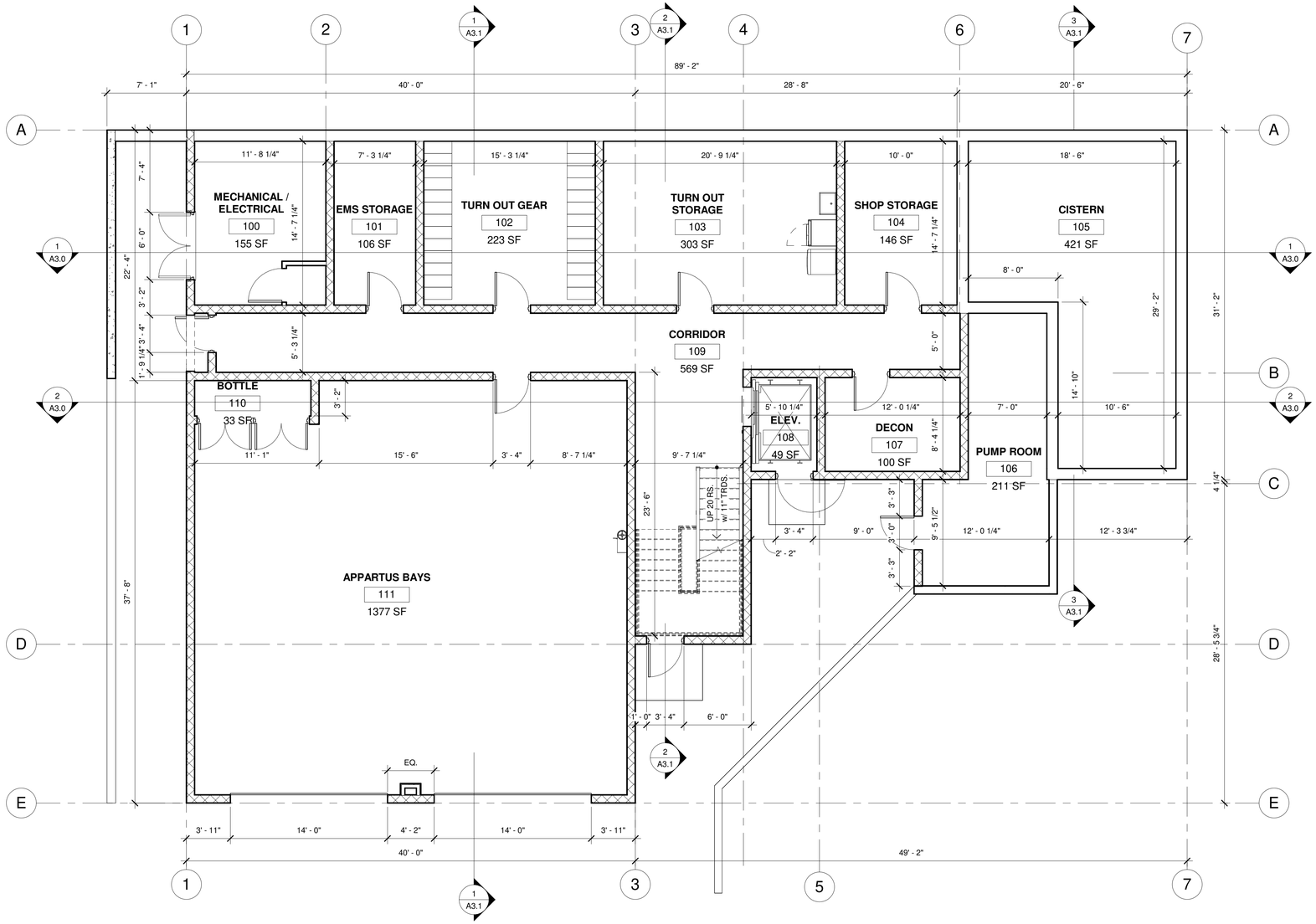
PROJECT NO.: 23-005.C

CONTRACT NO.: -

SHEET NO.: 1A1.0

FIRST LEVEL - IDENTIFICATION PLAN

REGISTERED ARCHITECT U.S. VIRGIN ISLANDS



1 FIRST LEVEL - DIMENSION PLAN

3/16" = 1'-0"

REVISIONS

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CONSULTANTS

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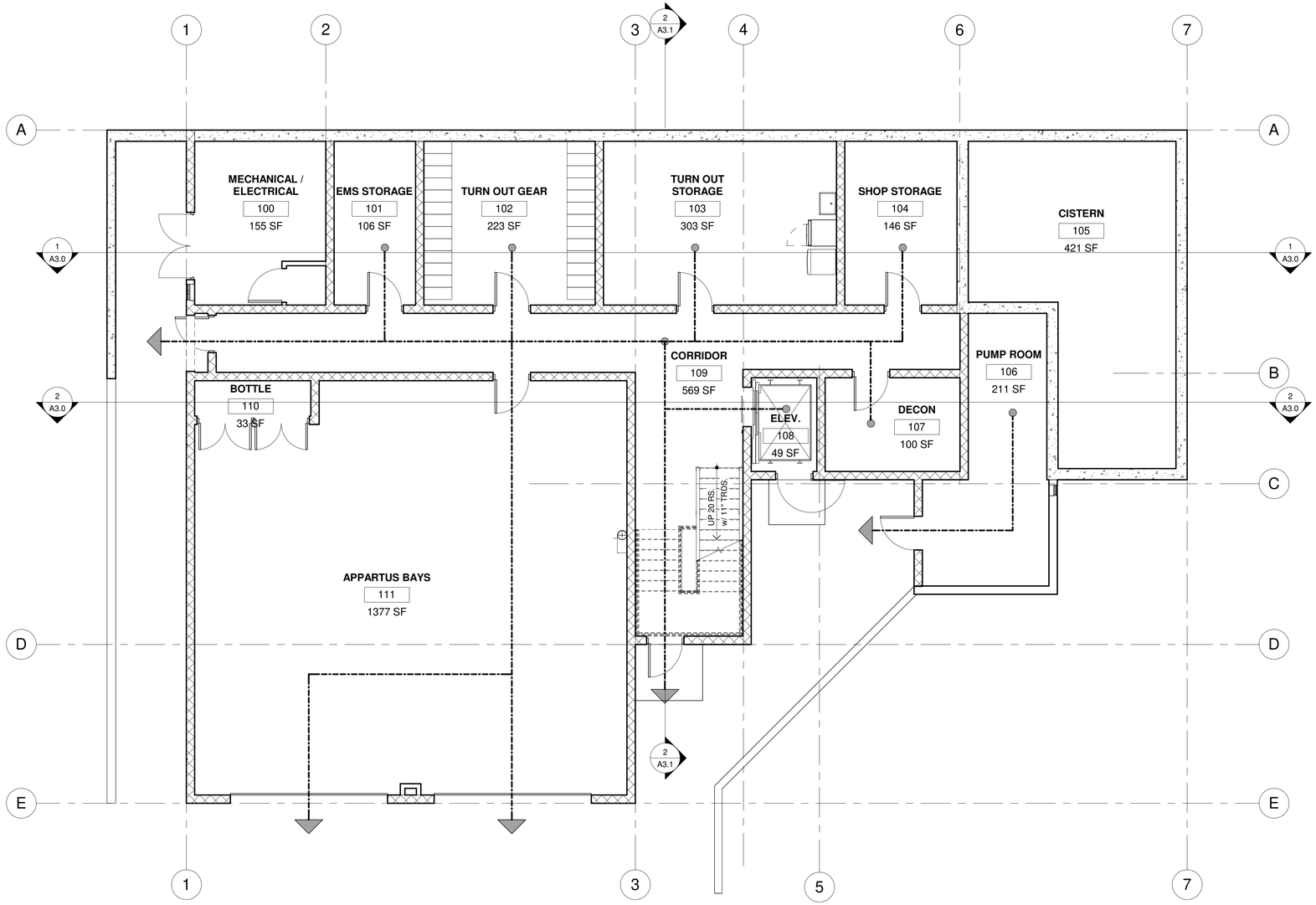
FIRST LEVEL - DIMENSION PLAN



1 FIRST LEVEL - LIFE SAFETY PLAN

3/16" = 1'-0"

REVISIONS

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SHEET NO.:	1A1.2

FIRST LEVEL LIFE SAFETY PLAN

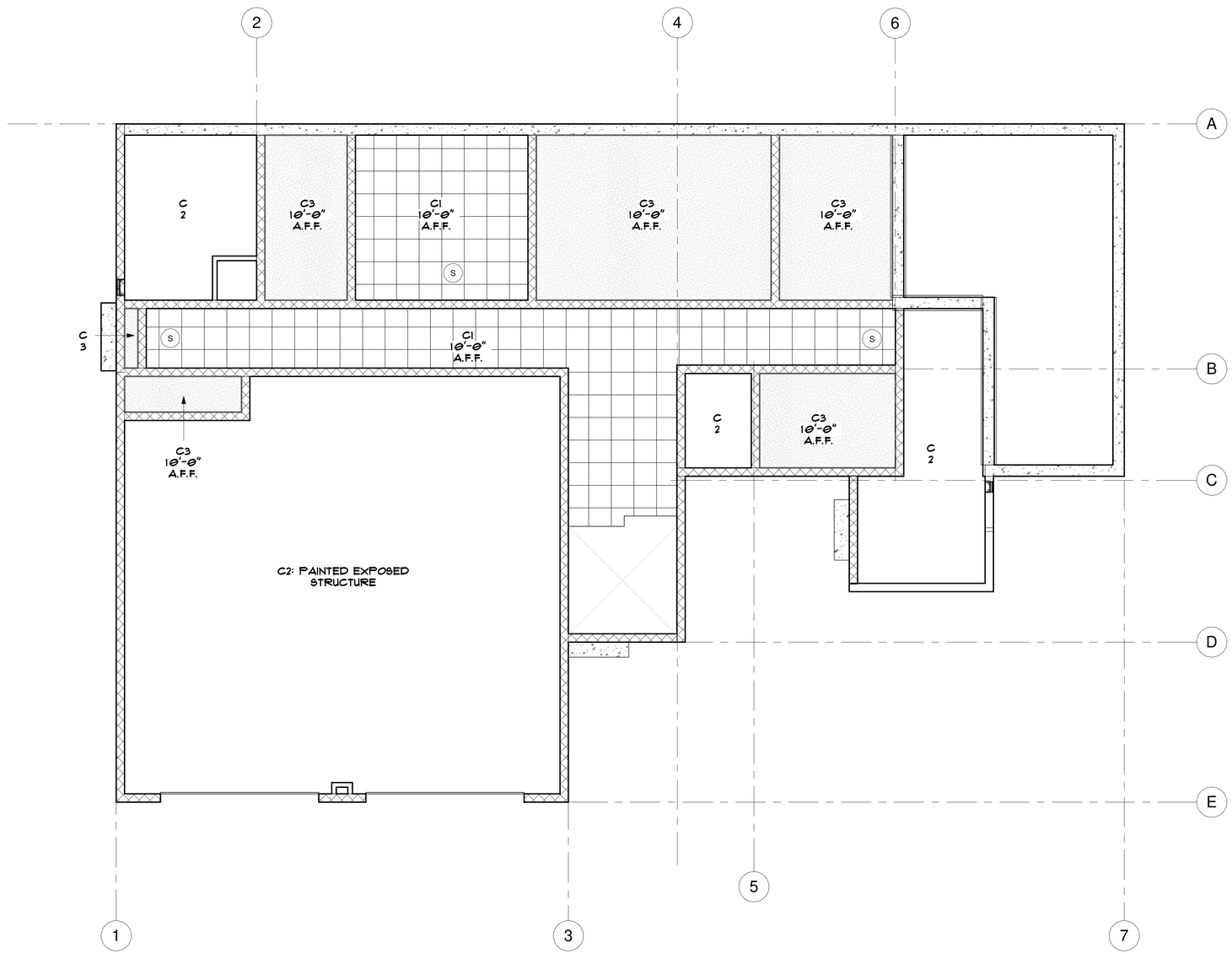
REGISTERED ARCHITECT U.S. VIRGIN ISLANDS

CEILING

C1 24X24 ACOUSTICAL CEILING TILE LAYOUT CENTERED IN ROOM OR CORRIDOR UNLESS OTHERWISE NOTED - ARMSTRONG BEVELED TEGULAR 3/16" INTERLUDE DIMENSIONAL TEE SYSTEM WITH 24"X24"X1" OPTIMA OPEN PLAN CEILING TILES (COLOR WHITE)

C2 PAINTED EXPOSED STRUCTURE

C3 PAINTED GYPUM WALL BOARD



FIRST FLOOR REFLECTED CEILING
3/16" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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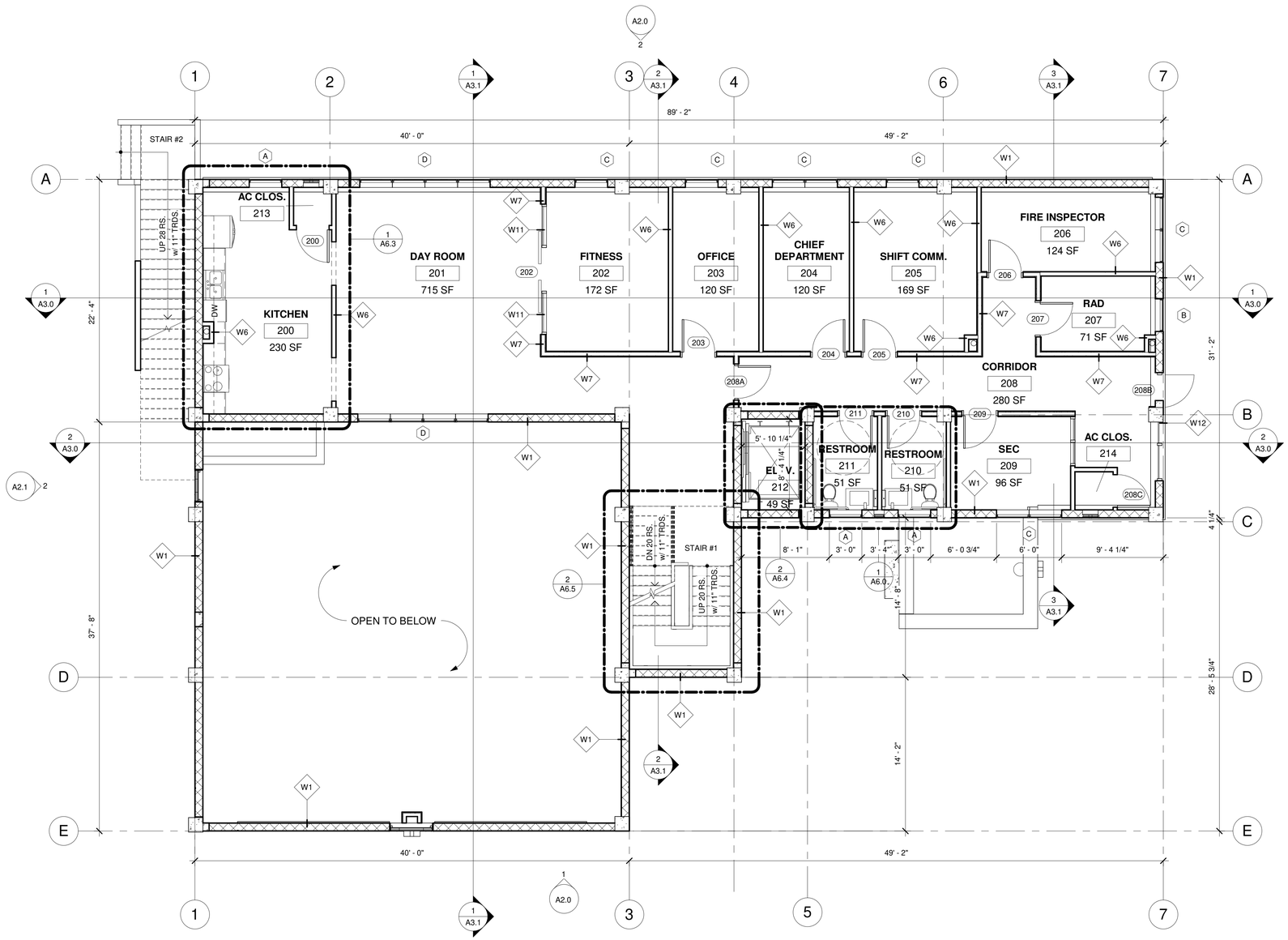
SHEET NO.: 1A1.3

FIRST LEVEL REFLECTED CEILING PLAN

LICENSED ARCHITECT USA VIRGIN ISLANDS



1 SECOND LEVEL - IDENTIFICATION PLAN

3/16" = 1'-0"

REVISIONS

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CONSULTANTS

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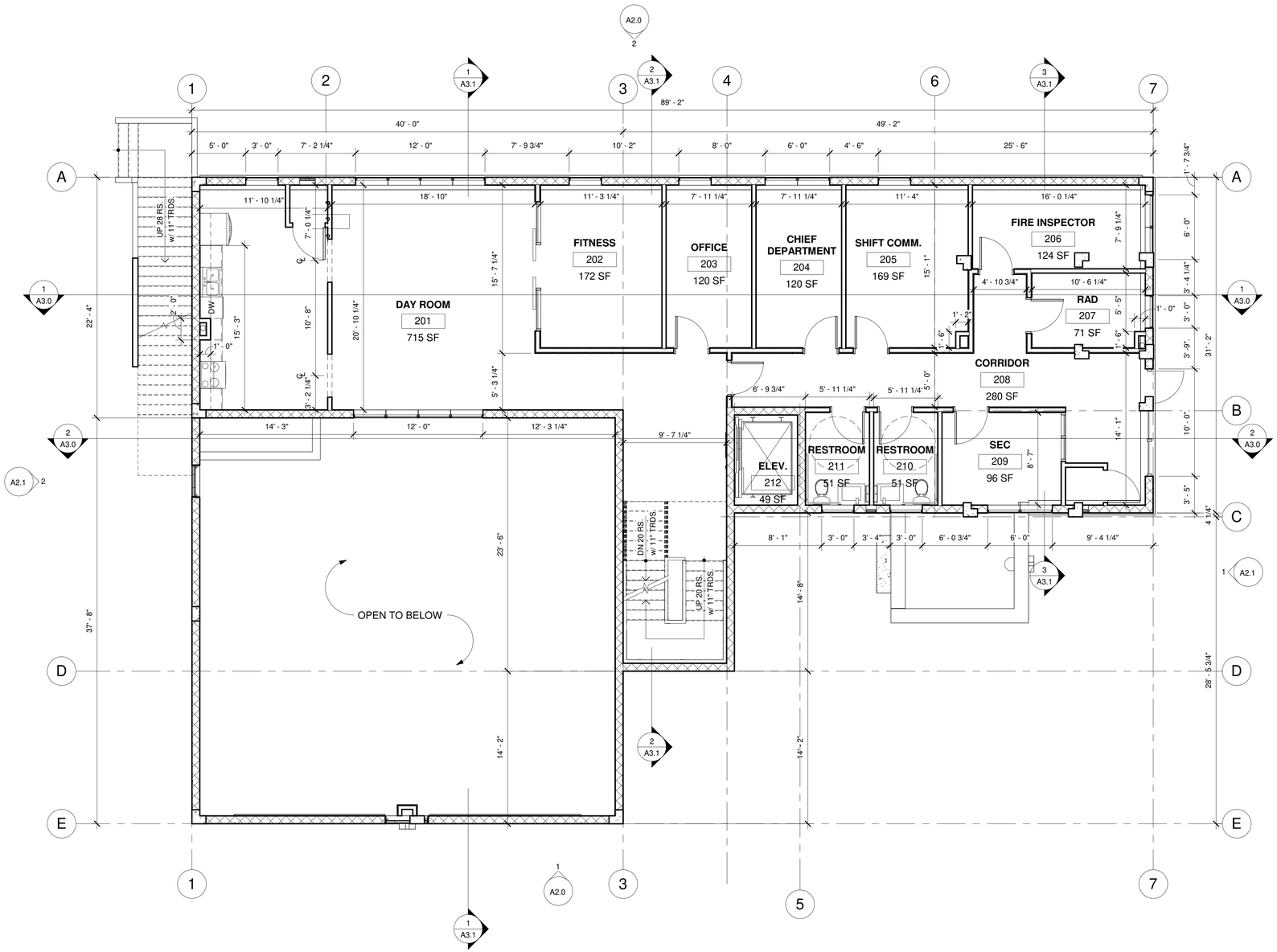
SHEET NO.:	2A1.0

SECOND LEVEL - IDENTIFICATION PLAN



1 SECOND LEVEL - DIMENSION PLAN

3/16" = 1'-0"

REVISIONS		
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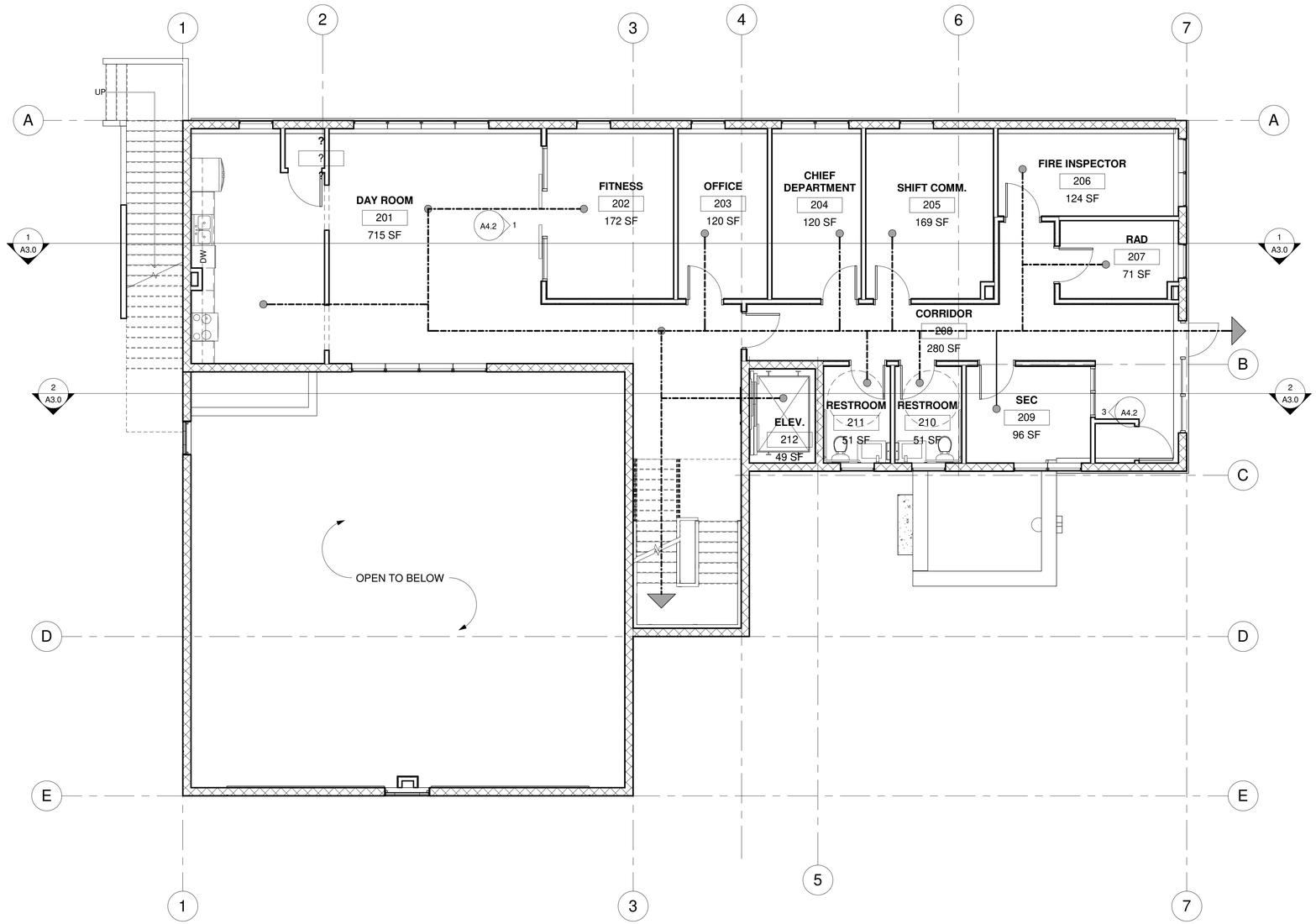
SECOND LEVEL DIMENSION PLAN

LICENSED ARCHITECT
USVI



1 SECOND LEVEL LIFE SAFETY PLAN

3/16" = 1'-0"

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SECOND LEVEL LIFE SAFETY PLAN

REGISTERED ARCHITECT
U.S. VIRGIN ISLANDS

CEILING

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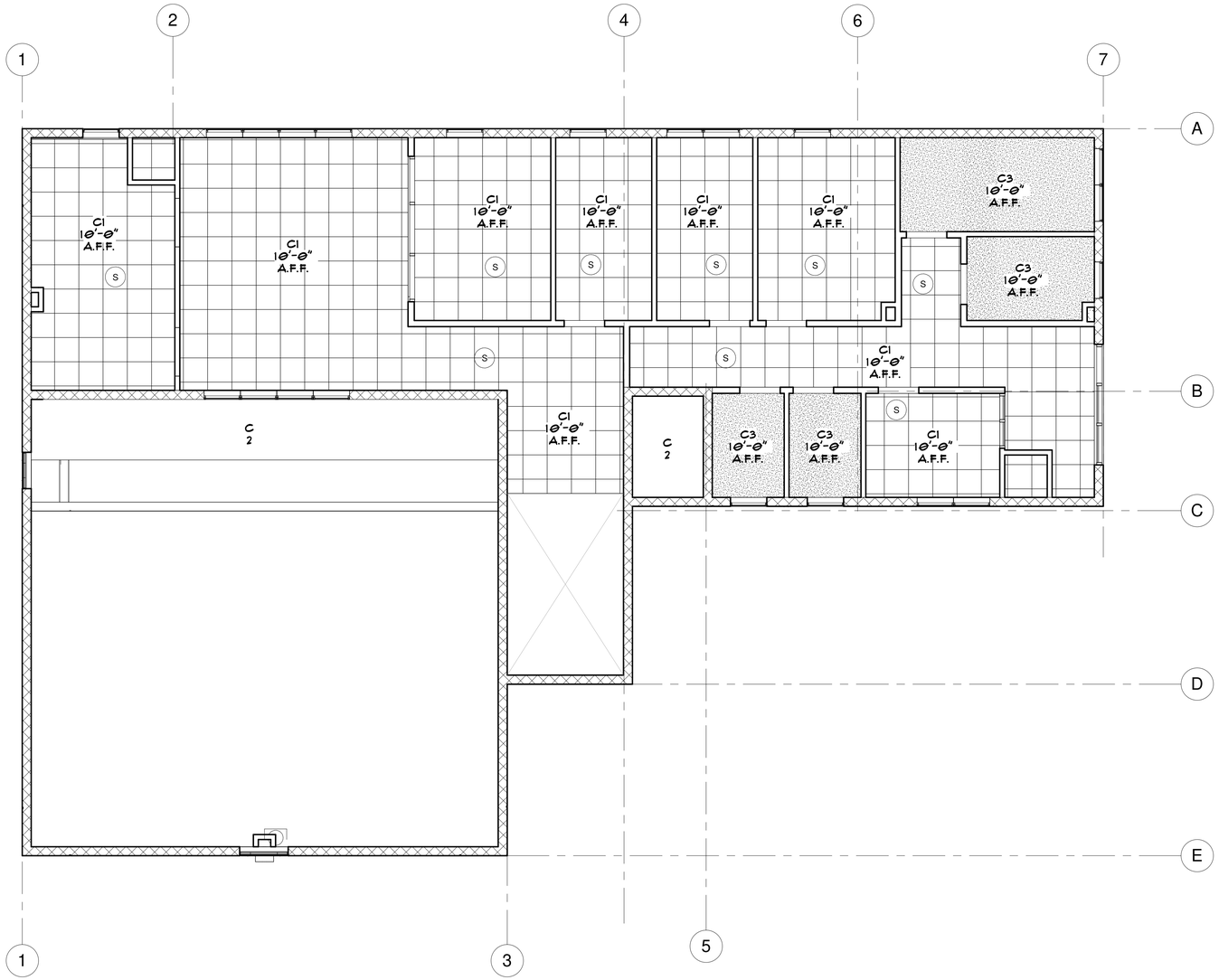
C3 PAINTED GYPUM WALL BOARD



1 SECOND LEVEL REFLECTED CEILING PLAN
3/16" = 1'-0"

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website: www.jaredian.com

CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

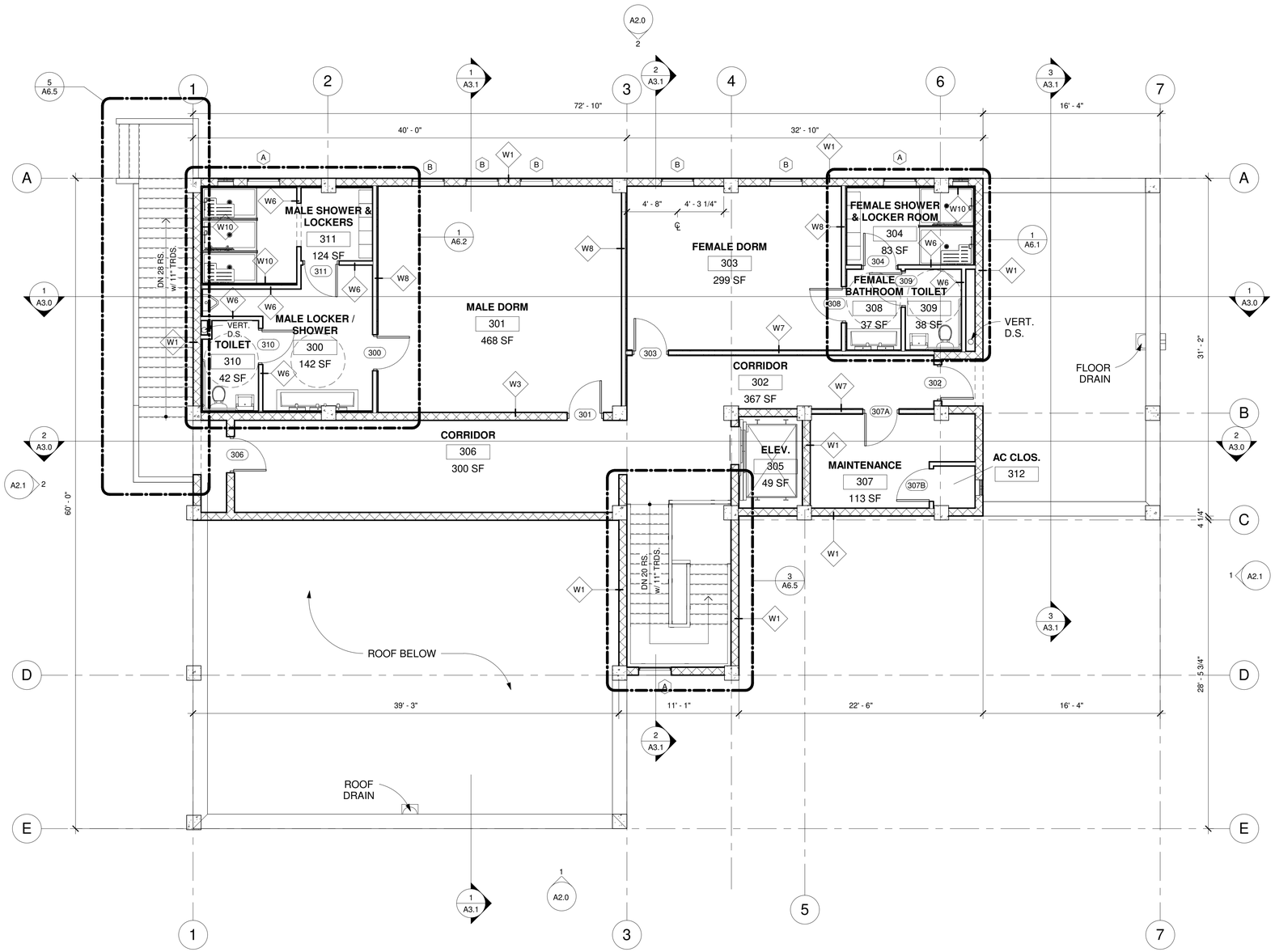
DATE: 09.17.2024
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 2A1.3

SECOND LEVEL REFLECTED CEILING PLAN

REGISTERED ARCHITECT U.S. VIRGIN ISLANDS



1 THIRD LEVEL - IDENTIFICATION PLAN

3/16" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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Architects, Engineers and Construction Managers

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ST. JOHN U.S.V.I

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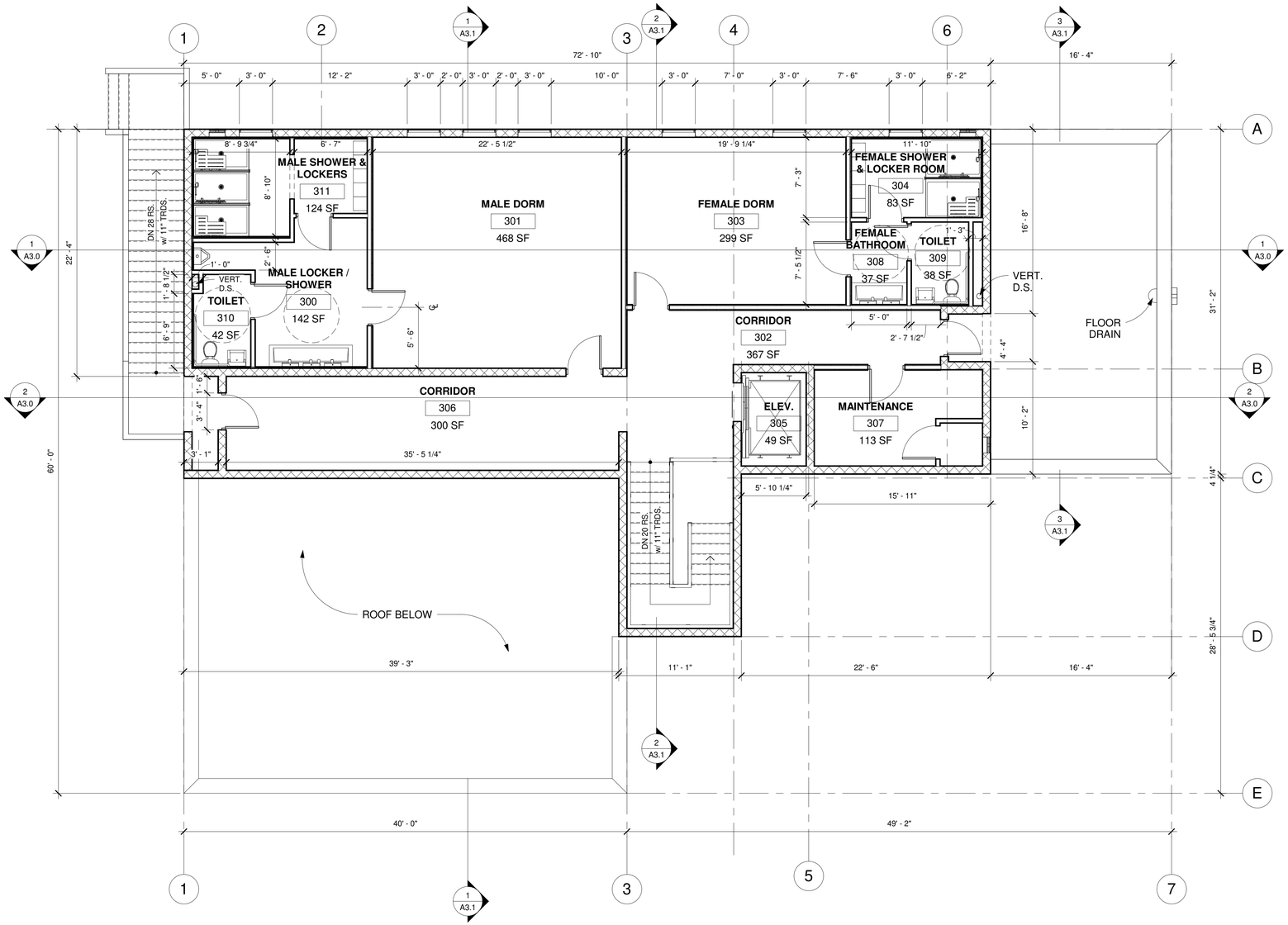
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	3A1.0

THIRD LEVEL IDENTIFICATION PLAN

LICENSED ARCHITECT
U.S. VIRGIN ISLANDS



1 THIRD LEVEL - DIMENSION PLAN

3/16" = 1'-0"

REVISIONS		
NO.	DATE	REMARKS

CONSULTANTS

JDG Jaredian Design Group
Architects, Engineers and Construction Managers

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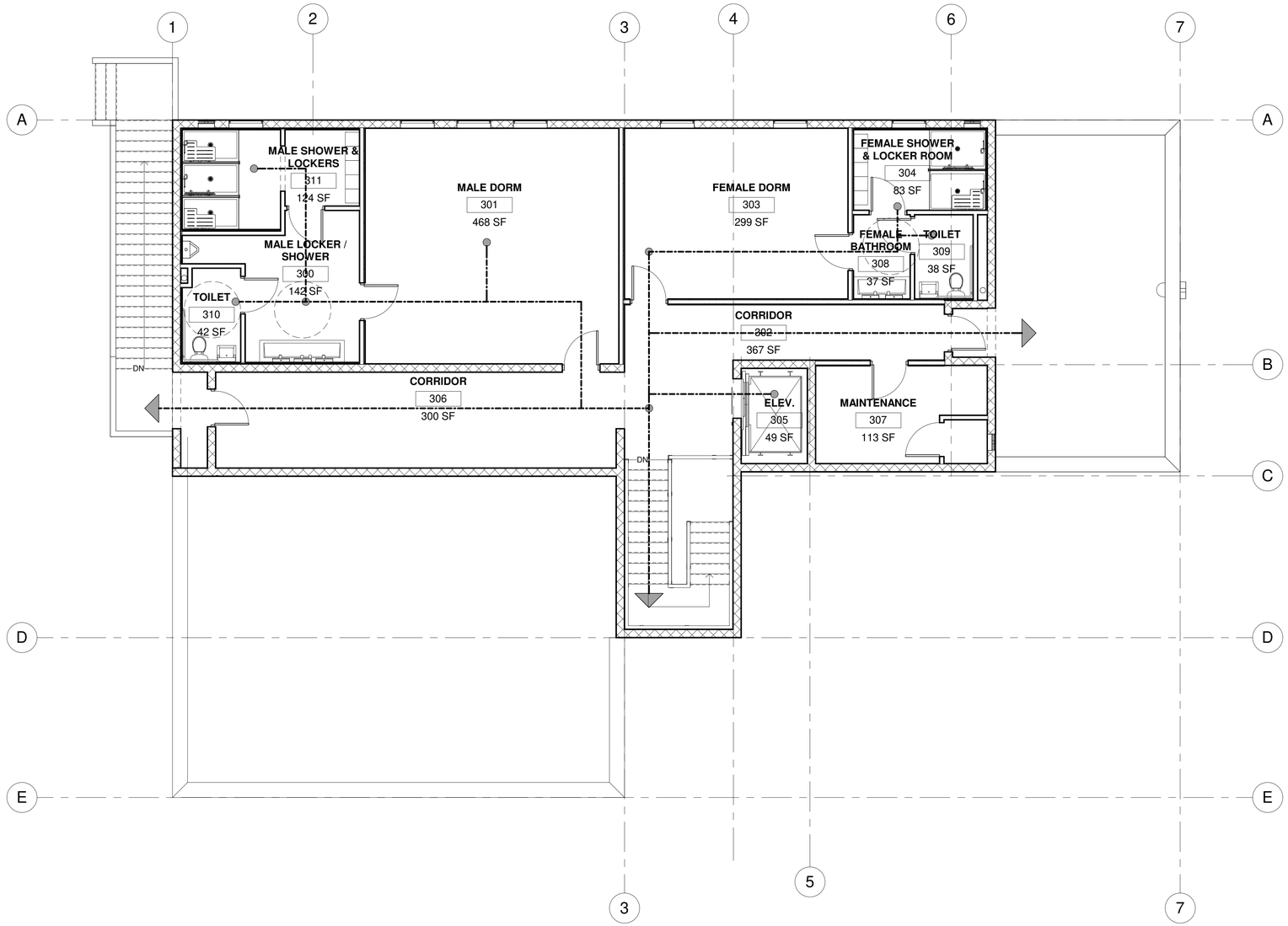
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	3A1.1

THIRD LEVEL DIMENSION PLAN

LICENSED ARCHITECT U.S. VIRGIN ISLANDS



1 THIRD LEVEL LIFE SAFETY PLAN

3/16" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 09.17.2024

DRAWN BY: Author

CHECKED BY: Checker

APPROVED BY: Approver

PROJECT NO.: 23-005.C

CONTRACT NO.: -

SHEET NO.: 3A1.2

THIRD LEVEL LIFE SAFETY PLAN

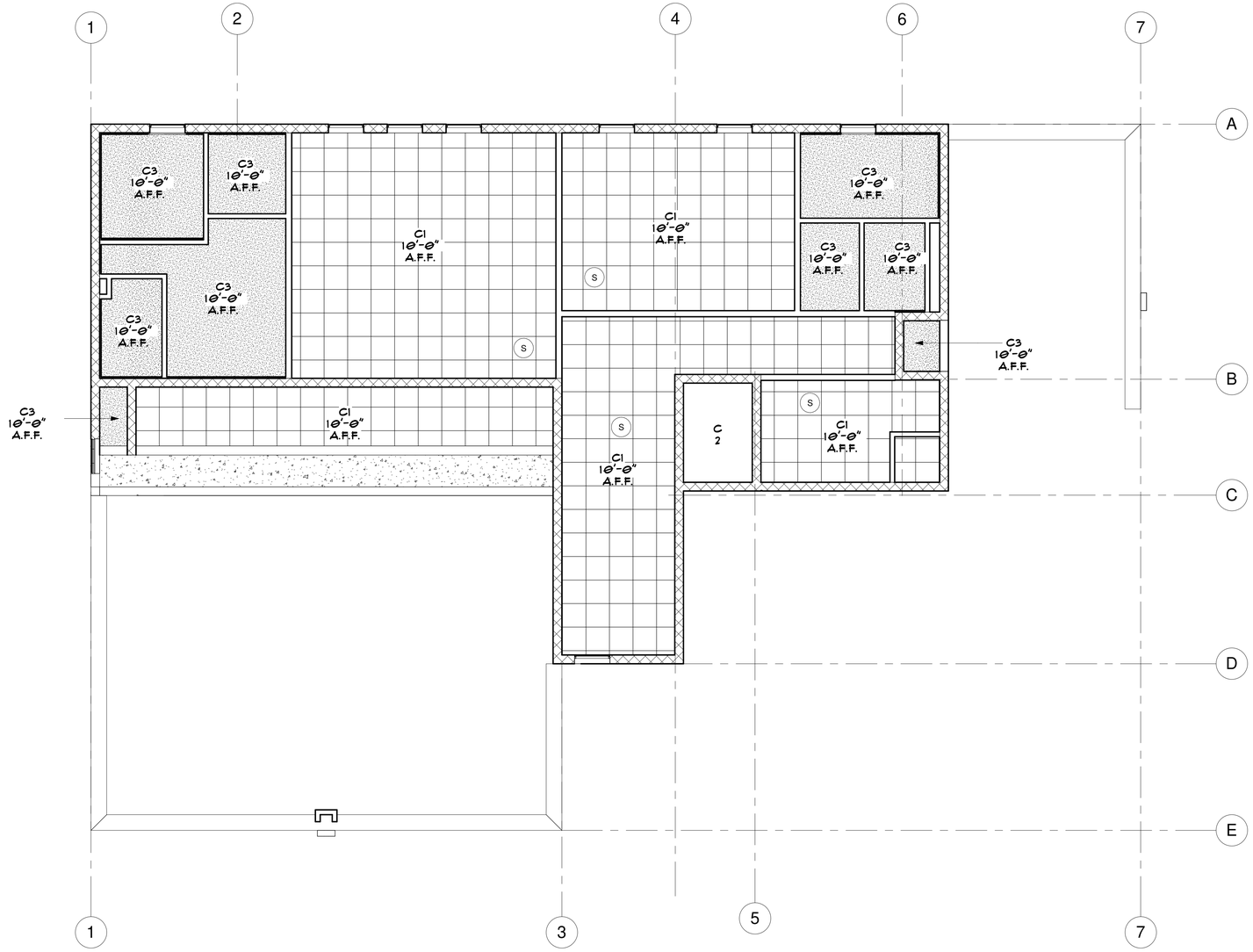
LICENSED ARCHITECT U.S.V.I. & BRITISH VIRGIN ISLANDS

CEILING

C1 24X24 ACOUSTICAL CEILING TILE LAYOUT CENTERED IN ROOM OR CORRIDOR UNLESS OTHERWISE NOTED - ARMSTRONG BEVELED TEGULAR 3/16" INTERLUDE DIMENSIONAL TEE SYSTEM WITH 24"X24"X1" OPTIMA OPEN PLAN CEILING TILES (COLOR WHITE)

C2 PAINTED EXPOSED STRUCTURE

C3 PAINTED GYPUM WALL BOARD



1 THIRD LEVEL REFLECTED CEILING PLAN
3/16" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

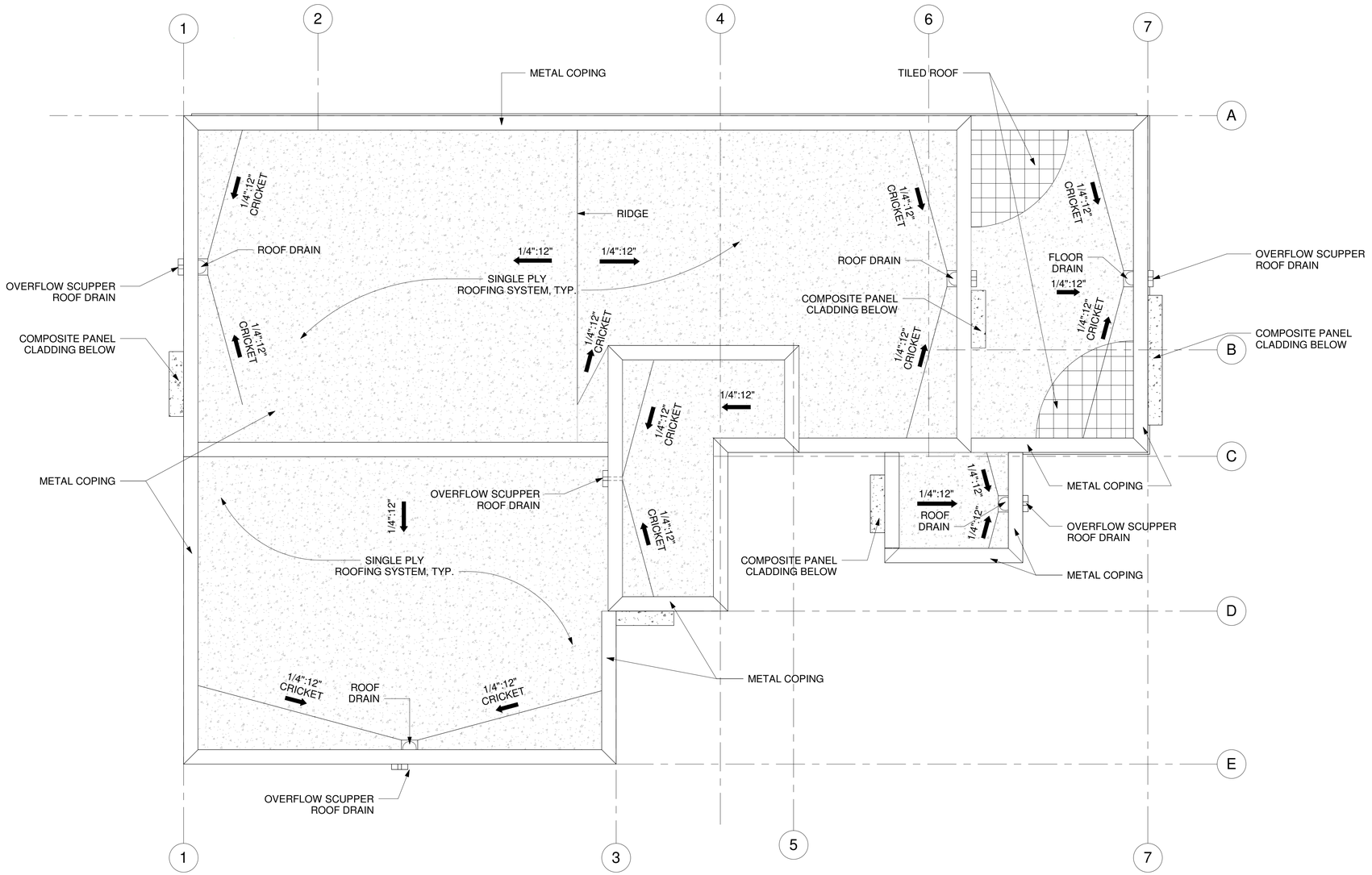
ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 09.17.2024
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 3A1.3

THIRD LEVEL REFLECTED CEILING PLAN



1 ROOF LEVEL
3/16" = 1'-0"

REVISIONS		
NO.	DATE	REMARKS

CONSULTANTS

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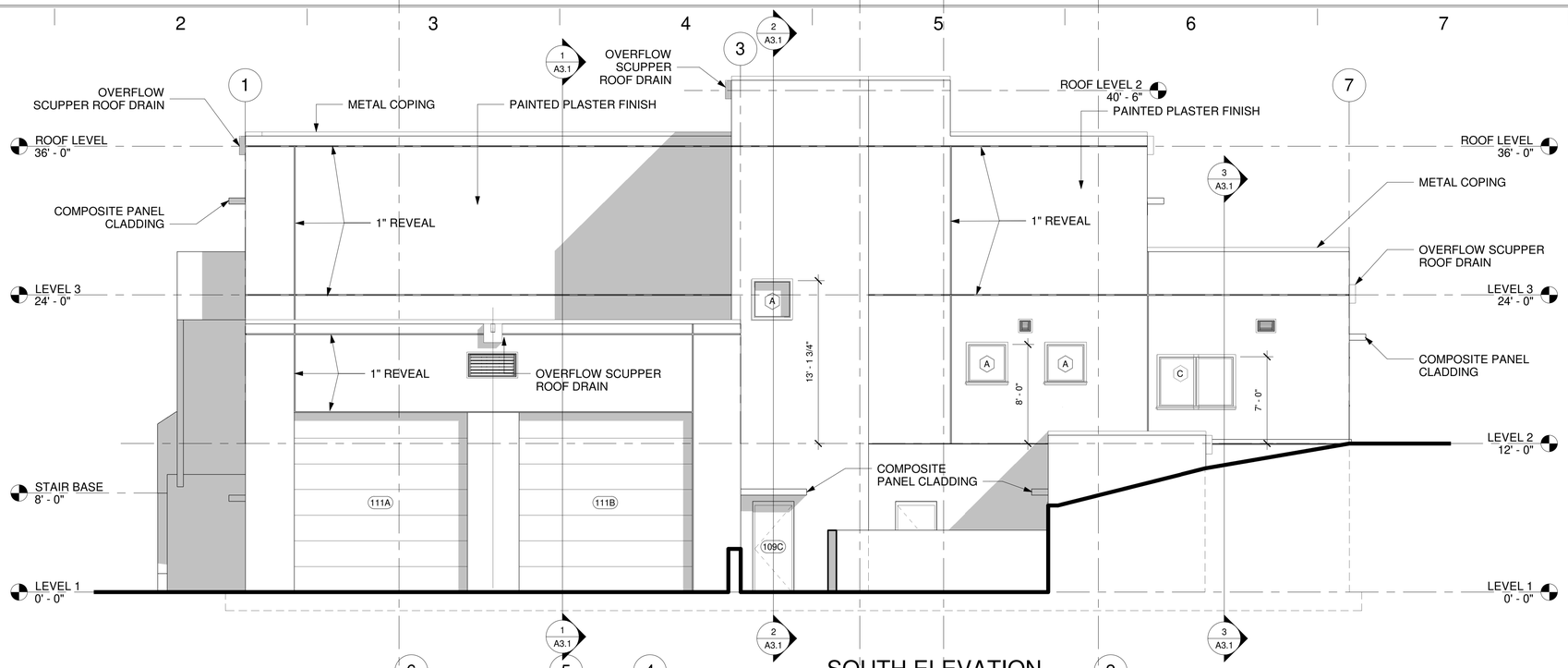
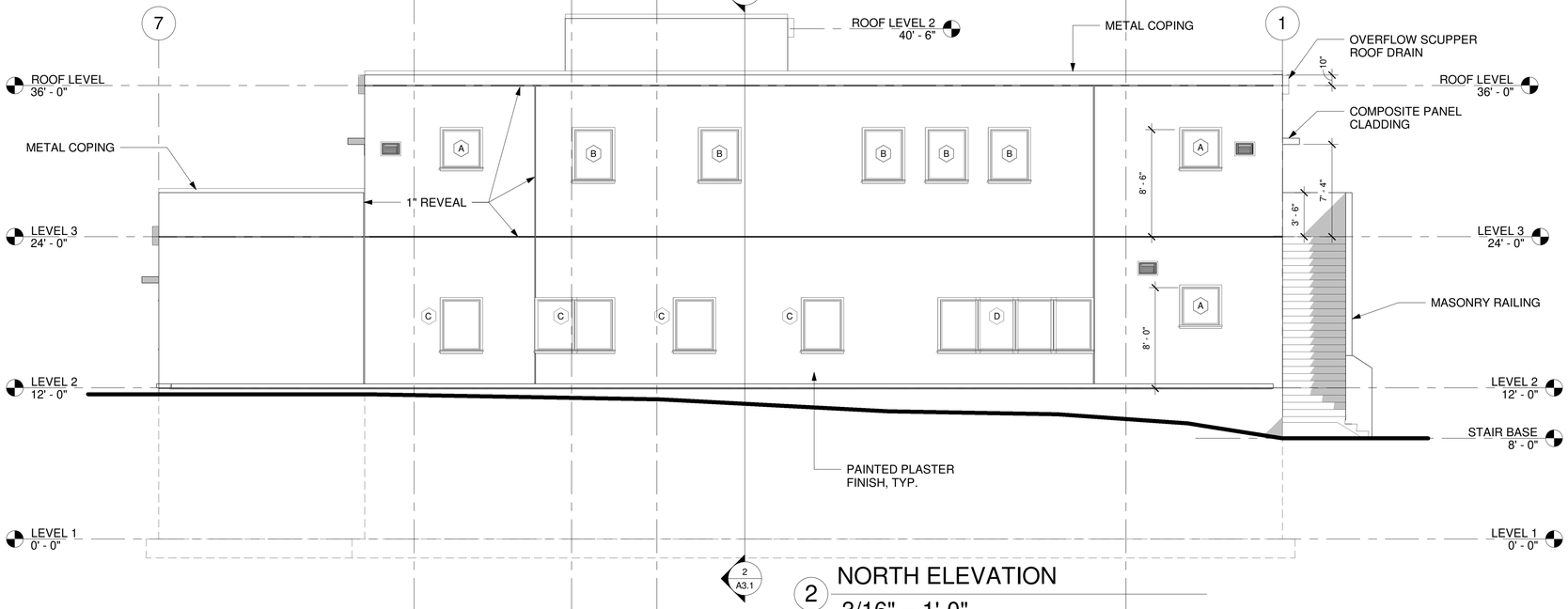
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	4A1.0

ROOF PLAN

REGISTERED ARCHITECT
U.S.A.
U.S. VIRGIN ISLANDS



1 SOUTH ELEVATION
3/16" = 1'-0"



2 NORTH ELEVATION
3/16" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	R.O.P
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.

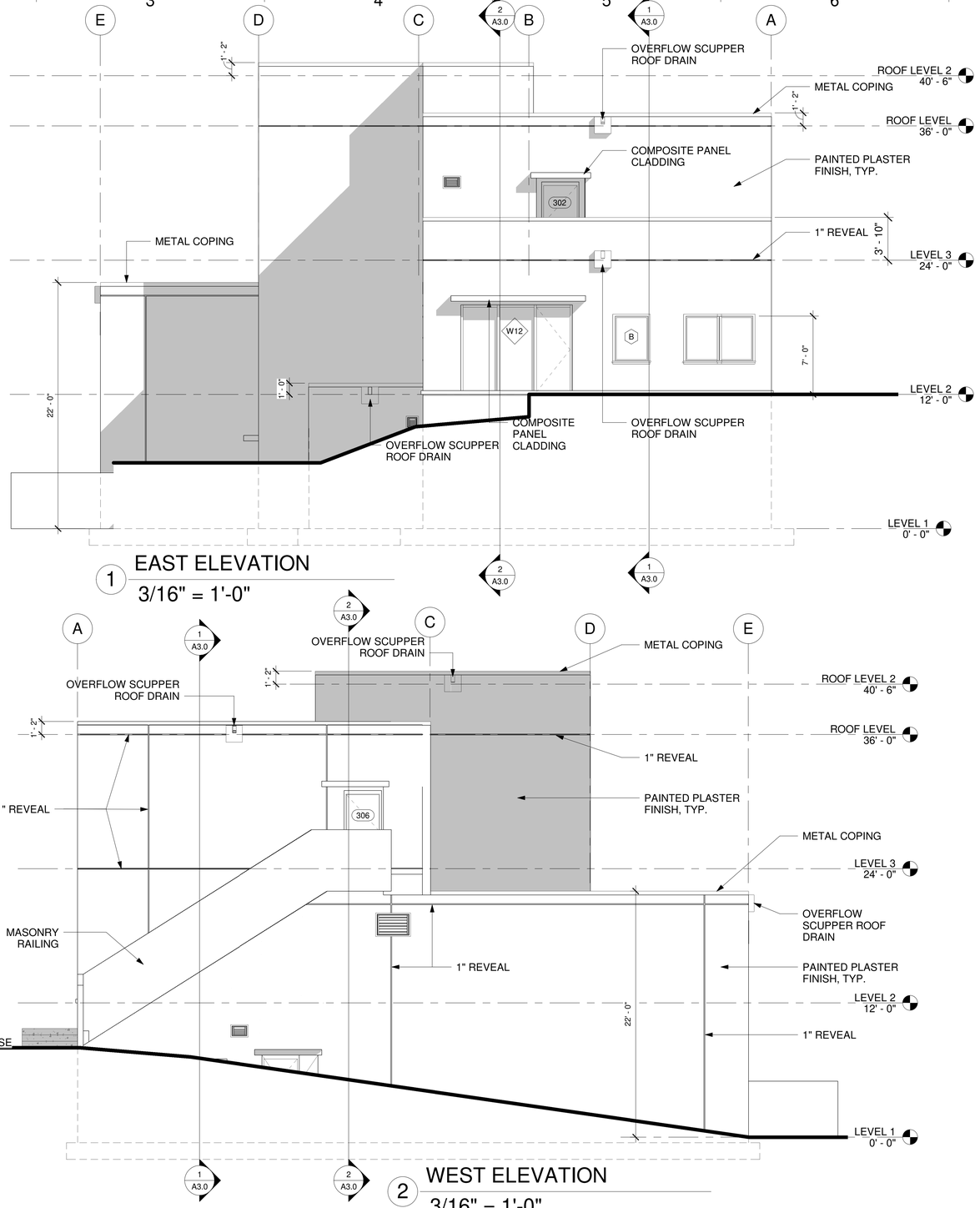
PROJECT NO.: 23-005.C

CONTRACT NO.: -

SHEET NO.: A2.0

BUILDING ELEVATIONS

LICENSED ARCHITECT U.S.V.I. & VIRGIN ISLANDS U.S.A.



1 EAST ELEVATION

3/16" = 1'-0"

2 WEST ELEVATION

3/16" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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ST. JOHN U.S.V.I

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DRAWN BY:	Author
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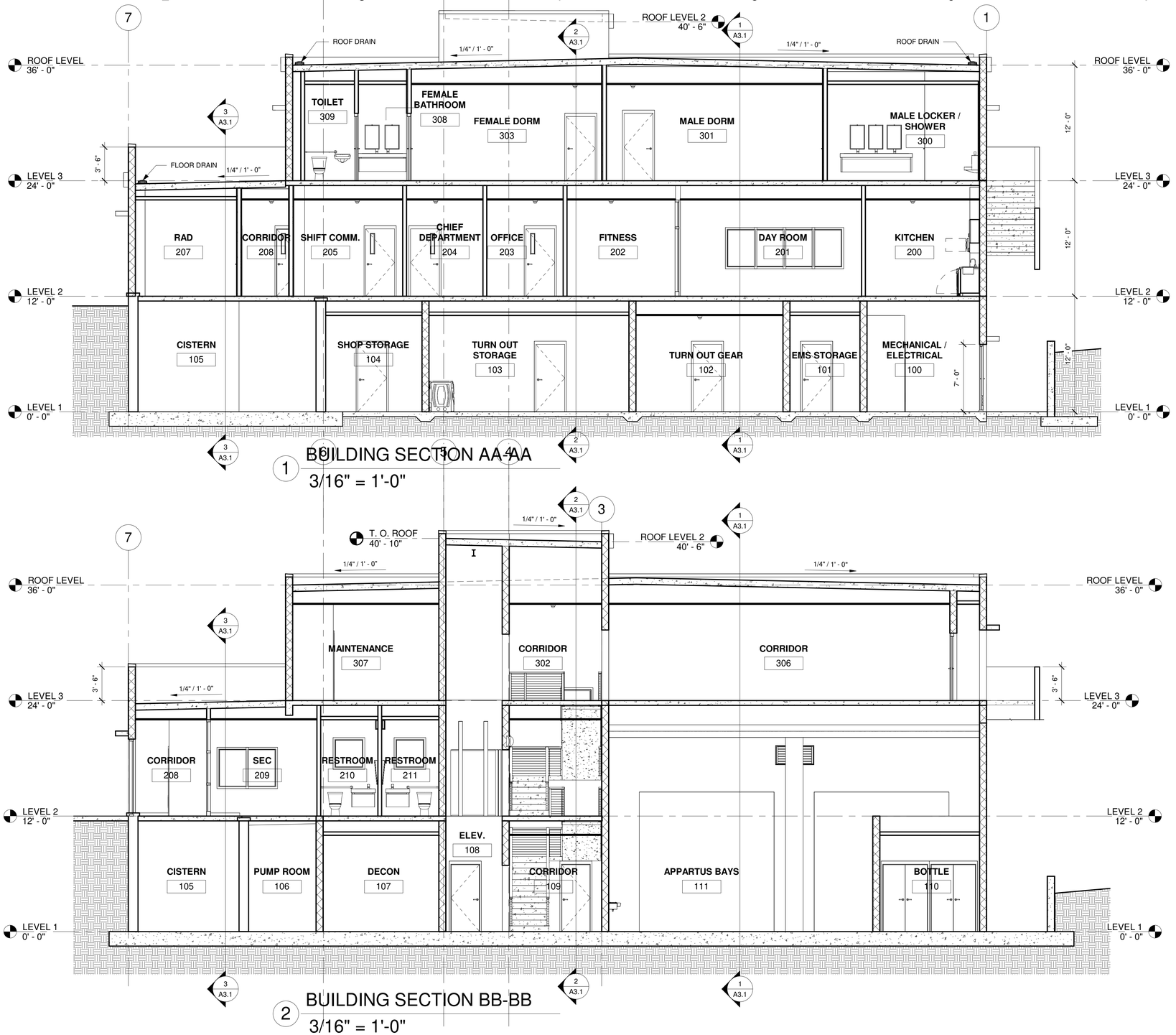
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	A2.1

BUILDING ELEVATIONS

REGISTERED ARCHITECT
U.S. VIRGIN ISLANDS



REVISIONS

NO.	DATE	REMARKS

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DATE: 09.17.2024

DRAWN BY: Author

CHECKED BY: Checker

APPROVED BY: Approver

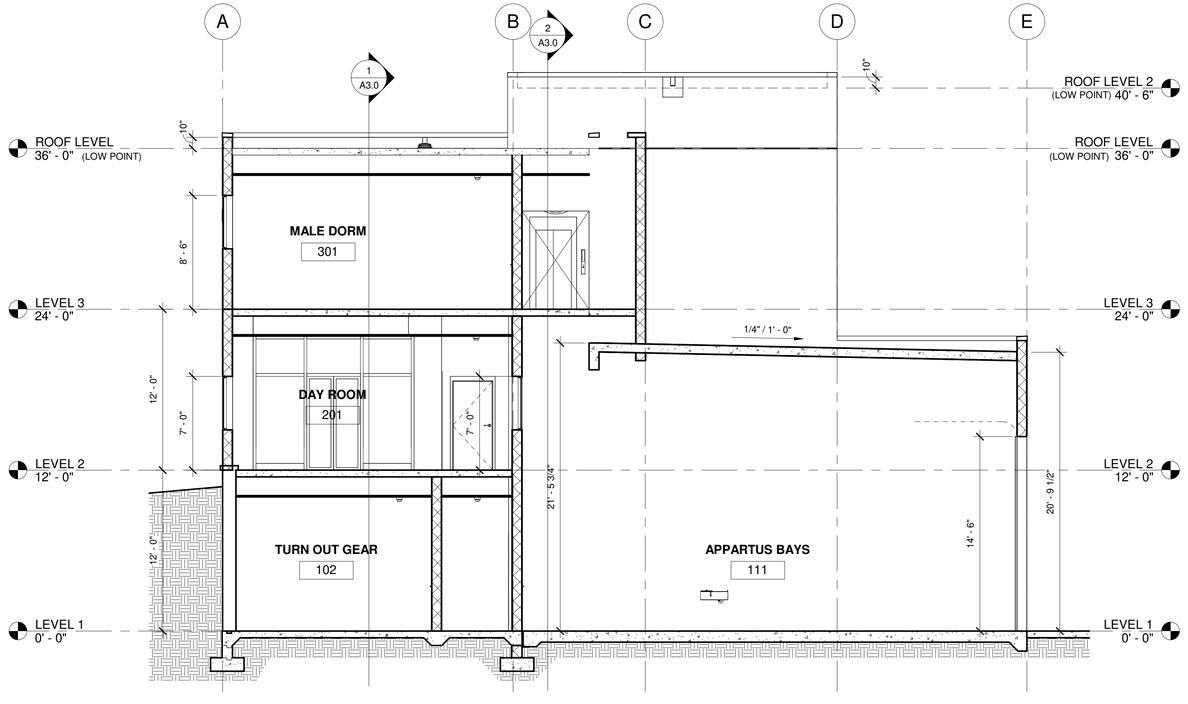
PROJECT NO.: 23-005.C

CONTRACT NO.: -

SHEET NO.: A3.0

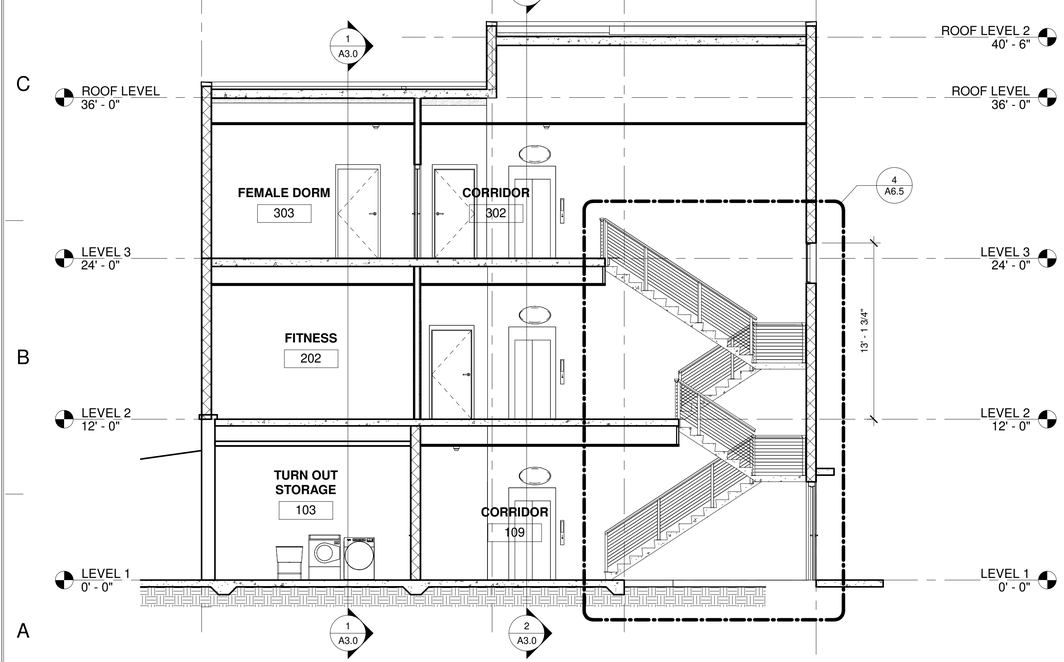
BUILDING SECTIONS

LICENSED ARCHITECT U.S.V.I. & VIRGIN ISLANDS USA



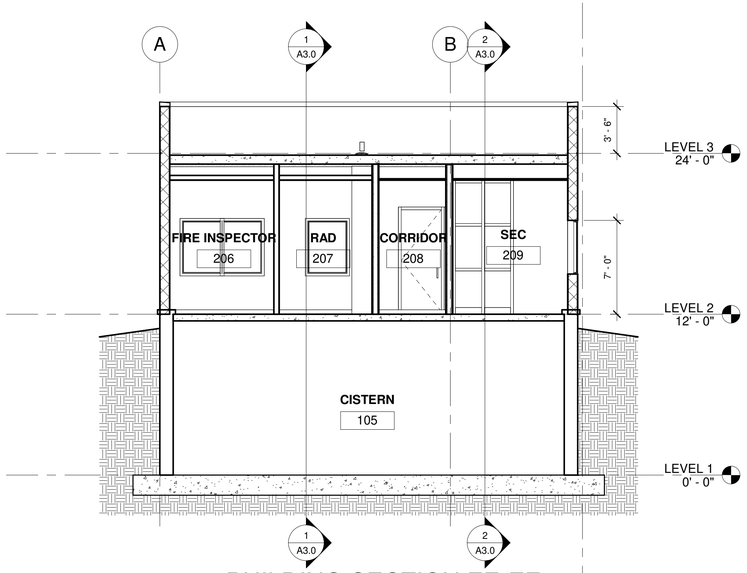
1 BUILDING SECTION CC-CC

3/16" = 1'-0"



2 BUILDING SECTION DD-DD

3/16" = 1'-0"



3 BUILDING SECTION EE-EE

3/16" = 1'-0"

REVISIONS		
NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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ST. JOHN U.S.V.I

DATE:	09.17.2024
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APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	A3.1

BUILDING SECTIONS

REGISTERED ARCHITECT
U.S. VIRGIN ISLANDS

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALL				CEILING			REMARKS
		FIN	FIN	NORTH FIN	SOUTH FIN	EAST FIN	WEST FIN	FIN	HEIGHT	MOLDING	
100	MECHANICAL / ELECTRICAL										
101	EMS STORAGE										
102	TURN OUT GEAR										
103	TURN OUT STORAGE										
104	SHOP STORAGE										
105	CISTERN										
106	PUMP ROOM										
107	DECON										
108	ELEV.										
109	CORRIDOR										
110	BOTTLE										
111	APPARTUS BAYS										
112	AC CLOS.										
200	KITCHEN										
201	DAY ROOM										
202	FITNESS										
203	OFFICE										
204	CHIEF DEPARTMENT										
205	SHIFT COMM.										
206	FIRE INSPECTOR										
207	RAD										
208	CORRIDOR										
209	SEC										
210	RESTROOM										
211	RESTROOM										
212	ELEV.										
213	AC CLOS.										
214	AC CLOS.										
300	MALE LOCKER / SHOWER										
301	MALE DORM										
302	CORRIDOR										
303	FEMALE DORM										
304	FEMALE SHOWER & LOCKER ROOM										
305	ELEV.										
306	CORRIDOR										
307	MAINTENANCE										
308	FEMALE BATHROOM										
309	TOILET										
310	TOILET										
311	MALE BATHROOM										
312	AC CLOS.										
Grand total: 41											

DOOR SCHEDULE

DOOR MARK	DESCRIPTION	Type Mark	WIDTH	HEIGHT	THICKNESS	FUNCTION	COMMENTS
100A	EXTERNAL LOUVER DOOR: 7'-0"	07	6' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
100B	SINGLE_FLUSH_DOOR_W_LOUVER_5257: 36" X 7'-0"	12	3' - 0"	7' - 0"	0' - 2"	Interior	
101	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
102	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
103	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
104	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
106	SINGLE_FLUSH_DOOR_W_LOUVER_5257: 36" X 7'-0"	12	3' - 0"	7' - 0"	0' - 2"	Interior	
107	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
108	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
109A	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
109B	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
109C	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
110A	Door-Passage-Double-Flush: 56" x 84"	08	4' - 8"	7' - 0"	0' - 1 3/4"	Exterior	
110B	Door-Passage-Double-Flush: 56" x 84"	08	4' - 8"	7' - 0"	0' - 1 3/4"	Exterior	
111A	Door-Overhead-Sectional: 14'-6" x 14'-0"	09	14' - 0"	14' - 6"	0' - 1 1/2"	Exterior	
111B	Door-Overhead-Sectional: 14'-6" x 14'-0"	09	14' - 0"	14' - 6"	0' - 1 1/2"	Exterior	
200	SINGLE_FLUSH_DOOR_W_LOUVER_5257: 36" X 7'-0"	12	3' - 0"	7' - 0"	0' - 2"	Interior	
202	Curtain Wall Double Sliding Door: Store Front Double Door	04	4' - 0"	7' - 0"	0' - 3"	Exterior	
203	Door-Passage-Single-Vision_Lite: 36" x 84"	03	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
204	Door-Passage-Single-Vision_Lite: 36" x 84"	03	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
205	Door-Passage-Single-Vision_Lite: 36" x 84"	03	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
206	Door-Passage-Single-Vision_Lite: 36" x 84"	03	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
207	Door-Passage-Single-Vision_Lite: 36" x 84"	03	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
208A	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
208B	Door-Curtain-Wall-Single-Glass: Door-Curtain-Wall-Single-Glass	01	3' - 0"	7' - 7"		Exterior	
208C	SINGLE_FLUSH_DOOR_W_LOUVER_5257: 36" X 7'-0"	12	3' - 0"	7' - 0"	0' - 2"	Interior	
209	Door-Passage-Single-Vision_Lite: 36" x 84"	03	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
210	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
211	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
300	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
301	Door-Passage-Single-Flush: 36" x 84"	10	3' - 0"	7' - 0"	0' - 1 3/4"	Exterior	
302	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
303	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
304	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
306	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
307A	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
307B	SINGLE_FLUSH_DOOR_W_LOUVER_5257: 36" X 7'-0"	12	3' - 0"	7' - 0"	0' - 2"	Interior	
308	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
309	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
310	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
311	Door-Passage-Single-Flush: 36" x 80"	02	3' - 0"	6' - 8"	0' - 1 3/4"	Exterior	
Grand total: 41							

INTERIOR FINISH SCHEDULE KEY

FLOOR

F1 IMPERVIOUS TILE FLOORING

F2 EPOXY RESIN SEAMLESS FIELD APPLIED FLOORING

CEILING

C1 24X24 ACOUSTICAL CEILING TILE - ARMSTRONG BEVELED TEGULAR 3/16" INTERLUDE DIMENSIONAL TEE SYSTE, WITH 24"X24"X1" OPTIMA OPEN PLAN CEILING TILES (COLOR WHITE)

C2 PAINTED EXPOSED STRUCTURE

C3 PAINTED GYPUM WALL BOARD

WALL BASE

B1 VINYL COVE BASE

WALL FINISH

P1 PAINTED FINISH

P2 PLASTER FINISH

WALL MATERIAL

T TILE

CMU CONCRETE MASONRY UNIT

CWB CEMENT WALL BOARD

GWB MOISTURE & MILDEW RESISTANT GYPSUM WALL BOARD

PNT PAINTED FINISH

CONC. CONCRETE

WINDOW SCHEDULE

TYPE	DESCRIPTION	SIZE WIDTH	SIZE HEIGHT	HEADER HEIGHT A.F.F.	MANUFACTURER	GLASS TYPE	MATERIAL	COLOR	REMARKS
A	36" x 36"	3' - 0"	3' - 0"						
B	36" x 48"	3' - 0"	4' - 0"						
C	TWIN 36" x 48"	6' - 0"	4' -0"						
D	QUAD 36" x 48"	12' -l0"	4' - 0"						
N	LW 36 X 24	3' - 0"	2' - 0"						
O	LW 48 X 24	4' - 0"	2' - 0"						
P	LW 12 X 12	1' - 0"	1' - 0"						

WALL SCHEDULE

TYPE MARK	WALL TYPE	FAMILY	TYPE	WIDTH	DESCRIPTION
		Basic Wall	<varies>	<varies>	<varies>
W1		Basic Wall	8" CMU - TYPE A	0' - 9"	8" CMU WALL REINFORED WITH 1-#6 VERTICAL REINF. @ 8" O.C. IN FULLY GROUTED CELL AND DURO-WALL HORIZONTAL REINF. @ 16" O.C.
W3		Basic Wall	8" CMU - TYPE B	0' - 9"	8" CMU WALL REINFORED WITH 1-#5 VERTICAL REINF. @ 8" O.C. IN FULLY GROUTED CELL AND DURO-WALL HORIZONTAL REINF. @ 16" O.C.
W4		Basic Wall	8" CONCRETE - TYPE A	0' - 9 1/2"	8" POURED CONCRETE WALL REINFORED WITH 1-#6 VERTICAL REINF. @ 10" O.C. AND 1-#5 HORIZONTAL REINF. @ 10" O.C.
W6		Basic Wall	5" STUD WALL - TYPE A	0' - 5"	ONE LAYER 5/8" SHEETROCK WATER & MOLD RESISTANT GYPSUM PANEL (UL TYPE SCX) WITH 3-5/8" STEEL STUDS, EQ20 (0.018"), AT 16" O.C. 3-1/2" FIBERGLASS INSULATION. ONE LAYER 5/8" SHEETROCK GYPSUM PANEL (UL TYPE SCX)
W7		Basic Wall	5" STUD WALL - TYPE B	0' - 6"	TWO LAYERS 5/8" SHEETROCK WATER & MOLD RESISTANT GYPSUM PANEL (UL TYPE SCX) WITH 3-5/8" STEEL STUDS, EQ20 (0.018"), AT 16" O.C. 2-1/2". FIBERGLASS INSULATION TWO LAYERS 5/8" SHEETROCK GYPSUM PANEL (UL TYPE SCX)
W8		Basic Wall	6" STUD WALL	0' - 6"	TWO LAYERS 5/8" SHEETROCK ECOSMART GYPSUM PANEL (UL TYPE ULIX™) WITH 1/2" RESILIENT CHANNEL, 25 GA. (0.018"), 24" [610 MM] O.C. 3-5/8" STEEL STUDS, EQ25 (0.015"), AT 24" O.C. 3-1/2" FIBERGLASS INSULATION ONE LAYER 5/8" [15.9 MM] SHEETROCK ECOSMART GYPSUM PANEL (UL TYPE ULIX™)
W9		Basic Wall	CONCRETE - 12" EXT	1' - 0"	12" POURED CONCRETE WALL REINFORCED WITH #6 VERTICAL REINF. @ 8" O.O. AND #5 HORIZONTAL REINF. 8" O.C. EACH FACE
W10		Basic Wall	FURRED WALL WITH 5/8" CEMENT BOARD	0' - 1 1/2"	1-1/2" FURRED WALL WITH METAL 7/8" FURRING CHANNEL SYSTEMS AND SINGLE LAYER 5/8" MOISTURE AND MOLD RESISTANT CEMENT BOARD
W11		Curtain Wall	STOREFRONT - CURTAIN WALL		IMPACT RESISTANT WINDOW GLASS ASSEMBLY WITH 2-1/2 X 6" METAL BORDER AND MULLIONS.
W13		Curtain Wall	Storefront		IMPACT RESISTANT WINDOW GLASS ASSEMBLY WITH 2-1/2 X 6" METAL BORDER AND MULLIONS.

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

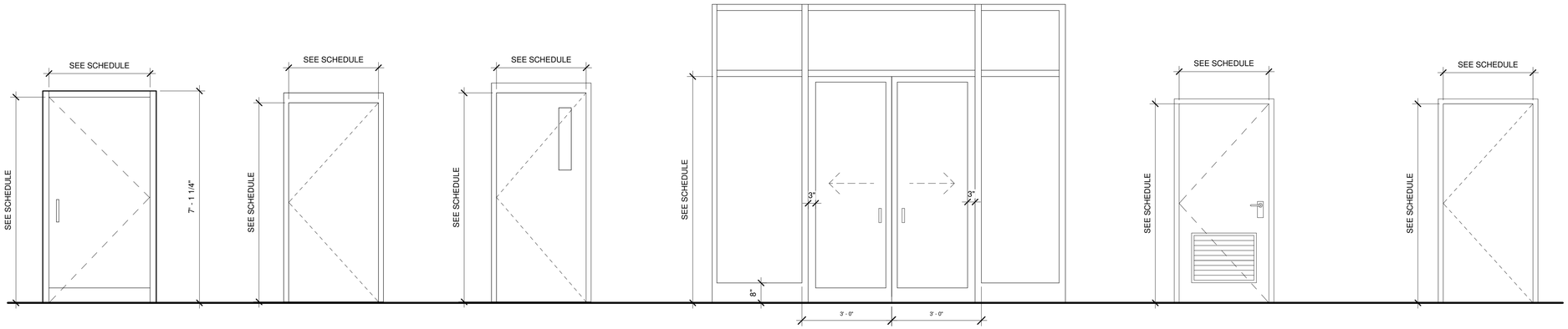
DATE: 09.17.2024
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

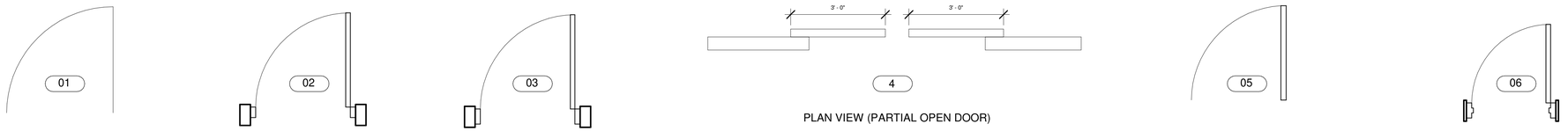
PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: A4.0

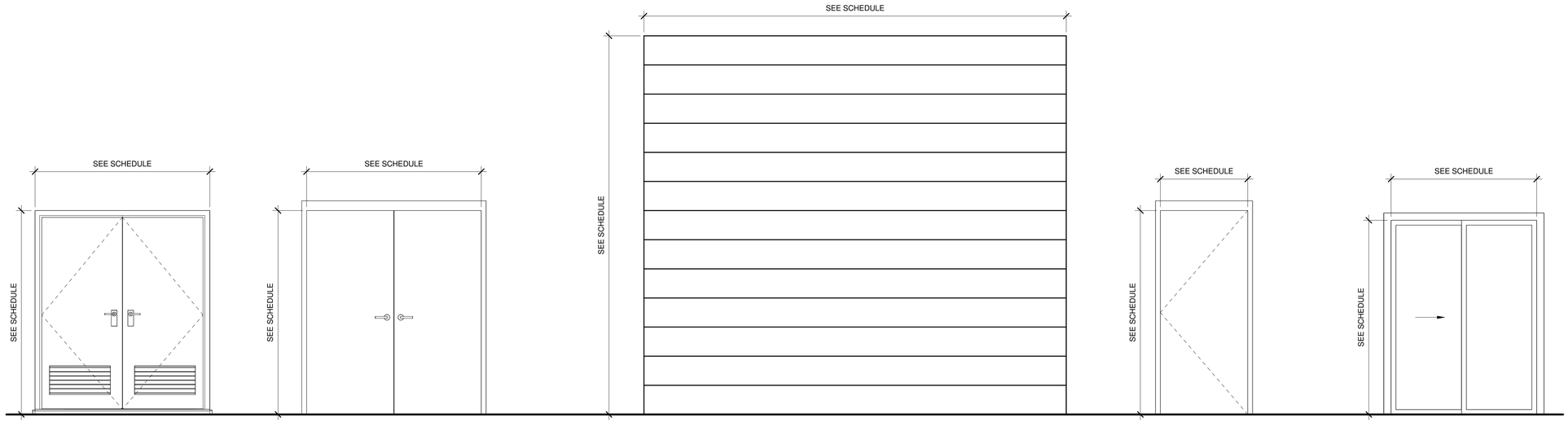
SCHEDULES

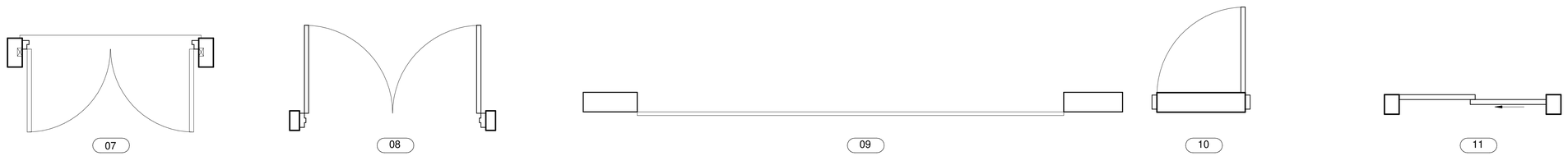
LICENSED ARCHITECT U.S. VIRGIN ISLANDS





PLAN VIEW (PARTIAL OPEN DOOR)





DOOR ELEVATIONS

1/2" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

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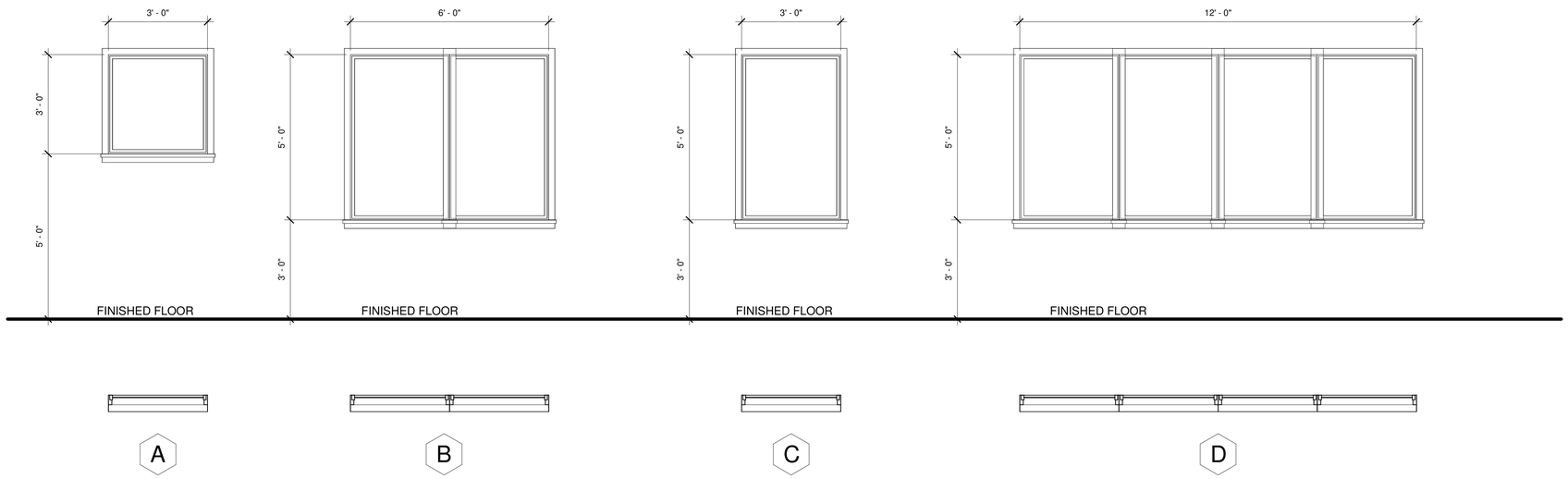
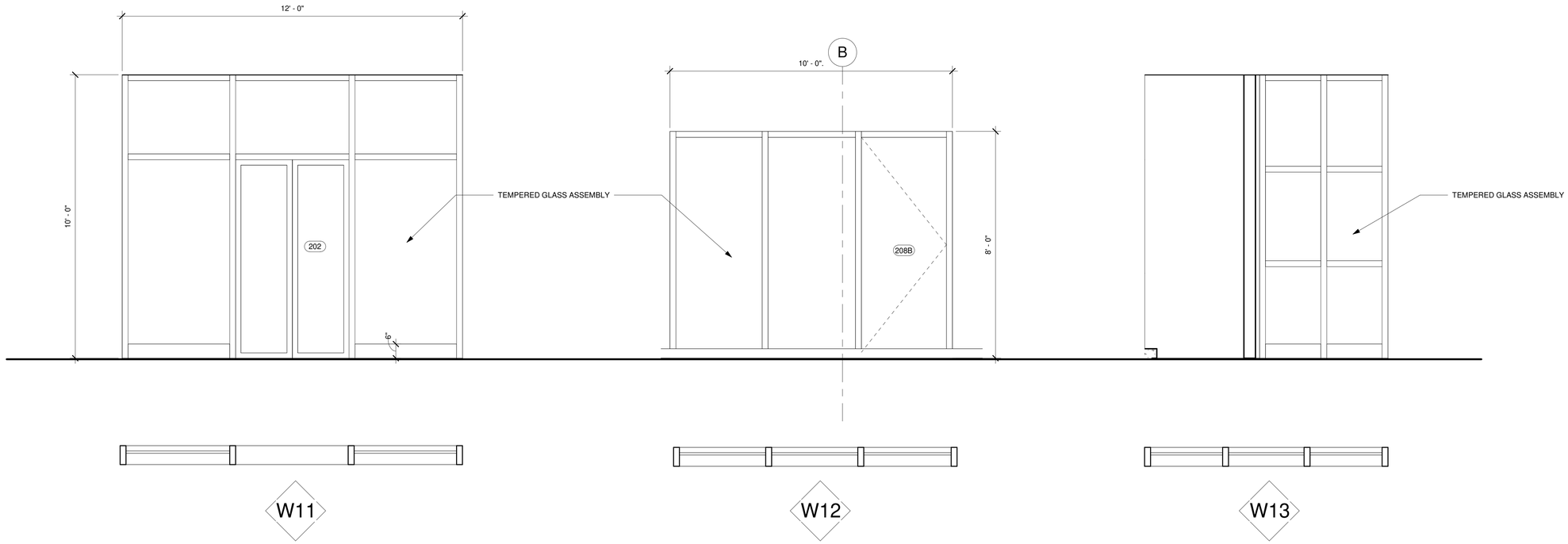
DOOR ELEVATIONS





REVISIONS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver

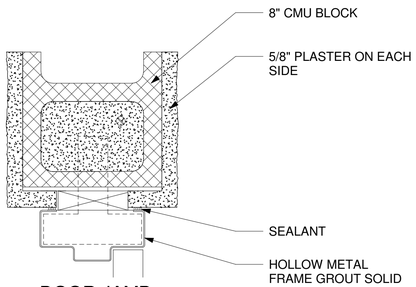
PROJECT NO.: 23-005.C

CONTRACT NO.: -

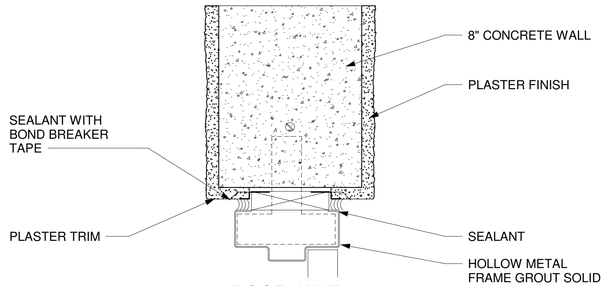
SHEET NO.: A4.2

WINDOW ELEVATIONS

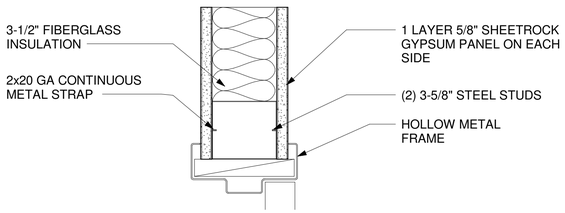
REGISTERED ARCHITECT
U.S. VIRGIN ISLANDS



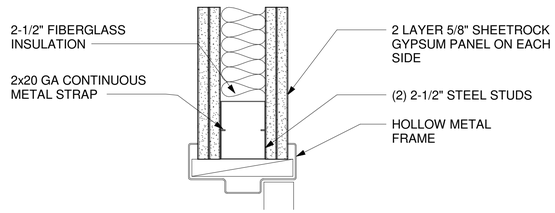
DOOR JAMB
8" CMU



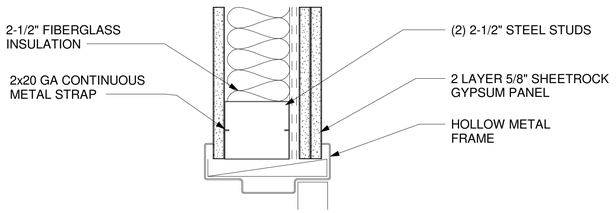
DOOR JAMB
8" CONCRETE



DOOR JAMB
5" STUD TYPE A



DOOR JAMB
5" STUD TYPE B



DOOR JAMB
6" STUD

1 JAMB DETAILS

3" = 1'-0"

REVISIONS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	B.J.S.
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.

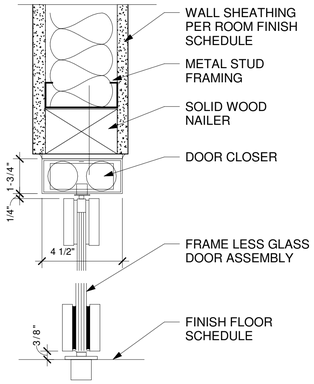
PROJECT NO.: 23-005.C

CONTRACT NO.: -

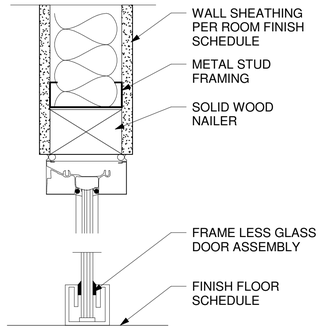
SHEET NO.: A4.3

JAMB DETAILS

LICENSED ARCHITECT
U.S. VIRGIN ISLANDS
USA



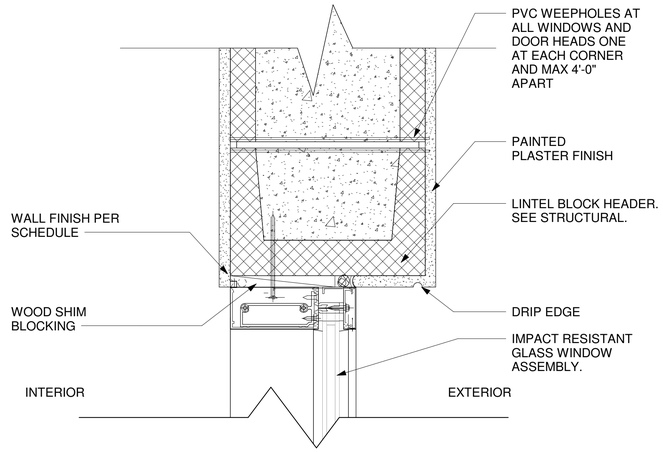
HEADER DETAIL AT DOOR



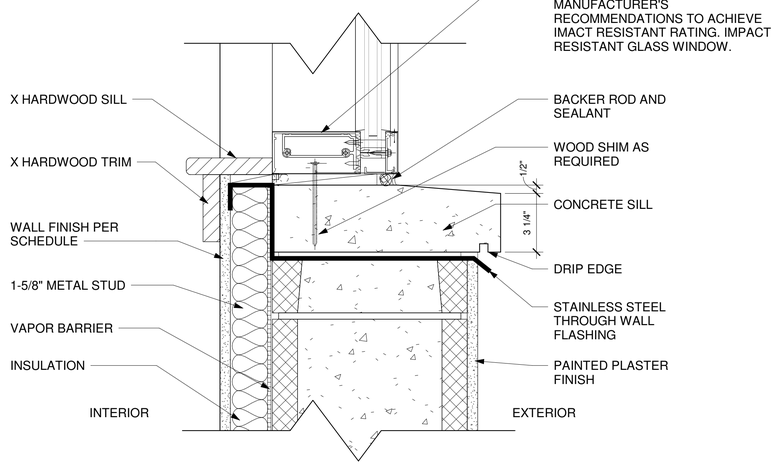
HEADER DETAIL AT GLASS

1 HEADER AND JAMB DETAILS

3" = 1'-0"



WINDOW HEADER DETAIL



WINDOW SILL DETAIL

2 WINDOW HEADER AND SILL DETAIL

3" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

JDG Jaredian Design Group
Architects, Engineers and Construction Managers

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CRUZ BAY-VIFEMS STATION

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ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	B.J.S.
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.

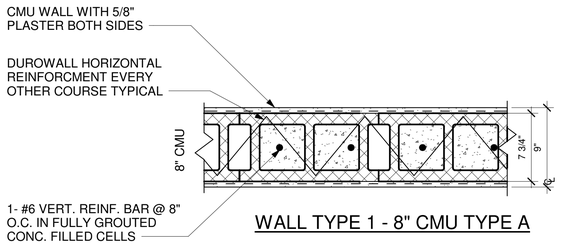
PROJECT NO.: 23-005.C

CONTRACT NO.: -

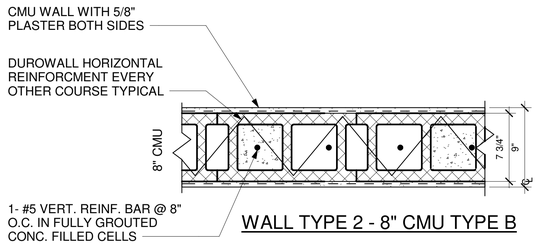
SHEET NO.: A4.4

JAMB DETAILS

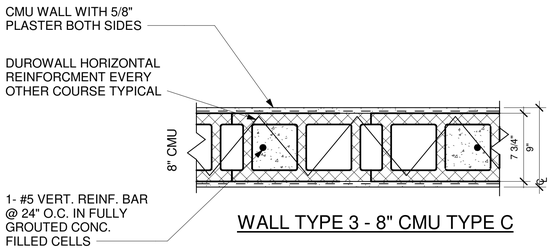
LICENSED ARCHITECT U.S. VIRGIN ISLANDS



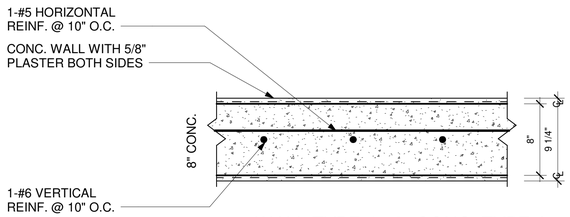
WALL TYPE 1 - 8" CMU TYPE A



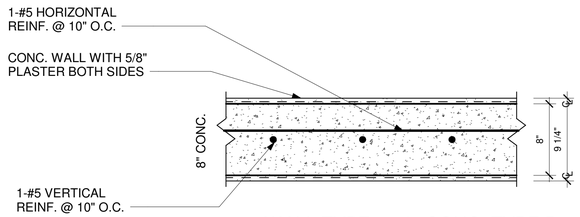
WALL TYPE 2 - 8" CMU TYPE B



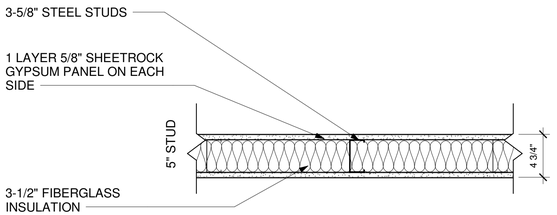
WALL TYPE 3 - 8" CMU TYPE C



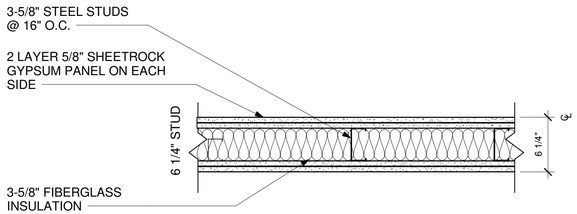
WALL TYPE 4 - 8" CONC. TYPE A



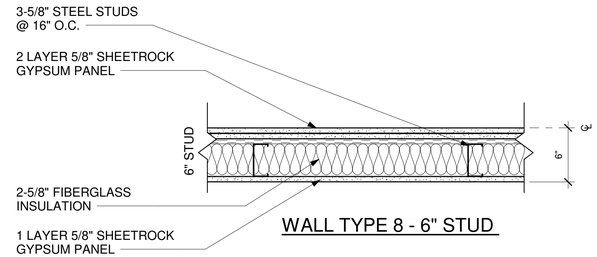
WALL TYPE 5 - 8" CONC. TYPE B



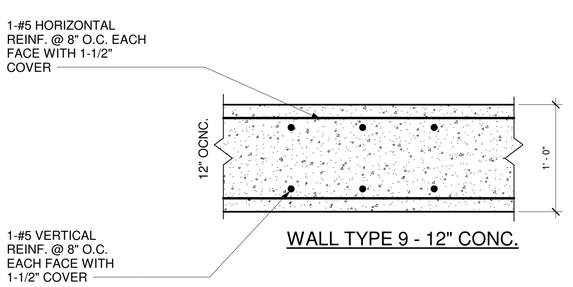
WALL TYPE 6 - 5" STUD TYPE A



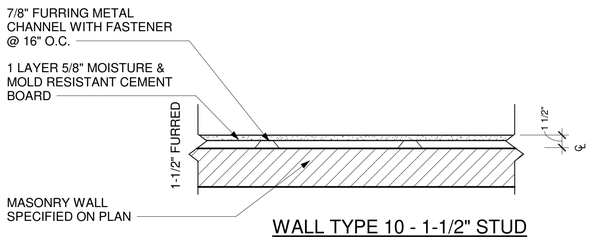
WALL TYPE 7 - 6 1/4" STUD TYPE B



WALL TYPE 8 - 6" STUD



WALL TYPE 9 - 12" CONC.



WALL TYPE 10 - 1-1/2" STUD

1 WALL DETAILS

1 1/2" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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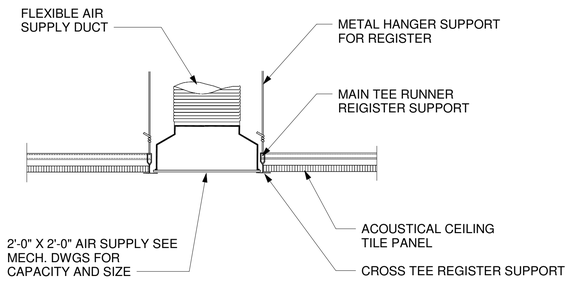
CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

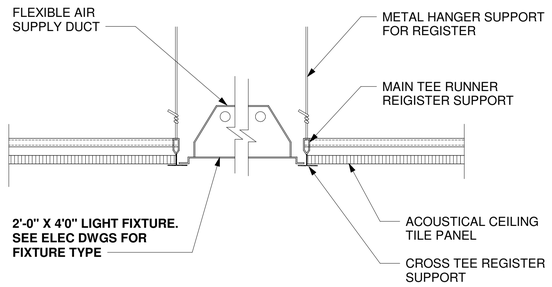
DATE:	09.17.2024
DRAWN BY:	B.J.S.
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	A5.0

WALL DETAILS

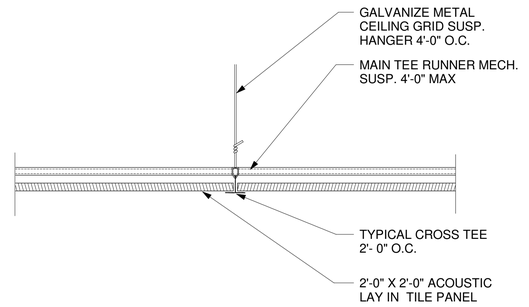
REGISTERED ARCHITECT U.S. VIRGIN ISLANDS



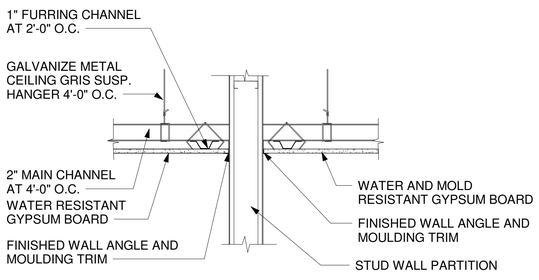
1 CEILING DETAIL AT REGISTER
3/4" = 1'-0"



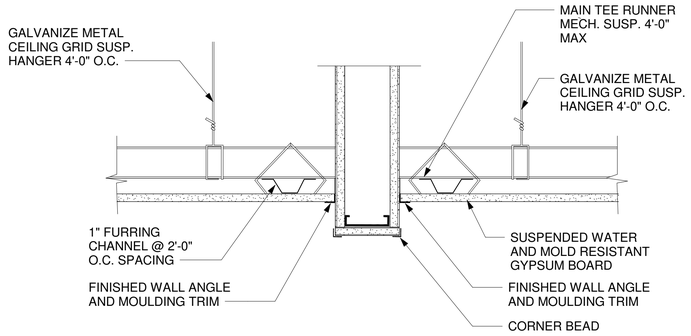
2 CEILING DETAIL AT LIGHT FIXTURE
3/4" = 1'-0"



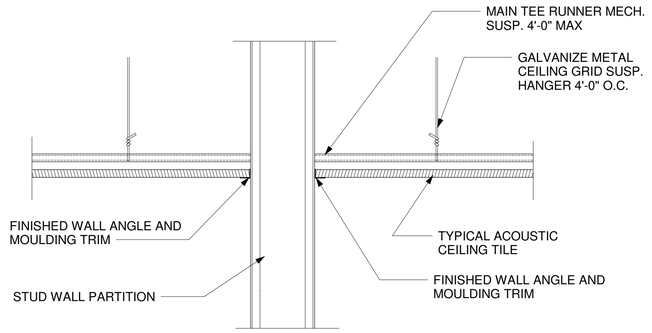
3 TYPICAL SUSPENDED CEILING DETAIL
3/4" = 1'-0"



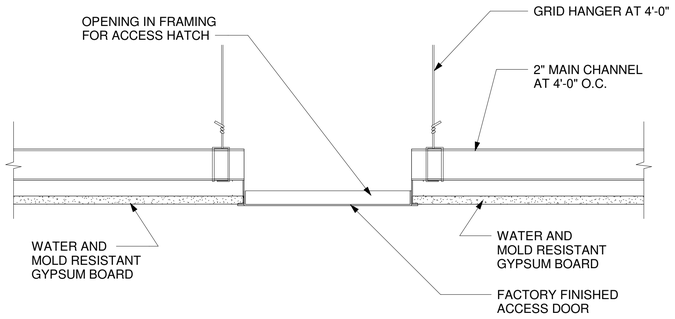
4 GYP. BOARD CEILING DETAIL
3/4" = 1'-0"



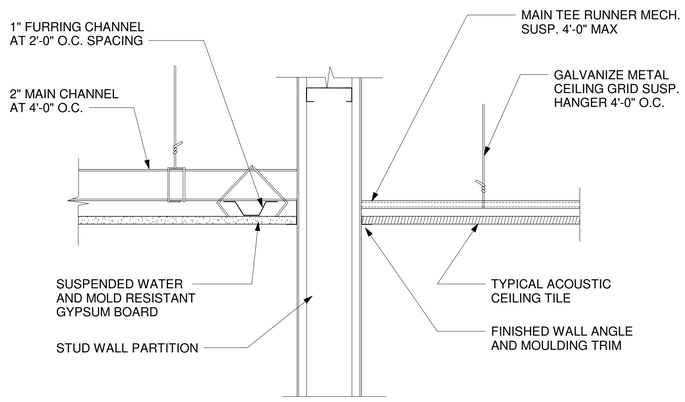
5 BULKHEAD DETAIL
3/4" = 1'-0"



6 ACT CEILING DETAIL
3/4" = 1'-0"



7 CEILING ACCESS HATCH DETAIL
3/4" = 1'-0"



8 CEILING DETAIL-GYP. BOARD & ACT CEILING
3/4" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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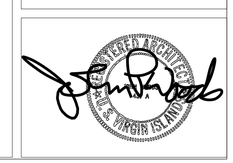
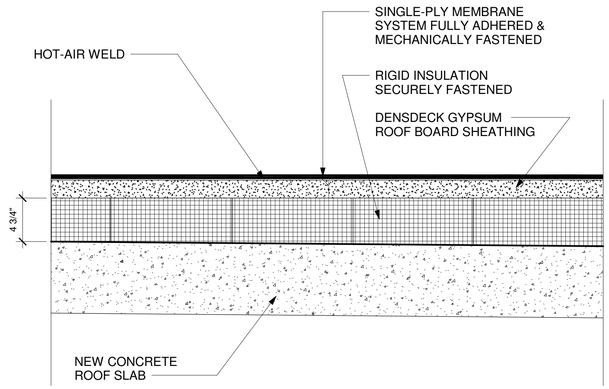
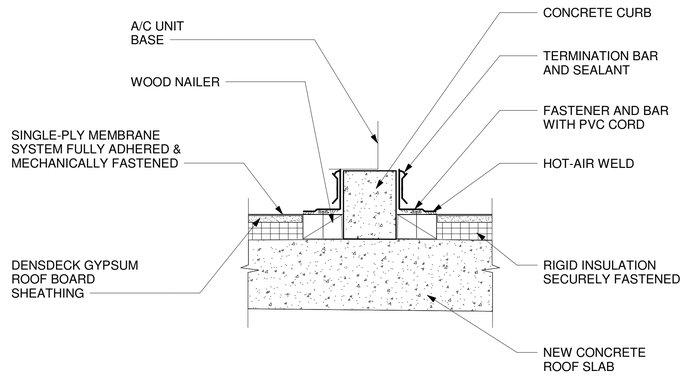
APPROVED BY:	J.P.W.
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	A5.1

CEILING DETAILS

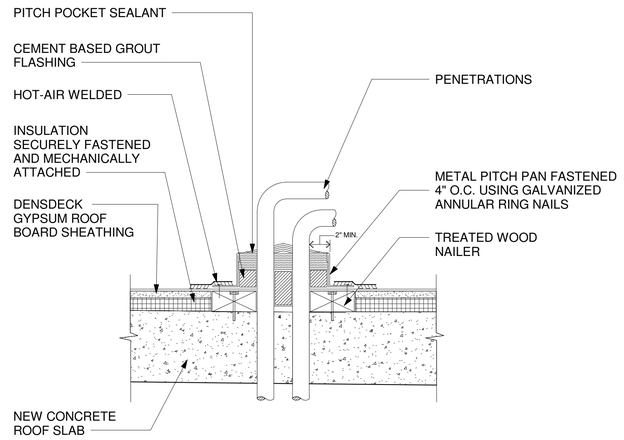




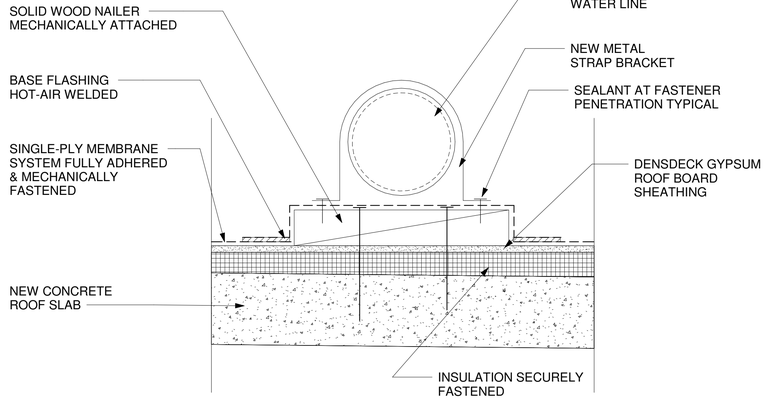
1 ROOF DRAIN DETAIL
1 1/2" = 1'-0"



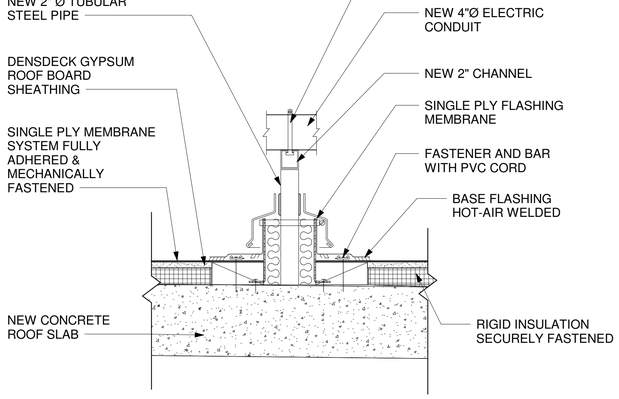
2 CURB DETAIL
1 1/2" = 1'-0"



3 PITCH POCKET DETAIL
1 1/2" = 1'-0"



4 CHILLED WATER SUPPLY LINE DETAIL
1 1/2" = 1'-0"



5 ELECTRICAL CONDUIT SUPPORT DETAIL
1 1/2" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

JDG Jaredian Design Group
Architects, Engineers and Construction Managers
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Second Floor - Suites B24-25 St. Thomas,
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telephone: 340.777.1600
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CRUZ BAY-VIFEMS STATION

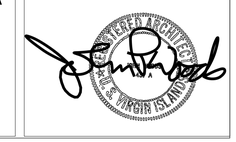
ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

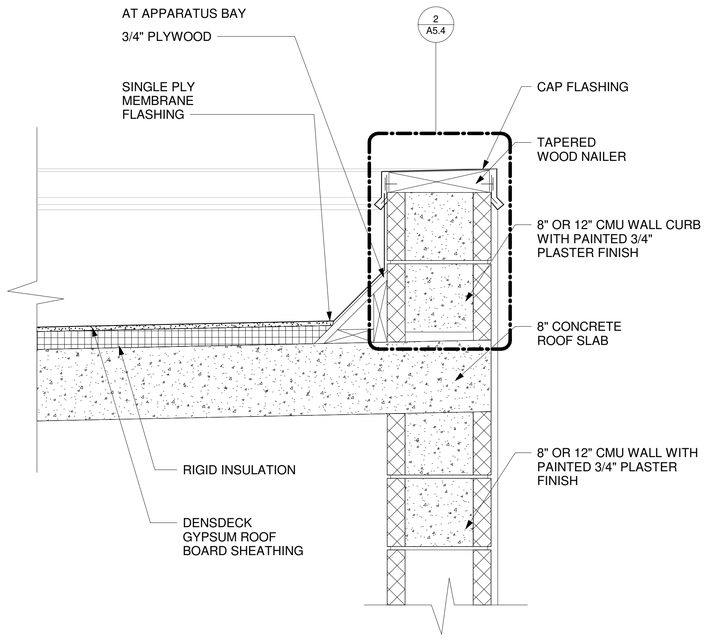
DATE:	09.17.2024
DRAWN BY:	B.J.S.
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.

PROJECT NO.: 23-005.C
CONTRACT NO.: -

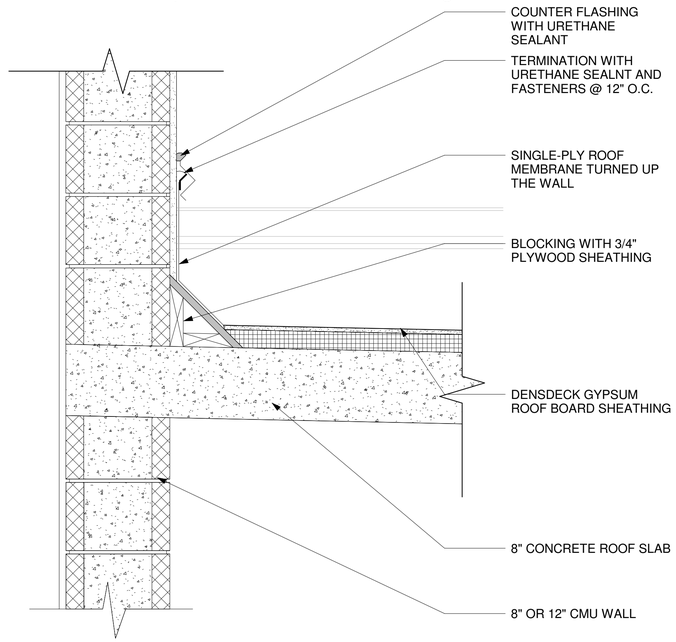
SHEET NO.: A5.2

ROOF DETAILS

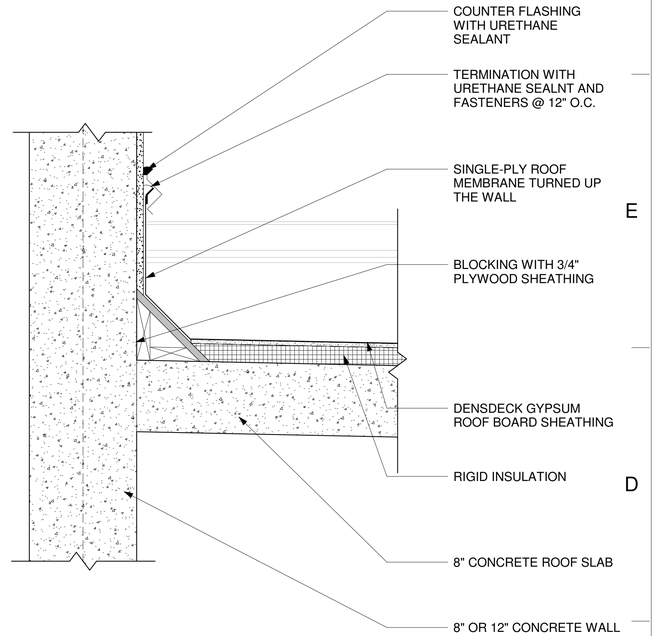




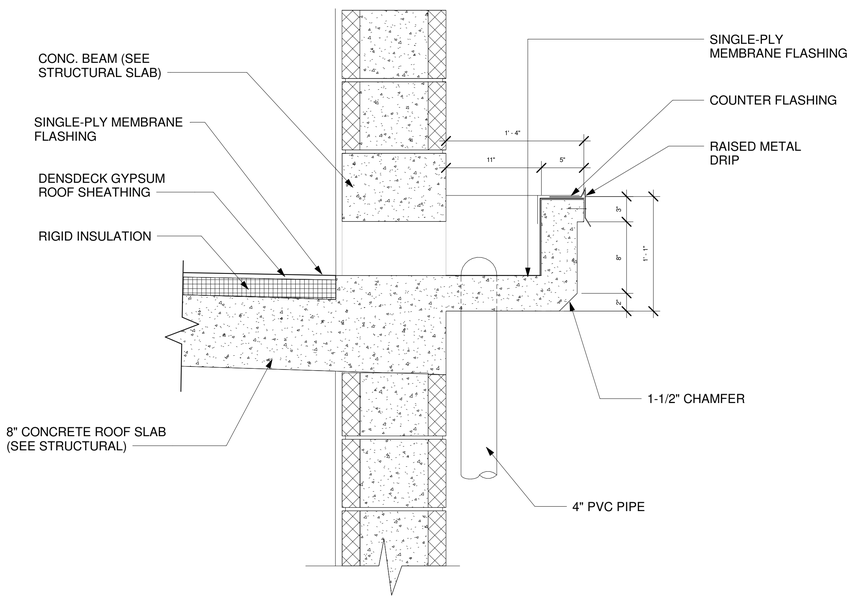
1 ROOF SECTION AT CMU CURB
1 1/2" = 1'-0"



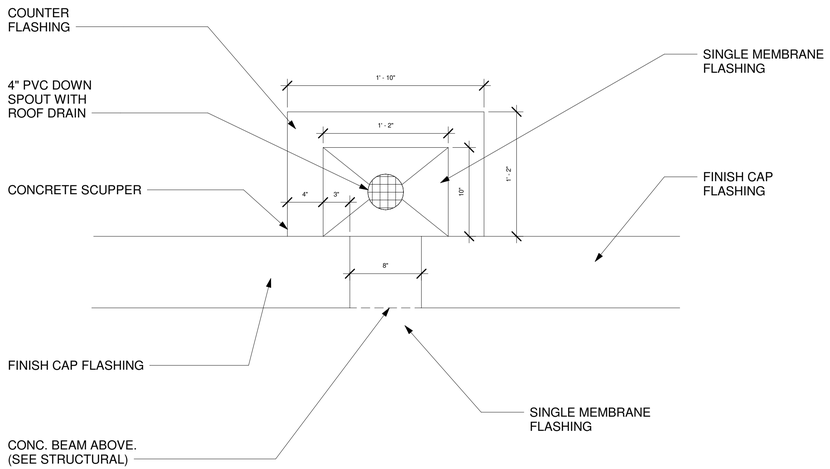
2 ROOF SECTION
1 1/2" = 1'-0"



3 ROOF SECTION AT CONCRETE WALL
1 1/2" = 1'-0"



4 ROOF SECTION AT SCUPPER DRAIN DETAIL
1 1/2" = 1'-0"



5 ROOF SECTION AT SCUPPER - PLAN VIEW
1 1/2" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

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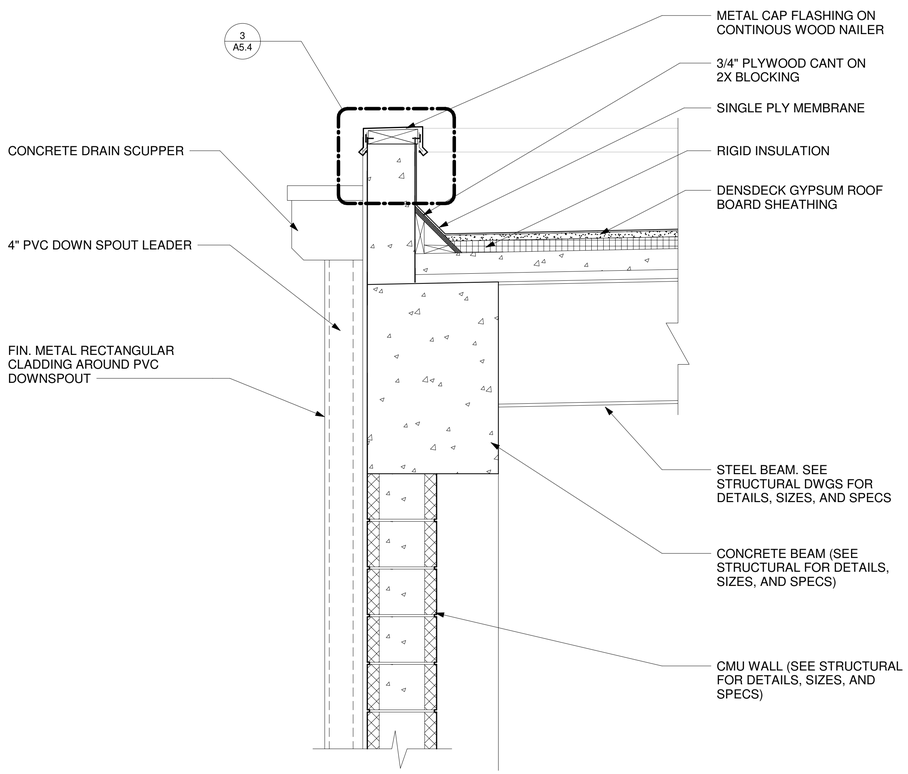
CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	B.J.S.
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	A5.3

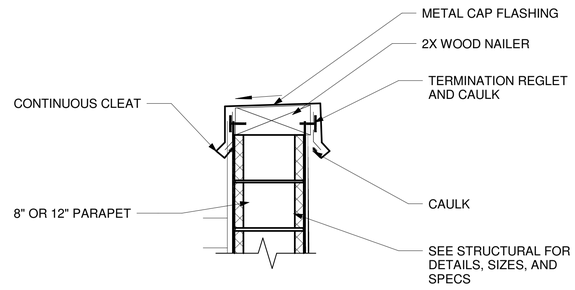
ROOF DETAILS

REGISTERED ARCHITECT U.S. VIRGIN ISLANDS



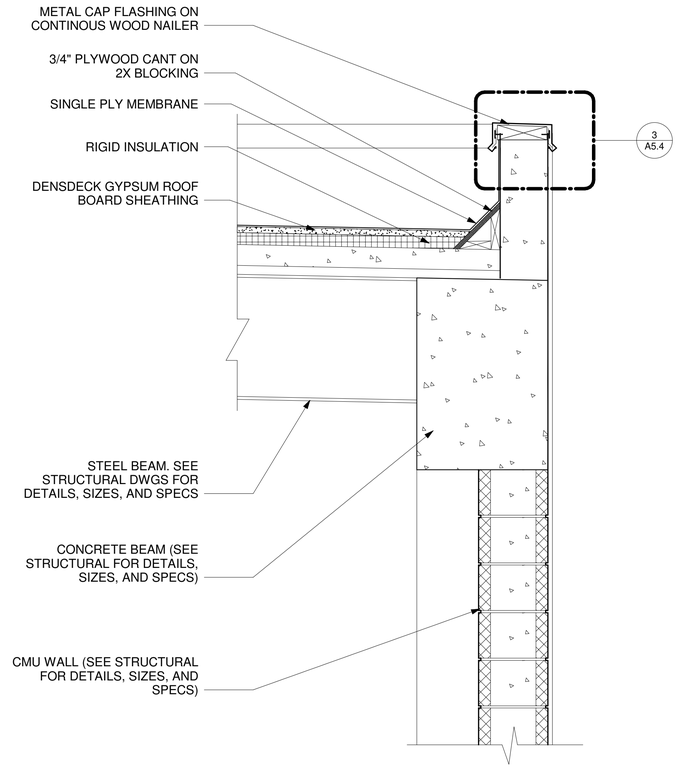
1 ROOF DETAIL WITH CONCRETE SCUPPER

1" = 1'-0"



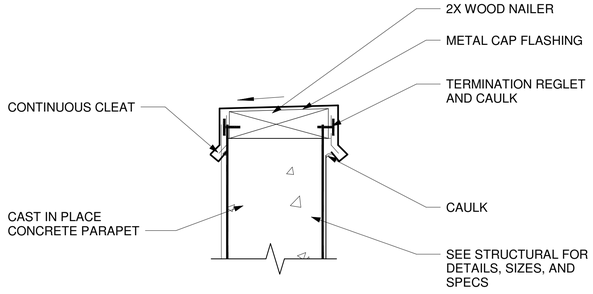
2 CMU PARAPET CAP FLASHING DETAIL

1" = 1'-0"



4 ROOF DETAIL WITH CONCRETE BEAM

1" = 1'-0"



3 CONCRETE PARAPET CAP FLASHING DETAIL

1" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

Jaredian Design Group
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5143 Palm Passage,
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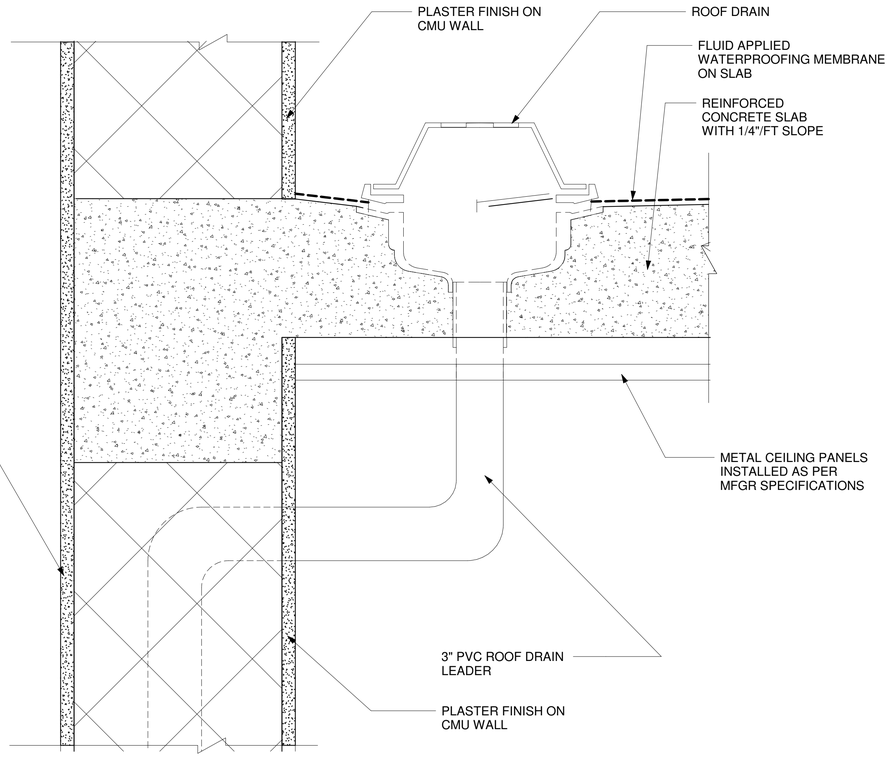
CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

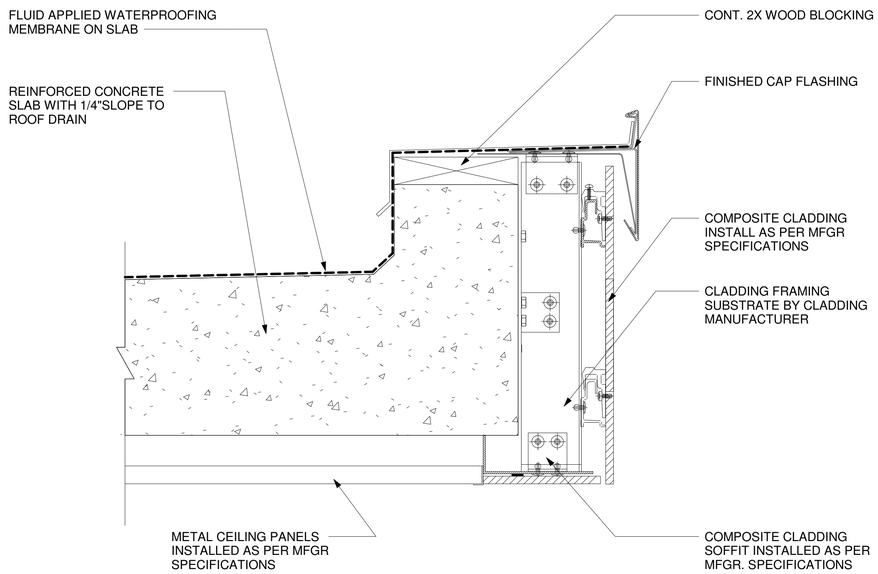
DATE:	09.17.2024
DRAWN BY:	B.J.S.
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	A5.4

ROOF DETAILS

REGISTERED ARCHITECT
U.S. VIRGIN ISLANDS



1 WALKWAY ROOF DRAIN DETAIL
3" = 1'-0"



2 WALKWAY ROOF SLAB DETAIL
3" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

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CRUZ BAY-VIFEMS STATION

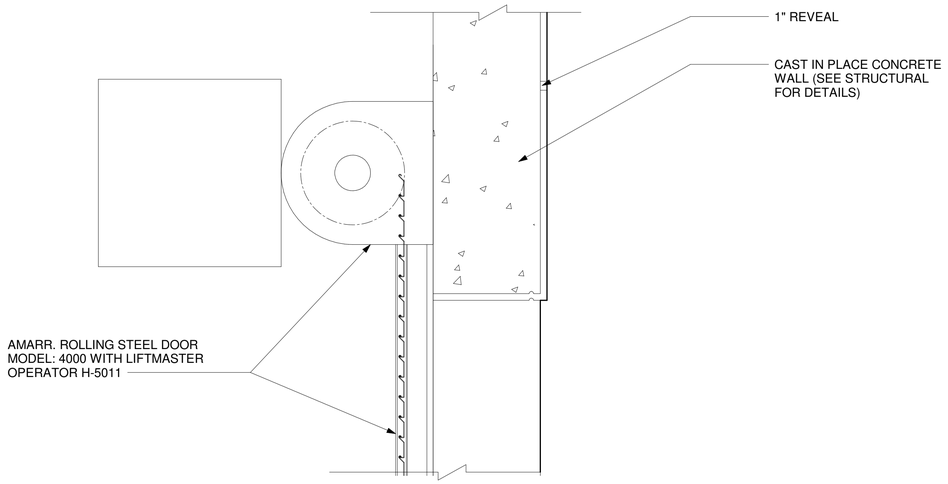
ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

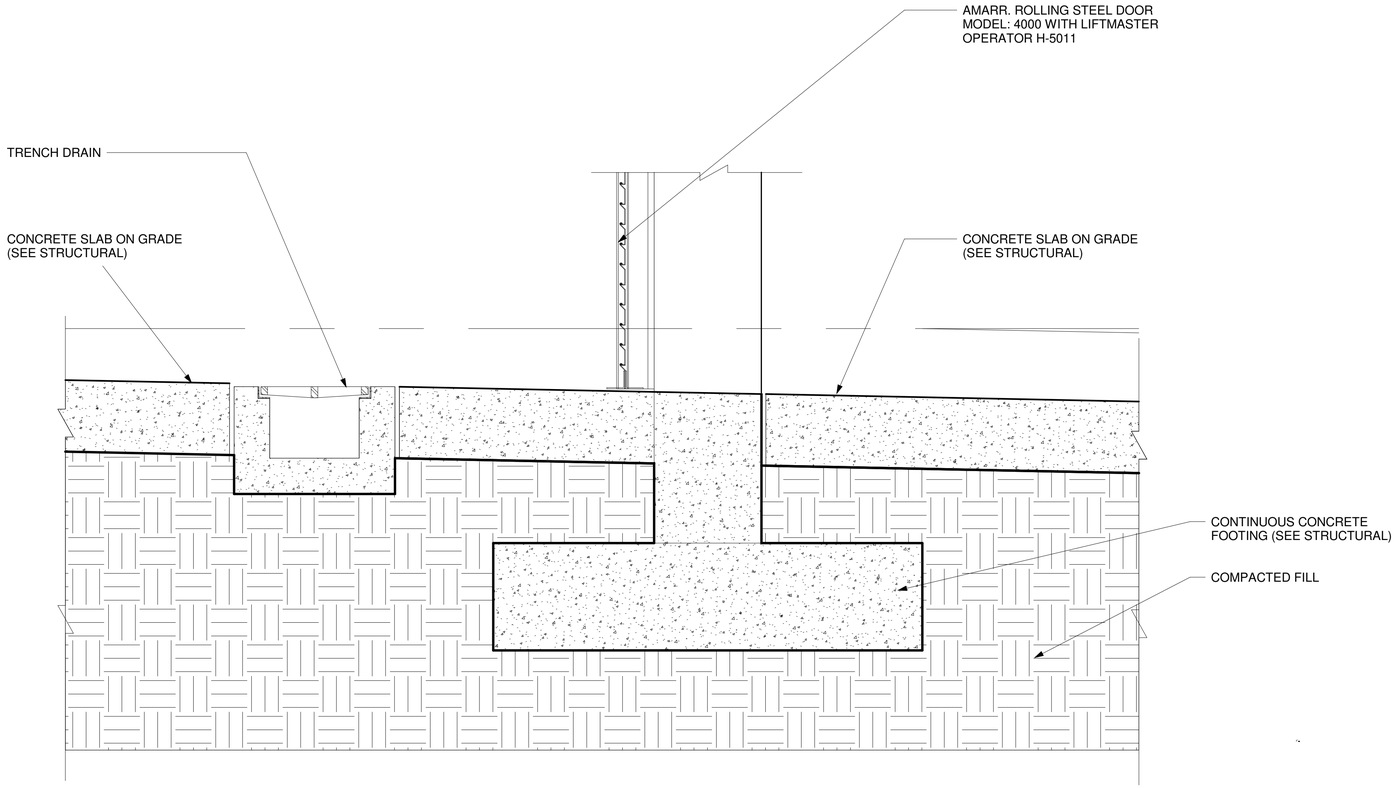
DATE: 09.17.2024
DRAWN BY: B.J.S.
CHECKED BY: J.P.W.
APPROVED BY: J.P.W.

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: A5.5

ROOF DETAILS





1 OVERHEAD COILING DOOR DETAIL

1" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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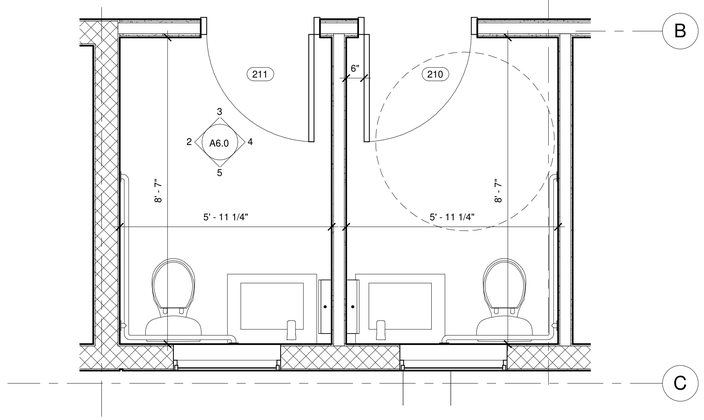
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	B.J.S.
CHECKED BY:	J.P.W.
APPROVED BY:	J.P.W.
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	A5.6

DOOR DETAILS

REGISTERED ARCHITECT U.S. VIRGIN ISLANDS

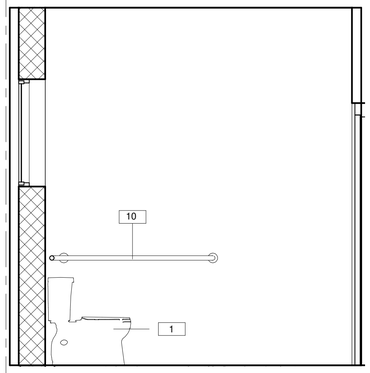


1 ENLARGED SECOND LEVEL RESTROOM PLAN
1/2" = 1'-0"

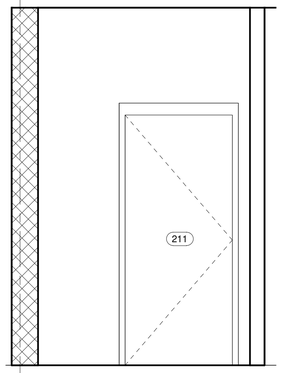
NEW BOBRICK B-2012 SOAP DISPENSER OR SIMILAR

RESTROOM ACCESSORIES LEGEND

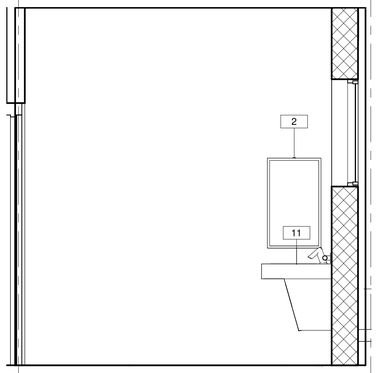
1	NEW KOHLER ULTRA K-25097 TOILET OR SIMILAR ADA COMPLIANT FLOOR MOUNTED TOILET
2	NEW BOBRICK B-293 TILTED MIRROR OR SIMILAR
3	NEW KOHLER GREENWICH K-12643 SINK OR SIMILAR ADA COMPLIANT WALL HUNG SINK
4	NEW SLOAN AD 83000 LAVATORY OR SIMILAR ADA COMPLIANT LAVATORY
5	NEW BOBRICK SHOWER SEAT OR SIMILAR
6	NEW KOHLER HANDHELD SHOWER OR SIMILAR
7	NEW KOHLER SHOWER BASE OR SIMILAR
8	NEW SLOAN WEUS 1002.1401 URINAL OR SIMILAR ADA COMPLIANT WALL HUNG URINAL
9	NEW SLOAN AD 82000 LAVATORY OR SIMILAR ADA COMPLIANT WALL HUNG SINGLE SINK
10	NEW BOBRICK B-68137 OR SIMILAR ADA COMPLIANT GRAB BAR
11	NEW SLOAN AD 81000 LAVATORY OR SIMILAR ADA COMPLIANT WALL HUNG SINGLE SINK
12	NEW SCRANTON MOUNTED PRIVACY SCREEN PILASTER OR SIMILAR



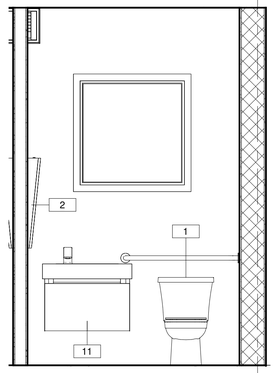
2 RESTROOM - ELEVATION 2
1/2" = 1'-0"



3 RESTROOM - ELEVATION 3
1/2" = 1'-0"



4 RESTROOM - ELEVATION 4
1/2" = 1'-0"



5 RESTROOM - ELEVATION 5
1/2" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

JDG Jaredian Design Group
Architects, Engineers and Construction Managers
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website: www.jaredian.com

CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

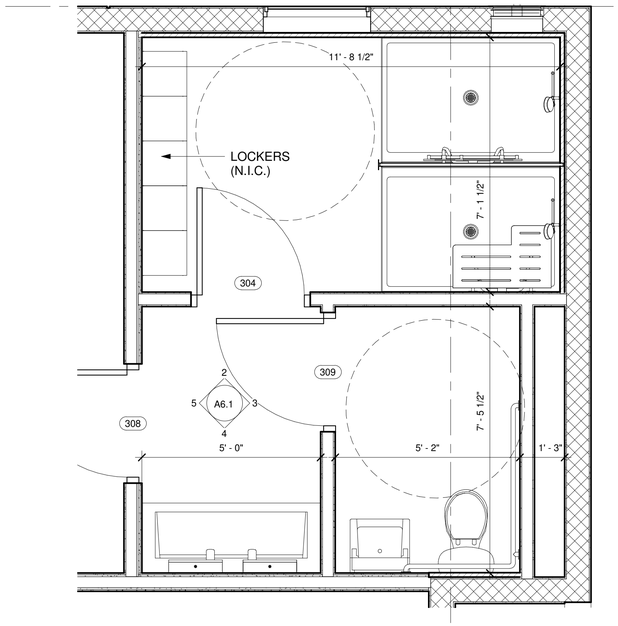
DATE: 09.17.2024
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

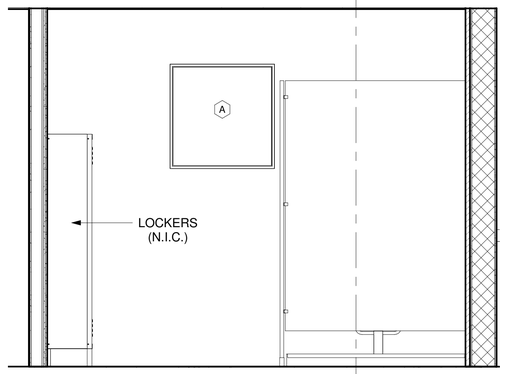
SHEET NO.: A6.0

ENLARGED RESTROOM PLAN & ELEVATIONS

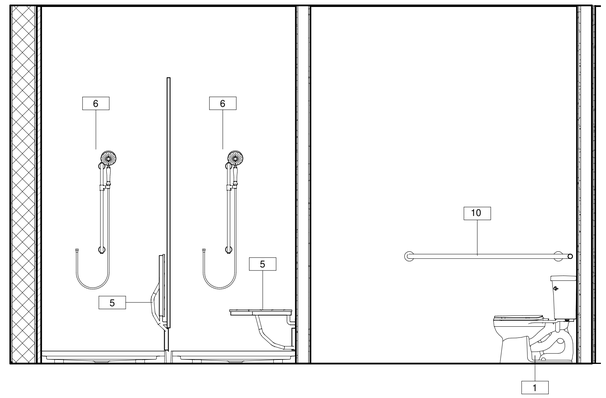
REGISTERED ARCHITECT U.S. VIRGIN ISLANDS



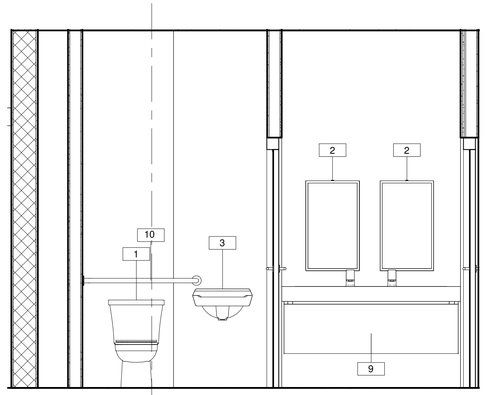
1 ENLARGED PLAN - FEMALE BATHROOM
1/2" = 1'-0"



2 FEMALE BATHROOM - ELEVATION 2
1/2" = 1'-0"



3 FEMALE BATHROOM - ELEVATION 3
1/2" = 1'-0"



4 FEMALE RESTROOM - ELEVATION 4
1/2" = 1'-0"

5 FEMALE BATHROOM - ELEVATION 5
1/2" = 1'-0"

NEW BOBRICK B-2012 SOAP DISPENSER OR SIMILAR

RESTROOM ACCESSORIES LEGEND

1	NEW KOHLER ULTRA K-25097 TOILET OR SIMILAR ADA COMPLIANT FLOOR MOUNTED TOILET
2	NEW BOBRICK B-293 TILTED MIRROR OR SIMILAR
3	NEW KOHLER GREENWICH K-12643 SINK OR SIMILAR ADA COMPLIANT WALL HUNG SINK
4	NEW SLOAN AD 83000 LAVATORY OR SIMILAR ADA COMPLIANT LAVATORY
5	NEW BOBRICK SHOWER SEAT OR SIMILAR
6	NEW KOHLER HANDHELD SHOWER OR SIMILAR
7	NEW KOHLER SHOWER BASE OR SIMILAR
8	NEW SLOAN WEUS 1002.1401 URINAL OR SIMILAR ADA COMPLIANT WALL HUNG URINAL
9	NEW SLOAN AD 82000 LAVATORY OR SIMILAR ADA COMPLIANT WALL HUNG SINGLE SINK
10	NEW BOBRICK B-68137 OR SIMILAR ADA COMPLIANT GRAB BAR
11	NEW SLOAN AD 81000 LAVATORY OR SIMILAR ADA COMPLIANT WALL HUNG SINGLE SINK
12	NEW SCRANTON MOUNTED PRIVACY SCREEN PILASTER OR SIMILAR

REVISIONS

NO.	DATE	REMARKS

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CRUZ BAY-VIFEMS STATION

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CRUZ BAY QUARTER
ST. JOHN U.S.V.I

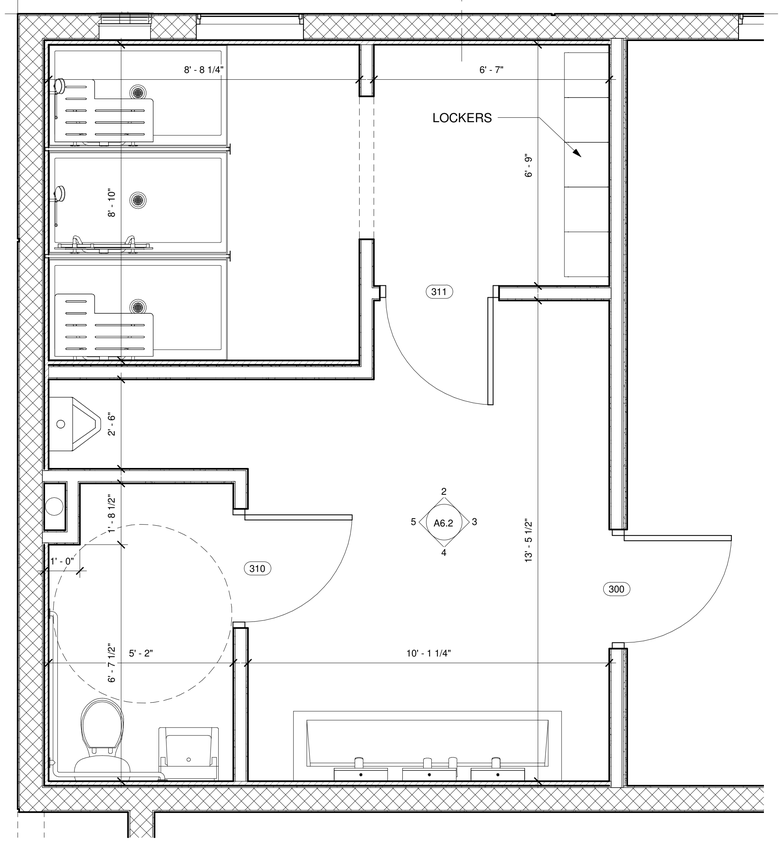
DATE: 09.17.2024
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

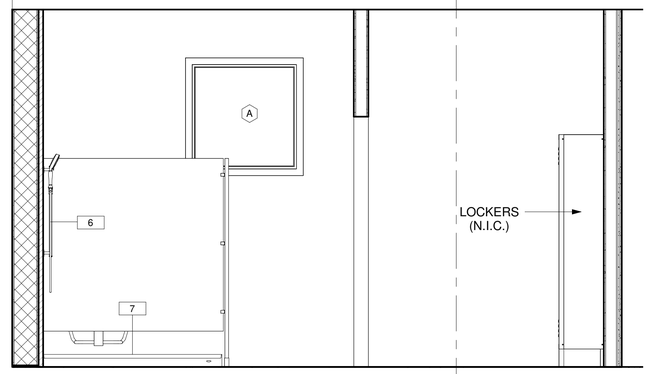
SHEET NO.: A6.1

ENLARGED FEMALE PLAN AND ELEVATIONS

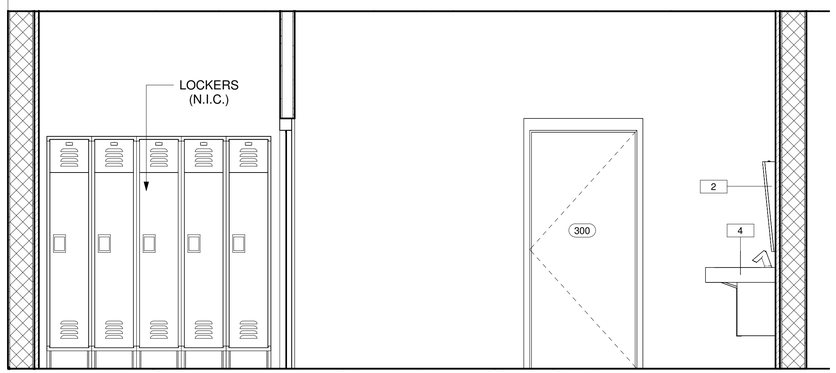
LICENSED ARCHITECT
U.S. VIRGIN ISLANDS



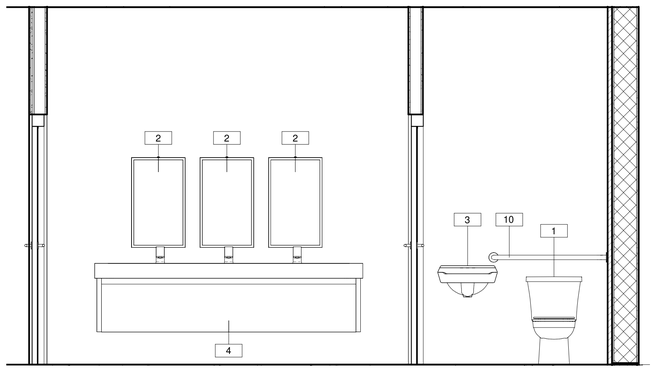
1 MALE RESTROOM PLAN AND ELEVATIONS
1/2" = 1'-0"



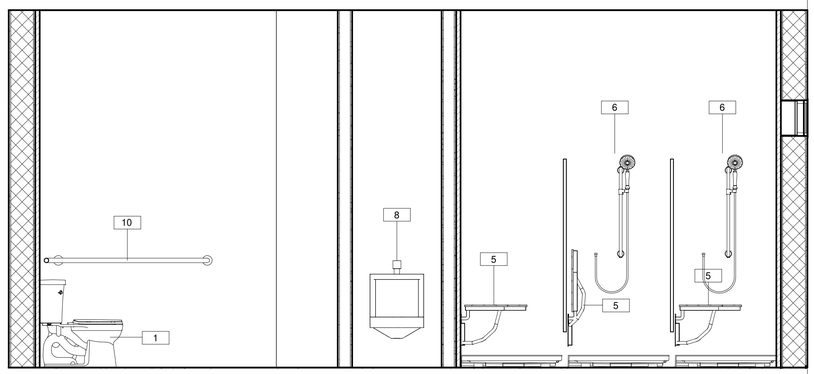
2 MALE RESTROOM - ELEVATION 2
1/2" = 1'-0"



3 MALE RESTROOM - ELEVATION 3
1/2" = 1'-0"



4 MALE RESTROOM - ELEVATION 4
1/2" = 1'-0"



5 MALE RESTROOM ELEVATION 5
1/2" = 1'-0"

NEW BOBRICK B-2012 SOAP DISPENSER OR SIMILAR

RESTROOM ACCESSORIES LEGEND

1	NEW KOHLER ULTRA K-25097 TOILET OR SIMILAR ADA COMPLIANT FLOOR MOUNTED TOILET
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8	NEW SLOAN WEUS 1002.1401 URINAL OR SIMILAR ADA COMPLIANT WALL HUNG URINAL
9	NEW SLOAN AD 82000 LAVATORY OR SIMILAR ADA COMPLIANT WALL HUNG SINGLE SINK
10	NEW BOBRICK B-68137 OR SIMILAR ADA COMPLIANT GRAB BAR
11	NEW SLOAN AD 81000 LAVATORY OR SIMILAR ADA COMPLIANT WALL HUNG SINGLE SINK
12	NEW SCRANTON MOUNTED PRIVACY SCREEN PILASTER OR SIMILAR

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

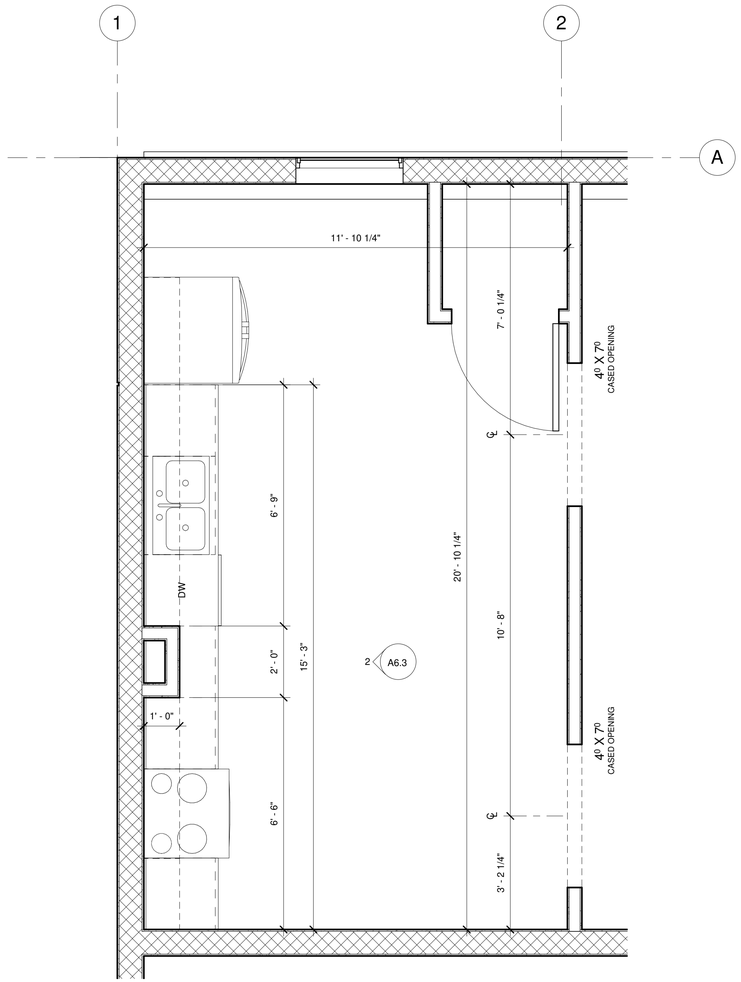
DATE: 09.17.2024
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

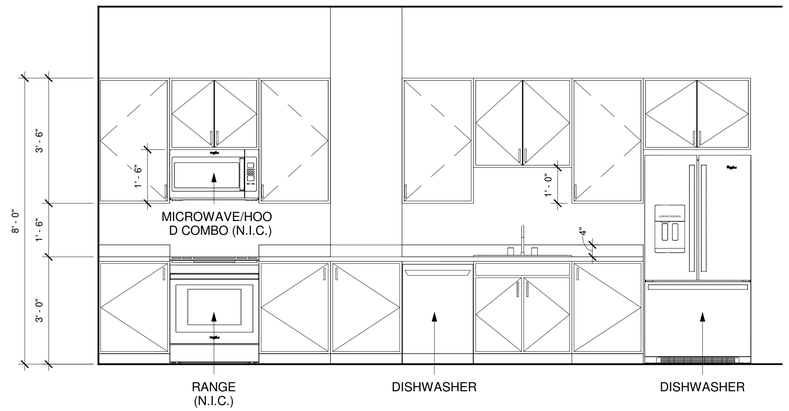
SHEET NO.: A6.2

ENLARGED MALE RESTROOM AND ELEVATIONS

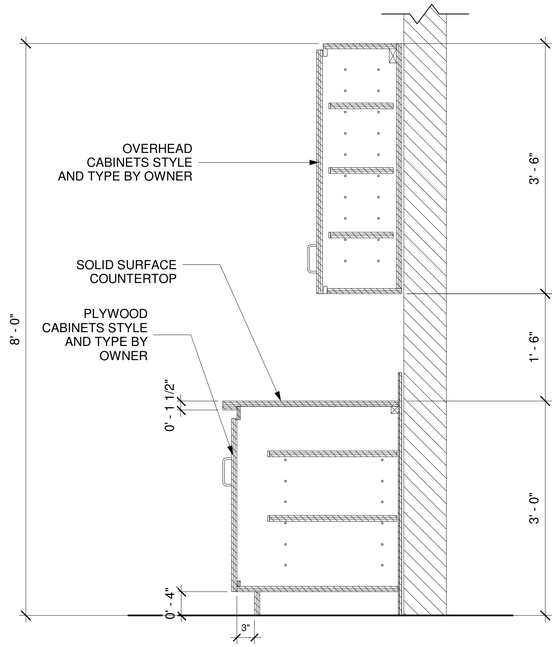
REGISTERED ARCHITECT
U.S. VIRGIN ISLANDS



1 ENLARGED KITCHEN PLAN
1/2" = 1'-0"



2 KITCHEN ELEVATION 2
1/2" = 1'-0"



3 CASEWORK SECTION
1" = 1'-0"

REVISIONS

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CONSULTANTS

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CRUZ BAY QUARTER
ST. JOHN U.S.V.I

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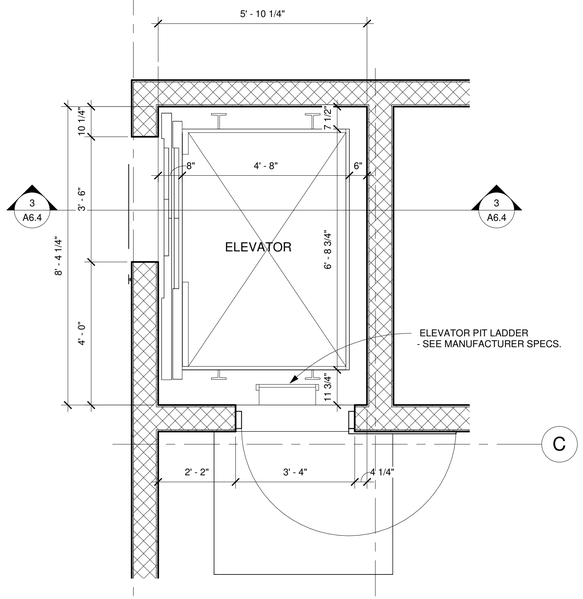
PROJECT NO.: 23-005.C
CONTRACT NO.: -

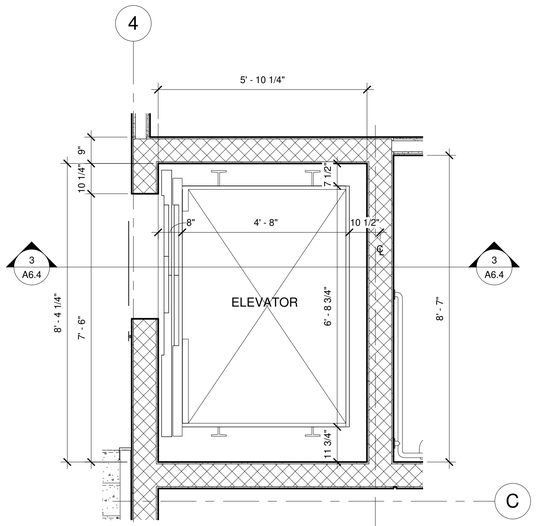
SHEET NO.: A6.3

ENLARGED KITCHEN PLAN AND ELEVATIONS

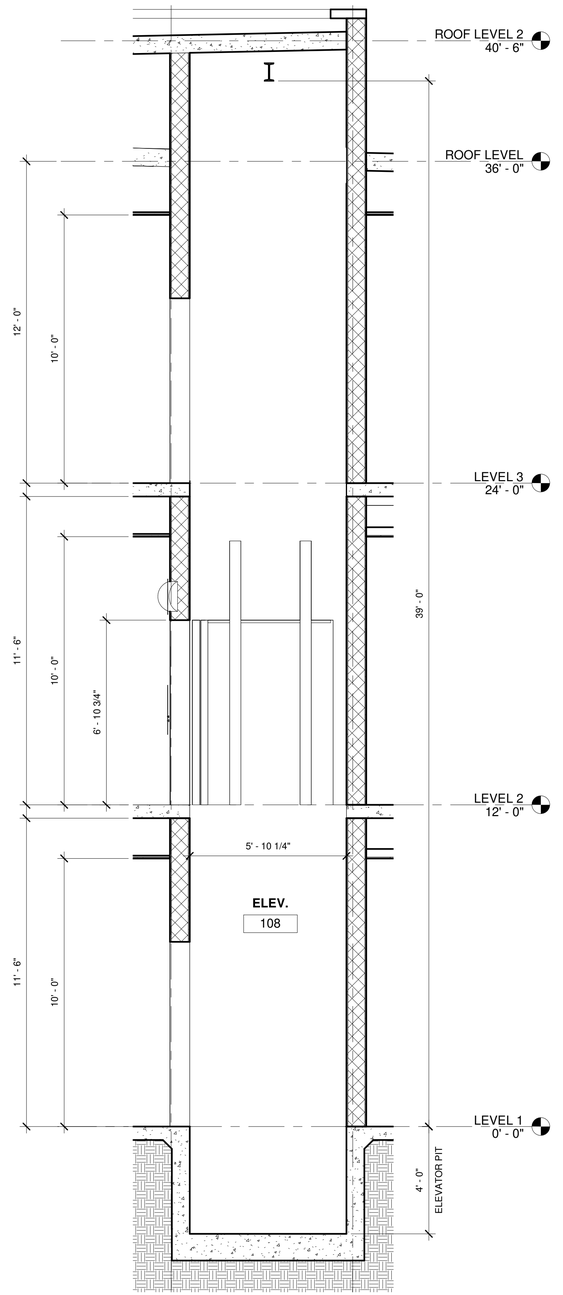
LICENSED ARCHITECT U.S.A. VIRGIN ISLANDS



1 ENLARGED FIRST LEVEL ELEVATOR PLAN
1/2" = 1'-0"



2 ENLARGED SECOND LEVEL ELEVATOR PLAN
1/2" = 1'-0"



3 ELEVATOR SECTION
3/8" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

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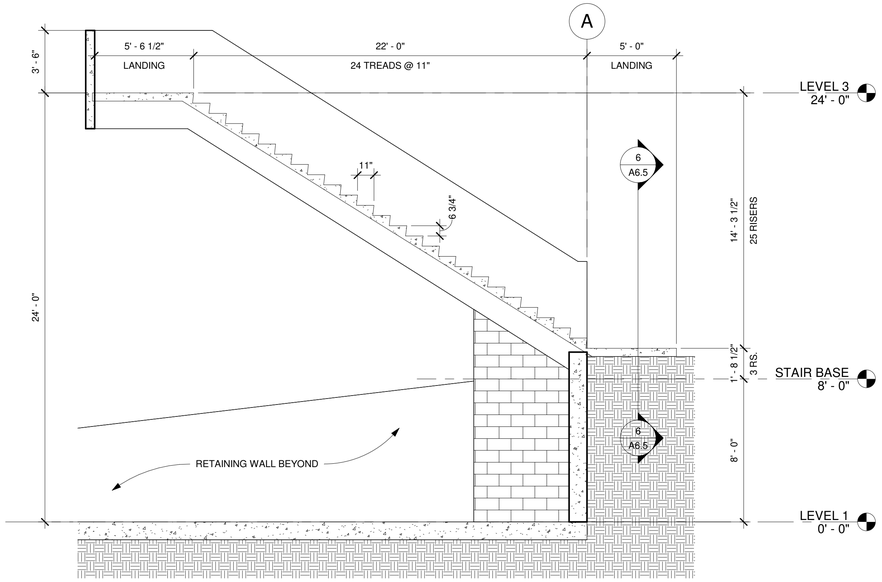
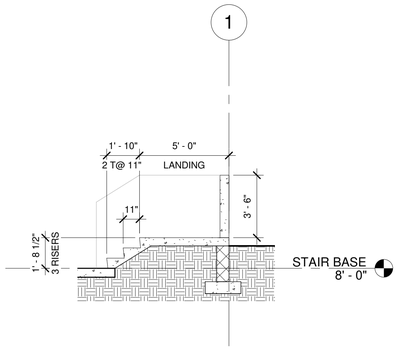
SHEET NO.:	A6.4

ENLARGED ELEVATOR PLANS, SECTION AND DETAILS

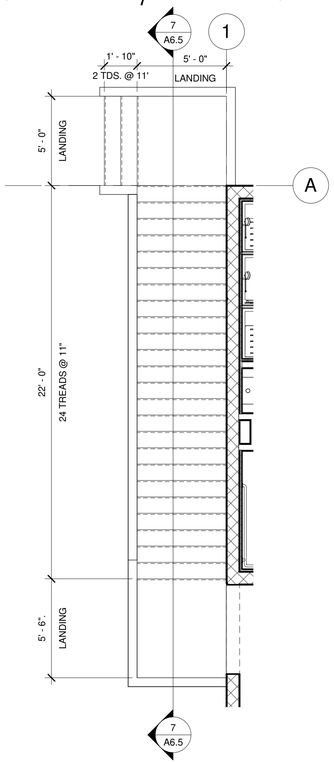
LICENSED ARCHITECT U.S. VIRGIN ISLANDS



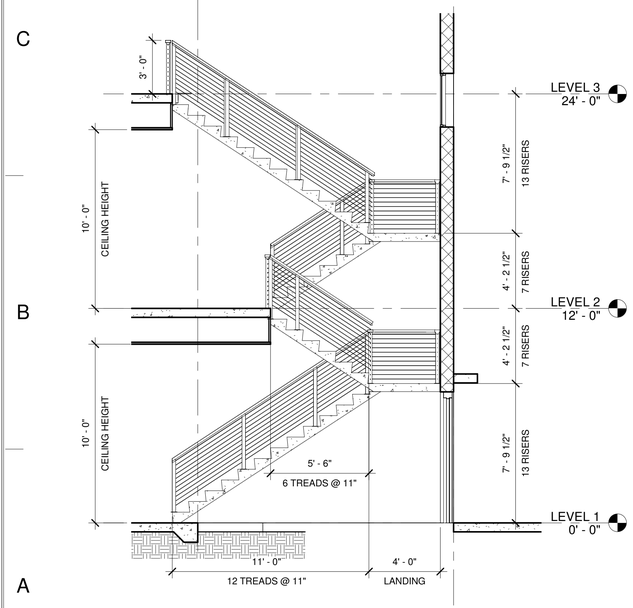
7 SECTION @ STAIR #2
1/4" = 1'-0"



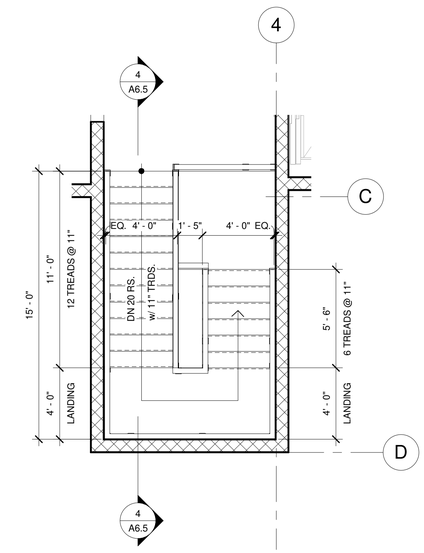
6 SECTION @ STAIR #2.
1/4" = 1'-0"



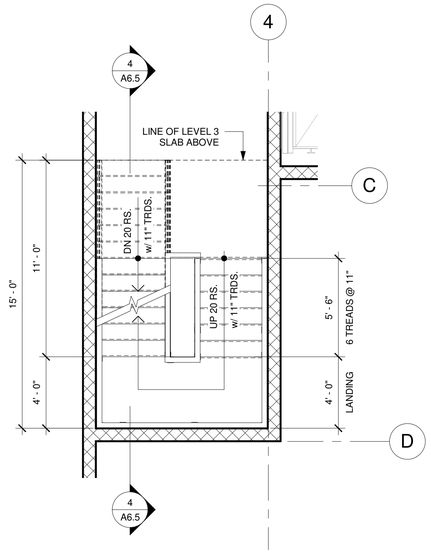
5 LEVEL 3 - STAIR #2 PLAN
1/4" = 1'-0"



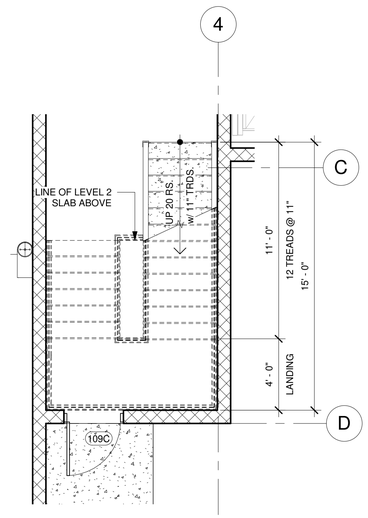
4 SECTION @ STAIR #1
1/4" = 1'-0"



3 LEVEL 3 - STAIR #1 PLAN
1/4" = 1'-0"



2 LEVEL 2 - STAIR #1 PLAN
1/4" = 1'-0"



1 LEVEL 1 - STAIR #1 PLAN
1/4" = 1'-0"

REVISIONS

NO.	DATE	REMARKS

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	09.17.2024
DRAWN BY:	Author
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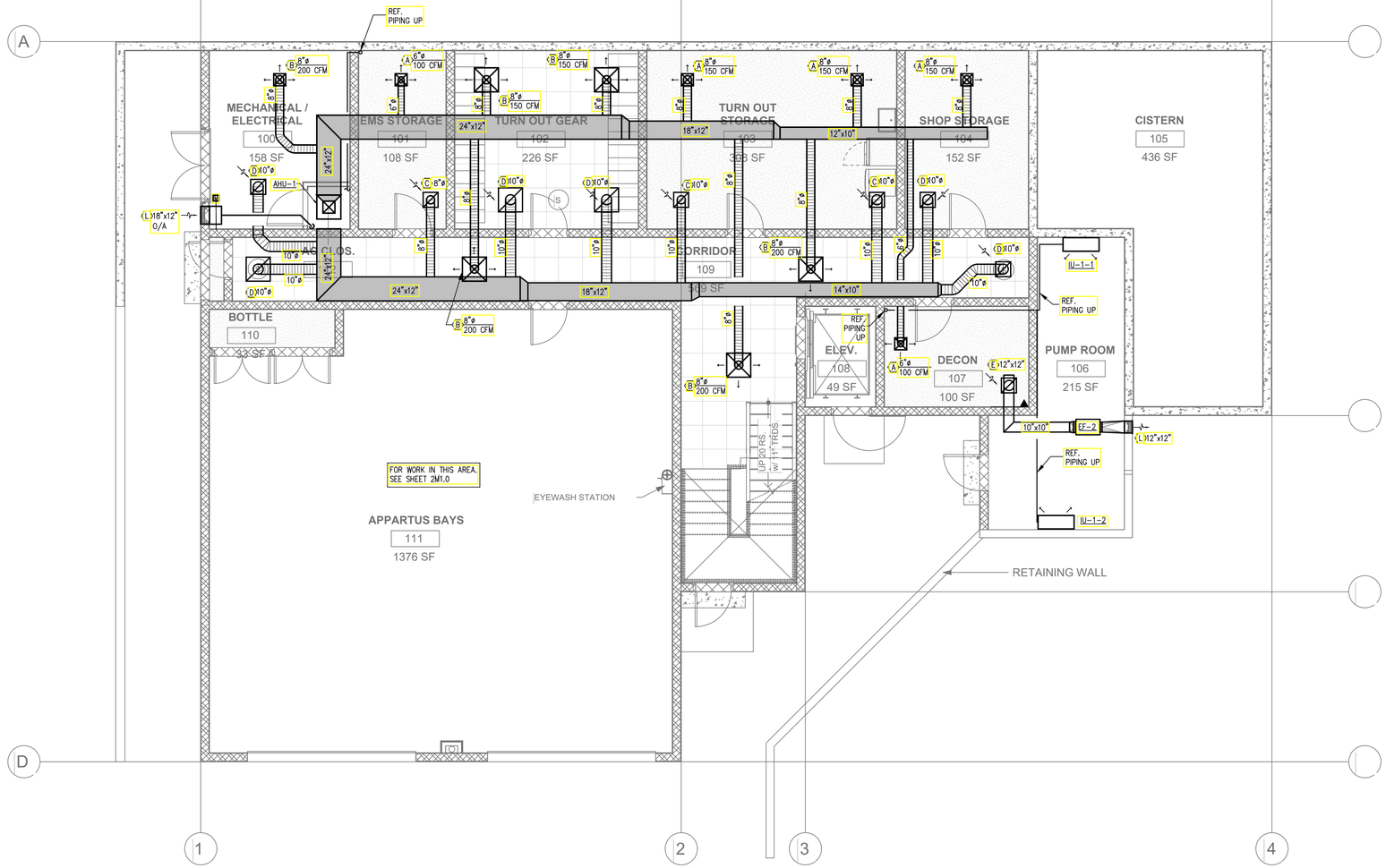
APPROVED BY:	Approver

PROJECT NO.: 23-005.C

CONTRACT NO.: -

SHEET NO.: A6.5

ENLARGED STAIR PLANS & DETAILS



1 FIRST FLOOR PLAN - HVAC
SCALE: 3/16" = 1'-0"

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

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303
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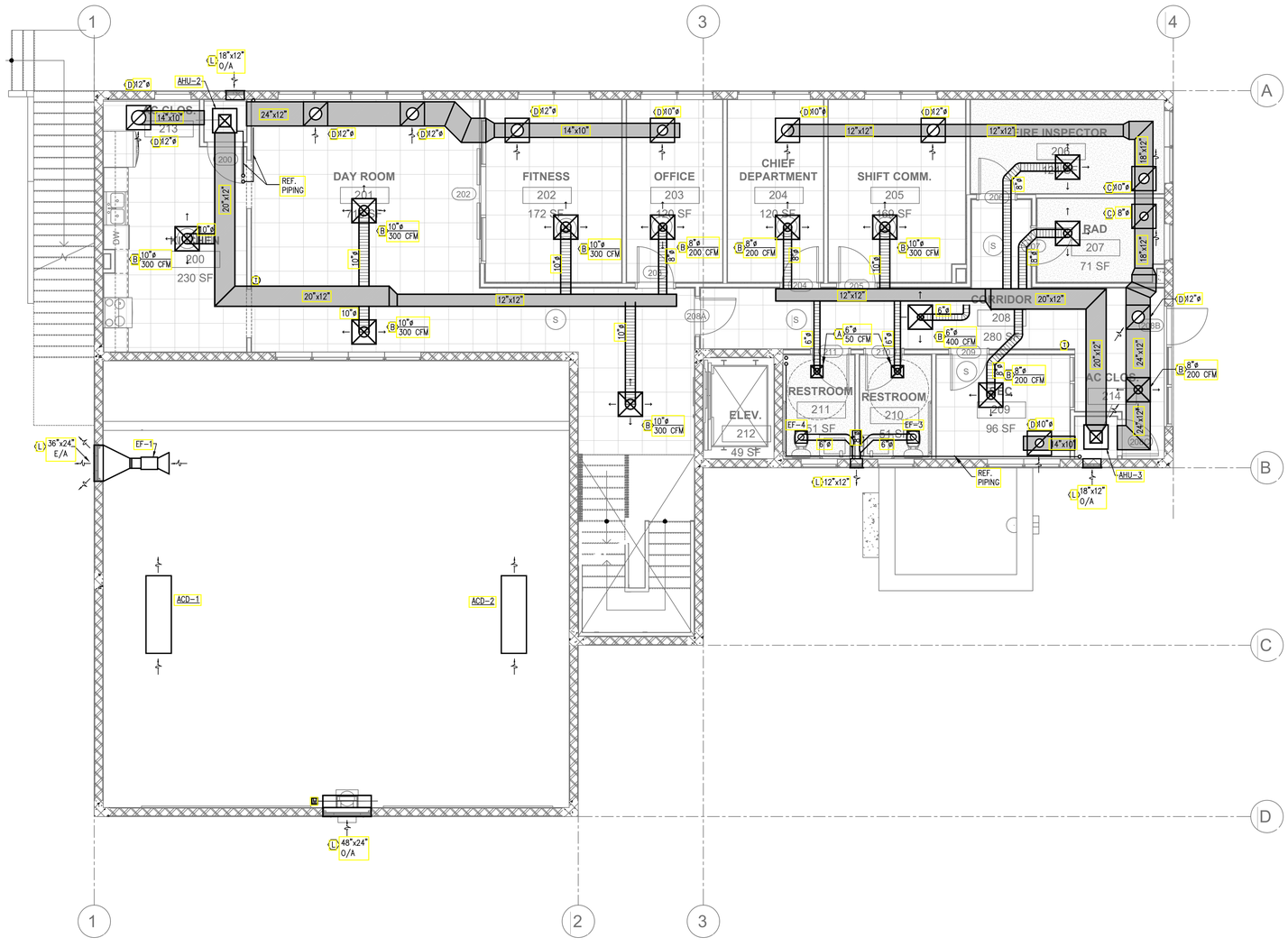
ST. JOHN U.S.V.I

DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 1M1.0

FIRST FLOOR PLAN



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

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

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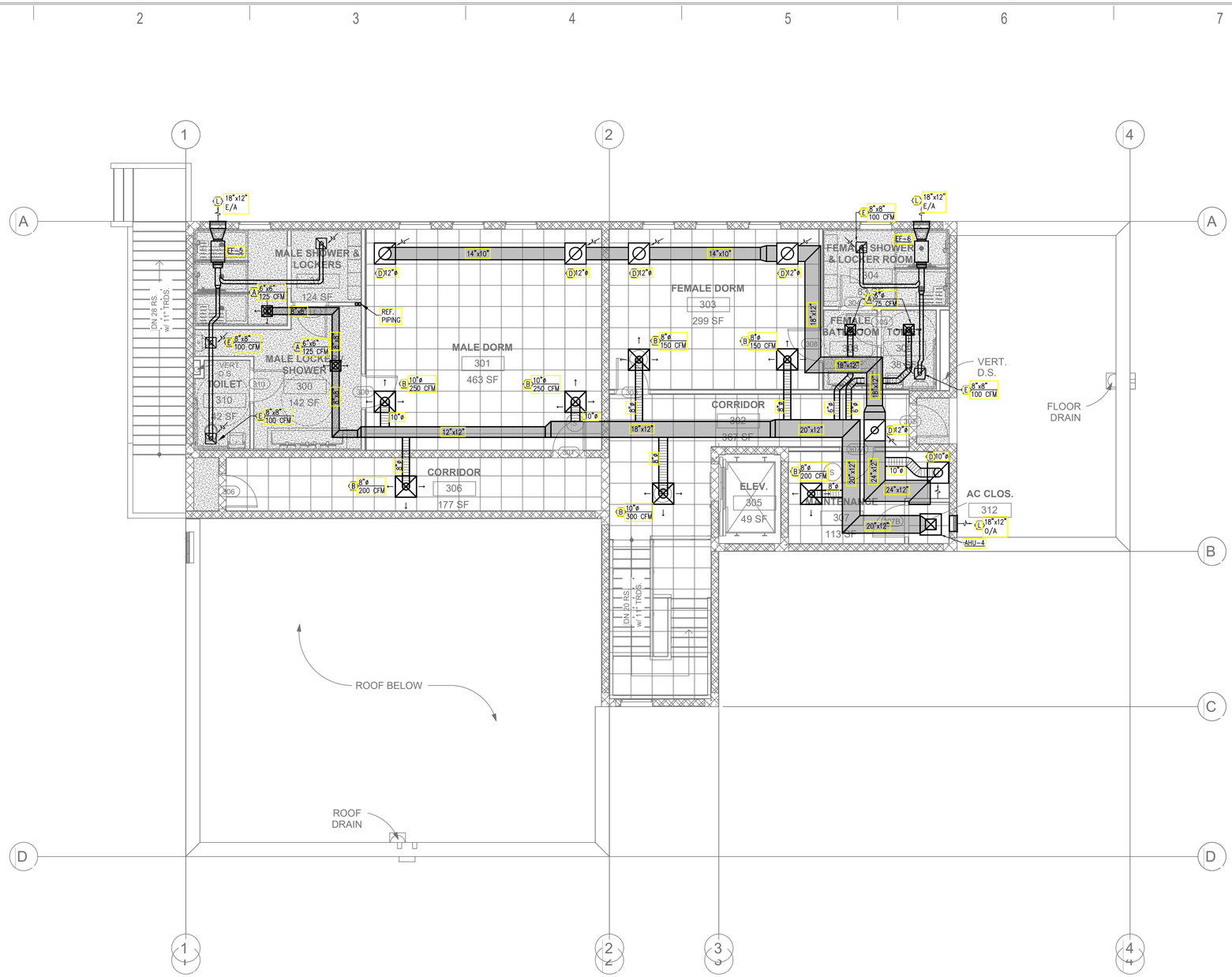
DATE:	08.20.2025
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver

PROJECT NO.: 23-005.C

CONTRACT NO.: -

SHEET NO.: 2M1.0

SECOND FLOOR PLAN



1 THIRD FLOOR PLAN - HVAC
SCALE: 3/16" = 1'-0"

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
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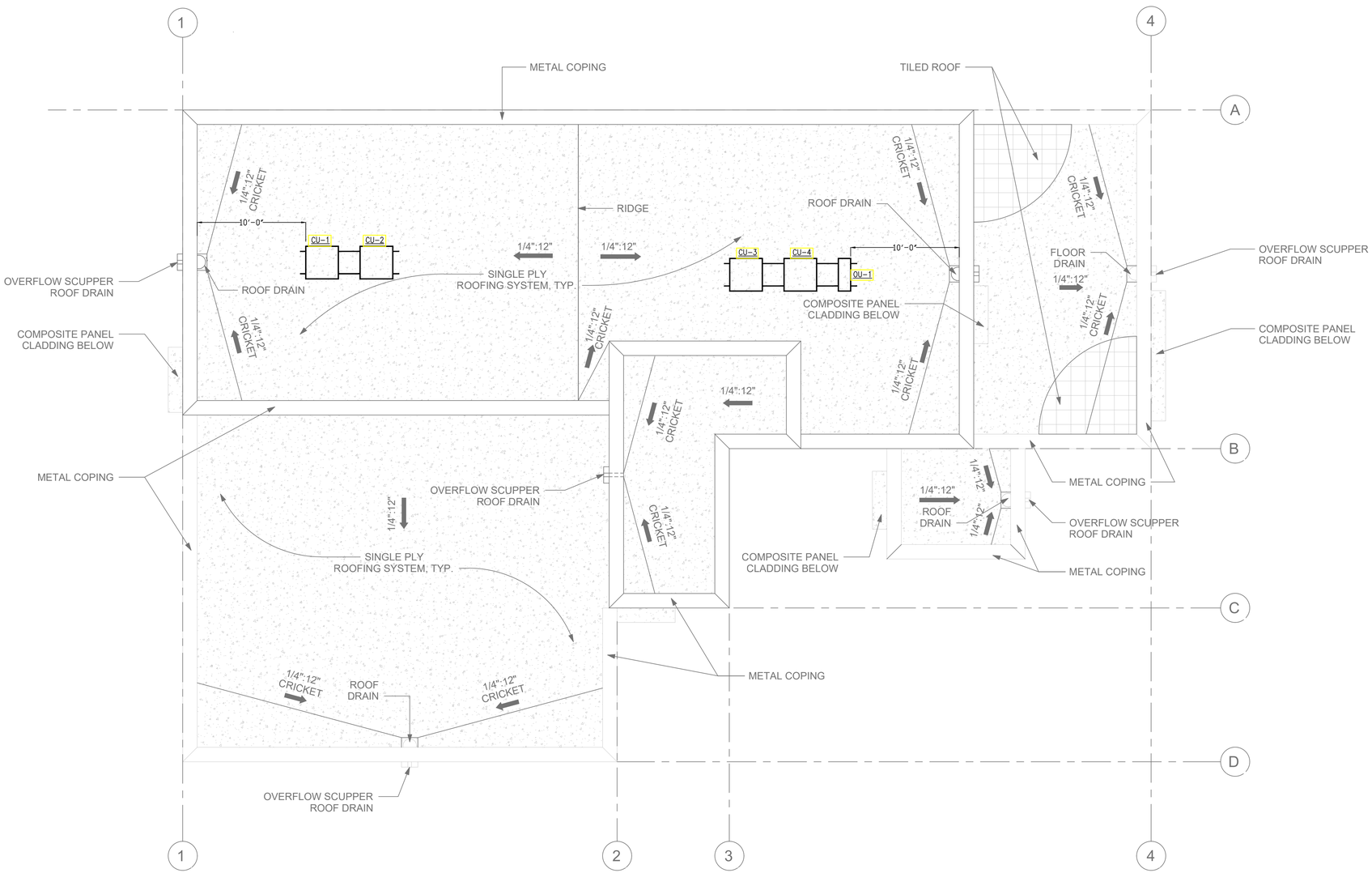
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 3M1.0

THIRD FLOOR PLAN



1 ROOF LEVEL PLAN - HVAC
SCALE: 3/16" = 1'-0"

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
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CRUZ BAY-VIFEMS STATION

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DATE:	08.20.2025
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CHECKED BY:	Checker
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	4M1.0

ROOF LEVEL HVAC

MUTI-SPLIT A/C UNIT SCHEDULE

UNIT DESIGNATION (INDOOR UNIT)		IU-1-1	IU-1-2
AREA SERVED		PUMP ROOM	PUMP ROOM
LOCATION		ABOVE DOOR SEE PLANS	ABOVE DOOR SEE PLANS
DESIGN MANUFACTURER		TRANE/MITSUBICHI	TRANE/MITSUBICHI
REFRIGERANT TYPE		454A	454A
ELECTRICAL SYSTEM SERVICE AVAILABLE, V/ø/Hz		208/1/60	208/1/60
SEER 2 (MINIMUM)		23	23
INDOOR UNIT	MODEL NUMBER	4MYW2312A1	4MYW2312A1
	TOTAL AIR, CFM (LOW/HIGH)	300/400	300/400
	ELECTRICAL SERVICE (2)	HIGH VOLTAGE DATA	HIGH VOLTAGE DATA
	ENTERING AIR TEMP. °F DB/WB	76/62	76/62
	FAN, FLA	----	----
	MCA/MOCP, AMPS	1/15	1/15
		----	----
	OPERATING WEIGHT, LBS.	25	25
OUTDOOR UNIT	OUTDOOR UNIT DESIGNATION	OU-1	OU-1
	TOTAL CAPACITY - MBH	24.0	24.0
	TYPE OF FAN	PROPELLER	PROPELLER
	AMBIENT AIR TEMP. °DFB	95	95
	COMPRESSOR RLA	4.9	4.9
	FAN FLA	0.5	0.5
	ELECTRICAL SYSTEM MCA/MOCP	24/25	24/25
	OPERATING WEIGHT	150	150
	DESIGN MANUFACTURER MODEL No.	4TYK2324A1	4TYK2324A1

NOTES:
1. REFRIGERANT LINES SHALL BE INSTALLED AND SIZED AS PER MANUFACTURER'S RECOMMENDATIONS FOR THE SHOWN LOCATION.
2. EACH SYSTEM SHALL BE PROVIDED WITH INDOOR UNIT ELECTRIC POWER SUPPLIED FROM OUTDOOR
3. PROVIDE INFINIGUARD SPRAY PROTECTION TO CONDENSING UNIT COILS.

AIR DISTRIBUTION SCHEDULE

SYM	USE	TYPE	ACCESSORIES	MFR & MODEL NO
A	SUPPLY	CEILING DIFFUSERS	ROUND CONN.	TITUS - TDC-AA 12x12 SURFACE MOUNTED
B	SUPPLY	CEILING DIFFUSERS	ROUND CONN.	TITUS - TDC-AA 24x24 LAY-IN
C	RETURN	CEILING GRILLE	ROUND CONN.	TITUS - 350-FL 15x15 SURFACE MOUNTED
D	RETURN	CEILING GRILLE	ROUND CONN.	TITUS - 350-FL 24x24 LAY-IN
E	EXHAUST	CEILING/WALL GRILLE	----	TITUS - 350-FL
L	OUTSIDE AIR	WALL LOUVER	DRAINABLE BLADE NOA APPROVAL	GREENHECK EHH-601D

NOTES:
1. ALL AIR DISTRIBUTION DEVICES SHALL BE OF EXTRUDED ALUMINUM CONSTRUCTION,
2. COORDINATE ALL AIR DISTRIBUTION DEVICES LOCATION WITH ARCHITECT REFLECTED CEILING PLAN AND STRUCTURAL DRAWINGS.
3. FINISH FOR ALL AIR DISTRIBUTION DEVICES SHALL BE AS SELECTED BY ARCHITECT.
4. WALL LOUVERS SHALL BE PROVIDED WITH MOTORIZED DAMPERS.

VENTILATION CALCULATIONS

AREA NAME	FLOOR	FLOOR AREA (SQ.FT.)	FLOOR HEIGHT (FT)	VOLUME (CF)	VENTILATION CFM/S.F.	VENTILATION E/A CFM REQUIRED	VENTILATION E/A PROVIDED	FAN SERVICE
APPARATUS ROOM	1	1400	20	28000	1.50	2100	**2100**	**EF-1**
DECON ROOM	1	110	12	1320	1.30	143	**150**	**EF-2**
REST ROOM 210	2	54	12	648	1.30	70	**70**	**EF-3**
REST ROOM 211	2	54	12	648	1.30	70	**70**	**EF-4**
MALE LOCKERS & SHOWERS	3	300	12	3600	1.00	300	**300**	**EF-5**
FAMALE LOCKERS % SHOWERS	3	170	12	2040	1.10	187	**200**	**EF-6**
TOTAL		**2088**				2870	**2890**	

NOTES:
1. VENTILATION REQUIREMENTS BASED ON IBC.

VENTILATION FAN SCHEDULE

		EF-1	EF-2	EF-3	EF-4	EF-5	EF-6
UNIT DESIGNATION		EF-1	EF-2	EF-3	EF-4	EF-5	EF-6
AREA SERVED		APPARATUS ROOM	DECON ROOM	RESTROOM	RESTROOM	MALE LOCKERS	FEMALE LOCKERS
OPERATING WEIGHT LBS.		70	40	15	15	40	40
LOCATION		CEILING	CEILING	CEILING	CEILING	CEILING	CEILING
FAN TYPE		IN LINE	IN LINE	CEILING	CEILING	IN LINE	IN LINE
FAN	TOTAL AIR CFM	2100	150	70	70	300	200
	DRIVE TYPE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
	FAN WHEEL TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
	FAN TIP SPEED, FPM MAX	-	-	-	-	-	-
	FAN SPEED,RPM	1722	1194	688	688	1518	1549
	TOTAL STATIC PRESSURE,IN. OF WATER	0.50	0.30	0.25	0.25	0.50	0.50
	FAN MOTOR HP(NON OVERLOAD)	3/4	1/10	20 WATTS	20 WATTS	1/10	1/10
	FAN MOTOR STARTER TYPE	-	-	-	-	-	-
	STARTER FURNISHED BY	-	-	-	-	-	-
	ELECTRICAL SERVICE AVAILABLE	115-1-60	115-1-60	208-3-60	115-1-60	115-1-60	115-1-60
	MASONRY OPENING REQUIRED (ROOF)	-	-	-	-	-	-
	INTERKOCK WITH	SAFEAIR ACD-1 & 2	SWITCH	SWITCH	SWITCH	SWITCH	SWITCH
DESIGN MANUFACTURER		GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NUMBER		SQ-130-VG	SQ-80-VG	SP-B90	SP-B90	SQ-90-VG	SQ-80-VG
ACCESSORIES	SERVICE SWITCH	YES	YES	YES	YES	YES	YES
	SMOKE DETECTORS	-	-	-	-	-	-
	FIRE DAMPER	-	-	-	-	-	-
	CONSTRUCTION	ALUMINUM	ALUMINUM	GALVANIZED STEEL	GALVANIZED STEEL	ALUMINUM	ALUMINUM
	MULTIBLADE BACKDRAFT DAMPER	YES	YES	YES	YES	YES	YES
	BIRDSCREEN	-	-	-	-	-	-
	VFD (FACTORY)	YES	-	-	-	-	-
	THERMOSTAT CONTROL	-	-	-	-	-	-
	ROOF CURB	-	-	-	-	-	-
	SONES	16.6	4.7	1.3	1.3	7.1	7.3

NOTES:
1. ALL FANS SHALL BE AMCA RATINGS.
2. INLINE FANS SHALL BE PROVIDED WITH INSULATED HOUSING AND HANGING VIBRATION ISOLATION KIT.
3. CEILING FANS SHALL BE PROVIDED WITH ISOLATION KIT.
4. FANS EF-1, EF-2, EF-5, EF-6 SHALL BE PROVIDED WITH 1" THICK INSULATED HOUSING, SEISMIC CERTIFIED AND COATED WITH PERMATECTOR CONCRETE.

AIR COOLED SPLIT A/C UNIT SCHEDULE

			AHU-1	AHU-2	AHU-3	AHU-2
UNIT DESIGNATION			AHU-1	AHU-2	AHU-3	AHU-2
AREA SERVED			FIRST FLOOR SAFE ROOM	SECOND FLOOR KITCHEN AREA	SECOND FLOOR OFFICE	THIRD FLOOR DORM AREA
LOCATION			A/C CLOSET	A/C CLOSET	A/C CLOSET	A/C CLOSET
OPERATING WEIGHT LBS			200	200	200	200
DESIGN MANUFACTURER			TRANE	TRANE	TRANE	TRANE
MODEL NUMBER			5TAM5D06AC41	5TAM5D06AC41	5TAM5D06AC41	5TAM5D06AC41
AIR HANDLING UNIT	FAN	TOTAL AIR CFM	1800	1500	1800	1800
		VENT AIR CFM	200	300	200	200
		EXTERNAL STATIC PRESSURE IN. OF H2O	1.0"	1.0"	1.0"	1.0"
		FAN MOTOR HP (NON-OVERLOAD)	0.05	0.05	0.05	0.05
		ELECTRICAL SERVICE AVAILABLE	208-1-60	208-1-60	208-1-60	208-1-60
		MCA (AMPS)	7.0	7.0	7.0	7.0
		MOP (AMPS)	15.0	15.0	15.0	15.0
	COOLING COIL	DESIGN AIR ACROSS COIL CFM	1700	1400	1700	1700
		GRAND TOTAL CAPACITY BTU/HR	53191	46500	53191	53191
		TOTAL SENSIBLE CAPACITY BTU/HR	39731	35000	39731	39731
		ENTERING AIR TEMP. F DB/WB	80/67	80/67	80/67	80/67
		REFRIGERANT TYPE	454B	454B	454B	454B
	FILTER	PRE/AFTER THICKNESS	1"	1"	1"	1"
		TYPE	MERV 8	MERV 8	MERV 8	MERV 8
			-	-	-	-
	HEAT	COIL TYPE	-	-	-	-
		TOTAL HEATING CAPACITY KW	-	-	-	-
		No OF HEATING STEPS	-	-	-	-
AIR COOLED CONDENSING UNIT		UNIT DESIGNATION	CU-1	CU-2	CU-3	CU-4
		TOTAL CAPACITY BTU/HR	53191	46500	53191	53191
		TYPE OF FAN	PROPELLER	PROPELLER	PROPELLER	PROPELLER
		No OF FANS / FLA	1/0.25	1/0.25	1/0.25	1/0.25
		AMBIENT AIR TEMP. F DB °	95	95	95	95
		CONDENSING TEMP. F DB °	110	110	110	110
		No OF COMPRESSORS	1	1	1	1
		COMPRESSOR RPM MAX	-	-	-	-
		CAPACITY REDUCTION	100	100	100	100
		COMPRESSOR FLA EACH	23.7	23.7	23.7	23.7
		ELECTRICAL SERVICE AVAILABLE	208-1-60	208-1-60	208-1-60	208-1-60
		MCA/MOP (AMPS)	46/60	46/60	46/60	46/60
		OPERATING WEIGHT LBS	250	250	250	250
		DESIGN MANUFACTURER MODEL No	5TTR7060A1	5TTR7048A1	5TTR7060A1	5TTR7060A1
		EFFICIENCY (MINIMUM)	16.50 SEER2	16.50 SEER2	16.50 SEER2	16.50 SEER2

NOTES:
1. REFRIGERANT LINES SHALL BE INSTALLED AND SIZED AS PER MANUFACTURER'S RECOMMENDATIONS FOR THE SHOWN LOCATION.
2.
3. CONDENSING UNITS SHALL BE PROVIDED WITH REFRIGERANT TYPE: 454A 18"H ROOF STANDS.
4. PROVIDE INFINIGUARD SPRAY PROTECTION TO CONDENSING UNIT COILS..

AIR BALANCE SCHEDULE

UNIT NUMBER	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	PRESSURIZATION AIR
AHU-1	1700	1500	200	---	---
AHU-2	1400	1100	300	---	---
AHU-3	1700	1500	200	---	---
AHU-4	1700	1500	200	---	---
EF-2	---	---	---	150	---
EF-3 & 4	---	---	---	140	---
EF-5	---	---	---	300	---
EF-6	---	---	---	200	---
TOTALS	6500	5600	900	790	+ 110

NOTES:
1. FANS EF-1 IS EXCLUDED

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO.
303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 5M1.0

SCHEDULES - HVAC

OUTDOOR AIR REQUIREMENTS FOR VENTILATION (2021-IBC-TABLE 403.3.1.1) - AHU/CU-1

Occupancy Category	A/C Unit	Designation	LOCAL NAME	Area [sq. ft] [Az]	Average Outdoor Area Air Rate [Ra]	Actual Occup [Pz]	Average People Outdoor Air Rate [Rp]	Breathing Zone Outdoor Air Flow Vbz[CFM]	Table 6-2 Zone Air Distribution Effectiveness Ez	Outdoor Airflow REQUIRED [CFM] [Voz]	Total Uncorrected OA Required [Vou]	System Ventilation Efficiency [Ev]	Total Corrected OA Required [Vot]	Actual Outdoor Airflow PROVIDED [CFM]	Meets Standard ?
ELLANEOUS SPACES, ELECTRICAL EQUIPMENT RO	AHU-1	1.0	101-MECHANICAL/ELECTRICAL	180.00 SF	0.06	2	0	11	1.00	11	11	1	11	15	YES
RETAIL, STORAGE	AHU-1	2.0	102-EMS STORAGE	120.00 SF	0.12	2	0	14	1.00	14	14	1	14	15	YES
OFFICE BUILDINGS, TELEPHONE / DATA ENTRY	AHU-1	3.0	103-TURN OUT GEAR	240.00 SF	0.06	4	5	34	1.00	34	34	1	34	35	YES
RETAIL, STORAGE	AHU-1	4.0	104-TURN OUT STORAGE	315.00 SF	0.12	2	0	38	1.00	38	38	1	38	40	YES
RETAIL, STORAGE	AHU-1	5.0	105-SHOP STORAGE	150.00 SF	0.12	4	0	18	1.00	18	18	1	18	25	YES
GENERAL, CORRIDORS	AHU-1	6.0	106-CORRIDORS	400.00 SF	0.06	1	0	24	1.00	24	24	1	24	25	YES
GENERAL, CORRIDORS	AHU-1	7.0	107-STAIR	240.00 SF	0.06	2	0	14	1.00	14	14	1	14	15	YES
OFFICE BUILDINGS, OFFICE SPACE	AHU-1	8.0	108-DECON	108.00 SF	0.06	2	5	16	1.00	16	16	1	16	30	YES
			TOTAL	1753.00 SF		19							170	200	

OUTDOOR AIR REQUIREMENTS FOR VENTILATION (2021-IBC-TABLE 403.3.1.1) - AHU/CU-2

Occupancy Category	A/C Unit	Designation	LOCAL NAME	Area [sq. ft] [Az]	Average Outdoor Area Air Rate [Ra]	Actual Occup [Pz]	Average People Outdoor Air Rate [Rp]	Breathing Zone Outdoor Air Flow Vbz[CFM]	Table 6-2 Zone Air Distribution Effectiveness Ez	Outdoor Airflow REQUIRED [CFM] [Voz]	Total Uncorrected OA Required [Vou]	System Ventilation Efficiency [Ev]	Total Corrected OA Required [Vot]	Actual Outdoor Airflow PROVIDED [CFM]	Meets Standard ?
OFFICE BUILDINGS, BREAKROOMS	AHU-2	1.0	201-KITCHEN	255.00 SF	0.12	4	5	51	1.00	51	51	1	51	55	YES
OFFICE BUILDINGS, BREAKROOMS	AHU-2	2.0	202-DAY ROOM	400.00 SF	0.12	6	5	78	1.00	78	78	1	78	100	YES
ORTS AND ENTERTAINMENT, HEALTH CLUB / AEROBICS ROO	AHU-2	3.0	203-FITNESS	165.00 SF	0.06	4	20	90	1.00	90	90	1	90	100	YES
OFFICE BUILDINGS, OFFICE SPACE	AHU-2	4.0	204-OFFICE	120.00 SF	0.06	2	5	17	1.00	17	17	1	17	20	YES
GENERAL, CORRIDORS	AHU-2	5.0	205-STAIR, CORRIDOR	330.00 SF	0.06	2	0	20	1.00	20	20	1	20	25	YES
			TOTAL	1270.00 SF		18							256	300	

OUTDOOR AIR REQUIREMENTS FOR VENTILATION (2021-IBC-TABLE 403.3.1.1) - AHU/CU-3

Occupancy Category	A/C Unit	Designation	LOCAL NAME	Area [sq. ft] [Az]	Average Outdoor Area Air Rate [Ra]	Actual Occup [Pz]	Average People Outdoor Air Rate [Rp]	Breathing Zone Outdoor Air Flow Vbz[CFM]	Table 6-2 Zone Air Distribution Effectiveness Ez	Outdoor Airflow REQUIRED [CFM] [Voz]	Total Uncorrected OA Required [Vou]	System Ventilation Efficiency [Ev]	Total Corrected OA Required [Vot]	Actual Outdoor Airflow PROVIDED [CFM]	Meets Standard ?
OFFICE BUILDINGS, OFFICE SPACE	AHU-3	1.0	301-CHIEF DEPARTMENT	120.00 SF	0.06	3	5	22	1.00	22	22	1	22	25	YES
OFFICE BUILDINGS, OFFICE SPACE	AHU-3	2.0	302-SHIFT COMM	165.00 SF	0.06	2	5	20	1.00	20	20	1	20	25	YES
OFFICE BUILDINGS, OFFICE SPACE	AHU-3	3.0	303-FIRE INSPECTOR	130.00 SF	0.06	2	5	18	1.00	18	18	1	18	25	YES
OFFICE BUILDINGS, OFFICE SPACE	AHU-3	4.0	304-RAD	80.00 SF	0.06	1	5	10	1.00	10	10	1	10	15	YES
OFFICE BUILDINGS, OFFICE SPACE	AHU-3	5.0	305-SEC	100.00 SF	0.06	2	5	16	1.00	16	16	1	16	20	YES
GENERAL, CORRIDORS	AHU-3	6.0	306-CORRIDOR 1	265.00 SF	0.06	1	0	16	1.00	16	16	1	16	20	YES
GENERAL, CORRIDORS	AHU-3	7.0	307-CORRIDOR 2	75.00 SF	0.06	1	0	5	1.00	5	5	1	5	10	YES
PUBLIC ASSEMBLY SPACES, RESTROOMS	AHU-3	8.0	308-REST ROOM 201	54.00 SF	0.00	0	0	0	1.00	0	0	1	0	30	YES
PUBLIC ASSEMBLY SPACES, RESTROOMS	AHU-3	9.0	309-RESTROOM 211	54.00 SF	0.00	0	0	0	1.00	0	0	1	0	30	YES
			TOTAL	1043.00 SF		12							106	200	

OUTDOOR AIR REQUIREMENTS FOR VENTILATION (2021-IBC-TABLE 403.3.1.1) - AHU/CU-4

Occupancy Category	A/C Unit	Designation	LOCAL NAME	Area [sq. ft] [Az]	Average Outdoor Area Air Rate [Ra]	Actual Occup [Pz]	Average People Outdoor Air Rate [Rp]	Breathing Zone Outdoor Air Flow Vbz[CFM]	Table 6-2 Zone Air Distribution Effectiveness Ez	Outdoor Airflow REQUIRED [CFM] [Voz]	Total Uncorrected OA Required [Vou]	System Ventilation Efficiency [Ev]	Total Corrected OA Required [Vot]	Actual Outdoor Airflow PROVIDED [CFM]	Meets Standard ?
RESIDENTIAL, DWELLING UNIT	AHU-4	1.0	401-MALE DORM	465.00 SF	0.06	4	5	48	1.00	48	48	1	48	50	YES
RESIDENTIAL, DWELLING UNIT	AHU-4	2.0	402-MALE LOCKERS	180.00 SF	0.06	0	5	11	1.00	11	11	1	11	12	YES
RESIDENTIAL, DWELLING UNIT	AHU-4	3.0	403-MALE SHOWERS	145.00 SF	0.06	0	5	9	1.00	9	9	1	9	10	YES
RESIDENTIAL, DWELLING UNIT	AHU-4	4.0	404-CORRIDOR 306	180.00 SF	0.06	0	5	11	1.00	11	11	1	11	12	YES
RESIDENTIAL, DWELLING UNIT	AHU-4	5.0	405-FEMALE DORM	300.00 SF	0.06	4	5	38	1.00	38	38	1	38	40	YES
RESIDENTIAL, DWELLING UNIT	AHU-4	6.0	406-FEMALE BATH TOILETS	85.00 SF	0.06	0	5	5	1.00	5	5	1	5	8	YES
RESIDENTIAL, DWELLING UNIT	AHU-4	7.0	407-FEMAL SHOWERS LOCKERS	85.00 SF	0.06	0	5	5	1.00	5	5	1	5	8	YES
RESIDENTIAL, DWELLING UNIT	AHU-4	8.0	408-CORRIDOR 302	140.00 SF	0.06	0	5	8	1.00	8	8	1	8	10	YES
RESIDENTIAL, DWELLING UNIT	AHU-4	9.0	409-STAIR, LOBBY	230.00 SF	0.06	2	5	24	1.00	24	24	1	24	25	YES
OFFICE BUILDINGS, OFFICE SPACE	AHU-4	10.0	410-MAINTENANCE	145.00 SF	0.06	2	5	19	1.00	19	19	1	19	25	YES
			TOTAL	1955.00 SF		12							177	200	

AIR FILTRATION SCHEDULE

	UNIT DESIGNATION	ACD-1 & ACD-2
	MANUFACTURER	SAFEAIR/WWW.SAFEAIRCO.COM
	MODEL NUMBER	SA-FHRC-3000-1115AD-230V-1PH-ETL
	UNIT DIMENSIONS	76.5"x26.25"x26.25"
	CONSTRUCTION	16 GA STEEL COATED RED
	SOUND POWER	68 DBA
	OPERATING WEIGHT LBS	320
	SHIPPING WEIGHT LBS	427
	AREA SERVED	APPARATUS BAYS
	MOUNTING HEIGHT	13"-0" AFF
FAN	FAN TYPE	CENTRIFUGAL
FAN	TOTAL AIR CFM	2500-3000
FAN	DRIVE TYPE	DIRECT
FAN	FAN WHEEL TYPE	FOWARD CURVED
FAN	FAN SPEED,RPM	1097
FAN	TOTAL STATIC PRESSURE,IN. OF WATER	1.6
FAN	FAN MOTOR HP(NON OVERLOAD)	1.0
FAN	FAN MOTOR TYPE	ODP
FAN	ELECTRICAL SERVICE AVAILABLE	208/230-1-60
FAN	CURRENT AMPS	7.2/6.9
FILTER	PRE FILTER - PLEATED	24x24x4 MERV-11
FILTER	MAIN FILTER - HEPA	24x24x4 MERV-14
FILTER	GAS FILTER - CARBON/PURAFIL BLEND	24x24x4 50 LBS
FILTER	AFTER FILTER - PLEATED	24x24x4 MERV-8
FILTER	UV LIGHT/PCO	NONE
ACCESSORIES	SERVICE SWITCH DISCONNTECT	LOCKOUT/TAGOUT
ACCESSORIES	FAN INTERLOCK	4WD-4E CONTROLER
ACCESSORIES	DIRTY FILTER INDICATOR	LED LIGHT-RED
ACCESSORIES	BIRDSCREEN	YES
ACCESSORIES	FILTER PRESURE SWITCH	1.0" -4.0" WG SP

NOTES:
1. FOR SEQUENCE OF OPERATION/WIRING DIAGRAM. SEE SHEET 1M2.4.

APPARATUS BAY MECHANICAL VENTILATION PROVIDED

I. **AIR CLEANING DEVICES & EXHAUST AIR FAN**

8,100 CFM X 60 = 17.3 AC/HR = 0.28 AC/MIN
1,400 S.F. X 20'H

II. **AIR CLEANING DEVICES ONLY**

6,000 CFM X 60 = 12.8 AC/HR = 0.21 AC/MIN
1,400 S.F. X 20'H

III. **EXHAUT AIR FAN ONLY**

2,100 CFM X 60 = 4.5 AC/HR = 0.075 AC/MIN
1,400 S.F. X 20'H

IV. **EQUIPMENT PROVIDED:**

(2) ACD-1 & 2 = 6,000 CFM TOTAL= 4.28 CFM /S.F.
(1) FAN EF-1= 2,100 CFM= 5.78 CFM/S.F.

NOTE:
OUTSIDE AIR CALCULATION PER ASHRAE 62.1
AREA= 1,400 S.F. X 1.5 CFM/S.F. = 2,100 CFM

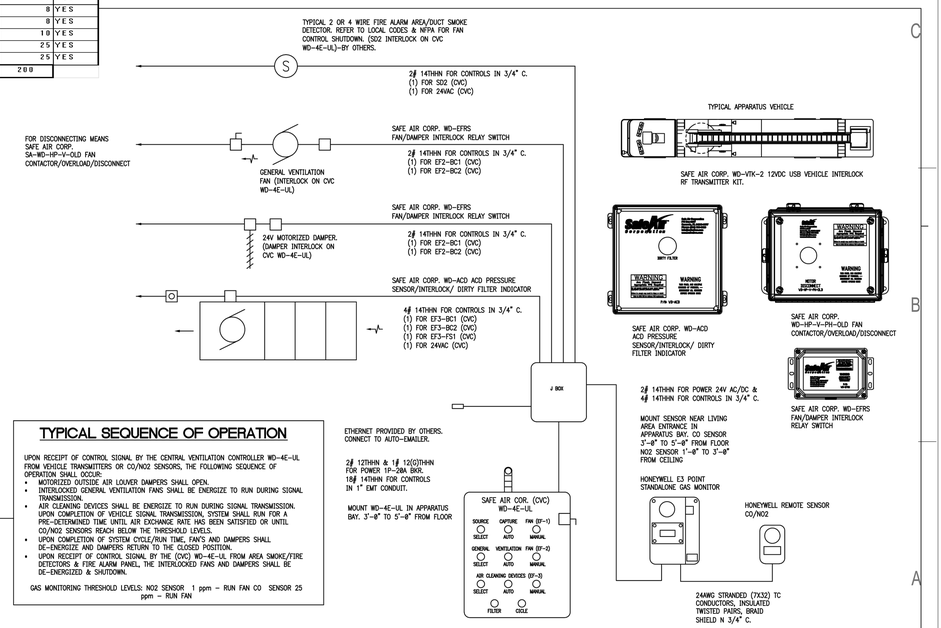
THIS SEQUENCE OF OPERATION AND CONTROL DIAGRAM FOR SAFE AIR EQUIPMENT IS PROVIDED FOR GENERAL INFORMATION ONLY AND IS NOT INTENDED AS A DESIGN GUIDE FOR THE SAFE AIR VENTILATION SYSTEM. REFER TO SHOP DRAWINGS PREPARED AND ISSUED BY SAFE AIR CORPORATION FOR COMPLETE SPECIFICATIONS OF THE SAFE AIR EQUIPMENT, SYSTEM MODE OF OPERATION AND CONTROLS.

TYPICAL SEQUENCE OF OPERATION

UPON RECEIPT OF CONTROL SIGNAL BY THE CENTRAL VENTILATION CONTROLLER WD-4E-UL FROM VEHICLE TRANSMITTERS OR CO/NO2 SENSORS, THE FOLLOWING SEQUENCE OF OPERATION SHALL OCCUR:

- MOTORIZED OUTSIDE AIR LOUVER DAMPERS SHALL OPEN.
- INTERLOCKED GENERAL VENTILATION FANS SHALL BE ENERGIZE TO RUN DURING SIGNAL TRANSMISSION.
- AIR CLEANING DEVICES SHALL BE ENERGIZE TO RUN DURING SIGNAL TRANSMISSION. UPON COMPLETION OF VEHICLE SIGNAL TRANSMISSION, SYSTEM SHALL RUN FOR A PRE-DETERMINED TIME UNTIL AIR EXCHANGE RATE HAS BEEN SATISFIED OR UNTIL CO/NO2 SENSORS REACH BELOW THE THRESHOLD LEVELS.
- UPON COMPLETION OF SYSTEM CYCLE/RUN TIME, FAN'S AND DAMPERS SHALL DE-ENERGIZE AND DAMPERS RETURN TO THE CLOSED POSITION.
- UPON RECEIPT OF CONTROL SIGNAL BY THE (CVC) WD-4E-UL FROM AREA SMOKE/FIRE DETECTORS & FIRE ALARM PANEL, THE INTERLOCKED FANS AND DAMPERS SHALL BE DE-ENERGIZED & SHUTDOWN.

GAS MONITORING THRESHOLD LEVELS: NO2 SENSOR 1 ppm - RUN FAN CO SENSOR 25 ppm - RUN FAN



SAFE AIR CORP. CENTRAL VENTILATION CONTROLLER WD-4E-UL TYPICAL WIRING RISER DIAGRAM N.T.S.

SAFE AIR CORP. WD-4E-UL ACCESSORIES N.T.S.

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

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CRUZ BAY-VIFEMS STATION

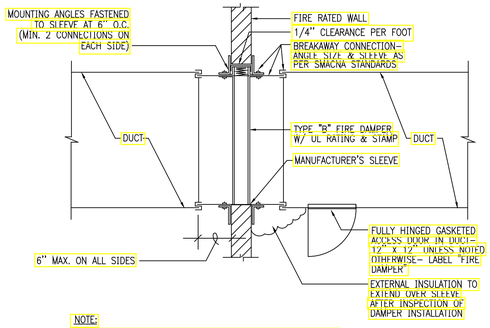
ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 5M1.1

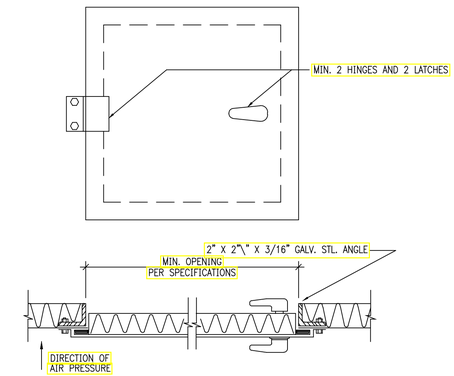
SEQUENCE OF OPERATIONS



NOTE:
1. ACCESS DOOR SHALL BE LOCATED ON SIDE OR BOTTOM OF DUCT AS APPROPRIATE TO PERMIT RESETTING OF DAMPER LINK.
2. ALL FIRE DAMPERS SHALL BE DYNAMIC TYPE.

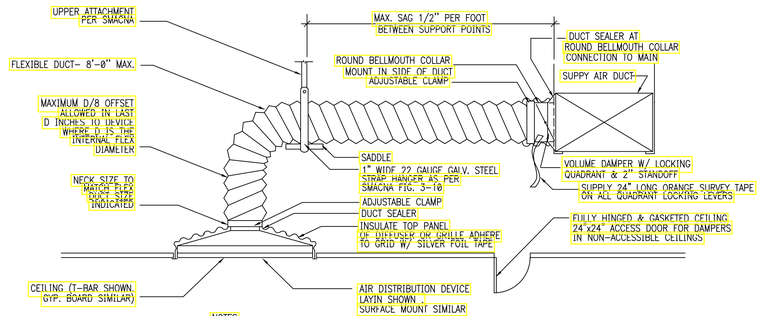
FIRE DAMPER DETAIL

N.T.S.



DUCT MOUNTED ACCESS DOOR

N.T.S.

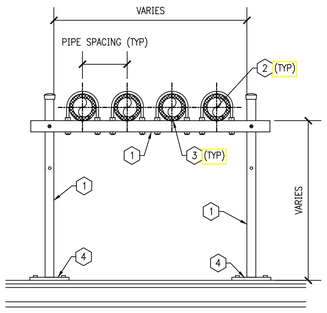


NOTES
1. FLEXIBLE DUCTS SHALL BE ONE PIECE AND SHALL NOT BE SPLICED TOGETHER .
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC .
3. FLEXIBLE AIR DUCT SHALL NOT EXCEED 8 FT. WHEN EXTENDED . ELBOW RADIUS SIZED FOR NO LESS THAN R / D = 1.0 .
4. MAXIMUM SAG OF FLEXIBLE DUCT BETWEEN SUPPORTS SHALL BE 1/2" PER FOOT.

FLEXIBLE DUCT TAKEOFF DETAIL

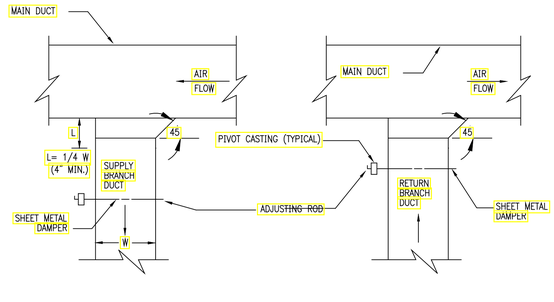
N.T.S.

NOTES:
1. MIAMI TECH INC. HEAVY DUTY APSH ALUMINUM PIPE STAND.
2. REFRIGERATION PIPE WITH HOT DIP GALVANIZED PIPE CLAMPS.
3. PIPE COVERING PROTECTION SADDLE.
4. PLATE ANCHORING SUPPORT TO ROOF BY OTHERS.



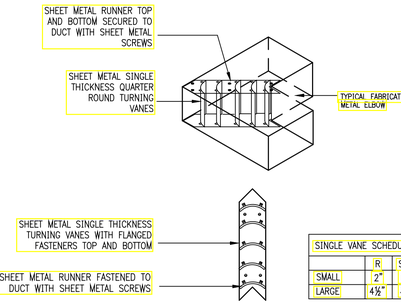
ROOF REFRIGERATION PIPE SUPPORT DETAIL

N.T.S.



DUCT BRANCH TAKE OFF DETAIL FOR LOW PRESSURE DUCTWORK

N.T.S.

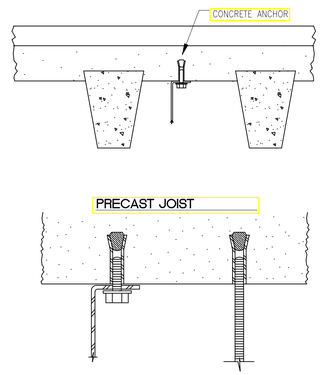


SINGLE VANE SCHEDULE

	R	SP	GA
SMALL	2"	1½"	24
LARGE	4½"	3¼"	22

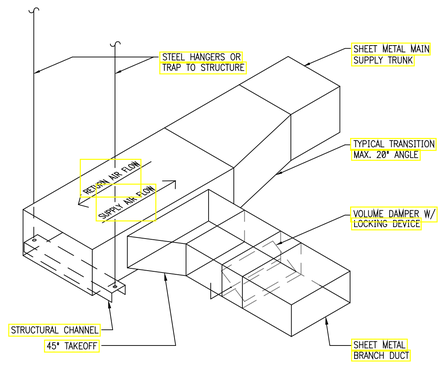
DUCT TURNING VANE DETAIL

N.T.S.



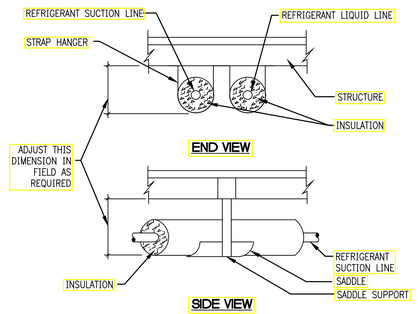
CONCRETE ANCHORS

N.T.S.



BRANCH DUCT TAKEOFF DETAIL

N.T.S.



NOTES:
1- PROVIDE ISOLATION BETWEEN DISSIMILAR METALS
2- PROVIDE SADDLE PROTECTION AT EACH SUPPORT

TYPICAL REFRIGERANT PIPING HANGER DETAIL

N.T.S.

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

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CRUZ BAY-VIFEMS STATION

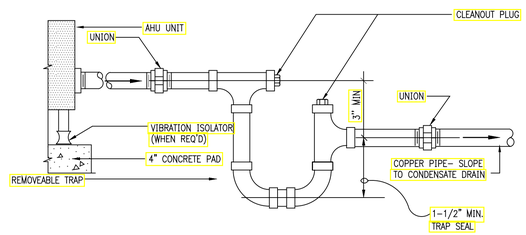
ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

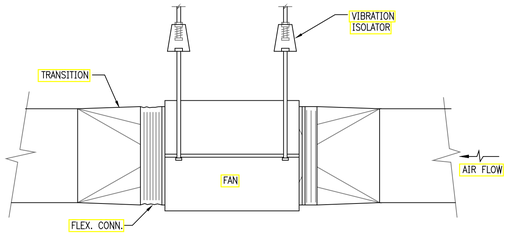
SHEET NO.: 6M1.0

DETAILS - HVAC



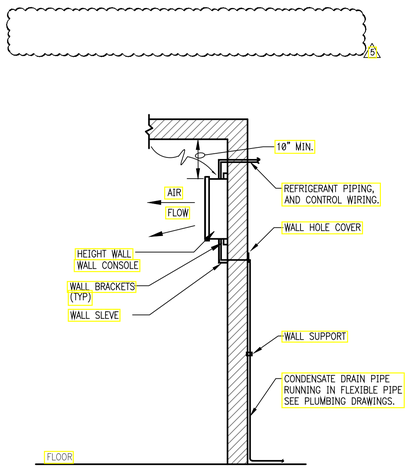
CONDENSATE DRAIN P-TRAP

N.T.S.



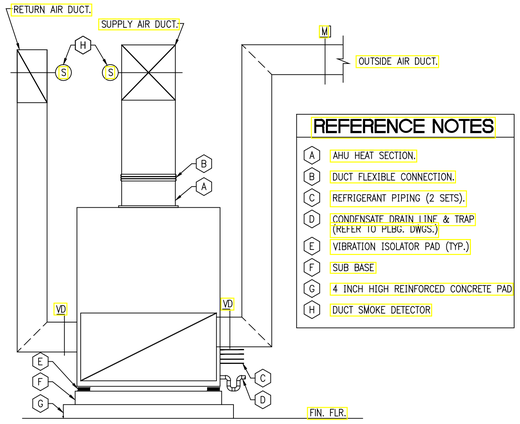
INLINE FAN SUPPORT DETAIL

N.T.S.



DUCTLESS WALL CONSOLE UNIT WALL MOUNTED DETAIL

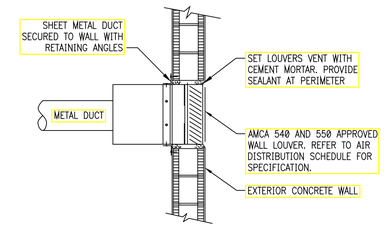
N.T.S.



REFERENCE NOTES	
A	AHU HEAT SECTION.
B	DUCT FLEXIBLE CONNECTION.
C	REFRIGERANT PIPING (2 SETS).
D	CONDENSATE DRAIN LINE & TRAP (REFER TO PLBG. DWGS.)
E	VIBRATION ISOLATOR PAD (TYP.)
F	SUB BASE
G	4 INCH HIGH REINFORCED CONCRETE PAD
H	DUCT SMOKE DETECTOR

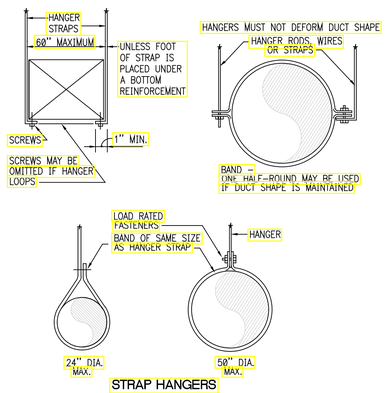
AIR HANDLING UNIT MOUNTING DETAIL

N.T.S.



TYPICAL WALL TOILET EXHAUST LOUVER DETAIL

N.T.S.



UPPER AND LOWER HANGER ATTACHMENTS AND DEVICES

N.T.S.

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
CONSULTING ENGINEERS
10556 NW 26 STREET, SUITE D-202
DORAL, FL 33172
PH: 786-615-7520, FAX:786-752-3284
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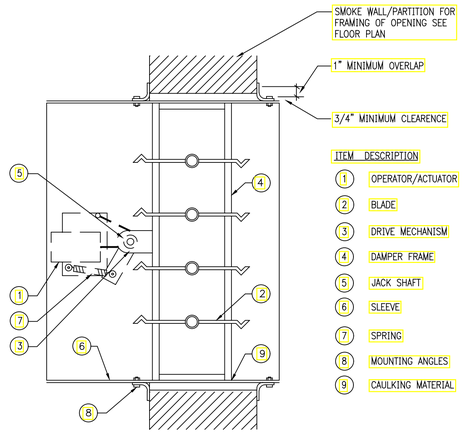
5143 Palm Passage,
Second Floor - Suites B24-25 St. Thomas,
US Virgin Islands 00802
Post Office Box 6218
St. Thomas, U.S. Virgin Islands 00804-6218
telephone: 340.777.1600
e-mail: admin@jaredian.com
website: www.jaredian.com

CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO.
303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	08.20.2025
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	6M1.1

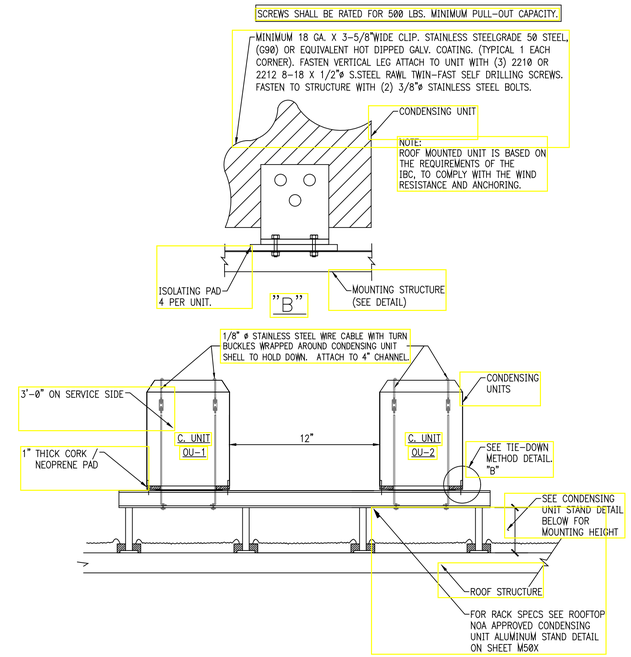
DETAILS - HVAC



SMOKE DAMPER DETAIL

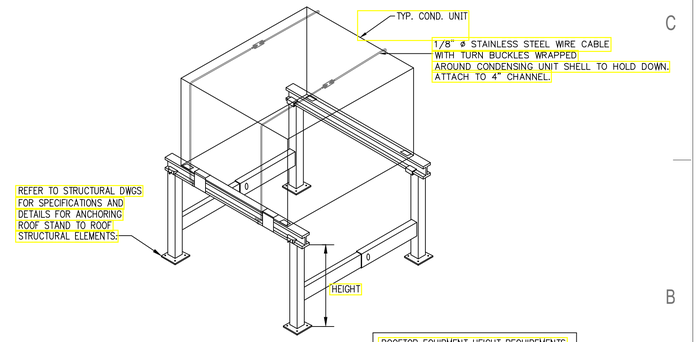
N.T.S.

NOTES:
1. SMOKE DAMPER SHALL BE CONNECTED TO FIRE ALARM SYSTEM.



CONDENSING UNIT MOUNTING ROOF RACK DETAIL

N.T.S.



NOTES:
1. ALL CONSTRUCTION TO MEET ALUMINUM ASSOCIATION STANDARDS SPECIFICATIONS.
2. BASE AS MANUFACTURED BY MIAMI-TECH. ALUMINUM STAND, NOA No. 17-1218.02, EXPIRATION DATE: JANUARY 15, 2024.
3. BASE TO COMPLY WITH I.B.C.

ROOFTOP EQUIPMENT HEIGHT REQUIREMENTS

WIDTH OF EQUIPMENT	HEIGHT OF LEGS FROM FINISH ROOF
UP TO 24"	14"
25" TO 36"	18"
37" TO 48"	24"
49" TO 60"	30"
61" AND WIDER	48"

CONDENSING UNIT STAND DETAIL

N.T.S.

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
CONSULTING ENGINEERS
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email: roger.perez@psiengineeringinc.com
web: www.psiengineeringinc.com

5143 Palm Passage,
Second Floor - Suites B24-25 St. Thomas,
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Post Office Box 6218
St. Thomas, U.S. Virgin Islands 00804-6218
telephone: 340.777.1600
e-mail: admin@jaredian.com
website: www.jaredian.com

CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

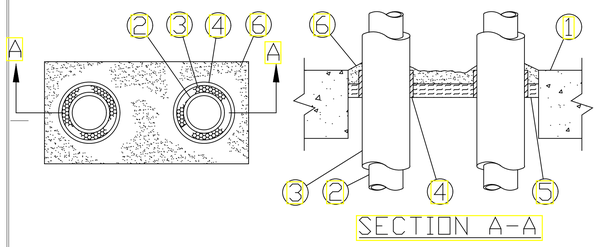
DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 6M1.2

DETAILS - HVAC

System No. F-A-5001
January 10, 2024
F Rating - 2 Hr
T Rating - 0 Hr
L Rating At Ambient - 2 CFM/sq ft
L Rating At 400 F - Less Than 1 CFM/sq ft



SECTION A-A

3M FIRE PROTECTION PRODUCTS OR APPROVED EQUAL

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

1. Floor Assembly - Min 4-1/2 in. (114 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Max area of opening 192 sq in. (1239 cm2) with max length of 24 in. (610 mm) and max width of 8 in. (203 mm).

2. Pipe - Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing, Schedule 10 (or heavier) steel pipe, steel conduit or steel EMT to be installed with a min clearance of 1 in. (25 mm) and a max clearance of 2 in. (51 mm) from the sides of the through opening. A min separation of 1 in. (25 mm) shall be maintained between adjacent pipes. Pipes to be rigidly supported on both sides of floor assembly.

3. Pipe Covering - Nom 1/2 in. to 1 in. (13 mm to 25 mm) thick hollow cylindrical heavy density glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt strip tape supplied with the product.

See **Pipe and Equipment Covering - Materials*** (BRGU) category in Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

3A. Pipe Insulation - Plastics - As an alternate to Iten 3, nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing with skin may be used on steel pipes.

See **Plastics** (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

4. Fill,Void or Cavity Materials* - Wrap Strip - Nom 1/4 in. (6 mm) thick intumescent elastomeric material faced on one side with aluminum foil, supplied in 2 in. (51 mm) wide strips. Nom 2 in. (51 mm) wide strip tightly-wrapped around pipe insulation (Item 3 or 3A) with the foil side exposed and slid into through opening such that the tap edge is flush with the top surface of the floor. The wrap strip layer shall be secured in place with min No. 18 gauge galv steel tie wire.

3M COMPANY - FS-195+

5. Packing Material - Min 1 in. (25 mm) thick mineral wool batt material insulation firmly packed into opening as a permanent form with its top surface recessed min 1 in. (25 mm) from top surface of floor.

6. Fill,Void or Cavity Materials* - Caulk or Sealant - Applied to fill through opening to a min depth of 1 in. (25 mm), flush with top surface of floor, with a min 1/8 in. (3.2 mm) thickness of caulk applied over top edge of wrap strip layer (Item 4) on insulated pipe.

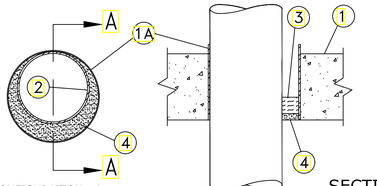
3M COMPANY - IC 15WB+, CP 25WB+ caulk or FB-3000 WT sealant.

*Bearing the UL Classification Marking

CONSULT CURRENT INDEPENDENT LABORATORIES (UL) FOR SYSTEMS OR DESIGN DETAILS

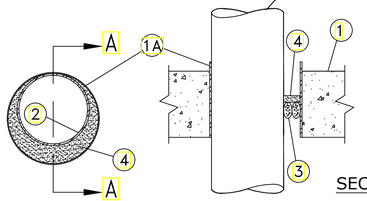
PROJECT		SHT 1 1of	SIGNATURE	DATE
		FA500.DWG		
SYSTEM/DESIGN NO. F-A-5001	DATE 01-10-24	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE.	All statements, technical information and recommendations contained herein are based on tests we believe to be reliable. However, since the conditions of use and application are beyond our control, 3M shall not be liable for any damage direct or consequential resulting from the use of this material or design. 3M's only warranty shall be to replace our products proved to be defective.	
3M Fire Protection Products				

System No. C-AJ-1175
January 10, 2024
F Rating - 2 Hr
T Rating - 0 Hr
W Rating - Class I (See Item 4)



FIRESTOP CONFIGURATION - A

SECTION A-A



FIRESTOP CONFIGURATION - B

SECTION A-A

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

1. Floor or Wall Assembly - Min 2-1/2 in. thick lightweight or normal weight (100-150 pcf) concrete. When configuration A is used, on configuration B is used in conjunction with the steel sleeve (Item 1A), floor may be constructed of any min 6 in. thick UL Classified hollow core **Precast Concrete Units***. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of circular through opening is 10 in.
See **Concrete Blocks** (CAZT) and **Precast Concrete Units** (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

1A. Steel Sleeve (Optional) - No. 10 in. diam (or smaller) Schedule 10 (or heavier) steel pipe sleeve cast into concrete floor or wall. Sleeve to be flush with or project max 2 in. from top surface of floor or from both surfaces of wall.

2. Through Penetrants - One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Max annular space between pipe, conduit or tubing and edge of through opening not to exceed 1-3/8 in. Min annular space between pipe or conduit and edge of through opening is zero in. (point contact). Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe** - Nom 8 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. **Conduit** - Nom 6 in. diam (or smaller) rigid steel conduit.
C. **Conduit** - Nom 4 in. diam (or smaller) steel electrical metallic tubing.
D. **Iron Pipe** - Nom 4 in. diam (or smaller) cast or ductile iron pipe.
E. **Copper Tubing** - Nom 6 in. diam (or smaller) Type L (or heavier) copper tube.
F. **Copper Pipe** - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

FIRESTOP CONFIGURATION A

3. Packing Material - Min 1 in. thickness of tightly-packed mineral wool batt material used as a permanent form. Packing material to be recessed from top or bottom surface of floor or from either surface of solid concrete wall as required to accommodate the required thickness of caulk fill material (Item 4). When wall is constructed of concrete block, packing material is to be installed on both sides of wall assembly. When precast hollow core floor is used, packing material must be installed on bottom surface of floor.

4. Fill,Void or Cavity Materials* - Caulk or Sealant - Applied to fill the annular space to a min depth of 1/2 in. flush with the top or bottom surface of the floor or either surface of the solid concrete wall. A min 1/4 in. diam bead of caulk shall be applied to the floor or wall surface where the pipe, conduit or EMT is installed in point contact with the edge of the through opening. When wall is constructed of concrete block, caulk to be installed symmetrically on both sides of wall assembly. When precast hollow core floor is used, caulk fill material must be installed on bottom surface of floor.

3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant.
(The W Rating applies only when FB-3000 WT is used flush with the top surface of floor.)

FIRESTOP CONFIGURATION B

3. Packing Material - Polyethylene backer rod or nom 1 in. thickness of tightly-packed mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed min 1/2 in. from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of caulk fill material (Item 4).

4. Fill,Void or Cavity Materials* - Caulk or Sealant - Applied to fill the annular space to a min depth of 1/2 in. flush with the top surface of the floor or both surfaces of the wall. A min 1/4 in. diam bead of caulk shall be applied to the floor or wall surface where the pipe, conduit or EMT is installed in point contact with the edge of the through opening.

3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant. (The W Rating applies only when FB-3000 WT is used.)

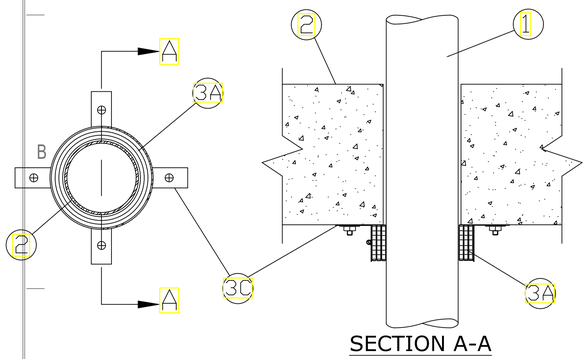
*Bearing the UL Classification Mark

3M FIRE PROTECTION PRODUCTS OR APPROVED EQUAL

CONSULT CURRENT INDEPENDENT LABORATORIES (UL, OPL) FOR SYSTEMS OR DESIGN DETAILS

PROJECT		SHT 1 of 1	SIGNATURE	DATE
		CAJ1175.DWG		
SYSTEM/DESIGN NO. C-AJ-1175	DATE 01-10-24	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE	All statements, technical information and recommendations contained herein are based on tests we believe reliable. However, since the conditions of use and application are beyond our control, 3M shall not be liable for any damage direct or consequential, resulting from the use of this material or design. 3M's only warranty shall be to replace any of our products proved to be defective.	
3M FIRE PROTECTION PRODUCTS				

System No. C-AJ-2001
January 10, 2024
F Rating - 2 Hr
T Ratings - 0, 1-1/2 and 2 Hr (See Item 3)
L Rating at Ambient - 7 CFM/sq ft (See Item 3B)
L Rating at 400 F - 1 CFM/sq ft (See Item 3B)



SECTION A-A

3M FIRE PROTECTION PRODUCTS OR APPROVED EQUAL

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

1. Floor or Wall Assembly - Lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Except as footnoted for floor assembly in table under Item 3, min thickness of solid concrete floor or wall assembly is 4-1/2 in. (114 mm). Floor assembly may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow core **Precast Concrete Units***. Wall may also be constructed of any UL Classified **Concrete Blocks***. Diam of opening through floor or wall to be 0 in. to 1/4 in. (0 mm to 6 mm) larger than the outside diam of nom 2 in. (51 mm) diam and smaller pipes or conduits. Diam of opening to be 0 in. to 1/2 in. (0 mm to 13 mm) larger than the outside diam of nom 2-1/2 in. (64 mm) diam and larger pipes or conduits. Max diam of opening is 7 in. (178 mm).

See **Concrete Blocks** (CAZT) and **Precast Concrete Units** (CFTV) categories in Fire Resistance Directory for names of manufacturers.

2. Through Penetrants - One nonmetallic pipe or conduit to be centered in the through opening. Pipe or conduit to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. Polyvinyl Chloride (PVC) Pipe - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 solid-core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
B. Cellular - Core Polyvinyl Chloride (ccPVC) Pipe - Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
C. Chlorinated Polyvinyl Chloride (CPVC) Pipe - Nom 6 in. (152 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
D. Acrylonitrile Butadiene Styrene (ABS) Pipe - Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid-core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
E. Cellular Core Acrylonitrile Butadiene Styrene (ccABS) Pipe - Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
F. Polybutylene (PB) Pipe - Nom 3 in. (76 mm) diam (or smaller) SDR11 (or heavier) PB pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
G. Rigid Nonmetallic Conduit++ - Nom 4 in. (102 mm) diam (or smaller) (Schedule 40 or 80) PVC conduit installed in accordance with Article 347 of the National Electric Code (NFPA No. 70).
H. Flame Retardant Polypropylene (FRPP) Pipe - Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

See **Rigid Nonmetallic Conduit** (DZXT) category in UL Electrical Construction Materials Directory for names of manufacturers.

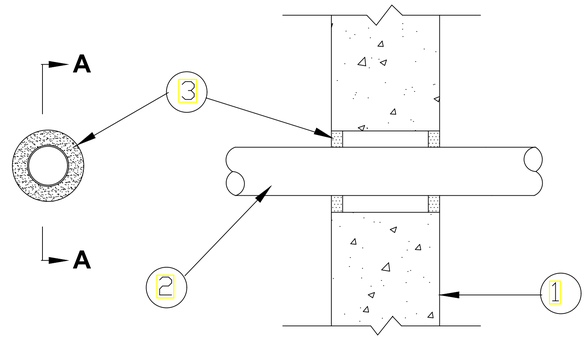
3. Firestop System - The details of the firestop system shall be as follows:

A. Fill,Void or Cavity Materials* - Wrap Strip - Nom 1/4 in. (6 mm) thick intumescent elastomeric material faced on one side with aluminum foil, supplied in 1 in. and 2 in. (25 mm and 51 mm) wide strips. Strips tightly wrapped around nonmetallic pipe (foil side exposed) with the edges butted against the underside of the concrete floor or both sides of wall surface. Sufficient layers of wrap strip shall be installed to lap a min of 3/16 in. (5 mm) on the concrete around the entire perimeter of the through opening. The min wrap strip width and the min number of layers of wrap required is dependent upon the pipe type, the nom pipe diam, the wall of floor thickness and the hourly T Rating required, as shown in the following table.

CONSULT CURRENT INDEPENDENT LABORATORIES (UL) FOR SYSTEMS OR DESIGN DETAILS

PROJECT		SHT 1 of	SIGNATURE	DATE
		CAJ200.DWG		
SYSTEM/DESIGN NO. C-AJ-2001	DATE 01-10-24	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE.	All statements, technical information and recommendations contained herein are based on tests we believe to be reliable. However, since the conditions of use and application are beyond our control, 3M shall not be liable for any damage direct or consequential resulting from the use of this material or design. 3M's only warranty shall be to replace our products proved to be defective.	
3M Fire Protection Products				

System No.W-J-1156
January 10, 2024
F Rating - 2 Hr
T Rating - 0 Hr



SECTION A-A

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

1. Wall Assembly - Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Diam of opening to be min 1/2 in. (13 mm) to max 4 in. (102 mm) greater than outside diam of through-penetrant.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants - One metallic pipe, conduit or tubing centered within opening. Annular space between penetrant and periphery of opening to be min 1/4 in. (6 mm) to max 2 in. (51 mm). Penetrant to be rigidly supported on both sides of wall. The following types and sizes of penetrants may be used:

A. **Steel Pipe** - Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. **Iron Pipe** - Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
C. **Conduit** - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 6 in. (152 mm) rigid steel conduit.
D. **Copper Tubing** - Nom 3 in. (76 mm) diam (or smaller) Type L (or heavier) copper tubing.
E. **Copper Pipe** - Nom 3 in. (76 mm) diam (or smaller) Regular (or heavier) copper pipe.

3. Fill,Void or Cavity Material* - Sealant - Min 5/8 in. (16 mm) thickness of sealant applied within annulus, flush with both surfaces of wall.

3M COMPANY - FB-1000 NS

*Bearing the UL Classification Marking

3M FIRE PROTECTION PRODUCTS OR APPROVED EQUAL

CONSULT CURRENT INDEPENDENT LABORATORIES (UL, OPL) FOR SYSTEMS OR DESIGN DETAILS

PROJECT		SHT 1 of 1	SIGNATURE	DATE
		WJ1156.DWG		
SYSTEM/DESIGN NO. W-J-1156	DATE 01-10-24	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE	All statements, technical information and recommendations contained herein are based on tests we believe reliable. However, since the conditions of use and application are beyond our control, 3M shall not be liable for any damage direct or consequential, resulting from the use of this material or design. 3M's only warranty shall be to replace any of our products proved to be defective.	
3M FIRE PROTECTION PRODUCTS				

NOTE: DETAILS ARE SHOW FOR REFERENCE. CONTRACTOR TO SUBMIT PRODUCTS APPLICABLE TO THE PROJECT.

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
CONSULTING ENGINEERS
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DORAL, FL 33172
PH: 786-615-7520, FAX:786-752-3284
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Post Office Box 6218
St. Thomas, U.S. Virgin Islands 00804-6218
telephone: 340.777.1600
e-mail: admin@jaredian.com
website: www.jaredian.com

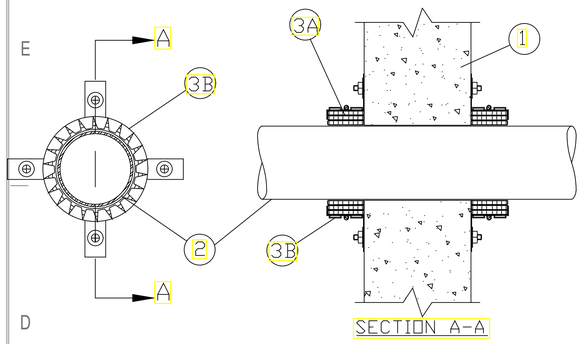
CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	08.20.2025
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	6M1.3

DETAILS - HVAC

System No.W-J-2012
January 10, 2024
F Rating - 2 Hr
T Ratings - 0 and 2 Hr (See Item 2)



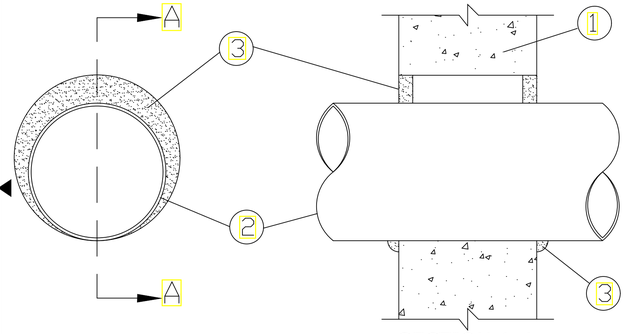
3M FIRE PROTECTION PRODUCTS OR APPROVED EQUAL

1. **Wall Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 - 2400 kg/m3) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 5 in. (127 mm).
See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. **Nonmetallic Pipe —** Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid-core polyvinyl chloride (PVC) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems or SDR13.5 chlorinated polyvinyl chloride (CPVC) pipe for use in closed (process or supply) piping systems. One pipe is centered within the firestop system. The annular space between the pipe and the edge of the through opening on each side of the wall shall be min 0 in. (0 mm, point contact) to max 1/4 in. (6 mm). When nom 3-1/2 or 4 in. (89 or 102 mm) diam pipe is used, T Rating is 0 hr. When nom 3 in. (76 mm) diam (or smaller) pipe is used, the T Rating is 2 hr.
3. **Firestop System —** Installed symmetrically on both sides of wall assembly. The details of the firestop system shall be as follows.
A. **Fill, Void or Cavity Materials* — Wrap Strip —** Nom 1/4 in. (6 mm) thick intumescent elastomeric material faced on one side with aluminum foil, supplied in 1 in. (25 mm) wide strips. Nom 1 in. (25 mm) wide strips tightly wrapped around nonmetallic pipe (foil side exposed) with the edges butted against the surface of the wall. Sufficient layers of wrap strip shall be installed to lap a min of 3/16 in. (5 mm) on the wall surface around the entire perimeter of the circular through opening. For nom 1/2 in. (13 mm) to nom 2 in. (51 mm) diam pipes, a min of one layer of wrap strip is required. For nom 2-1/2 in. (64 mm) and nom 3 in. (76 mm) diam pipes, a min of two layers of wrap strip is required. For nom 3-1/2 in. (89 mm) and nom 4 in. (102 mm) diam pipes, a min of three layers of wrap strip is required. Each layer of wrap strip to be installed with a butted seam, with butted seams in successive layers staggered. Wrap strip layers temporarily held in position using aluminum foil tape, steel wire tie or equivalent.
3M COMPANY — FS-195+
B. **Steel Collar —** Nom 1 in. (25 mm) deep collar with 1-1/4 in. (32 mm) wide by 2 in. (51 mm) long anchor tabs and min 3/4 in. (19 mm) long tabs to retain wrap strip layers. Coils of precut 0.016 in. (0.41 mm) thick (No. 30 28 gauge) galv sheet steel available from wrap strip manufacturer. Steel collar, with anchor tabs bent outward 90 degree, wrapped tightly around wrap strip layers with min 1 in. (25 mm) overlap at the seam. With steel collar anchor tabs pressed tightly against wall surface, compress collar around wrap strip layers using a min 1/2 in. (13 mm) wide by 0.028 in. (0.71 mm) thick stainless steel band clamp with worm drive tightening mechanism at the collar midheight. Secure collar to wall surface with min 3/16 in. (5 mm) diam by min 1-1/4 in. (32 mm) long steel anchor bolts in conjunction with min 1-1/4 in. (32 mm) diam steel washers. Three bolts, symmetrically located, required for nom 1/2 in. (13 mm) to nom 3 in. (76 mm) diam pipes. Four bolts, symmetrically located, required for nom 3-1/2 and 4 in. (76 and 102 mm) diam pipes. As a final step, bend retainer tabs 90 degree toward pipe to lock wrap strip layers in position.
C. **Fill, Void or Cavity Materials* — Caulk or Sealant —** (Not Shown) — Generous bead of caulk applied to outer perimeter of wrap strip at interface with wall surface and to perimeter of pipe or conduit at its egress from the wrap strip layers.
3M COMPANY — Type CP 25WB+, IC 15WB+, FireDam 150+ caulk or FB-3000 WT sealant. (Note: CP 25WB+ and FireDam 150+ not suitable for use with CPVC pipes.)
D. **Firestop Device* — (Not Shown) —** As an alternate to Item A and B when nom 1-1/2, 2, 3 or 4 in. (38, 51, 76 and 102 mm) diam nonmetallic pipes are used, a firestop device consisting of a sheet-steel split collar lined with intumescent material and provided with steel clips for attachment to the wall. Firestop device to be installed on underside of top plate or on both sides of wall in accordance with the accompanying installation instructions.
3M COMPANY — PPD 150, PPD 200, PPD 300, PPD400, PPD 1.5, PPD 2, PPD 3, PPD 4.

CONSULT CURRENT INDEPENDENT LABORATORIES (UL) FOR SYSTEMS OR DESIGN DETAILS

PROJECT		SHT 1 of 1	SIGNATURE	DATE
		WJ012.DWG		
SYSTEM/DESIGN NO.	DATE	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE.	All statements, technical information and recomendations contained herein are based on tests we believe to be reliable. However since the conditions of use and application are beyond our control, 3M shall not be liable for any damage direct or consequential resulting from the use of this material or design. 3M's only warranty shall be to replace our products proved to be defective.	
W-J-2012	01-10-2024			
3M Fire Protection Products				

System No.W-J-1127
January 10, 2024
F Rating - 2 Hr
T Rating - 1/4 Hr



3M FIRE PROTECTION PRODUCTS OR APPROVED EQUAL

1. **Wall Assembly** – Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 10-1/2 in. (267 mm).

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants – One metallic pipe, conduit, tubing or flexible metal pipe installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening to be min 0 in. (point contact) to max 1-7/8 in. (0 mm to max 48 mm) Penetrant to be rigidly supported on both sides of wall. The following types and sizes of penetrants may be used:

A. Steel Pipe – Nom 8 in. (203 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
B. Iron Pipe – Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.
C. Conduit – Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 6 in. (152 mm) rigid steel conduit.
D. Copper Tubing – Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
E. Copper Pipe – Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
F. Through Penetrating Product* - Flexible Metal Piping – The following types of steel flexible metal gas piping may be used:

1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC.

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

TITEFLEX CORP, A BUNDY CO.

3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG INC.

3. Fill,Void or Cavity Material* - Caulk or Sealant – Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to penetrant/wall interface at point contact location on both sides of wall.

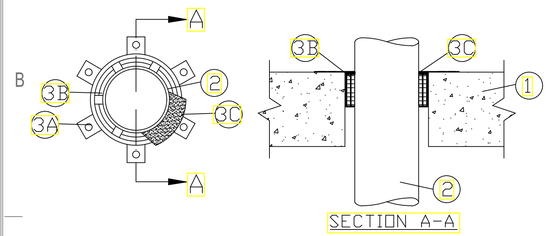
3M COMPANY – CP 25WB+, IC 15WB+ caulk or FB-3000 WT sealant.

*Bearing the UL Classification Marking

CONSULT CURRENT INDEPENDENT LABORATORIES (UL) FOR SYSTEMS OR DESIGN DETAILS

PROJECT		SHT 1 of 1	SIGNATURE	DATE
		WJ127.DWG		
SYSTEM/DESIGN NO.	DATE	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE.	All statements, technical information and recomendations contained herein are based on tests we believe to be reliable. However since the conditions of use and application are beyond our control, 3M shall not be liable for any damage direct or consequential resulting from the use of this material or design. 3M's only warranty shall be to replace our products proved to be defective.	
W-J-1127	01-10-24			
3M Fire Protection Products				

SYSTEM NO. C-AJ-2668
January 10, 2024
F RATING - 2 HR
T RATING - 1/4 HR
FT RATINGS - 1/4 HR
FH RATINGS - 2 HR
FTH RATINGS - 1/4 HR



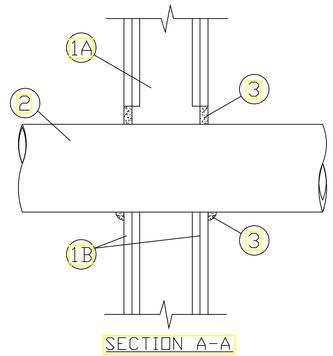
System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.
1. **Floor or Wall Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Max diam of opening 10 in. (254 mm).
2. **Through-Penetrant —** One nonmetallic pipe installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening shall be min 5/8 in. (mm) to max 1 in. (25 mm). Penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:
A. **Polyvinyl Chloride (PVC) Pipe —** Nom 8 in. (203 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
B. **Rigid Nonmetallic Conduit* —** Nom 6 in. (152 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).
3. **Firestop System —** The firestop system shall consist of the following:
A. **Steel Collar —** Nom 2 in. (51 mm) deep collar with 1-1/4 in. (32 mm) wide by 2 in. (51 mm) long anchor tabs and min 1/2 in. (13 mm) long tabs to retain wrap strip. Collar inverted nom 2-1/4 in. (57 mm) into annular space between penetrant and opening to retain wrap strip layers. In floors, one collar is installed from top side of floor. In walls, two collars are installed, one from each side of wall. Every other steel collar anchor tab extending up above floor or beyond surface of wall is bent 90 degree to rest flush against floor or wall surface with min 1/2 in. overlap (13 mm); and remaining anchor tabs are trimmed and bent nom 90 degrees toward penetrant. Coils of precut 0.016 in. (0.41 mm) thick (28 gauge) galv sheet steel available from wrap strip manufacturer. As an alternate, collar may be field-fabricated from min 0.016 in. (0.41 mm) thick (28 gauge) galv sheet steel.
B. **Fill, Void or Cavity Materials* — Wrap Strip —** Min 3/16 in. (5 mm) thick intumescent material supplied in 2-1/2 in. (64 mm) wide strips. Wrap strip is trimmed to a width of 2 in. (51 mm) and tightly wrapped around pipe in continuous layers and secured with either aluminum foil tape or filament tape. Two layers of 3/16 in. (5 mm) thick by 2 in. (51 mm) wide wrap strip are required. When installed in floors, wrap strip is to be installed within the opening such that the top of the wrap strip is recessed 1/4 in. (6 mm) below the top surface of floor. For wall assemblies, wrap strip is to be installed on both sides of wall such that the wrap strip is recessed 1/4 in. (6 mm) from both surfaces of wall.
3M COMPANY 3M FIRE PROTECTION PRODUCTS — Tuck-In Wrap Strip WS Roll
C. **Fill, Void or Cavity Material* — Sealant —** Min 3/8 in. (9.5 mm) thickness of fill material applied within annulus at top surface of floor or both surfaces of wall and smoothed over to lap onto floor or wall surfaces around the periphery of opening.
3M COMPANY 3M FIRE PROTECTION PRODUCTS — IC 15WB+, CP 25WB+, and FB 3000WT sealants
*Bearing the UL Classification Mark
*Bearing the UL Listing Mark

3M FIRE PROTECTION PRODUCTS OR APPROVED EQUAL

CONSULT CURRENT INDEPENDENT LABORATORIES (UL) FOR SYSTEMS OR DESIGN DETAILS

PROJECT		SHT 1 of 1	SIGNATURE	DATE
		CAJ2668.DWG		
SYSTEM/DESIGN NO.	DATE	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE.	All statements, technical information and recomendations contained herein are based on tests we believe to be reliable. However since the conditions of use and application are beyond our control, 3M shall not be liable for any damage direct or consequential resulting from the use of this material or design. 3M's only warranty shall be to replace our products proved to be defective.	
C-AJ-2668	01-10-24			
3M Fire Protection Products				

System No. W-L-7196
January 10, 2024
F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr



1. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Studs —** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
B. **Gypsum Board* —** Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Diam of opening to be max 2 in. (51 mm) larger than OD of steel duct (Item 2). Max diam of opening is 14 in. (356 mm).
The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. **Steel Duct —** Nom 12 in. (305 mm) diam (or smaller) No. 26 gauge (or heavier) spiral wound or long seam galv steel duct. The duct shall be constructed and reinforced in accordance with SMACNA construction standards. Annular space between duct and periphery of opening to be min 0 in. (point contact) to max 2 in. (51 mm). To be rigidly supported on both sides of the wall assembly.
3. **Fill, Void or Cavity Material* — Sealant —** Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly. At point contact location, min 1/4 in. (6 mm) diam bead of fill material applied at steel duct/gypsum board interface on both surfaces of wall.
3M COMPANY
3M FIRE PROTECTION PRODUCTS — IC 15WB+, CP 25WB+ or FB-3000 WT sealant
*Bearing the UL Classification Mark

3M FIRE PROTECTION PRODUCTS OR APPROVED EQUAL

CONSULT CURRENT INDEPENDENT LABORATORIES (UL) FOR SYSTEMS OR DESIGN DETAILS

PROJECT		SHT 1 of 1	SIGNATURE	DATE
		WL7196.DWG		
SYSTEM/DESIGN NO.	DATE	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE.	All statements, technical information and recomendations contained herein are based on tests we believe to be reliable. However since the conditions of use and application are beyond our control, 3M shall not be liable for any damage direct or consequential resulting from the use of this material or design. 3M's only warranty shall be to replace our products proved to be defective.	
W-L-7196	01-10-2024			
3M Fire Protection Products				

NOTE: DETAILS ARE SHOW FOR REFERENCE. CONTRACTOR TO SUBMIT PRODUCTS APPLICABLE TO THE PROJECT.

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

REVISIONS

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
CONSULTING ENGINEERS
10556 NW 26 STREET, SUITE D-202
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PH: 786-615-7520, FAX:786-752-3284
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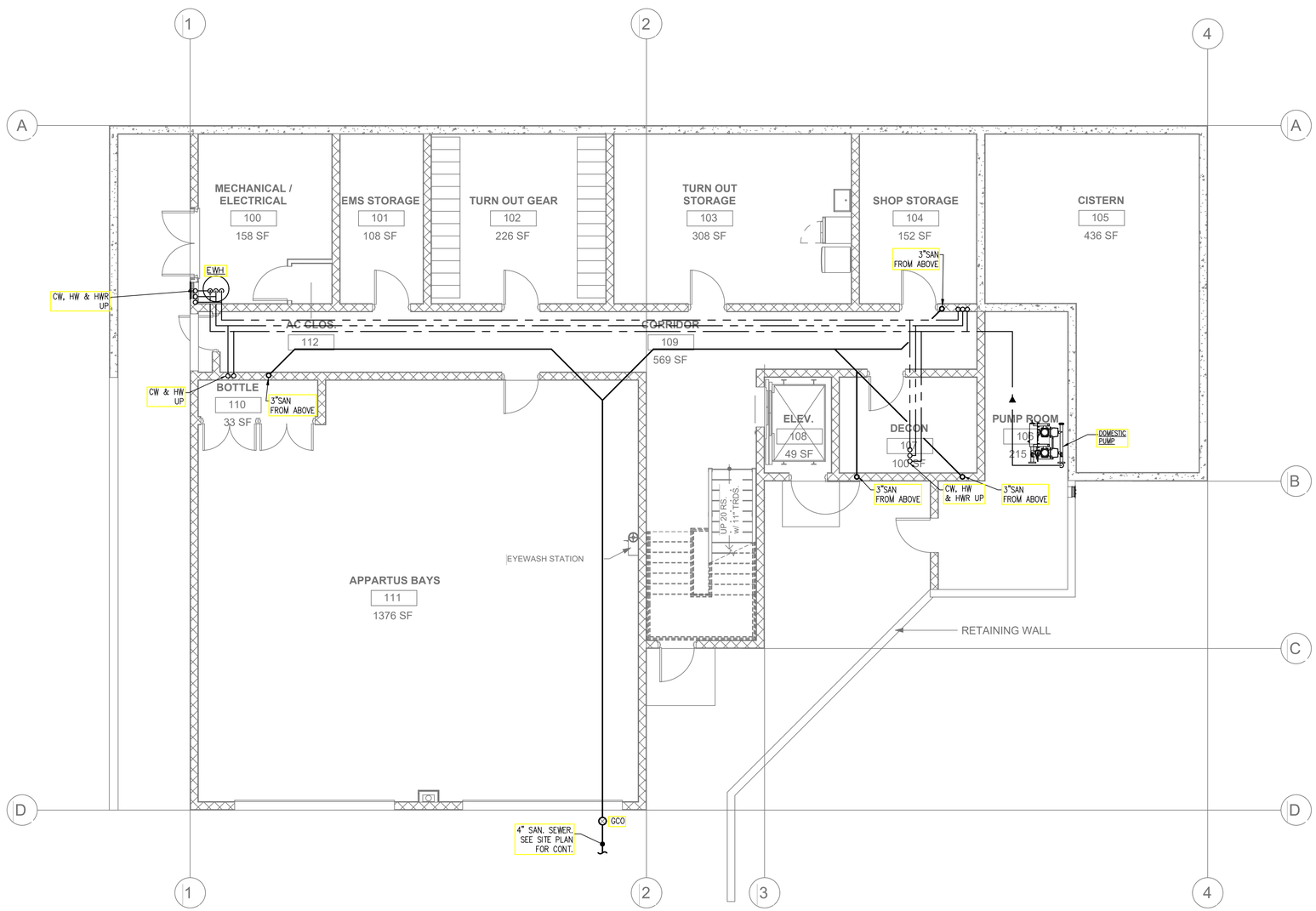
telephone: 340.777.1600
e-mail: admin@jaredian.com
website: www.jaredian.com

CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	08.20.2025
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	6M1.4

DETAILS - HVAC



1 FIRST FLOOR PLAN - PLUMBING
SCALE: 3/16" = 1'-0"

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
CONSULTING ENGINEERS
10556 NW 26 STREET, SUITE D-202
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PH: 786-615-7520, FAX:786-752-3284
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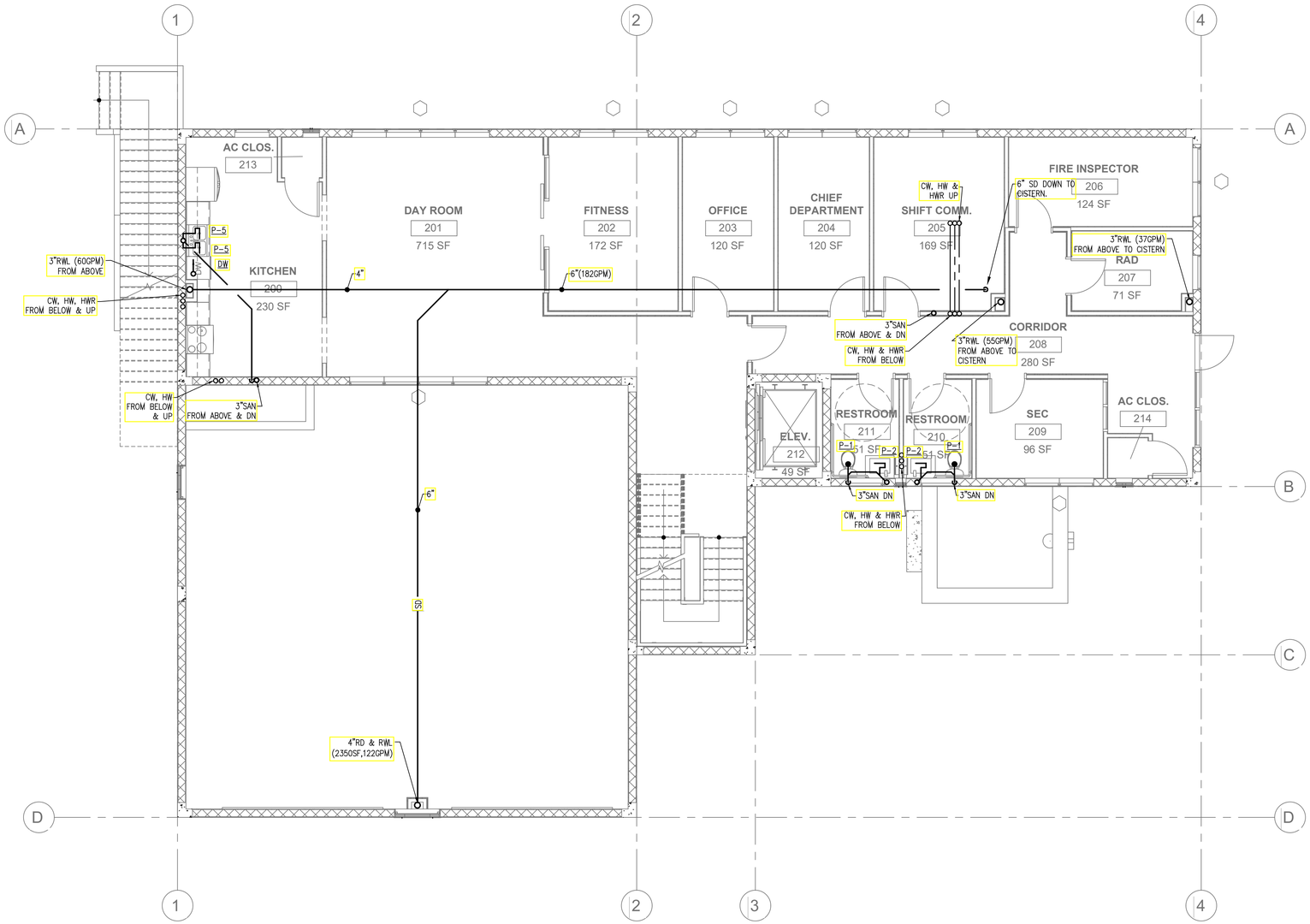
e-mail: admin@jaredian.com
website: www.jaredian.com

CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO.
303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	08.20.2025
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	1P1.0

FIRST FLOOR PLAN



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

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
CONSULTING ENGINEERS
10556 NW 26 STREET, SUITE D-202
DORAL, FL 33172
PH: 786-615-7520, FAX:786-752-3284
email: roger.perez@psiengineeringinc.com
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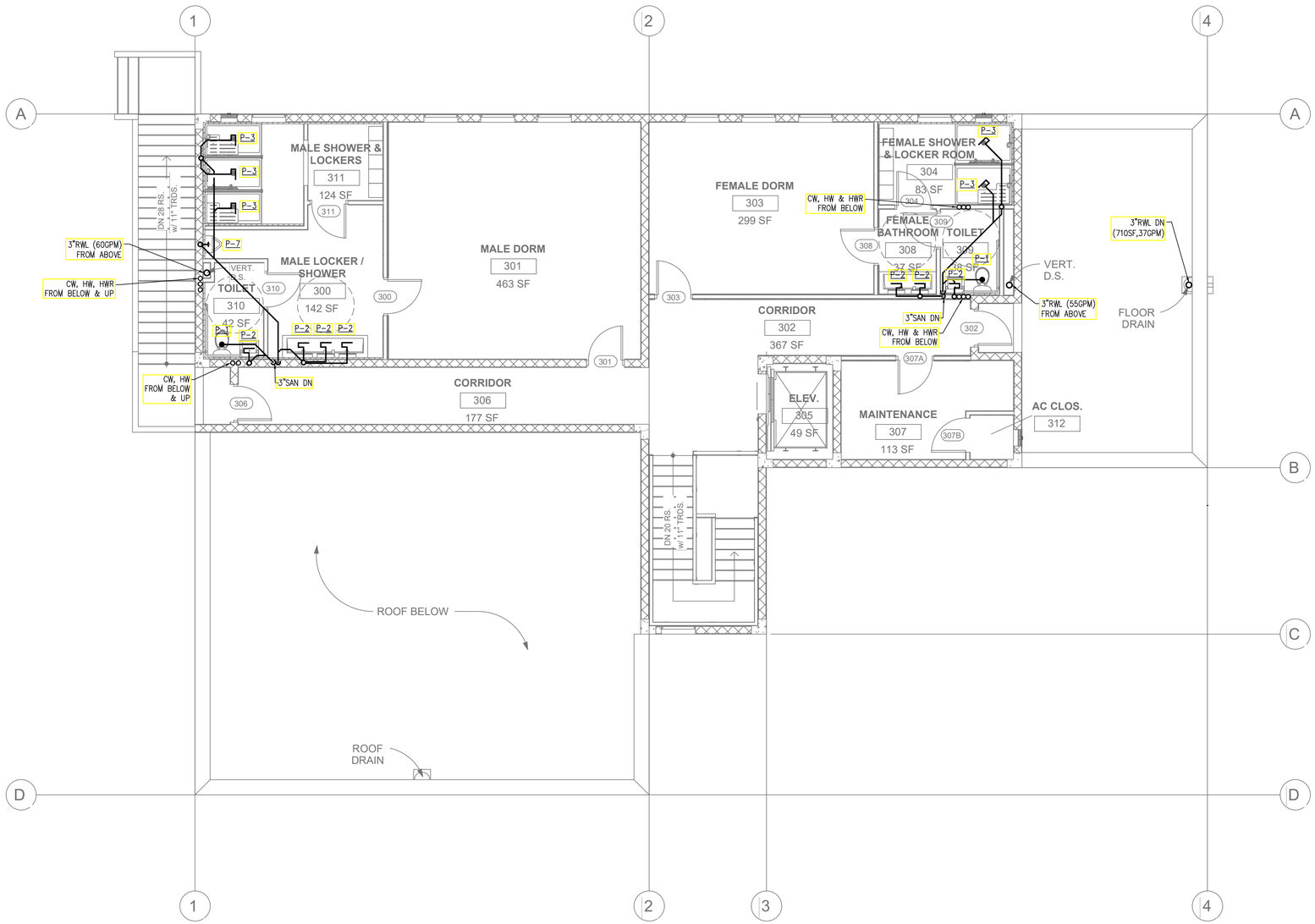
CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO.
303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	08.20.2025
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	2P1.0

SECOND FLOOR PLAN



1 THIRD FLOOR PLAN - PLUMBING
SCALE: 3/16" = 1'-0"

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

PSI ENGINEERING INC
CONSULTING ENGINEERS
10556 NW 26 STREET, SUITE D-202
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CRUZ BAY-VIFEMS STATION

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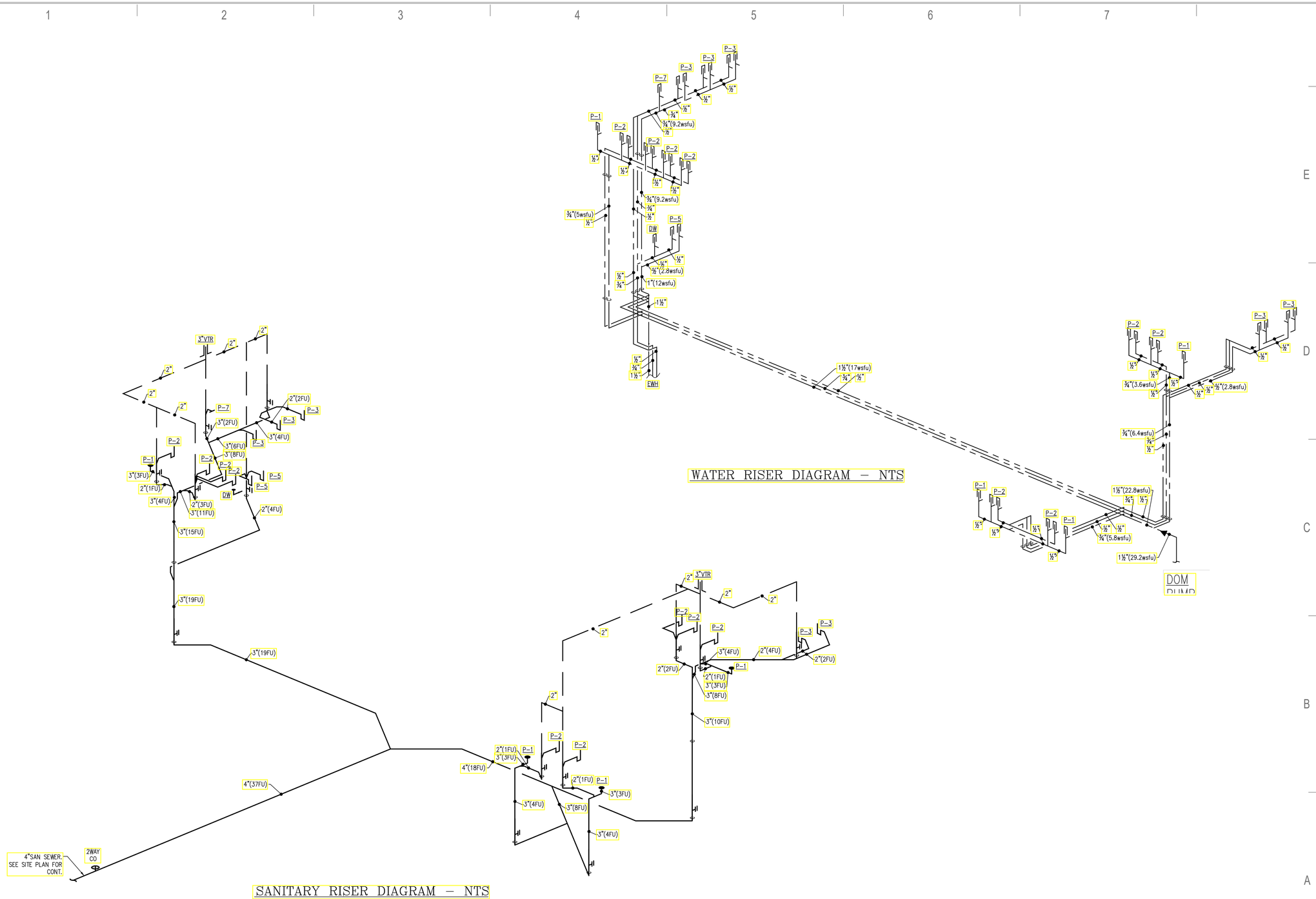
303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 3P1.0

THIRD FLOOR PLAN



REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

CONSULTANTS

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10556 NW 26 STREET, SUITE D-202
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website: www.jaredian.com

CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO.
303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 4P1.0

RISER

PLUMBING NOTES

1.0 GENERAL

1.1 PROVIDE (FURNISH AND INSTALL) ALL NECESSARY MATERIALS AND LABOR FOR A COMPLETELY OPERATIONAL PLUMBING SYSTEM AS SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. INSTALL IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE 2021 AND LOCAL ORDINANCES.

1.2 SCOPE OF WORK :
PROVIDE THE FOLLOWING COMPLETE SYSTEMS :
A. SANITARY COLLECTION.
B. DOMESTIC COLD AND HOT WATER
C. DRAIN PAN COLLECTION
D. AIR CONDITIONING CONDENSATE.
E. HOT WATER PIPING INSULATION

1.3 PAY FOR ALL FEES, INSPECTIONS AND CONNECTION CHARGES REQUIRED.

1.4 VERIFY AT JOB SITE ALL SPACE CONDITIONS, DIMENSIONS WITH PIPE, FIXTURES, AND EQUIPMENT SIZES PRIOR TO FABRICATION OR INSTALLATION. COORDINATE REQUIREMENTS TO AVOID INTERFERENCE WITH OTHER TRADES.

1.5 NATURE OF DESIGN DRAWINGS:
DESIGN DRAWINGS ARE DIAGRAMATIC AND DO NOT INTEND TO SHOW EVERY FITTING, ELBOW, TRANSITION, ETC. THAT WILL BE NECESSARY FOR A COMPLETE OPERATIONAL SYSTEM AS REQUIRED BY THESE SPECIFICATIONS.

1.6 COORDINATION DRAWINGS:
PREPARE 1/4" SCALE COORDINATION DRAWINGS SHOWING MAJOR SYSTEM COMPONENTS FOR A/E APPROVAL.

1.7 SUBMIT SHOP DRAWINGS FOR ARCHITECT / ENGINEER APPROVAL BEFORE PROCEEDING WITH THE PURCHASE OR INSTALLATION OF EQUIPMENT AND MATERIALS.

1.8 GUARANTEE ALL WORK FREE OF DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.

2.0 MATERIALS

2.1 PROVIDE SHUT-OFF VALVES FOR EACH FIXTURE AND AIR CHAMBERS WHERE SHOWN AND WHERE REQUIRED FOR PROPER PERFORMANCE OF THE SYSTEM.

2.1A HANDICAP TUB FAUCETS AND OTHERS CONTROLS SHALL COMPLY WITH FLORIDA BUILDING CODE BUILDING SECTION 404.13 AND LOCATED AS SHOWN IN FBCP 404.7.3

2.2 PROVIDE DIELECTRIC FITTINGS TO CONNECT PIPING TO EQUIPMENT OR OTHER PIPING OF DISSIMILAR METALS. USE CLAMPS AND FASTENERS OF SIMILAR METALS OR ISOLATE FROM PIPING. ISOLATE PIPING FROM CONCRETE SLABS AND WALLS TO PREVENT CORROSION PER SECTION 305 OF THE FBC-PLUMBING.

2.3 PIPING

2.3.1 **DOMESTIC COLD AND HOT WATER:**
INSIDE BUILDING:
2" & SMALLER : VIEGAPEX ULTRA TUBING COLOR CODED, WITH PEX PRESS FITTINGS. USE VIEGA PRESS TOOLS. INSTALLERS MUST ATTEND VIEGAPEX PRESS INSTALLATION TRAINING CLASS.
PROVIDE COPPER PIPING IN APARTMENTS FROM SHOWER HEAD TO VALVE AND VALVE TO DIVERTER.

GREATER THAN 2" :
SCH 80 CPVC PIPE & FITTINGS ON PIPES LARGER THAN 2".

2.3.2 **SANITARY WASTE AND VENT:**
ABOVE GRADE – SCH. 40 PVC (SOLID CORE)
FOAM CORE PVC FOR ABOVE GRADE & CONCEALED ONLY
UNDER GROUND – SCH. 40 PVC (SOLID CORE)
EXPOSED/VISIBLE – SCH. 40 PVC (SOLID CORE)

2.3.3 **A/C CONDENSATE:**
PVC SCHEDULE 40 PIPE AND FITTINGS. (INCLUDING MECHANICAL ROOMS & CLOSETS) INSULATE WITH 3M FIRE MASTER PLENUM WRAP OR APPROVED EQUAL FOR USE ON PVC PIPE.

2.3.4 **PIPE HANGERS:**
GALV. HANGERS FOR STORM AND SANITARY EXPOSED IN PARKING AREAS. PLASTIC STRAPPING AT ALL OTHER LOCATIONS.

2.4 NO PVC PIPING MAY BE USED INSIDE RETURN AIR AIR CONDITIONING PLENUMS.

2.4.1 IN AIR PLENUMS (INCLUDING MECHANICAL ROOMS & CLOSETS) INSULATE ALL PVC PIPING WITH 3M FIRE MASTER PLENUM WRAP OR APPROVED EQUAL FOR USE ON PVC PIPE. WHEN SUCH PROTECTION IS ACCEPTABLE BY THE AUTHORITY HAVING JURISDICTION.

2.5 VALVES:
GATE VALVES:
125 PSI WORKING PRESSURE
NIBCO/SCOTT T-122 OR S122 OR EQUAL

2.6 PIPE SUPPORTS:
PROVIDE HOT DIPPED GALVANIZED WITH ELECTRO-GALVANIZED HARDWARE CLEVIS HANGERS, THREADED RODS, FLOOR CLAMPS, ETC.

2.7 PIPE PROTECTION:
PROVIDE PIPE PROTECTION TO PROTECT PIPING FROM VEHICLE COLISION IN PARKING GARAGE.

3.0 EXECUTION

3.1 SEPARATE ALL PIPING FROM CONCRETE BY USING SLEEVES THRU WALLS AND FLOORS, SEE 2.2 ABOVE. CAULK ANNULAR SPACE WITH APPROVED FIRE RATED CAULKING.

3.2 PROVIDE FIRE SAFING AT ALL PIPING PENETRATIONS AS PER DETAILS PROVIDED.

3.3 DO NOT INSTALL PVC PIPING IN CEILING SPACES INTENDED FOR RETURN AIR PLENUMS.

3.4 TESTING:
HYDROSTATIC ALLY TEST DOMESTIC WATER SYSTEM FOR LEAKAGE. CAP ALL SYSTEM OPENINGS AND PUMP TO A TEST PRESSURE OF 1.5 TIMES THE OPERATING PRESSURE OR 100 PSIG MINIMUM FOR A PERIOD OF OF NOT LESS THAN TWO HOURS.

3.5 CLEANING & DISINFECTING:
CLEAN AND DISINFECT ALL DOMESTIC HOT AND COLD WATER PIPING BEFORE USE, USING CHLORINE AS DISINFECTING AGENT FLOW AGENT INTO THE DOMESTING WATER PIPING SYSTEM TO A CHLORINE RESIDUAL OF 50 PPM AT ALL OUTLETS AND MAINTAIN FOR 24 HOURS. AFTER RETENTION RESIDUAL SHOULD BE NO LESS THAN 5 PPM. IF LESS PROCEDURE MUST BE REPEATED.
WHEN SATISFACTORY, FLUSH ALL FIXTURES WITH CLEAN POTABLE WATER UNTIL RESIDUAL CHLORINE BY ORTHOTOLIDIN TEST IS NOT GREATER THAN THAT OF THE INCOMING WATER SUPPLY.

PLUMBING FIXTURE CONNECTION SCHEDULE

NO.	DESCRIPTION	DRAIN	WATER COLD	WATER HOT	REMARKS
	RESIDENTIAL				
P-1	WATER CLOSET	3"	1/2"	---	FLUSH TANK, 1.28 GPF AS SELECTED BY OWNER.
P-1H	WATER CLOSET (HANDICAP)	3"	1/2"	---	FLUSH TANK, 1.28 GPF AS SELECTED BY OWNER.
P-2	LAVATORY (COUNTER TOP)	1 1/4"	1/2"	1/2"	PROVIDE 1.0 GPM FAUCET AS SELECTED BY OWNER.
P-2H	LAVATORY (HANDICAP)	1 1/4"	1/2"	1/2"	PROVIDE 1.0 GPM FAUCET AS SELECTED BY OWNER.
P-3H	SHOWER (HANDICAP) [1]	2"	1/2"	1/2"	PROVIDE 1.5 GPM SHOWERHEAD AS SELECTED BY OWNER.
P-4H	URINAL (HANDICAP)	2"	3/4"	---	PROVIDE 1.5 GPM SHOWERHEAD AS SELECTED BY OWNER.
P-5	KITCHEN SINK	1 1/2"	1/2"	1/2"	PROVIDE 1.0 GPM FAUCET AS SELECTED BY OWNER.
P-6	MOP SINK	2"	1/2"	1/2"	PROVIDE 1.0 GPM FAUCET AS SELECTED BY OWNER.
DW	DISH WASHER	1" /W	---	1/2"	UNDER COUNTER, 6.5 GAL PER CYCLE MAX AS SELECTED BY OWNER.

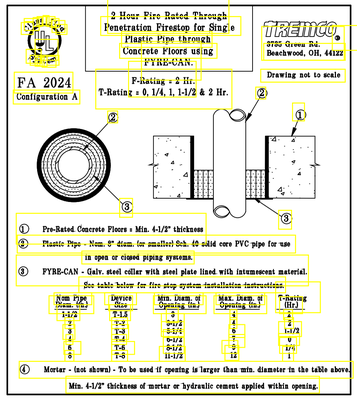
[1] PROVIDE ANTI-SCALD VALVE.

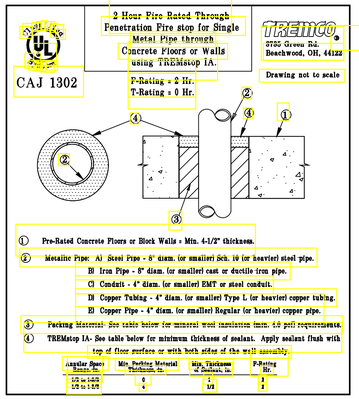
PLUMBING SYMBOL LEGEND

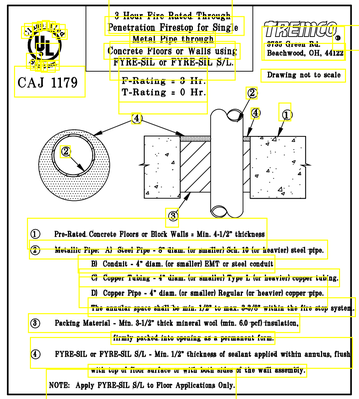
SYMBOL	DESCRIPTION
	SANITARY LINE
	VENT LINE
SD	STORM DRAIN LINE
D	DRAIN PAN DRAINAGE
CD	CONDENSATE LINE
	SAFEWASTE LINE
GD	GARAGE DRAINAGE
	COLD WATER LINE
	HOT WATER LINE
FCO	FLUSH CLEAN OUT
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
RD	ROOF DRAIN
GCO	GROUND CLEANOUT
VTR	VENT THRU ROOF
RWL	RAIN WATER LEADER
PRV	PRESSURE REDUCING VALVE
	MECHANICAL SHOCK ARRESTOR

ELECTRIC WATER HEATER SCHEDULE

NO.	LOCATION	GAL.	KW	VOLTAGE	EF	MANUFACTURER/MODEL	TEMP. SET	REMARKS
EWH	JANITOR CLOSET	80	9.0	208-1-60	---	BRADFORD WHITE # CEHD(A)(9)5*CF OR EQUAL	110° F	PROVIDE DRAIN PAN







REVISIONS

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CONSULTANTS

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO. 303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 08.20.2025
DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 5P1.0

RISER

PLUMBING NOTES

1.0 GENERAL

1.1 PROVIDE (FURNISH AND INSTALL) ALL NECESSARY MATERIALS AND LABOR FOR A COMPLETELY OPERATIONAL PLUMBING SYSTEM AS SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. INSTALL IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE 2021 AND LOCAL ORDINANCES.

1.2 SCOPE OF WORK :
PROVIDE THE FOLLOWING COMPLETE SYSTEMS :
A. SANITARY COLLECTION.
B. DOMESTIC COLD AND HOT WATER
C. DRAIN PAN COLLECTION
D. AIR CONDITIONING CONDENSATE.
E. HOT WATER PIPING INSULATION

1.3 PAY FOR ALL FEES, INSPECTIONS AND CONNECTION CHARGES REQUIRED.

1.4 VERIFY AT JOB SITE ALL SPACE CONDITIONS, DIMENSIONS WITH PIPE, FIXTURES, AND EQUIPMENT SIZES PRIOR TO FABRICATION OR INSTALLATION. COORDINATE REQUIREMENTS TO AVOID INTERFERENCE WITH OTHER TRADES.

1.5 NATURE OF DESIGN DRAWINGS:
DESIGN DRAWINGS ARE DIAGRAMATIC AND DO NOT INTEND TO SHOW EVERY FITTING, ELBOW, TRANSITION, ETC. THAT WILL BE NECESSARY FOR A COMPLETE OPERATIONAL SYSTEM AS REQUIRED BY THESE SPECIFICATIONS.

1.6 COORDINATION DRAWINGS:
MINIMUM 1/4" SCALE COORDINATION DRAWINGS SHOWING MAJOR SYSTEM COMPONENTS FOR A/E APPROVAL.

1.7 SUBMIT SHOP DRAWINGS FOR ARCHITECT / ENGINEER APPROVAL BEFORE PROCEEDING WITH THE PURCHASE OR INSTALLATION OF EQUIPMENT AND MATERIALS.

1.8 GUARANTEE ALL WORK FREE OF DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.

2.0 MATERIALS

2.1 PROVIDE SHUT-OFF VALVES FOR EACH FIXTURE AND AIR CHAMBERS WHERE SHOWN AND WHERE REQUIRED FOR PROPER PERFORMANCE OF THE SYSTEM.

2.1A HANDICAP TUB FAUCETS AND OTHERS CONTROLS SHALL COMPLY WITH FLORIDA BUILDING CODE BUILDING SECTION 404.13 AND LOCATED AS SHOWN IN FBCP 404.7.3

2.2 PROVIDE DIELECTRIC FITTINGS TO CONNECT PIPING TO EQUIPMENT OR OTHER PIPING OF DISSIMILAR METALS. USE CLAMPS AND FASTENERS OF SIMILAR METALS OR ISOLATE FROM PIPING. ISOLATE PIPING FROM CONCRETE SLABS AND WALLS TO PREVENT CORROSION PER SECTION 305 OF THE FBC–PLUMBING.

2.3 PIPING

2.3.1 **DOMESTIC COLD AND HOT WATER:**
INSIDE BUILDING:
2" & SMALLER : VIEGAPEX ULTRA TUBING COLOR CODED, WITH PEX PRESS FITTINGS. USE VIEGA PRESS TOOLS. INSTALLERS MUST ATTEND VIEGAPEX PRESS INSTALLATION TRAINING CLASS.
PROVIDE COPPER PIPING IN APARTMENTS FROM SHOWER HEAD TO VALVE AND VALVE TO DIVERTER.

GREATER THAN 2" :
SCH 80 CPVC PIPE & FITTINGS ON PIPES LARGER THAN 2".

2.3.2 **SANITARY WASTE AND VENT:**
ABOVE GRADE – SCH. 40 PVC (SOLID CORE)
FOAM CORE PVC FOR ABOVE GRADE & CONCEALED ONLY
UNDER GROUND – SCH. 40 PVC (SOLID CORE)
EXPOSED/VISIBLE – SCH. 40 PVC (SOLID CORE)

2.3.3 **A/C CONDENSATE:**
PVC SCHEDULE 40 PIPE AND FITTINGS. (INCLUDING MECHANICAL ROOMS & CLOSETS) INSULATE WITH 3M FIRE MASTER PLENUM WRAP OR APPROVED EQUAL FOR USE ON PVC PIPE.

2.3.4 **PIPE HANGERS:**
GALV. HANGERS FOR STORM AND SANITARY EXPOSED IN PARKING AREAS. PLASTIC STRAPPING AT ALL OTHER LOCATIONS.

2.4 NO PVC PIPING MAY BE USED INSIDE RETURN AIR AIR CONDITIONING PLENUMS.

2.4.1 IN AIR PLENUMS (INCLUDING MECHANICAL ROOMS & CLOSETS) INSULATE ALL PVC PIPING WITH 3M FIRE MASTER PLENUM WRAP OR APPROVED EQUAL FOR USE ON PVC PIPE. WHEN SUCH PROTECTION IS ACCEPTABLE BY THE AUTHORITY HAVING JURISDICTION.

2.5 VALVES:
GATE VALVES:
125 PSI WORKING PRESSURE
NIBCO/SCOTT T-113Z OR 113Z OR EQUAL

2.6 PIPE SUPPORTS:
PROVIDE HOT DIPPED GALVANIZED WITH ELECTRO–GALVANIZED HARDWARE CLEVIS HANGERS, THREADED RODS, FLOOR CLAMPS, ETC.

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ELECTRIC WATER HEATER SCHEDULE

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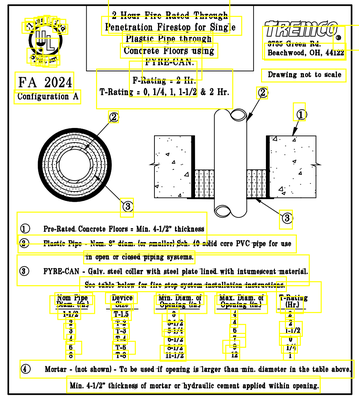

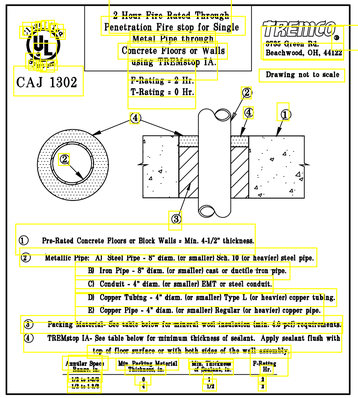

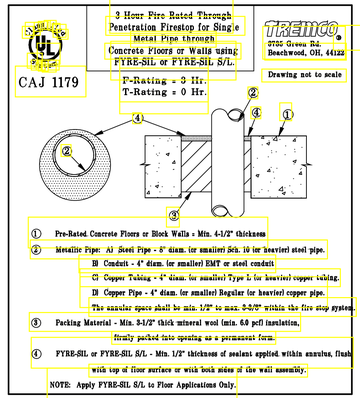

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ISSUANCES

No.	Drawing Issue Description	Date

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO.
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CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE: 08.20.2025
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APPROVED BY: Approver

PROJECT NO.: 23-005.C
CONTRACT NO.: -

SHEET NO.: 5P1.1

RISER

DOMESTIC BOOSTER PUMP DETAILS

ARMSTRONG

Submittal

Ref. #: SQJKW001973_1

Design Envelope Booster System

Series: 6800G Design Envelope — Model: N230502-5 hp

Project name:	SEALS FIRE STATION. ST. THOMAS	**Representative:**	Jose Casin
Location:		**Phone number:**	305 594 3684
Date submitted:	4/29/2021 8:54 PM	**e-mail:**	jcasin@protecinc.com
Engineer:		**Submitted by:**	Casin, Jose

Application design data

Tag number:	BP-1	Water supply:	City Main
Service:	POTABLE WATER	Suction (supply) pressure:	0 ft
Location:	INDOOR	Total flow:	65 USgpm
Quantity:	1	Boost pressure:	65 psi
Power supply:	208/3/60	System discharge pressure:	65 psi

System construction data

System description:	Duplex	Piping material:	Stainless Steel 304
Header size:	3 in	Valve type	Flo-Trex
Header connections:	Grooved	Maximum working pressure:	230 psi [15.86 bar]
Suction orientation:	Right*	Discharge orientation:	Right*
*when facing booster controller		Certification:	NSF61-G / NSF372

Pump data

Number of pumps:	2	Duty flow per pump:	32.5 USgpm
Operation:	2 Duty	Duty head:	65 psi
Series:	4700	Motor size:	5 hp
Size:	VMS-10:05$	Motor speed:	3600 rpm
Construction:	Stainless Steel 304	Motor efficiency:	NEMA Premium 12.12
Standby Pump:	No	Motor enclosure:	TEFC

Booster control panel data

Enclosure:	NEMA4 Painted Steel	Human Machine Interface:	Touch Screen 4.3" Color
Selected features:	BMS Port (serial communication port for connection to BMS) - BACnet MS/TP Low Suction Level Shutdown (AE) (Level Switch not Supplied)		

IVS variable frequency control data

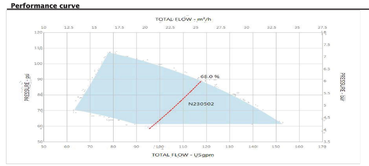
Quantity:	2 (integrated with motors)	Harmonic suppression:	Integrated DC link reactor
Enclosure:	UL Type 12	Cooling:	Fan cooled through back channel
EMI/RFI control:	Integrated filter to meet EN61800-3	Ambient temperature:	-10C to +45C (upto 1000m elevation)

Drawdown tank data

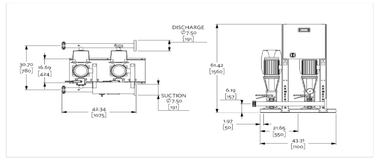
Model Number:	Not Required		
Size and rating:	Not Required	Mounting:	Remote Mounted

ARMSTRONG

Performance curve

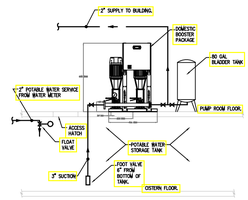


Dimensional data (not for construction)



WEIGHTS (lb) NOT for CONSTRUCTION	
Weights	608 lb [275.78 kg]

DOMESTIC BOOSTER PUMP PIPING DIAGRAM



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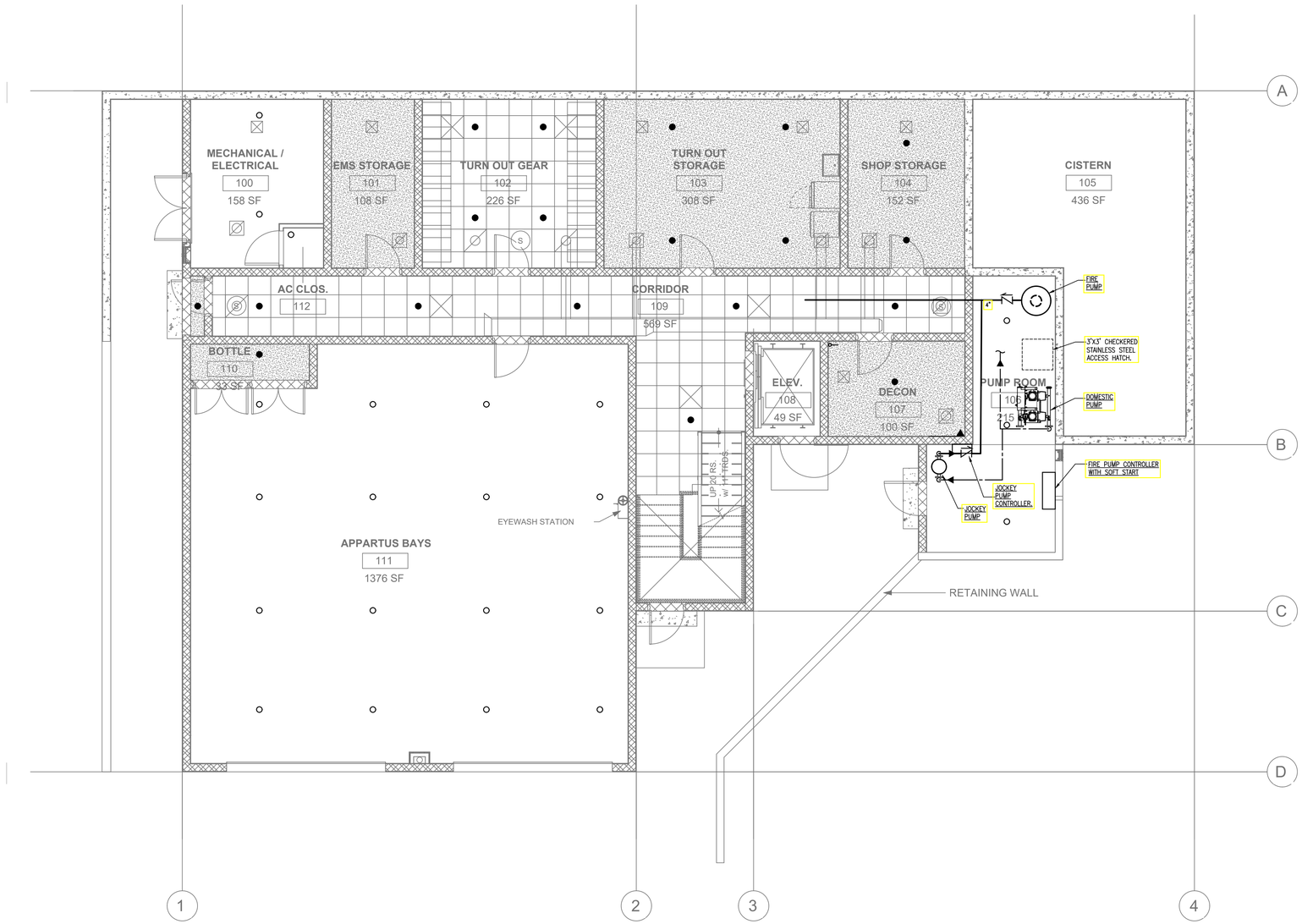
RISER



1 FIRST FLOOR PLAN - FIRE SPRINKLER
SCALE: 3/16" = 1'-0"

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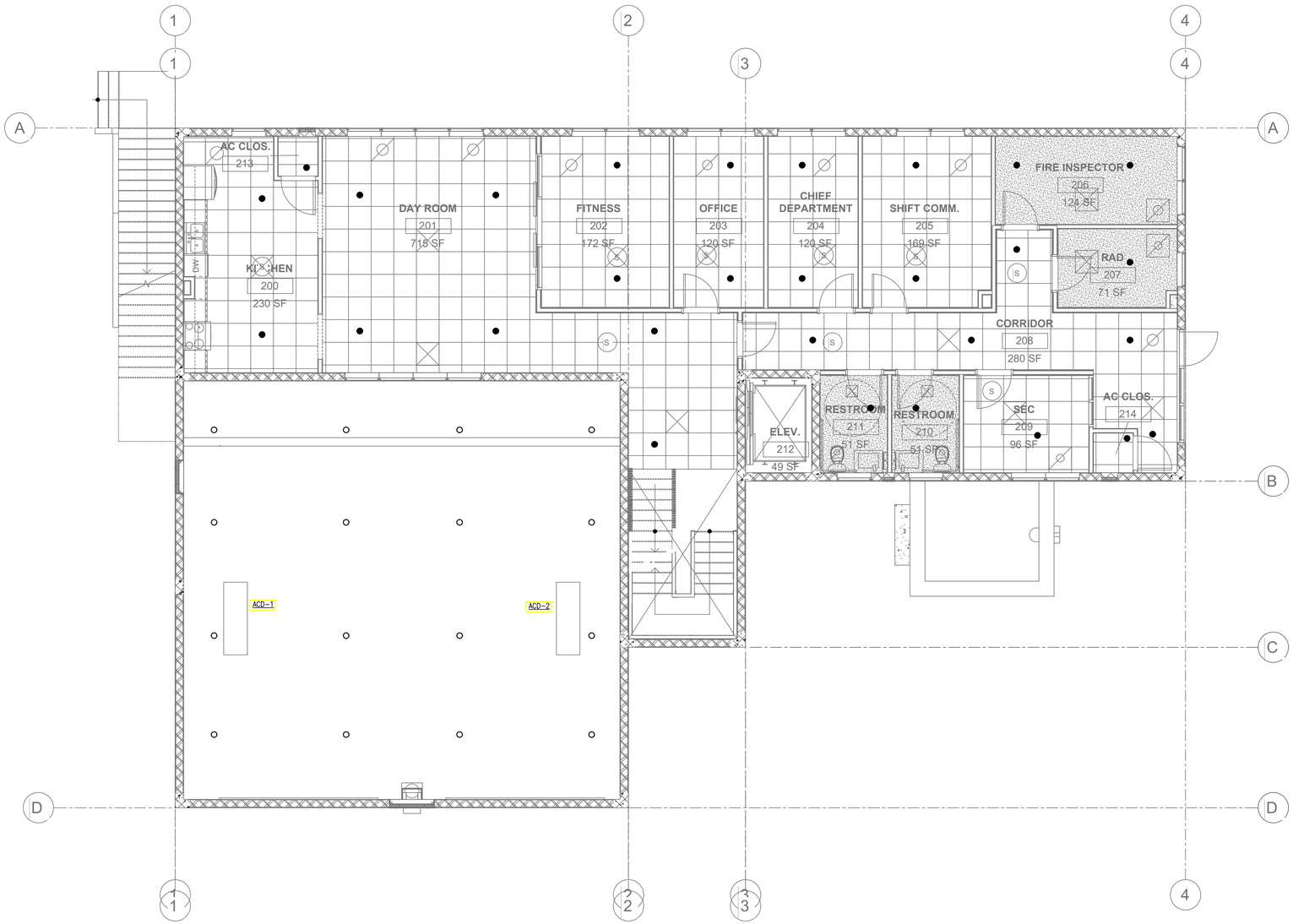
FIRST FLOOR PLAN



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

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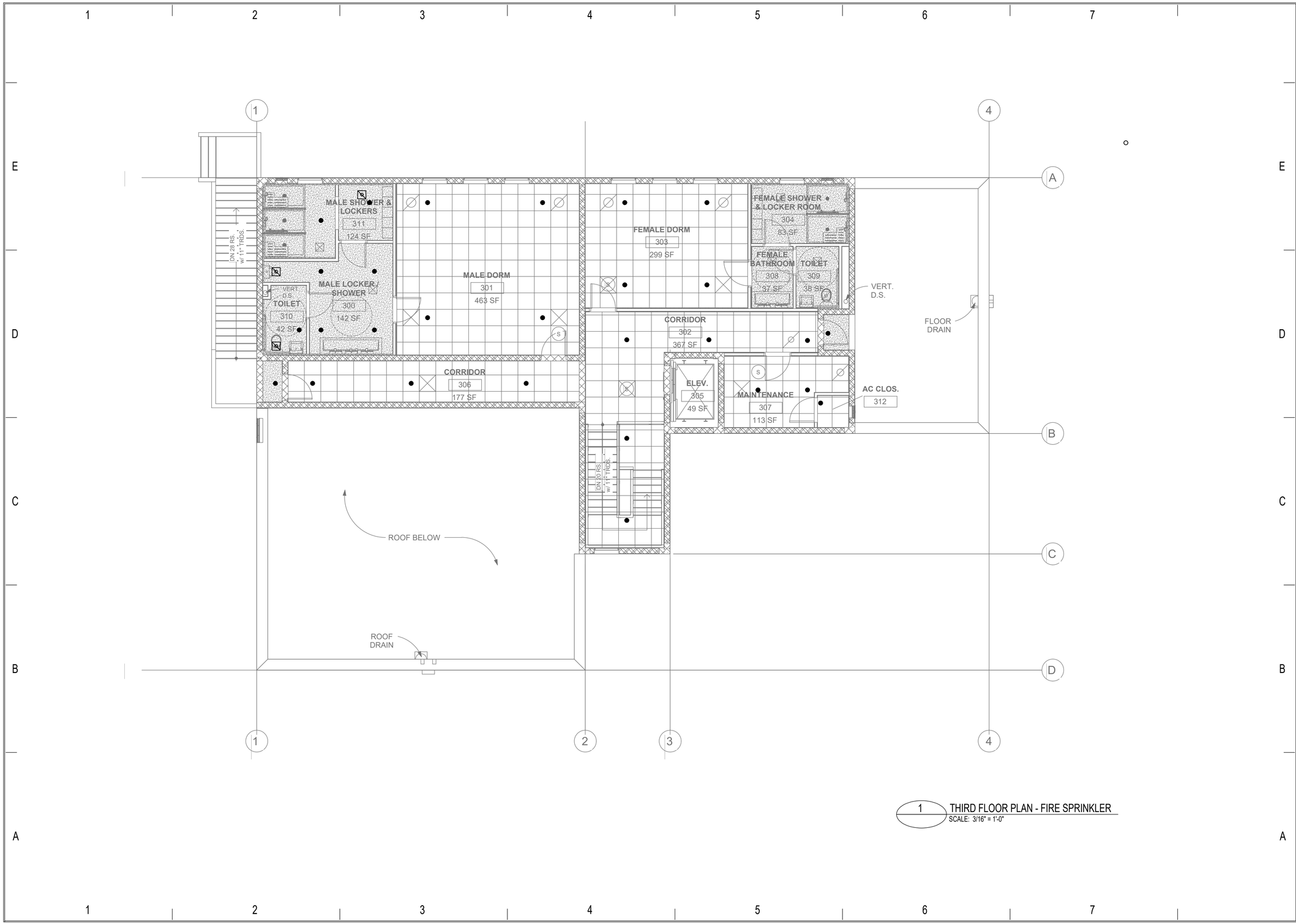

1 THIRD FLOOR PLAN - FIRE SPRINKLER
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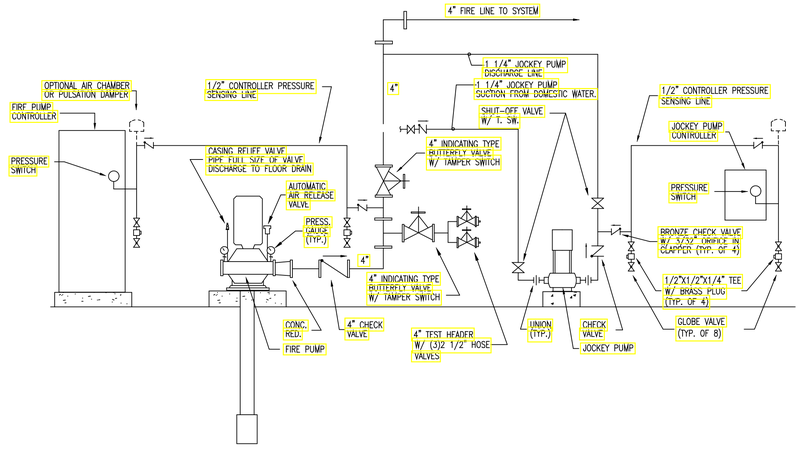
CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO.
303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	08.20.2025
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	3F1.0

THIRD FLOOR PLAN



TYPICAL FIRE PUMP DIAGRAM
N.T.S.

WATER PUMP SCHEDULE

		FIRE PUMP	JOCKEY PUMP
DESIGNATION		FIRE PUMP	JOCKEY PUMP
QUANTITY		1	1
USE		STANDPIPES AND SPRINKLERS	PRESSURE MAINTENANCE
LOCATION		PUMP ROOM	PUMP ROOM
OPERATING WEIGHT		1114	133
MANUFACTURER		ARMSTRONG	ARMSTRONG
MODEL No.		6x10H VTF-25HP	4700-VMS-01:07B .75HP
PUMP			
TYPE		VERTICAL TURBINE	VERTICAL
WATER FLOW, G.P.M.		250	5.0
TOTAL DYNAMIC HEAD,		60PSI	75PSI
EFFICIENCY %		—	—
PRESSURE AT SHUT-OFF, ft.		—	—
CUT-OFF CAPACITY, G.P.M.		—	—
APPROX. PRESSURE AT PUMP DISCHARGE		70 PSI	80 PSI
MOTOR			
MANUFACTURER		ARMSTRONG	ODP 143TC
MAXIMUM SPEED, r.p.m.		1800	3461
HORSEPOWER (NON-OVERLOAD)		25 HP UL & FM	.75 HP UL & FM
ENCLOSURE		WP1	ODP
ELECTRICAL SERVICE AVAILABLE		208-3-60	208-3-60
MAGNETIC STARTER TYPE		NEMA B	NEMA 1
STARTER FURNISHED BY		PUMP MANUF.	PUMP MANUF.
ACCESORIES			
BASE		CONC PAD	CONC PAD
SEALS		MECH	MECH
FITTINGS		ALL BRONZE	ALL BRONZE
GAGE TAPPINGS, SUCTION & DISCHARGE		YES	YES
COUPLING GUARD		YES	YES
VIBRATION ISOLATORS			
TYPE		—	—
MIN. STATIC DEFLECTION (in.)		—	—
AUTOMATIC CONTROLS			
TYPE		ELECTRIC	ELECTRIC
DESCRIPTION		(1)	(2)

(1) TORNATECH # GPY-GPU - 208-3-60 FIRE PUMP CONTROLER WITH WYE DELTA OPEN TRANSFER SWITCH.

(2) TORNATECH JPLT-208-.75-3-60 WITH ACROSS THE LINE STARTER

FIRE SPRINKLER GENERAL NOTES

1. ALL PIPING, HANGERS, SUPPORT METHODS AND SPRINKLER HEADS TO BE INSTALLED IN STRICT ACCORDANCE WITH N.F.P.A. 13, 2019 EDITION, AND ALL LOCAL CODES AND ORDINANCES.
2. SPARE SPRINKLER HEADS AND WRENCHES SHALL BE PROVIDED IN ACCORDANCE WITH N.F.P.A. 13.
3. ALL RATED WALLS AND FLOORS TO BE PROPERLY SLEEVED AND SEALED WITH APPROVED FIRE/SMOKE STOP MATERIAL.
4. HYDRAULIC DATA PLACE CARD TO BE PLACED ON SYSTEM RISER.
5. ALL SPRINKLER HEADS IN ELEVATOR MACHINE ROOMS, ELECTRICAL ROOMS AND MECHANICAL ROOMS SHALL BE PROVIDED WITH HEAD GUARDS.
6. PROVIDE INSPECTOR'S TEST CONNECTION AND DRAIN AS PER N.F.P.A. 13 REQUIREMENTS.
7. TEMPERATURE CLASSIFICATION FOR ALL SPRINKLER HEADS SHALL BE ORDINARY UNLESS NOTED OTHERWISE.
8. DESIGN CRITERIA:

   ENTIRE DESIGN AND INSTALLATION SHALL COMPLY WITH NFPA 13 , 2010 EDITION, AND OWNER'S INSURANCE UNDERWRITER REQUIREMENTS.

   BUILDING SHALL BE PROVIDED WITH A "MANUAL WET STANDPIPE SYSTEM" AS DEFINED IN NFPA 14. THE FIRE PUMP IS PROVIDED FOR SPRINKLER DEMAND ON TOP FLOOR ONLY.

   COMMON AREAS, LOBIES, AND CORRIDORS: DESIGN CRITERIA SHALL BE BASED ON N.F.P.A. 13, LIGHT HAZARD , .10GPM PER SQ. FT., 225 SQ. FT. MAX COVERAGE PER HEAD, 1500 SQ. FT. REMOTE AREA, 100 GPM HOSE ALLOWANCE.

   MECHANICAL ROOMS, STORAGE ROOMS, APPARATUS ROM, EQUIPMENT ROOMS.: DESIGN CRITERIA SHALL BE BASED ON N.F.P.A. 13, ORDINARY HAZARD G1 , .15GPM PER SQ. FT., 130 SQ. FT. MAX COVERAGE PER HEAD, 1500 SQ. FT. REMOTE AREA, 250 GPM HOSE ALLOWANCE.

9. ALL VALVES CONTROLLING WATER SUPPLY SHALL BE PROVIDED WITH A SUPERVISORY (TAMPER) SWITCH. COORDINATE LOCATION OF ALL FLOW AND TAMPER SWITCHES WITH ELECTRICAL CONTRACTOR.
10. ALL PIPING ABOVE GROUND SHALL BE LIGHTWALL THREADABLE STEEL PIPE FOR 2" AND SMALLER, ROLL AND GROOVED SCHEDULE 10 STEEL PIPE FOR PIPING 2 1/2" AND LARGER. ALLIED XL AND ALLIED SCH. 10 OR APPROVED EQUAL. PROVIDE OWNER WITH AN ALTERNATE DEDUCT FOR USING CPVC WHERE ALLOWED BY CODE AND MANUFACTURER.

    FITTINGS FOR PIPING 2" AND SMALLER SHALL BE MALLEABLE IRON, 150 PSI BANDED,THREADED,BLACK.ANSI B 16.3.

    FITTINGS FOR PIPING 2 1/2" AND LARGER SHALL BE MECHANICAL COUPLING SYSTEM AS MANUFACTURED BY VICTAULIC CORP.OR GRINNELL CORP. "GRUVLOCK".

    ALL FITTINGS SHALL BE FROM SAME MANUFACTURER.
11. PRESSURE TEST AND FLUSH THE SYSTEM IN ACCORDANCE WITH N.F.P.A. 13 REQUIREMENTS. SUBMIT N.F.P.A. 13 FORMS 85A AND 85B.
12. PROVIDE AUXILIARY DRAIN CONNECTION FOR ALL TRAPPED PIPING SECTIONS IN ACCORDANCE WITH N.F.P.A. 13.PROVIDE FLUSHING CONNECTIONS AS REQUIRED. REMOVABLE FITTINGS SHALL BE PROVIDED AT END OF CROSSMAINS.
13. ALL FIRE PROTECTION EQUIPMENT AND DEVICES SHALL BE U.L. LISTED AND FACTORY MUTUAL (FM) APPROVED.
14. GATE VALVES 2" AND SMALLER SHALL BE O.S.&Y. THREADED BRONZE, RISING STEM,WEDGE DISC,175 WWP.GATE VALVES 2 1/2" AND LARGER SHALL BE O.S.&Y. FLANGED IBBM RISING STEM,SOLID WEDGE DISC,175 WWP.ALL GATE VALVES SHALL BE U.L. LISTED AND F.M. APPROVED. BUTTERFLY VALVES WITH OR WITHOUT INTEGRAL SUPERVISORY SWITCH MAY BE USED WHERE PERMITTED BY N.F.P.A. 13.
15. CHECK VALVES 2 1/2" AND LARGER SHALL BE FLANGED IBBM SWING TYPE,BRONZE MOUNTED,175 WWP CLASS,U.L. LISTED AND F.M. APPROVED. RISER CHECK VALVES SHALL BE VIKING MODEL "EASY RISER" WITH FULL TRIM OR APPROVED EQUAL.
16. SUPERVISORY SWITCHES SHALL BE 120 VOLT CLOSED CIRCUIT TAMPER SWITCH, U.L. LISTED AND F.M. APPROVED.FLOW SWITCHES SHALL BE PADDLE TYPE,SINGLE POLE DOUBLE THROW WITH ADJUSTMENT FOR SENSITIVITY TO FLOW WITH TIME DELAY ,U.L. LISTED AND F.M. APPROVED.
17. HOSE THREADS AT FIRE DEPARTMENT CONNECTIONS SHALL CONFORM WITH LOCAL FIRE DEPARTMENT STANDARDS.
18. THE WORK THAT IS TO BE DONE UNDER THIS CONTRACT INCLUDES THE FURNISHING OF ALL LABOR,MATERIALS AND EQUIPMENT , PERMITS, FEES, INSPECTIONS, TESTS, INSURANCE, ETC. REQUIRED FOR THE COMPLETION OF FIRE PROTECTION SYSTEM SHOWN ON THE DRAWINGS AND LISTED HEREIN.
19. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC.THEY DO NOT SHOW EVERY BEND,OFFSET OR OTHER FITTINGS WHICH MAY BE REQUIRED FOR THE INSTALLATION IN THE SPACE ALLOCATED, OR FOR COORDINATION WITH OTHER TRADES. VERIFY ALL SPACE CONDITIONS AND DIMENSIONS AT JOBSITE PRIOR TO FABRICATION OF PIPING AND INSTALLATION OF EQUIPMENT AND MATERIALS.
20. CONTRACTOR SHALL PROVIDE A SET OF SHOP DRAWINGS INCLUDING ALL PIPE ROUTINGS, PIPE SIZES, SPRINKLER HEAD TYPE AND LOCATIONS, PUMP ROOM LAYOUTS, HYDRAULIC CALCULATIONS, ETC SIGNED AND SEALED BY A PROFESSIONAL ENGINEER FOR ACCEPTANCE BY THE LOCAL AUTHORITY.

FIRE PROTECTION LEGEND

PLAN SYMBOL	ABBREVIATION	DESIGNATION
	—	GATE VALVE
	—	DIRECTION OF FLOW
	—	FIRE DEPARTMENT CONNECTION (SIAMESE)
	FDC	FIRE DEPARTMENT HOSE VALVE
	—	CHECK VALVE
	—	PIPE TEE DOWN
	—	PIPE TEE UP
	—	ELBOW UP
	—	ELBOW DOWN
F	—	FIRE SPRINKLER MAIN
	—	PRESSURE GAUGE WITH GAUGE VALVE
	OSY	OUTSIDE SCREW AND YOKE GATE VALVE WITH TAMPER SWITCH.
X	—	HYDRAULIC CALCULATION NODE, NUMBER X
	FS	FLOW SWITCH
X"	—	FIRE SPRINKLER PIPING, X INCHES IN DIAMETER
— —	AFF	ABOVE FINISHED FLOOR
— —	FM	FACTORY MUTUAL
— —	FT	FEET
— —	GPM	GALLONS PER MINUTE
— —	PSI	POUNDS PER SQUARE INCH
— —	SF	SQUARE FEET
— —	UL	UNDERWRITER'S LABORATORY
— —	X" FSP #	FIRE STANDPIPE SIZE AND NUMBER. CORRELATES WITH STAIRWELL.

REVISIONS

ISSUANCES

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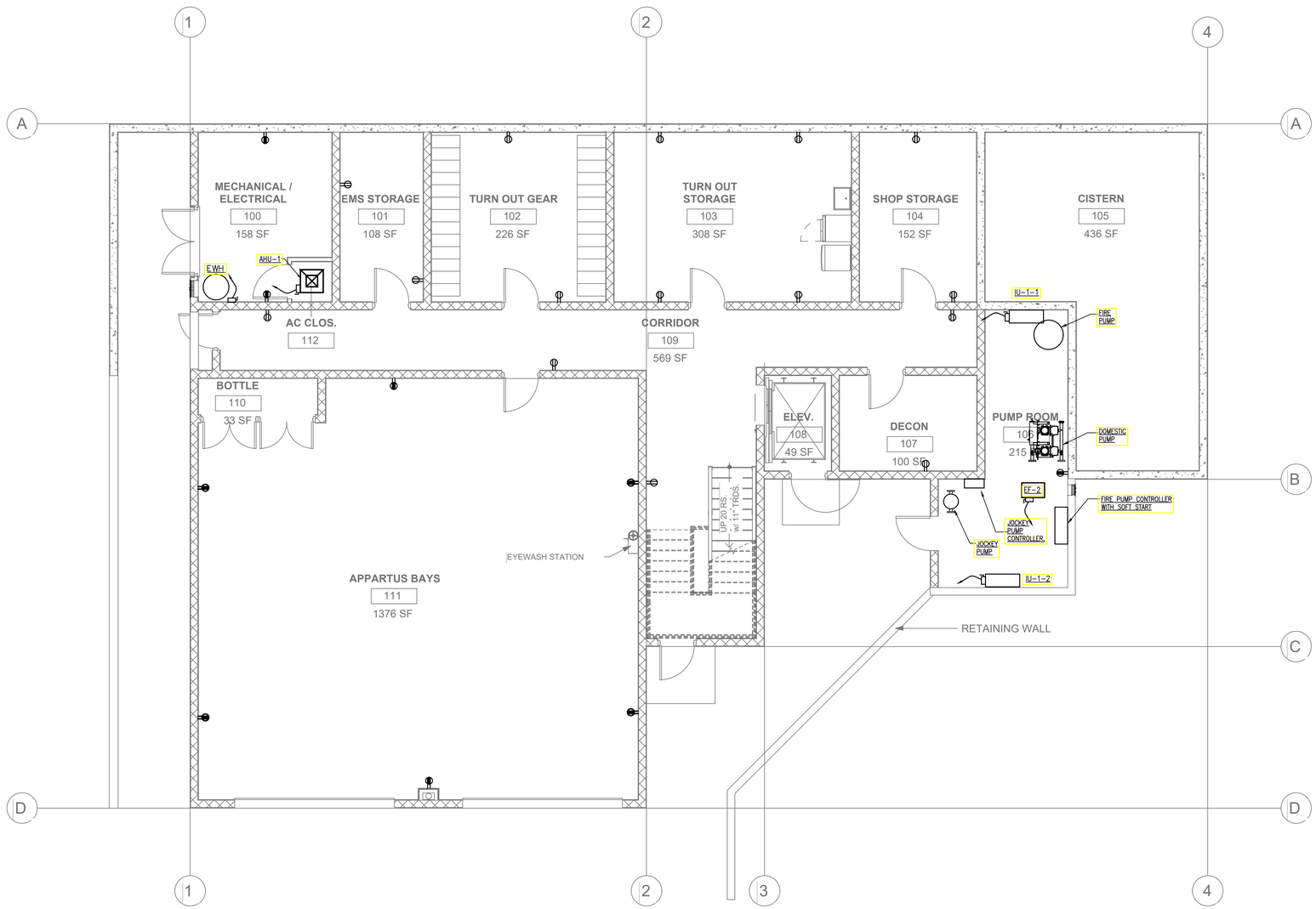
THIRD FLOOR PLAN



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

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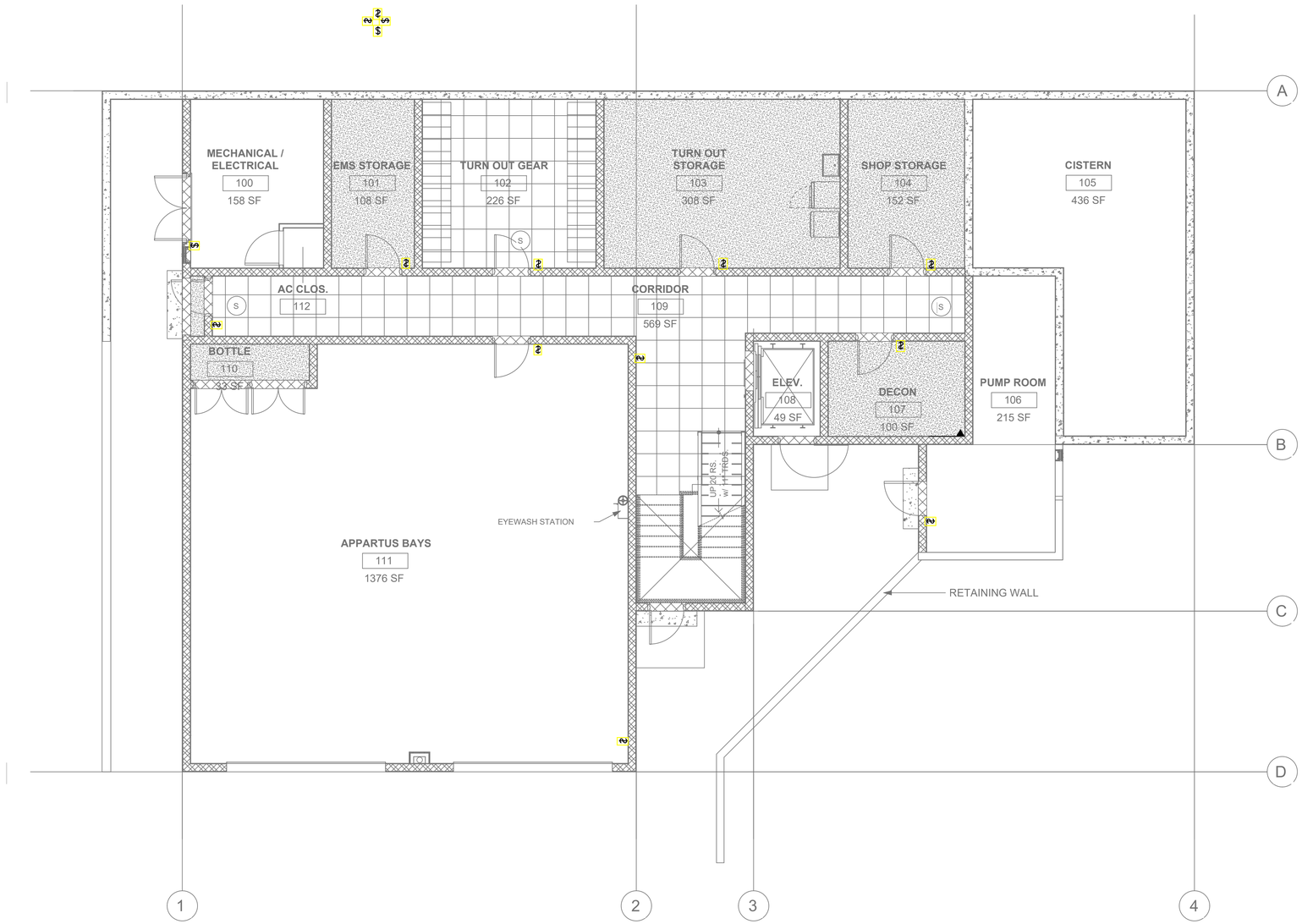
FIRST FLOOR PLAN



1 FIRST FLOOR PLAN - LIGHTING
SCALE: 3/16" = 1'-0"

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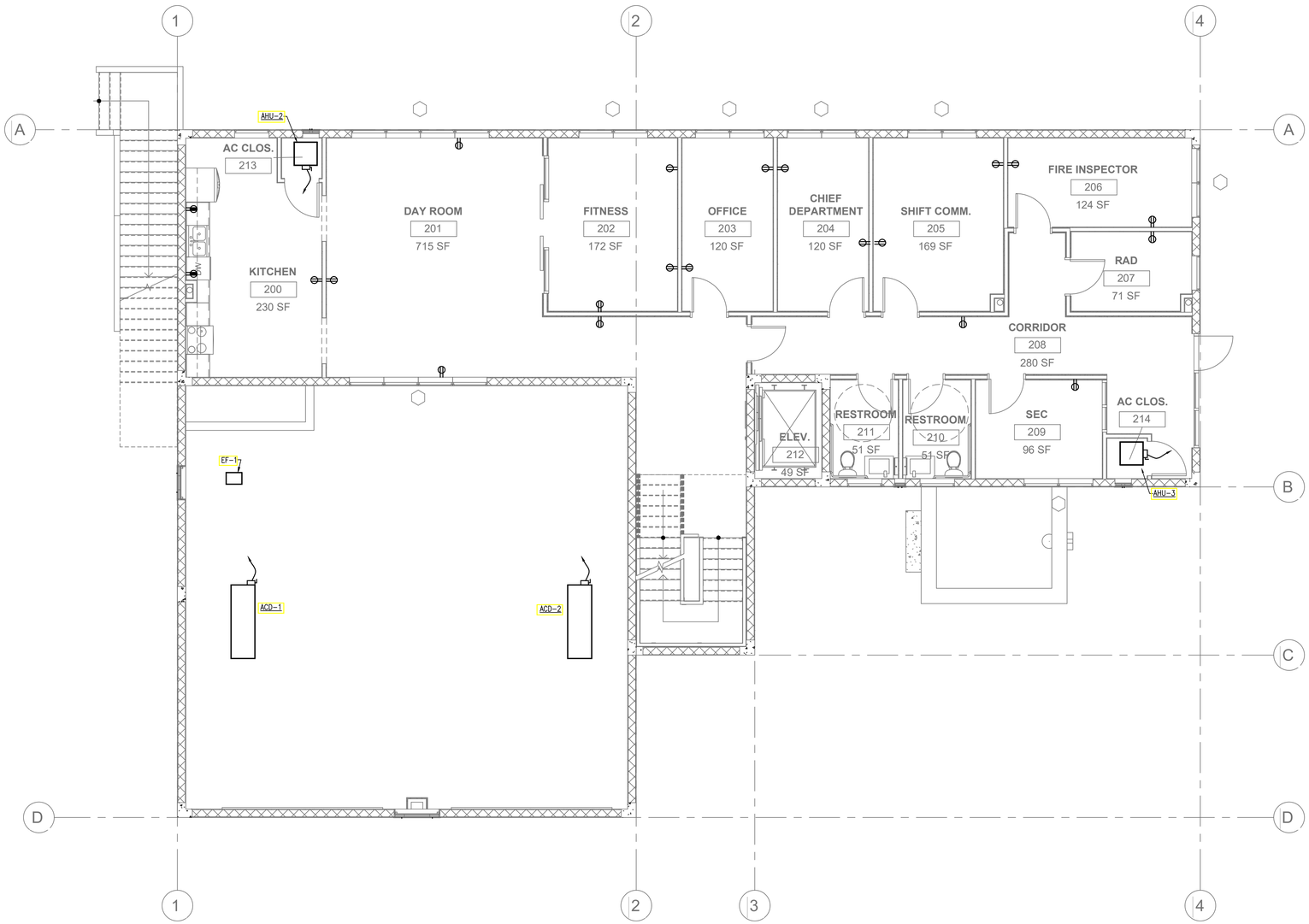
FIRST FLOOR PLAN



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

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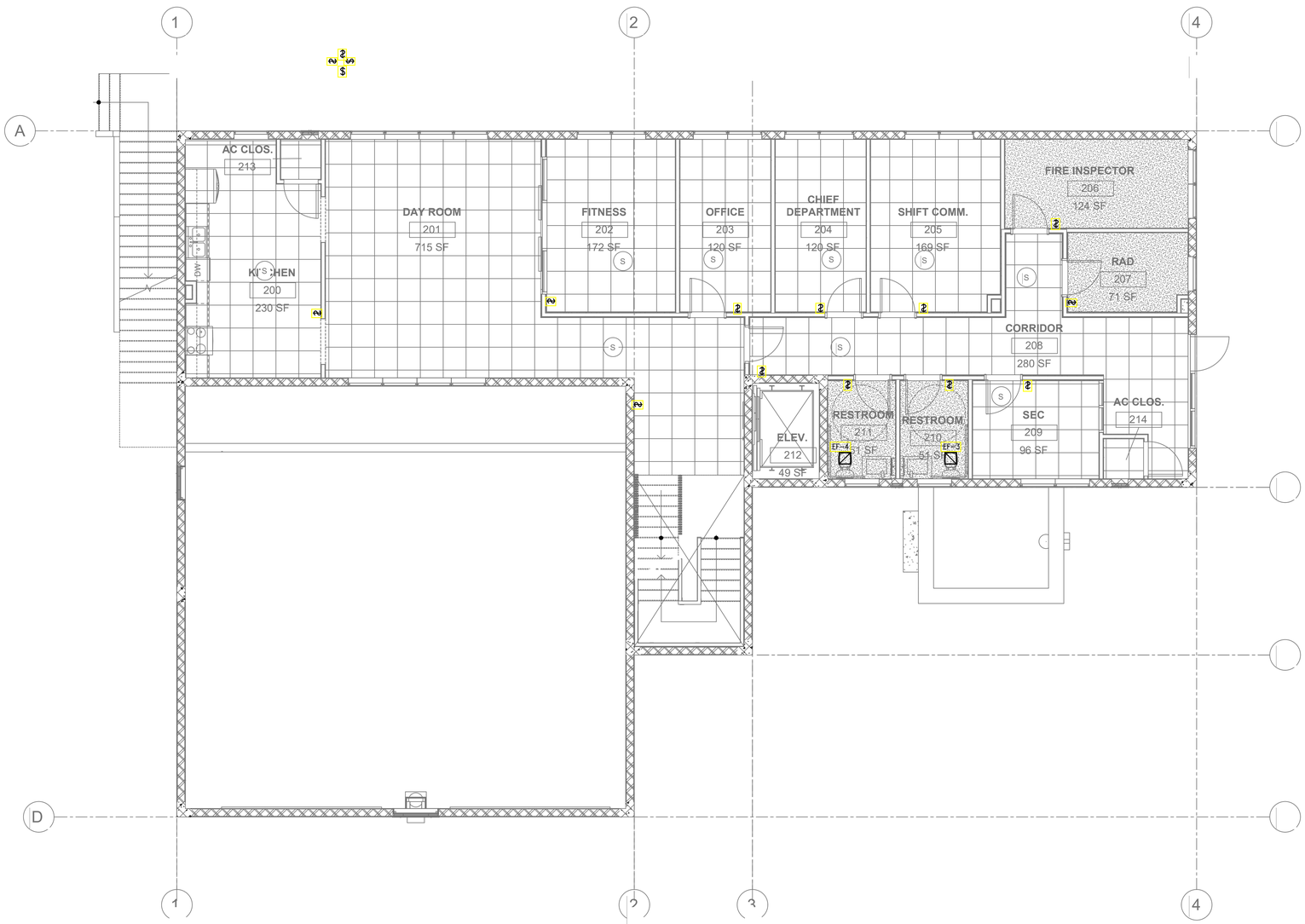
SECOND FLOOR PLAN



CEILING

01 WHERE ARCHITECTURAL CEILING PLAN LAYOUT CONFLICTS WITH MEP/FP/SP LAYOUT, MEP/FP/SP SHALL BE RESPONSIBLE TO RELOCATE ANY DEVICES AS REQUIRED TO COORDINATE WITH ARCHITECTURAL CEILING PLAN. COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION OF ANY DEVICES.

02 TYPICAL FOR ALL CEILINGS

03 TYPICAL FOR ALL SMALL ROOMS

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

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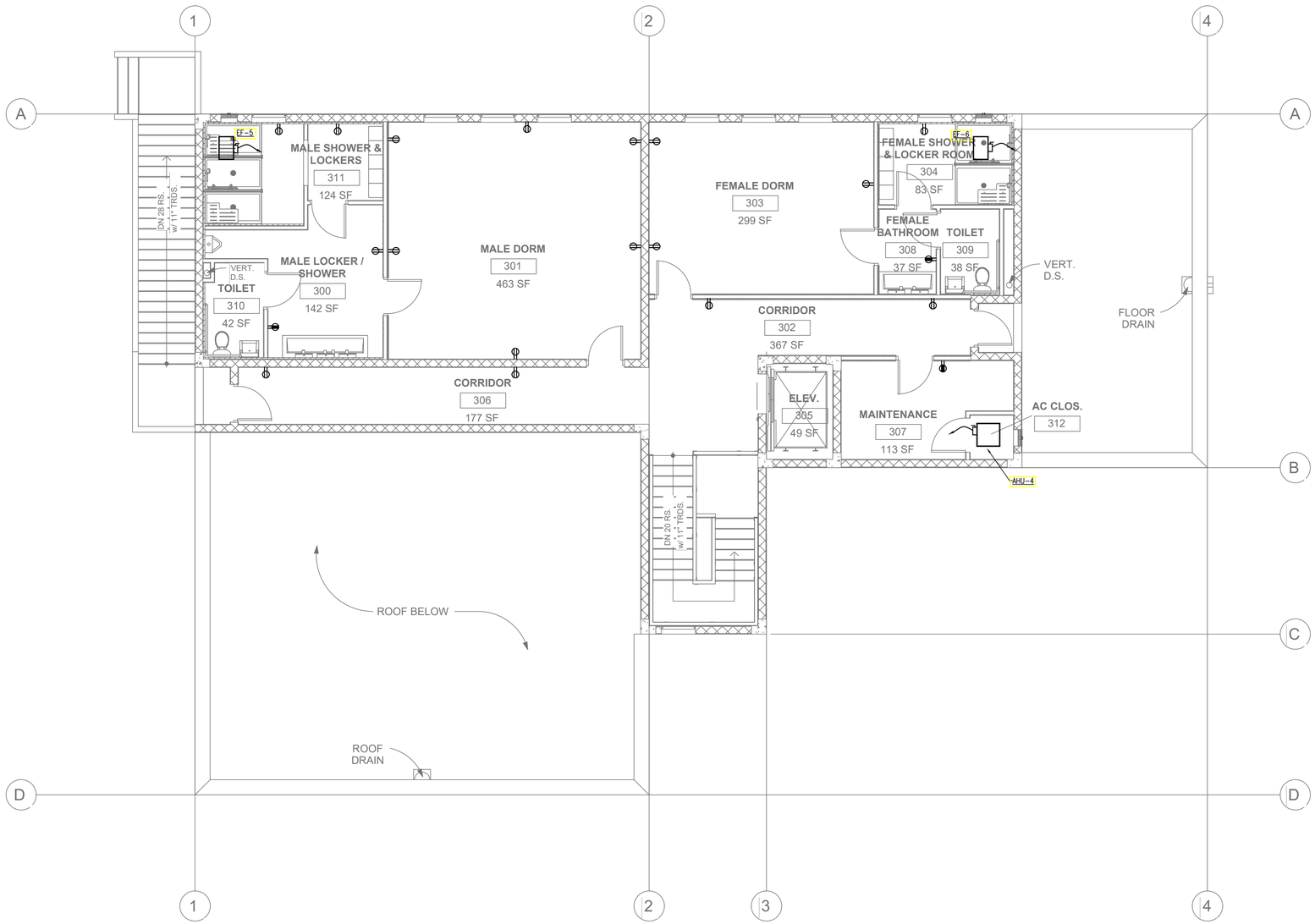

1 THIRD FLOOR PLAN - POWER
SCALE: 3/16" = 1'-0"

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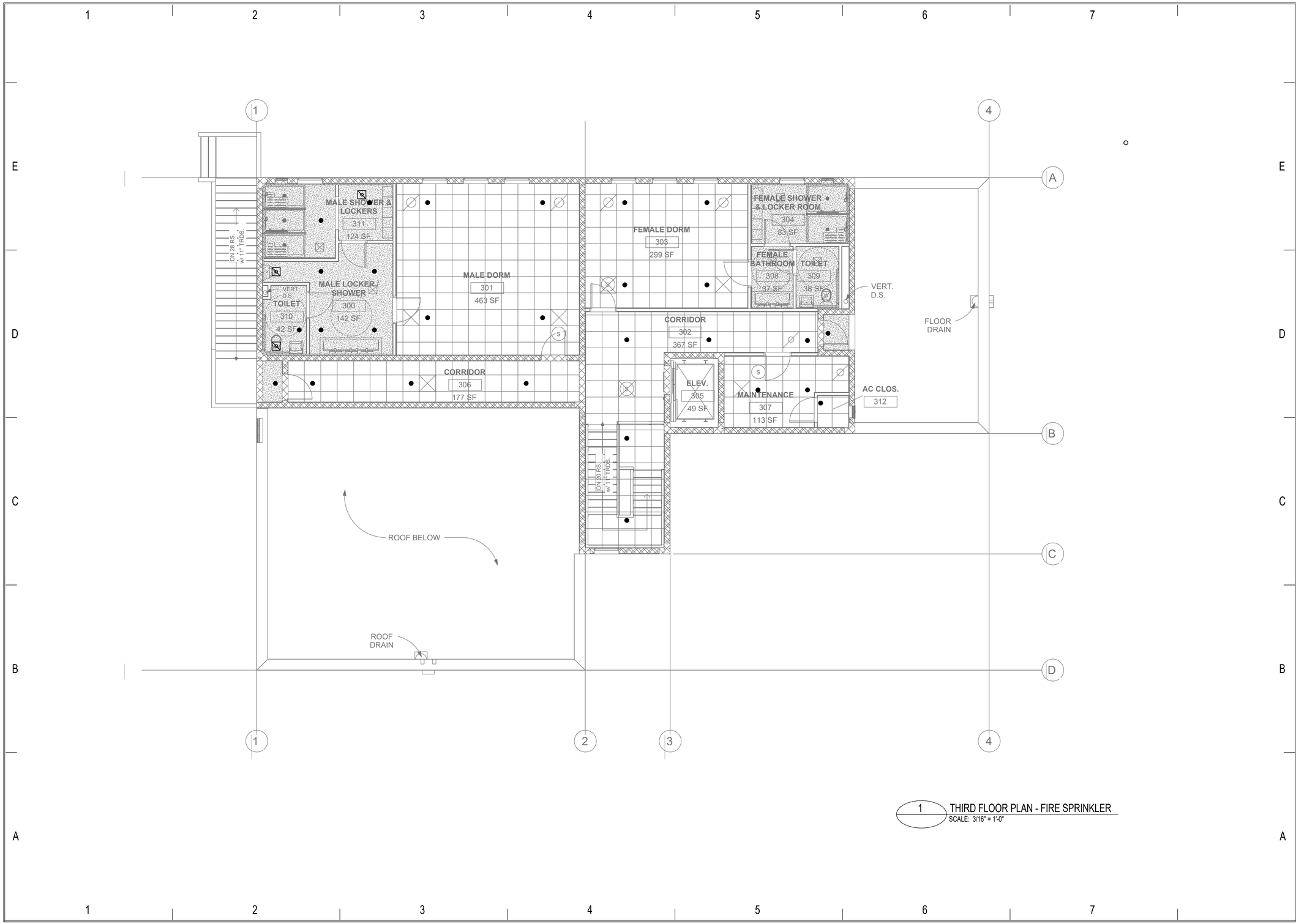

1 THIRD FLOOR PLAN - FIRE SPRINKLER
SCALE: 3/16" = 1'-0"

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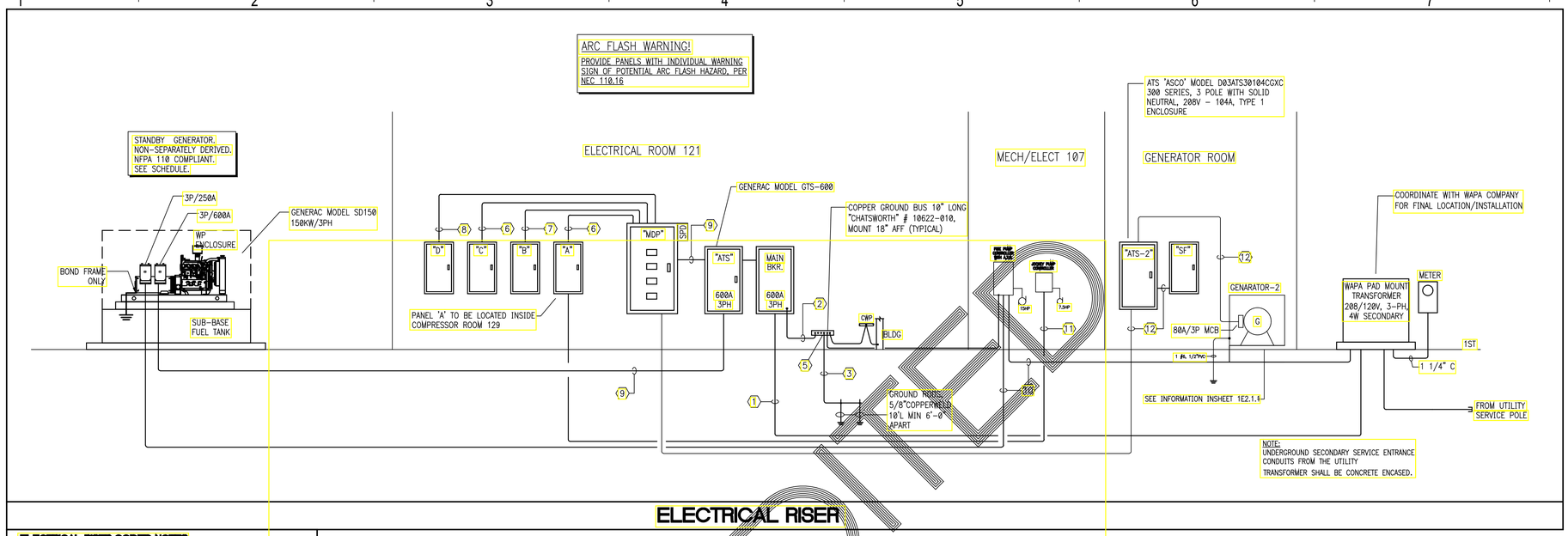
THIRD FLOOR PLAN



ELECTRICAL RISER

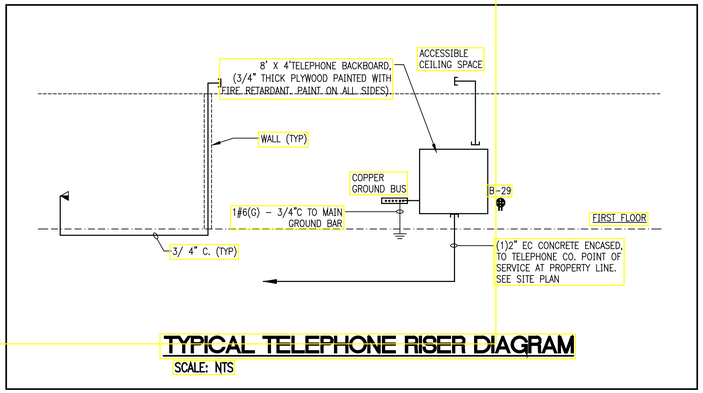
ELECTRICAL RISER CODED NOTES

1. 2 RUNS OF: 4-#350MCM IN 3"PVC (EA.)
2. 1-#2/0 IN 3/4"PVC
3. 1-#3/0 TO FOUNDATION STEEL RE-BAR
4. (2) GROUNDING ROD: 5/8"X10' LONG, 6' APART
5. PROVIDE AN INTERSYSTEM BONDING 'ERICO' PART # IBTB OR EQUAL
6. 4-#3/0, 1-#6(G) IN 2"C
7. 4-#1/0, 1-#6(G) IN 2"C
8. 4-#6, 1-#8(G) IN 1"C
9. 2 RUNS OF: 4-#350MCM, 1-#1(G) IN 3"PVC (EA.)
10. 4-#4, 1-#8(G) IN 1-1/4"PVC
11. 4-#8, 1-#10(G) IN 3/4"PVC
12. 4-#4, 1-#8(G) IN 1-1/4"PVC

STANDBY GENERATOR SCHEDULE

MODEL SELECTION	MANUFACTURER	GENERAC
	MODEL NO.	SD150
	KW RATING @ 60 HZ, 0.8 PF	150
	VOLTAGE RATING	208/120, 3PH, 4W WYE
	TOTAL GENERATED AMPS	520
GEN. SPECIFICATIONS	FUEL TYPE	DIESEL
	FUEL CONSUMPTION (GAL/HR @ 100% LOAD)	11.2
	FUEL TANK CAPACITY (GAL)	946
	FUEL TANK LOCATION	SUB-BASE
	FULL LOAD OPERATING HOURS	84
ENCLOSURE	ENCLOSURE DIMENSIONS (LXWXH), IN. (WITH TANK)	208.3L X 83W X 109.2H
	ENCLOSURE TYPE	SOUND LEVEL 2 - ALUMINUM UP TO 200 MPH WIND LOAD RATING.
AUTOMATIC TRANSFER SWITCHES	A.T.S. MANUFACTURER	GENERAC
	A.T.S. RATED AMPS / POLES	600/3
	A.T.S. MODEL / SERIES	GTS
	A.T.S. DIMENSIONS (HXWXD), IN.	60 X 36 20
	A.T.S. ENCLOSURE	NEMA 1
	A.T.S. WORKSPACE CLEARANCE, IN.	36
	REMOTE ANNUNCIATOR	YES

(1) PROVIDE REMOTE NFPA 110 ANNUNCIATORS. LOCATE IN ROOMS #101 AND #102.



TYPICAL TELEPHONE RISER DIAGRAM

SCALE: NTS

BE
KO

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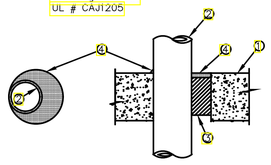
2 Hour Fire Rated Through Penetration Firestop for Single Metal Pipe through Concrete floors or block walls using TREMstop Acrylic.

TREMCO

F-rating = 2 Hr.
T-rating = 0 Hr.
UL # CAJ1205



1 Pre-Rated Concrete Floors or Block Walls = Min. 4-1/2" thick, with annular space range of 0" to 7/8".

2 Conduit – Nom. 4" dia. (or smaller) steel conduit or EMT.

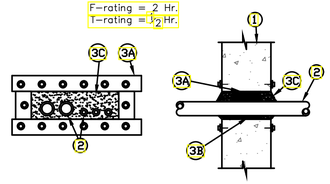
3 Packing Material – Mineral wool (min. 4 pcf) compressed min. 50% and installed into the opening to obtain min. 4" thickness.

4 TREMCO # TREMstop Acrylic – Min. 1/2" sealant applied within annulus, and a minimum 1/4" sealant applied at point contact: at the floor surface for floors, or both surfaces for walls.

2 Hour Fire Rated Through Penetration Firestop for Multiple Metal Pipe through Concrete walls using FIRE-SHIELD or FIRE-SEAL.

TREMCO

F-rating = 2 Hr.
T-rating = ½ Hr.



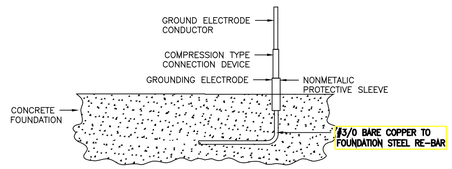
① Wall assembly = 5" thick concrete, with Max area of opening 35.75 sq. in.

② •Steel Pipe – 2" diam. (or smaller) Sch. 5 or heavier.
•Conduit – 2" diam. (or smaller) EMT.
•Max. 5 pipes or conduits.

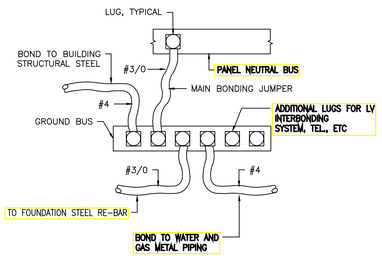
③ A) Steel sleeve – No. 30 MSG galv. sheet fitted within opening and secured to both sides of wall.

B) Packing material – Min. 4" thickness ceramic fiber insulation (6 pcf) friction fitted.

C) Min. ½" thickness FIRE-SHIELD or FIRE-SEAL, with ¼" crown formed around penetrating items.



TYPICAL RE-BAR GROUNDING DETAIL



TYPICAL GROUNDING SYSTEM DETAIL

ELECTRICAL LEGEND

(USE THOSE THAT APPLY)

$	120/277 V., 20 AMP., SINGLE POLE LIGHT SWITCH.
$3	120/277 V., 20 AMP., THREE WAY SWITCH.
$D	120/277 V., 20 AMP., DIMMER SWITCH
$OS	OCCUPANCY SENSOR WITH WALL SWITCH, 'SENSORSWITCH', 120/277 WSX PDT OR EQUAL.
OS	CEILING MOUNT OCCUPANCY SENSOR, 'SENSORSWITCH', CMR PDT 10 OR EQUAL.
	ELECTRICAL PANEL
2 60 F	DISCONNECT SWITCH. "2" INDICATES NUMBER OF POLES; "60" = FRAME SIZE; "NF" = NO FUSES, AND "F" DENOTES FUSE SIZE AS RECOMMENDED BY EQUIPMENT MANUFACTURER.
	EXHAUST FAN OR GARBAGE DISPOSAL
	250V SPECIAL PURPOSE RECEPTACLE
	20 A., 120., V., DUPLEX RECEPTACLE. GROUNDING TYPE, U.O.N. MOUNTED 18" A.F.F. OR AS DIRECTED BY ARCHITECT.
	20A, 120V SINGLE RECEPTACLE
	20A, 120V GFI DUPLEX RECEPTACLE
	20A, 120V SPLIT WIRED RECEPTACLE
	20A, 120V FLOOR MOUNTED DUPLEX RECEPTACLE/DATA OUTLET
J	CEILING OR WALL MOUNTED JUNCTION BOX.
	PHONE/DATA OUTLET @ +18" A.F.F. OR AS DIRECTED BY ARCHITECT. (4. BOX W/3/4" EMPTY CONDUIT TO CEILING SPACE). PROVIDE PULL STRING
	PHONE OUTLET @ +18" A.F.F. OR AS DIRECTED BY ARCHITECT. (4. BOX W/3/4" EMPTY CONDUIT TO CEILING SPACE). PROVIDE PULL STRING
TV	CABLE TV OUTLET
	MOMENTARY PUSH BUTTON AT 42" A.F.F.
S	SINGLE STATION SMOKE DETECTOR W/BATTERY BACKUP
CO	120V COMBINATION CARBON MONOXIDE & SMOKE ALARM WITH BATTERY BACKUP, KIDDE 900-114 – KN-COSM-IB OR EQUAL. INTERCONNECT WITH HOUSE SINGLE STATION SMOKE DETECTORS.
WP	WEATHERPROOF
WR	WATER RESISTANT
VP	VAPOR PROOF
A.C.	ABOVE COUTER
B.C.	BELOW COUNTER

NOTES:

1.- ALL LIGHT SWITCHES ARE TO BE INSTALLED AT 48" A.F.F.

2.- ALL ELECTRICAL, TELEPHONE/DATA AND TV OUTLETS TO BE INSTALLED AT 18" A.F.F., UNLESS OTHERWISE NOTED. COORDINATE EXACT LOCATION, COLOR AND STYLE WITH OWNER/ARCH.

3.- **RECESSED LUMINARIES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES (R402.4). ALL RECESSED LUMINARIES SHALL BE IC-RATED AND LABELED AS MEETING ASTM E 283 (AIR TIGHT).**

ELECTRICAL GENERAL NOTES

1. THE "GENERAL CONDITIONS OF THE CONTRACT", CURRENT EDITION, PUBLISHED IN STANDARD FORM BY THE AMERICAN INSTITUTE OF ARCHITECTS SHALL BE PART OF THIS CONTRACT.
2. ALL ELECTRICAL WORK PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH LOCAL CODES AND ORDINANCES, THE RULES AND REGULATIONS OF THE LOCAL UTILITY COMPANIES AND ALL STANDARDS OF CONSTRUCTION ESTABLISHED BY THE ENGINEER'S, AND NATIONAL ELECTRICAL CODE 2020.
3. CONCRETE PENETRATIONS ARE NOT ALLOWED FOR ANY REASON WITHOUT THE PRIOR CONSENT OF THE OWNER OR THROUGH OWNER REPRESENTIVE.
4. ALL SLAB AND FIRE WALL PENETRATIONS SHALL BE STOPPED, AND SHALL CONFORM TO OWNER'S APPROVAL AS TO LOCATION AND CONSTRUCTION DETAILS.
5. CONTRACTOR SHALL VERIFY THE CEILING FINISHES AND SUSPENSION SYSTEMS FOR SELECTION OF THE PROPER TRIM AND SUPPORT ARRANGEMENTS FOR LIGHTING FIXTURES.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THE ARCHITECT BEFORE ROUGH INSTALLATION OF LIGHTS, RECEPTACLES AND SWITCHES FOR EXACT LOCATION.
7. THERE SHALL BE NO BACK TO BACK TELEPHONE OR ELECTRICAL RECEPTACLES. WHERE RECEPTACLES OCCUR ON EACH SIDE OF THE WALL THEY MUST BE INSTALLED NO LESS THAN 16" APART.
8. HORIZONTAL CONDUIT ROUTING SHALL BE PERMITTED ONLY FOR INTERCONNECTION OF MULTIPLE OPENINGS WITHIN THAT WALL. HORIZONTAL CONDUITS SHALL NOT BE PERMITTED TO CONNECT A SINGLE RECEPTACLE ON A WALL TO A RECEPTACLE ON AN ADJOINING WALL.
9. ALL ELECTRICAL EQUIPMENT MUST BEAR U.L. LABEL AND BE COMMERCIAL GRADE.
10. COMMUNICATION T.V.'s AND CONTROL CABLES TO BE RUN BY OTHERS.
11. ELECTRICIANS SHALL NOT INSTALL MORE THAN EIGHT (8) RECEPTACLES PER CIRCUIT.
12. CONTRACTOR SHALL NOT RUN PIPES, WIRES, CONDUITS OR OTHER MATERIAL OUTSIDE THE AREA UNLESS OTHERWISE NOTED.
13. ALL ELECTRICAL CIRCUITS SHALL BE IDENTIFIED AND LABELED
14. THE CONTRACTOR SHALL VERIFY ALL EQUIPMENT AND MOTOR LOADS BEFORE INSTALLING WIRING.
15. FOR MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS AND PROVIDE DISCONNECTS AND FUSES AS PER EQUIPMENT MANUFACTURER RECOMMENDATIONS.
16. PROVIDE EQUIPMENT GROUND CONDUCTOR IN ALL RACEWAYS.
17. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MINOR ITEMS WHICH ARE OBVIOUSLY AND REASONABLY NECESSARY TO COMPLETE THE INSTALLATION.
18. THE CONTRACTOR SHALL TAKE PERMITS, PROCURE CERTIFICATES AND PAY ALL FEES CONNECTED THEREWITH.
19. THE CONTRACTOR IS REFERRED TO THE ARCHITECTURAL, STRUCTURAL AND MECHANICAL PLANS AND SPECIFICATIONS. SUCH PLANS AND SPECIFICATIONS ARE TO BE CONSIDERED PART OF THE ELECTRICAL CONTRACT DOCUMENTS.
20. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS AND ARRANGEMENTS ONLY.
21. ALL MATERIALS SHALL BE NEW, OF TYPES AND MAKES CALLED FOR, OR APPROVED EQUAL.
22. CONTRACTOR SHALL SUBMIT REQUEST FOR SUBSTITUTION IN WRITING TO THE ENGINEER.
23. THE CONTRACTOR SHALL TOUCH UP OR REFINISH THE FACTORY FINISH OF EQUIPMENT MARRED DURING SHIPMENT OR INSTALLATION.
24. THE CONTRACTOR SHALL BE A LICENSED MASTER ELECTRICIAN.
25. THE ENTIRE INSTALLATION SHALL BE PERFORMED IN A FIRST-CLASS WORKMANLIKE MANNER.
26. THE ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING AS REQUIRED FOR ALL TRADES.
27. ELECTRICAL WORK SHALL NOT INTERFERE WITH CLEARANCES REQUIRED FOR GENERAL AND MECHANICAL CONSTRUCTION. SHOULD ELECTRICAL WORK BE INSTALLED WHICH INTERFERES WITH THE WORK OF THE OTHER CONTRACTORS, SUCH WORK SHALL BE CHANGED AT ELECTRICAL CONTRACTOR'S EXPENSE.
28. GROUNDING SHALL COMPLY WITH THE NEC AND REQUIREMENTS OF THE POWER COMPANY AND INSPECTION AUTHORITY AND SHALL BE 3 OHMS OR LOWER.
29. AT THE COMPLETION OF THE WORK, THIS CONTRACTOR SHALL REMOVE ALL RUBBISH CAUSED BY HIS WORK AND SHALL THOROUGHLY CLEAN ALL ELECTRICAL EQUIPMENT.
30. DIVISION 15 CONTRACTOR SHALL PROVIDE ALL NECESSARY CONTROL WIRING FOR MECHANICAL EQUIPMENT IN HIS CONTRACT.
    A) ALL WIRING IS TO BE IN CONDUIT, INCLUDED BUT NOT LIMITED TO LOW VOLTAGE, FIRE ALARM, AND CONTROLS AND SHALL BE PLENUM RATED AS PER NFPA 90A 2-3.10
31. ALL SERVICE TRANSFORMERS SHALL BE SUITABLE FOR HIGH HARMONIC ENVIRONMENTS, RATED MINIMUM OF 200% OF NORMAL HARMONIC CONTENT WITH A MINIMUM 'K' FACTOR OF 13. 'K' FACTOR TRANSFORMERS SHALL BE SHIELDED ISOLATION TYPE AND HAVE PRIMARY SURGE SUPPRESSION, SECONDARY FILTERS AND ELECTROSTATIC SHIELDS. MOUNT TRANSFORMERS ON 3" CONCRETE PAD WITH 3" EXTENDING ON ALL SIDES.
32. ELECTRICAL POWER FOR HVAC AND MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. SEE MECHANICAL DRAWINGS AND SPECIFICATIONS FOR WIRING DIAGRAMS AND REQUIREMENTS.
33. ALL WORK SHALL BE GUARANTEED FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
34. WIRING DEVICES SHALL BE COMMERCIAL GRADE LEVITON, COLOR SELECTED BY THE ARCHITECT. MINIMUM SIZE OF OUTLET BOXES SHALL BE 4" TRADE.
35. ALL LIGHTING SWITCHES AND/OR DIMMERS SHALL BE GANGED TOGETHER WHERE SHOWN TOGETHER.
36. ALL CONDUCTORS SHALL BE COPPER, 600V. TYPE THHN OR THWN;#12 MINIMUM EXCEPT CONTROL WIRING.
37. ALL LINE VOLTAGE CIRCUITS SHALL BE RUN IN CONDUITS. PLENUM RATED LOW VOLTAGE CIRCUITS SUCH AS FIRE ALARM, SECURITY, ACCESS CONTROL AND COMMUNICATIONS SHALL ALSO BE RUN IN CONDUITS.
38. USE RIGID GALVANIZED STEEL CONDUIT WHERE EXPOSED IN ANY LOCATION SUBJECT TO MECHANICAL INJURY. EMT MAY BE USED IN ELECTRICAL ROOMS, ABOVE CEILING AND INSIDE WALLS. ALL METALLIC CONDUIT SHALL BE STEEL. NO ALUMINUM CONDUIT WILL BE PERMITTED. WIRE WAYS SHALL BE GALVANIZED OR FACTORY PAINTED, AND SHALL BE U.L. APPROVED.
39. FLEXIBLE CONDUIT SHALL BE USED FOR CONNECTIONS TO VIBRATING EQUIPMENT AND RECESSED LIGHT FIXTURES WHERE PERMITTED BY CODE. "SEALTITE" WHERE USED OUTDOORS.
40. FUSES SHALL BE BUSSMAN 'FUSETRON' DUAL-ELEMENT, TIME DELAY, OR EQUAL, OR AS CALLED FOR ON DRAWINGS.
41. NAMEPLATES SHALL BE LAMINATED PHENOLIC PLASTIC, BLACK FRONT AND BACK WITH WHITE CORE, WITH LETTERING ETCHED THROUGH OUTER COVERING. WHITE ENGRAVED LETTERS ON BLACK BACKGROUND. ATTACH WITH PLATED SELF TAPPING SCREWS OR BASS BOLTS. THE FOLLOWING SHALL BE EQUIPPED WITH NAMEPLATES: ALL MOTORS, MOTOR STARTERS, PUSH BUTTON STATIONS, CONTROL PANELS, TIME SWITCHES, DISCONNECT SWITCHES, PANELBOARDS, CIRCUIT BREAKERS, CONTACTORS, TRANSFORMERS,
42. ALL JUNCTION BOXES SHALL BE IDENTIFIED WITH PANEL AND CIRCUIT NUMBERS.
43. ALL DISTRIBUTION PANELBOARDS SHALL HAVE TYPED DIRECTORIES IDENTIFYING CIRCUIT LOCATIONS SUCH AS: DUPLEX OUTLET ROOM 120 SW WALL. NO HAND WRITTEN OR XEROXED DIRECTORIES WILL BE ACCEPTED.
44. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF CEILING CONSTRUCTION BEFORE ORDERING OR INSTALLING LIGHT FIXTURES.
45. THE CONTRACTOR SHALL VERIFY THAT BRANCH CIRCUITS ARE BALANCED BETWEEN THE PHASES OF THE SYSTEM, AND ADJUST IF NECESSARY AS DIRECTED BY THE CONSULTANT.
46. PROVIDE RACEWAY SYSTEMS AND PULL WIRES FOR TELEPHONE SYSTEM, CABLE T.V. SYSTEM, SECURITY SYSTEM, FIRE ALARM SYSTEM AS SHOWN
47. THE ELECTRICAL INSTALLATION SHALL MEET THE APPROVAL OF THE OWNER'S REPRESENTATIVES BEFORE ACCEPTANCE.
48. GUTTERS, WIREWAYS, PULL BOXES, ETC., SHALL BE SIZED PER NATIONAL ELECTRICAL CODE, LATEST EDITION.
49. COORDINATION WITH OTHER TRADES:
    A) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THOROUGH REVIEW OF ALL PLANS AND SPECIFICATIONS AFFECTING THIS PROJECT AND SHALL COORDINATE WITH OTHER TRADES BEFORE THE COMMENCEMENT OF WORK SO THAT THE ROUTING OF SYSTEMS AND CLEARANCES SHALL BE ADEQUATE. ANY CONFLICTS OR DEVIATIONS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER IMMEDIATELY BEFORE PROCEEDING.

    B) SPECIAL ATTENTION SHALL BE GIVEN BUT NOT BE LIMITED TO THE FOLLOWING SYSTEMS.
    1. CONDUIT, RACEWAY, TELEPHONE, DATA, T.V., FIRE ALARM & SECURITY.
    2. AIR CONDITIONING DUCTWORK, PIPING, CONDENSATE AND WASTE.
    3. WASTE AND VENT LINES, HOT AND COLD WATER LINES AND RAIN WATER LEADER.
50. DRAWINGS AND SPECIFICATIONS:
    A) THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLETE AND CONSIDERED SUPPLEMENTARY TO EACH OTHER. MATERIALS OR WORKMANSHIP INDICATED, CALLED FOR, OR IMPLIED BY ONE AND NOT THE OTHER, SHALL BE FURNISHED AND INSTALLED AS THOUGH SPECIFICALLY CALLED FOR BY BOTH. SHOULD ANY DISCREPANCY APPEAR IN EITHER, CALL SUCH DISCREPANCY TO ATTENTION OF PROJECT ARCHITECT FOR CLARIFICATION AND CORRECTION BEFORE SUBMITTING BID.

    B) IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO OBTAIN A COMPLETE AND SATISFACTORY INSTALLATION. AN ATTEMPT HAS BEEN MADE TO SEPARATE AND COMPLETELY DEFINE THE WORK IN SEPARATE SECTIONS OF THE SPECIFICATIONS; HOWEVER, SUCH SEPARATION SHALL NOT RELIEVE THE CONTRACTOR FROM FULL RESPONSIBILITY OF COMPLIANCE WITH THE WORK OF HIS/HER TRADE WHICH MAY BE INDICATED ON ANY OF THE DRAWINGS AND IN OTHER SECTIONS OF THE SPECIFICATIONS.

    C) THE CONTRACTOR SHALL CAREFULLY EXAMINE THE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS AND SPECIFICATIONS. IN ADDITION TO THE ELECTRICAL AND OTHER RELATED TRADES AND SECTIONS, THIS COORDINATION SHALL BE DONE PRIOR TO SUBMITTING THE BID.

    D) THE ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE ELECTRICAL DRAWINGS WITH REFERENCE TO BUILDING CONSTRUCTION AND DIMENSIONS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC BUT ARE TO BE FOLLOWED AS CLOSELY AS THE ACTUAL CONSTRUCTION OF THE BUILDING AND THE WORK OF OTHER TRADES WILL PERMIT.

    E) THE DRAWINGS AND RISERS INDICATE IN DIAGRAMMATIC FORM THE ARRANGEMENTS DESIRED FOR THE EQUIPMENT FIXTURES, PRINCIPAL APPARATUS, ETC., AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. HOWEVER, THE CONTRACTOR SHALL INCLUDE ANY ADDITIONAL CONDUIT, BOXES AND WIRING DUE TO THE STRUCTURAL OR OTHER OBSTRUCTION AT NO EXTRA COST.

LIGHTING FIXTURE SCHEDULE

SYMBOL	TYPE	MANUFACTURER & CATALOG No.	LAMPS	VOLTS	REMARKS
A	2' X 4' LED FIXTURE	LITHONIA 2GTL-4-40L-MVOLT-LP840-GLR	29.9W LED	120	LAY-IN
AE	2' X 4' LED FIXTURE	LITHONIA 2GTL-4-40L-MVOLT-LP840-GLR-EL7L	29.9W LED	120	LAY-IN WITH EMERGENCY BATTRY
B	1' X 4' LED FIXTURE	LITHONIA GTL-4-40L-MVOLT-LP840-GLR	34.1W LED	120	LAY-IN
BE	1' X 4' LED FIXTURE	LITHONIA GTL-4-40L-MVOLT-LP840-GLR-EL7L	34.1W LED	120	LAY-IN WITH EMERGENCY BATTRY
C	2' X 2' LED FIXTURE	LITHONIA 2GTL-2-40L-MVOLT-LP840-GLR	33.6W LED	120	LAY-IN
D	4" LED HI-HAT	LITHONIA LDN4-40-1000-WWR-LSS-MVOLT	10.58W LED	120	LAY-IN
DE	4" LED HI-HAT	LITHONIA LDN4-40-1000-WWR-LSS-MVOLT-EL	10.58W LED	120	LAY-IN WITH EMERGENCY BATTRY
F	LED HIGH BAY	LITHONIA IBE-L-48-1800LM-ATC-MVOLT-840K-80CRI-LAPZU-DWH-E15WCP	136W LED	120	PENDANT, W/MOTION SENSOR AND EMERGENCY BATTERY
G	LED OUTDOOR	LITHONIA OLCFM-15-4000K	16.6W LED	120	SURFACE
H	OUTDOOR LED WALL PACK	LITHONIA THW-P2-40K-T3M-SF	58W LED	120	OUTDOOR RATED FINISH BYCLIENT
I	LED LIGHT FIXTURE	TO BE SELECTED BY CLIENT	30W LED	120	-
EX	EXIT LIGHT	LITHONIA LQM-SW-3R-120-ELN	LED's	120	WITN BATTRY PACK

TO BE EDITED

REVISIONS

ISSUANCES

No.	Drawing Issue Description	Date

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CRUZ BAY-VIFEMS STATION

ESTATE ENGIHED PARCEL NO.
303
CRUZ BAY QUARTER
ST. JOHN U.S.V.I

DATE:	08.20.2025
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
PROJECT NO.:	23-005.C
CONTRACT NO.:	-
SHEET NO.:	4E1.2