MORE THAN ARCHITECTS

ADDENDUM

NO. 1

TO THE DRAWINGS AND THE PROJECT MANUAL

05.08.25

PROJECT NAME: Johnson High School 2025 Additions and Renovations

CLIENT NAME: Hays CISD

LOCATION: Buda, TX

PROJECT NUMBER: 1954-07-01

PROPOSAL DATE: 22 May, 2025

ADDENDUM DATE: 08 May, 2025

For additional information regarding this project, contact Gigi Morgan at 800.687.1229.

THIS ADDENDUM INCLUDES:

Civil Items	3 Pages
Sports Items	4 Pages
Structural Items	3 Pages
Architectural Items	8 Pages
Plumbing Items	2 Pages

AND ALL ATTACHED REVISED SPECIFICATION & DRAWING REFERENCES IN THE ADDENDUM

Huckabee

Project Name: Johnson High School 2025 Additions and Renovations
Client: Hays CISD
Buda, TX
Project Number: 1954-07-01

CIVIL ITEMS FOR ADDENDUM NO. 1

NOTICE TO PROPOSERS:

A. This Addendum shall be considered part of the contract documents for the above-mentioned project as though it had been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original contract documents, this Addendum shall govern and take precedence.
B. Proposers are hereby notified that they shall make any necessary adjustments in their estimate on account of this Addendum. It will be construed that each Proposer's proposal is submitted with full knowledge of all modifications and supplemental data specified therein. Acknowledge receipt of this addendum in the space provided on the proposal form. Failure to do so may subject Proposer to disqualification.

REFERENCE IS MADE TO THE DRAWINGS AS NOTED:

DRAWINGS:

AD No 1, Civil Item 1: To the Drawings, Sheet C4.01, "DIMENSION CONTROL PLAN (1 OF 2),"

1) Adjustment to sidewalk limits

AD No 1, Civil Item 2: To the Drawings, Sheet C6.01, "GRADING PLAN (1 OF 2),"

1) Adjustment to grading associated with sidewalk adjustment

AD No 1, Civil Item 3: To the Drawings, Sheet C6.03, "PVR PLAN,"

1) Reduction in PVR adjustment limits

END OF CIVIL ADDENDUM

Project Name: Johnson High School 2025 Additions
Client: Hays CISD
Buda, TX
Project Number: 1954-07-01

2025-05-06

F-7524

SPORTS ITEMS FOR ADDENDUM NO. 1

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REFERENCE IS MADE TO THE DRAWINGS AND THE PROJECT MANUAL AS NOTED:

SPECS:

AD No 1, Sports Item 1: **To the Specs, Section 31 0010, "EARTHWORK AND GRADING,"**

1) Updated all parts of this spec section to reflect the new Geotech report.

DRAWINGS:

AD No 1, Sports Item 2: **To the Drawings, Sheet F1**

1) Sheet labeled as Alternate #1.

AD No 1, Sports Item 3: **To the Drawings, Sheet F2**

1) Sheet labeled as Alternate #1.
2) Removed fence and gates from sports plans.
3) Updated note 73A to say "Compact and stabilize soil per Geotech report. Soil is to be over excavated and replaced with 10ft of select fill."

AD No 1, Sports Item 4: **To the Drawings, Sheet F3**

1) Sheet labeled as Alternate #1.
2) Removed all mention of alternate #1 from all utility boxes.

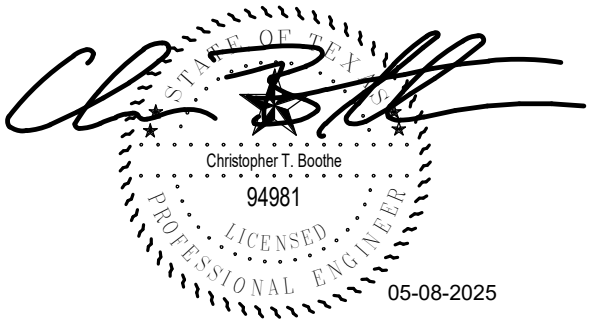
AD No 1, Sports Item 5: **To the Drawings, Sheet F4**

1) Sheet labeled as Alternate #1.
2) Removed fence detail 73N and gate detail 73Q.
3) Added "Compact and stabilize soil per Geotech report. Soil is to be over excavated and replaced with 10ft of select fill" to detail 73D.

END OF SPORTS ADDENDUM

Huckabee

Project Name: Johnson High School 2025 Additions
Client: Hays CISD
Buda, TX
Project Number: 1954-07-01



STRUCTURAL ITEMS FOR ADDENDUM NO. 1

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REFERENCE IS MADE TO THE DRAWINGS AND THE PROJECT MANUAL AS NOTED:

DRAWINGS:

AD No 1, Struct Item 1: **To the Drawings, Sheet S2.1A1 "FOUNDATION PLAN – AREA A",**

1) Revised detail callout.
2) Centered corner columns on grids AN and AA.

AD No 1, Struct Item 1: **To the Drawings, Sheet S2.1B1 "FOUNDATION PLAN – AREA B",**

1) Added note referencing plumbing drawings for information concerning underground piping layout and required voids.

AD No 1, Struct Item 1: **To the Drawings, Sheet S3.2 "CONCRETE DETAILS"**

1) Added details 11, 12, 16, and 19 showing information concerning piping under the slab on void.

END OF STRUCTURAL ADDENDUM

Project Name: Johnson High School 2025 Additions and Renovations
Client: Hays CISD
Buda, TX
Project Number: 1954-07-01

05.07.25

ARCHITECTURAL ITEMS FOR ADDENDUM NO. 1

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REFERENCE IS MADE TO THE DRAWINGS AND THE PROJECT MANUAL AS NOTED:

PROJECT MANUAL:

AD. No 1, Arch. Item 1 **To the Project Manual, Section 01-2300, "ALTERNATES,"**
Section replaced in its entirety to Project Manual

AD. No 1, Arch. Item 2 **To the Project Manual, Section 00-3132, "GEOTECHNICAL DATA"**
Section replaced in its entirety to Project Manual

DRAWINGS:

AD. No 1, Arch. Item 3 **To the Drawings, Sheet G1.02, "GENERAL DATA,"**
1) Added alternates to reflect electrical alternate scope

AD. No 1, Arch. Item 4 **To the Drawings, Sheet AS1.01, "ARCHITECTURAL SITE PLAN,"**
1) Updated background to reflect sidewalk change

AD. No 1, Arch. Item 5 **To the Drawings, Sheet A1.01, "FLOOR PLAN – AREA A,"**
1) Refer to attached drawings 2, 3 to show updated fence locations

AD. No 1, Arch. Item 6 **To the Drawings, Sheet A1.02, "FLOOR PLAN – AREA B,"**
1) Added wall section

AD. No 1, Arch. Item 7 **To the Drawings, Sheet A3.02, "OVERHEAD DOOR AND DETAILS"**
1) Refer to attached drawing 4 for clarification and modification of construction details to add value to building envelope

AD. No 1, Arch. Item 8 **To the Drawings, Sheet A4.02, "FINISH PLAN – AREA B"**
1) Refer to attached drawing 1 for revised Restroom flooring finishes.

2) Refer to attached drawing 5 for revised Turf to Rubber floor transition.

AD. No 1, Arch. Item 9 **To the Drawings, Sheet A4.10, "INTERIOR ELEVATIONS – AREA B"**

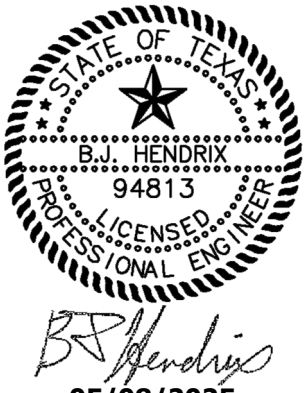
1) Refer to attached drawing 7 for clarification of wall tile pattern.

AD. No 1, Arch. Item 10 **To the Drawings, Sheet A6.01, "WALL SECTIONS + DETAILS - AREA A,"**

1) Refer to attached drawings 1, 2, 3 to show updated fence locations
2) Refer to attached drawing 1 for clarification on bottom of steel tube height

END OF ARCHITECTURAL ADDENDUM

Project Name: Johnson High School 2025 Additions
Client: Hays CISD
Buda, TX
Project Number: 1954-07-01



05/08/2025

PLUMBING ITEMS FOR ADDENDUM NO. 1

NOTICE TO PROPOSERS:

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REFERENCE IS MADE TO THE DRAWINGS AND THE PROJECT MANUAL AS NOTED:

DRAWINGS:

AD No 1, Plumb Item 1: **To the Drawings, Sheet P2.11, "First Floor Plan – Area A – Plumbing - Waste,"**

1) Revised No Plumbing Scope note.

AD No 1, Plumb Item 2: **To the Drawings, Sheet P3.11, "First Floor Plan – Area A – Plumbing - Supply,"**

1) Revised No Plumbing Scope note.

END OF PLUMBING ADDENDUM

Project Name: Johnson High School 2025 Additions
Client: Hays CISD
Buda, TX
Project Number: 1954-07-01

05/08/2025

ELECTRICAL ITEMS FOR ADDENDUM NO. 1

NOTICE TO PROPOSERS:

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REFERENCE IS MADE TO THE DRAWINGS AND THE PROJECT MANUAL AS NOTED:

PROJECT MANUAL:

AD No 1, Elec Item 1: **To the Project Manual, Sections as listed below:**

1) Added Section 26 4113, "LIGHTNING PROTECTION SYSTEM," in its entirety.

END OF ELECTRICAL ADDENDUM

SECTION 00 3132
GEOTECHNICAL DATA

PART 1 - GENERAL

1.01 SUMMARY

A. Related Documents: General and Supplementary Conditions of the Contract, Division 01 General Requirements, and Drawings are applicable to this Section.

1.02 INVESTIGATION

A. An investigations of subsurface soil conditions at the building site was authorized by the Owner, and these investigations were made by USE Professional Solutions 44, LLC and are attached as follows:
   1. Report number 24-0926, dated August 30, 2024.
   2. Report number A251018, dated April 16, 2025.

1.03 REPORT

A. The complete report of the testing laboratory follows this section and is provided for information only.

B. Report and log of borings are available for Contractor's information but is not a warranty of subsurface conditions, nor is it a part of the Contract Documents.

1.04 RESPONSIBILITY

A. Bidders are expected to examine the site and subsurface investigation reports and then decide for themselves the character of the materials to be encountered.

B. The Owner and Architect assume no responsibility for variations of subsoil quality or conditions.

C. The Owner and the Architect assume no responsibility for any conclusions or interpretations made on the basis of subsurface information contained in the contract documents.

PART 2 - NOT USED

PART 3 - NOT USED

END OF SECTION

GEOTECHNICAL EXPLORATION

ADDITIONAL PARKING - MOE AND GENE JOHNSON HIGH SCHOOL

4260 FM 967
Buda, Texas
UES Report No. 24-0926
August 30, 2024

Prepared for:

HAYS CONSOLIDATED INDEPENDENT SCHOOL DISTRICT
21003 IH - 35
Kyle, Texas 78640

Attention: Nate Wensowitch

Prepared By:

UES™

August 30, 2024

Hays Consolidated Independent School District
21003 IH - 35
Kyle, Texas 78640

Attention: Nathan Wensowitch

Re: Geotechnical Exploration
Additional Parking - Moe and Gene Johnson High School
4260 FM 967
Buda, Texas
UES Report No. 24-0926

Attached is the report of the geotechnical exploration performed for the project referenced above. This study was authorized by Nathan Wensowitch on July 24, 2024 and performed in accordance with accordance with UES Professional Solutions 44, LLC (hereinafter UES) Proposal No. 24-1456, dated July 15, 2024.

This report contains results of field explorations and laboratory testing and an engineering interpretation of these with respect to available project characteristics. The results and analyses were used to develop recommendations to aid design and construction of foundations and pavement.

UES Professional Solutions 44, LLC appreciates the opportunity to be of service on this project. If we can be of further assistance, such as providing materials testing services during construction, please contact our office.

Sincerely,
UES PROFESSIONAL SOLUTIONS 44, LLC

Sebastian L. Aleman
Geotechnical Project Manager

Lee E. Gurecky, P.E.
Geotechnical Department Manager – San Antonio

SLA/LEG
Copies: (1-PDF) Nathan Wensowitch, Hays CISD

TABLE OF CONTENTS

UES REPORT NO. 24-0926

1.0 PURPOSE AND SCOPE

The purpose of this geotechnical exploration is for UES Professional Solutions 44, LLC (UES) to evaluate for Hays Consolidated Independent School District (Client) some of the physical and engineering properties of subsurface materials at selected locations on the subject site with respect to formulation of appropriate geotechnical design parameters for the proposed construction. The field exploration was accomplished by securing subsurface samples from widely spaced test borings performed across the expanse of the site. Engineering analyses were performed from results of the field exploration and results of laboratory tests performed on representative samples.

Also included are general comments pertaining to reasonably anticipated construction problems and recommendations concerning earthwork and quality control testing during construction. This information can be used to evaluate subsurface conditions and to aid in ascertaining construction meets project specifications.

Recommendations provided in this report were developed from information obtained in test borings depicting subsurface conditions only at the specific boring locations and at the particular time designated on the logs. Subsurface conditions at other locations may differ from those observed at the boring locations, and subsurface conditions at boring locations may vary at different times of the year. The scope of work may not fully define the variability of subsurface materials and conditions that are present on the site.

The nature and extent of variations between borings may not become evident until construction. If significant variations then appear evident, our office should be contacted to re-evaluate our recommendations after performing on-site observations and possibly other tests.

2.0 PROJECT CHARACTERISTICS

It is proposed to construct a new approximate 84,000 SF parking area. The project site is located at the existing Moe and Gene Johnson High School at 4620 FM 967 in Buda, Texas. A site plan illustrating the general outline of the property is provided as Figures 1A to 1C, the Boring Location Plan, in the Appendix.

We understand the proposed parking will be designed for both Asphalt Concrete Pavements and Portland Concrete Pavements. Grading plans were not provided to us for this study. For the purpose of our analysis, we have assumed maximum cuts and fills of 2 ft to achieve final grades. Grading plans should be provided to UES prior to design finalization.

2.1 Pre-Existing Conditions

During our field exploration activities for this project, our field representative observed that the site is currently an operating High School green area between two existing parking areas and is relatively flat without a noticeable slope. Vegetation at the site is generally comprised of grass and weeds. No rock out-crops were observed at this site.

3.0 FIELD EXPLORATION

Subsurface conditions on the site were explored by drilling a total of two (2) test bores to their planned termination depth of 15 ft. The test borings were drilled in general accordance with ASTM Standard D 420 using standard rotary drilling equipment. The approximate location of each test boring is shown on the Boring Location Plans, Figure 1B and 1C, enclosed in the Appendix. Details of drilling and sampling operations are briefly summarized in Methods of Field Exploration, Section A-1 of the Appendix.

Subsurface types encountered during the field exploration are presented on Log of Boring sheets included in the Appendix. The boring logs contain our Field Technician's and Engineer's interpretation of conditions believed to exist between actual samples retrieved. Therefore, these boring logs contain both factual and interpretive information. Lines delineating subsurface strata on the boring logs are approximate and the actual transition between strata may be gradual.

4.0 LABORATORY TESTS

Selected samples of the subsurface materials were tested in the laboratory to evaluate their engineering properties as a basis in providing recommendations for foundation design and earthwork construction. A brief description of testing procedures used in the laboratory can be found in Methods of Laboratory Testing, Section B-1 of the Appendix. Individual test results are presented on the Log of Boring sheets enclosed in the Appendix.

5.0 GENERAL SUBSURFACE CONDITIONS

The Geologic Map of Texas, published by the University of Texas at Austin, Bureau of Economic Geology, has mapped the Pecan Gap Chalk (Kpg) formation in the general area of the project site. The Pecan Gap Chalk formation generally consists of clay, chalk, chalky marl, and limestone.

Within the 15-ft maximum depth explored on the site, subsurface materials consist generally of low to high plasticity POSSIBLE FILL: FAT CLAY (CH), POSSIBLE FILL: FAT CLAY with SAND (CH), POSSIBLE FILL: CLAYEY SAND (SC), FAT CLAY (CH), FAT CLAY with SAND (CH), and CLAYEY SAND (SC). Possible Fill material was encountered to a depth of about 4 ft below the existing ground surface in the borings this site. The letters in parenthesis represent the soils' classification according to the Unified Soil Classification System (ASTM D 2488). More detailed stratigraphic information is presented on the boring logs attached to this report.

The clayey materials encountered are considered relatively impermeable and are anticipated to have a relatively slow response to water movement. The granular materials are considered relatively permeable and are anticipated to have a relatively fast response to water movement. Therefore, several days of observation would be required to evaluate actual groundwater levels within the depths explored. Also, the groundwater level at the site is anticipated to fluctuate seasonally depending on the amount of rainfall, prevailing weather conditions and subsurface drainage characteristics.

Groundwater was not encountered at the boring locations during drilling at this site. However, it is common to detect seasonal groundwater from natural fractures within the clayey matrix, in and the granular materials, particularly during or after periods of precipitation. If more detailed groundwater information is required, monitoring wells or piezometers can be installed. Further details concerning subsurface materials and conditions encountered can be obtained from the boring logs provided in the Appendix. *Note: Granular materials were encountered in the borings at this site. From our experience, these materials can be difficult to excavate (including trenching) and could require forming and/or casing especially if groundwater is encountered during construction.*

6.0 DESIGN RECOMMENDATIONS

The following design recommendations were developed on the basis of the previously described Project Characteristics (Section 2.0) and General Subsurface Conditions (Section 5.0). Should the project criteria change, including the construction location on the site, our office should conduct a review to determine if modifications to the recommendations are required. Further, it is recommended our office be provided with a copy of the final plans and specifications for review prior to construction.

6.1 General Considerations

Design criteria given in this report were developed assuming final grades are within 2 ft of existing grade. Substantial cutting and filling (more than 2 ft) on the site can alter our recommendations. Therefore, it is recommended UES be contacted before performing other cutting and filling on site to verify the appropriate design parameters are utilized for final design.

6.1.1 Existing Fill and Possible Fill

As stated in Section 5.0, existing possible fill was encountered to a depth of up to 4 ft below the existing ground surface in the borings at this site. Such fill may also exist in areas other than those explored to greater or lesser depths. We understand the fill was placed during initial development of the school and was tested by others. Evaluation of the consistency and compaction of the existing fill are considered beyond the scope of this study. The following recommendations are predicated upon our understanding that all of the existing fill encountered on the site meets or exceeds the recommendations

contained in Section 7.3 of this report. *Note: It is recommended the Client obtain written confirmation from a Professional Engineer that the existing fill was tested upon placement and has been adequately compacted for support of the proposed pavements.*

If documentation of the fill is not available, removal and replacement of all fill is the only method of eliminating the risk of unusual settlement associated with the fill. Samples obtained of the uncontrolled fill were generally free of significant voids. In the absence of documented density control, the possibility of under-compacted zones or voids may exist within the uncontrolled fill.

Although not encountered at the borings, uncontrolled fills can contain boulders, rubble, debris, organic materials, and other unsuitable materials. Excavation and grading contracts should contain provision for removal of unsuitable materials. Test pits could be performed prior to construction to assess the depth, lateral extent, and nature of the existing fill. UES would be pleased to assist with a test pit program if desired.

6.1.2 Vertical Movements

Expansive soils are present at this site. This report provides recommendations to help the effects of soil shrinkage and expansion. However, even if these recommendations are followed, some movement and cracking in the pavements should be anticipated. The severity of cracking and other damage such as uneven pavements will probably increase if any modification of the site results in excessive wetting or drying of the expansive soils.

Grade supported pavements at this site could experience soil-related seasonal movement (i.e. PVR) up to about 4 inches. *Note: These PVR values were estimated using on-site or similar soil with a Plasticity Index (PI) of 35 or less to raise grades a maximum of 2 ft.*

These potential seasonal movements were estimated in general accordance with methods outlined by the Texas Department of Transportation (TxDOT) Test Method Tex-124-E, using swell tests (ASTM D 4546, Method B), engineering judgment, and experience. The estimated movement was calculated assuming the moisture content of the in-situ soil within the normal zone of seasonal moisture content change varies between a "dry" condition and a "wet" condition as defined by Tex-124-E.

Movements exceeding those predicted above could occur if positive drainage of surface water is not maintained or if soils are subject to an outside water source, such as leakage from a utility line or subsurface moisture migration from off-site locations. However, soil movements may be reduced by implementing the subgrade improvement recommendations presented below, in Section 6.2 of this report.

6.2 Subgrade Preparation for Pavements and Flatwork

Exterior flatwork and pavements supported on-grade could be subjected to potential seasonal movements up to about 4 inches as discussed in Section 6.1.2. of this report. The following subgrade improvements could be considered if it is desired to reduce flatwork and pavement movements and to reduce the risk of differential movements between flatwork and adjoining pavements.

We recommend installation of non-expansive fill to improve the subgrade to reduce flatwork and pavement movements. Potential seasonal movements (PVM) of the flatwork and pavements can be reduced to about 1, 2, or 3 inches by properly preparing the subgrade below the flatwork and pavements as recommended below:

> Over-excavate to the depth below the bottom of the flatwork provided in Table A for the desired PVM in the flatwork and pavement areas. The flatwork and pavement areas are defined as the area directly beneath and at least 5 ft (horizontal) beyond the perimeter of the proposed flatwork, pavements, and any areas where it is desired to reduce potential movements.

TABLE A
PAVEMENT AND FLATWORK SUBGRADE IMPROVEMENTS

PVR	Depth of Excavation Below the Bottom of Pavement and Flatwork	Non-Expansive Fill Thickness
1 inch	7 ft	7 ft
2 inches	5 ft	5 ft
3 inches	3 ft	3 ft

Note: To create a more all-weather working surface, the final 6 inches of the flatwork area may be constructed with flexible base to provide a working surface.

After over-excavating to the depths provided in Table A, the subgrade improvement can be completed by placing and compacting the thickness select fill or flexible base to the bottom of the flatwork or proposed pavement section. Select fill and flexible base material should be placed in loose lifts of no more than 8 inches. *Note: Criteria for select fill and flexible base are provided in Section 7.3 of this report. The new exposed slope should be benched during fill placement forming horizontal cuts into the slope at vertical intervals of 1 to 3 ft.*

Subgrade improvement below flatwork and pavements are intended to reduce the potential for large differential movements between the flatwork, pavements, and adjoining structural elements. However, some differential movement should be expected. Therefore, allowances should be made for differential movements between the structures, flatwork, and pavements including flexible connections and control joints. The use of sand as a leveling course below flatwork and pavements supported on expansive clays should be avoided if the subgrade is not

improved as recommended in this section. *Note: UES should be contacted if additional subgrade improvement recommendations are needed for the flatwork area.*

The flatwork should be installed to ensure drainage away from any structures. A positive slope away from the structures should be maintained. The slope should be sufficient to accommodate future potential movements. The flatwork should never be allowed to reach either a level plane or negative slope back toward the structure. In addition, a moisture seal should be provided at the joint between the flatwork and the foundation.

6.3 Pavements

The soils encountered near the ground surface should be improved and prepared prior to construction of pavements at this site. To permit correlation between information from the borings and actual subgrade conditions exposed during construction, a qualified UES Geotechnical Engineer should be retained to provide subgrade monitoring and testing during construction. If there is any change in project criteria, the recommendations contained in this report should be reviewed by our office.

Calculations used to determine the required pavement thickness are based only on the physical and engineering properties of the materials and conventional thickness determination procedures. Pavement joining the buildings should be constructed with a curb and the joint between the building and curb should be sealed. Related civil design factors such as subgrade drainage, shoulder support, cross-sectional configurations, surface elevations, reinforcing steel, joint design and environmental factors will significantly affect the service life and must be included in preparation of the construction drawings and specifications, but were not included in the scope of this study. Normal periodic maintenance will be required for all pavements to achieve the design life of the pavement system.

Recommendations for both Portland Cement Concrete (PCC) and asphalt concrete pavements are provided below. These types of pavement are not considered equal in performance. Over the life of the pavement structure, asphalt concrete pavement should be expected to have a shorter life and higher maintenance costs. Also, pavement in dumpster areas and areas receiving heavy truck traffic should consist of PCC. The dumpster pads should be extended to include all wheels of any garbage trucks.

Based on our knowledge of the project, we anticipate that traffic loads will be produced primarily by automobile traffic, occasional delivery, and trash removal trucks. For this project General Parking and Access Drives pavement section alternatives are provided. General Parking is for areas expected to receive only car traffic. Access Drives assumes areas with some delivery truck traffic, trash trucks, and main access drive areas. If heavier traffic loading is expected, UES should be provided with the information and allowed to review these pavement sections.

Note: The recommended pavement sections provided below are considered the minimum necessary to provide satisfactory performance based on the expected traffic loading. In some cases, City minimum standards for pavement section construction may exceed those provided below.

6.3.1 Pavement Subgrade Preparation

If subgrade improvements recommended in section 6.2 are not performed, pavements supported on-grade could be subjected to potential seasonal movements up to about 4 inches as discussed in Section 6.1.2. of this report. At a minimum the following subgrade preparation should be performed. After final subgrade elevation has been achieved, the exposed subgrade preparation should consist of scarifying the exposed subgrade soils to a depth of at least 6 inches and then lime treating the scarified soils to at least 95 percent of standard Proctor maximum dry density (ASTM D 698) and within the range of -1 to +3 percentage points of the material's optimum moisture content. The pavement subgrade should be proof-rolled as described in Section 7.1 in this report. Recommendations for subgrade preparation (lime treated subgrade) are presented in Section 6.3.4. *Note: Lime treatment should not be used in conjunction with subgrade improvements provided in section 6.2.*

It is recommended that subgrade preparation (lime treated subgrade) extend at least 2 ft beyond the edge of the pavement to reduce effects of seasonal shrinking and swelling upon the extreme edges of pavement. Also, the curb should be constructed such that the base of the curb extends at least 6 inches into the pavement subgrade.

Pavement will have the same potential for movement as discussed in Section 6.1.2 (up to about 4 inches). Good perimeter surface drainage with a minimum slope of 2 percent away from the pavement is recommended. The use of sand as a leveling course below pavement supported on expansive clays should be avoided. Normal maintenance of pavement should be expected over the life of the pavement structures.

6.3.2 Portland Cement Concrete Pavements

Subgrade preparation as described in Sections 6.2 or 6.3.1 are required for PCC pavement. The minimum recommended PCC pavement sections to be constructed are provided in Tables B.1 and B.2:

TABLE B.1
FOLLOWING SUBGRADE IMPROVEMENT PROVIDED IN SECTION 6.2
PORTLAND CEMENT CONCRETE PAVEMENT SECTIONS

	General Parking 30,000 ESAL (inches)	Access Drives 100,000 ESAL (inches)
Reinforced PCC	5.0	6.0
Flexible Base	4.0	4.0

TABLE B.2 FOLLOWING SUBGRADE IMPROVEMENT PROVIDED IN SECTION 6.3.1 PORTLAND CEMENT CONCRETE PAVEMENT SECTIONS				
	General Parking 30,000 ESAL (inches)		Access Drives 100,000 ESAL (inches)	
Reinforced PCC	5.0	5.0	6.0	6.0
Flexible Base	4.0	----	4.0	----
Lime Treated Subgrade	----	6.0	----	6.0

A minimum of 7 inches of PCC is recommended for dumpster pads. PCC should have a minimum compressive strength of 4,000 psi at 28 days. Concrete should be designed with 5 ± 1 percent entrained air.

Pavement Joints and Reinforcement – The following is recommended for all concrete pavement sections in this report. *Note: Refer to ACI 330 for additional information on pavement joints and reinforcement.*

Contraction Joints:

Spacing: 12½ ft each way for pavement thickness of 5 or 5½ inches; 15 ft each way for pavement thickness of 6 or 6½ inches.
Depth: At least one-fourth (¼) of pavement thickness.
Width: One-fourth (¼) inch or as required by joint sealant manufacturer.

Construction Joints:

Spacing: Install at location of contraction joints.
Width/Depth: Full depth of pavement thickness. Construct sealant reservoir along one edge of the joint. Width of reservoir to be one-fourth (¼) inch or as required by joint sealant manufacturer. Depth of reservoir to be at least one-fourth (¼) of pavement thickness.

Isolation Joints:

Spacing: As required to isolate pavement from structures, etc.
Depth: Full depth of pavement thickness.
Width: One-half (½) to one (1) inch or as required by the joint sealant manufacturer.

Expansion Joints: None (see note below)

Note: In this locale, drying shrinkage of concrete typically significantly exceeds anticipated expansion due to thermal affects. As a result, the need for expansion joints is eliminated provided all joints (including saw cuts) are sealed. Construction of an unnecessary joint may also become a maintenance problem. All joints should be sealed. If all joints, including saw cuts, are not sealed then expansion joints should be installed.

Distributed Steel: Steel reinforcement should consist of No 4 reinforcing steel bars at 18 inches on-center-each-way, Grade 60. *Note: It is imperative that the distributed steel be positioned accurately in the pavement cross section.*

All construction joints have dowels. Dowel information varies with pavement thickness as presented as follows.

Pavement Thickness:	5, 5½ inches	6, 6½ inches	7, 7½ inches
Dowels:	⅝ inch diameter	¾ inch diameter	7/8-inch diameter
Dowel Spacing:	12 inches on center	12 inches on center	12 inches on center
Dowel Length:	12 inches long	14 inches long	14 inches long
Dowel Embedment:	5 inches	6 inches	6 inches

6.3.3 Asphalt Concrete Pavements

Subgrade preparation as described in Sections 6.2 or 6.3.1 are required for asphalt concrete pavement. The minimum recommended asphalt concrete pavement sections to be constructed are provided in Table C.1 and C.2. Pavement materials are described in Section 6.3.4.

TABLE C.1
FOLLOWING SUBGRADE IMPROVEMENT PROVIDED IN SECTION 6.2
ASPHALT CONCRETE PAVEMENT SECTIONS

	General Parking 18,000 ESAL (inches)	Access Drives 75,000 ESAL (inches)
HMAC Surface Course – Type D	2.0	2.5
Flexible Base	8.0	10.0

TABLE C.2
FOLLOWING SUBGRADE IMPROVEMENT PROVIDED IN SECTION 6.3.1
ASPHALT CONCRETE PAVEMENT SECTIONS

	General Parking 18,000 ESAL (inches)		Access Drives 75,000 ESAL (inches)	
HMAC Surface Course – Type D	2.0	2.0	2.5	2.5
Flexible Base	12.0	8.0	14.0	10.0
Lime Treated Subgrade	----	6.0	----	6.0

6.3.4 Pavement Materials

Presented below are various materials that may be used to construct the pavement sections at this site. Submittals should be made for each pavement material. The submittals should be reviewed by the Geotechnical Engineer and appropriate members of the design team and should provide test information necessary to verify full compliance with the recommended or specified material properties.

Hot Mix Asphaltic Concrete (HMAC) Courses - The HMAC surface course should be plant mixed, hot laid Type D (TxDOT Standard Specifications Item 341). Each mix should meet the master specifications requirements of 2014 TxDOT Standard Specifications Item 341, Item SS 3224 (2011) and specific criteria for the job mix formula.

Flexible Base – Flexible base should meet TxDOT Standard Specification Item 247 Grade 1-2, Type A. Flexible base should be compacted to a minimum of 95 percent of the materials maximum standard Proctor dry density (ASTM D 698) at a moisture content of -2 to +2 percentage points of optimum moisture.

Lime Treated Subgrade – Due to the presence of clayey soils (with a PI over 20) at this site, the pavement subgrade may be treated with hydrated lime. The subgrade should be scarified to a depth of 6 inches and mixed with a minimum 8 percent hydrated lime (by dry soil weight) in conformance with TxDOT Standard Specification Item 260. Assuming an in-place unit weight of 100 pcf for the pavement subgrade soils, this percentage of lime equates to about 36 lbs of lime per square yard of treated subgrade. The actual amount of lime required should be confirmed by additional laboratory tests (ASTM C 977 Appendix XI) prior to construction. The soil-lime mixture should be compacted to at least 95 percent of standard Proctor maximum dry density (ASTM D 698) and within the range of 0 to 4 percentage points above the mixture's optimum moisture content. In all areas where hydrated lime is used to stabilize subgrade soil, routine Atterberg-limit tests should be performed to verify the resulting plasticity index of the soil-lime mixture is at/or below 20 percent. Subgrade preparation utilizing lime stabilization as described herein will not prevent normal seasonal movement of the underlying untreated materials.

6.4 Drainage

Adequate drainage should be provided to reduce seasonal variations in the moisture content of foundation soils. All pavement and sidewalks within 10 ft of buildings should be sloped away from buildings to prevent ponding of water around buildings. Final grades within 10 ft of existing structures should be adjusted to slope away from those structures at a minimum slope of 2 percent. **Maintaining positive surface drainage throughout the life of the structure is essential.**

In areas with pavement or sidewalks adjacent to the structures, a positive seal must be maintained between the structure and the pavement or sidewalk to minimize seepage of water into the underlying supporting soils. Post-construction movement of pavement and flatwork is common. Normal maintenance should include examination of all joints in paving and sidewalks, etc. as well as resealing where necessary.

Several factors relate to civil and architectural design and/or maintenance, which can significantly affect future movements of the flatwork and pavement systems:

- Large trees and shrubs should not be allowed closer to the pavements or flatwork than a horizontal distance equal to roughly their mature canopy due to their significant moisture demand upon maturing. *Note: A landscape expert may be consulted to evaluate the precise extents of potential root growth for specific tree and shrub species so that root growth beneath the flatwork and pavements can be avoided.*

- Moisture conditions should be maintained "constant" around the edge of the pavements and sidewalks. Ponding of water in planters, in unpaved areas, and around joints in paving and sidewalks can cause soil induced movements beyond those predicted in this report.

- Planter box structures placed adjacent to the pavements and sidewalks should be provided with a means to assure concentrations of water are not available to the subsoil stratigraphy.

- The root systems from any existing trees cleared/removed at this site will have dried and desiccated the surrounding clay soils, resulting in soil with near-maximum swell potential. Clay soils surrounding tree root mats within the pavement areas or flatwork areas should be removed to a depth of 3 ft and compacted in-place with moisture and density control as described in Section 7.3.

Trench backfill for utilities should be properly placed and compacted as outlined in Section 7.3 and in accordance with requirements of local City standards. Since granular bedding backfill is used for most utility lines, the backfilled trench should not become a conduit and allow access for surface or subsurface water to travel toward the structures. Concrete cut-off collars or clay plugs should be provided where utility lines cross building lines to prevent water from traveling in the trench backfill and entering beneath the structures.

7.0 GENERAL CONSTRUCTION PROCEDURES AND RECOMMENDATIONS

Variations in subsurface conditions could be encountered during construction. To permit correlation between boring data and actual subsurface conditions encountered during construction, it is recommended UES be retained to observe construction procedures and materials.

Some construction problems, particularly degree or magnitude, cannot be anticipated until the course of construction. The recommendations offered in the following paragraphs are intended not to limit or preclude other conceivable solutions, but rather to provide our observations based on our experience and understanding of the project characteristics and subsurface conditions encountered in the borings.

7.1 Site Preparation and Grading

All areas supporting pavement, flatwork, or areas to receive new fill should be properly prepared.

- After completion of the necessary stripping, clearing, and excavating and prior to placing any required fill, the exposed soil subgrade should be carefully evaluated by probing and testing. Any undesirable material (organic material, wet, soft, or loose soil) still in place should be removed.

- The exposed soil subgrade should be further evaluated by proof-rolling with a heavy pneumatic tired roller, loaded dump truck or similar equipment weighing approximately 15 tons to check for pockets of soft or loose material hidden beneath a thin crust of possibly better soil.

- Proof-rolling procedures should be observed routinely by a UES Professional Engineer, or his designated representative.

- Any undesirable material (organic material, wet, soft, or loose soil) exposed during the proofroll should be removed and replaced with well-compacted material as outlined in Section 7.3.

- Prior to placement of any fill, the exposed soil subgrade should then be scarified to a minimum depth of 6 inches and recompacted as outlined in Section 7.3.

Slope stability analysis of embankments (natural or constructed) was not within the scope of this study. If fill is to be placed on existing slopes (natural or constructed) steeper than six (6) horizontal to one (1) vertical (6:1), the fill materials should be benched into the existing slopes in such a manner as to provide a minimum bench width of five (5) ft. This should provide a good contact between the existing soils and new fill materials, reduce potential sliding planes and allow relatively horizontal lift placements.

The contractor is responsible for designing any excavation slopes, temporary sheeting or shoring. Design of these structures should include any imposed surface surcharges. Construction site safety is the sole responsibility of the contractor, who shall also be solely responsible for the means, methods and sequencing of construction operations. The contractor should also be aware that slope height, slope inclination or excavation depths (including utility trench excavations) should in no case exceed those specified in local, state and/or federal safety regulations, such as OSHA Health and Safety Standard for Excavations, 29 CFR Part 1926, or successor regulations. Stockpiles should be placed well away from the edge of the excavation and their heights should be controlled so they do not surcharge the sides of the excavation. Surface drainage should be carefully controlled to prevent flow of water over the slopes and/or into the excavations. Construction slopes should be closely observed for signs of mass movement, including tension cracks near the crest or bulging at the toe. If potential stability

problems are observed, a geotechnical engineer should be contacted immediately. Shoring, bracing or underpinning required for the project (if any) should be designed by a professional engineer registered in the State of Texas.

Due to the nature of the clayey soils found near the surface at the borings, traffic of heavy equipment (including heavy compaction equipment) may create pumping and general deterioration of shallow soils. Therefore, some construction difficulties should be anticipated during periods when these soils are saturated.

7.2 Excavations

All excavations should be monitored to verify bearing stratum consists of suitable material. The bearing stratum exposed in the base of all excavations should be protected against any detrimental change in conditions. Surface runoff water should be drained away from excavations and not allowed to collect. All concrete should be placed as soon as practical after the excavation is made. Prolonged exposure of the bearing surface to air or water will result in changes in strength and compressibility of the bearing stratum. All excavations should not be left open for more than 48 hours.

Groundwater was not encountered during drilling at this site. However, from our experience, seasonal groundwater seepage could be encountered at the site during excavation, and the risk of encountering seepage is increased during or after periods of precipitation. UES should be contacted for further review and evaluation if groundwater seepage is encountered during excavation.

7.3 Fill Compaction

The following fill materials and compaction recommendations provided below are applicable for general site grading in the pavement and flatwork areas.

Select Fill – Materials used as select fill material should consist of a “non-expansive” material with a liquid limit less than 35 percent, a PI not less than about 5 percent or greater than 15 percent. All select fill material should contain no deleterious material and should be compacted to a dry density of at least 95 percent standard Proctor maximum dry density (ASTM D 698) and within the range of 1 percentage point below to 3 percentage points above the material's optimum moisture content. *Note: The plasticity index and liquid limit of material used as select fill material should be routinely verified during placement using laboratory tests. Visual observation and classification should not be relied upon to confirm the material to be used as select fill material satisfies the above Atterberg-limit criteria.*

Flexible Base – Flexible base used in the building pad should consist of material meeting the requirements of TxDOT Standard Specifications Item 247, Type A Grade 1-2. The flexible base should be compacted to at least 95 percent of modified Proctor maximum dry density (ASTM D 1557) and within the range of 2 percentage points below to 2 percentage points above the material's optimum moisture content.

The following fill compaction recommendations provided below are applicable for general site grading. *Note: Imported soils used as general fill should consist of material with a PI not greater than 35 percent.*

General Fill (Clay) – Clay soils should be compacted to a dry density between 95 and 100 percent of Standard Proctor maximum dry density (ASTM D 698). The compacted moisture content of the clays during placement should be within the range of 0 to 4 percentage points above optimum. Clayey materials used as fill should be processed and the largest particle or clod should be less than 6 inches prior to compaction.

General Fill (Granular) – Granular materials should be compacted to a dry density between 95 and 100 percent of Standard Proctor maximum dry density (ASTM D 698). The compacted moisture content of the granular soils during placement should be within the range of -2 to +2 percentage points of optimum.

Prior to placement of any fill or foundation, the subgrade should be scarified to a depth of 6 inches and recompacted to a dry density of at least 95 percent of standard Proctor maximum dry density (ASTM D 698) and within the range of +1 to +4 percentage points of the material's optimum moisture content.

In cases where mass fills outside the structure areas are more than 12 ft deep, the fill below 12 ft should be compacted to at least 100 percent of standard Proctor maximum dry density (ASTM D-698) and within 2 percentage points of the material's optimum moisture content. The portion of the fill shallower than 12 ft should be compacted as outlined above. *Note: Even if fill is properly compacted, fills in excess of about 12 ft are still subject to settlements over time of up to about 1 to 2 percent of the total fill thickness. This should be considered when designing structures and pavements on relatively deep backfill. UES should be contacted if alterative backfill recommendations are required to reduce settlement of mass fills.*

Compaction should be accomplished by placing fill in about 8-inch thick loose lifts and compacting each lift to at least the specified minimum dry density. Field density and moisture content tests should be performed on each lift. A qualified geotechnical engineering firm should be retained to perform sufficient in-place density tests during the filling operations to evaluate that proper levels of compaction, including dry unit weight and moisture content, are being attained. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris or materials exceeding 4 inches in maximum dimension. *Note: We recommend any imported fill to be used at this site be approved by UES prior to placement.*

7.4 Utilities

Where utility lines are deeper than 12 ft, the fill/backfill below 12 ft should be compacted to at least 100 percent of standard Proctor maximum dry density (ASTM D 698) and within 2 percentage points of the material's optimum moisture content. The portion of the fill/backfill shallower than 12 ft should be compacted as previously outlined. Density tests should be performed on each lift (maximum 12-inch thick) and should be performed as the trench is being backfilled. *Even if fill is properly compacted, fills in excess of about 12 ft are still subject to settlements over time of up to about 1 to 2 percent of the total fill thickness. This should be considered when designing pavement over utility lines.*

If utility trenches or other excavations extend to or beyond a depth of 5 ft below construction grade, the contractor or others shall be required to develop an excavation safety plan to protect personnel entering the excavation or excavation vicinity. The collection of specific geotechnical data and the development of such a plan, which could include designs for sloping and benching or various types of temporary shoring, is beyond the scope of this study. Any such designs and safety plans shall be developed in accordance with current OSHA guidelines and other applicable industry standards.

7.5 Groundwater

Groundwater was not encountered during drilling at this site. However, from our experience with similar soils, seasonal groundwater seepage could be encountered in excavations for grade beams, foundations, utility conduits and other general excavations. The risk of encountering seepage increases with depth of excavation and during or after periods of precipitation. Standard sump pits and pumping may be adequate to control minor seepage on a local basis in relatively shallow excavations.

In any areas where cuts are made to establish final grades at the site, attention should be given to possible seasonal water seepage that could occur through natural cracks and fissures in the newly exposed stratigraphy. Subsurface drains may be required to intercept seasonal groundwater seepage. The need for these or other de-watering devices should be carefully addressed during construction. Our office could be contacted to visually observe the final grades to evaluate the need for such drains.

8.0 LIMITATIONS

Professional services provided in this geotechnical exploration were performed, findings obtained, and recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. The scope of services provided herein does not include an environmental assessment of the site or investigation for the presence or absence of hazardous materials in the soil, surface water or groundwater. UES, upon written request, can be retained to provide these services.

UES is not responsible for conclusions, opinions or recommendations made by others based on this data. Information contained in this report is intended for the exclusive use of the Client (and their designated design representatives), and is related solely to design of the specific structures outlined in Section 2.0. No party other than the Client (and their designated design representatives) shall use or rely upon this report in any manner whatsoever unless such party shall have obtained UES's written acceptance of such intended use. Any such third party using this report after obtaining UES's written acceptance shall be bound by the limitations and limitations of liability contained herein, including UES's liability being limited to the fee paid to it for this report. Recommendations presented in this report should not be used for design of any other structures except those specifically described in this report. In all areas of this report in which UES may provide additional services if requested to do so in writing, it is presumed that such requests have not been made if not evidenced by a written document accepted by UES. Further, subsurface conditions can change with passage of time. Recommendations contained herein are not considered applicable for an extended period of time after the completion date of this report. It is recommended our office be contacted for a review of the contents of this report for construction commencing more than one (1) year after completion of this report. Non-compliance with any of these requirements by the Client or anyone else shall release UES from any liability resulting from the use of, or reliance upon, this report.

Recommendations provided in this report are based on our understanding of information provided by the Client about characteristics of the project. If the Client notes any deviation from the facts about project characteristics, our office should be contacted immediately since this may materially alter the recommendations. Further, UES is not responsible for damages resulting from workmanship of designers or contractors. It is recommended the Owner retain qualified personnel, such as a Geotechnical Engineering firm, to verify construction is performed in accordance with plans and specifications.

APPENDIX

A-1 METHODS OF FIELD EXPLORATION

A truck-mounted, rotary drill rig equipped with continuous flight augers were used to advance the boreholes. A total of two (2) borings were performed for this geotechnical exploration at the approximate locations shown on the Boring Location Plans, Figure 1B and 1C. The boring locations were staked by either pacing or taping and estimating right angles from landmarks which could be identified in the field and as shown on the site plan provided during this study. The locations of the borings shown on the Boring Location Plan are considered accurate only to the degree implied by the methods used to define them. The approximate latitude and longitude coordinates at each boring location were obtained using a handheld GPS device.

Samples of granular and cohesive materials were obtained using split-spoon sampling procedures in general accordance with ASTM Standard D 1586. Disturbed samples were obtained at selected depths in the borings by driving a standard 2-inch O.D. split-spoon sampler 18 inches into the subsurface material using a 140-pound hammer falling 30 inches. The number of blows required to drive the split-spoon sampler the final 12 inches of penetration (N-value) is recorded in the appropriate column on the boring logs. However, if the sampler was not driven the initial 6-inch seating increment with 50 hammer blows, refusal (i.e. “ref”) is recorded along with the inches driven on the logs.

Our field representative prepared field logs as part of the field exploration. The field logs included visual descriptions of the materials encountered during drilling and their interpretation of the subsurface conditions between samples. The Log of Boring sheets included in this report represent the engineer’s interpretation of the field logs and include modifications based on visual observations using the Unified Soil Classification System (USCS) and testing of the samples in the laboratory. **Samples not consumed by testing will be retained in our laboratory for at least 30 days and then discarded unless the Client requests otherwise.**

SITE VICINITY MAP

LOCATION IS APPROXIMATE

FIGURE 1A

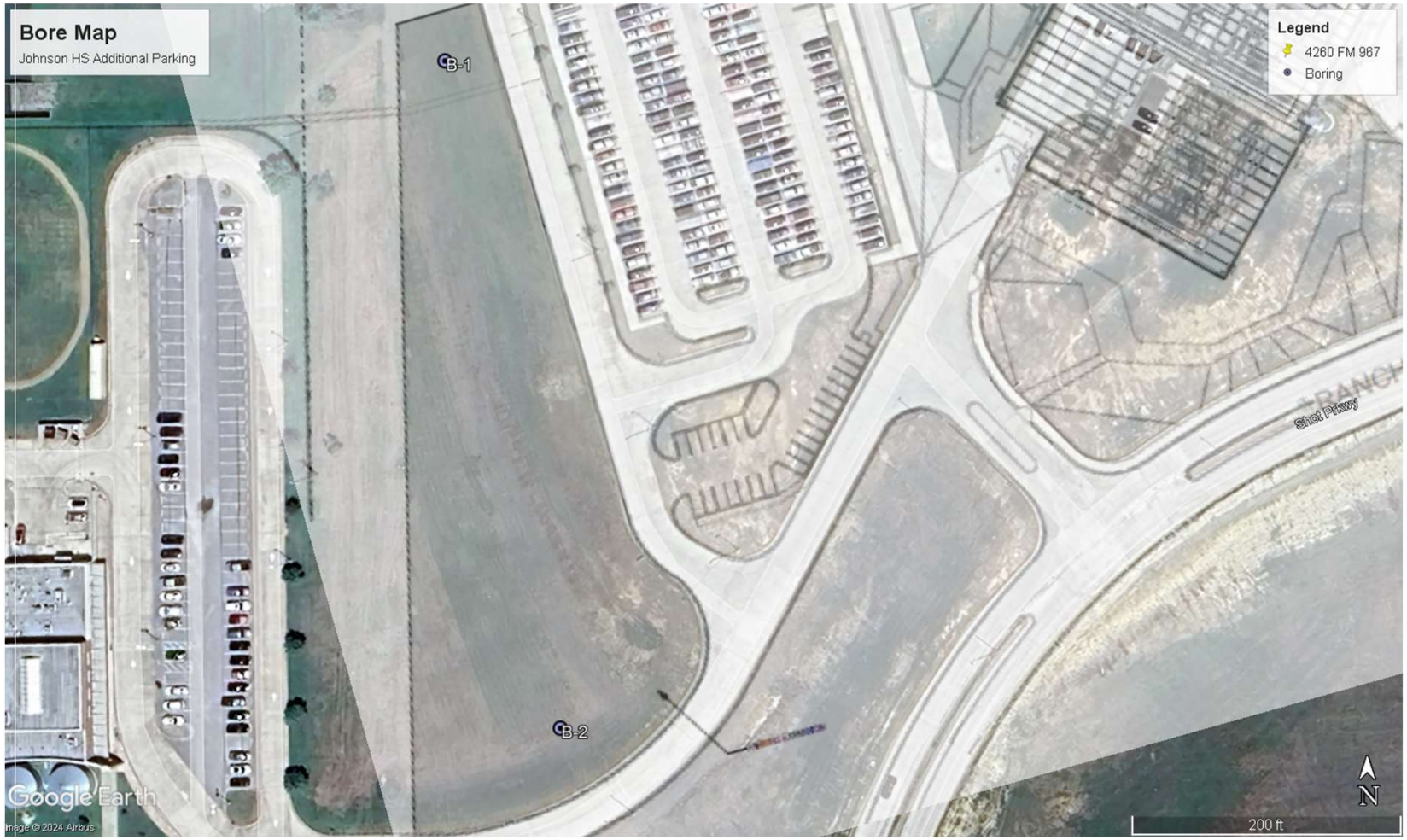
Hays Consolidated Independent School District
UES Project No.: 24-0926

Moe & Gene Johnson High School
4260 FM 967
Buda, Texas

BORING LOCATION MAP 1

LOCATIONS ARE APPROXIMATE

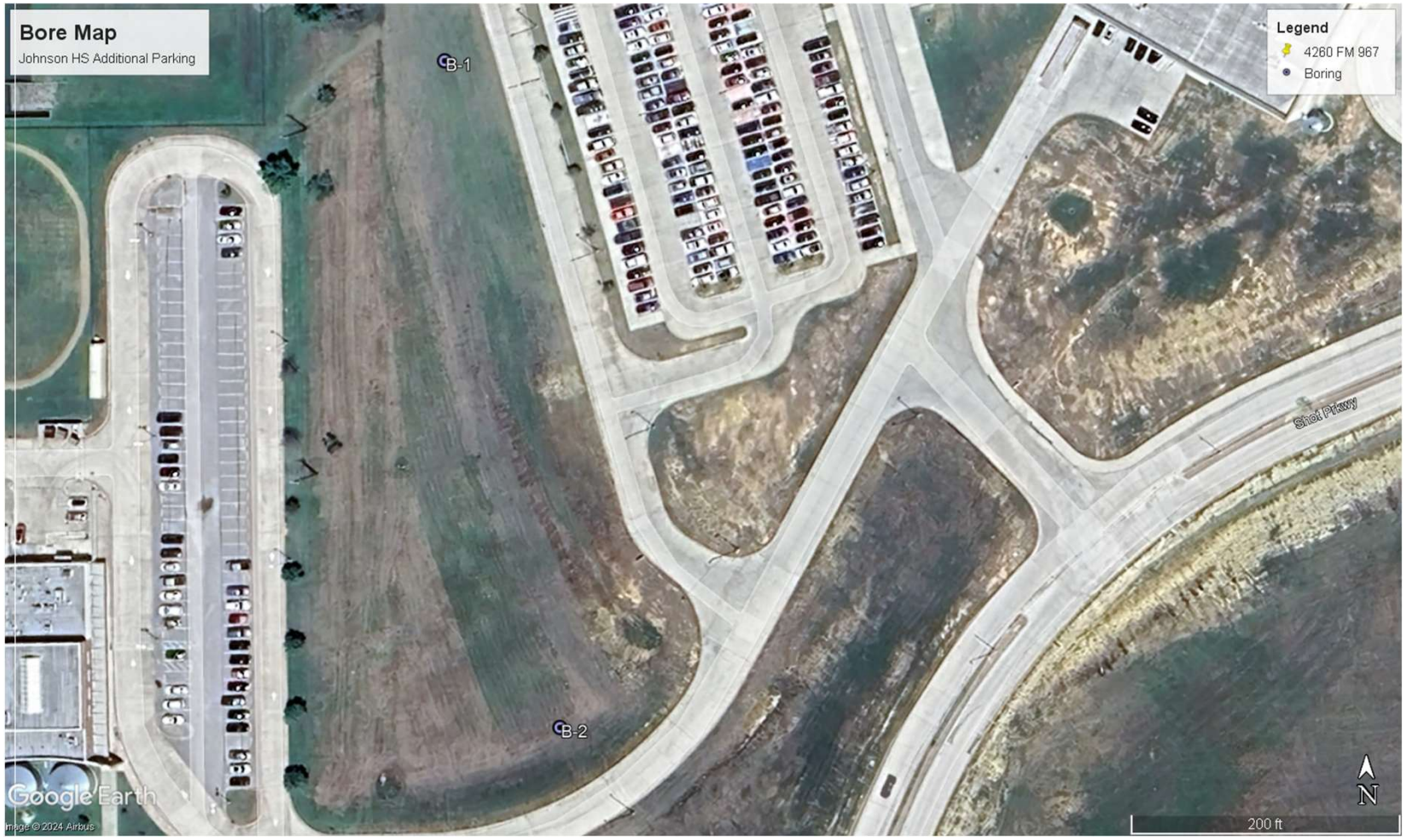
FIGURE 1B



BORING LOCATION MAP 2

LOCATIONS ARE APPROXIMATE

FIGURE 1C



B-1 METHODS OF LABORATORY TESTING

Representative samples were inspected and classified by a qualified member of the Geotechnical Division and the boring logs were edited as necessary. To aid in classifying the subsurface materials and to determine the general engineering characteristics, natural moisture content tests (ASTM D 2216), Atterberg-limit tests (ASTM D 4318), and percent passing No. 200 Sieve (ASTM D 1140) were performed on selected samples. In addition, pocket-penetrometer tests were conducted on selected soil samples to evaluate the soil shear strength. Results of these laboratory tests are provided on the Logs of Boring sheets.

In addition to the Atterberg-limit tests, the expansive properties of the clay soils were further analyzed by absorption swell tests (ASTM D 4546, Method B). The swell test is performed by placing a selected sample in a consolidation machine and applying the overburden pressure and then allowing the sample to absorb water. When the sample exhibits very little tendency for further expansion, the height increase is recorded and the percent swell and total moisture gain calculated. Results of the absorption swell tests are provided on the Swell Test Data sheet, Figure 2, included in this appendix.

UES Professional Solutions 44, LLC
10856 Vandale Street
San Antonio, Texas 78216
Geotechnical I Construction Materials I Environmental
www.TeamUES.com
TBPE Firm No. 813 / TBPG Firm No. 50341

UES REPORT NO.: 24-0926 DATE: 7/17/24

TEST METHOD: ASTM D4546, Method B

TESTED FOR: Hays CISD
Kyle, Texas

PROJECT: Johnson High School - Additional Parking
Buda, Texas

TECHNICIAN: Alex Rosales

SWELL TEST RESULTS

Boring No.	**B-1**						
Average Depth (ft)	5						
Applied Overburden (psi)	4.3						
Liquid Limit (%)	75						
Plastic Limit (%)	21						
Plastic Index (%)	54						
Initial Moisture Content (%)	24						
Final Moisture Content (%)	27						
Unit Wet Weight (pcf)	123						
Unit Dry Weight (pcf)	99						
Swell (%)	0.7						

FIGURE 2

LOG OF BORING B-01

UES Professional Solutions 44, LLC
10856 Vandale Street
San Antonio, Texas 78216
Telephone: 210-495-8000
Fax: 210-495-8015

CLIENT: Hays Consolidated Independent School District
PROJECT: Johnson High School - Additional Parking
LOCATION: 4260 FM 967, Buda, Texas
NUMBER: 24-0926
DATE(S) DRILLED: 08/13/2024 - 08/13/2024

DRILLING METHOD(S):
Solid Flight Auger

GROUNDWATER INFORMATION:
Groundwater was not encountered during drilling, and the boring was dry upon completion of drilling.

SURFACE ELEVATION: N/A

SOIL SYMBOL	DEPTH (FT)	SAMPLE NUMBER	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: TONS/SQ FT Qc: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PL	ATTERBERG LIMITS PI	DRY DENSITY POUNDS/CU.FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	MINUS NO. 200 SIEVE (%)	DESCRIPTION OF STRATUM
												FIELD DATA / LABORATORY DATA
	1	SPT		N=10	14	54	20	34			83	**POSSIBLE FILL: FAT CLAY WITH SAND**, stiff, dark brown. (CH)
	2											
	3	SPT		N=10	20							
	4											
	5	ST		P=4.5+	24	75	21	54	99		87	**FAT CLAY**, very stiff, dark brown to brown. (CH) - (swell result = 0.7%, final moisture = 27%)
	6											
	7	ST		P=3.0	18							
	8											
	9	ST		P=4.0	17	52	19	33			81	**FAT CLAY WITH SAND**, very stiff, light brown and gray, with gypsum deposits. (CH)
	10											
	11											
	12											
	13											
	14	SPT		N=20	20							
	15											Boring terminated at a depth of 15-feet.

N - STANDARD PENETRATION TEST RESISTANCE
Qc - STATIC CONE PENETROMETER TEST INDEX
P - POCKET PENETROMETER RESISTANCE

REMARKS:
Boring location determined by UES. Drilling operations performed by UES.
GPS Coordinates: N 30.09833°, W -97.89522°

LOG OF BORING B-02

UES Professional Solutions 44, LLC
10856 Vandale Street
San Antonio, Texas 78216
Telephone: 210-495-8000
Fax: 210-495-8015

CLIENT: Hays Consolidated Independent School District
PROJECT: Johnson High School - Additional Parking
LOCATION: 4260 FM 967, Buda, Texas
NUMBER: 24-0926
DATE(S) DRILLED: 08/13/2024 - 08/13/2024

DRILLING METHOD(S):
Solid Flight Auger

GROUNDWATER INFORMATION:
Groundwater was not encountered during drilling, and the boring was dry upon completion of drilling.

SURFACE ELEVATION: N/A

FIELD DATA					LABORATORY DATA							
SOIL SYMBOL	DEPTH (FT)	SAMPLE NUMBER	SAMPLES	N: BLOWS/FT P: TONS/SQ FT T: TONS/SQ FT Qc: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT LL	ATTERBERG LIMITS PLASTIC LIMIT PL	ATTERBERG LIMITS PLASTICITY INDEX PI	DRY DENSITY POUNDS/CU.FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	MINUS NO. 200 SIEVE (%)	DESCRIPTION OF STRATUM
	1	ST		N=10	17							**POSSIBLE FILL: FAT CLAY**, stiff, dark brown.
	2											**POSSIBLE FILL: CLAYEY SAND**, reddish brown. (SC)
	3	ST		P=4.5	9	38	13	25			45	
	4											
	5	SPT		N=50/5"	5							**CLAYEY SAND**, medium dense to very dense, marly, light brown. (SC)
	6											
	7	SPT		N=16	9	41	16	25			38	
	8											
	9	SPT		N=50/5"	5							
	10											
	11											
	12											
	13											
	14	SPT		N=50/5"	5	21	12	9			47	
	15											Boring terminated at a depth of 15-feet.

N - STANDARD PENETRATION TEST RESISTANCE
Qc - STATIC CONE PENETROMETER TEST INDEX
P - POCKET PENETROMETER RESISTANCE

REMARKS:
Boring location determined by UES. Drilling operations performed by UES.
GPS Coordinates: N 30.09698°, W -97.89495°

UES™

KEY TO SOIL CLASSIFICATION AND SYMBOLS

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		SYMBOL	NAME
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well Graded Gravels or Gravel-Sand mixtures, little or no fines
		GP	Poorly Graded Gravels or Gravel-Sand mixtures, little or no fines
		GM	Silty Gravels, Gravel-Sand-Silt mixtures
		GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	SAND AND SANDY SOILS	SW	Well Graded Sands or Gravelly Sands, little or no fines
		SP	Poorly Graded Sands or Gravelly Sands, little or no fines
		SM	Silty Sands, Sand-Silt Mixtures
		SC	Clayey Sands, Sand-Clay mixtures
	SILTS AND CLAYS LL < 50	ML	Inorganic Silts and very fine Sands, Rock Flour, Silty or Clayey fine Sands or Clayey Silts
		CL	Inorganic Clays of low to medium plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
		OL	Organic Silts and Organic Silt-Clays of low plasticity
	SILTS AND CLAYS LL > 50	MH	Inorganic Silts, Micaceous or Diatomaceous fine Sandy or Silty soils, Elastic Silts
		CH	Inorganic Clays of high plasticity, Fat Clays
		OH	Organic Clays of medium to high plasticity, Organic Silts
NON USCS MATERIALS			Limestone
			Marl/Claystone
			Sandstone

TERMS CHARACTERIZING SOIL STRUCTURE

SLICKENSIDED - having inclined planes of weakness that are slick and glossy in appearance

FISSURED - containing shrinkage cracks, frequently filled with fine sand or silt; usually more or less vertical

LAMINATED (VARVED) - composed of thin layers of varying color and texture, usually grading from sand or silt at the bottom to clay at the top

CRUMBLY - cohesive soils which break into small blocks or crumbs on drying

CALCAREOUS - containing appreciable quantities of calcium carbonate, generally nodular

WELL GRADED - having wide range in grain sizes and substantial amounts of all intermediate particle sizes

POORLY GRADED - predominantly of one grain size uniformly graded) or having a range of sizes with some intermediate size missing (gap or skip graded)

SYMBOLS FOR TEST DATA

- Groundwater Level (Initial Reading)
- Groundwater Level (Final Reading)
- Shelby Tube Sample
- SPT Samples
- Auger Sample
- Rock Core
- Texas Cone Penetrometer
- Grab Sample

TERMS DESCRIBING CONSISTENCY OF SOIL

COARSE GRAINED SOILS		FINE GRAINED SOILS		
DESCRIPTIVE TERM	NO. BLOWS/FT. STANDARD PEN. TEST	DESCRIPTIVE TERM	NO. BLOWS/FT. STANDARD PEN. TEST	UNCONFINED COMPRESSION TONS PER SQ. FT.
Very Loose	0 - 4	Very Soft	< 2	< 0.25
Loose	4 - 10	Soft	2 - 4	0.25 - 0.50
Medium Dense	10 - 30	Firm	4 - 8	0.50 - 1.00
Dense	30 - 50	Stiff	8 - 15	1.00 - 2.00
Very Dense	over 50	Very Stiff	15 - 30	2.00 - 4.00
		Hard	over 30	over 4.00

Field Classification for "Consistency" of Fine Grained Soils is determined with a 0.25" diameter penetrometer

GEOTECHNICAL EXPLORATION

JOHNSON HIGH SCHOOL
4260 FM 967
Buda, Texas
UES Report No. A251018
April 16, 2025

Prepared for:

HAYS CONSOLIDATED INDEPENDENT SCHOOL DISTRICT
21003 Interstate 35 Frontage Road
Kyle, Texas 78640

Attention: Nathan Wensowitch

Prepared By:

UES™

April 16, 2025

Hays Consolidated Independent School District
21003 Interstate 35 Frontage Road
Kyle, Texas 78640

Attention: Nathan Wensowitch

Re: Geotechnical Exploration
Johnson High School
4260 FM 967
Buda, Texas
UES Report No. A251018

Attached is the report of the geotechnical exploration performed for the project referenced above. This study was authorized by Nathan Wensowitch with Hays Consolidated Independent School District on February 5, 2025 and performed in accordance with UES Proposal No. P25-0176 dated February 5, 2025 and Hays CISD Purchase Order #25003603.

This report contains results of field explorations, laboratory testing and an engineering interpretation of these with respect to available project characteristics. The results and analyses were used to develop recommendations to aid design and construction of foundations and pavements.

UES Professional Solutions 44, LLC (UES) appreciates the opportunity to be of service on this project. If we can be of further assistance, such as providing materials testing services during construction, please contact our office.

Sincerely,

UES PROFESSIONAL SOLUTIONS 44, LLC

Sebastian L. Aleman, E.I.T.
Geotechnical Project Manager

Lee E. Gurecky, PE
Geotechnical Department Manager

SLA/LEG
Copies: (1-PDF) Nathan Wensowitch; Hays CISD

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UES REPORT NO. A251018

APPENDIX

1.0 PURPOSE AND SCOPE

The purpose of this geotechnical exploration is for UES PROFESSIONAL SOLUTIONS 44, LLC (UES) to evaluate for HAYS CONSOLIDATED INDEPENDENT SCHOOL DISTRICT (Client) some of the physical and engineering properties of subsurface materials at selected locations on the subject site with respect to formulation of appropriate geotechnical design parameters for the proposed construction. The field exploration was accomplished by securing subsurface samples from widely spaced test borings performed across the expanse of the site. Engineering analyses were performed from results of the field exploration and results of laboratory tests performed on representative samples.

Also included are general comments pertaining to reasonably anticipated construction problems and recommendations concerning earthwork and quality control testing during construction. This information can be used to evaluate subsurface conditions and to aid in ascertaining construction meets project specifications.

Recommendations provided in this report were developed from information obtained in borings depicting subsurface conditions only at the specific boring locations and at the particular time designated on the logs. Subsurface conditions at other locations may differ from those observed at the boring locations, and subsurface conditions at boring locations may vary at different times of the year. The scope of work may not fully define the variability of subsurface materials and conditions that are present on the site.

The nature and extent of variations between borings may not become evident until construction. If significant variations then appear evident, determined by experienced on-site personnel, our office should be contacted to re-evaluate our recommendations after performing additional onsite observations and possibly other tests.

2.0 PROJECT CHARACTERISTICS

It is proposed to design and construct a new weight room and multipurpose academic building to be located at the existing Johnson High School in Buda, Texas. A Site Vicinity Plan and Boring Location Plans illustrating the general outline of the property are provided in the Appendix of this report. A site grading plan, including initial and final contours, was not available at the time of this study. For the purpose of this study, we have assumed the final site grades will be within 2-feet of existing grades.

We understand that a deep foundation system with a structurally supported floor slab will be considered to support the proposed structures at this site. The client has indicated that design PVR/PVM of ¾ and ½-inch are desired for this project. We anticipate the maximum column loads will not exceed 300-kips.

3.0 FIELD EXPLORATION

Subsurface conditions on the site were explored by drilling a total of three (3) test borings in general accordance with ASTM D 420 using rotary drilling equipment equipped with solid flight augers to advance the borings to their termination depth. The corresponding location of each boring is provided in Table A.

TABLE A		
Locations	**Boring No.**	**Boring Depth, *ft***
Multipurpose Academic Building	B-1 and B-2	35
Future Weight Room	B-3	35

The approximate location of each boring is shown on the Boring Location Plan enclosed in the Appendix. Details of drilling and sampling operations are briefly summarized in Methods of Field Exploration, Section A-1 of the Appendix.

Subsurface types encountered during the field exploration are presented on the Log of Boring sheets (boring logs) included in the Appendix. The boring logs contain our Field Technician's and Engineer's interpretation of conditions believed to exist between actual samples retrieved. Therefore, these boring logs contain both factual and interpretive information. Lines delineating subsurface strata on the boring logs are approximate and the actual transition between strata may be gradual.

4.0 LABORATORY TESTS

Selected samples of the subsurface materials were tested in the laboratory to evaluate their engineering properties as a basis in providing recommendations for foundation design and earthwork construction. A brief description of testing procedures used in the laboratory can be found in Methods of Laboratory Testing, Section B-1 of the Appendix. Individual test results are presented on boring logs or summary data sheets enclosed in the Appendix.

5.0 GENERAL SUBSURFACE CONDITIONS

The Geologic Map of Texas, published by the University of Texas at Austin, Bureau of Economic Geology, has mapped the Del Rio Clay and Georgetown Limestone, undivided (Kdg) formation in the general area of the project site. The Del Rio Clay formation generally consists of clay. The Georgetown Limestone formation generally consists of limestone and marl.

Within the 35-foot maximum depth explored on the site, subsurface materials consist generally of low to very high plasticity FILL: CLAYEY SAND (SC), FILL: LEAN CLAY (CL), FAT CLAY (CH), MARLY, FAT CLAY (CH), LEAN CLAY (CL), CLAYEY SAND with GRAVEL (SC), and WEATHERED LIMESTONE. Fill material was encountered at depths from about 4 to 5 feet below existing grades in borings B-1 and B-3. Weathered Limestone was encountered at a depth of about 13½ feet below the existing ground surface at boring B-2. The letters in parenthesis represent the soils' classification

according to the Unified Soil Classification System (ASTM D 2488). More detailed stratigraphic information is presented on the boring logs attached to this report.

The clayey materials and weathered limestone encountered are considered relatively impermeable and are anticipated to have a relatively slow response to water movement. The granular materials are considered relatively permeable and are anticipated to have a relatively fast response to water movement. Therefore, several days of observation would be required to evaluate actual groundwater levels within the depths explored. Also, the groundwater level at the site is anticipated to fluctuate seasonally depending on the amount of rainfall, prevailing weather conditions and subsurface drainage characteristics.

Groundwater was not encountered during or immediately after drilling below the existing ground surface in the borings at this site. However, it is common to detect seasonal groundwater from natural fractures within the clayey matrix, soil rock interface, fill material, and in the granular materials, particularly during or after periods of precipitation. If more detailed groundwater information is required, monitoring wells or piezometers can be installed. Further details concerning subsurface materials and conditions encountered can be obtained from the boring logs provided in the Appendix.

6.0 DESIGN RECOMMENDATIONS

The following design recommendations were developed on the basis of the previously described Project Characteristics (Section 2.0) and General Subsurface Conditions (Section 5.0). If project criteria should change, our office should conduct a review to determine if modifications to the recommendations are required. Further, it is recommended our office be provided with a copy of the final plans and specifications for our review prior to construction.

6.1 General Considerations

The foundation system being considered to provide support for the proposed structures must satisfy two independent engineering criteria. One criterion is the foundation system must be designed with an appropriate factor of safety, or a performance limit state, to reduce the possibility of soil failure when subjected to axial and lateral load conditions. The other criterion is foundation movements, whether vertical, horizontal, or rotational, must be within allowable operational limits of the structure. These criteria can be achieved for the planned structure foundations if they are designed and constructed in accordance with the recommendations contained in this report.

Design criteria given in this report were developed assuming the floor slab of the building is constructed within 2-feet of existing grade. Substantial cutting and filling (more than 2-feet) on the site can alter the recommended foundation design parameters. Therefore, it is recommended UES be contacted before performing other cutting and filling on site to verify the appropriate design parameters are utilized for final foundation design.

6.1.1 Existing Fill

As stated in Section 5.0, existing fill was encountered to a depth of up to 5-feet below the existing ground surface in some of the borings at this site. Such fill may also exist in areas other than those explored to greater or lesser depths. We understand the fill was placed during initial development of the school and was tested by others. Evaluation of the consistency and compaction of the existing fill are considered beyond the scope of this study. The following recommendations are predicated upon our understanding that all of the existing fill encountered on the site meets or exceeds the recommendations contained in Section 7.3 of this report. *Note: It is recommended the Client obtain written confirmation from a Professional Engineer that the existing fill was tested upon placement and has been adequately compacted for support of the flatwork and pavements.*

If documentation of the fill is not available, removal and replacement of all fill is the only method of eliminating the risk of unusual settlement associated with the fill. Samples obtained of the uncontrolled fill were generally free of significant voids. In the absence of documented density control, the possibility of under-compacted zones or voids may exist within the uncontrolled fill.

Although not encountered at the borings, uncontrolled fills can contain boulders, rubble, debris, organic materials, and other unsuitable materials. Excavation and grading contracts should contain provision for removal of unsuitable materials. Test pits could be performed prior to construction to assess the depth, lateral extent, and nature of the existing fill. UES would be pleased to assist with a test pit program if desired. *Note: We recommend that the buildings be supported by a drilled pier foundation with a structurally suspended slab. As such, existing fill will not be required to be removed or reworked within the building pad. However, fill encountered with the flatwork areas and pavements should be reworked or replaced, if testing upon placement can not be confirmed.*

6.1.2 Vertical Movements

Expansive soils are present at this site. This report provides recommendations to reduce the effects of soil shrinkage and expansion. However, even if these recommendations are followed, some movement and cracking in the structures and any flatwork should be anticipated. The severity of cracking and other damage such as uneven floor slabs will probably increase if any modification of the site results in excessive wetting or drying of the expansive soils.

Grade supported structures at this site (including foundations) could experience soil-related potential seasonal movements (i.e. PVM) of about 1½ to 4-inches. Note: These PVR values were estimated using on-site or similar soil with a Plasticity Index (PI) of 40 or less to raise grades a maximum of 2-feet.

These potential seasonal movements were also estimated in general accordance with methods outlined by the Texas Department of Transportation (TxDOT) Test Method Tex-124-E, engineering judgment, and experience. The estimated movement was calculated assuming the moisture content of the in-situ soil within the normal zone of seasonal moisture content change varies between a "dry" condition and a "wet" condition as defined by Tex-124-E. Also, it was assumed a 1 psi surcharge load from the floor slab acts on the subgrade soils.

Movements significantly exceeding those predicted above could occur if positive drainage of surface water is not maintained or if soils are subject to an outside water source, such as leakage from a utility line or subsurface moisture migration from off-site locations. However, soil movements may be reduced by implementing the subgrade improvement recommendations presented below, in Section 6.2 of this report. *Note: A structurally suspended slab will be required to achieve design PVM less than 1-inch. Subgrade improvement is not required for structurally suspended slabs.*

6.1.3 Foundation Considerations

The proposed structures could be supported using a deep foundation system. The deep foundation system should consist of Drilled Piers with a structurally suspended floor slab. Recommendations for this type of foundation system are provided in Sections 6.3 and 6.4.

A structural slab suspended completely above the existing highly expansive soils should be used for the buildings supported on piers. At least 12-inches of void space should be provided between the bottom of the floor slab (and lowest suspended fixture) and top surface of the underlying expansive clays. This 12-inch void space should also be maintained between the bottom of any structural element or utility line above the expansive soils. Cardboard carton forms or a deeper crawl space can be used to create the minimum void space.

If a crawl space is constructed, consideration should be given to constructing a mud mat below the crawl space. The benefits of a mud mat include (but are not limited to) resistance to moisture ingress through the suspended floor slab from the precipitation of moisture from the underlying soils and improved access below the structure for maintenance and repairs of utilities. In addition, proper ventilation should be provided to reduce the possibility that a high humidity environment could develop in the void space areas. We recommend that the crawl space subgrade be sloped (not steeper than 3 horizontal to 1 vertical) to appropriate drainage outlets to reduce the possibility of water accumulation in these areas. Flexible connections should be utilized in suspended piping, especially where it enters the ground. *Note: A structurally suspended slab will be required to achieve design PVM less than 1-inch. Subgrade improvement is not required for structurally suspended slabs.*

6.2 Subgrade Preparations (Flatwork)

As discussed above, flatwork supported within 2-feet of existing grade could experience soil-related potential seasonal movements up to about 4-inches. *Note: Care should be taken when excavating adjacent to existing structures when performing subgrade improvement. In some cases, it will be necessary to shore existing structures to prevent undermining of existing foundations and slabs.* Potential seasonal movements can be reduced by properly preparing the building pad as recommended in the following sections. *Note: Subgrade improvement is not required if the slabs are structurally suspended above the ground surface on drilled piers.*

6.2.1 Removal and Replacement with Select Fill

Potential seasonal movements can be reduced to about 1-inch by properly preparing the subgrade as recommended below:

Over-excavate all of the existing soils to a depth of 8-feet below the finished grade in the movement sensitive flatwork areas. The flatwork area is defined as the area directly beneath and at least 3-feet (horizontal) beyond the perimeter of the proposed flatwork and appurtenances. Appurtenances are those items attached to the building, typically including, but not limited to, the building sidewalks, porches, ramps, stoops, etc.

The flatwork pads can be completed by placing and compacting select fill or flexible base, to the bottom of the flatwork in the movement sensitive flatwork areas. Select fill or flexible base materials should be placed in loose lifts of no more than 8-inches. *Note: Criteria for select fill and flexible base are provided in Section 7.3 of this report. The new exposed slope should be benched during fill placement forming horizontal cuts into the slope at vertical intervals of 1 to 3-feet.*

If not covered with concrete flatwork or pavements, the upper 2-feet of the 5-foot overbuild should consist of a cohesive clay with a Plasticity Index (PI) between 20 to 35 percent. The purpose of the clay cap is to reduce the potential for water to infiltrate the building pad causing the subgrade soils to swell. The material should have at least 70 percent by weight passing the No. 200 Sieve and no more than 15 percent by weight retained in the No. 4 Sieve. The material should be compacted as recommended in Section 7.3 of this report, to reduce the risk of surface water infiltration into the flexible base and below the floor slab.

6.2.2 Moisture Conditioned On-Site with Select Fill Cap

Potential seasonal movements can be reduced to about 1-inch by properly preparing the subgrade as recommended below:

Over-excavate the existing on-site soils to 12-feet below the finished grade in the movement sensitive flatwork areas. The flatwork area is defined as the area directly beneath and at least 3-feet (horizontal) beyond the perimeter of the proposed flatwork

and appurtenances. Appurtenances are those items attached to the building, typically including, but not limited to, the building sidewalks, porches, ramps, stoops, etc. Note: If limestone rock is encountered during excavation, the over excavation can be terminated at that depth. Subgrade improvement should be performed to the top of rock in areas where rock is shallower than 12-feet.

After over-excavating to 12-feet below the finished grade or to the top of rock in the flatwork areas, place and compact moisture conditioned on-site soil to within 2-feet below the bottom of the flatwork in the movement sensitive flatwork areas. Moisture conditioning should be performed as discussed in Section 6.2.2.1.

The pad can be completed by placing and compacting select fill to the bottom of the flatwork in the movement sensitive flatwork area. Select fill material should be placed in loose lifts of no more than 8-inches.

The pad preparation should result in at least 2-feet of select fill over at least 10-feet of moisture conditioned on-site soil in the movement sensitive flatwork areas. To provide a more uniform support and create a more all-weather working surface, the final 6-inches of the pad could be constructed with flexible base (optional) to provide a working surface. *Note: Criteria for select fill and flexible base material are provided in Section 7.3.*

6.2.2.1 Moisture Conditioned On-Site Soil

Moisture conditioning consists of processing and compacting the specified minimum thickness of on-site soil at a "target" moisture content approximated to range between 4 to 6 percentage points above the material's optimum moisture content as determined by the standard Proctor method (ASTM D 698). **Soils with relatively lower plasticity index values may need to be placed at moisture contents closer to optimum to allow for compaction.** The moisture-conditioned soil should be placed in 8-inch thick loose lifts and compacted to a dry density of 93 to 97 percent of standard Proctor maximum dry density.

Moisture conditioning of the on-site soil should extend at least 5-feet outside the perimeter beam and adjoining flatwork. However, select fill material should not extend beyond the movement sensitive flatwork limits. If flatwork or paving is not planned adjacent to the structures (i.e. above the moisture-conditioned soils), a moisture barrier consisting of a minimum of 10 mil plastic sheeting with a clay cover should be placed above the moisture-conditioned soils that are outside the building perimeter. The clay cover should consist of a clay with a PI between 15 to 30 percent and at least 65 percent by weight passing the No. 200 Sieve. *Note: The moisture conditioned on-site soil should be maintained in a moist condition prior to placement of the required thickness of select fill, plastic sheeting, flatwork, and/or pavement.*

The resulting estimated potential seasonal movement was calculated assuming the moisture content of the moisture-conditioned soil varies between the "target" moisture content and the "wet" condition while the deeper undisturbed in-situ soil within the normal zone of seasonal moisture content change varies between the "dry" condition and the "wet" condition as defined by methods outlined in TxDOT Test Method Tex-124-E.

Note: It is the intent of the moisture-conditioning process described above to reduce the swell potential of the moisture conditioned soil to 1 percent or less. Additional laboratory tests (i.e., standard Proctors, absorption swell tests, etc.) should be conducted during construction to verify the "target" moisture content for moisture conditioning (estimated to range between 4 to 6 percentage points above the material's optimum moisture content as defined by ASTM D 698) is sufficient to reduce the swell potential of the processed soil to 1 percent or less. In addition, it is recommended samples of the moisture conditioned material be routinely obtained during construction to verify the swell of the improved material is 1 percent or less. One swell test per every 3-feet (thick) should be performed every 5,000 SF of the moisture conditioned soil in the movement sensitive flatwork areas.

Installation of moisture-conditioned soils should be monitored and tested on a full-time basis by a representative of UES to verify the soils tested were placed with the proper lift thickness, moisture content, and degree of compaction.

6.2.3 Comments Regarding Excavation Adjacent to Existing Building

Care should be taken when excavating adjacent to existing structures when performing subgrade improvement for movement sensitive flatwork or during construction of a crawl space to prevent undermining foundations and/or floor slabs. In some cases, it will be necessary to shore existing structures to prevent undermining existing foundations. If relatively shallow depth of subgrade improvement is required (about 5-feet or less), another method is to excavate next to the existing building in narrow strips that are perpendicular to the building, and then quickly backfill the excavations with select fill or flexible base before proceeding to the next adjoining strip. The key to this method is to excavate in narrow enough strips so that the excavation can be made and completely backfilled in a very short period of time. The soils under the existing structure, and the existing structure itself, should be carefully monitored during excavation, and the excavation should be immediately backfilled if any indications of movement are detected.

The contractor and design team shall be required to develop an excavation safety plan to protect personnel entering the excavation or excavation vicinity, and to protect existing structures. The collection of specific geotechnical data and the development of such a plan, which could include designs for sloping and benching or various types of temporary shoring, is beyond the scope of this study. Any such designs and safety plans shall be

developed by a professional engineer registered in the State of Texas who is experienced in such designs, in accordance with current OSHA guidelines and other applicable industry standards.

6.3 Deep Foundations

Drilled piers should be considered to support the structural loads for the future Weight Room and Multipurpose Academic Building. Recommendations for drilled straight-shaft pier foundation systems are provided in the following section. *Note: Granular soils were encountered at this site. Construction difficulties may occur during straight-shaft installation due to the potential for sidewall collapse. Casing will be needed where granular soils are encountered. A test pier is recommended just prior to construction to determine the constructability of drilled shafts at this site.*

6.3.1 Drilled Straight Shaft Piers

Drilled straight-shaft piers may be used to support the structural loads of the Multipurpose Academic Building and Future Weight Room. The piers should bear at least 15-feet below existing grade. Deeper pier depths will be required to develop skin friction and/or uplift resistance. Straight-sided drilled piers can be designed based on the following parameters provided in Table B.

TABLE B
DRILLED STRAIGHT-SHAFT PIERS
ALLOWABLE END BEARING AND SKIN FRICTION VALUES

Depth from Existing Grades, ft			Allowable End Bearing, psf	Allowable Skin Friction, psf	Allowable Uplift Resistance, psf	Uplift Adhesion, psf
0	to	15	----	----	----	1,500 [1]
15	to	30	8,000	1,500	1,200	----
30	to	35	----	1,800	1,400	----

[1] *May be reduced to 1,000 psf for moisture-conditioned soils and neglected for the portion of the shaft that penetrate through non-expansive, select fill material.*

[2] *Piers should not be drilled deeper than 35 ft below existing grades. If deeper piers are required, deeper borings will be necessary to verify these recommendations.*

The above bearing capacity values contain a factor of safety of at least three (3) considering a general bearing capacity failure and the skin friction and uplift resistance values have a factor of safety of at least two (2). The allowable end bearing and skin friction values are based on center-to-center spacing of the pier foundations no closer than a horizontal distance of three (3) pier diameters (using the largest pier diameter). A closer spacing may be considered but may affect (reduce) the axial capacity of the foundation depending on the spacing pattern of the foundations.

The following reduction values should be used for piers spaced within three (3) pier diameters:

Axial Loading (Skin Friction):
3 diameters (center to center) or greater - no reduction is required.
2 diameters (center to center) will have a 25% reduction (0.75 times the value).
1 diameter (center to center) will have a 50% reduction (0.5 times the value).

Axial Loading (End Bearing):
For end bearing no reduction is required.

Note: Linear interpolate between pier diameters for pier spacing between the values given.

Uplift Force – Each pier shaft should be reinforced with suitable tension steel over its entire length to adequately resist potential uplift (tensile) forces due to potential soil swell (soil-to-pier adhesion) along the shaft, from post construction heave and other uplift forces applied by structural loadings. The magnitude of uplift adhesion due to soil swell along the pier shaft cannot be defined accurately and can vary according to the actual in-place moisture content of the soils during construction. The estimated soil uplift adhesion force from Table B can be considered to act uniformly over the pier shaft for the specified depth from existing grade. The soil uplift force can be neglected for the portion of the shaft that penetrates through non-expansive, select fill material. The uplift force can be reduced by the dead load of the structure. The uplift resistance of each pier can be computed using the allowable uplift resistance values provided in Table B.

This calculated uplift force may be used to compute the longitudinal reinforcing steel required in the pier to resist the uplift force induced by the swelling clays. However, the cross-sectional area of the reinforcing steel should not be less than ½ percent of the gross cross-sectional area of the drilled pier shaft.

Total settlements, based on the indicated bearing pressure, should be less than 1-inch for properly designed and constructed drilled piers. Settlement beneath individual piers will be primarily elastic with most of the settlement occurring during construction. Differential settlement may also occur between adjacent piers. The amount of differential settlement could approach 50 to 75 percent of the total pier settlement. Settlement response of drilled piers is impacted more by the quality of construction than by soil-structure interaction.

6.3.2 Lateral Loading

Lateral analysis can be performed using the following design parameters provided for the site soils in Table C. The lateral resistance of the top portion of the pile shafts (portion within 6-feet of final grade) should be neglected.

TABLE C DESIGN PARAMETERS FOR L-PILE		
	Clay Soils	
	6 to 15 ft Below Final Grade	15 to 35 ft Below Final Grade
L-Pile p-y Model	Soft Clay	Very Stiff Clay
Effective Unit Weight (γ), pci	0.069	0.072
Undrained Cohesion (c), psi	3.4	20
Friction Angle (F), degrees	0	0

6.3.3 Grade Beams and Pier Caps

Grade beams connecting to piers and pier caps should be formed and not cast in earthen trenches. Grade beams should be formed with a nominal 12-inch void at the bottom for a structurally suspended floor slab.

Commercially available cardboard box forms (cartons) are made for this purpose. The cardboard cartons should extend the full length and width of the grade beams. Prior to concrete placement, cartons should be inspected to verify they are firm, properly placed, and capable of supporting wet concrete. Some type of permanent soil retainer, such as pre-cast concrete panels, must be provided to prevent soils adjacent to grade beams and caps from sloughing into the void space at the bottom of the grade beams and caps. Additionally, backfill soils placed adjacent to grade beams and caps must be compacted as outlined in Section 7.3 of this report.

6.4 Structurally Suspended Floor Slab on Drilled Piers

A structural slab suspended completely above the existing highly expansive soils should be used for the buildings supported on piers. A structurally suspended floor slab will be required for potential movements of less than 1-inch. At least 12-inches of void space should be provided between the bottom of the floor slab (and lowest suspended fixture) and top surface of the underlying expansive clays. Utilities and other fixtures below the building should be suspended from the floor and isolated from the active clay soils, and a minimum 12-inch void space should also be provided below the bottom of the utility or fixture. Cardboard carton forms or a deeper crawl space can be used to create the minimum void space.

If a crawl space is constructed, consideration should be given to constructing a mud mat at the bottom of the crawl space. The benefits of a mud mat include (but are not limited to) resistance to moisture ingress through the suspended floor slab from the precipitation of moisture from the underlying soils and improved access below the structure for maintenance and repairs of utilities. In addition, proper ventilation should be provided to reduce the possibility that a high humidity environment could develop in the void space areas. We recommend that the crawl space subgrade be sloped (not exceeding 3 horizontal to 1 vertical) to appropriate drainage outlets to reduce the possibility of water accumulation in these areas. Flexible connections should be utilized in suspended piping, especially where it enters the ground.

6.5 Flatwork

Exterior flatwork supported on-grade could be subjected to potential seasonal movements up to about 4-inches as discussed in Section 6.1.2 of this report. Subgrade improvement, as discussed in Section 6.2 should be considered if it is desired to reduce these anticipated movements to about 1-inch and to reduce the risk of potential for differential movements between the flatwork and adjoining structural elements. *Note: Select fill placed below flatwork may consist of material in compliance with "Select Fill (Flatwork)" outlined in section 7.3 of this report.* Subgrade improvement below flatwork is intended to reduce the potential for large differential movements between the flatwork and the structure. However, some differential movement should be expected. Therefore, allowances should be made for differential movements between the structure and the flatwork, including flexible connections and control joints. The use of sand as a leveling course below flatwork supported on expansive clays should be avoided. *Note: UES should be contacted if additional subgrade improvement recommendations are needed for the flatwork area.*

The flatwork should be installed to ensure drainage away from the structure. A positive slope away from the structure should be maintained. The slope should be sufficient to accommodate future potential movements. The flatwork should never be allowed to reach either a level plane or negative slope back toward the structure. In addition, a moisture seal should be provided at the joint between the flatwork and the foundation.

6.6 Seismic Considerations

TABLE D
SEISMIC PARAMETERS

Description	Values
2021 International Building Code Site Classification (IBC) [1]	D [2]
Site Latitude (Degrees)	30.1005981
Site Longitude (Degrees)	-97.8942886
Mapped Spectral Acceleration for Short Periods (0.2-Second): (S_S) [3]	0.052 g
Mapped Spectral Acceleration for a 1-Second Period: (S_1) [3]	0.029 g

[1]	The site class definition was determined using SPT N-values in conjunction with section 1613.2.2 in the 2021 IBC and ASCE 7-16.
[2]	Section 20.1 in the 2010 ASCE-7 requires a site soil profile determination extending to a depth of 100 feet for seismic site classification. The current scope does not include the required 100-foot soil profile determination. Borings extended to a maximum depth of 35 ft, and this seismic site class definition considers that stiff soil continues below the maximum depth of the subsurface exploration. Additional exploration to deeper depths would be needed to confirm the conditions below the current depth of exploration.
[3]	The Spectral Acceleration values were determined using publicly available information provided on the United States Geological Survey (USGS) website. The spectral acceleration values can be used to determine the site coefficients using Tables 1613.2.3 (1) and 1613.2.3 (2) in the 2018 IBC.

6.7 Drainage and Other Considerations

Adequate drainage should be provided to reduce seasonal variations in the moisture content of foundation soils. All pavement and sidewalks within 10-feet of a building should be sloped away from the building to prevent ponding of water around the building. Final grades within 10-feet of the building should be adjusted to slope away from the building at a minimum slope of 2 percent. **Maintaining positive surface drainage throughout the life of the structures is essential.**

In areas with pavement or sidewalks adjacent to the new structures, a positive seal must be maintained between the structure and the pavement or sidewalk to minimize seepage of water into the underlying supporting soils. Post-construction movement of pavement and flatwork is common. Normal maintenance should include examination of all joints in paving and sidewalks, etc. as well as resealing where necessary.

Several factors relate to civil and architectural design and/or maintenance, which can significantly affect future movements of the foundation and floor slab system:

- Preferably, a complete system of gutters and downspouts should carry runoff water a minimum of 5-feet from the completed structures.

- Large trees and shrubs should not be allowed closer to the foundations than a horizontal distance equal to roughly their mature canopy due to their significant moisture demand upon maturing. *Note: A landscape expert may be consulted to evaluate the precise extents of potential root growth for specific tree and shrub species so that root growth beneath the structures and pavements can be avoided.*

- Moisture conditions should be maintained "constant" around the edge of the slabs. Ponding of water in planters, in unpaved areas, and around joints in paving and sidewalks can cause slab movements beyond those predicted in this report.

- Planter box structures placed adjacent to the building should be provided with a means to assure concentrations of water are not available to the subsoil stratigraphy.

- The root systems from any existing trees cleared/removed at this site will have dried and desiccated the surrounding clay soils, resulting in soil with near-maximum swell potential. Clay soils surrounding tree root mats within the building areas or flatwork areas should be removed to a depth of 3-feet and compacted in-place with moisture and density control as described in Section 7.3 of this report.

Trench backfill for utilities should be properly placed and compacted as outlined in Section 7.3 of this report and in accordance with requirements of local City standards. Since granular bedding backfill is used for most utility lines, the backfilled trench should not become a conduit and allow access for surface or subsurface water to travel toward the new structures. Concrete cut-off

collars or clay plugs should be provided where utility lines cross building lines to prevent water from traveling in the trench backfill and entering beneath the structures.

7.0 GENERAL CONSTRUCTION PROCEDURES AND RECOMMENDATIONS

Variations in subsurface conditions could be encountered during construction. To permit correlation between boring data and actual subsurface conditions encountered during construction, it is recommended a registered Professional Engineering firm be retained to observe construction procedures and materials.

Some construction problems, particularly degree or magnitude, cannot be anticipated until the course of construction. The recommendations offered in the following paragraphs are intended not to limit or preclude other conceivable solutions, but rather to provide our observations based on our experience and understanding of the project characteristics and subsurface conditions encountered in the borings.

7.1 Site Preparation and Grading

Rock was encountered as shallow as 13½ feet below the existing ground surface in the borings at this site. From our experience, this rock can be hard and difficult to excavate, and difficulty excavating this material can increase with depth. Rock excavation methods (including, but not limited to rock teeth, rippers, jack hammers, or sawcutting) will be required to remove this material. The contractor selected should have experience with excavation in this material.

All areas supporting pavement, flatwork, or areas to receive new fill should be properly prepared.

- After completion of the necessary stripping, clearing, and excavating and prior to placing any required fill, the exposed soil subgrade should be carefully evaluated by probing and testing. Any undesirable material (organic material, wet, soft, or loose soil) still in place should be removed.

- The exposed soil subgrade should be further evaluated by proof-rolling with a heavy pneumatic tired roller, loaded dump truck or similar equipment weighing approximately 20 tons to check for pockets of soft or loose material hidden beneath a thin crust of possibly better soil.

- Proof-rolling procedures should be observed routinely by a Professional Engineer, or his designated representative.

- Any undesirable material (organic material, wet, soft, or loose soil) exposed during the proofroll should be removed and replaced with well-compacted select fill material as outlined in Section 7.3.

- Prior to placement of any fill, the exposed soil subgrade should then be scarified to a minimum depth of 6 inches and recompacted as outlined in Section 7.3.

Slope stability analysis of embankments (natural or constructed) was not within the scope of this study. If fill is to be placed on existing slopes (natural or constructed) steeper than six (6) horizontal to one (1) vertical (6:1), the fill materials should be benched into the existing slopes in such a manner as to provide a minimum bench width of five (5) feet. This should provide a good contact between the existing soils and new fill materials, reduce potential sliding planes and allow relatively horizontal lift placements.

The contractor is responsible for designing any excavation slopes, temporary sheeting or shoring. Design of these structures should include any imposed surface surcharges. Construction site safety is the sole responsibility of the contractor, who shall also be solely responsible for the means, methods and sequencing of construction operations. The contractor should also be aware that slope height, slope inclination or excavation depths (including utility trench excavations) should in no case exceed those specified in local, state and/or federal safety regulations, such as OSHA Health and Safety Standard for Excavations, 29 CFR Part 1926, or successor regulations. Stockpiles should be placed well away from the edge of the excavation and their heights should be controlled so they do not surcharge the sides of the excavation. Surface drainage should be carefully controlled to prevent flow of water over the slopes and/or into the excavations. Construction slopes should be closely observed for signs of mass movement, including tension cracks near the crest or bulging at the toe. If potential stability problems are observed, a geotechnical engineer should be contacted immediately. Shoring, bracing or underpinning required for the project (if any) should be designed by a professional engineer registered in the State of Texas.

Due to the nature of the clayey and granular soils found near the surface at the borings, traffic of heavy equipment (including heavy compaction equipment) may create pumping and general deterioration of shallow soils. Therefore, some construction difficulties should be anticipated during periods when these soils are saturated.

7.2 Foundation Excavations

All foundation excavations should be monitored to verify foundations bear on suitable material. The bearing stratum exposed in the base of all foundation excavations should be protected against any detrimental change in conditions. Surface runoff water should be drained away from excavations and not allowed to collect. All concrete for foundations should be placed as soon as practical after the excavation is made. Prolonged exposure of the bearing surface to air or water will result in changes in strength and compressibility of the bearing stratum. Drilled piers should be completed the same day as excavated. All other excavations should not be left open for more than 48 hours. If delays occur, excavations for drilled piers should be slightly widened, deepened, and cleaned.

All pier shafts should be at least 1.5-feet in diameter to facilitate clean-out of the base and proper monitoring. Concrete placed in pier holes should be directed through a tremie, hopper, or equivalent. Placement of concrete should be vertical through the center of the shaft without hitting the sides of the pier or reinforcement to reduce the possibility of segregation of

aggregates. Concrete placed in piers should have a minimum slump of 5-inches (but not greater than 7-inches) to avoid potential honey-combing.

Observations during pier drilling should include, but not necessarily be limited to, the following items:

- Verification of proper bearing strata and consistency of subsurface stratification with regard to boring logs,
- Confirmation the minimum required penetration into the bearing strata is achieved,
- Complete removal of cuttings from bottom of pier holes,
- Proper handling of any observed water seepage and sloughing of subsurface materials,
- No more than 2-inches of standing water should be permitted in the bottom of pier holes prior to placing concrete, and
- Verification of pier diameter, underream diameter (where applicable), and steel reinforcement.

Groundwater was not encountered during drilling at this site. However, from our experience, seasonal groundwater seepage could be encountered at the site during pier installation, and the risk of encountering seepage is increased during or after periods of precipitation. Immediate placement of concrete may be required to prevent sidewall collapse from impacting pier or pile construction. Temporary casing may be required to control sloughing of the subsurface soils and groundwater seepage if encountered during the pier drilling. The casing should be properly seated below the depth of seepage and groundwater should be removed prior to beginning the design penetration. As casing is extracted, care should be taken to maintain a positive head of plastic concrete and minimize the potential for intrusion of sloughing of fill soils. It is recommended a separate bid item be provided for casing on the contractor's bid schedule. Underwater or slurry placement of concrete may also be necessary in conjunction with or as an alternate to casing depending on the depth to groundwater at the time of pier drilling. Pier drilling contractors experienced in similar soil and groundwater conditions should be utilized for this project. The sidewalls of the pier excavation need to be sufficiently rough or artificially roughened to mobilize skin friction. UES should be contacted for further review and evaluation if groundwater seepage and/or pier shaft sidewall collapse occurs during pier installation.

When the pier excavation depth is achieved and the bearing area has been cleaned, steel and concrete should then be placed immediately in the excavation. The concrete should be placed completely to the bottom of the excavation with a closed-end tremie in the pier excavation if more than 2-inches of water is ponded on the bearing surface or the slurry drilling technique is used. A short tremie may be used if the excavation has less than 2-inches of ponded water or if the water is pumped out prior to concrete placement. The fluid concrete should not be allowed

to strike the pier reinforcement, temporary casing (if required) or excavation sidewalls during concrete placement.

Rock was encountered as shallow as 13½ feet below existing grade at this site. Rock excavation methods (including but not limited to rock teeth, rippers, jack hammers, or saw cutting) will be required to remove this material. The contractor selected should have experience with excavation in this material.

7.3 Fill Material and Compaction

The following fill materials and compaction recommendations provided below are applicable for general site grading and other structural areas.

Select Fill – Materials used as select fill material should consist of a "non-expansive" material with a liquid limit less than 35 percent, a PI not less than about 5 percent or greater than 15 percent and contain no more than 0.5 percent fibrous organic materials, by weight. All select fill material should contain no deleterious material and should be compacted to a dry density of at least 95 percent standard Proctor maximum dry density (ASTM D 698) and within the range of 1 percentage point below to 3 percentage points above the material's optimum moisture content. *Note: The plasticity index and liquid limit of material used as select fill material should be routinely verified during placement using laboratory tests. Visual observation and classification should not be relied upon to confirm the material to be used as select fill material satisfies the above Atterberg-limit criteria.*

Flexible Base – Flexible base used as non-expansive fill in the building pad should consist of material meeting the requirements of TxDOT Standard Specifications Item 247, Type A, B, C or D, Grade 1-2. The flexible base should be compacted to at least 95 percent of modified Proctor maximum dry density (ASTM D 1557) and within the range of 2 percentage points below to 2 percentage points above the material's optimum moisture content.

The following fill compaction recommendations provided below are applicable for general site grading. *Note: Imported soils used as general fill should consist of material with a PI not greater than 35 percent.*

General Fill (Clay) – Clay soils should be compacted to a dry density between 95 and 100 percent of standard Proctor maximum dry density (ASTM D 698). The compacted moisture content of the clays during placement should be within the range of 0 to 4 percentage points above optimum. Clayey materials used as fill should be processed and the largest particle or clod should be less than 6-inches prior to compaction.

General Fill (Granular) – Granular materials should be compacted to a dry density between 95 and 100 percent of standard Proctor maximum dry density (ASTM D 698). The compacted moisture content of the granular soils during placement should be within the range of -2 to +2 percentage points of optimum.

Prior to placement of any fill, the subgrade should be scarified to a depth of 6-inches and recompacted to a dry density of at least 95 percent of standard Proctor maximum dry density (ASTM D 698) and within the range of -1 to +4 percentage points of the material's optimum moisture content.

In cases where mass fills outside the structure areas are more than 12-feet deep, the fill below 12-feet should be compacted to at least 100 percent of standard Proctor maximum dry density (ASTM D-698) and within 2 percentage points of the material's optimum moisture content. The portion of the fill shallower than 12-feet should be compacted as outlined above. *Note: Even if fill is properly compacted, fills in excess of about 12-feet are still subject to settlements over time of up to about 1 to 2 percent of the total fill thickness. This should be considered when designing structures and pavements on relatively deep backfill. UES should be contacted if alterative backfill recommendations are required to reduce settlement of mass fills.*

Compaction should be accomplished by placing fill in about 8-inch thick loose lifts and compacting each lift to at least the specified minimum dry density. Field density and moisture content tests should be performed on each lift. A qualified geotechnical engineering firm should be retained to perform sufficient in-place density tests during the filling operations to evaluate that proper levels of compaction, including dry unit weight and moisture content, are being attained. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris or materials exceeding 4-inches in maximum dimension. *Note: We recommend any imported fill to be used at this site be approved by UES prior to placement.*

7.4 Utilities

In cases where utility lines are more than 12-feet deep, the trench backfill below 12-feet should be compacted to at least 100 percent of standard Proctor maximum dry density (ASTM D 698) and within –2 to +2 percentage points of the material's optimum moisture content. The portion of the trench backfill shallower than 12-feet should be compacted as previously outlined. Density tests should be performed on each lift (maximum 12-inch thick) and should be performed as the trench is being backfilled. *Note: Even if the utility backfill is properly compacted, fills in excess of about 12-feet are still subject to settlements over time of up to about 1 to 2 percent of the total fill thickness. This should be considered when designing pavements or other structures over utility lines and/or other areas with deep fill. UES should be contacted if alterative backfill recommendations are required to reduce settlement of deep utility lines.*

If utility trenches or other excavations extend to or beyond a depth of 5-feet below construction grade, the contractor or others shall be required to develop an excavation safety plan to protect personnel entering the excavation or excavation vicinity. The collection of specific geotechnical data and the development of such a plan, which could include designs for sloping and benching or various types of temporary shoring, is beyond the scope of this study. Any such designs and safety plans shall be developed in accordance with current OSHA guidelines and other applicable industry standards.

7.5 Groundwater

Groundwater was not encountered during drilling at this site. However, from our experience with similar soils, seasonal groundwater seepage could be encountered in excavations for grade beams, foundations, utility conduits and other general excavations. The risk of encountering seepage increases with depth of excavation and during or after periods of precipitation. Standard sump pits and pumping may be adequate to control minor seepage on a local basis in relatively shallow excavations.

Rock was encountered as shallow as 13½ feet at this site. From our experience, seasonal seepage could occur where rock is at or near the final site grade. Subsurface drains may be required to intercept seasonal groundwater seepage in areas where rock is at or near final site grade. The need for subsurface drains or other de-watering devices across the site should be carefully addressed by the construction testing laboratory during construction. UES can review any required drainage details once prepared.

In any areas where cuts are made to establish final grades at the site, attention should be given to possible seasonal water seepage that could occur through natural cracks and fissures in the newly exposed stratigraphy. Subsurface drains may be required to intercept seasonal groundwater seepage. The need for these or other de-watering devices should be carefully addressed during construction. Our office could be contacted to visually observe the final grades to evaluate the need for such drains.

8.0 LIMITATIONS

Professional services provided in this geotechnical exploration were performed, findings obtained, and recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. The scope of services provided herein does not include an environmental assessment of the site or investigation for the presence or absence of hazardous materials in the soil, surface water or groundwater. UES, upon written request, can be retained to provide these services.

UES is not responsible for conclusions, opinions or recommendations made by others based on this data. Information contained in this report is intended for the exclusive use of the Client (and their designated design representatives), and is related solely to design of the specific structures outlined in Section 2.0. No party other than the Client (and their designated design representatives) shall use or rely upon this report in any manner whatsoever unless such party shall have obtained UES's written acceptance of such intended use. Any such third party using this report after obtaining UES's written acceptance shall be bound by the limitations and limitations of liability contained herein, including UES's liability being limited to the fee paid to it for this report. Recommendations presented in this report should not be used for design of any other structures except those specifically described in this report. In all areas of this report in which UES may provide additional services if requested to do so in writing, it is presumed that such requests have not been made if not evidenced by a written document accepted by UES.

Further, subsurface conditions can change with passage of time. Recommendations contained herein are not considered applicable for an extended period of time after the completion date of this report. It is recommended our office be contacted for a review of the contents of this report for construction commencing more than one (1) year after completion of this report. Non-compliance with any of these requirements by the Client or anyone else shall release UES from any liability resulting from the use of, or reliance upon, this report.

Recommendations provided in this report are based on our understanding of information provided by the Client about characteristics of the project. If the Client notes any deviation from the facts about project characteristics, our office should be contacted immediately since this may materially alter the recommendations. Further, UES is not responsible for damages resulting from workmanship of designers or contractors. It is recommended the Owner retain qualified personnel, such as a Geotechnical Engineering firm, to verify construction is performed in accordance with plans and specifications.

APPENDIX

A-1 METHODS OF FIELD EXPLORATION

A truck-mounted, rotary drill rig equipped with continuous flight augers or air rotary augers were used to advance the boreholes. A total of three (3) borings were performed for this geotechnical exploration at the approximate locations shown on the Boring Location Plan. The boring locations were staked by using a handheld GPS device in conjunction with assessing landmarks which could be identified in the field and as shown on the site plan provided during this study. The locations of the borings shown on the Boring Location Plans are considered accurate only to the degree implied by the methods used to define them. The approximate latitude and longitude coordinates at each boring location were obtained using a handheld GPS device.

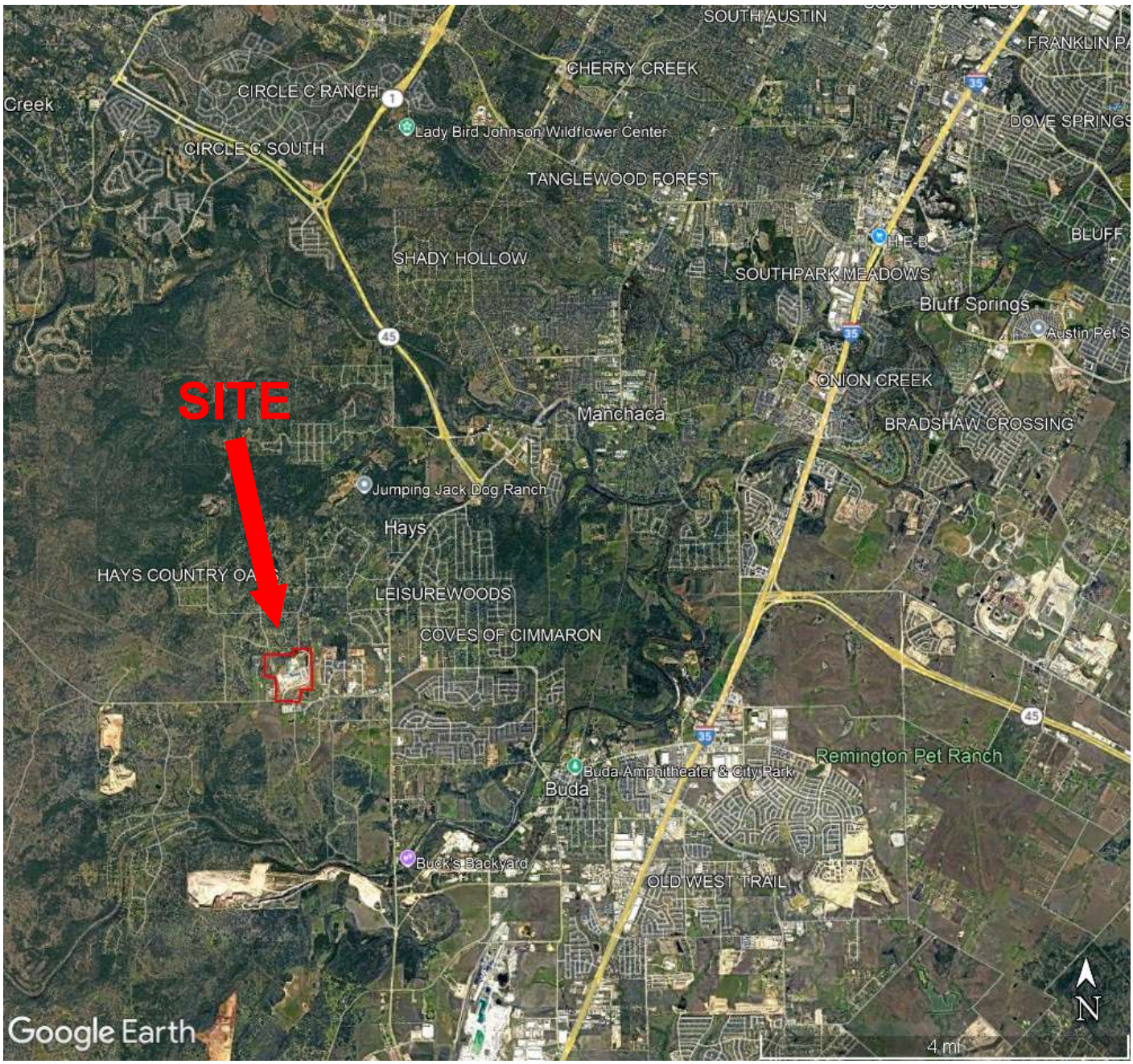
Relatively undisturbed samples of the cohesive subsurface materials were obtained by hydraulically pressing 3-inch O.D. thin-wall sampling tubes into the underlying soils at selected depths (ASTM D 1587). These samples were removed from the sampling tubes in the field and evaluated visually. One representative portion of each sample was sealed in a plastic bag for use in future visual evaluations and possible testing in the laboratory.

Samples of granular, cohesive, and rock materials were obtained using split-spoon sampling procedures in general accordance with ASTM Standard D 1586. Disturbed samples were obtained at selected depths in the borings by driving a standard 2-inch O.D. split-spoon sampler 18-inches into the subsurface material using a 140-pound hammer falling 30-inches. The number of blows required to drive the split-spoon sampler the final 12-inches of penetration (N-value) is recorded in the appropriate column on the boring logs. However, if the sampler was not driven the initial 6-inch seating increment with 50 hammer blows, refusal (i.e. “ref”) is recorded along with the inches driven on the logs.

Our field representative prepared field logs as part of the field exploration. The field logs included visual descriptions of the materials encountered during drilling and their interpretation of the subsurface conditions between samples. The Log of Boring sheets included in this report represent the engineer’s interpretation of the field logs and include modifications based on visual observations using the Unified Soil Classification System (USCS) and testing of the samples in the laboratory. **Samples not consumed by testing will be retained in our laboratory for at least 30 days and then discarded unless the Client requests otherwise.**

SITE VICINITY MAP

LOCATION IS APPROXIMATE

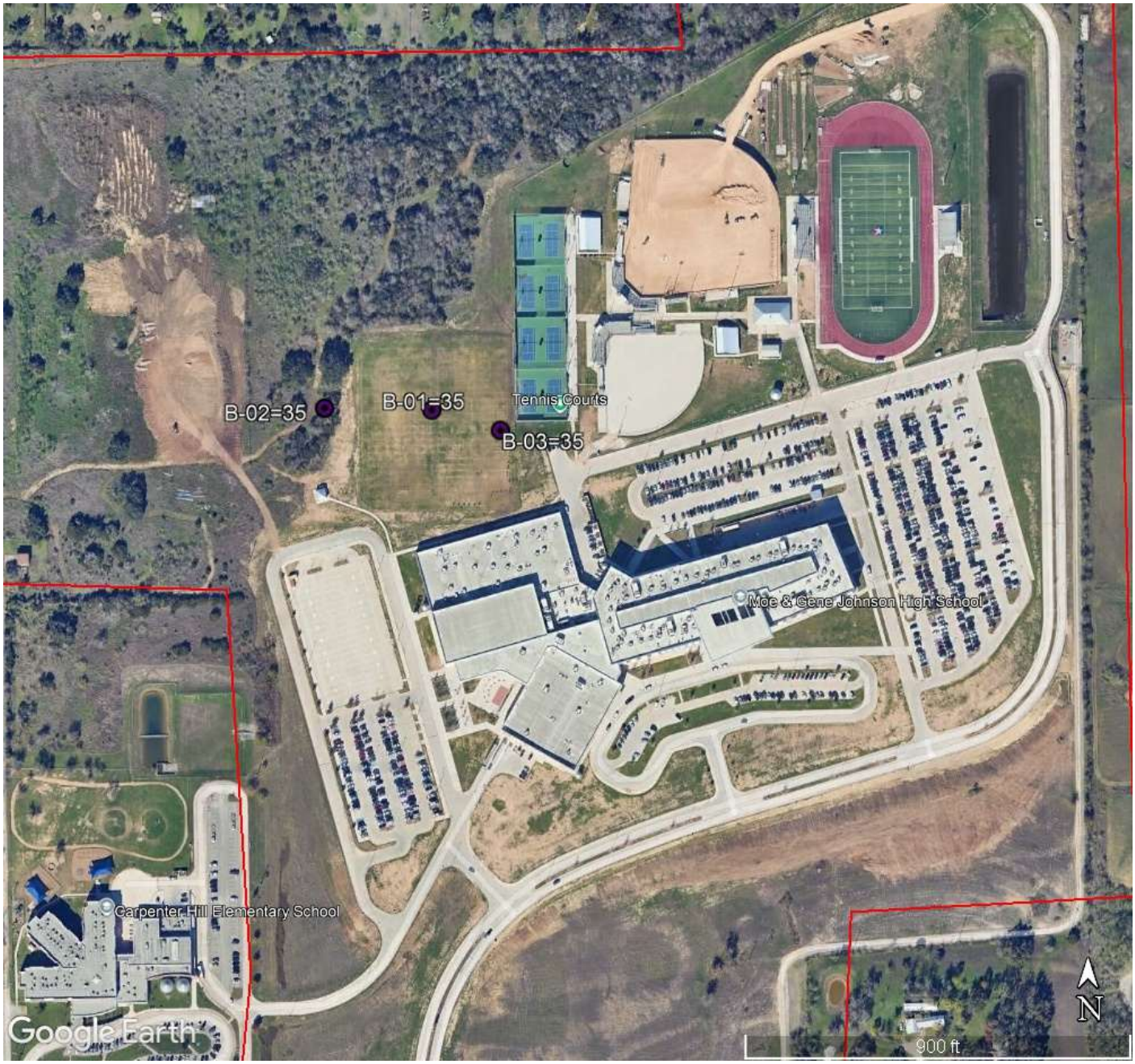


Hays CISD
UES Project No.: A251018

JOHNSON HS
4260 FM 967
Buda, Texas

BORING LOCATION PLAN

LOCATIONS ARE APPROXIMATE



JOHNSON HS
4260 FM 967
Buda, Texas

Hays CISD
UES Project No.: A251018

BORING LOCATION PLAN

LOCATIONS ARE APPROXIMATE

JOHNSON HS
4260 FM 967
Buda, Texas

Hays CISD
UES Project No.: A251018

B-1 METHODS OF LABORATORY TESTING

Representative samples were inspected and classified by a qualified member of the Geotechnical Division and the boring logs were edited as necessary. To aid in classifying the subsurface materials and to determine the general engineering characteristics, natural moisture content tests (ASTM D 2216), Atterberg-limit tests (ASTM D 4318), and percent passing No. 200 Sieve (ASTM D 1140) were performed on selected samples. Results of these laboratory tests are provided on the Logs of Boring sheets.

In addition to the Atterberg-limit tests, the expansive properties of the clay soils were further analyzed by absorption swell tests (ASTM D 4546, Method B). The swell test is performed by placing a selected sample in a consolidation machine and applying the overburden pressure and then allowing the sample to absorb water. When the sample exhibits very little tendency for further expansion, the height increase is recorded and the percent swell and total moisture gain calculated. Results of the absorption swell tests are provided on the Logs of Boring sheets.

LOG OF BORING B-01

UES Professional Solutions, LLC
4740 Perrin Creek, Suite 480
San Antonio, Texas 78217
Telephone: 210-249-2100
Fax: 210-249-2101

CLIENT: Hays CISD
PROJECT: Johnson HS
LOCATION: 4260 FM 967, Buda, Texas
NUMBER: A251018
DATE(S) DRILLED: 3/14/2025 - 3/14/2025

DRILLING METHOD(S):
Solid Flight Auger

GROUNDWATER INFORMATION:
Groundwater was not encountered during drilling, and the boring was dry upon completion of drilling.

SURFACE ELEVATION: N/A

SOIL SYMBOL	DEPTH (FT)	SAMPLE TYPE	SAMPLE SYMBOL	N: BLOWS/FT P: TONS/SQ FT T: TONS/SQ FT Qc: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT LL	ATTERBERG LIMITS PLASTIC LIMIT PL	ATTERBERG LIMITS PLASTICITY INDEX PI	DRY DENSITY (POUNDS/CU.FT)	COMPRESSIVE STRENGTH (TONS/SQ FT)	MINUS NO. 200 SIEVE (%)	DESCRIPTION OF STRATUM
		ST		P=4.5+	5	29	17	12			58	**FILL: CLAYEY SAND**, very dense to dense, brown to reddish brown. (SC)
		SPT		N=32	9							
	5	SPT		N=50/5	5							**LEAN CLAY**, hard, reddish brown and light brown. (CL)
		SPT		N=50/5	4							
		SPT		N=22	9	30	14	16			88	
	10											**MARLY, FAT CLAY**, hard, light brown and gray. (CH)
		ST		P=4.5+	15							
	15											
		ST		P=4.5+	12							
	20											
		ST		P=4.5+	17				115	7.4		- (confining pressure = 20.4 psi)
	25											
		ST		P=4.5+	18	60	20	40			95	
	30											
		ST		P=4.5+	10							
	35											Boring terminated at a depth of 35-feet.

N - STANDARD PENETRATION TEST RESISTANCE
Qc - STATIC CONE PENETROMETER TEST INDEX
P - POCKET PENETROMETER RESISTANCE

REMARKS:
Boring location determined by UES. Drilling operations performed by UES.
GPS Coordinates: N 30.1005981°, W -97.8942886°

LOG OF BORING B-02

UES Professional Solutions, LLC
4740 Perrin Creek, Suite 480
San Antonio, Texas 78217
Telephone: 210-249-2100
Fax: 210-249-2101

CLIENT: Hays CISD
PROJECT: Johnson HS
LOCATION: 4260 FM 967, Buda, Texas
NUMBER: A251018
DATE(S) DRILLED: 3/14/2025 - 3/14/2025

DRILLING METHOD(S):
Solid Flight Auger

GROUNDWATER INFORMATION:
Groundwater was not encountered during drilling, and the boring was dry upon completion of drilling.

SURFACE ELEVATION: N/A

SOIL SYMBOL	DEPTH (FT)	SAMPLE TYPE	SAMPLE SYMBOL	N: BLOWS/FT P: TONS/SQ FT T: TONS/SQ FT Qc: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT LL	ATTERBERG LIMITS PLASTIC LIMIT PL	ATTERBERG LIMITS PLASTICITY INDEX PI	DRY DENSITY (POUNDS/CU.FT)	COMPRESSIVE STRENGTH (TONS/SQ FT)	MINUS NO. 200 SIEVE (%)	DESCRIPTION OF STRATUM
		ST		P=4.5+	19	68	24	44			95	**FAT CLAY**, hard, dark brown to brown. (CH)
	5	SPT		N=43	7	77	24	53			35	**CLAYEY SAND WITH GRAVEL**, very dense, brown to reddish brown. (SC)
		SPT		N=27-50/3	7							
		SPT		N=50/4	5	37	18	19			40	
	10	SPT		N=50/3	3							
	15	SPT		N=50/4	1							**WEATHERED LIMESTONE**, hard, tan, with clay seams, chalk seams, and MARL layers.
	20	SPT		N=10-50/4	3							
	25	SPT		N=50/3	3							
	30	SPT		N=50/1	5							
	35	SPT		N=50/1	5							
												Boring terminated at a depth of 35-feet.

N - STANDARD PENETRATION TEST RESISTANCE
Qc - STATIC CONE PENETROMETER TEST INDEX
P - POCKET PENETROMETER RESISTANCE

REMARKS:
Boring location determined by UES. Drilling operations performed by UES.
GPS Coordinates: N 30.1006126°, W -97.8951064°

LOG_OF_BORING A251018.GPJ ROCK_ETL.GDT 4/9/25

LOG OF BORING B-03

UES Professional Solutions, LLC
4740 Perrin Creek, Suite 480
San Antonio, Texas 78217
Telephone: 210-249-2100
Fax: 210-249-2101

CLIENT: Hays CISD
PROJECT: Johnson HS
LOCATION: 4260 FM 967, Buda, Texas
NUMBER: A251018
DATE(S) DRILLED: 3/14/2025 - 3/14/2025

DRILLING METHOD(S):
Solid Flight Auger

GROUNDWATER INFORMATION:
Groundwater was not encountered during drilling, and the boring was dry upon completion of drilling.

SURFACE ELEVATION: N/A

SOIL SYMBOL	DEPTH (FT)	SAMPLE TYPE	SAMPLE SYMBOL	N: BLOWS/FT P: TONS/SQ FT T: TONS/SQ FT Qc: TONS/SQ FT	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT LL	ATTERBERG LIMITS PLASTIC LIMIT PL	ATTERBERG LIMITS PLASTICITY INDEX PI	DRY DENSITY (POUNDS/CU.FT)	COMPRESSIVE STRENGTH (TONS/SQ FT)	MINUS NO. 200 SIEVE (%)	DESCRIPTION OF STRATUM
		ST		P=4.5+	6	43	18	25			87	**FILL: LEAN CLAY**, hard, brown to light brown. (CL)
		SPT		N=52	5							
	5	SPT		N=21	5							**MARLY, FAT CLAY**, very stiff to hard, dark brown to brown. (CH)
		ST		P=4.5+	8	58	21	37	116		91	- (swell result = 5.2%, final moisture = 19%)
		ST		P=4.5+	7	56	16	40	122	8.5	88	
	10											- becoming light brown with gypsum deposits below 13-feet.
		ST		P=4.5+	8							
	15											
		ST		P=4.5+	9							
	20											
		ST		P=4.5+	8							
	25											
		ST		P=4.5+	8				123	12.7		- (confining pressure = 24.7 psi)
	30											
		ST		P=4.5+	9	58	20	38			97	
	35											Boring terminated at a depth of 35-feet.

N - STANDARD PENETRATION TEST RESISTANCE
Qc - STATIC CONE PENETROMETER TEST INDEX
P - POCKET PENETROMETER RESISTANCE

REMARKS:
Boring location determined by UES. Drilling operations performed by UES.
GPS Coordinates: N 30.1004031°, W -97.8937663°

UES™

KEY TO SOIL CLASSIFICATION AND SYMBOLS

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		SYMBOL	NAME
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well Graded Gravels or Gravel-Sand mixtures, little or no fines
		GP	Poorly Graded Gravels or Gravel-Sand mixtures, little or no fines
		GM	Silty Gravels, Gravel-Sand-Silt mixtures
		GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	SAND AND SANDY SOILS	SW	Well Graded Sands or Gravelly Sands, little or no fines
		SP	Poorly Graded Sands or Gravelly Sands, little or no fines
		SM	Silty Sands, Sand-Silt Mixtures
		SC	Clayey Sands, Sand-Clay mixtures
	SILTS AND CLAYS LL < 50	ML	Inorganic Silts and very fine Sands, Rock Flour, Silty or Clayey fine Sands or Clayey Silts
		CL	Inorganic Clays of low to medium plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
		OL	Organic Silts and Organic Silt-Clays of low plasticity
	SILTS AND CLAYS LL > 50	MH	Inorganic Silts, Micaceous or Diatomaceous fine Sandy or Silty soils, Elastic Silts
		CH	Inorganic Clays of high plasticity, Fat Clays
		OH	Organic Clays of medium to high plasticity, Organic Silts
NON USCS MATERIALS			Limestone
			Marl/Claystone
			Sandstone

TERMS CHARACTERIZING SOIL STRUCTURE

SLICKENSIDED - having inclined planes of weakness that are slick and glossy in appearance

FISSURED - containing shrinkage cracks, frequently filled with fine sand or silt; usually more or less vertical

LAMINATED (VARVED) - composed of thin layers of varying color and texture, usually grading from sand or silt at the bottom to clay at the top

CRUMBLY - cohesive soils which break into small blocks or crumbs on drying

CALCAREOUS - containing appreciable quantities of calcium carbonate, generally nodular

WELL GRADED - having wide range in grain sizes and substantial amounts of all intermediate particle sizes

POORLY GRADED - predominantly of one grain size uniformly graded) or having a range of sizes with some intermediate size missing (gap or skip graded)

SYMBOLS FOR TEST DATA

- Groundwater Level (Initial Reading)
- Groundwater Level (Final Reading)
- Shelby Tube Sample
- SPT Samples
- Auger Sample
- Rock Core
- Texas Cone Penetrometer
- Grab Sample

TERMS DESCRIBING CONSISTENCY OF SOIL

COARSE GRAINED SOILS		FINE GRAINED SOILS		
DESCRIPTIVE TERM	NO. BLOWS/FT. STANDARD PEN. TEST	DESCRIPTIVE TERM	NO. BLOWS/FT. STANDARD PEN. TEST	UNCONFINED COMPRESSION TONS PER SQ. FT.
Very Loose	0 - 4	Very Soft	< 2	< 0.25
Loose	4 - 10	Soft	2 - 4	0.25 - 0.50
Medium Dense	10 - 30	Firm	4 - 8	0.50 - 1.00
Dense	30 - 50	Stiff	8 - 15	1.00 - 2.00
Very Dense	over 50	Very Stiff	15 - 30	2.00 - 4.00
		Hard	over 30	over 4.00

Field Classification for "Consistency" of Fine Grained Soils is determined with a 0.25" diameter penetrometer

SECTION 01 2300
ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Description of Alternates.

B. Procedures for pricing Alternates.

1.02 RELATED REQUIREMENTS

A. Document 00 2116 - Instructions to Proposers

1.03 PROCEDURES

A. Proposers are required to submit alternate proposals to add work or to deduct work from the base proposal as described below. Failure to submit alternate amounts in spaces provided on proposal form is basis for disqualification of proposal.

B. The successful proposer shall not modify, withdraw or cancel any of the alternate proposals or any part thereof for 45 days after date of receipt of proposals, unless specifically noted otherwise.

C. Contractor shall be responsible for any changes in the work affected by acceptance of these alternates. Include within the alternative proposal prices all costs, including materials, installations, and fees.

D. Claims for additional dollars resulting from changes caused by the alternates will not be allowed.

E. Refer to the drawings and project manual for items of work affected by alternates.

F. Alternates will be exercised at the option of the Owner.

G. Coordinate related work and modify surrounding work as required to complete the Work, including changes under each alternate, when acceptance is designated in the Owner - Contractor Agreement.

1.04 ACCEPTANCE OF ALTERNATES

A. Indicate variation of proposal price for alternates described below and list on the proposal form or any supplement to it, which requests a 'difference' in proposal price by adding to or deducting from the base proposal price or by indicating "No Charge".

B. Indicating "No Bid" as an alternate is unacceptable and is reason for rejection of the proposal.

C. Alternates quoted on Bid / Proposal Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

D. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.05 SCHEDULE OF ALTERNATES

A. Alternate Number 1:
   1. Construction of the Multi-Purpose Athletic Facility as specified and where shown on the drawings.

B. Alternate Number 2:
   1. Construction of the Connector Road as specified and where shown on the drawings.

C. Alternate Number 3:
   1. Replace all existing exterior lighting as specified and shown in the documents except for lighting to be replaced as part of Alternate #4.

D. Alternate Number 4:
   1. Replace lighting at Band Practice Area as specified and where shown on the drawings.

PART 2 PRODUCTS - NOT USED

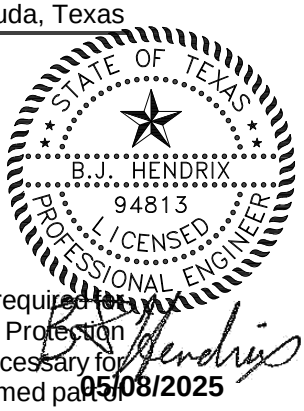
PART 3 EXECUTION - NOT USED

END OF SECTION

DIVISION 26 & 28
HAYS CISD
JOHNSON HIGH SCHOOL
ADDITIONS & RENOVATIONS
2025 Bond
ELECTRICAL SPECIFICATIONS

05/08/2025

CONTENTS:



SECTION 26 4113 - LIGHTNING PROTECTION SYSTEM

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. The Contractor shall furnish and install all equipment, accessories, and material required for the installation of a complete Master labeled UL, AW, IRI approved Lightning Protection System in accordance with the specifications. Any material and/or equipment necessary for the proper operation of the system not specified or described herein shall be deemed part of this specification.

B. The equipment described and furnished under these specifications shall be the standard product of one manufacturer.

1.02 STANDARDS

A. Construct each item of equipment, including parts and accessories, in a workmanlike manner, using new materials or the best quality obtainable for the purpose intended. Design and build materials, wiring and equipment in accordance with the best practices of the electrical industry.

B. Furnish and install a complete Lightning Protection System which shall comply with the specifications of the Underwriters' Laboratories (UL 96A), the National Fire Protection Association (NFPA No. 78) and the Lightning Protection Institute (LPI-75). The Underwriter's Laboratories Master Label "C" shall be delivered to the Architect/Engineer for approval before installation is completed.

1.03 QUALIFICATIONS

A. Manufacturer: Company specializing in lightning protection equipment with minimum three years documented experience and member of the Lightning Protection Institute.

B. Installer: Authorized installer of manufacturer with three years documented experience and member of the Lightning Protection Institute.

1.04 SUBMITTALS

A. Furnish the Engineer Shop Drawings/Submittals for each of the following:

1. Submit shop drawings showing layout of air terminals, grounding electrodes, and bonding connections to structure and other metal objects. Include terminal, electrode, and conductor sizes, and connection and terminal details.

2. Submit product data showing dimensions and materials of each component and include indication of listing in accordance with ANSI/UL 96.

3. Complete manufacturer's installation documentation.

1.05 PROJECT RECORD DOCUMENTS

A. Accurately record actual locations of air terminals, grounding electrodes, bonding connections and routing of system conductors.

PART 2 – PRODUCTS

2.01 PRODUCTS

A. Components - Including but not limited to: (In accordance with ANSI/UL 96)

1. Air Terminals

2. Grounding Plate

3. Conductors

4. Connectors and Splicers

B. Materials shall be as required by code to suit installation requirement including materials of mounting surfaces.

PART 3 - EXECUTION

3.01 INSTALLATION

A. All metal bodies such as ventilators, stacks, pipes, gutters, downspouts, ducts, tracks, antennas, water pipes, ladders, exercise yard cover and other similar metal shall be interconnected to the main conductor system.

B. Incoming electric and telephone service shall have a common ground with the Lightning Protection System.

C. **Obtain the services of Underwriters Laboratories, Inc. to provide inspection and certification of the lightning protection system under provisions of UL 96A.**

D. No part of the system shall be concealed until inspected. In addition, the Underwriter's Laboratories Master Label "C" shall be delivered to the Architect or Owner before the completed installation is cleared for final payment. Any items found not to comply with the specification requirements shall be immediately replaced at no additional cost to the Owner.

E. The system shall be installed by an authorized installer.

F. All materials shall be copper, except where specifically prohibited by UL96A due to materials of mounting surfaces which may cause deterioration in the presence of moisture. At these locations use appropriate material.

END OF SECTION

SECTION 31 0010
EARTHWORK AND GRADING
(Sports Facility Work)

PART 1 - GENERAL

1.01 CONSIDERATIONS:

A. Earthwork consists of operations required for the excavation and/or fill of subgrade materials; stock piling materials; scarifying and compaction of sub-grades; finish grading; and other required operations

1.02 REFERENCES:

A. ASTM D 2487--Classification of Soils for Engineering Purposes.
B. ASTM D 698--Compaction Characteristics of Soil Using Standard Effort.
C. Geotechnical Exploration Report by UES, dated April 16, 2025

1

1.03 DEFINITIONS:

A. Classification: Earthwork materials are classified in accordance with definitions in this Article.
B. Subgrade: Natural soil at the established lines and grades.
C. Earthen Fill: Suitable, clean material excavated on-site or imported borrow material meeting specified characteristics.
D. Finish Grading: Operations required for smoothing disturbed areas that are not overlaid with pavement.
E. Excavation: Excavation of every description and of whatever substances encountered within the limits of the project to the lines and grades indicated.
F. Compaction: Compaction of soil materials shall be measured as a percent of Standard Proctor density as determined by ASTM D698.

1

1.04 EXISTING UTILITIES:

A. Where pipes, ducts and structures are encountered in the excavation but are not shown or specified on the drawings to be abandoned, immediately notify the Engineer.

PART 2 - PRODUCTS

2.01 EARTHEN FILL:

1

A. Select fill shall be comprised of material which is free of all organic materials and meets the requirements of the Geotech Report. Unsuitable materials shall be classified as:

1 Topsoil; frozen materials; material containing more than 0.5 percent fibrous organic material by weight; construction materials and materials subject to decomposition; clods of clay and stones larger than 75 mm (3 inches); organic material, including silts, which are unstable; and inorganic materials, including silts, too wet to be stable and any material with a liquid limit greater than 35 and a plasticity index outside the range of 5-15. Unsatisfactory soils also include satisfactory soils not maintained within -1 and +3 percent of optimum moisture content at time of compaction. 1

2.02 SOURCE QUALITY CONTROL:

A. 1 Provide materials from same source throughout the project. Imported soils shall be clean non-expansive soils having a liquid limit less than 35 and a PI between 5 and 15. Soils shall be maintained at -1 and +3 percent of optimum moisture content at time of compaction.

B. A change in source requires sampling, testing, and approval by Engineer.

PART 3 - EXECUTION

3.01 SITE PREPARATION:

A. The project site shall be stripped of all vegetation and shall be rough graded and otherwise prepared, as detailed on the drawings. Additionally, the contractor shall clean subgrade soils of any organic material or trash encountered during excavation so as to maintain clean earthen materials.

3.02 TREATMENT OF SUBGRADES:

1 A. All site preparation and grading shall be performed in accordance with the Geotech Report and construction drawings.

1 B. In cut areas, over excavate and remove soils to a depth of 8-feet below finished elevations and grades indicated on the drawings. Excess clean soils shall be stockpiled in the locations designated by the Owner, if Owner agrees to utilize such, or shall otherwise be properly disposed of.

1 C. After completion of cut, the exposed subgrade shall be proof rolled with a heavy pneumatic tired roller or approved equivalent to check for pockets of soft or loose material. Proof rolling shall be observed routinely by a Profession Engineer.

1 D. Upon completion of proof rolling, subgrade shall be scarified to a minimum depth of 6-inches and thereafter compacted to a minimum density of 95 percent of maximum density per ASTM D 698 at a moisture content of between -1 and +4 percent of optimum. Subgrade surface shall be proof roll tested in the presence of the Geotechnical Engineer prior to placing new layers.

E. Examination of Subgrade: Do not place materials on prepared subgrade until the subgrade preparation has been accepted by the Engineer. Do not place fill over frozen or saturated ground.

3.03 PLACING FILL:

1 A. Place select fill to a depth of 8-feet in accordance with the Geotech Report. Select fill shall be placed in loose lifts no greater than 8-inches.

1 B. In fill areas, after placement of fill, compact material to a minimum density of 95 percent of maximum density per ASTM D 698 at a moisture content of between -1 and +3 percent of optimum.

C. Attaining Proper Bond: If the compacted surface of a layer is too smooth to bond with succeeding layers, loosen the surface by means of scarifying to a minimum depth of 3-inches before placing fill and continuing the work.

D. Place materials to lines and grades shown allowing for depth of base and concrete/asphalt. Material depths to follow depths as outlined in the geotechnical report.

E. Maintain aggregate drainage throughout construction.

F. The material shall be blended sufficiently to secure the best degree of compaction.

3.05 FINAL GRADING:

A. Upon completion of the excavation, grading and compaction process, fine grade all surfaced by means of laser grading (or grade using equivalent means) as needed to meet the meet the elevations, lines and grades indicated on the drawings.

3.06 TESTING:

1 A. Compaction Testing: Conduct compaction testing for subgrade soils. Minimum spacing for compaction testing shall be one test per each ten thousand square feet of area compacted. Material shall be compacted to a density of 95 percent of maximum density per ASTM 698 at a moisture content of -1 and +3 percent of optimum. Areas of the field found not to meet compaction criteria shall be re-worked and/or re-compacted at the Contractors expense until compaction criteria are met. Contractor shall also be responsible for the costs of additional compaction testing.

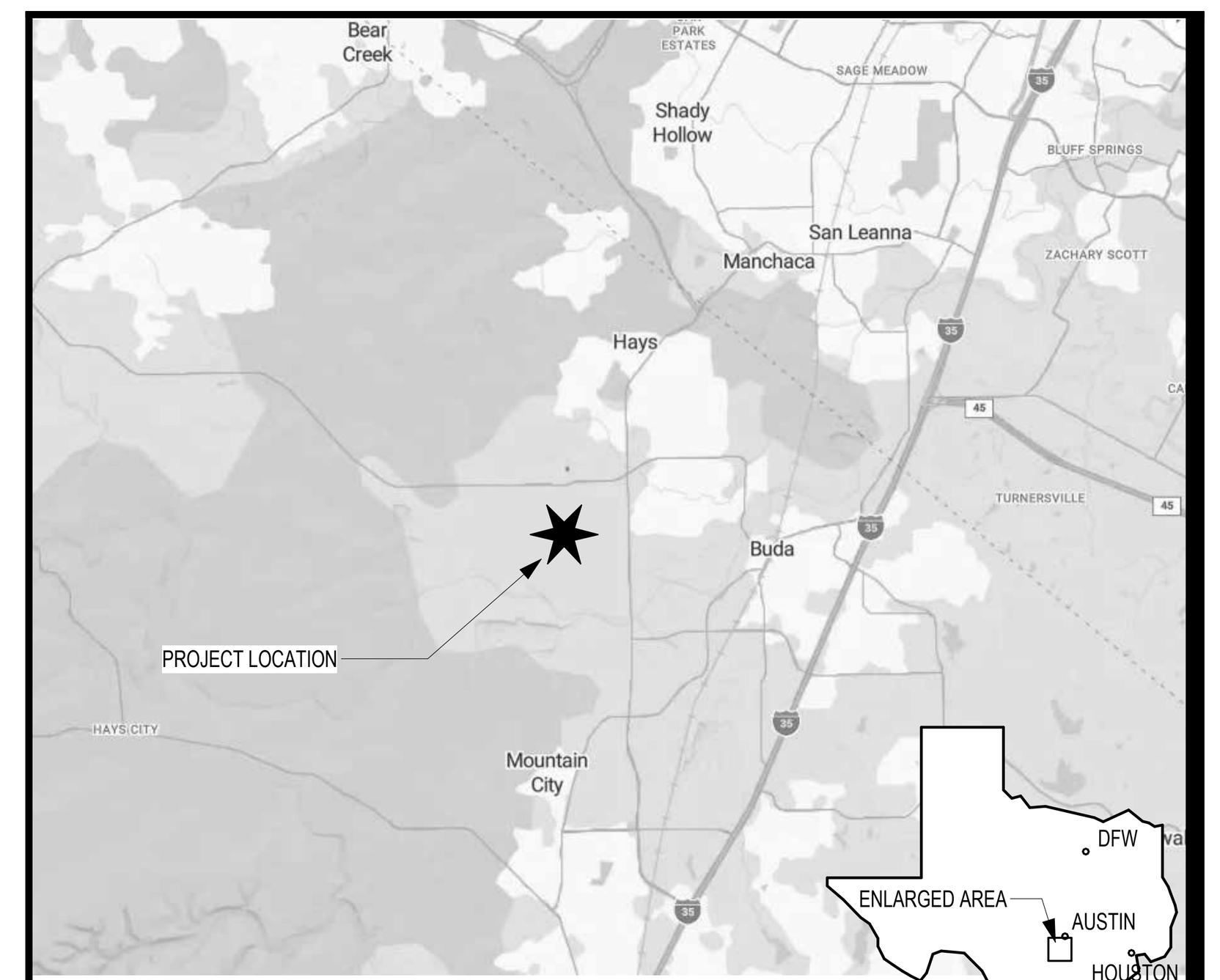
B. Grading Test: For synthetic turf field area, conduct in the presence of the Engineer, a string line test on the final grades of the field prior to installation of geotextile fabric. String line test shall be conducted by pulling a string along the direction of the grade to verify positive drainage. Strings shall be pulled at a minimum interval of 15 feet. Acceptable tolerance for this test shall be 0.06 foot. Areas found to be outside of stated tolerances shall be re-graded at the Contractor's expense and re-tested until entire field meets grading tolerance.

END OF SECTION

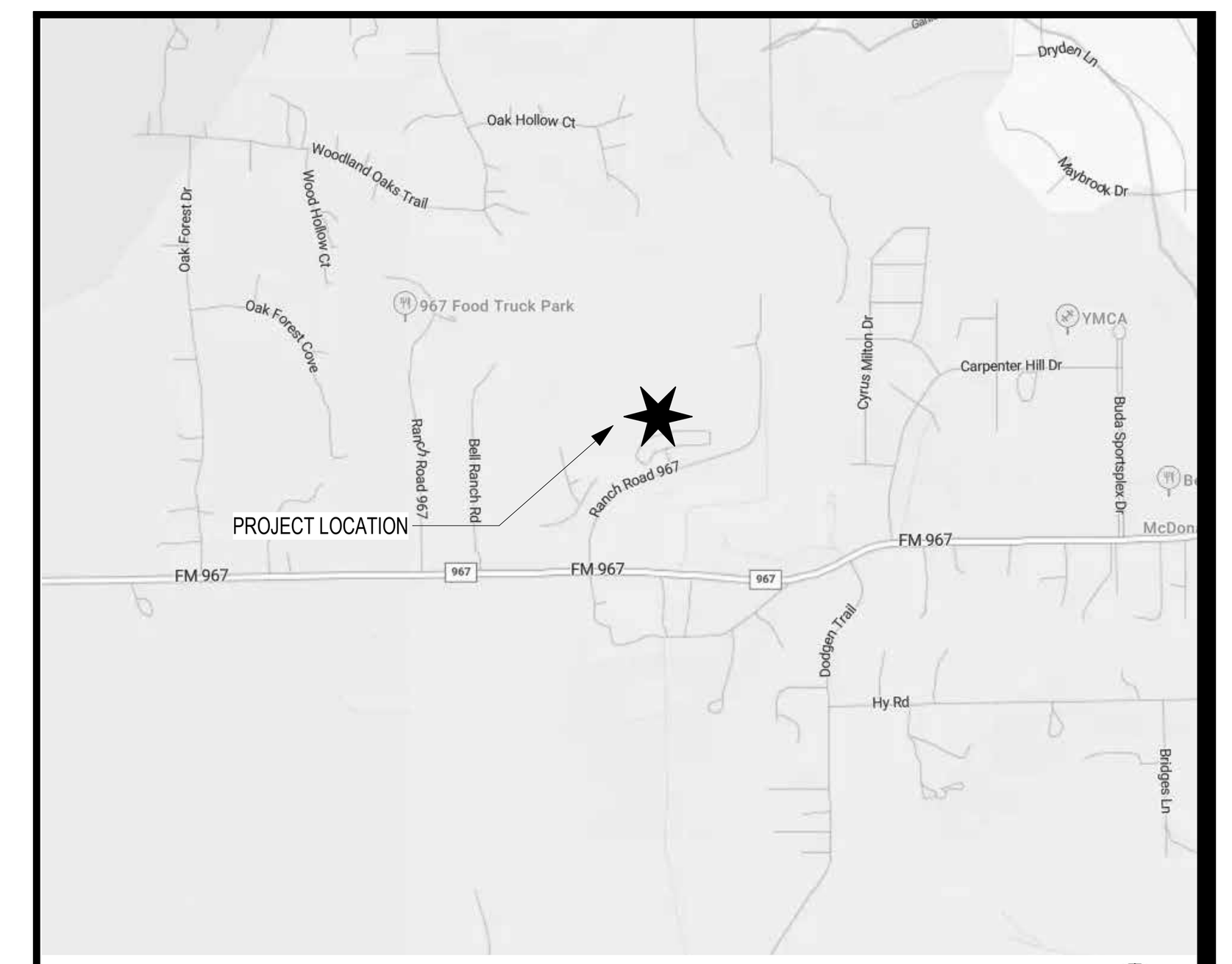
ALTERNATE #1 – CONSTRUCTION OF MPAC BUILDING
ALTERNATE #2 – CONSTRUCTION OF CONNECTOR ROAD
ALTERNATE #3 – REPLACE ALL EXISTING EXTERIOR LIGHTING AS SHOWN IN THE DOCUMENTS EXCEPT FOR THE LIGHTING AS PART OF ALTERNATE #4
ALTERNATE #4 – REPLACE LIGHTING AT BAND PRACTICE AREA (1)

REF SPECIFICATION AND REMAINDER OF CONSTRUCTION DOCUMENTS FOR ADDITIONAL INFORMATION.

ALTERNATES



AREA MAP



HAYS COUNTY, TEXAS

VICINITY MAP

AB	ANCHOR BOLT
A/C	AIR CONDITIONER
ACC	ACCESSIBLE
ACMU	ARCHITECTURAL CONCRETE MASONRY UNIT
ADA	AMERICANS WITH DISABILITES ACT / ADA STANDARDS FOR ACCESSIBLE DESIGN (LATEST VERSION)
ADDN'L	ADDITIONAL
ADJ	ADJUSTABLE
ADH	ADHESIVE/ADHERE
ADMIN	ADMINISTRATION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AG	AGRICULTURE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ALT	ALTERNATE
ALUM	ALUMINUM
AP	ACOUSTICAL PANELS
AP	ASSISTANT PRINCIPAL
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
B	BEYOND
B/B	BACK TO BACK
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BOD	BOTTOM OF DECK
BOM	BOTTOM OF MASONRY
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BP	BASE, PORCELAIN TILE
BR	BASE, RUBBER
BRES	BASE, RESINOUS INTEGRAL
BRG	BEARING
BRK	BRICK
BRV	BASE, RUBBER VENTED
BTC	BASE, TILE CERAMIC
BTZP	BASE, TERRAZZO PRECAST
BS	BOTH SIDES
BTWN	BETWEEN
BW	BOTH WAYS
BWD	BASE, WOOD
C/C	CENTER TO CENTER
CAB	CABINET
CCD	COILING COUNTER DOOR
CCPS	CERAMIC CLADDING PANEL SYSTEM
CDW	CUSTOM DIGITAL WALLCOVERINGS
CDAP	CUSTOM DIGITALLY PRINTED ACOUSTIC PANEL
CFMF	COLD-FORMED METAL FRAMING
CH	CHANNEL
CI	CONTINUOUS INSULATION
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTRD	CENTERED
CO	CLEAN OUT/CASED OPENING
COL	COLUMN
CONC	CONCRETE
CONF	CONFIGURATIONS / CONFERENCE
CONN(S)	CONNECTION(S)
CONT	CONTINUOUS
COORD	COORDINATE
COP	CONCRETE (POLISHED)
CORR	CORRIDOR
COS	CONCRETE SEALED
CPT	CARPET, SHEET
CPY	CANOPY
CR	CLASSROOM
CS	CAST STONE
CSM	CONCRETE STONE MASONRY
CU	CONDENSING UNIT
CUST	CUSTODIAN
CT	CARPET, TILED
CTE	CAREER TRAINING ED
CTRL	CONTROL
CW	CURTAIN WALL
CWF	CUSTOM WINDOW FILM
DBL	DOUBLE
DET	DETAIL
DH	DOOR HARDWARE
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
DWR	DRAWER
EA	EACH
EBWS	EPOXY BASED WALL SYSTEM
ED	EDUCATION
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENGR	ENGINEER
EPNT	EPOXY PAINT
EQ	EQUAL (EQUALLY)
EQUIP	EQUIPMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
EXTNG	EXTINGUISHER
F/F	FACE TO FACE
FC	FURRING CHANNEL
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FE	FIRE EXTINGUISHER (SURFACE MOUNT)
FEC	FIRE EXTINGUISHER CABINET (SEMI-RECESSED)
FFE	FINISHED FLOOR ELEVATION
FHC	FIRE HOSE CABINET (SEMI-RECESSED)
FIN	FINISH(ED)
FIN FLR	FINISHED FLOOR
FL	FLUSH (FLUSHED)
FLR	FLOOR
FR	FRAME
FRP	FIBERGLASS REINFORCED PLASTIC PANEL SYSTEM FIBERGLASS REINFORCED PANELING
FRT	FIRE RETARDANT TREATED
FRTW	FIRE RETARDANT TREATED WOOD
FTG	FOOTING
FV	FIELD VERIFY
GA	GAGE OR GAUGE
GALV	GALVANIZED
GB	GRAB BAR / GRADE BEAM
GEN	GENERAL
GFRC	GLASS FIBER REINFORCED CONCRETE
GRF	GROUND FACE CMU (BURNISHED)
GUT	GUTTER
GYM	GYMNASIUM
GYP	GYPSUM
HB	HOSE BIB
HDWD	HARD WOOD
HM	HOLLOW METAL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
HVAC	HEATING, VENTILATION, & A/C
ICF	INSULATED CONCRETE FORMS / INSULATED CONCRETE FORMING
IDF	INTERMEDIATE DISTRIBUTION FRAME
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
JT	JOINT
JST(S)	JOIST(S)
L	ANGLE
LAB	LABORATORY
LAV	LAVATORY
LEPC	LOCAL EMERGENCY PLANNING COMMITTEE
LONG	LONGITUDINAL
LVT	LUXURY VINYL TILE
MAS	MASONRY
MAT'L	MATERIAL
MAX	MAXIMUM
MB	MARKER BOARD
MCM	METAL COMPOSITE MATERIAL
MDF	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MEZZ	MEZZANINE
MFG	MANUFACTURER
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MP	METAL WALL PANELS
MPF	MULTI-PURPOSE FACILITY
MSK	MOP SINK
MS	METAL SOFFIT
MSL	MEAN SEA LEVEL
MTL	METAL
NB	NO BASE
NF	NO FINISH
NIC	NOT IN CONTRACT
NO	NUMBER
NS	NATURAL STONE
NTS	NOT TO SCALE
OC	ON CENTER
OCC	OCCUPANTS / OCCUPANCY
OCEW	ON CENTER EACH WAY
OCD	OVERHEAD COILING DOOR
OCG	OVERHEAD COILING GRILLE
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED OWNER INSTALLED
OH	OPPOSITE HAND
OHD	OVERHEAD
OPP	OPPOSITE
OS	OVERFLOW SCUPPER
P/C	PRECAST CONCRETE
PEMB	PRE-ENGINEERED METAL BUILDING
PERIM	PERIMETER
PERP	PERPENDICULAR
PLA	PLATE / PLASTER
PL	PLASTIC LAMINATE
PLP	PLASTIC LAMINATE PANEL SYSTEM
PNT	PAINT
PR	PRACTICE ROOM
PREFIN	PREFINISHED
PREP	PREPARATION
PROJ	PROJECTION
PS	PROJECTION SCREEN
PT	POINT
PW	PLYWOOD
QTZ	QUARTZ SURFACING
R	RISER
RAD	RADIUS
RAFF	RESILIENT ATHLETIC FLUID FLOORING
RAFP	RESILIENT ATHLETIC FLOORING POLYURETHANE
RAFS	RUBBER FLOORING SHEET
RAFV	RESILIENT ATHLETIC FLOORING VINYL
L	ANGLE
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCING
RES	RESINOUS
REQ'D	REQUIRED
RM	ROOM
RO	ROUGH OPENING
RR	RESTROOM
RT	RUBBER TILE
RTR	RUBBER TREADS AND RISERS
RTU	ROOFTOP UNIT
SB	SPLASH BLOCK
SCHED	SCHEDULE
SEC	SECURITY
SECT	SECTION
SF	STOREFRONT / SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SP	SPLASH PAN (METAL)
SPEC	SPECIFICATIONS
SPF	SPLIT-FACE CONCRETE MASONRY UNIT
SPS	SOLID POLYMER SURFACE
SS	STAINLESS STEEL
SSM	SOLID SURFACE MATERIAL
STD	STANDARD
STL	STEEL
STN	STAIN
STOR	STORAGE
STRUCT	STRUCTURE
SVT	SOLID VINYL TILE
SYMM	SYMMETRICAL
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
TAS	TEXAS ACCESSIBILITY STANDARDS (LATEST VERSION)
TB	TACK BOARD
TC	TILE, CERAMIC
TH	THRESHOLD
TLT	TOILET
TOB	TOP OF BEAM
TOC	TOP OF CURB
TOJ	TOP OF JOIST
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOSF	TOP OF METAL STUD FRAMING
TOW	TOP OF WALL
TPC	TILE, PORCELAIN
TQ	TILE, QUARRY
TR	TREATED
TRAN	TRANSVERSE / TRANSPARENT
TRIM	METAL FLASHINGS AND COPINGS
TS	TACKABLE SURFACE
TYP	TYPICAL
TZ	TERRAZZO
TZP	TERRAZZO, PRECAST STAIR TREADS AND RISERS
TZT	TERRAZZO TILE
U	URINAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UP	UPHOLSTERY
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VSF	VINYL SHEET FLOORING
W/	WITH
W/IN	WITHIN
W/O	WITHOUT
WASH	WASH STATION
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER / WALL HYDRANT
WMP	WOOD (MAPLE) STRIP AND PLANK FLOORING
WMS	MASONITE WOOD FLOORING
WOM	WALK-OFF MAT
WOT	WALK-OFF TILE
WP	WORKPOINT
WT	WEIGHT
WWF	WELDED WIRE MESH (FABRIC)
XB	X-BRACING
>=	LARGER THAN OR EQUAL TO
<=	LESS THAN OR EQUAL TO

(NOT ALL ABBREVIATIONS MAY BE USED)

ABBREVIATIONS

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G3.02	WALL PENETRATIONS - CMU
G3.03	TYPICAL INTERIOR PARTITION DETAILS
G5.01	SCHEDULE OF MATERIALS AND COLORS
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F2.1	GRADING PLAN ALTERNATE
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A1.02	FLOOR PLAN - AREA B
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P0.10	SCHEDULES - PLUMBING
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P2.12	FIRST FLOOR PLAN - AREA B - PLUMBING - WASTE
P3.11	FIRST FLOOR PLAN - AREA A - PLUMBING - SUPPLY
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T1.01	TECHNOLOGY - FLOOR PLAN - AREA A
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INDEX OF SHEETS

ADDENDUM 01

Revision / 1
Date 05/07/25

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

05.07.25

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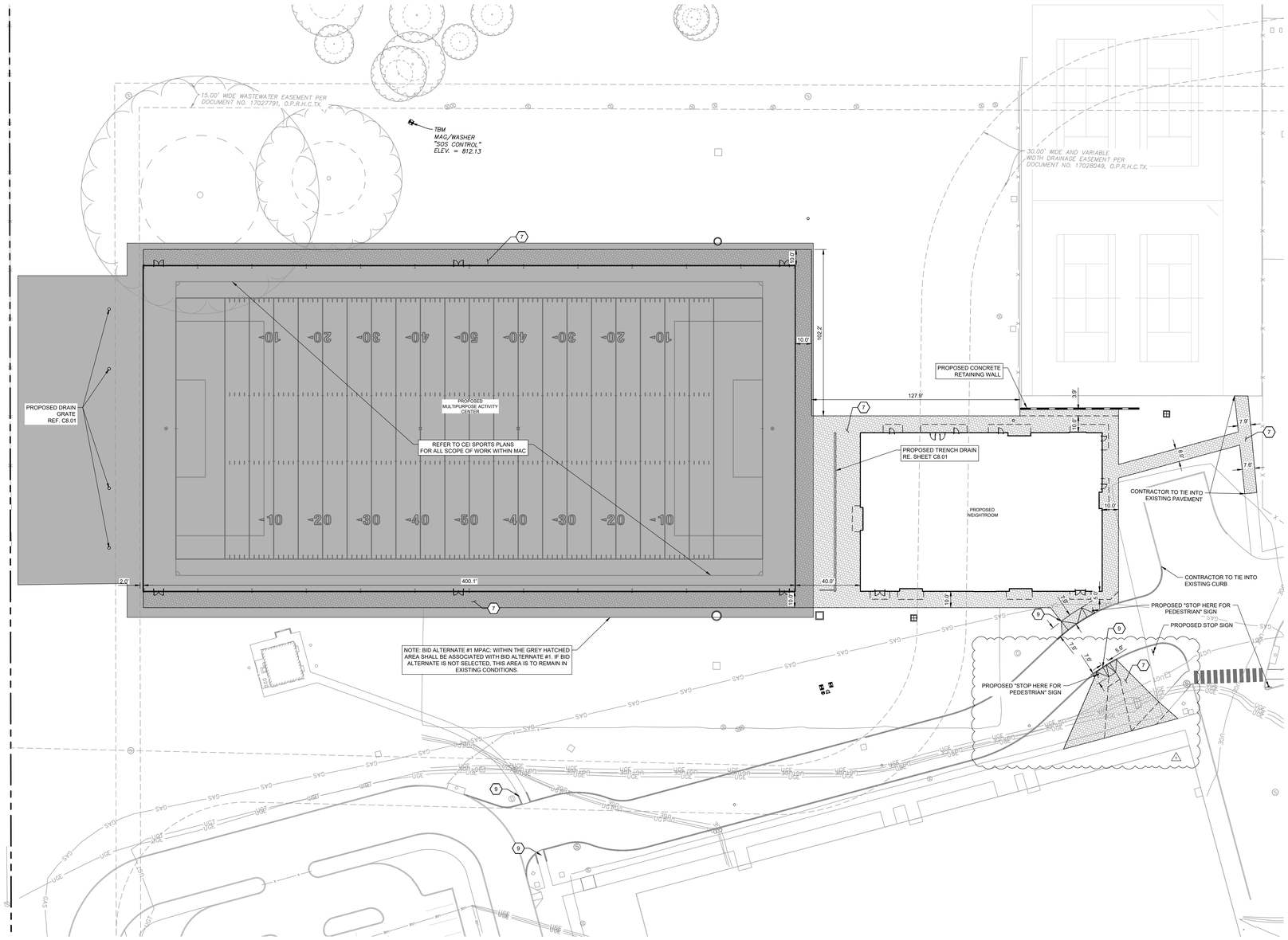
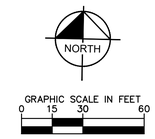
GENERAL DATA

Job No. 1954-07-01
Drawn By: VSS
Date: 04/22/25

Sheet No.
ADDENDUM 1
G1.02

5/8/2025 2:36:12 PM
Autodesk Docs://HAYS CISD - LEHMAN_JOHNSON HS ADD RENO 2025/1954-07-01_HaysJohnsonHSAdd_V23.rvt





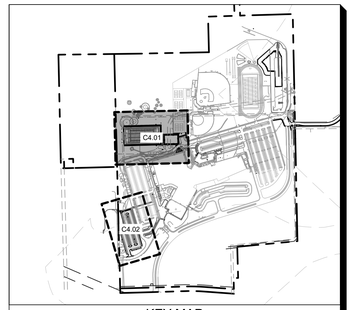
GRAPHIC SCALE IN FEET
0 15 30 60

LEGEND

- PROPERTY BOUNDARY
- PROPOSED SAWCUT LINE
- FL — PROPOSED FIRE LANE
- PROPOSED RETAINING WALL (TRIANGLE INDICATE FACE OF WALL)
- PROPOSED PARKING COUNT
- PROPOSED ACCESSIBLE PARKING SPACE
- PROPOSED BARRIER FREE RAMP
- PROPOSED SANITARY SEWER MANHOLE
- CI — PROPOSED CURB INLET
- PROPOSED FIRE HYDRANT
- PROPOSED POWER POLE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING POWER POLE
- 1 — PROPOSED 6" CONCRETE CURB (REF. DETAIL, C10.00)
- 2 — 4" PAINTED STRIPE (TYP.)
- 3 — 4" PAINTED STRIPING, 2' O.C. @ 45°
- 4 — FIRE LANE STRIPING (REF. DETAIL, SHEET C5.00)
- 5 — ACCESSIBLE PARKING SYMBOL (REF. DETAIL, SHEET C10.00)
- 6 — ACCESSIBLE PARKING SIGN (REF. DETAIL, SHEET C10.00)
- 7 — CONSTRUCT ON-SITE CONCRETE SIDEWALK (REF. DETAIL, SHEET C10.00)
- 8 — CONCRETE WHEELSTOP (REF. DETAIL, SHEET C10.00)
- 9 — CONSTRUCT ON-SITE BARRIER FREE RAMP (REF. DETAIL, SHEET C10.00)
- 10 — PROPOSED 6' DOG KENNEL FENCE AND GATES
- 11 — PROPOSED CONCRETE STAIRS (REF. DETAIL, SHEET C10.00)
- 12 — PROPOSED BOLLARDS (REF. DETAIL, SHEET C10.00)
- 13 — PROPOSED HANDRAILS (REF. DETAIL, SHEET C10.00)
- 14 — PROPOSED FENCE AND GATES (REF. ARCH)
- 15 — PROPOSED 6" CURB CUTS
- PROPOSED LIGHT-DUTY CONCRETE PAVEMENT (GENERAL PARKING) (REF. DETAIL, SHEET C10.00)
- PROPOSED MEDIUM-DUTY CONCRETE PAVEMENT (ACCESS DRIVES) (REF. DETAIL, SHEET C10.00)
- PROPOSED HEAVY-DUTY CONCRETE PAVEMENT (BUS LOOP) (REF. DETAIL, SHEET C10.00)
- PROPOSED ON-SITE (PRIVATE) SIDEWALK (REF. DETAIL, SHEET C10.00)
- PROPOSED PUBLIC SIDEWALK (REF. DETAIL, SHEET C10.00)

NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. REFER TO ARCHITECTURAL CONSTRUCTION DRAWINGS FOR EXACT BUILDING DIMENSIONS. REFER TO LANDSCAPE ARCHITECT'S PLANS FOR DIMENSIONS AND DETAIL OF HARDSCAPE.
3. ALL CURB RADII ARE 3 FEET UNLESS DIMENSIONED OTHERWISE.
4. BUILDING, MECHANICAL EQUIPMENT AND SIGNS ARE SHOWN HEREON FOR REFERENCE ONLY. REFER TO CONSTRUCTION PLANS OF THOSE ITEMS FOR LOCATIONS AND DIMENSIONS.
5. ALL CONSTRUCTION SPECIFICATIONS WITHIN CITY RIGHT-OF-WAY AND EASEMENTS SHALL COMPLY WITH CITY OF BUDA STANDARDS. PRIOR APPROVAL TO USE ANY NON-STANDARD MATERIAL IS REQUIRED.
6. REFERENCE GEOTECHNICAL REPORT FOR ADDITIONAL PAVING AND SOIL PREPARATION NOTES.
7. REFERENCE IRRIGATION AND MEP PLANS FOR CONDUIT SIZES AND LOCATIONS UNLESS OTHERWISE NOTED ON THIS SHEET.
8. EXPANSION JOINTS SHOULD BE USED WHEREVER THE PAVEMENT WILL ABUT A STRUCTURAL ELEMENT SUBJECT TO DIFFERENT MAGNITUDE OF MOVEMENT, E.G., LIGHT POLES, RETAINING WALLS, EXISTING PAVEMENT, STAIRWAYS, ENTRYWAY PIERS, BUILDING WALLS, OR MANHOLES.
9. EXISTING MANHOLE TOPS, VALVE BOXES, ETC. ARE TO BE ADJUSTED AS REQUIRED TO MATCH PROPOSED GRADES. IF NECESSARY, ADJUSTMENTS SHALL BE PERFORMED UPON COMPLETION OF PAVING AND FINE GRADING TO ENSURE A SMOOTH TRANSITION.



KEY MAP
N.T.S.

BENCHMARK LIST

TBM
MAG/WASHER
"SOS CONTROL"
ELEV. = 816.51

TBM
MAG/WASHER
"SOS CONTROL"
ELEV. = 813.61

TAS NOTE

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811 Know what's below. Call before you dig.

CAUTION!!
EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

SITE PLAN APPROVAL SHEET___13___OF___46___
FILE NUMBER_____APPLICATION DATE___01/23/2025___
APPROVED BY COMMISSION ON____N/A____UNDER THE CITY OF BUDA UNIFIED DEVELOPMENT CODE,
EXPIRATION DATE _____CASE MANAGER_____

City Engineer, City of Buda
RELEASED FOR GENERAL COMPLIANCE:_____ZONING___AG___
Rev. 1_____Correction 1_____
Rev. 2_____Correction 2_____
Rev. 3_____Correction 3_____

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Date 05.08.25
Revision / ADDENDUM 01

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS C.I.S.D.
BUDA, TEXAS

Kimley»Horn
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TBPE FIRM NO. 928

STATE OF TEXAS
RICHARD J. UNDERWOOD
117843
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05/08/2025

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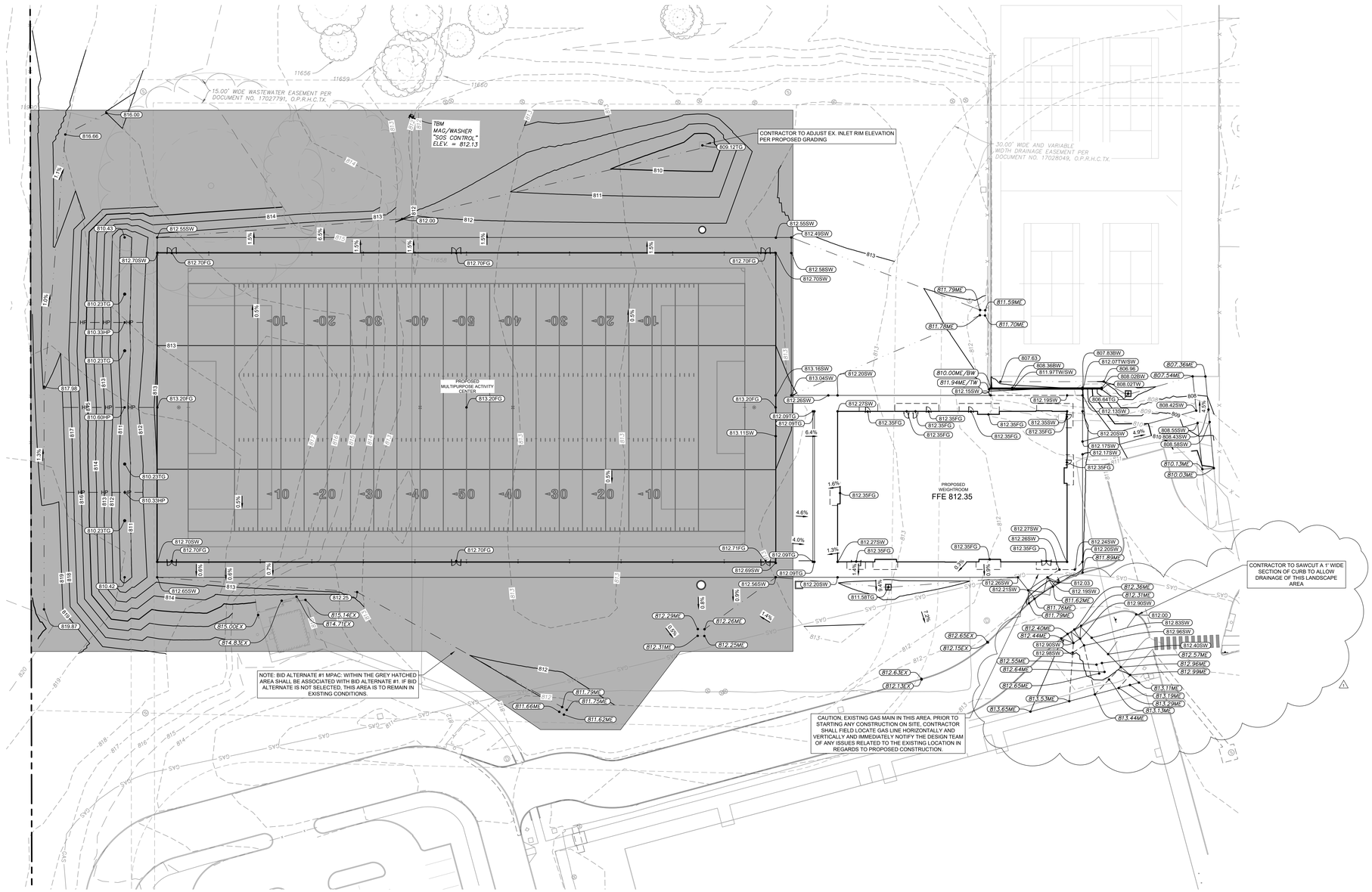
DIMENSION CONTROL PLAN (1 OF 2)

PACKAGE	VOLUME
Job No. 1954-07-01	Sheet No. ISSUE FOR BID C4.01
Drawn By: RAU	
Date: 05/08/2025	

DESIGN PROGRESS REVIEW



NORTH

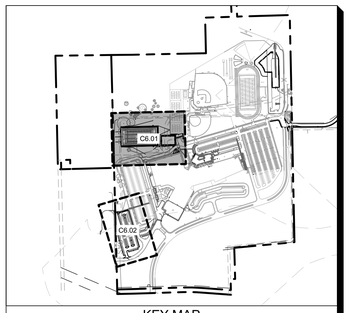
GRAPHIC SCALE IN FEET
0 15 30 60

LEGEND

XXX.XX	PROPOSED SPOT ELEVATION
SW	SIDEWALK
TS	TOP OF STEP
FG	FINISHED GRADE
TW	TOP OF WALL
BW	FINISHED GRADE AT BASE OF WALL
EW	END OF WALL
TC	TOP OF CURB
TG	TOP OF GRATE
EX	EXISTING SPOT ELEVATION
ME	MATCH EXISTING
910	PROPOSED CONTOURS
905	EXISTING CONTOURS
HP HP HP	PROPOSED HIGH POINT
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED SWALE
	PROPOSED RETAINING WALL (TRIANGLE INDICATES FACE OF WALL)
	PROPOSED EXPOSED SLAB (>8")
X.X%	DIRECTION OF INTENDED FLOW
	PROPOSED CURB RAMP
	PROPOSED RAMP WITH HANDRAIL (SEE NOTE 7)
	PROPOSED GRADE BREAK/ADA LANDING

NOTES

1. ALL SPOT GRADES ARE TO TOP OF PAVEMENT (TP) OR TOP OF GRATE (TG), UNLESS OTHERWISE NOTED AS TC (TOP OF CURB). CONTRACTOR TO ADD 6" FOR TOP OF CURB AS NECESSARY.
2. NO EARTHEN SLOPE SHALL BE GREATER THAN 3:1, UNLESS OTHERWISE NOTED.
3. MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES, LOADING ZONES AND SIDEWALK LANDINGS SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
4. MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% ON ALL SIDEWALKS UNLESS OTHERWISE NOTED. RUNNING SLOPE MAY EXCEED 5% IN PUBLIC R.O.W. IF EXISTING ROAD SLOPE EXCEEDS 5%.
5. GENERAL CONTRACTOR TO REFERENCE NOTE 1 REGARDING SPOT ELEVATIONS, COORDINATE WITH DIRT AND LANDSCAPE SUBCONTRACTORS REGARDING PROPOSED SOD AND HYDROMULCH LOCATIONS TO ENSURE ADEQUATE CUT FOR FUTURE VEGETATION.
6. EXISTING MANHOLE TOPS, VALVE BOXES, ETC. ARE TO BE ADJUSTED AS REQUIRED TO MATCH PROPOSED GRADES. IF NECESSARY, READJUSTMENTS SHALL BE PERFORMED UPON COMPLETION OF PAVING AND FINE GRADING TO ENSURE A SMOOTH TRANSITION.
7. PROPOSED RETAINING WALLS TO BE STRUCTURALLY DESIGNED AND PERMITTED BY CONTRACTOR.



KEY MAP
N.T.S.

BENCHMARK LIST

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MAG/WASHER
"SOS CONTROL"
ELEV. = 816.51

TBM
MAG/WASHER
"SOS CONTROL"
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SITE PLAN APPROVAL SHEET 17 OF 46
FILE NUMBER _____ APPLICATION DATE 01/23/2025
APPROVED BY COMMISSION ON N/A UNDER THE CITY OF BUDA UNIFIED DEVELOPMENT CODE.
EXPIRATION DATE _____ CASE MANAGER _____

City Engineer, City of Buda
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING AG
Rev. 1 _____ Correction 1 _____
Rev. 2 _____ Correction 2 _____
Rev. 3 _____ Correction 3 _____

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Date 05.08.25
Revision / ADDENDUM 01

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS C.I.S.D.
BUDA, TEXAS

Kimley»Horn
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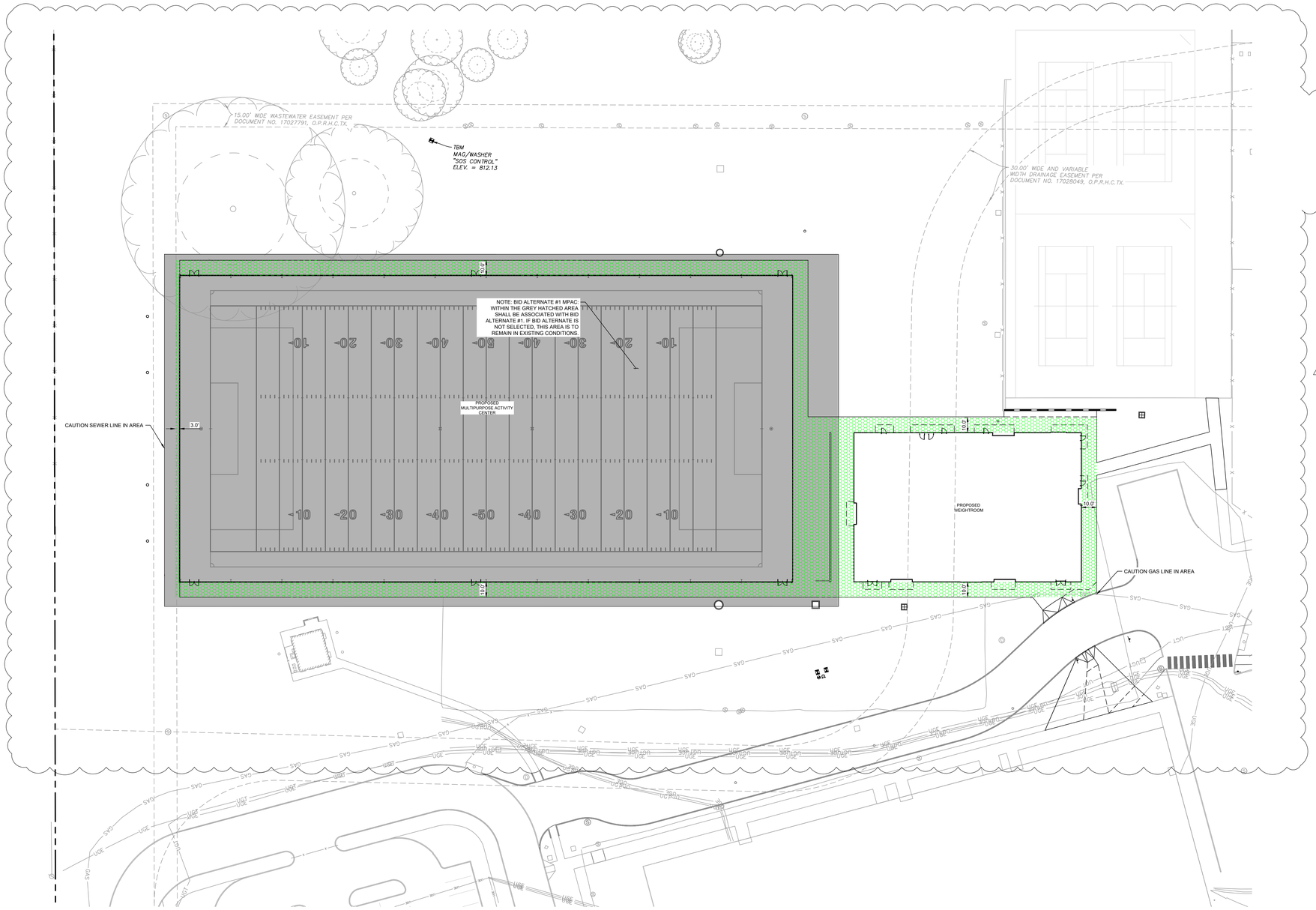
GRADING PLAN
(1 OF 2)

PACKAGE	VOLUME
Job No. 1954-07-01	Sheet No. C6.01
Drawn By: RAU	ISSUE FOR BID
Date: 05/08/2025	

DESIGN PROGRESS REVIEW



NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

LEGEND

PROPERTY BOUNDARY

PVR TABLE

	DESIRED PVR	THICKNESS OF LIME-TREATED ON-SITE SOIL
	1 INCH	8 FT

TAS NOTE

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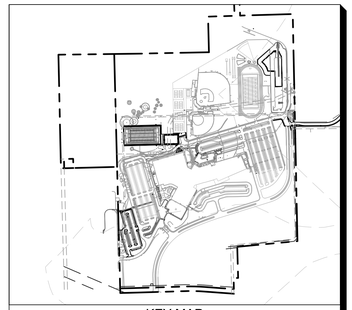

KEY MAP
N.T.S.

SITE PLAN APPROVAL SHEET___19___OF___46___
FILE NUMBER_____APPLICATION DATE___01/23/2025_____
APPROVED BY COMMISSION ON_____N/A_____UNDER THE CITY OF BUDA UNIFIED DEVELOPMENT CODE.
EXPIRATION DATE _____CASE MANAGER_____

_____
City Engineer, City of Buda
RELEASED FOR GENERAL COMPLIANCE:_____ZONING____AG____
Rev. 1_____Correction 1_____
Rev. 2_____Correction 2_____
Rev. 3_____Correction 3_____

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Date 05.08.25
Revision / ⚠ ADDENDUM 01

Project:
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2025 ADDITIONS
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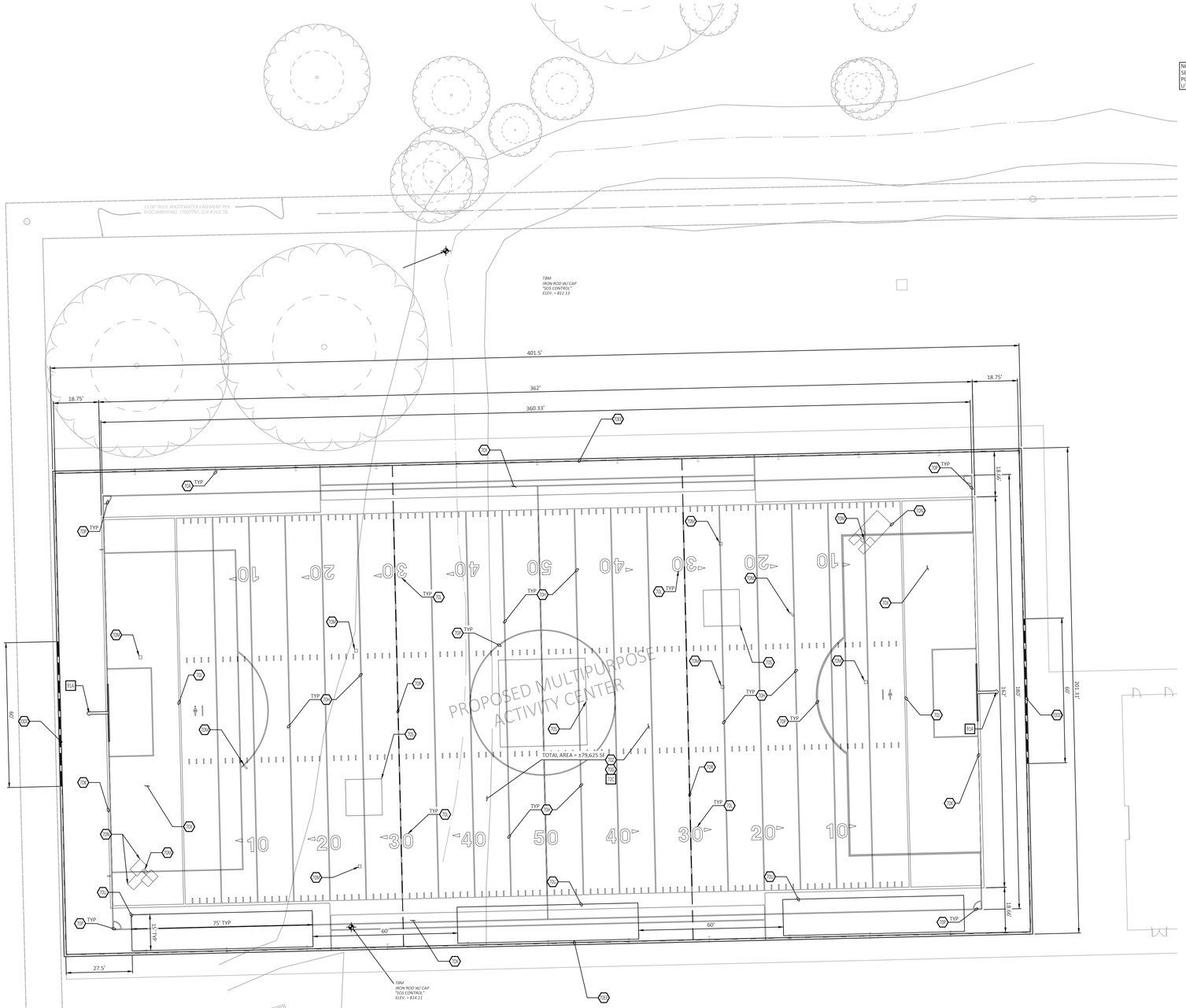
PVR PLAN

PACKAGE	VOLUME
Job No. 1964-07-01	Sheet No. ISSUE FOR BID C6.03
Drawn By: RAU	
Date: 05/08/2025	

DESIGN PROGRESS REVIEW



SITE BENCHMARK

TBM
IRON ROD W/ CAP
"SOS CONTROL"
ELEV. = 814.11

TBM
IRON ROD W/ CAP
"SOS CONTROL"
ELEV. = 812.13

NOTE:
SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF PORCHES, RAMPS, VESTIBULE, SLOPED PAVING, TRUCK DOCKS, BUILDING UTILITY ENTRANCE LOCATIONS AND PRECISE BUILDING DIMENSIONS.

N

0 20' 30' 40'
SCALE IN FEET

811 Know what's below. Call before you dig.

EXISTING LEGEND

- CLEANOUT
- FIRE HYDRANT
- LIGHT POLE
- SCOREBOARD
- TREE
- CHAINLINK FENCE LINE
- STORM DRAIN
- SANITARY SEWER
- WATER

GENERAL NOTES

A. CONTRACTOR SHALL RE-ESTABLISH DISTURBED GRASS AROUND FIELD WITH COMMON BERMUDA GRASS.

B. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND 4" OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED, AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS (SEE LANDSCAPE PLAN FOR SEED MIX AND PROPER APPLICATION RATE). ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

C. ALL DIMENSIONS ARE TAKEN FROM FACE OF CONCRETE AND FACE OF CHAIN LINK FENCE.

FIELD AND TURF NOTES

70A INSTALL PADS AT BUILDING COLUMNS AS NOTED ON A4.12 AND A1.1C1. ADD TO SPECIFICATION 32 8450.

70G INSTALL SHOCK PAD AS SPECIFIED BENEATH ENTIRE SYNTHETIC TURF AREA.

70H ALL FOOTBALL FIELD LINES SHALL BE 4 INCH WIDE AND WHITE IN COLOR PER COLOR RENDER.

70I END ZONE LINES SHALL BE 8 INCH WIDE AND WHITE IN COLOR PER COLOR RENDER.

70K BACK OF END ZONE SHALL BE 8 INCH WIDE AND WHITE IN COLOR PER COLOR RENDER.

70L FIELD NUMBERING AND ARROWS SHALL BE SOLID WHITE IN COLOR.

70M BASE PLATES TO BE WHITE INLAID SYNTHETIC TURF.

70N ALL BASEBALL/SOFTBALL FIELD LINES SHALL BE 4 INCH WIDE AND BLUE IN COLOR PER COLOR RENDER.

70P ALL SOCCER FIELD LINES SHALL BE 4 INCH WIDE AND GRAY IN COLOR PER COLOR RENDER.

70R INSTALL TENSION SPORTS NETTING TO BE ATTACHED TO FRAMING OF STEEL STRUCTURE PER SPECIFICATIONS.

70S CONTRACTOR PROVIDE ALLOWANCE FOR FIELD CUSTOMIZATION.

70T INSTALL STANDARD SOCCER GOAL.

70U INSTALL TENSION BATTING CAGE NETTING AS SPECIFIED.

70X INSTALL GREEN SYNTHETIC TURF SYSTEM.

70Z INSTALL ALTERNATING GREEN SYNTHETIC TURF SYSTEM.

70DD INSTALL SPORTS NETTING PER SPECIFICATIONS.

70EE PROPOSED SPORT FIELD COVER, TO BE CONSTRUCTED BY OTHERS AND SHOWN ON THIS PLAN FOR REFERENCE. REFER TO ARCHITECTURAL PLANS FOR FINAL PLACEMENT AND REQUIREMENTS.

FIELD AND TURF DETAIL

72C FOOTBALL FIELD ALTERNATING GREEN

91A GOAL POST WITH PAD INSTALLATION

Revision / Date:
100% CD 02-26-2025
ADD-1 05-07-2025

Project:

JOHNSON HIGH SCHOOL
2025 ADDITIONS + RENOVATIONS
FOR
HAYS CISD
BUDA, TX

TEXAS REGISTERED ENGINEERING FIRM F-7524 JEFFERY J. BRESEE 86217 STATE OF TEXAS

2025-05-06

F-7524

JEFFERY J. BRESEE
TX 86217

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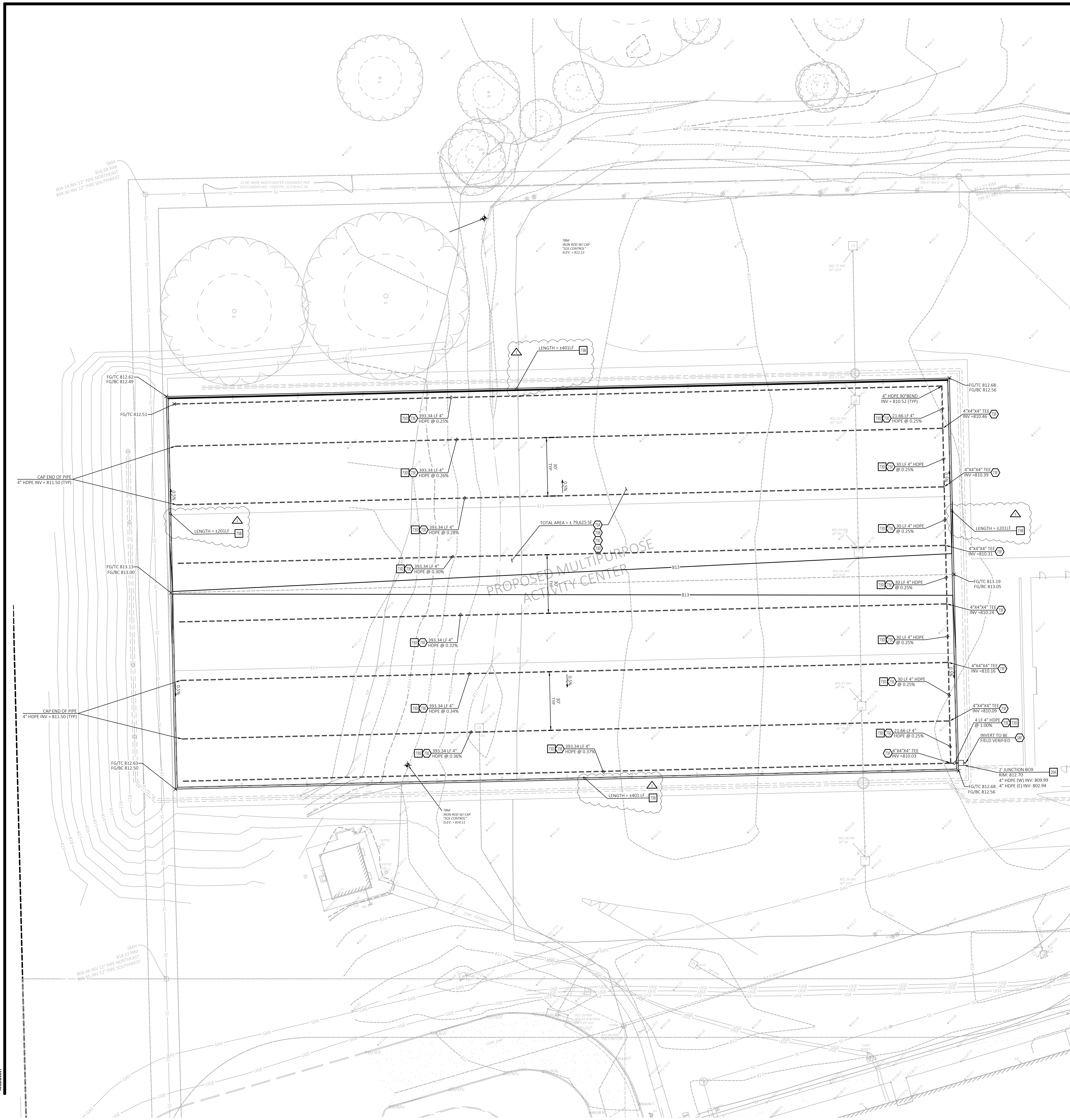
SURFACE PLAN - ALTERNATE 1

Job No.	Sheet No.
34208	100% CD
Drawn By: MDT	F1
Date: 5/5/2025	

PROJECT RELEASE TYPE

5/6/2025 8:03 AM
DRAWING LOCATION - P:\34000\34208.00\DRAWINGS\DESIGN\WORKING\34208-SP.DWG – SAVED BY - ARDOWAY



SITE BENCHMARK

TBM
IRON ROD W/ CAP
"SOS CONTROL"
ELEV. = 814.11

TBM
IRON ROD W/ CAP
"SOS CONTROL"
ELEV. = 812.13

NOTE:
SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF PORCHES, RAMPS, VESTIBULE, SLOPED PAVING, TRUCK DOCKS, BUILDING UTILITY ENTRANCE LOCATIONS AND PRECISE BUILDING DIMENSIONS.

N

0 20' 30' 40'
SCALE IN FEET

811
Know what's below.
Call before you dig.

EXISTING LEGEND

	CLEANOUT		CHAINLINK FENCE LINE
	FIRE HYDRANT		STORM DRAIN
	LIGHT POLE	X"SS	SANITARY SEWER
	SCOREBOARD	X"W	WATER
	TREE		

PROPOSED LEGEND

	PROPERTY LINE/RIGHT OF WAY LINE	x XX.XX	SPOT ELEVATIONS: BC = BOTTOM OF CURB; FG = FINISH GRADE; TC = TOP OF CURB
XXX	CONTOUR ELEVATIONS		
	STORM DRAIN		

GENERAL GRADING NOTES

A. PRIOR TO INSTALLATION OF STORM OR SANITARY SEWER, THE CONTRACTOR SHALL EXCAVATE, VERIFY, AND CALCULATE ALL CROSSINGS AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT THE ENGINEER IS NOT NOTIFIED OF DESIGN CONFLICTS.

B. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND 4" OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS (SEE LANDSCAPE PLAN FOR SEED MIX AND PROPER APPLICATION RATE). ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

C. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.

GRADING NOTES

18F CONNECT TO NEW STORM DRAIN SYSTEM (REFER TO CIVIL DRAWINGS)

73A COMPACT AND STABILIZE SOIL PER GEOTECH REPORT. SOIL IS TO BE OVER EXCAVATED AND REPLACED WITH 10FT OF SELECT FILL. (1)

73B PLACE AND COMPACT 4 INCH CRUSHED STONE MATERIAL (3-1/2 INCH TO BASE STONE AND 1/2 INCH OF FINISHED STONE AS SPECIFIED) OVER ENTIRE SURFACE OF FIELD WHERE SYNTHETIC TURF IS TO BE PLACED.

73C INSTALL 30 MIL GEOMEMBRANE LINER OVER ENTIRE SURFACE OF FIELD WHERE SYNTHETIC TURF IS TO BE PLACED. WRAP GEOMEMBRANE BEHIND TREX NAILER BOARD AT ALL TURF EDGES PER SPECIFICATIONS.

73D ANCHOR TURF TO CONCRETE CURB WITH 2 INCH X 4 INCH TREX NAILER BOARD AROUND ENTIRE PERIMETER OF SYNTHETIC TURF.

73E INSTALL 4" PERFORATED PIPES AT 30' O.C.

73F INSTALL TEE AT EACH DRAIN JUNCTION, DIAMETER AS INDICATED ON PLAN

GRADING DETAILS

20A JUNCTION BOX

73B CONCRETE FENCE SKIRT

73D PERFORATED STORM PIPE (TURF)

Revision /	Date:
100% CD	02-26-2025
ADD-1	05-07-2025

Project: JOHNSON HIGH SCHOOL 2025 ADDITIONS + RENOVATIONS FOR HAYS CISD BUDA, TX

STATE OF TEXAS
JEFFERY J. BRESEE
89217
REGISTERED PROFESSIONAL ENGINEER
2025-05-06
F-7524
JEFFERY J. BRESEE
TX 89217

Huckabee
www.huckabee-inc.com
800.687.1229

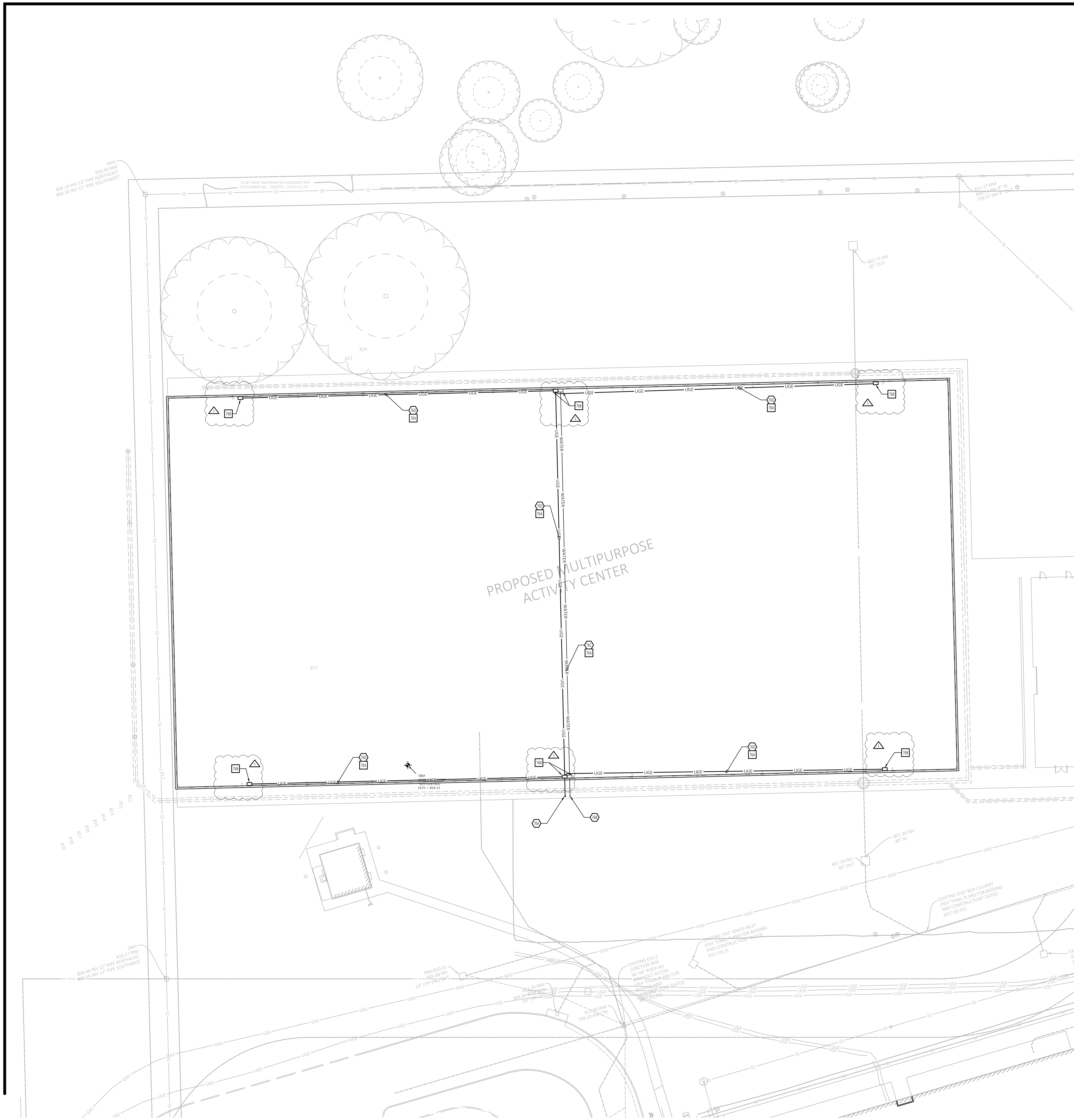
GRADING PLAN - ALTERNATE 1

Job No. 34208	Sheet No.
Drawn By: MDT	100% CD
Date: 5/5/2025	F2

1 05-07-2025 ADD-1

PROJECT RELEASE TYPE

5/6/2025 8:03 AM
DRAWING LOCATION - P:\34000\34208.B\DRAWINGS\DESIGN\WORKING\34208-GP-ALT-1.DWG -- SAVED BY - ARIDGWAY



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NOTE:
SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF PORCHES, RAMPS, VESTIBULE, SLOPED PAVING, TRUCK DOCKS, BUILDING UTILITY ENTRANCE LOCATIONS AND PRECISE BUILDING DIMENSIONS.

0 20' 30' 40'
SCALE IN FEET

811 Know what's below. Call before you dig.

EXISTING LEGEND

CLEANOUT	CHAINLINK FENCE LINE
FIRE HYDRANT	STORM DRAIN
LIGHT POLE	X"SS — SANITARY SEWER
SCOREBOARD	X"W — WATER
TREE	

PROPOSED LEGEND

- PROPERTY LINE/RIGHT OF WAY LINE
- STORM DRAIN
- UGE — UNDERGROUND ELECTRIC SERVICE

GENERAL UTILITY NOTES

A. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.

B. ALL ELECTRIC, TELEPHONE AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.

C. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.

D. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM CEI ENGINEERING AND THE OWNER/DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. CEI ENGINEERING AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

UTILITY NOTES

76A TIE IN ELECTRIC LINE TO NEAREST ELECTRIC RISER.

76B TIE IN WATER LINE TO NEAREST POTABLE WATER SOURCE.

76C INSTALL 3 INCH Ø PVC CONDUIT WITH 1 INCH Ø POLYLINE WATERLINE.

76D INSTALL 1 1/2 INCH Ø PVC CONDUIT W/ELECTRIC LINES AND PULL STRINGS.

UTILITY DETAILS

76A PVC CONDUIT-CLASS "C" INCH PIPE BEDDING DETAIL

76B SYNTHETIC TURF UTILITY BOX

Revision /	Date:
100% CD	02-26-2025
ADD-1	05-07-2025

Project: JOHNSON HIGH SCHOOL
2025 ADDITIONS + RENOVATIONS
FOR
HAYS CISD
BUDA, TX

F-7524
2025-05-06
JEFFERY J. BRESEE
TX 89217

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UTILITY PLAN - ALTERNATE 1

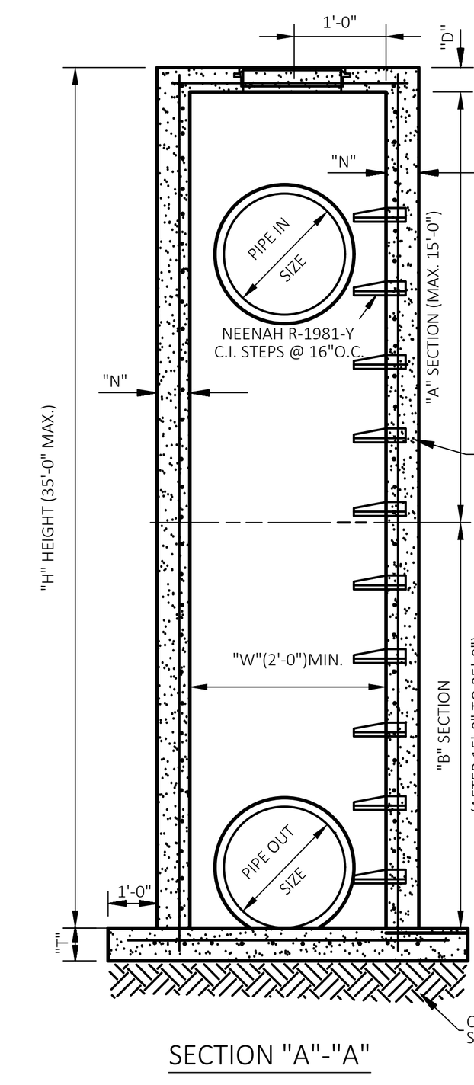
Job No. 34208	Sheet No.
Drawn By: MDT	100% CD
Date: 5/5/2025	F3

PROJECT RELEASE TYPE

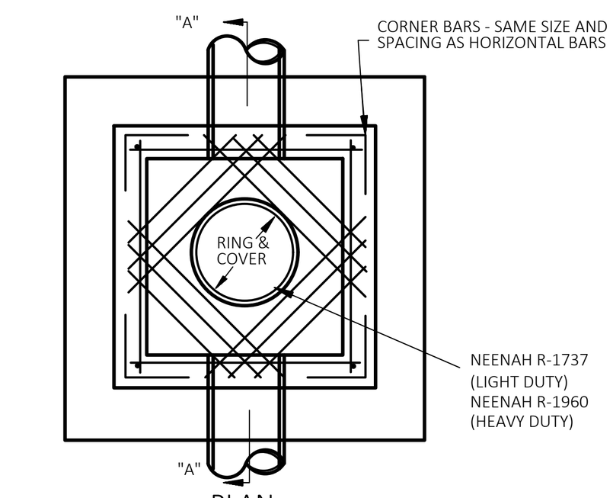
05-07-2025 ADD-1

5/6/2025 8:04 AM
DRAWING LOCATION : P:\34000\34208 B\DRAWINGS\DESIGN\WORKING\34208-UP.DWG -- SAVED BY : ARIDGWAY

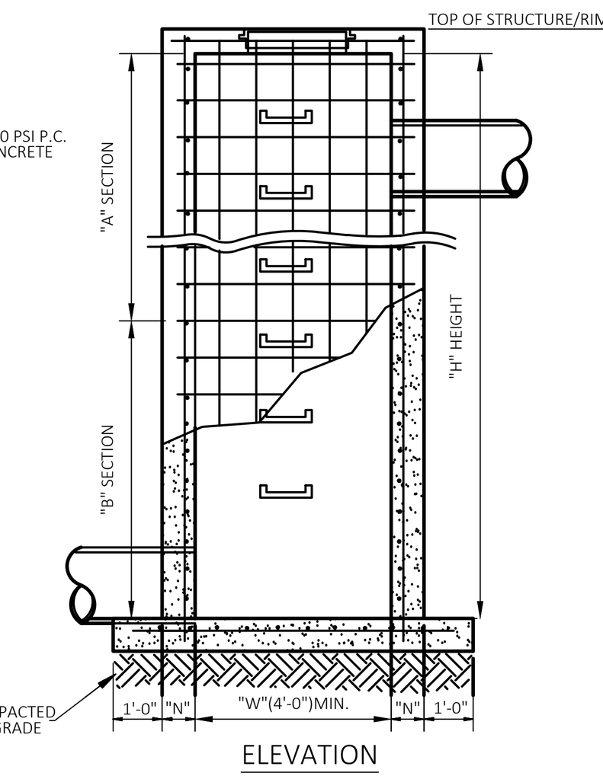
GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER
2. ALL #4 & #5 REINFORCING BARS TO HAVE 1-1/2" COVER, LARGER SIZES TO HAVE 2" COVER.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF BOX.
5. ALL REINFORCING BARS TO BE GRADE 60.



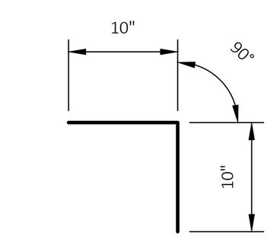
SECTION "A"-"A"



PLAN



ELEVATION



CORNER BAR

REINFORCEMENT SCHEDULE, BASE	
SECTION	
"A"	#4's @ 6" E.W.
"B"	#6's @ 6" E.W.

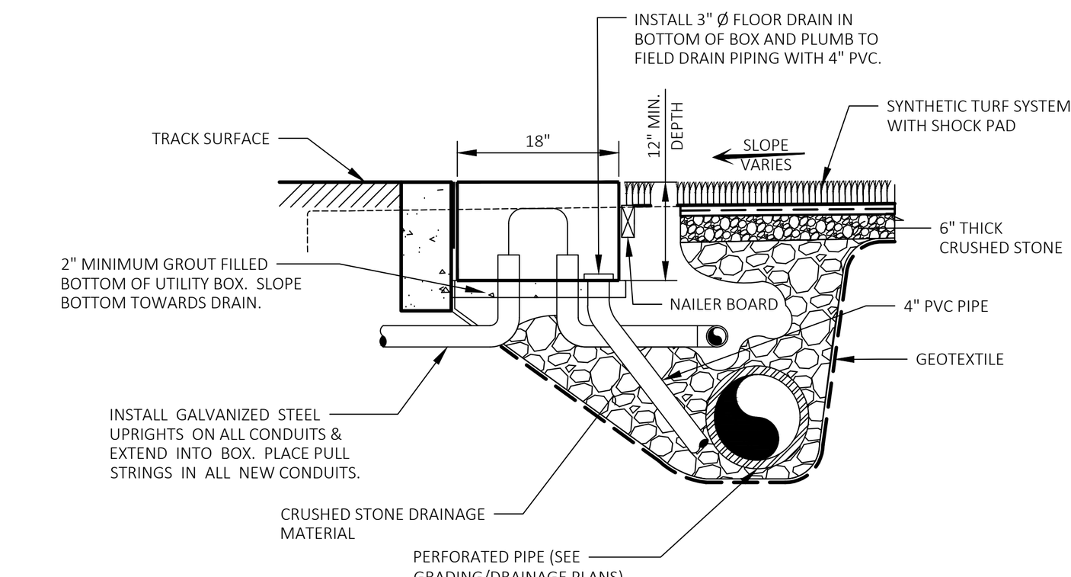
TABLE OF 'W' DIMENSIONS			
PIPE SIZE	SKEW OF CROSS DRAIN		
SINGLE	STRAIGHT	30°	45°
≤ 24"	4'-0"	4'-0"	4'-10"
30"	4'-0"	4'-7"	5'-8"
36"	4'-0"	5'-3"	6'-5"
42"	5'-3"	5'-11"	7'-3"
48"	5'-10"	6'-7"	8'-0"
60"	7'-0"	7'-10"	9'-8"
DOUBLE	FOR "A" SECTION ONLY		
24"	7'-0"	7'-10"	9'-5"
30"	8'-2"	9'-2"	11'-0"
36"	9'-4"	10'-6"	12'-6"
42"	10'-6"	11'-10"	14'-2"
48"	11'-8"	13'-2"	15'-10"

REINFORCEMENT SCHEDULE, WALLS			
SECTION	WIDTH ("W")	HOR.	VERT.
"A"	4'	#4's @ 9"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"
"B"	4'	#4's @ 6"	#4's @ 10"
	BETWEEN 4' & 7'	#6's @ 6"	#4's @ 10"

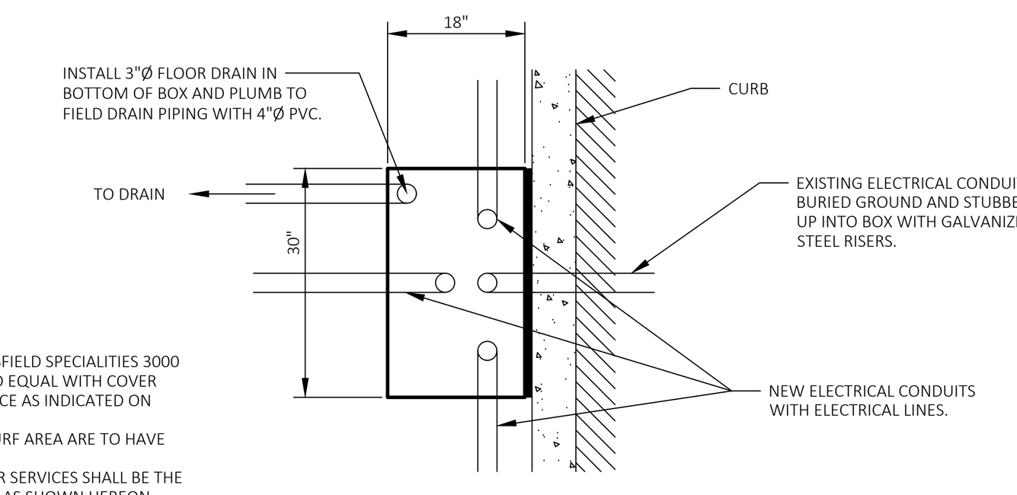
TABLE OF "T" & "N" DIMENSIONS				
SECTION	WIDTH ("W")	"T"	"N"	"D"
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	6"
	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"
"B"	4'	6" + PIPE THICKNESS	8"	8"
	BETWEEN 4' & 7'	6" + PIPE THICKNESS	10"	8"

REINFORCEMENT SCHEDULE, TOP		
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W1 = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4'S @ 6" E.W.	DIAGONAL @ COVER
W1 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER
W2 = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER

JUNCTION BOX
N.T.S.
20A



UTILITY BOX SECTION
N.T.S.

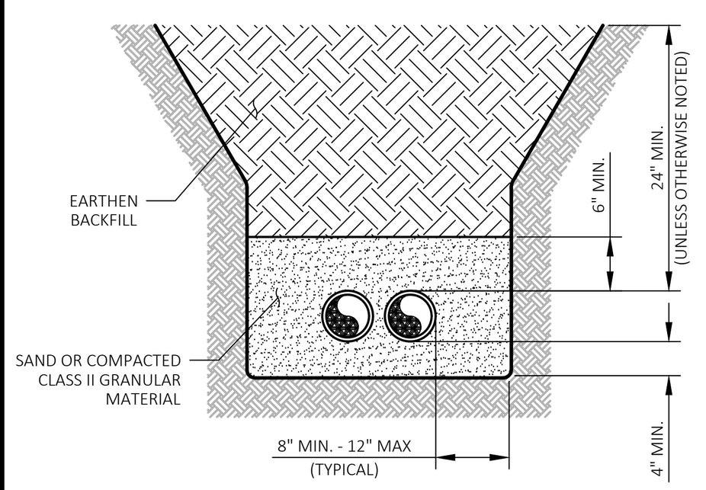


NOTE:
1. UTILITY BOXES - SPORTSFIELD SPECIALITIES 3000 COMBOX OR APPROVED EQUAL WITH COVER COMPATIBLE TO SURFACE AS INDICATED ON PLANS.
2. BOXES IN SYNTHETIC TURF AREA ARE TO HAVE SYNTHETIC TURF LIDS.
3. UTILITY BOX FOR WATER SERVICES SHALL BE THE SAME CONFIGURATION AS SHOWN HEREON, BUT SHALL HAVE A DRY-BARREL WATER HYDRANT INSTALLED OR A VALVE AS SPECIFIED ON THE UTILITY PLAN.
4. UTILITY BOXES FOR ELECTRIC SHALL HAVE WEATHER RESISTANT 110V ELECTRICAL RECEPTACLE WITH PIT TAIL CONFIGURATION.

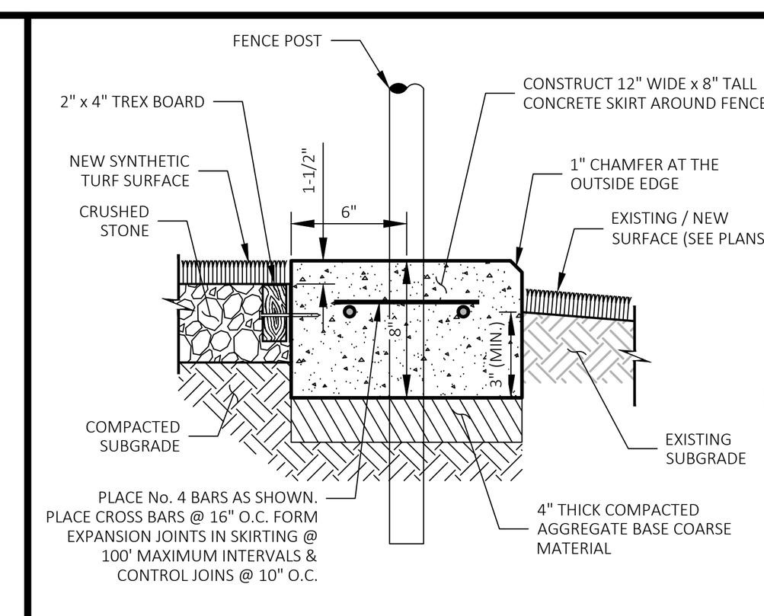
CONDUIT LAYOUT
N.T.S.

SYNTHETIC TURF UTILITY BOX
76B

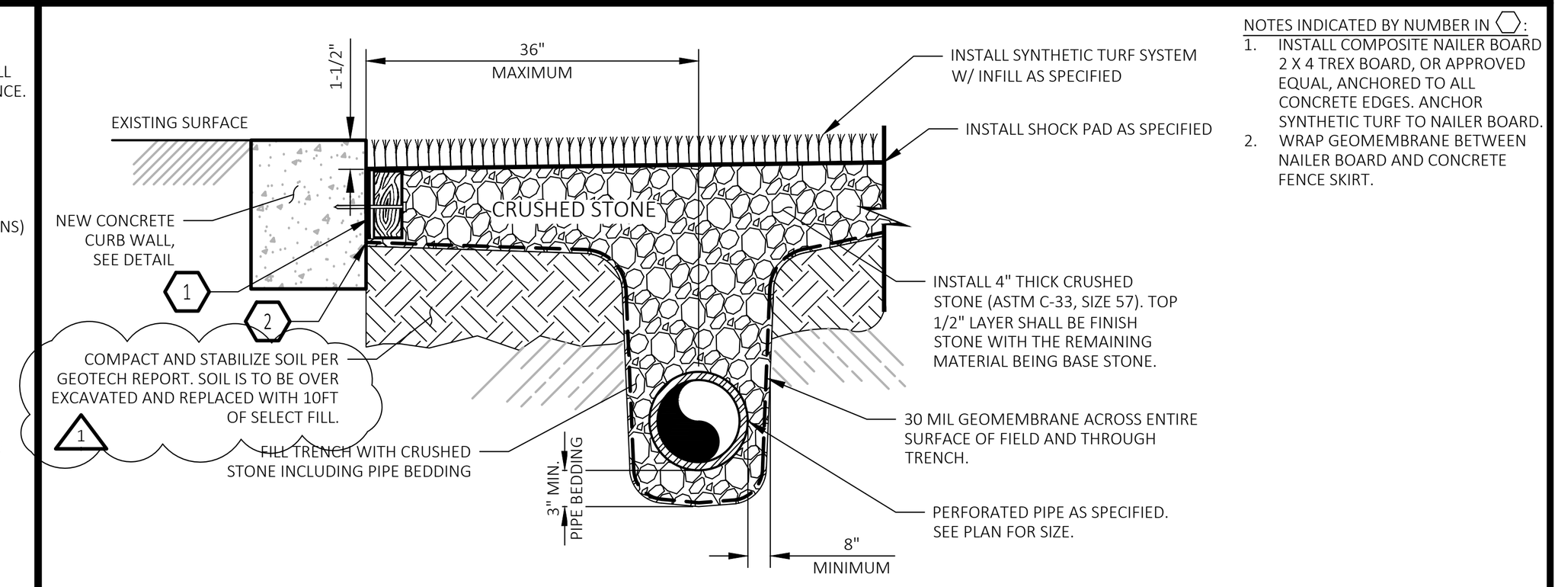
NOTE:
BACK FILL TO BE MECHANICALLY TAMPED IN 6" LIFTS TO 95% OF MAXIMUM STANDARD PROCTOR DRY DENSITY UNDER DRIVE LOCATIONS.



PVC CONDUIT-CLASS "C" PIPE BEDDING DETAIL
N.T.S.
76A

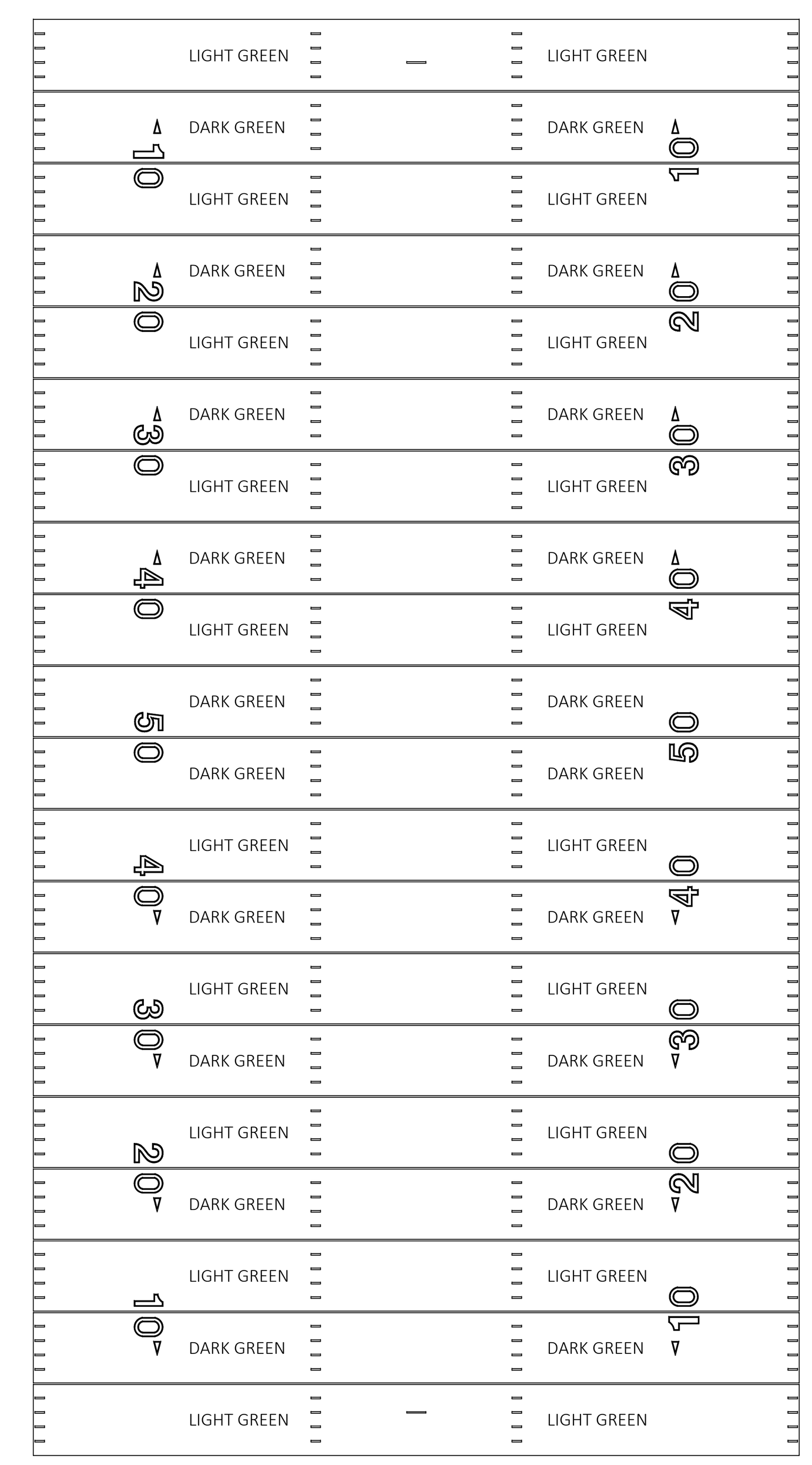


CONCRETE FENCE SKIRT
N.T.S.
73B



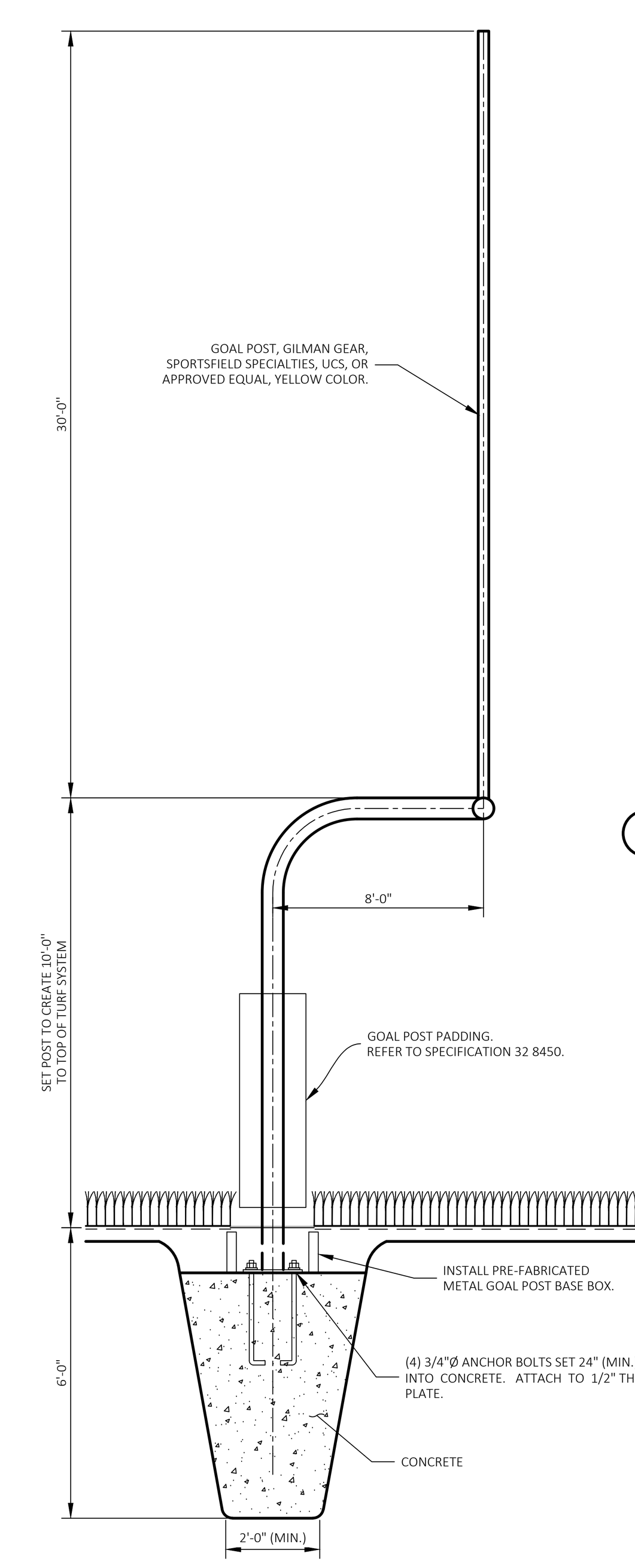
NOTES INDICATED BY NUMBER IN ⬡:
1. INSTALL COMPOSITE NAILER BOARD 2 X 4 TREX BOARD, OR APPROVED EQUAL, ANCHORED TO ALL CONCRETE EDGES. ANCHOR SYNTHETIC TURF TO NAILER BOARD.
2. WRAP GEOMEMBRANE BETWEEN NAILER BOARD AND CONCRETE FENCE SKIRT.

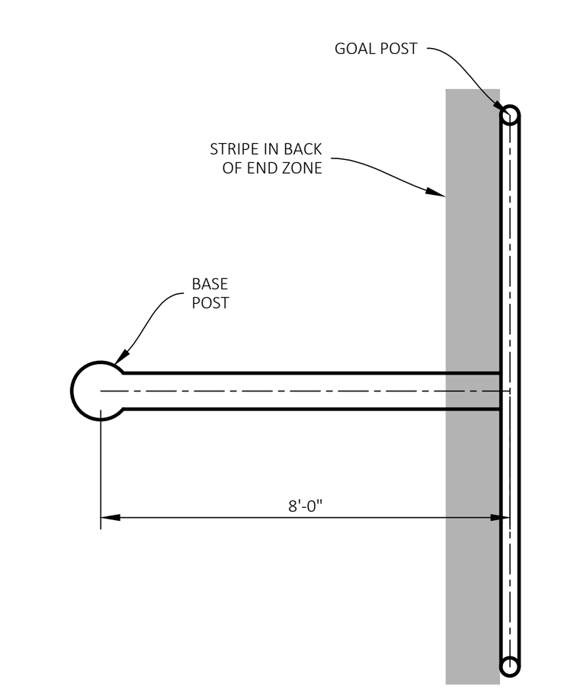
PERFORATED STORM PIPE
N.T.S.
73D



FOOTBALL FIELD ALTERNATING GREEN
N.T.S.
72C

NOTE:
1. GOAL POST INSTALLATION SHALL MEET N.F.H.S. STANDARDS.





PLAN VIEW
N.T.S.

GOAL POST INSTALLATION
N.T.S.
91A

Revision /	Date:
100% CD	02-26-2025
ADD-1	05-07-2025

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS + RENOVATIONS
FOR
HAYS CISD
BUDA, TX

STATE OF TEXAS
JEFFERY J. BRESEE
89217
REGISTERED PROFESSIONAL ENGINEER
2025-05-06
F-7524
JEFFERY J. BRESEE
TX 89217

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DETAIL SHEET - ALTERNATE 1

Job No. 34208
Drawn By: MDT
Date: 5/5/2025
Sheet No. 100% CD
F4

1 | 05-07-2025 | ADD-1

PROJECT RELEASE TYPE

5/6/2025 8:04 AM
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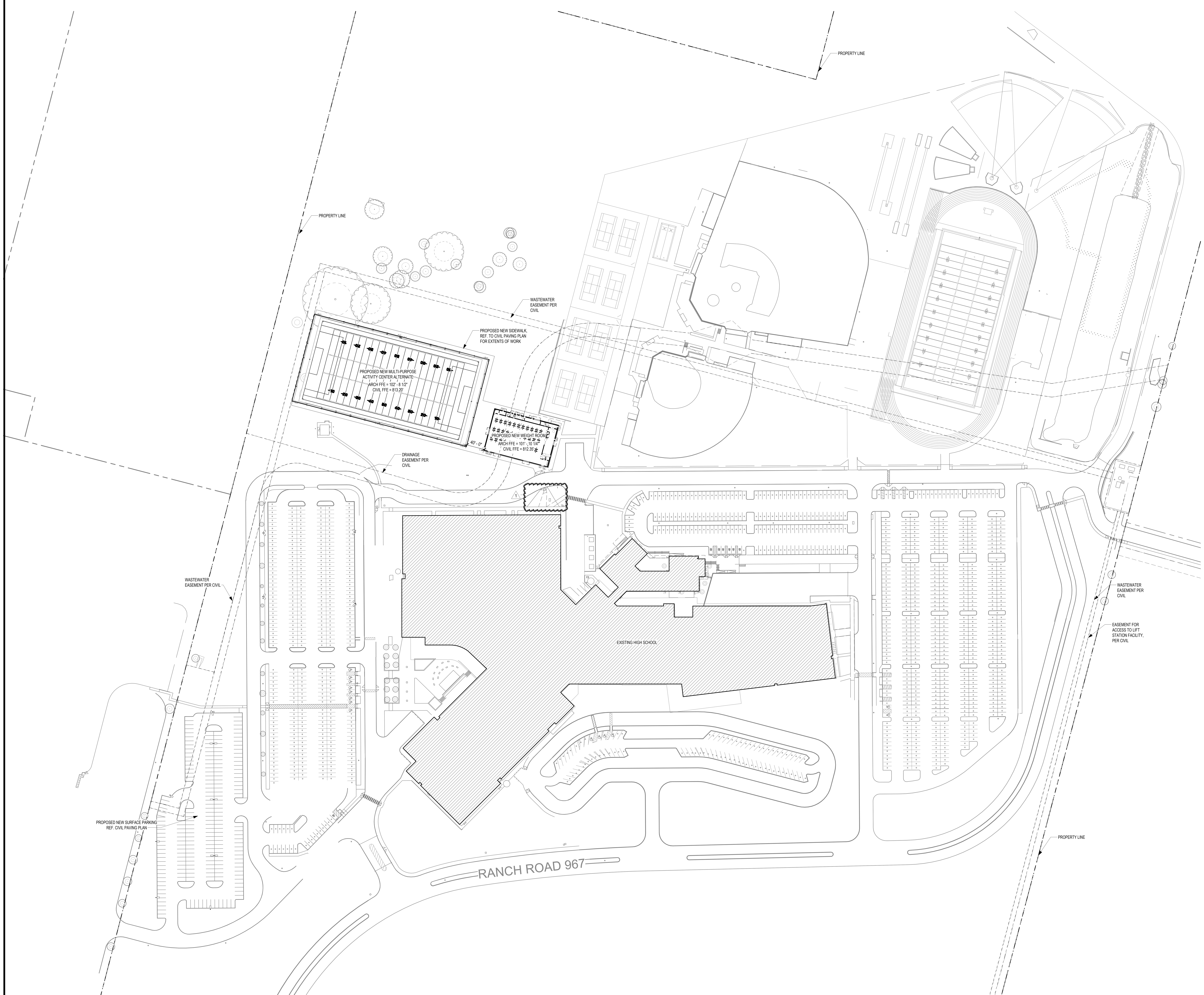


1 ARCHITECTURAL SITE PLAN
1" = 80'-0"

TRUE PLAN

1. ALL SITE INFORMATION INCLUDING, BUT NOT LIMITED TO, PROPERTY LINES, METES & BOUNDS, CONTOURS, EXISTING BUILDINGS, EASEMENTS, TREES, WALKS, DRIVES, FENCES, ETC., TAKEN FROM SURVEY BY:

   SPOT ON SURVEYING
   614 JERRYS LANE
   BUDA, TX 78610
   PHONE (512) 523-8092

2. HUCKABEE AND ASSOCIATES, INC. ALONG WITH THEIR CONSULTANTS HAVE LOCATED, SHOWN , AND NOTED EXISTING SITE FEATURES INCLUDING BUT NOT LIMITED TO PROPERTY LINES, METES AND BOUNDS, GRADE CONTOURS, EXISTING STRUCTURES, EASEMENTS, TREES, FENCES, ROADWAYS, OVERHEAD AND UNDERGROUND UTILITIES, AND OTHER EXISTING FEATURES TO THE BEST OF OUR ABILITY BASED UPON OWNER PROVIDED SURVEYS, EXISTING CONSTRUCTION DOCUMENTS AND OTHER EXISTING DATA COLLECTION IN REGARDS TO THE SPECIFIED SITE. HUCKABEE AND ASSOCIATES, INC. NOR THEIR CONSULTANTS SHALL ASSUME ANY RESPONSIBILITY OR LIABILITIES IN REGARD TO THE ACCURACY OF THE ABOVE MENTIONED OWNER PROVIDED DATA.
3. IF THE CONTRACTOR FINDS ANY DISCREPANCY BETWEEN EXISTING CONDITIONS AND THOSE WHICH ARE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY CONTACT THE ARCHITECT.
4. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL UTILITY ENTITIES TO LOCATE AND MARK ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS.
6. REF. SHEET AS2.01 FOR DETAILS AND OTHER SITE IMPROVEMENT DETAILS.
7. FINISH GRADE AT PERIMETER OF THE BUILDING SHALL BE AS SHOWN ON SITE GRADING PLAN. REF. CIVIL DRAWINGS. SITE GRADES SHALL SLOPE UNIFORMLY AWAY FROM THE BUILDING AND INTERSECT WITH ELEVATIONS SHOWN.
8. REF. CIVIL DRAWINGS FOR ALL SITE DIMENSIONS
9. MAKE ALL SLOPES OF WALKS AND DRIVES COMPLY WITH FINISH ELEVATION SHOWN ON CIVIL DRAWINGS. THE LINE OF SLOPE SHALL FORM STRAIGHT LINES BETWEEN FINISH ELEVATIONS WHEN POSSIBLE AND GRADING CONTOURS WHEN STRAIGHT LINES ARE NOT POSSIBLE. VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECT ON JOB. REF. CIVIL.
10. ALL WALKS AND PLAZAS SHALL BE REINFORCED CONCRETE - REF. CIVIL FOR DETAILS. PROVIDE 1/2" EXPANSION JOINT AS SHOWN BY CIVIL OR AT 25'-0" O.C. MAX. AND AT ALL INSIDE CORNERS. PROVIDE TOOLED CONTROL JOINTS AT 5'-0" O.C.B.W. MAX OR AS SHOWN. SEE CIVIL FOR TYPICAL WALK AND JOINT DETAILS.
11. PROVIDE 1/2" EXPANSION JOINT ALONG BUILDING FOUNDATION OR BRICK WHERE CONCRETE WALK IS PRESENT. REF. CIVIL DRAWINGS FOR TYPICAL DETAIL.
12. PROVIDE 1/2" EXPANSION JOINT ALONG BACK OF CONCRETE CURB WHERE WALK IS PRESENT. REF. CIVIL DRAWINGS FOR CURB DETAILS
13. CONTRACTOR SHALL REMOVE ALL EXISTING OBSTRUCTIONS TO NEW CONSTRUCTION, PAVING, WALKS, AND ALL OTHER SITE IMPROVEMENTS INCLUDING BUT NOT LIMITED TO EXISTING TREES, FENCES, CONCRETE, ROCKS, DEBRIS, POSTS, VEGETATION, UTILITIES (AS NOTED), AND OTHER ITEMS AS NOTED FOR CONSTRUCTION. PRIOR TO REMOVING TREES CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM OWNER.
14. REF. ELECTRICAL DRAWINGS FOR OUTDOOR LIGHTING REQUIREMENTS.
15. REF. CIVIL DRAWINGS FOR SITE GRADING PLAN, SITE UTILITY PLAN (INCLUDING FIRE HYDRANT LOCATIONS), EROSION CONTROL PLANS, AND CURB AND PAVING REQUIREMENTS AND DETAILS.
16. REF. CIVIL SHEETS FOR SITE GRADING CONTOURS. CONTRACTOR SHALL MAKE ALL CUTS AND FILLS REQUIRED TO ACCOMPLISH ALL WORK SHOWN. GRADE SITE TO TOLERANCES SPECIFIED.
17. REF. CIVIL DRAWINGS FOR THICKNESS AND LOCATIONS OF ALL TYPES OF PAVING.
18. FIRE LANE STRIPING SHALL COMPLY WITH CITY OF BUDA, TX REQUIREMENTS AND NFPA.
19. PROVIDE DEDICATED STRUCTURAL CONCRETE FOUNDATION PAD FOR ALL ON-SITE ELECTRICAL TRANSFORMERS PER THE ELECTRICAL SERVICE PROVIDER REQUIREMENTS AND/OR SPECIFICATIONS.
20. PROVIDE DEDICATED STRUCTURAL CONCRETE FOUNDATION PAD FOR ALL ON-SITE GENERATORS AND ANY ASSOCIATED GENERATOR ENCLOSURES.

GENERAL SITE NOTES

PROPERTY DESCRIPTION

1) OWNER INFORMATION
   A. NAME : HAYS C.I.S.D.
   B. ADDRESS: 21003 INTERSTATE 35, KYLE, TX 78640

2) PROPERTY INFORMATION
   A. NAME: JOHNSON HIGH SCHOOL
   B. ADDRESS: 4260 FM 967 BUDA, TX 78610

3) LEGAL DESCRIPTION
   HAYS CISD HIGH SCHOOL, NUMBER 3, ACRES 135.152, EXEMPT PROP

4) ZONING INFORMATION
   A. CATEGORY: AG AGRICULTURAL

PARKING REQUIREMENTS

AS OBTAINED FROM CITY ORDINANCE FOR CITY OF BUDA, THE REQUIRED NUMBER OF OFF STREET PARKING SPACES IS DETERMINED AS FOLLOWS:

1.5 SPACES FOR EACH CLASSROOM OR TEACHING STATION PLUS 1 ADDITIONAL SPACE FOR EACH 4 SEATS IN ANY AUDITORIUM, GYMNASIUM, OR OTHER PLACE OF ASSEMBLY, WHICHEVER IS GREATER.

1. EXISTING SPACES
   1122 SPACES
   33 ACCESSIBLE SPACES
   1155 TOTAL EXISTING SPACES

2. NEW SPACES
   205 SPACES ADDED
   0 ACCESSIBLE SPACES ADDED
   205 TOTAL SPACES ADDED

3. TOTAL SPACES
   1327 SPACES
   33 ACCESSIBLE SPACES
   1360 TOTAL SPACES

PROPERTY & PARKING NOTES

Revision / 1 | Date 05/07/25 | ADDENDUM 01

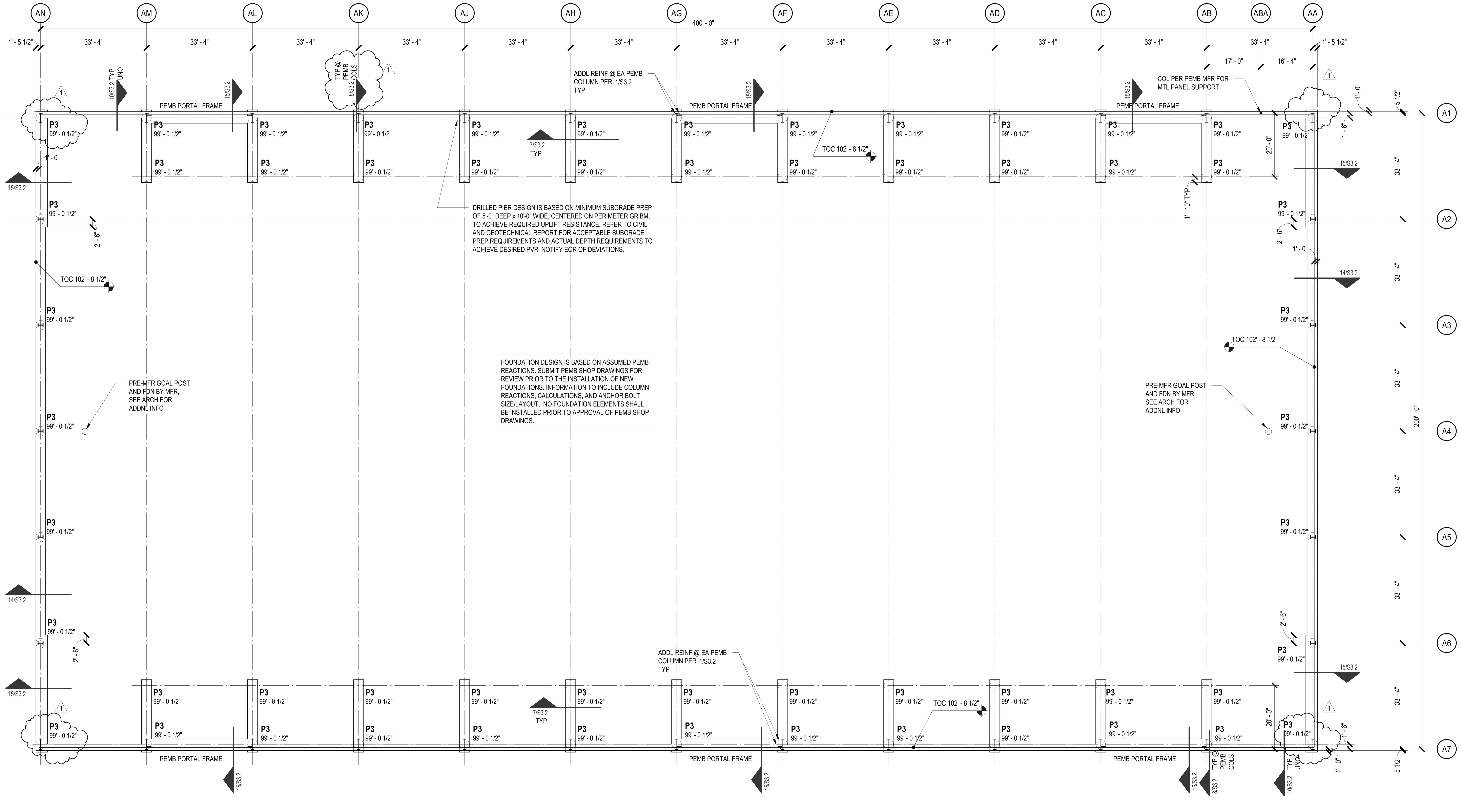
Project: JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

REGISTERED ARCHITECT CHARLES JASON ANDRUS 19417 STATE OF TEXAS
05.07.25

Huckabee
www.huckabee-inc.com
800.687.1229

ARCHITECTURAL SITE PLAN

Job No. 1954-07-01
Drawn By: YR/AB
Date: 04/22/25
Sheet No. ADDENDUM 1
AS1.01



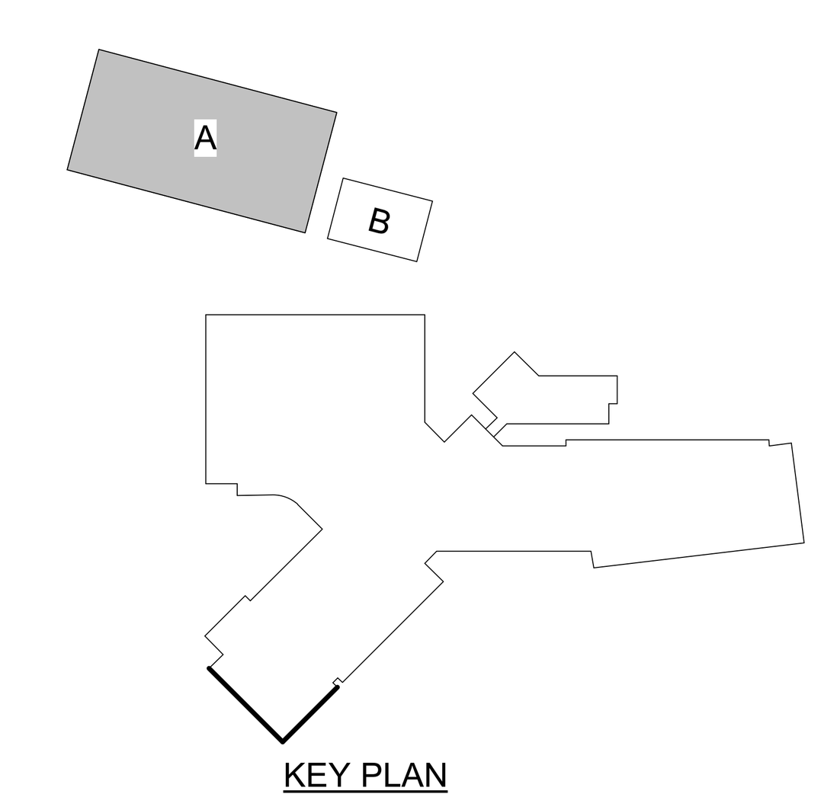
1 FOUNDATION PLAN - AREA A

1/16" = 1'-0"

NORTH

FOUNDATION PLAN NOTES

1. SEE PLAN FOR FINISH FLOOR ELEVATION (RELATIVE TO DATUM 100'-0").
2. TOP OF PIER ELEVATION RELATIVE TO DATUM 100'-0".
3. SHEET INDEX:
   - GENERAL NOTES -S1.1
   - PIER SCHEDULE -S3.1
   - CONCRETE DETAILS -S3 SERIES



KEY PLAN

L.A. FUESS PARTNERS, INC.
Structural Engineers
3333 Lee Parkway, Suite 300 • Dallas, TX 75219
LAFP PROJ. NO. 24080 FIRM REG. NO. F-537

Revision /	Date
1	05/08/25

ADDENDUM 01

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

Christopher T. Bothe
94981
05-08-2025

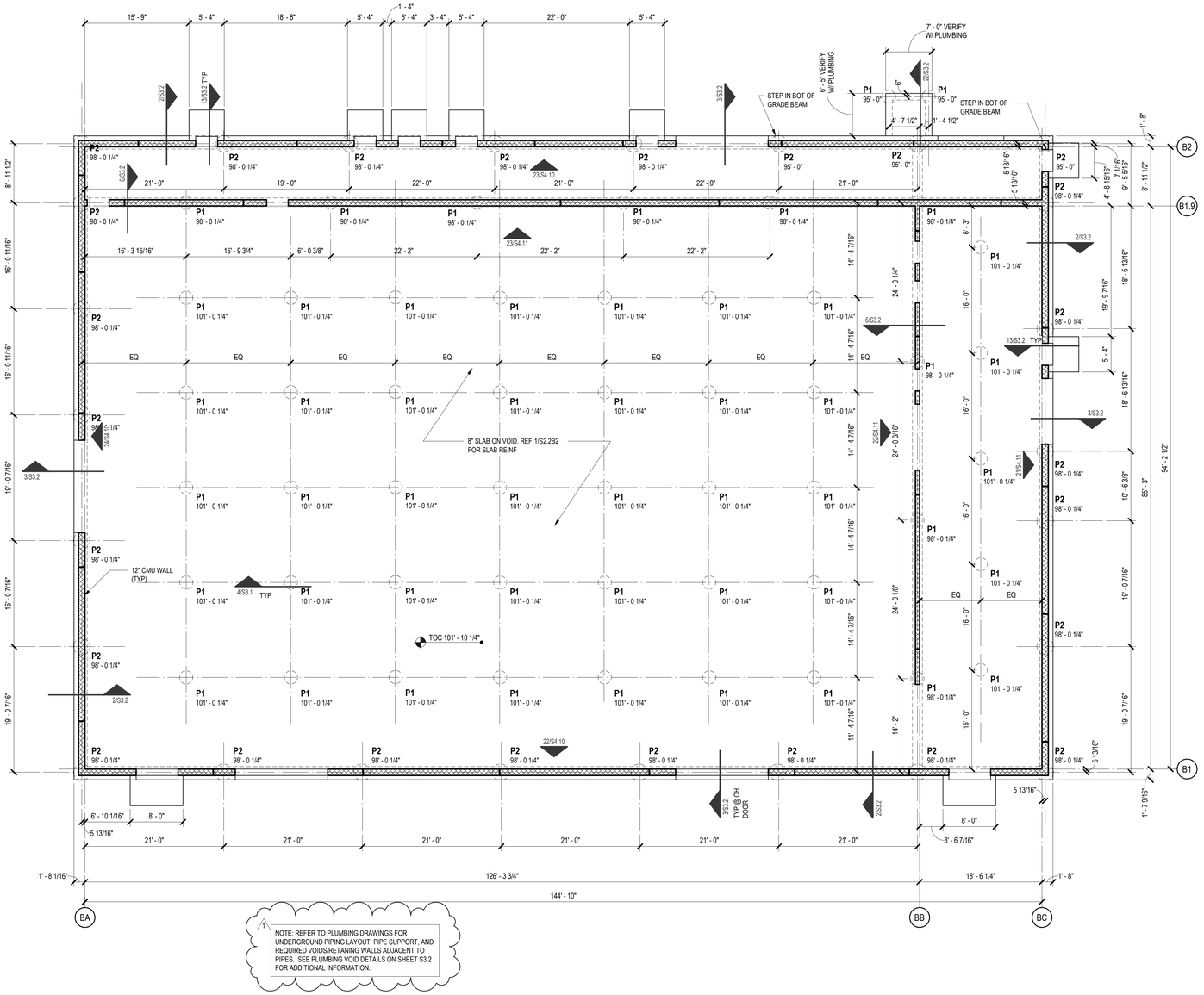
Huckabee
www.huckabee-inc.com
800.687.1229

FOUNDATION PLAN - AREA A

PACKAGE VOLUME

Job No.: 1954-07-01
Sheet No.: ISSUE FOR BID
Drawn By: LAFP
Date: 04/22/2025

S2.1A1



1 NOTE: REFER TO PLUMBING DRAWINGS FOR UNDERGROUND PIPING LAYOUT, PIPE SUPPORT, AND REQUIRED VOIDS/RETAINING WALLS ADJACENT TO PIPES. SEE PLUMBING VOID DETAILS ON SHEET S3.2 FOR ADDITIONAL INFORMATION.

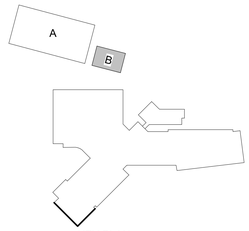
1 FOUNDATION PLAN - AREA B

1/8" = 1'-0"

NORTH

FOUNDATION PLAN NOTES

1. SEE PLAN FOR FINISH FLOOR ELEVATION (RELATIVE TO DATUM 100'-0").
2. TOP OF CONCRETE SLAB IS FINISH FLOOR UNLESS SHOWN OTHERWISE.
3. TYPICAL FLOOR STRUCTURE IS 8" CONCRETE SLAB ON CARTON FORMS UNLESS NOTED OTHERWISE. SEE GENERAL NOTES, SLAB REINFORCEMENT PLAN NOTES, AND DETAILS FOR ADDITIONAL INFORMATION.
4. TOP OF PIER ELEVATION RELATIVE TO DATUM 100'-0".
5. SHEET INDEX:
   - GENERAL NOTES -S1.1
   - PIER SCHEDULE -S3.1
   - CONCRETE DETAILS -S3 SERIES
   - MASONRY WALL DETAILS -S4 SERIES



KEY PLAN

L.A. FUESS PARTNERS, INC.
Structural Engineers
3333 Lee Parkway, Suite 300 • Dallas, TX 75219
LAFP PROJ. NO. 24080 FIRM REG. NO. F-537

Revision / 1 — Date 05/08/25 — ADDENDUM 01

Project:

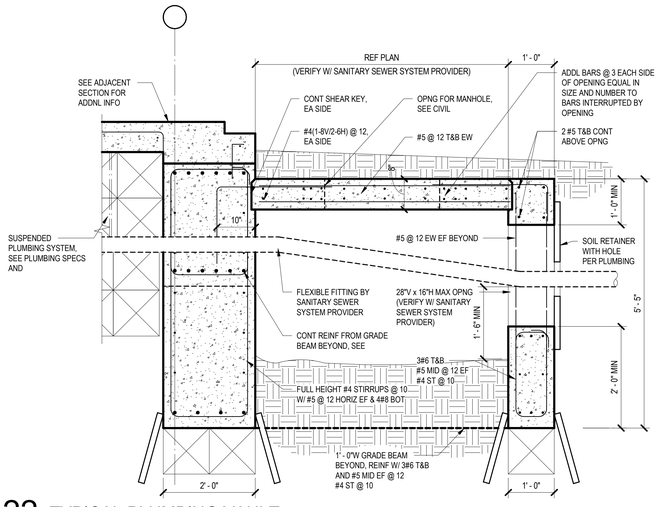
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

Christopher T. Boothe
94581
REGISTERED PROFESSIONAL ENGINEER
05-08-2025

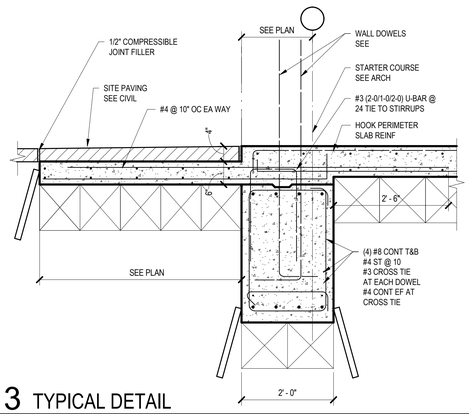
Huckabee
www.huckabee-inc.com
800.687.1229

FOUNDATION PLAN - AREA B

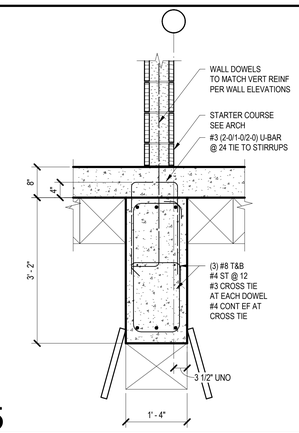
PACKAGE	VOLUME
Job No. 1954-07-01	Sheet No. ISSUE FOR BID S2.1B1
Drawn By: LAFP	
Date: 04/22/2025	



22 TYPICAL PLUMBING VAULT
3/4" = 1'-0"



13 TYPICAL DETAIL
3/4" = 1'-0"



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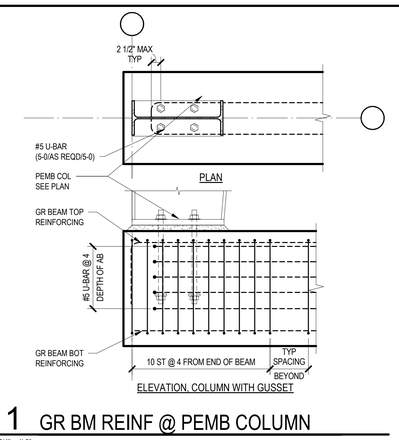
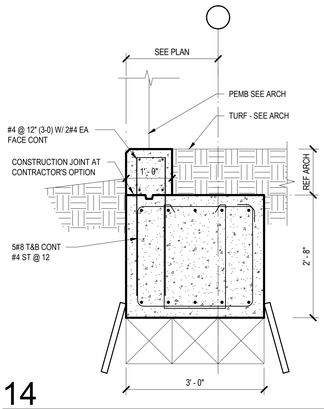
3/4" = 1'-0"

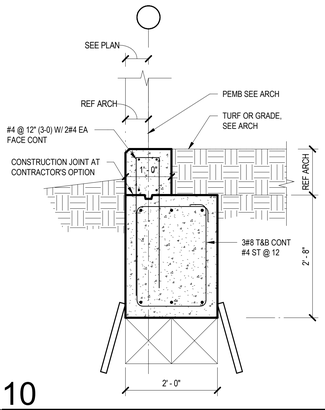


ELEVATION, COLUMN WITH GUSSET

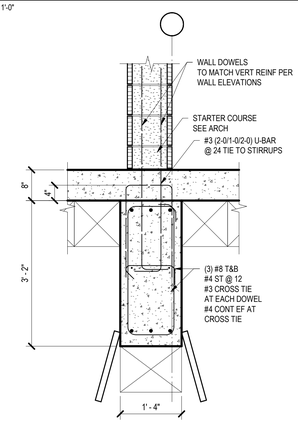
1 GR BM REINF @ PEMB COLUMN
3/4" = 1'-0"



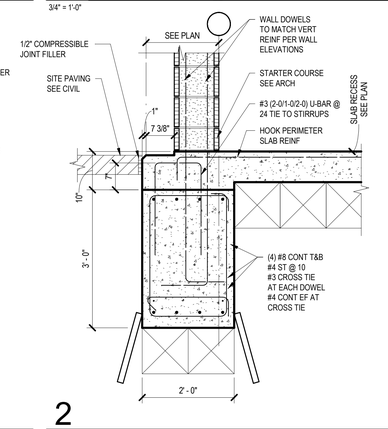
14
3/4" = 1'-0"



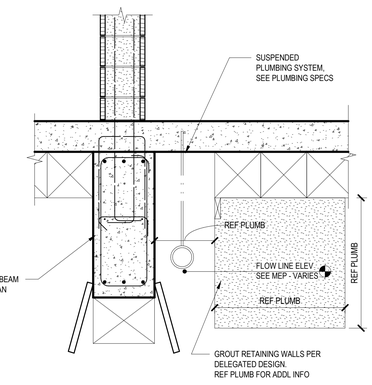
10
3/4" = 1'-0"



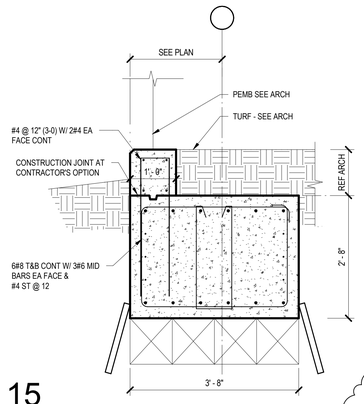
6
3/4" = 1'-0"



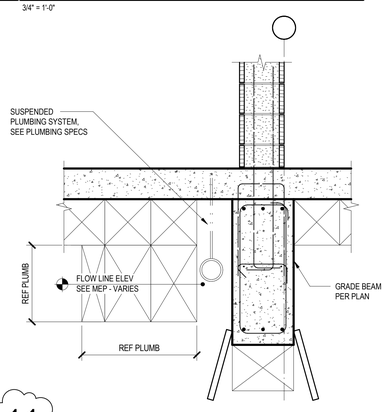
2
3/4" = 1'-0"



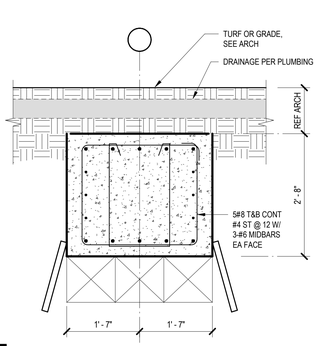
19 PLUMBING VOID DETAIL
3/4" = 1'-0"



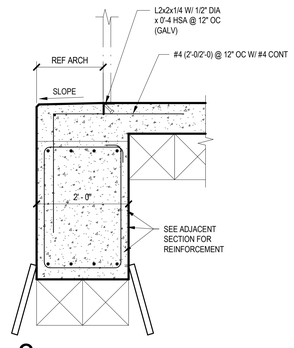
15
3/4" = 1'-0"



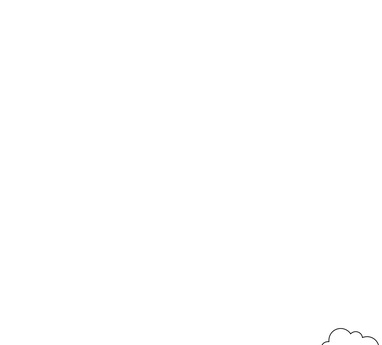
11 PLUMBING VOID DETAIL
3/4" = 1'-0"



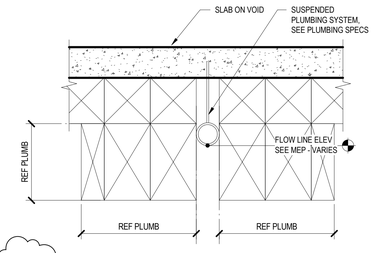
7
3/4" = 1'-0"



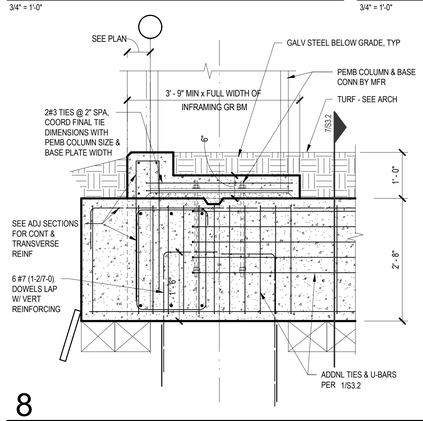
3 OVERHEAD DOOR
3/4" = 1'-0"



16 PLUMBING VOID DETAIL
3/4" = 1'-0"



12 PLUMBING VOID DETAIL
3/4" = 1'-0"



8
3/4" = 1'-0"

Revision / 1 — Date 05/08/25 — ADDENDUM 01

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

Christopher T. Boothe
94981
REGISTERED
PROFESSIONAL
ENGINEER
05-08-2025

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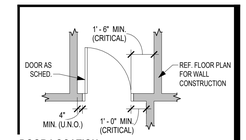
CONCRETE DETAILS

PACKAGE	VOLUME
Job No. 1054-07-01	Sheet No. S3.2
Drawn By: LAFP	ISSUE FOR BID
Date: 04/22/2025	

L.A. FUESS PARTNERS, INC.
Structural Engineers
3333 Lee Parkway, Suite 300 • Dallas, TX 75219
LAFP PROJ. NO. 24080 FIRM REG. NO. F-537



DOOR LOCATION

NOTES:

1) THE CONTRACT DOCUMENTS ARE COMPRISED OF BOTH THE DRAWINGS AND THE SPECIFICATIONS.

2) ALL ARCHITECTURAL FLOOR PLAN DIMENSIONS SHOWN ARE TO FACE OF C.F.M.F., MASONRY OR CONCRETE, U.N.O.

3) SEE STRUCTURAL DRAWINGS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.

4) SEE SPECIFICATIONS AND G3 SHEETS FOR ADDITIONAL MASONRY AND CFMF PARTITION REQUIREMENTS.

5) SEE PLUMBING PLANS AND ENLARGED FLOOR PLANS FOR LOCATIONS OF FIXTURES.

6) REF. DOOR SCHEDULES AND DETAILS FOR MASONRY ROUGH OPENING SIZES.

7) VERIFY ALL MASONRY OPENINGS WITH MANUFACTURERS' PRODUCTS (E.G. FIRE EXTINGUISHER CABINETS, ELECTRICAL PANELS, ETC.).

GENERAL FLOOR PLAN NOTES

F.E. **FIRE EXTINGUISHER (WALL MOUNTED)** - REF. SPEC. SECT. 10 4400. PROVIDE TYPE "K" @ KITCHEN AREAS

F.E.C. **FIRE EXTINGUISHER CABINET** - REF. SPEC. SECT. 10 4400. PROVIDE TYPE "K" @ KITCHEN AREAS

P.S. **PROJECTION SCREEN** REF. TYP. DET. ON A4 SHEETS

X' M.B. **MARKERBOARD** REF. TYP. DET. ON A4 SHEETS

X' T.B. **TACKBOARD** REF. TYP. DET. ON A4 SHEETS

ELECTRIC WATER COOLER - REF PLUMBING PLAN.

1.01 **DOOR ASSEMBLY NUMBER** - REF. SCHEDULE ON A3 SHTS.

SF-A **WINDOW/STOREFRONT/CURTAIN WALL ASSEMBLY TYPE** - REF. A3 SHTS.

SO1.01 **SPECIAL OPENING NUMBER (ROLLING DOOR)** - REF. SCHEDULE ON A3 SHTS.

1 / A1.1 **CALLOUT REFERENCE**

1 / A101 SIM **WALL SECTION REFERENCE** XX / A101

XXX' - X" FIN FLOOR **ELEVATION REFERENCE**

1-01 ROOM **ROOM NUMBER & NAME**

FLOOR PLAN LEGEND APPLIES TO SECTION PLANS

REF. TYP. CONST. DTLS. FOR ADDITIONAL INFO.

MASONRY VENEER

STANDARD CMU

ARCHITECTURAL CMU (ACMU)

ICF

CFMF PARTITION

EXISTING CFMF PARTITION

PARTITION TYPE TAGS

A3 / D — WALL ASSEMBLY IN PLAN VIEW

LETTERS TO THE RIGHT INDICATE PARTITION HEIGHT, FIRE RATING AND ACOUSTICAL PROPERTIES.

D	WALL TO DECK / STRUCTURE
C	WALL TO 6" (MIN.) ABOVE CEILING
FR	FIRE RATED WALL TO DECK
AD	ACOUSTICAL WALL TO DECK
AC	ACOUSTICAL WALL TO 6" (MIN.) ABOVE CEILING
AR	ACOUSTICAL RATED WALL TO DECK
GD	GYP WALL ABOVE TO DECK
SR	SMOKE RESISTANT PARTITION

LETTER & NUMBER TO THE LEFT INDICATE PARTITION TYPE & STUD OR CMU SIZE AS FOLLOWS:

- 1 - 7/8" HAT CHANNEL
- 2 - 1 5/8" CFMF
- 3 - 2 1/2" CFMF
- 4 - 3 5/8" CFMF OR CMU
- 6 - 6" CFMF OR 5 5/8" CMU
- 8 - 8" CFMF OR 7 5/8" CMU
- 10 - 9 5/8" CMU
- 12 - 11 5/8" CMU

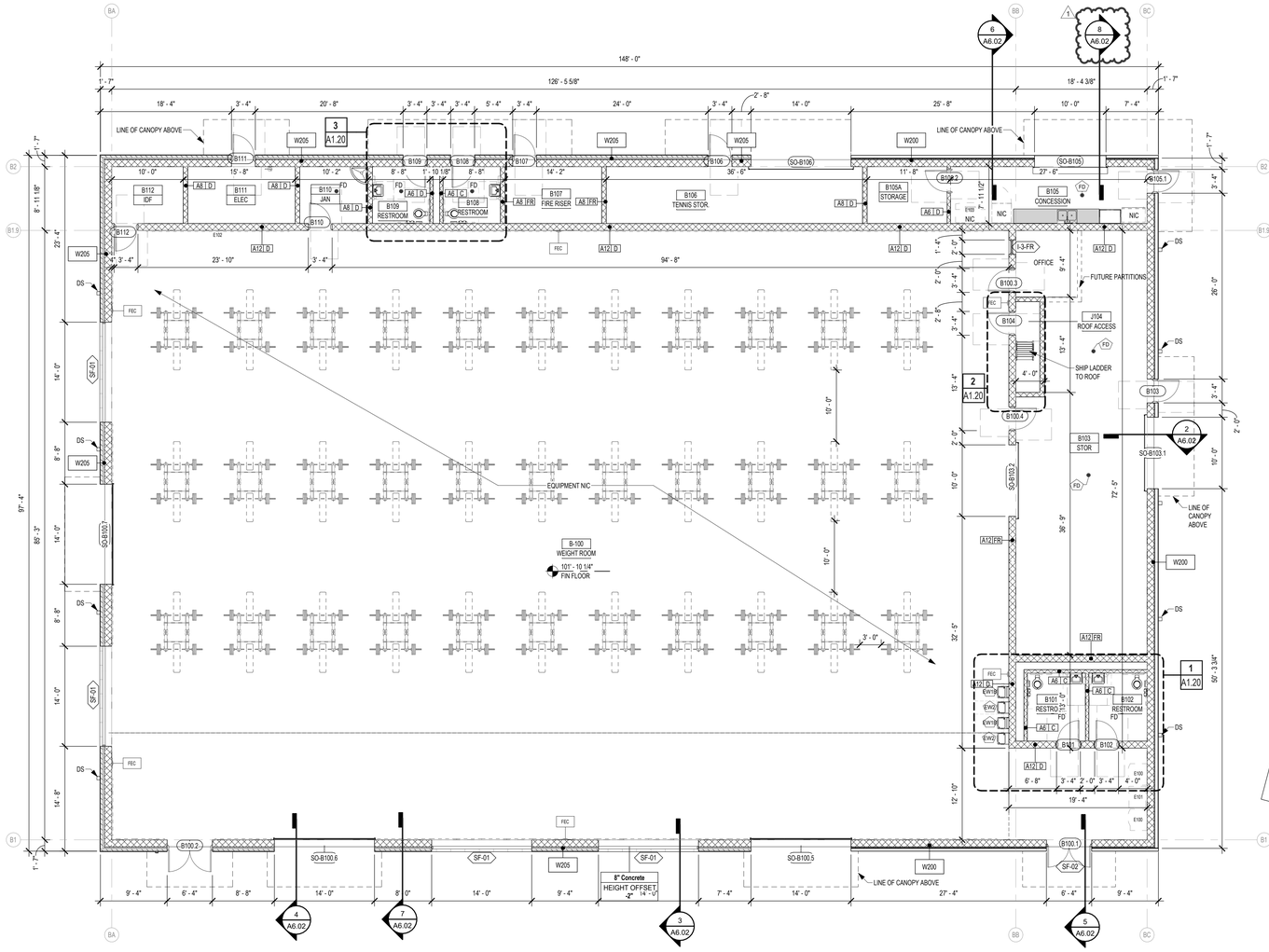
PARTITION NOTES:

1) ALL INTERIOR PARTITIONS NOT OTHERWISE DESCRIBED BY A WALL SECTION ARE IDENTIFIED BY A SYMBOL WITH AN ALPHANUMERIC CODE INDICATING MATERIALS (BY LETTER), NOMINAL THICKNESS OF STRUCTURE (BY NUMBER) AND AN ALPHANUMERIC CODE REPRESENTING HEIGHT, FIRE RATING AND ACOUSTICAL PROPERTIES.

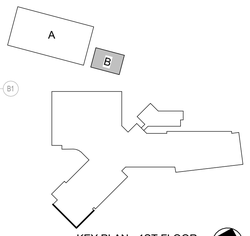
2) **UNTAGGED PARTITIONS AND COLUMN FURRINGS** SHOULD BE ASSUMED TO BE **"TYPICAL"** FOR BIDDING PURPOSES. THE "TYPICAL" **MASONRY PARTITION** IS TYPE **A12**, ACOUSTICAL, TO EXTEND 4" ABOVE CEILING OR NEAREST 8" COURSING ABOVE CEILING, AND THE "TYPICAL" **MASONRY COLUMN** FURRING IS **A6**, NON-ACOUSTICAL, TO EXTEND 4" ABOVE CEILING OR NEAREST 8" COURSING ABOVE CEILING. ANY UNTAGGED PARTITIONS WHICH APPEAR TO BE INCONSISTENT WITH THESE "TYPICAL" DESCRIPTIONS SHOULD BE VERIFIED WITH THE ARCHITECT PRIOR TO CONSTRUCTION.

REF. G3 SHEETS FOR EXTERIOR WALL TYPES AND INTERIOR PARTITION TYPE ASSEMBLIES.

PARTITION LEGEND



1 FLOOR PLAN - AREA B
1/8" = 1'-0"



KEY PLAN - 1ST FLOOR
N.T.S.

PLAN TRUE

Revision /	Date
1	5/07/25 ADDENDUM 01

Project:
JOHNSON HIGH SCHOOL ADDITIONS
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

REGISTERED ARCHITECT — JAMES JARON LEHMAN — 29417 — STATE OF TEXAS

05.07.25

Huckabee
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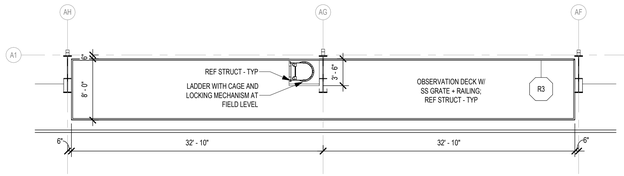
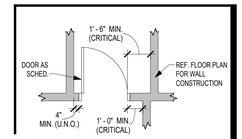
FLOOR PLAN - AREA B

VOLUME

Job No. 1954-07-01	Sheet No. ADDENDUM 1 A1.02
Drawn By: YR/ZA	
Date: 04/22/25	



6 ENLARGED PLAN @ OBSERVATION DECK (ALTERNATE)
1/8" = 1'-0" BACK REF: A1.01

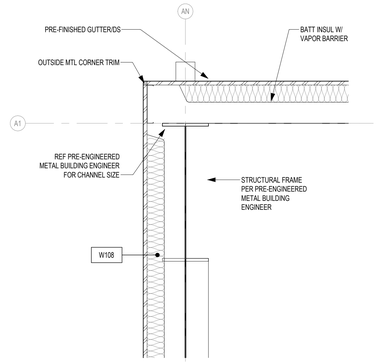


DOOR LOCATION

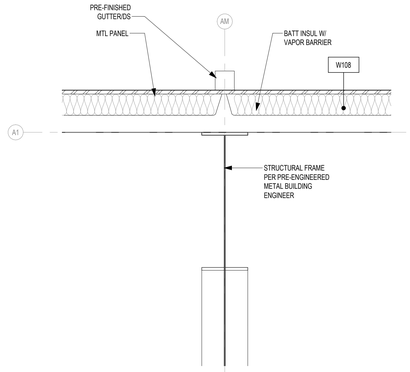
NOTES:

1. THE CONTRACT DOCUMENTS ARE COMPRISED OF BOTH THE DRAWINGS AND THE SPECIFICATIONS.
2. ALL ARCHITECTURAL FLOOR PLAN DIMENSIONS SHOWN ARE TO FACE OF C.F.M.F, MASONRY OR CONCRETE, U.N.O.
3. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.
4. SEE SPECIFICATIONS AND G3 SHEETS FOR ADDITIONAL MASONRY AND CFMF PARTITION REQUIREMENTS.
5. SEE PLUMBING PLANS AND ENLARGED FLOOR PLANS FOR LOCATIONS OF FIXTURES.
6. REF. DOOR SCHEDULES AND DETAILS FOR MASONRY ROUGH OPENING SIZES.
7. VERIFY ALL MASONRY OPENINGS WITH MANUFACTURERS' PRODUCTS (E.G. FIRE EXTINGUISHER CABINETS, ELECTRICAL PANELS, ETC.).
8. PROVIDE WD. BLOCKING IN ALL GYP. BD. WALLS AS REQ'D. AT LOCATIONS INCLUDING, BUT NOT LIMITED TO: HANDRAILS, TOILET ACCESSORIES, PROJECTORS, CASEWORK, TACK BD.'S, MARKER BD.'S, WALL STOPS & DOOR HOLDERS.

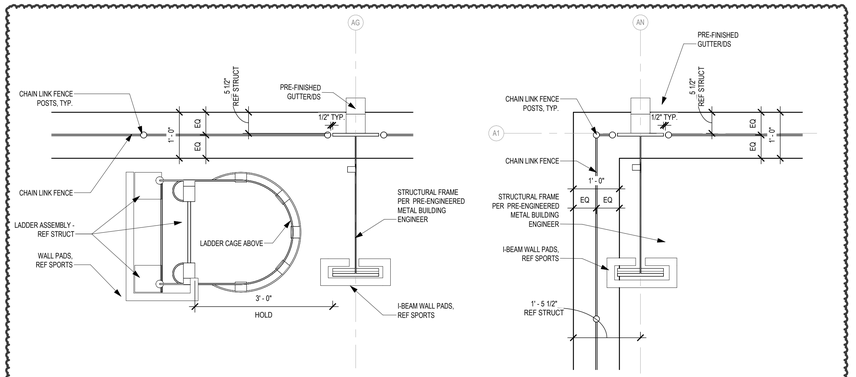
GENERAL FLOOR PLAN NOTES



5 PLAN DETAIL - FENCE TO FRAME HIGH (ALTERNATE)
3/4" = 1'-0" BACK REF: A1.01



4 PLAN DETAIL - FENCE TO FRAME HIGH (ALTERNATE)
3/4" = 1'-0" BACK REF: A1.01

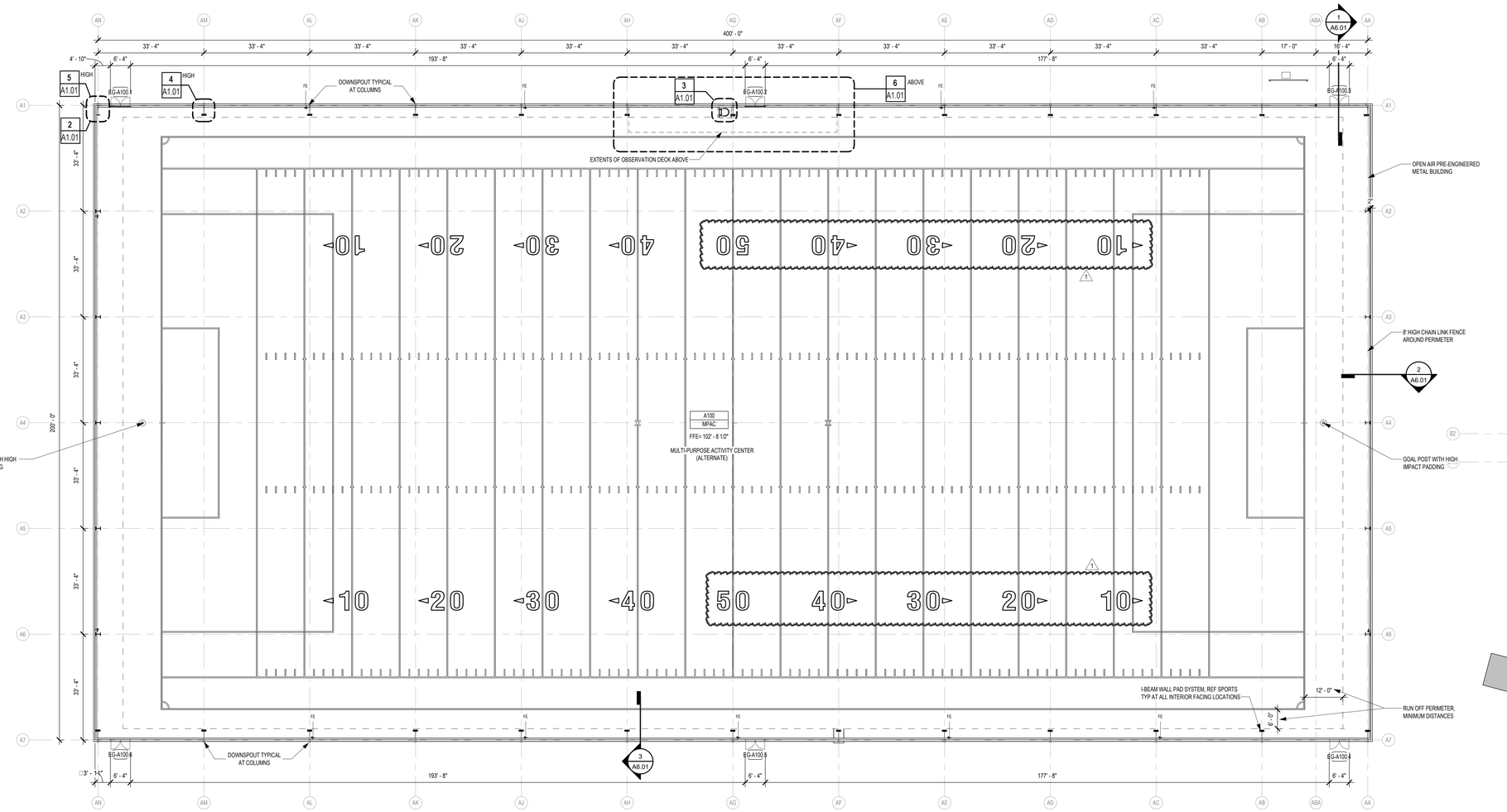


3 PLAN DETAIL - FENCE TO FRAME (ALTERNATE)
3/4" = 1'-0" BACK REF: A1.01

2 PLAN DETAIL - FENCE TO FRAME CORNER (ALTERNATE)
3/4" = 1'-0" BACK REF: A1.01

FLOOR PLAN LEGEND APPLIES TO AREA PLANS

- F.E. — **FIRE EXTINGUISHER (WALL MOUNTED)** - REF. SPEC. SECT. 10 4400. PROVIDE TYPE "K" @ KITCHEN AREAS
- F.E.C. — **FIRE EXTINGUISHER CABINET** - REF. SPEC. SECT. 10 4400. PROVIDE TYPE "K" @ KITCHEN AREAS
- P.S. — **PROJECTION SCREEN** REF. TYP. DET. ON A4 SHEETS
- X' M.B. — **MARKERBOARD** REF. TYP. DET. ON A4 SHEETS
- X' T.B. — **TACKBOARD** REF. TYP. DET. ON A4 SHEETS
- **ELECTRIC WATER COOLER** - REF PLUMBING PLAN.
- 1.01 — **DOOR ASSEMBLY NUMBER** - REF. SCHEDULE ON A3 SHTS.
- SF-A — **WINDOW/STOREFRONT/CURTAIN WALL ASSEMBLY TYPE** - REF. A3 SHTS.
- SO1.01 — **SPECIAL OPENING NUMBER (ROLLING DOOR)** - REF. SCHEDULE ON A3 SHTS.
- 1 / A1.1 — **CALLOUT REFERENCE**
- 1 / A101 SIM — XX / A101 — **WALL SECTION REFERENCE**
- XXX' - X" FIN FLOOR — **ELEVATION REFERENCE**
- 1-01 / ROOM — **ROOM NUMBER & NAME**



1 FLOOR PLAN - AREA A (ALTERNATE)
1/16" = 1'-0"

PARTITION LEGEND

REF. TYP. CONST. DTLS. FOR ADDITIONAL INFO.

- MASONRY VENEER
- STANDARD CMU

PARTITION TYPE TAGS

A3 | D

WALL ASSEMBLY IN PLAN VIEW

LETTERS TO THE RIGHT INDICATE PARTITION HEIGHT, FIRE RATING AND ACOUSTICAL PROPERTIES.

D	WALL TO DECK / STRUCTURE
C	WALL TO 6" (MIN.) ABOVE CEILING
FR	FIRE RATED WALL TO DECK
AD	ACOUSTICAL WALL TO DECK
AC	ACOUSTICAL WALL TO 6" (MIN.) ABOVE CEILING
AR	ACOUSTICAL RATED WALL TO DECK
GD	GYP WALL ABOVE TO DECK
SR	SMOKE RESISTANT PARTITION

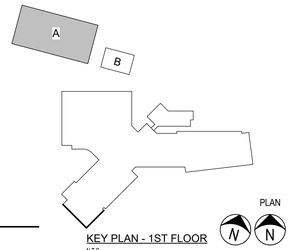
LETTER & NUMBER TO THE LEFT INDICATE PARTITION TYPE & STUD OR CMU SIZE AS FOLLOWS:

1 - 7/8" HAT CHANNEL
2 - 1 5/8" CFMF
3 - 2 1/2" CFMF
4 - 3 5/8" CFMF OR CMU
6 - 6" CFMF OR 5 5/8" CMU
8 - 8" CFMF OR 7 5/8" CMU
10 - 9 5/8" CMU
12 - 11 5/8" CMU

PARTITION NOTES:

1. ALL INTERIOR WALL/PARTITIONS NOT OTHERWISE DESCRIBED BY A WALL SECTION ARE IDENTIFIED BY A SYMBOL WITH AN ALPHANUMERIC CODE INDICATING MATERIALS (BY LETTER), NOMINAL THICKNESS OF STRUCTURE (BY NUMBER) AND AN ALPHANUMERIC CODE REPRESENTING HEIGHT, FIRE RATING AND ACOUSTICAL PROPERTIES.
2. **UNTAGGED WALL/PARTITIONS AND COLUMN FURRINGS** SHALL BE ASSUMED TO BE **"TYPICAL,"** AS FOLLOWS, FOR BIDDING PURPOSES:
   GYP BOARD (EXTENDS TO 6" ABOVE CEILING U.N.O.)
   WALLS/PARTITIONS - TYPE **H4**, ACOUSTICAL
   COLUMN FURRING - **M4**, NON-ACOUSTICAL
   MASONRY (EXTENDS TO 4" ABOVE CEILING OR TO NEAREST 8" COURSING ABOVE 4" U.N.O.)
   WALLS/PARTITIONS - TYPE **A8**, NON-ACOUSTICAL
   COLUMN FURRING - TYPE **A6**, NON-ACOUSTICAL
   ANY UNTAGGED PARTITIONS WHICH APPEAR INCONSISTENT WITH THE DESCRIPTIONS ABOVE SHALL BE VERIFIED WITH THE ARCHITECT PRIOR TO BIDDING.

REF. G3 SHEETS FOR EXTERIOR WALL TYPES AND INTERIOR PARTITION TYPE ASSEMBLIES.



KEY PLAN - 1ST FLOOR
N.T.S.

PLAN NORTH
TRUE NORTH

Revision /	Date
1	05/07/25 ADDENDUM 01

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

REGISTERED ARCHITECT
STATE OF TEXAS
05.07.25

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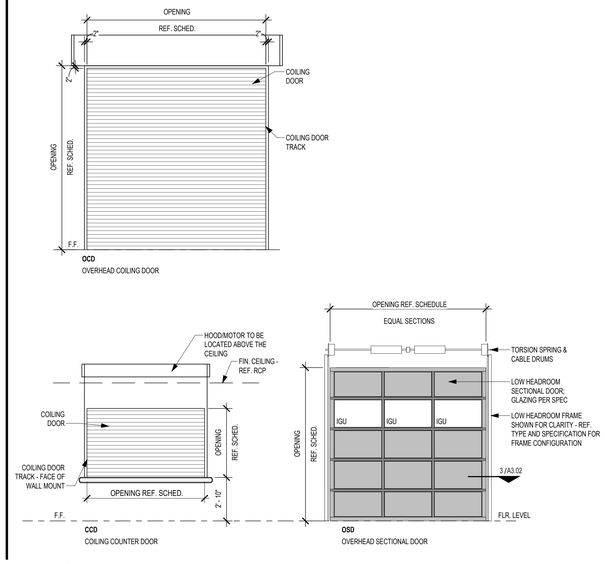
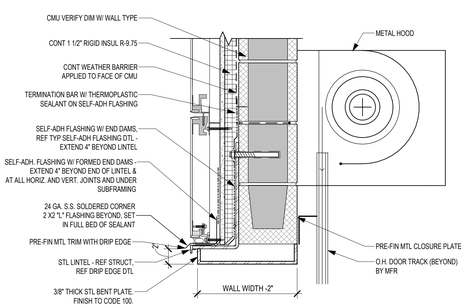
FLOOR PLAN - AREA A

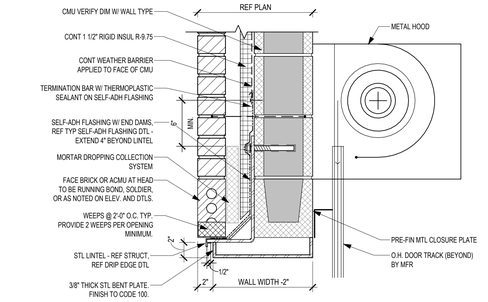
Job No.	Sheet No.
1954-07-01	ADDENDUM 1
Drawn By: YR/AB	A1.01
Date: 04/22/25	



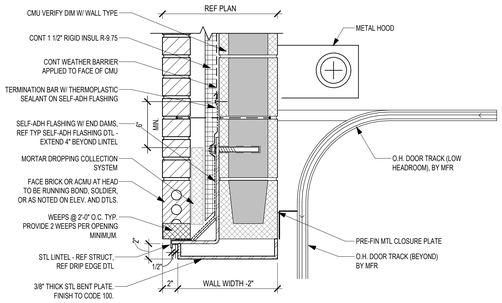
OVERHEAD DOOR CONFIGURATIONS



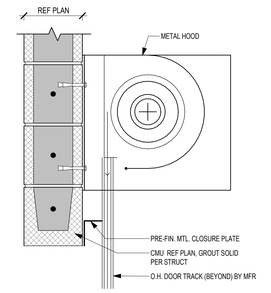
8 HEAD DTL - OCD - CMU / INSUL / METAL PANEL
1 1/2" = 1'-0"



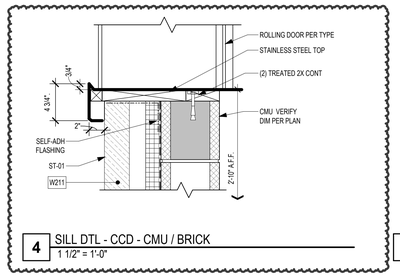
7 HEAD DTL - OCD - CMU / INSUL / MODULAR BRICK
1 1/2" = 1'-0"



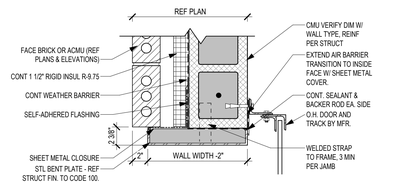
6 HEAD DTL - OSD - CMU / INSUL / MODULAR BRICK
1 1/2" = 1'-0"



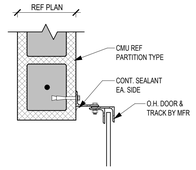
5 HEAD DTL - OCD - CMU
1 1/2" = 1'-0"



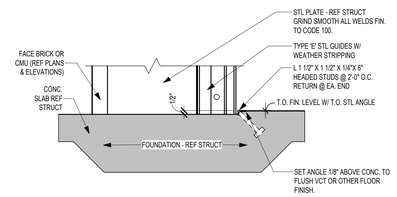
4 SILL DTL - CCD - CMU / BRICK
1 1/2" = 1'-0"



3 JAMB DTL - OCD - CMU / INSUL / MODULAR BRICK
1 1/2" = 1'-0"



2 JAMB DTL - OCD - CMU
1 1/2" = 1'-0"



1 TYP. OCD RECESSED SILL
1 1/2" = 1'-0"

Revision /	Date	
1	05/07/25	ADDENDUM 01

Project:

JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

REGISTERED ARCHITECT
CHRISTOPHER JASON HUCKABEE
29417
STATE OF TEXAS

05.07.25

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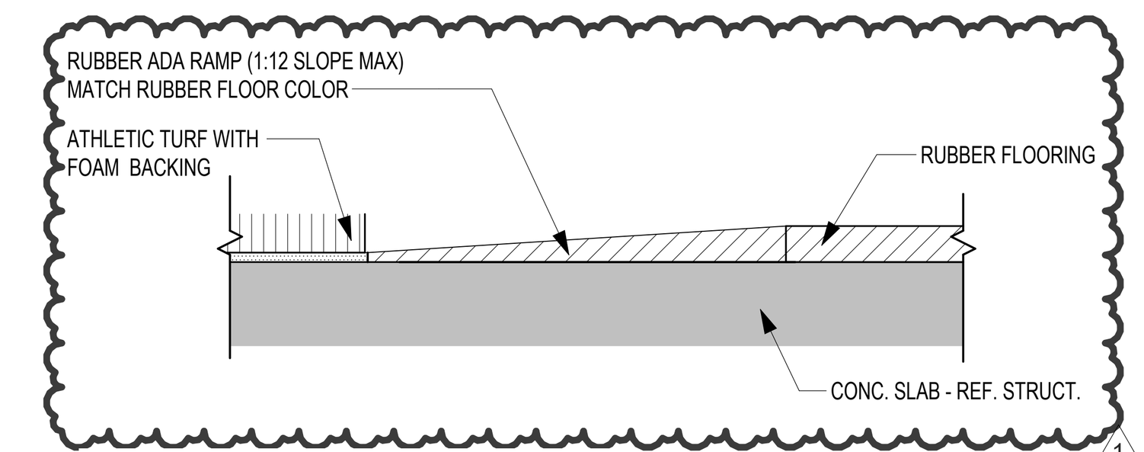
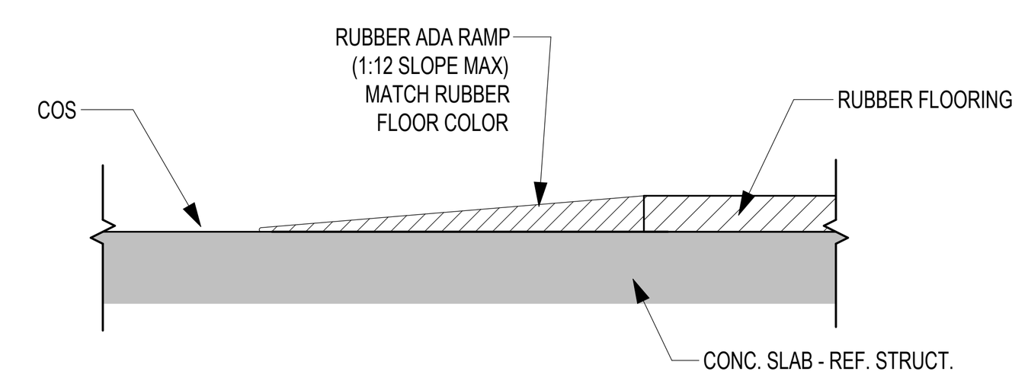
OVERHEAD DOOR AND DETAILS

Job No.	Sheet No.
1954-07-01	ADDENDUM 1
Drawn By: YR/AB	A3.02
Date: 04/22/25	

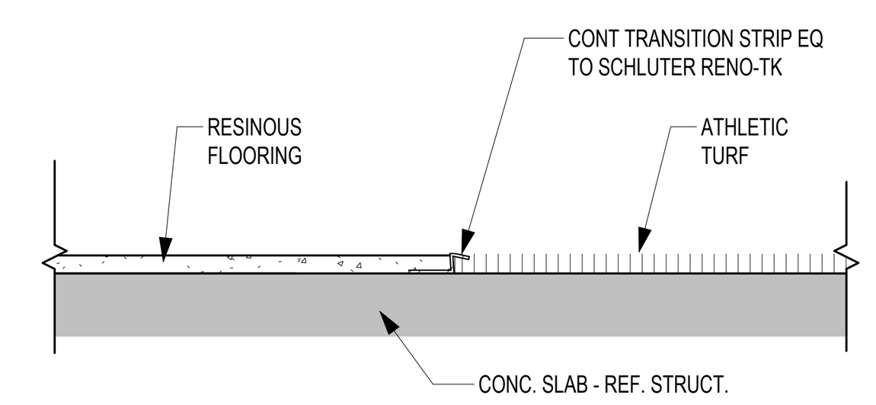
5/8/2025 3:44:50 PM
Autodesk Docs://HAYS CISD - LEHMAN_JOHNSON HS ADD RENO 2025/1954-07-01_HaysJohnsonHSAdd_AREA B_Weight Room.rvt



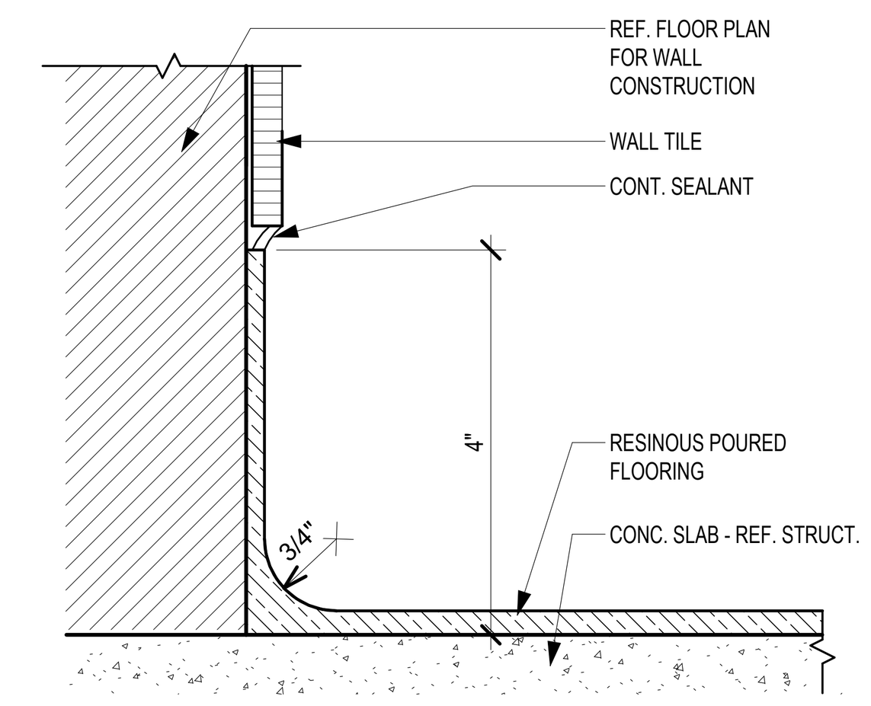
5 TRANSITION - TURF TO RUBBER
3" = 1'-0"



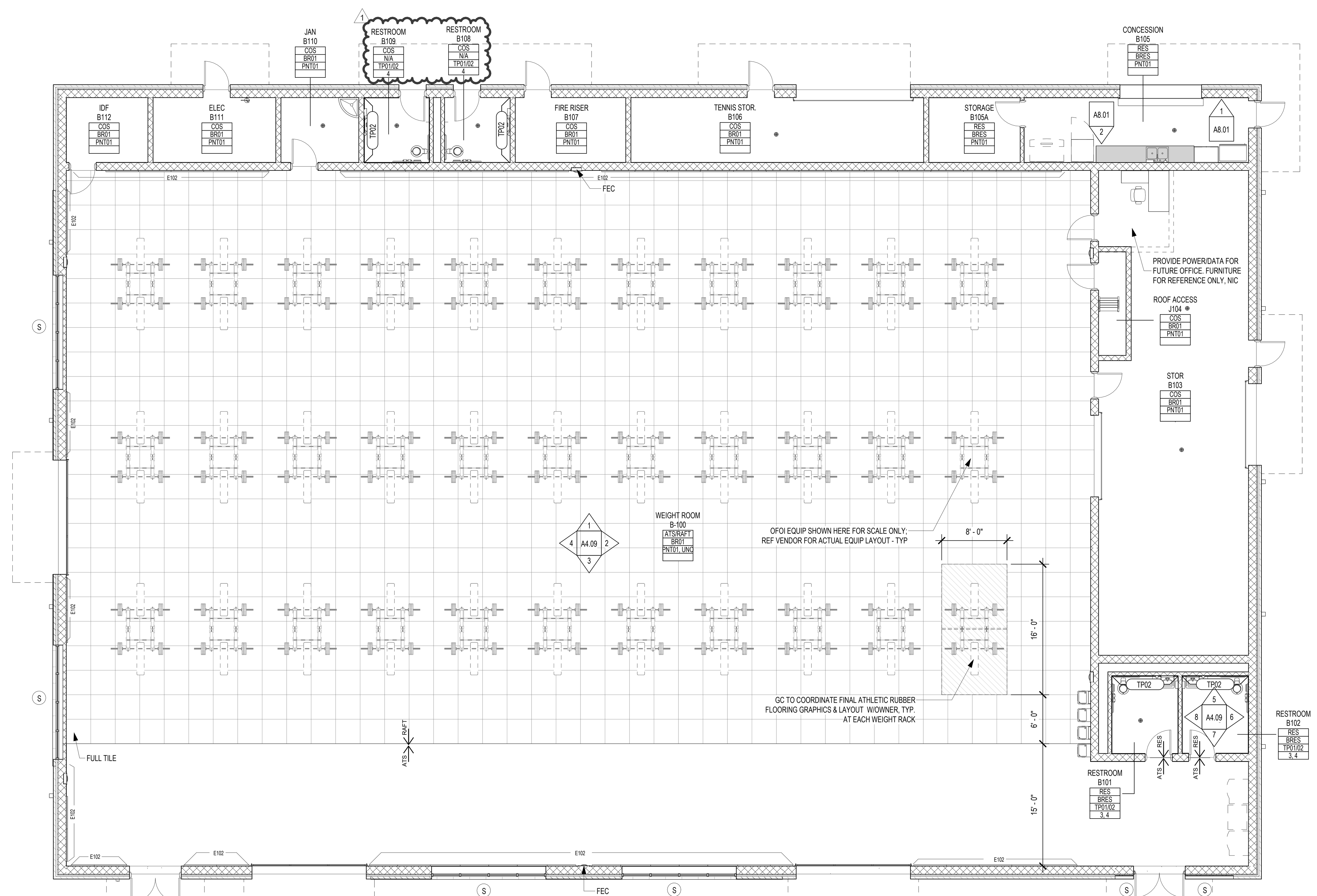
4 TRANSITION - RUBBER TO CONC
3" = 1'-0"



3 TRANSITION - TURF TO RESINOUS
6" = 1'-0"



2 TYP RESINOUS COVE BASE W/ TILE
6" = 1'-0"



1 FLOOR FINISH PLAN - AREA B
1/8" = 1'-0"

NOTES APPLY TO ROOMS AS NOTED IN THE ROOM FINISH TAGS. SEE TAG LAYOUT. ADDITIONAL SURFACE PREPARATION ASSOCIATED WITH THE INSTALLATION OF ALTERNATE FINISHES SHALL BE INCLUDED IN ALTERNATE BID.

ALT #.

ALTERNATE FINISH COMMENTS

- A1.1 1 — ELEVATION REFERENCE
- 1 / A1.1 — CALLOUT REFERENCE
- SIM 1 / A101 — WALL SECTION REFERENCE
- B
  - B - HORIZONTAL BLINDS
  - SMB - MOTORIZED SHADES - BLACKOUT
  - SB - WINDOW SHADES - BLACKOUT
  - SM - MOTORIZED SHADES
  - S - WINDOW SHADES
- FLOOR INSTALLATION DIRECTION
- FLOOR TRANSITION
- FINISH — WALL FINISH TAG

FINISH PLAN LEGEND

APPLIES TO SECTION PLANS

NOTES APPLY TO ROOMS AS NOTED IN THE ROOM FINISH TAGS. SEE TAG LAYOUT ABOVE.

1. PROVIDE CEILING MOUNTED PERIMETER NETTING BEHIND GOAL POSTS. REFERANCE RCP.
2. PROVIDE A GOAL POST AT EACH END.
3. PROVIDE FULL HEIGHT WALL TILE ON ALL WALLS. START FULL TILE ABOVE RESINOUS BASE.
4. PROVIDE FULL HEIGHT WALL TILE ON ALL WALLS. TP01 ON ALL WALLS U.N.O. START FULL TILE ABOVE FINISHED FLOOR. REFER TO SIMILAR RESTROOM INTERIOR ELEVATIONS FOR WALL TILE PATTERNS.

FINISH REMARKS

A. ALL DIMENSIONS SHOWN ON FINISH FLOOR PLAN DRAWINGS ARE FROM FACE OF FINISH, U.N.O.
B. INTERIOR ACCESS PANELS TO MATCH ADJACENT FINISH. COORDINATE WITH ARCHITECT.
C. PROVIDE 3/8" MIN SEALANT JOINT WHERE FULL HT TILE MEETS GYP CLG (MATCH CLG COLOR) OR LAY-IN GRID (WHITE).
D. PROVIDE SEALANT JT'S @ INSIDE CORNERS OF TILED WALLS.
E. VERIFY FINISH PATTERNS WITH SCHEDULE OF MATERIALS.

FINISH PLAN GENERAL NOTES

ALL SCHEDULED WALL FINISH DIRECTIONS ARE DIRECTIONS PER PLAN NORTH OF THE FINISH PLANS, NOT TRUE NORTH OF THE PROJECT SITE

REFER TO G5.01 FOR ADDITIONAL INFORMATION REGARDING FINISH MATERIALS AND PAINT FINISH CODES.

CLASSROOM ← ROOM NAME
025 ← ROOM NUMBER
TYP FLOOR FINISH → LVT01
WALL BASE FINISH → BR01
TYP WALL FINISH → PNT01
REMARKS → 1

*REMARKS NUMBERS COORDINATED WITH FINISH REMARKS LEGEND LOCATED ON ALL FINISH FLOOR PLAN SHEETS

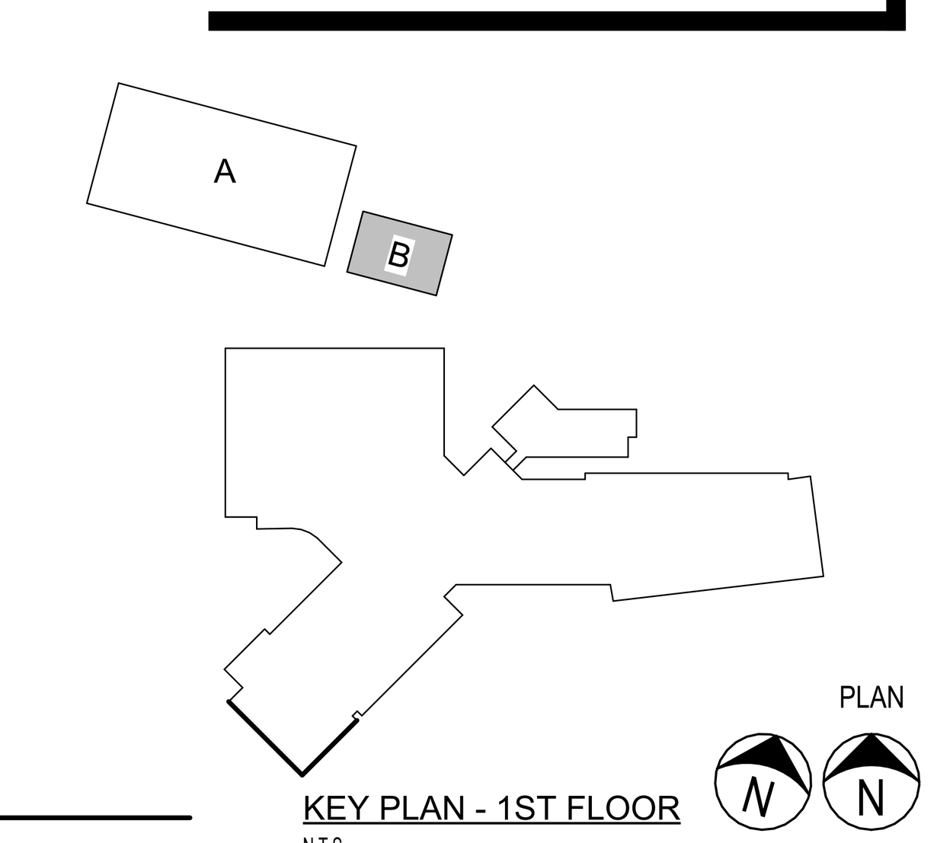
REFER TO PROJECT SPECIFICATIONS SECTION 01 6210 FOR ADDITIONAL INFORMATION REGARDING FINISH MATERIALS AND PAINT FINISH CODES.

X Y — MATERIAL TYPE
— FINISH COLOR AND MATERIAL SIZE AS NOTED IN SPEC. SECTION 01 6210

ACMU - ARCHITECTURAL CONCRETE MASONRY UNIT
AL - ALUMINUM
AP - ACOUSTICAL PANELS
ATS- ATHLETIC TURF SYNTHETIC
BP - BASE, PORCELAIN TILE
BRES - BASE, RESINOUS INTEGRAL
BRK - BRICK
BR - BASE, RUBBER
BRV - BASE, RUBBER VENTED
BTC - BASE, TILE, CERAMIC
CCPS - CERAMIC CLADDING PANEL SYSTEM
CDAP - CUSTOM DIGITALLY PRINTED ACOUSTIC PANEL
CDW - CUSTOM DIGITAL WALLCOVERINGS
COP - CONCRETE POLISHED
COS - CONCRETE SEALED
CPT - CARPET, SHEET
CS - CAST STONE
CSM - CONCRETE STONE MASONRY
CT - CARPET, TILED
CWF - CUSTOM WINDOW FILM
EBWS - EPOXY BASED WALL SYSTEM
EPNT - EPOXY PAINT
FRP - FIBERGLASS REINFORCED PLASTIC PANEL SYSTEM
GFRC - GLASS FIBER REINFORCED CONCRETE
GRF - GROUND FACE CMU (BURNISHED)
LVT - LUXURY VINYL TILE
MB - MARKER BOARD
MCM - METAL COMPOSITE MATERIAL
MP - METAL WALL PANEL
MS - METAL SOFFIT
NB - NO BASE
NS - NATURAL STONE
PL - PLASTIC LAMINATE
PLP - PLASTIC LAMINATE PANEL SYSTEM
PNT - PAINT
QTZ - QUARTZ SURFACING
RAFF - RESILIENT ATHLETIC FLUID FLOORING
RAFP - RESILIENT ATHLETIC FLOORING POLYURETHANE
RAFS - RUBBER FLOORING SHEET
RAFT - RUBBER ATHLETIC FLOORING TILE
RAFV - RESILIENT ATHLETIC FLOORING VINYL
RES - RESINOUS FLOORING
RT - RUBBER TILE
RTR - RUBBER TREADS AND RISERS
SPEC - SPECIAL FINISHES, REF. ROOM FINISH SCHEDULE & INTERIOR ELEVATIONS
SPF - SPLIT-FACE CONCRETE MASONRY UNIT
SSM - SOLID SURFACE MATERIAL
SVT - SOLID VINYL TILE
TB - TACK BOARD
TC - TILE, CERAMIC
TP - TILE, PORCELAIN
TQ - TILE, QUARRY
TS - TACKABLE SURFACE
TZ - TERRAZZO
TZP - TERRAZZO, PRECAST STAIR TREADS AND RISERS
TZT - TERRAZZO TILE
UP - UPHOLSTERY
VCT - TILE, VINYL COMPOSITION
VSF - VINYL SHEET FLOORING
WMP - WOOD (MAPLE) STRIP AND PLANK FLOORING
WMS - MASONITE WOOD FLOORING
WOM - WALK-OFF MAT
WOT - WALK-OFF TILE

(NOT ALL ABBREVIATIONS MAY BE USED)

FINISH KEY



KEY PLAN - 1ST FLOOR
N.T.S.

ADDENDUM 01
Revision / 1
Date 5/07/25

Project:
JOHNSON HIGH SCHOOL ADDITIONS
2025 ADDITIONS
FOR
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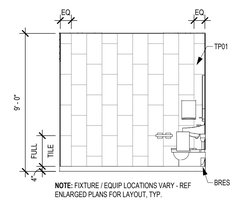
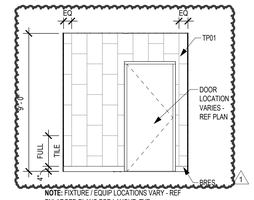
FINISH PLAN - AREA B

VOLUME

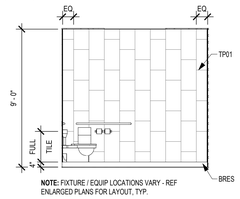
Job No. 1954-07-01
Drawn By: LMS/ZA
Date: 04/22/25
Sheet No. ADDENDUM 1
A4.02



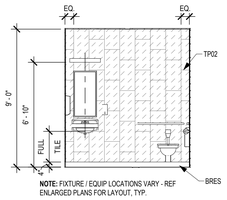
8 INT-EV - TYP RR - FIELD
1/4" = 1'-0"



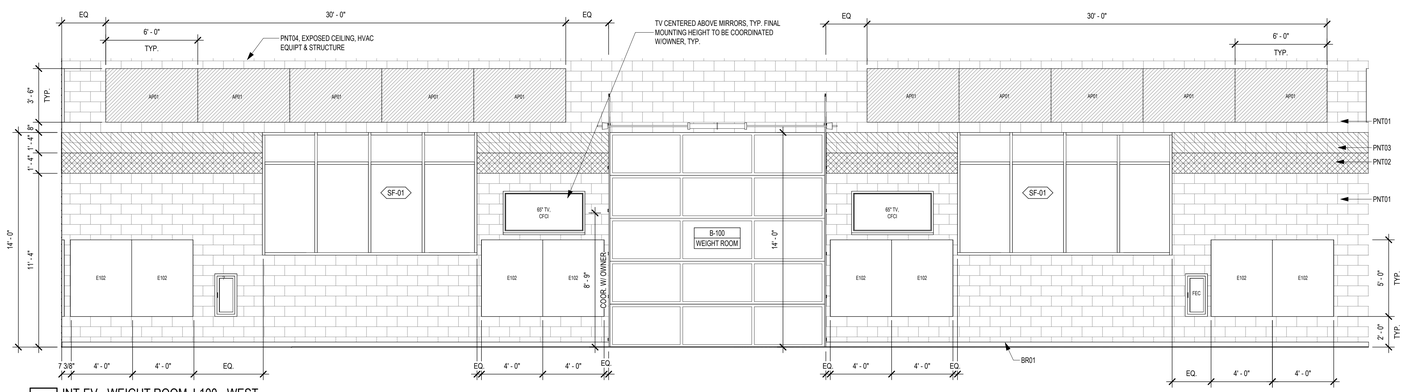
7 INT-EV - TYP RR - FIELD
1/4" = 1'-0"



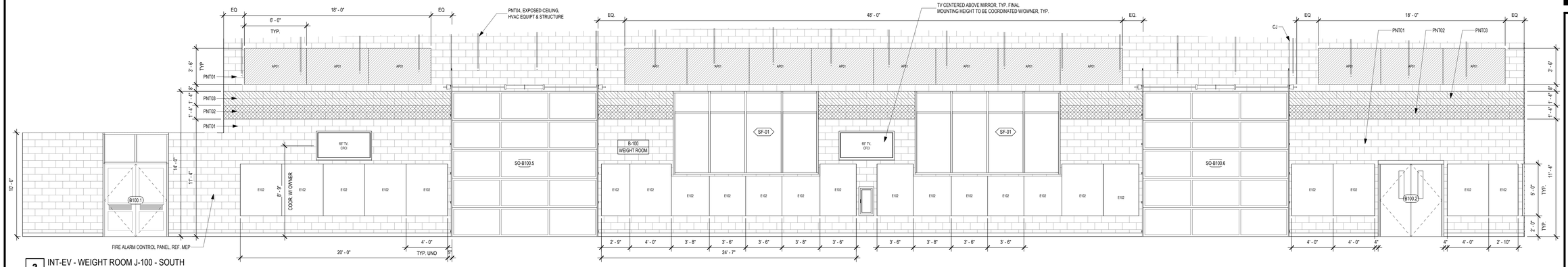
6 INT-EV - TYP RR - FIELD
1/4" = 1'-0"



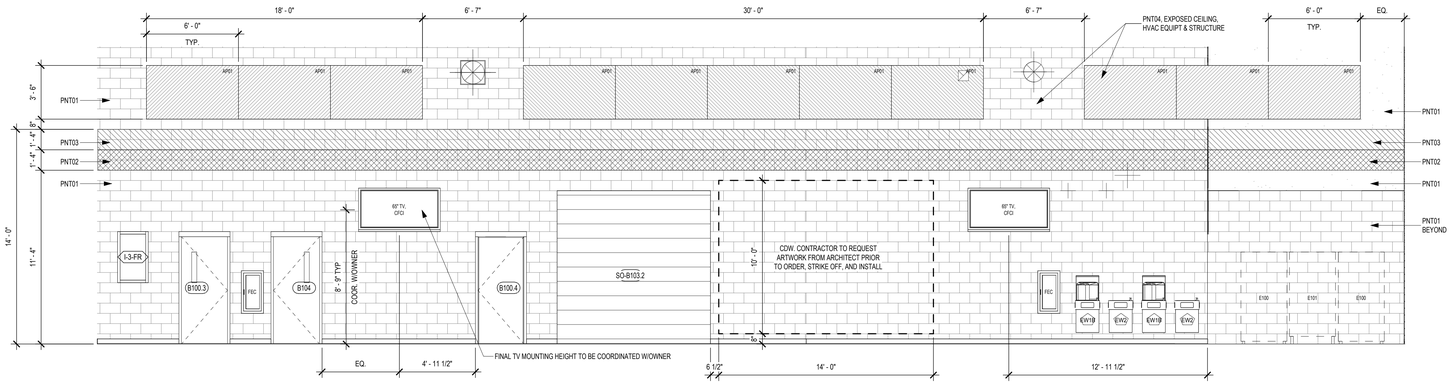
5 INT-EV - TYP RR - ACCENT WALL
1/4" = 1'-0"



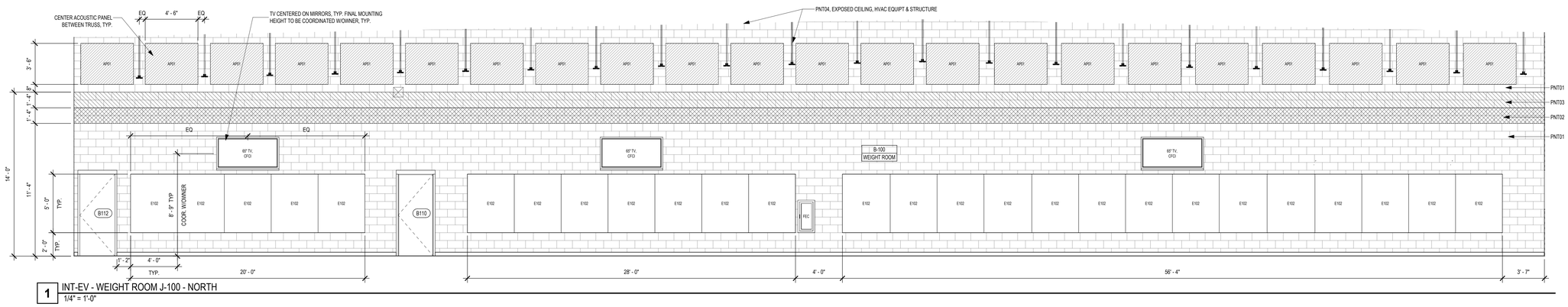
4 INT-EV - WEIGHT ROOM J-100 - WEST
1/4" = 1'-0"



3 INT-EV - WEIGHT ROOM J-100 - SOUTH
1/4" = 1'-0"



2 INT-EV - WEIGHT ROOM J-100 - EAST
1/4" = 1'-0"



1 INT-EV - WEIGHT ROOM J-100 - NORTH
1/4" = 1'-0"

Revision /	Date
1	05/07/25 ADDENDUM 01

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

REGISTERED ARCHITECT
JENNIFER JASON HARRIS
19417
STATE OF TEXAS
05.07.25

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INTERIOR ELEVATIONS - AREA B

Job No.	Sheet No.
1954-07-01	ADDENDUM 1
Drawn By: LMS/AB	A4.10
Date: 04/22/25	

LETTER INDICATES TYPE

NUMBER INDICATES CONSTRUCTION AS FOLLOWS:

- **R100** - BUILT-UP, INSUL., MTL. DECK
- **R101** - BUILT-UP, INSUL., MTL. DECK
- **R102** - SINGLE PLY, INSUL., MTL. DECK
- **R103** - SINGLE PLY, INSUL., MTL. DECK
- **R104** - STANDING SEAM, 3/4" TREATED PW SHEATHING, INSUL., MTL. DECK
- **R105** - STANDING SEAM, 3/4" TREATED PW SHEATHING, INSUL., MTL. DECK
- **R106** - BUILT-UP, INSUL., CONC. DECK
- **R107** - SINGLE-PLY, INSUL., CONC. DECK

REF. SHT. G3.01 FOR ROOF CONSTRUCTION TYPES

R100

ROOF ASSEMBLY IN SECTION VIEW

ROOF TYPE LEGEND

1. REFER ALSO TO G3 SHTS FOR WALL CONSTRUCTION DETAILS. TYPICAL DETAILS APPLY, AS NEEDED, TO ALL WALL SECTIONS U.N.O.
2. REINFORCING IN CONCRETE BEAMS, FOOTINGS, & PIERS HAS NOT BEEN INDICATED FOR CLARITY. REFER TO STRUCTURAL DRAWINGS FOR THIS REINFORCING.
3. CONTRACTOR SHALL VERIFY THE DIMENSIONAL CONDITIONS BETWEEN ALL STRUCTURAL ELEMENTS & THE ARCHITECTURAL ELEMENTS FOR CONFLICTS. IF DISCREPANCIES ARE ENCOUNTERED, NOTIFY THE ARCHITECT IMMEDIATELY.
4. AT ALL EXTERIOR WALLS, PLACE WEATHER BARRIER AT THE EXTERIOR FACE OF CMU OR SHEATHING. CONTRACTOR TO VERIFY CHEMICAL COMPATIBILITY OF WEATHER BARRIER & SELF-ADHESIVE FLASHING.
5. PROVIDE 3 STACKED BRICK HEADERS OR ONE SOLID BRICK AT ALL SOLDIER OUTSIDE CORNERS. (4"x4"X3 5/8").
6. PROVIDE A WEATHERED MORTAR JOINT AT ALL EXTERIOR CONDITIONS WHERE THE MASONRY COURSE BELOW THE JOINT PROJECTS BEYOND THE COURSE ABOVE.
7. WHERE CMU IS SHOWN SHADED, FILL CELL SOLID WITH GROUT UNLESS NOTED IN DETAILS AS MORTAR. COORDINATE ALL LOCATIONS WITH STRUCTURAL DRAWINGS. IN CASES OF APPARENT CONFLICT, STRUCTURAL DRAWINGS SHALL GOVERN DESIGN.

GROUT

8. FILL ALL OPEN CELLS OF CMU SOLID WITH FOAM INSULATION AT ALL EXTERIOR CONDITIONS WHERE RIGID INSULATION IS NOT APPLIED IN THE CAVITY WALL.
9. PROVIDE THERMAL BATT INSULATION AT ALL EXTERIOR STUD WALLS & ACOUSTICAL BATT INSULATION AT INTERIOR STUD WALLS AS DESCRIBED IN SECTION 07 2100 OF THE SPECIFICATIONS.
10. REFER TO STRUCTURAL DRAWINGS FOR VERTICAL WALL REINFORCING.
11. ALL MASONRY WALLS SHALL BE REINFORCED WITH CONTINUOUS HORIZONTAL BEDJOINT REINFORCING AS SPECIFIED, AT 16" VERTICAL SPACING. AT VENEER CONDITIONS PROVIDE TIES AS SPECIFIED AT 16" O.C.E.W.
12. INFORMATION SHOWN BEYOND IN WALL SECTIONS IS PROVIDED FOR INFORMATION ONLY & SHALL NOT LIMIT THE SCOPE OF WORK REQUIRED IN THIS PROJECT.
13. SMALLER SCALE DRAWINGS MAY NOT SHOW ALL CONNECTIONS & FINISHES. ALWAYS REFER TO ENLARGED DETAILS, WHERE PROVIDED, FOR ADDITIONAL INFORMATION. IN CASES OF APPARENT CONFLICT, THE LARGER SCALED DETAIL SHALL APPLY.
14. INTERIOR WALL FINISHES ARE NOT SHOWN ON WALL SECTIONS TO AVOID VISUAL CLUTTER. REFER TO A4 SHEETS FINISH SCHED & INTERIOR ELEVATIONS FOR REQUIRED MATERIALS & MATERIAL PATTERNS.

TYPICAL WALL SECTION NOTES

APPLICABLE TO ALL A6 SHEETS

LETTER INDICATES EXTERIOR WALL

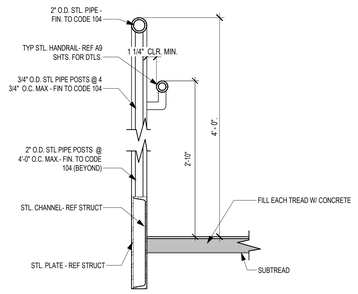
NUMBER INDICATES BACKUP CONSTRUCTION AS FOLLOWS:

- **100** - CFMF
- **200** - CMU
- **300** - ICF
- **400** - STRUCTURAL CONC. PRECAST PANEL

W200 — WALL ASSEMBLY IN SECTION VIEW

REF. SHT. G3.01 FOR SPECIFIC WALL TYPES

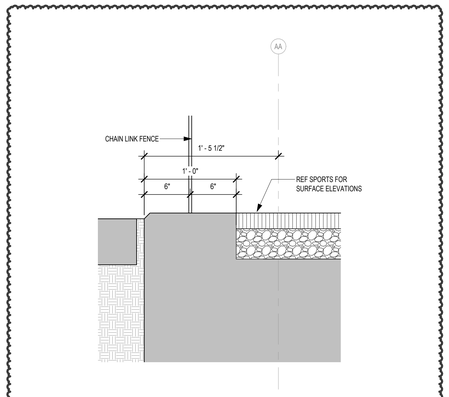
EXTERIOR WALL TYPE LEGEND



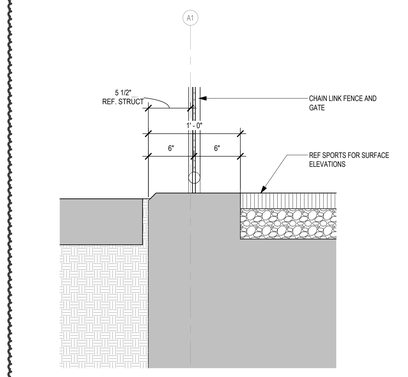
8 RAIL SECTION
1 1/2" = 1'-0"

7 RAIL ELEVATION
1/2" = 1'-0"

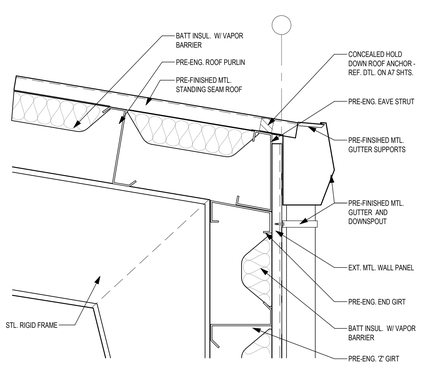
RAIL TYPE 'R3'



10 WALL SECTION DETAIL
1 1/2" = 1'-0"

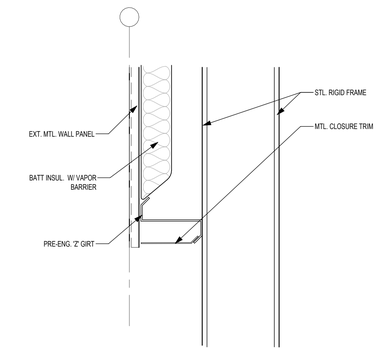


9 WALL SECTION DETAIL
1 1/2" = 1'-0" BACK REF: A6.01

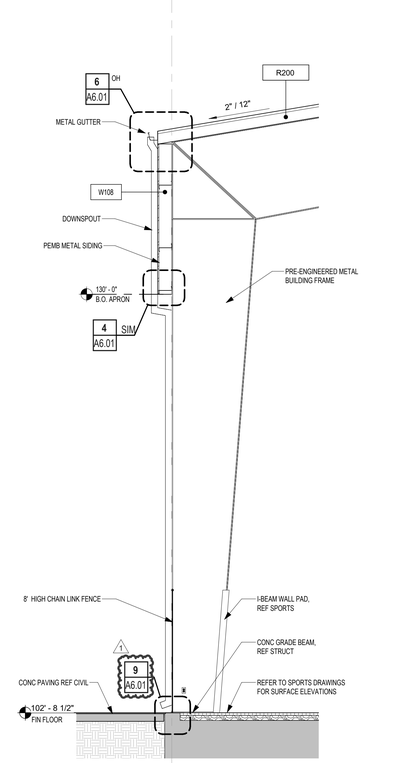


6 HIGH WALL DETAIL - GUTTER
1 1/2" = 1'-0"

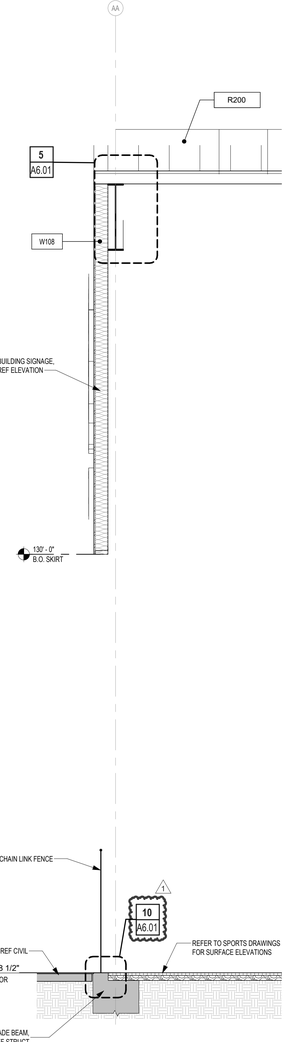
5 HIGH WALL DETAIL - RAKE
1 1/2" = 1'-0"



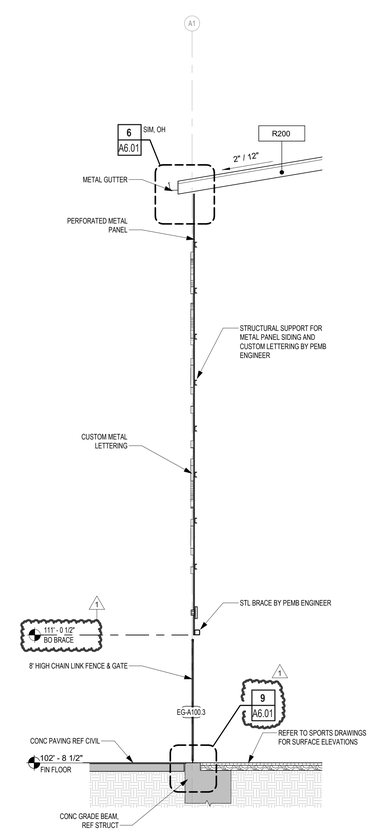
4 MID-WALL DETAIL
1 1/2" = 1'-0"



3 WALL SECTION
1/4" = 1'-0"



2 WALL SECTION
1/4" = 1'-0"



1 WALL SECTION
1/4" = 1'-0"

Revision / Date
1 — 05/07/25 — ADDENDUM 01

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS
FOR
HAYS CISD
BUDA, TX

REGISTERED ARCHITECT
THOMAS JASON HARRIS
94117
STATE OF TEXAS

05.07.25

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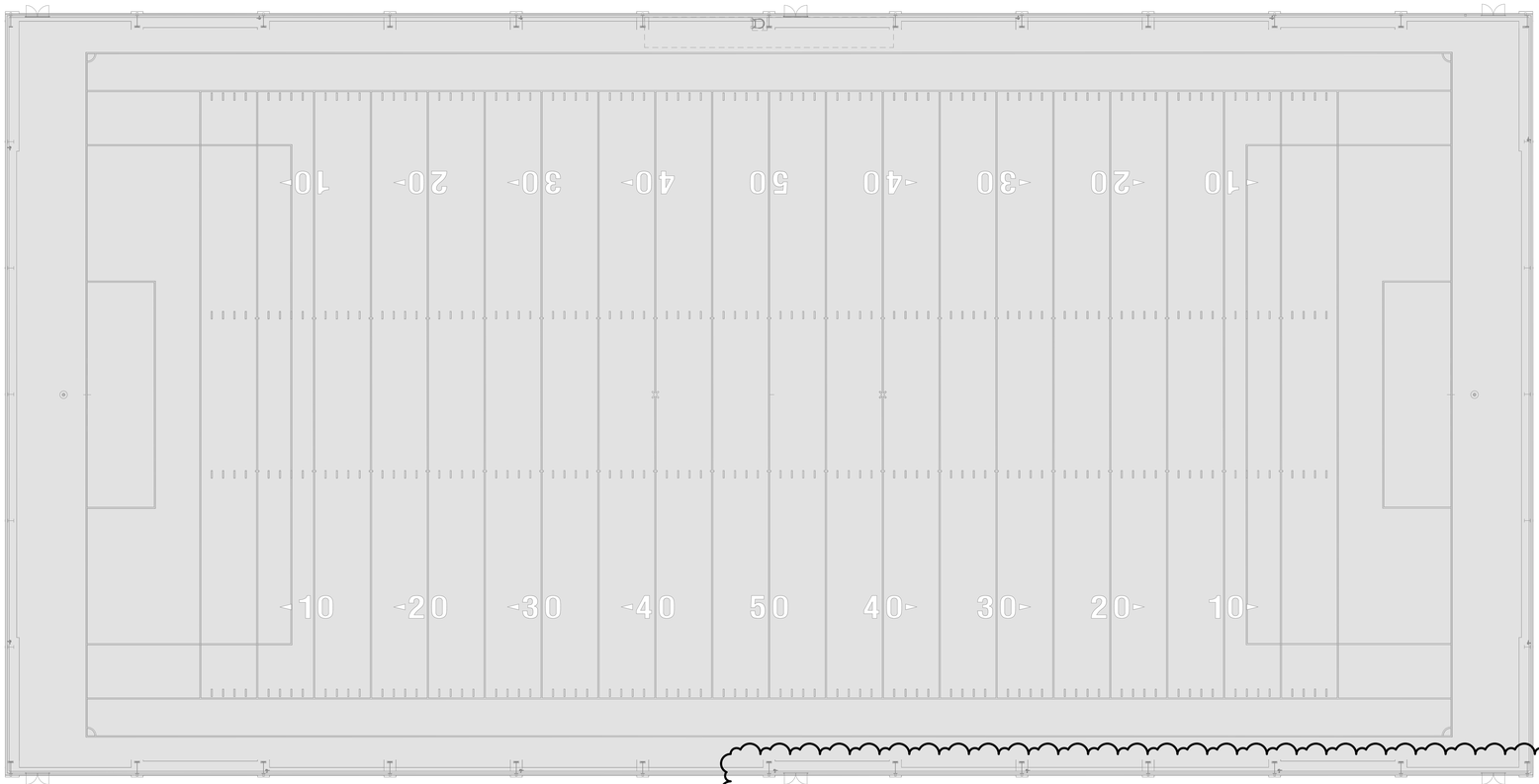
WALL SECTIONS + DETAILS - AREA A

Job No.	Sheet No.
1954-07-01	ADDENDUM 1
Drawn By: YR/AB	A6.01
Date: 04/22/25	

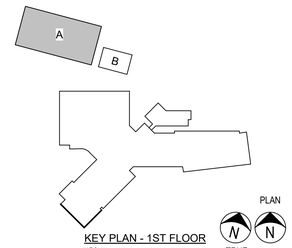
PLUMBING KEY NOTES

THESE NOTES APPLY TO THIS SHEET ONLY



NO PLUMBING SCOPE. REFERENCE CIVIL DRAWINGS AND SPORTS/CEI DRAWINGS FOR HOSE BIBBS SERVING THIS BUILDING. 1

01 **FIRST FLOOR PLAN - AREA A - PLUMBING - WASTE**
SCALE: 1/16" = 1'-0"



KEY PLAN - 1ST FLOOR
N.T.S.

Revision /	Date	
1	05/08/25	Addendum No.1

Project:
JOHNSON HIGH SCHOOL
2025 ADDITIONS + RENOVATIONS
FOR
HAYS CISD
BUDA, TX

STATE OF TEXAS
REGISTERED
B.J. HENDRIX
94813
LICENSED
PROFESSIONAL ENGINEER

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REFERENCE GENERAL NOTES ON SHEETS M0.01, P0.01, AND E0.01 FOR ADDITIONAL INFORMATION.

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FIRST FLOOR PLAN - AREA A - PLUMBING - WASTE

PACKAGE	VOLUME
Job No. 1954-07-01	Sheet No. P2.11
Drawn By: KAM	ISSUE FOR BID
Date: 04/22/2025	

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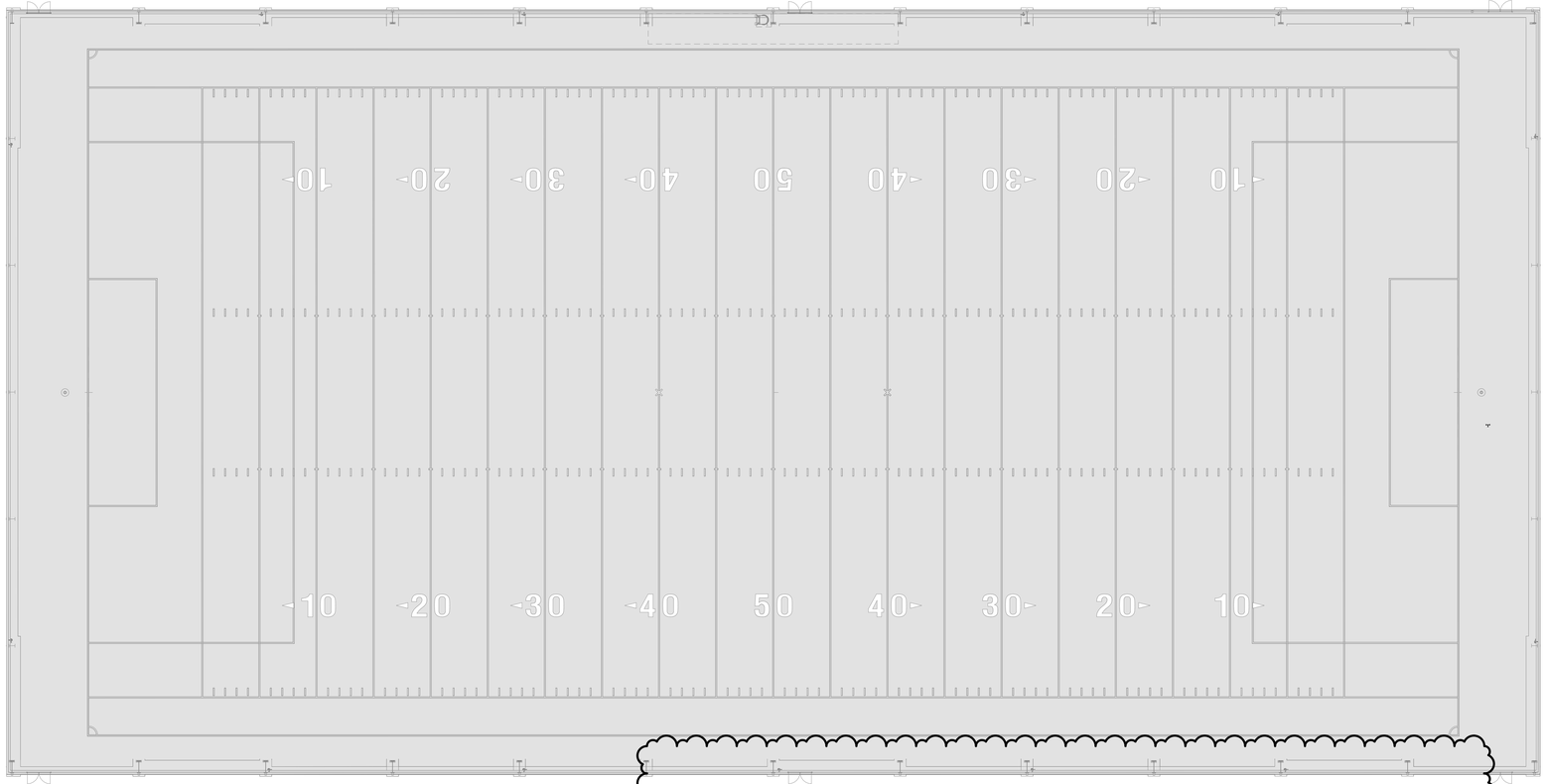
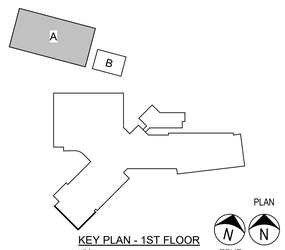


01 **FIRST FLOOR PLAN - AREA A - PLUMBING - SUPPLY**
SCALE: 1/16" = 1'-0"

NO PLUMBING SCOPE. REFERENCE CIVIL DRAWINGS AND SPORTS/CEI DRAWINGS FOR HOSE BIBBS SERVING THIS BUILDING. ⚠1



KEY PLAN - 1ST FLOOR
N.T.S.

PLAN NORTH
TRUE NORTH

Revision /	Date	
1	05/08/25	Addendum No.1

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FIRST FLOOR PLAN - AREA A - PLUMBING - SUPPLY

PACKAGE	VOLUME
Job No. 1954-07-01	Sheet No. P3.11
Drawn By: KAM	ISSUE FOR BID
Date: 04/22/2025	

5/6/2025 8:59:02 AM
Autodesk Docs://HAYS CISD - LEHMAN, JOHNSON HS ADD RENO 2025/HaysJohnsonHSAddition2025_MEP23.rvt