Request for Proposals (RFP) 2019 – 05
Owner's Representative/Construction Project Management Services
for the Rehabilitation of the Public Safety Building
City of Isle of Palms, South Carolina

In compliance with the City's Procurement Ordinance, the City of Isle of Palms is requesting proposals from qualified firms to act as the City's representative for an upcoming construction project at the Public Safety Building, located at 30 J.C. Long Boulevard.

The City does not have a professional construction manager on staff and is therefore seeking proposals from qualified firms to provide guidance, expertise and review plans, specifications and work on behalf of the City to ensure a successful construction project and an improved Public Safety Building. A separate agreement will be sought for Chapter 17 Special Inspections.

Numerous deficiencies have been identified at the Public Safety Building including water intrusion, indoor air quality and general workmanship issues. The rehabilitation project is expected to include the removal and recladding of the entire exterior cladding/roofing of the building (not including windows), limited plumbing work, limited fire sprinkler work, the installation of conditioned outdoor air handlers and associated ductwork, replacement of the existing variable refrigerant flow (VRF) air conditioning system, replacement of various air handling units and condensing units, replacement of existing light fixtures and lighting controls, replacement of the fire alarm system, replacement of the existing emergency generator, miscellaneous maintenance items and miscellaneous replacement of interior finishes (as necessary for the completion of other work).

Trident Construction and Coast Architects, the City's contracted design-build team, is currently working to develop final construction documents that should be available by January 2020. Construction is expected to begin in March 2020 and the budget for the entire construction project is $5,256,779 which includes contingency funds.

I. Scope of Work

A. Prior to work starting on the building, the chosen firm will be expected to review drawings, specifications, and submittals in order to become knowledgeable with the project.

B. Prior to work starting on the building, the chosen firm will be expected to attend preconstruction/project kick off meeting – assume four (4) hours.

C. During the construction phase, the chosen firm will be expected to conduct weekly inspections and provide deficiency reports that track any conformance issues until items are resolved/corrected by Contractor. Reports are to be issued and delivered to the City Administrator within twenty-four (24) hours of the site visit. Weekly visits should be assumed to be limited to four (4) hours per each visit for a total of one hundred ninety-two (192) hours.

D. Inspections will entail reviewing the work that has been put in to place.

E. The total project duration is expected to be eleven (11) months or forty-eight (48) weeks.

F. Additional unplanned visits may be necessary. An allowance of forty-eight (48) hours should be included.

G. The hours of work described above will be used to determine the expected cost of the work to be done under this request. If additional hours are required, a change order will be necessary, and the amount of the change shall be based on the additional hours expected to be worked and the billable rates included on the cost proposal form.

H. The chosen firm shall provide a final written report documenting all inspections that have been completed and that all non-conformance issues have been addressed and documented as being resolved.

II. Payments

All payments made pursuant to this RFP will be paid on an hourly basis utilizing pre-approved billable rates for time worked and adequately documented regardless of the assumptions of time provided for each task. The agreement that will be entered into pursuant to this request will include a not to exceed amount. It is expected that the chosen firm will manage the hours worked to complete all work in the scope of services and not exceed total agreed upon price, regardless of the assumptions of time provided for each task. If additional work becomes necessary because of a change in scope or an issue that could not have been anticipated and the work cannot be completed within the not to exceed amount, the chosen firm should alert the City to this issue prior to conducting the work and a change order should be considered. The amount paid for any additional work will be paid utilizing the preapproved billable rates.

III. Proposal Process

Proposals should be submitted to the following:

Desirée Fragoso
City Administrator
City of Isle of Palms, 1207 Palm Boulevard
Post Office Box 508
Isle of Palms, South Carolina 29451

Deadline for Submissions: The deadline for submission is 10:00 a.m., Friday, October 25, 2019. Proposals will be received at 1207 Palm Boulevard, Isle of Palms, South Carolina 29451 in a sealed envelope. Sealed envelopes must be clearly marked "(RFP) 2019 – 05 Owner's Representative/ Construction Project Management Services for the Rehabilitation of the Public Safety Building" and include one (1) hard copy and one (1) electronic copy saved to a USB flash drive.

It will be the responsibility of the proposers to verify receipt by the City. Proposals may be delivered by hand or by mail, but no proposal shall be considered which is not actually received by the City at the place, date and time appointed by the City and the City shall not be responsible for any failure, misdirection, delay or error resulting from the selection by any proposer of any means of delivery. All proposals submitted shall include a current e-mail address.

Proprietary and/or Confidential Information: Your proposal is a public document under the South Carolina Freedom of Information Act (FOIA), except as to information that may be treated as confidential as an exception to disclosure under the FOIA. If you cannot agree to this standard, please do not submit your proposal. All information that is to be treated as confidential and/or proprietary must be CLEARLY identified, and each page containing confidential and/or proprietary information, in whole or in part, must be stamped and/or denoted as CONFIDENTIAL, in bold, in a font of at least 12-point type, in the upper right-hand corner of the page. All information not so denoted and identified will be subject to disclosure by the City.

Proposers acknowledge and agree that the City will not be liable for any costs, expenses, losses, damages (including damages for loss of anticipated profit) or liabilities incurred by the respondent or any member of the respondent's organization as a result of, or arising out of, submitting a proposal, negotiating changes, or due to the City's acceptance or non-acceptance of the proposal or the rejection of any and all proposals. Proposers are responsible for submission of accurate, adequate and clear descriptions of the information requests. Neither issuance of the RFP, preparation and submission of a response, nor the subsequent receipt and evaluation of any response by the City of Isle of Palms will commit the City to award a contract to any respondent even if all the requirements in the RFP have been met.

Proposers must have or be able to procure an Isle of Palms Business License.

IV. Submission Requirements

Each proposal shall include the following information as applicable to be considered complete:

A. Consulting firm's background, office locations, size, capabilities.

B. Project experience with construction management.

C. A statement describing why this firm is most qualified to perform this work. Demonstrate the firm's qualifications, competence and capacity.

D. Detailed cost proposal on the included form. Include a fee schedule including hourly rates for all personnel, subcontractors, and reimbursables. Subcontractors must be explicitly listed.

E. Oath of Non-Collusion signed by a principal of the firm or an officer authorized to bind the corporation.

F. Indicate and list any pending legal actions.

IV. Proposal Evaluation Criteria

The primary intent with regards to the procurement of these services is to obtain what the City would consider to be the best package of product and service. This includes overall proposal suitability, price competitiveness, quality and timeliness of previous work performed.

Respondents will further be evaluated on their experience, qualifications, and references. The City of Isle of Palms reserves the right to reject, in whole or in part, any proposal submitted which, in the judgment of the City, would not be in its best interest. The City also reserves the right to waive minor deficiencies or reject all proposals.

STATE OF SOUTH CAROLINA)
AGREEMENT TO ACT AS THE OWNER'S REPRESNTATIVE)
FOR THE REHABILITION OF)
THE PUBLIC SAFETY BUILDING)

THIS AGREEMENT is made and entered into this _____day of_____, 2019, by and between the City of Isle of Palms, S.C. ("City") and _____("Contractor").

WHEREAS, City desires to engage the services of Contractor to perform construction oversight services for the rehabilitation of the Public Safety Building on the Isle of Palms (the "Project"); and

WHEREAS, Contractor agrees to perform the services pursuant to the terms and conditions hereinafter set forth.

THEREFORE, in consideration of the mutual covenants and promises set forth herein, City and Contractor agree as follows:

1. **Scope of Work**

A. Contractor agrees to provide all labor, equipment, materials, supplies, and incidentals which are required to perform all services for the Project pursuant to the Scope of Work described in the bid document and the proposal submitted by Contractor to City dated _____, 2019 (the "Proposal"), a copy of which is attached hereto as "Exhibit I" and made a part of this Agreement by reference thereto. In the event of a conflict between any provision contained in the Proposal and any provision contained in this Agreement, the terms of this Agreement shall control.

B. In providing services under this Agreement, the Contractor shall perform in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances at the same time and in the same or similar locality. Upon notice to the Contractor and by mutual agreement between the parties, the Contractor will, without additional compensation, correct those services not meeting such a standard. Contractor agrees to comply with all applicable federal, state and local laws, rules and regulations regarding all services performed by Contractor pursuant to this Agreement.

2. **Contract Price**. For all services to be performed by Contractor on the Project, the City agrees to pay the Contractor on a monthly basis for the hours worked within that month. The total cost for all services to be performed under this agreement shall not exceed $_____ as detailed on the Cost Proposal Form in Exhibit I, which includes labor fees and anticipated expenses, unless a Change Order is agreed to by the City and the Contractor.

3. **Time of Performance**. Contractor understands the time sensitivity of the Project

and agrees to complete the services on the Project in a timely manner. Provided, however, that if performance by the Contractor is delayed for reasons or causes beyond the control of Contractor (including but not limited to, acts of God, weather conditions, site conditions, labor or material shortages, delays caused by City, and casualty losses) the Project completion date shall be extended accordingly.

4. **Change Orders**. The City has the right to require alterations or changes ("Change Orders") to the Project and in such case Contractor agrees to make such alterations or changes; provided, however, that the details and additional cost or credit of such Change Order must be agreed to by the City and Contractor in writing prior to the commencement of the Change Order.

5. **Permits, Fees and Licenses**. Contractor agrees to apply for, obtain and pay for all governmental permits, fees and licenses necessary for the Contractor's performance and completion of the services under the Project (including, but not limited to, a City business license). This does not include Permit fees required for permitting.

6. **Indemnification and Insurance**.

A. Contractor agrees to hold harmless and indemnify City and its officers, agents and employees from and against any loss or damage, including all reasonable attorney's fees and expenses, incurred as a result of any and all claims, demands, causes of action, suits, judgments, fines or penalties (including but not limited to all fees and expenses incurred as a result of death or injury to persons or for loss of or damage to property) caused by Contractor's performance of the services under this Agreement. In the event of any such claims made or suits filed, City agrees to give Contractor written notice thereof, and Contractor shall have the right to defend or settle the same to the extent of its interests hereunder.

B. Contractor shall procure, and maintain in effect during the term of this Agreement, insurance coverage in amounts and on terms not less than set forth below:

a. General Liability: Comprehensive general liability insurance coverage on the services under the Project in an amount not less than $1,000,000.00 per person, $2,000,000.00 per claim, and $250,000.00 per claim for property damage;
b. Automobile Liability: Automobile liability insurance for bodily injury, including death, and property damage in the amount of $1,000,000.00 each occurrence;
c. Professional Liability: Professional liability insurance for damages incurred by reason of any negligent act, error or omission committed or alleged to have been committed by Contract in the amount of $1,000,000.00 per claim and in the aggregate; and
d. Workers' Compensation: Contractor agrees to maintain workers' compensation coverage on its employees as required by the State of South Carolina workers' compensation laws.

All insurance coverage required hereunder shall be with companies approved in advance by City, who shall be named as an additional insured on all such policies. Proof of such insurance shall be

provided to City prior to commencement of any work by Contractor. Each policy shall contain a requirement that, in the event of change or cancellation, 30 days' prior written notice must be given to City.

C. Contractor agrees that any subcontracts for this Project shall be approved in advance in writing by City; shall provide that City is an intended third-party beneficiary of the subcontract; shall require that all subcontractor work be performed in accordance with the requirements of this Agreement, including all indemnification and insurance requirements set forth in this Section 6; and shall provide that City is named as an additional insured on all such insurance policies. Proof of subcontractor's insurance shall be provided to City prior to commencement of any work by subcontractor.

7. **Breach**. In the event that either party breaches any provision of this Agreement, and the same continues for a period of seven (7) days after receipt of written notice thereof, then the non-breaching party may exercise any and all remedies at law or in equity regarding the breach of this Agreement. Without prejudice to any other rights or remedies available for the said breach, the non- breaching party may terminate this Agreement and cease further performance under this Agreement.

8. **Site Investigation**. Contractor acknowledges that Contractor has inspected the Service areas and has determined the nature of the work and the difficulties and facilities attending performance of the work, and all other matters which Contractor contemplates may in any way affect the work under this Agreement.

9. **Notices**. All notices, consents, and approvals required by any provision of this Agreement shall be in writing and shall be deemed to be properly given and received when personally delivered to the representatives of each party or when deposited in the United States mail, registered or certified, with return receipt requested, postage prepaid, and addressed to:
City of Isle of Palms:

Representative: Desirée Fragoso, Interim City Administrator
Address: PO Box 508, Isle of Palms, SC 29451

(Contractor):
Representative:
Address:

10. **Mediation**. Any claim, dispute, or controversy arising under or in connection with this Agreement shall be subject to mediation as a condition precedent to litigation. A request for mediation shall be made in writing, delivered to the other party to the Agreement, and filed with the proposed mediator. Mediation shall be conducted in Charleston County, South Carolina. The mediator shall be a member of the South Carolina Bar and shall be selected by mutual consent and agreement of the parties. If a party fails to object to the mediator proposed by the party requesting mediation within 30 days of the initial request for mediation, the mediator shall be deemed selected as proposed. If the parties fail to agree upon a mutually acceptable mediator within 60 days of the initial request for mediation, the mediator shall be selected from

the official roster of active certified mediators in Charleston County, as provided by the South Carolina Supreme Court's Commission on Alternative Dispute Resolution and Board of Arbitrator and Mediator Certification, by choosing in alphabetical order the first available circuit court mediator from the roster. The parties shall equally divide the mediator's fee and any filing fees. Agreements reached in mediation shall be enforceable as settlement agreements in any court of competent jurisdiction. Nothing contained herein shall preclude either party from seeking enforcement of the terms of mediation pursuant to this Paragraph through a court of competent jurisdiction, and the prevailing party shall also be entitled to reimbursement by the losing party for all reasonable fees and costs, including attorney's fees, incurred in the proceedings seeking enforcement.

11. **Entire Agreement; Amendments**. This Agreement constitutes the entire Agreement between the parties and supersedes and nullifies all prior or contemporaneous agreements or representations by either party which are not expressly stated in this agreement. Neither party is relying upon any representation not expressly contained herein. This Agreement may be amended only by a written agreement signed by each party.

12. **Effect of Waiver or Consent**. A waiver or consent, express or implied, to or of any breach or default by a party in the performance of its obligations under this Agreement is not a consent or waiver to or of any other breach or default in the performance by that party of the same or any other obligations of that party with respect to this Agreement. Failure on the part of a party to complain of any act of the other party or to declare a party in default with respect to this Agreement, irrespective of how long that failure continues, does not constitute a waiver by that party of its rights with respect to that default until the applicable statute-of- limitation period has run.

13. **Governing Law; Severability**. This Agreement is governed by and shall be construed and interpreted in accordance with the laws of the State of South Carolina, excluding any conflict- of-laws rule or principle that might refer the governance or the construction of this Agreement to the law of another jurisdiction. If any provision of this Agreement is held invalid or unenforceable to any extent by a court of competent jurisdiction, the remainder of this Agreement is not affected thereby and that provision shall be enforced to the greatest extent permitted by law.

14. **Binding Agreement**. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

15. **Subcontracting and Assignment**. Contractor agrees not to enter into any subcontracts, leases, agreements, or assignments pertaining to this Agreement or any interest or right herein, either voluntarily or by operation of law, without prior written approval of City.

16. **Section Headings**. The headings of Sections or paragraphs used in this Agreement have been inserted for convenience only and are not to be used in determining the contents contained herein.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals, by and through the undersigned officers, as of the date stated above.

WITNESS:

The City of Isle of Palms, S.C.

_____

By: _____
Title: _____

(Contractor)

_____
By: _____
Title: _____

COST PROPOSAL FORM

PROPOSAL OF:_____
(Contractor)

PROPOSAL TO:_____
(Owner)

PROJECT NAME:_____

PROJECT NUMBER: _____PROPOSAL DATE:_____

BASE PROPOSAL AGREEMENT

The undersigned, having examined all the Bidding Documents, including _____ and acknowledging all Addendum(a) as follows:

shall execute the entire Work in the Bidding Documents described as in the Scope of Work for the following amount:

Preconstruction meeting:	4 hours at $_____/ per hour =	$_____
Weekly inspections:	192 hours at $_____/ per hour =	$_____
Additional visits:	48 hours at $_____/ per hour=	$_____
TOTAL AMOUNT OF PROPOSAL =		$_____

_____Dollars

which sum is hereafter called the PROPOSED COST TO NOT BE EXCEEDED.

The undersigned acknowledges the receipt of the following addenda and confirms that the PROPOSAL as submitted reflects appropriate price responses:

AUTHORIZATION

_____
(Type or Print Name of Contractor)

_____
(Type or Print Address)

_____
(Signature of Authorized Agent)

ISLE OF PALMS
PUBLIC SERVICE BUILDING
REMEDIATION

SCHEMATIC DESIGN

ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR
ALUM.	ALUMINUM
ANOD.	ANODIZED
ARCH.	ARCHITECTURAL/ARCHITECT
@	AT
BRG.	BEARING
BTM.	BOTTOM
BLDG.	BUILDING
(C)	CAULK
CAB.	CABINET
C.F.C.I.	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
C.F.O.I	CONTRACTOR FURNISHED, OWNER INSTALLED
CLG.	CEILING
CPT.	CARPET
CTR.	CENTER
CLOS.	CLOSET
COL.	COLUMN
CONC.	CONCRETE
C.J.	CONTROL JOINT
DTL.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
DWG.	DRAWING
EA.	EACH
ELEC.	ELECTRIC/ELECTRICAL
E.W.C.	ELETRIC WATER COOLER
ELEV.	ELEVATION-GRADE OR BLG.
E.J.	EXPANSION JOINT
EPS	EXTRUDED POLYSTYRENE
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.F.	EXHAUST FAN
EXIST.; (E)	EXISTING
EXT.	EXTERIOR
FT.	FEET
FIN.	FINISH
F.E.	FIRE EXTINGUISHER (WALL BRACKET)
F.E.C.	FIRE EXTINGUISHER CABINET (SEMI-RECESSED WALL CAB.)
FLR.	FLOOR
FRT	FIRE RETARDANT TREATED
F.D.	FLOOR DRAIN
GALV.	GALVANIZED
GA.	GAUGE
GYP.BD.	GYPSUM BOARD
HC	HANDICAP ACCESSABLE
HDWR.	HARDWARE
HT.	HEIGHT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
INSUL.	INSULATION
INT.	INTERIOR
JAN.	JANITOR
JT.	JOINT
K.S.	KNEE SPACE
LAM.	LAMINATE
LAV.	LAVATORY
MFR.	MANUFACTURER
M.O.	MASONARY OPENING
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MTL.	METAL
(N)	NEW
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O. F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
OPNG.	OPENING
O.H.	OPPOSITE HAND
O.R.D.	OVERFLOW ROOF DRAIN
(P)	PAINT
PLYWD	PLYWOOD
PR	PAIR
PREF.	PREFINISHED
PREFAB.	PREFABRICATED
P.T.	PRESSURE TREATED
RAD., R.	RADIUS
REF.	REFERENCE
REINF.	REINFORCE/REINFORCING
REQ'D.	REQUIRED
R.D. (L)	ROOF DRAIN (LEADER)
R.O.	ROUGH OPENING
SHT.	SHEET
SIM.	SIMILAR
SPECS.	SPECIFICATIONS
S.S.	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STRUCT.	STRUCTURAL
TEL.	TELEPHONE
TR.	TREATED
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
(V)	VERIFY
V.A.T.	VINYL ASBESTOS TILE
V.C.T.	VINYL COMPOSITE TILE
VERT.	VERTICAL
V.T.R.	VENT THROUGH ROOF
W.C.	WATER CLOSET
WD.	WOOD

OWNER

CITY OF ISLE OF PALMS
1207 PALM BOULEVARD
ISLE OF PALMS, SC 29451
843.886.6428

ARCHITECTURAL

COAST ARCHITECTS, INC.
671 SAINT ANDREWS BLVD.
CHARLESTON, SC 29407
843.763.7064

PLUMBING/MECHANICAL/FIRE PROTECTION

MECA, INC.
PO BOX 50644
COLUMBIA, SC 29250
803.765.9421

ELECTRICAL

GWA, INC.
168 LAURELHURST AVENUE
COLUMBIA, SC 29210
803.252.6919

LOCATOR MAP

BID ALTERNATIVES

BID ALTERNATIVE NO. 1 RE-LOCATE NEW GENERATOR ON NEW CONCRETE PAD ON SITE; SEE PLANS.

GENERAL NOTES

1. THIS PROJECT IS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2015 EDITION.
2. DIMENSIONS ARE TO THE OUTSIDE FACE OF EXTERIOR METAL STUDS, CENTERLINE OF STRUCTURAL STEEL COMPONENTS, CENTERLINE OF DOOR AND WINDOW OPENINGS, AND TO THE NORTH AND EAST FACE OF INTERIOR WALLS UNLESS NOTED OTERWISE (*).
3. CONTRACTOR SHALL TAKE RESPONSIBLE PRECAUTIONS FOR THE SAFETY OF WORKERS AND OTHER AFFECTED PERSONS. THEY SHALL PROVIDE RESPONSIBLE PROTECTION TO PREVENT DAMAGE TO ALL WORK, MATERIALS, AND EQUIPMENT.
4. CONTRACTOR SHALL NOTIFY ARCHITECT OF PROPOSED FIELD CHANGES OR MODIFICATIONS PRIOR TO CONSTRUCTION OF MODIFICATIONS.
5. THE INTENT OF THE CONTRACT DRAWINGS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE COMPLETION OF THE WORK INCLUDING WHAT IS REASONABLY INFERABLE TO PRODUCE THE INTENDED RESULTS.
6. REFER TO STRUCTURAL DRAWINGS FOR CONTROL AND EXPANSION JOINT LOCATIONS IN SLABS.
7. LOCATION OF FIRE EXTINGUISHERS SHOWN ARE FOR GENERAL REQUIREMENTS ONLY - THE LOCAL FIRE MARSHALL SHALL HAVE JURISDICTION OVER THE NUMBER AND LOCATION OF ALL PORTABLE FIRE EXTINGUISHERS. FIRE EXTINGUISHERS SHALL BE SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH SECTION 906 AND NFPA 10. TOP AT 5'-0" A.F.F.
8. COORDINATE ALL EQUIPMENT WITH OWNER. PROVIDE BLOCKING IN WALL AS REQUIRED. SEE ELECTRICAL.

INDEX OF DRAWINGS

coast architects
671 St. Andrews Blvd., Charleston, SC 29407
Phone: 843.763.7064 Fax: 843.763.7061
www.coastarchitects.net

08.28.2019

ISLE OF PALMS PUBLIC SERVICE BUILDING REMEDIATION
30 J.C. LONG BLVD, ISLE OF PALMS, SC, 29451

Revisions	
Rev. No.	Rev. Date

DRAWN BY: LWM
CHECKED BY: FAM
DATE: 08.28.2019
COAST PROJECT NO.: 1902.01

SCHEMATIC DESIGN

TITLE SHEET & DRAWING INDEX

G001

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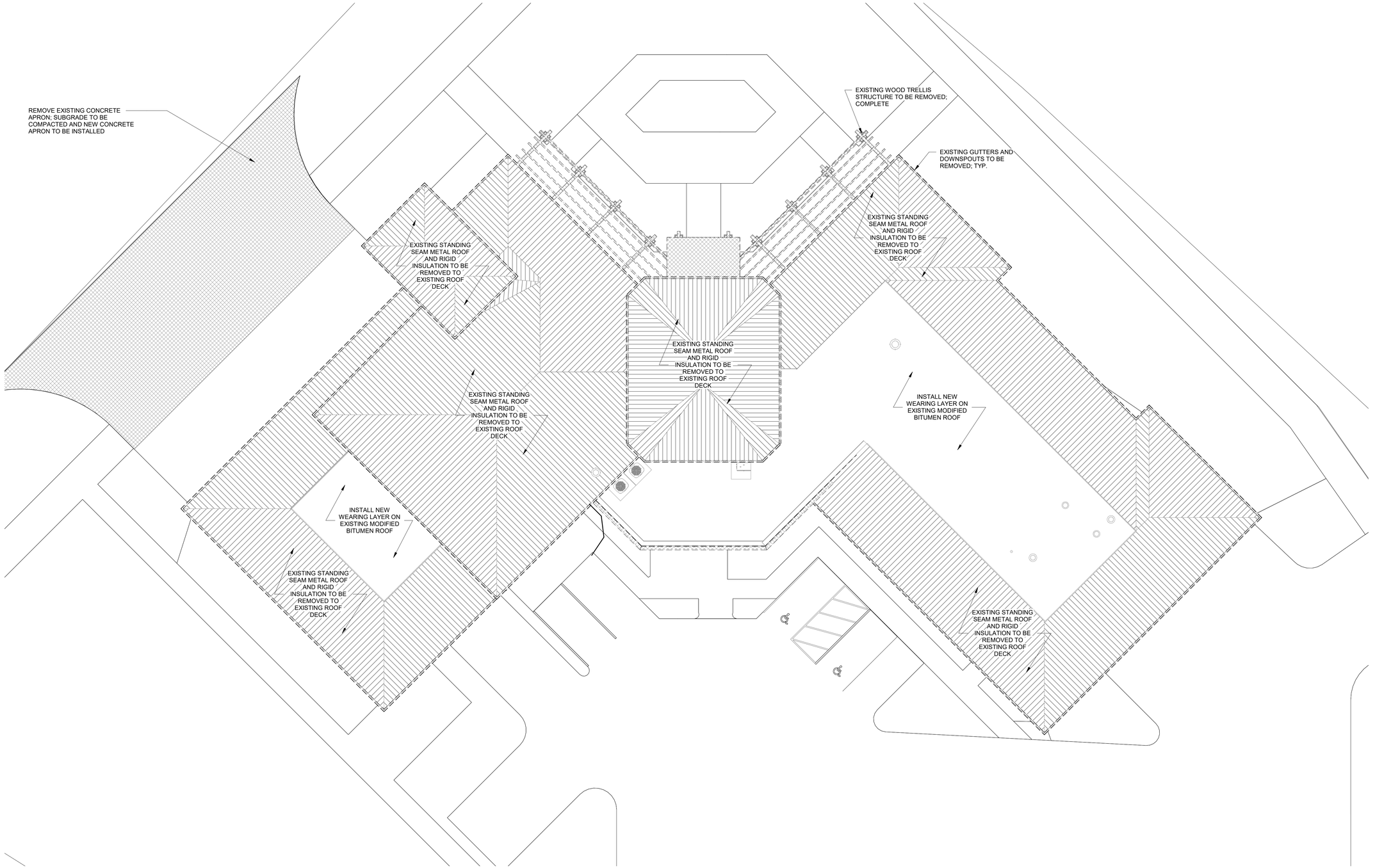

PLAN NORTH / NORTH

A1 / D100

02 SITE_DEMO

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

SCHEMATIC DESIGN

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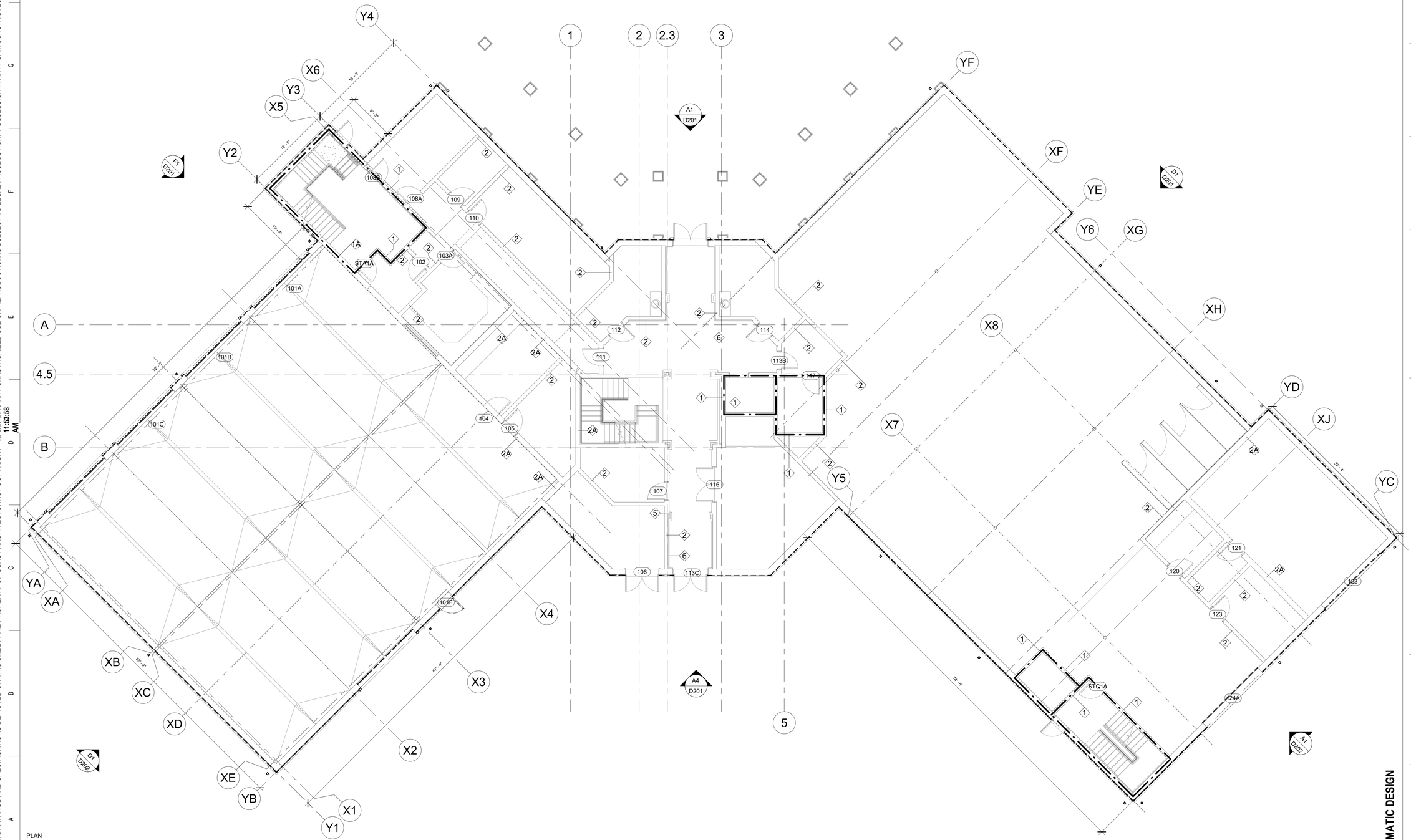
DEMOLITION SITE PLAN

D100



FIRST FLOOR DEMOLITION PLAN

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

SCHEMATIC DESIGN

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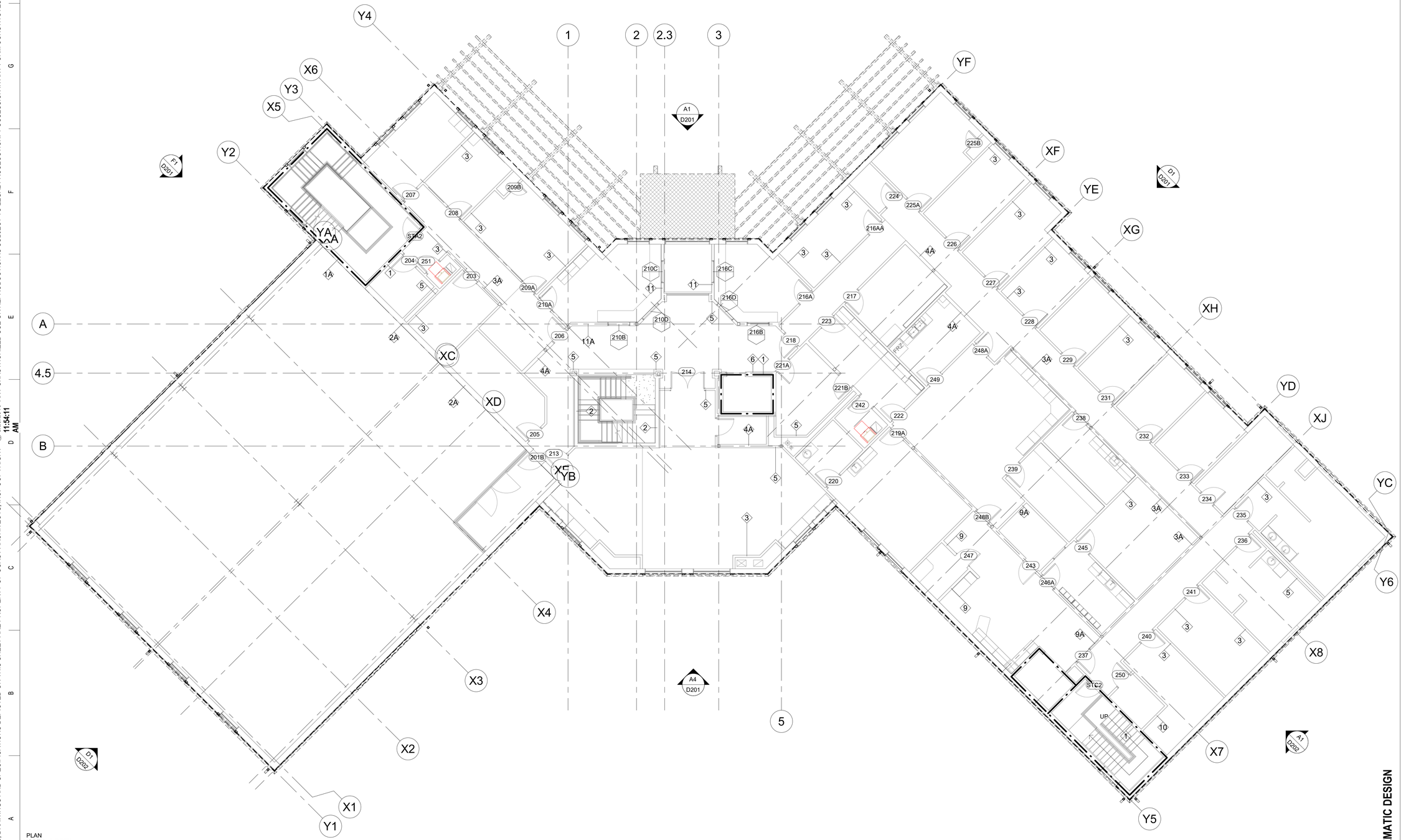
DEMOLITION FIRST FLOOR PLAN

D101



PLAN NORTH NORTH

A1 D102

SECOND FLOOR DEMOLITION PLAN

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

SCHEMATIC DESIGN

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08.28.2019

ISLE OF PALMS PUBLIC SERVICE BUILDING REMEDIATION

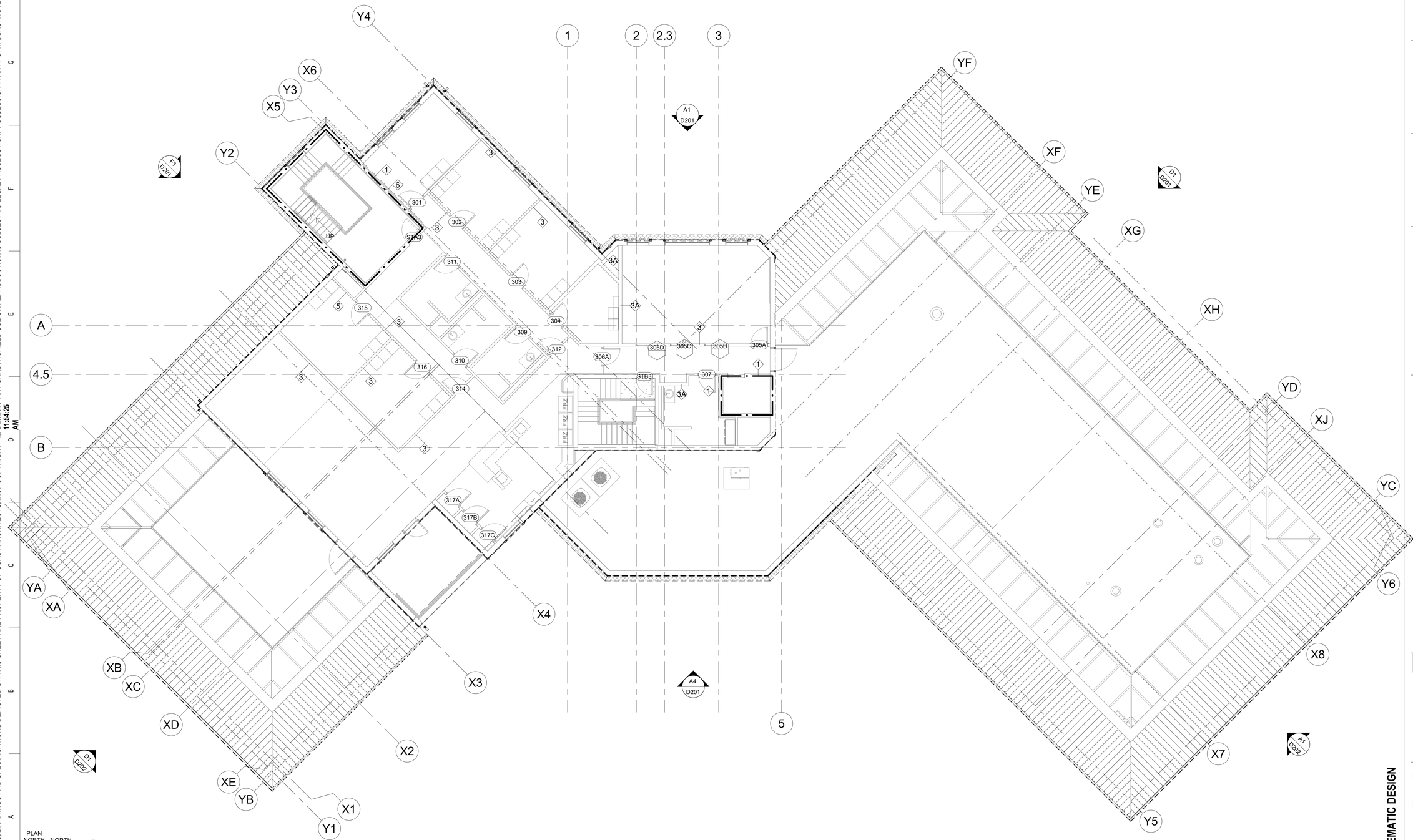
30 J.C. LONG BLVD, ISLE OF PALMS, SC, 29451

Revisions	
Rev. No.	Rev. Date

DRAWN BY: LWM
CHECKED BY: FAM
DATE: 08.28.2019
COAST PROJECT NO.: 1902.01

DEMOLITION SECOND FLOOR PLAN

D102



PLAN NORTH NORTH

A1 D103

THIRD FLOOR DEMOLITION PLAN

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

SCHEMATIC DESIGN

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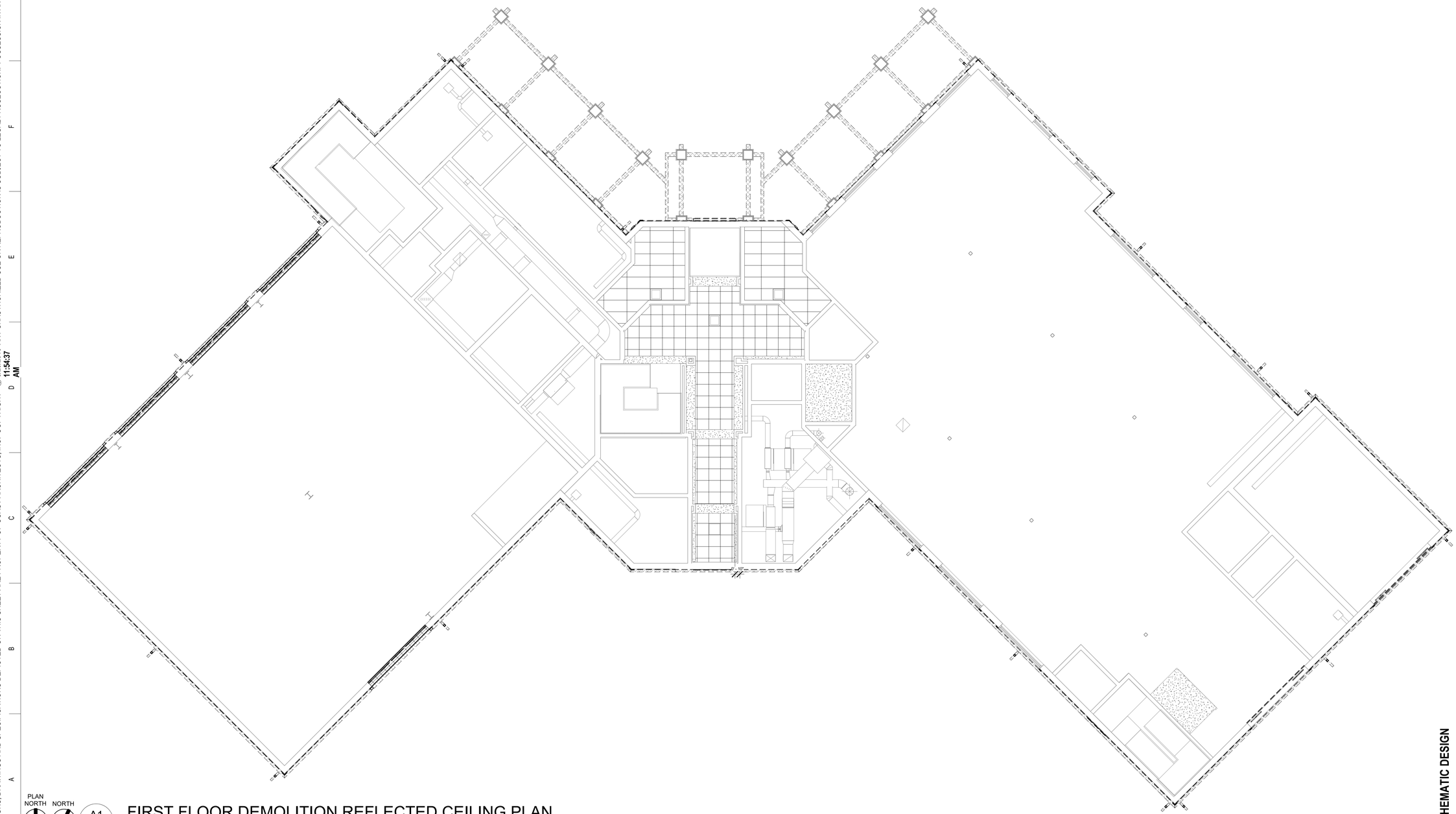
COAST PROJECT NO.: 1902.01

DEMOLITION THIRD FLOOR PLAN

D103



PLAN NORTH NORTH

A1
D111

FIRST FLOOR DEMOLITION REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

SCHEMATIC DESIGN

coast architects
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ISLE OF PALMS PUBLIC SERVICE BUILDING REMEDIATION

30 J.C. LONG BLVD, ISLE OF PALMS, SC, 29451

Revisions	
Rev. No.	Rev. Date

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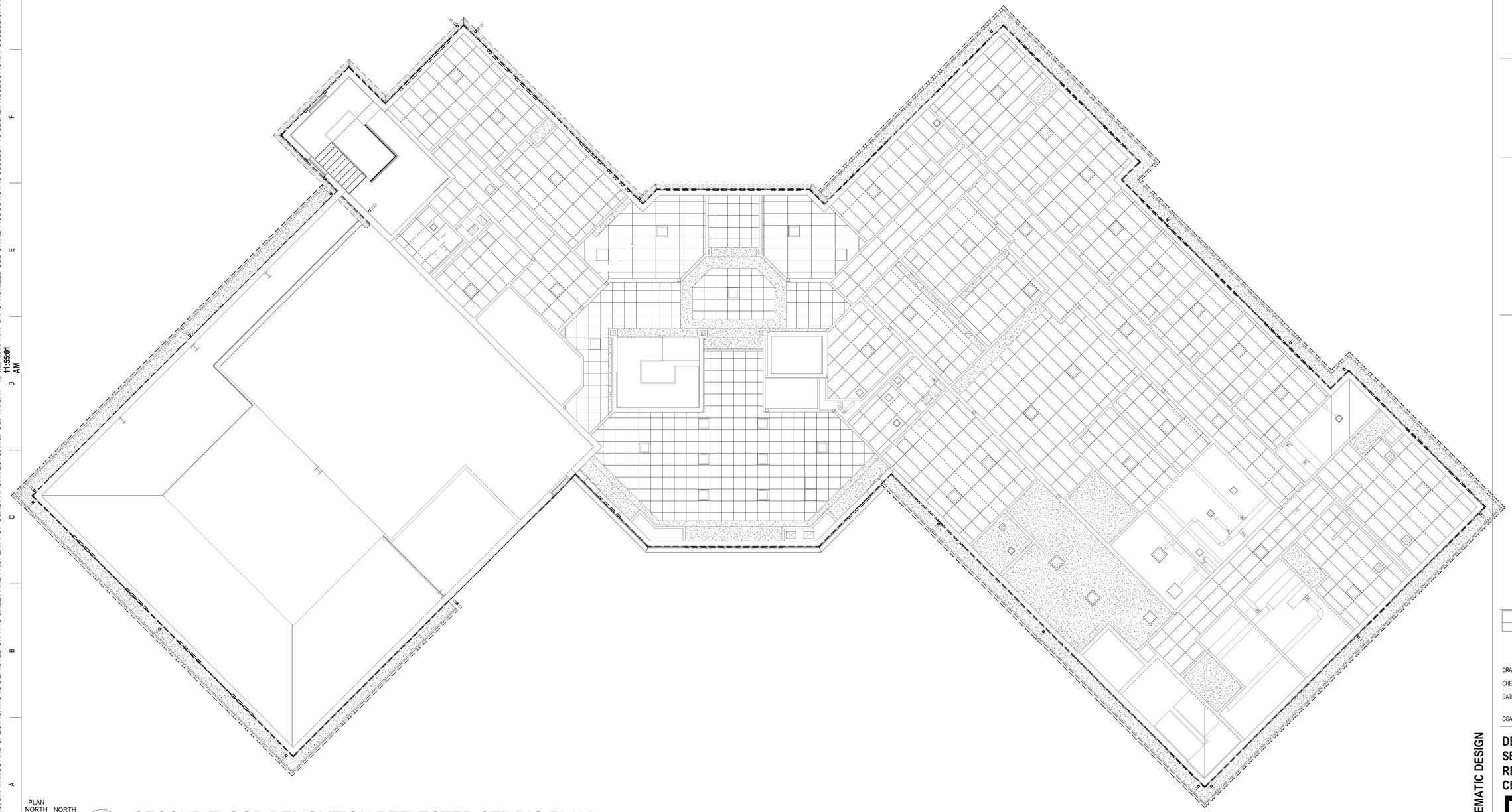
CHECKED BY: FAM
DATE: 08.28.2019

COAST PROJECT NO.: 1902.01

DEMOLITION FIRST FLOOR REFLECTED CEILING PLAN

D111



PLAN NORTH NORTH

A1
D112

SECOND FLOOR DEMOLITION REFLECTED CEILING PLAN

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

SCHEMATIC DESIGN

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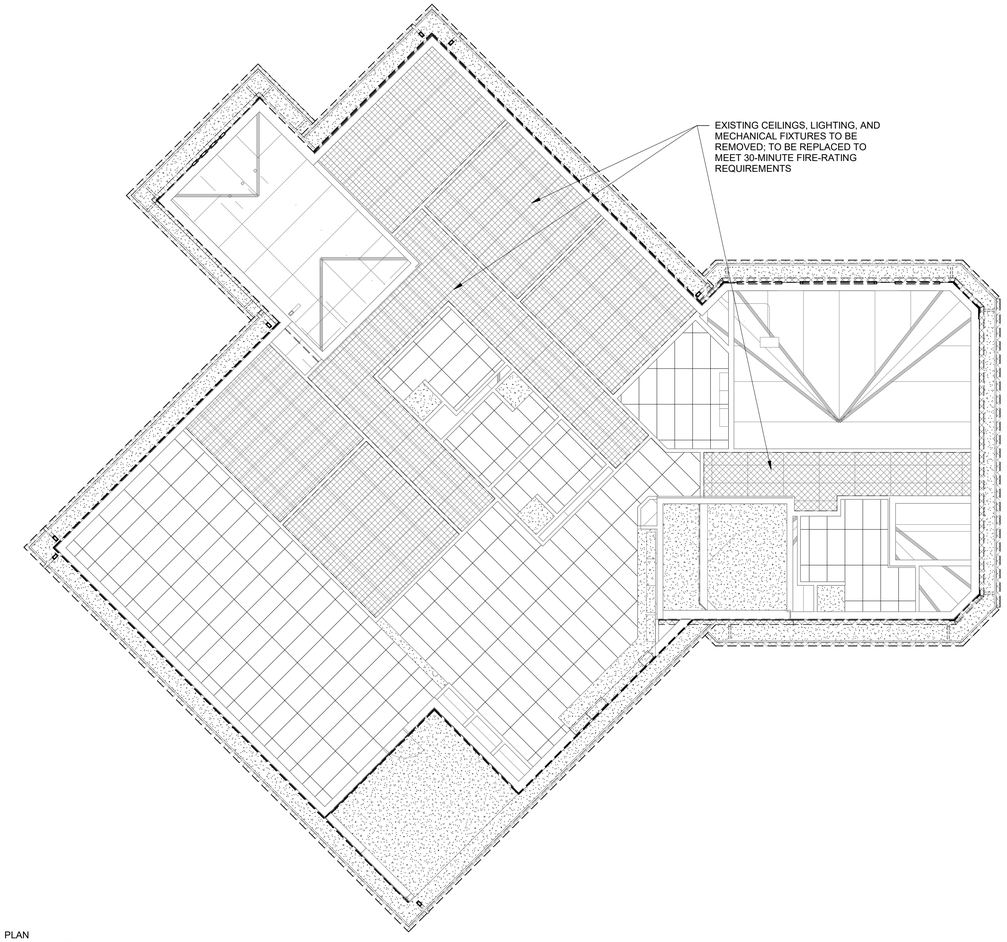
DEMOLITION SECOND FLOOR REFLECTED CEILING PLAN

D112



PLAN NORTH NORTH A1 D113

THIRD FLOOR DEMOLITION REFLECTED CEILING PLAN

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

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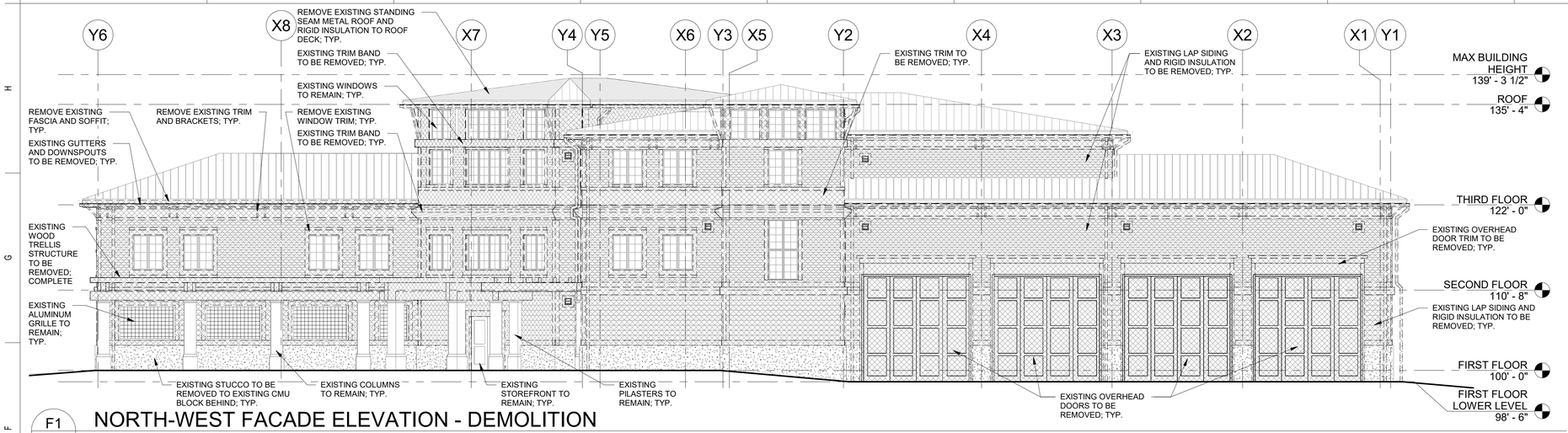
DEMOLITION THIRD FLOOR REFLECTED CEILING PLAN

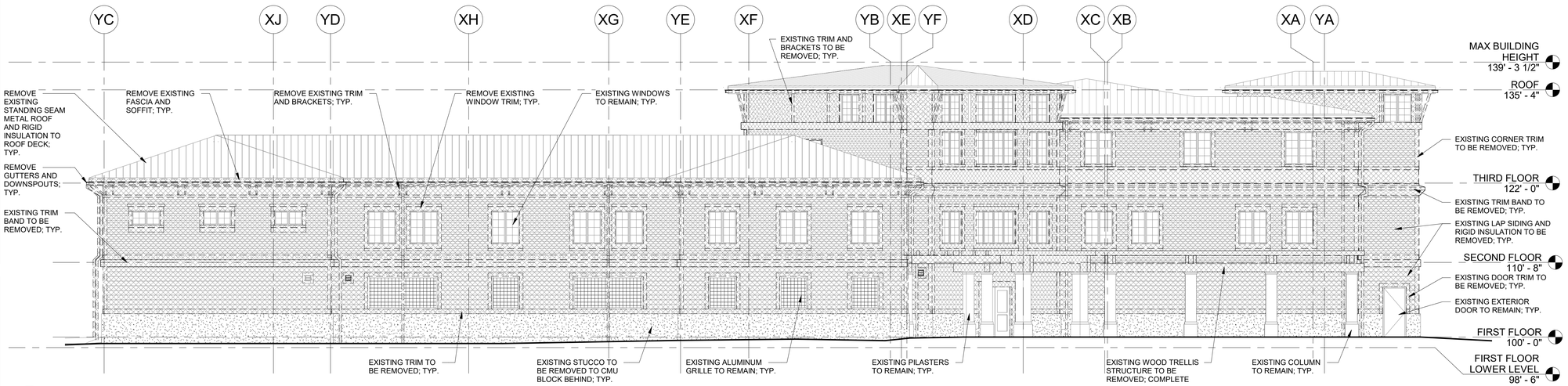
D113



F1
D201

NORTH-WEST FACADE ELEVATION - DEMOLITION

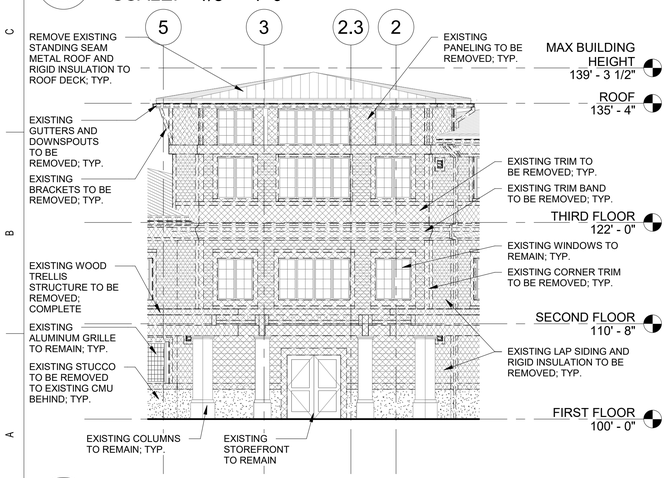
SCALE: 1/8" = 1'-0"



D1
D201

NORTH-EAST FACADE ELEVATION - DEMOLITION

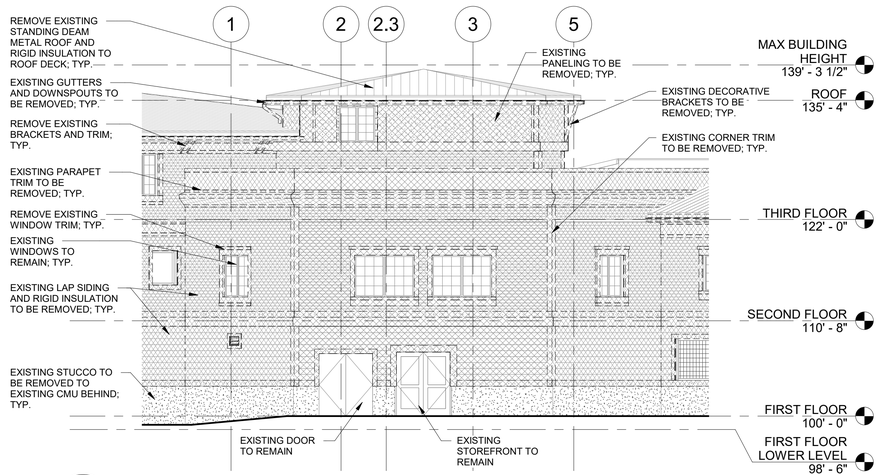
SCALE: 1/8" = 1'-0"



A1
D201

NORTH FACADE ELEVATION - DEMOLITION

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



A4
D201

SOUTH FACADE ELEVATION - DEMOLITION

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

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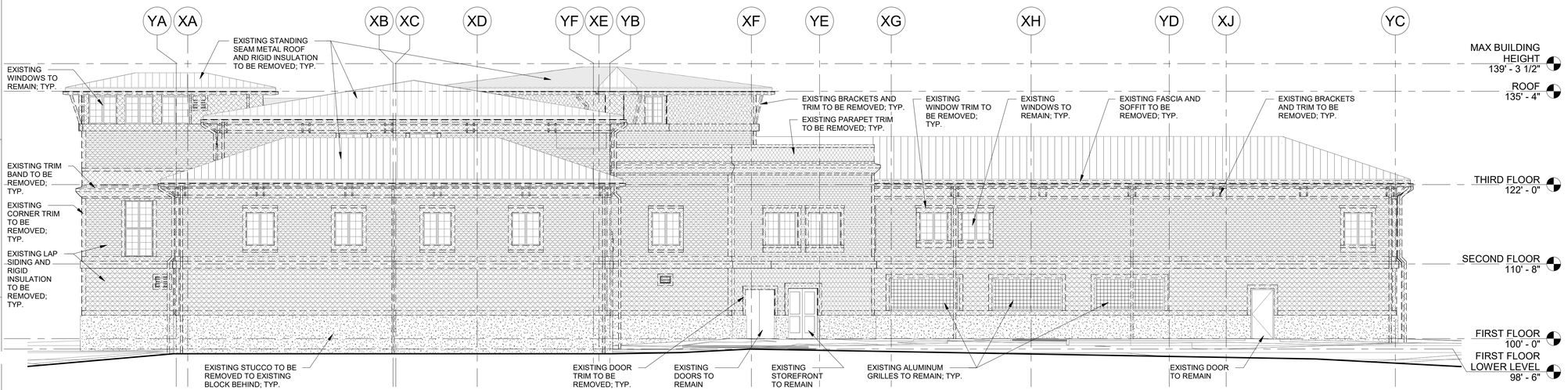
DEMOLITION EXTERIOR ELEVATIONS

D201

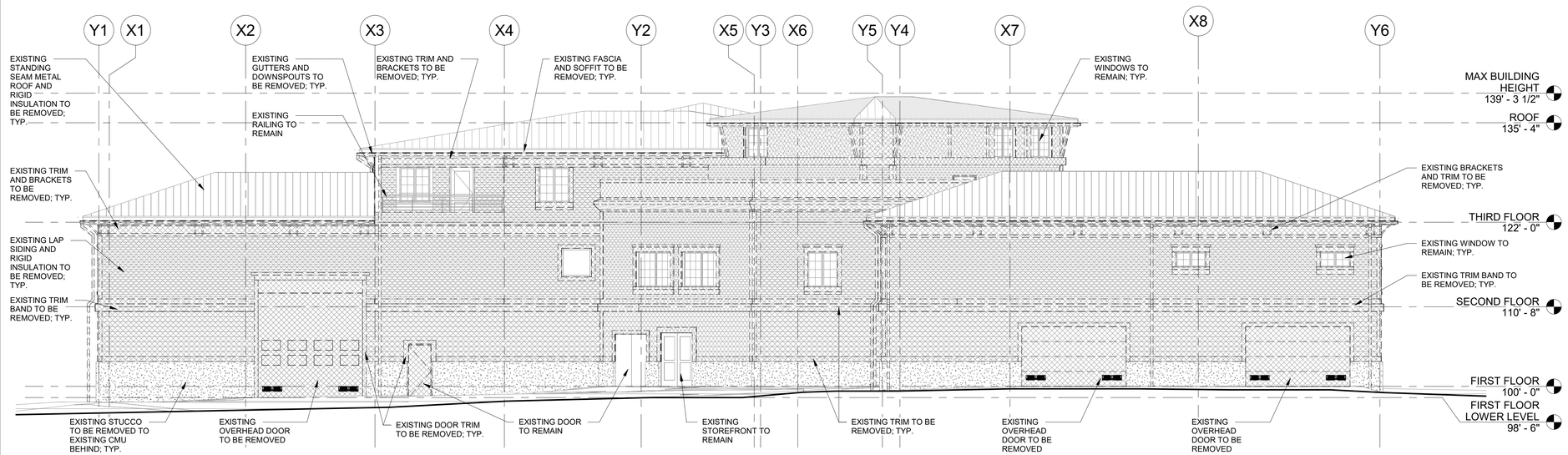
SCHEMATIC DESIGN



D1
D202

SOUTH-WEST FACADE ELEVATION - DEMOLITION

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



A1
D202

SOUTH-EAST FACADE ELEVATION - DEMOLITION

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

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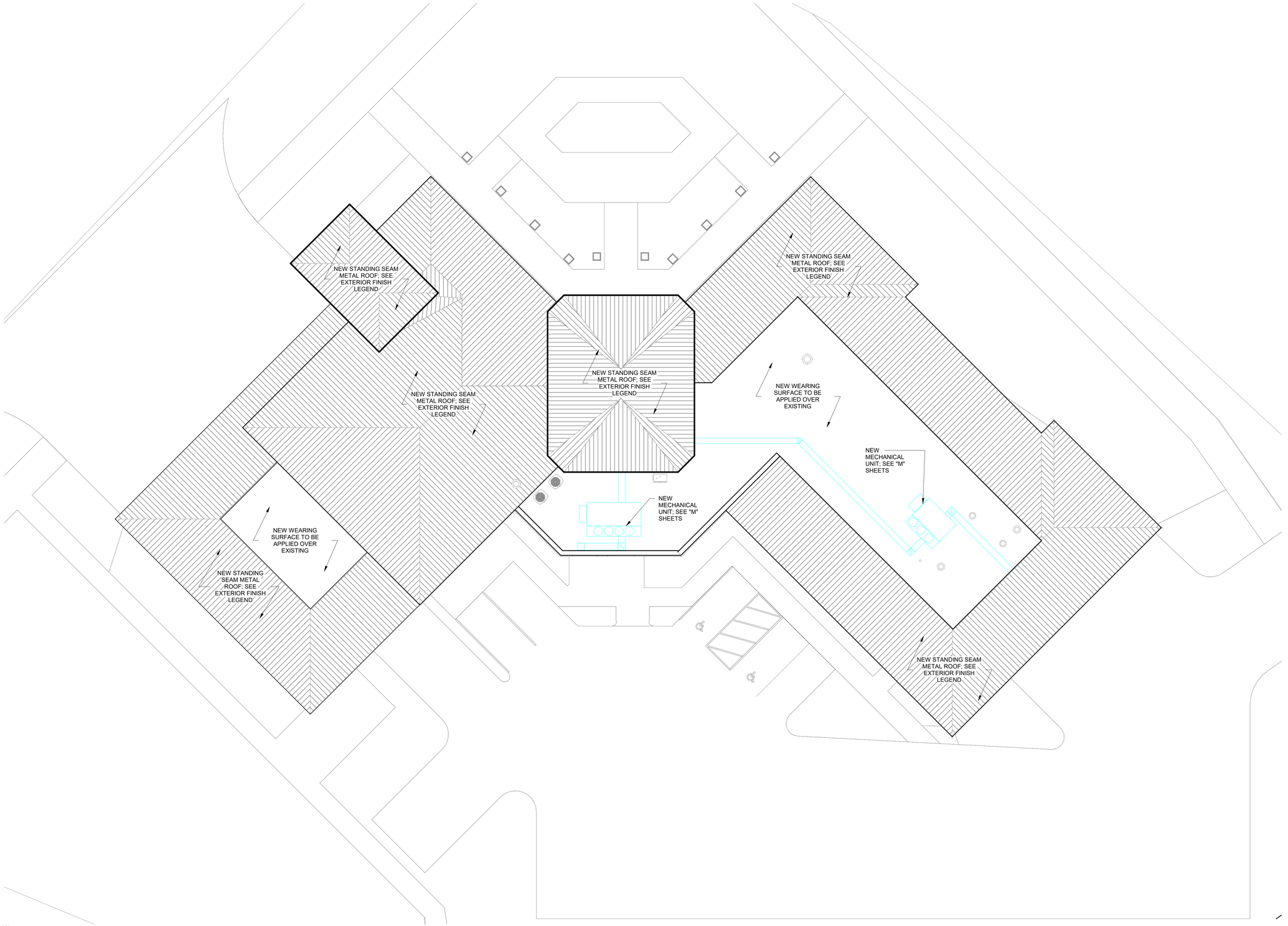
DEMOLITION EXTERIOR ELEVATIONS

D202

SCHEMATIC DESIGN



PLAN NORTH NORTH

A1
A100

NEW SITE PLAN
SCALE: 3/32" = 1'-0"

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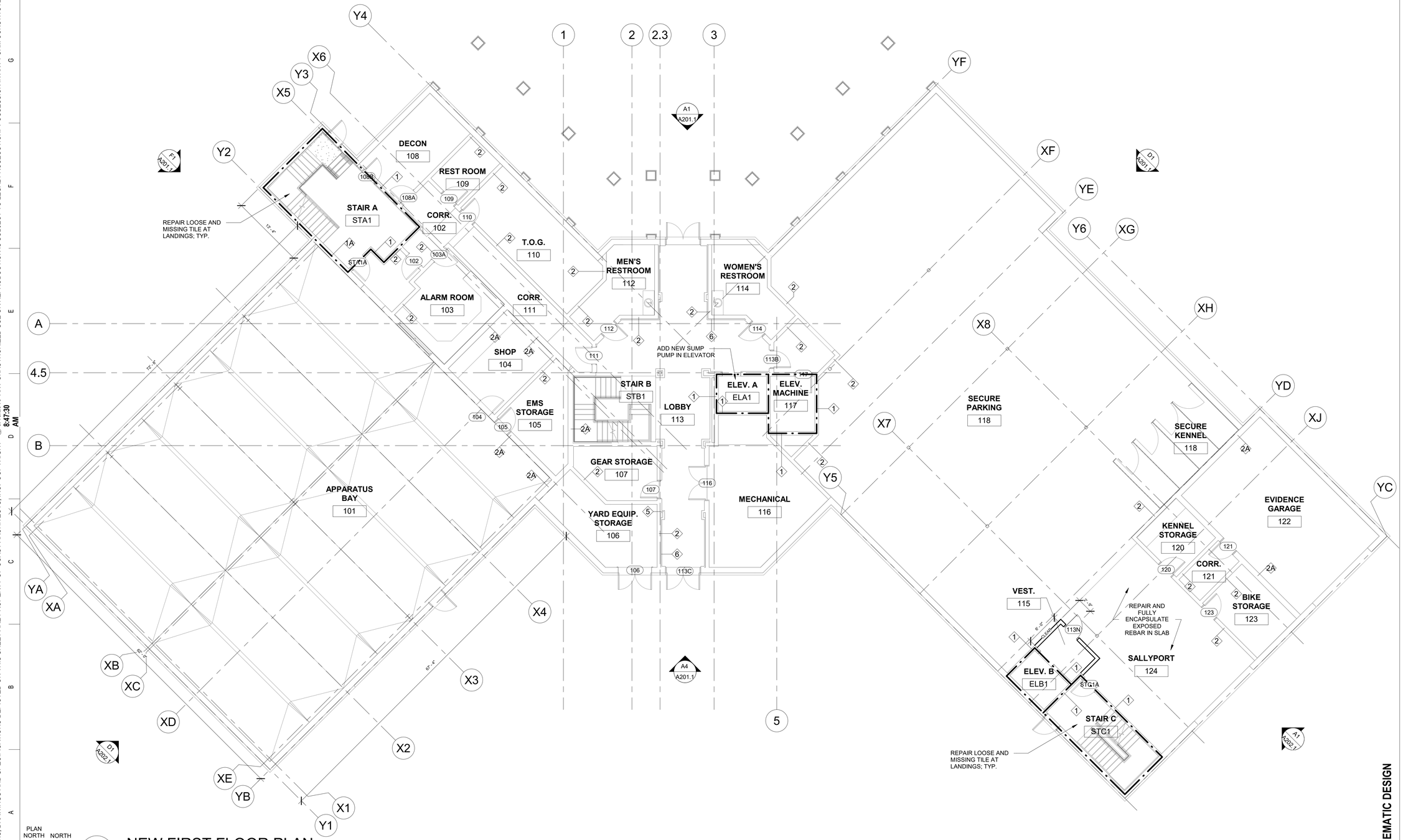
SITE PLAN

SCHEMATIC DESIGN

A100



PLAN NORTH NORTH

A1 A101

NEW FIRST FLOOR PLAN

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

NOTE: WEATHERSTRIPPING ON ALL EXISTING EXTERIOR DOORS TO REMAIN IS TO BE REPLACED WITH NEOPRENE GASKET. REPAIR OR REPLACE ALL EXTERIOR HM DOORS THAT SHOW SIGNS OF RUST OR DETERIORATION.

SCHEMATIC DESIGN

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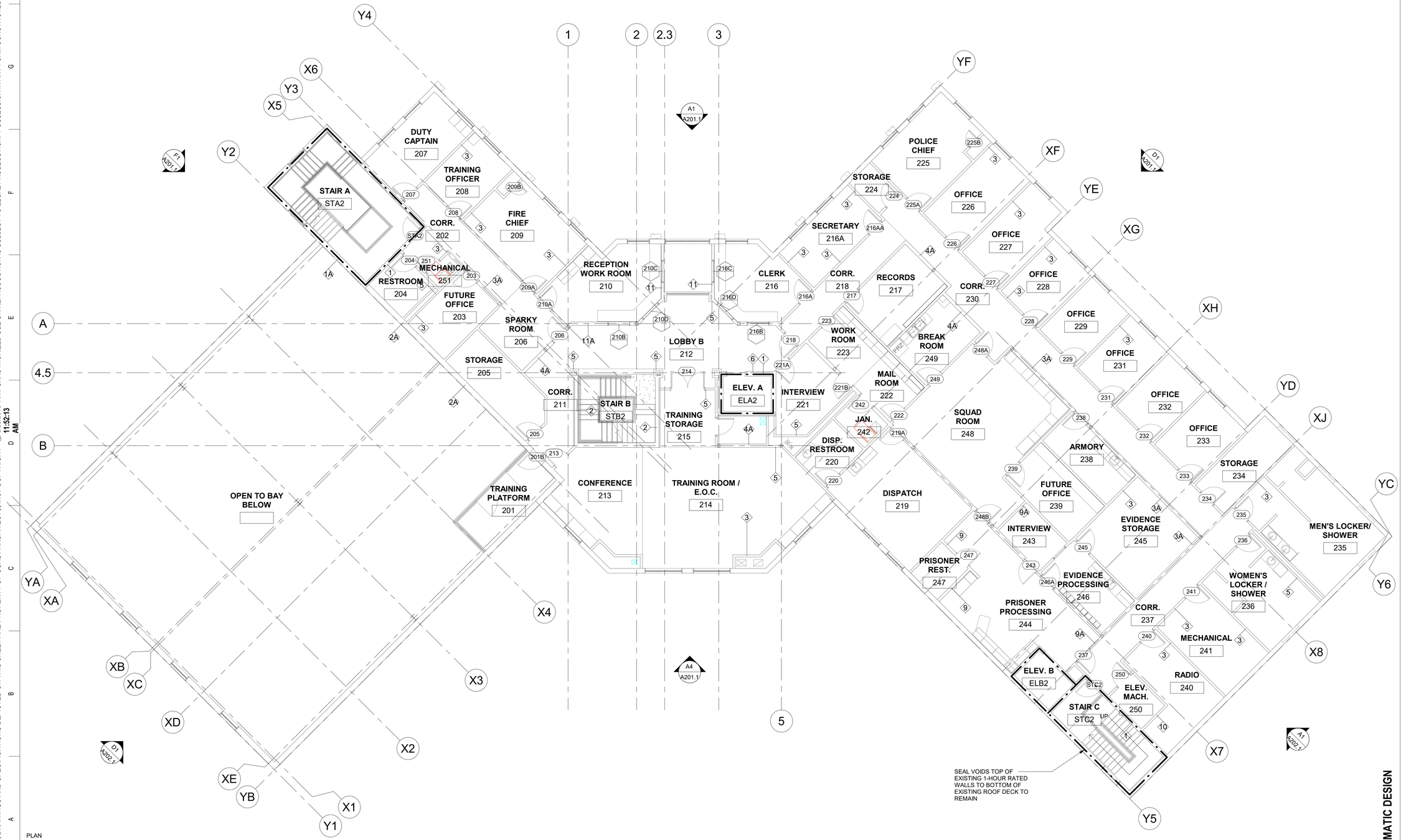
FIRST FLOOR PLAN

A101



NEW SECOND FLOOR PLAN

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

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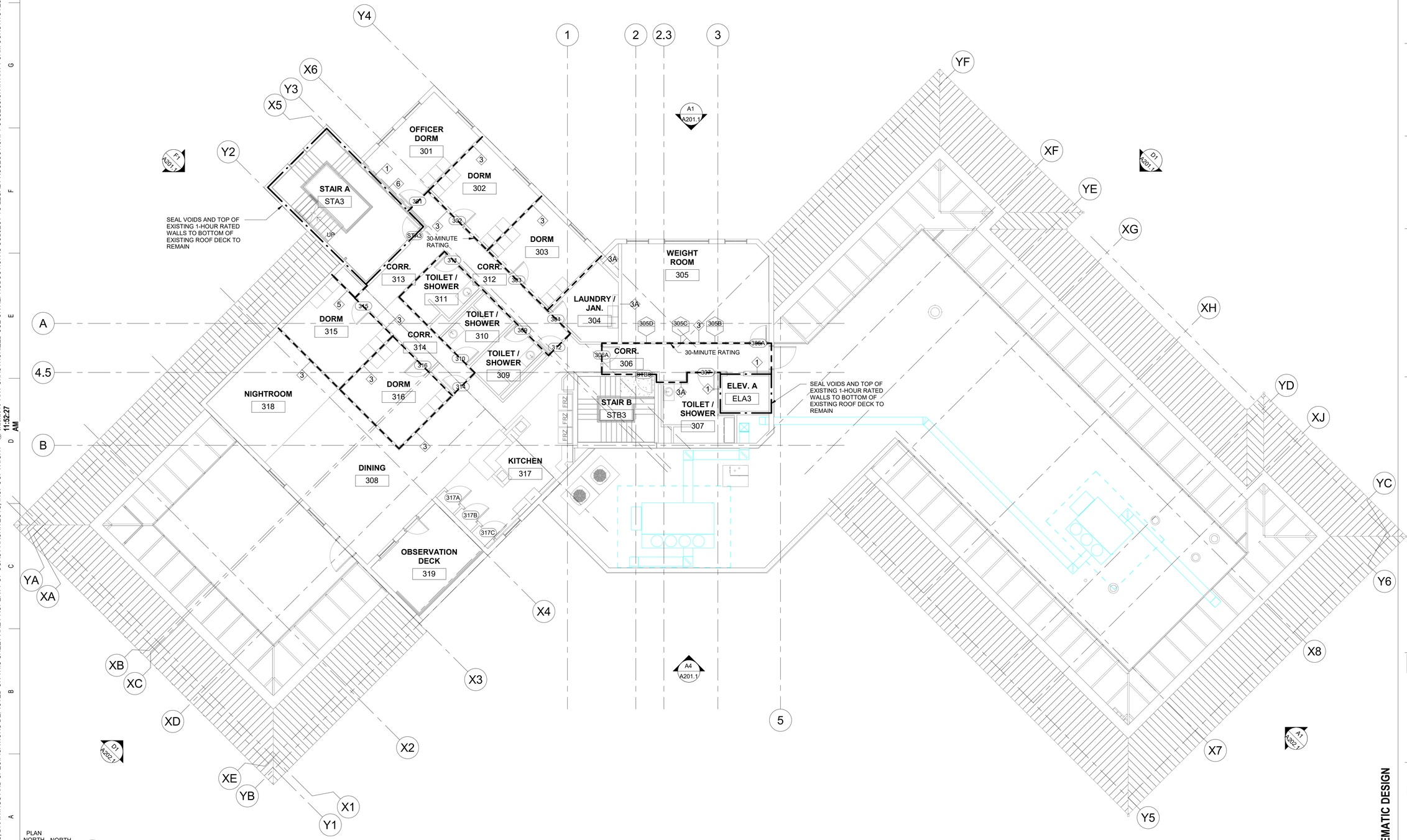
SECOND FLOOR PLAN

A102



PLAN NORTH NORTH

A1 A103

NEW THIRD FLOOR PLAN

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

NOTE: ALL DOORS AND FRAMES IN 30-MINUTE RATED WALLS TO BE REMOVED AND REPLACED WITH 20-MINUTE RATED DOORS AND FRAMES.

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THIRD FLOOR PLAN

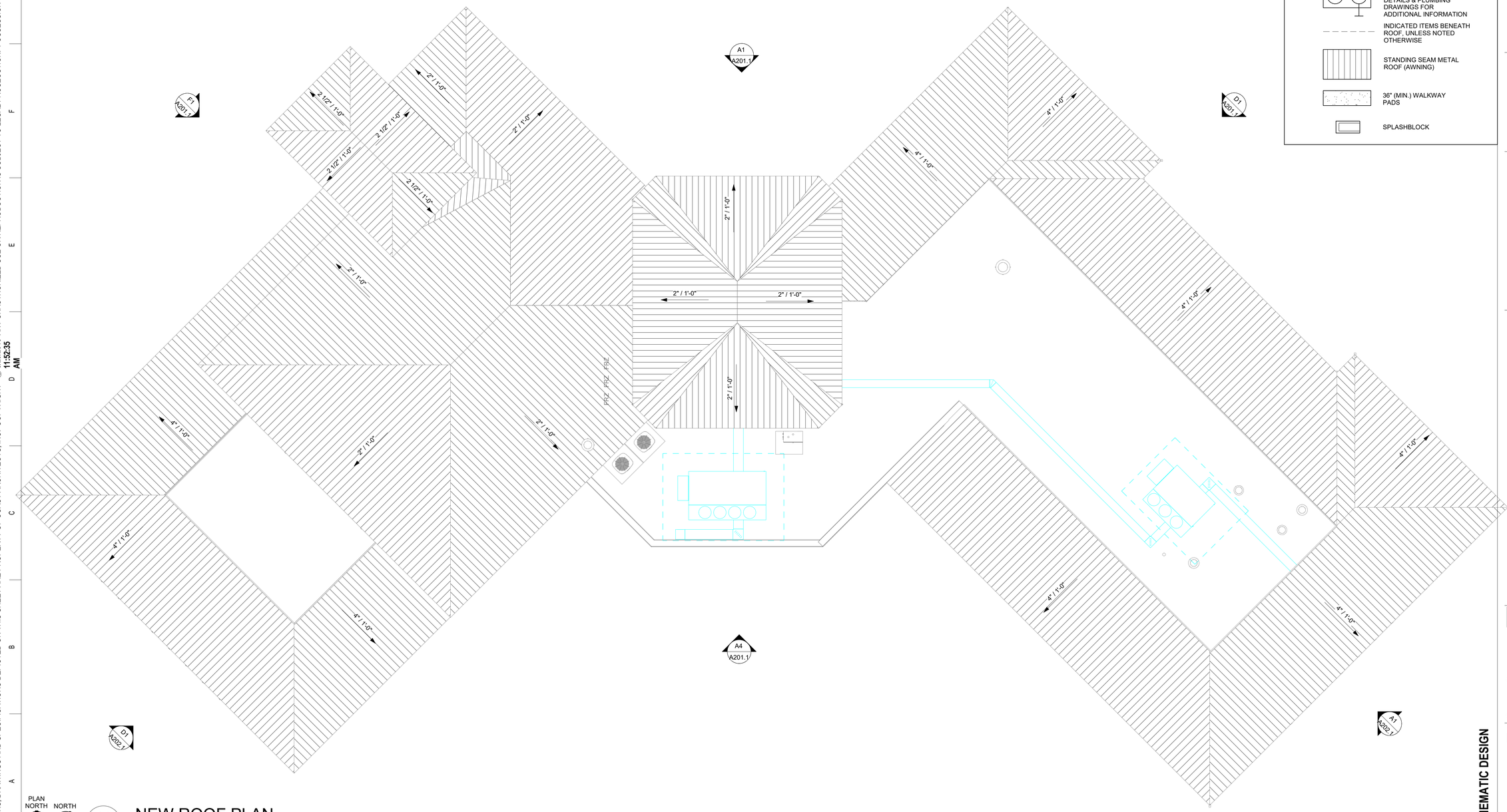
A103

ROOF NOTES

1. REFER TO SPECIFICATION FOR DETAILS ON MATERIALS AND CONSTRUCTION.
2. ROOFING SUB CONTRACTOR TO COORDINATE LOCATION OF HVAC UNITS AND ROOF TOP EQUIPMENT AND ACCESSORIES WITH STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR PLACEMENT AND TAPERED RIGID BOARD INSULATION LAY-OUT AND SUBSEQUENT INSTALLATION IN ORDER TO AVOID PONDING WATER CONDITIONS ATTRIBUTABLE TO LAY-OUT ISSUES.
3. ROOF SYSTEMS SPECIFIED SHALL BE APPLIED ONLY BY MANUFACTURER APPROVED APPLICATOR IN ORDER TO MEET GUARANTEE REQUIREMENTS.
4. ALL CURBS AND PIPE PENETRATIONS SHALL HAVE A MINIMUM OF 16" CLEAR FROM EACH OTHER FOR ROOF FLASHING PURPOSES. ALL EQUIPMENT SHALL HAVE A MIN. 16" CLEAR FROM ALL ADJACENT PARAPETS.
5. AT ROOF DRAIN:
   - A. HOLE IN MEMBRANE SHOULD EXTEND A MAX OF 1/2" BEYOND CLAMPING RING AND SHOULD NOT BE SMALLER THAN THE DIAMETER OF THE LEADER PIPE.
   - B. WATERBLOCK MIN OF 1/2 OF 10 OZ TUBE PER 4" DRAIN. USE ADDITIONAL WATERBLOCK FOR LARGER DRAINS.
   - C. IF FIELD SEAM IS WITHIN 9" OF DRAIN CLAMPING RING, TARGET PATCH REQUIRED.
   - D. FLASHING MUST EXTEND 3" BEYOND EDGE OF SUMP.
6. WOOD NAILERS TO BE TREATED AND MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES.

ROOF PLAN SYMBOL LEGEND

- 1 / A101 — EXTERIOR ELEVATION TAG
- 1 / A101 — BUILDING OR WALL SECTION DETAIL
- DASHED LINE AROUND DETAIL AREA, 1 / A101 — DETAIL TAG
- 0 — COLUMN GRID LINE
- RD OD — ROOF DRAIN (RD) & OVERFLOW DRAIN (OD) LOCATION; SEE ROOF DETAILS & PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION
- INDICATED ITEMS BENEATH ROOF, UNLESS NOTED OTHERWISE
- STANDING SEAM METAL ROOF (AWNING)
- 36" (MIN.) WALKWAY PADS
- SPLASHBLOCK



A1 / A104 NEW ROOF PLAN
SCALE: 1/8" = 1'-0"

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ROOF PLAN

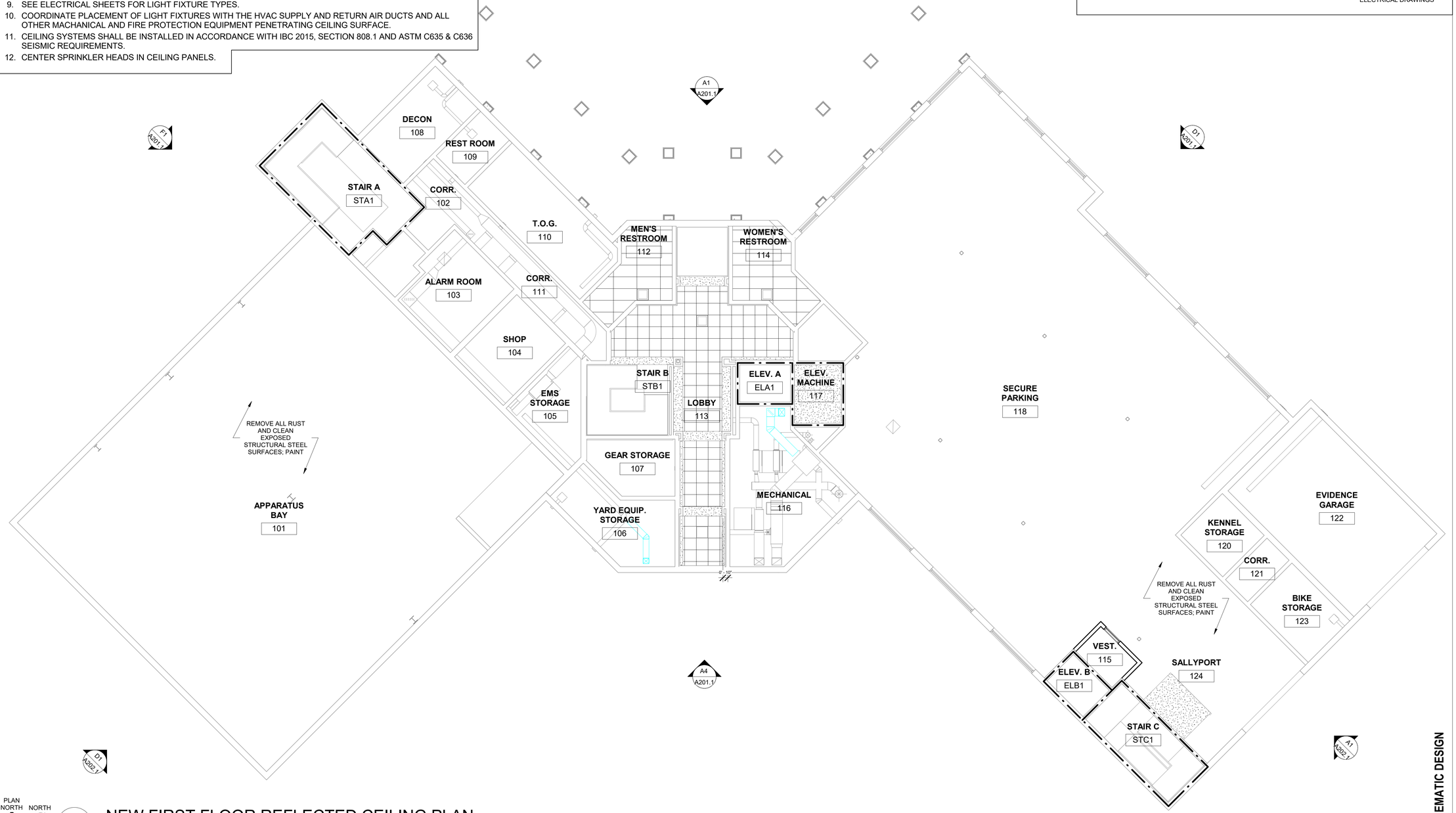
A104

REFLECTED CEILING PLAN NOTES

1. VERIFY ENTIRE CEILING LAYOUT IN FEILD BEFORE INSTALLATION OF ANY CEILING MATERIAL OR EQUIPMENT. ANY DEVIATION FROM THE REFLECTED CEILING PLAN SHALL HAVE PRIOR APPROVAL FROM THE ARCHITECT OR THE ARCHITECT'S REPRESENTATIVE IN THE FEILD. THE INSTALLER SHALL PROVIDE THE ARCHITECT (THROUGH THE GENERAL CONTRACTOR) A REFLECTED CEILING PLAN SHOWING ANY REQUESTED CHANGES.
2. SEE FINISH SCHEDULE FOR CEILING FINISHES AND HEIGHTS.
3. ALL OPENINGS IN CEILING SHALL BE COORDINATED BY THE GENERAL CONTRACTOR TO INSURE PROPER LOCATION OF CEILING ACCESSORIES AS INDICATED ON THE DRAWINGS. ALL OPENINGS SHALL HAVE UNIFORM MARGINS ON ALL SIDES.
4. DOUBLE GRIDS AT WALLS AND PARTITIONS ARE NOT ACCEPTABLE.
5. IF A CONDITION OCCURS WHERE THE CEILING IS LESS THAN 3'-0" WIDE, THE INSTALLER IS TO PROVIDE A LONGER CEILING TILE (CUT FROM 24 x 48). LARGER TILE IS TO MATCH THE 24" X 24" MATERIAL.
6. CEILING TILE IN AREAS IS 24" X 24" EXCEPT WHERE OTHERWISE NOTED. ALL TILES SHALL BE UNIFORM IN DESIGN AND APPEARANCE.
7. THE INTENT OF THE REFLECTED CEILING PLAN IS TO FAMILIARIZE THE CONTRACTOR OF THE TOTAL CONCEPT. THE CONTRACTOR SHALL NOT USE THE REFLECTED CEILING PLAN FOR ESTIMATING ELECTRICAL AND MECHANICAL WORK. MECHANICAL-ELECTRICAL DOCUMENTS TAKE PRESCEDENCE OVER THE REFLECTED CEILING PLAN.
8. SEE MECHANICAL SHEETS FOR GRILLE TYPES.
9. SEE ELECTRICAL SHEETS FOR LIGHT FIXTURE TYPES.
10. COORDINATE PLACEMENT OF LIGHT FIXTURES WITH THE HVAC SUPPLY AND RETURN AIR DUCTS AND ALL OTHER MACHANICAL AND FIRE PROTECTION EQUIPMENT PENETRATING CEILING SURFACE.
11. CEILING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH IBC 2015, SECTION 808.1 AND ASTM C635 & C636 SEISMIC REQUIREMENTS.
12. CENTER SPRINKLER HEADS IN CEILING PANELS.

REFLECTED CEILING PLAN LEGEND

- SUSPENDED ACCOUSTICAL CEILING TILE AND GRID SYSTEM
- SUSPENDED GYPSUM WALLBOARD CEILING SYSTEM - PAINTED
- 1-HOUR RATED CEILING AT TRUSS WITH SUSPENDED ACOUSTICAL CEILING TILE BENEATH
- LIGHT FIXTURE; SEE ELECTRICAL DRAWINGS
- SUPPLY GRILLE; SEE MECHANICAL DRAWINGS
- RETURN GRILLE; SEE MECHANICAL DRAWINGS
- EXHAUST FAN; SEE MECHANICAL DRAWINGS
- EXIT SIGN; SEE ELECTRICAL DRAWINGS



PLAN NORTH NORTH

A1 / A111

NEW FIRST FLOOR REFLECTED CEILING PLAN

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

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FIRST FLOOR REFLECTED CEILING PLAN

A111

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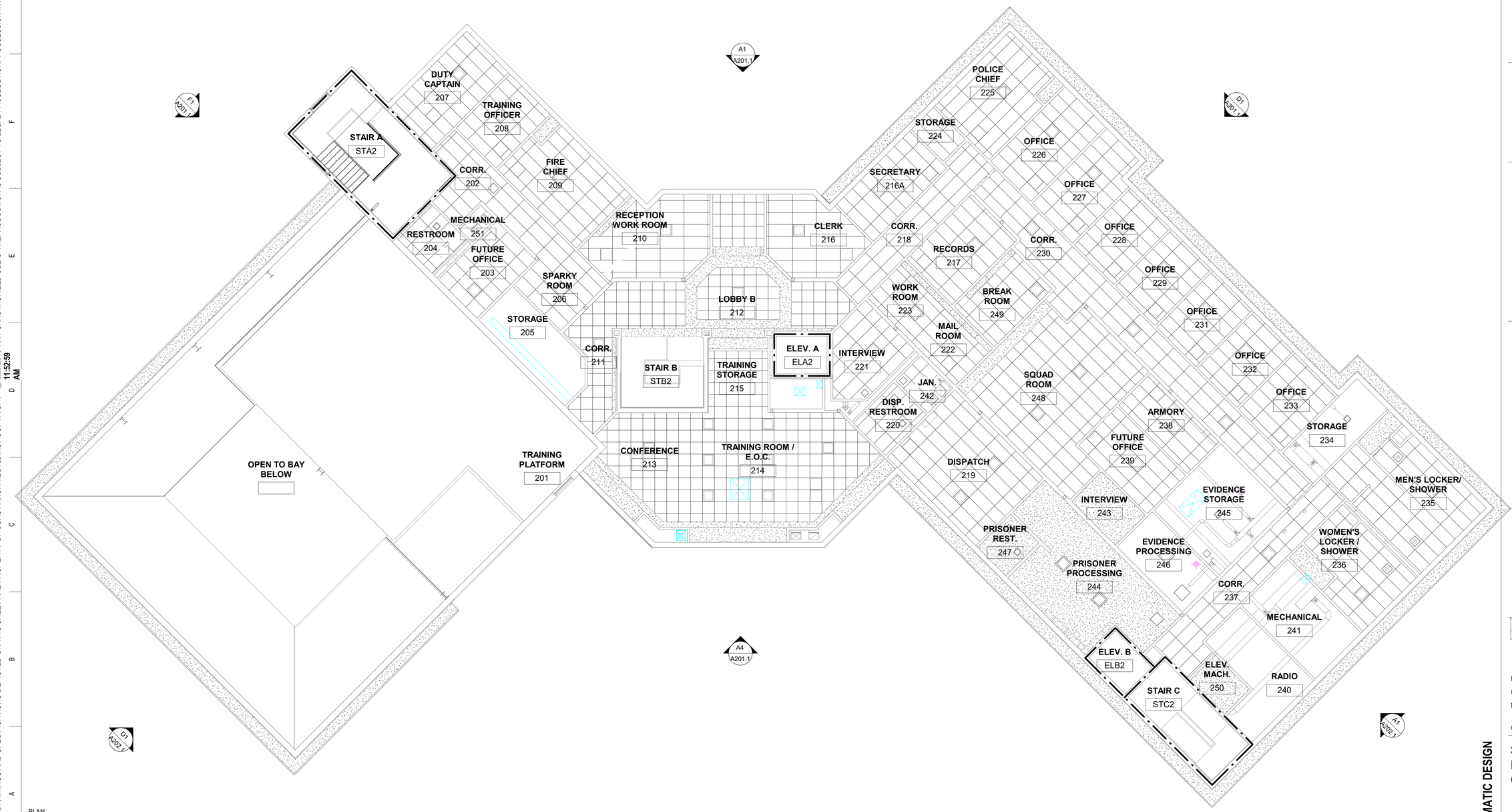

PLAN NORTH NORTH

A1 A112

NEW SECOND FLOOR REFLECTED CEILING PLAN

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

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SECOND FLOOR REFLECTED CEILING PLAN

A112

PLAN NORTH NORTH

A1 / A113

NEW THIRD FLOOR REFLECTED CEILING PLAN

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

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THIRD FLOOR REFLECTED CEILING PLAN

A113

SCHEMATIC DESIGN

TEAM BUILD
TRIDENT
CONSTRUCTION

ISLE OF PALMS PUBLIC SAFETY BUILDING REMEDIATION
SCHEMATIC DESIGN 09.25.2019

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TEAM BUILD TRIDENT CONSTRUCTION

ISLE OF PALMS PUBLIC SAFETY BUILDING REMEDIATION
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TEAM BUILD
TRIDENT
CONSTRUCTION

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SUPERCEDED

D1
A201
NORTH-EAST RENDERED ELEVATION
NOT TO SCALE

A1
A201
NORTH-WEST RENDERED ELEVATION
NOT TO SCALE

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EXTERIOR ELEVATIONS

A201

SUPERCEDED

D1
A202

SOUTH-WEST RENDERED ELEVATION
NOT TO SCALE

A1
A202

SOUTH-EAST RENDERED ELEVATION
NOT TO SCALE

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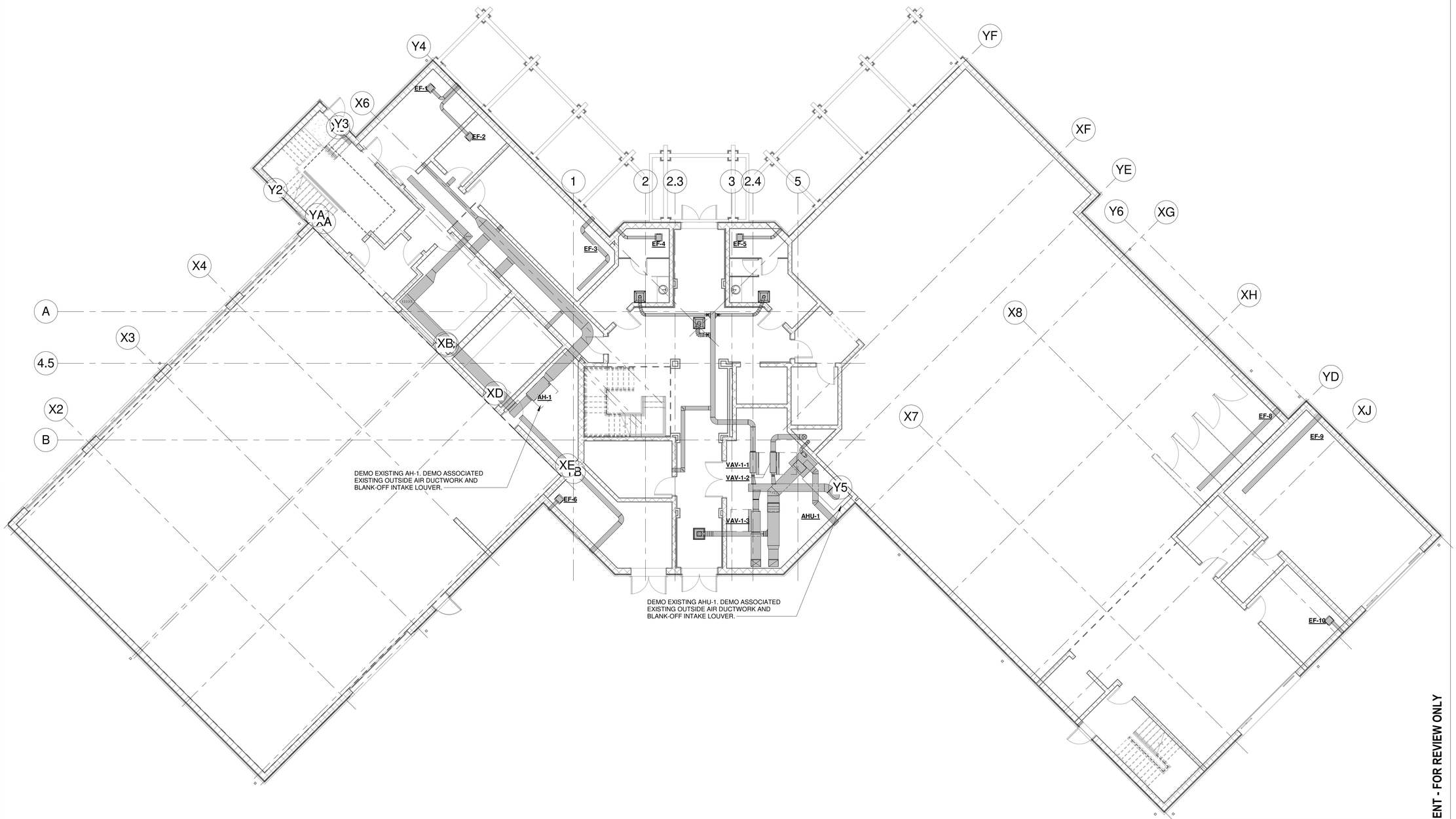
EXTERIOR ELEVATIONS

SCHEMATIC DESIGN

A202



1 - FIRST FLOOR - DEMOLITION
1/8" = 1'-0"

SCHEMATIC DEVELOPMENT - FOR REVIEW ONLY

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ISLE OF PALMS PUBLIC SAFETY BUILDING
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ISLE OF PALMS, SC

Revisions	
Rev. No.	Rev. Date

DRAWN BY: WAM
CHECKED BY: WAM
DATE: 08/28/19

COAST PROJECT NO 119116.1

MECHANICAL FIRST FLOOR DEMOLITION PLAN

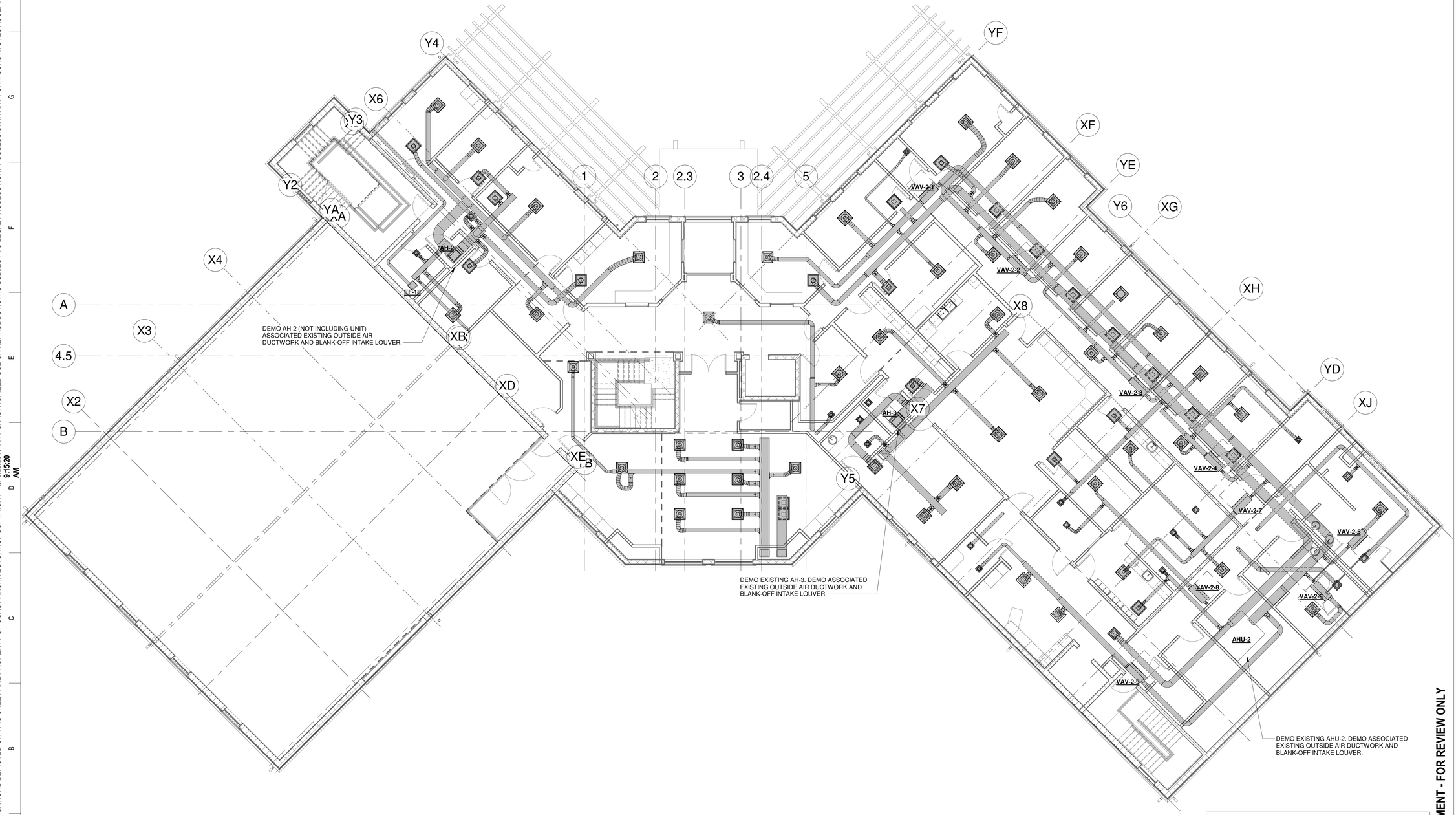
MD101

MECA
Mechanical Engineering Consulting Associates, Inc.

Columbia Office
P.O. Box 50644
Columbia, South Carolina
Phone: (803) 765-9421

Charleston Office
451-D Jessen Lane
Wando, South Carolina
Phone: (843) 725-1086

Designed:	WAM
Approved:	KLS
Job Number:	119116.1
Plot Date:	08/28/2019



1 2 - SECOND FLOOR - DEMOLITION
1/8" = 1'-0"

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Revisions	
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DATE: 08/28/19
COAST PROJECT NO: 119116.1

MECHANICAL SECOND FLOOR DEMOLITION PLAN

MD102

MECA
Mechanical Engineering Consulting Associates, Inc.

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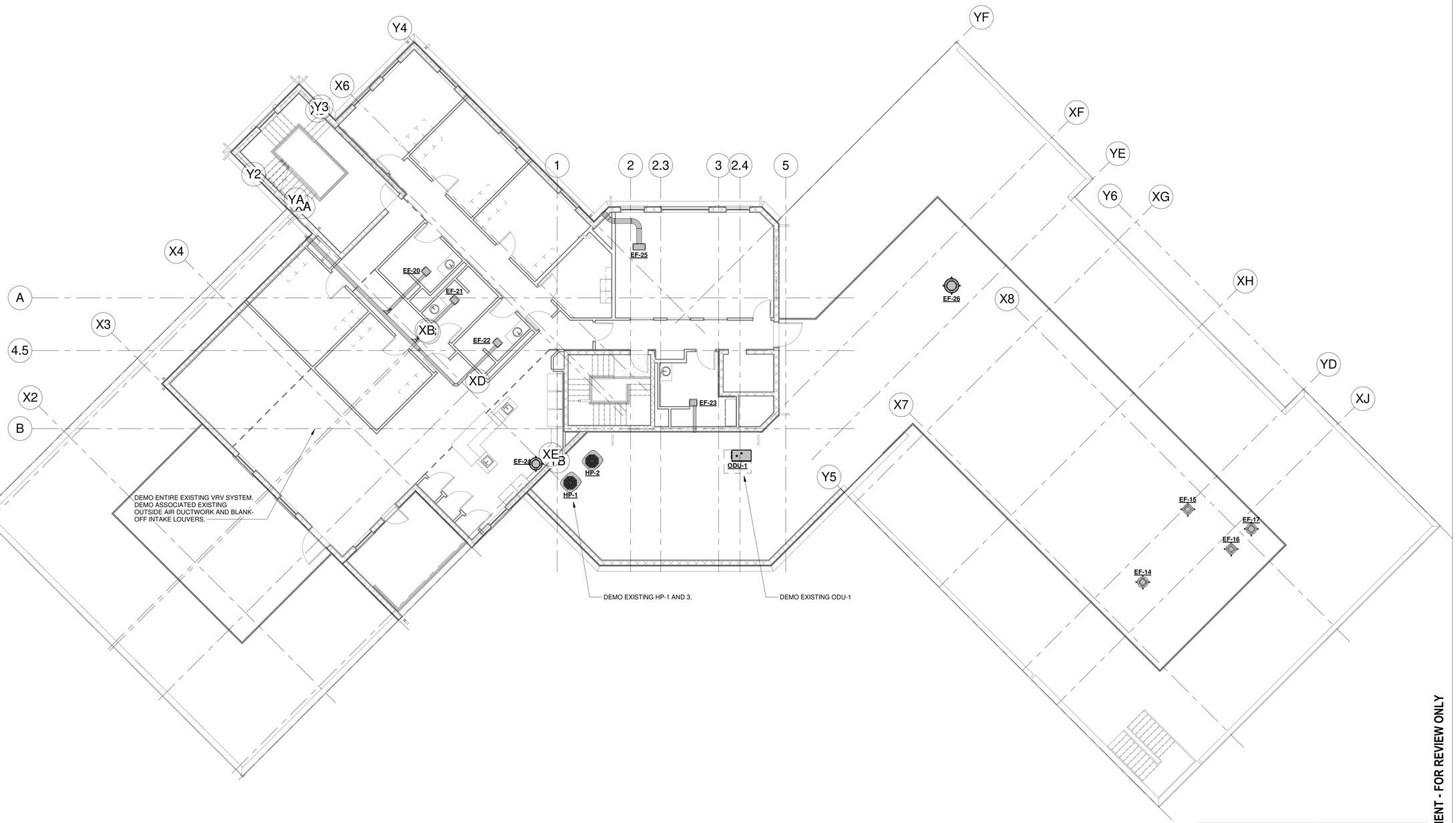
P.O. Box 50644
Columbia, South Carolina
Phone: (803) 765-9421

Charleston Office
451-D Jessen Lane
Wando, South Carolina
Phone: (843) 725-1086

Designed:	WAM
Approved:	KLS
Job Number:	119116.1
Plot Date:	08/28/2019



1 3 - THIRD FLOOR - DEMOLITION
1/8" = 1'-0"

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COAST PROJECT NO: 119116.1

MECHANICAL THIRD FLOOR DEMOLITION PLAN

MD103

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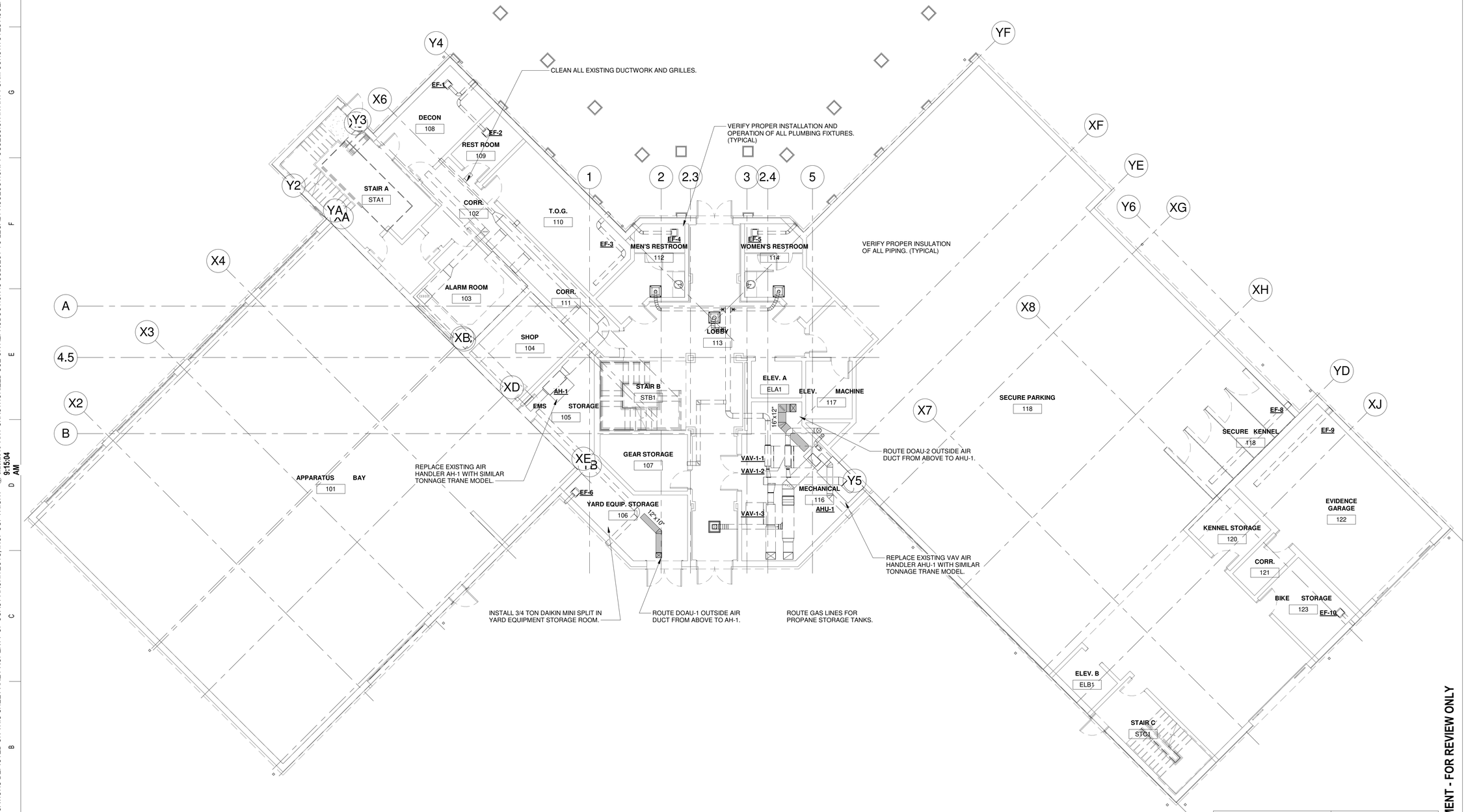

1 - FIRST FLOOR - RENOVATION
1/8" = 1'-0"

SCHEMATIC DEVELOPMENT - FOR REVIEW ONLY

coast architects
671 St. Andrews Blvd., Charleston, SC 29407
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ISLE OF PALMS PUBLIC SAFETY BUILDING
30 J. C. LONG BLVD.
ISLE OF PALMS, SC

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DATE: 08/23/19

COAST PROJECT NO. 119116.1

MECHANICAL FIRST FLOOR RENOVATION PLAN

M101

MECA
Mechanical Engineering Consulting Associates, Inc.
Columbia Office
P.O. Box 50644
Columbia, South Carolina
Phone: (803) 765-9421
Charleston Office
451-D Jessen Lane
Wando, South Carolina
Phone: (843) 725-1086

Designed:	WAM
Approved:	KLS
Job Number:	119116.1
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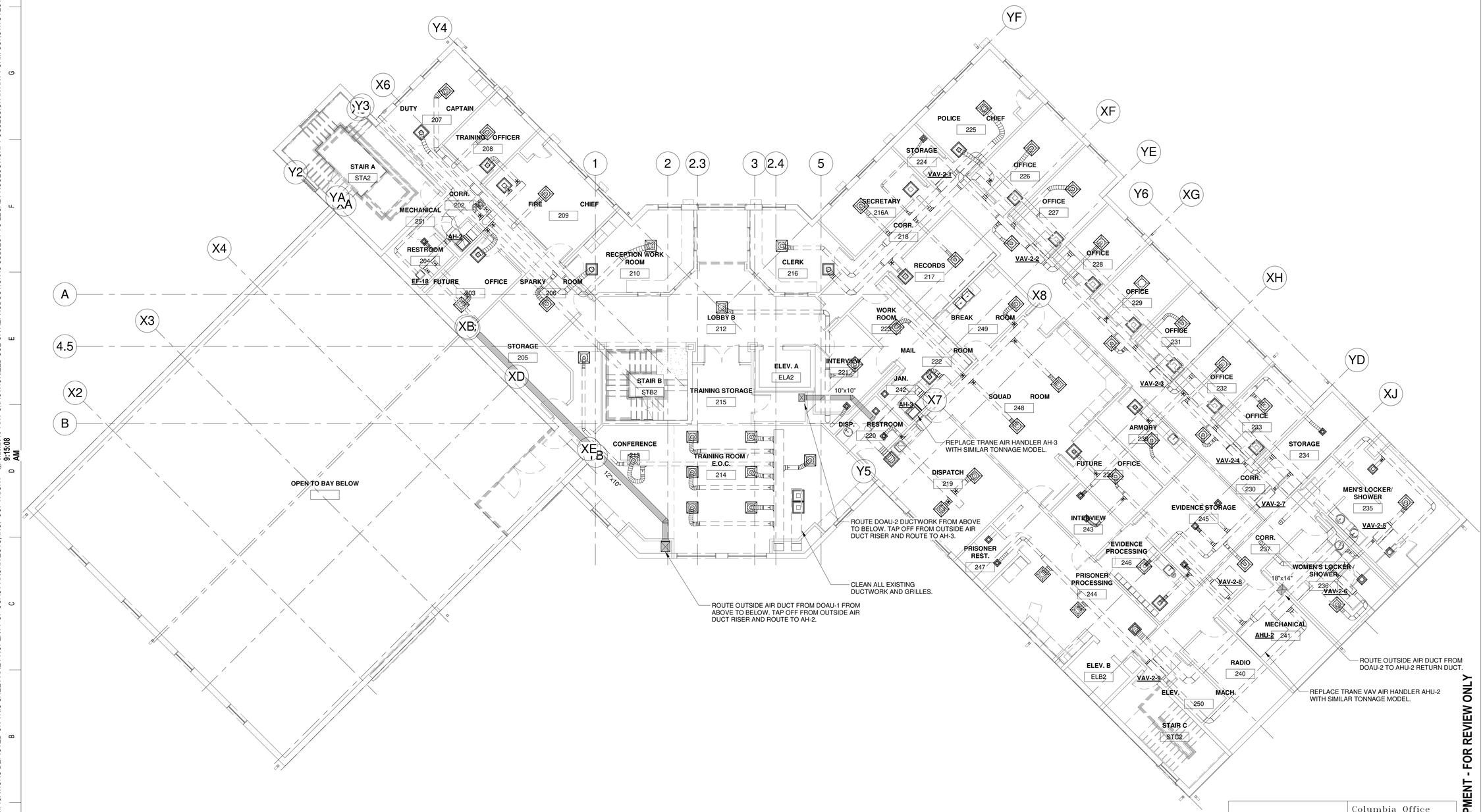

1 2 - SECOND FLOOR - RENOVATION
1/8" = 1'-0"

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MECHANICAL SECOND FLOOR RENOVATION PLAN

M102

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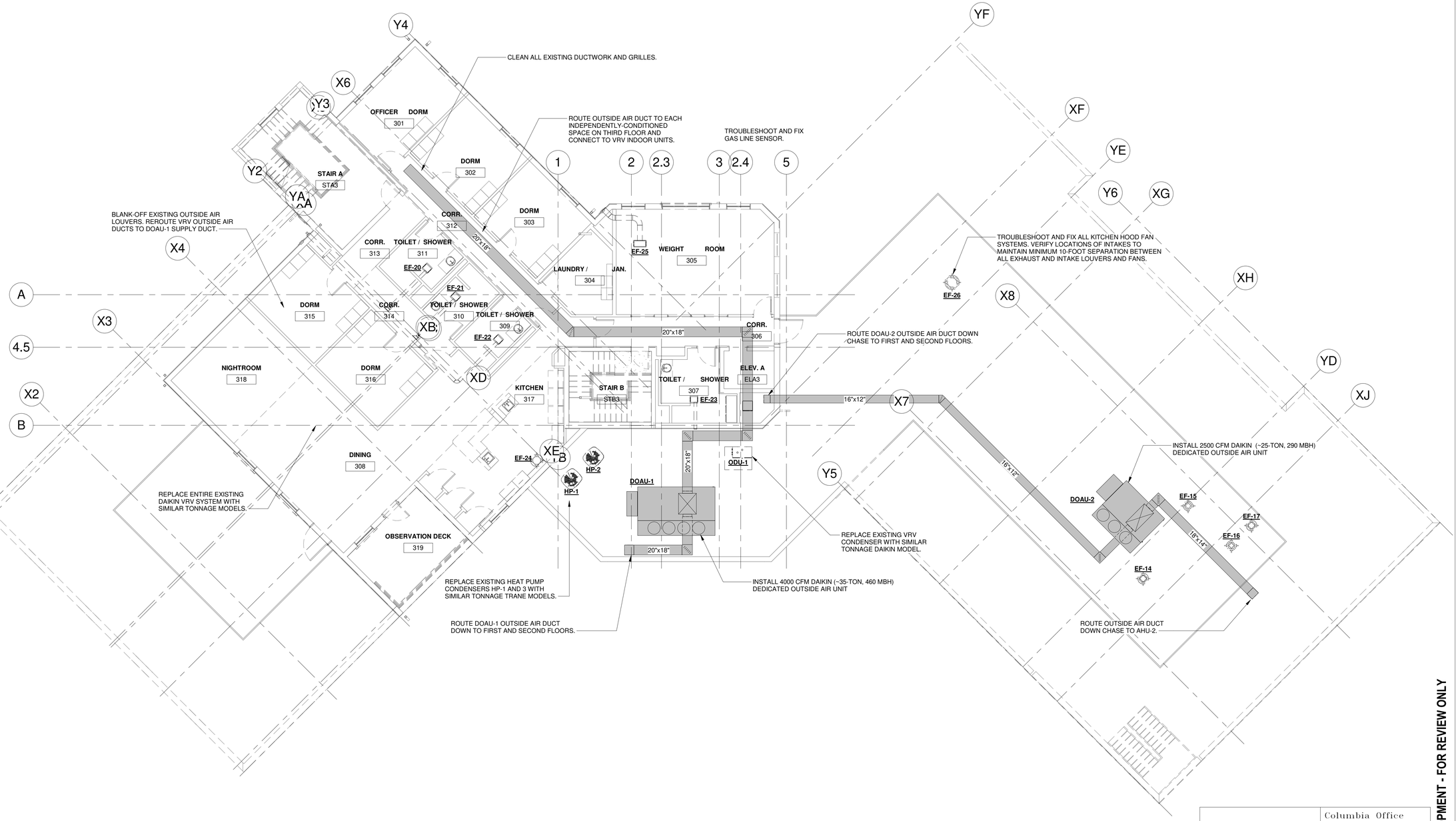

1 3 - THIRD FLOOR - RENOVATION
1/8" = 1'-0"

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MECHANICAL THIRD FLOOR RENOVATION PLAN

M103

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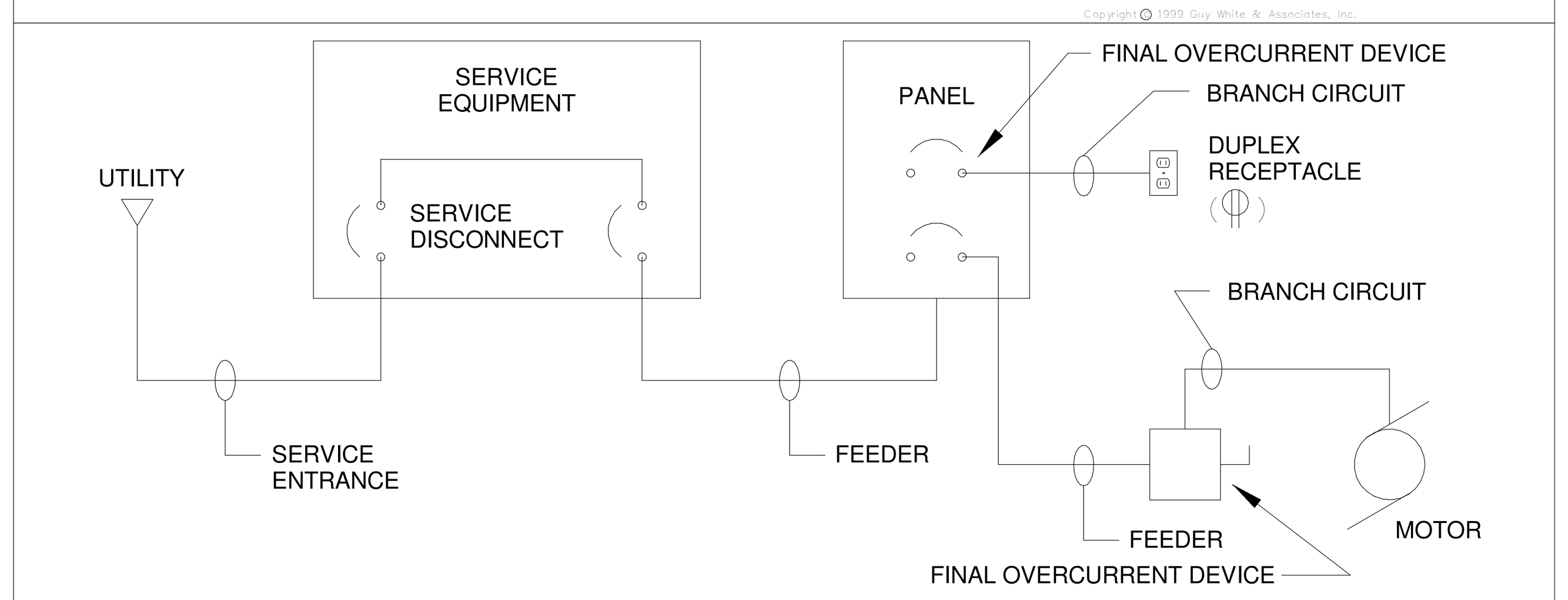
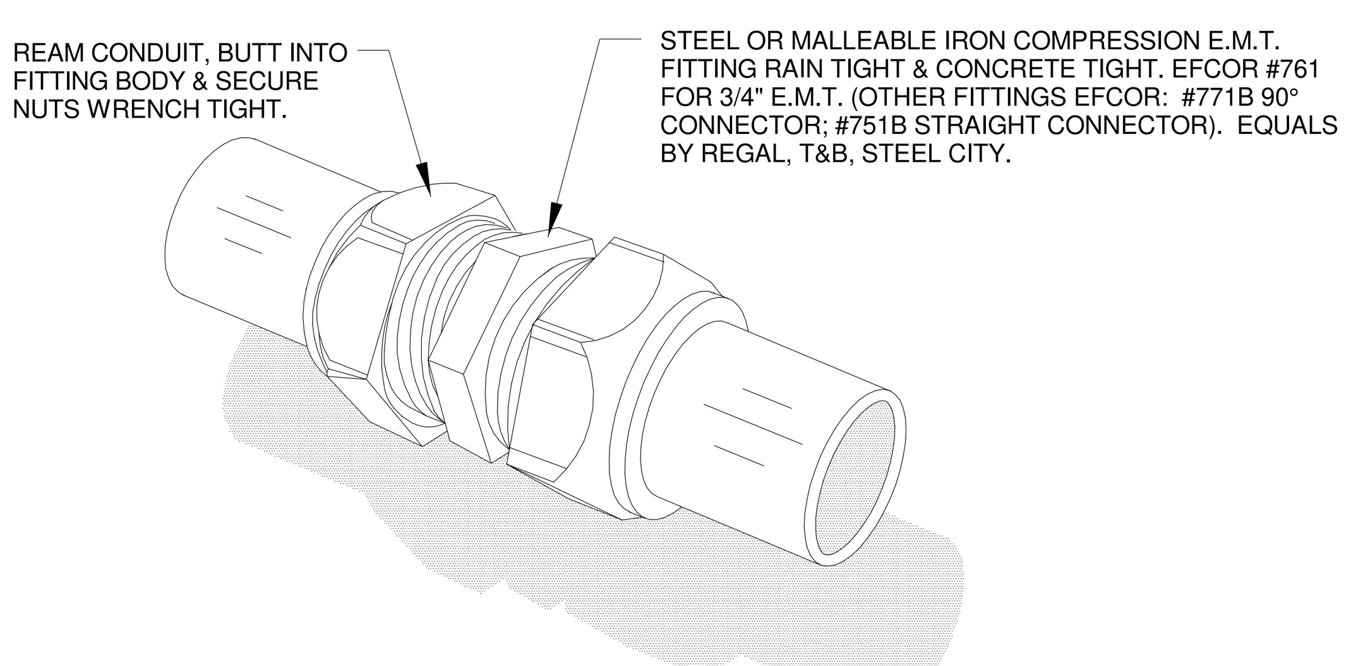
RACEWAY MATERIAL USE TABLE

APPLICATION		RACEWAY MATERIAL						
CONTRACTOR MAY USE ANY MATERIAL MARKED (●) FOR APPLICATION LISTED. IF MATERIAL IS NOT MARKED FOR AN APPLICATION, IT SHALL NOT BE USED FOR THAT APPLICATION.		EMT	IMC	GRS	SCH 40 PVC	ENT	CABLE AC/MC	MFD. WIRING
BRANCH CIRCUITS	CONCEALED ABOVE CEILING	●	●	●		NOT PERMITTED	NOT PERMITTED	NOT PERMITTED
	CONCEALED IN WALLS	●	●	●				
	EXPOSED FROM FLOOR TO 7'-0" A.F.F. (INTERIOR)		●	●				
	EXPOSED FROM 7'-0" A.F.F. AND ABOVE (INTERIOR)	●	●	●				
	IN OR UNDER CONCRETE FLOORS		(1) ●	(1) ●	●			
	OUTDOORS - BELOW GRADE		(1) ●	(1) ●	●			
	OUTDOORS - EXPOSED		●	●				
	STUB-UPS BELOW PANELS & ENCLOSURES		●	●				
FEEDER CONDUITS			●	●	(2) ●			
SERVICE ENTRANCE			●	●	(2) ●			

(1) WITH BITUMINOUS COATING. SEE SPEC.

(2) OUTDOORS - BELOW GRADE.





COMPRESSION TYPE CONDUIT FITTING

NO SCALE

ABBREVIATIONS

THE FOLLOWING STANDARD ABBREVIATIONS ARE USED IN THESE PLANS AND SPECIFICATIONS. CONTRACTOR IS CAUTIONED THAT ALL ABBREVIATIONS LISTED MAY NOT BE USED; CONSULT PLANS AND SPECIFICATIONS FOR ABBREVIATIONS APPLICABLE TO THIS PROJECT.

A.F.F.	ABOVE FINISHED FLOOR
B.F.F.	BELOW FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
B.F.G.	BELOW FINISHED GRADE
U.N.O.	UNLESS NOTED OTHERWISE
CKT.	CIRCUIT
C.	CONDUIT
E.C.	EMPTY CONDUIT
FLX.	FLEXIBLE CONDUIT
WFLX	WEATHERPROOF FLEXIBLE CONDUIT
EWC	ELECTRIC WATER COOLER
EHWH	ELECTRIC WATER HEATER
VF	VENTILATING FAN
CEF	VENTILATING FAN (CEILING EXHAUST FAN)
AHU	AIR HANDLING UNIT
FCU	FAN COIL UNIT
CU	CONDENSING UNIT
RTU	ROOF TOP HEATING/COOLING UNIT
CT	COOLING TOWER
P	PUMP
HP	HEAT PUMP OR HORSEPOWER

BRANCH CIRCUIT WIRING - HASHMARK CODE

NO SCALE

BRANCH CIRCUITS SHOWN ON THESE DRAWINGS MAY INCLUDE HASHMARKS WHICH INDICATE THE NUMBER OF WIRES TO BE PROVIDED IN A CONDUIT RUN BETWEEN OUTLETS OR JUNCTION BOXES. WIRE SIZES SHALL BE AS TABULATED IN PANELBOARD SCHEDULES UNLESS OTHERWISE INDICATED ON PLAN. SEE SYMBOL SCHEDULE FOR CONDUIT ROUTING NOTATION. HASHMARK CODE IS AS FOLLOWS:

EACH PHASE AND NEUTRAL WIRE IN A CONDUIT RUN IS REPRESENTED BY A HASHMARK. FOR EXAMPLE -

- TWO WIRES (NO HASHMARKS)
- THREE WIRES (3 HASHMARKS)
- FOUR WIRES (4 HASHMARKS)
- FIVE WIRES (5 HASHMARKS)

. . . AND SO FORTH.

NOTE: GROUND WIRES ARE NOT GENERALLY SHOWN. EXAMINE SPECIFICATIONS AND GENERAL NOTES TO DETERMINE REQUIREMENTS FOR GROUND WIRES AND WHERE SPECIFIED, PROVIDE IN ADDITION TO THE NUMBER OF WIRES INDICATED BY HASHMARK CODE.

NOTE: CONTRACTOR IS CAUTIONED THAT MULTIWIRE (LINE-TO-NEUTRAL) BRANCH CIRCUITS DO NOT INDICATE ALL REQUIRED NEUTRAL CONDUCTORS. PROVIDE SEPARATE NEUTRAL CONDUCTORS (WITH COLORED STRIPE TO MATCH PHASE CONDUCTOR) FOR EACH PHASE CONDUCTOR.

EMPTY CONDUITS ARE NOTED BY "EC" WITH TRADE SIZE.

GENERAL NOTES

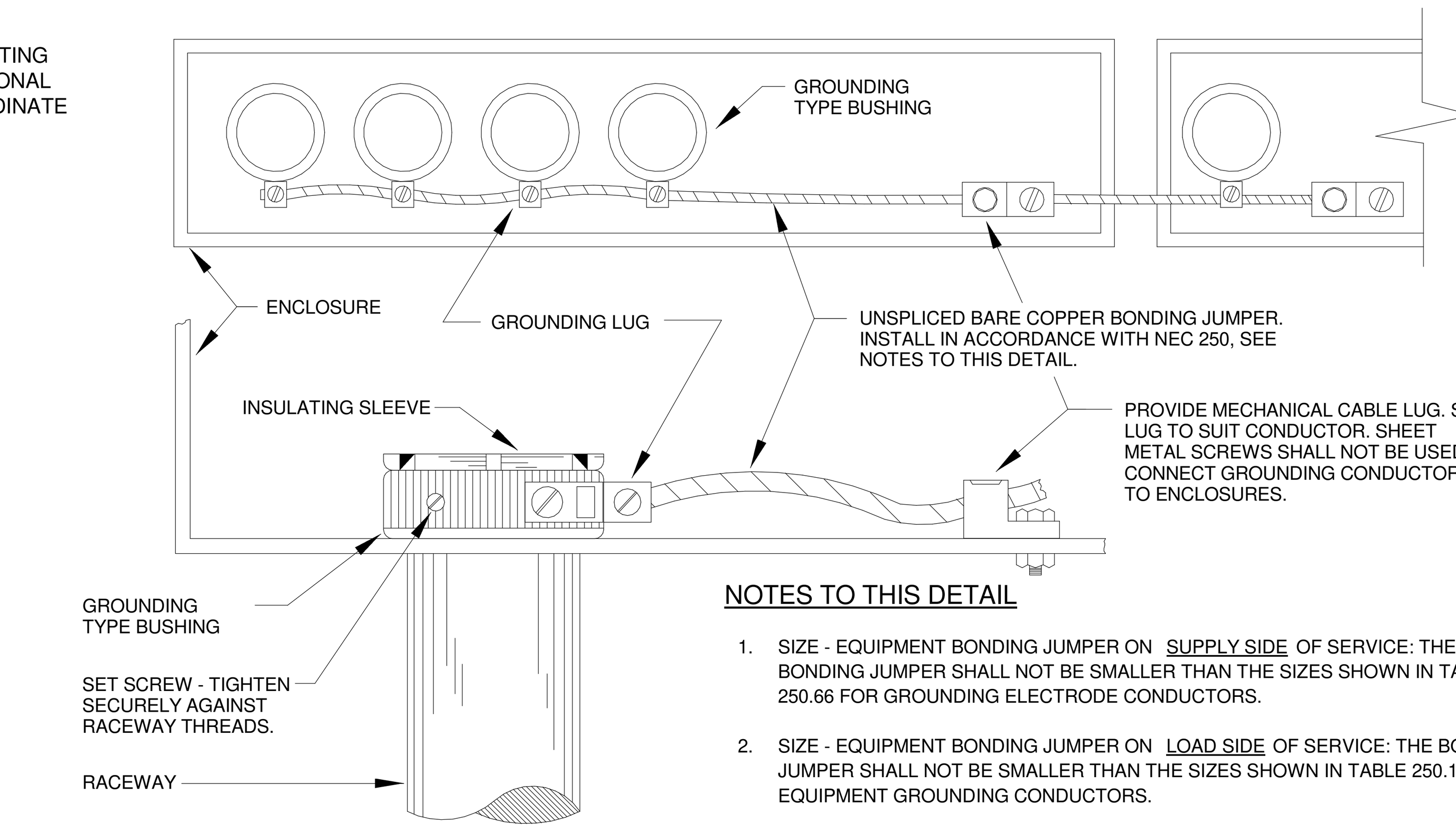
1. DO NOT SCALE DRAWINGS UNLESS DIMENSIONS ARE SHOWN. LOCATE OUTLETS AND EQUIPMENT AS OBVIOUSLY INDICATED AND COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS.
2. MINIMUM SIZE CONDUCTOR FOR POWER SHALL BE NO. 12 AWG.
3. ALL FUSES SHALL BE DUAL-ELEMENT TYPE, "FUSETRON" BY BUSSMAN, OR "ECON" BY ECONOMY.
4. BRANCH CIRCUIT SIZES ARE AWG 12-1/2"C. UNLESS OTHERWISE NOTED IN PANELBOARD SCHEDULES.
5. ALL BRANCH CIRCUIT LOADS SHALL BE BALANCED ACROSS PANELBOARD BUSSES TO OBTAIN MINIMUM NEUTRAL CURRENT.
6. ALL FLEXIBLE CONDUIT SHALL CONTAIN A GREEN WIRE BONDED TO RIGID RACEWAY, BOX OR FIXTURE AT EACH END OF FLEX. SIZE GROUND WIRE PER N.E.C. TABLE 250-122.
7. PROVIDE PULL CORD IN ALL EMPTY RACEWAYS.
8. ALL ELECTRICAL WORK ABOVE CEILINGS UTILIZED AS RETURN AIR PLENUMS SHALL COMPLY WITH N.E.C. AND LOCAL CODES FOR WIRING USED IN ENVIRONMENTAL AIR.
9. DO NOT MOUNT FLUSH JUNCTION BOXES BACK TO BACK. STAGGER JUNCTION BOXES TO REDUCE SOUND TRANSMISSION BETWEEN ROOMS.
10. CONTRACTOR SHALL MINIMIZE REMOVAL OF STRUCTURAL STEEL FIREPROOFING FOR INSTALLATION OF CONDUIT AND EQUIPMENT HANGERS. OBTAIN APPROVAL OF GENERAL CONTRACTOR PRIOR TO REMOVAL.
11. COORDINATE WITH OTHER TRADES TO CONCEAL ELECTRICAL WORK AND PROVIDE OUTLETS IN CORRECT LOCATIONS FOR EACH PIECE OF MECHANICAL OR ELECTRICAL EQUIPMENT CONNECTED.
12. COORDINATE DEVICE REQUIREMENTS AND MOUNTING HEIGHTS FOR ELECTRIC WATER COOLERS, HAND DRYERS, SINKS, THRU-WALL UNITS AND THE LIKE WITH EQUIPMENT FURNISHED.
13. CONCEAL OUTLETS FOR ALL EQUIPMENT IN FINISHED AREAS. OBTAIN ROUGHING DIAGRAMS FOR ALL EQUIPMENT AND INSTALL ELECTRICAL WORK IN LOCATIONS AND HEIGHTS ACCORDING TO DIAGRAMS.
14. IN GENERAL, REFER TO DETAILS AND SYMBOL SCHEDULE FOR STANDARD DEVICE MOUNTING HEIGHTS. STUDY ARCHITECTURAL ELEVATIONS, SECTIONS AND CASEWORK DETAILS PRIOR TO ROUGHING AND ADJUST MOUNTING TO AVOID CONFLICTS, INCLUDING BACKSPLASHES. ALL DEVICE MOUNTING SHALL BE IN ACCORDANCE WITH ADA/ANSI A117.1.
15. CONTRACTOR SHALL VERIFY ALL DOOR SWINGS PRIOR TO ROUGHING - LOCATE SWITCHES AND OTHER DEVICES ACCORDINGLY.
16. MOUNT BRACKET TYPE LIGHTING FIXTURES AT HEIGHTS SHOWN OR SCHEDULED ON DRAWINGS OR AS DIRECTED ON JOB BY ARCHITECT, U.N.O.
17. ALL PENETRATIONS THRU WALLS, FLOORS, BARRIERS, PARTITIONS AND THE LIKE SHALL BE SEALED TIGHT. SEAL ALL PENETRATIONS THRU SMOKE TIGHT PARTITIONS WITH U.L. LISTED ASSEMBLIES OR METHODS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF SMOKE PARTITIONS.
18. FIRESTOP ALL RACEWAYS PASSING THRU FIRE-RATED WALLS, FLOORS OR PARTITIONS. USE U.L. LISTED THROUGH-PENETRATION FIRESTOP SYSTEMS APPROPRIATE FOR CONSTRUCTION AND WITH RATING EQUAL TO THAT BEING PENETRATED. SUBMIT SHOP DRAWINGS FOR SYSTEM(S) PROPOSED. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND RATINGS.
19. OPENINGS GREATER THAN SIXTEEN(16) SQUARE INCHES IN FIRE-RATED WALLS AND PARTITIONS SHALL BE PROTECTED WITH U.L. LISTED SYSTEMS, COMPONENTS AND METHODS AS REQUIRED TO MAINTAIN RATING. PROVIDE PUDDY PADS, LIGHT COVERS, INSERTS, WRAPS, COLLARS AND THE LIKE AS REQUIRED.
20. ALL TYPEWRITTEN PANELBOARD DIRECTORIES, FIRE ALARM PROGRAMMING, LIGHTING CONTROL PROGRAMMING, LABELING AND THE LIKE SHALL UTILIZE FINAL OPERATIONAL ROOM NAMING SYSTEM AND SHALL REFLECT FINAL ROOM DESIGNATIONS. COORDINATE WITH ARCHITECT AND OWNER FOR FINAL NAMING.
21. HANGER WIRES SHALL NOT CONFLICT/TOUCH OTHER TRADES/EQUIPMENT.

SPECIAL NOTE: CONTRACTOR SHALL SUBMIT COORDINATION DRAWINGS WHICH SHOW PROPOSED CONDUIT ROUTING IN EXPOSED CEILING AREAS FOR ALL SYSTEMS. COORDINATION DRAWINGS SHALL BE SUBMITTED TO ENGINEER/ARCHITECT FOR APPROVAL PRIOR TO ROUGH-IN.

ELECTRICAL SYMBOLS

LIGHTING FIXTURE. CEILING (WALL MOUNT)	TOGGLE SWITCH
FIXTURE INDICATED, CONNECTED TO EMERGENCY POWER SOURCE	THREE WAY TOGGLE SWITCH
LIGHTING FIXTURE	FOUR WAY TOGGLE SWITCH
LIGHTING FIXTURE, CONNECTED TO EMERGENCY POWER SOURCE	WEATHERPROOF TOGGLE SWITCH
EXIT LIGHT	MOTOR RATED TOGGLE SWITCH
EMERGENCY LIGHT UNIT	WALL SWITCH - OCCUPANCY SENSOR 48" UP
TRANSFORMER	CEILING MOUNTED OCCUPANCY SENSOR
PANELBOARD	PROGRAMMABLE MASTER SWITCH
SAFETY SWITCH	PROGRAMMABLE SWITCH
ENCLOSED, MOLDED CASE CIRCUIT BREAKER	DIMMING CONTROL FOR LIGHTING
MOTOR CONTROLLER OR CONTACTOR	FIRE ALARM PULL STATION
FLUSH JUNCTION BOX CEILING (WALL)	FIRE ALARM HORN/SPEAKER/STROBE (HC DENOTES HIGH CANDELLA)
PULL BOX OR JUNCTION BOX IN FLOOR	FIRE ALARM HORN/SPEAKER/STROBE
PHOTOCELL, 1800VA U.N.O., AIM NORTH.	FIRE ALARM STROBE (VISUAL ONLY) (HC DENOTES HIGH CANDELLA)
TRANSIENT VOLTAGE SURGE SUPPRESSOR(TVSS)	CEILING MOUNTED FIRE ALARM STROBE (VISUAL ONLY)
ELECTRIC MOTOR	SD SMOKE DETECTOR
CONDUIT STUB	HD HEAT DETECTOR
DUPLEX RECEPTACLE (HIGH MOUNT)	DSD DUCT SMOKE DETECTOR WITH SAMPLING TUBE
DUPLEX RECEPTACLE WITH INTEGRAL USB CHARGING PORTS	FS FLOW SWITCH
TR TAMPER RESISTANT RECEPTACLE	TS TAMPER SWITCH
WP WEATHERPROOF DUPLEX RECEPTACLE. 16" UP	TELEPHONE OUTLET (HIGH MOUNT)
GFI GROUND FAULT INTERRUPTER RECEPTACLE	DATA OUTLET (HIGH MOUNT)
FLOOR OUTLET FOR TELEPHONE AND POWER	TELEPHONE/DATA OUTLET (HIGH MOUNT)
SPEAKER (WALL MOUNT)	TV TELEVISION OUTLET (TV HIGH MOUNT)
EX EXISTING; TO REMAIN	PUSHBUTTON
ER EXISTING; BEING RELOCATED	BUZZER, BELL OR CHIME
EN EXISTING; NEW LOCATION	E CONNECTION TO EXISTING CIRCUIT
	BRANCH CIRCUIT RACEWAY - CONCEALED IN WALL OR CEILING
	BRANCH CIRCUIT RACEWAY - CONCEALED IN FLOOR OR UNDERGROUND
	BRANCH CIRCUIT RACEWAY - EXPOSED
	TYPICAL: SYMBOLS DENOTE EXISTING. REMOVE COMPLETE.
	TYPICAL: "X" ON PLAN SYMBOLS DENOTES EXISTING. REMOVE COMPLETE.

NOTE: ALL DEVICES SHOWN ON THIS SCHEDULE ARE SYMBOLIC ONLY. SEE ELECTRICAL SPECIFICATIONS FOR EXACT DEVICE REQUIREMENTS AND PERFORMACE CHARACTERISTICS.

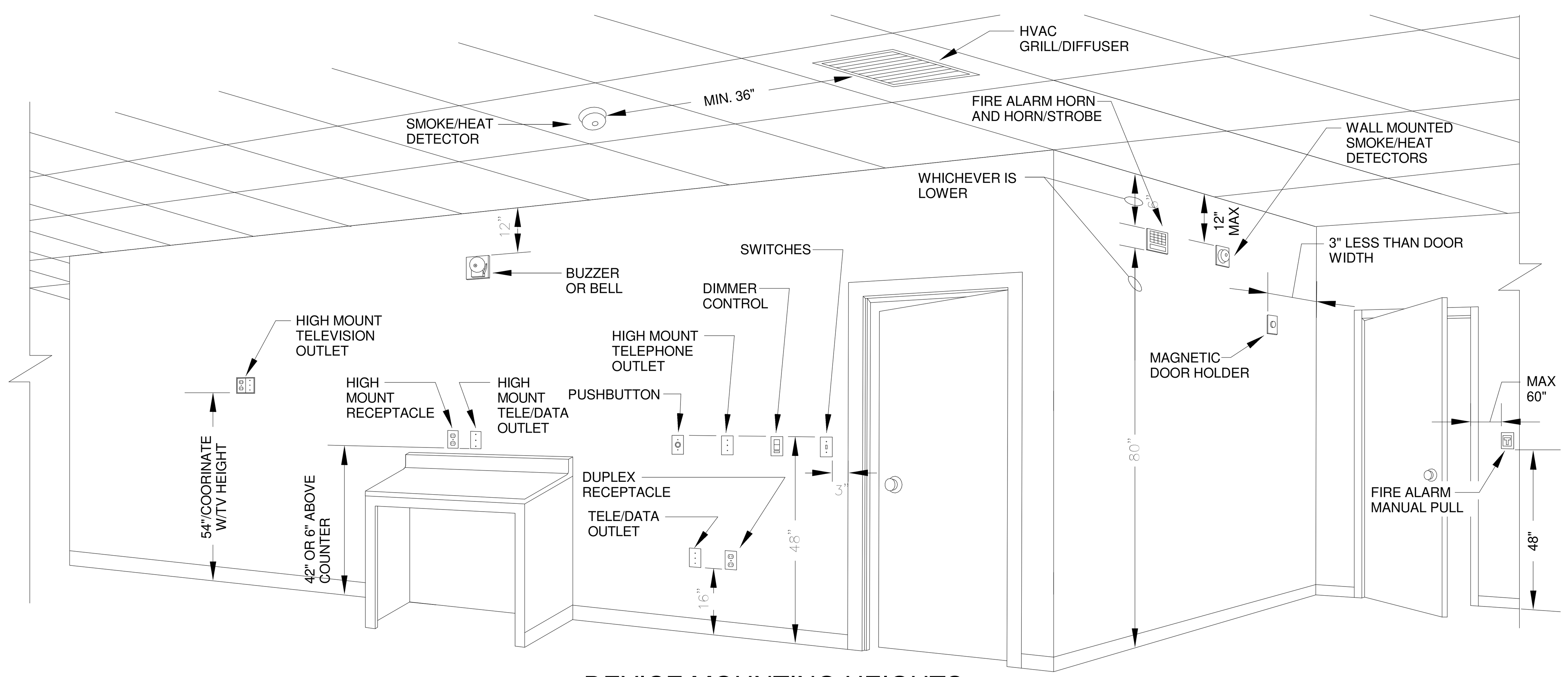


NOTES TO THIS DETAIL

1. SIZE - EQUIPMENT BONDING JUMPER ON SUPPLY SIDE OF SERVICE: THE BONDING JUMPER SHALL NOT BE SMALLER THAN THE SIZES SHOWN IN TABLE 250.66 FOR GROUNDING ELECTRODE CONDUCTORS.
2. SIZE - EQUIPMENT BONDING JUMPER ON LOAD SIDE OF SERVICE: THE BONDING JUMPER SHALL NOT BE SMALLER THAN THE SIZES SHOWN IN TABLE 250.122 FOR EQUIPMENT GROUNDING CONDUCTORS.
3. FOR MORE THAN ONE RACEWAY IN ENCLOSURE, BOND ALL LUGS TOGETHER BEFORE TYING BONDING JUMPER TO ENCLOSURE.
4. BOND BOTH ENDS OF EACH CONDUIT 1"C. AND LARGER.
5. EXTEND BONDING JUMPER TO EACH PANEL INCLUDING TWO-SECTION PANELS WITH FEED-THRU NIPPLES.

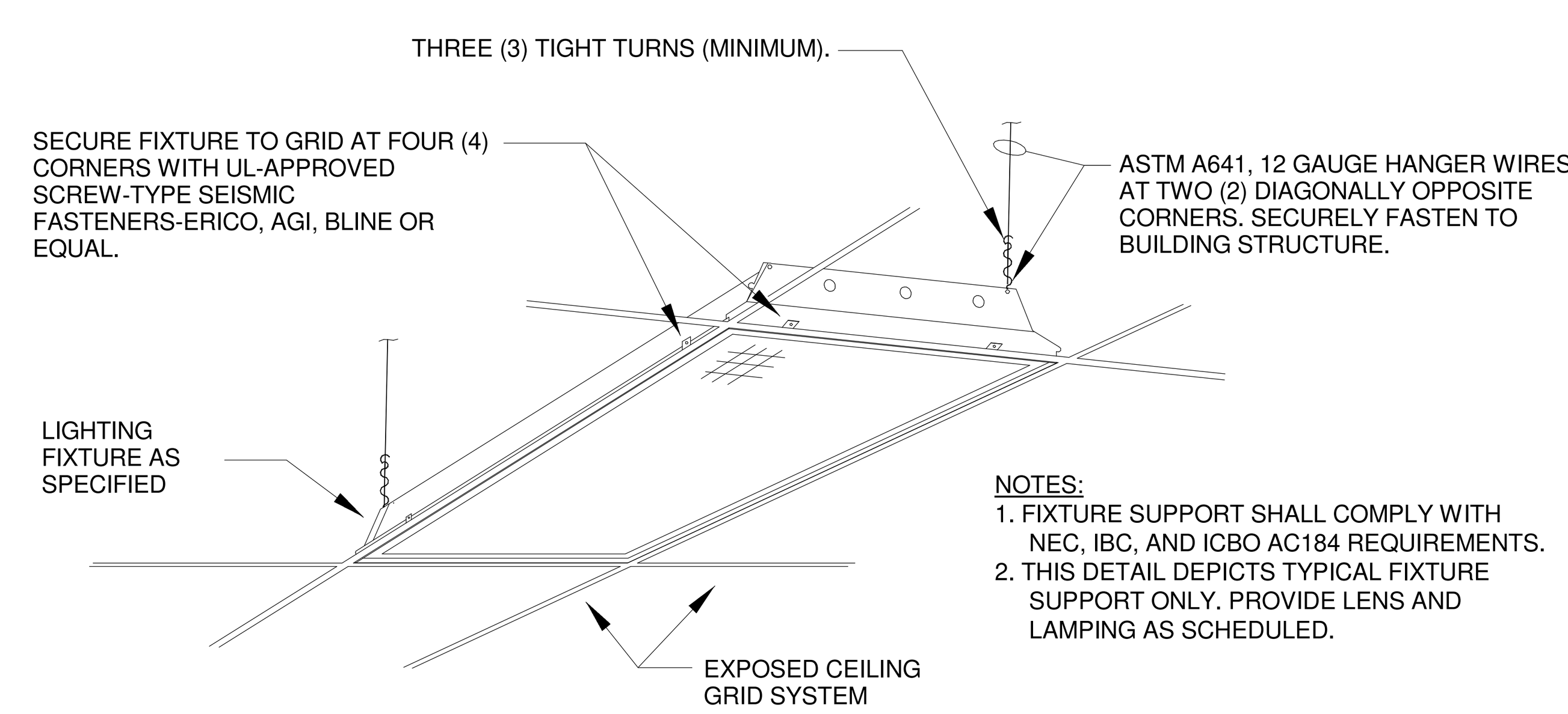
GROUNDING OF CONDUITS 1" C. AND LARGER

NO SCALE



DEVICE MOUNTING HEIGHTS

NO SCALE



NOTES:
1. FIXTURE SUPPORT SHALL COMPLY WITH NEC, IBC, AND ICBO AC184 REQUIREMENTS.
2. THIS DETAIL DEPICTS TYPICAL FIXTURE SUPPORT ONLY. PROVIDE LENS AND LAMPING AS SCHEDULED.

RECESSED FIXTURE - TYPICAL HANGER SUPPORT

NO SCALE

GWA: 19-3298.01

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Rev. No.	Rev. Date

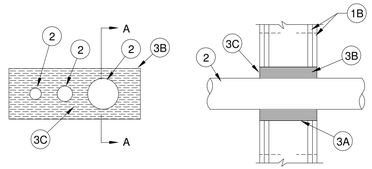
DRAWN BY: CJA
CHECKED BY: SDO
DATE: 08/26/19
COAST PROJECT NO: 119116.1

ELECTRICAL NOTES, SCHEDULES AND DETAILS

E001

SYSTEM NO. WL1014 (FORMERLY SYSTEM NO. 259)

F RATING - 2 HR
T RATING - 3/4 HR



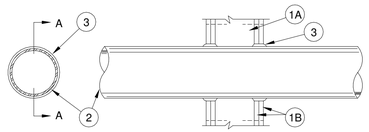
SECTION A-A

1. WALL ASSEMBLY - THE FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION :
   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM. 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN. 2-1/2 IN. WIDE AND SPACED MAX 24 IN. OC.
   B. WALLBOARD GYPSUM* - TWO LAYERS OF NOM. 5/8 IN. THICK GYPSUM WALLBOARD, AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX. AREA OF OPENING IS 78 SQ. IN. WITH MAX. DIMENSION OF 12 IN.
2. METALLIC PIPE - NOM. 3-1/2 IN. DIAM. (OR SMALLER) SCHEDULE 5 (OR HEAVIER STEEL PIPE, CONDUIT OR STEEL ELECTRICAL METALLIC TUBING. THE SPACE BETWEEN PIPES, CONDUITS, OR TUBING SHALL MIN. BE 1 IN. TO MAX. 2-5/8" THE SPACE BETWEEN PIPES, CONDUITS OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN. 1 IN. TO MAX. 2-5/8. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. STEEL WIRE MESH - NO. 8 STEEL WIRE MESH HAVING A MIN. 1 IN. LAP ALONG THE LONGITUDINAL SEAM. LENGTH OF STEEL WIRE MESH TO BE 4 IN., CENTERED AND FORMED TO FIT PERIPHERY OF THROUGH OPENING.
   B. FILL, VOID OR CAVITY MATERIAL* - PILLOW-LIKE MATERIAL TIGHTLY PACKED INTO THE ANNULAR SPACE BETWEEN THE PIPES AND PERIMETER OF THROUGH OPENING. PRIOR TO INSTALLATION, THE PILLOW-LIKE MATERIAL SHALL BE PATTED DOWN BY HAND OR WITH A FLAT BOARD TO EVENLY DISTRIBUTE CONTENTS. THE PILLOW-LIKE MATERIAL SHALL BE INSTALLED HORIZONTALLY SUCH THAT IT IS FLUSH WITH THE SURFACES OF THE WALL. METALINES, INC. - METACAULK 910 RETROFIT BAGS. RECTORSEAL CORP. - METACAULK 910 RETROFIT BAGS
   C. FILL, VOID OR CAVITY MATERIAL* - CAULK - APPLIED TO ALL RETROFIT BAG JOINTS, VOIDS, PERIMETER OF PIPES, AND PERIMETER OF THROUGH OPENING TO A MIN. DEPTH OF 1/8 IN. THE RECTORSEAL CORP. - METACAULK 950.

* BEARING THE UL CLASSIFICATION MARKING.

SYSTEM NO. W-L-1001

F RATINGS - 1, 2, 3 AND 4 HR (SEE ITEMS 2 AND 3) T RATINGS - 0, 1, 2, 3 AND 4 HR (SEE ITEM 3) L RATING AT AMBIENT - LESS THAN 1 CFM/SF FT L RATING AT 400 F - LESS THAN 1 CFM/SQ FT



SECTION A-A

1. WALL ASSEMBLY - THE 1, 2, 3 OR 4 HR FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 H FIRE RATED ASSEMBLIES)OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM. 2 BY 4 IN. LUMBER SPACED 16" OC WITH NOM. 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN. 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX. 24 IN. OC. WALLBOARD GYPSUM* -NOM. 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPES AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIAM. OF OPENING IS 13-1/2 IN.

2. PIPE OR CONDUIT - NOM. 12 IN. DIAM. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM. 12 IN. DIAM. (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. DIAM. (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE, NOM 6 IN. DIAM. (OR SMALLER) STEEL CONDUIT, NOM. 4 IN. DIAM. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING, NOM. 6 IN. DIAM. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING OR NOM. 1 IN. DIAM. (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPE IS USED, MAX. F RATING OF FIRESTOP SYSTEM (ITEM 3) IS 2 H. STEEL PIPES OR CONDUITS LARGER THAN NOM. 4 IN. DIAM. MAY ONLY BE USED IN WALLS CONSTRUCTED USING STEEL CHANNEL STUDS. A MAX. OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

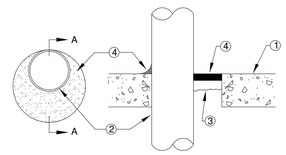
3. FILL VOID OR CAVITY MATERIAL* - CAULK - CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN. 1/4 IN. DIAM. BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX. PIPE OR CONDUIT DIAM., IN.	ANNULAR SPACE IN.	F RATING HR	T RATING HR
1	1/4 TO 1/2	1 OR 2	0+, 1 OR 2
1	0 TO 1/4	1 OR 2	0
4	0 TO 1-1/2#	1 OR 2	0
4	1/4 TO 1/2	3 OR 4	0
6	3/16 TO 3/8	1 OR 2	.0
12			

+ WHEN COPPER PIPE IS USED, T RATING IS 0 H.
# 0 TO 1-1/2 IN. ANNULAR SPACE APPLIES ONLY WHEN TYPE CP-25 WB - CAULK IS USED AND ONLY WHEN THE MIN. THICKNESS OF THE GYPSUM WALLBOARD IS 5/8 IN. FOR 1 HR RATED WALLS AND 1-1/4 IN. FOR 2 HR RATED WALLS.
CAULK=3M COMPANY-TYPE CP 25WB+ OR FB-3000WT
* BEARING THE UL CLASSIFICATION MARKING.

SYSTEM NO. C-AJ-1001

F RATING - 3 HR
T RATING - 0 HR
W RATING - CLASS 1 (SEE ITEM 4)



SECTION A-A

NOTES:

1. FLOOR OR WALL ASSEMBLY - MIN. 4-1/2" THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 pcf) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONC. BLOCKS. MAX. DIAMETER OF CIRCULAR THROUGH OPENING IS 22-1/2".

1A. STEEL SLEEVE - (OPTIONAL, NOT SHOWN) - NOM. 12" DIAMETER (OR SMALLER) SCH. 40 PVC (OR HEAVIER) STEEL PIPE SLEEVE CAST INTO CONCRETE FLOOR OR WALL. SLEEVE TO BE FLUSH WITH OR PROJECT MAX. 2" FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL.

2. PIPE OR CONDUIT - NOM 20" DIAMETER (OR SMALLER) SCH. 10 (OR HEAVIER) STEEL PIPE, NOM. 6" DIAMETER (OR SMALLER) RIGID STEEL CONDUIT OR TYPE L (OR HEAVIER) COPPER TUBE, NOM. 4" DIAMETER (OR SMALLER) CAST IRON PIPE OR STEEL EMT, MAX. ONE PIPE OR CONDUIT PER THROUGH OPENING. MAX. ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING NOT TO EXCEED 2-1/2". MIN. ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING IS ZERO INCHES (POINT CONTACT). PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

3. PACKING MATERIAL - POLYETHYLENE BACKER ROD OR NOM. 1" THICKNESS OF TIGHTLY PACKED CERAMIC (ALUMINA SILICA) FIBER BLANKET, MINERAL WOOL BATT OR GLASS FIBER INSULATION MATERIAL USED AS A PERMANENT FORM. PACKIN MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM 4). AS AN ALTERNATE WHEN MAX. PIPE SIZE IS 10" DIAMETER AND WHEN MAX. ANNULAR SPACE IS 1", A MIN. 1" THICKNESS OF TIGHTLY PACKED CERAMIC FIBER BLANKET OR MINERAL WOOL BATT PACKING MATERIAL MAY BE RECESSED MIN. 1/2" FROM BOTTOM SURFACE OF FLOOR OR FROM EITHER SIDE OF WALL.

4. FILL, VOID OR CAVITY MATERIALS - CAULK - APPLIED TO FILL THE ANNULAR SPACE TO THE MIN. THICKNESS SHOWN IN THE FOLLOWING TABLE:

MAX. PIPE DIAM. INCHES	MAX. ANNULAR SPACE INCHES	PACKIN MATERIAL	TYPE (a)	MIN. CAULK THICKNESS INCHES
10	1	BR, CF, GF OR MW		1/2 (b)
10	1	CF OR MW		1/2 (c)
20	2-1/2	BR, CF, GF OR MW		1 (b)

(a) BR = POLYETHYLENE BACKER ROD.
CF = CERAMIC FIBER BLANKET.
GW = GLASS FIBER INSULATION.
MW = MINERAL WOOL BATT.
(b) CAULK INSTALLED FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL. (c) CAULK INSTALLED FLUSH WITH BOTTOM SURFACE OF FLOOR OR ONE SURFACE OF WALL (CAULK = 3M COMPANY - TYPE CP 25WB+ OR FB-3000 WT)

NOTES TO THROUGH PENETRATION FIRESTOPPING

1. WHERE RACEWAYS PASS THRU FIRE-RATED WALLS, FLOORS OR OTHER PARTITIONS, PROVIDE A UL-LISTED THROUGH PENETRATION SYSTEM WITH RATING EQUAL TO THAT OF CONSTRUCTION BEING PENETRATED.
2. EACH ASSEMBLY SHALL BE SPECIFIC TO THE PENETRATING DEVICE (E.G., SINGLE CONDUIT, MULTIPLE CONDUITS, CABLE TRAY, ETC.) AND SHALL BE A UL LISTED SYSTEM AS PUBLISHED IN THE UL FIRE RESISTANCE DIRECTORY, LATEST EDITION.
3. FIRESTOP SYSTEMS SHALL MEET REQUIREMENTS OF ASTM E-814/UL 1749 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO THAT OF CONSTRUCTION BEING PENETRATED.
4. FOR THOSE FIRESTOP APPLICATIONS THAT EXIST FOR WHICH NO UL TESTED SYSTEM IS AVAILABLE THROUGH THE MANUFACTURER, A MANUFACTURER'S ENGINEERING JUDGEMENT DERIVED FROM SIMILAR UL SYSTEM DESIGNS OOR OTHER TESTS SHALL BE SUBMITTED TO LOCAL AUTHORITY HAVING JURISDICTION FOR THEIR APPROVAL PRIOR TO INSTALLATION. ENGINEERING JUDGEMENT DRAWINGS SHALL FOLLOW REQUIREMENTS SET FORTH BY THE INTERNATIONAL FIRESTOP COUNCIL.
5. INSTALLATION SHALL BE IN COMPLIANCE WITH MANUFACTURER'S INSTRUCTION AND IN ACCORDANCE WITH UL FIRE RESISTANCE DIRECTORY FOR EACH SYSTEM UTILIZED.
6. FIRESTOP MATERIALS SHALL BE BY 3M COMPANY, HILTI USA, SPECIFIED TECHNOLOGIES INC (STI). METACAULK, TREMCO OR APPROVED EQUAL.
7. SUBMIT UL SYSTEM DETAIL AND PRODUCT DATA FOR EACH FIRE STOP COMPONENT UTILIZED, INCLUDING DETAILED DRAWINGS, INSTALLATION INSTRUCTIONS, ASSEMBLY LISTING NUMBER, CERTIFICATED OF CONFORMANCE AND MATERIAL SAFETY DATA SHEETS. MAINTAIN A COPY OF APPROVED SHOP DRAWINGS ON SITE FOR REVIEW BY ENGINEER, THIRD PARTY INSPECTOR AND AHJ.
8. COORDINATE WITH OTHER TRADES AND CONTRACT REQUIREMENTS FOR ADDITIONAL FIRESTOPPING REQUIREMENTS. WHERE REQUIRED, ALL FIRESTOP MATERIAL SHALL BE BY SAME MANUFACTURER AND/OR SAME FIRESTOPPING SUB-CONTRACTOR.

NOTES TO ADDITIONAL ELECTRICAL ITEMS INCLUDED IN SCOPE OF WORK

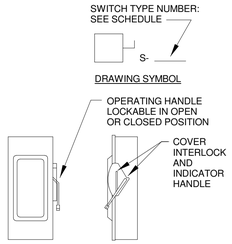
1. ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL LUGS ON EXISTING GROUND BAR OR REPLACE EXISTING GROUND LUG AT EXISTING SWITCHBOARD 'MDP' WITH SUITABLE LUG FOR MULTIPLE CONDUCTORS PER NEC ARTICLE 110.14(A).
2. ELECTRICAL CONTRACTOR SHALL REMOVE NEUTRAL-GROUND BONDING SCREW ON ALL EXISTING PANELBOARDS PER NEC ARTICLE 408.40 TO ENSURE THERE IS NO BOND BETWEEN THE NEUTRAL BUS AND THE GROUND BUS WITH THE EXCEPTION OF THE MAIN SERVICE.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT BUSHINGS FOR ALL CONDUITS ENTERING EXISTING PANELBOARDS PER NEC ARTICLE 314.7.
4. ELECTRICAL CONTRACTOR SHALL RELOCATE EXISTING TRANSIENT VOLTAGE SURGE SUPPRESSION SYSTEM ON EXISTING MAIN SWITCHBOARD 'MDP' TO REDUCE CONDUCTOR LENGTH PER NEC ARTICLE 285.12 AND RECONNECT PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL ASSOCIATED MOUNTING HARDWARE AND THE LIKE AS REQUIRED FOR A COMPLETE INSTALLATION.
5. ELECTRICAL CONTRACTOR SHALL VISUALLY INSPECT ALL JUNCTION BOXES WITHIN SCOPE OF WORK AND ENSURE THAT ALLOWABLE FILL RATIOS HAVE NOT BEEN EXCEEDED (REFER TO NEC ARTICLE 314.16) AND THAT ALL JUNCTION BOXES ARE PROVIDED WITH A SECURE COVER TO COMPLY WITH NEC AND LOCAL STANDARDS.
6. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ALL EXISTING AND NEW ELECTRICAL WORK IS INSTALLED IN A MANNER WHICH COMPLIES WITH NEC 110 REQUIREMENTS FOR CLEARANCES AND WORK SPACE.
7. ELECTRICAL CONTRACTOR SHALL SECURE EXISTING CONDUCTORS IN EXISTING SWITCHBOARD 'MDP' FOR THE EXISTING SHUNT TRIP CIRCUIT BREAKER. CONDUCTORS SHALL BE INSTALLED IN A NEAT MANNER TO COMPLY WITH GOOD WORKMANSHIP PRACTICES.
8. ELECTRICAL CONTRACTOR SHALL SEAL ALL EMPTY CONDUIT PENETRATIONS INTO EXISTING SWITCHBOARD 'MDP'.
9. ELECTRICAL CONTRACTOR SHALL PROVIDE GROUND LUG BUSHINGS IN ALL ENCLOSURES FOR ALL CONDUITS 1" TRADE SIZE OR LARGER. BOND GROUNDING CONDUCTOR AS REQUIRED TO GROUND BUS IN EACH PANELBOARD.
10. ELECTRICAL CONTRACTOR SHALL INSPECT ALL EXISTING CONNECTIONS FOR THE LIGHTNING PROTECTION SYSTEM AND SHALL REPAIR ANY LOOSE OR DAMAGED CONNECTIONS FOUND. LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED AS REQUIRED BY ALL CURRENT CODES AND STANDARDS. ONCE COMPLETE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE SYSTEM RECERTIFIED FOR UL COMPLIANCE AND A MASTER 'C' SHALL BE PROVIDED.
11. ELECTRICAL CONTRACTOR SHALL REMOVE AND REPLACE ALL COMPONENTS FOR THE EXISTING ELECTRICALLY OPERATED BAY DOORS IN THE APPARATUS BAY AREA. COORDINATE WITH EQUIPMENT VENDOR AND PROVIDE NEW ELECTRICAL CONNECTIONS TO THE BAY DOOR CONTROL PANEL(S) AND PROVIDE NEW WEATHERPROOF, HEAVY-DUTY TYPE FUSIBLE TYPE DISCONNECTS ARE REQUIRED. PROVIDE ALL ASSOCIATED ELECTRICAL WORK AS REQUIRED AND CONNECT COMPLETE.
12. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO ENSURE FULL SCOPE OF WORK IS INCLUDED. PROVIDE ALL SUPPORTING ELECTRICAL WORK COMPLETE.

NOTES TO GENERATOR SYSTEM - ADD ALTERNATE

1. ELECTRICAL CONTRACTOR SHALL INCLUDE IN BID AS ADD ALTERNATE A PRICE TO REMOVE AND REPLACE THE EXISTING 250KW KOHLER ROOF-MOUNTED GENERATOR WITH A NEW GROUND-MOUNTED 250KW CATERPILLAR DIESEL FUELED GENERATOR.
2. NEW GENERATOR SHALL BE MOUNTED ON STEEL PLATFORM TO BE DESIGNED BY A STRUCTURAL ENGINEER.
3. NEW GENERATOR SHALL INCLUDE 24HR BELLY TANK AND NEW WEATHERPROOF, SOUND ATTENUATED ENCLOSURE.

DEMOLITION NOTES

1. BIDDERS SHALL VISIT THE SITE OF THE WORK PRIOR TO BIDDING AND SHALL INCLUDE IN BID ALL WORK REQUIRED TO PROVIDE NEW WORK AND TO MODIFY EXISTING WORK AS REQUIRED TO CONTINUE IN OPERATION.
2. CONTRACTOR IS CAUTIONED THAT DEMOLITION PLANS ARE BASED ON RECORD DRAWINGS AND VISUAL FIELD OBSERVATION AND ARE INTENDED TO COMMUNICATE INTENT OF DEMOLITION AND DO NOT INDICATE EVERY COMPONENT OF ELECTRICAL SYSTEMS.
3. OWNER SHALL RETAIN FIRST RIGHT OF REFUSAL ON ELECTRICAL EQUIPMENT BEING DEMOLISHED. PRIOR TO BEGINNING DEMOLITION WORK, CONTRACTOR SHALL WALK THRU DEMOLITION AREA WITH OWNER REPRESENTATIVE AND IDENTIFY ITEMS TO BE REMOVED AND TURNED OVER TO OWNER.
4. EXISTING RACEWAY AND WIRING SYSTEMS REUSED AS PART OF THIS CONTRACT SHALL BE REWORKED AS REQUIRED TO COMPLY WITH REQUIREMENTS FOR NEW WORK AND CURRENT CODES AND STANDARDS.
5. CONTRACTOR SHALL EXAMINE NEW WORK PLANS FOR ALL TRADES AND INCLUDE IN BID ALL REWORK AND/OR RELOCATION OF EXISTING RACEWAY, JUNCTION BOXES, DEVICES, WIRING SYSTEMS AND THE LIKE AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.
6. SEE ARCHITECTURAL DRAWINGS FOR DEMOLITION FLOOR PLAN. EXAMINE WORK TO BE DONE AND PROVIDE ALL ELECTRICAL WORK REQUIRED FOR DEMOLITION.
7. SEE MECHANICAL DRAWINGS FOR EXTENT OF DEMOLITION WORK REQUIRED. REMOVE ELECTRICAL WORK COMPLETE FOR MECHANICAL SYSTEMS BEING REMOVED BY OTHERS. CONTRACTOR IS CAUTIONED THAT THIS EQUIPMENT MAY BE LOCATED OUTSIDE OF GENERAL DEMOLITION AREA (SUCH AS IN MECHANICAL ROOMS, MEZZANINES, ROOFTOP OR SIMILAR LOCATIONS).
8. INCLUDE IN BID ALL WORK REQUIRED FOR TEMPORARY WIRING AND ASSOCIATED ELECTRICAL WORK REQUIRED TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING DEMOLITION PHASE.
9. WIRING SYSTEMS SHALL BE REMOVED BACK TO THE SOURCE OF SUPPLY UNLESS NOTED OTHERWISE. CIRCUIT BREAKERS, FUSIBLE SWITCHES, ETC. SUPPLYING LOADS DEMOLISHED AS PART OF THIS CONTRACT SHALL BE LABELED AS SPARE AND SET TO THE POSITION.
10. PROVIDE REVISED CIRCUIT DIRECTORIES IN ALL PANELBOARDS AFFECTED BY NEW OR DEMOLITION WORK. INDICATE ALL LOADS, NEW AND MODIFIED.
11. INTERRUPTIONS IN ELECTRICAL SERVICE AS REQUIRED FOR THIS WORK SHALL BE COORDINATED WITH AND APPROVED BY OWNER A MINIMUM OF 48 HOURS PRIOR TO PERFORMING WORK.
12. ELECTRICAL DEMOLITION GENERALLY INCLUDES REMOVAL OF EXISTING LIGHTING FIXTURES, EXIT SIGNS AND FIRE ALARM DEVICES AS



TYPICAL NEMA 1 ENCLOSURE

NOTES TO THIS DETAIL

1. ALL SWITCHES SHALL BE HEAVY DUTY TYPE, FED. SPEC. W-S-865, U.L. 98, NEMA KS1-1975; 240 V. OR 600 V. TO SUIT CIRCUIT VOLTAGE. QUICK MAKE-QUICK BREAK OPERATION
2. ALL SWITCHES FUSIBLE UNLESS NOTED ON DRAWINGS. PROVIDE FUSES TO SUIT LOAD.
3. ENCLOSURES NEMA 3R OUTDOORS AND IN WET LOCATIONS, NEMA 1 ELSEWHERE UNLESS NOTED ON DRAWINGS.
4. PROVIDE ENGRAVED LABELS AS SPECIFIED.
5. PROVIDE FACTORY INSTALLED AUXILARY CONTACTS FOR ALL SAFETY SWITCHES USED AS MOTOR DISCONNECT AND LOCATED ON LOAD SIDE OF VARIABLE FREQUENCY DRIVES (VFD). COORDINATE WITH VFD VENDOR AND PROVIDE SIGNALING CABLE VIA CONTACTS TO COMMUNICATE DISCONNECT POSITION TO VFD.

SAFETY SWITCH SCHEDULE		
SYMBOL	AMP	POLES
S-1	30	2
S-2	30	3
S-3	30	4WSN
S-4	60	2
S-5	60	3
S-6	60	4WSN
S-7	100	2
S-8	100	3
S-9	100	4WSN
S-10	200	2
S-11	200	3
S-12	200	4WSN
S-13	400	2
S-14	400	3
S-15	400	4WSN
S-16	600	2
S-17	600	3
S-18	600	4WSN
S-19	800	2
S-20	800	3
S-21	800	4WSN
S-22	1200	2
S-23	1200	3
S-24	1200	4WSN

SAFETY SWITCH DETAIL AND SCHEDULE

NO SCALE

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ELECTRICAL NOTES, SCHEDULES AND DETAILS - 2

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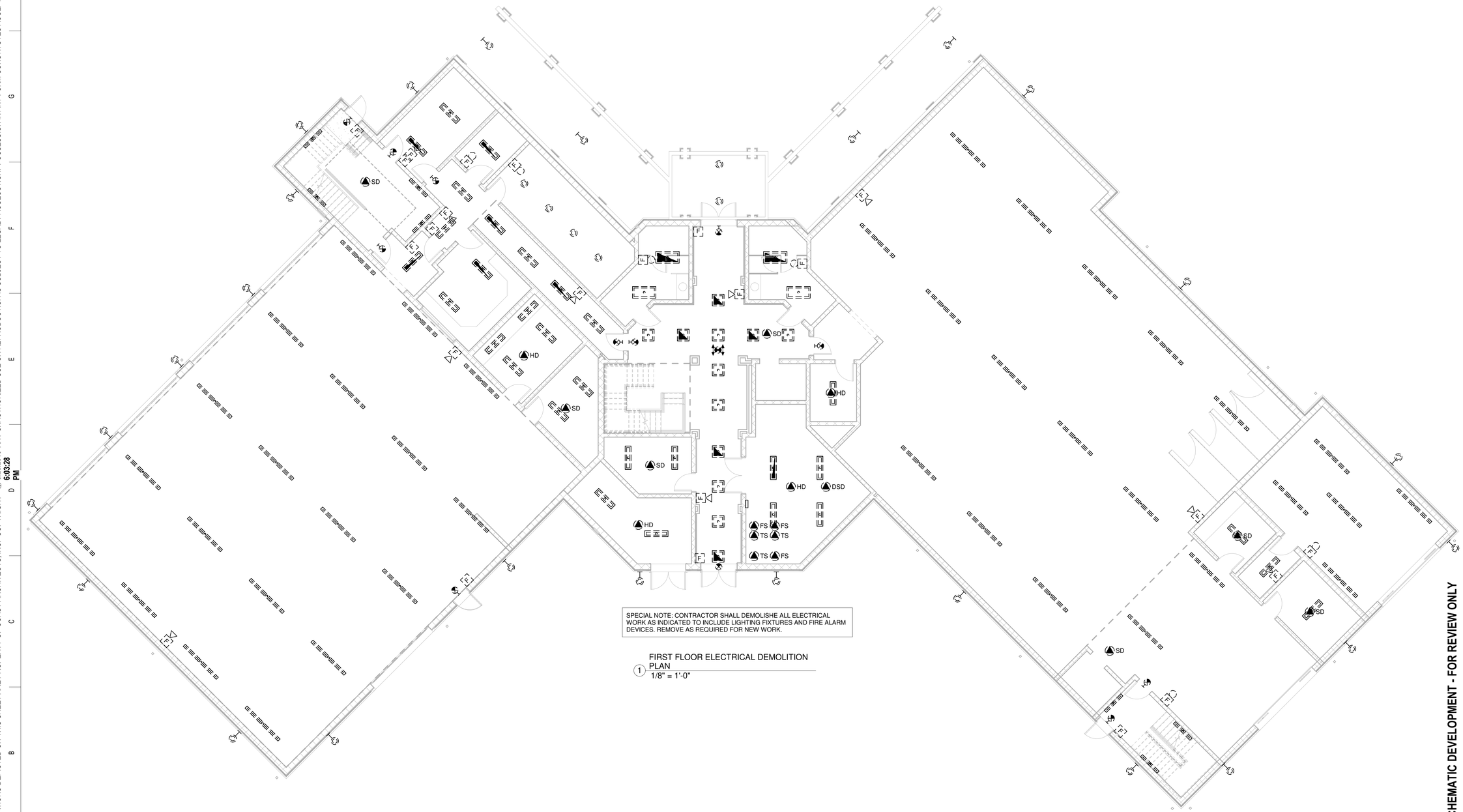

SPECIAL NOTE: CONTRACTOR SHALL DEMOLISHE ALL ELECTRICAL WORK AS INDICATED TO INCLUDE LIGHTING FIXTURES AND FIRE ALARM DEVICES. REMOVE AS REQUIRED FOR NEW WORK.

1 FIRST FLOOR ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"

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FIRST FLOOR ELECTRICAL DEMOLITION PLAN

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1 SECOND FLOOR ELECTRICAL DEMOLITION PLAN
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SECOND FLOOR ELECTRICAL DEMOLITION PLAN

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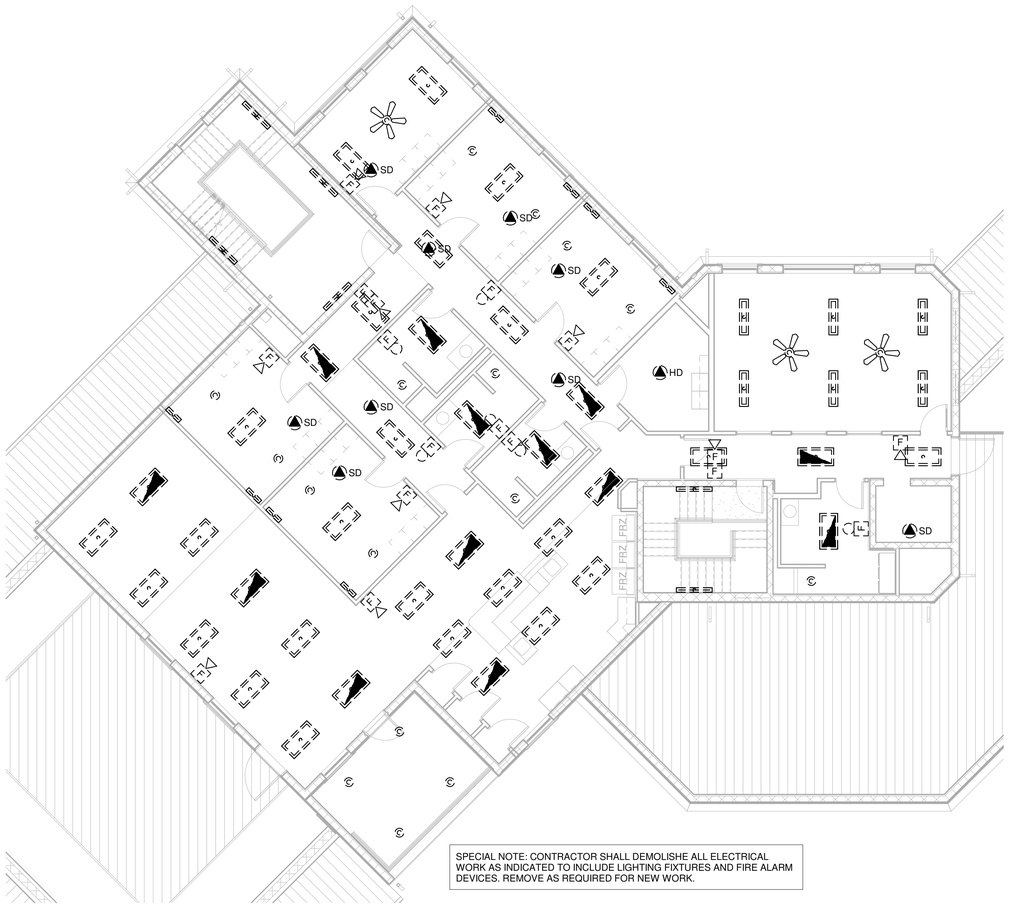

SPECIAL NOTE: CONTRACTOR SHALL DEMOLISHE ALL ELECTRICAL WORK AS INDICATED TO INCLUDE LIGHTING FIXTURES AND FIRE ALARM DEVICES. REMOVE AS REQUIRED FOR NEW WORK.

1 THIRD FLOOR ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"

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THIRD FLOOR ELECTRICAL DEMOLITION PLAN

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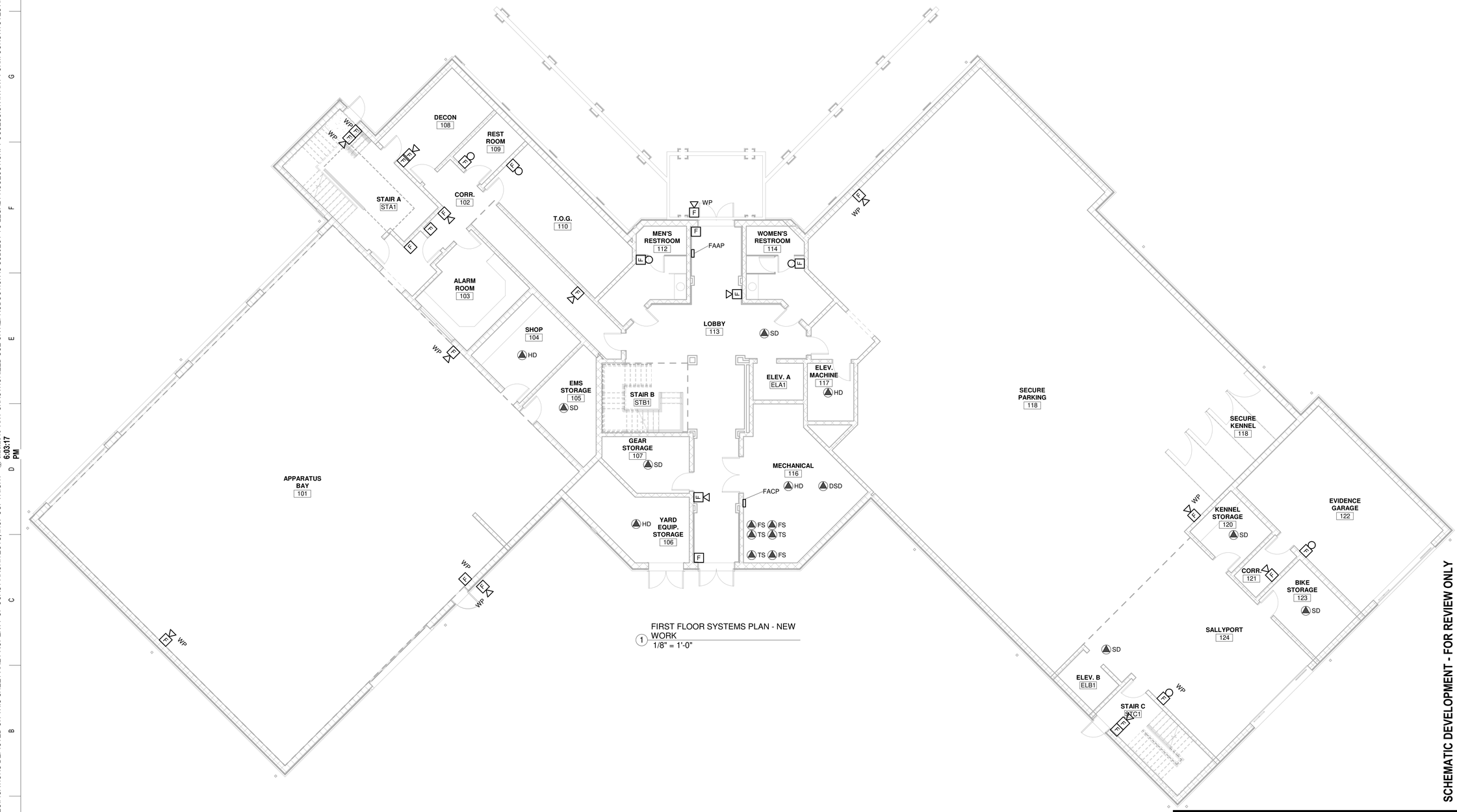

1 FIRST FLOOR SYSTEMS PLAN - NEW WORK
1/8" = 1'-0"

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FIRST FLOOR ELECTRICAL SYSTEMS PLAN - NEW WORK

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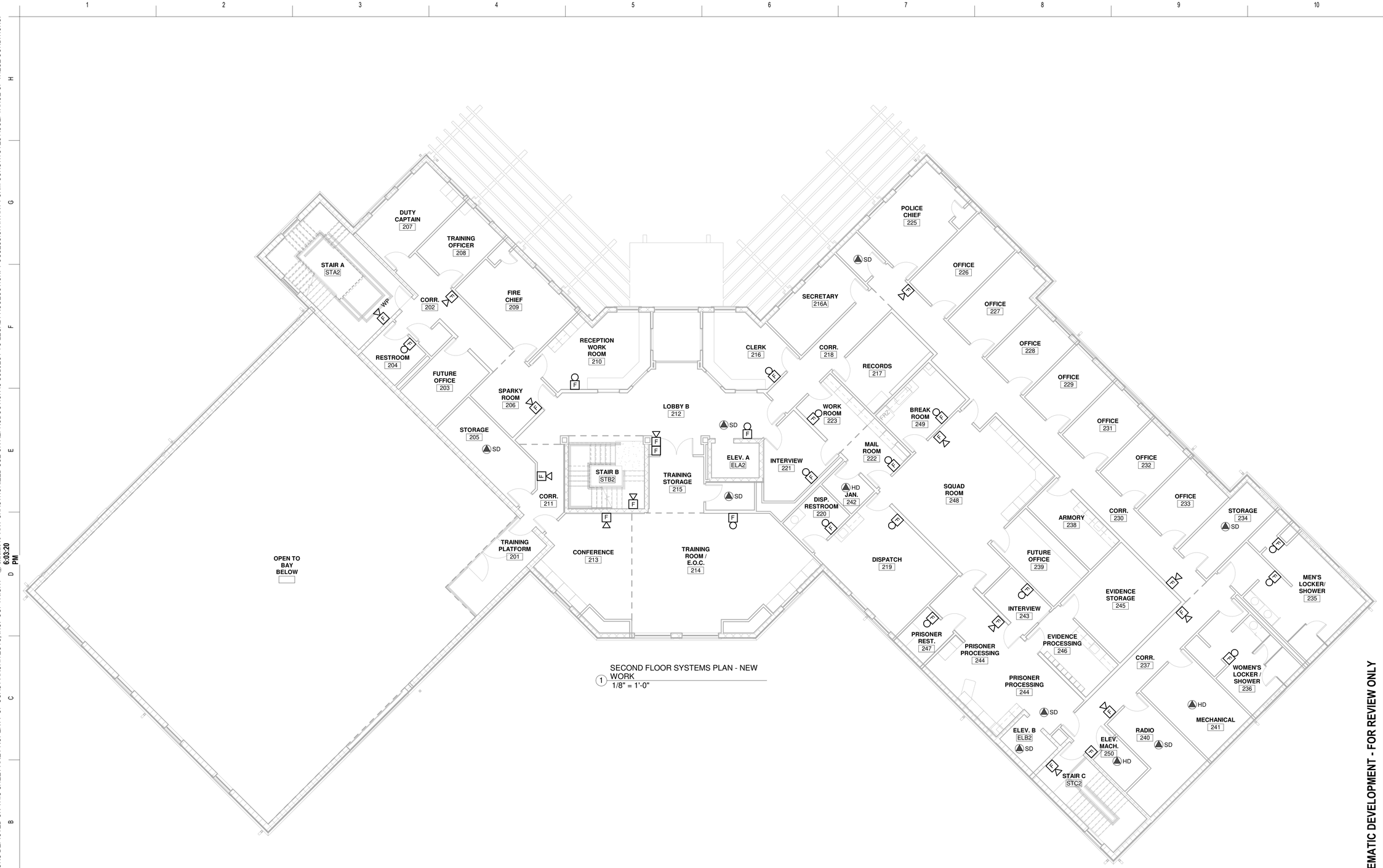

1 SECOND FLOOR SYSTEMS PLAN - NEW WORK
1/8" = 1'-0"

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SECOND FLOOR SYSTEMS PLAN - NEW WORK

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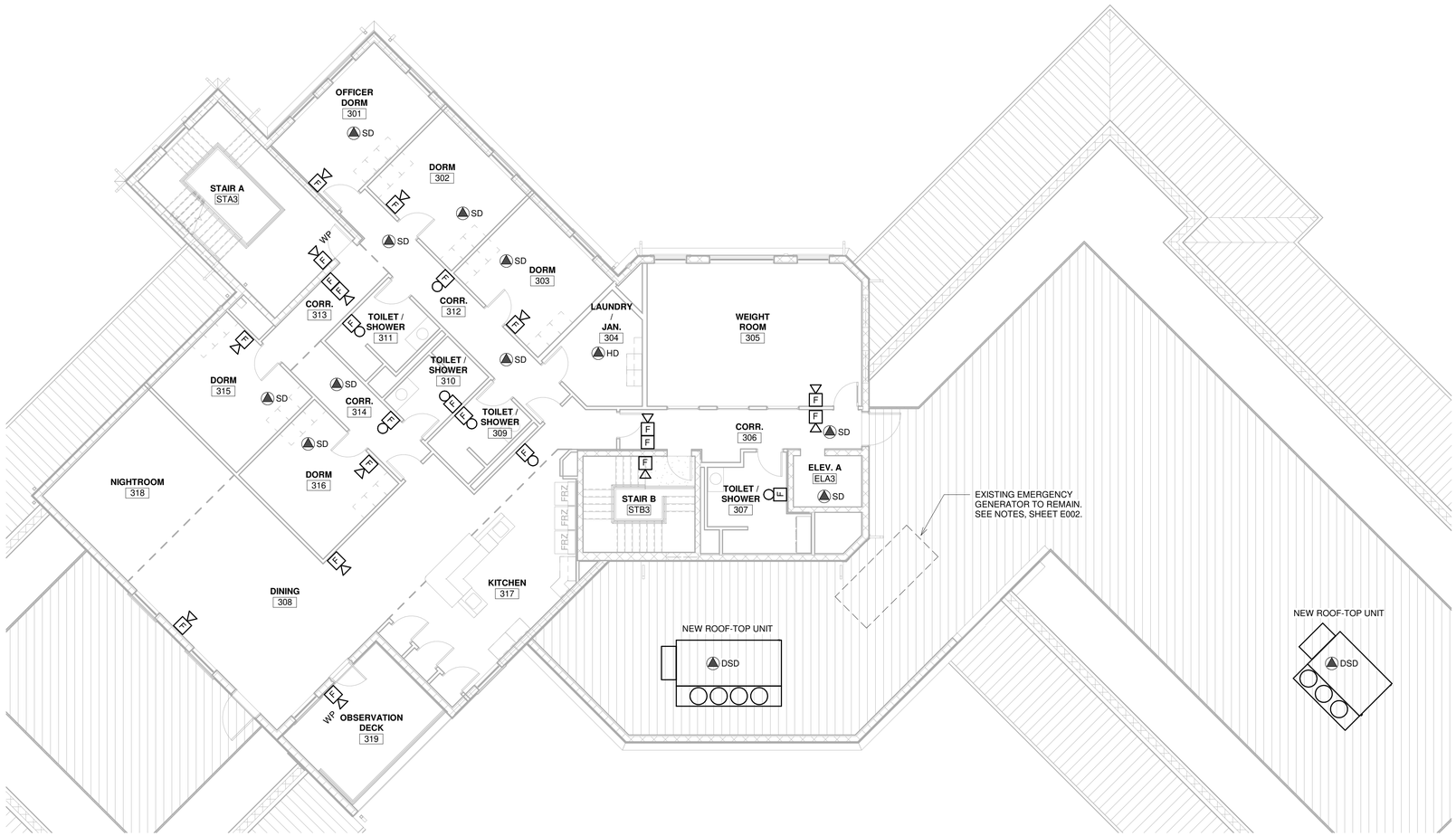

1 THIRD FLOOR SYSTEMS PLAN - NEW WORK
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THIRD FLOOR SYSTEMS PLAN - NEW WORK

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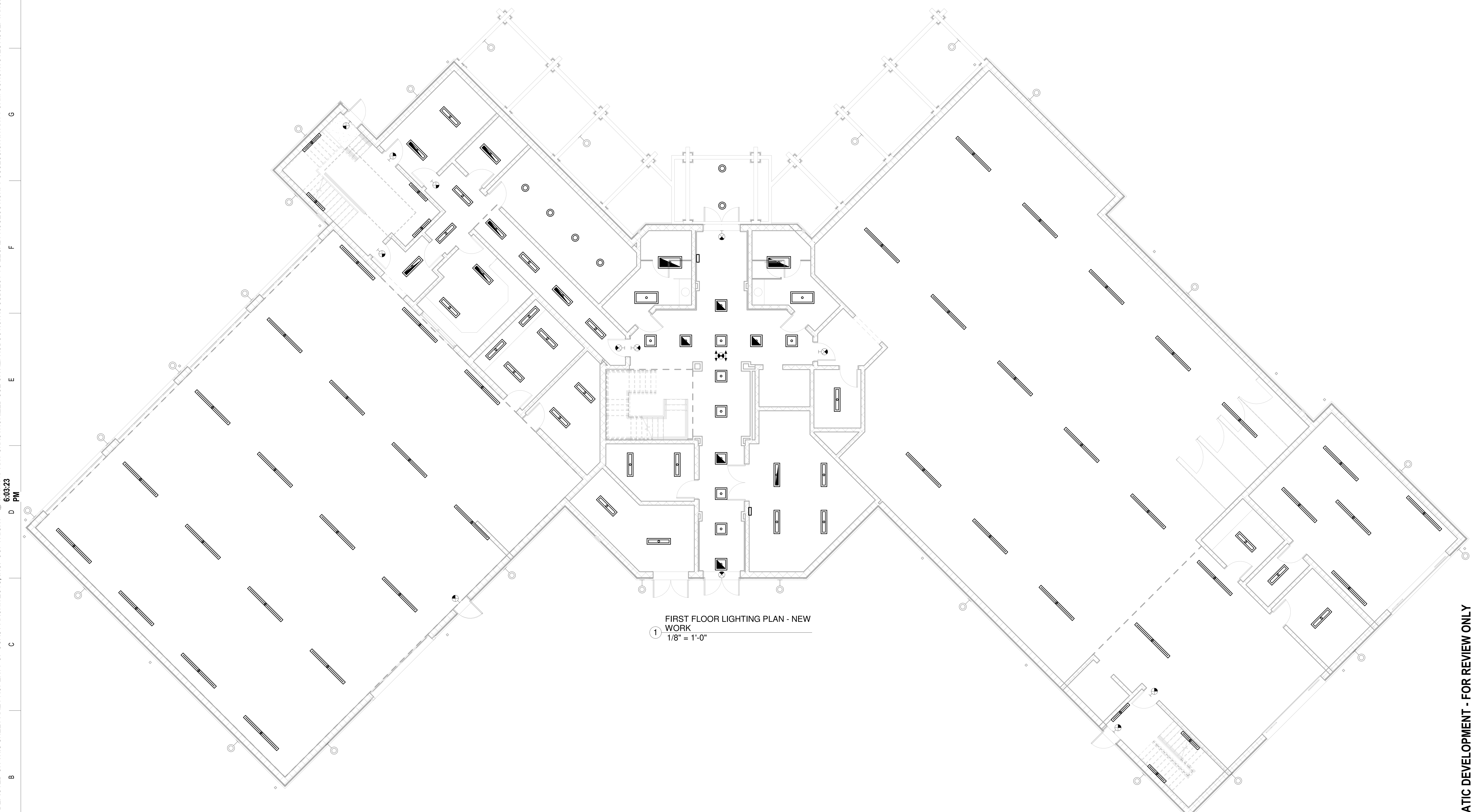

1 FIRST FLOOR LIGHTING PLAN - NEW WORK
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FIRST FLOOR LIGHTING PLAN - NEW WORK

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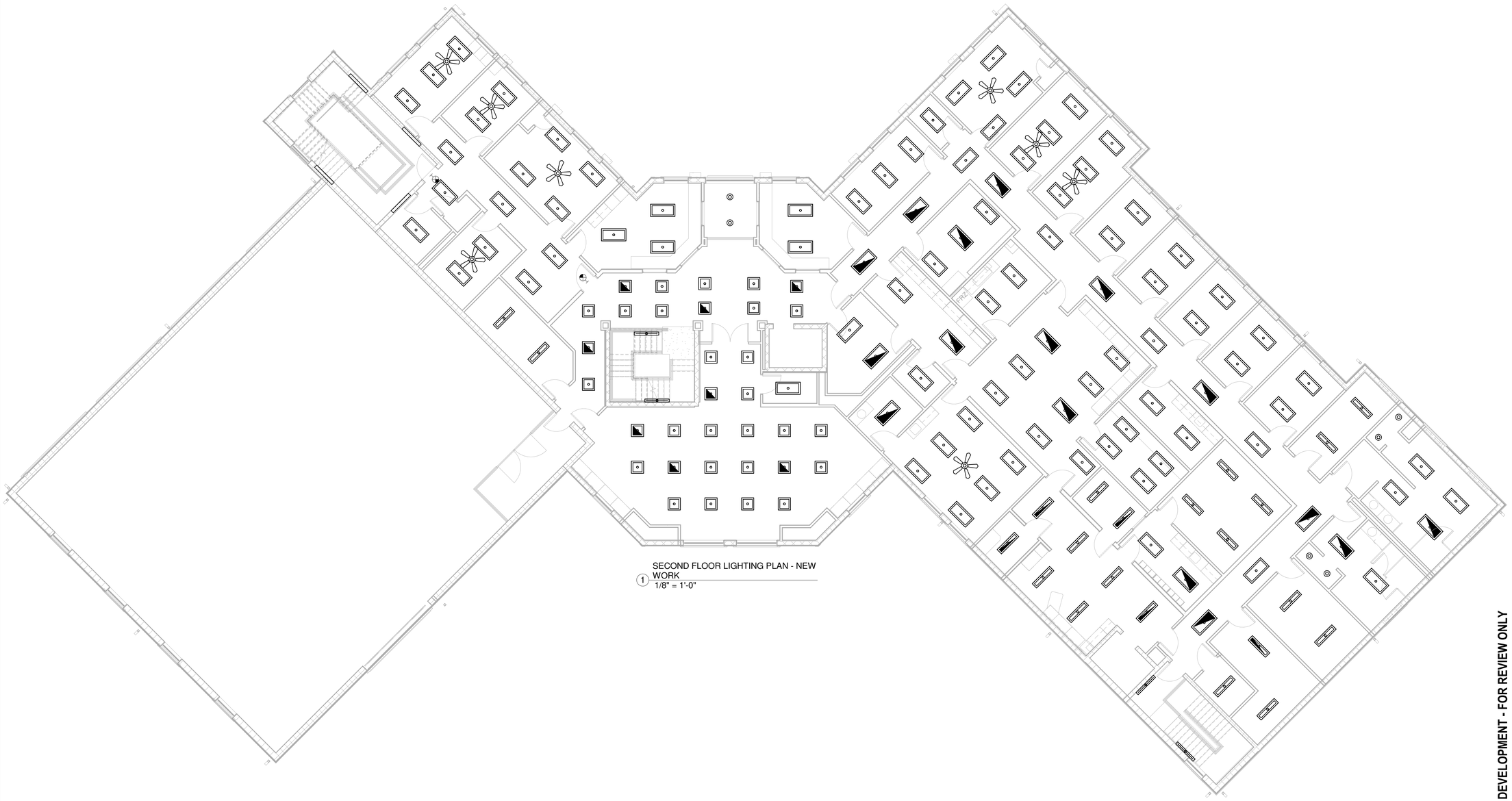

1 SECOND FLOOR LIGHTING PLAN - NEW WORK
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SECOND FLOOR LIGHTING PLAN - NEW WORK

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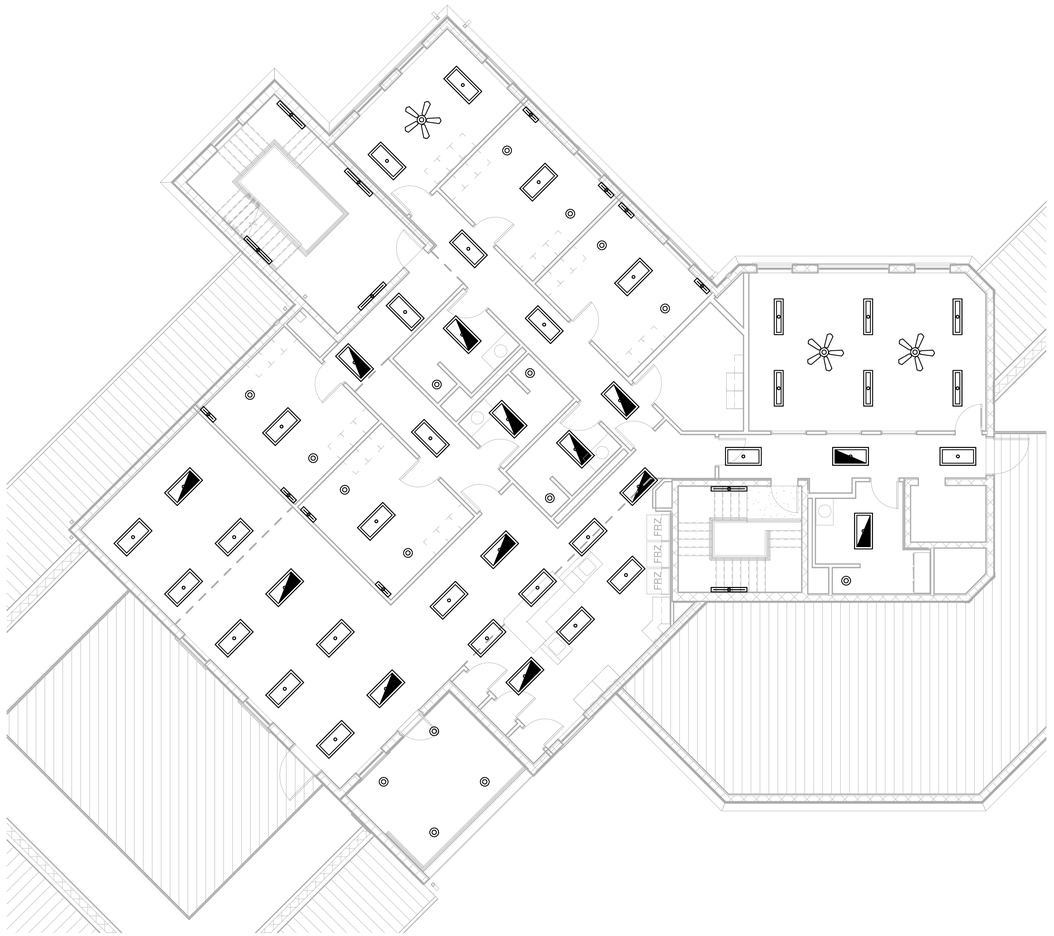

1 THIRD FLOOR LIGHTING PLAN - NEW WORK
1/8" = 1'-0"

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ISLE OF PALMS PUBLIC SAFETY BUILDING
30 J. C. LONG BLVD.
ISLE OF PALMS, SC

SCHEMATIC DEVELOPMENT - FOR REVIEW ONLY

Revisions	
Rev. No.	Rev. Date

DRAWN BY: CJA
CHECKED BY: SDO
DATE: 08/26/19

COAST PROJECT NO 119116.1

THIRD FLOOR LIGHTING PLAN - NEW WORK

E203

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SCHEMATIC ESTIMATE & VARIANCE REPORT

ISLE OF PALMS PUBLIC SAFETY BUILDING REPAIRS

10/04/2019

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
ESSENTIAL	REMEDIATION	1.1 Exterior Siding and Trim and Stucco: Cementitious lap siding does not appear to meet fastening requirements to resist wind loads and might fail in a high wind episode. Trim is a combination of gypsum reinforced fiber-cement and composite wood products that have shown deterioration and failure to hold paint. Stucco lacks proper drainage and buried below the adjacent grade in many areas.	Remove and replace all exterior cementitious siding, and fasten new siding per current IBC 2015 requirements based on wind loads of 159 mph (Risk Category IV). Replace all trim with cementitious trim produced by the same manufacturer as the siding. Remove and replace stucco to address drainage/installation issues and to allow for the air/water barrier to be installed continuous behind both stucco and fiber cement siding	$ 1,432,707	$ 1,432,707	$ -	
ESSENTIAL	REMEDIATION	1.2 Horizontal Bands: Flashing details at horizontal bands and trim appear to be working, but are prone to allow wind-blown rain behind the siding and trim.	Consider simplifying decorative horizontal band details to reduce the potential for water infiltration behind siding. Horizontal band details should be built with basic cementitious trim shapes.	$ -	$ -	$ -	**In with Item 1.1 Exterior Siding and Trim**
ESSENTIAL	REMEDIATION	1.3 Air Barrier Discontinuity: REI has identified that significant air infiltration is occurring, preventing positive pressurization of the building. The original architectural drawings indicate that the air barrier is interrupted at the window openings by wood blocking, and there appears to be discontinuity between the wall air barrier and the roof underlayment. In addition, field exploration found that the adhesive on the perimeter window flashings was incompatible with the air barrier and is failing.	Once all siding is removed, remove all adhesive backed tape around openings and joints. Review the condition of the existing fluid applied air barrier once fully exposed. Repair any damaged areas. Install continuous air barrier at soffit/eave, including additional adhesive backed flashing tapes. If roof is replaced, insure continuity with roof underlayment at top of eave. Install new compatible adhesive backed tape at all opening and joints on building envelope.	$ -	$ -	$ -	**In with Item 1.1 Exterior Siding and Trim**
ESSENTIAL	REMEDIATION	1.4 Weatherstripping at Exterior Doors: The exterior doors have "brush type" weatherstripping which does not sufficiently seal the door from air, and in some cases water infiltration.	Replace weatherstripping on all exterior doors with high quality neoprene gasket type weatherstripping. Adjust door closers to ensure proper closing of doors. Note: If item 3.2 is incorporated into the work, the first floor door weatherstripping is not required on those doors.	$ 9,258	$ 9,258	$ -	
ESSENTIAL	REMEDIATION	1.5 Elevator B Air Infiltration: Elevator B on the police side of the building opens to the exterior on the 1st floor, and to conditioned space on the second floor. Elevator doors do not provide a sealed opening, allowing air/vapor transmission between unconditioned space and conditioned space. This could also contribute to the overall "leakiness" of the building.	Add a 6' x 9' vestibule to the first floor in front of the elevator. Construct the walls of CMU, with 2 flood vents. Include a new 3'-0" x 7'-0" hollow metal door and frame with stainless steel hardware and weatherstripping. Coordinate electronic access into space.	$ 22,640	$ 22,640	$ -	
ESSENTIAL	REMEDIATION	1.6 Metal Roof: We recommend removal of the metal roofing and verification of the proper installation of the air barrier and application of any repairs required to insure continuity of the air barrier of the roofing assembly, and installation of new metal roofing.	Remove and replace metal roof in its entirety to ensure proper installation of the air barrier and application of any repairs required to insure continuity of the air barrier of the roofing assembly, and installation of new metal roofing.	$ 462,518	$ 462,518	$ -	
HIGH	REMEDIATION	1.7 Modified Bitumen Roof: Investigation of modified bitumen roof area was conducted. It is recommended that the roof be thoroughly inspected as a part of the work and all penetrations be resealed and verified to be weathertight. In addition, if budget allows add an additional wear course to the roof.	Inspect, reseal all penetrations, and curbs. Install new wear course	$ 58,191	$ 58,191	$ -	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
ESSENTIAL	REMEDIATION	1.8A Apparatus Bay Doors : Apparatus Bay Doors are corroded and need to be replaced	Remove and replace doors complete and provide doors with factory paint finish that will endure the salt air.	$ 252,218	$ 217,986	$ 34,232	
HIGH	REMEDIATION	1.9 Roll-up Doors : Roll up doors ~~don't appear to meet Wind Borne Debris requirements and~~ are corroded due to salt air.	Remove and replace roll up doors with doors ~~that comply Wind Borne Debris and have a factory finish~~	$ 86,669	$ 72,406	$ 14,263	
ESSENTIAL	REMEDIATION	2.1 Sleeping Unit Fire Separation: The existing non-rated gypsum board walls around the sleeping units on the third floor should be 30 minute rated fire partitions that extend to a 30 minute rated ceiling or to the bottom of the roof deck. Also, the existing third floor assembly does not meet the required 30 min. horizontal separation for the sleeping units. The doors and frames into the sleeping units are not 20 min. fire rated.	Existing gypsum board on sleeping unit walls (OFFICER DORM 301, DORM 302, 303, 325, 316) provides the 30 minute rating per IBC 2003 721.6.2(1), however the walls must be sealed to a new 30 minute rated ceiling. Remove the existing suspended ceiling system and install a new fire-rated ACT suspended ceiling system equivalent to UL Design P203. Fire seal all sleeping room wall penetrations and joints between wall and ceiling. ~~Remove existing light fixtures in sleeping rooms and install new fire-rated fixtures or provide rated enclosures around lights. In addition, the ceilings and light fixtures below the sleeping rooms (primarily the fire department offices) will need to be removed and replaced in the same manner as described above to provide 30 minute protection from the floor below.~~	$ 88,179	$ 54,444	$ 33,734	
ESSENTIAL	REMEDIATION	2.2 Third Floor Corridor Fire Rating: The existing third floor corridor should have 30 minute rated protection for floors, walls and ceilings.	Existing gypsum board on CORRIDOR 306 wall provides the 30 minute rating per IBC 2003 7321.6.2(1). Remove and replace ceiling and light fixtures as described in 2.1. Install 30 minute rated ceiling on second floor below corridor. ~~Remove existing doors and frames (Doors 301, 302, 303, 304, 309, 310, 311, 314, 315, and 316) and install new 20 min. rated doors and frames with closers.~~	$ 74,202	$ 20,520	$ 53,682	
ESSENTIAL	REMEDIATION	2.3 Joist Pockets at Vertical Shaft Walls: The shaft walls (stairs and elevators) are noted to be 1-hour rated. Investigation revealed voids in the walls where steel joists rest in pockets in the CMU walls.	Fill joist pockets with rock wool and fire caulk at all 1 hour rated shaft walls on all three floors.	$ 2,801	$ 2,801	$ -	
ESSENTIAL	REMEDIATION	2.4 Seal Top of Vertical Shaft Walls: The top of 1 hour rated cmu shaft walls on facing the exterior do not extend to the top of the roof deck, or are not completely sealed to the roof deck.	Add 1 layer of 5/8" gypsum board to existing sheathing board at top of wall and seal to deck with mineral wool and fire caulk.	$ 7,002	$ 7,002	$ -	
HIGH	REMEDIATION	2.5 Wood Pergola/Entrance: The existing drawings note the heavy timber wood used at the pergola/entrance to the building to be fire-retardant treated exterior grade. The specifications call for redwood and do not specify fire-retardant treatment. The wood does not appear to be stamped or colored in a manner that indicates it is fire retardant treated. In addition, it has shown significant signs of deterioration from weathering.	Demolish Entire pergola and entrance including pre-cast columns, wood trellis, and covered entry on north side of building. Construct new covered porch using 4 existing precast columns on new footings to support new light gauge metal framed roof structure with standing seam metal roof .	$ 54,616	$ 97,188	$ (42,572)	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
HIGH	REMEDIATION	2.7 Plumbing - Decon room needs a hub drain installed	Install a hub drain in Decon room.	$ 1,556	$ 1,556	$ -	
ESSENTIAL	REMEDIATION	2.8 Plumbing - Water Heaters End Of Useful Life	The solar hot water system in not presently causing any operational problems at the facility. It is responsible for some roof leaks in evidence storage room 245. If the solar hot water system is to be used, the entire system needs to be trouble shot and repairs made to ensure reliability. If the solar hot water system is not going to be used then the solar panels on the roof could be removed as well as the piping to the storage tank and the storage tank tied into the gas hot water heater for additional storage. In any event the water heaters need to be replaced as they are at the end of their useful life.	$ 17,116	$ 17,116	$ -	
ESSENTIAL	REMEDIATION	2.9 Plumbing - Missing Pipe Insulation	Replace missing pipe insulation in various locations throughout the building (e.g. police garage and 1st floor mechanical room).	$ 778	$ 778	$ -	
ESSENTIAL	REMEDIATION	2.10 Plumbing - Men's Room 112 Leaking Urinal	Determine if urinal in Men's room 112 is leaking in CMU wall and make any necessary repairs.	$ 1,579	$ 1,579	$ -	
ESSENTIAL	LIFE CYCLE	2.11 Plumbing - Gas Line Seismic Sensor Training Platform for 3rd floor propane malfunctioning.	Troubleshoot why gas line seismic sensor at training platform for propane to 3rd floor living kitchen has to be reset after emergency generator runs. Also troubleshoot ground level sensor that is prone to nuisance tripping.	$ 3,501	$ 3,501	$ -	
ESSENTIAL	LIFE CYCLE	2.12 Plumbing - Sally Port leaking p-trap	Troubleshoot and repair p-trap with primer in sally port that drips on floor.	$ 856	$ 856	$ -	
ESSENTIAL	LIFE CYCLE	2.13 Plumbing - Loose toilet fixtures throughout facility and improperly installed p-traps	Tighten toilet fixtures throughout the building. Investigate claim by staff that multiple ptraps are installed backwards.	$ 1,867	$ 1,867	$ -	
ESSENTIAL	REMEDIATION	2.14 Plumbing - Abandoned saddle taps Storage 205 and Fire Inspector's Office 203	2 water lines have abandoned saddle taps, remove and repair copper line and insulation. Storage 205 and Fire inspector's office 203	$ 817	$ 817	$ -	
ESSENTIAL	LIFE CYCLE	2.15 Fire Protection - Corroded sprinkler piping and heads in Sally Port	Replace the sprinkler piping in the garage/sally port area in its' entirety.	$ 51,115	$ 51,115	$ -	
ESSENTIAL	REMEDIATION	2.16 Fire Protection - Improper sprinkler coverage at front four folding doors in the Apparatus Bay	Correct areas of no coverage at front 4 folding doors for Apparatus bay , back roll up doors and along wide depth beam. Majority of heads are lower than NFPA allowable 12" from deck.	$ 9,149	$ 9,149	$ -	
ESSENTIAL	REMEDIATION	2.17 Fire Protection - No sprinkler coverage at Training Stairwell.	Provide automatic fire sprinkler coverage in training stairwell.	$ 7,002	$ 7,002	$ -	
ESSENTIAL	REMEDIATION	2.18 Fire Protection - Seismic restraints not installed on sprinkler piping as per Code.	Install required "seismic" restraints on fire sprinkler systems.	$ 11,670	$ 11,670	$ -	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
ESSENTIAL	REMEDIATION	2.19 Fire Protection - Improper annular space around sprinkler piping penetrations.	Correct multiple penetrations through CMU walls do not have enough annular space to allow for seismic movement.	$ 17,925	$ 17,925	$ -	
ESSENTIAL	REMEDIATION	2.20 Fire Protection - Sprinkler Heads not within 12" of deck above	Correct 1st floor Fire sprinkler in exposed areas on fire side are not within 12" of deck above and several heads that are "obstructed".	$ 1,486	$ 1,486	$ -	
ESSENTIAL	REMEDIATION	2.21 Fire Protection - Sprinkler heads installed too close to ceiling fans in Room 203 and 208	Correct 2 heads in fire side office space are installed too close to ceiling fans in rooms 203 and 208.	$ 3,579	$ 3,579	$ -	
ESSENTIAL	REMEDIATION	2.22 Fire Protection - Missing sprinkler heads Radio/Data 240	Install Heads (3) in Radio/data 240 room that have been removed and plugs installed.	$ 1,362	$ 1,362	$ -	
ESSENTIAL	REMEDIATION	2.23 Fire Protection - Heads not within 12" of deck in Weight Room 305	Correct heads that are not within 12" of deck in weight room 305.	$ 2,490	$ 2,490	$ -	
ESSENTIAL	REMEDIATION	2.24 Fire Protection - Sprinkler heads missing in three (3) food pantries in 3rd Floor Living Quarters	Provide sprinkler coverage for the three food pantries in 3rd floor living quarters.	$ 1,478	$ 1,478	$ -	
ESSENTIAL	REMEDIATION	2.25 Fire Protection - Loose FDC in Training Wall	Correct loose FDC in Training wall.	$ 661	$ 661	$ -	
ESSENTIAL	REMEDIATION	2.26 HVAC - Current HVAC design does not provide enough positive conditioned outside air to control humidity and positively pressurize the building.	Install dedicated outside air units to provide conditioned outside air to the building to control humidity and positively pressurize the building to prevent infiltration. Differential pressure sensors would be used on each floor to maintain pressure in windy conditions as well as when doors are open to the exterior. Approximately 3,000 CFM of conditioned outside air (50-degree dew point) will need to be provided to the building via dedicated outside air units, 750 CFM to the first and third floors and 1,500 CFM to the second floor. The units for the second and third floors could be located on the roof and the unit for the first floor can be located in the under-building storage area as long as installed on platform to keep out of potential flood areas. Some of the units could possibly be combined to effect cost savings but this would have to be visited in the phase 2 design. The dedicated outside air could be ducted to the air handling units and/or to the occupied spaces. For this building design and based on the location, we would recommend providing all the outside air for the building using the dedicated outside air unit listed above. We would recommend removing the outside air louvers and ductwork run to each existing air handler.	$ 520,109	$ 578,521	$ (58,412)	
ESSENTIAL	REMEDIATION	2.27 HVAC - Third Floor Sleeping Quarters HVAC System needs replacement and is not operating properly.	Replace the VRF system installed on the third floor with a new VRF system including replacing condenser ODU-1, refrigerant line sets and all the fan coils. These units are 10 years old and under the harsh coastal environment need replacing.	$ 295,099	$ 295,099	$ -	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
HIGH	LIFE CYCLE	2.28 HVAC - Degraded/corroded condensers for AHU-2	Replace condensers for the AHU-2 installed during original construction. These units are 10 years old and under the harsh coastal environment need replacing. This will require replacement of AHU-2 and the refrigerant line sets as well as they use R-22 refrigerant.	$ 50,103	$ 50,103	$ -	
HIGH	LIFE CYCLE	2.29 HVAC - Degraded/corroded condensers for HP-1 and HP-3	Replace HP-1 and HP-3 installed during the original construction and associated air handlers AH-1 and AH-3. These units are 10 years old and under the harsh coastal environment need replacing.	$ 50,570	$ 50,570	$ -	
ESSENTIAL	REMEDIATION	2.30 HVAC - AH-2 Equipment Elevated Fungi Levels	Outdoor units HP-2 and AH-2 were replaced in 2018. Based on age and condition these units do not need replacing. However, Trident Environmental reported elevated fungi present for the sample collected from the 2nd floor Police side Mechanical Room specifically the interior of AH-2. Based on this we would recommend replacing AH-2 and the associated ductwork. HP-2 can be re-used.	$ 49,014	$ 49,014	$ -	
HIGH	LIFE CYCLE	2.31 HVAC - AHU-1 Replacement	Replace air handling unit AHU-1 installed during original construction. This unit is 10 years old and will need replacing. If this unit uses R-22 refrigerant, then the refrigerant line set as well as the condensers will need replacement.	$ 56,794	$ 56,794	$ -	
HIGH	LIFE CYCLE	2.32 HVAC - CU-4 and associated AH-4 should be replaced	Replace condensing unit CU-4 and associated air handling unit AH-4. These units are 10 years old and under the harsh coastal environment need replacing. Ensure room being conditioned is properly sealed to allow unit to perform as designed.	$ 16,338	$ 16,338	$ -	
ESSENTIAL	LIFE CYCLE	2.33 HVAC - KH-2 Kitchen Hood Fans not operating properly	Troubleshoot and repair the fan(s) to kitchen hood KH-2.	$ 1,556	$ 1,556	$ -	
ESSENTIAL	LIFE CYCLE	2.34 HVAC - Motion sensor for exhaust fan not operational in Men's 2nd floor locker room	Replace the motion detector for the second-floor men's locker room and bring the exhaust for this area back in operation.	$ 778	$ 778	$ -	
ESSENTIAL	REMEDIATION	2.35 HVAC - Improper Exterior Louvers	Replace any remaining existing exterior louvers not removed as referenced above with ones that will prevent rain and moisture from entering the building. We would like to see louver IL-2 moved from the apparatus bay side of the building but this looks to be problematic due to building design. IL-2 is a motorized louver serving the training stairwell that currently does not appear to be operating correctly. It is frozen in the open position and needs to be repaired. This louver and associated fan are operated on a switch and could be coordinated with vehicle operations.	$ 23,340	$ 23,340	$ -	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
ESSENTIAL	LIFE CYCLE	2.36 HVAC - Apparatus Bay Carbon Monoxide System not currently operational	Troubleshoot and repair the carbon monoxide system. Test the system once complete. If system cannot be repaired them it will need to be replaced.	$ 28,008	$ 28,008	$ -	
HIGH	REMEDIATION	2.37 HVAC - Shop Room 104 separate conditioning of space	Install a ¾ ton ductless split system unit for room shop 104 if it is to be conditioned and remove the supply and return ductwork and cap from AH-2. Seal top of walls in this room to keep chemical/fuel storage odors from migrating to adjacent rooms.	$ 15,560	$ 15,560	$ -	
HIGH	REMEDIATION	2.38 HVAC - Storage Room 106 separate conditioning of space	Install a ¾ ton ductless split system unit for yard equipment storage room 106.	$ 15,560	$ 15,560	$ -	
ESSENTIAL	REMEDIATION	~~2.39 HVAC - Fans within 10 feet of KH-1 Supply Fan~~	~~Relocate all exhaust fans that are installed within 10 feet of KH-1 supply fan.~~	$ 16,338	$ -	$ 16,338	
ESSENTIAL	REMEDIATION	2.40 HVAC - Float Switches missing or not operational	Install float switches on all new and existing mechanical pans.	$ 3,890	$ 3,890	$ -	
ESSENTIAL	REMEDIATION	2.41 HVAC - Testing and Balancing of complete system	Once all listed equipment is replaced, we would recommend a new TAB be performed on all equipment new and existing.	$ 14,782	$ 14,782	$ -	
ESSENTIAL	REMEDIATION	2.42 HVAC - GH-1 and GH-2 flue pipe repairs needed and needs to be routed per original drawings and interlock correction	Repair flue pipe to GH-1 and route per original drawing set. All other flue pipe should be inspected for proper installation and integrity. Correct issue with interlock on GH-1 and GH-2 to ensure they only run with bay doors closed.	$ 3,890	$ 3,890	$ -	
ESSENTIAL	LIFE CYCLE	2.41 Fuel Oil Piping - Fuel oil piping inspection, rust removal, and painting	Verify the integrity of the fuel oil piping, remove the surface rust and repaint the fuel oil piping.	$ 9,336	$ 9,336	$ -	
ESSENTIAL	REMEDIATION	2.42 Ground Lugs Switchboard MDP - We observed that there were multiple ground conductors under the same lug at the main service ground. Per the 2005 NEC, Article 110.14(A), the lug shall be identified as such to allow for the connection of multiple conductors. No identification was observed. Although the ground conductors were installed incorrectly, the building ground tested well within acceptable levels.	Provide additional lugs on the ground bar or replace ground lug at switchboard 'MDP' with suitable lug for multiple conductors per NEC Article 110.14(A).	$ 1,789	$ 1,789	$ -	

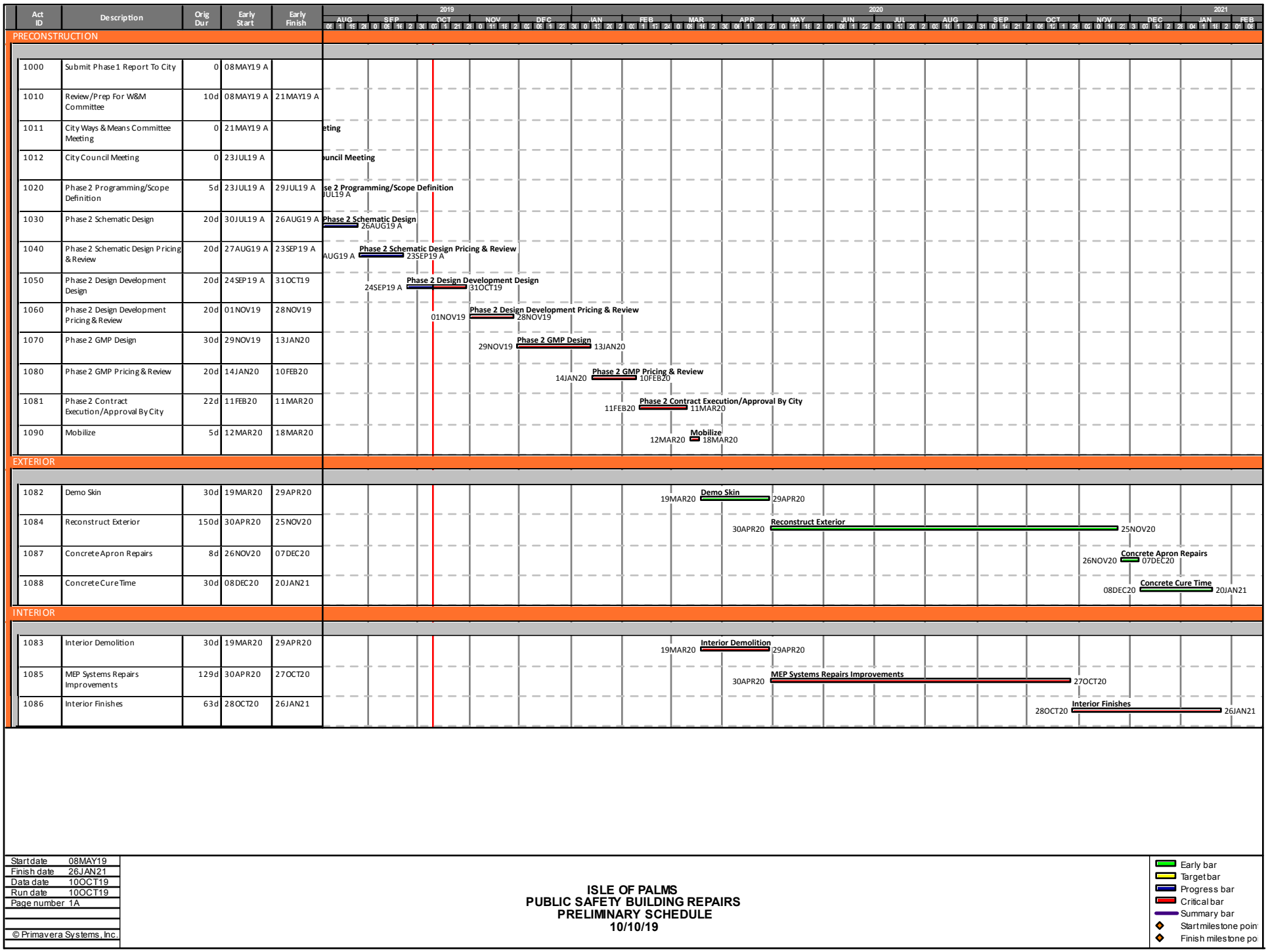
Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
ESSENTIAL	REMEDIATION	2.43 Neutral Ground Bonding Screw - The Neutral-Ground Bonding Screw is installed in most of the electrical panelboards. Per 2005 NEC, article 408.40, the neutral bus and ground bus in a panelboard shall not be bonded except at the main service entrance. Bonding of the neutral and ground bus in any panel other than the main service entrance can induce stray electrical current and cause ground loops. We cannot confirm it, but this could very well be what is causing voltage issues on the first and third floor of the building. For some reason, this screw has been removed from all of the panelboards on the second floor (Police Side of building) and fewer issues have been reported in this area than on the other floors where the neutral-ground bonding screw are still installed.	Remove Neutral-Ground Bonding screw per NEC Article 408.40 and ensure there is no bond between the neutral bus and the ground bus in the following panelboards: • Panelboard '1PB' • Panelboard '1PA' • Panelboard '1EA' • Panelboard '1EB' • Panelboard '3E' • Panelboard '3EP'	$ 467	$ 467	$ -	
ESSENTIAL	REMEDIATION	2.44 Conduit Bushings Missing - Conduit bushings are missing in various locations entering panelboards per NEC Article 314.7	Provide conduit bushings for all conduits entering panelboards per NEC Article 314.7.	$ 3,890	$ 3,890	$ -	
ESSENTIAL	REMEDIATION	2.44 Panelboard Schedule Inaccuracy - Panelboard schedules are not consistent and should be.	Confirm all panelboard schedules are correct and up to date. Provide new typewritten panelboard schedules as required. All spare circuit breakers should be in the 'OFF' position.	$ 5,446	$ 5,446	$ -	
ESSENTIAL	REMEDIATION	2.45 Transient Surge Suppressor - The Transient Voltage Surge Suppressor (TVSS) is currently mounted to the wall on the left side of the switchboard and the conductors are routed up and over into the second section. Refer to 2005 NEC, Article 285.12 which states that the conductors not be "any longer than necessary and shall avoid unnecessary bends." Installation of TVSS must also meet manufacturers guidelines for maximum conductor length.	Relocate Transient Voltage Surge Suppressor on main switchboard 'MDP' to reduce conductor length per NEC Article 285.12 and install per manufacturer's recommendations.	$ 1,323	$ 1,323	$ -	
ESSENTIAL	REMEDIATION	2.46 Open Junction Boxes Above Ceilings - Above the ceiling on the second floor in the Fire Department office area, there was at least one junction box that exceeded the code allowable fill ratio. This junction box and any others found to exceed code allowable limits should be replaced. Refer to NEC Article 314.16 for allowable fill calculations.	Above the ceiling on the second floor in the Fire Department office area, there was at least one junction box that exceeded the code allowable fill ratio. This junction box and any others found to exceed code allowable limits should be replaced. Refer to NEC Article 314.16 for allowable fill calculations.	$ 4,435	$ 4,435	$ -	
ESSENTIAL	REMEDIATION	2.47 Improper Working Clearance In Front Of Panel - Piping is blocking disconnects at second floor mechanical space and doesn't meet Code	Relocate existing electrical disconnect and/or mechanical piping in second floor mechanical space where piping is installing directly in front of disconnect. Code required working clearance is not satisfied and must be corrected. In general, confirm code required working clearance is provided for all electrical panelboards, disconnects or other associated equipment as required by NEC.	$ 5,057	$ 5,057	$ -	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
HIGH	REMEDIATION	2.48 Correct Conductor Routing MDP - Correct conductor routing in switchboard 'MDP' so that conductors for each circuit breaker are routed together and follow the same path (i.e. not routed through framework for bussing).	Correct conductor routing in switchboard 'MDP' so that conductors for each circuit breaker are routed together and follow the same path (i.e. not routed through framework for bussing).	$ 3,423	$ 3,423	$ -	
ESSENTIAL	REMEDIATION	2.49 Loose Shunt Trip Wiring MDP	Existing wiring for shunt trip circuit breakers in Switchboard MDP is loose and should be neatly routed and properly secured to avoid damage.	$ 545	$ 545	$ -	
ESSENTIAL	REMEDIATION	2.50 Empty Conduits MDP	Seal all empty conduits stubbed up into switchboard 'MDP' enclosure.	$ 389	$ 389	$ -	
ESSENTIAL	REMEDIATION	2.51 Ground Lug Bushings Missing Misc Panelboards	Provide ground lug bushings in panelboard enclosures for all conduits 1" and larger. Bond grounding conductor as required to ground bus in each panelboard.	$ 3,890	$ 3,890	$ -	
ESSENTIAL	REMEDIATION	2.52 Bonding Roof Mounted Equipment To Lightning Protection System	All metallic roof-mounted equipment shall be bonded to lightning protection system. Check all existing connections and ensure that all components of system are installed as required by current codes and standards. Once complete, we suggest having the system checked and recertified for UL compliance and a master "C" provided.	$ 11,670	$ 11,670	$ -	
ESSENTIAL	LIFE CYCLE	2.53 Corroded Police Sally Port Electrical Items	Replace all existing electrical raceway and conductors, to include junction boxes, conduit, etc. in Police Department parking garage space underneath building. New materials shall be rated for installation in corrosive environments.	$ 21,084	$ 21,084	$ -	
ESSENTIAL	LIFE CYCLE	2.54 Corroded Bay Doors Disconnects and Control Boxes	Replace disconnects and control box enclosures for bay doors with weatherproof enclosures suited for installations in corrosive environments. Interlock controls with heaters to function as designed. Coordinate with owner and ensure proper function of remote controls and automatic close features as requested by Fire Department. Assist other contractors in determining cause of water intrusion into the existing electrical control cabinets. Prior to replacement, a solution must be presented to correct future water related issues.	$ 28,786	$ 28,786	$ -	
HIGH	LIFE CYCLE	2.55 Cleaning of Panelboards	All electrical panelboards and enclosures need to be cleaned and a normal preventive maintenance schedule should be implemented.	$ 4,668	$ 4,668	$ -	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
ESSENTIAL	REMEDIATION	2.56 Failing and Problematic Light Fixtures	Replace ALL lighting throughout building, to include exterior wall mounted lighting and landscape/flag pole lighting fixtures. It is our suggestion that new energy efficient LED lighting be installed as required to suit existing building ceiling systems. Fixture types could be replaced with like “in kind” replacements (i.e. fluorescent 2x2s replaced with LED 2x2s, fluorescent strips replaced with LED strips, etc.). All lighting in training tower, truck bays, parking garage and any other area subject to the salt air environment should be made of weatherproof materials and provided with appropriate seals and gaskets. The lighting replacement would include replacement of existing fixtures for emergency egress as well as exit signs installed per architectural plans showing correct paths of egress. Provide light fixture tie wires and install with three complete turns as required by 2003 IBC 803.9.1.1 and ASTM C636. All new fixtures shall be provided with proper support clips and attached to ceiling grid as required. Additional lighting may be required in the Apparatus Bay to achieve requested lighting levels as required by the Fire Department.	$ 270,744	$ 270,744	$ -	
ESSENTIAL	REMEDIATION	2.57 Lighting Control Panel Evaluation	Lighting control panel should be evaluated to ensure proper function. New typewritten schedule should be provided to indicate what lighting circuits are controlled through control panel.	$ 70,020	$ 70,020	$ -	
HIGH	REMEDIATION	2.58 Lighting Occupancy Sensors	Existing occupancy sensors should be tested and replaced as necessary to ensure proper function and control of lighting as required.	$ -	$ -	$ -	SEE ITEM 2.57
ESSENTIAL	REMEDIATION	2.59 Fire Alarm System	Replace fire alarm system with new updated system to reduce maintenance costs. Recommended system to be installed would be Simplex, Notifier-Honeywell, Gamewell-FCI, Edwards Signaling or equal.	$ 101,140	$ 101,140	$ -	
ESSENTIAL	LIFE CYCLE	2.70 Replace Existing Generator	Replace existing generator with new generator and day tank in its current location	$ 124,480	$ 124,480	$ -	
HIGH	REMEDIATION	3.1 South Side Entrance: The south side (parking lot) side public entrance doors into the first floor lobby are not covered by an awning or porch.	Construct a porch structure as described in item 2.5 above on the south side to provide additional rain protection to the public entrance.	$ 36,877	$ 36,877	$ -	
ESSENTIAL	REMEDIATION	3.2 Apparatus Bay Wall: Building occupants have smelled exhaust fumes from the apparatus bay, which may come from joist pockets, and other potential penetrations in the CMU wall between the fire department offices and the apparatus bay. In addition, the drawings indicate that the wall may have some cmu foam inserts for insulation, but it is our opinion that additional continuous insulation would provide a better thermal barrier at this location.	Remove all gypsum board walls and ceilings along the CMU wall separating the fire department offices and the apparatus bay. Seal any apparent voids. Install 2 1/2" thick rigid foam insulation panels between new 2 1/2" wall studs along wall on office side, finish with 5/8" gypsum board (note: this work will require all interior finishes in the affected rooms to be removed and replaced).	$ 50,414	$ 50,414	$ -	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
~~HIGH~~	~~REMEDIATION~~	~~3.4 Sump Pump in Elevators: The bottom of the elevator pits do not appear to include sump pits or pumps for the elimination of flood water in case of flood.~~	~~Cut and demolish approximately 2'x2' area in bottom of each elevator pit, form and pour new concrete pit, install new sump pump. Coordinate piping for drainage.~~	$ 15,093	$ -	$ 15,093	
ESSENTIAL	REMEDIATION	3.5 Damaged/Failing Concrete Apron	The concrete apron on the front of the fire station in front of the Apparatus Bay is cracking and settling. Recommend removing concrete and compacting subgrade to proper compaction levels and replaced concrete paving	$ 107,364	$ 107,364	$ -	
HIGH	REMEDIATION	3.6 Cracked/Settling Sidewalks	Several areas of sidewalk around the building are settling and cracking and should be replaced to avoid tripping hazards. Recommend removing and replacing these areas.	$ 30,770	$ 30,770	$ -	
HIGH	REMEDIATION	3.7 Sally Port Exposed Rebar In Slab On Grade	There are several locations where the rebar is exposed on the slab on grade. Recommend repairing to ensure rebar is encapsulated in concrete	$ 8,371	$ 8,371	$ -	
HIGH	REMEDIATION	3.8 Add Trench Drain at Evidence Garage Roll-up Door	Evidence of rainwater draining back in to Evidence Garage at roll up door. Recommend adding a trench drain	$ 8,247	$ 8,247	$ -	
ESSENTIAL	LIFE CYCLE	3.9 Corrosion of structural steel in Sally Port	Recommend removing all rust and cleaning steel surfaces and painting steel items with high performance paint.	$ 243,545	$ 243,545	$ -	
HIGH	LIFE CYCLE	3.10 Corrosion of structural steel in Apparatus Bay	Recommend removing all rust and cleaning steel surfaces and painting steel items with high performance paint.	$ 56,794	$ 56,794	$ -	
HIGH	LIFE CYCLE	3.11 Corrosion on exterior hollow metal doors and associated door hardware	Recommend replacing hollow metal doors and frames with galvanized doors/frames and installing stainless steel hardware	$ 43,801	$ 43,801	$ -	
HIGH	LIFE CYCLE	3.12 Repair loose floor tiles at stairwell landings	Recommend regluing tiles back down at landings	$ 1,712	$ 1,712	$ -	
ESSENTIAL	REMEDIATION	3.13 Cleaning of HVAC equipment and ductwork and grills	Recommend cleaning of all hvac equipment, ductwork, and grills throughout	$ 77,800	$ 77,800	$ -	
HIGH	LIFE CYCLE	3.14 South parking lot storm sewer piping needs cleaning and protection from gravel going back in	Recommend vacuuming out the entire storm sewer piping at the South Parking Lot	$ 25,129	$ 25,129	$ -	
ESSENTIAL	REMEDIATION	3.15 Police Stair/Elevator Room Ratings: Improper fire rating at Police side stair and elevator control room	Recommend rating the ceilings above the Police stair and elevator control room.	$ 23,340	$ 23,340	$ -	

Priority	Reason	Issue	Recommended Improvement	Conceptual Estimate Amount	Schematic Estimate Amount	Variance	Notes
ESSENTIAL	REMEDIATION	3.16 Radio/IT Room Condensation: Radio/IT Room requires the AC to run at a very low temperature in order to cool the equipment. At certain points of the year condensation can form on the roof deck above the equipment which could potentially damage the equipment in the room.	Recommend installing closed cell insulation with ignition barrier on the exposed roof deck in this room	$ 6,224	$ 6,224	$ -	
TOTALS				**$ 5,256,779**	**$ 5,190,421**	**$ 66,358**	



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ISLE OF PALMS
PUBLIC SAFETY BUILDING REPAIRS
PRELIMINARY SCHEDULE
10/10/19

- Early bar
- Target bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone poin
- Finish milestone po