



Addendum No. 1

IFB-25-00072

Progress Village Fire Station No. 48

**HCFL.gov/Vendors
(813) 272-5790**



**Hillsborough
County Florida**
Procurement Services

IMPORTANT! PLEASE READ CAREFULLY BEFORE SUBMITTING BID

ISSUANCE DATE: **April 1, 2025**

SOLICITATION NUMBER: **IFB-25-00072**

SOLICITATION TITLE: **Progress Village Fire Station No. 48**

PRIMARY CONTACT: **Lisa Dimina, Chief Buyer**

CONE OF SILENCE: A Cone of Silence is in effect for this procurement; therefore, no Bidder, interested party and/or their principals, officers, employees, attorneys, or agents shall communicate with County employees, the Hearing Master assigned to hear the applicable protest appeal and/or members of the Board of County Commissioners, including their aides and employees regarding this procurement and/or a related protest, except as otherwise provided in the [Hillsborough County Procurement Protest Policy and Procedures Ordinance](#). The Cone of Silence does not prohibit a Bidder from communicating with the Director of Procurement, staff in the Procurement Services Department, or the County's attorney assigned to this procurement. Violating the Cone of Silence may disqualify the Bidder from consideration for award. Please refer to the **Instructions** for complete details about the Cone of Silence.

NOTICE: This Addendum is an integral part of the Invitation for Bid under consideration by you as a Bidder in connection with the subject matter identified below. Hillsborough County deems all Bids to have been proffered in recognition and consideration of the entire Invitation for Bid including all issued Addenda.

THE INFORMATION INCLUDED HEREIN IS HEREBY INCORPORATED INTO THE CONTRACT DOCUMENTS OF THIS PRESENT BID MATTER AND SUPERSEDES ANY CONFLICTING CONTRACT DOCUMENTS OR PORTION THEREOF PREVIOUSLY ISSUED.

If the Bid has already been submitted within the Bonfire electronic bidding system for Hillsborough County Procurement Services, Bidder shall resubmit bid and acknowledge addendum electronically.

REASON(S) FOR ADDENDUM:

1. *The drawings have been removed and replaced with the revised, scalable drawings. Please refer to the Supporting Documentation Section in Bonfire.*
2. *The Architect, **WILDERARCHITECTURE, INC.**, Addendum No. 1 Narrative for clarifications to the Specifications and Drawings has been provided. Please refer to the Supporting Documentation Section in Bonfire.*
3. *The Bid Table Line Item #0-3 for Additive Alternate No. 2 has been revised consistent with the Specifications Section 01030 Alternates revision.*
4. *Responses to vendor questions are included on the following pages.*
5. *As stated in the Public Notice issued on March 25, 2025, the Bid Close Date has been extended from March 28, 2025, at 2:00 pm. to April 17, 2025, at 2:00 pm.*

**Addendum No. 1
FOR
CONSTRUCTION
OF
PROGRESS VILLAGE SOUTH FIRE STATION No. 48**

This Addendum is an integral part of the BID under consideration by you as Bidder in connection with the invitation for bid, BID No. IFB-25-00072 for the construction of Thonotosassa Fire Station. The following items shall constitute this amendment.

A. SPECIFICATIONS/DRAWINGS CLARIFICATIONS:

Clarification # 1:

Specifications:

Refer to Architect Addendum 01 narrative

Drawings:

Refer to Architect Addendum 01 narrative

B. RFI QUESTIONS/RESPONSES/CLARIFICATION:

Question No.1: As a subcontractor, is there any way to bypass the bid bond requirement to submit our bid? We are more than willing to obtain a bond if awarded.

Response: Refer to the following Contract Terms and Conditions sections:

2.4.1.1 An Earnest Money Deposit/Bid Bond or other security is required with this Bid.

Either a certified check, a cashier's check, treasurer's check, or a bank draft drawn on any national or state licensed financial institution or, in the alternative, an Earnest Money Deposit completed and signed by all required parties and submitted in the format detailed in the attachment, shall be required to accompany each Bid Proposal in a stated dollar amount which equals not less than five percent (5%) of the sum of the computed total amount of the Bidder's Bid Proposal.

Question No.2: We provide Quality Lights, Interior and Exterior? Do renovations require any Lighting?

Response: Refer to the Solicitation Documents provided in the Supporting Documentation Section.

Question No.3: The civil sheets in the provided drawings are not able to scale correctly. Can new civil sheets with corrected scale be provided?

Response: Refer to attached revised C1.3 Civil Plans with scaled revised.

Question No.4: The County drawings are formatted to 8 1/2 x 11. In order to print properly please provide the correct sized drawings.

Response: The drawings have been removed and replaced with the revised, scalable drawings. Please refer to the Supporting Documentation Section.

Question No.5: It appears the drawing set provided is not to scale - please provide a revised full drawing set to scale

Response: The drawings have been removed and replaced with the revised, scalable drawings. Please refer to the Supporting Documentation Section.

Question No.6: Can there be an extension of the project due dates by a minimum of a 1-2 days separation of the three Fire Station projects (Thonotosassa/Progress Village/Sun City)? Three projects sharing the same bid date/time frame will be difficult to complete in a hard bid scenario.

Response: The Close Date has been extended from March 28, 2025, to April 17, 2025.

Question No.7: Progress Village drawings are not to scale and a revised set of scalable drawings was requested on 2/14 by Jim with KAST. Once this is released, in theory, this could be one of the projects that could push.

Response: The drawings have been removed and replaced with the revised, scalable drawings. Please refer to the Supporting Documentation Section.

Question No.8: The online portal indicates the Good Faith Effort Determination Form must be submitted with Bid or within five (5) business days after notification. Can you please clarify if this is correct, and if so, within five (5) business days of what specific notification this would need to be submitted by. The other two (2) fire stations require this form to be submitted at the time of the submission.

Response: All of the three fire stations contain the same language regarding submission of the Good Faith Effort Determination form. Please refer to the following sections which distinguish between Section 2.1.1 DM/DWBE Documents Due at Time of Bid Submission versus Section 2.1.2 DM/DWBE Documents Due Within 5 Business Days of Notification of Low Bidder Status.

Question No.9: The drawings were saved into PDF at LETTER Sized (8.5" X11") instead of their actual size (24x36 or 30x42, etc.). Can you provide a new file with correct document size?

Response: The drawings have been removed and replaced with the revised, scalable drawings. Please refer to the Supporting Documentation Section.

Question No.10: Submission of approved equal for the Trench Drain portion of Progress Village South Fire Station No.48

Response: The proposed Vodaland substitute does not meet the Class E load requirements nor offers a heel-proof grate. Not acceptable.

Question No.11: Our firm is interested in submitting proposal for all the three fire stations and would therefore like to request the County to consider the option of having the bid submitted on different bid dates as against the present arrangement. This will make the bid preparation and process easy for us to submit.

Response: The Close Date has been extended from March 28, 2025, to April 17, 2025.

Question No.12: Will the County consider spreading out the bid due dates for the three fire stations? This approach would likely increase participation and ensure more competitive pricing. As it stands, it will be very difficult for GC's and subcontractors to submit three proposal simultaneously for three different Fire Stations. We suggest, at a minimum, spacing out each due date individually. Please advise.

Response: The Close Date has been extended from March 28, 2025, to April 17, 2025.

Question No.13: Requesting clarification regarding the qualifications required for potential GC bidders. The current documentation in the Contract Terms and Conditions, section 1.3, does not specify any particular criteria that bidders must meet other than having a license. To avoid having unqualified respondents, we suggest adding more specific requirements such as the following example:

Respondent shall supply a list of references with at least three (3) similar projects successfully completed as a Prime Contractor within the last ten (10) years. Similar projects should be a new fire station or public safety building. Additionally, at least one of the projects submitted must meet the following requirements: Must be a new fire station or public safety building of no less than 8,000 square feet and involve site work adaptation.

Response: The County is not changing the requirements.

Question No.14: Do we carry the following Cost for the Allowances as outlined in the special conditions within our initial overall bid submittal or is it added to the contract once awarded by the County? Construction Authorization Allowance: \$200,000, Construction Allowance: \$150,000, Utility Charges: \$75,000 & Fire Alerting system Allowance: \$125,000

Response: Allowances will be added as separate line items prior to award of contract.

Question No.15: Please confirm that although the Owner will be carrying allowances for the following: Construction Allowance, Utility Charges, Allowance Authorization & Fire Alerting System Allowance. Please also confirm whether the contractor is still required to carry all cost for permitting/utilities, contingency & fire alerting system requirements indicated on the bid documents and as required for the project.

Response: Refer to the General Terms and Conditions of the contract.

Question No.16: Please confirm that the plans have been submitted for permit and provide an assumed start date for construction & permit approval.

Response: Permits will be ready to be pulled by successful contractor. Construction start date is unknown and dependent on contract award by the Board of County Commissioners.

Question No.17: Is this a Davis Bacon Wage Determination Project? If yes, can the Wage Determination Sheet be provided for inclusion in our pricing?

Response: Per the Terms and Conditions' document, this is not a federally funded project, so Davis Bacon Wages do not apply.

Question No. 18a: Reference sheet A4.1 detail A11. A dotted line is shown at the exterior CMU under fiber cement board, but the drawings do not indicate what this line represents. The waterproofing spec #07 1300-1 indicates a mod-bit sheet-applied waterproofing system, but that does not seem like the correct application for this condition. A 5 or 10-year cold fluid-applied system would be more applicable for these conditions. This spec section also indicates to reference spec section 07 2500 for weather barrier under siding, however this spec does not exist. Please advise as to what kind of waterproofing system is to be applied at the exterior CMU walls behind fiber cement panels, stucco, and brick veneer conditions. Additionally, the drawings do not seem to show any waterproofing requirements for the concrete footings or CMU fenestrations. Will any waterproofing systems be required for any other areas other than the exterior CMU walls behind finish materials?

Response: Disregard dotted line in detail A11 / A4.1. Delete mod-bit sheet applied waterproofing spec section 07 1300. No underlayment is required for fiber cement board on CMU per manufacturer's instructions and FBC.

Question No. 18b: We are unable to locate the Sign Schedule referenced in ADA Signage Details K13, K10, and H10 on Sheet A5.3, which notes "See Sign Schedule for Text." Please provide the Sign Schedule or clarify its location. In addition, Detail K10 indicates to "provide male pictogram at men's toilet." However, the plans and Finish Schedule do not specify whether Toilets 125, 112, and 113 are designated for Unisex, Women, or Men use. Please clarify and identify the intended use for each toilet.

Response: Toilets 125, 112 and 113 to be Accessible Unisex Toilets. Detail K10 / A5.3 is none applicable. Room identification and number signs are to be provided at each interior door opening and at certain exterior door openings where indicated on drawings. Use room names and number as per Finish Schedule.

Question No. 19: The Signs Specification requires a room identification sign at swinging doors or pairs of doors leading to a room. Day Room 105 does not have a door. Please confirm if a sign is required to identify this room.

Response: No sign needed.

Question No. 20: Keyed Note #19 on Sheet P2.1 references a gas line for an outdoor gas grill; however, no outdoor grill is listed in the Equipment Schedule or the Specifications. Please confirm if the outdoor grill is to be provided by Contractor, and if so, kindly provide the grill specifications.

Response: Gas grill to be provided by Owner.

Question No. 21: Specifications Division 11 lists a range with a natural gas fuel source. However, the plumbing drawings indicate that the gas system for this project is propane gas. Please confirm if a conversion kit is required for the specified range, or provide specifications for a propane-fueled range.

Response: Modify paragraph 3.4, D, 2 as follows: "Fuel Source: ~~Natural Gas~~ Liquid Propane. Model - ~~ZGP364NDTSS~~ ZGP364LDRSS."

Question No.22: Paragraph 3.2-B in Division 10 Fire Extinguisher Specifications states that "Each extinguisher requires a cabinet." However, the Life Safety Plan on Sheet A0.1 differentiates between cabinet-mounted and bracket-mounted fire extinguishers and provides their locations. Please clarify the specifications or confirm if the correct statement should be "Each cabinet requires a fire extinguisher."

Response: Provide as shown on Plans.

Question No.23: Civil plan shows the FFE of the Fire Station main building is +16.50 NAVD. Architectural/Structural plan only show the Finish Floor Elevation as +100'-0". Please confirm the FFE +100'-0" is the +16.50 NAVD on Architectural/Structural Plans.

Response: Correct, refer to A1.0 General Notes #4

Question No.24: Bid documents and A1.1 indicate the location of the Add Alternate to provide a prefabricated metal storage shed. No specifications or information has been provided on what to include aside from floor dimensions and door requirements. Please provide a height requirement as well as any specifications/basis of design requirements.

Response: Refer to Addendum 01 revisions to Specifications 01 0300 Alternates, part 3.1C Additive Alternate No. 2.

Question No. 25: Reference sheets A1.1 & A1.2. The detail of the oxygen tank storage shed shows a 1:12 pitch shingle roof, however a shingle roof cannot have a 1:12 pitch. As shown on the roof plan for the main building, the cricket roof with a 1:12 pitch is shown to be TPO membrane roofing. The storage shed would also be assumed to be TPO membrane or a metal roofing system. Please advise.

Response: Oxygen tank storage roof system to match the main building. If asphalt shingles provide a pitch of 2:12, if Bid alternate No. 5 Metal standing seams roof gets approved keep the 1:12 pitch for the storage. Adjust slope as required for the selected roof system.

Question No.26: Reference A1.3. The drawings call for a 30' weather antenna for Weatherbug system, but the drawings or specs do not seem to indicate the Weatherbug product that is to be installed. Also, keynote 55 on A1.3 calls for a Weatherbug display to be installed but is not shown on the floorplan. Please provide required specifications of additional equipment on the pole & screens, power requirements, etc.

Response: Refer to Specification Appendix Two for Weather bug pole basis of design. Display to be provided by Owner. Refer to electrical drawings for power and display mounting height.

Question No.27: Reference G1&G6/A6.2 - Please confirm the extent of waterproofing requirements at the showers are per this referenced detail which includes a sheet waterproofing membrane at the base of the shower and 6" up the finished wall. No waterproofing appears to be indicated or required above 6" at wall locations. Please confirm. In addition, the detail provided referenced PT wood blocking for a pan, however, the plumbing schedule does not indicate a plumbing pan requirement. Please confirm if this is required, if yes – provide product.

Response: Use Dense Guard Tile Backer (or equal) in shower surrounds and apply RedGuard (or equal) to the tile surfaces of the shower area. The sheet waterproofing shown in the details is the shower pan, no plumbing selection required for schedule. Provide PVC sheet 40 mil as the shower pan liner.

Question No.28: Specification 09 2200 Portland Cement and Plaster indicates a requirement for accessories to be PVC and for direct application to masonry. Specification 092236 Metal Lath does not seem to be applicable to the project as this would typically only be required at a framed assembly. Please confirm Specification 092236 Metal Lath is not applicable to this project. If it is, please clarify what locations and whether PVC products would be acceptable in lieu of metal.

Response: Metal Lath is only required where stucco is applied to a framed, sheathing surface, not applicable here. PVC products are acceptable as accessory components to the cement plaster application.

Question No.29: Please clarify whether the polished concrete is to receive color dye. Color dye is mentioned in the products section of the specifications, but not on the plans, nor in the execution section of the specs.

Response: Delete the requirement for polished concrete flooring. Delete spec section 03 3600. Refer to revised finish schedules on sheet A7.1. Where scheduled in revised finish schedule (LVT), provide LVT by Shaw Contract Modern Edit - Intricate Alabaster 92100, Size: 12" x 24". This is a BASIS OF DESIGN product. Install in conformance with manufacturer's recommendations and requirements. Provide all accessories product required for a complete installation. Install in a Stagger pattern.

Question No.30: It appears the drawings provided are not the correct size. Please advise.

Response: The drawings have been removed and replaced with the revised, scalable drawings. Please refer to the Supporting Documentation Section.

Question No.31: Provide a set of drawings in their original format size, since the drawings on Bonfire were uploaded in 8 ½" x 11.

Response: The drawings have been removed and replaced with the revised, scalable drawings. Please refer to the Supporting Documentation Section.

Question No.32: Confirm the drawings produced by the County's design professionals comply with the special conditions Paragraph 1.1 which states "The facilities must be of high quality and low maintenance; must meet or exceed the requirements of the Construction Documents Package and must meet the needs of the user and maintenance agencies. The construction of these facilities shall meet the requirements of all governing local, state, and federal regulations, codes, and ordinances, including the Florida Accessibility Code for Building Construction and the Americans with Disabilities Act (ADA). ", since the contractor does not know what the requirements or needs of the user and maintenance agencies are.

Response: Comply with contract documents.

Question No.33: Provide a specification for the following including approved manufacturer(s), make/model, finish, accessories, options, warranties, installation instructions, etc. as necessary to fully describe the work.

- a. Prefabricated metal storage building per Alternate #2
- b. FRP at Room 126 per the Finish Schedule Sheet A7.1
- c. 2 - Fixed 1-hr rated window frames shown on Sheets A0.1 and A7.1
- d. 4' 8" H x 5'4" W Access panel to the mechanical chase as shown in Detail A5/A4.2 and D10/A6.1
- e. Vinyl wall base per the Finish Schedule on Sheet A7.1
- f. Exterior key box per A1/A4.3
- g. Exterior key box per A1/A4.3
- h. PVC vinyl soft top dome bollard caps per Section 05 50 00 Paragraph 3.3(B)

Response:

- a. Refer to Addendum 01 revisions to Specifications 01 0300 Alternates, part 3.1C Additive Alternate No. 2.
- b. FRP Basis of design; Crane Composites. Varietex textured, colored wall panel. Install with the fewest seams possible. 0.075" Beaded. Color TBD. Provide all appropriate accessories and manufacturer's recommended attachment(s).
- c. Provide fire rated window assembly as per plans detail similar to J4/A5.2. Fire rated window frames must be UL listed and in accordance to UL Design NO. GSNN.WA-2-001. Provide the rating required as indicated on the drawings
- d. Basis of Design: JL Industries Interior Access Panels – Flush TM series 16 ga. Coordinate Rough Opening to allow access to fan motor.

- e. Vinyl Base Basis of Design – Provide ARMSTRONG Rubber/Vinyl Base 4” Continuous rolled cove base. Provide all appropriate accessories and manufacturer’s recommended attachment(s). Do not provide pre-formed corners. Install per manufacturer’s recommendations and instructions.
- f. Provide Medeco Box-flush mounted as noted on A1.3 Specific notes #4.
- g. 44-Gallon trash to be provided by Owner.
- h. Disregard PVC vinyl soft top dome bollard caps called on specification. Follow bollard detail shown on plans.

Question No.34: Confirm there is only one (1) irrigation water well with a depth of 250’ deep per Section 32 85 00, since Paragraph 1.1 specifies “development of 10 wells”

Response: There is only one Irrigation Well required.

Question No.35: Provide a list of all subcontractors including certified DM/DWBE firms identified by E & L for fire stations: Armdale #10, Gunn Hwy #13, and Palm River #15 and Diaz Fritz for the Cross Creek Recreation Center.

Response:

Armdale FS No. 10

Premier Fire Sprinklers, Inc.
 Harmonics Electric, LLC
 Best Made Enterprises, Inc.
 Victors Custom Cabinets & Tops LLC
 POD-NC LLC
 R&D Construction & Roofing
 Anticus Engineering

Gunn Hwy FS No. 13

Premier Fire Sprinklers, Inc.
 Harmonics Electric, LLC
 Best Made Enterprises, Inc.
 Victors Custom Cabinets & Tops LLC
 POD-NC LLC
 Anticus Engineering

Palm River FS No. 15

Premier Fire Sprinklers, Inc.
 Best Made Enterprises, Inc.
 Victors Custom Cabinets & Tops LLC
 POD-NC LLC
 Ballfer Service Corp
 R&D Construction & Roofing
 Anticus Engineering

Cross Creek Recreation Center

Superior Mechanical Solutions
 Rick’s Electrical
 Trimen Landscape
 Reeves Building and Plumbing
 Star Quality
 Torres Total Flooring

Question No.36: Confirm the bid price is NOT to include over-excavation, soil undercutting, structural fill, inspections, or testing related to removal of unsuitable/deleterious subsurface materials such as muck, peat, buried debris, etc. since none is shown in the geotechnical/soils report or indicated on the plans.

Response: Confirmed - this will not be part of the bid price.

Question No.37: Confirm excess excavation/surplus earth material shall become the property of the site contractor for disposal at his discretion and will NOT be required to be transported to an Owner (County) approved site as noted per Section 31 20 00, Paragraph 3.2(P).

Response: Any excess soil is the contractors.

Question No.38: Confirm the site/civil plans and specifications have been prepared and conform with FDOT, Hillsborough County technical specifications, SWFWMD, Florida Environmental Land and Waste Mngt Act, FDEP, Health Dept, NPDES, and all other statutes, laws, regulations, and codes since the contractor is not the licensed design professional. Also, verify the bid price is NOT to include any cost, expense, or contingency for preparing plans, design/engineering work, obtaining approvals, or securing permits related to the site/civil.

Response: Contractor does not have to do site drawings. Contractor will be responsible for pulling permits related to delegated designs (i.e., septic, fuel, wells, etc.). Contractor is also responsible for pulling the FDEP NPDES Permit 48 hours prior to moving dirt.

Question No.39: Although referred to in other specification sections, confirm the specification book does not include sections for cast-in-place concrete or masonry. Also, confirm the only specification for concrete, masonry and pre-engineered wood trusses is shown in the structural drawings.

Response: Confirmed

Question No.40: Confirm the base bid is to include the added cost for the extensive landscape, lawn and irrigation maintenance for a period of 1-year following substantial completion as outlined per Section 32 67 00. If this is required, will final payment and final acceptance of the project be withheld until after the 1-year maintenance period.

Response: Only one year contractor's warranty following substantial Completion of the project.

Question No.41: Verify the bid price is to include manufacturer's standard available colors and textures for materials selected by the Architect and not custom, exotic, or special-order items.

Response: Provide Full range of manufacturer's standard available colors, no custom, exotic, or special-order items.

Question No.42: Provide a sign schedule as referenced in Details K10, K13, and H10 on Sheet A5.3 along with a drawing showing the location(s) for each interior sign.

Response: Refer to response to question 18b.

Question No.43: Confirm Section 01 73 20 Selective Demolition is not applicable, since this section refers to Owner occupied portions of the building, asbestos (hazardous materials) report, occupied or operating facilities, existing warranties, etc.

Response: Not applicable

Question No.44: Provide a drawing identifying each tree that is to be pruned (if any) since Section 32 90 00 Paragraph 3.2 requires "all existing trees within the limits of work shall be pruned" and the landscape plan shows a lot of trees to remain in the fence line or very close to the fence line.

Response: See attached revised Landscape Plan sheet L-1 Addendum 01 for trees to be pruned.

Question No.45: Provide a drawing with details for any aeration systems required (if any) for the existing trees to remain.

Response: No Aeration System is required for the existing trees to remain.

Question No.46: Provide a specification for field painting the fiber-cement siding since it is not included in Section 09 91 20.

Response: Follow paint specifications for exterior concrete masonry units and vertical stucco surfaces (Section 09 9120 Part 3.6 A).

Question No.47: Provide a specification and installation details for the weather barriers under the fiber-cement siding per the related requirements noted in Section 07 46 46 Paragraph 1.2(A), if necessary, since there is no Section 07 25 00 and none are shown on the building details.

Response: Delete mod-bit sheet applied waterproofing spec section 07 1300. No underlayment is required for fiber cement board on CMU per manufacturer's instructions and FBC.

Question No.48: Verify the County has sole sourced Southland Concrete Creations as the only designated polished concrete floor installer per Section 03 36 00.

Response: Delete the requirement for polished concrete flooring. Delete spec section 03 3600. Refer to sheet A7.1 revised finish schedule.

Question No.49: Confirm all polished concrete floors are to receive penetrating color dye as implied per Section 03 36 00 Paragraph 2.1(C), since this will add cost and affect the sequence and schedule of work. If so, confirm that all floors will receive the same color dye.

Response: Delete the requirement for polished concrete flooring. Delete spec section 03 3600. Refer to revised finish schedules on sheet A7.1. Where scheduled in revised finish schedule (LVT), provide LVT by Shaw Contract Modern Edit - Intricate Alabaster 92100, Size: 12" x 24". This is a BASIS OF DESIGN product. Install in conformance with manufacturer's

recommendations and requirements. Provide all accessories product required for a complete installation. Install in a Stagger pattern.

Question No.50: Provide a list of approved manufacturers for the solid plastic laboratory casework since it is not included in Section 12 35 53.23. Also confirm this specialized casework is installed in the Apparatus Bay per Detail D10/A6.1.

Response: The laboratory casework is for the Apparatus Bay. The following manufacturers/vendors are acceptable: TFI/Inline Design, LabAire Systems, PolyGuard Scientific, Laboratory Design & Supply.

Question No.51: Provide a plumbing specification for the gas piping since it is not included in Division 22.

Response: Refer to attached Specification Section 22 1617 – Liquefied-Petroleum Gas Piping as part of Addendum 01.

Question No.52: Confirm the folding shower seats per Section 10 80 00 Paragraph 2.10 and the controlled pharmaceutical dispenser per Section 10 95 00 Paragraph 2.2 are not applicable since neither are shown on the drawings.

Response: Folding seats are shown on sheet A2.1 refer to equipment tag #27. Controlled pharmaceutical dispenser applies only to Progress Village South FS No. 48.

Question No.53: Confirm metal lath per Section 09 22 36 is not applicable since it is not shown on the drawings.

Response: Not applicable.

Question No.54: Clarify the gypsum board since the partition types on Sheet A4.0 shows 5/8" whereas Section 09 21 16 Paragraph 2.3 specifies 1/2" for both walls and ceilings.

Response: Provide 5/8" gypsum board as shown on plans for wall and 1/2" for ceilings.

Question No.55: Verify gypsum board walls and ceilings are not to receive a Level 5 finish although Section 09 21 16 Paragraph 2.4(G) specifies a high build drywall surfacer.

Response: Provide medium orange peel finish (Owner Design Standards) in lieu of the Level 5 specified.

Question No.56: Confirm the underslab vapor retarder is to be installed per Section 07 16 00 Paragraph 3.3(C) requiring it to be lapped “over footings and sealed to the foundation walls”, since this is costly and unusual.

Response: The footings for this job are lower than the finished floor grade preparation, not required. Seal to foundation walls, turn up wall, secure and provide terminating edge with Stego Crete Claw Tap 3” (Basis of Design).

Question No.57: Confirm there are no grant/funding sources (Federal, State, DOT or other agencies) that would impose additional requirements, regulation and reporting such as Davis Bacon/Payroll Reporting, Buy American, labor surplus area participation, Federal Acquisition Regulations (F.A.R.), etc.

Response: Per the Terms and Conditions' document, this is not a federally funded project.

Question No.58 Confirm that the allowances totaling \$550,000.00 will not be included in the calculation determining DM/DWBE participation goal of 17%.

Response: Refer to Contract Terms and Conditions, Section 2.14 Utilization of DM/DWBEs.

Question No.59: Should the bid price include P&P Bond, insurance premiums and overhead and profit mark up for \$550,000 in allowances?

Response: The allowances are for the designated items as stated in the Contract Terms and Conditions. The distribution of cost for P&P Bond, insurance premiums, overhead and profit markup is at the discretion of each individual bidder.

Question No.60: Confirm that the bid price is NOT to include the added cost for FSC certification and wood sustainably harvested in the State of Florida for rough carpentry lumber and plywood per Section 06 10 00 Paragraph 1.4(D) & 2.1(B) & (C).

Response: FSC certified wood is not required. Wood harvested in the State of Florida is required per Florida Statutes, Section 255.20(3): "All county officials, boards of county commissioners, school boards, city councils, city commissioners, and all other public officers of state boards or commissions that are charged with the letting of contracts for public work, for the construction of public bridges, buildings, and other structures must always specify lumber, timber, and other forest products produced and manufactured in this state whenever such products are available and their price, fitness, and quality are equal."

Question No.61: Confirm that the cabinet contractors are not required to be AWI certified or participate in the Quality Control Program as implied per Section 06 41 00 Paragraph 1.4(A).

Response: Cabinet subcontractors should be AWI certified.

Question No.62: Provide copies of all environmental surveys and/or reports and verify there are no endangered or threatened species including gopher tortoises, birds, etc.

Response: No T&E Survey was done and no T&E species are expected to be present.

Question No.63: Although well within the control of the County, confirm the contractor will not be compensated for delays caused by “acts or neglect by the County” outlined by the Force Majeure Paragraph 5.23 in the Invitation to Bid since this seems unusual and unreasonable.

Response: Refer to the Contract Terms and Conditions as written.

Question No.64 Confirm the County will not allow for a time extension for unfavorable weather as outlined by Paragraph 5.10.3 through 5.10.6 in the Invitation to Bid since it is “not excusable”. This paragraph specifies that the bidder should expect and price including overtime and weekend work for the 44 bad weather days out of 260 work days in any given year.

Response: Refer to the Contract Terms and Conditions as written.

Question No.65: Provide specific brick size/dimension, texture, finish, color, etc. since Section 04 26 13 appears to be for matching “the existing conditions at the original campus”. Also provide clarification as to an 8’ x 6’ H mock -up panel with an entire window assembly, flashing material, weeps, cavity vents, cavity mortar control and veneer anchoring system since the specification includes a number of items that do not seem applicable to this project or shown on the drawings.

Response: Basis of design to be per specification 04 2613 Part 2 products. Provide a mock-up of brick and mortar at a location on building (to remain).

Refer to Addendum 01 Specifications clarifications.

Question No.66: Verify the bid price is to include “shop-applied coat of epoxy over primer” at all exterior steel doors and frames and spray applied “back-coated bituminous fibrous layer” at all exterior steel frames per Section 08 11 10 Paragraphs 2.3(G) and 2.4(J) & (K). since this is costly and unusual.

Response: Confirmed required this is a County design standard, provide as specified. If shop applied is not available, it must be done in the field.

Question No.67: Confirm it is acceptable for the GC to contract the termite control with the concrete subcontractor although Section 31 31 16, Paragraph 1.5(B) restricts this. Also, confirm that applying soil treatment under the footings is not required although it is implied per Paragraph 1.7(A).

Response: The GC can provide termiticide through the concrete subcontractor (qualified applicators/vendors are required). Soil treatment under lowest footings is not required.

Question No.68: Confirm that winds/vision screening for the 6' H temporary chain link fence is not required.

Response: It is not required. The contractor at its own discretion may provide winds/vision screening for the security of its construction site.

Question No.69: Confirm the County will accept a standard 8' x 40' container without a private toilet room as a temporary construction office with A/C/Heat, lighting, power, and space for meetings, instead of a wheel mounted trailer that will require separate permitting, hurricane rated tie-downs, steps and platforms.

Response: Comply with contract documents.

Question No.70: Confirm threshold building inspections are NOT to be included in the base bid as specified per Section 01 34 00.

Response: Threshold building inspection is not required.

Question No.71: Provide the following for the retaining wall at the wet pond:

- a. Confirm the required top of footing elevation, since S1.0 shows 1' minimum whereas the Geotechnical Report implies the foundation should be much deeper.
- b. Specification for the 12" split face block noted per #45 on Sheet A1.0 including approved manufacturers, color, additives, etc. as necessary to fully describe the work.
- c. Specification for painting or water repellant coating for exposed surfaces.
- d. Masonry control joint details for the joints as laid out on Sheet S1.0 including expansion joint material, backer rod and sealant.
- e. Sheet waterproofing details at the control joints and the base of the wall to footing intersection.
- f. Drainage and/or protective board and any drain piping that may be necessary. Specification for backfill material other than onsite soils.

Response:

- a. The Geotech indicates a footing bearing depth of 24". We don't see any footings including the retaining wall that do not meet this recommendation.
- b. Use standard 12" CMU block at the retaining wall as indicated in structural drawings in lieu of split face masonry units.
- c. No painting or water repellant on exposed surfaces needed.
- d. Refer to detail 3 on S2.2
- e. Use W. R. Meadows DETAIL STRIP, a 9-inch-wide accessory product, to bridge control joints. Center the DETAIL STRIP over the control joint, adhering half (4.5 inches) to each side of the joint. Remove the release paper and press it firmly into place. Extend the strip at least 4.5 inches beyond any corners or terminations of the joint to ensure full coverage. These are based on the MEL-ROL product line. Provide similar detailing from other approved manufacturers.
- f. Refer to Addendum 01 revised detail 1 on S1.0

Question No.72: Confirm the only acceptable method of dewatering is by well points as noted per Sheet C1.1 and using a horizontal sock drain system that will remain in place at completion will not be allowed.

Response: Horizontal sock drain system is acceptable as an alternative to well pointing.

Question No.73: Confirm the clear water repellent sealer per Section 07 18 15 is to be applied to the brick veneer and cast stone. Also confirm the extensive testing and documentation will be required on the limited amount of brick.

Response: Apply to brick veneer. Cast stone will be painted; not required. Extensive testing is not required. Applicator report(s) and manufacturer's warranty will suffice.

Question No.74: Should the cast stone be integrally colored or standard gray since the finish is not specified per Section 04 72 00. Also confirm that costly galvanized rebar is required per Paragraph 2.1(G).

Response: Cast stone to be standard gray and painted in field. Provide galvanized rebar as specified.

Question No.75: Confirm items 3, 5, 6, & 7 per Paragraph 1.2(A) in Section 05 50 00 is not applicable, since these are not shown on the drawings.

Response: Provide items shown in or implied by the drawings.

Question No.76 Verify the bar chart schedule per Section 01 31 00 is preferred by the County for this type of project instead of a CPM schedule and reports as noted in Section 01 32 00.

Response: CPM schedule will be required.

Question No.77: Verify the foreign product limitations per Section 01 60 00 Paragraph 1.4(C) is not applicable, since the products and manufacturers are specified by the design professional. If this is a requirement, provide product and manufacturers that comply with domestic/American made standards.

Response: Delete Paragraph 1.4C in its entirety.

Question No.78: Confirm substitutions will be allowed, although Section 01 60 00 Paragraph 2.1(B)1 states no substitutions will be permitted where only one product or manufacturer is named. For those sections where only one is named, provide other approved products or manufacturers.

Response: The substitution shall be equal to meet the specification requirements and be approved by professional. A single named product shall be considered a Basis of Design product, not a closed specification.

Question No.79: Confirm that products with recycled content and overall project requirements as noted per Section 01 60 00 Paragraph 1.4(B)1 is not applicable.

Response: Delete the last sentence in Paragraph 1.4(B)1.

Question No.80: Confirm it is NOT required for the “Contractor to provide technical support for 1-year after final completion in addition to the 1-year general contractors warranty” per Section 01 70 00 Paragraph 1.02(A)4(f) and (C)3(i), since this is costly and unusual.

Response: Delete last sentence in Paragraphs 1.02(A)4 (f) and 1.02(C)3 (i). Technical support for 1-year after final completion is not required.

Question No.81: Please confirm that the reference to a GMP and/or Guaranteed Maximum Construction Price is incorrect and this is a plans & specifications bid proposal.

Response: Reference to a GMP and/or Guaranteed Maximum Construction Price is incorrect. This a hard bid project.

Question No.82: Specification section 01 3400 indicates the CM is to competitively bid the threshold inspections and references the School District inspector. Please confirm that this specification section is correct and was intended to be included and the CM is responsible for threshold inspections.

Response: This is a hard bid project, and the Threshold inspection is not required.

Question No.83: Per Specification 04 2613, part 2 products, manufacturers to be Meridian Brick LLC; Red Semi-Smooth Flashed Modular: www.meridianbrick.com/#sle. However, Meridian Brick LLC was acquired by General Shale in 2021, please confirm the product is now General Shale Brick RED RANGE SEMI SMOOTH.

Response: Use that as basis of design. Building finishes to be confirmed with Owner color board selection.

Question No.84: Reference sheets A1.3 & A4.0. Wall partition types P16, P18 & P19 indicates tectum panels at the mechanical/electrical room walls per note 58 on A1.3. Specifications are not provided for tectum panels. Please provide.

Response: Provide Tectum Direct Attached by Armstrong World Industries (basis of design) 1” High NRC (.60) mounting method D-20. install as per drawings and manufacturer instructions

Question No.85: Reference sheets A1.3 & A6.1. Floor plan on A1.3 indicates pantry shelves system (tag #43) located at Kit/Din 106. Elevations and specifications are not included for the panty shelves system. Please provide.

Response: Refer to detail A1/A6.3

Question No.86: Reference project specifications. The plastic laminate casework specification (section 06 4100) indicates "as selected by architect from manufacturer's full range" for the colors and patterns of the solid-surfacing material. Please provide color/finish for the acceptable solid-surfacing material manufacturers indicated in project specifications.

Response: Finishes pending to be discussed with Owner for final selection. Bidder to provide cost for Quartz countertops and plastic laminate cabinets based on manufacturer's standard range of colors.

Question No.87: Reference sheet A7.1. The finish schedule on A7.1 indicates fiberglass reinforced plastic (FRP) at walls. Specifications for FRP wall panels are not included. Please provide.

Response: FRP Basis of design; Crane Composites. Varietex textured, colored wall panel. Install with the fewest seams possible. 0.075" Beaded. Color TBD. Provide all appropriate accessories and manufacturer's recommended attachment(s).

Question No.88: It appears there is a countertop/cubbies at the fitness room but no elevations or details are provided indicating the intent shown on floor plan A1.3. Please clarify what is to be included here.

Response: That's a dumbbell storage rack – To be provided by Owner.

END OF ADDENDUM No. 1

PROJECT: HC Progress Village South FS 48
PROJECT NUMBER: 2320
ADDENDUM NO.: One (01)
ADDENDUM DATE: 03/06/2025

The following items hereby become a part of the Contract Documents for the above referenced project.

IN SPECIFICATIONS:

1. On section 01030 ALTERNATES
 - a. Modify paragraph 3.1, B to read as follows:

Additive Alternate No. 2: Prefabricated Storage Building:

Base Bid: The purchase and installation of pre-engineered storage building as shown in drawing is not included in Base Bid.

Additive: Add to the scope of work for the Contractor to furnish and install a prefabricated Tuff Shed storage 10' x 12' with double doors (4'-0" W x 6'-8" H.) designed for high wind areas as Basis of Design.

Note: Concrete pad and electrical stub out shall be included in base bid.

2. Delete Section 03 3600 POLISHED CONCRETE FLOOR FINISHES
3. On section 04 2613 MASONRY VENEER
 - a. Delete letter a from paragraph 3.2, C, 1 – which refers to match existing conditions.
4. Delete Section 07 1300 SHEET WATERPROOFING
5. On section 08 7100 FINISH HARDWARE
 - a. Delete hardware group 04A and move door 110 to hardware group 04B
 - b. Hardware group 07 add:
1 EA THRESHOLD 65A-223 A ZER
 - c. Move door 101B from hardware group 09 to hardware group 05B
6. On section 09 2116 GYPSUM BOARD ASSEMBLIES
 - a. Modify paragraph 2.3, B, 4, a to read as follows: Vertical Surfaces: 5/8 inch.
 - b. Modify paragraph 2.3, C, 3, a to read as follows: Thickness 5/8 inch.
7. Delete Section 09 2236 METAL LATH
8. Section 11 4510 RESIDENTIAL APPLIANCES
 - a. Modify paragraph 3.4, D as follows: Range: GE Monogram 36" All-Gas Professional Range ~~ZGP364NDTSS~~ ZGP364LDRSS.
 - b. Modify paragraph 3.4, D, 2 as follows: "Fuel Source: ~~Natural Gas~~ Liquid Propane. Model - ~~ZGP364NDTSS~~ ZGP364LDRSS.
9. Add Section 22 1617 – Liquefied-Petroleum Gas Piping
 - a. This is a new spec section, please update your spec TOCs accordingly.

ON THE DRAWINGS:

10. Replace sheet A0.1 LIFE SAFETY PLAN with dated 03.06.2025
11. Replace Civil Cover Sheet with dated 01.31.2025
12. Replace Sheet C1.2 EXISTING CONDITIONS & DEMO PLAN with dated 12.03.2024
13. Replace sheet C1.3 STORMWATER POLLUTION PREVENTION PLAN, last revision dated 01.31.2025
14. Replace sheet C2.0 OVERALL SITE PLAN, last revision dated 01.31.2025
15. Replace sheet C2.1 GEOMETRIC, SIGNAGE & SIDEWALK PLAN, last revision dated 01.31.2025
16. Replace sheet C3.1 PAVING, GRADING & DRAINAGE PLAN, last revision dated 01.31.2025
17. Replace sheet C3.2 CROSS SECTION PLAN, last revision dated 01.31.2025
18. Replace sheet C3.3 DRAINAGE DETAILS, last revision dated 01.31.2025
19. Replace sheet C3.4 FLOODPLAIN MITIGATION PLAN, last revision dated 01.31.2025
20. Replace sheet C4.0 UTILITY PLAN, last revision dated 12.03.2024
21. Replace sheet C4.1 UTILITY PROFILES PLAN, last revision dated 01.31.2025
22. Replace sheet C4.5 LIFT STATION PLAN, last revision dated 12.13.2024
23. Replace sheet L-1 LANDSCAPE PLAN with dated 03.06.2025
24. On sheet A1.1 SITE PLAN delete from specific note 45 the words ~~split face~~, and replace with 12" CMU.
25. Replace sheet A5.1 ROOF DETAILS with dated 03.06.2025
26. Replace sheet A5.3 DETAILS with dated 03.06.2025
27. Replace sheet A7.1 SCHEDULES AND DOOR AND WINDOW TYPES with dated 03.06.2025
28. Replace sheet S1.0 SITE RETAINING WALL PLAN with dated 03.06.2025

END OF ADDENDUM NO. One (01)

ATTACHMENTS:

Specifications:

Section 22 1617 – Liquefied-Petroleum Gas Piping

Drawings:

- A0.1 LIFE SAFETY PLAN, dated 03.06.2025
- Civil Cover Sheet, dated 01.31.2025
- C1.2 EXISTING CONDITIONS & DEMO PLAN, dated 12.03.2024
- C1.3 STORMWATER POLLUTION PREVENTION PLAN, dated 01.31.2025
- C2.0 OVERALL SITE PLAN, dated 01.31.2025
- C2.1 GEOMETRIC, SIGNAGE & SIDEWALK PLAN, dated 01.31.2025
- C3.1 PAVING, GRADING & DRAINAGE PLAN, dated 01.31.2025
- C3.2 CROSS SECTION PLAN, dated 01.31.2025
- C3.3 DRAINAGE DETAILS, dated 01.31.2025
- C3.4 FLOODPLAIN MITIGATION PLAN, dated 01.31.2025
- C4.0 UTILITY PLAN, dated 12.03.2024
- C4.1 UTILITY PROFILES PLAN, dated 01.31.2025
- C4.5 LIFT STATION PLAN, dated 12.13.2024
- L-1 LANDSCAPE PLAN, dated 03.06.2025
- A5.1 ROOF DETAILS, dated 03.06.2025
- A5.3 DETAILS, dated 03.06.2025
- A7.1 SCHEDULES AND DOOR AND WINDOW TYPES, dated 03.06.2025
- S1.0 SITE RETAINING WALL PLAN, dated 03.06.2025

SECTION 22 16 17

LIQUEFIED-PETROLEUM GAS PIPING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Pipes, tubes, and fittings.
 - 2. Piping specialties.
 - 3. Piping and tubing joining materials.
 - 4. Valves.
 - 5. Pressure regulators.
 - 6. Mechanical sleeve seals.
 - 7. Grout.
 - 8. Concrete bases.

1.3 DEFINITIONS

- A. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below roof, spaces above ceilings, unexcavated spaces, crawlspaces, and tunnels.
- B. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.
- C. Exposed, Exterior Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.
- D. LPG: Liquefied-petroleum gas.

1.4 PERFORMANCE REQUIREMENTS

- A. Minimum Operating-Pressure Ratings:
 - 1. For Piping Containing Only Vapor:
 - a. Piping and Valves: 125 psig unless otherwise indicated.

2. For Piping Containing Liquid:
 - a. Piping between Shutoff Valves: 350 psig unless otherwise indicated.
 - b. Piping Other Than Above: 250 psig unless otherwise indicated.
 - c. Valves and Fittings: 250 psig unless otherwise indicated.
3. Minimum Operating Pressure of Service Meter: 5 psig.
- B. LPG System Pressures within Buildings: Two pressure ranges. Primary pressure is more than 0.5 psig but not more than 2 psig and is reduced to secondary pressure of 0.5 psig or less.

1.5 SUBMITTALS

- A. Product Data: For each type of the following:
 1. Piping specialties.
 2. Corrugated stainless-steel tubing with associated components.
 3. Valves. Include pressure rating, capacity, settings, and electrical connection data of selected models.
 4. Pressure regulators. Indicate pressure ratings and capacities.
 5. Dielectric fittings.
 6. Mechanical sleeve seals.
 7. Escutcheons.
- B. Shop Drawings: For facility LPG piping layout. Include plans, piping layout and elevations, sections, and details for fabrication of pipe anchors, hangers, supports for multiple pipes, alignment guides, expansion joints and loops, and attachments of the same to building structure. Detail location of anchors, alignment guides, and expansion joints and loops.
 1. Shop Drawing Scale: 1/4 inch per foot.
 2. Detail mounting, supports, valve arrangements, and pressure regulator assembly.
- C. Coordination Drawings: Plans and details, drawn to scale, on which natural-gas piping is shown and coordinated with other installations, using input from installers of the items involved.
- D. Site Survey: Plans, drawn to scale, on which natural-gas piping is shown and coordinated with other services and utilities.
- E. Qualification Data: For qualified professional engineer.
- F. Welding certificates.
- G. Field quality-control reports.

- H. Operation and Maintenance Data: For LPG equipment and accessories to include in emergency, operation, and maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Steel Support Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Pipe Welding Qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Handling Flammable Liquids: Remove and dispose of liquids from existing LPG piping according to requirements of authorities having jurisdiction.
- B. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.
- C. Store and handle pipes and tubes having factory-applied protective coatings to avoid damaging coating and protect from direct sunlight.
- D. Protect stored PE pipes and valves from direct sunlight.

1.8 PROJECT CONDITIONS

- A. Perform site survey, research public utility records, and verify existing utility locations. Contact utility-locating service for area where Project is located.

1.9 COORDINATION

- A. Coordinate LP Gas service requirements with LP Gas service provider.
- B. Coordinate sizes and locations of concrete bases with actual equipment provided.
- C. Coordinate requirements for access panels and doors for valves installed concealed behind finished surfaces. Comply with requirements in Division 08 Section "Access Doors and Frames."

PART 2 PRODUCTS

2.1 PIPES, TUBES, AND FITTINGS

- A. Steel Pipe: ASTM A 53/A 53M, black steel, Schedules 40, Type E or S, Grade B.
 - 1. Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
 - 2. Wrought-Steel Welding Fittings: ASTM A 234/A 234M for butt welding and socket welding.

3. Unions: ASME B16.39, Class 150, malleable iron with brass-to-iron seat, ground joint, and threaded ends.
 4. Forged-Steel Flanges and Flanged Fittings: ASME B16.5, minimum Class 150, including bolts, nuts, and gaskets of the following material group, end connections, and facings:
 - a. Material Group: 1.1.
 - b. End Connections: Threaded or butt welding to match pipe.
 - c. Lapped Face: Not permitted underground.
 - d. Gasket Materials: ASME B16.20, metallic, flat, asbestos free, aluminum o-rings, and spiral-wound metal gaskets.
 - e. Bolts and Nuts: ASME B18.2.1, carbon steel aboveground, and stainless steel underground.
 5. Protective Coating for Underground Piping: Factory-applied, three-layer coating of epoxy, adhesive, and PE.
 - a. Joint Cover Kits: Epoxy paint, adhesive, and heat-shrink PE sleeves.
 6. Mechanical Couplings:
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) Dresser Piping Specialties; Division of Dresser, Inc.
 - 2) Smith-Blair, Inc.
 - b. Steel flanges and tube with epoxy finish.
 - c. Buna-nitrile seals.
 - d. Steel bolts, washers, and nuts.
 - e. Coupling shall be capable of joining PE pipe to PE pipe, steel pipe to PE pipe, or steel pipe to steel pipe.
 - f. Steel body couplings installed underground on plastic pipe shall be factory equipped with anode.
- B. PE Pipe: ASTM D 2513, SDR 11.
1. PE Fittings: ASTM D 2683, socket-fusion type or ASTM D 3261, butt-fusion type with dimensions matching PE pipe.
 2. 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.

3. Anodeless Service-Line Risers: Factory fabricated and leak tested.
 - a. Underground Portion: PE pipe complying with ASTM D 2513, SDR 11 inlet.
 - b. Casing: Steel pipe complying with ASTM A 53/A 53M, Schedule 40, black steel, Type E or S, Grade B with corrosion-protective coating covering. Vent casing aboveground.
 - c. Aboveground Portion: PE transition fitting.
 - d. Outlet shall be threaded or flanged or suitable for welded connection.
 - e. Tracer wire connection.
 - f. Ultraviolet shield.
 - g. Stake supports with factory finish to match steel pipe casing or carrier pipe.
4. Transition Service-Line Risers: Factory fabricated and leak tested.
 - a. Underground Portion: PE pipe complying with ASTM D 2513, SDR 11 inlet connected to steel pipe complying with ASTM A 53/A 53M, Schedule 40, Type E or S, Grade B, with corrosion-protective coating for aboveground outlet.
 - b. Outlet shall be threaded or flanged or suitable for welded connection.
 - c. Bridging sleeve over mechanical coupling.
 - d. Factory-connected anode.
 - e. Tracer wire connection.
 - f. Ultraviolet shield.
 - g. Stake supports with factory finish to match steel pipe casing or carrier pipe.
5. Plastic Mechanical Couplings, NPS 1-1/2 and Smaller: Capable of joining PE pipe to PE pipe.
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) Lyall, R. W. & Company, Inc.
 - 2) Mueller Co.; Gas Products Div.
 - 3) Perfection Corporation; a subsidiary of American Meter Company.
 - b. PE body with molded-in, stainless-steel support ring.
 - c. Buna-nitrile seals.
 - d. Acetal collets.
 - e. Electro-zinc-plated steel stiffener.

6. Plastic Mechanical Couplings, NPS 2 and Larger: Capable of joining PE pipe to PE pipe, steel pipe to PE pipe, or steel pipe to steel pipe.
 - a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Lyall, R. W. & Company, Inc.
 - 2) Mueller Co.; Gas Products Div.
 - 3) Perfection Corporation; a subsidiary of American Meter Company.
 - b. Fiber-reinforced plastic body.
 - c. PE body tube.
 - d. 6Buna-nitrile seals.
 - e. Acetal collets.
 - f. Stainless-steel bolts, nuts, and washers.
7. Steel Mechanical Couplings: Capable of joining plain-end PE pipe to PE pipe, steel pipe to PE pipe, or steel pipe to steel pipe.
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) Dresser Piping Specialties; Division of Dresser, Inc.
 - 2) Smith-Blair, Inc.
 - b. Steel flanges and tube with epoxy finish.
 - c. Buna-nitrile seals.
 - d. Steel bolts, washers, and nuts.
 - e. Factory-installed anode for steel-body couplings installed underground.

2.2 PIPING SPECIALTIES

A. Flexible Piping Joints:

1. Approved for LPG service.
2. Stainless-steel bellows with woven, flexible, bronze, wire-reinforcing protective jacket.
3. Minimum working pressure of 250 psig and 250 deg F operating temperature.
4. Flanged- or threaded-end connections to match equipment connected and shall be capable of minimum 3/4-inch misalignment.
5. Maximum 36-inch length for liquid LPG lines.

B. Appliance Flexible Connectors:

1. Indoor, Fixed-Appliance Flexible Connectors: Comply with ANSI Z21.24.
2. Indoor, Movable-Appliance Flexible Connectors: Comply with ANSI Z21.69.
3. Outdoor, Appliance Flexible Connectors: Comply with ANSI Z21.75.
4. Corrugated stainless-steel tubing with polymer coating.
5. Operating-Pressure Rating: 0.5 psig.
6. End Fittings: Zinc-coated steel.
7. Threaded Ends: Comply with ASME B1.20.1.
8. Maximum Length: 72 inches.

C. Quick-Disconnect Devices: Comply with ANSI Z21.41.

1. Copper-alloy convenience outlet and matching plug connector.
2. Nitrile seals.
3. Hand operated with automatic shutoff when disconnected.
4. For indoor or outdoor applications.
5. Adjustable, retractable restraining cable.

D. Y-Pattern Strainers:

1. Body: ASTM A 126, Class B, cast iron with bolted cover and bottom drain connection.
2. End Connections: Threaded ends for NPS 2 and smaller, flanged ends for NPS 2-1/2 and larger.
3. Strainer Screen: 40-mesh startup strainer and perforated stainless-steel basket with 50 percent free area.
4. CWP Rating: 125 psig.

E. Weatherproof Vent Cap: Cast- or malleable-iron increaser fitting with corrosion-resistant wire screen, with free area at least equal to cross-sectional area of connecting pipe and threaded-end connection.

2.3 JOINING MATERIALS

A. Joint Compound and Tape: Suitable for LPG.

B. Welding Filler Metals: Comply with AWS D10.12/D10.12M for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.

- C. Brazing Filler Metals: Alloy with melting point greater than 1000 deg F complying with AWS A5.8/A5.8M. Brazing alloys containing more than 0.05 percent phosphorus are prohibited.

2.4 MANUAL GAS SHUTOFF VALVES

- A. See "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles for where each valve type is applied in various services.
- B. Metallic Valves, NPS 2 and Smaller for Liquid Service: Comply with ASME B16.33 and UL 842.
 - 1. CWP Rating: 250 psig.
 - 2. Threaded Ends: Comply with ASME B1.20.1.
 - 3. Socket ends for brazed joints.
 - 4. Tamperproof Feature: Locking feature for valves indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
 - 5. Listing by CSA or agency acceptable to authorities having jurisdiction for valves 1 inch and smaller.
 - 6. Valves 1-1/4 inch and larger shall be suitable for LPG service, with "WOG" indicated on valve body.
- C. General Requirements for Metallic Valves, NPS 2 and Smaller for Vapor Service: Comply with ASME B16.33.
 - 1. CWP Rating: 125 psig.
 - 2. Threaded Ends: Comply with ASME B1.20.1.
 - 3. Dryseal Threads on Flare Ends: Comply with ASME B1.20.3.
 - 4. Tamperproof Feature: Locking feature for valves indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
 - 5. Listing: Listed and labeled by an NRTL acceptable to authorities having jurisdiction for valves 1 inch and smaller.
 - 6. Service Mark: Valves 1-1/4 inch to NPS 2 shall have initials "WOG" permanently marked on valve body.
- D. One-Piece, Bronze Ball Valve with Bronze Trim: MSS SP-110.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. BrassCraft Manufacturing Company; a Masco company.
 - b. Conbraco Industries, Inc.; Apollo Div.

- c. Lyall, R. W. & Company, Inc.
 - d. McDonald, A. Y. Mfg. Co.
 - e. Perfection Corporation; a subsidiary of American Meter Company.
 - 2. Body: Bronze, complying with ASTM B 584.
 - 3. Ball: Chrome-plated brass.
 - 4. Stem: Bronze; blowout proof.
 - 5. Seats: Reinforced TFE; blowout proof.
 - 6. Packing: Separate packnut with adjustable-stem packing threaded ends.
 - 7. Ends: Threaded, flared, or socket as indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
 - 8. CWP Rating: 600 psig.
 - 9. Listing: Valves NPS 1 and smaller shall be listed and labeled by an NRTL acceptable to authorities having jurisdiction.
 - 10. Service: Suitable for LPG service with "WOG" indicated on valve body.
- E. Two-Piece, Full-Port, Bronze Ball Valves with Bronze Trim: MSS SP-110.
- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. BrassCraft Manufacturing Company; a Masco company.
 - b. Conbraco Industries, Inc.; Apollo Div.
 - c. Lyall, R. W. & Company, Inc.
 - d. McDonald, A. Y. Mfg. Co.
 - e. Perfection Corporation; a subsidiary of American Meter Company.
 - 2. Body: Bronze, complying with ASTM B 584.
 - 3. Ball: Chrome-plated bronze.
 - 4. Stem: Bronze; blowout proof.
 - 5. Seats: Reinforced TFE; blowout proof.
 - 6. Packing: Threaded-body packnut design with adjustable-stem packing.
 - 7. Ends: Threaded, flared, or socket as indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
 - 8. CWP Rating: 600 psig.

9. Listing: Valves NPS 1 and smaller shall be listed and labeled by an NRTL acceptable to authorities having jurisdiction.
 10. Service: Suitable for LPG service with "WOG" indicated on valve body.
- F. Bronze Plug Valves: MSS SP-78.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Lee Brass Company.
 - b. McDonald, A. Y. Mfg. Co.
 2. Body: Bronze, complying with ASTM B 584.
 3. Plug: Bronze.
 4. Ends: Threaded, socket, or flanged as indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
 5. Operator: Square head or lug type with tamperproof feature where indicated.
 6. Pressure Class: 125 psig.
 7. Listing: Valves NPS 1 and smaller shall be listed and labeled by an NRTL acceptable to authorities having jurisdiction.
 8. Service: Suitable for LPG service with "WOG" indicated on valve body.
- G. PE Ball Valves: Comply with ASME B16.40.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Kerotest Manufacturing Corp.
 - b. Lyall, R. W. & Company, Inc.
 - c. Perfection Corporation; a subsidiary of American Meter Company.
 2. Body: PE.
 3. Ball: PE.
 4. Stem: Acetal.
 5. Seats and Seals: Nitrile.
 6. Ends: Plain or fusible to match piping.
 7. CWP Rating: 80 psig.
 8. Operating Temperature: Minus 20 to plus 140 deg F.

9. Operator: Nut or flat head for key operation.
10. Include plastic valve extension.
11. Include tamperproof locking feature for valves where indicated on Drawings.

H. Valve Boxes:

1. Cast-iron, two-section box.
2. Top section with cover with "GAS" lettering.
3. Bottom section with base to fit over valve and barrel a minimum of 5 inches in diameter.
4. Adjustable cast-iron extensions of length required for depth of bury.
5. Include tee-handle, steel operating wrench with socket end fitting valve nut or flat head and with stem of length required to operate valve.

2.5 SOLENOID GAS VALVES

A. Automatic Gas Valves: Comply with ANSI Z21.21.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. ASCO.
 - b. Honeywell International Inc.
 - c. Maxon
2. Body: Brass or aluminum.
3. Seats and Disc: Nitrile rubber.
4. Springs and Valve Trim: Stainless steel.
5. Normally closed.
6. Visual position indicator.
7. Electrical operator for actuation by automatic shutoff device..
8. Provide normally closed, manual reset solenoid valves with open-shut indicator, auxiliary switches and terminal block, suitable for gas service and exterior weatherproof applications. Coordinate location of valves with other trades. Coordinate requirements for power circuiting and control circuiting to fire alarm system and/or kitchen hood (whichever applies). Valves shall be Maxon Series SMM or approved equal. Coordinate power source and required voltage with Electrical Contractor and Fire Alarm System Contractor prior to ordering valves.

2.6 PRESSURE REGULATORS

A. General Requirements:

1. Single stage and suitable for LPG.
2. Steel jacket and corrosion-resistant components.
3. Elevation compensator.
4. End Connections: Threaded for regulators NPS 2 and smaller, flanged for regulators NPS 2-1/2 and larger
5. Provide gas pressure regulators as required and shown on the plans to maintain the required food service equipment pressure and flow, despite inlet pressure fluctuation.
6. Regulator size shall provide maximum flow required at the highest outlet pressure needed (take into consideration incoming line losses).
7. Regulator spring shall be chosen so desired outlet pressure is centered within its range. Regulator inlet pressure cannot be exceeded at outlet. Provide a spare spring in the next higher pressure range to avoid start-up inconvenience if system pressure drops exceed those anticipated.
8. Orifice size shall be the smallest compatible with required capacity.
9. Mounting position may affect regulator performance. See manufacturer's specific regulator data for any limitations.
10. Install gas pressure regulators per the manufacturer's installation recommendations and guidelines.
11. Gas pressure regulators shall be as manufactured by Maxon or approved equal..

B. Service Pressure Regulators: Comply with ANSI Z21.80.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. Actaris.
 - b. American Meter Company.
 - c. Fisher Control Valves and Regulators; Division of Emerson Process Management.
 - d. Invensys.
 - e. Maxitrol Company.
 - f. Richards Industries; Jordan Valve Div.
2. Body and Diaphragm Case: Cast iron or die-cast aluminum.
3. Springs: Zinc-plated steel; interchangeable.

4. Diaphragm Plate: Zinc-plated steel.
 5. Seat Disc: Nitrile rubber resistant to gas impurities, abrasion, and deformation at the valve port.
 6. Orifice: Aluminum; interchangeable.
 7. Seal Plug: Ultraviolet-stabilized, mineral-filled nylon.
 8. Single-port, self-contained regulator with orifice no larger than required at maximum pressure inlet and no pressure sensing piping external to the regulator.
 9. Pressure regulator shall maintain discharge pressure setting downstream and not exceed 150 percent of design discharge pressure at shutoff.
 10. Overpressure Protection Device: Factory mounted on pressure regulator.
 11. Atmospheric Vent: Factory- or field-installed, stainless-steel screen in opening if not connected to vent piping.
 12. Maximum Inlet Pressure: 100 psig.
- C. Line Pressure Regulators: Comply with ANSI Z21.80.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. Actaris.
 - b. American Meter Company.
 - c. Eclipse Combustion, Inc.
 - d. Fisher Control Valves and Regulators; Division of Emerson Process Management.
 - e. Invensys.
 - f. Maxitrol Company.
 - g. Richards Industries; Jordan Valve Div.
 2. Body and Diaphragm Case: Cast iron or die-cast aluminum.
 3. Springs: Zinc-plated steel; interchangeable.
 4. Diaphragm Plate: Zinc-plated steel.
 5. Seat Disc: Nitrile rubber resistant to gas impurities, abrasion, and deformation at the valve port.
 6. Orifice: Aluminum; interchangeable.
 7. Seal Plug: Ultraviolet-stabilized, mineral-filled nylon.

8. Single-port, self-contained regulator with orifice no larger than required at maximum pressure inlet and no pressure sensing piping external to the regulator.
9. Pressure regulator shall maintain discharge pressure setting downstream and not exceed 150 percent of design discharge pressure at shutoff.
10. Overpressure Protection Device: Factory mounted on pressure regulator.
11. Atmospheric Vent: Factory- or field-installed, stainless-steel screen in opening if not connected to vent piping.
12. Maximum Inlet Pressure: 2 psig.
13. Vent Limiting Device (indoor applications only):
 - a. Comply with ANSI Z21.80
 - b. Vent limiters shall only be installed on regulators for which they are certified.
 - c. Vent limiters shall be manufactured of materials having melting point of not less than 800°F.
 - d. Maximum allowable flow rate: 1.0 cfm at 1.53 specific gravity.
- E. Appliance Pressure Regulators: Comply with ANSI Z21.18.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. Canadian Meter Company Inc.
 - b. Eaton Corporation; Controls Div.
 - c. Harper Wyman Co.
 - d. Maxitrol Company.
 - e. SCP, Inc.
 - f. <Insert manufacturer's name>.
 2. Body and Diaphragm Case: Die-cast aluminum.
 3. Springs: Zinc-plated steel; interchangeable.
 4. Diaphragm Plate: Zinc-plated steel.
 5. Seat Disc: Nitrile rubber.
 6. Seal Plug: Ultraviolet-stabilized, mineral-filled nylon.
 7. Factory-Applied Finish: Minimum three-layer polyester and polyurethane paint finish.
 8. Regulator may include vent limiting device, instead of vent connection, if approved by authorities having jurisdiction.

9. Maximum Inlet Pressure: 2 psig.

2.7 DIELECTRIC FITTINGS

A. Dielectric Unions:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. Capitol Manufacturing Company.
 - b. Central Plastics Company.
 - c. Hart Industries International, Inc.
 - d. McDonald, A. Y. Mfg. Co.
 - e. Watts Regulator Co.; Division of Watts Water Technologies, Inc.
 - f. Wilkins; Zurn Plumbing Products Group.
2. Minimum Operating-Pressure Rating: 150 psig.
3. Combination fitting of copper alloy and ferrous materials.
4. Insulating materials suitable for LPG.
5. Combination fitting of copper alloy and ferrous materials with threaded, brazed-joint, plain, or welded end connections that match piping system materials.

B. Dielectric Flanges:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. Capitol Manufacturing Company.
 - b. Central Plastics Company.
 - c. Watts Regulator Co.; Division of Watts Water Technologies, Inc.
 - d. Wilkins; Zurn Plumbing Products Group.
2. Minimum Operating-Pressure Rating: 150 psig.
3. Combination fitting of copper alloy and ferrous materials.
4. Insulating materials suitable for LPG.
5. Combination fitting of copper alloy and ferrous materials with threaded, brazed-joint, plain, or welded end connections that match piping system materials.

C. Dielectric-Flange Kits:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. Advance Products & Systems, Inc.
 - b. Calpico Inc.
 - c. Central Plastics Company.
 - d. Pipeline Seal and Insulator, Inc.
2. Minimum Operating-Pressure Rating: 150 psig.
3. Companion-flange assembly for field assembly.
4. Include flanges, full-face- or ring-type neoprene or phenolic gasket, phenolic or PE bolt sleeves, phenolic washers, and steel backing washers.
5. Insulating materials suitable for LPG.
6. Combination fitting of copper alloy and ferrous materials with threaded, brazed-joint, plain, or welded end connections that match piping system materials.

2.8 SLEEVES

- A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.
- B. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.

2.9 MECHANICAL SLEEVE SEALS

- A. Description: Modular sealing element unit, designed for field assembly, to fill annular space between pipe and sleeve.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. Advance Products & Systems, Inc.
 - b. Calpico Inc.
 - c. Metraflex Company (The).
 - d. Pipeline Seal and Insulator, Inc.
 2. Sealing Elements: EPDM interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe and sleeve.
 3. Pressure Plates: Stainless steel.

4. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements. Include one nut and bolt for each sealing element.

2.10 ESCUTCHEONS

- A. General Requirements for Escutcheons: Manufactured wall and ceiling escutcheons and floor plates, with ID to fit around pipe or tube, and OD that completely covers opening.
- B. One-Piece, Deep-Pattern Escutcheons: Deep-drawn brass with polished chrome-plated finish.
- C. One-Piece, Cast-Brass Escutcheons: With set screw.
 1. Finish: Polished chrome-plated.
- D. One-Piece, Stamped-Steel Escutcheons: With set screw or spring clips and chrome-plated finish.
- E. One-Piece, Floor-Plate Escutcheons: Cast-iron floor plate.
- F. Split-Casting, Floor-Plate Escutcheons: Cast brass with concealed hinge and set screw.

2.11 GROUT

- A. Description: ASTM C 1107, Grade B, nonshrink and nonmetallic, dry hydraulic-cement grout.
 1. Characteristics: Post-hardening, volume adjusting, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
 2. Design Mix: 5000-psi, 28-day compressive strength.
 3. Packaging: Premixed and factory packaged.

2.12 LABELING AND IDENTIFYING

- A. Detectable Warning Tape: Acid- and alkali-resistant PE film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored yellow.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine roughing-in for LPG piping system to verify actual locations of piping connections before equipment installation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 EARTHWORK

- A. Comply with requirements in Division 31 Section "Earth Moving" for excavating, trenching, and backfilling.

3.3 PREPARATION

- A. Close equipment shutoff valves before turning off LPG to premises or piping section.
- B. Inspect LPG piping according to NFPA 58 to determine that LPG utilization devices are turned off in piping section affected.
- C. Comply with NFPA 58 requirements for prevention of accidental ignition.

3.4 OUTDOOR PIPING INSTALLATION

- A. Comply with NFPA 58 requirements for installation and purging of LPG piping.
- B. Install underground, LPG piping buried at least 36 inches below finished grade. Comply with requirements in Division 31 Section "Earth Moving" for excavating, trenching, and backfilling.
 - 1. If LPG piping is installed less than 36 inches below finished grade, install it in containment conduit.
- C. Install underground, PE, LPG piping according to ASTM D 2774.
- D. Steel Piping with Protective Coating:
 - 1. Apply joint cover kits to pipe after joining to cover, seal, and protect joints.
 - 2. Repair damage to PE coating on pipe as recommended in writing by protective coating manufacturer.
 - 3. Replace pipe having damaged PE coating with new pipe.
- E. Install fittings for changes in direction and branch connections.
- F. Joints for connection to inlets and outlets on vaporizers, air mixers, regulators, and valves may be flanged or threaded to match the equipment.
- G. Aboveground, Exterior-Wall Pipe Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
 - 1. Install steel pipe for sleeves smaller than 6 inches in diameter.
- H. Underground, Exterior-Wall Pipe Penetrations: Install cast-iron "wall pipes" for sleeves. Seal pipe penetrations using mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- I. Mechanical Sleeve Seal Installation: Select type and number of sealing elements required for pipe material and size. Position pipe in center of sleeve. Assemble mechanical sleeve seals and install in annular space between pipe and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

- J. Install pressure gage upstream and downstream from each service regulator.

3.5 INDOOR PIPING INSTALLATION

- A. Comply with NFPA 58 for installation and purging of LPG piping.
- B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- C. Arrange for pipe spaces, chases, slots, sleeves, and openings in building structure during progress of construction, to allow for mechanical installations.
- D. Install piping in concealed locations unless otherwise indicated and except in equipment rooms and service areas.
- E. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- F. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- G. Locate valves for easy access.
- H. Install LPG piping at uniform grade of 2 percent down toward drip and sediment traps.
- I. Install piping free of sags and bends.
- J. Install fittings for changes in direction and branch connections.
- K. Install escutcheons for penetrations of interior walls, ceilings, and floors.
 - 1. New Piping:
 - a. Piping with Fitting or Sleeve Protruding from Wall: One-piece, deep-pattern type.
 - b. Piping at Wall and Floor Penetrations in Finished Spaces: One-piece, cast-brass type with polished chrome-plated finish.
 - c. Piping at Ceiling Penetrations in Finished Spaces: One-piece, cast-brass type with polished chrome-plated finish.
 - d. Piping in Unfinished Service Spaces: One-piece, cast-brass type with rough-brass finish.
 - e. Piping in Equipment Rooms: One-piece, cast-brass type.
 - f. Piping at Floor Penetrations in Equipment Rooms: One-piece, floor-plate type.
 - L. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Comply with requirements in Division 07 Section "Penetration Firestopping" for materials.

- M. Verify final equipment locations for roughing-in.
- N. Comply with requirements in Sections specifying gas-fired appliances and equipment for roughing-in requirements.
- O. Drips and Sediment Traps: Install drips at points where condensate may collect, including service-meter outlets. Locate where readily accessible to permit cleaning and emptying. Do not install where condensate is subject to freezing.
 - 1. Construct drips and sediment traps using tee fitting with bottom outlet plugged or capped. Use nipple a minimum length of 3 pipe diameters, but not less than 3 inches (75 mm) long and same size as connected pipe. Install with space below bottom of drip to remove plug or cap.
- P. Extend relief vent connections for service regulators, line regulators, and overpressure protection devices to outdoors and terminate with weatherproof vent cap.
- Q. Where line pressure regulators are provided with vent limiters, the vent limiting device shall be installed directly to the regulator without intermediate pipe or fittings. Regulator must be mounted in horizontal, upright position.
- R. Conceal pipe installations in walls, pipe spaces, utility spaces, above ceilings, below grade or floors, and in floor channels unless indicated to be exposed to view.
- S. Concealed Location Installations: Except as specified below, install concealed LPG piping and piping installed under the building in containment conduit constructed of steel pipe with welded joints as described in Part 2. Install a vent pipe from containment conduit to outdoors and terminate with weatherproof vent cap.
 - 1. Above Accessible Ceilings: LPG piping, fittings, valves, and regulators may be installed in accessible spaces without containment conduit.
 - 2. In Floors: Install LPG piping with welded or brazed joints and protective coating in cast-in-place concrete floors. Cover piping to be cast in concrete slabs with minimum of 1-1/2 inches of concrete. Piping may not be in physical contact with other metallic structures such as reinforcing rods or electrically neutral conductors. Do not embed piping in concrete slabs containing quick-set additives or cinder aggregate.
 - 3. In Floor Channels: Install LPG piping in floor channels. Channels must have cover and be open to space above cover for ventilation.
 - 4. In Walls or Partitions: Protect tubing installed inside partitions or hollow walls from physical damage using steel striker barriers at rigid supports.
 - a. Exception: Tubing passing through partitions or walls does not require striker barriers.
 - 5. Prohibited Locations:
 - a. Do not install LPG piping in or through circulating air ducts, clothes or trash chutes, chimneys or gas vents (flues), ventilating ducts, or dumbwaiter or elevator shafts.
 - b. Do not install LPG piping in solid walls or partitions.

- T. Use eccentric reducer fittings to make reductions in pipe sizes. Install fittings with level side down.
- U. Connect branch piping from top or side of horizontal piping.
- V. Install unions in pipes NPS 2 and smaller, adjacent to each valve, at final connection to each piece of equipment. Unions are not required at flanged connections.
- W. Do not use LPG piping as grounding electrode.
- X. Install strainer on inlet of each line-pressure regulator and automatic or electrically operated valve.
- Y. Install pressure gage upstream and downstream from each line regulator.

3.6 VALVE INSTALLATION

- A. Install manual gas shutoff valve for each gas appliance ahead of corrugated stainless-steel tubing, aluminum, or copper connector.
- B. Install underground valves with valve boxes.
- C. Install regulators and overpressure protection devices with maintenance access space adequate for servicing and testing.
- D. Install anode for metallic valves in underground PE piping.
- E. Install exterior, automatic gas shutoff valves in lockable enclosure to prevent unintended shut-off or vandalism.

3.7 PIPING JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Threaded Joints:
 - 1. Thread pipe with tapered pipe threads complying with ASME B1.20.1.
 - 2. Cut threads full and clean using sharp dies.
 - 3. Ream threaded pipe ends to remove burrs and restore full ID of pipe.
 - 4. Apply appropriate tape or thread compound to external pipe threads unless dryseal threading is specified.
 - 5. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.

D. Welded Joints:

1. Construct joints according to AWS D10.12/D10.12M, using qualified processes and welding operators.
2. Bevel plain ends of steel pipe.
3. Patch factory-applied protective coating as recommended by manufacturer at field welds and where damage to coating occurs during construction.

E. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," Ch. 22, "Pipe and Tube."

F. Flared Joints: Cut tubing with roll cutting tool. Flare tube end with tool to result in flare dimensions complying with SAE J513. Tighten finger tight, then use wrench. Do not overtighten.

G. PE Piping Heat-Fusion Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join according to ASTM D 2657.

1. Plain-End Pipe and Fittings: Use butt fusion.
2. Plain-End Pipe and Socket Fittings: Use socket fusion.

3.8 HANGER AND SUPPORT INSTALLATION

A. Install seismic restraints on piping. Comply with requirements for seismic-restraint devices specified in Division 23 Section "Vibration and Seismic Controls for HVAC Piping and Equipment."

B. Comply with requirements for pipe hangers and supports specified in Division 23 Section "Hangers and Supports for HVAC Piping and Equipment."

C. Install hangers for horizontal steel piping with the following maximum spacing and minimum rod sizes:

1. NPS 1 and Smaller: Maximum span, 96 inches; minimum rod size, 3/8 inch.
2. NPS 1-1/4: Maximum span, 108 inches; minimum rod size, 3/8 inch.
3. NPS 1-1/2 and NPS 2: Maximum span, 108 inches; minimum rod size, 3/8 inch.

3.9 CONNECTIONS

A. Connect to utility's gas main according to utility's procedures and requirements.

B. Install LPG piping electrically continuous, and bonded to gas appliance equipment grounding conductor of the circuit powering the appliance according to NFPA 70.

C. Install piping adjacent to appliances to allow service and maintenance of appliances.

D. Connect piping to appliances using manual gas shutoff valves and unions. Install valve within 72 inches of each gas-fired appliances and equipment. Install union between valve and appliances or equipment.

- E. Sediment Traps: Install tee fitting with capped nipple in bottom to form drip, as close as practical to inlet of each appliance.

3.10 LABELING AND IDENTIFYING

- A. Comply with requirements in Division 23 Section "Identification for HVAC Piping and Equipment" for piping and valve identification.
- B. Install detectable warning tape directly above gas piping, 12 inches below finished grade, except 6 inches (below subgrade under pavements and slabs).

3.11 PAINTING

- A. Comply with requirements in Division 09 painting Sections for painting interior and exterior LPG piping.
- B. Paint exposed, exterior metal piping, valves, service regulators, service meters and meter bars, earthquake valves, and piping specialties, except components with factory-applied paint or protective coating.
 - 1. Alkyd System: MPI EXT 5.1D.
 - a. Prime Coat: Alkyd anticorrosive metal primer.
 - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
 - c. Topcoat: Exterior alkyd enamel semigloss.
 - d. Color: Gray.
- C. Paint exposed, interior metal piping, valves, service regulators, service meters and meter bars, earthquake valves, and piping specialties, except components with factory-applied paint or protective coating.
 - 1. Latex Over Alkyd Primer System: MPI INT 5.1Q.
 - a. Prime Coat: Alkyd anticorrosive metal primer.
 - b. Intermediate Coat: Interior latex matching topcoat.
 - c. Topcoat: Interior latex semigloss.
 - d. Color: Gray.
 - 2. Alkyd System: MPI INT 5.1E.
 - a. Prime Coat: Alkyd anticorrosive metal primer.
 - b. Intermediate Coat: Interior alkyd matching topcoat.
 - c. Topcoat: Interior alkyd semigloss.
 - d. Color: Gray.

- D. Damage and Touchup: Repair marred and damaged factory-applied finishes with materials and by procedures to match original factory finish.

3.12 CONCRETE BASES

- A. Concrete Bases: Anchor equipment to concrete bases.
 - 1. Construct concrete bases of dimensions indicated, but not less than 4 inches larger in both directions than supported unit.
 - 2. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch centers around the full perimeter of the base.
 - 3. Install epoxy-coated anchor bolts for supported equipment that extend through concrete base, and anchor into structural concrete floor.
 - 4. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 5. Install anchor bolts to elevations required for proper attachment to supported equipment.
 - 6. Use 3000-psig, 28-day, compressive-strength concrete and reinforcement as specified in Division 03 Section "Cast-in-Place Concrete."

3.13 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections:
 - 1. Test, inspect, and purge LPG according to NFPA 58 and requirements of authorities having jurisdiction.
- C. LPG piping will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

3.14 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain LPG equipment.

3.15 OUTDOOR PIPING SCHEDULE

- A. Underground LPG liquid piping shall be the following:
 - 1. Schedule 40 steel pipe with wrought-steel fittings and welded joints, or mechanical couplings. Coat pipe and fittings with protective coating for steel piping.

- B. Aboveground LPG liquid piping shall be the following:
 - 1. NPS 2 and Smaller: Schedule 40 steel pipe, malleable-iron threaded fittings and threaded and seal welded joints. Coat pipe and fittings with protective coating for steel piping.
- C. Underground LPG vapor piping shall be the following:
 - 1. PE pipe and fittings joined by heat-fusion, or mechanical couplings; service-line risers with tracer wire terminated in an accessible location.
- D. Aboveground LPG vapor piping shall be the following:
 - 1. Schedule 40, steel pipe with malleable-iron fittings and threaded joints.
 - 2. Schedule 40, steel pipe with wrought-steel fittings and welded joints, or mechanical couplings.
- E. Branch Piping in Cast-in-Place Concrete to Single Appliance: Annealed-temper copper, with wrought-copper fittings and brazed joints. Install piping embedded in concrete with no joints in concrete.
- F. Containment Conduit: Schedule 40, steel pipe with wrought-steel fittings and welded joints. Coat pipe and fittings with protective coating for steel piping.

3.16 INDOOR PIPING SCHEDULE FOR SYSTEM PRESSURES LESS THAN 2 PSIG

- A. Aboveground, branch piping NPS 1 and smaller shall be one of the following:
 - 1. Schedule 40, steel pipe with malleable-iron fittings and threaded joints.
- B. Aboveground, distribution piping shall be one of] the following:
 - 1. Schedule 40, steel pipe with malleable-iron fittings and threaded joints.
 - 2. Schedule 40, steel pipe with wrought-steel fittings and welded joints.
- C. Underground, below building, piping shall be[one of] the following:
 - 1. Schedule 40, steel pipe with malleable-iron fittings and threaded joints.
 - 2. Schedule 40, steel pipe with wrought-steel fittings and welded joints.
- D. Containment Conduit: Schedule 40, steel pipe with wrought-steel fittings and welded joints. Coat pipe and fittings with protective coating for steel piping.
- E. Containment Conduit Vent Piping: Schedule 40, steel pipe with malleable-iron fittings and threaded or wrought-steel fittings with welded joints. Coat underground pipe and fittings with protective coating for steel piping.

3.17 UNDERGROUND MANUAL GAS SHUTOFF VALVE SCHEDULE

- A. Connections to Existing Gas Piping: Use valve and fitting assemblies made for tapping utility's gas mains and listed by an NRTL.

- B. Underground Vapor Piping:
 - 1. PE valves.
 - 2. NPS 2 and Smaller: Bronze, lubricated plug valves.

3.18 ABOVEGROUND MANUAL GAS SHUTOFF VALVE SCHEDULE

- A. Aboveground Liquid Piping:
 - 1. Two-piece, full-port, bronze ball valves with bronze trim.
- B. Distribution piping valves for pipe NPS 2 and smaller shall be[one of] the following:
 - 1. One-piece, bronze ball valve with bronze trim.
 - 2. Two-piece, full-port, bronze ball valves with bronze trim.
 - 3. Bronze plug valve.
- C. Valves in branch piping for single appliance shall be one of the following:
 - 1. One-piece, bronze ball valve with bronze trim.
 - 2. Two-piece, full-port, bronze ball valves with bronze trim.
 - 3. Bronze plug valve.

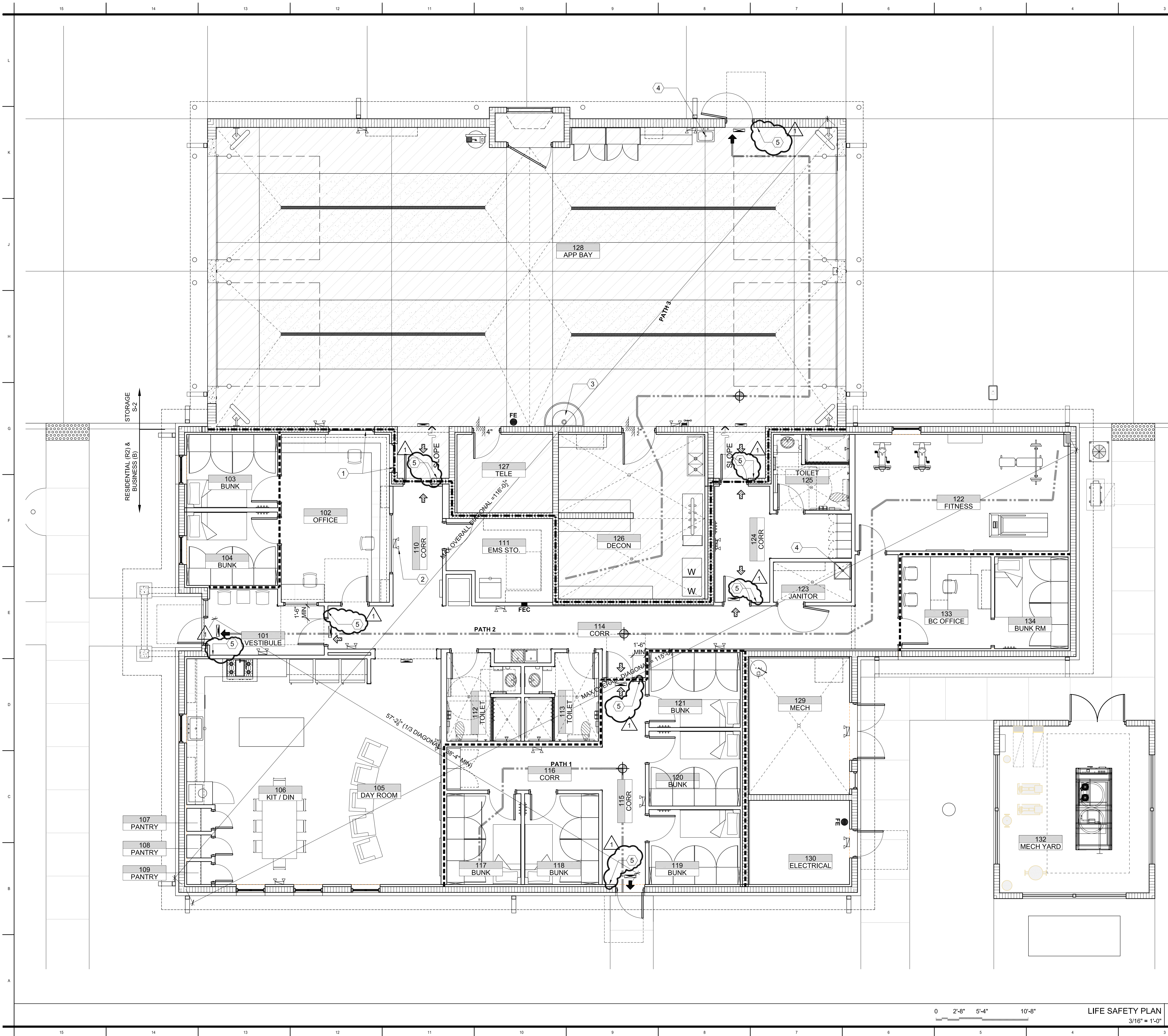
3.19 INSTALLATION—GENERAL

- A. Installation shall be in accordance with NFPA 58 and Florida Building Code—Fuel Gas.
- B. Exposed or readily accessible piping shall be graded at not less than 1/4" in 15 feet to secure drainage.
- C. Install accessible 6" long drip pockets at the bottoms of all vertical risers and such other points as required. Pockets shall be made of a full size pipe tee with one leg capped.
 - 1. One-piece, bronze ball valve with bronze trim.
 - 2. Two-piece, full-port, bronze ball valves with bronze trim.
 - 3. Bronze plug valve.
- D. Install branch shut-off cocks ahead of all appliances, burners, etc., see plans for size of lines and cocks.
- E. Provide shut-off valves where noted on plans, and as required for complete regulation or control of all systems and at each piece of equipment.
- F. Underground piping shall be coated with coal tar enamel and wrapped with pressure sensitive tape equal to tapecoat CT.
- G. Gas pipe shall be tested for tightness. Refer to Section 15400, Pressure Testing of Piping Systems.

- H. All pipe shall be supported from the building structure in a neat and workmanlike manner and wherever possible, parallel runs of horizontal piping shall be grouped together on trapeze type hangers. Vertical risers shall be supported at each floor line with steel pipe clamps. The use of wire or perforated metal to support pipes will not be permitted. Hanging pipes from other pipes will not be permitted. Spacing of pipe supports shall not exceed 8 feet for pipes up to 1-1/4" and 10 feet on all other piping.
- I. Provide a master manual emergency shut-off valve at the instructors station unless noted otherwise on the drawings.
- J. Provide one (1) emergency automatic shut-off valve at each classroom served with gas unless otherwise noted on the drawings. Provide electrical power and control circuiting for intended operation, coordinate circuiting and voltage requirements the Electrical Contractor. Valves shall be designed for exterior service.
- K. All gas piping below floor shall be welded steel and shall be sleeved and vented as required by the Florida Building Code—Fuel Gas unless otherwise noted on the drawings.
- L. Assemble all fixtures and equipment shipped loose which this Contractor is required to make final connections to, whether furnished by this Contractor or by others (i.e., science cabinet gas fixtures, etc.).
- M. Provide regulators on each gas service branch pipe termination at appliance or equipment as necessary for proper operation of appliance or equipment. Coordinate requirements with shop drawings and gas service. Refer to equipment manufacturer's recommendations. Provide independent gas piping from each pressure regulator relief vent to exterior of building.
- N. Provide one (1) emergency automatic shut-off valve at exterior wall of kitchen served with gas unless otherwise noted on the drawings. Provide electrical power and control circuiting for intended operation, coordinate circuiting and voltage requirements the Electrical Contractor. Valves shall be designed for exterior service.

*** END OF SECTION 22 16 17 ***

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PROJECT SUMMARY
NEW PROGRESS VILLAGE SOUTH FIRE STATION 48 IS
A 7,558 SF STATION FOR HILLSBOROUGH COUNTY.
• HOUSING = RESIDENTIAL (R-2)
• APPARATUS BAY = STORAGE (S-2)
• BUSINESS (B)

2,064 SF HOUSING
3,238 SF APPARATUS BAY AND ACCESSORIES
2,256 SF BUSINESS AND ACCESSORIES
7,558 SF TOTAL

LIFE SAFETY AND CODE DATA
CODE REFERENCES
FLORIDA BUILDING CODE 8TH EDITION (FBC 2023) -
BUILDING, MECHANICAL, PLUMBING, FUEL GAS,
ELECTRICAL, ENERGY CONSERVATION

NFPA 70, NATIONAL ELECTRICAL CODE 2020
FLORIDA FIRE PREVENTION CODE - 7TH EDITION

BUILDING DATA
• CONSTRUCTION TYPE: **TYPE V-B (SPRINKLERED)**
• OCCUPANCY TYPE: **MIXED (R-2, B & S-2)**
• RESIDENTIAL (R-2) - HOUSING / BUNK ROOM
• BUSINESS (B) - OFFICE
• STORAGE (S-2) - APPARATUS BAY / STORAGE
• OCCUPANCY SEPARATION: **1-HR**
• HEIGHT: **24'-0"** (35'-0" MAX)
• STORIES: **1 (2 MAX)**
• IMPACT RESISTANCE: **YES (MISSILE "E")**

OCCUPANT LOAD (TABLE 1004.5)
R-2 (RESIDENTIAL) AREA: 2,064 / 200 GSF = 10.32 OCC
S-2 (PARKING GARAGE) AREA: 2,579 / 200 GSF = 12.90 OCC

ACCESSORY STORAGE AREA: 1,005 / 300 GSF = 3.35 OCC

B (BUSINESS) AREA: 1,618 / 150 GSF = 10.79 OCC

ASSEMBLY UNCONCENTRATED (VESTIBULE) =
91 / 15 NSF = 6.06 OCC

TOTAL NUMBER OF OCCUPANTS = 43.42 (44) OCC
(22 MENS / 22 WOMENS)

PLUMBING FIXTURES (TABLE P403.1)
RESIDENTIAL (10.32 OCCUPANTS)
WC: 1 PER 10 = 1.032 REQ'D
LAVS: 1 PER 10 = 1.032 REQ'D
BATHTUB/SHOWER: 1 PER 8 = 1.29 REQ'D
DRINKING FOUNTAIN: 1 PER 100 = 0.1032 REQ'D
SERVICE SINK: 1 REQ'D
STORAGE (15.25 OCCUPANTS)
WC: 1 PER 100 = 0.16 REQ'D
LAVS: 1 PER 100 = 0.16 REQ'D
BATHTUB/SHOWER: EYEWASH - REQ'D
DRINKING FOUNTAIN: 1 PER 1,000 = 0.01 REQ'D
SERVICE SINK: 1 REQ'D
BUSINESS (16.85 OCCUPANTS)
WC: 1 PER 25 = 0.674 REQ'D
LAVS: 1 PER 40 = 0.42 REQ'D
BATHTUB/SHOWER: EYEWASH - N/A
DRINKING FOUNTAIN: 1 PER 100 = 0.16 REQ'D
SERVICE SINK: 1 REQ'D

TOTALS
WC: 1.8 REQ'D - 3 PROVIDED
LAV: 1.6 REQ'D - 4 PROVIDED
BATHTUB/SHOWER: 1.29 REQ'D - 3 PROVIDED
EYEWASH: 1 REQ'D - 1 PROVIDED
DRINKING FOUNTAIN: 0.27 REQ'D - 1 HI-Lo PROVIDED
SERVICE SINK: 3 PROVIDED

MEANS OF EGRESS REQUIREMENTS
• MAX. TRAVEL DISTANCE TO EXIT:
250'-0" (R-2), 400'-0" (S-2), 300'-0" (B)
(SPRINKLERED - TABLE 1017.2)
• DEAD END CORRIDOR: 50'-0" (R-2)
(1020.5 EXCEPTION 2)
• COMMON PATH OF TRAVEL (1006.2.1):
125'-0" (R-2) & 100'-0" (S-2 & B)
• MIN. NUMBER OF EXITS: 2 (3 PROVIDED - OK)
• EGRESS WIDTH
LEVEL - 0.2"/OCCUPANT: 32" MIN (108" - OK)
STAIR - 0.3"/OCCUPANT: **N/A**
MIN CORRIDOR WIDTH (1020.2): **36" MIN** (60" - OK)

PATH 1
14'-4"
41'-9"
COMMON PATH OF TRAVEL R2 (<125' OK)
DISTANCE TO EXIT (<250' OK)

PATH 2
69'-0"
118'-0"
COMMON PATH OF TRAVEL B (<100' OK)
DISTANCE TO EXIT (<300' OK)

PATH 3
42'-4"
89'-0"
COMMON PATH OF TRAVEL S2 (<100' OK)
DISTANCE TO EXIT (<400' OK)

SPECIFIC NOTES
1. RATED FRAME (1 HR) & GLAZING (W-60)
2. EMERGENCY LIGHT FIXTURE, TYP
3. HAND WASH SINK (FOOT OPERATED)
4. SERVICE SINK / MOP SINK
5. EXIT TACTILE SIGNAGE.

LIFE SAFETY LEGEND
PRIMARY EXIT
EXIT ACCESS
SECONDARY EGRESS
END OF COMMON PATH OF TRAVEL
1 HOUR RATED PARTITION
SMOKE RATED PARTITION
TRAVEL DISTANCES
EXIT SIGN
BRACKET MTD FIRE EXTINGUISHER
CABINET MTD FIRE EXTINGUISHER
EMERGENCY SHOWER AND EYEWASH

NOTES
A1

1315 E. Seventh Avenue
Suite 106
Tampa, Florida 33605.3607
Telephone 813.242.6677
Facsimile 813.242.6683
wilderarchitecture.com

AR91271 QUALIFIER LICENSE

HILLSBOROUGH COUNTY BOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

HILLSBOROUGH COUNTY
PROGRESS VILLAGE SOUTH
FIRE STATION NO. 48

PROJECT #: 2320-00
Distribution _____ Date _____
DD SET _____ 06.06.2024
90% CD _____ 08.30.2024
PERMIT SET _____ 11.14.2024
ADDENDUM 01 _____ 03.06.2025

LIFE SAFETY PLAN

A0.1

File: R: Projects\County Progress Village Fire Station #48\Plans\Progress Village Fs 48 GEOM; Plotted: 1/31/2025 12:30 PM by FLODELIZA DIMAKILING; Saved: 1/31/2025 12:29 PM by FLOR

UTILITY CONTACTS:

Tampa Electric Co.
702 N. Franklin Street
Tampa, Fl. 33602
Jason Cooper
(813) 275-3037

TECO People's Gas - Tampa
Roger Rosello
(813) 422-2805

Frontier Communications
3712 W. Walnut Street
Tampa, Fl. 33607
Toni Cannon
(813) 875-101

Spectrum
700 Carillon Park, Suite 6
St. Petersburg, FL 33716
Don Anthony or Ted Bingham
donald.anthony@charter.com
(727) 329-2841 (Office)

Charter Communications
Randy Lyle
(813) 436-2143

WATER & SEWER - Hillsborough County
South Infrastructure Maintenance Office
(813) 671-7604

CALL 48 HOURS
BEFORE YOU DIG

It's the Law!
1-800-432-4770

SUNSHINE STATE ONE CALL OF FLORIDA, INC.



ALL PLAN SHEETS ARE NOT
CONSIDERED FINAL UNTIL ALL
AGENCY PERMITS ARE RELEASED
"APPROVED FOR CONSTRUCTION"

M.O.T. NOTE

CONTRACTOR TO PROVIDE CERTIFIED M.O.T. PLAN FOR THE
PROPOSED WORK WITHIN THE COUNTY AND/OR FDOT R/W
PER CURRENT FDOT STANDARDS. M.O.T. PLAN SHALL
COMPLY WITH FDOT INDEX 102-600 THROUGH 102-670

INDEX OF DRAWINGS

DRAWING TITLE	SHEET NO.	LATEST DATE
COVER SHEET	C1.0	12-13-2024
GENERAL NOTES & TESTING SCHEDULE	C1.1	07-15-2024
EXISTING CONDITIONS & DEMO PLAN	C1.2	12-03-2024
STORMWATER POLLUTION PREVENTION PLAN	C1.3	01-31-2025
AS-BUILT REQUIREMENTS	C1.4	07-15-2024
OVERALL SITE PLAN	C2.0	01-31-2025
GEOMETRIC , SIGNAGE & SIDEWALK PLAN	C2.1	01-31-2025
MISCELLANEOUS DETAILS	C2.2	11-14-2024
MASTER DRAINAGE PLAN	C3.0	11-14-2024
PAVING, GRADING & DRAINAGE PLAN	C3.1	01-31-2025
CROSS SECTIONS PLAN	C3.2	01-31-2025
DRAINAGE DETAILS	C3.3	01-31-2025
FLOODPLAIN MITIGATION PLAN	C3.4	01-31-2025
UTILITY PLAN	C4.0	12-03-2024
UTILITY PROFILES PLAN	C4.1	01-31-2025
UTILITY DETAILS	C4.2	07-15-2024
UTILITY DETAILS	C4.3	07-15-2024
UTILITY DETAILS	C4.4	07-15-2024
LIFT STATION PLAN	C4.5	12-13-2024
LANDSCAPE PLAN	L-1	11-14-2024
IRRIGATION PLAN	L-2	11-14-2024
INVASIVE PLANT REMOVAL PLAN	L-3	11-14-2024

SITE CONSTRUCTION PLANS

for

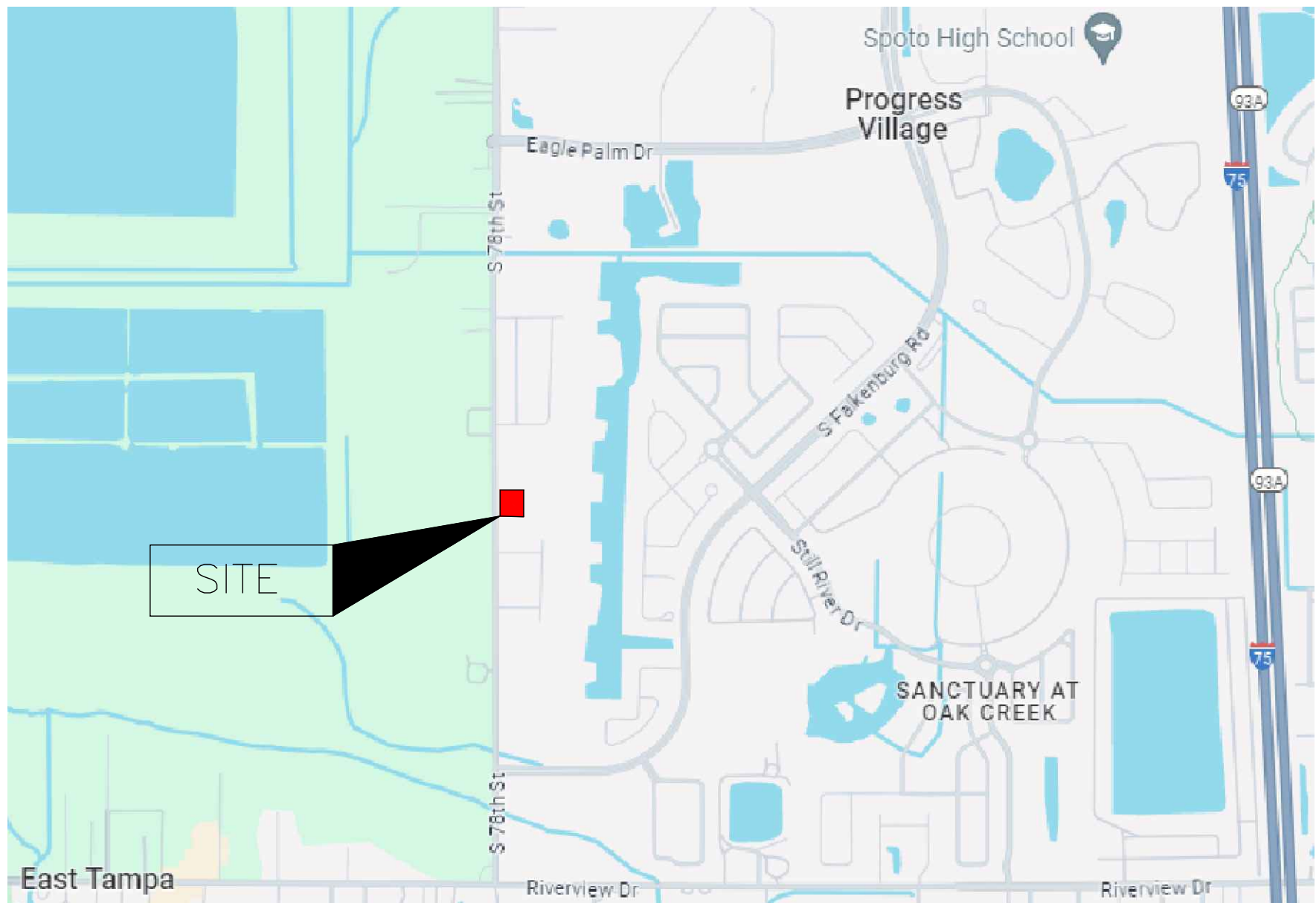
PROGRESS VILLAGE SOUTH

FIRE STATION NO. 48

(PID U-13-30-19-ZZZ-000001-68550.1)

HILLSBOROUGH COUNTY, FLORIDA

VICINITY MAP



SECTION 13 TOWNSHIP 30S RANGE 19E

LEGAL DESCRIPTION

(per Title Commitment No. 2021762)

The West 390 feet of the South 300 feet of the following described property:

The North 1/2 of the Southwest 1/4 of the Northwest 1/4 of Section 13, Township 30 South, Range 19 East, Hillsborough County, Florida.

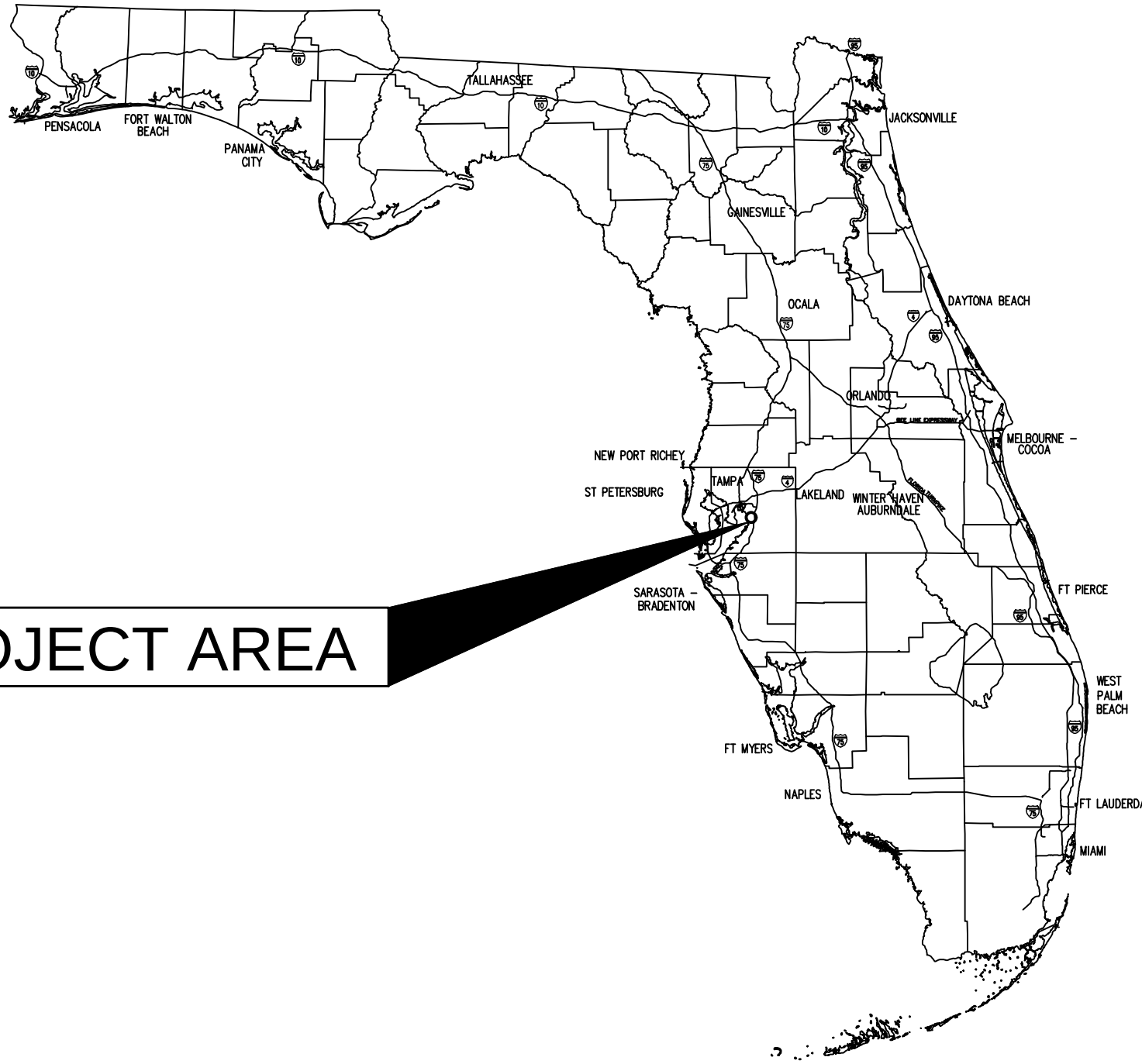
LESS Tract beginning on the South boundary line of the North 1/2 of the Southwest 1/4 of the Northwest 1/4 of said Section 13, 682 feet East of the Southwest corner thereof, run thence Northerly 663.32 feet to a point on the North boundary of said North 1/2 of the Southwest 1/4 of the Northwest 1/4, 705 feet East of the Northwest corner thereof, thence East 225.11 feet along the North boundary of said North 1/2 of the Southwest 1/4 of the Northwest 1/4, thence Southerly 663.30 feet to a point on the South boundary line of said North 1/2 of the Southwest 1/4 of the Northwest 1/4, 907.11 feet East of the Southwest corner of said North 1/2 of the Southwest 1/4 of the Northwest 1/4 of Section 13, thence West 225.11 feet to a Point of Beginning.

ALSO LESS a portion of the aforesaid described Tract described as follows:
Begin at a point on the South boundary line of the North 1/2 of the Southwest 1/4 of the Northwest 1/4 of the Southwest corner thereof, run thence North along the West boundary of the aforesaid described tract, 82.49 feet, thence East parallel to the North boundary of the North 1/2 of the Southwest 1/4 of the Northwest 1/4 of said Section 13, 225.11 feet, thence South along the East boundary of the aforesaid described tract, 82.53 feet to the South boundary line of the North 1/2 of the Southwest 1/4 of the Northwest 1/4, thence West 225.11 feet to the Point of Beginning.

ALSO LESS a tract described as commencing at the Northwest corner of the North 1/2 of the Southwest 1/4 of the Northwest 1/4 of said Section 13; thence South 89°34'35" East along the Northerly line of said North 1/2, a distance of 930.11 feet to the Point of Beginning; thence continue North 89°34'35" East, a distance of 408.21 feet to the Northeast corner of said North 1/2; thence South 00°16'36" West, along the Easterly line of the Southwest 1/4 of the Northwest 1/4 of said Section 13, a distance of 663.18 feet to the Southeast corner of said North 1/2; thence North 89°34'50" West, along the Southerly line of said North 1/2, a distance of 655.58 feet, thence departing said Southerly line, North 02°11'58" East, a distance of 82.48 feet; thence South 89°34'35" East, a distance of 225.11 feet; thence North 02°11'58" East, a distance of 581.10 feet to the Point of Beginning.

Less maintained right-of-way for South 78th Street.

LOCATION MAP



PROJECT AREA

FIRM PANEL No. 12057C0501J
EFFECTIVE DATE: 10/07/2021
FLOOD ZONE: X (500-YR FLOODPLAIN)

Hillsborough County:

Site Address: 7412 & 7414 S 78th St
Riverview, Florida 33578

Folio: 49124.0010

Property Acreage: 2.43-ac.
Project Acreage: 2.43-ac.

PID: TBD
Water: # TBD
Wastewater: # TBD

SWFWMD:
App: TBD
ERP: TBD

Dept. of Health - Water:
TBD

EPC - Sewer
TBD

(ADDRESSED SWFWMD COMMENTS)
(REVISED LIFT STATION)
(ADDRESSED COUNTY UTILITY COORDINATION COMMENT)
(ADDRESSED COUNTY UTILITY COORDINATION COMMENTS)
(ADDRESSED COUNTY & SWFWMD COMMENTS)

01-31-2025
12-13-2024
12-11-2024
12-03-2024
11-14-2024
07-15-2024

PROGRESS VILLAGE SOUTH

FIRE STATION NO. 48



PREPARED FOR

HILLSBOROUGH COUNTY BOCC

COUNTY CENTER

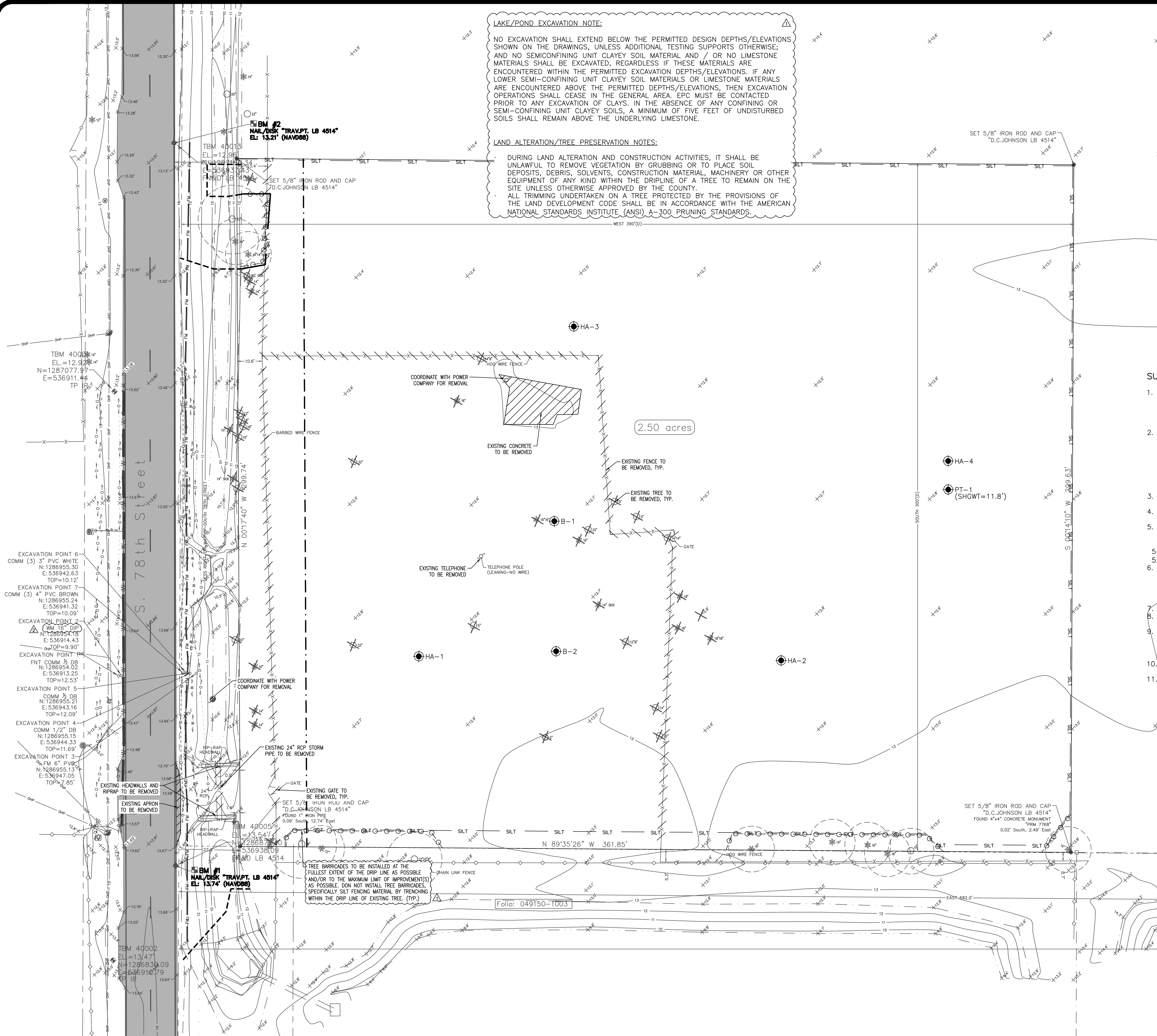
601 KENNEDY BLVD

TAMPA, FLORIDA 33601

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

CHRISTOPHER E. WEDDLE, P.E.
FLORIDA P.E. NO. 35446
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 00008909





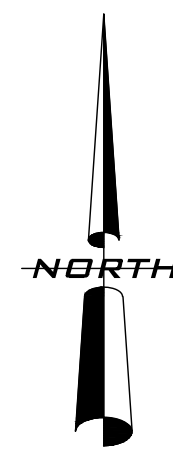
NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS/ELEVATIONS SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE; AND NO SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL AND / OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS/ELEVATIONS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS/ELEVATIONS, THE EXCAVATION OPERATOR SHALL STOP THE SEMI-CONFINING UNIT MATERIALS BE CONTACTED PRIOR TO ANY EXCAVATION OF CLAYS. IN THE ABSENCE OF ANY CONFINING OR SEMI-CONFINING UNIT CLAYEY SOILS, A MINIMUM OF FIVE FEET OF UNDISTURBED SOILS SHALL REMAIN ABOVE THE UNDERLYING LIMESTONE.

DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL, DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE COUNTY.

ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE, (ANSI) A-300 PRUNING STANDARDS.

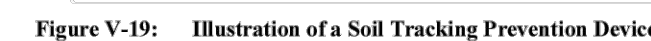
IP, IR = IRON PIPE, IRON ROD
CM = CONCRETE MONUMENT
(F) = FIELD DERIVED MEASUREMENT
(O) = MEASUREMENT BY DESCRIPTION
(P) = PLAT MEASUREMENT
(C) = CALCULATED MEASUREMENT
PL = PROPERTY LINE, CENTERLINE
R/W = RIGHT-OF-WAY
O.R. = OFFICIAL RECORDS BOOK
PG. = PAGE
● = FOUND IR (SIZE & REGISTRATION NUMBER AS NOTED)
● = SET 5/8" IR "DC JOHNSON LB 4514"
■ = FOUND CM (SIZE & REGISTRATION NUMBER AS NOTED)
■ = SET 4"x4" CM "LB 4514"
▲ = FOUND NAIL & DISK (SIZE & REGISTRATION NUMBER AS NOTED)
▲ = SET NAIL & DISK "LB 4514"
● = FOUND IP (SIZE & REGISTRATION NUMBER AS NOTED)
⚡ = POWER POLE/TELEPHONE POLE
◇ = LIGHT POLE
◇ = CHAIN LINK FENCE
X = WIRE FENCE
X = VINYL FENCE
X = WOOD FENCE
▲ = TELEPHONE LINE WITNESS POST
EL. = ELEVATION
I.E. = INVERT ELEVATION
RCP = REINFORCED CONCRETE PIPE
ERCP = ELIPTICAL REINFORCED CONCRETE PIPE
V = VERTICAL CONTROL BENCHMARK
RDS = ROADSIGN
SPOT = SPOT ELEVATION
● = MAPLE TREE (SIZE AS NOTED)
● = OAK TREE (SIZE AS NOTED)
● = PALM TREE (SIZE AS NOTED)
● = PINE TREE (SIZE AS NOTED)
● = TREE (UNKNOWN VARIETY)
★ = WELL
✉ = MAILBOX
⊕ = WATER METER
⊕ = TELEPHONE PEDESTAL
⊕ = TELEPHONE VAULT/HAND HOLE
⊕ = CABLE TELEVISION VAULT/HAND HOLE

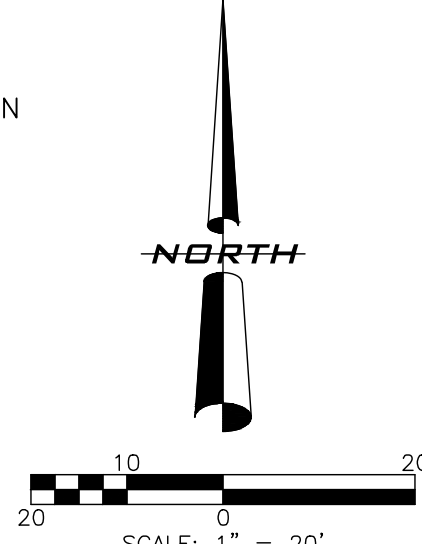
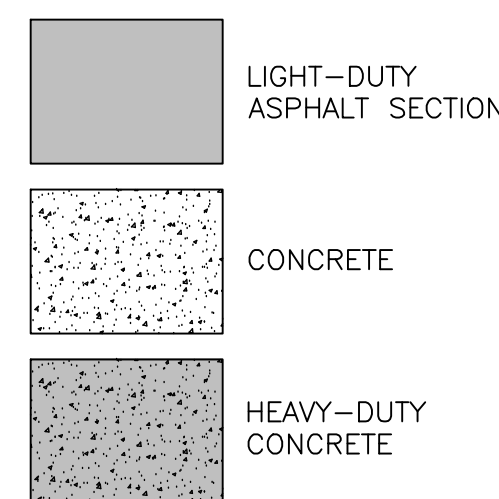
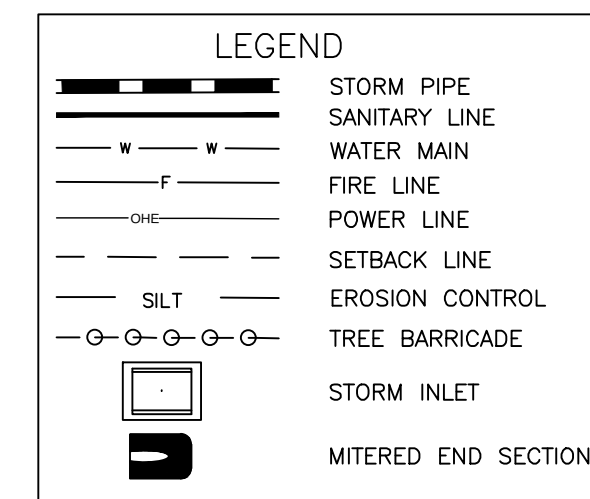
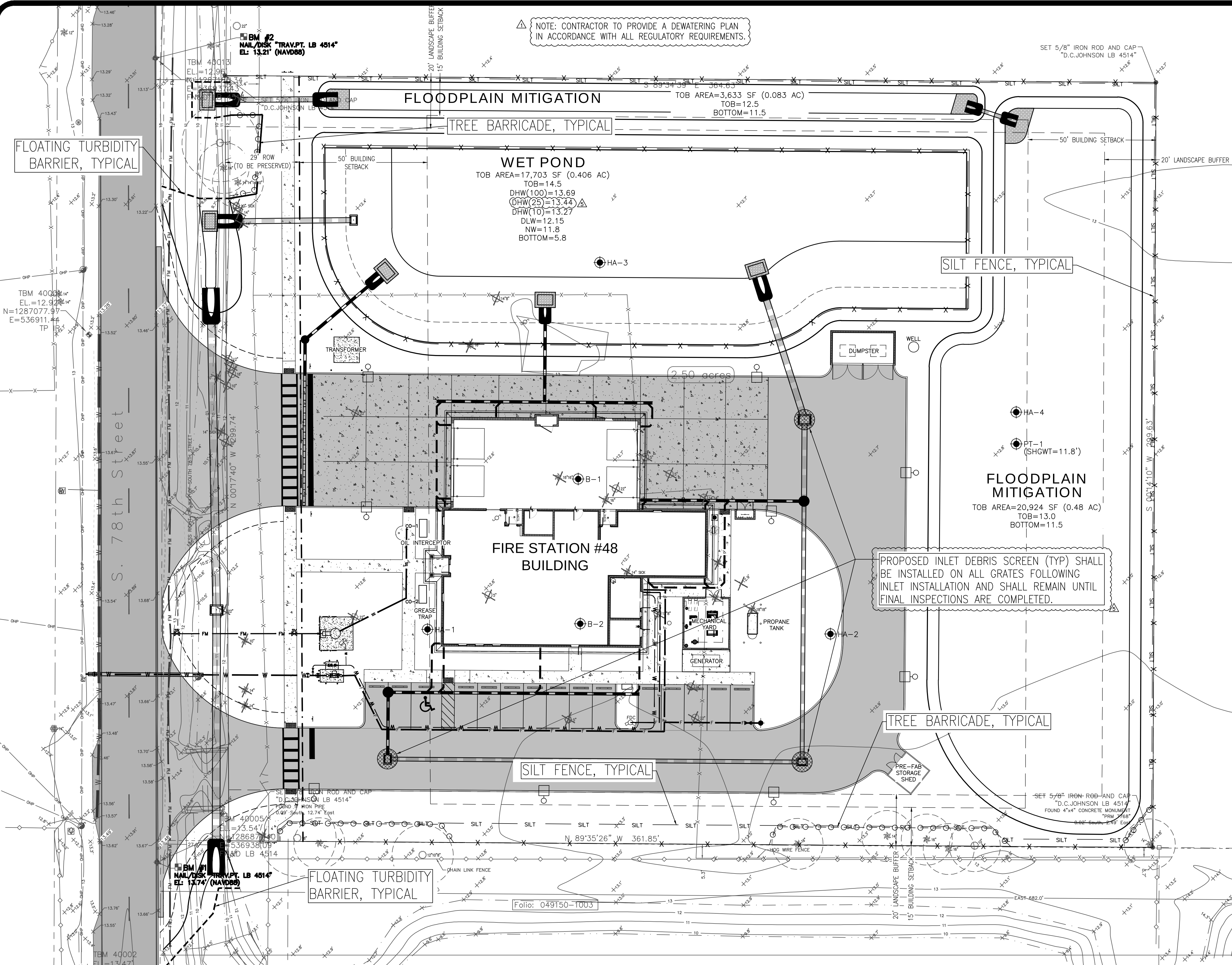
SUNSHINE STATE ONE CALL OF FLORIDA, INC.



 EXISTING PAVEMENT, CURB, AND BUILDING TO BE REMOVED
 EXISTING TREE TO BE REMOVED
 SILT FENCE
 TREE BARRICADE

1. Use of this survey for purposes other than intended, without written verification, will be at the user's sole risk and without liability to the surveyor. Nothing herein shall be construed to give any rights or benefits to anyone other than those certified to. This survey meets the "Standards of Practice" set forth by the Florida Board of Land Surveyors in Chapter 5J-17 Florida Administrative Code.
2. Surveyor has reviewed Commitment for Title Insurance, Commitment Number 2021762, as issued by Fuentes and Kreischer, P.A., and underwritten by Old Republic National Title Insurance Company, issued 10/21/21 at 8:00 a.m. All pertinent matters except leases, liens, mortgages, taxes, and/or other similar financial matters, identified as encumbrances in Schedule B-II of said Commitment for Title Insurance, have been shown or noted hereon. The undersigned has relied solely upon said Title Insurance Commitment for all matters pertaining to easements, rights-of-way, setback lines, agreements, reservations, or other similar matters.
3. No instruments of record reflecting easements, right-of-ways and/or ownership were furnished to the undersigned except as shown.
4. No underground installations, improvements or encroachments, have been located except those shown hereon.
5. Elevations shown hereon are based on North American Vertical Datum of 1988 (NAVD88), National Geodetic Survey benchmarks "HIL 5" and "VD 218" located in Tampa, Florida.
 - 5.1. Published elevation (HIL 5): 23.36' (NAVD88)
 - 5.2. Published elevation (VD 218): 12.81' (NAVD88)
6. Bearings shown hereon are based on the Florida State Plane Coordinate System, FL-West Projection, with the West boundary line of the subject property, also being the South boundary line of the North 1/2 of the Southwest 1/4 of the Southwest 1.45 of the Northwest 1/4 of Section 13, Township 30 South, Range 19 East, Hillsborough County, having a grid bearing of N.89°35'26"W.
7. Bearings and distances shown hereon are field measured, unless otherwise indicated.
8. The text for ties to improvements indicates the direction they lie in relation to the boundary.
9. Subject property may contain lands that are subject to jurisdiction or restriction by one or more of the following agencies: Army Corp. of Engineers, Southwest Florida Water Management District (S.W.F.W.M.D.) or Florida Department of Environmental Protection (F.D.E.P.).
10. The maintained right-of-way information for S. 78th Street was provided by the Hillsborough County Surveying and Mapping Department.
11. 2023 aerial image shown hereon obtained from the Florida Department of Transportation (FDOT).





STORMWATER POLLUTION PREVENTION NOTES:

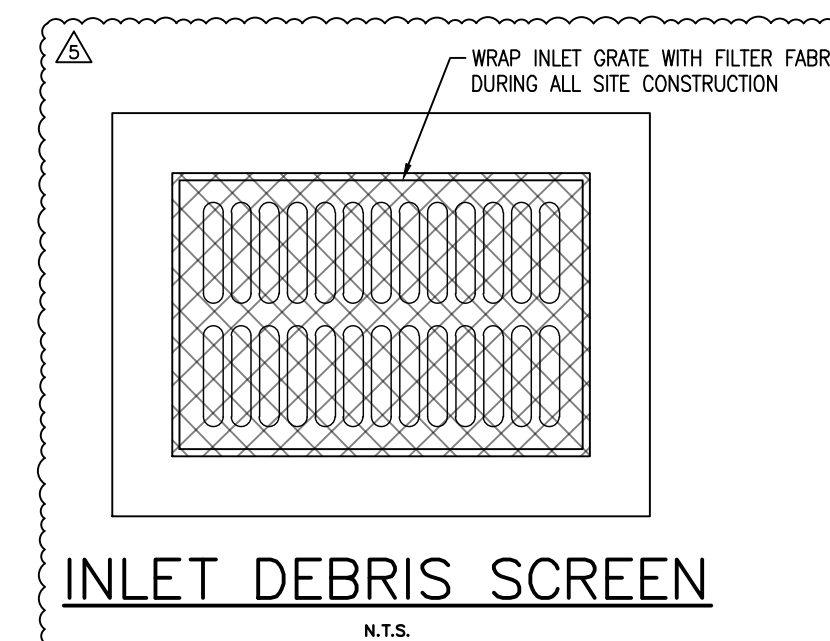
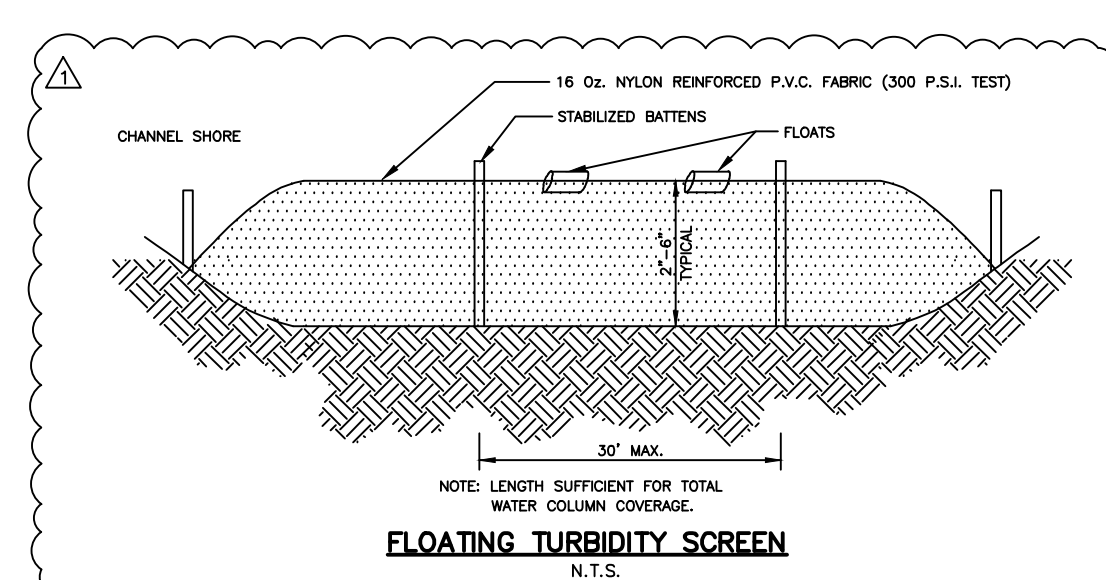
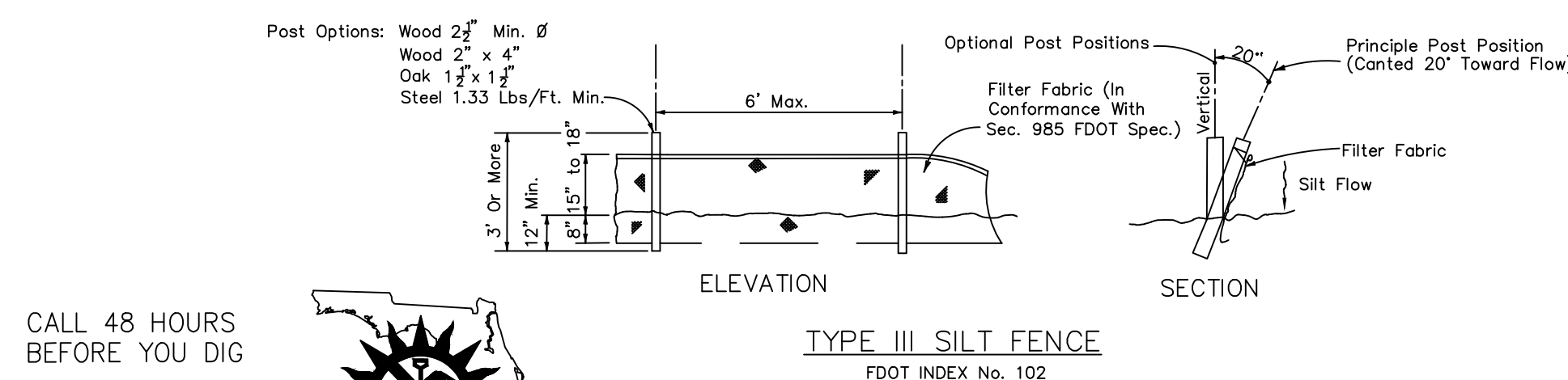
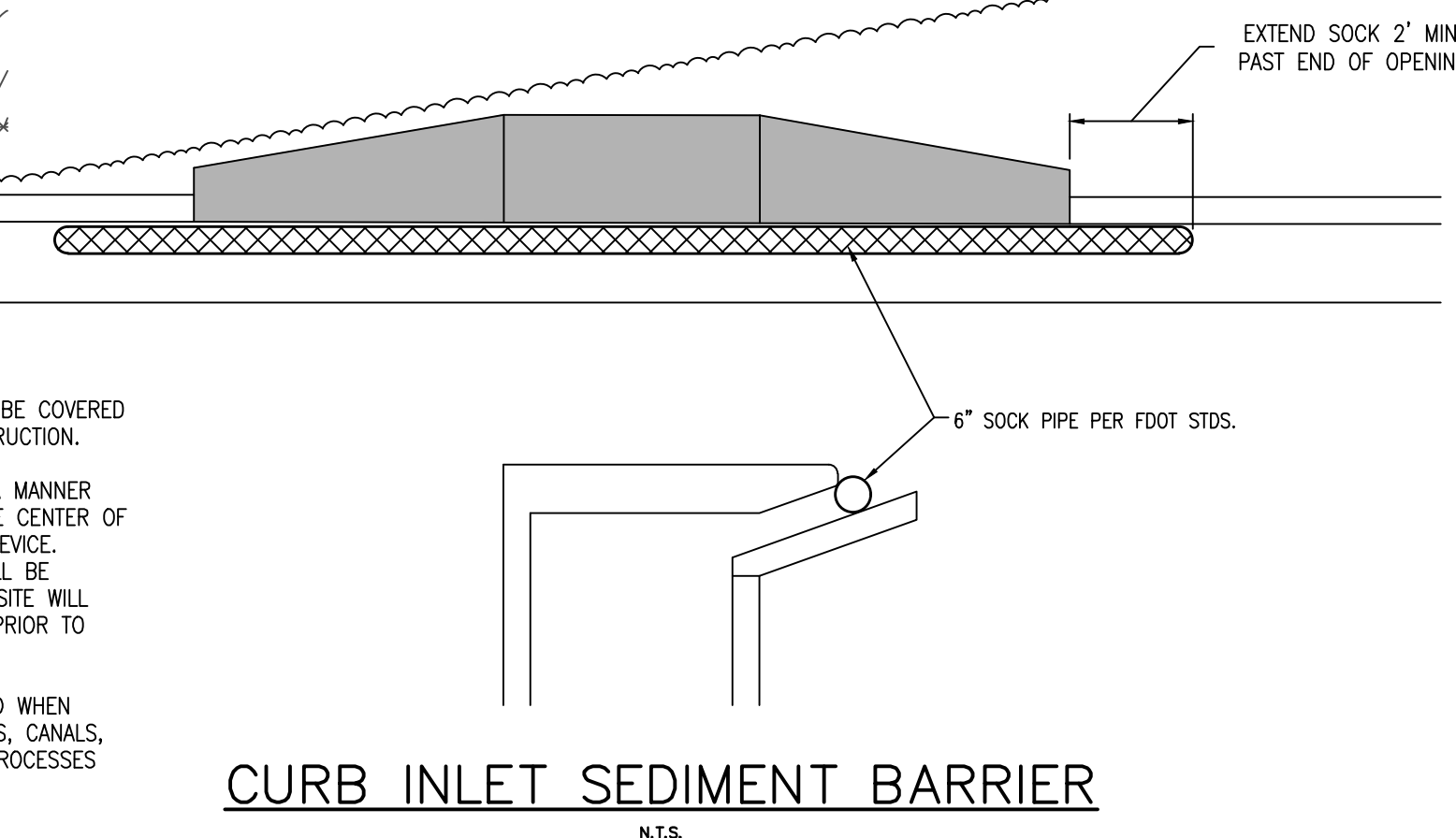
- This plan shall be available on-site at all times during the sitework construction.
- The Limits of Disturbance line shown on this plan indicates the point beyond which the existing vegetation should be impacted.
- Stormwater Pollution Prevention measures shown herein are the minimum required. Contractor shall be fully responsible for erecting and maintaining an erosion and sediment control system to meet Hillsborough County, South West Florida water Management District, and FDEP NPDES requirements.
- Each area of the site shall not be disturbed until it is necessary for construction to proceed. Disturbed areas shall be covered or stabilized as soon as possible.
- Erosion and sediment control measures shall be maintained until the area they protect has been sodded, pavement has been placed, or the area is otherwise completely stabilized.
- All disturbed areas of the site shall be inspected by qualified personnel of the responsible contractor every seven calendar days and within 24 hours after every rainfall event of 0.25 inches or more to assess the integrity of the erosion and sediment controls. The inspector shall note any damage or deficiencies in the control measures in an inspection report. Problem areas shall be corrected by the responsible contractor within seven calendar days following the inspection.
- The contractor shall keep a record of construction activities including dates when major grading activities occur in a particular area, date when construction activities cease in an area, whether temporary or permanently, and dates when as area is stabilized.
- If a change in construction schedule occurs or this plan proves, through regular inspections, to be lacking, Aurora Civil Engineering, Inc. shall be notified so that plan modifications can be made.
- No excavated material shall be stockpiled in such a manner as to allow rainfall runoff directly from the project site.
- Inlets and catch basins shall be protected from sediment-laden stormwater runoff until the completion of all construction operations that may contribute sediment to the inlet.
- If, after fourteen days, grassed areas have not attained a minimum of 75% good grass cover, those areas shall be reworked, and additional seed or sod applied to establish the desired vegetative cover.
- For wet stormwater ponds, the pond slopes shall be solid sodded to the normal control elevation.
- All exposed areas within public rights-of-way shall be solid sodded. Other non-pond areas with slopes steeper than 4:1 shall be sodded and staked as necessary.
- Turf reinforcement mats shall be installed where stormwater pipes outfall at grade or in spreader swales.
- If construction occurs along a water body, turbidity barrier shall be installed in accordance with FDOT Index 103.
- A Notice of Termination for the NPDES Construction General Permit shall be submitted to the FDEP NPDES Stormwater Notices Center within 14 days of the date when all areas of the site not otherwise covered by a permanent pavement or structure have been stabilized with a uniform perennial vegetative cover with a density of 70% or greater.

DESIGN CRITERIA:

- A stabilized construction entrance (SCE) is appropriate in the following locations:
 - Whenever vehicles are leaving a construction site and enter onto a public road.
 - At any unpaved entrance/exit location where there is a risk of transporting mud or sediment onto paved road.
- The width should be at least 10 feet to 12 feet or as wide as the entire width of access. At sites where traffic volume is high, the entrance should be wide enough for two vehicles to pass safely.
- Runoff from a stabilized construction entrance should drain to a sediment trap or sediment basin.
- Prior to placing geotextile (filter fabric) make sure that the entrance is properly grades and compacted.
- Inspect the stabilized construction entrance on a regular basis and after there has been a high volume of traffic or storm event. Apply additional stone periodically and when repair is required.
- Immediately remove sediments or any other materials tracked onto the public roadway.

DUST CONTROL:

- Contractor shall take measures to ensure dust control during construction. All measures shall meet FDEP regulations.
- Truck watering of unstabilized areas may be necessary during dry periods. Contractor shall plan for equipment to be at the site as required.
- Upon completion of final grading, sod shall be provided as soon as possible to minimize wind erosion and dust pollution.



NOTES:

- ALL STORM SEWER INLETS AND GRATES SHALL BE COVERED WITH FILTER FABRIC OR SOCKS DURING CONSTRUCTION.
- CUT & FILL SLOPES TO BE CONSTRUCTED IN A MANNER THAT WILL PROVIDE FOR DRAINAGE TOWARD THE CENTER OF THE PROJECT AND A POLLUTION PREVENTION DEVICE. WHERE IT IS NOT POSSIBLE, SILT FENCES SHALL BE PROVIDED SUCH THAT ALL RUNOFF FROM THE SITE WILL PASS THRU A POLLUTION PREVENTION DEVICE PRIOR TO DISCHARGE.
- FLOATING TURBIDITY BARRIERS ARE TO BE USED WHEN INSTALLING OUTFALL PIPES INTO EXISTING LAKES, CANALS, DITCHES, ETC. AND DURING ANY DEWATERING PROCESSES WHICH DISCHARGE FROM THE SITE.

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

STORMWATER POLLUTION PREVENTION PLAN

PROGRESS VILLAGE SOUTH FIRE STATION NO. 48

HILLSBOROUGH COUNTY BOCC
COUNTY CENTER
601 KENNEDY BLVD
TAMPA, FLORIDA 33601

AURORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)943-9807

CHRISTOPHER E. WEDDLE, P.E.
FLORIDA P.E. NO. 35146
AUTHORITY OF AUTHORIZATION NO. 0008989

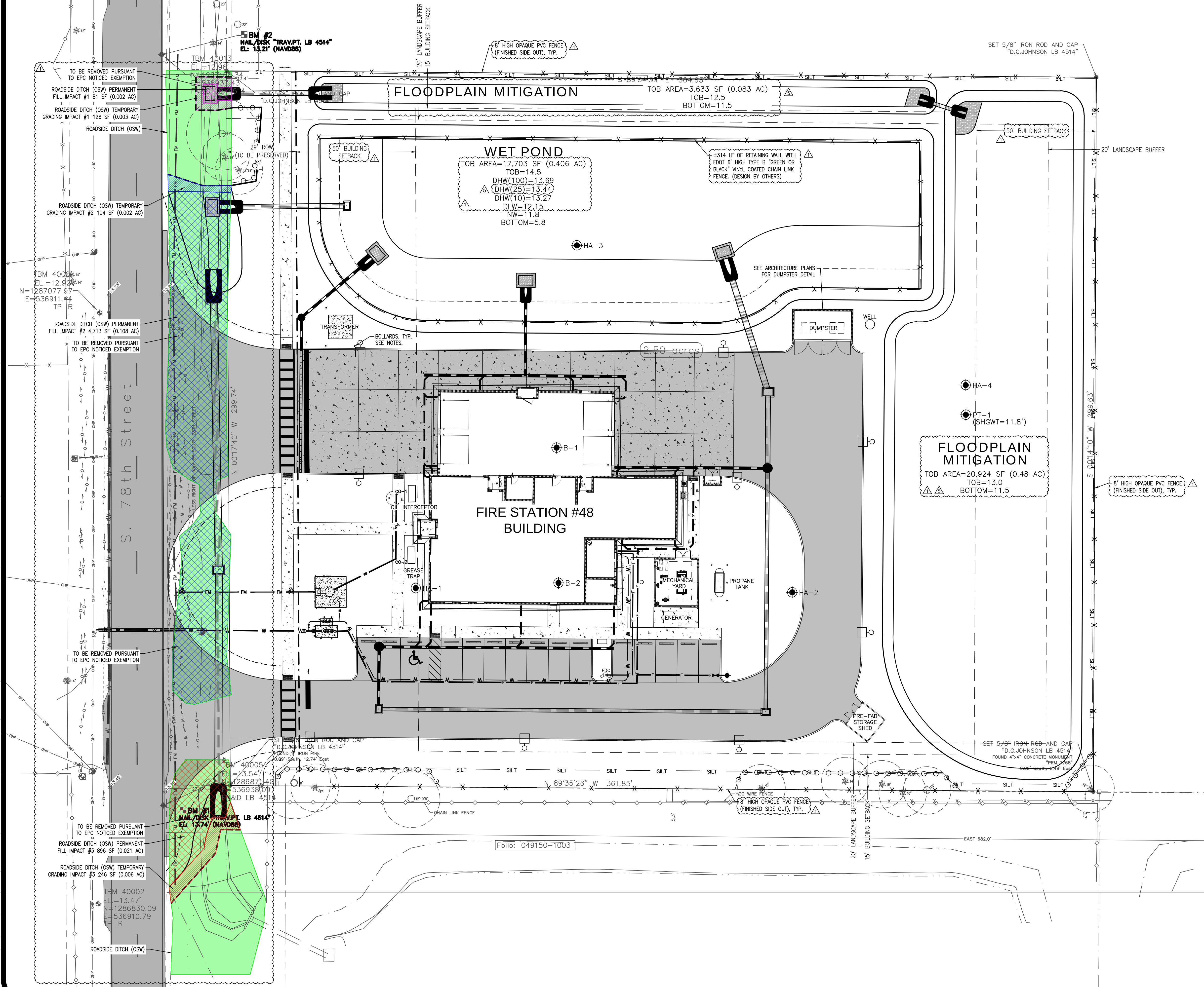
THIS PLAN HAS BEEN ORIGINALLY DESIGNED AND PREPARED BY THE ENGINEER OF RECORD AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF AURORA CIVIL ENGINEERING, INC. PRINTED COPIES OF THIS DOCUMENT ARE NOT TO BE USED FOR ANY OTHER PROJECTS.

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DATE: 01-31-2025
PROJECT: PROGRESS VILLAGE SOUTH FIRE STATION NO. 48
DRAWN BY: FLODELIZA DIMAKILING
CHECKED BY: CHRIS WEDDLE
APPROVED BY: CHRIS WEDDLE
JOB NO.: 23-163

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LEGEND	
	STORM PIPE
	SANITARY LINE
	WATER MAIN
	FIRE LINE
	POWER LINE
	SETBACK LINE
	EROSION CONTROL
	TREE BARRICADE
	STORM INLET
	MITERED END SECTION

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

	ASPHALT SECTION
	CONCRETE
	HEAVY-DUTY CONCRETE
	ROADSIDE DITCH (OSW) 8,999 SF (0.207 AC)
	ROADSIDE DITCH (OSW) PERMANENT FILL IMPACT #1 81 SF (0.002 AC)
	ROADSIDE DITCH (OSW) TEMPORARY GRADING IMPACT #1 126 SF (0.003 AC)
	ROADSIDE DITCH (OSW) PERMANENT FILL IMPACT #2 4,713 SF (0.108 AC)
	ROADSIDE DITCH (OSW) TEMPORARY GRADING IMPACT #2 104 SF (0.002 AC)
	ROADSIDE DITCH (OSW) PERMANENT FILL IMPACT #3 896 SF (0.021 AC)
	ROADSIDE DITCH (OSW) TEMPORARY GRADING IMPACT #3 246 SF (0.006 AC)

SITE DATA
PROJECT ACREAGE: 2.43 ± AC
FOLIO: 49124.0010
PARCEL ID: U-13-30-19-ZZZ-000001-68550.1
OWNER: HILLSBOROUGH COUNTY
SECTION 13 / TOWNSHIP 30S / RANGE 19E
CURRENT ZONING: AS-1 AGRICULTURAL-SINGLE-FAMILY
LAND USE CODE: 8600 GOVERNMENT
PROPOSED USE: FIRE STATION
FUTURE LAND USE: CMU-12
FLOOD ZONE: X (500-YR FLOODPLAIN)
FEMA FLOOD MAP: 12057C0501J, 10/7/2021

FAB: 0-07 (PROPOSED)
SR: 0.33 (PROPOSED)
MAX BLDG HEIGHT: 30' (24'-0" PROPOSED)
PROPOSED BUILDING AREA: 7,558 SF
PROPOSED PRE-FAB SHED AREA: 144 SF
BUILDING CONSTRUCTION TYPE: V-B SPRINKLERED
NUMBER OF STORIES: 1-STORY

SETBACKS	MINIMUM	PROPOSED
NORTH:	15'	133.12'
SOUTH:	15'	76.5'
EAST:	50'	169.46'
WEST:	50'	50'

MINIMUM BUFFERS:
NORTH: 20'/B
SOUTH: 20'/B
EAST: 20'/B
WEST: NONE

PARKING REQUIREMENTS: 14 SPACES
2 SPACES PER EMPLOYEE (FIRE STATION)
PARKING PROVIDED: 15 (INCLUDES 1 ACCESSIBLE)
STANDARD SPACES: 9'x18'
ACCESSIBLE SPACES: 12'x18' W/5' ADJACENT AISLE

TOTAL BLDG FOOTPRINT:	0.177 AC. (7.3%)
ONSITE PAVEMENT:	0.823 AC. (25.6%)
TOTAL IMPERVIOUS:	0.800 AC. (32.9%)
TOTAL OPEN SPACE:	1.630 AC. (67.1%)

REVISIONS	
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OVERALL SITE PLAN

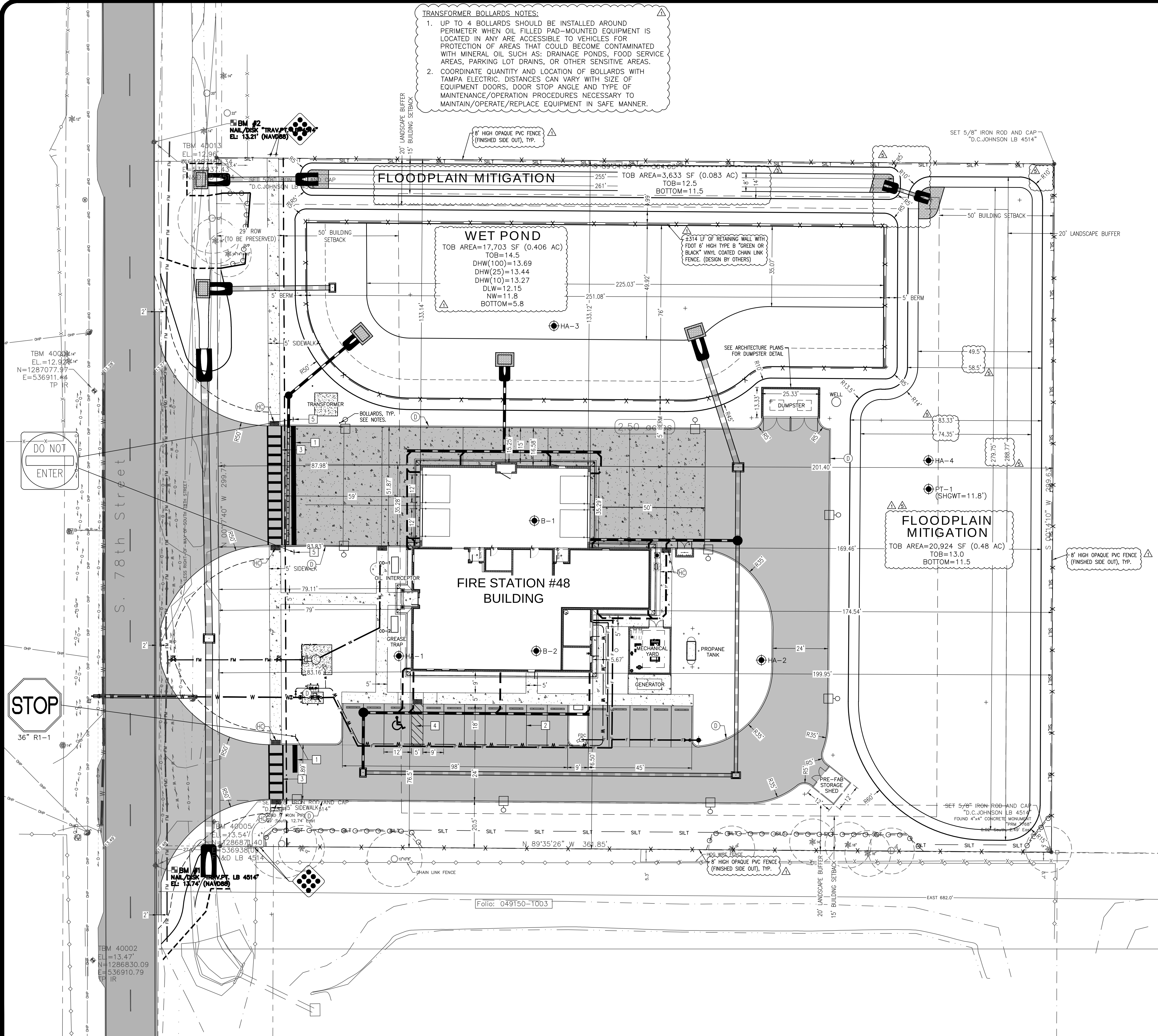
PROGRESS VILLAGE SOUTH FIRE STATION NO. 48

AUTRORA
ENGINEERING, INC.

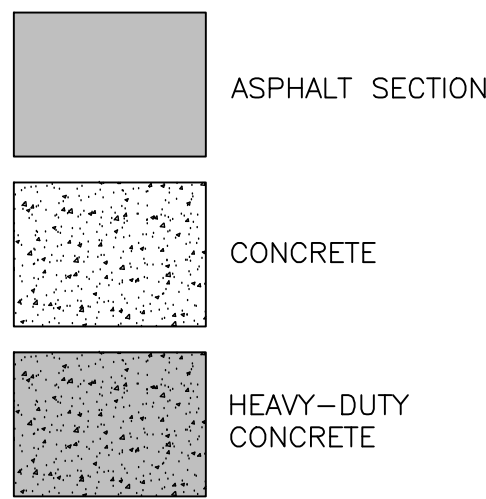
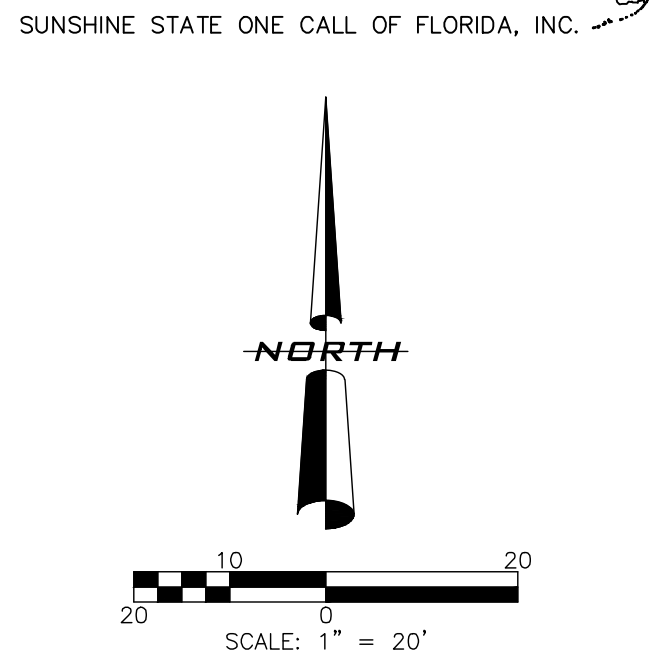
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

CHRISTOPHER E. WEDDLE, P.E.
FLORIDA P.E. NO. 35146
DATE OF AUTHORIZATION: 00000000

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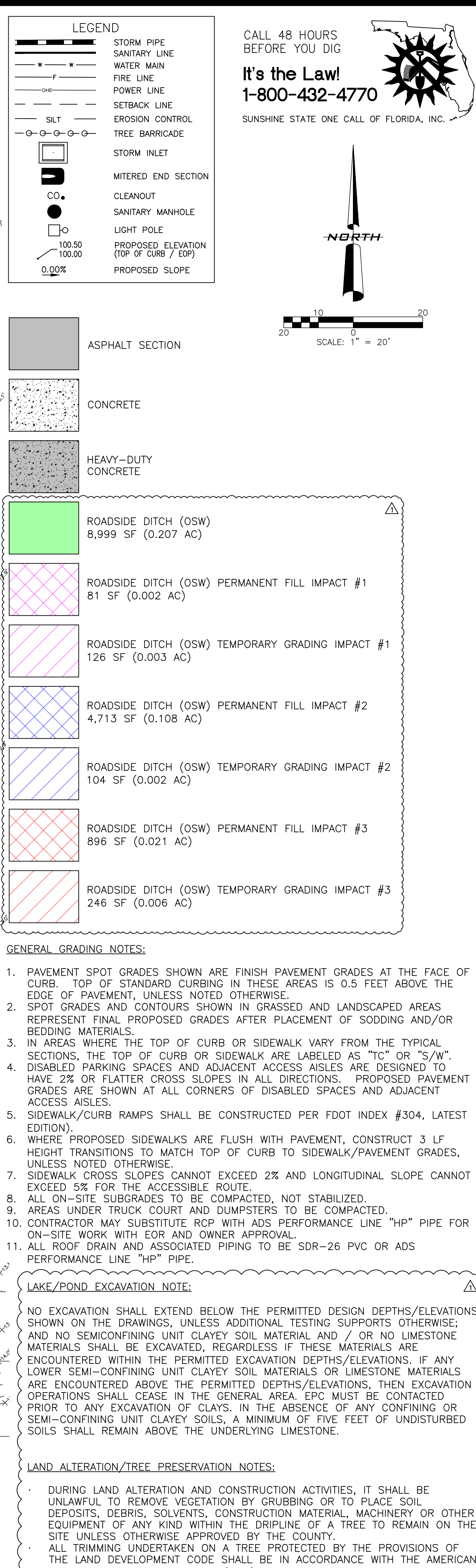
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GEOMETRIC, SIGNAGE & SIDEWALK PLAN

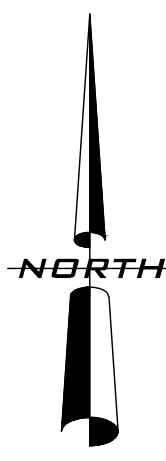
PROGRESS VILLAGE SOUTH FIRE STATION NO. 48

AUTORA ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

CHRISTOPHER E. WEDDLE, P.E.
FLORIDA P.E. NO. 35446
DATE OF AUTHORIZATION: 06/08/2019



SUNSHINE STATE ONE CALL OF FLORIDA, INC. .



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

ASPHALT SECTION

CONCRETE

HEAVY-DUTY CONCRETE

ROADSIDE DITCH (OSW)
8,999 SF (0.207 AC)

ROADSIDE DITCH (OSW) PERMANENT FILL IMPACT #1
81 SF (0.002 AC)

ROADSIDE DITCH (OSW) TEMPORARY GRADING IMPACT #1
126 SF (0.003 AC)

ROADSIDE DITCH (OSW) PERMANENT FILL IMPACT #2
4,713 SF (0.108 AC)

ROADSIDE DITCH (OSW) TEMPORARY GRADING IMPACT #2
104 SF (0.002 AC)

ROADSIDE DITCH (OSW) PERMANENT FILL IMPACT #3
896 SF (0.021 AC)

ROADSIDE DITCH (OSW) TEMPORARY GRADING IMPACT #3
246 SF (0.006 AC)

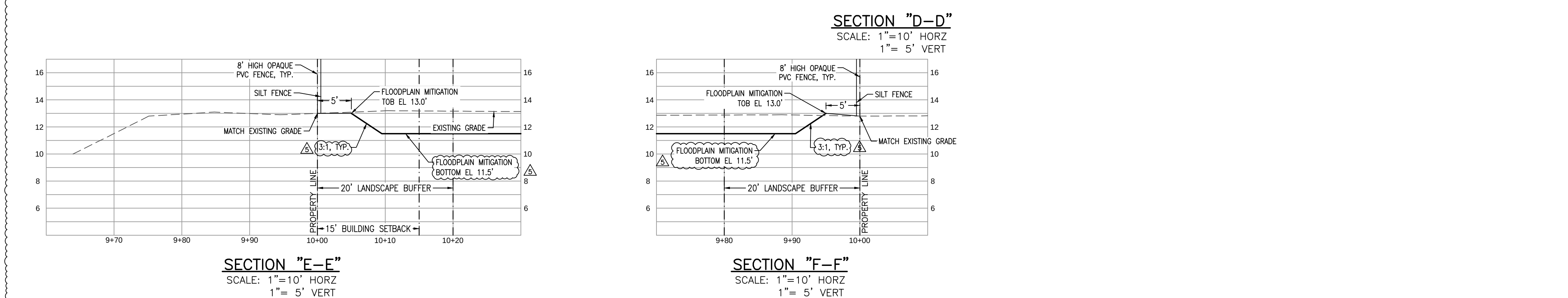
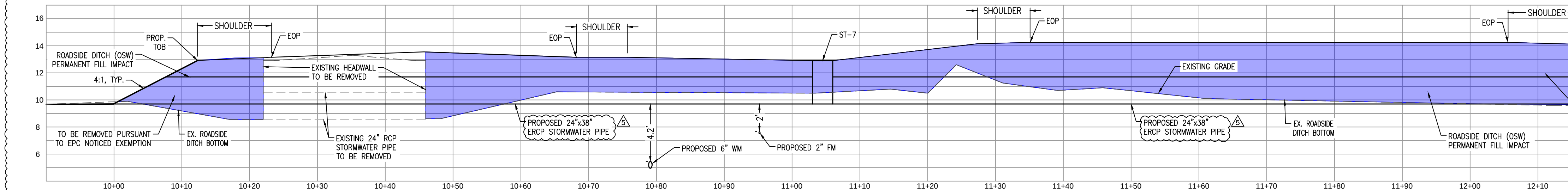
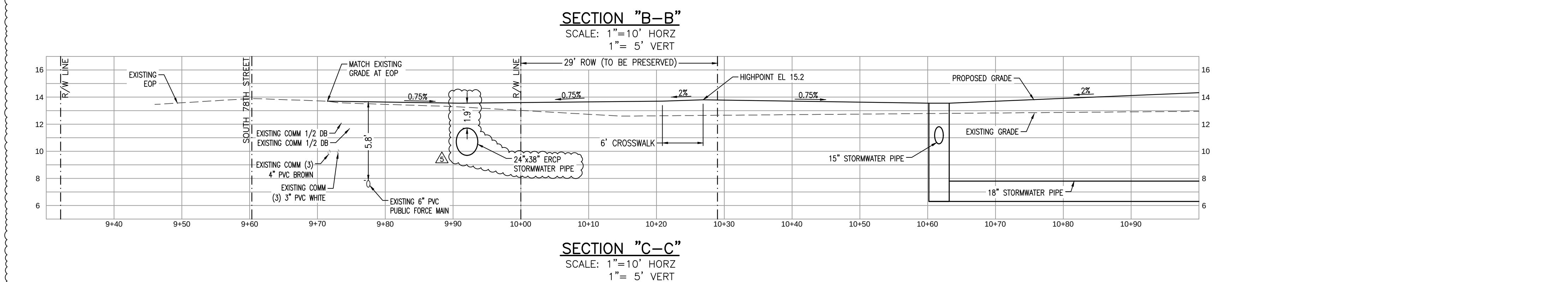
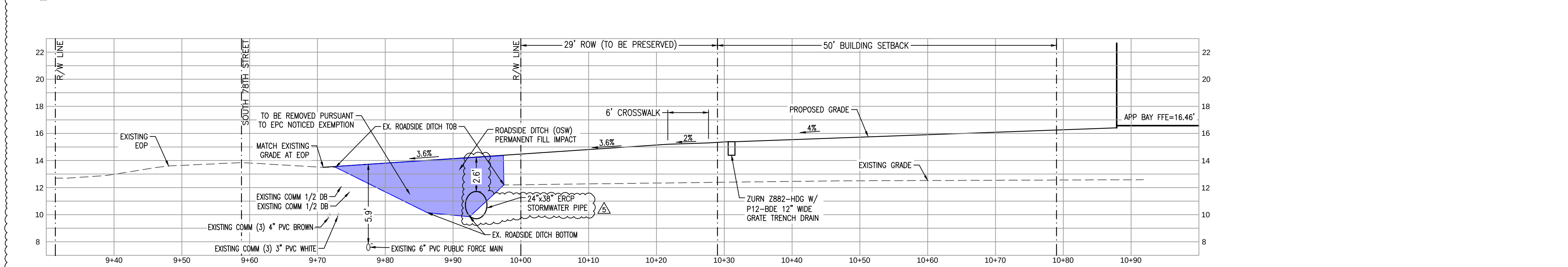
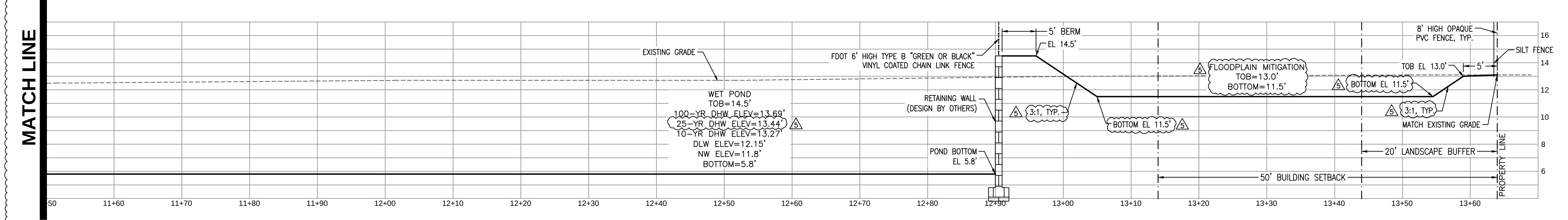
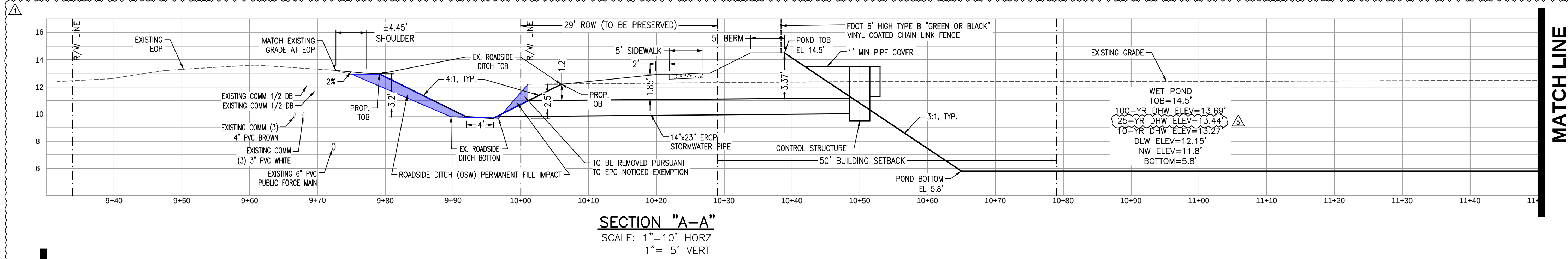
1. PAVEMENT SPOT GRADES SHOWN ARE FINISH PAVEMENT GRADES AT THE FACE OF CURB. TOP OF STANDARD CURBING IN THESE AREAS IS 0.5 FEET ABOVE THE EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
2. SPOT GRADES AND CONTOURS SHOWN IN GRASSED AND LANDSCAPED AREAS REPRESENT FINAL PROPOSED GRADES AFTER PLACEMENT OF SODDING AND/OR PLANTING MATERIAL.
3. IN AREAS WHERE THE TOP OF CURB OR SIDEWALK VARY FROM THE TYPICAL SECTIONS, THE TOP OF CURB OR SIDEWALK ARE LABELED AS "TC" OR "S/W".
4. DISABLED PARKING SPACES AND ADJACENT ACCESS AISLES ARE DESIGNED TO HAVE 2% OR FLATTER CROSS SLOPES IN ALL DIRECTIONS. PROPOSED PAVEMENT GRADES ARE SHOWN AT ALL CORNERS OF DISABLED SPACES AND ADJACENT ACCESS AISLES.
5. SIDEWALK/CURB RAMPS SHALL BE CONSTRUCTED PER FDOT INDEX #304, LATEST EDITION.
6. WHERE PROPOSED SIDEWALKS ARE FLUSH WITH PAVEMENT, CONSTRUCT 3 LF HEIGHT TRANSITIONS TO MATCH TOP OF CURB TO SIDEWALK/PAVEMENT GRADES, UNLESS NOTED OTHERWISE.
7. SIDEWALK CROSS SLOPES CANNOT EXCEED 2% AND LONGITUDINAL SLOPE CANNOT EXCEED 5% FOR THE ACCESSIBLE ROUTE.
8. ALL ON-SITE SUBGRADES TO BE COMPACTED, NOT STABILIZED.
9. AREA UNDER CURBS, COURT AND JUNCTIONS TO BE COMPACTED.
10. CONTRACTOR MAY SUBSTITUTE RCP WITH ADS PERFORMANCE LINE "HP" PIPE FOR ON-SITE WORK WITH EOR AND OWNER APPROVAL.
11. ALL ROOF DRAIN AND ASSOCIATED PIPING TO BE SDR-26 PVC OR ADS PERFORMANCE LINE "HP" PIPE.

NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS/ELEVATIONS SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE; AND NO SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL AND / OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS/ELEVATIONS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS/ELEVATIONS, THEN EXCAVATION OPERATIONS SHALL CEASE IN THE GENERAL AREA. EPC MUST BE CONTACTED PRIOR TO ANY EXCAVATION OF ANY OF ANY CONFINING OR SEMI-CONFINING UNIT CLAYEY SOILS, A MINIMUM OF FIVE FEET OF UNDISTURBED SOILS SHALL REMAIN ABOVE THE UNDERLYING LIMESTONE.

DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE COUNTY.

ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.

File: R:\Projects\County Progress Village Fire Station #48\Plans\Progress Village Fs 48 GRAD; Plotted: 1/31/2025 12:32 PM by FLORELIZA DIMAKILING; Saved: 1/31/2025 12:28 PM by FLOR



REVISIONS				APPROVED			
NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION
1	01-31-2025	FLOR	ADDED COMMENTS	1	01-31-2025	FLOR	ADDED COMMENTS
2	11-14-2024	FLOR	ADDED COMMENTS	2	11-14-2024	FLOR	ADDED COMMENTS
3	07-15-2024	FLOR	ADDED COMMENTS	3	07-15-2024	FLOR	ADDED COMMENTS

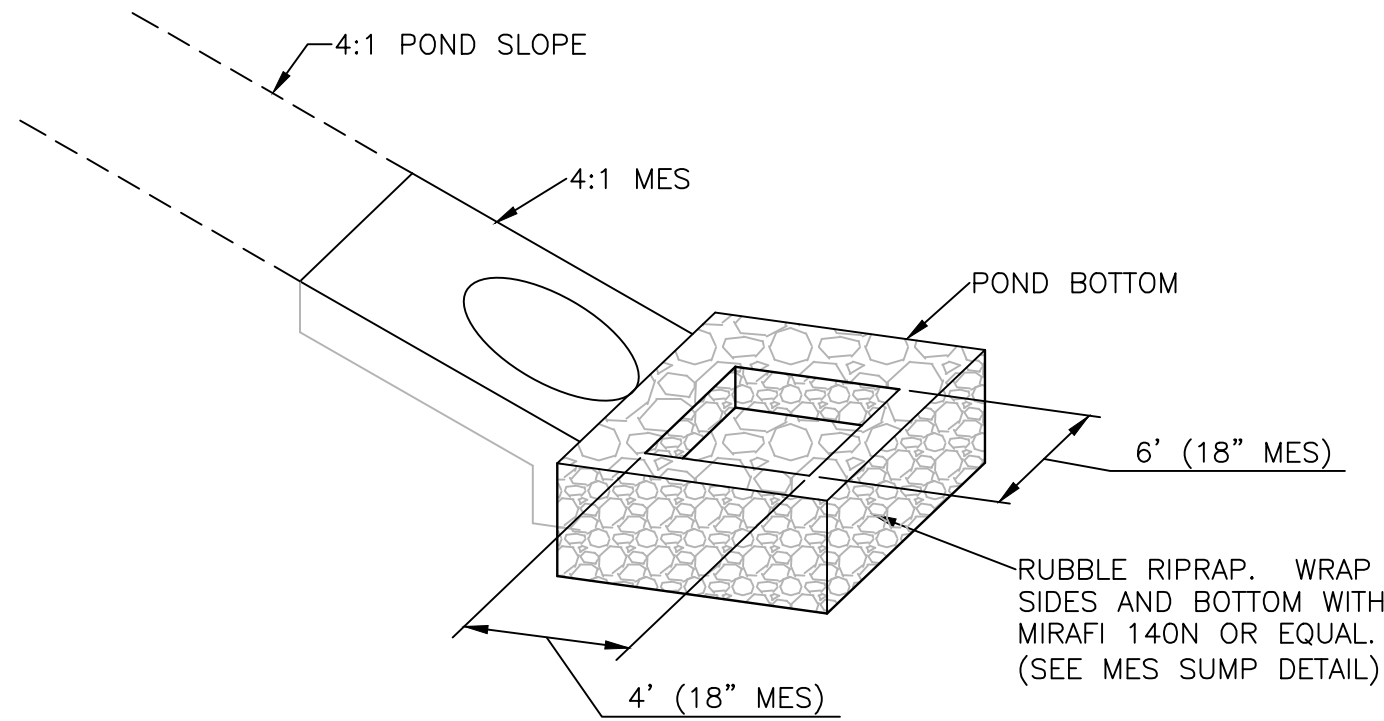
CROSS SECTION PLAN

PROGRESS VILLAGE SOUTH FIRE STATION NO. 48

HILLSBOROUGH COUNTY BOCC
COUNTY CENTER
601 KENNEDY BLVD
TAMPA, FLORIDA 33601

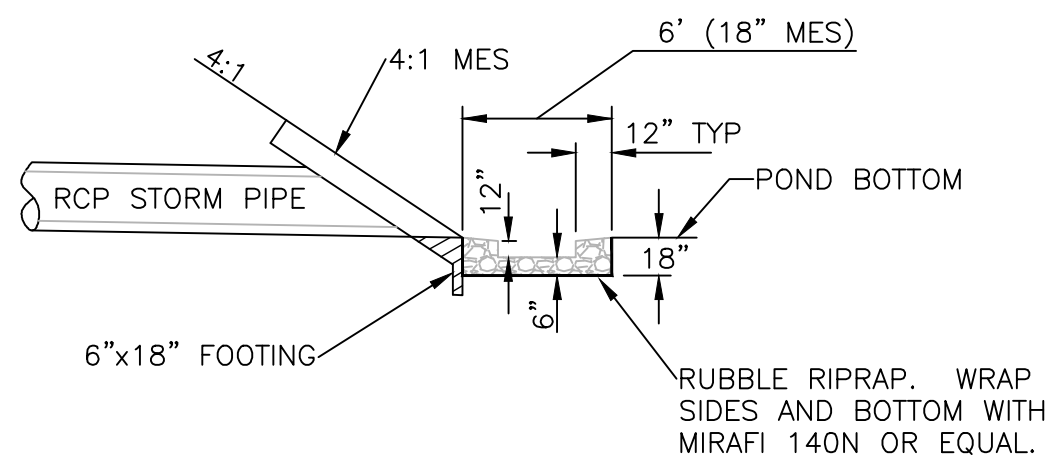
AUTRORA
CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

CHRISTOPHER E. WEDDLE, P.E.
FLORIDA P.E. NO. 35146
DATE OF AUTHORIZATION: 0008989



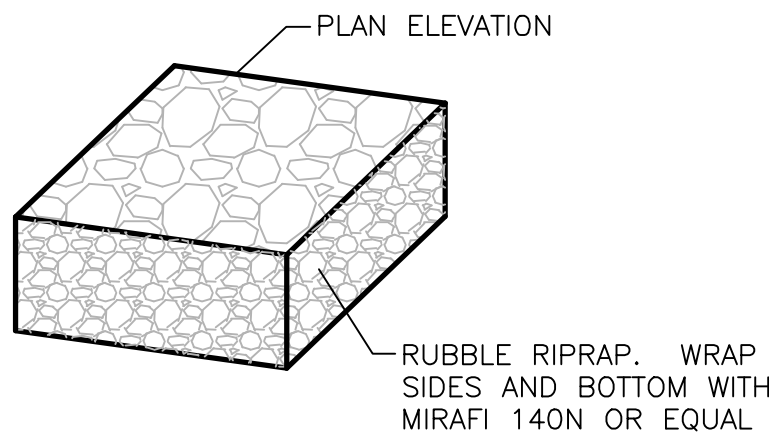
TYPICAL MITERED END DETAIL

NTS

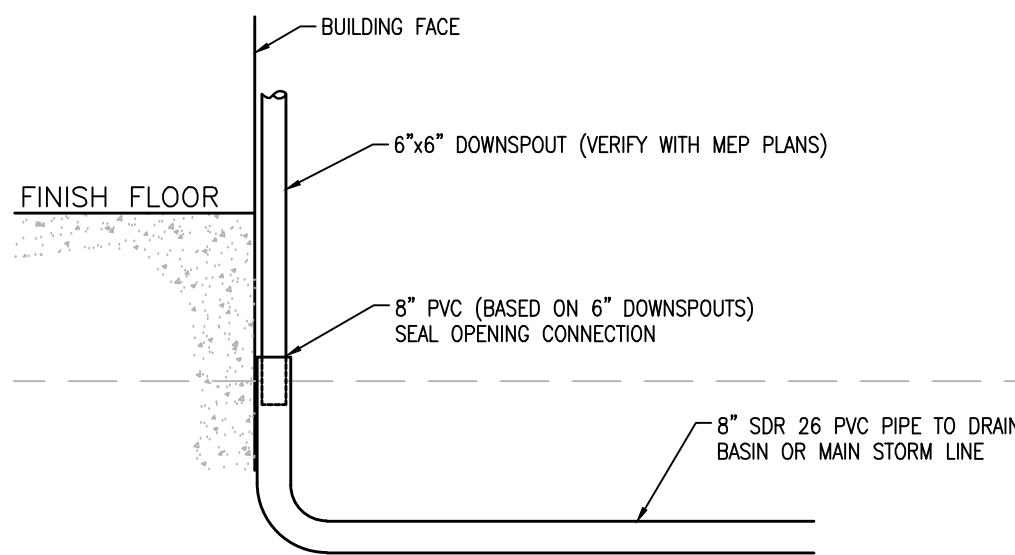


TYPICAL MES SUMP SECTION

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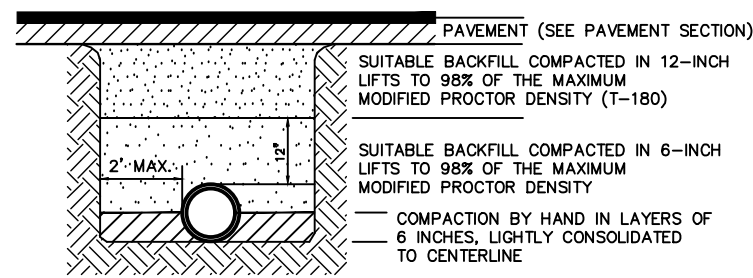


TYPICAL RIPRAP DETAIL



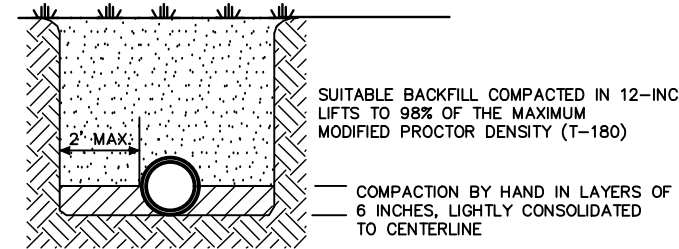
ROOF DRAIN DETAIL

NTS



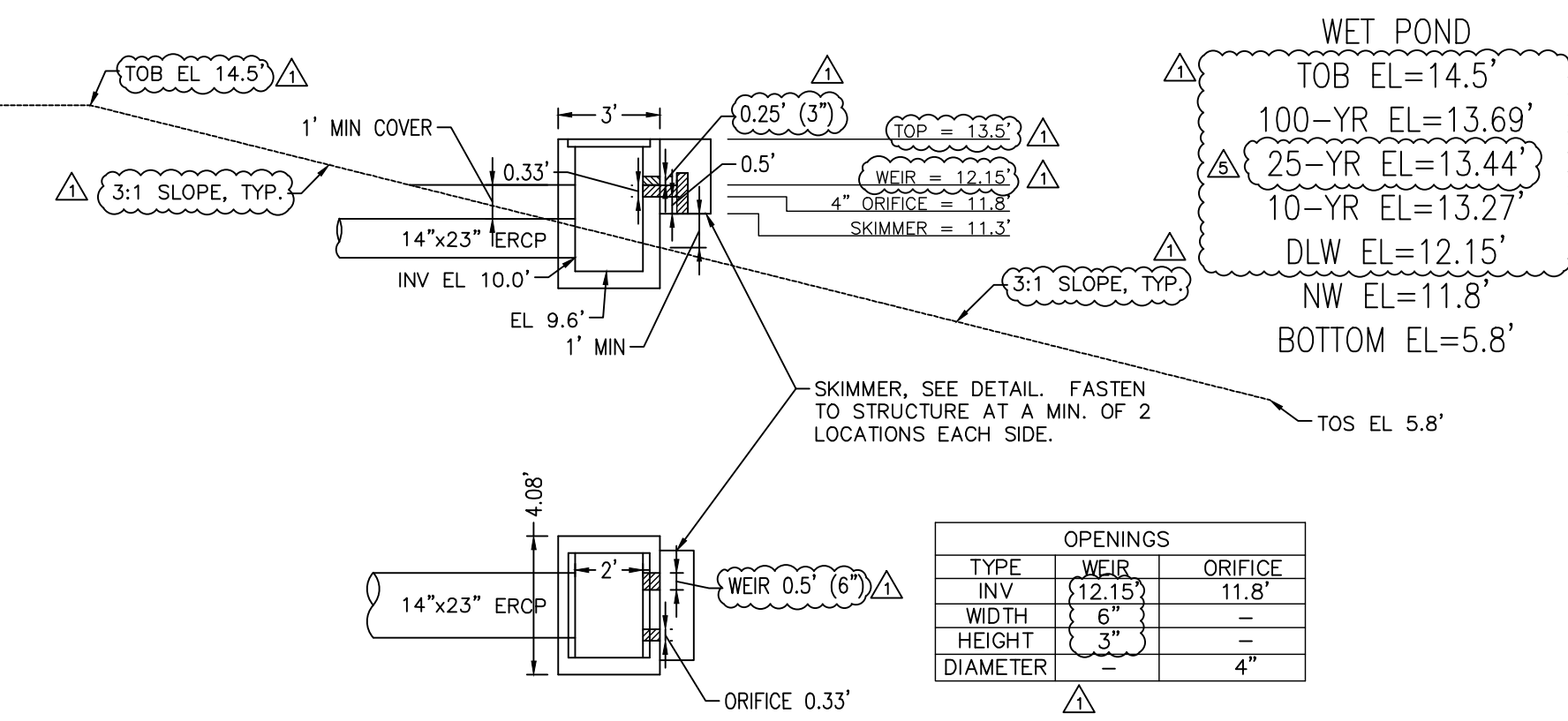
TYPICAL TRENCHING, BEDDING AND BACKFILL
DETAIL FOR PAVED AREAS

N.T.S.



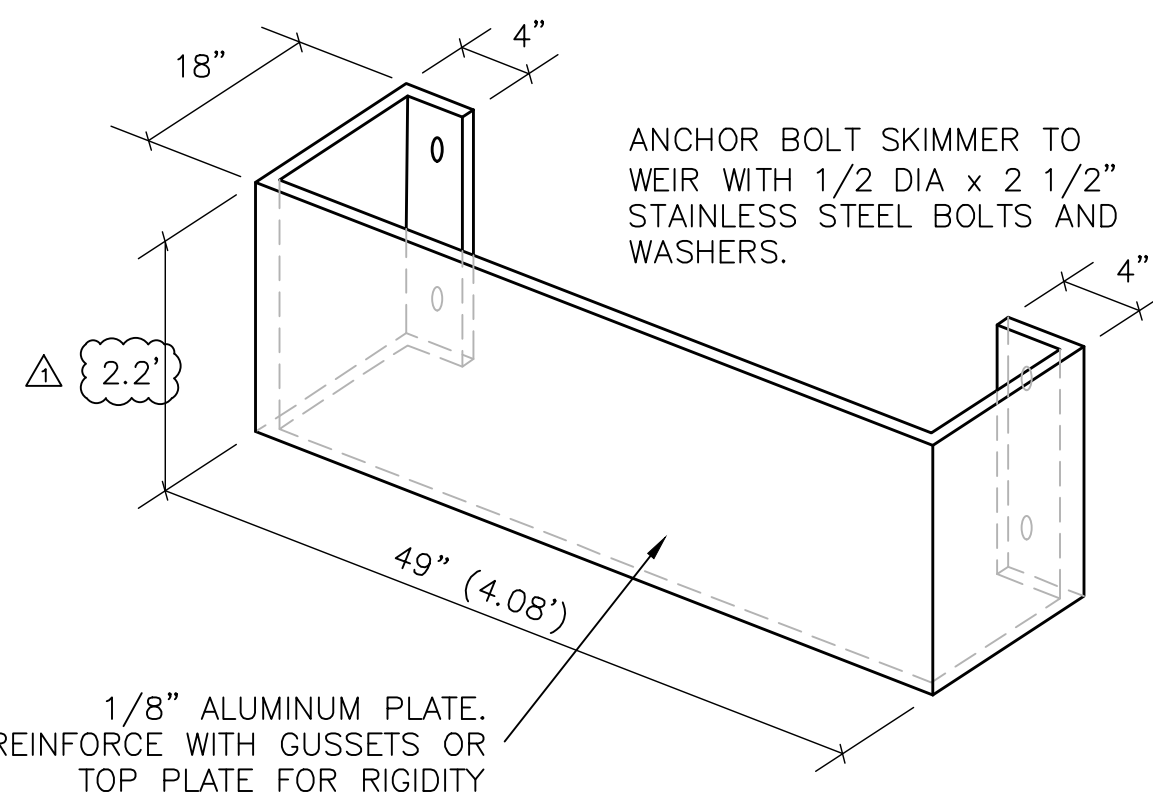
TYPICAL TRENCHING, BEDDING AND BACKFILL
DETAIL FOR NON-PAVED AREAS

N.T.S.



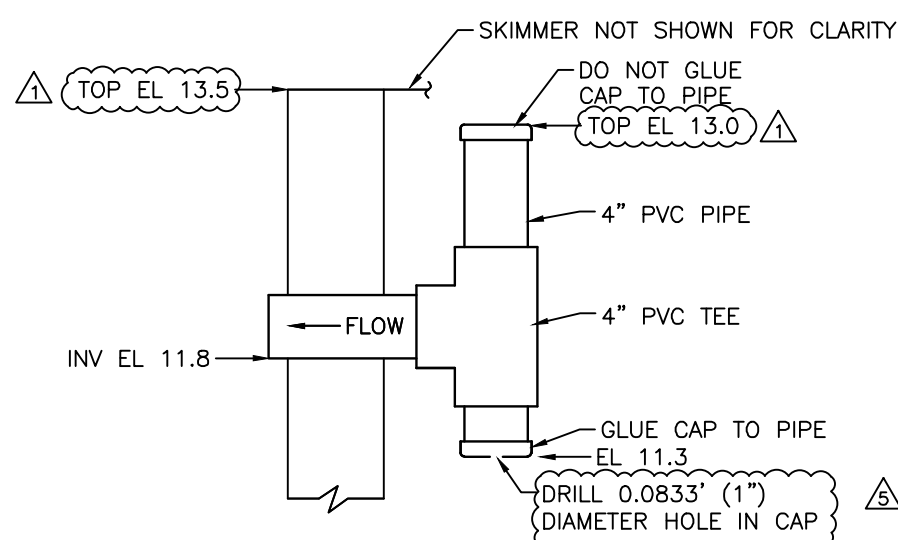
CONTROL STRUCTURE

TYPE "C" DBI
NTS



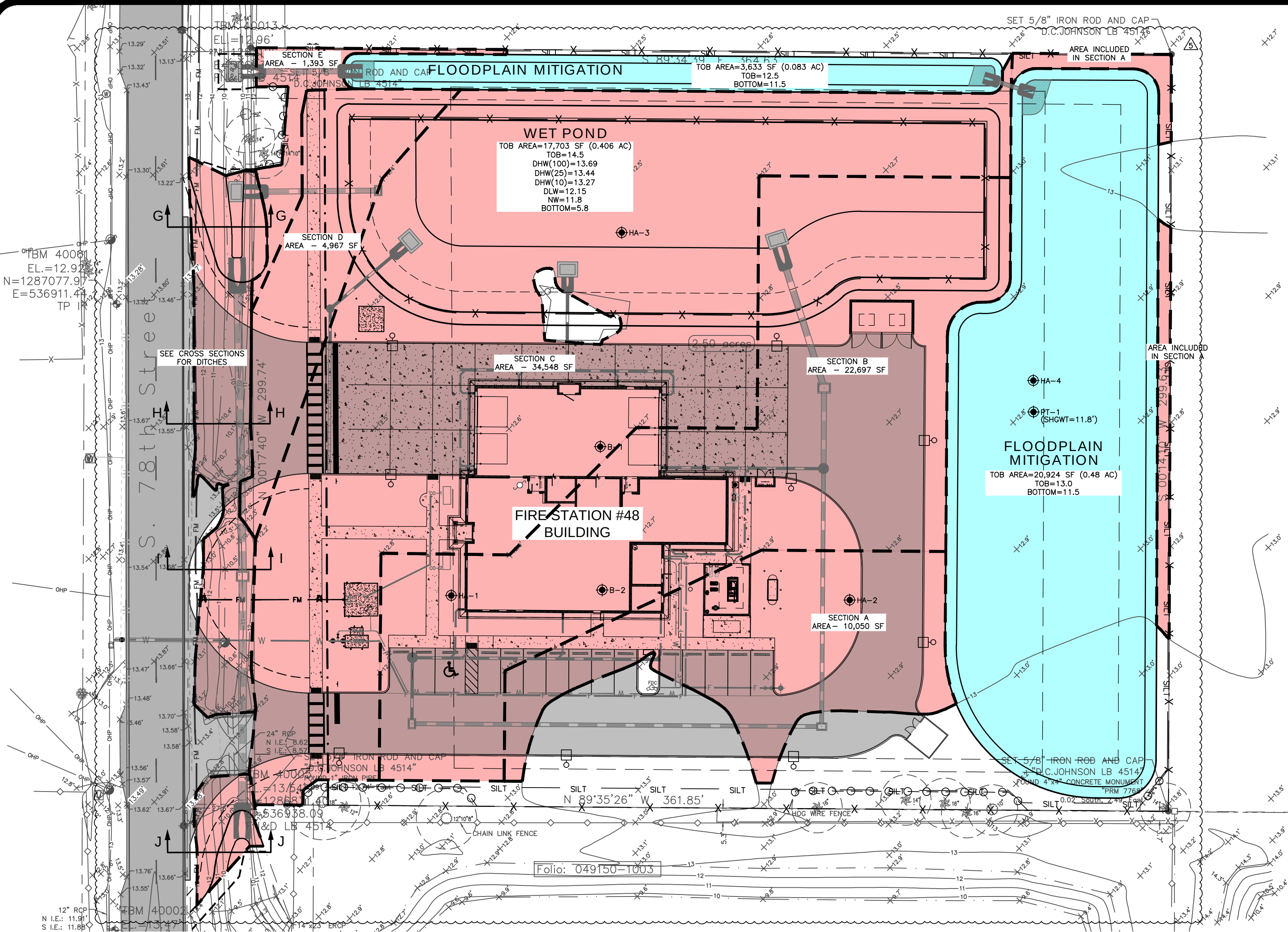
SKIMMER DETAIL

NTS



ORIFICE PIPING DETAIL

NTS



FLOODPLAIN IMPACT (ALL ELEVATIONS IN NAVD88):

- THE 2024 DELANEY CREEK WATERSHED MODEL INDICATES THE NODE 281020 STAGES UP TO 12.99' DURING THE 100-YEAR EVENT. NOTE: WE USED THE ELEVATION 13.0' IN ALL CALCULATIONS.
- THE PROJECT SITE AREA HAVE BEEN DIVIDED INTO 5 SECTIONS.
 - THE EXISTING GRADE ELEVATIONS OF THE SECTION A VARIES FROM 12.9' TO 13.0'. THIS GIVES US AN AVERAGE EXISTING GRADE ELEVATION OF 12.95'.
 $13.0' - 12.95' = 0.05' \rightarrow$ THE HEIGHT OF FLOODPLAIN AREA WE USED IN CALCULATIONS BELOW.
 - THE EXISTING GRADE ELEVATIONS OF THE SECTION B VARIES FROM 12.7' TO 12.9'. THIS GIVES US AN AVERAGE EXISTING GRADE ELEVATION OF 12.80'.
 $13.0' - 12.80' = 0.20' \rightarrow$ THE HEIGHT OF FLOODPLAIN AREA WE USED IN CALCULATIONS BELOW.
 - THE EXISTING GRADE ELEVATIONS OF THE SECTION C VARIES FROM 12.4' TO 12.7'. THIS GIVES US AN AVERAGE EXISTING GRADE ELEVATION OF 12.55'.
 $13.0' - 12.55' = 0.45' \rightarrow$ THE HEIGHT OF FLOODPLAIN AREA WE USED IN CALCULATIONS BELOW.
 - THE EXISTING GRADE ELEVATIONS OF THE SECTION D VARIES FROM 12.2' TO 12.4'. THIS GIVES US AN AVERAGE EXISTING GRADE ELEVATION OF 12.30'.
 $13.0' - 12.30' = 0.70' \rightarrow$ THE HEIGHT OF FLOODPLAIN AREA WE USED IN CALCULATIONS BELOW.
 - THE EXISTING GRADE ELEVATIONS OF THE SECTION E VARIES FROM 12.2' TO 12.4'. THIS GIVES US AN AVERAGE EXISTING GRADE ELEVATION OF 12.30'.
THE PROPOSED GRADE ELEVATIONS IN THIS AREA VARIES FROM 12.2' TO 12.9'. THIS GIVES US AN AVERAGE PROPOSED GRADE ELEVATION OF 12.55'.
 $12.55' - 12.30' = 0.25' \rightarrow$ THE HEIGHT OF FLOODPLAIN AREA WE USED IN CALCULATIONS BELOW.
- THE EXISTING DITCH ALONG SOUTH 78TH STREET TO BE IMPACTED IS APPROXIMATELY 231' LONG AND THE WIDTH VARIES BETWEEN 6' TO 27'. THIS AREA HAS BEEN DIVIDED INTO 4 SECTIONS (GG, HH, II, & JJ). WE CALCULATED THE IMPACTED AREA FROM THE BOTTOM OF THE DITCH TO ELEVATION 13.0'. SEE CROSS SECTIONS ON THIS PAGE.

SECTION A AREA:	10,050 SF X 0.05' =	503 CF
SECTION B AREA:	22,697 SF X 0.20' =	4,539 CF
SECTION C AREA:	34,548 SF X 0.45' =	15,547 CF
SECTION D AREA:	4,967 SF X 0.70' =	3,477 CF
SECTION E AREA:	1,393 SF X 0.25' =	348 CF
SECTION GG AREA:	10 SF X 40' =	400 CF
SECTION HH AREA:	38 SF X 82' =	3,116 CF
SECTION II AREA:	33 SF X 84' =	2,772 CF
SECTION JJ AREA:	21 SF X 25' =	525 CF
TOTAL IMPACT VOLUME:	31,227 CF	

NOTE: NO STORMWATER RUNOFF IS TO BE DIRECTED TOWARDS THE PROPOSED FLOODPLAIN MITIGATION.

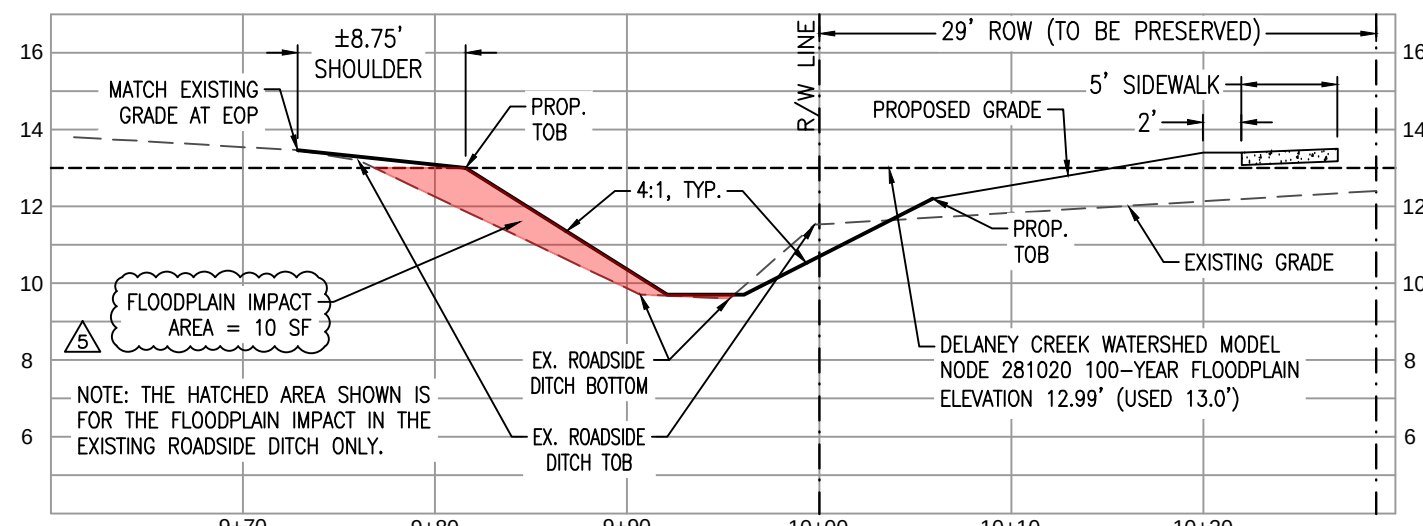
Total volume provided: 31,897 CF

North Floodplain Mitigation Pond

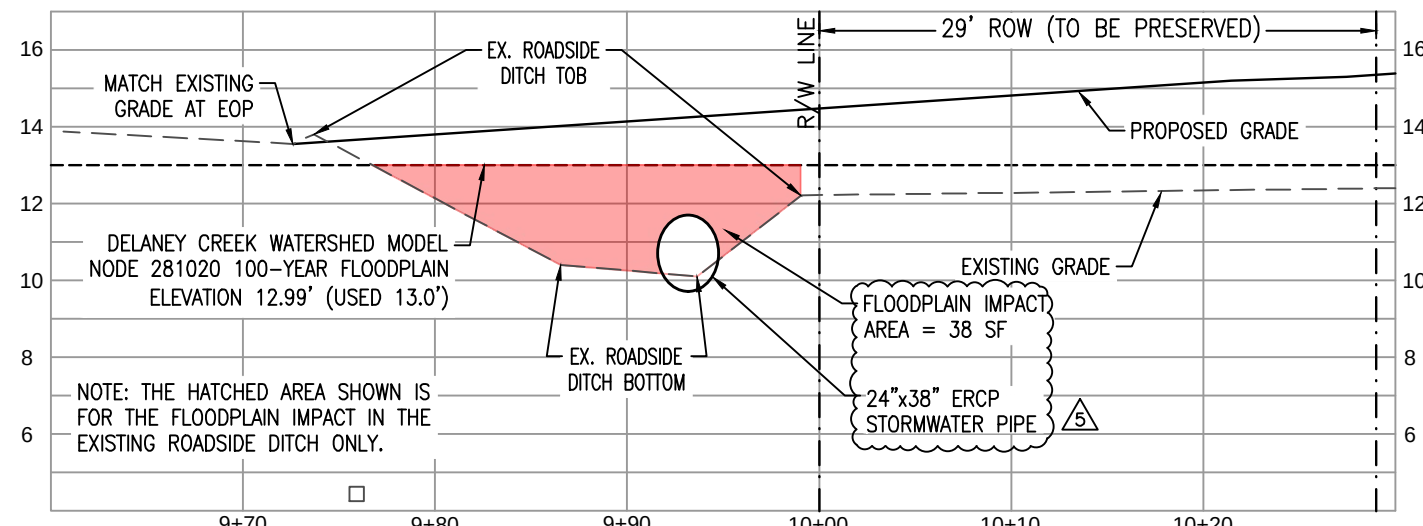
		NAVD88 Stage (ft)	Pond Area (ac)	Inc Volume (ac-ft)	Cumulative Volume (ac-ft)	Total Volume (ac-ft)	Total Volume (cf)
TOB	FLOODPLAIN MITIGATION	12.50	0.083	0.04	0.06	0.06	2,822
		12.00	0.065	0.03	0.03	0.03	1,211
BOTTOM		11.50	0.047	0.00	0.00		

East Floodplain Mitigation Pond

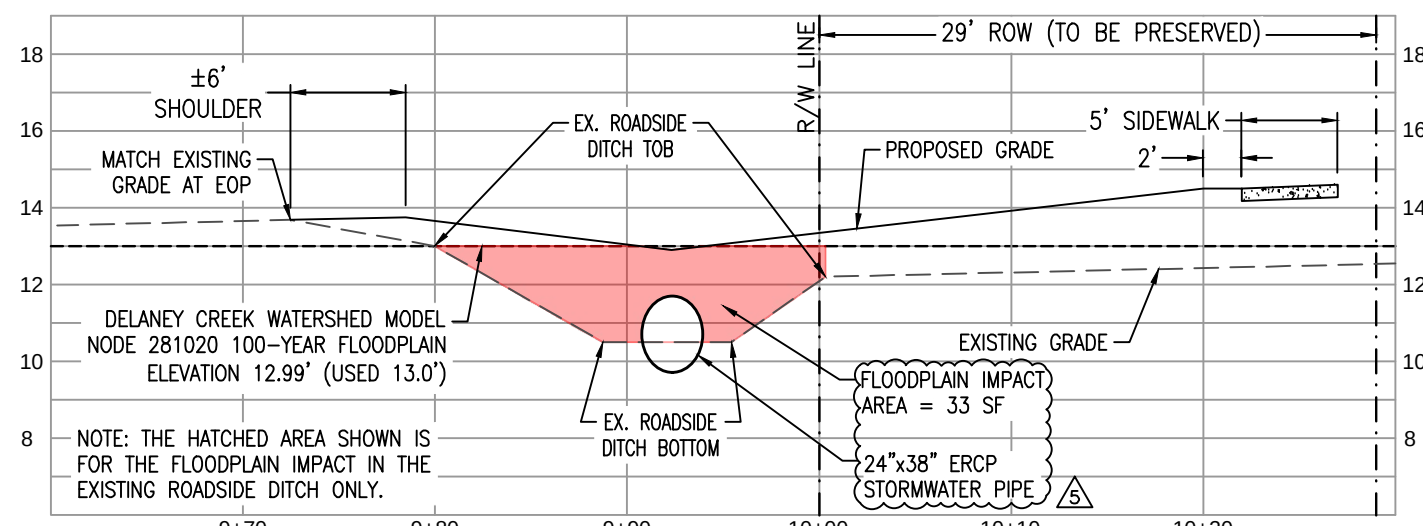
		NAVD88 Stage (ft)	Pond Area (ac)	Inc Volume (ac-ft)	Cumulative Volume (ac-ft)	Total Volume (ac-ft)	Total Volume (cf)
TOB	FLOODPLAIN MITIGATION	13.00	0.480	0.23	0.67	0.67	29,075
		12.50	0.457	0.22	0.43	0.43	18,872
		12.00	0.433	0.21	0.21	0.21	9,183
BOTTOM		11.50	0.410	0.00	0.00		



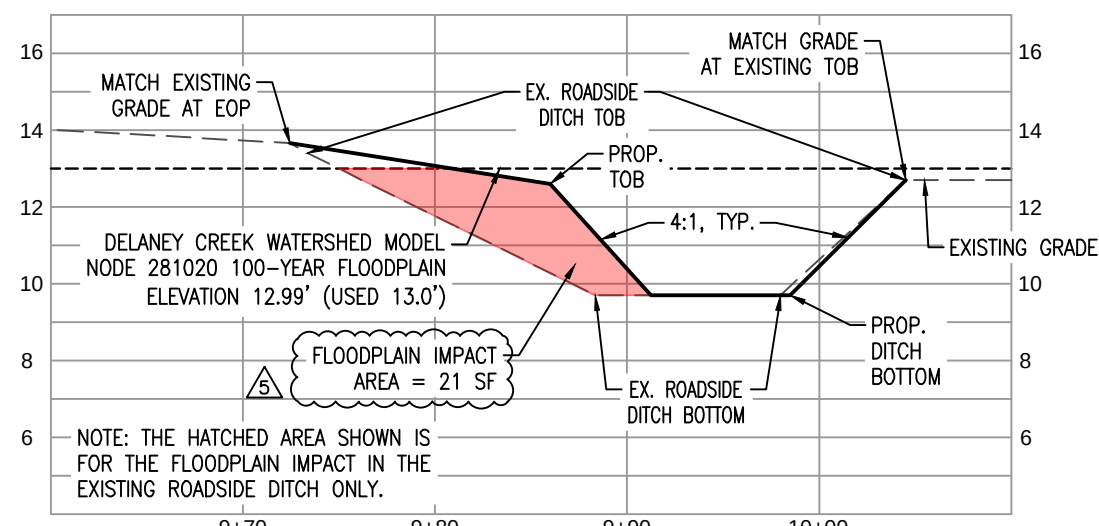
SECTION "G-G"
SCALE: 1"=10' HORZ
1"= 5' VERT



SECTION "H-H"
SCALE: 1"=10' HORZ
1"= 5' VERT



SECTION "I-I"
SCALE: 1"=10' HORZ
1"= 5' VERT



SECTION "J-J"
SCALE: 1"=10' HORZ
1"= 5' VERT

REVISIONS		DATE	BY	DESCRIPTION
1		01-31-2025	AD	ADDED SWMM COMMENTS
2		11-14-2024	AD	ADDED COUNTY E SWMM COMMENTS
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100		11-14-2024	AD	ADDED COUNTY E SWMM COMMENTS

FLOODPLAIN MITIGATION
PLAN

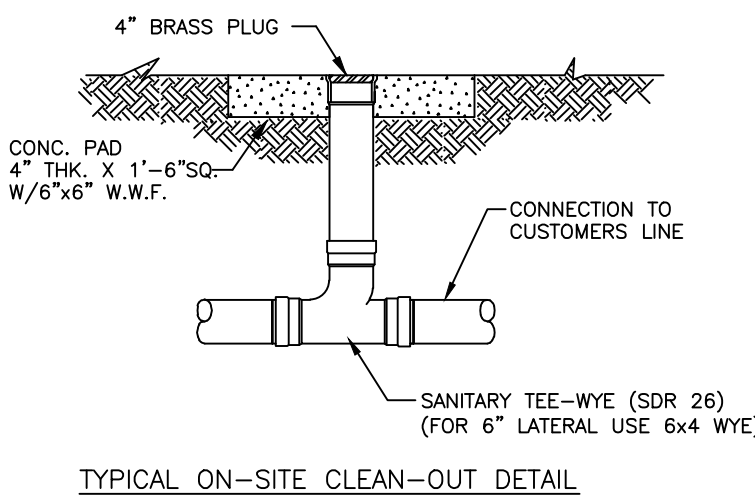
PROGRESS VILLAGE SOUTH
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AUTRORA
CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9807
CHRISTOPHER E. WEDDLE, P.E.
FLORIDA P.E. NO. 35146
DATE OF AUTHORIZATION: 00008899

GENERAL NOTES:

- EXISTING UTILITY INFORMATION PROVIDED BY SURVEY.
- ALL DISTURBED AREAS WITHIN ANY RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS PRIOR TO CONSTRUCTION. DISTURBED AREAS TO BE SODDED.
- ANY MATERIALS REMOVED FROM THE SITE DURING CONSTRUCTION SHALL BE PROPERLY DISPOSED OF OFF-SITE OR AS DIRECTED BY THE OWNER. RESTORE ANY DISTURBED AREAS ON-SITE TO EXISTING CONDITIONS. THIS INCLUDES WALKS, LANDSCAPING & IRRIGATION, UTILITIES, ETC.
- CONFIRM, LOCATE AND PROTECT ALL EXISTING ABOVE AND BELOW GRADE UTILITIES IN THE PROJECT AREA. ADVISE ENGINEER & OWNER OF ANY CONFLICTS OR DISCREPANCIES.
- CONTRACTOR SHALL INSTALL & MAINTAIN ALL SILT FENCE FOR THE INSTALLATION OF WATER AND SEWER LINES.
- ALL PROPOSED LINES TO HAVE A MINIMUM OF 36" COVER.
- THE BACKFLOW PREVENTION DEVICE IS TO COMPLY WITH HILLSBOROUGH COUNTY TECHNICAL SERVICE MANUAL.
- MAXIMUM PRESSURE DROP OF 5 PSI FOR THE BACKFLOW PREVENTER.
- ROOT PRUNE ALL EXISTING TREES ALONG WATERLINE ROUTE(S), OUTSIDE OF DRIFLINE.

GAS MAINS: SHOULD A GAS MAIN BE DETERMINED TO EXIST (FIELD LOCATED) THEN THE MINIMUM SEPARATION BETWEEN THE GAS MAIN AND PROPOSED WATER MAIN SHALL BE 18". CONTRACTOR SHALL NOTIFY ENGINEER ACCORDINGLY.



TYPICAL ON-SITE CLEAN-OUT DETAIL

LEVEL "A" SUE DATA TABLE				
EXCAVATION POINT	NORTHING	EASTING	UTILITY ELEVATION (TOP)	UTILITY DESCRIPTION
1	1286954.02	536913.25	12.53'	FNT COMM 1/2" DB
2	1286954.18	536914.43	9.90'	WM 16" DIP
3	1286955.13	536947.05	7.85'	FM 6" PVC
4	1286955.15	536944.33	11.69'	COMM 1/2" DB
5	1286955.21	536943.16	12.09'	COMM 1/2" DB
6	1286955.30	536942.63	10.12'	COMM (3) 3" PVC WHITE
7	1286955.24	536941.32	10.09'	COMM (3) 4" PVC BROWN

UTILITY NOTES:

- THE CONTRACTOR/ENGINEER OF RECORD MUST CONTACT HILLSBOROUGH COUNTY PUBLIC UTILITY DEPT. INSPECTION SECTION AND LINE MAINTENANCE TO SET UP THE PRE-CONSTRUCTION MEETING. CONTACT MATT CIOFALO@ 813-612-7787 FOR INSPECTIONS AND THE SOUTH/CENTRAL MAINTENANCE UNIT AT 813-671-7604 IN THE SOUTH/CENTRAL PART OF THE COUNTY OR THE NORTHWEST MAINTENANCE UNIT AT 813-554-5010 IN THE NORTHWEST PART OF THE COUNTY.
- ALL ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- CONTRACTOR TO EXPOSE WATER MAIN AND FURNISH TAPPING SLEEVE AND VALVE FOR WATER METER TAP AND INSTALL 2" POLYETHYLENE (P.E.) WATER SERVICE LINE FROM MAIN TO METER.
- ALL PIPE WILL BE INSTALLED WITH 2 PAIR, 10 GAUGE, COPPER TRACER WIRE.
- THE LOCATION OF ALL NEWLY INSTALLED FIRE HYDRANTS SHALL BE IDENTIFIED WITH A BLUE REFLECTIVE PAVEMENT MARKER INSTALLED ON THE ROADWAY, PERPENDICULAR TO THE FIRE HYDRANT. THE REFLECTIVE MARKER WILL BE LOCATED IN THE CENTER OF THE LANE CLOSEST TO THE HYDRANT.
- THE ENGINEER OF RECORD AND/OR CONTRACTOR WILL BE RESPONSIBLE FOR THE FLOW TESTING AND COLOR CODING OF ALL NEWLY INSTALLED FIRE HYDRANTS IN THE EXISTING OR PROPOSED HILLSBOROUGH COUNTY RIGHT OF WAY AND UTILITY EASEMENTS THAT ARE TO BE DEDICATED TO HILLSBOROUGH COUNTY PRIOR TO THE FINAL INSPECTION OF THE PROJECT.
- THE ENGINEER OF RECORD AND/OR CONTRACTOR SHALL REFER TO NFPA STANDARD 291 FOR FLOW TESTING AND COLOR CODING METHODS AND PROCEDURES.

SANITARY STRUCTURES

- CO-1 6" CLEANOUT
CAP EL 16.2
INV EL 11.9 (6") S
- CO-2 6" CLEANOUT
CAP EL 15.9
INV EL 11.1 (6") N
INV EL 11.1 (6") SW

FIRE LINE NOTES

- All Fire Lines to meet requirements of current Codes: 2017 FPPC, 6th Edition; NFPA 24 (2013 edition); NFPA 13 (2013 edition).
- All joints to be restrained.
- All Fire lines to be C900 DR14.
- All underground fire lines shall be completed thru the foundation to no more than 1 ft. above finish floor and comply with F.S.S. 633.334(3). (Fire line shall go into the building).

SITE CONTRACTOR AND G.C. NOTES:

THE UNDERGROUND PRIVATE FIRE SERVICE MAINS WILL REQUIRE MANDATORY PLAN REVIEW, PERMITS, AND INSPECTIONS BY THE FIRE MARSHAL'S OFFICE & SHALL COMPLY WITH NFPA-24, 2016 EDITION.

MINIMUM CONSTRUCTION REQUIREMENTS:

- FIRE DEPT ACCESS ROADS SHALL BE INSTALLED TO AN ALL WEATHER DRIVING SURFACE ABLE TO WITHSTAND THE LIVE LOADS OF FIRE DEPT APPARATUS (40 TONS) PRIOR TO COMBUSTIBLES COMING ON TO THE JOBSITE AND THEY SHALL BE MAINTAINED DURING CONSTRUCTION. THE SITE SHALL COMPLY NFPA-1, CHAPTER 16.1.4. & 18.3.
- WATER SUPPLY FOR FIRE PROTECTION AND FIRE HYDRANTS SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO COMBUSTIBLES COMING ON TO THE JOBSITE AND THEY SHALL BE MAINTAINED DURING CONSTRUCTION. THE SITE SHALL COMPLY NFPA-1, CHAPTER 16.4.3.1.

SITE CONTRACTOR NOTES:

THIS SITE REVIEW IS FOR PROPOSED LOCATIONS OF WATER SUPPLIES, BASIC PIPING LAYOUTS, AND HYDRANT LOCATIONS, AND IS NOT INTENDED FOR DESIGN PURPOSES. ADDITIONAL PLAN REVIEWS ARE REQUIRED OF UNDERGROUND FIRE PROTECTION WATER SUPPLIES, SYSTEMS, PIPING, APPLIANCES & APPURTENANCES AT THE TIME OF SUBMITTAL OF PROPOSED CONSTRUCTION DOCUMENTS BY A STATE LICENSED PROFESSIONAL ENGINEER & STATE LICENSED CONTRACTOR CERTIFIED TO PERFORM THE WORK AND INSTALLATION.

NOTES:

- FIRE DEPT ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FT FOR A TWO LANE ROAD AND 15 FT FOR A SINGLE LANE ROAD AS PER NFPA-1, 18.2.3.5.1.
- FIRE DEPT ACCESS ROADS CONNECTING TO ROADWAYS SHALL BE PROVIDED WITH CURB CUTS EXTENDING AT LEAST 2 FT BEYOND EACH EDGE OF THE FIRE LANE AS PER NFPA-1, 18.2.3.5.3.3.
- WATER SUPPLY AND FIRE HYDRANTS SHALL COMPLY NFPA-1, CHAPTER 18.3. FIRE FLOW FOR BUILDINGS SHALL COMPLY NFPA-1, CHAPTER 18.4, / TABLE 18.4.5.2.1.
- WATER SUPPLY AND FIRE DEPARTMENT ACCESS SHALL COMPLY WITH NFPA-1 & F.F.P.C. 8TH EDITION.

HYDRANT FLOW TEST DATA:

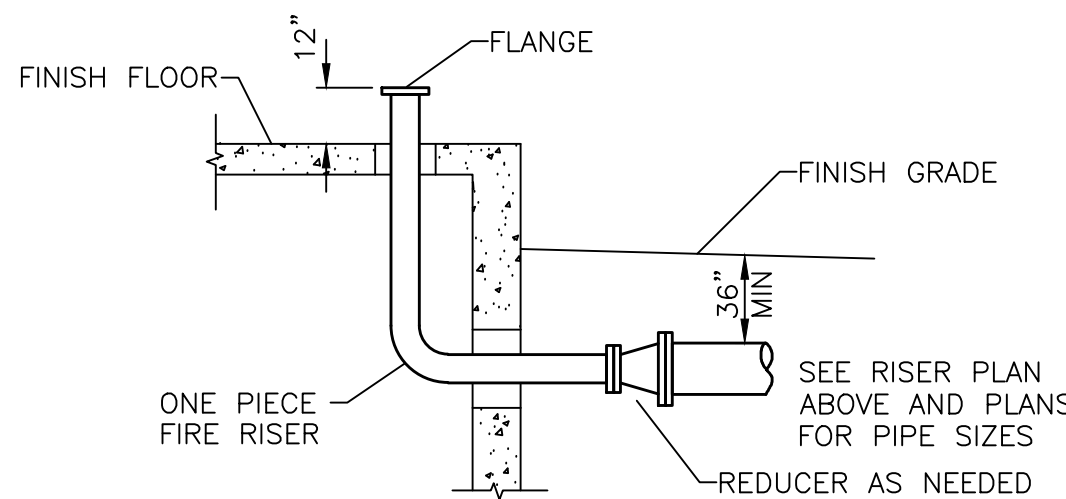
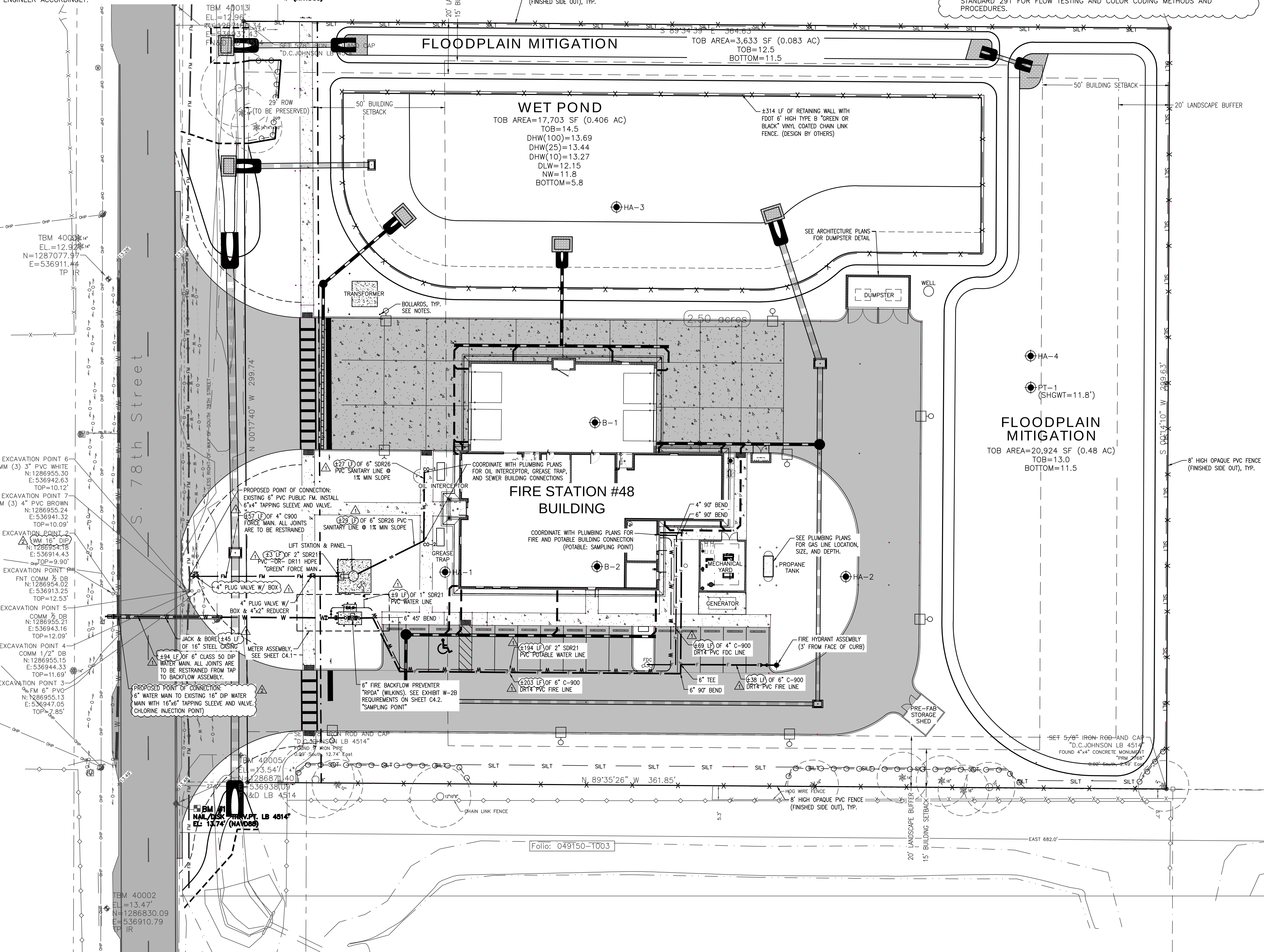
DATE: 06/26/2024
TIME: 9:00
WORK ORDER/TASK: 2435040/01
HYDRANT ID: I-003170
STATIC: 90 PSI
RESIDUAL: 60 PSI
FLOW: 1,300 GPM
RESIDUAL HYDRANT ID: I-000138

PERFORMED BY HILLSBOROUGH COUNTY PUBLIC UTILITIES DEPARTMENT (LEVI HILLMAN).

PROPOSED: FIRE STATION BUILDING
BUILDING CONSTRUCTION TYPE: V-B SPRINKLERED
BUILDING SIZE: 7,558 SF
BUILDING HEIGHT: 24'-0"
NUMBER OF STORIES: 1-STORY

Hillsborough County
Water Resource Department
Commercial Project, Point of Connection
Tie in Procedures

- Create or install an air gap between the point of connection and the piping to be installed.
- Fill with water from alternate source (hydrant meter) or alternative from a protected metered source.
- Pressure test main (witnessed by EOR or EOR representative) and obtain two consecutive days of Bact samples for piping installed. Inspector will need to be present for the pressure test if the length of pipe is 100' or greater.
- Submit passing pressure tests and Bact samples to Inspector via email.
- Schedule the water main tie-in with the inspector and the EOR or their representative.
- Once tie-in is completed with sample point, Inspector will flush the system and witness a 15-minute leak test on the tie-in fitting for leaks at main pressure.
- After leak test is complete, then County personnel will exercise the tie-in valve and flush the installed pipe; at which time the tie-in valve at the point of connection will be closed to conduct a second set of 2-day Bact's. Submit passing Bact's to inspector via email.
- Schedule Backflow testing and BFL permit inspection.
- Once completed, submit a partial clearance request with the Department of Health. Development Services and the DOH will need to issue clearance before the water is turned on.

FIRE RISER DETAIL
N.T.S.

Folio: 049150-1003

NO.	DATE	BY	DESCRIPTION
1	12-12-2024	CHS	ADDITIONAL COUNTY UTILITY COMMENTS
2	11-14-2024	CHS	ADDITIONAL COUNTY UTILITY COMMENTS
3	07-15-2024	CHS	ADDITIONAL COUNTY UTILITY COMMENTS

DESIGNED BY: CHRIS WEDDLE
CHECKED BY: CHRIS WEDDLE
APPROVED BY: CHRIS WEDDLE

UTILITY PLAN

PROGRESS VILLAGE SOUTH

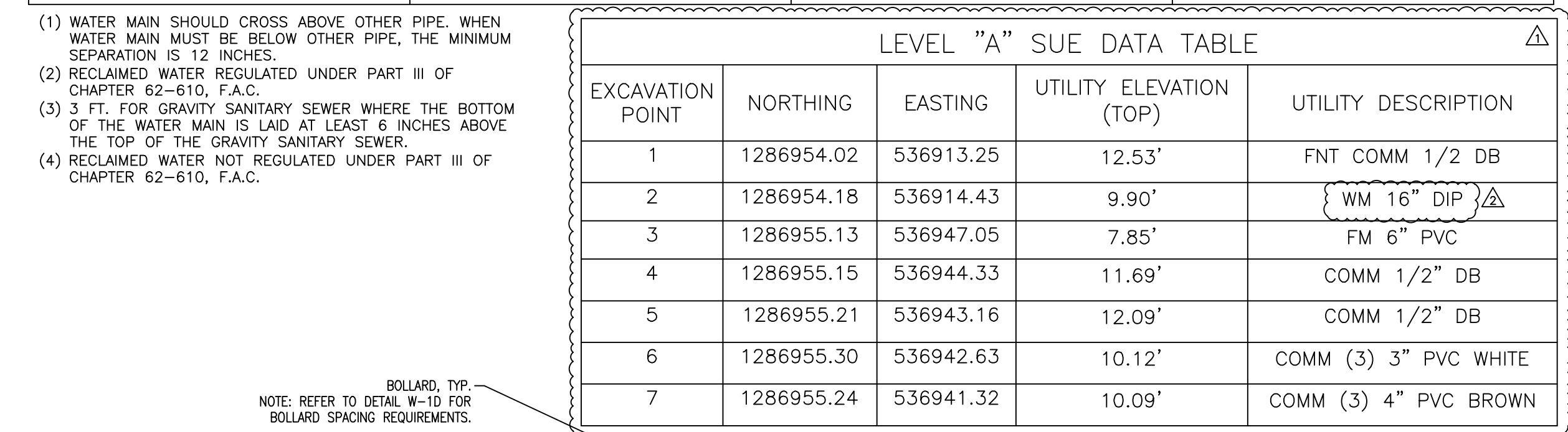
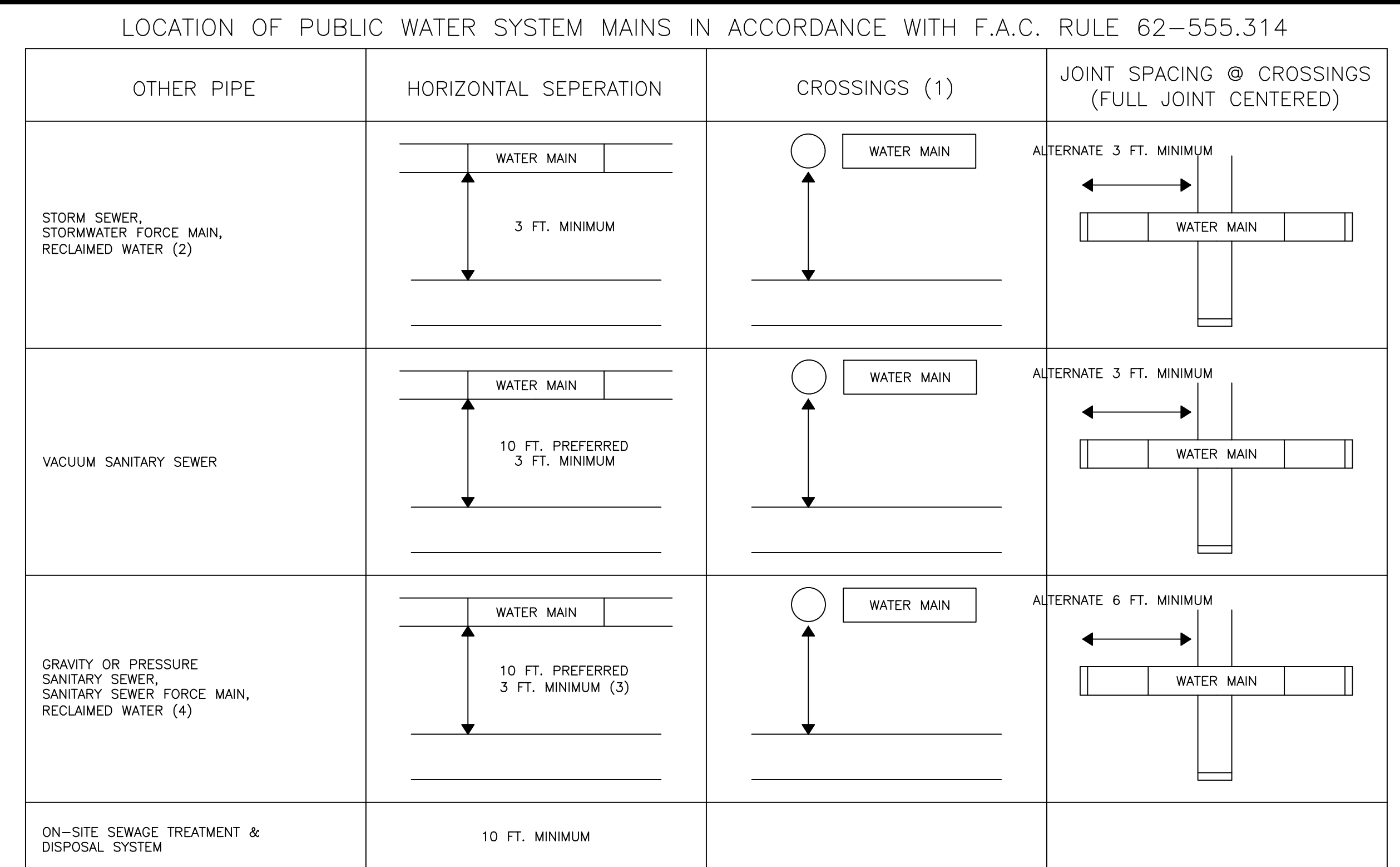
FIRE STATION NO. 48

HILLSBOROUGH COUNTY BOCC
COUNTY CENTER
601 KENNEDY BLVD
TAMPA, FLORIDA 33601

AUTORA
CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813) 843-9807
CHRISTOPHER E. WEDDLE, P.E.
FLORIDA P.E. NO. 35446
DATE OF AUTHORIZATION: 06/26/2024

This item has been digitally signed and sealed by the engineer of record and the seal is located on this sheet. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

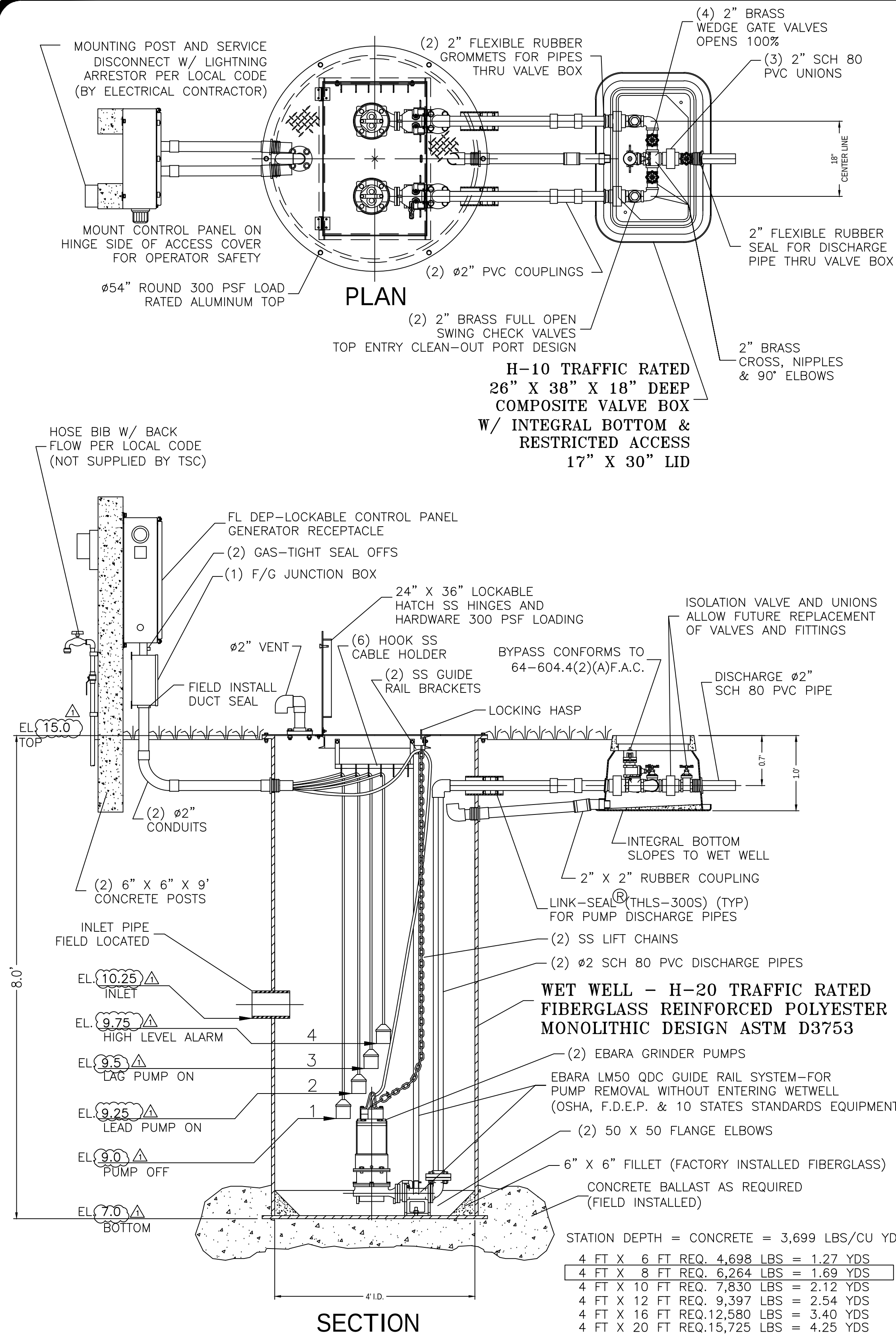
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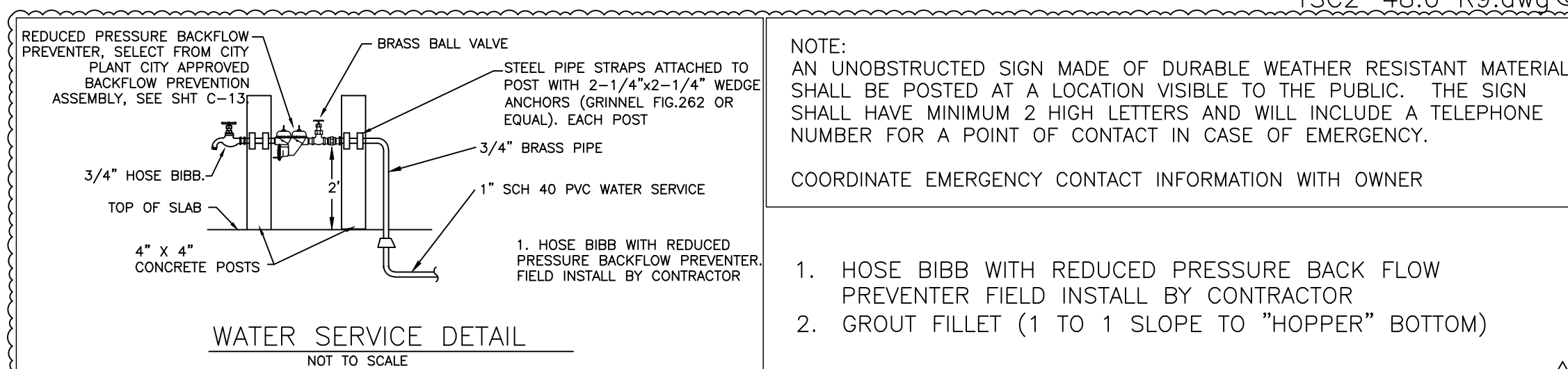
PROFILE
SCALE: 1"=5" HORIZONTAL; 1"=2.5" VERTICAL
WATER MAIN CONNECTION DETAIL



File: R:\Projects\County Progress Village Fire Station #48\Plans\Progress Village Fs 48 UTIL: Plotted: 1/31/2025 12:34 PM by FLORDELIZA DIMAKILING; Saved: 1/31/2025 12:24 PM by FLOR



EBARA SEWAGE GRINDER PUMP
48" DUPLEX STATION - 2" PIPING
WITH SLIDE RAIL SYSTEM, V.B. AND F.D.E.P. PANEL
TSC PRE-FAB PUMP SOLUTIONS®



GENERAL NOTES

FURNISH AND INSTALL EBARA SUBMERSIBLE GRINDER PUMPS:

DESIGN CONDITION:

MODEL	50 DGF	5 HP	HP
GPM	86	65	FT/TDH
VOLTAGE	208 / 230 / 460	SINGLE / THREE	PHASE
DISCHARGE	2"	146 mm	IMPELLER

CONTRACTOR TO VERIFY WITH PROJECT ELECTRICAL DESIGNER FOR AVAILABILITY OF SINGLE & 3 PHASE POWER BEFORE PURCHASING PUMPS.

SEWAGE GRINDER PUMP: RATED FOR TWENTY (20) STARTS PER HOUR.

2. AIR FILLED MOTOR DESIGNED FOR SEWAGE APPLICATION WITH CLASS F INSULATION.

3. DUAL MECHANICAL SHAFT SEALS (SILICON CARBIDE / SILICON CARBIDE) LOCATED OUT OF THE PUMPAGE, IN A SEPARATE OIL FILLED CHAMBER.

4. HIGH TEMPERATURE BALL BEARINGS B-10 RATING OF 60,000 HOURS, UPPER BEARING - SINGLE ROW AND LOWER BEARINGS - DOUBLE ROW TYPE.

5. PUMP SHAFT HORSEPOWER (BHP) SHALL NOT EXCEED MOTOR RATED HORSEPOWER THROUGHOUT THE ENTIRE OPERATING RANGE OF THE PUMP PERFORMANCE CURVE.

6. SINGLE PHASE MOTORS SHALL BE DUAL WOUND, CAPACITOR START-RUN AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260). THREE PHASE MOTORS SHALL BE DUAL WOUND AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260) OR OPERATE ON 460 VOLT BY CHANGING THE MOTOR LEADS INSIDE THE PUMP.

FIBERGLASS WET WELL: SHALL BE A ONE PIECE UNIT WITH INTEGRAL BOTTOM, WALL AND UPPER FLANGE. THE ENTIRE FIBERGLASS WET WELL SHALL HAVE A DYNAMIC LOAD RATING OF 16,000 FT/LBS. EACH UNIT MUST BE SERIAL NUMBERED TO IDENTIFY THE TEST PROCEDURE. ASTM D 3753 & H-20 SPECIFICATIONS SHALL BE REQUIRED AS MINIMUM.

ALUMINUM HATCH: TSC MODEL-54R (54") ROUND WITH 24" X 36" LOCKABLE HATCH, REINFORCED FOR LOAD RATING OF 300 LBS/FT WITH HOLD OPEN SAFETY ARM, LOCKING DEVICE FOR HASP TYPE PADLOCK AND STAINLESS STEEL HARDWARE.

VALVE BOX: FIBERGLASS COMPOSITE (H-10 TRAFFIC RATED) WITH INTEGRAL BOTTOM. (FOR 1 1/4" AND 2" DISCHARGE PIPING XSX HEADER SYSTEM) SHALL BE 26" X 38" X 18" WITH 17" X 30" LIMITED ACCESS LID

ACCESSORIES: #304 S/S - GUIDE RAILS, UPPER GUIDE RAIL BRACKETS, CABLE HOLDER, ANCHOR BOLTS AND PUMP LIFTING CHAINS.

VALVES: SHALL BE SEWAGE SERVICE DESIGN BRASS SWING CHECK VALVES WITH TOP ENTRY CLEAN-OUT PORT AND BRASS WEDGE GATE VALVES OPEN 100%.

PIPING: 2" SCHEDULE 80 PVC.

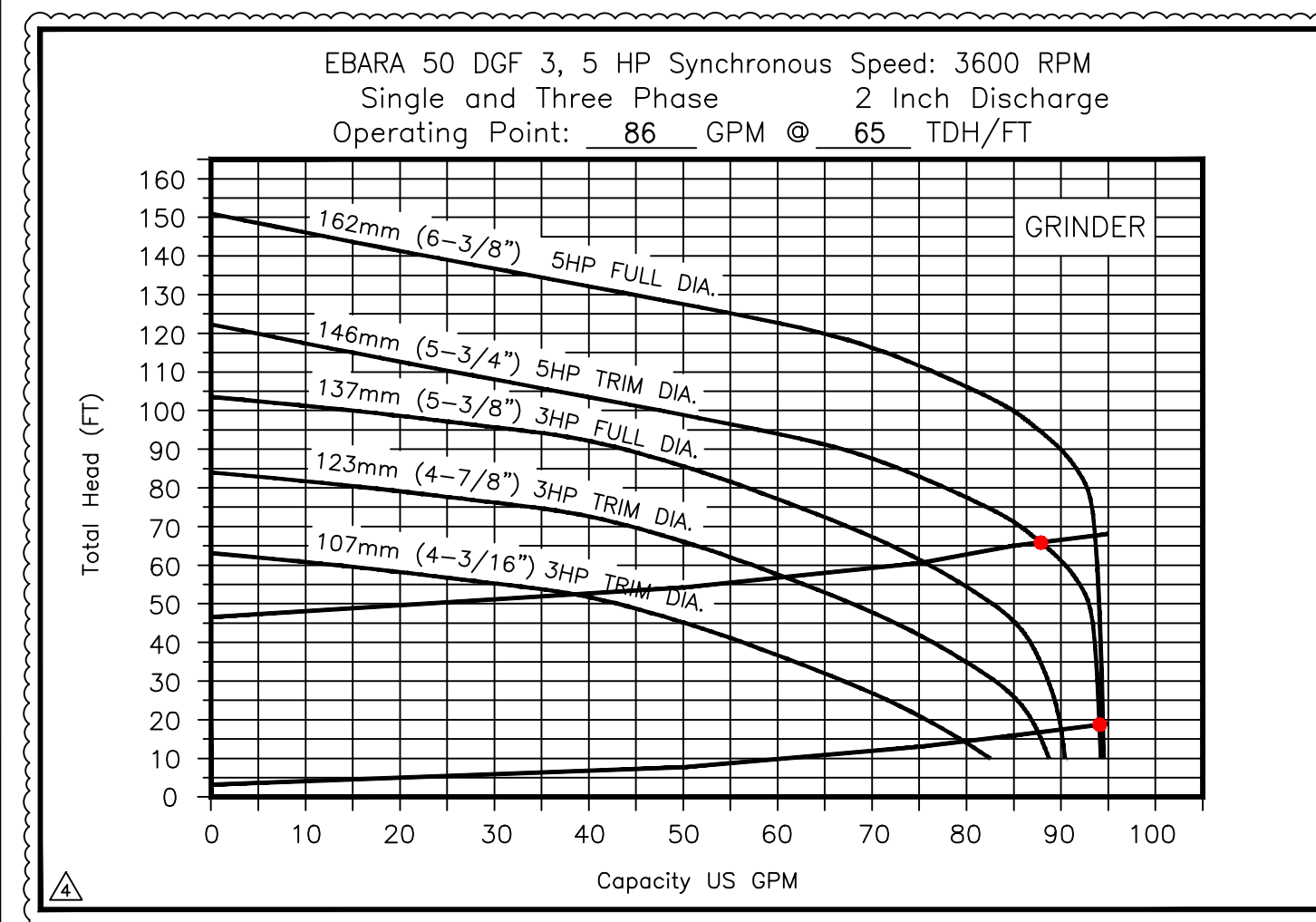
FLOAT SWITCHES: UL LISTED SJ ELECTRO MODEL (SJ 30 SWENO).

PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, CONTROL PANEL, JUNCTION BOX, FLOAT SWITCHES, ALUMINUM HATCH AND ACCESSORIES TO INSURE PROPER OPERATION AND WARRANTY.

THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, SLIDE RAIL ASSEMBLIES AND DISCHARGE PIPING ASSEMBLED BY TECHNICAL SALES CORPORATION READY TO SHIP FOR FIELD INSTALLATION. THE MANUFACTURER OF PRE-FAB PUMP SOLUTIONS®.

TECHNICAL SALES CORPORATION, 4621 N. HALE AVE TAMPA, FL 33614 (813)876-9256

Ebara Submersible Pumps



PUMP PERFORMANCE CURVE

CONTROL PANEL -SHALL CONFORM TO FL DEP 64-604.42(A)

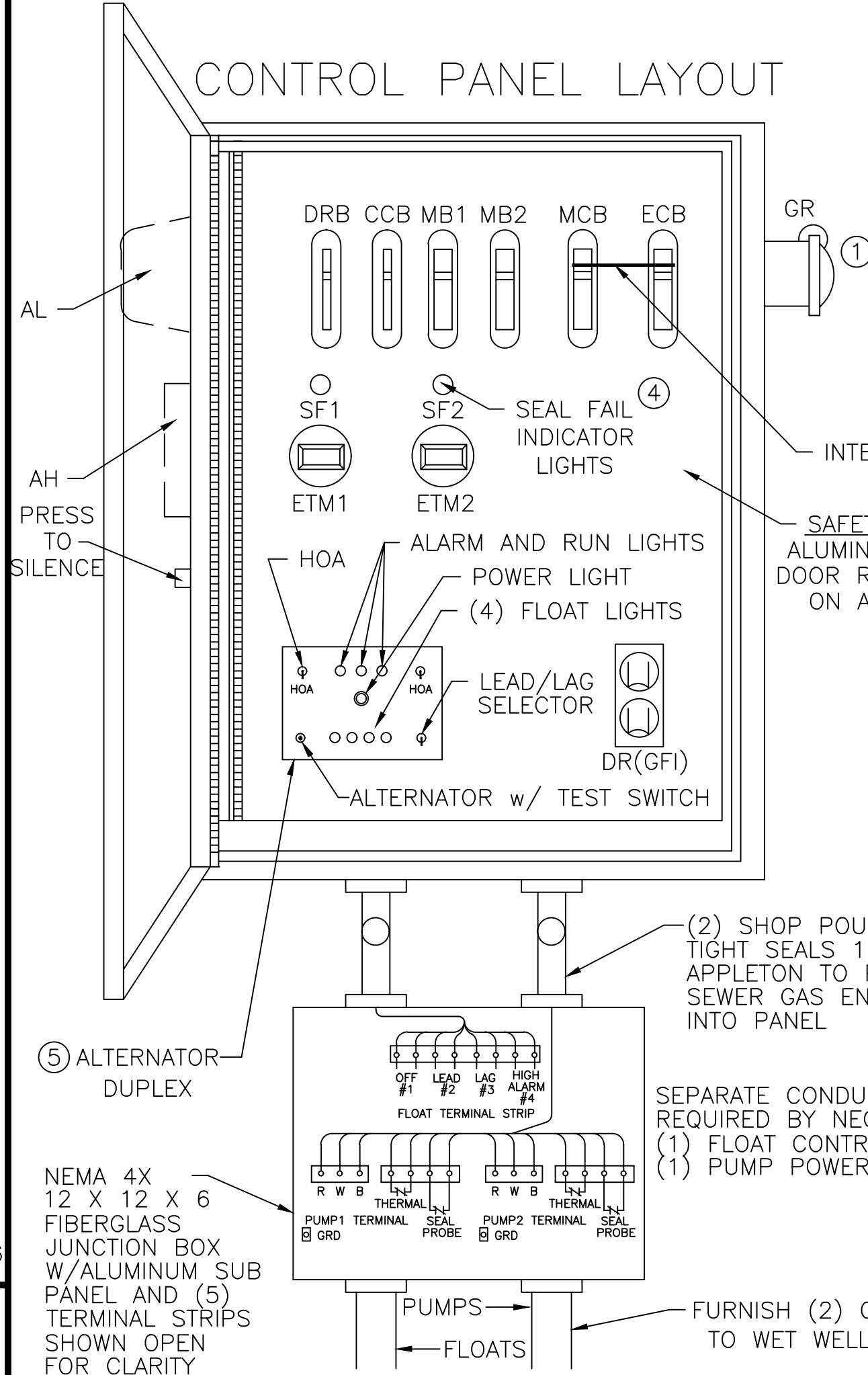
CONTROL PANEL SHALL BE TSC MODEL # 38-D IN NEMA 4X FIBERGLASS ENCLOSURE. THE PANEL SHALL MEET STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), ENVIRONMENTAL PROTECTION COMMISSION (EPC) AND LOCAL CODE REQUIREMENTS GOVERNING PRIVATE LIFT STATIONS.

FLOAT SWITCHES AND CONTROL SYSTEM SHALL BE UL LISTED AND INTRINSICALLY SAFE. ALL COMPONENTS SHALL BE UL LISTED.

A JUNCTION BOX IS REQUIRED, WITH SHOP POURED SEALS BETWEEN BOX AND CONTROL PANEL TO PREVENT SEWER GAS ENTRY INTO CONTROL PANEL.

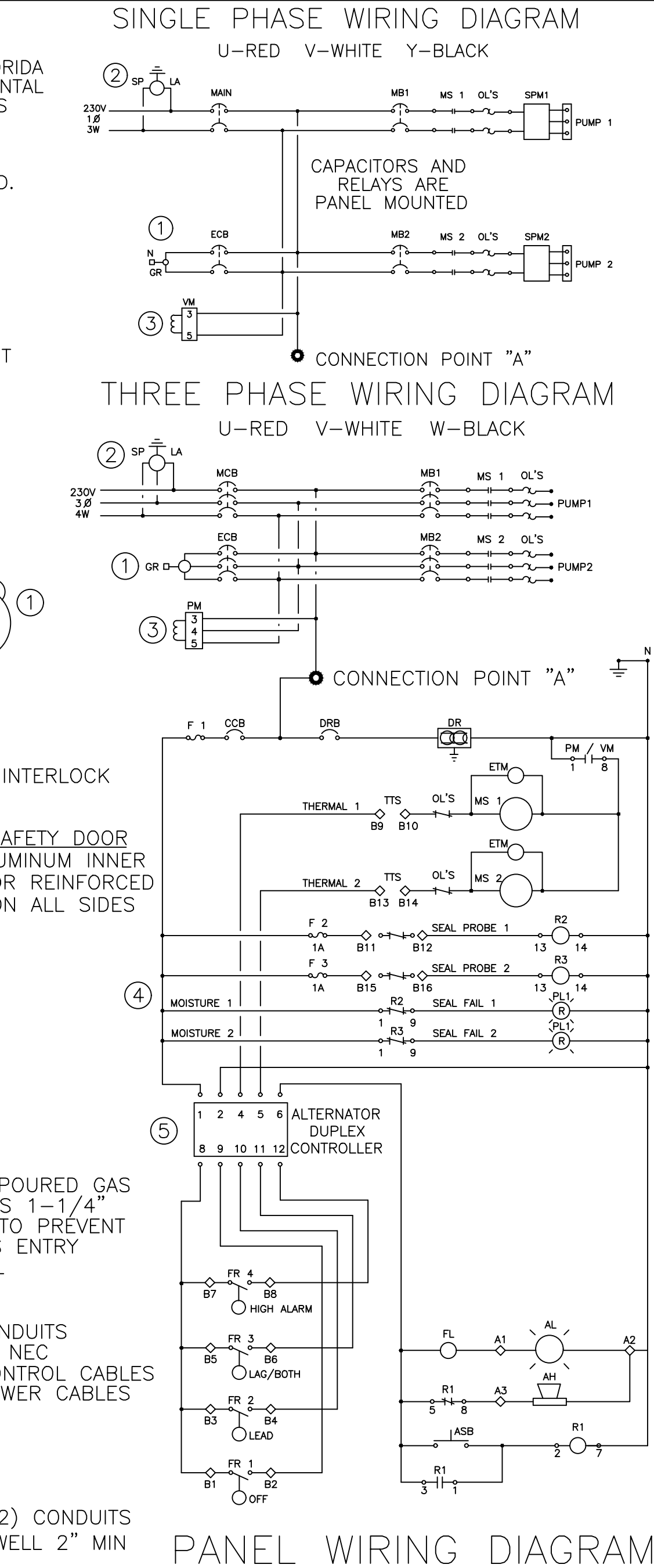
ELECTRICAL CONTRACTOR TO PROVIDE SERVICE DISCONNECT WITH LIGHTNING ARRESTOR MOUNTED PER LOCAL CODES.

THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.



LEGEND

- AH ALARM HORN
- AL ALARM LIGHT
- ASB ALARM SILENCE BUTTON
- ATS ALTERNATOR W/ TEST SWITCH
- CCB CONTROL CIRCUIT BREAKER
- DR DUPLEX RECEPTACLE
- DRB DUPLEX RECEPTACLE BREAKER
- ECB EMERGENCY CIRCUIT BREAKER
- ETM ELAPSED TIME METER
- F FUSE
- FL FLASHER
- FS FLOAT SWITCH (REGULATOR)
- GR GENERATOR RECEPTACLE
- GRD GROUND
- HOA HAND-OFF-AUTOMATIC SELECTOR
- LA LIGHTNING ARRESTOR
- MB MOTOR BREAKER
- MCB MAIN CIRCUIT BREAKER
- MS MOTOR STARTER
- N NEUTRAL
- OL'S OVERLOAD HEATERS
- PM PHASE MONITOR
- PTS PUMP TERMINAL STRIP
- R RELAY
- RC RUN CAPACITOR
- RD DISCHARGE RESISTOR
- RL PUMP RUN INDICATORS
- RTS REGULATOR TERMINAL STRIP
- SC START CAPACITOR
- SF SEAL FAIL (SHAFT)
- SR START RELAY
- SP SURGE PROTECTOR
- TTS THERMAL TERMINAL STRIP



PANELS SHALL CONFORM TO FLORIDA DEP 64-604.400

- 1 GENERATOR RECEPTACLE FOR EMERGENCY POWER CONNECTION WITH INTERLOCK
 - 2 SURGE PROTECTION AND LIGHTNING PROTECTION ON ALL INCOMING LEGS
 - 3 PHASE PROTECTION SHALL BE PROVIDED
 - 4 SHAFT SEAL FAIL DETECTION
 - 5 ALTERNATOR w/ TEST SWITCH
- PANEL MANUFACTURER SHALL BE A "UL" LISTED SHOP.

PRIVATE LIFT STATION AND FORCE MAIN

TSC DUPLEX GRINDER PUMP STATION
FIBERGLASS WET WELL

TECHNICAL SALES CORPORATION

TSC PRE-FAB PUMP SOLUTIONS®

WATERWORKS & WASTEWATER SPECIALTIES

Representing Innovative Manufacturers

MODEL TSCE2-48.0

4621 N. HALE AVENUE PH (813)876-9256
TAMPA, FL 33614 FAX (813)874-1194
EMAIL: Sales@TSCtampa.com
REV-9 SCALE: N.T.S.

48" DUPLEX GRINDER STATION-2" PIPING W/ SLIDE RAIL SYSTEM, VALVE BOX AND F.D.E.P. PANEL TSCE2-48.0_R9

**PROGRESS VILLAGE SOUTH
FIRE STATION NO. 48**

HILLSBOROUGH COUNTY BOCC
COUNTY CENTER
601 KENNEDY BLVD
TAMPA, FLORIDA 33601

ENGINEERING, INC.

610 E. Morgan Street Brandon, FL 33510 (813)843-9807

CHRISTOPHER E. WEDDLE P.E.
FLORIDA P.E. NO. 35146
DATE OF AUTHORIZATION: 06/2008

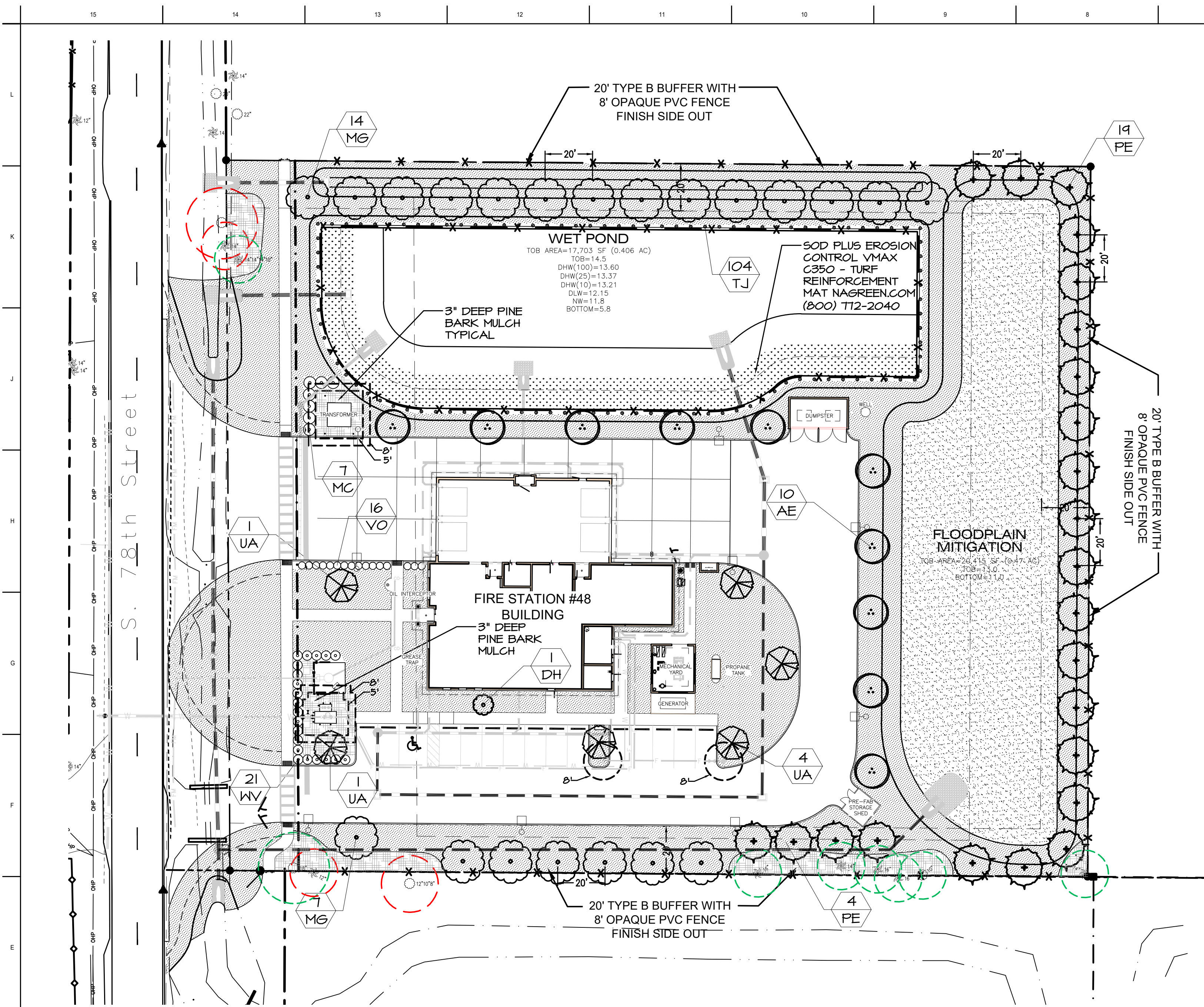
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REVISIONS

NO.	DATE	BY	DESCRIPTION
1	12-12-2024	FLORDELIZA DIMAKILING	ISSUED FOR PERMIT
2	11-14-2024	FLORDELIZA DIMAKILING	REVISED LIFT STATION
3	07-15-2024	FLORDELIZA DIMAKILING	REVISED LIFT STATION

APPROVED BY: CHRIS WEDDLE

JOB NO.: 23-103



PLANT MATERIALS LIST						
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SPECIFICATIONS	NATIVE	SPACING
PE	23	PINUS ELLIOTTII	SLASH PINE	10' HT X 4' SPD, 1" DBH	YES	AS SHOWN
MG	21	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	10' HT X 4' SPD, 1" DBH	YES	AS SHOWN
AE	10	ULMUS AMERICANA	AMERICAN ELM	8' HT X 4' SPD, 1" DBH	YES	AS SHOWN
UA	6	ULMUS ALATA	WINGED ELM	8' HT X 4' SPD, 1" DBH	YES	AS SHOWN
DH	1	ILEX CASSINE	DAHOO HOLLY	8' HT X 4' SPD, 1" DBH	YES	AS SHOWN
MC	7	MYRTICA CERIFERA	WAX MYRTLE	60" HT X 48" SPD	YES	60" OC
WV	21	VIBURNUM OBOVATUM	WALTER'S VIBURNUM	48" HT X 48" SPD	YES	48" OC
VO	16	VIBURNUM OBOVATUM	WALTER'S VIBURNUM	24" HT X 24" SPD	YES	36" OC
TJ	104	TRACHELOSPERMUM JASMINODES	CONFEDERATE JASMINE	36" STAKED, 3 GALLON	NO	72" OC

100% NATIVE TREES AND SHRUBS PROPOSED

CODE TREE REQUIREMENTS

INTERIOR REQUIREMENTS
ONE TREE PER TERMINAL ISLAND
3 ISLANDS / 1 = 3 TREES

PERIMETER PARKING REQUIREMENTS
560' / 40 = 14 TREES

NORTH 20' TYPE B BUFFER
340 LF / 20 = 17 TREES + 8' OPAQUE FENCE

SOUTH 20' TYPE B BUFFER
340 LF / 20 = 17 TREES - 3 EXISTING
14 TREES + 8' OPAQUE FENCE

EAST 20' TYPE B BUFFER
240 LF / 20 = 13 TREES + 8' OPAQUE FENCE

TOTAL REQUIREMENTS
3 + 14 + 17 + 14 + 13 = 61 TREES

NORTH POND REQUIRES VINES BE PLANTED 6' OC
ALONG THE FENCE PERIMETER
624 LF / 6 = 104 VINES REQUIRED

CODE TREES

SLASH PINE = 23
AMERICAN ELM = 10
WINGED ELM = 6
MAGNOLIA = 21
HOLLY = 1
TOTAL TREES = 61

REPLACEMENT TREES

NO EXISTING TREES 24" AND ABOVE TO BE REMOVED
NO REPLACEMENT TREES REQUIRED

- ### LANDSCAPE INSTALLATION NOTES
- ALL PLANT MATERIALS SHALL BE FLORIDA #1 OR BETTER AS GIVEN IN, GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
 - LOCATION OF PLANTS ON THE PLAN ARE DIAGRAMMATIC- SEE THE LANDSCAPE ARCHITECT FOR QUESTIONS ON EXACT LOCATIONS. THE PLANT MATERIALS LIST IS PROVIDED FOR THE CONVENIENCE OF THE LANDSCAPE CONTRACTOR. SHOULD THERE BE ANY DISCREPANCY BETWEEN THE PLANT LIST AND THE PLAN, THE PLAN SHALL PREVAIL.
 - IT IS THE LANDSCAPE CONTRACTORS RESPONSIBILITY TO INSURE THAT ALL PLANT BED AREAS HAVE PROPER DRAINAGE FOR OPTIMUM GROWTH OF LANDSCAPE MATERIAL BEFORE INSTALLATION BEGINS.
 - THE CONTRACTOR SHALL INSURE THAT ALL PLANTING ISLANDS AND OTHER AREAS SHALL BE CLEAN OF TRASH, CONSTRUCTION DEBRIS, OR OTHER WASTE MATERIALS TO A DEPTH OF 24" PRIOR TO LANDSCAPE INSTALLATION.
 - ALL PLANT BEDS AND TREE RINGS SHALL BE TREATED WITH A PRE-EMERGENT HERBICIDE AND THEN TOP-DRESSED WITH 3" DEEP PINE BARK NUGGETS. ALL NEW TREES SHALL HAVE A TREE RING WITH A MINIMUM OF 24" RADIUS, ALL NEW TREES AND PALMS SHALL BE STAKED.
 - NEW SOD SHALL BE ARGENTINE BAHIA SOD APPROXIMATELY 43,000 SF AND BAHIA SEED APPROXIMATELY 15,000 SF, IN THE LOCATIONS SHOWN ON THE PLAN. CONTRACTOR SHALL DETERMINE EXACT QUANTITIES IN THE FIELD. SOD AREAS SHALL BE MAINTAINED BY THE CONTRACTOR FROM THE TIME OF INSTALLATION TO THE TIME OF FINAL ACCEPTANCE.
 - TREES SHRUBS, AND GROUND COVER SHALL BE INSTALLED USING THE FOLLOWING PROCEDURE: PLANT PITS SHALL BE EXCAVATED TO TWICE THE DIAMETER OF THE PLANT ROOT BALL. AERATE EXISTING SOIL BEFORE BACKFILLING PIT. ADD AGRIFORM FERTILIZER TABLETS TO EACH PLANT PIT, AS PER THE SPECIFICATIONS.
 - TREE INSTALLATION: ALL REQUIRED TREES SHALL BE INSTALLED 1" - 2" ABOVE FINISH GRADE. TREES INSTALLED OR BURIED TOO DEEP SHALL BE RESET TO THIS STANDARD. REMOVE THE TOP 1/3 OF THE WIRE BASKETS ON ALL B & B STOCK.

SYMBOL LEGEND

ARGENTINE BAHIA SOD	ARGENTINE BAHIA SEED	EROSION CONTROL PLUS SOD
OFF-SITE TREE TO BE PRUNED	ON-SITE TREE TO BE PRUNED	LANDSCAPE
10	10	10
QUANTITY	QUANTITY	QUANTITY
QV	QV	QV
SPECIES	SPECIES	SPECIES

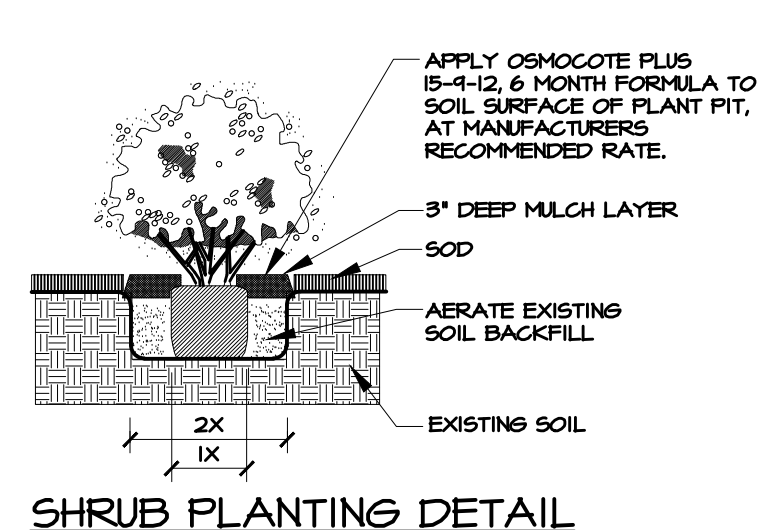
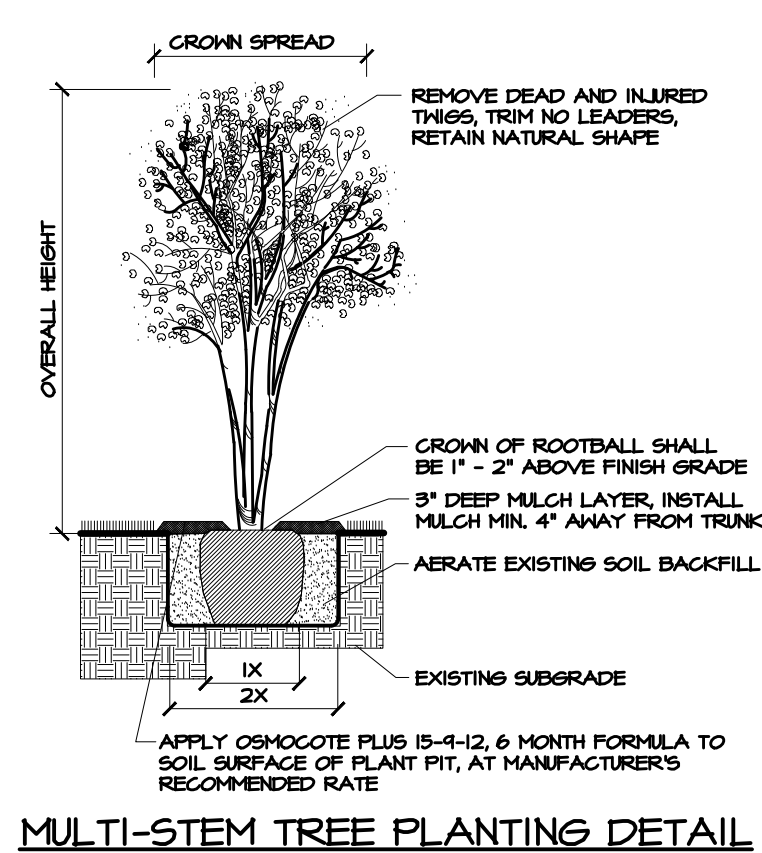
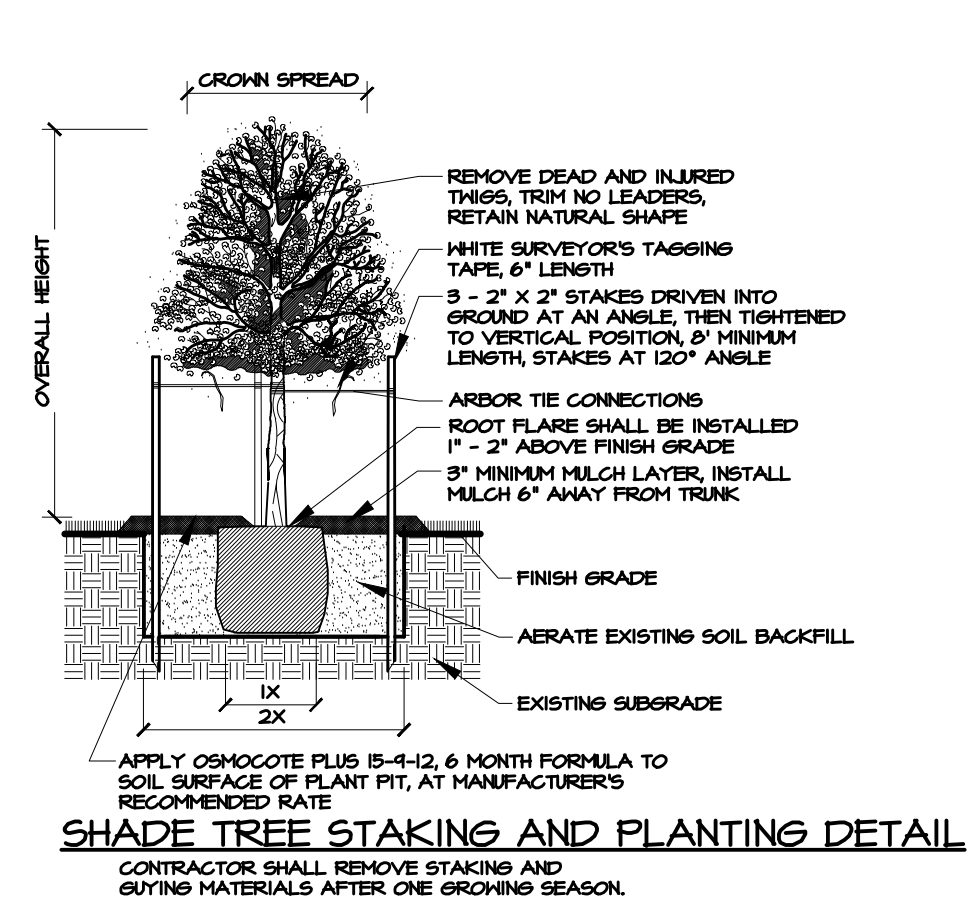
TREE PRUNING NOTES

ON-SITE TREE PRUNING:

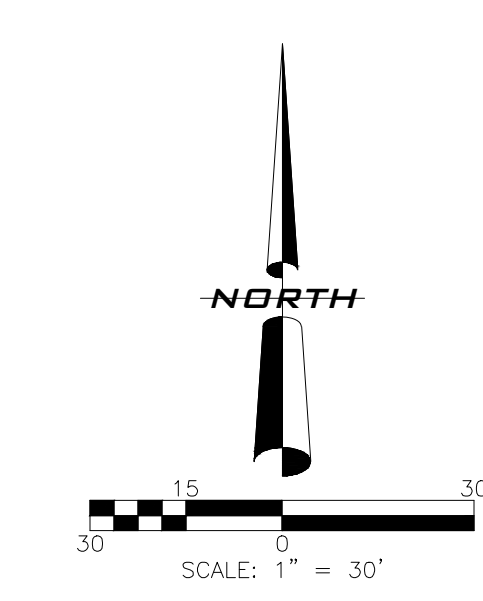
BEFORE CONSTRUCTION STARTS, ALL PROTECTED TREES SHALL BE PRUNED AS FOLLOWS: PRUNE TREES TO 12' CLEAR TRUNK HEIGHT, REMOVE ANY DEAD OR DISEASED BRANCHES, AND REMOVE WEAK OR CROSSED BRANCHES. ALL CUTS SHALL BE MADE SUFFICIENTLY CLOSE TO THE TRUNK OR PARENT LIMB, WITHOUT CUTTING INTO THE BRANCH COLLAR OR LEAVING A PROTRUDING STUB, SO THAT CLOSURE CAN READILY START. ALL TRIMMING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS. FIELD ADJUST PROPOSED FENCE LAYOUT TO AVOID ALL ON-SITE PROTECTED TREES.

OFF-SITE TREE PRUNING:

REMOVE ALL TREE BRANCHES WITHIN THE LIMITS OF THE PROPERTY.



- ### SCREENING ABOVE GROUND UTILITIES
- THE CONSTRUCTION OF ALL ABOVE GROUND UTILITY APPURTENANCES VISIBLE FROM THE PUBLIC RIGHT-OF-WAY SUCH AS PEDESTALS, UTILITY METERS, TRANSFORMERS, BACK-FLOW PREVENTION DEVICES, ETC. FOR NEW DEVELOPMENT OR REDEVELOPMENT ACTIVITIES SHALL CONFORM TO SCREENING REQUIREMENTS AS OUTLINED IN SECTION 6.06.06.C.10 OF THE LANDSCAPE DEVELOPMENT CODE. PLANT LOCATION MUST BE CONSIDERATE OF REQUIRED SPATIAL SEPARATIONS FROM A FIRE FLOW PROTECTION APPLIANCE IN ACCORDANCE TO THE UNIFORM FIRE CODE, AND PER WATER, WASTEWATER AND RECLAIMED WATER TECHNICAL SPECIFICATIONS SPEC 331001, PART 2.6.4.2. MUST BE LOCATED A MINIMUM OF 5' FROM UTILITY SLABS AND 3' FROM UNDERGROUND VALVES. TREES MUST BE LOCATED A MINIMUM OF 8' FROM UTILITY SLABS. DO NOT INSTALL ANY SCREENING THAT WILL HINDER ACCESS IN THE FUTURE TO THE METER ASSEMBLY FROM THE INTERIOR OF THE SITE.
 - FOR ABOVE GROUND UTILITY APPURTENANCES ILLUSTRATED ON THE PLANS, THE TYPE OF SCREENING MUST BE CLEARLY NOTED TO MATCH THE OVERALL HEIGHT FOR THE TYPE OF ABOVE GROUND UTILITY SPECIFIED ON THE PLANS. UTILIZATION OF EVERGREEN PLANT MATERIAL MUST BE DESCRIBED BY SPECIES, SPACING AND OVERALL HEIGHT FOR THE TYPE OF UTILITY TO BE SCREENED. UTILIZATION OF OPAQUE FENCING OR OTHER SCREENING MATERIAL IS PERMITTED. THE METER ASSEMBLY MUST BE ACCESSIBLE BY BOOM TRUCK OFF A COUNTY RIGHT-OF-WAY OR AN INTERIOR PAVED ACCESS ROAD AT LEAST 12' IN WIDTH PER SPEC 331001, PART 2.6.4. DO NOT INSTALL ANY SCREENING THAT WILL HINDER ACCESS IN THE FUTURE TO THE METER ASSEMBLY FROM THE INTERIOR OF THE SITE.
 - BACK FLOW IS 32" HIGH, PROPOSED SCREENING SHRUBS ARE 48" HIGH.
 - TRANSFORMER IS 56" HIGH, PROPOSED SCREENING SHRUBS ARE 60" HIGH.
 - LIFT STATION IS 48" HIGH, PROPOSED SCREENING SHRUBS ARE 48" HIGH.



1315 E. SEVENTH AVENUE
SUITE 106
TAMPA, FLORIDA 33605.3607

TELEPHONE 813.242.6677
FACSIMILE 813.242.6683

wilderarchitecture.com

AR91271 QUALIFIER LICENSE

WILDERARCHITECTURE, INC.

Alyson Utter #A0001163

ANDERSON LESNIAK LIMITED, INC.
landscape architects land planners

15085 DUSKY WARBLER ROAD
WEEKI WACHEE, FLORIDA 34614
(813) 831-9595 (813) 831-1413
alyson@andersonlesniak.net
www.andersonlesniak.net

HILLSBOROUGH COUNTY BOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

HILLSBOROUGH COUNTY
PROGRESS VILLAGE SOUTH
FIRE STATION NO. 48

PROJECT #: 2320-00

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024
COUNTY COMMENTS	11.14.2024
ADDENDUM 01	03.06.2025

LANDSCAPE PLAN

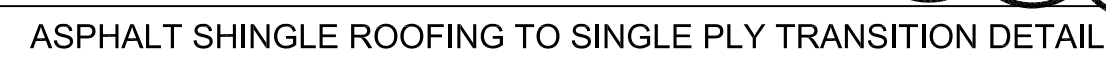
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WEATHERHEAD / POWER POLE DETAIL 3" = 1'-0"	A12
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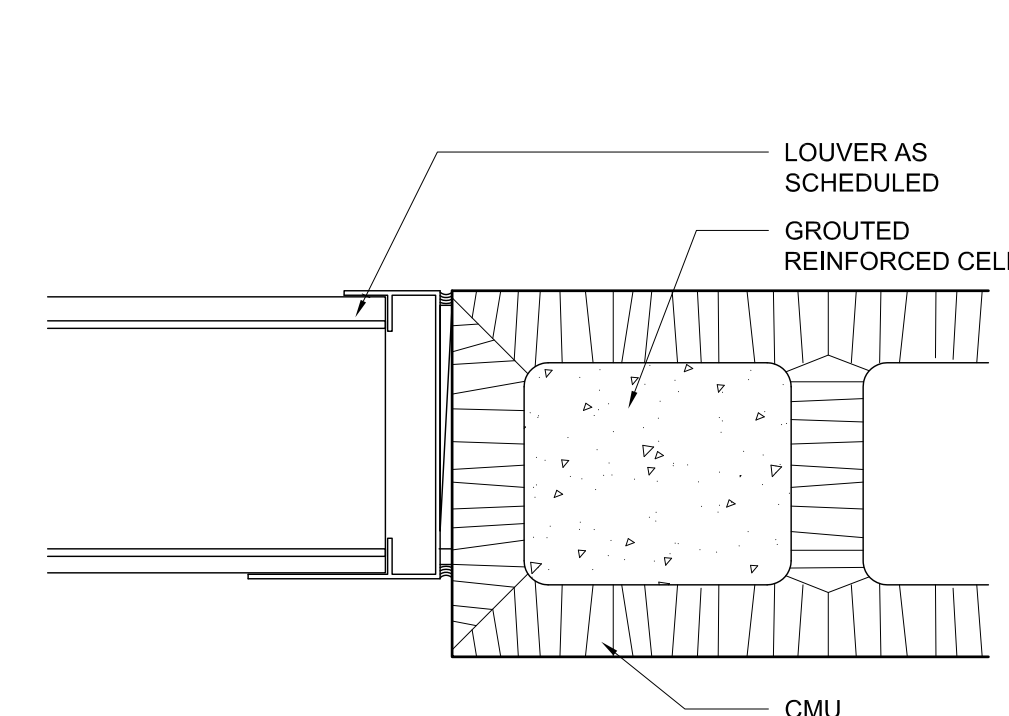
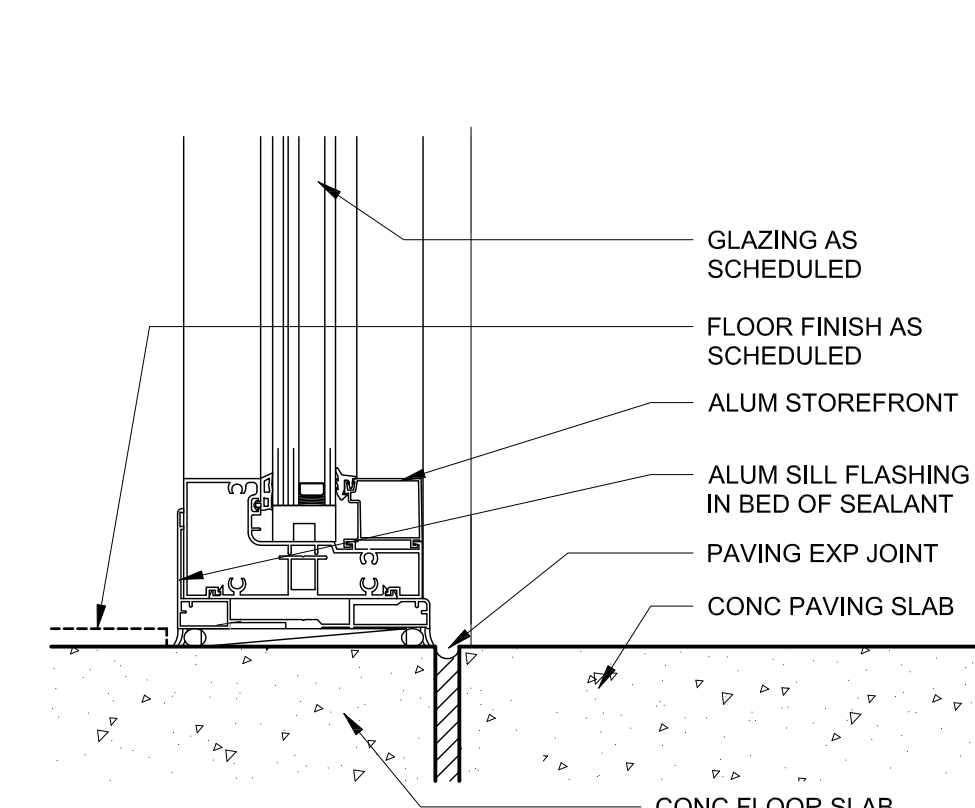
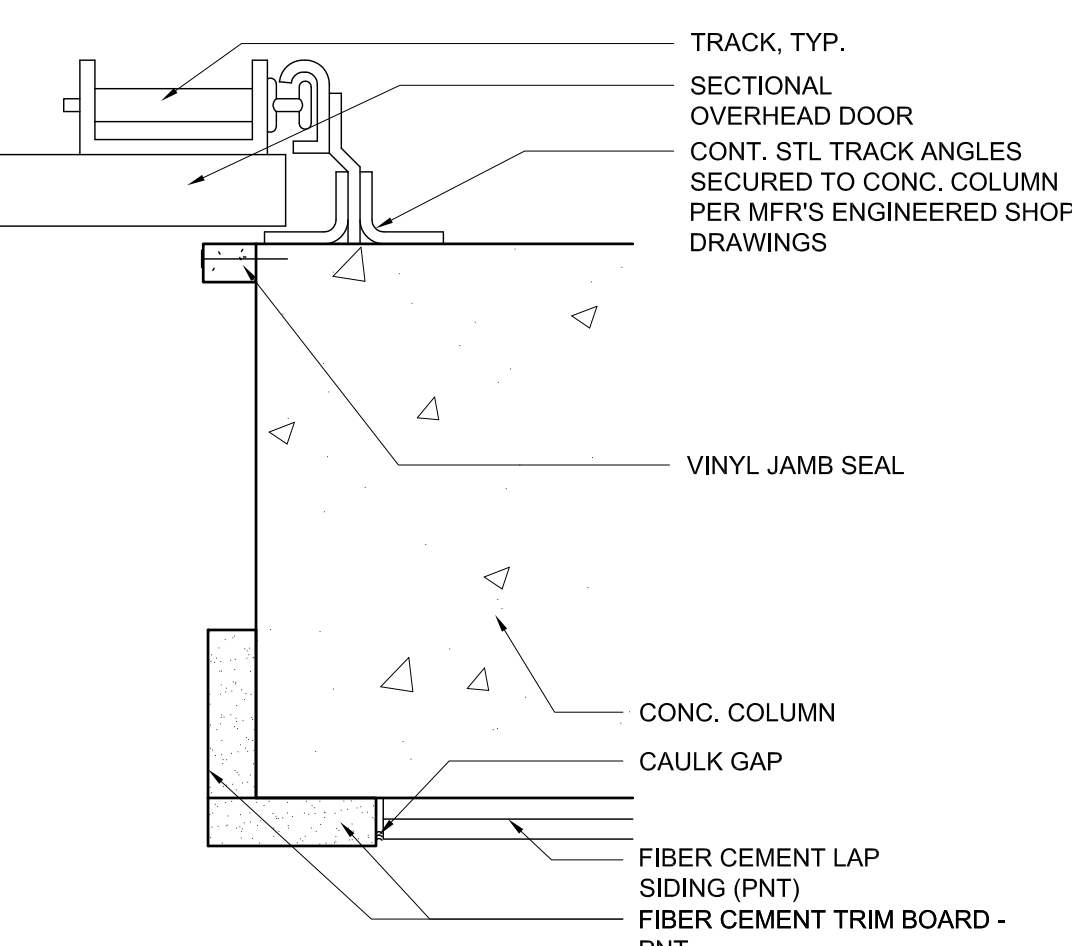
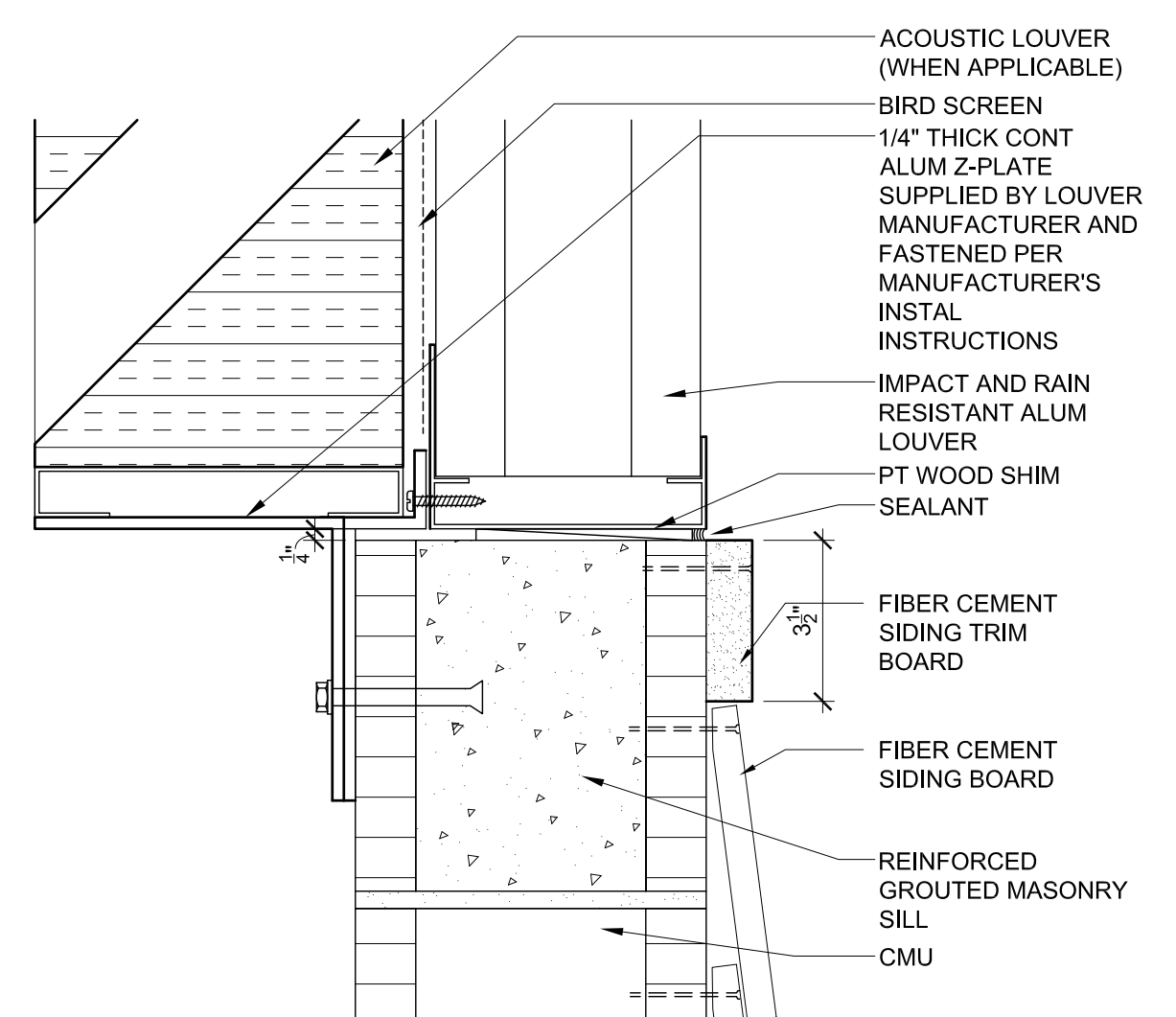
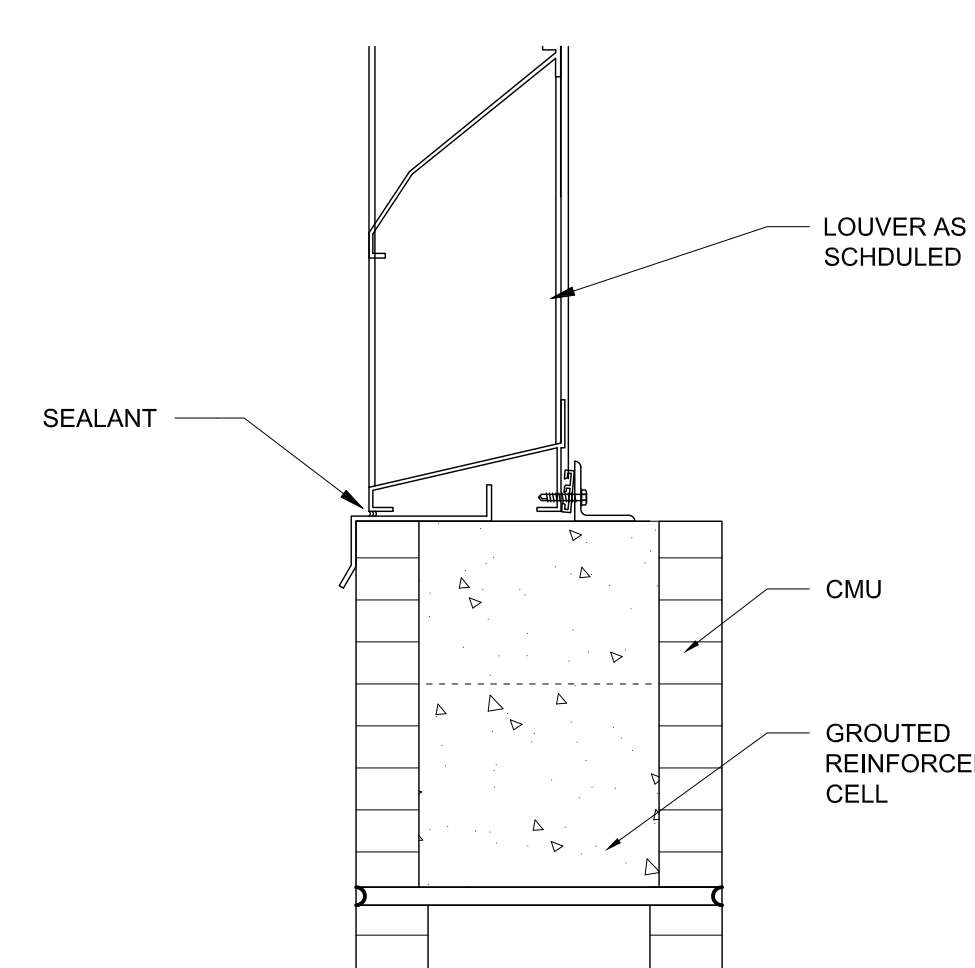
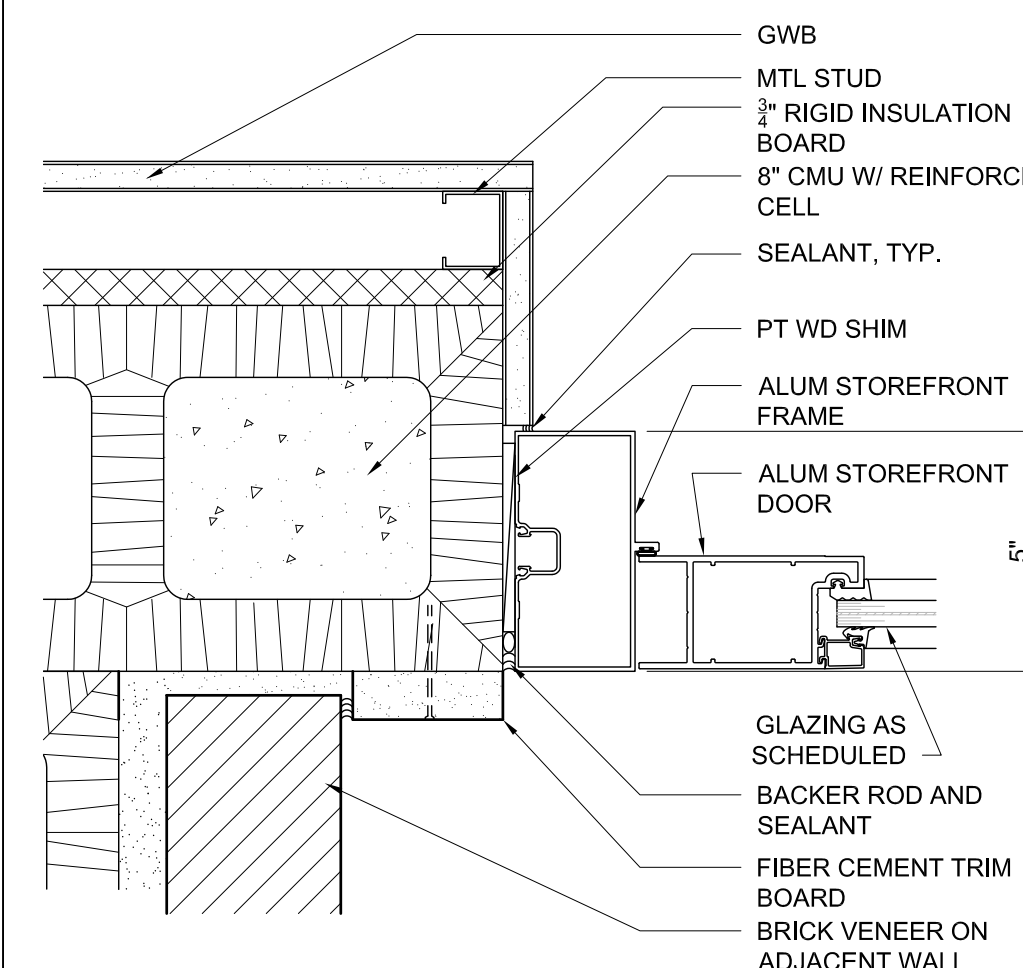
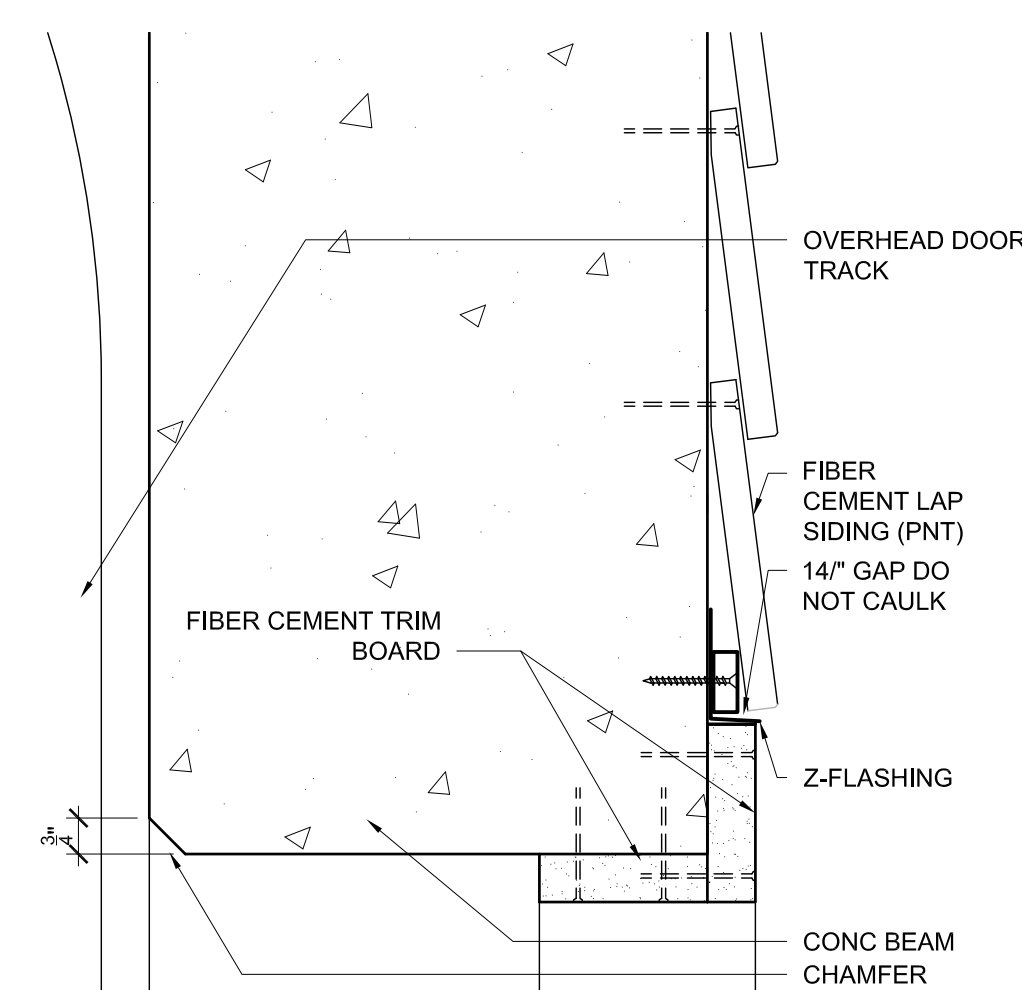
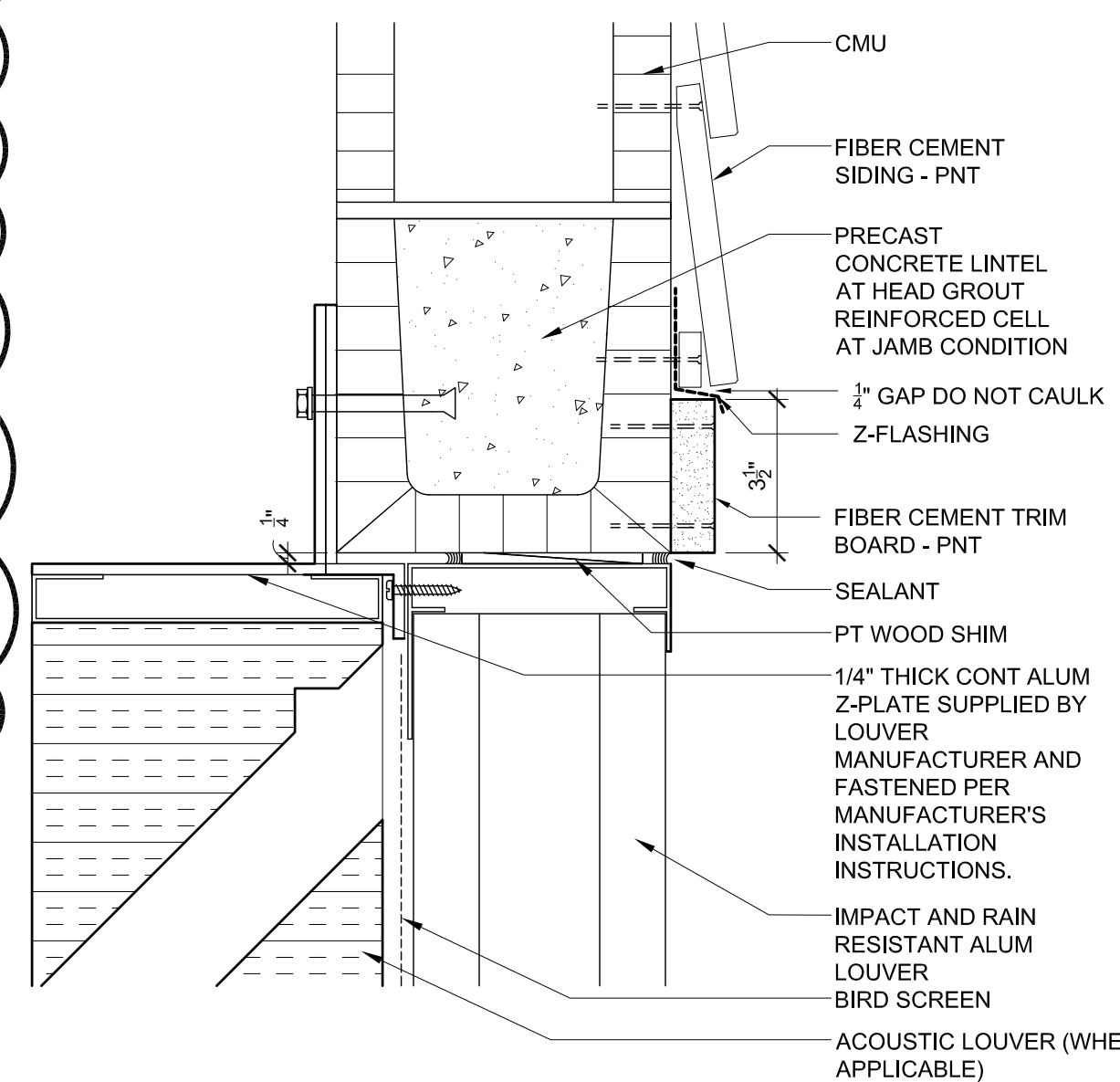
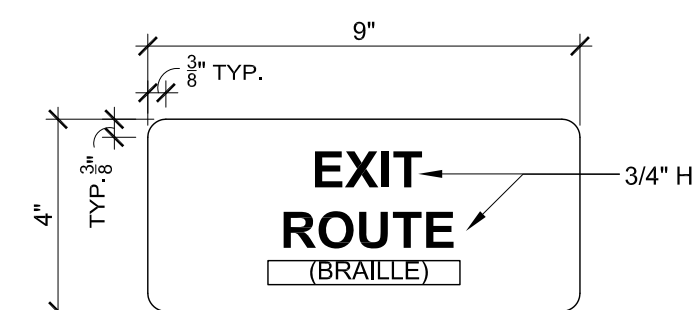
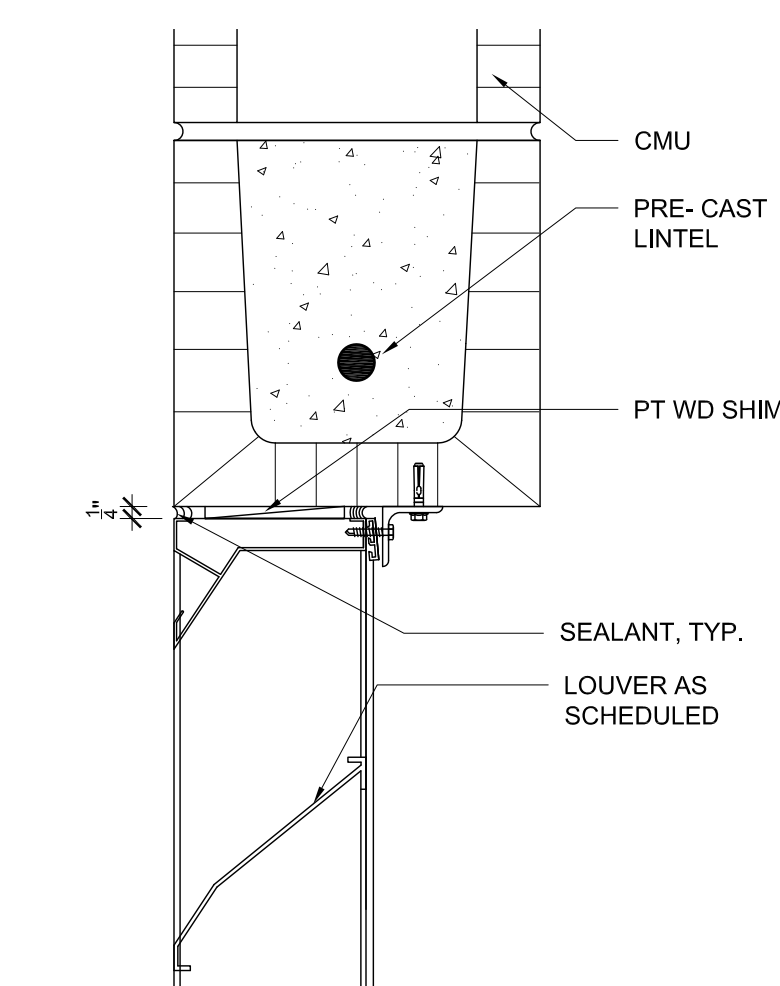
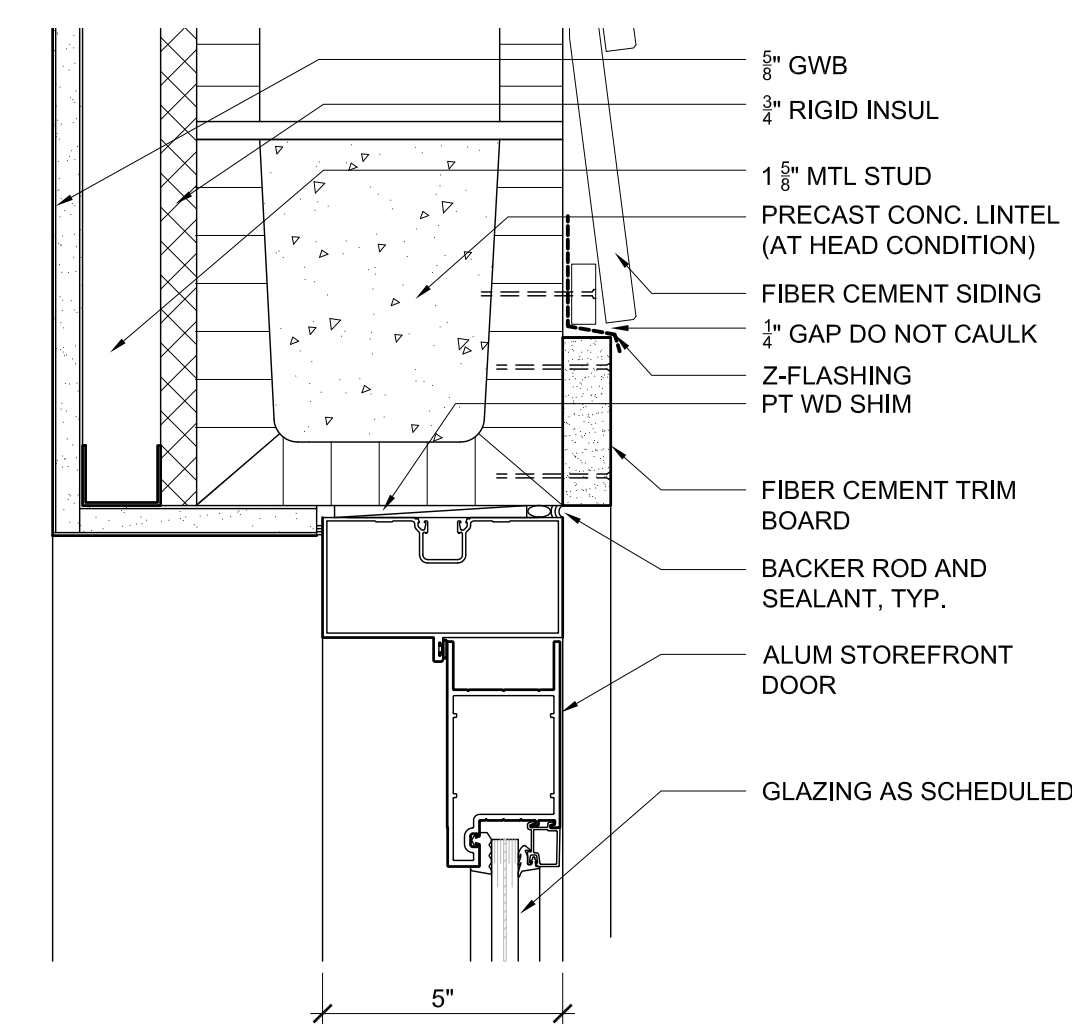
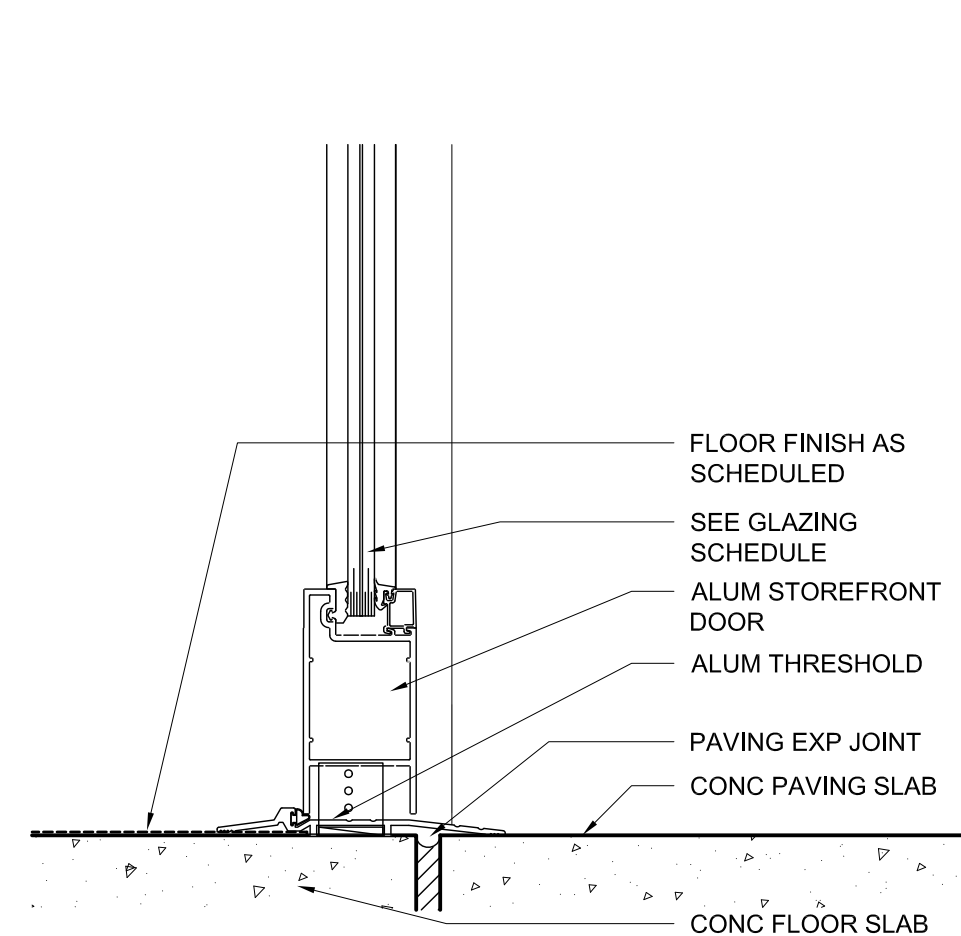
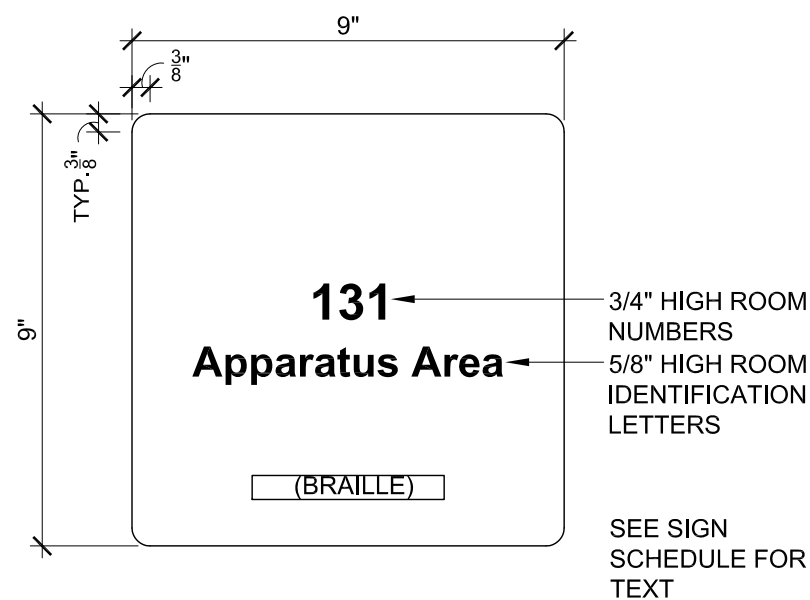
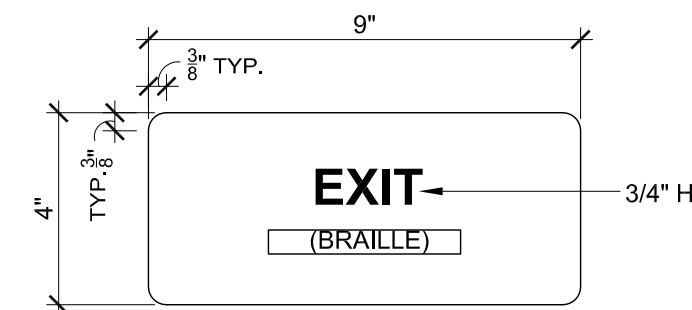
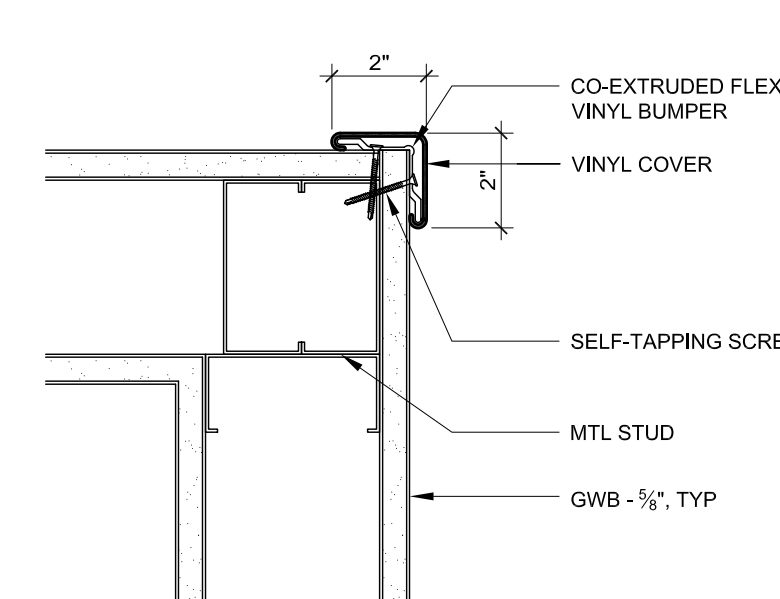
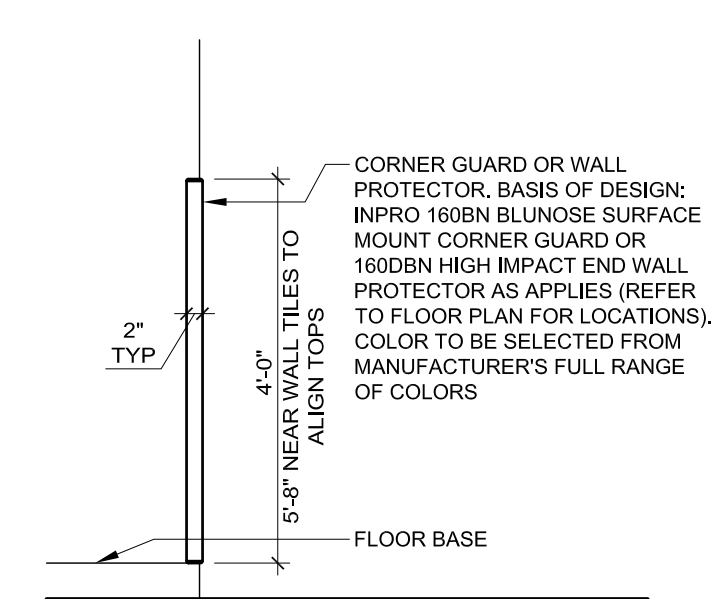
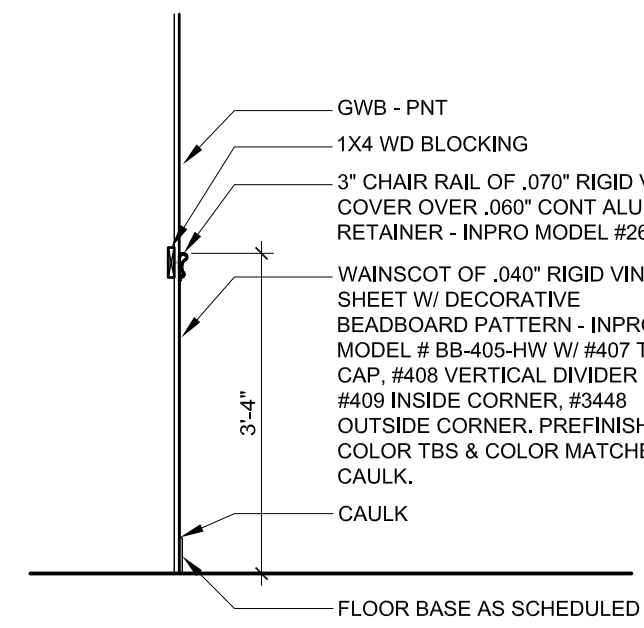
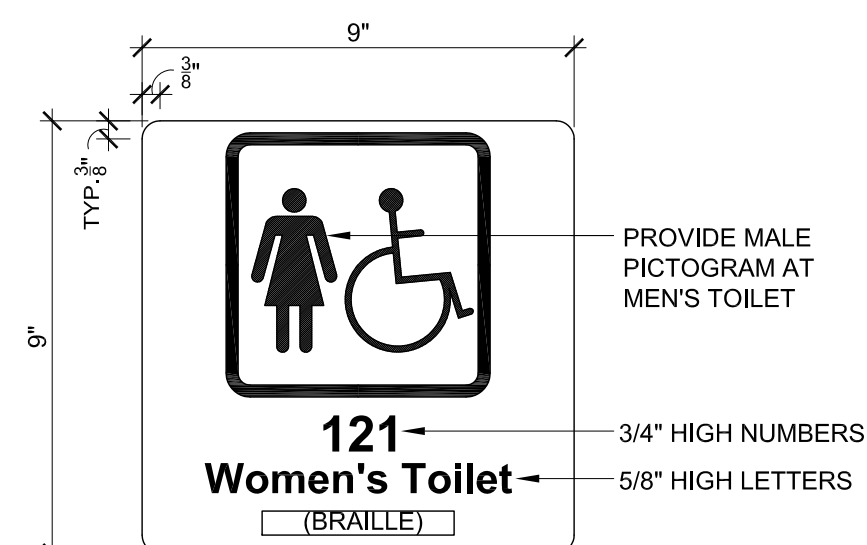
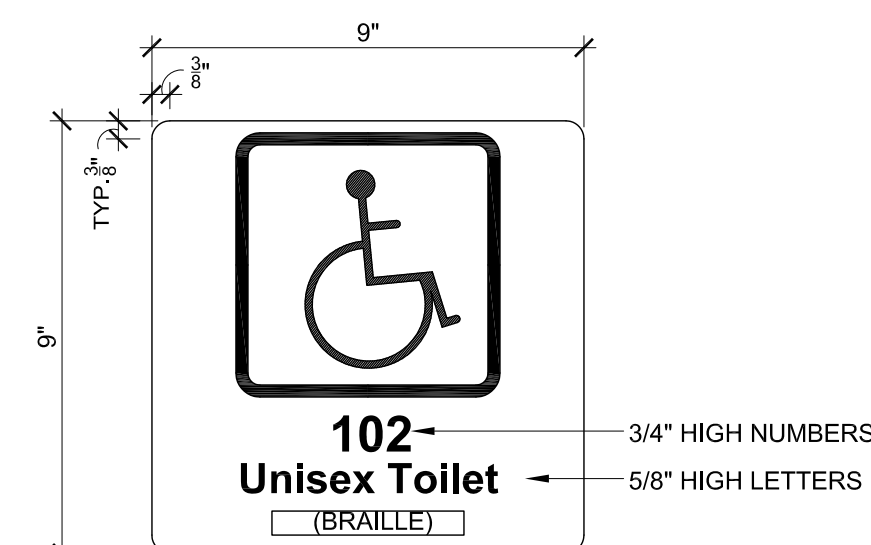
STANDING SEAM ROOF TYPICAL VALLEY FLASHING DETAIL 3" = 1'-0"	D8
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PROJECT #: 2320-00	
DISTRIBUTION	DATE
CD SET	06.06.2024
10% CD	08.30.2024
HERMIT SET	11.14.2024
ADDENDUM 01	03.06.2025

ROOF DETAILS

A5.1



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601 E KENNEDY BLVD
TAMPA, FL 33601

HILLSBOROUGH COUNTY
PROGRESS VILLAGE SOUTH
FIRE STATION NO. 48

PROJECT #: 2320-00	
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024
ADDENDUM 01	03.06.2025

DETAILS

A5.3

FINISH SCHEDULE											REMARKS
ROOM NUMBER	ROOM NAME	2	FLOOR	BASE	FINISH WALLS				CEILING		
					SOUTH	EAST	WEST	NORTH	HEIGHT	FINISH	
101	VESTIBULE		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
102	OFFICE		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
103	BUNK ROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
104	BUNK ROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
105	DAYROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-2	1, 17
106	KITCHEN / DINING		LVT	VWB	PNT	CT / PNT	PNT	CT / PNT	9'-0"	APC-2	1, 2, 11, 17
107	PANTRY		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	PNT	
108	PANTRY		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	PNT	
109	PANTRY		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	PNT	
110	CORRIDOR		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
111	EMS STORAGE		PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
112	TOILET		PT	PT	CT / EP	CT / EP	CT / EP	CT / EP	9'-0"	PNT	2, 5
113	TOILET		PT	PT	CT / EP	CT / EP	CT / EP	CT / EP	9'-0"	PNT	2, 5
114	CORRIDOR		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
115	CORRIDOR		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
116	CORRIDOR		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
117	BUNK ROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
118	BUNK ROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
119	BUNK ROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
120	BUNK ROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
121	BUNK ROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
122	FITNESS		RF	VWB	EP	EP	EP	EP	9'-0"	APC-1	6
123	JANITOR		LVT	VWB	EP	EP	CT / EP	CT / EP	9'-0"	PNT	12
124	CORRIDOR		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
125	TOILET		PT	PT	CT / EP	CT / EP	CT / EP	CT / EP	9'-0"	PNT	2, 5
126	DECON		SC	VWB	FRP / EP	FRP / EP	FRP / EP	FRP / EP	10'-0"	PNT	
127	TELE		SC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	4
128	APP BAY		SC / EF	NR	EP	EP	EP	EP	16'-7 1/2"	PNT	7, 9, 10, 13, 16
129	MECHANICAL		SC	VWB	PNT	PNT	PNT	PNT	9'-11 1/2"	PNT	15, 16
130	ELECTRICAL		SC	VWB	EP	EP	EP	EP	9'-0"	PNT	15
131	EXTERIOR STORAGE		CONC	NR	PNT	PNT	PNT	PNT	--	EXP	
132	MECH YARD		NR	CONC	PNT	PNT	PNT	PNT	--	EXP	
133	BC OFFICE		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
134	BUNK ROOM		LVT	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5

FINISH SCHEDULE ABBREVIATIONS

APC-1	ACOUSTICAL PANEL CEILING - 1	PDC	POLYURETHANE DECK COATING
APC-2	ACOUSTICAL PANEL CEILING - 2	PNT	PAINTED
CONC	CONCRETE	PT	PORCELAIN TILE
CT	CERAMIC TILE	RB	RESILIENT WALL BASE
EF	EPOXY FLOORING	RF	RUBBER FLOORING
EP	EPOXY PAINT	SC	SEALED CONCRETE
EXP	EXPOSED ROOF STRUCTURE	YCT	VINYL COMPOSITION TILE
FBR	FIBERGLASS REINFORCED PLASTIC	VWB	VINYL WALL BASE
NR	NONE REQUIRED	WD	WOOD
PC	POLISHED CONCRETE		

NOTES

1. PROVIDE CRACK SUPPRESSION MEMBRANE AT TILE FLOOR LOCATIONS.
2. PROVIDE FLOOR TRANSITIONS AS NEEDED.
3. PROVIDE EPOXY GROUT AT ALL WET LOCATIONS.

REMARKS

- | | | | |
|----|---|-----|--|
| 1. | PROVIDE APC-2 AT DESIGNATED PANELS. SEE REFLECTED CEILING PLAN. | 10. | COORDINATE WITH OWNER TO WRITE / PNT ON ONE DESIGNATED WALL "DUTY HONOR & COURAGE". |
| 2. | PROVIDE TILE AT DESIGNATED LOCATIONS. SEE INTERIOR ELEVATIONS. | 11. | REFER TO RCP FOR SOFFITS |
| 3. | SEE EXTERIOR ELEVATIONS AND SITE DETAILS FOR CEILING HEIGHT (EXPOSED STRUCTURE) | 12. | PROVIDE TILE AT MOP SINK - REFER TO INTERIOR ELEVATIONS |
| 4. | PLYWOOD BACKBOND - PANT ALL SIDES / EDGES WITH FIRE RETARDANT PNT (ALL WALLS). | 13. | PRIME AND PAINT INTERIOR OF CHASE |
| 5. | PROVIDE SOUND ATTENUATION BLANKETS IN WALL BETWEEN ADJACENT ROOMS DESIGNATED. | 14. | NOT USED |
| 6. | ABUSE RESISTANT GWB | 15. | PAINTED TECTUM WALL PANELS (OR EQUAL) WHERE POSSIBLE IN MECHANICAL AND ELECTRICAL ROOM. PANELS ARE IN ADDITION TO OTHER INSULATION AND SHALL BE MOUNTED FLOOR TO CEILING. (COORD W/ BLOCK REQUIREMENTS.) |
| 7. | PAINT CEILING LIGHT BLUE (COLOR TBD) | 16. | CEILING MOUNT TO BOTTOM OF TRUSSES |
| 8. | REFER TO RCP | 17. | PROVIDE WAINSCOT AND CHAIR RAIL |
| 9. | FIRST 9'-0" OF WALL TO BE ONE COLOR (TBD) AND ABOVE THAT A SECOND COLOR (TBD). | | |

DOOR SCHEDULE													
OPENING NUMBER	ROOM NAME	DOOR				FRAME				IMPACT RATED	FIRE RATING	HWD SET	REMARKS
		TYPE	MATL	INT	EXT	TYPE	MATL	DETAILS					
		TYPE	MATL	INT	EXT			HEAD	JAMB	SILL			
101A	VESTIBULE	D08	ALUM	*	*	SF01	ALUM	G4 / A5.3	D4 / A5.3	G7 / A5.3	•	--	01
101B	VESTIBULE	D05	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	05B 4, 5
102	OFFICE	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	06
103	BUNK	D11	WD	*	*	F10	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
104	BUNK	D11	WD	*	*	F10	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
107	PANTRY	D04	WD	*	*	F03	MTL	K1 / A5.2	K1 / A5.2	--	•	--	11
108	PANTRY	D04	WD	*	*	F03	MTL	K1 / A5.2	K1 / A5.2	--	•	--	11
109	PANTRY	D04	WD	*	*	F03	MTL	K1 / A5.2	K1 / A5.2	--	•	--	11
110	CORR	D07	MTL	*	*	F05	MTL	D4 / A5.2	G4 / A5.2	J13 / A5.2	•	45 MIN	04B 7
111	EMS STO.	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	05A
112	TOILET	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
113	TOILET	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
114	CORR	D10	WD	*	*	F10	MTL	K1 / A5.2	K1 / A5.2	--	•	--	09
115	CORR	D12	MTL	*	*	F04	MTL	D4 / A5.2	G4 / A5.2	--	•	--	03A 4, 6, 7
117	BUNK	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
118	BUNK	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
119	BUNK	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
120	BUNK	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
121	BUNK	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
122	FITNESS	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	J7 / A5.2	•	--	09
123	JANITOR	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	05A
124A	CORR	D05	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	10
124B	CORR	D07	MTL	*	*	F05	MTL	D4 / A5.2	G4 / A5.2	J13 / A5.2	•	45 MIN	04B 7
125	TOILET	D01	WD	*	*	F01	MTL	K1 / A5.2	K1 / A5.2	--	•	--	08
126	DECON	D03	MTL	*	*	F06	MTL	D4 / A5.2	G4 / A5.2	F13 / A5.2	•	--	07
127	TELE	D13	MTL	*	*	F08	MTL	D4 / A5.2	G4 / A5.2	--	•	--	05B 3, 7
128A	APP BAY	D09	STL	*	*	--	D7 / A5.3	A7 / A 5.3	--	--	•	--	12 2, 7
128B	APP BAY	D09	STL	*	*	--	D7 / A5.3	A7 / A 5.3	--	--	•	--	12 2, 7
128C	APP BAY	D09	STL	*	*	--	D7 / A5.3	A7 / A 5.3	--	--	•	--	12 2, 7
128D	APP BAY	D09	STL	*	*	--	D7 / A5.3	A7 / A 5.3	--	--	•	--	12 2, 7
128E	APP BAY	D12	MTL	*	*	F04	MTL	A1 / A5.2	D1 / A5.2	G13 / A5.2	•	--	03B 4, 7
128	MECH	D12	MTL	*	*	F04	MTL	D4 / A5.2	G4 / A5.2	G13 / A5.2	•	--	02 1, 7
132	ELECTRICAL	D12	MTL	*	*	F04	MTL	D4 / A5.2	G4 / A5.2	G13 / A5.2	•	--	03B 7
133	BC OFFICE	D11	WD	*	*	F10	MTL	K1 / A5.2	K1 / A5.2	--	•	--	06
134	BUNK RM	--	--	*	*	F09	MTL	A13 / A5.2	A13 / A5.2	--	•	--	13 8

REMARKS

1. PAIR OF DOORS.
2. OVERHEAD DOOR.
3. CARD READER ACCESS.
4. CARD READER / KEY PAD COMBO
5. ELECTRIC HARDWARE TIE TO BUZZER @ DESK
6. WIDE ANGLE DOOR PREVIEW.
7. INSULATED DOOR
8. CASED OPENING

GENERAL REMARKS

1. ALL EXTERIOR DOORS AND WINDOWS TO BE MISSILE LEVEL "E" IMPACT PROTECTED
2. REFER TO MECH DRAWINGS FOR UNDERCUT DOORS (1" TYP).
3. PROVIDE PANIC HARDWARE @ ELECTRICAL ROOM

GLAZING SCHEDULE

TAG	TYPE	REMARKS
G1	TEMPERED CLEAR	1/4" THICK, TYP. TEMPERED
G2	LAMINATED UV - TINTED	1-5/16" THICK, TYP. LARGE MISSILE IMPACT GLAZING
G2A	LAMINATED UV - TINTED	1" THICK, TYP. LARGE MISSILE IMPACT GLAZING
G2B	LAMINATED UV - TINTED	1-7/16" THICK, TYP. LARGE MISSILE IMPACT GLAZING
G3	CLEAR FIRELIGHT	OH 45 OR W-60 PLUS LAMINATED GLASS
G4	CLEAR FIRELIGHT	W-60 PLUS LAMINATED GLASS

GLAZING SCHEDULE

Figure 1: Typical Fire Door Details. The diagram illustrates three cross-sections of fire doors and their installation details. The left section shows a door with a top panel (SF01) and two lower panels (G2), with dimensions for height (7'-4"), width (5'-4"), and panel thicknesses. The middle section shows a door with a top panel (F07) and two lower panels (F06, F05, F04, F08), with dimensions for height (7'-0"), width (5'-4"), and panel thicknesses. The right section shows a door with a top panel (F03) and two lower panels (F10, F09, F02, F01), with dimensions for height (7'-2"), width (5'-4"), and panel thicknesses. The drawing also includes labels for "SMOKE", "CASED OPENING", and "45 MIN" fire rating.

DOOR FRAME TYPES

The elevation drawings show the following details from left to right:

- IMPACT PROTECTED SOFFIT LOUVER:** A small rectangular unit labeled SL1 with a height of 18" and a width of 18".
- MISSILE LEVEL "E" IMPACT PROTECTED:** A large rectangular unit with a height of 5'-4" and a width of 2'-0". It is flanked by vertical elements L02, L03, and L04. The height of the vertical elements is 5'-4", and the height of the unit is 2'-0". The label "VARIES" is placed below the unit.
- FIRE RATED:** A rectangular unit labeled W03 and W04 with a height of 4'-0" and a width of 3'-4". It is flanked by vertical elements L01 and L02. The height of the vertical elements is 4'-0", and the height of the unit is 3'-4". The label "60 MIN" is placed above the unit.
- HOLLOW METAL FRAME:** A rectangular unit labeled W05 and W02 with a height of 4'-0" and a width of 7'-0". It is flanked by vertical elements L01 and L02. The height of the vertical elements is 4'-0", and the height of the unit is 3'-2". The label "2" TYP." is placed below the unit.
- TWIN CASEMENT ALUM WINDOW (IMPACT RATED):** A rectangular unit labeled W01 with a height of 4'-0" and a width of 3'-4". It is flanked by vertical elements L01 and L02. The height of the vertical elements is 4'-0", and the height of the unit is 3'-4".

WINDOW & LOUVER TYPES	C1
-----------------------	----

12'-2" DOOR
(12'-0" OPENING)

12'-3" DOOR
(12'-3" OPENING)

ALL EXTERIOR DOORS
ARE MISSILE LEVEL "E"
IMPACT PROTECTED

45 MIN D07 3'-0" 8'-8" 2'-6" 7'-0" 1'-7" POLISHED ALUM CHECKERPLATE w/ CHAMFERED EDGES ON BOTH SIDES

SMOKE 45 MIN D03 3'-8" 3'-0" 8'-8" 2'-6" 7'-0" G1 OR G3 FIRE RATED

SMOKE 45 MIN MTL D04 2'-0" D11 3'-0" D02 D12 D01 6'-8"

DOOR TYPES	A1
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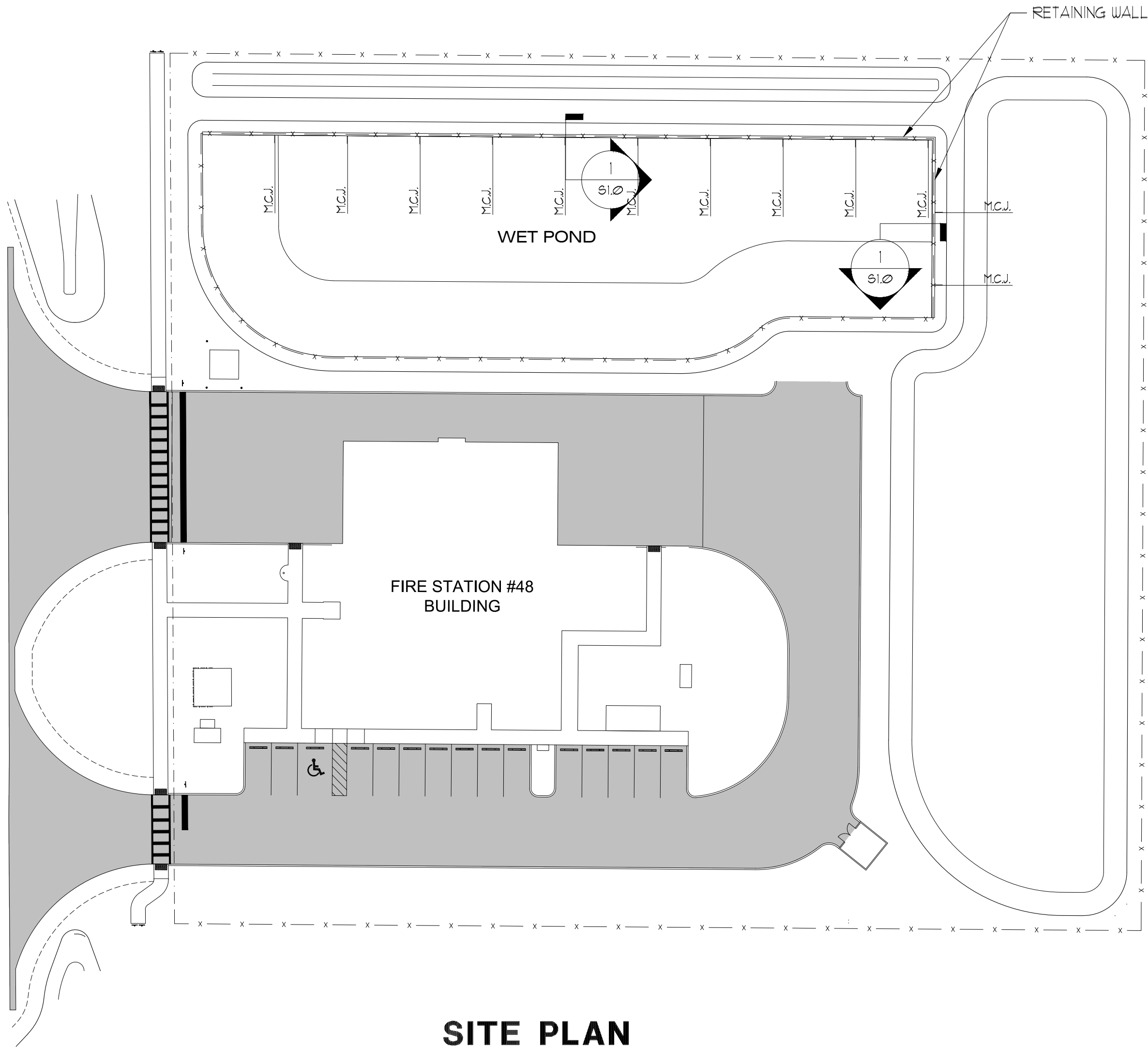
HILLSBOROUGH COUNTY
PROGRESS VILLAGE SOUTH
FIRE STATION NO. 48

PROJECT #: 2320-00

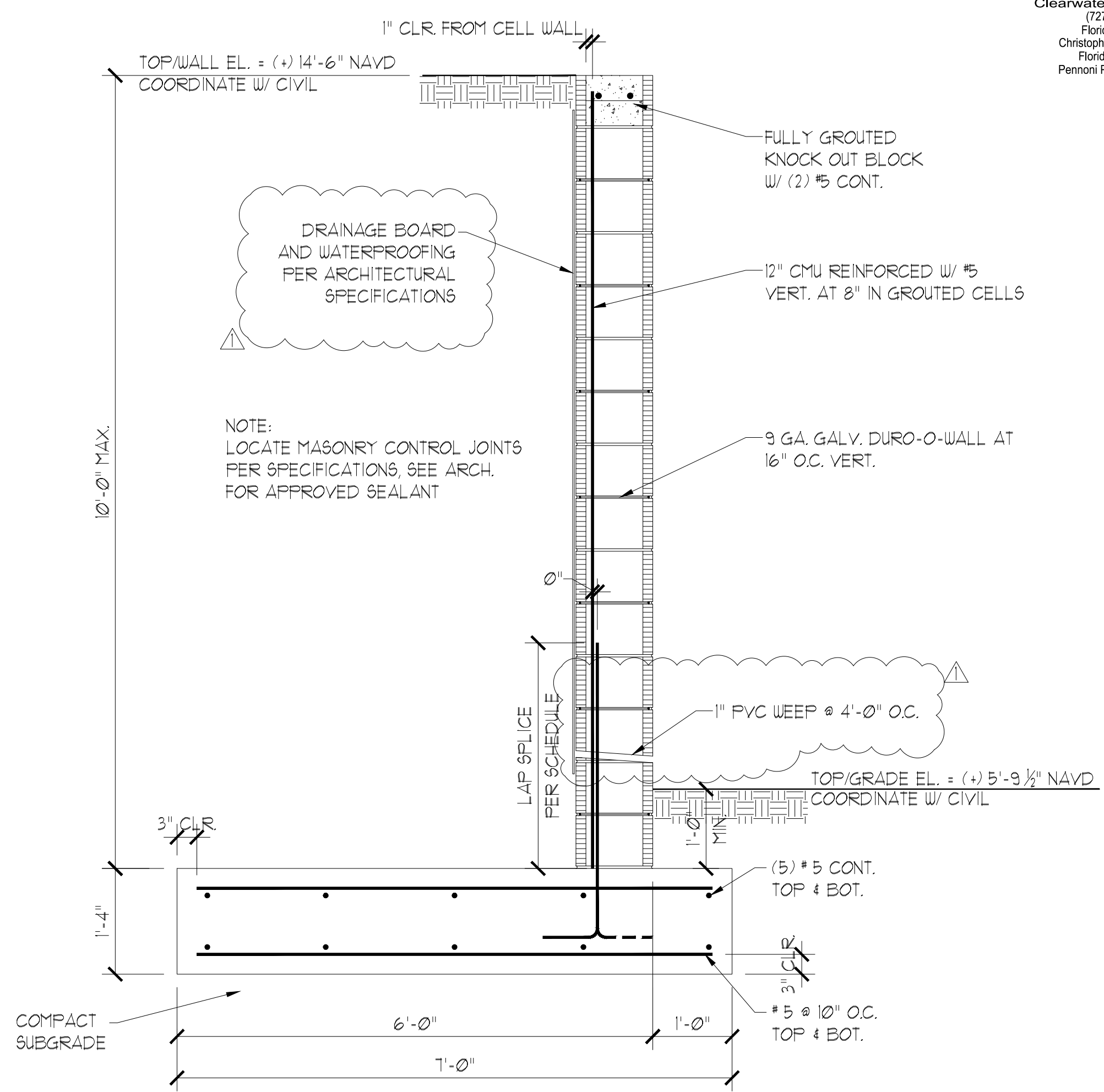
DISTRIBUTION	DATE
SCHEMATIC DESIGN	03.15.2024
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024
ADDENDUM 01	03.06.2025

SCHEDULES AND DOOR AND WINDOWS TYPES

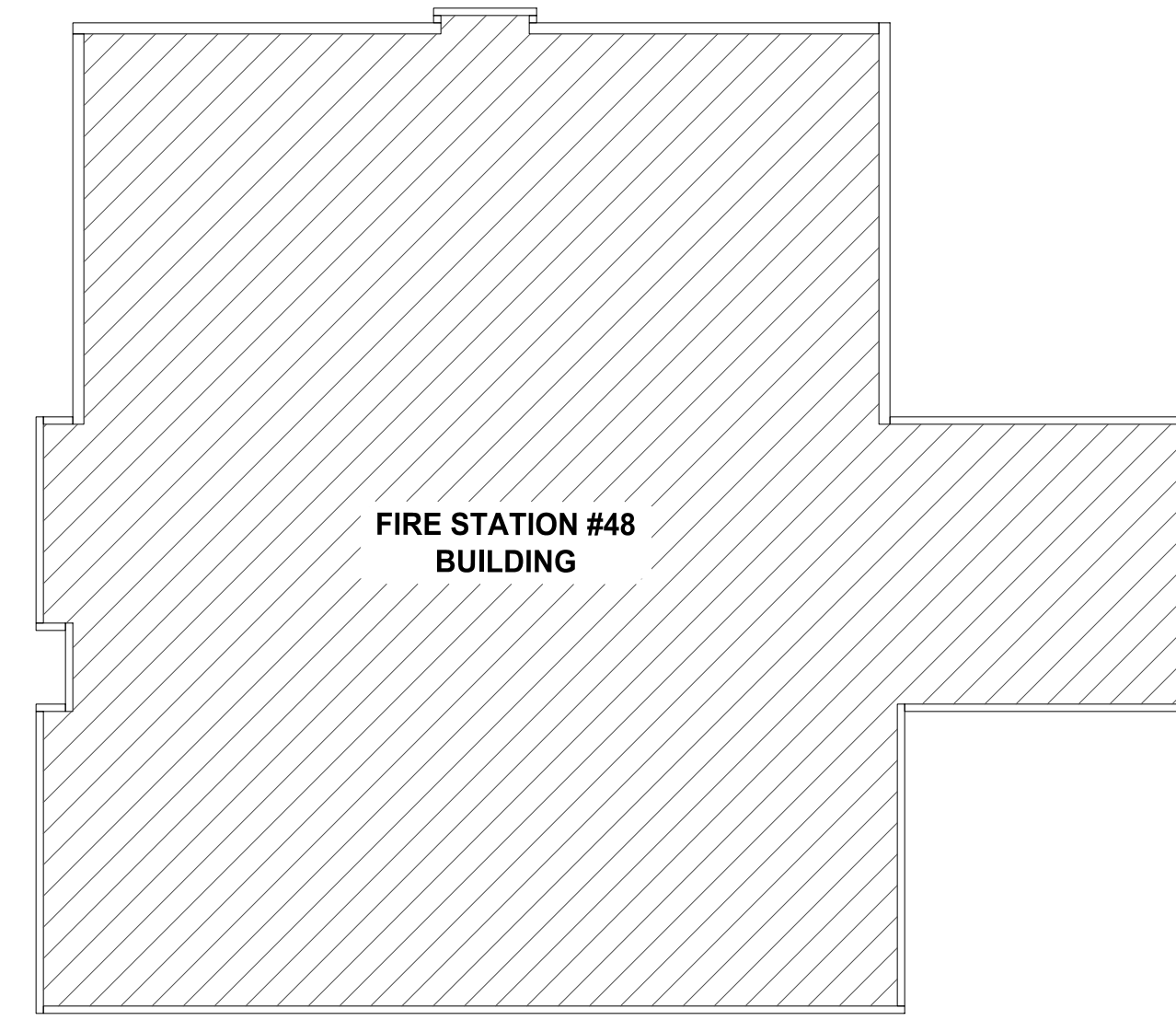
A7.1



SITE PLAN
NTS.



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



KEY PLAN
NTS.

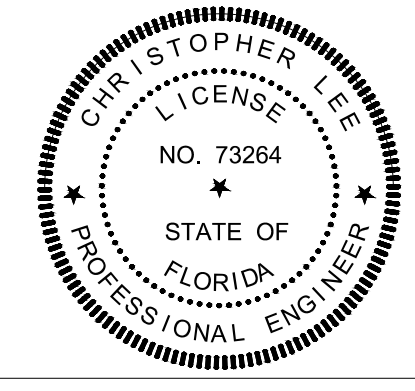
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Clearwater, FL 33760-3137
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Christopher Lee, P.E., S.E.
Florida P.E. # 73264
Pennoni Project No. WILDC24002

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

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HILLSBOROUGH COUNTY
PROGRESS VILLAGE SOUTH
FIRE STATION NO. 48

PHASE: PERMIT SET		
DATE: 11/14/2024		
WAI PROJECT #2208-00		
NUM	REVISION	DATE
1	ADDENDUM 1	3/6/2025

SITE RETAINING
WALL PLAN

S1.0