



MORE THAN ARCHITECTS

# ADDENDUM

NO. 1

---

## TO THE DRAWINGS AND THE PROJECT MANUAL

**PROJECT NAME:** Fielder Road Modular Site

**CLIENT NAME:** Child Care Associates

**LOCATION:** Arlington, TX

**PROJECT NUMBER:** 01849-06-02

**PROPOSAL DATE:** May 23, 2025, 2:00 PM

**ADDENDUM DATE:** May 9, 2025

For additional information regarding this project, contact Corrie Hood at 800.687.1229.

---

### THIS ADDENDUM INCLUDES:

Civil Items	13 Pages
Landscape Items	9 Pages
Architectural Items	45 Pages
Plumbing Items	2 Pages
Electrical Items	1 Pages

AND ALL ATTACHED REVISED DRAWING REFERENCES IN THE ADDENDUM



# Huckabee

a MOREgroup brand

Project Name: Fielder Road Modular Site  
Client: Child Care Associates  
Arlington, Texas  
Project Number: 1849-06-01



## ARCHITECTURAL 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 AND THE PROJECT MANUAL AS NOTED:

### GENERAL:

#### **AD No 1, Arch. Item 1:**

List of project questions and answers to date have been included in this addendum. These include questions from the pre-bid meeting. Additionally, the following documents have been provided by the Owner. These are reference documents and have not been created by any of the licensed professionals providing other drawings and specifications for this project.

- Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

### PROJECT MANUAL:

#### **AD No 1, Arch. Item 2: To the Project Manual, Section 00 3132, "GEOTECHNICAL DATA,"**

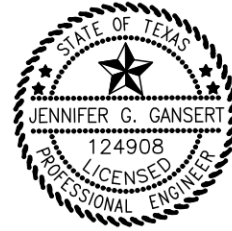
Add this section in its entirety.

**END OF ARCHITECTURAL ADDENDUM**

WE ARE MORE.

Architectural Items For  
Addendum No. 1  
Page 1 of 1





## CIVIL ITEMS FOR ADDENDUM NO. 1

### NOTICE TO PROPOSERS:

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REFERENCE IS MADE TO THE DRAWINGS AS NOTED:

### DRAWINGS:

**AD No 1, Civil Item 1: To the Drawings, Sheet C-03, "Demolition Plan,"**

- 1) Included additional pavement removal for proposed dumpster and Fire Lane pavement.

**AD No 1, Civil Item 2: To the Drawings, Sheet C-04, "Dimension Control and Paving Plan,"**

- 1) Included Pavement replacement for Fire Lane and Dumpster paving.
- 2) Included Pavement replacement for Southeastern Fire Lane.
- 3) Included Paving for Sidewalk addition
- 4) Included Pavement Markings towards Matthews Drive.
- 5) Added a small retaining wall to the East side of the building.
- 6) Added Pavement sections per Geotech Report.

**AD No 1, Civil Item 3: To the Drawings, Sheet C-06, "Grading Plan,"**

- 1) Added a small retaining wall to the East side of the building.

**AD No 1, Civil Item 4: To the Drawings, Sheet C-10, "Utility Plan,"**

- 1) Included gate valve at the hydrant connection to the 18" water main.

**AD No 1, Civil Item 5: To the Drawings, Sheet C-11, "Erosion Control Plan,"**

- 1) Included Sanitary Facilities, Material Storage Area, Construction Waste Area, Daily Waste Area, and Concrete washout areas to the plan.

**AD No 1, Civil Item 6: To the Drawings, Sheet C-12, "Erosion Control Details,"**

- 1) Added City of Arlington standard details.

**AD No 1, Civil Item 7: To the Drawings, Sheet C-13, "Paving Details (Sheet 1 of 2),"**

- 1) Added City of Arlington standard Paving details.
- 2) Created new sheet.

**AD No 1, Civil Item 8: To the Drawings, Sheet C-14, "Paving Details (Sheet 2 of 2),"**

- 1) Added City of Arlington standard Paving details.
- 2) Created new sheet.

WE ARE MORE.



Project Name: Fielder Road Modular Site  
Client: Child Care Associates  
Arlington, Texas  
Project Number: 1849-06-01

**AD No 1, Civil Item 9: To the Drawings, Sheet C-15, "Water Details (Sheet 1 of 2),"**

- 1) Added City of Arlington standard Water details.
- 2) Created new sheet.

**AD No 1, Civil Item 10: To the Drawings, Sheet C-16, "Water Details (Sheet 1 of 2),"**

- 1) Added City of Arlington standard Water details.
- 2) Created new sheet.

**AD No 1, Civil Item 11: To the Drawings, Sheet C-17, "Sewer & Storm Details,"**

- 1) Added City of Arlington standard Storm and Sewer details.
- 2) Created a new sheet.

**END OF CIVIL ADDENDUM**

WE ARE **MORE.**





## LANDSCAPE 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, Landscape Item 1: To the Project Manual, Sections as listed below, Part 2 – Products;

Products listed herein are considered acceptable for conformance with the design concept of the project and general compliance with the information given in the contract documents. The manufacturer, supplier and installer are responsible for meeting all requirements given in the contract documents unless specifically noted in the written approval.

- 1) No changes made to the Project Manual.

### DRAWINGS:

#### AD No 1, Landscape Item 2: To the Drawings, Sheet L2.01

- 1) Updated the landscape plans to callout retaining wall, ramp, stair and handrail/guardrail location.
- 2) Updated the landscape at visibility triangle per city comment.
- 3) Updated the landscape at the revised sidewalks along the building façade facing N. Fielder Road.

#### AD No 1, Landscape Item 3: To the Drawings, Sheet L3.01

- 1) Updated detail H to clarify the concrete paving to be by civil.

#### AD No 1, Landscape Item 4: To the Drawings, Sheet L3.02

- 1) Added sheet for stair, handrail and guardrail details.

#### AD No 1, Landscape Item 5: To the Drawings, Sheet L3.03

- 1) Added sheet for ramp, handrail and guardrail details.

#### AD No 1, Landscape Item 5: To the Drawings, Sheet L3.04

- 1) Added sheet for retaining walls, cheek wall and ramp handrail.

#### AD No 1, Landscape Item 6: To the Drawings, Sheet L3.05

- 1) Updated plant schedule to match the revised landscape plans.

WE ARE MORE.



Project Name: Fielder Road Modular Site  
Client: Child Care Associates  
Arlington, Texas  
Project Number: 1849-06-01

AD No 1, Landscape Item 7: To the Drawings, Sheet L4.01

- 1) Updated irrigation schedule to match the revised landscape plans.

**END OF LANDSCAPE ADDENDUM**

WE ARE **MORE.**

Civil Items For  
Addendum No.1  
Page 2 of 2





THE SEAL APPEARING ON THIS DOCUMENT  
WAS AUTHORIZED BY  
BRANDON K. ADAMS, PE #142295 ON 05/09/2025

## 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 PS1.01, "PLUMBING SITE PLAN,"

- 1) Plumbing utilities pulled back to 5' from the building envelope.
- 2) Plumbing utilities keynoted to stop at 5' from the building envelope to stub up for final connection by others.x

### END OF PLUMBING ADDENDUM

**Huckabee**





THE SEAL APPEARING ON THIS DOCUMENT  
WAS AUTHORIZED BY  
B. KYLE HASKOVEC, PE #143448 ON 05/09/2025

## 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, Section 26 0500 "General Requirements, Electrical"

1. Removed the entire spec section

##### AD No 1, Elec. Item 2: To the Project Manual, Section 26 0526 "Grounding and Bonding for Electrical systems"

1. Removed the entire spec section

##### AD No 1, Elec. Item 3: To the Project Manual, Section 26 0529 "Hangers and Supports for Electrical Systems"

1. Removed the entire spec section

##### AD No 1, Elec. Item 4: To the Project Manual, Section 26 0553 "Identification for Electrical Systems"

1. Removed the entire spec section

##### AD No 1, Elec. Item 5: To the Project Manual, Section 26 2816.13 "Enclosed Circuit Breakers"

1. Removed the entire spec section

##### AD No 1, Elec. Item 6: To the Project Manual, Section 26 5600 "Exterior Lighting"

1. Removed the entire spec section

END OF ELECTRICAL ADDENDUM

**Huckabee**



Date Received	Method <small>(phone/ email)</small>	Question	Response
5/5/2025	email	Curious as to whether this solicitation is for a modular building, or just for site work.	This is only for site work
5/7/2025	Pre-Bid Meeting	Is CCA nonprofit?	Yes
5/7/2025	Pre-Bid Meeting	What is permitting responsibility?	Contractor will pull trade permits. Huckabee and PFC will assist with drawing permit package submittal to the City. Basic bid form is in the specs. Owner may issue additional information via addendum.
5/7/2025	Pre-Bid Meeting	Do we want a particular bid form used?	
5/7/2025	Pre-Bid Meeting	Has a Level 1 environmental study been done on the property?	Yes. It has been included in this addendum.
5/7/2025	Pre-Bid Meeting	Who is making utility connections?	At street, site contractor. All connections within 5'-0" of the building will be made by the Modular Building provider under separate contract.
5/7/2025	Pre-Bid Meeting	How will coordination be handled between Ramtech and the site contractor?	Intent is to have a weekly coordination meeting via Teams or phone with Dave Granger from PFC (Owner's rep), site contractor, and modular building contractor.
5/7/2025	Pre-Bid Meeting	How will the schedule work with mobilization?	Work will need to take place an be coordinated with Modular building company. Goal is to avoid multiple mobilizations.
5/7/2025	Pre-Bid Meeting	What is the existing foundation system (existing building pad)?	Refer environmental assessment
5/7/2025	Pre-Bid Meeting	There is a well in the ground at building near Sanford Road.	According to the Phase 1 Environmental Assessment, the water well was installed around 2019 for irrigation purposes. Awarded site contractor should include plugging this well in scope of proposal.
5/7/2025	Pre-Bid Meeting	Who owns the fence at the south property line?	Adjacent property Owner.





U.S. Department of Housing and Urban  
Development  
451 Seventh Street, SW  
Washington, DC 20410  
[www.hud.gov](http://www.hud.gov)  
[espanol.hud.gov](http://espanol.hud.gov)

**Environmental Assessment  
Determinations and Compliance Findings  
for HUD-assisted Projects  
24 CFR Part 58**

**Project Information**

**Project Name:** City-of-Arlington-Fielder-Childcare-Facility-Project

**HEROS Number:** 900000010412009

**Project Location:** 696 North Fielder Road, Arlington, Texas , TX 76010

**Additional Location Information:**

The proposed project area would be located along W Sanford St and between Matthews Dr. and N Fielder Rd.

**Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:**

The proposed City of Arlington Fielders Childcare Facility Infrastructure Project would be composed of the construction of a modular facility, parking lot, and playground constructed within an identified high needs area in the City of Arlington. The proposed project would be constructed on an approximately 1.5+/- acre site. The modular facility would be approximately 12,200 square feet in size and consist of a minimum of eight classrooms and one indoor play area. An outdoor play area would be sized for the licensed capacity of the facility, but would be a minimum of 80 square feet. Parking would accommodate a minimum of 22 spaces and facilitate ingress and egress to the parking area and emergency vehicle access.

**Funding Information**

Grant Number	HUD Program	Program Name	
9000	Community Planning and Development (CPD)	Community Development Block Grants (CDBG) (Entitlement)	\$1,750,000.00

**Estimated Total HUD Funded Amount:** \$1,750,000.00

**Estimated Total Project Cost [24 CFR 58.2 (a) (5)]:** \$6,501,239.80

**Mitigation Measures and Conditions [CFR 1505.2(c)]:**

Summarized below are all mitigation measures adopted by the Responsible Entity to reduce, avoid or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.



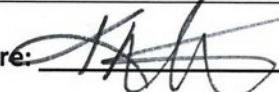
Law, Authority, or Factor	Mitigation Measure or Condition
Contamination and Toxic Substances	Upon completion of construction and envelope building testing confirmed, the applicant will conduct radon testing to ensure interior levels are in accordance with EPA and HUD standards. If elevated levels are detected radon mitigation strategies will be implemented including placement of radon fans to continuously pull air from the indoor space and / or soil and pipe out to the exterior.
Permits, reviews, and approvals	None have been acquired to date. If applicable, the Client will add a list of permits obtained, with this submittal.
Construction Stormwater Permit (NPDES) 33 U.S.C. s.1251 et seq.	Obtain authorization under TCEQ's Stormwater General Permit for Construction Activities (TXR150000)
Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Construction activities would be restricted to daylight hours in effort to minimize impact to the surrounding neighbors and will comply to the City's Noise Ordinance.

#### Project Mitigation Plan

The City of Arlington will be responsible for implementing and monitoring construction noise and stormwater measures. They will be responsible for conducting work during daylight hours to reduce noise activities affecting the surrounding areas. With the construction stormwater permit, the city will conduct best management practices to reduce sediment and other pollutants discharge. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spills or leaks, sludge or waste disposal, or drainage from raw material storage areas.

#### Determination:

<input checked="" type="checkbox"/>	Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.13] The project will not result in a significant impact on the quality of human environment
<input type="checkbox"/>	Finding of Significant Impact

Preparer Signature:  Date: 7/17/24

Name / Title/ Organization: Kevin Fulton / / ARLINGTON

Certifying Officer Signature:  Date: 7/17/24

Name/ Title: Jennifer Weichmann / Deputy City Manager

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environment Review Record (ERR) for the activity / project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).



**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 investigation of subsurface soil conditions at the building site was authorized by the Owner, and these investigations were made by CMJ Engineering, Inc., report number 1320-25-03, dated April 28, 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 ENGINEERING STUDY  
CHILD CARE ASSOCIATES  
696 N. FIELDER DRIVE  
ARLINGTON, TEXAS**

Presented To:  
**Child Care Associates**

April 2025

**PROJECT NO. 1320-25-03**





April 28, 2025  
Report No. 1320-25-03

Child Care Associates  
3000 E. Belknap Street  
Fort Worth, Texas 76111

Attn: Ms. Karanae Spradlin, CFO

**GEOTECHNICAL ENGINEERING STUDY  
CHILD CARE ASSOCIATES  
696 N. FIELDER DRIVE  
ARLINGTON, TEXAS**

Dear Ms. Spradlin:

Submitted here are the results of a geotechnical engineering study for the referenced project. This study was performed in general accordance with our Proposal No. 25-9910 dated January 29, 2025. The geotechnical services were authorized on February 11, 2025 by Ms. Karanae Spradlin.

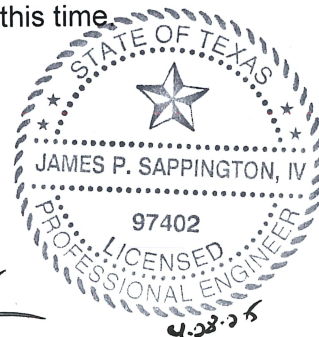
Engineering analyses and recommendations are contained in the text section of the report. Results of our field and laboratory services are included in the appendix of the report. We would appreciate the opportunity to be considered for providing the construction material testing services during the construction phase of this project.

We appreciate the opportunity to be of service to Child Care Associates and their consultants. Please contact us if you have any questions or if we may be of further service at this time.

Respectfully submitted,  
**CMJ ENGINEERING, INC.**  
TEXAS FIRM REGISTRATION NO. F-9177

Ammon D. Lutz, P.G., E.I.T.  
Geotechnical Project Manager  
Texas Nos. 15670, 77207

James P. Sappington IV, P.E.  
President  
Texas No. 97402



copies submitted:

- (2) Mr. Willie Rankin Jr.; Institute to Advance Child Care (mail and email)
- (1) Mr. Charlie Erwin; Pronghorn Flats Consulting (email)

**CMJ Engineering**

p: 817.284.9400

f: 817.589.9993

7636 Pebble Drive

Fort Worth, TX 76118

[www.cmjengr.com](http://www.cmjengr.com)





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4.0 FOUNDATION RECOMMENDATIONS-----	6
5.0 DESIGN CONSIDERATIONS -----	15
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## APPENDIX A

	<u>Plate</u>
Plan of Borings -----	A.1
Unified Soil Classification System -----	A.2
Key to Classification and Symbols -----	A.3
Logs of Borings -----	A.4 – A.7
Free Swell Test Results-----	A.8
Soluble Sulfate Test Results-----	A.9



## **1.0 INTRODUCTION**

### **1.1 Project Description**

The project site is located at 696 N. Fielder Road in Arlington, Texas. The project, as currently planned, consists of a new 13,305 square-foot, single story building. No below-grade construction is planned. Area paving and drives are also planned. Plate A.1, Plan of Borings, presents the approximate locations of the exploration borings.

### **1.2 Purpose and Scope**

The purpose of this geotechnical engineering study has been to determine the general subsurface conditions, evaluate the engineering characteristics of the subsurface materials encountered, and develop recommendations for the type or types of foundations suitable for the project.

To accomplish its intended purposes, the study has been conducted in the following phases: (1) drilling sample borings to determine the general subsurface conditions and to obtain samples for testing; (2) performing laboratory tests on appropriate samples to determine pertinent engineering properties of the subsurface materials; and (3) performing engineering analyses, using the field and laboratory data, to develop geotechnical recommendations for the proposed construction.

The design is currently in progress and the location and/or elevation of the building could change. Once the final design is near completion (80-percent to 90-percent stage), it is recommended that CMJ Engineering, Inc. be retained to review those portions of the construction documents pertaining to the geotechnical recommendations, as a means to determine that our recommendations have been interpreted as intended.

### **1.3 Report Format**

The text of the report is contained in Sections 1 through 10. All plates and large tables are contained in Appendix A. The alpha-numeric plate and table numbers identify the appendix in which they appear. Small tables of less than one page in length may appear in the body of the text and are numbered according to the section in which they occur.

Units used in the report are based on the English system and may include tons per square foot (tsf), kips (1 kip = 1,000 pounds), kips per square foot (ksf), pounds per square foot (psf), pounds per cubic foot (pcf), and pounds per square inch (psi).



## **2.0 FIELD EXPLORATION AND LABORATORY TESTING**

### **2.1 Field Exploration**

Subsurface materials at the project site were explored by four (4) vertical soil borings. Borings B-1 and B-2 were drilled to a depth of 45 feet in the area of the proposed building. Borings B-3 and B-4 were drilled to 5 feet below existing grade in association with area paving. The borings were drilled using continuous flight augers at the approximate locations shown on the Plan of Borings, Plate A.1. The boring logs are included on Plates A.4 through A.7 and keys to classifications and symbols used on the logs are provided on Plates A.2 and A.3.

Undisturbed samples of cohesive soils were obtained with nominal 3-inch diameter thin-walled (Shelby) tube samplers at the locations shown on the logs of borings. The Shelby tube sampler consists of a thin-walled steel tube with a sharp cutting edge connected to a head equipped with a ball valve threaded for rod connection. The tube is pushed into the soil by the hydraulic pulldown of the drilling rig. The soil specimens were extruded from the tube in the field, logged, tested for consistency with a hand penetrometer, sealed, and packaged to limit loss of moisture.

The consistency of cohesive soil samples was evaluated in the field using a calibrated hand penetrometer. In this test a 0.25-inch diameter piston is pushed into the relatively undisturbed sample at a constant rate to a depth of 0.25 inch. The results of these tests, in tsf, are tabulated at respective sample depths on the logs. When the capacity of the penetrometer is exceeded, the value is tabulated as 4.5+.

Disturbed samples of the noncohesive granular or stiff to hard cohesive materials were obtained utilizing a nominal 2-inch O.D. split-barrel (split-spoon) sampler in conjunction with the Standard Penetration Test (ASTM D1586). This test employs a 140-pound hammer that drops a free fall vertical distance of 30 inches, driving the split-spoon sampler into the material. The number of blows required for 18 inches of penetration is recorded and the value for the last 12 inches, or the penetration obtained from 50 blows, is reported as the Standard Penetration Value (N) at the appropriate depth on the log of boring.

To evaluate the relative density and consistency of the harder formations, a modified version of the Texas Cone Penetration test was performed at selected locations. Texas Department of



Transportation (TxDOT) Test Method Tex-132-E specifies driving a 3-inch diameter cone with a 170-pound hammer freely falling 24 inches. This results in 340 foot-pounds of energy for each blow. This method was modified by utilizing a 140-pound hammer freely falling 30 inches. This results in 350 foot-pounds of energy for each hammer blow. In relatively soft materials, the penetrometer cone is driven 1 foot and the number of blows required for each 6-inch penetration is tabulated at respective test depths, as blows per 6 inches on the log. In hard materials (rock or rock-like), the penetrometer cone is driven with the resulting penetrations, in inches, recorded for the first and second 50 blows, a total of 100 blows. The penetration for the total 100 blows is recorded at the respective testing depths on the boring logs.

Groundwater observations during and after completion of the borings are shown on the upper right of the boring log. Upon completion of the borings, the boreholes were backfilled with soil cuttings or sand and plugged at the surface by hand tamping.

## **2.2 Laboratory Testing**

Laboratory soil tests were performed on selected representative samples recovered from the borings. In addition to the classification tests (liquid limits, plastic limits, and percent passing the No. 200 sieve), moisture content, unit weight, and unconfined compressive strength tests were performed. Results of the laboratory tests conducted for this project are included on the boring logs.

Swell tests were performed on specimens from selected samples of the soils. These tests were performed to help in evaluating the swell potential of near-surface soils in the area of the proposed building. The results of the swell tests are presented on Plate A.8.

Soluble sulfate tests were conducted on selected soil samples. The sulfate testing was conducted to help identify lime-induced heaving potential of the soils. Lime-induced heaving can cause detrimental volumetric changes to a soil subgrade modified by calcium-based stabilizers. The results of these tests are presented on Plate A.9.

The above laboratory tests were performed in general accordance with applicable ASTM procedures, or generally accepted practice.



## **3.0 SUBSURFACE CONDITIONS**

### **3.1 Site Geology**

The site is situated on an outcrop of the Woodbine Formation. The Woodbine is a series of ferruginous, argillaceous sands, laminated clays some of which are bituminous, ironstone and some gravel. Historically, the Woodbine is a member of the "upper" or Gulf Series of Cretaceous age. It is characteristic of a high-destructive deltaic system. Sediments such as sands, silts, clays and gravels were deposited by rivers into a late Mesozoic Sea. The sediments were laid down as sand bars and sheets, sand and gravel terraces, lagoonal and estuarial clays and silts as well as in other configurations. These deposits were then reworked to a greater or lesser degree by the action of the adjacent waters of the sea. As the sea encroached upon the land, the sediments were further reworked.

As a result of this geological activity, the Woodbine Formation is a heterogeneous mixture of materials ranging from highly active clays, through sandy clays and silts, to sands and gravels. Large masses of extremely hard sandstone occur locally and are commonly referred to as boulders. Relatively firm shales are often encountered at varying depths below the surface. Additionally, the type material encountered may vary widely over very short distances both laterally and vertically. Sand layers and lenses which are found throughout the formation tend to serve as aquifers for subsurface runoff.

### **3.2 Soil Conditions**

Specific types and depths of subsurface strata encountered at the boring location are shown on the boring log in Appendix A. The generalized subsurface stratigraphy encountered in the borings are discussed below. Note that depths on the borings refer to the depth from the existing grade or ground surface present at the time of the investigation, and the boundaries between the various soil types are approximate.

Borings B-3 and B-4 were drilled in the existing asphalt paving with thicknesses of 3½ to 4 inches. No base materials were encountered below the asphalt in Borings B-3 and B-4.

Soils encountered consist of various brown, reddish brown, light brown, tan, and light gray clayey sands, sands, sandy clays, and sandy shaly clays. The various soils encountered often contain



ironstone nodules and calcareous nodules and occasional pebbles, sand seams, and sand layers. Borings B-3 and B-4 were terminated within the surficial soils at a depth of 5 feet.

The various soils encountered in the borings had tested Liquid Limits (LL) of 22 to 24 with Plasticity Indices (PI) of 7 to 10 and are classified as SP and SC by the USCS. Tested unit weight values ranged from 114 to 124 pcf and unconfined compressive strengths ranged from 1,690 to 19,500 psf. Select pocket penetrometer readings and strength test results reflect more granular materials, indicating higher in-situ strengths than the tested value.

Tan cemented sands occasionally containing sandy clay seams are next present below the surficial soils at depths of 13 to 20 feet in Borings B-1 and B-2. The cemented sands contain a 2-foot thick sandy clay layer at 26 feet in Boring B-1. In addition, a 2-foot thick sand layer is present within the cemented sand in Boring B-2 at 21 feet. The cemented sands are considered very dense with Standard Penetration (SPT) test values of 4 to 5½ inches of penetration for 50 hammer blows. Boring B-1 was terminated in the cemented sands at a depth of 45 feet.

Gray sandy shale was next encountered at a depth of 26 feet in Boring B-2, extending to boring termination at a depth of 45 feet. The gray shale is considered moderately hard (rock basis), with Texas Cone Penetrometer (THD) test values of 2¾ to 4 inches of penetration for 100 hammer blows.

The Atterberg Limits tests indicate the various soils encountered in the borings at this site are generally stable to slightly active with respect to moisture induced volume changes. Active clays can experience volume changes (expansion or contraction) with fluctuations in their moisture content.

### **3.3 Groundwater Observations**

The borings were drilled using continuous flight augers in order to observe groundwater seepage during drilling. Groundwater seepage was observed during drilling at depths of 13 to 20 feet below existing grade in Borings B-1 and B-2. Water levels of 15 to 24 feet were measured in Borings B-1 and B-2 at drilling completion. Borings B-3 and B-4 were dry during drilling and at completion. Table 3.3-1 summarizes water level data. While it is not possible to accurately predict the magnitude of subsurface water fluctuation that might occur based on these short-term observations, it should be recognized that groundwater conditions will vary.



<b>TABLE 3.3-1 Groundwater Observations</b>		
<b>Boring No.</b>	<b>Seepage During Drilling (ft.)</b>	<b>Water at Completion (ft.)</b>
B-1	20	24
B-2	13	15
B-3	Dry	Dry
B-4	Dry	Dry

While it is not possible to accurately predict the magnitude of subsurface water fluctuation that might occur based upon these short-term observations, it should be recognized that groundwater conditions will vary with fluctuations in rainfall. Seepage levels near the observed levels should be anticipated throughout the year.

Fluctuations of the groundwater level can occur due to seasonal variations in the amount of rainfall; site topography and runoff; hydraulic conductivity of soil strata; and other factors not evident at the time the borings were performed. During wet periods of the year, seepage can occur in the more granular soils, in joints in the clays, and atop or within the sandy shale. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

## **4.0 FOUNDATION RECOMMENDATIONS**

### **4.1 General Foundation Considerations**

Two independent design criteria must be satisfied in the selection of the type of foundation to support the proposed building. First, the ultimate bearing capacity, reduced by a sufficient factor of safety, must not be exceeded by the bearing pressure transferred to the foundation soils. Second, due to consolidation or expansion of the underlying soils during the operating life of the building, total and differential vertical movements must be within tolerable limits. The recommended foundation alternatives for the proposed building are discussed below.

A shallow foundation with deepened footings is a positive foundation option and should provide adequate support of structural loads. Greater load carrying capacity can be achieved by extending straight drilled shafts into the tan cemented sand or gray sandy shale. Consideration also can be given to a monolithic, slab-on-grade foundation system if the slab is designed to tolerate potential



movements due to moisture induced volume changes in the surficial soils without inducing unacceptable distress in the foundation or structural elements.

Recommendations for these systems are presented below.

## **4.2 Potential Vertical Movements**

The soils encountered at the site are generally stable to slightly active. Analyses indicate that the potential vertical movements of onsite soils due to their expansive characteristics are on the order of 1 inch or less for slabs constructed near or at existing grades. The greatest movements will occur where the greater thicknesses of dryer slightly plastic clays are present. The actual amount of movement will depend greatly on the moisture content of the soils prior to construction. In other words, where a ground-supported floor slab is placed upon moist soils, the future expansive soil movement of these soils will be limited since these soils exist in a pre-swelled state, and additional moisture will not cause significant additional heaving of the soils. Conversely, when on-site soils are extremely dry, moisture will cause significant swelling of these soils.

## **4.3 Spread Foundations**

### **4.3.1 Design Parameters**

Reinforced concrete spread foundations may be used to support structural loads. Individual footings should maintain a minimum width of 3 feet and continuous footings should maintain minimum width of 1.5 feet, but must be wider as required, based upon bearing capacities given below. Individual footings may be square, round or rectangular.

Footings should be situated in natural undisturbed clayey sands or sands a minimum of 3 feet below finished grade. Individual footings may utilize an allowable bearing pressure of 2,000 psf while continuous footings may utilize an allowable bearing pressure of 1,800 psf. The factor of safety for the above design values is 3. Continuous spread foundations are those having length-to-width ratio greater than 10.

Footings will be subject to potential movements of up to 1 inch or less of total movement, and ½ inch differential movement between adjacent footings. The base of all excavated footings shall be inspected by a geotechnical engineer or geotechnician under his or her supervision to assure that the bottom is firm, level and free of loose soil material and/or debris.



#### 4.3.2 Shallow Footing Construction

Footing construction should be monitored by a representative of the geotechnical engineer to observe, among other things, the following items:

- Identification of bearing material
- The base and sides of the footing excavation are clean of loose cuttings
- If seepage is encountered, whether it is of sufficient amount to require the use of excavation dewatering methods

Precautions should be taken during the placement of reinforcing steel and concrete to prevent loose, excavated soil from falling into the excavation. Concrete should be placed as soon as practical after completion of the excavation, cleaning, reinforcing steel placement and observation. Excavation for a spread foundation should be filled with concrete before the end of the workday, or sooner if required, to prevent deterioration of the bearing material. Prolonged exposure or inundation of the bearing surface with water will result in changes in strength and compressibility characteristics. If delays occur, the excavation should be deepened as necessary and cleaned, in order to provide a fresh bearing surface. If more than 48 hours of exposure of the bearing surface is anticipated in the excavations, a "mud slab" should be used to protect the bearing surfaces. If a mud slab is used, the foundation excavations should initially be over-excavated by approximately 4 inches and a lean concrete mud slab of approximately 4 inches in thickness should be placed in the bottom of the excavations immediately following exposure of the bearing surface by excavation. The mud slab will protect the bearing surface, maintain more uniform moisture in the subgrade, facilitate dewatering of excavations if required, and provide a working surface for the placement of formwork and reinforcing steel.

If footing excavations are left unprotected and exposed to precipitation and/or other water sources which result in ponding in footing excavations, additional excavation to firm, undisturbed material will be required. Footing concrete should be placed directly against the wall of footing excavations.

The excavations above the footings may be backfilled with excavated on-site soils. Backfill soils should be compacted to at least 95 percent of Standard Proctor (ASTM D698) maximum dry density, in compacted lifts not to exceed 6 inches. The soils should be compacted at a moisture near 2 percentage points (-2 to +2 percentage points) of the soil's optimum moisture content.



Any fill used within the building footprint must consist of non-expansive select fill with a Liquid Limit less than 35 and a Plasticity Index (PI) between 4 and 16. The select fill should be compacted in maximum 9-inch loose lifts at minus 2 to plus 3 percentage points of the soil's optimum moisture content at a minimum of 95 percent of Standard Proctor density (ASTM D698).

#### **4.4 Straight Shaft Design Parameters**

##### **4.4.1 Design Criteria**

Recommendations and parameters for the design of cast-in-place straight-shaft drilled piers are outlined below. Specific recommendations for the construction and installation of the straight drilled piers are included below and shall be followed during construction.

Bearing Stratum:	Tan or gray CEMENTED SAND or SANDY SHALE
Depth of Bearing Stratum:	Approximately 13 to 20 feet below existing grade.
Required Penetration/Depth:	All piers should penetrate into the bearing stratum a minimum of 3 feet. Deeper penetrations may be required to develop additional skin friction and/or uplift resistance.
Allowable End Bearing Capacity:	8,000 psf
Allowable Skin Friction:	Applicable below a minimum penetration of 3 feet into the cemented sand or shale and below any temporary casing; 1,300 psf for compressive loads and 1,000 psf for tensile loads.

The above values contain a safety factor of three (3). Shafts must extend through any sand or clayey sand layers and bear only in cemented sand or sandy shale. Penetrations greater than the minimum penetration may be required to develop additional skin friction and/or uplift resistance. A minimum pier diameter of 18 inches is recommended.

It should be anticipated that groundwater seepage and possibly caving soils will be encountered during installation of all the straight shafts. Temporary casing will be required for proper installation of the shafts; however, in the event the casing cannot seal off the groundwater, underwater/slurry concrete placement techniques would be necessary to properly install the shafts. Seepage is also possible in the cemented sand and sandy shale. Where seepage occurs in the cemented sand or sandy shale, extension of the temporary casing may be required to case through the water bearing zone resulting in deeper penetrations than would be designed. In underwater/slurry concrete



placement techniques end bearing is neglected and the shaft design is based entirely on skin friction. *This will also require deeper penetrations.* Test shafts are recommended to determine the need for underwater/slurry concrete placement, or if a temporary casing is capable of adequately sealing off groundwater.

In order to develop full load carrying capacity in skin friction, adjacent shafts should have a minimum center-to-center spacing of 3 times the diameter of the larger shaft. Closer spacing may require some reductions in skin friction and/or changes in installation sequences. Closely spaced shafts should be examined on a case-by-case basis. As a general guide, the design skin friction will vary linearly from the full value at a spacing of 3 diameters to 50 percent of the design value at 1.0 diameter.

Settlements for properly installed and constructed straight shafts in the cemented sands or sandy shale will be primarily elastic and are estimated to be one inch or less.

#### 4.4.2 Lateral Load Design Values

Drilled shaft design parameters for use with LPILE based on our laboratory test results are presented in the table below together with our recommended design stratigraphy. The design depth interval is referenced from present existing grades. Where the ground surface is exposed surrounding a drilled shaft, a p-modification factor of 0.1 is appropriate at the surface increasing linearly to the full value at a depth of 10 feet. This reduction is because of the potential for shrinkage cracks forming along the sides of the drilled shaft.

**TABLE 4.4.2.1 – RECOMMENDED LATERAL LOAD DESIGN VALUES**

Soil / Rock Type	Design Depth Interval (ft)	Design Total Unit Weight (pcf)	Design Strength		k-value (pci)
			Cohesion (psi)	Friction Angle (degrees)	
Clayey Sand	0 - 20	120	0	32	60
Cemented Sand	20+	120	0	42	125



#### 4.4.3 Soil Induced Uplift Loads

The drilled shafts could experience tensile loads as a result of post construction heave in the site soils. The magnitude of these loads varies with the shaft diameter, soil parameters, and particularly the in-situ moisture levels at the time of construction. In order to aid in the structural design of the reinforcement, the reinforcement quantity should be adequate to resist tensile forces based on soil adhesion equal to 650 psf acting over the upper 10 feet of the pier shaft. This load must be resisted by the dead load on the shaft, continuous vertical reinforcing steel in the shaft, and a shaft adhesion developed within the bearing strata as previously discussed. In order to aid in the structural design of the reinforcement, minimum reinforcing should be equal to 0.5 percent of the shaft area.

#### 4.4.4 Drilled Shaft Construction Considerations

Extremely hard sandstone layers or boulders can be present in this geologic formation. This sandstone can complicate installation of the shafts and requires special drilling techniques such as rock coring. Where such extremely hard sandstones are encountered, shaft penetrations cannot be reduced. As a point of reference, unconfined compression strength tests in this material typically range from 100 to well over 500 tsf.

Drilled pier construction should be monitored by a representative of the geotechnical engineer to observe, among other things, the following items:

- Identification of bearing material
- Adequate penetration of the shaft excavation into the bearing layer
- The base and sides of the shaft excavation are clean of loose cuttings
- If seepage is encountered, whether it is of sufficient amount to require the use of temporary steel casing. If casing is needed it is important that the field representative observe that a high head of plastic concrete is maintained within the casing at all times during their extraction to prevent the inflow of water

Precautions should be taken during the placement of reinforcing steel and concrete to prevent loose, excavated soil from falling into the excavation. Concrete should be placed as soon as practical after completion of the drilling, cleaning, and observation. Excavation for a drilled pier should be filled with concrete before the end of the workday, or sooner if required to prevent deterioration of the bearing material. Prolonged exposure or inundation of the bearing surface with



water will result in changes in strength and compressibility characteristics. If delays occur, the drilled pier excavation should be deepened as necessary and cleaned, in order to provide a fresh bearing surface.

Excavations for the shafts should be maintained in the dry. It should be anticipated that groundwater seepage will be encountered during installation of all straight shafts, and that temporary casing will be required for all straight shafts for proper shaft installation. The casing should be seated below the zone of seepage with all water and most loose material removed prior to beginning the design penetration. No more than 2 inches of water should be present at the bottom of the shaft prior to concrete placement. Care must then be taken that a sufficient head of plastic concrete is maintained within the casing during extraction. Test shafts are recommended to determine if temporary casing will be sufficient to seal off the groundwater seepage or if underwater concrete techniques are required, as discussed below.

If the water cannot be controlled, we recommend the concrete be placed by a tremie or by using a concrete pump. If this method is utilized, end bearing should be neglected, and the shaft design based entirely on skin friction. *In this case deeper penetrations will be required.*

Tremied or pumped-in concrete for straight shafts should take place as continuously as possible until the concrete placement is complete. The bottom of the discharge pipe should always be kept below the surface of the concrete.

Before tremied or pumped-in concrete is used, care should be taken to ensure that the water is at a stabilized level and muck is removed to as low a level as possible, which will provide for a thin water solution to be displaced during concrete placement. The pipe or tremie is to be plugged when inserted into the pier and lowered until it is resting on the bottom of the hole. It should be filled with concrete and then lifted off the bottom about 1 foot. The concrete should then be placed in a continuous operation until all water is forced out of the hole. The tremie or pipe must always have about 5 feet of pipe into the concrete. Once the water is forced from the pier, the remaining concreting operation will be the same as for a cased hole.

Shaft excavations should be performed with equipment suitable to perform this work by a contractor experienced in the area. As previously discussed, extremely hard layers of sandstone



can be encountered. It should be anticipated that large boulders of sandstone cannot be penetrated with augers and could require special drilling techniques.

The concrete should have a slump of 6 inches plus or minus 1 inch. Concrete for use in underwater/slurry placements may have a slump of 8 inches plus or minus 1 inch. Where underwater concrete placement techniques are not utilized, the concrete should be placed in a manner to prevent the concrete from striking the reinforcing cage or the sides of the excavation. Concrete should be tremied to the bottom of the excavation to control the maximum free fall of the plastic concrete to less than 10 feet.

In addition to the above guidelines, the specifications from the Association of Drilled Shaft Contractors Inc. "Standards and Specifications for the Foundation Drilling Industry" as Revised 1999 or other recognized specifications for proper installation of drilled shaft foundation systems should be followed.

#### **4.5 Grade Beams and Floor Slabs**

The design of ground-supported grade beams and floor slab support depends on the magnitude of movement that these structural components can tolerate. The potential magnitude of these movements varies with the subsurface conditions over the site. Potential vertical movements were evaluated using the TxDOT Potential Vertical Rise (PVR) Method, and the results of our laboratory-testing program. It is estimated that post-construction movements are on the order of 1 inch or less. If grade beams and floor slabs can tolerate movements on the order of 1 inch, grade beams and floor slabs may be placed atop the prepared grade without special soil conditioning.

If such movements are not tolerable, the most positive method of preventing slab distress due to swelling soils and differential soil movement is to structurally suspend the interior slab. Support of the structural floor is provided by the drilled piers or spread footings. Due to the expansion potential of the site clays, it is recommended that the suspended floor slab and associated grade beams be constructed with a minimum 6-inch void space or crawl space. Consult this office for additional recommendations if a suspended floor system is selected.

Fill required to establish finished grade should consist of non-expansive select fill with a Liquid Limit less than 35 and a Plasticity Index (PI) between 4 and 16. The select fill should be



compacted in maximum 9-inch loose lifts at minus 2 to plus 3 percentage points of the soil's optimum moisture content at a minimum of 95 percent of Standard Proctor density (ASTM D698).

#### **4.6 Stiffened Monolithic, Slab-On-Grade Alternative**

A stiffened, monolithically placed slab-on-grade foundation, either rebar or post-tensioned, used at this site must be designed with exterior and interior grade beams to provide sufficient rigidity to tolerate the differential soil movements. These differential movements will typically occur between the periphery and interior of the slab-on-grade system. Foundation movements are anticipated to occur primarily due to post-construction heave of the underlying soils but also can occur due to shrinkage of the clays around the perimeter of the slab. If pier support is desired, steel dowels used to connect the slab to the piers should be sheathed and vertical to allow upward slab movement. It is recommended that all fill soils be properly placed and compacted in accordance with report Section 7.0 prior to foundation installation.

Slab-on-grade construction only should be considered if slab movement can be tolerated. The treatments presented in this section are referenced as an alternative to the use of a pier/footing and structurally suspended grade beam and floor slab. The owner must fully understand that if the floor slab is placed on-grade, some movement and resultant cracking within the floor and interior wall partitions may occur. This upward slab movement and cracking usually is difficult and costly to repair, and may require continued maintenance expense.

The PTI method incorporates numerous design assumptions associated with the derivation of required variables needed to determine the soil design criteria. This method of predicting differential soil movement is applicable only when site moisture conditions are controlled by the climate alone on a well graded site (i.e. no improper drainage, water leaks or free water sources). Under these conditions, moisture increases within the supporting soils and the resulting differential foundation movements are much lower than differential movements that can occur due to post-construction movements due to localized saturation caused by free water sources near or beneath the building. Such movements from these unusual sources can result in greater differential movements than the slab was designed to tolerate.

If slab stiffness is not sufficient to resist the ground movements, these movements can cause cracking of interior sheet rock walls and exterior brick walls. The performance of a slab foundation can be significantly influenced by landscaping maintenance, recessed landscaping additions near



the building, water line leaks any other free water sources, and deep-rooted trees and shrubs. For example, should leaks develop in underground water or sewer lines or the grades around the building are changed and cause ponding of water, unacceptable slab movements could develop.

The foundation should be designed by a structural engineer familiar with stiffened slabs-on-grade subject to differential movement. Design parameters are presented below for PVR and differential swell using the Post-Tensioning Institute's (PTI) slab-on-grade design method, 3<sup>rd</sup> Edition.

Design Potential Vertical Rise:	1 inch
Edge Moisture Variation -	
Approximate Center Lift (Edge Drop):	9.0 feet
Approximate Edge Lift:	5.2 feet
Differential Swell -	
Approximate Center Lift (Edge Drop):	0.9 inch
Approximate Edge Lift:	1.3 inches

Beams may be designed based on an allowable soil bearing pressure of 1,800 psf within the soils. The beams should extend at least 18 inches below finished grade and bear in natural soils or properly compacted and tested fill. The beam depth is given in regard to bearing capacity and is not intended to be a structural recommendation.

A properly engineered and constructed moisture barrier should be provided beneath the slab-on-grade.

The key to the success of this foundation is proper design/construction and providing control of the below-slab water. Providing excellent drainage away from the structure, preventing ponding water aside the slab, and using relatively impermeable backfill to prevent water intrusion via utility line backfill enhance the slab performance.

## **5.0 DESIGN CONSIDERATIONS**

### **5.1 Site Drainage**

An important feature of the project is to provide positive drainage away from the proposed building. If water is permitted to stand next to or below the structure, excessive soil movements (heave) can occur. This could result in differential floor slab or foundation movement.



A well-designed site drainage plan is of utmost importance and surface drainage should be provided during construction and maintained throughout the life of the structure. Consideration should be given to the design and location of gutter downspouts, planting areas, or other features which would produce moisture concentration adjacent to or beneath the structure or paving. Consideration should be given to the use of self-contained, watertight planters. Joints next to the structure should be sealed with a flexible joint sealer to prevent infiltration of surface water. Proper maintenance should include periodic inspection for open joints and cracks and resealing as necessary.

Rainwater collected by the gutter system should be transported by pipe to a storm drain or to a paved area. If downspouts discharge next to the structures onto flatwork or paved areas, the area should be watertight in order to eliminate infiltration next to the building.

## **5.2 Additional Design Considerations**

The following information has been assimilated after examination of numerous projects constructed in active soils throughout the area. It is presented here for your convenience. It is therefore important that the items discussed below are incorporated in the overall design of the project to aid in improving the performance of the building.

- Special consideration should be given to completion items outside the building areas, such as stairs, sidewalks, signs, etc. They should be adequately designed to sustain the potential vertical movements mentioned in the report.
- Roof drainage should be collected by a system of gutters and downspouts and transmitted away from the structures where the water can drain away without entering the building subgrade.
- Sidewalks should not be structurally connected to any buildings. They should be sloped away from the building so that water will drain away from the structure.
- The paving and the general ground surface should be sloped away from the building on all sides so that water will always drain away from the structure. Water should not be allowed to pond near the building after a slab has been placed.
- Trees and deep-rooted shrubs should not be used as landscaping around the structures perimeter as the root systems can lead to desiccation of the subgrade soils. Any existing trees or trees to be planted should be at a minimum distance from the building such that the building will not fall within the drip line of the mature plants (usually one to one-and-one-half times the mature height of the tree).



- Every attempt should be made to limit the extreme wetting or drying of the subsurface soils since swelling and shrinkage will result. Standard construction practices of providing good surface water drainage should be used. A positive slope of the ground away from foundations should be provided to carry off the run-off water both during and after construction.
- Backfill for utility lines or along the perimeter beams should consist of on-site material so that they will be stable. If the backfill is too dense or too dry, swelling may form a mound along the ditch line. If the backfill is too loose or too wet, settlement may form a sink along the ditch line. Either case is undesirable since several inches of movement is possible and floor cracks are likely to result. The soils should be processed using the previously discussed compaction criteria.
- Utility line details and fixtures must consider the potential for differential movement beneath any piping. In conjunction with a structural slab all underground utility lines should be isolated from expansive clays. A similar 6-inch void is recommended between the utility bottom and underlying clay soils. This prevents the utility lines from uplifting into the suspended slab.

## **6.0 SEISMIC CONSIDERATIONS**

Based on the conditions encountered in the borings for the above referenced project the IBC-2024 site classification is TYPE D for seismic evaluation.

## **7.0 EARTHWORK**

### **7.1 Site Preparation & Material Requirements**

The existing ground surface should be stripped of vegetation, roots, old construction debris, and other organic material. It is estimated that the depth of stripping will be on the order of 4 to 6 inches. The actual stripping depth should be based on field observations with particular attention given to old drainage areas, uneven topography, and excessively wet soils. The stripped areas should be observed to determine if additional excavation is required to remove weak or otherwise objectionable materials that would adversely affect the fill placement or other construction activities.

The subgrade should be firm and able to support the construction equipment without displacement. Soft or yielding subgrade should be corrected and made stable before construction proceeds. The subgrade should be proof rolled to detect soft spots, which if exist, should be excavated to provide a firm and otherwise suitable subgrade. Proof rolling should be performed using a heavy pneumatic tired roller, loaded dump truck, or similar piece of equipment, weighing a minimum of 25



tons with particular attention to existing fill areas. The proof rolling operations should be observed by the project geotechnical engineer or his/her representative.

It is noted that the near-surface soils consisted of more granular clayey sands and sands. This type of material is difficult to compact, and can be difficult from a trafficability standpoint, particularly when wet. Mixing these materials with Portland Cement could be considered. Two (2) to three (3) percent cement should improve the compaction characteristics of these materials. Also, during periods of inclement weather these surface soils can become saturated and subject to pumping. This may require undercutting to a firm subgrade and blending them with more clayey soils or removing them entirely.

Site grading is anticipated to be accomplished using on-site soils. For the most part, it appears that these will consist of clayey sands and sands. Close control of placement moistures may be necessary to facilitate compaction due to the granular nature of the on-site soils.

## **7.2 Placement and Compaction**

Fill material should be placed in loose lifts not exceeding 8 inches in uncompacted thickness. The uncompacted lift thickness should be reduced to 4 inches for structure backfill zones requiring hand-operated power compactors or small self-propelled compactors. The fill material should be uniform with respect to material type and moisture content. Clods and chunks of material should be broken down and the fill material mixed by disking, blading, or plowing, as necessary, so that a material of uniform moisture and density is obtained for each lift. Water required for sprinkling to bring the fill material to the proper moisture content should be applied evenly through each layer.

The on-site soils are suitable for use in general site grading. Imported fill material should be clean soil with a Liquid Limit less than 35 and no rock greater than 4 inches in maximum dimension. The fill materials should be free of vegetation and debris. Within the building footprint all fill should consist of non-expansive select fill as discussed in Sections 4.3 and 4.5.

The fill material should be compacted to a density ranging from 95 to 100 percent of maximum dry density as determined by ASTM D698, Standard Proctor. In conjunction with the compacting operation, the fill material should be brought to the proper moisture content. The moisture content for general earth fill should range from 2 percentage points below optimum to 5 percentage points above optimum (-2 to +5). These ranges of moisture contents are given as maximum



recommended ranges. For some soils and under some conditions, the contractor may have to maintain a narrower range of moisture content (within the recommended range) in order to consistently achieve the recommended density.

Field density tests should be taken as each lift of fill material is placed. As a guide, one field density test per lift for each 5,000 square feet of compacted area is recommended. For small areas or critical areas, the frequency of testing may need to be increased to one test per 2,500 square feet. A minimum of 2 tests per lift should be required. The earthwork operations should be observed and tested on a continuing basis by an experienced geotechnician working in conjunction with the project geotechnical engineer.

Each lift should be compacted, tested, and approved before another lift is added. The purpose of the field density tests is to provide some indication that uniform and adequate compaction is being obtained. The actual quality of the fill, as compacted, should be the responsibility of the contractor and satisfactory results from the tests should not be considered as a guarantee of the quality of the contractor's filling operations.

### **7.3 Trench Backfill**

Trench backfill for pipelines or other utilities should be properly placed and compacted. Overly dense or dry backfill can swell and create a mound along the completed trench line. Loose or wet backfill can settle and form a depression along the completed trench line. Distress to overlying structure, pavements, etc. is likely if heaving or settlement occurs. On-site soil fill material is recommended for trench backfill. Care should be taken not to use free draining granular material, to prevent the backfilled trench from becoming a french drain and piping surface or subsurface water beneath the structure, pipelines, or pavements. If a higher-class bedding material is required for the pipelines, a lean concrete bedding will limit water intrusion into the trench and will not require compaction after placement. The soil backfill should be placed in approximately 4- to 6-inch loose lifts. The density and moisture content should be as recommended for fill in Section 7.2, Placement and Compaction, of this report. A minimum of one field density test should be taken per lift for every 150 linear feet of trench, with a minimum of 2 tests.

### **7.4 Excavation**

The side slopes of excavations through the overburden soils should be made in such a manner to provide for their stability during construction. Existing structures, pipelines or other facilities, which



are constructed prior to or during the currently proposed construction and which require excavation, should be protected from loss of end bearing or lateral support.

Temporary construction slopes and/or permanent embankment slopes should be protected from surface runoff water. Site grading should be designed to allow drainage at planned areas where erosion protection is provided, instead of allowing surface water to flow down unprotected slopes.

Trench safety recommendations are beyond the scope of this report. The contractor must comply with all applicable safety regulations concerning trench safety and excavations including, but not limited to, OSHA regulations.

### **7.5 Acceptance of Imported Fill**

Any soil imported from off-site sources should be tested for compliance with the recommendations for the particular application and approved by the project geotechnical engineer prior to the materials being used. The owner should also require the contractor to obtain a written, notarized certification from the landowner of each proposed off-site soil borrow source stating that to the best of the landowner's knowledge and belief there has never been contamination of the borrow source site with hazardous or toxic materials. The certification should be furnished to the owner prior to proceeding to furnish soils to the site. Soil materials derived from the excavation of underground petroleum storage tanks should not be used as fill on this project.

### **7.6 Soil Corrosion Potential**

Specific testing for soil corrosion potential was not included in the scope of this study. However, based upon past experience on other projects in the vicinity, the soils at this site may be corrosive. Standard construction practices for protecting metal pipe and similar facilities in contact with these soils should be used.

### **7.7 Erosion and Sediment Control**

All disturbed areas should be protected from erosion and sedimentation during construction, and all permanent slopes and other areas subject to erosion or sedimentation should be provided with permanent erosion and sediment control facilities. All applicable ordinances and codes regarding erosion and sediment control should be followed.



## 8.0 PAVEMENTS

### 8.1 General Pavement Considerations

Finished grades near the presently existing grade will consist of granular clayey sands and sands. The success of the pavement subgrade is subgrade soil strength and control of water. Adequate subgrade performance can be achieved by stabilizing existing soils used to construct the pavement subgrade. Treatment of these soils with cement will improve their subgrade characteristics to support area paving. Cement treatment is recommended for all subgrade areas. Prior to cement stabilization, the subgrade should be proofrolled with heavy pneumatic equipment. Any soft or pumping areas should be undercut to a firm subgrade and properly backfilled as described in the Earthwork section.

In lieu of a cement stabilized subgrade, a flexible base meeting TxDOT Item 247, Type A, Grade 1/2 may be utilized on an equal basis, placed atop a properly compacted subgrade. The option of using a flexible base in lieu of lime stabilizing the subgrade presents a relatively quick, straight forward solution to preparing the materials prior to pavement placement.

Alternatively, in lieu of a cement stabilized subgrade for pavement consisting of Portland cement concrete, the recommended pavement thicknesses presented in Section 7.2 may be increased by 1 inch and placed atop a properly compacted subgrade.

It is recommended a minimum of 5 percent Portland cement be used to modify the subgrade soils. The estimated amount of cement required to stabilize the subgrade should be on the order of 23 pounds per square yard for a 6-inch depth based on a soil dry unit weight of 100 pcf. The cement should be thoroughly mixed and blended with the upper 6 inches of the subgrade (TxDOT Item 275). The Portland cement should meet the requirements of Item 275 in the Texas Department of Transportation (TxDOT) Standard Specifications for Construction of Highways, Streets and Bridges, 2024 Edition. Cement treatment should extend beyond exposed pavement edges to reduce the effects of shrinkage and associated loss of subgrade support.

The stabilized subgrade should be scarified to a minimum depth of 6 inches and uniformly compacted to a minimum of 98 percent of ASTM Standard Test Method for Moisture-Density Relations of Soil-Cement Mixtures (ASTM D558), to minus 3 to plus 1 percentage points of the optimum moisture content determined by that test. It should then be protected and maintained in a moist condition until the pavement is placed via curing compound or sprinkling. Proper curing of



the cement treated base is paramount in order to reduce the potential for undue shrinkage cracking.

The Texas Transportation Institute has performed studies to reduce “block cracks” common to cement-treated base materials. Microcracking is the application of several vibratory roller passes to a treated subgrade after a short curing stage, typically after one to three days, to create a fine network of cracks. Microcracking is one technique to help reduce the risk of shrinkage cracks in the subgrade reflecting through the pavement surfacing. The goal of microcracking is to form a network of fine cracks and prevent the wider, more severe cracks from forming.

After placement and satisfactory compaction of the cement treated subgrade, the base should be moist cured by sprinkling for 48 to 72 hours before microcracking. If performing construction during winter months when average daily temperatures are 60° F or below, moist cure the base at least 96 hours before microcracking. Microcracking should be performed with the same (or equivalent tonnage) steel wheel vibratory roller used for compaction. A minimum 12-ton roller should be used. Typically, three full passes (one pass is down and back) with the roller operating at maximum amplitude and traveling approximately 2 to 3 mph will satisfactorily microcrack the section. After satisfactory completion of microcracking, the subgrade should be moist cured by sprinkling to a total cure time of at least 72 hours from the day of placement.

It is recommended that subgrade stabilization extend to at least one foot beyond pavement edges to aid in reducing pavement movements and cracking along the curb line due to seasonal moisture variations after construction. Each construction area should be shaped to allow drainage of surface water during earthwork operations, and surface water should be pumped immediately from each construction area after each rain and a firm subgrade condition maintained. Water should not be allowed to pond in order to prevent percolation and subgrade softening, and subgrade treatments should be added to the subgrade after removal of all surface vegetation and debris. Sand should be specifically prohibited beneath pavement areas, since these more porous soils can allow water inflow, resulting in heave and strength loss of subgrade soils. After fine grading each area in preparation for paving, the subgrade surface should be lightly moistened, as needed, and recompacted to obtain a tight non-yielding subgrade.



Surface drainage is critical to the performance of this pavement. Water should be allowed to exit the pavement surface quickly. All pavement construction should be performed in accordance with the following procedures.

## **8.2 Pavement Sections**

The project may include the construction of parking lots and/or drives. At the time of this investigation, site paving plans or vehicle traffic studies were not available. Therefore, several rigid and flexible pavement sections are presented for a 20-year design life based on our experience with similar facilities for Light-Duty Parking Areas, Medium-Duty Parking Areas and Drives, and Medium- to Heavy-Duty Drives. In general, these areas are defined as follows:

Light-Duty Parking Areas are those lots and drives subjected almost exclusively to passenger cars, with an occasional bus and/or light- to medium-duty truck (2 to 3 per week).

Medium-Duty Parking Areas and Drives are those lots subjected to a variety of light-duty vehicles to medium-duty vehicles and an occasional heavy-duty truck, including an 85 kip fire apparatus (1 to 2 per week).

Medium- to Heavy-Duty Drives are those drives subjected to a variety of light to heavy-duty vehicles. These pavements include areas subject to significant truck traffic or trash vehicles.

We recommend that rigid pavements be utilized at this project whenever possible, since they tend to provide better long-term performance when subjected to significant slow moving and turning traffic.

If asphaltic concrete pavement is used, we recommend a full depth asphaltic concrete section having a minimum total thickness of 5 inches for light-duty parking areas, 6 inches for medium-duty parking areas and drives, and 8 inches for medium- to heavy-duty drives. A minimum surface course thickness of 2 inches is recommended for asphaltic concrete pavements.

If Portland cement concrete pavement is used, a minimum thickness of 5 inches of concrete is recommended for light-duty parking areas, 6 inches for medium-duty parking areas and drives, and 7 inches for medium- to heavy-duty areas.

A California Bearing Ratio or other strength tests were not performed because they were not within the scope of our services on this project. A subgrade modulus of 100 psi was considered appropriate for the near-surface soils. If heavier vehicles are planned, the above cross sections can be confirmed by performing strength tests on the subgrade materials once the traffic



characteristics are established. Periodic maintenance of pavement structures normally improves the durability of the overall pavement and enhances its expected life.

The above sections should be considered minimum pavement thicknesses and higher traffic volumes and heavy trucks may require thicker pavement sections. Additional recommendations can be provided after traffic volumes and loads are known. Periodic maintenance should be anticipated for minimum pavement thickness. This maintenance should consist of sealing cracks and timely repair of isolated distressed areas.

### **8.3 Pavement Material Requirements**

Reinforced Portland Cement Concrete: Reinforced Portland cement concrete pavement should consist of Portland cement concrete having a 28-day compressive strength of at least 3,500 psi. The mix should be designed in accordance with the ACI Code 318 using 3 to 6 percent air entrainment. The pavement should be adequately reinforced with temperature steel and all construction joints or expansion/contraction joints should be provided with load transfer dowels. The spacing of the joints will depend primarily on the type of steel used in the pavement. We recommend using No. 3 steel rebar spaced at 18 inches on center in both the longitudinal and transverse direction. Control joints formed by sawing are recommended every 12 to 15 feet in both the longitudinal and transverse direction. The cutting of the joints should be performed as soon as the concrete has “set-up” enough to allow for sawing operations.

Hot Mix Asphaltic Concrete Surface Course: Item 340, Type D, Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, 2024 Edition.

Hot Mix Asphaltic Concrete Base Course: Item 340, Type A or B, Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, 2024 Edition.

Cement Stabilized Subgrade: Cement treatment for base course (road mix) - Item 275, Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, 2024 Edition.



Flexible Base: Crushed Stone Flexible Base – Item 247, Type A, Grade 1/2, Texas Department of Transportation Standard Specifications for Construction of Maintenance of Highways, Streets, and Bridges, 2024 Edition.

#### **8.4 General Pavement Considerations**

The design of the pavement drainage and grading should consider the potential for differential ground movement due to future soil swelling on the order of 1 inch. In order to minimize rainwater infiltration through the pavement surface, and thereby minimizing future upward movement of the pavement slabs, all cracks and joints in the pavement should be sealed on a routine basis after construction.

### **9.0 CONSTRUCTION OBSERVATIONS**

In any geotechnical investigation, the design recommendations are based on a limited amount of information about the subsurface conditions. In the analysis, the geotechnical engineer must assume the subsurface conditions are similar to the conditions encountered in the borings. However, quite often during construction anomalies in the subsurface conditions are revealed. Should such anomalies be discovered Child Care Associates should immediately notify CMJ Engineering, Inc. before proceeding further with construction to allow CMJ Engineering, Inc. to reconsider its recommendations as necessary. It is also recommended that Child Care Associates retain CMJ Engineering, Inc. to observe earthwork and foundation installation and perform materials evaluation during the construction phase of the project. This enables the geotechnical engineer to stay abreast of the project and to be readily available to evaluate unanticipated conditions, to conduct additional tests if required and, when necessary, to recommend alternative solutions to unanticipated conditions. Until these construction phase services are performed by the project geotechnical engineer, the recommendations contained in this report on such items as final foundation bearing elevations, proper soil moisture condition, and other such subsurface related recommendations shall only be considered as preliminary, and not final, recommendations.

It is proposed that construction phase observation and materials testing commence by the project geotechnical engineer at the outset of the project. Experience has shown that the most suitable method for procuring these services is for the owner or the owner's design engineers to contract directly with the project geotechnical engineer. This results in a clear, direct line of communication between the owner and the owner's design engineers and the geotechnical engineer.



## **10.0 REPORT CLOSURE**

The boring logs shown in this report contain information related to the types of soil encountered at specific locations and times and show lines delineating the interface between these materials. The logs also contain our field representative's interpretation of conditions that are believed to exist in those depth intervals between the actual samples taken. Therefore, these boring logs contain both factual and interpretive information. Laboratory soil classification tests were also performed on samples from selected depths in the borings. The results of these tests, along with visual-manual procedures were used to generally classify each stratum. Therefore, it should be understood that the classification data on the logs of borings represent visual estimates of classifications for those portions of each stratum on which the full range of laboratory soil classification tests were not performed. It is not implied that these logs are representative of subsurface conditions at other locations and times.

With regard to groundwater conditions, this report presents data on groundwater levels as they were observed during the course of the field work. In particular, water level readings have been made in the borings at the times and under conditions stated in the text of the report and on the boring logs. It should be noted that fluctuations in the level of the groundwater table can occur with passage of time due to variations in rainfall, temperature and other factors. Also, this report does not include quantitative information on rates of flow of groundwater into excavations, on pumping capacities necessary to dewater the excavations, or on methods of dewatering excavations. Unanticipated soil conditions at a construction site are commonly encountered and cannot be fully predicted by mere soil samples, test borings or test pits. Such unexpected conditions frequently require that additional expenditures be made by the owner to attain a properly designed and constructed project. Therefore, provision for some contingency fund is recommended to accommodate such potential extra cost.

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our field investigation and further on the assumption that the exploratory borings are representative of the subsurface conditions throughout the site; that is, the subsurface conditions everywhere are not significantly different from those disclosed by the borings at the time they were completed. If, during construction, different subsurface conditions from those encountered in our borings are observed, or appear to be present in excavations, we



must be advised promptly so that we can review these conditions and reconsider our recommendations where necessary. If there is a substantial lapse of time between submission of this report and the start of the work at the site (more than twelve months is considered a substantial lapse of time; however, depending on the circumstances, less than six months may be considered a substantial lapse of time), if conditions have changed due either to natural causes or to construction operations at or adjacent to the site, or if structure locations, structural loads or finish grades are changed, we urge that we be promptly informed and retained to review our report to determine the applicability of the conclusions and recommendations, considering the changed conditions and/or time lapse. In this regard, if (a) construction at the site does not start within twelve months of the date of this report and (b) CMJ Engineering, Inc. is not present at the site when construction starts to confirm that conditions have not changed since the date of this report, the information in this report cannot be relied upon or used for any purpose.

Further, it is urged that CMJ Engineering, Inc. be retained to review those portions of the plans and specifications for this particular project that pertain to earthwork and foundations as a means to determine whether the plans and specifications are consistent with the recommendations contained in this report. In addition, we are available to observe construction, particularly the compaction of structural fill, or backfill and the construction of foundations as recommended in the report, and such other field observations as might be necessary.

The scope of our services did not include any environmental assessment or investigation for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, ground water or air, on or below or around the site.

This report has been prepared for use in developing an overall design concept. Paragraphs, statements, test results, boring logs, diagrams, etc. should not be taken out of context, nor utilized without a knowledge and awareness of their intent within the overall concept of this report. The reproduction of this report, or any part thereof, supplied to persons other than the owner, should indicate that this study was made for design purposes only and that verification of the subsurface conditions for purposes of determining difficulty of excavation, trafficability, etc. are responsibilities of the contractor.

This report has been prepared for the exclusive use of Child Care Associates and their consultants for specific application to design of this project only, and not for additions or modifications to the



project. The only warranty made by us in connection with the services provided is that we have used that degree of care and skill ordinarily exercised under similar conditions by reputable members of our profession practicing in the same or similar locality. No other warranty, expressed or implied, is made or intended.

\* \* \* \*

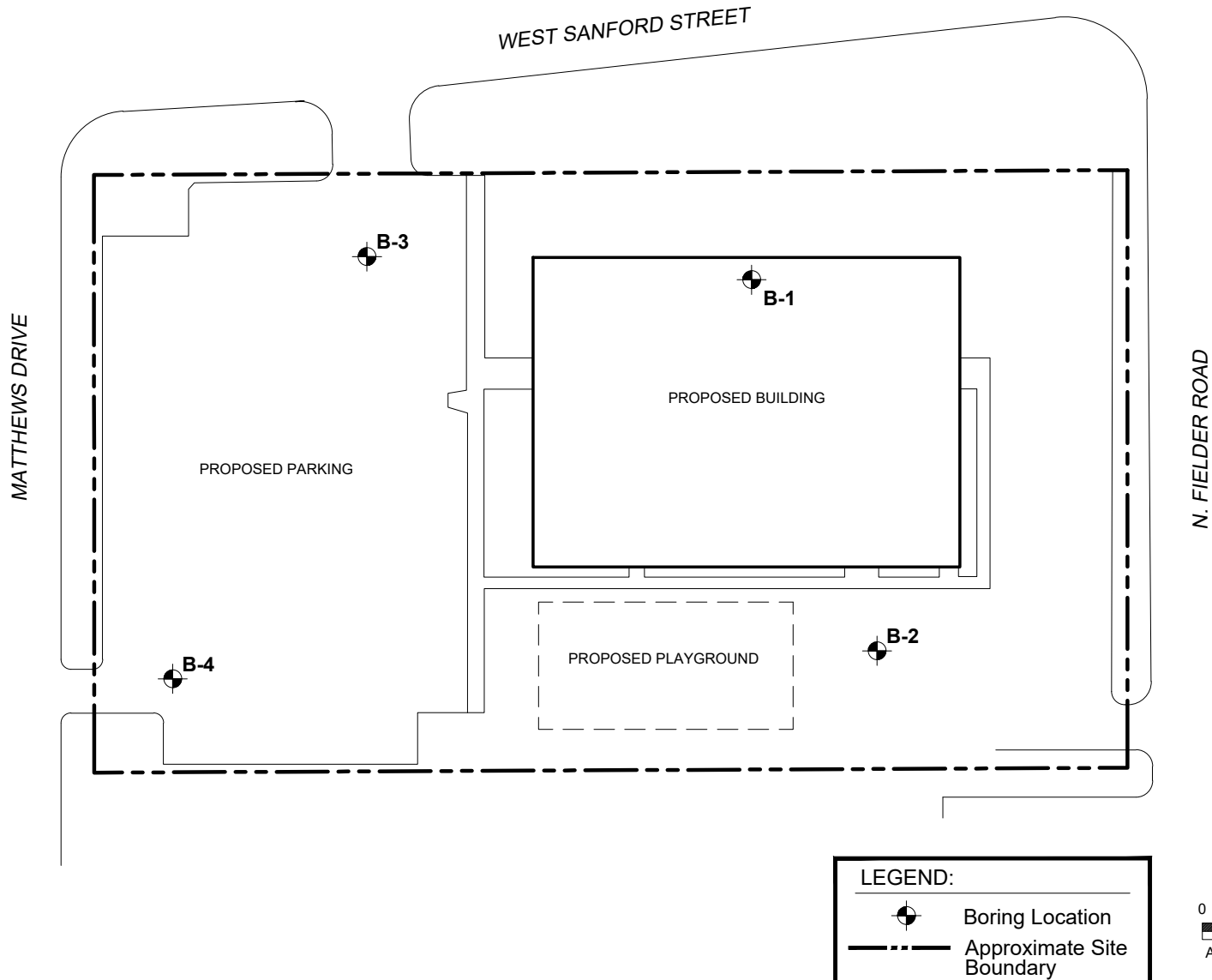


Plate  
A.1

## PLAN OF BORINGS

Child Care Associates  
N. Fielder Road  
Fort Worth, Texas

**CMJ** Engineering  
CMJ Project No. 1320-25-03





Major Divisions			Grp. Sym.	Typical Names	Laboratory Classification Criteria				
Coarse-grained soils (more than half of the material is larger than No. 200 sieve size)	Gravels (More than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	Determine percentages of sand and gravel from grain size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows: Less than 5 percent.....GW, GP, SW, SP More than 12 percent.....GM, GC, SM, SC 5 to 12 percent.....Borderline cases requiring dual symbols	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4: $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3			
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines		Not meeting all gradation requirements for GW			
		Gravels with fines (Appreciable amount of fines)	GM	Silty gravels, gravel-sand-silt mixtures		Liquid and Plastic limits below "A" line or P.I. greater than 4	Liquid and plastic limits plotting in hatched zone between 4 and 7 are borderline cases requiring use of dual symbols		
			GC	Clayey gravels, gravel-sand-clay mixtures		Liquid and Plastic limits above "A" line with P.I. greater than 7			
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines		$C_u = \frac{D_{60}}{D_{10}}$ greater than 6: $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3			
			SP	Poorly graded sands; gravelly sands, little or no fines		Not meeting all gradation requirements for SW			
		Sands with fines (Appreciable amount of fines)	SM	Silty sands, sand-silt mixtures		Liquid and Plastic limits below "A" line or P.I. less than 4	Liquid and plastic limits plotting between 4 and 7 are borderline cases requiring use of dual symbols		
			SC	Clayey sands, sand-clay mixtures		Liquid and Plastic limits above "A" line with P.I. greater than 7			
		Fine-grained soils (More than half of material is smaller than No. 200 sieve)	Silts and clays (Liquid limit less than 50)	ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity	<p>Plasticity Chart</p>		
				CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, and lean clays			
OL	Organic silts and organic silty clays of low plasticity								
Silts and clays (Liquid limit greater than 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						
	Highly Organic soils		Pt	Peat and other highly organic soils					

UNIFIED SOIL CLASSIFICATION SYSTEM

PLATE A.2



SOIL OR ROCK TYPES											
	GRAVEL		LEAN CLAY		LIMESTONE						
	SAND		SANDY		SHALE						
	SILT		SILTY		SANDSTONE						
	HIGHLY PLASTIC CLAY		CLAYEY		CONGLOMERATE	Shelby Tube	Auger	Split Spoon	Rock Core	Cone Pen	No Recovery
TERMS DESCRIBING CONSISTENCY, CONDITION, AND STRUCTURE OF SOIL											
Fine Grained Soils (More than 50% Passing No. 200 Sieve)											
Descriptive Item		Penetrometer Reading, (tsf)									
Soft		0.0 to 1.0									
Firm		1.0 to 1.5									
Stiff		1.5 to 3.0									
Very Stiff		3.0 to 4.5									
Hard		4.5+									
Coarse Grained Soils (More than 50% Retained on No. 200 Sieve)											
Penetration Resistance		Descriptive Item		Relative Density							
(blows/foot)											
0 to 4		Very Loose		0 to 20%							
4 to 10		Loose		20 to 40%							
10 to 30		Medium Dense		40 to 70%							
30 to 50		Dense		70 to 90%							
Over 50		Very Dense		90 to 100%							
Soil Structure											
Calcareous		Contains appreciable deposits of calcium carbonate; generally nodular									
Slickensided		Having inclined planes of weakness that are slick and glossy in appearance									
Laminated		Composed of thin layers of varying color or texture									
Fissured		Containing cracks, sometimes filled with fine sand or silt									
Interbedded		Composed of alternate layers of different soil types, usually in approximately equal proportions									
TERMS DESCRIBING PHYSICAL PROPERTIES OF ROCK											
Hardness and Degree of Cementation											
Very Soft or Plastic		Can be remolded in hand; corresponds in consistency up to very stiff in soils									
Soft		Can be scratched with fingernail									
Moderately Hard		Can be scratched easily with knife; cannot be scratched with fingernail									
Hard		Difficult to scratch with knife									
Very Hard		Cannot be scratched with knife									
Poorly Cemented or Friable		Easily crumbled									
Cemented		Bound together by chemically precipitated material; Quartz, calcite, dolomite, siderite, and iron oxide are common cementing materials.									
Degree of Weathering											
Unweathered		Rock in its natural state before being exposed to atmospheric agents									
Slightly Weathered		Noted predominantly by color change with no disintegrated zones									
Weathered		Complete color change with zones of slightly decomposed rock									
Extremely Weathered		Complete color change with consistency, texture, and general appearance approaching soil									
KEY TO CLASSIFICATION AND SYMBOLS										PLATE A.3	



Project No. <b>1320-25-03</b>		Boring No. <b>B-1</b>		Project <b>Child Care Associates 696 N. Fielder Road - Arlington, Texas</b>	
Location <b>See Plate A.1</b>		Water Observations <b>Seepage at 20' during drilling; water at 24' at completion</b>			
Completion Depth <b>45.0'</b>		Completion Date <b>3-27-25</b>			
Surface Elevation		Type <b>B-53 w/ CFA</b>			
Depth, Ft.	Symbol	Samples	Stratum Description		
				REC %	RQD %
				Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %
				Liquid Limit, %	Plastic Limit, %
				Plasticity Index	Moisture Content, %
					Unit Dry Wt. Lbs./Cu. Ft.
					Unconfined Compression Pounds/Sq. Ft.
5			<b>CLAYEY SAND</b> , reddish brown and brown, w/ sand seams and layers and occasional ironstone nodules	1.0	7
				0.75	8
				0.25	9
				0.25	10
				1.25	10
					11
10			<b>CLAYEY SAND</b> , brown, light brown, and tan, w/ occasional ironstone nodules and calcareous nodules, stiff	1.5	17
				2.75	14
					115
					4500
				2.25	17
20			<b>CEMENTED SAND</b> , tan, w/ sandy clay seams and layers, very dense		
				50/5.5"	25
25			<b>SANDY CLAY</b> , light gray and tan		
				50/5"	
30			<b>CEMENTED SAND</b> , tan, w/ sandy clay seams and layers, very dense		
				50/5.25"	29
35					
				50/4.75"	
40					
				50/5"	
45					

LOG OF BORING 1320-25-03.GPJ CMJ.GDT 4/28/25



Project No. <b>1320-25-03</b>		Boring No. <b>B-2</b>		Project <b>Child Care Associates</b> <b>696 N. Fielder Road - Arlington, Texas</b>												
Location <b>See Plate A.1</b>				Water Observations <b>Seepage at 13' during drilling; water at 15' at completion</b>												
Completion Depth <b>45.0'</b>		Completion Date <b>3-27-25</b>														
Depth, Ft.	Symbol	Samples	Surface Elevation		Type <b>B-53 w/ CFA</b>		REC %	RQD %	Blows/Ft. or Pen Reading, T.S.F.	Passing No 200 Sieve, %	Liquid Limit, %	Plastic Limit, %	Plasticity Index	Moisture Content, %	Unit Dry Wt. Lbs./Cu. Ft.	Unconfined Compression Pounds/Sq. Ft.
			<b>Stratum Description</b>													
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LOG OF BORING 1320-25-03.GPJ CMJ.GDT 4/28/25











## **FREE SWELL TEST RESULTS**

Project: Child Care Associates  
696 N. Fielder Road – Arlington, Texas

Project No.: 1320-25-03

Boring No.	Depth Interval (ft.)	Sample Description	Liquid Limit	Plastic Limit	Plasticity Index	Moisture Content %		Percent Swell (%)
			LL	PL	PI	Initial	Final	
B-2	7 –8	Clayey Sand	23	13	10	7.9	14.1	0.0

Free swell tests performed at approximate overburden pressure



## **SOLUBLE SULFATE TEST RESULTS**

Project: Child Care Associates  
696 N. Fielder Road – Arlington, Texas

Project No.: 1320-25-03

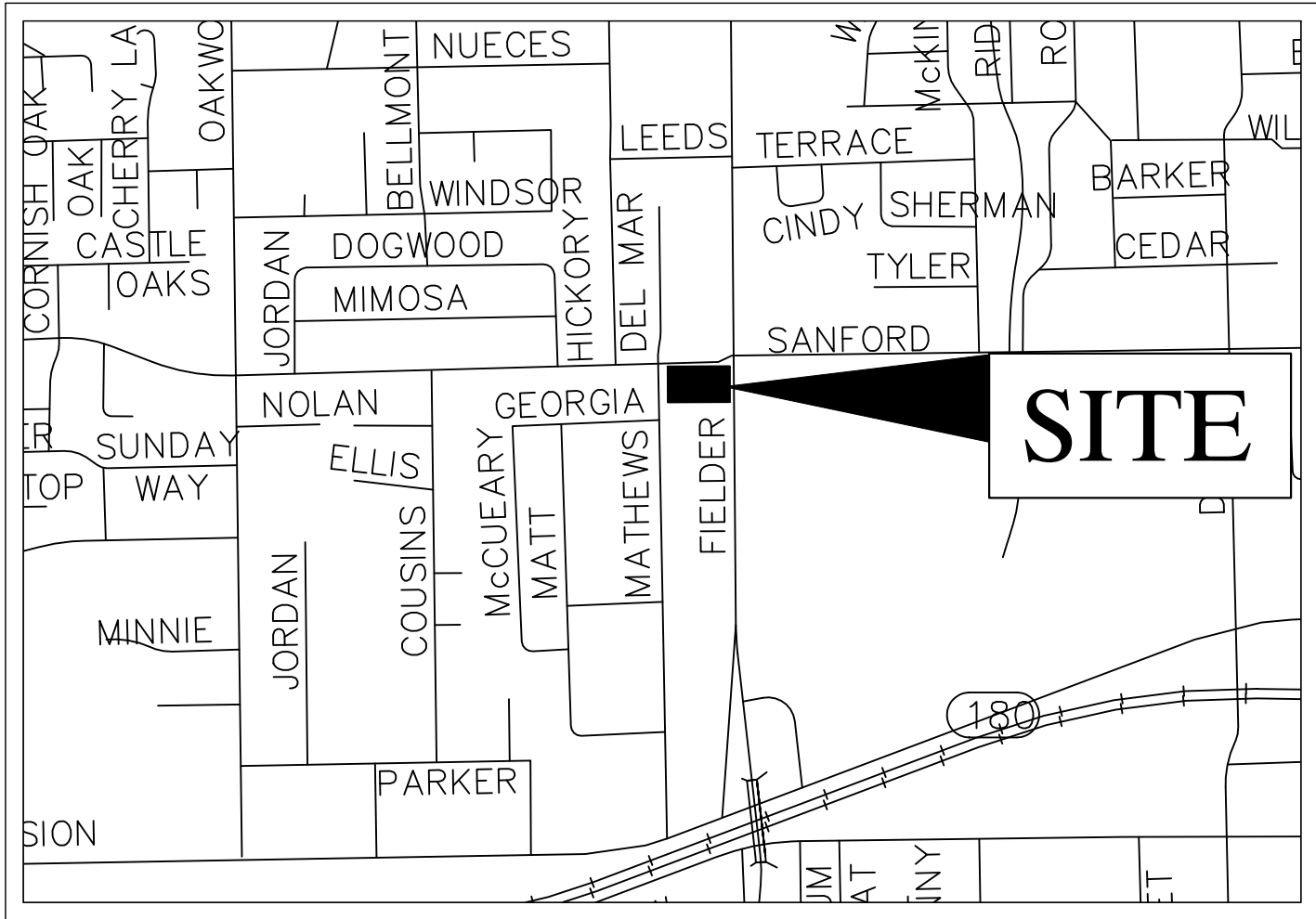
<b>Boring No.</b>	<b>Depth (ft.)</b>	<b>Material</b>	<b>Soluble Sulfates (ppm)</b>
B-3	3.5" – 1	Clayey Sand	<100
B-4	4" – 1	Clayey Sand	<100

Note: Test Method TxDOT Tex 145-E.



CIVIL CONSTRUCTION PLANS  
FOR  
CHILD CARE STUDIO  
AT FIELDER

1620 W. SANFORD STREET  
ARLINGTON, TARRANT COUNTY  
TEXAS 76012



VICINITY MAP  
N.T.S.

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
C-00	COVER
--	RECORDED PLAT (BY OTHERS)
C-01	GENERAL NOTES
C-02	SITE PLAN
C-03	DEMOLITION PLAN
C-04	DIMENSION CONTROL AND PAVING PLAN
C-06	GRADING PLAN
C-07	EXISTING DRAINAGE AREA MAP
C-08	PROPOSED DRAINAGE AREA MAP
C-09	STORM SEWER PLAN
C-09.1	STORMWATER MANAGEMENT PLAN
C-10	UTILITY PLAN
C-11	EROSION CONTROL PLAN
C-12	EROSION CONTROL DETAILS
C-13	PAVING DETAILS (SHEET 1 OF 2)
C-14	PAVING DETAILS (SHEET 2 OF 2)
C-15	WATER DETAILS (SHEET 1 OF 2)
C-16	WATER DETAILS (SHEET 2 OF 2)
C-17	SEWER & STORM DETAILS

PLANS SUBMITTAL/REVIEW LOG

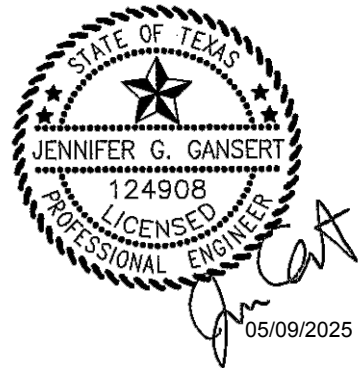
1ST CITY SUBMITTAL	03/21/2025
BID SUBMITTAL	04/28/2025
- PLANS HAVE NOT BEEN APPROVED FOR CONSTRUCTION BY CITY OF ARLINGTON	
2ND CITY SUBMITTAL	05/09/2025
ADDENDUM 1	05/09/2025

DEVELOPER:  
CHILD CARE ASSOCIATES  
300 E. BELKNAP  
FORT WORTH, TEXAS 76111  
PH. (817) 838-0055  
CONTACT: WILLIE RANKIN

ARCHITECT:  
HUCKABEE ARCHITECTS  
801 CHERRY ST. STE 500  
FORT WORTH, TEXAS 76102  
PH. (817) 377-2969  
CONTACT: CORRIE HOOD

ENGINEER  
**Kimley»Horn**  
801 CHERRY ST.  
UNIT 11, SUITE 1300  
FORT WORTH, TEXAS 76102  
PH (972) 770-1343  
CONTACT: JENNIFER GANSERT, P.E.

MAY 2025



Know what's below.  
Call before you dig.

AMANDA NO. 2025 023806

Kimley»Horn

801 CHERRY ST.  
UNIT 11, SUITE 1300  
FORT WORTH, TEXAS 76102  
Tel: (972) 770-1343  
Fax: (817) 335-6511

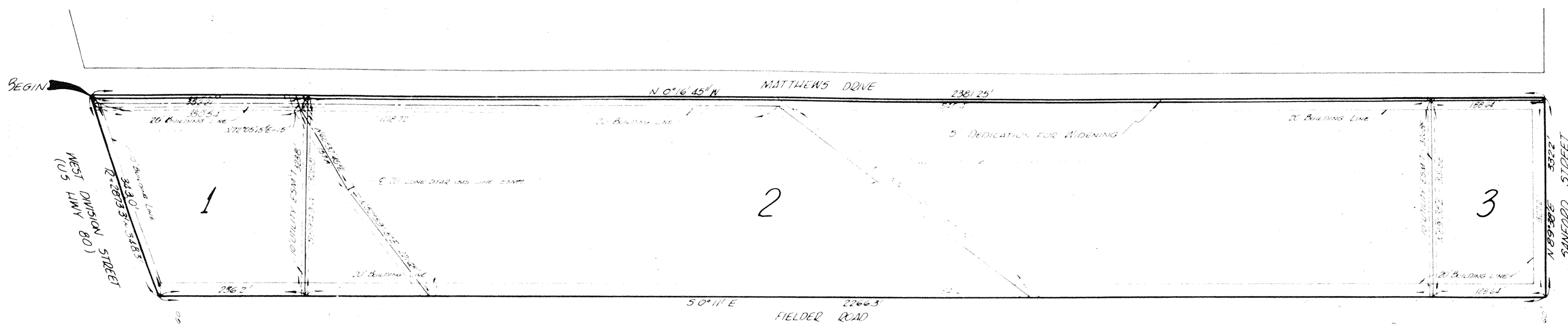


# PLAT RECORD VOLUME 388 31

DEC-3-70 95749 A-WD 12.00

388-61  
47

47



PLAT SHOWING

## LOTS 1,2,& 3 DJS Addition

CITY OF ARLINGTON  
TARRANT COUNTY, TEXAS

BEING A SUBDIVISION OF A TRACT OF  
LAND IN THE W.W. WARELL SURVEY  
1801, 1015

0 100 200 300 400 500  
SCALE IN FEET

THE STATE OF TEXAS  
COUNTY OF TARRANT  
WHEREAS, THE D.J.S. CORPORATION, BEING THE OWNER OF THE FOLLOWING  
DESCRIBED PROPERTY TO WIT:

SITUATED IN THE CITY OF ARLINGTON, TARRANT COUNTY, TEXAS  
AND BEING A TRACT OF LAND IN THE W.W. WARELL SURVEY,  
ABSTRACT NO. 1015, AND BEING A PORTION OF THAT CERTAIN  
TRACT OF LAND KNOWN AS THE GRAND ROYAL ARCH CHAPTER OF  
TEXAS HOME FOR AGED MASONS, AND BEING MORE PARTICULARLY  
DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID HOME FOR AGED  
MASONS TRACT, SAID POINT BEING AN IRON PIPE AT THE INTER-  
SECTION OF THE EAST LINE OF MATTHEWS DRIVE WITH THE NORTH  
LINE OF WEST DIVISION STREET (U.S. HIGHWAY 80);

THENCE NORTH 0 DEGREES 16 MINUTES, 45 SECONDS WEST WITH SAID  
EAST LINE OF MATTHEWS DRIVE 2381.25 FEET TO AN IRON ROD AT  
THE INTERSECTION OF SAID EAST LINE OF MATTHEWS DRIVE WITH  
THE SOUTH LINE OF SANFORD STREET;

THENCE NORTH 89 DEGREES, 38 MINUTES, EAST WITH SAID SOUTH  
LINE OF SANFORD STREET, 332.2 FEET TO AN IRON ROD IN THE  
WEST LINE OF FIELDER ROAD;

THENCE SOUTH 0 DEGREES 11 MINUTES EAST WITH SAID WEST LINE  
OF FIELDER ROAD 2266.5 FEET TO AN IRON ROD IN SAID NORTH  
LINE OF WEST DIVISION STREET;

THENCE SOUTHWESTERLY WITH SAID NORTH LINE OF WEST DIVISION  
STREET, AND WITH A CURVE TO THE RIGHT WITH A RADIUS OF  
2873.3 FEET, A DISTANCE OF 348.3 FEET TO THE PLACE OF BEGIN-  
NING.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS, THAT THE D.J.S. CORPORATION  
ACTING THROUGH ITS AUTHORIZED REPRESENTATIVE CLINT M. SMITH, DOER HERELY  
ADOPT THE PLAT AS SHOWN HEREON AS ITS PLAN FOR SUBDIVIDING SAME AND  
HEREBY DEDICATES TO THE USE OF THE PUBLIC FOREVER THE  
EASEMENTS AS SHOWN.

D.J.S. CORPORATION

Clint M. Smith Pres.

CLINT M. SMITH PRES.

THE STATE OF TEXAS  
COUNTY OF TARRANT

BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY  
APPEARED CLINT M. SMITH, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS  
SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THAT HE EXECUTED  
THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 19<sup>TH</sup> DAY OF November 1970.

NOTARY PUBLIC IN AND FOR TARRANT COUNTY, TEXAS

STATE OF TEXAS  
COUNTY OF TARRANT

I hereby certify that this instrument was filed on the  
date and at the time stamped hereon by me and was duly  
RECORDED in the Volume and Page of this Plat  
of Tarrant County, Texas, to which it is referred to.

DEC 2 1970  
COUNTY CLERK  
TARRANT COUNTY, TEXAS

Sec. Sec. Sec.  
P.O. Box 7021  
City - 76111

Approved Nov 25, 1970  
CITY PLANNING COMMISSION  
Arlington, Tarrant County, Texas  
By: Ralph H. Brown  
Chairman

	Surveyed on the ground, under my supervision. 12/1/70 Gerald A. Curtis	SURTEX, INC. REGISTERED PUBLIC SURVEYORS R. A. HEFFINGTON GERALD A. CURTIS 2809 RACE STREET P.O. Box 7021 FORT WORTH, TEXAS 76111 817/834-7481
	100% AREA 100% AREA 100% AREA	

FILED  
TARRANT COUNTY, TEXAS  
70 DEC 2 PM 2:34  
COUNTY CLERK  
BY: [Signature]



GENERAL NOTES

OVERALL:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE PLANS, CITY (OR TOWN) STANDARD DETAILS AND ANY ORDINANCES THAT APPLY TO THE CONSTRUCTION SITE. THE MORE RESTRICTIVE SHALL APPLY.
2. THE CONTRACTOR SHALL COMPLY WITH CITY (OR TOWN) "GENERAL NOTES" FOR CONSTRUCTION, IF EXISTING AND REQUIRED BY THE CITY. IF THE CITY DOES NOT HAVE SUCH REQUIREMENTS, THE MORE RESTRICTIVE SHALL APPLY.
3. THE CONTRACTOR SHALL FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE AUTHORITIES' SPECIFICATIONS AND REQUIREMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXISTING CONDITIONS.
5. THE EXISTING CONDITIONS SHOWN ON THESE PLANS WERE PROVIDED BY THE TOPOGRAPHIC SURVEY PREPARED BY THE PROJECT SURVEYOR, AND ARE BASED ON THE BENCHMARKS SHOWN. THE CONTRACTOR SHALL REFERENCE THE SAME BENCHMARKS.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY THE EXISTING TOPOGRAPHIC SURVEY SHOWN ON THE PLANS REPRESENTS EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DISCREPANCIES FOUND TO THE OWNER AND ENGINEER IMMEDIATELY.
7. IF THE CONTRACTOR DOES NOT ACCEPT THE EXISTING TOPOGRAPHIC SURVEY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUBMIT A REQUEST FOR A TOPOGRAPHIC SURVEY BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THE OWNER AND ENGINEER FOR REVIEW.
8. CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SURVEYING AND STAKING.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL, INCLUDING BENCHMARKS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS. PROPERTY LINES AND CORNERS SHALL BE HELD AS THE HORIZONTAL CONTROL.
10. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ARCHITECT, ENGINEER, AND IF APPLICABLE THE CITY AND OWNER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE CITY, ENGINEER, AND OWNER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
11. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WORK.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE THEM LOCATE THEIR EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
13. CONTRACTOR SHALL CALL TEXAS 811 AN ADEQUATE AMOUNT OF TIME PRIOR TO COMMENCING CONSTRUCTION OR ANY EXCAVATION. THE CONTRACTOR SHALL USE EXTREME CAUTION AS THE SITE CONTAINS VARIOUS KNOWN AND UNKNOWN PUBLIC AND PRIVATE UTILITIES.
14. THE LOCATIONS, ELEVATIONS, DEPTH, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY MAPS AND PLANS, AND ARE CONSIDERED APPROXIMATE AND INCOMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, DEPTH, AND DIMENSIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. SUFFICIENTLY IN ADVANCE OF CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE ENGINEER SHALL BE NOTIFIED WHEN A PROPOSED IMPROVEMENT CONFLICTS WITH AN EXISTING UTILITY.
15. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY ADJUSTMENTS AND RELOCATIONS OF EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, ADJUSTING EXISTING MANHOLES TO MATCH PROPOSED GRADE, RELOCATING EXISTING POLES AND GUY WIRES THAT ARE LOCATED IN PROPOSED DRIVEWAYS, ADJUSTING THE HORIZONTAL OR VERTICAL ALIGNMENT OF EXISTING UNDERGROUND UTILITIES TO ACCOMMODATE PROPOSED GRADE OR CROSSING WITH A PROPOSED UTILITY, AND ANY OTHERS THAT MAY BE ENCOUNTERED THAT ARE UNKNOWN AT THIS TIME AND NOT SHOWN ON THESE PLANS.
16. CONTRACTOR SHALL ARRANGE FOR OR PROVIDE, AT ITS EXPENSE, ALL GAS, TELECOMMUNICATIONS, CABLE, OVERHEAD AND UNDERGROUND POWER LINE, AND UTILITY POLE ADJUSTMENTS NEEDED.
17. CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF FRANCHISE UTILITIES THAT ARE NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION, AND SERVICE TO THE PROPOSED DEVELOPMENT.
18. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTORS' FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
19. BRACING OF UTILITY POLES MAY BE REQUIRED BY THE UTILITY COMPANIES WHEN TRENCHING OR EXCAVATING IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR, WITH NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE PAY ITEM.
20. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, FEDERAL, AND UTILITY OWNER REGULATIONS PERTAINING TO WORK SETBACKS FROM POWER LINES.
21. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, APPROVALS, AND BONDS PRIOR TO CONSTRUCTION.
22. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES A COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, GEOTECHNICAL REPORT AND ADDENDA, PROJECT AND CITY SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
23. ALL SHOP DRAWINGS AND OTHER DOCUMENTS THAT REQUIRE ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM, SO THAT NO LESS THAN 10 BUSINESS DAYS FOR REVIEW AND RESPONSE IS AVAILABLE.
24. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES, AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO USE OF THE FACILITY AND THE FINAL CONNECTION OF SERVICES.
25. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT PROPERTY AND UTILITIES.
27. ALL SYMBOLS SHOWN ON THESE PLANS (E.G. FIRE HYDRANT, METERS, VALVES, INLETS, ETC...) ARE FOR PRESENTATION PURPOSES ONLY AND ARE NOT TO SCALE. CONTRACTOR SHALL COORDINATE FINAL SIZES AND LOCATIONS WITH APPROPRIATE CITY INSPECTOR.
28. FOR THE SCOPE OF IMPROVEMENTS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE BUILDING PLANS (E.G. ARCHITECTURAL, STRUCTURAL, MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
29. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL FINAL BUILDING DIMENSIONS.
30. THE PROPOSED BUILDING FOOTPRINT(S) SHOWN IN THESE PLANS WAS PROVIDED TO KIMLEY-HORN AND ASSOCIATES, INC. (KH) BY THE PROJECT ARCHITECT AT THE TIME THESE PLANS WERE PREPARED. IT MAY NOT BE THE FINAL CORRECT VERSION BECAUSE THE BUILDING DESIGN WAS ONGOING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE FINAL CORRECT VERSION OF THE BUILDING FOOTPRINT WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO LAYOUT. DIMENSIONS AND LOCATIONS OF THE PROPOSED BUILDING SHOWN ON THESE PLANS WERE BASED ON THE ABOVE STATED ARCHITECTURAL FOOTPRINT, AND ARE THEREFORE A PRELIMINARY LOCATION OF THE BUILDING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY WHAT PART OF THE BUILDING THE ARCHITECT'S FOOTPRINT REPRESENTS (E.G. SLAB, OUTSIDE WALL, MASONRY LEDGE, ETC...) AND TO CONFIRM ITS FINAL POSITION ON THE SITE BASED ON THE FINAL ARCHITECTURAL FOOTPRINT, CIVIL DIMENSION CONTROL PLAN, SURVEY BOUNDARY AND/OR PLAT. ANY DIFFERENCES FOUND SHALL BE REPORTED TO KH IMMEDIATELY.
31. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECTS FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSIDIARY ADDENDA.
32. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL MATERIALS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND COMPLY WITH CITY STANDARD SPECIFICATIONS AND GEOTECHNICAL REPORT. TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING MATERIALS. OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR MATERIALS TESTING.
33. ALL COPIES OF MATERIALS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING AGENCY.
34. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE MATERIALS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
35. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORTS RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
36. ALL CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS OUTSIDE OF THE WORK AREA WILL BE ALLOWED. ANY DAMAGE RESULTING FROM THE CONTRACTORS' SOLE RESPONSIBILITY TO THE ADJACENT PROPERTY OR UTILITIES.
37. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, MANHOLES, POLES, GUY WIRES, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, COMMUNICATION BOXES/PEDESTALS, AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR ANY DAMAGES AT NO COST TO THE OWNER.
38. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY OR PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCES, WALLS, SIGNS, PAVEMENT, CURBS, UTILITIES, SIDEWALKS, GRASS, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS, ETC... TO ORIGINAL CONDITION OR BETTER AT NO COST TO THE OWNER.
39. ALL AREAS IN EXISTING RIGHT-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER, INCLUDING AS NECESSARY GRADING, LANDSCAPING, CULVERTS, AND PAVEMENT.
40. THE CONTRACTOR SHALL SALVAGE ALL EXISTING POWER POLES, SIGNS, WATER VALVES, FIRE HYDRANTS, METERS, ETC... THAT ARE TO BE RELOCATED DURING CONSTRUCTION.
41. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
42. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REGULATIONS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
43. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
44. SITE SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
45. THESE PLANS DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE ENGINEER'S SEAL HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL REQUIRED SAFETY PROCEDURES AND PROGRAMS.
46. SIGNS RELATED TO SITE OPERATION OR SAFETY ARE NOT INCLUDED IN THESE PLANS.
47. CONTRACTOR OFFICE AND STAGING AREA SHALL BE AGREED ON BY THE OWNER AND CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING REQUIREMENTS FOR THE CONSTRUCTION OFFICE, TRAILER, STORAGE, AND STAGING OPERATIONS AND LOCATIONS.
48. LIGHT POLES, SIGNS, AND OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN ACCESSIBLE ROUTES.
49. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
50. TOP RIM ELEVATIONS OF ALL EXISTING AND PROPOSED MANHOLES SHALL BE COORDINATED WITH TOP OF PAVEMENT OR FINISHED GRADE AND SHALL BE ADJUSTED TO BE FLUSH WITH THE ACTUAL FINISHED GRADE AT THE TIME OF PAVING.
51. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED VALVES, FIRE HYDRANTS, AND OTHER UTILITY APPURTENANCES TO MATCH ACTUAL FINISHED GRADES AT THE TIME OF PAVING.
52. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND PHASING, AND SHALL CONTACT THE APPROPRIATE CITY OFFICIALS, INCLUDING BUILDING OFFICIAL, ENGINEERING INSPECTOR, AND FIRE MARSHAL TO LEARN OF ANY REQUIREMENTS.
53. CONTRACTOR IS RESPONSIBLE FOR PREPARATION, SUBMITTAL, AND APPROVAL BY THE CITY OF A TRAFFIC CONTROL PLAN PRIOR TO THE START OF CONSTRUCTION, AND THEN THE IMPLEMENTATION OF THE PLAN.
54. CONTRACTOR SHALL KEEP A NEAT AND ACCURATE RECORD OF CONSTRUCTION, INCLUDING ANY DEVIATIONS OR VARIANCES FROM THE PLANS.
55. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT PLANS TO THE ENGINEER AND CITY IDENTIFYING ALL DEVIATIONS AND VARIATIONS FROM THESE PLANS MADE DURING CONSTRUCTION.

EROSION CONTROL:

1. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL AND WATER QUALITY REQUIREMENTS, LAWS, AND ORDINANCES THAT APPLY TO THE CONSTRUCTION SITE AND DISTURBANCE.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE "TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 19000".
3. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE.
4. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INSTALLATION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL EROSION CONTROL DEVICES, BEST MANAGEMENT PRACTICES (BMPs), AND FOR UPDATING THE EROSION CONTROL PLAN DURING CONSTRUCTION AS FIELD CONDITIONS CHANGE.
6. CONTRACTOR SHALL DOCUMENT THE DATES OF INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL FOR EACH BMP EMPLOYED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE.
7. AS STORM SEWER INLETS ARE INSTALLED ON-SITE, TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED AT EACH INLET PER APPROVED DETAILS.
8. CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL DEVICES NEEDED DUE TO PROJECT PHASING.
9. CONTRACTOR SHALL OBSERVE THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND MAKE FIELD ADJUSTMENTS AND MODIFICATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE. IF THE EROSION CONTROL DEVICES DO NOT

EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

1. OFF-SITE SOIL BORROW, SPOIL, AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMPs TO PREVENT EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GRASS COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPs FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN.
2. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. WHERE THE DISTURBANCE IS DEEPER THAN 6 INCHES OR DEEPER AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKLET IF APPLICABLE. TO VERIFY THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY.
3. CONTRACTORS SHALL INSPECT ALL EROSION CONTROL DEVICES, BMPs, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS FOR EROSION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A RESULT OF THE CONSTRUCTION, AS REQUESTED BY OWNER AND CITY. AT A MINIMUM, THIS SHOULD OCCUR ONCE PER DAY FOR THE OFF-SITE ROADWAYS.
4. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP.
5. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER TCEQ AND CITY STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE PLANS, THEN THE CONTRACTOR SHALL ARRANGE FOR AN APPROPRIATE DESIGN TO BE PROVIDED.
6. ALL FINES IMPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONES OR DIRT IS BEING TRACKED ONLY ON THE DRIVEWAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING THE SEDIMENT FROM THE WASH-DOWN OPERATION SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL SEDIMENTATION.
7. PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE.
8. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
9. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
10. NO EARTHWORK FILL SHALL BE PLACED IN ANY EXISTING DRAINAGE WAY, SWALE, CHANNEL, DITCH, CREEK, OR FLOODPLAIN FOR ANY REASON OR ANY LENGTH OF TIME, UNLESS THESE PLANS SPECIFICALLY INDICATE THIS IS REQUIRED.
11. TEMPORARY CULVERTS MAY BE USED TO MAINTAIN FLOW OF WATER THROUGH THE PROJECT SITE.
12. REFER TO DIMENSION CONTROL PLAN AND PLAT FOR HORIZONTAL AND VERTICAL ALIGNMENT.
13. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND CONDITION FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
14. CONTRACTOR IS RESPONSIBLE FOR ALL SOILS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL SOILS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND COMPLY WITH CITY STANDARD SPECIFICATIONS AND GEOTECHNICAL REPORT. TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING SOILS. THE OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR SOILS TESTING.
15. ALL COPIES OF SOILS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING AGENCY.
16. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE SOILS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
17. THE SCOPE OF WORK FOR CIVIL IMPROVEMENT SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT AND STRUCTURAL PLANS AND SPECIFICATIONS FINAL, CONDITIONING, AND PREPARATION IN THE BUILDING PAD.
18. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORTS RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
19. EROSION CONTROL DEVICES SHOWN ON THESE PLANS WERE PROVIDED TO KIMLEY-HORN AND ASSOCIATES, INC. (KH) BY THE PROJECT ARCHITECT AT THE TIME THESE PLANS WERE PREPARED. IT MAY NOT BE THE FINAL CORRECT VERSION BECAUSE THE BUILDING DESIGN WAS ONGOING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE FINAL CORRECT VERSION OF THE BUILDING FOOTPRINT WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO LAYOUT. DIMENSIONS AND LOCATIONS OF THE PROPOSED BUILDING SHOWN ON THESE PLANS WERE BASED ON THE ABOVE STATED ARCHITECTURAL FOOTPRINT, AND ARE THEREFORE A PRELIMINARY LOCATION OF THE BUILDING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY WHAT PART OF THE BUILDING THE ARCHITECT'S FOOTPRINT REPRESENTS (E.G. SLAB, OUTSIDE WALL, MASONRY LEDGE, ETC...) AND TO CONFIRM ITS FINAL POSITION ON THE SITE BASED ON THE FINAL ARCHITECTURAL FOOTPRINT, CIVIL DIMENSION CONTROL PLAN, SURVEY BOUNDARY AND/OR PLAT. ANY DIFFERENCES FOUND SHALL BE REPORTED TO KH IMMEDIATELY.
20. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY OR PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCES, WALLS, SIGNS, PAVEMENT, CURBS, UTILITIES, SIDEWALKS, GRASS, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS, ETC... TO ORIGINAL CONDITION OR BETTER AT NO COST TO THE OWNER.
21. ALL AREAS IN EXISTING RIGHT-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER, INCLUDING AS NECESSARY GRADING, LANDSCAPING, CULVERTS, AND PAVEMENT.
22. THE CONTRACTOR SHALL SALVAGE ALL EXISTING POWER POLES, SIGNS, WATER VALVES, FIRE HYDRANTS, METERS, ETC... THAT ARE TO BE RELOCATED DURING CONSTRUCTION.
23. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
24. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REGULATIONS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
25. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.

STORM WATER DISCHARGE AUTHORIZATION:

1. CONTRACTOR SHALL COMPLY WITH ALL TCEQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 19000.
3. THE CONTRACTOR SHALL ENSURE THAT ALL PRIMARY OPERATORS SUBMIT A NOI TO TCEQ AT LEAST SEVEN DAYS PRIOR TO COMMENCING CONSTRUCTION (IF APPLICABLE), OR IF UTILIZING ELECTRONIC SUBMITTAL, PRIOR TO COMMENCING CONSTRUCTION.
4. CONTRACTOR SHALL SUBMIT A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MSA (TYPICALLY THE CITY) RECEIVING DISCHARGE FROM THE SITE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE, INCLUDING POSTING SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF ANY INFORMATION REQUIRED BY THE TCEQ AND EPA (E.G. SWPPP, EROSION CONTROL PLAN, INSPECTION REPORTS, ETC.).
6. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP.
7. A COPY OF THE SWPPP, INCLUDING THE SIGNATURE OF THE CONTRACTOR, SHALL BE SUBMITTED TO THE CITY BY THE CONTRACTOR AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.
8. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO TCEQ BY ANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNDISTURBED AREAS AND AREAS SUBJECT OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATIVE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MSA RECEIVING DISCHARGE FROM THE SITE.

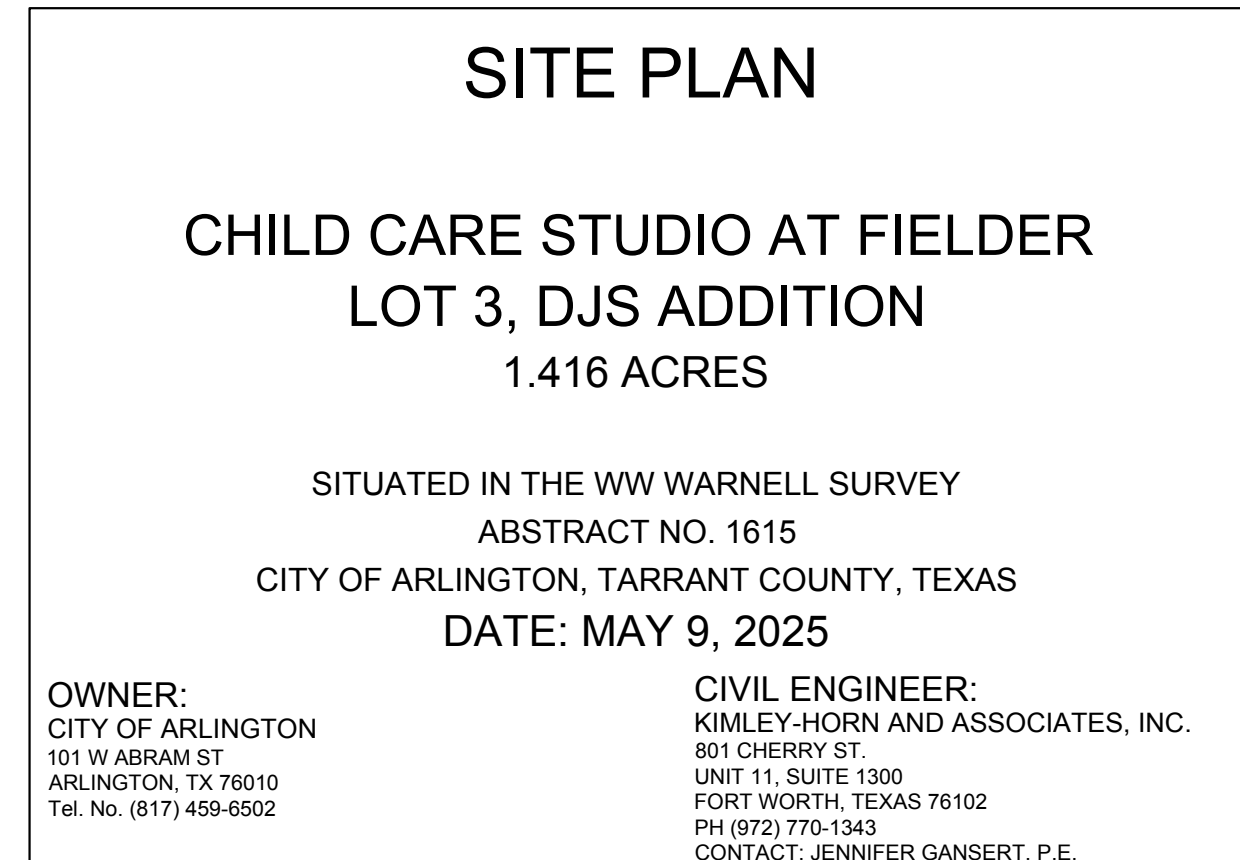
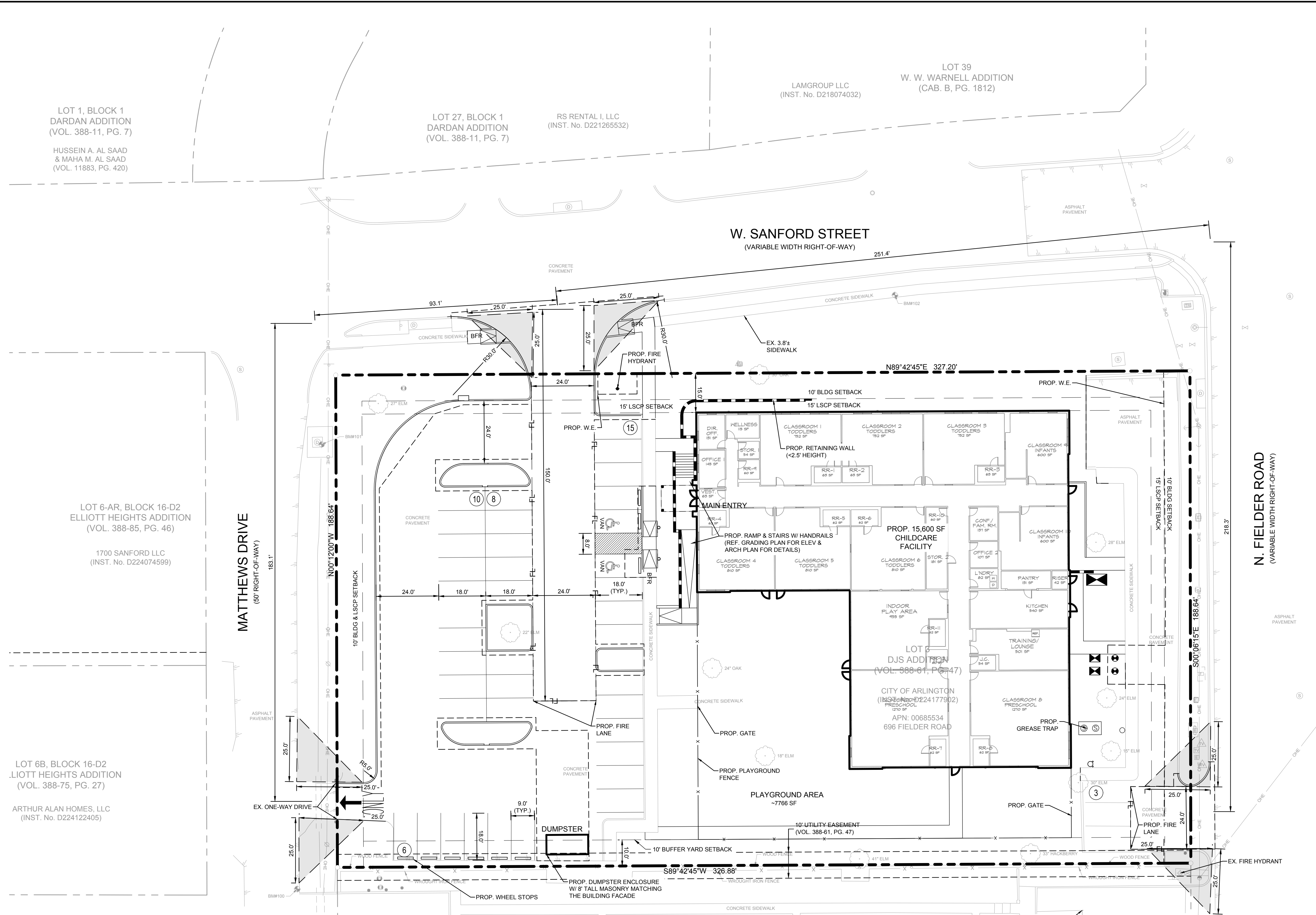
DEMOLITION:

1. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED.
2. KH DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, IN NO CASE SHALL THE CONTRACTOR BE RESPONSIBLE FOR PERFORMING ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF THEIR FACILITIES.
3. THIS PLAN IS INTENDED TO GIVE A GENERAL GUIDE TO THE CONTRACTOR NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE PROPERTY IN A STATE SUITABLE FOR THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION: A. ENVIRONMENTAL SITE ASSESSMENT PROVIDED BY THE OWNER. B. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER. C. GEOTECHNICAL REPORT PROVIDED BY THE OWNER. D. OTHER REPORTS THAT ARE APPLICABLE TO THE PROJECT.
5. CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REGULATIONS, RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY WITH ALL REQUIREMENTS.
7. KH HAS CONDUCTED A VISUAL INSPECTION OF THE PROJECT SITE AND HAS OBSERVED THE FOLLOWING: A. THE PROJECT SITE IS SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED. B. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT, FOUNDATIONS OR WALLS, THAT ARE ALSO TO BE REMOVED.















GRADING:

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL OBTAIN ANY REQUIRED GRADING PERMITS FROM THE CITY.
3. WHERE COVERED AREAS ARE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE. IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB ELEVATION.
4. THE CONTRACTOR SHALL PROVIDE SPOT ELEVATIONS AND CONTOURS OUTSIDE THE PAVEMENT ARE TO TOP OF FINISHED GRADE.
5. PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN CASE OF DISCREPANCY.
6. ALL FINISHED GRADES SHALL TRANSITION UNIFORMLY BETWEEN THE FINISHED ELEVATIONS SHOWN.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT PROPERTY AND UTILITIES.
8. DURING THE GRADING OPERATIONS, THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE ELEVATION HOLD-DOWN ALLOWANCE FOR THE THICKNESS OF PAVEMENT, SIDEWALK, TOPSOIL, MULCH, STONE, LANDSCAPING, RIP-RAP AND ALL OTHER SURFACE MATERIALS THAT WILL BE PLACED ON TOP OF FINISHED GRADE. FOR EXAMPLE, THE LIMITS OF EARTHWORK IN PAVED AREAS IS THE BOTTOM OF THE PAVEMENT SECTION.
9. NO REPRESENTATIONS OF EARTHWORK QUANTITIES OR SITE BALANCE ARE MADE BY THESE PLANS. THE CONTRACTOR SHALL PROVIDE THEIR OWN EARTHWORK CALCULATION TO DETERMINE THEIR CONTRACT QUANTITIES AND COST. ANY SIGNIFICANT VARIANCE FROM A BALANCED BUDGET SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER.
10. ALL GRADING AND EARTHWORK SHALL COMPLY WITH THE PROJECTS FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSIDIARY ADDENDA.
11. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
12. WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE REMOVED FROM THE SITE AND APPROPRIATELY DISPOSED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE.
13. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS AND REQUIREMENTS.
14. BEFORE ANY EARTHWORK IS PERFORMED, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF THE PROJECTS PROPERTY LINE AND SITE IMPROVEMENTS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
15. CONTRACTOR TO DISPOSE OF ALL EXCESS EXCAVATION MATERIALS IN A MANNER THAT ADHERES TO LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. THE CONTRACTOR SHALL KEEP A RECORD OF WHERE EXCESS EXCAVATION WAS DISPOSED, ALONG WITH THE RECEIVING LANDOWNERS APPROVAL TO DO SO.
16. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF TOPSOIL AT THE COMPLETION OF FINE GRADING. CONTRACTOR SHALL REFER TO LANDSCAPE ARCHITECTURE PLANS FOR SPECIFICATIONS AND REQUIREMENTS FOR TOPSOIL.
17. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
-

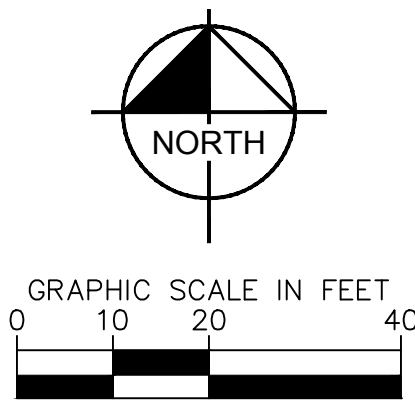






SITE DATA TABLE	
LOT AREA	1.41 ACRES
BUILDING HEIGHT	16'-0" (1 - STORY)
PROP. BUILDING AREA (FOOTPRINT)	15,645 SQ. FT.
BUILDING AREA (GROSS)	15,645 SQ. FT.
FLOOR AREA RATIO	0.25:1
IMPERVIOUS AREA	41,987 SQ. FT.
OPEN SPACE	22,200 SQ. FT.
REQ'D PARKING SPACES	39 SPACES
PROVIDED PARKING SPACES	42 SPACES
REQUIRED ACCESSIBLE SPACES	2 SPACES
PROVIDED ACCESSIBLE SPACES	2 SPACES
ZONING	OC
OCCUPANCY TYPE	E
CONSTRUCTION TYPE	5B

- ## LEGEND
- |   |                            |
|---|----------------------------|
|  | PROPERTY LINE              |
|  | RIGHT-OF-WAY DEDICATION    |
|  | FIRELANE STRIPING          |
|  | FULL DEPTH SAWCUT          |
|  | BUILDING SETBACK LINE      |
|  | SCREENING WALL             |
|  | FENCE                      |
|  | BARRIER FREE RAMP          |
|  | PARKING STALL COUNT        |
|  | WATER METER                |
|  | WATER METER VAULT          |
|  | FIRE DEPARTMENT CONNECTION |
|  | FIRE HYDRANT               |
|  | VISIBILITY TRIANGLE        |

- # NOTES
1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  2. DIMENSIONS SHOWN FOR BUILDING CORNERS ARE APPROXIMATE OUTER BUILDING ENVELOPE FOR THE PURPOSES OF GRADING. CONTRACTOR SHALL USE ARCHITECT'S STRUCTURAL SLAB PLANS FOR FORM BOARD STAKING AND CONTRACTOR SHALL PROVIDE A TOTAL BOARD SURVEY FOR APPROVAL BY THE OWNER PRIOR TO POURING BUILDING SLABS.
  3. BARRIER-FREE RAMPS (BFR) TO BE CONSTRUCTED PER DETAILS ON SHEET C-14.
  4. DRIVE APPROACH & SIDEWALKS TO BE CONSTRUCTED PER CITY OF ARLINGTON STANDARDS REFERENCE DETAILS ON SHEET C-14.
  5. THE CONTRACTOR FOR THE PROJECT SHALL NOT PLACE ANY PERMANENT PAVEMENT UNTIL ALL SLEEVING FOR ELECTRIC, GAS, TELEPHONE, CABLE TV, SITE IRRIGATION, OR ANY OTHER UNDERGROUND UTILITY HAS BEEN INSTALLED. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONFIRM THAT ALL SLEEVING IS IN PLACE PRIOR TO PLACEMENT OF PERMANENT PAVEMENT.



SHEET NUMBER <b>C-02</b>	<b>SITE PLAN</b>  <b>CHILD CARE STUDIO AT FIELDER</b> 1620 W. SANFORD STREET, ARLINGTON, TARRANT COUNTY, TEXAS	PROJECT No. 06871104  DATE: MAY 2025  SCALE: AS SHOWN  DESIGNED BY: GDR DRAWN BY: GDR  CHECKED BY: JGG		 801 CHERRY ST. UNIT 11, STE. 1300, FORT WORTH, TX 76102 PHONE: 817-335-8511 FAX: 817-335-5070 TEXAS REGISTERED ENGINEERING FIRM #428	PROJECT 11 APPENDIX 1	GDR 05/09/2025	BY
					No.	REVISIONS	DATE

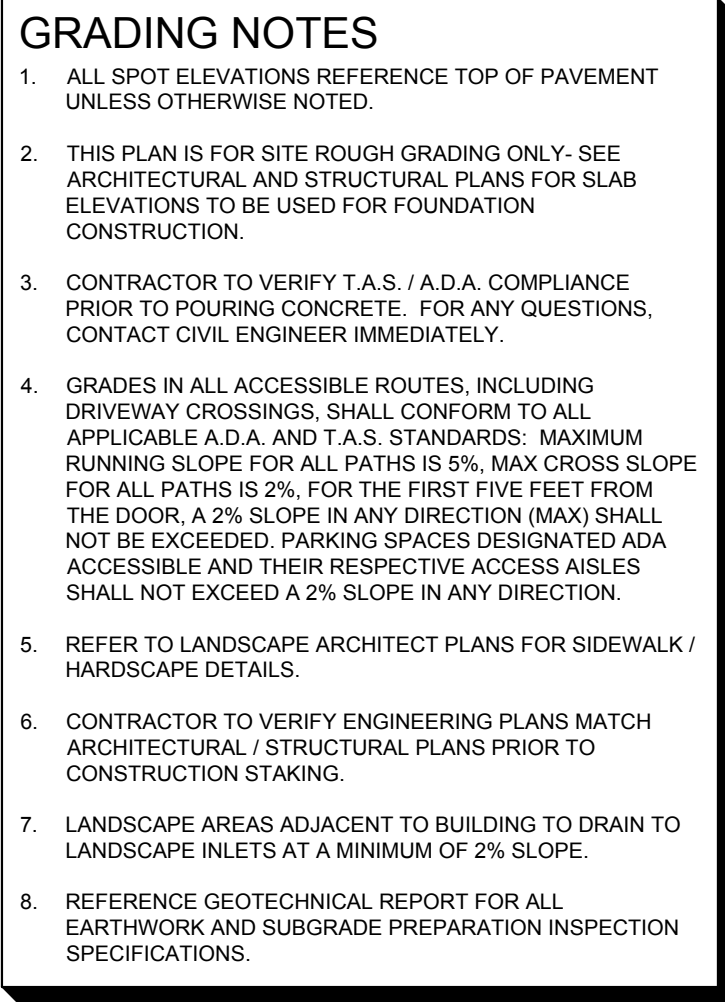












**CHILD CARE STUDIO  
AT FIELDER**  
1620 W. SANFORD STREET,  
ARLINGTON, TARRANT COUNTY, TEXAS

## GRADING PLAN

SHEET NUMBER  
C-06

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# BENCHMARKS

**NOTES:**

The bearing system for this survey is based on the Texas Coordinate System of 1983, North Central Zone 4202 with an applied combined scale factor of 1.00012, based on observations made on October 23, 2024.

BM#100 MAG NAIL WITH "YP CONTROL" SHINER SET IN ASPHALT ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 10'± EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 45'± SOUTHWEST OF A "NO TRESPASSING" SIGN AND 31'± WEST OF A GAS METER.

ELEV: 602.33'

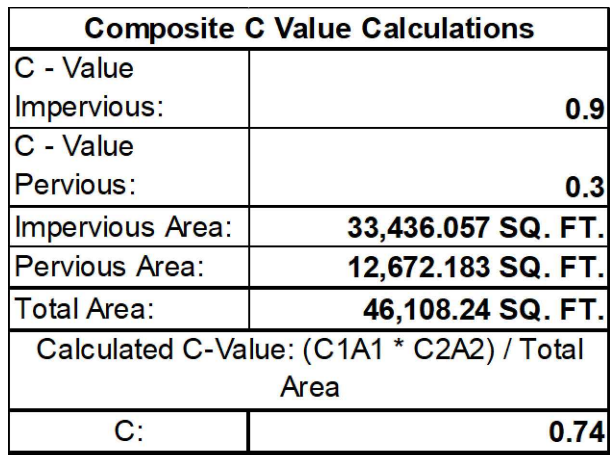
BM#101 MAG NAIL WITH "YP CONTROL" SHINER SET IN A CONCRETE STORM DRAIN INLET ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 20'± EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 30'± SOUTH OF A STOP SIGN AND 38'± SOUTHWEST OF A GAS METER.

ELEV: 596.09'


BM#102 MAG NAIL WITH "YP CONTROL" SHINER SET IN A CONCRETE SIDEWALK ON THE SOUTH SIDE OF SANFORD STREET. THE BM IS 27'± SOUTH OF THE CENTERLINE OF SANFORD STREET AND 52'± NORTHWEST OF A METAL SIGN LISTING BUSINESSES AND 109'± NORTHEAST OF A "NO TRESPASSING" SIGN.

ELEV: 596.46'





Composite C Value Calculations		
C - Value		
Impervious:		0.9
C - Value		
Pervious:		0.3
Impervious Area:	33,436.057 SQ. FT.	
Pervious Area:	12,672.183 SQ. FT.	
Total Area:	46,108.24 SQ. FT.	
Calculated C-Value: (C1A1 * C2A2) / Total Area		
C:		0.74



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# BENCHMARKS

**NOTES:**

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**BHM100** MAG NAIL WITH "YP CONTROL" SHINER SET IN ASPHALT ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 10'± EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 45'± SOUTHWEST OF A "NO TRAPRESSING" SIGN AND 31'± WEST OF A GAS METER.

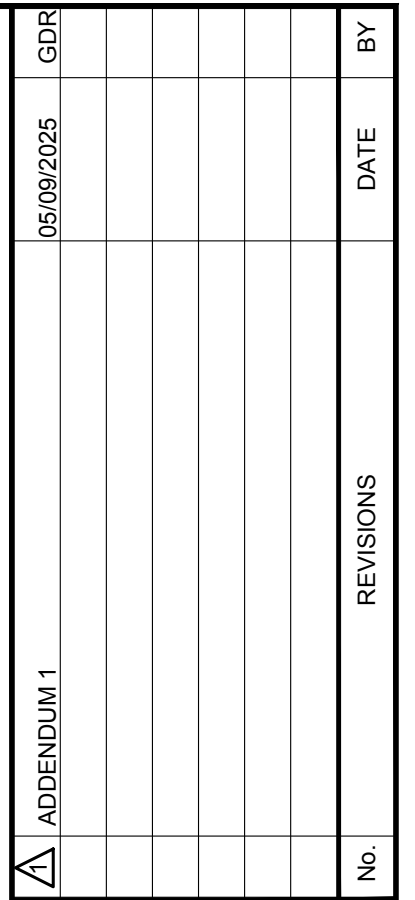
**ELEV:** 602.33

**BHM101** MAG NAIL WITH "YP CONTROL" SHINER SET IN A CONCRETE STORM DRAIN INLET ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 20'± EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 30'± SOUTH OF A STOP SIGN AND 30'± SOUTHWEST OF A GAS METER.

**ELEV:** 596.07

**BHM102** MAG NAIL WITH "YP CONTROL" SHINER SET IN A CONCRETE SIDEWALK ON THE SOUTH SIDE OF SANFORD STREET. THE BM IS 27'± SOUTH OF THE CENTERLINE OF SANFORD STREET AND 52'± NORTHWEST OF A METAL SIGN LISTING BUSINESSES AND 50'± NORTHEAST OF A "NO TRAPRESSING" SIGN.

**ELEV:** 596.46



**Kimley»»Horn**  
801 CHERRY ST., UNIT 11, STE 1300, FORT WORTH, TX 76102  
PHONE 817-335-6511 FAX 817-335-5070  
TEXAS REGISTERED ENGINEERING FIRM F-328



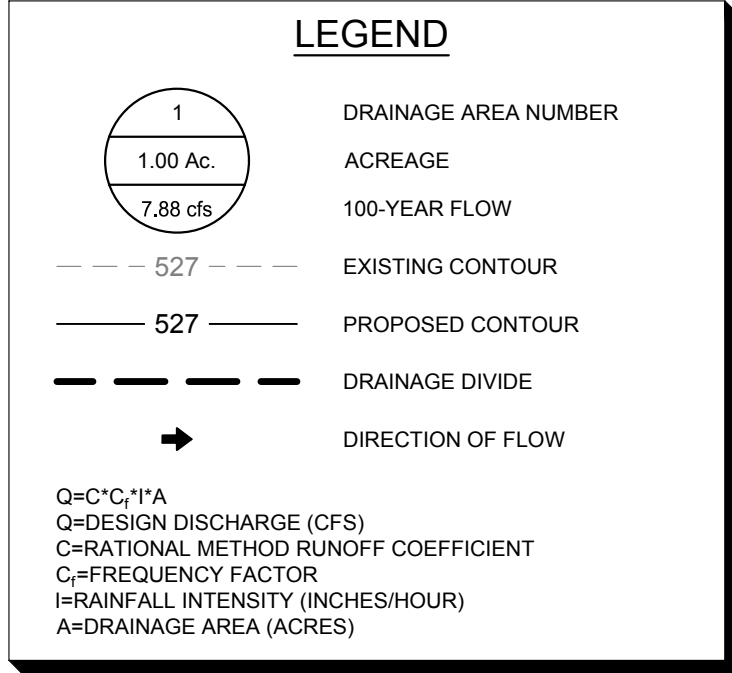
PROJECT No. 06617104	DATE: MAY 2025	SCALE: AS SHOWN	DESIGNED BY: GDR	DRAWN BY: GDR	CHECKED BY: JGG
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**CHILD CARE STUDIO  
AT FIELDER**  
1620 W. SANFORD STREET,  
ARLINGTON, TARRANT COUNTY, TEXAS


# EXISTING DRAINAGE AREA MAP

SHEET NUMBER  
C-07





Composite C Value Calculations	
C - Value Impervious:	0.9
C - Value Pervious:	0.3
Impervious Area:	19,375.5306 SQ. FT.
Pervious Area:	15,289.3394 SQ. FT.
Total Area:	34,664.87 SQ. FT.
Calculated C-Value: (C1A1 * C2A2) / Total Area	
C:	0.64



**CAUTION!!**

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BM#102 MAG NAIL WITH "YP CONTROL" SHINER SET IN A CONCRETE SIDEWALK ON THE SOUTH SIDE OF SANFORD STREET. THE BM IS 27± SOUTH OF THE CENTERLINE OF SANFORD STREET AND 52± NORTHWEST OF A METAL SIGN LISTING BUSINESSES AND 109± NORTHEAST OF A "NO TRESPASSING" SIGN.

ELEV: 596.46'

# PROPOSED DRAINAGE AREA MAP

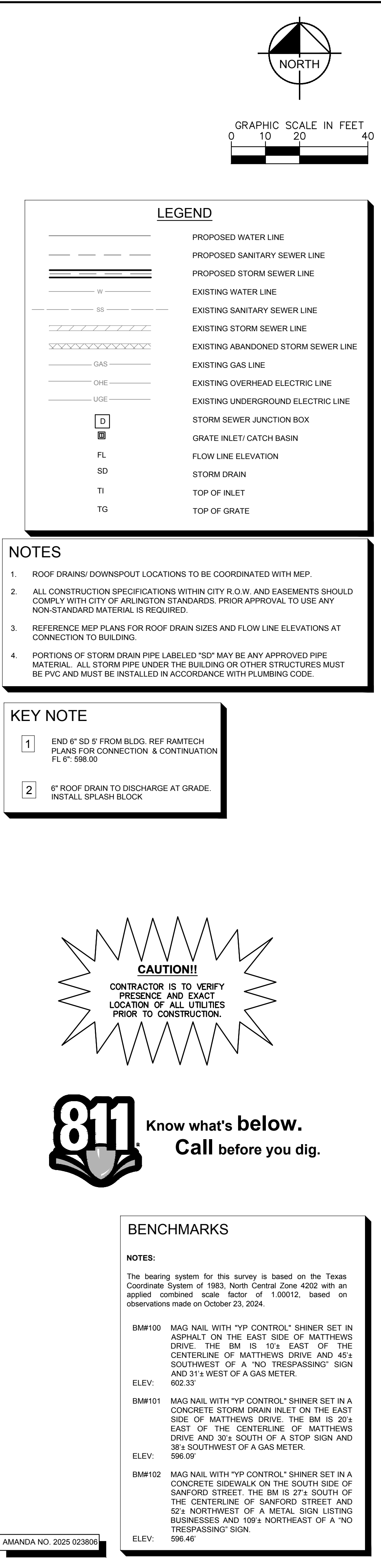
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PROJECT No. 06617104	DATE: MAY 2025	SCALE: AS SHOWN	DESIGNED BY: GDR	DRAWN BY: GDR	CHECKED BY: JGG
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SHEET NUMBER

C-08

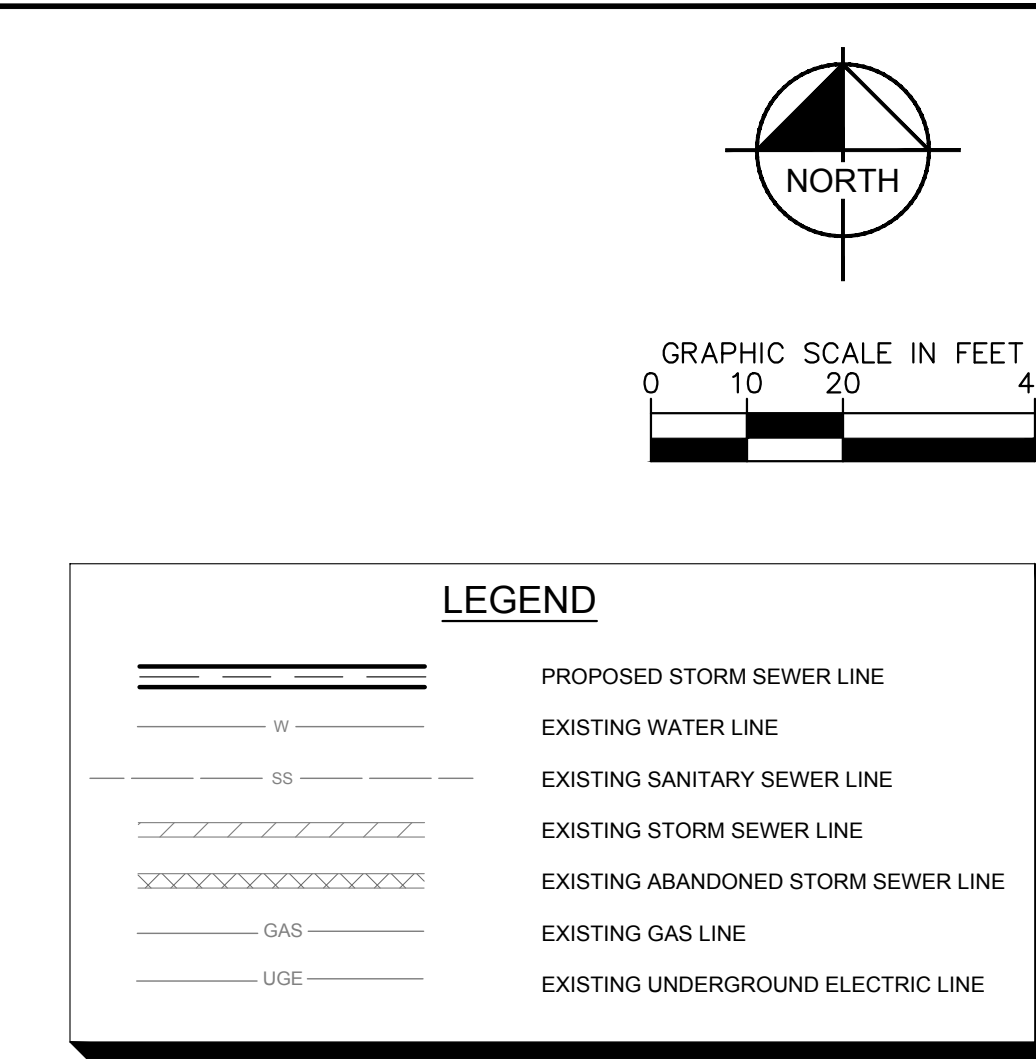




SHEET NUMBER	C-09
STORM SEWER PLAN	
CHILD CARE STUDIO AT FIELDER	
1620 W. SANFORD STREET, ARLINGTON, TARRANT COUNTY, TEXAS	
PROJECT No. 08677104	DESIGNED BY: GDR
DATE: MAY 2025	DRAWN BY: GDR
SCALE: AS SHOWN	CHECKED BY: JGG
JENNIFER C. CLANSKY REGISTERED PROFESSIONAL ENGINEER	
	
<b>Kimley»Horn</b>	
801 CHERRY ST. UNIT 11, STE. 1300, FORT WORTH, TX 76102 PHONE: 817-335-6511 FAX: 817-335-5070 TEXAS REGISTERED ENGINEERING FIRM P-4628	
ADDENDUM 1	No.
GDR	REVISIONS
05/09/2025	DATE
	BY


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# BENCHMARKS

**NOTES:**

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BM#100 MAG NAIL WITH "YP CONTROL" SHINER SET IN ASPHALT ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 10'± EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 45'± SOUTHWEST OF A "NO TRESPASSING" SIGN AND 31'± WEST OF A GAS METER.


ELEV: 602.33'

BM#101 MAG NAIL WITH "YP CONTROL" SHINER SET IN A CONCRETE STORM DRAIN INLET ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 20'± EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 30'± SOUTH OF A STOP SIGN AND 45'± SOUTHWEST OF A GAS METER.

ELEV: 596.09'

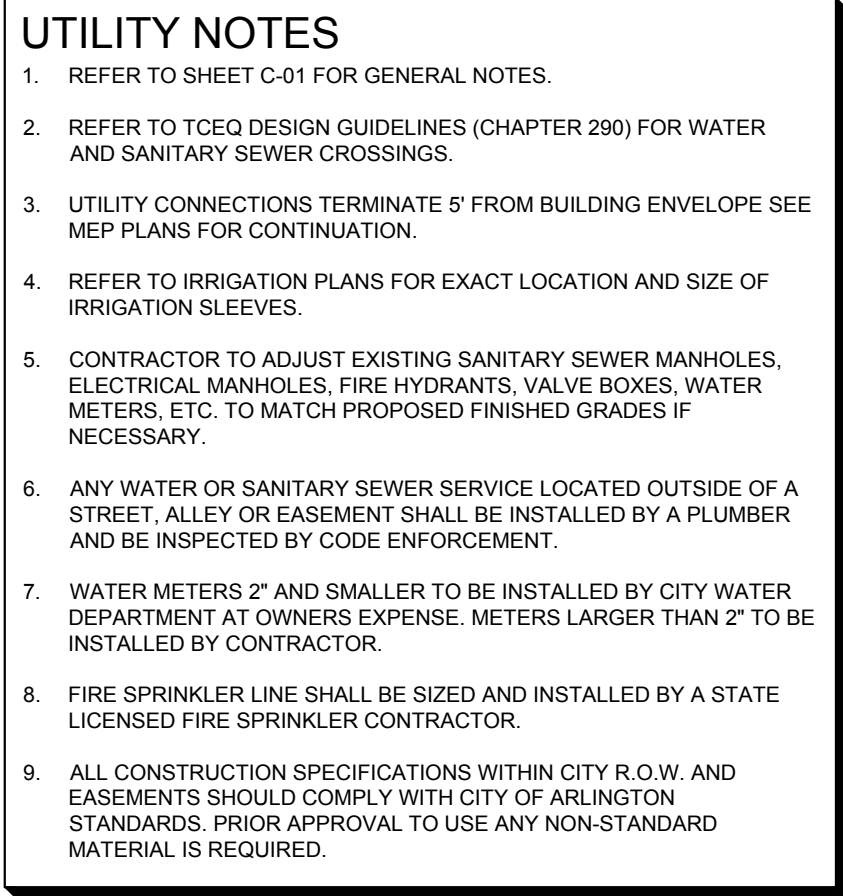
BM#102 MAG NAIL WITH "YP CONTROL" SHINER SET IN A CONCRETE SIDEWALK ON THE SOUTH SIDE OF SANFORD STREET. THE BM IS 27'± SOUTH OF THE CENTERLINE OF SANFORD STREET AND 52'± NORTHWEST OF A METAL SIGN LISTING BUSINESSES AND 109'± NORTHEAST OF A "NO TRESPASSING" SIGN.

ELEV: 598.46'

SHEET NUMBER		C-09.1			
STORMWATER MANAGEMENT PLAN		CHILD CARE STUDIO AT FIELDER 1620 W. SANFORD STREET, ARLINGTON, TARRANT COUNTY, TEXAS			
PROJECT No. 0667104		DESIGNED BY: GDR			
DATE: MAY 2025		DRAWN BY: GDR			
SCALE: AS SHOWN		CHECKED BY: JGG			
		<h1>Kimley»Horn</h1> <p>801 CHERRY ST. UNIT 11, STE. 1300, FORT WORTH, TX 76102 PHONE: 817-335-6511 FAX: 817-335-5070 TEXAS REGISTERED ENGINEERING FIRM F-928</p>			
				ADENDUM 1	
		REVISIONS			
		No.	DATE		
			06/09/2025		
			GDR		

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UTILITY PLAN

SHEET NUMBER  
C-10

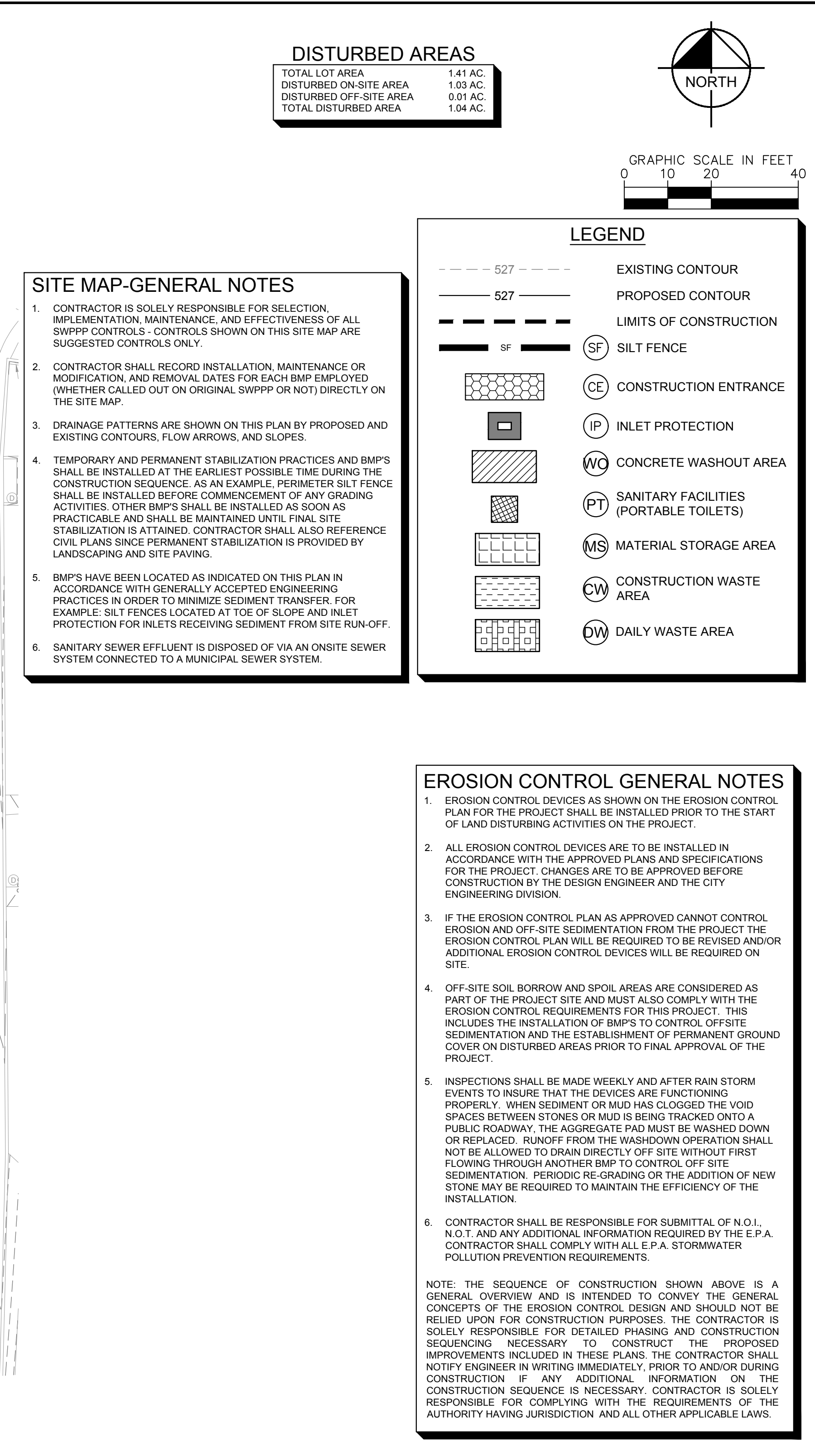
BM#100	MAG NAIL WITH "YP CONTROL" SHINER SET IN ASPHALT ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 10' EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 45' SOUTHWEST OF A "NO TRESPASSING" SIGN.
ELEV:	602.33
BM#101	MAG NAIL WITH "YP CONTROL" SHINER SET IN CONCRETE STORM DRAIN INLET ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 20' EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 30' SOUTH OF A STOP SIGN AND 38' SOUTHWEST OF A GAS METER.
ELEV:	596.09
BM#102	MAG NAIL WITH "YP CONTROL" SHINER SET IN CONCRETE SIDEWALK ON THE SOUTH SIDE OF BROAD STREET. THE BM IS 27' SOUTH OF THE CENTERLINE OF SANFORD STREET AND 52' NORTHWEST OF A METAL SIGN LISTING BUSINESSES AND 109' NORTHEAST OF A "NO TRESPASSING" SIGN.
ELEV:	596.46

C-10

Know what's **below**.  
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AMANDA NO. 2025 023806





1. Construction Activity in the City of Arlington shall comply with the requirements of the TPD&E General Permit TXR150000 and all applicable City of Arlington Ordinances.
2. No construction related activities may begin on the project site until a Storm Water Pollution Prevention Plan (SWPPP) has been accepted by the City, and the City and/or Contractor Site Notices are posted on site. SWPPP documentation and records shall be maintained on site throughout construction.
3. If five (5) Acres or more will be disturbed, a NOI must be submitted to TCEQ and the City prior to the start of construction related activities.
4. Revisions to the SWPPP shall be dated and initiated by the permittee or his representative.
5. Areas to remain undisturbed and/or to be protected during construction (including all waterbodies, wetland areas, erosion clear zones, drip line of trees to remain after construction, natural areas, etc.) shall be clearly delineated prior to the start of construction.
6. Sediment and erosion control devices shall be installed and functioning prior to any earth disturbing activities. They shall remain in place until the completion of all construction activities and/or until all disturbed areas have been permanently stabilized.
7. Refer to the City of Arlington Design Criteria Manual and the SWMA Construction Controls Manual for selection and design of stormwater controls.
8. Construction waste, debris and soil blooms, tracked or washed from the site during construction activity shall be cleaned up daily.
9. Erosion Control plans are considered minimum requirements. Additional control devices may be required during construction in order to control erosion and sedimentation.
10. Wetlands and streams shall be protected at all times during construction with erosion and sediment controls as well as natural buffers. All applicable permits must be obtained prior to construction in floodplain, wetlands and/or streams. Any work in a floodplain and/or stream shall comply with all applicable federal, state and local regulations and permits.
11. If soil disturbance is occurring within a City of Arlington easement, an easement use agreement must be obtained prior to construction.
12. A stabilized construction entrance shall be installed and maintained on the project site.
13. Storm water inlet protection shall be provided for all inlets (upstream and downstream) within 50 ft. of the construction entrance (on both sides of the public roadway).
14. To secure the project site, locate limits of construction, protect areas that are to remain undisturbed, and prevent migration of construction debris.
15. Care shall be taken when installing stormwater controls to not obscure ongoing traffic at intersections, adjacent driveways and the project construction entrance.
16. A qualified representative of each operator shall inspect the construction activity either once every 14 calendar days and within 24 hours of a storm event of 7+ inch or greater or weekly at a specified day and time regardless of precipitation. A written SWPPP inspection report shall be completed for each inspection.
17. At a minimum, stormwater controls when they are inspected shall be reduced by 50% unless more frequent cleaning is specified in the SWPPP.
18. If any control is found to be ineffective, installed incorrectly, or damaged, it shall be modified or replaced within 7 days of inspection or as required by the City.
19. All existing and new storm water structures, affected by this project, shall be inspected and maintained on the same schedule as the stormwater controls. Sediment discharged into the municipal separate storm sewer system (streets, gutters, storm drains, flumes, channels, etc.) from the construction activity shall be noted in the inspection report, and shall be removed within 7 days of inspection or as required by the City.
20. During dry and wind periods, disturbed soil shall be sprinkled with water until dampened and repeated as needed to prevent dust generation.
21. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased.
22. The contractor shall designate an area to be used for concrete wash water. A pit large enough to contain the wash water without overflowing shall be excavated. If concrete placement will occur over a period of time greater than a week, a sign designating the area as the concrete washout area shall be posted in a location visible from the street.
23. Slurry from concrete sawcutting shall be vacuumed or recovered by other means for proper disposal. If a curb inlet is near the pavement to be cut, the inlet shall be blocked with sandbags during sawcutting to prevent slurry from entering the storm drain.
24. Temporary construction crossings in or across any water body or wetland shall not be installed without the prior approval of the appropriate resource agencies and the City.
25. Disposal of all recovered sediments, construction debris, or other pollutants shall be in accordance with all applicable City, State and Federal Regulations. No sediments, construction debris, or other pollutants shall be disposed or flushed into the storm water system.
26. Storm drain washouts shall be performed at least weekly. Wash water shall be disposed at off-site facilities. Trash and debris shall be removed from the site at regular intervals to prevent overflow of the containers.
27. Temporary stockpiling of useable or waste materials shall have appropriate erosion and sediment control measures installed. Temporary stockpiles shall be placed away from storm water inlet structures, adjacent property and public roadways.
28. Application of lime or other chemical stabilizers shall be limited to the amount that can be mixed and compacted by the end of each working day. Stabilizer shall be applied at rates that result in no runoff from the site. Stabilization shall be delayed if rain is forecast for the working day. No traffic other than water trucks and mixing equipment shall pass over the spread stabilizer until after mixing is complete.
29. Hazardous materials shall be stored in closed containers, and the containers shall be placed in a shelter that prevents contact with rainfall and runoff. The amount of hazardous materials stored on-site shall be minimized and limited to the materials necessary for the current phase of construction. Hazardous material storage shall be in accordance with all federal, state and local laws and regulations.
30. Spills and releases of anything other than storm water shall be immediately reported to the City of Arlington. In addition, spills and releases of hazardous materials greater than the regulated reportable quantity shall be reported to state and federal authorities within 24 hours.
31. Super-chlorinated water from water line disinfection shall not be allowed to enter the storm drainage system.
32. Portable toilet facilities shall not be located within 25 ft. of any storm water structure and/or within 50 ft. of any watercourse, wetland area, stream, floodplain, or lake.
33. Discharge from dewatering activities shall be released through an on-site sediment trap or basin, through an undisturbed area through a non-erosive outlet, or into a Dirt Bag (12oz. non-woven fabric) or approved equivalent located in an undisturbed area.
34. Small sites constructed as part of a Larger Common Plan of Development require erosion control features for infrastructure as well as for individual site construction. Individual small construction sites shall follow these plans during construction or provide an individual plan.
35. The site shall be stabilized after construction activities are complete and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% has been established on all unpaved areas and areas not covered by permanent structures.
36. All temporary control devices shall be removed once construction is complete and the site is permanently stabilized.

THE PROJECT SHALL GENERALLY CONFORM TO THE FOLLOWING:

PHASE 1 - GRADING

- A. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE, SILT FENCE, AND TREE PROTECTION FENCE ACCORDING TO THE APPROXIMATE LOCATION AND SHOWN ON EROSION CONTROL PLAN, NOTES & DETAIL SHEET, AND LANDSCAPE PLANS.
- B. BEGIN CLEARING AND GRADING OF SITE.
- C. SEED AND RE-VEGETATE SLOPES WHERE SHOWN.

PHASE 2 - UTILITIES

- A. KEEP ALL STORM WATER POLLUTION PREVENTION MEASURES IN PLACE.
- B. INSTALL STORM DRAINS AS SPECIFIED ON PLAN SHEETS.
- C. INSTALL INLET PROTECTION.

PHASE 3 - PAVING

- A. KEEP ALL STORM WATER POLLUTION PREVENTION MEASURES IN PLACE. REMOVE AS NEEDED TO PAVE.
- B. STABILIZE SUBGRADE.
- C. PAVE PARKING LOT AND SIDEWALKS AS SPECIFIED ON PLAN SHEETS.
- D. REMOVE TEMPORARY CONSTRUCTION ENTRANCE.

PHASE 4 - LANDSCAPING AND SOIL STABILIZATION

- A. RE-VEGETATE LOT AND PARKWAYS
- B. LANDSCAPE CONTRACTOR SHALL RE-VEGETATE ALL AREAS RESERVED FOR LANDSCAPE VEGETATIVE COVERS.
- C. REMOVE EROSION CONTROL DEVICES WHEN GROUND COVER ESTABLISHED.

AMANDA NO. 2025 023806

**NOTES:**

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**BM#100** MAG NAIL WITH "YF CONTROL" SHINER SET IN ASPHALT ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 10+1/2 EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 45+5 SOUTHWEST OF A "NO TRESPASSING" SIGN AND 31+1/2 WEST OF A GAS METER.

**ELEV:** 602.33

**BM#101** MAG NAIL WITH "YF CONTROL" SHINER SET IN A CONCRETE STORM DRAIN INLET ON THE EAST SIDE OF MATTHEWS DRIVE. THE BM IS 20+5 EAST OF THE CENTERLINE OF MATTHEWS DRIVE AND 30+1/2 SOUTH OF A STOP SIGN AND 38+1/2 SOUTHWEST OF A GAS METER.

**ELEV:** 596.09

**BM#102** MAG NAIL WITH "YF CONTROL" SHINER SET IN A CONCRETE SIDEWALK ON THE SOUTH SIDE OF SANFORD STREET. THE BM IS 27+1/2 SOUTH OF THE CENTERLINE OF SANFORD STREET AND 52+1/2 NORTHWEST OF A METAL SIGN LISTING BUSINESSES AND 1+1/2 NORTHEAST OF A "NO TRESPASSING" SIGN.

**ELEV:** 596.46

AMANDA NO. 2025 023806

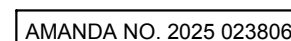














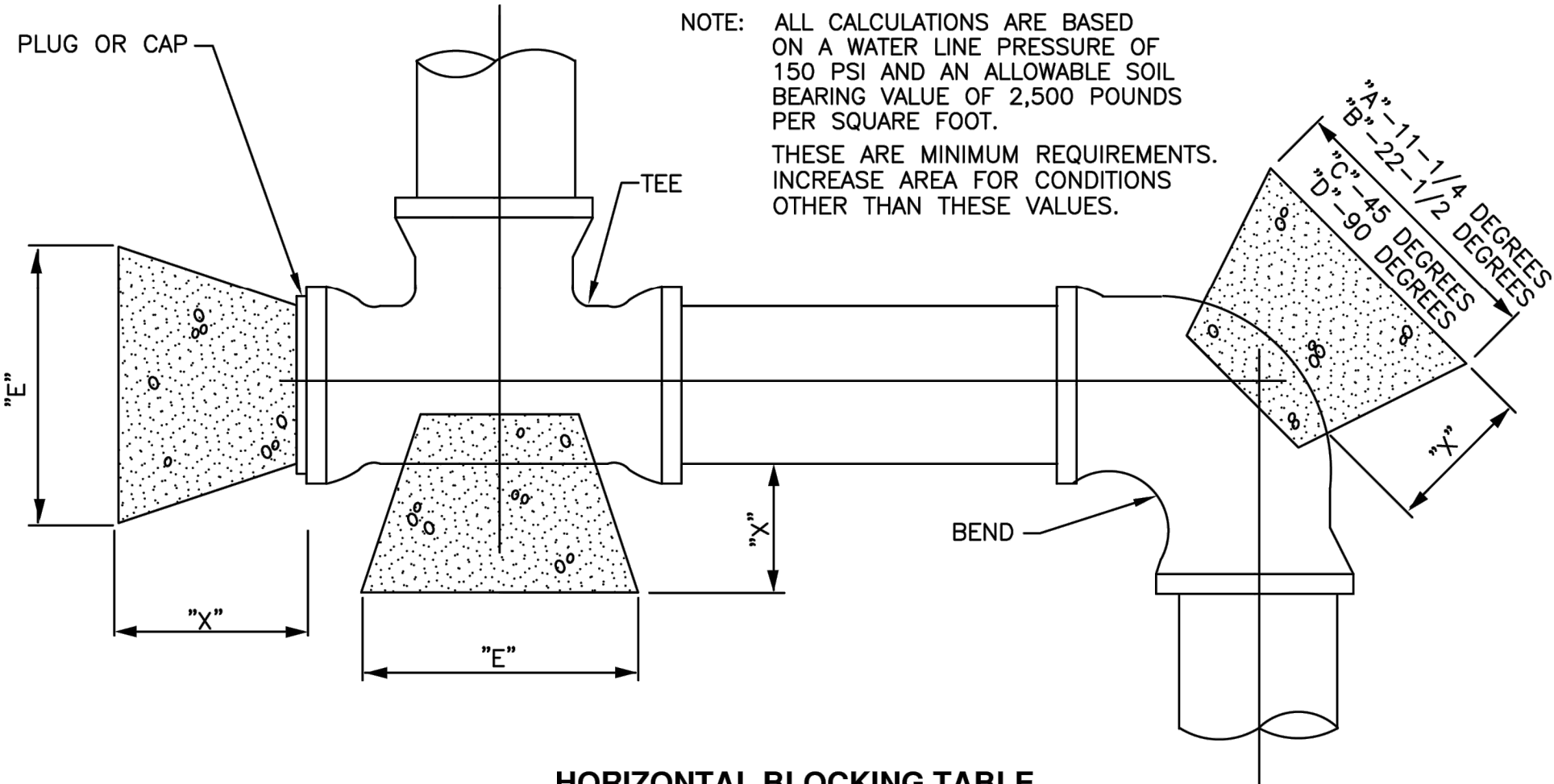








TAKES  
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PLOTTER: 1704 - JES: HELDER CAN CAMEL AD PLAN SHEETS-C:\MELLANCOUS\DETAILS (SHEETS) 5-6.DWG  
LAST SAVED: 5/3/2025 10:34 AM  
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HORIZONTAL BLOCKING TABLE

PIPE SIZE	"X" DIM. IN. FT.	11-1/4 DEGREES		22-1/2 DEGREES		45 DEGREES		90 DEGREES		TEE & PLUG	
		"A"	MIN. AREA	"B"	MIN. AREA	"C"	MIN. AREA	"D"	MIN. AREA	"E"	MIN. AREA
4"	1.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00	1.00
6"	1.5	1.00	1.00	1.00	1.00	1.14	1.30	1.55	2.40	1.30	1.70
8"	1.5	1.00	1.00	1.08	1.18	1.52	2.31	2.07	4.27	1.74	3.02
10"	1.5	1.00	1.00	1.35	1.84	1.90	3.61	2.58	6.66	2.17	4.71
12"	1.5	1.00	1.33	1.63	2.65	1.86	5.19	3.10	9.60	2.61	6.79
14"	1.5	1.03	1.81	1.90	3.60	2.66	7.07	3.61	13.06	3.04	9.24
16"	2.0	1.18	2.36	2.17	4.71	3.04	9.23	4.13	17.06	3.47	12.06
18"	2.0	1.33	2.99	2.44	5.96	3.42	11.69	4.65	21.59	3.91	15.27
20"	2.0	1.48	3.70	2.71	7.35	3.80	14.43	5.16	26.66	4.34	18.85
21"	2.0	1.55	4.07	2.85	8.11	3.99	15.91	5.42	29.39	4.56	20.78
24"	2.0	1.77	5.32	3.25	10.59	4.56	20.77	6.20	38.39	5.21	27.14
27"	2.5	1.99	6.73	3.66	13.40	5.13	26.29	6.97	48.58	5.86	34.35
30"	2.5	2.22	8.31	4.07	16.55	5.70	32.46	7.74	59.98	6.51	42.41
33"	2.5	2.44	10.06	4.47	20.02	6.27	39.28	8.52	72.57	7.16	51.31
36"	2.5	2.66	11.97	4.88	23.83	6.84	46.74	9.29	86.37	7.81	61.07
39"	3.0	2.88	14.05	5.29	27.97	7.41	54.86	10.07	101.36	8.47	71.68
42"	3.0	3.10	16.30	5.69	32.43	7.98	63.62	10.85	117.56	9.12	83.13

NOTE: CLASS A, 5 SACK, 3000 PSI CONCRETE SHALL BE USED FOR ALL BLOCKING UNLESS OTHERWISE NOTED ON STANDARD DETAILS OR PLANS.

THE MINIMUM VERTICAL DIMENSION OF ALL BLOCKING SHALL BE 1.5 TIMES THE PIPE DIAMETER WITH AT LEAST 0.75 TIMES THE PIPE DIAMETER EXTENDING BOTH ABOVE AND BELOW THE PIPE CENTERLINE. THIS DIMENSION DETERMINES THE "A" DIMENSION FOR 11-1/4° BENDS.

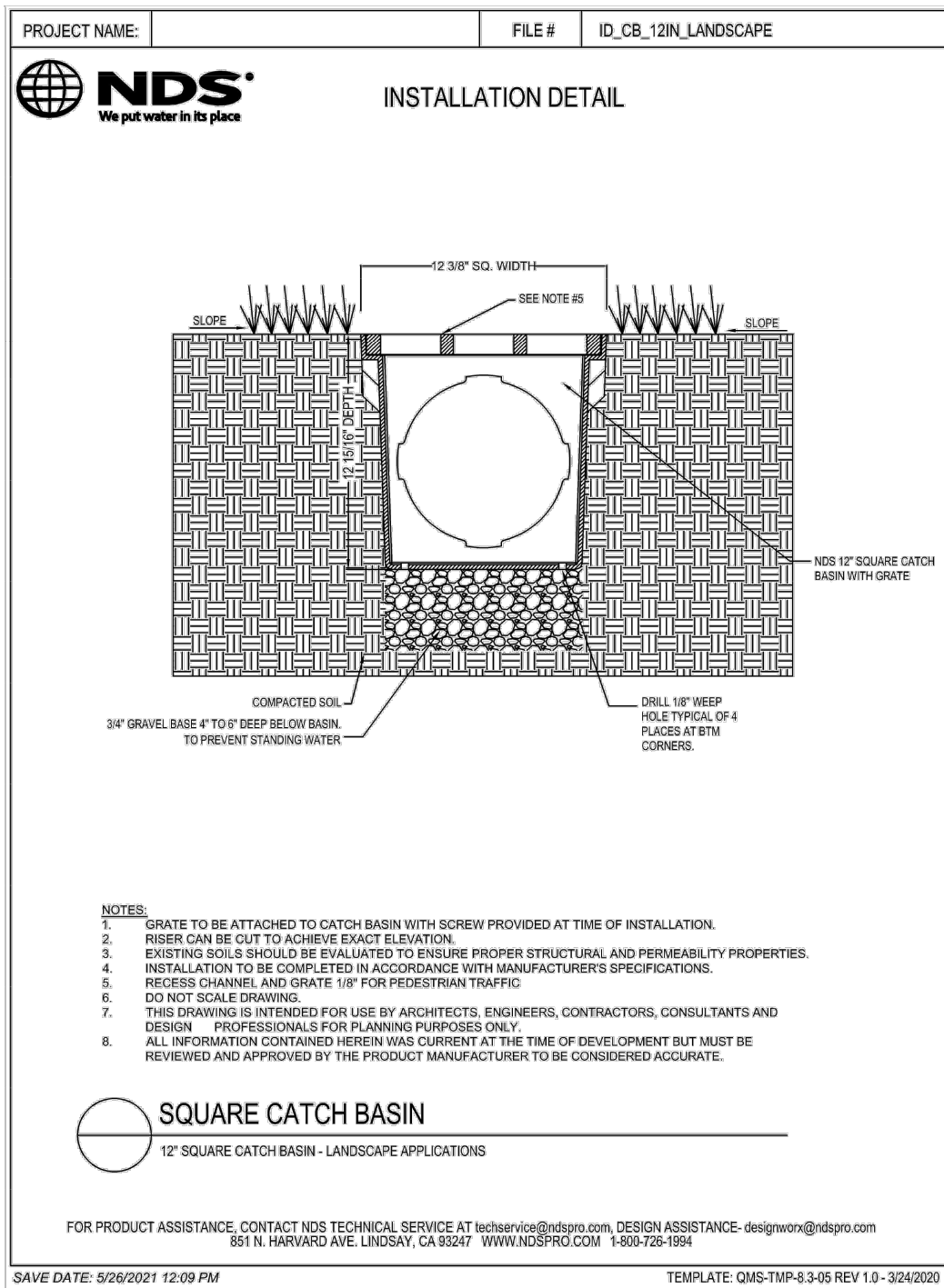
FOR 22-1/2°, 45°, 90°, AND TEES AND PLUGS, THE VERTICAL DIMENSION SHALL BE EQUAL TO THE HORIZONTAL DIMENSION SHOWN TO PRODUCE THE REQUIRED MINIMUM AREA.

ALL MINIMUM AREAS ARE IN SQUARE FEET.

BLOCKING TO BE AGAINST UNDISTURBED TRENCH WALLS AND BOTTOM.

AS A MINIMUM, ALL PIPE FITTINGS IN PRESSURE SITUATIONS SHALL ALSO BE RESTRAINED BY AN APPROVED THRUST RESTRAINT DEVICE.

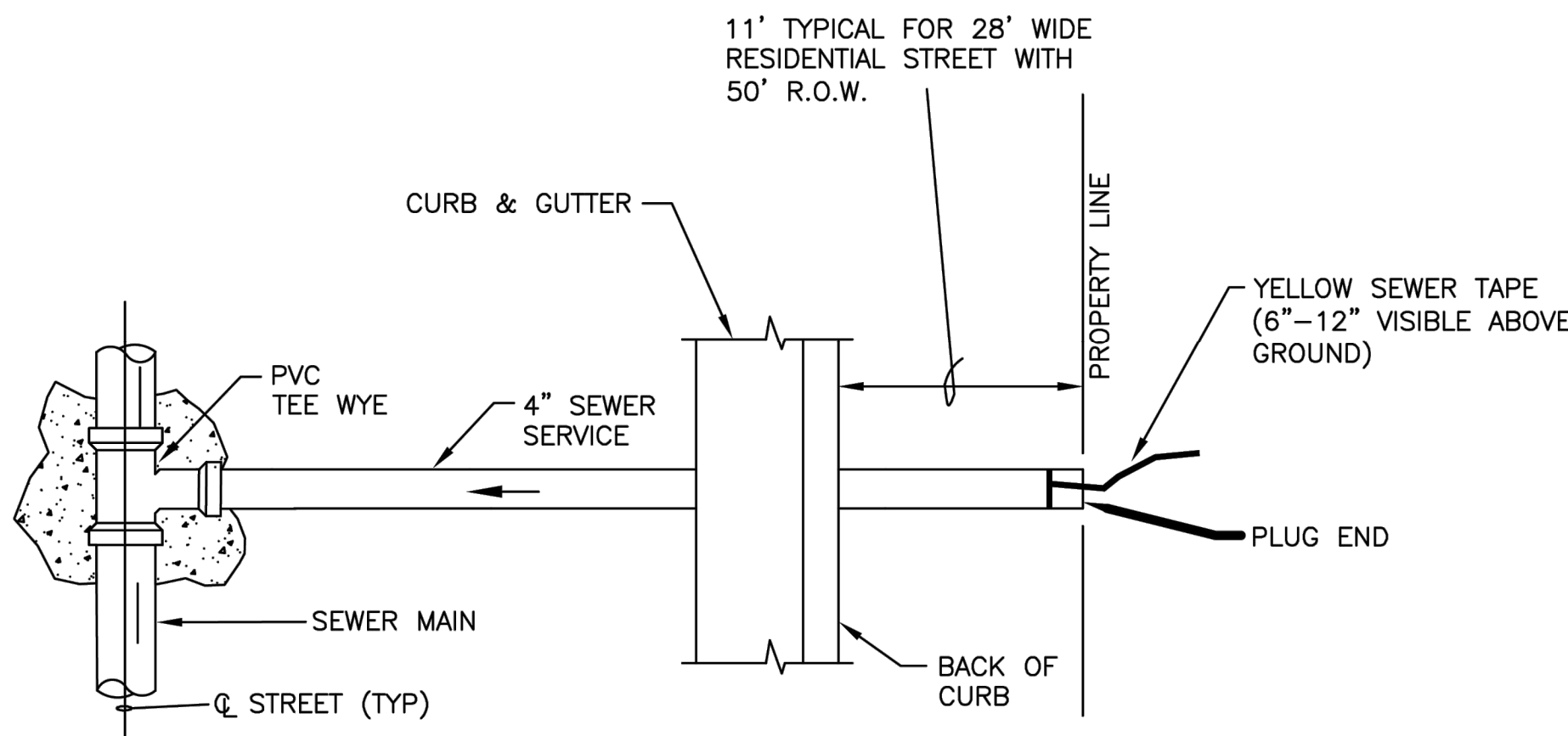
	CITY OF ARLINGTON, TEXAS
HORIZONTAL THRUST BLOCK	
DATE: 01/06/2018	



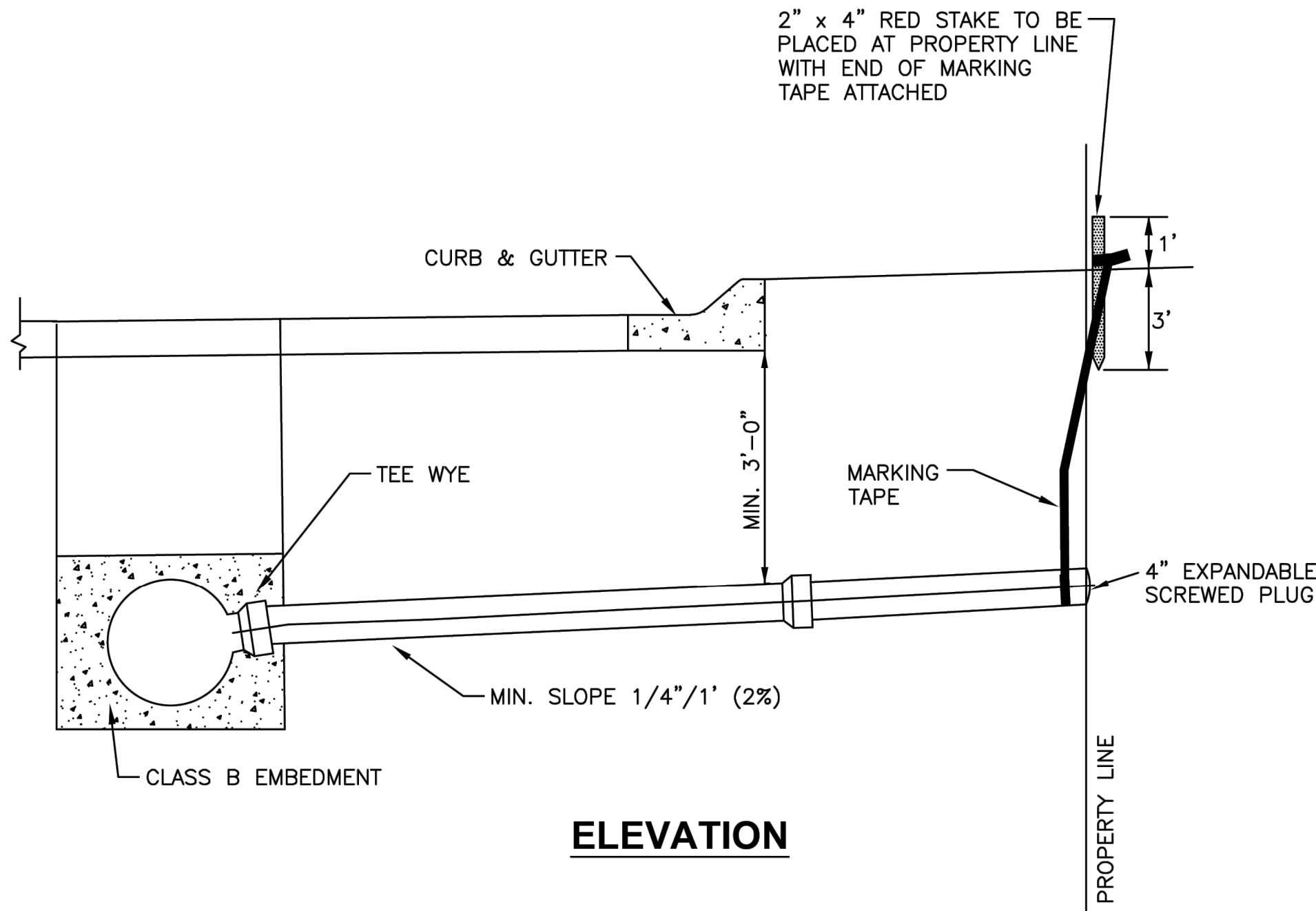
- NOTES:
- GRATE TO BE ATTACHED TO CATCH BASIN WITH SCREW PROVIDED AT TIME OF INSTALLATION.
  - RISER CAN BE CUT TO ACHIEVE EXACT ELEVATION.
  - INSTALLATION SHALL BE EVALUATED TO DETERMINE PROPER STRUCTURAL AND PERMEABILITY PROPERTIES.
  - INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  - RECESS CHANNEL AND GRATE 1/8" FOR PEDESTAL TRIMPS.
  - DO NOT SCALE DRAWING.
  - THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
  - ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

SQUARE CATCH BASIN  
12" SQUARE CATCH BASIN - LANDSCAPE APPLICATIONS

FOR PRODUCT ASSISTANCE, CONTACT NDS TECHNICAL SERVICE AT [technical@ndsusa.com](mailto:technical@ndsusa.com). DESIGN ASSISTANCE: [design@ndsusa.com](mailto:design@ndsusa.com)  
801 N. HAWAII AVE. LEBANON, CA 94032 WWW.NDS-PRO.COM 1-800-750-5986  
SAVE DATE: 5/29/2025 12:59 PM TEMPLATE: QMS-TMP-4.3-16 REV 1.0 - 3/24/2020



PLAN

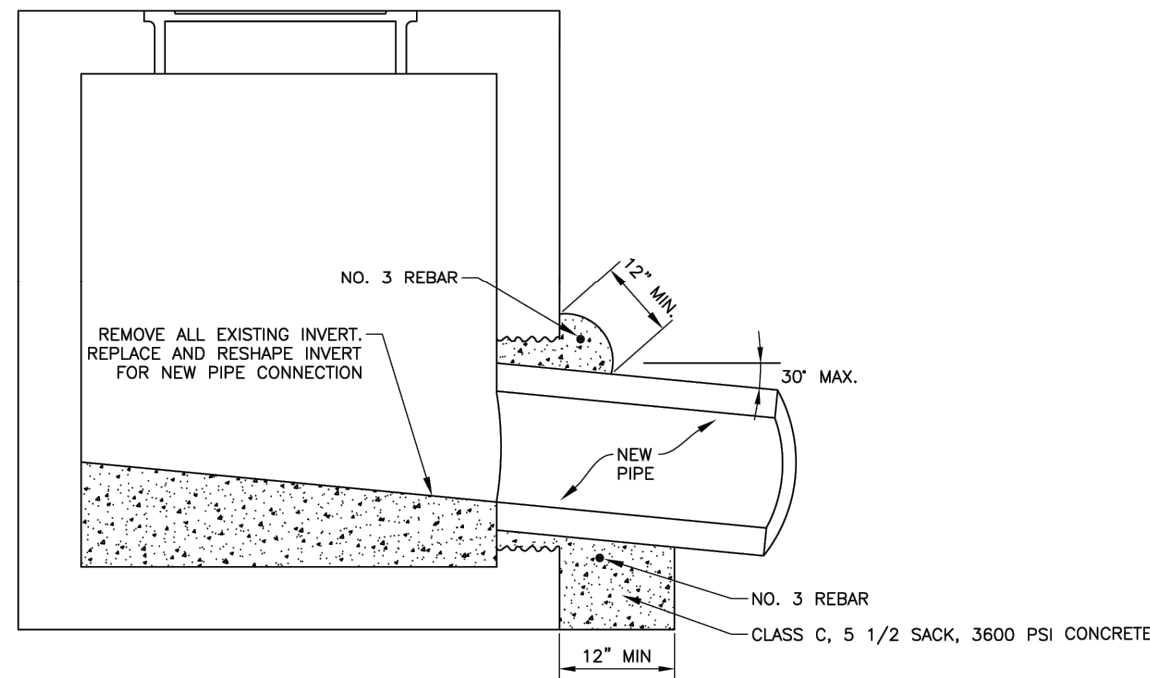


ELEVATION

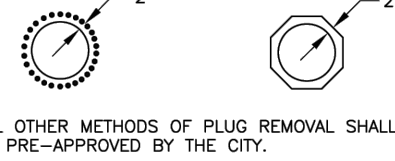
NOTES:

- SERVICES WITH LESS THAN 2' CLEARANCE UNDER AN EXISTING OR PROPOSED STORM DRAIN REQUIRE CONCRETE ENCASEMENT OR STEEL CASING.
- SERVICES SHALL BE SDR-26 PVC PIPE WITH CLASS B EMBEDMENT.
- NEW SERVICE TAPS ON EXISTING MAINS REQUIRE INSERTA-TEE CONNECTION OR APPROVED EQUAL.
- SERVICES 8" AND LARGER REQUIRE A MANHOLE TO CONNECT TO MAIN, UNLESS OTHERWISE APPROVED BY WATER UTILITIES.

	CITY OF ARLINGTON, TEXAS
SANITARY SEWER SERVICE	
DATE: 01/06/2023	



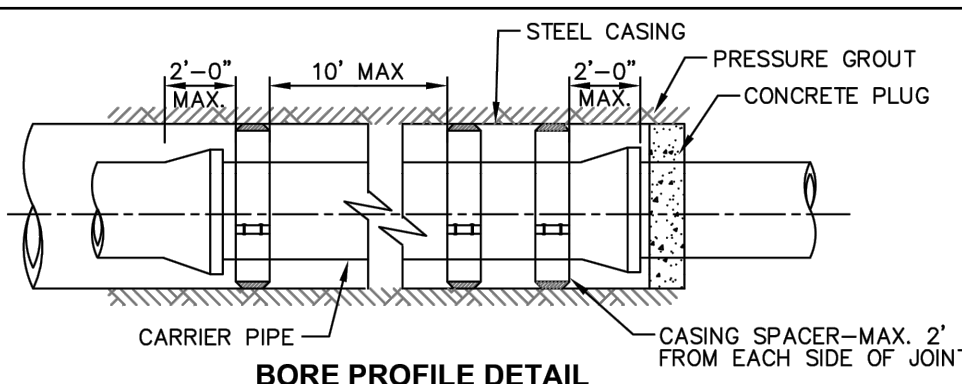
\* REMOVAL OF PLUG FROM EXISTING INLET TO BE ACCOMPLISHED BY CORING, OR BY USING A MASONRY DRILL AT A SPACING EQUAL TO THE DRILL BIT DIAMETER IN A CIRCULAR PATTERN OR A MASONRY SAW IN AN OCTAGONAL PATTERN PER DETAIL.



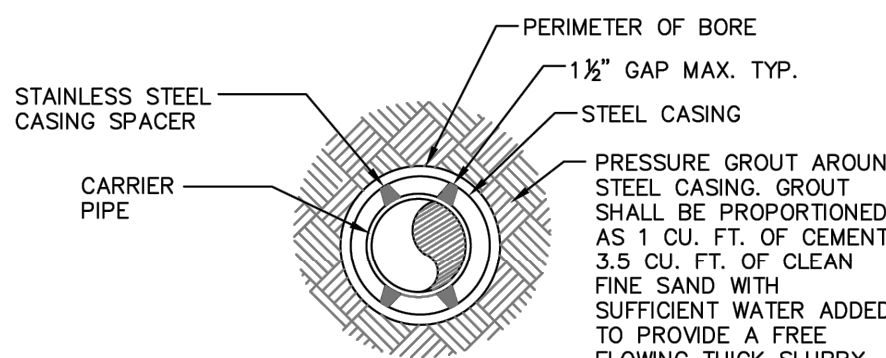
ALL OTHER METHODS OF PLUG REMOVAL SHALL BE PRE-APPROVED BY THE CITY.

STORM DRAIN CONNECTION TO EXISTING DRAINAGE STRUCTURE  
NTS REV: 7/11/17

	CITY OF ARLINGTON, TEXAS
STORM DRAIN CONNECTION TO EXISTING DRAINAGE STRUCTURE	
DATE: 05/09/2025	SCALE: NTS
DESIGNED BY: JGG	CHECKED BY: JGG



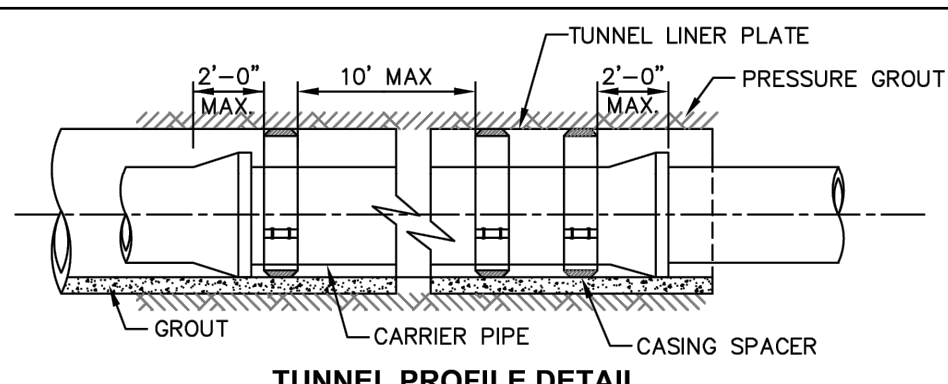
BORE PROFILE DETAIL



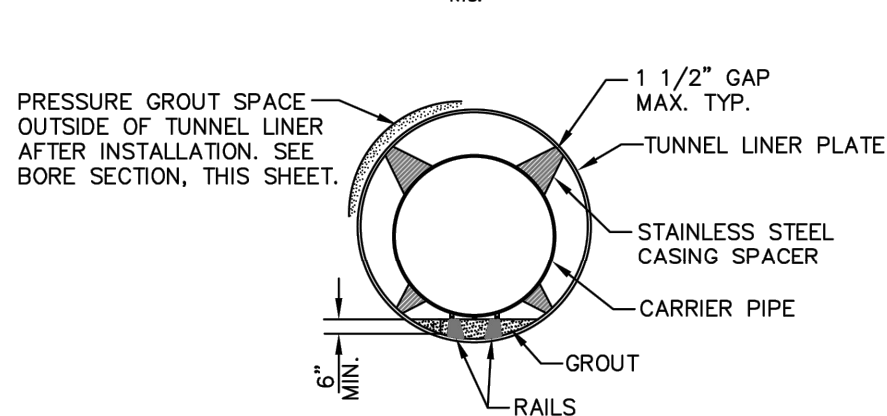
BORE SECTION DETAIL

NOTES:

- ALL CASING SPACERS SHALL BE STAINLESS STEEL.
- FURNISH AND INSTALL INSULATING END SEAL OR CONCRETE PLUG AT EACH END OF TUNNEL OR BORE. END SEAL SHALL BE EPS END SEALS OR APPROVED EQUAL. CONCRETE PLUG SHALL BE 2:27 CONCRETE BACKFILL MATERIAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING PIPE FROM FLOATING DURING GROUTING OF ANNULAR SPACE.
- NUMBER OF SPACERS (MIN. 3 PER JOINT OF CARRIER PIPE) AND CASING INSULATORS TO BE DETERMINED BY MANUFACTURER PIPE SUPPLIER AND CASING SPACER SUPPLIER.
- PROVIDE 9 LB ANODE AT BOTH ENDS OF CASING AS NEEDED AND AS DETERMINED BY THE ENGINEER.
- WHERE GROUNDWATER IS ENCOUNTERED GASKETED LINER PLATES SHALL BE USED.



TUNNEL PROFILE DETAIL

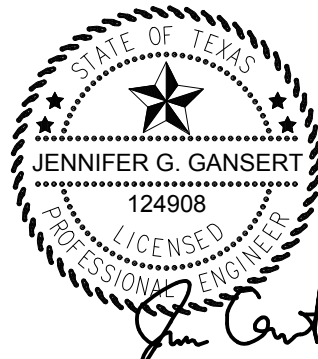


TUNNEL SECTION DETAIL

- GROUT FITTINGS SHALL BE FABRICATED INTO TUNNEL LINER PLATE OR CASING PIPE WITH MAXIMUM SPACING OF 6 FEET. REMOVE AND PLUG FITTINGS AFTER PRESSURE GROUTING.
- SEE STANDARD SPECIFICATION (B23) FOR CASING THICKNESS, COATINGS, AND OTHER REQUIREMENTS.
- GAP BETWEEN CASING OR TUNNEL LINER AND CASING SPACER SHALL BE A MAXIMUM OF 1.5 INCHES.
- ALL PIPE JOINTS WITHIN A CASING OR TUNNEL LINER SHALL BE RESTRAINED. IF MJ TYPE RESTRAINT IS USED, JOINTS SHALL BE BOLTED BEFORE PULLING INTO PLACE.

	CITY OF ARLINGTON, TEXAS
CASING DETAIL (BORE OR TUNNEL)	
10/02/2019	

**Kimley»Horn**  
801 CHERRY ST. UNIT 11, STE 1300, FORT WORTH, TX 76102  
PHONE 817-335-6511 FAX 817-335-5070  
TEXAS REGISTERED ENGINEERING FIRM F-928



PROJECT No: 06071104  
DATE: MAY 2025  
SCALE: AS SHOWN  
DESIGNED BY: GDR  
DRAWN BY: GDR  
CHECKED BY: JGG

CHILD CARE STUDIO  
AT FIELDER  
1620 W. SANFORD STREET  
ARLINGTON, TARRANT COUNTY, TEXAS

SEWER & STORM  
DETAILS

SHEET NUMBER

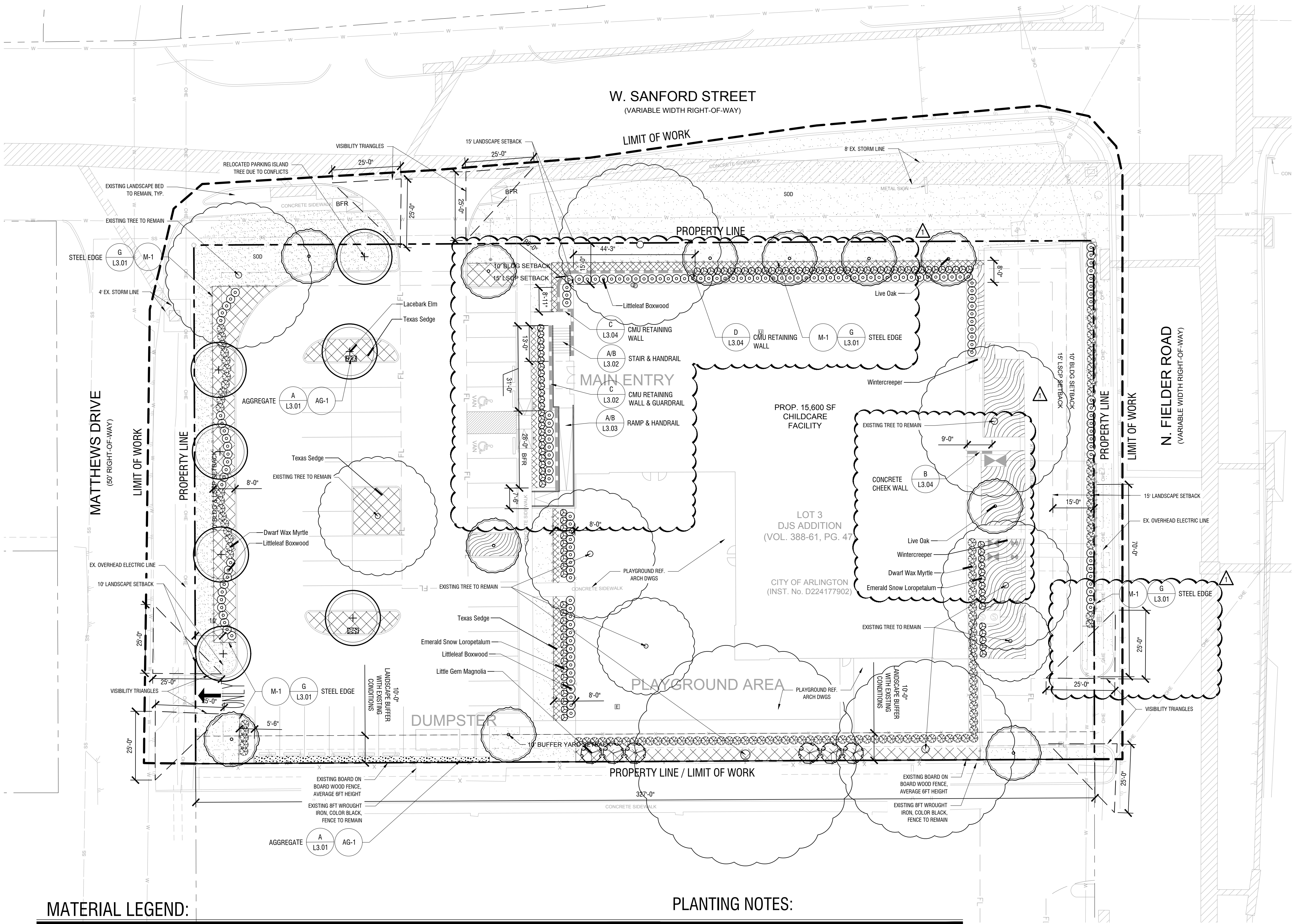
C-17

AMANDA NO. 2025 023806

NO.	REVISIONS	DATE	BY
05/09/2025			
ADDDENDUM 1			



IMAGES: XREF: aerial - XREF: site - XREF: survey - XREF: utility - XREF: plant - XREF: 2x6x6 Landscape - XREF: Detail tree protection  
PLOTS BY: HARMAN, ANNE 5/20/25 10:43 AM  
LAST SAVED: 5/20/25 8:48 AM  
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## MATERIAL LEGEND:

### METALS

M-1	STEEL EDGE
	MATERIAL: COLOR: SIZE: INSTALL: APPROVAL:
	3/16" x 4" STEEL PLATE PLANTING: POWDERCOAT BLACK LENGTHS PER PLAN, ALL SEAMS TO BE FLUSH AND LEVEL REF. DETAILS CUT SHEET

### AGGREGATES

AG-1	DECORATIVE ROCK
	TYPE: COLOR: SIZE: INSTALL: SUPPLIER: CONTACT: APPROVAL:
	CRUSHED GRAVEL KIOWA RIVER ROCK 2"-4" SIZE, 4" DEPTH REFER DETAILS MINICK MATERIALS, OR APPROVED EQUAL TIM SHAHANAH (405.834.8280) SAMPLE, MOCKUP

## PLANTING NOTES:

- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND LINE RUNS IN THE FIELD PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE LANDSCAPE ARCHITECT OF ANY CONDITION FOUND ON THE SITE WHICH PROHIBITS INSTALLATION AS SHOWN ON THESE DRAWINGS.
- ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AND MUST BE REPLACED WITH PLANT MATERIAL OF SAME VARIETY AND SIZE IF DAMAGED, DESTROYED, OR REMOVED.
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND REMOVAL OF DEBRIS PRIOR TO PLANTING IN ALL AREAS.
- FINAL FINISH GRADING SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL TOPSOIL REQUIRED TO CREATE A SMOOTH CONDITION PRIOR TO PLANTING.
- ALL PLANT QUANTITIES LISTED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FULL COVERAGE IN ALL PLANTING AREAS AS SPECIFIED IN THE PLANT SCHEDULE AND VERIFY ALL QUANTITIES.
- LANDSCAPE CONTRACTOR TO PROVIDE STEEL EDGING (REFER TO MATERIALS PAGE) BETWEEN ALL PLANTING BEDS AND LAWN AREAS.
- ALL PLANT MATERIAL SHALL CONFORM TO THE SPECIFICATIONS AND SIZES GIVEN IN THE PLANT LIST AND SHALL BE NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ANY PLANT SUBSTITUTION SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ANY COORDINATION WITH OTHER CONTRACTORS ON SITE AS REQUIRED TO ACCOMPLISH ALL PLANTING OPERATIONS.
- ALL NEW PLANTING AREAS TO BE AMENDED PER SPECIFICATIONS.
- ANY PLANT MATERIAL THAT DOES NOT SURVIVE SHALL BE REPLACED WITH AN EQUIVALENT SIZE AND SPECIES WITHIN THIRTY (30) DAYS.
- PLANT MATERIAL SHALL BE PRUNED AS NECESSARY TO CONTROL SIZE BUT NOT TO DISRUPT THE NATURAL GROWTH PATTERN OR CHARACTERISTIC FORM OF THE PLANT EXCEPT AS NECESSARY TO ACHIEVE HEIGHT CLEARANCE FOR VISIBILITY AND PEDESTRIAN PASSAGE OR TO ACHIEVE A CONTINUOUS OPAQUE HEDGE IF REQUIRED.
- LANDSCAPED AREAS SHALL BE KEPT FREE OF TRASH, WEEDS, DEBRIS, AND DEAD PLANT MATERIAL.
- ALL LIME STABILIZED SOIL & INORGANIC SELECT FILL FOR BUILDING SHOULD BE REMOVED FROM PLANTING AREAS TO A DEPTH OF 24" & REPLACED WITH ORGANIC IMPORTED TOPSOIL FILL.
- TREES OVERHANGING PEDESTRIAN WALKWAYS AND PARKING SHALL HAVE A 7" MINIMUM CLEAR TRUNK HEIGHT TO MEET ACCESSIBILITY STANDARDS. TREES OVERHANGING PUBLIC STREETS, DRIVE AISLES, AND FIRE LANES SHALL HAVE A 14" MINIMUM CLEAR TRUNK HEIGHT.
- CONTRACTOR TO PROVIDE 18 MONTH WARRANTY AFTER ALL CONSTRUCTION IS COMPLETE.

## PLANT SCHEDULE

SYMBOL COMMON / BOTANICAL NAME

### TREES

	Lacebark Elm / <i>Ulmus parvifolia</i>
	Little Gem Magnolia / <i>Magnolia grandiflora</i> 'Little Gem'
	Live Oak / <i>Quercus virginiana</i> 'Cathedral'

### SHRUBS

	Dwarf Wax Myrtle / <i>Myrica pusilla</i>
	Emerald Snow Loropetalum / <i>Loropetalum chinense</i> 'Emerald Snow'
	Littleleaf Boxwood / <i>Buxus microphylla</i> 'Wintergreen'

SYMBOL COMMON / BOTANICAL NAME

### GROUND COVERS

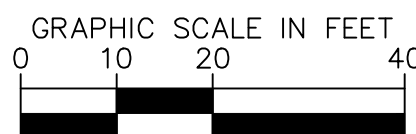
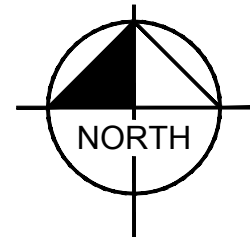
	Bermuda Grass / <i>Cynodon dactylon</i>
	Texas Sedge / <i>Carex texensis</i>
	Wintercreeper / <i>Euonymus fortunei</i>

## RISE FIELDER DAYCARE

Arlington, TX

Code Chart

Site Data	AC	SF
Total Site Area	1.42	61,693
Zoning	OC - Office Commercial	
Parking Spaces Provided	40	
Required Landscape Setback		
Mathews Drive - Minor Collector Local Road	189 LF	
10' Buffer width (min.)	yes	yes
Tree Requirement	Required	Provided
4" Caliper (min.): 1 Tree / 50 FT (189 /50-4 Trees)	4	4
Landscape Plant Requirement		
10 Plants (min.) / 50 FT	40 Plants	50 Plants
50% of the plants shall be evergreen shrubs	yes	yes
50% max. amount of grass cover in landscape setback	yes	yes
W. Sanford St - Major Collector Road	327 LF	
15' Buffer width (min.)	yes	yes
Tree Requirement	Required	Provided
4" Caliper (min.): 1 Tree / 45 FT (327 /45-7 Trees)	7 Trees	7 Trees (2 Existing, 5 Proposed)
Landscape Plant Requirement		
14 Plants (min.) / 50 FT	92 Plants	112 Plants
50% of the plants shall be evergreen shrubs	yes	yes
50% max. amount of grass cover in landscape setback	yes	yes
N. Fielder Road - Minor Arterial Road	189 LF	
15' Buffer width (min.)	yes	yes
Tree Requirement	Required	Provided
4" Caliper (min.): 1 Tree / 45 FT (189 /45-4 Trees)	4 Trees	4 Trees (3 Existing, 1 Proposed)
Landscape Plant Requirement		
14 Plants (min.) / 50 FT	53 Plants	55 Plants
50% of the plants shall be evergreen shrubs	yes	yes
50% max. amount of grass cover in landscape setback	yes	yes
Parking Lot Tree Requirement		
1 Tree per parking island and at least 50% groundcover other than turf grass	7 Trees	7 Trees (1 Existing, 6 Proposed)
No parking space shall be located farther than 90' from a tree	Yes	Yes
Landscape Buffer Yard		
Southern Property Line	3,270 Linear Feet	
10' Buffer width (min.)	yes	yes
Tree Requirement	Required	Provided
3" Caliper (min.): 1 Tree / 300 FT (3,270/300=11 Trees)	11 Trees	11 Trees (2 Existing, 9 Proposed)



**Kimley»Horn**

PRELIMINARY  
Not for construction or permit purposes  
**Kimley»Horn**  
P.L.A. \_\_\_\_\_ 3146 \_\_\_\_\_  
A.L.A. No. \_\_\_\_\_ Date \_\_\_\_\_ 5/20/2025

PROJECT No.  
019436062  
DATE: MAY 2025  
SCALE: AS SHOWN  
DESIGNED BY: AEA  
DRAWN BY: AEA  
CHECKED BY: AMH

**RISE FIELDER DAYCARE**  
ARLINGTON, TX

**LANDSCAPE PLAN**

SHEET NUMBER

**L2.01**



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BY: [Signature]  
REVISIONS: 1  
DATE: 05/09/2025  
BY: [Signature]

PROJECT No. 018430602  
DATE: APRIL 2025  
SCALE: AS SHOWN  
DESIGNED BY: AEA  
DRAWN BY: AEA  
CHECKED BY: AMH

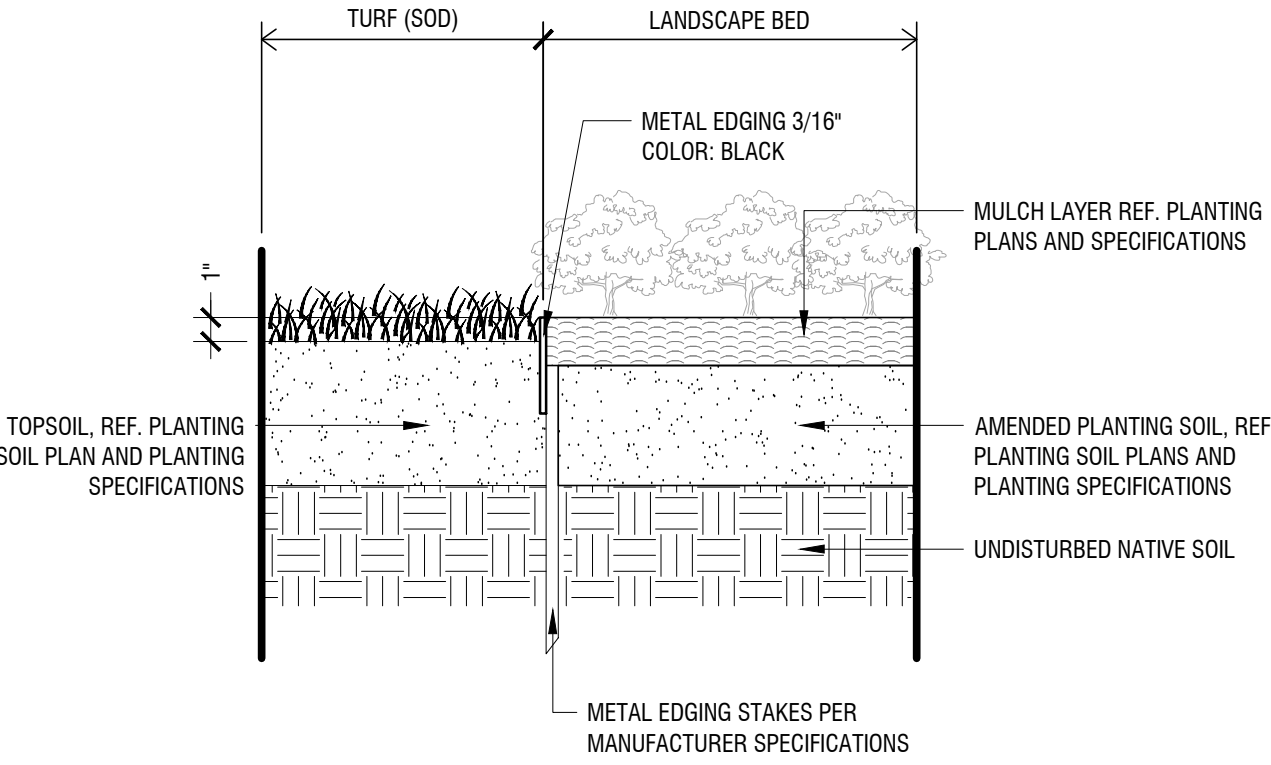
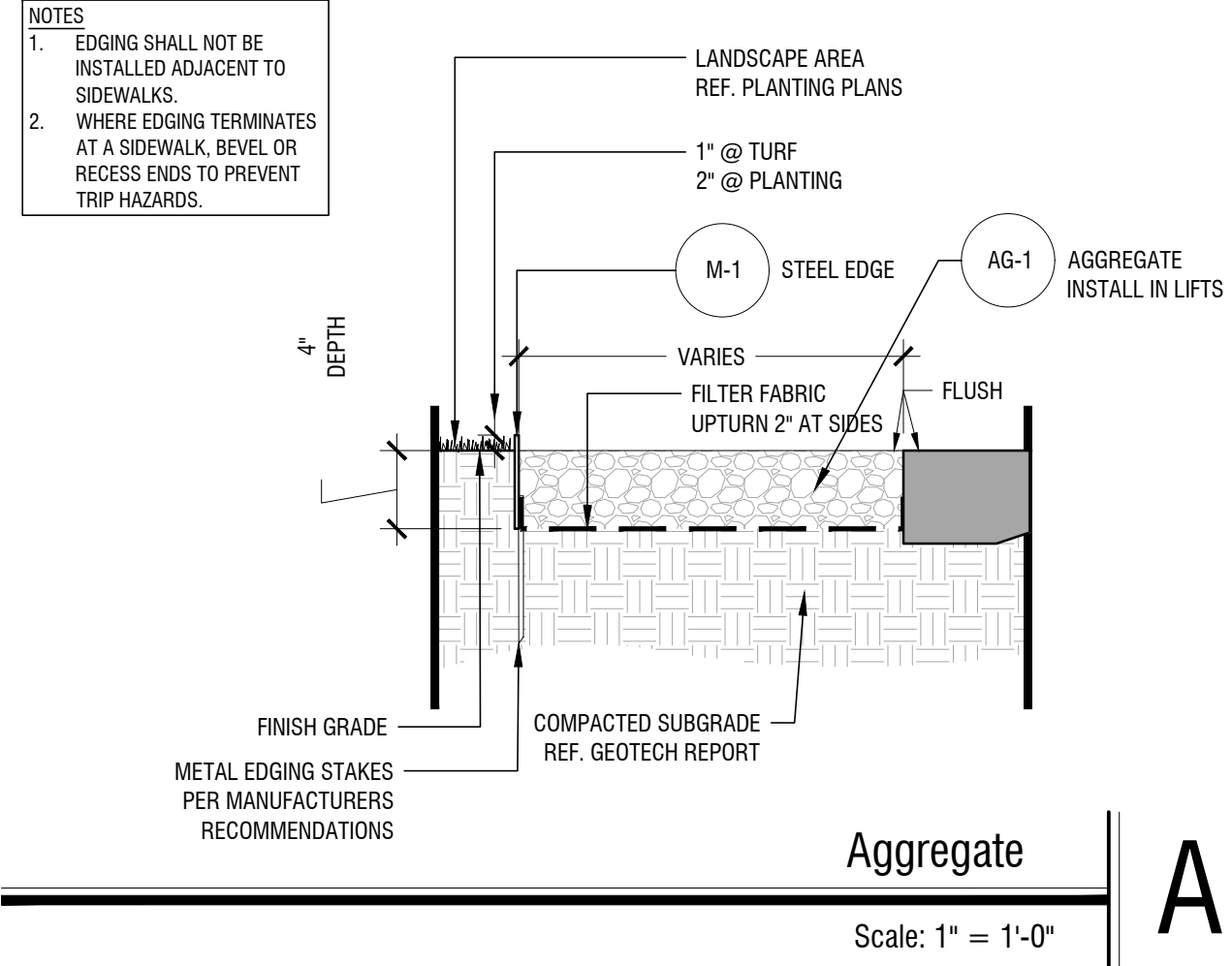
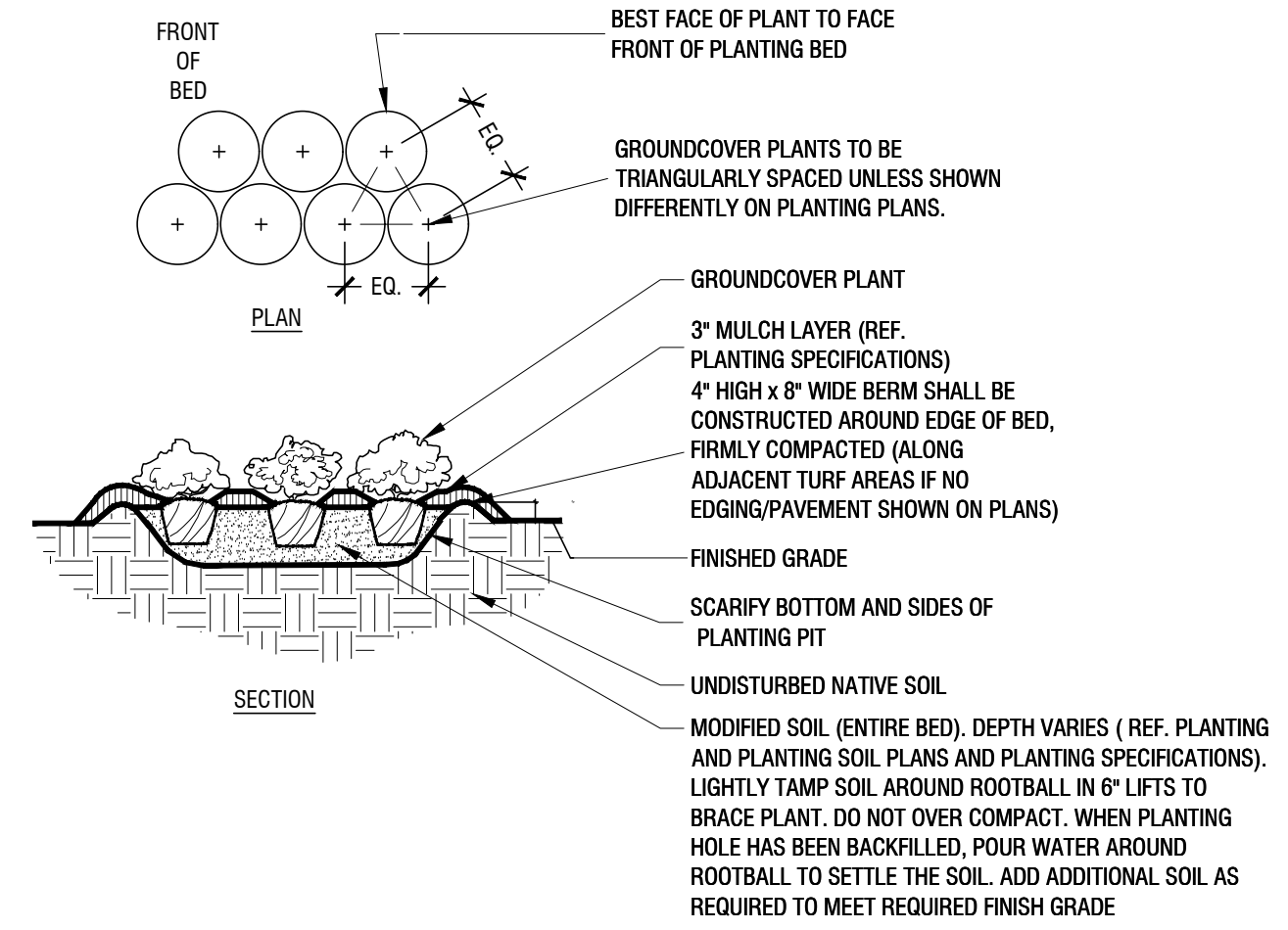
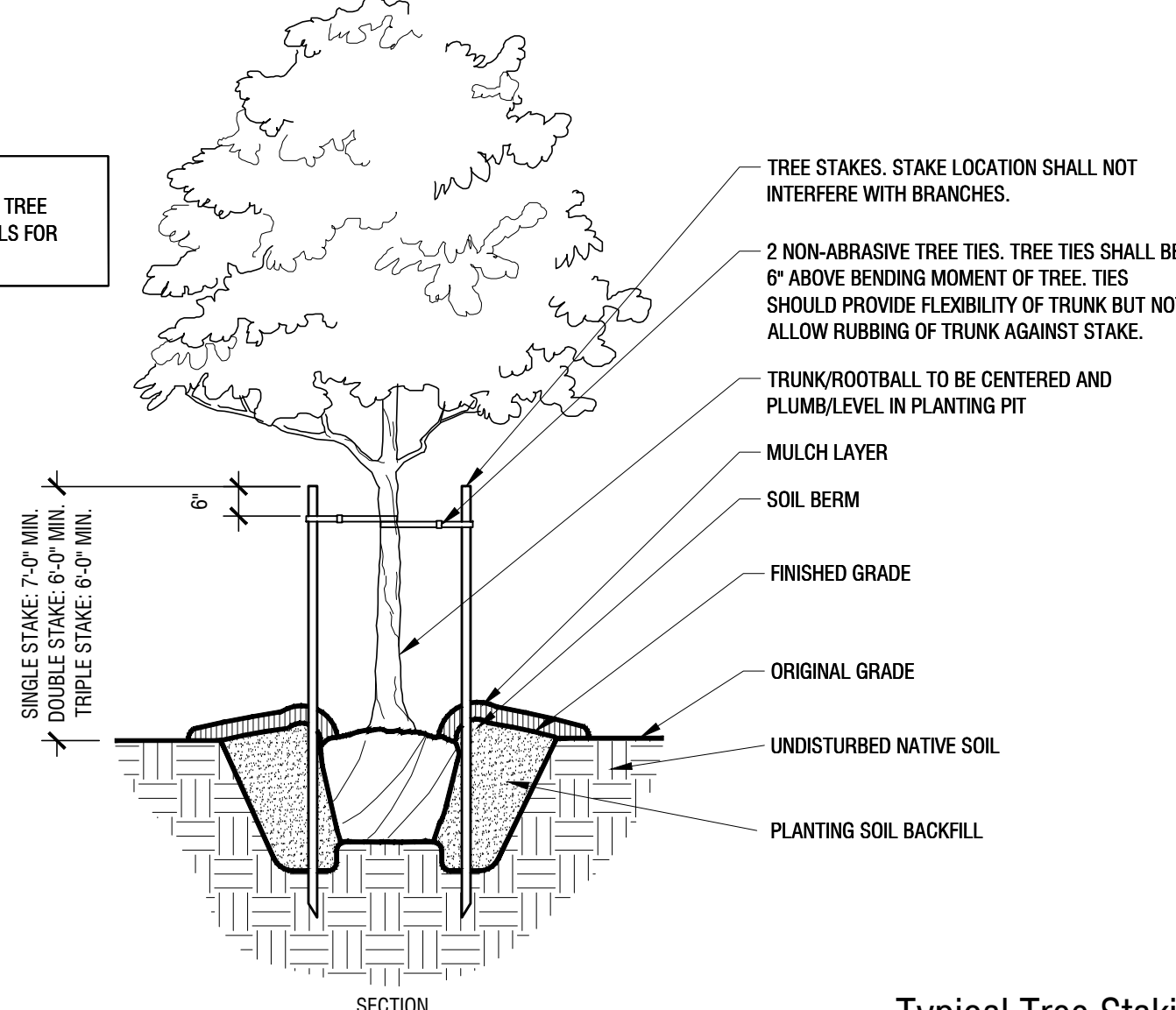
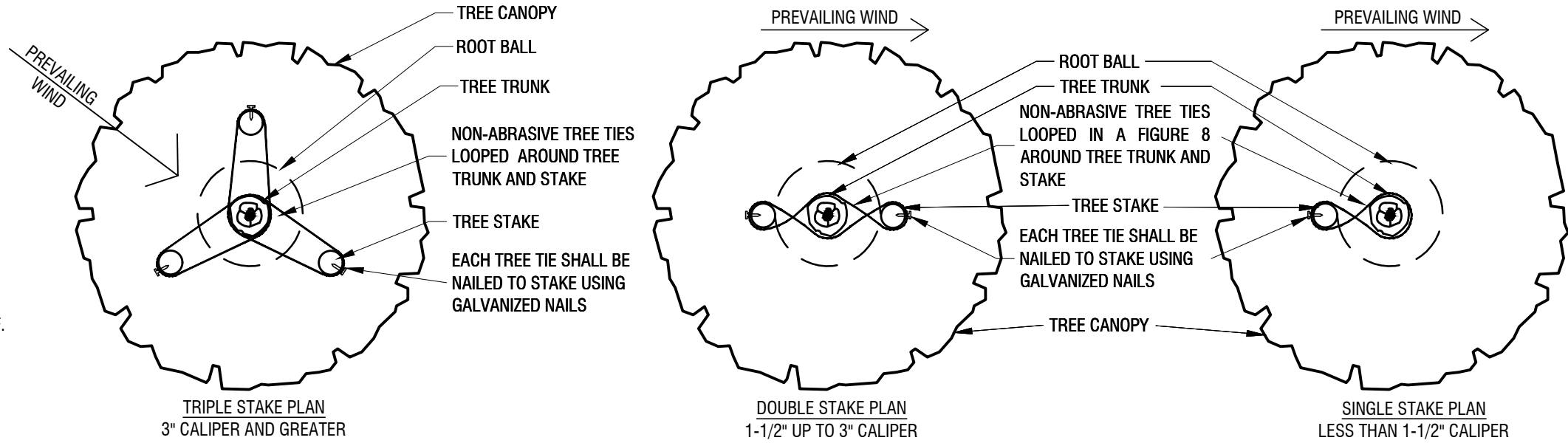
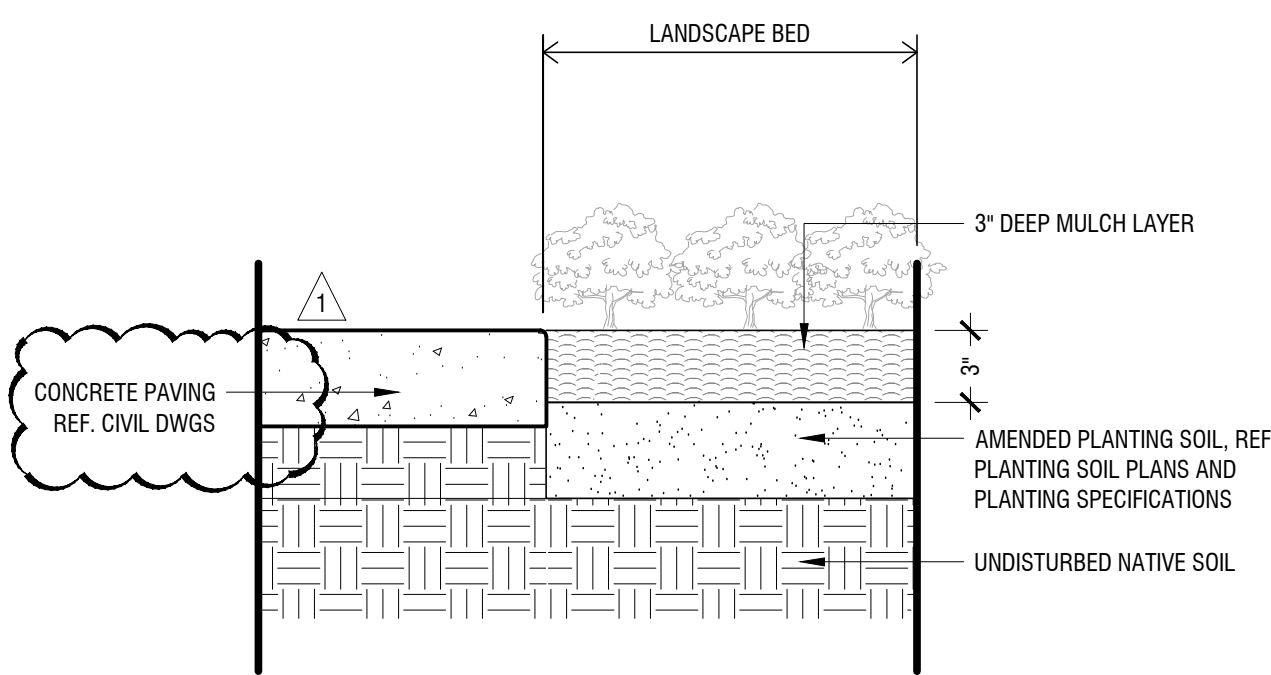
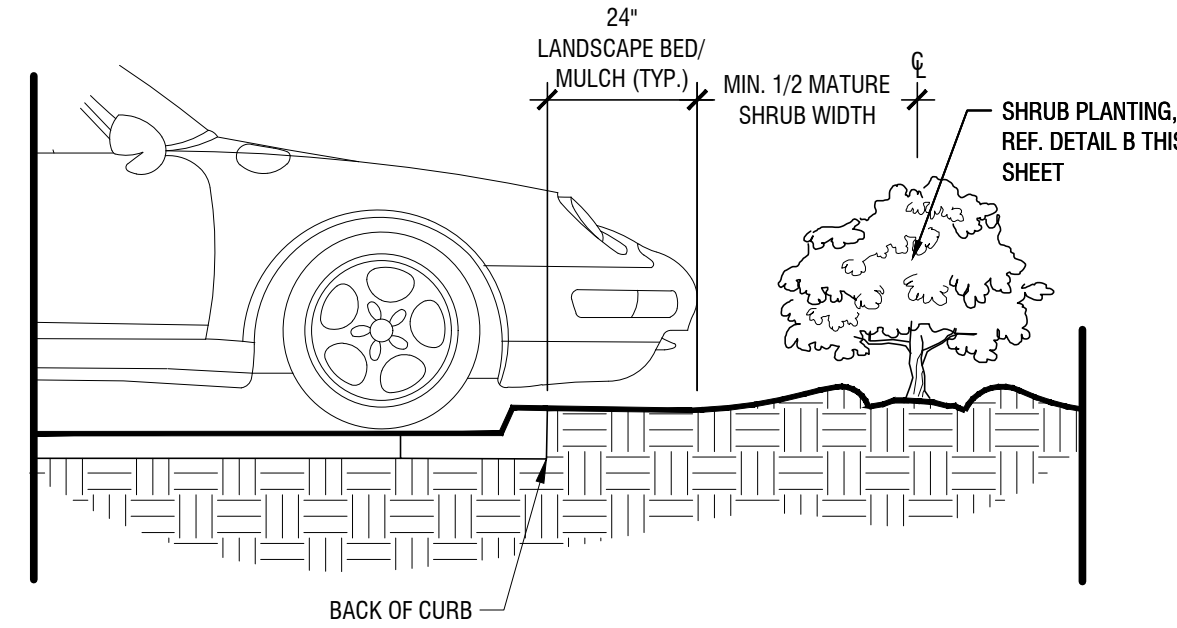
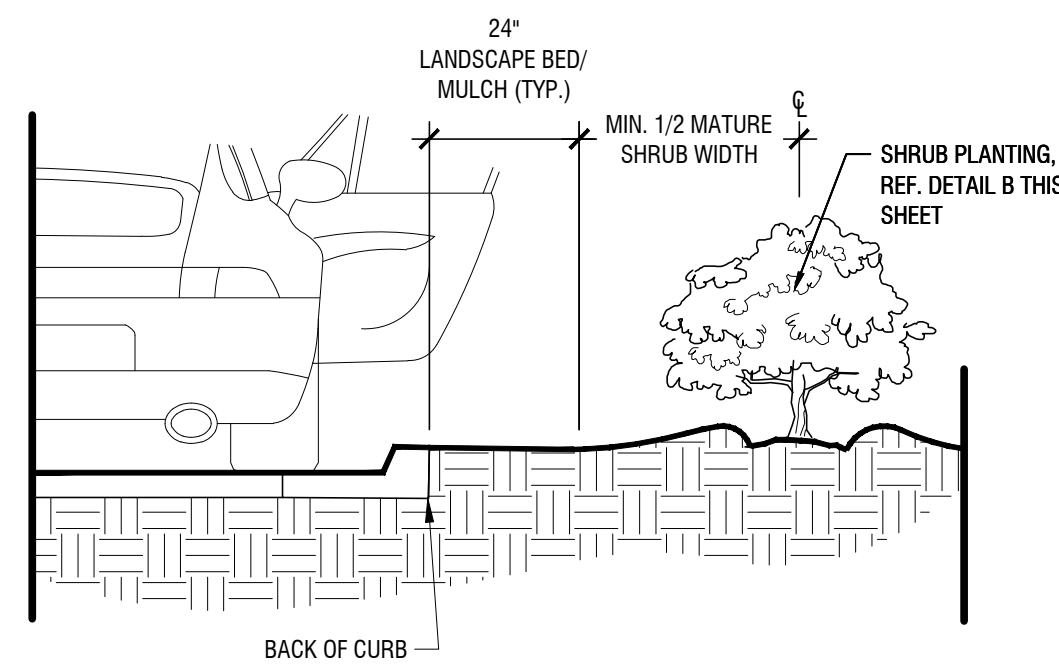
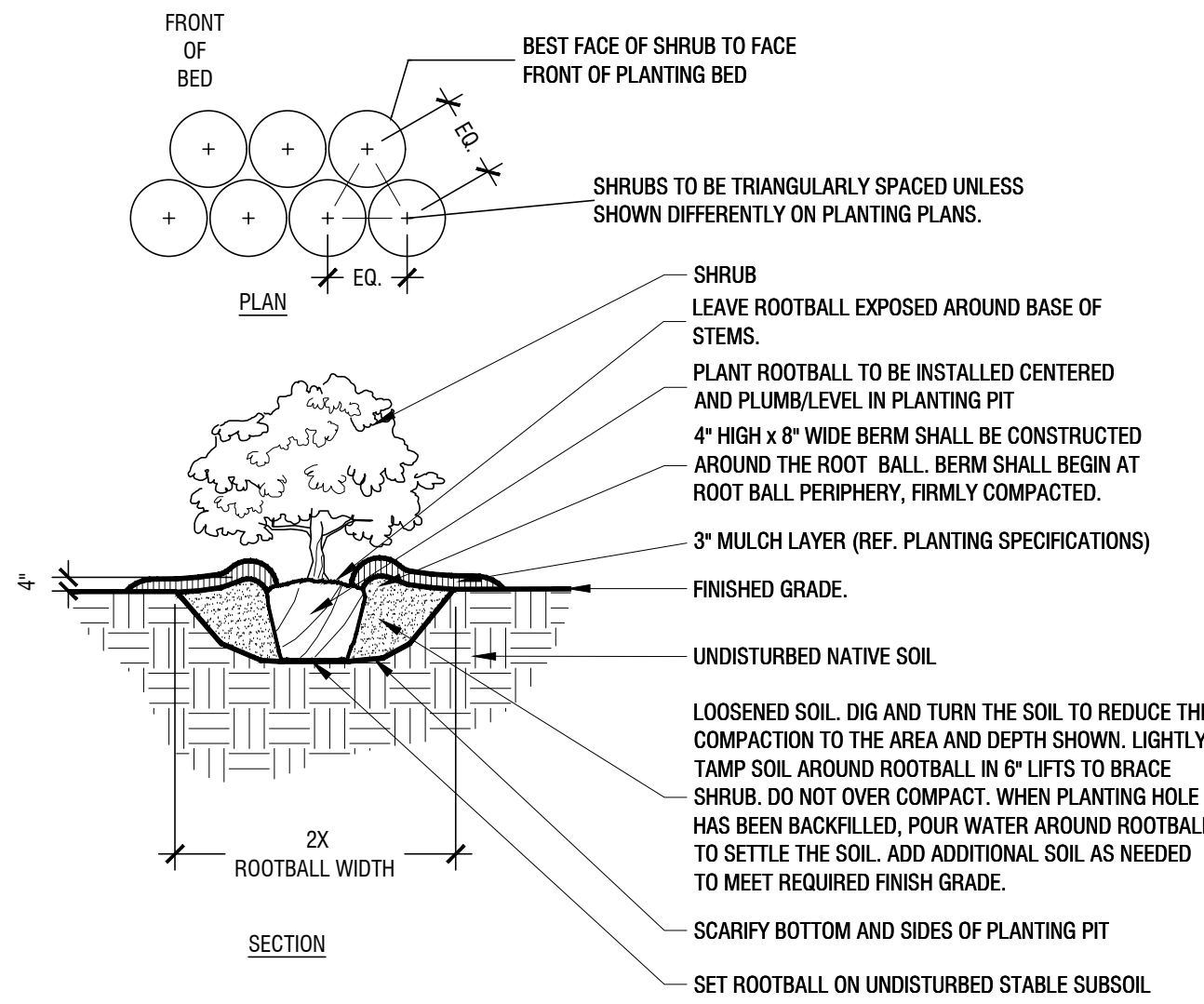
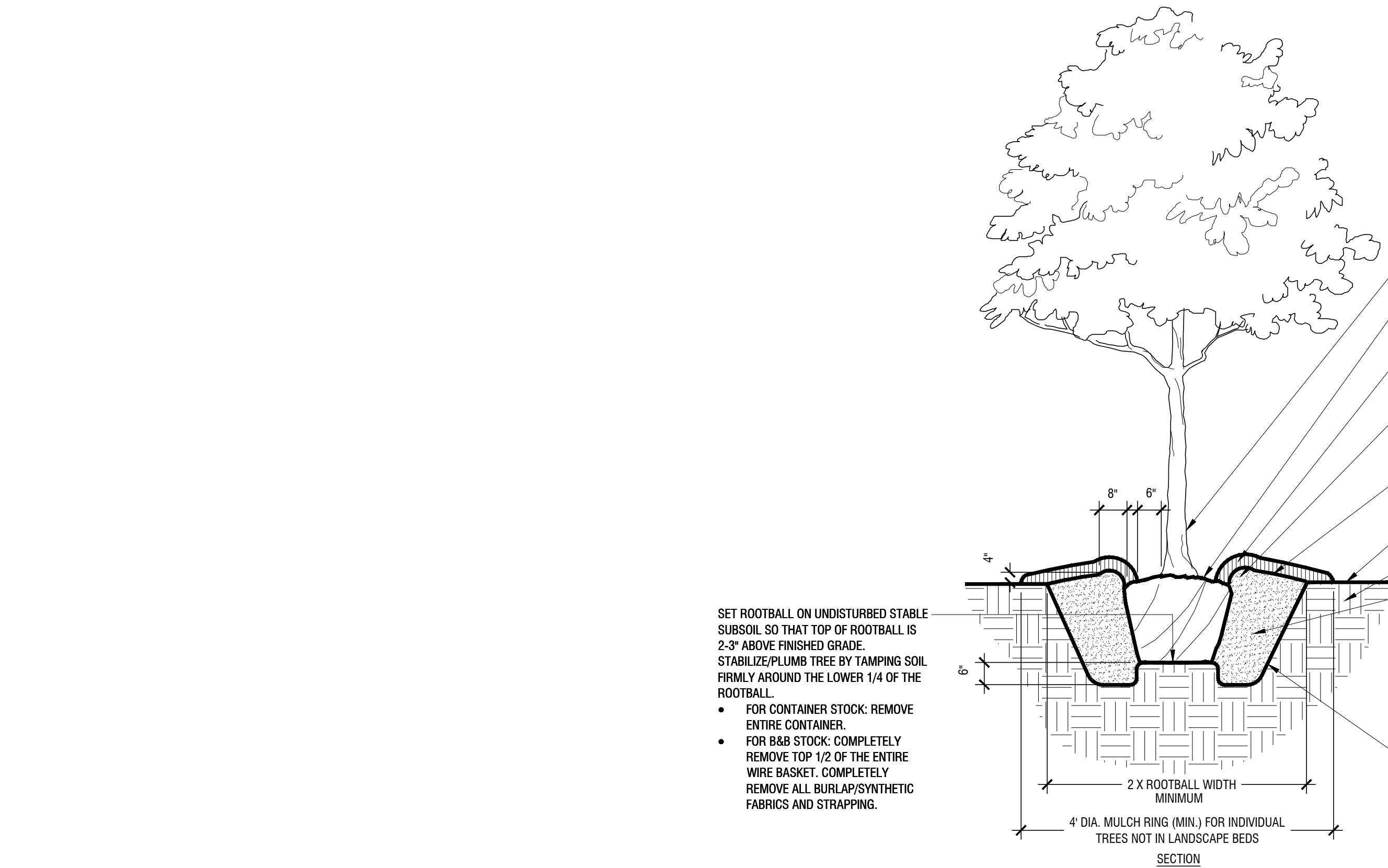
REGISTERED LANDSCAPE ARCHITECT  
STATE OF TEXAS  
3146  
04/28/2025

Kimley»Horn  
801 CHERRY ST. UNIT 11, STE. 1300, FORT WORTH, TX 76102  
PHONE: 817-335-6511 FAX: 817-335-5070  
TEXAS REGISTERED ENGINEERING FIRM F-928

RISE FIELDER DAYCARE  
ARLINGTON, TX

LANDSCAPE DETAILS  
SHEET NUMBER  
L3.01

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IMAGES  
XREFS  
PLOTTER  
DWG NAME

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 LAST SAVED 07/20/2023 9:40 AM

WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



C



# B



**A**

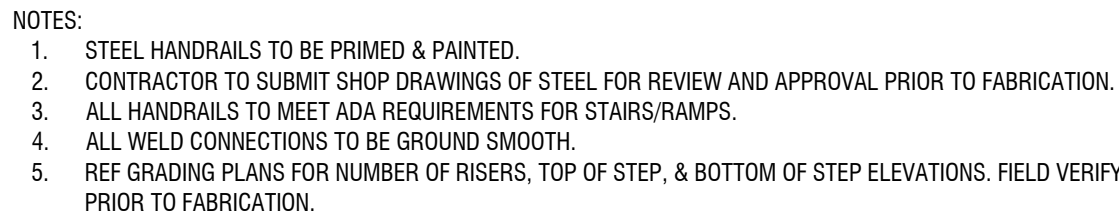
**RISE FIELDER DAYCARE**  
ARLINGTON, TX

NO.	ADDENDUM 1	AMH	DATE	BY
			06/09/2025	

 $\text{Y-HO}$

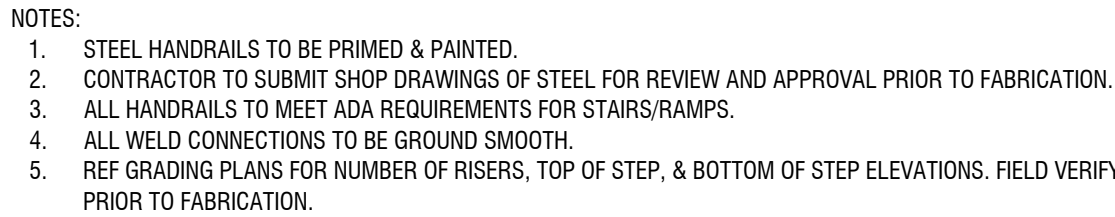


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Scale:  $3/4" = 1' - 0"$

PROJECT No. 018490602	DATE: APRIL 2002	SCALE: AS SHOWN	DESIGNED BY: A	DRAWN BY: A	CHECKED BY: A
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Scale:  $\frac{3}{4}" = 1' - 0"$

SHEET NUMBER  
L3.03

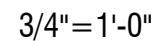
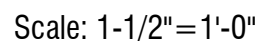
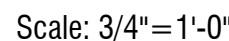
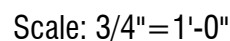
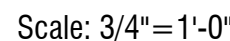
**Kimley»»Horn**  
801 CHERRY ST., UNIT 11, STE 1300, FORT WORTH, TX 76102  
PHONE: 817-335-6511 FAX: 817-335-5070  
TEXAS REGISTERED ENGINEERING FIRM F-928



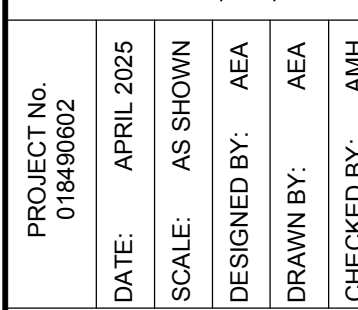
**RISE FIELDER DAYCARE**  
ARLINGTON, TX

## LANDSCAPE DETAILS





- [illegible]



## LANDSCAPE DETAILS

SHEET NUMBER  
L3.04



XREF xbird - XREF xPlant - XREF Planting details - XREF x2x36, Landscape - XREF x-site - XREF x-survey - XREF x-survey GIS - XREF x-utility - XREF Ramp and Stairs  
 IMAGES  
 HARMAN, ANNE 5/9/2025 10:37 AM  
 KPTW - CIVIL/601671024 - RISE FIELD/DER DAY/CAD/PLAN SHEETS/1.000 LANDSCAPE DETAILS.DWG  
 DWG NAME

**NOTE:** PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF A DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.

**NOTE: PLANTS ARE SPECIFIED BY HEIGHT AND SPREAD, NOT CONTAINER SIZE. ALL PLANTINGS ARE EXPECTED TO MEET ALL SPECIFICATIONS PROVIDED.**

**NOTE:** PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF A DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.

**A. SCOPE OF WORK**

1. THE WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE IMMEDIATE LIST AND NOT HEREIN SPECIFIED.

2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL PLANTING AREAS OF THIS CONTRACT UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

**B. PROTECTION OF EXISTING STRUCTURES**

ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, AND OTHER ITEMS OF CONSTRUCTION AND PLANTING PREVIOUSLY COMPLETED OR CAUSED SHALL BE PROTECTED FROM DAMAGE BY THIS CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.

**C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES OR SHRUBS EXISTING OR OTHERWISE ESTABLISHED PRIOR TO COMMENCEMENT OF WORK. STOCKPILING OF MATERIALS, ETC., THIS SHALL INCLUDE COMPACTING OR DRIVING OR PARKING INSIDE THE DIRT-PILE OR THE SPILLING OF OIL, GASOLINE, OR OTHER DELICATEOUS MATERIALS WITHIN THE DRAINAGE LINES. MATERIALS SHALL BE BURNED WHERE THE HEAT WILL DAMAGE ANY PLANT. TREES KILLED OR DAMAGED SO THAT THEY ARE MISAPPEAR AND/OR UNSUITABLE SHALL BE REPLACED AT THE OPTION OF THE CONTRACTOR.

PLANTING SHALL BE DONE AT A MINIMUM OF TWO (2) FEET ABOVE GRADE. EACH PLANTING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PER CENT PER NICH OVER FOUR (4) INCHES CALPER SHALL FIXED AND AGROVED LIQUIDATED DAMAGES. CALPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL. FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALPER.

**D. MATERIALS**

1. GENERAL

SAMPLES OF MATERIALS AS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL. ON THE SITE OR AS OTHERWISE DETERMINED BY THE OWNER. UPON APPROVAL OF SAMPLES, DELIVERY OF MATERIALS MAY BEGIN.

MATERIALS SAMPLES  
MULCH ONE (1) CUBIC FOOT  
TOSPOIL ONE (1) CUBIC YARD  
PLANTS ONE (1) OF EACH VARIETY

2. PLANT MATERIALS

A. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED IN THE DRAWINGS.  
NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, NEW EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS AS STATED IN THE LATEST EDITION OF "AMERICAN STANDARD HANDBOOK OF NURSERY STOCK," PUBLISHED BY THE NATIONAL ASSOCIATION OF NURSERYMEN.  
TREES SHALL BE FREELY DUG, SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING SHALL BE NO MORE THAN 18 INCHES IN DBH. AND MUST BE PROVIDED WITH A TAG IDENTIFYING THEM TO THE APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NEWER THAN ONE YEAR OLD. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE OWNER.

B. MEASUREMENTS: THE HEIGHT AND NUMBER OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE TRUNK OR BRANCHES OF THE TREE. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE TYPE OF PLANT, THE LOCATION AND SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.

C. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF DELIVERY TO THE UPON DELIVERY TO THE SITE, AS PASSAGE THROUGH BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF BALLS OR ROOTS. LATENT DEFECTS OR INADEQUATE PERFORMANCE SHALL BE REMOVED IMMEDIATELY IF THE SITE NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK BEFORE TO ANTICIPATED DATE.

**E. TOPSOIL**

1. TOPSOIL: DESIGNED, NATURAL, FRAGILE, FERTILE; FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF MEDIUM ORGANIC MATTER. IN THE VENTURE THAT PRODUCES HIGH YIELD. TOPSOIL SHALL HAVE A RANGE OF 5.5 TO 7.4 PERCENT, FREE FROM SUBSOIL, OBJECTABLE WEEDS, LITTER, SOLIDS, STIFF CLAY, STONES, LARGER THAN 1/4 INCH IN DIAMETER, STUMPS, ROOTS, TRASH, HERBICIDES, TOXIC SUBSTANCES OR ANY OTHER MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH OR HINDER PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN A MINIMUM OF THREE PERCENT ORGANIC MATERIAL.

2. SALVAGED OR EXISTING TOPSOIL: REUSE SUITABLE TOPSOIL STOCKPILED ON-SITE OR EXISTING TOPSOIL OBTAINED BY GRADING OR EXCAVATION OPERATIONS. CLEAN TOPSOIL OF ROOTS, PLANTS, BODIES, STONES, CLAY LUMPS, AND OTHER EXTRANEAS MATERIALS HARMFUL TO PLANT GROWTH.

3. VERIFY AMOUNT OF SUITABLE TOPSOIL STOCKPILED IF ANY, AND SUPPLY ADDITIONAL IMPORTED TOPSOIL AS REQUIRED. FOUR (4) INCHES OF TOPSOIL SHALL BE PASSED THROUGH A 1/2 INCH SCREEN. PLANTS LARGER IN SIZE THAN 4 INCHES OF TOPSOIL TO BE PROVIDED FOR ALL PLANTING AREAS WITHIN INTERIOR LANDSCAPE ISLANDS AND FOUNDATION PLANTINGS. FOR ALL OTHER PLANTING AREAS, TWELVE (12) INCHES OF TOPSOIL MINIMUM TO BE PROVIDED.

4. IMPORTED TOPSOIL: SUPPLEMENT SALVAGED TOPSOIL WITH IMPORTED TOPSOIL FROM OFF-SITE SOURCES WHEN EXISTING QUANTITIES ARE INSUFFICIENT.

5. OBTAIN TOPSOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS ALONG AT LEAST 2 FEET DEPTH. DO NOT OBTAIN SLITS AND SHALL BE PASSAGE THROUGH BY A 1/2 INCH SCREEN.

6. VERIFY BORROW AND DISPOSAL SITES ARE PERMITTED AS REQUIRED BY STATE AND LOCAL REGULATIONS. OBTAIN WRITTEN CONFIRMATION THAT PERMITS ARE CURRENT AND ACTIVE.

7. OBTAIN PERMITS REQUIRED BY STATE AND LOCAL REGULATIONS FOR TRANSPORTING TOPSOIL. PERMITS SHALL BE CURRENT AND ACTIVE.

8. AMEND EXISTING AND IMPORTED TOPSOILS AS INDICATED BELOW:

ORGANIC SOIL AMENDMENTS

1. MANURE: WELL-ROTTE, UNLEACHED, STABLE OR CATTLE MANURE CONTAINING NOT MORE THAN 2% NITROGEN BY VOLUME OF STRAW, SAWDUST, OR OTHER BEDDING MATERIALS. FREE OF TOXIC SUBSTANCES, STONES, STICKS, SOIL, WOOD SEED, AND MATERIAL HARMFUL TO PLANT GROWTH.

2. BACK TO NATURE COTTON BURN COMPOST OR APPROVED EQUIVALENT.

3. COMPOST: DECOMPOSED ORGANIC MATERIAL INCLUDING LEAF LITTER, MANURE, SAWDUST, PLANT TRIMMINGS AND HARDY, MIXED WITH SOIL.

4. PECAN HULLS: COMPOSTED PECAN HULLS FOR LOCAL SOURCE.

5. BIOSOLIDS: USE GRADE 1 CONTAINING LOWER LOGICAL RESIDUE.

6. WORM CASTINGS: EARTHWORMS.

**F. INORGANIC SOIL AMENDMENTS**

1. LIME: ASTM C602, CLASS A AGRICULTURAL LIMESTONE CONTAINING A MINIMUM OF .8 PERCENT CARBON DIOXIDE EQUIVALENT WITH A MINIMUM OF 95 PERCENT PASSING NO. 8 U.S. SIEVE AND MINIMUM OF 95 PERCENT PASSING NO. 20 U.S. SIEVE.

2. SULFUR: GRANULAR, BIODEGRADABLE, CONTAINING A MINIMUM OF 90 PERCENT SULFUR WITH A MINIMUM OF 90 PERCENT PASSING NO. 6 SIEVE AND A MAXIMUM OF 10 PERCENT PASSING NO. 40 SIEVE.

3. IRON SULFATE: GRANULATED FERROUS SULFATE CONTAINING A MINIMUM OF 20 PERCENT IRON AND 10 PERCENT SULFUR.

4. AGRICULTURAL GYPSUM: FINELY GROUND, CONTAINING A MINIMUM OF 90 PERCENT CALCIUM SULFATE.

5. SAND: CLEAN, WASHED, NATURAL OR MANUFACTURED, FREE OF TOXIC MATERIALS.

**G. PLANTING SOIL MIX**

1. PLANTING MIX MAY BE PROVIDED BY LIVING EARTH OR MINICK MATERIALS OR APPROVED EQUIVALENT.

2. PLANTING MEDIUM CONTAINING 75 PERCENT SPECIFIED TOPSOIL MIXED WITH 15 PERCENT ORGANIC SOIL AMENDMENTS AND 10 PERCENT SHARP WASHED SAND. INSTALL TO DEPTHS, PER PLANTING DETAILS (12" MIN.) FINISHED GRADES OF PLANTING BEDS TO BE 2" BELOW FINISHED GRADE OF ADJACENT PAVING OR AS SHOWN ON GRADING PLAN.

**H. SOOLED AREA TOPSOIL**

1. SOILED AREAS TO RECEIVE 4" DEPTH (MIN.) TOPSOIL PRIOR TO INSTALLATION. TOPSOIL SHALL BE NATURAL, FRAGILE, FERTILE, WITH 25% (MIN.) ORGANIC MATERIAL, AND FREE OF TRASH, DEBRIS, STONES, WEEDS, AND TWIGG/BARKS. PARTICULATE SIZES SHALL BE SUCH THAT 98.5% OF THE PARTICLES SHALL PASS THROUGH A 1/2 INCH SCREEN, AND 99% MORE SHALL PASS THROUGH A 3/4 INCH SCREEN. TOPSOIL SHALL BE RECEIVED/IMPORTED BY A LICENSED/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. CONTRACTOR TO SUBMIT SAMPLES IN 1 GAL. (MIN.) CONTAINER.

**I. WATER**

WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN PLANT LIFE. GROUND GROWING PLANTS SHALL BE WATERED REGULARLY. NATURAL OR MANMADE ELEMENTS DETRIMENTAL TO PLANTS, WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE, IF AVAILABLE, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR PURCHASE BY HIS OWNERS. IF THE CONTRACTORS, ETC., IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SUCH SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.

**J. COMMERCIAL FERTILIZER**

COMMERCIAL FERTILIZER SHALL BE A COMPLETE FORMULA. IT SHALL BE INIFORM IN COMPOSITION, DRY AND FREE FLOWING. THIS FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED CONTAINERS, EACH BEARING THE MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS.

FIFTY PERCENT (50%) OF THE NITROGEN SHALL BE DERIVED FROM NATURAL ORGANIC SOURCES. THE FOLLOWING FERTILIZERS SHALL BE USED AND APPLIED AT RATES AS SUGGESTED BY MANUFACTURERS' SPECIFICATIONS:

1. SHRUBS AND TREES - MILK-RANGE OR APPROVED EQUAL  
2. ANNUALS AND GROUND COVERS - 08-00002C-3699A BLND 16-14-14  
3. SMOO - 4-4-4 FERTILIZER  
IN ADDITION TO SURFACE APPLIED FERTILIZER, ALL CONTAINER GROWN AND FIELD GROWN PLANT MATERIAL SHALL RECEIVE "ROOTZON" FERTILIZER TABLETS. USE FORMULA 16-16-16 OR EQUAL. THESE TABLETS SHALL BE PLACED AT A DEPTH OF 1 FOOT BELOW AT THE RATE AS SPECIFIED BY THE MANUFACTURER.

K. MULCH

1. PROTECT ROOTS OR BALLS OF PLANTS AT ALL TIMES FROM SUN AND DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIAL SHALL BE ADEQUATELY PACKED TO PREVENT BRUISING AND DRYING OUT DURING TRANSPORT. TREES TRANSPORTED MORE THAN TEN (10) MILES FROM THE AREA ARE NOT TO BE PLANTED IF THE BALL IS CRACKED OR DAMAGED. PLANTS SHIPPED WITH AN ANTI-TRANSPIRANT PRODUCT (WULTRUP® OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.
2. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBRUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS AT ALL SIZES SHALL BE PLANTED IF THE BALL IS CRACKED OR DAMAGED. PLANTS BALLED AND BURLAPPED OR CONTAINER GROWN SHALL NOT BE HANDLED BY STEMS.
3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS. THE ROOTS SHALL NOT BE CUT WITHIN THE MINIMUM SPREAD SPECIFIED IN THE PLANT LIST. CARE SHALL BE EXERCISED TO PREVENT THE ROOTS FROM DRYING OUT IN MOVING AND PRIOR TO PLANTING.
4. PROTECTION OF PALMS (IF APPLICABLE): A VERY MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE MAINTAINED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER DETAIL.
5. EXCAVATION OF FREE TREES SHALL BE DONE USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND REINFORCED SUB-BASIS.

10. CONTAINER GROWN STOCK

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE FOLIAGE THAT ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THE CONTAINER UNTIL LONG ENOUGH TO BE PLANTED IN THE GROUND. PLANTS THAT DO NOT HAVE THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. PLANTS THAT DO NOT HAVE THE ROOT MASS SHALL NOT BE PLANTED IN THE GROUND.
3. PLANT ROOTS SOUND IN CONTAINERS SHALL NOT BE ACCEPTABLE.
4. SUBSTITUTION OF NON-CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NOT BE PERMITTED UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE OWNER AND LANDSCAPE ARCHITECT.

11. COLLECTED STOCK

WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED ON THE PLANT LIST SCHEDULE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

12. NATIVE STOCK

PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THE CONTRACTOR SUBSIDIARIES ARE USED TO GROW THEM. FIBRUS ROOTS AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE SIZE TO BE PLANTED TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.

13. MATERIALS LIST

QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE BY THE ARCHITECT, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS, SHOULD A DISCREPANCY OCCUR BETWEEN THE QUANTITIES AND THE QUANTITY LIST. QUANTITY LIST QUANTITY: THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO THE SUBMISSIONS OF BIDS. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.

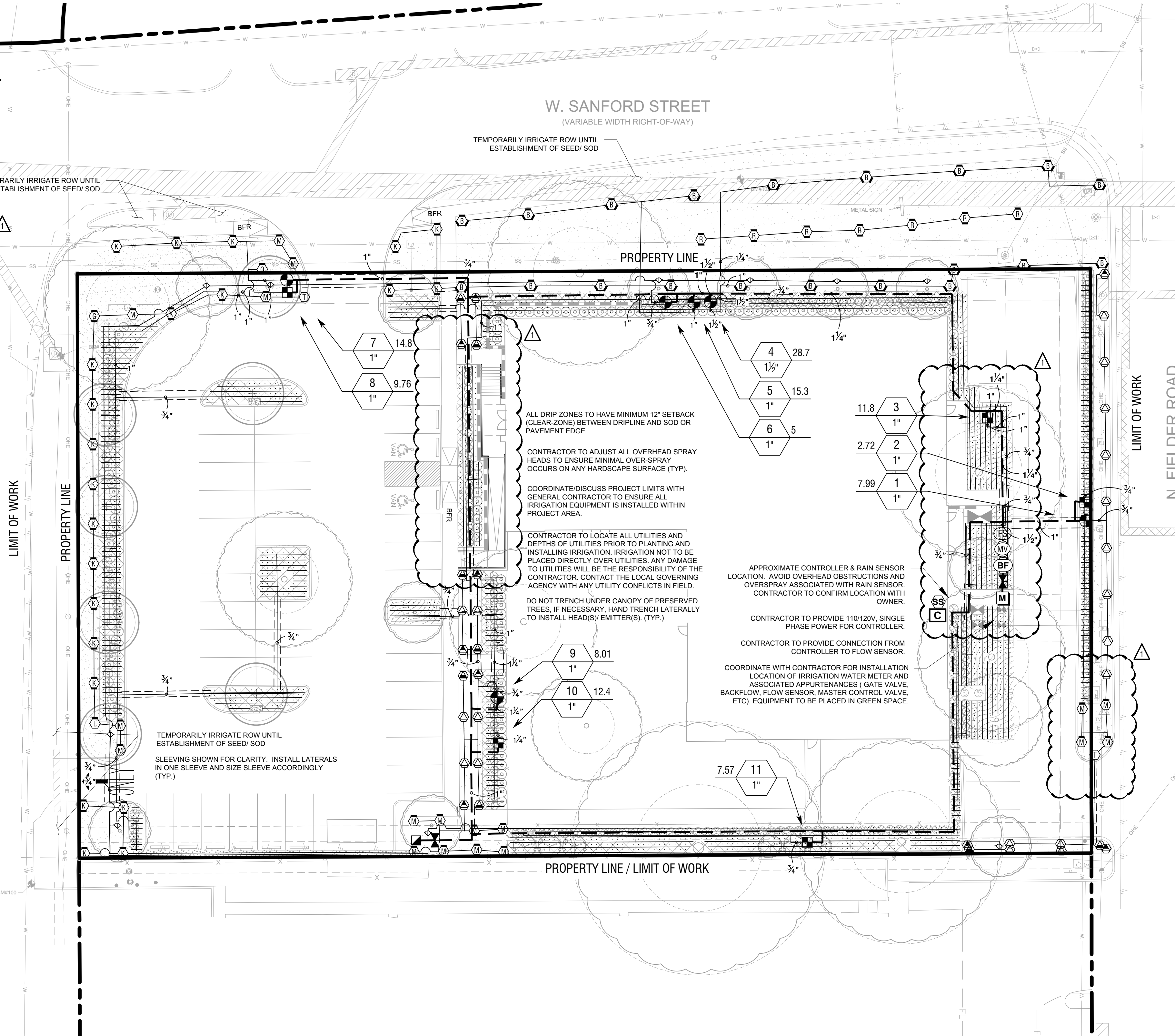
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IMAGES  
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THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter MP Corner PROS-04-PRS40-CV Turf Rotator, 4" (15.24cm) pop-up with factory installed check valve, pressure regulated to 40 psi (2.76 bar), MP Rotator nozzle on PRS40 body. T=Turquoise adj arc 45-105.	2
	Hunter MP Strip PROS-04-PRS40-CV Turf Rotator, 4" (15.24 cm) pop-up with factory installed check valve, pressure regulated to 40 psi (2.76 bar), MP Rotator nozzle on PRS40 body. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip.	36
	Hunter MP1000 PROS-04-PRS40-CV Turf Rotator, 4" (15.24 cm) pop-up with check valve, pressure regulated to 40 psi (2.76 bar), MP Rotator nozzle on PRS40 body. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 360 arc.	20
	Hunter MP2000 PROS-04-PRS40-CV Turf Rotator, 4" (15.24 cm) pop-up with factory installed check valve, pressure regulated to 40 psi (2.76 bar), MP Rotator nozzle on PRS40 body. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc.	30
	Hunter MP3000 PROS-04-PRS40-CV Turf Rotator, 4" (15.24 cm) pop-up with factory installed check valve, pressure regulated to 40 psi (2.76 bar), MP Rotator nozzle on PRS40 body, B=Blue adj arc 90-210, Y=Yellow adj arc 210-270, A=Gray 360 arc.	20
	Hunter PROS-04-CV-PCN Flood Bubbler, 4in. pop-up, factory installed drain check valve.	10
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Netafim LVZ58010075-LF Pre-Assembled Control Zone Kit, with 1in. Series 80 Control Valve, 3/4in. Disc Filter, and Low Flow Pressure Regulator 0.25GPM-4.4GPM	5
	Area to Receive Dripline Netafim TLCV-04-18 Techline Pressure Compensating Landscape Dripline with Check Valve. 0.26 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. 17mm.	6,609 lf
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICV-G (Remote) Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	6
	Hunter HQ-44LRC-R Quick coupler valve, purple rubber locking cover for reclaimed water use, red brass and stainless steel, with 1in. NPT inlet, 2-piece body.	1
	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location.	2
	Hunter ICV-G (Master Valve) 1-1/2" Plastic Electric Master Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	1
	Fibco 850 1-1/2" Double Check Backflow prevention,	1
	Hunter I2C-2400-SS 24 Station Outdoor Modular Controller. With two ICM-800 Module. Commercial Use. Stainless Steel Cabinet.	1
	Hunter Solar-Sync Solar, rain freeze sensor with outdoor interface, connects to Hunter PCC, Pro-C, 1 and I-Core Controllers, install as noted. Includes 10 year lithium battery and rubber module cover, and gutter mount bracket. Wired.	1
	Hunter HFS-100 Flow Sensor for use with ACC controller, 1in. Schedule 40 Sensor Body, 24 VAC, 2 amp.	1
	Water Meter 1-1/2" REF. CIVIL DWGS	1
	Irrigation Lateral Line: PVC Class 200 SDR 21 3/4" min.	
	Irrigation Mainline: PVC Class 200 SDR 21 1" Min.	
	Pipe Sleeve: PVC Schedule 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	255.1 lf
	Valve Callout Valve Number Valve Flow Valve Size	
THIS IRRIGATION PLAN IS DESIGNED TO THE FOLLOWING STATS: 64 PSI AND 75 GPM. IF WATER PRESSURE DOES NOT MEET DESIGN SPECIFICATIONS A BOOSTER PUMP WILL BE REQUIRED AT COST OF CONTRACTOR. CONTACT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IF SYSTEM HAS +/- 5 PSI THAN DESIGN PRESSURE.		
ABOVE QUANTITIES PROVIDED FOR CONVENIENCE ONLY. CONTRACTOR TO CONFIRM ALL QUANTITIES PRIOR TO BIDDING.		
REFERENCE MAXIMUM LATERAL DRIPLINE CHART TO DETERMINE MINIMUM NUMBER OF POINTS OF CONNECTION PER DRIP LINE ZONE.		
WHERE LAYOUT FLEXIBILITY EXISTS CENTER FEED LAYOUTS MUST BE USED. THIS ALLOWS FOR EVEN FLOW OF WATER THROUGH THE ZONE.		
HUNTER ECO-INDICATOR TO BE PLACED IN ALL DRIP AREAS AT THE FURTHEST POINT OF EACH DRIP RUN.		
ZONES LOWER THAN THE CAPACITY OF THE FLOW SENSOR ARE TO BE WIRED IN THE CONTROLLER WITH ANOTHER ZONE SO THAT THE FLOW SENSOR READS BOTH ZONES AS ONE ZONE IN ORDER TO MEET THE FLOW SENSOR'S LOWEST GPM REQUIREMENT. DRIP ZONES REQUIRED TO REMAIN PIPED AS SEPARATE ZONES.		



GENERAL IRRIGATION NOTES

- IRRIGATION CONTRACTOR SHALL TEST EXISTING STATIC PRESSURE ON SITE PRIOR TO CONSTRUCTION. SHOULD EXISTING SITE PRESSURE BE BELOW 65 PSI, CONTRACTOR SHALL CONTACT THE IRRIGATION DESIGNER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE 100% COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
- ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS PRIOR TO COMMENCEMENT OF OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER/GENERAL CONTRACTOR.
- LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES. MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES.
- ELECTRICAL POWER SHALL BE PROVIDED WITHIN 5 FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR. LICENSED IRRIGATION CONTRACTOR TO PROVIDE FINAL HARD WIRE TO CONTROLLER.
- 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF 14 GAUGE, U.L. APPROVED FOR DIRECT BURIAL. SINGLE CONDUCTOR "IRRIGATION WIRE". CONTRACTOR TO CONFIRM WIRE SIZE PRIOR TO INSTALLATION. WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF WIRE CONNECTOR UL APPROVED AND FILLED WITH SILICONE.
- IRRIGATION VALVES AND VALVE BOXES SHALL BE LOCATED IN LANDSCAPE BEDS OR GROUND COVER AREAS WHENEVER POSSIBLE. ALL REMOTE VALVE BOXES SHALL BE SET FLUSH WITH FINISHED GRADE AND CONTAIN ONE CUBIC FOOT OF CLEAN GRAVEL BENEATH VALVE. LABEL REMOTE BOXES WITH ONE-INCH ALPHA NUMERIC NOTATION CORRESPONDING TO THE APPLICABLE ALPHA CONTROLLER AND NUMERIC STATION. USE 10" ROUND VALVE BOXES FOR ELECTRIC VALVES AND QUICK COUPLING VALVES. USE 15" X 9.5" RECTANGULAR BOX FOR DRIP VALVES UNLESS NOTED OTHERWISE. DOUBLE CHECK ASSEMBLY SHALL BE BOXED ACCORDING TO LOCAL CODES.
- USE PVC SWING JOINT ASSEMBLIES TO CONNECT ALL SPRAY AND ROTOR HEADS.
- CONTRACTOR IS TO CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES, AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK.
- SLEEVES SHALL BE INSTALLED BY GENERAL CONTRACTOR UNLESS OTHERWISE NOTED. SLEEVE MATERIAL SHALL BE PVC, SDR 40. CONTRACTOR SHALL EXTEND SLEEVES 18 INCHES BEYOND EDGE OF ALL PAVEMENT. ELECTRICAL WIRES FOR IRRIGATION VALVES AND IRRIGATION LINES ARE TO BE PLACED IN SEPARATE SLEEVES. SEE SLEEVING DETAIL. ALL PRESSURE MAINLINES UNDER ASPHALT PAVEMENT SHALL BE PLACED WITHIN SLEEVES AS NOTED.
- DRIP LINE SHALL BE PLACED A MINIMUM OF 2" UNDER MULCH.
- LICENSED IRRIGATION CONTRACTOR SHALL ADJUST SPRAY NOZZLES FOR "HEAD-TO-HEAD" COVERAGE AND ADJUST FOR MINIMUM OVERSPRAY ONTO PAVEMENT. NO OVERSPRAY IS PERMITTED ONTO STREETS OR SIDEWALKS.
- IRRIGATION CONTRACTOR SHALL SUPPLY AND CONSTRUCT IRRIGATION SYSTEM WITH ALL MATERIALS AND PER MANUFACTURER SPECIFICATIONS SHOWN ON THIS PLAN. IF CONTRACTOR PREFERENCES MATERIALS THAT DIFFER FROM THE THIS PLAN, THEY SHALL BE APPROVED BY THE IRRIGATION DESIGNER PRIOR TO CONSTRUCTION.
- VERIFY CONTROLLER AND RAIN SENSOR LOCATION AND MAINLINE POINT OF CONNECTION AT PROJECT SITE WITH OWNER.
- EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
- IRRIGATION LATERAL LINES, MAIN LINES AND EQUIPMENT MAY BE SHOWN OUTSIDE PROPERTY LINES ON THIS PLAN. ALL IRRIGATION LINES AND EQUIPMENT ARE TO BE WITHIN AND INSTALLED WITHIN THE LIMITS OF THE PROPERTY LINE.
- SUPPLY LINE AND METER TO BE PROVIDED BY GENERAL CONTRACTOR. BACKFLOW PREVENTER TO BE PROVIDED BY IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR'S POINT OF CONNECTION TO BEGIN AFTER THE IRRIGATION WATER METER.
- IRRIGATION CONTRACTOR SHALL REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERS REPRESENTATIVE.
- ALL PLANT MATERIAL IN TREE HOLDING AREAS SHALL BE MANUALLY WATERED/IRRIGATED TO KEEP MOIST UNTIL PLANTED.
- MAINLINE, VALVES, AND WIRING ARE SHOWN ON DRAWINGS FOR CLARITY. SHOULD BE LOCATED IN ACCESSIBLE GREEN SPACE. CONTRACTOR TO COORDINATE WITH ALL DISCIPLINES TO AVOID CONFLICTS WITH UTILITIES/ STRUCTURES, ETC.
- INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON THE SITE.
- SET SPRAY HEADS 4" FROM BACK OF CURB OR 24" IF PAVEMENT HAS NO CURB.
- CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT. "AS-BUILT" DRAWINGS TO BE COLOR CODED BY ZONE ON 8.5" X 11", LAMINATED, AND PLACED IN CONTROLLER.
- ALL DRIP ZONES SHALL BE INSTALLED WITH A SELF-FLUSHING DISC FILTER, OR APPROVED EQUAL.
- INSTALL ALL IRRIGATION COMPONENTS AS PER MANUFACTURERS REQUIREMENTS.
- IRRIGATION HEADS AND COMPONENTS SHALL BE LOCATED A MINIMUM OF 24" FROM ALL BUILDINGS TO AVOID ADVERSE PERFORMANCE OF FOUNDATIONS AND SLABS.
- NO LATERALS LESS THAN 3/4" DIAMETER.

Kimley»Horn



04/28/2025

PROJECT No.	018490602
DATE:	APRIL 2025
SCALE:	AS SHOWN
DESIGNED BY:	MMS
DRAWN BY:	MMS
CHECKED BY:	AMH

RISE FIELDER DAYCARE

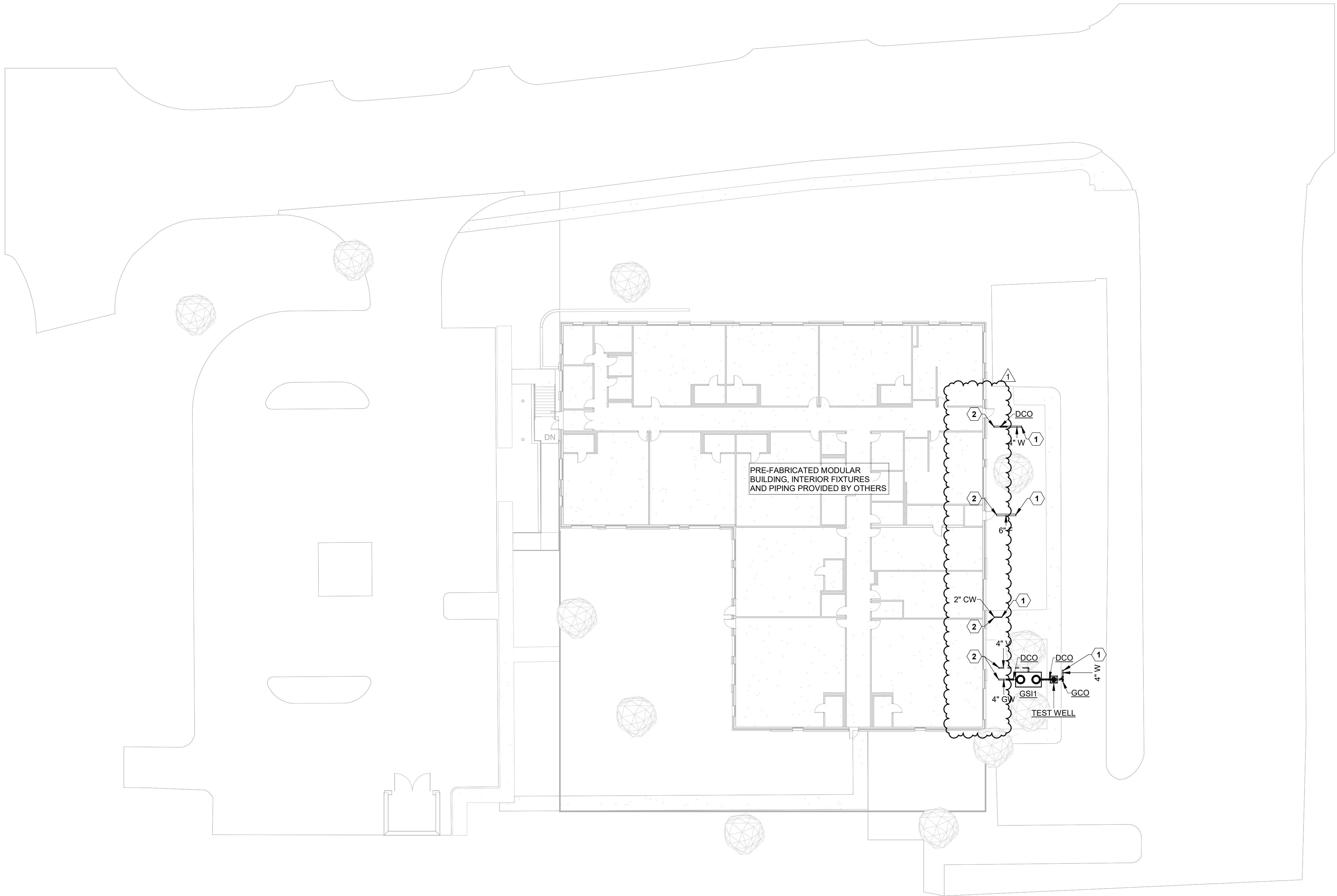
ARLINGTON, TX

IRRIGATION PLAN

SHEET NUMBER

L4.01





1 PLUMBING SITE PLAN  
PS1.01 1" = 20'-0"

NOTES BY SYMBOL

- 1 REFER TO CIVIL FOR CONTINUATION.  
2 EXTEND SITE UTILITIES TO WITHIN 5' OF THE BUILDING ENVELOPE AND STUB UP FOR FUTURE CONNECTION. FINAL UTILITY AND INTERIOR CONNECTIONS TO BE PERFORMED BY OTHERS.