

# Agenda

## Board of Adjustment Regular Meeting

6:00 PM May 14, 2025

Board Meeting Room, Town Hall Annex, 105 E. Corbin St.



**1. Call to order and confirmation of quorum**

**2. Agenda changes and approval**

**3. Minutes review and approval**

A. Minutes from regular meeting on Apr. 9, 2025

**4. Quasi-judicial evidentiary hearings**

A. Case BA-02-2025: Durham Technical Community College Orange County Campus Expansion – Special Use Permit Modification request at 525 College Park Road (Orange County PIN 9873-33-0977). The applicant is Timmons Group. The property owners are Orange County and The Trustees of Durham Technical Community College. The request is for a 12,239 square foot, two-story addition to the southwest side of the building.

B. Case BA-03-2025: Holy Family Catholic Church – Variance request at 216 Governor Burke Road (Orange County PIN 9865-95-5127). The applicant is Civil Consultants, Inc. The property owner is Holy Family Catholic Parish of Hillsborough. The request is a 14-foot variance from the maximum 45-foot building height requirement of the R-10 zoning district.

**5. Committee and staff reports**

**6. Adjournment**

Interpreter services or special sound equipment for compliance with the American with Disabilities Act is available on request. If you are disabled and need assistance with reasonable accommodations, call the Town Clerk's Office at 919-296-9443 a minimum of two business days in advance of the meeting.

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# **DRAFT Minutes**

## **BOARD OF ADJUSTMENT**

### Regular meeting

6 p.m. Apr. 9, 2025

Conference Room of Town Hall Annex, 105 E. Corbin St.



Present: Chair Sean Kehoe, Dave Blankfard, Richard Chapple, Rob Iglesias, Eddie Sain, and Jenn Sykes

Absent: Vice Chair Raul Herrera

Staff: Senior Planner Tom King

#### **1. Call to order and confirmation of quorum**

Chair Sean Kehoe called the meeting to order at 6:00 pm. Senior Planner Tom King confirmed the presence of a quorum.

#### **2. Agenda changes and approval**

Chair Kehoe asked if there were any changes to the agenda. King advised there were no changes from staff. No board members noted changes.

Motion: Member Jenn Sykes moved to approve the agenda as presented. Member Rob Iglesias seconded.

Vote: 6-0

#### **3. Minutes review and approval**

Minutes from the regular meeting on February 12, 2025

Motion: Sykes moved to approve the February 12, 2025, minutes as presented. Member Eddie Sain seconded.

Vote: 6-0

#### **4. Other business**

Annual election of board chair and vice chair

King advised the board that, since Sykes's and Kehoe's terms were set to expire April 30, 2025, they should not be put forth as candidates.

Motion: Chair Kehoe made a motion to elect Raul Herrera as Chair and Dave Blankfard as Vice Chair. Sykes seconded.

Member Dave Blankfard entered the meeting at 6:03 pm.

Vote: 6-0

#### **5. Committee and staff reports**

King informed the board of the following:

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- a. At their March 20, 2025, meeting, the Planning Board voted to re-appoint Rob Iglesias as Planning Board representative to the Board of Adjustment.
- b. A “soft” kick-off meeting for the Unified Development Ordinance rewrite project was held earlier in the day with town staff and the town’s project consultant, Inspire Placemaking Collaborative, of Durham. The project is expected to take about 1½ years to complete.
- c. King will be interviewing a potential candidate for the board on April 22, 2025. This person would potentially fill one of the seats being vacated by Kehoe and Sykes.
- d. It is expected that there will very likely be a meeting on May 14, 2025. A special use permit modification case will be on the agenda & possibly a variance(s) case.
- e. The University of North Carolina School of Government is offering a virtual, on-line quasi-judicial board training in May. King noted that Sain had expressed interest & Blankfard believed he didn’t need the training. King asked Iglesias if he was interested. Iglesias said he was, but there may be a conflict with his work schedule.

**6. Adjournment**

Motion: Sykes moved to adjourn the meeting. Member Sain seconded.

Vote: 6-0

The meeting was adjourned at 6:11 p.m.

Respectfully submitted,



Tom King, AICP, CZO  
Senior Planner  
Secretary to the Board of Adjustment

Approved: XX, 202X



**PLANNING & ECONOMIC  
DEVELOPMENT DIVISION  
STAFF REPORT**

Tom King, AICP, CZO - Senior Planner  
Secretary to the Board of Adjustment



101 East Orange Street  
P.O. Box 429  
Hillsborough, NC 27278

**Report Date:** May 7, 2025

**BOARD OF ADJUSTMENT**

**Agenda Item: 4.A**

CASE NUMBER	CASE NAME	APPLICANT/PROPERTY OWNERS
BA-02-2025	Durham Technical Community College Orange County Campus Expansion	Timmons Group/Orange County & The Trustees of Durham Technical Community College

HEARING DATE	PARCEL ID NUMBER	PROPERTY ADDRESS/LOCATION
May 14, 2025	9873-33-0977	525 College Park Road

**BRIEF SUMMARY OF REQUEST**

Special Use Permit Modification for a 12,239 square foot, two-story building addition.

EXISTING ZONING	EXISTING LAND USE	SURROUNDING ZONING/LAND USE	FUTURE LAND USE CATEGORY	SIZE OF PROPERTY
ESU	Vocational School, & park & ride lot	<i>North:</i> ESU (Town) & R-1 (County)/Wooded tract & houses <i>South:</i> ESU/Wooded tract & townhouses <i>East:</i> ESU/Townhouses <i>West:</i> ESU/Wooded tract	Employment Area	20 acres

**DISCUSSION OF STAFF FINDINGS**

**COMPLIANCE with the UDO (UNIFIED DEVELOPMENT ORDINANCE)**

The proposed development complies with all applicable UDO provisions.

**COMPATIBILITY with the CSP (COMPREHENSIVE SUSTAINABILITY PLAN (2030))**

The proposed development generally complies with the Future Land Use Map & applicable CSP provisions.

**GENERAL STANDARDS/FINDINGS OF FACT SUMMARY**

All four general standards/findings of fact appear to be met.

**ATTACHMENTS:** 1. Application materials 2. FLUM & UDO provisions 3. Zoning history



## DESCRIPTION OF SUBJECT PROPERTY:

### Physical Conditions:

<b>Lot Size:</b>		20 acres
<b>Lot Frontage:</b>	<b>West:</b>	College Park Road – 666.25 feet
	<b>South:</b>	Waterstone Drive – 587.91 feet
<b>Lot Shape:</b>		Irregular being wider on the west side and narrowing to the east.
<b>Topography:</b>		The property sits higher than the two streets. Topography is highest in the northeast and slopes west/southwest. The developed area of the site is relatively flat.
<b>Lot Coverage:</b>		Mostly wooded on the far east, central, north and northwest areas of the site.
<b>Sensitive Areas:</b>		Stream head exists in NW corner of the property. Stream subject to 50-foot-wide stream buffer; 100-foot total width.
		An historic roadbed crosses the central portion of the site in a SE to NW direction.

**Built Conditions:** The property is developed as a two-story vocational school located on the west/southwest side of the property. A 124-space park-and-ride lot is located along the southeastern boundary of the property.



to Date: 2021. Source: Orange County Land Records/GIS.

## DETAILED PROJECT DESCRIPTION:

1. Removal of four ground-mounted solar panels and a semi-circular portion of the existing 40,175 square-foot, two-story building. Both features to be removed are on the southwest side of the building.
2. A 12,239 square foot, two-story addition to the southwest side of the building. The resulting building square footage will be 52,414 square feet.

A total of 262 parking spaces are required and provided for the project. No additional parking is to be constructed. Instead, the owner proposes use of 197 existing school parking spaces combined with 65 spaces located in the 124-space park and ride lot. Fifty-nine parking spaces will be left for park and ride use.



## CONFORMANCE WITH WATERSTONE MASTER PLAN APPROVAL CONDITIONS:

The property is located within Waterstone, a master planned development. The Waterstone development was approved by the town in 2004 and is subject to two documents governing development within the project: (i) a general conditions document applicable to the entire project, and (ii) a parcel-specific conditions document.

Staff offer the following comments regarding compliance with applicable conditions from the two documents:

### **General Conditions Applicable to the Entire Waterstone Development:**

Condition #15: Park and Ride. “The developer shall address in its application for a Special Use Permit for each of the non-residential Parcels shown on the Waterstone Master Plan the suitability of each such Parcel as a location for a “park and ride” facility.”

*Staff Comment:* The meeting minutes of the 2006 hearing where the initial community college project was approved reflect the 125-space park and ride lot as being offered as an alternative for the project subject to funding availability. There was no discussion as to how the spaces could or could not be used, or if it was a specific requirement of permit approval; however, the applicant presented the lot as an asset to the campus, town and county. The original approved project plans show the park and ride lot.

When community college officials first approached staff about the current project, staff recommended a parking study be performed to assess park and ride lot use. VHB Engineering NC, P.C. performed a parking study of the campus in July 2024 (see Attachment #1). The study evaluated existing school parking and the park and ride lot. The park-and-ride lot had a maximum parking demand of 21 spaces during the study period. A hypothetical doubling of the demand coinciding with higher school occupancy in the spring and fall semesters, coupled with the proposed building expansion, showed 42 spaces should satisfy potential park and ride lot demand. (*Note:* The VHB study was based on a slightly larger building addition (336 square feet) than currently proposed.)

### **Conditions of Approval Applicable to Specific Parcels Identified on the Waterstone Master Plan:**

#### Parcel #16: Community College

1. “That a community college campus is permitted on this parcel.”

*Staff Comment:* Condition has been met.

2. “That the amount of impervious surface on this Parcel shall be determined as part of the Special Use Permit process for this Parcel.”

*Staff Comment:* This is a vague condition leaving the board with no guidance in determining compliance. The existing site contains 4.18 acres (20.9%) of impervious surface, with 0.10 acres proposed. This equals 4.28 acres (21.4%) of impervious surface coverage at project completion; a 0.5% increase in total site impervious surface coverage.

3. “That the developer shall provide pedestrian access to Parcel 17 from this Parcel.”

*Staff Comment:* Condition met when school was built.



## FINDINGS OF FACT ANALYSIS:

The following analysis represents staff's professional opinion based upon review of the application materials, UDO, Future Land Use Map and CSP. The Board must make its own determination as to whether all findings are met. **This determination must be based on factual, competent, material and substantial evidence presented at the hearing.**

**Section 3 (Administrative Procedures), Subsection 3.8 (Special Use Permit), Paragraph 3.8.3 (General Standards/Findings of Fact): The Board of Adjustment shall not approve a Special Use Permit application unless it makes each of the following findings concerning the proposed special use:**

**3.8.3.1 That the use or development is located, designed, and proposed to be operated so as to maintain the public health, safety, and general welfare.**

*Applicant Statement Supporting Finding:* The proposed expansion allows for a greater public safety education program as well as education in other trades. Public health, safety and general welfare will be improved through the introduction into the community of more individuals trained in the emergency response field.

*Staff Analysis:* Staff find no reason why the proposed development will be detrimental to public health, safety and general welfare.

**3.8.3.2 That the use or development complies with all required regulations and standards of this Ordinance, including all applicable provisions of Articles 4, 5, and 6 and all applicable regulations.**

*Applicant Statement Supporting Finding:* The development will comply with all UDO requirements and conditions, as well as any other applicable local, state and federal regulations unless relieved from such requirements in writing.

*Staff Analysis:* Staff offer the following in relation to this finding:

1. Compliance with Section 4

The project complies with the intent of the ESU (Entranceway Special Use) district described in UDO Section 4 (Zoning Districts) (see Attachment #2). The property subject to the request is located within the larger Waterstone development; a project containing a diverse mixture of commercial, office and employment uses along a primary entrance into town.

2. Compliance with Section 5

UDO Section 5 (Use Standards) contains no use-specific standards for Vocational Schools.

3. Compliance with Section 6

The town's Technical Review Committee have reviewed the submitted construction drawings and found them to comply with all applicable requirements of UDO Section 6 and other town regulations.



**3.8.3.3 That the use or development is located, designed, and proposed to be operated so as to maintain or enhance the value of contiguous property, or that the use or development is a public necessity, and**

*Applicant Statement Supporting Finding:* The project site is located at the corner of Waterstone Drive and College Park Road. Project design uses building materials already in use on campus.

*Staff Analysis:* Staff find no reason why the use will injure the value of contiguous property. The proposed addition will face, and sits higher than, the corner of Waterstone Drive and College Park Road with properties to the immediate west and south being vacant and wooded. The development is not a public necessity.

**3.8.3.4 That the use or development conforms with the general plans for the physical development of the Town and is consistent with the Town’s Comprehensive Plan.**

*Applicant Statement Supporting Finding:* The development is an expansion of an existing community college campus. It will conform with the general plans for the physical development of the town and is consistent with the comprehensive plan.

*Staff Analysis:* Staff evaluated the project in relation to the town’s Future Land Use Map and CSP and offers the following findings:

1. Future Land Use Map

The property is classified as “Employment Area” (see Attachment #2). The proposed development conforms with this land use category as follows:

- a. The use offers a community service.
- b. The building is located on a site overlooking the intersection of Waterstone Drive and College Park Road. Both streets are lined with street trees that break up the view of the building from adjacent streets and sidewalks.
- c. The property has direct driveway access to two major roads: Waterstone Drive and College Park Road. The town’s adopted Street Manual classifies Waterstone Drive as a “Multi Lane Boulevard,” and College Park Road as a “Commercial/Industrial Collector.” Waterstone Drive connects directly with Old NC 86 to the west and NC 86 South to the east. Both streets are state-maintained streets classified as “Minor Arterials.” College Park Road intersects with Cates Creek Parkway (classified by the town as a “Residential Collector”) to the north. Cates Creek Parkway exits onto Old NC 86 to the west.

2. CSP

The proposed development is consistent with the following provision of the adopted CSP:

- a. Economic Development and Tourism Element

Goal #3: “Increase access to opportunity, education, employment and wealth.”



Strategy: “Participate in partnerships and programs that contribute toward meeting economic system and tourism goals in a sustainable and equitable manner.”

Strategy Point #5: “Coordinate and support organizations and agencies that provide business support programs.”

The community college provides valuable educational and training opportunities for the community that ultimately supports local and regional business and industry. Approval of the expansion offers the college the opportunity to grow and continue the provisions of this valuable service.

#### **RECOMMENDED CONDITIONS OF APPROVAL:**

Staff have no recommended conditions for this project, if approved. However, the board may attach reasonable and appropriate conditions and safeguards to the permit but may not include requirements for which the town has no authority to apply under state statute or that the courts have held to be unenforceable.

#### **VOTING REQUIREMENT:**

A majority vote is required to grant a Special Use Permit modification.





TOWN OF  
HILLSBOROUGH

## GENERAL APPLICATION Special Use Permit, Variance or Appeal Board of Adjustment Hearing

Planning and Economic Development Division  
101 E. Orange St., PO Box 429, Hillsborough, NC 27278  
919-296-9475 | Fax: 919-644-2390  
www.hillsboroughnc.gov

This application is for a special use permit (including modifications), variance or appeal.  
**Incomplete applications will not be accepted or processed.**

OFFICIAL USE ONLY		
Case Number: <u>BA-02-2025</u>	Fee: \$ <u>500.00</u>	Receipt No.: <u>060337</u>
FLUM Designation: <u>Employment Area</u>	Zoning District: <u>ESU</u>	Overlay Zone: Select One <u>NA</u>

Permit or Relief Requested: Special Use Permit Modification

PROJECT LOCATION AND DESCRIPTION	
Project Name: <u>Durham Technical Community College Orange County Campus Expansion</u>	Project Type: Institutional
Property Address/Location: <u>525 College Park Rd, Hillsborough, NC 27278</u>	
PIN(s): <u>9873330977</u>	Size of Property (Acres/Sq. Ft.): <u>19.99/870714 20 Acres</u> <span style="float: right;">TK</span>
Current Use of Property: <u>Education Building</u>	Proposed Use of Property: <u>Education Building</u>
Use Class (from UDO Sections 5.1.7 and 5.1.8): <u>School: Vocational</u> <span style="float: right;">4/1/2025</span>	
Number Existing Buildings to Remain: <u>1</u>	Number Proposed Buildings: <u>0</u>
Gross Floor Area Existing Buildings: <u>40,175</u>	Gross Floor Area Proposed Buildings: <u>12,575 239</u> <span style="float: right;">TK</span>
Number Lots Proposed: <u>0</u>	Number Dwelling Units Proposed: <u>0</u>
Brief Summary of Request (use separate sheet if necessary): <u>Modification to existing special use permit for the expansion of the existing Durham Technical Community College Orange County Campus building.</u>	

CERTIFICATION AND SIGNATURES	
<b>Applications will not be accepted without signature of legal property owner or official agent.</b>	
I certify that the information presented by me in this application and all accompanying documents are true and accurate to the best of my knowledge, information, and belief; and I acknowledge that the processing of this application may require additional town, county and/or state permits, approvals and associated fees.	
Applicant: <u>Timmons Group</u>	Legal Property Owner: <u>Durham Technical Community College</u>
Mailing Address: <u>5410 Trinity Rd</u>	Mailing Address: <u>1637 E. Lawson St.</u>
City, State, ZIP Code: <u>Raleigh, NC 27607</u>	City, State, ZIP Code: <u>Durham, NC 27703</u>
Telephone: <u>919-866-4938</u>	Telephone: <u>919-536-7201 x1001</u>
Email: <u>william.altman@timmons.com</u>	Email: <u>kleitscha@durhamtech.edu</u>
Signature: <u>William Altman</u> <small>Digitally signed by William Altman DN: cn=William Altman, email=william.altman@timmons.com, c=US</small>	Signature: <u>Andrew Kleitsch</u> <small>Digitally signed by Andrew Kleitsch Date: 2024.11.12 09:53:20 -05'00'</small>
Date: <u>2024-11-15</u>	Date: <u>2024-11-12</u>
Legal Relationship of Applicant to Property Owner: <u>Engineer</u>	



**RECEIVED**  
11/18/2024  
Tom King

Orange County is also a property owner  
- P.O. Box 8181  
Hillsborough, NC 27278





TOWN OF  
HILLSBOROUGH

# AUTHORIZATION FORM

## Owner's Authorization for Agent Board of Adjustment Hearing

Planning and Economic Development Division  
101 E. Orange St., PO Box 429, Hillsborough, NC 27278  
919-296-9475 | Fax: 919-644-2390  
www.hillsboroughnc.gov

This form must accompany any application to go before the Board of Adjustment in which the application will not be represented by the legal property owner. Each owner shown on the property owner's deed must sign this authorization form.

I/We Travis Myren

(print names of legal property owners)

hereby authorize William Altman

(print name of agent)

to represent me/us in processing an application for Special Use Permit Modification

on my/our behalf. In authorizing the agent to represent me/us, I/we as owner/owners attest that:

- The application is made in good faith.
- All information contained in the application is accurate and complete.
- The agent is authorized to accept any and all conditions that may be placed on the approval.
- I/we as the property owner(s) am/are bound by any decision of the board, including any and all conditions attached to board approvals.

**Travis Myren**

Digitally signed by Travis Myren  
Date: 2025.02.14 14:58:01 -05'00'

Signature of Owner

Signature of Owner

Travis Myren

Print Name of Owner

Print Name of Owner

NORTH CAROLINA

Orange

COUNTY

Sworn to and subscribed before me on this 14<sup>th</sup> day of February, 2025 by

Travis Myren

Print Name of Person Making Statement



Melissa S. Allison

Signature of Notary Public

Melissa S. Allison

Print Commissioned Name of Notary Public

2-16-28

Commission Expiration Date

The individual(s) making the above statement is/are personally known ✓ or identification was produced \_\_\_\_.





## AUTHORIZATION FORM

### Owner's Authorization for Agent Board of Adjustment Hearing

Planning and Economic Development Division  
101 E. Orange St., PO Box 429, Hillsborough, NC 27278  
919-296-9475 | Fax: 919-644-2390  
www.hillsboroughnc.gov

This form must accompany any application to go before the Board of Adjustment in which the application will not be represented by the legal property owner. Each owner shown on the property owner's deed must sign this authorization form.

I/We Andrew Kleitsch

(print names of legal property owners)

hereby authorize William Altman

(print name of agent)

to represent me/us in processing an application for Special Use Permit Modification ☒

on my/our behalf. In authorizing the agent to represent me/us, I/we as owner/owners attest that:

- The application is made in good faith.
- All information contained in the application is accurate and complete.
- The agent is authorized to accept any and all conditions that may be placed on the approval.
- I/we as the property owner(s) am/are bound by any decision of the board, including any and all conditions attached to board approvals.

Andrew Kleitsch Digitally signed by Andrew Kleitsch  
Date: 2025.01.21 09:23:54 -05'00'

Signature of Owner

Signature of Owner

Andrew Kleitsch

Print Name of Owner

Print Name of Owner

NORTH CAROLINA

Durham COUNTY

Sworn to and subscribed before me on this 21st day of January 2025 by

Andrew Kleitsch

Print Name of Person Making Statement



Donice Jeffries Digitally signed by Donice Jeffries  
Date: 2025.01.21 10:04:56 -05'00'

Signature of Notary Public

Donice Jeffries

Print Commissioned Name of Notary Public

September 8, 2026

Commission Expiration Date

The individual(s) making the above statement is/are personally known x or identification was produced \_\_\_\_.





## SUPPLEMENTAL FORM Special Use Permit

Planning and Economic Development Division  
101 E. Orange St., PO Box 429, Hillsborough, NC 27278  
919-296-9475 | Fax: 919-644-2390  
www.hillsboroughnc.gov

To the Hillsborough Board of Adjustment:

I, Will Altman, PE, hereby petition the Board of Adjustment to issue a Special Use Permit in the name of Durham Technical Community College Orange County Campus Expansion for use of the property described in the attached General Application in a manner set forth on that form or, if not adequately explained there, as more fully described herein:

Authority to grant the request is contained in the Hillsborough Unified Development Ordinance sections:

### Section 5

#### Factors Relevant to Permit Issuance

The Hillsborough Unified Development Ordinance imposes the following four general standards/findings of fact on the special use requested by the applicant. Below or on a separate sheet, indicate the facts you intend to show and the arguments you intend to make to convince the Board of Adjustment that it can properly reach these four required findings.

- 1. That the use or development is located, designed, and proposed to be operated so as to maintain the public health, safety, and general welfare.**

The expansion is being proposed to protect the public health, safety, and general welfare of the community. The expansion will allow for a greater public safety education program as well as other trades which improves the public health, safety, and general welfare by introducing more individuals into emergency response fields. The proposed development is subject to all of the requirements of the Unified Development Ordinance.

- 2. That the use or development complies with all required regulations and standards of the Unified Development Ordinance, including all applicable provisions of articles 4, 5, and 6 and all applicable regulations.**

The development shall comply with all sections of the UDO, conditions of approval, and any other applicable local, state, and federal regulations. It is understood that unless relieved of a requirement, in writing, all UDO requirements must be met.



- 3. That the use or development is located, designed, and proposed to be operated so as to maintain or enhance the value of contiguous property or that the use or development is a public necessity.**

The proposed development is located along the frontage of Waterstone Drive and College Park Road. The design utilizes consistent building materials with what is already present on campus to maintain or enhance the value of contiguous property.

- 4. That the use or development conforms with the general plans for the physical development of the Town and is consistent with the Hillsborough Comprehensive Plan.**

The development conforms with the general plans for the physical development of the Town and is consistent with the Hillsborough Comprehensive Plan. The development is an expansion onto the existing Durham Tech campus

The Unified Development Ordinance also imposes the following use-specific requirements on the use requested by the applicant (town staff will assist the applicant in listing the specific requirements). The applicant should be prepared to demonstrate that the proposed use will comply with each of the following specific requirements if the land is used in a manner consistent with the plans, applications and other information presented to the board:

None.

I certify that all the information presented by me in this application is accurate to the best of my knowledge, information, and belief.



Signature of Applicant

11/15/2024

Date





## Memorandum

To: Andrew Kleitsch  
Vice President Finance/Chief Financial Officer  
Durham Technical Community College  
1637 E. Lawson Street  
Durham, NC 27703

Date: August 15, 2024

Project #: 39670.01

From: Andrew Topp, PE, PTOE

Re: Durham Technical Community College (DTCC)  
Orange County Campus - Parking Study  
Hillsborough, NC

Durham Technical Community College (DTCC) has plans to construct an addition to the educational building on the DTCC Orange County campus along College Park Road in Hillsborough, North Carolina. VHB Engineering NC, P.C. (VHB) was retained by DTCC to conduct a parking study for the proposed development. As shown on the conceptual site plan (Figure 1 in the Appendix), access to the campus parking lot and park-and-ride lot are accessible via a full-movement driveway on College Park Road and a right-in, right-out driveway on Waterstone Drive. The campus is located at 525 College Park Road and will undergo redevelopment to construct an addition (12,575 square feet) to the existing educational building (40,175 square feet).

An evaluation of current and future parking demand was conducted for the campus as well as the park-and-ride lot to help DTCC understand their parking needs and determine what may be required for future campus expansions.

As required by the Town of Hillsborough Unified Development Ordinance (UDO) (Development Standards, last amended March 11, 2024), Table 6.13.3.4, the minimum number of parking spaces that shall be provided for a Vocational School, at the rate of 1 parking space per 200-SF of indoor space, resulting in a total of 264 required minimum number of parking spaces for this project (Table 1).

**Table 1: UDO Required Parking**

Proposed Development	Indoor Area With Expansion	Required Parking Ratio by UDO	Required Parking Spaces
DTCC Orange Campus Expansion	52,750 SF	1 space per 200 SF	264

As indicated in the UDO, an applicant may propose a reduced rate of required parking specified in Section 6.13.3.3.a, Allowable Parking Reductions and Additions, in accordance with a parking study that is conducted based on the industry standards and/or comparable site data.

Based on rates published in the Institute of Transportation Engineers (ITE) Parking Generation (5<sup>th</sup> Edition), the peak parking demand on a weekday for a Junior/Community College is 188 spaces, typically occurring between 10 AM and 2 PM. As summarized in Table 2, the results based on ITE standards are approximately 29% lower than the UDO requirements for this project.



**Table 2: ITE Parking Generation Results**

Land Use Code <sup>1</sup>	Land Use	Indoor Area With Expansion	Weekday (Monday – Friday)		
			Average Rate	Peak Period	Total
540	Junior / Community College	52,750 SF	3.57	10 AM – 2 PM	188
Development Total					188

1. Land Use Code and trip generation rates are determined based on *ITE Parking Generation, 5<sup>th</sup> Edition*.

**Existing and Projected Parking Demand**

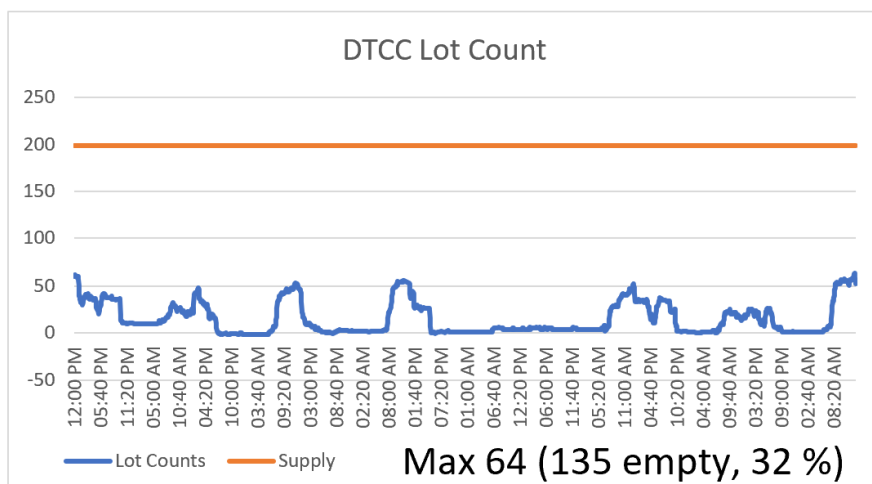
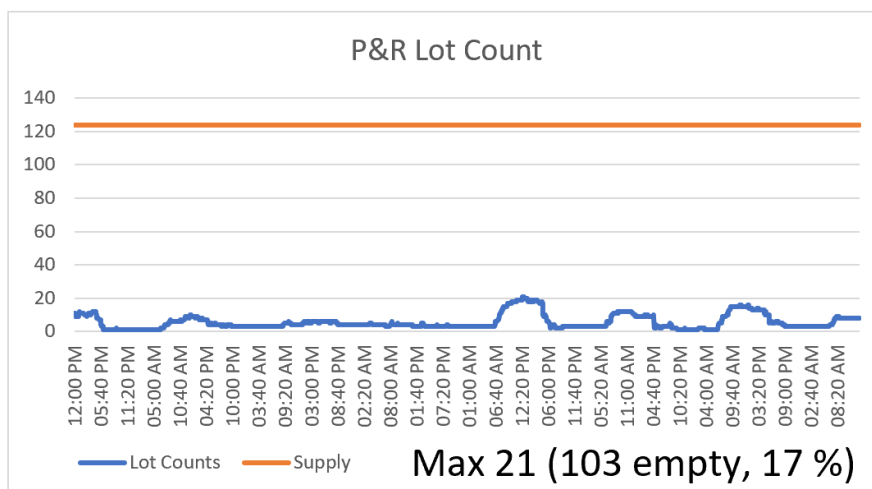
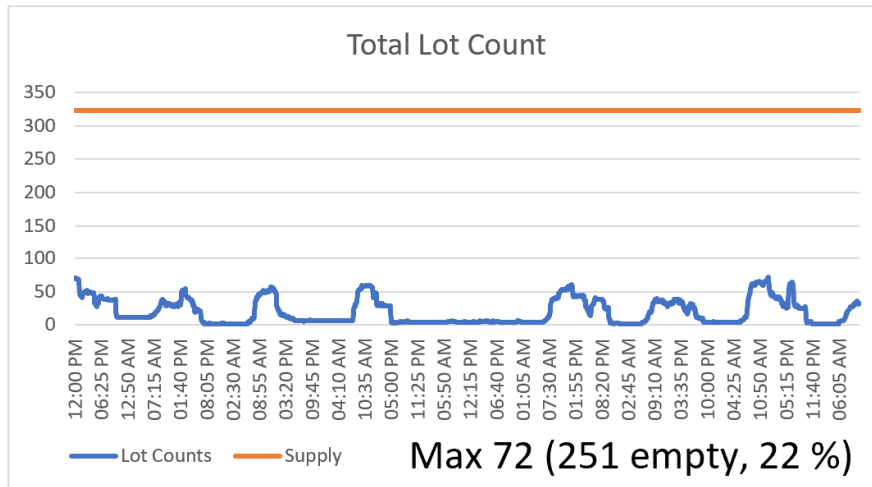
The existing DTCC parking lot contains 199 spaces, and the park-and-ride parking lot contains 124 spaces. The park-and-ride lot is used by the Town of Hillsborough and GoTriangle as a free park-and-ride location. Parking demand fluctuates day to day based on the number of classes in session. To help determine the maximum parking demand and availability of parking, vehicle counts were collected to measure the total number of vehicles within the lots over the course of a multiday collection period. The parking data were collected from 12:00 PM on Wednesday, July 10, 2024, to 11:00 AM on Thursday, July 25, 2024, while the DTCC Summer Term was in session, and the results are summarized in Exhibit 1. Pneumatic tubes were used to continuously collect the vehicle movements into and out of the two driveways along with park-and-ride lot. An in-person field parking occupancy measurement was also conducted at the beginning, end, and midway through the data collection to help verify the calculations.

The number of vehicles present within each parking zone fluctuated over the course of the collection period with peak parking experienced around 12:50 PM on Wednesday, July 17<sup>th</sup>, 2024. At that time, there was a maximum parking demand of 72 spaces with 251 empty spaces (~22% occupied) within the collection area of campus.

As shown in Exhibit 1, the Durham Technical Community College lot was recorded to have 135 empty spaces, the park-and-ride lot was recorded to have 103 empty spaces (~22% occupied) at their maximum occupancy periods. Exhibit 1 on the following page illustrates the areas of parking data collection and the occupied spaces over the course of the collection period for each of the lots.



## Exhibit 1: Existing Parking Demand – Summer Term





Based on course data provided by DTCC, the summer course offerings are about half of those in the fall or spring (45 compared to 84 and 101, respectively). The maximum parking demand recorded for a typical summer semester week was 64 occupied spaces in the DTCC lot. An adjustment factor based proportionally on the course offerings in the fall and spring, as well as the additional square footage was applied to the collected parking data. As shown in Table 3, the expected parking demand for a typical fall or spring semester week is 119 spaces and 163 occupied spaces, respectively. Based on conversations with on-campus staff, this number is consistent with their observations where the lot is generally half full most weekdays and close to two thirds full on their busiest days throughout the year. A proportional parking demand increase associated with the building expansion results in a demand of 189 spaces, which can be accommodated within the current parking lot with a 10-space surplus.

**Table 3: Field Based Parking Calculations**

DTTC Semester	Course Offerings	Parking Demand	Parking Supply	Parking Net
Summer Term	45	64 spaces (counted)	199	135 Space Surplus
Fall Term	84	119 spaces (estimated)	199	115 Space Surplus
Spring Term	101	144 spaces (estimated)	199	55 Space Surplus
<b>Future Maximum with Expansion (+31%)</b>	131 (estimated)	189 (estimated)	199	<b>10 Space Surplus</b>

There are currently 199 spaces in the lots surrounding the existing Durham Technical Community College building, with 124 spaces in the park-and-ride lot. Based on the results of the park-and-ride count, there was a maximum parking demand of 21 spaces. This is consistent with available aerial photography reviewed and conversations with DTCC staff familiar with the lot. Based on a hypothetical doubling of this demand to coincide with higher occupancies in the spring and fall, there is still a surplus of spaces available in the park-and-ride lot. Table 4 illustrates the number of parking spaces available on the property when the DTCC and park-and-ride lots are combined. The total combined surplus of parking with the expansion in place and park-and-ride included is 92 spaces.

**Table 4: Field Based Parking Calculations with Park-and-Ride**

DTTC Semester	DTCC Estimated Parking Demand	DTCC Parking Supply	Park & Ride Estimated Parking Demand	Park & Ride Parking Supply	Parking Net
<b>Future Maximum with Expansion (+31%)</b>	189	199	42	124	<b>92 Space Surplus</b>



## Conclusion

Based on the results of this parking evaluation, the DTCC Orange County site with the building expansion is expected to have a maximum parking demand of 189 spaces. This number is consistent with the ITE projected demand of 188 spaces for a building of this size and observations from daily users of the lots. The campus currently has 199 spaces available, which will accommodate the projected demand in the spring or fall semesters with the expansion in place.

The park-and-ride lot located next to the DTCC parking lot has an excess number of spaces within close proximity of the DTCC building. Based on the results of the analysis, the 323 total combined spaces will accommodate the parking demand of both the DTCC and park-and-ride use with an estimated 92-space surplus. As a result, no additional on-site parking needs to be constructed to accommodate their anticipated parking demand.

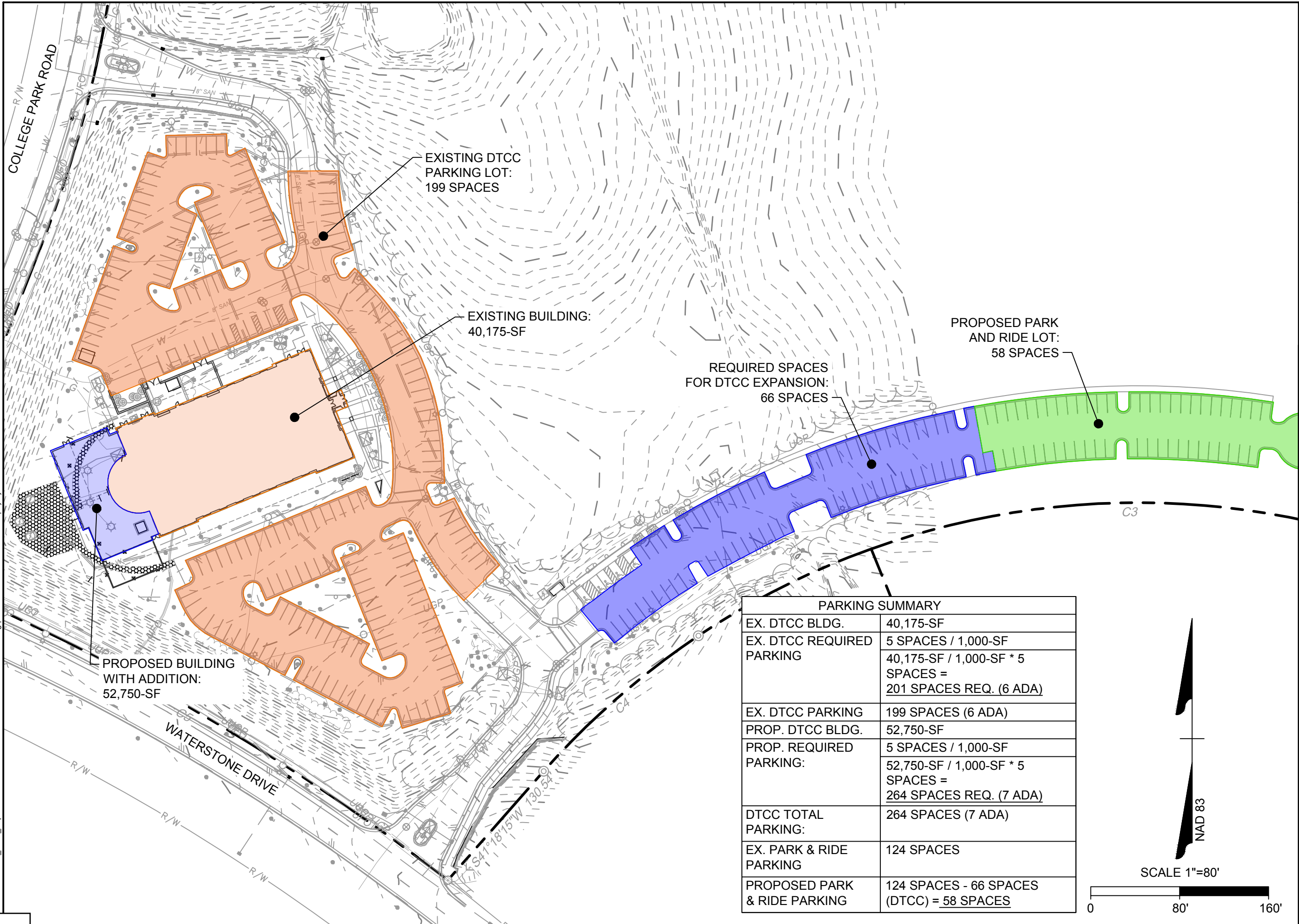


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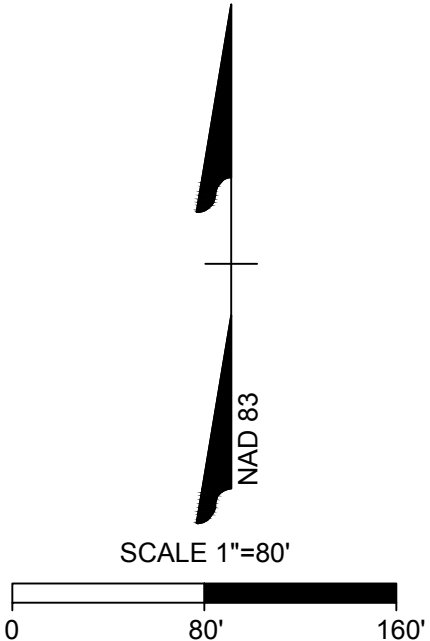
## Appendices



3362767-DTCC\_OCC\_ExpansionDWG\Sheet\Exhibit\62767-333C-EX-1-SITE.dwg | Plotted on 5/14/2024 2:32 PM | by Lynsie Barnes



PARKING SUMMARY	
EX. DTCC BLDG.	40,175-SF
EX. DTCC REQUIRED PARKING	5 SPACES / 1,000-SF 40,175-SF / 1,000-SF * 5 SPACES = 201 SPACES REQ. (6 ADA)
EX. DTCC PARKING	199 SPACES (6 ADA)
PROP. DTCC BLDG.	52,750-SF
PROP. REQUIRED PARKING:	5 SPACES / 1,000-SF 52,750-SF / 1,000-SF * 5 SPACES = 264 SPACES REQ. (7 ADA)
DTCC TOTAL PARKING:	264 SPACES (7 ADA)
EX. PARK & RIDE PARKING	124 SPACES
PROPOSED PARK & RIDE PARKING	124 SPACES - 66 SPACES (DTCC) = 58 SPACES



THIS DRAWING PREPARED AT THE  
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REVISION DESCRIPTION

DATE	
05/14/2024	
DRAWN BY	LMB
DESIGNED BY	WPA
CHECKED BY	WPA
SCALE	AS SHOWN

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

**DTCC OCC EXPANSION**

HILLSBOROUGH, ORANGE COUNTY, NORTH CAROLINA

**PARKING EXHIBIT**

JOB NO.  
62767

21

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SPECIAL USE MODIFICATION DRAWINGS FOR:

# DURHAM TECHNICAL COMMUNITY COLLEGE ORANGE COUNTY CAMPUS EXPANSION

525 COLLEGE PARK RD , HILLSBOROUGH, NC 27278

TOWN OF HILLSBOROUGH BOARD OF ADJUSTMENT CASE # BA-02-2025



SITE DATA TABLE	
PROJECT NAME:	DURHAM TECHNICAL COMMUNITY COLLEGE ORANGE COUNTY CAMPUS EXPANSION
STATE CONSTRUCTION OFFICE (SCO) NUMBER	23-26062-02A
PROPERTY OWNER/ DEVELOPER:	DURHAM TECHNICAL COMMUNITY COLLEGE 1637 E LAWSON ST, DURHAM, NC 27703  ORANGE COUNTY 300 W. TRYON ST., HILLSBOROUGH, NC 27278
PIN ID:	9873330977
DEED ACRES:	20
PROPERTY ZONING:	ESU
CURRENT USE:	VOCATIONAL SCHOOL
PROPOSED USE:	VOCATIONAL SCHOOL
DISTURBED AREA:	0.54 ACRES
RIVER BASIN:	CATES CREEK (NEUSE)
SURFACE WATER CLASSIFICATION:	LOWER END UNPROTECTED
PARKING REQUIREMENTS:	EXISTING DTCC PARKING: 197 SPACES (6 ADA) EXISTING PARK AND RIDE PARKING: 124 SPACES (8 ADA) REQUIRED PARKING SPACES: 1 SPACES / 200-SF; 52,414-SF / 200-SF X 1 SPACE = 262 SPACES PROVIDED DTCC PARKING SPACES: 262 SPACES (7 ADA) PROVIDED PARK AND RIDE PARKING: 59 SPACES (5 ADA)  ADA SPACES REQUIRED: 7 SPACES (FOR DTCC)
EXISTING IMPERVIOUS:	4.18 AC
NEW IMPERVIOUS:	0.10 AC
TOTAL POST DEVELOPMENT IMPERVIOUS:	4.28 AC



VICINITY MAP  
SCALE 1"=300'

## PROJECT TEAM

### ARCHITECT

KATHERINE HOGAN ARCHITECTS  
CONTACT: KATHERINE HOGAN, AIA LEED AP  
PHONE: (919) 793-5063  
553 PYLON DRIVE  
RALEIGH, NC 27606

### OWNERS

DURHAM TECHNICAL COMMUNITY COLLEGE  
CONTACT: MARIE-PIERRE LUSSIER, PMP  
PHONE: (919) 747-4544  
4601 CREEKSTONE DR, SUITE 130  
DURHAM, NC 27703

ORANGE COUNTY  
CONTACT: TRAVIS MYREN  
PHONE: (919) 245-2300  
300 W. TRYON ST.  
HILLSBOROUGH, NC 27278

### APPLICANT / CIVIL ENGINEER

TIMMONS GROUP  
CONTACT: WILL ALTMAN, PE  
PHONE: (919) 866-4938  
5410 TRINITY ROAD, SUITE 102  
RALEIGH, NC 27607

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C0.1	AREA MAP
C0.2	OVERALL EXISTING CONDITIONS PLAN
C0.3	OVERALL SITE PLAN
C1.0	EXISTING CONDITIONS & DEMOLITION PLAN
C2.0	SITE & UTILITY PLAN
C3.0	GRADING & DRAINAGE PLAN
C3.1	BIORETENTION DETAIL
C3.2	STORMWATER COMPLIANCE PLAN
C4.0	EROSION & SEDIMENTATION CONTROL PLAN - PHASE I
C4.1	EROSION & SEDIMENTATION CONTROL PLAN - PHASE II
C5.0	SITE DETAILS
C5.1	SITE DETAILS
EX1	PARKING EXHIBIT
L0.1	OVERALL PLANTING PLAN
L1.0	PLANTING PLAN
L2.0	LANDSCAPE NOTES & DETAILS
L3.0	OVERALL TREE PROTECTION PLAN
L4.0	TREE PROTECTION PLAN, NOTES, & DETAILS
A-08.00	BUILDING ELEVATIONS - RENOVATION EAST, NORTH AND SOUTH
A-08.01	WEST + SOUTH ELEVATIONS

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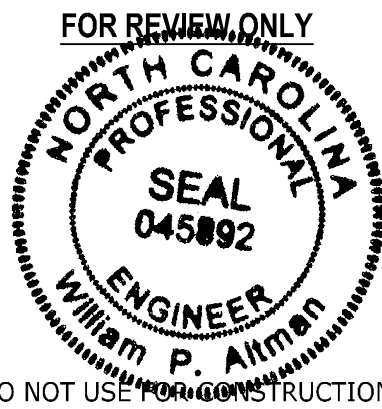
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1	SCHEMATIC DESIGN	06.10.24
2	DESIGN DEVELOPMENT	09.19.24
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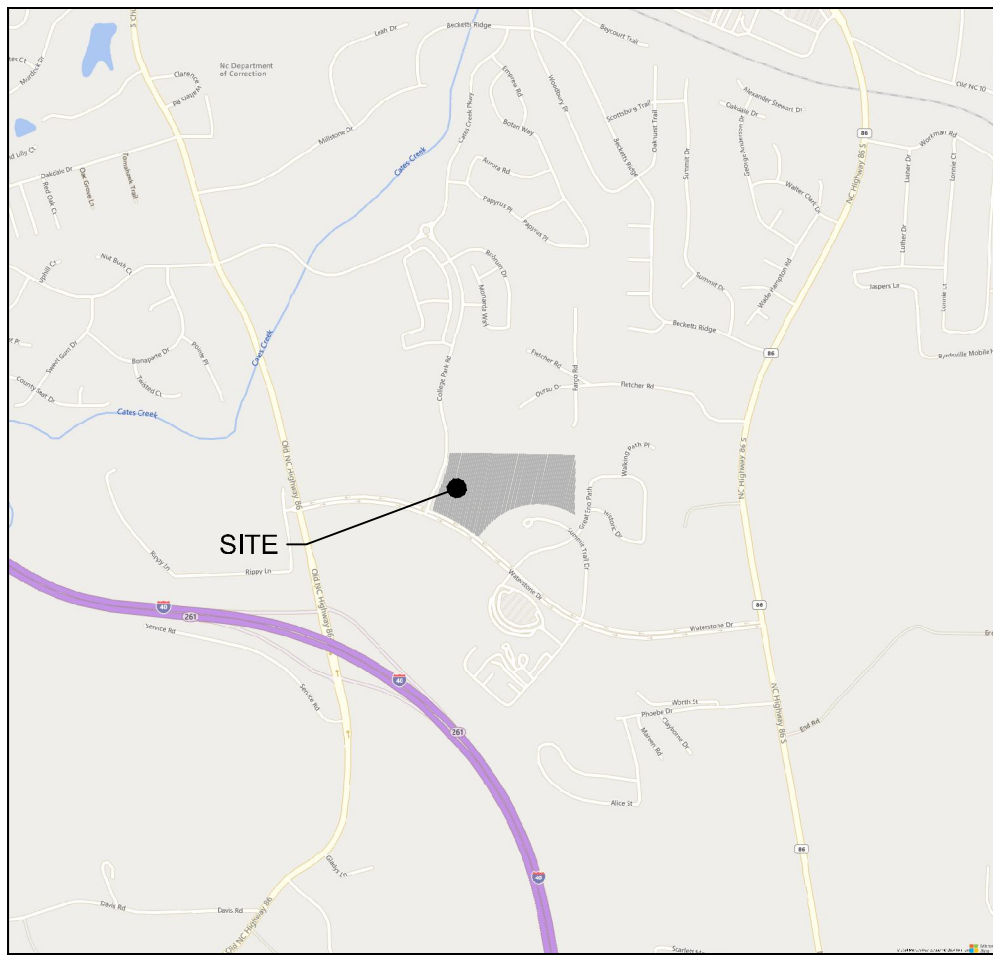
SCO NO. 23-26062-01

SHEET TITLE  
**COVER SHEET**

SHEET NUMBER  
**C0.0**

A VESTED RIGHT PURSUANT TO NCGS 160D-108 & SECTION 1.9  
OF THE UNIFIED DEVELOPMENT ORDINANCE IS ESTABLISHED AS  
OF THE DATE HEREOF, UNLESS TERMINATED AT AN EARLIER  
DATE, THE RESTED RIGHT OF THE APPROVAL SHALL BE VALID  
UNTIL





1" = 2,000'  
PARCEL IDENTIFICATION NUMBER (PIN): 9873330977  
ADDRESS: 525 COLLEGE PARK RD., HILLSBOROUGH, NC 27278

- LEGEND**
- PROPERTY LINES
  - HILLSBOROUGH TOWN LIMITS
  - PROPOSED SITE

NOTES:  
1. ENTIRETY OF SITE AREA IS LOCATED WITHIN HILLSBOROUGH TOWN LIMIT.

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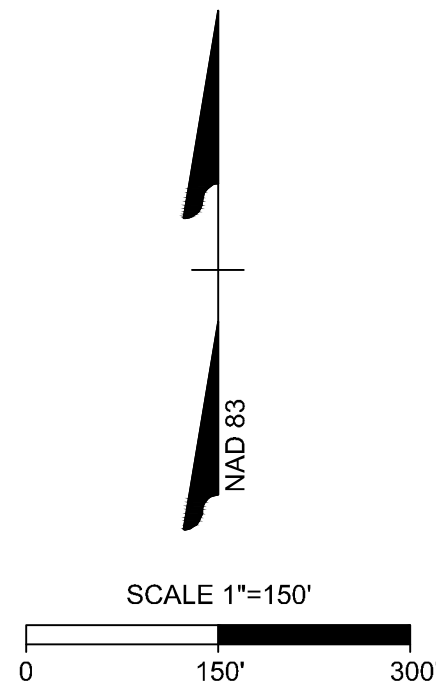


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**AREA MAP**

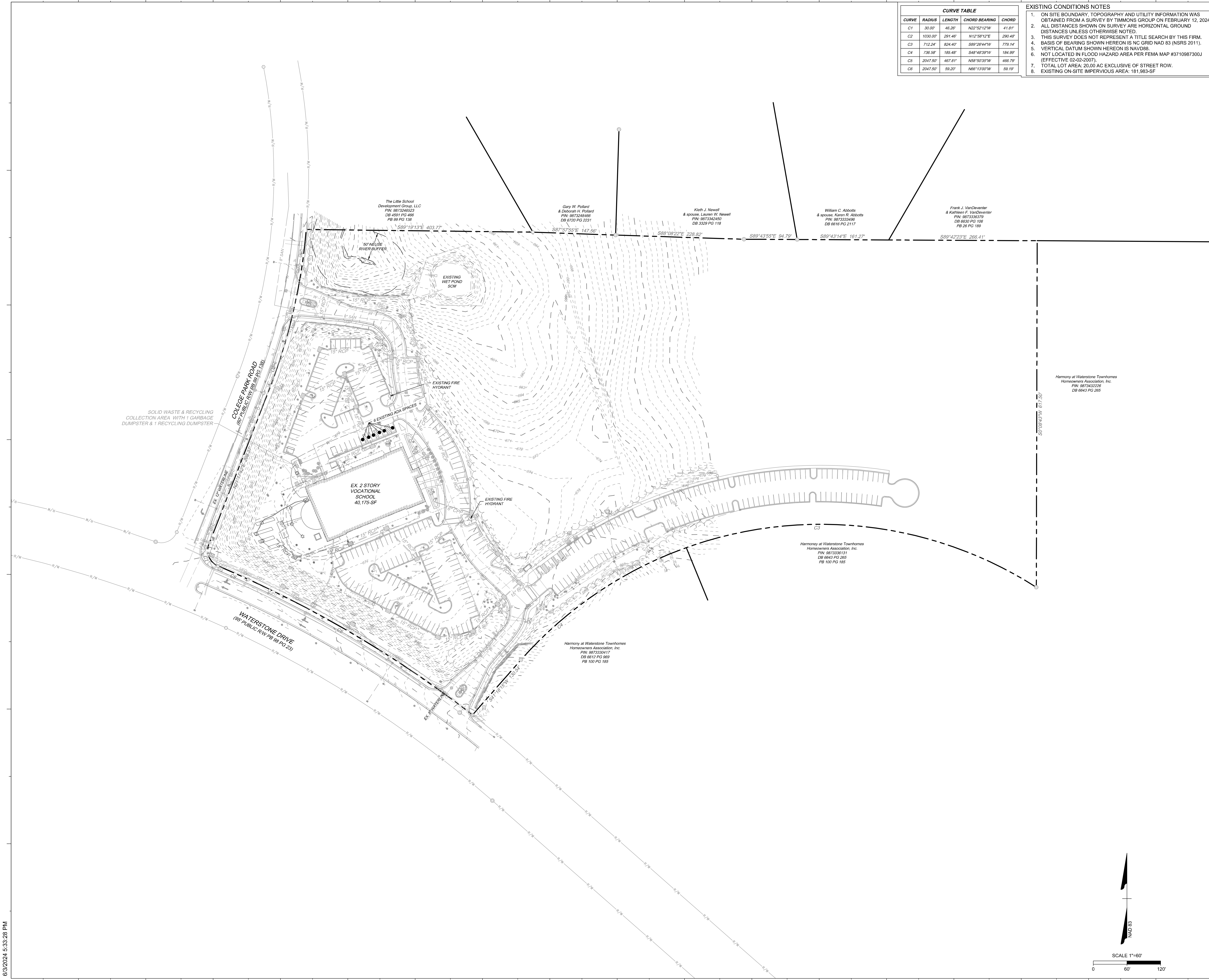
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Section 4, Item A.



CURVE TABLE				
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	30.00'	46.26'	N22°52'12"W	41.81'
C2	1030.00'	291.48'	N12°59'12"E	290.48'
C3	712.24'	804.40'	S89°26'44"W	779.14'
C4	736.58'	185.48'	S48°48'39"W	184.99'
C5	2047.50'	467.81'	N58°50'35"W	466.79'
C6	2047.50'	59.20'	N86°13'00"W	59.19'

- EXISTING CONDITIONS NOTES
- ON SITE BOUNDARY, TOPOGRAPHY AND UTILITY INFORMATION WAS OBTAINED FROM A SURVEY BY TIMMONS GROUP ON FEBRUARY 12, 2024.
  - ALL DISTANCES SHOWN ON SURVEY ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
  - THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY THIS FIRM.
  - BASIS OF BEARING SHOWN HEREON IS NC GRID NAD 83 (NSRS 2011).
  - VERTICAL DATUM SHOWN HEREON IS NAVD88.
  - NOT LOCATED IN FLOOD HAZARD AREA PER FEMA MAP #3710987300J (EFFECTIVE 02-02-2007).
  - TOTAL LOT AREA: 20.00 AC EXCLUSIVE OF STREET ROW.
  - EXISTING ON-SITE IMPERVIOUS AREA: 181,963-SF

katherine hogan architects

Durham Tech - Orange County Campus - Expansion

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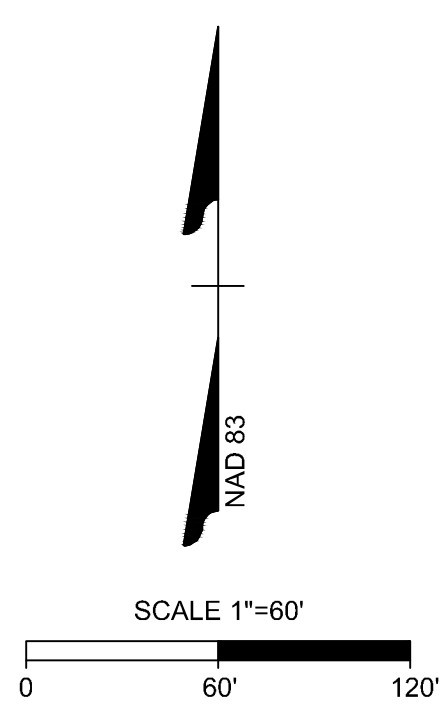
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10	5TH SUP SUBMITTAL	04.11.25
11	100% CONSTRUCTION DOC	04.11.25

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SHEET TITLE  
**OVERALL EXISTING CONDITIONS PLAN**

SHEET NUMBER  
**C0.2**





CURVE TABLE				
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD
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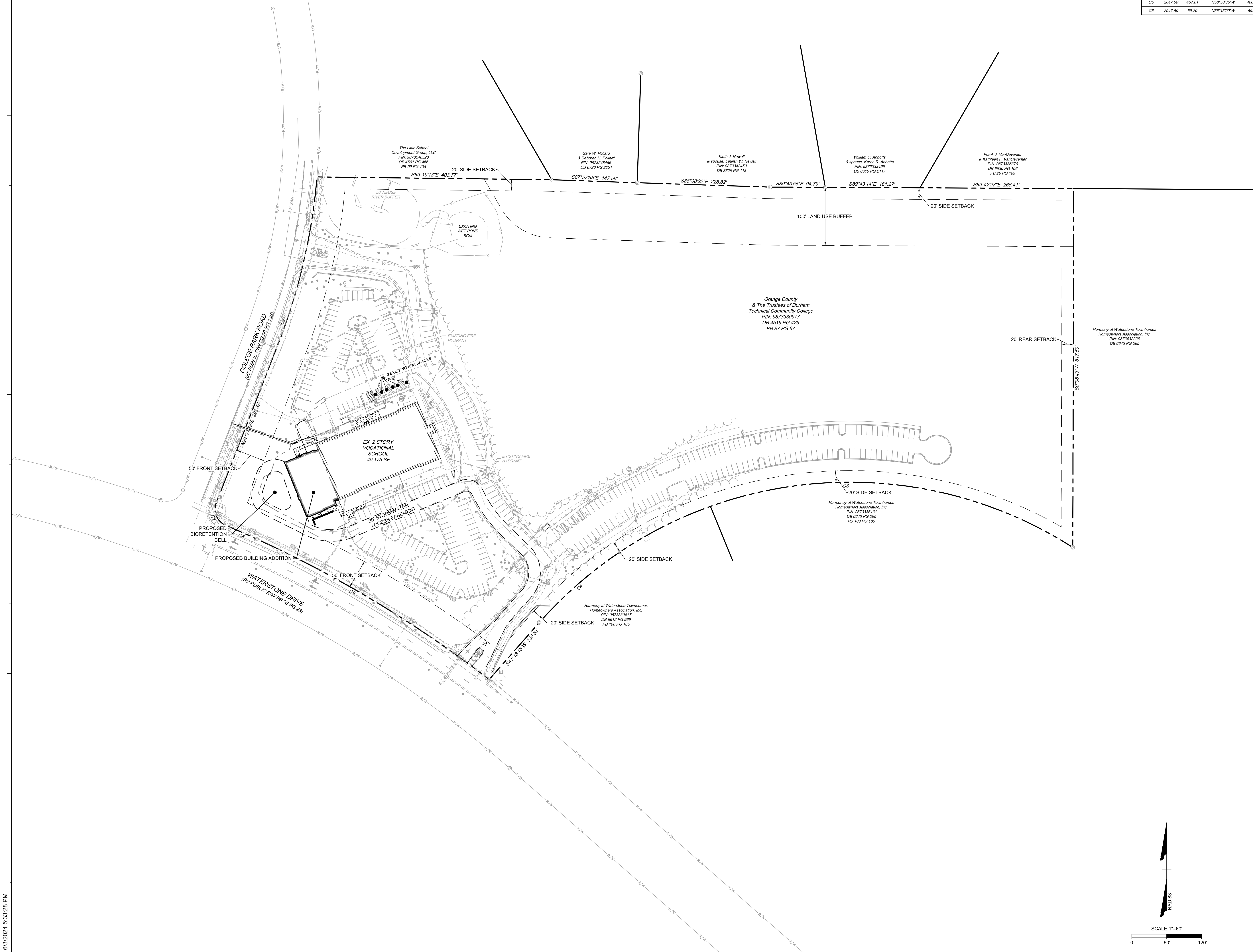


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11	100% CONSTRUCTION DOC	04.11.25

SCO NO. 23-26062-01

SHEET TITLE  
**OVERALL SITE  
PLAN**

SHEET NUMBER  
**C0.3**



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EXISTING CONDITIONS LEGEND	
CONSTRUCTION LIMITS	---
EX. STORM PIPE	---
EX. FENCE	---
EX. GAS LINE	---
EX. POWER LINE	---
EX. TELEPHONE LINE	---
EX. WATER LINE	---
EX. SANITARY SEWER FORCE MAIN	---
EX. SANITARY SEWER LINE	---
EX. CABLE TV LINE	---
EX. FIBER OPTIC LINE	---
EX. TREE LINE	---
EX. LIGHT POLE	---
EX. SITE BOLLARD	---
EX. UTILITY POLE	---
EX. SANITARY SEWER MANHOLE	---
EX. STORM SEWER MANHOLE	---
EX. CLEANOUT (SANITARY OR STORM)	---
EX. DROP INLET	---
EX. FIRE HYDRANT	---
EX. WATER VALVE	---
EX. TELECOM BOX	---
EX. GROUND MOUNTED SIGN	---

CURVE TABLE				
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  - VERTICAL DATUM SHOWN HEREON IS NAVD88.
  - NOT LOCATED IN FLOOD HAZARD AREA PER FEMA MAP #3710987300J (EFFECTIVE 02-02-2007).
  - TOTAL LOT AREA: 20.00 AC EXCLUSIVE OF STREET ROW.
  - EXISTING ON-SITE IMPERVIOUS AREA: 181,963-SF
- DEMOLITION NOTES
- ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
  - ALL WASTE MATERIAL GENERATED FROM CLEANING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL ORANGE COUNTY AND TOWN OF HILLSBOROUGH RULES AND REGULATIONS. CONTRACTOR SHALL SALVAGE ALL SIGNAGE, METERS, ETC. TO OWNER. COORDINATE WITH OWNER PRIOR TO DEMOLITION. CLEAR AND GRUB AS NEEDED WITHIN CONSTRUCTION LIMITS PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE MATERIAL WHICH WILL CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS) FOLLOWING APPROVAL OF ENGINEER. BY SUBMITTING A BID, CONTRACTOR ACKNOWLEDGES THAT THE SITE HAS BEEN INVESTIGATED TO DETERMINE TYPE, SIZE AND QUANTITY OF CLEARING REQUIRED FOR ALL CONSTRUCTION.
  - ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH EXISTING CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED). UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OF PAVEMENTS UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR DETAIL.
  - PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGES OCCUR, NOTIFY ENGINEER IMMEDIATELY.
  - THE CONTRACTOR SHALL EMPLOY A PUALIFIED UTILITY LOCATOR SERVICE TO LOCATE ALL UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO ELECTRICAL, TELEPHONE, GAS, CABLE, FIBER OPTIC) WITHIN THE LIMITS OF CONSTRUCTION.
  - VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ENGINEER IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
  - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND OSHA REGULATIONS.
  - EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISHED GRADES (WEATHER OR NOT INDICATED TO BE MODIFIED).
  - ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
  - CONTRACTOR TO REMOVE OR RELOCATE ALL CANOPY TREES NOTED ON PLANS TO BE REMOVED WITH SAME SPECIES AND CALIPER.

- KEYNOTES - ITEMS TO REMOVE
- REMOVE EXISTING GRAVEL
  - REMOVE TREE
  - REMOVE EXISTING UNDERGROUND ELECTRIC LINES AND POWER STRUCTURE
  - REMOVE EXISTING SOLAR PANEL AND FOOTINGS
  - REMOVE EXISTING UNDERGROUND STORAGE TANK
  - REMOVE EXISTING STORM PIPE
  - REMOVE EXISTING MANHOLE
  - REMOVE EXISTING WATERLINE
  - REMOVE EXISTING ASPHALT AND STONE BASE
  - REMOVE EXISTING STORM STRUCTURE
  - REMOVE EXISTING CONCRETE PAVEMENT
  - REMOVE EXISTING PORTION OF BUILDING. REFER TO ARCHITECTURAL PLANS
  - ABANDON EXISTING STORM PIPE. FILL WITH FLOWABLE FILL.
  - REMOVE EXISTING LANDSCAPING
  - REMOVE EXISTING WATERLINE, BACKFLOW PREVENTER, AND WATER METER. FILL WATERLINE UNDER EXISTING PAVEMENTS WITH FLOWABLE FILL.
  - REMOVE EXISTING SHED
- KEYNOTES - ITEMS TO REMOVE
- TREE TO REMAIN



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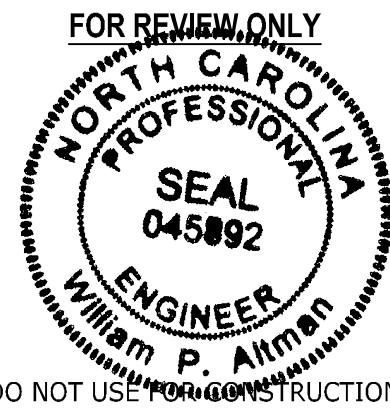
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10	5TH SUP SUBMITTAL	04.11.25
11	100% CONSTRUCTION DOC	04.11.25

SCO NO. 23-26062-01

SHEET TITLE  
**EXISTING CONDITIONS & DEMOLITION PLAN**

SHEET NUMBER

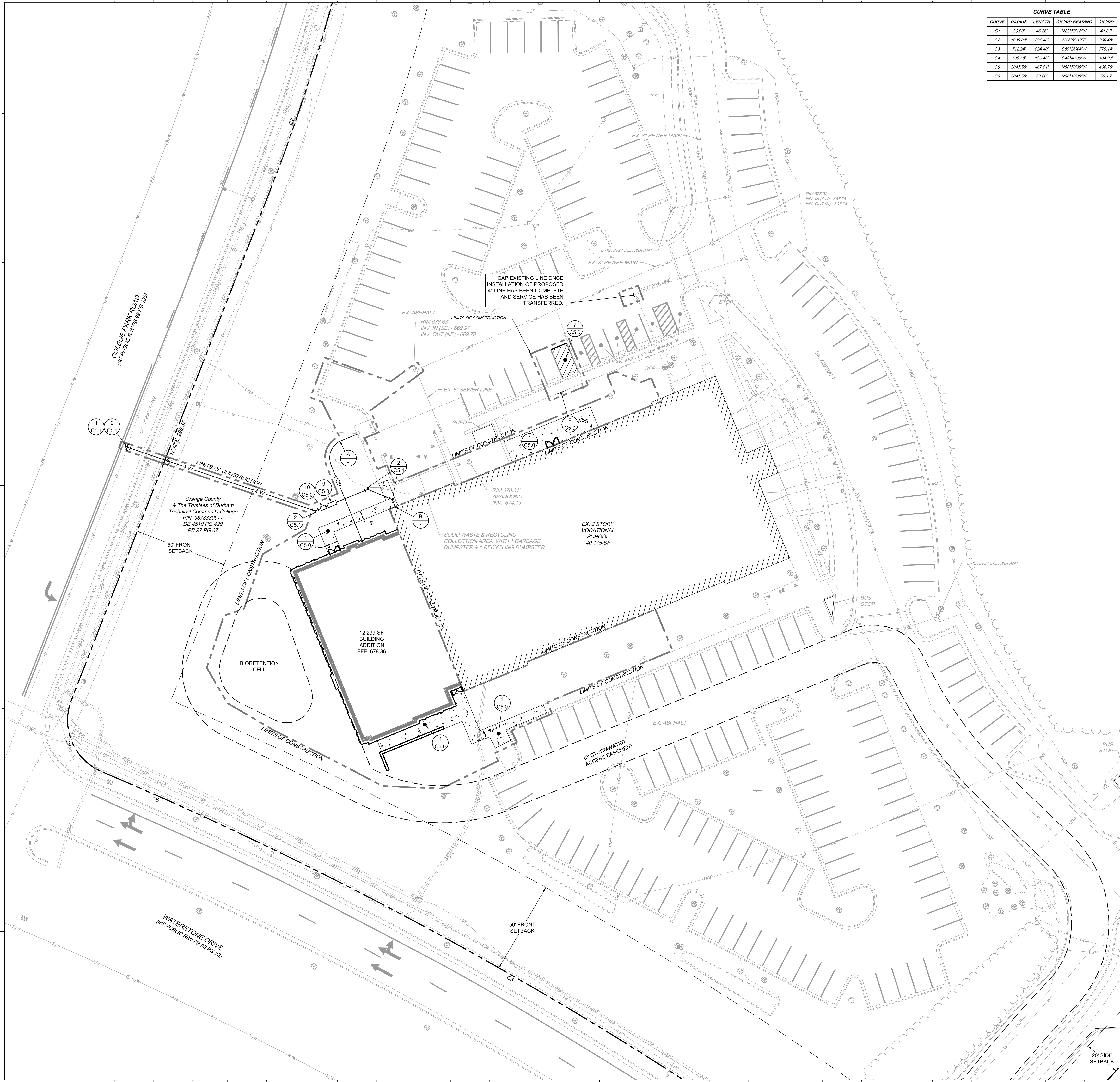
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Section 4, Item A.

26





CURVE TABLE				
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	30.00'	46.26'	N22°52'12\"W	41.81'
C2	1030.00'	291.48'	N12°59'12\"E	290.48'
C3	712.24'	804.40'	S89°26'44\"V	779.14'
C4	736.58'	165.48'	S48°48'39\"V	184.99'
C5	2047.50'	467.81'	N58°50'35\"W	466.79'
C6	2047.50'	59.20'	N68°13'00\"W	59.19'

- SITE LAYOUT NOTES**
- ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE ORANGE COUNTY, TOWN OF HILLSBOROUGH, NCDOT AND OSHA STANDARDS AND SPECIFICATIONS.
  - ALL DIMENSIONS ARE TO FACE OF CURB, EDGE OF PAVEMENT, BUILDING WALL FACE OR PROPERTY LINE, UNLESS OTHERWISE NOTED.
  - ALL RADI ARE DIMENSIONED FROM FACE OF CURB. IF NOT STATED, RADI DIMENSION IS 5'.
  - CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, UTILITIES AND GRADES PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING ANY RELATED CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE DISPOSAL OF ALL WASTE MATERIALS GENERATED DURING CONSTRUCTION AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS.
  - CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
  - AT LEAST 72 HOURS PRIOR TO CONSTRUCTION OR EXCAVATION THE CONTRACTOR SHALL NOTIFY "NORTH CAROLINA ONE CALL" (811) OR (1-800-632-4949) TO HAVE EXISTING UTILITIES LOCATED. ALL PRIVATE UTILITIES SHALL BE LOCATED AS NEEDED BY A PRIVATE UTILITY LOCATE COMPANY EMPLOYED BY THE CONTRACTOR.
  - ALL CURB AND GUTTER SHALL BE 30" WIDE UNLESS NOTED OTHERWISE.
  - ALL DISTURBED CURB & GUTTER AND ASPHALT SHALL BE REPLACED PER PROJECT DETAILS AND NCDOT STANDARDS AND SPECIFICATIONS.
  - RAISE ALL STRUCTURES AT NO ADDITIONAL COST TO THE OWNER SO THAT THE TOP OF THE STRUCTURE EQUALS THE FINISH GRADE OF THE NEW ASPHALT. STORM INLETS SHALL BE AN EXCEPTION.
  - COORDINATE THE PROJECT SCHEDULE WITH THE CIVIL ENGINEER AND OWNER IN ACCORDANCE WITH THE OWNER'S ONGOING ON-SITE OPERATIONS. ANY UTILITY INTERRUPTIONS SHALL BE COORDINATED WITH THE OWNER AT LEAST 72 HOURS PRIOR TO THE INTERRUPTION.
  - PROVIDE A SMOOTH TRANSITION BETWEEN NEW ASPHALT AND EXISTING ASPHALT SURFACES.
  - ALL SIDEWALKS ARE TO HAVE NO MORE THAN A 1:20 (5.0%) SLOPE FOR THE LENGTH OF THE SIDEWALK AND NO MORE THAN A 1:50 (2.0%) SLOPE FOR THE WIDTH OF THE SIDEWALK. NOTIFY ENGINEER IF THIS CANNOT BE ACHIEVED.
  - EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISH GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED).

- KEYNOTES**
- 1 CS.0 STANDARD DUTY CONCRETE
  - 7 CS.0 ACCESSIBLE PARKING LAYOUT
  - 8 CS.0 ACCESSIBLE PARKING SIGN
  - 9 CS.0 4" RPZ BACKFLOW PREVENTER (DOMESTIC SERVICE)
  - 10 CS.0 4" WATER METER
  - 1 CS.1 TAPPING SLEEVE WITH GATE VALVE
  - 2 CS.1 THRUST BLOCK
  - A UNDERGROUND ELECTRICAL (SEE ELECTRICAL DRAWINGS)
  - B TIE TO EXISTING BUILDING

SITE DATA TABLE	
PROJECT NAME:	DURHAM TECHNICAL COMMUNITY COLLEGE ORANGE COUNTY CAMPUS EXPANSION
STATE CONSTRUCTION OFFICE (SCO) NUMBER	23-26062-02A
PROPERTY OWNER/ DEVELOPER:	DURHAM TECHNICAL COMMUNITY COLLEGE 1637 E LAWSON ST., DURHAM, NC 27703
PIN ID:	9873330977
DEED ACRES:	20
PROPERTY ZONING:	ESU
CURRENT USE:	VOCATIONAL SCHOOL
PROPOSED USE:	VOCATIONAL SCHOOL
DISTURBED AREA:	0.54 ACRES
RIVER BASIN:	CATES CREEK (NEUSE)
SURFACE WATER CLASSIFICATION:	LOWER ENO UNPROTECTED
PARKING REQUIREMENTS:	EXISTING DTCC PARKING: 197 SPACES (6 ADA) EXISTING PARK AND RIDE PARKING: 124 SPACES (5 ADA) REQUIRED PARKING SPACES: 1 SPACES / 200-SF: 52,414-SF / 200-SF X 1 SPACE = 262 SPACES PROVIDED DTCC PARKING SPACES: 282 SPACES (7 ADA) PROVIDED PARK AND RIDE PARKING: 59 SPACES (5 ADA) ADA SPACES REQUIRED: 7 SPACES (FOR DTCC)
EXISTING IMPERVIOUS:	4.18 AC
NEW IMPERVIOUS:	0.10 AC
TOTAL POST DEVELOPMENT IMPERVIOUS:	4.28 AC

- ORANGE COUNTY SOLID WASTE CONSTRUCTION WASTE REQUIREMENTS:**
- ALL EXISTING STRUCTURES 500 SQUARE FEET AND LARGER SHALL BE ASSESSED PRIOR TO THE ISSUANCE OF A DEMOLITION PERMIT TO ENSURE COMPLIANCE WITH THE COUNTY'S REGULATED RECYCLABLE MATERIALS ORDINANCE (RRMO) AND TO ASSESS THE POTENTIAL FOR DECONSTRUCTION AND/OR THE REUSE OF SALVAGEABLE MATERIALS. CONTACT THE ORANGE COUNTY SW ENFORCEMENT OFFICER AT 919-968-2788 TO ARRANGE FOR THE ASSESSMENT.
  - PURSUANT TO THE COUNTY'S RRMO, CLEAN WOOD WASTE, SCRAP METAL, AND CORRUGATED CARDBOARD PRESENT IN CONSTRUCTION OR DEMOLITION WASTE MUST BE RECYCLED.
  - PURSUANT TO THE COUNTY'S RRMO, ALL HAULERS OF MIXED CONSTRUCTION AND DEMOLITION WASTE WHICH INCLUDES ANY REGULATED RECYCLABLE MATERIALS SHALL BE LICENSED BY ORANGE COUNTY.
  - PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITY ON THE SITE, THE APPLICANT SHALL HOLD A PRE-DEMOLITION/PRE-CONSTRUCTION CONFERENCE WITH SOLID WASTE STAFF. THIS MAY BE THE SAME PRE-CONSTRUCTION MEETING HELD WITH OTHER DEVELOPMENT/ENFORCEMENT OFFICIALS.
  - THE PRESENCE IF ANY ASBESTOS CONTAINING MATERIALS (ACM) AND/OR OTHER HAZARDOUS MATERIALS SHALL BE HANDLED IN ACCORDANCE WITH ANY AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND GUIDELINES.

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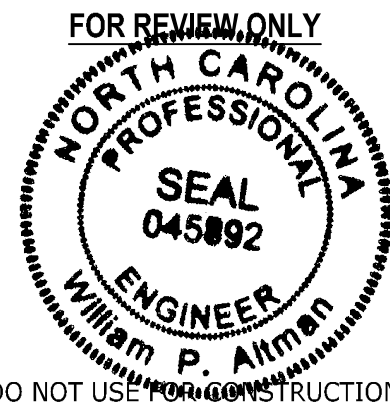
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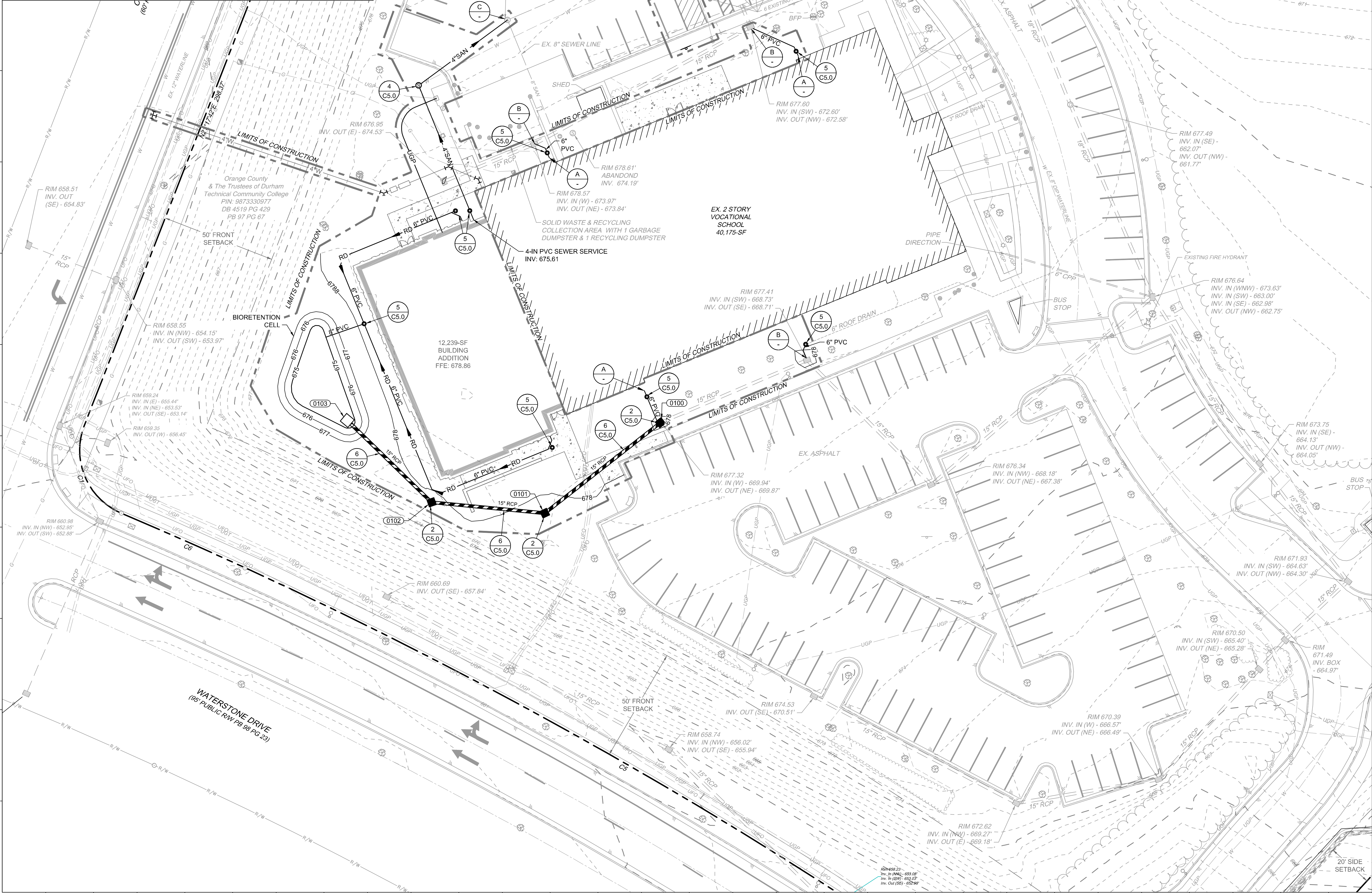
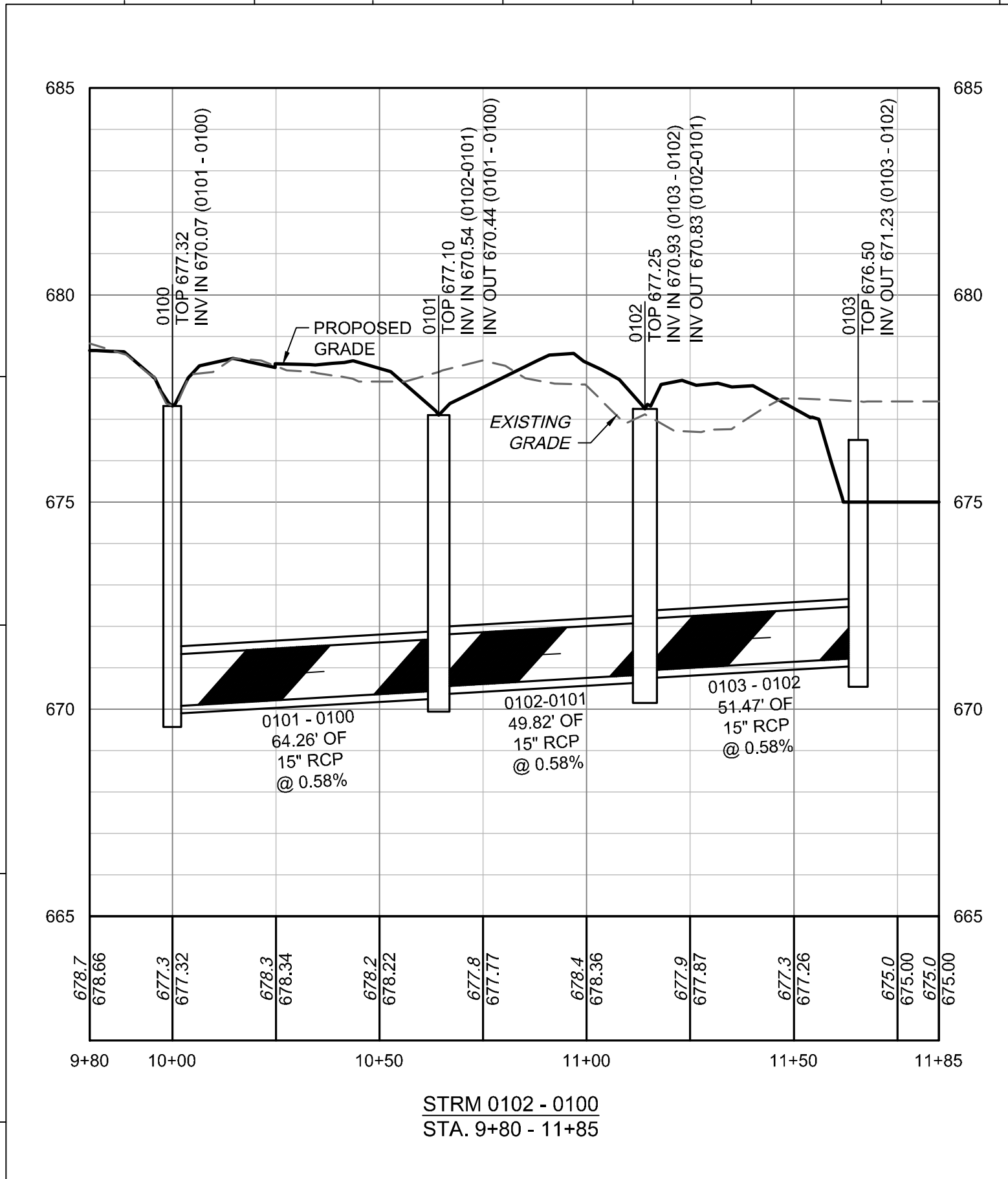
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11	100% CONSTRUCTION DOC	04.11.25

SCO NO. 23-26062-01

SHEET TITLE  
**SITE & UTILITY PLAN**

SHEET NUMBER  
**C2.0**





STORM PIPE TABLE					
PIPE #	DIA	UPSTREAM INVERT	DOWNSTREAM INVERT	SLOPE	LENGTH
0101 - 0100	15"	670.44	670.07	0.58%	64.26 LF
0102-0101	15"	670.83	670.54	0.58%	49.82 LF
0103 - 0102	15"	671.23	670.93	0.58%	51.47 LF

STORM STRUCTURE TABLE			
STRUCTURE #	TOP	STRUCTURE HEIGHT	DESCRIPTION
0100	677.32	7.25'	CONCRETE DROP INLET
0101	677.10	6.66'	CONCRETE DROP INLET
0102	677.25	6.61'	CONCRETE DROP INLET
0103	676.50	SEE SHEET C3.1	RISER

CURVE TABLE				
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	30.00'	48.26'	N22°52'12"W	41.81'
C2	1030.00'	291.46'	N12°58'12"E	290.48'
C3	712.24'	824.40'	S89°26'44"W	779.14'
C4	736.58'	185.48'	S48°48'39"W	184.99'
C5	2047.50'	467.81'	N58°50'35"W	466.79'
C6	2047.50'	59.20'	N68°13'00"W	59.19'

- GRADING & DRAINAGE NOTES
- ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE ORANGE COUNTY TOWN OF HILLSBOROUGH, NODOT AND OSHA STANDARDS.
  - COORDINATE THE PROJECT SCHEDULE WITH THE OWNER, AND ADJACENT USERS OF THE PROPERTY. MAINTAIN TRAFFIC FLOW AND DO NOT INTERRUPT UTILITIES AROUND THE SITE. DO NOT DISTURB OPERATIONS OF ADJACENT SITES AND FACILITIES AND/OR THEIR OWNER'S ONGOING OPERATIONS.
  - ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, VALVE BOXES, CLEANOUTS, ETC. SHALL BE ADJUSTED AS NEEDED TO MATCH FINISHED GRADE.
  - ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE PERFORMED BY THE OWNER'S INDEPENDENT TESTING LABORATORY.
  - ALL SPOT ELEVATIONS INDICATED ARE AT TOP OF CURB UNLESS NOTED OTHERWISE.
  - SPOT GRADE ABBREVIATIONS:
    - TC: TOP OF CURB
    - BC: BOTTOM OF CURB
    - EP: EDGE OF PAVEMENT
    - EX GND: MATCH EXISTING
    - SWK: SIDEWALK
    - FFE: FINISHED FLOOR ELEVATION
    - TW: TOP OF WALL
    - BW: BOTTOM OF WALL
  - SPOT ELEVATIONS ARE GIVEN AT THE MAJORITY OF THE MAJOR BREAK POINTS BUT IT SHOULD NOT BE ASSUMED THAT ALL NECESSARY SPOT ELEVATIONS ARE SHOWN. DUE TO SPACE LIMITATIONS, THERE MAY BE OTHER CRITICAL SPOTS NOT LABELED THAT SHOULD BE TAKEN INTO CONSIDERATION. THE CONTRACTOR SHALL REVIEW THE GRADING PLAN IN DETAIL AND SHALL ENSURE THAT ALL CRITICAL GRADE POINTS ARE STAKED AND FOLLOWED TO PROVIDE POSITIVE DRAINAGE.
  - ALL ELEVATIONS ARE BASED ON NC GRID NORTH (NAD 83).
  - THE CONTRACTOR SHALL USE NC ONE CALL (811) TO LOCATE ALL UNDERGROUND UTILITIES. PRIVATE UTILITIES SHALL BE LOCATED BY A PRIVATE LOCATE SERVICE AT THE EXPENSE OF THE CONTRACTOR.
  - INSTALL ALL STORM SEWERS TO PROVIDE REQUIRED CLEARANCES TO CROSSING UTILITIES AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS.
  - ALL ROOF DRAINS SHALL BE MIN. 6" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN.
  - JOINT FILL AND CAULK EACH CONCRETE EXPANSION JOINT AND WHERE CONCRETE PAVEMENT ABUTS OTHER PAVEMENTS, SIDEWALKS, OR HARD SURFACES.
  - MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT IN ACCORDANCE WITH NCDOT AND CIVIL ENGINEER.
  - FLUSH ALL SEDIMENT OUT OF STORM DRAINAGE PIPES AND STRUCTURES FOLLOWING SITE STABILIZATION AND AT THE END OF CONSTRUCTION. FLUSH OUT PIPES AS NEEDED THROUGHOUT CONSTRUCTION TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM.
  - IN DISTURBED AREAS, AMEND THE TOP 6 INCHES OF LAWN AREAS WITH TOPSOIL FROM THE SITE.
  - ALL SIDEWALKS ARE TO HAVE NO MORE THAN A 1:20 (5.0%) SLOPE FOR THE LENGTH OF THE SIDEWALK AND NO MORE THAN A 1:50 (2.0%) SLOPE FOR THE WIDTH OF THE SIDEWALK.
  - IF CONTRACTOR NOTICES ANY DISCREPANCIES IN ANY OF THESE SLOPE REQUIREMENTS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER & ENGINEER PRIOR TO POURING ANY CONCRETE.
  - PRIOR TO FINAL PROJECT ACCEPTANCE, PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY SYSTEMS AND STORM SEWERS.
  - ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR USING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
  - THE TOWN OF HILLSBOROUGH UTILITY CUT PERMIT IS REQUIRED IN ORDER TO CUT THE SIDEWALK TO INSTALL THE NEW WATER SERVICE LINE ON COLLEGE PARK ROAD.

- KEY NOTES
- 2 (C5.0) CONCRETE DROP INLET
  - 3 (C5.0) YARD INLET
  - 4 (C5.0) SEWER MANHOLE
  - 5 (C5.0) STANDARD CLEANOUT
  - 6 (C5.0) STORM SEWER TRENCHES
  - A - CONNECT TO EXISTING INTERNAL ROOF DRAIN
  - B - CONNECT TO EXISTING STORM STRUCTURE
  - C - CORE DRILL AND BOOT INTO EXISTING MANHOL

- LEGEND
- |                              |     |       |     |       |
|------------------------------|-----|-------|-----|-------|
| FENCE                        | --- | X     | --- | X     |
| GAS LINE                     | --- | G     | --- | G     |
| POWER LINE                   | --- | UGP   | --- | UGP   |
| TELEPHONE LINE               | --- | UGT   | --- | UGT   |
| WATER LINE                   | --- | W     | --- | W     |
| SANITARY SEWER LINE          | --- | SAN   | --- | SAN   |
| CABLE TV LINE                | --- | UCATV | --- | UCATV |
| FIBER OPTIC LINE             | --- | UFO   | --- | UFO   |
| RCP STORM PIPE               | --- | ---   | --- | ---   |
| HOPPE STORM PIPE             | --- | ---   | --- | ---   |
| CONSTRUCTION LIMITS          | --- | ---   | --- | ---   |
| LIGHT POLE                   | ⊙   | LP    | ⊙   | LP    |
| SITE BOLLARD                 | ⊙   | PP    | ⊙   | PP    |
| UTILITY POLE                 | ⊙   | PP    | ⊙   | PP    |
| SANITARY SEWER MANHOLE       | ⊙   | MH    | ⊙   | MH    |
| STORM SEWER MANHOLE          | ⊙   | MH    | ⊙   | MH    |
| CLEANOUT (SANITARY OR STORM) | ⊙   | CO    | ⊙   | CO    |
| DROP INLET                   | ⊙   | DI    | ⊙   | DI    |
| FIRE HYDRANT                 | ⊙   | FH    | ⊙   | FH    |
| WATER VALVE                  | ⊙   | WV    | ⊙   | WV    |
| TELECOM BOX                  | ⊙   | XB    | ⊙   | XB    |
| DRAINAGE STRUCTURE ID:       | ⊙   | AT    | ⊙   | AT    |

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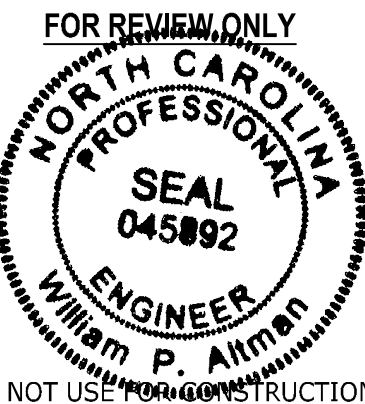
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SHEET TITLE  
**GRADING & DRAINAGE PLAN**

SHEET NUMBER

**C3.0**

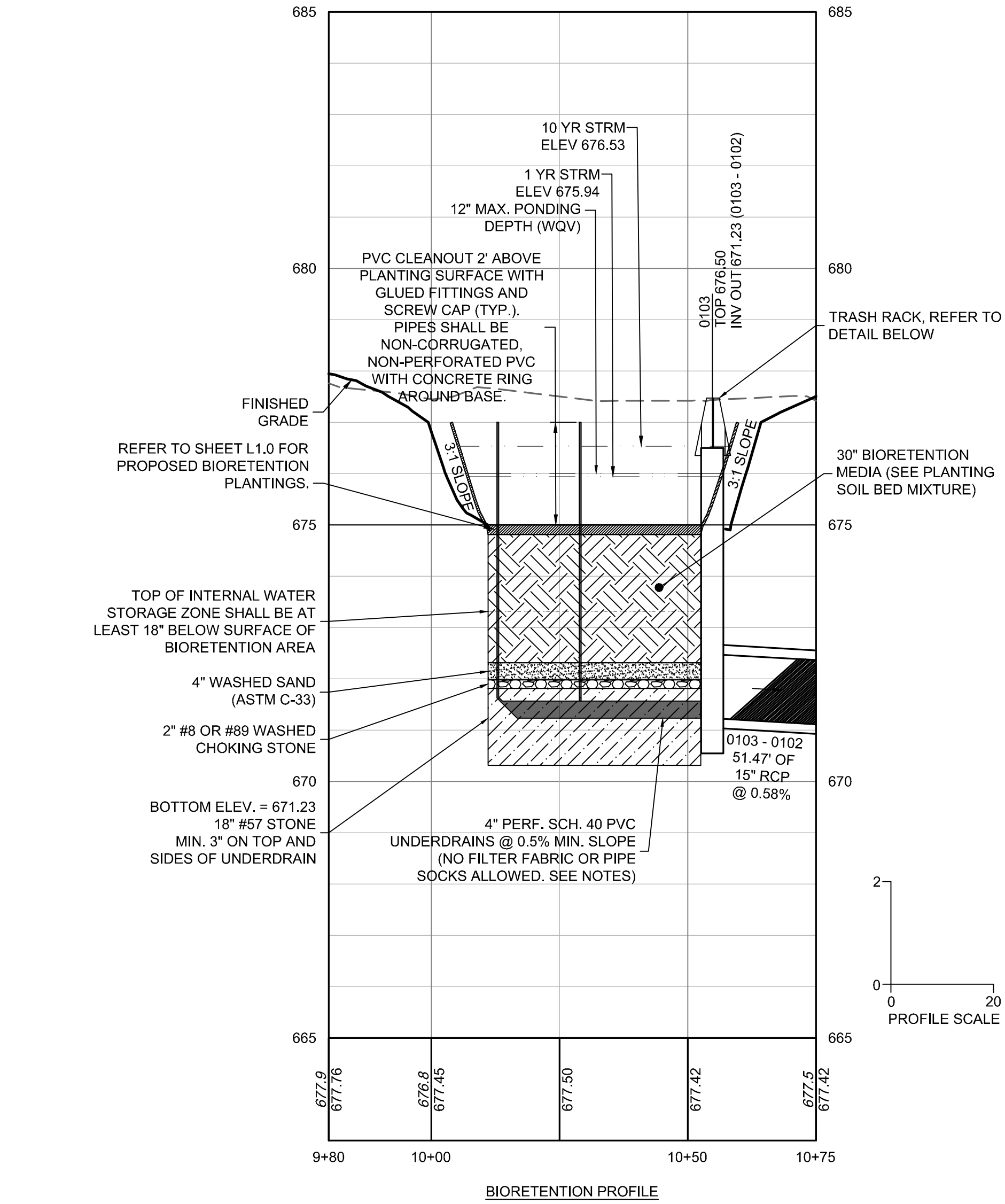


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SHEET TITLE  
**BIORETENTION  
DETAIL**

SHEET NUMBER  
**C3.1**



**GENERAL NOTES:**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ORANGE COUNTY, THE TOWN OF HILLSBOROUGH, NCDCO AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
- SEE GRADING PLAN FOR MORE INFORMATION ON ENTIRE SITE GRADING.
- DOCUMENTATION OF THE SEASONAL HIGH WATER TABLE WILL BE PROVIDED PRIOR TO SITE PERMIT REVIEW. ELEVATION IS YET TO BE DETERMINED.

**DAM EMBANKMENT AND SOIL  
COMPACTION SPECIFICATIONS**

- CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT (KEY TRENCH SHALL BE PLACED IN 6-INCH LOOSE LAYERS (5-INCH LOOSE LAYERS) WITHIN 3-FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A DEPTH OF 2-FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.
- ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LIMBS SHALL BE REMOVED FROM THE FILL MATERIAL PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3-INCH (IN ANY DIRECTION) SHALL BE REMOVED FROM THE FILL PRIOR TO COMPACTION.
- FILL MATERIAL PLACED AT DENSITIES LOWER THAN SPECIFIED MINIMUM DENSITIES OR AT MOISTURE CONTENTS OUTSIDE THE SPECIFIED RANGES OR OTHERWISE NOT CONFORMING TO SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS.
- ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT SOIL LIFT.
- SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
- FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS. ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. IN NO CASE SHALL THERE BE AN ATTEMPT TO STABILIZE ANY PORTIONS OF THE FOUNDATION SOILS WITH CRUSHED STONE.
- TREATMENT OF SEEPAGE AREAS, SUBGRADE PREPARATION, FOUNDATION DEWATERING AND ROCK FOUNDATION PREPARATION (I.E., TREATMENT WITH SLUSH GROUTING, DENTAL CONCRETE, ETC.) MAY BE

REQUIRED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER. ALL SUCH ACTIVITIES SHALL BE CLOSELY MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.

- FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE AT THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.
- EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.
- COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED.
- HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES (INCLUDING THE CRADLE) UNTIL ADEQUATE CURING TIME HAS ELAPSED.
- TO RE-ESTABLISH VEGETATION AFTER CONSTRUCTION, A 4-INCH LAYER OF TOPSOIL SHALL BE PLACED ON THE DISTURBED EMBANKMENT SURFACE AND THE AREA SEEDED AND MULCHED OR HYDROSEED.

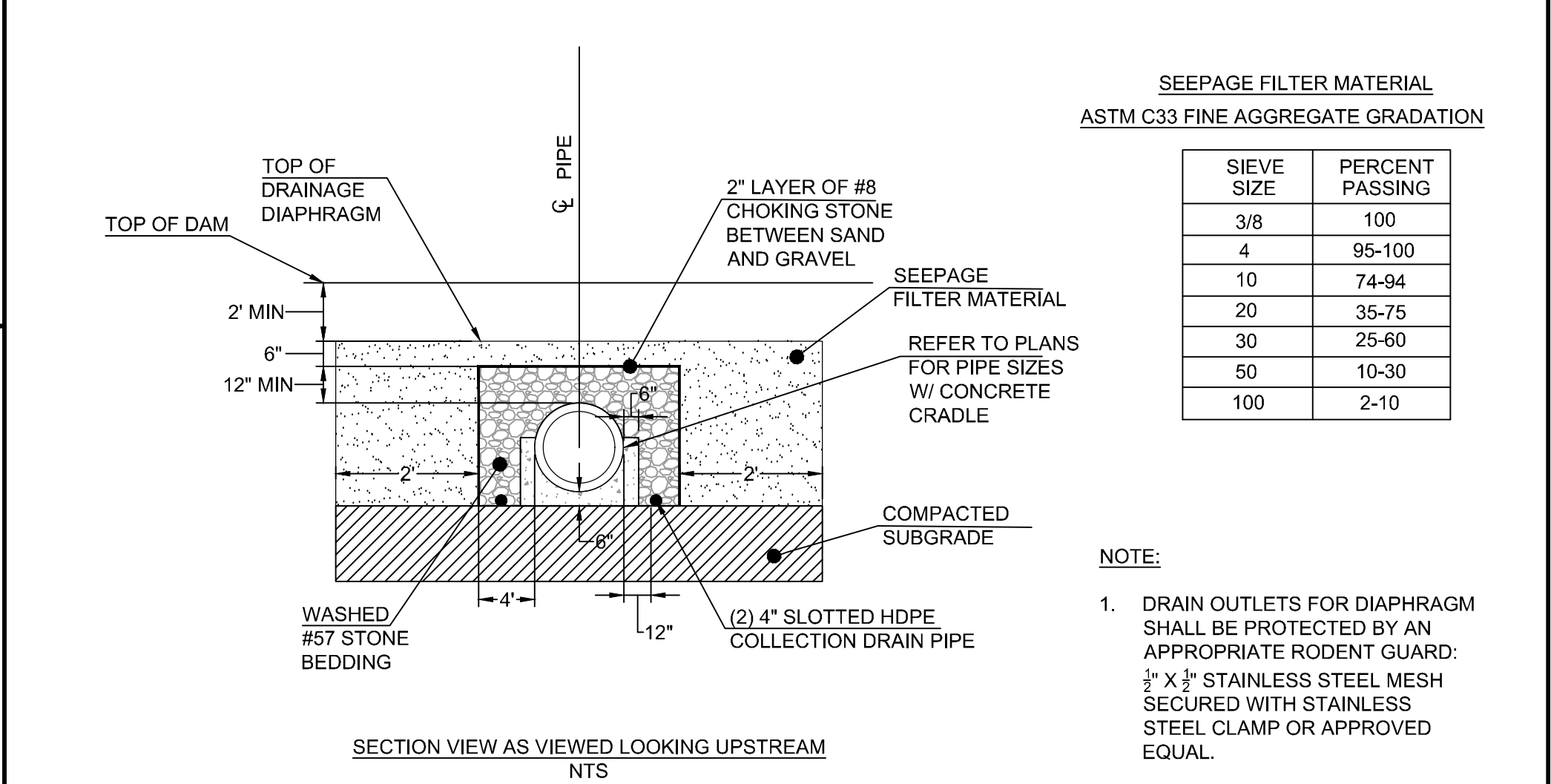
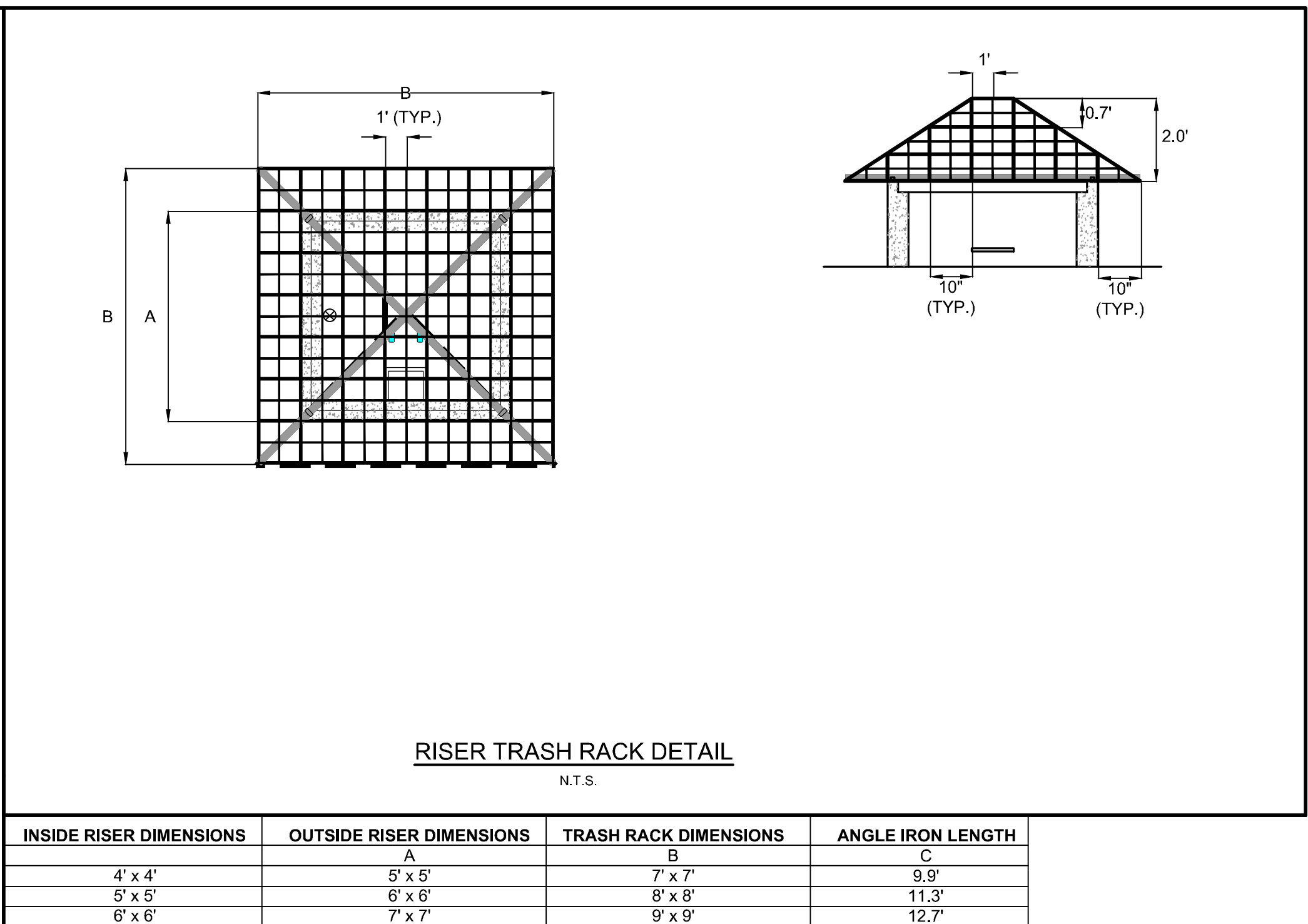
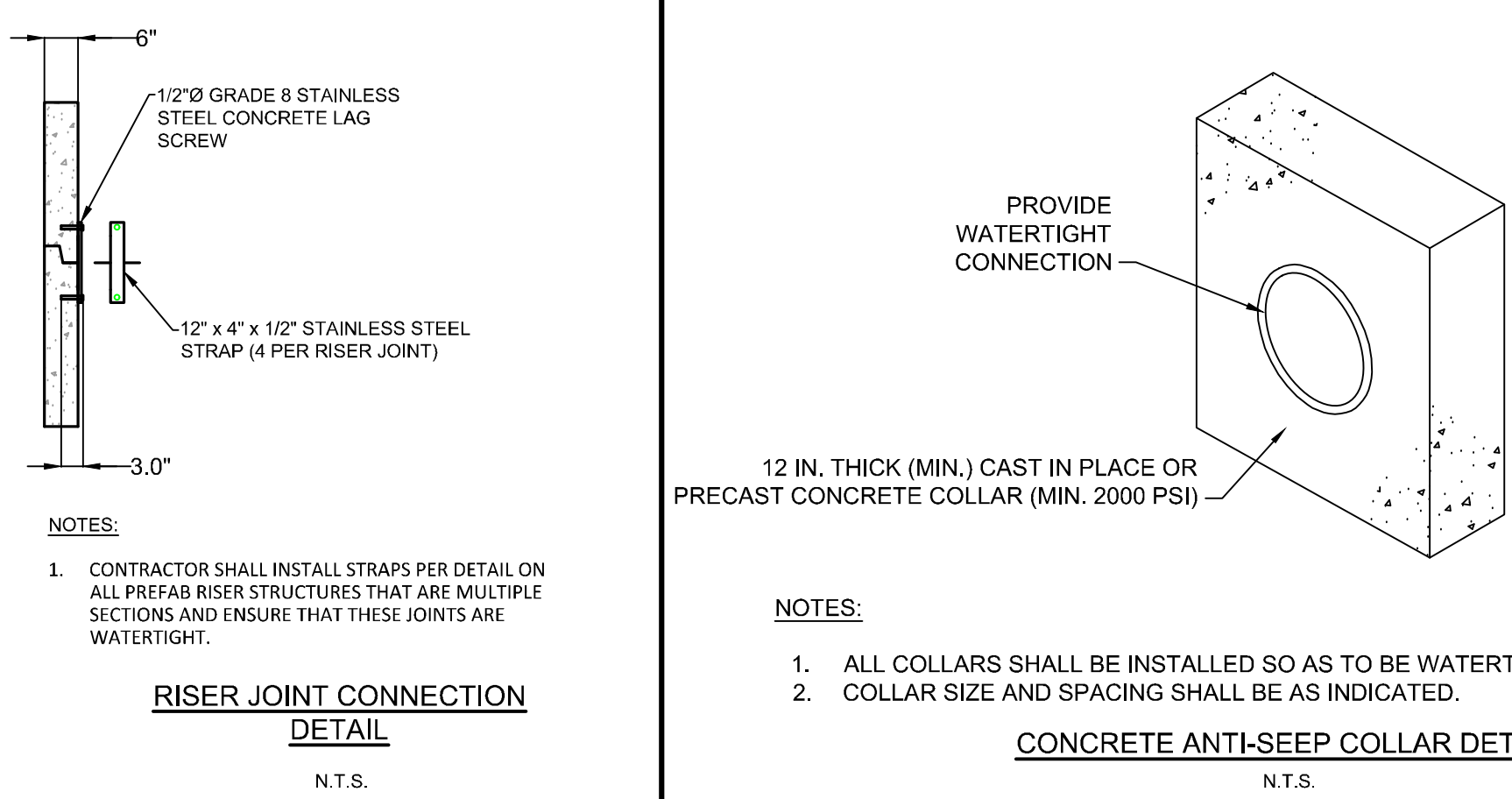
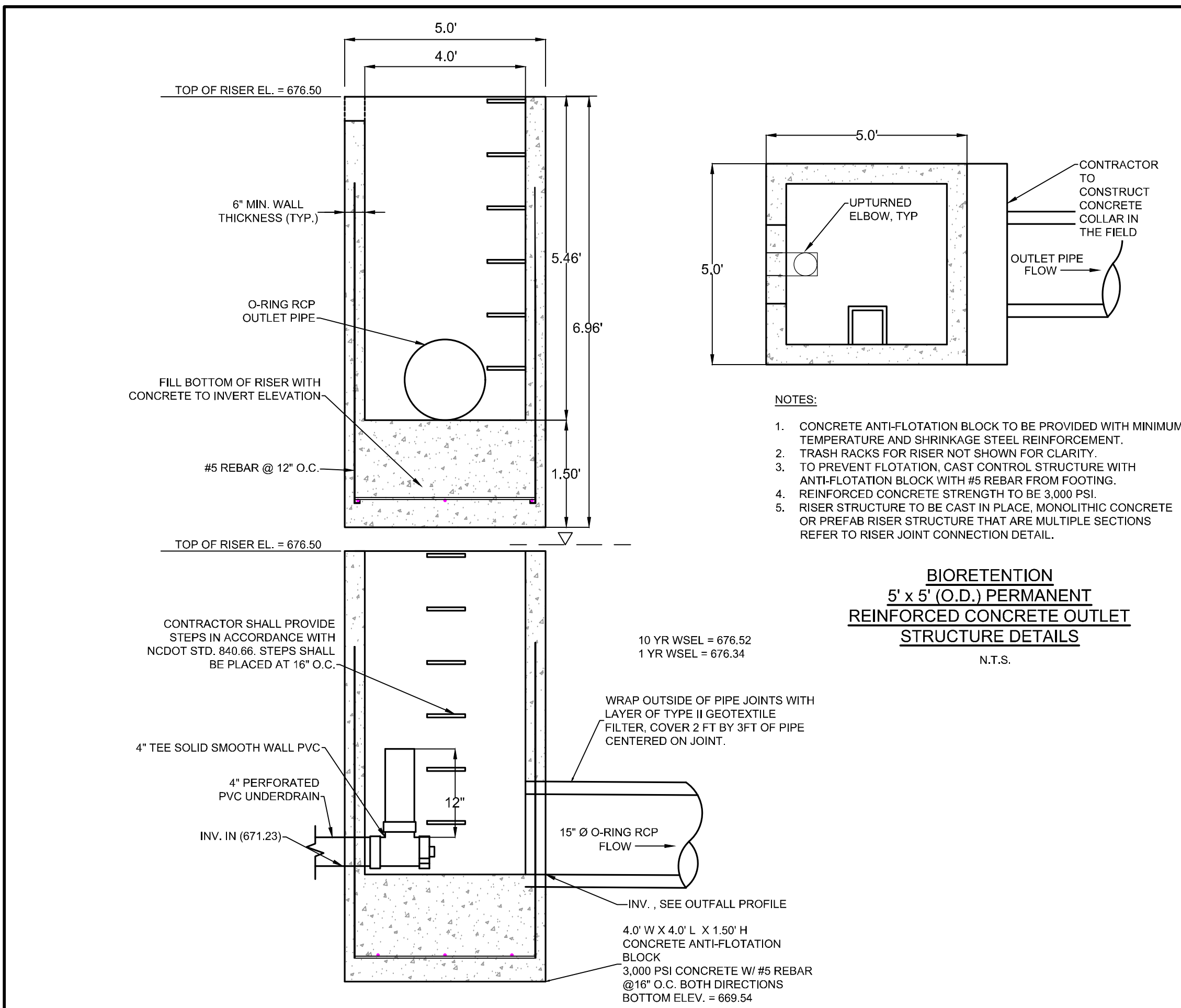
**TESTING, OBSERVATION, AND CERTIFICATION**

- TESTS OF THE DEGREE (%) OF COMPACTION OF THE PLACED FILL IN THE DAM/KEY TRENCH SHALL BE PERFORMED AS A PART OF THE PERMITTEES' NORMAL QUALITY CONTROL PROGRAM FOR THE CONSTRUCTION OF THE DAM. TESTS SHALL BE CONDUCTED CONCURRENT WITH THE INSTALLATION OF THE COMPACTED FILL AND THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE DAM SO THAT THE TESTING CAN BE COMPLETED. SHOULD THE RESULTS OF THE TESTS INDICATE THAT THE SPECIFIED DEGREE OF COMPACTION HAS NOT BEEN OBTAINED, THE PORTIONS OF THE DAM REPRESENTED BY SUCH TESTS SHALL BE REWORKED OR REBUILT. ALL PORTIONS OF THE DAM SHALL ACHIEVE THE SPECIFIED MINIMUM DEGREE OF COMPACTION.
- CONSTRUCTION OF THE SCM SHALL BE DONE UNDER THE OBSERVATION OF A QUALIFIED GEOTECHNICAL ENGINEER, WHO IS REGISTERED AS A PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA. THE GEOTECHNICAL ENGINEER MUST HAVE EXPERIENCE IN THE DESIGN AND CONSTRUCTION MONITORING OF SCMS OF THE SIZE AND SCOPE COVERED BY THESE STANDARDS AND GUIDELINES.

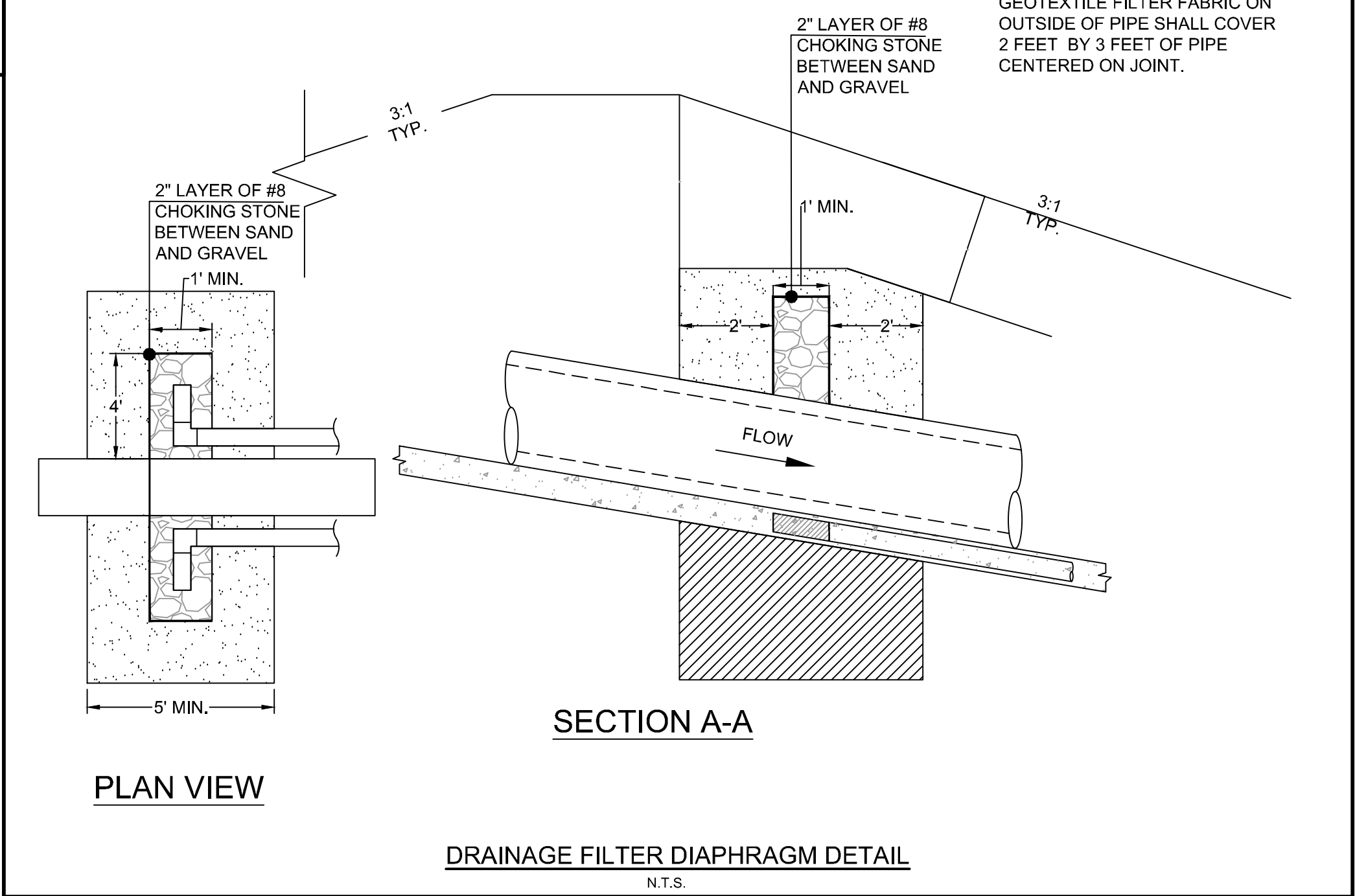
**IWS BIORETENTION CONSTRUCTION  
SEQUENCE:**

- ALL EROSION SEDIMENT AND EROSION CONTROL PRACTICES SHALL BE IN PLACE AND THE SLOPES DRAINING TO THE BIORETENTION AREA SHALL BE STABILIZED BEFORE CONSTRUCTION OF THE BIORETENTION BEGINS.
- INSTALL TEMPORARY SILT FENCE AROUND THE BIORETENTION AREA AS NEEDED.
- EXCAVATE BIORETENTION AREA, PER THE GRADES AND DETAILED ELEVATIONS SHOWN ON THE CONSTRUCTION PLANS.
- CONTACT ENGINEER SO AN AS-BUILT SURVEY CAN BE PERFORMED OF THE BIORETENTION. REFER TO TOWN & COUNTY AS-BUILT STANDARDS FOR DOCUMENTATION DURING INSTALLATION.
- INSTALL STORM DRAINAGE PIPES, STRUCTURES, AND UNDERDRAINS.
- INSTALL BIORETENTION SOIL MEDIA PROFILE.
- FINE GRADE THE SIDE SLOPES OF THE BIORETENTION AREA. DRESS UP VELOCITY DISSIPATER AS NEEDED PER THE PLANS.
- INSTALL SOD BERMUDA GRASS.
- FINE GRADE, SEED AND STABILIZE ANY REMAINING DISTURBED AREAS AROUND THE OUTSIDE OF THE BIORETENTION AREA. REMOVE SILT FENCE.
- UPON COMPLETION OF WORK, CONTACT THE PROJECT ENGINEER AND LANDSCAPE ARCHITECT FOR AN INSPECTION AND TO BEGIN THE AS-BUILT CERTIFICATION PROCESS. AN AS-BUILT SURVEY OF ALL ASPECTS OF THIS FACILITY IS TO BE PROVIDED BY CONTRACTOR AND FURNISHED TO THE ENGINEER. CERTIFICATIONS WILL NOT BE ISSUED IF THE SCM DOES NOT MEET OR EXCEED THE REQUIREMENTS CONTAINED IN THE CONSTRUCTION DOCUMENTS. SHOULD REMEDIAL WORK BE REQUIRED, ALL COSTS ASSOCIATED WITH THE REMEDIAL WORK INCLUDING RE-SURVEY AND RE-INSPECTIONS WILL BE BORNE BY THE CONTRACTOR.

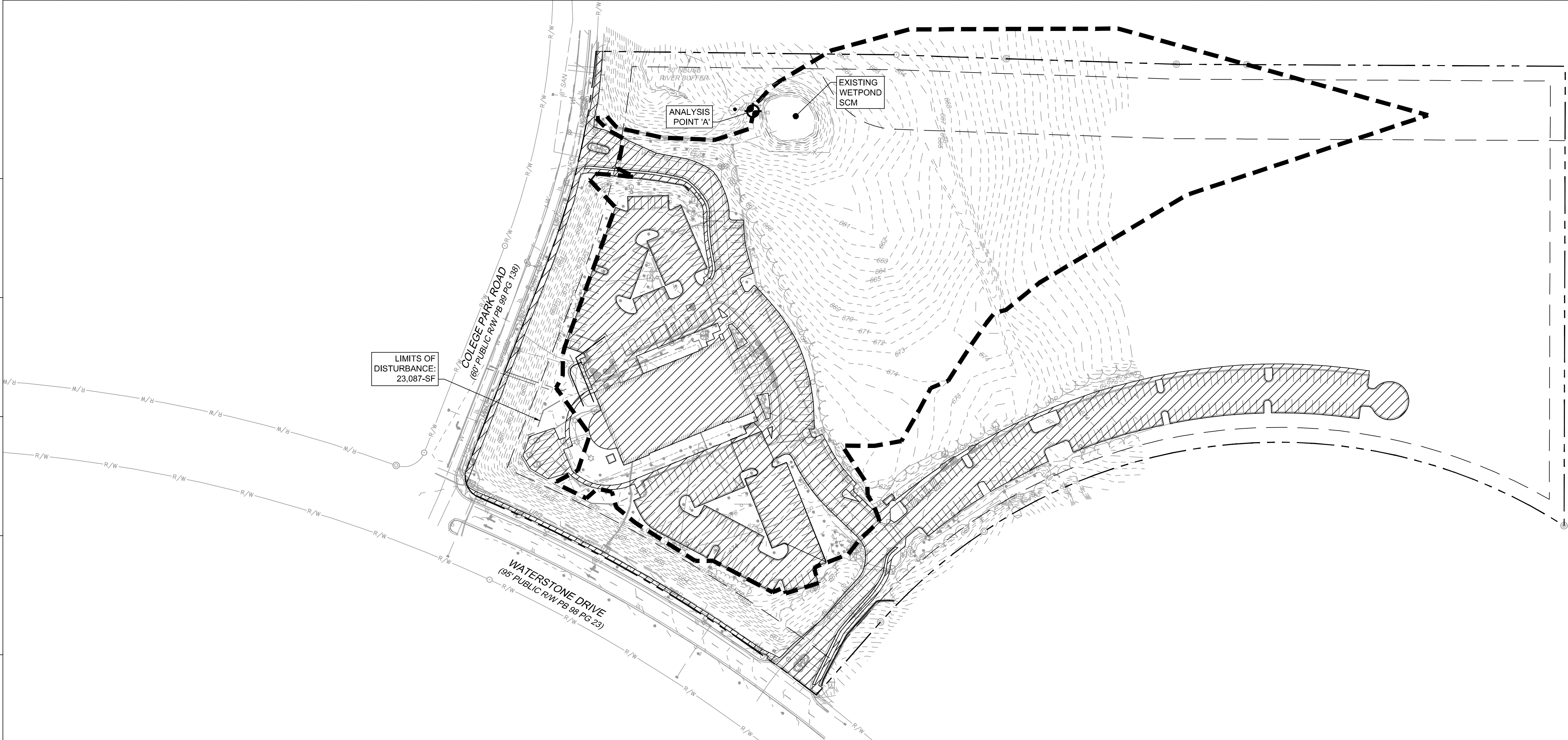
PLANTING SOIL BED MIXTURE	
pH RANGE	5.5 TO 7.00
P-INDEX	10-30
SOLUBLE SALTS	500 PPM MAXIMUM
FINES (SILT AND CLAY)	8-10%
ORGANIC MATERIAL	75-85%
PERMEABILITY	2"/HOUR MIN, 6"/HOUR MAX, 2"/HOUR PREFERRED



- CONSTRUCTION NOTES**
- SEEPAGE PROTECTION FILTER MATERIAL SHALL BE COMPACTED PER SPECIFICATIONS.







PRE-DEVELOPMENT IMPERVIOUS ANALYSIS MAP

LANDUSE SUMMARY			
LEGEND	LANDUSE	EXISTING AREA (SF)	PROPOSED AREA (SF)
	IMPERVIOUS	181,983	184,597
	PERVIOUS/WOODED	688,731	686,117
	DRAINAGE AREA BOUNDARY		

STORMWATER QUALITY CALCULATIONS:

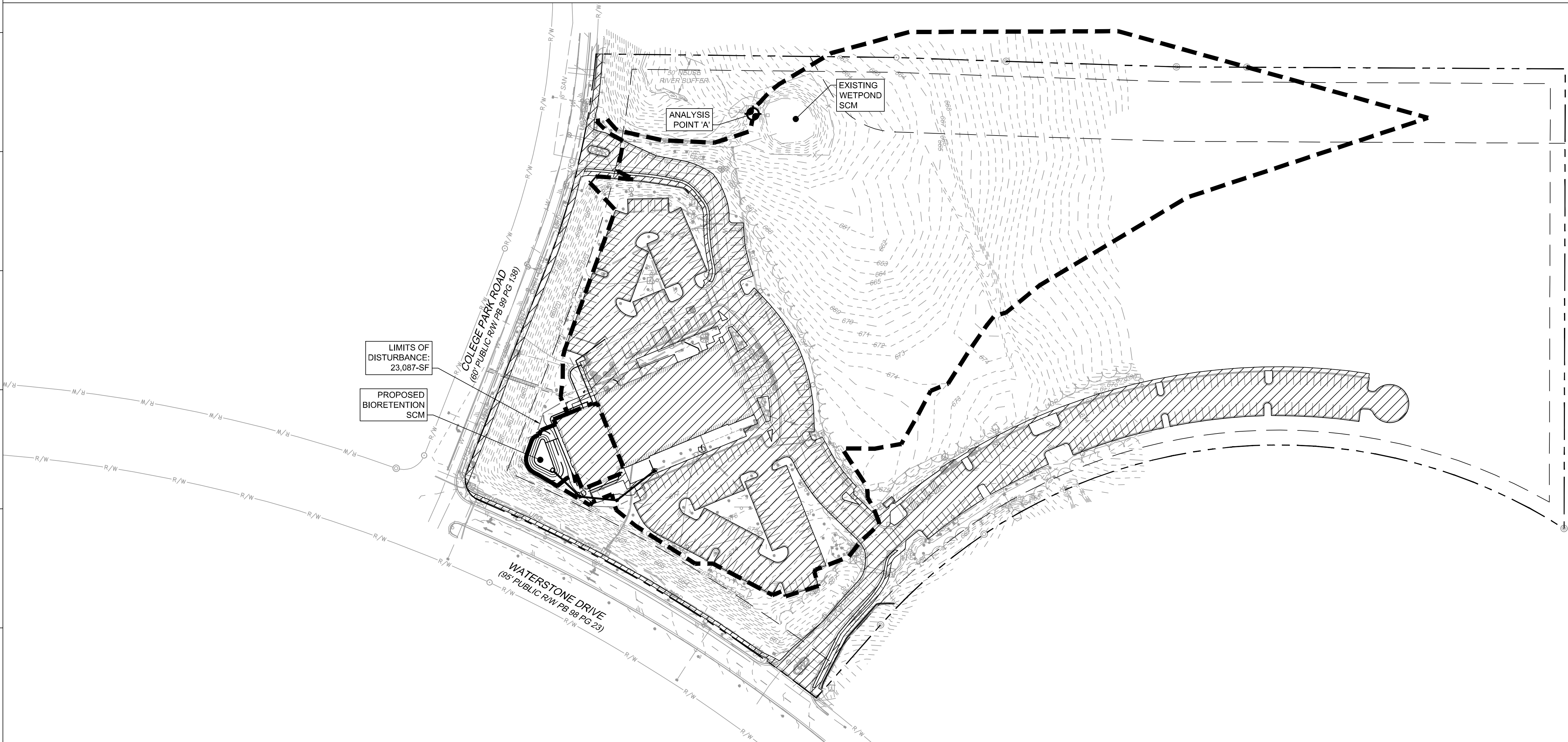
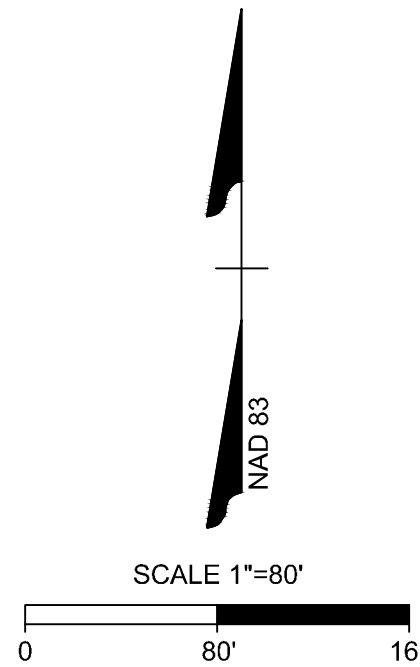
PRE-DEVELOPMENT ON-SITE IMPERVIOUS SURFACES: 181,983-SF

POST-DEVELOPMENT ON-SITE IMPERVIOUS SURFACES: 184,597-SF

IMPERVIOUS AREA REQUIRED TO BE TREATED: 2,614-SF

IMPERVIOUS AREA TREATED BY BIORETENTION SCM: 6,239-SF

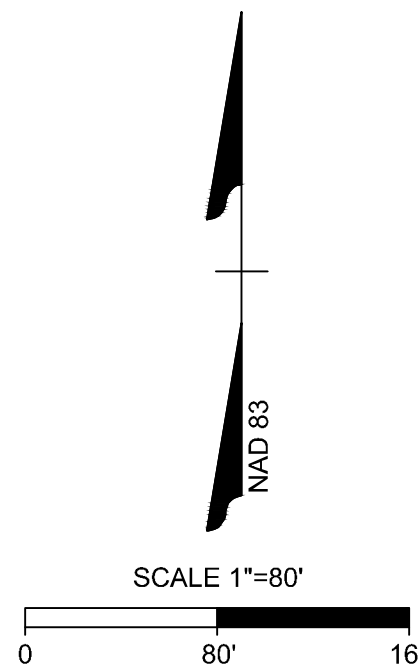
STORM WATER QUANTITY CALCULATIONS						
ANALYSIS POINT	DRAINAGE AREA (ac)	IMPERVIOUS AREA (ac)	CURVE NUMBER	Q1	Q10	Q25
A	9.59	2.65	71	0.93	22.83	29.25



POST-DEVELOPMENT IMPERVIOUS ANALYSIS MAP

STORM WATER QUANTITY CALCULATIONS						
	DRAINAGE AREA (AC)	CURVE NUMBER	FLOW TYPE	Q1	Q10	Q25
ANALYSIS POINT A	9.70	71	TOTAL	0.89	22.68	28.94
EX WETPOND	9.48	71	MANAGED	0.89	22.68	28.94
BIO	0.22	91	MANAGED	0.04	1.39	1.66

OVERALL SUMMARY						
ANALYSIS POINT	Q1 (PRE)	Q1 (POST)	Q10 (PRE)	Q10 (POST)	Q25 (PRE)	Q25 (POST)
A	0.93	0.89	22.83	22.68	29.25	28.94



GENERAL NOTES:

1. ALL PERMANENT SLOPES, INCLUDING SCM SIDE SLOPES, WILL BE CONSTRUCTED NO STEEPER THAN 3:1.

katherine  
hogan  
architects

Durham Tech -  
Orange County  
Campus -  
Expansion

525 College Park Rd,  
Hillsborough, NC 27278

SEAL | DATE Issue Date

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YOUR VISION ACHIEVED THROUGH OURS.

VIRGINIA | NORTH CAROLINA

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50352-333



NO.	DESCRIPTION	DATE
1	SCHEMATIC DESIGN	06.10.24
2	DESIGN DEVELOPMENT	09.19.24
3	DESIGN DEVELOPMENT - SCO	10.18.24
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5	1ST SUP SUBMITTAL	11.15.24
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8	4TH SUP SUBMITTAL	03.19.25
9	50% CD SUBMITTAL - SCO	03.31.25
10	5TH SUP SUBMITTAL	04.11.25
11	100% CONSTRUCTION DOC	04.11.25

SCO NO. 23-26062-01

SHEET TITLE  
**STORMWATER  
COMPLIANCE  
PLAN**

SHEET NUMBER

**C3.2**



SHEET ISSUE		
NO.	DESCRIPTION	DATE
1	SCHEMATIC DESIGN	06.10.24
2	DESIGN DEVELOPMENT	09.19.24
3	DESIGN DEVELOPMENT - SCO	10.18.24
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SCO NO. 23-26062-01

SHEET TITLE  
**EROSION &  
SEDIMENTATION  
CONTROL PLAN -  
PHASE I**

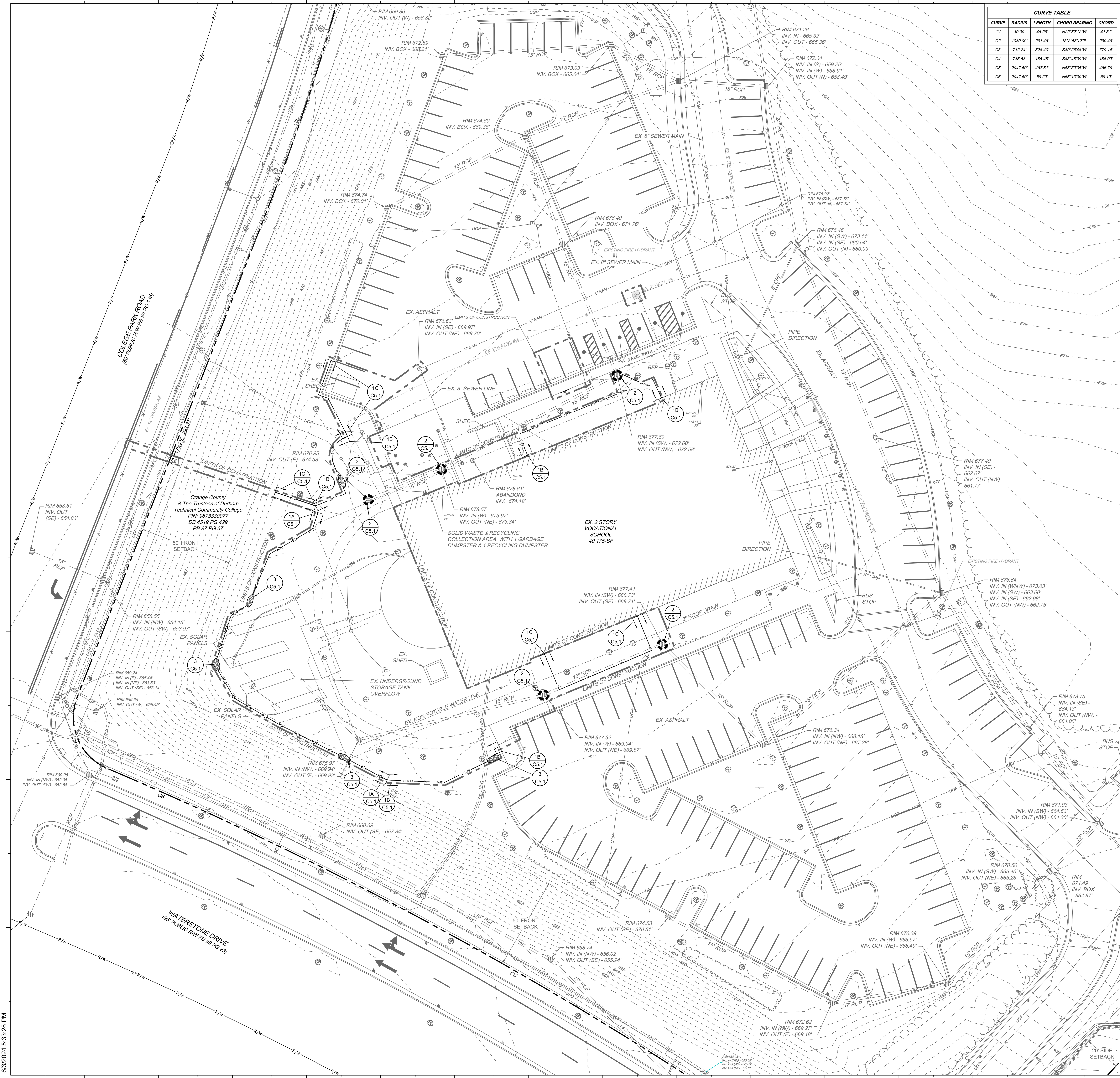
SHEET NUMBER  
**C4.0**

- GENERAL NOTES
1. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE. ALL OFF-SITE SOIL BORROW AND WASTE SITES SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITIES.
  2. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ENGINEER.
  3. ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY.
  4. ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM.
  5. THE INDICATED STAGING AREA IS INTENDED FOR VEHICLES AND NON-ERODIBLE MATERIALS ONLY. NO SOIL, SAND OR OTHER ERODIBLE, FINE GRAINED MATERIAL SHALL BE STORED OUTSIDE OF THE LIMITS OF THE SITE PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
  6. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
  7. TREE PROTECTION INSPECTION SHALL BE COMPLETED PRIOR TO INSTALLING EROSION CONTROL DEVICES.
  8. ALL APPLICABLE E&S CONTROL MEASURES ARE TO BE PROPERLY MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
  9. PERMANENT GROUND COVER SHALL BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR NO MORE THAN 90 CALENDAR DAYS (WHICHEVER IS SHORTER).
  10. TOTAL DISTURBED AREA: 0.54 AC.

KEYNOTES

1A C5.1	TEMPORARY SILT FENCE	
1B C5.1	TEMPORARY COMBINATION TREE PROTECTION & SILT FENCE	
1C C5.1	TEMPORARY TREE PROTECTION FENCE	
2 C5.1	SILT BAG INLET PROTECTION	
3 C5.1	REINFORCED SILT FENCE OUTLET	
4 C5.1	EXCAVATED DROP INLET PROTECTION	
5 C5.1	WIRE CLOTH & GRAVEL INLET PROTECTION	

- CONSTRUCTION SEQUENCE - PHASE I
1. SCHEDULE AND CONDUCT A PRE-CONSTRUCTION CONFERENCE WITH THE ARCHITECT AND ENGINEER AND TOWN OF HILLSBOROUGH. THE PRE-CONSTRUCTION MEETING WILL BE SCHEDULED BY TOWN STAFF. A TOWN ZONING COMPLIANCE PERMIT MUST BE OBTAINED AND ON FILE AT THE JOB SITE.
  2. INSTALL PERIMETER SILT AND TREE PROTECTION FENCE, REINFORCED SILT FENCE OUTLETS AND SILT BAG INLET PROTECTION.
  3. CALL TOM KING WITH THE TOWN OF HILLSBOROUGH AT (919) 296-9475 AND THE ENGINEER TO ARRANGE AN INSPECTION OF INSTALLED EROSION CONTROL DEVICES. (NOTE: DEMOLITION, GRADING, AND ANY OTHER CONSTRUCTION WORK SHALL NOT OCCUR UNTIL THE EROSION CONTROL FEATURES ARE INSTALLED AND APPROVED BY THE TOWN OF HILLSBOROUGH'S PLANNING AND ECONOMIC DEVELOPMENT DIVISION INSPECTOR.)
  4. PROCEED WITH DEMOLITION, GRADING, AND SITE WORK AS SHOWN ON PLANS.
  5. MAINTAIN ALL EROSION & SEDIMENT CONTROL MEASURES THROUGHOUT CONSTRUCTION. REMOVE AND STABILIZE CONSTRUCTION LAY DOWN, STAGING, DIRT & WASTE PILE AREAS. ALL APPLICABLE E&S CONTROL MEASURES ARE TO REMAIN UNTIL PERMANENT VEGETATION IS ESTABLISHED.
  6. ONCE THE SITE IS READY TO MOVE FORWARD WITH SITE PAVING, STABILIZE THE SITE AND PROCEED TO PHASE II EROSION CONTROL.





SHEET ISSUE		
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10	5TH SUP SUBMITTAL	04.11.25
11	100% CONSTRUCTION DOC	04.11.25

SCO NO. 23-26062-01

SHEET TITLE  
**EROSION &  
SEDIMENTATION  
CONTROL PLAN -  
PHASE II**

SHEET NUMBER  
**C4.1**

- GENERAL NOTES
1. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE. ALL OFF-SITE SOIL BORROW AND WASTE SITES SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITIES.
  2. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ENGINEER.
  3. ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY.
  4. ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM.
  5. THE INDICATED STAGING AREA IS INTENDED FOR VEHICLES AND NON-ERODIBLE MATERIALS ONLY. NO SOIL, SAND OR OTHER ERODIBLE, FINE GRAINED MATERIAL SHALL BE STORED OUTSIDE OF THE LIMITS OF THE SITE PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
  6. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
  7. TREE PROTECTION INSPECTION SHALL BE COMPLETED PRIOR TO INSTALLING EROSION CONTROL DEVICES.
  8. ALL APPLICABLE E&S CONTROL MEASURES ARE TO BE PROPERLY MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
  9. PERMANENT GROUND COVER SHALL BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR NO MORE THAN 90 CALENDAR DAYS (WHICHEVER IS SHORTER).
  10. TOTAL DISTURBED AREA: 0.54 AC.

KEYNOTES

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4 C5.1	EXCAVATED DROP INLET PROTECTION	
5 C5.1	WIRE CLOTH & GRAVEL INLET PROTECTION	

- CONSTRUCTION SEQUENCE - PHASE II
1. MAINTAIN ALL EXISTING EROSION & SEDIMENT CONTROL MEASURES PREVIOUSLY CONSTRUCTED AND ASSOCIATED WITH PHASE I. ADJUST AS NEEDED.
  2. AS SITE IS PAVED AND BROUGHT UP TO FINAL GRADE, INSTALL REMAINDER OF THE STORM DRAINAGE SYSTEM. INSTALL INLET PROTECTION DEVICES AT NEW STRUCTURES AS THEY ARE CONSTRUCTED.
  3. INSTALL REMAINDER OF PAVING AND SITE FEATURES.
  4. VEGETATE ALL DISTURBED AREAS ACCORDING TO THE NPDES CHART.
  5. WHEN THE SITE IS STABILIZED, CONTACT ORANGE COUNTY AT (919) 245-2575 AND TIMMONS GROUP AT (919) 866-4938 FOR AN INSPECTION. IF APPROVAL IS GRANTED BY ORANGE COUNTY AND TIMMONS GROUP, REMOVE TEMPORARY SILT FENCING AND OTHER TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES.
  7. REMOVE EXCAVATED DROP INLET PROTECTION AND ALL OTHER TEMPORARY EROSION CONTROL MEASURES.
  8. CONVERT THE EXCAVATED DROP INLET PROTECTION TO PERMANENT BIORETENTION BASIN (REFER TO THE PERMANENT BIORETENTION BASIN DETAIL ON SHEET C3.1).
  9. SEED AND RE-SEED ALL BARE AREAS WITH PERMANENT SEEDING, MULCH OR LANDSCAPING.





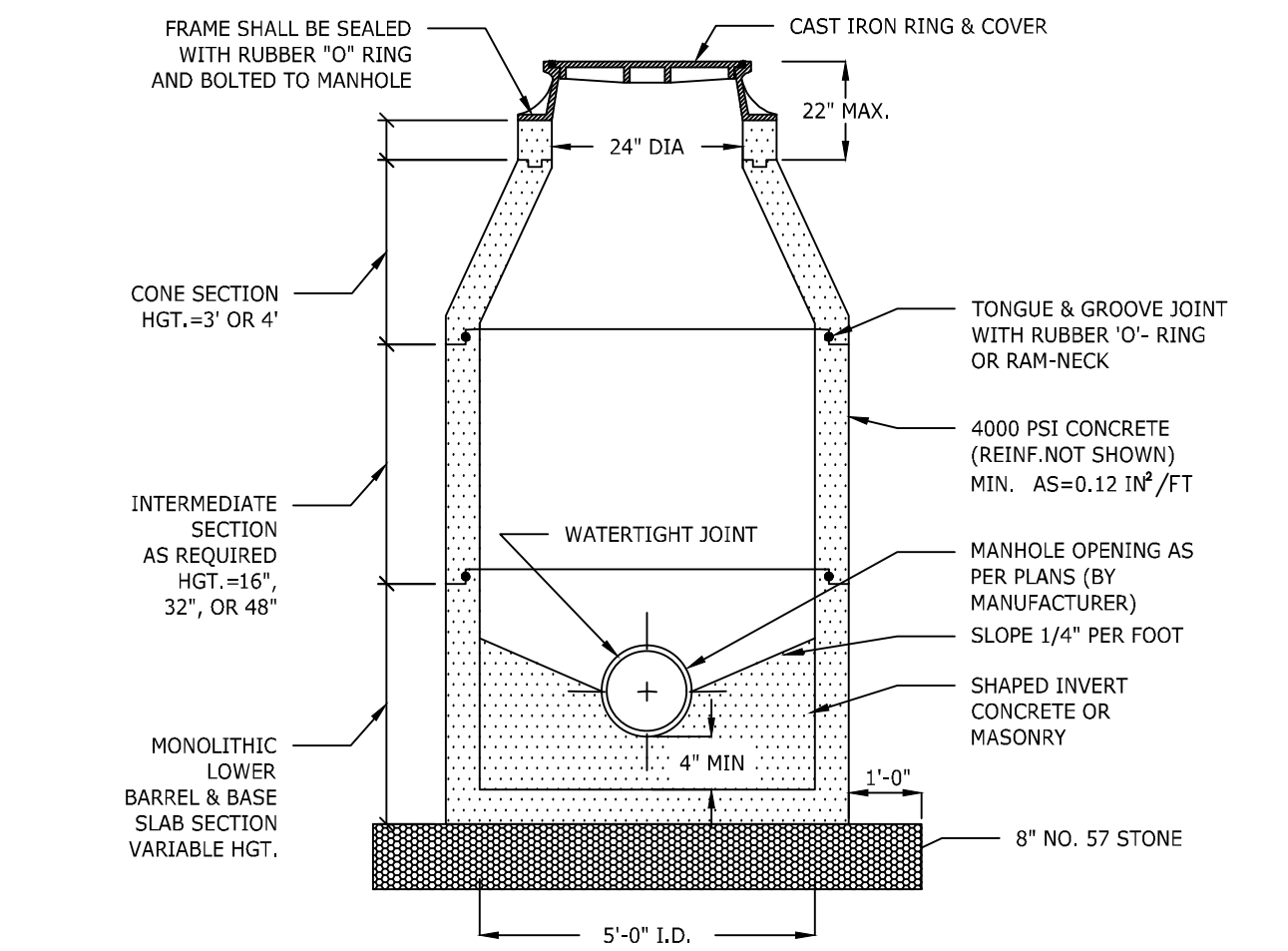
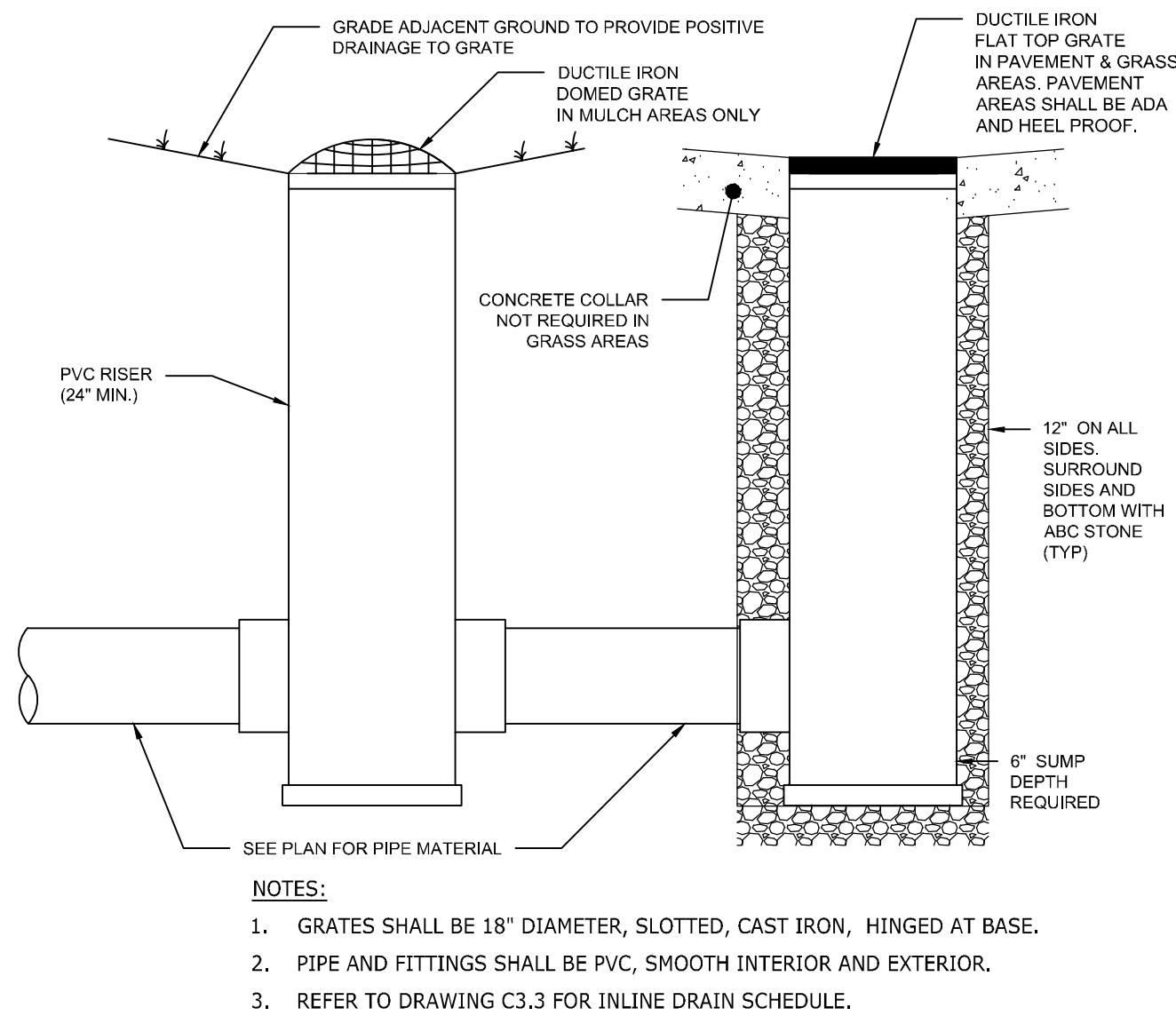
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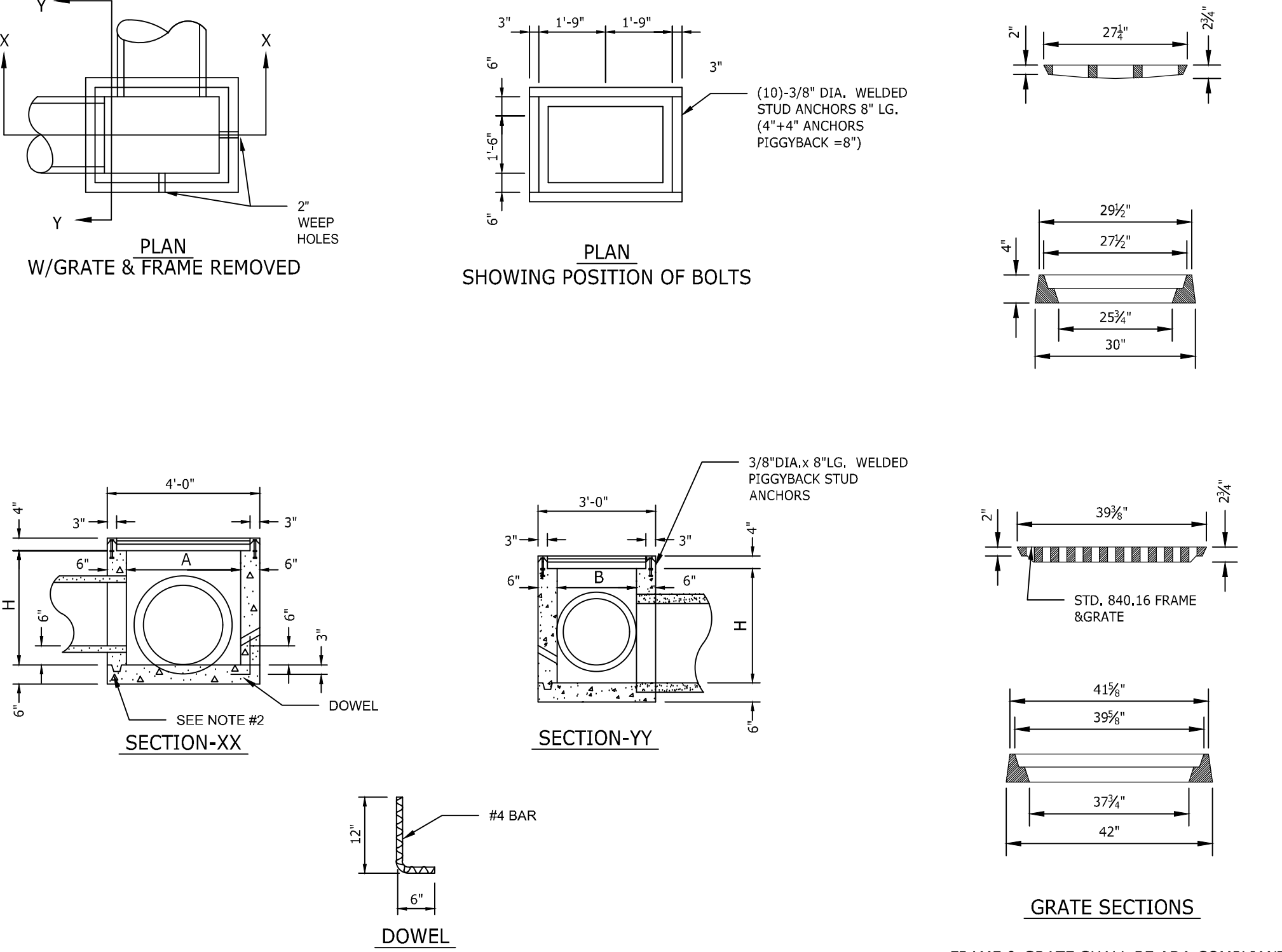
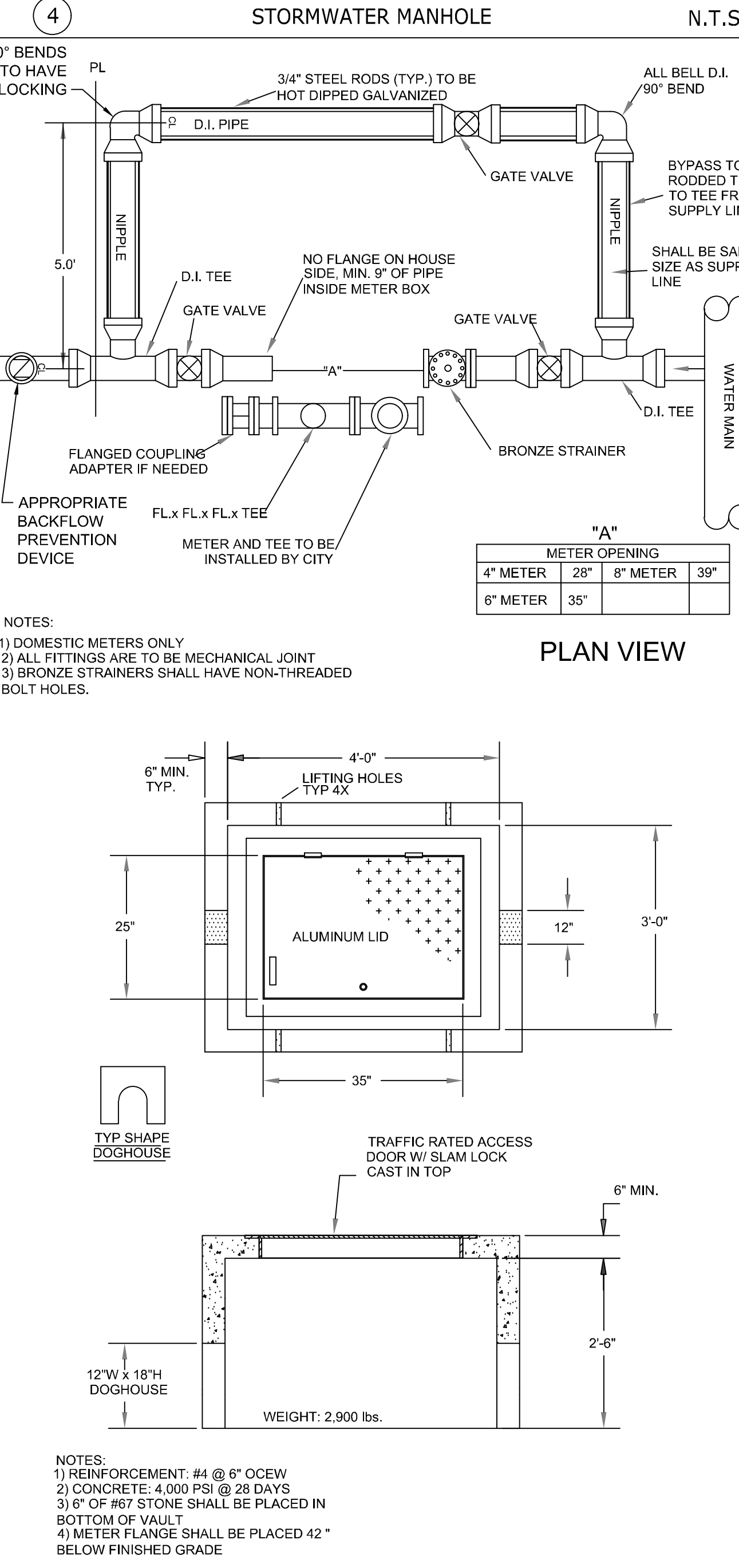
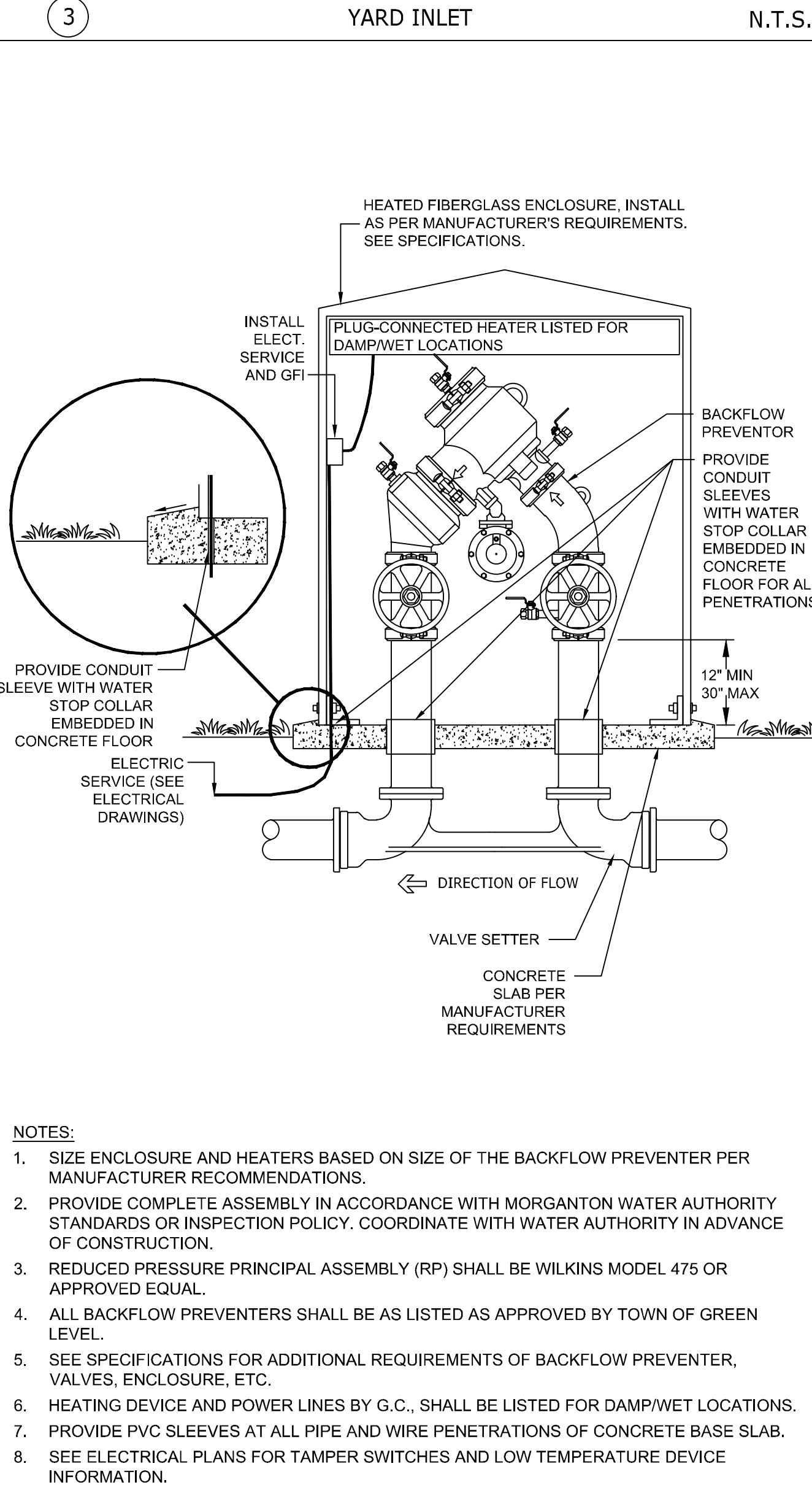
SHEET TITLE  
**SITE DETAILS**

SHEET NUMBER

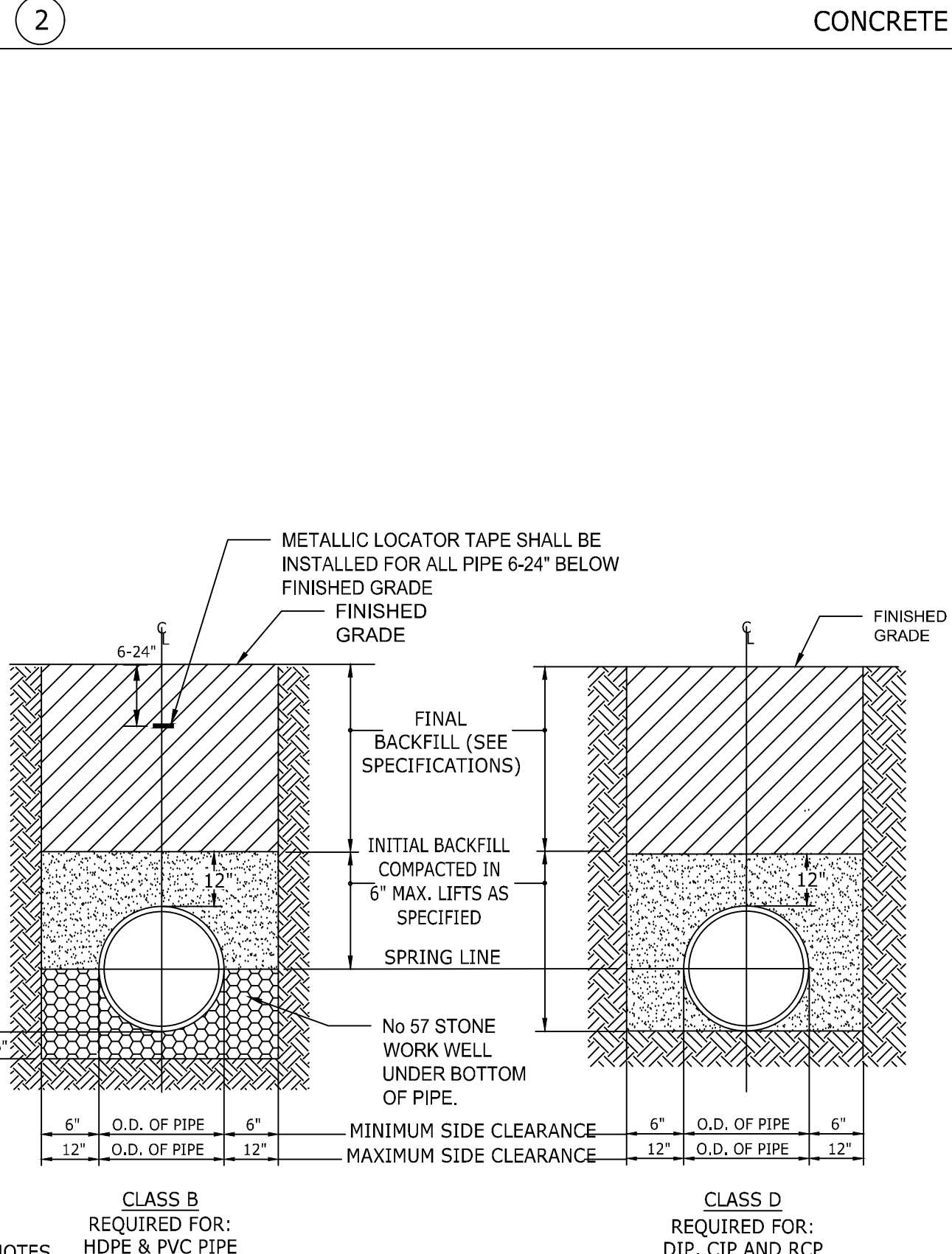
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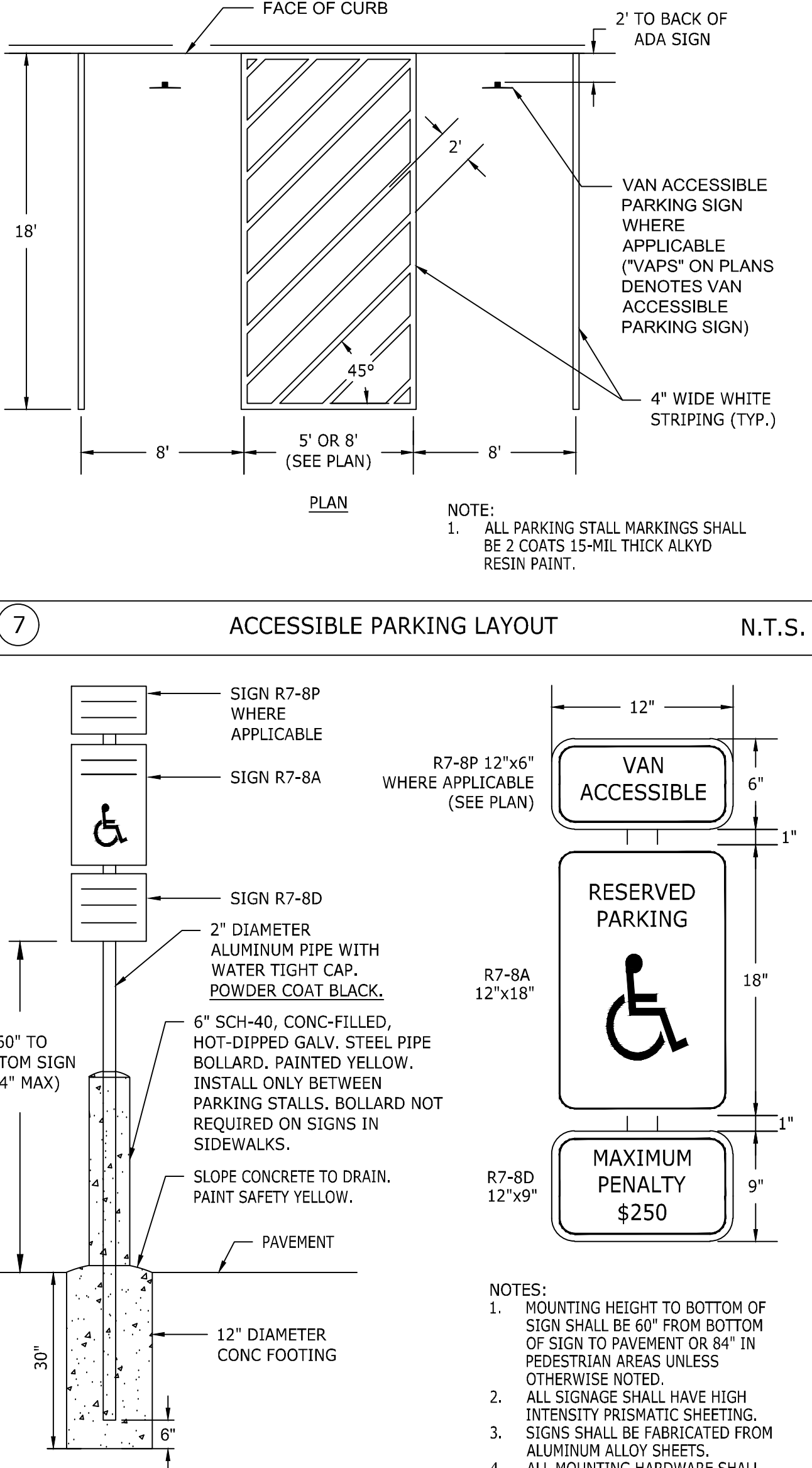
- NOTES:
- FOR DEAD-END MANHOLES, THE INVERT SHALL BE EXTENDED THROUGH THE MANHOLE.
  - ON THE INTERIOR OF THE MANHOLE, ALL JOINTS BETWEEN SECTIONS SHALL BE PARGED WITH NON-SHRINK GROUT.
  - ON THE INTERIOR OF ALL OUTFALL MANHOLES, ALL JOINTS BETWEEN SECTIONS SHALL BE PARGED WITH PRECO-PLUG QUICK SETTING GROUT.
  - ON THE EXTERIOR OF ALL MANHOLES, ALL JOINTS BETWEEN SECTIONS SHALL BE CONTINUOUSLY WRAPPED WITH 12" WIDE WATERPROOF BITUMINOUS TAPE.
  - SEWER MANHOLES WITHIN 1200 FEET OF FORCE MAIN CONNECTION SHALL HAVE INTERIOR EPOXY COATED.



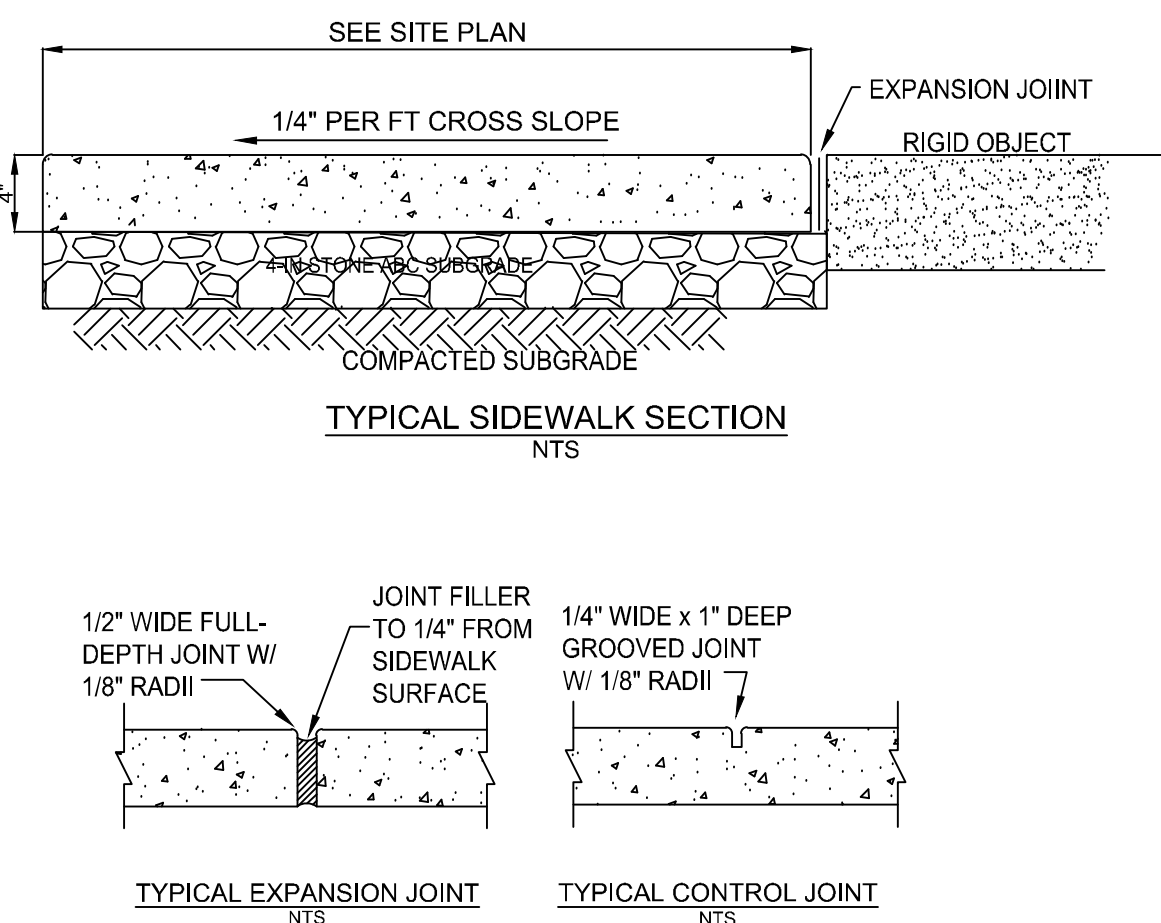
- NOTES:
- 3,000-PSI CONCRETE TO BE USED THROUGHOUT.
  - OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTER, AS DIRECTED BY THE DESIGNER.
  - TWO 2" PIPE WEEP HOLES TO BE PLACED AS DIRECTED BY DESIGNER.
  - FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
  - IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON NCDOT STANDARD 840.00.
  - A STONE DRAIN CONSISTING OF 3 CUBIC FOOT OF NO. 78M STONE CONTAINED IN A BAG OF POROUS FABRIC SHALL BE PLACED AT EACH WEEP HOLE.
  - ALL DROP INLETS OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 15" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH NCDOT STANDARD 840.66. THE FIRST STEP SHALL BE 24" BELOW RIM OF GRATE.
  - ALL GRATES IN SIDEWALK AREAS SHALL BE ADA COMPLIANT. V-5660-80 BY EAST JORDAN IRON WORKS OR APPROVED EQUAL.
  - INLETS MAY BE CONSTRUCTED OF BLOCK AND MORTAR IN LIEU OF PRE-CAST CONCRETE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
  - PROVIDE SIGNED AND SEALED SHOP DRAWINGS FOR STRUCTURES TALLER THAN 16-FT AND SHORTER THAN 3-FT. PROVIDE ADDITIONAL CONCRETE WALL THICKNESS AND REINFORCEMENT AS REQUIRED BY DESIGN ENGINEER.



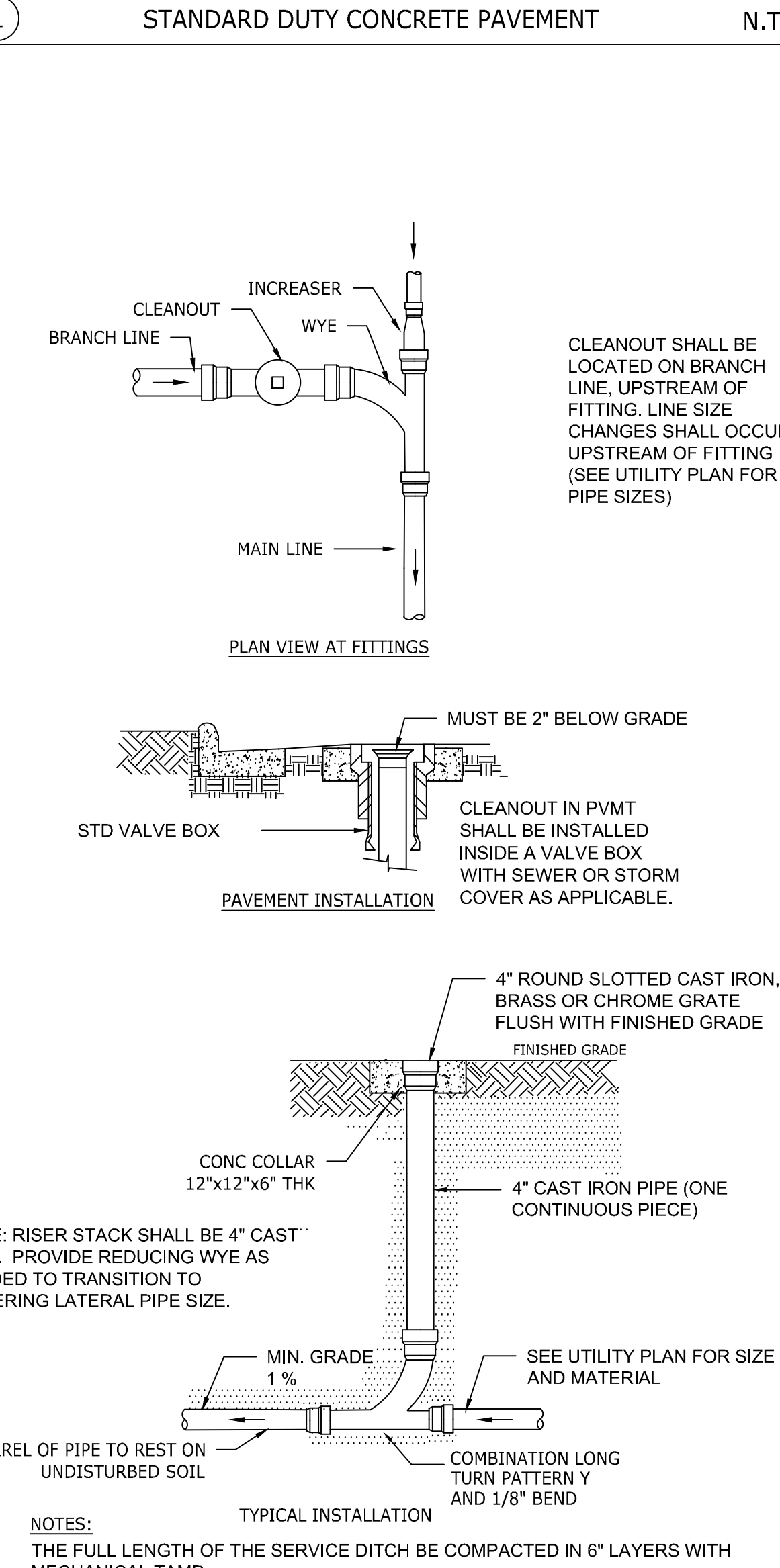
- NOTES:
- FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
  - NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
  - ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
  - BACKFILL SHALL BE TAMPED IN 6" LAYERS.
  - IF ROCK IS ENCOUNTERED AT BOTTOM OF TRENCH, OVER EXCAVATE ROCK A MIN. OF 6"CHS AND BACK FILL WITH NO. 67 STONE TO THE BOTTOM OF PIPE.



- NOTES:
- MOUNTING HEIGHT TO BOTTOM OF SIGN SHALL BE 60" FROM BOTTOM OF SIGN TO PAVEMENT OR 84" IN PEDESTRIAN AREAS UNLESS OTHERWISE NOTED.
  - ALL SIGNAGE SHALL HAVE HIGH INTENSITY PRISMATIC SHEETING.
  - SIGNS SHALL BE FABRICATED FROM ALUMINUM ALLOY SHEETS.
  - ALL MOUNTING HARDWARE SHALL BE GALVANIZED.
  - "VAPS" ON PLANS DENOTES VAN ACCESSIBLE PARKING SIGN. INSTALL R7-8A, R7-8D, & R7-8P.
  - "APSP" ON PLANS DENOTES ACCESSIBLE PARKING SIGN. INSTALL R7-8A & R7-8D ONLY.



- GENERAL NOTES:
- PROVIDE GROOVE CONTROL JOINT 1-IN DEEP WITH 1/8-IN RADI IN SIDEWALK AT 5' INTERVALS UNLESS INDICATED OTHERWISE.
  - PROVIDE 1/2-IN EXPANSION JOINT AT 50' INTERVALS.
  - PROVIDE 1/2-IN EXPANSION JOINT WHERE THE SIDEWALK ABUTS ANY RIGID STRUCTURE.
  - SEE SPECIFICATIONS FOR ADDITIONAL JOINT SPACING REQUIREMENTS.
  - ALL CONCRETE SHALL BE 3,000 P.S.I. WITH BROOM FINISH.
  - ALL SIDEWALKS SHALL HAVE 2% OR LESS CROSS SLOPE.
  - ALL SIDEWALKS SHALL HAVE 5% OR LESS LONGITUDINAL SLOPE.



- NOTES:
- THE FULL LENGTH OF THE SERVICE DITCH BE COMPACTED IN 6" LAYERS WITH MECHANICAL TAMP.



SHEET ISSUE

NO.	DESCRIPTION	DATE
1	SCHEMATIC DESIGN	06.10.24
2	DESIGN DEVELOPMENT	09.19.24
3	DESIGN DEVELOPMENT - SCO	10.18.24
4	1ST EC&S SUBMITTAL	11.14.24
5	1ST SUP SUBMITTAL	11.15.24
6	2ND SUP SUBMITTAL	01.22.25
7	3RD SUP SUBMITTAL	02.19.25
8	4TH SUP SUBMITTAL	03.19.25
9	50% CD SUBMITTAL - SCO	03.31.25
10	5TH SUP SUBMITTAL	04.11.25
11	100% CONSTRUCTION DOC	04.11.25

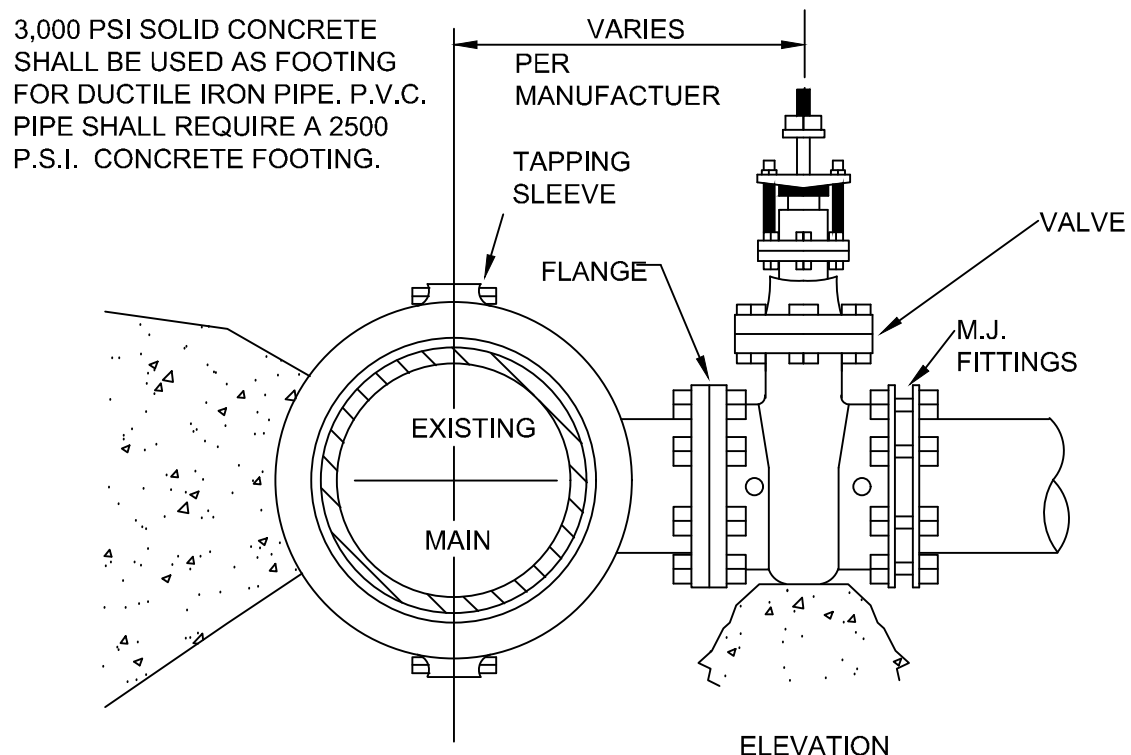
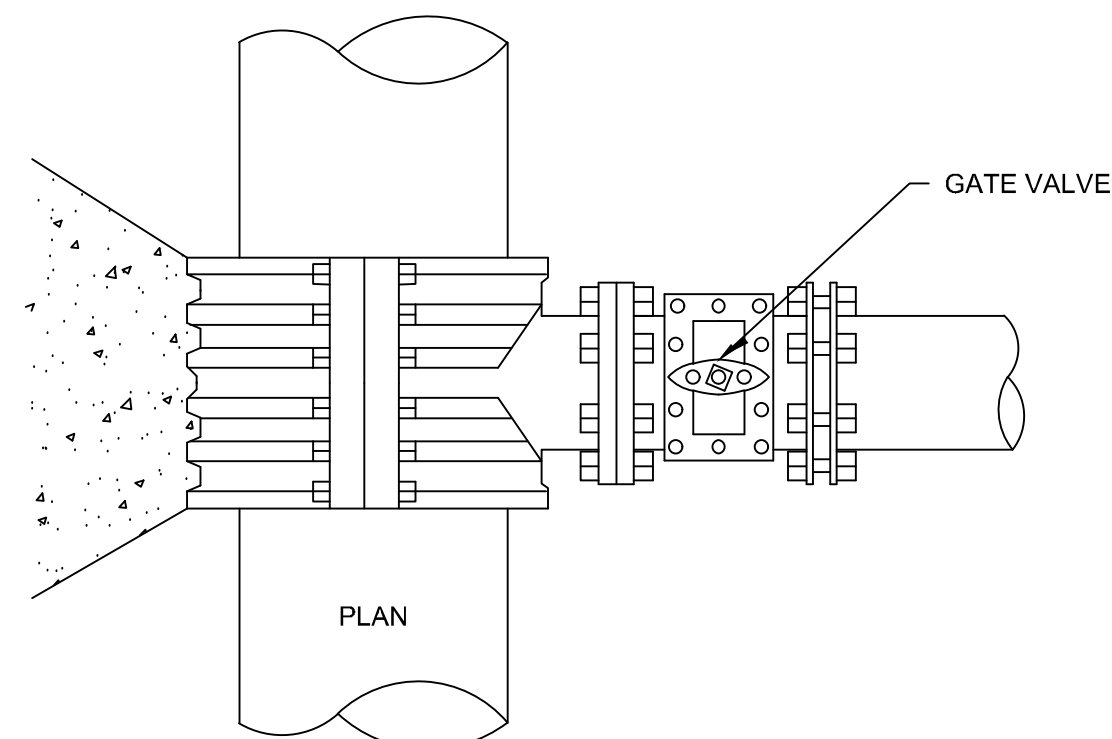
SCO NO. 23-26062-01

SHEET TITLE

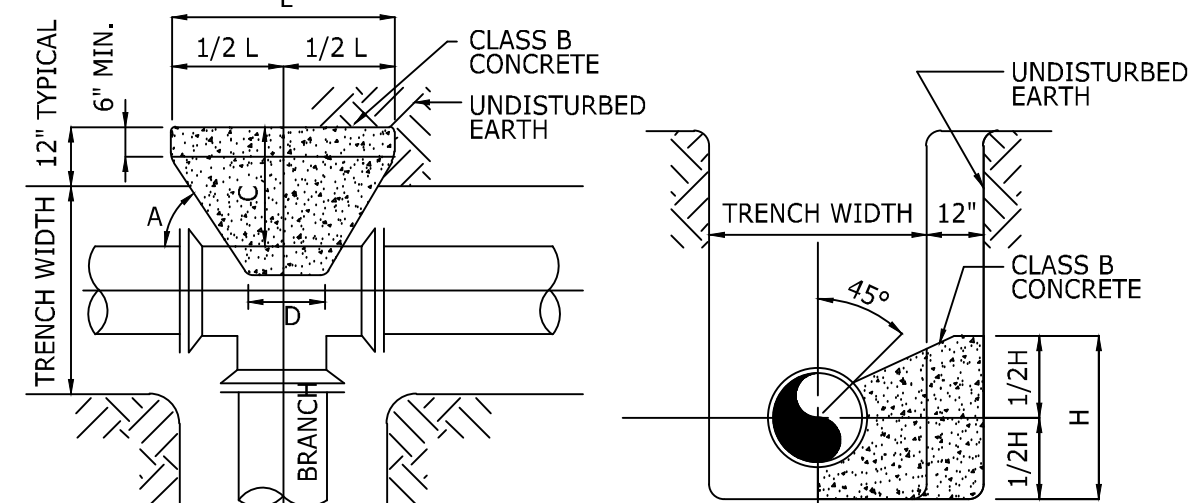
SITE DETAILS

SHEET NUMBER

C5.1



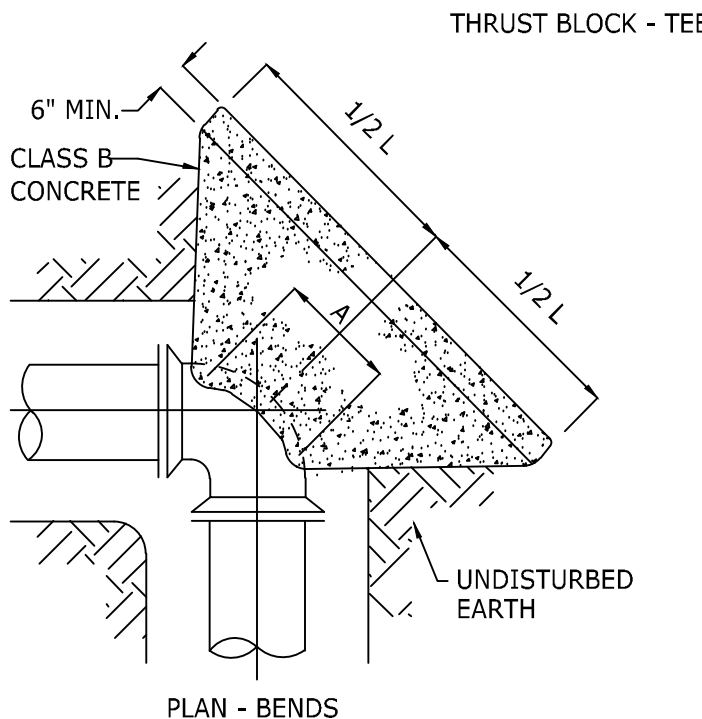
- NOTES:
- CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OR MECHANICAL JOINT FITTINGS.
  - SEE STANDARD REACTION BLOCKING DETAIL FOR AREA OF CONCRETE REQUIRED.



PLAN - TEE

B. D.	L	H	C	D
6"	1'-3"	1'-0"	SEE NOTE NO. 1	SEE NOTE NO. 2
8"	1'-6"	1'-4"	SEE NOTE NO. 1	SEE NOTE NO. 2
12"	2'-3"	2'-0"	SEE NOTE NO. 1	SEE NOTE NO. 2

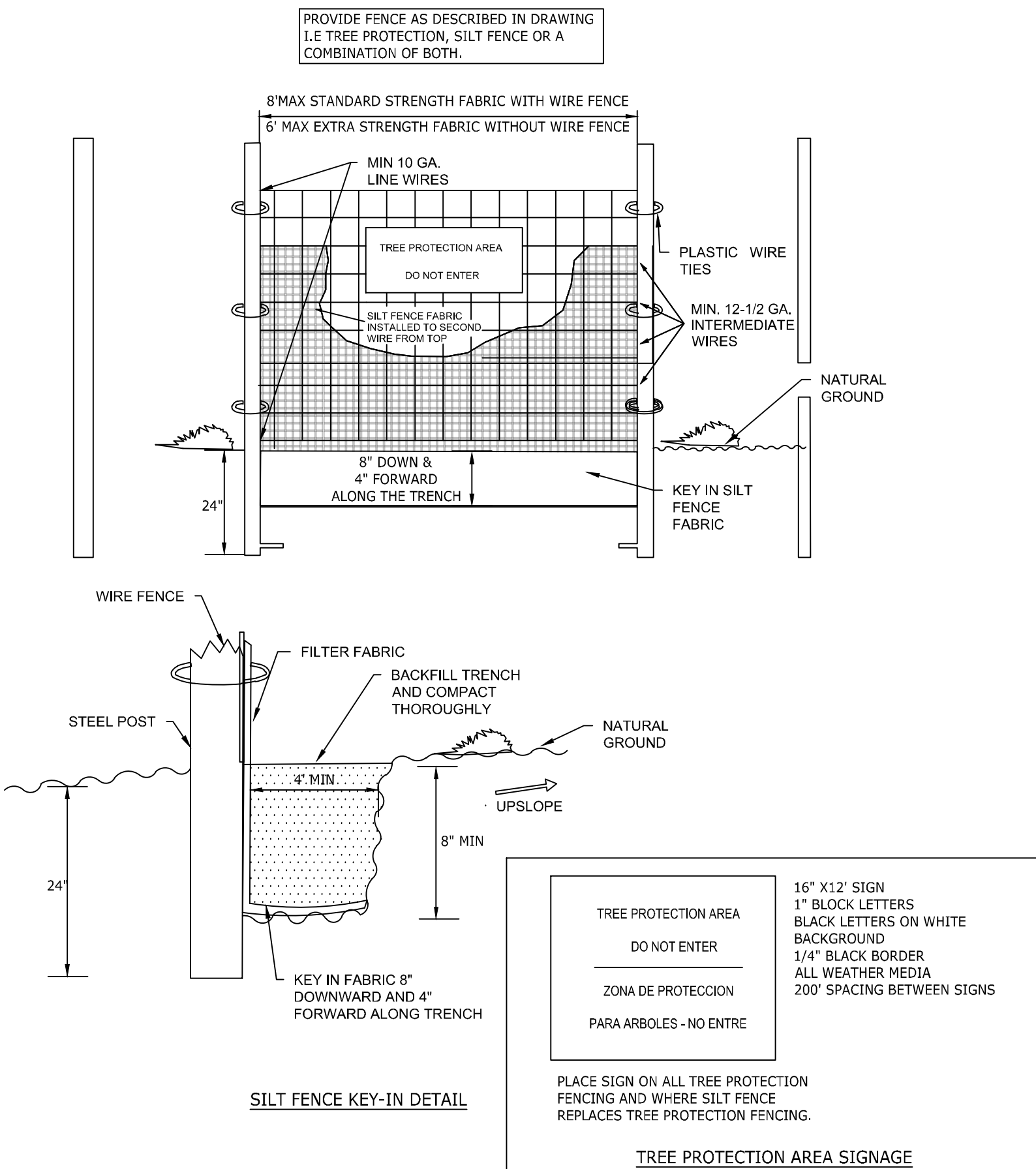
B. D. = BRANCH DIAMETER



PLAN - BENDS

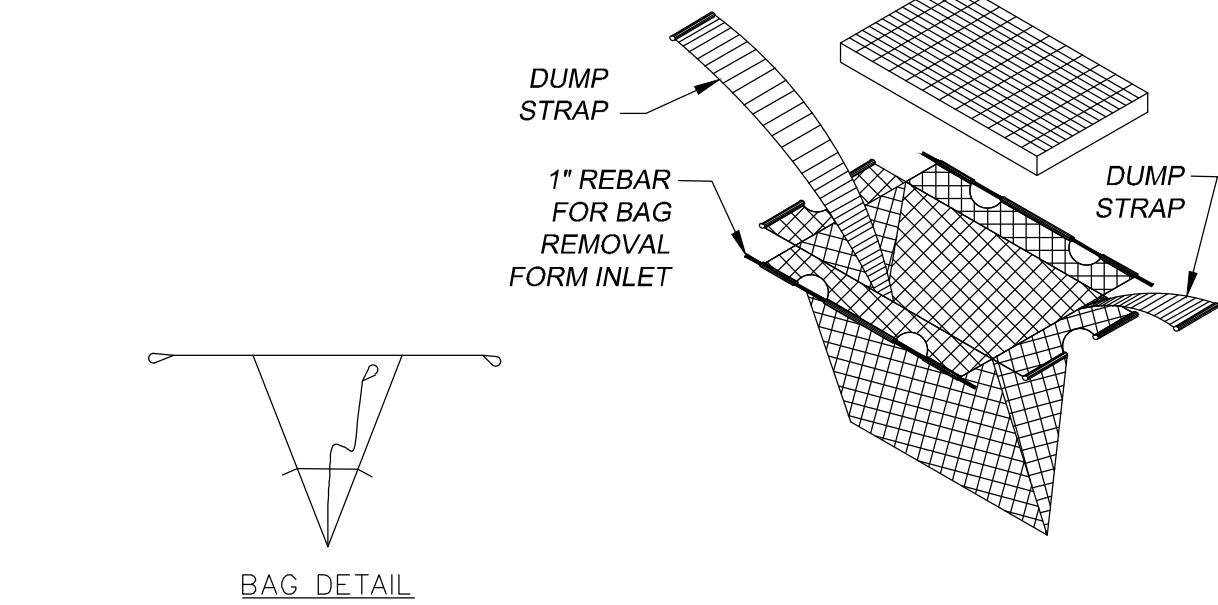
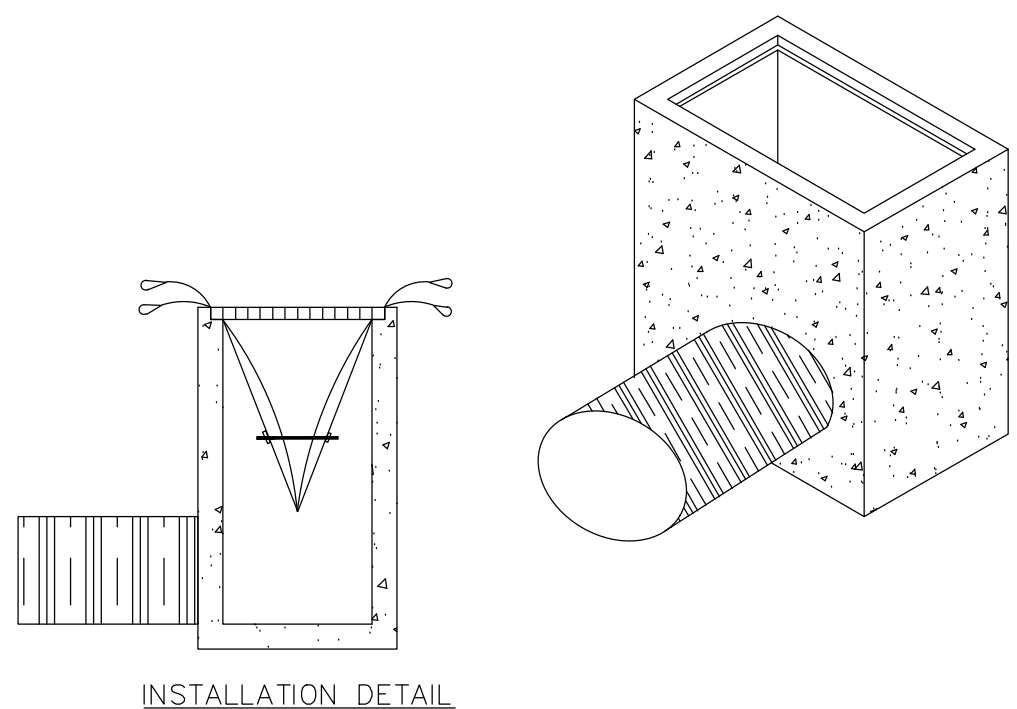
PIPE SIZE	22 1/2° BENDS	45° BENDS	90° BENDS
6"	1'-0"	1'-0"	1'-0"
8"	1'-0"	1'-0"	1'-0"
12"	1'-4"	1'-4"	1'-4"

- NOTES:
- DIMENSION "A" SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH THE MECHANICAL JOINT BOLTS.
  - THE SHAPE OF THE BACK OF THE BUTTRESS MAY VARY PROVIDED THE CONCRETE IS AGAINST FIRM, UNDISTURBED EARTH.
  - BUTTRESS DIMENSIONS ARE BASED UPON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 P.S.I.



- INSTALLATION SPECIFICATIONS:
- THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ON FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
  - INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
  - INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
  - INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
  - ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCH HOLE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
  - WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
  - NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
  - THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
  - COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF FOUR TRIPS.
  - TREE PROTECTION SIGNS ARE TO BE PLACED EVERY 50-FT AND FENCE MUST REMAIN UNTIL CLOSOUT OF PROJECT.

- MAINTENANCE:
- INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
  - SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY.
  - REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
  - REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



- NOTE:
- BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.

TEMPORARY SEED SCHEDULE (Jan 1 - May 1)

GRASS SPECIES BLEND	PLANTING RATE	MIN. % PURE SEED	MAX. % WEED SEED
ANNUAL RYE GRASS	50-LBS PER 1-ACRE	85%	1%
SOIL AMENDMENTS: FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2.00LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.			
MULCH: APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.			
MAINTENANCE: REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.			
PERMANENT SEED SCHEDULE (MAY 1-AUGUST 15)			
GRASS SPECIES BLEND	PLANTING RATE	MIN. % PURE SEED	MAX. % WEED SEED
HULLED SUNSTAR OR RIVIERA BERMUDA	200-LBS PER 1-ACRE	98%	1%

- NOTES:
- PERMANENT SEEDING FOR THIS PROJECT SHALL OCCUR BETWEEN MAY 1-AUGUST 15. ADJUSTED AS NECESSARY FOR ADEQUATE GROUND TEMPERATURES. GROUND TEMPERATURES SHALL BE IN THE RANGE OF 60-80 DEGREES FOR GERMINATION.
  - REFER TO SPECIFICATION SECTION 329200

TEMPORARY SEEDING SPECIFICATIONS

COMPLETE GRADING BEFORE PREPARING SEEDBEDS, AND INSTALL ALL NECESSARY EROSION CONTROL PRACTICES SUCH AS, DIKES, WATERWAYS, AND BASINS. MINIMIZE STEEP SLOPES BECAUSE THEY MAKE SEEDBED PREPARATION DIFFICULT AND INCREASE THE EROSION HAZARD. IF SOILS BECOME COMPACTED DURING GRADING, LOOSEN THEM TO A DEPTH OF 6-8 INCHES USING A RIPPER, HARROW, OR CHISEL PLOW.

SEEDBED PREPARATIONS

GOOD SEEDBED PREPARATION IS ESSENTIAL TO SUCCESSFUL PLANT ESTABLISHMENT. A GOOD SEEDBED IS WELL-PULVERIZED, LOOSE, AND UNIFORM. WHERE HYDROSEEDING METHODS ARE USED, THE SURFACE MAY BE LEFT WITH A MORE IRREGULAR SURFACE OF LARGE CLOUDS AND STONES.

- LIMING** - APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE PH (ACIDITY) OF THE SOIL IS NOT KNOWN, AN APPLICATION OF GROUND AGRICULTURAL LIMESTONE AT THE RATE OF 1 TO 1 1/2 TONS/ACRE ON COARSE-TEXTURED SOILS AND 2-3 TONS/ACRE ON FINE-TEXTURED SOILS IS USUALLY SUFFICIENT. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL. SOILS WITH A PH OF 6 OR HIGHER NEED NOT BE LIMED.
- FERTILIZER** - BASE APPLICATION RATES ON SOIL TESTS. WHEN THESE ARE NOT POSSIBLE, APPLY A 10-10-10 GRADE FERTILIZER AT 700-1,00 LB/ACRE. BOTH FERTILIZER AND LIME SHOULD BE INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES BEFORE APPLICATION.
- SURFACE ROUGHENING** - IF RECENT TILLAGE OPERATIONS HAVE RESULTED IN A LOOSE SURFACE, ADDITIONAL ROUGHENING MAY NOT BE REQUIRED, EXCEPT TO BREAK UP LARGE CLOUDS. IF RAINFALL CAUSES THE SURFACE TO BECOME SEALED OR CRUSTED, LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING, OR OTHER SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR BEFORE SEEDING (REFER TO THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, PRACTICE 6.03, SURFACE ROUGHENING).

PLANT SELECTION

- SELECT AN APPROPRIATE SPECIES OR SPECIES MIXTURE FROM TABLE 6.10A FOR SEEDING IN LATE WINTER AND EARLY SPRING, TABLE 6.10B FOR SUMMER, AND TABLE 6.10C FOR FALL.
- IN THE MOUNTAINS, DECEMBER AND JANUARY SEEDING HAVE POOR CHANCES OF SUCCESS. WHEN IT IS NECESSARY TO PLANT AT THESE TIMES, USE RECOMMENDATIONS FOR FALL AND A SECURELY TACKED MULCH.

SEEDING

- EVENLY APPLY SEED USING A CYCLONE SEEDER (BROADCAST), DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. USE SEEDING RATES GIVEN IN TABLES 6.10A-6.10C. BROADCAST SEEDING AND HYDROSEEDING ARE APPROPRIATE FOR STEEL SLOPES WHERE EQUIPMENT CANNOT BE DRIVEN. HAND BROADCASTING IS NOT RECOMMENDED BECAUSE OF THE DIFFICULTY IN ACHIEVING A UNIFORM DISTRIBUTION.
- SMALL GRAINS SHOULD BE PLANTED NO MORE THAN 1 INCH DEEP, AND GRASSES AND LEGUMES NO MORE THAN 1/2 INCH. BROADCAST SEED MUST BE COVERED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER.
- HYDROSEEDED MIXTURES SHOULD INCLUDE A WOOD FIBER (CELLULOSE) MULCH.

MULCHING

THE USE OF AN APPROPRIATE MULCH WILL HELP ENSURE ESTABLISHMENT UNDER NORMAL CONDITIONS, AND IS ESSENTIAL TO SEEDING SUCCESS UNDER HARSH SITE CONDITIONS (REFER TO THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, PRACTICE 6.14, MULCHING). HARSH SITE CONDITIONS INCLUDE:

- SEEDING IN FALL FOR WINTER COVER (WOOD FIBER MULCHES ARE NOT CONSIDERED ADEQUATE FOR THIS USE),
- SLOPES STEEPER THAN 3:1,
- EXCESSIVELY HOT OR DRY WEATHER,
- ADVERSE SOILS (SHALLOW, ROCKY, OR HIGH IN CLAY OR SAND), AND
- AREAS RECEIVING CONCENTRATED FLOW.

IF THE AREA TO BE MULCHED IS SUBJECT TO CONCENTRATED WATERFLOW, AND IN CHANNELS, ANCHOR MULCH WITH NETTING (REFER TO THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, PRACTICE 6.14, MULCHING).

TEMPORARY SEEDING MAINTENANCE

RESEED AND MULCH AREAS WHERE SEEDING EMERGENCE IS POOR, OR WHERE EROSION OCCURS, AS SOON AS POSSIBLE. DO NOT MOW. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE.

1 TAPPING SLEEVE WITH GATE VALVE N.T.S.

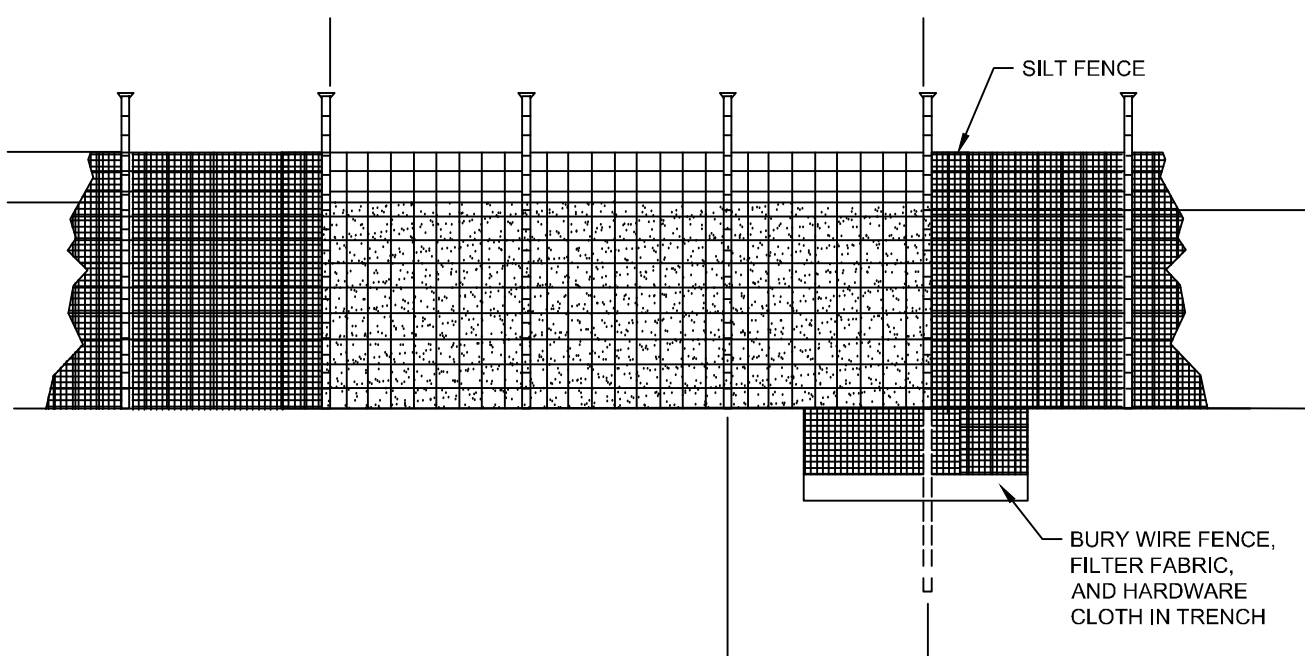
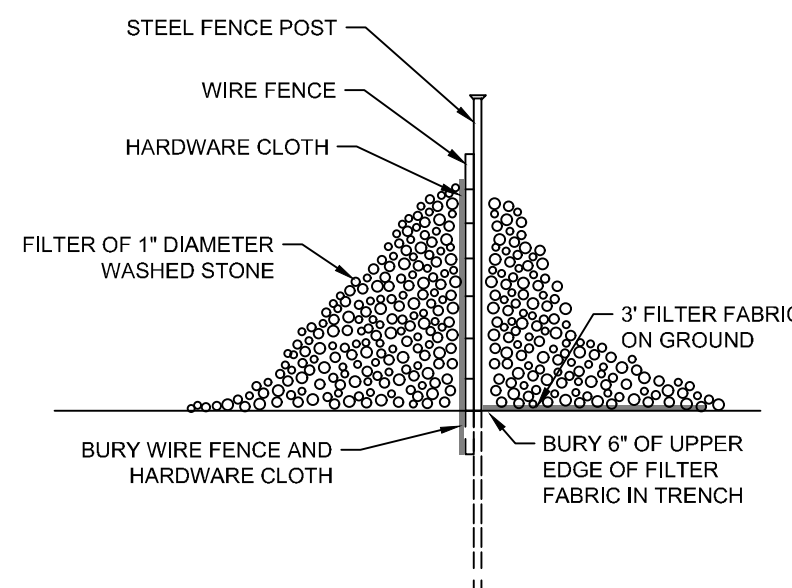
2 THRUST BLOCK N.T.S.

3 A B C TEMPORARY SILT/TREE PROTECTION FENCE N.T.S.

4 SILT BAG INLET PROTECTION N.T.S.

- MAINTENANCE NOTES:
- REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE/OUTLET. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE & REPLACE STONE AS NECESSARY AS IT BECOMES CLOGGED WITH SEDIMENT.
  - REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

- NOTES:
- INSTALL SILT FENCE PER STD. SILT FENCE DETAIL.
  - LOCATE REINFORCED OUTLET AT LOW POINTS OF SILT FENCE BARRIER.
  - PLACE RIP RAP WITH CARE. DO NOT TEAR SILT FENCE FABRIC.



5 REINFORCED SILT FENCE OUTLET N.T.S.

7 WIRE CLOTH & GRAVEL INLET PROTECTION N.T.S.

8 TEMPORARY/PERMANENT SEEDING N.T.S.



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SHEET ISSUE

NO.	DESCRIPTION	DATE
1	SCHEMATIC DESIGN	06.10.24
2	DESIGN DEVELOPMENT	09.19.24
3	DESIGN DEVELOPMENT - SCO	10.18.24
4	1ST EC&S SUBMITTAL	11.14.24
5	1ST SUP SUBMITTAL	11.15.24
6	2ND SUP SUBMITTAL	01.22.25
7	3RD SUP SUBMITTAL	02.19.25
8	4TH SUP SUBMITTAL	03.19.25
9	50% CD SUBMITTAL - SCO	03.31.25
10	5TH SUP SUBMITTAL	04.11.25
11	100% CONSTRUCTION DOC	04.11.25

SCO NO. 23-26062-01

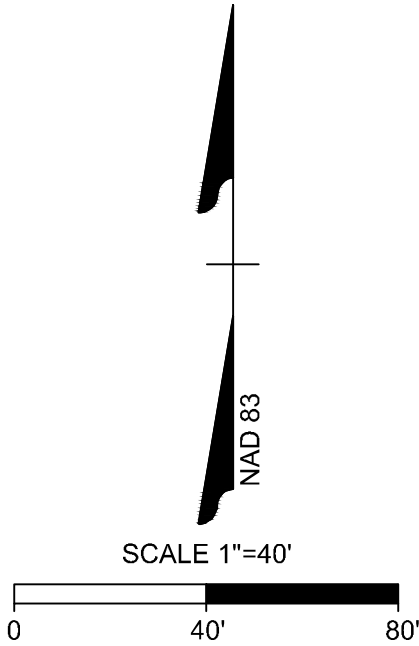
SHEET TITLE  
PARKING EXHIBIT

SHEET NUMBER

EX1



PARKING SUMMARY	
EX. DTCC BLDG.	40,175-SF
EX. DTCC REQUIRED PARKING	1 SPACE / 200-SF = 40,175-SF / 200-SF = 201 SPACES REQ. (6 ADA)
EX. DTCC PARKING	197 SPACES (6 ADA)
PROP. DTCC BLDG.	52,414-SF
PROP. REQUIRED PARKING:	1 SPACE / 200-SF = 52,414-SF / 200-SF = 262 SPACES REQ. (7 ADA)
DTCC TOTAL PROVIDED PARKING:	262 SPACES (7 ADA)
EX. PARK & RIDE PARKING	124 SPACES
PROPOSED PARK & RIDE PARKING	124 SPACES - 65 SPACES (DTCC) = 59 SPACES (5 ADA)





Durham Tech -  
Orange County  
Campus -  
Expansion

525 College Park Rd,  
Hillsborough, NC 27278

SEAL | DATE Issue Date

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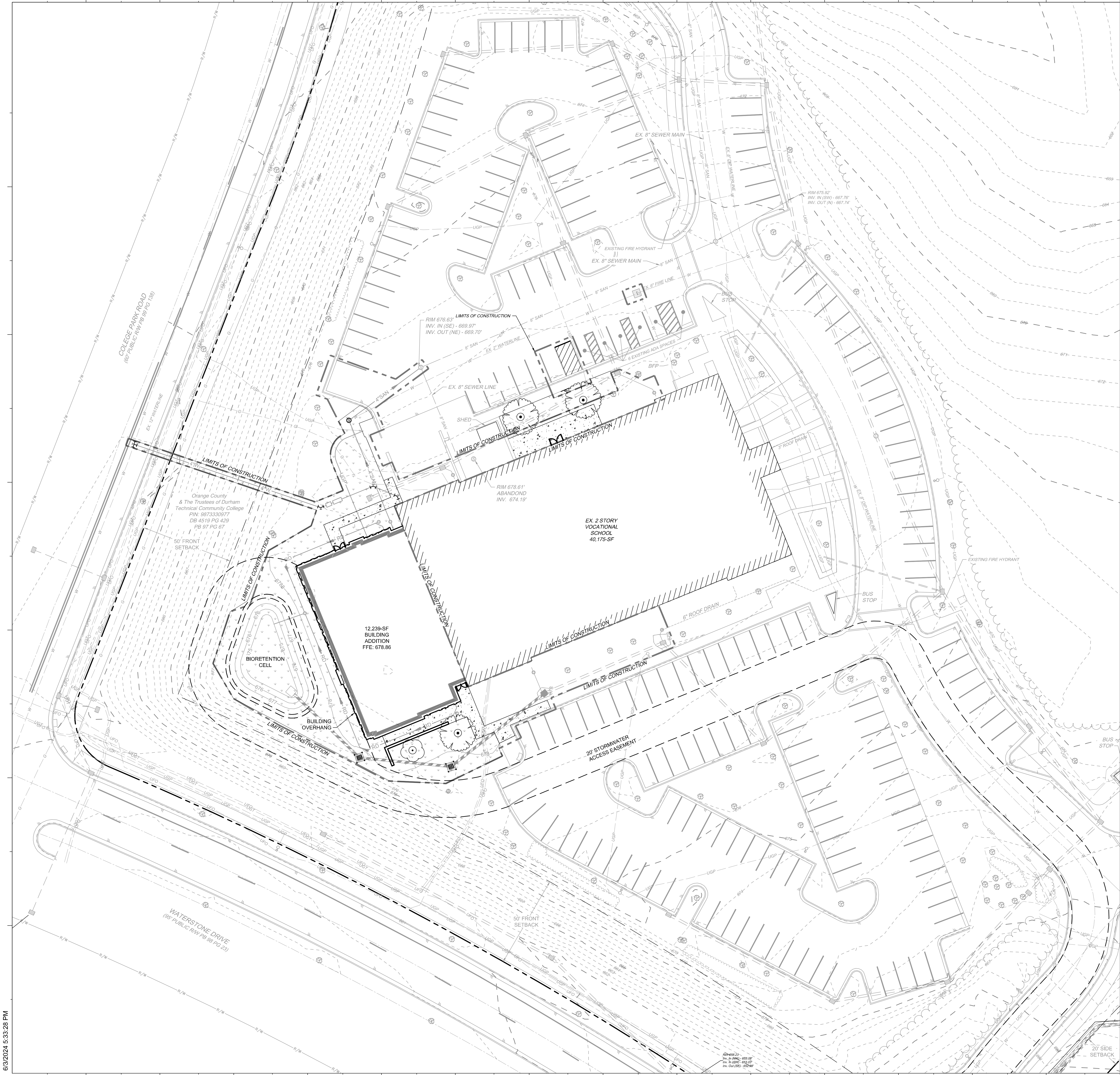
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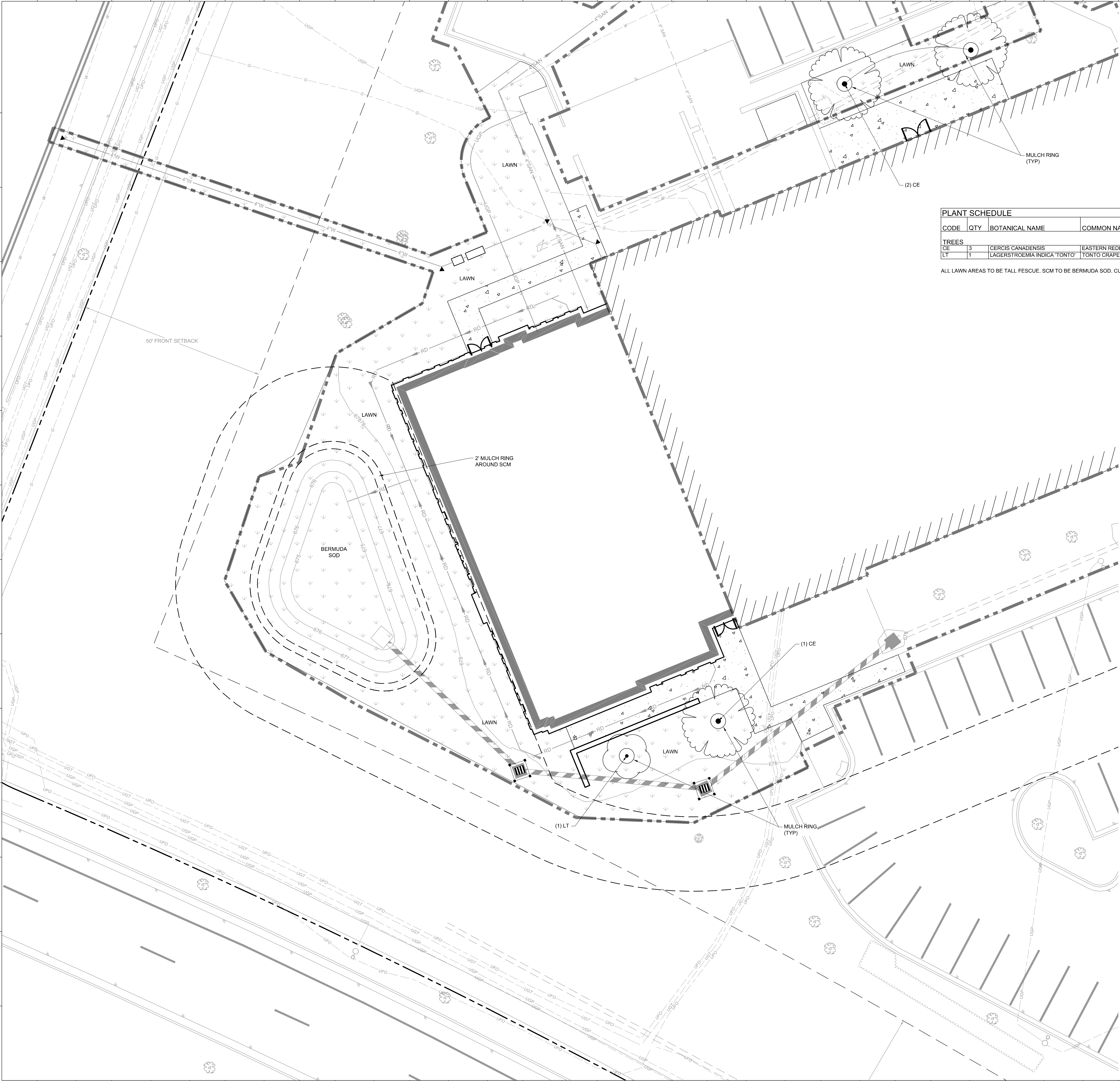
SHEET TITLE  
**OVERALL  
PLANTING PLAN**

SHEET NUMBER

L0.1







PLANT SCHEDULE					EST. MATURE HEIGHT
CODE	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	
TREES					
CE	3	CERCIS CANADENSIS	EASTERN REDBUD MULTI-TRUNK	2.5" CAL.	25'
LT	1	LAGERSTROEMIA INDICA 'TONTON'	TONTON CRAPE MYRTLE	1" CAL. MIN.	5'

ALL LAWN AREAS TO BE TALL FESCUE. SCM TO BE BERMUDA SOD. CUMULATIVE AREA = 9500 SF

katherine  
hogan  
architects

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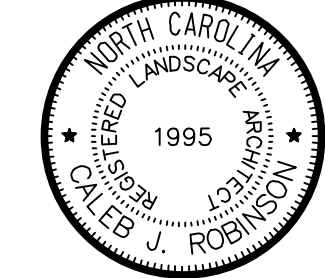
SHEET TITLE

PLANTING PLAN

SHEET NUMBER

L1.0





SHEET ISSUE

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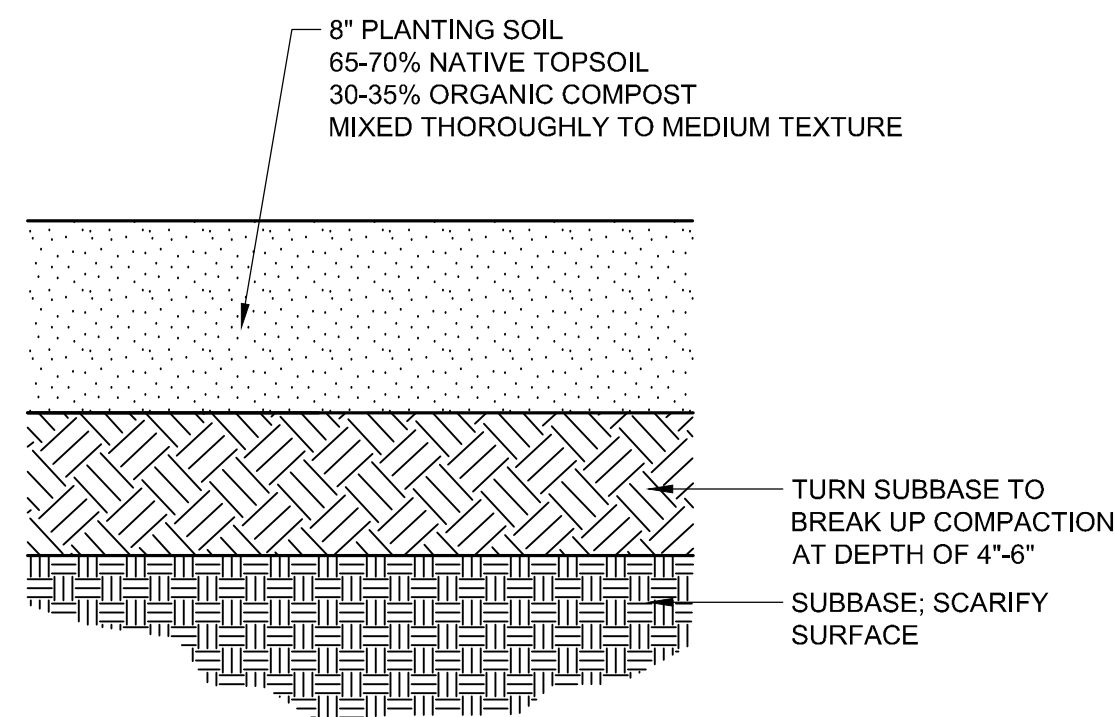
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SHEET TITLE

LANDSCAPE  
NOTES & DETAILS

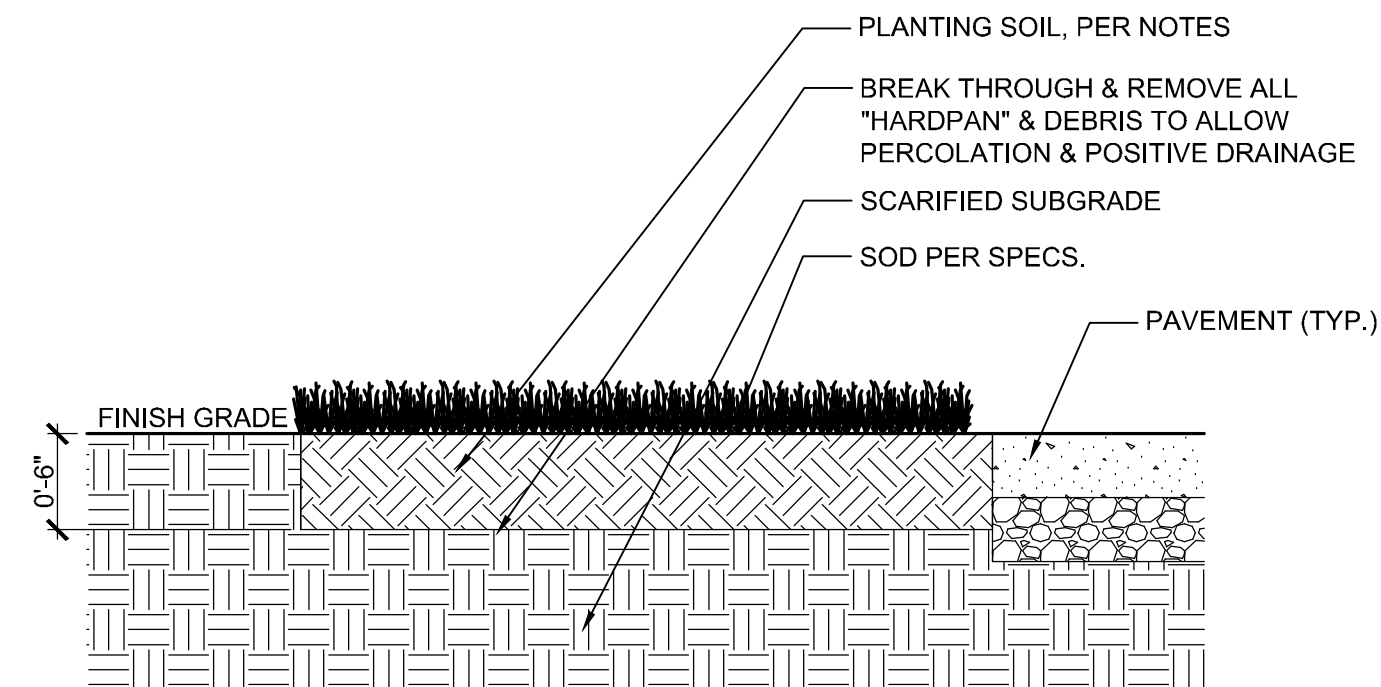
SHEET NUMBER

L2.0



- NOTES:
- All material to be free of toxic substances, weed seed, stones, sticks or other material harmful to plant growth. Topsoil: ph range of 6.0 to 7.0, min. 6% organic matter.
  - Compost: well-composted, stable, weed-free organic matter, ph range of 5.5 to 8.
  - Submit soil sample for analysis ... provide amendments per recommendations.
  - Remove any debris, rocks, or clumps 2" or larger.
  - Do not spread if planting soil, topsoil or subgrade is frozen, muddy, or excessively wet.

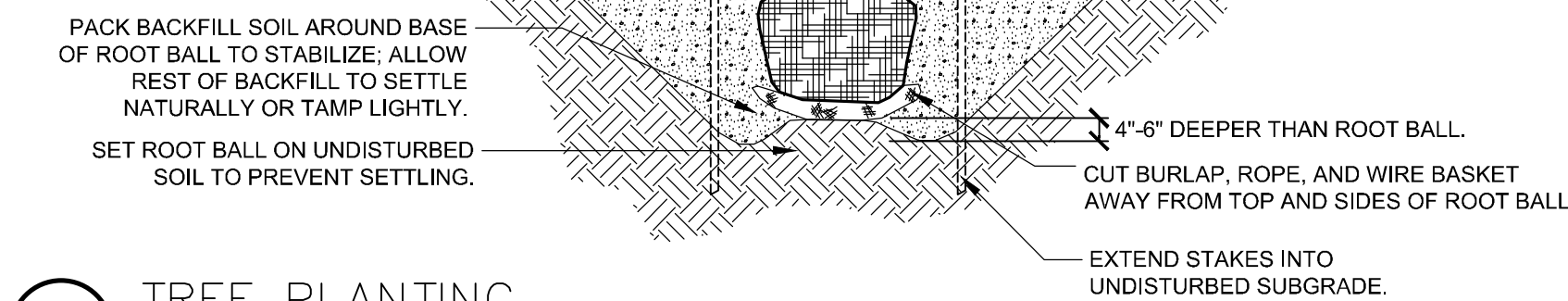
2 PLANTING SOIL PROFILE  
NTS



- NOTES:
- All sod shall be from a certified grower and be 99% weed free.
  - The sod shall not be shipped until the site is substantially prepared. It shall be stored and maintained in accordance with the American Nursery Association.
  - The general contractor will provide grades to within an inch of proposed final grades.
  - Planting soil to a minimum depth of 6" (4" uncompacted in situ soil and 2" soil conditioner, such as pine fines or organic compost, thoroughly mixed; or 6" native topsoil), hand-rake smooth.
  - Add additives (per soil test analysis) & blend.
  - Water area to be sodded prior to laying sod.
  - Lay & roll sod, ensuring no gaps; stagger seams; water thoroughly.

3 SOD INSTALLATION DETAIL  
1" = 1'-0"

- NOTES:
- WHERE SEVERAL TREES WILL BE PLANTED CLOSE TOGETHER SUCH THAT THEY WILL LIKELY SHARE ROOT SPACE, TILL IN SOIL AMENDMENTS TO A DEPTH OF 4-6" (10-15CM) OVER THE ENTIRE AREA.
  - FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
  - DURING THE DESIGN PHASE, CONFIRM THAT WATER DRAINS OUT OF THE SOIL; USE LOWERED PLANTING HOLE DEPTH AND DESIGN ALTERNATE DRAINAGE SYSTEM AS REQUIRED.
  - THOROUGHLY SOAK ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
  - THE PLANTING PROCESS IS SIMILAR FOR DECIDUOUS AND EVERGREEN TREES.
  - DO NOT WRAP TRUNK; MARK THE NORTH SIDE OF THE TREE IN THE NURSERY AND LOCATE TO THE NORTH IN THE FIELD.
  - AVOID PURCHASING TREES WITH TWO LEADERS OR REMOVE ONE AT PLANTING. OTHERWISE, DO NOT PRUNE TREE AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS.
  - BEFORE PLANTING, ADD 3-4" OF WELL-COMPOSTED LEAVES, RECYCLED YARD WASTE OR OTHER COMPOST AND TILL INTO TOP 6" OF PREPARED SOIL. ADD COMPOST AT 20-35% BY VOLUME TO BACKFILL SOIL.



1 TREE PLANTING  
NTS

GENERAL NOTES:

PRE-CONSTRUCTION

- PRIOR TO CONSTRUCTION LOCATE ALL UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE WORK AREA. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. PROTECT ALL UTILITIES DURING CONSTRUCTION. REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHEN OCCURS AS A RESULT OF CONSTRUCTION.
- CONTRACTOR ENGAGED IN LANDSCAPE IMPLEMENTATION SHALL BE A LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF NORTH CAROLINA.
- VERIFY ALL PLANT MATERIAL QUANTITIES ON PLANS PRIOR TO BIDDING. PLANT LIST TOTALS ARE FOR CONVENIENCE ONLY AND MUST BE VERIFIED.
- SUBSTITUTIONS OF PLANT MATERIAL SPECIFIED CAN ONLY OCCUR WITH PRIOR WRITTEN APPROVAL BY LANDSCAPE ARCHITECT. TOWN PLANNING AND ECONOMIC DEVELOPMENT STAFF WILL ALSO NEED TO SIGN OFF ON ANY PLANT SUBSTITUTIONS.
- PRIOR TO THE COMMENCEMENT OF ANY ACTIVITIES REQUIRING A BUILDING OR ZONING PERMIT ON-SITE PRE-CONSTRUCTION CONFERENCE SHALL TAKE PLACE WITH THE DEVELOPER AND THE ADMINISTRATOR TO REVIEW PROCEDURES FOR THE PROTECTION AND MANAGEMENT OF ALL LANDSCAPE ELEMENTS THAT ARE TO REMAIN AS IDENTIFIED ON THE LANDSCAPE PLAN. TOWN PLANNING AND ECONOMIC DEVELOPMENT STAFF WILL NEED TO BE INVOLVED IN ANY PRE-CONSTRUCTION MEETINGS. THE TOWN WILL CONDUCT A REQUIRED PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING CONSTRUCTION.
- ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
- ANY PLANT MATERIAL, WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED PRIOR TO SUBSTANTIAL COMPLETION, SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE.
- PROVIDE PLANT MATERIALS OF QUANTITY, SIZE, GENUS SPECIES, AND VARIETY INDICATED ON PLANS. ALL PLANT MATERIALS AND INSTALLATION SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF NURSERY 2021 "AMERICAN STANDARD FOR NURSERY STOCK".
- ALL PLANT MATERIAL SHALL BE HEALTHY, RODENT- AND FREE OF PESTS AND DISEASE.
- ALL PLANT MATERIAL SHALL BE CONTAINER-GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
- ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD.

CONSTRUCTION/INSTALLATION

- CONTRACTOR SHALL TAKE 3 REPRESENTATIVE SOIL SAMPLES OF EACH PROPOSED PLANT BED AND SUBMIT COPIES OF THE RESULTS TO THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION IN-VEHICLE DELIVERY AND PLANTING TO MAINTAIN HEALTHY PLANT CONDITIONS.
- ALL LANDSCAPES AND LAWN AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL.
- ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.
- INSTALL LANDSCAPE PLANTINGS AT ENTRANCE/EXITS AND PARKING AREAS ACCORDING TO PLANS SO THAT MATERIALS WILL NOT INTERFERE WITH SIGHT DISTANCES.
- THE SIZE OF THE PLANTING AREA AND SIZE OF PLANT MATERIAL AT MATURITY SHALL ALLOW FOR A 2' BARRIER OVERHANG FROM THE BACK OF CURB.
- ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
- AREAS DAMAGED FROM PLANT RELOCATION OR OTHER ACTIVITIES REQUIRING LANDSCAPE CONTRACTOR TO BE RESEEDED AND ESTABLISHED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANT MATERIAL DURING INSTALLATION AND UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER. CONTRACTOR SHALL NOTIFY OWNER OF CONDITIONS WHICH AFFECTS THE GUARANTEE. IT MAY BE NECESSARY TO TRUCK IN NON-CITY WATER TO MEET THE NEEDS OF PLANTS.
- USE HERBICIDES, PESTICIDES, AND FERTILIZER IN A MANNER CONSISTENT WITH THE FEDERAL INSECTICIDE, FUNGICIDE, AND ROBOTIC/ROCK ACT AND IN ACCORDANCE WITH LABEL RESTRICTIONS.
- ALL LAWN AREAS TO BE SEEDING SHALL USE A LOCALLY-GROWN COMMERCIAL BERNALDA SEED MIX MEETING LATEST STATE OF NORTH CAROLINA AGRICULTURE STANDARDS FOR SEED AND PLANT CERTIFICATION.
- SEEDING AND STRAIN NOTES FOR LAWN AREAS:
  - CHISEL COMPACTED AREAS AND SPREAD TOPSOIL TO DEPTH NOTED IN SPECIFICATIONS.
  - RIP THE ENTIRE AREA TO DEPTH OF NOT LESS THAN 6".
  - REMOVE ALL LOOSE ROCKS, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE SMOOTH AND UNIFORM. DISPOSE OF WASTE MATERIAL OFF-SITE.
  - APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPER PHOSPHATE UNIFORMLY AND MIX WITH SOIL. APPLY SOIL AMENDMENTS PER REQUIRED SOIL ANALYSIS RECOMMENDATIONS.
  - CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FINELY UNIFORM SEEDBED IS PREPARED.
  - SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
  - MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
  - INSPECT ALL SEEDING AREAS AND IF POSSIBLE, MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON. IF GRASS STAND SHOULD BE OVER 80% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER, AND SEEDING RATES.
  - ANCHOR TACK WITH LIQUID ASPHALT AT 400 GALLONS PER 1000 SQUARED FEET OR 100 GALLONS PER 1000 SQUARED FEET OF BARK MULCH FROM A LOCAL MULCH SOURCE MAINTAINED IN A SUSTAINABLE MANNER.
- MULCH ALL PLANT BEDS AND TREE RINGS WITH FRESH, CLEAN MATERIAL PER SPECIFICATIONS. DO NOT PILE MULCH AROUND THE BASE OF PLANTS OR TREE TRUNKS. ALL MULCH EDGES SHALL BE HEAVILY TUCKED. ALL STRIPS AND/OR BANDING WIRE SHALL BE REMOVED. DUST SHRUBS AND GROUND COVER AFTER MULCHING TO REMOVE LOOSE MATERIAL FROM PLANTS. DO NOT PLACE MULCH IN CONTACT WITH THE TREE TRUNK. KEEP A MINIMUM OF 4 INCHES AWAY FROM THE TRUNK BASE.
- MULCH AND MOWDOWN MIXES SHALL BE REPLISHED AS NEEDED, ESPECIALLY AFTER HEAVY RAIN EVENTS. IF MOWDOWN MIX GERMINATES AT A RATE OF LESS THAN 50%, THEN REMOVE OTHER SPECIES AND RESEED.

TEMPORARY IRRIGATION

- CONTRACTOR TO PROVIDE AND MAINTAIN TEMPORARY IRRIGATION FOR SOD WITHIN THE STORMWATER CONTROL MEASURE UNTIL SOD BECOMES ESTABLISHED.

INSPECTIONS/GUARANTEE

- LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR UPON COMPLETION OF LANDSCAPE INSTALLATION. WHO WILL VERIFY COMPLETENESS INCLUDING THE REPLACEMENT OF ALL DEAD PLANT MATERIAL. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A FINAL INSPECTION BY THE LANDSCAPE ARCHITECT.
- PLANT MATERIAL QUANTITIES AND SIZES WILL BE INSPECTED FOR COMPLIANCE WITH APPROVED PLANS BY A SITE PLAN REVIEW AGENT PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY.
- GUARANTEE ALL EXISTING PLANT MATERIALS FOR ONE FULL YEAR AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. WARRANTY PERIOD SHALL BEGIN UPON CERTIFICATE OF OCCUPANCY OR WHEN THE OWNER TAKES OVER MAINTENANCE, WHICHEVER COMES FIRST.



TOTAL SITE AREA: 871,200 SF (20.00 AC)

EXISTING TREE COVERAGE AREAS:  
A - 541,254 SF  
B - 20,381 SF  
C - 21,205 SF

TOTAL EXISTING TREE COVERAGE AREA: 582,840 SF  
PRE-DEVELOPMENT TREE COVERAGE: 66.9%  
- 582,840 / 871,200 = 0.669

TREE COVERAGE AREA TABLE (PER SEC. 6.22.4.2)		
	VALUE	PERCENTAGE OF TOTAL SITE
TOTAL SITE AREA	871,200 SF	100%
PRE-DEVELOPMENT TREE COVERAGE	582,840 SF	66.9%
MINIMUM TREE RETENTION (6.22.4.2.C)	69,696 SF	8%
POST-DEVELOPMENT TREE COVERAGE	571,012 SF	65.5%



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SEAL | DATE Issue Date

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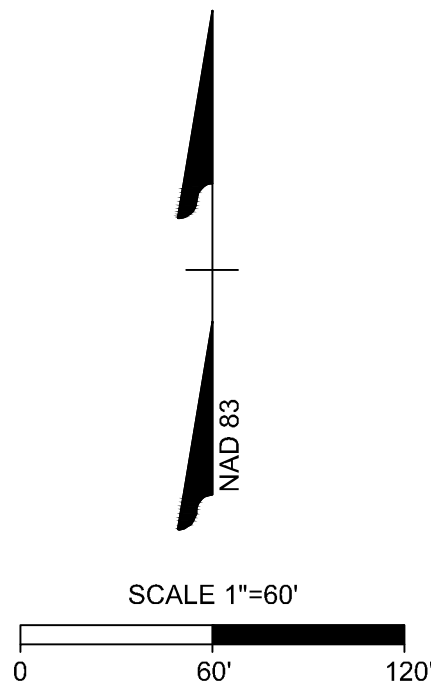
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SHEET ISSUE		
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1	SCHEMATIC DESIGN	06.10.24
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3	DESIGN DEVELOPMENT - SCO	10.18.24
4	1ST EC&S SUBMITTAL	11.14.24
5	1ST SUP SUBMITTAL	11.15.24
6	2ND SUP SUBMITTAL	01.22.25
7	3RD SUP SUBMITTAL	02.19.25
8	4TH SUP SUBMITTAL	03.14.25
9	50% CD SUBMITTAL - SCO	03.31.25

SCO NO. 23-26062-01

SHEET TITLE  
**OVERALL TREE  
PROTECTION  
PLAN**

SHEET NUMBER  
**L3.0**



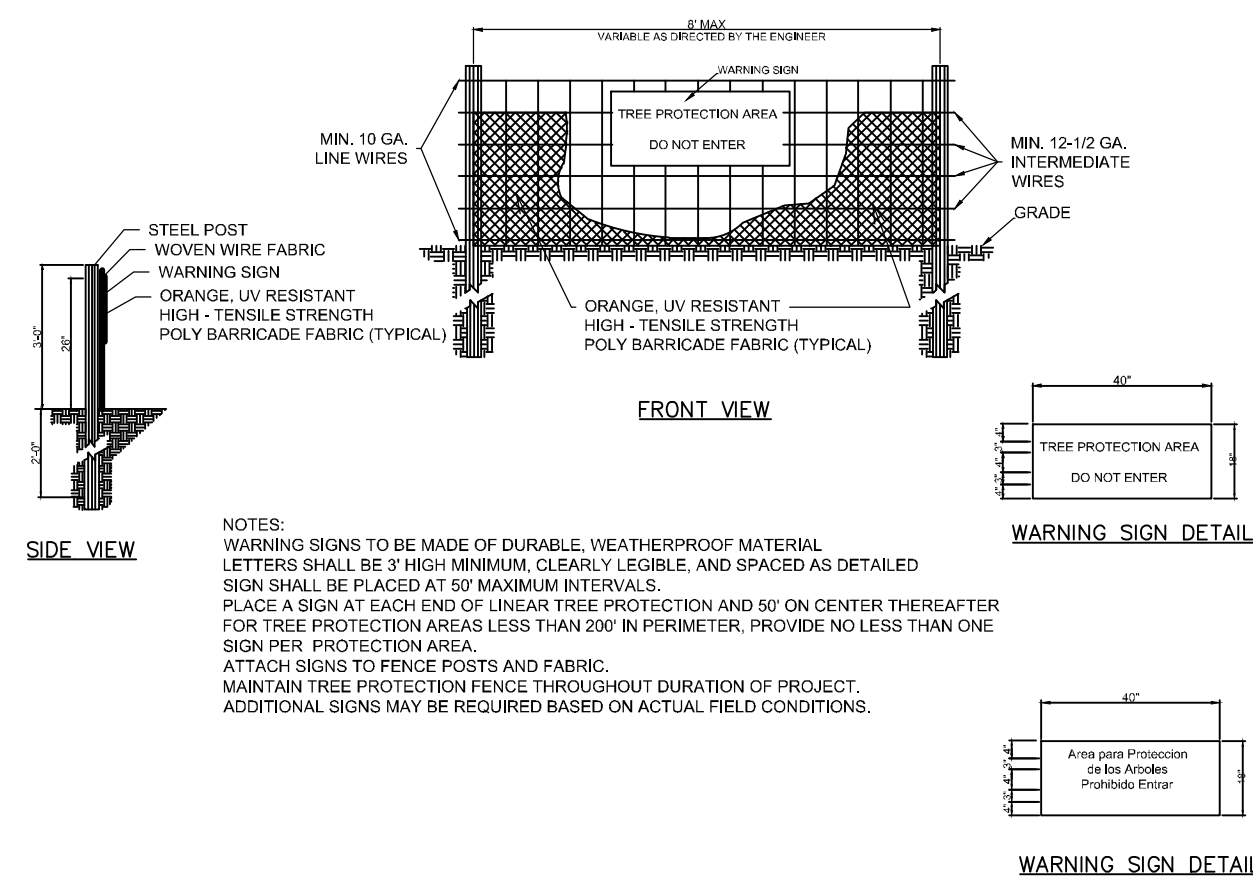


CANOPY TREE REMOVED TABLE	
	INCHES (DBH)
ACRU	13.1
QUNI	12.7
ACRU	14.7
ACRU	12.2
QUNI	17.8
QUNI	14.5
QUNI	19.6
QUAC	12.8
CORNUS	DDD
TOTAL REMOVED	117.40

TREE PRESERVATION TABLE		
EXISTING DBH	# OF CANOPY TREES REMOVED	# OF CANOPY TREES RETAINED
< 24" CANOPY (6.22.3.5.A & B)	8	SEE PLAN
> 24" CANOPY (6.22.3.5.C)	0	SEE PLAN
≥ 24" DBH (6.22.3.5.D)	0	SEE PLAN

LEGEND	
	COMBINATION TREE PROTECTION & SILT FENCE
	LIMITS OF CONSTRUCTION
	TREE PROTECTION FENCE
	EXISTING TREE TO REMAIN
	CRZ - TREES IMPACTED
	TREES TO BE REMOVED
	DEAD, DISEASED, OR DYING

TREE IDENTIFICATION LEGEND	
ACRU	= ACER RUBRUM
ACBE	= ACER BUERGERIANUM
CECA	= CERCIS CANADENSIS
JUVI	= JUNIPERUS VIRGINIANA
MAGR	= MAGNOLIA GRANDIFLORA (DWARF CULTIVAR)
LAIN	= LAGERSTROEMIA INDICA
QUAC	= QUERCUS ACUTISSIMA
QUAL	= QUERCUS ALBA
QUNI	= QUERCUS NIGRA
QURU	= QUERCUS RUBRA
CORNUS	= CORNUS



1 TREE PROTECTION FENCE DETAIL  
NTS

- TREE PROTECTION/IMPACT NOTES:
1. PROTECTING THE ROOT ZONES OF THE EXISTING TREES IS OF THE UTMOST IMPORTANCE. PROTECT EXISTING TREES TO REMAIN TO THE GREATEST EXTENTS POSSIBLE. MINIMIZE DISTURBANCE WITHIN CRITICAL ROOT ZONE OF EXISTING TREES.
  2. ANY DEMOLITION WORK REQUIRING THE USE OF HEAVY EQUIPMENT SHALL MAKE USE OF LOW-GROUND PRESSURE TIRES AND/OR TRACKS.
  3. UPON COMPLETION OF DEMOLITION WORK, CONTRACTOR SHALL BREAK UP ANY RESULTING COMPACTION IN THE SOIL WITH AN AIR SPADE OR SIMILAR LOW-IMPACT METHOD OR TOOL.
  4. NO CLEARING, GRADING, CONSTRUCTION, MATERIAL STORAGE, OR EQUIPMENT ACCESS IS ALLOWED IN TREE PROTECTION AREAS.
  5. NO CONCRETE WASHOUT OR MATERIAL DISPOSAL IS TO OCCUR IN LANDSCAPE AREAS.
  6. TREE PROTECTION FENCING MUST REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.

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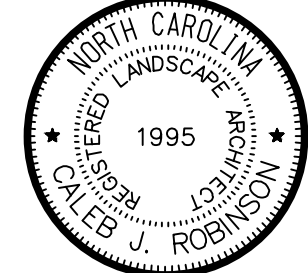
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SCO NO. 23-26062-01

SHEET TITLE

TREE  
PROTECTION  
PLAN, NOTES, &  
DETAILS

SHEET NUMBER

L4.0



BUILDING MATERIAL LEGEND

APPLIES TO SHEET 08.00 + 08.01

- RUNNING BOND BRICK (MATCH EXISTING)
- CHARCOAL METAL STANDING SEAM
- PERFORATED METAL PANEL EQUIPMENT SCREEN (CHARCOAL, 80% OPACITY)
- CENTRIA MARBLE METAL PANEL/SPANDREL
- ALUMINUM CURTAIN WALL W/ LOW-E GLAZING
- BLACK ANODIZED CURTAIN WALL W/ LOW-E GLAZING

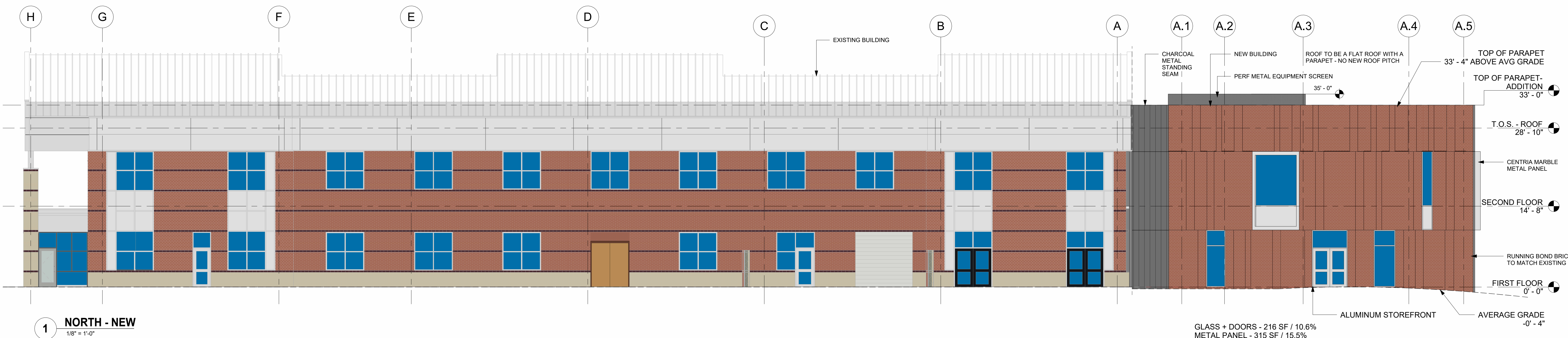
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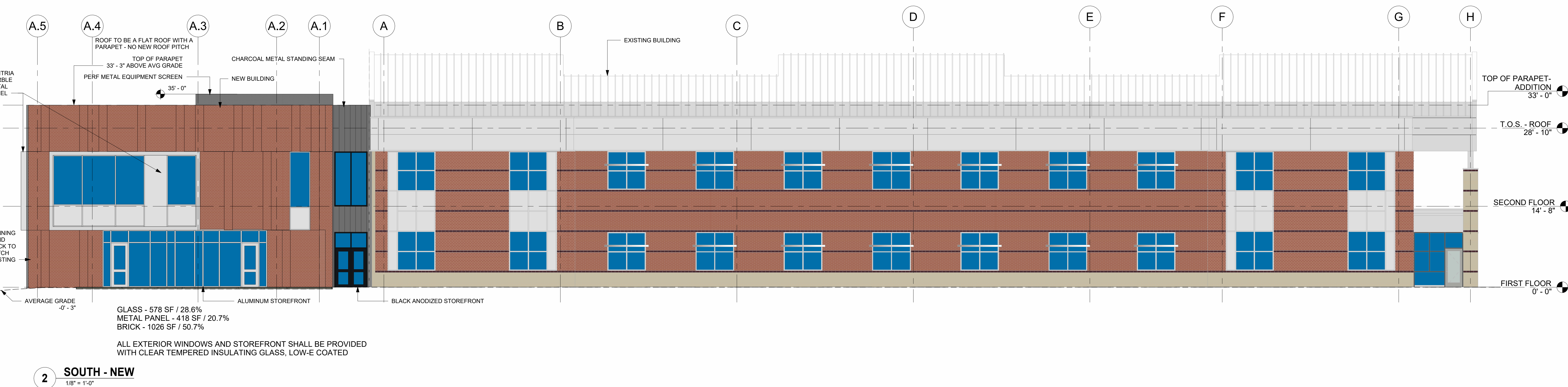


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GLASS + DOORS - 216 SF / 10.6%  
METAL PANEL - 315 SF / 15.5%  
BRICK - 1507 SF / 73.9%

ALL EXTERIOR WINDOWS AND STOREFRONT SHALL BE PROVIDED WITH CLEAR TEMPERED INSULATING GLASS, LOW-E COATED



GLASS - 578 SF / 28.6%  
METAL PANEL - 418 SF / 20.7%  
BRICK - 1026 SF / 50.7%

ALL EXTERIOR WINDOWS AND STOREFRONT SHALL BE PROVIDED WITH CLEAR TEMPERED INSULATING GLASS, LOW-E COATED

SHEET ISSUE		
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8	4TH SUP SUBMITTAL	03.19.25
9	5TH SUP SUBMITTAL	04.10.25

SCO NO. 23-26062-02

SHEET TITLE  
BUILDING ELEVATIONS - RENOVATION EAST, NORTH, AND SOUTH

SHEET NUMBER  
A-08.00



BUILDING MATERIAL LEGEND

APPLIES TO SHEET 08.00 + 08.01

- RUNNING BOND BRICK (MATCH EXISTING)
- CHARCOAL METAL STANDING SEAM
- PERFORATED METAL PANEL EQUIPMENT SCREEN (CHARCOAL, 80% OPACITY)
- CENTRIA MARBLE METAL PANEL/SPANDREL
- ALUMINUM CURTAIN WALL W/ LOW-E GLAZING
- BLACK ANODIZED CURTAIN WALL W/ LOW-E GLAZING

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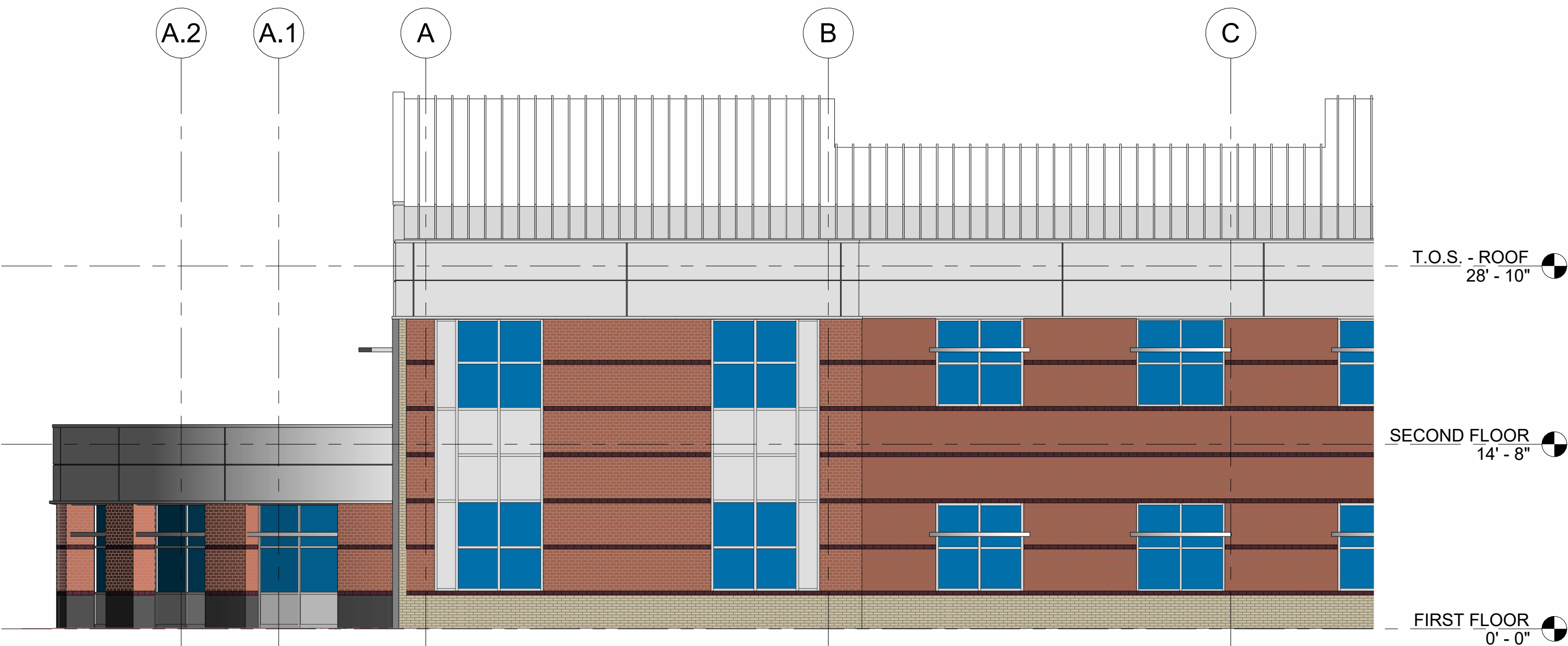
SCO NO. 23-26062-02

SHEET TITLE

WEST + SOUTH  
ELEVATIONS

SHEET NUMBER

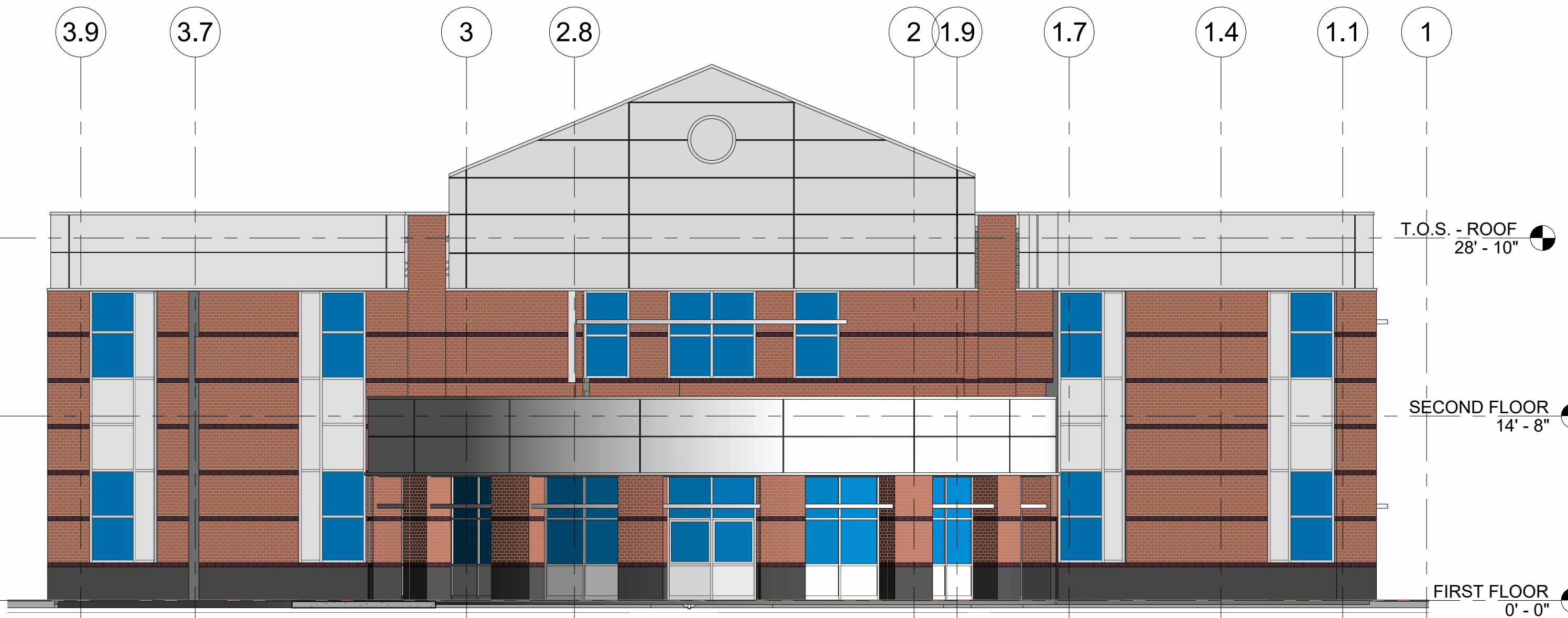
A-08.01



EXISTING SOUTH ELEVATION (AT ADDITION)

GLASS - 76 SF / 17.6%  
METAL PANEL - 200 SF / 46.2%  
BRICK - 157 SF / 36.2%

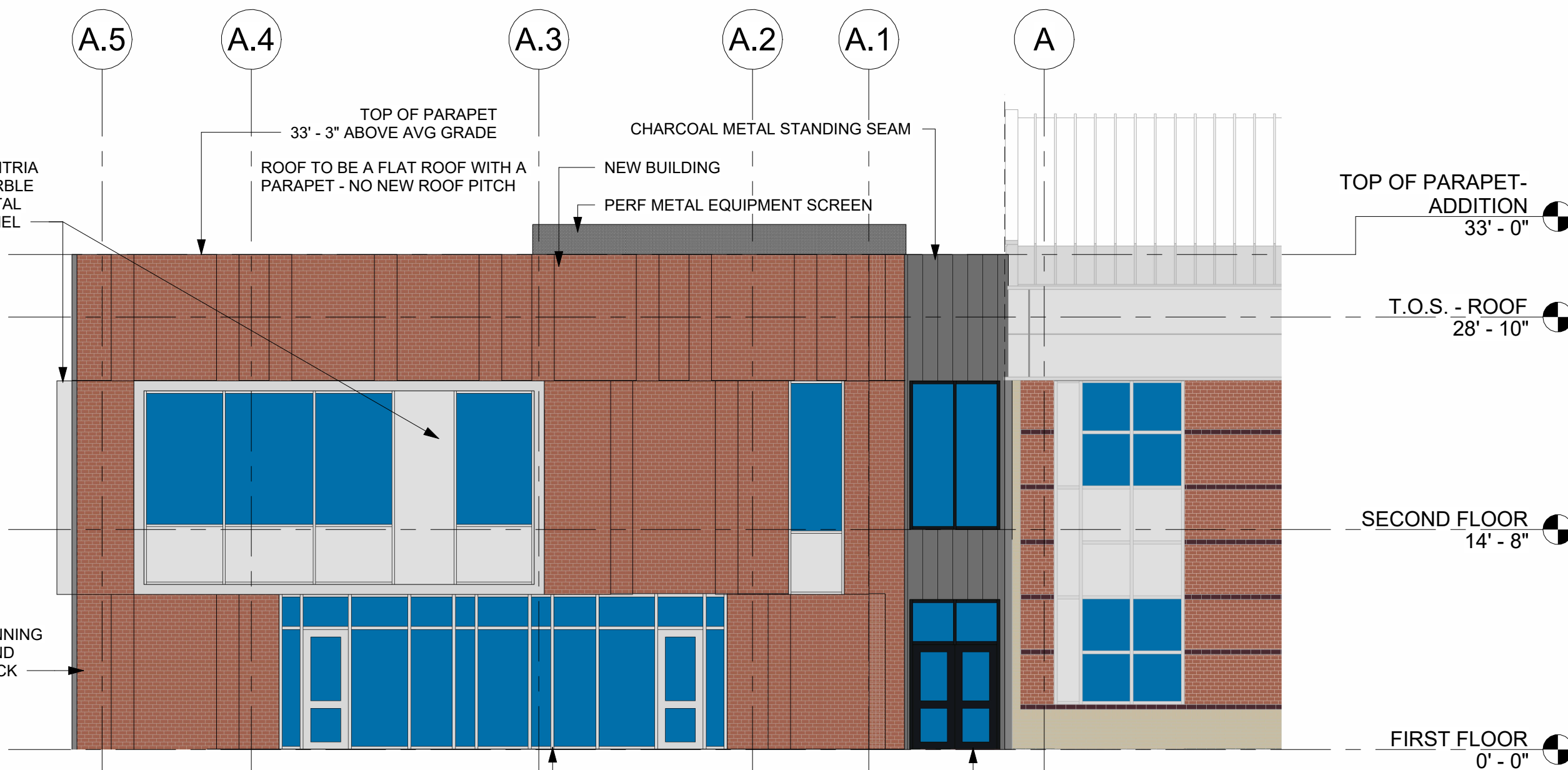
3 SOUTH ELEVATION - EXISTING  
1/8" = 1'-0"



EXISTING WEST ELEVATION

GLASS - 582 SF / 10.9%  
METAL PANEL - 1609 SF / 46.3%  
BRICK - 1490 SF / 42.8%

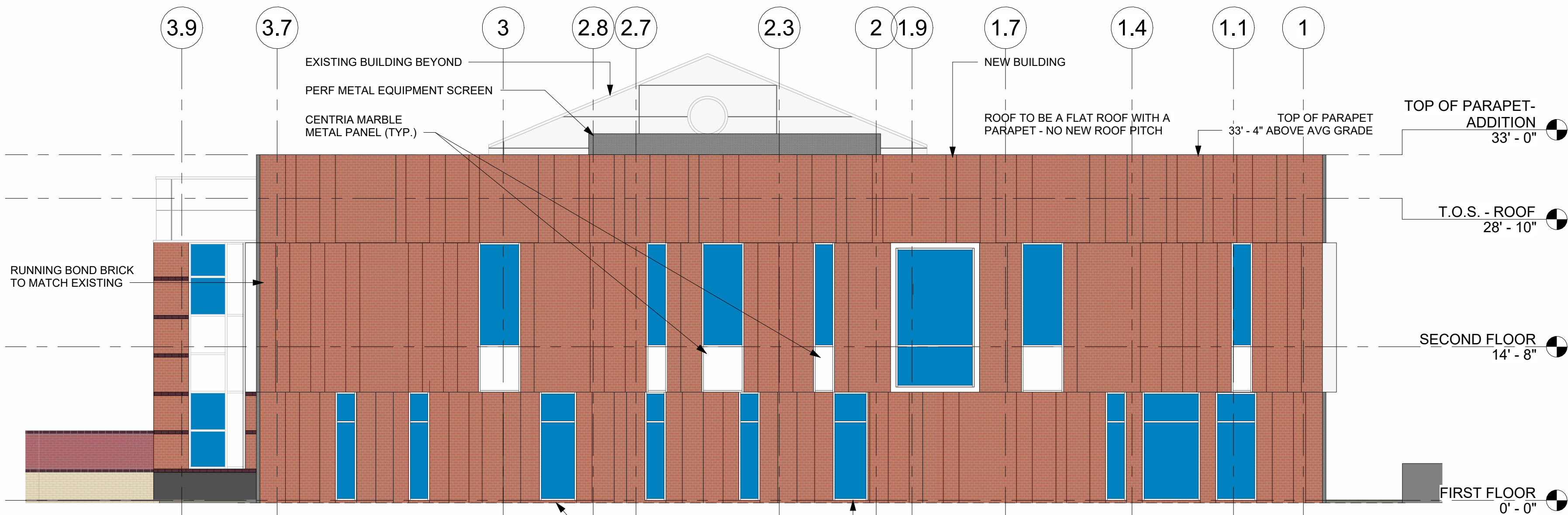
1 WEST ELEVATION - EXISTING  
1/8" = 1'-0"



PROPOSED ELEVATION (AT ADDITION)

GLASS - 578 SF / 28.6%  
METAL PANEL - 418 SF / 20.7%  
BRICK - 1026 SF / 50.7%

4 SOUTH ELEVATION - PROPOSED  
1/8" = 1'-0"



PROPOSED WEST ELEVATION

GLASS - 573 SF / 15.2%  
METAL PANEL - 414 SF / 11.0%  
BRICK - 2779 SF / 73.8%

2 WEST ELEVATION - PROPOSED  
1/8" = 1'-0"





## ATTACHMENT #2

### Future Land Use Map and UDO Provisions Relative to the Case

#### **Future Land Use Map Classification:**

**Employment Area:** These areas include a wide range of business, light industrial, office, research and development, along with related/support services uses including restaurants, small scale retail and convenience shopping/services. Buildings and uses will be sited to limit the visual impact of service and warehousing operations, while still providing convenience for business functionality. These areas are in prime locations with good access to major road networks (where capacity exists or is planned) and rail if needed and should be reserved for high return employment generating uses. **Zoning Districts: High Intensity Commercial; Business Park; Economic Development District; Light Industrial, General Industrial; Entranceway Special Use; Special Design Special Use.**

#### **UDO Provisions:**

**Section 4 (Zoning Districts), Subsection 4.4 (Special Use Districts), Paragraph 4.4.1 (Entranceway Special Use), Sub-paragraph 4.4.1.1 (Intent):** The purpose of this district is to provide for the development of well-planned and fully integrated projects containing a diverse mixture of commercial, office, and employment uses along the primary entrances to the Town of Hillsborough. This district would be appropriate on major thoroughfares at or near the boundaries of the Town's zoning jurisdiction. This district is not intended to be a vehicle by which new, primarily residential uses are introduced, except where significant new commercial, office or employment uses are also incorporated into the district.

#### **Section 9 (Definitions), Subsection 9.2 (Definitions):**

**School: Vocational** - A public or private school offering general, technical, and vocational instruction that operates in buildings or structures or on premises on land leased or owned by the educational institution for administrative purposes. Such uses include classrooms, laboratories, libraries, cafeterias, and other facilities that further the educational mission of the institution.



# ATTACHMENT #3

## Zoning History

March 8, 2004: Over 300 acres of property south of I-85 between Old NC 86 and NC 86 South annexed into town's corporate limits and zoned ESU (Entranceway Special Use). The rezoning is subject to a Master Plan including (i) a development map identifying development restrictions by parcel, and (ii) a written set of general and specific development condition. Subject property is identified as "Parcel #16."

February 13, 2006: Town Board of Commissioners issues Special Use Permit #2006-04 for the "Durham Technical Community College Orange County Off-Campus Center Classroom Building & Park and Ride Lot" project. The project included an approximately 40,000 square foot, two-story community college building with 200 off-street parking spaces, and a 125-space park and ride lot. The special use permit contained conditions requiring additional town water, sewer and stormwater approvals, and inspection of tree protection fencing and possible preservation of two specified trees, prior to beginning land clearing activities.

October 2, 2006: Zoning Compliance Permit #3627 issued for community college and park and ride lot.

May 13, 2010: Zoning Compliance Permit issued for wall sign for school.

June 14, 2010: Town Board of Commissioners issue Special Use Permit modification allowing a ground-mounted solar array (solar panels) on the property.

October 14, 2010: Zoning Compliance Permit #4048 issued for pole-mounted photovoltaic system (solar panels) on property.

November 3, 2011: Zoning Compliance Permit #4545 issued for transit shelter at park and ride lot.



**PLANNING & ECONOMIC  
DEVELOPMENT DIVISION  
STAFF REPORT**

Tom King, AICP, CZO - Senior Planner  
Secretary to the Board of Adjustment



101 East Orange Street  
P.O. Box 429  
Hillsborough, NC 27278

**Report Date:** May 7, 2025

**BOARD OF ADJUSTMENT**

**Agenda Item: 4.B**

CASE NUMBER	CASE NAME	APPLICANT/PROPERTY OWNER
BA-03-2025	Holy Family Catholic Church	Civil Consultants, Inc./Holy Family Catholic Parish of Hillsborough

HEARING DATE	PARCEL ID NUMBER	PROPERTY ADDRESS/LOCATION
May 14, 2025	9865-95-5127	216 Governor Burke Road

**BRIEF SUMMARY OF REQUEST**

Fourteen-foot variance from the maximum 45-foot building height requirement of the R-10 (Residential) zoning district.

EXISTING ZONING	EXISTING LAND USE	SURROUNDING ZONING/LAND USE	FUTURE LAND USE CATEGORY	SIZE OF PROPERTY
R-10 (property located in ETJ)	Church/Place of Worship	<i>North:</i> AR (County)/Vacant lot & house <i>South:</i> R-10/Houses <i>East:</i> R-40/Agriculture <i>West:</i> R-10/Houses	Medium-density Residential Neighborhood	8.37 acres

**BACKGROUND**

Holy Family Catholic Church is in early planning stages for a new church building & associated parking. Planning & Economic Development Division staff have reviewed the project concept plan & advised of applicable land use regulations applicable to the proposal. The applicant identified the 45-foot maximum building height as a requirement negatively impacting proposed building plans.

**ATTACHMENTS:** 1. Application materials 2. UDO provisions relative to case 3. Zoning history



## DESCRIPTION OF SUBJECT PROPERTY:

### Physical Conditions:

<b>Lot Size:</b>		8.37 acres
<b>Lot Frontage:</b>	<b>North:</b>	Rocky Lane (SR #1622) - 684.55 feet
	<b>East:</b>	NC 57 – 588.79 feet
	<b>South:</b>	Governor Burke Road (SR #1619) - 550.72 feet
<b>Lot Shape:</b>		Regular and roughly square.
<b>Topography:</b>		Relatively level sloping gently to the west northwest to a stream. Areas of higher grade are found on the north/north central side of the property.
<b>Lot Coverage:</b>		Wooded areas along north and west sides of property.
<b>Sensitive Areas:</b>		Stream crosses northwest corner of lot. Stream subject to 50-foot-wide stream buffer; 100-foot total width.
		20-foot-wide sewer easement outside of, adjacent and along southeast side of stream buffer.
		90-foot-wide high tension electric line easement adjacent and along south side of Rocky Lane.
		25-foot-wide portion of 50-foot-wide power line easement adjacent to and along west side of NC 57.
		Larger than normal sight-distance triangles at southwest intersection Rocky Lane/NC 57 and northwest intersection Governor Burke Road/NC 57.
<i>Note:</i> SR = State Secondary Road.		

**Built Conditions:** The property is developed as a church located on the west-central portion of the lot. A separate office/education building is adjacent to the west of the church. Two accessory buildings are located northeast of the church building. Most all associated parking is located on the south side of the property. The main driveway access point is on Governor Burke Road with a secondary driveway access on Rocky Lane.

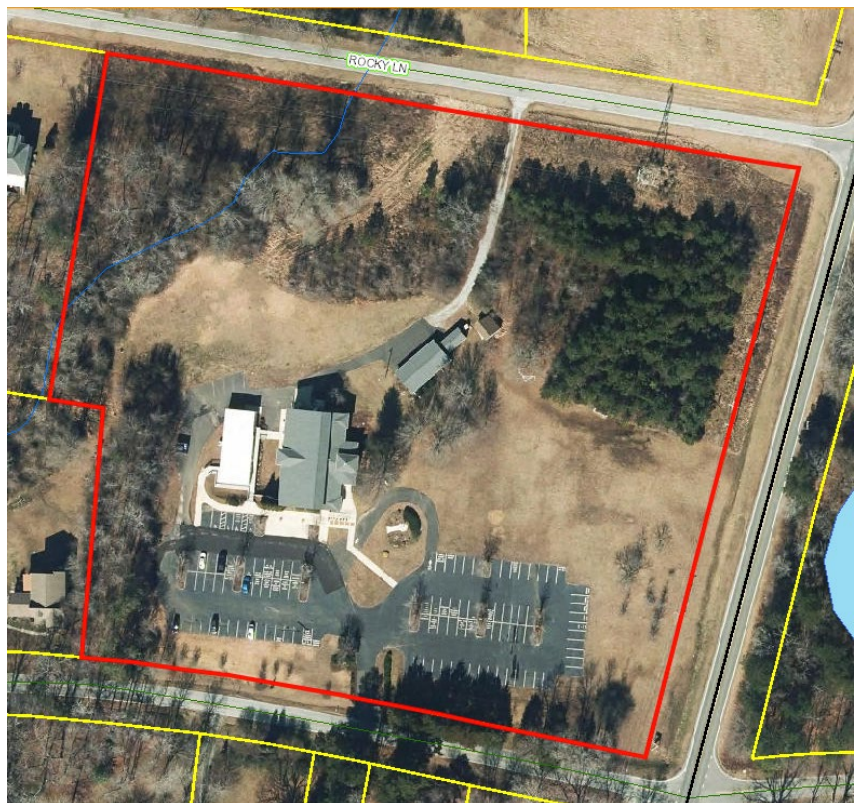


Photo date: 2021. Source: Orange County Land Records/GIS.

**NEED FOR VARIANCE:** The applicant's request arises from plans for a new church building.



## ORDINANCE PROVISIONS FROM WHICH VARIANCE IS SOUGHT:

**UDO (Unified Development Ordinance) Section 6 (Development Standards), Subsection 6.3 (General Dimensional Standards), Paragraph 6.3.1 (Table: Dimensional Requirements –Residential):** A 45-foot maximum building height applies to properties zoned R-10 (Residential).

**Requested Variance:** Fourteen-feet from the maximum 45-foot building height requirement.

**Proposed Building Height:** Fifty-nine feet.

## FINDINGS OF FACT ANALYSIS:

*The Board of Adjustment is required to make all the following findings as required by NCGS (North Carolina General Statutes) Chapter 160D (Local Planning and Development Regulation), Article 7 (Zoning Regulation), Section 160D-705 (Quasi-judicial Zoning Decisions), Subsection (d) (Variances); and UDO Section 3 (Administrative Procedures), Subsection 3.10 (Variance), Paragraph 3.10.3 (General Standards/Findings of Fact), Sub-paragraph 3.10.3.1.*

**A Variance from all provisions of this Ordinance...shall be approved only upon a finding that all of the following standards are met:**

- a) **Unnecessary hardship would result from the strict application of the Ordinance. It shall not be necessary to demonstrate that, in the absence of the Variance, no reasonable use can be made of the property.**

*Applicant Arguments (See Attachment #1 for full narrative):* The Church has a historic, strong commitment to the local community and wishes to continue that commitment into the future. The height limit severely hinders the owner's ability to realize its program for facility expansion and presents a hardship for the Church.

*Staff Comment:* It must be shown that the nature of the hardship is much greater for the applicant or owner than others subject to the same restriction. The board must use its judgement, based on the evidence presented, to determine the hardship is more than just an inconvenience to the applicant or owner.

- b) **The hardship results from conditions that are peculiar to the property such as location, size or topography. Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance.**

*Applicant Arguments (See Attachment #1 for full narrative):* A combination of multiple site constraints (e.g., streams and required buffers, overhead and underground utility easements, topography) create restrictive conditions affecting buildability of the property. The logical area for building is in a sloping area that would require more severe grading and construction of retaining walls if a larger, one-story building were built. A two-story building configuration with a peaked roof is desirable because it requires a smaller footprint with less site impacts.



Staff Comment: While the site contains all the conditions the applicant says create the hardship, there are other properties in the area similarly affected by several of them, although possibly not to the same degree.

- c) **The hardship did not result from actions taken by the applicant or the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a Variance shall not be regarded as a self-created hardship.**

Applicant Arguments (See Attachment #1 for full narrative): The hardship addressed by the requested variance relates to the property's physical features and characteristics, not from actions taken by the applicant or property owner.

Staff Comment: The applicant or owner has taken no actions to cause the hardship. The variance is sought prior to proceeding with submitting formal plans for project development.

- d) **The requested Variance is consistent with the spirit, purpose and intent of the Ordinance such that public safety is secured, and substantial justice is achieved.**

Applicant Arguments (See Attachment #1 for full narrative): The variance is consistent with the spirit, purpose and intent of the ordinance because the proposed building will be significantly set back from property boundaries and not create an imposing condition (e.g., excessive shading, obscured sight lines) for adjacent properties. To ensure this, the property owner is willing to accept a requirement that the proposed church building be set back 100 feet from all property boundaries. This requirement will result in a building that doesn't detract from the character of the neighborhood.

Substantial justice will be secured in the following ways:

1. To the Property: Smarter design minimizes grading and other land disturbance impacts; avoiding the need to disturb environmentally sensitive areas.
2. To the Larger Community: Allows the Church to continue its long-term commitment to the community through the provision of a new multi-purpose building constructed to modern standards while exhibiting a traditional building form.
3. To Parish Members: Providing flexibility to develop and enjoy a functional and aesthetically pleasing facility reflecting more efficient and wise use of the property than would otherwise be possible.
4. To Adjoining Properties and Neighborhood: Providing the ability for the Church to implement its expansion program while maintaining neighborhood-appropriate character and visual aesthetics.

Staff Comment:

1. Consistency with Spirit, Purpose and Intent of the Ordinance – In deciding the variance, the board must keep in mind the purpose and intent of the ordinance and determine if granting the variance will be contrary to its purpose and intent.



UDO Section 1 (General Provisions), Subsection 1.3 (General Purpose and Intent), Paragraph 1.3.1 (General Purpose) states “The purpose of this Ordinance is...to provide for adequate light and air;” and “...to regulate and restrict the height, number of stories, and size of buildings; ....”

UDO Section 6 (Development Standards). Subsection 6.1 (Purpose and Intent) states “The general intent of this section is to provide standards for development to help ensure the safe and convenient development of land on sites and in locations adequate for the uses proposed...”

Based on the above, one of the main purposes of the UDO is to provide adequate air and light. This purpose and intent is accomplished through building setback, yard and height regulations found in UDO Section 6.

2. Public Safety Secured and Substantial Justice Achieved – In deciding the variance, the board must consider whether the variance will promote, or at least not harm, the interests of the community.

#### **OTHER BOARD CONSIDERATIONS IN REVIEW OF VARIANCE REQUESTS:**

UDO Section 3, Subsection 3.10, Paragraph 3.10.4 (Insufficient Justification for Variance) states “The following do not constitute grounds for a variance:

- (a) The existence of other nonconforming or conforming uses of land or structures in the same or other districts;
- (b) The request for a particular use expressly, or by inference, prohibited in the district; or
- (c) Economic hardship or the fact that property may be utilized more profitably with a Variance; or
- (d) Hardships resulting from personal circumstances and/or conditions that are common to the neighborhood or the general public, may not be the basis for granting a Variance.”

#### **RECOMMENDED CONDITIONS OF APPROVAL:**

Staff have no recommended conditions for this project, if approved.

The applicant and property owner propose the following condition be placed on the variance, if approved:

1. The proposed church building will be set back at least 100 feet from all property boundaries.

The board may impose additional conditions on the variance provided they are reasonably related to the variance.

#### **VOTING REQUIREMENT:**

A four-fifths supermajority vote is required to grant a variance.



## ATTACHMENT #1



TOWN OF  
HILLSBOROUGH

**GENERAL APPLICATION**  
**Special Use Permit, Variance or Appeal**  
**Board of Adjustment Hearing**

Planning and Economic Development Division  
101 E. Orange St., PO Box 429, Hillsborough, NC 27278  
919-296-9475 | Fax: 919-644-2390  
www.hillsboroughnc.gov

This application is for a special use permit (including modifications), variance or appeal.  
Incomplete applications will not be accepted or processed.

**OFFICIAL USE ONLY**

Case Number: BA-03-2025

Fee: \$ 300.00

Receipt No.: 5JP6JCW6Q3

FLUM Designation: Medium Density Residential  
Neighborhood

Zoning District: R-10

Overlay Zone: Select One N/A

Permit or Relief Requested: Variance

**PROJECT LOCATION AND DESCRIPTION**

Project Name: Holy Family Catholic Church

Project Type: Institutional

Property Address/Location: 216 Governor Burke Road

PIN(s): 9865955127

Size of Property (Acres/Sq. Ft.): 8.37 Ac.

Current Use of Property: Church

Proposed Use of Property: Church

Use Class (from UDO Sections 5.1.7 and 5.1.8): Church, Place of Worship

Number Existing Buildings to Remain: 2

Number Proposed Buildings: 1 new building

Gross Floor Area Existing Buildings: 11,900 SF +/-

Gross Floor Area Proposed Buildings: 20,700 SF +/-

Number Lots Proposed: 1

Number Dwelling Units Proposed: None

Brief Summary of Request (use separate sheet if necessary): Variance for building height, from 45 feet to 59 feet

**CERTIFICATION AND SIGNATURES**

Applications will not be accepted without signature of legal property owner or official agent.

I certify that the information presented by me in this application and all accompanying documents are true and accurate to the best of my knowledge, information, and belief; and I acknowledge that the processing of this application may require additional town, county and/or state permits, approvals and associated fees.

Applicant: Civil Consultants, Inc.

Legal Property Owner: Holy Family Catholic Parish of Hillsborough

Mailing Address: 3708 Lyckan Pkwy. Suite 201

Mailing Address: 216 Governor Burke Road

City, State, ZIP Code: Durham, NC 27707

City, State, ZIP Code: Hillsborough, NC 27278

Telephone: 919-943-8418

Telephone: 984-884-5888

Email: tony.whitaker@civil-consultants.com

Email: pastor@hfcch.org

Signature:

Digitally signed by Tony M. Whitaker  
Date: 2025.04.21 09:12:36-0400

Signature: Rev. Rev. W. E. Decker

Date: April 21, 2025

Date: 20 Apr 2025

Legal Relationship of Applicant to Property Owner: Consultant





TOWN OF  
HILLSBOROUGH

# AUTHORIZATION FORM Owner's Authorization for Agent Board of Adjustment Hearing

Planning and Economic Development Division  
101 E. Orange St., PO Box 429, Hillsborough, NC 27278  
919-296-9475 | Fax: 919-644-2390  
www.hillsboroughnc.gov

This form must accompany any application to go before the Board of Adjustment in which the application will not be represented by the legal property owner. Each owner shown on the property owner's deed must sign this authorization form.

I/We \_\_\_\_\_ Holy Family Catholic Parish of Hillsborough  
(print names of legal property owners)

hereby authorize \_\_\_\_\_ Tony M. Whitaker  
(print name of agent)

to represent me/us in processing an application for \_\_\_\_\_ Variance  
on my/our behalf. In authorizing the agent to represent me/us, I/we as owner/owners attest that:

- The application is made in good faith.
- All information contained in the application is accurate and complete.
- The agent is authorized to accept any and all conditions that may be placed on the approval.
- I/we as the property owner(s) am/are bound by any decision of the board, including any and all conditions attached to board approvals.

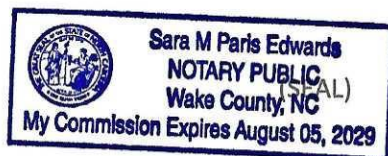
[Signature]  
Signature of Owner  
Bishop Luis R Zarana  
Holy Family Catholic Parish of Hillsborough  
Print Name of Owner

[Signature]  
Signature of Owner  
Father Ryan Elder Pastor  
Print Name of Owner

NORTH CAROLINA \_\_\_\_\_ Wake \_\_\_\_\_ COUNTY

Sworn to and subscribed before me on this 16 day of April 2025 by

Luis R Zarana Ryan W Elder  
Print Name of Person Making Statement



[Signature]  
Signature of Notary Public  
Sara M Paris Edwards  
Print Commissioned Name of Notary Public  
8-5-2029  
Commission Expiration Date

The individual(s) making the above statement is/are personally known ☒ or identification was produced \_\_\_\_.



To the Hillsborough Board of Adjustment:

I, Tony M. Whitaker, hereby petition the Board of Adjustment for a variance from the literal provisions of the Hillsborough Unified Development Ordinance because I am prohibited, under the interpretation given to me by the Planning and Economic Development Division staff, from using the property described in the attached General Application in a manner shown by the Plot Plan submitted as part of this application. I request a variance from the following provisions of the ordinance:

*Cite section, subsection and paragraph numbers:*

Section 6.3.1 - Table: Dimensional Requirements - Residential, Max. Building Height in R-10

The variance is requested so the above-mentioned property can be used in a manner indicated by the Plot Plan submitted as part of this application or as more fully described herein:

*Cite planned use of the property with variance if the plot plan does not adequately reveal the nature of the variance. If a variance is requested for a limited time only, specify duration requested.*

Request variance to allow a maximum building height of 59 feet for a proposed church building.

#### **Factors Relevant to Issuance of Variance**

The Board of Adjustment does not have unlimited discretion in deciding whether to grant a variance. Under North Carolina General Statute 160D-705(d) and the Hillsborough Unified Development Ordinance, the board is required to find that all four conditions below exist before it may issue a variance. Below or on a separate sheet, indicate the facts you intend to show and the arguments you intend to make to convince the Board of Adjustment that it can properly reach these four required findings.

**1. Unnecessary hardship would result from carrying out the strict letter of the regulation.**

*(Note: The property becoming less valuable due to failure to grant the variance is insufficient. It is unnecessary to demonstrate that no reasonable use can be made of the property in the absence of the variance.)*

Refer to Attachment 1



- 2. The hardship results from conditions that are peculiar to the property such as location, size or topography.**

*(Note: Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance. A variance may be granted when necessary and appropriate to make reasonable accommodation under the Federal Fair Housing Act for a person with a disability.)*

Refer to Attachment 1

- 3. The hardship did not result from actions taken by the applicant or the property owner.**

*(Note: The act of purchasing property with knowledge that circumstances exist which may justify the granting of a variance is not a self-created hardship.)*

Refer to Attachment 1

- 4. The requested variance is consistent with the spirit, purpose and intent of the regulation such that public safety is secured and substantial justice is achieved.**

*State facts and arguments to show that the requested variance represents the least possible deviation from the letter of the ordinance that will allow the use of the property in the manner requested and that the use of the property will not substantially detract from the character of the neighborhood if the variance is granted:*

Refer to Attachment 1

I certify that all the information presented by me in this application is accurate to the best of my knowledge, information, and belief.



Digitally signed by Tony M. Whitaker  
Date: 2025.04.21 09:03:25-04'00'

Signature of Applicant

April 21, 2025

Date



ATTACHMENT 1  
SUPPLEMENTAL FORM – VARIANCE

Holy Family Catholic Church  
Hillsborough, NC

**1. Unnecessary hardship would result from carrying out the strict letter of the regulation.**

The strict letter of the building height regulation would limit the height of the proposed building so severely that the Church's program for facility expansion could not be reasonably realized on this property. Holy Family Catholic Church has a strong history of commitment to the Hillsborough community, and desires to strengthen this commitment by investing in a very purposeful facility expansion. Being prevented from realizing the intended building program on the current property would represent a significant and unnecessary hardship to the Church. This hardship will be remedied by approval of the requested variance, with any appropriate conditions.

**2. The hardship results from conditions that are peculiar to the property such as location, size or topography.**

The subject property contains a unique combination of features that work together to create very restrictive conditions for expansion of the Church facilities, including:

- a) A stream flowing across the northwest portion of the property;
- b) A riparian buffer along both sides of the stream;
- c) The stream's location and angle of crossing that isolates the northwest corner from the balance of the property, rendering this isolated section effectively undevelopable;
- d) A Town of Hillsborough public sanitary sewer easement traversing the property on the "high ground" along the southeastern edge of the riparian buffer;
- e) An overhead electrical transmission line right-of-way along the entire northern boundary of the property;
- f) An overhead electrical distribution line right-of-way along the entire eastern boundary of the property; and
- g) Significant areas within the "buildable" envelope having existing ground slopes exceeding ten percent.



Taken in aggregate, these features represent a peculiar set of constraints for this property, requiring the proposed facility expansion to be configured and designed accordingly. The Church's program requirements for expansion include specific types and sizes of interior spaces including worship space having appropriate volumetric and architectural dimensions; a choir loft having proper lines of sight from disparate points within the sanctuary; harmonious spatial and functional relationships between existing and proposed buildings; a designated and generous area for outdoor gathering and recreational activities which are integral and essential to the Church's mission to the community; and exterior requirements for adequate parking, safe drop-off and circulation, stormwater management, and service areas. In addition, the Church strongly feels that the new building should have a peaked-roof architectural style that is typical of other churches in Hillsborough. This roof configuration is an important programmatic feature expressing connection with the larger community.

The peculiar combination of site constraints prevents this complete package of program elements from being reasonably constructed on the property unless the building is built in a more compact two-story configuration. Moreover, the logical placement of the building is in a sloping area in which a larger single-floor building would require much more severe grading, steeper parking lot slopes, and more elongated perimeter slopes or retaining walls. However, this same area will naturally accommodate a two-story building footprint with more comfortably sloped parking areas and at-grade access to both floor levels. As compared to a sprawling one-story building in this area, a two-story building will have a smaller footprint with less site impact, will be more energy-efficient and environmentally responsible, and will result in larger setbacks and smaller visual impacts to surrounding properties.

***The need for the building height variance results directly from using a more responsible and less impactful two-story configuration for the building structure.***

By allowing the additional building height, the requested variance will relieve the hardship that would otherwise be imposed on the Church, while also providing a better functional and aesthetic condition of the completed facilities.

### **3. The hardship did not result from actions taken by the applicant or the property owner.**

The hardship being addressed by this variance request is related to the physical features and characteristics of the property, and does not result from actions taken by the applicant or the property owner.



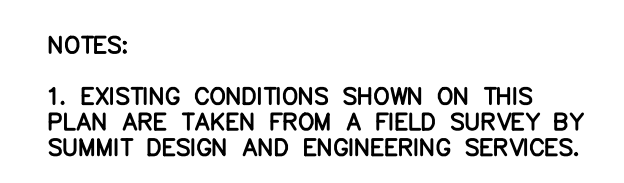
**4. The requested variance is consistent with the spirit, purpose and intent of the regulation such that public safety is secured and substantial justice is achieved.**

The spirit, purpose and intent of the building height regulation is to protect nearby properties from adverse impacts such as excessive shading or obscured lines of sight from a structure that appears unduly high or imposing, relative to nearby properties. The proposed building will not be located close enough to any property line to create an imposing condition for any adjacent property. For the same reason, the proposed building will not cast undue shading onto any adjacent property. To ensure this outcome, the Church is willing to accept an approval condition that the building will be set back at least 100 feet from any property boundary line. Such a condition will fully and generously mitigate any visual effect of the increased structure height. Approval of the requested variance under this condition will not detract from the character of the existing neighborhood, but will ensure that the more traditional peaked-roof style of building can be used for this important community asset. By adherence to applicable building codes and construction standards, the proposed building will provide a safe physical environment for worship gatherings and other Parish activities.

Approval of the requested variance will secure substantial justice in the following ways:

- a. To the property itself, by providing a smarter design that responds responsibly to unique site conditions by minimizing the development footprint, reducing grading and other land disturbance impacts, and avoiding the need to disturb the more environmentally sensitive portions of the property;
- b. To the Hillsborough community at large, by allowing the Church to increase its long-term commitment to the community with a new multi-purpose building constructed to modern standards, while exhibiting the traditional building form for church architecture in Hillsborough;
- c. To Parish members, by providing the flexibility to develop and enjoy a functional and aesthetic facility that reflects a more efficient and wise use of Parish property than would otherwise be possible;
- d. To adjoining properties and the neighborhood in general, by providing the Church the ability to implement its expansion program while maintaining neighborhood-appropriate character and visual aesthetics.





**GRAPHIC SCALE**

( IN FEET )  
1 inch = 40 ft.

DATE: APRIL 17, 2025

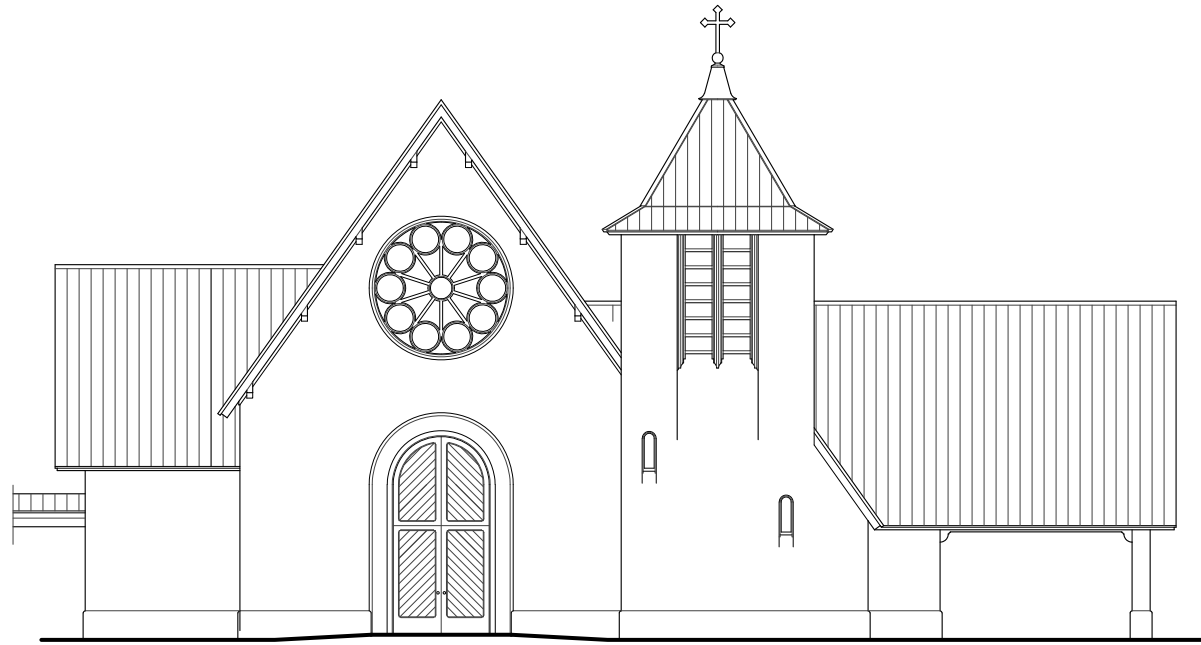
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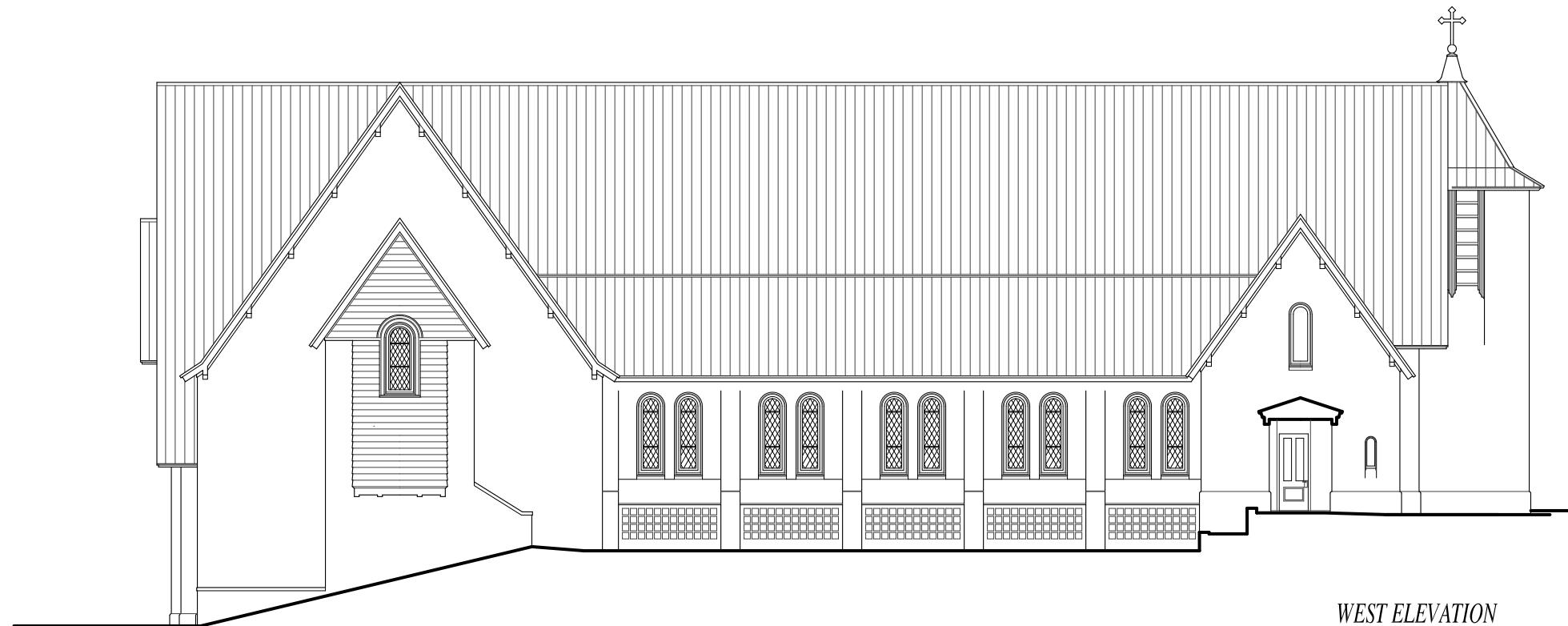
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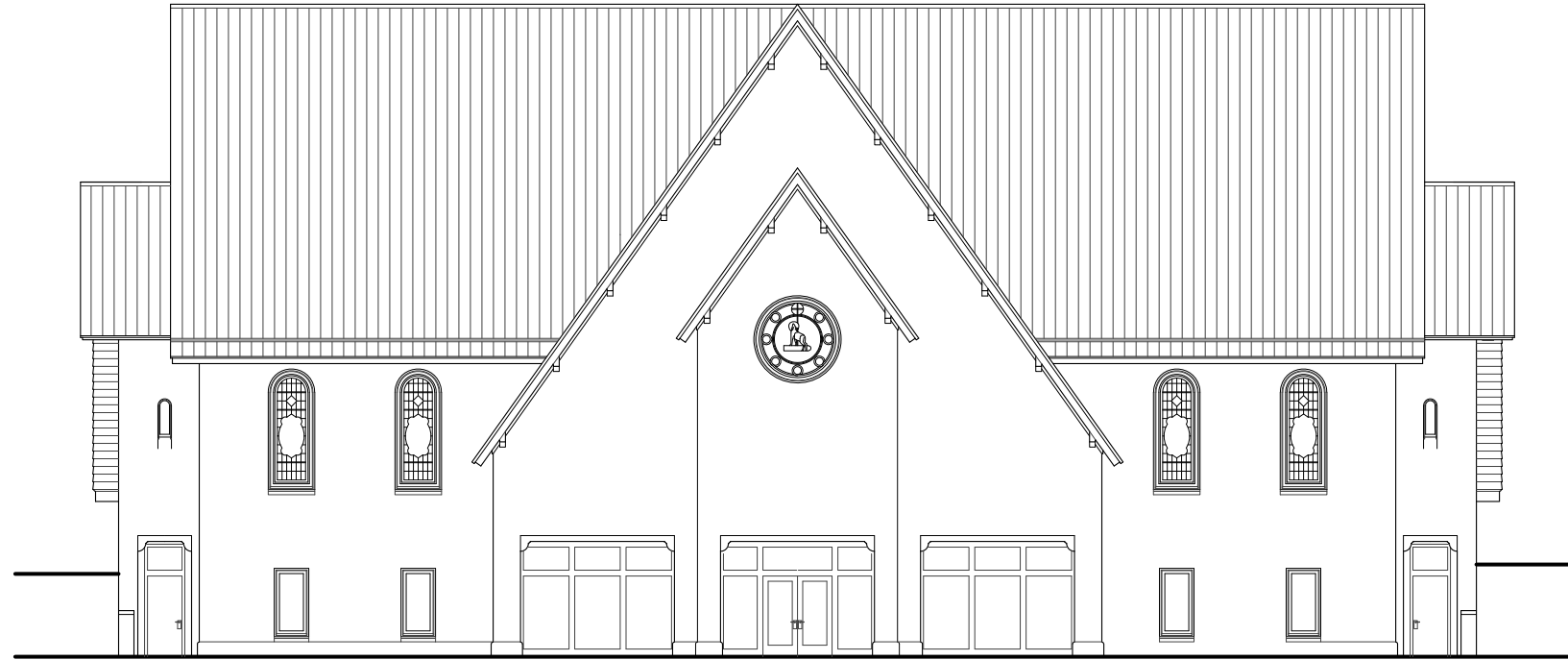


*SOUTH ELEVATION*

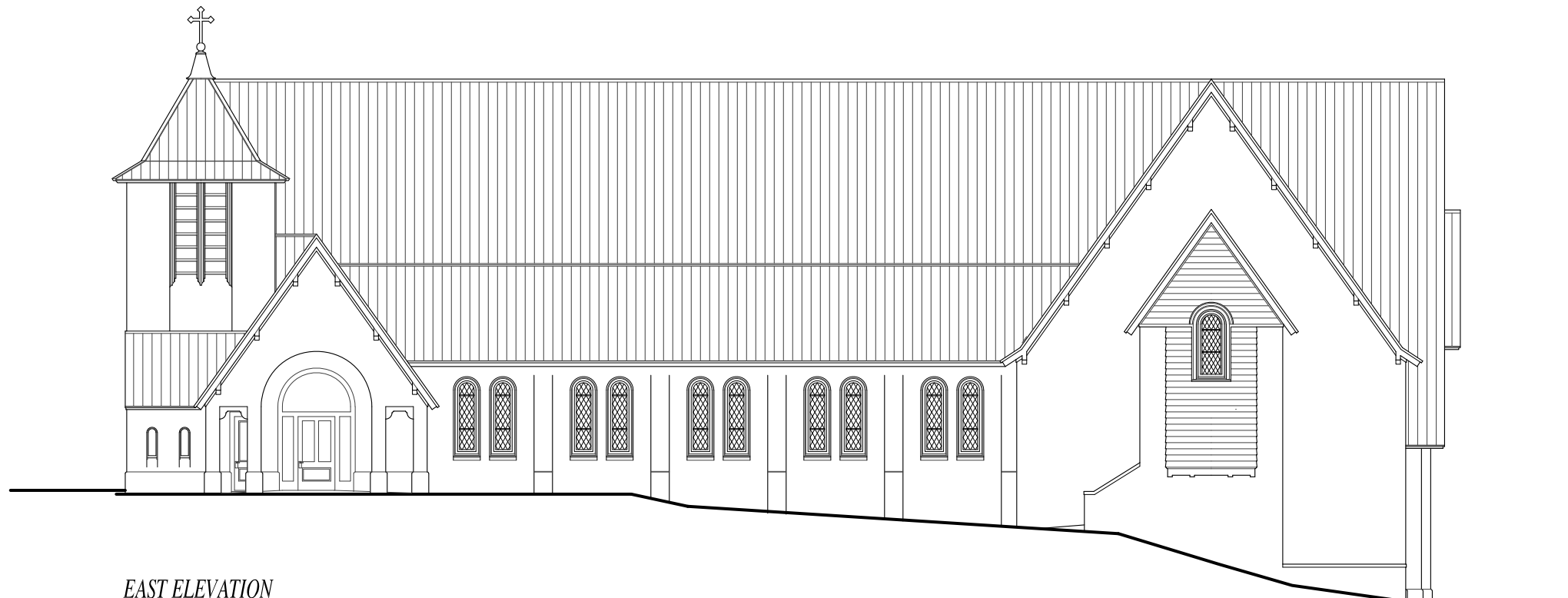


*WEST ELEVATION*





*NORTH ELEVATION*



*EAST ELEVATION*



# ATTACHMENT #2

## UDO Provisions Relative to the Case

### Section 6 (Development Standards), Subsection 6.3 (General Dimensional Standards), Paragraph 6.3.1 (Table: Dimensional Requirements – Residential):

Maximum Building Height: 45 feet in the R-10 district.

### Section 9 (Definitions), Subsection 9.1 (Rules of Measurement, Computations, and Exceptions), Paragraph 9.1.6 (Height Measurement):

- 9.1.6.1 The height of the side of a building or structure shall be the vertical distance measured from the mean elevation of the finished grade along that side of the building or structure to the highest point of that building or structure.
- 9.1.6.2 Subject to the remaining provisions of this section, no part of a building or structure in any district may exceed the height limit as indicated in Section 6.3, *Dimensional Requirements*.

### Section 9, Subsection 9.1, Paragraph 9.1.7 (Height Limit Exceptions):

- 9.1.7.1 The following features are exempt from the height limitations set forth in Section 6.3, *Dimensional Requirements*, so long as they do not exceed such height limitations by more than 10 feet:
  - 9.1.7.1.a Chimneys and elevator shafts.
  - 9.1.7.1.b Antennas which are self-supported shafts of 6” in diameter or less, flag poles and similar devices.
  - 9.1.7.1.c Solar collectors.
  - 9.1.7.1.d Church spires and their ornamentation so long as they do not exceed such height by more than 10 feet if located within the Historic District overlay zone; and so long as they do not exceed such height by more than 20 feet when located outside the Historic District.
- 9.1.7.2 The permit issuing authority may authorize a structure to exceed the height limits set forth in Section 6.3, *Dimensional Requirements* so long as they do not exceed such height limitations by more than ten (10) feet when it concludes the following:
  - 9.1.7.2.a There are sound architectural, structural, historical, or other reasons why the proposed structure should be allowed to exceed the normal height limits.
  - 9.1.7.2.b That portion of the proposed building or structure that will exceed the height limit will be so located and/or buffered so that it will not be visually obtrusive or offensive in any substantial way, OR the total height of any addition to an existing building including any roof elements does not exceed the maximum height including any roof elements of the existing building.



- 9.1.7.2.c The Historic District Commission has granted a Certificate of Appropriateness for the project if it is located within the Historic District.
- 9.1.7.2.d Any adverse impact on neighboring properties is insignificant or is substantially outweighed by the hardship suffered by the applicant if the height exception is denied, and
- 9.1.7.2.e Adequate fire protection can be provided

**Section 9 (Definitions), Subsection 9.2 (Definitions):**

Building Height: The height of the side of a building or structure shall be the vertical distance measured from the mean elevation of the finished grade along the side of the building or structure to the highest point of that building or structure.



# ATTACHMENT #3

## Zoning History

May 28, 1985: Church plans approved.

Ca. 1985: Approval issued for 24-foot by 48-foot pavilion.

April 7, 1986: Approval issued for 12-foot by 17-foot temporary storage building.

March 31, 1994: Minor site plan approval issued for installation of play equipment.

April 18, 1994: Zoning Compliance Permit issued for installation of play equipment.

December 10, 1997: Board of Adjustment issues site plan approval church building addition.

February 6, 1998: Board of Adjustment approves site plan for a two-story, 5,000 square foot building addition.

February 10, 1998: Zoning Compliance Permit #11850 issued for a 5,000 square foot church addition.

July 8, 1998: Board of Adjustment approves modification to the previously approved site plan allowing reduction in building addition size from 5,000 square feet to 3,230 square feet, and relocation and increase in number of parking spaces.

August 12, 1998: Zoning Compliance Permit #11958 issued for a 3,230 square foot addition to the church and increase in number of parking spaces.

December 9, 2009: Board of Adjustment issues Conditional Use-2 Permit #2009-05 for modular office to be used as educational building.

August 11, 2010: Zoning Compliance Permit #4389 issued for modular office building for use an education building.

July 19, 2017: Zoning Compliance Permit #6077 issued for special event signage for Knights of Columbus breakfast.

October 13, 2017: Zoning Compliance Permit #6194 issued for special event signage for Knights of Columbus pancake breakfast.

November 13, 2018: Zoning Compliance Permit #6666 issued for special event signage for Christmas services.

April 11, 2019: Zoning Compliance Permit #6836 issued for special event signage for Holy Week and Easter services.

September 3, 2019: Zoning Compliance Permit #7019 issued for special event signage for unspecified event.