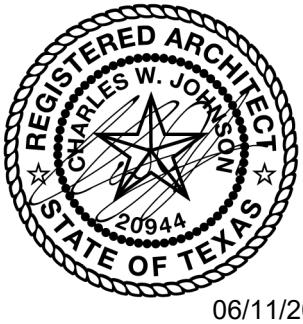
Project No. 25-0067.00

June 11, 2026



06/11/2026

ADDENDUM NO. 3
TO THE
DRAWINGS AND PROJECT MANUAL
FOR
NEW OPPORTUNITY AWARENESS CENTER
KATY INDEPENDENT SCHOOL DISTRICT
KATY, TEXAS

VLK
20445 State Highway 249, Suite 350
Houston, TX 77070
281.671.2300
vlkarchitects.com

3.1 GENERAL

A. This addendum modifies the drawings and project manual, dated May 26, 2026, as noted within and shall become part of the Contract Documents.

B. Each holder of proposal documents registered with the Architect will receive a copy of the addendum. Each prime proposer is responsible for distribution of information conveyed by this addendum to its sub-proposers and suppliers.

C. Proposers shall acknowledge receipt of this addendum in the space provided on the proposal form. Failure to do so may subject proposer to disqualification.

3.2 TABLE OF CONTENTS

A. Delete this Document previously issued in Addendum No, 2 and insert attached **revised** “Table of Contents”.

3.3 SECTION 00 21 13 - INSTRUCTION TO OFFERORS

A. Delete this Section in its entirety and insert attached **revised** Section.

3.4 SECTION 00 42 00 - COMPETITIVE SEALED PROPOSAL FORM – BASE PROPOSAL

A. Delete this Section in its entirety and insert attached **revised** Section.

3.5 SECTION 00 42 10 – COMPETITIVE SEALED PROPOSAL FORM – ALTERNATES AND UNIT PRICES

A. Delete this Section in its entirety and insert attached **revised** Section.

3.6 SECTION 01 21 00 - ALLOWANCES

A. Delete this Section in its entirety and insert attached **revised** Section.

3.7 SECTION 07 26 00 - VAPOR RETARDERS

A. Delete this Section previously issued in Addendum No, 2 and insert attached **revised** Section.

3.8 SECTION 08 80 00 - GLAZING

A. Delete this Section in its entirety and insert attached **revised** Section.

3.9 SECTION 09 30 00 - TILING

A. Delete this Section in its entirety and insert attached **revised** Section.

3.10 SECTION 09 68 00 - CARPETING

A. Delete this Section in its entirety and insert attached **revised** Section.

3.11 SECTION 10 14 00 - IDENTIFYING DEVICES

A. Delete this Section in its entirety and insert attached **revised** Section.

3.12 SECTION 31 31 00 - SOIL TREATMENT

A. Delete this Section in its entirety.

3.13 SECTION 32 18 16.13 - PLAYGROUND PROTECTIVE SURFACING

A. This Section, attached hereto, is entirely new and hereby made a part of this addendum.

3.14 CIVIL ADDENDUM ITEMS

A. Attached document by Adico Consulting Engineers shall hereby become a part of this addendum.

3.15 STRUCTURAL ADDENDUM ITEMS

A. Attached document by Matrix Structural Engineers shall hereby become a part of this addendum.

3.16 MECHANICAL, ELECTRICAL AND PLUMBING ADDENDUM ITEMS

A. Attached document by LTY Engineers shall hereby become a part of this addendum.

3.17 REVISED DRAWINGS

A. Sheet Nos. INDEX, C5.00, C6.00, C7.00, L1.01, A1.11, A1.21, A2.11, A2.12, A2.61, A4.01, A4.11, A4.21, A4.31, A4.32, A5.11, A5.21, A5.22, A6.11, A7.01, A7.21, A9.01, S2.00, S2.01, S3.2, S3.3, S3.4, S3.5, S4.2, S5.1, M0.00, M2.11, M2.21, M4.11, M5.00, M6.00, M6.01 M7.01, P1.11, P2.10, P2.11, P3.01, P3.02, P3.03, P4.01, E0.00, E1.11, E2.11, E2.21, E2.31, E3.00, E4.00, E5.00, E5.01, E5.02, dated June 11, 2026 and attached hereto, are revised drawings and are hereby made a part of this addendum.

3.18 NEW DRAWINGS

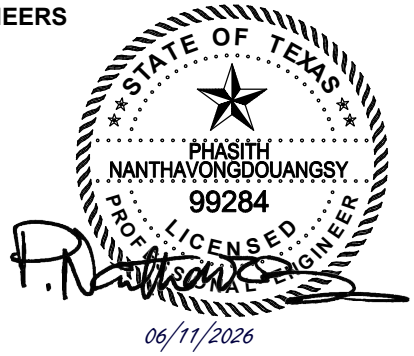
A. Sheet No. A2.13, dated June 11, 2026, attached hereto, are new drawings and are hereby made a part of this addendum.

END OF ADDENDUM NO. 3

June 11, 2026

ADICO, LLC. CONSULTING ENGINEERS
TBPE No. F-16423

Phasith Nanthavong, P.E.



CIVIL CONSULTANT, ADDENDUM No. 3

1. C5.00 - SITE UTILITY PLAN

A. Revised 6-inch fire line connection and 4-inch domestic water line connection to building, to accommodate the addition of the pump room.

2. C6.00 - STORM PLAN

A. Revised location of Storm Inlet A3.1 and lengthened the connecting 8-inch storm pipe.

B. Added storm downspout connections at each corner of the proposed building, to match current site plan downspout locations. Lengthened 10-inch storm pipe at east side downspout collector pipe.

3. C7.00 - GRADING PLAN

A. Revised grading around the new pump room addition.

4. Specification: Section 31 31 16 – TERMITE CONTROL

A. Part 1.3 SUBMITTALS, B.4, replaced Alvin ISD with Katy ISD.

B. Part 3.3 APPLICATION, GENERAL, added C. and D. regarding application of vertical barrier and application of horizontal barrier, termiticide.

END OF ADICO ADDENDUM No. 3 ITEMS

June 11, 2026

STRUCTURAL ADDENDUM NO. 3 ITEMS

DRAWINGS

Matrix Structural Engineers
TBPE Firm Registration No. F-2640



1. **S2.00-Founation Plan-Overall**
   - A. Add enlarged foundation plan for alternate pump room.
   - B. Clarify contraction joint spacing at polished concrete.
2. **S2.01-Mechanical Platform Framing Plan-Overall**
   - A. Clarify note at overhead manual grille.
   - B. Clarify location of operable partition.
3. **S3.2-Typical Foundation Details**
   - A. Add interior grade beam detail 4.
   - B. Clarify rebar hook at top and tie spacing in detail 5.
4. **S3.3-Typical Foundation Details**
   - A. Delete detail 13 for ramp.
5. **S3.4-Typical Foundation Details**
   - A. Add detail 19 for removable bollard.
6. **S3.5-Typical Foundation Details**
   - A. Clarify notes in detail 3 and 4.
   - B. Clarify welding size in detail 2.
7. **S4.2-Typical Floor Details**
   - A. In detail 11, clarify welding symbol and length.
   - B. In detail 19. Clarify plate location to have plate inside face flush with exterior finish.
   - C. In detail 20, clarify the sleeve size.
8. **S5.1-Typical CMU Wall and Canopy Details**
   - A. In detail 10, clarify bottom of beam elevation.
   - B. In detail 15, clarify detail reference for loose lintel schedule.
   - C. In detail 17. Clarify plate location to have plate inside face flush with exterior finish.

END OF MATRIX STRUCTURAL ENGINEERS ADDENDUM ITEMS



June 11, 2026

MEP ADDENDUM NO. 3 ITEMS

SPECIFICATIONS

1. SECTION 21 30 00 -FIRE PUMP SYSTEMS

A. Added this section entirely.

2. SECTION 22 11 23 -DOMESTIC WATER BOOSTER PUMP

A. Added this section entirely.

3. SECTION 26 36 32 – AUTOMATIC TRANSFER SWITCHES ALTERNATE

A. Section 3.1 A and Section 3.1 B have been modified to include ATS-FP.

DRAWINGS

4. SHEET M0.00 – MECHANICAL ISOMETRIC VIEW

A. Added date under seal.

5. SHEET M2.11 – MECHANICAL LEVEL ONE FLOOR PLAN

A. Resized all return air path to accommodate path of relief.

B. Added relief air louvers and accessories.

C. Specified Sequence of Operation for SF-1 and 2.

D. Added date under seal.

6. SHEET M2.21 – MECHANICAL PIPING FLOOR PLAN

A. Added note 7 to Mechanical Piping Notes.

B. Added date under seal.

7. SHEET M4.11 – MECHANICAL YARD

A. Shifted ACU-1B to avoid conflicts with relief air louver.

B. Added notes to coordinated EUH-1 location.

C. Rearranged riser room to accommodate fire pump equipment.

D. Added date under seal.

8. SHEET M5.00 – MECHANICAL SCHEDULES

A. Added schedule for Sound Attenuators

B. Added control valve configuration to each AHU.

C. Added date under seal.

9. SHEET M6.00 – MECHANICAL DETAILS

A. Revised note on details 13 and 14.

B. Added date under seal.

10. SHEET M6.01 – MECHANICAL DETAILS

A. Revised note on details 1 and 2.

B. Added date under seal.

11. SHEET M7.01 – MECHANICAL SCHEMATICS

A. Removed preheat coil from VAV AHU Control Schematics to reflect project scope.

B. Added date under seal.

12. SHEET M8.01 – MECHANICAL SCHEMATICS

A. Added date under seal.

13. SHEET P1.11 — PLUMBING SITE PLAN

A. Added gas piping routing to serve the emergency generator.

B. Added alternate site plan showing the expanded riser room configuration for the fire pump and domestic water booster pump equipment.

C. Added date under seal.

14. SHEET P2.10 — PLUMBING UNDERGROUND FLOOR PLAN

A. Updated riser tags for improved clarity and coordination with plumbing riser diagrams.

B. Revised sink tags to match scheduled plumbing fixtures.

C. Removed floor sink at the dishwasher location and revised the waste connection to discharge through the adjacent sink.

D. Added date under seal.

15. SHEET P2.11 — PLUMBING LEVEL ONE FLOOR PLAN

A. Added two wall hydrants on the north exterior wall.

B. Updated riser tags for improved clarity and coordination with plumbing riser diagrams.

C. Revised backflow preventer representation for improved plan readability.

D. Upsized gas piping serving the mechanical platform to 2-inch diameter.

E. Added alternate floor plan option showing fire pump and domestic water booster pump layouts.

F. Added date under seal.

16. SHEET P3.01 — PLUMBING SCHEDULES AND DETAILS

A. Updated gas pressure regulator schedule to include generator service requirements.

B. Revised gas pressure regulator schedule sizes to reflect the updated system design.

C. Added date under seal.

17. SHEET P3.02 — PLUMBING SCHEDULES AND DETAILS

A. A. Added fire protection piping schematic, including the fire pump schedule and associated equipment information.

B. Revised detail numbering to accommodate the newly added fire pump schedule and schematic.

C. Added date under seal.

18. SHEET P3.03 — PLUMBING SCHEDULES AND DETAILS

A. Added domestic water booster pump schedule and associated installation details.

B. Updated the plumbing fixture schedule to match fixtures shown on the floor plans.

C. Revised the plumbing drain, cleanout, and hydrant schedule to include wall boxes and valve boxes.

D. Added date under seal.

19. SHEET P4.01 — PLUMBING RISER DIAGRAMS

A. Updated the gas riser diagram to include generator gas service.

B. Revised riser tags to coordinate with floor plan annotations.

C. Eliminated one vent through roof and rerouted vent piping to connect to an adjacent vent through roof.

D. Added date under seal.

20. SHEET E0.00 – LEGENDS, NOTES, AND ABBREVIATIONS

A. Added date under seal.

21. SHEET E1.11 - ELECTRICAL SITE PLAN

A. Conduit for the fire pump connection has been shown.

22. SHEET E2.11 – POWER LEVEL ONE FLOOR PLAN

A. Pump room equipment added to floor plan.

23. SHEET E2.21 – ELECTRICAL LIGHTING LEVEL ONE CEILING PLAN

A. Light fixture and switches added to the pump room.

24. SHEET E2.31 – ELECTRICAL FIRE ALARM LEVEL ONE CEILING PLAN

A. Fire alarm devices added to the pump room.

25. SHEET E3.00 – ELECTRICAL FIRE ALARM LEVEL ONE CEILING PLAN

A. Added fire pump electrical connections.

B. Changed requirement for outdoor enclosures.

C. Resized ground connection.

26. SHEET E4.00 – ELECTRICAL PANEL SCHEDULES

A. Pump room circuits and loads added to panel schedules.

27. SHEET E5.00 – ELECTRICAL DETAILS

A. Added date under seal.

28. SHEET E5.01 – ELECTRICAL DETAILS

A. Added date under seal.

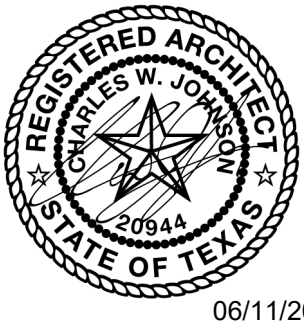
29. SHEET E5.02 – ELECTRICAL DETAILS

A. Added date under seal.

END OF LTY ENGINEERS ADDENDUM ITEMS

SECTION 00 01 10

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DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

PROCUREMENT REQUIREMENTS

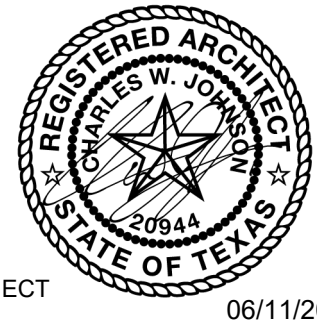
00 11 19 - REQUEST FOR COMPETITIVE SEALED PROPOSALS
00 21 13 - INSTRUCTION TO OFFERORS
00 31 32 - GEOTECHNICAL DATA
- GEOTECHNICAL BORING LOGS
00 42 00 - COMPETITIVE SEALED PROPOSAL FORM – BASE PROPOSAL
00 42 10 - COMPETITIVE SEALED PROPOSAL FORM – ALTERNATES AND UNIT PRICES
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00 43 36 - PROPOSED SUBCONTRACTORS
00 45 18 - AFFIDAVIT OF NON-DISCRIMINATORY EMPLOYMENT
00 45 19 - AFFIDAVIT OF NON-COLLUSION
00 45 20 - FELONY CONVICTION NOTIFICATION
00 45 21 - AFFIDAVIT OF NON-ASBESTOS, LEAD, AND PCB
00 45 22 - DEVIATION FORM
00 45 23 - CONFLICT OF INTEREST QUESTIONNAIRE
00 45 24 - CERTIFICATION OF CRIMINAL HISTORY RECORD INFORMATION

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00 61 13 - PERFORMANCE BOND
00 61 14 - PAYMENT BOND
00 65 00 - RELEASE OF LIEN DOCUMENTS
00 70 00 - GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION (AIA DOCUMENT A201-2017)
00 73 00 - SUPPLEMENTARY CONDITIONS TO THE CONTRACT FOR CONSTRUCTION
00 73 46 - PREVAILING WAGE RATES
00 73 50 - WEATHER TABLE

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01 21 00 - ALLOWANCES
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01 23 00 - ALTERNATES
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01 29 00 - PAYMENT PROCEDURES
01 31 00 - PROJECT MANAGEMENT AND COORDINATION
01 31 19 - PROJECT MEETINGS
01 31 20 - PRE-CONSTRUCTION MEETING
01 32 16.20 - CONSTRUCTION PROGRESS SCHEDULES
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01 42 16 - DEFINITIONS
01 45 00 - QUALITY CONTROL
01 45 23 - TESTING AND INSPECTION SERVICES
01 50 00 - TEMPORARY FACILITIES AND CONTROLS
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01 77 00.01 - CERTIFICATION OF PROJECT COMPLIANCE
01 77 00.02 - AFFIDAVIT OF NON-ASBESTOS, LEAD, AND PCB USE IN PROJECT
01 78 23 - OPERATION AND MAINTENANCE DATA
01 78 30 - WARRANTIES AND BONDS
01 78 39 - PROJECT RECORD DOCUMNTS
01 78 40 - SPARE PARTS, OVERAGES AND MAINTENANCE MATERIALS
01 91 13 - GENERAL COMISSIONING REQUIREMENTS

DIVISION 02 - EXISTING CONDITIONS

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03 20 00 - CONCRETE REINFORCING
03 30 00 - CAST-IN-PLACE CONCRETE
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05 21 00 - STEEL JOISTS FRAMING
05 31 00 - STEEL DECKING
05 40 00 - COLD-FORMED METAL FRAMING
05 50 00 - METAL FABRICATIONS

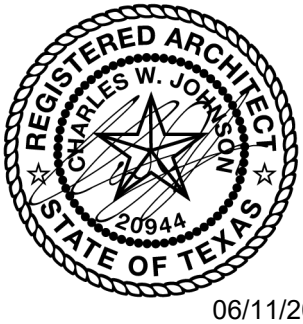
DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 10 00 - ROUGH CARPENTRY
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07 18 13 - PEDESTRIAN TRAFFIC COATING
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07 26 00 - VAPOR RETARDERS
07 41 20 - PREFINISHED METAL ROOF PANELS
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07 62 00 - SHEET METAL FLASHING AND TRIM
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08 33 26 - OVERHEAD COILING GRILLES
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08 51 16 - PASS WINDOW
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09 30 00 - TILING
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10 21 13.17 - PHENOLIC-CORE TOILET COMPARTMENTS
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10 22 39 - FOLDING PANEL PARTITIONS
10 28 00 - TOILET ACCESSORIES
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10 44 13 - FIRE EXTINGUISHERS AND CABINETS
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NONE IN THIS SECTION



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22 00 10 - PLUMBING OPERATING AND MAINTENANCE MANUALS
22 01 00 - COORDINATION DRAWINGS
22 05 53 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT
22 07 19 - PLUMBING PIPING INSULATION
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22 13 19 - SANITARY WASTE PIPING SPECIALTIES
22 34 36 - GAS WATER HEATERS
22 42 00 - PLUMBING FIXTURES

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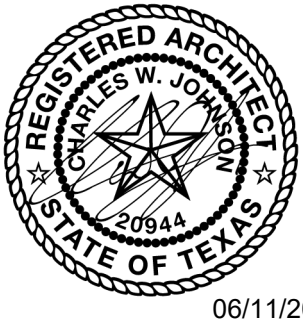
23 00 00 - GENERAL HVAC
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NOT USED

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26 29 13 - MOTOR STARTER AND CONTROLLER INSTALLATION
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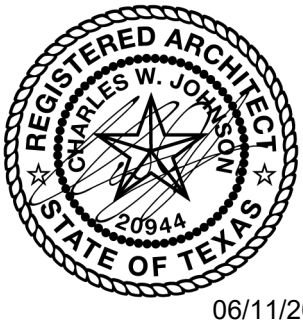
28 13 00 - ACCESS CONTROL SYSTEM
28 16 00 - INTRUSION DETECTION SYSTEM
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31 06 20.15 - CEMENT STABILIZED SAND
31 06.20.17 - UTILITY BACKFILL MATERIALS
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31 22 00 - SITE GRADING
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33 06 40.11 - REINFORCED CONCRETE PIPE
33 11 00 - WATER UTILITY DISTRIBUTION PIPING
33 12 13.10 - TAPPING SLEEVES AND VALVES
33 12 13.12 - WET CONNECTIONS
33 12 16 - WATER UTILITY DISTRIBUTION VALVES
33 12 19 - WATER UTILITY DISTRIBUTION FIRE HYDRANTS
33 12 40 - VALVE BOXES, METER BOXES, AND METER VAULTS
33 13 00 - DISINFECTION OF WATER UTILITY DISTRIBUTION
33 13 00.10 - HYDROSTATIC TESTING OF PIPELINES
33 31 00 - SANITARY UTILITY SEWERAGE PIPING
33 31 00.10 - ACCEPTANCE TESTING FOR SANITARY SEWERS
33 41 00 - STORM UTILITY DRAINAGE PIPING
33 49 13 - STORM DRAINAGE MANHOLES, FRAMES AND COVERS

DIVISION 34 THROUGH 49

NOT USED

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1.1 QUALIFIED OFFERORS

A. Competitive Sealed Proposals will be accepted from qualified Offerors only for the entire scope of work described in the Contract Documents. As a prerequisite to an Offeror's qualifying for the award of contract on this work, the Offeror must complete each item of the Contractor Intonation and Experience Statement (AIA Document A305). The Statement forms may be obtained from the Houston Chapter of the American Institute of Architects, 902 Commerce ST, Houston, TX 77002, (713) 520-0155. In addition to the information contained in the Statement form, Offerors shall also address the selection criteria issues listed under paragraph below for Determination of Successful Respondent and Award of Contract. The Contractor's Qualification Statement, proposed project team inclusive of resumes for all project staff, and other requested information shall be submitted prior to the receipt of Proposals. (3) copies shall be provided, two (2) for the Owner and one (1) for the Architect/Engineer. Qualification statements submitted by FAX transmission will not be accepted. This information shall be transmitted to the Office of Katy ISD, at the Education Support Complex, Attn: April Ray, 6301 South Stadium Lane, Katy, TX 77494 by **12:00 P.M. on Tuesday, June 16, 2026.**

B. The primary purposes of the evaluation process will be to:
   1. Gather information for the Owner's evaluation procedure.
   2. Enable the Owner and/or Architect evaluate the Offeror's qualifications.

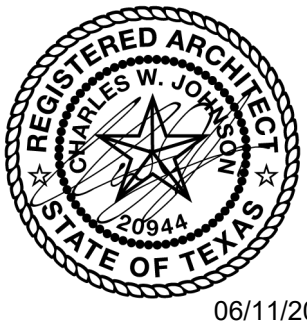
C. After review of Proposals and Contractor's qualifications evaluation the Owner will make its decision and each Offeror will be notified.

D. In arriving at its opinion concerning the Offeror's qualifications, the Architect will use the same criteria that the Owner will use in determination of the successful Offeror as detailed hereinafter.

E. If the proposed Offeror fails to submit the specified Contractor's Qualification Statement and other required information at the time specified above, the Owner and Architect shall consider this a negative factor in the determination of the successful Offeror.

1.2 OFFEROR'S PRESENTATION

A. By submission of a Proposal to the Katy Independent School District the Offeror attest to and affirms that the submitted proposal accounts for and includes the items described in the statements below:



06/11/2026

   1. He has read and understands the Proposal Documents and his Proposal is made in accordance therewith.
   2. He has visited the site, has familiarized himself with the local conditions under which the work is to be performed and has correlated his observations with the requirements of the proposed Contract Documents.
   3. He agrees to comply with the requirements of the following paragraph. These requirements are absolute, and any Offeror who subsequently does not agree to comply with these requirements will automatically disqualify himself from proposing or receiving award of the contract.

B. He agrees that:
   1. Work on the project will begin immediately upon receipt of signed Contract or Notice to Proceed.
   2. Offeror will participate as a team member in cooperation with the Project Architect/Engineer, Owner, and Owners agents and/or consultants.
   3. To assign a full-time Superintendent to the project whose qualifications aresatisfactory to the Owner. The Superintendent shall be assigned to and be maintained on the project for the duration of the project, subject only to his continuous employment.
   4. To carry and keep in full force for the duration of the Project, insurance coverage as required by the General Conditions and/or Supplementary General Conditionsof the Specifications.
   5. That by making his Proposal represents that his Proposal includes all material and equipment specified in the Proposal Documents to achieve a complete andoperating system.

6. That where subcontract work is involved and where Acceptable Subcontractors aredesignated for particular sections or phases of the Work, each Offeror by making his Proposal represents that his Proposal includes only firms designated as Acceptable Subcontractors.
7. If awarded, the Offeror shall furnish and pay for a Performance Bond and a Payment Bond each in the full contract amount.
8. Offeror shall carry and keep in full force for the duration of the Project, insurance coverage for workmen's compensation, comprehensive general liability, and automobile liability as required by the General Conditions and/or Supplementary General Conditions of the Specifications.
9. That by making his Proposal represents that his Proposal includes all material andequipment specified in the Proposal Documents to achieve a complete andoperating system.
10. Where subcontract work is involved and where Acceptable Subcontractors are designated for particular sections or phases of the Work, each Offeror by making his Proposal represents that his Proposal includes only firms designated as Acceptable Subcontractors
11. That no asbestos PCBs or lead building materials shall be used, and that each Offeror (and sub-Offeror or supplier submitting a proposal to a Offeror) shall submit an affidavit at Project Close-out stating that no asbestos, PCB's or lead building materials has been used on the Project
12. That he shall cooperate with the Owner for the coordination of and installation of all work performed by the Owner's own forces or Contracted Entity
13. That he hereby acknowledges and waives the rights to any claims of extended overhead brought against the Owner or Architect for delays caused by weather
14. That he shall be subject to payment of Liquidated damages in the amounts specified should he fail to complete the work in the specified contract time as defined solely by these Contract Documents. Contract Time and Phasing is described in Section 01 11 00 - Summary of Work. Liquidated Damages amounts are established in the Supplementary Conditions
15. That he shall warrant the work in accordance with the provisions established in Section 01 77 00 - Closeout Procedures, and the relevant sections of this Project Manual
16. To include the cost of all overtime work, if any, that is deemed necessary by the Offeror to complete the work within the contract time and phasing designated in section 01 11 00 Summary of Work, Section 00 73 00 Supplementary Conditions and summarized in this section. He also attests that he has provided for the said number of anticipated delay days along the critical path established for each phase of work as described in Article 8.3 of the Supplementary Conditions
17. That the work taking place on campus as performed by the Contractor will not interfere with the daily operation of the School. All utility shut downs, barricaded work, closing of sections the school must be coordinated with Katy ISD so that the existing school can remain in full operation

1.3 PROPOSAL DOCUMENTS

A. Proposal Documents include the Request for Competitive Sealed Proposals, Instructions to Offerors, the Proposal Form, all required affidavits, and the Contract Documents.

B. Contract Documents for the work consist of the Owner-Contractor Agreement, the Conditions of the Contract (General, Supplementary and any other Conditions), the Drawings, the Specifications, and all Addenda issued prior to receipt of proposals.

1.4 PROPOSAL PROCEDURES

A. A proposal is invalid if it has not been received at the designated location prior to the time and date for receipt of proposals indicated in the Request for Competitive Sealed Proposals, or prior to any extension thereof issued to the Offerors by Addenda.

B. All requested Alternates shall be proposed. If no change in the Base Proposal is required, enter "No Change".

C. Prior to the receipt of Proposals, Addenda will be forwarded by the Architect and will be available for inspection wherever the proposal documents are kept available for that purpose.

D. Proposals will be received in duplicate only on the Owner's Form of Proposal for the work as indicated by the Proposal Documents, filled in, and enclosed in a sealed envelope addressed as follows:

Name of Offeror (General Contractor)
New Opportunity Awareness Center
Katy Independent School District
Attn.: *Trey Barnett, Project Manager*

E. The Proposal Form must be accompanied by a Proposal Bond or Certified Check in the amount of 10% of the proposal.
F. The Proposal Form must be accompanied by resumes of the offeror's proposed project team, including the superintendent and project manager.
G. The A305 Document must be accompanied by a listing of the offeror's projects of similar size and scope during the past five (5) years. The listing shall include the project name, address, building area, contract sum, contract date, contract completion date(s), substantial completion date(s), Owner representative's name and telephone number, and the names of the Contractor's project staff assigned to the project. In addition, the General Contractor shall include in this submission the following information regarding the Contractor'sProposed Project Team:

   a. Name of propose Project Executive.
   b. Name of proposed Project Manager.
   c. Name of proposed Assistant Project Managers or Project Engineers.
   d. Name of proposed Project Superintendent.
   e. Name of proposed Assistant Project Superintendent.
   f. Name of proposed Field Engineer.
   g. Names of any proposed project support staff.

   The General Contractor shall include a resume of qualifications for each of the project personnel proposed.

   In addition, include a written summary describing the roles each person will have on the project team and what percentage of time each person will dedicate to this project on a weekly basis. In addition, the contractor shall indicate where each staff member will office (onsite or main office).

   This information shall be submitted prior to the Receipt of Proposals as stated in the Request for Proposal.

H. The Proposal Form must be accompanied with a bar chart construction schedule for this project with projected milestone dates and respective phasing as described by the contract documents (complete foundation, complete steel erection, dry-in, HVAC start-up, etc.), and a list of unit prices as indicated.
I. All proposals must be delivered sealed to the above address at or before the scheduled time and date for proposal opening. Proposals will be received at no other location. If Proposal is sent by U.S. Mail, it must be sent Certified Mail
J. The Contract shall be awarded to the Contractor offering the "best value" to the Owner, based on the published selection criteria and on the Owner's ranking evaluation.

K. A proposal may be withdrawn only upon request by the Offeror or his duly authorized representative, provided such request is received by the Owner at the place designated for receipt of proposals and prior to the time fixed for the opening of proposals. A withdrawal of a proposal shall not be effective unless a written confirmation of the withdrawal is received by the Owner at said place within 48 hours before the time fixed for the opening of proposals. The Proposal Bond will be returned with the proposals if withdrawn in accordance with the above. The withdrawal of a proposal does not prejudice the right of the Offeror to file a new proposal at the time and place stated. No proposal may be withdrawn for a period 30 days after the date of the proposal opening.

1.5 INTERPRETATION OF PROPOSAL DOCUMENTS

A. Offerors and sub-Offerors requiring clarification or interpretation of the Proposal Documents shall make a written request on the form provided in this section which shall reach the Architect at least seven ~~(10)~~ **(7)** days prior to the date for receipt of proposals. ***[ADDENDUM NO. 3]***

B. Any interpretation, correction or change of the Proposal Documents will be made by Addendum. Interpretations, corrections or changes of the Proposal Documents made in any other manner will not be binding. The Architect may issue Addenda up to within 72 hours of the proposal time.

1.6 SUBSTTITUTION OF MATERIALS AND EQUIPMENT

A. The materials, products and equipment described in the Proposal Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. The materials and equipment named in, and the procedures covered by these specifications have been selected as a standard because of quality, particular suitability or record of satisfactory performance.

B. It is not intended to preclude the use of equal or better materials or equipment provided that same meets the requirements of the particular project and is approved in an addendum as a substitution prior to the submission of proposals.

C. No substitution will be considered prior to receipt of proposals unless written request for approval has been received by the Architect at least ten (10) days prior to the date for receipt of proposals as described in Section 01-6200 -Products and Substitutions. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

D. If the Architect approves any proposed substitution prior to receipt of proposals, such approval will be set forth in an Addendum. Offerors shall not rely upon approvals made in any other manner.

E. No substitutions will be considered by the Owner / Architect after the Contract award.

1.7 REJECTION OF PROPOSALS

A. The Owner shall have the right to reject any or all proposals and to reject a proposal not accompanied by any required proposal security, or by other data required by the Proposal Documents, or to reject a proposal which is in any way incomplete or irregular.

B. The Owner reserves the right to reject any or all proposals and to waive any formalities or irregularities and to make the award of the contract in the best interest of the Owner.

C. The Owner reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Offeror fails to satisfy the Owner that such Offeror is properly qualified to carry out the obligations of the contract and to complete the work therein. Award may be made to other than the low-dollar Offeror and given to the one offering the "best value" to the school district, based on the published selection criteria and on its ranking evaluation.

D. Do not submit voluntary alternates. The Owner reserves the right to reject any proposal which is accompanied by conditional or qualifying statements, or "voluntary alternates".

1.8 PROPOSAL SECURITY

A. No proposal will be considered unless it is accompanied by a Certified or Cashier's Check or Proposal Bond executed on the form attached. In either case the amount shall be not less than ten percent (10%) of the greatest amount proposed (considering alternates, if any). The proposal security shall insure the execution of the contract and the furnishing of an acceptable Performance Bond and Payment Bond by the successful Offeror within ten (10) days after notification of award to such Offeror and that this proposal will not be withdrawn within 30 days after date of opening of proposals without the consent of the Owner. Proposal Bond shall be prepared in the identical form of AIA Document A310 or Document 00 43 13 - Proposal Bond, attached.

1.9 INSURANCE

A. Each Offeror shall carry and keep in full force for the duration of the project, insurance coverageas required by the General Conditions of the Contract for Construction as modified by the Supplementary General Conditions of the Contract for Construction.

B. Certificate of Insurance must be submitted to and accepted by the Owner prior to commencement of on-site mobilization. See Notice to Proceed below.

1.10 PERFORMANCE BOND AND PAYMENT BOND

A. Each Offeror shall include in his proposal the premium costs for 100% Performance Bond and 100% Payment Bond. These bonds shall cover the faithful performance of the contract and payment of all obligations arising there under in such form as the Owner may prescribe. The bonding companies must be acceptable to the Owner. The Selected Offeror shall deliver the required bonds to the Owner not later than the date of execution of the Contract, or as described elsewhere in this Project Manual.

B. Performance Bond and Payment Bond must be submitted to and accepted by the Owner prior to commencement of on-site mobilization. See Notice to Proceed below.

1.11 SUBMISSION OF POST PROPOSAL INFORMATION

A. The Selected Offeror shall supply a list of the major subcontractors within ~~**three**~~ **five** (5) days of the proposal opening, the list shall be faxed to the Office of Architect. ***[ADDENDUM NO. 3]***

B. The Selected Offeror shall within five (5) days thereafter submit a statement of costs for each major item of work included in the proposal. Each section of specifications will be considered a major item of work and shall be shown as a separate cost item.

C. If required by the Owner, the Selected Offeror shall be available for a Project Team interview with the Owner and Architect. The interview will be held at a date and time that is convenient to the Owner.

1.12 AWARD OF CONTRACT

A. The Offeror to whom the award is made will be promptly notified. If a Offeror (a) withdraws his proposal within 30 days after the proposal opening date, or (b) fails or refuses to execute the Agreement, or other required forms within ten (10) days after the same are presented to him for signature, or (c) fails or refuses to furnish properly executed Performance Bond and Certification of Required Insurance within 15 calendar days of execution date of the Agreement, the Owner may award the work to another Offeror or Offerors or may call for new proposals.

B. Proposal Bond is forfeited if proposal is withdrawn after the proposal opening, or Contract Documents are not executed in accordance with the above.

1.13 NOTICE TO PROCEED

A. Upon review and acceptance of Offerors qualifications and proposal documents, and acceptance of the Selected Offerors Proposal, the Owner, shall prepare and issue the written Notice to Proceed.

B. The Offeror shall not commence work under this Contract until he receives the written Notice to Proceed.

C. Immediately, upon receipt of the written Notice to Proceed, the Selected Offeror shall (a) execute Contract, (b) submit Performance and Payment Bonds, and (c) submit certification of required insurances, all using the Owner's own forms for such respective purposes.
D. Commencement of on-site mobilization may not occur until after the Owner has reviewed and accepted the Certificate of Insurance, the Performance Bond, and the Payment Bond.

1.14 COMPLETION TIME

A. Offerors shall familiarize themselves with the Owners requirements concerning the project schedule as described in Section 01 32 16 - Construction Progress Schedule, of this Project Manual.
B. The parties hereto agree that time is of the essence of this Contract and that the pecuniary damages which would be suffered by the Owner, if the Contractor does not complete all work called for in the Contract documents by the specified date.
C. It is therefore expressly agreed as a part of the consideration inducing the Owner to execute this contract that the Owner may deduct liquidated damages from the final payment made to the Contractor for each and every calendar day beyond the agreed date which the Contractor shall require for Substantial Completion of the work included in this contract. It is expressly understood that the said sum per day is agreed upon as a fair estimate of the pecuniary damages which will be sustained by the Owner in the event that the work is not completed within the agreed time, or within the legally extended time, if any, otherwise provided for herein. Said sum shall be considered as liquidated damages only and in no sense shall be considered a penalty, said damage being caused by additional compensation to personnel, for loss of interest on money and other miscellaneous increased costs, all of which are difficult of exact ascertainment. Any disruption of Owner's use of the existing facilities or newly completed facilities will also be subject to liquidated damages. Refer to Section 01 32 16 - Construction Progress Schedule for additional requirements.
   Delays, disruption of use, failures to complete, and liquidated damages are fully described under Article 8.3 of the Supplementary Conditions.
D. Having thoroughly familiarized himself with the conditions as they exist at the building site and acquainted himself with the labor supply and the material market, the Offeror agrees that he has included all costs inclusive of overtime, if any, to complete all work associated with the contract documents in accordance with section 01 11 00 - Summary of Work.
   The Offeror shall include in the Base Proposal, all premium time, overhead and profit required to attain Substantial Completion of the Work on the stipulated dates including Anticipated Delay Days as described in Supplementary Conditions. The Contractor shall submit in written form, at each progress meeting, delays claimed during the previous week. If the Architect and Owner agrees that the delay(s) claimed by the Contractor has occurred and were on the critical path of the Contractor's construction schedule, the agreed upon number of days will be subtracted from the anticipated delay day allowance for each respective phase of work that is impacted. A change order to increase the Contract Time will not be considered until after the total cumulative total of anticipated delay days have been expended.
E. The definition of Substantial Completion is found in Article 9.8.1 of the AIA General Conditions and Supplementary Conditions.

1.15 ASBESTOS, LEAD AND PCB CONTAINING MATERIALS, PRODUCTS AND SYSTEMS

A. Prior to submitting a proposal, Offerors shall notify the Architect, in writing, of any materials, products and systems in these specifications which are known to contain or are likely to contain asbestos, lead or PCBs. The Architect will promptly explore possibilities for selecting other materials, products and systems which would circumvent the problem and notify Offerors of any changes in an addendum, otherwise it will be understood that only specified materials, products and systems that are asbestos, lead, and PCB free are included in the proposals.
B. Decisions regarding allowance items will be made in a timely manner to avoid construction delays.

C. The Contractor shall refer to the above requirements during the Proposal period and the following requirements during performance of the Work regarding the use of asbestos, lead or PCB free materials, products and systems in the Project.
   1. Since many materials, products and systems are proprietary, it is not possible to know all of the materials or components which go into producing such material, product or system without the manufacturer divulging trade secrets or patent information. Every effort has been made to specify materials, products or systems, which either as an "off the shelf" material, product and system or as a custom material, product and system do not contain asbestos, lead or PCBs.
   2. The Contractor and each subcontractor, prior to final payment, shall submit a notarized statement on their letterhead certifying "to the best of their information, knowledge, and belief asbestos and PCB containing materials have not been used or incorporated into the Work and lead or lead bearing materials have not been incorporated into potable water systems." For the purpose of definition as used in this statement, the term "potable water systems" includes, but is not limited to, those water systems for drinking fountains, all sinks, showers, bath tubs, residential and commercial kitchen equipment, ice machines, and hose bibbs, as applicable to the project. Lead sheet flashing used in through roof plumbing penetration applications is permitted. The Contractor shall also obtain such statements from subcontractors and all such statements shall be notarized.
   3. In the event the material, product or system is found to contain asbestos, lead or PCB, the Contractor shall offer for the Architect's consideration a substitution which he knows does not contain any asbestos, lead or PCBs.
   4. Even though a material, product or system is specified or a specification is based on a particular material, product or system, the Contractor will not be relieved from the responsibility to ascertain that materials, products and systems used in the Project do not contain asbestos, lead or PCBs.

D. If a material, product or system containing asbestos, lead or PCBs is used, the Contractor shall remove and replace the material, product or system with one which is asbestos, lead or PCB free at no additional expense to the Owner, including removal and replacement of other materials, products, and systems affected by the removal of the asbestos, lead or PCB bearing material, product or system, such as items affected due to removal of asbestos containing insulation; removal and replacement of gypsum wallboard, including, but not limited to repainting due to lead paint removal and; affected and work due to leaking or faulty PCB containing light ballasts, etc.

E. The use of any construction process or the installation of any asbestos, lead and PCBs or material containing asbestos, lead and PCBs is strictly prohibited for this Project, except as noted above.

F. Prior to payment of retainage and final payment, the Contractor shall furnish a notarized statement certifying that no asbestos, lead and PCB containing materials, products, and systems have been used in the Project. In addition to the Contractor's notarized statement, the subcontractors will be required to furnish notarized affidavits that no asbestos, lead, and PCB containing materials, products, and systems have been used in this Project

1.16 FELONY CONVICTION NOTIFICATION

A. Section 44.034, of the Texas Education Code requires a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony. Subsection (b) states "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract." Subsection (c) states "this section does not apply to a publicly held corporation."

B. Each Offeror shall complete and submit the enclosed Statement of Affirmation within the time period stated on the form.

1.17 AFFIDAVIT ON NON-DISCRIMINATORY EMPLOYMENT

A. All Offerors, Contractor and subcontractors shall agree to refrain from discrimination in terms and conditions of employment to the basis of race, color, religion, sex, or national origin, and agrees to take affirmative action as required by Federal Statutes and Rules and Regulations issued in order to maintain and insure non-discriminatory employment practices.

B. Each Offeror shall complete and submit enclosed Affidavit of Non-Discriminatory Employment within the time period stated on the form.

C. The sub-Offerors shall execute the enclosed Affidavit of Non-Discriminatory Employment before commencing work on this Project. Offerors and sub-Offerors who have not executed this document will not be eligible to work on this project.

1.18 AFFIDAVIT OF NON-ASBESTOS, LEAD, AND PCB USE IN PROJECT

A. The use of any construction process or the installation of any asbestos, lead and PCBs or material containing asbestos, lead and PCBs is strictly prohibited for this Project.

B. Prior to submitting a proposal, Offerors shall notify the Architect, in writing, of any materials in these specifications which are known to contain or are likely to contain asbestos, lead or PCBs.

C. The Offeror, and sub-Offerors shall agree to refrain from using products which are known to contain asbestos, lead, and PCB containing materials as applicable to the project. They shall also affirm that lead or lead bearing materials have not been incorporated into potable water systems, and that lead sheet flashing used in through roof plumbing penetration applications is the only lead on the Project.

D. The Selected Offeror, and sub-Offerors must execute Document Affidavit of Non-Asbestos, Lead, and PCB Use and submit at Project Close-out.

1.19 CONFLICT OF INTEREST QUESTIONNAIRE

A. According to Local Government Code, Chapter 176, a person or an agent of a person who contracts or seeks to contract for the sale or purchase of property, goods, or services with any government agency must file a completed Conflict of Interest Questionnaire with the records administrator of the local government not later than the seventh business day after the date that the person begins contract discussions or negotiations with the District or submits to the District an application, response to a request for proposals or bids, correspondence, or another writing related to a potential agreement with the District.

B. All Offeror's and sub-Offeror's proposing to do work with the District must execute Document, Conflict of Interest Questionnaire and submit to the District's Legal Department within seven (7) days of the Proposal date.

1.20 AVAILABILITY OF MATERIALS AND SYSTEMS

A. A serious effort has been made to select only materials that are systems that are readily available. As far as is known at proposal time all items are either available "off the shelf" or within a relatively short period of time. If during the proposal period, a Offeror becomes aware of an availability or delivery problem with any of the specified systems or materials, he should notify the Architect immediately. The Architect will promptly explore possibilities for selecting other systems or materials which would circumvent the problem and notify Offerors of any changes in an addendum, otherwise it will be understood that only specified systems and materials that are readily available are included in the proposals.

1.21 DETERMINATION OF SUCCESSFUL RESPONDENT AND AWARD OF CANTRACT

A. In determining the Selected Offeror, the Owner will evaluate the information derived from the Offeror's (General Contractor's) Qualification Statement required herein, the information submitted on the Proposal, and other selection criteria including, but not be limited to the following. The score for the purchase price will be determined by the respective ratios between the lowest proposal and the other proposals.
   1. The purchase price; thirty percent (30%)
   2. The offeror's experience and reputation, and the quality of the offeror's goods or services. (30%)
   3. The offeror's safety record, the offeror's proposed personnel, and whether the offeror's financial capability is appropriate to the size and scope of the project. (30%)
   4. The offeror's past relationship with the District (10%)

B. The Selection Committee consisting of Katy ISD administrators, architects, consultants and other staff will make an initial evaluation of the proposals. Its recommendation will be considered by the Katy ISD Board of Trustees ("Board"). The District reserves the right to review the recommendation with their administration and others deemed appropriate by the District prior to review by the entire Board. The final decision-making authority on the proposals rests with the full Board. Decision-making authority has not been delegated to any person or entity other than the Board.

C. By submitting a proposal, each Offeror agrees to waive any claim it has or may have against the District and its respective employees, the Architect/Engineer and consultants, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any proposal; waiver of any requirements under the Proposal Documents: acceptance or rejection of any proposals; and award of the contract.

D. The Owner will make such investigations as it deems necessary to determine the ability of the Offeror to perform the Work, and the Offeror shall furnish all such information and data for this purpose as may be requested. The Owner reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Offeror fails to satisfy the Owner that such Offeror is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein.

E. The Owner reserves the right to reject any or all proposals and to waive any formalities or irregularities and to make the award of the contract in the best interest of the District.

F. A decision regarding determination of the successful Offeror will be made by the Owner as soon as practical.

1.22 USE OF ASBESTOS FREE MATERIALS, PRODUCTS AND SYSTEMS

A. The Offeror is reminded to refer to the Paragraph above for requirements during the Proposal period and the following requirements during performance of the Work regarding the use of asbestos free materials, products and systems in the Project.
   1. Since many materials, products and systems are proprietary, it is not possible to know all of the materials or components which go into producing such material, product or system without the manufacturer divulging trade secrets or patent information. Every effort has been made to specify materials, products or systems, which either as an "off the shelf" material, product or system or as a custom material, product or system do not contain asbestos.
   2. It is the Contractor's responsibility to submit an affidavit from the manufacturer to ascertain that every material, product or system used in the Project does not contain asbestos. In the event the material, product or system is found to contain asbestos, the Contractor shall offer for the Architect's consideration a substitution which he knows does not contain asbestos.
   3. Even though a material, product or system is specified or a specification is based on a particular material, product or system, the Contractor will not be relieved from the responsibility to ascertain that materials, products and systems used in the Project do not contain asbestos. Under no circumstances shall a material, product or system which is known, suspected or found to contain asbestos be used on the Project.

4. If a material, product or system containing asbestos is used, the Contractor shall remove and replace the material, product or system with one which is asbestos free at no additional expense to the Owner, including removal and replacement of other materials affected by the removal of the asbestos bearing material, product or system, i.e. gypsum wallboard removed, replaced, and repainted on account of insulation being removed, etc.

1.23 CRIMINAL HISTORY RECORDS

A. Prior to commencing any work on this Project, the Selected Contractor shall certify, on the form provided herein as Document AH, that for each of its employee who will have direct contact with students, the Selected Contractor has obtained, as required by Texas Education Code Section 22.0834:
   1. national criminal history record information from a law enforcement or criminal justice agency for each employee of the Selected Contractor hired before January 1, 2008 who will have direct contact with students; and
   2. national criminal history record information from the Texas Department of Safety for each employee of the Selected Contractor hired on or after January 1, 2008 who will have direct contact with students; Fingerprinting is required and shall be provided by the contractor (applicant) and administered through FAST (Fingerprint Applicant Services of Texas) which will be recorded by the District in the FACT (Fingerprint-based Applicant Clearinghouse of Texas). Currently applicant must obtain fingerprinting from L-1 Identity Solutions Company, (888) 467-2080, or schedule an appointment online at: https://tx.ibtfingerprint.com/

B. Any personnel who will have direct contact with students must not have been convicted of an offense identified in Texas Education Code Section 22.085.

C. At this time, Senate Bill 9 applies only to contractors with direct contracts with the District. This requirement does not apply to sub-contractors of the Contractor, material suppliers, or a one-time service provider such as a service technician, delivery person, testing agent, code official, or similar personnel. However, changes to these requirements are anticipated and may require the acquisition and submittal of additional background checks to the District during the course of the Work.

D. The Selected Contractor shall execute and submit Document AH, Certification of Criminal History Record Information Review by Contractor-Employer along with required Schedule 'A' documenting proposed employees to be working on site, within 10 days after receipt of Notice To Proceed and prior to commencement of Work.

E. Furthermore, an updated Schedule 'B' shall be submitted weekly to the District indicating changes to contractor personnel with accompanying certifications and criminal history records. Any fingerprinting and photographing required by the aforementioned code will be the responsibility of the Contractor-Employer.

END OF SECTION



06/11/2026

DOCUMENT 00 42 00

COMPETITIVE SEALED PROPOSAL FORM – BASE PROPOSAL

NEW OPPORTUNITY AWARENESS CENTER
KATY INDEPENDENT SCHOOL DISTRICT

Submitted by: _____

Date: _____ Phone No.: _____

To: Board of Trustees
Katy Independent School District
6301 South Stadium Lane
Katy, Texas 77492-0159

Having carefully examined the Contract Documents prepared by VLK, dated May 26, 2026, and having examined the site conditions, the undersigned accepts the drawings and specifications as being satisfactory and adequate for the proper construction of the Work and proposes to furnish all labor, equipment and materials and perform all work for the completion of the above named project as stated below:

In submitting his Proposal, the undersigned agrees to the following:

1. Hold proposal open for acceptance ~~30~~ **60** days.***[ADDENDUM NO. 3]***
2. Accept right of Owner to reject any or all proposals, to waive formalities and to accept proposal which Owner considers most advantages.
3. Enter into and execute the contract, if awarded, for the Base Proposal and accepted Alternate Proposals.
4. Complete work in accordance with the Contract Documents within the stipulated contract time.
5. By submission of this Proposal, the undersigned affirms that, to the best of his knowledge, the Proposals have been arrived at independently and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfair advantage over respondents in the award of this proposal.
6. By submission of this Proposal the undersigned agrees to all provisions summarized in section 00 21 13 - Instructions to Offerors and that his Proposal has been prepared in accordance with the Instructions given in this section.

1. Base Proposal

The undersigned agrees to complete the Work of the Base Bid for the lump sum of:

_____ Dollars $ _____
(Amount written in words governs) (Amount in figures)

2. Allowances

Undersigned certifies that the allowances specified in Section 01 21 00 - ALLOWANCES are included in the Base Proposal and agrees that the unexpended balance of allowance sums will revert to Owner in the final settlement of the contract.

3. **Contract time**
   The undersigned agrees that he has included all labor and materials to be substantially complete with the work defined by these contract documents for each Phase of work listed below and associated substantial completion dates listed below. The Offeror attests and affirms that his proposal includes all necessary costs associated with overtime to substantially complete the work by the following dates taking into the number of days specified for each phase to be anticipated as delay days along the critical path of work. The number of days to be anticipated as delay days shall be included as specified in Supplementary Conditions to the Contract for Construction and managed by the Project Team in accordance with this section and as otherwise stated in the Project Manual.

   The undersigned agrees to begin work upon Notice to Proceed and be substantially complete with the Base Bid Work and the Work of all accepted Alternates by June 10, 2027.

   The Contractor's Proposal is based on working _____ Days per week.

4. **Addenda**
   The undersigned acknowledges receipt of the following Addenda:

Addendum No. 1 Dated:	Addendum No. 4 Dated:
Addendum No. 2 Dated:	Addendum No. 5 Dated:
Addendum No. 3 Dated:	Addendum No. 6 Dated:

5. **Changes in the work**
   The undersigned understands that changes in the Work shall be performed in accordance with the Supplementary Conditions.

6. **Liquidated Damages**
   The undersigned understands that Liquidated Damages, as defined in the Supplementary Conditions, will be included in the Form of Agreement Between Owner and Contractor and that the Contractor shall be bound thereto.

7. **Trench Safety**
   The undersigned has included the amount of $_____ in the Base Bid for Trench Safety Systems.

8. **Alternates**
   If the Owner accepts any or all of the Alternates, the undersigned agrees to modify the Base Proposal as stipulated in Document 00 42 05 Competitive Sealed Proposal Form – Alternates and Unit Prices.

9. **Unit Prices (For adjustments to units of work during construction)**
   Unit Prices are described in Section 01 22 00 Unit Prices, Provide Amounts on Document 00 42 05 Proposal Form – Alternates and Unit Prices.

10. **Offeror's Proposed Surety:** _____

11. **Proposed Construction Schedule**
    Attach a preliminary construction schedule for the use of evaluating the Offeror's proposal.

Proposal Form

Division	00
Section	4200

It is understood that the right is reserved by the Owner to reject any or all proposals, or waive any informalities in the proposal process.

_____
Authorized Signature

_____
Title

(Seal, if a Corporation)
State whether Corporation
Partnership or Individual

_____
Name of Contracting Firm

_____
Address

_____
Telephone

_____
Date

END OF DOCUMENT

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06/11/2026

DOCUMENT 00 42 10
COMPETITIVE SEALED PROPOSAL FORM – ALTERNATES AND UNIT PRICES

NEW OPPORTUNITY AWARENESS CENTER
KATY INDEPENDENT SCHOOL DISTRICT

Submitted by: _____

Date: _____Phone No.: _____

To: Board of Trustees
Katy Independent School District
6301 South Stadium Lane
Katy, Texas 77492-0159

Having examined Proposal and Contract Documents prepared by VLK, dated May 26, 2026, and having examined site conditions, the undersigned proposes to furnish all labor, equipment and materials andperform all work for the completion of the above-named project for the sum indicated below.

In submitting his Proposal, the undersigned agrees to the following:

1. Hold proposal open for acceptance 60 days.
2. Accept right of Owner to reject any or all proposals, to waive formalities and to accept Proposal which Owner considers most advantageous.
3. Enter into and execute the contract, if awarded, for the Base Proposal and accepted Alternate Proposals.
4. Complete work in accordance with the Contract Documents within the stipulated contract time.
5. By signing, the undersigned affirms that, to the best of his knowledge, the Proposals havebeen arrived at independently and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfairadvantage over respondents in the award of this proposal.

I. ALTERNATES

NOTE:

- Show Amounts in both words and figures. In case of discrepancy, amount shown in words will govern.
- Alternate 1 is to be selected as option to Owner as an Add or Deduct from the Base Proposal work as indicated in drawings and specifications.

If the Owner accepts any or all of the Alternates as described in Section 01 23 00 *Alternates*, the undersigned agrees to modify the Base Proposal as stipulated below:

1) Alternate No. 1 - OPTIONAL ADJUSTMENT TO BASE PROPOSAL: For optional adjustment to the Base Proposal: add to the Base Bid the following:
(Add or Deduct) _____Dollars ($_____).
2) Alternate No. 2 - ABUSE RESISTANT GYPSUM BOARD: For providing Abuse Resistant Gypsum Board in rooms 102, 204, 205, 206, 207, 208, 211, 214, 304, 305, 306, 308, 309, 313, 402, 403, 404, and 406, add to the Base Bid the following.
(Add)_____Dollars ($_____).

3) Alternate No. 3 - CHILLERS: There are no Chillers included in the Base Bid. One of the following Alternates below (A, B, or C) will be selected:
   a. Alternate No. 3A: For providing York Centrifugal Liquid Chillers with a 10 year warranty according to Section 23 64 16, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   b. Alternate No. 3B: For providing Carrier Centrifugal Liquid Chillers with a 10 year warranty according to Section 23 64 16, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   c. Alternate No. 3C: For providing Trane Centrifugal Liquid Chillers with a 10 year warranty according to Section 23 64 16, add to the Base Bid the following:
      (Add)_____Dollars ($_____).

4) Alternate No. 4 - AIR HANDLING UNITS: There are no Air Handling Units included in the Base Bid. One of the following Alternates below (A, B, C, or D) will be selected:
   a. Alternate No. 4A: For providing York Air Handling Units according to Section 23 73 13, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   b. Alternate No. 4B: For providing Carrier Air Handling Units according to Section 23 73 13, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   c. Alternate No. 4C: For providing Temptrol Air Handling Units according to Section 23 73 13, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   d. Alternate No. 4D: For providing Trane Air Handling Units according to Section 23 73 13, add to the Base Bid the following:
      (Add)_____Dollars ($_____).

5) Alternate No. 5 - ACCESS CONTROL SYSTEM AND INTRUSION SYSTEM: There is no access control system and no intrusion system included in the Base Bid. One of the following Alternates below (A, B, or C) will be selected:
   a. Alternate No. 5A: For providing Access Control System and Intrusion System per Sections 28 13 00 and 28 16 00, installed by Transnet Communication LLC, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   b. Alternate No. 5B: For providing Access Control System and Intrusion System per Sections 28 13 00 and 28 16 00, installed by Fisk Electric, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   c. Alternate No. 5C: For providing Access Control System and Intrusion System per Sections 28 13 00 and 28 16 00, installed by ACME Electric, add to the Base Bid the following:
      (Add)_____Dollars ($_____).

6) Alternate No. 6 - AUTOMATION CONTROL: There is no automation control included in the Base Bid. One of the following Alternates below (A, B, C, or D) will be selected:
   a. Alternate No. 6A: For providing Automation Control, as manufactured by Unify Energy Solutions - Reliable Controls, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   b. Alternate No. 6B: For providing Automation Control, as manufactured by Hunton Trane - Trane, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   c. Alternate No. 6C: For providing Automation Control, as manufactured by Climatec - Alerton, add to the Base Bid the following:
      (Add)_____Dollars ($_____).
   d. Alternate No. 6D: For providing Automation Control, as manufactured by Automated Logic Corp. - Automated Logic, add to the Base Bid the following:
      (Add)_____Dollars ($_____).

7) Alternate No. 7 - FIRE AND DOMESTIC PUMP ROOM ADDED TO BUILDING
   a. Alternate No. 7: State in the proposal form the amount to be added to the base proposal for providing approximately 650 linear feet of new pipe from the existing hydrant off of the East side of Rhodes stadium to a 150 SF addition off of the new building Fire Riser room M1 for domestic and fire pumps in lieu from connecting 2,560 new pipe from Katyland Dr, and new domestic and fire pumps to service the new building.
   (Add)_____ Dollars ($_____).

II. UNIT PRICES

1.1 UNIT PRICE NO.1 - DRILLED CONCRETE PIERS:
   A. Submit one copy of drilling log indicating top and bottom elevation of each pier drilled, and water and/or caving encountered. Indicate difference between proposal depth and actual depth.
   B. Measurement: Base Proposal shall reflect pier depths indicated in the Proposal Documents.
      1. Measure actual depth from top of grade at time of drilling to bottom of pier shaft.
      2. Payment will be adjusted based on the total accumulative net difference of the actual depth from the proposed depth indicated for each pier. Payment will not be made for individual piers.
      3. Adjustments for actual conditions will be made by Change Order.

1.2 UNIT PRICE NO. 2 - CONCRETE PAVING
   A. Unit Price 2A: Installed cost for each square foot of 5" thick concrete paving with #4 on 24" O.C.E.W added to or deleted from the Work, including subgrade preparation, formwork, reinforcing, and concrete indicated on the Drawings. UNIT Sq. Ft. EXTRA $_____ CREDIT $_____
   B. Unit Price 2B: Installed cost for each square foot of 6" thick concrete paving with #4 on 18" O.C.E.W. added to or deleted from the Work, including subgrade preparation, formwork, reinforcing, and concrete indicated on the Drawings. UNIT Sq. Ft. EXTRA $_____ CREDIT $_____
   C. Unit Price 2C: Installed cost for each square foot of 7" thick concrete paving with #4 on 18" O.C.E.W. added to or deleted from the Work, including subgrade preparation, formwork, reinforcing, and concrete indicated on the Drawings UNIT Sq. Ft. EXTRA $_____ CREDIT $_____

1.3 UNIT PRICE NO. 3 – CONCRETE SIDEWALKS
   A. Installed cost for each square foot of concrete sidewalk added to or deleted from the Work, including subgrade preparation, formwork, reinforcing, and concrete indicated on the Drawings. UNIT Sq. Ft. EXTRA $_____ CREDIT $_____

1.4 UNIT PRICE NO. 4 – SOIL EXCAVATION
   A. Installed cost for Soil Excavation per square yard added to or deleted from the Work. UNIT Sq. Yd. EXTRA $_____ CREDIT $_____

1.5 UNIT PRICE NO. 5 – SELECT FILL PLACEMENT
   A. Installed cost for select fill placement per square yard added to or deleted from the Work. UNIT Sq. Yd. EXTRA $_____ CREDIT $_____

1.6 UNIT PRICE NO. 6 – CEMENT STABILIZATION SAND
   A. Installed cost for Cement Stabilization Sand and per square yard added to or deleted from the Work. UNIT Sq. Yd. EXTRA $_____ CREDIT $_____

1.7 UNIT PRICE NO. 7 – TYPE "A" INLETS

A. Installed cost for Type "A" Inlets added to or deleted from the Work. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____

1.8 UNIT PRICE NO. 8 – STORM SEWER

A. Installed cost for 24" HDPE storm sewer including excavation and cement stabilized backfill per linear foot. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____

1.9 UNIT PRICE NO. 9 – LIME STABILIZATION FOR WET WEATHER CONDITIONS

A. Installed cost for lime stabilization per square yard for wet weather conditions. — UNIT: Sq. Yd. — EXTRA: $_____ — CREDIT: $_____

1.10 UNIT PRICE NO. 10 - LAN DATA DROPS

A. Installed cost for each data drop added to or deleted from the Work, including rough-in and finish-out.

1. Unit Price 10A: Single data port wired to nearest IDF/MDF room up to 200 feet. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____
2. Unit Price 10B: Double data port wired to nearest IDF/MDF room up to 200 feet. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____
3. Unit Price 10C: Triple data port wired to nearest IDF/MDF room up to 200 feet. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____
4. Unit Price 10D: J-box with 1-1/4" conduit stubbed up wall to above ceiling. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____

1.11 UNIT PRICE NO. 11 - ELECTRICAL

A. Installed cost for each of the following added to or deleted from the Work, including rough-in and finish out

1. Unit Price 11A: 120V duplex receptacle on nearest capable circuit up to 25 feet. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____
2. Unit Price 11B: 120V duplex receptacle on dedicated circuit, including 20 amp circuit breaker up to 200 feet. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____
3. Unit Price 11C: 220V receptacle on dedicated circuit including 20 amp circuit breaker up to 200 feet. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____
4. Unit Price 11D: Two-way light switch. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____
5. Unit Price 11E: Three-way light switch. — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____
6. Unit Price 11F: Exit Light — UNIT: Ea. — EXTRA: $_____ — CREDIT: $_____

1.1 UNIT PRICE NO. 12 - LAN CABLING

A. Installed cost for CAT 6 Cable added to or deleted from the Work. — UNIT: Ln.Ft. — EXTRA: $_____ — CREDIT: $_____

1.2 UNIT PRICE NO. 13 - LANDSCAPING

A. Installed cost for each of the following added to or deleted from the Work. Including final grading, bed prep., and excavation.

	UNIT	EXTRA	CREDIT
1. Unit Price 13A: Tree			
a. Mexican Sycamore	Caliper	$_____	$_____
b. Texas Red Oak	Caliper	$_____	$_____
c. Loblolly Pine	Caliper	$_____	$_____
2. Unit Price 13B: Shrub	UNIT	EXTRA	CREDIT
a. Yaupon Holly “Pride of Houston”	Pot Size	$_____	$_____
b. Indian Hawthorne “Calisto”	Pot Size	$_____	$_____
	UNIT	EXTRA	CREDIT
3. Unit Price 13C: Sod	Sq. Ft.	$_____	$_____
	UNIT	EXTRA	CREDIT
4. Unit Price 13 D: Hydromulch	Sq. Ft.	$_____	$_____

III. PROJECT SUPERINTENDENT AND PROJECT MANAGER

The undersigned proposes the following project team members (attach resumes).

Project Executive:_____

Office Location_____

Percent Time Dedicated to Project_____

Project Manager:_____

Office Location_____

Percent Time Dedicated to Project_____

Assistant Project Manager or Project Engineer: _____

Project Superintendent(s): _____

Assistant Superintendent(s): _____

IV. PROPOSED CONSTRUCTION SCHEDULE

Attached a preliminary construction schedule for use in evaluating the Offeror's proposal.

It is understood that the right is reserved by the Owner to reject any or all proposals, or waive any informalities in the proposal process.

_____
Authorized Signature

_____
Title

(Seal, if a Corporation)
State whether Corporation
Partnership or Individual

_____
Name of Contracting Firm

_____
Address

_____
Telephone

_____
Date

END OF DOCUMENT

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Allowances



06/11/2026

Division	01
Section	2100

1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1, apply to this Section.
B. Refer to Instructions to Proposers for substitution of materials and products.
C. Addenda issued during the proposal period that affect this section of the specifications.

1.2 WORK INCLUDED

A. This section supplements paragraph 3.8 Allowances in the General Conditions of the Contract for Construction and the Supplementary Conditions.
B. Allowances for materials, such as brick, carpet, etc., shall be for the net cost of materials only, without sales tax, delivered and unloaded at the jobsite. The party who makes the purchase (contractor or subcontractor) shall include handling cost on site, labor, overhead, profit and other expenses contemplated for each allowance in the Contractor's Sum and not in the allowance. Include labor under allowances, only when labor is specified to be included.
C. Allowances for Scope of Work, such as Owner's Contingency, graphics, technology, etc., will be adjusted, as necessary, to reflect the difference between the allowance amount stated and Contractor's handling costs, cost of materials, without sales tax, plus labor, subcontractor cost, with overhead and profit markup, and any other reasonable costs, except the Contractor's overhead and profit, which is not allowed.
D. The Contractor shall include in his bid all allowances stated herein. Such persons or entities shall supply for such amounts and items covered by allowances as the Owner may direct, but the Contractor shall not be required to employ persons or entities against which the Contractor makes reasonable objections.

1.3 RELATED WORK SPECIFIED IN OTHER SECTIONS

A. Certain sections of the specifications describe more fully the scope of work to be included in the allowance and the Contractor shall refer to said sections for additional installation, preparation and coordination, if any, required to be included in the Contractor's Base Bid.
B. Unless indicated otherwise in Section 01 23 00 Alternates, the entire amount of each allowance shall be included in the Base Bid and the acceptance or rejection of any bid Alternates shall not alter any Allowance amounts.

1.4 BIDDING REQUIREMENTS

A. It is the Owner's intention that the actual cost of the listed items be determined by competitive bidding after the award of the Contract for Construction. Allowance bidders shall be limited to those bidders mutually acceptable to the Owner and the Contractor.
B. The Contractor shall release bidding documents to the bidders and receive written bids. Where additional drawings and specifications are required for bidding, the Architect will provide such drawings and specifications to the Contractor. The successful bidder will be determined by the Owner, subject to any reasonable objection by the Contractor as stated hereinbefore.

1.5 CHARGES TO ALLOWANCES

A. Charges to allowances shall be in accordance with the following:
   1. Owner's Contingency Allowance: The Contractor shall include its markup for overhead and profit related to this allowance in its Base Bid, re: 7.5.1.2 of the Supplementary Conditions. The Contractor's Subcontractors each may include in their quotations for work to be charged to this allowance, a combined markup for overhead and profit in accordance with the schedule of markups allowable under subparagraph 7.5 of the supplementary Conditions.

2. Allowances for Material and Labor: These allowances shall cover the cost to the Contractor of the specified 1) services or 2) materials and equipment delivered at the site and installed by the selected allowance Subcontractor. The Contractor shall include his markup for overhead and profit related to these allowances in his Base Bid so the entire amount of the allowance will be available to the selected allowance Subcontractor. Examples of this type of allowance (if listed under Section 01 21 00) are Graphics and Landscape, etc.

B. If the Owner so desires, credits in one allowance category may be transferred to any other allowance category. If any items cost more than the amount listed, such adjustment will include additional handling costs on the site, labor, installation costs, overhead, profit and other expenses resulting to the Contractor or subcontractor from any increase over the original allowance, unless such increase is funded by a transfer of funds from other allowances in which case no overhead and profit will be allowed.

C. At completion of the project the allowance accounts shall be reconciled and Change Order shall adjust the Contract sum.

2 ALLOWANCE ITEMS AND AMOUNTS

2.1 OWNER'S CONTINGENCY ALLOWANCE

A. Allowance No. 1: Allow the lump sum of $400,000.00 Owner's Contingency for the changes requested by the Owner.

2.2 MATERIAL AND LABOR ALLOWANCES

A. Allowance No. 2: Allow the lump sum of $50,000.00 for moving.

B. Allowance No. 3: Allow the lump sum of $50,000.00 for graphics.

1. Reference the following:

a) Specification: Section 10 14 00 - IDENTIFYING DEVICES

1) Page 10 14 00-1, Part 2, Section .1, B., 2.

2) Page 10 14 00-3, Part 2, Section .7, A. *[ADDENDUM NO. 3]*

C. Allowance No. 4: Allow the lump sum of $75,000.00 for landscaping.

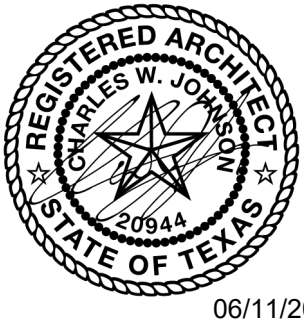
1. Reference the following:

a) Sheet: L1.01 - LANDSCAPE PLAN *[ADDENDUM NO. 3]*

END OF SECTION

SECTION 07 26 00

VAPOR RETARDERS



06/11/2026

PART 1 - GENERAL

.1 SUMMARY

A. Section Includes:
1. Vapor retarder placed on soil surface

B. Related Sections:
1. Section 03 11 00 - CONCRETE FORMING AND ACCESSORIES: Masonite topping sheet.
2. Section 03 30 00 - CAST-IN-PLACE CONCRETE.
3. Section 07 62 00 - SHEET METAL FLASHING AND TRIM: Vapor retarder at roof expansion joints.
4. ~~**Section 31 31 00 - SOIL TREATMENT: Temporary polyethylene sheeting over treated soil.**~~***[ADDENDUM NO. 3]***

.2 REFERENCE STANDARDS

A. ASTM D882 - Standard Test Method for Tensile Properties of Thin Plastic Sheeting; 2018.

B. ASTM D3776/D3776M - Standard Test Methods for Mass Per Unit Area (Weight) of Fabric; 2020 (Reapproved 2025).

C. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials; 2024a.

A. ASTM E154/E154M - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover; 2008a (Reapproved 2025).

B. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs; 2024.

C. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2017 (Reapproved 2023).

D. ASTM F1249 - Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor; 2025.

.3 SUBMITTALS

A. General: Submit in accordance with SECTION 01 33 23 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Product Data:
1. Provide product data for each type of product.
2. Manufacturer's installation instructions for placement, seaming, penetration prevention and repair, and perimeter seal per ASTM E1643.
3. Product Test Reports: For each product, for tests performed by a qualified testing agency.

PART 2 - PRODUCTS

.1 MATERIALS

A. Vapor Retarder: Product/manufacturer; one of the following:
Ecoshield-E; Epro Services
Stego Wrap (15 mil) Vapor Retarder; Stego Industries, LLC
Perminator (15 mil); W.R. Meadows

1. Vapor Retarder membrane shall have the following qualities:
a. Permeance of less than 0.01 Perms [grains/(ft2*hr*inHg)] as tested after mandatory conditioning tests ASTM E154/E154M (sections 8, 11, 12, 13) per ASTM F1249 or ASTM E96/E96M.
b. ASTM E1745 Class A.
c. Minimum thickness 15 mils.

2. Accessories:
a. Seam Tape: High-density polyethylene tape with pressure sensitive adhesive. Minimum width 3.75 inches.
b. Pipe Boots (Penetrations of Vapor Retarder): Construct pipe boots from vapor retarder material and pressure sensitive tape per manufacturer's instructions.
c. Perimeter/edge seal: Provide the following as manufactured by Stego Industries LLC, (887) 464-7834 www.stegoindustries.com.
Stego Crete Claw
Stego Term Bar.
StegoTack Double-Sided Tape.

B. Reinforced Vapor Retarder at Mechanically Ventilated Crawlspaces: Provide Griffolyn 20 mil Reinforced White as manufactured by Reef Industries or approved equivalent.
   1. Material: 3-ply laminate, combining 2 layers of linear low density polyethylene and 1 high-strength non-woven cord grids.
      a. Weight, ASTM D3776/D3776M: 93 lb/1,000 ft^2 (45 kg/100 m^2).
      b. Puncture, Propagation Tear: ASTM D 2582: 50 lbs (222 N)
      c. Permeance (Perm), ASTM E96/E96M: 0.019 grains/hr-ft^2-in Hg (1.06 ng/(Pa-s-m^2)).
      d. Drop Dart D-1709: 910 g.
      e. Tensile Strength, 3 Inches, ASTM D882: 150 lb/2,630 psi (667N/18,100 kPa).
      f. Usable Temperature Range: -45 to 170 degrees F (-42 to 77 degrees C).
   2. Self-Adhesive Tape: Griffolyn® White Sealant Tape RI Part Number: 60-0153.
      a. Description: Reinforced white backing with Gray Adhesive.
      b. Weight: 3.0 lbs for 4 inch x 50 foot roll.
      c. Thickness: 26 mils (0.65 mm).
      d. 3 inch Seam Shear: 30 lbs (134 N)
   3. Pipe Boots: Griffolyn® pipe boots, factory-fabricated.

PART 3 - EXECUTION

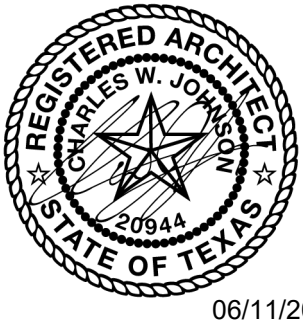
.1 PREPARATION

A. Remove soil treatment protective vapor retarder before placement of permanent vapor retarder.
B. Ensure that subsoil is approved by Architect and/or geotechnical engineer.

.2 INSTALLATION

A. Install vapor retarder in accordance with manufacturer's instructions and ASTM E1643.
B. Unroll vapor retarder with the longest dimension parallel with the direction of the concrete pour.
C. ~~Extend vapor retarder to the perimeter of the slab. If practicable, terminate it at the top of the slab, otherwise (a) at a point acceptable to the structural engineer or (b) where obstructed by impediments, such as dowels, waterstops, or any other site condition requiring early termination of the vapor retarder. At the point of termination, seal vapor retarder to the slab itself using perimeter/edge seal, such as Stego Crete Claw or termination bar and tape per manufacturer's instructions.~~
   1. ~~Continue vapor retarder down the interior face of the perimeter grade beam, across the bottom of the grade beam, and up the outside face to within 6" of finish grade.~~
D. ~~At Crawlspaces:~~
   1. ~~Install reinforced vapor retarders in accordance with manufacturer's instructions.~~
   2. ~~Install vapor retarders continuously at locations in crawl space as indicated on the drawings. Ensure there are no discontinuities in vapor retarder at seams and penetrations~~
   3. ~~Ensure surface beneath vapor retarder is smooth level and compacted, with no sharp projections.~~
   4. ~~Join sections of vapor retarder and seal penetrations in vapor retarder with mastic tape. Ensure vapor retarder surfaces to receive mastic tape are clean and dry.~~
   5. ~~Immediately repair holes in vapor retarder with self-adhesive White Sealant Tape.~~
   6. ~~Seal around piers, pipes and other penetrations in vapor retarder with pipe boots in accordance with manufacturer's instructions.~~
   7. ~~At walls, install two rows of double-sided tape. Install one at the base of the wall and another one a couple inches above that.~~
   8. ~~Mechanically attached vapor retarder to wall with termination bar/cleat.~~
   9. ~~Seal top edge of vapor retarder and termination bar.~~ ***[ADDENDUM NO. 2]***
E. Overlap joints a minimum of 6" and seal with manufacturer's seam tape.
F. Seal all penetrations (including pipes) with manufacturer's pipe boot.
G. Use reinforcing bar supports with base sections that eliminate or minimize the potential for puncture of the vapor retarder.
H. Repair damaged areas by cutting patches of vapor retarder, overlapping damaged area 6" and taping all four sides with tape.

END OF SECTION



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SECTION 08 80 00

GLAZING

PART 1 - GENERAL

.1 SUMMARY

A. Section Includes: Glass and glazing accessories.

B. Related Sections:

1. Section 06 40 00 - ARCHITECTURAL WOODWORK; display case glass, track, and hardware.
2. Section 07 92 00 - JOINT SEALANTS
3. Section 08 11 00 - HOLLOW METAL DOORS AND FRAMES.
4. Section 08 14 00 - WOOD DOORS.
5. Section 08 14 23 - PLASTIC-LAMINATE-FACED WOOD DOORS.
6. Section .08 41 13.00 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
7. Section .08 44 13 - GLAZED ALUMINUM CURTAIN WALLS

.2 REFERENCE STANDARDS

A. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2025.

B. ASTM C1311 - Standard Specification for Solvent Release Sealants; 2022.

C. ASTM C1503 - Standard Specification for Silvered Flat Glass Mirror; 2024.

D. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2026.

E. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014 (Reapproved 2021).

F. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2022.

G. NFPA 257 - Standard on Fire Test for Window and Glass Block Assemblies; 2022.

H. UL 263 - Standard for Fire Tests of Building Construction and Materials; Current Edition, Including All Revisions.

.3 PERFORMANCE REQUIREMENTS

A. Glass and glazing materials of this section shall provide continuity of building enclosure vapor and air barrier

1. In conjunction with materials described in SECTION 07 92 00 - JOINT SEALANTS.
2. Maintain continuous air and vapor barrier throughout glazed assembly from glass pane to heel bead of glazing sealant.

B. Design and size glass to withstand dead loads and live loads caused by pressure and suction of wind as calculated in accordance with building code, and measured in accordance with ASTM E330/E330M.

C. Limit glass deflection to l/200 or flexure limit of glass with full recovery of glazing materials, whichever is less.

.4 SUBMITTALS

A. Submit product data and samples under provisions of SECTION 01 33 23 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.

C. Provide data on glazing sealant. Identify colors available.

D. Samples:

1. Submit 2 samples of each type of glass (except clear glass), 12" x 12" in size, illustrating glass unit, coloration, design.
2. Submit 4" long bead of glazing sealant in color selected.

.5 QUALITY ASSURANCE

A. Glazing Standards: Comply with recommendations of Glass Association of North America (GANA) "Glazing Manual."

B. Source Quality Control: Glass shall be identified by the manufacturer's labels of grade and quality. Temporary labels shall not be removed until final cleaning. Permanent labels on tempered glass shall not be removed.

1. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.
2. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of the IGCC.

C. Safety Glazing Standard: Where safety glass is indicated or required, provide type of products indicated which comply with ANSI Z97.1 and testing requirements of CPSC 16 CFR Part 1201 for Category II materials.

D. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252.

E. Fire-Rated Window Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 257.

.6 DELIVERY, STORAGE, AND HANDLING

A. Protect glass and glazing materials during delivery, storage, and handling as required to prevent edge damage to glass, and damage to glass and glazing materials from effects of moisture including condensation, or temperature changes, and other causes.

.7 WARRANTY

A. Provide written 10-year warranty signed by manufacturer of **insulating glass** agreeing to furnish replacements for those insulating glass units developing manufacturing defects. Manufacturing defects are defined as failure of hermetic seal of air space (beyond that due to glass breakage) as evidenced by intrusion of dirt or moisture, internal condensation or fogging, and other visual indications of seal failure or performance.

B. Provide written 10-year minimum warranty for applied security film material, providing for replacement of film if cracking, crazing, peeling, or inadequate adhesion occurs during the warranty period.

Part 2 - PRODUCTS

.1 ACCEPTABLE MANUFACTURERS

A. Basis of Design products are **Vitro Architectural Glass (PPG)**: Provide glass as manufactured by one of the following:

AGC Glass North America
Guardian Industries Corp.
Technical Glass Products
Oldcastle Building Envelope
Pilkington North America, Inc. (NSG Group)
Vitro Architectural Glass (formerly PPG Glass)

.2 GLASS

A. (TT1) Tinted, Tempered, Insulating Low-E Glass: Manufacturer's standard 1" thick pre-assembled units consisting of 2 sheets of tempered glass, ASTM C 1048, enclosing a hermetically sealed dehydrated air space; with spacers, sealant, and without protective edge banding. Metal spacers shall be finished to match finish of aluminum storefronts.

1. Thickness of Each Pane: 1/4".
2. Air Space Thickness: 1/2".
3. Interior Pane: Type I, Class 1 (Clear), Quality q3 (Glazing select), Kind FT - Fully Tempered, Condition A - Uncoated surfaces.
4. Exterior Pane: Type I, Class 2 - Vitro Solargray tint (Tinted Heat-Absorbing and Light-Reducing), Quality q3 (Glazing select), Kind FT - Fully Tempered, Condition C - Other coated surfaces with low-emissivity Vitro Solarban 70 coating on second surface.
5. Performance Characteristics: Low-E insulating glass shall comply with the following:
   a. Solar Heat Gain Coefficient: 0.19
   b. Winger U-value: 0.28
   c. Visible Transmittance: 35%

B. (CT4) Clear, Tempered Glass: ASTM C1048, Type I, Class 1 (Clear), Quality q3 (Glazing select). Kind FT - Fully Tempered, Condition A - Uncoated surfaces, 1/4" thickness.

C. (~~TT1~~ - SF) Clear, Forced-Entry Resistant (Safety): One layer 13 to 15 mils thick film, applied to interior glass surfaces where indicated. ***[ADDENDUM NO. 3]***

1. ~~**Glass: Minimum 1/4" thickness (6mm), ASTM C 1048, Type I, Class 1 (Clear), Quality q3 (Glazing select). Kind FT - Fully Tempered, Condition A - Uncoated surfaces.**~~ ***[ADDENDUM NO. 3]***
2. Security Film Basis of Design: Provide C-Bond Systems, LLC (6035 South Loop East, Houston, TX 77033, ph: 832-649-5658,www.cbondsystems.com) Security film Non-toxic, water-based, nano-technology. Security film to be a 13-15 mil thick meeting UL 972-Standard for Safety Burglary Resisting Glazing Material. Subject to compliance with requirements, provide the following safety and security films:

a. Acceptable Manufacturers: Provide one of the following:
C-Bond Systems, 15 mil
3M Safety S140, 14 mil
Llumar Safety Series, 13 mil
Madico SafetyShield, 14 mil
Solar Gard Armourcoat, 14 mil

3. Existing Framing:
a. Include glazing anchor system as specified below for existing framing where noted to improve safety and security performance.
b. Provide Dow 995 Structural Silicone adhesive (or approved alternative) to be used for all anchoring of film to window frame/glazing systems.

4. Color: Clear

D. ~~Clear Glass Mirrors, Unframed: ASTM C1503, Mirror Select.~~
1. ~~Nominal thickness 1/4". Backs shall have two coats of silver hermetically sealed, complying with GS-27, with an impervious protective coating of copper deposited over silver by electrolysis, and finished with a special composition hard, mirror-backing paint. Mirrors shall bear manufacturer's labels. Mirrors shall have ground and polished edges.~~
2. ~~Mirror Back Safety Tape: ANSI Z97.1.~~
3. ~~J-Molds: Provide stainless steel continuous "J" clip at bottom and "J" clips around perimeter of mirror to anchor mirror to wall (Approx. Size: 3/8" x 3/8").~~ ***[ADDENDUM NO. 3]***

.3 GLAZING MATERIALS

A. Glazing Compound: Comply with ASTM C1311 or FS TT-S-00230, one-part, non-sag acrylic polymeric sealant. Product/manufacturer; one of the following:
Acryl-R Acrylic Sealant; Schnee-Moorehead, Inc.
Mono 555; Tremco

B. Channel Glazing Strips; Hollow Metal Doors and Frames: Provide black vinyl channel glazing strips, Glazing Vinyl for 990 Sliders Part #6062-01 as manufactured by Kawneer.

C. Accessories: Setting blocks, tape, vinyl gaskets and spacer strips as required for a complete installation.

D. ~~Mirror Mastic: Combination of asphaltic bitumens, fibers and mineral spirits. Product/manufacturer; one of the following:~~
~~Gunther Pro®; Gunther Mirror Mastics~~
~~7HR4 Mirror Tac®; Pecora Corp.~~
~~Mirro-Mastic; Palmer Products Corporation.~~ ***[ADDENDUM NO. 3]***

E. Glazing Sealant for Fire-Resistive Glazing Products: Identical to product used in test assembly to obtain fire-protection rating.

PART 3 - EXECUTION

.1 INSPECTION

A. Examine areas to receive glass for conditions that will adversely affect the execution and quality of work. Do not start this work until unsatisfactory conditions are corrected.

.2 INSTALLATION

A. Setting Glass: Glazing shall be done at the site by skilled glaziers in conformance with the general conditions governing glazing in the GANA Glazing Manual.
1. Glazing of aluminum windows and storefront shall be done in conformance with the methods recommended by the manufacturer of the aluminum items. Beads or stops furnished with the items to be glazed shall be used to secure the glass in place.
2. For interior hollow metal door and frame glazing, install channel glazing strips and place glass within glazing strips. Install the removable stop and position the channel glazing strip to seal completely the void around the glass.
3. Verify glass sizes for required edge clearances by measuring the openings. Cut each piece accurately and fit to its particular position. Center glass in the opening vertically and horizontally. Use edge blocks in vertical jambs to prevent lateral "walking" of the glass.
4. Glass shall have clean cut edges. Do not seam, nip, stone or strike edges, or scarf corners, and do not install glass with flared edges at the bottom. Do not bump, drag, or rest the edge of a glass light against metal or other hard objects.
5. Set tempered glass with tong marks completely concealed or in as inconspicuous a location as possible.

B. ~~Glass Mirrors:~~
1. ~~Apply one additional coat of moisture-resistant paint, type recommended by manufacturer, to back of mirror.~~

2. ~~**Allow to dry.**~~
3. ~~**Apply safety tape to back of mirror in strips leaving 25% of surface free for application of mastic.**~~
4. ~~**Apply mirror mastic to cover not more than 25% of back mirror, 1/8" to 1/2" thickness of setting bed.**~~
5. ~~**Set mirror on concealed shelf angle.**~~
6. ~~**Press mirror against substrate to bond.**~~
7. ~~**Leave open ventilation space, 1/8" minimum between mirror and substrate.**~~
8. ~~**Do not seal off ventilation space at edge of mirror.**~~ ***[ADDENDUM NO. 3]***

C. Security Film:
1. General: Security film on prepared window and door glass where indicated, according to Manufacturer's recommendations and instructions.
   a. Security film on the interior (secure) side of the glass for both single and double glazing, unless otherwise indicated.
   b. Multiple applications of film to achieve specified thicknesses is not allowed.
   c. Do not apply film if there are visible dust particles in the air, if there is frost on the glazing, or if any room condition such as temperature and humidity do not meet Manufacturer's instructions.
   d. After film application, maintain room conditions as required by Manufacturer's instructions to allow for proper curing of adhesive.
2. Anchoring System for Security Film
   a. Clean powder or laitance from gasketing before applying silicone.
   b. With glass secure, cut the anchoring system (BondKap) to size, apply the silicone adhesive to the window frame and glass.
   c. Place the anchoring system strips in the desired location, press in place and clean any excess silicone.
   d. With this method, there shall be 1/2” of silicone contacting the window film and 1/2” contacting the window frame providing the approved structural support as specified.

.3 CLEANING

A. Upon completion of the building, clean glass on both sides and remove labels, paint spots, putty and other defacement. Replace damaged glass with new.

END OF SECTION

SECTION 09 30 00

TILING



06/11/2026

PART 1 - GENERAL

.1 SUMMARY

A. Section Includes:
1. Ceramic Tile.
2. Porcelain Tile.
3. Tile Trim and Accessories.
4. ~~**Marble and Engineered Thresholds.**~~ ***[ADDENDUM NO. 3]***

B. Related Sections:
1. Section 06 10 00 - ROUGH CARPENTRY~~**; wood blocking at windowsills.**~~ ***[ADDENDUM NO. 3]***
2. Section 07 92 00 - JOINT SEALANTS.
3. Section 09 21 16 - GYPSUM BOARD ASSEMBLIES.

.2 REFERENCE STANDARDS

A. ANSI A108.4 - American National Standard Specifications for Installation of Ceramic Tile with Organic Adhesive or Water Cleanable Tile-Setting Epoxy Adhesive; 2023.

B. ANSI A108.5 - Setting of Ceramic Tile with Dry-Set Cement Mortar, Modified Dry-Set Cement Mortar, EGP (Exterior Glue Plywood) Modified Dry-Set Cement Mortar, or Improved Modified Dry-Set Cement Mortar; 2023.

C. ANSI A118.1 - American National Standard Specifications for Dry-Set Cement Mortar; 2023.

D. ANSI A118.3 - American National Standard Specifications for Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy and Water Cleanable Tile-Setting Epoxy Adhesive; 2021.

E. ANSI A118.7 - American National Standard Specifications for High Performance Cement Grouts for Tile Installation; 2019.

F. ANSI A118.12 - American National Standard Specifications for Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation; 2014 (Reaffirmed 2024).

G. ANSI A118.15 - American National Standard Specifications for Improved Modified Dry-Set Cement Mortar; 2023.

H. ANSI A136.1 - American National Standard Specifications for Organic Adhesives for Installation of Ceramic Tile; 2020.

I. ANSI A137.1 - American National Standard Specifications for Ceramic Tile; 2022.

J. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2025.

K. ASTM C150/C150M - Standard Specification for Portland Cement; 2024.

L. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes; 2024.

M. ASTM C1178/C1178M - Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel; 2024.

.3 SUBMITTALS

A. General: Submit in accordance with SECTION 01 33 23 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Product Data:
1. Submit manufacturer’s written product data for each tile type and accessory.
2. Submit tile manufacturer's written recommendations for sealing specific quarry tile for this project.

C. Samples: Submit tile samples of the same size scheduled for each particular type of tile required.

D. Certificate: Furnish one master grade certificate on ceramic tile executed prior to delivery of the tile to the site.

.4 QUALITY ASSURANCE

A. Standard: Tile shall be Standard Grade complying with the requirements of ANSI A137.1. Deliver tile to the project site in grade sealed containers.

.5 PROJECT CONDITIONS

A. Environmental Limitations: Do not install tile until construction in spaces is completed and ambient temperature and humidity conditions are being maintained.

B. Do not install adhesives in a closed, unventilated environment.

C. Maintain 50°F. during installation of mortar materials.

.6 MAINTENANCE

A. Extra Materials: Upon completion of work, deliver to the project site one box for each type, color, pattern, and size of tile installed. Furnish maintenance materials from same manufactured lot as materials installed and enclose in protective packaging with appropriate identifying labels.

PART 2 - PRODUCTS

.1 TILE

A. ~~**Manufacturers: Ceramic tile and trim as manufactured by American Olean, Dal-Tile Corp., and Crossville Ceramics shall set all standards in the areas of trim shapes availability, tile size, color, pattern, and texture.**~~ ***[ADDENDUM NO. 3]***

B. Ceramic and Porcelain Tile: Reference “Material Finish Schedule” in drawings for manufacturer, product, color and finish of tile.

C. Trim Pieces:

1. Provide factory made fitters and trim shapes required for a finished installation. Keep job-cut fitters and trim shapes to a minimum. Provide bullnose tile at horizontal and vertical tile edges.
2. ~~**Thresholds: Engineered 4 x 36 x 0.75 polished double beveled engineered solid surfacing threshold. Model SMOT-THDB-EGRY4x36 by MS International, Inc. Color as scheduled in "Material Finish Schedule" on drawings.**~~ ***[ADDENDUM NO. 3]***

.2 MORTAR MATERIALS

A. Portland Cement: ASTM C150/C150M, domestic manufacture.

B. Dry-Set Mortar: ANSI A118.1, factory sanded mortar mix.

C. Latex-Portland Cement: ANSI A118.15, flexible mortar consisting of cement-based mix and latex additive.

D. Adhesive: ANSI A136.1, Type I, prepared organic adhesive.

E. Grout:

1. ~~**Floor:**~~
   a. ~~**ANSI A118.7, latex modified dry-set High Performance Cement Grout or commercial waterproof cement grout. Provide Ultracolor Plus FA as manufactured by MAPEI or approved equivalent by Custom Building Products or Laticrete. Color(s) shall be selected by Architect.**~~
   b. ~~**ANSI A118.3; epoxy grout at kitchen tile, restroom tile, and associated areas. Provide Kerapoxy CQ as manufactured by MAPEI or approved equivalent by Custom Building Products or Laticrete. Color(s) as selected by Architect.**~~ ***[ADDENDUM NO. 3]***
2. Walls: Modified acrylic, premixed Mastic Grout or dry-set grout complying with ANSI A118.7, color(s) as selected by Architect from Custom Building Products, Laticrete, Mapei or approved equal. If Contractor elects to provide dry-set grout, the installation shall be damp cured.

F. Lime: ASTM C207, Type S, hydrated lime.

G. Sand: ASTM C144, clean, masonry sand.

H. Water: Clean and potable.

I. Reinforcement: 1-1/2" x 17 gage galvanized woven steel wire fabric or 2 x 2 x 16/16 gage galvanized welded steel wire fabric.

.3 ~~**SETTING BED MORTAR**~~

A. ~~**Mix one part Portland cement and 4 parts damp sand, by volume. Hydrated lime may be added for plasticity in an amount not to exceed 1/10 part by volume.**~~

B. ~~**Large Format and Heavy Tile Mortar: Provide Ultraflex LFT (medium bed mortar) as manufactured by MAPEI or approved equivalent.**~~

1. ~~**High content of dry polymer**~~
2. ~~**Nonsag and nonslump formula.**~~
3. ~~**Meets the highest ANSI rating of ANSI A118.15.**~~ ***[ADDENDUM NO. 3]***

.4 ADHESIVE/WATERPROOF MEMBRANE

A. Urethane Waterproofing and Tile-setting Adhesive: One-part liquid-applied urethane in a consistency suitable for trowel application and intended for use as both waterproofing and tile-setting adhesive in a two-step process. Product/manufacturer; one of the following:

1. Hydroment Ultra-Set; Bostik
2. Deck-Seal 1000; Southern Grouts & Mortars, Inc.

B. Reinforcing: Woven glass fiber scrim, 2" wide roll.

C. Large Format and Heavy Tile Waterproofing/Crack Isolation Membrane: Provide Mapelastic Aquadefense as manufactured by MAPEI or approved equivalent. Include Reinforcing fabric at change of planes and at drain areas.

.5 ~~SHOWER PAN~~

A. ~~Shower Pan: Provide one of the following or approved equal 40-mil thick waterproofing sheet membranes at thickset tile applications:~~

~~Composeal Blue Shower Pan Membrane; Compotite Corp.~~
~~Chloraloy Shower Pan Liner; Noble Co. (Div of Federal Process Corp.)~~ ***[ADDENDUM NO. 3]***

.6 BACKER BOARD

A. Tile Backer Board: ASTM C1178/C1178M:

1. Installation under ceramic tile on steel studs at shower locations.
2. At accessible shower ceilings, unless cement plaster is indicated.
3. Provide one of the following Products/Manufacturers:
   a. 5/8" Diamondback GlasRoc Type X Tile Backer; CertainTeed Gypsum
   b. 5/8" DensShield Fireguard Type X Tile Backer; Georgia-Pacific Corp
   c. 5/8" Gold Bond Brand eXP Type X Tile Backer; National Gypsum Company
   d. 5/8" Durock Brand Glass-Mat Type X Tile Backer; USG Corporation

.7 ~~CRACK ISOLATION MEMBRANE~~

A. ~~General: Manufacturer's standard product that complies with ANSI A118.12 for standard performance and is recommended by the manufacturer for the application indicated.~~

1. ~~Contractor's Option: Provide either tile manufacturer's standard product as stated above, or the following product:~~
   a. ~~Chlorinated Polyethylene Sheet: Non-plasticized elastomer with non-woven polyester laminated to both sides, nominal 0.030" thickness. Product/manufacturer; NobleSeal CIS; Noble Co.~~ ***[ADDENDUM NO. 3]***

.8 ACCESSORIES

A. Metal Floor, Corner, and Wainscot Trim: Provide transition/edge trim as scheduled in the "Material Finish Schedule" in drawings.

PART 3 - EXECUTION

.1 PREPARATION

A. Sweep concrete slab surfaces clean and free of dirt and debris. Remove oil, grease, paint, and dried mortar.

B. ~~Shower Pan Membrane Installation:~~

1. ~~Coat surface to receive membrane waterproofing with a minimum 3/16" thick coat of bond coat adhesive and in accordance with manufacturer's recommendation and ANSI A108.5.~~
2. ~~Provide PVC solvent cement welding of all seams and penetrations including drains.~~
3. ~~Provide factory fabricated pre-molded inside and outside corners.~~

C. ~~Shower Wall Tile Base: At showers, install tile backer board. Apply with un-cut long edge at bottom of work. Fasten boards to steel stud framing with Type S bugle head drywall screws spaced 6" o.c. Space fasteners at least 3/8" from edge of board.~~ ***[ADDENDUM NO. 3]***

D. Concrete Slab-on-grade: Install crack isolation membrane to comply with ANSI A108.17 and manufacturer's written instructions and recommendations to produce membrane bonded securely to substrate.

.2 INSTALLATION

A. General Workmanship:

1. Center and balance areas of tile, if possible.
2. Do not make an excessive amount of cuts. Usually, no cuts smaller than half size should be made. Make all cuts on the outer edges of the field. Fit tile carefully without marring or chipping the finish.
3. Smooth cut edges. Install tile without jagged or flaked edges.
4. Fit tile closely where edges will be covered by trim, escutcheons or other similar devices.
5. The splitting of tile is expressly prohibited except where no alternative is possible.
6. Maintain the heights of tilework in full courses to the nearest obtainable dimension where heights, given in feet and inches, are not required to fill vertical spaces exactly.
7. Make corners of all tile flush and level with corners of adjacent tile, with due allowance to tolerances for tile as specified in ANSI A137.1.
8. Keep all joint lines straight and even width, including miters.
9. Thoroughly back-up with thin-set bonding material all thin-set units, molded or shaped pieces; secure firmly in place.
10. Thoroughly back-up with mortar-bed mix thick-bed nosings, coves, curbing, gutters, flat tile and trimmers, molded or shaped pieces; secure firmly in place.
11. Bond coat mix shall not be used to back-up thick-bed trim and angles. Coat all thick-bed trim shapes with 1/32" to 1/16" of bond coat mix.
12. Finish floor and wall areas level and plumb with no variations exceeding 1/8" in 8' from the required plane.

13. Install accessories in tile work to be evenly spaced, properly centered with tile joints, and level, plumb and true to the correct projection. Install accessories at locations and heights designated.
14. Finished tile work shall be clean. Replace pitted, chipped, cracked and scratched tiles.

B. ~~Setting Floor Tile - Conventional:~~
   1. ~~Set floor tile in straight joint pattern using Portland cement mortar in conformance with ANSI A 108.1.~~
   2. ~~Where tile is to be installed over waterproofing membrane, place wire reinforcing and mortar bed over the membrane. Lap reinforcing one full mesh and support so that it is completely embedded in the mortar bed.~~
   3. ~~Spread on a bonding coat of pure Portland cement paste not more than 15 minutes ahead of the mortar bed for quarry tile.~~
   4. ~~Place mortar bed, tamp firmly and screed to true planes and proper slopes. While still plastic, trowel a bond coat of cement paste over the mortar bed or dust a thin layer of dry cement over the mortar bed and work lightly until damp.~~
   5. ~~Set tile firmly on the mortar bed with close, uniform joints. Press and thoroughly beat in tile while the mortar bed is still plastic. Bring surfaces to true planes at the proper position of elevation. Slope tile down to floor drains. Make any adjustment of tile before initial set of the mortar takes place.~~ ***[ADDENDUM NO. 3]***

C. Setting Wall Tile:
   1. Set base and wall tile over masonry in straight joint pattern using dry-set cement mortar in conformance with ANSI A108.5.
   2. Set base and wall tile of size less than 12" x 12" over gypsum wallboard ~~in straight joint pattern~~ **as shown on drawings** using organic adhesive in conformance with TCA W242 and ANSI A108.4. ***[ADDENDUM NO. 3]***
   3. Set base and wall tile of size more than 12" x 12" over gypsum wallboard ~~in straight joint pattern~~ **as shown on drawings** using Latex Portland cement mortar in conformance with TCA W243 and ANSI A108.5. ***[ADDENDUM NO. 3]***
   4. Surfaces to be tiled shall be dry, firm and proper for bond.
      a. Treat gypsum wallboard surfaces with a primer-sealer; caulk openings around pipes and fixtures with a non-hardening waterproof sealant.
      b. Apply leveling coat of sanded dry-set mortar over irregular surfaces if and as required to secure plumb, flat surfaces for the application of tile.
   5. Mix and apply mortar and adhesive in conformance with best trade practice and the recommendations of the manufacturer of the materials used. Cover surfaces evenly, with no bare spots, and comb with a notched trowel within 10 minutes of applying tile.
   6. Apply tile before skinning of the adhesive or mortar has taken place. Press and beat firmly into place to obtain at least 75 percent contact area of adhesive or mortar on the tile back.
   7. If tile is face mounted, remove paper and glue before the adhesive or mortar is firmly set; adjust tiles that are out of line.
   8. Provide control joints at all inside corners of wall tile areas. Install sealant in joint. Color as selected by Architect.

D. Grouting:
   1. Force a maximum amount of grout into the joints.
   2. Clean the joints of cushion-edge tile to depth of cushion. Fill joints of square-edge tile flush with face of tile.
   3. Fill all gaps and skips. Mortar shall not show through grouted joints.
   4. Finished grout shall be uniform in color, smooth, and without voids and low spots.
   5. Grout joint width as recommended by tile manufacturer.
   6. Damp cure Portland cement grout for at least 72 hours.

E. Wall Control Joints:
   1. Provide a caulked control joint at same width as grout joints, minimum of 1/8”.
   2. After tile work and grout are dry, clean the open control joint and roll-in foam rod stock to leave a joint depth of 1/4".
   3. Fill the joint with primerless one-part acrylic polymeric sealant. Color shall be as selected by Architect
   4. Tool the sealant smooth.
   5. ~~Where tile on wallboard abuts tile on masonry, provide a 1/4" caulked control joint to separate the two areas.~~ ***[ADDENDUM NO. 3]***

F. Joints at Frames: Where ceramic tile abuts frame, provide a minimum 1/8" caulked expansion joint to separate tile from the frame.
   1. After tile work and grout are dry, clean the joint at the frame.
   2. Fill the joint with primerless one-part acrylic polymeric sealant.
   3. Color shall be as selected by Architect.
   4. Tool the sealant smooth.

G. ~~**Setting Marble Thresholds:**~~
   1. ~~**Set in a cement mortar bed mixed dry for tamping.**~~
   2. ~~**Press and tamp the marble into place until firmly bedded to the proper level, then lift out, parge the back with cement paste, butter the edges, and relay.**~~
   3. ~~**Clean surplus cement from the marble faces immediately.**~~ ***[ADDENDUM NO. 3]***

H. Metal Floor Transition Trim:
   1. Provide at transition of ceramic floor tile to lower flooring material (e.g. vinyl composition tile, exposed concrete, etc.) where no marble threshold is detailed.
   2. Install as detailed on drawings.
   3. Set transition trim prior to installing ceramic floor tile.
   4. Set tile up tight to transition trim with a factory cushion edge. Trim shall be flush with top of ceramic tile.
   5. After tile work and grout are dry, clean the joint between the trim and the tile.
   6. Fill joint between trim and ceramic floor tile with sealant to match grout.

I. Metal Corner and Top of Wainscot Trim:
   1. Provide at all outside corners and top of wainscot of ceramic wall tile.
   2. Set metal corner trim prior to installing wall tile.
   3. Set tile up to corner trim with a factory cushion edge. Provide a 1/8” joint between tile and trim. Trim shall be flush with faces of ceramic tile.
   4. After tile work and grout are dry, clean the joint between the trim and the tile.
   5. Fill joint with sealant to match grout.

.3 CLEANING

A. When the work of other trades is completed, clean down tile and marble surfaces and leave in first class condition.
   1. The use of wire brushes or acids is expressly prohibited.
   2. Replace cracked, broken, and chipped tile with new units.
   3. Correct uneven and stained joints.

END OF SECTION

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SECTION 09 68 00

CARPETING



06/11/2026

PART 1 - GENERAL

.1 SUMMARY

A. Section Includes: Carpet, including the following:
   1. Surface preparation.
   2. Glue down carpeting on floor surfaces.
   3. Accessories, including edge strips.

B. Related Sections:
   1. Section 09 65 00 - RESILIENT FLOORING: rubber base.

.2 REFERENCE STANDARDS

A. ASTM D5848 - Standard Test Method for Mass Per Unit Area of Pile Yarn Floor Coverings; 2020 Edition.

B. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2022.

A. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride; 2023.

B. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes; 2019a.

.3 SUBMITTALS

A. Submit in accordance with SECTION 01 33 23 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Product Data: Include manufacturer's installation instructions.

C. Concrete Slab Testing
   1. Alkalinity and Adhesion Testing:
      a. Submit result of pH tests.
      b. Submit written documentation of acceptable pH levels of selected flooring manufacturer.
      c. Submit letter from flooring manufacturer stating that floor alkalinity is acceptable and manufacturer will issue warranty.
      d. Proceed with installation only after substrates pass testing.
   2. Relative Humidity Probe Tests:
      a. Submit results for in situ relative humidity probe tests.
      b. Submit date and time measurements were made.
      c. Submit locations and depth of probe holes.
      d. Submit temperature and relative humidity in each probe hole.
      e. Submit ambient air temperature.
      f. Acceptable relative humidity is typically 75% or less. Submit written documentation of tolerances for selected flooring manufacturer. Proceed with installation only after substrates have relative humidity percentage stated as acceptable by manufacturer.
      g. Submit letter from flooring manufacturer stating that relative humidity is acceptable and manufacturer will issue warranty.
   3. Anhydrous Calcium Chloride Testing
      a. Submit time and date of placement and retrieval.
      b. Submit ambient air temperature and humidity during test duration
      c. Submit manufacturer’s instructions and relative technical data.
      d. Acceptable moisture emission rates are typically 3 lbs. per 1000 sq. ft. or less, in 24 hours. Submit written documentation of tolerances for selected flooring manufacturer. Proceed with installation only after substrates have maximum moisture-vapor-emission rate as stated by manufacturer.
      e. Submit letter from flooring manufacturer stating that floor moisture emission rates are acceptable and manufacturer will issue warranty.

D. Samples for verification purposes in manufacturer’s standard size, showing full range of color, texture, and pattern variations expected. Secure samples from material to be used for the work. Submit the following:
   1. 12" square samples of each type of carpet material required.
   2. 12" long samples of each type of exposed edge striping and accessory item.

E. Seaming Diagrams: Submit to the Architect for review.
   1. Contractor shall be responsible for conformance with the drawings and specifications relative to the installation.

2. Architect's review will cover the sizes of the pieces and location of seams, but not dimensions or quantities.
3. All length seams and cross joints necessary to the layout of the carpet shall be shown on the seaming diagrams.

F. Maintenance Manual: Provide 2 copies of a printed maintenance manual, written by the carpet manufacturer's Technical Service Department delivered to the Owner at the project site. Include the following:
1. Methods for maintaining carpet, including cleaning and stain-removal products and procedures and manufacturer's recommended maintenance schedule.
2. Precautions for cleaning materials and methods that could be detrimental to carpet.

.4 QUALITY ASSURANCE
A. Manufacturer: Company specializing in carpet manufacturing with 5 years minimum experience.
B. Installer Qualifications: An experienced installer with 3 years minimum documented experience in carpeting installations of similar scope.

.5 DELIVERY, STORAGE, AND HANDLING
A. Delivery: Carpet shall be delivered to the project site in mill wrappings. Each roll shall have register number tags attached or register number stenciled on bale.
B. Store materials for 3 days prior to installation in the areas of installation to achieve temperature stability.

.6 PROJECT CONDITIONS
A. Measurements: Dimensions supplied on the drawings are approximate. Contractor shall carefully check dimensions and other conditions affecting his work in the field and shall be responsible for proper installation.

.7 ENVIRONMENTAL REQUIREMENTS
A. Temperature and Humidity: Carpet must be installed when the indoor temperature is between 65°F. and 95°F. with a maximum relative humidity of 65%. If ambient temperatures are outside these parameters, the installation must not begin until the HVAC system is operational and these conditions are maintained at least 48 hours before, during, and 72 hours after completion.
B. Provide sufficient lighting.

.8 WARRANTIES
A. Manufacturer's 20-year warranty, non-prorated, against product failure covering all costs including freight, labor, and material for the following:
1. Edge Ravel - wet or dry.
2. Back delamination, wet or dry.
3. Loss of 20 lb. average tuft bind - wet or dry.
4. Static protection - 3.0 KV when tested under the Standard Shuffle Test, 70 F - 20% RH
5. Wear - No more than 10% face yarn loss.
6. Adhesive failure.

B. Installation Warranty: 5-Year Warranty, non-prorated, against installation related failure covering all costs including freight, labor, and material.

.9 MAINTENANCE
A. Extra Materials: Upon completion of work, deliver to the project site not less than 12 sq. yds. of each type, color, and pattern of carpet, exclusive of materials required to properly complete installation. Furnish maintenance materials from same production run as materials installed. Package maintenance materials with protective covering, identified with appropriate labels. Other remnants, usable scraps, and overage in carpeting shall be packaged in appropriate wrapping, labeled, and delivered to the Owner.

PART 2 - PRODUCTS

.1 MATERIALS
A. (CPT-01): Carpet: Provide Create Balance **11770** as manufactured by Tarkett. Carpet shall meet the following minimum requirements, NO EXCEPTIONS: ***[ADDENDUM NO. 3]***
1. Construction: ~~**Tufted**~~ **Patterned Loop** ***[ADDENDUM NO. 3]***
2. Surface Texture: Multilevel
3. Color: Color as scheduled in "Material Finish Schedule" in drawings
4. Yarn Weight: 20 - 24 oz. per sq. yard minimum.
5. Gauge: ~~**1/10**~~ **5/64** minimum. ***[ADDENDUM NO. 3]***
6. Density: ~~**6,000**~~ **7,291** oz. Per cubic yd. minimum (per ASTM D5848). ***[ADDENDUM NO. 3]***
7. Face Yarn: 100% branded nylon, Type 6 or Type 6,6. 100% Bulk Continuous Filament (BCF)
8. Stain Resistance: AATCC-175, must pass Acid Red 40 spot test with an 8 or better.
9. Dye System: Solution dyed.
10. Backing: 100% thermoplastic composite (no latex or urethanes). Backing system must provide a 100% moisture barrier.

11. Width: 6-foot broadloom.
12. Appearance Retention; one of the following:
    a. ASTM D-7330 Method for Assessment of Surface Appearance Change in Pile Yarn Floor Coverings (Hexapod Test): Minimum 3.0 rating for heavy traffic.
    b. ASTM D5417 Vetterman Drum Test for 22,000 cycles. A minimum rating of 3.0 using CRI TM-101 Reference Scale.

B. (CPT-02): Carpet: Provide Assertive Stria 04839 as manufactured by Tarkett. Carpet shall meet the following minimum requirements, NO EXCEPTIONS:
1. Construction: ~~**Tufted**~~ **Patterned Loop** ***[ADDENDUM NO. 3]***
2. Surface Texture: Multilevel
3. ~~****NOTE: Maximum 20 oz face weight for closed cell (Powerbond) backing; otherwise, it crushes over on itself.*****~~ ***[ADDENDUM NO. 3]***
4. Color: Color as scheduled in "Material Finish Schedule" in drawings
5. Yarn Weight: 20 - 24 oz. per sq. yard minimum.
6. Gauge: ~~**1/10**~~ **5/64** minimum. ***[ADDENDUM NO. 3]***
7. Density: ~~**7,000**~~ **9,164** oz. Per cubic yd. minimum (per ASTM D5848). ***[ADDENDUM NO. 3]***
8. Face Yarn: 100% branded nylon, Type 6 or Type 6,6. 100% Bulk Continuous Filament (BCF)
9. Stain Resistance: AATCC-175, must pass Acid Red 40 spot test with an 8 or better.
10. Dye System: Solution dyed.
11. Backing: 100% thermoplastic composite (no latex or urethanes). Backing system must provide a 100% moisture barrier.
12. Width: 6-foot broadloom.
13. Appearance Retention; one of the following:
    a. ASTM D-7330 Method for Assessment of Surface Appearance Change in Pile Yarn Floor Coverings (Hexapod Test): Minimum 3.0 rating for heavy traffic.
    b. ASTM D5417 Vetterman Drum Test for 22,000 cycles. A minimum rating of 3.0 using CRI TM-101 Reference Scale.

C. Substrate Filler: As recommended by adhesive and carpet manufacturer; compatible with substrate.
D. Adhesive: As recommended by the carpet manufacturer.
E. Edge Strips:
1. Provide edge strips as scheduled in the "Material Finish Schedule" in drawings.
2. Color as scheduled in "Material Finish Schedule" in drawings.
F. Miscellaneous Materials: Types of seam sealers, thread, and other accessory items recommended by the carpet manufacturer and installer for the conditions of installation and use.

PART 3 - EXECUTION

.1 INSPECTION
A. Before commencement of work the Contractor shall inspect the floors to receive carpet to determine the condition of those surfaces, and shall furnish and apply suitable primer and otherwise prepare floor surfaces in accordance with the carpet manufacturer's instruction.

.2 PREPARATION
A. Delay installation until surrounding work, including painting, has been completed. Vacuum substrate immediately prior to carpet installation, and remove deleterious substances which would interfere with installation or be harmful to the work.
B. Ensure floors are level, with maximum surface variation of 1/4 inch in 10 feet noncumulative. Inspect subflooring for cracks, holes, abrasions, rough spots, ridges, or other conditions which will adversely affect execution and quality of work.
C. Ensure concrete floors are free from scaling and irregularities and exhibit neutrality relative to acidity and alkalinity.
D. Use an approved cementitious filler to patch cracks, small holes, and for leveling.
E. Notify Architect in writing of conditions which will prevent satisfactory completion of work. Do not proceed until such defects are entirely corrected. Application or installation of carpet shall constitute acceptance of sub-floors.
F. Relaxing/Conditioning Carpet: To minimize wrinkling and buckling, and to facilitate installation, carpet shall be unrolled and allowed to relax in the installation area for a minimum of 24 hours at a temperature between 65°F. and 95°F. Carpet must be adequately protected from soil, dust, moisture and other contaminants.
G. Testing of concrete slabs
1. Anhydrous Calcium Chloride Testing

a. Conduct anhydrous calcium chloride testing per ASTM F1869, modified to include testing over concrete containing lightweight aggregate.
b. Environmental requirements of area to be tested are to match that of the finished floor covering. Doors, windows, roofing, etc. must be installed and the temperature of the building controlled to a finished building atmosphere. Ensure interior building climate is 75 degrees F ± 10 degrees F and 50% Relative Humidity ± 10% for 72 hours prior to, and throughout the duration of the tests.
c. The number of test kits required is determined by the square footage of areas scheduled to receive finish flooring. A minimum of three test kits are required in the first 1,000 sq. ft. a minimum of one test kit per each additional 1,000 sq. ft. with consideration given to separation of test areas. Time of exposure is a minimum of 60 hours and a maximum of 72 hours.
d. A prepackaged calcium chloride test kit is equipped with a sealed dish of anhydrous calcium chloride, a metering dome with gasket and instructions.
    1) Clean substrate in area to be tested by removing dust solvent, paint, wax, oil, grease, residual adhesive, adhesive removers, curing, sealing, hardening, or parting compounds, alkaline salts, excessive carbonation, or laitance, mold mildew and other foreign materials.
    2) Weigh the tape sealed dish on a gram scale with 1/10th gram gradation. Record start weight, date and time on dish's label and instruction document.
    3) Unseal dish and expose test according to preprinted test kit instructions.
    4) Allow 60 to 72 hours of exposure. Retrieve test dish re-seal and re-weigh according to instructions.
    5) Provide a diagram of the building, with calculations, documenting each test location with its results in writing.
e. Acceptable moisture emission rates are typically 3 lbs. per 1000 sq. ft. or less, in 24 hours; however, submit written tolerances for selected flooring manufacturer. Proceed with installation only after substrates have maximum moisture-vapor-emission rate as stated by manufacturer.
f. Submit letter from flooring manufacturer stating that floor moisture emission rates are acceptable and manufacturer will issue warranty.

2. In Situ Relative Humidity Probe Test:
    a. Conduct in situ relative humidity probe testing per ASTM F2170.
    b. Concrete floor slabs shall be at the service temperature and the occupied air space above the slab shall be at the service temperature service relative humidity far at least 48 hours before taking relative humidity measurements in the concrete slab.
    c. Perform 3 tests for the first 1,000 sq/ft. and a minimum of 1 test for every 1,000 sq/ft. thereafter.
    d. For slabs on-grade and below-grade choose a testing location within 3 feet of each exterior wall.
    e. Drill probe holes 40% into depth of slab for slabs drying from the top only and 20% into the slab for slabs drying from top and bottom.
    f. Remove dust from hole using vacuum cleaner and allow 72 hours to achieve moisture equilibration within hole before taking relative humidity measurements.
    g. After inserting probe allow necessary amount of time for probe to reach temperature equilibrium before measuring relative humidity.
    h. Use the relative humidity probe to measure the ambient air temperature and relative humidity above the slab in the vicinity of the hole.
    i. Proceed with installation only after substrates pass testing.
    j. Submit letter from flooring manufacturer stating that floor relative humidity percentage is acceptable and manufacturer will issue warranty.
3. Alkalinity and Adhesion Testing
    a. Conduct pH test per ASTM F710.
    b. Test for alkalinity prior to installation of flooring materials.
    c. pH levels shall not exceed the written recommendation of the flooring manufacturer and the adhesive manufacturer.
    d. A pH range of 5-9 is optimum, not to exceed 9 pH. Submit written acceptable pH levels of selected flooring manufacturer.
    e. Proceed with installation only after substrates pass testing.
    f. Submit letter from flooring manufacturer stating that floor alkalinity is acceptable and manufacturer will issue warranty.

.3 INSTALLATION

A. Install carpet using the direct cement method.
   1. Comply with carpet manufacturer's written instruction and recommendations. Maintain direction of pattern and texture throughout the entire building. Do not seam weft to warp, except as directed by Architect.
   2. Extend carpet under open-bottomed and raised-bottom obstructions, and under removable flanges of obstructions. Extend carpet into closets and alcoves of rooms indicated to be carpeted, unless another floor finish is indicated for such spaces. Extend carpet under movable furniture and equipment.
   3. Install carpet wall to wall, using continuous lengths and as broad widths as possible to minimize the placement of seams in traffic lanes. Cut edges shall be trued and appropriately treated to form invisible and non-raveling joints where exposed.
   4. Edges of carpet abutting vertical surfaces shall fit tight and meet against such materials. Where carpet edges are not concealed by thresholds or other materials use vinyl edge strips.
   5. In corridors, run carpet length parallel to the corridor walls. At corridor intersections, carpet shall change direction.
   6. Installed carpet shall be free of spots, dirt or soil, and shall be without tears, frayed or pulled tufts. Carpet surfaces shall be smooth and tight, without wrinkles and open seams.

B. Check matching of carpet before cutting and ensure there is no visible variation between dye lots.

C. Double-cut carpet seams, where required, in manner to allow proper seam and pattern match. Ensure cuts are straight and true and unfrayed.

D. Seams
   1. Install in accordance with approved seam layout using a minimum of seams. Where possible and practical, locate seams in areas of least amount of traffic.
   2. Do not use small carpet fill strips.
   3. Do not place seams perpendicular to doors or entries.
   4. Cross joints necessary due to layout of areas shall be at absolute minimum and shall be indicated on shop drawings.
   5. Cross joins necessary due to length of rolls received shall be placed, in the cutting, to avoid occurrence at conspicuous locations, near doors or at pivot points, and shall be approved prior to seaming.
   6. Join seams in recommended manner so as not to detract from the appearance of the carpet installation and decrease its life expectancy. Ensure seams are straight, not overlapped or peaked and free of gaps.
   7. Chemically or mechanically weld seams with manufacturer’s recommended seam sealer as stated in installation instructions. Make sure the seams are fully sealed/welded.
   8. Roll with appropriate roller for complete contact of hardback carpet with mill-applied adhesive to sub-floor.
   9. When recommended by manufacturer, backing should be rolled according to manufacturer’s instructions to assure transfer of the adhesive between floor and carpet backing.
   10. When required by the manufacturer’s warranty, the manufacturer’s recommended seam sealer must be applied to cut edges of carpet to prevent seam failure.

E. Vacuum clean substrate. Spread adhesive in quantity recommended by manufacturer after primer application to ensure proper adhesion over full area of installation. Apply only enough adhesive to permit proper adhesion of carpet before initial set.

F. Lay carpet on floors with the run of the pile in same direction of anticipated traffic. Lay carpet on stairs with run of the pile in opposite direction of anticipated traffic to avoid peeking of backing at nosing.

G. Do not change run of pile in any one room or from one room to next where continuous through a wall opening.

.4 CLEANING

A. Remove excess adhesive from floor, base, and wall surfaces without damage.

B. Clean and vacuum carpet surfaces.

.5 PROTECTION

A. Prohibit traffic from carpet areas for 24 hours after installation.

END OF SECTION

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SECTION 10 14 00

IDENTIFYING DEVICES



06/11/2026

PART 1 - GENERAL

.1 SUMMARY

A. Section Includes:
1. Cast aluminum letters
2. Interior room identification signs
3. Exterior room identification signs
4. Building dedication plaque
5. Post and panel site signs
6. Vinyl Adhesive Letters at Storefront

B. Related Sections:
1. Section 01 21 00 - ALLOWANCES.

.2 SUBMITTALS

A. General: Submit in accordance with SECTION 01 33 23 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Samples: Submit manufacturer's complete line of color samples, 1" x 3", for initial color selection.

C. Invoices: Submit certified copies of invoices indicating description and quantity of signs delivered and installed.

D. Template: Submit full-size template drawing for approval:
1. Aluminum letter size, stock, spacing, anchorage devices, etc.
2. Building Dedication Plaque.

.3 BUILDING LETTERS PRE-INSTALLATION CONFERENCE

A. Aluminum Letter Pre-installation Meeting: Contractor shall schedule a pre-installation meeting at the project site with the Architect, Contractor and building letter installer for approval of template field layout prior to beginning of installation.

.4 QUALITY ASSURANCE

A. Interior signs shall be provided by a single source with at least five years' experience successfully providing signs of similar type and scope.

B. Signs shall comply with the Texas Accessibility Standards (TAS) and other laws and ordinances of authorities having jurisdiction. Braille shall be Grade II, having dimensions as required to meet TAS.

.5 PACKING, DELIVERY, AND STORAGE

A. Deliver components correctly packaged to prevent damage. Pack modules and back-up plates unassembled to allow for mechanical mounting of backplate to wall with concealed fasteners.

B. Individually and clearly identify each sign number, type, location to be installed, mounting instructions, and other pertinent information.

.6 WARRANTY

A. Cast Aluminum Letters: Provide 5-year manufacturer's warranty.

B. Exterior Signage: Provide manufacturer's standard 5-year warranty from the date of Substantial Completion against delamination or fading.

PART 2 - PRODUCTS

.1 CAST ALUMINUM LETTERS

A. Basis of Design: Provide cast aluminum letters as manufactured by A.R.K. Ramos Mfg Signage Systems.

B. Type: Custom fabricated letters and numbers specified herein and as shown on elevations in the drawings. Letters to be cast aluminum with baked enamel finish in custom color as selected by Architect.
1. Sign to read as referenced on drawings.
2. Sign to be a logo provided by the district - single color. Size as shown on drawings. **To be included in Allowance No. 3. *[ADDENDUM NO. 3]***

C. Material: Manufacturer's standard aluminum alloy for casting. Screws shall be stainless steel.

D. Fabrication: Letters shall be fully fabricated before enameling.
1. Letters shall be cast with smooth flat faces, sharp corners, true lines and accurate profiles.
2. Cast letters shall be free of pits, scale, and holes, or other defects and faces shall be mechanically finished to a satin texture and etched.
3. Provide at least two points of attachment for each letter.

E. Pre-cleaning: Immerse the letters in hot alkaline cleaner to remove all contamination.

F. Finishing: Letters shall receive a baked-on enamel finish bonderized to aluminum at 350°F. and guaranteed for 5 years against peeling, fading, crazing and blistering. Color shall be custom color as selected by Architect.

G. Type: Custom fabricated letters and numbers specified herein and shown on elevations in the drawings. Letters to be cast aluminum with clear anodized finish.
1. Sign to read as referenced on drawings.
2. Sign to read: "1745", 10 in. numbers for the street address
3. Sign to read: "OPPORTUNITY AWARENESS CENTER", 10 in. letters. Exact wording to be determined by Owner.

H. Material: Manufacturer's standard aluminum alloy for casting. Screws shall be stainless steel.

I. Fabrication:
1. Letters shall be cast with smooth flat faces, sharp corners, true lines and accurate profiles.
2. Cast letters shall be free of pits, scale, and holes, or other defects and faces shall be mechanically finished to a satin texture.
3. Provide at least two points of attachment for each letter.

J. Pre-cleaning: Immerse the letters in hot alkaline cleaner to remove contamination.

.2 INTERIOR IDENTIFICATION GRAPHICS

A. "InTouch" photopolymer plaque signs as manufactured by ASI Sign Systems, Inc. (8181 Jetstar Drive, Suite 100, Irving, Texas, 75063) or approved equivalent.
1. Manufacture face panels utilizing an 1/8" integral photopolymer panel.
2. Face panel tactile and Grade 2 Braille graphics shall be raised a minimum of 1/32".
3. Treat the face panel to assure paint adhesion.
4. Colors to be selected by Architect to meet ADA requirements for contrast.
5. Characters and background of signs shall have eggshell, non-glare finish.
6. Sign edges shall be painted to match background.
7. Sign edges are to be smooth and free of saw marks and imperfections.
8. Sign design shall be as indicated on drawings.
9. Typeface font and size shall be per drawings.
10. Lettering shall be computer generated, accurately reproducing the letterform.
11. Provide matching coverplate for signs mounted on glass.

.3 EXTERIOR ROOM IDENTIFICATION GRAPHICS

A. Wall-mounted plaque signs as manufactured by ASI-Modulex or approved equivalent. (Phone 972.915.3800)
1. Manufacture panels utilizing an aluminum panel.
2. Face panel tactile and Grade 2 Braille graphics shall be raised a minimum of 1/32".
3. Colors to be selected by Architect to meet ADA requirements for contrast.
4. Sign edges are to be smooth and free of imperfections.
5. Sign design shall be as indicated on drawings.
6. Typeface font and size shall be per drawings.
7. Lettering shall be computer generated, accurately reproducing the letterform.

.4 BUILDING DEDICATION PLAQUE

A. Provide building dedication plaque as manufactured by A.R.K. Ramos Manufacturing Co., Inc. or approved equivalent.

B. Material: 1/4" thick stainless steel with paint-filled letters.
1. Size: 18" x 24".
2. Typeface: 1/2" x 3/4" Times Roman, all caps, recessed copy.
3. Text: 500 letters in 18 - 20 lines, as provided by Architect.
4. Paint fill color: Selected by the Architect from the manufacturer's standard colors.
5. **Mirror buff finish** of face and edges.
6. Mounting: Provide 17-1/2" x 23-1/2" x 1/4" thick Lexan plastic mounting plate.
   a. Secure mounting plate to wall using toggle bolts.
   b. Attach plaque to a mounting plate using four matching dowels and construction adhesive.

.5 post and panel sign

A. Basis of Design: Provide "Compass" Exterior Post and Panel Sign System as manufactured by ASI Sign Systems, Inc. Equivalent signs by the following manufacturers will be acceptable:
   APCO Architectural Signs
   ASI Sign Systems
   Tablet & Ticket Co.
1. Post and panel signs as shown on drawings.

.6 EXTERIOR VINYL ADHESIVE LETTERS

A. Vinyl Adhesive Letters:

1. Provide 2-mil thick, moisture resistant, electronic cut and thermal transfer Scotchcal Electrocut Graphic Film Series 7725 or approved equivalent.
2. Provide letters/numbers at each building entry in number/letter configuration as on drawings.
3. Provide letters/numbers in location near entry as shown on drawings.
4. Provide 7-year warranty.
5. Color as selected by Architect.

.7 INTERIOR GRAPHIC

A. Provide two, 1/4" acrylic layers for Reception sign. Tape mounted in stacked colored layers. Size as indicated on drawings. Coordinate final design and location with Owner. **To be included in Allowance No. 3. *[ADDENDUM NO. 3]***

PART 3 - EXECUTION

.1 INSTALLATION

A. Erecting Letters: Erect letters straight and level on the exterior face of building where shown.
1. Attached to face brick: Secure with threaded stud anchors set in non-staining, quick setting cement. Letters shall be flush mounted to masonry surfaces.
2. Attached to CMU wall: Secure letters to CMU wall with stainless steel threaded rods and non-staining, quick setting cement. Letters shall be flush mounted to masonry surfaces.
3. Bottom rail mounting on top of prefabricated aluminum canopy.
a. Attach continuous aluminum rail to top of aluminum canopy as indicated on the Drawings.
b. Drill and tap letters from the bottom, with stainless steel screws going through aluminum rails.
c. Provide a flattened base on letters with round bottoms (O, S, G, etc.) to receive studs.
d. Include tiebacks as recommended by letter fabricator.

B. Identification Graphics:
1. On hard surfaces (i.e. ceramic tile, masonry, or plastic laminate), install room identification signs plumb and square with the "Tuff-bond" silicone adhesive furnished by the manufacturer (foam tape is not allowed).
2. On painted gypsum wallboard or vinyl wallcovering, install room identification signs on backing plates with the "Tuff-bond" silicone adhesive furnished by the manufacturer (foam tape is not allowed).
a. The backing plate shall be 1/8" thick and shall be the same size as the face panel.
b. Screw the backing panel into molly bolts in the wall with two countersunk, flathead screws.
3. Tactile characters on signs shall be located 48 inches minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.
4. Unless noted otherwise, install signs on latch side of the door such that clear floor space of 18 inches minimum by 18 inches minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.
5. Installation shall comply with ADA requirements.
6. For signs mounted on glass, install matching coverplate on opposite side of glass and aligned with the sign.
7. Overhead Panels: Install overhead panels in strict accordance with manufacturer's instructions.

C. Building Dedication Plaque: Install building dedication plaque plumb and square in strict compliance with manufacturer's instructions.

D. Post and Panel Sign: Install signs in strict compliance with manufacturer's instructions.

E. Marquee Sign: Install marquee sign in strict compliance with manufacturer’s instructions.

F. Vinyl Adhesive Letters: Install pressure sensitive vinyl letters plumb and square in strict compliance with manufacturer's instructions.

.2 CLEANING

A. On completion, clean exposed surfaces and leave free of defects.
B. Do not use abrasives.

.3 COORDINATION

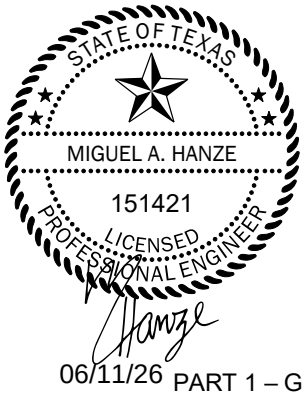
A. Contractor shall coordinate the installation of the identifying devices with other trades involved in the project.

.4 DAMAGE

A. An identifying device which is scratched or defaced will be rejected.

END OF SECTION

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June 11, 2026
New Opportunity Awareness Center
Katy ISD
Katy, TX

SECTION 21 30 00

FIRE PUMP SYSTEMS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. The General Provisions of the Contract, including General, Supplementary and Special Conditions, apply to the work specified in this Section.

1.2 GENERAL REQUIREMENTS

A. Provide all piping and equipment shown on the drawings, and all controls, accessories and wiring necessary for a complete operating system.

B. Systems and installation shall comply with the requirements of City Fire Marshall, applicable NFPA codes, FM/UL approving agencies and the State Board of Insurance requirements.

C. Piping shall not be installed over electrical panels or transformers.

1.3 SCOPE OF WORK

A. Contractor shall provide, install, integratee, and test fire pump system to support the Fire Sprinkler System, specified in Sections 21 12 00 and 21 13 13 of the Specifications.

PART 2 – MATERIALS AND METHODS

2.1 VERTICAL INLINE FIRE PUMP

A. GENERAL: Provide a complete and operational vertical electric fire pump system with fire pump controller and automatic transfer switch as specified herein and as scheduled and as shown on the Drawings. All equipment furnished and the complete installation shall be in accordance with NFPA 20. Pump and controller with automatic transfer switch shall bear the
UL label.

B. FIRE PUMP:

1. The electric driven fire pump shall be a vertical inline, centrifugal type, UL-Listed, FM-approved and in compliance with all requirements of NFPA 20. The pump shall be Pentair Aurora Model 4-383-7C; bronze-fitted construction with Class 30 cast iron casing, bronze impeller, renewable bronze sleeves and bronze wear rings, packed stuffing boxes and grease lubricated ball bearings. Pump shaft shall be high strength steel. Pump shaft deflection shall not exceed 0.002" at the stuffing boxes when operating at 25% of the best operating point. Pump suction and discharge flanges shall be ANSI 125# flanges unless the incoming static pressure plus churn pressure is above 175 PSI; then provide 250# discharge flange. The fire pump shall be factory mounted on a fabricated steel drip-lip base and connected through a flexible coupling to an open drip-proofa TEFC motor. Motor shall have a 1.15 service factor shall be sized to not exceed the permissible loading limits of NFPA 20 at any point on the pump performance curve. Locked rotor current shall not exceed the values specified in NFPA 20. Each motor shall be of such capacity that at rated voltage under any pump operating condition, the full load ampere rating shall not be exceeded except as permitted by the service factor stamped on the motor nameplate. Motors shall be compatible with the specified motor controller. Motor electrical characteristics and capacity shall be as scheduled and shown on the Drawings.

2. The fire pump shall have capacities as scheduled on the drawings and shall have a maximum shutoff head not to exceed 120% of design and shall be capable of pumping a minimum of 150% of rated capacity at 65% of rated pressure. Pump shall deliver the scheduled capacity at a suction condition of zero psi.

3. Pump shall be hydrostatically tested at 1.5 times the maximum working pressure but in no case less than 250 psig.

C. ACCESSORIES:

1. Provide pump accessories per NFPA 20, including, but not limited to:

a. 1/2" automatic air release.

b. 3/4" minimum casing overheat relief.

c. Casing relief solenoid valve.

d. 3-1/2" dial compound suction pressure gauge.

e. 3-1/2" dial discharge pressure gauge.

f. Eccentric tapered suction reducer.

g. Concentric tapered discharge increaser.

h. Base-mounted coupling guard.

i. Splash shield.

j. Test header with 2-1/2" valves with caps and chains; test header valve quantity shall be per NFPA 20. Pump test flow measuring device in a bypass routed back to the surge tank.

D. FACTORY TESTING: The fire pump shall be factory tested and certified in accordance with NFPA 20. Certified performance test results and curves shall be delivered to the Engineer for review prior to final fire pump acceptance.

E. FIELD SERVICE: The pump supplier shall provide pump checkout, start-up, testing and adjusting of system components and shall perform field certification testing on the installed fire pump. The pump supplier shall also train the Owner's Engineer in the proper operation and maintenance of the fire pump system.

F. ACCEPTABLE MANUFACTURERS: Aurora, Armstrong or Patterson.

2.2 MAIN FIRE PUMP CONTROLLER

A. GENERAL:

1. The main fire pump controller shall be a factory assembled, wired and tested unit and shall conform to all the requirements of the latest edition of NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection and NFPA 70, National Electrical Code.

2. The controller shall be listed by Underwriters Laboratories, Inc., in accordance with UL218, Standard for Fire Pump Controllers, CSA, and Canadian Standards Association CSA-C22.2, Standard for Industrial Control Equipment (cULus), approved by Factory Mutual and approved by the City of New York for fire pump service.

B. STARTING METHOD:

1. The controller shall be of the combined manual and automatic type designed for Wye Delta Closed Starting of the fire pump motor having the horsepower, voltage, phase and frequency rating shown on the plans and drawings.

2. The controller components shall be housed in a NEMA Type 3R floor mounted enclosure.

3. All controller components shall be front mounted, wired and front accessible for maintenance. The minimum withstand rating of the controllers shall not be less than 100,000 Amps RMS Symmetrical at 200-600 Volts.

C. ISOLATION SWITCH AND CIRCUIT BREAKER

1. The controller shall include a motor rated combination isolating disconnect switch/circuit breaker, mechanically interlocked and operated with a single, externally mounted handle. When moving the handle from OFF to ON, the interlocking mechanism shall sequence the isolating disconnect switch ON first, and then the circuit breaker. When the handle is moved from ON to OFF, the interlocking mechanism shall sequence the circuit breaker OFF first, and then the isolating disconnect switch.

2. The isolating disconnect switch/circuit breaker shall be mechanically interlocked so that the enclosure door cannot be opened with the handle in the ON position except by a hidden tool operated defeater mechanism. The isolating disconnect switch/circuit breaker shall be capable of being padlocked in the OFF position for installation and maintenance safety, and shall also be capable of being locked in the ON position without affecting the tripping characteristics of the circuit breaker. The controller door shall have a locking type handle and three-point cam and roller vault type hardware. The circuit breaker trip curve adjustment shall be factory set, tested and sealed for the full load amps of the connected motor. The circuit breaker shall be capable of being field tested to verify actual pick up, locked rotor, and instantaneous trip points after field installation without disturbing incoming line and load conductors.

D. OPERATOR INTERFACE

1. The fire pump controller shall feature an operator interface with user keypad. The interface shall monitor and display motor operating conditions, including all alarms, events, and pressure conditions. All alarms, events, and pressure conditions shall be displayed with a time and date stamp. The display shall be a 2-line, 20-character, vacuum fluorescent, dot matrix type designed to allow easy viewing from all angles and in all light conditions. The display and interface shall be NEMA rated for Type 3R protection and shall be fully accessible without opening the controller door. The display and user interface shall utilize multiple levels of password protection for system security. A minimum of 3 password levels shall be provided. The display shall be capable of being programmed for any language.

2. The fire pump controller operator interface shall be capable of displaying true RMS digital motor voltage and current measurements for all three phases simultaneously.

3. Voltage and current shall be measured by True RMS technology to provide the most accurate measurement for all sine waves, including non-sinusoidal waveforms. Average responding meters will not be accepted.

4. DIGITAL STATUS/ALARM MESSAGES

a. The digital display shall indicate text messages for the status and alarm conditions of:

Motor On	Sequential Start Time
Minimum Run Time	Local Start
Off Delay Time	Remote Start
Fail to Start	System Battery Low
Under Voltage	Over Voltage
Locked Rotor Trip	Low Suction Pressure
Over Frequency	Emergency Start
Motor Over 320	Motor Overload
Pressure Error	

The Sequential Start Timer and Minimum Run Timer/ Off Delay Timer shall be displayed as numeric values reflecting the value of the remaining time.

E. LED VISUAL INDICATORS: LED indicators, visible with the door closed, shall indicate:

Power On	Emerg. Isolating Switch Open
Pump Running	Low System Pressure
Alarm	Transfer Switch Normal
Deluge Open	Transfer Switch Emergency
Phase Failure	Phase Reversal
Interlock On	

In addition to the standard alarm contacts required by NFPA20, the digital display module shall have N.O. and N.C. contacts for remote indications of any digitally displayed alarm and N.O. and N.C. contacts for remote indication up to EIGHT, specified, programmable alarm.

F. DATA LOGGING: The digital display shall monitor the system and log the following data:

Motor Calls/Starts	Elapsed Motor Run Time
Last Trip Currents	Elapsed Power On Time
Last Breaker Trip	Maximum Run Currents
Minimum Voltages	Minimum Run Currents
Maximum Voltages	Last Motor Run Time
Last Phase Failure	Last Start Currents
Last Phase Reversal	Min/Max Frequency
Min/Max Pressure	

G. EVENT RECORDING:

1. Memory - The controller shall record all operational and alarm events to system memory. All events shall be time and date stamped and include an index number- The system memory shall have the capability of storing 3000 events and allow the user access to the event log via the user interface. The user shall have the ability to scroll through the stored messages in groups of 1, 10, or 100.

2. Communications - The controller shall feature two independent communications ports to allow connectivity to computers, modems, or building management systems.

H. PRESSURE TRANSDUCER

1. The controller shall be supplied with a solid state pressure transducer with a range of 0-300 psi (0-20.7 bar) ±1 psi. The solid state pressure switch shall be used for both display of the system pressure and control of the fire pump controller. Systems using analog pressure devices or mercury switches for operational control will not be accepted.

2. The START, STOP and SYSTEM PRESSURE shall be digitally displayed and adjustable through the user interface. The pressure transducer shall be mounted inside the controller to prevent accidental damage. The pressure transducer shall be directly pipe mounted to a bulkhead pipe coupling without any other supporting members. Field connections shall be made externally at the controller coupling to pre-vent distortion of the pressure switch element and mechanism.

I. OPERATION

1. A digitally set On Delay (Sequential Start) timer shall be provided as standard. Upon a call to start, the user interface shall display a message indicating the remaining time value of the On Delay timer.

2. The controller shall be field programmable for manual stop automatic stop. If set for automatic stopping, the controller shall allow the user to select either a Minimum Run Timer or an Off Delay Timer. Both timers shall be programmable through the user interface.

3. The controller shall be fully programmable to allow up to 8 custom alarm messages to be displayed on the user interface.

4. A nonadjustable restart delay timer shall be provided to allow the residual voltage of the motor to decay prior to restarting the motor. At least 2 seconds, but no more than 3 seconds, shall elapse between stopping and restarting the pump motor.

5. A weekly test timer shall be provided as standard. The controller shall have the ability to program the time, date, and frequency of the weekly test. In addition, the controller shall have the capability to display a preventative maintenance message for a service inspection. The message text and frequency of occurrence shall be programmable through the user interface.

6. A Lamp Test feature shall be included. The user interface shall also have the ability to display the status of the system inputs and outputs.

7. The controller shall not start the fire pump motor under a single-phase condition. If the motor is already running when a phase loss occurs, the controller shall continue to run the motor, but still display a Phase Failure alarm.

J. ACCEPTABLE MANUFACTURES: Tornatech, Firetrol, Metron, or Master.

2.3 TRANSFER SWITCH FOR MAIN FIRE PUMP CONTROLLER

A. The main fire pump controller shall be factory assembled and wired with a power transfer switch listed by Underwrites' Laboratories, Inc. for transfer switch and fire pump service. The power transfer switch shall be approved by Factory Mutual.

B. The power transfer switch and fire pump controller shall be factory assembled, wired and tested as a single unit and shall conform to all requirements of the latest edition of NFPA 20, Centrifugal Fire Pumps and NFPA 70, National Electrical Code.

C. The power transfer switch shall be housed within the fire pump controller enclosure or in a NEMA Type 2 (IEC IP11) drip-proof enclosure attached directly to the fire pump controller. Where the power transfer switch is provided in an attached enclosure, the enclosures shall be fitted so that the assembly constitutes a single unit. The fire pump controller/power transfer switch shall be factory assembled, wired and tested as a unit prior to shipment.

D. The power transfer switch shall include a motor rated disconnect/isolating switch capable of interrupting the motor locked rotor current. The disconnect/isolating switch shall be mechanically interlocked so that the enclosure door cannot be opened with the handle in the ON position except by a hidden tool operated defeater mechanism. The disconnect/isolating switch shall be capable of being padlocked in the OFF position with up to three padlocks for installation and maintenance safety, and shall also be capable of being locked in the ON position. The enclosure door shall have a locking type handle and three-point cam and roller type vault hardware.

E. An auxiliary contract shall be provided on the transfer switch to prevent starting of the emergency generator set when the transfer switch or the main fire pump controller are being serviced.

F. The transfer switch circuitry shall be capable of sensing both the normal power source and the emergency power source. The normal power source pickup shall be set at 95 nominal voltage. The emergency power source shall be set to pick up at 90 nominal voltage and 95 nominal frequency All voltage sensing, frequency sensing, and time delays shall be field adjustable to accommodate individual installation requirements. The transfer signal shall be delayed for one second, delaying the transfer and engine start signals so as to compensate for momentary, normal power outages. An automatic delay of three seconds shall be provided upon transfer to or from the emergency power source to allow the motor to slow sufficiently, preventing line disturbances that could trip either the generator set or fire pump circuit breakers.

G. The transfer switch shall have TRANSFER SWITCH NORMAL, TRANSFER SWITCH EMERGENCY and EMERGENCY ISOLATING SWITCH OFF LED's, TEST and TRANSFER BYPASS switches, an audible alarm device and SILENCE ALARM pushbutton mounted on the flange of the enclosure. The power transfer switch shall be furnished with both normally open and normally closed auxiliary contacts for an engine start signal when normal power failure occurs. Auxiliary contacts shall also be provided and wired to terminals to indicate the transfer switch position. The transfer switch shall be electrically operated and mechanically held, and shall be capable of being operated by a manual transfer mechanism located on the switch.

H. The power transfer switch shall be for normal utility power and engine generator set emergency power or equal equivalent transfer switch provided with alternate acceptable manufacturers pump controller.

2.4 JOCKEY PUMP

A. Pump shall be vertical multi stage, barrel-type vertical pump; designed for surface installation with pump and motor direct coupled and vertically mounted. Motor enclosure shall be TEFC.

B. Pump Construction:

1. Barrel: Stainless steel.

2. Suction and Discharge Chamber: Cast iron with flanged inlet and outlet.

3. Pump Head/Motor Mount: Cast iron.

4. Impellers: Stainless steel, balanced, and keyed to shaft.

5. Pump Shaft: Stainless steel.

6. Seal: Mechanical type with carbon rotating face and silicon-carbide stationary seat.

7. Wear Rings: Teflon.

8. Intermediate Chamber Bearings: Aluminum-oxide ceramic or bronze.

9. Chamber-Base Bearing: Tungsten carbide.

10. O-Rings: Viton.

C. Vendor/contractor shall size pump to match the system conditions.

D. Acceptable manufacturers: Aurora, Armstrong, or Patterson.

2.5 AUXILIARY JOCKEY PUMP CONTROLLER

A. GENERAL: The auxiliary jockey pump controller, if required and specified on the plans and specifications, shall be factory assembled, wired, and tested and specifically designed for this type of service. This controller shall be UL listed, and shall be of the same manufacturer as the main fire pump controller.

B. STARTING METHOD: The controller shall incorporate a full voltage magnetic starter, main disconnect switch, motor fuse block with fuses, HAND-OFF-AUTOMATIC selector switch and a pressure switch.

C. PRESSURE TRANSDUCER

1. The controller shall be supplied with a solid state pressure transducer with a range of 0-300 psi (0-20.7 bar) ±1 psi. The solid state pressure switch shall be used for both display of the system pressure and control of the fire pump controller. Systems using analog pressure devices or mercury switches for operational control will not be accepted.

2. The START, STOP and SYSTEM PRESSURE shall be digitally displayed and adjustable through the user interface. The pressure transducer shall be mounted inside the controller to prevent accidental damage. The pressure transducer shall be directly pipe mounted to a bulkhead pipe coupling without any other supporting members. Field connections shall be made externally at the controller coupling to pre-vent distortion of the pressure switch element and mechanism.

D. RUNNING PERIOD TIMER: The controller shall have a running period timer to prevent too frequent automatic starting of the jockey pump motor. The timer shall be set to keep the motor in operation for at least one minute and interwired with the pressure switch.

E. DISCONNECT SWITCH: The disconnect switch shall be mechanically interlocked so that the enclosure door cannot be opened with the handle in the ON position except by a hidden tool operated defeater mechanism. The disconnect switch shall be capable of being padlocked in the OFF position with up to three padlocks for installation and maintenance safety.

F. ENCLOSURE: The minimum enclosure rating shall be NEMA Type 3R.

G. TESTING

1. The controller manufacturer, prior to shipment, shall hook up and test the jockey pump controller as a completed assembly. This test shall include, but not be restricted to, each function the controller may be required to perform including manual start-stop, automatic start-stop and minimum run timing.

2. The manufacturer shall perform a high potential test of the controller power circuits at not less than two times the rated voltage plus 1000 Volts.

H. ACCEPTABLE MANUFACTURERS: Tornatech, Firetrol, Metron, or Master.

2.6 MOTORS

A. GENERAL: Select for starting torque and current, suitable to start and continuously run equipment served. Horsepower rating shown on Drawings are preferred, but motor must not be loaded more than 1.0

X nameplate horsepower. Provide larger motor if required to stay within this limitation and include all costs for any required increases in the electrical system. All motors shall have metallic nameplates marked with information required by NEC 430-7. Motors that are controlled by inverters shall designed for this application.

B. ENCLOSURE: TEFC. Frame construction shall be steel or cast iron with all surfaces including air passages coated with a rust inhibiting primer and finished with an alkyd or epoxy enamel paint.

C. INSULATION: Class B for maximum 40° C ambient, Class F or H or higher.

D. EFFICIENCY: Motors shall be premium efficiency type and have all copper windings.

E. SERVICE FACTOR: 1.15.

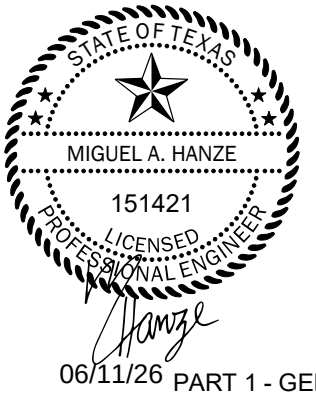
F. ELECTRICAL CHARACTERISTICS: Provide nameplate ratings the same as circuit voltage indicated on the electrical drawings. Coordinate to give proper operation with starting equipment scheduled.

G. SINGLE PHASE MOTORS: Permanent split capacitor start unless special load requires another type, resilient mounting, inherent overload protection and sealed bearings requiring no lubrication but with provisions for future lubrication.

H. THREE PHASE MOTORS: Ball bearings with grease lubrication fitting on top and drain on side or bottom. Average bearing life shall be 150,000 hours.

I. ACCEPTABLE MANUFACTURERS: WEG, Marathon, US Motors

END OF SECTION



June 11, 2026
New Opportunity Awareness Center
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Katy, TX

SECTION 22 11 23

DOMESTIC WATER BOOSTER PUMP

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The General Provisions of the Contract, including General, Supplementary and Special Conditions, apply to the work specified in this Section.

1.2 SUBMITTALS

A. Provide submittals as outlined in Section 22 00 00 General Plumbing

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Furnish and install a duplex variable speed, variable flow factory assembled water booster system. Refer to drawings for capacity requirements.

B. The complete Packaged Pumping System, including pumps, motors, control equipment, tank, valves, fittings and manifolds must be UL Listed under Category QCZJ (Packaged Pumping Systems). In addition to the UL Listing for the complete system the control panel assembly must be separately listed under UL 508A (Industrial Control Panels). All welding shall be performed by certified welders in accordance with ASME section IX.

C. The booster system shall be factory assembled on a structural steel skid including pumps, motors, valves, 304 stainless steel suction and discharge manifolds, and all interconnecting piping, wiring and controls. Manifold connections shall be grooved, or flanged, at both ends. Branch piping and tank piping shall be the same material as the suction and discharge manifolds. Provide isolation valves on the suction and discharge of each pump. The valves shall be full lug butterfly with stainless disk. Provide a stainless steel thermal purge valve on the discharge of each pump. Provide two 4 1/2" ASME grade A, gauges for indicating system suction and system discharge pressure. All skid mounted components shall be factory finished in a high quality enamel paint.

D. Individual pumps, motors and pressure regulating valves may be serviced with the booster system in operation and all components shall be suitable for the maximum working pressure in the system.

2.2 PUMPS

A. System shall include two horizontally mounted close-coupled end suction centrifugal pumps with ANSI flanged connections. Pump features to include, back pull out design, and hydraulically balanced impeller. Pump shall be ductile iron 304 stainless fitted construction with a replaceable shaft sleeve and mechanical seal suitable for a working pressure of 225 PSIG. Motor shall be NEMA close-coupled type with a JM shaft.

2.3 MOTORS

A. Motors shall be totally enclosed fan cooled for vertical mount and manufactured in accordance with NEMA standards. Motors shall be selected so that they do not exceed name plate HP rating throughout the programmed sequence of pump operation. Refer to Section 23 05 13 for additional motor requirements. Baldor motors are not acceptable.

2.4 CHECK VALVES

A. Check valve on each pump. Main valve and cover shall be ductile iron with a fused epoxy coating and stainless steel stem and cover bolts. Construction shall be suitable for the maximum working pressure of the system

2.5 HYDRO-PNEUMATIC TANK

A. Provide a hydro-pneumatic tank with a carbon steel shell and a replaceable F.D.A. approved heavy duty bladder to separate the air and water. No water shall come in contact with the metal walls of the tank. Features shall include an air fill valve and bottom system connection suitable for 100% drawdown.

B. The tank shall be constructed in accordance with Section VIII of the ASME code and be N.B. stamped and shall be rated at a minimum of 125 PSIG.

C. Provide a bladder tank with the pumping system and mount it remotely at the highest fixture nearest to a floor drain. The tank shall be ASME and suitable for 125 PSI working pressure and domestic water

2.6 CONTROL PANEL

A. Control Panel: The control panel shall be UL508A listed for industrial control panels and of the same manufacturer of the pump system. All programming shall be written and supported by the pump system manufacturer. The controller can handle 1 to 3 pumps, in any combination of variable speed, jockey, across the line, or VFD/bypass controlled pumps and sequence them independently for the most efficient operation. The panel enclosure shall be powder coated steel, UL Type 4, and carry a NEMA 1 rating as an assembly.

1. Power Structure:

a. Single Point Connection (A) - The control panel will have main disconnect with individual branch fuse blocks for single point connection. The entire panel as an assembly shall have a 5K IAC rating if fed from circuit breaker or 100K AIC if fed from fused disconnect.

b. Human Machine Interface: The HMI will be a full color 4.3” touch screen with USB input and allow for backing up parameters and downloading the event log and trend data. The HMI & software shall have the following features…

c. Control Panel Features & Options:

1) Meter Bar – Display of suction pressure, system pressure, PID speed, estimated flow, and alternation on ALL screens.

2) Status Bar – Displayed on the Home screen to show what the system is currently doing and display any active changes in operation.

3) Pump Status – Display for all pumps with run timers, run lights, and status indicator.

4) Alarm Bar – Display on ALL screens if any alarms are present.

5) X-Y Trend – Display an X-Y trend of suction pressure, discharge pressure, and PID speed for no less than 60 days and retained if power is lost.

6) Event Log – Display and date alarms, user log ins, and parameter changes for no less than 180 days and retained if power is lost.

7) Alternation – Automatic and manual alternation. Alternation available for all control types from 1 to 3 pumps in any combination of variable speed, constant

speed, jockey, or VFD with bypass and sequence them in groups running the most efficient pumps first always.

8) Dynamic Speed Control – Automatic configuration of all operational settings based on the incoming suction pressure to eliminate hunting, over shoot, and improper operation based on in coming suction pressure fluctuations.

9) PLC & Transducer Failure Circuit – In the event of a PLC failure, or transducer failure, the system shall remain operational and automatically run at a default safe speed until repairs can be made.

10) Password Protection – All parameters and settings are password protected and has default levels of users with the ability to add more by the owner.

11) Sleep Mode – The system shall detect and shut the system down once no flow is confirmed.

12) ASHRAE 90.1 Compliant – The system is configured for either local or remote sensor. When using the local sensor, the system will automatically adjust for friction loss by increasing the set point pressure in relationship to the flow demand.

13) Pressure Recovery Mode – In the event of a power outage where system pressure drops substantially, the system will soft start and slowly fill the building and bring up to pressure before activating the PID.

14) BAS Interfaces – The controller shall come with BACnet MSTP, BACnet IP, and Modbus RS485 interfaces and offer 30 individual data points. BACnet device profile shall be minimum of B-AAC. All BACnet configuration shall be available at the HMI, including selecting either IP or MSTP. PLC shall be BTL certified.

15) Remote Disable/Generator Interlock – The panel will come with two contacts. Remote disable will allow the BAS to disable the system from running. The generator interlock can be used to limit the number of pumps that can run when the on emergency power.

16) Alarms

(a) High System Alarm

(b) Low System Alarm

(c) Low System Pressure

(d) Pump Failed to Start Alarm

(e) Sensor Failure Alarm

(f) Form C Dry Contact for Common Alarm

B. System Options:

1. Pressure Transducers – The system shall come with three, all 316 stainless steel, 4-20ma, pressure sensors and mounted on the (1) suction and (2) discharge header. The discharge sensors

shall be completely redundant for operation and alarms. Discharge transducers can be mounted locally, remotely, or both if specified.

2. System Gauges – System shall be supplied with all 316 stainless steel gauges on each manifold. All gauges to have individual isolation for service.

3. Vibration Isolation – On systems under 200 PSI max working pressure, system will be supplied with rubber flexible connectors on each manifold and rubber vibration isolation.

C. Variable Speed Drives: The drives shall be a microprocessor controlled PWM output drive for variable torque duty and supplied for the maximum full load amps produced by the motor. The drive shall be Series ACH580, UL Listed, and in a NEMA 1 self-contained enclosure. Each drive shall be furnished with a removable, digital keypad, to allow the operator flexibility and control. The keypad shall have a full graphical display with multiple display options and graphing. The keypad shall allow the operator to individually control each motor manually from digital keypad, without entering the control panel. Drive must be supplied with DC chokes with 5% max line impedance. The drive must include a variable speed cooling fan based on temperature. The drive must also self-modulate it's switching frequency to minimize audible noise. The drives shall be mounted external from the control panel to keep heat outside the panel cabinet and extend life cycle of electrical equipment. Drives shall be rated for a minimum of 100K AIC.

2.7 SEQUENCE OF OPERATION

A. As the flow demand on the system increases the PID will speed the pump up to compensate. When the PID output reaches 100% (adjustable) the pump has achieved maximum capacity. Lag pumps start on time delay (triggered by the PID output) for staging the next pump in line. When the next pump starts the PID will begin slowing as the next pump ramps up to speed and absorbs a portion of the system flow. As the system flow demand decreases, the PID will begin reducing the pump speed to accommodate the reduction in system flow. When the speed drops below the minimum speed we know that the pump can no longer make enough pressure to open the check valve. At this point it may be rejected.

2.8 FACTORY TEST

A. After factory assembly, the packaged pumping system shall be hydrostatically tested as well as undergo a complete electric and hydraulic test from 0 to 100% design flow at the factory. All controls, pump sequencing devices, alarms and instrumentation shall be tested and calibrated for proper operation during factory testing.

2.9 WARRANTY

A. Warranty: The entire skid shall be warranted for two years from manufacturing date against defects in materials and workmanship.

2.10 ACCEPTABLE MANUFACTURERS:

A. VC SYSTEMS & CONTROLS, Canariis Corporation, Grundfos and Syncro-Flo.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Installation shall comply with manufacturer's requirements and installation details on the Drawings. Mount tank adjacent to the pump system where noted on the Drawings.

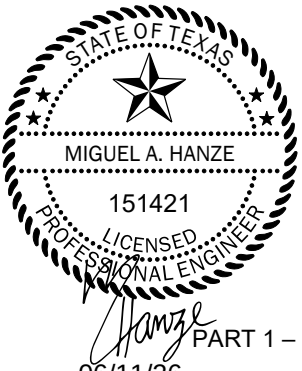
3.2 EQUIPMENT PADS

A. Provide 4” thick concrete pad for booster pump system and tank. Concrete pads shall be sized for the equipment to be supplied. Pad shall exceed base dimensions by approximately 4" all around. Reinforce pads rebar including #4 bar around perimeter. Tool pad to form chamfered edge.

3.3 START UP

A. A factory trained and certified representative shall perform the start-up of the system as well as schedule, provide and conduct all training and instruction to the Owner and Owner’s operating personnel. This representative shall provide a letter on company letterhead stating that the system has been installed properly and functions properly.

END OF SECTION



SECTION 26 36 23

AUTOMATIC TRANSFER SWITCHES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

The General Provisions of the Contract, including General, Supplementary and Special Conditions, apply to the work specified in this Section.

PART 2 – MATERIALS AND METHODS

2.1 AUTOMATIC TRANSFER SWITCHES

A. General: Provide transfer switches installed in NEMA rated cabinets. Refer to drawings for sizes, rating and quantity are required.

Note: Install generator remote annunciator next to Automatic Transfer Switch.

B. Ratings: 480 volts, 3 phase. Provide three pole switch with neutral bar. Provide switching sequence compatible with Power Company requirements. Unit shall have a long-time/closing rating of 30,000 AIC independent of the system circuit breaker or 22,000 AIC if the switch has been tested with the specific circuit breaker installed upstream of the utility contacts.

C. Accessories:

1. Extended start time delay (0 to 90 seconds).

2. Seven-day exerciser clock.

3. Programmed transition (0 to 60 seconds).

4. 24-volt coil auxiliary relay with 2-NO and 2-NC dry contacts.

5. Voltage, Amp and Frequency meters with phase selector switch.

6. Interlock Automatic Transfer Switches control system with school security alarm system to monitor power outage to notify the District Police Department when the building is on emergency power.

7. Provide all required cabling and devices for fully functional systems.

D. Drawings: Provide five sets of service/operation manuals and one set of drawings for the standby generator and transfer switch system and equipment.

E. Warranty: Provide 5 year, non-prorated, parts and labor warranty for the transfer switch system.

F. ACCEPTABLE MANUFACTURERS: Automatic transfer switch shall be by same manufacturer as generator.

G. PROGRAMMING:

1. Program weekly test with no load Tuesday morning at 8am.

2. Program test button START and transfer switch with load.

PART 3 – SETUP AND TESTING

3.1 SYSTEM SETUP

A. The main emergency transfer switch (ATS-E) serving the required lighting and other emergency loads shall be set to start the generator and then transfer the load to the generator with a 1-2 second time delay. The secondary transfer switch (ATS-O) serving kitchen and other optional loads shall be set to transfer to the generator approximately five seconds after ATS-E. Once utility power is restored, the ATS-O shall switch loads back to the utility after five minutes. ATS-E shall switch loads back to the utility after an additional five minutes. ATS-FP shall serve the fire pump controller.

B. Should generator over current conditions be sensed, ATS-O shall be transferred back to normal power to ensure ATS-E and ATS-FP loads are met.

C. Settings shall be modified as required during testing to ensure that required emergency loads are properly served and lighting transfers are coordinated with the lighting control panels, without interference by the non-emergency load transfer switch ATS-O.

3.2 FINAL APPROVAL

The final approval test of the generator system shall consist of opening the building main circuit breaker. Generator shall start and automatically power the electrically load connected to the associated electrical panels. All emergency lights shall illuminate. After operation of emergency loads are verified, main circuit breaker will be closed. Generator system shall wait the prescribed time then automatically transfer these loads back to the utility service. All lights that were ON prior to opening main circuit breaker shall come back ON automatically. Generator shall wait the prescribed time then shut off. Test shall be performed by the factory authorized representative and witness by LTY and school personnel.

END OF SECTION

SECTION 31 31 16

TERMITE CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Soil treatment for termite control.

1.2 DEFINITIONS

A. EPA: Environmental Protection Agency.

B. IPM: Integrated Pest Management. It is the policy of the Owner to use Integrated Pest Management (IPM) as the strategy for control of termites in and around Owner's facilities.

C. PCO: Pest control operator.

D. TDA SPCS: Texas Department of Agriculture – Structural Pest Control Service

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data:
1. Treatments and application instructions, including EPA-Registered Label.
2. Material Safety Data Sheets (MSDS).
3. Classification of Termiticide: Indicate as green listed, yellow listed, or red listed product as recognized by the TDA SPCS.
4. Concurrent with submission of product data to Architect, provide one copy of the submittal to ~~Alvin ISD~~ Katy ISD. **[ADDENDUM NO. 3]**
5. Proposed termiticides must be approved by the Owner prior to the start of any preparation or application.

C. Product Certificates: Signed by manufacturers of termite control products certifying that treatments furnished comply with requirements.

D. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

E. Soil Treatment Application Report: After application of termiticide is completed, submit report for Owner's record information, including the following as applicable:
1. Date and time of application.
2. Moisture content of soil before application.
3. Brand name and manufacturer of termiticide.
4. Quantity of undiluted termiticide used.
5. Dilutions, methods, volumes, and rates of application used.
6. Areas of application.
7. Water source for application.

F. Warranties: Special warranties specified in this Section.

1.4 QUALITY ASSURANCE

A. Applicator Qualifications: A PCO who is licensed according to regulations of authorities having jurisdiction to apply termite control treatment in jurisdiction where Project is located and who is experienced and has completed termite control treatment similar to that indicated for this Project and whose work has a record of successful in-service performance.

B. Regulatory Requirements: Formulate and apply termiticides, and label with a Federal registration number, to comply with EPA regulations and authorities having jurisdiction.

C. Conform with all applicable codes and ordinances including the Federal Insecticide, Fungicide, and Rodenticide Act (7 United Sates Code 136 et seq.); Owner policies and procedures; Environmental Protection Agency regulations in 40 Code of Federal Regulations; Occupational Safety and Health Administration regulations; and state and local regulations.

D. Conform with approved termiticide list criteria established by the TDA SPCS

1.5 PROJECT CONDITIONS

A. Environmental Limitations: To ensure penetration, do not treat soil that is water saturated or frozen. Do not treat soil while precipitation is occurring. Comply with EPA-Registered Label requirements and requirements of authorities having jurisdiction.

1.6 COORDINATION

A. Coordinate soil treatment application with excavating, filling, and grading and concreting operations. Treat soil under footings, grade beams, and ground-supported slabs, before construction.

1.7 WARRANTY

A. General Warranty: Special warranty specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Special Warranty: Written warranty, signed by applicator and Contractor certifying that termite control work, consisting of applied soil termiticide treatment, will prevent infestation of subterranean termites. If subterranean termite activity or damage is discovered during warranty period, re-treat soil and repair or replace damage caused by termite infestation.

C. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 GENERAL

A. Criteria established in the most recent TDA SPCS definitions of these products.
1. Green List. All products must be from the following: inorganic termiticides (i.e., boric acid, disodium octoborate tetrahydrate, silica gels, diatomaceous earth); insect growth regulators; insect baits in tamper-resistant containers or for crack and crevice placement only; microbe-based insecticides; botanical insecticides (not including synthetic pyrethroids) containing not more than 5% synergists; biological (living) control agents.
2. Yellow List. All EPA Category III and IV termiticides (i.e., products carrying a CAUTION signal word) not included in the Green List, with the exception of restricted- use or state limited-use termiticides as defined under the Federal Insecticide, Fungicide, and Rodenticide Act and/or the Texas Agricultural Code.
3. Red List. All Category I and II termiticides (i.e., products carrying a WARNING or DANGER signal word), not included in the Green List, or restricted-use termiticides, or state limited-use termiticides as defined under the Federal Insecticide, Fungicide, and Rodenticide Act and/or the Texas Agricultural Code.

2.2 SOIL TREATMENT

A. Termiticide: Provide an EPA-registered termiticide complying with requirements of authorities having jurisdiction, in a soluble or emulsible, concentrated formulation that dilutes with water or foaming agent, and formulated to prevent termite infestation. Use only soil treatment solutions that are not harmful to plants. Provide quantity required for application at the label volume and rate for the maximum termiticide concentration allowed for each specific use, according to the product's EPA-Registered Label.

B. Manufacturers:
1. AgrEvo Environmental Health, Inc.; a Company of Hoechst and Schering, Berlin.
2. Bayer Corp.; Garden & Professional Care, www.bayerprocentral.com.
3. DowElanco, www.dowagro.com.
4. FMC Corp.; Pest Control Specialties, www.ag.fmc.com.
5. Zeneca Professional Products, www.zeneca.com.

6. Substitutions: Section 01 60 00 - Product Requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for moisture content of the soil, interfaces with earthwork, slab and foundation work, landscaping, and other conditions affecting performance of termite control. Proceed with application only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. General: Comply with the most stringent requirements of authorities having jurisdiction and with manufacturer's written instructions for preparing substrate. Remove all extraneous sources of wood cellulose and other edible materials such as wood debris, tree stumps and roots, stakes, formwork, and construction waste wood from soil and around foundations.

B. Soil Treatment Preparation: Remove foreign matter and impermeable soil materials that could decrease treatment effectiveness on areas to be treated. Loosen, rake, and level soil to be treated, except previously compacted areas under slabs and footings. Termiticides may be applied before placing compacted fill under slabs if recommended by termiticide manufacturer.

C. Fit filling hose connected to water source at the site with a backflow preventer, complying with requirements of authorities having jurisdiction.

3.3 APPLICATION, GENERAL

A. General: Comply with the most stringent requirements of authorities having jurisdiction and with manufacturer's EPA-Registered Label for products.

B. Applications shall be completed no less than seven days prior to initial occupancy of the structure, or as otherwise indicated on the termiticide label, whichever is longer.

C. Vertical Barrier: Apply termiticide at a rate of 4 gallons of emulsion per 10 linear feet per foot of depth, measured from grade to top of footing or bottom of beam. Apply by rodding and/or trenching in accordance with manufacturer's application instructions. Treat both sides of footings, foundation walls, grade beams, and all sides of plumbing pipes and piers. Cover treated soil with a thin layer of untreated soil or polyethylene sheeting.

D. Horizontal Barrier: Apply termiticide at a rate of 1 gallon of emulsion per 10 square feet of grade by low pressure spray. Apply no more than 24 hours prior to placing concrete slabs. If concrete slabs cannot be poured over treated soil the same day, cover treated soil immediately after application with polyethylene sheeting to prevent disturbance of the termiticide barrier. Remove temporary sheeting before placement of permanent vapor retarder per Section 07 26 00. **[ADDENDUM NO. 3]**

3.4 APPLYING SOIL TREATMENT

A. Application: Mix soil treatment termiticide solution to a uniform consistency. Provide quantity required for application at the label volume and rate for the maximum specified concentration of termiticide, according to manufacturer's EPA-Registered Label, to the following so that a continuous horizontal and vertical termiticidal barrier or treated zone is established around and under building construction. Distribute the treatment evenly.

1. Slabs-on-Grade and Basement Slabs: Under ground-supported slab construction, including footings, building slabs, and attached slabs as an overall treatment. Treat soil materials before concrete footings and slabs are placed.
2. Foundations: Adjacent soil including soil along entire inside perimeter of foundation walls, along both sides of interior partition walls, around plumbing pipes and electric conduit penetrating slab, and around interior column footers, piers, and chimney bases; and along entire outside perimeter, from grade to bottom of footing. Avoid soil washout around footings.
3. Crawlspaces: Soil under and adjacent to foundations as previously indicated. Treat adjacent areas including around entrance platform, porches, and equipment bases. Apply overall treatment only where attached concrete platform and porches are on fill or ground.

4. Masonry: Treat voids.
5. Penetrations: At expansion joints, control joints, and areas where slabs will be penetrated.

B. Avoid disturbance of treated soil after application. Keep off treated areas until completely dry.

C. Protect termiticide solution, dispersed in treated soils and fills, from being diluted until ground-supported slabs are installed. Use waterproof barrier according to EPA-Registered Label instructions and manufacturer's recommendations and requirements..

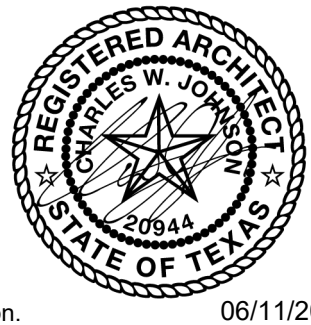
D. Post warning signs in areas of application as required for Commercial Treatment.

E. Reapply soil treatment solution to areas disturbed by subsequent excavation, grading, landscaping, or other construction activities following application.

END OF SECTION 31 31 16

SECTION 32 18 16.13

PLAYGROUND PROTECTIVE SURFACING



06/11/2026

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Unitary, seamless poured in place playground protective surfacing and installation.
   2. Accessories.

B. Related Sections:
   1. Division 31 - EARTHWORK
   2. Division 32 - EXTERIOR IMPROVEMENTS; geotextiles for drainage/separation.

1.2 REFERENCE STANDARDS

A. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension; 2016 (Reapproved 2021).

B. ASTM D624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers; 2000 (Reapproved 2020).

C. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials; 2016 (Reapproved 2021).

D. ASTM E303 - Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester; 2022.

E. ASTM F1292 - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment; 2022.

F. ASTM F1951 - Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment; 2021.

G. ASTM F2223 - Standard Guide for ASTM Standards on Playground Surfacing; 2019.

1.3 DEFINITIONS

A. The surfacing system shall provide overall consistent fall protection and can be customized to meet any safety, design, and aesthetic requirements. ADA compliant surfacing shall be a resilient, monolithic pad, providing a safe, clean, maintenance-free space.

B. Definitions in ASTM F2223 apply to Work of this Section.

C. Critical Height: Standard measure of shock attenuation according to ASTM F2223; same as "critical fall height" in ASTM F1292. According to ASTM F1292, this approximates "the maximum fall height from which a life-threatening head injury would not be expected to occur."

D. SBR: Styrene-butadiene rubber.

E. Unitary Surfacing: A protective surfacing of one or more material components bound together to form a continuous surface; same as "unitary system" in ASTM F2223.

1.4 SUBMITTALS

A. General: Submit in accordance with Section 01 33 23 - SHOP DRAWINGS, PRODUCT DATA, SAMPLES.

B. Product Data:
   1. Provide for each type of product.
   2. Color chart.
   3. IPEMA Certification.
   4. Product liability Insurance Certificate

C. Shop Drawings:
   1. Include plans, sections, placement, penetration details, and attachment to substrates.
   2. Include accessories and edge terminations.
   3. Include patterns made by varying colors of surfacing and details of graphics.

D. Samples:
   1. Provide 6” x 6” sample(s) for each type of exposed finish.
   2. Provide 6” long by full width/cross section for accessories.

E. Warranty: Provide sample of manufacturer’s warranty.

1.5 QUALITY ASSURANCE

A. Qualification
   1. Surface must be IPEMA certified.
   2. Manufacturer must be in business at least 5 years.
   3. The Applicator/Installer shall be trained and approved by manufacturer and must have installed a minimum of 10 applications.

1.6 JOB CONDITIONS

A. Ambient air temperature shall be 45° F (0°C) or greater and rising at the time of installation of the surface and shall remain at 33° F (0°C) or greater for at least 24 hours after application.

B. Adjacent materials and the surface shall be protected during installation, while curing and unattended, from weather and other damage.

1.7 DELIVERY, STORAGE & HANDLING

A. Deliver all materials in good condition, in original unopened packages with labels intact.

B. Store all materials protected from weather and at temperature not less than 32° F (0°C) for any 12-hour duration.

1.8 WARRANTY

A. Special Warranty: Manufacturer and Installer agree to repair or replace components of protective surfacing that fail in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
      a. Reduction in impact attenuation as measured by reduction of critical fall height.
      b. Deterioration of protective surfacing and other materials beyond normal weathering.
   2. Warranty Period: Five years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: Provide DuraPlay Surfacing System as manufactured by DuraPlay, Inc. (phone: 512.847.2473, Website: www.duraplay.com) or approved equivalent.

B. All material components of the surfacing system shall be obtained from the same manufacturer or its authorized distributers. Proposed substitutions are required to provide product data demonstrating that they meet or exceed product specifications complying with this section.

2.2 UNITARY, DUAL-DENSITY, SEAMLESS SURFACING

A. Description: Manufacturer's standard, site-mixed and applied, two-layer material with wearing layer over cushioning layer, with combined, overall thickness as required, tested for impact attenuation according to ASTM F1292 and for accessibility according to ASTM F1951.
   1. Leveling and Patching Material: Portland cement-based grout or epoxy- or polyurethane-based
   2. Primer: Manufacturer's single-component moisture cured polyurethane primer.
   3. Cushioning Layer: DuraPlay formulation of recycled black SBR particles and binder. Base mat made of 100% recycled styrene butadiene rubber (SBR) mixed with high-grade polyurethane.
      a. Shall be recycled SBR Rubber
      b. Shall be cryogenically processed
      c. Shall be 3/8" shredded mesh or 6/20 mesh and contains less than 4% dust.
      d. Shall be packed in suitable bags to protect SBR from moisture
      e. Base mat thickness: minimum of 2.0", depending manufacturer's recommendation on critical fall height of 4'-0".
   4. Wearing Layer: DuraPlay formulation of EPDM rubber particles or Thermoplastic Vulcanizate (TPV, binder, and other organic and inorganic components.
      a. A manufactured rubber having a density of 1 to 4mm.
      b. Color as selected by Architect from manufacturer's full range of colors.
      c. Thickness is nominal 1/2" or 2.44 lb. per square foot.
   5. Binder: An elastic polyurethane pre-polymer, MDI based, low odor, capable of excellent weathering and binding characteristics. Binder shall contain no TDI Monomers.
   6. Critical Height: Critical height shall be calculated from equipment provided by Owner.

2.3 TECHNICAL INFORMATION

A. Applicable Standards
   1. Shock attenuation under ASTM F1292 – GMAX less than 200
   2. Head Injury Criteria – less than 1000
   3. Non-slip characteristics under ASTM E303.
   4. IPEMA Certified
   5. Flammability under 8S -5696 and ASTM D2859.
   6. Tensile strength (ASTM D412) - 60 psi
   7. Tear resistance (ASTM D624) – 140%
   8. Accessibility Standard: Minimum surfacing performance according to ASTM F1951.

B. Chemical Properties
   1. Base mat: 85% SBR Rubber Buffings, 15% Polyurethane Binder
   2. Top Surface: 78% EPDM or TPV Rubber Granules, 22% Polyurethane Binder

PART 3 EXECUTION

3.1 EXAMINATION

A. Prior to application of the playground system, the substrates shall be examined by manufacturers installation technician for compliance with specification and manufacturer requirements. Work shall not proceed until unsatisfactory conditions are corrected.
   1. Acceptable substrates for the playground system include asphalt, concrete and compacted stone. Other substrates shall be approved by manufacturer/installer prior to application.
   2. Conditions of all substrates with respect to structural and drainage performance must be evaluated and approved by the applicator prior to applying the surfacing system. General Contractor is responsible for drainage.

B. Hard-Surface Substrates: Verify that substrates are satisfactory for unitary, protective surfacing installation and that substrate surfaces are dry, cured, and uniformly, level, sloped to drain, and within recommended tolerances according to protective surfacing manufacturer's written requirements for cross-section profile.
   1. Asphalt Substrates: Verify that substrates are dry, sufficiently cured to bond with adhesive, and free from surface defects, dust, dirt, loose particles, grease, oil, and other contaminants incompatible with protective surfacing or that may interfere with adhesive bond.

2. Concrete Substrates: Verify that substrates are dry and free from surface defects, laitance, glaze, efflorescence, curing compounds, form-release agents, hardeners, dust, dirt, loose particles, grease, oil, and other contaminants incompatible with protective surfacing or that may interfere with adhesive bond. Determine adhesion, dryness, and acidity characteristics by performing procedures recommended in writing by protective surfacing manufacturer.

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

3.2 PREPARATION

A. Prepare substrates to receive surfacing products according to protective surfacing manufacturer's written instructions.

B. Hard-Surface Substrates: Clean surface free of laitance, efflorescence, curing compounds, and other contaminants incompatible with protective surfacing.
1. Repair: Fill holes and depressions in unsatisfactory surfaces with leveling and patching material.
2. Treatment: Mechanically abrade or otherwise prepare concrete substrates according to protective surfacing manufacturer's written instructions to achieve adequate roughness.
3. Terminal Edges: Saw cut asphalt for terminal edges of protective surfacing.
4. Treat control joints and other nonmoving substrate cracks to prevent telegraphing through protective surfacing.

3.3 INSTALLATION

A. Substrate Primer:
1. Apply over prepared substrate at manufacturer's standard spreading rate for type of substrate and with equipment as recommended by manufacturer.
2. Do not over saturate substrate.
3. Prime area 1.5 - 2.0 feet around perimeter and any adjacent vertical barriers such as playground equipment support legs, curbs or edging that will contact the surfacing system.
4. Do not use primer over compacted stone.

B. Poured Cushioning Layer: Spread evenly over primed substrate to form a uniform layer applied at manufacturer's standard spreading rate in one continuous operation, with a minimum of cold joints
1. Apply mixed binder/SBR at desired thickness 1/8” higher than measuring bar.
2. Using a steel pool trowel, even binder/SBR mixture. Be sure to continuously lubricate trowel. Do not saturate surface with these lubricants.
3. As the mixture is leveled apply a downward pressure onto the surface so that the mixture compacts tightly.
4. Check surface to be level.
5. Allow to dry for 10 to 12 hours or until no indentations can be made by foot traffic.

C. Intercoat Primer: When required by manufacturer, apply primer at manufacturer’s standard spread rate over cured cushioning layer.

D. Wearing Layer: Spread over primed base course to form a uniform layer applied at manufacturer's standard spreading rate in one continuous operation and, except where color changes, with no, or a minimum of cold joints. Finish surface to produce manufacturer's standard wearing-surface texture.
1. Apply mixed binder/granule at a nominal 1/2” thickness.
2. Using a steel pool trowel, spread even rubber/granule mixture. Be sure to continuously lubricate trowel. Do not saturate surface with these lubricants.
3. Design: Where colored pattern or graphic design is required, place colored, design material as soon as previously placed material is sufficiently cured, using primer or adhesive if required by manufacturer's written instructions.
4. As the mixture is leveled apply a downward pressure onto the surface so that the mixture compacts tightly.
5. Check surface to be level.
6. Cold joints must be cut and primed prior to installing a different color surface.
7. Allow to cure for a minimum of 24 to 48 hours prior to usage. At the end of the minimum curing period, verify that the top surface is sufficiently dry and firm to allow foot traffic and use without damage to the surface. Do not allow foot traffic or use of the surface until it is sufficiently cured.

E. Edge Treatment: As indicated on Drawings. Fully adhere edges to substrate with full coverage of substrate. Maintain fully cushioned thickness required to comply with performance requirements.

3.4 PROTECTION

A. Protect the surface from foot traffic or vandalism during the 48 hour cure period.

END OF SECTION

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NEW OPPORTUNITY AWARENESS CENTER

Katy ISD

Katy, TX

ABBREVIATIONS

A

AFF	ABOVE FINISH FLOOR
ACT	ACOUSTICAL CEILING TILE
ADDL	ADDITIONAL
AB	AIR BARRIER
ACM	ALUMINUM COMPOSITE PANEL
ADA	AMERICANS WITH DISABILITIES ACT
AL/ALUM	ALUMINUM
APPROX	APPROXIMATE OR APPROXIMATELY
ARCH	ARCHITECT OR ARCHITECTURAL

B

BD	BOARD
BOW	BOTTOM OF WALL
BUR	BUILT-UP ROOFING
BLDG	BUILDING

C

℄	CENTER LINE
CR	CLASSROOM
CFS	COLD-FORMED STEEL
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CM	CONSTRUCTION MANAGER
CONT	CONTINUOUS
CI	CONTINUOUS INSULATION
CJ	CONTROL JOINT
COORD	COORDINATE
CORR	CORRIDOR

D

DIA	DIAMETER
DO.	DOOR OPENING
DN	DOWN
DS	DOWNSPOUT

E

EA	EACH
EW	EACH WAY
ELEC	ELECTRICAL
EWC	ELECTRIC WATER COOLER
ELEV	ELEVATION
EQ	EQUAL
EQPT	EQUIPMENT
EXIST	EXISTING
EJ	EXPANSION JOINT
EXT	EXTERIOR
EIFS	EXTERIOR INSULATION & FINISH SYSTEM

F

FT	FEET or FOOT
FRP	FIBERGLASS REINFORCED PLASTIC
FV	FIELD-VERIFY
FIN	FINISH
FF	FINISH FLOOR
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER & CABINET
FHC	FIRE HOSE CABINET
FHCS	FLAT-HEAD COUNTERSUNK
FL	FLOOR
FD	FLOOR DRAIN
FLR	FLUORESCENT

G / H

GALV	GALVANIZED
GA	GAGE
GC	GENERAL CONTRACTOR
GO	GLAZED OPENING
GYP	GYPSUM
HT	HEIGHT
HP	HIGH POINT
HM	HOLLOW METAL
HORZ	HORIZONTAL
HB	HORIZONTAL BLINDS
HDG	HOT-DIP GALVANIZED
HR	HOUR

I / J / K

ID	INSIDE DIAMETER
INSUL	INSULATION
IFP	INTERACTIVE FLAT PANEL
IMB	INTERACTIVE MARKERBOARD
INT	INTERIOR
IBC	INTERNATIONAL BUILDING CODE

L

LAV	LAVATORY
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
LVT	LUXURY VINYL TILE

M

MFR	MANUFACTURER
MFG	MANUFACTURING
MB	MARKER BOARD
MO	MASONRY OPENING
MAX	MAXIMUM
MECH	MECHANICAL

M (CONT.)

MOD BIT	MODIFIED BITUMEN
MULL	MULLION
MEP	MECHANICAL-ELECTRICAL-PLUMBING
MCM	METAL COMPOSITE MATERIAL
MIN	MINIMUM
MISC	MISCELLANEOUS

N

NOM	NOMINAL
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO. /#	NUMBER

O

OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OHD	OVERHEAD
OFCI	OWNER-FURNISHED, CONTRACTOR-INSTALLED
OFOI	OWNER-FURNISHED, OWNER INSTALLED

P / Q

PR	PAIR
P.LAM.	PLASTIC LAMINATE
PLT	PLATE
PLMB	PLUMBING
PT	POINT
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PREFAB	PREFABRICATED
PROJ	PROJECTOR or PROJECTION
QT	QUARRY TILE

R

R.	RADIUS
REBAR	REINFORCING BAR
REF.	REFERENCE or REFER TO
RCP	REFLECTED CEILING PLAN
RE:	REGARDING
REFG	REFRIGERATOR
REINF	REINFORCE or REINFORCING
REQD	REQUIRED
R.	RISER (STAIR)
RWS	ROLLING WINDOW SHADES
RD	ROOF DRAIN
RO	ROUGH OPENING

S

SIM.	SIMILAR
SC	SOLID CORE
SAB	SOUND ATTENUATION BLANKET
SAFB	SOUND ATTENUATION FIRE BLANKET
STC	SOUND TRANSMISSION CLASS
SPEC	SPECIFICATION
SQ	SQUARE
SF	SQUARE FOOT
SS	STAINLESS STEEL
STRUC.	STRUCTURAL
SUSP.	SUSPENDED

T

TB	TACKBOARD
TS	TACKSTRIP
TW	TACK WALL
TC	TEACHER'S CABINET
TAS	TEXAS ACCESSIBILITY STANDARDS
T.	TREAD (STAIR)
T&B	TOP & BOTTOM
TO.	TOP OF
TC	TOP OF CURB
TOD	TOP OF DECK
TOJ	TOP OF JOIST
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP.	TYPICAL

U / V

U/C	UNDER COUNTER
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
VWC	VINYL WALL COVERING

W / X / Y / Z

WC	WATER CLOSET
WRB	WATER-RESISTIVE BARRIER
WT	WEIGHT
W	WIDE
W/	WITH
W/O	WITHOUT
WP	WORKING POINT
WWF	WELDED WIRE FABRIC

SYMBOLS LEGEND

ROOM NAME / 101	ROOM NAME & NUMBER	SFX	ALUMINUM-FRAMED GLAZED OPENING SYSTEM
101	DOOR NUMBER	GD	HOLLOW METAL-FRAMED GLAZED OPENING SYSTEM
AC	ACCESS CONTROL	X1	PARTITION TYPE
X	SIGNAGE	X1	TOILET ACCESSORY/ SPECIALTY EQUIPMENT
HB	HORIZONTAL BLINDS	X1	PLUMBING FIXTURE
1	DEMO/PLAN NOTE	XXX-01	FLOOR TYPE
XXX-01	ROOF TYPE	11 / 1' - 0"	CEILING TYPE & HEIGHT
XXX-01	ASSEMBLY TYPE	Type X-X / X HR	FIRE RESISTANCE
1/ A101	DETAIL SECTION	C	FLOOR TRANSITION
X1	PLUMBING TAG	A101	BUILDING ELEVATION
1 / A101	BUILDING SECTION	1/ A101	INTERIOR/ CASEWORK ELEVATION
1 / A101	WALL SECTION	N	PLAN NORTH/ TRUE NORTH
1 / A101	CALLOUT HEAD		DATUM ELEVATION

MATERIAL LEGEND

EARTH	CERAMIC TILE
POROUS FILL	GLASS (LARGE SCALE)
CONCRETE/ GROUT	INSULATION (RIGID FOAM BOARD)
BRICK	INSULATION (EPS FOAM BOARD)
CMU (LARGE SCALE)	INSULATION (BATT/ BLANKET)
MARBLE	INSULATION (SEMI-RIGID BOARD)
METAL (LARGE SCALE)	WOOD, ROUGH (CONTINUOUS)
METAL (SMALL SCALE)	WOOD, ROUGH (BLOCKING)
RESILIENT FLOORING	WOOD, FINISH
ACOUSTICAL TILE	PLYWOOD (LARGE SCALE)
TERRAZZO	FIBER CEMENT PANEL
PLASTER, SAND, GROUT, GYPSUM BOARD	METAL LATH
	GYPSUM BOARD

PROJECT INFORMATION

TDLR PROJECT REGISTRATION NUMBER:
TABS2026021354 ⚠1

APPROXIMATE BUILDING AREAS

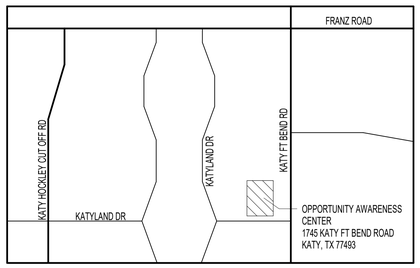
GROUND LEVEL AREA.:	19,851 S.F.
TOTAL BLDG AREA.:	19,851 S.F.
LEGAL DESCRIPTION:	1745 KATY FT BEND ROAD KATY, TX 77493 ⚠1

BUILDING CONSTRUCTION INFORMATION

TYPE OF CONSTRUCTION (TABLE 601 - IBC):	TYPE II-B
FIRE PROTECTION SYSTEM:	AUTOMATIC SPRINKLER SYSTEM THROUGHOUT

GENERAL NOTES

1. Refer to the CODE-series sheets tor Code Information, Design Criteria and Fire Protection Requirements.
2. Verify and document existing dimensions and conditions at the site before beginning construction. Notify the Architect of conflicts or variations prior to commencement of construction.
3. Based on the applicable design criteria, submit Shop Drawings of the proposed pattern of control joints in masonry veneer, CMU, gypsum board, plaster and stucco to the Architect for review and approval prior to construction.
4. In case of discrepancies in or between the Contract Documents, the greater quantity or better quality shall be bid. Clarifications regarding the discrepancies shall be requested from the Architect prior to construction, and the resulting interpretations implemented in accordance with the Contract Documents.



SITE LOCATION MAP

INDEX OF DRAWINGS

SHEET NUMBER	SHEET TITLE
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COVER	COVER
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CIVIL	
C0.00	COVER SHEET
C1.00	GENERAL NOTES
1 OF 1	TOPOGRAPHIC SURVEY
C2.00	CLEARING AND GRUBBING PLAN
C3.00	SITE DIMENTION PLAN
C4.00	OVERALL SITE UTILITY PLAN
C5.00	SITE UTILITY PLAN
C6.00	STORM PLAN
C7.00	GRADING PLAN
C8.00	PAVING PLAN
C9.00	DRAINAGE AREA MAP
C10.00	SANITARY SEWER LIFT STATION
C11.00	FIRE ACCESS LANE
C12.00	STORM WATER POLLUTION PREVENTION PLAN
C13.00	STORM WATER POLLUTION PREVENTION DETAILS
C14.00	PAVING AND GRADING DETAILS
C15.00	MISCELLANEOUS DETAILS
C16.00	CITY OF KATY STANDARD DETAILS
C17.00	CITY OF KATY STANDARD DETAILS
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A1.11	OVERALL SITE PLAN
A1.21	ENLARGED ARCHITECTURAL SITE PLANS & DETAILS
A1.31	ARCHITECTURAL SITE PLAN DETAILS
A2.11	FLOOR PLAN
A2.12	FOOD SERVICE ENLARGED PLANS AND DETAILS
A2.13	ALTERNATE - PUMP ROOM ⚠1
A2.21	PARTITION TYPES AND DETAILS
A2.31	ENLARGED TOILET PLANS AND ELEVATIONS
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S3.3	TYPICAL FOUNDATION DETAILS
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TS2.11	SECURITY ORIENTATION PLAN - LEVEL ONE
TS2.12	SECURITY PLATFORM FLOOR PLAN
TS4.11	SECURITY TYPICAL DETAILS
TS4.12	SECURITY TYPICAL DETAILS
TS5.11	SECURITY SCHEDULES

VLK

ARCHITECT
VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

CIVIL ENGINEER
Adico Consulting Engineers
205 E Edgewood Dr.
Friendswood, TX 77546
Main Phone: 832.895.1093
www.adico-llc.com

STRUCTURAL ENGINEER
Matrix Structural
5177 Richmond Avenue, Ste 670
Houston, TX 77056
Main Phone: 713.664.0130
www.matrixstructural.com

M.E.P. ENGINEER
LTY Engineers
840 Gessner Road, Ste 325
Houston, TX 77024
Main Phone: 281.945.8888
www.lty-engineers.com

TECHNOLOGY ENGINEER
COMBS Group
2245 Texas Drive, Suite 300
Sugar Land, TX 77497
Main Phone: 832.252.9755
www.combs-group.com

Katy ISD
Katy, TX

NEW OPPORTUNITY AWARENESS CENTER

REGISTERED ARCHITECT — CHARLES W. JOHNSON — 20944 — STATE OF TEXAS

06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	CLP

PROJECT NO.
25-0067.00

SHEET TITLE
INDEX, GENERAL NOTES AND ABBREVIATIONS

SHEET NO.
INDEX

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PERMIT NOTES:

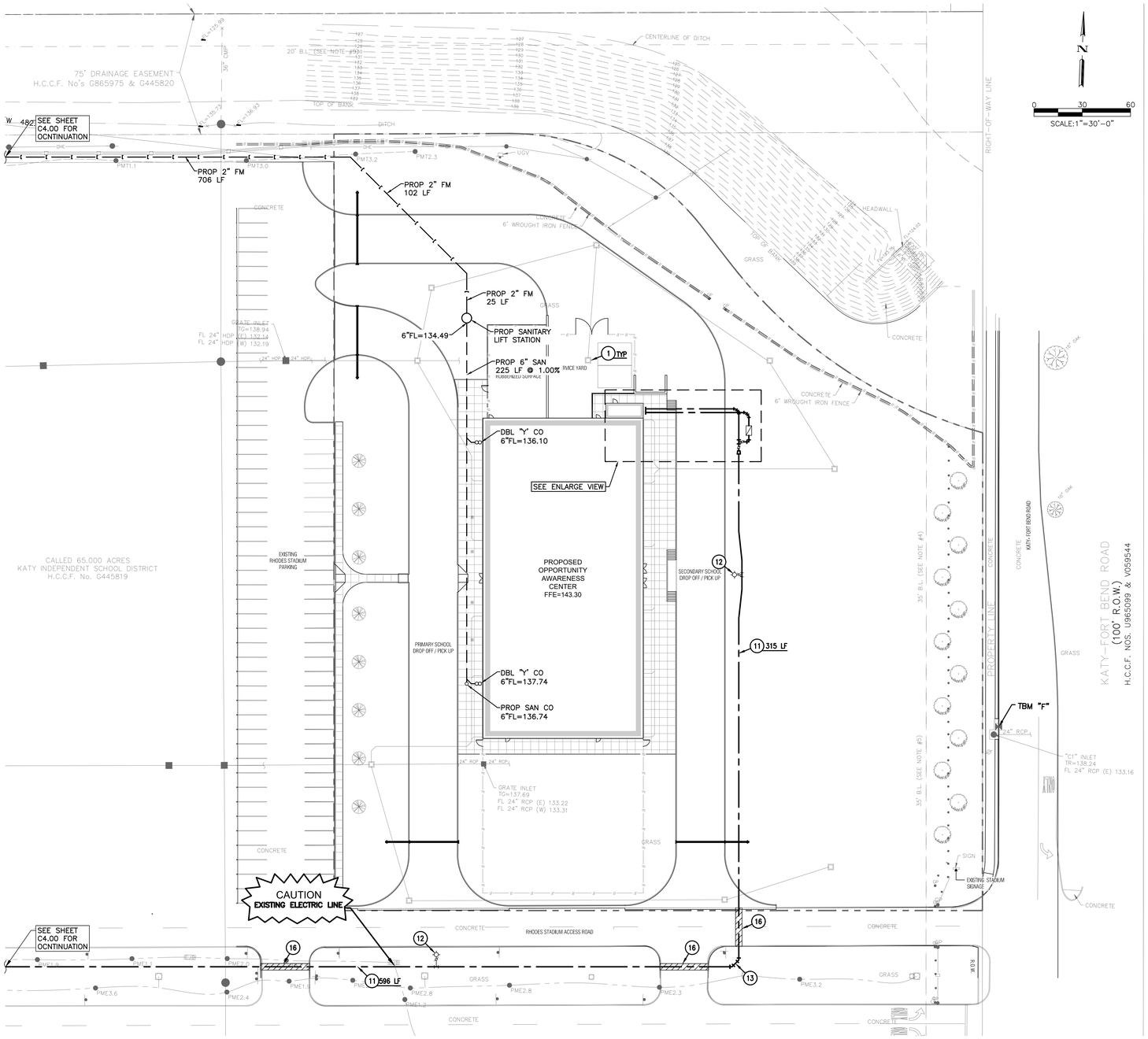
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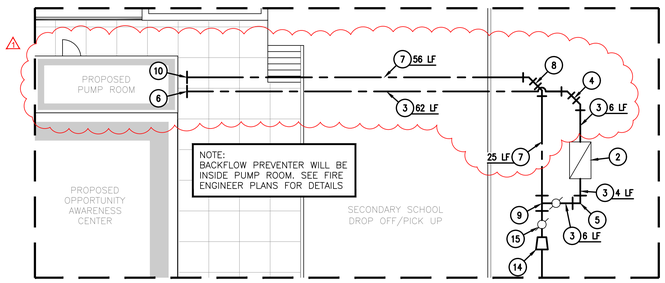
UTILITY NOTES:

1. UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ENGINEER OF ANY CONFLICT OR DISCREPANCIES.
2. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR SERVICE ORIGINATION AND CONNECTION.
3. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY EXISTING ITEMS ONSITE.
4. CONTRACTOR SHALL KEEP THE SITE CLEAN OF DEBRIS AND ANY EROSION CONTROL MEASURES ARE ADEQUATELY PLACED.
5. CONTRACTOR TO COORDINATE LOCATIONS OF UNDERGROUND IRRIGATION SLEEVING PRIOR TO PAVING. SEE LANDSCAPE PLANS.
6. CONTRACTOR TO COORDINATE LOCATIONS OF UNDERGROUND CONDUIT FOR SITE LIGHTING PRIOR TO PAVING.
7. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION. COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 903 SAN JACINTO, RM 319, AUSTIN, TX. 78701. TEL: (512) 916-5783.
8. REFERENCE MEP PLANS FOR UTILITY CONDUIT LOCATIONS.
9. GAS LINE SHALL BE POLYETHYLENE (PE) PIPE ASTM D 2513 SDR 11 WITH FITTINGS POLYETHYLENE ASTM D 2683, SOCKET FUSION TYPE OR ASTM D 3261 BUTT FUSION TYPE WITH DIMENSIONS MATCHING PE PIPE. PE TRANSITION FITTINGS: FACTORY FABRICATED FITTINGS WITH PE PIPE COMPLYING WITH ASTM D 2513, SDR 11; AND STEEL PIPE COMPLYING WITH ASTM A 53/A 53M, BLACK STEEL, SCHEDULE 40 TYPE E OR S, GRADE B. TRANSITION SERVICE RISER: PE TRANSITION FITTING WITH CORROSION PROTECTIVE COATING FOR ABOVE GROUND STEEL PIPE.

WATER LINE AND SANITARY SEWER NOTES:

1. CONTRACTOR TO ALLOW A MINIMUM OF 12 INCHES VERTICAL CLEARANCE BETWEEN PROPOSED WATER LINE AND OTHER EXISTING OR PROPOSED UTILITIES. MINIMUM 2 FT CLEAR FROM SANITARY SEWER.
2. ALL WATER LINES TO HAVE A MINIMUM COVER OF 4' BELOW FINISHED GRADE. VARY THE FLOWLINE UNIFORMLY FROM DEPTH AND LOCATION SHOWN TO ACHIEVE COVER.
3. ALL WATER LINE FITTINGS TO BE EITHER: BRONZE, PVC, OR DUCTILE IRON.
4. ALL WATER LINE FITTINGS TO BE INSTALLED WITH ADEQUATE CONCRETE THRUST BLOCKS.
5. ALL WATER LINES TO BE TESTED AS PER THE CITY OF KATY SPECIFICATIONS, DETAILS AND FIRE MARSHALL AS APPLICABLE.
6. ALL WATER LINES TO BE WRAPPED IN A MINIMUM OF 6-INCHES OF CLEAN BANK SAND, OR ONSITE SUITABLE FILL MATERIAL, UNLESS OTHERWISE NOTED. REMAINING BACKFILL TO BE MADE WITH COMPACTED SELECT MATERIAL UNLESS OTHERWISE NOTED.
7. WHENEVER NEW WATER LINES CROSS SANITARY SEWER LINES WITH LESS THAN TWENTY FOUR (24) INCHES OF VERTICAL CLEARANCE, THE SEWER LINE SHALL BE CONSTRUCTED IN A CONTINUOUS CAST IRON CASING FOR A DISTANCE OF NINE (9) FEET EACH SIDE OF THE WATER LINE. MINIMUM VERTICAL CLEARANCE TO BE SIX (6) INCHES WITH THE SEWER LINE LOCATED LOWER THAN THE WATER LINE.
8. REFER TO GENERAL NOTES SHEET C02.00 FOR WATER AND SANITARY SEWER PIPE MATERIAL AND SPECIFICATIONS REQUIRED BY CITY OF KATY





ENLARGE VIEW
SCALE:1"=10'

CONSTRUCTION KEY NOTES	
KEY	NOTE
1	PROP STORM INLET, SEE SHEET C15.00 FOR DETAILS.
2	PROP 4" RPZ WITH INSULATED ENCLOSURE.
3	PROP 4" C900 PVC DOMESTIC WATER LINE.
4	PROP 2-4"x45 DEGREE BEND W/ FITTINGS AND CONCRETE THRUST BLOCK.
5	PROP 4"x90 DEGREE BEND W/ FITTINGS AND CONCRETE THRUST BLOCK.
6	PROP 4" CONNECTION TO DOMESTIC WATER LINE. SEE PLUMBING PLANS FOR CONTINUATION INSIDE BUILDING.
7	PROP 6" C900 PVC WATER LINE.
8	PROP 2-6"x45 DEGREE BEND W/ FITTINGS AND CONCRETE THRUST BLOCK.
9	PROP 6"x4" TEE W/ FITTINGS, CONCRETE THRUST BLOCK AND 4" GATE VALVE W/BOX.
10	PROP 6" CONNECTION TO RISER ROOM. SEE FIRE ENGINEER PLANS FOR CONTINUATION INSIDE BUILDING.
11	PROP 8" C900 PVC WATER LINE.
12	PROP FIRE HYDRANT ASSEMBLY INCLUDING, 8"x6" TEE, 6" 90 DEGREE ELBOW 6" G.V. W/ BOX. SEE DETAILS SHEET C16.00.
13	PROP 2-8"x45 DEGREE BEND W/ FITTINGS AND CONCRETE THRUST BLOCK.
14	PROP 8"x6" REDUCER.
15	PROP 6" GATE VALVE W/BOX.
16	PROP OPEN CUT FOR 8-INCH WATER LINE.

Texas 811

WARNING:
CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITY LINES BY CONTACTING "TEXAS 811" AT 811 OR 713-223-4567 AT LEAST 48 HOURS BEFORE YOU DIG, DRILL OR BLAST.

EXISTING, WATER, SANITARY, GAS, ELECTRICAL, TELECOMMUNICATIONS AND ALL OTHER UTILITY LINES ARE SHOWN PER RECORD DRAWINGS. CONTRACTOR SHALL VERIFY LOCATION AT THE SITE PRIOR TO CONSTRUCTION.

LEGEND:
- PROPOSED STORM SEWER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY/ STORM CLEAN OUT
- PROPOSED STORM MANHOLE W/GRATE TOP
- PROPOSED STORM INLET
- PROPOSED REDUCED PRESSURE ZONE BACKFLOW PREVENTER

VLK

ARCHITECT
VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

CIVIL ENGINEER
Adico Consulting Engineers
205 E Edgewood Drive
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Main Phone: 832.895.1093
https://adico-llc.com/

1745 KATY FORT BEND ROAD
KATY, TEXAS 77493

NEW OPPORTUNITY AWARENESS CENTER

ADICO, LLC
TBPE FIRM NO. F-16423
REGISTERED PROFESSIONAL ENGINEER
PHASITH NITHIANANTHARAJAH
99284
LICENSED
06-11-2026

ISSUED: April 20, 2026

REVISIONS

Revision No.	Revision Date
3 ADDENDUM 3	06-11-26

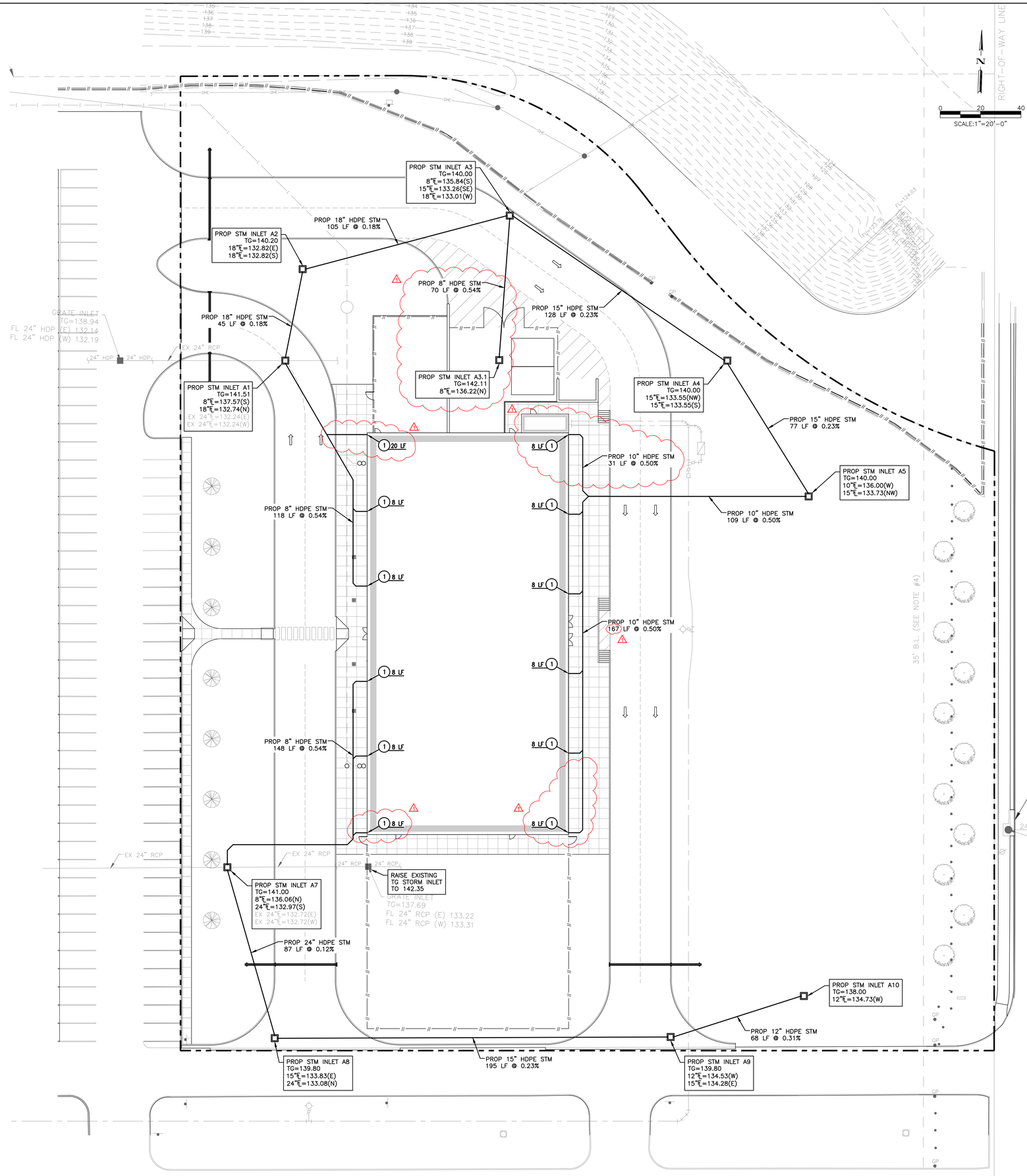
Principal DINH H.
Proj. Eng. PHASITH N.

PROJECT NO.
25-0067.00

SHEET TITLE
SITE UTILITY PLAN

SHEET NO.
C5.00

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CONSTRUCTION KEY NOTES

KEY	NOTE
1	TIE DOWNSPOUTS TO UNDERGROUND STORM SEWER. USE 8" HDPE STM SWR. @ 0.54%.

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VLK

ARCHITECT
VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
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CIVIL ENGINEER
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NEW OPPORTUNITY AWARENESS CENTER

ADICO, LLC
TBPE FIRM NO. F-16423

STATE OF TEXAS
PHASITH NGUYEN
NOTARIAL PUBLIC
99284
LICENSED
06-11-2026

ISSUED: April 20, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06-11-26

Principal DINH H.
Proj. Eng. PHASITH N.

PROJECT NO.
25-0067.00

SHEET TITLE
STORM PLAN

SHEET NO.
C6.00

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GENERAL GRADING NOTES:

1. CONTRACTOR TO REGRADE ALL DISTURBED AREAS AFTER CONSTRUCTION IS COMPLETE TO EQUAL OR BETTER CONDITION. SEED OR HYDROMULCH DISTURBED AREAS TO ESTABLISH TURF INSIDE HARRIS COUNTY RIGHT-OF-WAY AND PRIVATE PROPERTY THAT IS DISTURBED.
2. REGRADE ALL DITCHES AFTER CONSTRUCTION IS COMPLETE THAT ARE DISTURBED DURING CONSTRUCTION. REGRADE DITCH TO ESTABLISH FLOW IN A POSITIVE DIRECTION.
3. ALL OPEN EXCAVATION TO BE CLEARLY IDENTIFIED BY CONTRACTOR. CONTRACTOR IS REQUIRED TO COVER ALL OPEN EXCAVATION AREAS AT THE END OF EACH WORK DAY AND WHENEVER CONTRACTOR IS NOT WORKING ONSITE USING STEEL PLATES.
4. ALL PAVING "TP" AND "TC" SHOWN ARE TAKEN FROM BACK OF CONCRETE PAVEMENT.
5. CONTRACTOR IS REQUIRED TO ENSURE THAT ALL CONSTRUCTED SLOPES AND ELEVATIONS COMPLY WITH TEXAS DEPARTMENT OF LICENSING AND REGULATION REQUIREMENTS FOR ACCESSIBILITY. GRADES SHOWN ON THE PLANS HAVE BEEN CAREFULLY DETERMINED BASED ON MINIMUM ACCESSIBILITY STANDARDS.
6. CHANGES IN LEVEL OR TOP OF PAVEMENT AT ALL BUILDING EXITS SHALL BE 1/4" MAXIMUM.
7. ALL CROSS SLOPES AT ACCESSIBLE ROUTES SHALL BE 2% MAXIMUM.
8. WHERE AN ACCESSIBLE ROUTE CHANGES DIRECTION, A 5'X5' LANDING SHALL BE PROVIDED WITH MAXIMUM 2% SLOPE IN ANY DIRECTION.
9. NO PORTION OF THE A.D.A. ACCESSIBLE PARKING AREA SHALL EXCEED 2% MAXIMUM SLOPE IN ANY DIRECTION.
10. ACCESSIBLE ROUTES MAY HAVE SLOPES UP TO 5%.
11. ALL ADA WHEELCHAIR RAMPS SHALL BE MAXIMUM 1:12 (8.33%). ALL RAMPS MUST HAVE A 5'X5' LANDING WITH A MAXIMUM 2% SLOPE AT THE TOP AND BOTTOM. ANY RAMP RUN THAT RISES MORE THAN 6-INCHES VERTICALLY REQUIRES HAND RAILS (RE: ARCH PLANS).
12. THE FINISHED GRADES SHOWN ON THIS PLAN REPRESENT FINAL ELEVATIONS. THE CONTRACTOR MUST TAKE CARE TO ENSURE THAT THE FINISHED GRADES SHOWN HEREON ARE NOT EXCEEDED BY LANDSCAPING, MULCH, FILL MATERIAL OR OTHER LANDSCAPE DEVICES THAT BLOCK POSITIVE DRAINAGE AWAY FROM THE BUILDING OR SLAB. THE THICKNESS OF GRASS SOD, LANDSCAPING MATERIALS, OR OTHER OUTDOOR DEVICES SHOULD BE DEDUCTED FROM THE FINISHED GRADE ELEVATIONS SHOWN ON THESE PLANS IN ORDER TO DETERMINE THE FINAL GRADE ELEVATIONS DURING CONSTRUCTION.

NOTE:
IN AREAS WHERE THE PROJECT DESIGN INCORPORATES FILL ADJACENT TO NEIGHBORING LANDOWNERS, THE CONTRACTOR SHALL IMPLEMENT GRADING AND/OR PERIMETER RUNOFF CATCHMENT DEVICES (E.G.-PERIMETER DITCHES) DURING CONSTRUCTION TO ENSURE THAT ADJACENT PARCELS BORDERING THE PROJECT SITE DO NOT EXPERIENCE INTERIM DRAINAGE FLOWS THAT EXCEED PRE-DEVELOPMENT CONDITIONS FOR STORM EVENTS UP TO AND INCLUDING THE CURRENT STORM DRAINAGE DESIGN CRITERIA AT THE TIME OF THE PERMIT OR CARRY SEDIMENT GENERATED AS PART OF CONSTRUCTION ACTIVITIES. WHERE APPLICABLE, THESE PRACTICES ARE IN ADDITION TO THE STANDARD STORM WATER POLLUTION PREVENTION PLAN DESIGN AND SHALL INCLUDE ADDITIONAL DITCHES REDIRECTION SITE DRAINAGE OR TEMPORARY PIPING. THIS NOTE IS NOT INTENDED TO ADDRESS ANY LIABILITY OR RESPONSIBILITY UNDER TEXAS WATER CODE 11.086

Texas 811

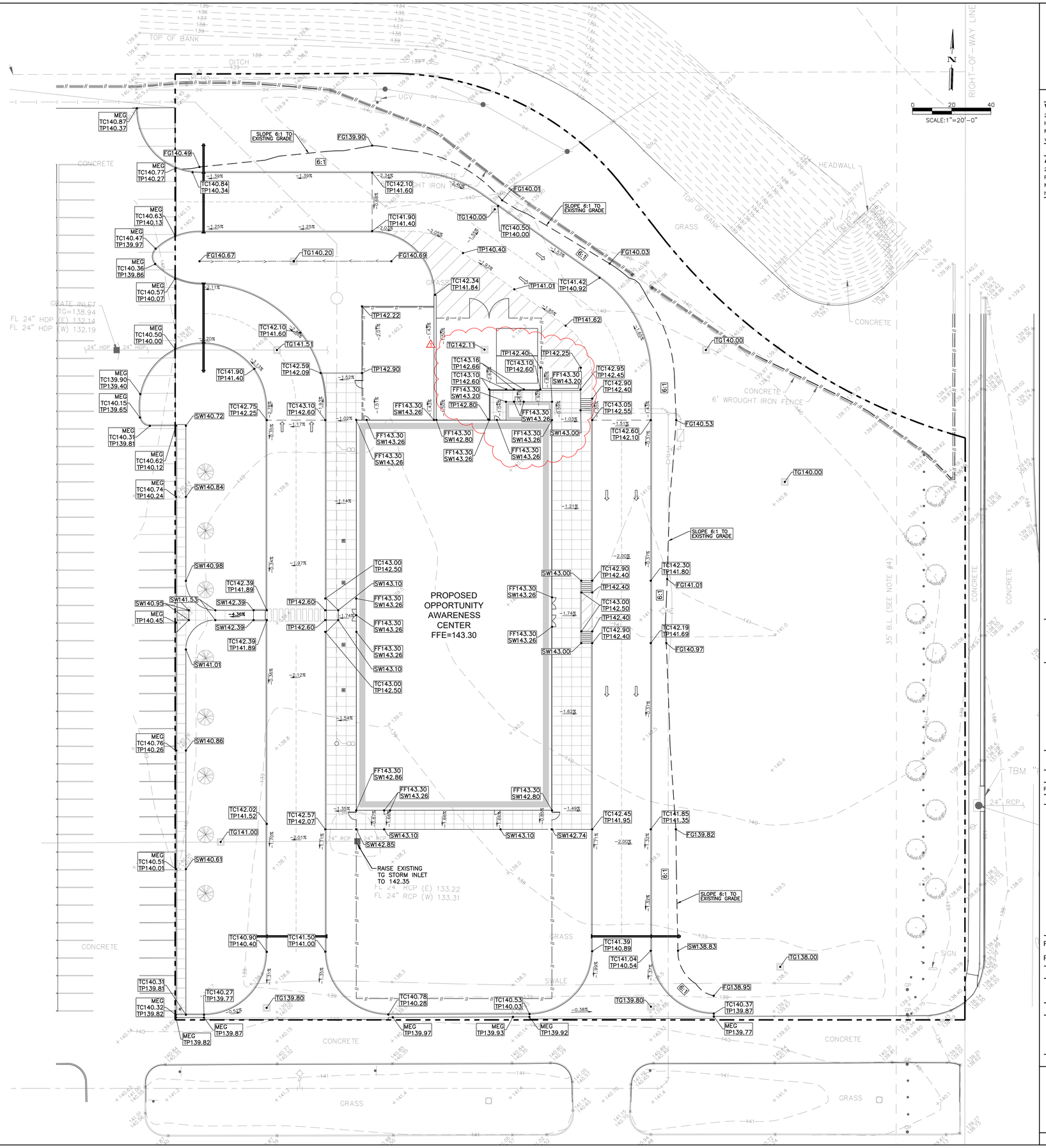
WARNING:

CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITY LINES BY CONTACTING "TEXAS 811" AT 811 OR 713-223-4567 AT LEAST 48 HOURS BEFORE YOU DIG, DRILL OR BLAST.

EXISTING, WATER, SANITARY, GAS, ELECTRICAL, TELECOMMUNICATIONS AND ALL OTHER UTILITY LINES ARE SHOWN PER RECORD DRAWINGS. CONTRACTOR SHALL VERIFY LOCATION AT THE SITE PRIOR TO CONSTRUCTION.

LEGEND:

~v~	PROPOSED SWALES
53.00	EXISTING CONTOUR
MEG	MATCH EXISTING GRADE
TC14.00	PROPOSED TOP OF CURB ELEVATION
TP14.00	PROPOSED TOP OF PAVEMENT
SW14.00	PROPOSED TOP OF SIDEWALK ELEVATION
FG14.00	PROPOSED FINISH GRADE ELEVATION
FF14.00	PROPOSED FINISHED FLOOR ELEVATION
TG14.00	PROPOSED TOP OF GRATE ELEVATION
TW14.00	PROPOSED TOP OF WALL ELEVATION
FL14.00	PROPOSED FLOW LINE ELEVATION



ARCHITECT
VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

CIVIL ENGINEER
Adico Consulting Engineers
205 E Edgewood Drive
Friendswood, Texas 77546
Main Phone: 832.895.1093
https://adico-llc.com/

1745 KATY FORT BEND ROAD
KATY, TEXAS 77493

NEW OPPORTUNITY AWARENESS CENTER

ADICO, LLC
TBPE FIRM NO. F-16423
STATE OF TEXAS
FRANCIS NATHANIANWANNY
99284
LICENSED PROFESSIONAL ENGINEER
06-11-2026

ISSUED: April 20, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06-11-26

Principal DINH H.
Proj. Eng. PHASITH N.

PROJECT NO.
25-0067.00

SHEET TITLE
GRADING PLAN

SHEET NO.
C7.00

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LANDSCAPE LEGEND

AREA TO RECEIVE HYDROMULCH

*PROVIDE HYDROMULTCH TO ANY AREAS DISTURBED DURING CONSTRUCTION.

AREA TO RECEIVE SOLID SOD.

*PROVIDE 1 STRIP WIDE OF SOD ADJACENT TO ALL PAVEMENT, FLATWORK AND SURROUNDING ALL AREA INLETS.

AREA TO HAVE RUBBERIZED SURFACE

REF. 32 18 16.13 ⚠1

LANDSCAPE REQUIREMENTS

A. STREET TREES	STREET NAME	LINEAL FEET	TREE PLANTING REQUIREMENT	TOTAL TREES REQUIRED	TOTAL TREES PLANTED
	KATY FORT BEND ROAD	297 FT	297 FT / 25 FT = 12	12	12
B. TREE REPLACEMENT	NO. OF TREES DEMOLISHED		TREE PLANTING REQUIREMENT		
	4		4 X 2 TREES = 8	8	8
E. PARKING LOT TREES	NO. OF PROPOSED PARKING SPACES (ALLOCATED FROM EXISTING)		TREE PLANTING REQUIREMENT	TOTAL TREES REQUIRED	TOTAL TREES PLANTED
	36		36 / 15 SPACES = 3 TREES	3	3
				TOTAL TREES:	23
C. SHRUBS	STREET FRONT TREE REQUIREMENT		SHRUB REQUIREMENT	TOTAL SHRUBS REQUIRED	TOTAL SHRUBS PLANTED
	12		12 / 2 TREES X 3 SHRUBS = 18	18	18
	PARKING LOT TREE REQUIREMENT		SHRUB REQUIREMENT	TOTAL SHRUBS REQUIRED	TOTAL SHRUBS PLANTED
	3		3 X 3 SHRUBS = 9	9	10
				TOTAL SHRUBS:	28
D. ADDITIONAL NOTES	1.The City of Katy requires for every 50'-0" of street frontage, 2 trees and 3 shrubs shall be planted. 2.The City of Katy requires for every 1 tree removed, 2 replacement trees shall be planted. 3.The City of Katy requires for every 15 parking spaces, 1 tree and 3 shurbs shall be planted. 4. Adjacent properties owned by Katy Independant School District. Landscape buffer not required.				

PLANTING GENERAL NOTES

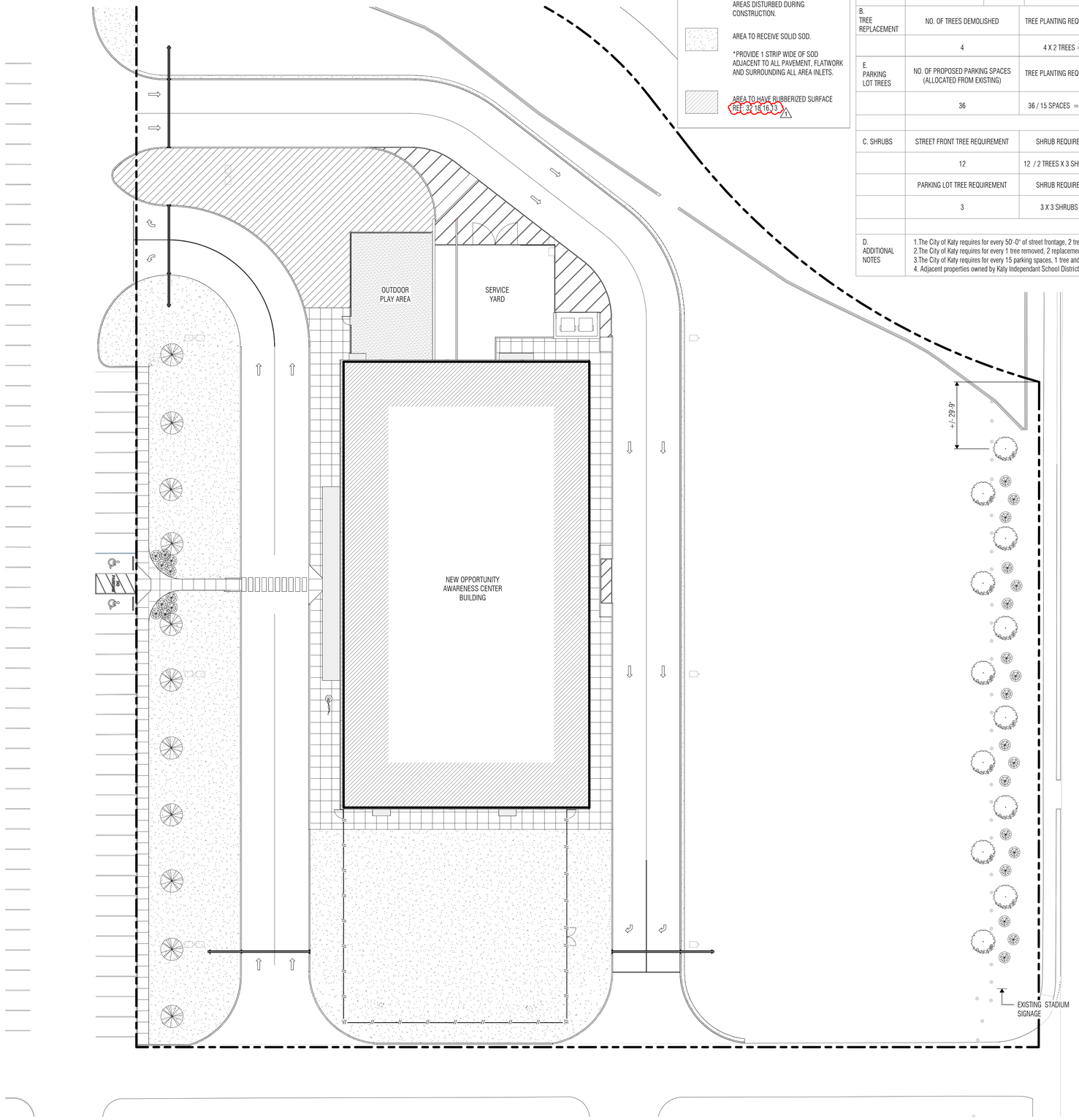
1. ALL PLANTS SHALL BE SET OUT FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
2. FINE GRADING SHALL BE PERFORMED IN ALL AREAS TO BE LANDSCAPED. FINE GRADING SHALL INCLUDE THE REMOVAL OF DEBRIS, ROCKS, ETC. FROM THE SITE AND ENSURE POSITIVE DRAINAGE IN ALL AREAS.
3. THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND EASEMENTS IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES DURING THE COURSE OF CONSTRUCTION.
4. IT IS PREFERABLE THAT NO TREE BE STAKED. HOWEVER, CONDITIONS AND PLANT MATERIAL SIZE MAY REQUIRE STAKING. THE OWNER SHALL DETERMINE IF SUPPORT IS NEEDED AND SHALL DIRECT THE CONTRACTOR ACCORDINGLY.
5. THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS ASSOCIATED WITH THE LANDSCAPE AND ACCESSORIES.
6. ALL PLANT MATERIALS SHALL MEET ANSI Z60.1 STANDARDS FOR CALIPER, HEIGHT AND ROOT BALLSIZE. ANY MATERIALS THAT DO NOT MEET OR EXCEED SUCH STANDARDS SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
7. BALLED AND BURLAPPED TREES SHALL HAVE THE TOP HALF OF THE WIRE BASKET REMOVED. THE BURLAP SHALL BE REMOVED TO THE GREATEST EXTENT POSSIBLE, USING A KNIFE TO CUT AND REMOVE THE BOTTOM HALF UNDER THE WIRE BASKET THAT REMAINS.
8. REFERENCE DIVISION 32 91 13 FOR TOPSOIL PLACEMENT AND GRADING. ⚠1

LANDSCAPE IRRIGATION SYSTEM

1. Contractor to provide an irrigation system within the extents shown on 1/L1.01 LANDSCAPE PLAN.
2. Design and layout of irrigation system to be provided by a Licensed Irrigation Designer in the State of Texas.
3. A point of water meter connection is approximate as shown on 1/L1.01 and C4. Irrigation Contractor is responsible for the location of the irrigation meter and is of the size required to service the system as designed.
4. Provide RainBird ESP-LXME with network communication cartiridge and integral water-conserving technology, in weather-proof enclosure as irrigation controller.
5. Licensed Irrigation Designer is responsible for providing a layout that coordinates and avoids conflicts with site utilities.
6. All work and materials to be in full accordance with latest rules and regulations of safety orders of the Division of Industrial Safety; the Uniform Plumbing Code published by the Western Plumbing Officials' Association; and other applicable laws of regulations, and TCEQ.
7. Contractor to furnish and maintain all warning signs, shoring, barricades, red lanterns, etc., as required by the Safety Orders of the Division of Industrial and local ordinances.
8. Contractor to obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Arrange inspections required by local agencies and ordinances during the course of construction as required.

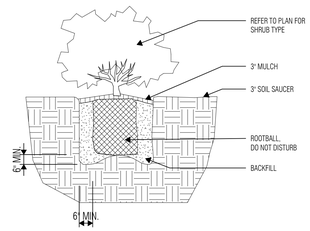
LANDSCAPE PLAN LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	DESCRIPTIONS, SIZE & WORKS SPECIFICATIONS	QUANTITY
	LAGERSTOREMIA FAURIEI	CREPE MYRTILE 'FANTASY'	REPLACEMENT TREES 1 1/2" CAL., 30 GAL. CONTAINER; 10' TO 12' HEIGHT - SINGLE TRUNK	11
	QUERCUS TEXANA	TEXAS RED OAK	STREET FRONT TREES 1 1/2" CAL., 30 GAL. CONTAINER; 10' TO 12' HEIGHT - SINGLE TRUNK	12
	RHAPHIOLEPIS INDICA	INDIAN HAWTHORN 'CALISTO'	SHRUBS 3 GAL. CONTAINER	28

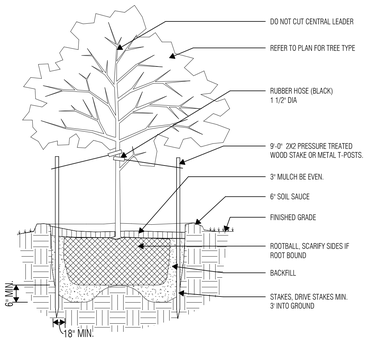


N
TRUE NORTH

1 LANDSCAPE PLAN
SCALE: 1" = 20'-0"



3 SHRUB PLANTING DETAIL
SCALE: 1/8" = 1'-0"



2 TREE PLANTING DETAIL
SCALE: 1/4" = 1'-0"

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ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

Katy ISD
Katy, TX

NEW OPPORTUNITY AWARENESS CENTER

REGISTERED ARCHITECT CHARLES W. JOHNSON 22944 STATE OF TEXAS
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	ADDENDUM 3	06/11/2026

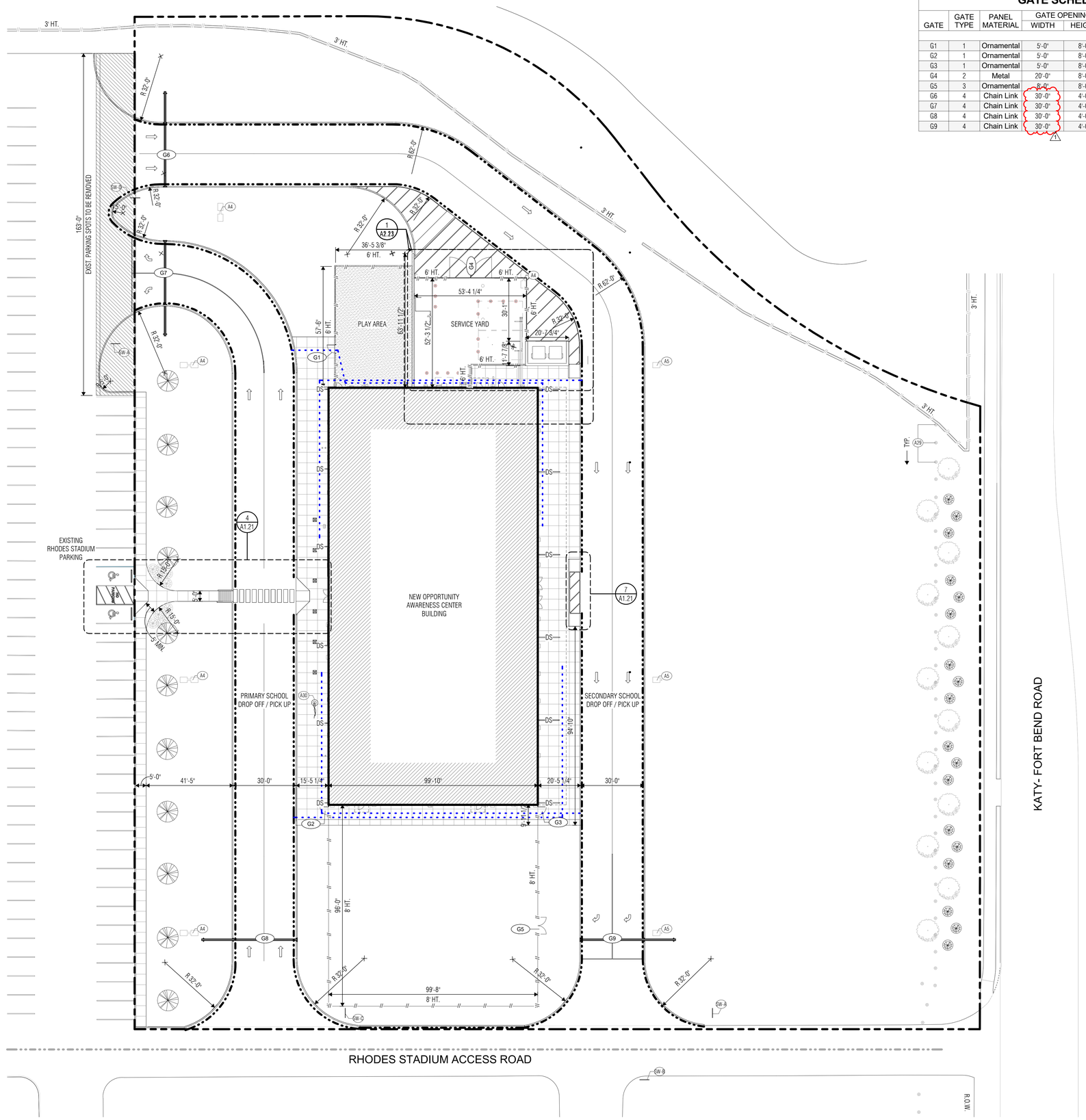
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	AHT/LY

PROJECT NO.
25-0067.00

SHEET TITLE
LANDSCAPE PLAN

SHEET NO.
L1.01

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GATE SCHEDULE

GATE	GATE TYPE	PANEL MATERIAL	GATE OPENING WIDTH	GATE OPENING HEIGHT	HARDWARE SET	KEYED NOTES
G1	1	Ornamental	5'-0"	8'-0"	J715	PANIC BAR
G2	1	Ornamental	5'-0"	8'-0"	J715	PANIC BAR
G3	1	Ornamental	5'-0"	8'-0"	J715	PANIC BAR
G4	2	Metal	20'-0"	8'-0"	J-2PL	PAD LOCK
G5	3	Ornamental	8'-0"	8'-0"	J-2PL	PAD LOCK
G6	4	Chain Link	30'-0"	4'-0"	J001SL	PAD LOCK
G7	4	Chain Link	30'-0"	4'-0"	J001SL	PAD LOCK
G8	4	Chain Link	30'-0"	4'-0"	J001SL	PAD LOCK
G9	4	Chain Link	30'-0"	4'-0"	J001SL	PAD LOCK

/1

SITE PLAN NOTES

1. Verify and document existing dimensions and conditions at the site before beginning construction. Notify the Architect of conflicts or variations prior to commencement of construction.
2. To prevent damage to existing trees and shrubs in proximity to the Work, provide and maintain protective barriers around those items in accordance with the specified procedures, or in the absence of those procedures, with recognized landscaping and horticultural practices.

SITE PLAN LEGEND

- PROPERTY LINE
- FIRE LANE (PER CITY STANDARDS)
- ORNAMENTAL FENCE, See Plan for Heights
- EXISTING ORNAMENTAL FENCE, See Plan for Heights
- 200 LINEAR FEET (LF) HOSE LAY

KEYED NOTES SCHEDULE

KEY	NOTE
A4	DOUBLE HEAD LIGHTING POLE, REF. ELECTRICAL
A5	SINGLE HEAD LIGHTING POLE, REF. ELECTRICAL
A29	EXIST. 6" BOLLARD, TO REMAIN
A30	FLAGPOLE, U.S. & TEXAS FLAGS
SW-A	SIGNAGE - EXIT ONLY
SW-B	SIGNAGE - ONE WAY
SW-C	SIGNAGE - ELEMENTARY STUDENT DROP-OFF / PICK-UP - ENTRY ONLY
SW-D	SIGNAGE - SECONDARY STUDENT DROP-OFF / PICK-UP - BUS-LOOP - ENTRY ONLY

N
TRUE NORTH

1 OVERALL SITE PLAN
SCALE: 1" = 20'-0"

VLK

ARCHITECT
VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

Katy ISD
Katy, TX

NEW OPPORTUNITY AWARENESS CENTER

REGISTERED ARCHITECT
CHARLES W. JOHNSON
20944
STATE OF TEXAS
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	ADDENDUM 3	06/11/2026

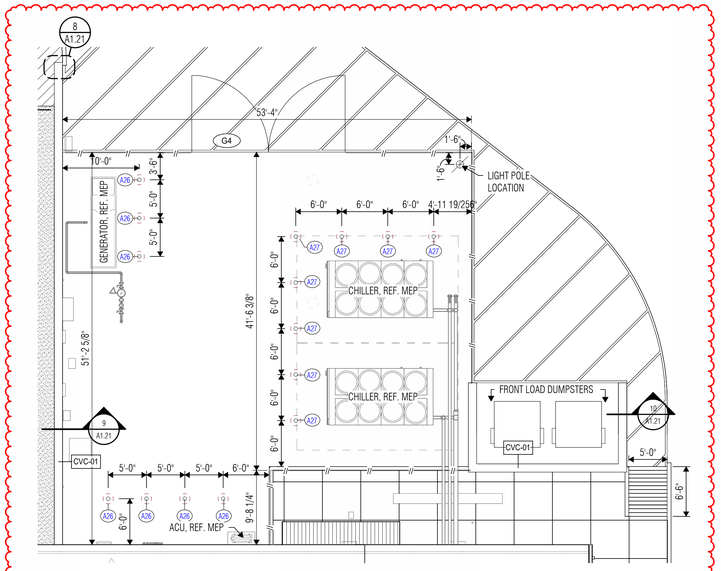
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	AHT/JGH

PROJECT NO.
25-0067.00

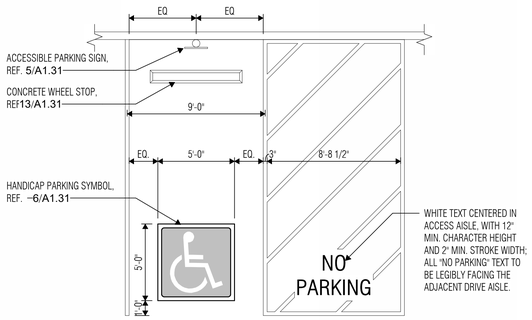
SHEET TITLE
OVERALL SITE PLAN

SHEET NO.
A1.11

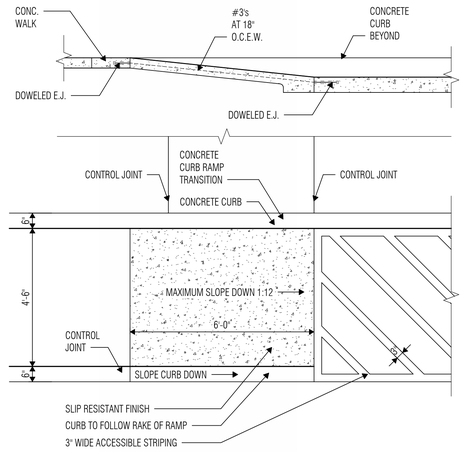
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1 ENLARGED SERVICE YARD PLAN
SCALE: 1/8" = 1'-0"

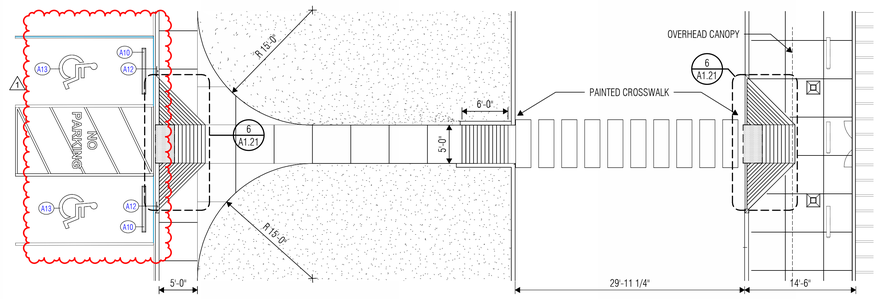


2 TYP. ACCESSIBLE PARKING STRIPING DETAIL
SCALE: 1/4" = 1'-0"



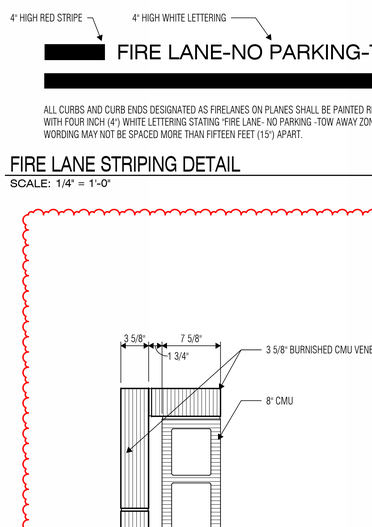
3 CURB RAMP PLAN - DETAIL
SCALE: 1/2" = 1'-0"

KEY NOTE LEGEND	
Key Value	Key Note Text
A10	Wheel stop, Ref. 13/A1.31
A12	Accessible Parking Sign, Ref. 5/A1.31
A13	Painted HC Symbol, Ref. 6/A1.31
A26	6" Yellow-Painted Bollard, Stationary
A27	6" Yellow-Painted Bollard, Removable

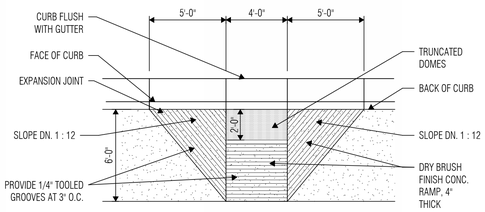


ELEMENTARY DROP OFF

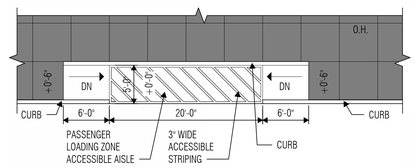
4 ENLARGED ACCESIBLE ROUTE AT PARKING
SCALE: 1/8" = 1'-0"



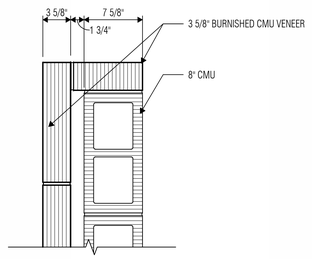
5 FIRE LANE STRIPING DETAIL
SCALE: 1/4" = 1'-0"



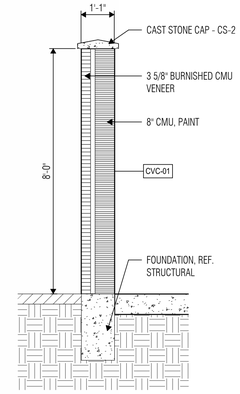
6 CURB RAMP PLAN - TRUNCATED DOMES
SCALE: 1/4" = 1'-0"



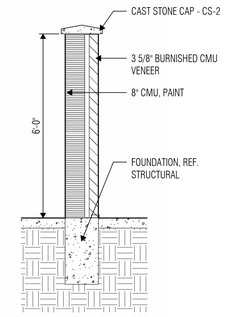
7 PASSENGER LOADING ZONE
SCALE: 1/8" = 1'-0"



8 ENLARGED SITE PLAN DETAIL
SCALE: 1 1/2" = 1'-0"



9 SERVICE YARD WALL SECTION
SCALE: 1/2" = 1'-0"



10 DUMPSTER WALL SECTION
SCALE: 1/2" = 1'-0"

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
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1	ADDENDUM 3	06/11/2026

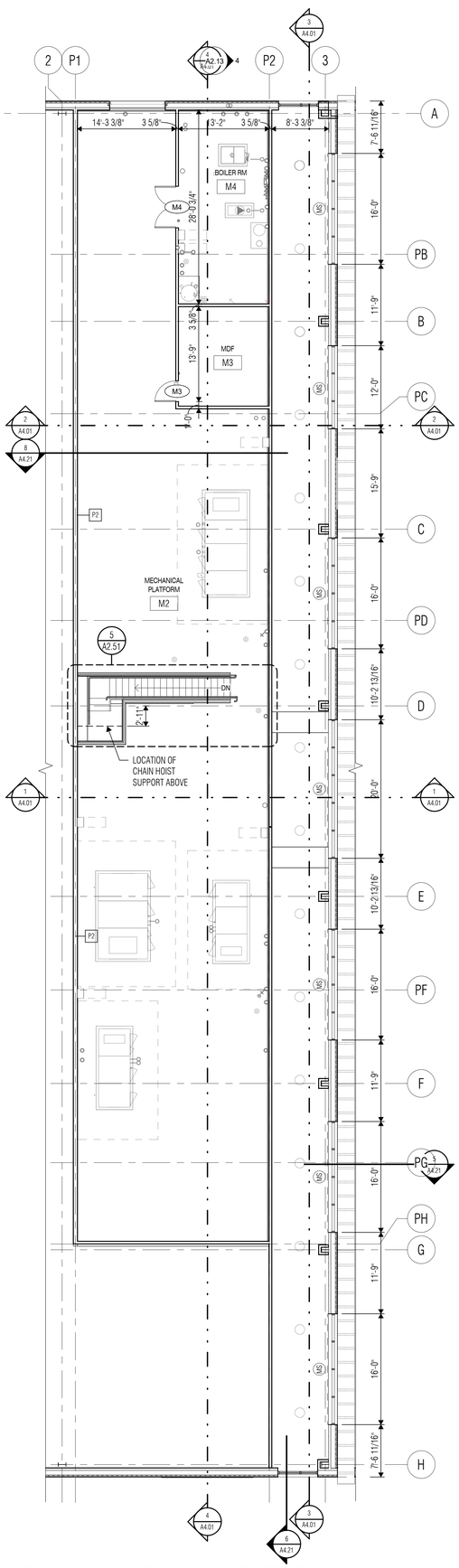
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	AHT/JGH

PROJECT NO.
25-0067.00

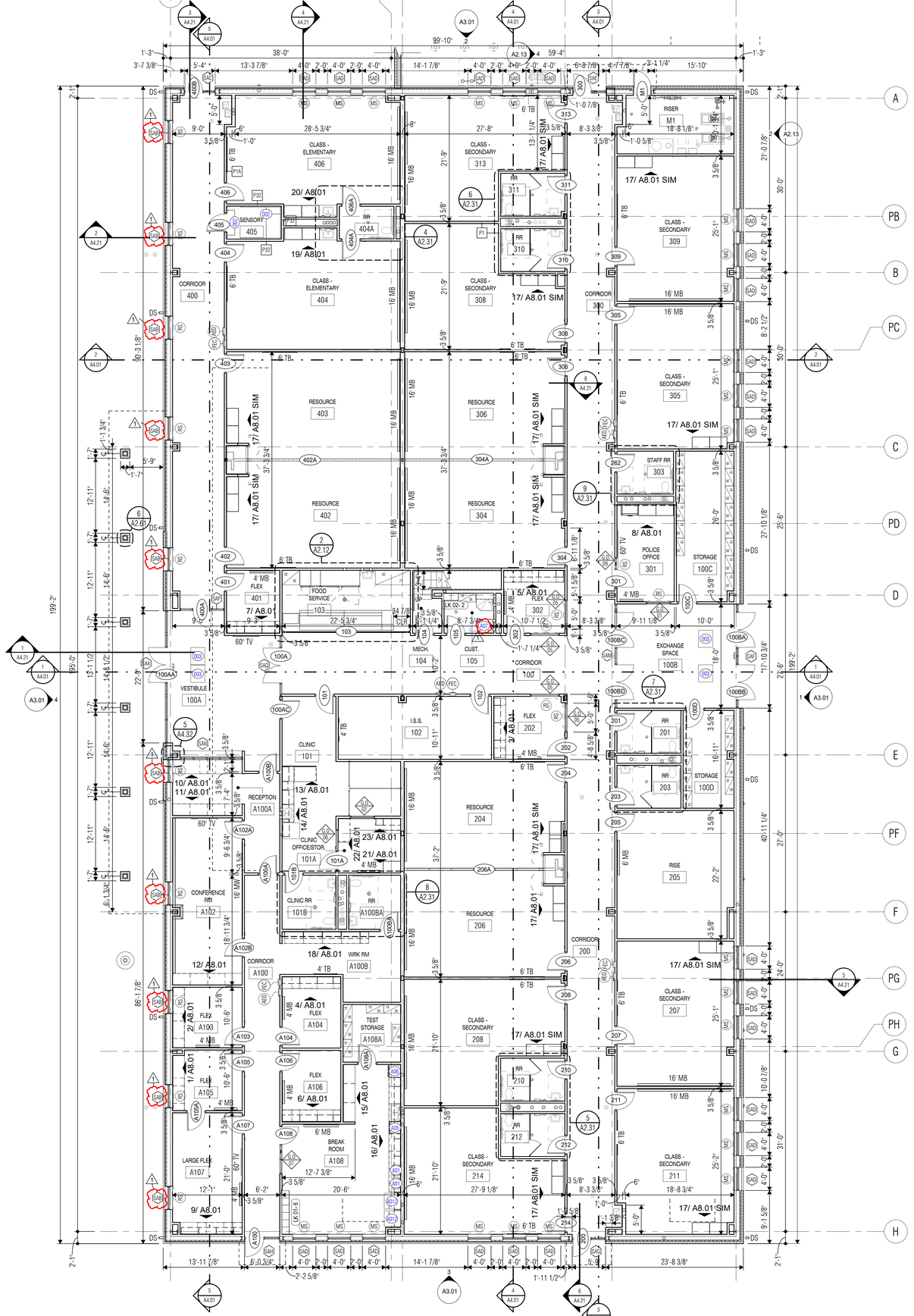
SHEET TITLE
ENLARGED ARCHITECTURAL SITE PLANS & DETAILS

SHEET NO.
A1.21

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2 FLOOR PLAN - MECHANICAL PLATFORM
SCALE: 1/8" = 1'-0"



1 ORIENTATION FLOOR PLAN - LEVEL ONE
SCALE: 1/8" = 1'-0"

FLOOR PLAN NOTES

1. Primary Ground Level floor elevation is 140.30' (Mean Sea Level), which equals to 100'-0" datum.
2. Dimensions on Floor Plans are to face of stud unless noted otherwise.
3. Coordinate the location of electrical devices with casework, millwork, lockers, etc. Any electrical device that is not properly coordinated shall be relocated at no additional cost.
4. Exterior wall construction is identified on the Wall Sections. Refer to the A4 series sheets for Wall Sections, and to Sheet A4.11 for Exterior Wall Assemblies.
5. Refer to Exterior Elevation Notes for control joint requirements at all inside corners of masonry veneer.
6. Refer to Sheet A2.21 for Partition Types.
7. Interior partitions are Type "P1" unless noted otherwise.
8. Refer to Detail 3/A0.21 for Typical Door Maneuvering Clearances. All new doors shall meet the requirements of that detail. If any door is found that does not comply with these requirements, request clarification from the Architect prior to construction.
9. Refer to Sheet 3/A2.21 for Typical Gypsum Board Control Joint Details at all CFS and light-gage steel stud partition openings.
10. Refer to Sheet A2.21 for Typical Partition Penetration Details, including pipe, conduit and ductwork penetrations.
11. Refer to Exterior Elevations for exact locations of downspouts.
12. Provide factory bullnose units at all interior exposed vertical edges of CMU, except at starter course with applied base material where square-edge units shall be provided in lieu of bullnose units.
13. Provide minimum 20 gage (33 mils) light-gage steel studs at all interior partitions scheduled to receive ceramic tile, plaster, abuse-resistant gyp board or impact-resistant gyp board.
14. Provide minimum 18 (43 mils) gage cold-formed steel studs at all interior partitions scheduled to receive anchored masonry or stone veneer as well as interior partitions with steel plate or steel sheet X-bracing.
15. Provide minimum 18 gage (43 mils) cold-formed steel studs as designed by stud engineer for all interior partiti1ons scheduled to receive adhered masonry or stone veneer.
16. At light-gage steel stud partitions that extend above the ceiling, provide diagonal 20 (30 mils) gage stud braces at 4'-0" o.c. to structure above (not to steel deck) as required to provide rigid anchorage and support of partitions.
17. Provide minimum 2 X 6 fire-retardant treated wood blocking in both new and existing stud walls and partitions, at mounting locations for wall-mounted accessories, handrails, casework, markerboards, tackboards, folding partitions, toilet partitions, and all other wall-mounted items. Refer to Sheet 2/A8.21for typical blocking requirements at various conditions.
18. At Mechanical, Electrical and Boiler Room partitions, seal tightly around all penetrations. Utilize fire safing material at rated partitions.
19. Provide sealant and/or fire safing at all floor penetrations, as applicable.
20. Refer to Reflected Ceiling Plan for clerestory and transom windows.

FLOOR PLAN LEGEND

METAL STUD PARTITION. Extend 4" above highest ceiling plane and brace to structure above as noted in Floor Plan Notes. Refer to Life Safety and Floor Plan sheets for fire, smoke and sound-conditioned partitions that extend to deck above.

LOCKER TYPE (LKA-4) — For locker types, ref.5/A2.21
LOCKER QUANTITY

FURNITURE, FIXTURE OR EQUIPMENT BY OWNER. Coordinate with adjacent electrical devices, casework, etc.

MB	MARKERBOARD, Preceding number is length, in feet.
TB	TACKBOARD, Preceding number is length, in feet.
FE	FIRE EXTINGUISHER, with bracket.
FEC	FIRE EXTINGUISHER, with cabinet and bracket.
RS	ROLLING WINDOW SHADES
MS	MOTORIZED ROLLING SHADES
DS	DOWNSPOUT
AED	AED, with cabinet and bleed kit.

KEY NOTE LEGEND	
Key Value	Key Note Text
002	Wall Pads, 7'-0" Tall
003	Screening Device, OFOI
A01	Microwave, CFCI
A05	Dishwasher, CFCI
A06	Ice Machine, CFCI
A07	Stacked Washer Dryer, CFCI
A012	Refrigerator w/ Ice Maker + Lock, CFCI

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Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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Katy, TX

NEW OPPORTUNITY AWARENESS CENTER

06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	MCA

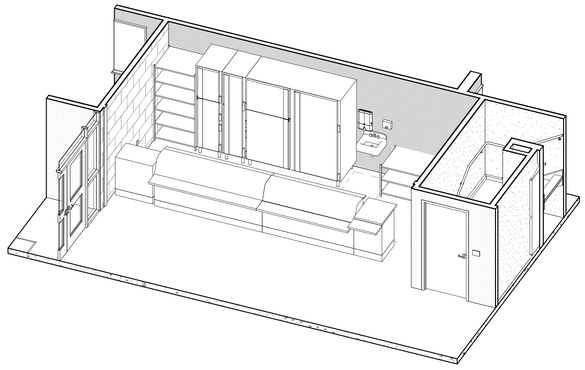
PROJECT NO.
25-0067.00

SHEET TITLE
FLOOR PLAN

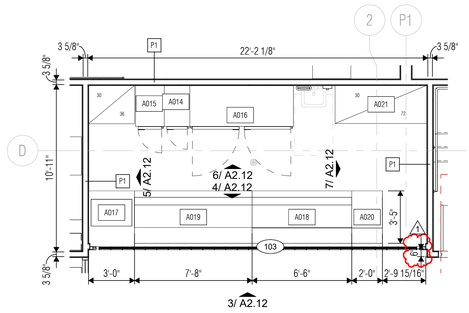
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A2.11

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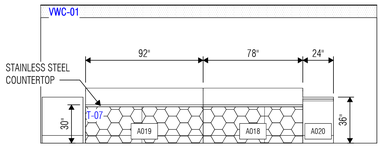
FOOD SERVICE EQUIP SCHEDULE						
Mark	Type	Manufacturer	Model Number	Depth	Width	Height
A014	FS_Reach-in-Warmer_1-Door	Continental Refrigerator	DL1W	2'-11 3/8"	2'-2"	6'-11 1/4"
A015	FS_Reach-in-Cooler_1-Door	Continental Refrigerator	D1REN	2'-11 3/8"	2'-4 1/2"	6'-11 1/4"
A016	FS_Reach-in-Cooler_2-Door	Continental Refrigerator	D2REN	2'-11 3/8"	4'-9"	6'-11 1/4"
A017	FS_Milk Cooler	Continental Refrigerator	MC3NSSDCW	2'-9"	2'-10"	3'-5 1/2"
A018	FS_Serving Line_78	Mod-U-Serv		3'-0"	3'-0"	2'-6"
A019	FS_Serving Line_92	Mod-U-Serv		3'-0"	3'-0"	2'-6"
A020	FS_Cashier			3'-0"	3'-0"	3'-0"
A021	FS_Work Table					



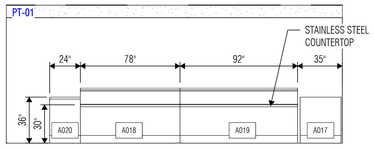
1 FOOD SERVICE MODEL
SCALE:



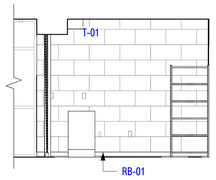
2 FOOD SERVICE - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



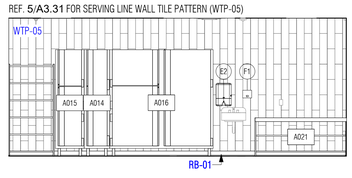
3 FRONT OF SERVING LINE
SCALE: 1/4" = 1'-0"



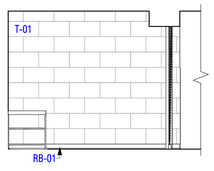
4 BACK OF SERVING LINE
SCALE: 1/4" = 1'-0"



5 FOOD SERVICE - WEST
SCALE: 1/4" = 1'-0"



6 FOOD SERVICE - NORTH
SCALE: 1/4" = 1'-0"



7 FOOD SERVICE - EAST
SCALE: 1/4" = 1'-0"

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VLK
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Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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CHARLES W. JOHNSON
REGISTERED ARCHITECT
STATE OF TEXAS
20944
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	ADDENDUM 3	06/11/2026

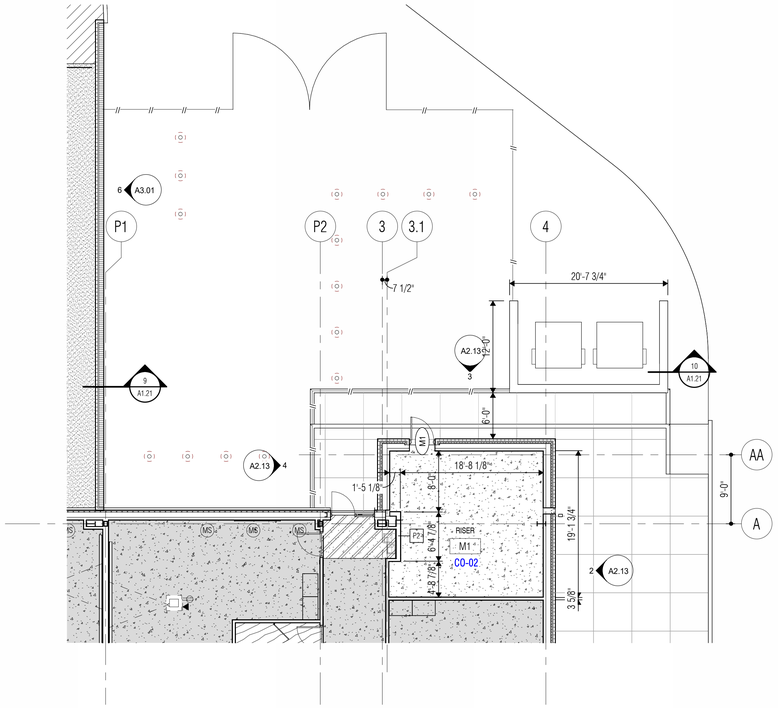
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Designer
Drawn By	Author

PROJECT NO.
25-0067.00

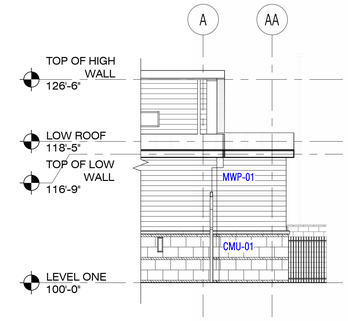
SHEET TITLE
FOOD SERVICE ENLARGED PLANS AND DETAILS

SHEET NO.
A2.12

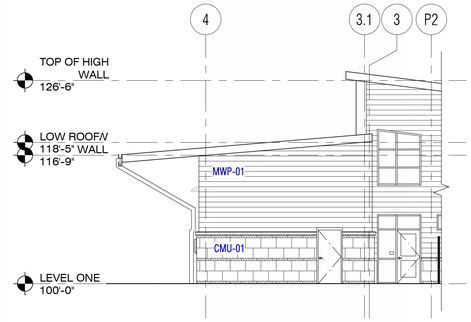
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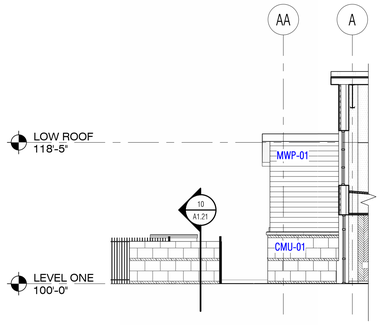
1 ENLARGED SERVICE YARD PLAN - ALTERNATE
SCALE: 1/8" = 1'-0"



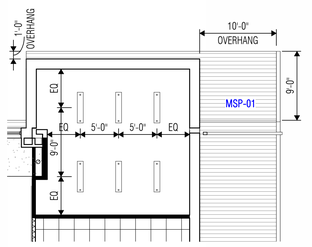
2 EAST ELEVATION - ALTERNATE
SCALE: 1/8" = 1'-0"



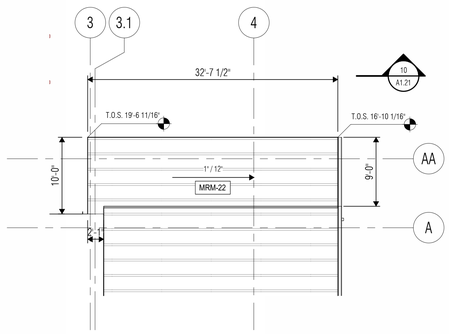
3 NORTH ELEVATION - ALTERANTE
SCALE: 1/8" = 1'-0"



4 WEST ELEVATION - ALTERNATE
SCALE: 1/8" = 1'-0"



6 REFLECTED CEILING PLAN - ALTERNATE
SCALE: 1/8" = 1'-0"



5 ROOF PLAN - ALTERNATE
SCALE: 1/8" = 1'-0"

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Houston, Texas 77070
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Katy, TX

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REGISTERED ARCHITECT
CHARLES W. JOHNSON
22944
STATE OF TEXAS

06/11/2026

ISSUED: June 11, 2026

REVISIONS

Revision No.	Revision Date

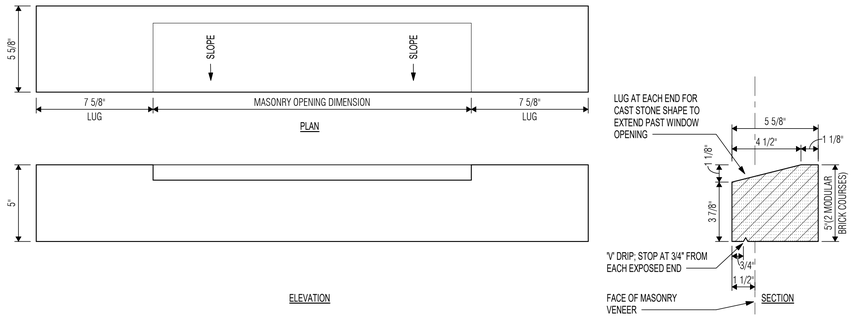
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	CLP

PROJECT NO.
25-0067.00

SHEET TITLE
ALTERNATE - PUMP ROOM

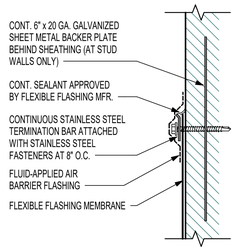
SHEET NO.
A2.13

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1 CAST STONE SHAPE - CS-1
SCALE: 3" = 1'-0"

*CS-1 BM L.30
AT 3" WINDOW SETBACK IN MASONRY VENEER w/ LUGS



2 TERMINATION BAR DETAIL
SCALE: 6" = 1'-0"

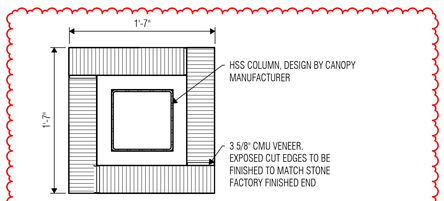
GD010

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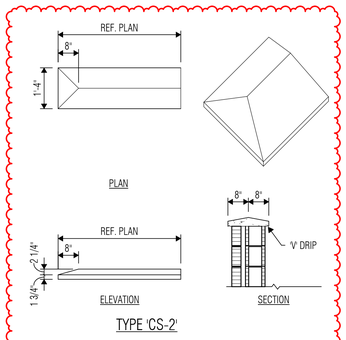
5 PLAN DETAIL @ DOWNSPOUT
SCALE: 3" = 1'-0"

1



6 PLAN DETAIL - TYP. EXT. CANOPY COLUMN
SCALE: 1 1/2" = 1'-0"

1



7 CAST STONE SHAPE - CS-2
SCALE: 1/2" = 1'-0"

1

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Houston, Texas 77070
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www.vlkarchitects.com

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STATE OF TEXAS

06/11/2026

ISSUED: May 26, 2026

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1	ADDENDUM 3	06/11/2026

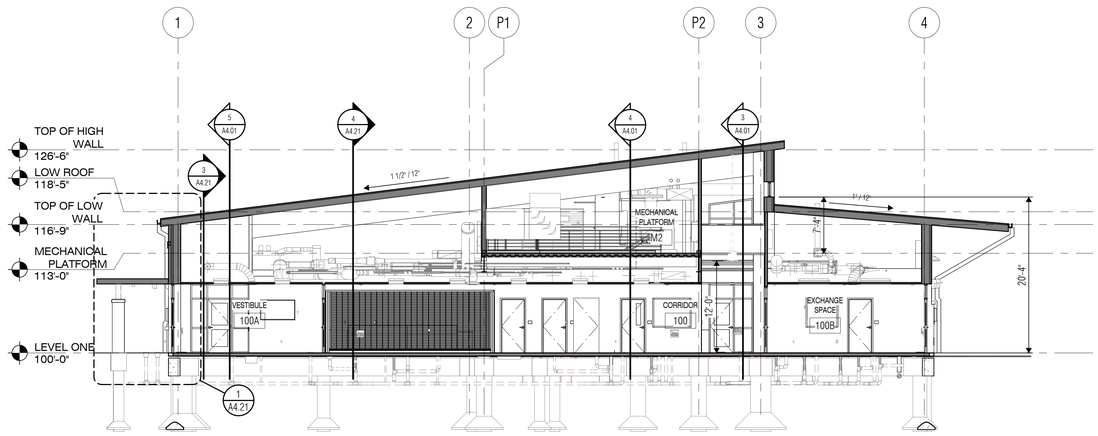
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	JGH / CLP

PROJECT NO.
25-0067.00

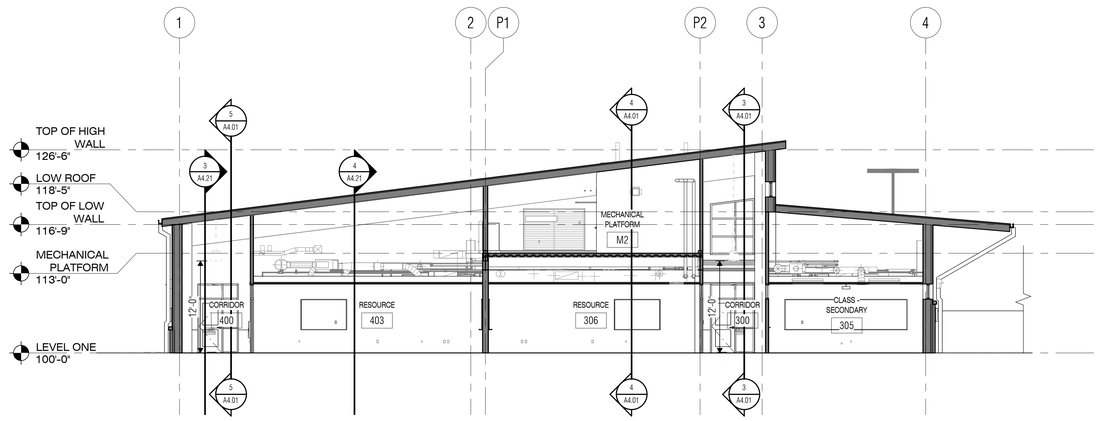
SHEET TITLE
MISCELLANEOUS DETAILS

SHEET NO.
A2.61

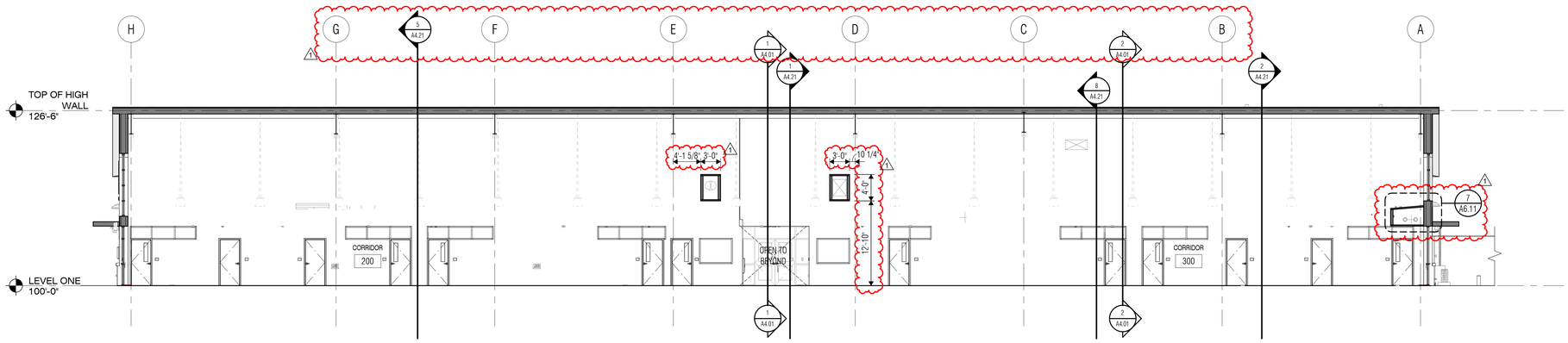
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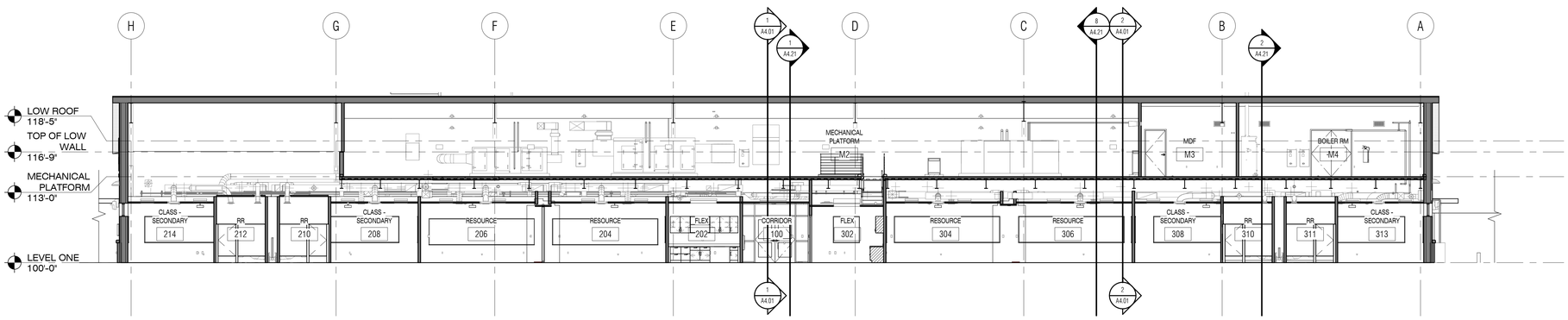
1 BUILDING SECTION
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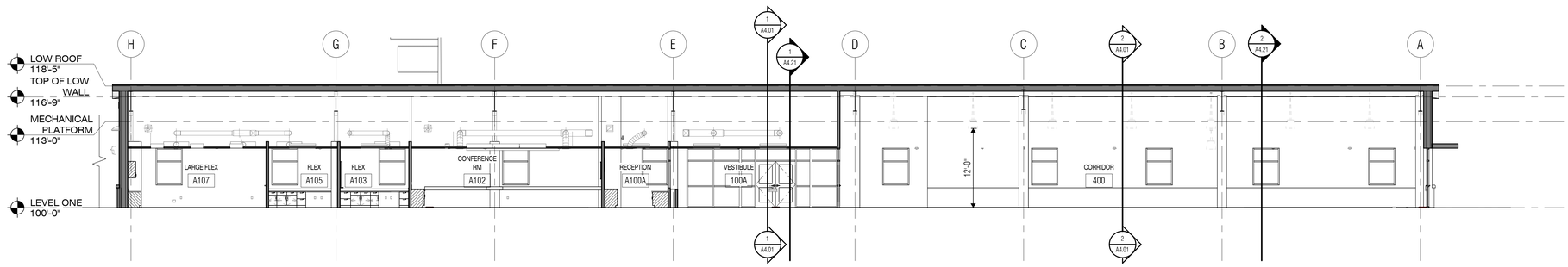
2 BUILDING SECTION
SCALE: 1/8" = 1'-0"



3 BUILDING SECTION
SCALE: 1/8" = 1'-0"



4 BUILDING SECTION
SCALE: 1/8" = 1'-0"



5 BUILDING SECTION
SCALE: 1/8" = 1'-0"

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VLK
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1	ADDENDUM 3	06/11/2026

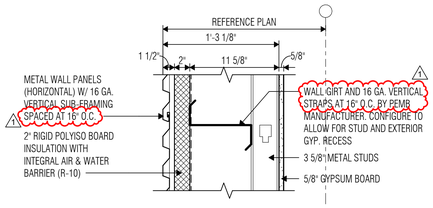
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	JGH / CLP

PROJECT NO.
25-0067.00

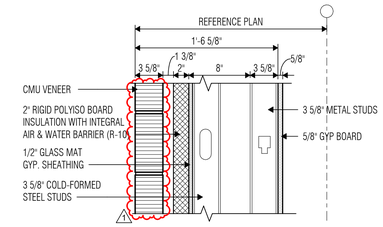
SHEET TITLE
BUILDING SECTIONS

SHEET NO.
A4.01

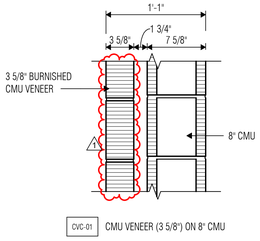
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MWS-24 WATERTIGHT METAL WALL PANELS (HORIZONTAL) ON METAL BUILDING SYSTEM FRAMING

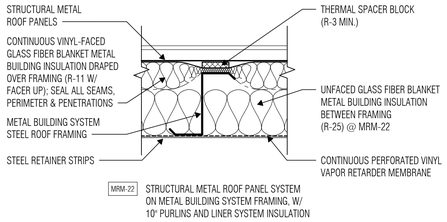


CVS-21 CMU VENEER (3 5/8") ON 3 5/8" STEEL STUDS



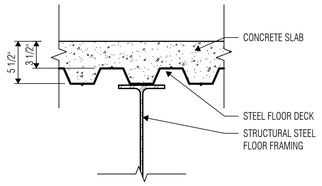
CVC-01 CMU VENEER (3 5/8") ON 8" CMU

1 EXTERIOR WALL ASSEMBLIES
SCALE: 1 1/2" = 1'-0"

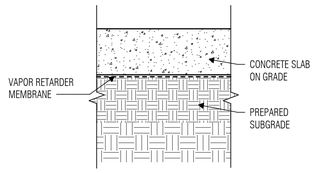


MRM-22 STRUCTURAL METAL ROOF PANEL SYSTEM ON METAL BUILDING SYSTEM FRAMING, W/ 10" PURLINS AND LINER SYSTEM INSULATION

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

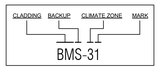


CSS-01 CONCRETE SLAB ON STEEL DECK & FRAMING UL D925



CSG-01 CONCRETE SLAB ON GRADE

3 FLOOR ASSEMBLIES
SCALE: 1 1/2" = 1'-0"



BUILDING ASSEMBLY MASTER LIST

TYPE MARK	DESCRIPTION
	<varies>
Floor	
CSG-01	Concrete Slab on Grade
CSS-01	Concrete Slab on Steel Deck & Framing
Wall	
CVC-01	<varies>
CVS-21	<varies>
MWS-24	Watertight Metal Wall Panels (Horizontal) on Metal Building System Framing
Roof	
MRM-22	Structural Metal Roof Panel System on Metal Building System Framing, w/8" Purlins and Liner System Insulation

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ARCHITECT
VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
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1	ADDENDUM 3	06/11/2026

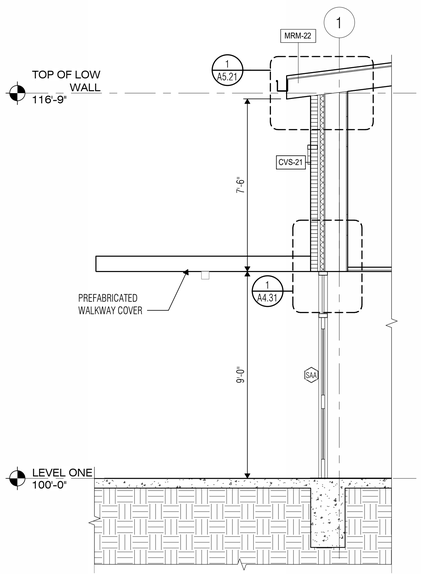
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	JGH / CLP

PROJECT NO.
25-0067.00

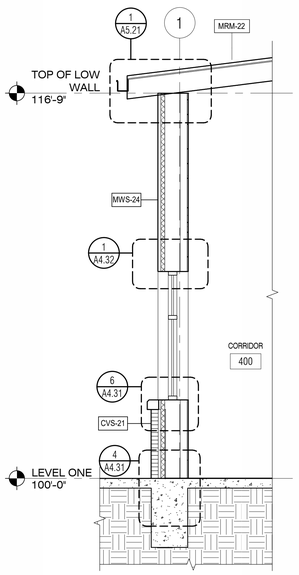
SHEET TITLE
BUILDING ASSEMBLY TYPES

SHEET NO.
A4.11

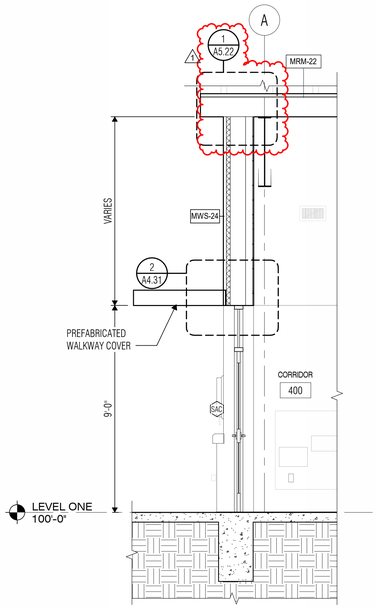
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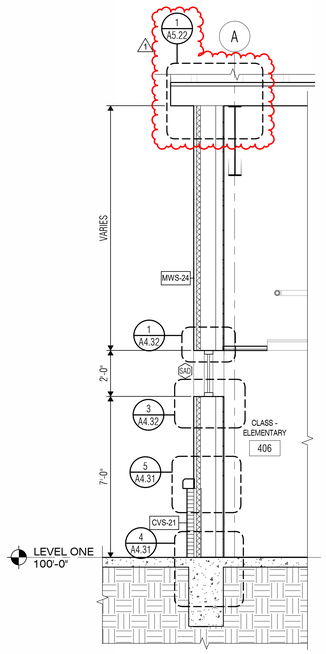
1 WALL SECTION
SCALE: 3/8" = 1'-0"



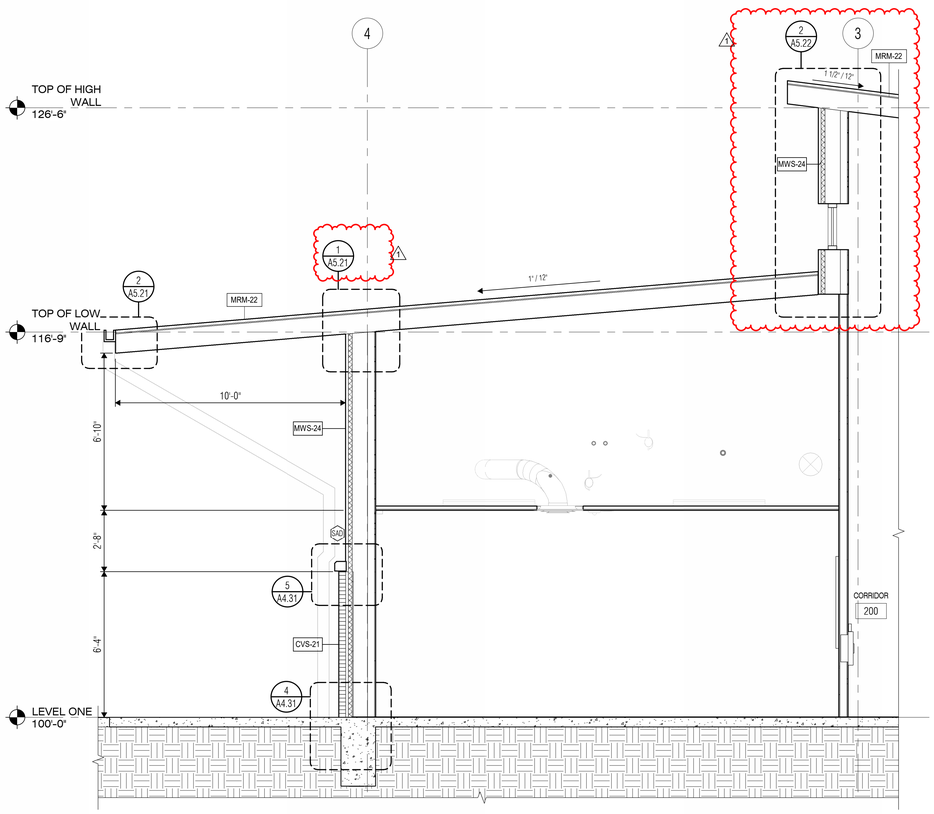
2 WALL SECTION
SCALE: 3/8" = 1'-0"



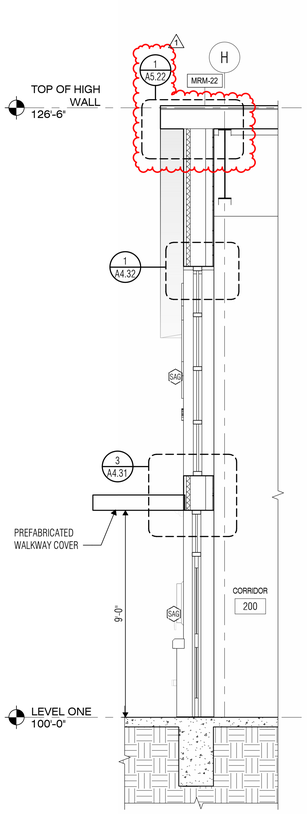
3 WALL SECTION
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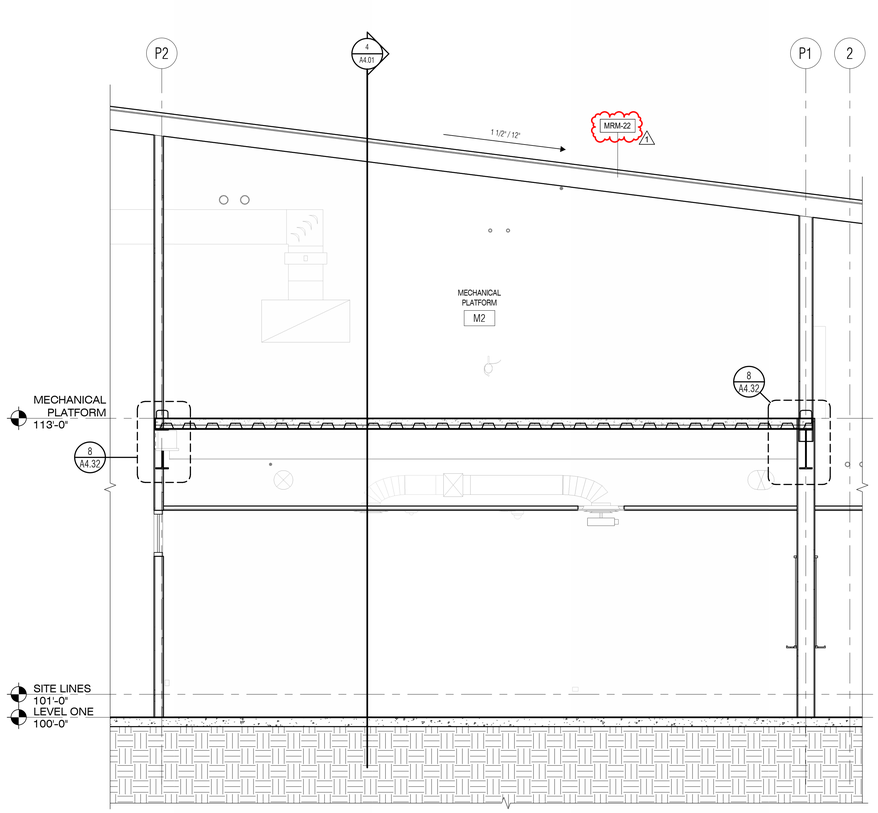
4 WALL SECTION
SCALE: 3/8" = 1'-0"



5 WALL SECTION
SCALE: 3/8" = 1'-0"



6 WALL SECTION
SCALE: 3/8" = 1'-0"



8 WALL SECTION AT PLATFORM
SCALE: 3/8" = 1'-0"

CLADDING BACKUP CLIMATE ZONE MARK
BMS-31

BUILDING ASSEMBLY LEGEND

TYPE MARK	DESCRIPTION
Floor	
CSG-01	Concrete Slab on Grade
CSS-01	Concrete Slab on Steel Deck & Framing
Wall	
CVS-21	CMU Veneer (3 5/8") on 3 5/8" Steel Studs
MWS-24	Watertight Metal Wall Panels (Horizontal) on Metal Building System Framing
Roof	
MRM-22	Structural Metal Roof Panel System on Metal Building System Framing, w/8" Purlins and Liner System Insulation

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CHARLES W. JOHNSON 20944 REGISTERED ARCHITECT STATE OF TEXAS
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

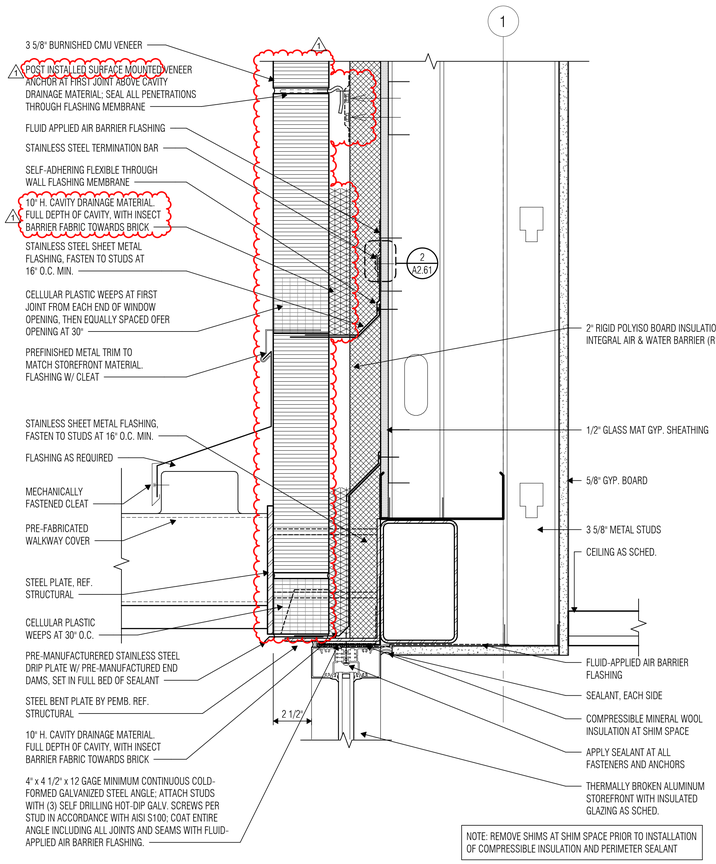
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	JGH / CLP

PROJECT NO.
25-0067.00

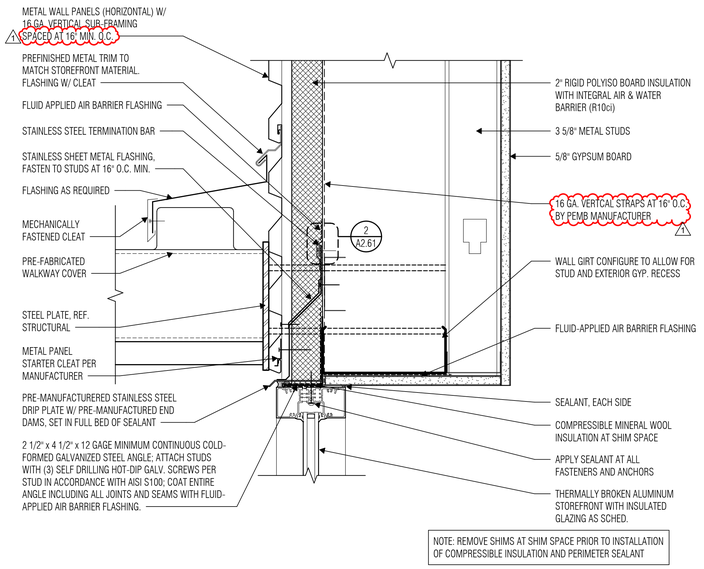
SHEET TITLE
WALL SECTIONS

SHEET NO.
A4.21

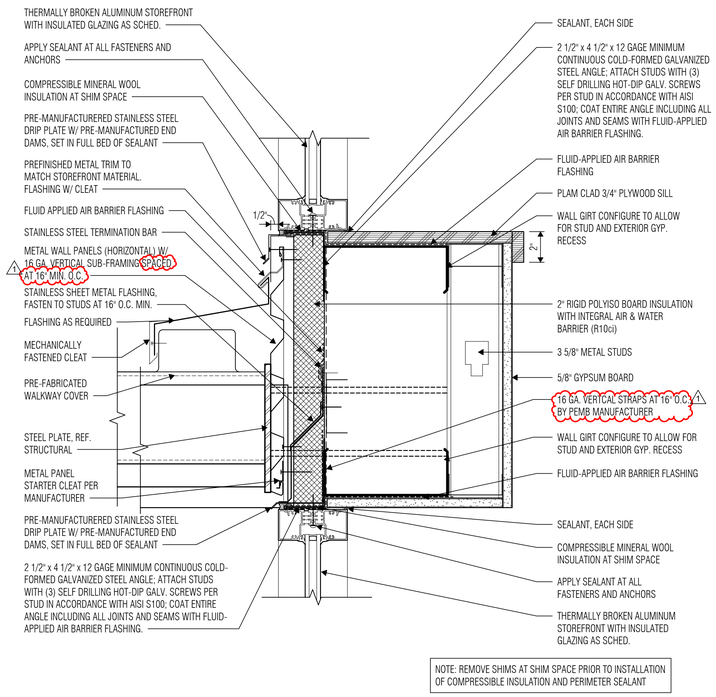
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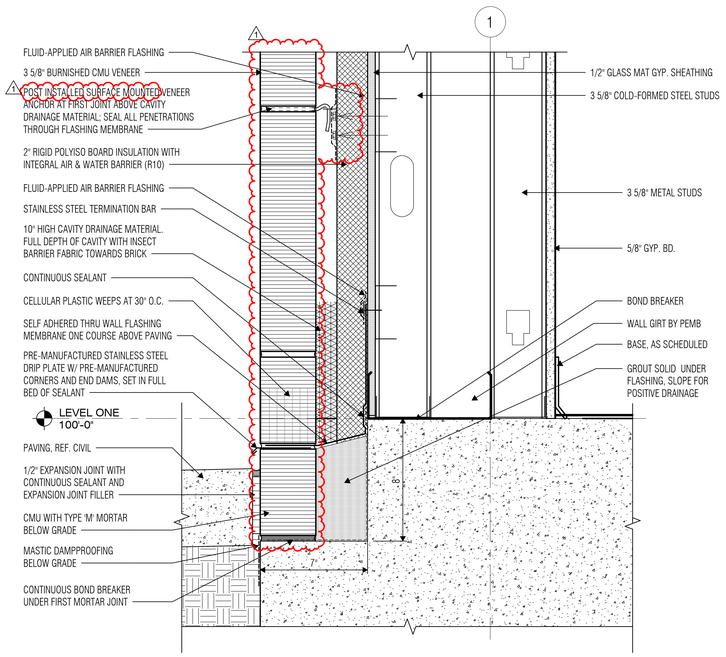
1 CVS WALL AT STOREFRONT HEAD W/ CANOPY
SCALE: 3" = 1'-0"



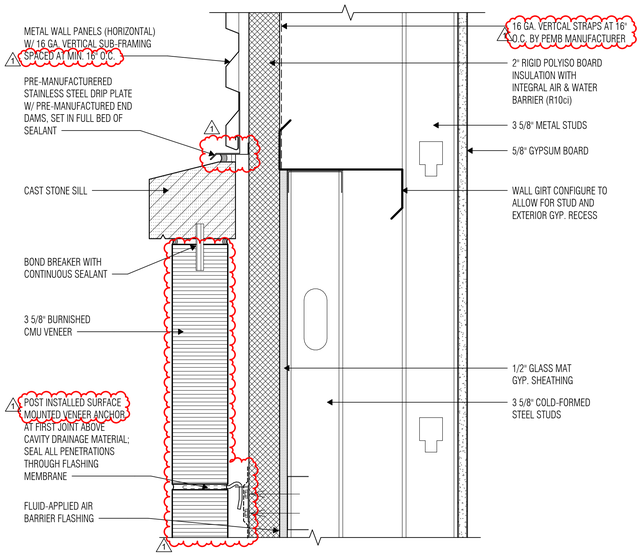
2 MWS WALL AT STOREFRONT HEAD W/ CANOPY
SCALE: 3" = 1'-0"



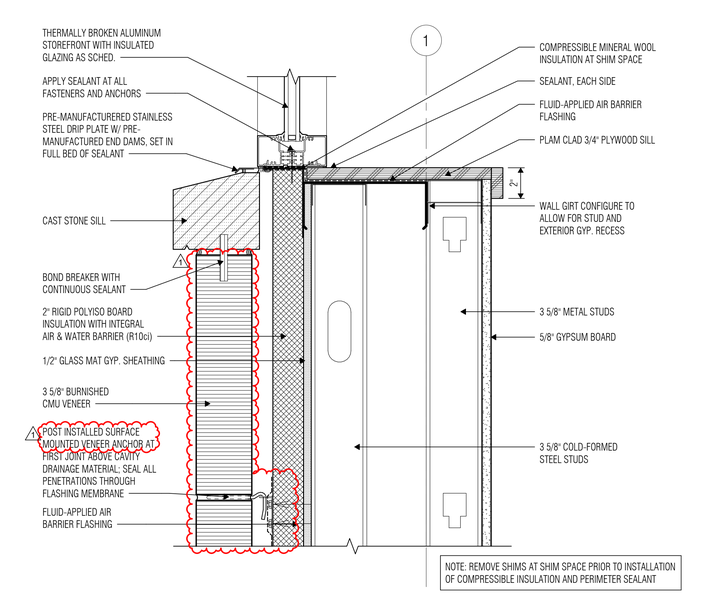
3 MWS WALL AT STOREFRONT W/ CANOPY
SCALE: 3" = 1'-0"



4 CVS WALL AT GRADE LEVEL
SCALE: 3" = 1'-0"



5 MWS TO CVS TRANSITION AT CAST STONE
SCALE: 3" = 1'-0"



6 CVS WALL AT STOREFRONT SILL
SCALE: 3" = 1'-0"

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Houston, Texas 77070
Main Phone: 281.671.2300
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Katy ISD
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REGISTERED ARCHITECT JAMES W. JOHNSON 20944 STATE OF TEXAS
06/11/2026

ISSUED: May 26, 2026

REVISIONS

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1	ADDENDUM 3	06/11/2026

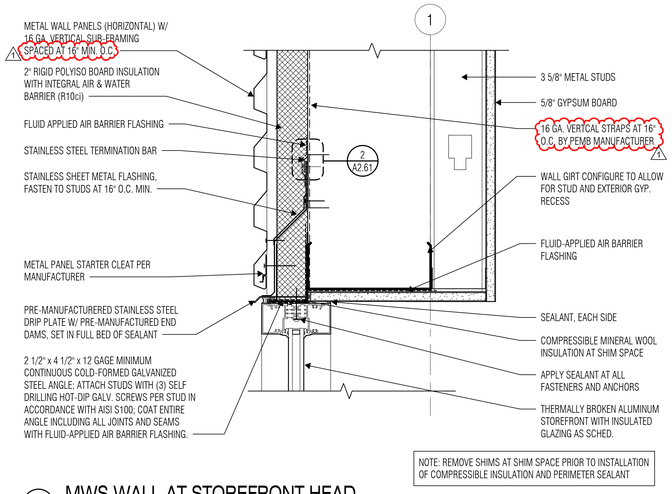
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	JGH / CLP

PROJECT NO.
25-0067.00

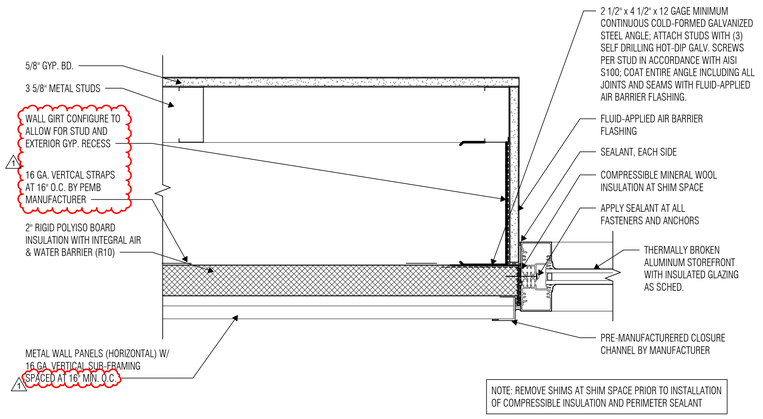
SHEET TITLE
BUILDING ASSEMBLY DETAILS

SHEET NO.
A4.31

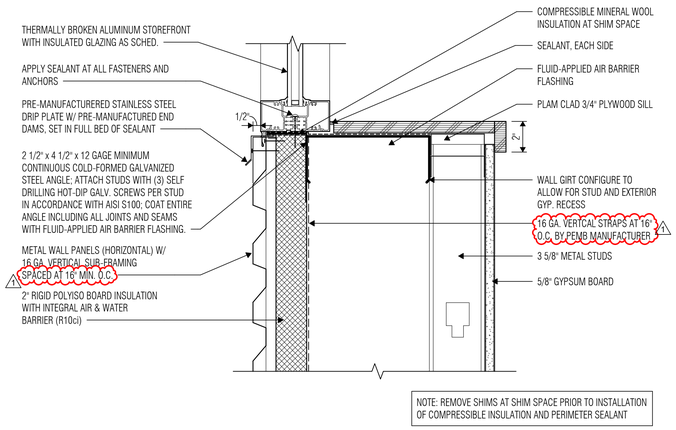
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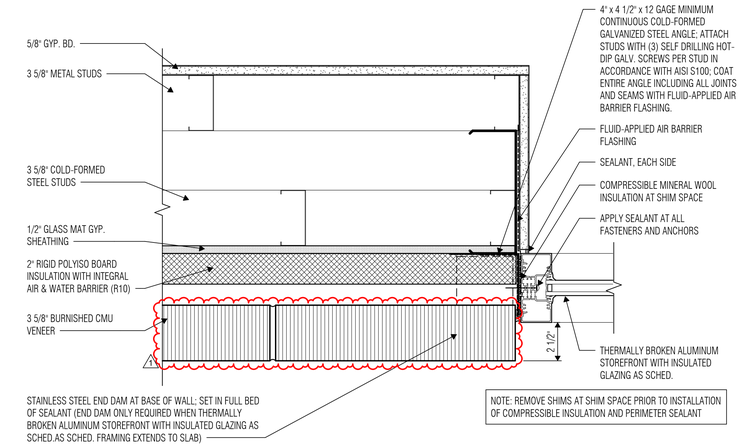
1 MWS WALL AT STOREFRONT HEAD
SCALE: 3" = 1'-0"



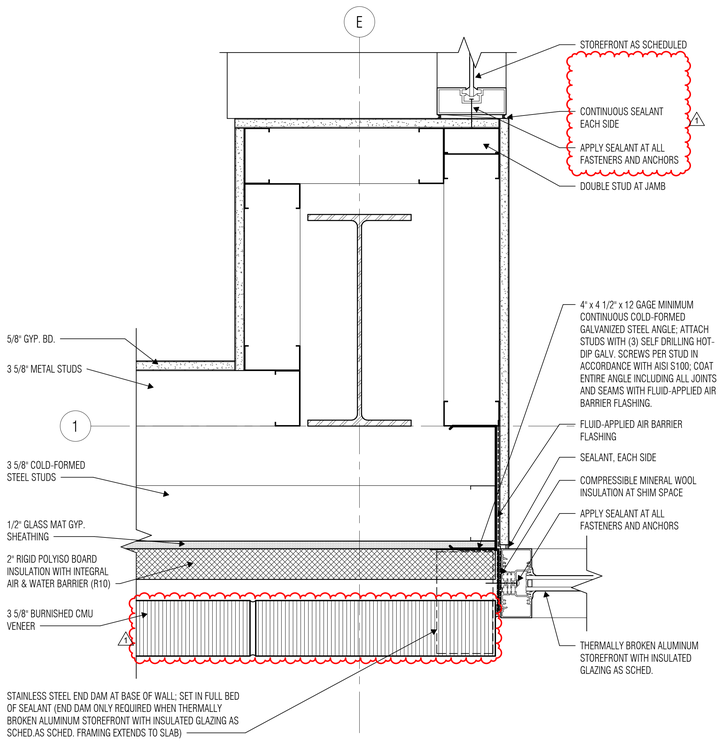
2 MWS STOREFRONT AT JAMB
SCALE: 3" = 1'-0"



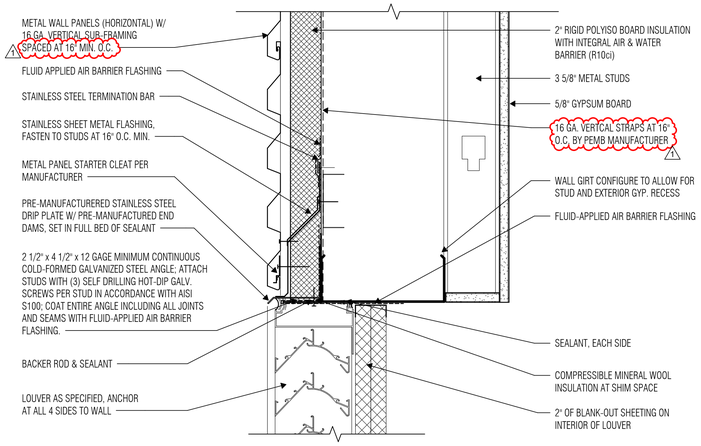
3 MWS WALL AT STOREFRONT SILL
SCALE: 3" = 1'-0"



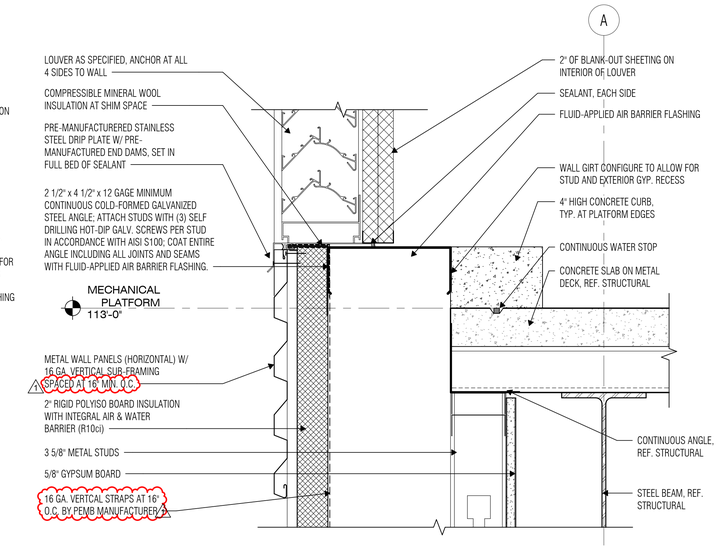
4 CVS STOREFRONT AT JAMB
SCALE: 3" = 1'-0"



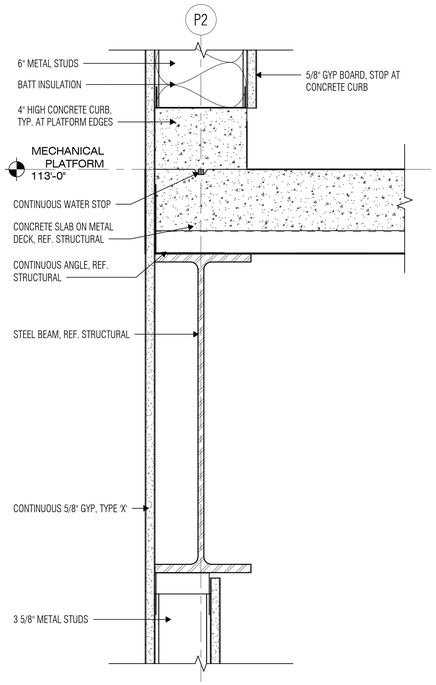
5 DETAIL AT FRONT STOREFRONT
SCALE: 3" = 1'-0"



6 HEAD DETAIL AT ARCH LOUVER
SCALE: 3" = 1'-0"



7 SILL DETAIL AT ARCH LOUVER
SCALE: 3" = 1'-0"



8 DETAIL AT PLATFORM CURB
SCALE: 3" = 1'-0"

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VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
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REGISTERED ARCHITECT CHARLES W. JOHNSON 20944 STATE OF TEXAS
06/11/2026

ISSUED: May 26, 2026

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1	ADDENDUM 3	06/11/2026

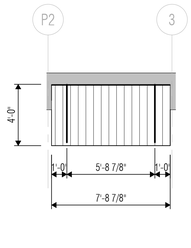
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
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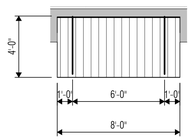
SHEET TITLE
BUILDING ASSEMBLY DETAILS

SHEET NO.
A4.32

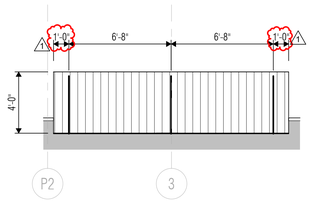
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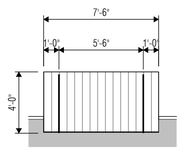
6 CANOPY PLAN - E
SCALE: 1/4" = 1'-0"



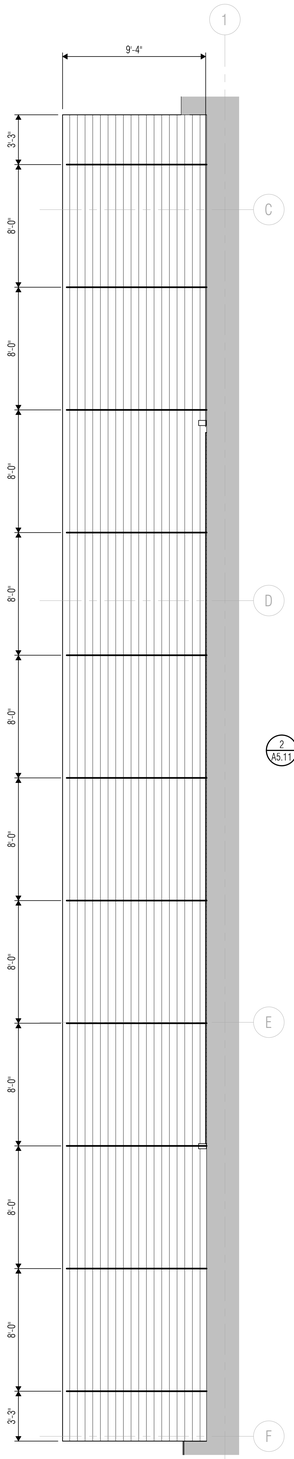
5 CANOPY PLAN - D
SCALE: 1/4" = 1'-0"



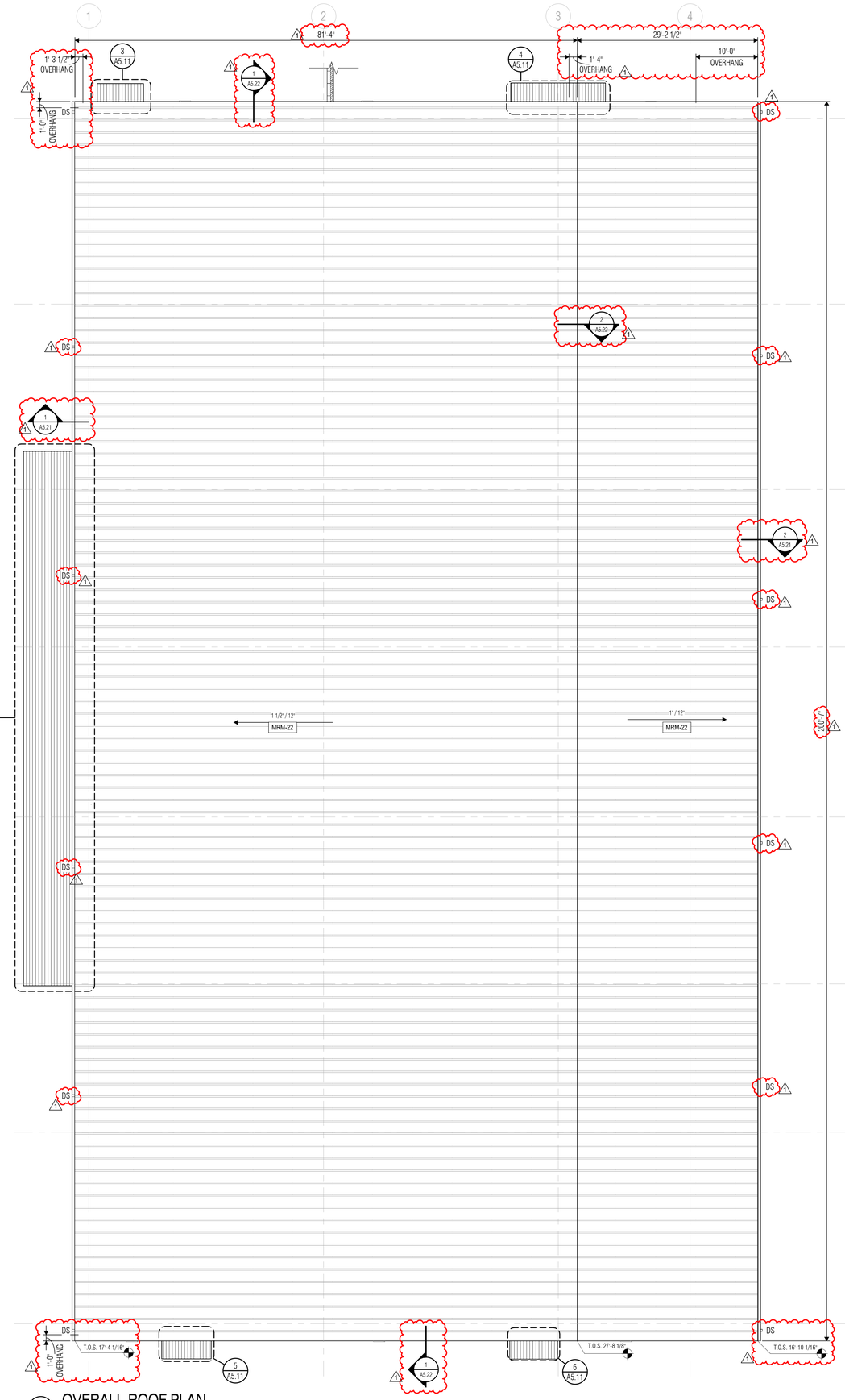
4 CANOPY PLAN - C
SCALE: 1/4" = 1'-0"



3 CANOPY PLAN - B
SCALE: 1/4" = 1'-0"



2 CANOPY PLAN - A
SCALE: 1/4" = 1'-0"



1 OVERALL ROOF PLAN
SCALE: 1/8" = 1'-0"

ROOF PLAN LEGEND

MRM	PREFINISHED METAL ROOF PANELS
T.O.D.	TOP OF DECK ELEVATION
T.O.S.	TOP OF STEEL ELEVATION
DS	DOWNSPOUT, REF 5/A2.61

GENERAL CANOPY NOTES

1. ALL PREFABRICATED WALKWAY COVERS TO BE DESIGNED BY MANUFACTURER.
2. ALL CANOPIES TO BE 9' - 0" A.F.F. U.N.O.
3. REF. ROOF PLAN FOR CANOPY LOCATIONS

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Houston, Texas 77070
Main Phone: 281.671.2300
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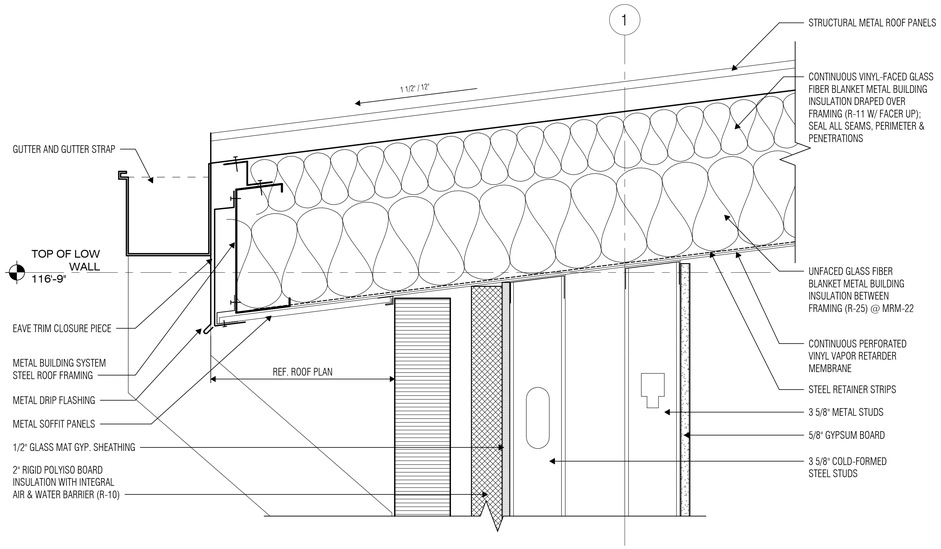
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	MCA

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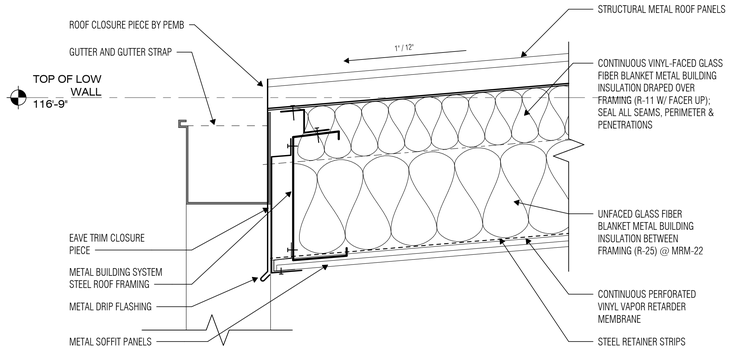
SHEET TITLE
OVERALL ROOF & CANOPY PLANS

SHEET NO.
A5.11

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1 ROOF DETAIL
SCALE: 3" = 1'-0"



2 ROOF DETAIL
SCALE: 3" = 1'-0"

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CHARLES W. JOHNSON
REGISTERED ARCHITECT
22044
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06/11/2026

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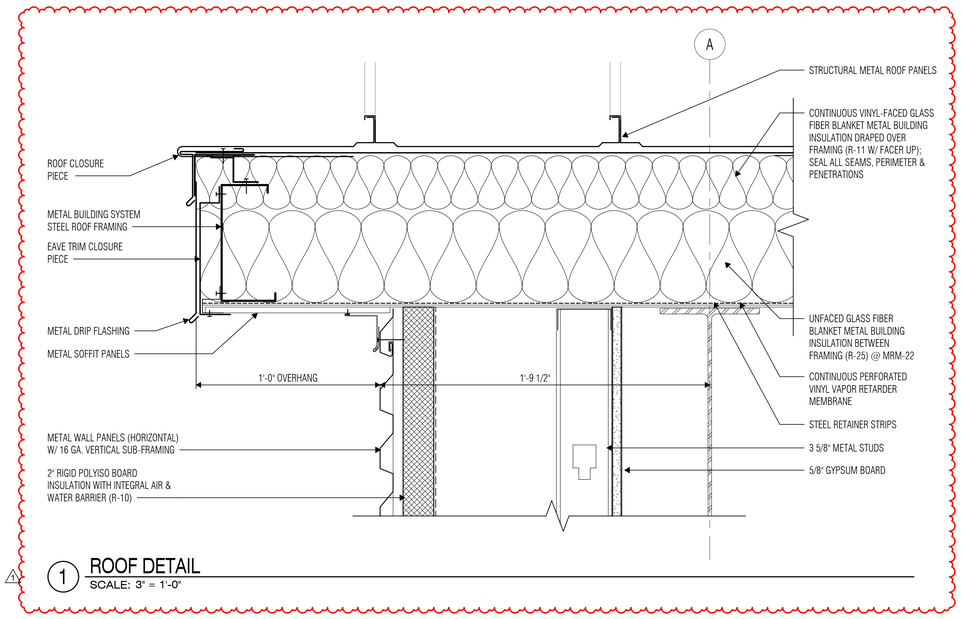
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	JGH / CLP

PROJECT NO.
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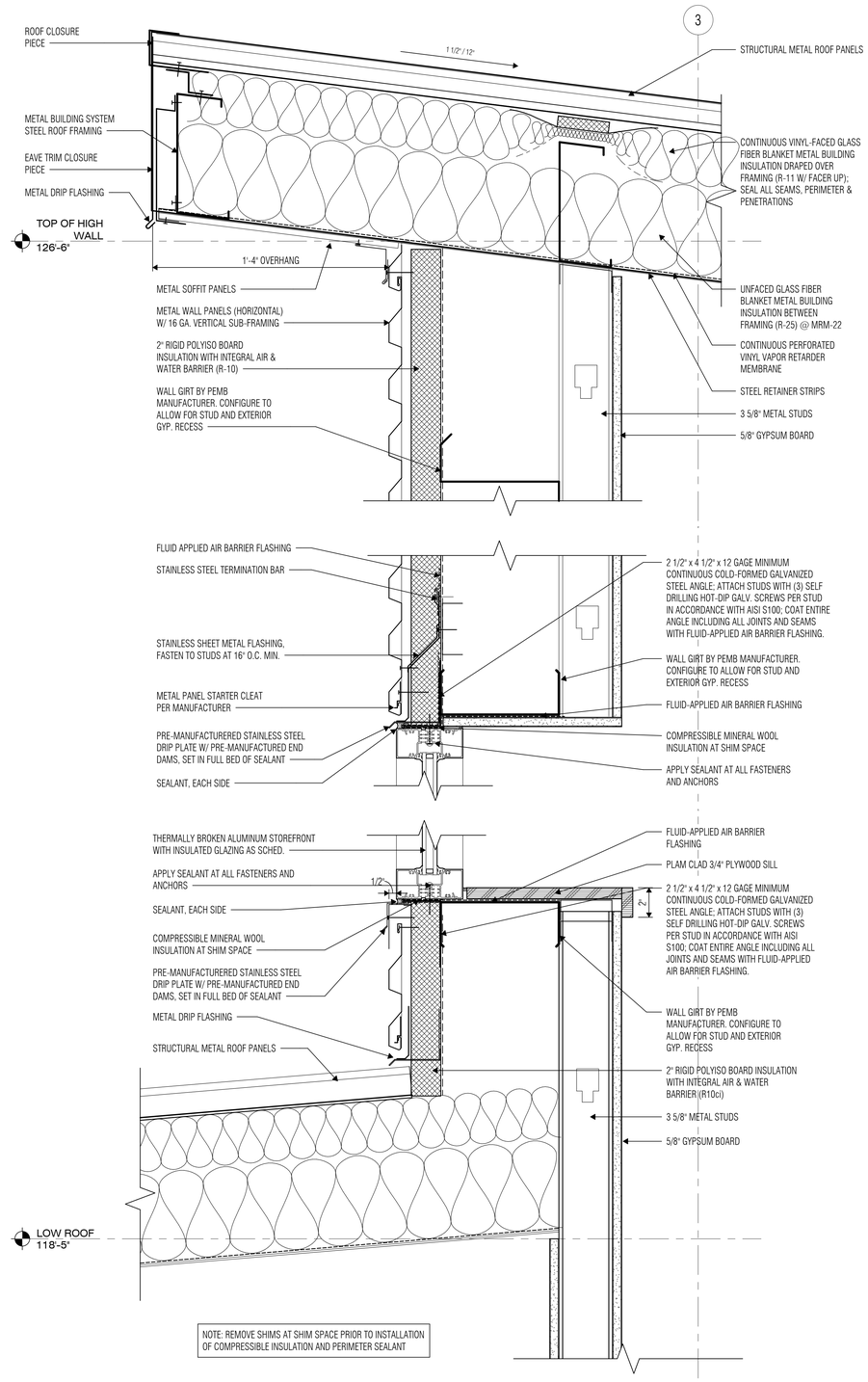
SHEET TITLE
ROOF DETAILS

SHEET NO.
A5.21

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1 ROOF DETAIL
SCALE: 3" = 1'-0"



NOTE: REMOVE SHIMS AT SHIM SPACE PRIOR TO INSTALLATION OF COMPRESSIBLE INSULATION AND PERIMETER SEALANT

2 DETAIL AT HIGH ROOF TRANSITION
SCALE: 3" = 1'-0"

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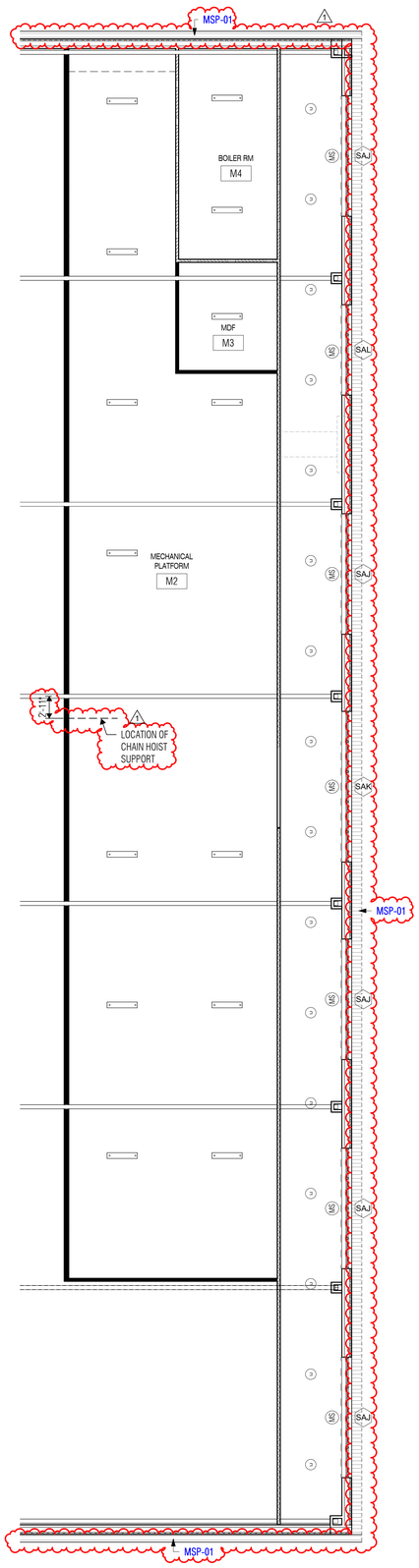
Director	Charles Johnson
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PROJECT NO.
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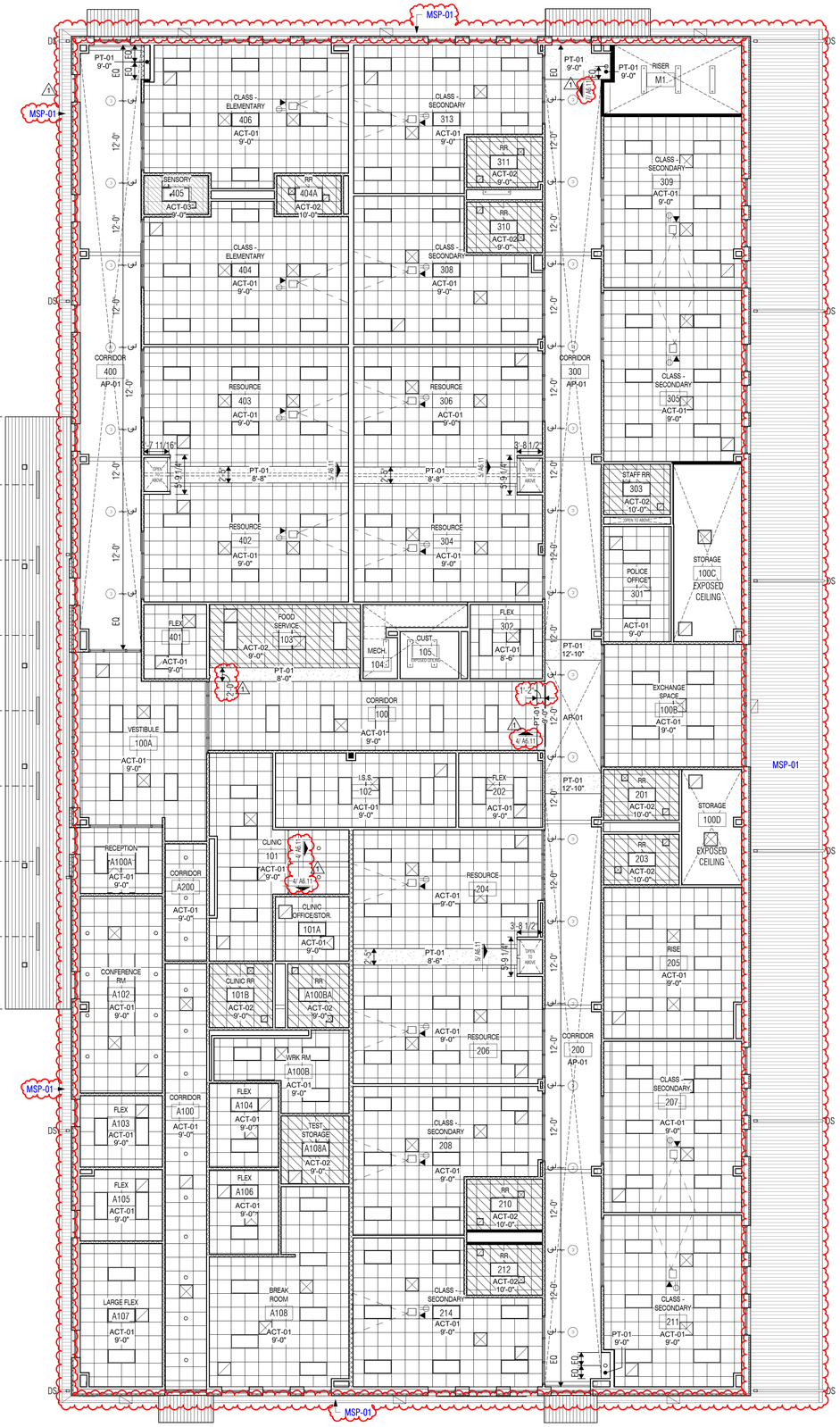
SHEET TITLE
ROOF DETAILS

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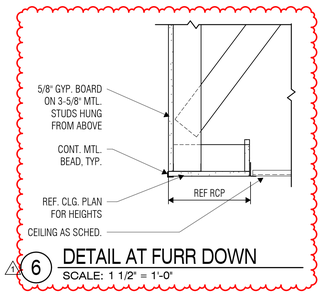
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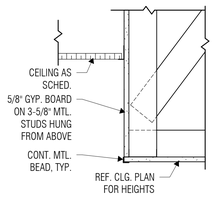
2 REFLECTED CEILING PLAN - MECHANICAL PLATFORM
SCALE: 1/8" = 1'-0"



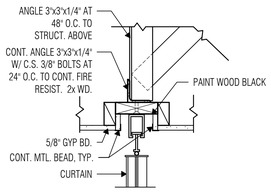
1 REFLECTED CEILING PLAN - LEVEL ONE
SCALE: 1/8" = 1'-0"



6 DETAIL AT FURR DOWN
SCALE: 1 1/2" = 1'-0"



3 C508 - DETAIL AT FURR DOWN
SCALE: 1 1/2" = 1'-0"



4 C702 - DETAIL AT CURTAIN TRACK
SCALE: 1 1/2" = 1'-0"

REFLECTED CEILING PLAN NOTES

1. All ceiling heights shall be [9'0"] A.F.F. unless noted otherwise.
2. Refer to Detail 2/A2.21 for Typical Gypsum Board Ceiling Control Joint Detail.
3. Refer to Detail 2/A2.21 for Typical Plaster Ceiling Control Joint Detail.
4. Provide vented reveals at perimeter of all non-insulated exterior plaster soffits. Provide venting strips or perforated panels at perimeter of all non-insulated metal panel soffits. Venting at non-insulated soffits shall be provided whether specifically indicated on the drawings or not.
5. Provide partition to deck (PTD) at walls surrounding spaces with exposed structure. Refer to Reflected Ceiling Plan Legend for PTD requirements.
6. Provide hold-down clips for all acoustic lay-in ceiling panels at vestibules, at sloped ceilings, at fire-rated ceilings, and within 6 feet of exterior doors without vestibules.
7. At ceiling furring details, the suspended assemblies, bracing, blocking, etc. shown on the details are for schematic representation only. Provide stable, secure and permanent assemblies at these locations in accordance with recommended light-gage steel framing installation practices.
8. At partitions that do not extend to deck above, extend partition 4" minimum above highest adjacent ceiling and brace per Floor Plan Legend and Floor Plan Notes.

REFLECTED CEILING PLAN LEGEND

HVAC SUPPLY AND RETURN GRILLES Shown for location purposes only. Refer to Mechanical Drawings.

LIGHT FIXTURES. Refer to Electrical Drawings.

Smoke Partition

Acoustical/ Sound Partition

Non-rated Partition to Deck

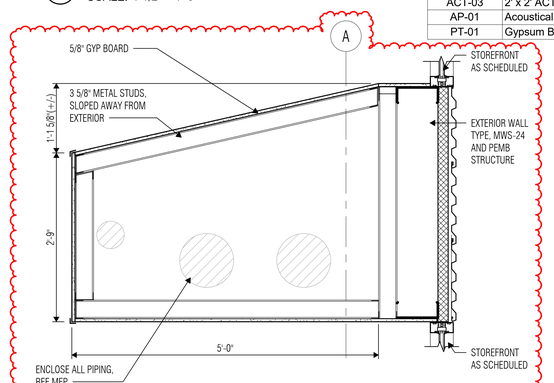
SMOKE PARTITION. Extend partition to deck above and seal with sealant as required to resist the passage of smoke. Paint stenciled label on partitions above ceiling at 15'-0" o.c. as follows: 'SMOKE BARRIER - PROTECT ALL OPENINGS'. Seal all joints and penetrations. Brace partitions per Floor Plan General Notes.

ACOUSTICAL/SOUND PARTITION. Extend partition to deck above and seal with acoustical sealant. Seal all joints and penetrations with acoustical sealant. Brace partitions per Floor Plan General Notes.

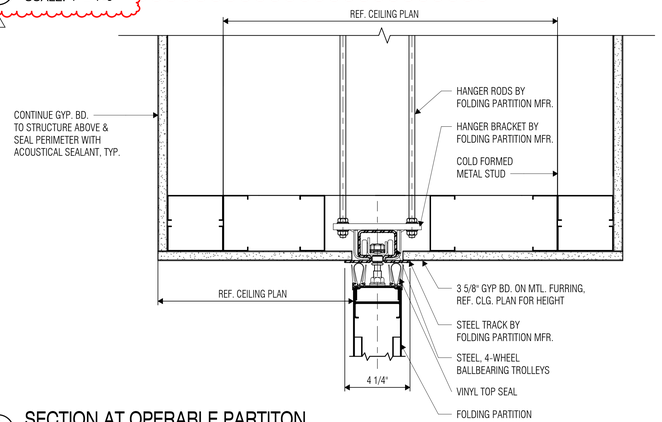
NON-RATED PARTITION TO DECK. Extend partition to deck above. Brace partitions per Floor Plan General Notes.

CEILING SCHEDULE

TYPE MARK	TYPE
ACT-01	2' x 2' ACT System
ACT-02	2' x 2' Aluminum ACT Vinyl Coated
ACT-03	2' x 2' ACT System - Batt Insulation Above
AP-01	Acoustical Fiber Wood Panel
PT-01	Gypsum Board Ceiling



7 FURR OUT AT PIPING
SCALE: 1" = 1'-0"



5 SECTION AT OPERABLE PARTITON
SCALE: 3" = 1'-0"

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Houston, Texas 77070
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ISSUED: May 26, 2026

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Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

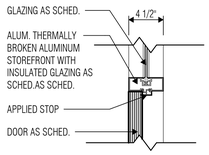
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	AHT/JGH

PROJECT NO.
25-0067.00

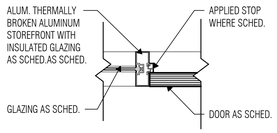
SHEET TITLE
REFLECTED CEILING PLAN

SHEET NO.
A6.11

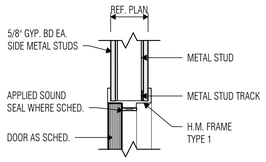
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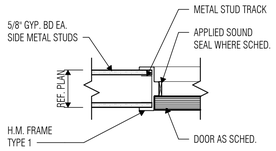
1 INT. ALUM HEAD AT GLAZING
SCALE: 1 1/2" = 1'-0"



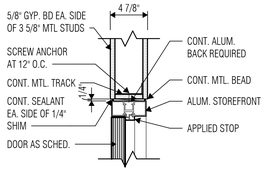
2 INT. ALUM JAMB AT GLAZING
SCALE: 1 1/2" = 1'-0"



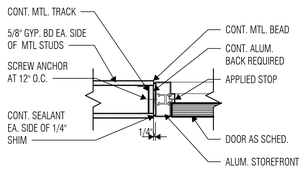
3 INT. HM DOOR HEAD AT STUD
SCALE: 1 1/2" = 1'-0"



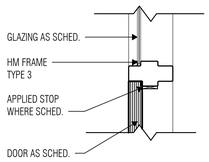
4 INT. HM DOOR JAMB AT STUD
SCALE: 1 1/2" = 1'-0"



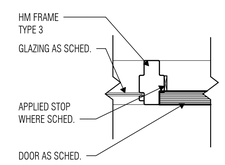
5 INT. ALUM HEAD AT STUD
SCALE: 1 1/2" = 1'-0"



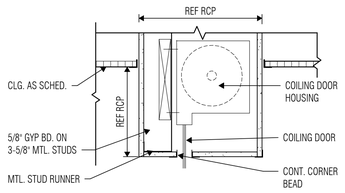
6 INT. ALUM JAMB AT STUD
SCALE: 1 1/2" = 1'-0"



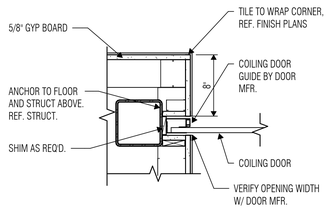
7 INT. HM DOOR HEAD AT GLAZING
SCALE: 1 1/2" = 1'-0"



8 INT. HM DOOR JAMB AT GLAZING
SCALE: 1 1/2" = 1'-0"



12 HEAD DETAIL AT GRILLE
SCALE: 1 1/2" = 1'-0"



13 JAMB DETAIL AT GRILLE
SCALE: 1 1/2" = 1'-0"

DOOR SCHEDULE

DOOR	DOOR TYPE	PANEL MATERIAL	FRAME TYPE	DOOR OPENING WIDTH	DOOR OPENING HEIGHT	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	FIRE RATING	HARDWARE SET	KEYED NOTES
100A	6	3	Aluminum	6'-0"	7'-0"	1	2			CV710AM	2,4,5
100AA	SFD-S	3	Aluminum	6'-0"	7'-0"					C714ACM	1,2,4,5,7
100AC	C	1	H.M.	3'-0"	7'-0"	3	4			C201	4,5
100BA	SFD-S	3	Aluminum	6'-0"	7'-0"					C714ACM	1,4,5,7
100BB	SFD-S	3	Aluminum	6'-0"	7'-0"					E714ACM	1,2,5,7
100BC	6	3	Aluminum	6'-0"	7'-0"	1	2			CV710AM	4,5
100BD	6	3	Aluminum	6'-0"	7'-0"	1	2			EV710AM	2,5
100C	A	1	H.M.	3'-0"	7'-0"	3	4			201	
100D	A	1	H.M.	3'-0"	7'-0"	3	4			201	
101	C	1	H.M.	3'-0"	7'-0"	3	4				
101A	G	3	H.M.	3'-0"	7'-0"	3	4,8			103	
101B	A	1	H.M.	3'-0"	7'-0"	3	4			341	
102	C	1	H.M.	3'-0"	7'-0"	3	4			553	
103	L	5		21'-6"	8'-0"					001KS1	
104	A	1	H.M.	3'-0"	7'-0"	3	4		45 MIN	201	
105	A	1	H.M.	3'-0"	7'-0"	3	4			201H	
200	SFD-Q	3	Aluminum	3'-0 3/16"	7'-0"					C715AC	4,5,7
201	A	1	H.M.	3'-0"	7'-0"	3	4			341	
202	C	1	H.M.	3'-0"	7'-0"	3	4			103	
203	A	1	H.M.	3'-0"	7'-0"	3	4			341	
204	C	1	H.M.	3'-0"	7'-0"	3	4			553	
205	C	1	H.M.	3'-0"	7'-0"	3	4			553	
206	C	1	H.M.	3'-0"	7'-0"	3	4			553	
206A	P	4		27'-4"						003FL2	8
207	C	1	H.M.	3'-0"	7'-0"	3	4			553	
208	C	1	H.M.	3'-0"	7'-0"	3	4			553	
210	A	1	H.M.	3'-0"	7'-0"	3	4			341	
211	C	1	H.M.	3'-0"	7'-0"	3	4			553	
212	A	1	H.M.	3'-0"	7'-0"	3	4			341	
214	C	1	H.M.	3'-0"	7'-0"	3	4			553	
262	A	1	H.M.	3'-0"	7'-0"	3	4			341-STF	
300	SFD-Q	3	Aluminum	3'-0"	7'-0"					C715AC	4,5,7
301	C	3	H.M.	3'-0"	7'-0"	3	4,8			101A	
302	C	1	H.M.	3'-0"	7'-0"	3	4			101	
304	C	1	H.M.	3'-0"	7'-0"	7	4			553	
304A	P	4		27'-4"						003FL2	8
305	C	1	H.M.	3'-0"	7'-0"	7	4			553	
306	C	1	H.M.	3'-0"	7'-0"	3	4			553	
308	C	1	H.M.	3'-0"	7'-0"	3	4			553	
309	C	1	H.M.	3'-0"	7'-0"	7	4			553	
310	A	1	H.M.	3'-0"	7'-0"	3	4			341	
311	A	1	H.M.	3'-0"	7'-0"	3	4			341	
313	C	1	H.M.	3'-0"	7'-0"	3	4			553	
400A	7	3	Aluminum	3'-1"	7'-0"	7	8			CR711A	4,5
400B	SFD-Q	3	Aluminum	3'-0"	7'-0"					C715AC	4,5,7
401	C	1	H.M.	3'-0"	7'-0"	3	4			101	
402	C	1	H.M.	3'-0"	7'-0"	3	4			553	
402A	P	4		29'-10"						003FL2	8
403	C	1	H.M.	3'-0"	7'-0"	3	4			553	
404	C	1	H.M.	3'-0"	7'-0"	3	4			553	
404A	A	1	H.M.	3'-0"	7'-0"	3	4			343S	
405	C	1	H.M.	3'-0"	7'-0"	3	4			403	
406	C	1	H.M.	3'-0"	7'-0"	3	4			553	
406A	A	1	H.M.	3'-0"	7'-0"	3	4			343S	
A100	SFD-Q	3	Aluminum	3'-1 5/8"	7'-0"					C715AC	4,5,7
A100A	C	1	H.M.	3'-0"	7'-0"	3	4			101	
A100B	C	1	H.M.	3'-0"	7'-0"	3	4			C711	4,5
A100BA	A	1	H.M.	3'-0"	7'-0"	3	4			341-STF	
A102A	C	1	H.M.	3'-0"	7'-0"	3	4			103	
A102B	C	1	H.M.	3'-0"	7'-0"	3	4			103	
A103	C	1	H.M.	3'-0"	7'-0"	3	4			103	
A104	C	1	H.M.	3'-0"	7'-0"	3	4			103	4
A105	C	1	H.M.	3'-0"	7'-0"	3	4			103	
A105A	C	1	H.M.	3'-0"	7'-0"	3	4			103	
A106	C	1	H.M.	3'-0"	7'-0"	3	4			103	
A107	C	1	H.M.	3'-0"	7'-0"	3	4			103	
A108	C	3	H.M.	3'-0"	7'-0"	3	4,8			101	
A108A	A	1	H.M.	3'-0"	7'-0"	3	4			203	
M1	A	2	H.M.	3'-0"	7'-0"	3	4			205	5
M3	A	2	H.M.	3'-0"	7'-0"	3	4			201	
M4	B	2	H.M.	6'-0"	7'-0"	3	4		45 MIN	710MEL-SM	

DOOR SCHEDULE NOTES

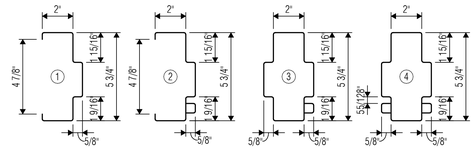
1. At Doors marked 'SMK', provide smoke seals at frame and door bottom to resist the passage of smoke. Provide threshold if required by code or if necessary for proper function of door bottom seal.
2. At Doors marked 'SND', frames to be stuffed with mineral fiber insulation prior to installation and the perimeter of the frame sealed to the surrounding wall with non-hardening acoustical sealant on both sides of the partition. Threshold, where used, shall be sealed to the floor with acoustical sealant.
3. At Doors without a Frame Type designation, the door frame is part of a Glazing System, Sound-Control Door Assembly, Tornado-Resistant Door Assembly, etc.
4. At Doors with a Frame Type designation "AL", the door frame is an interior aluminum frame that is not part of a glazing system
5. At Doors with a Frame Type designation "N/A", there is no door frame required (e.g. all-glass doors, gates, etc.).
6. At Doors with a Frame Type designation "REF DET", refer to the referenced Head and Jamb detail for frame information.
7. At Doors with a Door Type or Frame Type designation "EX", the door or door frame is existing to remain.
8. Refer to Hardware Schedule for additional information regarding hardware.
9. Vision panels at non-rated interior doors shall be 1/4" clear tempered glass (CT4) U.N.O. Vision panels at interior fire-rated glass (CC4) U.N.O. Vision panels at exterior doors shall be 1" tinted tempered insulating glass (TT1) U.N.O.
10. Refer to Glazing System Elevation Sheets for Glass Types.

DOOR KEYED NOTES

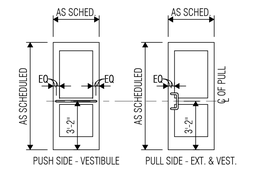
KEY NUMBER	KEYED NOTES
1	Double Egress Doors
2	Keyed Removable Mullion
4	Access Control / Card Reader
5	Door Position Switch
7	Weatherstripping All Sides
8	Folding Partition
9	Chain Link Gate with Maintenance Lock

PANEL MATERIAL NOTES

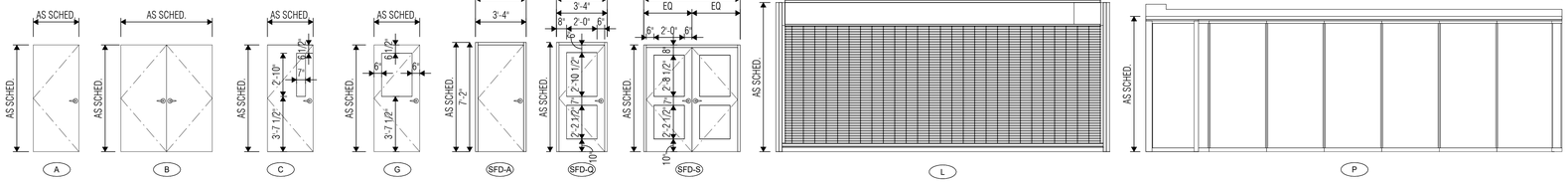
TYPE MARK	PANEL MATERIAL
1	Plastic Laminate
2	Painted Hollow Metal
3	Wide Stile Storefront Panel
4	Dry Erase Marker Surface Operable Partition
5	Manual Non Insulated Stainless Steel



9 HOLLOW METAL FRAME TYPES
SCALE: 3" = 1'-0"



10 PUSH/ PULL HEIGHTS
SCALE: 1/4" = 1'-0"



11 DOOR TYPES
SCALE: 1/4" = 1'-0"

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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Katy, TX

NEW OPPORTUNITY AWARENESS CENTER

REGISTERED ARCHITECT — CHARLES W. JOHNSON — 22044 — STATE OF TEXAS
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

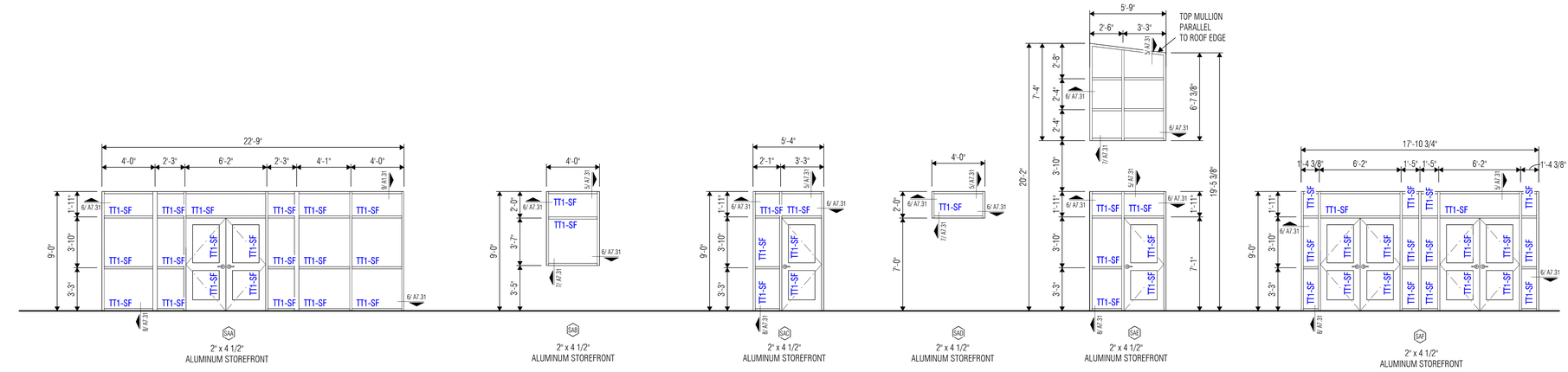
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	AHT/MCA

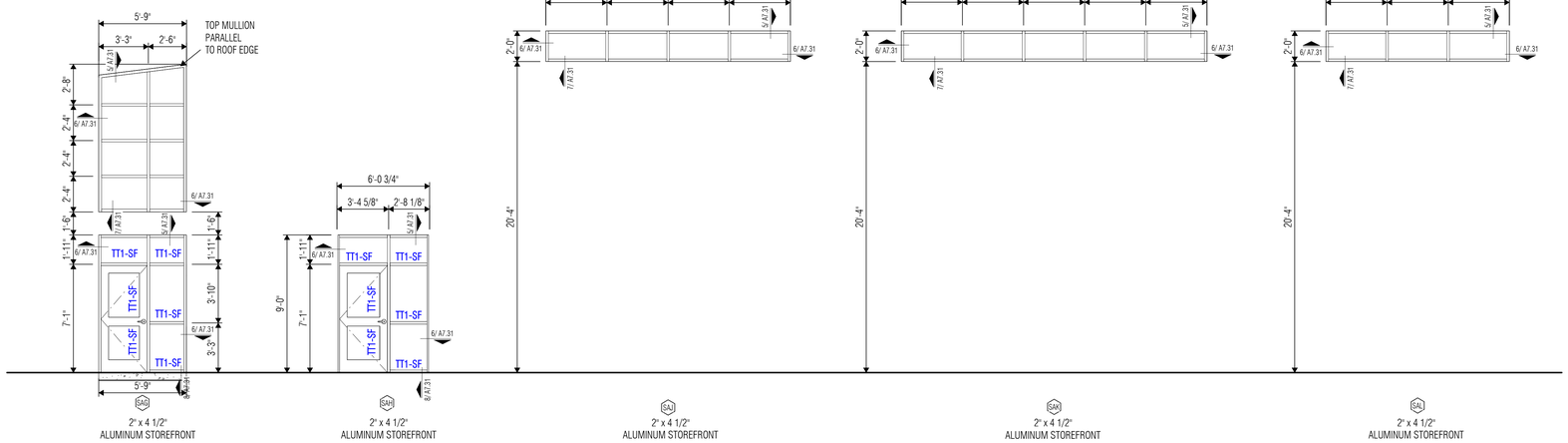
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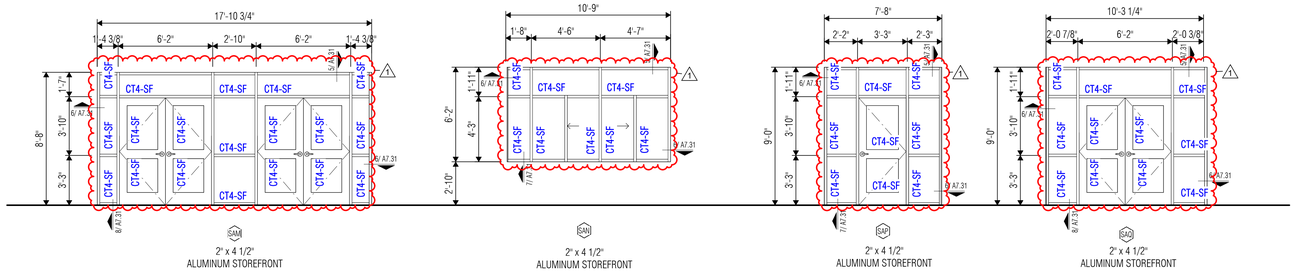
SHEET TITLE
DOOR SCHEDULE, DOOR TYPE ELEVATIONS, & DETAILS

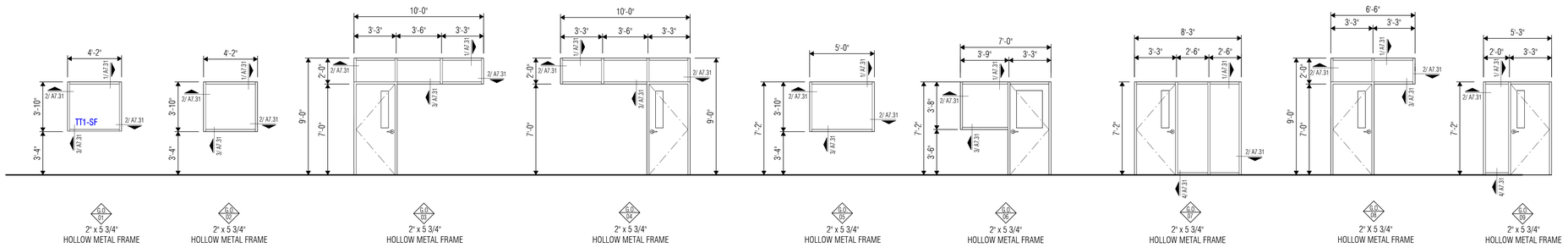
SHEET NO.
A7.01

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GLAZING SYSTEM NOTES

1. All exterior glazing to be TT1 U.N.O.
2. All interior glazing to be CT4 U.N.O.
3. Overall dimensions of glazing system elevations reflect rough opening dimensions, inclusive of perimeter joints.
4. Provide 3/16" thick heavy wall framing members at all door frames in exterior and interior aluminum Storefront systems.
5. Provide 3/16" thick heavy wall door adapters at all door frame members in exterior and interior aluminum Curtain Wall systems.
6. Door opening dimensions in Curtain Wall systems reflect 1" door adapters at jamb conditions, and 1-3/4" door adapters at head conditions. Adjust dimensions between mullions at door openings in curtain wall systems as required for actual size of door adapters provided. Door sizes as identified in Door Schedule shall be maintained.
7. Refer to 10/A7.01 for Typical Push/Pull Mounting Heights Detail for aluminum/glass doors.

GLAZING SYSTEM LEGEND

STOREFRONT FRAMING WITH 3/16" THICK 'HEAVY WALL' MATERIAL. TYPICAL AT ALL DOOR FRAME MEMBERS IN STOREFRONT GLAZING SYSTEMS.

CURTAIN WALL FRAMING WITH STEEL REINFORCING PROVIDED BY MANUFACTURER.

GLAZING TYPE LEGEND

Material: Description	Material: Name
CT4	CLEAR, TEMPERED, 1/4" THICK GLASS
CT4 -SF	CLEAR, TEMPERED, 1/4" THICK GLASS, SECURITY FILM, FIELD APPLIED TO GLASS
TT1	TINTED, TEMPERED, 1" THICK INSULATING GLASS
TT1-SF	TINTED, TEMPERED, 1" THICK INSULATING GLASS, SECURITY FILM, FIELD APPLIED TO GLASS

ARCHITECT

VLK
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Main Phone: 281.671.2300
www.vlkarchitects.com

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ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	ADDENDUM 3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	MCA

PROJECT NO.

25-0067.00

SHEET TITLE

GLAZING ASSEMBLY ELEVATIONS

SHEET NO.

A7.21

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MATERIAL FINISH SCHEDULE

NOTE: ALL MATERIALS, PRODUCTS, SIZES, COLORS AND PATTERNS ARE THE BASIS OF DESIGN. REFERENCE PROJECT MANUAL FOR ADDITIONAL APPROVED MANUFACTURERS MEETING THE DESIGN INTENT. SUBSTITUTIONS WILL BE CONSIDERED WHEN SUBMITTED IN COMPLIANCE WITH SECTION 01 62 00 – PRODUCT OPTIONS.

MATERIAL: MARK	DESCRIPTION	SPEC SECTION	MANUFACTURER INFO				COMMENTS
			MANUFACTURER	SERIES/STYLE	COLOR/FINISH	SIZE	
CEILING FINISH							
ACT-01	Acoustic Ceiling Tile (24X24)	09 51 00					
ACT-02	Acoustic Ceiling Tile - Vinyl Coated	09 51 00					
ACT-03	Acoustic Ceiling Tile (24X24) - Batt Insulation Above	09 51 00					
AP-01	Acoustical Wood Fiber Panels	09 84 13	Armstrong	Tectum Direct Attach High NRC	Match PT-01	12"x48"x2"	D-20 - Hat channels to run perpendicular to roof purlins. NRC 0.70
ES-01	Exposed to Structure Paint	09 91 00	Sherwin Williams	--	SW 7551 Greek Villa		All exposed structure
EXTERIOR FINISH							
CMU-01	CMU - Burnished	04 20 00	Best Block	Burnished	704 - White Terrazo	16" x 24" x 4	Running Bond
CMU-02	CMU - Burnished Accent	04 20 00	Best Block	Burnished	704 - White Terrazo	4" x 24" x 4	
CS-01	Cast Stone Sill	04 72 00	Advanced Architectural Stone	Smooth	Classic White		Random Ashlar pattern size 4/6/8
MRP-01	Metal Roof Panel	07 41 20	Berridge	Double-Lock / Zee-Lock	Cityscape		
MSP-01	Metal Soffit Panel	07 41 20	Berridge	Vee-Panel	Cityscape		Provide Vented Panel around soffit perimeter
MWP-01	Metal Wall Panel	07 42 13	Berridge	HR-16	Zinc-Cote		Horizontal Orientation
FLOOR FINISH							
CO-01	Concrete - Polished	03 35 43	As Specified	--	--	--	
CO-02	Concrete - Sealed	03 30 00	As Specified	--	--	--	
CPT-01	Carpet - Field	09 68 13	Tarkett	Create Balance 11770	Resourceful 32813	Powerbond Roll	
CPT-02	Carpet - Walk-Off	09 68 13	Tarkett	Assertive Stria 04839	Forge 26213	Powerbond Roll	Install pattern to run Plan East / West
LVT-01	Luxury Vinyl Tile - Field	09 65 00	Shaw Contract	Solitude	French Grey 48599	6" x 48"	Install planks to run Plan East / West
PF-01	Poured Floor - Fluid Applied	09 67 23	Sherwin Williams	Resuflor Deco Quartz	Winter Sky BC23	--	With Integral Cove Base
MILLWORK & ARCHITECTURAL FINISHES							
PL-01	Plastic Laminate - Doors & Cabinets	12 32 16	Arborite	A3 - Vertical Laminate	Essential Artisan Walnut W2011 AW	--	Vertical Grain
PL-02	Plastic Laminate - Countertops	12 32 16	Arborite	A4 - Horizontal Laminate	Chambray Gris P399-CA	--	
PT-03	Paint - H.M Doors & Frames	09 91 00	Sherwin Williams	--	SW 7064 Passive	--	
SS-01	Solid Surface - Countertops	12 32 16	LX Hauseys	Solid Surface	Glitz GP313	--	To be used at Reception & Conference Room
T-07	Tile - Serving Line Face	09 30 00	Stone Source	Studio Elements Artisan	Ink Hexagon	6" x 7"	Ref. Food Service
WALL FINISH							
AWP-01	Acoustic Wall Panel - Blue	09 84 13	Acoufelt	Fracture Two-Tone; Raindrop	Backing: Almond; Face: Denim	14mm w/ 50mm air gap	Run Pattern Horizontal ; NRC 0.75
FRP	Fiberglass Reinforced Panels	09 77 00	Marlite	Standard FRP	P151 Light Gray	--	To be used at janitor closets.
PT-01	Paint - Field	09 91 00	Sherwin Williams	--	SW 7551 Greek Villa	--	
PT-02	Paint - Blue Accent	09 91 00	Sherwin Williams	--	SW 6229 Tempe Star	--	
RB-01	Rubber Base	09 65 44	Johnsonite	Traditional Vinyl, Type TV	Pebble 32	4"	
T-01	Tile - Field	09 30 00	Stone Source	Sassuolo Aggregate Stone	White; Natural	12" x 24"	Ref. WTP-01
T-02	Tile - Accent	09 30 00	Stone Source	Palermo Terra Ferma	Berry; Natural	12" x 24"	Ref. WTP-01; WTP-02
T-03	Tile - Drinking Fountain	09 30 00	Stone Source	Palma Craft	Marine; Satin	2.5" x 15"	Ref. WTP-03
T-04	Tile - Backsplash	09 30 00	Stone Source	Sienna Stone	Bianco; Glossy	2.5" x 10"	Installation: Horizontal Stack Bond
T-05	Tile - Serving Line Accent 01	09 30 00	Stone Source	Fiorano USA City Lights	Pure; Glossy	6" x 24"	Ref. WTP-05
T-06	Tile - Serving Line Accent 02	09 30 00	Stone Source	Fionrano USA City Lights	Essential Gray; Glossy	6" x 24"	Ref. WTP-05
VWC-01	Vinyl Wallcovering - Field	09 72 16	Koroseal	Axis II	Urban White 1920-08	--	
VWC-02	Vinyl Wallcovering - Classroom Accent	09 72 16	Koroseal	Axis II	Ancient Lake 1920-09	--	
VWC-03	Vinyl Wallcovering - Admin Accent	09 72 16	Koroseal	Vive	Electric Blue SG14-09	--	

FINISH ACCESSORY, FURNITURE AND EQUIPMENT SCHEDULE

NOTE: ALL MATERIALS, PRODUCTS, SIZES, COLORS AND PATTERNS ARE THE BASIS OF DESIGN. REFERENCE PROJECT MANUAL FOR ADDITIONAL APPROVED MANUFACTURERS MEETING THE DESIGN INTENT. SUBSTITUTIONS WILL BE CONSIDERED WHEN SUBMITTED IN COMPLIANCE WITH SECTION 01 62 00 – PRODUCT OPTIONS.

MARK	DESCRIPTION	SPEC SECTION	MANUFACTURER INFO			SIZE	COMMENTS
			MANUFACTURER	SERIES/STYLE	COLOR/FINISH		
FLOOR FINISH ACCESSORY							
FFA-01	Floor Transition	09 68 00	Schluter	Schiene	Satin Anodized Aluminum		
FFA-02	Floor Transition	09 68 00	Schluter	Reno-U	Satin Anodized Aluminum		
FFA-03	Floor Transition	09 68 00	Tarkett Johnsonite	Slim Line Transition - EG-XX-J	55 Silver Grey WG		
SPECIALTY EQUIPMENT							
ATH	Athletic Equipment - Wall Pads	11 66 00	PSS Performance	Wall Pads	Grey	4'-0" x 8'-0"	To be used at sensory room
HB	Horizontal Blinds	12 21 13	SWF Contract	Mini Blinds	Silver 737	1"	
ID	Identifying Devices	10 14 00	STGS	Wilsonart; Standard Laminate	BLUE TBD		
LK-01	Lockers - Metal	10 51 13	Penco	As Specified	826 Slate Blue	-	Ref. 5/A2.21
LK-02	Lockers - Metal	10 51 13	Penco	As Specified	826 Slate Blue	-	Ref. 5/A2.21
MB	Markerboard - Premanufactured	10 11 16	Claridge	LCS Porcelain Dry Erase Whiteboard	White	Clear Anodized Frames	
PC-01	Privacy Curtain	10 21 23	Construction Specialties	CSelect Fabric; Bark	Rain Clouds	-	
RS	Roller Shades	12 24 13	Mechoshade Systems	1500 Series	1519 Silver Birch	-	
TB	Tackboard	10 11 16	Claridge	Claridge Cork	1113 Steel Gray	Clear Anodized Frames	
TC	Toilet Compartment	10 21 13	ASI	Black Core Phenolic	Weathered Ash #9842	-	
WALL FINISH ACCESSORY							
CG-01	Corner Guard	10 26 13					
CR-01	Chair Rail	10 26 13	Construction Specialties	SCR-40	Smokey Elm #1351	4"	To be used at large conference
G-01	Grout - Color A	09 30 13	Mapei	--	5093 Warm Gray	--	To be used with T-01 & T-04
G-02	Grout - Color B	09 30 13	Mapei	--	5231 Deep Ocean	--	To be used with T-02, T-03, T-05, & T-06
WFA-01	Tile Edge/Corner Trim - Metal	09 30 00	Schluter	Quadec	Anodized Aluminum	--	Top & Exposed Edges; Refer to Interior Details
WFA-02	Tile Edge/Corner Trim - Metal	09 30 00	Schluter	Jolly	Anodized Aluminum	--	Bottom Edges at Recessed Wall Tile Patterns; Top & Sides

ROOM FINISH SCHEDULE

ROOM NAME	ROOM NUMBER	FLOOR	BASE	WALL	REMARKS
CORRIDOR	100	CO-01	RB-01	VWC-01/WTP-01	
VESTIBULE	100A	CPT-02	RB-01	VWC-01/PT-01/WTP-01	
EXCHANGE SPACE	100B	CPT-02	RB-01	VWC-01/PT-01/WTP-01	
STORAGE	100C	CO-02	RB-01	PT-01	
STORAGE	100D	CO-02	RB-01	PT-01	
CLINIC	101	PF-01	PF-01	VWC-01/T-04	REF. ACCESSORY SCHEDULE FOR PRIVACY CURTAINS
CLINIC OFFICE/STOR.	101A	PF-01	PF-01	WTP-03/WTP-04	REF. 3/A3.31 & 4/A3.31
CLINIC RR	101B	PF-01	PF-01	VWC-01	
I.S.S.	102	CO-01	RB-01	VWC-01	
FOOD SERVICE	103	CO-01	RB-01	T-05/T-06	REF. WTP-05
MECH.	104	CO-02	RB-01	PT-01	
CUST.	105	CO-02	RB-01	PT-01/FRP	
CORRIDOR	200	CO-01/CPT-02	RB-01	VWC-01/WTP-01/WTP-02	REF. INTERIOR ELEVATIONS FOR AWP-01 LAYOUT
RR	201	PF-01	PF-01	WTP-03/WTP-04	REF. 3/A3.31 & 4/A3.31
FLEX	202	CPT-01	RB-01	VWC-01/VWC-03	
RR	203	PF-01	PF-01	WTP-03/WTP-04	REF. 3/A3.31 & 4/A3.31
RESOURCE	204	CO-01	RB-01	VWC-01/VWC-02	
RISE	205	CO-01	RB-01	VWC-01/VWC-02/PT-01	
RESOURCE	206	CO-01	RB-01	VWC-01/VWC-02	
CLASS - SECONDARY	207	CO-01	RB-01	VWC-01/VWC-02/PT-01	
CLASS - SECONDARY	208	CO-01	RB-01	VWC-01/VWC-02	
RR	210	PF-01	PF-01	WTP-0/WTP-04	REF. 3/A3.31 & 4/A3.31
CLASS - SECONDARY	211	CO-01	RB-01	VWC-01/VWC-02/PT-01	
RR	212	PF-01	PF-01	WTP-0/WTP-04	REF. 3/A3.31 & 4/A3.31
CLASS - SECONDARY	214	CO-01	RB-01	VWC-01/VWC-02/PT-01	
CORRIDOR	300	CO-01/CPT-02	RB-01	VWC-01/WTP-01/WTP-02	REF. INTERIOR ELEVATIONS FOR AWP-01 LAYOUT
POLICE OFFICE	301	CO-01	RB-01	VWC-01/VWC-03	
FLEX	302	CPT-01	RB-01	VWC-01/VWC-03	
STAFF RR	303	PF-01	PF-01	WTP-03/WTP-04	REF. 3/A3.31 & 4/A3.31
RESOURCE	304	CO-01	RB-01	VWC-01/VWC-02	
CLASS - SECONDARY	305	CO-01	RB-01	VWC-01/VWC-02/PT-01	
RESOURCE	306	CO-01	RB-01	VWC-01/VWC-02	
CLASS - SECONDARY	308	CO-01	RB-01	VWC-01/VWC-02	
CLASS - SECONDARY	309	CO-01	RB-01	VWC-01/VWC-02/PT-01	
RR	310	PF-01	PF-01	WTP-03/WTP-04	REF. 3/A3.31 & 4/A3.31
RR	311	PF-01	PF-01	WTP-03/WTP-04	REF. 3/A3.31 & 4/A3.31
CLASS - SECONDARY	313	CO-01	RB-01	VWC-01/VWC-02/PT-01	
CORRIDOR	400	CO-01/CPT-02	RB-01	VWC-01/PT-01/WTP-01	REF. INTERIOR ELEVATIONS FOR AWP-01 LAYOUT
FLEX	401	CO-01	RB-01	VWC-01/VWC-03	
RESOURCE	402	CO-01	RB-01	VWC-01/VWC-02	
RESOURCE	403	CO-01	RB-01	VWC-01/VWC-02	
CLASS - ELEMENTARY	404	CO-01	RB-01	VWC-01/VWC-02/T-04	
RR	404A	PF-01	PF-01	WTP-03/WTP-04	REF. 3/A3.31 & 4/A3.31
SENSORY	405	LVT-01	CO-01	VWC-01/ATH	REF. ACCESSORY SCHEDULE FOR ATHLETIC WALL PADS
CLASS - ELEMENTARY	406	CO-01	RB-01	VWC-01/VWC-02/PT-01/T-04	
CORRIDOR	A100	CO-01/CPT-02	RB-01	VWC-01	
RECEPTION	A100A	CPT-01	RB-01	VWC-01/VWC-03/PT-01	
WRK RM	A100B	LVT-01	RB-01	VWC-01	
RR	A100BA	PF-01	PF-01	WTP-03/WTP-04	REF. 3/A3.31 & 4/A3.31
CONFERENCE RM	A102	CPT-01	RB-01	VWC-01/VWC-03/PT-01	
FLEX	A103	CPT-01	RB-01	VWC-01/PT-02	
FLEX	A104	CPT-01	RB-01	VWC-01/VWC-03	
FLEX	A105	CPT-01	RB-01	VWC-01/PT-02	
FLEX	A106	CPT-01	RB-01	VWC-01/VWC-03	
LARGE FLEX	A107	CPT-01	RB-01	VWC-01/PT-02	
BREAK ROOM	A108	LVT-01	RB-01	VWC-01/VWC-02/PT-01/T-04	
TEST STORAGE	A108A	CO-02	RB-01	VWC-01	
CORRIDOR	A200	CO-01	RB-01	VWC-01	
RISER	M1	CO-02	RB-01	PT-01	
MECHANICAL PLATFORM	M2	CO-02	RB-01	PT-01	
MDF	M3	CO-02	RB-01	PT-01	
BOILER RM	M4	CO-02	RB-01	PT-01	

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ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	ADDENDUM 3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Brad Ewing
Drawn By	HEF/LY

PROJECT NO.

25-0067.00

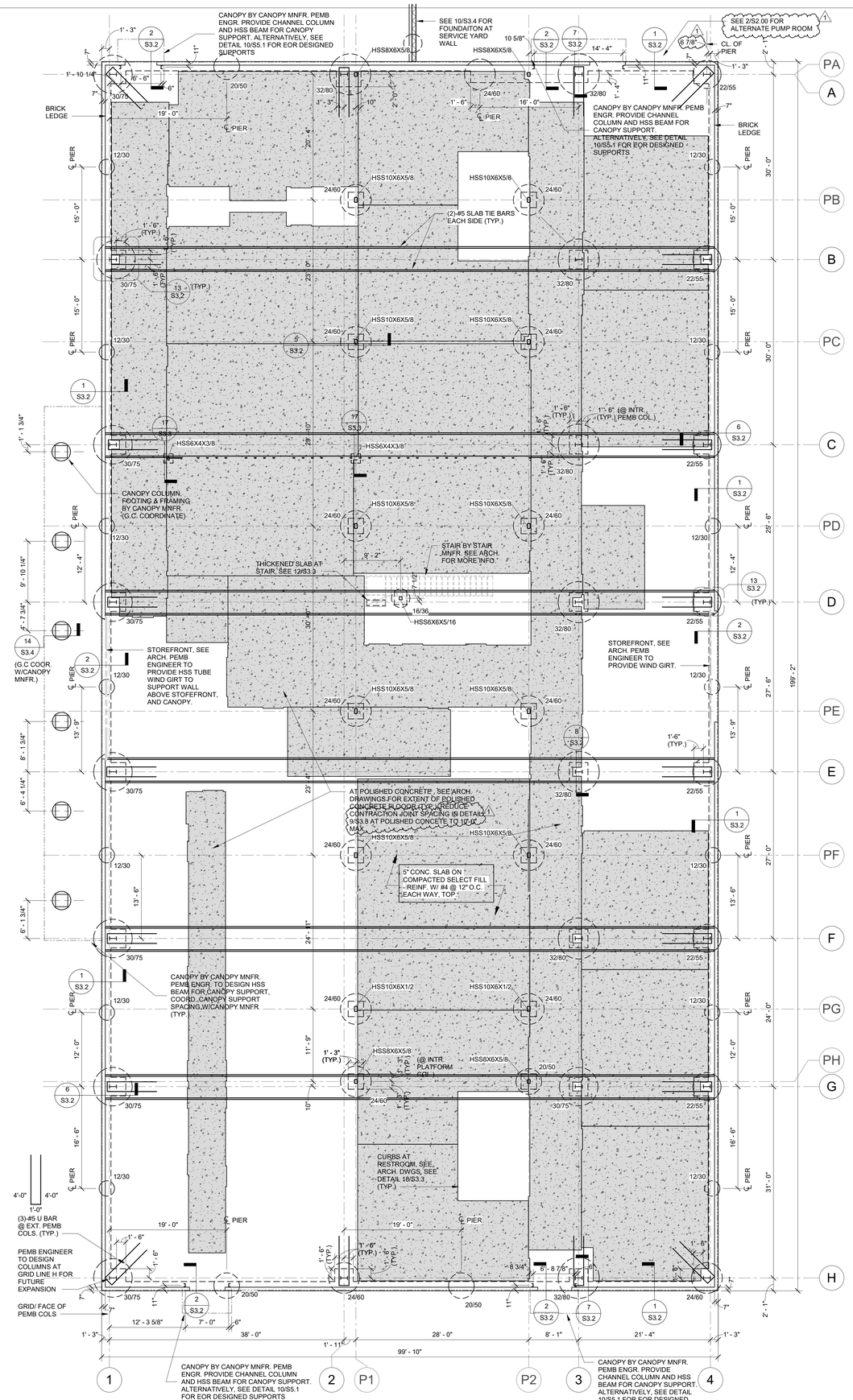
SHEET TITLE

MATERIAL FINISH SCHEDULES

SHEET NO.

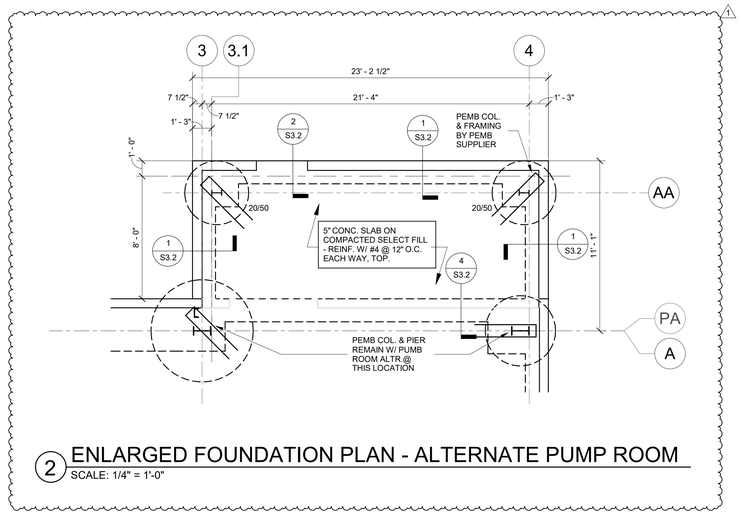
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1 FOUNDATION PLAN - OVERALL

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



2 ENLARGED FOUNDATION PLAN - ALTERNATE PUMP ROOM

SCALE: 1/4" = 1'-0"

PEMB FOUNDATION PLAN NOTES:

1. ALL PIERS ARE CENTERED UNDER COLUMN CENTERLINES, U.N.O.
2. PIERS UNDER GRADE BEAM (WITHOUT COLUMNS) SHALL BE CENTERED UNDER GRADE BEAMS, U.N.O.
3. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR SLOPES, DEPRESSIONS, ETC.
4. COORDINATE ALL BRICK LEDGES AND DEPTH WITH ARCHITECTURAL DRAWINGS.
5. LOCATIONS NOTED THUS: 0' - 0" (143.30', VERIFY WITH CIVIL) INDICATES TOP OF SLAB ELEVATION.
6. SEE PEMB FOR BASE PLATE INFORMATION.
7. REFER TO PEMB FOR SIZE, LOCATION AND ORIENTATION OF ALL COLUMNS, ANCHOR BOLTS. NOTIFY ARCH. OF ANY DISCREPANCIES BETWEEN PLANS FOR RESOLUTION PRIOR TO FABRICATION AND INSTALLATION.
8. SEE 10/S3.3, 7/S3.3 & 5/S3.3 FOR ADDITIONAL REBAR AT OPENINGS, DISCONTINUOUS JOINTS, AND RE-ENTRANT CORNERS IN SLAB-ON-GRADE.
9. PROVIDE CONTRACTION JOINTS AND DISCONTINUOUS SLAB REINFORCING AS SHOWN IN DETAIL 6/S3.3 & 7/S3.3.
10. REFER TO MEP FOR SLOPE - INVERT ELEVATION (I.E.) AT DRAINS.
11. TYPICAL SLOPE AT FLOOR IS 1/8" PER FOOT, U.N.O. ON ARCH.
12. PROVIDE (3)-#3X4'-0" TOP & BOT. AT ALL RE-ENTRANT CORNERS AT SLAB ON GRADE. TOP REINFORCING SHALL BE PLACED AT 1 1/4" CLEAR FROM THE TOP OF THE SLAB.
13. ——► WHERE SHOWN ON PLAN INDICATES SLOPE DIRECTION. SEE ARCH. FOR INFORMATION.
14. ALL COLUMN LOCATIONS SHOWN AND ASSOCIATED FOUNDATIONS ARE PLACEHOLDERS IN THE ABSENCE OF A COMPLETE METAL BUILDING DESIGN SUBMITTAL. SEE GENERAL NOTES FOR SUBMITTAL REQUIREMENTS.
15. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF POLISHED CONCRETE FLOOR.

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

STRUCTURAL ENGINEER

Matrix Structural Engineers
5177 Richmond Ave., Suite 670
Houston, Texas 77056
Main Phone: 713.641.0130
www.matrixstructural.com

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06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

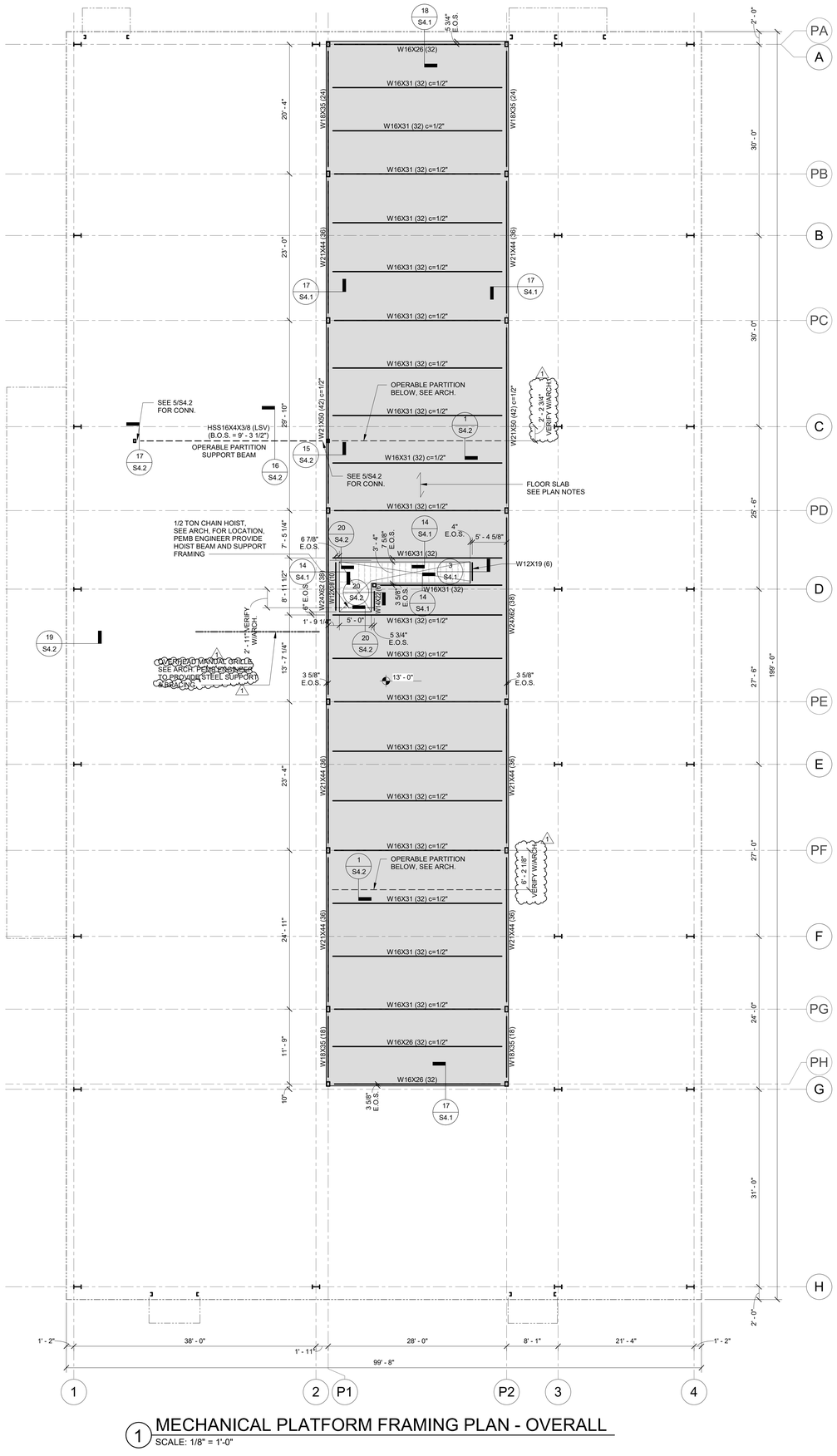
Director
Proj. Arch.
Designer KT
Drawn By TH

PROJECT NO.
25-0067.00

SHEET TITLE
FOUNDATION PLAN - OVERALL

SHEET NO.
S2.00

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1 MECHANICAL PLATFORM FRAMING PLAN - OVERALL
SCALE: 1/8" = 1'-0"

FLOOR FRAMING PLAN NOTES:

1. TOP OF CONCRETE ELEVATION = 113' - 0"
2. LOCATIONS SHOWN THUS: (12) C=3/4" INDICATES NUMBER OF SHEAR CONNECTORS AS 12 AND UPWARD CAMBER AT MID SPAN OF BEAM AS 3/4".
3. SPACE BEAMS EQUALLY U.N.O.
4. PROVIDE END PLATES AT ALL TUBE BEAMS.
5. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
6. ALL LOWER TUBE BEAM ELEVATIONS TO BE VERIFIED WITH ARCHITECT DRAWINGS.
7. FLOOR SHALL BE 3 1/2" NORMAL WEIGHT CONCRETE OVER THE FLUTES OF 2" x 18 GA TYPE VLI STEEL DECK AS MANUFACTURED BY VULCRAFT OR APPROVED EQUIVALENT TO TOTAL THICKNESS = 5 1/2". REINFORCE CONCRETE WITH #3 AT 18" O.C. EACH WAY. PLACE REBAR PERPENDICULAR TO BEAMS (PARALLEL TO DECK) IN THE OUTSIDE LAYER. WELD DECK USING 5/8"Ø NET EFFECTIVE PUDDLE WELDS:
   a. PERPENDICULAR BEARING : 36/4 PATTERN.
   b. PARALLEL BEARING AND EDGE : AT 12" O.C.
   c. SIDE SEAMS : SEAM WELDS AT 12" O.C.
8. SEE 19/4.1 FOR ADDITIONAL SLAB REINFORCING AT ALL BEAMS & GIRDERS.
9. SEE 13/S4.1 & 20/S4.1 FOR ADDITIONAL SLAB REINFORCING AT OPENINGS AND EDGES.
10. SEE 7/S4.1 FOR ADDITIONAL STEEL ANGLES AND REINFORCING AT STEEL COLUMNS.
11. AT SLOPED FLOOR LOCATIONS ON ELEVATED FLOORS WHERE OVERALL SLAB THICKNESS IS LESS THAN 5 1/2", SPRAY FIREPROOFING SHALL BE APPLIED TO THE UNDERSIDE OF THE DECK IN SLOPED AREA TO MEET REQUIRED FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE RATING.
12. IN LIUE OF THE CRITERIA PROVIDE WITHIN THE GENERAL NOTES, THE FABRICATOR MAY DESIGN THE BEAM CONNECTIONS AT THIS FLOOR LEVEL FOR THE ULTIMATE STRENGTH DESIGN (LRFD) SHEAR REACTIONS SHOWN IN THE CHART BELOW. THIS CHART DOES NOT APPLY TO ANY BEAMS AT MOMENT CONNECTIONS OR BRACE FRAMES. WHERE BEAMS SHOWN ON PLAN AREA NOT INDICATED IN CHART. APPLY CRITERIA IN THE GENERAL NOTES.

BEAM SIZE @ 2ND LEVEL	FACTORED END REACTION (kips)
W12	20
W14	25
W16	60
W18	60
W21	80
W24	80

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VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

STRUCTURAL ENGINEER

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STATE OF TEXAS
KHALIL TABAJA
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05/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	ADDENDUM 3	06/11/2026

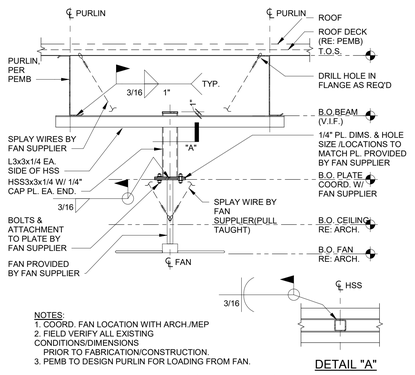
Director
Proj. Arch.
Designer KT
Drawn By TH

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25-0067.00

SHEET TITLE
MECHANICAL PLATFORM FRAMING PLAN - OVERALL

SHEET NO.
S2.01

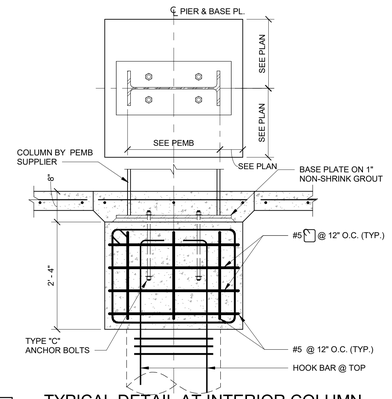
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NOTES:
1. COORD. FAN LOCATION WITH ARCH./MEP
2. FIELD VERIFY ALL EXISTING CONDITIONS/DIMENSIONS PRIOR TO FABRICATION/CONSTRUCTION.
3. PEMB TO DESIGN PURLIN FOR LOADING FROM FAN.

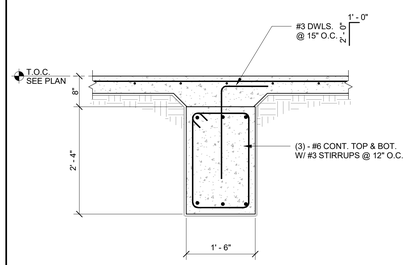
TYPICAL DETAIL
BIG ASS FAN AT PURLINS

16 SCALE: N.T.S.



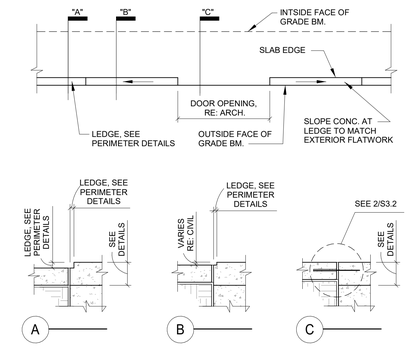
TYPICAL DETAIL AT INTERIOR COLUMN

8 SCALE: 3/4" = 1'-0"



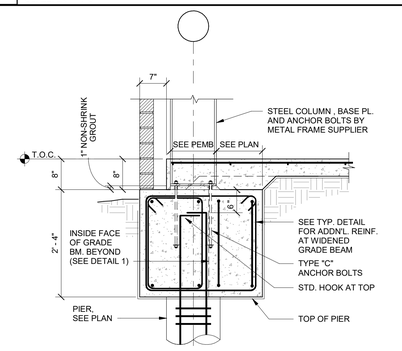
TYPICAL DETAIL
INTERIOR GRADE BEAM

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



TYPICAL DETAIL
SLAB EDGE AT METAL PANEL AT DOORS

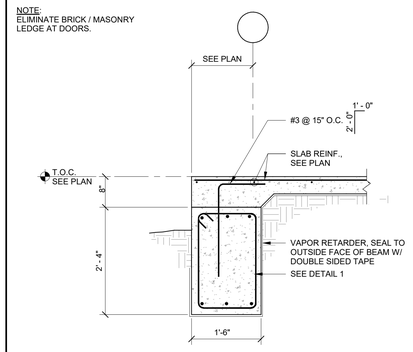
15 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL WIDENED GRADE BEAM
AT EXTERIOR PRE-ENGINEERED METAL
BUILDING SIDE COLUMN

7 SCALE: 3/4" = 1'-0"

NOTE:
ELIMINATE BRICK / MASONRY LEDGE AT DOORS.

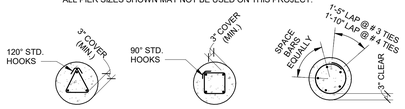


TYPICAL DETAIL
EXTERIOR GRADE BEAM

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

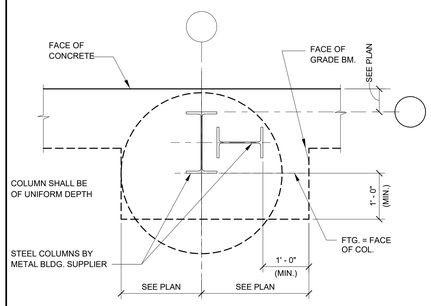
DRILLED PIER VERTICAL REINFORCEMENT SCHEDULE		
SHAFT DIAMETER (INCHES)	VERTICAL REINFORCEMENT	TIES (USE #3 @ 12" U.N.O.)
12	3 - #5	#3 @ 10"
14, 16	4 - #5	#3 @ 10"
18, 20	4 - #6	
22, 24, 26	5 - #7	
28, 30	5 - #8	
32, 36	5 - #9	

*ALL PIER SIZES SHOWN MAY NOT BE USED ON THIS PROJECT.



TYPICAL DETAIL
SHAFT BAR PLACEMENT PLANS

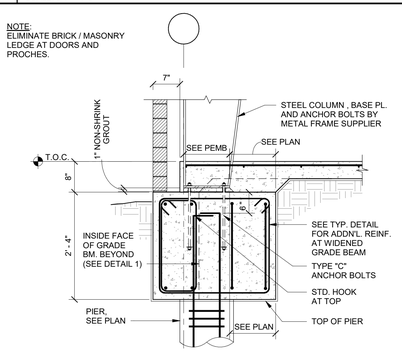
18 SCALE: N.T.S.



NOTE:
1. LOCATIONS OF PORTAL FRAMES ARE UNKNOWN UNTIL PEMB SHOP DRAWINGS ARE RECEIVED, G.C. TO COORDINATE LOCATIONS AND ADJUST PLINTH SIZES ACCORDINGLY

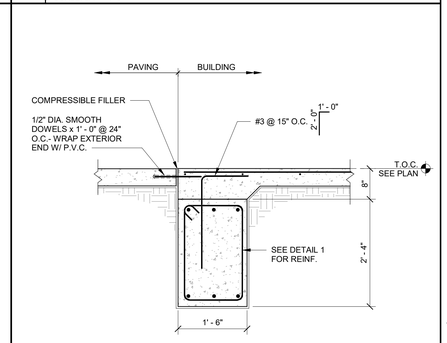
TYPICAL DETAIL
PLAN AT PORTAL FRAME

14 SCALE: 3/4" = 1'-0"



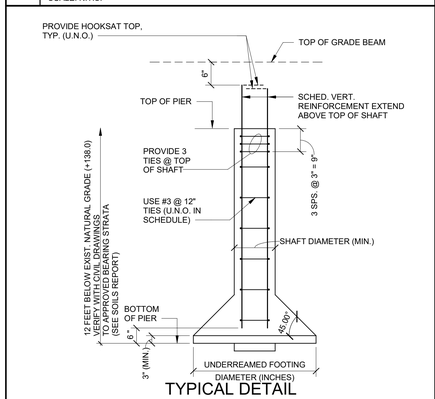
TYPICAL DETAIL
WIDENED GRADE BEAM AT EXTERIOR
PRE-ENGINEERED METAL BUILDING COLUMN

6 SCALE: 3/4" = 1'-0"



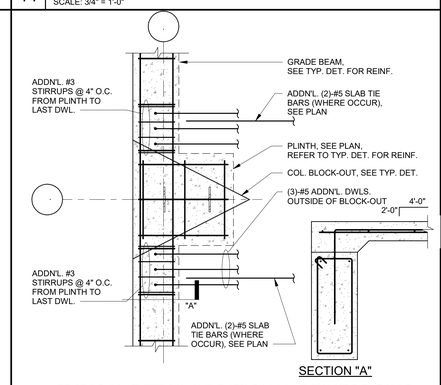
TYPICAL DETAIL
EXTERIOR GRADE BEAM
AT DOORS/FLATWORK

2 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
DRILLED PIER

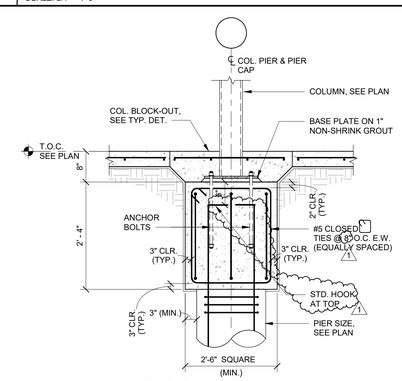
17 SCALE: N.T.S.



SECTION "A"

TYPICAL DETAIL ADDITIONAL REINFORCING
AT PERIMETER COLUMNS

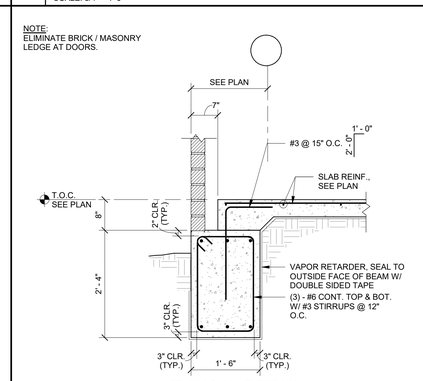
13 SCALE: 3/4" = 1'-0"



TYPICAL DETAIL
INTERIOR COLUMN WITH PIER CAP

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

NOTE:
ELIMINATE BRICK / MASONRY LEDGE AT DOORS.



TYPICAL DETAIL
EXTERIOR GRADE BEAM

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

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

STRUCTURAL ENGINEER

Matrix Structural Engineers
5177 Richmond Ave., Suite 670
Houston, Texas 77056
Main Phone: 713.641.0130
www.matrixstructural.com

Katy ISD
Katy, TX

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
117174
LICENSED
PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

Director
Proj. Arch.
Designer KT
Drawn By TH

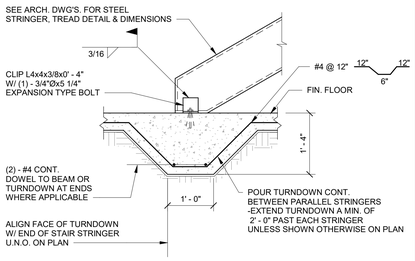
PROJECT NO.
25-0067.00

SHEET TITLE
TYPICAL FOUNDATION DETAILS

SHEET NO.
S3.2

NEW OPPORTUNITY AWARENESS CENTER

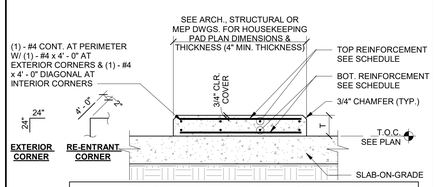
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NOTES:
1. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF STAIR STRINGER LOCATIONS WITH ARCHITECTURAL DRAWINGS & PROVIDE TURNDOWNS WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.
2. CLIP ANGLE TO BE HIDDEN BENEATH FIRST TREAD. WHERE OPEN RISERS ARE USED, COORDINATE THE LOCATION WITH THE ARCHITECT.

TYPICAL DETAIL
TURNDOWN AT STEEL STAIR SLAB-ON-GRADE

12 SCALE: N.T.S.

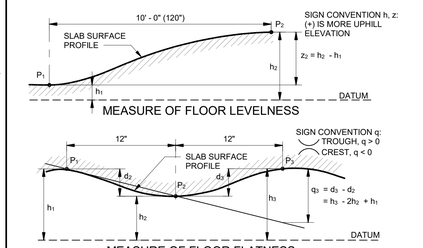


HOUSEKEEPING PAD REINF. SCHEDULE		
PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINF.
T ≤ 4"	WWR 4x4-W2.9xW2.9 OR #3 @12" E.W.	NONE
4" < T ≤ 6"	WWR 4x4-W4xW4 OR #4 @18" E.W.	NONE
6" < T ≤ 8"	WWR 4x4-W6xW6 OR #4 @12" E.W.	NONE
8" < T ≤ 12"	#4 @ 18" E.W.	#4 @ 18" E.W.
12" < T ≤ 16"	#4 @ 12" E.W.	#4 @ 12" E.W.

NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. PAD SHALL NOT BE POURED UNTIL AFTER SLAB HAS REACHED ITS SPECIFIED 28 DAYS STRENGTH.
3. CONCRETE FOR HOUSEKEEPING PAD SHALL BE NORMAL WEIGHT CONCRETE WITH f'c = 3,000 PSI.

TYPICAL DETAIL
CONCRETE ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE

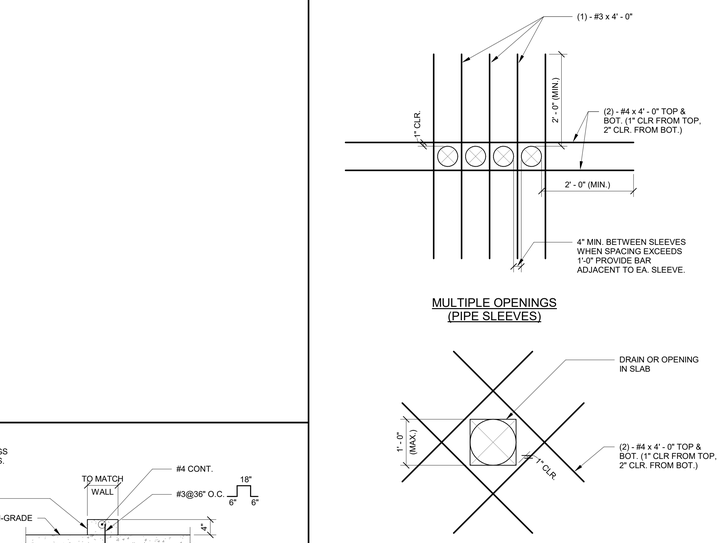
8 SCALE: N.T.S.



NOTES:
1. F_L = LEVELNESS F-NUMBER
   $F_L = \frac{12.5}{(3 \times S_Z) + 2}$ WHERE z = MEAN VALUE OF ALL z FLOOR READINGS.
   S_Z = STANDARD DEVIATION OF ALL z FLOOR READINGS.
2. F_F = LEVELNESS F-NUMBER
   $F_F = \frac{4.57}{(3 \times S_Q) + Q}$ WHERE q = MEAN VALUE OF ALL z FLOOR READINGS.
   S_Z = STANDARD DEVIATION OF ALL q FLOOR READINGS
3. F_L AND F_F SHALL BE STATISTICALLY DETERMINED ACCORDING TO ASTM E 1155 "STANDARD TEST METHOD FOR DETERMINING FLOOR FLATNESS AND LEVELNESS USING THE F-NUMBER SYSTEM."
4. REFER TO CONCRETE SPECIFICATIONS FOR REQUIRED F_F AND F_L VALUES.

TYPICAL DETAIL
SLAB SURFACE TOLERANCE

4 SCALE: N.T.S.



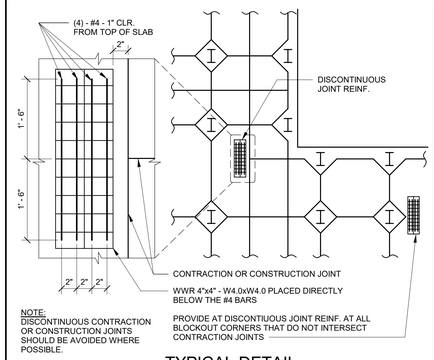
MULTIPLE OPENINGS (PIPE SLEEVES)

SINGLE DRAIN OR OPENING

NOTES:
1. COORDINATE OPENING SIZE AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONDUIT & PIPES OF ALUMINUM SHALL NOT BE PLACED IN CONCRETE UNLESS EFFECTIVELY COATED W/ PROTECTIVE MATERIAL TO PREVENT CHEMICAL REACTION.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT OPENINGS AT SLAB-ON-GRADE

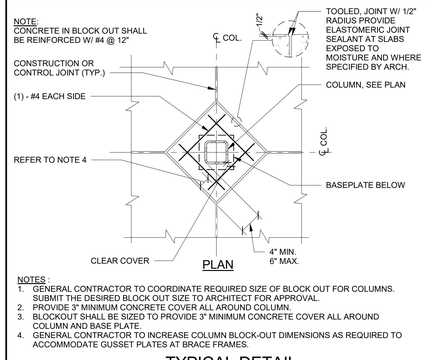
10 SCALE: N.T.S.



NOTE:
DISCONTINUOUS CONTRACTION OR CONSTRUCTION JOINTS SHOULD BE AVOIDED WHERE POSSIBLE.

TYPICAL DETAIL
ADDITIONAL REINFORCEMENT AT DISCONTINUOUS JOINT IN SLAB-ON-GRADE

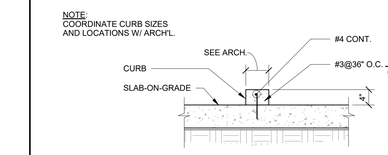
7 SCALE: N.T.S.



NOTES :
1. GENERAL CONTRACTOR TO COORDINATE REQUIRED SIZE OF BLOCK OUT FOR COLUMNS. SUBMIT THE DESIRED BLOCK-OUT SIZE TO ARCHITECT FOR APPROVAL.
2. PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN.
3. BLOCKOUT SHALL BE SIZED TO PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN AND BASE PLATE.
4. GENERAL CONTRACTOR TO INCREASE COLUMN BLOCK-OUT DIMENSIONS AS REQUIRED TO ACCOMMODATE GUSSET PLATES AT BRACE FRAMES.

TYPICAL DETAIL
BLOCK-OUT AROUND COLUMN (SLAB-ON-GRADE)

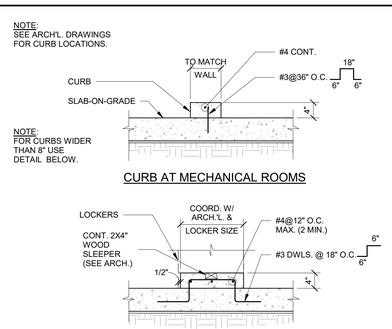
3 SCALE: N.T.S.



CURB AT RESTROOMS

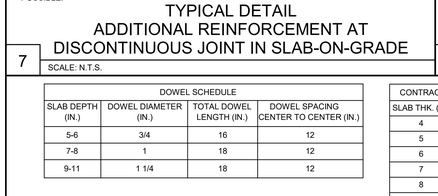
TYPICAL DETAIL
CURB AT RESTROOMS

18 SCALE: N.T.S.



TYPICAL DETAIL
CURB AT MECH. ROOMS AND LOCKERS

14 SCALE: N.T.S.



CONSTRUCTION JOINT NOTES:
1. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
2. BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDE WITH FORM OIL.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
4. ALL DOWELS IN THIS DETAIL SHALL BE SMOOTH BAR DOWELS.

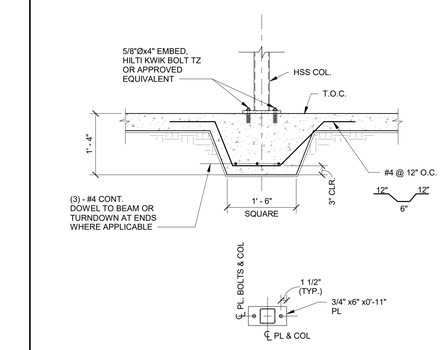
JOINT SPACING NOTE:
1. PROVIDE CONTRACTION AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN CENTERLINE AND AT A MAXIMUM SPACING AS SCHEDULED. ASPECT RATIOS OF SLAB PANELS ENCLOSED BY CONTROL JOINTS SHALL NOT EXCEED 1.5 TO 1.

JOINT FILLER MATERIAL NOTES:
1. FILLER MATERIAL USED SHALL BE EPOXY RESINS WITH A MINIMUM SHORE "A" HARDNESS OF 80 AND SHALL CONFORM TO ASTM D2240. JOINT FILLER SHALL BE APPROVED BY ENGINEER PRIOR TO APPLICATION. INSTALL JOINT FILLER PER MANUFACTURER'S SPECIFICATIONS.
2. WHERE POSSIBLE, FILLER MATERIAL SHALL BE APPLIED WHEN BUILDING IS UNDER PERMANENT TEMPERATURE CONTROL. THIS SHALL BE EITHER AT THE END OF CONSTRUCTION OF THE COMPLETE BUILDING SHELL, OR A MINIMUM OF 90 DAYS AFTER SLAB CONSTRUCTION.
3. ALL EXPOSED SLAB JOINTS SHALL BE FILLED WITH FILLER MATERIAL.

SAW CONTRACTION JOINT NOTES:
1. MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB.
2. ALL JOINTS SHALL BE CONTINUOUS. DO NOT OFFSET OR STAGGER JOINTS.
3. CLEAN JOINT PRIOR TO FILLING THE JOINT.

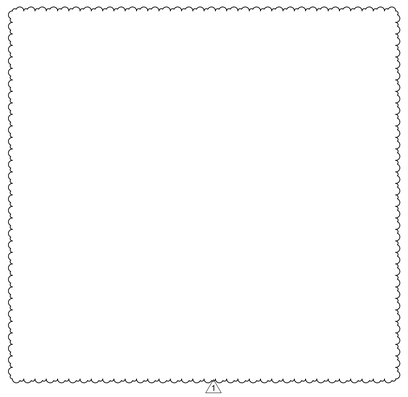
TYPICAL DETAIL
CONSTRUCTION AND CONTRACTION JOINTS SLAB-ON-GRADE

6 SCALE: N.T.S.

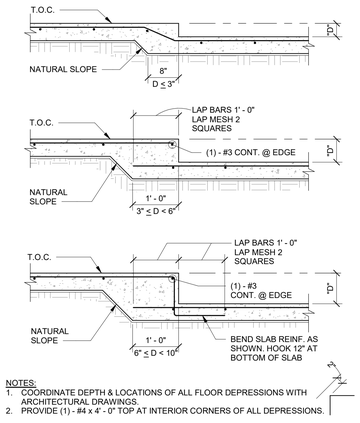


HSS COLUMN POST AT THICKENDED SLAB

17 SCALE: 3/4" = 1'-0"



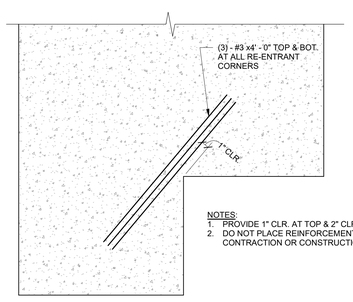
1



NOTES:
1. COORDINATE DEPTH & LOCATIONS OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE (1) - #4 x 4' - 0" TOP AT INTERIOR CORNERS OF ALL DEPRESSIONS.

TYPICAL DETAIL
AT FLOOR DEPRESSIONS

9 SCALE: N.T.S.

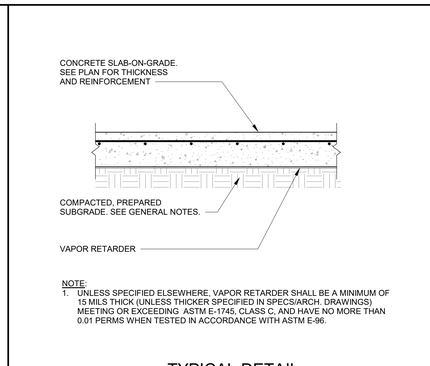


NOTES:
1. PROVIDE 1" CLR. AT TOP & 2" CLR. AT BOT.
2. DO NOT PLACE REINFORCEMENT ACROSS CONTRACTION OR CONSTRUCTION JOINTS.

SCHEMATIC SLAB-ON-GRADE

TYPICAL DETAIL
RE-ENTRANT CORNER BARS AT SLAB-ON-GRADE

5 SCALE: N.T.S.



NOTE:
1. UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK (UNLESS THICKER SPECIFIED IN SPECS/ARCH. DRAWINGS) MEETING OR EXCEEDING ASTM E-1745, CLASS C, AND HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

TYPICAL DETAIL
SLAB-ON-GRADE CONSTRUCTION SUBGRADE PREPARATION

1 SCALE: N.T.S.

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

STRUCTURAL ENGINEER

Matrix Structural Engineers
5177 Richmond Ave., Suite 670
Houston, Texas 77056
Main Phone: 713.641.0130
www.matrixstructural.com

Katy ISD
Katy, TX

NEW OPPORTUNITY AWARENESS CENTER

Director
Proj. Arch.
Designer KT
Drawn By TH

PROJECT NO.
25-0067.00

SHEET TITLE
TYPICAL FOUNDATION DETAILS

SHEET NO.
S3.3

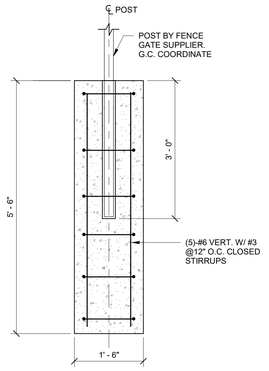
Matrix Structural Engineers
TBPE Firm Registration No. F-2640
STATE OF TEXAS
KHALIL TABAJA
117174
LICENSED
PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

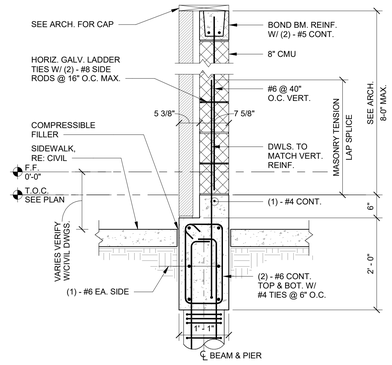
Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

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FOUNDATION AT
FENCE SWINGING GATE POST

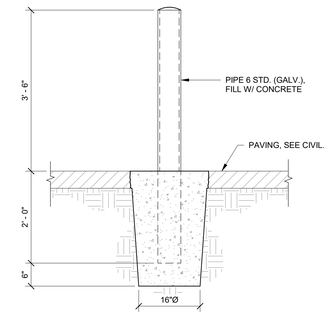
12 SCALE: N.T.S.



TYPICAL DETAIL
GRADE BEAM AT FREESTANDING DUMPSTER

8 SCALE: 3/4" = 1'-0"

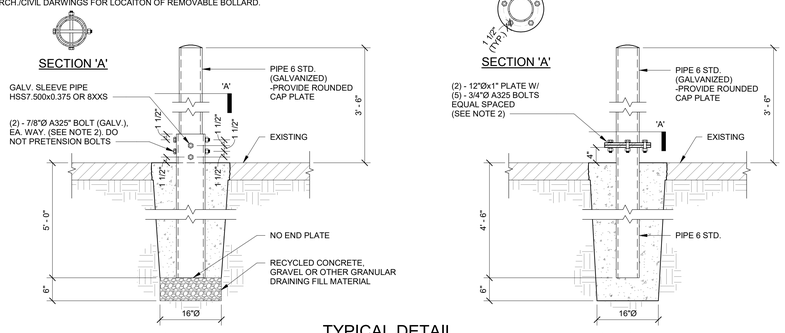
NOTES:
1. BOLLARD IS NOT DESIGNED AS A VEHICLE BARRIER, BUT RATHER IS INTENDED AS A TRAFFIC DIVERTER AND IS NOT DESIGNED FOR SIGNIFICANT IMPACT LOADS.



TYPICAL DETAIL
TRAFFIC DIVERTER BOLLARD

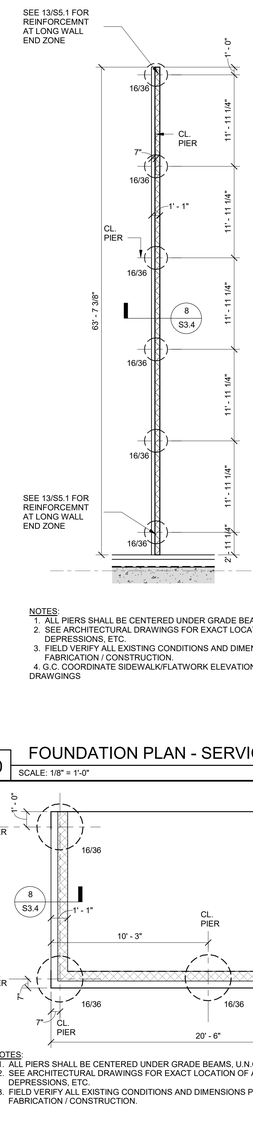
4 SCALE: 3/4" = 1'-0"

NOTES:
1. BOLLARD IS DESIGNED AS A VEHICLE BARRIER PER ASCE 7. BOLLARD CAN RESIST A SINGLE LOAD OF 6000 LB (ASD) APPLIED HORIZONTALLY IN ANY DIRECTION ACTING BETWEEN 1' - 6" AND 2' - 3" ABOVE GROUND.
2. ALL STEEL SHALL BE HOT DIPPED GALVANIZED. RETOUCH GALVANIZING ON BOLT THREADS AFTER FASTENING.
3. SEE ARCH./CIVIL DARWINGS FOR LOCAITON OF REMOVABLE BOLLARD.



TYPICAL DETAIL
REMOVABLE VEHICLE BARRIER BOLLARD

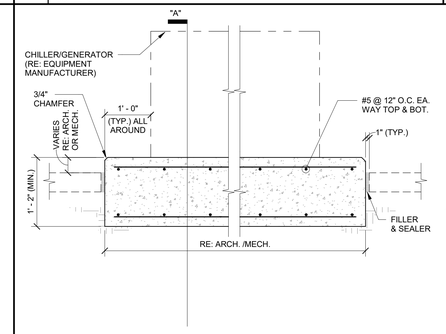
19 SCALE: 3/4" = 1'-0"

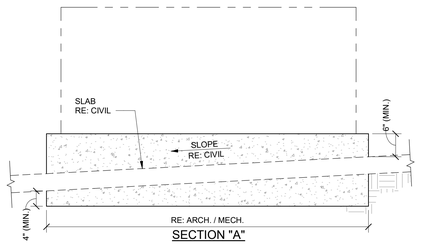


NOTES:
1. ALL PIERS SHALL BE CENTERED UNDER GRADE BEAMS, U.N.O.
2. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL SLOPES, DEPRESSIONS, ETC.
3. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.
4. G.C. COORDINATE SIDEWALK/FLATWORK ELEVATION WITH CIVIL DRAWGINGS

FOUNDATION PLAN - SERVICE YARD WALL

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

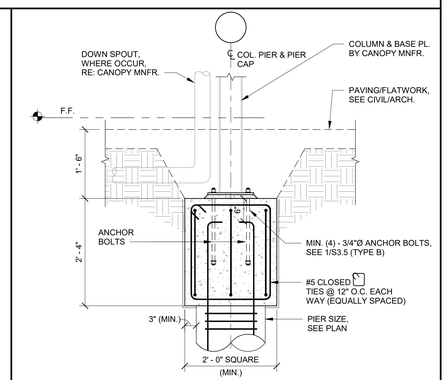




NOTES:
1. COORDINATE LOCATION WITH MEP DRAWINGS.
2. VERIFY ALL DIMENSIONS PRIOR TO FABRICATION/ CONSTRUCTION.

TYPICAL DETAIL
CHILLER/GENERATOR PAD

7 SCALE: 3/4" = 1'-0"

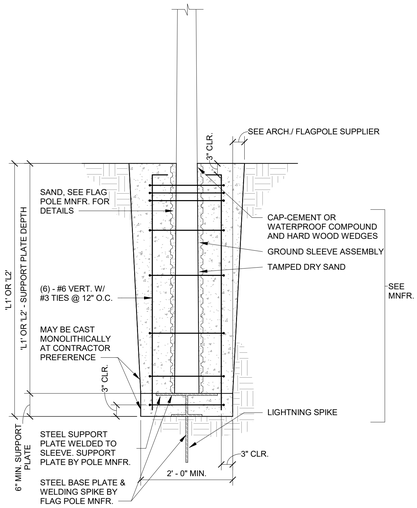


TYPICAL DETAIL
EXTERIOR CANOPY COLUMN WITH PIER CAP

14 SCALE: 3/4" = 1'-0"

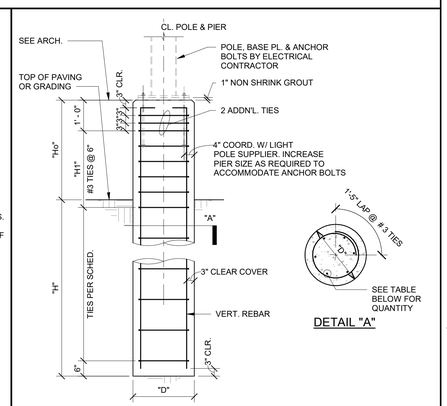
MIN. 'L' DEPTH			
MAX. POLE HEIGHT (ft.)	MAX. FLAG AREA ft²	'L1'	'L2'
20	24	4' - 0"	3' - 0"
25	30	5' - 0"	4' - 0"
30	60	5' - 6"	4' - 6"
35	60	6' - 0"	4' - 6"
45	96	7' - 6"	5' - 6"
50	150	8' - 6"	6' - 6"

NOTES:
1. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI WITH A MAXIMUM AGGREGATE SIZE OF 1 1/2" AND A MAXIMUM WATER / CEMENT RATIO OF 0.54.
2. ALL REINFORCEMENT SHALL CONFORM TO ASTM A615, GR. 60.
3. ASSUMPTIONS FOR FOUNDATION DESIGN INCLUDE A 5"-12", 20-50 FT. POLE W/ FIXTURES AND A MAXIMUM FLAG AREA OF 24-150 SQ. FT.
4. SEE MNFR. DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
5. WIND LOAD CRITERIA IS PER IBC 2018, Vult = 140 MPH.
6. FOR A STATED POLE HEIGHT SHOWN ON THE TABLE, THE DEPTH OF PIER IS DEEMED ADEQUATE IF THE MAX. FLAG AREA IS LESS THAN SHOWN ON TABLE ABOVE. WHERE MULTIPLE FLAGS ARE INSTALLED, THE COMBINED AREA OF THE FLAGS SHALL BE USED.
7. USE DEPTH 'L2' WHERE FLAG POLE IS CONFINED BY PAVING, AT BASE, OTHERWISE USE 'L1'.
8. THE PRESENCE OF SAND SEAMS AND SLICKENSIDES IN THE LAYERS MAY CAUSE SLOUGHING DURING PIER EXCAVATION, THIS MAY REQUIRE THE USE OF TEMPORARY STEEL CASING.
9. CONCRETE SHALL BE POURED IMMEDIATELY AFTER EXCAVATION.



TYPICAL DETAIL
FLAG POLE FOUNDATION

5 SCALE: N.T.S.

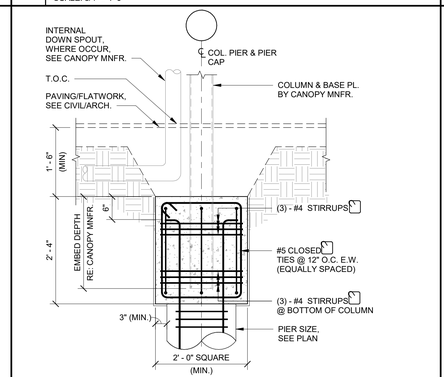


POLE MARK	NOM. POLE HEIGHT	ASSUMED EPA (sf)	"H" DEPTH OF PIER	"Ho" ABOVE GRADE	"H1"	"D" DIAMETER OF PIER	VERTICAL REINF	TIES	REMARKS
LP1	15' - 0"	5.0	5' - 0"	RE: ARCH.	1' - 6"	24"	6 - #6	#3 @ 12"	TYPICAL PARKING
LP2	25' - 0"	10.0	8' - 0"	RE: ARCH.	1' - 6"	24"	6 - #6	#3 @ 12"	TYPICAL PARKING
LP3	35' - 0"	10.0	10' - 0"	RE: ARCH.	1' - 6"	24"	6 - #7	#3 @ 12"	

NOTES:
1. WIND LOAD CRITERIA IS PER IBC 2021. Vult = 140 MPH.
2. CONCRETE COMPRESSIVE STRENGTH, F'C = 3,000 PSI (NWC), WITH A MAX WATER/CEMENT RATIO OF 0.54.
3. STEEL REINFORCEMENT SHALL BE ASTM A615, GR. 60.
4. REFER TO ARCH DRAWINGS/CIVIL DRAWINGS FOR LOCATIONS OF LIGHT POLES.
5. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION (AND SPECIFICATIONS FOR LIGHT STANDARDS).
6. VERIFY PROJECTION OF CONCRETE ABOVE GROUND WITH ARCHITECT.
7. EPA INDICATES MAXIMUM EXPOSED PROJECTED AREA AT THE TOP OF THE POLE IN ANY DIRECTION.
8. FOR A STATED POLE HEIGHT SHOWN ON THE TABLE, THE DEPTH OF PIER IS DEEMED ADEQUATE IF EPA IS LESS THAN SHOWN ON TABLE ABOVE.
9. THE PRESENCE OF SAND SEAMS AND SLICKENSIDES IN THE LAYERS MAY CAUSE SLOUGHING DURING PIER EXCAVATION, THIS MAY REQUIRE THE USE OF TEMPORARY STEEL CASING.
10. CONCRETE SHALL BE POURED IMMEDIATELY AFTER EXCAVATION.

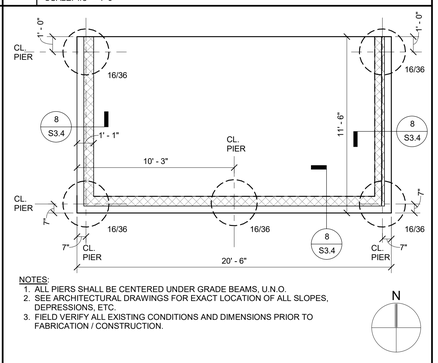
TYPICAL DETAIL
LIGHT POLE FOUNDATION

1 SCALE: N.T.S.



TYPICAL DETAIL EMBEDDED EXTERIOR
CANOPY COLUMN WITH PIER CAP

13 SCALE: 3/4" = 1'-0"



NOTES:
1. ALL PIERS SHALL BE CENTERED UNDER GRADE BEAMS, U.N.O.
2. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL SLOPES, DEPRESSIONS, ETC.
3. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION / CONSTRUCTION.

DUMPSTER ENCLOSURE PLAN

9 SCALE: 1/4" = 1'-0"

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

STRUCTURAL ENGINEER

Matrix Structural Engineers
5177 Richmond Ave., Suite 670
Houston, Texas 77056
Main Phone: 713.641.0130
www.matrixstructural.com

Katy ISD
Katy, TX

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STATE OF TEXAS
KHALIL TABAJA
117127
LICENSED
PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

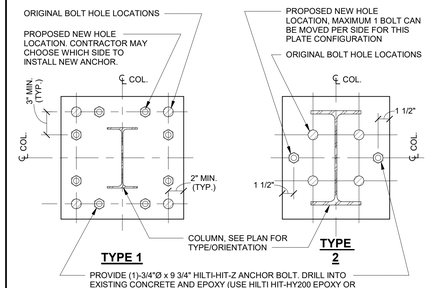
Director
Proj. Arch.
Designer KT
Drawn By TH

PROJECT NO.
25-0067.00

SHEET TITLE
TYPICAL FOUNDATION DETAILS

SHEET NO.
S3.4

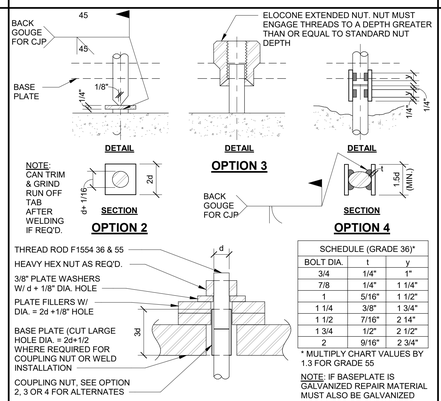
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NOTES:
1. THIS DETAIL SHALL NOT BE USED AT BRACE FRAMES OR MOMENT FRAMES. ENGINEER APPROVAL IS REQUIRED PRIOR TO INSTALLATION FOR EA. LOCATION WITH DAMAGED ANCHOR BOLTS.
2. CUT AWAY DAMAGED ANCHOR BOLTS AND PROVIDE NEW HOLES FOR EPOXY ANCHOR.
3. HIT-Z-R ANCHORS SHALL BE USED IN LIEU OF HIT-Z ANCHORS AT COLUMNS EXPOSED TO WEATHER.
4. FOR REPAIR OF ANCHOR BOLTS AT PEMB COLUMNS, G.C. COORDINATE WITH PEMB SUPPLIER/ENGR.

TYPICAL DETAIL
REPAIR AT GRAVITY BASE PLATE

4 SCALE: N.T.S.



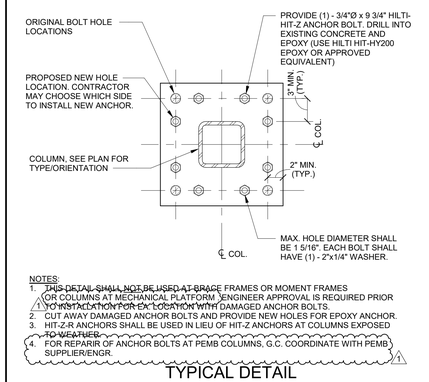
SCHEDULE (GRADE 36)*		
BOLT DIA.	t	y
3/4	1/4"	1"
7/8	1/4"	1 1/4"
1	5/16"	1 1/2"
1 1/4	3/8"	1 3/4"
1 1/2	7/16"	2 1/4"
1 3/4	1/2"	2 1/2"
2	9/16"	2 3/4"

* MULTIPLY CHART VALUES BY 1.3 FOR GRADE 55

NOTE: IF BASEPLATE IS GALVANIZED REPAIR MATERIAL MUST ALSO BE GALVANIZED

TYPICAL DETAIL REPAIR AT ANCHOR BOLT

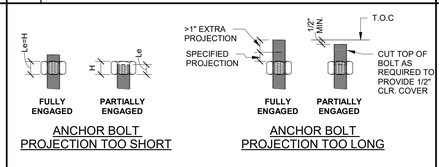
7 SCALE:N.T.S.



NOTES:
1. THIS DETAIL SHALL NOT BE USED AT BRACE FRAMES OR MOMENT FRAMES OR COLUMNS AT MECHANICAL PLATFORM. ENGINEER APPROVAL IS REQUIRED PRIOR TO INSTALLATION FOR EA. LOCATION WITH DAMAGED ANCHOR BOLTS.
2. CUT AWAY DAMAGED ANCHOR BOLTS AND PROVIDE NEW HOLES FOR EPOXY ANCHOR.
3. HIT-Z-R ANCHORS SHALL BE USED IN LIEU OF HIT-Z ANCHORS AT COLUMNS EXPOSED TO WEATHER.
4. FOR REPAIR OF ANCHOR BOLTS AT PEMB COLUMNS, G.C. COORDINATE WITH PEMB SUPPLIER/ENGR.

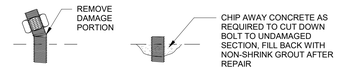
TYPICAL DETAIL
REPAIR AT GRAVITY BASE PLATE

3 SCALE: N.T.S.



ANCHOR BOLT PROJECTION TOO SHORT

ANCHOR BOLT PROJECTION TOO LONG

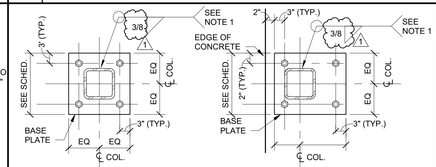


DAMAGED ANCHOR BOLT

NOTES:
1. WHERE ANCHOR BOLT PROJECTION IS TOO LONG, SUBMIT RFI TO EOR FOR APPROVAL AS THE BOTTOM OF ANCHOR BOLT ELEVATION MAY NOT BE ADEQUATE. CUT TOP OF BOLT DOWN AS REQUIRED TO PROVIDE COVER. FOR GRAVITY BASE PLATES CONTRACTOR MAY REPLACE OUT OF PLACE ANCHOR WITH EPOXY ANCHOR AS SHOWN IN DETAIL 3/S3.5 & 4/S3.5
2. WHERE ANCHOR BOLT PROJECTION IS LOWER THAN SPECIFIED BUT FULL THREAD ENGAGEMENT WAS ACHIEVED THE BOLT IS ACCEPTABLE. WHERE PROJECTION IS SUCH THAT THE NUT IS PARTIALLY ENGAGED, SUBMIT RFI TO EOR WITH Le AND H DIMENSIONS AS WELL AS THE COLUMN LOCATION.
3. AT DAMAGED ANCHOR BOLTS OR PARTIALLY THREADED FASTENERS DEEMED UNACCEPTABLE BY THE EOR, CONTRACTOR MAY REPAIR BOLT PER DETAIL 7/S3.5 IN LIEU OF REPAIR, AT GRAVITY BASE PLATE CONTRACTOR MAY REPLACE BOLT WITH DRILLED AND EPOXIED ANCHOR PER DETAIL 3/S3.5 & 4/S3.5

TYPICAL DETAIL
REPAIR AT ANCHOR BOLT

6 SCALE.N.T.S.



A TYPICAL LOCATION

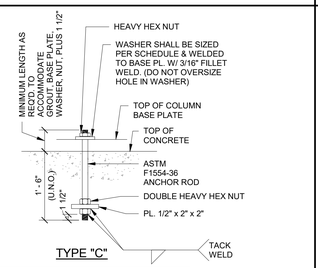
B AT EDGE LOCATIONS

BASE PLATE SCHEDULE		
COLUMN	BASE PLATE	ANCHOR BOLTS
HSS 10 x 6	16" x 16" x 1 1/4"	(4)-1"Ø TYPE B
HSS 8 x 6	16" x 16" x 1 1/4"	(4)-1"Ø TYPE B
HSS 6 x 6	15" x 15" x 1"	(4)-1"Ø TYPE B

NOTES:
1. MINIMUM FILLET WELD ACCORDING TO AISC (5/16" MIN.). WELDING AROUND CORNER RADIUS IS NOT REQUIRED U.N.O.
2. USE OVERSIZED HOLES FOR ANCHOR RODS ACCORDING TO AISC.
3. WASHERS SHALL BE INSTALLED OVER OVERSIZED HOLES.
4. CONTRACTOR SHALL PROVIDE 1/8" THICK TEMPLATE FOR ANCHOR ROD INSTALLATION.

TYPICAL DETAIL
BASE PLATE AT HSS COLUMNS

2 SCALE: N.T.S.



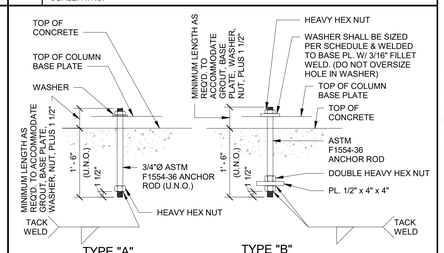
TYPE "C" WASHER SCHEDULE		
ANCHOR ROD DIA.	WASHER SIZE*	MIN. WASHER THICKNESS
3/4"	2"	1/4"
7/8"	2 1/2"	5/16"
1"	3"	3/8"
1 1/4"	3 1/2"	1/2"
1 1/2"	4"	1/2"
1 3/4"	4 1/2"	5/8"
2"	5"	3/4"
2 1/2"	5 1/2"	7/8"

NOTE: USE TYPE "C" ANCHOR BOLTS AT PEMB COLUMNS

*CIRCULAR OR SQUARE WASHERS MEETING WASHER SIZE ARE ACCEPTABLE

TYPICAL DETAIL ANCHOR BOLT

5 SCALE: N.T.S.



TYPE "B" WASHER SCHEDULE		
ANCHOR ROD DIA.	WASHER SIZE*	MIN. WASHER THICKNESS
3/4"	2"	1/4"
7/8"	2 1/2"	5/16"
1"	3"	3/8"
1 1/4"	3 1/2"	1/2"
1 1/2"	4"	1/2"
1 3/4"	4 1/2"	5/8"
2"	5"	3/4"
2 1/2"	5 1/2"	7/8"

NOTE: USE TYPE "B" ANCHOR BOLTS AT COLUMNS WITH DIAGONAL BRACES, MOMENT CONNECTIONS, & AT CANOPY COLUMNS

*CIRCULAR OR SQUARE WASHERS MEETING WASHER SIZE ARE ACCEPTABLE

TYPICAL DETAIL ANCHOR BOLT

1 SCALE: N.T.S.

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

STRUCTURAL ENGINEER

Matrix Structural Engineers
5177 Richmond Ave., Suite 670
Houston, Texas 77056
Main Phone: 713.641.0130
www.matrixstructural.com

Katy ISD
Katy, TX

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
117126
LICENSED
PROFESSIONAL ENGINEER

06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

Director
Proj. Arch.
Designer KT
Drawn By TH

PROJECT NO.

25-0067.00

SHEET TITLE

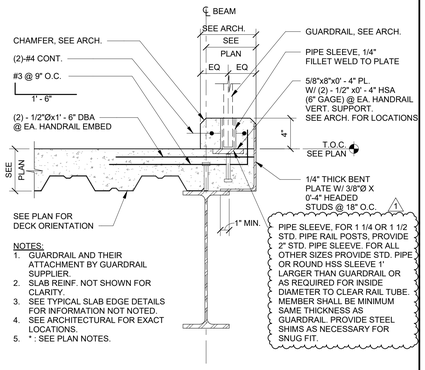
TYPICAL FOUNDATION DETAILS

SHEET NO.

S3.5

NEW OPPORTUNITY AWARENESS CENTER

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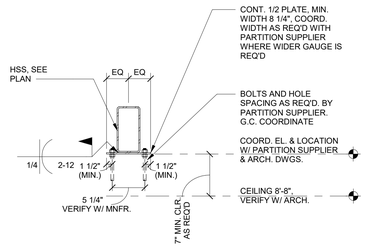


NOTES:
1. GUARDRAIL AND THEIR ATTACHMENT BY GUARDRAIL SUPPLIER.
2. SLAB REINF. NOT SHOWN FOR CLARITY.
3. SEE TYPICAL SLAB EDGE DETAILS FOR INFORMATION NOT NOTED.
4. SEE ARCHITECTURAL FOR EXACT LOCATIONS.
5. * - SEE PLAN NOTES.

TYPICAL DETAIL
EMBED AT REMOVABLE GUARDRAIL SUPPORT

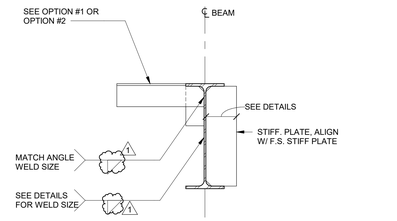
20 SCALE: N.T.S.

NOTE:
1. G.C. COORDIANTE FINISH FLOOR TO UNDERSIDE OF STRUCTURAL SUPPORT ELEVATION. BOLTS SIZE AND SPACING WITH OPERABLE PARTITION MNFR. BEFORE FABRICATION.

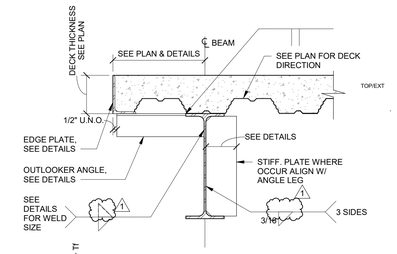


TYPICAL DETAIL
OPERABLE PARTITION SUPPORT
AT HSS BEAM

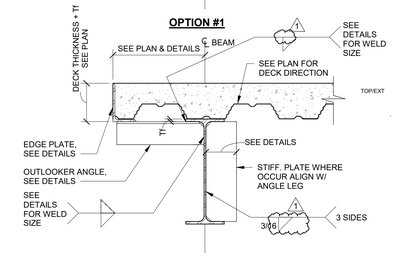
16 SCALE: N.T.S.



AT TWO SIDED STIFF PLATE



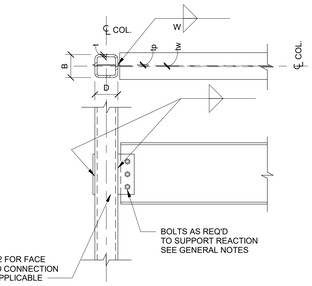
OPTION #1



OPTION #2

TYPICAL DETAIL
OUTLOOKER ANGLE AT BEAM AT FLOOR

11 SCALE: N.T.S.

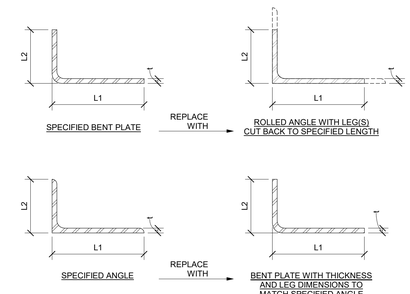


FLOOR

NOTES:
1. tp AND/OR tw SHALL BE LESS THAN OR EQUAL TO 1/4" AT 3/16" THICK HSS TUBES. AT THICKER TUBES tp AND/OR tw SHALL BE LESS THAN OR EQUAL TO 7/16" FOR CONNECTIONS WITH 2 TO 5 BOLTS, AND SHALL BE LESS THAN OR EQUAL TO 5/16" FOR CONNECTIONS WITH 6 OR MORE BOLTS.
2. PLATE DEPTH "L" SHALL NOT BE LESS THAN 1/2 THE "T" DIMENSION OF THE SUPPORTED BEAM.

TYPICAL DETAIL
STEEL BEAM TO HSS
COLUMN CONNECTION AT FLOOR

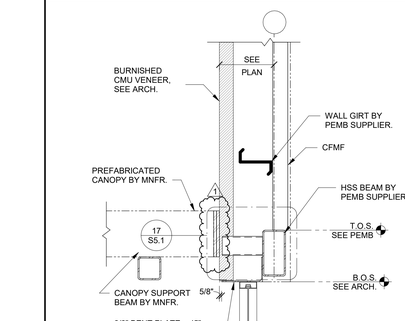
8 SCALE: N.T.S.



NOTE:
1. AT CONTRACTOR/FABRICATOR PREFERENCE ANGLE AND 90° BENT PLATES MAY BE SUBSTITUTED AS SHOWN U.N.O. BY EOR/ARCH.

TYPICAL DETAIL
ANGLE OR BENT PLATE SUBSTITUTION

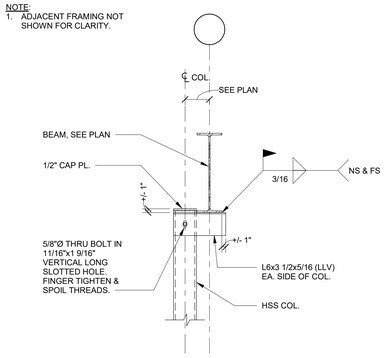
4 SCALE: N.T.S.



DETAIL AT STOREFRONT W/CANOPY

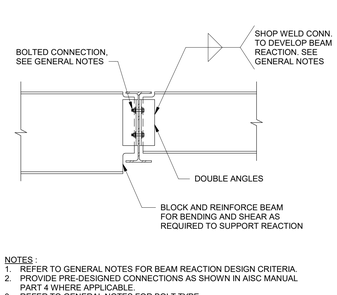
19 SCALE: N.T.S.

NOTE:
1. ADJACENT FRAMING NOT SHOWN FOR CLARITY.



SLIDING CONNECTION AT HSS COLUMN

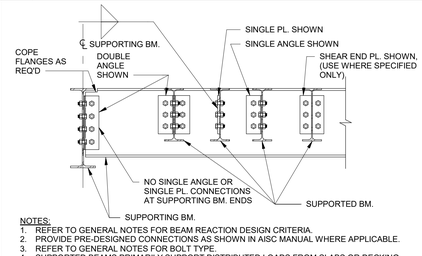
15 SCALE: N.T.S.



NOTES :
1. REFER TO GENERAL NOTES FOR BEAM REACTION DESIGN CRITERIA.
2. PROVIDE PRE-DESIGNED CONNECTIONS AS SHOWN IN AISC MANUAL PART 4 WHERE APPLICABLE.
3. REFER TO GENERAL NOTES FOR BOLT TYPE.
4. ALL CONNECTIONS SHALL MEET THE ROTATIONAL DUCTILITY AND STABILITY REQUIREMENTS PROVIDED BY AISC.

TYPICAL DETAIL
BEAM TO BEAM DOUBLE ANGLE
SHEAR CONNECTION

7 SCALE: N.T.S.

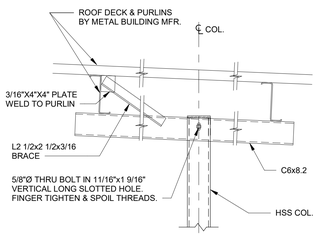


NOTES:
1. REFER TO GENERAL NOTES FOR BEAM REACTION DESIGN CRITERIA.
2. PROVIDE PRE-DESIGNED CONNECTIONS AS SHOWN IN AISC MANUAL WHERE APPLICABLE.
3. REFER TO GENERAL NOTES FOR BOLT TYPE.
4. SUPPORTED BEAMS PRIMARILY SUPPORT DISTRIBUTED LOADS FROM SLABS OR DECKING.
5. SUPPORTING BEAMS SUPPORT SIGNIFICANT POINT LOADS FROM ONE OR MORE SUPPORTED BEAMS OR FROM COLUMNS BEING TRANSFERRED. SUPPORTING BEAMS MAY BE SUPPORTED BY COLUMNS OR BY OTHER SUPPORTING BEAMS.
6. FOR AISC SIMPLE SHEAR CONNECTIONS AT SUPPORTED BEAM ENDS, USE DOUBLE ANGLE, SINGLE PLATE, OR SINGLE ANGLE U.N.O.
7. WELDED/BOLTED, WELDED/WELDED OR BOLTED/BOLTED CONNECTIONS PER AISC ARE PERMITTED.
8. ALL CONNECTIONS SHALL MEET THE ROTATIONAL DUCTILITY AND STABILITY REQUIREMENTS
9. BEAMS WITH SHEAR END PLATES REQUIRE CLOSE CONTROL IN FABRICATION TO ENSURE PROPER LENGTH AND SQUARE BEAM ENDS, PARTICULARLY WHEN CAMBER IS SPECIFIED.

TYPICAL DETAIL
BEAM TO BEAM SHEAR
CONNECTION (4 TYPES)

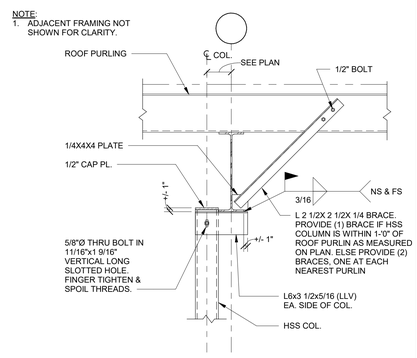
3 SCALE: N.T.S.

NOTE:
1. ADJACENT NOT SHOWN FOR CLARITY.



AT PURLINS

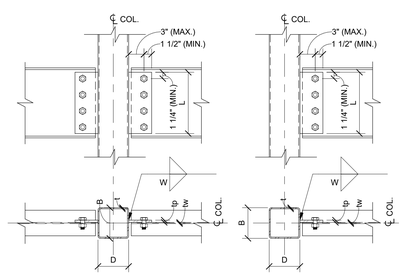
NOTE:
1. ADJACENT FRAMING NOT SHOWN FOR CLARITY.



AT WIDE FLANGE BEAM

TYPICAL DETAIL
SLIDING CONNECTION AT HSS COLUMN

17 SCALE: N.T.S.



MAX. COLUMN WIDTH	
t	B OR D MAX.
3/16"	6"
1/4"	8"
5/16"	10"
3/8"	12"
1/2"	16"
5/8"	18"

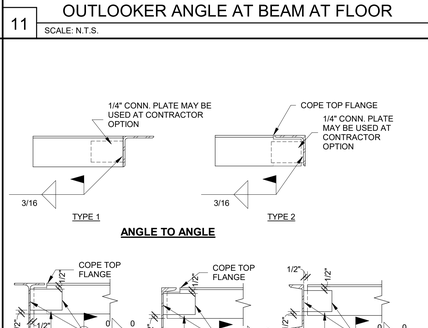
MAX. DESIGN END REACTION Ru (KIPS)*						
L (IN.)	t = 3/16"	t = 1/4"	t = 5/16"	t = 3/8"	t = 1/2"	t = 5/8"
5.5	15	20	25	30	40	50
8.5	36	48	60	73	97	121
11.5	66	89	111	133	178	222
14.5	106	142	177	212	283	354
17.5	154	206	258	309	412	516
20.5	212	283	354	425	566	708
23.5	278	373	466	558	744	930
26.5	354	474	592	710	946	1183

* - VALUES SHOWN FOR ASTM A500 GR. B STEEL. FOR ASTM A500 GR. C, MULTIPLY VALUES BY 1.07.

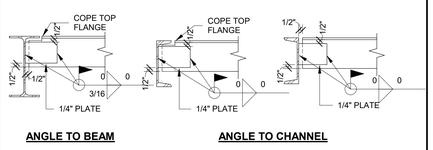
NOTES:
1. REFER TO GENERAL NOTES FOR BEAM REACTION DESIGN CRITERIA, REACTIONS SHOWN ARE FACTORED LOADS (LRFD).
2. PROVIDE PRE-DESIGNED CONNECTIONS AS SHOWN IN AISC MANUAL WHERE APPLICABLE.
3. REFER TO GENERAL NOTES FOR BOLT TYPE.
4. THIS CONNECTION MAY ONLY BE USED WITH THE GEOMETRY SHOWN ABOVE AND WHERE THE BEAM DESIGN REACTION IS LESS THAN THE VALUE SHOWN IN THE SCHEDULE. ALL VALUES SHOWN ARE ULTIMATE DESIGN (LRFD) VALUES.
5. tp SHALL BE LESS THAN OR EQUAL TO 1/4" AT 3/16" THICK HSS, AND LESS THAN OR EQUAL TO 3/8" AT 1/4" THICK HSS.
6. AT ALL PLATE CONNECTIONS WITH STANDARD HOLES, tp AND/OR tw SHALL BE LESS THAN OR EQUAL TO 7/16" FOR CONNECTIONS WITH 2 TO 5 BOLTS, AND SHALL BE LESS THAN OR EQUAL TO 5/16" FOR CONNECTIONS WITH 6 OR MORE BOLTS. AT ALL PLATE CONNECTIONS WITH HORIZONTAL SHORT SLOTTED HOLES, tp AND/OR tw SHALL BE LESS THAN OR EQUAL TO 7/16 FOR CONNECTIONS WITH 6 OR MORE BOLTS.
7. COLUMN WIDTH B OR D SHALL BE LESS THAN OR EQUAL TO THE MAXIMUM WIDTH SHOWN IN THE SCHEDULE.
8. W SHALL BE 5/8 (tp).
9. FOR TWO SIDED CONNECTIONS, ALL CRITERIA MUST BE MET AT BOTH SIDES. WHERE ONLY ONE SIDE FAILS THE CRITERIA A WT CONNECTION MAY BE PROVIDED AT THAT SIDE.
10. THIS DETAIL IS NOT ALLOWED AT BRACED FRAMES OR OTHER AXIALLY LOADED CONNECTIONS.
11. SEE 9/S4.2 FOR WT CONNECTIONS WHERE THIS DETAIL DOES NOT APPLY.
12. PLATE DEPTH "L" SHALL NOT BE LESS THAN 1/2 THE "T" DIMENSION OF THE SUPPORTED BEAM.

TYPICAL DETAIL
SINGLE PLATE TO RECTANGULAR HSS
WALL CONNECTION

13 SCALE: N.T.S.



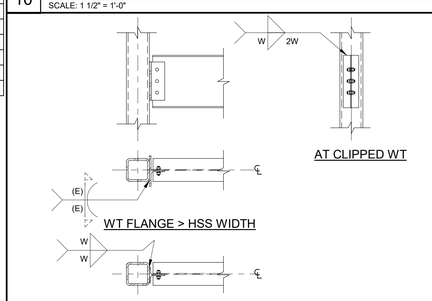
ANGLE TO ANGLE



ANGLE TO BEAM **ANGLE TO CHANNEL**

TYPICAL DETAIL ANGLE CONNECTIONS

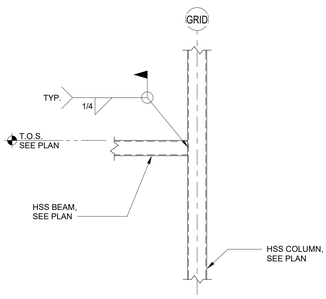
10 SCALE: 1 1/2" = 1'-0"



NOTES:
1. WELD SIZES W & E SHALL MEET AISC MIN. SIZE TO ENSURE ROTATIONAL DUCTILITY.
2. WT WEB THICKNESS SHALL NOT EXCEED 7/16".
3. THIS DETAIL MAY BE USED IN LIEU OF THE TYPICAL CONN. DETAIL AT CONTRACTOR PREFERENCE.
4. REFER TO GENERAL NOTES FOR BEAM REACTION DESIGN CRITERIA.
5. REFER TO GENERAL NOTES FOR BOLT TYPE.
6. EITHER WELDED/BOLTED OR WELDED/WELDED CONNECTIONS ARE ACCEPTABLE.

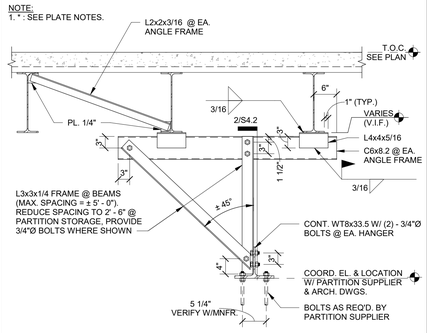
ALTERNATE DETAIL
STEEL BEAM TO HSS COLUMN CONNECTION

9 SCALE: N.T.S.



HSS BEAM AT HSS COLUMN

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



TYPICAL DETAIL
OPERABLE PARTITION SUPPORT

1 SCALE: N.T.S.

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

STRUCTURAL ENGINEER

Matrix Structural Engineers
5177 Richmond Ave., Suite 670
Houston, Texas 77056
Main Phone: 713.641.0130
www.matrixstructural.com

Katy ISD
Katy, TX

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

STATE OF TEXAS
KHALIL TABAJA
117174
LICENSED
PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

Director
Proj. Arch.
Designer KT
Drawn By TH

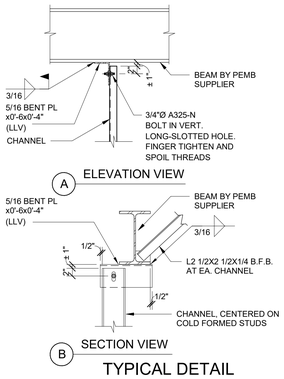
PROJECT NO.
25-0067.00

SHEET TITLE
TYPICAL FLOOR DETAILS

SHEET NO.
S4.2

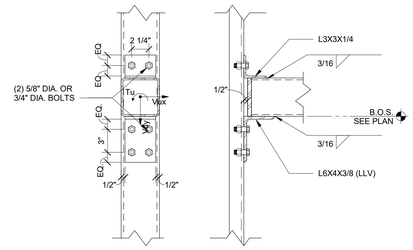
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TYPICAL DETAIL
CHANNEL TO BEAM SLIDING CONNECTION

12 SCALE: 3/4" = 1'-0"



TYPE 2

	MINIMUM LAP SPLICE LENGTH				REINFORCEMENT OFF CENTER	HOOKED BAR DEVELOPMENT LENGTH
	REINFORCEMENT AT CENTER OF WALL					
BAR SIZE	6" CMU	8" CMU	10" CMU	12" CMU	ANY	ANY
3	12	12	12	12	17	5
4	18	13	12	12	29	7
5	28[4]	20	16	13	45	9
6	51[4]	37	29	24	54	10
7	NA[5]	50	39	32	63	12
8	NA[5]	72	58	48	72	13

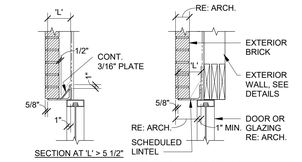
NOTES:
1. TABLE FOR USE WITH GRADE 60 UNCOATED REINF. BARS IN CMU (f'm = 2000 psi)
2. BARS SPLICED BY NON-CONTACT LAP SPLICE SHALL NOT BE SPACED FARTHER APART THAN ONE-FIFTH THE REQUIRED LAP LENGTH, OR 8".
3. LAP LENGTHS PER IBC 2021.
4. PERMITTED ONLY IF ALL MORTAR FINS ARE REMOVED ROM THE CELL TO BE GROUTED.
5. BAR EXCEEDS MAX. ALLOWABLE SIZE.
6. DEVELOPMENT LENGTH OF EPOXY COATED BARS SHALL BE TAKEN AS 1.5 TIMES THE VALUES IN THE CHART.

TYPICAL DETAIL
MASONRY TENSION LAP SPLICE (INCHES)

4 SCALE: N.T.S.

MINIMUM ANGLE SIZE

CLEAR OPENING	EXPANSION JOINT AT RUNNING BOND			
	NONE	ONE SIDE	BOTH SIDES	STACK BOND
≤6'-0"	L3 1/2 x 'L' x 5/16	L5 x 'L' x 1/4	L5 x 'L' x 5/16	L7 x 'L' x 3/8
6'-8"	L4 x 'L' x 5/16	L5 x 'L' x 5/16	L6 x 'L' x 5/16	L7 x 'L' x 3/8
7'-4"	L5 x 'L' x 1/4	L6 x 'L' x 5/16	L6 x 'L' x 3/8	L8 x 'L' x 7/16
8'-0"	L6 x 'L' x 5/16	L6 x 'L' x 3/8	L7 x 'L' x 3/8	L8 x 'L' x 7/16
10'-0"	L7 x 'L' x 3/8	L8 x 'L' x 7/16	L8 x 'L' x 7/16	NA
12'-0"	L8 x 'L' x 7/16	NA	NA	NA



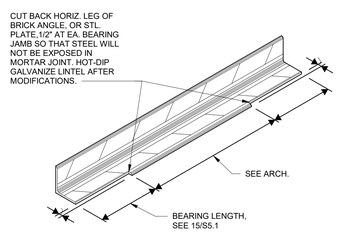
TYPICAL SECTION

NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING AT EACH JAMB FOR EACH FOOT OF CLEAR SPAN BUT NOT LESS THAN 6".
3. WHERE MINIMUM BEARING CANNOT BE ACHIEVED, PROVIDE ADEQUATE CONNECTION TO ADJACENT STRUCTURAL MEMBERS OR PROVIDE SEPARATE VERTICAL SUPPORTS. SUBMIT SUCH DETAILS FOR THE ENGINEER'S APPROVAL.
4. ALL LINTELS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
5. FOR MASONRY OPENINGS GREATER THAN 10'-0", SEE DETAILS ON THE DRAWINGS OR REFER TO ENGINEER.
6. BRICK HEIGHTS OVER OPENINGS GREATER THAN ONE HALF THE LINTEL SPAN SHALL BE SHORED UNTIL MORTAR HAS SET AND CURED.
7. 'L' DIMENSION SHALL NOT BE LESS THAN 4". FOR 'L' DIMENSION GREATER THAN 5 1/2", PROVIDE 3/16" PLATE STIFFENER.
8. WHERE MINIMUM ANGLE THICKNESS EXCEEDS GROUT BED THICKNESS, BOOT CUT BRICK AS REQ'D IN ORDER TO MAINTAIN LEVEL COURSING
9. REFER TO ARCHITECTURAL DRAWINGS FOR VERTICAL BRICK JOINT LOCATIONS
10. WHERE NO BRICK JOINTS OCCUR, LINTEL SCHEDULE IS VALID FOR ALL BRICK WALL HEIGHTS. WHERE EXPANSION JOINTS ARE PROVIDED AT ONE OR BOTH SIDES OF OPENINGS, OR WHERE STACK BONDED BRICK IS USED. LINTEL SCHEDULE IS VALID FOR A CARRIED BRICK HEIGHT UP TO 26 FT. SEE EOR IF THIS VALUE IS EXCEEDED.

TYPICAL DETAIL
STEEL LOOSE LINTEL
SCHEDULE EXTERIOR BRICK

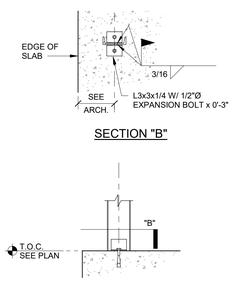
18 SCALE: 3/4" = 1'-0"

NOTE:
SEE 18/S5.1 FOR LINTEL SCHEDULE



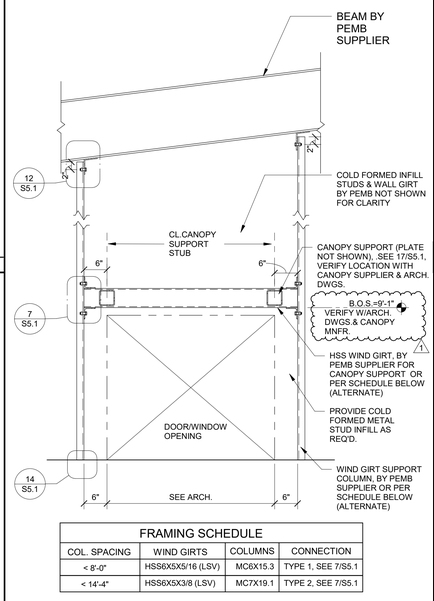
TYPICAL DETAIL
LOOSE LINTEL CUT BACK AND BEARING

15 SCALE: N.T.S.



TYPICAL DETAIL
WIND GIRT WITH CHANNEL SUPPORTS

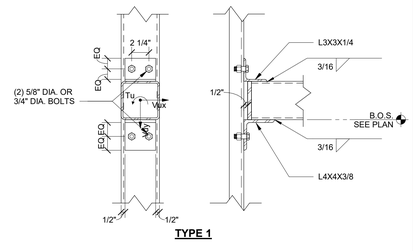
14 SCALE: N.T.S.



FRAMING SCHEDULE			
COL. SPACING	WIND GIRTS	COLUMNS	CONNECTION
< 8'-0"	HSS6X5X5/16 (LSV)	MC6X15.3	TYPE 1, SEE 7/S5.1
< 14'-4"	HSS6X5X3/8 (LSV)	MC7X19.1	TYPE 2, SEE 7/S5.1

TYPICAL DETAIL
WIND GIRT WITH CHANNEL SUPPORTS

10 SCALE: N.T.S.

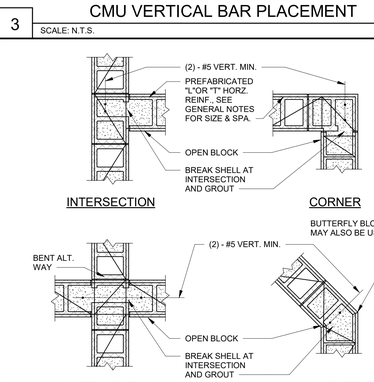


TYPE 1

	Vuy	Vux	Tu
TYPE 1	10 KIPS	7 KIPS	2.5 K-FT
TYPE 2	10 KIPS	15 KIPS	5 K-FT

HSS TUBE TO VERTICAL
CHANNEL CONNECTION

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

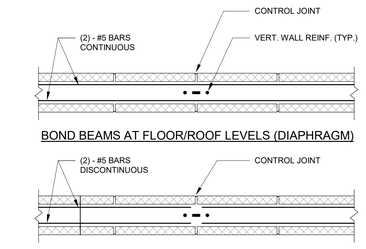


NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.
4. CONDUIT, PIPES AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER (USE LARGER DIAMETER WHERE MULTIPLE SIZES ARE USED).
5. ALUMINUM PIPES MAY NOT BE USED UNLESS EFFECTIVELY COATED TO PREVENT CHEMICAL REACTION.
6. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
   (a) CONTAINING LIQUIDS, GAS, OR VAPORS AT A TEMPERATURE HIGHER THAN 150°F (66°C).
   (b) UNDER PRESSURE IN EXCESS OF 55 PSI (379 KPA).
   (c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.

TYPICAL DETAIL
CMU VERTICAL BAR PLACEMENT

3 SCALE: N.T.S.

NOTE:
COORDINATE CONTROL JOINT LOCATIONS WITH ARCHITECTURAL DRAWINGS.

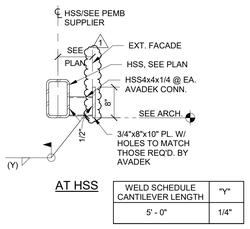


TYPICAL DETAIL BOND BEAM AT CONTROL JOINTS

6 SCALE: N.T.S.

TYPICAL DETAIL CMU WALL INTERSECTIONS

2 SCALE: N.T.S.



AT HSS

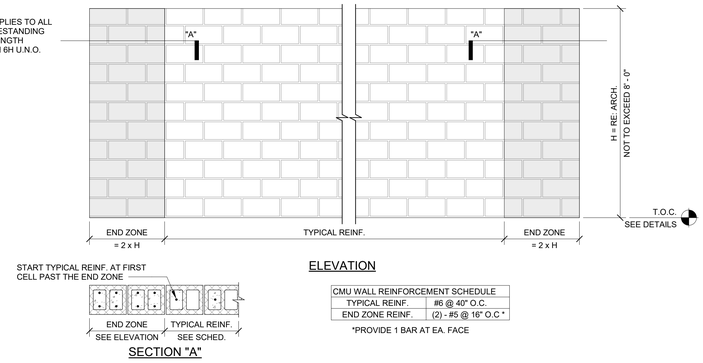
WELD SCHEDULE CANTILEVER LENGTH	"Y"
5' - 0"	1/4"

NOTES:
1. CONTRACTOR SHALL CONFIRM SPACING FROM CANOPY SUPPLIER PRIOR TO FABRICATION & SUBMIT SHOP DRAWINGS FOR APPROVAL.
2. SIMPLE SPAN INDICATES CANOPY IS SUPPORTED ON EXTERIOR COLUMNS.
3. ALL STEEL TO BE HOT DIPPED GALVANIZED

TYPICAL DETAIL
AT CANOPY CONNECTION

17 SCALE: N.T.S.

NOTE:
THIS DETAIL APPLIES TO ALL EXTERIOR FREESTANDING WALLS WITH LENGTH GREATER THAN 6H U.N.O.

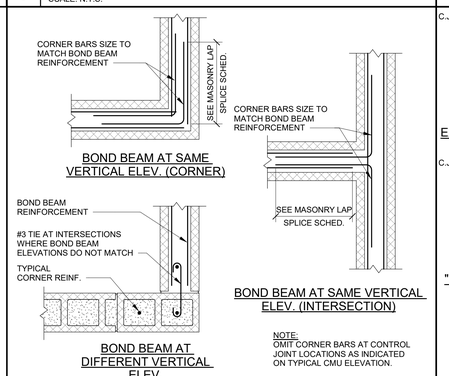


CMU WALL REINFORCEMENT SCHEDULE	
TYPICAL REINF.	#6 @ 40" O.C.
END ZONE REINF.	(2) - #5 @ 16" O.C.*

*PROVIDE 1 BAR AT EA. FACE

TYPICAL DETAIL
REINFORCING AT "LONG" CMU SCREEN WALLS

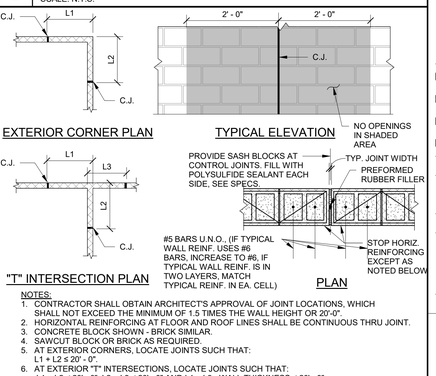
13 SCALE: N.T.S.



NOTE:
OMIT CORNER BARS AT CONTROL JOINT LOCATIONS AS INDICATED ON TYPICAL CMU ELEVATION.

TYPICAL DETAIL CMU BOND BEAM REINFORCEMENT

5 SCALE: N.T.S.



NOTES:
1. CONTRACTOR SHALL OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS, WHICH SHALL NOT EXCEED THE MINIMUM OF 1.5 TIMES THE WALL HEIGHT OR 20'-0".
2. HORIZONTAL REINFORCING AT FLOOR AND ROOF LINES SHALL BE CONTINUOUS THRU JOINT.
3. CONCRETE BLOCK SHOWN - BRICK SIMILAR.
4. SAWCUT BLOCK OR BRICK AS REQUIRED.
5. AT EXTERIOR CORNERS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0".
6. AT EXTERIOR "T" INTERSECTIONS, LOCATE JOINTS SUCH THAT: L1 + L2 ≤ 20' - 0" L2 + L3 ≤ 20' - 0" AND L1 + L3 - WALL THICKNESS ≤ 20' - 0"

TYPICAL DETAIL MASONRY WALL CONTROL JOINT

1 SCALE: N.T.S.

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

STRUCTURAL ENGINEER

Matrix Structural Engineers
5177 Richmond Ave., Suite 670
Houston, Texas 77056
Main Phone: 713.641.0130
www.matrixstructural.com

Katy ISD
Katy, TX

Matrix Structural Engineers
TBPE Firm Registration No. F-2640

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06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 ADDENDUM 3	06/11/2026

Director
Proj. Arch.
Designer KT
Drawn By TH

PROJECT NO.
25-0067.00

SHEET TITLE
TYPICAL CMU WALL AND CANOPY DETAILS

SHEET NO.
S5.1

NEW OPPORTUNITY AWARENESS CENTER

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PROJECT DESIGN CONDITIONS

WEATHER STATION	ASHRAE 90.1 ZONE	LATITUDE	LONGITUDE	ELEVATION	COOLING			DEHUMIDIFICATION		HEATING	
					0.4%			1.0%		99.6%	
					HOTTEST MONTH	DB (°F)	MCWB (°F)	WB (°F)	MCDB (°F)	COLDEST MONTH	DB (°F)
Houston Executive, TX USA	2A	29.800N	95.9W	168 FT	AUGUST	98.9	76.1	81.1	82.4	JANUARY	27.9

ABBREVIATIONS:
DB: DRY BULB TEMPERATURE
WB: WET BULB TEMPERATURE
MCDB: MEAN COINCIDENT DRY BULB TEMPERATURE
MCWB: MEAN COINCIDENT WET BULB TEMPERATURE

General Notes
(1) Based on 2021 ASHRAE Handbook - Fundamentals

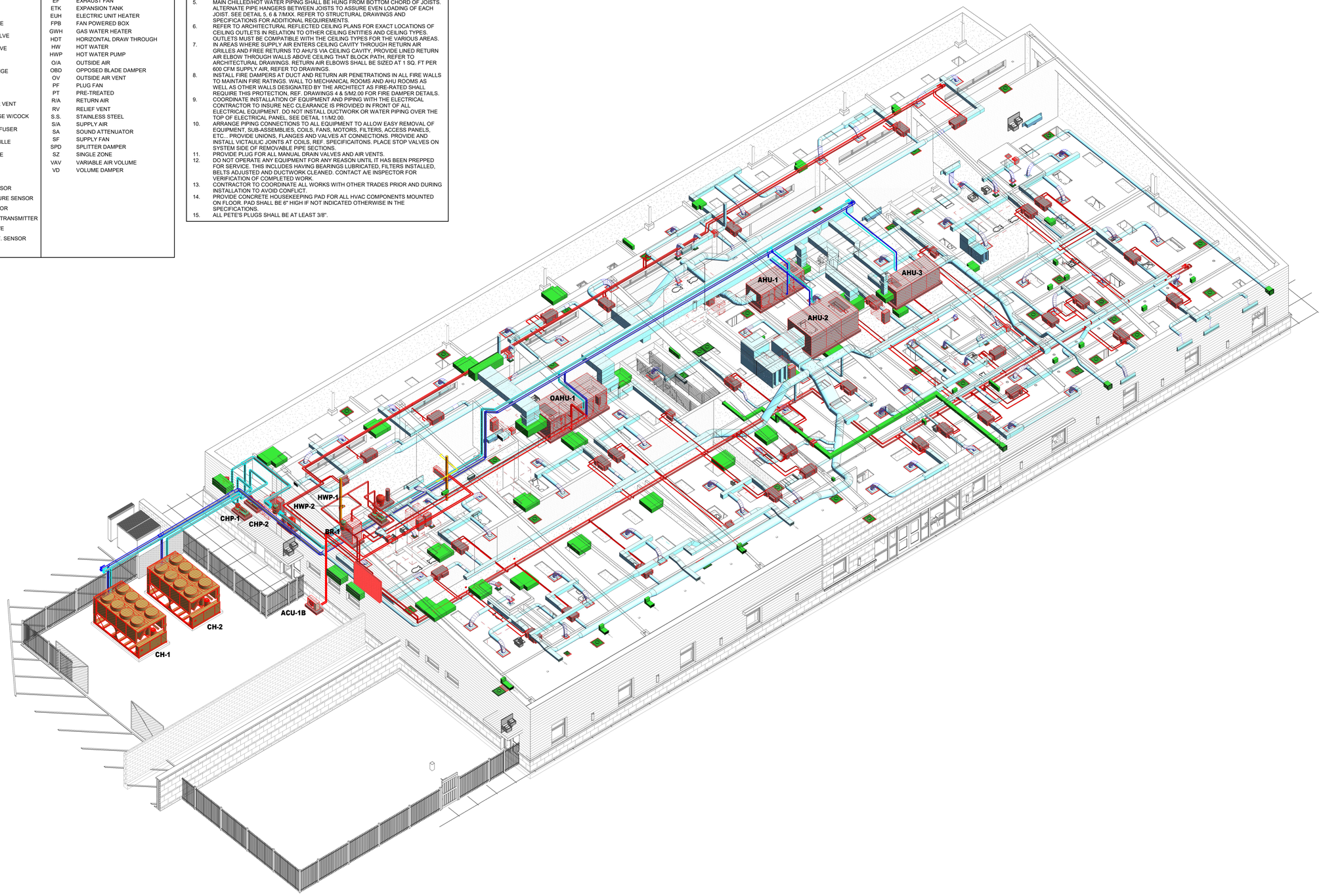
MECHANICAL LEGEND AND SYMBOL SCHEDULE

CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
CWS	CONDENSER WATER SUPPLY
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
D	CONDENSATE LINE
	PETE'S PLUG
	VALVE
	CONTROL VALVE
M	MOTORIZED VALVE
	BUTTERFLYVALVE
	BALL VALVE
	UNION OR FLANGE
	CHECK VALVE
	STRAINER
	AUTOMATIC AIR VENT
	PRESSURE GAGE W/COCK
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	EXHAUST GRILLE
M	MOTORIZED
FS	FLOW SWITCH
PS	PRESSURE SENSOR
PH	HI-LIMIT PRESSURE SENSOR
AF	AIR FLOW SENSOR
T	TEMPERATURE TRANSMITTER
S	SOLENOID VALVE
P	PRESSURE DIFF. SENSOR
	ACCESS PANEL

A.P.	ACCESS PANEL
A/C	AIR CONDITIONING UNIT
AHU	AIR HANDLING UNIT
ASEP	AIR SEPARATOR
CH	CHILLER
CHP	CHILLED WATER PUMP
CHW	CHILLED WATER
E/A	EXHAUST AIR
EF	EXHAUST FAN
ETK	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
FPB	FAN POWERED BOX
GWH	GAS WATER HEATER
HDT	HORIZONTAL DRAW THROUGH
HW	HOT WATER
HWP	HOT WATER PUMP
O/A	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OV	OUTSIDE AIR VENT
PF	PLUG FAN
PT	PRE-TREATED
R/A	RETURN AIR
RV	RELIEF VENT
S.S.	STAINLESS STEEL
S/A	SUPPLY AIR
SA	SOUND ATTENUATOR
SF	SUPPLY FAN
SPD	SPLITTER DAMPER
SZ	SINGLE ZONE
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER

GENERAL MECHANICAL NOTES

1. REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. DUCTS SIZES SHOWN ARE NET FREE AIR PASSAGE DIMENSIONS. SUPPLY AIR DUCTS ARE NOT LINED, BUT ARE EXTERNALLY INSULATED, UNLESS INDICATED OTHERWISE ON THE DRAWINGS. RUN OUTS TO CEILING OUTLETS SHALL BE EXTERNALLY INSULATED GALVANIZED SHEET METAL WITH SPIN-IN VOLUME DAMPER AT TRUNK TAPS, SEE DETAILS 1 & 3/MXX.
3. PROVIDE CONDENSATE DRAIN TRAP FOR EACH COOLING UNIT, SEE DETAIL X/MXX.
4. PROVIDE AUTOMATIC AIR VENT AT ALL HIGH POINT OF ALL WATER SYSTEMS, REFER TO WRITTEN SPECIFICATIONS.
5. MAIN CHILLED/HOT WATER PIPING SHALL BE HUNG FROM BOTTOM CHORD OF JOISTS. ALTERNATE PIPE HANGERS BETWEEN JOISTS TO ASSURE EVEN LOADING OF EACH JOIST. SEE DETAIL 5, 6 & 7/MXX. REFER TO STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
6. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF CEILING OUTLETS IN RELATION TO OTHER CEILING ENTITIES AND CEILING TYPES. OUTLETS MUST BE COMPATIBLE WITH THE CEILING TYPES FOR THE VARIOUS AREAS.
7. IN AREAS WHERE SUPPLY AIR ENTERS CEILING CAVITY THROUGH RETURN AIR GRILLES AND FREE RETURNS TO AHU'S VIA CEILING CAVITY, PROVIDE LINED RETURN AIR ELBOW THROUGH WALLS ABOVE CEILING THAT BLOCK PATH, REFER TO ARCHITECTURAL DRAWINGS. RETURN AIR ELBOWS SHALL BE SIZED AT 1 SQ. FT PER 600 CFM SUPPLY AIR, REFER TO DRAWINGS.
8. INSTALL FIRE DAMPERS AT DUCT AND RETURN AIR PENETRATIONS IN ALL FIRE WALLS TO MAINTAIN FIRE RATINGS. WALL TO MECHANICAL ROOMS AND AHU ROOMS AS WELL AS OTHER WALLS DESIGNATED BY THE ARCHITECT AS FIRE-RATED SHALL REQUIRE THIS PROTECTION, REF. DRAWINGS 4 & 5/M2.00 FOR FIRE DAMPER DETAILS.
9. COORDINATE INSTALLATION OF EQUIPMENT AND PIPING WITH THE ELECTRICAL CONTRACTOR TO INSURE NEC CLEARANCE IS PROVIDED IN FRONT OF ALL ELECTRICAL EQUIPMENT. DO NOT INSTALL DUCTWORK OR WATER PIPING OVER THE TOP OF ELECTRICAL PANEL, SEE DETAIL 11/M2.00.
10. ARRANGE PIPING CONNECTIONS TO ALL EQUIPMENT TO ALLOW EASY REMOVAL OF EQUIPMENT, SUB-ASSEMBLIES, COILS, FANS, MOTORS, FILTERS, ACCESS PANELS, ETC... PROVIDE UNIONS, FLANGES AND VALVES AT CONNECTIONS. PROVIDE AND INSTALL VICTAULIC JOINTS AT COILS, REF. SPECIFICAITONS. PLACE STOP VALVES ON SYSTEM SIDE OF REMOVABLE PIPE SECTIONS.
11. PROVIDE PLUG FOR ALL MANUAL DRAIN VALVES AND AIR VENTS.
12. DO NOT OPERATE ANY EQUIPMENT FOR ANY REASON UNTIL IT HAS BEEN PREPPED FOR SERVICE. THIS INCLUDES HAVING BEARINGS LUBRICATED, FILTERS INSTALLED, BELTS ADJUSTED AND DUCTWORK CLEANED. CONTACT A/E INSPECTOR FOR VERIFICATION OF COMPLETED WORK.
13. CONTRACTOR TO COORDINATE ALL WORKS WITH OTHER TRADES PRIOR AND DURING INSTALLATION TO AVOID CONFLICT.
14. PROVIDE CONCRETE HOUSEKEEPING PAD FOR ALL HVAC COMPONENTS MOUNTED ON FLOOR. PAD SHALL BE 6" HIGH IF NOT INDICATED OTHERWISE IN THE SPECIFICATIONS.
15. ALL PETE'S PLUGS SHALL BE AT LEAST 3/8".



1 **MECHANICAL ISOMETRIC VIEW**
SCALE=

ARCHITECT
VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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STATE OF TEXAS
MIGUEL A. HANZE
151421
LICENSED PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	MH
Drawn By	MH

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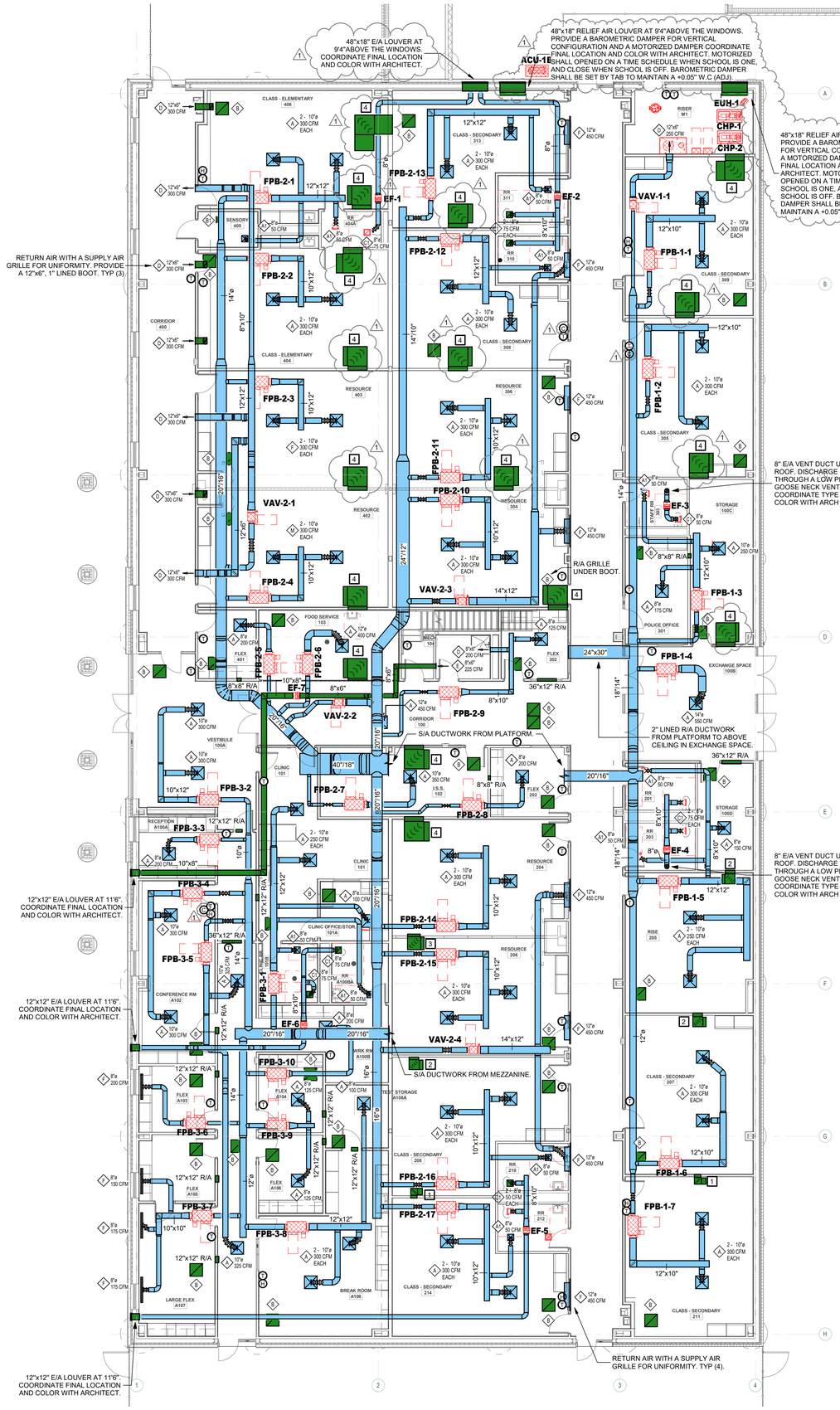
SHEET TITLE
MECHANICAL ISOMETRIC VIEW

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M0.00

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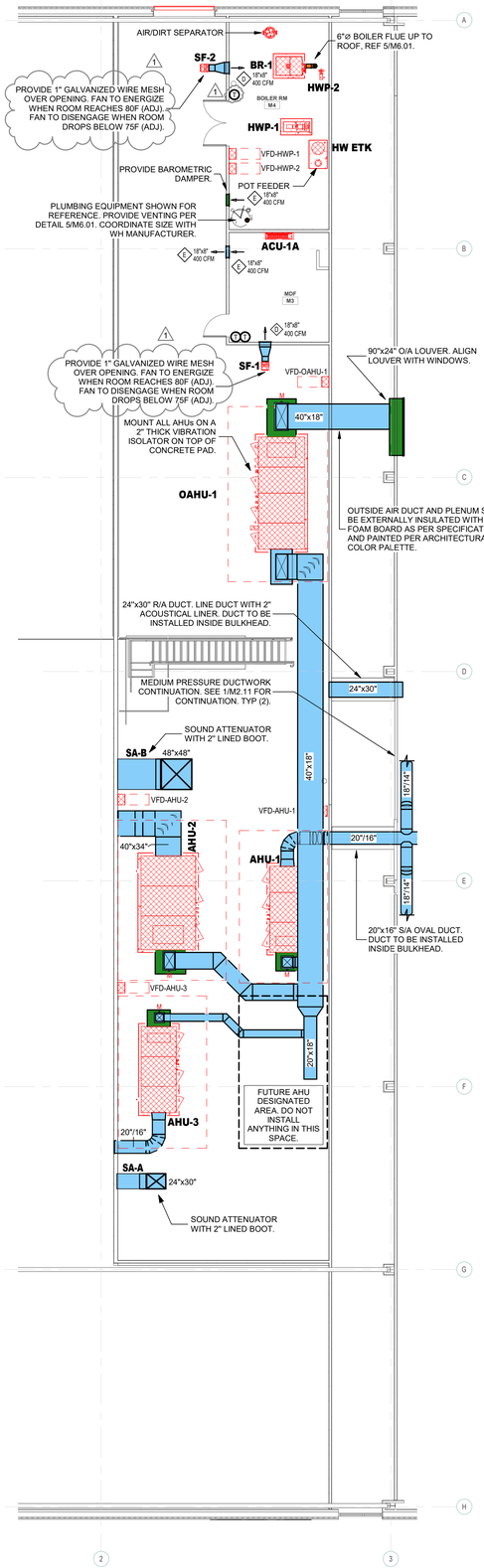
MECHANICAL KEY NOTES

1. 12"X12", 1" ACOUSTICALLY LINED, RETURN AIR BOOT.
2. 18"X12", 1" ACOUSTICALLY LINED, RETURN AIR BOOT.
3. 24"X12", 1" ACOUSTICALLY LINED, RETURN AIR BOOT.
4. 36"X12", 1" ACOUSTICALLY LINED, RETURN AIR BOOT.



1 MECHANICAL LEVEL ONE FLOOR PLAN

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



2 MECHANICAL PLATFORM

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

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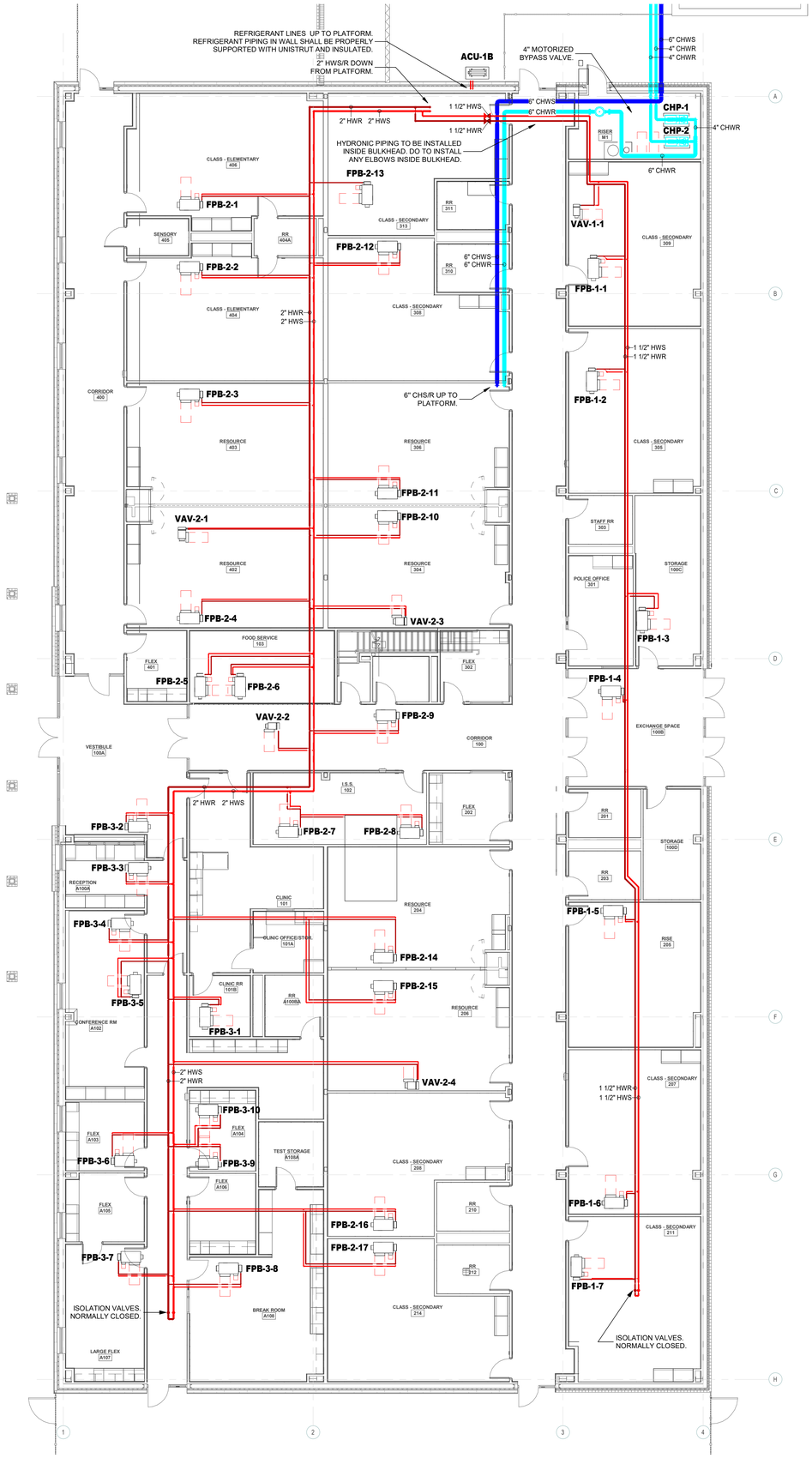
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MECHANICAL LEVEL ONE FLOOR PLAN

SHEET NO.

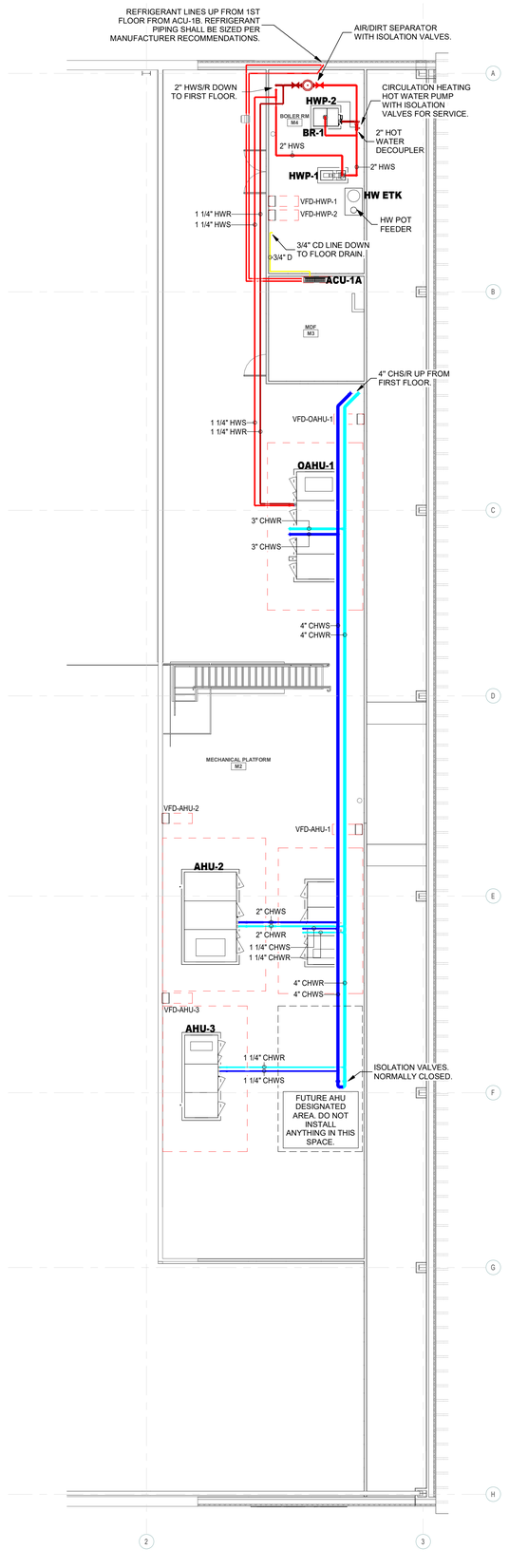
M2.11

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1 MECHANICAL PIPING LEVEL ONE FLOOR PLAN

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



2 MECHANICAL PIPING MEZZANINE PLAN

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

MECHANICAL PIPING NOTES

1. ALL HYDRONIC PIPING SHALL BE INSTALLED IN A MANNER THAT ALLOWS FOR PROPER MANUFACTURER RECOMMENDED CLEARANCES. PIPING SHALL NOT BLOCKED ACCESS TO SERVICE UNITS (PUMPS, CHILLERS, AHU, VAV/FPB BOXES, BOILERS, ETC)
2. CONTRACTOR TO INSTALL PIPING AS CLOSED AS SHOWN ON CONTRACT DOCUMENTS. WHEN NOT POSSIBLE DUE TO PLENUM CONSTRAINTS, REROUTE PIPING IN A MANNER THAT DOES NOT ADD TOO MUCH PRESSURE DROP TO THE SYSTEM.
3. INSTALL MANUAL AIR VENTS AT ALL HIGH POINTS. EVERY TIME HYDRONIC PIPING CHANGES IN ELEVATION AND AIR CAN GET TRAPPED, AN AIR VENT SHALL BE PLACED. AIR VENTS SHALL ALL BE ACCESSIBLE. DO NOT INSTALL ABOVE ANY EQUIPMENT, DUCTWORK, PIPING, CONDUIT, ETC. IF AIR VENTS ARE INSTALLED ABOVE HARD CEILING, PROVIDE AN 18"X18" ACCESS DOOR.
4. ALL PETE'S PLUGS SHALL BE AT LEAST 3/8".
5. REFRIGERANT PIPING SHALL BE INSULATED WITH 1.5" THICK, EPDM CLOSED CELL FOAM INSULATION AND COVERED WITH ALUMINUM JACKETING WHEN EXPOSED. THIS APPLIES TO EXTERIOR AND EXPOSED IN MECHANICAL ROOM. ONLY PLACE REFRIGERANT PIPING SHALL NOT HAVE ALUMINUM COVERED IS INSIDE WALL CAVITY.
6. CONDENSATE PIPING SHALL BE INSULATED WITH 3/4" THICK, EPDM CLOSED CELL FOAM INSULATION. 1
7. ALL BRANCH CHILLED WATER AND HOT WATER PIPING SHALL BE CONNECTED TO THE TOP OF THE HYDRONIC MAINS TO AVOID SEDIMENT TRANSFERING INTO THE COILS OF EQUIPMENT.

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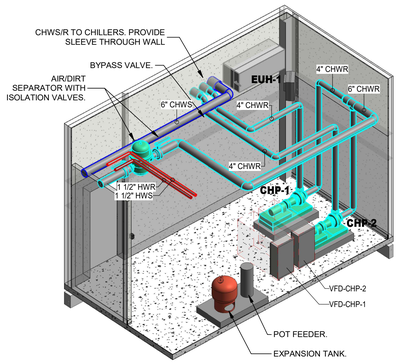
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	MH
Drawn By	MH

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SHEET TITLE
MECHANICAL PIPING FLOOR PLANS

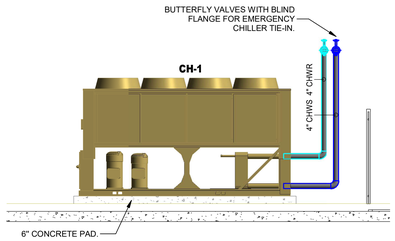
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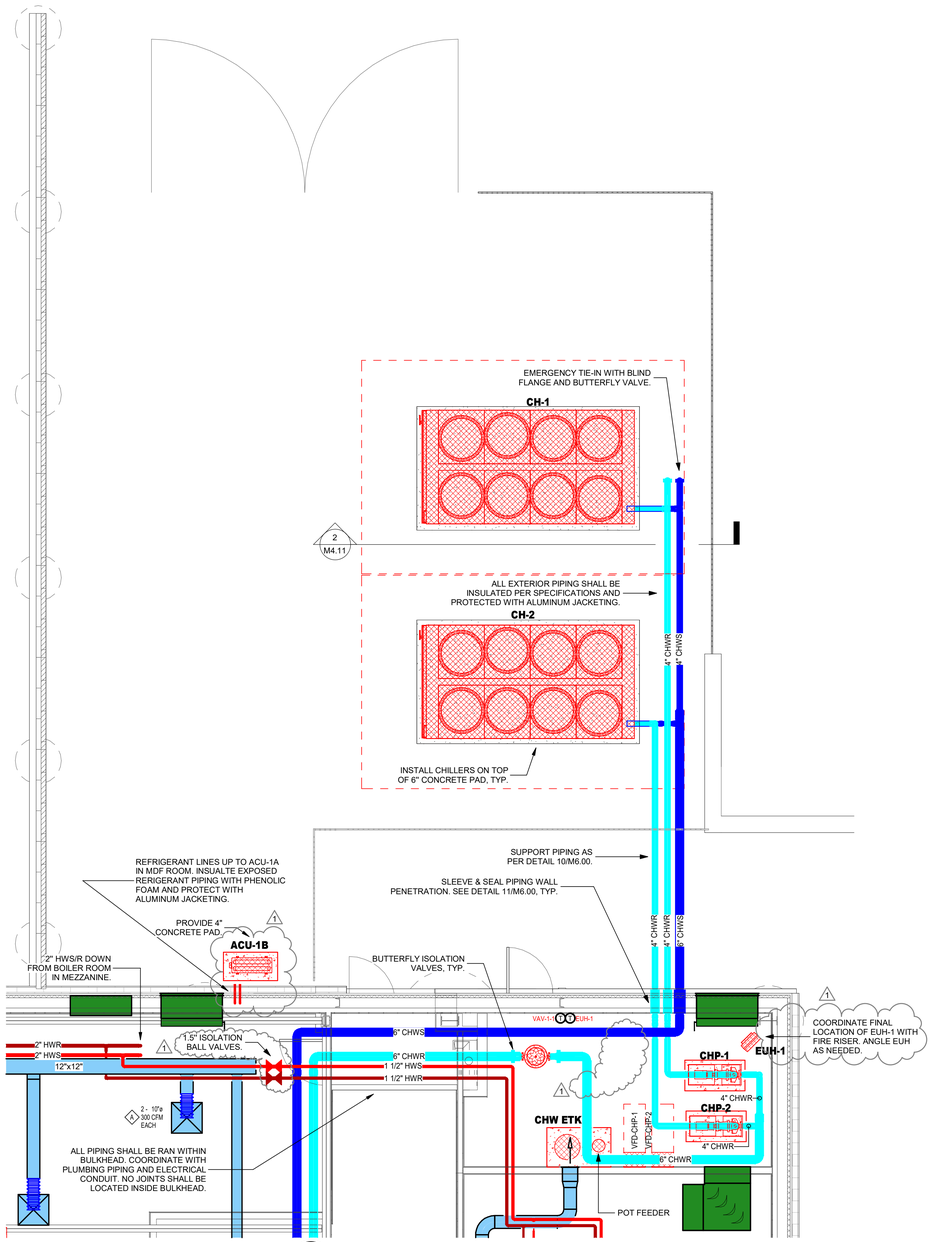
3 MECHANICAL 3D VIEW- CENTRAL PLANT

SCALE=



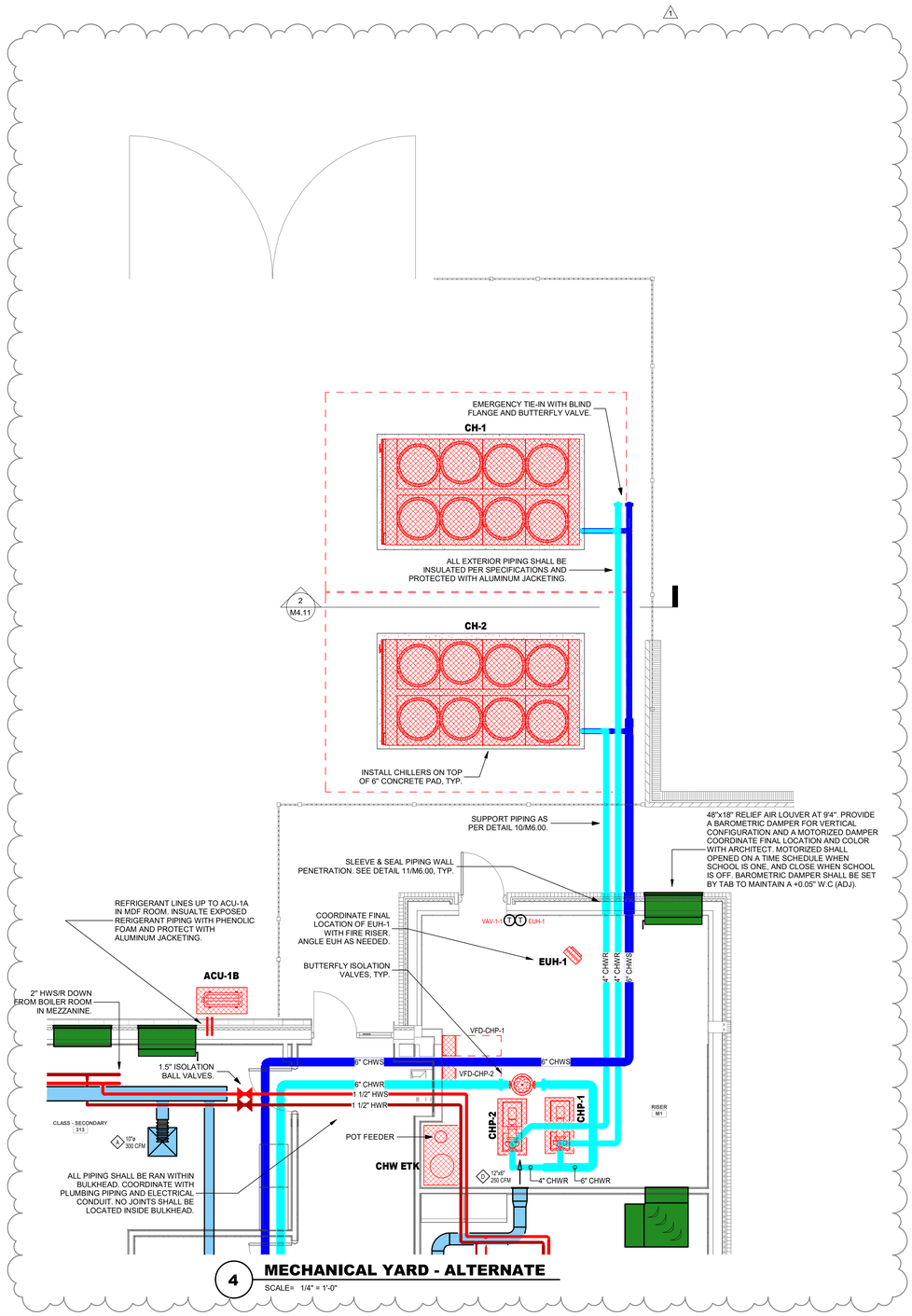
2 MECHANICAL SECTION VIEW - CH 1

SCALE= 1/4" = 1'-0"



1 MECHANICAL YARD

SCALE= 1/4" = 1'-0"



4 MECHANICAL YARD - ALTERNATE

SCALE= 1/4" = 1'-0"

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VLK
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SHEET TITLE

MECHANICAL YARD

SHEET NO.

M4.11

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AIR HANDLING UNIT SCHEDULE

	MARK	AHU-1	AHU-2	AHU-3	OAHU-1
CABINET	TYPE	VAV-HDT	VAV-HDT	VAV-HDT	SZ-HDT
	FAN TYPE / DISCHARGE	VFD / HORIZONTAL	VFD / HORIZONTAL	VFD / HORIZONTAL	VFD / HORIZONTAL
	TOTAL CFM	4,000	11,000	4,000	8,000
	O/A CFM	1,700	3,700	600	8,000
	EXT. STATIC WG	1.5"	1.5"	1.5"	1.0"
	FAN QUANTITY	1	1	1	1
	EQUIPMENT HP	3.5	10	3.5	7.5
	VOLTAGE	460/3/60	460/3/60	460/3/60	460/3/60
COOLING	COIL CFM	4,000	11,000	4,000	8,000
	MIN. ROWS	6	6	6	6
	MAX FINS / INCH	12	12	12	12
	FACE VELOCITY	500 FPM	500 FPM	500 FPM	450 FPM
	EAT db, °F	74	74	74	98.9
	EAT wb, °F	62.5	62.5	62.5	80
	LAT db, °F	50.9	51.2	50.9	48.3
	LAT wb, °F	50.8	51	50.8	48.2
	GSH MBH	99.1	270	99.1	409
	GTH MBH	130	352	130	806
	GPM	16.2	44.0	16.2	101
	LINE SIZE	1.25"	2"	1.25"	3"
	EWT °F	42	42	42	42
	LWT °F	57	57	57	57
	MAX. PD, FEET	12	12	12	12
	CONTROL VALVE CONF	3-WAY	3-WAY	3-WAY	3-WAY
	COND. DRAIN SIZE	1.0"	1.0"	1.0"	1.0"
HEATING	COIL POSITION	NO HEAT	NO HEAT	NO HEAT	PRE - HEAT
	COIL CFM				8,000
	MIN. ROWS				1
	FINS/INCH				10
	FACE VELOCITY				450 FPM
	EAT, °F				27.9
	LAT, °F				55
	GTH MBH				235
	EWT, °F				140
	LWT, °F				100
	GPM				12
	LINE SIZE				1.25"
	MAX. P.D. FEET				6

NOTES:
1. REFERENCE SHEET M7.01 FOR CONTROL SCHEMATICS.
2. EXT. SP DOES NOT INCLUDE FILTERS, COILS, CASING, CONVERSIONS OR MIXING DAMPER LOSSES.
3. INCLUDE 0.25" SP FOR LOADED FILTERS.
4. MOTORS SHALL BE COPPER WOUND, PREMIUM EFFICIENCY TYPE (+90% MINIMUM).
5. ECM MOTORS ARE NOT ACCEPTABLE.
6. PROVIDE 2" THICK MERV 13 FILTERS WITH MAXIMUM FILTER VELOCITY AT 350 FT / MIN.
7. ALL UNITS SHALL BE INTERNALLY ISOLATED.
8. DESIGN FAN HP IS MOTOR SIZE WIRED BY ELECTRICAL. MANUFACTURERS REQUIRING LARGER MOTORS MUST PAY FOR INCREASED CIRCUIT COSTS. SMALLER MOTORS MAY BE PROVIDED IF BHP IS LESS THAN SCHEDULED AND A 1/4" WG PRESSURE DROP DOES NOT OVERLOAD MOTOR.
9. PROVIDE 2" VIBRATION ISOLATORS BETWEEN AHU AND CONCRETE PAD.
10. MIXING BOX SHALL BE PROVIDED BY MANUFACTURER. COORDINATE WITH DUCTWORK SIZE FOR OPENINGS.
11. TEMTROL IS BOD (1)

AIR-COOLED CHILLER SCHEDULE

	MARK	CH-1	CH-2
CHILLER	CAPACITY TONS, NOMINAL	110	110
	CAPACITY TON, ACTUAL	104.6	104.6
	COOLER FLOW RATE, GPM	166 GPM	166 GPM
	MINIMUM FLOW RATE, GPM	136 GPM	136 GPM
	EWT, ° F	57°F	57°F
	LWT, ° F	42°F	42°F
	MAX. P.D.	12 FT	12 FT
	FOUL'G FACTOR	0.0001	0.0001
MISC	COMPRESSOR TYPE	SCROLL	SCROLL
	REFRIGERANT	R-454B	R-454B
	EER/IPLV (AHRI)	10.62 / 16.06	10.62 / 16.06
	VOLTAGE	460V / 3 PH	460V / 3 PH
	MCA / MOCP, AMPS	227 / 300	227 / 300
	TRANE #	CGAM	CGAM

NOTES:
1. CHILLERS SHALL HAVE ONE (1) POINT POWER CONNECTION.
2. PROVIDE CONDENSER COILS WITH PHENOLIC COATING USING A DIP AND BAKE PROCESS. THE ENTIRE TUBES, FINS AND HEADERS SHALL BE COATED.
3. AMBIENT AIR = 100°F.
4. PROVIDE EXTRA HIGH EFFICIENCY/PERFORMANCE & HIGH AMBIENT OPTIONS TO OPERATE AT 115°F.
5. PROVIDE HEAD PRESSURE CONTROLS FOR OPERATION DOWN TO 20°F AMBIENT.
6. PROVIDE 10-YEAR PARTS, LABOR, AND REFRIGERANT WARRANTY.
7. LOUVERED COIL GUARDS AND COMPRESSOR ACCESS WIRE GUARDS.
8. PROVIDE LOW NOISE CONDENSER FANS AND COMPRESSORS SOUND TREATMENT.
9. PROVIDE LOW AMBIENT KIT AND BARREL HEATER ON EMERGENCY GENERATOR.

CONDENSING BOILER SCHEDULE

MARK	BR-1
INPUT MBH	1,000
OUTPUT MBH	977
MIN. EFFICIENCY	98%
MAX OPERATING PRESSURE	80 PSI
GAS PRESSURE	3" - 14" WC
SYSTEM GPM	49 GPM
EWT / LWT, °F	100°F / 140°F
MAX. PD, FT	10 FT.
VOLTAGE	120V / 1 PH / 60 HZ
MCA / MOCP	12.7 A / 20 A
MANUFACTURER	VIESSMANN
MODEL #	VITOCROSSAL 200 CI2-1000

NOTES:
1. BOILER MANUFACTURER TO PROVIDE CATEGORY IV FLUE VENT, ACID NEUTRALIZING KIT, CO MONITOR, GAS PRESSURE REDUCING VALVES VENTED TO THE OUTSIDE FOR EACH BOILER.
2. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE BOILER MANUFACTURER PRIOR TO COMMENCING INSTALLATION OF PIPING AND FLUE VENT.

PUMP SCHEDULE

MARK	CHP- 1 & 2	HWP- 1	HWP- 2
SERVES	CHILLED WATER	HOT WATER	HOT WATER CIRCULATION
TYPE	END SUCTION	END SUCTION	INLINE
GPM	166 GPM	49 GPM	49 GPM
HEAD FT.	50 FT	70 FT	20 FT
MIN. EFF. %	75%	66%	70%
MAX. RPM	1760 RPM	1750 RPM	1750 RPM
DESIGN H.P.	3 HP	3 HP	1 HP
MOTOR ENCLOSURE	TEFC	TEFC	TEFC
VOLTAGE	460V / 3 PH	460V / 3 PH	460V / 3 PH
S/D SIZE	3" X 2.5"	1.5" X 1.25"	2" X 2"
ARMSTRONG MODEL	4280	4280	4360

NOTE: SEE DRAWING 3/M6.02 FOR DETAIL

MOTOR STARTER REQUIREMENTS

EQUIPMENT	STARTER TYPE	PROVIDED UNDER
CHW-1 & 2	VARIABLE FREQUENCY	MECHANICAL
HWP-1& 2	VARIABLE FREQUENCY	MECHANICAL
ALL AHUS	VARIABLE FREQUENCY	MECHANICAL
ALL EXHAUST FANS	STANDARD	MECHANICAL
ALL FPB BOXES	STANDARD	MECHANICAL
ALL VAV BOXES	STANDARD	MECHANICAL
ALL OTHER MOTORS	STANDARD	MECHANICAL

NOTES:
1. MECHANICAL CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR MOTOR STARTER PROCUREMENT.

MDF A/C UNITS (ACU)

ACU-1A (INDOOR UNIT): MITSUBISHI MSY-D36NA, 36.0 MBH
COOLING CAPACITY, 15.1 SEER, WIRED CONTROLLER

ACU-1B (OUTDOOR UNIT): MITSUBISHI MUY-D36NA, 36.0 MBH
COOLING CAPACITY, E-COATED COIL.

POWER SUPPLY: 208V / 1PH / 60HZ, 25A MCA / 35A MOCP.

ACCESSORIES: LOW AMBIENT KIT & CRANKCASE HEATER

REFRIGERANT PIPING SIZE SHALL BE AS REQUIRED BY THE MANUFACTURER

(1)

SOUND ATTENUATOR SCHEDULE

MARK	DIMENSIONS WIDTH X HEIGHT	DIMENSIONS LENGTH	MAXIMUM PD W.G	UNITED McGILL MODEL NUMBER
SA-A	48" x 24"	3 ft	0.12	RSF-PV-L45
SA-B	24" x 30"	3 ft	0.12	RSF-PV-L45

NOTES:
1. ATTENUATOR SHALL BE EQUIPPED WITH EROSION-RESISTANT INTERNAL SOUND ABSORBING BODIES.

AIR DEVICE SCHEDULE

MARK	DESCRIPTION
A-A1	CEILING SUPPLY DIFFUSER - 24" X 24" FACE, PATTERN TYPE, ALUMINUM CONSTRUCTION, WHITE FINISH PRICE SPD A1 = 12" X 12" FACE
B-B1	CEILING RETURN GRILLE - 24" X 24" PERFORATED FACE, ALUMINUM CONSTRUCTION, WHITE FINISH PRICE PDDR B1 = 12" X 12" FACE
C	CEILING EXHAUST GRILLE - 24" X 24" PERFORATED FACE, ALUMINUM CONSTRUCTION, WHITE FINISH PRICE PDDR
D	SIDEWALL SUPPLY GRILLE - DOUBLE DEFLECTION, ALUMINUM CONSTRUCTION, ADJUSTABLE BLADES, WHITE FINISH UNLESS OTHER OTHERWISE ON DRAWINGS. SIZE SPECIFIED ON DRAWINGS. PRICE 600.
E	SIDEWALL RETURN GRILLE - DOUBLE DEFLECTION, ALUMINUM CONSTRUCTION, ADJUSTABLE BLADES, WHITE FINISH UNLESS OTHER OTHERWISE ON DRAWINGS. SIZE SPECIFIED ON DRAWINGS. PRICE 600.
F	CUSTOM FLOW LINEAR SLOT DIFFUSER - 60" LONG, 2-SLOT, 1.5" WIDE SLOT, 12"Ø INLET, W/ INSULATED PLENUM, ADJUSTASLOT PATTERN CONTROLLER. PRICE 600.

NOTES:
1 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN TO VERIFY CEILING TYPE FOR EACH AIR DEVICE.
2. AIR DEVICES TO HAVE COLOR/FINISH INDICATED ON SCHEDULE UNLESS NOTED OTHERWISE ON DRAWINGS. ALL AIR DEVICES SHALL COME FACTORY PAINTED. FIELD PAINTING IS NOT ACCEPTABLE.

FAN POWERED BOX SCHEDULE

MARK	COOLING MAX	COOLING MIN	REHEAT	DIAMETER	E.S.P (W.G)	VELOCITY	HP	MCA	MOCP	VOLTS	HEATING MBH	HEATING GPM	PIPE SIZE & CONN. SIDE	PRICE MODEL #
FPB-1-1	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", RH	FDC
FPB-1-2	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", RH	FDC
FPB-1-3	475	143	285	8	0.3"	1361	0.75 HP	1.91	15	277V	10.8	0.5	3/4", RH	FDC
FPB-1-4	550	165	330	8	0.3"	1576	0.75 HP	1.91	15	277V	12.5	0.6	3/4", RH	FDC
FPB-1-5	750	225	450	10	0.3"	1375	0.75 HP	1.91	16	277V	17.0	0.9	3/4", RH	FDC
FPB-1-6	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", LH	FDC
FPB-1-7	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", LH	FDC
FPB-2-1	700	210	420	10	0.3"	1283	0.75 HP	1.91	15	277V	15.9	0.8	3/4", LH	FDC
FPB-2-2	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", RH	FDC
FPB-2-3	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", RH	FDC
FPB-2-4	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", LH	FDC
FPB-2-5	200	60	120	6	0.3"	1019	0.75 HP	1.91	15	277V	4.5	0.2	3/4", RH	FDC
FPB-2-6	400	120	240	8	0.3"	1146	0.75 HP	1.91	15	277V	9.1	0.5	3/4", LH	FDC
FPB-2-7	350	105	210	6	0.3"	1783	0.75 HP	1.91	15	277V	7.9	0.4	3/4", LH	FDC
FPB-2-8	200	60	120	6	0.3"	1019	0.75 HP	1.91	15	277V	4.5	0.2	3/4", LH	FDC
FPB-2-9	325	98	195	6	0.3"	1655	0.75 HP	1.91	15	277V	7.4	0.4	3/4", RH	FDC
FPB-2-10	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", RH	FDC
FPB-2-11	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", LH	FDC
FPB-2-12	650	195	390	8	0.3"	1862	0.75 HP	1.91	15	277V	14.7	0.7	3/4", RH	FDC
FPB-2-13	650	195	390	8	0.3"	1862	0.75 HP	1.91	15	277V	14.7	0.7	3/4", LH	FDC
FPB-2-14	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", LH	FDC
FPB-2-15	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", RH	FDC
FPB-2-16	650	195	390	8	0.3"	1862	0.75 HP	1.91	15	277V	14.7	0.7	3/4", LH	FDC
FPB-2-17	650	195	390	8	0.3"	1862	0.75 HP	1.91	15	277V	14.7	0.7	3/4", RH	FDC
FPB-3-1	700	210	420	10	0.3"	1283	0.75 HP	1.91	15	277V	15.9	0.8	3/4", RH	FDC
FPB-3-2	600	180	360	8	0.3"	1719	0.75 HP	1.91	15	277V	13.6	0.7	3/4", RH	FDC
FPB-3-3	200	60	120	6	0.3"	1019	0.75 HP	1.91	15	277V	4.5	0.2	3/4", LH	FDC
FPB-3-4	600	180	360	8	0.3"	1719	0.75 HP	1.91	16	277V	13.6	0.7	3/4", LH	FDC
FPB-3-5	650	195	390	8	0.3"	1862	0.75 HP	1.91	17	277V	14.7	0.7	3/4", RH	FDC
FPB-3-6	200	60	120	6	0.3"	1019	0.75 HP	1.91	18	277V	4.5	0.2	3/4", RH	FDC
FPB-3-7	500	150	300	8	0.3"	1432	0.75 HP	1.91	19	277V	11.3	0.6	3/4", LH	FDC
FPB-3-8	700	210	420	10	0.3"	1283	0.75 HP	1.91	20	277V	15.9	0.8	3/4", RH	FDC
FPB-3-9	250	75	150	6	0.3"	1273	0.75 HP	1.91	21	277V	5.7	0.3	3/4", LH	FDC
FPB-3-10	200	60	120	6	0.3"	1019	0.75 HP	1.91	22	277V	4.5	0.2	3/4", RH	FDC

NOTES:
1. FAN POWERED BOXES SHALL HAVE DIRECT DRIVE MOTOR WITH SPEED CONTROLLER, 277V/1PH POWER. ECM MOTORS ARE NOT ACCEPTABLE.
2. ALL UNITS REQUIRING HEAT SHALL BE EQUIPPED WITH HOT WATER HEATING COIL.
3. STATIC PRESSURES SHOWN ARE EXTERNAL TO UNITS. MANUFACTURER SHALL ADD DAMPER, HEATING COIL, CASING, FILTER, AND OTHER UNIT LOSSES BEFORE SELECTING FAN.
4. HEATING CAPACITY IS BASED ON COLD AIR AT 55°F AND VALVE AT 50% OPENED MIXING WITH PLENUM AIR AT 68°F.
5. REFERENCE 13/M6.00 FOR DETAIL AND WRITTEN SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
6. TERMINAL UNIT MANUFACTURER MUST FACTORY MOUNT, WIRE, AND PROGRAM DDC CONTROLLER AND CONTROL DEVICES.
7. ENTERING WATER TEMPERATURE IS 140°F

EXHAUST AND SUPPLY FANS SCHEDULE

MARK	SERVES	INTERLOCK	TYPE	DRIVE	CFM	STATIC PRESSURE	RPM	DESIGN H.P.	VOLTAGE	MANUFACTURER	MODEL #	NOTES
EF-1	RESTROOMS	BAS	INLINE	DIRECT	75 CFM	0.375"	1565	0.05 HP	120V	GREENHECK	SQ-70-VG	1,2,3
EF-2	RESTROOMS	BAS	INLINE	DIRECT	150 CFM	0.375"	1683	0.04 HP	120V	GREENHECK	SQ-70-VG	1,2,3
EF-3	RESTROOMS	BAS	INLINE	DIRECT	75 CFM	0.375"	1565	0.05 HP	120V	GREENHECK	SQ-70-VG	1,2,3
EF-4	RESTROOMS	BAS	INLINE	DIRECT	150 CFM	0.375"	1683	0.04 HP	120V	GREENHECK	SQ-70-VG	1,2,3
EF-5	RESTROOMS	BAS	INLINE	DIRECT	150 CFM	0.50"	1397	0.09 HP	120V	GREENHECK	SQ-97-VG	1,2,3
EF-6	RESTROOMS	BAS	INLINE	DIRECT	150 CFM	0.375"	1683	0.04 HP	120V	GREENHECK	SQ-70-VG	1,2,3
EF-7	CUSTODIAL STORAGE	BAS	INLINE	DIRECT	225 CFM	0.50"	1226	0.07 HP	120V	GREENHECK	SQ-98-VG	1,2,3
SF-1	MDF ROOM	THERMOSTAT	INLINE	DIRECT	400 CFM	0.375"	1475	0.05 HP	120V	GREENHECK	SQ-90-VG	1,2,3
SF-2	BOILER ROOM	THERMOSTAT	INLINE	DIRECT	400 CFM	0.375"	1475	0.05 HP	120V	GREENHECK	SQ-90-VG	1,2,3

NOTES:
1. STATIC PRESSURE SHOWN IS EXTERNAL TO UNIT. MANUFACTURER SHALL ADD DAMPER AND ACCESSORY LOSSES TO THIS VALUE BEFORE SELECTING FAN.
2. DISCONNECT SWITCH WITH SPEED CONTROLLER AND HORIZONTAL VERTICAL BACKDRAFT DAMPER.
3. ECM FANS ARE NOT ACCEPTABLE. ONLY DIRECT DRIVE FANS WITH SPEED CONTROLLER ALLOWED.

VARIABLE AIR VOLUME BOX SCHEDULE

MARK	COOLING MAX	COOLING MIN	REHEAT	DIAMETER	E.S.P (W.G)	VELOCITY	VOLTS	HEATING MBH	HEATING GPM	PIPE SIZE & HAND SIDE	PRICE MODEL #
VAV-1-1	250	75	150	6	0.3"	1273	120V	5.7	0.3	3/4", RH	SDV
VAV-2-1	900	270	540	10	0.3"	1650	120V	20.4	1.0	3/4", RH	SDV
VAV-2-2	450	135	270	8	0.3"	1289	120V	10.2	0.5	3/4", RH	SDV
VAV-2-3	900	270	540	10	0.3"	1650	120V	20.4	1.0	3/4", LH	SDV
VAV-2-4	900	270	540	10	0.3"	1650	120V	20.4	1.0	3/4", LH	SDV

NOTES:
1. PROVIDE 120V TO VAV BOXES. BUILT IN TRANSFORMER TO STEP DOWN TO 24V FOR DAMPER CONTROL.
2. ALL UNITS REQUIRING HEAT SHALL BE EQUIPPED WITH HOT WATER HEATING COIL.
3. STATIC PRESSURES SHOWN ARE EXTERNAL TO UNITS. MANUFACTURER SHALL ADD DAMPER, HEATING COIL, CASING, FILTER, AND OTHER UNIT LOSSES BEFORE SELECTING...
4. HEATING CAPACITY IS BASED ON COLD AIR AT 55°F AND AIR VALVE AT 50% OPENED FOR VAV.
5. REFERENCE 16/M6.00 FOR DETAIL AND WRITTEN SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
6. TERMINAL UNIT MANUFACTURER MUST FACTORY MOUNT, WIRE, AND PROGRAM DDC CONTROLLER AND CONTROL DEVICES.
7. ENTERING WATER TEMPERATURE IS 140°F

ELECTRIC UNIT HEATER

MARK	EUH-1
SERVES	FIRE RISER B119
HEATING CAPACITY, KW	5.0 KW
AIR FLOW RATE	400 CFM
AIR TEMP. RISE	40°F
MAX. MOUNTING HEIGHT	9FT.
VOLTAGE	480V / 3PH
AMPS	6.1 A
MARKEL MODEL#	P3P5105CA1N

NOTE: PROVIDE WALL MOUNTING ACCESSORIES AND THERMOSTAT.
SOO: EUH SHALL ENERGIZE WHEN ROOM TEMP DROPS BELOW 45F AND SHALL DE-ENERGIZE WHEN ROOM TEMP REACHES 68F.

VLK

ARCHITECT
VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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STATE OF TEXAS
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151421
LICENSED PROFESSIONAL ENGINEER
06/11/2026 (1)

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

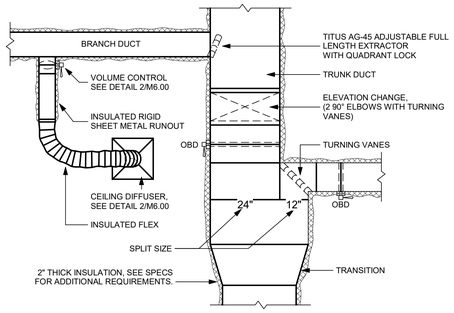
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	MH
Drawn By	MH

PROJECT NO.
25-0067.00

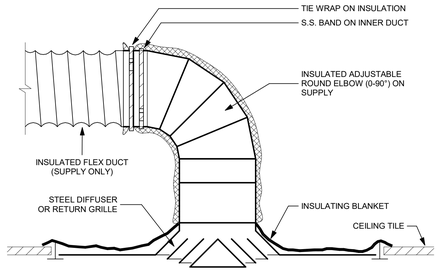
SHEET TITLE
MECHANICAL SCHEDULES

SHEET NO.
M5.00

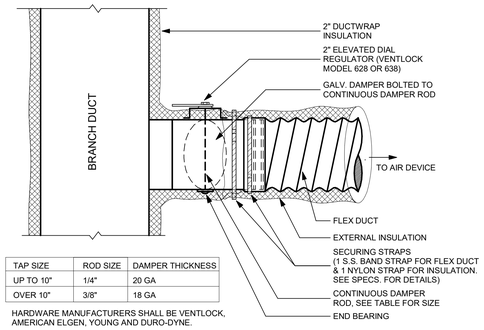
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1 DUCTWORK DETAILS
NO SCALE



2 CEILING AIR DEVICE DETAIL
NO SCALE

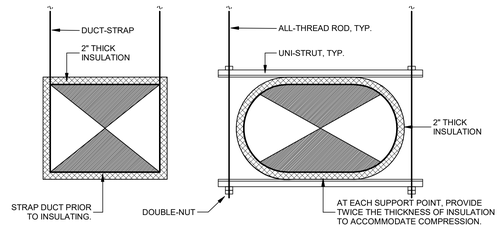


TAP SIZE	ROD SIZE	DAMPER THICKNESS
UP TO 10"	1/4"	20 GA
OVER 10"	3/8"	18 GA

HARDWARE MANUFACTURERS SHALL BE VENTLOCK, AMERICAN ELGEN, YOUNG AND DURO-DYNE.

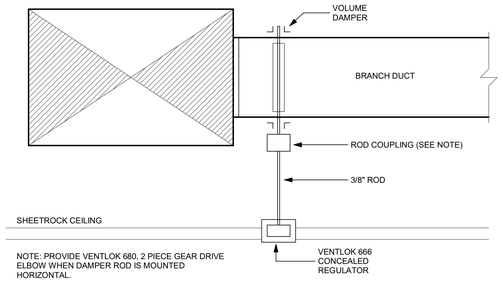
NOTE: DELETE CONICAL SECTION IF TOO LARGE FOR DUCT.

3 DUCT TAP CONNECTION DETAIL
NO SCALE

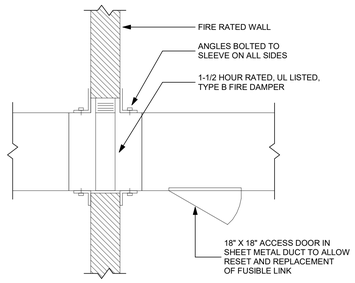


NOTE: ROUND MEDIUM PRESSURE DUCT MAY BE SUPPORTED WITH DUCT-STRAPS.

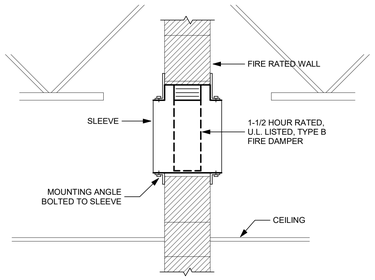
4 EXTERNALLY INSULATED DUCT SUPPORT DETAIL
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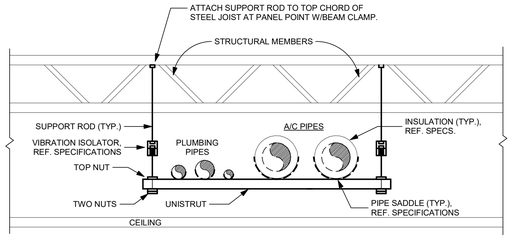
5 DUCT REGULATOR DETAIL
NO SCALE



6 DUCT FIRE DAMPER DETAIL
NO SCALE

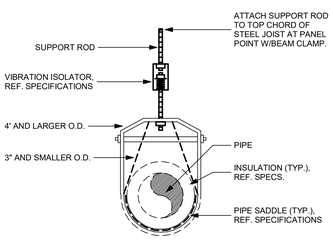


7 NON-DUCTED FIRE DAMPER DETAIL
NO SCALE

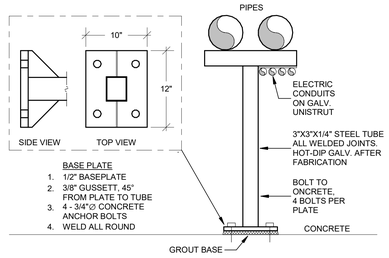


NOTE: STRAP ALL PIPING DOWN TO UNISTRUT NO MORE THAN 20 FT INTERVAL.

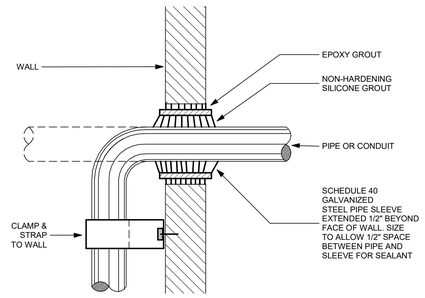
8 MULTIPLE PIPE HANGER DETAIL
NO SCALE



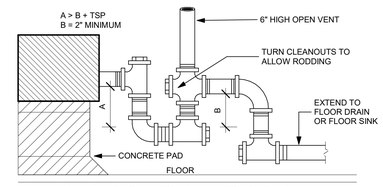
9 SINGLE PIPE HANGER DETAIL
NO SCALE



10 OUTDOOR PIPING SUPPORT DETAIL
NO SCALE

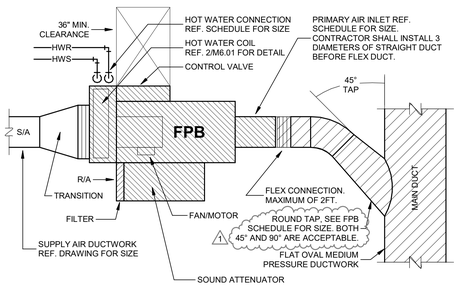


11 WALL PENETRATION DETAIL
NO SCALE

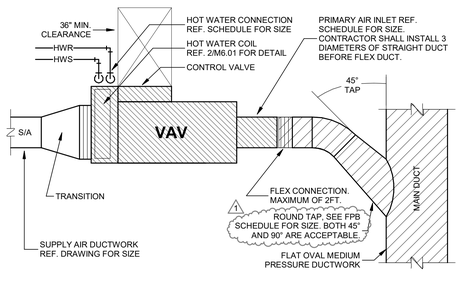


NOTE: REFERENCE AHU SCHEDULE FOR CONDENSATE SIZES

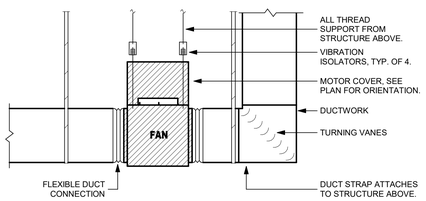
12 CONDENSATE DRAIN DETAIL
NO SCALE



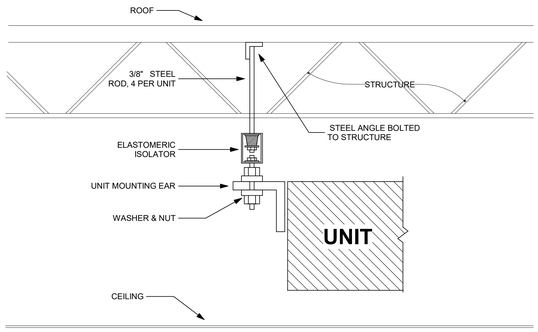
13 FAN POWERED BOX DETAIL
NO SCALE



14 VAV BOX DETAIL
NO SCALE



15 TYPICAL INLINE FAN INSTALLATION
NO SCALE



PROVIDE SELF LOCKING NUT FOR ALL HANGER RODS.

16 FPB & INLINE HANGER DETAIL
NO SCALE

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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1 Addendum No.3	06/11/2026

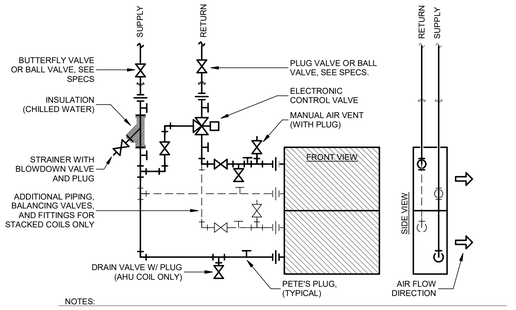
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	MH
Drawn By	MH

PROJECT NO.
25-0067.00

SHEET TITLE
MECHANICAL DETAILS

SHEET NO.
M6.00

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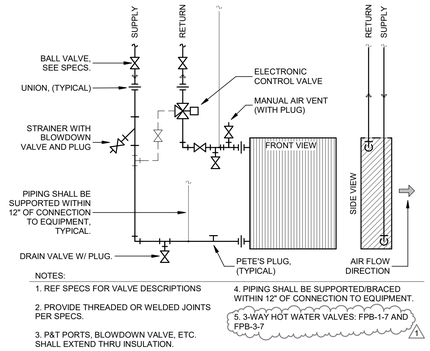


NOTES:

1. EF SPECS FOR VALVE DESCRIPTIONS.
2. PROVIDE THREADED OR WELDED JOINTS PER SPECS.
3. P&T PORTS, BLOWDOWN VALVE, ETC. SHALL EXTEND THROUGH INSULATION
4. THIS DETAIL APPLIES TO ALL CHILLED & HOT WATER COILS FOR AHU ONLY.
5. 3-WAY CHILLED WATER VALVES (ALL AHUs) 1

1 AHU COIL PIPING DETAIL

NO SCALE

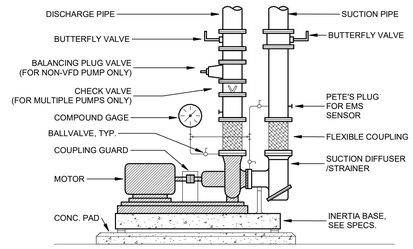


NOTES:

1. REF SPECS FOR VALVE DESCRIPTIONS
2. PROVIDE THREADED OR WELDED JOINTS PER SPECS.
3. P&T PORTS, BLOWDOWN VALVE, ETC. SHALL EXTEND THRU INSULATION.
4. PIPING SHALL BE SUPPORTED/BRACED WITHIN 12" OF CONNECTION TO EQUIPMENT.
5. 3-WAY HOT WATER VALVES: FPB-1-7 AND FPB-3-7 1

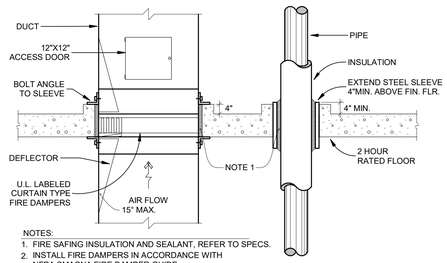
2 CVB/VAV COIL PIPING DETAIL

NO SCALE



3 END SUCTION PUMP

NO SCALE

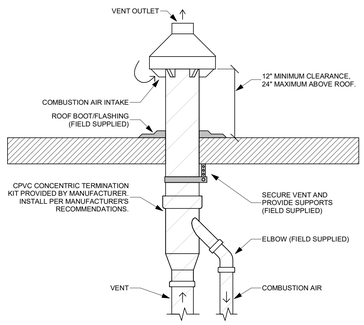


NOTES:

1. FIRE SAFING INSULATION AND SEALANT, REFER TO SPECS.
2. INSTALL FIRE DAMPERS IN ACCORDANCE WITH NFPA SMACNA FIRE DAMPER GUIDE.

4 FLOOR PENETRATION FIRE BARRIER DETAIL

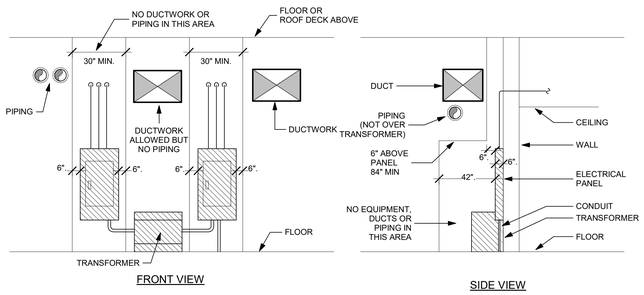
NO SCALE



NOTE: VENT AND COMBUSTION AIR DUCT MATERIAL TO BE UL 1738-LISTED CPVC, UNLESS OTHERWISE REQUIRED OR RECOMMENDED BY MANUFACTURER. PVC VENTING IS NOT PERMITTED.

5 CONCENTRIC VENT DETAIL

NO SCALE



6 MECHANICAL - ELECTRICAL COORDINATION DETAIL

NO SCALE

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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ISSUED: May 26, 2026

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1	Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	MH
Drawn By	MH

PROJECT NO.

25-0067.00

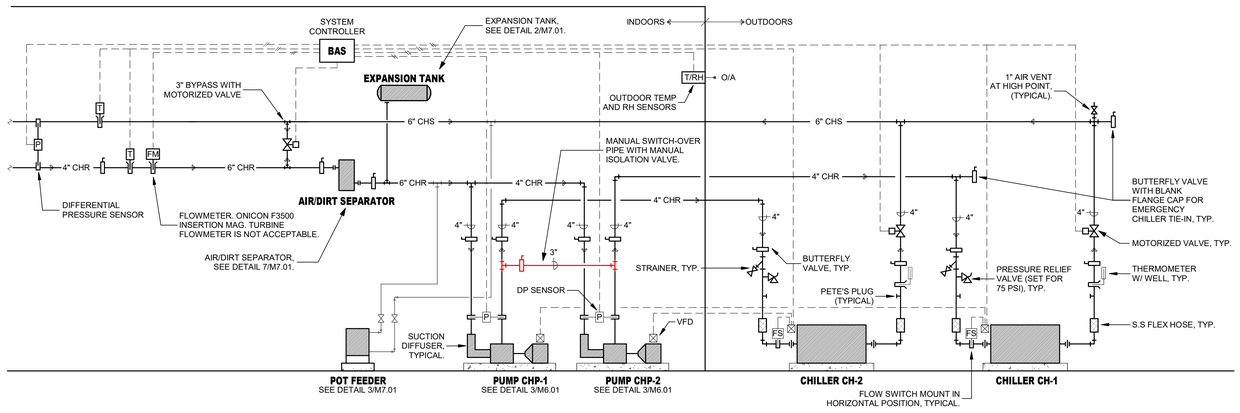
SHEET TITLE

MECHANICAL DETAILS

SHEET NO.

M6.01

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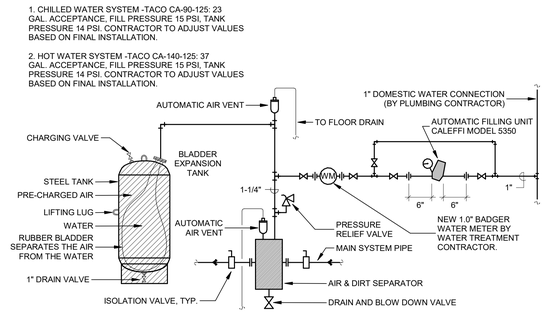


1 AIR-COOLED CHILLED WATER SYSTEM PIPING AND CONTROL SCHEMATIC

NO SCALE

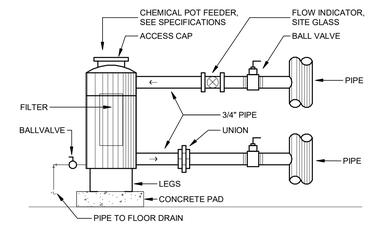
1. CHILLED WATER SYSTEM -TACO CA-90-125: 23 GAL. ACCEPTANCE, FILL PRESSURE 15 PSI, TANK PRESSURE 14 PSI. CONTRACTOR TO ADJUST VALUES BASED ON FINAL INSTALLATION.

2. HOT WATER SYSTEM -TACO CA-140-125: 37 GAL. ACCEPTANCE, FILL PRESSURE 15 PSI, TANK PRESSURE 14 PSI. CONTRACTOR TO ADJUST VALUES BASED ON FINAL INSTALLATION.



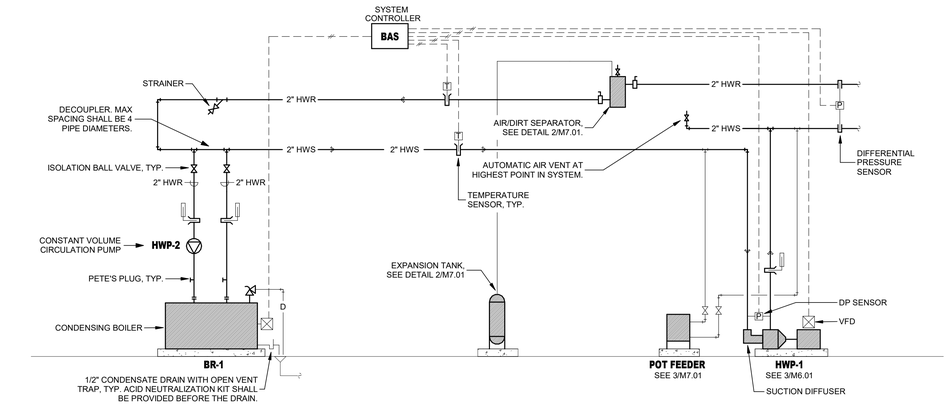
2 AIR SEPARATOR AND EXPANSION TANK DETAIL

NO SCALE



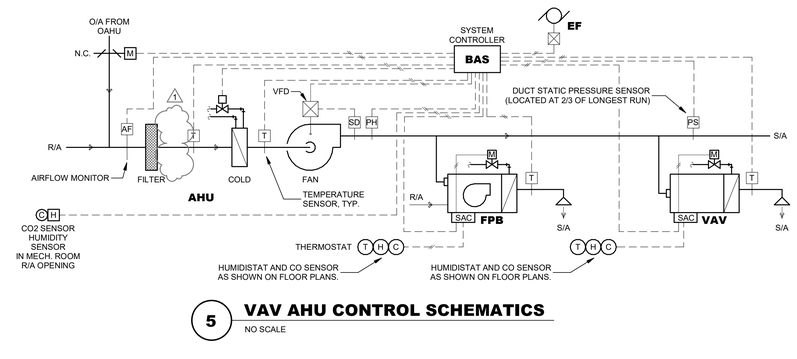
3 CHEMICAL POT FEEDER / FILTER

NO SCALE



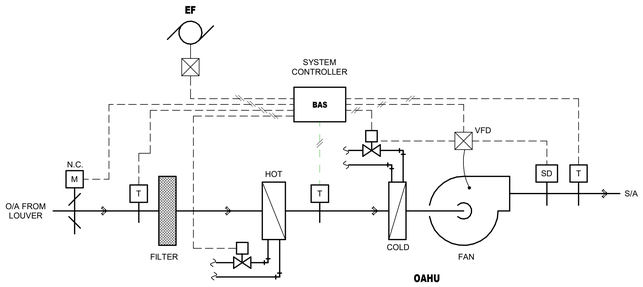
4 HOT WATER PIPING AND CONTROL SCHEMATICS

NO SCALE



5 VAV AHU CONTROL SCHEMATICS

NO SCALE



6 OAHU CONTROLS SCHEMATIC

NO SCALE

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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STATE OF TEXAS
MIGUEL A. HANZE
151421
LICENSED PROFESSIONAL ENGINEER
06/11/2026
1

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	MH
Drawn By	MH

PROJECT NO.
25-0067.00

SHEET TITLE
MECHANICAL SCHEMATICS

SHEET NO.
M7.01

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CHILLED WATER SYSTEM TYPE 1A

AHU's CHW PLANT

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
CH START/STOP (EA)	X	X	DO	CONTROL RELAY		
CH %RLA (EA)	X		AI	CURRENT TRANSDUCER		BACNET INPUT FROM CHILLER IN LIEU OF CURRENT TRANSDUCER OK IF AVAILABLE
CH ALARM (EA)	X		DI	LATCHING RELAY ON CH (REQ. MANUAL RESET)	X	
CH EVAP LWT (EA)	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
CH LWT RESET (EA)	X		AO	CH. CONTROL MODULE		
CH EVAP RETURN TEMP (EA)	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
CHILLER BACNET INTEGRATION (EA)	X		READ	BACNET CARD		
CHWP START FROM CHILLER (EA)	X		DI	CHILLER DRY CONTACTS		
PCHW PUMP START/STOP (EA)	X	X	DO	CONTROL RELAY		
PCHW PUMP SPEED (EA)	X		AO	VFD / SPEED CONTROLLER		
PCHW PUMP STATUS (EA)	X		DI	CURRENT SWITCH	X	
EVAP. ISOLATION VALVE (EA)			AO	MODULATING VALVE ACTUATOR		
EVAP. ISOLATION VALVE FEEDBACK (EA)			AI	MODULATING VALVE ACTUATOR FEEDBACK	X	
EVAP. DIFFERENTIAL PRESSURE (EA)			AI	LOW RANGE DP SENSOR		
PRIMARY COMMON SUPPLY TEMP	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
PRIMARY COMMON RETURN TEMP	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
PRIMARY CHILLED WATER GPM	X		AI	INSERTION MAG OR ULTRASONIC FLOWMETER		
CHW BYPASS VALVE	X		AO	MODULATING VALVE ACTUATOR		REMOTE-MOUNTED WIRED BACK TO CHILLER PLANT CONTROLLER ON SAME CONTOLLER AS BUILDING FLOWMETER
CHW BYPASS VALVE FEEDBACK	X		AI	MODULATING VALVE ACTUATOR		REMOTE-MOUNTED WIRED BACK TO CHILLER PLANT CONTROLLER ON SAME CONTOLLER AS BUILDING FLOWMETER
BUILDING SUPPLY TEMP (EA)	X		AI	RTD, PIPE MOUNTED	X	CRITICAL & HIGH PRIORITY, MATCHED TO THERMOWELL
BUILDING RET. TEMP (EA)	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
BUILDING GPM (EA)	X		AI	INSERTION MAG OR ULTRASONIC FLOWMETER		
BUILDING DP (EA)	X		AI	DP TRANSDUCER, PIPE MOUNTED		

HEATING HOT WATER SYSTEM TYPE 2A

BOILER PLANT

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
BOILER START/STOP (MASTER)	X	X	DO	CONTROL RELAY		SEE NOTE BELOW
HHW SETPOINT (MASTER)	X		AO	BOILER LEAD CONTROLLER INPUT		SIGNAL DOUBLES AS S/S ON SOME SYSTEMS
BOILER ALARM (EA)	X		DI	SAFTEY RELAY	X	
BOILER FAN STATUS (EA)	X		DI	CURRENT SWITCH		
BOILER PUMP STATUS (EA)	X		DI	CURRENT SWITCH		
BOILER STACK TEMP (EA)	X		AI	RTD, FLUE MOUNTED		
BOILER OPERATING STATUS (EA)	X		READ	BACNET CARD		FIRING RATE, PURGE STATUS, ETC.
BOILER LWT (EA)	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
BOILER LOOP COMMON SUPPLY TEMP	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
BOILER LOOP COMMON RETURN TEMP	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
BUILDING LOOP COMMON SUPPLY TEMP	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
BUILDING LOOP COMMON RETURN TEMP	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
BUILDING PUMP START/STOP (EA)	X	X	DO	CONTROL RELAY		
PUMP STATUS (EA)	X		DI	CURRENT SWITCH	X	
PUMP SPEED (EA)	X	X	AO	VFD / SPEED CONTROLLER		
BUILDING SUPPLY TEMP	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
BUILDING RETURN TEMP	X		AI	RTD, PIPE MOUNTED		MATCHED TO THERMOWELL
BUILDING DP	X		AI	DP TRANSDUCER, PIPE MOUNTED		

ZONE CONTROL

APPLIES TO UNITS: ALL SDVAV AHU VAV BOXES W/REHEAT (NO FAN)

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
ZONE DAMPER	X	X	AO	ACTUATOR		
ZONE REHEAT VALVE	X	X	AO	ACTUATOR		
ZONE DISCH TEMP	X		AI	SINGLE PROBE		LOCATED FAR ENOUGH DOWNSTREAM OF COIL TO AVOID RADIATION
ZONE SPACE HUMIDITY	X		AI	SPACE SENSOR		SEE AHU POINT LIST, TWO (2) PER AHU REQUIRED
ZONE SPACE CO2			AI	SPACE SENSOR		
SPACE TEMPERATURE	X		AI	SPACE THERMOSTAT		

ZONE CONTROL

APPLIES TO UNITS: ALL SDVAV AHU VAV BOXES (NO REHEAT, NO FAN)

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
ZONE DAMPER	X	X	AO	ACTUATOR		
ZONE REHEAT VALVE			AO	ACTUATOR		
ZONE DISCH TEMP	X		AI	SINGLE PROBE		LOCATED FAR ENOUGH DOWNSTREAM OF COIL TO AVOID RADIATION
ZONE SPACE HUMIDITY			AI	SPACE SENSOR		
ZONE SPACE CO2			AI	SPACE SENSOR		
SPACE TEMPERATURE	X		AI	SPACE THERMOSTAT		

ZONE CONTROL

APPLIES TO UNITS: ALL SDVAV AHU CVB'S

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
ZONE DAMPER	X	X	AO	ACTUATOR		
FAN START/STOP	X	X	BO	CONTROL RELAY		
FAN STATUS	X		AI	CURRENT TRANSDUCER		
FAN SPEED	X		AO	0-10V		BAS SHALL MODULATE FAN SPEED. MINIMUM OPERATING SPEED SHALL BE LIMITED TO 50% ADJUSTABLE.
ZONE REHEAT VALVE	X	X	AO	ACTUATOR		
ZONE DISCH TEMP	X		AI	AVERAGING PROBE		LOCATED FAR ENOUGH DOWNSTREAM OF COIL TO AVOID RADIATION
ZONE SPACE HUMIDITY	X		AI	SPACE SENSOR		SEE AHU POINT LIST, TWO(2) PER AHU REQUIRED
ZONE SPACE CO2			AI	SPACE SENSOR		
SPACE TEMPERATURE	X		AI	SPACE THERMOSTAT		

OUTSIDE AIR UNIT (OAHU) POINT LIST

APPLIES TO UNITS: OAHU-1

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
OA DAMPER	X	X	AO	ACTUATOR		
OA DAMPER OPEN POSITION	X		BI	DAMPER END SWITCH		HARDWIRE INTERLOCKED WITH FAN OPERATION
OA DAMPER CLOSED POSITION	X		BI	DAMPER END SWITCH		
OA DAMPER	X	X	BI	2 POSITION DAMPER		
OA AIRFLOW			AI	AFMS		MUST BE FILTERED
OUTSIDE AIR TEMPERATURE			AI	DUCT SENSOR		
SUPPLY FAN START/STOP	X	X	DO	CONTROL RELAY		
SUPPLY FAN STATUS	X		DI	CURRENT SWITCH		
SUPPLY FAN SPEED	X		AO	VFD / SPEED CONTROLLER		
PHC CONTROL VALVE	X	X	AO	ACTUATOR		
PHC DISCHARGE TEMP	X		AI	AVG SENSOR, PROBE		
FREEZE STAT	X		BI	LOW LIMIT TEMP SWITCH		HARDWIRE INTERLOCK TO FAN AND DAMPER OPERATION
CHW VALVE	X	X	AO	ACTUATOR		
CHW DISCHARGE TEMP	X		AI	AVG SENSOR, PROBE		
DUCT STATIC SENSOR	X		AI	DUCT SENSOR		
HIGH STATIC LIMIT	X		BI	HIGH STATIC SWITCH		HARDWIRE WITH SUPPLY FAN

SDVAV AHU POINT LIST

APPLIES TO UNITS: AHU-1, 2 AND 3

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
OA DAMPER	X		BO	ACTUATOR		
OA DAMPER	X	X	AO	ACTUATOR		THIS ACTUATOR IS ON THE OA DUCT NEAR THE INTAKE TO THE AHU IF SUPPLIED FROM OAHU
OA AIRFLOW			AI	AFMS		
OA TEMP			AI	AVG SENSOR, PROBE		
RA DAMPER			AO	ACTUATOR		
RA FLOW			AI	AFMS		MUST BE FILTERED
RA TEMP			AI	AVG SENSOR, PROBE		
RA RH	X		AI	DUCT SENSOR		
RA CO2	X		AI	DUCT SENSOR		
MIXED AIR TEMP			AI	AVG SENSOR, PROBE		
FREEZE STAT	X		BI	LOW LIMIT TEMP SWITCH	X	
SUPPLY FAN START/STOP	X	X	DO	CONTROL RELAY		
SUPPLY FAN STATUS	X		DI	CURRENT SWITCH	X	
SUPPLY FAN SPEED	X	X	AO	VFD / SPEED CONTROLLER		
CHW VALVE	X	X	AO	ACTUATOR		
CHW DISCHARGE TEMP	X		AI	AVG SENSOR, PROBE	X	
HIGH STATIC LIMIT	X		BI	HIGH STATIC SWITCH	X	HARDWIRE TO FAN
DUCT STATIC PRESSURE	X		AI	DUCT SENSOR		
ZONE SPACE HUMIDITY	X		AI	SPACE SENSOR		TWO (2) REQUIRED, CONFIRM WITH OWNER INSTALLATION LOCATION. EACH RH SHOULD BE PAIRED AND CO-LOCATED WITH SPACE T FOR DEWPOINT T CALCULATION (COMBINATION SENSOR PREFERRED)

EXHAUST FANS

APPLIES TO: EF-1 THRU 10

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
START/STOP	X	X	DO	CONTROL RELAY		
DAMPER	X	X	HW	ACTUATOR		HARDWIRE INTERLOCK TO FAN START/STOP, WHERE SHOWN ON PLANS WITH "M" SYMBOL
SPACE TEMPERATURE			DI	TEMP SENSOR (LINE VOLTAGE)		
STATUS	X		AI	CURRENT TRANSDUCER	X	

MDF/IDF TEMPERATURES

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
MDF/IDF TEMPERATURES	X		AI	SPACE THERMISTOR		

HVAC SHUTDOWN

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
HVAC SHUTDOWN	X		DI	SHUTDOWN STATION	X	CRITICAL PRIORITY WHEN ACTIVATED

OUTSIDE AIR CONDITIONS

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
OA TEMP	X		AI	THERMISTOR	X	COMPARE TO OA TEMP AT LOCAL AIRPORT
OA HUMIDITY	X		AI	HUMIDITY SENSOR	X	COMPARE TO HUMIDITY AT LOCAL AIRPORT

EXTERIOR LIGHTING CONTROLS

TOTAL NUMBER OF LIGHTING ZONES = SEE ELECTRICAL PLANS

POINT DESCRIPTION	REQD.	OVRIDE	TYPE	DEVICE	ALARM	NOTES
LIGHTING CONTACTOR	X	X	DO	CONTROL RELAY		
EXTERIOR LTG. OVERRIDE	X		DI	EXTERIOR OVERRIDE STATION		

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ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
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www.vlkarchitects.com

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(469) 808-9777

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151421
LICENSED
PROFESSIONAL
ENGINEER
06/11/2026

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Katy, TX

NEW OPPORTUNITY AWARENESS CENTER

ISSUED: May 26, 2026

REVISIONS

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1	Addendum No.3	06/11/2026

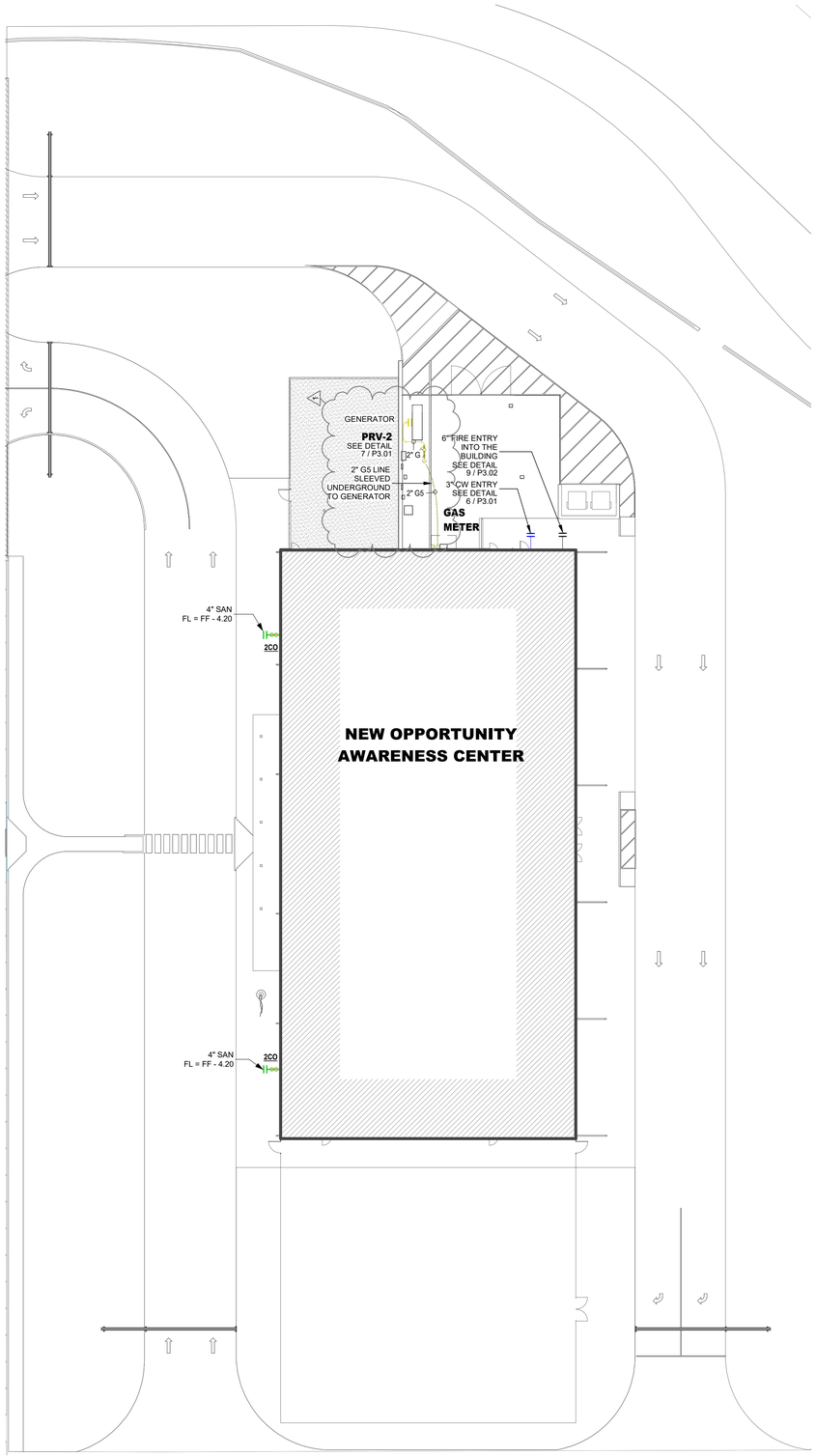
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	MH
Drawn By	MH

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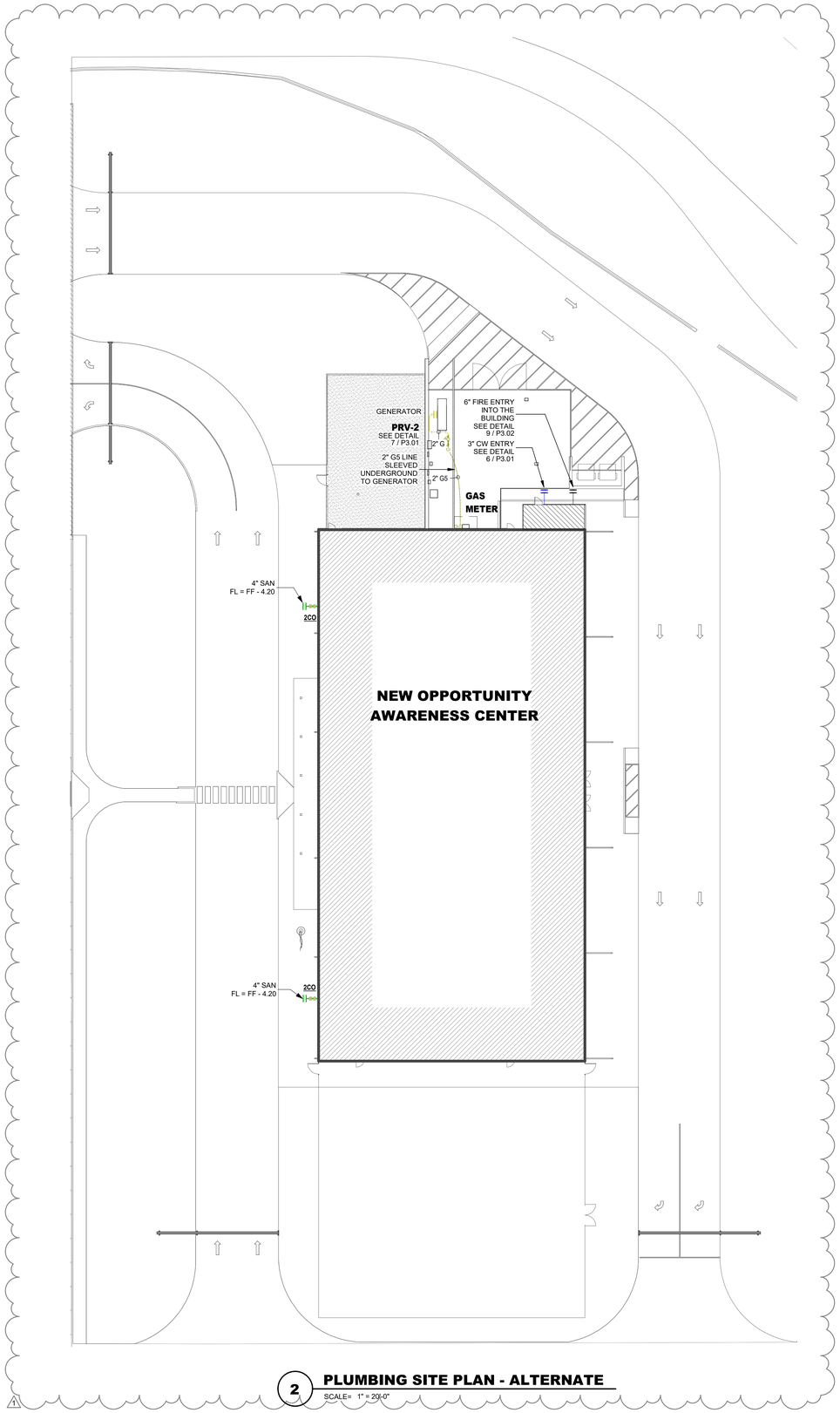
SHEET TITLE
MECHANICAL POINTS LISTS

SHEET NO.
M8.01

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1 **PLUMBING SITE PLAN**
SCALE= 1" = 20'-0"



2 **PLUMBING SITE PLAN - ALTERNATE**
SCALE= 1" = 20'-0"

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VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
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Designer	AM
Drawn By	AM

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SHEET TITLE
PLUMBING SITE PLAN

SHEET NO.
P1.11

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1 PLUMBING UNDERGROUND FLOOR PLAN

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

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Main Phone: 281.671.2300
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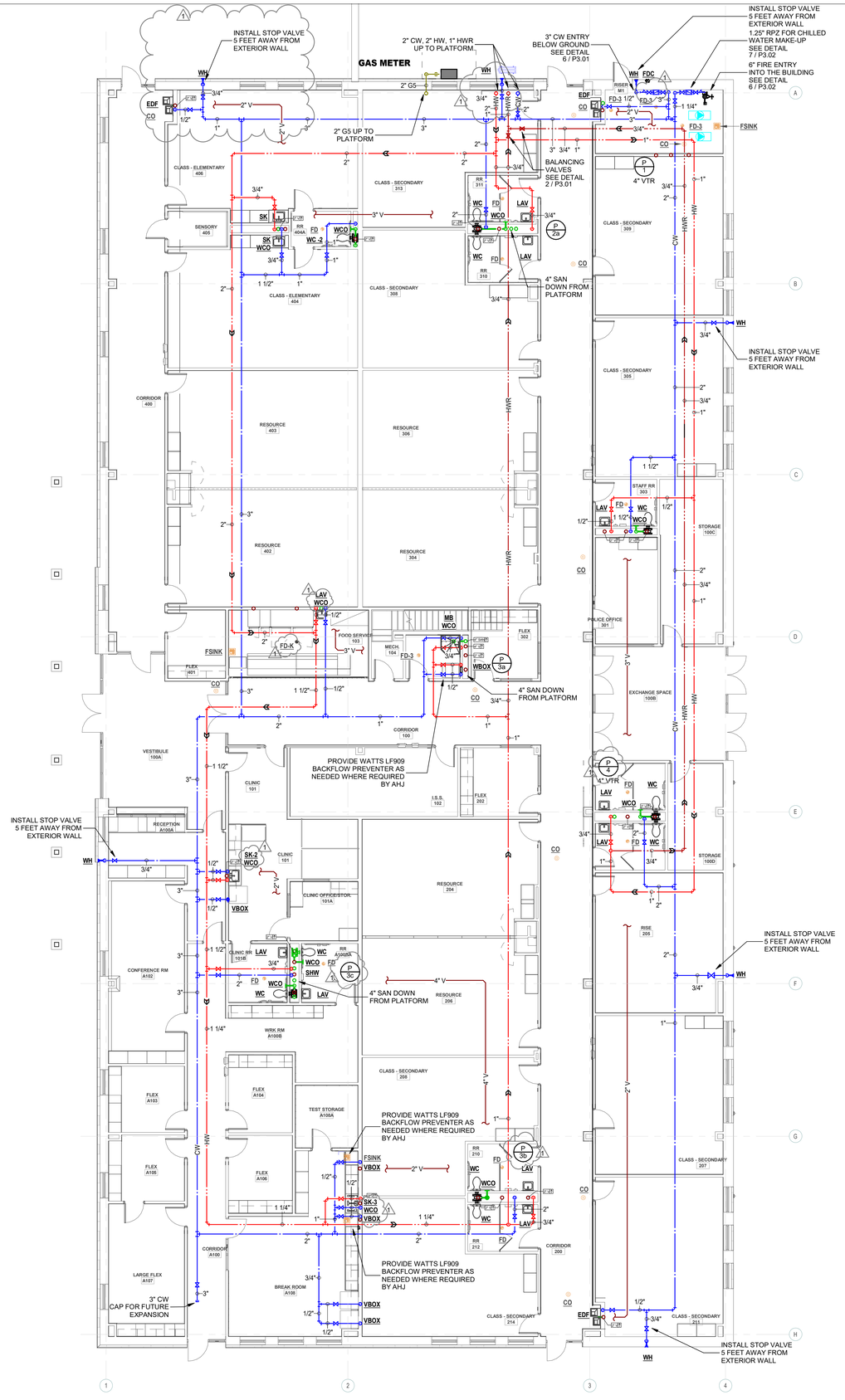
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PLUMBING UNDERGROUND FLOOR PLAN

SHEET NO.

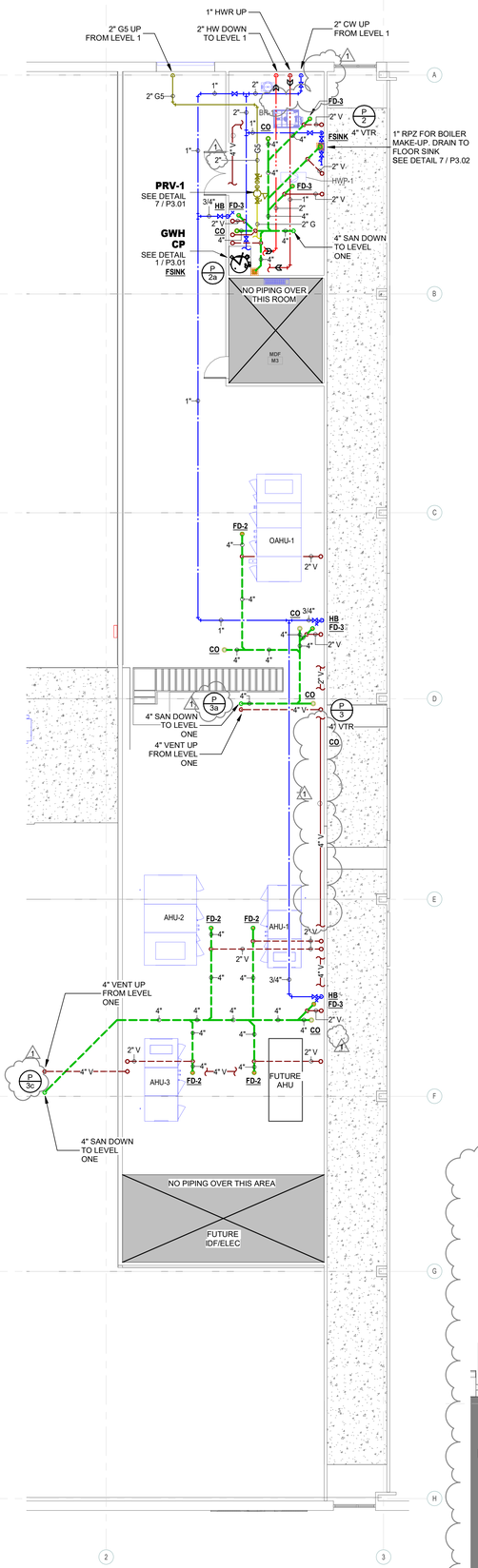
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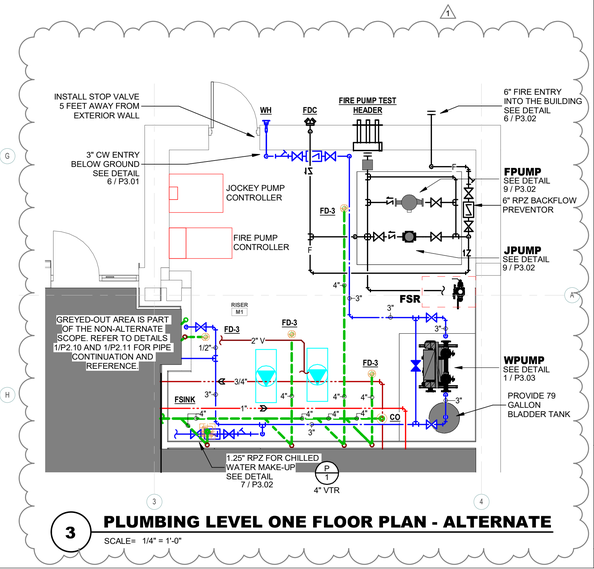
1 PLUMBING LEVEL ONE FLOOR PLAN

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



2 PLUMBING PLATFORM PLAN

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



3 PLUMBING LEVEL ONE FLOOR PLAN - ALTERNATE

SCALE= 1/4" = 1'-0"

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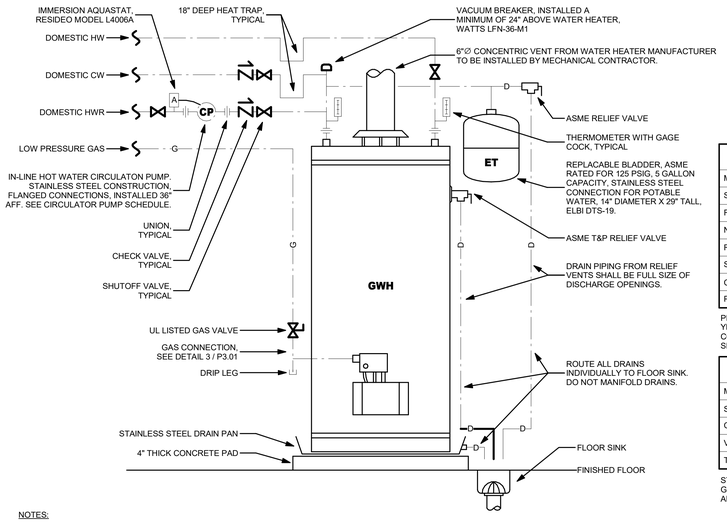
SHEET TITLE

PLUMBING LEVEL ONE FLOOR PLAN

SHEET NO.

P2.11

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GWH SCHEDULE

MARK	GWH
SERVES	BUILDING
FUEL TYPE	NATURAL GAS
NATURAL GAS INPUT	199,900 BTUH
RECOVERY	233 GPH @ 100°F RISE
STORAGE CAPACITY	100 GALLONS
CONTROLS VOLTAGE	115 VOLTS
PVI MODEL	CONQUEST 20 L 100A-GCL

PROVIDE PRESSURE GAUGE, LOW WATER CUT OFF, FIFTEEN (15) YEAR COMMERCIAL TANK AND HEATING SURFACES WARRANTY, CONCENTRIC VENT KIT AND FACTORY AUTHORIZED STARTUP. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

CP SCHEDULE

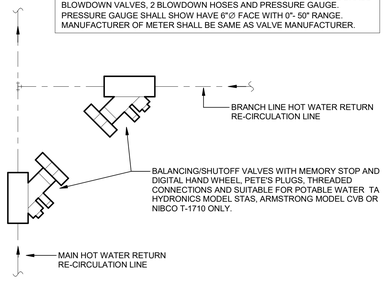
MARK	CP
SERVES	GWH
CAPACITY	10 GPM @ 43' HEAD
VOLTAGE	120V (1/2 HP)
TACO MODEL	2400 3P

STAINLESS STEEL CONSTRUCTION, FLANGED CONNECTIONS. GRUNDFOS AND B&G PL SERIES ALL BRONZE PUMPS SHALL ALSO BE ACCEPTABLE.

NOTES:

1. ALL WATER HEATERS SHALL HAVE FIFTEEN (15) YEAR COMMERCIAL WARRANTY ON TANK AND ALL PARTS. ANY ITEMS NOT COVERED BY WATER HEATER MANUFACTURER'S WARRANTY SHALL BE COVERED BY THE PLUMBING CONTRACTOR. SUBMITTAL SHALL INCLUDE WRITTEN DOCUMENTATION STATING THAT TANK AND PARTS OF ALL WATER HEATERS SHALL BE COVERED FOR FIFTEEN (15) FULL YEARS FROM DATE OF OWNER ACCEPTANCE OF BUILDING. WARRANTY DOCUMENTATION SHALL ALSO LIST WHO IS PROVIDING THE WARRANTY COVERAGE.
2. PROVIDE PRESSURE GAUGE, LOW WATER CUT OFF, CONCENTRIC VENT KIT, NECESSARY VALVES AND UNIONS, 4" CONCRETE PAD. AND FACTORY AUTHORIZED STARTUP. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. ALL CIRCULATOR PUMPS ALSO CONTROLLED BY TIMECLOCK PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. CIRCULATOR PUMPS SHALL ALSO BE WIRED TO AN IMMERSION TYPE AQUASTAT (SURFACE MOUNT IS NOT ACCEPTABLE) MOUNTED ON THE HWR, RESIDEO MODEL L4006A.
4. ALL HW AND HWR PIPING INSULATED WITH 1.5" THICK FIBERGLASS MEETING ALL REQUIREMENTS OF THE INTERNATIONAL ENERGY CODE.
5. ALL HW SYSTEMS SHALL STORE AND SUPPLY 140°F WATER.

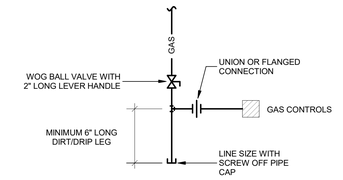
1 GAS WATER HEATER (GWH)
NO SCALE



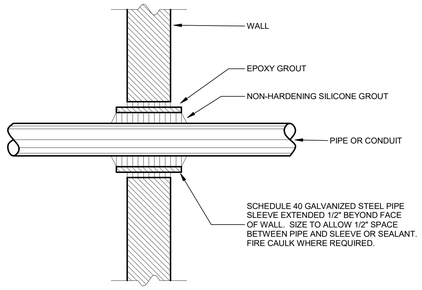
NOTES:

1. PROVIDE AT EACH JUNCTION OF BRANCH HOT WATER RETURN LOOPS TO MAIN CIRCULATING HOT WATER LINE. SEE PLUMBING PLANS.
2. PLUMBING CONTRACTOR SHALL CONTRACT A CERTIFIED TESTING AND BALANCING FIRM TO BALANCE EACH HOT WATER STATION SUCH THAT HOT WATER IS PROVIDED AT EVERY HOT WATER FIXTURE IN A TIMELY MANNER (15 SECONDS OR LESS).
3. AFTER BALANCING CONTRACTOR COMPLETES BALANCING OF THE HW SYSTEM AND OWNER IS SATISFIED WITH THE HOT WATER DELIVERY THROUGHOUT THE BUILDING, THE TAB CONTRACTOR SHALL PROVIDE OWNER WITH LAMINATED 11X17 FLOOR PLAN OF BUILDING FLOORS SHOWING LOCATION OF EACH HW BALANCING VALVE AND SETTING FOR EACH HW BALANCING VALVE. A COPY OF THESE PLANS SHALL BE INCLUDED IN CLOSE-OUT DOCUMENTS BY CONTRACTOR.

2 HOT WATER BALANCING STATION
NO SCALE

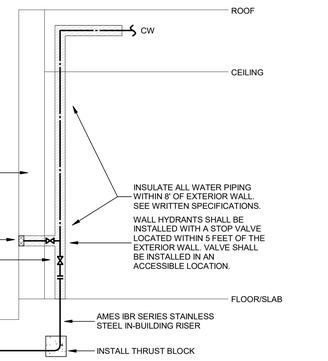


3 TYPICAL GAS CONNECTION
NO SCALE



THIS DETAIL APPLIES TO ALL PIPING THROUGH WALLS OR FLOORS, INCLUDING FIRE SPRINKLER PIPING.

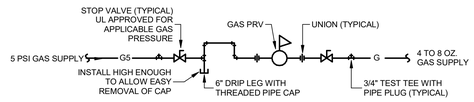
4 WALL PENETRATION DETAIL
NO SCALE



6 BUILDING WATER ENTRY/EXIT DETAIL
NO SCALE

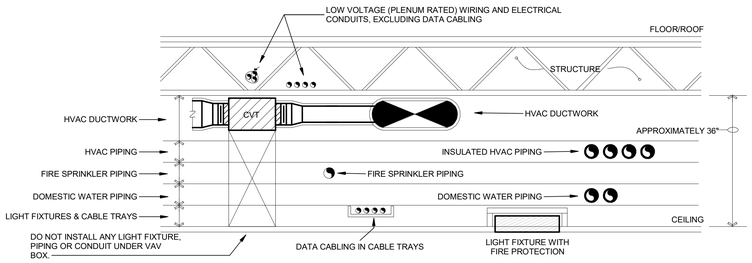
GAS PRV SCHEDULE

MARK	PRV-1	PRV-2
LOCATION	PLATFORM	MECH. YARD
SERVES	GWH	GENERATOR
GAS LOAD	199 CFH	2,200 CFH
DISTANCE FROM METER	50 FEET	35 FEET
DISTANCE TO LAST OUTLET	10 FEET	15 FEET
INLET (SIZE/PRESSURE)	2" / 5 PSIG	2" / 5 PSIG
OUTLET (SIZE/PRESSURE)	2" / 4-8 OZ.	2" / 4-8 OZ.



VENT ALL REGULATORS TO OUTDOORS. THIS INCLUDES PRVs PROVIDED WITH BOILERS AND GWHs.

7 GAS PRESSURE REGULATOR DETAIL
NO SCALE



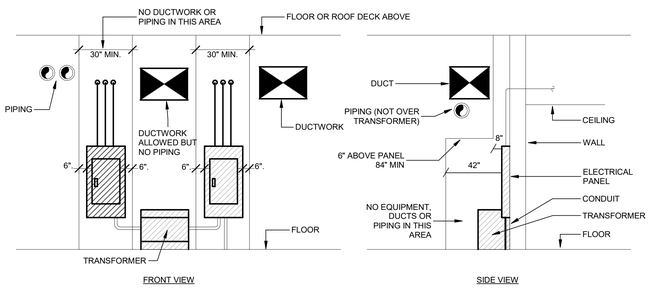
PLENUM PRIORITY NOTES

ELECTRICAL CONDUIT	INSTALLED WITHIN OPEN WEBS OF JOIST FRAMING. IF FRAMING IS USED FOR SUPPORT OF CONDUIT, A SADDLE SHALL BE REQUIRED FOR ISOLATION AT EACH SUPPORT POINT.
LOW VOLTAGE WIRING (EXCEPT DATA CABLING)	INSTALLED WITHIN OPEN WEBS OF JOIST FRAMING AND RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS. ALL INDIVIDUAL WIRES SHALL BE BUNDLED TOGETHER WITH PLASTIC TIE STRAPS AT 6 FOOT MAXIMUM INTERVALS AND EACH WIRE SHALL BE IDENTIFICATION TAGGED AT 25 FOOT MAXIMUM INTERVALS.
HVAC DUCTWORK	INSTALLED AS SNUG TO BOTTOM OF STRUCTURE AS POSSIBLE, ALLOWING ONLY ENOUGH SPACE FOR INSULATION WRAP. OFFSET HOT AND COLD MEDIUM PRESSURE DUCTS FOR TAKE-OFFS FOR DOUBLE DUCT VAV BOXES.
HVAC PIPING	INSTALLED IN PLANE DIRECTLY BELOW HVAC DUCTWORK. ALL VALVES AND INSTRUMENTS SHALL BE ACCESSIBLE AND EASILY OPERATED FROM BELOW.
FIRESPRINKLER PIPING	INSTALLED IN PLANE DIRECTLY BELOW HVAC PIPING.
DOMESTIC WATER PIPING	INSTALLED IN PLANE DIRECTLY ABOVE LIGHT FIXTURES. ALL VALVES AND INSTRUMENTS SHALL BE ACCESSIBLE AND EASILY OPERATED FROM BELOW. BALL VALVES INSTALLED WITH STEM HORIZONTAL SHALL BE USED IN LIEU OF WHEEL HANDLE VALVES OR OTHER TYPES EXCEPT IN SITUATIONS WHERE BALL VALVES ARE NOT APPROPRIATE.
LIGHT FIXTURES	TAKE PRIORITY IN SPECIAL LAYOUT. ALL OTHER SYSTEMS (DOUBLE DUCT UNITS, DUCTWORK, PIPING, CONDUITS, ETC.) SHALL BE ROUTED IN PLENUM SPACE TO AVOID PASSING DIRECTLY (LOW) OVER LIGHTING FIXTURES PREVENTING THEIR INSTALLATION, SERVICING AND/OR REMOVAL.
GRAVITY FED PLUMBING	THIS INCLUDES PLUMBING WASTE/VENT AND ROOF DRAIN SYSTEMS. THESE SYSTEMS TAKE PRIORITY OVER ALL OTHER SYSTEMS BUT MUST BE INSTALLED TAKING OTHER SYSTEMS INTO CONSIDERATION. IN GENERAL, ROOF DRAIN PIPING SHALL START AS HIGH AS POSSIBLE. WASTE/VENT PIPING SHALL BE INSTALLED IN VAC PIPING SPACE (IF AVAILABLE) IN AREAS WHERE CROSSING DUCTWORK. DO NOT INSTALL WASTE/VENT OR ROOF DRAIN PIPING UNDER DOUBLE DUCT VAV BOXES IF AVOIDABLE.

NOTES:

1. PIPING, CONDUIT AND DUCTWORK SUPPORTS ARE NOT SHOWN ON THIS DETAIL. SUPPORT ALL ENTITIES AS REQUIRED BY THE WRITTEN SPECIFICATIONS.
2. DO NOT INSTALL ANY PIPE OVER TOP OF ANY ELECTRICAL EQUIPMENT. THIS INCLUDES FIRE SPRINKLER PIPING. NO EXCEPTIONS.
3. DO NOT INSTALL ANY PIPE OVER TOP OF ANY IDF/MDF/SERVER/NETWORK EQUIPMENT. THIS INCLUDES EQUIPMENT PROVIDED BY OWNER. THIS INCLUDES FIRE SPRINKLER PIPING. NO EXCEPTIONS.

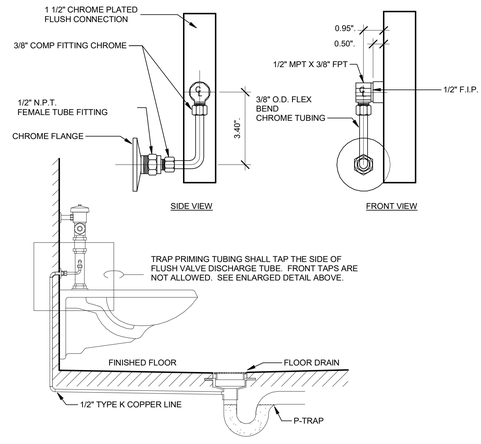
5 PLENUM SPACE PRIORITY DETAIL
NO SCALE



NOTES:

1. DO NOT INSTALL ANY PIPING BENEATH CVT BOXES.
2. DO NOT INSTALL ANY PIPE OVER TOP OF ANY ELECTRICAL EQUIPMENT. THIS INCLUDES FIRE SPRINKLER PIPING. NO EXCEPTIONS.
3. DO NOT INSTALL ANY PIPE OVER TOP OF ANY IDF/MDF/SERVER/NETWORK EQUIPMENT. THIS INCLUDES EQUIPMENT PROVIDED BY OWNER. THIS INCLUDES FIRE SPRINKLER PIPING. NO EXCEPTIONS.

8 MECHANICAL - ELECTRICAL COORDINATION DETAIL
NO SCALE



SLOAN ROYAL OR PPP FLUSH VALVE TRAP PRIMER MODELS ONLY.

9 FLUSH VALVE TRAP PRIMING TUBE DETAIL
NO SCALE

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

LTY ENGINEERS
TEXAS ENG. FIRM REG. NO. F-16543

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SUITE 315
PLANO, TEXAS 75024
(469) 808-9777

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06/11/2026
1

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

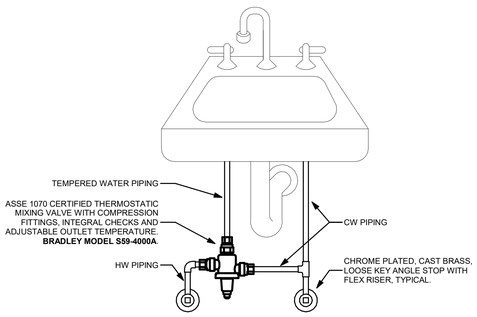
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	AM
Drawn By	AM

PROJECT NO.
25-0067.00

SHEET TITLE
PLUMBING SCHEDULES AND DETAILS

SHEET NO.
P3.01

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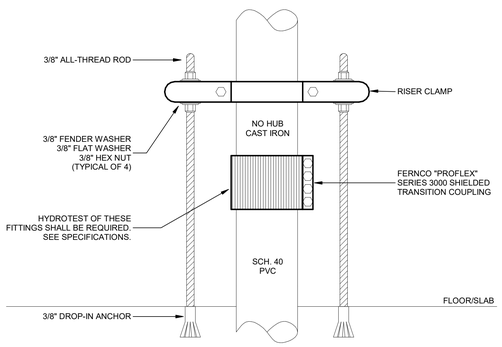


NOTES:

1. THIS DETAIL ONLY APPLIES TO ALL LAVATORIES AND SINKS THAT HAVE HOT WATER.
2. ALL CW AND HW CONNECTIONS SHALL HAVE COMPRESSION TYPE FITTINGS.
3. TMV SHALL BE INSTALLED IN A EASILY/READILY ACCESSIBLE LOCATION WITH MOUNTING BRACKET.
4. DELIVERY TEMPERATURES SHALL NOT EXCEED 110°F. VARIANCE OF TEMPERATURE RANGE OF MIXING VALVE SHALL BE CONSIDERED. REFER TO MANUFACTURERS TEMPERATURE PERFORMANCE OF VALVE AT HIGHEST FLOW RATE OF FAUCET.

1 KNEESPACE TMV DETAIL

NO SCALE

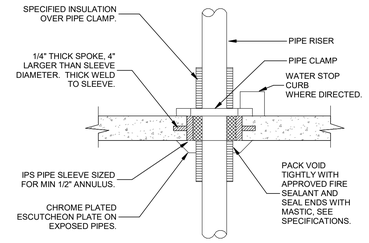


NOTES:

1. PROVIDE FERNCO "PROFLEX" SERIES 3000 SHIELDED TRANSITION COUPLING LISTED FOR PVC TO NO-HUB CAST IRON APPLICATIONS. HYDROTEST OF COUPLING SHALL BE REQUIRED.
2. ALL-THREAD RODS AND RISER CLAMP INSTALLATION REQUIRED AS SHOWN ABOVE.

2 PVC-TO-CAST IRON INSTALLATION DETAIL

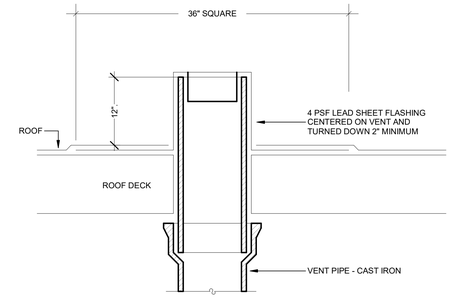
NO SCALE



THIS DETAIL APPLIES TO ALL PIPING THROUGH FLOORS, INCLUDING FIRE SPRINKLER PIPING.

3 PIPE THROUGH FLOOR SLAB DETAIL

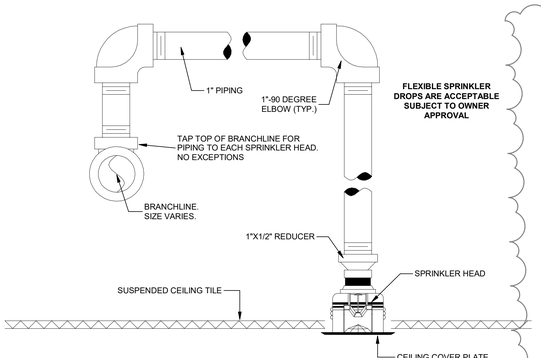
NO SCALE



COORDINATE WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. DO NOT INSTALL VENTS WITHIN 10 FEET OF MECHANICAL AIR INTAKES

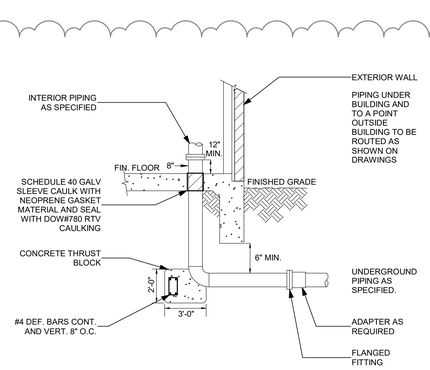
4 ROOF VENT DETAIL

NO SCALE



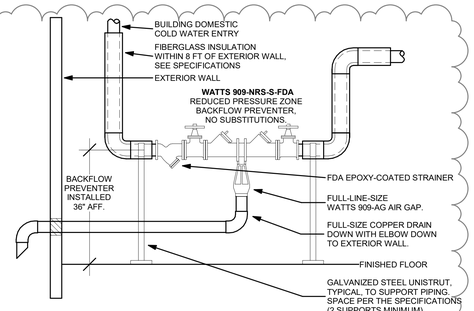
5 FIRE SPRINKLERHEAD INSTALLATION DETAIL

NO SCALE



6 SPRINKLER SYSTEM ENTRY RISER

NO SCALE

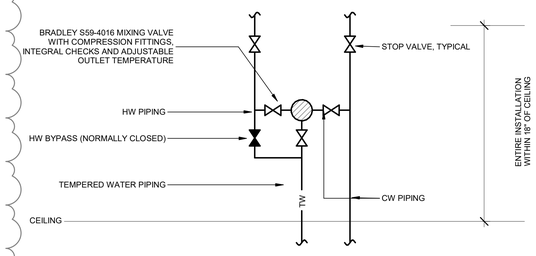


NOTES:

ALL BACKFLOW PREVENTION DEVICES, SHALL BE INSTALLED NO HIGHER THAN 36" ABOVE FINISHED FLOOR AND SHALL BE READILY ACCESSIBLE FOR TESTING AND REPAIR.

7 BACKFLOW PREVENTER INSTALLATION DETAIL

NO SCALE

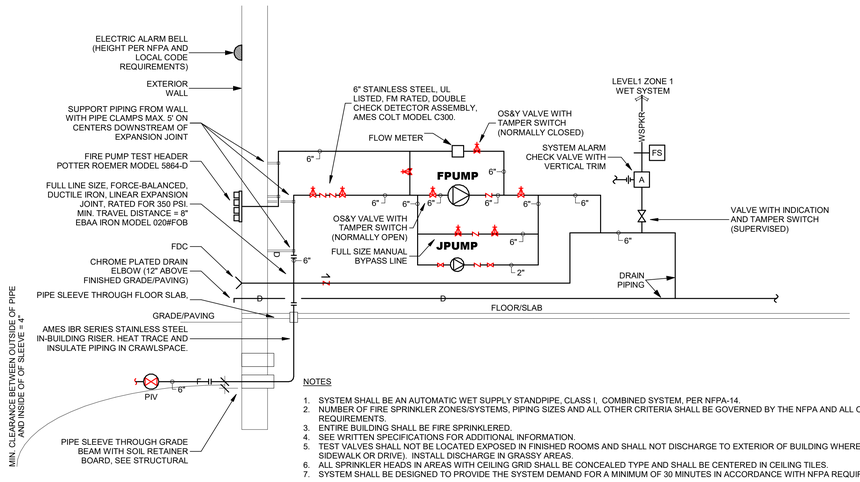


NOTES:

1. THIS DETAIL APPLIES TO KITCHEN PLUMBING CONNECTIONS AND SCULLERY SINKS SEE KITCHEN PLUMBING CONNECTION SCHEDULE AND PLUMBING FIXTURE SCHEDULE.
2. ALL CW AND HW CONNECTIONS SHALL HAVE COMPRESSION TYPE FITTINGS.
3. TMV SHALL BE INSTALLED IN A EASILY/READILY ACCESSIBLE LOCATION.

8 ABOVE CEILING TMV DETAIL

NO SCALE



NOTES

1. SYSTEM SHALL BE AN AUTOMATIC WET SUPPLY STANDPIPE, CLASS I, COMBINED SYSTEM, PER NFPA-14.
2. NUMBER OF FIRE SPRINKLER ZONES/SYSTEMS, PIPING SIZES AND ALL OTHER CRITERIA SHALL BE GOVERNED BY THE NFPA AND ALL OTHER LOCAL CODES AND REQUIREMENTS.
3. ENTIRE BUILDING SHALL BE FIRE SPRINKLERED.
4. SEE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. TEST VALVES SHALL NOT BE LOCATED EXPOSED IN FINISHED ROOMS AND SHALL NOT DISCHARGE TO EXTERIOR OF BUILDING WHERE CONCRETE IS LOCATED (I.E. SIDEWALK OR DRIVE). INSTALL DISCHARGE IN GRASSY AREAS.
6. ALL SPRINKLER HEADS IN AREAS WITH CEILING GRID SHALL BE CONCEALED TYPE AND SHALL BE CENTERED IN CEILING TILES.
7. SYSTEM SHALL BE DESIGNED TO PROVIDE THE SYSTEM DEMAND FOR A MINIMUM OF 30 MINUTES IN ACCORDANCE WITH NFPA REQUIREMENTS.

9 FIRE SPRINKLER SYSTEM PIPING SCHEMATIC

NO SCALE

FIRE PUMPS

FIRE PUMP SHALL BE VERTICAL INLINE PUMP WITH ODP MOTOR. PUMP SHALL DELIVER 500 GPM @ 50 PSI HEAD. PUMP SHALL BE UL LISTED AND FM APPROVED FOR FIRE SERVICE. 25 HP, 460V/3-PHASE. PENTAIR AURORA 4-383-7C.

FIRE PUMP CONTROLLER SHALL BE TORNATECH MODEL GPA. FULL VOLTAGE ACROSS-THE-LINE FIRE PUMP CONTROLLER. UL/FM APPROVED CONTROLLER WITH NEMA-2 ENCLOSURE, PRESSURE TRANSDUCER, RUN TEST SOLENOID VALVE, POWER FAIL/PHASE REVERSAL MONITOR, MODBUS TCP/IP COMMUNICATIONS, VISUAL AND AUDIBLE ALARMS, AND 100,000 AMP SHORT CIRCUIT WITHSTAND RATING.

JOCKEY PUMP SHALL BE VERTICAL, MULTI-STAGE PUMP WITH TEFC MOTOR AND 1.25" FLANGE KIT. PUMP SHALL DELIVER 5 GPM @ 60 PSI HEAD. PUMP SHALL BE UL LISTED AND FM APPROVED FOR FIRE SERVICE. 0.75 HP, 460V/3-PHASE. PENTAIR PVM1-6.

JOCKEY PUMP CONTROLLER SHALL BE TORNATECH MODEL JPLT. ACROSS-THE-LINE START JOCKEY PUMP CONTROLLER WITH CIRCUIT BREAKER, MINIMUM RUN TIMER, OVERLOAD PILOT LIGHT, ELAPSED TIME METER, PRESSURE TRANSDUCER, AND NEMA-2 ENCLOSURE.

FIRE PUMP SYSTEM SHALL BE CONNECTED TO STANDBY GENERATOR POWER. REFER TO ELECTRICAL DRAWINGS FOR DETAILS.

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

LTY ENGINEERS
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(469) 808-9777

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ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	AM
Drawn By	AM

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SHEET TITLE

PLUMBING SCHEDULES AND DETAILS

SHEET NO.

P3.02

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PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	CONNECTION SIZE				SPECIFICATION
		SS	SV	CW	HW	
WC	STANDARD WATER CLOSET WITH FLUSH VALVE TRAP PRIMER	4"	2"	1"	-	WALL MOUNTED, WHITE VITREOUS CHINA, SIPHON JET ACTION, 1.28 GPF, WATERSENSE LABELED, ELONGATED BOWL, CERAMIC GLAZING, TOP SPUD, ADA/TAS COMPLIANT AMERICAN STANDARD MILLENIUM FLOWISE MODEL 2257.101; SLOAN ROYAL 111 MANUAL OPERATED, NON-HOLD OPEN HIGH-EFFICIENCY FLUSH VALVE WITH FLUSH VALVE TRAP PRIMER, 1.28 GPF, COMPLETE WITH VACUUM BREAKER AND ANGLE STOP SET, AND ADA/TAS COMPLIANT LEVER ACTUATOR WITH LEVER INSTALLED ON LEFT SIDE (FOR FIXTURES DESIGNATED AS "ACCESSIBLE", INSTALL LEVER ON "WIDE-SIDE" OF TOILET STALL) AND, FLOOR MOUNTED CARRIER; BEMIS 1655-SSCT, WHITE, OPEN FRONT SEAT LESS COVER WITH SELF-SUSTAINING, STAINLESS STEEL CHECK HINGE.
LAV	STANDARD RESTROOM LAVATORY	1-1/2"	2"	1/2"	1/2"	WALL HUNG, WHITE VITREOUS CHINA, 4" CENTERS, FRONT OVERFLOW, SELF-DRAINING DECK AREA, 21" X 18", 4" MAXIMUM FRONT LIP DEPTH, ADA/TAS COMPLIANT AMERICAN STANDARD MODEL 0355.012; CHROME PLATED, ALL CAST BRASS CONSTRUCTION, ADA/TAS COMPLIANT, VANDAL-PROOF, MANUAL NON-METERING FAUCET WITH USER TEMPERATURE CONTROL, HIGH TEMPERATURE LIMIT STOP, LEVER HANDLE OPERATION, 0.5 GPM NON-AERATING LAMINAR SPRAY, CENTERSHANK, DECK MOUNTED WITH 4" CENTERS, COPPER SUPPLIES, WITH 3/8" COMPRESSION FITTING, CERTIFIED FOR MEETING ALL REQUIREMENTS OF NSF 61 SECTION 9, CHICAGO MODEL 2200-4E2805ABCP, ASSE1070 CERTIFIED THERMOSTATIC MIXING VALVE; BRADLEY MODEL 559-4000A; CHROME PLATED, 17-GAUGE CAST BRASS GRID DRAIN WITH WHEELCHAIR OFFSET FITTING; CHROME PLATED, 17-GAUGE, CAST BRASS P-TRAP WITH CLEANOUT PLUG; CHROME PLATED, CAST BRASS, LOOSE KEY ANGLE STOPS WITH CHROME PLATED COPPER RISERS; TRUEBRO HANDI LAV-GUARD VANDAL-PROOF, WHITE INSULATION KITS; AND, FLOOR MOUNTED, CONCEALED ARMS CARRIER. INSTALL UNDER-LAV MIXING VALVE ON HW SUPPLY SIDE OF FAUCET. TEMPERED SUPPLY ONLY TO EACH FAUCET. SEE DETAIL 1/P3.02. SEE ARCHITECTURE FOR MOUNTING HEIGHTS.
SK	CLASSROOM ELEMENTARY SINK	1-1/2"	2"	1/2"	1/2"	SINGLE BOWL DROP-IN SINK, 18-GAUGE STAINLESS STEEL WITH STAINLESS STEEL CHANNELS; ADA/TAS COMPLIANT, DRAINS IN REAR CENTER OF BOWLS, FULLY UNDERCOATED AND SOUND DEADENED, THREE (3) FAUCET HOLES, 22" X 19" X 4-1/2" DEEP ELKAY MODEL LRAD-221945; 8" CENTERS CONCEALED DECK MOUNT, 1.5 GPM ADA/TAS COMPLIANT, HIGH ARC FAUCET, QUARTER TURN CERAMIC CARTRIDGES, LEVER HANDLES, COMPLETELY VANDAL PROOF INCLUDING AERATOR (CHICAGO E12VP), WITH COPPER SUPPLIES AND CERTIFIED FOR MEETING ALL REQUIREMENTS OF NSF 61 SECTION 9, CHICAGO MODEL 201-RSHA8AE35VXKAB; ELKAY LK-99 DRAIN OUTLET WITH HEAVY-GAUGE STAINLESS STEEL BODY, REMOVABLE STAINLESS STEEL BASKET WITH LOCKING SHELL AND RUBBER STOPPER ON BOTTOM; CHROME PLATED, 17-GAUGE CAST BRASS P-TRAP WITH CLEANOUT PLUG; CHROME PLATED, CAST BRASS, LOOSE KEY ANGLE STOPS WITH CHROME PLATED COPPER RISERS; AND, TRUEBRO HANDI LAV-GUARD, VANDAL-PROOF, WHITE INSULATION KITS WHERE KNEESPACE MILLWORK SCREEN IS NOT PROVIDED. INSTALL ASSE 1070 TEMPERED MIXING VALVE ON HW SUPPLY SIDE OF FAUCET PER DETAIL 1/P3.02
SK-2	CLINIC SINK	1-1/2"	2"	1/2"	1/2"	SINGLE COMPARTMENT, 18-GAUGE STAINLESS STEEL WITH STAINLESS STEEL CHANNELS, DRAINS IN REAR-CENTER OF BOWLS, FULLY UNDERCOATED AND SOUND DEADENED, THREE (3) FAUCET HOLES; ADATAS COMPLIANT, 22" X 19" X 6-1/2" ELKAY MODEL LRAD2219; 8" CENTERS CONCEALED DECK MOUNT, 1.5 GPM ADA/TAS COMPLIANT, HIGH ARC FAUCET, QUARTER TURN CERAMIC CARTRIDGES, LEVER HANDLES, COMPLETELY VANDAL PROOF INCLUDING AERATOR (CHICAGO E12VP), WITH COPPER SUPPLIES AND CERTIFIED FOR MEETING ALL REQUIREMENTS OF NSF 61 SECTION 9, CHICAGO MODEL 201-RSHA8AE35VXKAB; ELKAY LK-99 DRAIN OUTLET WITH HEAVY-GAUGE STAINLESS STEEL BODY, REMOVABLE STAINLESS STEEL BASKET WITH LOCKING SHELL AND RUBBER STOPPER ON BOTTOM; CHROME PLATED, 17-GAUGE CAST BRASS P-TRAP WITH CLEANOUT PLUG; CHROME PLATED, CAST BRASS, LOOSE KEY ANGLE STOPS WITH CHROME PLATED COPPER RISERS; AND, TRUEBRO HANDI LAV-GUARD, VANDAL-PROOF, WHITE INSULATION KITS WHERE KNEESPACE MILLWORK SCREEN IS NOT PROVIDED. INSTALL ASSE 1070 TEMPERED MIXING VALVE ON HW SUPPLY SIDE OF FAUCET PER DETAIL 1/P3.02
SK-3	BREAK ROOM SINK	1-1/2"	2"	1/2"	1/2"	SAME AS TYPE "SK-2" EXCEPT WITH DOUBLE BOWL DROP-IN SINK, 18-GAUGE STAINLESS STEEL WITH STAINLESS STEEL CHANNELS, ADA/TAS COMPLIANT, DRAINS IN REAR CENTER OF BOWLS, FULLY UNDERCOATED AND SOUND DEADENED, THREE (3) FAUCET HOLES, 33" X 19" X 6-1/2" ELKAY MODEL LRAD-331965
MB	MOP BASIN	3"	2"	3/4"	3/4"	28" X 28" X 12" DEEP TERRAZZO, TWO (2) STAINLESS STEEL SPLASH CATCHER PANELS, 6" DROP FRONT WITH STAINLESS STEEL CAP, CAST BRASS DRAIN WITH STAINLESS STEEL STRAINER, STERN WILLIAMS HILOW MODEL HL-1900-BP; FAUCET SHALL BE POLISHED CHROME PLATED SERVICE SINK TYPE WITH VACUUM BREAKER, INTEGRAL SUPPLY CHECK STOPS, SPOUT WITH PAIL HOOK, HOSE END AND TOP BRACE, CHICAGO MODEL 897-CP ONLY (INSTALL BACKING/BRACING INSIDE WALL TO SUPPORT FAUCET AND TOP BRACE).
EDF	DUAL DRINKING FOUNTAIN WITH BOTTLE FILLER	1-1/2"	1-1/2"	1/2"	-	DUAL STATION, MOUNTED ON WALL WITH CARRIER, ALL STAINLESS STEEL, 0.7 GPM MAX, ADA/TAS COMPLIANT, BARRIER FREE, SENSOR ACTIVATED, 8 GPH AT ARI STANDARDS, 2-STREAM METAL BUBBLER, VANDAL-PROOF KITS, LEAD-FREE (CERTIFIED FOR MEETING ALL REQUIREMENTS OF NSF 61 SECTION 9), REFRIGERANT HFC-134a, MECHANICAL ACTUATION VALVE (NO ELECTRONIC SOLENOID VALVE), FILTERED, WITH VISUAL FILTER MONITOR AND BOTTLE FILLER. HALSEY TAYLOR MODEL HTHB-HVRGRN8BL-WF; CHROME PLATED, 17-GAUGE CAST BRASS P-TRAP WITH CLEANOUT PLUG; CHROME PLATED, CAST BRASS, LOOSE KEY ANGLE STOP WITH CHROME PLATED COPPER RISER; CHAIR CARRIERS; AND, STAINLESS STEEL ADA APRON WHERE REQUIRED BY ADA/TAS.

FIRE PROTECTION SYMBOLS LEGEND

F	FIRE PROTECTION PIPING	(E)	EXISTING
AWSP	AUTOMATIC WET STANDPIPE	(N)	NEW
MWSP	MANUAL WET STANDPIPE	FDC	FIRE DEPARTMENT CONNECTION
ADSP	AUTOMATIC DRY STANDPIPE	FHV	FIRE HOSE VALVE
MDSP	MANUAL DRY STANDPIPE	FPTH	FIRE PUMP TEST HEADER
AWS	AUTOMATIC WET SPRINKLERS	PIV	POST INDICATOR VALVE
ADS	AUTOMATIC DRY SPRINKLERS	FSR	FIRE SPRINKLER RISER(S)
D	DRAIN PIPING	FPUMP	FIRE PUMP
	STOP VALVE (NORMALLY OPEN)	JPUMP	JOCKEY PUMP
	STOP VALVE (NORMALLY CLOSED)		
	OS&Y VALVE (NORMALLY OPEN)		
	OS&Y VALVE (NORMALLY CLOSED)		
F-1	RISER F-1		

PLUMBING SYMBOLS LEGEND

SAN	SANITARY WASTE BELOW SLAB (SAN)	(E)	EXISTING	GT	GREASE TRAP
	SANITARY WASTE ABOVE SLAB (SAN)	(N)	NEW	ANT	ACID NEUTRALIZATION TANK
V	VENT PIPING BELOW SLAB (V)	SAN.	SANITARY	SO	SAND/OIL SEPARATOR
V	VENT PIPING ABOVE SLAB (V)	CW	DOMESTIC COLD WATER	STW	SAMPLING TEST WELL
	DOMESTIC COLD WATER PIPING (CW)	HW	DOMESTIC HOT WATER	GM	GAS METER
	DOMESTIC HOT WATER PIPING (HW)	HWR	DOMESTIC HOT WATER RETURN	EWH	ELECTRIC WATER HEATER
	DOMESTIC HOT WATER RETURN PIPING (HWR)	WC	WATER CLOSET	GWH	GAS WATER HEATER
G50	GAS SERVICE (BY UTILITY PROVIDER) (G50)	LAV	LAVATORY	CP	HOT WATER CIRCULATOR PUMP
G5	INTERMEDIATE PRESSURE GAS PIPING (5 PSIG) (G5)	UR	URINAL	SP	SUMP PUMP
G	LOW PRESSURE GAS PIPING (4-8 OZ.) (G)	SK	SINK	FD	FLOOR DRAIN
D	DRAIN/RELIEF VENT PIPING	MB	MOP BASIN	FSINK	FLOOR SINK
	STOP VALVE (NORMALLY OPEN)	EDF	ELECTRIC DRINKING FOUNTAIN	TD	TRENCH DRAIN
	STOP VALVE (NORMALLY CLOSED)	WH	WALL HYDRANT	2CO	DOUBLE SAN. CLEANOUT (2-WAY)
	GAS VALVE (NORMALLY OPEN)	HB	HOSEBIBB	CO	SANITARY SEWER CLEANOUT
	GAS VALVE (NORMALLY CLOSED)	WBOX	CLOTHES WASHER DRAIN/VALVE BOX	WCO	WALL CLEANOUT
	SOLENOID VALVE (NORMALLY OPEN)	VBOX	RECESSED WATER VALVE BOX	ACO	ACID WASTE CLEANOUT
	SOLENOID VALVE (NORMALLY CLOSED)			AWCO	ACID WASTE WALL CLEANOUT
	BACKFLOW PREVENTER (WATTS 909 ONLY)				
P-1 2" VTR	RISER P-1, 2" VENT THROUGH ROOF				
	GAS PRESSURE REDUCING/REGULATING VALVE				

PLUMBING PIPING MATERIALS

SANITARY WASTE AND VENT

BELOW SLAB: SCHEDULE 40, DWV PVC.

ABOVE SLAB: STANDARD WEIGHT, CAST IRON, NO-HUB PIPING.

DOMESTIC WATER

INTERIOR: TYPE L COPPER WITH SOLDER TYPE WROUGHT COPPER FITTINGS, MADE UP WITH LEAD-FREE SOLDER.

TRAP PRIMER: 1/2" TYPE K COPPER LINE

EXTERIOR: TYPE K COPPER WITH NO FITTINGS AND PVC SLEEVE. SLEEVE SHALL BE 2 PIPE SIZES LARGER THAN PIPE AND BE MINIMUM 2". BEYOND 5 FEET FROM BUILDING, SEE CIVIL DRAWINGS AND SPECIFICATIONS.

NATURAL GAS

INTERIOR: SCHEDULE 40 BLACK STEEL WITH WELDED JOINTS.

EXTERIOR ABOVE GRADE: SCHEDULE 40 BLACK STEEL WITH WELDED JOINTS. ALL PIPING PAINTED WITH INDUSTRIAL GRADE PAINT.

EXTERIOR BELOW GRADE: U.L. LISTED POLYETHYLENE GAS PIPING WITH SOCKET WELD JOINTS.

SEE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.

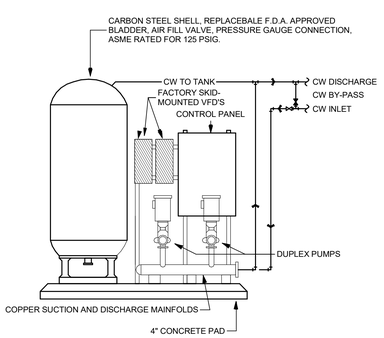
SEE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.

PLUMBING FIXTURE NOTES

1. ALL FIXTURES SHALL MEET WATER CONSERVATION PERFORMANCE STANDARDS MANDATED BY SENATE BILL 587. ALL FIXTURES SHALL HAVE FLOW RESTRICTION DEVICES (DRINKING FOUNTAINS SHALL BE SELF-CLOSING) TO COMPLY WITH THESE REQUIREMENTS.
2. ALL FIXTURES SHALL HAVE CONTROLS REQUIRING OPERATING FORCE NO GREATER THAN FIVE (5) POUNDS.
3. FOR LAVATORIES AND SINKS, ALL FAUCETS SHALL BE NO-LEAD SOLID BRASS, MEETING ALL REQUIREMENTS OF ANSI/NSF 61, SECTION 9 AND CERTIFIED BY U.L. AS SUCH. ALSO, INSTALL BRADLEY MODEL S59-4000A MIXING VALVE ON HOT WATER SUPPLY SIDE OF ALL FAUCETS UNLESS HIGH TEMPERATURE LIMIT IS PROVIDED WITH FAUCET. AND, INSTALL TRUEBRO HANDI LAV-GUARD VANDAL-PROOF INSULATION KITS OVER P-TRAP, SUPPLIES, STOPS AND ALL SHARP EDGES FOR ALL SINKS AND LAVATORIES WHERE CASEWORK KNEESPACE SCREEN IS NOT INSTALLED.
4. ALL PLUMBING FIXTURES REFERENCED AS "ADA" OR "HANDICAP" SHALL MEET ALL REQUIREMENTS OF THE ADA AND THE TEXAS ACCESSIBILITY STANDARDS. IT SHALL BE THE PLUMBING CONTRACTORS RESPONSIBILITY TO MEET THESE REQUIREMENTS.
5. IN MANY CASES, FIXTURES WITH THE SAME PLUMBING DESIGNATION HAVE DIFFERENT INSTALLATION HEIGHTS - REFERENCE ARCHITECTURAL DRAWINGS FOR ALL INSTALLATION HEIGHTS AND HANDICAP FIXTURE DESIGNATIONS. FIXTURES DESIGNATED AS ADULT HANDICAP SHALL MEET ALL REQUIREMENTS OF THE ADA. FIXTURES DESIGNATED AS CHILD HANDICAP SHALL MEET ALL REQUIREMENTS OF THE TEXAS ACCESSIBILITY STANDARDS FOR THE SPECIFIED CHILD AGE GROUP (SPECIFIED BY ARCHITECT).
6. FOR ALL PLUMBING FIXTURES, WHERE COPPER PIPING IS STUBBED THROUGH WALL FOR DRAIN CONNECTION, INSTALL MARVEL FITTING FOR EASE OF SERVICE AND REPAIRS.

DRAINS, CLEANOUTS AND HYDRANTS

MARK	DESCRIPTION	CONNECTION SIZE				SPECIFICATION
		SS	SV	CW	HW	
FD	FLOOR DRAIN W/ TRAP PRIMER	4"	2"	1/2"	-	TWO-PIECE CAST IRON WITH SEEPAGE FLANGE, REVERSIBLE CLAMPING COLLAR, 1/2" TRAP PRIMER CONNECTION, 6" ROUND HEAVY-DUTY SOLID STAINLESS STEEL STRAINER. ZURN MODEL ZS415BS-P.
FD-2	EQUIPMENT FLOOR DRAIN	4"	2"	-	-	CAST IRON, MEDIUM DEPTH DRAIN WITH FLANGE, CLAMPING DEVICE, SEEPAGE OPENINGS, DUCTILE IRON TRUE-FIT SEDIMENT BUCKET, PROSET TRAP GUARD. ZURN MODEL ZS540-LG. DRAIN SHALL BE DESIGNED SUCH THAT GRATE CANNOT BE INSTALLED WITHOUT SEDIMENT BUCKET.
FD-3	GRATED MECHANICAL ROOM FLOOR DRAIN	4"	2"	-	-	CAST IRON WITH FLANGE, SEEPAGE OPENINGS, 9" HEAVY-DUTY DUCTILE IRON GRATE WITH STAINLESS STEEL VENEER, CLAMPING DEVICE AND PROSET TRAP GUARD. ZURN MODEL ZS550-PROSET.
FD-K	KITCHEN FLOOR DRAIN	4"	2"			TWO-PIECE CAST IRON WITH SEEPAGE FLANGE, REVERSIBLE CLAMPING COLLAR, 7" ROUND HEAVY-DUTY SOLID STAINLESS TRACTOR DUTY GRATE. ZURN MODEL ZS415-7N
FSINK	3/4 GRATE, 12" FLOOR SINK	4"	2"	-	-	CAST IRON, 8" DEEP SUMP, A.R.E. INTERIOR. INTEGRAL FLANGE FOR SUPPORT, CLAMPING DEVICE WHERE VAPOR BARRIER IS INSTALLED BETWEEN SLAB AND CONCRETE BEDDING FOR FLOOR, ALUMINUM SECONDARY DOME STRAINER AND 12" SQUARE HEAVY DUTY STAINLESS STEEL TRACTOR DUTY FRAME WITH 3/4-TRACTOR GRATE. ZURN MODEL ZS1901-K-3-32-PROSET.
CO	FLOOR CLEANOUT	VARIES	-	-	-	ADJUSTABLE EXTENSION HOUSING, CAST IRON FERRULE WITH FULL-LINE-SIZE ABS PLUG (UP TO 4"), 5" DIAMETER STAINLESS STEEL ACCESS COVER WITH VANDAL-PROOF SECURITY SCREWS, ROUND FRAME AND TOP STYLE COMPATIBLE WITH FLOOR TYPE (REFERENCE ARCHITECTURAL DRAWINGS FOR FLOOR TYPES). ZURN MODEL ZS1400-VP. OUTDOOR CLEANOUT - SAME AS TYPE "CO" EXCEPT WITH HEAVY-DUTY DUCTILE IRON, NICKEL BRONZE TOP. ZURN MODEL ZN1400-VP-HD. INSTALL 18" X 18" X 6" THICK CONCRETE PAD AROUND EACH OUTDOOR CLEANOUT.
WCO	WALL CLEANOUT	VARIES	-	-	-	CAST IRON FERRULE WITH COUNTERSUNK HEAD (FULL-LINE-SIZE ABS PLUG UP TO 4"), ZURN MODEL Z1440. ACCESS COVER SHALL BE 8" SQUARE, 16 GAUGE STEEL HINGED ACCESS DOOR WITH SCRE DRIVER LOCK, ACUDOR UF-500 MODEL OR APPROVED EQUAL. PAINT COLOR SPECIFIED BY ARCHITECT. INSIDE CABINETWORK WHERE CLEANOUT IS **NOT** VISIBLE, ACCESS PANEL MAY BE ROUND STAINLESS STEEL TYPE WITH SCREWDRIVER ACCESS, ZURN MODEL ZS1469-VP
2CO	DOUBLE CLEANOUTS	4"	-	-	-	SAME AS OUTDOOR CLEANOUTS. INSTALLED FOR TWO-WAY RODDING. SINGLE CLEANOUT WITH 2-WAY FITTING IS NOT ACCEPTABLE, PROVIDE TWO SEPARATE CLEANOUTS. INSTALL 18" X 18" X 6" THICK CONCRETE PAD AROUND EACH OUTDOOR CLEANOUT.
WBOX	CLOTHES WASHER DRAIN/VALVE BOX	2"	2"	1/2"	1/2"	HEAVY-GAUGE GALVANIZED STEEL CONSTRUCTION, RECESSED IN WALL, VALVE AND DRAIN CONNECTIONS, WATTS DUO-CLOZ VALVE, GUY GRAY MODEL WB-200.
VBOX	CW VALVE BOX	-	-	1/2"	-	RECESSED WITH ANGLE VALVE FOR CONNECTION TO VENDING MACHINE OR REFRIGERATOR ICE MAKER GUY GRAY MODEL BIM-875.
WH	EXTERIOR WALL HYDRANT	-	-	3/4"	-	NON-FREEZE-HOSE BOX, QUARTER-TURN WHEEL HANDLE, ASSE APPROVED ANTI-SIPHON INTEGRAL VACUUM BREAKER AND DUAL CHECK VALVE, 3/4" STRAIGHT INLET HOSE CONNECTION, CAST STAINLESS STEEL HYDRANT BOX, FLUSH MOUNTED 16-GAUGE STAINLESS STEEL FRAME AND 180° DROP DOWN DOOR AND WALL CLAMP JAY R. SMITH MODEL 5519-WC.
HB	HOSE BIBB	-	-	3/4"	-	3/4" HOSE THREAD, INTEGRAL VACUUM BREAKER SPOUT, ROUGH CHROME FINISH WITH REMOVABLE KEYED HANDLE, WALL FLANGE; CHICAGO MODEL 952.



CW BOOSTER PUMP SCHEDULE (CWPUMP)

VC SYSTEMS DUPLEX VARIABLE SPEED, VARIABLE FLOW, FACTORY ASSEMBLED DOMESTIC WATER BOOSTER SYSTEM. THE SYSTEM SHALL BE RATED FOR A SYSTEM CAPACITY OF 77 GPM AT A SYSTEM PRESSURE OF 55 PSIG WITH A MINIMUM SUCTION PRESSURE OF 15 PSIG AND A MAXIMUM SUCTION RESSURE OF 45 PSIG. FACTORY ASSEMBLED AND TESTED INCLUDING PUMPS, MOTORS, VALVES, DISCHARGE PRESSURE GAUGES, PRESSURE TRANSDUCERS, CONTROLS, AND STAINLESS STEEL PIPING HEADERS. ALL COMPONENTS SHALL BE FACTORY FINISHED IN A HIGH-QUALITY ENAMEL PAINT. VC SYSTEMS MODEL 2VC-PMC-V-3-320-460

EACH PUMP SHALL BE CLOSE COUPLED END SUCTION CENTRIFUGAL TYPE WITH DUCTILE IRON CASING, 304 STAINLESS STEEL IMPELLER, STAINLESS STEEL SHAFT SLEEVE, AND STAINLESS STEEL TRIM. EACH PUMP SHALL BE RATED FOR 50 GPM AT 105 FEET TDH. MOTOR SHALL BE PREMIUM EFFICIENCY, 3 HP, 3500 RPM, 460V/3-PHASE/60HZ, SUITABLE FOR INVERTER DUTY OPERATION. SYSTEM SHALL UTILIZE TWO PUMPS OPERATING IN DUPLEX CONFIGURATION.

PROVIDE AND MOUNT ON THE SYSTEM SKID TWO VARIABLE FREQUENCY DRIVES. DRIVES SHALL BE SIZED FOR MAXIMUM POSSIBLE AMP DRAW THROUGHOUT THE PROGRAMMED SEQUENCE OF PUMP OPERATION. DRIVES SHALL BE UL LISTED AND RATED FOR A MINIMUM 100 KAIC.

CONTROL PANEL SHALL BE UL508A LISTED, FACTORY MOUNTED AND WIRED. CONTROL PANEL SHALL INCLUDE MAIN DISCONNECT, INDIVIDUAL BRANCH PROTECTION, PROGRAMMABLE LOGIC CONTROLLER, COLOR TOUCH DISPLAY, AUTOMATIC AND MANUAL PUMP ALTERNATION, LEAD/LAG CONTROL, PRESSURE TRANSDUCERS, RUN STATUS INDICATION, ALARM INDICATION, BACNET MS/TP, BACNET IP, MODBUS TCP COMMUNICATIONS, COMMON ALARM CONTACTS, REMOTE DISABLE CONTACTS, AND GENERATOR INTERLOCK CAPABILITY.

PROVIDE 79 GALLON ASME BLADDER TANK. TANK SHALL BE INSTALLED ON A 4" CONCRETE HOUSEKEEPING PAD, SECURED TO THE FLOOR, AND LOCATED ADJACENT TO A FLOOR DRAIN.

DOMESTIC WATER PUMPS SYSTEM SHALL BE CONNECTED TO STANDBY GENERATOR POWER. REFER TO ELECTRICAL DRAWINGS FOR DETAILS.

1 DOMESTIC WATER BOOSTER PUMP (CWPUMP)

NO SCALE

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

Katy ISD
Katy, TX

LTY ENGINEERS
TEXAS ENG. FIRM REG. NO. F-16543

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5700 GRANITE PARKWAY
SUITE 315
PLANO, TEXAS 75024
(469) 808-9777

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STATE OF TEXAS
MIGUEL A. HANZE
151421
LICENSED
PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	AM
Drawn By	AM

PROJECT NO.

25-0067.00

SHEET TITLE

PLUMBING SCHEDULES AND DETAILS

SHEET NO.

P3.03

NEW OPPORTUNITY AWARENESS CENTER

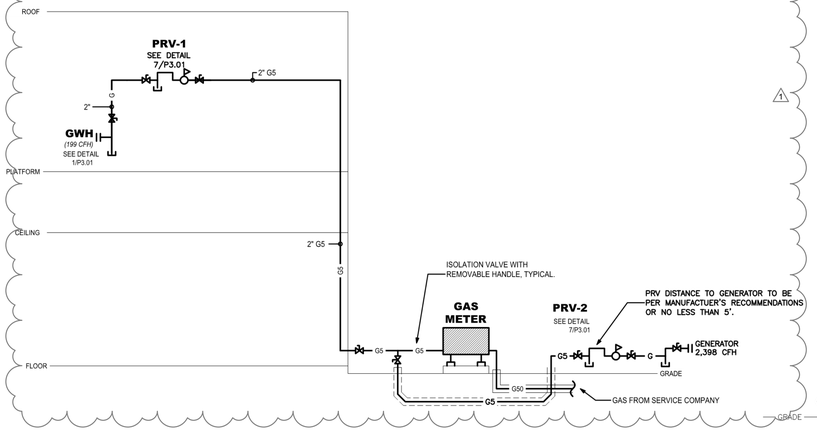
NATURAL GAS LOAD

METER OUTLET PRESSURE SHALL BE 5 PSI.

FURTHEST PIPING RUN FROM METER IS 50 FEET.

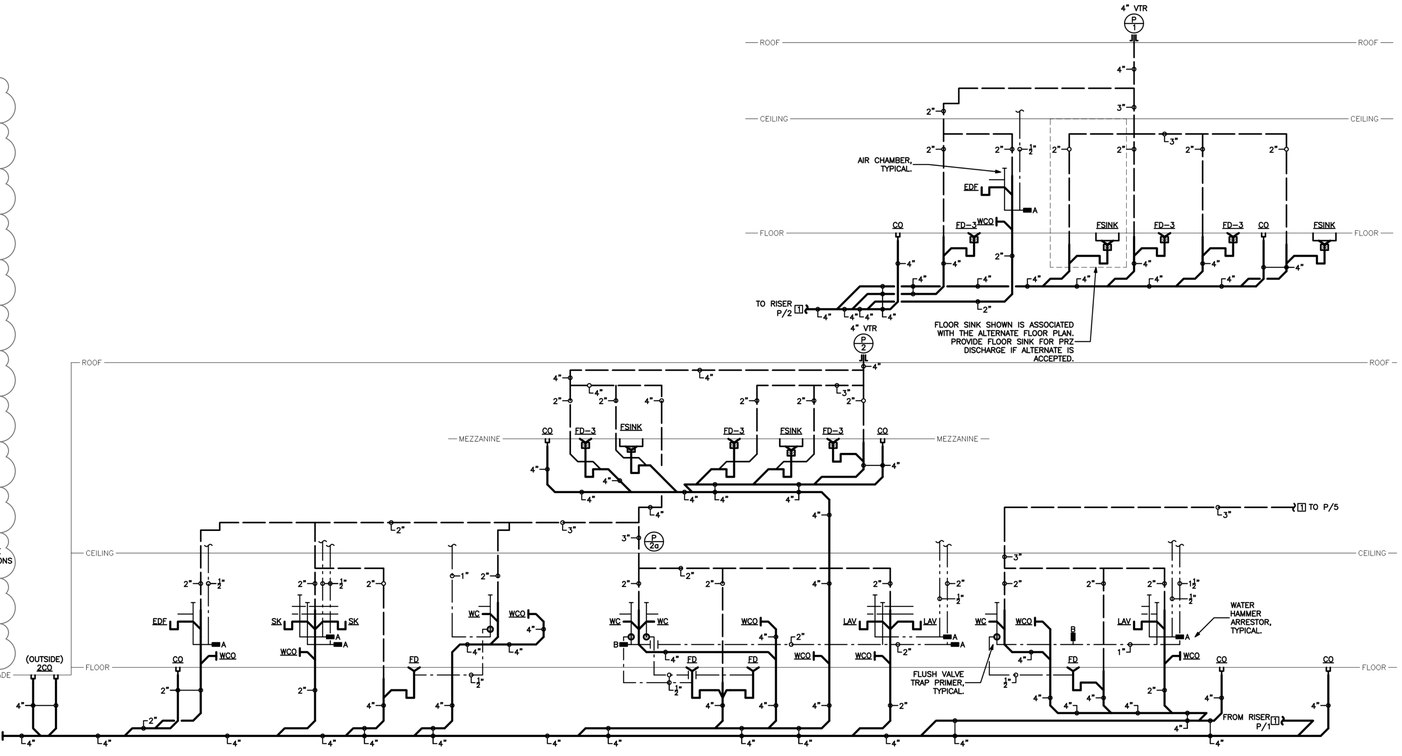
CONNECTED LOADS

GWH	199 CFH
GENERATOR	2,200 CFH
TOTAL GAS LOAD	2399 CFH



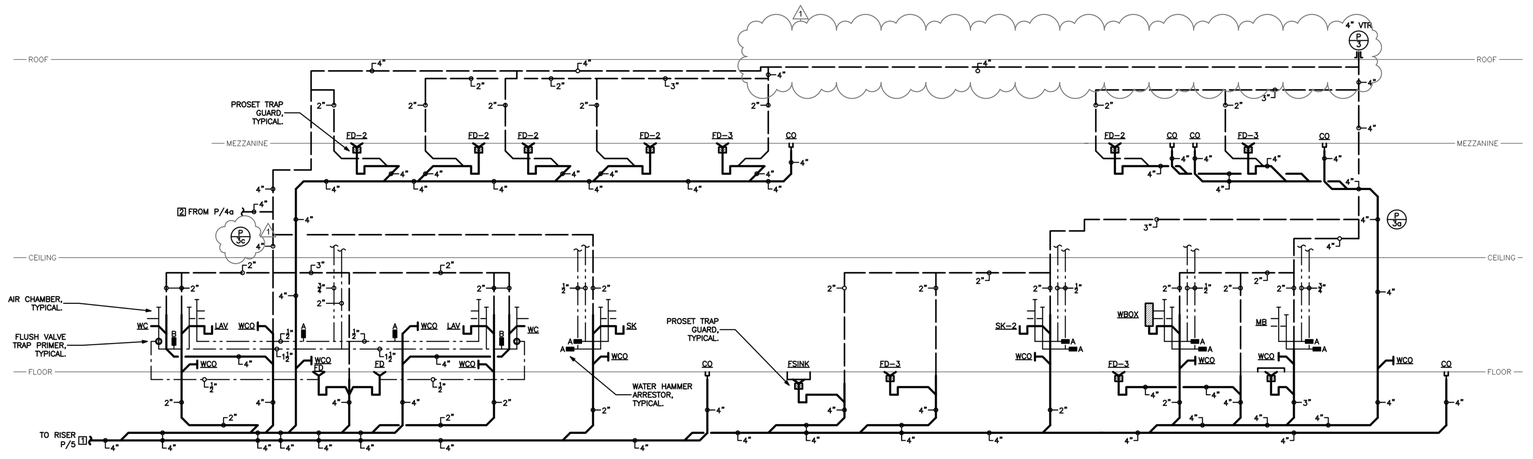
1 TYPICAL NATURAL GAS RISER DIAGRAM

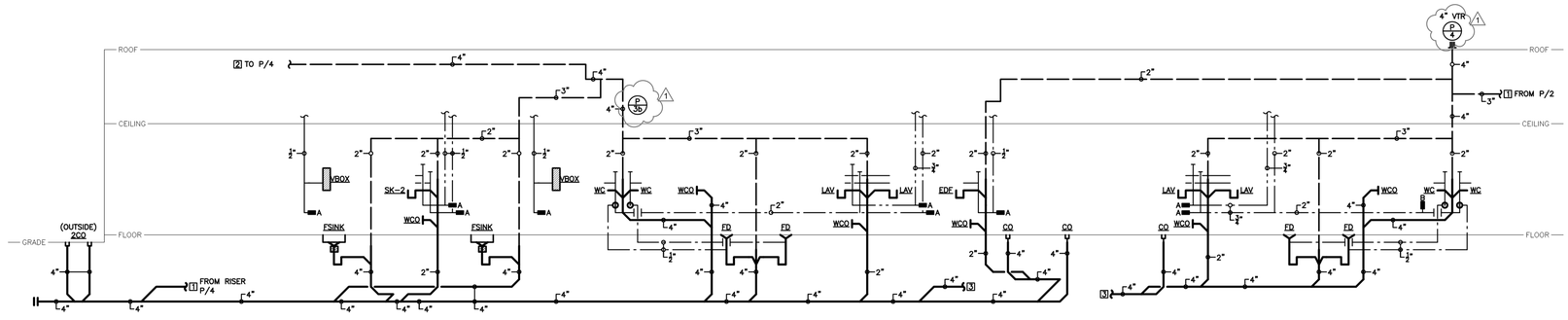
NO SCALE



2 PLUMBING RISER DIAGRAM

NO SCALE





3 PLUMBING RISER DIAGRAM

NO SCALE

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

LTY ENGINEERS
TEXAS ENG. FIRM REG. NO. F-16543

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SUITE 315
PLANO, TEXAS 75024
(469) 808-9777

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NEW OPPORTUNITY AWARENESS CENTER

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ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	AM
Drawn By	AM

PROJECT NO.

25-0067.00

SHEET TITLE

PLUMBING RISER DIAGRAM

SHEET NO.

P4.01

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POWER LEGEND

SYMBOLS	DESCRIPTION
	SURFACE MOUNTED PANELBOARD
	RECESSED PANELBOARD
	HOMERUN TO PANELBOARD
	MOTOR
X/Y/Z	FUSED DISCONNECT SWITCH. "X" INDICATES SWITCH SIZE, "Y" INDICATES FUSE SIZE, "Z" INDICATES NUMBER OF POLES
X/Y	DISCONNECT SWITCH. "X" INDICATES SWITCH SIZE, "Y" INDICATES NUMBER OF POLES
	COMBINATION STARTER WITH INTEGRAL DISCONNECT SWITCH
	VFD STARTER WITH INTEGRAL DISCONNECT SWITCH
	SIMPLEX RECEPTACLE. SYMBOL WITH LINE THRU IT DENOTES MOUNTED ABOVE COUNTER.
	DUPLEX RECEPTACLE. SYMBOL WITH LINE THRU IT DENOTES MOUNTED ABOVE COUNTER.
AC	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE. "AC" DENOTES ABOVE COUNTER.
	PLUG LOAD CONTROLLED DUPLEX RECEPTACLE. SYMBOL WITH LINE THRU IT DENOTES MOUNTED ABOVE COUNTER.
	DUPLEX RECEPTACLE WITH TWO INTEGRAL USB CHARGING PORTS. SYMBOL WITH LINE THRU IT DENOTES MOUNTED ABOVE COUNTER.
AC	ISOLATED GROUND DUPLEX RECEPTACLE. "AC" DENOTES ABOVE COUNTER.
	ISOLATED GROUND TWISTLOCK RECEPTACLE. NEMA CONFIGURATION TO MATCH PLUG.
	SPECIAL RECEPTACLE. NEMA CONFIGURATION TO MATCH PLUG.
	QUAD RECEPTACLE. SYMBOL WITH LINES THRU IT DENOTES MOUNTED ABOVE COUNTER.
AC	GROUND FAULT CIRCUIT INTERRUPTER QUAD RECEPTACLE. "AC" DENOTES ABOVE COUNTER.
AC	ISOLATED GROUND QUAD RECEPTACLE. "AC" DENOTES ABOVE COUNTER.
	MULTI OUTLET SURFACE RACEWAY, SIMILAR TO WIREMOLD #4000. REFER TO THE DETAILS SHEET FOR ADDITIONAL INFORMATION.
	FLOOR BOX AND/OR POKE THRU DEVICE. SEE SCHEDULE FOR DETAILS. "X" INDICATES CIRCUIT NUMBER.
CLOG OFI	PROVIDE POWER CORD REEL MANUFACTURED BY HUBBELL, PROVIDE INTEGRAL GFCI PROTECTION DEVICE. STOP BALL AND KELLEMS STRAIN RELIEF CORD GRIP AT DROP CORD 120V 20A RECEPTACLE.
DROP CORD OFI	PROVIDE POWER DROP CORD RECEPTACLE MANUFACTURED BY HUBBELL, PROVIDE KELLEMS STRAIN RELIEF CORD GRIP AT BOTH CEILING J-BOX AND DROP CORD RECEPTACLE. PROVIDE GFCI PROTECTION DEVICE AND 20A, 120V HEAVY DUTY POWER CORD.
	JUNCTION BOX - WALL MOUNTED
	JUNCTION BOX - CEILING MOUNTED
	JUNCTION BOX - FLOOR MOUNTED
	POWER FEED TO SYSTEM FURNITURE, WALL MOUNTED. PROVIDE FLEXIBLE WHIP CONNECTION TO THE FURNITURE AS REQUIRED.
	PUSH BUTTON
E	EMERGENCY PUSH BUTTON
—E—	ELECTRICAL FEEDER
—D—	DATA CONDUIT, MINIMUM 1"C
—AV—	VIDEO/AUDIO CONDUIT, MINIMUM 1.25"C
	UNDERGROUND CONDUIT
	GROUNDING CONNECTION (SYSTEM AND/OR EQUIPMENT)
$M	MOTOR RATED TOGGLE SWITCH RATED FOR MOTOR AMP & HP
$MP	MOTOR RATED TOGGLE SWITCH WITH RED PILOT ON LIGHT

NOTES:

1. REF. SPECIFICATIONS FOR ADA MOUNTING HEIGHT DEVICES.
2. ALL ELECTRICAL WIRING DEVICE ON EMERGENCY CIRCUIT SHALL BE RED COLOR.
3. PROVIDE NEMA 3R DISCONNECT SWITCH IN ELECT / MECH ROOM AND OUTDOORS. REFER TO PANEL SCHEDULE FOR DISCONNECT SIZE IF NOT INDICATED.
4. PROVIDE NEMA 4X DISCONNECT SWITCH IN KITCHEN AREA. REFER TO PANEL SCHEDULE FOR DISCONNECT SIZE IF NOT INDICATED.
5. SWITCH PLATE NOTE:
   ALL SWITCHES OPERATING LOADS OTHER THAN ROOM LIGHTING SHALL BE ENGRAVED WITH BLACK LETTERS EXPLAINING SWITCH FUNCTIONS I.E. EXHAUST FAN. WORDING SHALL BE DETERMINED BY KISD ELECTRICAL DEPARTMENT.
6. PROVIDE ENGRAVED NAMEPLATE FOR ALL SAFETY SWITCHES AND STARTERS.
7. RECEPTACLES AND TOGGLE SWITCHES CONNECTED TO EMERGENCY CIRCUIT SHALL BE RED COLOR, TYPICAL OF ALL.

FLOOR BOX/POKE THRU SCHEDULE

SYMBOLS	DESCRIPTION
	1-GANG CAST IRON FLOOR BOX: WALKER #880CS1-1 WITH (1) #817B FLUSH BRASS FLANGE, (1) #828R BRASS COVER PLATE AND THE FOLLOWING DEVICE(S): (1) 120V, 1Ø, 20A DUPLEX RECEPTACLE.
	2-GANG CAST IRON FLOOR BOX: WALKER #880CS2-1 WITH (1) #827B FLUSH BRASS FLANGE, (1) #828R BRASS COVER PLATE [FOR POWER], (1) #828GFITC BRASS COVER PLATE [FOR TELEDATA], AND THE FOLLOWING DEVICE(S): (1) 120V, 1Ø, 20A DUPLEX RECEPTACLE.
	3-GANG CAST IRON FLOOR BOX: WALKER #880CS3-1 WITH (1) #837B FLUSH BRASS FLANGE, (2) #828R BRASS COVER PLATE [FOR POWER], (1) #828GFITC BRASS COVER PLATE [FOR TELEDATA], AND THE FOLLOWING DEVICE(S): (2) 120V, 1Ø, 20A DUPLEX RECEPTACLES.

RISER DIAGRAM LEGEND

SYMBOLS	DESCRIPTION
PANEL XX	ELECTRICAL PANELBOARD
XFMR XX	DRYTYPE TRANSFORMER "X" DENOTES VOLTAGE "Y" DENOTES TRANSFORMER SIZE (KVA)
	CIRCUIT BREAKER "X" DENOTES SIZE OF CIRCUIT BREAKER (AMPS) "Y" DENOTES # OF POLES
	FUSE "X" DENOTES SIZE OF FUSE (AMPS) "Y" DENOTES QTY OF FUSES
	ENCLOSED CIRCUIT BREAKER "X" DENOTES SIZE OF CIRCUIT BREAKER (AMPS) "Y" DENOTES # OF POLES
	NON-FUSED DISCONNECT SWITCH "X" DENOTES FRAME SIZE OF SWITCH (AMPS)
	FUSED DISCONNECT SWITCH "X" DENOTES FRAME SIZE OF SWITCH (AMPS) "Y" DENOTES SIZE OF FUSE (AMPS) "Z" DENOTES QTY OF FUSES
	CURRENT TRANSFORMER (CT)
M	ELECTRICAL METER
	TRANSFER SWITCH "X" TYPE OF SWITCH ATS: AUTOMATIC TRANSFER SWITCH MTS: MANUAL TRANSFER SWITCH "Y" DENOTES SWITCH SIZE (AMPS)
	TRANSFER SWITCH WITH BYPASS ISOLATION "X" TYPE OF SWITCH ATS: AUTOMATIC TRANSFER SWITCH MTS: MANUAL TRANSFER SWITCH "Y" DENOTES SWITCH SIZE (AMPS)
G	EMERGENCY / STANDBY GENERATOR WITH (1) OUTPUT CIRCUIT BREAKER "X" DENOTES SIZE OF CIRCUIT BREAKER (AMPS) "Y" DENOTES # OF POLES
G	EMERGENCY / STANDBY GENERATOR WITH (2) OUTPUT CIRCUIT BREAKER "X" DENOTES SIZE OF CIRCUIT BREAKER (AMPS) "Y" DENOTES # OF POLES
SPD, FIRE PUMP	FIRE PUMP CONTROLLER "X" DENOTES VOLTAGE/PHASE "Y" DENOTES HORSE POWER
SPD, FIRE PUMP	FIRE PUMP CONTROLLER "X" DENOTES VOLTAGE/PHASE "Y" DENOTES HORSE POWER
MAIN SWITCHBOARD 'Z' XXXA, YYY/YYYV, 3PH, 4W	SWITCHBOARD "X" DENOTES AMPERAGE "Y" DENOTES VOLTAGE "Z" DENOTES SWITCHBOARD DESIGNATION
	UPS "X" DENOTES SIZE OF THE UPS (KVA) AND VOLTAGE "Y" DENOTES INPUT / OUTPUT AMPS
	AC / DC INVERTER
X X XX	FEEDER LABEL REFER TO FEEDER SCHEDULE FOR ADDITIONAL INFORMATION
GF	GROUND FAULT PROTECTION

LIGHTING LEGEND

SYMBOLS	DESCRIPTION
SK	LOW VOLTAGE DIGITAL KEY OPERATED LIGHT SWITCH
S3K	LOW VOLTAGE DIGITAL KEY OPERATED 3-WAY LIGHT SWITCH
S4K	LOW VOLTAGE DIGITAL KEY OPERATED 4-WAY LIGHT SWITCH
S0T	DIGITAL DIMMER LIGHT WITH UP/DOWN & ON/OFF BUTTON
S1B	LOW VOLTAGE SINGLE-BUTTON LIGHT SWITCH
S2B	LOW VOLTAGE TWO-BUTTON LIGHT SWITCH
S3B	LOW VOLTAGE THREE-BUTTON LIGHT SWITCH
S4B	LOW VOLTAGE FOUR-BUTTON LIGHT SWITCH
OS	DIGITAL HIGH BAY INFRARED OCCUPANCY SENSOR
OSD	DIGITAL CEILING MOUNTED ULTRASONIC TECHNOLOGY OCCUPANCY SENSOR
OSD	DIGITAL CEILING MOUNTED INFRARED TECHNOLOGY OCCUPANCY SENSOR
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
OS	CORNER MOUNT LIGHTING OCCUPANCY SENSOR AT +12FT
	PHOTO CELL FOR DAYLIGHT CONTROL
$VS	DUAL TECHNOLOGY WALL OCCUPANCY SENSOR WALL SWITCH
$IR	INFRARED WALL OCCUPANCY SESNOR WALL SWITCH, LUTRON MS-Z101
$OS	WALL OCCUPANCY SESNOR WALL SWITCH
RCM	ROOM CONTROLLER
PL	PLUG LOAD CONTROLLER
EL	REMERGENCY LIGHTING CONTROL UNIT
GTD	GENERATOR TRANSFER DEVICE FOR LIGHT FIXTURES
A / a	LIGHT FIXTURE. CAPITAL LETTER INDICATES FIXTURE TYPE. LOWERCASE LETTER INDICATES ZONE CONTROLLED.
	CEILING MOUNTED EXIT SIGN. SHADED AREAS INDICATE LIGHTED SIDES.
	WALL MOUNTED EXIT SIGN. SHADED AREAS INDICATE LIGHTED SIDES.
$	20A, 125V/277V LIGHT SWITCH
$3	20A, 125V/277V 3-WAY LIGHT SWITCH
$4	20A, 125V/277V 4-WAY LIGHT SWITCH
$K	20A, 125V/277V KEY OPERATED LIGHT SWITCH
$3K	20A, 125V/277V KEY OPERATED 3-WAY LIGHT SWITCH
$4K	20A, 125V/277V KEY OPERATED 4-WAY LIGHT SWITCH
$T	TIMER SWITCH
TC	TIME CLOCK
LC	LIGHTING CONTACTOR

NOTES:

1. ALL KEY SWITCHES MUST HAVE KEY TYPE APPROVED BY OWNER.
2. MOUNTING HEIGHT FOR LIGHT SWITCHES SHALL BE AT +46" AFF. SEE SPECIFICATIONS FOR MOUNTING HEIGHT OF OTHER DEVICES.
3. FIXTURES WITH 'NL' DESIGNATE NIGHT LIGHT FIXTURES (ALWAYS ON).
4. IF ZONE NOT INDICATED. LIGHT FIXTURES SHALL BE CONTROLLED BY SWITCH IN THAT ASSOCIATED SPACE.
5. LOWERCASE LETTER AT SWITCH INDICATES ZONE CONTROLLED.
6. FOR ADJUSTABLE SENSORS, SET TIME DELAY TO 30 MINUTES AND SENSITIVITY TO 100%.
7. ALL CEILING MOUNT SENSORS SHOULD BE LOCATED A MINIMUM OF SIX FEET FROM HVAC SUPPLY/RETURN VENTS.
8. CONTRACTOR SHALL PROVIDE THE APPROPRIATE NUMBER OF ROOM CONTROLLERS FOR THE PROJECT. COORDINATE WITH THE MANUFACTURER FOR THE CORRECT QUANTITY.
9. CONTRACTOR SHALL PROVIDE 4"X4" JUNCTION BOX AS REQUIRED.

MOUNTING HEIGHTS

HEIGHT	DESCRIPTION
10'-0"	EMERGENCY BATTERY UNITS (OR 1'-0" BELOW CEILING)
90" TO 6"BELOW CLG	FIRE ALARM AUDIBLE ALARM SIGNALS
7'-6" TO 8'-0"	FIRE ALARM COMBINATION ALARM SIGNALS
7'-0" TO 8'-0"	FIRE ALARM VISUAL SIGNALS
6'-6"	TOP OF ELECTRICAL PANEL BOARDS
6'-0"	TOP OF HIGHEST ELECTRICAL DISCONNECT SWITCH OR STARTER
4'-0"	TOP OF WALL MOUNTED DEVICES SUCH AS LIGHT SWITCHES, MANUAL MOTOR STARTERS, THERMOSTATS , TELEPHONE/INTERCOM HANDSETS, FIREALARM, PULLSTATIONS, ETC.
4'-0"	TOP OF WALL MOUNTED WIREMOLD (U.N.O.)
2'-0"	BOTTOM OF RECEPTACLES IN MECHANICAL ROOMS AND EXTERIOR OF BUILDING
1'-6"	TOP OF ELECTRICAL PANEL BOARDS
0'-0"	FINISHED FLOOR ELEVATION.

FIRE ALARM LEGEND

SYMBOLS	DESCRIPTION
FH / SW	FIRE ALARM HORN/STROBE AND SPEAKER/STROBE, WALL MOUNTED
V	FIRE ALARM STROBE, WALL MOUNTED
H / S	FIRE ALARM HORN AND SPEAKER, WALL MOUNTED
H / S	FIRE ALARM HORN/STROBE AND SPEAKER /STROBE, CEILING MOUNTED
CT	FIRE ALARM STROBE, CEILING MOUNTED
H / S	FIRE ALARM HORN AND SPEAKER, CEILING MOUNTED
F	FIRE ALARM MANUAL PULL STATION
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR PANEL
D	DUCT SMOKE DETECTOR
PS	CEILING MOUNTED SMOKE DETECTOR.
H	CEILING MOUNTED HEAT DETECTOR, 135° UON.
H 195	CEILING MOUNTED HEAT DETECTOR, 195° UON.
CO	CARBON MONOXIDE DETECTOR
SC	COMBINATION SMOKE/CARBON MONOXIDE DETECTOR
BD	BEAM DETECTOR
DH	DOOR HOLDER
TS	SPRINKLER SYSTEM TAMPER SWITCH
FS	SPRINKLER SYSTEM FLOW SWITCH
AM	ADDRESSABLE MODULE
S KL	REMOTE TEST KEY SWITCH AND INDICATING LIGHT FOR SMOKE DUCT DETECTOR
BS / CS	TWO-WAY COMMUNICATION BASE STATION/CALL BOX

NOTES:

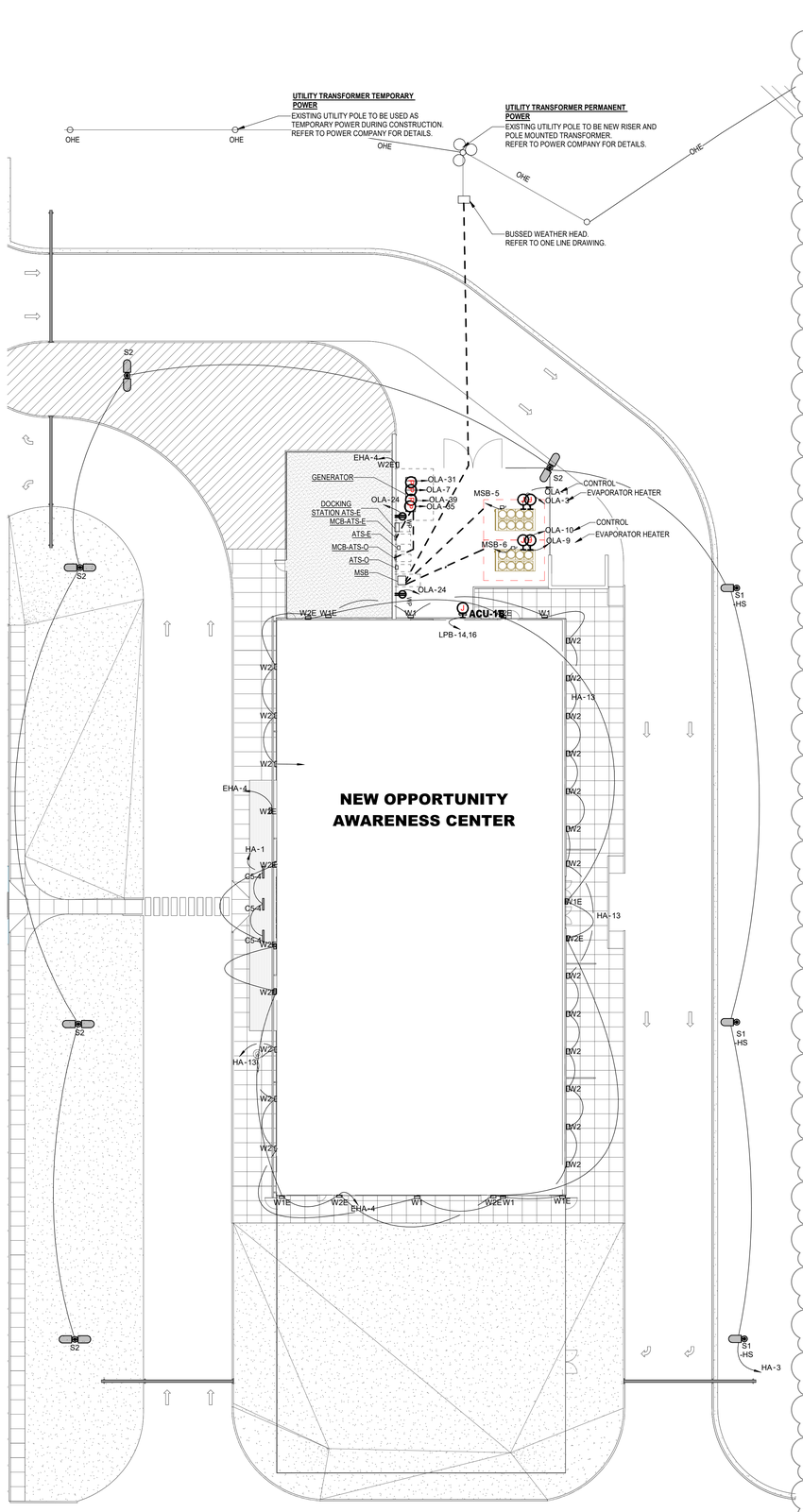
1. ALL FIRE ALARM DEVICES LOCATED OUTDOOR OR AT AREA WITHOUT AIR CONDITIONING SHALL BE RATED FOR WET LOCATION.
2. PROVIDE PROTECTIVE GUARD TO PROTECT ALL FIRE ALARM DEVICES AT THE GYM AND SPORTS AREA.
3. SEE ARCHITECTURAL PLAN FOR CEILING HEIGHT. PROVIDE SMOKE SAMPLING TUBE AND PIPE SYSTEM FOR AREA WITH 30FT CEILING IN LIEU OF CEILING SMOKE DETECTOR.
4. STROBE LIGHT OUTPUT MUST COMPLY WITH NFPA 72 AND ADA REQUIREMENTS.

ELECTRICAL ABBREVIATIONS

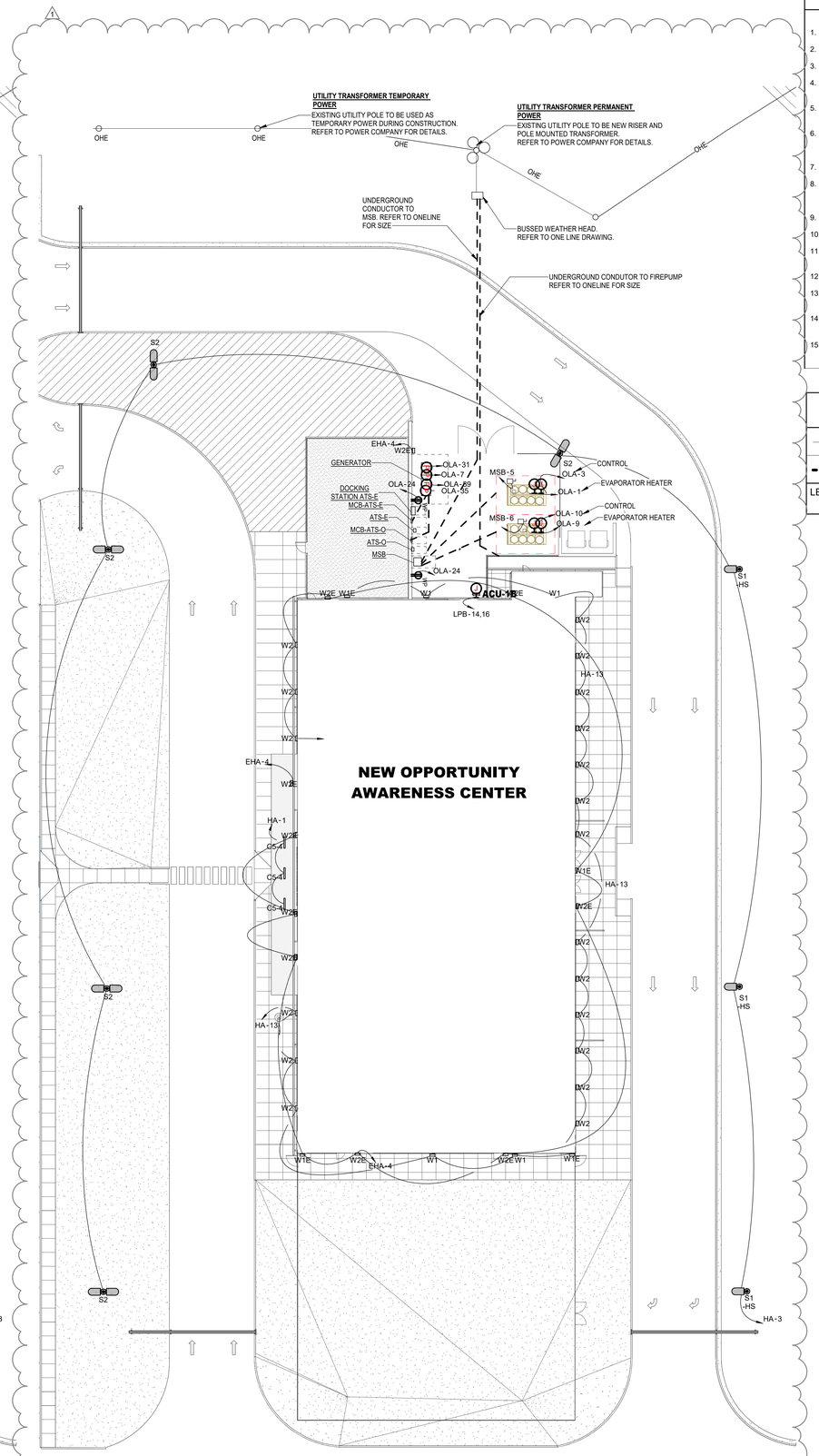
A	AMPERE
AF	AMP FRAME
AT	AMP TRIP
AC	ALTERNATING CURRENT
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
CB	CIRCUIT BREAKER
CATV	COMMUNITY ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
CPU	CENTRAL PROCESSING UNIT
CU	COPPER
CT	CURRENT TRANSFORMER
DC	DIRECT CURRENT
DN	DOWN
EX	EXISTING
E	EMERGENCY
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FDR	FEEDER
FL	FLOOR
F	FUSE OR FUSED
FVNR	FULL VOLTAGE NON REVERSING
GEN	GENERATOR
GF	GROUND FAULT (DETECTOR)
GFCI/GFI	GROUND FAULT CIRCUIT INTERRUPTER
GRC	GALVANIZED RIGID STEEL CONDUIT
G OR GND	GROUND
HT	HEIGHT
HID	HIGH INTENSITY DISCHARGE
HP	HORSE POWER
HOA	HAND-OFF-AUTOMATIC
ISO	ISOLATED
JB	JUNCTION BOX
K	KILO, THOUSAND
KCMIL	THOUSAND CIRCULAR MILS
LED	LIGHT EMITTING DIODE
M	MOTOR
MATV	MASTER ANTENNA TELEVISION
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MF	MAIN FUSE
MH	MOUNTING HEIGHT
MLO	MAIN LUGS ONLY
MT	MOUNT
MTG	MOUNTING
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NF	NON FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE
PNL	PANELBOARD
PVC	POLY-VINYL CHLORIDE
RC	REMOTE CONTROL
RECPT	RECEPTACLE
REF	REFERENCE
RMS	ROOT MEAN SQUARE
ST	SHUNT TRIP
SYM	SYMMETRICAL
SW	SWITCH
SWBD	SWITCHBOARD
TB	TERMINAL BOX
TC	TIME CLOCK
TEL	TELEPHONE
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VA	VOLT-AMPERE
W	WATTS
WP	WEATHERPROOF COVER (RECEPTACLES) SHALL BE WEATHER-RESISTANT GFCI TYPE.)
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
Y	WYE
Z	IMPEDANC

GENERAL ELECTRICAL NOTES

1. REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. INSTALL SYSTEMS IN ACCORDANCE WITH THE 2023 NATIONAL ELECTRIC CODE.
3. ALL UNDERGROUND FEEDERS SHALL BE RED CONCRETE ENCASED.
4. PROVIDE LIGHT FIXTURE FIRE PROTECTION AND CONDUIT FIRE SEALING TO MAINTAIN FIRE RATING OF WALLS AND CEILINGS PER ARCHITECT'S SCHEDULE. REFER TO SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
5. DRAWINGS ARE DIAGRAMMATIC AND DEFINE THE INTENT OF THE WORK. LOCATIONS OF EQUIPMENT, FIXTURES, DEVICES, PANELBOARDS, DUCTS, PIPING, DIFFUSERS, PARTITIONS, OPENINGS, ETC. ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATIONS CAUSED BY STRUCTURAL CONDITIONS AND EQUIPMENT PROVIDED BY OTHER CONTRACTORS, SUBCONTRACTORS OR THE OWNER. COORDINATE ALL WORK WITH THE WORK OF OTHER TRADES. PRIOR TO INSTALLATION, REVIEW THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. IN THE EVENT OF CONFLICT, THE ARCHITECT'S LOCATION WILL GENERALLY PREVAIL BUT SHOULD BE CLARIFIED BY RFI. PROVIDE DEVICES SHOWN ON THE ELECTRICAL DRAWING EVEN IF NOT SHOWN ON ARCHITECTURAL DRAWINGS. MINOR ADJUSTMENTS IN LOCATIONS OF EQUIPMENT AND DEVICES TO EFFECT SUCH COORDINATION SHALL BE MADE AT NO COST TO THE OWNER. SPECIFICATIONS MAY REQUIRE WORK, EQUIPMENT, SYSTEMS, METHODS, ETC. THAT IS NOT INDICATED ON THE DRAWINGS.
6. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLEMENTARY TO EACH OTHER. WHERE DISCREPANCIES OR CONFLICTS OCCUR, THE CONTRACTOR SHALL INCLUDE THE MORE COSTLY METHOD IN HIS PROPOSAL UNLESS CLARIFIED BY BULLETIN OR ADDENDUM ACKNOWLEDGED PRIOR TO RECEIPT OF BIDS.
7. DRAWINGS SHALL NOT BE SCALED. DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND REQUIREMENTS OF THE WORK. ALTHOUGH SIZE AND LOCATION OF EQUIPMENT IS SHOWN WHERE POSSIBLE, CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY INFORMATION AT THE PROJECT SITE.
8. THE TERM 'OTHERS' SHALL BE UNDERSTOOD TO MEAN CONTRACTORS, SUBCONTRACTORS OR TRADESMEN ON THE PROJECT PERFORMING WORK ON THIS PROJECT UNDER SECTIONS OR DIVISIONS OTHER THAN DIVISION 26 - ELECTRICAL WORK.
9. VERIFY THAT FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS INDICATED.
10. PRIOR TO BIDDING VISIT THE PROJECT SITE TO DETERMINE THE CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. SCHEDULE SITE VISIT WITH OWNER.
11. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR THE INSTALLATION, RELOCATION AND CONNECTION OF THE ELECTRICAL WORK.
12. ALL MATERIAL SHALL BE UNDERWRITERS' LABORATORIES LISTED FOR ITS APPLICATION WHERE SUCH LISTING IS APPLICABLE.
13. ALL EQUIPMENT SHALL BE AS INDICATED OR AS APPROVED BY THE ENGINEER.
14. SUBMIT SHOP DRAWINGS, PRODUCT DATA SHEETS AND WIRING DIAGRAMS FOR ALL ELECTRICAL CONSTRUCTION MATERIALS, DEVICES, EQUIPMENT, APPLIANCES AND SYSTEMS.
15. REFER TO DRAWINGS AND SPECIFICATIONS OF OTHER TRADES FOR EQUIPMENT LOCATIONS AND CONTROLS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF DEBRIS GENERATED BY HIS WORK AND WORKERS AT THE END OF EACH WORKING DAY AND FOR GENERAL GOOD HOUSEKEEPING BY HIS WORKERS. CONTRACTOR SHALL PROVIDE REQUIRED REFUSE CONTAINERS.
17. WIRING RUNS INDICATED ON THE DRAWINGS EXPRESS THE INTENT OF CIRCUIT ASSIGNMENT AND SWITCH CONTROL. ACTUAL WIRING METHODS USED SHALL BE SUITED FOR THE CONSTRUCTION OF THE BUILDING. REFER TO DRAWINGS OF OTHER TRADES AND EXISTING CONDITIONS. SEE ARCHITECTURAL DRAWINGS FOR DETAILS. NUMBER OF CONDUCTORS IS NOT ALWAYS INDICATED.
18. PERFORM MANUFACTURER'S RECOMMENDED TESTS AND SUBMIT RESULTS.
19. VERIFY PROPER ROTATION OF ALL ROTATING ELECTRICAL MACHINERY.
20. TEST SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, CABLES, BUS DUCTS, SWITCHES, CIRCUIT BREAKERS, GROUNDING SYSTEM, GROUND FAULT PROTECTION SYSTEM, SURGE ARRESTORS AND TVSS DEVICES, GENERATORS, AND TRANSFER SWITCHES IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE CURRENT EDITION OF THE INTERNATIONAL ELECTRICAL TESTING ASSOCIATION ACCEPTANCE TESTING SPECIFICATIONS FOR ELECTRIC POWER DISTRIBUTION EQUIPMENT AND SYSTEMS (NETA ATS). PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST LISTED.
21. CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY CONFLICT DISCOVERED BEFORE PERFORMING ANY WORK RELATED TO SUCH CONFLICT.
22. DO NOT INSTALL ELECTRICAL PANELS, SWITCHBOARDS AND TRANSFORMERS BELOW DUCT WORK AND WATER PIPING. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT ELECTRICAL REQUIREMENT OF HVAC EQUIPMENT PRIOR TO ORDERING CIRCUIT BREAKERS AND WIRE.
23. COORDINATE ELECTRICAL EQUIPMENT WITH PIPING AND DUCTWORK. PROVIDE ADEQUATE WORKING CLEARANCE PER NEC PRIOR TO ROUGH-IN.
24. EXACT LOCATION OF EQUIPMENT SHALL BE COORDINATED IN THE FIELD.
25. PERFORM ALL CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF THE WORK. CUT NO STRUCTURAL MEMBER WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. FINISH AND PAINT ALL PATCHED SURFACES WITH TWO COATS OF PAINT TO MATCH EXISTING SURFACES AS CLOSELY AS POSSIBLE. SEAL OPENINGS VERMIN AND WATER PROOF AND MAINTAIN FIRE RATING. USE SPECIFIED TECHNOLOGIES, INC. "SPECSEAL" SERIES LCI FOR PENETRATIONS
26. ALL PENETRATIONS IN FOUNDATION WALLS AND FLOORS INCLUDING SLAB PENETRATIONS SHALL BE SUBSTANTIALLY SEALED BY UTILIZING A NON-CRACKING POLYURETHANE OR SIMILAR CAULK OR EQUIVALENT TO CLOSE OFF THE SOIL GAS ENTRY ROUTES. ALL CONDUITS IN THE SPACE BELOW THE FOUNDATION FLOOR WHICH PENETRATE THESE BARRIERS SHALL HAVE THREADED OR SOLVENTED FITTINGS.
27. ALL NEW RACEWAY, WIRING AND CABLE IN NEW AND EXISTING FINISHED SPACES SHALL BE RUN CONCEALED IN NEW AND EXISTING CONSTRUCTION UNLESS OTHERWISE INDICATED; CUT AND PATCH AS REQUIRED. PROVIDE PULLBOXES, SIZE AND TYPE AS REQUIRED.
28. ALL NEW WIRING IS TO BE RUN CONCEALED WHERE POSSIBLE. PROVIDE PULLBOXES, SIZE AND LOCATION AS REQUIRED.
29. EXPOSED RACEWAY, IF PERMITTED, SHALL BE RUN TRUE, PLUMB AND PARALLEL OR PERPENDICULAR TO BUILDING LINES. [RIGID METAL CONDUIT,] [EMT WITH RAINTIGHT STEEL FITTINGS,] 3/4 INCH MINIMUM, SHALL BE USED OUTDOORS; ELECTRICAL METALLIC TUBING, 3/4 INCH MINIMUM, SHALL BE USED IN INDOOR UNFINISHED SPACES.
30. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLTS INSULATION IN METAL RACEWAY WITH APPROVED FITTINGS UNLESS OTHERWISE INDICATED.
31. SERVICE ENTRANCE CONDUCTORS UNDERGROUND IN RACEWAY: TYPE THHN-THWN 90 DEGREE C. WHERE EXPOSED WITHIN THE BUILDING OR STRUCTURE, ENCASE RACEWAY IN CONCRETE, MINIMUM 2-INCHES THICK.
32. FEEDERS AND BRANCH CIRCUITS UNDERGROUND IN RACEWAY: TYPE THHN-THWN 90 DEGREE C
33. INTERIOR FEEDERS AND BRANCH CIRCUITS IN RACEWAY: TYPE THHN 90 DEGREE C.
34. ELEVATOR FEEDER: TYPE THHN, 90 DEGREE C.
35. FEEDERS SHALL BE MINIMUM #6 AWG; BRANCH CIRCUIT WIRING MINIMUM #12 AWG; CONTROL WIRING MINIMUM #14 AWG; UNLESS OTHERWISE INDICATED. FEEDER AND BRANCH CIRCUIT WIRING LARGER THAN #10 AWG SHALL BE STRANDED CONDUCTOR; #10 AWG AND SMALLER, STRANDED CONDUCTOR OR SOLID CONDUCTOR; CONTROL WIRING, STRANDED CONDUCTOR.
36. DO NOT INSTALL CONDUCTORS, WIRES OR CABLES OF ANY OTHER SYSTEM IN THE SAME RACEWAY OR CABLE WITH FIRE ALARM POWER SUPPLY CIRCUITS. NON-POWER LIMITED FIRE ALARM CIRCUITS OR POWER LIMITED FIRE ALARM CIRCUITS.
37. MAKE FLEXIBLE CONNECTIONS TO MOTORS AND OTHER ROTATING / VIBRATING EQUIPMENT.
38. WIRE EXIT LIGHTS AND EMERGENCY FIXTURES (BUGEYES) SHALL BE CIRCUITED TO THE UNSWITCHED SIDE OF THE LIGHTING CIRCUITED FEEDING THE ASSOCIATED AREA.
39. PROVIDE DISCONNECTS FOR ALL APPLIANCES, EQUIPMENT, MOTORS AND CONTROLLERS.
40. INSTALL MOTOR STARTERS, CONTROLLERS OR COMBINATION STARTERS FURNISHED FOR EACH MOTOR. LOCATE AS DIRECTED IN THE FIELD.
41. PROVIDE UN-SWITCHED 125 VOLT 20 AMP RECEPTACLE OUTLETS LOCATED ON THE SAME LEVEL AND WITHIN 25 FEET OF ALL HEATING, AIR-CONDITIONING AND REFRIGERATION EQUIPMENT UNLESS OTHERWISE NOTED.
42. PROVIDE PERMANENTLY INSTALLED LIGHTING OUTLETS TO ILLUMINATE THE AREAS IN ATTICS OR CRAWL SPACES IN WHICH EACH PIECE OF HEATING, AIR-CONDITIONING AND REFRIGERATION EQUIPMENT IS LOCATED. PROVIDE LUMINAIRE, LAMP AND LIGHT SWITCH APPROPRIATE FOR THE LOCATION. INSTALL LIGHT SWITCH NEAR THE ACCESS TO THE AREA UNLESS OTHERWISE NOTED.
43. ROUTE RACEWAYS THROUGH ROOF USING DEDICATED ROOF JACKS OR PITCH POCKETS. RUN RACEWAY ON ROOF ON DEDICATED ROOF SUPPORTS EIGHT INCHES HIGH MINIMUM.
44. ALL 125 VOLT, SINGLE PHASE, 15- AND 20-AMPERE SINGLE AND DUPLEX RECEPTACLES WHICH DO NOT SERVE A DEDICATED APPLIANCE AND ARE WITHIN A 6 FOOT RADIUS OF A SINK, ARE INSTALLED IN WET LOCATIONS, ARE INSTALLED IN BATHROOMS, ON ROOFS, OR OUTDOORS WITH DIRECT GRADE ACCESS, SHALL BE GROUND FAULT CIRCUIT INTERRUPTING TYPE WHERE AVAILABLE OR SHALL BE PROTECTED BY GROUND FAULT CIRCUIT INTERRUPTING CIRCUIT BREAKERS.
45. THE EMERGENCY SYSTEM CONSISTS OF ALL FEEDERS AND BRANCH CIRCUITS INDICATED AS THE LIFE SAFETY AND CRITICAL BRANCHES. THE WIRING OF THE EMERGENCY SYSTEM SHALL BE RUN IN ELECTRICAL METALLIC TUBING IN ACCORDANCE WITH NEC 517-30(C)(3).
46. CONTRACTOR SHALL PROVIDE FIELD MARKINGS ON ELECTRICAL SERVICE EQUIPMENT TO INCLUDE THE AVAILABLE SHORT CIRCUIT RATING FROM THE UTILITY PER NEC 110.24.
47. CONTRACTOR SHALL PROVIDE AND INSTALL A LOCAL LOCKABLE DISCONNECT SWITCH BY EACH PIECE OF MOTORIZED OR PACKAGED EQUIPMENT. DISCONNECT AMPACITY RATING SHALL AT LEAST MATCH THAT OF THE UPSTREAM CIRCUIT BREAKER PROTECTING THE EQUIPMENT. INDOOR DISCONNECTS SHALL BE NEMA 1 TYPE AND OUTDOOR DISCONNECTS SHALL BE NEMA 3R TYPE. DISCONNECTS IN KITCHEN AREAS SHALL BE NEMA 4X TYPE.
48. COORDINATE POWER AND DATA WITH THE FURNITURE SUPPLIER PRIOR TO ROUGH-IN, AT CASEWORK WITH KNEE SPACE, MOUNT RECEPTACLES AND DATA OUTLETS IN KNEE SPACE. COORDINATE WITH ARCHITECT AND FURNITURE SUPPLIER TO ENSURE THAT PROTECTIVE GROMMETS ARE PROVIDED IN THE COUNTER.
49. ELECTRICAL DEVICES IN FIRE RATED WALLS SHALL BE A MINIMUM OF 24" AWAY FROM DEVICES ON THE OPPOSITE SIDE OF THE WALL TO MAINTAIN FIRE RATING.
50. MINIMUM SIZE CONDUIT FOR POWER SHALL BE 3/4". FLEX METAL CONDUIT IN WET AND DAMP LOCATION SHALL HAVE LIQUID TIGHT CONSTRUCTION. MINIMUM SIZE CONDUIT FOR DATA SHALL BE 1"C. DO NOT COMBINE CONDUIT FOR DATA.
51. MAX. LENGTH FOR FLEX CONDU



1 **ELECTRICAL SITE PLAN**
SCALE= 1" = 20'-0"



2 **ELECTRICAL SITE PLAN - ALTERNATE**
SCALE= 1" = 20'-0"

ELECTRICAL SITE NOTES

1. REFER TO ELECTRICAL ONE LINE DRAWING.
2. ALL EXTERIOR ELECTRICAL EQUIPMNET TO BE NEMA 4X.
3. CONDUIT ROUTING SHOWN FOR REFERENCE AND SHALL BE COORDINATED IN THE FIELD.
4. FINAL DESIGN OF THE UTILITY INCOMING POWER SUPPLY SHALL BE BY THE UTILITY COMPANY PROVIDER.
5. ALL WORK SHALL BE COORDINATED IN THE FIELD WITH ALL TRADES. DEVIATIONS FROM CONTRACT DOCUMENTS SHALL BE REPORTED TO THE DESIGN TEAM.
6. PROVIDE UNDERGROUND CONDUIT TO FEED THE NEW POLE MOUNTED LIGHTING FIXTURES. ALL UNDERGROUND CONDUIT SHALL BE COORDINATED WITH CIVIL, MECHANICAL AND PLUMBING PRIOR TO ROUGH-IN.
7. REFER TO LIGHTING FIXTURE SCHEDULE FOR LIGHT FIXTURE SPECIFICATIONS.
8. POLE MOUNTED LIGHT FIXUTURES ARE TO BE CONTROLLED VIA RELAY CONTACTOR LINKED TO A TIMECLOCK AND PHOTOCELL WITH AN OVERRIDE SWITCH TO THE BAS. FINAL LOCATION OF SWITCH TO BE COORDINATED WITH OWNER AND ARCHITECT.
9. SITE POLE LIGHTS SHOULD BE CONTROLLED SEPARATELY FROM ANY EXISTING LIGHTS.
10. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR EXACT WIRE SIZE.
11. PROVIDE RECEPTACLE FOR IRRIGATION CONTROL SYSTEM. FINAL LOCATION TO BE COORDINATED WITH ALL TRADES
12. REFER TO TECHNOLOGY DRAWINGS FOR EXACT CAMERA LOCATIONS.
13. CONTRACTOR TO VERIFY MINIMUM OF 10FEET FROM SERVICE ENTRANCE TO BUSSED WEATHER HEAD.
14. LOCATE LIGHT FIXTURES TO AVOID INTERFERENCE WITH ROLLING GATE OPERATION. COORDINATE LOCATIONS WITH ALL TRADES PRIOR TO INSTALLATION.
15. PROVIDE A TWO-CONTACTOR LIGHTING CONTROL RELAY TO SERVE WALL PACK AND SITE POLE LIGHTING. BUILDING FAÇADE LIGHTING SHALL BE CONTROLLED ON A SEPARATE CONTACTOR AND SHALL OPERATE INDEPENDENTLY OF SITE POLE LIGHTING.

CONDUIT PATH LEGEND

———	CONDUIT PATH IS OVERHEAD.
- - - - - - - -	CONDUIT PATH IS UNDERGROUND.

LEGEND APPLIES TO UTILITY AND SERVICE ENTRANCE.

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

LTY ENGINEERS
TEXAS ENG. FIRM REG. NO. F-16543

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5700 GRANITE PARKWAY
SUITE 315
PLANO, TEXAS 75024
(469) 808-9777

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Katy ISD
Katy, TX

STATE OF TEXAS
MIGUEL A. HANZE
151421
LICENSED
PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

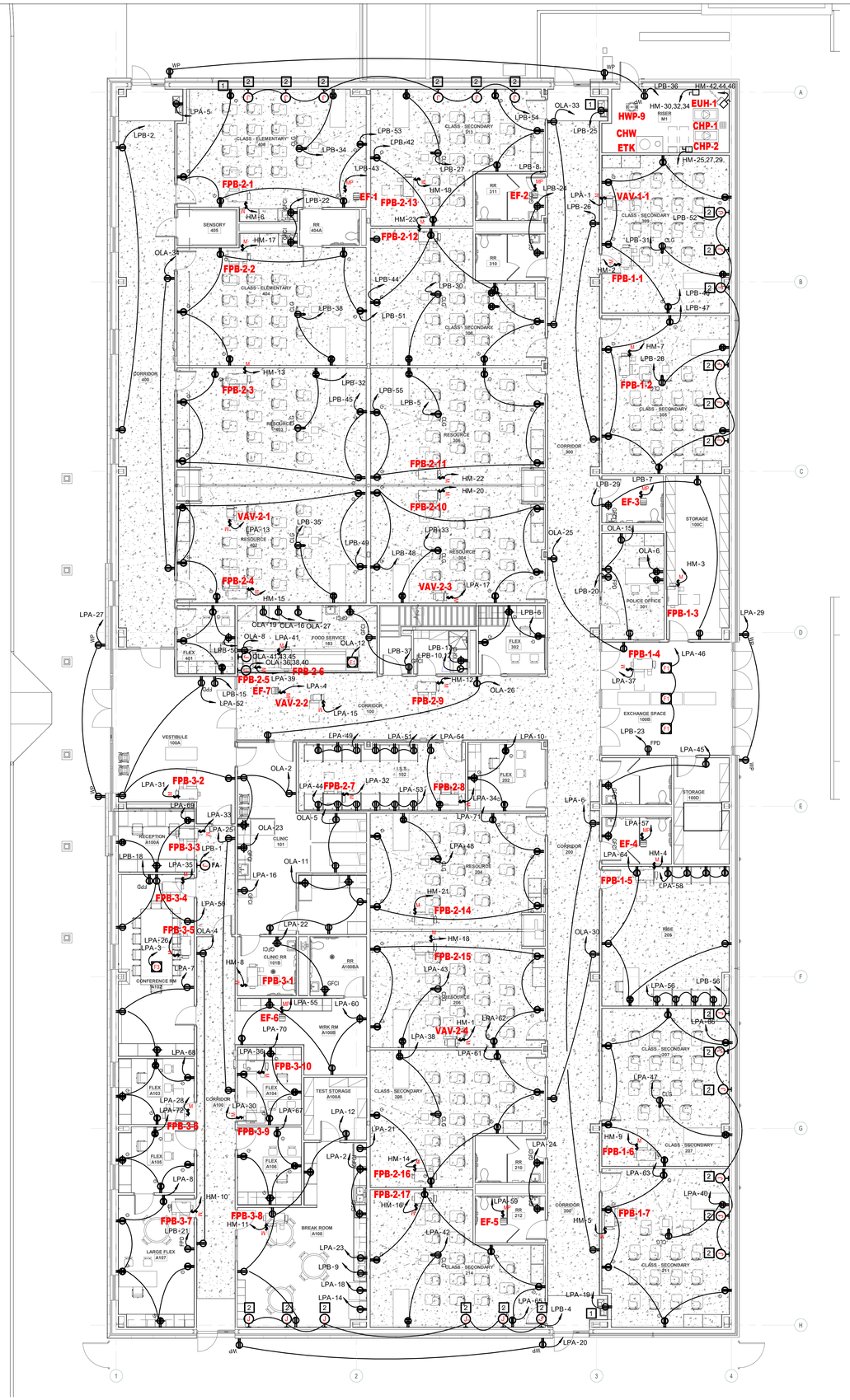
Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Designer
Drawn By	AR

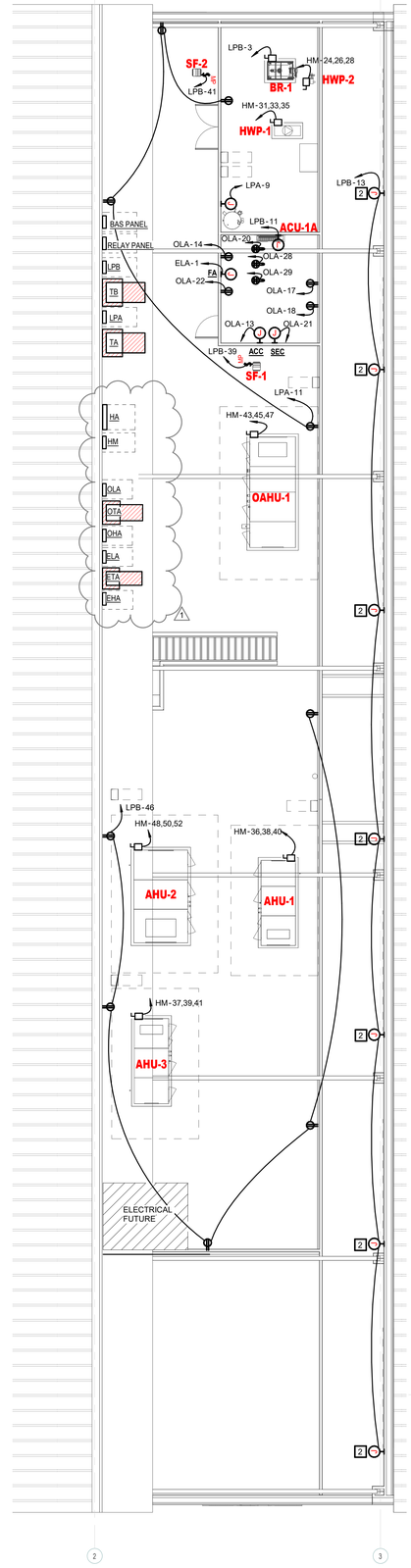
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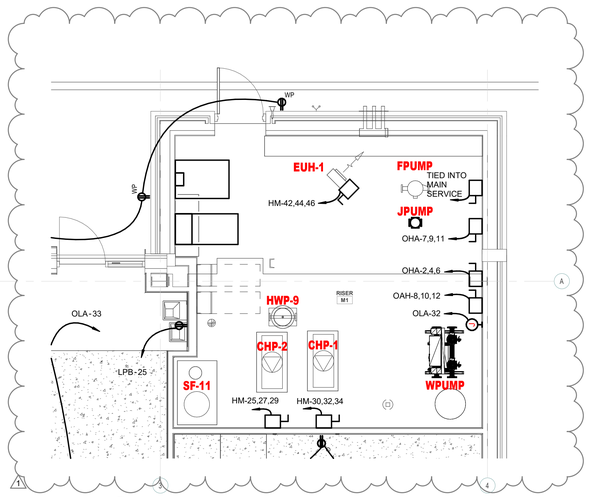
SHEET TITLE
ELECTRICAL SITE PLAN

SHEET NO.
E1.11

NEW OPPORTUNITY AWARENESS CENTER







GENERAL POWER NOTES

1. INSTALL SYSTEMS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
2. RACEWAY SYSTEMS:
   A. CONCEAL ALL RACEWAY SYSTEMS IN CEILING, WALLS AND FLOORS. CONDUIT SHALL BE INSTALLED PARALLEL TO BUILDING COORDINATES. PROVIDE ADEQUATE AND STURDY SUPPORT FOR ALL PARTS OF RACEWAY SYSTEM. CONDUIT CONCEALED IN WALLS MAY BE SUPPORTED WITH HEAVY GAGE WIRE HANGERS. EXPOSED CONDUIT MUST BE SUPPORTED WITH MATERIAL SPECIFICALLY MADE FOR THIS PURPOSE. DO NOT USE WIRE HANGERS.
   B. CONTINUITY: MAKE ALL JOINTS AND CONNECTIONS IN A MANNER WHICH WILL INSURE MECHANICAL STRENGTH AND ELECTRICAL CONTINUITY. USE DOUBLE LOCKNUTS AND INSULATED BUSHINGS OR INSULATED COMPRESSION TYPE CONNECTORS FOR ALL CONDUIT CONNECTIONS TO BOXES. USE INSULATED GROUNDING BUSHINGS WHEREVER WHEN INTERNAL GROUND WIRE IS INSTALLED AND WHEN CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE ENCOUNTERED.
   C. PULL BOX LOCATIONS: AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
   D. EXPANSION FITTINGS: INSTALL O.Z. OR EQUAL EXPANSION FITTING IN EACH RUN OF CONDUIT WHICH CROSSES BUILDING EXPANSION JOINT.
   E. OPENINGS: KEEP ALL RACEWAY OPENINGS CLOSED IN A MANNER TO PREVENT ENTRY OF MOISTURE AND FOREIGN MATERIALS UNTIL CONDUCTORS ARE INSTALLED.
   F. FIRE PROOFING: ALL RACEWAY COMPONENTS PASSING THROUGH OR INSTALLED WITHIN U.L. RATED WALLS, CEILING OR FLOOR STRUCTURES SHALL BE FIREPROOFED WITH 3M FIRE BARRIER CP25WB CAULK, MOLDABLE PUTTY OR FS-195 WRAP/STRIP INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
   G. ALL JUNCTION AND PULL BOXES SHALL BE MARKED NOTING CIRCUITS CONTAINED.
   H. SEALING: ALL CONDUIT, JUNCTION BOX, OUTLET BOX AND OTHER PENETRATIONS OF THE BUILDING ENVELOP SHALL BE SEALED WITH NON-HARDENING CAULKING OR OTHER NON-HARDENING MATERIAL AS REQUIRED BY THE INTERNATIONAL ENERGY CONSERVATION CODE.
3. TYPE OF CONDUIT FOR VARIOUS LOCATIONS:
   A. UNDERGROUND: RIGID GALVANIZED STEEL OR SCHEDULE 40 PVC.
   B. IN CONCRETE WALLS: RIGID GALVANIZED STEEL OR SCHEDULE 40 PVC.
   C. IN MASONRY WALLS: RIGID GALVANIZED STEEL.
   D. INSIDE OF BUILDING IN CEILING CAVITY OR IN DRY WALL: GALVANIZED STEEL EMT WITH STEEL, COMPRESSION FITTINGS.
   E. USE FLEXIBLE CONDUIT ONLY FOR CONNECTION TO MOTORS FROM RIGID CONDUIT SYSTEM. PROVIDE LIQUID TIGHT CONSTRUCTION AND FITTINGS. MAXIMUM LENGTH IS SIX FEET.
   F. FITTINGS: ALL RIGID GALVANIZED STEEL CONDUIT SHALL HAVE THREADED FITTINGS. PROVIDE INSULATED BUSHINGS FOR ALL CONNECTIONS TO BOXES WHERE THREADED CONDUIT IS USED. PROVIDE INSULATED BUSHINGS FOR ALL EMT CONDUIT 1" OR LARGER OR HOUSING #6 OR LARGER WIRES.
4. PROVIDE PULL BOXES, JUNCTION BOXES, WIRING TROUGHS AND CABINETS WHEREVER REQUIRED FOR PROPER INSTALLATION OF VARIOUS ELECTRICAL SYSTEMS. PULL BOXES SHALL BE MADE OF CODE GAGE STEEL WITH SIDES FORMED AND WELDED, SCREW COVERS UNLESS SHOWN TO HAVE HINGED DOORS. HINGED DOORS TO BE SAME AS FURNISHED ON PANEL BOARDS, WITH SAME LOCKING DEVICES. KNOCKOUTS SHALL BE FACTORY MADE OR FORMED IN FIELD WITH A CUTTING TOOL WHICH WILL PROVIDE A CLEAN, SYMMETRICALLY CUT HOLE. DO NOT GANG BOXES OR USE EXTENSION RINGS TO INCREASE CAPACITY.
5. PROVIDE OUTLET BOXES FOR ALL SWITCHES, RECEPTACLES AND THE VARIOUS OTHER OUTLETS AND EQUIPMENT SHOWN. OUTLET BOXES SHALL BE GALVANIZED STEEL, ONE PIECE CONSTRUCTION, IN ALL CASES SUITABLE FOR INTENDED USE. PROVIDE "GANG" BOXES WHERE DEVICES ARE SHOWN GROUPED. USE HOT DIPPED GALVANIZED CAST IRON FOR FLOORS OR EXTERIOR LOCATIONS.
6. ALL WIRING SHALL BE 600 VOLT, SOFT DRAWN ANNEALED COPPER, 98% CONDUCTIVITY, CONTINUOUS FROM OUTLET TO OUTLET. MINIMUM WIRE SIZE #12. ALL WIRE SHALL BE STRANDED TYPE THHN OR THWN-2 (WET RATED FOR 90° C). ALL WIRES SHALL BE COLOR CODED WITH SAME COLOR CONNECTED TO SAME UNGROUNDED PHASE THROUGHOUT THE INSTALLATION.
7. ALL CIRCUIT SHALL HAVE GREEN GROUND WIRE SIZED PER NATIONAL ELECTRIC CODE. PERMANENTLY AND SECURELY GROUND THE REFRIGERATION EQUIPMENT AND CONDUIT SYSTEM AND ALL OTHER COMPONENTS OF THE ELECTRICAL SYSTEM INSTALLED OR CONNECTED BY THE SUB-CONTRACTOR. FOLLOW NEC AND BUILDING CODE REQUIREMENTS.
8. WHERE PORTIONS OF INTERIOR RACEWAY SYSTEM ARE EXPOSED TO WIDELY DIFFERENT TEMPERATURES, PROVIDE AIR SEALING PER NEC TO PREVENT CIRCULATION OF AIR FROM WARMER TO A COOLER SECTION.
9. ALL MATERIAL MUST BE NEW AND OF GOOD QUALITY AND SHALL BEAR THE STAMP OF APPROVAL OF THE UNDERWRITERS' LABORATORIES, INC. (U.L.).

ELECTRICAL KEY NOTES

1. DRINKING FOUNTAINS ARE TO HAVE A BLANK FACE GFCI LOCATED AT 84" AFF.
2. LOCATION OF MOTORIZED SHADE CONNECTION TO BE FIELD VERIFIED.

1 **ELECTRICAL POWER LEVEL ONE FLOOR PLAN**
SCALE= 1/8" = 1'-0"

2 **POWER PLATFORM**
SCALE= 1/8" = 1'-0"

3 **ELECTRICAL POWER PLAN - ALTERNATE**
SCALE= 1/4" = 1'-0"

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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SUITE 315
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(469) 808-9777

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NEW OPPORTUNITY AWARENESS CENTER

STATE OF TEXAS
MIGUEL A. HANZE
151421
LICENSED PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

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Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Designer
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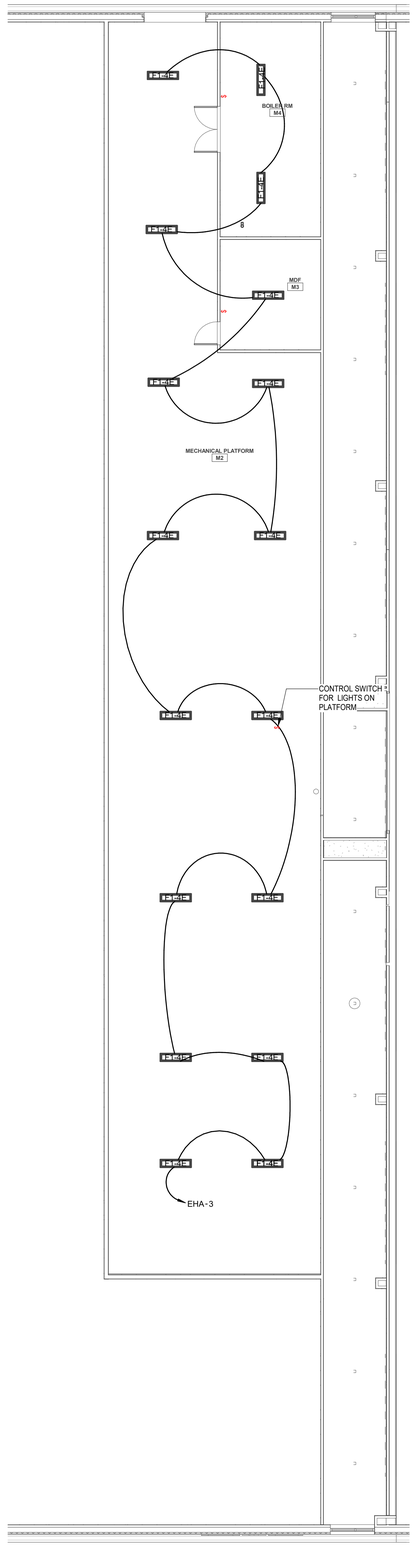
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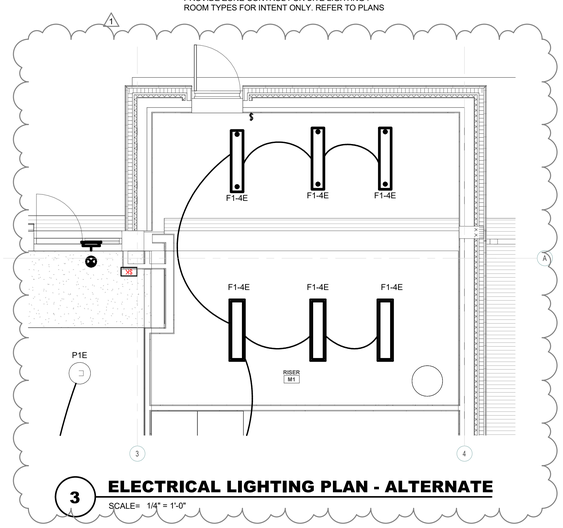
SHEET TITLE
ELECTRICAL POWER LEVEL ONE FLOOR PLAN

SHEET NO.
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GENERAL LIGHTING NOTES

1. ALL EXIT SIGNS SHALL BE MOUNTED AT 6" ABOVE THE DOOR FRAME. ALL EXIT SIGNS TO BE CONNECTED WITH 2#12 + 1#12G IN 3/4" CONDUIT TO NEAREST UNSWITCHED EMERGENCY LIGHTING CIRCUIT.
2. ALL LIGHTING TO BE COORDINATED WITH ARCHITECTURAL RCP PLANS FOR EXACT LOCATIONS AND ELEVATIONS.
3. EXTERNAL LIGHTING SHALL BE CONTROLLED VIA CONTACTOR PANEL LINK TO THE BAS.
4. REFER TO LIGHTING SCHEDULE DRAWING FOR THE LUMINARIES SPECIFICATION.
5. MULTIPLE SWITCHES SHOWN TOGETHER SHALL BE GANGED TOGETHER UNDER A COMMON COVER PLATE.
6. FINAL FINISH OF ALL LIGHTING FIXTURES ARE TO BE AGREED WITH THE ARCHITECT.
7. ALL CLASSROOMS TO HAVE LIGHTING CONTROL WITH MANUAL DIMMING. CLASSROOMS TO BE PROVIDED WITH 6 BUTTON 1 GANG DIMMABLE SWITCH, PROVIDE 2 LIGHTING ZONE FOR PROJECTOR AND FULL CLASSROOM. COORDINATE FINAL LOCATION OF TEACHING WALL PER CLASSROOM PRIOR TO CIRCUITING LIGHTING ZONE.
8. ALL CEILING MOUNTED DEVICES LOCATED IN LAY-IN CEILINGS SHALL BE CENTERED IN THE CEILING TILE. DETECTION SHALL BE DUAL TECHNOLOGY TYPE WITH INFRARED AND ULTRASONIC OR PHONIC.
9. EMERGENCY LIGHTING SHALL BE FED FROM THE LIFE SAFETY PANEL FROM THE GENERATOR. CIRCUITS SHALL BE ROUTED IN SEPARATE CONDUIT FOR EMERGENCY LIGHTING.
10. FINAL LAYOUT OF EMERGENCY EXIT SIGN TO BE CONFIRMED WITH THE EGRESS PLAN. EXIT SIGNS TO BE FED FROM THE CLOSEST EMERGENCY LIGHTING CIRCUIT.
12. ALL LIGHTING SWITCHES PLATE SHALL BE WITH GRAY COLOR.
13. ALL LIGHTING FIXTURES INSTALLED WITHIN MDF/IDF ROOM SHALL BE COORDINATED WITH RACK FINAL LOCATION PRIOR ROUGH-IN.
14. NETWORKED LIGHTING CONTROL SHALL BE INTEGRATED WITH THE BUILDING MANAGEMENT CONTROL SYSTEM (BMCS/BAS) TO ALLOW THE BMCS TO MONITOR THE INDIVIDUAL ROOM/SPACE/AREA OCCUPIED/UNOCCUPIED STATE OF THE OCCUPANCY AND VACANCY SENSORS TO ENHANCE BMCS CONTROL OF HVAC EQUIPMENT. THE PHYSICAL INTEGRATION SHALL BE A SINGLE POINT OF COMMUNICATION BETWEEN THE LIGHTING CONTROL NETWORK HEAD END OR MASTER CONTROLLER AND THE BMCS.
15. NETWORKED LIGHTING CONTROL SHALL BE INTEGRATED WITH THE FIRE ALARM SYSTEM TO ALLOW THE FIRE ALARM SYSTEM TO FORCE TO FULL ON ALL NFPA 101 EGRESS PATH LIGHTING THAT IS CONTROLLED BY OCCUPANCY OR VACANCY SENSORS UPON ACTIVATION OF A FIRE ALARM OR FIRE DRILL.
16. LOW VOLTAGE LV CONTROL KEY SWITCHES AND LOW VOLTAGE LV OVERRIDE KEY SWITCHES SHALL USE A LEVITON #WS-35 TYPE KEY, THIS MAY INCLUDE THE USE OF LEVITON 120/277-VOLT KEY TOGGLE OR MOMENTARY SWITCHES TO BE USED ON LOW VOLTAGE CONTROL CIRCUITS TO ACHIEVE THE PROPER FUNCTION.
17. LV SPDT KEY SWITCH NEXT TO EACH SECURITY KEYPAD TO MANUALLY TURN CORRIDOR LIGHTS ON/OFF. LIGHTS WILL REMAIN ON AFTER MANUAL ON FOR TWO HOURS MINIMUM AND THEN UNTIL AN UNOCCUPIED STATE OR MANUALLY TURNING OFF AT THE KEY SWITCH IN WHICH THE LIGHTS SHALL TURN OFF. ANY OCCUPANCY SENSOR IN A RESPECTIVE CORRIDOR SHALL TURN ON ALL CORRIDOR LIGHTS LOCATED IN THAT CORRIDOR REGARDLESS OF CORRIDOR SIZE OR LENGTH.
19. EXIT SIGNS SHALL BE PROVIDED WITH 'RED' LETTERING.

LIGHT CONTROL SCHEDULE	CORRIDORS	CLASSROOMS	MEP ROOMS	OFFICE	STORAGE	RESTROOM	BREAKROOM	NURSE	EXTERIOR
TOGGLE SWITCH			X						
DIMMER SWITCH		X		X			X		
SCENE SWITCH									
KEY SWITCH	X								
TOUCH SCREEN CONTROL PANEL FOR MOTORIZED SHADES	X								
OCCUPANY SWITCH (OCCUPANCY SENSOR MODE)							X	X	
OCCUPANCY SWITCH (VACANCY MODE)					X			X	
OCCUPANCY SENSOR (OCCUPANCY MODE)	X	X		X			X		X
DAYLIGHT SENSOR	X								X
TIMECLOCK CONTROL									X
OVERRIDE SWITCH									X

NOTES:

NURSE: LIGHTS OVER EXAM TABLE TO BE VACANY MODE, ALL OTHER LIGHTS TO BE OCCUPANY MODE.

PROVIDE ZONE CONTROL FOR SITE LIGHTING . ROOM TYPES FOR INTENT ONLY. REFER TO PLANS

1 **ELECTRICAL LIGHTING LEVEL ONE CEILING PLAN**
SCALE= 1/8" = 1'-0"

2 **ELECTRICAL LIGHTING PLATFORM CEILING PLAN**
SCALE= 1/8" = 1'-0"

3 **ELECTRICAL LIGHTING PLAN - ALTERNATE**
SCALE= 1/4" = 1'-0"

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
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ELECTRICAL LIGHTING LEVEL ONE CEILING PLAN

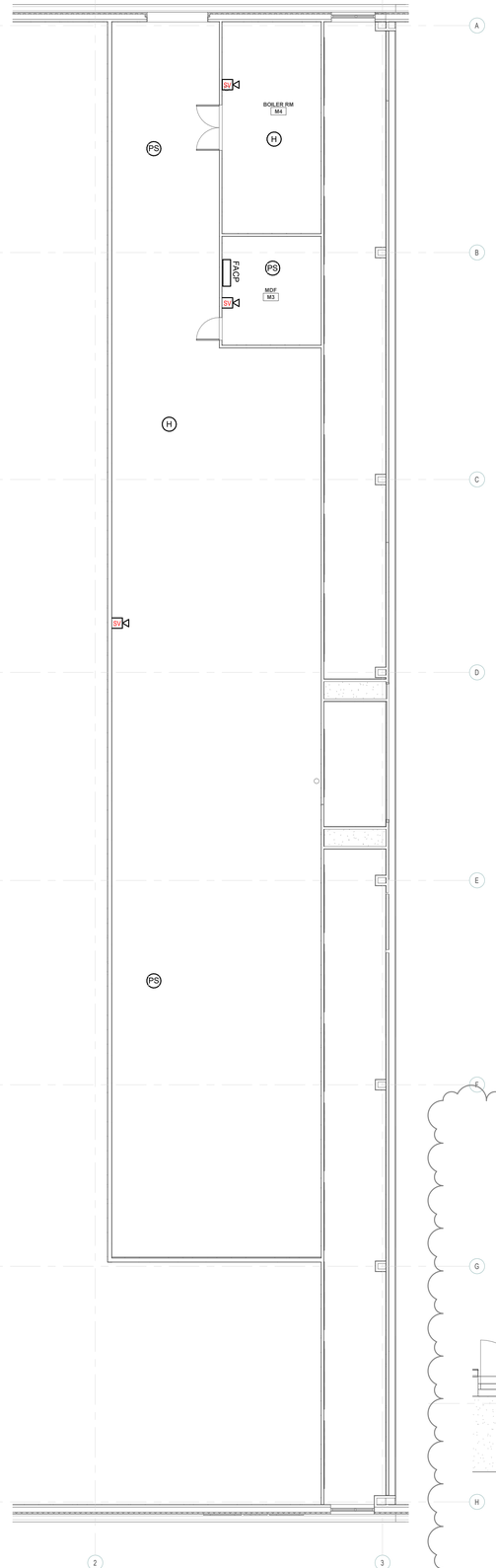
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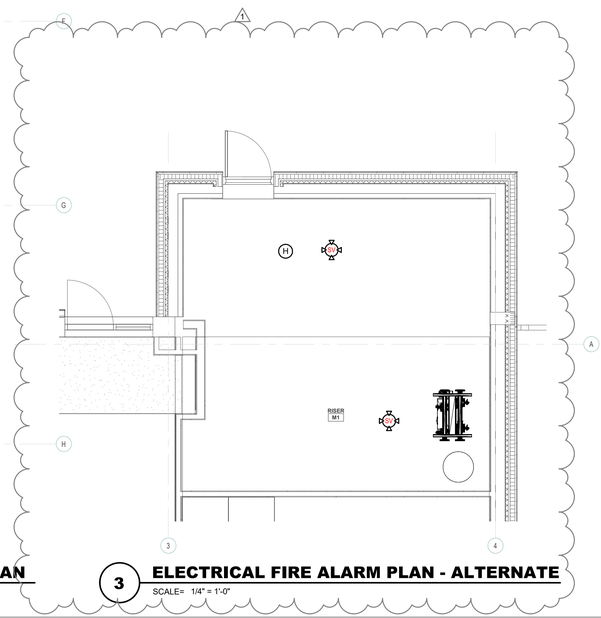
1 ELECTRICAL FIRE ALARM LEVEL ONE CEILING PLAN

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



2 ELECTRICAL FIREALARM PLATFORM CEILING PLAN

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



3 ELECTRICAL FIRE ALARM PLAN - ALTERNATE

SCALE= 1/4" = 1'-0"

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
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Designer	Designer
Drawn By	AR

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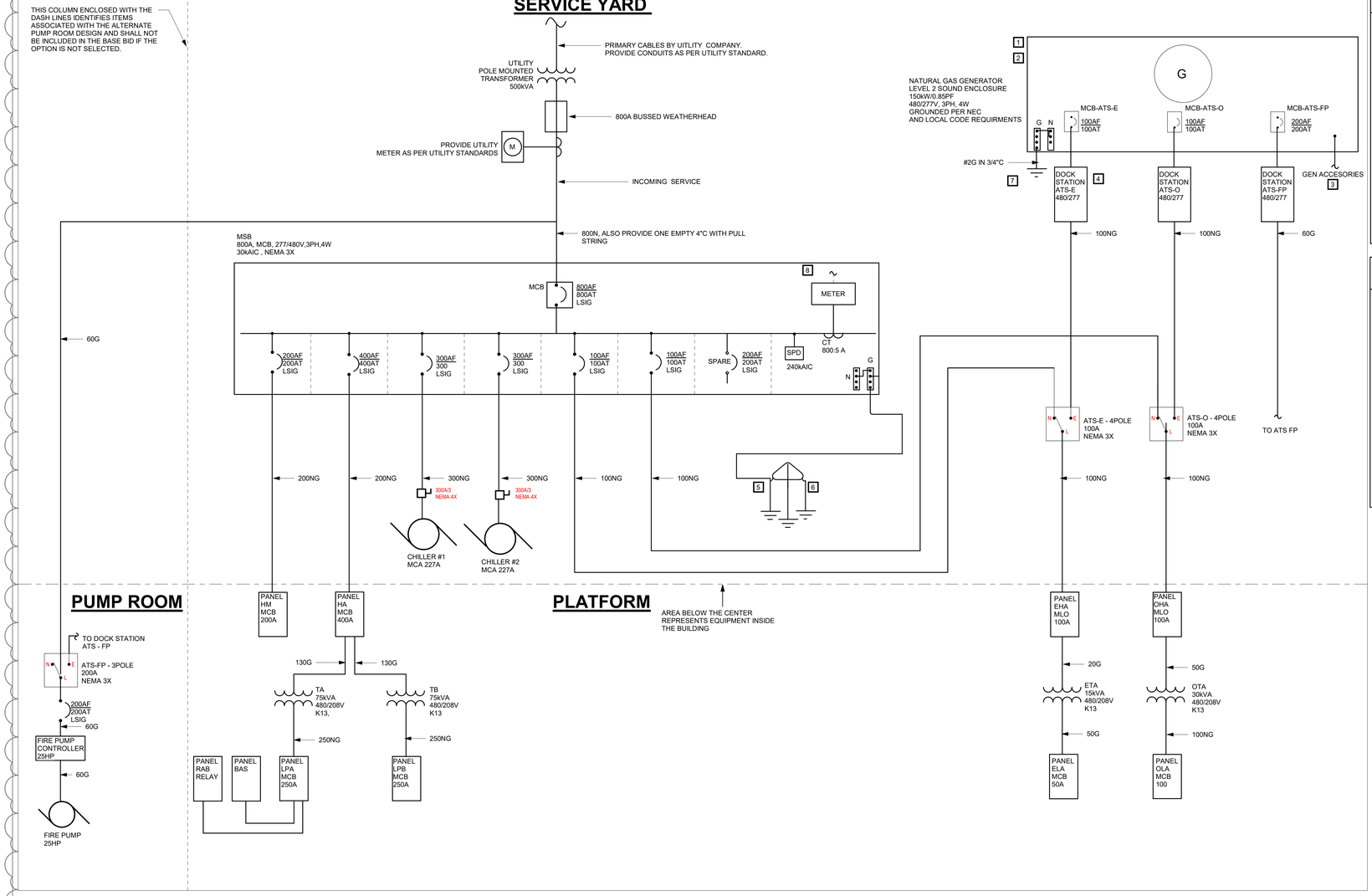
ELECTRICAL FIRE ALARM LEVEL ONE CEILING PLAN

SHEET NO.

E2.31

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THIS COLUMN ENCLOSED WITH THE DASH LINES IDENTIFIES ITEMS ASSOCIATED WITH THE ALTERNATE PUMP ROOM DESIGN AND SHALL NOT BE INCLUDED IN THE BASE BID IF THE OPTION IS NOT SELECTED.



GENERAL ELECTRICAL NOTES

1. REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. INSTALL SYSTEMS IN ACCORDANCE WITH THE 2023 NEC.
3. ALL MATERIAL MUST BE NEW AND OF GOOD QUALITY AND SHALL BEAR THE STAMP OF APPROVAL OF UNDERWRITTERS' LABORATORIES, INC. (UL).
4. COORDINATE WITH MECHANICAL FOR EXACT ELECTRICAL REQUIREMENTS PRIOR TO ORDERING EQUIPMENT.
5. ELECTRICAL EQUIPMENT HAS BEEN COORDINATED WITH PIPING AN DUCTWORK. DO NOT RELOCATE PANELS WITHOUT PRIOR APPROVAL.
6. DO NOT INSTALL ELECTRICAL EQUIPMENT UNTIL 1/4" SCALE DRAWINGS SHOWING THE LOCATION OF EQUIPMENT RELATIVE TO MECHANICAL AND PLUMBING ARE SUBMITTED, APPROVED AND CLEARANCES MAINTED AS PER NEC AND AHJ.
7. ALL OUTDOOR EQUIPMENT SHALL BE RATED NEMA 3X.
8. SEE SHORT CIRCUIT ANALYSIS FOR EQUIPMENT INTERRUPT CURRENT RATING.
9. ALL FEERDERS AND BRANCH CIRCUITS SHALL HAVE GREEN GROUND WIRE SIZED PER NEC.
10. CONTRACTOR SHALL SUBMIT ONE LINE DIAGRAM AND PANEL SCHEDULES TO SWITCHGEAR MANUFACTURER TO PROVIDE PHASE SHIFT STUDIES FOR HARMONIC MITIGATION TRANSFORMERS PRIOR TO ORDERING THE HARMONIC MITIGATION TRANSFORMERS.
11. SEE PANEL SCHEDULES FOR FEEDER SIZES NOT SHOWN ON THIS DRAWING.
12. ALL HIGH AND LOW PANELS WITH SPDS INTERGRAL TO THE PANEL.

ELECTRICAL KEY NOTES

1. PROVIDE A RED MUSHROOM-HEAD EMERGENCY STOP PUSHBUTTON FOR GENERATOR SHUTDOWN, LOCATED IN AN ACCESSIBLE POSITION.
2. INSTALL GENERATOR PER MANUFACTURER REQUIREMENTS.MPROVIDE MINIMUM CLEARANCES AS FOLLOWS:
   10 FT MIN FROM PROPERTY LINES
   3 FT MIN FROM EXTERIOR WALLS AND ROOF OVERHANGS.
   10 FT MIN FROM OPERABLE OPENINGS (DOORS, WINDOWS, AIR INTAKES).
   10 FT MIN ABOVE ADJOINING OPENINGS.
3. PROVIDE BRANCH CIRCUITS FOR BATTERY CHARGER, ALTERNATOR HEATER, COOLANT HEATER, AND TWO (2) f"-C CONTROL CIRCUITS. REFER TO PANEL SCHEDULE FOR CIRCUITING.
4. PROVIDE TWIST LOCKS FOR DOCKING STATION AS WELL AS MANUAL TRANSFER SWITCH TO SWITCH FROM PERMANENT GENERATOR TO TEMPORARY GENERATOR. PROVIDE TWO (2) BANANA PLUG CLIPS FOR TEMPORARY GENERATOR START SIGNAL. USE 2#12 AWG IN 1" CONDUIT BACK TO ATS-E.
5. CONNECT GROUND BAR TO THREE GROUND RODS IN 10FOOT TRIANGLE WITH 1/0G. REF GROUNDING DETAIL FOR ADDITIONAL BONDING TO BLDG STEEL AND WATER/METAL PIPING
6. GROUND NEUTRAL IN MAIN CIRCUIT BREAKER TO GROUND BAR THEN TO GROUND RODS WITH 1/0 AWG , 1"C
7. BOND NEUTRAL TO GROUND BAR IN GENERATOR.
8. PROVIDE DATA DROP FOR METER INTERCONNECT TO MDF VIA 3/4"C

COPPER FEEDER SCHEDULE

FEEDER DESIGNATION	NO. OF SETS	PHASE CONDUCTORS (PER SET)	N NEUTRAL CONDUCTOR (PER SET)	G GROUND CONDUCTOR (PER SET)	SG SYSTEM BONDING JUMPER (PER SET)	P PARTIAL NEUTRAL SERVICE CONDUCTOR (PER SET)	I ISOLATE GROUND CONDUCTOR (PER SET)	CONDUIT SIZE -- CONDUIT TYPES EMT, FCM, IMC, RMC, SCH 40 PVS: 3 PHASE NEUTRAL & GROUND 'NG','NSG', 'PG','PSG' (PER SET)	3 PHASE & GROUND 'G' (PER SET)	3 PHASE NEUTRAL GROUND & ISOLATE GROUND 'NGI','NSGI' (PER SET)	CONDUIT SIZE -- CONDUIT TYPES SCH 80 PVC: 3 PHASE NEUTRAL & GROUND 'NG','NSG', 'PG','PSG' (PER SET)	3 PHASE & GROUND 'G' (PER SET)	3 PHASE NEUTRAL GROUND & ISOLATE GROUND 'NGI','NSGI' (PER SET)
15	1	3 # 12	1 # 12	1 # 8	*	1 # 12		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
20	1	3 # 12	1 # 12	1 # 12	1 # 8	*	2 # 12	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
30	1	3 # 10	1 # 10	1 # 10	1 # 8	*	1 # 10	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
40/50	1	3 # 8	1 # 8	1 # 10	1 # 8	*	1 # 10	3/4"	3/4"	1"	1"	3/4"	1"
60	1	3 # 6	1 # 6	1 # 10	1 # 8	*	1 # 10	1"	3/4"	1"	1"	1"	1 1/4"
70/80	1	3 # 4	1 # 4	1 # 8	1 # 8	*	1 # 8	1 1/4"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
100	1	3 # 2	1 # 2	1 # 6	1 # 6	1 # 8	1 # 8	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/4"	1 1/2"
115	1	3 # 2	1 # 2	1 # 6	1 # 8	1 # 8	1 # 6	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/4"	1 1/2"
130	1	3 # 1	1 # 1	1 # 6	1 # 6	1 # 6	1 # 6	1 1/2"	1 1/2"	1 1/2"	2"	1 1/2"	2"
150	1	3 # 1/0	1 # 1/0	1 # 6	1 # 6	1 # 6	1 # 6	2"	1 1/2"	2"	2"	1 1/2"	2"
175	1	3 # 2/0	1 # 2/0	1 # 6	1 # 4	1 # 4	1 # 6	2"	1 1/2"	2"	2"	2"	2"
200	1	3 # 3/0	1 # 3/0	1 # 6	1 # 4	1 # 4	1 # 6	2"	2"	2"	2 1/2"	2"	2 1/2"
225	1	3 # 4/0	1 # 4/0	1 # 4	1 # 2	1 # 2	1 # 4	2 1/2"	2"	2 1/2"	2 1/2"	2"	2 1/2"
250	1	3 # 250	1 # 250	1 # 4	1 # 2	1 # 2	1 # 4	2 1/2"	2"	2 1/2"	3"	2 1/2"	3"
300	1	3 # 350	1 # 350	1 # 4	1 # 2	1 # 2	1 # 4	3"	2 1/2"	3"	3"	3"	3"
350	1	3 # 500	1 # 500	1 # 3	1 # 1/0	1 # 1/0	1 # 3	4"	3"	4"	4"	3"	4"
400	2	3 # 3/0	1 # 3/0	1 # 3	1 # 1/0	1 # 1/0	1 # 3	2"	2"	2 1/2"	2 1/2"	2"	2 1/2"
460	2	3 # 4/0	1 # 4/0	1 # 2	1 # 1/0	1 # 1/0	1 # 2	2 1/2"	2"	2 1/2"	2 1/2"	2"	2 1/2"
500	2	3 # 250	1 # 250	1 # 2	1 # 1/0	1 # 1/0	1 # 2	2 1/2"	2 1/2"	3"	3"	2 1/2"	3"
600	2	3 # 350	1 # 350	1 # 1	1 # 2/0	1 # 2/0	*	3"	2 1/2"	*	3"	3"	*
700	2	3 # 500	1 # 500	1 # 1/0	1 # 2/0	1 # 2/0	*	4"	3"	*	4"	3"	*
800	3	3 # 300	1 # 300	1 # 1/0	1 # 2/0	1 # 2/0	*	3"	2 1/2"	*	3"	2 1/2"	*
1000	3	3 # 400	1 # 400	1 # 2/0	1 # 3/0	1 # 3/0	*	3"	3"	*	4"	3"	*
1200	4	3 # 350	1 # 350	1 # 3/0	1 # 4/0	1 # 4/0	*	3"	2 1/2"	*	3"	3"	*
1600	5	3 # 400	1 # 400	1 # 4/0	1 # 250	1 # 250	*	3"	3"	*	4"	3"	*
2000	6	3 # 400	1 # 400	1 # 250	1 # 300	1 # 300	*	3"	3"	*	4"	3"	*
2500	7	3 # 500	1 # 500	1 # 350	1 # 500	1 # 500	*	4"	3"	*	4"	4"	*
3000	8	3 # 500	1 # 500	1 # 400	1 # 500	1 # 500	*	4"	3"	*	4"	4"	*
4000	11	3 # 500	1 # 500	1 # 500	2 # 350	1 # 500	*	4"	4"	*	4"	4"	*

EXAMPLES:

1. 150NG = INDICATES 1 SET OF 4# 1/0 + 1#6 GROUND CONDUCTOR PER SET.
2. 500P = INDICATES 2 SET OF 3#250 KCMIL AND 1#1/0 PARTIAL NEUTRAL CONDUCTOR PER SET.
3. 3000NNG = INDICATES 5#350 KCMIL AND 1#4 GROUND CONDUCTOR.

LOAD ANALYSIS NORMAL POWER

Load Description			Building Load Connected			Demand		
Building	**Area (SF)**		**VA/SF**	**kVA**	**Amps**	**Factor**	**kVA**	**Amps**
Lighting(480/277V)	19,871		3.00	59.61	215.21	125%	74.52	269.01
General Power (208/120V)	19,871		3.00	59.61	165.59	Note 1	34.81	96.68
Kitchen(208/120V)	600		40.00	24.00	66.67	100%	24.00	66.67
Fire Alarm System(208/120V)				3.00	3.61	100%	3.00	3.61
Exterior Lighting(480/277V)				2.00	7.22	125%	2.50	9.03
IT Equipment(208/120V)				2.00	5.56	100%	2.00	5.56
Total Building				**150.23**	**180.78**		**140.82**	**169.46**
Mechanical Equipment	**Qty**	**kVA (ea)**	**HP**	**kVA**	**Amps**	**Factor**	**kVA**	**Amps**
Chiller 1(480/277V)	1	121.10		121.10	152.00	100%	121.10	152.00
Chiller 2(480/277V)	1	121.10		121.10	152.00	175%	211.93	266.00
AHU (largest)(480/277V)	1	7.46	10.00	7.46	8.88	250%	18.65	22.44
AHU (Remainder)(480/277V)	4	2.61	3.50	10.44	12.57	100%	10.44	12.57
Fan Power Units (480/277V)	22	2.11	4.00	46.42	55.86	100%	46.42	55.86
Pumps(480/277V)	4	1.49	2.00	5.97	7.18	100%	5.97	7.18
VAV(208/120V)	17	0.10		1.63	1.96	100%	1.63	1.96
Exhaust fans (208/120V)	11	0.19	0.25	2.05	2.47	100%	2.05	2.47
Mech Total				**314.13**	**378.02**		**418.20**	**503.25**
Plumbing Equipment	**Qty**	**kVA (ea)**		**kVA**	**Amps**	**Factor**	**kVA**	**Amps**
Plumbing Electronic Manifold (120V)	4	0		0	3.3	100%	0	3.3
Circulating pump(120V)	4	1		2	20.0	100%	2	20.0
Plumbing Total				**2.80**	**3.37**		**2.80**	**3.37**
Demand Total (480/277V, 3PH, 4W)				**467**	**562**		**562**	**676**
Spare + Future Capacity 25%				**117**	**141**		**140**	**169**
Total Demand							845	

Note 1:First 10KVA taken at 100%, over 10KVA taken at 50%

LOAD ANALYSIS EMERGENCY POWER (GENERATOR)

Load Description			Demand		
Building	**kVA**	**Amps**	**Factor**	**kVA**	**Amps**
Emergency Sytems as defined by NEC 700	10.00	36.10	125%	12.50	45.13
Optional Standby as defined by NEC 702	10.00	12.03	100%	10.00	12.03
Total Building	**20.00**	**24.07**		**22.50**	**27.08**
Spare + Future Capacity 25%	**25**	**30**		**6**	**7**
Total Demand				28	34

AS PER KATY ISD STANDARD 26 3200 SECTION 4 A 150kW Generator has been selected.

SHORT CIRCUIT ANALYSIS

LOCATION	EQUIPMENT	EQUIPMENT AIC FULLY RATING INFINITE BUS METHOD (A)
SERVICE YARD	UTILITY	
	GENERATOR @ X"d 0.15pu	42000
	MSB	42000
	ATS-E	42000
	ATS-O	42000
PLATFORM	HM	42000
	HLA	42000
	LPA	22000
	LPB	22000
	EHA	42000
	OHA	42000
	OLA	10000
	ELA	10000

TVSS SHALL HAVE SAME AIC RATING AS SWITCHGEAR TO BE PROTECTED

1. A PERMANENTLY AFFIXED LABEL SHALL BE ATTACHED TO ALL NEW ELECTRICAL EQUIPMENT WITH THE AVAILABLE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2" X 3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

CAUTION ___ SERIES COMBINATION SYSTEM RATED __ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED.

FEEDER VOLTAGE DROP

LOAD NAME	VOLTAGE	POLES	AMPERAGE	VOLTAGE DROP	LENGTH IN FT
PANEL HM	480	3	79A	2.49%	200
PANEL HA	480	3	73A	2.30%	200
PANEL LPA	208	3	101A	0.22%	20
PANEL LPB	208	3	66A	0.14%	20
PANLE EHA	208	3	10A	1.00%	200
PANEL OHA	208	3	20A	1.99%	200
PANEL OLA	208	3	46A	0.71%	10
PANEL ELA	208	3	3A	0.05%	10

FIREPUMP CALCULATIONS

DISCONNECTING MEANS =200A
LRC BASED ON NEC 430.251(B)
FIRE PUMPS (CONTROLLER AND PUMP) 25-HP, 3PHASE LRC = 183A
JOCKEY PUMP CONTROLLER 0.75HP , 3PHASE LRC = 12.5A
TOTAL LRC = 195.5A
DISCONNECT SIZE = 200A

MINIMUM FEEDER CONDUCTOR = 6AWG
FLC BASED ON NEC 430.6(A)(1) AND 430.250
FIRE PUMP CONTROLLER 25-HP, 3PHASE = 34A*1.25= 42.5A
JOCKEY PUMP CONTROLLER 0.75HP,3PHASE FLC = 1.6A*1.25=2
TOTAL FLC = 44.5A
MINIMUM AMPACITY OF FEEDER = 6AWG

FIRE PUMP VOLTAGE DROP = 1.424% (LESS THAN 3%)
DISTANCE =175FT
EFFECTIVE Z = NEC TABLE 9 =0.41 OHMS TO NEUTRAL PER 1000FT

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

LTY ENGINEERS
TEXAS ENG. FIRM REG. NO. F-16543

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5700 GRANITE PARKWAY
SUITE 315
PLANO, TEXAS 75024
(469) 808-9777

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Katy ISD
Katy, TX

NEW OPPORTUNITY AWARENESS CENTER

STATE OF TEXAS
MIGUEL A. HANZE
151421
REGISTERED PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Designer
Drawn By	AR

PROJECT NO.
25-0067.00

SHEET TITLE
ONE LINE DIAGRAM

SHEET NO.
E3.00

Switchboard: MSB

Location: | **Supply From:** | **Mounting:** SURFACE | **Enclosure:** 4X

Volts: 480/277 Wye | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 30000 | **Mains Type:** MCB | **Mains Rating:** 800 A | **MCB Rating:** 800 A

Notes:
REFER TO ONE LINE DRAWING FOR ADDITIONAL INFORMATION.

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	True Current	Remarks
1	ATS-E	3	100 A	100 A	7018 VA	8 A	
2	ATS-O	3	100 A	100 A	24393 VA	29 A	
3	HMA	3	200 A	200 A	57152 VA	69 A	
4	HLA	3	400 A	400 A	91587 VA	110 A	
5	CHILLER 1	3	300 A	300 A	188724 VA	227 A	
6	CHILLER 2	3	300 A	300 A	188724 VA	227 A	
7	FUTURE SPARE CAPACITY	3	200 A	200 A	140000 VA	--	
				Total Conn. Load:	697468 VA		
				Total Amps:	839 A		

Load Classification	Connected Load	Estimated Demand Current	Demand Factor	Estimated Demand	Panel Totals
Other	50552 VA	61 A	100.00%	50552 VA	
Power	46921 VA	56 A	100.00%	46921 VA	**Total Conn. Load:** 697468 VA
Lighting	9760 VA	12 A	100.00%	9760 VA	**Total Est. Demand:** 836928 VA
Mechanical Equipment Chiller 1	188724 VA	227 A	100.00%	188724 VA	**Total Conn. Current:** 839 A
Receptacle	59760 VA	48 A	66.73%	39880 VA	**Total Est. Demand Current:** 1007 A
Lighting - Dwelling Unit	345 VA	0 A	100.00%	345 VA	
Lighting - Exterior	1421 VA	2 A	125.00%	1776 VA	
Spare	140000 VA	168 A	100.00%	140000 VA	
Mechanical Equipment Chiller 2	188724 VA	397 A	175.00%	330267 VA	
Mechanical Equipment AHU largest	11640 VA	35 A	250.00%	29100 VA	

NOTES

Branch Panel: HA

Location: | **Supply From:** MSB | **Mounting:** Recessed | **Enclosure:** Type 1

Volts: 480Y/277V | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 42000 | **Mains Type:** MCB | **Mains Rating:** 400A | **Rating:** 400A

Notes:

CKT	Circuit Description	Comments	Trip	P	A	B	C	P	Trip	Comments	Circuit Description	CKT
1	EXTERIOR CANOPY		20 A	1	56 VA 1326 VA			1	20 A		LIGHTING SOUTH	2
3	EXTERIOR LIGHTING		20 A	1		2209 VA 2596 VA		1	20 A		LIGHTING CORRIDOR	4
5							0 VA	1	20 A		Spare	6
7	LIGHTING WEST		20 A	1	326 VA 1277 VA			1	20 A		LIGHTING CORRIDOR WEST	8
9	LIGHTING NORTH		20 A	1		1692 VA 0 VA		1	20 A		Spare	10
11	Spare		20 A	1			0 VA 0 VA	1	20 A		Spare	12
13	EXTERIOR WALLPACK LIGHTING		20 A	1	626 VA 936 VA			1	20 A		LIGHTING EAST	14
15	XFMR TB FEEDING LB		250 A	3		14395 VA 0 VA		1	20 A		Spare	16
17	--	--	--	--			14279 VA 12571 VA	3	250 A		XFMR TA FEEDING LA	18
19	--	--	--	--	14295 VA 12586 VA			--	--	--	--	20
21	Spare		20 A	1		0 VA 12651 VA		--	--	--	--	22
23	Spare		20 A	1			0 VA 0 VA	1	20 A		Spare	24
25	Spare		20 A	1	0 VA 0 VA			1	20 A		Spare	26
27	Spare		20 A	1		0 VA --		1	--		Space	28
29	Space		--	1			-- --	1	--		Space	30
31	Space		--	1	-- --			1	--		Space	32
33	Space		--	1		-- --		1	--		Space	34
35	Space		--	1			-- --	1	--		Space	36
37	Space		--	1	-- --			1	--		Space	38
39	Space		--	1		-- --		1	--		Space	40
41	Space		--	1			-- --	1	--		Space	42
			Total Load:		31283 VA	33463 VA	26850 VA					
			Total...		115 A	123 A	97 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting - Dwelling Unit	225 VA	100.00%	225 VA	
Lighting - Exterior	626 VA	125.00%	782 VA	**Total Conn. Load:** 91587 VA
Other	31734 VA	100.00%	31734 VA	**Total Est. Demand:** 76179 VA
Receptacle	51120 VA	69.56%	35560 VA	**Total Conn.:** 110 A
Power	1524 VA	100.00%	1524 VA	**Total Est. Demand:** 92 A
Lighting	6532 VA	100.00%	6532 VA	

Notes:

Branch Panel: HM

Location: | **Supply From:** MSB | **Mounting:** Recessed | **Enclosure:** Type 1

Volts: 480Y/277V | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 42000 | **Mains Type:** MCB | **Mains Rating:** 200A | **Rating:** 200A

Notes:

CKT	Circuit Description	Comments	Trip	P	A	B	C	P	Trip	Comments	Circuit Description	CKT
1	VAV-2-4		20 A	1	100 VA 424 VA			1	20 A		FPB-1-1	2
3	FPB-1-3		20 A	1		424 VA 424 VA		1	20 A		FPB-1-5	4
5	FPB-1-7		20 A	1			424 VA 424 VA	1	20 A		FPB-2-1	6
7	FPB-1-2		20 A	1	424 VA 424 VA			1	20 A		FPB-3-1	8
9	FPB-1-6		20 A	1		424 VA 424 VA		1	20 A		FPB-3-7	10
11	FPB-3-8		20 A	1			424 VA 424 VA	1	20 A		FPB-2-9	12
13	FPB-2-3		20 A	1	424 VA 424 VA			1	20 A		FPB-2-16	14
15	FPB-2-4		20 A	1		424 VA 424 VA		1	20 A		FPB-2-17	16
17	FPB-2-2		20 A	1			424 VA 424 VA	1	20 A		FPB-2-15	18
19	FPB-2-13		20 A	1	424 VA 424 VA			1	20 A		FPB-2-10	20
21	FPB-2-14		20 A	1		424 VA 424 VA		1	20 A		FPB-2-11	22
23	FPB-2-12		20 A	1			424 VA 582 VA	3	20 A		HWP-2	24
25	CHP-2		15 A	3	942 VA 582 VA			--	--	--	--	26
27	--	--	--	--		942 VA 582 VA		--	--	--	--	28
29	--	--	--	--			942 VA 1330 VA	3	15 A		CHP-1	30
31	HWP-1		15 A	3	1330 VA 1330 VA			--	--	--	--	32
33	--	--	--	--		1330 VA 1330 VA		--	--	--	--	34
35	--	--	--	--			1330 VA 1552 VA	3	15 A		AHU-1	36
37	AHU-3		15 A	3	1552 VA 1552 VA			--	--	--	--	38
39	--	--	--	--		1552 VA 1552 VA		--	--	--	--	40
41	--	--	--	--			1552 VA 1691 VA	3	20 A		EUH-1	42
43	OAHU-1		20 A	3	3048 VA 1691 VA			--	--	--	--	44
45	--	--	--	--		3048 VA 1691 VA		--	--	--	--	46
47	--	--	--	--			3048 VA 3880 VA	3	30 A		AHU-2	48
49					3880 VA			--	--	--	--	50
51						3880 VA		--	--	--	--	52
53							0 VA 0 VA	1	20 A			54
55												56
57												58
59												60
61												62
63												64
65												66
67	Space		--	1	-- --			1	--		Space	68
69	Space		--	1		-- --		1	--		Space	70
71	Space		--	1			-- --	1	--		Space	72
73	Space		--	1	-- --			1	--		Space	74
75	Space		--	1		-- --		1	--		Space	76
77	Space		--	1			-- --	1	--		Space	78
79	Space		--	1	-- --			1	--		Space	80
81	Space		--	1		-- --		1	--		Space	82
83	Space		--	1			-- --	1	--		Space	84
			Total Load:		18976 VA	19300 VA	18876 VA					
			Total...		69 A	70 A	68 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	9428 VA	100.00%	9428 VA	
Power	36084 VA	100.00%	36084 VA	**Total Conn. Load:** 57152 VA
Mechanical Equipment AHU largest	11640 VA	250.00%	29100 VA	**Total Est. Demand:** 74612 VA
				Total Conn.: 69 A
				Total Est. Demand: 90 A

Notes:

Branch Panel: LPA

Location: | **Supply From:** TA | **Mounting:** Recessed | **Enclosure:** Type 1

Volts: 208Y/120V | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 22000 | **Mains Type:** MCB | **Mains Rating:** 250A | **Rating:** 250A

Notes:

CKT	Circuit Description	Comments	Trip	P	A	B	C	P	Trip	Comments	Circuit Description	CKT
1	VAV-1-1		20 A	1	100 VA 360 VA			1	20 A		BREAK ROOM A108 RECEPTACLES	2
3	CONFERENCE ROOM FLOOR RECEPT		20 A	1		180 VA 595 VA		1	20 A		EF-7	4
5	DRINKING FOUNTAIN		20 A	1			180 VA 360 VA	1	20 A		CORRIDOR RECEPTACLES	6
7	CONFERENCE RM A102 RECEPTS		20 A	1	540 VA 1080 VA			1	20 A		LARGE FLEX A107 RECEPTACLES	8
9	Other		20 A	1		600 VA 720 VA		1	20 A		FLEX 202 RECEPTACLES	10
11	MECHANICAL PLATFORM RECEPTS		20 A	1			720 VA 900 VA	1	20 A		BREAK ROOM A108 RECEPTACLES	12
13	VAV-2-1		20 A	1	100 VA 180 VA			1	20 A		REFRIGERATOR	14
15	VAV-2-2		20 A	1		100 VA 180 VA		1	20 A		REFRIGERATOR	16
17	VAV-2-3		20 A	1			100 VA 180 VA	1	20 A		REFRIGERATOR	18
19	DRINKING FOUNTAIN		20 A	1	180 VA 360 VA			1	20 A		EXTERIOR RECEPTACLES	20
21	ICE MACHINE		20 A	1		180 VA 360 VA		1	20 A		RESTROOM RECEPTACLES	22
23	MICROWAVE		20 A	1			180 VA 360 VA	1	20 A		RR 210 AND 212 RECEPTS	24
25	CORRIDOR RECEPTACLES		20 A	1	360 VA 424 VA			1	20 A		FPB-3-5	26
27	EXTERIOR RECEPTACLES		20 A	1		360 VA 424 VA		1	20 A		FPB-3-6	28
29	EXTERIOR RECEPTACLES		20 A	1			360 VA 424 VA	1	20 A		VAV-3-9	30
31	FPB-3-2		20 A	1	424 VA 424 VA			1	20 A		FPB-2-7	32
33	FPB-3-3		20 A	1		424 VA 424 VA		1	20 A		FPB-2-8	34
35	FPB-3-4		20 A	1			424 VA 424 VA	1	20 A		FPB-3-10	36
37	FPB-1-4		20 A	1	424 VA 540 VA			1	20 A		SECONDARY 208 RECEPTACLES	38
39	FPB-2-5		20 A	1		424 VA 540 VA		1	20 A		SECONDARY 211 RECEPTACLES	40
41	FPB-2-6		20 A	1			424 VA 540 VA	1	20 A		SECONDARY 214 RECEPTACLES	42
43	RESOURCE 206 RECEPTACLES		20 A	1	540 VA 540 VA			1	20 A		I.S.S. 102 RECEPTACLES	44
45	RR AND STORAGE 100D RECEPTS		20 A	1		540 VA 540 VA		1	20 A		METAL DETECTOR	46
47	SECONDARY 207 RECEPTACLES		20 A	1			540 VA 540 VA	1	20 A		RESOURCE 204 RECEPTACLES	48
49	I.S.S. 102 RECEPTACLES		20 A	1	540 VA 540 VA			1	20 A		CONFERENCE RM A102 RECEPTS	50
51	I.S.S. 102 RECEPTACLES		20 A	1		540 VA 540 VA		1	20 A		CORRIDOR RECEPTACLES	52
53	I.S.S. 102 RECEPTACLES		20 A	1			540 VA 540 VA	1	20 A		I.S.S. 102 RECEPTACLES	54
55	EXHAUST FAN		20 A	1	595 VA 720 VA			1	20 A		RISE 205 RECEPTACLES	56
57	EXHAUST FAN		20 A	1		595 VA 720 VA		1	20 A		RISE 205 RECEPTACLES	58
59	EXHAUST FAN		20 A	1			595 VA 720 VA	1	20 A		WRK RM A103B RECEPTS	60
61	SECONDARY 208 RECEPTACLES		20 A	1	900 VA 900 VA			1	20 A		RESOURCE 206 RECEPTICALS	62
63	SECONDARY 211 RECEPTACLES		20 A	1		900 VA 900 VA		1	20 A		RISE 205 RECEPTACLES	64
65	SECONDARY 214 RECEPTACLES		20 A	1			900 VA 900 VA	1	20 A		SECONDARY 207 RECEPTACLES	66
67	FLEX A106 RECEPTACLES		20 A	1	900 VA 900 VA			1	20 A		FLEX A103 RECEPTACLES	68
69	RECEPTION A100A RECEPTS		20 A	1		900 VA 900 VA		1	20 A		FLEX A104 RECEPTACLES	70
71	RESOURCE 204 RECEPTACLES		20 A	1			900 VA 900 VA	1	20 A		FLEX A105 RECEPTACLES	72
73	Spare		20 A	1	0 VA 0 VA			1	20 A		Spare	74
75	Spare		20 A	1		0 VA 0 VA		1	20 A		Spare	76
77	Spare		20 A	1			0 VA 0 VA	1	20 A		Spare	78
79	Spare		20 A	1	0 VA 0 VA			1	20 A		Spare	80
81	Spare		20 A	1		0 VA 0 VA		1	20 A		Spare	82
83	RELAY PANEL		20 A	1			0 VA 0 VA	1	20 A		BAS PANEL	84
			Total Load:		12571 VA	12586 VA	12651 VA					
			Total...		105 A	105 A	105 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	8468 VA	100.00%	8468 VA	
Receptacle	29340 VA	84.08%	24670 VA	**Total Conn. Load:** 37808 VA
				Total Est. Demand: 33138 VA
				Total Conn.: 105 A
				Total Est. Demand: 92 A

Notes:

Branch Panel: LPB

Location: | **Supply From:** TB | **Mounting:** Recessed | **Enclosure:** Type 1

Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 22000 | **Mains Type:** MCB | **Mains Rating:** 250A | **Rating:** 250A

Notes:

CKT	Circuit Description	Comments	Trip	P	A	B	C	P	Trip	Comments	Circuit Description	CKT
1	FAA		20 A	1	0 VA 360 VA			1	20 A		CORRIDOR RECEPTACLES	2
3	BR-1		20 A	1		1524 VA 1620 VA		1	20 A		WINDOW SHADES	4
5	ELEMENTARY 306 RECEPTICALS		20 A	1			540 VA 720 VA	1	20 A		FLEX 302 RECEPTICALS	6
7	EXHAUST FAN - RR		20 A	1	595 VA 595 VA			1	20 A		EXHAUST FAN - RR 310	8
9	MICROWAVE		20 A	1		180 VA 180 VA		2	30 A		DRYER - CUST STORAGE 104	10
11	FACP PANEL		50 A	1	-- --		4160 VA 0 VA	--	--	--	--	12
13	WINDOW SHADES		20 A	1	1890 VA 2080 VA			2	20 A		ACU-1B	14
15	FPD		20 A	1		180 VA 2080 VA		--	--	--	--	16
17	WASHER - CUST STORAGE 104		20 A	1			180 VA 180 VA	1	20 A		FPD	18
19	MECHANICAL PLATFORM RECEPTS		20 A	1	180 VA 180 VA			1	20 A		FPD	20
21	FPD		20 A	1		180 VA 360 VA		1	20 A		ELEM 406 AND 407 GFI RECEPTS	22
23	FPD		20 A	1			180 VA 360 VA	1	20 A		RR 310 AND 311 GFI RECEPTS	24
25	DRINKING FOUNTAIN		20 A	1	180 VA 360 VA			1	20 A		CORRIDOR RECEPTACLES	26
27	SECONDARY 313 RECEPTICALS		20 A	1		540 VA 540 VA		1	20 A		SECONDARY 305 RECEPTICALS	28
29	STORAGE 100C AND RR RECEPTS		20 A	1			540 VA 540 VA	1	20 A		SECONDARY 308 RECEPTICALS	30
31	SECONDARY 309 RECEPTICALS		20 A	1	540 VA 540 VA			1	20 A		RESOURCE 403 RECEPTICALS	32
33	RESOURCE 304 RECEPTICALS		20 A	1		540 VA 540 VA		1	20 A		ELEMENTARY 406 RECEPTICALS	34
35	RESOURCE 402 RECEPTICALS		20 A	1			540 VA 540 VA	1	20 A		EXTERIOR RECEPTACLES	36
37	FOOD SERVICE 103 RECEPTICALS		20 A	1	540 VA 540 VA			1	20 A		ELEMENTARY 404 RECEPTICALS	38
39	SF-1		20 A	1		595 VA 900 VA		1	20 A		SECONDARY 309 RECEPTICALS	40
41	SF-2		20 A	1			595 VA 900 VA	1	20 A		SECONDARY 313 RECEPTICALS	42
43	EXHAUST FAN - RR 311		20 A	1	595 VA 900 VA			1	20 A		SECONDARY 308 RECEPTICALS	44
45	RESOURCE 403 RECEPTICALS		20 A	1		900 VA 900 VA		1	20 A		MECHANICAL PLATFORM RECEPTS	46
47	SECONDARY 305 RECEPTICALS		20 A	1			900 VA 900 VA	1	20 A		RESOURCE 304 RECEPTICALS	48
49	RESOURCE 402 RECEPTICALS		20 A	1	900 VA 900 VA			1	20 A		FLEX 401 RECEPTICALS	50
51	ELEMENTARY 404 RECEPTICALS		20 A	1		900 VA 1620 VA		1	20 A		WINDOW SHADES	52
53	ELEMENTARY 406 RECEPTICALS		20 A	1			900 VA 1620 VA	1	20 A		WINDOW SHADES	54
55	ELEMENTARY 306 RECEPTICALS		20 A	1	900 VA 1620 VA			1	20 A		WINDOW SHADES	56
57	Spare		20 A	1		0 VA 0 VA		1	20 A		Spare	58
59	Spare		20 A	1			0 VA 0 VA	1	20 A		Spare	60
			Total Load:		14395 VA	14279 VA	14295 VA					
			Total...		120 A	119 A	119 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	19665 VA	100.00%	19665 VA	
Receptacle	21780 VA	95.91%	20890 VA	**Total Conn. Load:** 42969 VA
Power	1524 VA	100.00%	1524 VA	**Total Est. Demand:** 42079 VA
				Total Conn.: 119 A
				Total Est. Demand: 117 A

Notes:

Branch Panel: OHA

Location: | **Supply From:** ATS-O | **Mounting:** Recessed | **Enclosure:** Type 1

Volts: 480/277 Wye | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 42000 | **Mains Type:** MCB | **Mains Rating:** 100A | **Rating:** 100A

Notes:
****DENOTES ALTERNATE PUMP ROOM LOADS

CKT	Circuit Description	Comments	Trip	P	A	B	C	P	Trip	Comments	Circuit Description	CKT
1	XFMR OTA		100 A	3	5150 VA 1330 VA			3	20 A	***	WATER PUMP 1	2
3	--	--	--	--		4950 VA 1330 VA		--	--	--	--	4
5	--	--	--	--			4980 VA 1330 VA	--	--	--	--	6
7	JOKEY PUMP	***	20 A	3	1444 VA 1330 VA			3	20 A	***	WATER PUMP 2	8
9	--	--	--	--		1444 VA 1330 VA		--	--	--	--	10
11	--	--	--	--			1444 VA 1330 VA	--	--	--	--	12
13												14
15												16
17												18
			Total Load:		8254 VA	8054 VA	8084 VA					
			Total...		30 A	29 A	29 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	6440 VA	100.00%	6440 VA	
Receptacle	8640 VA	100.00%	8640 VA	**Total Conn. Load:** 24393 VA
Power	9313 VA	100.00%	9313 VA	**Total Est. Demand:** 24393 VA
				Total Conn.: 29 A
				Total Est. Demand: 29 A

Notes:

Branch Panel: EHA

Location: | **Supply From:** ATS-E | **Mounting:** Recessed | **Enclosure:** Type 3R

Volts: 480Y/277V | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 42000 | **Mains Type:** MLO | **Mains Rating:** 100 | **Rating:** 100

Notes:

CKT	Circuit Description	Comments	Trip	P	A	B	C	P	Trip	Comments	Circuit Description	CKT
1	EMERGENCY LIGHTING CORRIDOR		20 A	1	90 VA 2008 VA			1	20 A		EMERGENCY LIGHTING CORRIDOR	2
3	PLATFORM LIGHTING		20 A	1		612 VA 795 VA		1	20 A		EMERGENCY LIGHTING EXTERIOR	4
5	EMERGENCY LIGHTING NORTH SIDE		20 A	1			1116 VA 1398 VA	1	20 A		EMERGENCY LIGHTING SOUTH SIDE	6
7	Spare		20 A	1	0 VA 180 VA			3	50 A		XFMR ETA	8
9	EMERGENCY LIGHTING CORRIDOR		20 A	1		900 VA 0 VA		--	--	--	--	10
11	Spare		20 A	1			0 VA 0 VA	--	--	--	--	12
13	Spare		20 A	1	0 VA 0 VA			1	20 A		Spare	14
15	Spare		20 A	1		0 VA 0 VA		1	20 A		Spare	16
17	Spare		20 A	1			0 VA 0 VA	1	20 A		Spare	18
19	Spare		20 A	1	0 VA 0 VA			1	20 A		Spare	20
21	Spare		20 A	1		0 VA 0 VA		1	20 A		Spare	22
23	Spare		20 A	1			0 VA 0 VA	1	20 A		Spare	24
25	Spare		20 A	1	0 VA 0 VA			1	20 A		Spare	26
27	Spare		20 A	1		0 VA 0 VA		1	20 A		Spare	28
29	Spare		20 A	1			0 VA 0 VA	1	20 A		Spare	30
31	Space		--	1	-- --			1	--		Space	32
33	Space		--	1		-- --		1	--		Space	34
35	Space		--	1			-- --	1	--		Space	36
37	Space		--	1	-- --			1	--		Space	38
39	Space		--	1		-- --		1	--		Space	40
41	Space		--	1			-- --	1	--		Space	42
			Total Load:		2273 VA	2283 VA	2514 VA					
			Total...		8 A	8 A	9 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting - Dwelling Unit	120 VA	100.00%	120 VA	
Lighting - Exterior	795 VA	125.00%	994 VA	**Total Conn. Load:** 7018 VA
Other	2950 VA	100.00%	2950 VA	**Total Est. Demand:** 7215 VA
Lighting	3240 VA	100.00%	3240 VA	**Total Conn.:** 8 A
				Total Est. Demand: 9 A

Notes:

Branch Panel: ELA

Location: | **Supply From:** ETA | **Mounting:** Recessed | **Enclosure:** Type 1

Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 10000 | **Mains Type:** MCB | **Mains Rating:** 50 | **Rating:** 50

Notes:

CKT	Circuit Description	Comments	Trip	P	A	B	C	P	Trip	Comments	Circuit Description	CKT
1	FACP PANEL		50 A	1	180 VA 0 VA			1	20 A		Spare	2
3	Spare		20 A	1		0 VA 0 VA		1	20 A		Spare	4
5	Spare		20 A	1			0 VA 0 VA	1	20 A		Spare	6
7	Spare		20 A	1	0 VA --			1	--		Space	8
9	Space		--	1		-- --		1	--		Space	10
11	Space		--	1			-- --	1	--		Space	12
13	Space		--	1	-- --			1	--		Space	14
15	Space		--	1		-- --		1	--		Space	16
17	Space		--	1			-- --	1	--		Space	18
			Total Load:		180 VA	0 VA	0 VA					
			Total...		2 A	0 A	0 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	180 VA	100.00%	180 VA	
				Total Conn. Load: 180 VA
				Total Est. Demand: 180 VA
				Total Conn.: 0 A
				Total Est. Demand: 0 A

Notes:

Branch Panel: OLA

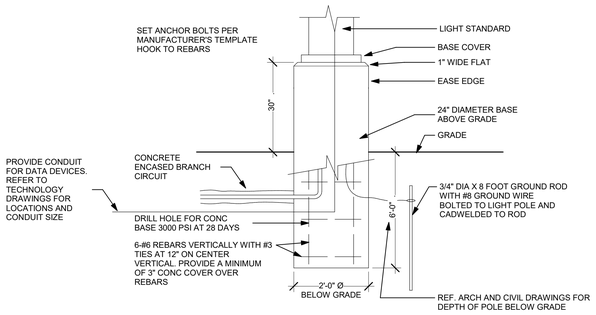
Location: | **Supply From:** OTA | **Mounting:** Recessed | **Enclosure:** Type 1

Volts: 208Y/120V | **Phases:** 3 | **Wires:** 4

A.I.C. Rating: 10000 | **Mains Type:** MCB | **Mains Rating:** 100A | **Rating:** 100A

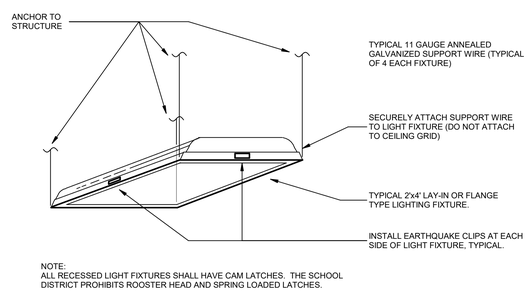
Notes:
****DENOTES ALTERNATE PUMP ROOM LOADS

CKT	Circuit Description	Comments	Trip	P	A	B	C	P	Trip	Comments	Circuit Description	CKT
1	BARREL EVAPORATOR HEATER CH1		20 A	1	50 VA 720 VA			1	20 A		CLINIC 101 RECEPTACLES	2
3	CHILLER 1 CONTROL CKT		20 A	1		50 VA 360 VA		1	20 A		CORRIDOR RECEPTACLES	4
5	CLINIC 101 RECEPTICALS		20 A	1			360 VA 720 VA	1	20 A		POLICE OFFICE 301 - RECEPTACLES	6
7	GEN ALTERNATOR		20 A	1	1200 VA 180 VA			1	20 A		REACH-IN MILK COOLER	8
9	BARREL EVAPORATOR HEATER CH2		20 A	1		500 VA 500 VA		1	20 A		Other	10
11	CLINIC 101 RECEPTICALS		20 A	1			900 VA 180 VA	1	20 A		Receptacle	12
13	MDF		20 A	1	180 VA 180 VA			1	20 A		MDF	14
15	POLICE OFFICE 301 - RECEPTICALS		20 A	1		540 VA 180 VA		1	20 A		REACH-IN WARMER	16
17	MDF		20 A	1			180 VA 180 VA	1	20 A		MDF	18
19	1 DOOR REACH-IN COOLER		20 A	1	180 VA 360 VA			1	20 A		MDF	20
21	MDF		20 A	1		180 VA 180 VA		1	20 A		MDF	22
23	CLINIC 101 RECEPTACLES		20 A	1			180 VA 360 VA	1	20 A		SERVICE YARD RECPT	24
25	CORRIDOR RECEPTACLES		20 A	1	360 VA 360 VA			1	20 A		CORRIDOR RECEPTACLES	26
27	2 DOOR REACH-IN COOLER		20 A	1		180 VA 360 VA		1	20 A		MDF	28
29	MDF		20 A	1			360 VA 360 VA	1	20 A		CORRIDOR RECEPTACLES	30
31	GEN BATTERY CHARGER		20 A	1	1200 VA 180 VA			1	20 A		WATER PUMP



1 LIGHT POLE BASE DETAIL

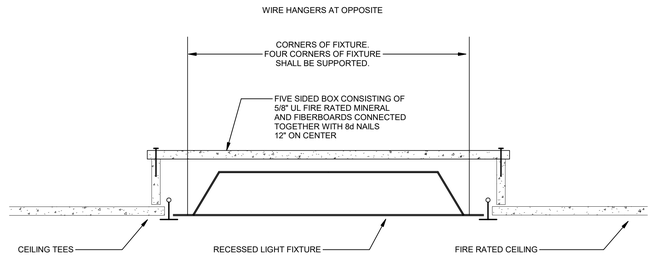
NO SCALE



NOTE:
ALL RECESSED LIGHT FIXTURES SHALL HAVE CAM LATCHES. THE SCHOOL DISTRICT PROHIBITS ROOSTER HEAD AND SPRING LOADED LATCHES.

2 FIXTURE SUPPORT DETAIL

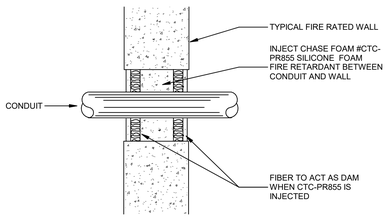
NO SCALE



PROVIDE FIREPROOFING IN ACCORDANCE WITH THE UL FIRE RESISTANCE RATING FOR THE CEILING TYPE SPECIFIED BY THE ARCHITECT.
COORDINATE WITH ARCHITECTURAL DRAWINGS FOR AREAS WITH RATED CEILING.

3 LIGHT FIXTURE FIREFROOFING DETAIL

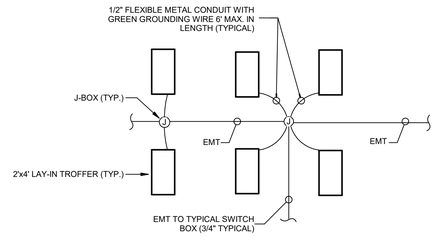
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NOTE:
FIRE RATING OF COMPLETED FIREPROOFED ASSEMBLY SHALL BE EQUAL OR EXCEED RATING OF WALL.

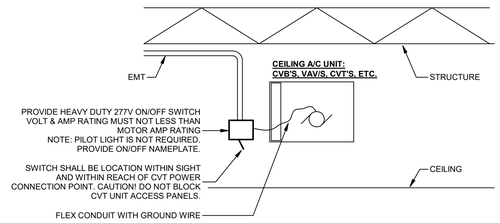
4 FIREWALL PENETRATION DETAIL

NO SCALE



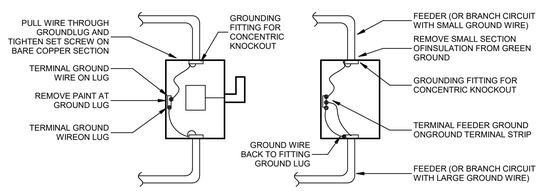
5 CONDUIT/J-BOX DETAIL

NO SCALE



6 CEILING A/C UNIT WIRING DETAIL

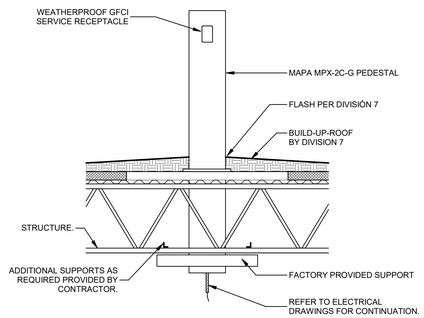
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NOTE:
1. PROVIDE AND INSTALL GROUNDING BUSHING FOR DISCONNECT SWITCHES, PANELS AND TRANSFORMERS.

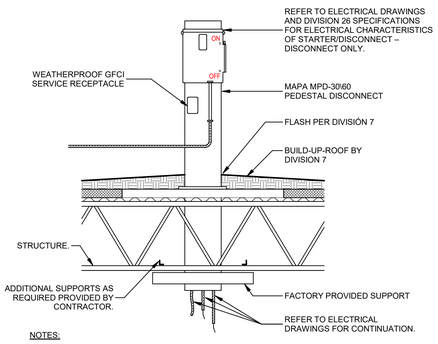
7 GROUNDING BUSHING WIRING DETAIL

NO SCALE



8 PEDESTAL MOUNT ROOF RECEPTACLE

NO SCALE

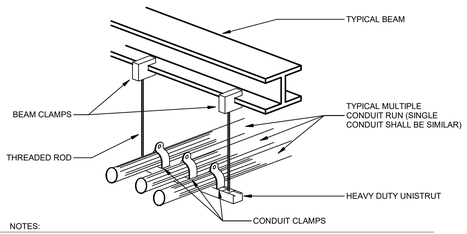


NOTES:

WATER – TIGHT FLEX CONDUIT SHALL NOT RESTRICT FAN FROM ROTATING ON HINGED SUB-BASE FOR SERVICE TO DAMPERS AND DUCT CONNECTION. REFER TO DIVISION 26

9 PEDESTAL MOUNT DISCONNECT

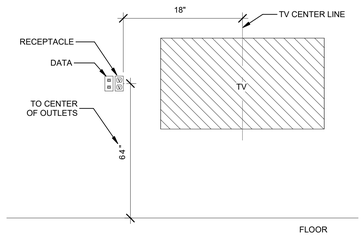
NO SCALE



NOTES:
1. ALL SUPPORT DEVICES SHALL BE UL LISTED AND NEC APPROVED.
2. REFER TO NEC FOR CONDUIT SUPPORT SPACING.

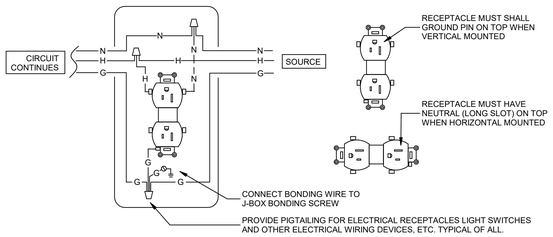
10 TRAPEZE MOUNTED CONDUIT DETAIL

NO SCALE



11 TV ELECTRICAL DETAIL

NO SCALE



12 PIGTAIL WIRING DETAIL

NO SCALE

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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NEW OPPORTUNITY AWARENESS CENTER

STATE OF TEXAS
MIGUEL A. HANZE
151421
LICENSED
PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.	Revision Date
1 Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Designer
Drawn By	AR

PROJECT NO.

25-0067.00

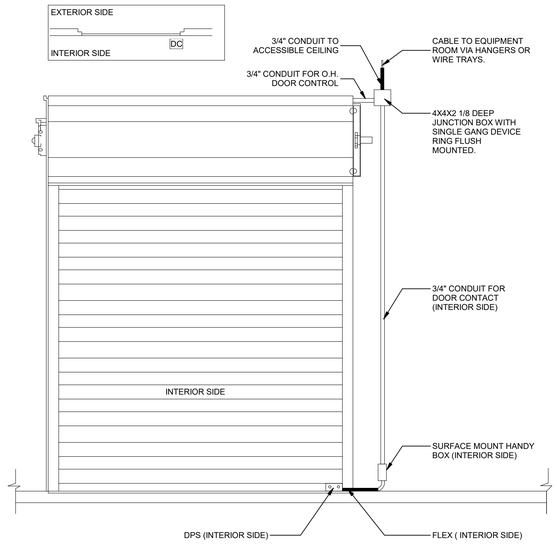
SHEET TITLE

ELECTRICAL DETAILS

SHEET NO.

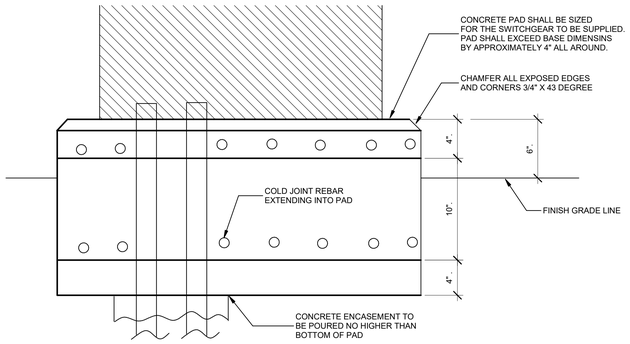
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1 EXTERIOR OVERHEAD DOOR DETAIL

NO SCALE

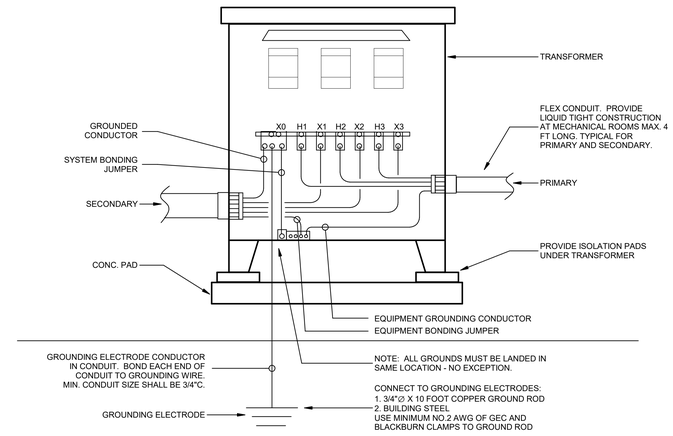


NOTES:

1. CONCRETE SHALL HAVE MINIMUM COMPRESSION IN 28 DAYS, 3000 PSI.
2. REINFORCING STEEL SHALL BE INTERMEDIATE GRADE DEFORMED BARS IN ACCORDANCE WITH A.S.T.M. SPECIFICATION A-615, GRADE 60, OR BETTER.
3. ALL SPLICES IN REINFORCING SHALL LAP A LENGTH EQUAL TO 24 BAR DIAMETERS.
4. ALL DIMENSIONS ON REINFORCING ARE TO THE CENTER OF BARS.
5. CONCRETE SHALL BE THOROUGHLY WORKED AROUND REINFORCING, AND EMBEDDD FIXTURES AND INTO ALL CORNERS OF FORMS.
6. GROUT SHALL BE A MIXTURE OF 1 PART CEMENT OT 2 PARTS SAND WITH ENOUGH WATER TO PRODUCE A WORKTABLE MIXTURE.
7. CONCRETE IS TO BE POURED ONLY WHEN THE ATMOSPHERIC TEMPERATURE IS A MINIMUM 40° F AND RISING.
8. STRIP BACK ALL VEGETATION AND APPROXIMATELY 12" OF TOP SOIL. REMOVE ALL LOOSE CLODS AND STONES. BACKFILL AND THOROUGHLY COMPACT ALL CONDUIT TRENCHES AND HOLES BEFORE CONCRETE IS PLACED.
9. REINFORCING SHALL HAVE A MINIMUM OF 2.5" CONCRETE COVER.
10. SLOPE PAD 1" FONT TO BACK.

2 CONCRETE EQUIPMENT PAD ELEVATION

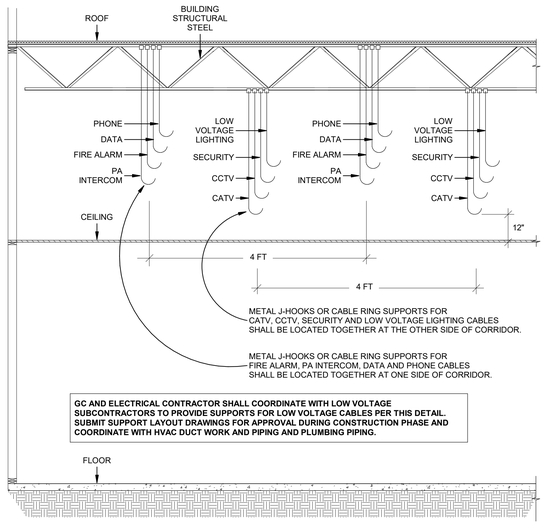
NO SCALE



1. WHEN TRANSFORMER IS ON THE FIRST FLOOR, LOCATE GROUND ROD ADJACENT TO TRANSFORMER.
2. WHEN TRANSFORMER IS ON THE SECOND FLOOR, LOCATE GROUND ROD TO NEAREST FIRST FLOOR MECHANICAL ROOM.

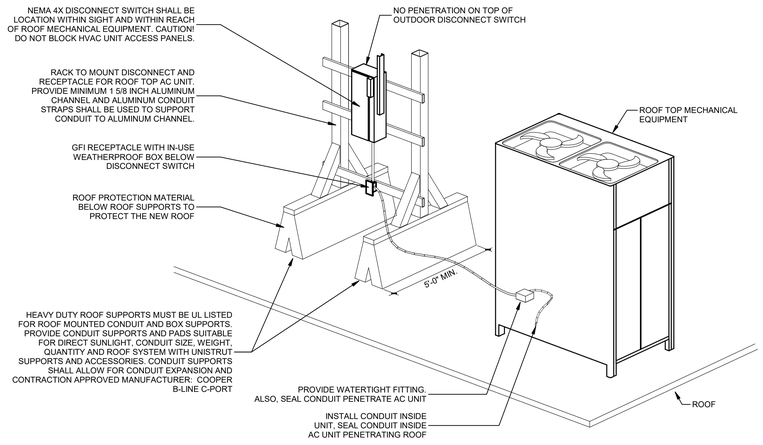
3 TRANSFORMER CONNECTION AND GROUNDING DETAIL

NO SCALE



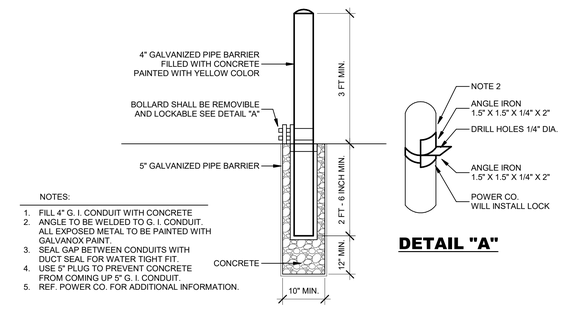
4 LOW VOLTAGE CABLE SUPPORTING DETAIL

NO SCALE



5 ROOF TOP AC UNIT DISCONNECT & RECEPTACLE DETAIL

NO SCALE



NOTES:

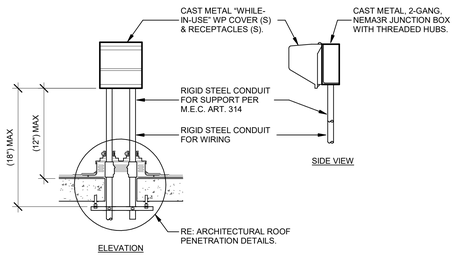
1. FILL 4" G. I. CONDUIT WITH CONCRETE.
2. ANGLE TO BE WELDED TO G. I. CONDUIT. ALL EXPOSED METAL TO BE PAINTED WITH GALVANOX PAINT.
3. SEAL GAP BETWEEN CONDUITS WITH DUCT SEAL FOR WATER TIGHT FIT.
4. USE 5" PLUG TO PREVENT CONCRETE FROM COMING UP 5" G. I. CONDUIT.
5. REF. POWER CO. FOR ADDITIONAL INFORMATION.

DETAIL "A"

INSTALL BOLLARD ON APPROXIMATELY 3'-6" CENTERS PER POWER CO. STANDARD. REF. POWER CO. FOR ADDITIONAL INFORMATION. THIS DETAIL APPLIES TO PAD MOUNTED TRANSFORMER, EMERGENCY GENERATOR AND OTHER OUTDOOR ELECTRICAL EQUIPMENT.

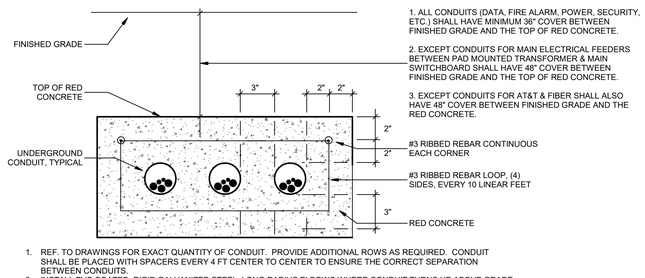
6 REMOVABLE PROTECTIVE BOLLARD DETAIL

NO SCALE



7 RECEPTACLE ROOF MOUNTING DETAIL

NO SCALE



1. ALL CONDUITS (DATA, FIRE ALARM, POWER, SECURITY, ETC.) SHALL HAVE MINIMUM 36" COVER BETWEEN FINISHED GRADE AND THE TOP OF RED CONCRETE.
2. EXCEPT CONDUITS FOR MAIN ELECTRICAL FEEDERS BETWEEN PAD MOUNTED TRANSFORMER & MAIN SWITCHBOARD SHALL HAVE 48" COVER BETWEEN FINISHED GRADE AND THE TOP OF RED CONCRETE.
3. EXCEPT CONDUITS FOR AT&T & FIBER SHALL ALSO HAVE 48" COVER BETWEEN FINISHED GRADE AND THE RED CONCRETE.

1. REF. TO DRAWINGS FOR EXACT QUANTITY OF CONDUIT. PROVIDE ADDITIONAL ROWS AS REQUIRED. CONDUIT SHALL BE PLACED WITH SPACERS EVERY 4 FT CENTER TO CENTER TO ENSURE THE CORRECT SEPARATION BETWEEN CONDUITS.
2. INSTALL PVC COATED, RIGID GALVANIZED STEEL, LONG RADIUS ELBOWS WHERE CONDUIT TURNS UP ABOVE GRADE. PVC COATED, RIGID GALVANIZED STEEL ELBOW AND CONDUIT MUST BE EXTENDED TO 18" ABOVE GRADE.
3. ENCASE UNDERGROUND CONDUIT NOT UNDER BUILDING SLAB IN 3" RED CONCRETE ENVELOPE.
4. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENT SUCH LIKE WARNING TAPS, MAGNETIC MARKING TAPE, ETC.

8 DUCT BANK DETAIL-SECTION

NO SCALE

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

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MIGUEL A. HANZE
151421
LICENSED PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Designer
Drawn By	AR

PROJECT NO.

25-0067.00

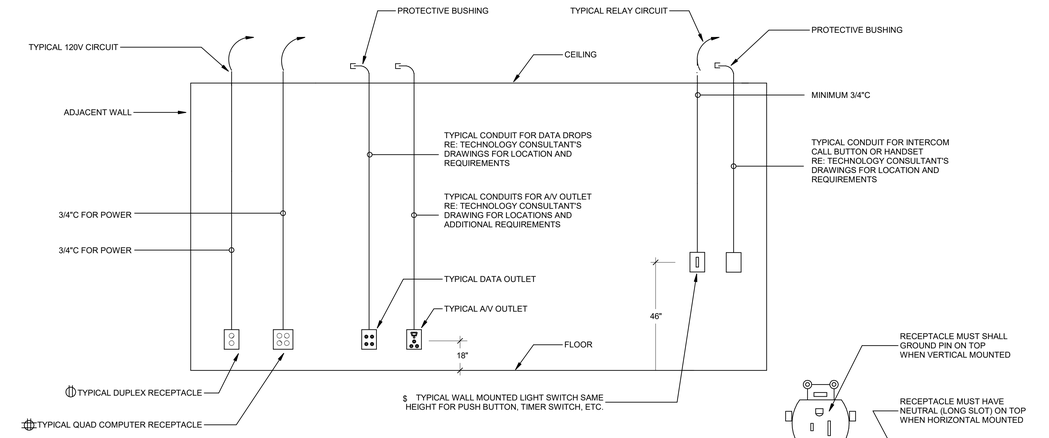
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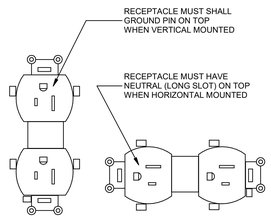
ELECTRICAL DETAILS

SHEET NO.

E5.01

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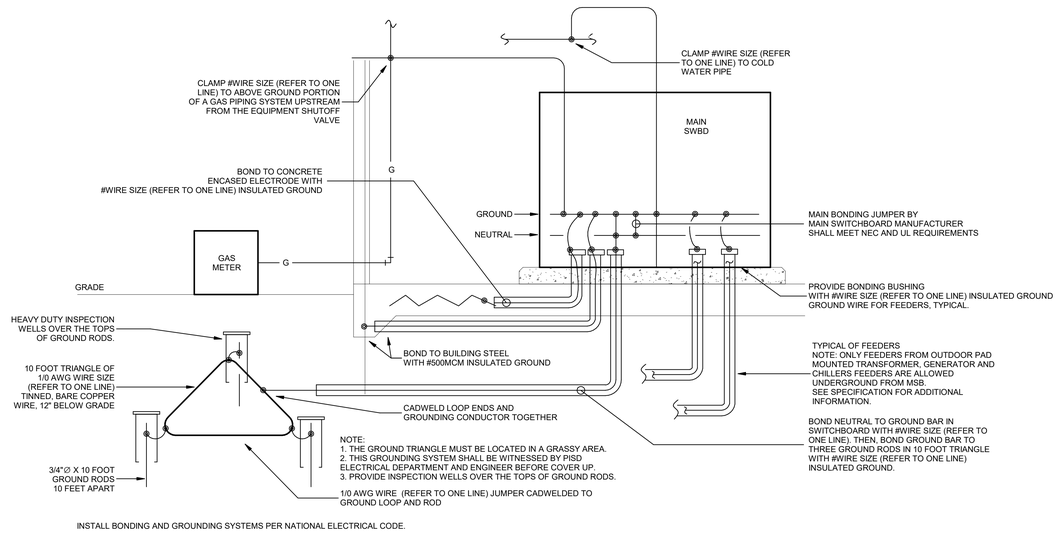




1. ALL RECEPTACLES SHALL HAVE THE GROUND PIN UP IF MOUNTED VERTICALLY.
   ALL RECEPTACLES SHALL HAVE NEUTRAL (LONG SLOT) IS UP IF HORIZONTALLY MOUNTED.
2. PA INTERCOM, LOCAL SOUND, CCTV, SECURITY, DATA, AUDIO/VIDEO, AND OTHER TECHNOLOGY CABLING AND DEVICES ARE SHOWN ON TECHNOLOGY CONSULTANT'S DRAWINGS.
   ELECTRICAL CONTRACTOR SHALL PROVIDE EMPTY CABLE TRAYS, SLEEVES, CONDUITS, J-BOXES AND BUSHINGS FOR THESE SYSTEMS. SEE TECHNOLOGY CONSULTANT'S DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENT.
3. FIRE ALRAM DEVICE ARE SHOWN ON FIRE ALARM FLOOR PLANS. EACH FIRE ALARM DEVICES SHALL HAVE MINIMUM 3/4"C.
   FIRE ALARM SUBCONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR CONDUIT AND J-BOX LAYOUT/REQUIREMENT.
   ALL CABLE TRAYS, SLEEVES, CONDUITS, J-BOXES AND BUSHINGS FOR FIRE ALARM SYSTEM SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.

1 CONDUIT SIZE FOR ELECTRICAL DEVICES

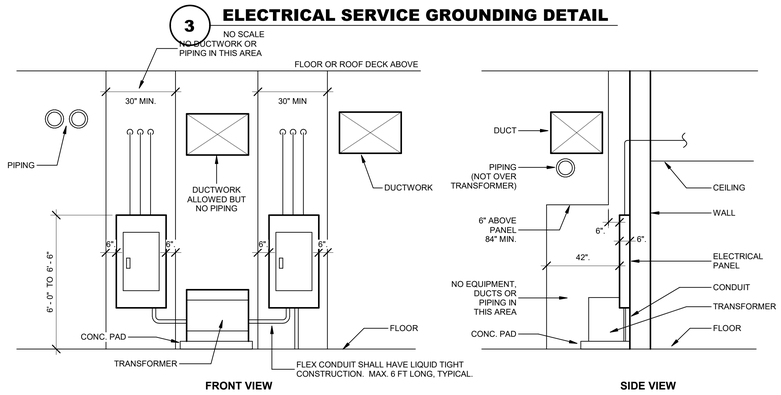
NO SCALE



INSTALL BONDING AND GROUNDING SYSTEMS PER NATIONAL ELECTRICAL CODE.

3 ELECTRICAL SERVICE GROUNDING DETAIL

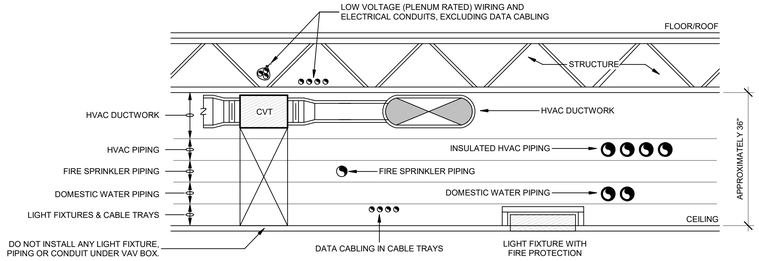
NO SCALE



COORDINATE WITH OTHER TRADES TO ENSURE NO PIPING AND DUCTWORK ABOVE ELECTRICAL EQUIPMENT AS SHOWN.

5 ELECTRICAL - MECHANICAL COORDINATION DETAIL

NO SCALE



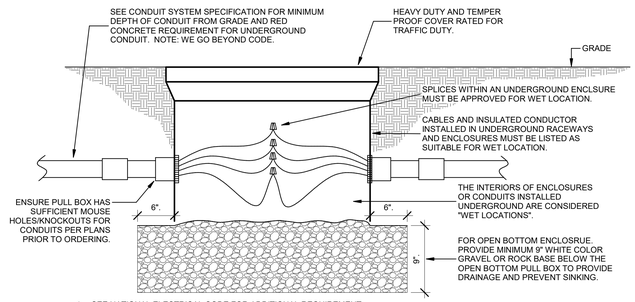
PLENUM PRIORITY NOTES

ELECTRICAL CONDUIT	INSTALLED WITHIN OPEN WEBS OF JOIST FRAMING. IF FRAMING IS USED FOR SUPPORT OF CONDUIT, A SADDLE SHALL BE REQUIRED FOR ISOLATION AT EACH SUPPORT POINT.
LOW VOLTAGE WIRING (EXCEPT DATA CABLING)	INSTALLED WITHIN OPEN WEBS OF JOIST FRAMING AND RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS. ALL INDIVIDUAL WIRES SHALL BE BUNDLED TOGETHER WITH PLASTIC TIE STRAPS AT 6 FOOT MAXIMUM INTERVALS AND EACH WIRE SHALL BE IDENTIFICATION TAGGED AT 25 FOOT MAXIMUM INTERVALS.
HVAC DUCTWORK	INSTALLED AS SNUG TO BOTTOM OF STRUCTURE AS POSSIBLE, ALLOWING ONLY ENOUGH SPACE FOR INSULATION WRAP. OFFSET HOT AND COLD MEDIUM PRESSURE DUCTS FOR TAKE-OFFS FOR DOUBLE DUCT VAV BOXES.
HVAC PIPING	INSTALLED IN PLANE DIRECTLY BELOW HVAC DUCTWORK. ALL VALVES AND INSTRUMENTS SHALL BE ACCESSIBLE AND EASILY OPERATED FROM BELOW.
FIRE SPRINKLER PIPING	INSTALLED IN PLANE DIRECTLY BELOW HVAC PIPING.
DOMESTIC WATER PIPING	INSTALLED IN PLANE DIRECTLY ABOVE LIGHT FIXTURES. ALL VALVES AND INSTRUMENTS SHALL BE ACCESSIBLE AND EASILY OPERATED FROM BELOW. BALL VALVES INSTALLED WITH STEM HORIZONTAL SHALL BE USED IN LIEU OF WHEEL HANDLE VALVES OR OTHER TYPES EXCEPT IN SITUATIONS WHERE BALL VALVES ARE NOT APPROPRIATE.
LIGHT FIXTURES	TAKE PRIORITY IN SPECIAL LAYOUT. ALL OTHER SYSTEMS (DOUBLE DUCT UNITS, DUCTWORK, PIPING, CONDUITS, ETC.) SHALL BE ROUTED IN PLENUM SPACE TO AVOID PASSING DIRECTLY (LOW) OVER LIGHTING FIXTURES PREVENTING THEIR INSTALLATION, SERVICING AND/OR REMOVAL.
GRAVITY FED PLUMBING	THIS INCLUDES PLUMBING WASTE/VENT AND ROOF DRAIN SYSTEMS. THESE SYSTEMS TAKE PRIORITY OVER ALL OTHER SYSTEMS BUT MUST BE INSTALLED TAKING OTHER SYSTEMS INTO CONSIDERATION. IN GENERAL, ROOF DRAIN PIPING SHALL START AS HIGH AS POSSIBLE. WASTE/VENT PIPING SHALL BE INSTALLED IN HVAC PIPING SPACE (IF AVAILABLE) IN AREAS WHERE CROSSING DUCTWORK. DO NOT INSTALL WASTE/VENT OR ROOF DRAIN PIPING UNDER DOUBLE DUCT VAV BOXES IF AVOIDABLE.

NOTE:
PIPING, CONDUIT AND DUCTWORK SUPPORTS ARE NOT SHOWN ON THIS DETAIL.
SUPPORT ALL ENTITIES AS REQUIRED BY THE WRITTEN SPECIFICATIONS.

2 PLENUM PRIORITY NOTES

NO SCALE



1. SEE NATIONAL ELECTRICAL CODE FOR ADDITIONAL REQUIREMENT.
2. COORDINATE PULL BOX LOCATION WITH OWNER AND UTILITY COMPANY PRIOR TO INSTALLATION.
3. THE UNDERGROUND PULL BOX IS FOR "TECHNOLOGY" CABLING APPLICATION ONLY.
   DO NOT INSTALL IN-GROUND BOXES FOR ELECTRICAL WIRING UNLESS APPROVED BY PISD ELECTRICAL MAINTENANCE IN WRITING.

UNDERGROUND ENCLOSURE SPECIFICATION

UNDERGROUND ENCLOSURE SHALL BE HUBBELL QUAZITE SERIES UNDERGROUND ENCLOSURE, UL LISTED AND MANUFACTURED BY LENOIR CITY, INC.
EQUAL UNDERGROUND ENCLOSURE MANUFACTURED BY CDR WITH ETL VERIFICATION SHALL BE ALSO ACCEPTABLE.
ENCLOSURES, BOXES AND COVERS ARE REQUIRED TO CONFORM TO ALL TEST PROVISIONS OF THE MOST CURRENT ANSI/SCTE 77 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY" FOR ANSI TIER 22 APPLICATIONS FOR BOTH COVERS AND BOXES. ALL COVERS ARE REQUIRED TO HAVE THE TIER LEVEL RATING EMBOSSED ON THE SURFACE WITH 2 BOLTS. IN NO ASSEMBLY CAN THE COVER DESIGN LOAD EXCEED THE DESIGN LOAD OF THE BOX. ALL COMPONENTS IN AN ASSEMBLY (BOX & COVER) ARE MANUFACTURED USING MATCHED SURFACE TOOLING, INDEPENDENT THIRD PARTY VERIFICATION OR TEST REPORTS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER CERTIFYING THAT ALL TEST PROVISIONS OF THIS SPECIFICATION HAVE BEEN MET ARE REQUIRED WITH EACH SUBMITTAL. ELECTRICAL CONTRACTOR SHALL PROVIDE PROPER SIZE OF UNDERGROUND ENCLOSURE TO COORDINATE WITH THE CONDUITS AND FEEDERS PER NATIONAL ELECTRICAL CODE.

4 UNDERGROUND PULL BOX DETAIL

NO SCALE

VLK

ARCHITECT

VLK
20445 State Hwy 249, Suite 350
Houston, Texas 77070
Main Phone: 281.671.2300
www.vlkarchitects.com

LTY ENGINEERS
TEXAS ENG. FIRM REG. NO. F-16543

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5700 GRANITE PARKWAY
SUITE 315
PLANO, TEXAS 75024
(469) 808-9777

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STATE OF TEXAS
MIGUEL A. HANZE
151421
LICENSED PROFESSIONAL ENGINEER
06/11/2026

ISSUED: May 26, 2026

REVISIONS

Revision No.		Revision Date
1	Addendum No.3	06/11/2026

Director	Charles Johnson
Proj. Arch.	Lynn Rabatsky
Designer	Designer
Drawn By	AR

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SHEET TITLE
ELECTRICAL DETAILS

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