



Town of Holly Springs
Development Review Committee
3:00 PM **Tuesday, December 10, 2024**

Regular Meeting
Holly Springs Town Hall
128 S. Main Street

Agenda

Call to Order

Agenda Adjustment

Approval of Minutes

1. October 9, 2024 Regular Meeting Minutes

Requests and Communications

2. 24-DP-06 Utley Creek Water Reclamation Facility

Consent Agenda

Other Business

Adjournment

In accordance with ADA regulations please contact the Town Clerk's office at least 48 hours before the meeting to request an auxiliary aid or service needed to participate in this meeting:
linda.mckinney@hollyspringsnc.gov 919-557-3900



Holly Springs Development Review Committee

Development Review Committee Agenda Cover Sheet

Agenda Item#: 1.

Development Services

Title: October 9, 2024 Regular Meeting Minutes

Strategic Priority Area: Growth Management & Economic Vitality

Staff Resource: Mackenzie Fretz, Development Services

Action(s):

Adopt Minutes

Explanation:

Background:

Funding Source(s):

Attachment(s):

1. DRC Minutes_20241009



Development Review Committee Minutes: September 10, 2024

The Development Review Committee met virtually on Tuesday, September 10, 2024 beginning at 3:00 pm. All members available were in attendance.

Agenda Item 1: **Approval of Minutes**

Motion to approve minutes of:

- a. June 25th, 2024- Regular Meeting Minutes
- b. August 13th, 2024 – Regular Meeting Minutes

as submitted.

Motion: Paul Liquorie
Second: J. Scott Chase
Vote: Unanimous

Agenda Item 2: Development Projects

Chase Bank Development Plan (24-DP-03)

Planner Brett Gosney presented the Committee with an overview of the project.

Verges Rome has submitted a request for a Development Plan for approval of Chase Bank at 351 Grand Hill Place. Chase Bank is a 2.09± acre development located along the west side of GB Alford Hwy within Holly Springs Towne Center. The site will contain a 3,300 sf bank and the associated site improvements.

This project qualifies for administrative approval in accordance with the adopted standards in the Unified Development Ordinance (UDO). The UDO allows administrative approval for all Development Plans not involving properties in the DMX Downtown Mixed Use zoning district, buildings over 40,000 sf., or Special Use Permits.

1. The proposed use in the Development Application is for a bank building.
2. The Development Application does not include Special Use Permits.
3. The Development Application meets the applicable standards under the Holly Springs UDO.

Motion/Action Requested

Motion that the DRC approve Development Plan 24-DP-03 (PLDP202400049) for Chase Bank as submitted by Verges Rome, dated 08/09/2024, with the following conditions:

- 1. All previous conditions of approval for Holly Springs Towne Center apply to this plan except for any condition that describes a fee or a fee-in-lieu to be paid shall now comply with the current amounts due pursuant to the Town's current annual budget or any unexpired development agreement.*
- 2. The Public Realm Standard of LEED Certification, or equivalent, will be met prior to the Construction Drawing Approval.*
- 3. Invoiced fees from Special Study third party review must be paid prior to first Construction Drawing Submittal, and no later than prior to Construction Drawing Approval.*
- 4. A Deed of Easement is required to be executed for public vehicular & public pedestrian access between the property owners at the time of plat.*
- 5. All Special Studies must be finalized prior to being scheduled for DRC.*

Motion: Paul Liquorie

Second: LeeAnn Plumer

Agenda Item 3: Adjournment

The meeting adjourned at 3:42 PM

Mackenzie Fretz
DRC Clerk



Holly Springs

Subject Title: Utley Creek Water Reclamation Facility (150 Treatment Plant Road)
Meeting Date: December 10, 2024
Presenter: Grayson Taylor, Catherine Jacobs, Development Services
Attachments: Development Plan Application, Development Plan

Project Overview/Summary

Michelle Mayes with Hazen & Sawyer, on behalf of the Town of Holly Springs, has submitted a request for a Development Plan for approval of the Utley Creek Water Reclamation Facility (UCWRF) at 150 Treatment Plant Road. UCWRF is the existing sewage treatment plant for the Town of Holly Springs. This application proposes improvements to the site to accommodate facility expansion to treat an additional two million gallons per day. These improvements include a Lab & Operators Building, and various new structures. In addition, the applicant is requesting a Waiver to Sign Regulations to allow a larger logo sign.

This project qualifies for administrative approval in accordance with the adopted standards in the Unified Development Ordinance (UDO). The UDO allows administrative approval for all Development Plans not involving properties in the DMX Downtown Mixed-Use zoning district, buildings over 40,000 sf., or Special Use Permits.

1. The proposed use in the Development Application is for a Lab & Operators building and various treatment facility structures.
2. The Development Application does not include Special Use Permits.
3. The Development Application meets the applicable standards under the Holly Springs UDO.
4. A Sign Waiver for a Holly Springs Logo Sign is attached.

Development Standards

Total Site Area: 35.00 ±

Proposed Building Height: 26' 4"

Provided Building Setback:

North: 30 Ft
East: 30 Ft
South: 100 Ft
West: 100 Ft

Minimum Landscape Buffers:

North: 50 Ft
East: 50 Ft

South: 50 Ft

West: 50 Ft

Total Building Footprint Area:

Building Footprint: 7,901 sf.

Parking Requirements

Total Required Parking

Required Parking Spaces: 16 Parking Spaces

Provided Parking Spaces: 25 Parking Spaces

Required Bicycle Parking

Required: 5 Bicycle Spaces

Provided: 5 Bicycle Spaces

Waiver Request

Request to allow for a Waiver of Sign Regulations of UDO Section 9.4.C.1(a) to allow more than the maximum 5 ft for any dimension of a logo in association with Development Plan #24-DP-06.

UDO Requirements:

Section 9.4.C.1(a) Calculation of Sign Area Copy for Wall Signs.

1. The Sign area copy for Wall Signs located on Buildings less than 50 ft and 3 stories in Height shall be limited to:
 - a. 5 ft maximum in any direction for logos or emblems

Waiver Findings of Fact:

1. The proposed Signs are harmonious to the Buildings and sites which they occupy;
2. The proposed Signs will not create a hazard to motorists or pedestrians resulting from the Sign location, size or configuration;
3. The proposed Signs will not increase the total combined Sign Surface Area allowed for the Front Sign Zone and Building Signs on the Lot, Outlot, Integrated Center, Business Park, industrial park, Subdivision or Building served by the proposed Signs;
4. The proposed Signs will result in an overall pattern of Signs for the Lot, Outlot, Integrated Center, Business Park, industrial park, Subdivision or Building which is equivalent to or superior to that achievable under the applicable regulations;
5. The proposed Signs will be compatible with and will enhance the Use or value of area properties;
6. The proposed Signs are consistent with the intent of the Comprehensive Plan; and,
7. The proposed Signs are consistent with the intent and purpose of this UDO.

DRC Decision:

This Development Plan & Waiver have been reviewed by staff (Land Development, Parks & Recreation, Utilities & Infrastructure, and Fire & Rescue) and are found to be in compliance with applicable development standards of the UDO.

Motions/Actions Requested

- Motion to make and accept the Findings of Fact for consideration of and to approve the Waiver of Sign Regulations.
- Motion to approve Development Plan 24-DP-06 (PLDP202400175) for Utley Creek Water Reclamation Facility as submitted by Michelle Mayes, dated November 2024, with the following conditions:
 1. The following must be submitted with the first Construction Drawing submittal:
 - a. A point-by-point photometric plan for all site lighting (not including public right-of-way street and pedestrian lights) in conformance with lighting levels specified in UDO Chapter 8 shall be submitted to and approved by Development Services.
 2. On-site right-of-way dedication for CTP Roads will be required in the form of a recorded plat prior to receiving construction drawing approval.
 3. All Special Studies must be finalized prior to being scheduled for Development Review Committee.
 4. On the construction drawing submittal, show anticipated sight distance triangles for the future driveway accesses off of the SAR based on the available information.
 5. On the construction drawing submittal, show traffic patterns/flow including directional arrows and stop locations. If this project is a portion of a large plan, show surrounding drives and properties to ensure safe internal traffic patterns.
 6. On the construction drawing submittal, provide a WB-50 turning template to verify proposed emergency access route is viable.
 7. On the construction drawing submittal, please show the back-to-back dimensions of the SAR and Evergreen View drive in accordance with the CTP cross section.

DEVELOPMENT PETITION PACKET

Major Subdivision, Development Plan
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Pre-Submittal Requirements

- ☒ Special Study Scoping meetings for Traffic and Water Resources are required to occur prior to your Sketch Plan (pre-application) meeting. These meetings will be held virtually. Please review the Town's [Water Resource Management Policy](#). Complete the [Traffic Scoping and Water Resource Inventory Request Forms](#) and email to DSIntake@hollyspringsnc.gov to schedule your scoping meeting.
- ☒ A Neighborhood Meeting is required to occur prior to your submittal. The requirements for this meeting can be found in section 11.5 of the [Unified Development Ordinance \(UDO\)](#). The Neighborhood Meeting shall take place no more than 12 weeks prior to the application date and can be held virtually. A copy of the Neighborhood Meeting Notice must be sent to DSIntake@hollyspringsnc.gov prior to mailing for review and approval along with a copy of the mailing list.
- ☒ A Sketch Plan Review (Pre-Application) Meeting must be held a minimum of five (5) business days prior to but no more than 8 weeks before the Petition Submittal Deadline as specified on the appropriate submittal calendar.

To schedule a Sketch Plan (Pre-Application) Meeting, register for an account on the [Portal](#) and apply for a Planning & Zoning Review ~> Pre-Application Meeting.

The full review procedures for Major Subdivisions, Development Plans, and Special Use Permits can be found in the Town of Holly Springs [Unified Development Ordinance \(UDO\)](#).

Visit www.hollyspringsnc.us/2170/Development-Services for a current fee schedule and review calendars.

Submittal Requirements

All items listed are required for a complete submittal. Incomplete submittals will be rejected and delay the process.

Submit the following items via the [Portal](#). All complete applications submitted by Noon on Friday will be reviewed by staff the following Monday. If your application is deemed complete and can move forward, you will be notified of any fees to be paid no later than Noon on Wednesday. Fees must be paid before your project is routed for review:

- Completed, Signed Petition
- All items listed on the submittal checklist
- Special Study reviews must be submitted concurrently with your Development Plan review.

For questions about your submittal, please review our [Digital Submittals Webpage](#) and reach out to DSIntake@hollyspringsnc.gov

PETITION TYPE	
☐	Major Subdivision ☐ Residential ☐ Non-Residential ☐ New ☐ Major Amendment ☐ Minor Amendment
☒	Development Plan ☐ Residential ☒ Non-Residential ☒ New ☐ Major Amendment ☐ Minor Amendment

DEVELOPMENT PLAN PETITION

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PETITION CONTACT INFORMATION *(Attach additional sheets if needed)*

Applicant and Financially Responsible Party will need to register for an account on the [Portal](#).

Project Applicant Check One: ☐ Owner ☐ Owner's Agent ☒ Design Professional ☐ Developer ☐ Other

Name: [Michelle Mayes, PE](#)

Company: [Hazen & Sawyer](#)

Mailing Address: [4011 WestChase Blvd., Suite 500](#)

City, State, Zip: [Raleigh, NC, 27607](#)

Telephone: [832-794-9865](#)

E-Mail: MMayes@hazenandsawyer.com

Design Professional

Name: [Same as Project Applicant](#)

Company:

Mailing Address:

City, State, Zip:

Telephone:

E-Mail:

Developer (Project Manager)

Name: [Utilities & Infrastructure \(Rachel Ingham, PE\)](#)

Company: [Town of Holly Springs](#)

Mailing Address: [128 S. Main St.](#)

City, State, Zip: [Holly Springs, NC, 27540](#)

Telephone: [919-567-3985](#)

E-Mail: rachel.ingham@hollyspringsnc.gov

Architect

Name: [William Russell](#)

Company: [Hazen & Sawyer](#)

Mailing Address: [4011 WestChase Blvd., Suite 500](#)

City, State, Zip: [Raleigh, NC, 27607](#)

Telephone: [919-755-8580](#)

E-Mail: wrussell@hazenandsawyer.com

Landscape Architect

Name: [Joel McSwain](#)

Company: [Hazen & Sawyer](#)

Mailing Address: [4011 WestChase Blvd., Suite 500](#)

City, State, Zip: [Raleigh, NC, 27607](#)

Telephone: [919-755-8611](#)

E-Mail: jmcswain@hazenandsawyer.com

Financially Responsible Party (REQUIRED)

Name: [Kendra Parrish, PE](#)

Company: [Town of Holly Springs](#)

Mailing Address: [128 S. Main St.](#)

City, State, Zip: [Holly Springs, NC, 27540](#)

Telephone: [919-557-3935](#)

E-Mail: kendra.parrish@hollyspringsnc.gov

Property Owner (REQUIRED)

Name: [Utilities & Infrastructure](#)

Company: [Town of Holly Springs](#)

Mailing Address: [128 S. Main St.](#)

City, State, Zip: [Holly Springs, NC, 27540](#)

Telephone: [311](#)

E-Mail: Utilities-infrastructure@hollyspringsnc.gov

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PROJECT INFORMATION	
Project Name	Utley Creek Water Reclamation Facility (WRF) Lab and Operators Building (Phase 1)
PUD/Master Plan or Subdivision	Development Plan
Shopping Center or Lot #	N/A
Project Location Use street address. If none, use closest intersection	150 Treatment Plant Rd. ☒ Within Corporate Limits ☐ Within Holly Springs ETJ ☐ Pending Annexation
PIN(s)	0649308116
Real Estate ID	0032286
Project Acreage	11.25 (Phase 1) Partial Parcel? ☐ Yes ☒ No
Current Zoning	BRT
Proposed Use	Civic Building & Infrastructure/Utilities Major
Open Space	☒ Dedication ☐ Fee-in-lieu ☐ Combination ☐ N/A
Waivers Requested	☒ No ☐ Yes: Specify UDO Section Number(s):
Special Study Scoping Meeting Dates	N/A
Sketch Plan Review (pre-submittal) Meeting Date:	8/27/2024
Water Resource Management Program (WRMP)	WRMP Priority Level ☒ 1 ☐ 2 ☐ 3 Allocation Request Required N/A

CERTIFICATE OF COMPLETION	
I certify that all information presented in this petition is accurate to the best of my knowledge and belief.	
Signature of Applicant:	
	Date: 11/08/2024

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SUBMITTAL CHECKLIST: DEVELOPMENT PLAN

A copy of this checklist and the following items must be submitted with the Petition for **Development Plan** to be deemed a complete submittal:

Initial or N/A	Requirement
X	Complete Petition Form. Applicant, all design professionals and financially responsible party must be completed.
X	PDF version of plans in 24" x 36" (Arch D) format 22" x 34"
X	Plan Requirements and Data checklist
N/A	Postmaster Certification of Cluster Mailbox Unit location
x	Certificate of Plan Revisions if submitting a revision to approved plans
N/A	Waiver Request Forms if applicable, as determined at the Sketch Plan Review (pre-submittal) meeting
x	Preliminary Stormwater Submittal Checklist
X	Grease Trap (FOG) Survey (any business using or disposing of fats, oils or grease)
X	Industrial Waste Survey (all businesses)
N/A	Wake County Residential Development Notification Form <i>Only for projects proposing residential dwelling units</i>
X	Neighborhood Meeting Report
N/A	Detailed Findings of Fact <i>(if applicable)</i>
X	All Special Studies must be submitted under separate individual applications to be reviewed concurrently with this petition.

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DEVELOPMENT PLAN & MAJOR SUBDIVISION FINDINGS OF FACT

A petition for Development Plan or Major Subdivision may only be approved upon the presentation of the following:

1. The land uses and development intensity of the proposed project will not have significant adverse impacts on adjacent properties and are consistent with the character of the Zoning District and the land uses authorized therein:

The proposed upgrades to the existing Utley Creek Water Reclamation Facility (UCWRF) to increase capacity from 6 million gallons per day (MGD) to 8 MGD will not adversely impact adjacent properties because it is occurring within the existing site boundaries and is consistent with the character of the zoning district and land use plan.

2. The proposed project provides for the preservation, improvement, and/or enhancement of open spaces and provides sufficient land dedicated for public park space or an equivalent fee-in-lieu:

This project meets requirements for open space in accordance with the Town's Unified Development Ordinance and other plans and specifications.

3. The proposed layout of streets, lots, utilities, water metering, and public improvements, and their relation to the topography of the land, reflect a design which can be economically served by the Town with public services and facilitates the use and future development of adjacent properties:

There are existing water, sewer and reclaimed water mains on-site. The proposed project does not require the extension of water, sewer or reclaimed water mains, but will include new water and sewer services to serve the new Laboratory and Operators building.

4. The proposed building or site design enhances the public realm, maximize natural surveillance and visibility, facilitates pedestrian access and circulation, and reinforces the Town's character:

The new Laboratory and Operators building on-site will improve the functionality and efficiency of the laboratory, office space, control room and facilities for treatment plant operators, environmental compliance staff and other on-site staff. The UCWRF is an Infrastructure/Major Utility site with visibility and accessibility being coordinated with the Town's Operations Campus and the Utley Creek Phase 2 Greenway project.

5. The design of the project furthers the goals and policies of the Comprehensive Plan:

The UCWRF Upgrades project helps support growth and economic vitality by providing critical wastewater infrastructure to meet the needs of the Town's residents and development community, in alignment with Section 5 in the Comprehensive Plan. The project supports the objectives in Section 6 of the Comprehensive Plan by protecting aquatic species and their habitat through prevention of point and non-source pollution of local waterways.

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PLAN REQUIREMENTS & DATA CHECKLIST

EACH SHEET MUST CONTAIN THE FOLLOWING ITEMS	
Initial or N/A	Requirement
MM	A. Name, address, telephone number, and fax number of the Engineer, Architect, Landscape Architect, and/or Surveyor responsible for the plans.
MM	B. Date of drawing preparation and all revision dates.
MM	C. Sheet number and title.
MM	D. North Arrow.
MM	E. The scale of the drawings listed in feet per inch in both graphic and numeric scale. Use Engineering scale no larger than 1" = 200'.
MM	F. Seal and signature of Registered Design Professional.
MM	G. Name of the proposed development plus the name of Master Plan or PUD, if applicable.
N/A	H. For Plan Amendments Only: Cloud all individual changes that were made to the plans and place a numbered delta next to each clouded area that corresponds with the numbered revisions on the coversheet. Changes not clouded will not be approved.
MM	I. For Site Plan, Landscape, Utilities, and Grading Plans: show all overhead and underground utilities. If overhead utilities exist, developer/engineer must contact Duke Energy and/or other overhead utility providers and provide documentation regarding the relocation of such underground.
COVER SHEET INFORMATION	
MM	A. Parcel Identification Number (PIN)/Real Estate Identification Number and location (including township, county, and state) for all parcels involved.
MM	B. Vicinity map at 1" = 500' with project boundary clearly marked. There must be sufficient detail and legibility in order to locate the project in reference to nearby roads and property lines.
N/A	C. Note the dates of any previously approved Waivers, Variances, Master Plans, or PUDS.
MM	D. Owner/Applicant/Developer/Engineer/Architect/Landscape Architect(s) name, address, and telephone number.
MM	E. Zoning designation of the property to be developed (and list of conditions, if applicable).
MM	F. Provide statement "Plan is subject to revisions during Construction Drawing Approval Process."
N/A	G. Total Acreage of Tract(s) to be developed and number lots.
MM	H. Clearly identify survey benchmark used for project on the cover or overall project sheet. Project should be tied to local monuments established by G.P.S. for Town of Holly Springs with identification of the monument that was used, if such monument is in proximity to the project. This requirement shall not supersede any requirement to tie to NCGS monumentation.
MM	I. List type of development: Development Plan, Major Subdivision Plan, Special Use Permit, etc.
MM	J. Provide proposed sewer flow for the project including how calculation was determined.
N/A	K. For Plan Amendments Only: Provide a dated table listing all amendments made to plan since last Town approval.
BASE DATA SITE PLAN SHEET LOT LAYOUT INFORMATION	
MM	A. Show boundaries of tract(s) proposed for development. If there is more than one tract involved and a recombination is to occur, place the note "to be recombined". All adjoining property lines of tracts adjoining the property should include zoning designation and property owner information for adjacent properties.
N/A	B. Show all historic resources identified within the project area (Refer to Vision Holly Springs: The Town of Holly Springs Comprehensive Plan, Section 1: Future Land Use & Character). Provide information on the preservation, rehabilitation, or reuse of the historic resource.
MM	C. Show and label proposed and existing streets, right-of-way, sidewalks and greenway, including all dimensions. Provide existing street names and required road improvements
N/A	D. Show proposed Pedestrian and Vehicular Circulation as specified in UDO Section 8.4
MM	E. Show any existing structures, underground storage tanks, utilities (specify overhead or underground and indicate where overhead lines will be relocated underground), drives, roads, and natural features on and within 200' of the subject property and label them as such. (If a structure on the subject property is to be removed, label it "to be removed".)

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future submittal	F. Show, dimension, and label required Thoroughfare Conservation Buffers as specified in UDO Section 4.8. Provide information on the future maintenance of the buffer.
MM	G. List minimum perimeter buffers, building and driveway setbacks, and indicate on plan the setback from each side of the building to the corresponding property line.
MM	H. Show proposed building layout; including square footage, FFE's and building footprint if applicable
future submittal	I. Show the location of all HVAC units, Mailbox Kiosks, exterior CO canisters and similar equipment, and Trash Enclosures with the trash truck turning radii template. Note: Trash or recycling containers of any size must be enclosed. All ground mounted equipment, including HVAC units, exterior CO canisters, and similar equipment must be screened from view.
N/A	J. List the average lot size, minimum lot width, minimum lot frontage, minimum lot depth, maximum building height, minimum open space, and the gross density of the development.
MM	K. Show and label required riparian buffers, FEMA and local floodplain areas within the boundaries of the site.
MM	L. Design Engineering data for all roadway radii and curves.
N/A	M. Provide lot size(s).
MM	N. Show and label all easements.
MM	O. Show proposed parking lot layout and list the required number of spaces, including Electric Vehicle Spaces, and the number of spaces provided. Provide dimensions of spaces and aisles. [See UDO Section 6.4 and 6.6].
MM	P. Show the proposed location and list the required number of bicycle racks and the number of bicycle racks being provided (see UDO Section 6.5).
N/A	Q. Show off-street loading areas and off-street loading spaces. (See UDO Section 8.4).
MM	R. Show all required greenways. [See UDO Section 7.6].
future submittal	S. Indicate areas for all proposed outdoor operations including outdoor seating, display/sales of merchandise, outdoor storage, and business vehicle parking.
GRADING AND DRAINAGE PLAN	
MM	A. Show existing and proposed grading plan which includes all lot lines, building footprints if applicable, proposed structures.
See Prelimn Storm Water Report	B. Provide preliminary drainage calculations.
MM	C. Provide preliminary drainage designs, including structure, swales, preliminary pipe sizes, and easements
MM	D. Clearly label restricted stream buffers.
MM	E. Draft Stormwater Management Plan – provide draft sizing calculations for all BMP's. Also provide drainage area map for BMP's and the site.
N/A	F. Draft Flood Study – Demonstrate site will be able to accommodate any required detention facilities, provide draft supporting calculations.
LANDSCAPE PLAN	
MM	A. Location and size of proposed plant material including live vegetation ground cover and species selection. This includes perimeter buffers and/or foundation landscaping and/or vehicle parking area screening and/or interior vehicle parking area planting. Include site distance triangles at all intersections.
MM	B. Indicate locations, size, and species of proposed street trees, [See UDO Section 5.3.5]
MM	C. Show fencing details [See UDO Section 5.5.]
N/A	D. Show the location of berms, if there are any, and provide detail information on the berm [See UDO Section 5.5]
MM	E. Show utility and drainage easements and any drainage devices (BMP, temporary erosion control devices, swales or structures)
MM	F. Show location of ground level utility boxes, HVAC equipment, RPZ, overhead (if allowed to remain overhead) and underground utility lines, etc.
MM	G. Provide landscape tables listing the plant species to be used. Note: No single species shall constitute more than twenty-five percent (25%) of the plant material of its type. Verify species are not listed on the Invasive Species List (See UDO Section 5.4.1).
MM	H. Provide calculations for perimeter yards, foundation landscaping (for both primary and accessory structures) and parking areas if required.
MM	I. Specify the limits of live vegetation, ground cover and mulch. [See UDO Section 5.4]

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MM	J. Note who will be responsible for the maintenance of the Landscaping and include the following notes: Example: Owner shall be responsible for: "The maintenance of all required landscaping by keeping lawns mowed, all plants maintained as disease free, all planting beds groomed and kept weed free (except in areas of preserved existing natural vegetation (i.e., thickets), and kept free from trash, debris and other objectionable materials; "The replacement of any required planting, which is removed or dies after the date of planting. Such replacement shall occur during the next planting season; and, the replacement of any tree in a Tree Save Area, which is removed or dies after the date of approval of a Preservation Landscape Plan. Such replacement shall occur during the next planting season."
N/A	K. If an alternate Landscape Plan is being proposed, see UDO Section 5.2.3. and include a letter to the Administrator regarding why this is being requested.
MM	L. Indicate the location of all tree protection fencing.
N/A	M. Show all tree preservation areas.
Future Submittal	N. Landscape Plans shall be sealed by a Registered Landscape Architect
TREE PRESERVATION PLAN	
N/A	A. The latest available aerial photograph of the project area.
N/A	B. An Existing Vegetation Plan depicting the location, area, predominant species, general health, estimated number of trees, and average Diameter at Breast Height (or DBH) of stands of trees.
N/A	C. When Sample Area Surveys are used in place of a full site-survey, Survey Area shall include a detailed survey of all trees and other vegetation existing in a twenty foot by twenty-foot (20' X 20') representative sample area to be preserved and the location of the sample area. [See UDO Section 4.4]
N/A	D. Provide area calculations for Tree Preservation Areas within and outside of Environmental features (Wetlands, Stream Buffers, etc.).
N/A	E. Provide calculations for overall Tree Preservation Area, specifying which methods (Specimen Tree, Significant Tree Stands, Significant Natural Resource Areas, or Supplemental Undisturbed Perimeter Buffers) were used to meet Tree Preservation Area requirements.
N/A	F. Tree Preservation Plan must be prepared by a Certified Arborist, Registered Forester, or Registered Landscape Architect.
UTILITY LAYOUTS	
MM	A. Provide base site plan information including, but not limited to all structures, utilities, drives, roads and natural features on the property and within 200' beyond property lines.
MM	B. Show any proposed irrigation or sprinkler, and sewer line information and associated backflow prevention devices
MM	C. Show, label and dimension all existing and proposed Town utility lines (potable water, sanitary sewer, reclaimed water, and fiber optic). Also show both underground and overhead dry utilities on and off site to serve site (example: electric, telephone, and cable)
Future submittal	D. Provide street lighting plan for interior and/or adjacent roadways
N/A	E. Provide Water Metering Network information (See UDO Section 7.2.1.H)
ROADWAY ASSETS	
Future submittal	A. All streets with location of all traffic control signs, street name signs, street trees, sight distance triangle, any easement 20' off the roadway, and all internal & perimeter per Detail #___
DETAILS SHEET	
MM	A. Provide EDCS Detail HS-816 and HS-817 for street tree and root guard installation
MM	B. Provide EDCS Detail HS-359, HS-360, or HS-361 for appropriate street blade poles and traffic control signage
N/A	C. For projects within the Downtown Village District: Provide EDCS Detail HS-009 for benches

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INFORMATION REQUIRED FOR DEVELOPMENT PLANS	
future submittal	A. Indicate the type of outdoor light fixtures that will be used (Parking lot lighting, architectural lighting, building lights, safety lights, and landscaping lights), including but not limited to, the manufacturers or electric utility catalog specifications sheets, drawings, or photometric reports, color of pole, type of light source [See UDO Section 8.4] - The maximum light level permitted within the parcel shall not exceed fifteen (15) horizontal foot candles. - The maximum light level permitted on the lot line shall not exceed (0.2) horizontal foot candles.
N/A	B. Provide details for all proposed dumpster enclosures, mailbox kiosks, accessory structures, and fences on either the elevation or detail sheet with material and color call outs.
MM	C. Provide color, scalable elevations with building material and color callouts, and dimension stringers (vertical and horizontal dimensions) indicating building height. Building Design shall comply with UDO Section 8.2. Provide square footage and % of façade area for all materials. Also include an explanation of how the architectural design elements that are being used satisfy the applicable Building Design Requirements in the UDO. Show all roof mounted mechanical equipment and screening. Provide a materials board indicating all colors and materials proposed for the project.  1 FRONT ELEVATION SCALE 1/8" = 1'-0"
Pending	D. Provide Public Realm Standards in accordance with UDO Section 8.3.
INFORMATION REQUIRED FOR MAJOR SUBDIVISIONS – RESIDENTIAL (Please include on Site Plan)	
N/A	A. Show and label all passive and active open space, and reference applicable greenway and park requirements as specified in the Comprehensive Plan [See UDO Chapter 4]
N/A	B. Indicate the amount of land dedicated to Open Space and the entity responsible for maintenance
N/A	C. Provide the maximum and minimum lot sizes
N/A	D. Adhere to Subdivision Lot Design Standards (UDO Section 8.5)
N/A	E. For Major Residential Subdivisions containing attached dwellings or apartment dwellings, provide the information required for Development Plans as outlined in "INFORMATION REQUIRED FOR DEVELOPMENT PLANS".
INFORMATION REQUIRED FOR MAJOR SUBDIVISIONS – NON-RESIDENTIAL (Please include on Site Plan)	
N/A	Include the max number of lots, minimum lot area, access easements to all lots
N/A	Show layout of major road connections (including curb cuts to existing roads and internal road connectivity), layout of utility layout as needed to serve each phase or lots (including where the utilities will be tied to and how adjacent properties will be stubbed).
N/A	Adhere to Subdivision Lot Design Standards (UDO Section 8.5)
N/A	Provide Design Standards and Streetscape & Mobility Standards (UDO Section 8.5.6 E. and F.)

This checklist serves as a list of basic information required with a Major Subdivision Plan, Development Plan. There may be additional information needed that is considered by Town Staff, the Planning Board, or Town Council as being pertinent to the review of the project being submitted.

DEVELOPMENT PLAN PETITION

Major Subdivision, Development Plan
DPM Appendix #A.04 Supplement 20 October 2023

NEIGHBORHOOD MEETING REPORT

A Neighborhood Meeting is required to occur prior to your submittal. The requirements for this meeting can be found in section 11.5 of the [Unified Development Ordinance \(UDO\)](#). The Neighborhood Meeting shall take place no more than 12 weeks prior to the application date and can be held virtually. A copy of the Neighborhood Meeting Notice must be sent to DSIntake@hollyspringsnc.gov prior to mailing for review and approval along with a copy of the mailing list.

NEIGHBORHOOD MEETING INFORMATION	
Meeting Date:	9/4/24
Meeting Time:	5:30-6:30 PM
Meeting Location:	UCWRF Maintenance Shop, 150 Treatment Plan Road, Holly Springs, NC 27540
CONDUCT OF MEETINGS <i>(Attach additional sheets if needed)</i> At the Neighborhood Meeting, the Petitioner shall explain the proposal and petition, answer any questions, respond to concerns neighbors have about the petition and proposed resolutions to these concerns. Town Staff will not attend the Neighborhood Meeting.	
Summary of Issues: Engineers from the consultant design team (Hazen and Sawyer) and Town project and support staff were available during the hour long neighborhood meeting to direct attendees, present project scope, and answer questions. The meeting format facilitated drop-in conversations. Three 24x36 inch posters, illustrating the proposed site layout, were displayed on easels. A handout, summarizing the project scope and benefits, was available for interested parties. Two residents were in attendance during the hour. Both residents had lengthy conversations regarding the project scope and impacts to the surrounding neighborhoods. Both residents were curious about the components, schedule, noise, construction hours, and duration. Neither resident had comments or complaints about the proposed project.	
Changes made to the Petition as a result of the meeting: No changes.	
Preparer's Signature: 	
Date: 09/06/2024	

Sign In Sheet

Meeting Name: Utley Creek Water Reclamation Facility Upgrade Date: September 4, 2024

Time: 5:30-6:30pm

Town of Holly Springs
Utilities and Infrastructure Department
PO BOX 8 Holly Springs, NC 27540
311 Fax (919)552-6891

Name	Address	Phone	E-mail
Lisa Musmanno	1000 Trotter Bluffs Dr.	919-363-0144	lamsshop509@gmail.com
MIKE SNYDER	136 MORGAN RIDGE RD	919 606 6693	msnyder214@bellsouth.net
Rachel Ingham	TOHS	919-501-0741	rachel.ingham@hollyspringnc.gov
Rachel Jones	TOHS	919-280-2792	rachel.jones@hollyspringnc.gov
Michelle Mayes	Hazen	832-794-9865	mmayes@hazenandsawyer.com
David Wankmuller	Hazen	908-642-8525	dwankmuller@hazenandsawyer.com
Tricia Drummer	Hazen	919-951-9351	ptrummer@hazenandsawyer.com
Jeanne Broniszewski	TOHS	919-799-0589	jeanne.broniszewski@hollyspringnc.gov
Debbie Abbene	TOHS	919-557-3939	debbie.abbene@hollyspringnc.gov
Theresa Randall	TOHS	919-567-4009	theresa.randall@hollyspringnc.gov
Seann Byrd	TOHS	919-577-3151	seann.byrd@hollyspringnc.gov

Utle Creek Water Reclamation Facility Upgrade - Neighborhood Meeting

Wednesday, September 4, 2024, 5:30-6:30 PM

Location: Maintenance Shop on site at 150 Treatment Plant Road, Holly Springs, NC

The Town of Holly Springs is in the early stages of design for upgrades to the Utle Creek Water Reclamation Facility (UCWRF) located at 150 Treatment Plant Road. Design will continue through 2024 and construction will begin in the Spring of 2025. The project will recondition existing infrastructure at the facility as well as introduce new and more advanced wastewater treatment processes.

Town staff will host a neighborhood meeting on site to discuss the preliminary plans and answer questions. Drop by anytime between 5:30-6:30 PM Wednesday, September 4, 2024. We look forward to seeing you!



**For more information,
please contact:**

Rachel Ingham, PE
Engineering Manager - Utilities
Holly Springs Utilities & Infrastructure
rachel.ingham@hollyspringsnc.gov
(919) 567-3985



You're invited!

**Utley Creek Water Reclamation Facility
Upgrade - Neighborhood Meeting**

Wednesday, September 4, 2024, 5:30-6:30 PM

Maintenance Shop on site at 150 Treatment Plant Road
Drop by anytime between 5:30-6:30 PM to learn more.

Address	Mailing 1	Owner
0 AVENT FERRY RD	HOLLY SPRINGS NC 27540	DUKE ENERGY PROGRESS INC
0 AVENT FERRY RD	HOLLY SPRINGS NC 27540	SUTTON, DON S
0 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MORGAN PARK HOMEOWNERS ASSOCIATION INC
0 TREATMENT PLANT RD	HOLLY SPRINGS NC 27540	GREEN OAKS 55 LLC
0 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	MORGAN PARK HOMEOWNERS ASSOCIATION INC
100 MARTINGALE DR	HOLLY SPRINGS NC 27540	MULLER, MICHAEL MULLER, JENNIFER
100 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	BAINS, PARMINDER SINGH, JYOTI
100 SIRE CT	HOLLY SPRINGS NC 27540	ETTAEARL LLC
100 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	TIERNEY, TIMOTHY H TIERNEY, HEATHER K
100 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	WIEDEMANN, BARRY WIEDEMANN, MEGAN
1000 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	KNOWLSON, PATRICK D MUSMANNO, LISA A
1001 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	LAYMAN, BRIAN LAYMAN, JOANNA
1004 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	CANTOR, JAIME CANTOR, LISA M
1005 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	WHITE, CHRISTOPHER T WHITE, DAWN C
10063 E NC HIGHWAY 97	ROCKY MOUNT NC 27803-8651	
1008 AVENT FERRY RD	HOLLY SPRINGS NC 27540	WILLIAMS, JOEL LAWSON II HOLMES, JESSICA G
1009 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	HOFFMAN, HAROLD GACETA MERTON, CHRISTINA MARIE
101 MARTINGALE DR	HOLLY SPRINGS NC 27540	CLARK, JOSHUA CLARK, VERONICA
101 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MEHER, RAJAT MANDAL, MAHAMAYA
101 SIRE CT	HOLLY SPRINGS NC 27540	ELM STREET BUILDERS LLC
101 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	KEATING, JOHN KEATING, BARBARA
101 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	SCALIA, BRIAN F SCALIA, ERIN E
1011 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	MORGAN PARK HOMEOWNERS ASSOCIATION INC
104 MARTINGALE DR	HOLLY SPRINGS NC 27540	ADEM, NURIA
104 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	TYER, CLAUDIA RENE CLODFELTER, JEFFERY GOWAIN
104 SIRE CT	HOLLY SPRINGS NC 27540	RIDER HOMES INC
104 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	SAULS, BRANDON R SAULS, KELLY O
104 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	MANDZIK, JUSTIN PHILLIP MANDZIK, HILARY DAWN
105 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	PADOVANO, DANIEL J III PADOVANO, CYNTHIA A
105 MARTINGALE DR	HOLLY SPRINGS NC 27540	OPENDOOR PROPERTY TRUST I
105 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	JANAGAR, NAGARAJAN VIJAYARAGHAVAN, ANCHANA
105 SIRE CT	HOLLY SPRINGS NC 27540	MARTI, MARCO LOPEZ-FAGUNDO, CRISTINA
105 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	KELSON, THERESA KELSON, AUSTIN R
105 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	KELLY, PAUL MICHAEL KELLY, CATHERINE CRANE
106 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	BRADY, SHAWN PATRICK BRADY, LAUREN P
108 MARTINGALE DR	HOLLY SPRINGS NC 27540	GUPTA, RAJINDER GUPTA, KAMLESH
108 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	ADAMS, RAYHAAN ADAMS, JESSICA GUTOWSKI
108 SIRE CT	HOLLY SPRINGS NC 27540	SCHAEFER, BRENDAN SCHAEFER, CYNTHIA
108 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	HOWARD, BOYD HOWARD, LORETTA
108 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	NAINI, SUSHMITHA GURRAM, ANANDA
109 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	FRY, GERALD W.
109 MARTINGALE DR	HOLLY SPRINGS NC 27540	BOWEN, CHRISTOPHER EDWARD BOWEN, BARBARA FRANCINE
109 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	DEVUNURI, SRINIVASU AMJALA, SWATHI
109 ROSLIN WAY	HOLLY SPRINGS NC 27540-5997	
109 SIRE CT	HOLLY SPRINGS NC 27540	PARMENTER, PATRICK A PARMENTER, LAUREN O
109 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	COBURN, ANDREW JR COBURN, DANIELLE
109 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	SWAIN, ROBERT DARDEN III SWAIN, SONIA MARIE
1100 AVENT FERRY RD	HOLLY SPRINGS NC 27540	WILLIAMS, JOEL LAWSON II HOLMES, JESSICA G
1100 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	KOTHA, SHASHANKA KOTA, REVATHI
1104 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	DHAKAL, AVESH NEUPANE, AASTHA
1108 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	BROSSOIE, DUSTIN KENNEY BROSSOIE, SOFIE
1112 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	SMELTZER, BLAISE JOSEPH SMELTZER, KELLY ANN
1116 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	OZHAVOOR, ALBERT PIOUS OZHAVOOR, PIOUS KURUVILA
112 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	ENGLISH, CONNIE S SPURGEON, DANNY L
112 MARTINGALE DR	HOLLY SPRINGS NC 27540	STEWART, ROBERT STEWART, CLEONICE

Address	Mailing 1	Owner
112 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	OLEK, AUSTIN G OLEK, EMILY O
112 SIRE CT	HOLLY SPRINGS NC 27540	DEFAZIO, MINDY LOUISE DEFAZIO, RALPH VICTOR JR
112 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	MUELLER, DARIN RICHARD
112 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	TYO, KATE TYO, JARRETT
1120 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	KNOWLSON, SARA E
1124 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	DEFFENBAUGH, BRIAN DEFFENBAUGH, SANDHYA
1128 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	WILLIAMS, JOEL L
113 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	SUAREZ MATA, MARIA A TORRES VAZQUEZ, JOSE BERNARDO
113 MARTINGALE DR	HOLLY SPRINGS NC 27540	CHOUDHURY, SATYA SWARUP TRUSTEE SWAIN, SASMITA TRUSTEE
113 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	STONE, GAIL MEISTER STONE, JACOB CHRISTOPHER
113 SIRE CT	HOLLY SPRINGS NC 27540	RIDER HOMES INC
113 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	HAYES, CHRISTOPHER E HAYES, MICHELLE R
113 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	LEISTER, CHARLES LEISTER, AMANDA
116 MARTINGALE DR	HOLLY SPRINGS NC 27540	PENNEL, CHASE W FEHELEY, KATHLEEN F
116 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	KRYTUSA, ALAN JOHN KRYTUSA, BRENDA ELLEN
116 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	COLLINS, BRUCE COLLINS, MICHELLE
116 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	DAVIS, ADAM GRANT DAVIS, KRISTIN ARNOTT
117 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	BARNETT, SHANNON L BARNETT, DIANA N
117 MARTINGALE DR	HOLLY SPRINGS NC 27540	MURPHY, JASON T MURPHY, MENDIP S
117 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	SHARMA, KAMAL SHARMA, SANGITA
117 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	COLE, THOMAS B COLE, LISA A
117 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	KIRKHOFF, CURTIS KIRKHOFF, LILY
118 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	ODONNELL, BRENDAN G
120 MARTINGALE DR	HOLLY SPRINGS NC 27540	BAKER, COLTON TYLER
120 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	KUMAR, DEEPAK AMARNANI, GEETU
1200 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	SHELTON, TARA L BARDIN, GROVER CLEVELAND IV
1205 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	GRIST, MARK LORAN
1208 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	DIPRESSO, JULIE GAY
1209 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	MEYERS, THOMAS JOHN
121 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	GIMBEL, TROY MCNULTY, SHEILA
121 MARTINGALE DR	HOLLY SPRINGS NC 27540	PATEL, JIGNASHU NANDUBHAI PATEL, PAYAL JIGNASU
121 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	YALAVERTHI, SUDHEER GODALA, MOUNIKA
121 TRIPLE CROWN TRL	HOLLY SPRINGS NC 27540	LISSOW, THOMAS C LISSOW, ROSANNE S
1212 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	HAMBLETT, ANDREW JAMES
1213 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	WILSON, NANCY L TRUSTEE NANCY L WILSON REVOCABLE TRUST
1216 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	GARVENS, MARIE CLOSE GARVENS, JAMES RALPH
1217 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	PERRY, DEBORAH PERRY, GEORGE
1220 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	SIGNORETTI, JOSEPH SIGNORETTI, DAWN
124 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	ROSE, WILLIAM EDWARD ROSE, JENNIFER
124 MARTINGALE DR	HOLLY SPRINGS NC 27540	ANANI, KAITLIN ANANI, SHADI
124 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	SOUZA, VINICIUS BENTO DE OLIVEIRA DA, SILVA GREICE REGIA GOMES
125 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	DEWITT, JERALD R BEERY, KATHLEEN F
125 MARTINGALE DR	HOLLY SPRINGS NC 27540	CAPUTO, JOSEPH CAPUTO, RAFFAELA
125 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	OU, YU FENG
128 MARTINGALE DR	HOLLY SPRINGS NC 27540	PATEL, JUHIN PATEL, NISHMA
128 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	CRUTCHFIELD, SHAWN
129 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	PALMER, JESSE PALMER, JESSICA
129 MARTINGALE DR	HOLLY SPRINGS NC 27540	MOGHE, MUKUND MOGHE, MINAL
129 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	KUMAR, RAJIV SINGH, PRACHI
130 TREATMENT PLANT RD	HOLLY SPRINGS NC 27540	GREEN OAKS 55 LLC
1300 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	SCIARI, TIMOTHY MCGOWAN, MAURA
1301 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	TURNER, DAVID R.
1304 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	HATCH, NICOLE LYNN KUBEL, THOMAS M III
1305 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	ADWA LLC
1306 WALNUT ST	CARY NC 27511-4733	

Address	Mailing 1	Owner
1308 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	NORMAN, BRIAN NORMAN, LAURA
1309 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	RUIZ, CHRISTIAN A NEVADO, RIGOBERTO RUIZ
1312 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	ERNEST, MICHAEL E. ERNEST, CORAZON DIOSANTA
132 DESERT ORCHID RD	HOLLY SPRINGS NC 27540	FUTRELL, GLENN
132 MARTINGALE DR	HOLLY SPRINGS NC 27540	FREEMAN, TROY L THORNE, ANASTASIA F
132 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	PATEL, HARNISH YOGESH PATEL, BINALBEN HARNISH
133 MARTINGALE DR	HOLLY SPRINGS NC 27540	KURTPINAR, ABDULLAH S KURTPINAR, HANI
133 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	HAN, BETTY HAN, CHUNG Y
136 MARTINGALE DR	HOLLY SPRINGS NC 27540	MATHER, DANA MATHER, KIMBERLY
136 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	SNYDER, MICHAEL JAMES SNYDER, DIANNE MARIE
137 MARTINGALE DR	HOLLY SPRINGS NC 27540	VERMA, AVIJIT PRIYA, FNU RASHMI
137 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	SMITH, TIERRA MORRISEY SMITH, JAMIAN
140 MARTINGALE DR	HOLLY SPRINGS NC 27540	OLSEN, LESLEY
140 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	LONCHER, STEVEN TRUSTEE LONCHER, STACY TRUSTEE
141 MARTINGALE DR	HOLLY SPRINGS NC 27540	DECKER, RYAN STEWART DECKER, CATHIE
141 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	DVORZNAK, JULIA DVORZNAK, STANLEY JAMES
144 MARTINGALE DR	HOLLY SPRINGS NC 27540	TYLER, JUDITH
144 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	ACOSTA, NAPOLEON ERNESTO
145 MARTINGALE DR	HOLLY SPRINGS NC 27540	DE LA CRUZ, MAURICIO ZHAO, LU
145 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MEKA, SRINIVASARAO
148 MARTINGALE DR	HOLLY SPRINGS NC 27540	DEVULLAPALLY, ANOOPSWARUP
148 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	WALTERS, JUSTIN J
149 MARTINGALE DR	HOLLY SPRINGS NC 27540	KAFLE, KAMAL SHARMA, PREETI
149 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	GIBBS, MEGAN CATHERINE
150 TOWERVIEW CT	CARY NC 27513-3595	
150 TREATMENT PLANT RD	HOLLY SPRINGS NC 27540	HOLLY SPRINGS TOWN OF
152 MARTINGALE DR	HOLLY SPRINGS NC 27540	ZHANG, YU CAO, XIYU
152 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	FORREST, TIMOTHY DAVID FORREST, LAURA MEDLIN
153 MARTINGALE DR	HOLLY SPRINGS NC 27540	HELMS, RONALD H HELMS, KAREN
153 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	CRANE, ERIC NATHANAEAL CRANE, CARLA SUE
156 MARTINGALE DR	HOLLY SPRINGS NC 27540	GILPATRICK, ADAM NGUYEN, DIEUKHANH
156 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	ARRENDONDO, MARCO ANTONIO LIZAR QUEZADA, CLAUDIA DEL VALLE
157 MARTINGALE DR	HOLLY SPRINGS NC 27540	RAMAKRISHNAN, RAVI KRISHNAN, KRITHIKA
157 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	ROBINSON, GORDON DOUGLAS ROBINSON, CLAIRE
160 E OLENTANGY ST	POWELL OH 43065-9065	
160 MARTINGALE DR	HOLLY SPRINGS NC 27540	VESELY, ANNAMARIA L VESELY, STEVEN PHILLIP
160 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	DUKEMAN, DEBORAH H
161 MARTINGALE DR	HOLLY SPRINGS NC 27540	REDDY, NAVEEN KUMAR NARAY REDDY, CHAITRA RAGHAVA
161 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	CARTER, RANDY C
164 MARTINGALE DR	HOLLY SPRINGS NC 27540	WILSON, RICHARD C WILSON, BRANDY C
165 MARTINGALE DR	HOLLY SPRINGS NC 27540	COMPTON, CHRISTOPHER LEE COMPTON, KATHIA MIREYA
165 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	JAIN, ANKIT JAIN, SWATI
169 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MAHALAVAT, KAPIL MAHALAVAT, SHILPI
200 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	GAUCHAN, DARPAN GAUCHAN, ELISHA
200 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	TOLENTINO, DAVID TOLENTINO, PATTY
2009 AUSTIN POND DR	CARY NC 27519-6522	
201 MARTINGALE DR	HOLLY SPRINGS NC 27540	SIRE DEVELOPMENT LLC
204 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	CARPIO, MIGUEL ALBERTO CONTRERAS ALANIA, LUISA OLINDA MICHUY
204 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	MACIAS, CHARLES A JR MACIAS, CHRISTY M
208 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	SINGH UPPAL, RAVI INDER UPPAL, PRIYADARSHINI
208 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	SMITH, DEAN ALEXANDER SMITH, SARIKA PATEL
209 MARTINGALE DR	HOLLY SPRINGS NC 27540	SIRE DEVELOPMENT LLC
212 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	SETHI, RUCHI SETHI, VISHAL
212 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	APPEL, PHILLIP APPEL, LAUREL
216 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	NGUYEN, KIM CHI PHAN, TOAN HUU

Address	Mailing 1	Owner
216 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	ARMSWORTHY, FRANK GRAYDON ARMSWORTHY, MELODY VALLAR
2193 S PLANO ST	PORTERVILLE CA 93257-9115	
220 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	PARTAP, MOHINDER UPPAL, SHALLU
220 UTLEY BLUFFS DR	HOLLY SPRINGS NC 27540	STYONS, STEPHEN W STYONS, JENNIFER J
2849 S SMITHFIELD RD	KNIGHTDALE NC 27545-8397	
300 EDMORE AVE	CARY NC 27519-5210	
300 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	REED, BRIAN REED, AMANDA
301 GREEN OAKS PKWY	HOLLY SPRINGS NC 27540	301 GREEN OAKS LLC
301 MARTINGALE DR	HOLLY SPRINGS NC 27540	SIRE DEVELOPMENT LLC
304 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	CHALAVADI DASARI, KRISHNA SUMAN
305 MARTINGALE DR	HOLLY SPRINGS NC 27540	SIRE DEVELOPMENT LLC
305 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MORGAN PARK HOMEOWNERS ASSOCIATION INC
308 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	ELMORLI, AHMED MARWAN, SAMIHA
309 MARTINGALE DR	HOLLY SPRINGS NC 27540	SIRE DEVELOPMENT LLC
312 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	NAHIRE, RAHUL
316 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	TAYLOR, BRANDAN LEE JOSEPH TAYLOR, CHELSEY LAINE
320 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	TAKKAR, RAMCHANDRA TAKKAR, SANDHYA
324 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MOHAMED, OMRAN
328 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	SINGH, RANJEET LATA, POONAM
332 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	HARMON, CHARLES F III COLMAN, CARIANN
3434 KILDAIRE FARM RD STE 240	CARY NC 27518-2275	
351 GREEN OAKS PKWY	HOLLY SPRINGS NC 27540	301 GREEN OAKS LLC
400 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	LAY, CHARLES K II LAY, DOLLY D
400 N ASHLEY DR STE 1100	TAMPA FL 33602-4324	
4005 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	PHELAN, CHARLES
401 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	BACHELDER, THOMAS BACHELDER, MARNELLE
4016 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	SIRE DEVELOPMENT LLC
4020 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	SIRE DEVELOPMENT LLC
4025 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	SIMMONS, HEATHERLY M
4026 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	POYTHRESS, DARYL W POYTHRESS, SARAH D
4029 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	SUMNER, ROBIN L
4030 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	DAY, JEREMY SCOTT DAY, KIMBERLY ANN
4034 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	SUTTON, DON S
404 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	SANE, SAGAR SANJAY NARGUNDE, MRUNAL VYANKATESH
4042 BERMAN EDGE RD	HOLLY SPRINGS NC 27540	KEOGH, BRIAN HART JR HALDY KEOGH, KATIE MARIE
405 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MOLLA, DANIEL GETACHEW, AYNALEM
408 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	GOMAA, AHMED ABDELRAHMAN, RANA
409 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MANSOUR, OSAMA BADRELDIN, AMIRA
410 N SCOTTSDALE RD STE 1600	TEMPE AZ 85288-0976	
412 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	RAFF, DAVID JOSEPH RAFF, SUSAN MICHELLE
413 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	RUSH, JASON MICHAEL RUSH, AUNDREA LORRAINE
416 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	BHATTA, ASHOK BHATTA, SMEETA P
417 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	TOUZA, PABLO GONZALEZ VARELA, NATALIA PENA
420 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	O'DIRLING, DAVID
421 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	BLOOM, GEOFFREY BLOOM, HELEN
424 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MCSHANE, KEVIN MCSHANE, DANIELA
425 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	GRANT, WILLIAM A
428 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	ALLU, RAMAKRISHNA CHOWDARY ALLU, BHARATHI
429 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MAPSON, COURTNEY LYNNE MAPSON, MARIO LEVAR
432 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	PEDDAPATLA, HARISH REDDY GADIRAJU, PRIYANKA
433 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	VILLANUEVA, CARLOS AVILES-VILLANUEVA, JENNIFER
436 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	RODRIGUEZ, KEVIN A RODRIGUEZ, ANDREA
437 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	TSAO, DOUGLAS CHI-WEI TSAO, MELISSA ANN
440 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	ALEKSANDROV, ANTON ALEXANDROVA, TATIANA
441 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	RANI, RAJNI KUMAR, JAGDEEP

Address	Mailing 1	Owner
444 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	BEEBE, RICHARD TIMOTHY JR BEEBE, CHARITY FAITH DICKPUS
445 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	TURNER, JUSTIN DURANT TURNER, JENNIFER NICOLE
448 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	GUPTA, VISHAL SAJJAN, ARTI
449 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	RANI, RAJ
452 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	DOLINGER, JOSHUA DAVID DOLINGER, HEATHER RANHOFFER
453 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	GILLESPIE, BRIAN RICHARD GILLESPIE, HEIDI LOUISE
456 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	DORAVARI, YOGESH SUDARSANAM KAUR, JASLEEN
457 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	YORK, MAGHEN YORK, STEPHEN
461 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	MCCALLUM, BENJAMIN F III MCCALLUM, TRILAINA TIA
465 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540	HABTESELASSIE, SAMUEL AFEWORK AJEBE, MERON
550 S TRYON ST	CHARLOTTE NC 28202-4200	TAX DEPT - DEC41B
5509 DEN HEIDER WAY	RALEIGH NC 27606-9560	
6813 REBECCA CIR	CARY NC 27518-6843	
7000 CENTRAL PKWY STE 700	ATLANTA GA 30328-4585	RIALTO CAPITAL ADVISORS LLC
705 TAMPA DR	FUQUAY VARINA NC 27526-7305	STEPHANIE NUGENT
812 SALEM WOODS DR STE 101	RALEIGH NC 27615-3346	CHARLESTON MANAGEMENT
824 AVENT FERRY RD	HOLLY SPRINGS NC 27540	PITTMAN, JOYCE M HEIRS
900 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	WILLIAMS, JOEL
901 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	WILLIAMS, JOEL L
904 AVENT FERRY RD	HOLLY SPRINGS NC 27540	SCIOTO BLUE RIVER PROPERTIES LLC
904 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	WILLIAMS, JOEL L
905 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	WILLIAMS, JOEL L
908 AVENT FERRY RD	HOLLY SPRINGS NC 27540	CHOLAK, BENJAMIN CHOLAK, MELISSA
908 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	BUDNICK, KRIS J BUDNICK, MICHELLE A
909 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	NAGANDLA, SHASHANKA GUTTA, NAGA HARIKA
912 AVENT FERRY RD	HOLLY SPRINGS NC 27540	SCIOTO BLUE RIVER PROPERTIES LLC
912 LOGGING RD	HOLLY SPRINGS NC 27540	PEPTIS, HANNAH CARRAWAY PEPTIS, JASON TYLER
912 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	BAK PROPERTY GROUP LLC
913 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	STALKER, PAMELA S
916 AVENT FERRY RD	HOLLY SPRINGS NC 27540	RAMKUMAR, RAJIT NAIR, LEKSHMI CHANDRASEKHARAN
916 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	OSBORN, NEIL OSBORN, MONICA
917 STABLE RIDGE DR	HOLLY SPRINGS NC 27540	YATES, CECIL E JR

In compliance with State and Federal Laws the Town of Holly Springs has developed a Fats, Oils, and Grease (FOG) Management Program. The purpose of this program is to educate the public and business owners of the problems associated with grease and grease accumulations. FOG in wastewater can result in decreased capacity of sewer lines by cooling and congealing on the insides of pipes. This occurrence eventually causes blockages and sewer overflows and, therefore, is a major concern for the Town's wastewater collection system. Significant sources of FOG are cooking establishments due to the amount of grease used in cooking and other food preparation work. Improper disposal and cleanup practices allow FOG to enter the wastewater collection system. In an effort to work together to achieve the common goal of protecting the Town's resources we are asking business owners that produce grease as part of their daily operations to take a few moments and complete the following survey.

Return this form with your Development Petition to Development Services. For questions about permit submittals or requirements contact Development Services at 919-557-3908.

COMPANY INFORMATION	
Name of Business: Town of Holly Springs	
Address: 128 S. Main St.	
Phone: (919) 567-3985	E-mail: rachel.ingham@hollysprings.gov
Company Representative: Rachel Ingham, PE	
Title: Utilities Manager	
Please provide a brief description of business operations: The Utley Creek Water Reclamation Facility (UCWRF) is a 6 MGD wastewater treatment plant and reclaimed water production facility serving over 50,000 residents in the Town of Holly Springs.	
FOG INFORMATION	
How many and what size grease handling device (grease trap or interceptor) do you have? (Please list dimensions) N/A - no commercial grade kitchen on-site with proposed development	
Location of grease handling device(s): N/A	
Cleanout service provider: N/A	
Does your grease handling device have a sampling chamber? (A sampling chamber is required for grease traps) N/A	
How is the waste disposed of and where? N/A	

Thank you for taking the time to complete this survey.

If you have any questions or concerns of your responsibilities in maintaining your grease trap or interceptor in accordance with the Town's Sewer Use Ordinance, please contact Karen Foster at (919) 577-2907 or email karen.foster@hollyspringsnc.gov

This form has been sent to your business to determine types and sources of wastewater that are entering the Town of Holly Springs' Wastewater Treatment Facility. This form must be completed in accordance with the Town's Sewer Use Ordinance. The Sewer Use Ordinance can be examined on the Town's website at www.hollyspringsnc.gov

Return this form with your Development Petition to Development Services. For questions about permit submittals or requirements contact Development Services at 919-557-3908.

If tenants and/or users in the facility are currently unknown please check here.



(By checking this box and signing below you are acknowledging that once tenants are known it is your responsibility to submit an IWS for each user to the Town.)

FACILITY INFORMATION	
Name: Utley Creek Water Reclamation Facility (UCWRF)	
Address: 150 Treatment Plant Rd.	
Phone: 919-567-3985	E-mail: rachel.ingham@hollyspringsnc.gov
Type of Industry, Manufacture, Trade or Business: Water Reclamation Facility	
Products Produced: Domestic and industrial wastewater is received from Town of Holly Springs' residents and industries and treated on-site	
Number of Employees: 14	
General Description of the Industrial Activities and/or Plant Processes at this Site: The wastewater generated on-site is domestic in nature.	
Current Federal Standard Industrial Classification Code (S.I.C) if applicable: N/A	
Does the facility discharge any water from parts washing operations, contact cooling, oil/water separators or any other type of wastewater other than from restrooms including swimming pools? If so, describe: N/A	

"Industrial Waste" means liquid or other wastes resulting from any processes of industry, manufacturing, trade, or business, or from the development of any natural resources. "Other Waste" means decayed wood, sawdust, shavings, bark, limes, garbage, refuse, ashes, offal's, tar, oil, chemicals, and all other substances, except industrial waste and sewage, which may cause pollution in any waters.

1. Does this facility discharge industrial waste or other waste to the sanitary sewer?	YES ☐
	NO ☒

2. Is the discharge from industrial waste or other waste continuous or batch?	N/A
3. Does this facility use any type of chemical mixed with water that is discharged to the sanitary sewer?	☐ YES ☒ NO
If yes, please list:	
4. What is the total discharge to the sanitary sewer (gallons per day)?	245 gpd
5. What is the total industrial or other waste discharge to the sanitary sewer (gallons per day)?	0 gpd
6. Are any chemicals stored in quantities of 55 gallons or more?	☒ YES ☐ NO
7. Does this facility use any well water or other water source other than the public water supply?	☒ YES ☐ NO
8. Are any outside drains connected to the sanitary sewer?	☐ YES ☒ NO
9. Does your facility discharge stormwater to the sanitary water?	☐ YES ☒ NO

Our Sewer Use Ordinance requires that an Authorized Representative of the User sign all reports to the Town. Authorized Representative is defined as "a person responsible for the Principle Business decisions or other policy decisions for the facility."

To the best of my knowledge the information on this form is true and accurate.

Signature Michelle Mayes Digitally signed by Michelle Mayes
DN: cn=Michelle Mayes, o=Holly Springs, ou=Holly Springs, email=Michelle.Mayes@hollyspringsnc.gov Date 09/06/2024

Print name Michelle Mayes, PE Job Title Design Professional

For more information or any questions, please contact Karen Foster at 919-557-2907 or email karen.foster@hollyspringsnc.gov

WAIVER/ALTERNATE COMPLIANCE PETITION

The current Filing Fees can be found on-line in the Town of Holly Springs Fee Schedule: www.hollyspringsnc.us/planning

Waiver/Alternate Compliance Type (check one)

- ☐ UDO Section 1.23 – Request for Incentives for the Preservation, Rehabilitation, or Adaptive Reuse of Historic Structures
- ☐ UDO Section 2.06 or 2.07- Waiver of Architectural and Site Design Requirements in R-MF-8 & R-MF-15
- ☐ UDO Section 2.09– Waiver of Development Requirements for Development Options in the R-30, R-20, R 15, R-10 and R-8 Districts
- ☐ UDO Section 2.10– Waiver of Development Requirements for Infill Development Options in the R-8 District
- ☐ UDO Section 3.03- Alternate Compliance with Architectural and Site Design Requirements in TV
- ☐ UDO Section 3.03- Alternate Compliance with Development Standards in TV
- ☐ UDO Section 3.08- Alternate Compliance with Architectural and Site Design Requirements in LB, CB, OR, GB
- ☐ UDO Section 4.05- Alternate Compliance with Architectural and Site Design Requirements in BT, RT, IT
- ☐ UDO Section 7.01- Alternate Landscape Plan Approval
- ☐ UDO Section 7.01- Waiver of Required Tree Preservation Requirements
- ☒ UDO Section 7.03- Waiver of Sign Regulations
- ☐ UDO Section 7.04- Reduction in the Number of Required Off-Street Parking Spaces
- ☐ UDO Section 7.04- Waiver of Off-Street Parking Regulations
- ☐ UDO Section 7.05- Waiver of Off-Street Loading Regulations
- ☐ UDO Sections 7.06, 7.07, or 7.08- Waiver of Lot Design, Street Design, or Utility Design
- ☐ UDO Section 7.09- Waiver of Pedestrian Circulation & Vehicular Area Design Requirements
- ☐ UDO Sections 9.05, B.- Waiver of Platting, Project Construction Drawing Approval, Recombination and Vacation Procedures
- ☐ DPM Section 1- Waiver of Voluntary Annexation

For DPZ Use only

Project # _____

Fees Paid: \$ _____

Date Received: _____

☐ Initial ☐ Revised ☐ Final**Project Information**

Identify the project associated with this Waiver/Alternate Compliance request

Associated Project Name: 150 Treatment Plant Rd. (UCWRF) Associated Project Number: PLDP202400175 / 24DP06**Waiver/Alternate Compliance Request**

Specific Request: (provide additional sheets if necessary)

Requesting approval of front facade logo sign with dimensions exceeding 5-ft.**Contact Information****Waiver/Alternate Compliance Contact**

Name Michelle Mayes Company Hazen and Sawyer

Mailing Address 4011 West Chase Blvd, Suite 500

City Raleigh State NC Zip 27607

Telephone # (832) 794-9865 E-Mail mmayes@hazenandsawyer.com

How would you like to receive staff review comments? ☒ E-Mail ☐ US Mail

How would you like to receive Official Action Notices? ☒ E-Mail ☐ US Mail- Certified

UDO SECTION 7.03: WAIVER OF SIGN REGULATIONS FINDINGS OF FACT



Please print responses in blue or black ink or typewrite.

A petition for Waiver may only be approved upon the presentation of sufficient evidence. Please include as much detailed information or describe the unique conditions that would enable the decision making body to make a written determination that:

Findings of Fact

- (1) **The Proposed Signs are Harmonious with the buildings and sites they occupy:**

The proposed logo sign utilizes the Town's adopted logo and is
harmonious with the nearby Town Operations Center building sign.
The size has been adapted by our design team to be recognizable
from the future facility entrance and roadways (future Southern
Access Road.)

For DPZ Use only

Project # _____

Date Received: _____

☐ Initial ☐ Revised ☐ Final

- (2) **The Proposed Signs will not create a hazard to motorists or pedestrians resulting from the sign location, size or configuration:**

The proposed logo sign is wall mounted and well away from roadways and sidewalks. The signage
and logos will have no effect on pedestrian motorists.

- (3) **The Proposed Signs will not increase the total combined sign surface area allowed for the front sign zone, interior sign zone and building signs on the lot, out lot, integrated center, business park, industrial park, subdivision or building served by the proposed signs:**

The the allowed sign surface area for this facility is 5% of the front facade, which equates to 171.65
square feed. The combined sign area for the front facade of this building is 77.5 square feet, which is
below the allowable limit.

- (4) **The Proposed Signs will result in an overall pattern of signs for the lot, out lot, integrated center, business park, industrial park, subdivision or building which is equivalent or superior to that achievable under the applicable regulations:**

The Town logo ties this facility to the nearby Town Operations Campus and enhances visibility of the
Town's Public Utility services. The proposed signs will make up an overall pattern of signs that will be
used throughout the treatment facility site.

- (5) **The proposed signs will be compatible with and will enhance the use or value of area properties.**

As a Business & Industrial property, the signage communicates the Town's active participation in the
community. The content, scope, and scale of the signage is appropriate to the location and surrounding
properties.

(6) **The proposed signs are consistent with the intent of the Comprehensive Plan:**

In keeping with the Statement of Comprehensive Plan & Future Land Use Compatibility, the signage supports the proposed Business and Industrial Use with BRT zoning by communicating the campus use as part of the Town's overall growth strategy.

(7) **The proposed signs are consistent with the intent and purpose of this UDO:**

The logos and signs are consistent with the intent and purpose of the UDO, section 9. The signage clearly communicates the campus identity and purpose with elements that are consistent and harmonious across multiple Town buildings. The signage enhances the community image for a facility that is essential to future growth.

Certificate of Completion

I certify that all information presented in this petition is accurate to the best of my knowledge and belief.

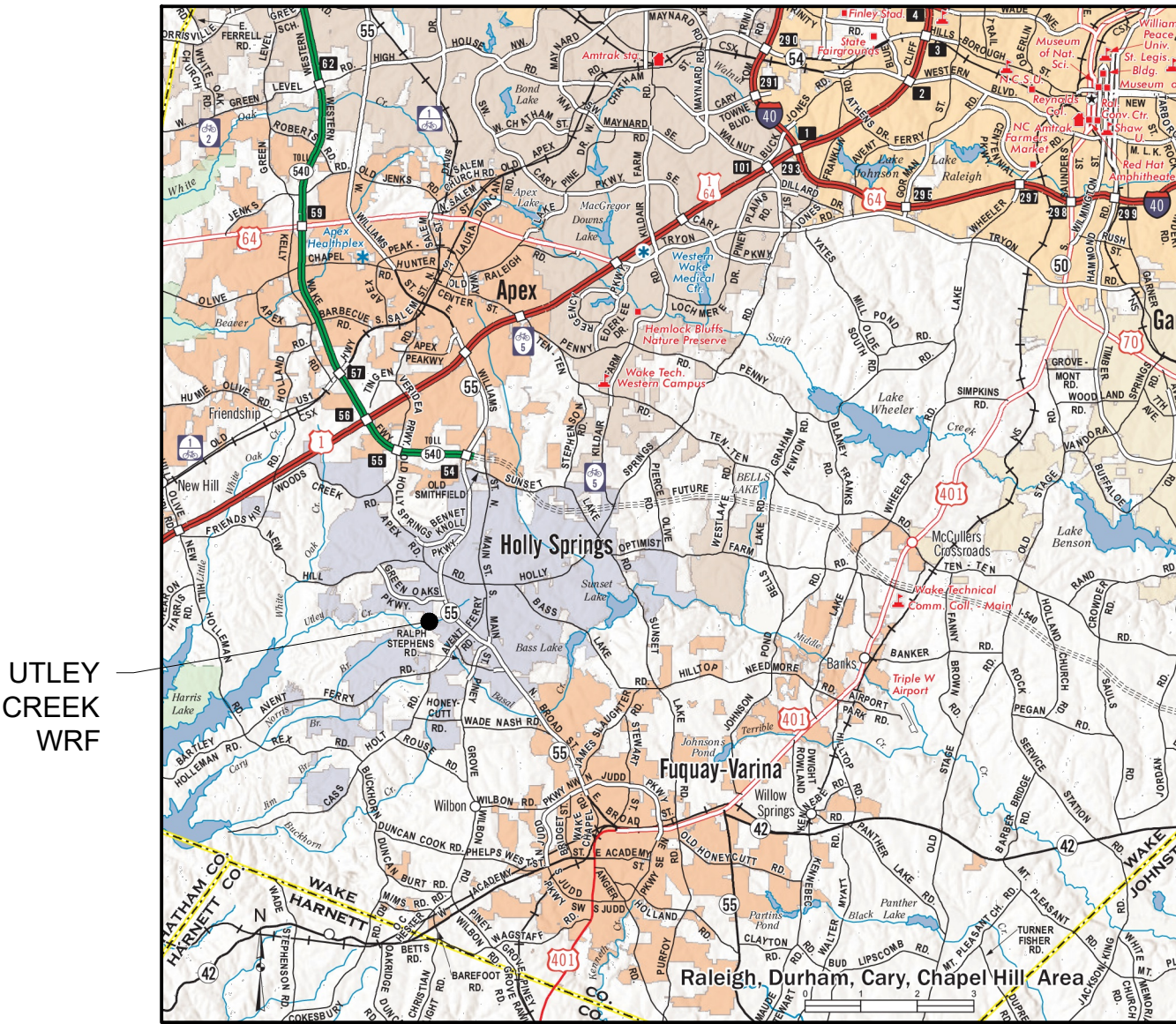
Signature:  Date: 12.6.24

TOWN OF HOLLY SPRINGS



UTLEY CREEK WATER RECLAMATION FACILITY
LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

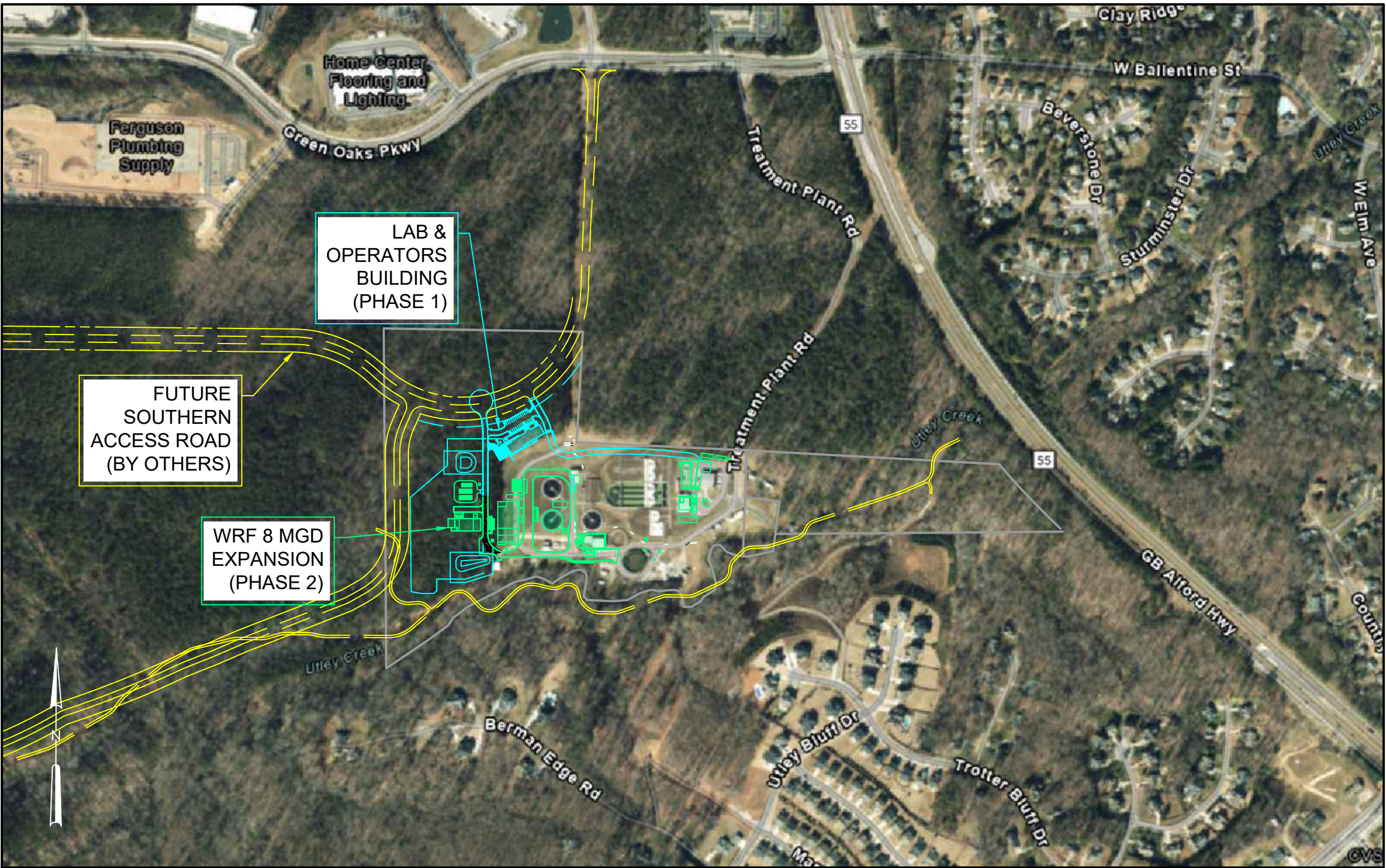
HAZEN PROJECT NUMBER: 31407-006
NOVEMBER 2024



LOCATION MAP
1" = 15,840' (3 MILES)

OWNER / DEVELOPER
TOWN OF HOLLY SPRINGS
POST OFFICE BOX 8
HOLLY SPRINGS, NORTH CAROLINA 27540

SITE ADDRESS
UTLEY CREEK WRF
150 TREATMENT PLAN ROAD
HOLLY SPRINGS, NORTH CAROLINA 27540



VICINITY MAP
1" = 500'



HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO. : C-0381
TELEPHONE: (919) 833-7152

DEVELOPMENT PLAN GENERAL NOTES:

1. THIS SUBMITTAL IS SOLELY FOR PHASE 1 OF THE PROJECT, WHICH IS COMPRISED OF THE LAB & OPERATOR'S BUILDING. PHASE 2, THE COMPLETE 8 MGD PLANT EXPANSION, WILL BE SUBMITTED SEPARATELY AT A LATER DATE AND IS DISPLAYED FOR REFERENCE ONLY.
2. ALL CONSTRUCTION SHALL CONFORM, AT A MINIMUM, TO THE TOWN OF HOLLY SPRINGS ENGINEERING DESIGN AND CONSTRUCTION STANDARDS.
3. ALL FEES ARE DUE PRIOR TO CONSTRUCTION DRAWING APPROVAL.
4. CONSTRUCTION DRAWING APPROVAL IS REQUIRED BEFORE CONSTRUCTION ON THIS PROJECT MAY BEGIN.
5. THIS DEVELOPMENT PLAN IS SUBJECT TO CHANGE DURING THE CONSTRUCTION DRAWING APPROVAL PROCESS.
6. 6. SANITARY SEER FLOW AS CALCULATED BASED ON NCAC 02T FLOW RATE FOR BUSINESSES, OFFICES AND FACTORIES OF 35 GAL/EMPLOYEE/SHIFT. THE ESTIMATED SEWER FLOW RATE FOR 14 EMPLOYEES OPERATING IN 2 SHIFTS IS 245 GPD.
7. SEE 0001 FOR SHEET INDEX.
8. NO RETAINING WALLS ARE PLANNED IN PHASE 1 OF THIS PROJECT.
9. NO TOWN OF HOLLY SPRINGS GEODETIC MONUMENTS WERE NOTED WITHIN 2,000 FEET OF THIS PROJECT BASED ON NC ONEMAP. SURVEY CONTROLS AND BENCHMARKS PROVIDED BY THE SURVEYOR ARE SHOWN IN THE TABLE BELOW.

SITE STATISTICS:

PROPERTY INFORMATION

PIN	0649308116
REAL ID	0032286
PARCEL AREA	35.00 ACRES
DEED BOOK	009231
DEED PAGE	02301
ZONING	BRT
LAND AND BILLING CLASS	EXEMPT
TYPE AND USE	OFC GROSS
FUTURE LAND USE	BUSINESS & INDUSTRIAL
PERIMETER BUFFER	50'
SIDE-CORNER SETBACK	30'
FRONT SETBACK	30'
SIDE AND REAR SETBACKS	5'
BUILDING SETBACK FROM RESIDENTIAL	100'
LAB & OPERATOR'S BUILDING (PHASE 1 ONLY)	

CONSTRUCTION TYPE	II-B
BUILDING CATEGORY	SMALL BUILDING
SITE AREA / APPROXIMATE DISTURBANCE LIMITS	11.25 ACRES
EXISTING IMPERVIOUS AREA (PRE)	5.12 ACRES
PROPOSED IMPERVIOUS AREA (POST)	6.63 ACRES
PROPOSED TOTAL FLOOR AREA	7,901 SF
PROPOSED HEIGHT	26 - 4"
PARKING REQUIRED (MINIMUM 2 SPACE / 1,000 SF)	16
ADA PARKING (1 UP TO 25 SPACES REQUIRED)	1
EV PARKING SPACES (10% OF PARKING)	3
TOTAL PARKING PROVIDED (INCLUDING ADA AND EV)	25
BIKE SPACES REQUIRED (10% OF PARKING)	5

BENCHMARK TABLE

POINT #	NORTHING	EASTING	DESCRIPTION	ELEVATION
23	690097.13	2044165.62	BM #71	334.40
24	690035.31	2044636.12	OLD TBM	340.04
25	689991.74	2044084.29	TBM 1/2" IP 2" ABOVE GROUND	328.03
26	690257.62	2044631.37	TBM 1/2" IP 2" ABOVE GROUND	335.88
27	689959.90	2044891.21	TBM 1/2" IP 2" ABOVE GROUND	332.19

DEVELOPMENT SERVICES PROJECT NO.
24-DP-06/PLDP202400175

LAB & OPERATOR'S BUILDING (PHASE 1)
60% PERMIT PLANS



GENERAL

--	COVER SHEET
G001	INDEX OF DRAWINGS
G002	LEGEND, SYMBOLS, AND ABBREVIATIONS

CIVIL

SITework

C001	GENERAL NOTES
C004	CIVIL LEGEND AND SYMBOLS
C005	PROPERTY BOUNDARY AND CONTROL PLAN
C006	DEVELOPMENT SITE PLAN
C100	EXISTING CONDITIONS PLAN - OVERALL
C110	EXISTING CONDITIONS PLAN - AREA 10
C111	EXISTING CONDITIONS PLAN - AREA 11
C112	EXISTING CONDITIONS PLAN - AREA 12
C113	EXISTING CONDITIONS PLAN - AREA 13
C120	EXISTING CONDITIONS PLAN - AREA 20
C121	EXISTING CONDITIONS PLAN - AREA 21
C122	EXISTING CONDITIONS PLAN - AREA 22
C123	EXISTING CONDITIONS PLAN - AREA 23
C130	EXISTING CONDITIONS PLAN - AREA 30
C131	EXISTING CONDITIONS PLAN - AREA 31
C132	EXISTING CONDITIONS PLAN - AREA 32
C133	EXISTING CONDITIONS PLAN - AREA 33
C140	EXISTING CONDITIONS PLAN - AREA 40
C141	EXISTING CONDITIONS PLAN - AREA 41
C142	EXISTING CONDITIONS PLAN - AREA 42
C143	EXISTING CONDITIONS PLAN - AREA 43
C400	SITE LAYOUT PLAN - OVERALL
C410	SITE LAYOUT PLAN - AREA 10
C411	SITE LAYOUT PLAN - AREA 11
C420	SITE LAYOUT PLAN - AREA 20
C421	SITE LAYOUT PLAN - AREA 21
C422	SITE LAYOUT PLAN - AREA 22
C423	SITE LAYOUT PLAN - AREA 23
C431	SITE LAYOUT PLAN - AREA 31
C432	SITE LAYOUT PLAN - AREA 32
C433	SITE LAYOUT PLAN - AREA 33
C441	SITE LAYOUT PLAN - AREA 41
C500	GRADING & DRAINAGE PLAN - OVERALL
C510	GRADING & DRAINAGE PLAN - AREA 10
C511	GRADING & DRAINAGE PLAN - AREA 11
C520	GRADING & DRAINAGE PLAN - AREA 20
C521	GRADING & DRAINAGE PLAN - AREA 21
C522	GRADING & DRAINAGE PLAN - AREA 22
C523	GRADING & DRAINAGE PLAN - AREA 23
C531	GRADING & DRAINAGE PLAN - AREA 31
C532	GRADING & DRAINAGE PLAN - AREA 32
C533	GRADING & DRAINAGE PLAN - AREA 33
C541	GRADING & DRAINAGE PLAN - AREA 41
C700	YARD PIPING PLAN - OVERALL
C711	YARD PIPING PLAN - AREA 11
C721	YARD PIPING PLAN - AREA 21
C722	YARD PIPING PLAN - AREA 22
C731	YARD PIPING PLAN - AREA 31
C732	YARD PIPING PLAN - AREA 32
C801	STORM LINE 1 & STORM LINE 2
C802	STORM LINE 4
C803	STORM LINE 3 & STORM LINE 5
C804	SANITARY SEWER LINE A
C900	LANDSCAPING PLAN - OVERALL
C901	LANDSCAPING PLAN AREA PLAN
C902	LANDSCAPING SCHEDULES
C903	LANDSCAPING DETAILS

CIVIL DETAILS

CD1	CIVIL DETAILS - SHEET 1
CD2	CIVIL DETAILS - SHEET 2
CD3	CIVIL DETAILS - SHEET 3
CD4	CIVIL DETAILS - SHEET 4
CD5	CIVIL DETAILS - SHEET 5
CD6	CIVIL DETAILS - SHEET 6
CD7	CIVIL DETAILS - SHEET 7
CD8	CIVIL DETAILS - SHEET 8
CD9	CIVIL DETAILS - SHEET 9
CD10	CIVIL DETAILS - SHEET 10
CD11	CIVIL DETAILS - SHEET 11
CD12	CIVIL DETAILS - SHEET 12
CD13	CIVIL DETAILS - SHEET 13
CD14	CIVIL DETAILS - SHEET 14
CD15	CIVIL DETAILS - SHEET 15
CD16	CIVIL DETAILS - SHEET 16
CD17	CIVIL DETAILS - SHEET 17
CD18	CIVIL DETAILS - SHEET 18
CD19	CIVIL DETAILS - SHEET 19

ARCHITECTURAL

LABORATORY AND OPERATORS BUILDING	
A002	EXTERIOR FINISH MATERIALS AND COMPLIANCE
A800	OVERALL FLOOR PLAN
A804	ELEVATIONS

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PROCESS PIPING

DW	DAY TANK
DWG(S)	DRAWING(S)
DWL	DOWEL
EA	EACH
ECC	ECCENTRIC
ECH	ELECTRIC CENTRAL HEATER
ED	EQUIPMENT DRAIN
EDH	ELECTRIC DUCT HEATER
EDP	EMERGENCY DISTRIBUTION PANEL
EE	EACH END
EW	EMERGENCY EYE WASH
EF	EACH FACE OR EXHAUST FAN
EFF	EFFLUENT
EHH	ELECTRICAL HANDHOLE
EL	ELEVATION
ELEC	ELECTRICAL
ELP	EMERGENCY LIGHTING PANEL
EMH	EMERITICAL MANHOLE
ENR	ENGINEER
ENT	ENTRANCE
EOG	EDGE OF GRAVEL
EOP	EDGE OF PAVEMENT
EPP	EMERGENCY POWER PANEL
EPX	EPOXY
EQ	EQUALIZATION
EQPT	EQUIPMENT
ERH	ELECTRIC WIRE ROPE HOIST
ES	EMERGENCY SHOWER OR EMERGENCY SWITCH
ES/EW	EMERGENCY SHOWER AND EYEWASH
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EW	EACH WAY
EW	ELECTRIC WATER COOLER
EW	ELECTRIC WATER HEATER
EXIST/EX	EXISTING
EXC	EXCAVATE
EXH	EXHAUST
EXP	EXPANSION
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
F	FAN
FAB	FABRICATE
F&C	FRAME AND COVER
FG	FRAME AND GRATE
FC	FLUSHING CONNECTION
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER/FLOW ELEMENT
FEF	FUME EXHAUST FAN
FH	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH
FIX	FIXTURE
FL	FLOOR
FLEX	FLEXIBLE
FLG	FLANGE
FLXC	FLEXIBLE CONNECTION
FM	FLOW METER
FOC	FIBER OPTICS CABLE
FPFR	FIREPROOF
FS	FLOW SWITCH
FS	FIRE SMOKE DAMPER
FT	FEET OR FIN TUBE HEATER
FTG	FITTING
FURR	FURRING OR FURRED
G	GATE
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GIH	GAS INFERRED HEATER
GPM	GALLONS PER MINUTE
GR	GRADE
GRTG	GRATING
GHI	GAS UNIT HEATER
GW	GUY WIRE
GW	GAS WATER HEATER
GYP	GYPSUM
HB	HOSE BIBB
HC	HEATING COIL
HCP	HORIZONTAL END SUCTION CENTRIFUGAL PUMP
HDW	HARDWARE
HE	HEAT EXCHANGER
HEX	HEXAGONAL
HFCA	HARNESSED FLANGED COUPLING ADAPTER
HHRG	HYBRID HIGH RESISTANCE GROUNDING
HORIZ	HORIZONTAL
HP	HORSEPOWER OR HEAT PUMP
HPT	HIGH POINT
HRU	HEAT RECOVERY UNIT
HRG	HIGH RESISTANCE GROUNDING
HSCP	HORIZONTAL SPLIT CASE PUMP
HVAC	HUMIDIFIER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HW	HEADWALL
HWB	HORIZONTAL WATER BOILER
HWCH	HEATING WATER CABINET HEATER
HWL	HIGH WATER LEVEL
HWP	HEATING WATER PUMP
HWY	HIGHWAY

PP	POWER PANEL OR POWER POLE
PREFAB PROP	PREFABRICATED PROPOSED
PRVN	POWER ROOF VENTILATOR
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSU	POWER SUPPLY UNIT
PVMT	PAVEMENT
QTY	QUANTITY
RAD	RADIUS
RECIR	RECIRCULATION
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE
REG	REGISTER
REINF	REINFORCING
REMO	REMOVE
REQD	REQUIRED
REST	RESTRAINED
REV	REVISE
RFD	REFRIGERANT AIR DRYER
RH	ROOF HOOD
RIO	REMOTE INPUT/OUTPUT
RJ	RESTRAINED JOINT
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE ASSEMBLY
RR	RAILROAD
RHT	RIGHT
RTU	REMOTE TERMINAL UNIT
R/W OR ROW	RIGHT OF WAY
S	SOUTH OR SLOPE
SB	SOIL BORING
SBL	SURVEY BASELINE
SBMP	SQUARE BUSIFITTE METERING PUMP
SCH	SCHEDULE
SCG	SLUICE GATE
SCR	SELECTIVE CATALYTIC REDUCTION
SDG	SLIDE GATE
SECT	SECTION
SERV	SERVICE
SF	SQUARE FEET
SG	SWITCH GEAR
SHT(S)	SHEET(S)
SI	SQUARE INCH
SIL	SILENCER
SIM	SIMILAR
STM	STEAM MANHOLE
SHP	SUMP PUMP
SPEC	SPECIFICATION
SQ	SQUARE
SSP	SUBMERSIBLE SUMP PUMP
SST	STAINLESS STEEL
STA	STATION OR STACK
STD	STANDARD
STG	STORAGE OR STOP GATE (LOG)
STIR	STIRRUP
STL	STEEL
STRU	STRUCTURAL
SUB	SUBSTITUTE
SUCTN	SUCTION
SUPT	SUPERINTENDENT
SUR	SURFACE
SUSP	SUSPENDED
SWD	SIDE WATER DEPTH
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TAN	TANGENT
TBA	TO BE ABANDONED
TBCN	TRAVELING BRIDGE CRANE
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TCP	TEMPERATURE CONTROL PANEL
TDH	TOTAL DYNAMIC HEAD
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPERATURE
THD	TEMPERED GLASS
TG	THREADED
THK	THICK
THRU	THROUGH
TOC	TOP OF CONCRETE
TOD	TOP OF DECK
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY/MANHOLE
TOS	TOP OF SLAB/ TOP OF STEEL
TOW	TOP OF WALL
TOL	TOLERANCE
TYT	TYPICAL
UFSF	ULTRA FINE SCREEN FACILITY
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UGG	UNDERGROUND GAS
UHT	UNIT HEATER
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
U/S	UPSTREAM
UTIL	UTILITY
VAC	VACUUM
VACP	VACUUM PUMP
VAP	VAPORIZER
VAV	VARIABLE AIR VOLUME UNIT
VCD	VOLUME CONTROL DAMPER

PROCESS PIPING

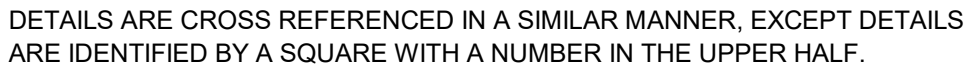
A	AIR
CHEM	CHEMICAL
CEN	CENTRATE
CA	CITRIC ACID SOLUTION
CAKE	DEWATERED CAKE
DEC	DECANT
DSC	DEWATERED SLUDGE CONVEYOR
DPS	DILUTE POLYMER SOLUTION
EQ	EQUALIZATION
FD	FLOOR DRAIN
FA	FOUL AIR
GR	GRIT
HYP	SODIUM HYPOCHLORITE SOLUTION
INF FM	INFLUENT FORCE MAIN
MD	MEMBRANE DRAIN
MS	METAL SALT
ML	MIXED LIQUOR
NPS	NEAT POLYMER SOLUTION
NRCY	NITRIFIED RECYCLE
NPW	NON-POTABLE WATER
OF	OVERFLOW
PER	PERMEATE
PE	PLANT EFFLUENT
PI	PLANT INFLUENT
PW	POTABLE WATER
PTL	PRELIMINARY TREATMENT EFFLUENT
PDG	PROCESS DRAIN GRAVITY
PDP	PROCESS DRAIN PRESSURE
RSR	RAW SEWAGE GRAVITY
RSP	RAW SEWAGE PRESSURE
RCW	RECLAIMED WATER
RAS	RETURN ACTIVATED SLUDGE
RD	ROOF DRAIN
S	SAMPLE
SR	SCRUBBER RECIRCULATION
SRC	SCRUBBER RECIRCULATION CLEAN
SRD	SCRUBBER RECIRCULATION DISCH
SRS	SCRUBBER RECIRCULATION SUCTION
SC	SCUM
SCE	SECONDARY CLARIFIER EFFLUENT
SE	SECONDARY EFFLUENT
SA	SERVICE AIR
SD	STORM DRAIN
SPD	SUMP PUMP DISCHARGE
SUPC	SUPPLEMENTAL CARBON
TEMP	TEMPORARY
V	VENT
WAS	WASTE ACTIVATED SLUDGE

SYMBOLS

	BALL VALVE		REDUCER		GRADE OR EARTH
	BALL CHECK VALVE		WALL PENETRATION		ASPHALT PAVING
	BUTTERFLY VALVE		FLEXIBLE HOSE		CAST IRON
	CHECK VALVE		SINGLE LINE DRAWINGS		STEEL
	SWING CHECK VALVE		DOUBLE LINE DRAWINGS		
	CONTROL VALVE		MECHANICAL COUPLING		INSULATION
	DIAPHRAGM VALVE		WELDED JOINT		WATER SURFACE
	FLUSHING CONNECTION		FLANGED JOINT		GRATING
	GATE VALVE		MECHANICAL, PUSH-ON OR RESTRAINED JOINT		CHECKERED PLATE
	GLOBE VALVE		HARNESSED FLANGED ADAPTER		GLASS
	MOTOR OPERATED VALVE		SLEEVE TYPE COUPLING		WOOD BLOCKING
	NEEDLE VALVE		HARNESSED SLEEVE TYPE COUPLING		CONCRETE FILL OR GROUT
	PINCH VALVE		DISMANTLING JOINT		CONCRETE MASONRY UNIT
	PLUG VALVE		EXPANSION JOINT		BRICK
	PRESSURE GAUGE WITH/WITHOUT DIAPHRAGM SEAL		FIRE EXTINGUISHER		GRAVEL
	PRESSURE REDUCING VALVE		ES/EEW		CONCRETE
	PRESSURE RELIEF VALVE		PARTITION TYPE		
	PRESSURE RELIEF/VACUUM BREAKER VALVE		DOOR SCHEDULE		
	QUICK CONNECT COUPLING		LOUVER TYPE		
	SOLENOID VALVE				
	STRAINER				
	THREE WAY VALVE				
	UNION				
	HOSE BIBB				

LINETYPES

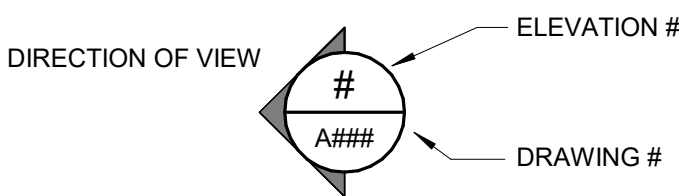
(A) A SECTION CUT ON DRAWING A3 IS IDENTIFIED AS FOLLOWS



STANDARD DETAILS ARE REFERENCED BY A UNIQUE SEVEN DIGIT NUMBER
AND ARE SHOWN ON THE CONTRACT DRAWINGS BY ONE OF TWO METHODS



ELEVATION CALL OUT



PROJECT ENGINEER:	D. WANKMULLER		
DESIGNED BY:	H&S		
DRAWN BY:	H&S		
CHECKED BY:	H&S		
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE		0	1/2" 1"
			

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

GENERAL LEGEND, SYMBOLS AND ABBREVIATIONS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	G002

File: C:\USERS\SMILLER\Documents\HAZEN AND SAWYER\31407-006 UTELY CREEK WRF - BMGD EXPANSION\PROJECT FILES\01_DESIGN\DWG\31407-006 C001.dwg, Saved by: JPEREZ, Save date: 10/18/2024 1:55 PM, Plot Date: 11/7/2024 3:38 PM, BY: SMILLER

GENERAL:

1. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND FEDERAL STANDARDS THAT APPLY.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SITE SAFETY ASSOCIATED WITH THE WORK UNDER THIS PROJECT AND FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY LAWS, CODES, REGULATIONS, AND ORDINANCES INCLUDING, BUT NOT LIMITED TO, THOSE CURRENTLY MANDATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
3. DURING EXCAVATION OF UTILITIES, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL SHEET PILING, SHORING AND/OR BRACING DESIGNS AS MAY BE NECESSARY TO COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS.
4. ALL CONSTRUCTION SHALL STRICTLY ADHERE TO THE CONSTRUCTION DOCUMENTS UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.
5. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
6. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE AUTHORITIES, DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.
7. UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION AND SUPPLEMENTED WITH AVAILABLE RECORD DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION OF UTILITIES AND TO AVOID DAMAGE TO THEM. CONTRACTOR SHALL CONTACT NORTH CAROLINA 811 TO REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST 3 WORKING DAYS AND NOT MORE THAN 14 DAYS PRIOR TO DIGGING OPERATIONS.
8. WHERE OVERHEAD POWER LINES ARE PRESENT, THE CONTRACTOR MUST CONTACT THE UTILITY PRIOR TO CONSTRUCTION ACTIVITIES TO DETERMINE THE MINIMUM REQUIRED EQUIPMENT CLEARANCE DISTANCE BASED UPON LINE STRENGTH.
9. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND MAINTENANCE OF ALL EXCAVATION SUPPORT ON THE PROJECT. ALL EXCAVATION SUPPORT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY AND COORDINATE WITH UTILITY OWNERS ON ANY INFRASTRUCTURE NEEDING SUPPORT DURING WORK ON THE PROJECT. ALL EXCAVATION SUPPORT DESIGN DOCUMENTS SHALL BE PRESENTED TO THE ENGINEER FOR REVIEW BEFORE IMPLEMENTATION. CONTRACTOR SHALL USE ADEQUATE SHORING METHODS TO ENSURE:

A. COMPLIANCE WITH OSHA REGULATIONS.

B. PROTECTION OF EXISTING PAVEMENT AND ROAD SHOULDERS, STRUCTURES AND UTILITIES.

C. CONSTRUCTION ACTIVITIES ARE CONFINED TO RIGHTS-OF-WAY OR EASEMENTS AS INDICATED
10. LIMITS OF DISTURBANCE (LOD) SHALL BE AS INDICATED ON THE CONTRACT DRAWINGS. ANY CHANGES TO THE LOD BY THE CONTRACTOR SHALL REQUIRE PRIOR APPROVAL FROM THE ENGINEER AND DEMLR LAND QUALITY SECTION.
11. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, TREES, VEGETATION, FENCES, STRUCTURES, UTILITIES, AND MISCELLANEOUS ITEMS THAT ARE NOT INDICATED TO BE DEMOLISHED OR REMOVED. THE CONTRACTOR, AT HIS OWN EXPENSE, WILL REPAIR OR REPLACE TO ORIGINAL OR BETTER CONDITION ANY DAMAGE CAUSED BY CONSTRUCTION RELATED ACTIVITIES TO PAVEMENT, TREES, VEGETATION, FENCES, STRUCTURES, UTILITIES, AND MISCELLANEOUS ITEMS NOT INDICATED TO BE DEMOLISHED OR REMOVED.
12. IN THE EVENT OF DAMAGE TO EXISTING UTILITIES, CONTRACTOR SHALL STOP WORK IMMEDIATELY, TAKE NECESSARY PRECAUTIONS TO PREVENT INJURY OR FURTHER DAMAGE, AND NOTIFY PROPER AUTHORITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING/REPAIRING ALL EXISTING STRUCTURES, CONDUITS, OR OTHER UTILITIES DAMAGED BY CONTRACTOR'S OPERATIONS AT NO COST TO OWNER.
13. REMOVAL AND REPLACEMENT OR REPAIR OF EXISTING UTILITY SERVICES SHALL BE COORDINATED WITH APPROPRIATE UTILITY COMPANY AT NO ADDITIONAL COST TO THE OWNER.
14. ALL HOLES, TRENCHES, AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, LIGHTS OR OTHER PROTECTIVE DEVICES.
15. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO SAVE AND MAINTAIN ALL PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. A REGISTERED LAND SURVEYOR, AT THE CONTRACTOR'S EXPENSE, SHALL REPLACE PROPERTY IRONS, MONUMENTS AND OTHER POINTS OF REFERENCE DESTROYED BY THE CONTRACTOR.
16. REMOVAL OF EXCAVATED MATERIALS, CONSTRUCTION DEBRIS, AND DAILY CLEANUP OPERATIONS SHALL BE PERFORMED IN COMPLIANCE WITH THE SPECIFICATIONS AND TO THE SATISFACTION OF THE OWNER/ENGINEER. DISPOSAL SHALL BE CONDUCTED AT PROPERLY PERMITTED DISPOSAL FACILITIES AND ANY HAZARDOUS WASTE SHALL BE DISPOSED OF PER LOCAL, STATE, AND FEDERAL REGULATIONS.
17. EXCESS/UNSUITABLE SPOIL TO BE REMOVED FROM SITE. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL SUBMIT THE OFF-SITE SPOIL LOCATIONS TO BE USED AND PROVIDE DOCUMENTATION OF EROSION CONTROL MEASURES TO BE PROVIDED DURING DISPOSAL OPERATIONS. CONTRACTORS OFF-SITE SEDIMENT CONTROL MEASURES MUST BE APPROVED BY NC DEMLR PRIOR TO SPOIL DISPOSAL.
18. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE IMPLEMENTED BEFORE CONSTRUCTION COMMENCES AND SHALL NOT BE REMOVED UNTIL PERMANENT GROUND COVER STABILIZATION HAS BEEN ESTABLISHED.
19. ALL COORDINATES AND DIMENSIONS ARE TO THE FACE OF BUILDING, FACE OF WALL, EDGE OF PAVEMENT OR FACE OF CURB.
20. PAVEMENT SECTIONS SHOWN HEREIN ARE TYPICAL AND SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER BASED ON ACTUAL SUBGRADE CONDITIONS.
21. IF AT ANY TIME ANY PORTION OF PERIMETER SECURITY FENCE IS REQUIRED TO BE REMOVED, CONTRACTOR SHALL PROVIDE TEMPORARY PERMIETER SECURITY THROUGH THE USE OF TEMPORARY FENCE OR OTHER APPROPRIATE METHODS THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES, OR UNTIL PERMANENT SECURITY FENCING IS RESTORED.
22. THE CONTRACTOR IS TO RESTORE / REPLACE PAVEMENT STRIPING IN AREAS IMPACTED BY THE PROPOSED WORK.
23. THE CONTRACTOR SHALL RECORD AND SUPPLY TO THE ENGINEER THE FOLLOWING INFORMATION:

A. THE LOCATION OF ALL UTILITIES CROSSED AND THE NEW LOCATION AND DEPTH OF ALL RELOCATED AND/OR ADJUSTED UTILITIES.
25. THE 1% ANNUAL CHANCE FLOOD AND FLOODWAY DEPICTED ON THESE PLANS ARE TAKEN FROM FLOOD INSURANCE RATE MAPS DATED JULY 19, 2022, AND MAPS 3720064800K AND 3720064900K.

HORIZONTAL CONTROL: NAD 83 (2011)
VERTICAL CONTROL: NAVD 88

DEMOLITION NOTES:

1. DEMOLISHED MATERIALS BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
2. VOIDS LEFT BY STRUCTURE REMOVAL SHALL BE BACKFILLED WITH APPROPRIATE MATERIAL , APPROVED BY THE GEOTECHNICAL ENGINEER, AND COMPACTED PER RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER.
3. DISPOSE OF HAZARDOUS MATTER, IF ANY, IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES.
4. WORK MUST CONFORM TO ALL LOCAL, STATE AND FEDERAL AGENCY REQUIREMENTS.
5. NOTIFY 811 3 WORKING DAYS PRIOR TO ANY DEMOLITION OR EXCAVATION.
6. ALL VEGETATION TO REMAIN UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS.
7. DEMOLITION PLANS GENERALLY SHOW THE ACTIVITIES NECESSARY TO COMPLETE THE PROPOSED WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND REVIEW ALL DOCUMENTATION IN ORDER TO INCLUDE ALL NECESSARY ACTIVITIES TO COMPLETE THE PROPOSED WORK, EVEN IF NOT SPECIFICALLY SHOWN ON THE CONSTRUCTION DOCUMENTS.

SURVEY NOTES:

1. ALL EXISTING SITE INFORMATION WAS PROVIDED BY DMP, INC. FROM THE FOLLOWING SOURCES:

• 240067-HS-SURVEY SEED, 08-23-2024

THE SURVEY INFORMATION THAT WAS COLLECTED FOR THIS PROJECT AND PROVIDED BY THE CITY OF HOLLY SPRINGS, HAS BEEN SUPPLEMENTED WITH UNDERGROUND UTILITY AND PROCESS PIPING INFORMATION DERIVED FROM RECORD DRAWINGS ALSO PROVIDED BY THE CITY OF HOLLY SPRINGS. THE LOCATIONS OF UNDERGROUND UTILITIES AND PROCESS PIPING ARE APPROXIMATE, BASED ON THE AVAILABLE RECORD INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATION OF UNDERGROUND PIPING AND UTILITIES. DISCREPANCIES SHALL BE BROUGHT PROMPTLY TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
2. ELEVATIONS AND CONTOURS SHOWN WERE BASED ON THE NAVD 88 VERTICAL DATUM ESTABLISHED AT BENCHMARKS USING THE NCVRS SYSTEM OF THE NORTH CAROLINA GEODETIC SURVEY. ALL HORIZONTAL SURVEY INFORMATION IS IN RELATION TO THE NORTH CAROLINA STATE PLANE GRID SYSTEM, SINGLE ZONE, NAD 83.
3. THESE PLANS SHALL NOT BE USED FOR LAND TRANSFER AS THEY DO NOT MEET MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
4. REFER TO DRAWING C005 FOR CONTROL POINTS PROVIDED FROM THE SURVEY BY DMP, INC, PREVIOUS DOCUMENTATION, OR SURVEYS AT THE SITE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING PROJECT CONTROL FOR CONSTRUCTION OF ALL WORK.
6. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.

EROSION CONTROL:

1. CONTRACTOR TO POST EROSION CONTROL PERMIT ON JOB SITE AS REQUIRED.
2. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE BEFORE ANY LAND CLEARING OR DISTURBANCE ACTIVITIES MAY BEGIN.
3. A RAIN GAUGE SHALL BE MAINTAINED IN GOOD WORKING ORDER ON THE SITE UNLESS ANOTHER RAIN-MONITORING DEVICE HAS BEEN APPROVED BY THE NC DIVISION OF WATER QUALITY. A WRITTEN RECORD OF THE DAILY RAINFALL AMOUNTS SHALL BE RETAINED AND ALL RECORDS SHALL BE MADE AVAILABLE TO THE DIVISION OF WATER QUALITY. REFER TO THE NC NPDES GENERAL PERMIT NCG010000, SECTION II.B.(3)(B), FOR ADDITIONAL INFORMATION.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY EROSION CONTROL MEASURES WHETHER OR NOT SHOWN ON THE PLANS TO PROTECT ADJACENT CREEKS, RIVERS, ROADWAYS, ETC. FROM SILTATION AND EROSION.
5. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF ANY RAINFALL EVENT THAT PRODUCES 1/2 INCH OR MORE OF RAIN. REPAIR AND/OR REPLACE AS NECESSARY. SEE STANDARD DETAILS ON CONTRACT SHEET DC3 FOR SPECIFIC MAINTENANCE REQUIREMENTS FOR EACH EROSION AND SEDIMENT CONTROL MEASURE UTILIZED ON THIS PROJECT.
6. EROSION CONTROL MEASURES SHALL BE CLEANED OF ACCUMULATED SEDIMENT WHEN VOLUME OF MEASURE IS HALF FULL. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCING WHEN IT BECOMES APPROXIMATELY 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE SHALL BE REPAIRED AS NECESSARY TO MAINTAIN THE BARRIER. REMOVED SEDIMENT SHALL BE DISPOSED OF IN SUCH A MANNER AS TO PREVENT FURTHER SEDIMENT TRANSPORT. IF NO SUITABLE ON-SITE LOCATIONS ARE AVAILABLE, ALL REMOVED SEDIMENT WILL BE LEGALLY DISPOSED OF OFF-SITE AT NO ADDITIONAL COST TO THE OWNER.
7. ALL EXCESS SOIL RESULTING FROM EARTHWORK OPERATIONS SHALL BE REMOVED FROM SITE BY CONTRACTOR. ALL TEMPORARY SOIL STOCKPILE AREAS USED FOR BACKFILL AND OTHER ACTIVITIES SHALL BE WITHIN THE LOD AS SHOWN ON THE DRAWINGS, AND LOCATED, AT A MINIMUM, 50 FEET FROM ANY SURFACE WATERS. STOCKPILE SIDE SLOPES SHALL BE NO STEEPER THAN 3:1 AND TOP OF STOCKPILE SHALL BE SLOPED AT A MINIMUM OF 5% TO PROMOTE POSITIVE DRAINAGE. ALL ONSITE TEMPORARY SOIL STOCKPILES SHALL BE SEEDED WITH TEMPORARY AND/OR PERMANENT SEEDING MEASURES FOR THE DURATION OF CONSTRUCTION ACTIVITIES. ALL CONTRACTOR STAGING AND LAYDOWN AREAS, SOIL OR WASTE STOCKPILE AREAS SHALL HAVE PERIMETER SILT FENCE. LOCATED NO CLOSER THAN 6 FEET FROM TOE OF SLOPE TO ALLOW FOR ACCESS AND MAINTENANCE. ANY SOILS TAKEN OFF SITE BECOMES THE CONTRACTOR'S RESPONSIBILITY AND SHALL COMPLY WITH ALL REQUIRED STATE AND LOCAL REGULATIONS AND PERMITS.
8. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ENTIRE SITE IS PERMANENTLY STABILIZED WITH VEGETATION AS PER SEEDING SPECIFICATIONS AND SCHEDULE. ALL TEMPORARY EROSION CONTROL DEVICES ARE TO BE REMOVED AFTER PERMANENT STABILIZATION HAS BEEN ACHIEVED AND APPROVAL HAS BEEN GRANTED BY THE LAND QUALITY SECTION AND ENGINEER.
9. RESTORE ALL DISTURBED AREAS INCLUDING DITCHES/SWALES, STAGING/LAYDOWN/PARKING AREAS TO ORIGINAL GRADE AND ELEVATION AND ORIGINAL OR BETTER CONDITION, EXCEPT WHERE NOTED ON THE CONTRACT DRAWINGS.

NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH THE NCGS 113A.64.1 AND 15A NCAc 4B.0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM [HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION_NEW.HTML](http://www.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION_NEW.HTML). IF YOU HAVE ANY QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT THIS OFFICE AT (910) 433-3300.

GRADING AND DRAINAGE NOTES:

1. NO SITE GRADING SHALL OCCUR PRIOR TO INSTALLATION OF CONTROL MEASURES.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AND THE GEOTECHNICAL ENGINEER OF ONSITE DISCREPANCIES PRIOR TO COMMENCING THE WORK.
3. IT IS RECOMMENDED THAT ALL STABILIZING EARTHWORK BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED GEOTECHNICAL REPRESENTATIVE.
4. CONTRACTOR SHALL REVIEW AND ADHERE TO ALL GEOTECHNICAL REPORTS ASSOCIATED WITH THE PROJECT. CONTRACTOR SHALL ALSO REVIEW ANY PRIOR GEOTECHNICAL REPORTS FROM ANY PREVIOUS PROJECTS AT THE SITE AND NOTIFY ENGINEER OF RECORD AND THE GEOTECHNICAL ENGINEER OF RECORD OF ANY DISCREPANCIES, IF PRESENT.
5. ALL BACKFILL SHALL MEET THE REQUIREMENTS FOR COMPACTION SET FORTH IN THE GEOTECHNICAL REPORT AND SPECIFICATION SECTION 31 00 01 EARTHWORK.
6. CONTRACTOR TO COORDINATE ANY UNDERCUTTING WITH THE GEOTECHNICAL ENGINEER.
7. NO PONDING WITHIN PAVED AREAS WILL BE ALLOWED. THE CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE TO THE NEAREST DRAINAGE FEATURES.
8. SIDEWALKS SHALL NOT EXCEED 2% CROSS SLOPE OR 5% LONGITUDINAL SLOPE.
9. ADA PARKING SPACES AND ACCESS AISLE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.

YARD PIPING NOTES:

1. ALL CONSTRUCTION MUST CONFORM TO THE HOLLY SPRINGS WATER STANDARDS, SPECIFICATIONS AND DETAILS UNLESS OTHERWISE APPROVED IN THE CONSTRUCTION DOCUMENTS.
2. ALL MATERIALS SHALL BE INSTALLED PER THE MANUFACTURERS RECOMMENDATIONS, DETAILS AND SPECIFICATIONS UNLESS LOCAL REQUIREMENTS ARE MORE STRINGENT.
3. ALL TRENCHING SHALL BE COMPLETED PER OSHA REGULATIONS.
4. PIPE LENGTHS SHOWN ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
5. REFER TO THE CIVIL DETAIL SHEETS FOR ADDITIONAL INFORMATION ON INSTALLATION OF MATERIALS.
6. CONTRACTOR TO COORDINATE ALL DEPTH AND SEPERATION REQUIREMENTS WITH THE UTILITY OWNERS.
7. PROVIDE RESTRAINED JOINTS WHERE INDICATED ON THE PLAN AND IN THE SPECIFICATIONS.
8. COORDINATE CONNECTION FOR ALL UTILITIES WITH THE UTILITY OWNERS PRIOR TO CONSTRUCTION.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY CONNECTION FEES AND COORDINATION.
10. CONTRACTOR SHALL FIELD VERIFY LOCATION OF TIE-INS TO EXISTING UTILITIES AND PIPING, AND THE CONDITION OF EXISTING PIPE. DISCREPANCIES IN LOCATION OR CONDITION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY FOR RESOLUTION PRIOR TO COMMENCEMENT OF WORK.
11. COORDINATES SHOWN FOR THE STORM AND SANITARY STRUCTURES ARE TO THE CENTER OF THE STRUCTURE. COORDINATES SHOWN FOR HEADWALLS ARE AT THE END OF THE PIPE.
12. CONTRACTOR TO LIMIT VERTICAL HIGH POINTS ON PRESSURIZED LINES TO THE EXTENT FEASIBLE.
13. CONTRACTOR SHALL SUPPORT PRESSURIZED PIPING AS NECESSARY TO INSTALL PIPING LEVEL OR SLOPING CONTINUOUSLY UPWARD TO THE DISCHARGE TO THE EXTENT PRACTICABLE. WHERE INTERMEDIATE HIGH POINTS ARE UNAVOIDABLE, CONTRACTOR SHALL INSTALL AN APPROPRIATELY SIZED AUTOMATIC AIR RELEASE VALVE (ARV) TO AVOID AIR COLLECTION. CONTRACTOR SHALL ROUTE ALL OUTLET OF EACH ARV INTO THE NEAREST SANITARY SEWER MANHOLE, PLANT DRAIN, OR OTHER APPROVED DISCHARGE LOCATION.
14. IF THE GRADE CHANGES IN THE AREA OF EXISTING FEATURES (VALVES, MANHOLES, METERS, ETC.) THE RIM OF THAT FEATURE MUST BE ADJUSTED TO THE PROPOSED GRADE.

CONSTRUCTION SEQUENCE:

1. CONTRACTOR SHALL SIGN AND IMPLEMENT THE REQUIREMENTS OF THE STATE APPROVED EROSION CONTROL PLAN AND THE NORTH CAROLINA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL NOTIFY THE STATE LAND QUALITY SECTION AT (919) 791-4200 TO SCHEDULE A PRE-CONSTRUCTION MEETING. ADDITIONALLY, THE CONTRACTOR SHALL NOTIFY THE STATE LAND QUALITY SECTION, AT (919) 791-4200 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE AND LAND DISTURBING ACTIVITIES OCCUR.
2. INSTALL ALL PERIMETER TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES IN LOCATIONS AS SHOWN ON THE CONTRACT DRAWINGS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE INSTALLATION OF SILT FENCE, TREE PROTECTION FENCE, AND, GRAVEL CONSTRUCTION ENTRANCE. NO CONSTRUCTION OR LAND DISTURBANCE ACTIVITIES MAY BEGIN UNTIL ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. CLEAR ONLY THE AREA REQUIRED FOR INSTALLATION OF EROSION CONTROL MEASURES.
3. ONCE ALL TEMPORARY PERIMETER EROSION CONTROL MEASURES HAVE BEEN INSTALLED, THE SITE SHALL BE CLEARED AND GRUBBED, AS REQUIRED, WITHIN THE LIMITS OF DISTURBANCE (LOD) AS SHOWN ON THE CONTRACT DRAWINGS (C2). ANY ADJUSTMENTS TO THE LOD SHALL REQUIRE PRIOR APPROVAL FROM THE ENGINEER AND OWNER.
4. ALL DEBRIS FROM TREE CLEARING SHALL BE REMOVED FROM SITE. NO BURNING OF DEBRIS WILL BE ALLOWED ONSITE. ALL EROSION CONTROL PRACTICES SHALL REMAIN IN PLACE WHEN CONSTRUCTION TRANSITIONS TO PHASE TWO.
5. ONCE ALL TREE CLEARING HAS BEEN COMPLETED, CONTRACTOR SHALL REROUTE THE 4" SANITARY SEWER LINE AS SHOWN ON CONTRACT DRAWING C4. CONTRACTOR SHALL PHASE CONSTRUCTION AS TO NOT INTERFERE WITH EXISTING FLOW THROUGH THE SEWER. ONCE THE EXISTING SANITARY SEWER HAS BEEN REROUTED, CONTRACTOR MAY BEGIN EXCAVATION AND PHASE 2 SITE ACTIVITIES.
6. PHASE 2 INCLUDES ALL SITE ACTIVITIES FOR THE CONSTRUCTION OF THE NEW PUMP STATION. THIS INCLUDES THE REROUTING OF EXISTING SEWER/UTILITIES, AND CONSTRUCTION OF ALL ASPHALT, BUILDING PADS, AND THE PUMP STATION BUILDING.
7. ALL EXCESS SOIL RESULTING FROM ANY EARTHWORK OPERATIONS NECESSARY SHALL BE REMOVED FROM SITE BY CONTRACTOR. ANY SOILS TAKEN OFFSITE BECOMES THE CONTRACTOR'S RESPONSIBILITY, AND SHALL COMPLY WITH ALL REQUIRED STATE AND LOCAL REGULATIONS AND PERMITS.
8. TEMPORARY SEEDING MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICABLE ON DISTURBED AREAS BUT IN ANY EVENT WITHIN FOURTEEN (14) DAYS. DISTURBED SLOPES STEEPER THAN 3:1 SHALL BE TEMPORARILY SEEDED WITHIN SEVEN (7) DAYS UNLESS SLOPE LENGTH IS TEN (10) FEET OR LESS AND NOT STEEPER THAN 2:1. DISTURBED SLOPES 3:1 OR FLATTER SHALL BE TEMPORARILY SEEDED WITHIN FOURTEEN (14) DAYS UNLESS SLOPE LENGTH IS GREATER THAN 50 FEET.

CONSTRUCTION SEQUENCE CONTINUED:

9. WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN. AFTER DEMLR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV/NCG01 TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$100 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.
10. THE DESIGN PROFESSIONAL (A NCPE, NCPLS, OR NCRLA - AS REQUIRED) SHALL SUBMIT ONE (1) SET OF AS-BUILT DRAWINGS TO THE PUBLIC WORKS DEPARTMENT - DEVELOPMENT REVIEW FOR REVIEW AND APPROVAL. AS-BUILT DRAWING APPROVAL IS REQUIRED PRIOR TO WATER METER INSTALLATION AND/OR SANITARY SEWER SERVICE CONNECTION AND PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

SEEDING SCHEDULE:

APPLICATION RATES IN POUNDS/ACRE					
SEED** MIXTURE	PLANTING SEASON	LIME*	FERTILIZER*	STRAW MULCH*	COMMENTS
P	AUG 15 - MAY 1	4000	1000	4000	
TS	MAY 1 - AUG 15	4000	750	4000	OVERSEED WITH TYPE P SEED MIXTURE DURING NEXT PLANTING SEASON
TW	AUG 15 - MAY 1	4000	750	4000	OVERSEED WITH TYPE P SEED MIXTURE DURING NEXT PLANTING SEASON

- P - PERMANENT SEEDING
RIPARIAN MIX (15 LB/AC PURE LIVE SEED****)
LAWN MIX (150 LB/AC) TALL FESCUE

25% DEERTONGUE (*Dichanthelium clandestinum*)
30% LITTLE BLUESTEM (*Shicaryium scoparium*)
10% INDIAN WOODOATS (*Chasmanthium latifolium*)
25% VIRGINIA WILDRYE (*Elymus virginicus*)
10% SOFT RUSH (*Juncus effusus*)
- TS - TEMPORARY SUMMER SEEDING (LB/AC)
BROWNTOP MILLET (*Urochloa ramosa*)
GERMAN MILLET (*Setaria italica*)
- TW - TEMPORARY WINTER, SPRING, FALL SEEDING (LB/AC)
RYE GRAIN (*Secale cereale*)
WHEAT (*Triticum aestivum*)

SEEDBED PREPARATION NOTES:

1. SCARIFY 2" DEPTH OF SUBGRADE PRIOR TO PLACING TOPSOIL.
2. TOPSOIL SHALL BE SPREAD AT 4" INCH CONSOLIDATED DEPTH
3. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DROP-TYPE SPREADER, OF HYDROSEEDER ON A FIRM, FRIABLE SEEDBED. IN FINE SOILS, SEEDS SHOULD BE DRILLED 1/4 - 1/2 INCH. IN COARSE, SANDY SOILS, SEEDS SHALL BE PLANTED NO DEEPER THAN 3/4 INCH. COVER BROADCAST SEED BY LIGHTLY RAKING OR CHAIN DRAGGING; THEN FIRM SURFACE WITH A ROLLER OR CULTIPACKER TO PROVIDE GOOD SEED CONTACT.
- * LIME SHALL BE APPLIED AT A MINIMUM OF 2 TONS PER ACRE WITH 3 TONS PER ACRE IN CLAY SOILS. APPLICATION RATES AND/OR CHEMICAL ANALYSIS SHALL BE CONFIRMED OR ESTABLISHED BY SOIL TEST. TACK MULCH BY APPLYING AT 0.10 GAL/YD²
- ** FERTILIZER SHALL BE 10-10-10 ANALYSIS.
- *** SEED MIXTURES TO BE USED ON THE PROJECT SHALL BE AS FOLLOWS (ACCEPTABLE SUBSTITUTES PER SECTION 6.24 OF THE NC EROSION AND SEDIMENTATION CONTROL PLANNING AND DESIGN MANUAL MUST BE APPROVED BY ENGINEER)
- **** ACTUAL QUANTITY OF BULK SEED IS LARGER, AND IS CALCULATED AS THE REQUIRED PURE LIVE SEED DIVIDED BY BOTH THE GERMINATION AND PURITY. ENSURE SEEDS ARE PROPERLY STRATIFIED, IF APPLICABLE, IN ORDER TO ACHIEVE GERMINATION NOTED ON SEED TAG.

REV	ISSUED FOR	DATE	BY		

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
GENERAL NOTES

C001

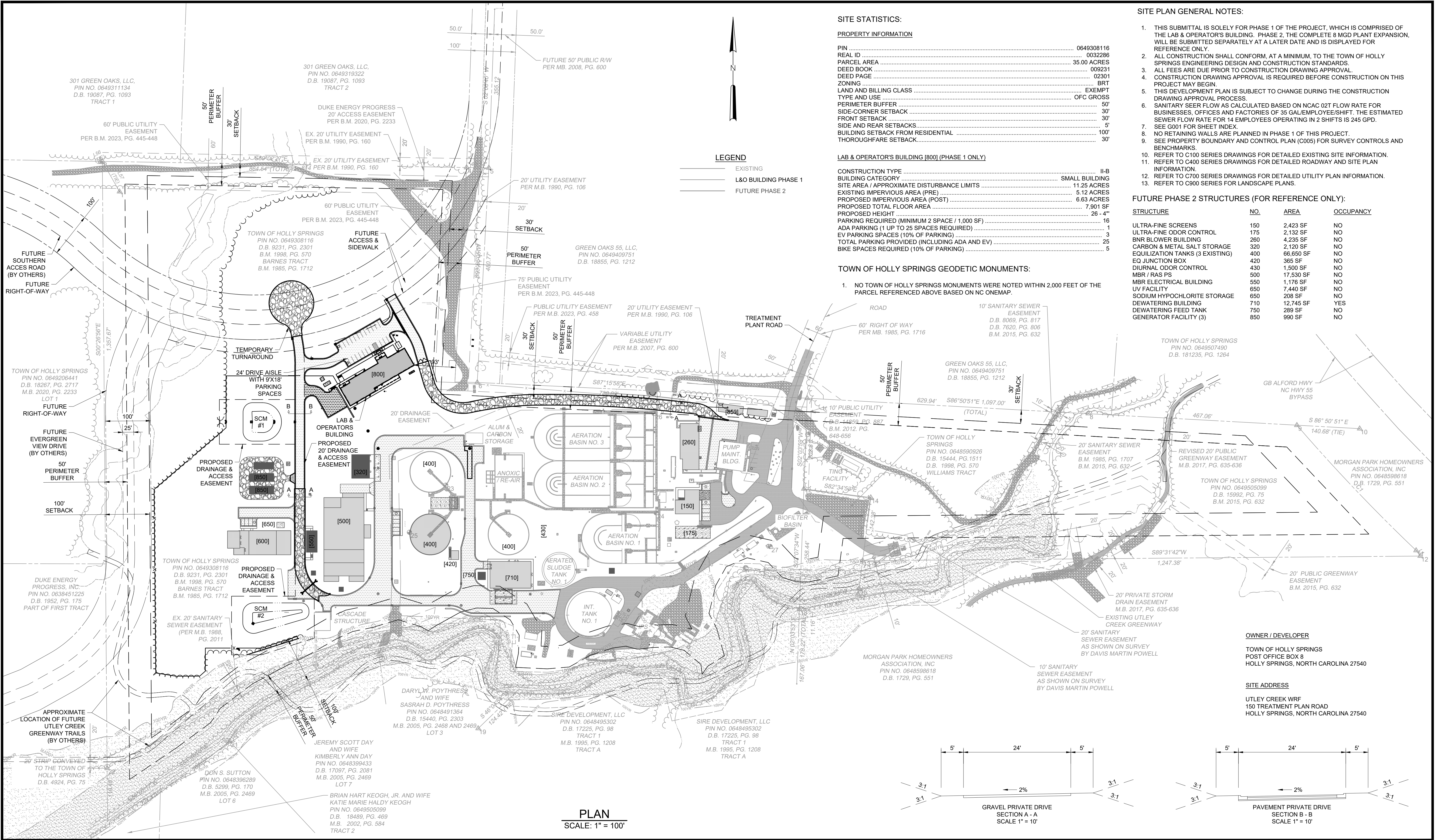
DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

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LEGEND						SYMBOLS				ABBREVIATIONS	
			EXISTING	DEMO	NEW	EXISTING	NEW	EXISTING	NEW		
BOUNDARY LINE										A	AIR
PROPERTY LINE										AFFM	AVENT FERRY FORCE MAIN
RIGHT OF WAY LINE										CA	CITRIC ACID SOLUTION
PROPERTY EASEMENT LINE										CAKE	DEWATERED CAKE
CENTERLINE										CHEM	CHEMICAL
CABLE TV LINE										CEN	CENTERLINE
COMMUNICATION LINE										CCP	CORRUGATED PLASTIC PIPE (HDPE)
OVERHEAD COMMUNICATION LINE										CO	CLEAN OUT
UNDERGROUND COMMUNICATION LINE										DEC	DECANT
ELECTRIC LINE										DSC	DEWATERED SLUDGE CONVEYOR
ELECTRICAL DUCTBANK										DPS	DILUTE POLYMER SOLUTION
OVERHEAD ELECTRIC LINE										EM	ELECTRIC MANHOLE
UNDERGROUND ELECTRIC LINE										EQ	EQUALIZATION
FIBEROPTIC LINE										FD	FLOOR DRAIN
GAS LINE										FA	FOUL AIR
UNDERGROUND TELEPHONE LINE										FB	FLAT BOTTOM
FORCEMAIN										FH	FIRE HYDRANT
GRAVITY SEWER										GM	GAS METER
STORMWATER										HYP	SODIUM HYPOCHLORITE SOLUTION
WATER MAIN										INF FM	INFLUENT FORCE MAIN
DITCH LINE										IP	IRON PIN
FENCE LINE										MB	MAIL BOX
GUARDRAIL										MD	MEMBRANE DRAIN
RAILROAD TRACK										MS	METAL SALT
TREELINE										ML	MIXED LIQUOR
GRADE LINE										NPS	NEAT POLYMER SOLUTION
CONTOUR - MAJOR										NRCY	NITRIFIED RECYCLE
CONTOUR - MINOR										NPW	NON-POTABLE WATER
RIVERS EDGE										OF	OVERFLOW
TOP OF BANK OR TOE OF SLOPE										PER	PERMEATE
SILT FENCE										PE	PLANT EFFLUENT
SUPER SILT FENCE										PI	PLANT INFLUENT
DRAINAGE SWALE										PW	POTABLE WATER
TREE PROTECTION FENCE										PTE	PRELIMINARY TREATMENT EFFLUENT
LIMITS OF DISTURBANCE										PDG	PROCESS DRAIN GRAVITY
SILT FENCE										PDP	PROCESS DRIAN PRESSURE
COMB. SILT/TREE PROT. FENCE										RSG	RAW SEWAGE GRAVITY
TREE PROTECTION FENCE										RSP	RAW SEWAGE PRESSURE
TEMP DIVERSION SWALE										RCW	RECLAIMED WATER
WETLAND AREA										RAS	RETURN ACTIVATED SLUDGE
100 YEAR FLOOD										RD	ROOF DRAIN
										S	SAMPLE
										SR	SCRUBBER RECIRCULATION
										SRC	SCRUBBER RECIRCULATION CLEAING
										SRD	SCRUBBER RECIRCULATION DISCHARGE
										SRS	SCRUBBER RECIRCULATION SUCTION
										SC	SCUM
										SCR	SECONDARY CLARIFIER EFFLUENT
										SE	SECONDARY EFFLUENT
										SA	SERVICE AIR
										SD	STORM DRAIN
										SPD	SUMP PUMP DISCHARGE
										SUPC	SUPPLEMENTAL CARBON
										TEMP	TEMPORARY
										TR	TRAFFIC SIGNAL
										UNK	UNKNOWN
										V	VENT
										YH	YARD HYDRANT
										WAS	WASTE ACTIVATED SLUDGE
										WM	WATER METER

				PROJECT ENGINEER: D. WANKMULLER		60% SUBMITTAL - DO NOT USE FOR CONSTRUCTION	Hazen HAZEN AND SAWYER 4011 WESTCHASE BOULEVARD, SUITE 500 RALEIGH, NORTH CAROLINA 27607 LICENSE NO.: C-0381 TELEPHONE NO.:(919) 833-7152	TOWN OF HOLLY SPRINGS HOLLY SPRINGS, NORTH CAROLINA		CIVIL CIVIL LEGEND AND SYMBOLS			DATE: NOVEMBER 2024	
				DESIGNED BY: W. ELLIS								HAZEN NO.: 31407-006		
				DRAWN BY: S. MILLER								CONTRACT NO.: --		
				CHECKED BY: D. SKEGGS								DRAWING NUMBER:		
REV	ISSUED FOR	DATE	BY	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE								C004		

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PLOT DATE: 11/7/2024 3:35 PM BY: SMILLER



SITE STATISTICS:

PROPERTY INFORMATION

PIN	0649308116
REAL ID	0032286
PARCEL AREA	35.00 ACRES
DEED BOOK	009231
DEED PAGE	02301
ZONING	BRT
LAND AND BILLING CLASS	EXEMPT
TYPE AND USE	OFC GROSS
PERIMETER BUFFER	50'
SIDE-CORNER SETBACK	30'
FRONT SETBACK	30'
SIDE AND REAR SETBACKS	5'
BUILDING SETBACK FROM RESIDENTIAL	100'
THOROUGHFARE SETBACK	30'

LAB & OPERATOR'S BUILDING (800) (PHASE 1 ONLY)

CONSTRUCTION TYPE	II-B
BUILDING CATEGORY	SMALL BUILDING
SITE AREA / APPROXIMATE DISTURBANCE LIMITS	11.25 ACRES
EXISTING IMPERVIOUS AREA (PRE)	5.12 ACRES
PROPOSED IMPERVIOUS AREA (POST)	6.63 ACRES
PROPOSED TOTAL FLOOR AREA	7,901 SF
PROPOSED HEIGHT	26'-4"
PARKING REQUIRED (MINIMUM 2 SPACE / 1,000 SF)	16
ADA PARKING (1 UP TO 25 SPACES REQUIRED)	1
EV PARKING SPACES (10% OF PARKING)	3
TOTAL PARKING PROVIDED (INCLUDING ADA AND EV)	25
BIKE SPACES REQUIRED (10% OF PARKING)	5

TOWN OF HOLLY SPRINGS GEODETIC MONUMENTS:

- NO TOWN OF HOLLY SPRINGS MONUMENTS WERE NOTED WITHIN 2,000 FEET OF THE PARCEL REFERENCED ABOVE BASED ON NC ONEMAP.

SITE PLAN GENERAL NOTES:

- THIS SUBMITTAL IS SOLELY FOR PHASE 1 OF THE PROJECT, WHICH IS COMPRISED OF THE LAB & OPERATOR'S BUILDING. PHASE 2, THE COMPLETE 8 MGD PLANT EXPANSION, WILL BE SUBMITTED SEPARATELY AT A LATER DATE AND IS DISPLAYED FOR REFERENCE ONLY.
- ALL CONSTRUCTION SHALL CONFORM, AT A MINIMUM, TO THE TOWN OF HOLLY SPRINGS ENGINEERING DESIGN AND CONSTRUCTION STANDARDS.
- ALL FEES ARE DUE PRIOR TO CONSTRUCTION DRAWING APPROVAL.
- CONSTRUCTION DRAWING APPROVAL IS REQUIRED BEFORE CONSTRUCTION ON THIS PROJECT MAY BEGIN.
- THIS DEVELOPMENT PLAN IS SUBJECT TO CHANGE DURING THE CONSTRUCTION DRAWING APPROVAL PROCESS.
- SANITARY SEWER FLOW AS CALCULATED BASED ON NCAC 02T FLOW RATE FOR BUSINESSES, OFFICES AND FACTORIES OF 35 GAL/EMPLOYEE/SHIFT. THE ESTIMATED SEWER FLOW RATE FOR 14 EMPLOYEES OPERATING IN 2 SHIFTS IS 245 GPD.
- SEE G001 FOR SHEET INDEX.
- NO RETAINING WALLS ARE PLANNED IN PHASE 1 OF THIS PROJECT.
- SEE PROPERTY BOUNDARY AND CONTROL PLAN (C005) FOR SURVEY CONTROLS AND BENCHMARKS.
- REFER TO C100 SERIES DRAWINGS FOR DETAILED EXISTING SITE INFORMATION.
- REFER TO C400 SERIES DRAWINGS FOR DETAILED ROADWAY AND SITE PLAN INFORMATION.
- REFER TO C700 SERIES DRAWINGS FOR DETAILED UTILITY PLAN INFORMATION.
- REFER TO C900 SERIES FOR LANDSCAPE PLANS.

FUTURE PHASE 2 STRUCTURES (FOR REFERENCE ONLY):

STRUCTURE	NO.	AREA	OCCUPANCY
ULTRA-FINE SCREENS	150	2,423 SF	NO
ULTRA-FINE ODOR CONTROL	175	2,132 SF	NO
BNR BLOWER BUILDING	260	4,235 SF	NO
CARBON & METAL SALT STORAGE	320	2,120 SF	NO
EQUILIZATION TANKS (3 EXISTING)	400	66,650 SF	NO
EQ JUNCTION BOX	420	365 SF	NO
DIURNAL ODOR CONTROL	430	1,500 SF	NO
MBR / RAS PS	500	17,530 SF	NO
MBR ELECTRICAL BUILDING	550	1,176 SF	NO
UV FACILITY	650	7,440 SF	NO
SODIUM HYPOCHLORITE STORAGE	650	208 SF	NO
DEWATERING BUILDING	710	12,745 SF	YES
DEWATERING FEED TANK	750	289 SF	NO
GENERATOR FACILITY (3)	850	990 SF	NO

OWNER / DEVELOPER

TOWN OF HOLLY SPRINGS
POST OFFICE BOX 8
HOLLY SPRINGS, NORTH CAROLINA 27540

SITE ADDRESS

UTLEY CREEK WRF
150 TREATMENT PLAN ROAD
HOLLY SPRINGS, NORTH CAROLINA 27540



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
DEVELOPMENT SITE PLAN

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

C006

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

BRIAN HART KEOGH, JR. AND WIFE
KATIE MARIE HALDY KEOGH
PIN NO. 0649505099
D.B. 18489, PG. 469
M.B. 2002, PG. 584
TRACT 2

DOAN S. SUTTON
PIN NO. 0648396289
D.B. 5299, PG. 170
M.B. 2005, PG. 2469
LOT 6

SASRAH D. POYTHRESS
AND WIFE
PIN NO. 0648491364
D.B. 15440, PG. 2303
M.B. 2005, PG. 2468 AND 2469
LOT 3

JEREMY SCOTT DAY
AND WIFE
KIMBERLY ANN DAY
PIN NO. 0648399433
D.B. 17097, PG. 2081
M.B. 2005, PG. 2469
LOT 7

DUKE ENERGY PROGRESS, INC.
PIN NO. 0638451225
D.B. 1952, PG. 175
PART OF FIRST TRACT

TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
B.M. 1998, PG. 570
BARNES TRACT
B.M. 1985, PG. 1712

TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
B.M. 1998, PG. 570
BARNES TRACT
B.M. 1985, PG. 1712

TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
B.M. 1998, PG. 570
BARNES TRACT
B.M. 1985, PG. 1712

TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
B.M. 1998, PG. 570
BARNES TRACT
B.M. 1985, PG. 1712

TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
B.M. 1998, PG. 570
BARNES TRACT
B.M. 1985, PG. 1712

TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
B.M. 1998, PG. 570
BARNES TRACT
B.M. 1985, PG. 1712

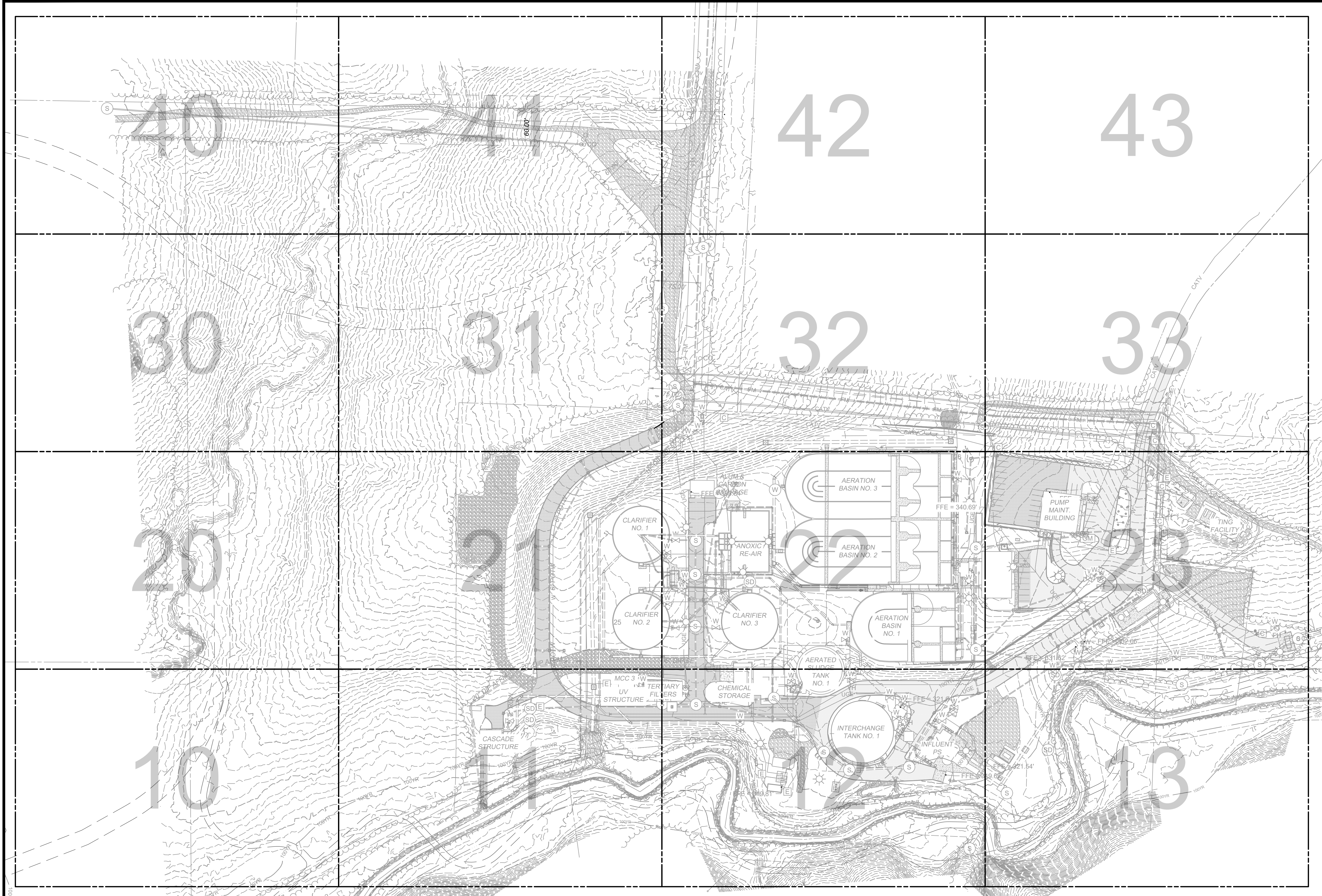
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PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
B.M. 1998, PG. 570
BARNES TRACT
B.M. 1985, PG. 1712

TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
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TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
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TOWN OF HOLLY SPRINGS
PIN NO. 0649308116
D.B. 9231, PG. 2301
B.M. 1998, PG. 570
B.M. 1998, PG. 570
BARNES TRACT
B.M. 1985, PG. 1712

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PLOT DATE: 11/7/2024 2:30 PM BY: MILLER



- NOTES:
1. ALL INFORMATION SHOWN IS IN NORTH CAROLINA STATE PLANE GRID, SINGLE ZONE NAD83.
 2. THE VERTICAL DATUM IS NAVD88.
 3. PRELIMINARY SURVEY INFORMATION SHOWN WAS PROVIDED BY DMP, INC. ON AUGUST 23, 2024.
 4. EXISTING RECORD DRAWING INFORMATION HAS BEEN USED TO SUPPLEMENT THE PRELIMINARY SURVEY INFORMATION IN THESE 60% CONSTRUCTION PLANS.

PLAN
SCALE: 1" = 80'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

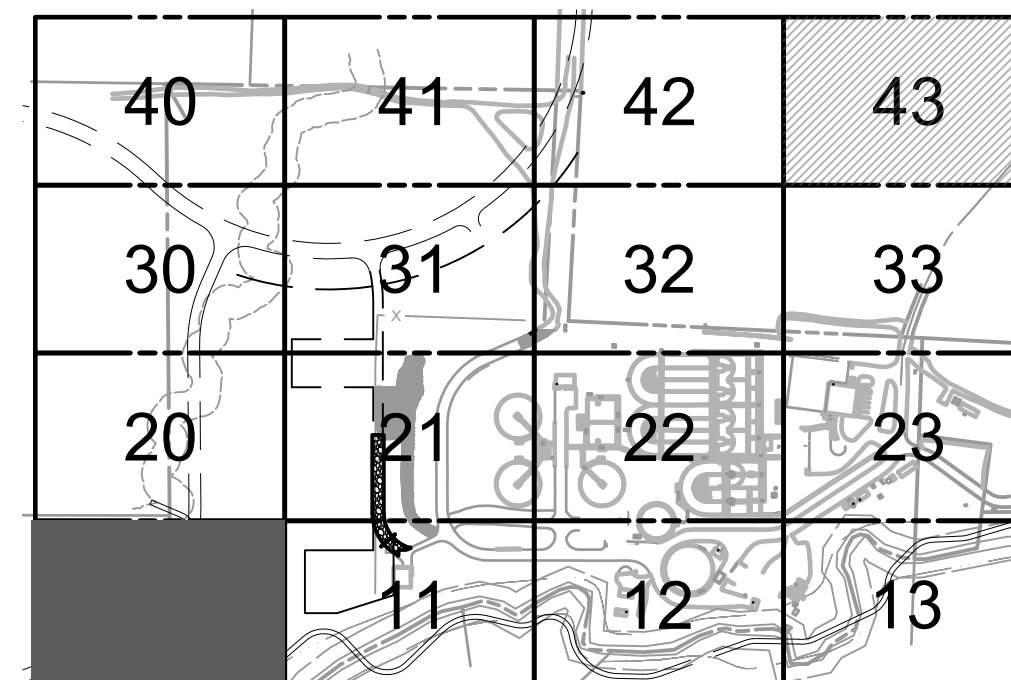
CIVIL
EXISTING CONDITIONS
OVERALL

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C100



PLAN

SCALE: 1" = 20'

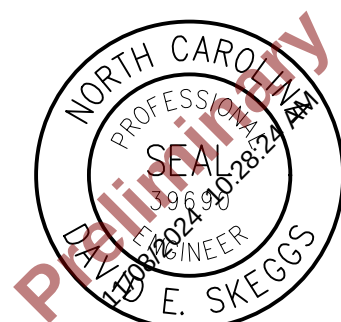


KEY MAP
SCALE: N.T.S.

[illegible]

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0  1/2" 1

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

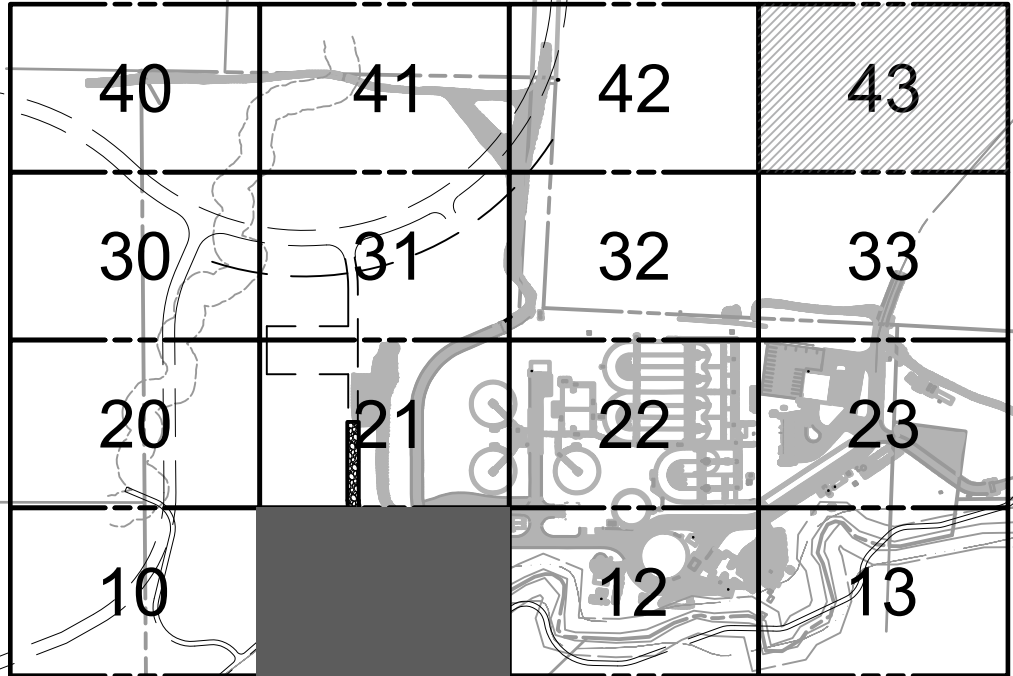
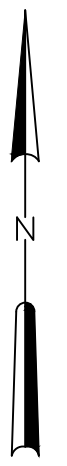
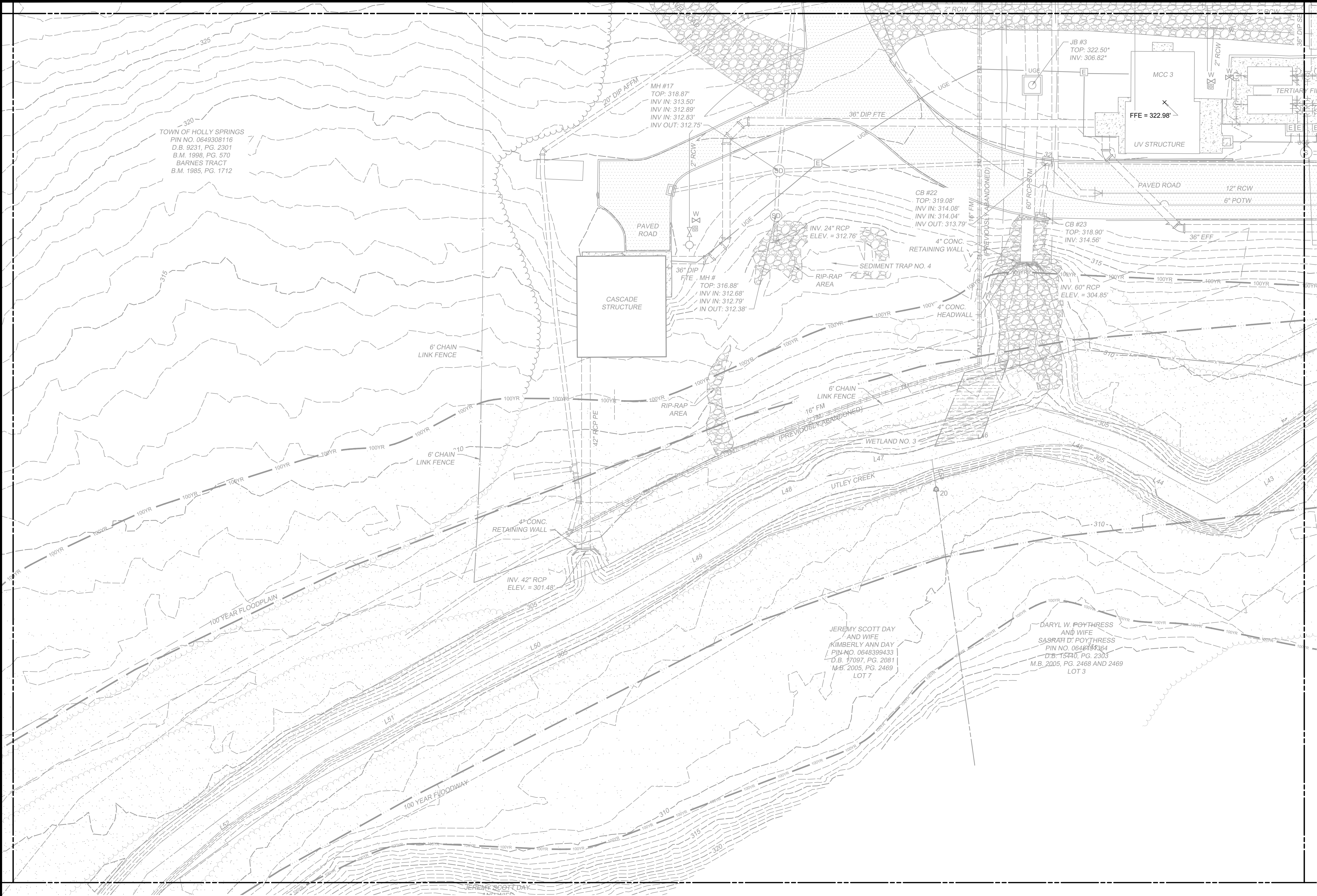
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 10

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-000
CONTRACT NO.:	-
DRAWING NUMBER:	C110

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PLOT DATE: 11/7/2024 2:31 PM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

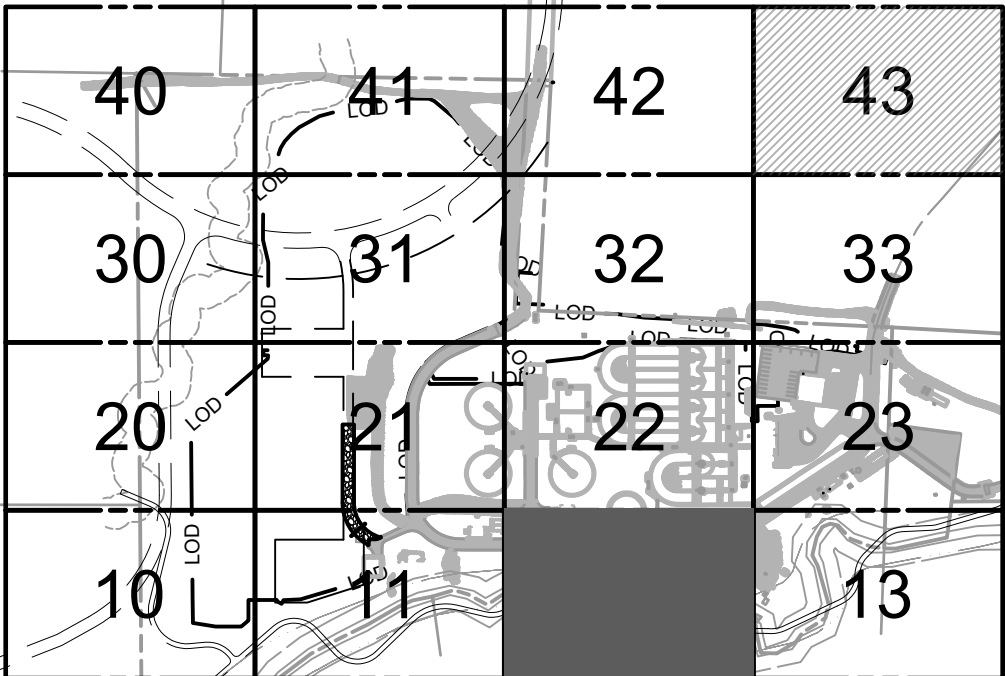
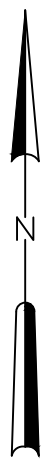
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 11

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C111

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PLOT DATE: 11/7/2024 2:31 PM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

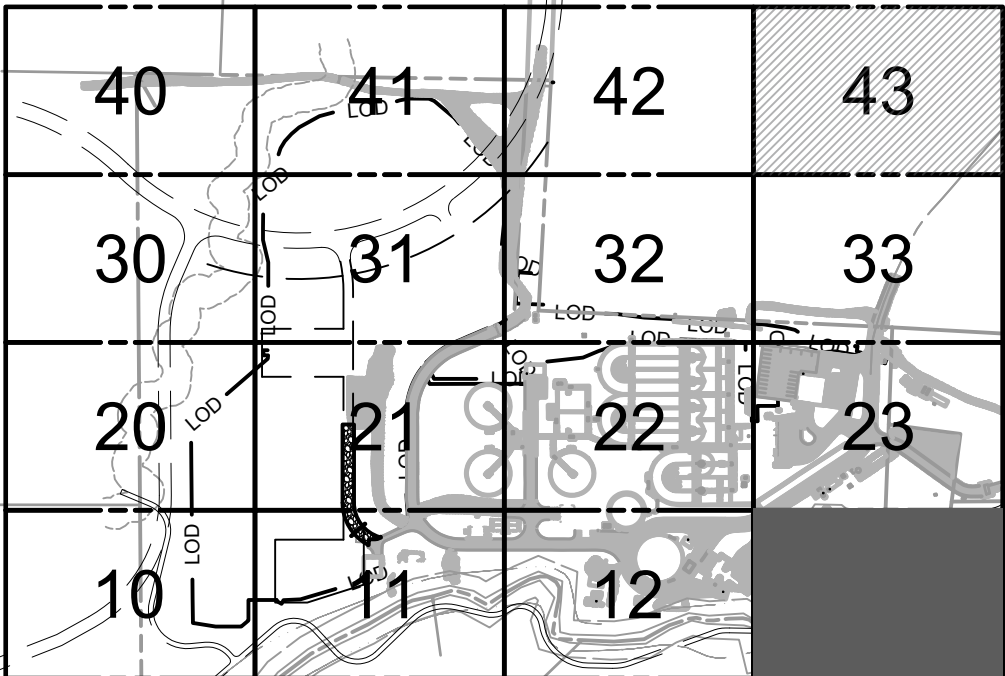
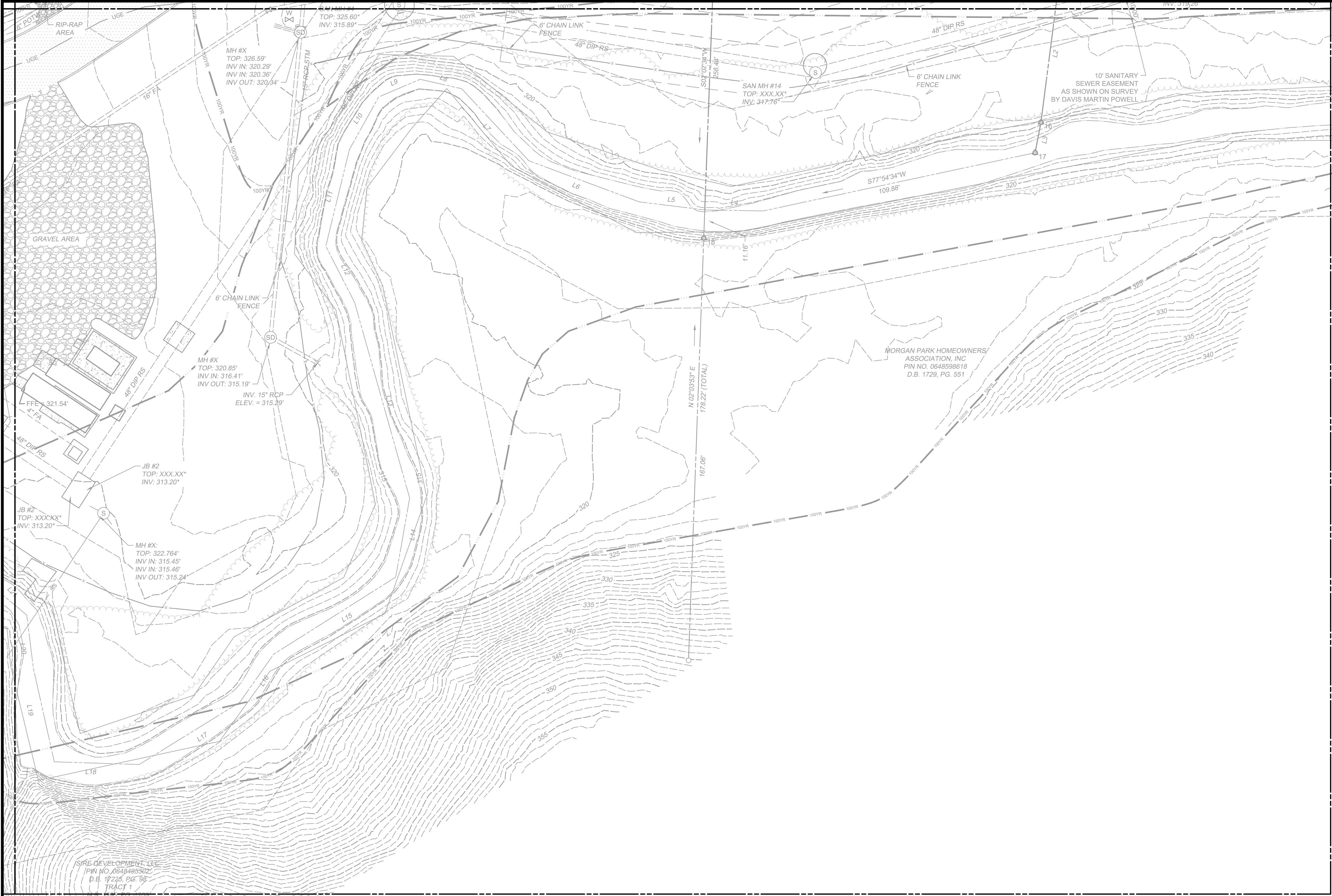
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 12

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C112

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PLOT DATE: 11/7/2024 2:40 PM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



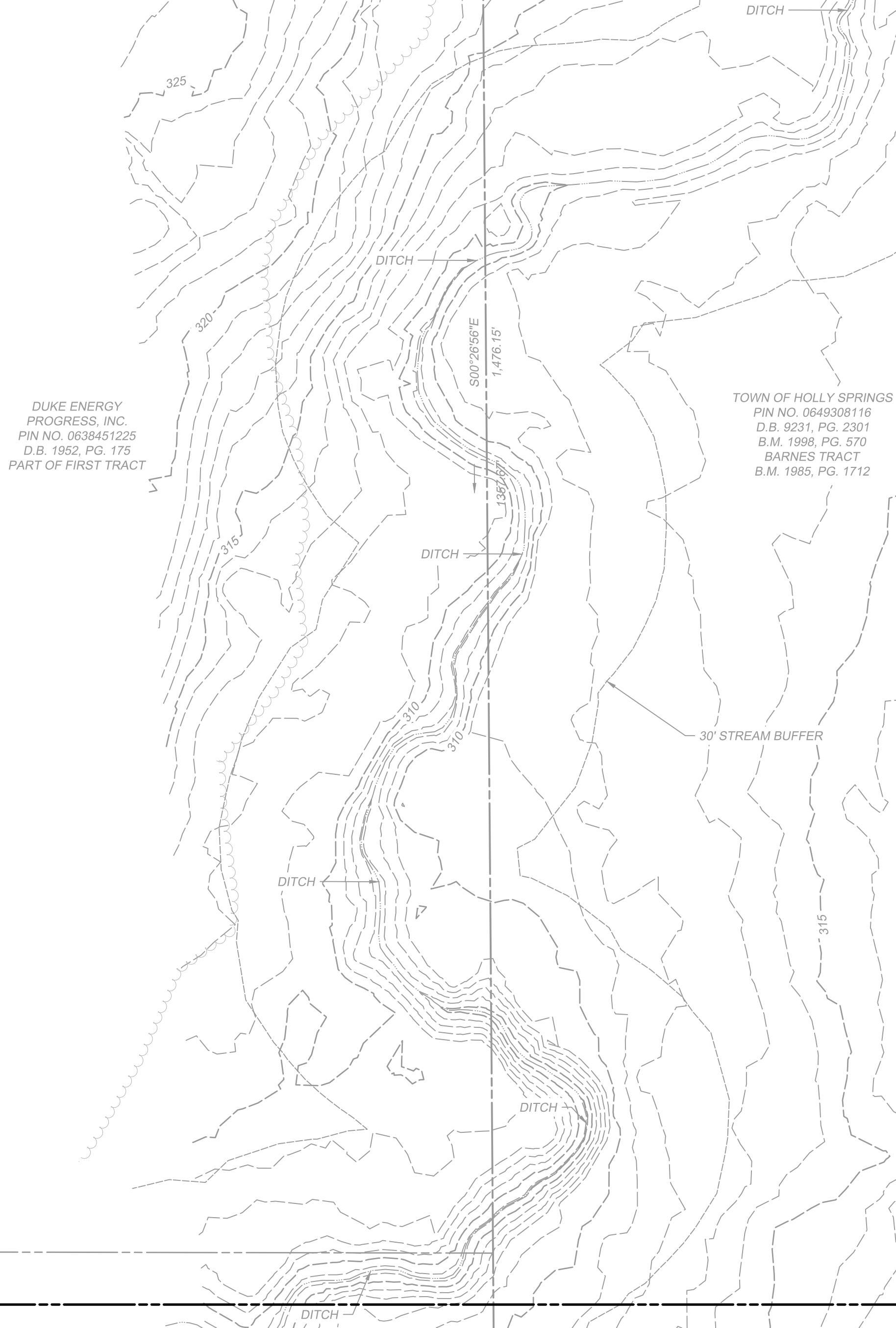
Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

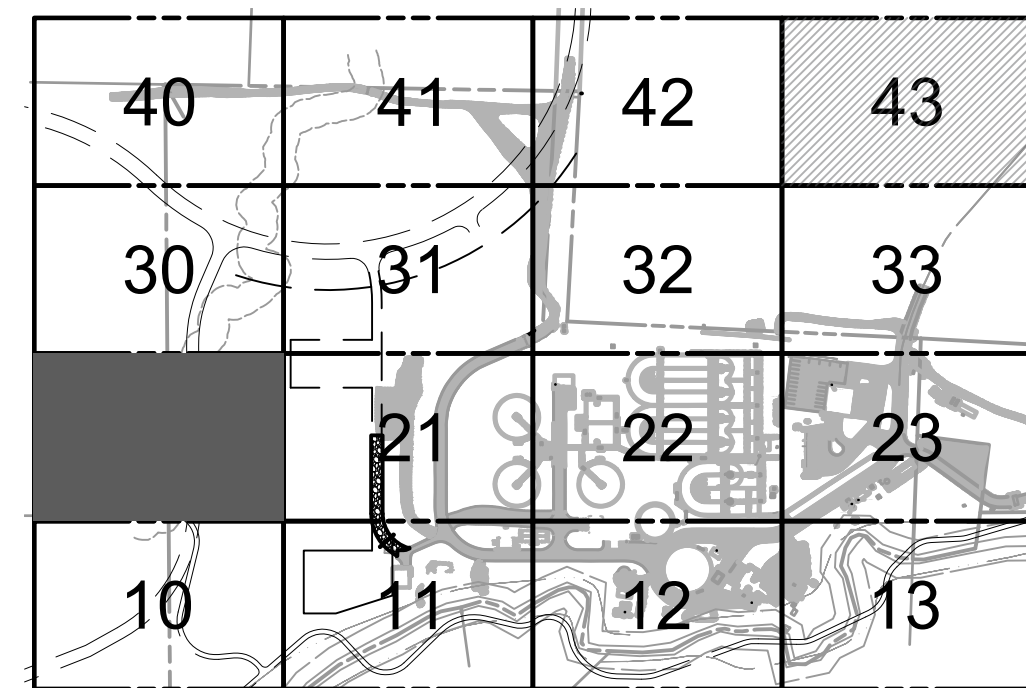
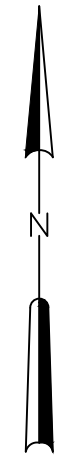
CIVIL
EXISTING CONDITIONS
AREA 13

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C113



PLAN

SCALE: 1" = 20'



KEY MAP
SCALE: N.T.S.

[illegible]

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0  1/2" 1

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

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4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

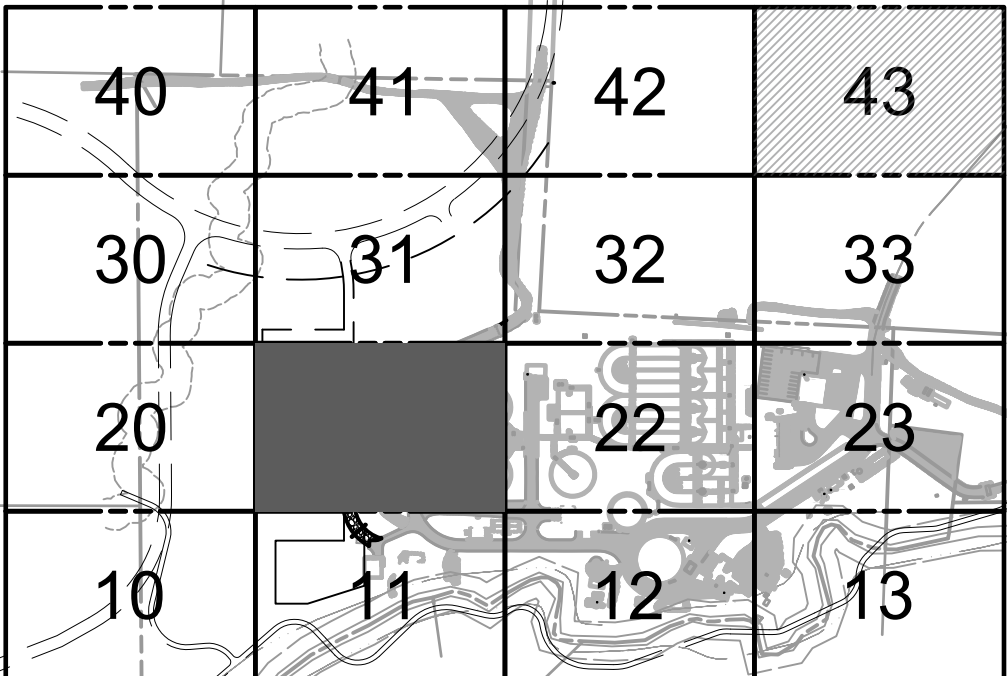
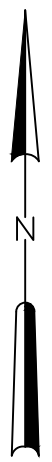
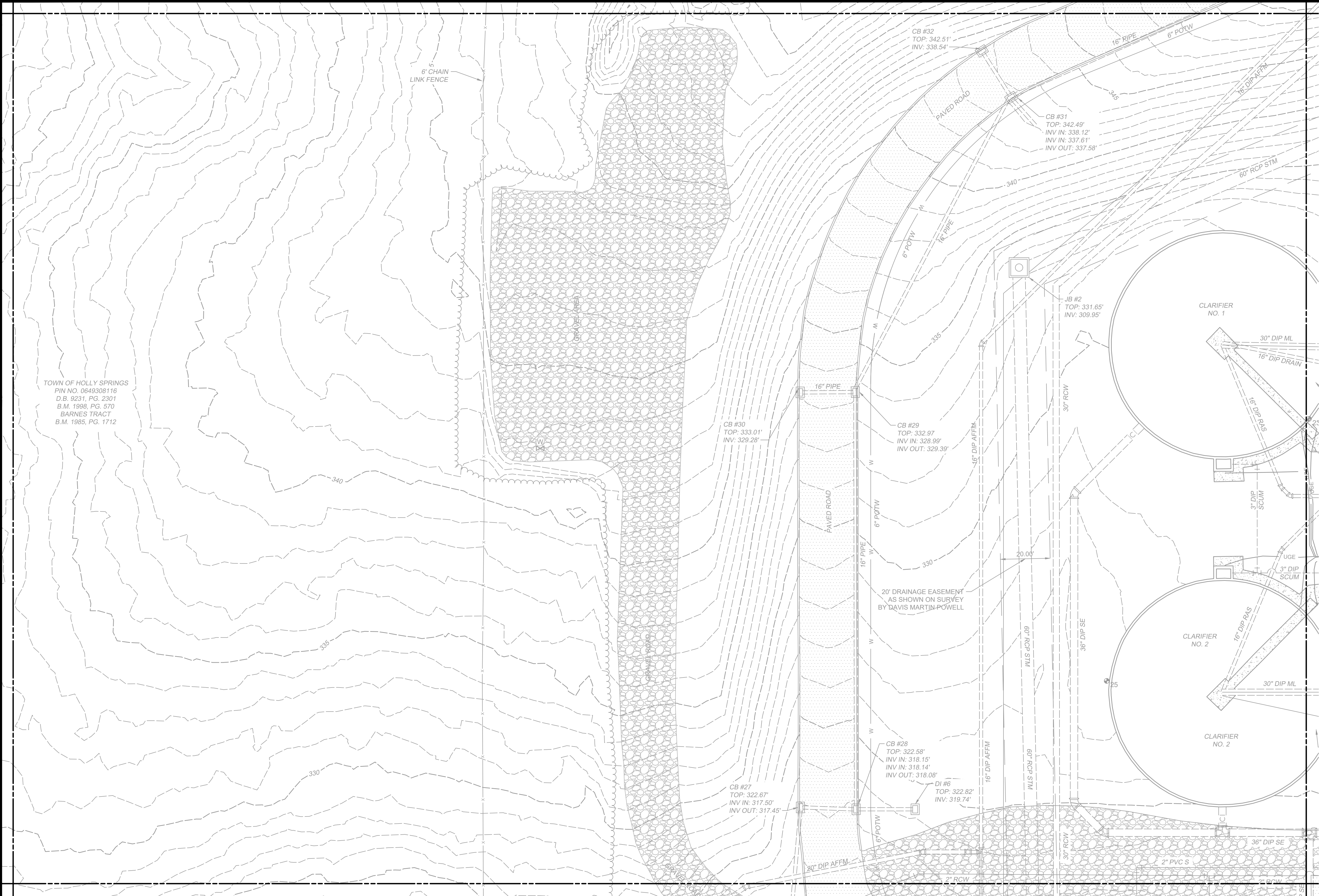
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 20

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C120

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KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 21

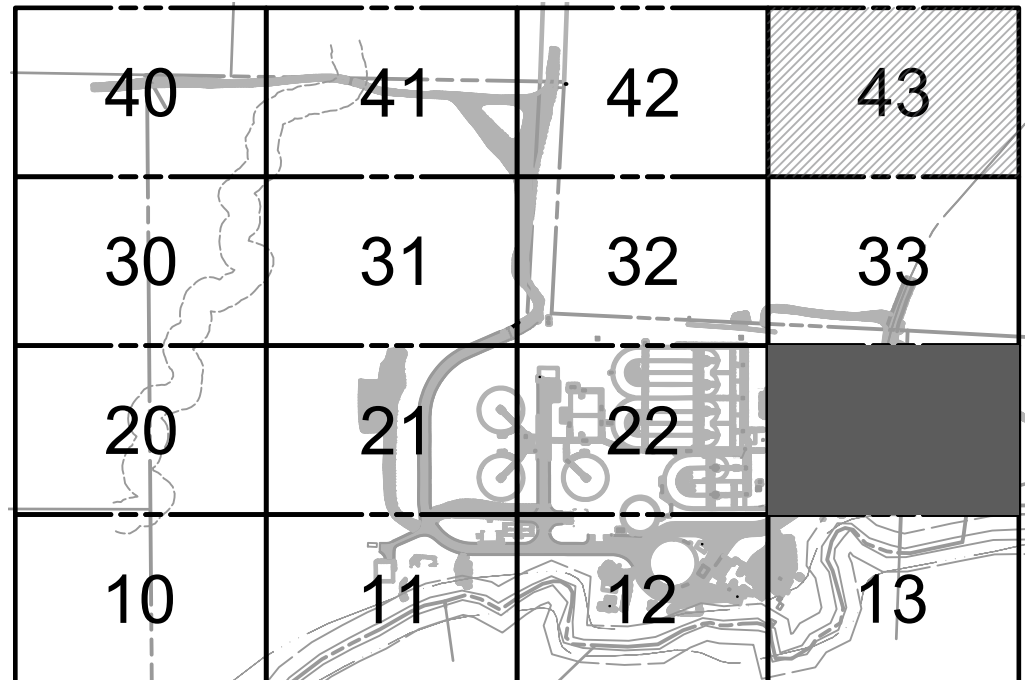
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DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C121

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PLAN
SCALE: 1" = 20'



KEY MAP
SCALE: N.T.S.

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
0 1/2" 1"	

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 23

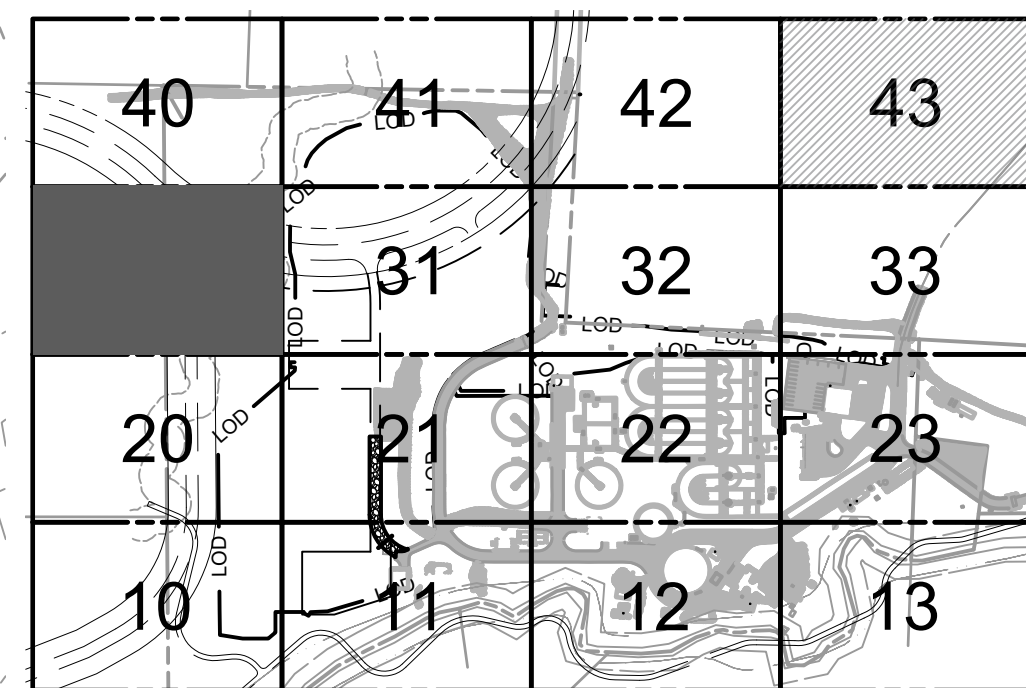
C123

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	



PLAN

SCALE: 1" = 20'



KEY MAP
SCALE: N.T.S.

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0  1/2" 1

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

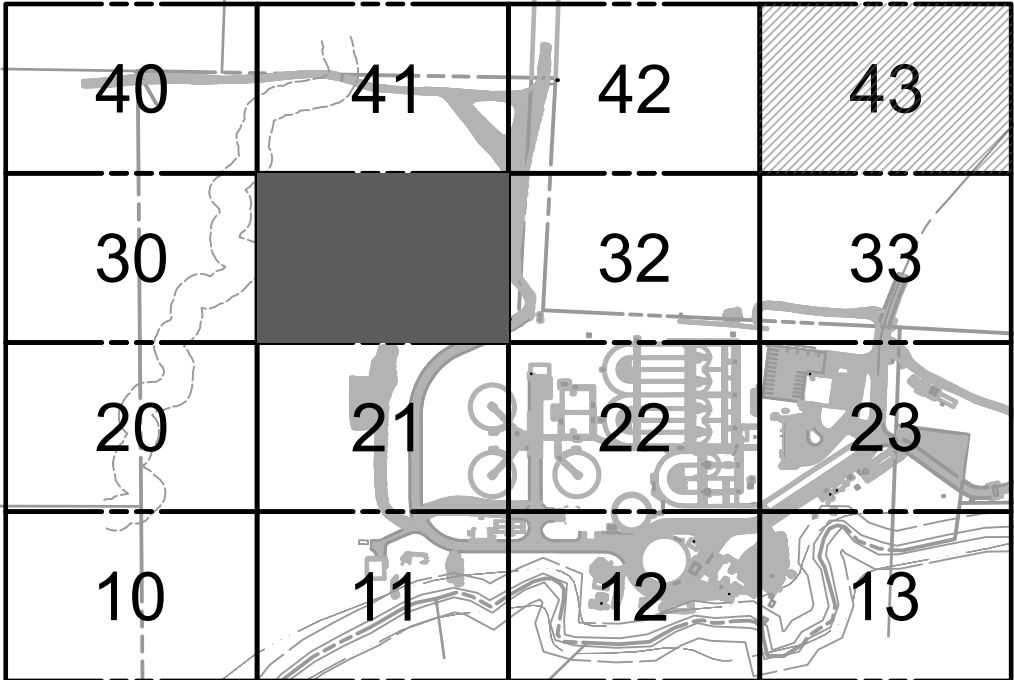
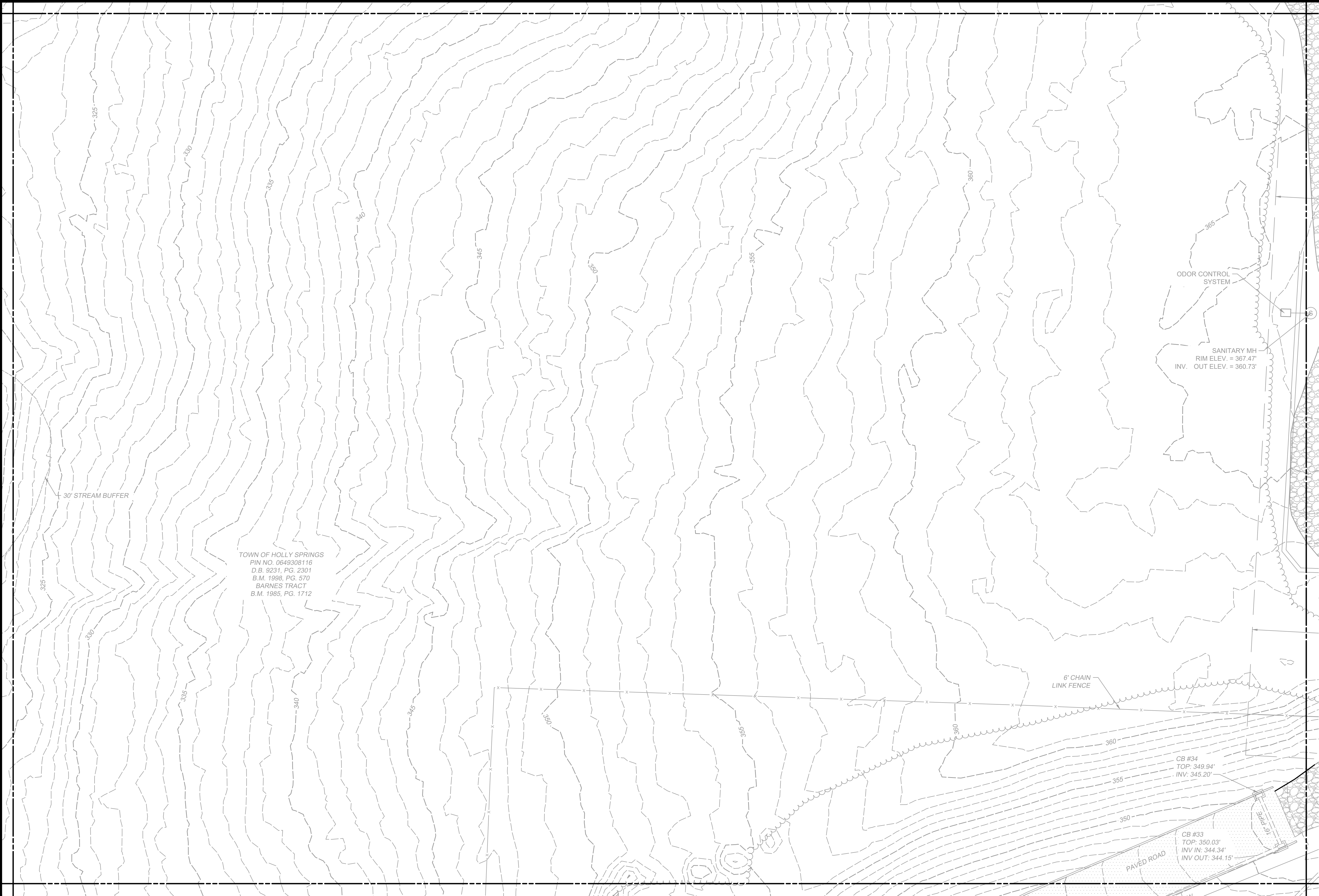
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 30

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C130

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PLOT DATE: 11/7/2024 2:48 PM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



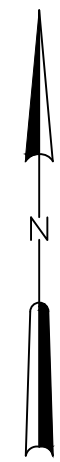
Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 31

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C131



40	41	42	43
30	31		33
20	21	22	23
10	11	12	13

KEY MAP
SCALE: N.T.S.

PLAN

SCALE: 1" = 20'

				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	W. ELLIS
				DRAWN BY:	S. MILLER
				CHECKED BY:	D. SKEGGS
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1" 
REV	ISSUED FOR	DATE	BY		

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

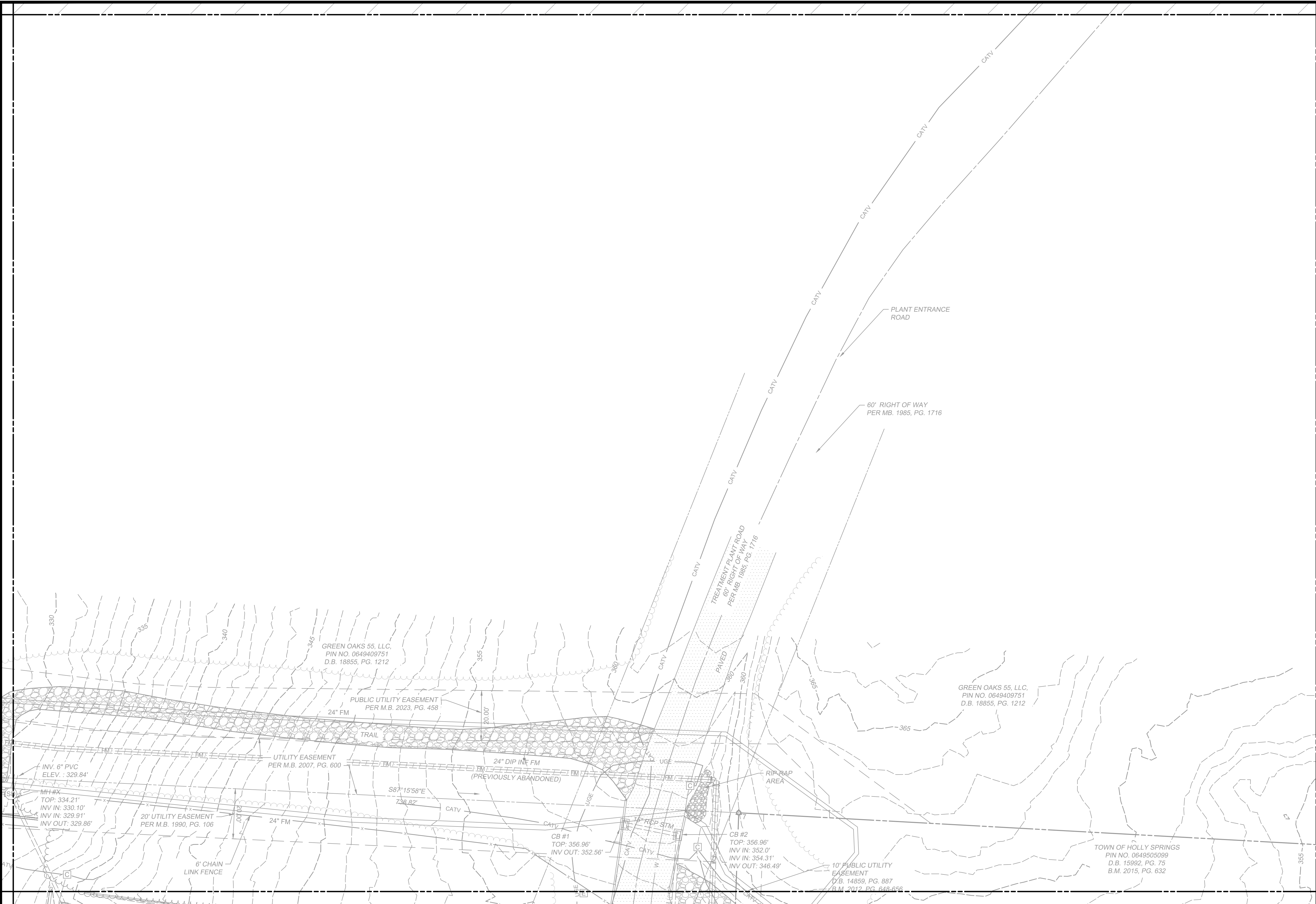
UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 32

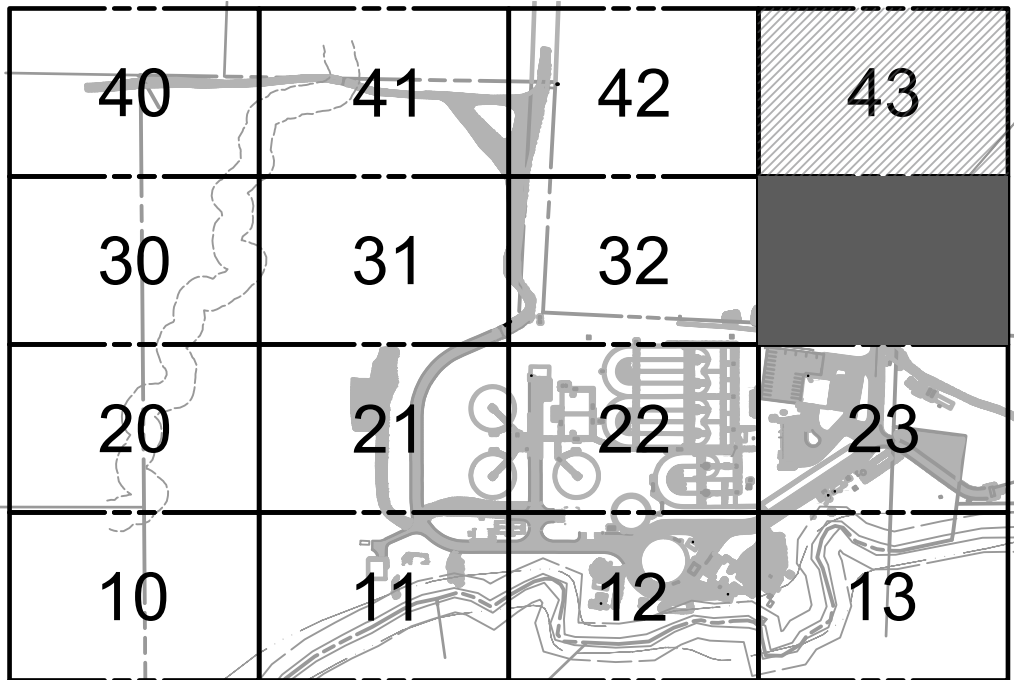
DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

C132

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PLOT DATE: 11/7/2024 2:53 PM BY: SMILLER



PLAN
SCALE: 1" = 20'



KEY MAP
SCALE: N.T.S.

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	01/2"/1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

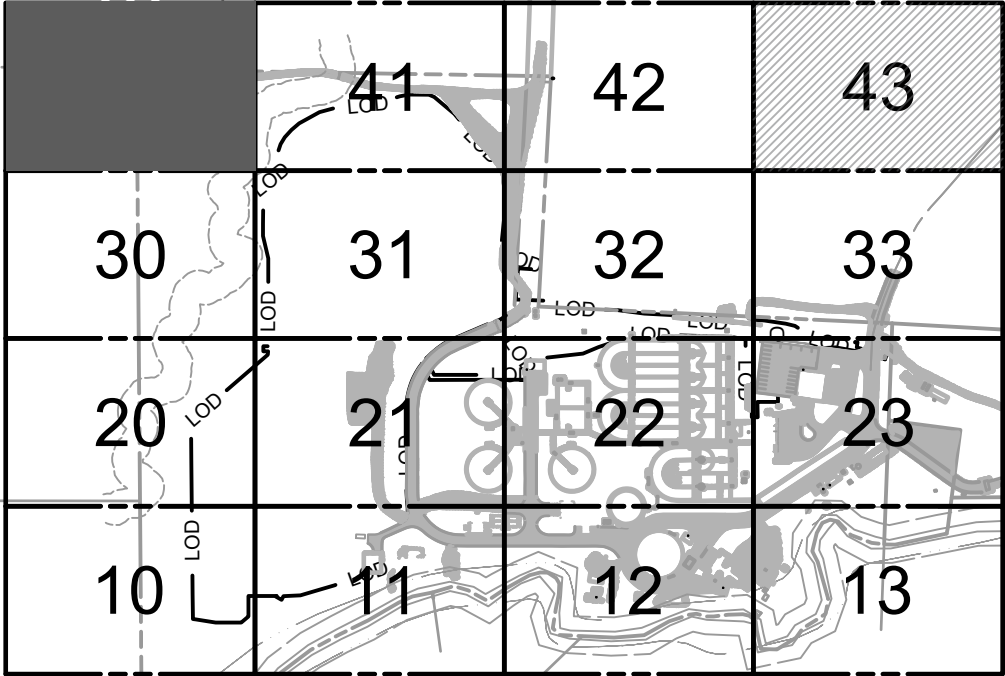
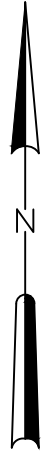
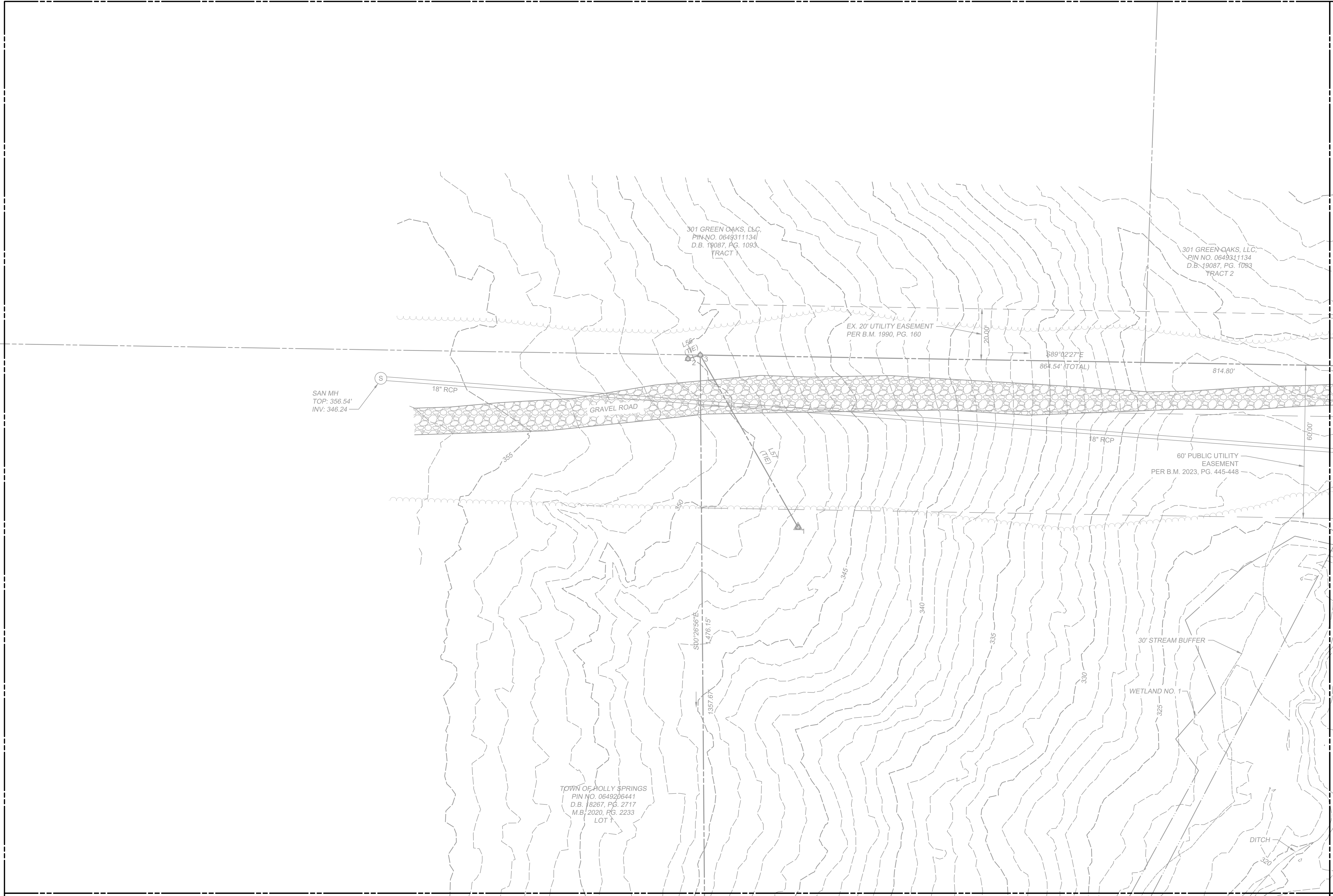
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 33

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C133

File: C:\USERS\SMILLER\Documents\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C140.dwg Saved by: SMILLER Save date: 11/7/2024 1:45 PM
PLOT DATE: 11/7/2024 2:53 PM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

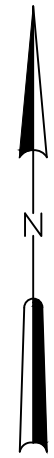
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

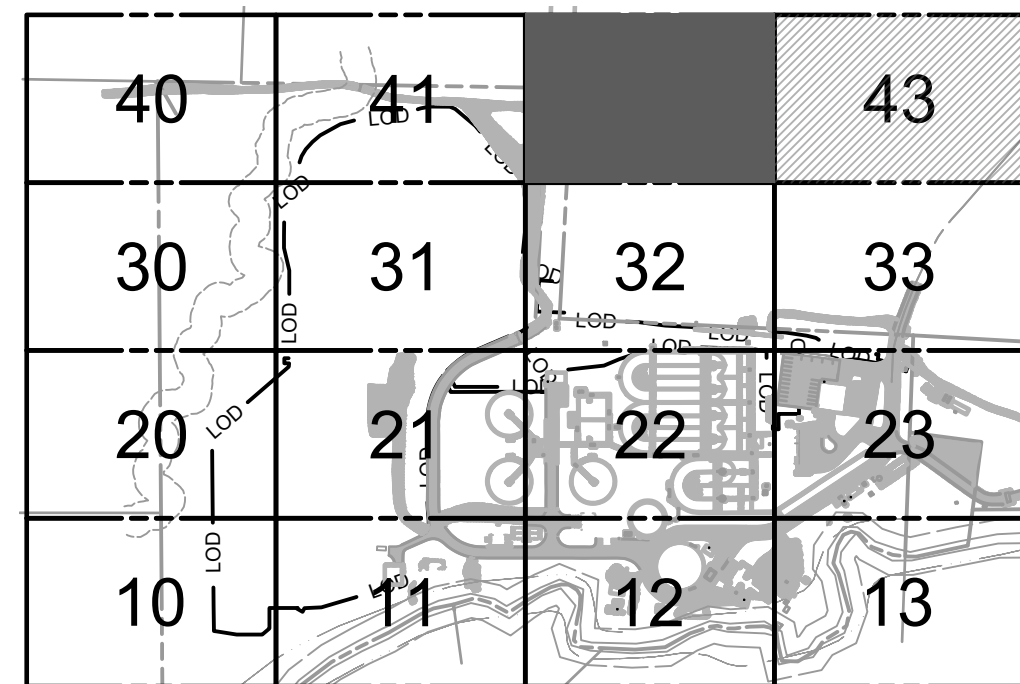
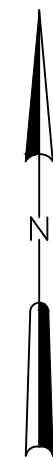
UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 40

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C140



DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C141



KEY MAP
SCALE: N.T.S.

PLAN

SCALE: 1" = 20'

				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	W. ELLIS
				DRAWN BY:	S. MILLER
				CHECKED BY:	D. SKEGGS
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1" 
REV	ISSUED FOR	DATE	BY		

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

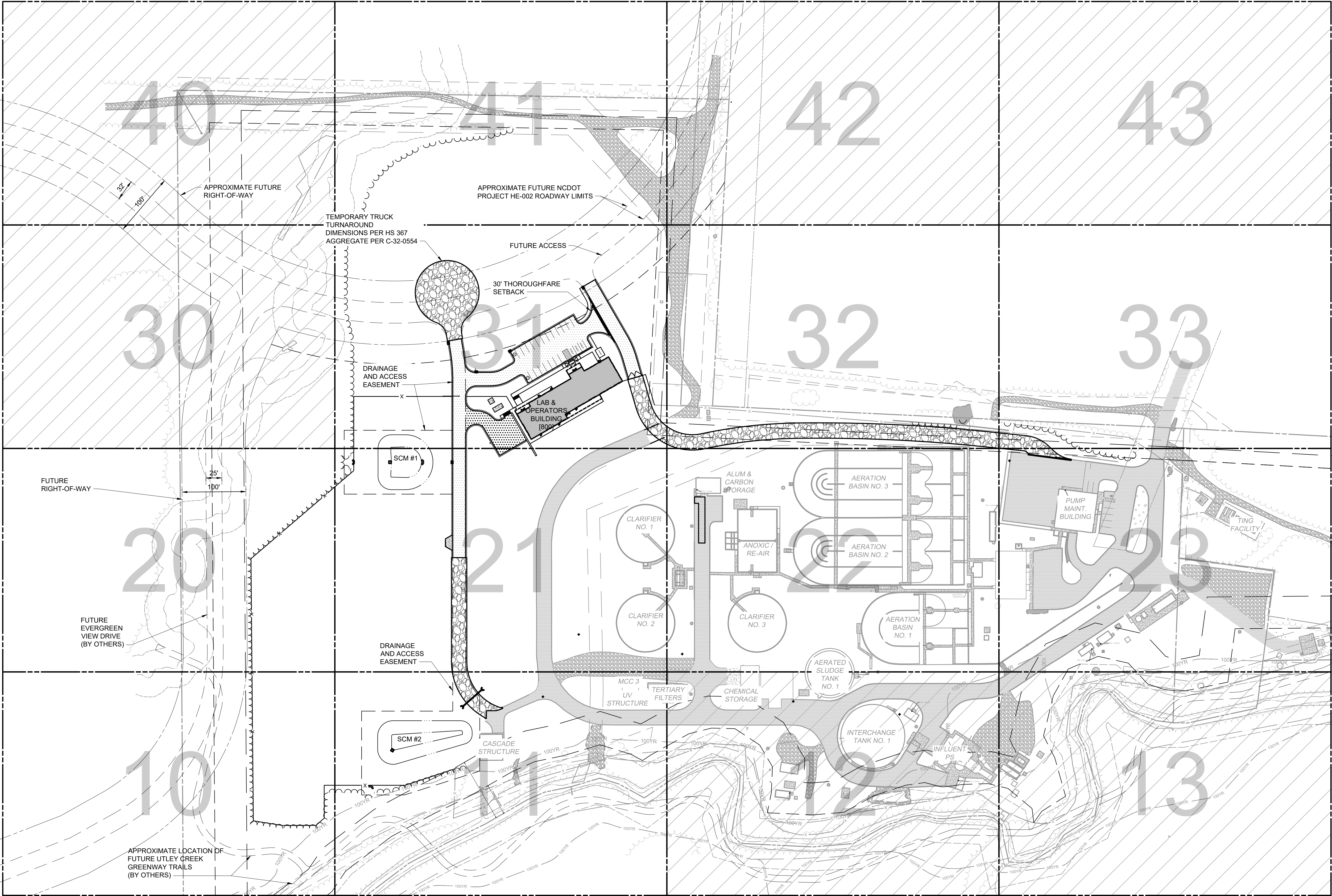
UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
EXISTING CONDITIONS
AREA 42

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

C142

File: C:\USERS\SMILLER\Documents\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C400.dwg Saved by: SMILLER Save date: 11/7/2024 1:50 PM
PLOT DATE: 11/8/2024 8:54 AM BY: SMILLER



PLAN
SCALE: 1" = 80'

NOTES:

1. ALL INFORMATION SHOWN IS IN NORTH CAROLINA STATE PLANE GRID, SINGLE ZONE NAD83.
2. THE VERTICAL DATUM IS NAVD88.
3. PRELIMINARY SURVEY INFORMATION SHOWN WAS PROVIDED BY DMP, INC. ON AUGUST 23, 2024.
4. EXISTING RECORD DRAWING INFORMATION HAS BEEN USED TO SUPPLEMENT THE PRELIMINARY SURVEY INFORMATION IN THESE 60% CONSTRUCTION PLANS.

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

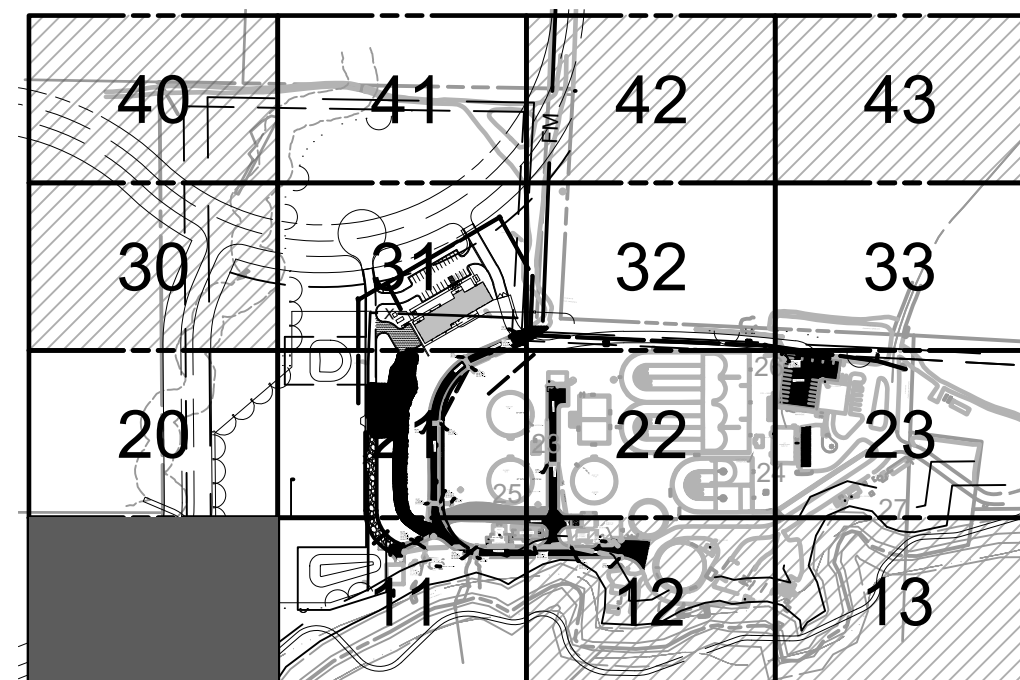
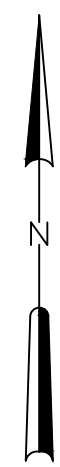
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
SITE LAYOUT PLAN
OVERALL

C400

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C400



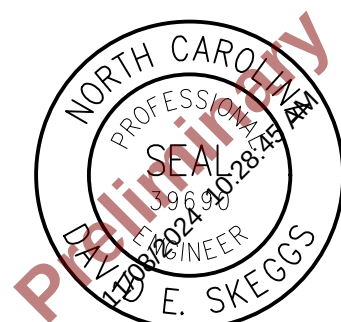
KEY MAP
SCALE: N.T.S.

PLAN

SCALE: 1" = 20'

				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	W. ELLIS
				DRAWN BY:	S. MILLER
				CHECKED BY:	D. SKEGGS
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1" 
REV	ISSUED FOR	DATE	BY		

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

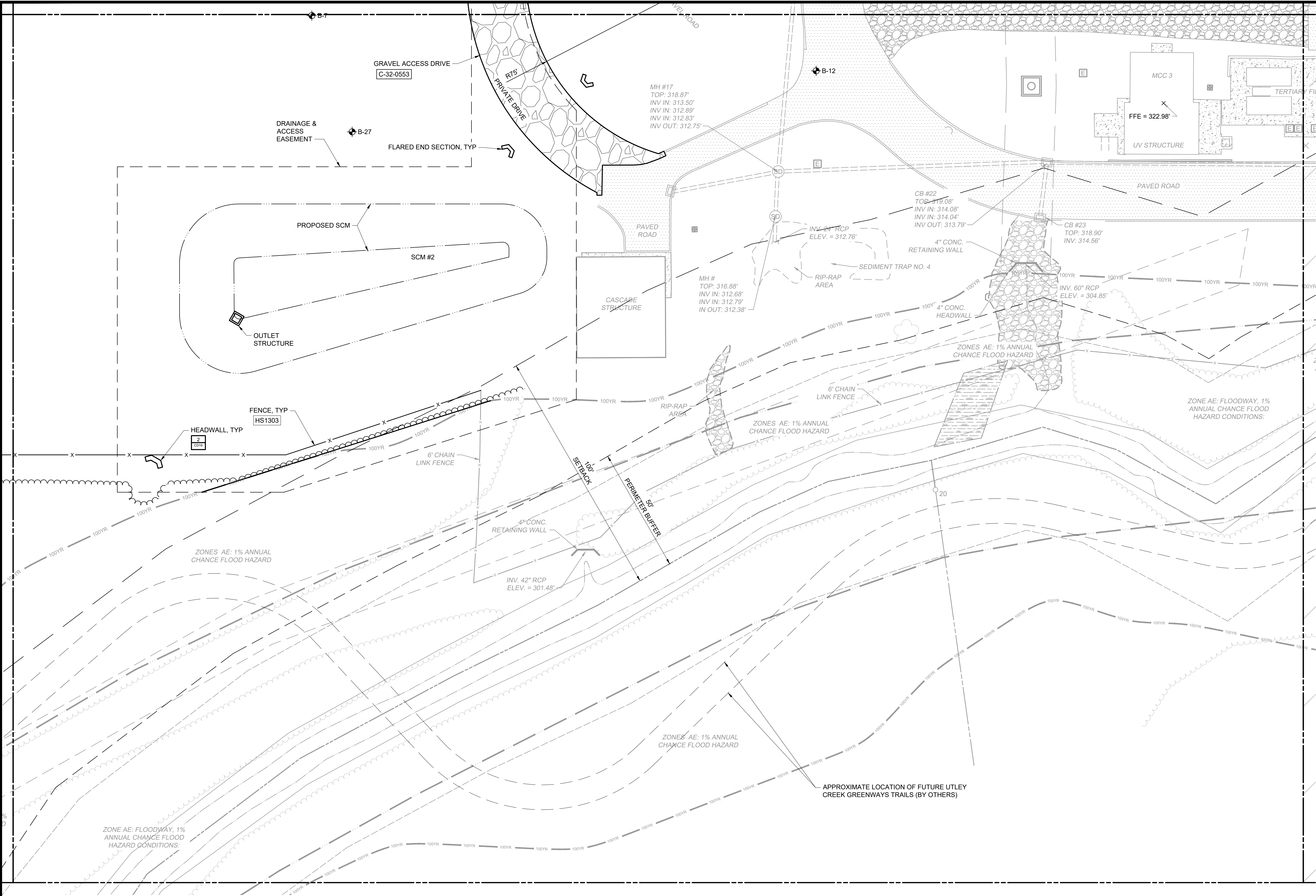
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

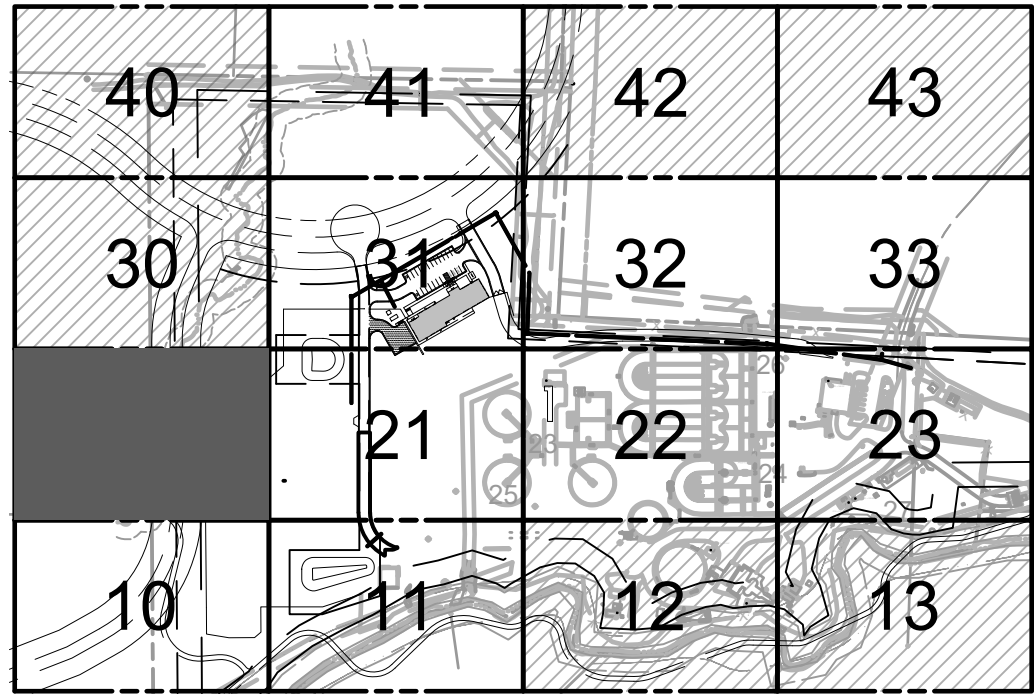
UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
SITE LAYOUT PLAN
AREA 10

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C410

File: C:\USERS\MILLER\ACCORDS\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C411.dwg Saved by: NBOLEDOV Save date: 11/7/2024 12:44 PM
PLOT DATE: 11/8/2024 8:55 AM BY: SMILLER





KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

[illegible]

PROJECT ENGINEER:	D. WANKMULLER		
DESIGNED BY:	W. ELLIS		
DRAWN BY:	S. MILLER		
CHECKED BY:	D. SKEGGS		
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE			
0 1/2" 1" 			

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
SITE LAYOUT PLAN
AREA 20

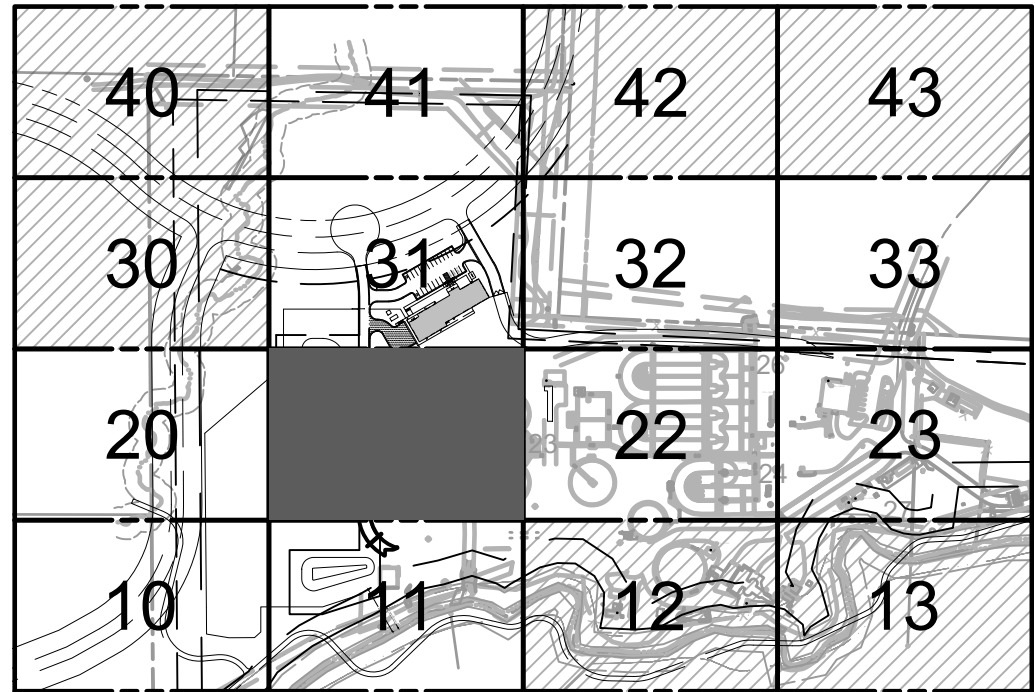
DATE: NOVEMBER 2024

HAZEN NO.: 31407-006

CONTRACT NO.: --

DRAWING
NUMBER:

C420



KEY MAP
SCALE: N.T.S.

[illegible]

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0  1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
SITE LAYOUT PLAN
AREA 21

DATE: NOVEMBER 2024

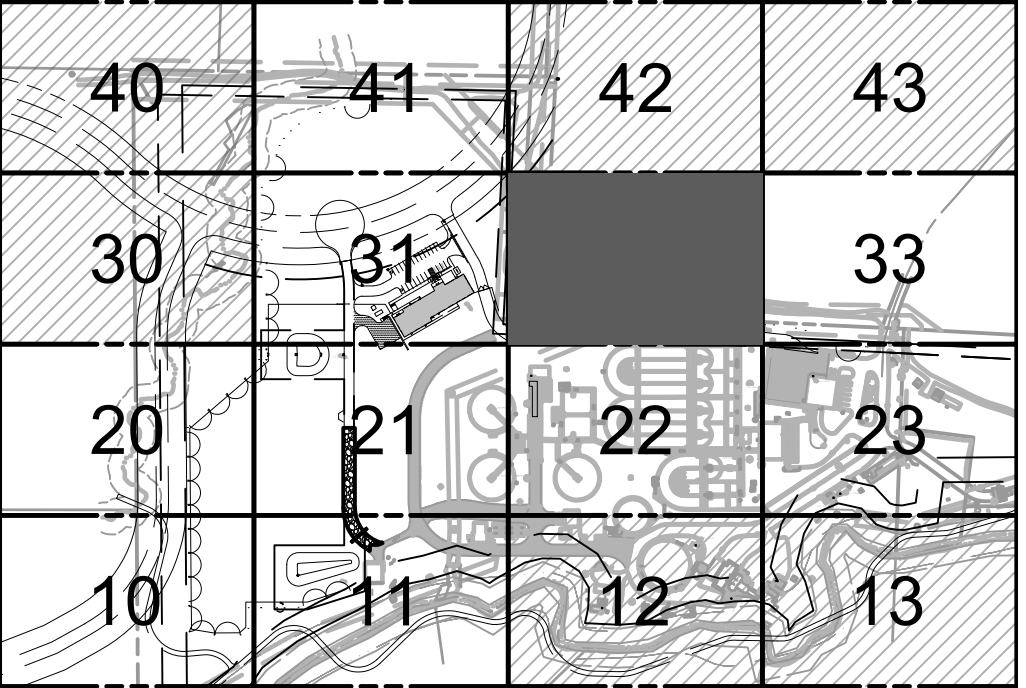
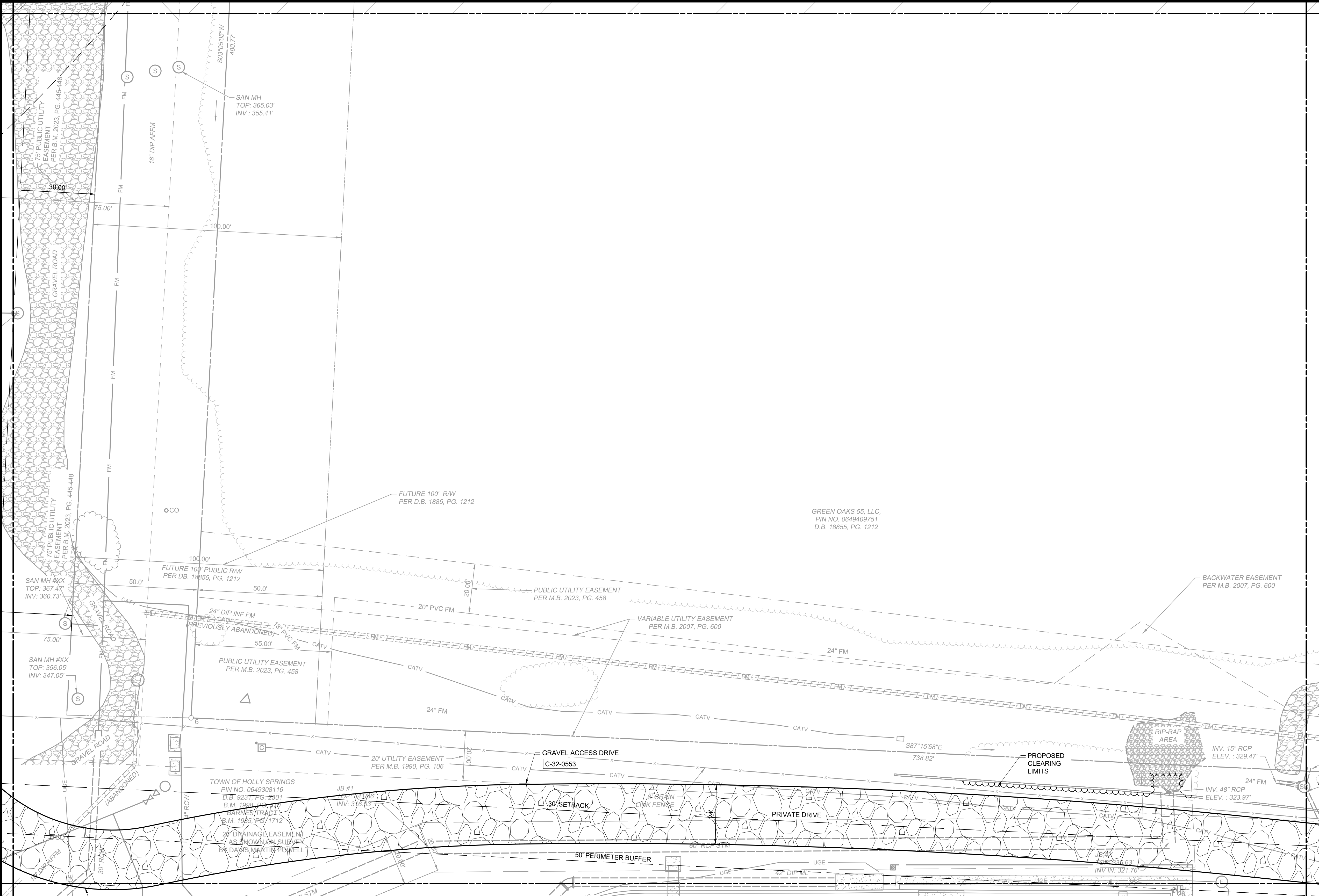
HAZEN NO.: 31407-006

CONTRACT NO.: --

DRAWING
NUMBER:

C421

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PLOT DATE: 1/18/2024 8:58 AM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

Hazen

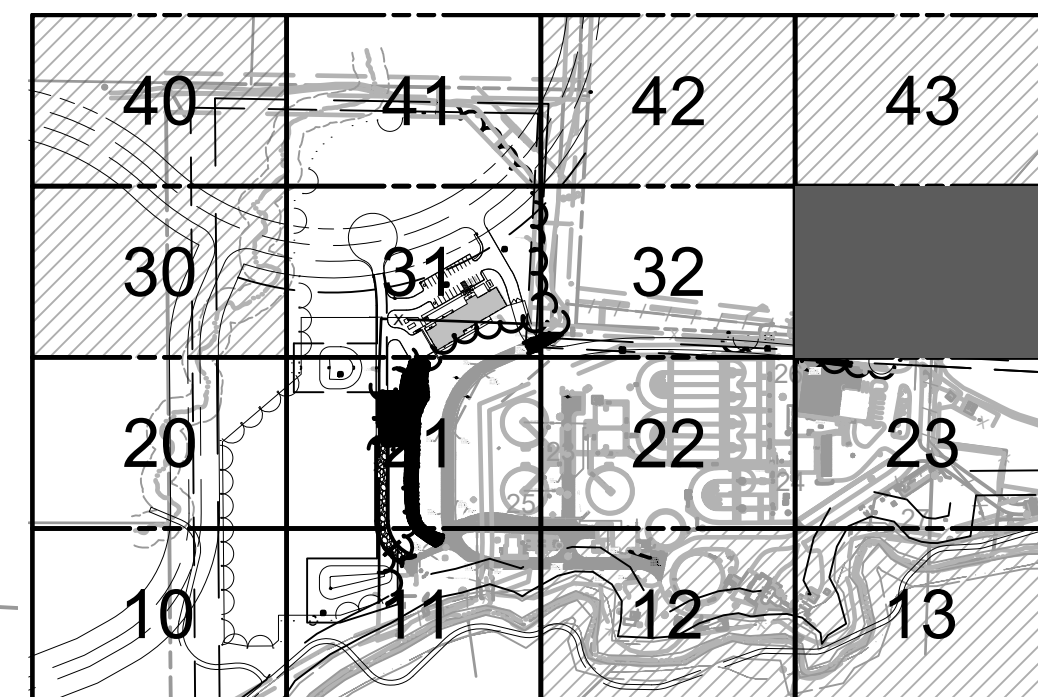
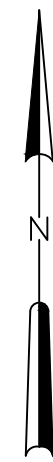
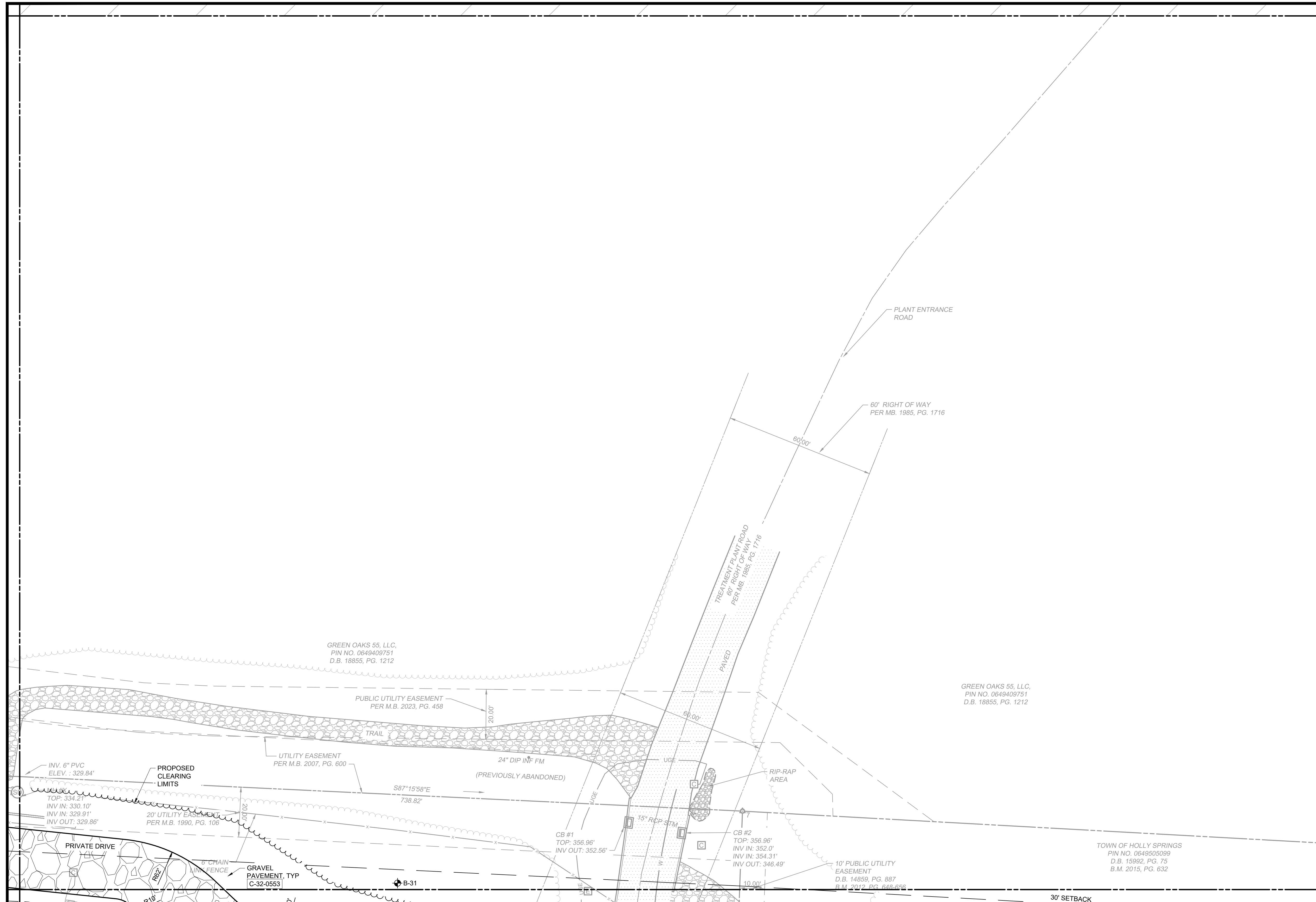
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
SITE LAYOUT PLAN
AREA 32

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C432



KEY MAP
SCALE: N.T.S.

COI DATA FILE 20227 0:00 PM - DTJ GENI				
REV	ISSUED FOR	DATE	BY	

PROJECT ENGINEER:	D. WANKMULLER		
DESIGNED BY:	W. ELLIS		
DRAWN BY:	S. MILLER		
CHECKED BY:	D. SKEGGS		
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE			

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

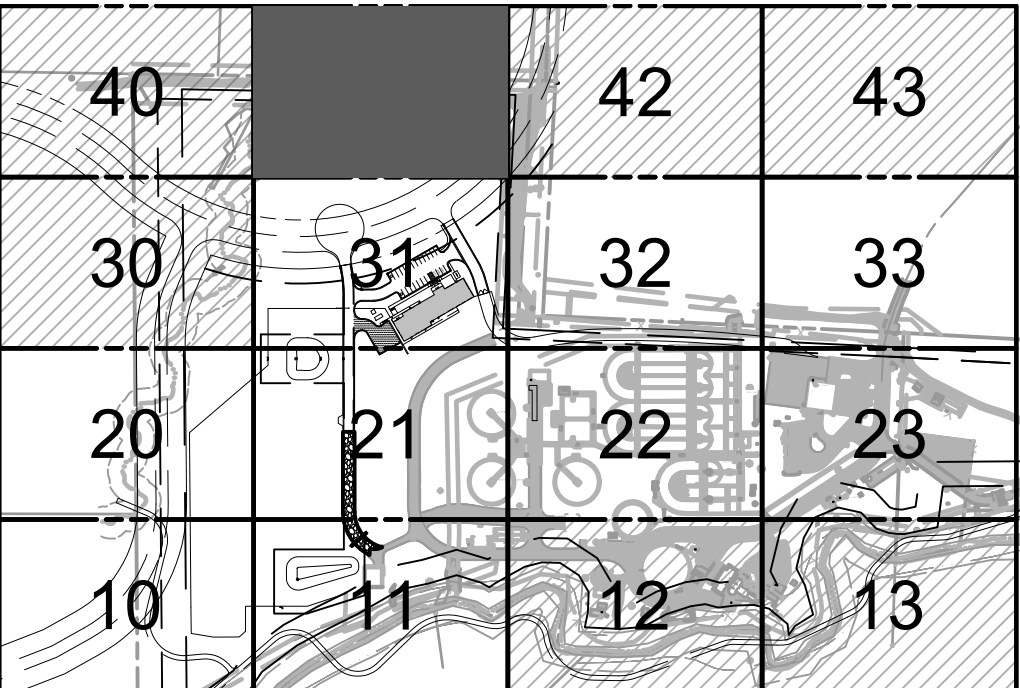
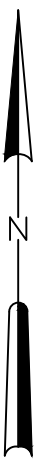
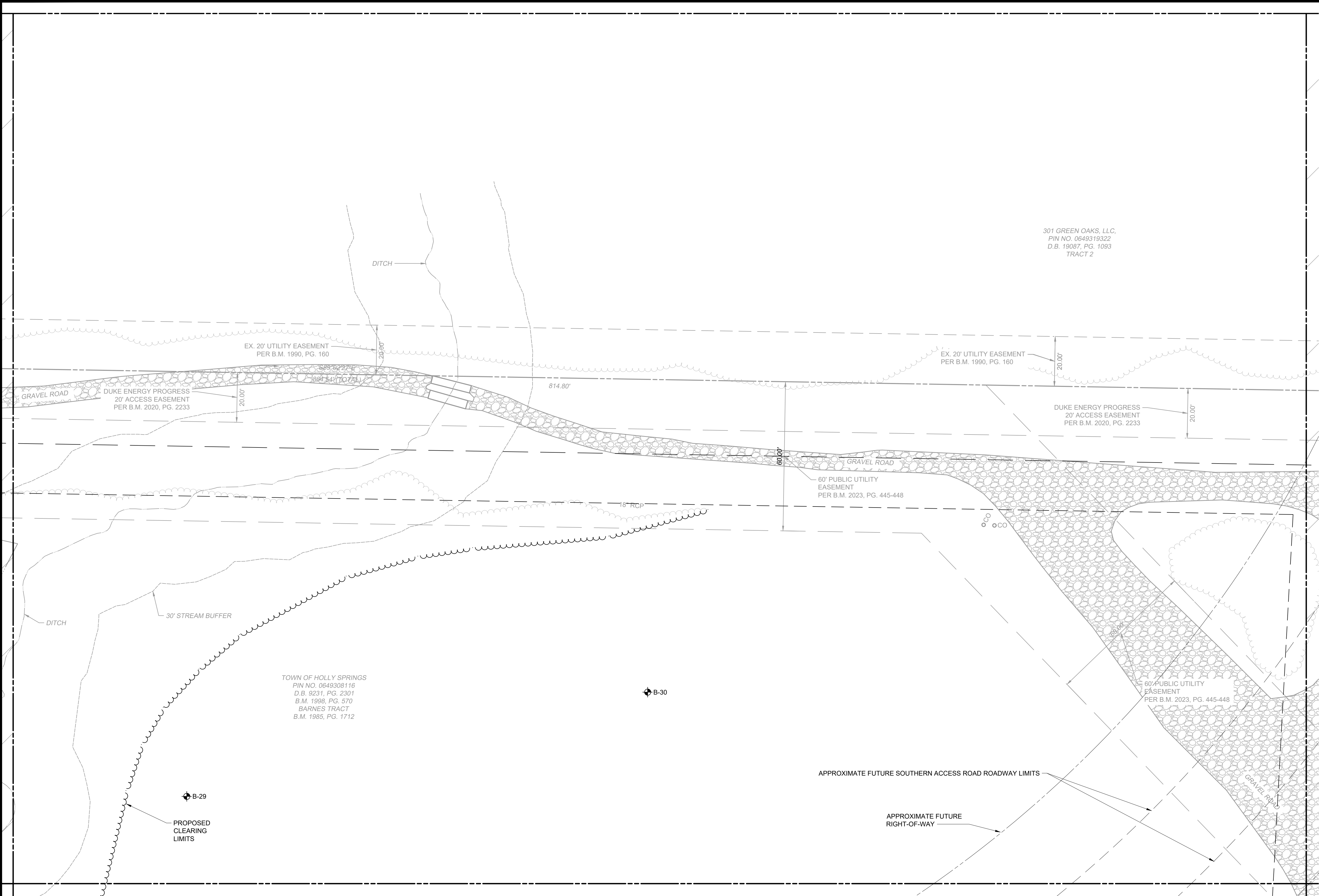
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
SITE LAYOUT PLAN
AREA 33

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C433

File: C:\USERS\SMILLER\ACCORDS\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C441 - Saved by SMILLER Save date: 11/6/2024 8:53 AM
PLOT DATE: 11/6/2024 8:59 AM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL - DO NOT USE FOR CONSTRUCTION

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

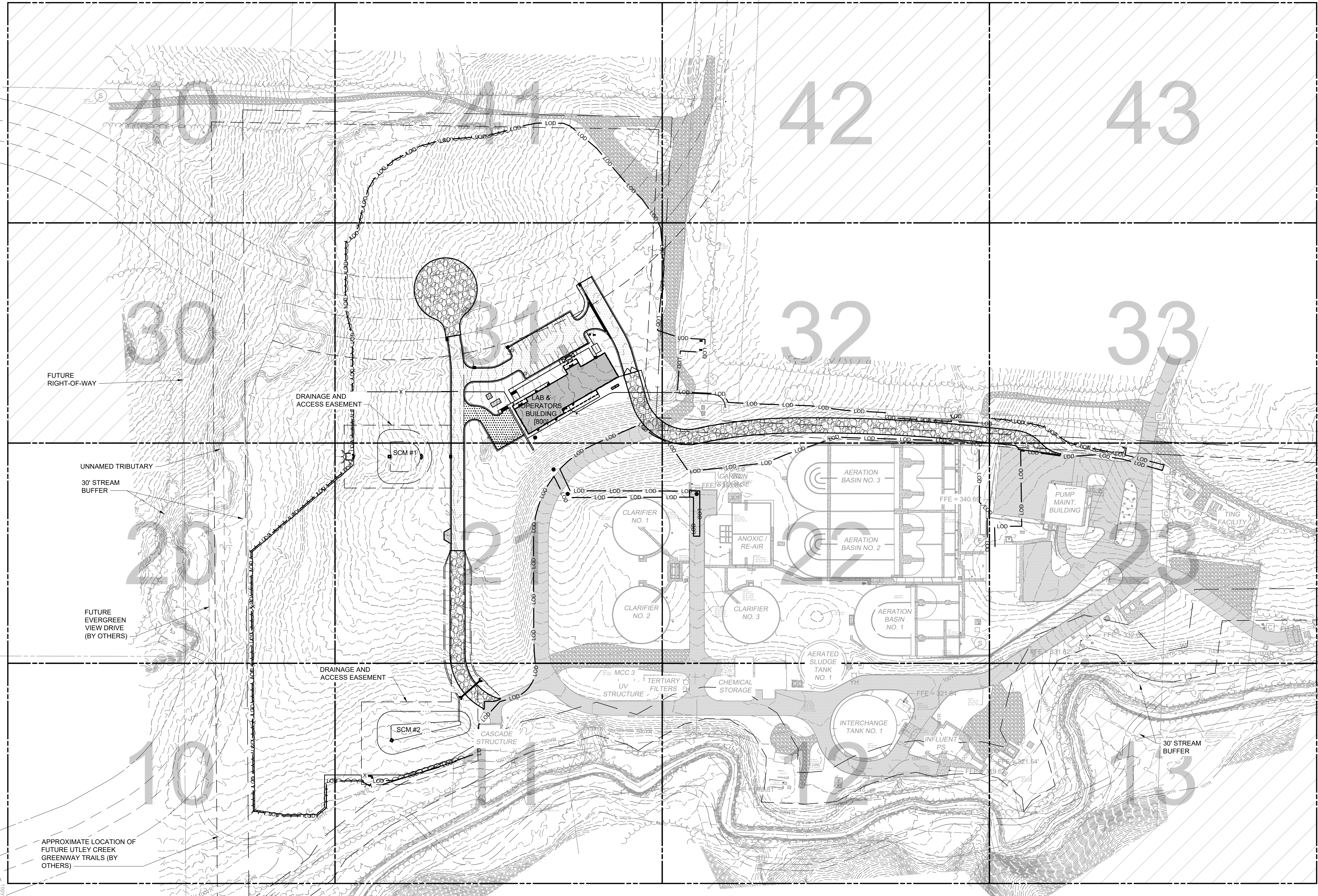
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
SITE LAYOUT PLAN
AREA 41

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C441

File: C:\USERS\SMILLER\ACCORDS\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C500.dwg Saved by: NBOLDEN\OW Save date: 11/7/2024 1:34 PM
PLOT DATE: 11/7/2024 3:03 PM BY: SMILLER



NOTES:

1. ALL INFORMATION SHOWN IS IN NORTH CAROLINA STATE PLANE GRID, SINGLE ZONE NAD83.
2. THE VERTICAL DATUM IS NAVD88.
3. PRELIMINARY SURVEY INFORMATION SHOWN WAS PROVIDED BY DMP, INC. ON AUGUST 23, 2024.
4. EXISTING RECORD DRAWING INFORMATION HAS BEEN USED TO SUPPLEMENT THE PRELIMINARY SURVEY INFORMATION IN THESE 60% CONSTRUCTION PLANS.
5. REFER TO C700 SERIES FOR STORM DRAIN PIPING AND C800 SERIES FOR PLAN AND PROFILES.

PLAN
SCALE: 1" = 80'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



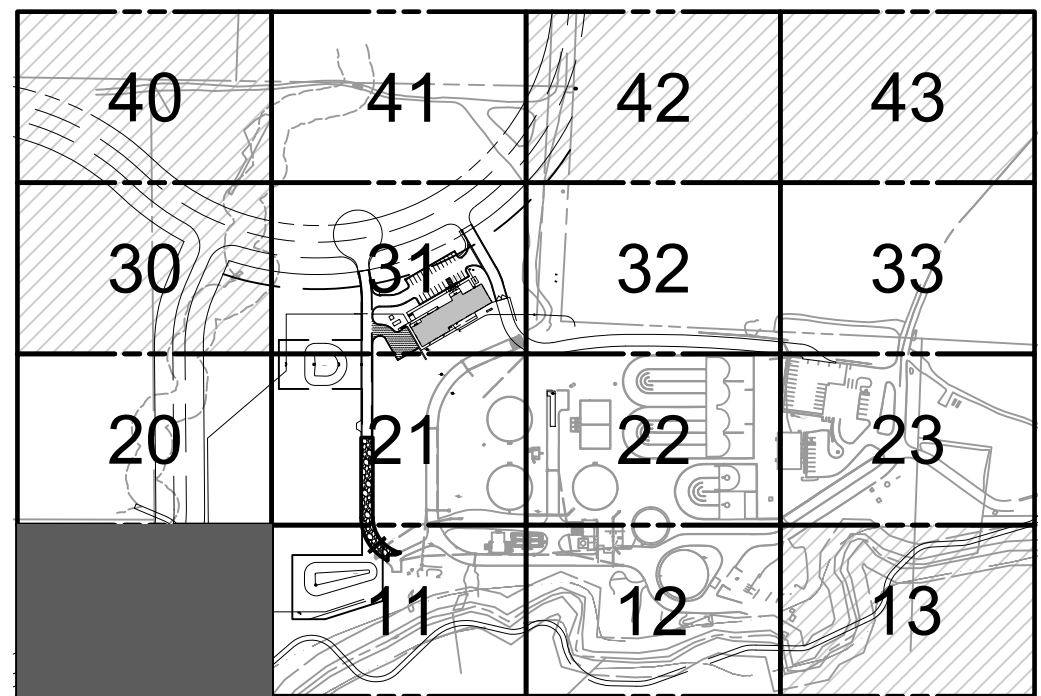
Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
GRADING & DRAINAGE PLAN
OVERALL

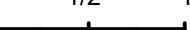
DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C500



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
GRADING & DRAINAGE PLAN
AREA 10

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C510



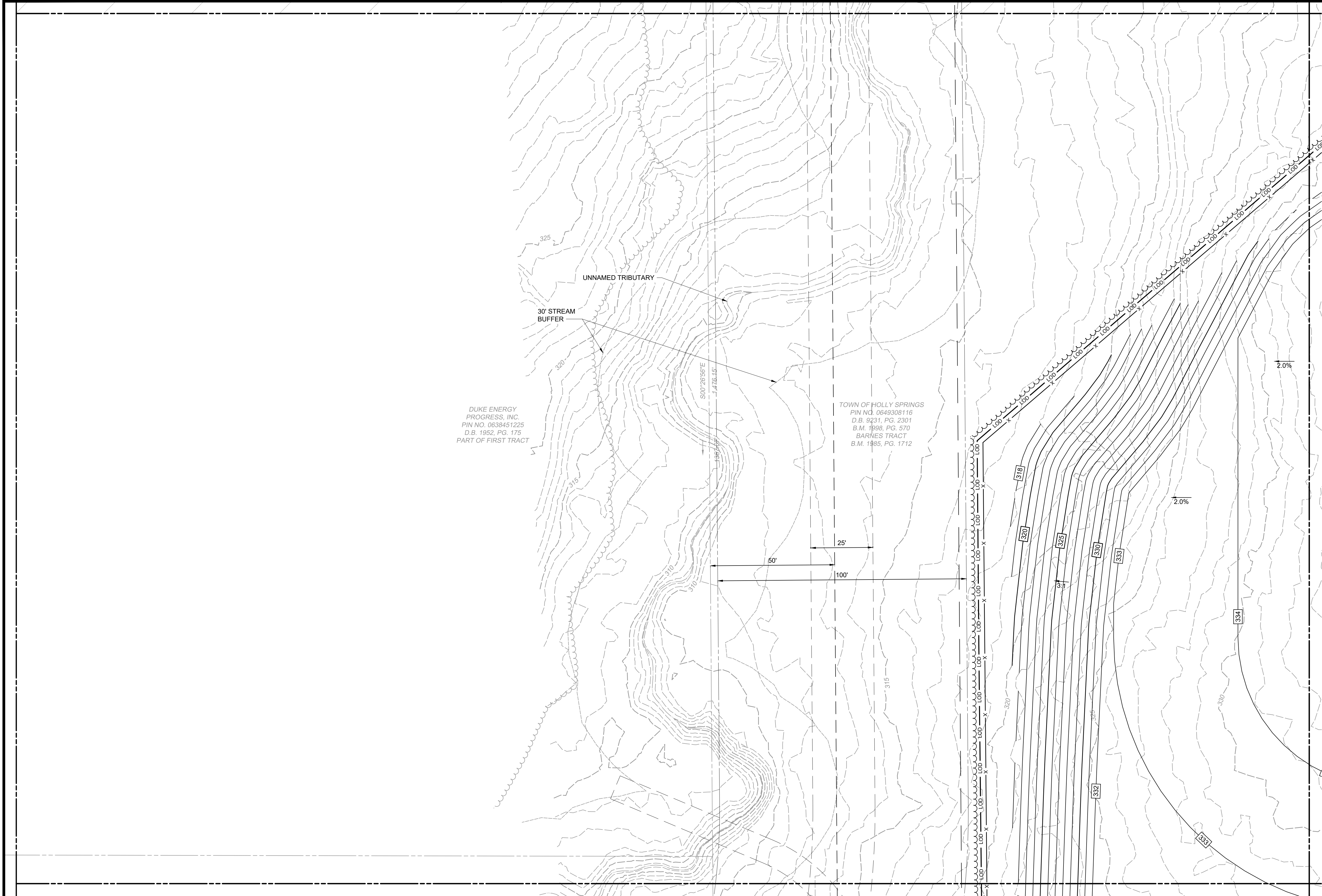
PLAN
SCALE: 1" = 20'

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0  1/2" 1"

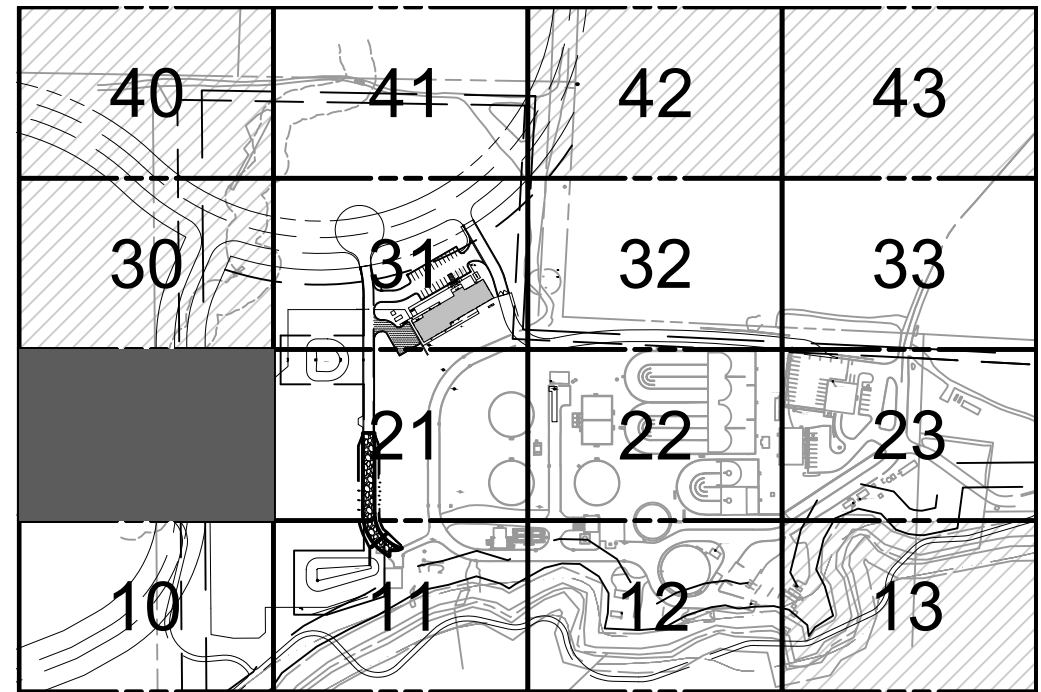
UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

C511

File: C:\USERS\MILLER\ACCD\CS\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C520.dwg Saved by: JPEREZ Save date: 10/16/2024 11:36 AM
PLOT DATE: 11/7/2024 3:04 PM BY: SMILLER



PLAN
SCALE: 1" = 20'



KEY MAP
SCALE: N.T.S.

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

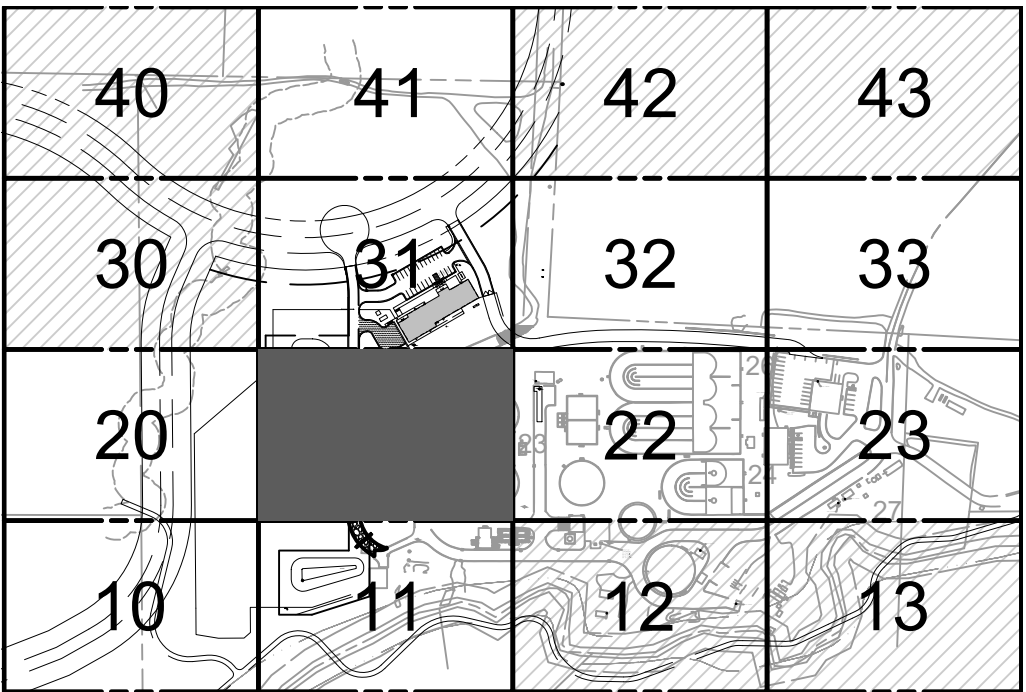
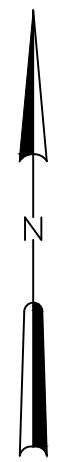
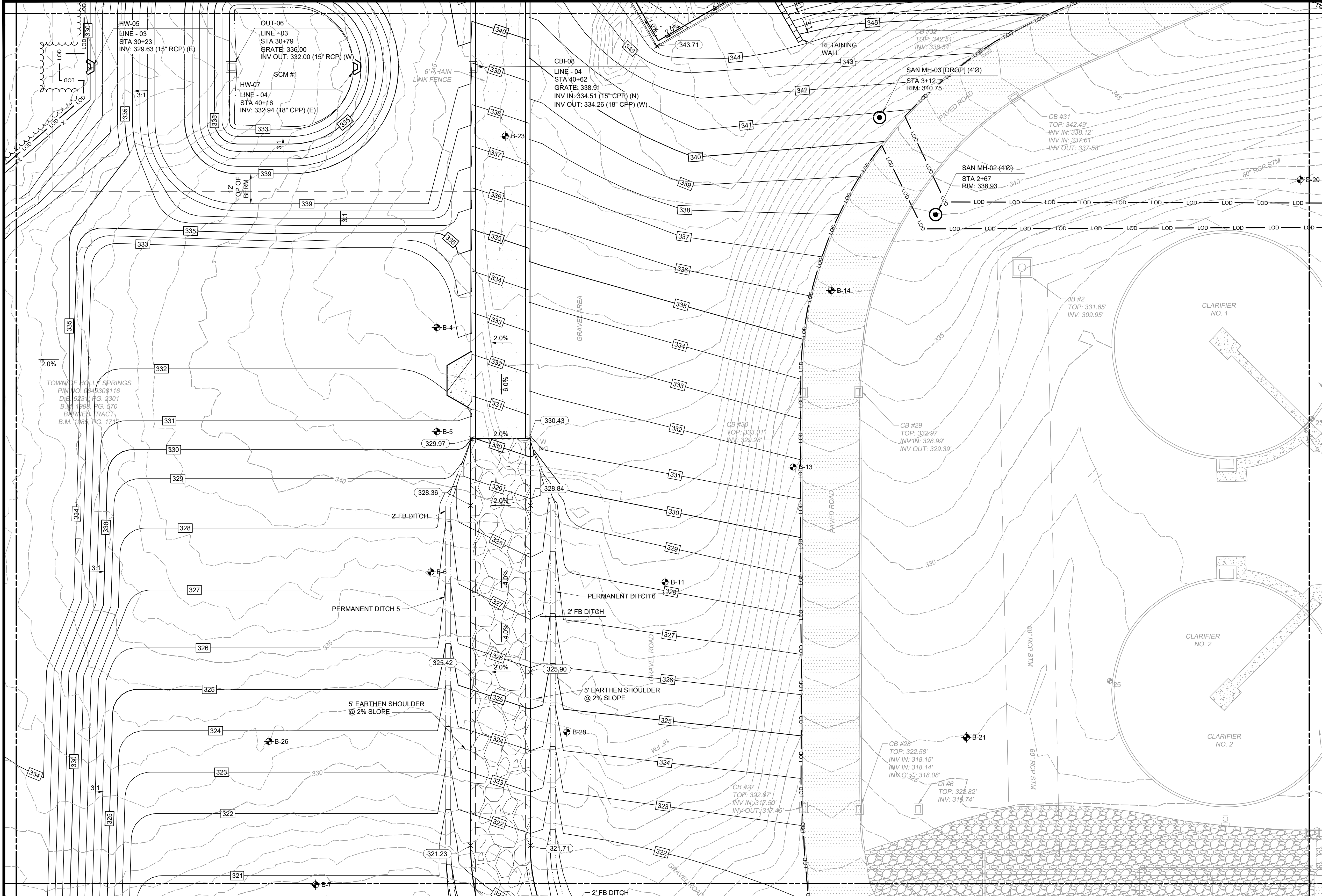
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
GRADING & DRAINAGE PLAN
AREA 20

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C520

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PLOT DATE: 11/7/2024 3:05 PM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

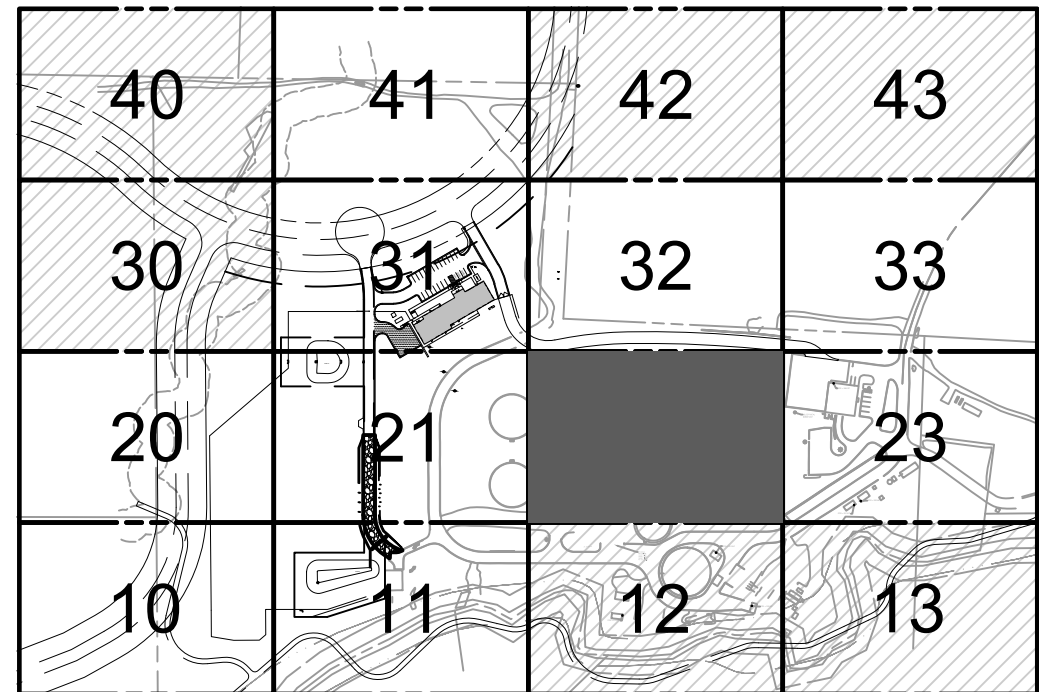
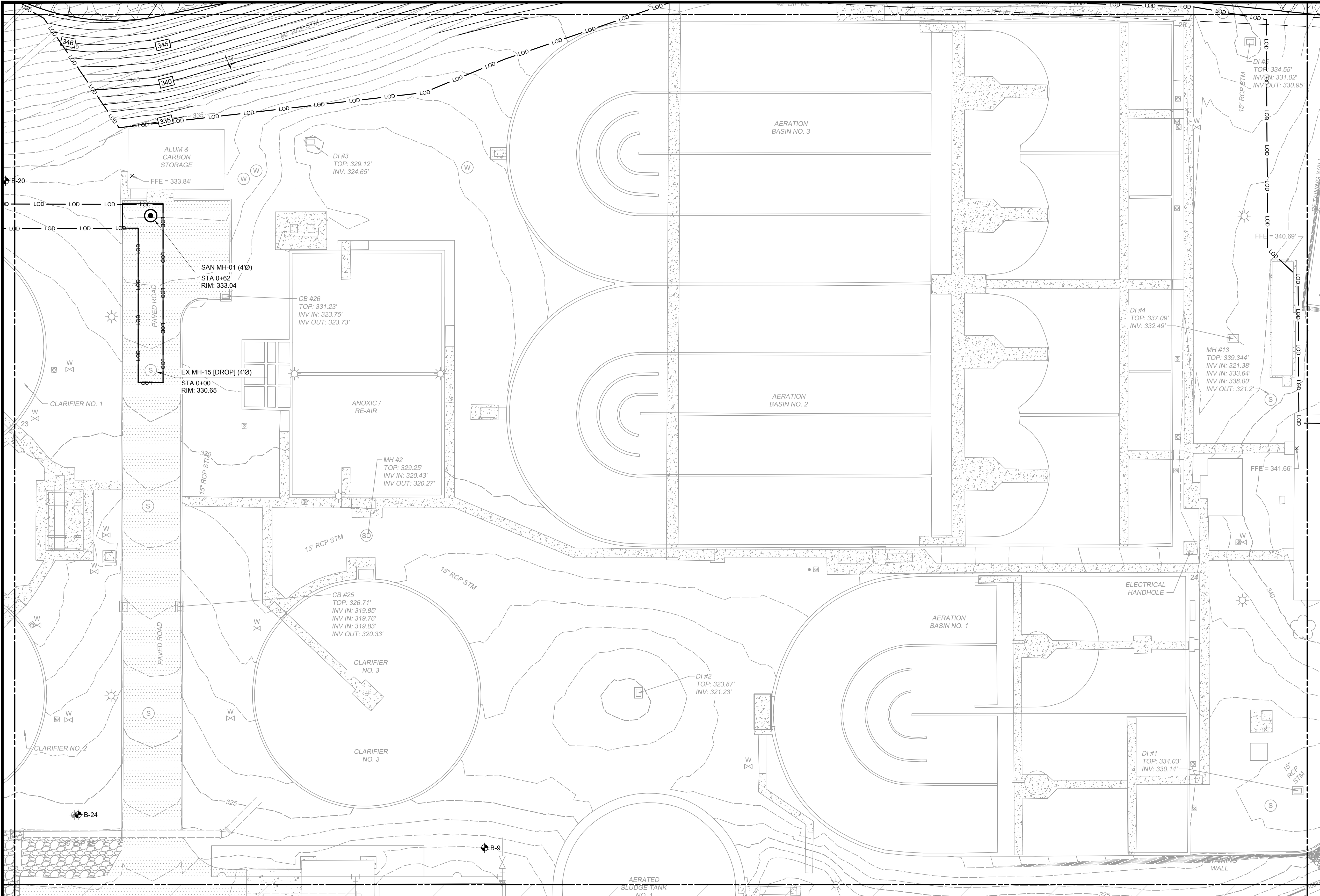
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
GRADING & DRAINAGE PLAN
AREA 21

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C521

File: C:\USERS\SMILLER\Documents\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C522.dwg, Saved by: JPEREZ, Save date: 10/16/2024 11:39 AM
PLOT DATE: 11/8/2024 9:58 AM BY: SMILLER



KEY MAP
SCALE: N.T.S.

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

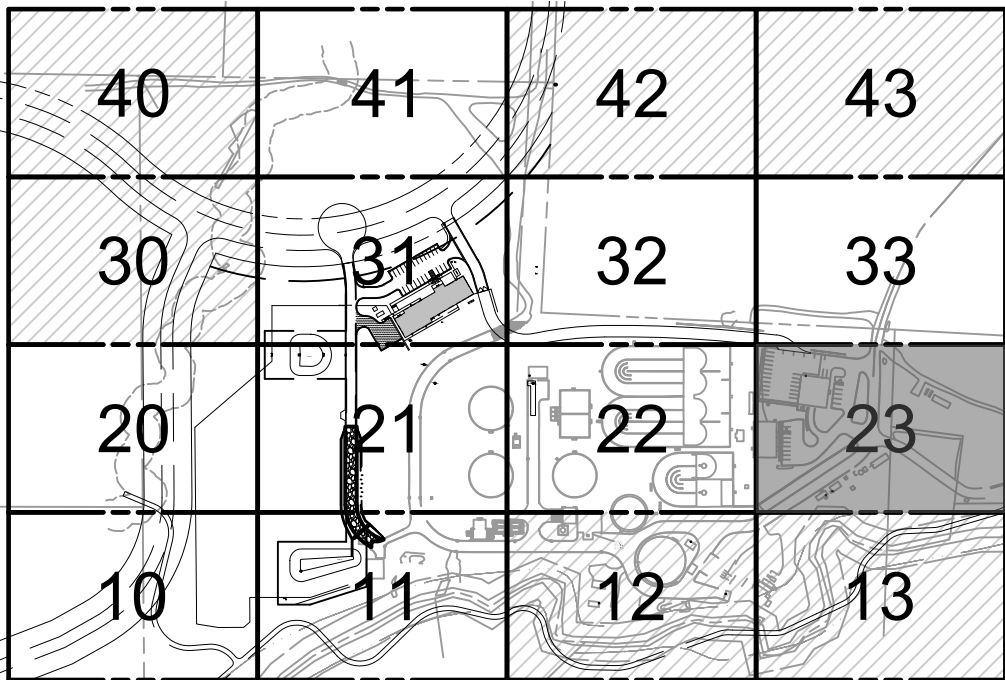
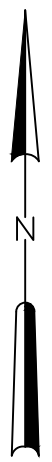
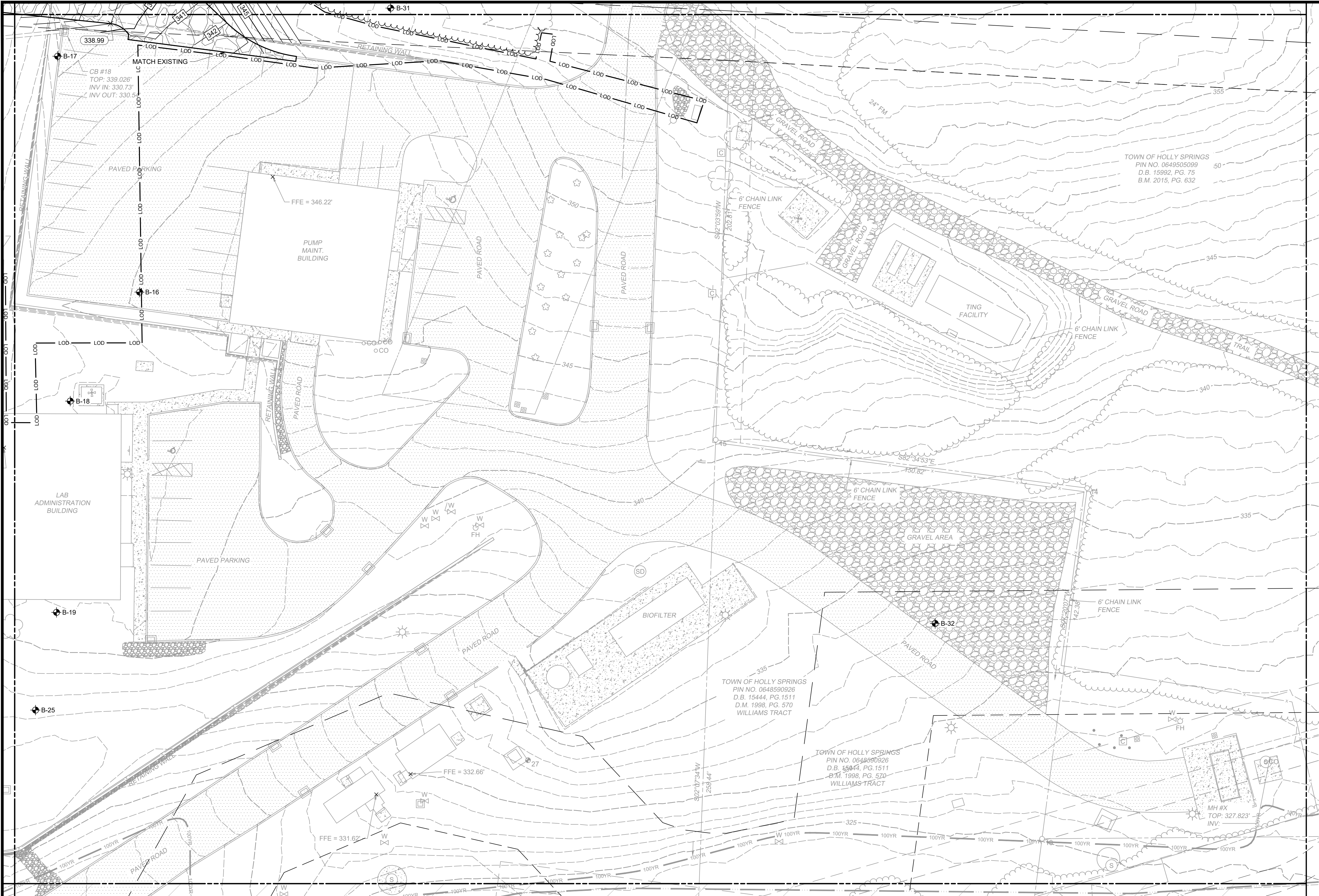
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
GRADING & DRAINAGE PLAN
AREA 22

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C522

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PLOT DATE: 11/7/2024 3:06 PM BY: SMILLER



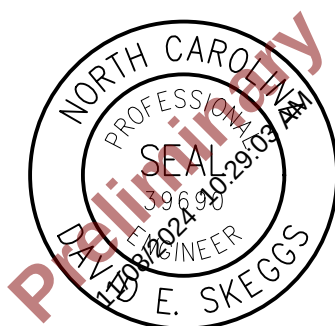
KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

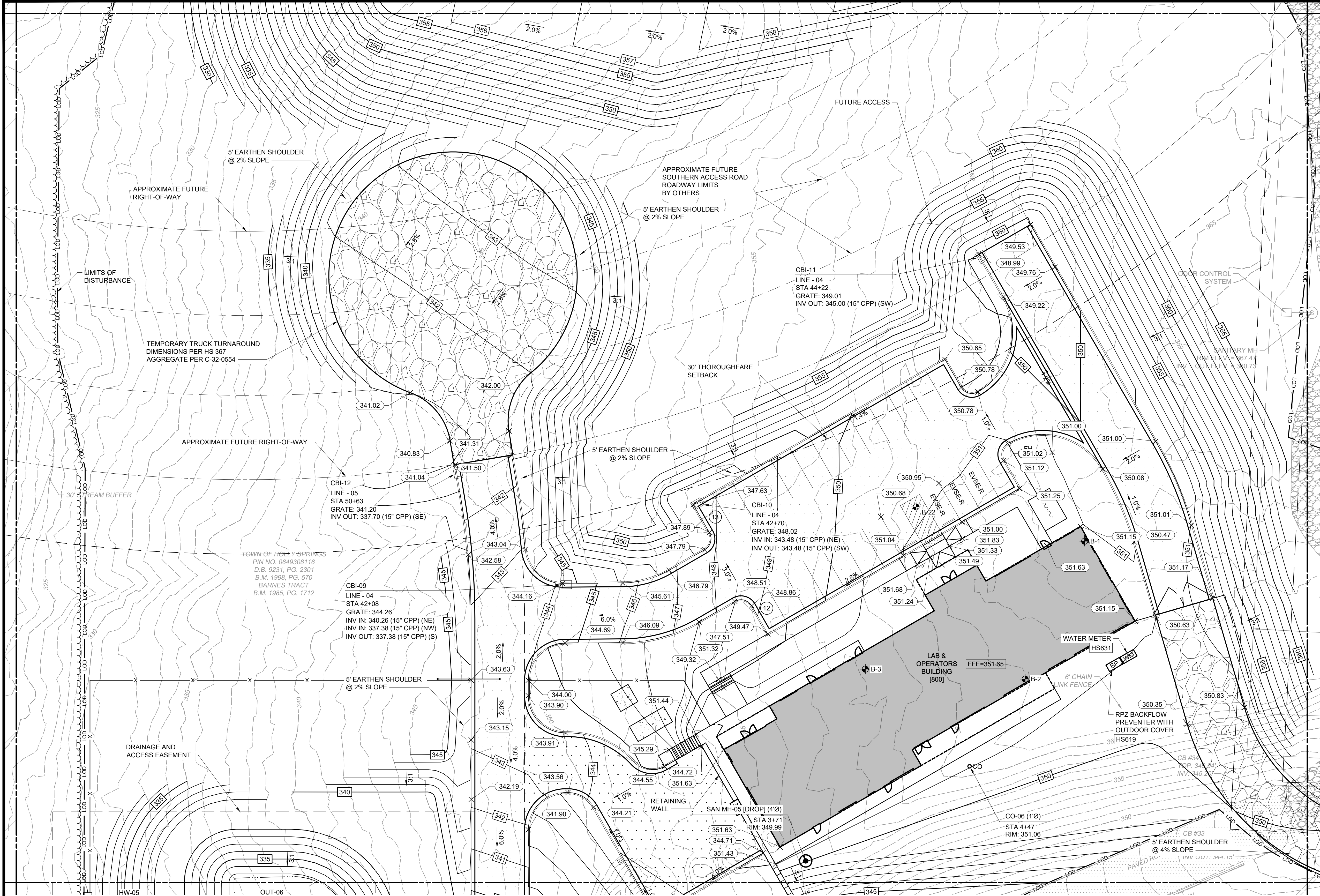
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

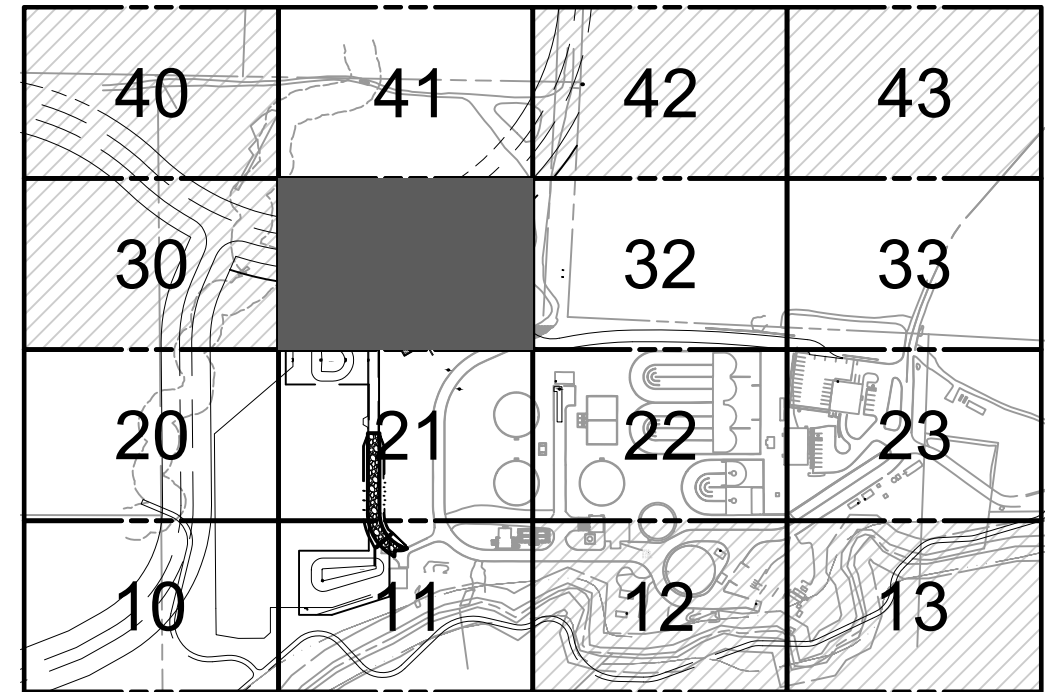
CIVIL
GRADING & DRAINAGE PLAN
AREA 23

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C523

File: C:\USERS\SMILLER\Documents\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF BMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C531.dwg, Saved by: SMILLER, Save date: 11/7/2024, 2:04 PM
PLOT DATE: 11/7/2024, 3:07 PM, BY: SMILLER



PLAN
SCALE: 1" = 20'



KEY MAP
SCALE: N.T.S.

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

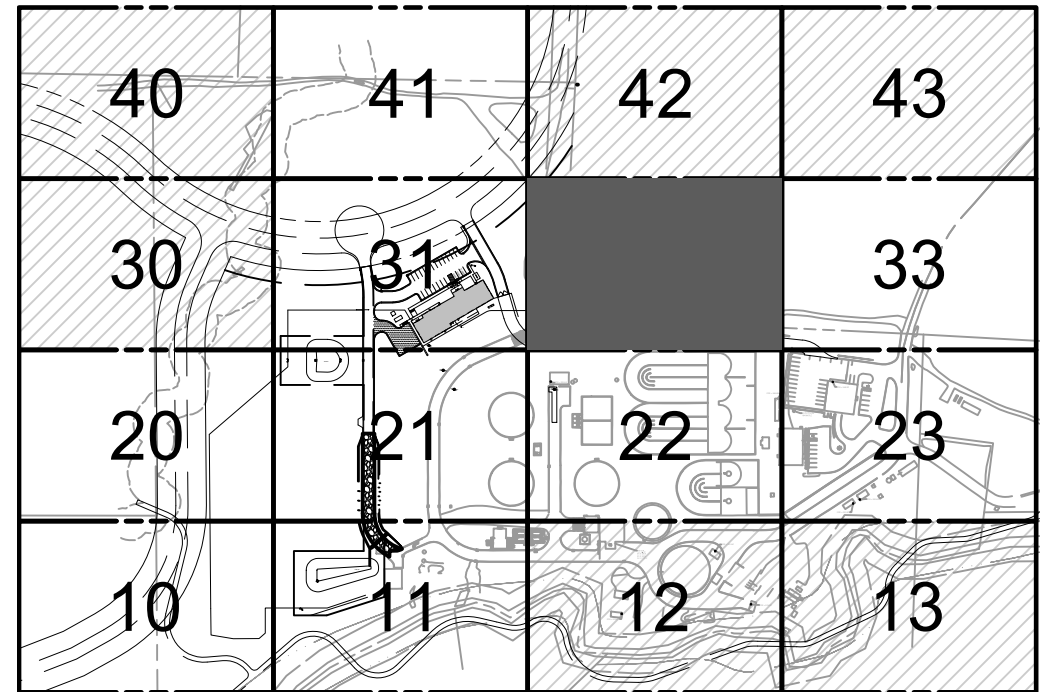
CIVIL
GRADING & DRAINAGE PLAN
AREA 31

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C531

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PLOT DATE: 11/8/2024 9:59 AM BY: SMILLER



PLAN
SCALE: 1" = 20'



KEY MAP
SCALE: N.T.S.

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

Hazen

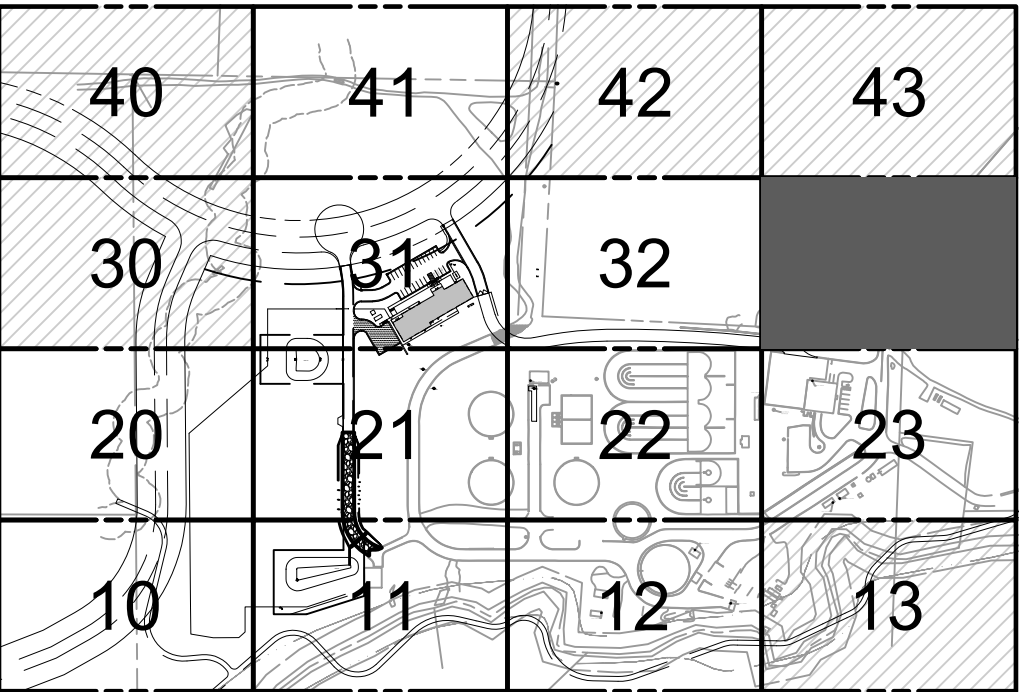
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
GRADING & DRAINAGE PLAN
AREA 32

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C532



PLAN

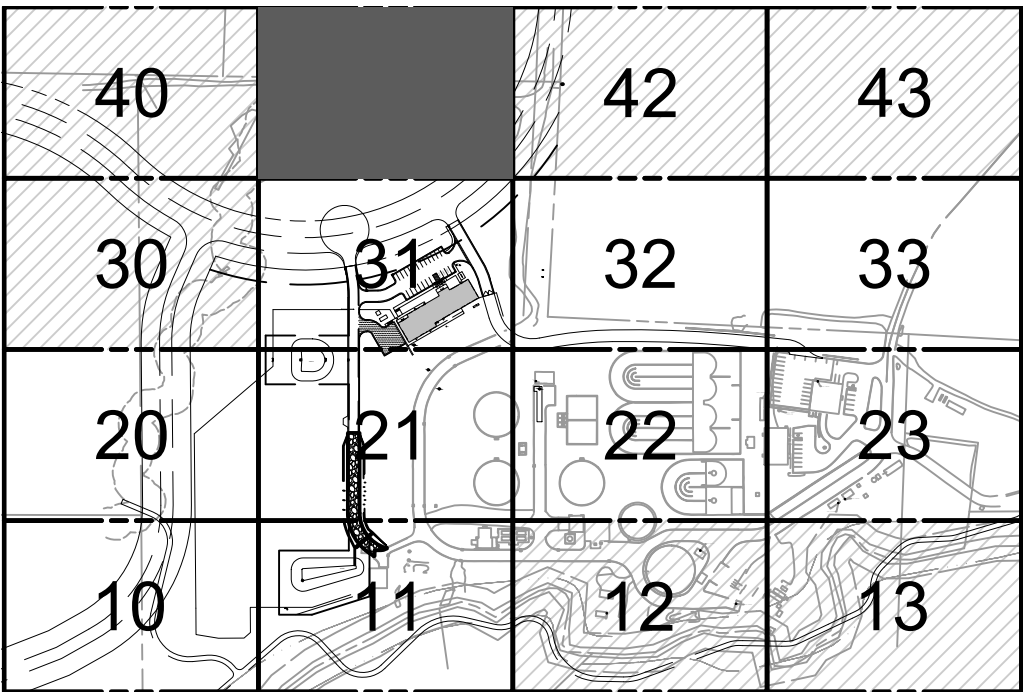
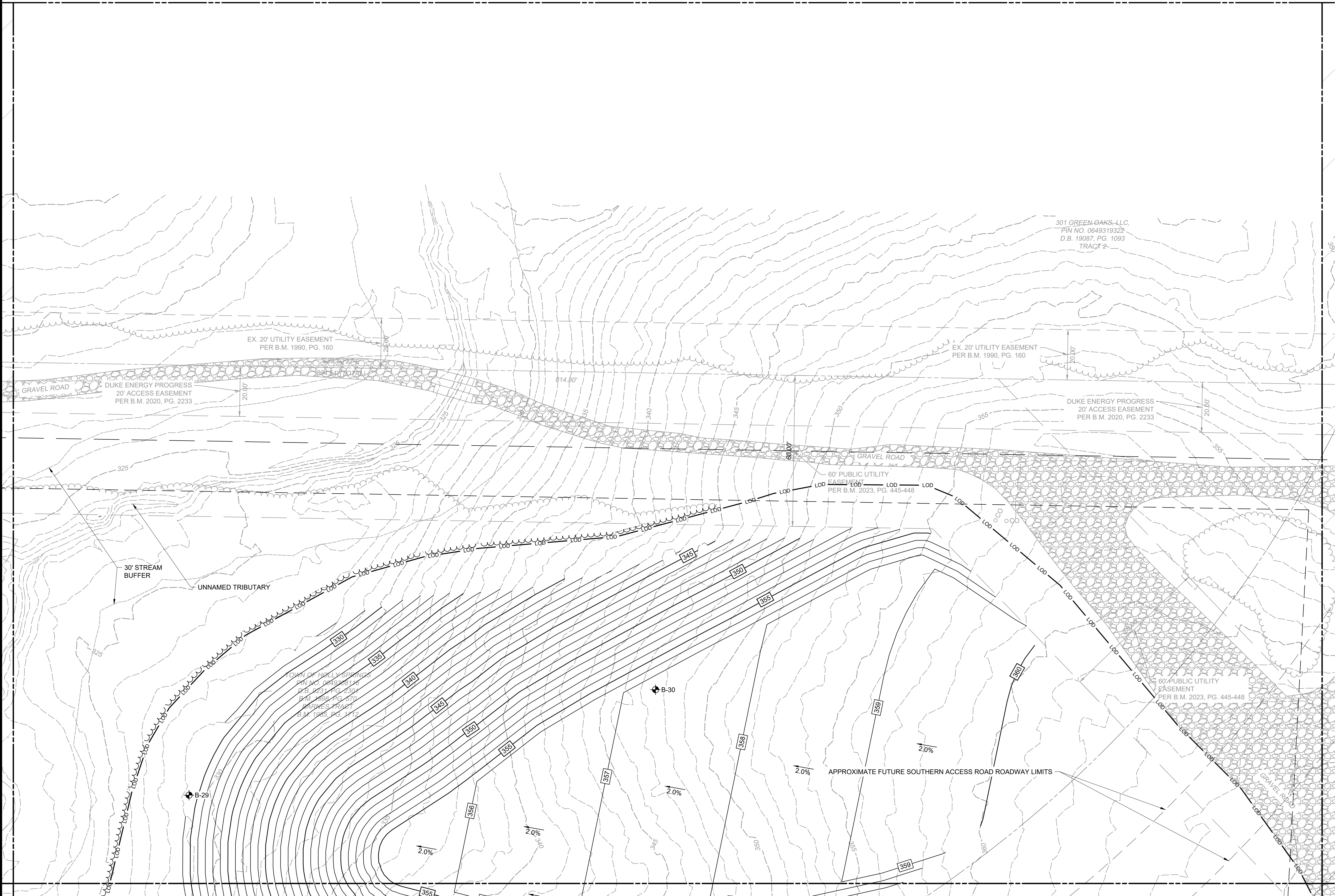
SCALE: 1" = 20'

PROJECT ENGINEER:	D. WANKMULLER		
DESIGNED BY:	W. ELLIS		
DRAWN BY:	S. MILLER		
CHECKED BY:	D. SKEGGS		
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE		0	1/2" 1"
			

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C533

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PLOT DATE: 11/7/2024 3:09 PM BY: SMILLER



REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

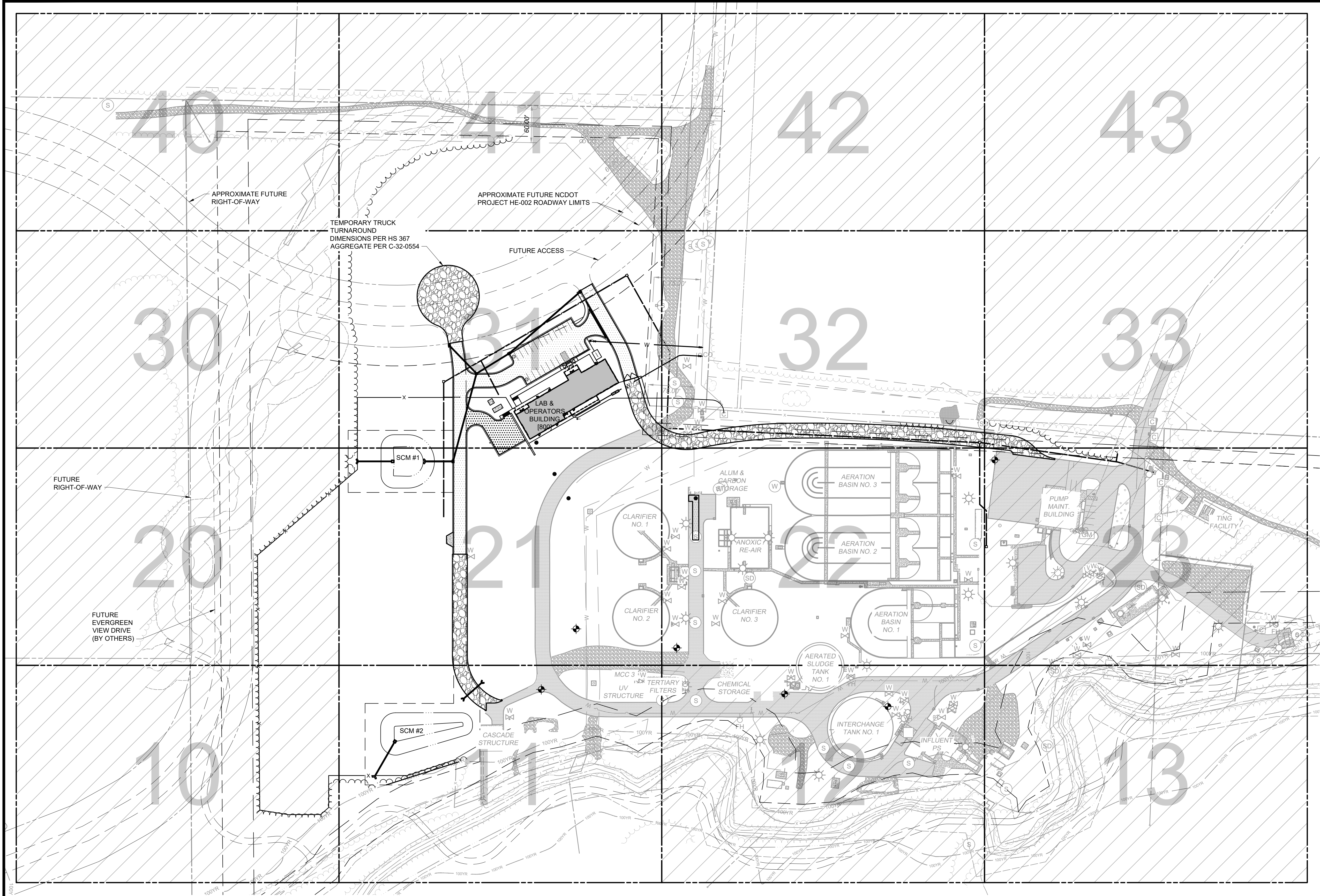
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
GRADING & DRAINAGE PLAN
AREA 41

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C541

File: C:\USERS\SMILLER\Documents\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C700.dwg Saved by: JPEREZ Save date: 10/18/2024 12:12 PM
PLOT DATE: 11/7/2024 3:14 PM BY: SMILLER



NOTES:

1. ALL INFORMATION SHOWN IS IN NORTH CAROLINA STATE PLANE GRID, SINGLE ZONE NAD83.
2. THE VERTICAL DATUM IS NAVD88.
3. PRELIMINARY SURVEY INFORMATION SHOWN WAS PROVIDED BY DMP, INC. ON JULY 11, 2024.
4. EXISTING RECORD DRAWING INFORMATION HAS BEEN USED TO SUPPLEMENT THE PRELIMINARY SURVEY INFORMATION IN THESE 30% CONSTRUCTION PLANS.
5. MINIMUM COVER FOR PROPOSED SANITARY PIPES OR WATERLINES SHALL BE 36".

PLAN
SCALE: 1" = 80'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

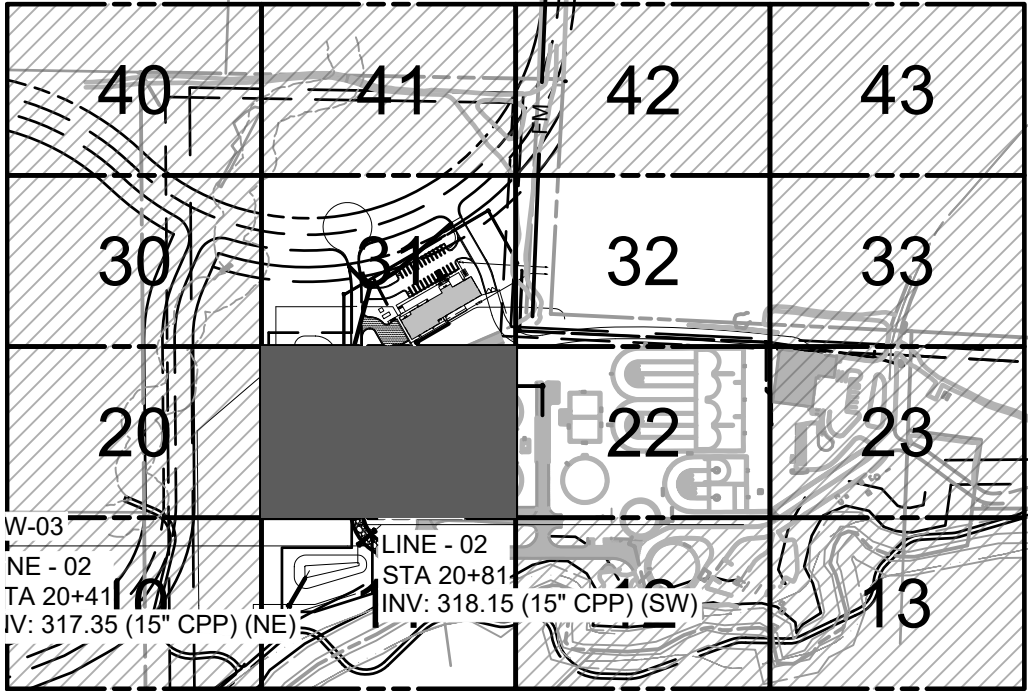
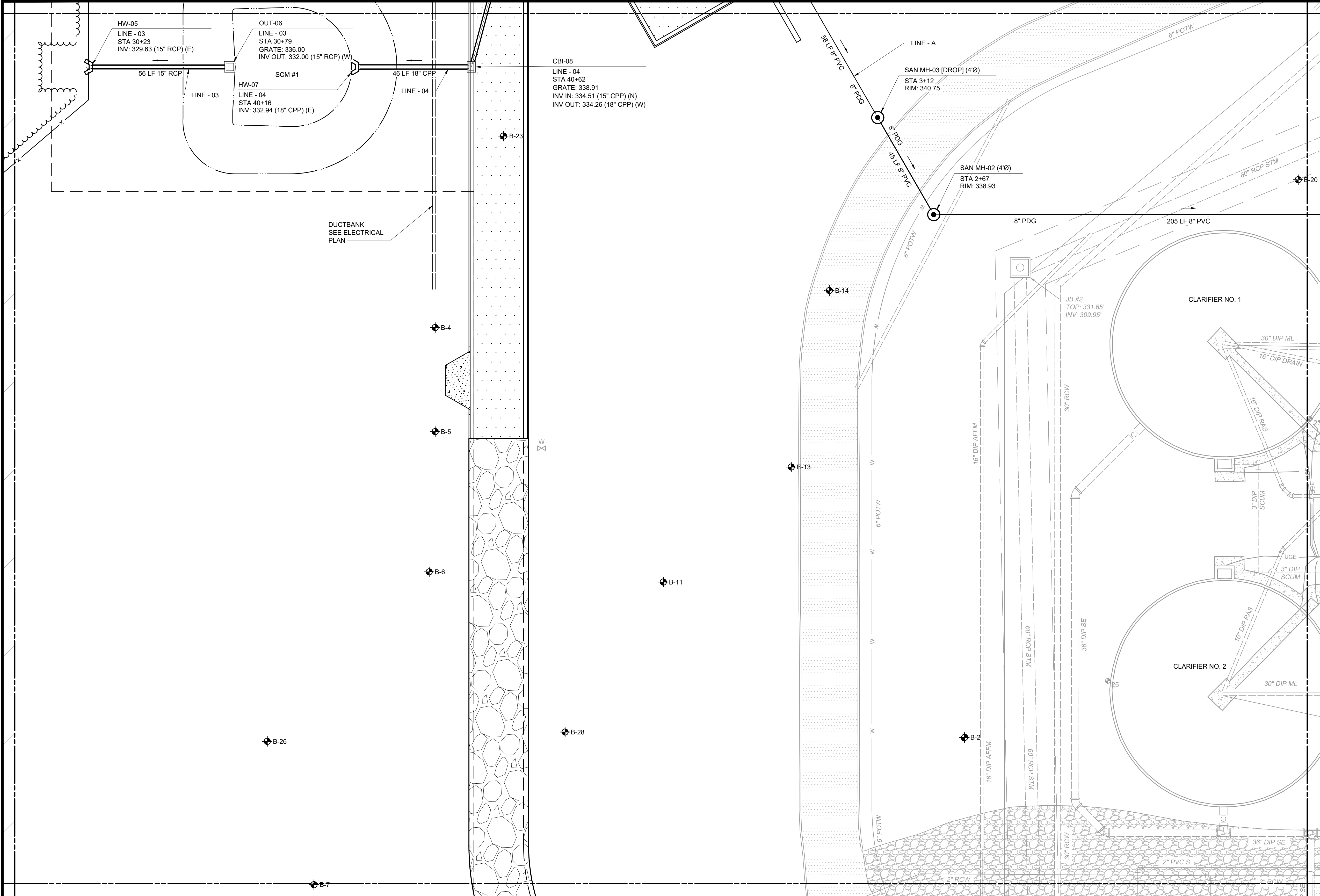
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
YARD PIPING PLAN
OVERALL

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C700

File: C:\USERS\SMILLER\Documents\HAZEN AND SAWYER\31407-006 UTLEY CREEK WRF RMGD EXPANSION\PROJECT FILES\01_DESIGN\CIVIL\EARLY WORK PACKAGES\LABS AND OPERATORS BLDG\31407-006 C721.dwg, Saved by: JPEREZ, Save date: 10/18/2024 11:09 AM
PLOT DATE: 11/7/2024 3:14 PM BY: SMILLER



KEY MAP
SCALE: N.T.S.

PLAN
SCALE: 1" = 20'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

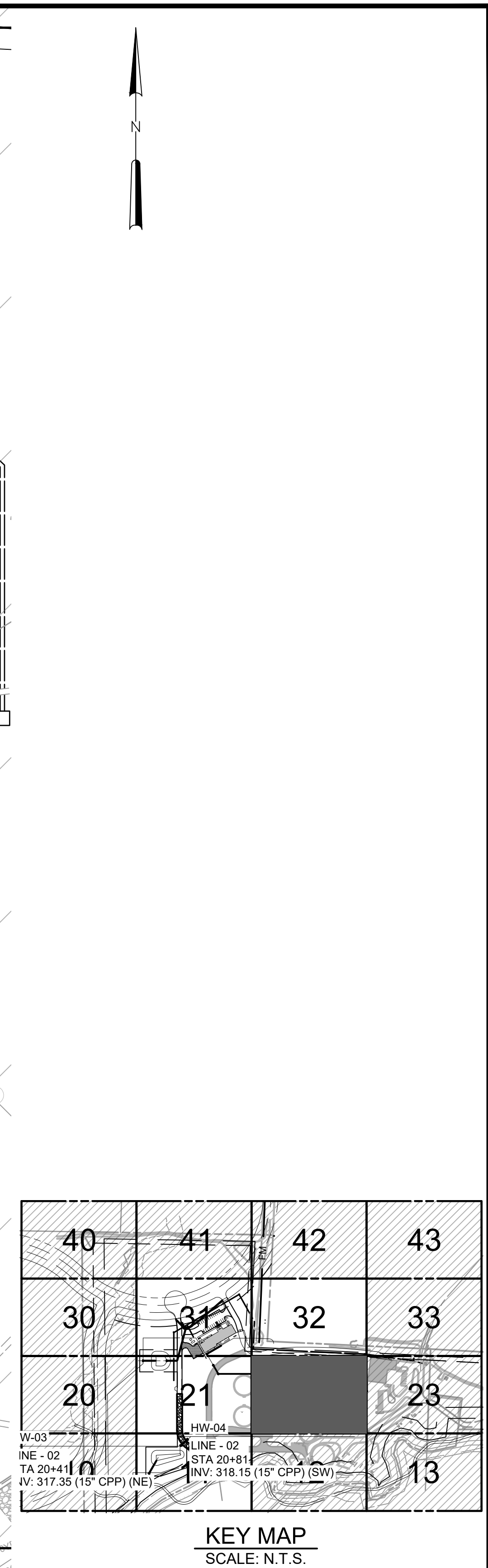
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
YARD PIPING PLAN
AREA 21

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C721



SCALE: 1" = 20'

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1 

Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO. (919) 833-7152

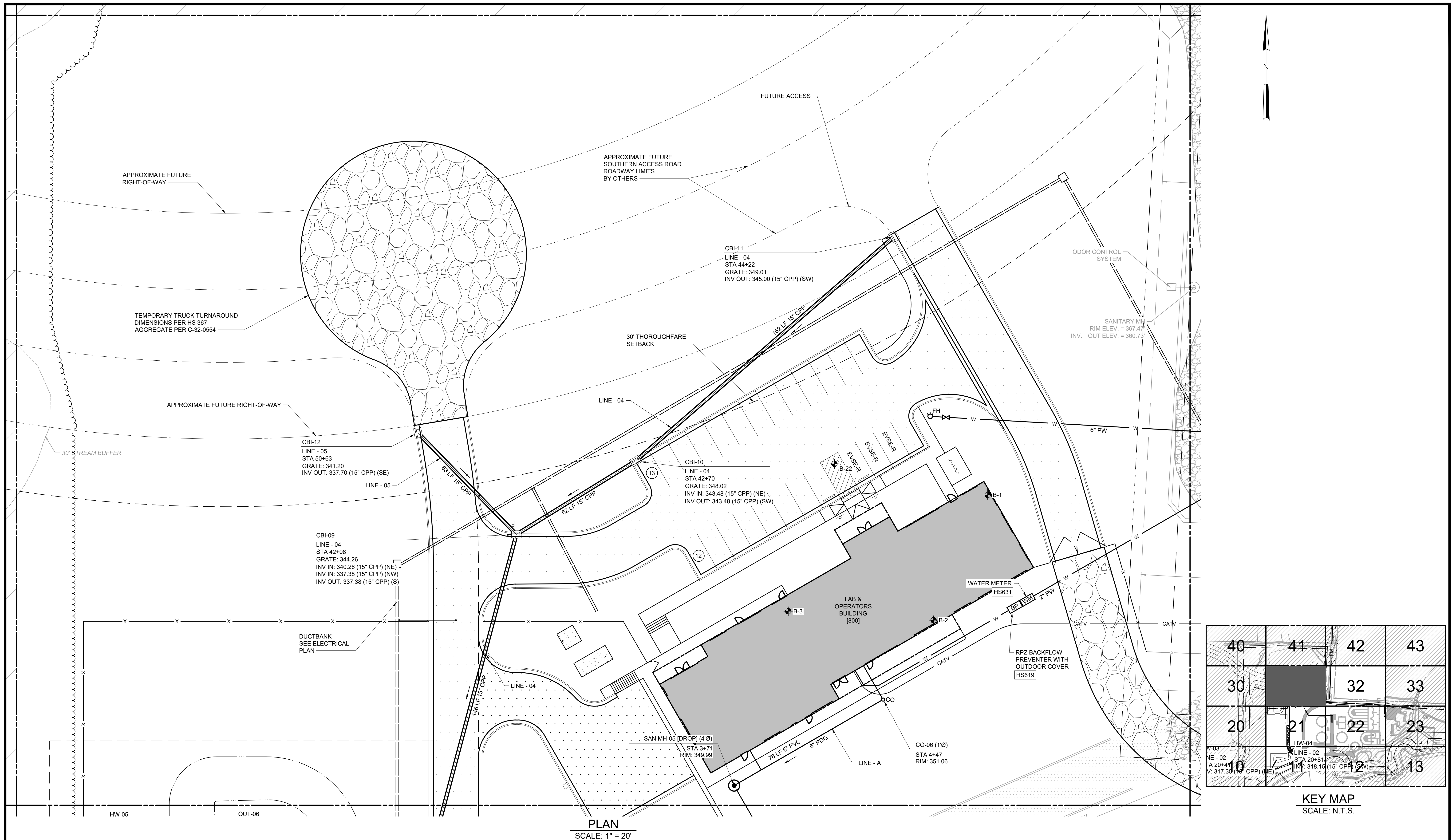
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
YARD PIPING PLAN
AREA 22

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

C722

[illegible]

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0  1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

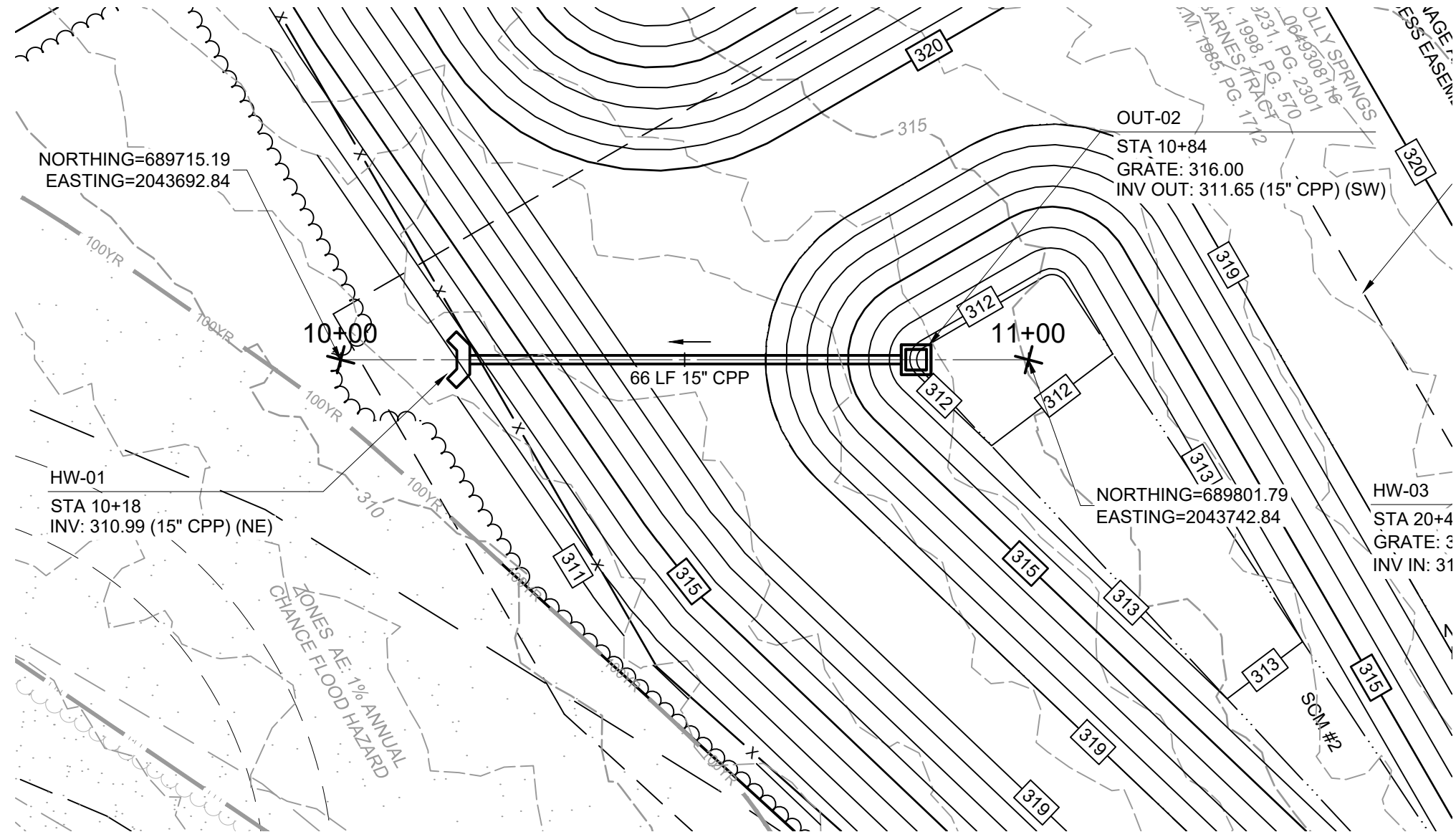
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

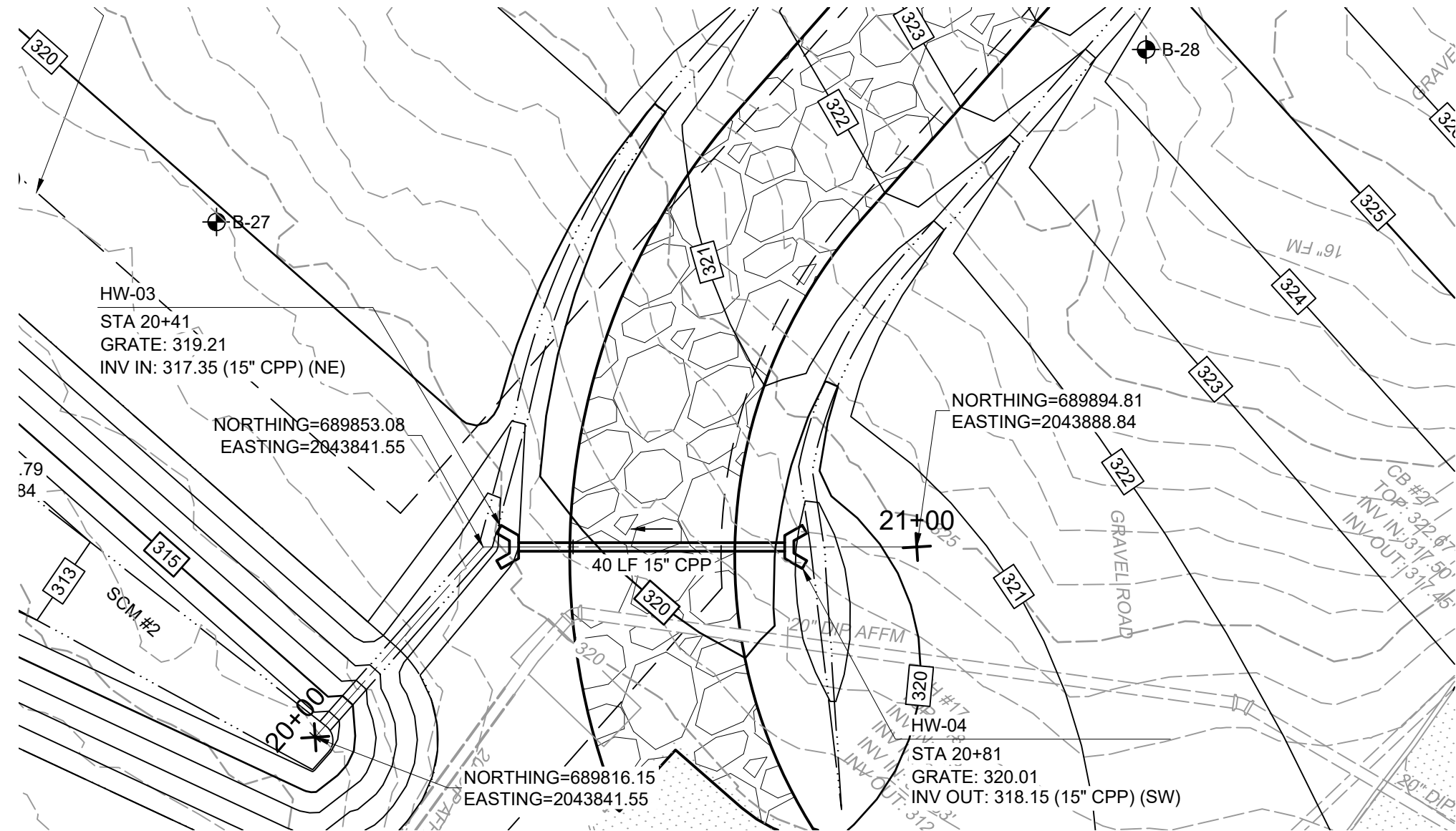
CIVIL
YARD PIPING PLAN
AREA 31

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C731

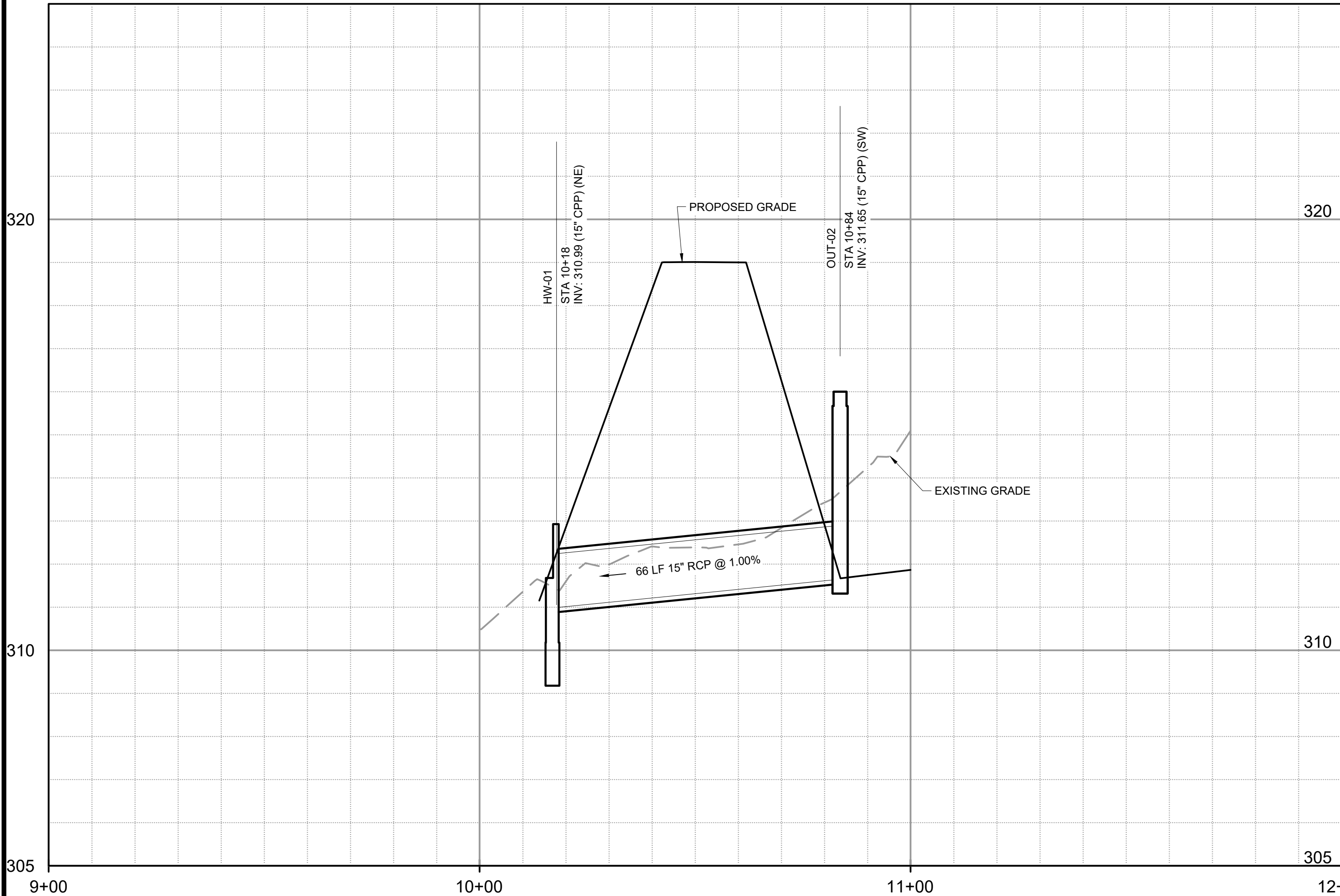
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PLOT DATE: 11/8/2024 10:26 AM BY: WELLIS



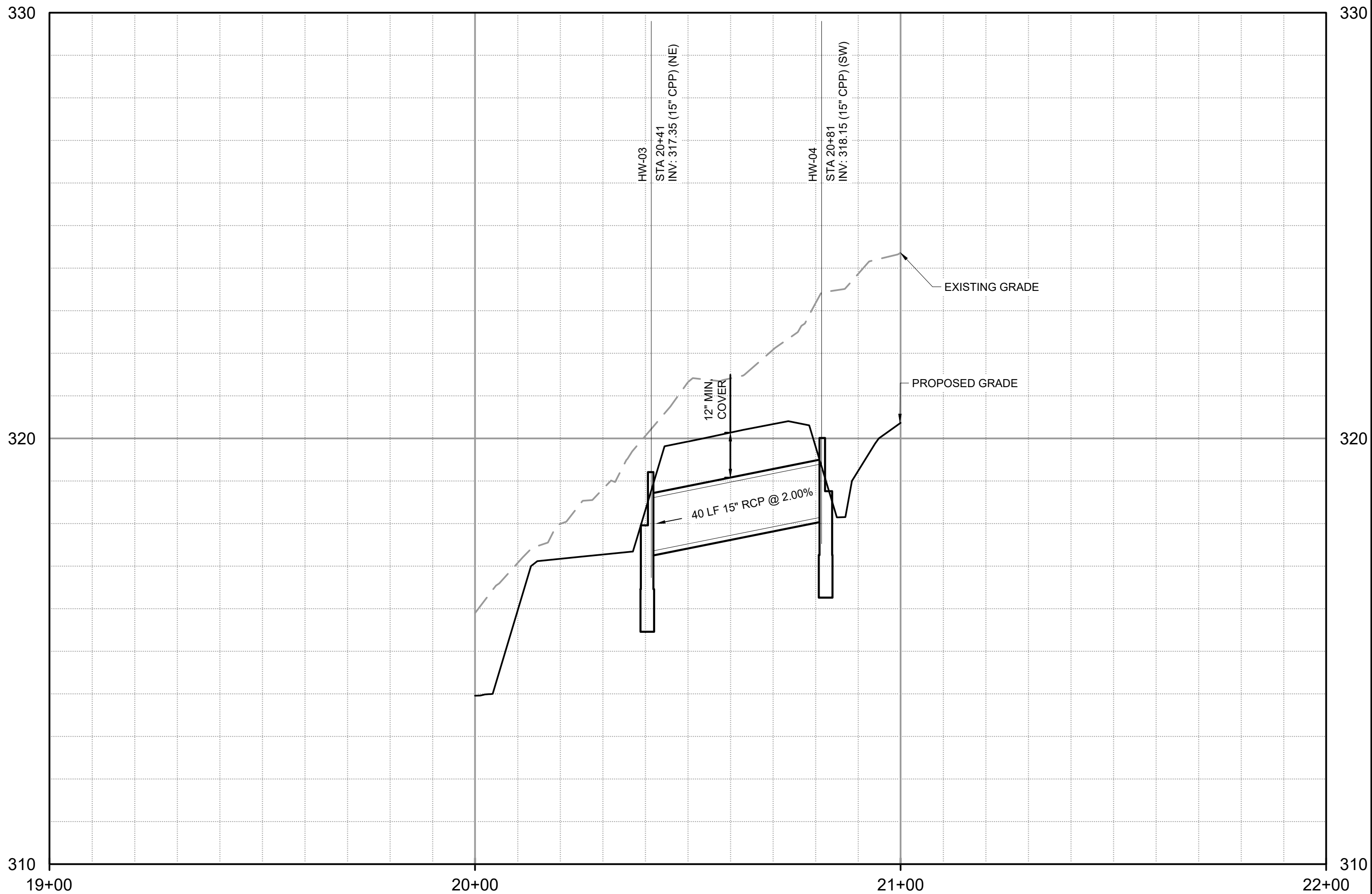
PLAN
SCALE: 1" = 20'



PLAN
SCALE: 1" = 20'



LINE - 01 PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



LINE - 02 PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
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CONSTRUCTION



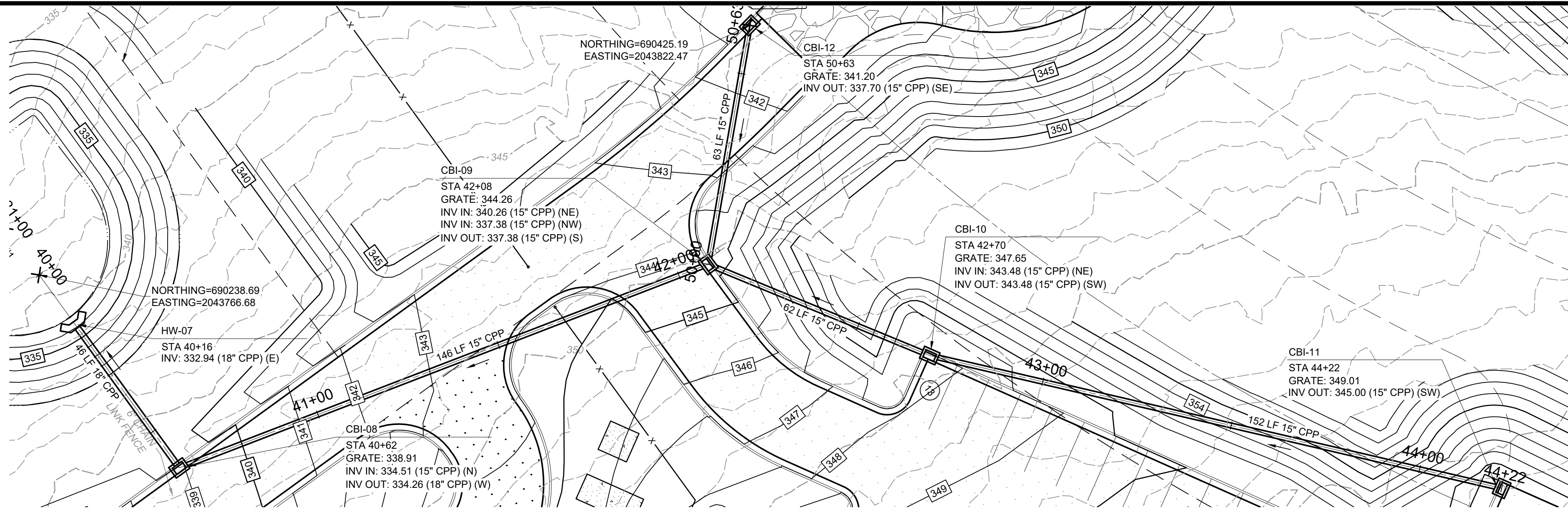
Hazen
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

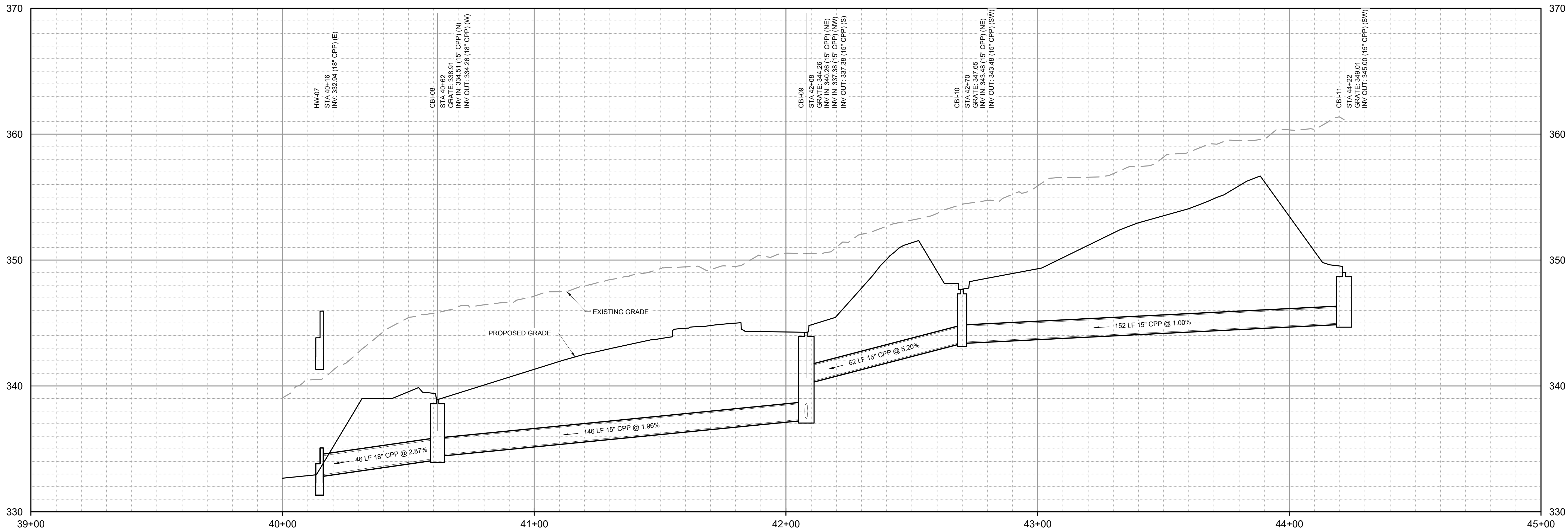
UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
PLAN & PROFILES
STORM LINE 01 & STORM LINE 02

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C801



PLAN
SCALE: 1" = 20'



LINE - 04 PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4'

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	S. MILLER
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
0 1/2" 1"	

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

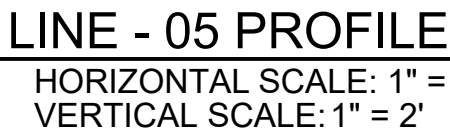
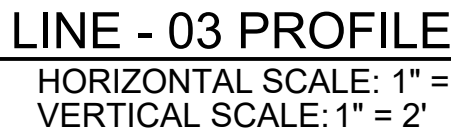
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

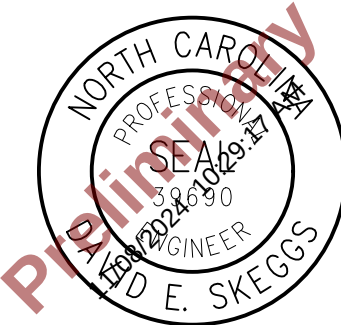
CIVIL
PLAN & PROFILES
STORM LINE 04

C802

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C802



60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION



TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL
PLAN & PROFILES
STORM LINE 03 & STORM LINE 05

C803

NOTES:

1. WHERE PERIMETER BUFFER INCREMENTS ARE NOT 100 FEET IN LENGTH, THE LANDSCAPE MATERIAL HAS BEEN ADJUSTED PROPORTIONALLY.
2. DRIVEWAY WIDTHS HAVE BEEN EXCLUDED FROM THE OVERALL PERIMETER BUFFER LENGTH CALCULATIONS.
3. TREE PROTECTION FENCING TO BE PROVIDED ALONG CLEARING LIMITS. SEE DETAIL HS403.
4. OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL REQUIRED LANDSCAPING BY KEEPING LAWNS MOWED, ALL PLANTS MAINTAINED AS DISEASE FREE, ALL PLANTING BEDS GROOMED AND KEPT WEED FREE (EXCEPT IN AREAS OF PRESERVED EXISTING NATURAL VEGETATION (I.E., THICKETS), AND KEPT FREE FROM TRASH, DEBRIS, AND OTHER OBJECTIONABLE MATERIALS.
5. THE REPLACEMENT OF ANY REQUIRED PLANTING, WHICH IS REMOVED OR DIES AFTER THE DATE OF PLANTING SHALL OCCUR DURING THE NEXT PLANTING SEASON.
6. THE REPLACEMENT OF ANY TREE IN A TREE SAVE AREA, WHICH IS REMOVED OR DIES AFTER THE DATE OF APPROVAL OF A PRESERVATION LANDSCAPE PLAN, SHALL OCCUR DURING THE NEXT PLANTING SEASON.

FOUNDATION LANDSCAPING CALCULATIONS					
FOUNDATION LANDSCAPING REQUIREMENTS:					
REQUIRED ALONG ANY FAÇADE FACING A STREET OR PARKING AREA, AS WELL AS 25% OF THE ADJACENT FAÇADE					
(1) CANOPY TREE PER 75 LF OR (2) UNDERSTORY TREES PER 75 LF					
(1) LARGE SHRUB, (1.5) MEDIUM SHRUBS, OR (2) SMALL SHRUBS PER 5 FT)					
LOCATION	LENGTH REQUIRED	LANDSCAPE MATERIAL TYPE	SIZE	QTY	CREDIT LENGTH
NORTH FAÇADE	170 LF	SMALL TREE @ 1.5" CAL	1.5" CAL	7	262.5
		LARGE SHRUB	#5 CONT	3	15.0
		MEDIUM SHRUB	#3 CONT	6	20.0
		SMALL SHRUB	#1 CONT	25	62.5
EAST FAÇADE	11.25 LF	MEDIUM SHRUB	#1 CONT	9	30.0
SOUTH FAÇADE	NA	MEDIUM SHRUB	#3 CONT	3	10.0
		SMALL SHRUB	#1 CONT	11	27.5

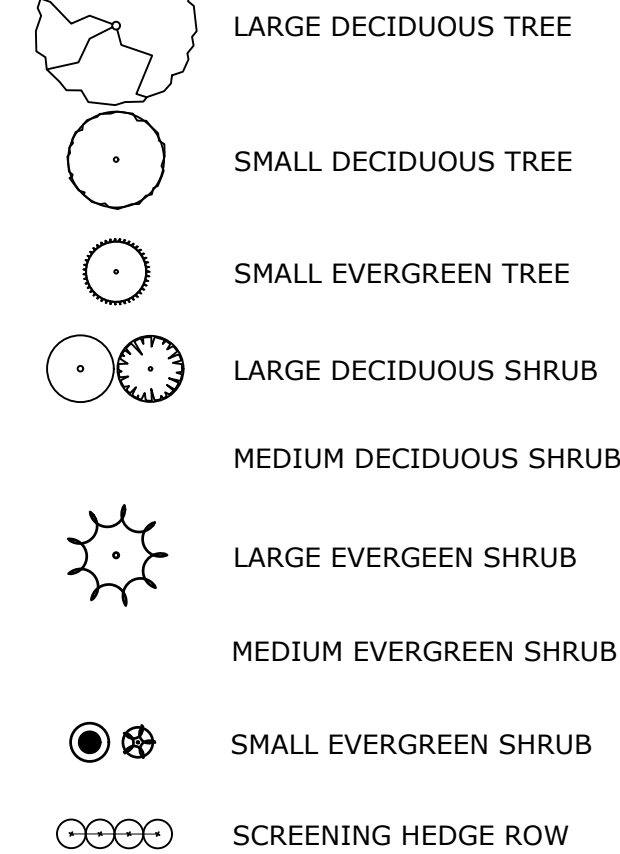
STREET TREE CALCULATIONS				
STREET NAME(S)	STREET LENGTH	LANDSCAPING MATERIAL	TREE SPACING	TOTAL TREES PROVIDED
PRIVATE DRIVE & SOUTH ACCESS RD CONNECTOR	750 FT	LARGE DECIDUOUS TREES (NO MORE THAN 55% OF A SINGLE SPECIES)	55 FT - 65 FT O.C.	13

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CONSTRUCTION

TOWN OF HOLLY SPRINGS HOLLY SPRINGS, NORTH CAROLINA
UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C900

1. WHERE PERIMETER BUFFER INCREMENTS ARE NOT 100 FEET IN LENGTH, THE LANDSCAPE MATERIAL HAS BEEN ADJUSTED PROPORTIONALLY.
2. DRIVEWAY WIDTHS HAVE BEEN EXCLUDED FROM THE OVERALL PERIMETER BUFFER LENGTH CALCULATIONS.
3. TREE PROTECTION FENCING TO BE PROVIDED ALONG CLEARING LIMITS. SEE DETAIL HS403.
4. OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL REQUIRED LANDSCAPING BY KEEPING LAWNS MOWED, ALL PLANTS MAINTAINED AS DISEASE FREE, ALL PLANTING BEDS GROOMED AND KEPT WEED FREE (EXCEPT IN AREAS OF PRESERVED EXISTING NATURAL VEGETATION (I.E., THICKETS), AND KEPT FREE FROM TRASH, DEBRIS, AND OTHER OBJECTIONABLE MATERIALS.
5. THE REPLACEMENT OF ANY REQUIRED PLANTING, WHICH IS REMOVED OR DIES AFTER THE DATE OF PLANTING SHALL OCCUR DURING THE NEXT PLANTING SEASON.
6. THE REPLACEMENT OF ANY TREE IN A TREE SAVE AREA, WHICH IS REMOVED OR DIES AFTER THE DATE OF APPROVAL OF A PRESERVATION LANDSCAPE PLAN, SHALL OCCUR DURING THE NEXT PLANTING SEASON.



Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.:(919) 833-7152

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

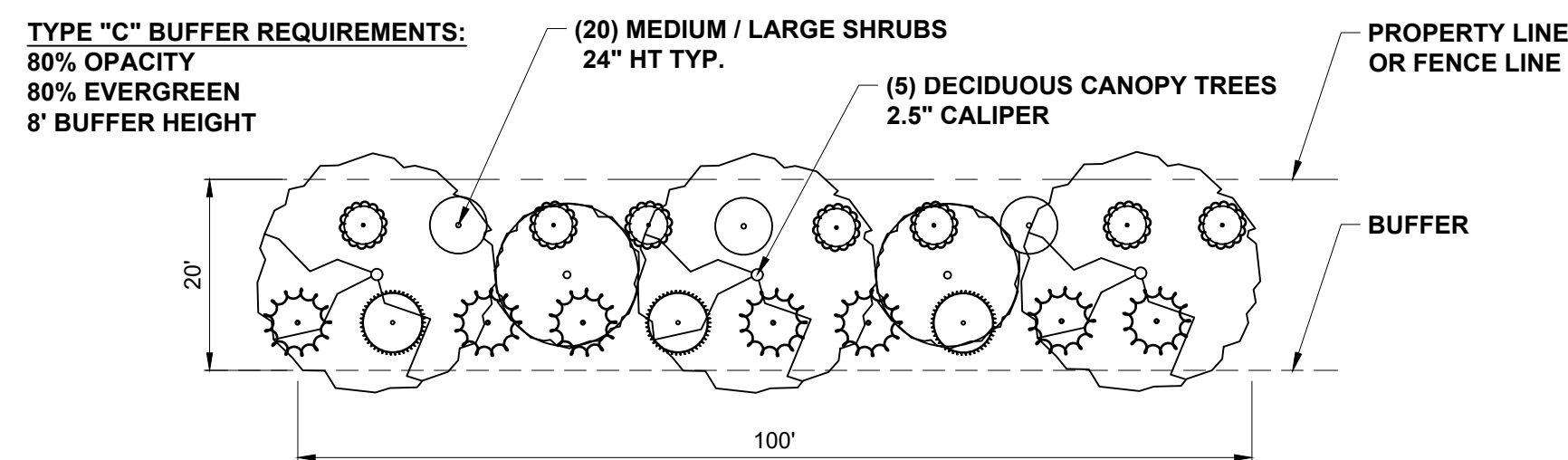
DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	C901

FOUNDATION PLANTING SCHEDULE								
KEY	QTY	% OF TOTAL	BOTANICAL NAME	COMMON NAME	FUNCTIONAL CATEGORY	FORM	MINIMUM SIZE	HEIGHT
TO	5	2.4%	THUJA OCCIDENTALIS 'EMERALD GREEN'	EMERALD GREEN ARBOVITAE	SMALL EVERGREEN TREE	B&B OR CONT	6 FT	6 FT
HV	2	1.0%	HAMAMELIS VIRGINIANA	WITCH-HAZEL	SMALL EVERGREEN TREE	B&B OR CONT	1.5 IN CAL	6 FT
HQ	7	3.3%	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	MEDIUM DECIDUOUS SHRUB	CONT	#3	24 IN
IV	3	1.4%	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	LARGE DECIDUOUS SHRUB	CONT	#5	36 IN
CA	3	1.4%	CALICARPA AMERICANA	AMERICAN BEAUTYBERRY	LARGE DECIDUOUS SHRUB	CONT	#5	36 IN
RA	8	3.8%	RHODODENRON 'AZALEA'	AZALEA	MEDIUM EVERGREEN SHRUB	CONT	#3	24 IN
DC	26	12.4%	DISTYLIMUM X 'CINNAMON GIRL'	CINNAMON GIRL DISTYLIMUM	SMALL EVERGREEN SHRUB	CONT	#1	12 IN
GJ	10	4.8%	GARDENIA JASMINOIDES	DWARF GARDENIA	SMALL EVERGREEN SHRUB	CONT	#1	12 IN

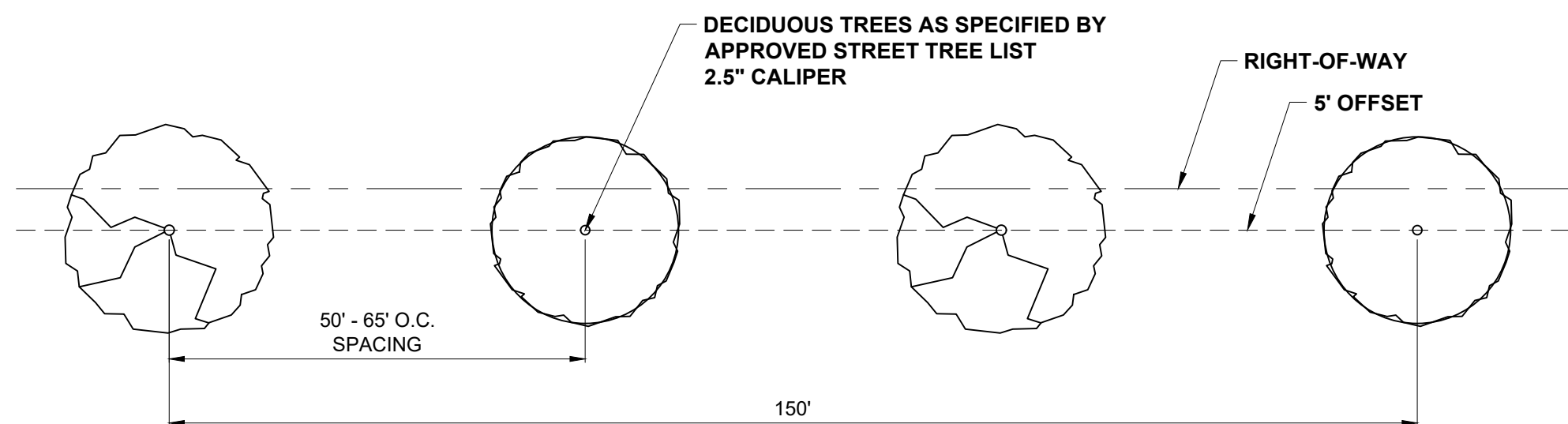
PARKING AREA (ISLANDS AND VEHICLE SCREEN) PLANTING SCHEDULE								
KEY	QTY	% OF TOTAL	BOTANICAL NAME	COMMON NAME	FUNCTIONAL CATEGORY	FORM	MINIMUM SIZE	HEIGHT
CEC	2	1.0%	<i>CERCIS CANADENSIS</i>	EASTERN REDBUD	SMALL DECIDUOUS TREE	B&B OR CONT	2.5 IN CAL	6 FT
CF	2	1.0%	<i>CORNUS FLORIDA</i>	FLOWERING DOGWOOD	SMALL DECIDUOUS TREE	B&B OR CONT	2.5 IN CAL	6 FT
GJ	16	7.6%	<i>GARDENIA JASMINOIDES</i>	DWARF GARDENIA	SMALL EVERGREEN SHRUB	CONT	#1	12 IN
LC	53	25.2%	<i>LOROPETALUM CHINENSE</i>	FRINGE FLOWER	MEDIUM EVERGREEN SHRUB	CONT	#3	24 IN

TYPE "C" PERIMETER BUFFER PLANTING SCHEDULE								
KEY	QTY	% OF TOTAL	BOTANICAL NAME	COMMON NAME	FUNCTIONAL CATEGORY	FORM	MINIMUM SIZE	HEIGHT
QC	2	1.0%	QUERCUS PHELLOS	WILLOW OAK	LARGE DECIDUOUS TREE	B&B OR CONT	2.5 IN CAL	8 FT
NS	2	1.0%	NYSSA SYLVATICA	BLACK GUM	LARGE DECIDUOUS TREE	B&B OR CONT	2.5 IN CAL	8 FT
IO	11	5.2%	ILEX OPACA	AMERICAN HOLLY	SMALL EVERGREEN TREE	B&B OR CONT	6 FT	6 FT
MC	17	8.1%	MYRICA CERIFERA	WAX MYRTLE	LARGE EVERGREEN SHRUB	CONT	#5	36 IN
IV	5	2.4%	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	MEDIUM DECIDUOUS SHRUB	CONT	#3	24 IN
RA	19	9.0%	RHODODENDRON 'AZALEA'	AZALEA	MEDIUM EVERGREEN SHRUB	CONT	#1	12 IN

OPEN AREA AND STREET TREES PLANTING SCHEDULE								
KEY	QTY	% OF TOTAL	BOTANICAL NAME	COMMON NAME	FUNCTIONAL CATEGORY	FORM	MINIMUM SIZE	HEIGHT
QC	4	1.9%	QUERCUS PHELLOS	WILLOW OAK	LARGE DECIDUOUS TREE	B&B OR CONT	2.5 IN CAL	8 FT
NS	7	3.3%	NYSSA SYLVATICA	BLACK GUM	LARGE DECIDUOUS TREE	B&B OR CONT	2.5 IN CAL	8 FT
CF	3	1.4%	CORNUS FLORIDA	FLOWERING DOGWOOD	SMALL DECIDUOUS TREE	B&B OR CONT	2.5 IN CAL	8 FT
CEC	3	1.4%	CERCIS CANADENSIS	EASTERN REDBUD	SMALL DECIDUOUS TREE	B&B OR CONT	2.5 IN CAL	8 FT

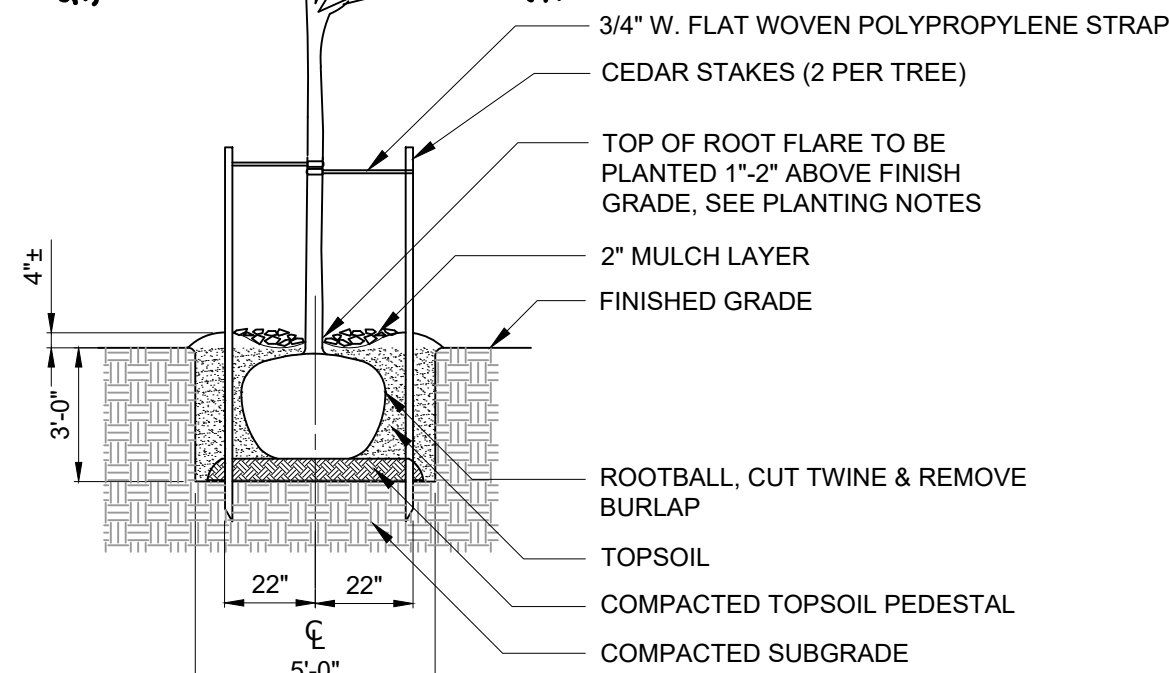


20' TYPE "C" PERIMETER BUFFER TYPICAL
N.T.S
(FOR REFERENCE ONLY)

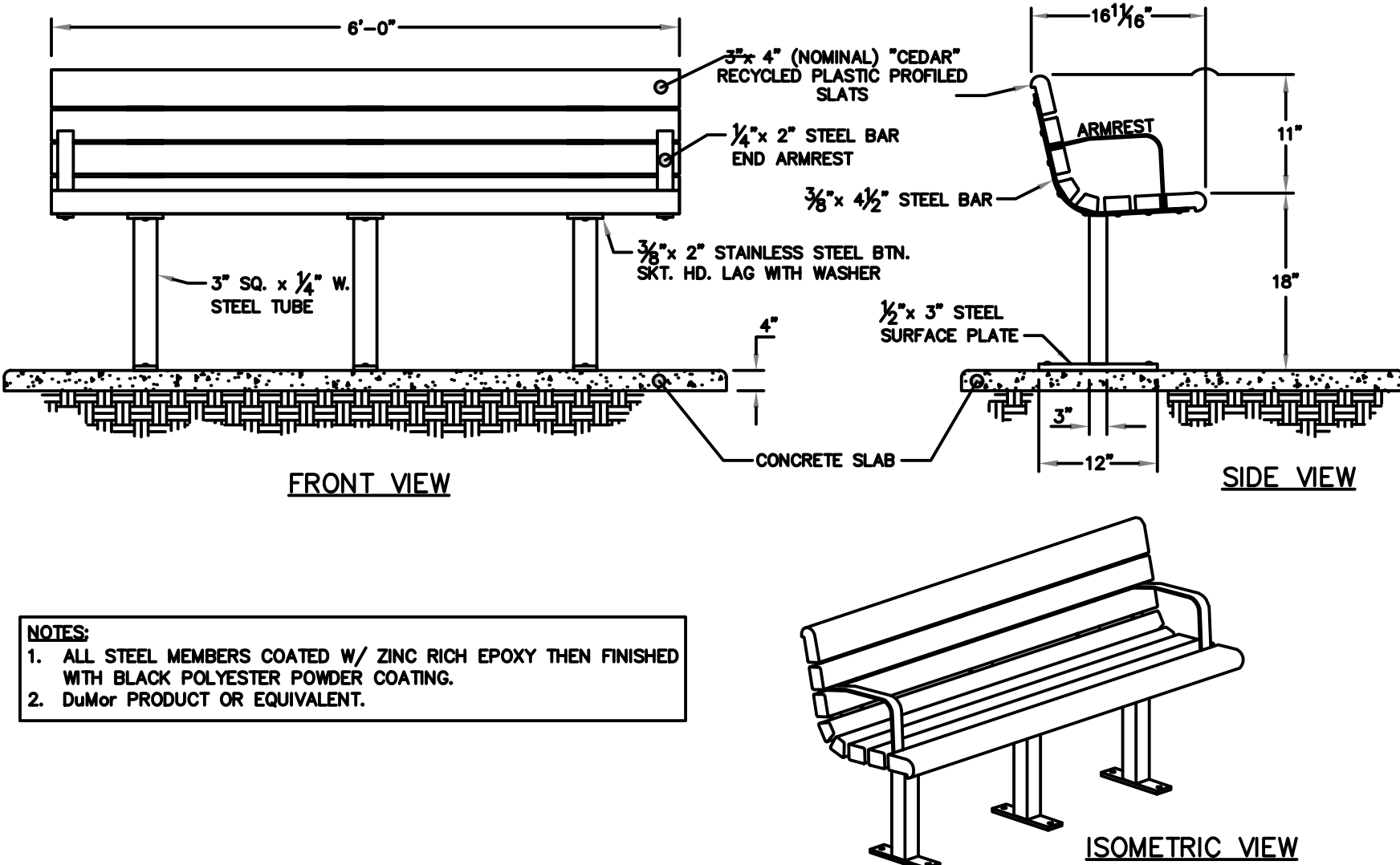


STREET TREES TYPICAL (BLDG >20'
SETBACK)
N.T.S
(FOR REFERENCE ONLY)

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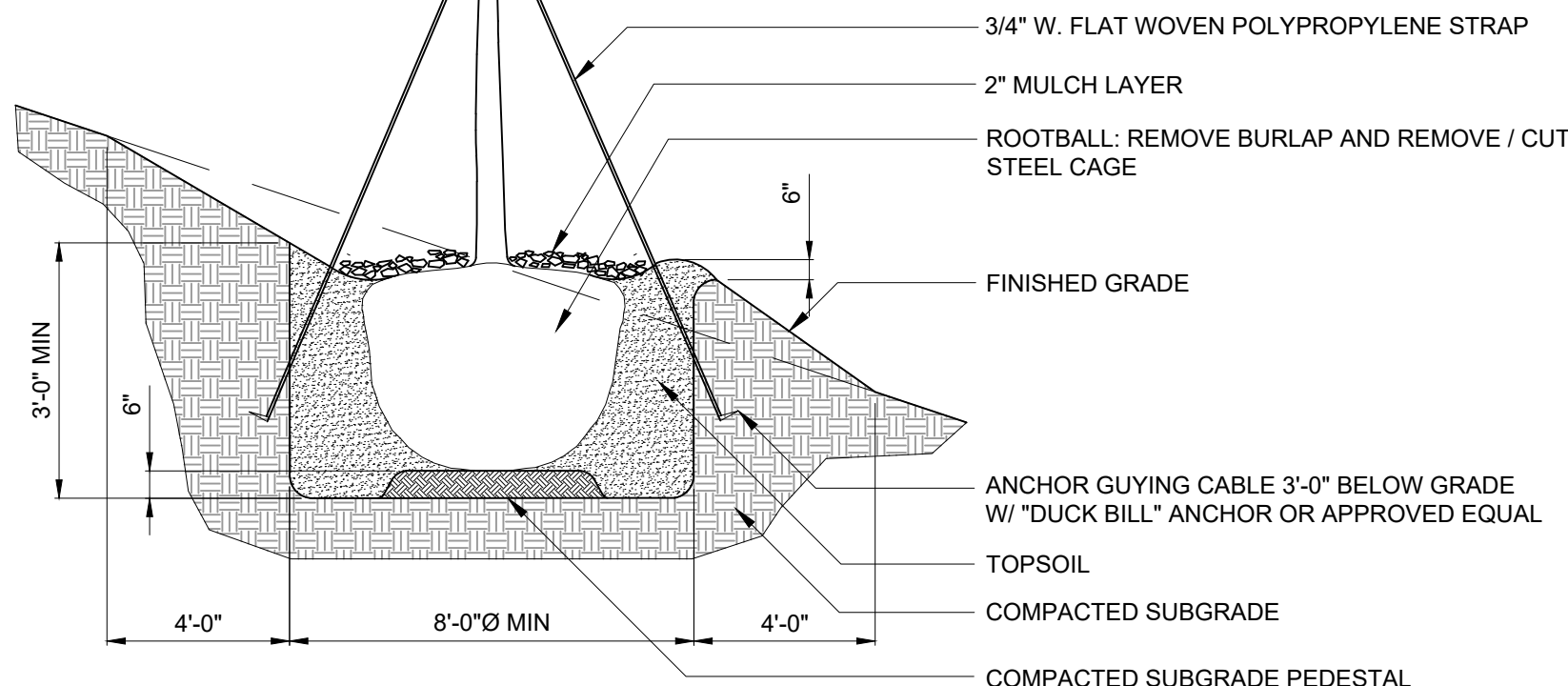


DETAIL	1
NTS	

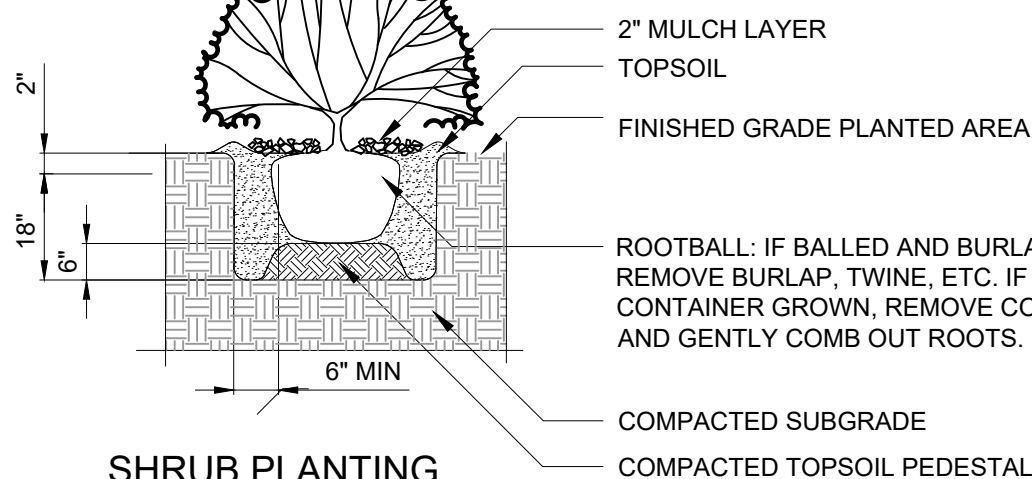


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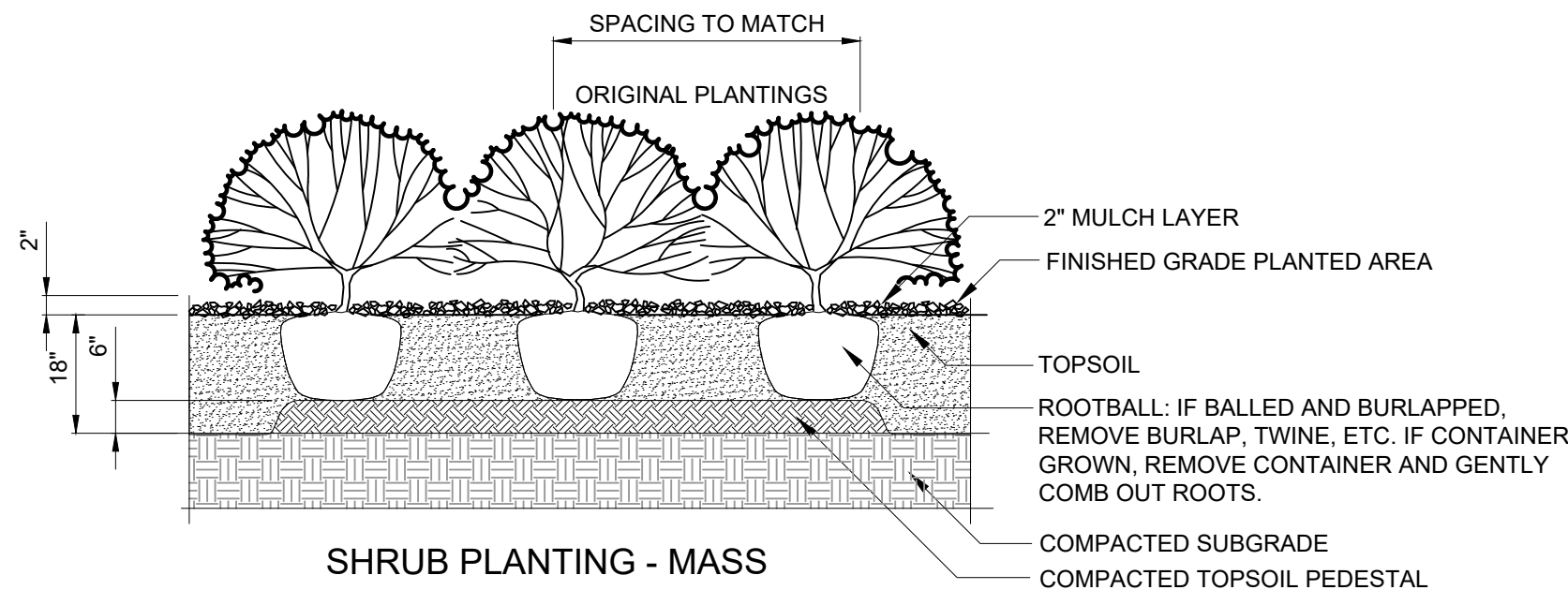
GREENWAY BENCH <i>TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT</i>	STANDARD DETAIL NUMBER: H2013	
	DATE	REVISIONS
	12/16/22	



DETAIL	2
NTS	



DETAIL	3
NTS	



DETAIL	4
NTS	

1. REMOVE ALL WIRE, PLASTIC, TAGS OR OTHER SYNTHETIC MATERIAL FROM TREE PRIOR TO PLANTING.
2. 3/4" W. FLAT WOVEN POLYPROPYLENE STRAPS SHALL BE PROVIDED FOR TREES OVER 2 1/2" CAL. INSTALL PER MANUFACTURERS RECOMMENDATION.

1. REMOVE ALL WIRE, PLASTIC, TAGS OR OTHER SYNTHETIC MATERIAL FROM PLANT PRIOR TO PLANTING.
2. CONTINUOUS BEDS SHALL BE PREPARED W/ TOPSOIL PRIOR TO SHRUB PLANTING.

1. REMOVE ALL WIRE, PLASTIC, TAGS OR OTHER SYNTHETIC MATERIAL FROM PLANT PRIOR TO PLANTING.
2. CONTINUOUS BEDS SHALL BE PREPARED W/ TOPSOIL PRIOR TO SHRUB PLANTING.

				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	W. ELLIS
				DRAWN BY:	S. MILLER
				CHECKED BY:	D. SKEGGS
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1" 
REV	ISSUED FOR	DATE	BY		

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CONSTRUCTION

Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

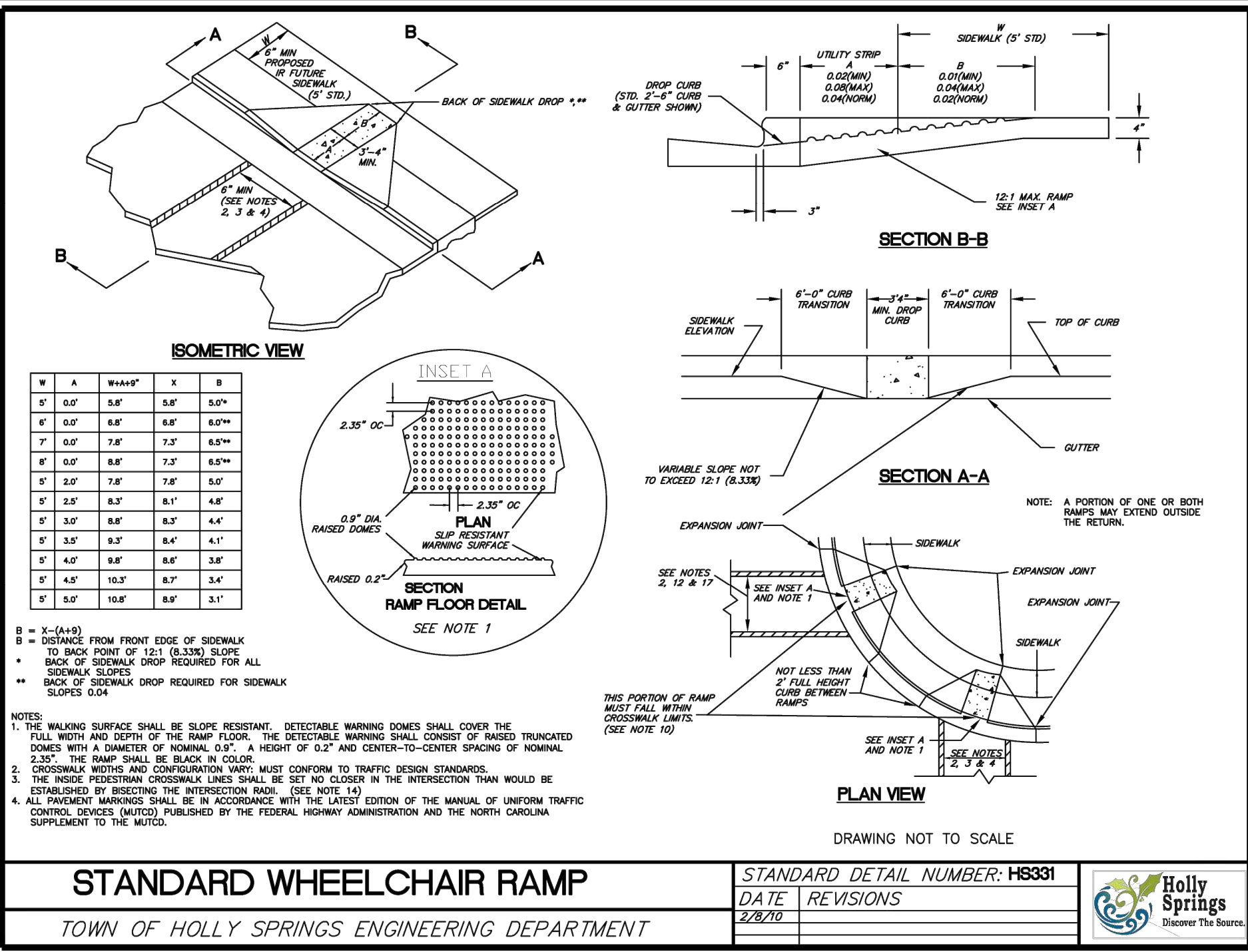
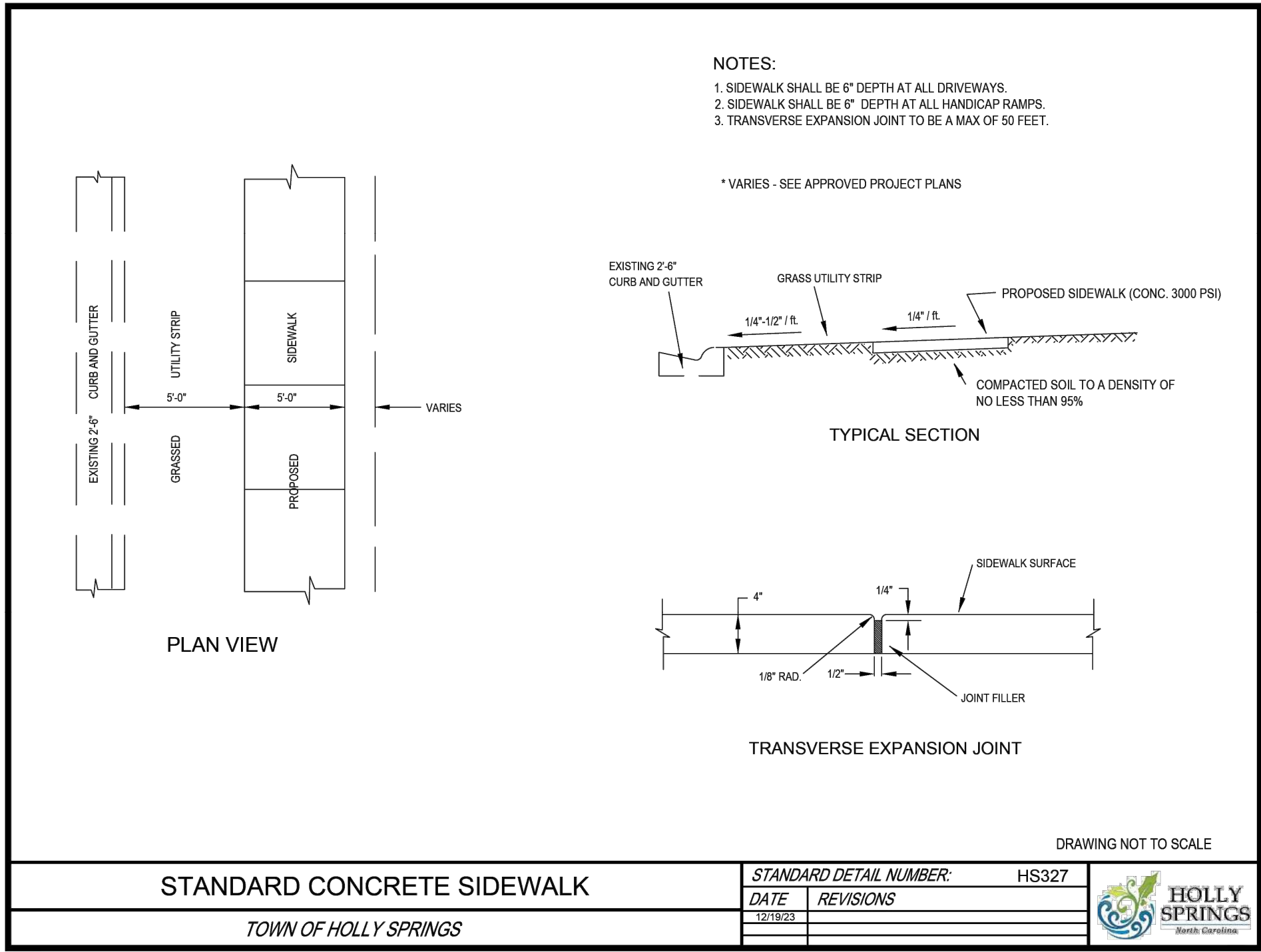
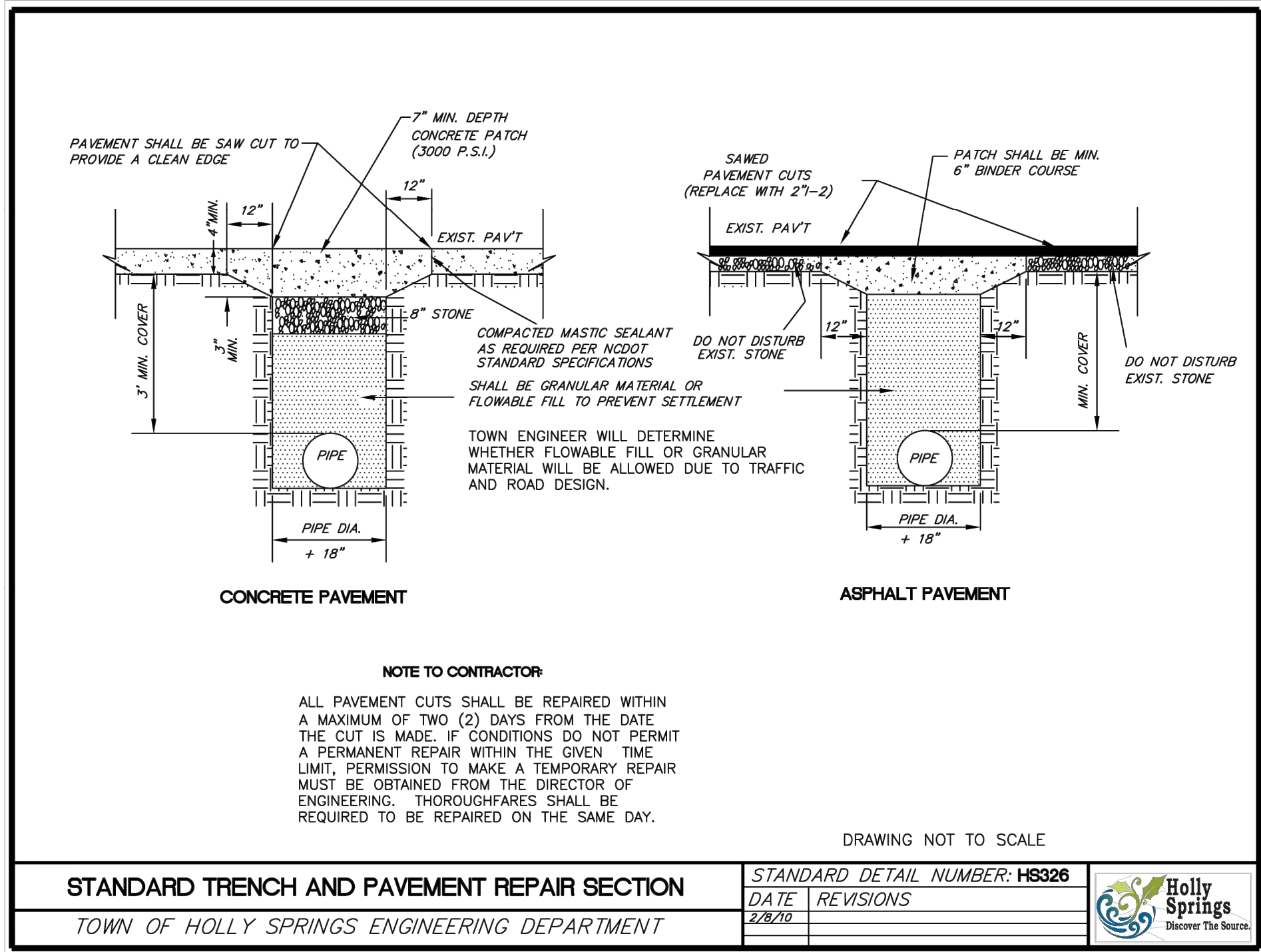
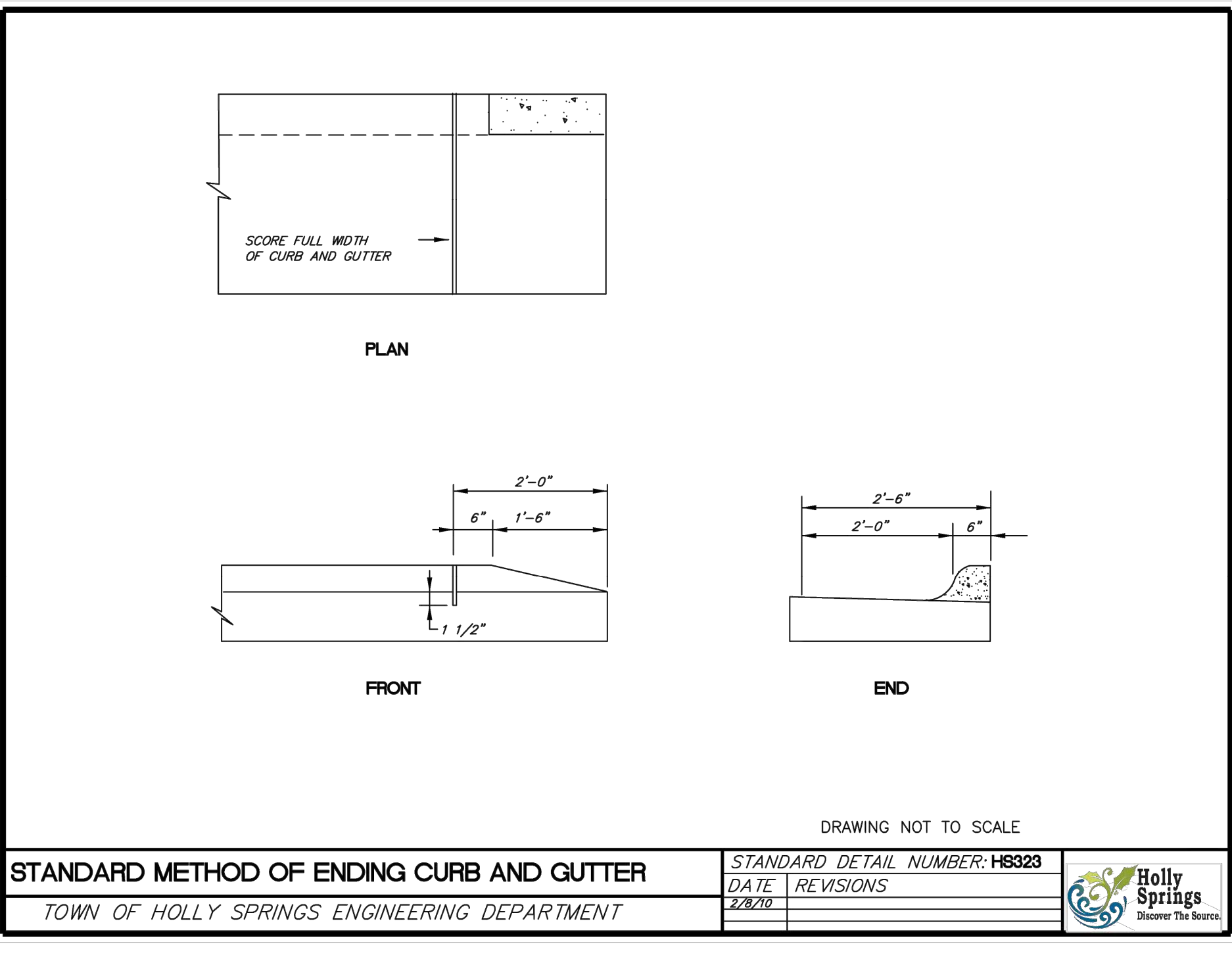
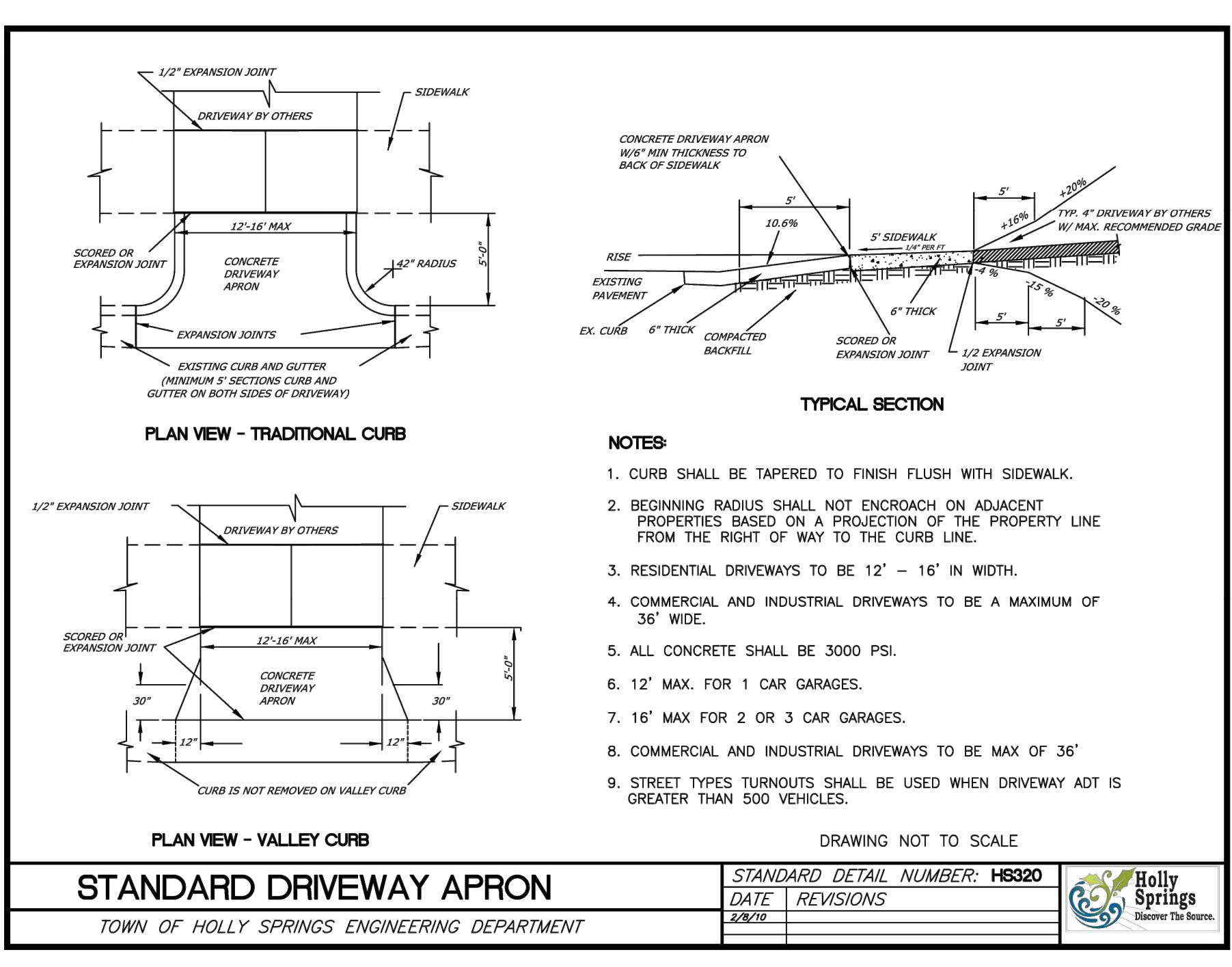
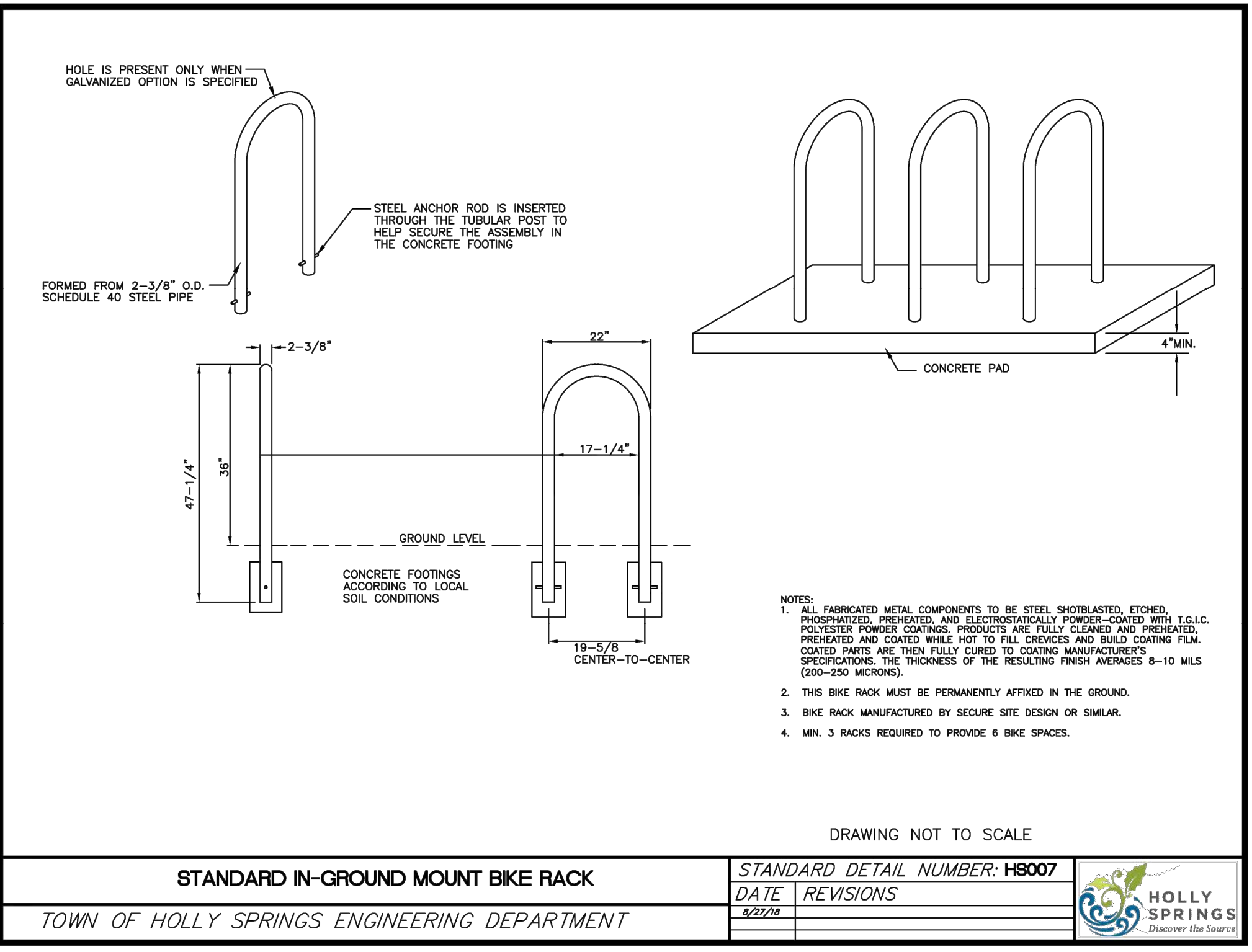
UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL LANDSCAPING DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

C90.3

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PLOT DATE: 11/7/2024 3:19 PM BY: SMILLER



REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

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4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

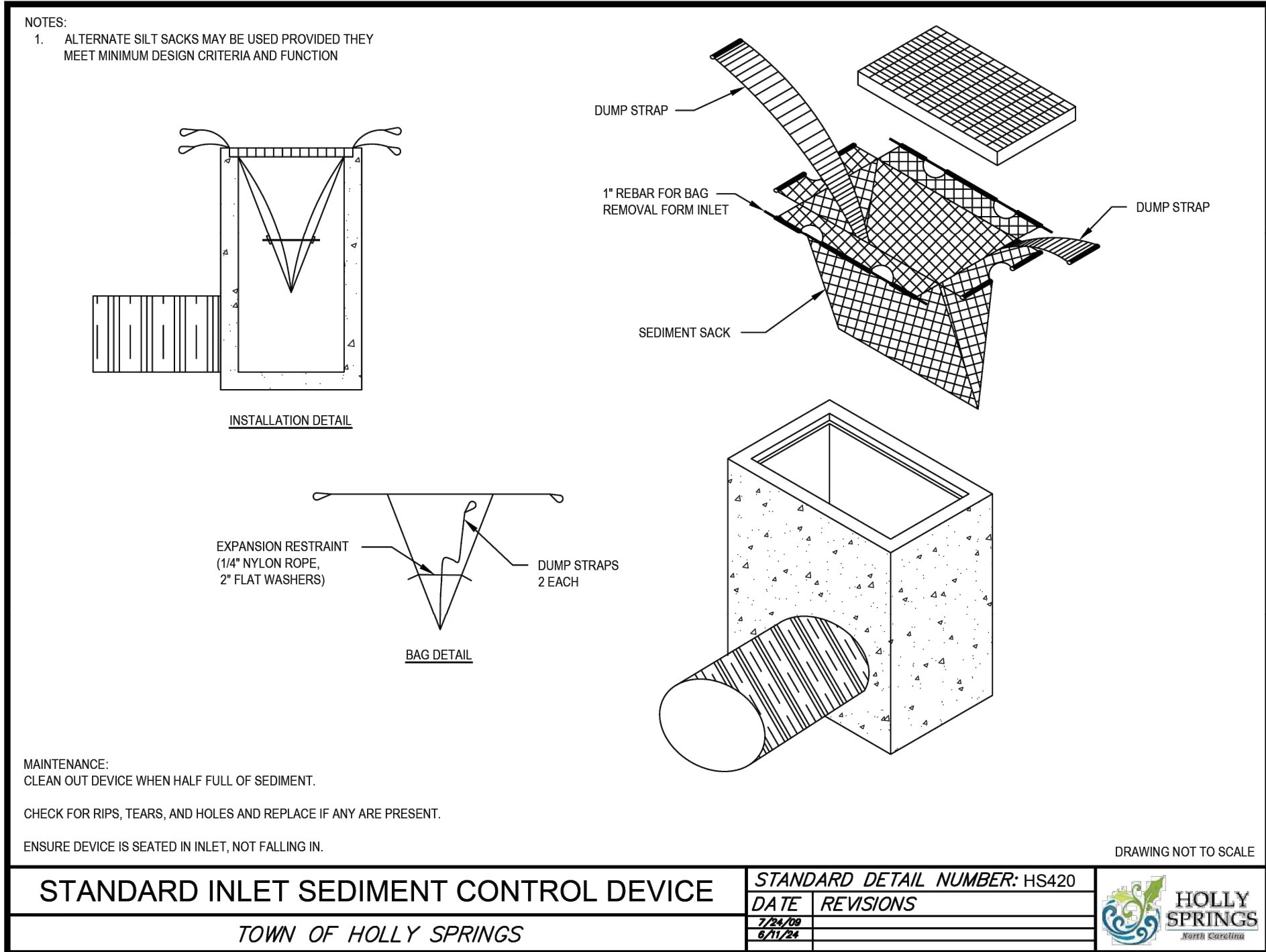
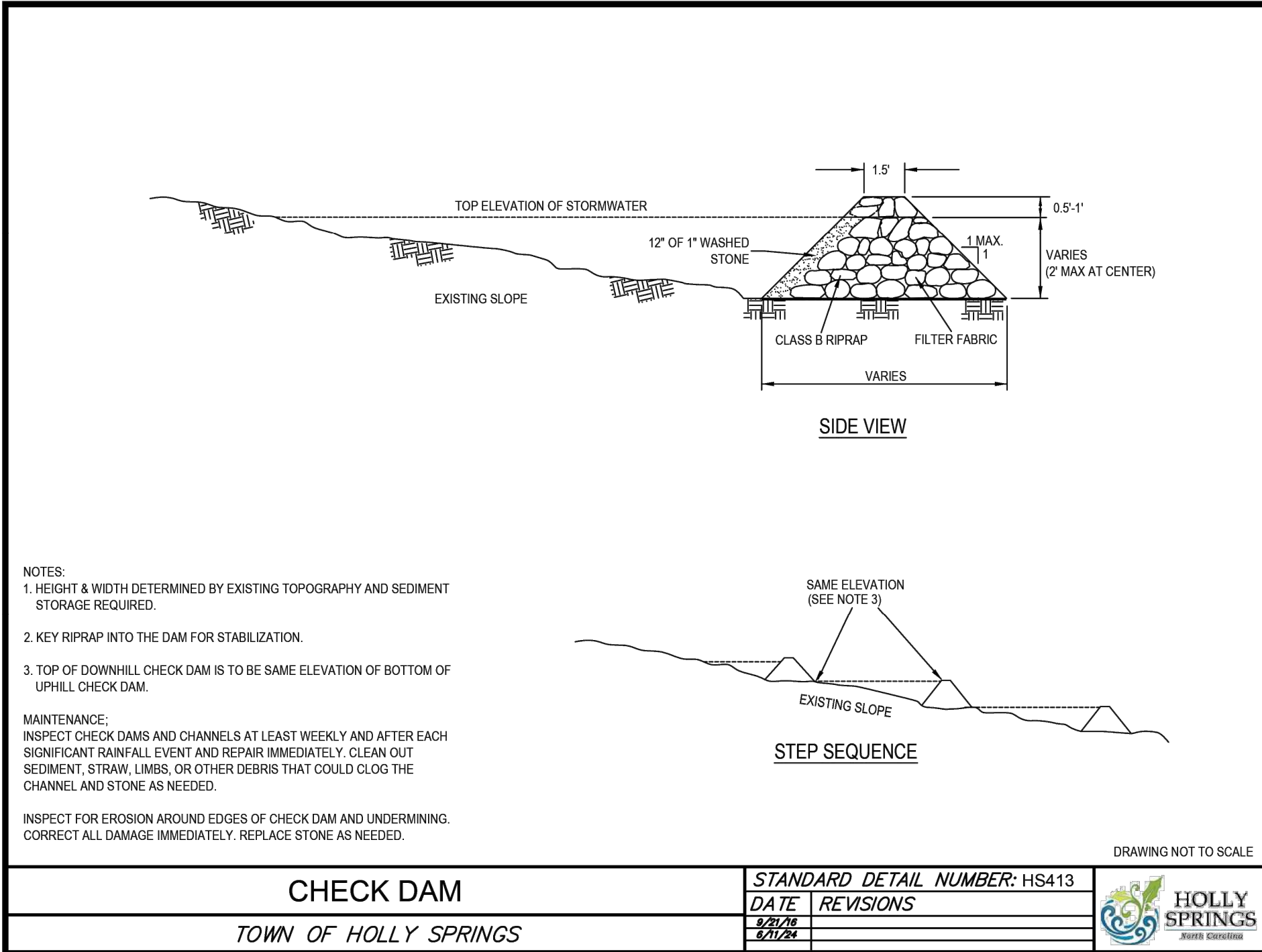
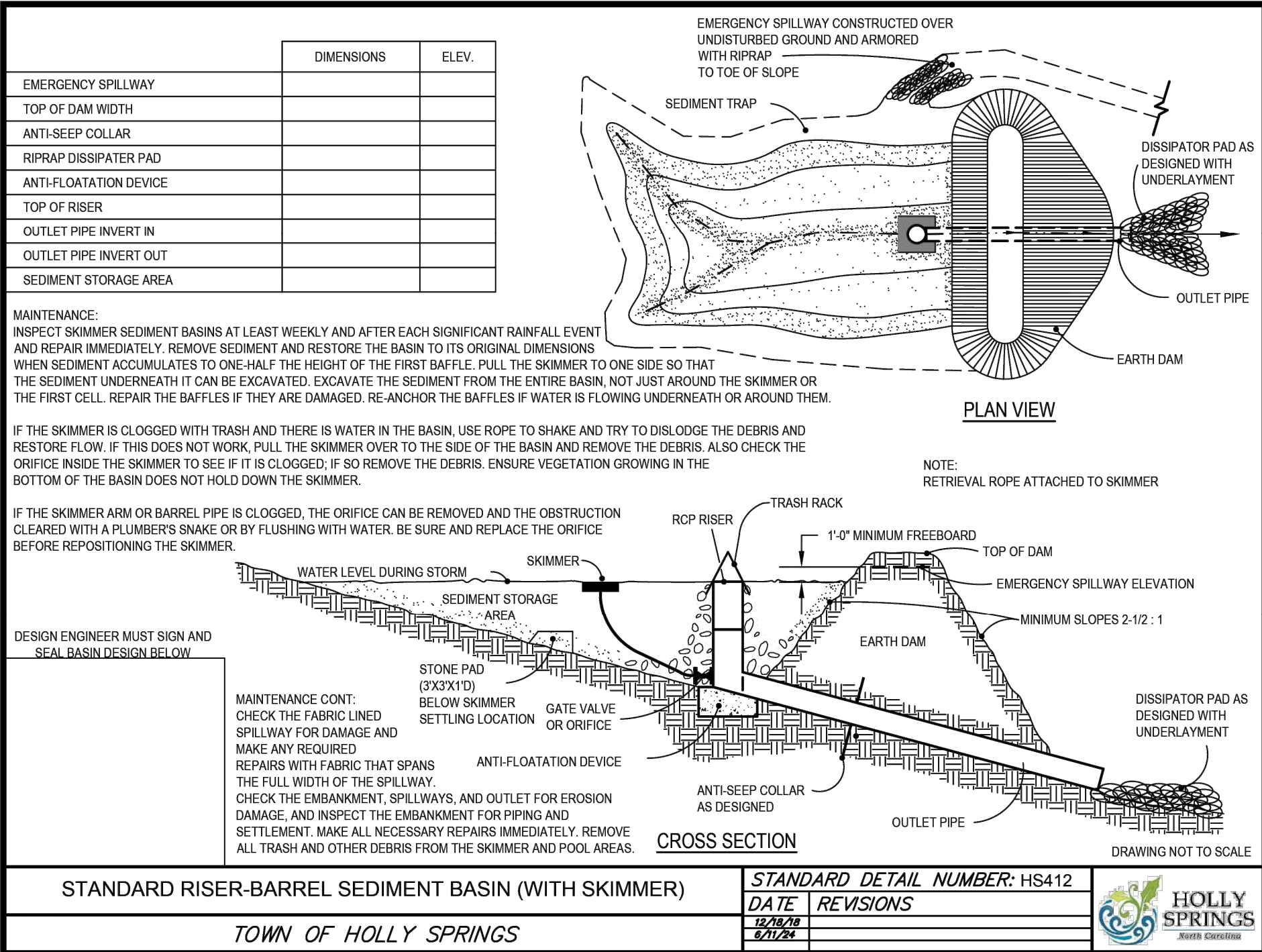
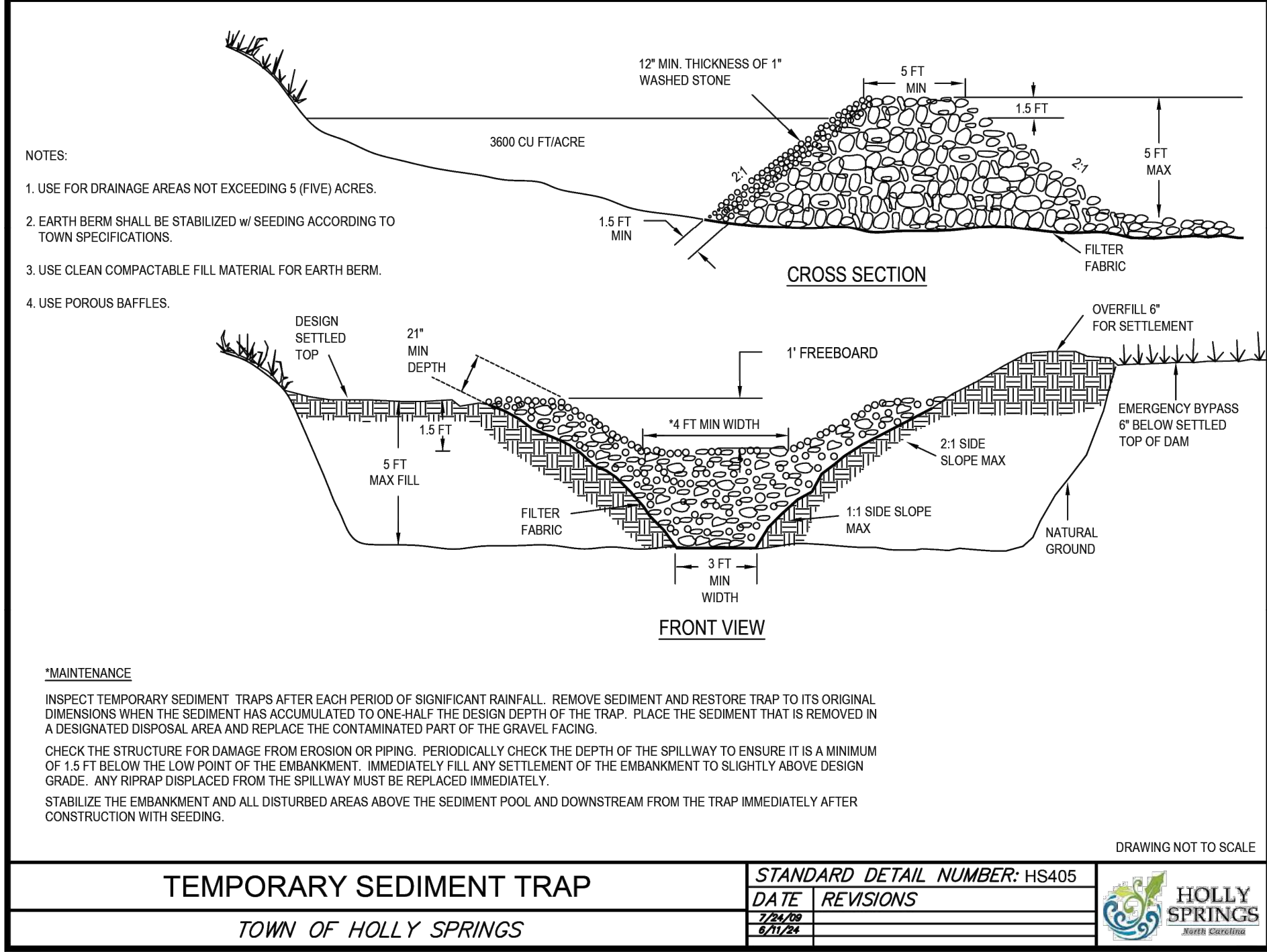
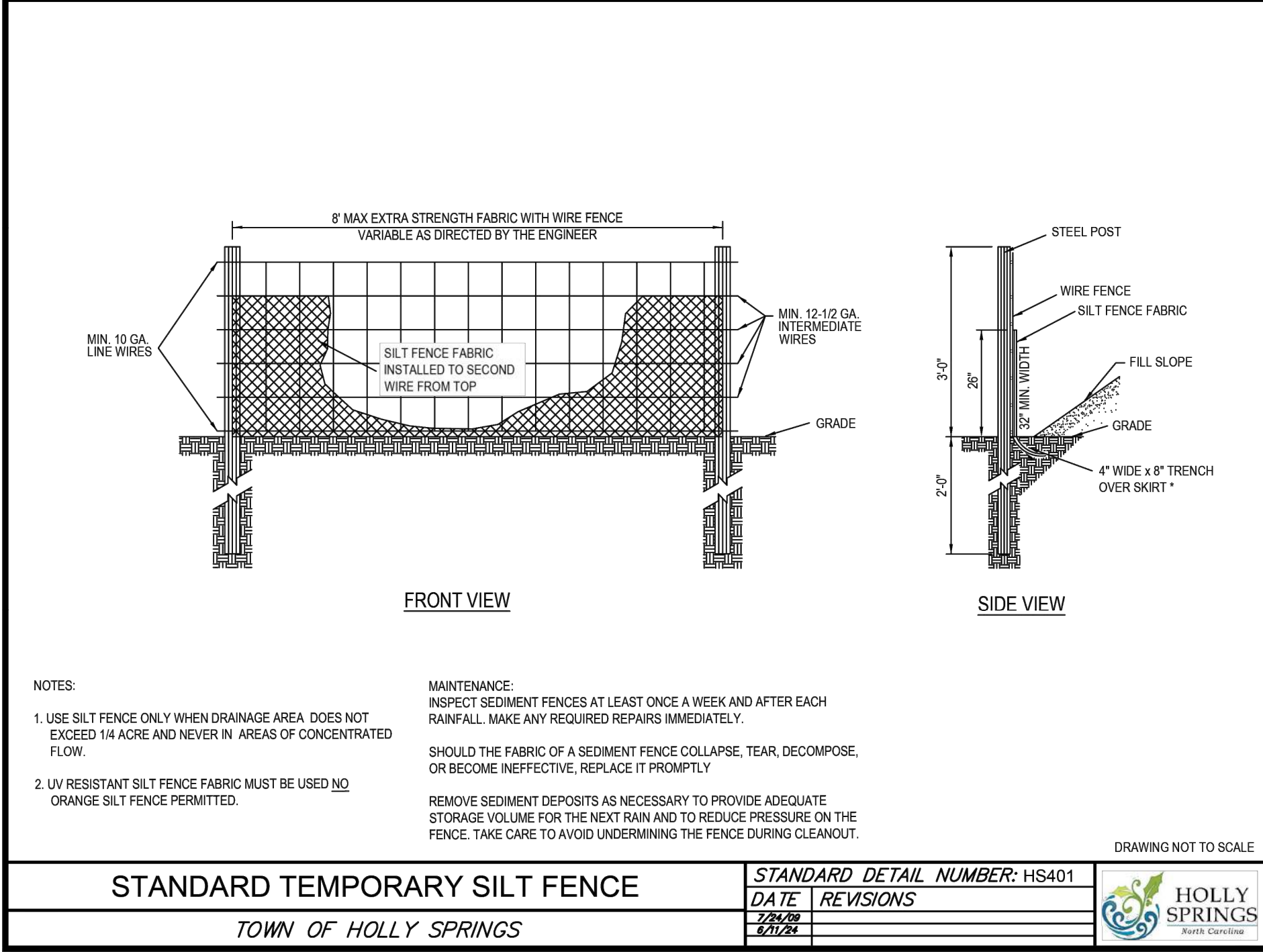
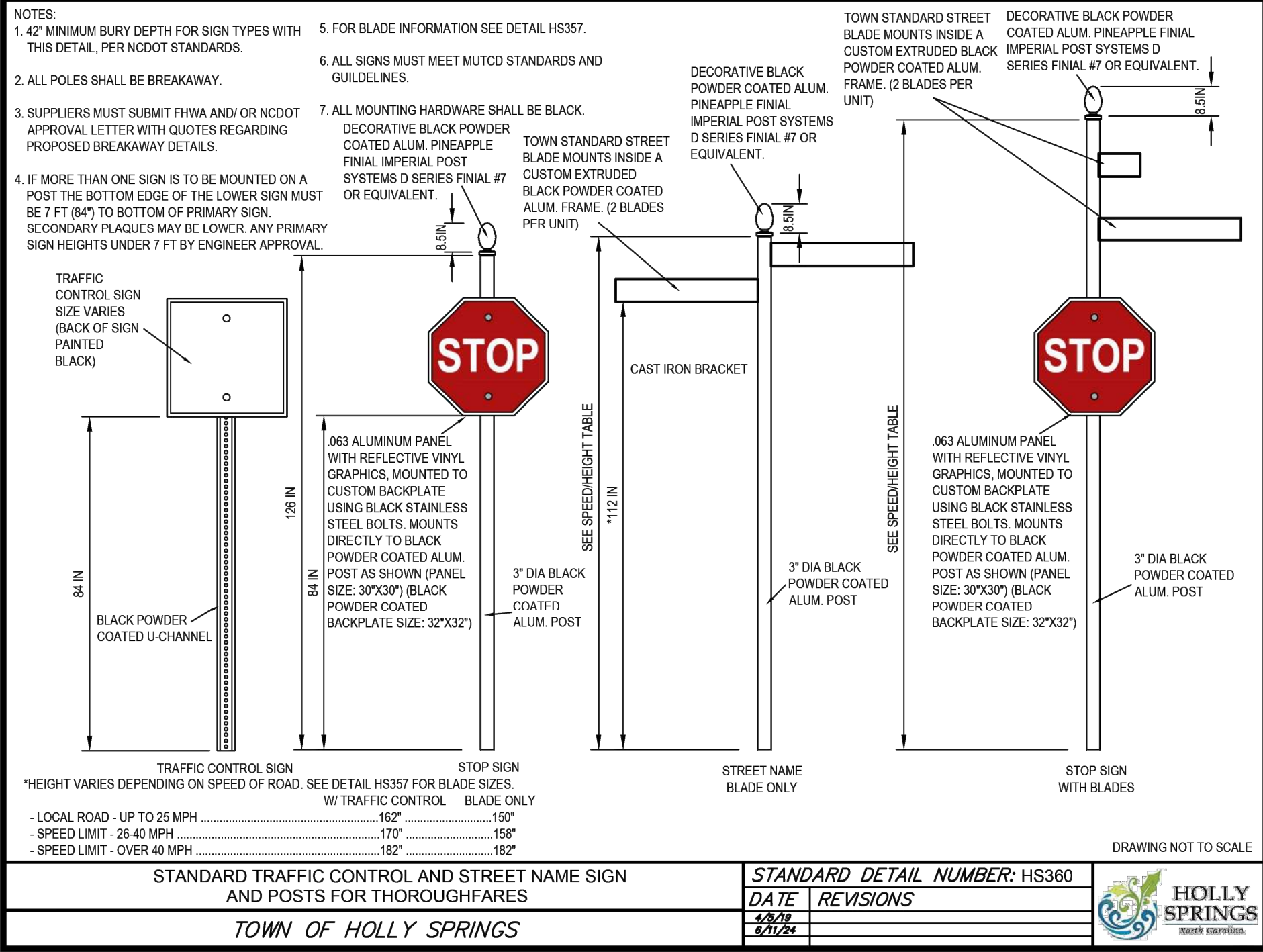
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	CD01

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PLOT DATE: 11/7/2024 3:19 PM BY: SMILLER



REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

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RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

DATE **	TYPE	PLANTING RATE
AUGUST 15 – NOVEMBER 1	TALL FESCUE OR HARD FESCUE	300 LBS/ACRE
NOVEMBER 1 – MARCH 1	TALL FESCUE AND ABRUZZI RYE OR ANNUAL RYE	300 LBS/ACRE
MARCH 1 – APRIL 15	TALL FESCUE OR HARD FESCUE	300 LBS/ACRE
MARCH 1 – JULY 15	HULLED COMMON BERMUDA GRASS OR HYBRID BERMUDA GRASS OR CENTIPEDE GRASS OR ZOYSIA GRASS OR ST. AUGUSTINE GRASS	200 LBS/ACRE
APRIL 15 – JUNE 30	WEEPING LOVE GRASS OR BAHIA GRASS	25 LBS/ACRE
JULY 15 – AUGUST 15	TALL FESCUE, AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRID*	35 LBS/ACRE

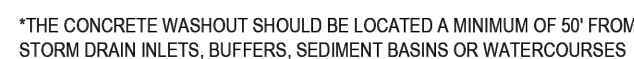
RIPARIAN AREAS TO BE RESEEDED WITH NATIVE GRASS MIX/ VEGETATION



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DATE	TYPE	PLANTING RATE
MARCH 1 – JUNE 1	SERICEA LESPEDEZA (SCARIFIED), AND TALL FESCUE,	50 LBS/ACRE
MARCH 1 – APRIL 15	<u>ADD</u> TALL FESCUE, OR	120 LBS/ACRE
MARCH 1 – JUNE 30	<u>ADD</u> WEEPING LOVEGRASS, OR	10 LBS/ACRE
MARCH 1 – JUNE 30	<u>ADD</u> HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUNE 1 – SEPTEMBER 1	TALL FESCUE, AND <u>ADD</u> BROWNTOP MILLET,* OR <u>ADD</u> SORGHUM–SUDAN HYBRIDS*	120 LBS/ACRE 25 LBS/ACRE 30 LBS/ACRE
SEPTEMBER 1 – MARCH 1	SERICEA LESPEDEZA (UNHULLED–UNSCARIFIED), AND <u>ADD</u> TALL FESCUE, AND <u>ADD</u> ABRUZZI RYE AND ANNUAL RYE	70 LBS/ACRE 120 LBS/ACRE 25 LBS/ACRE

RIPARIAN AREAS TO BE RESEEDED WITH NATIVE SEED MIX.

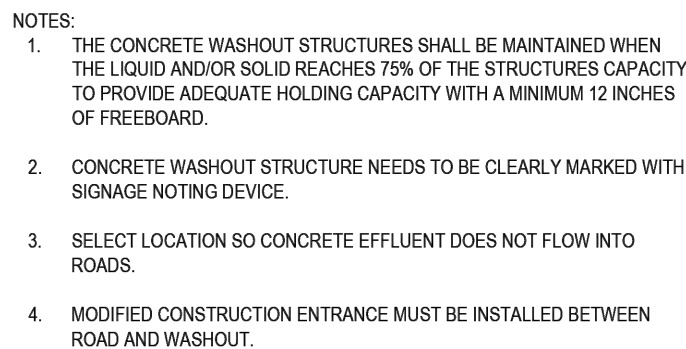


- CLEARLY MARKED SIGNAGE
NOTING DEVICE (18"X24" MIN.)

*THE CONCRETE WASHOUT SHOULD BE LOCATED A MINIMUM OF 50' FROM STORM DRAIN INLETS, BUFFERS, SEDIMENT BASINS OR WATERCOURSES.



**HOLLY
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North Carolina

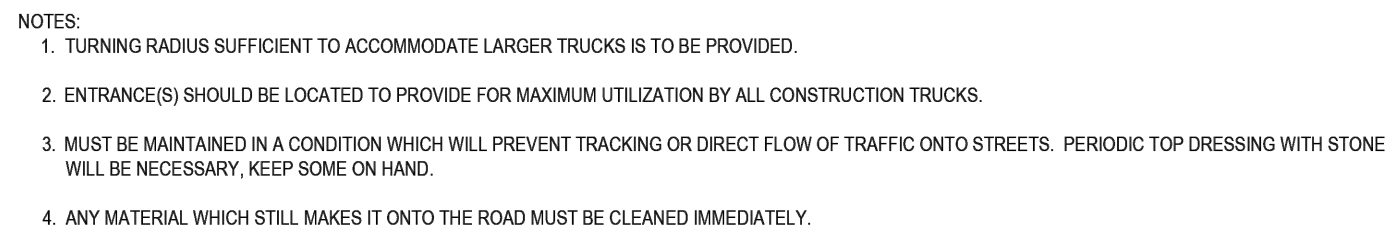


- NOTES:
1. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 2. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.
 3. SELECT LOCATION SO CONCRETE EFFLUENT DOES NOT FLOW INTO ROADS.
 4. MODIFIED CONSTRUCTION ENTRANCE MUST BE INSTALLED BETWEEN ROAD AND WASHOUT.

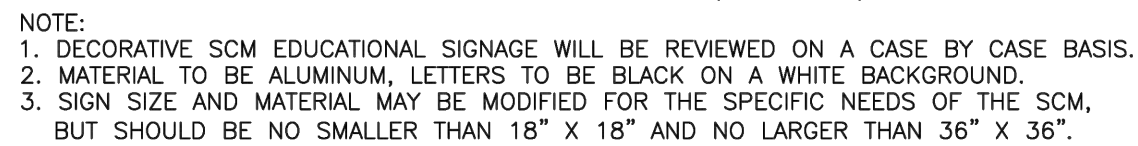
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**HOLLY
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North Carolina



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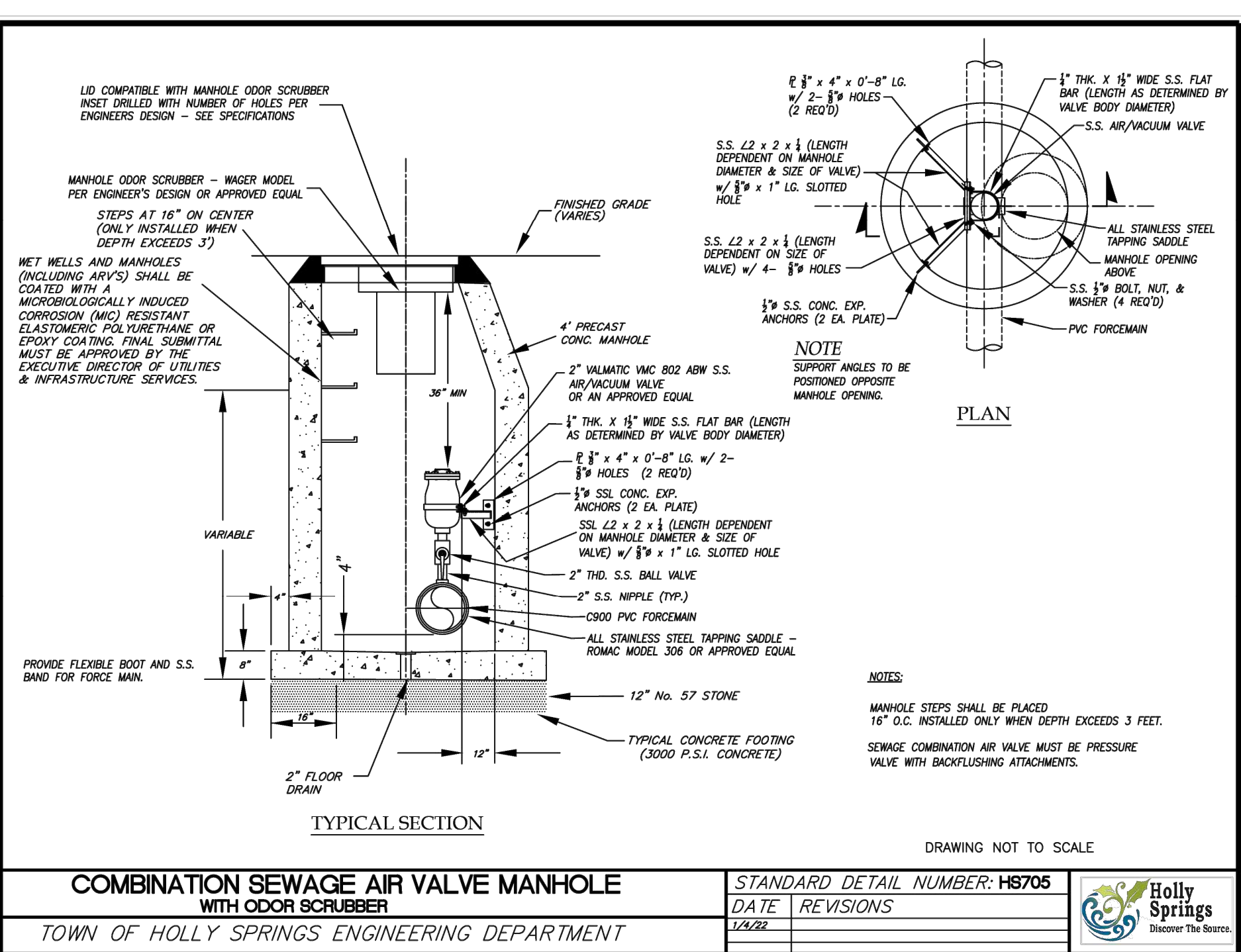
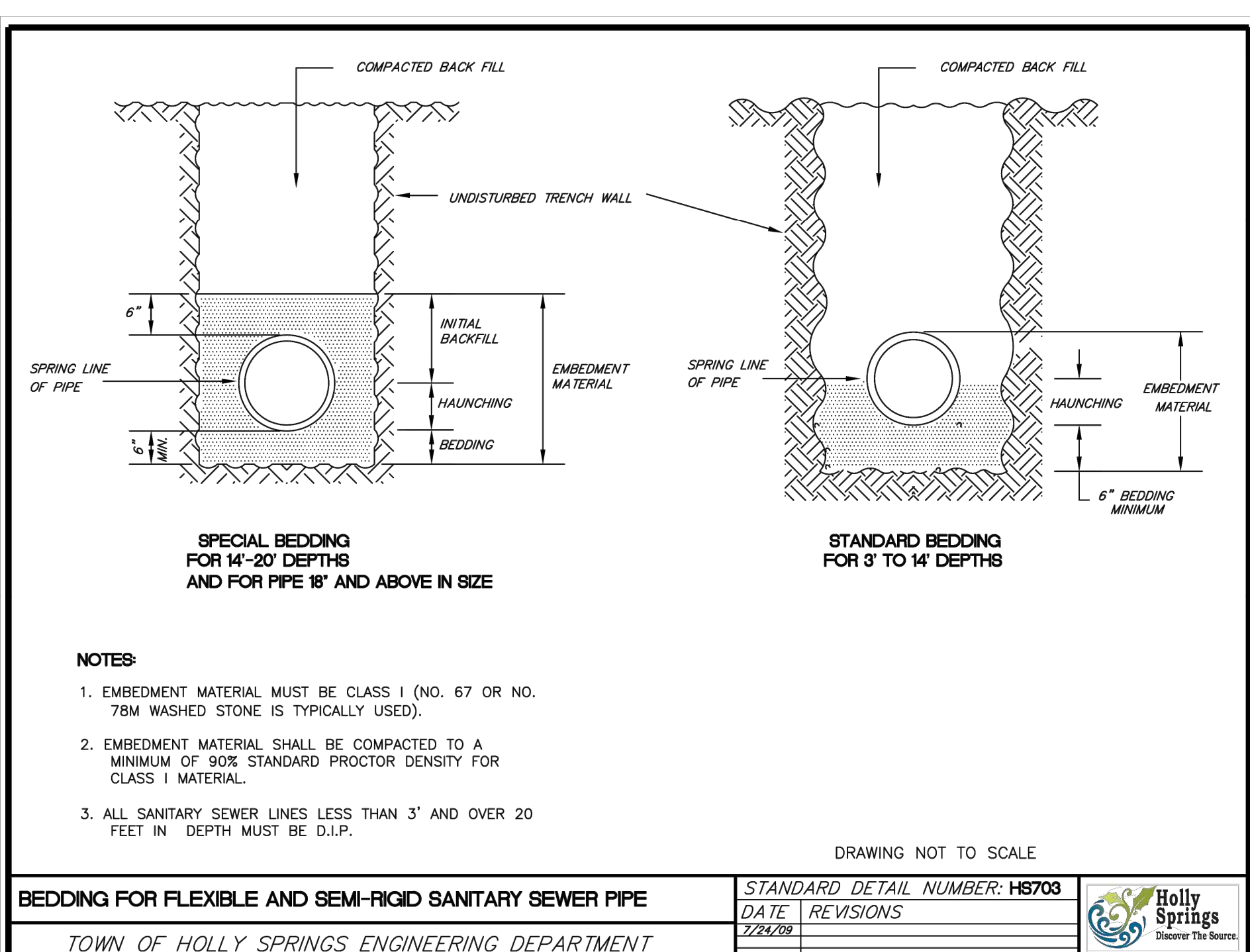
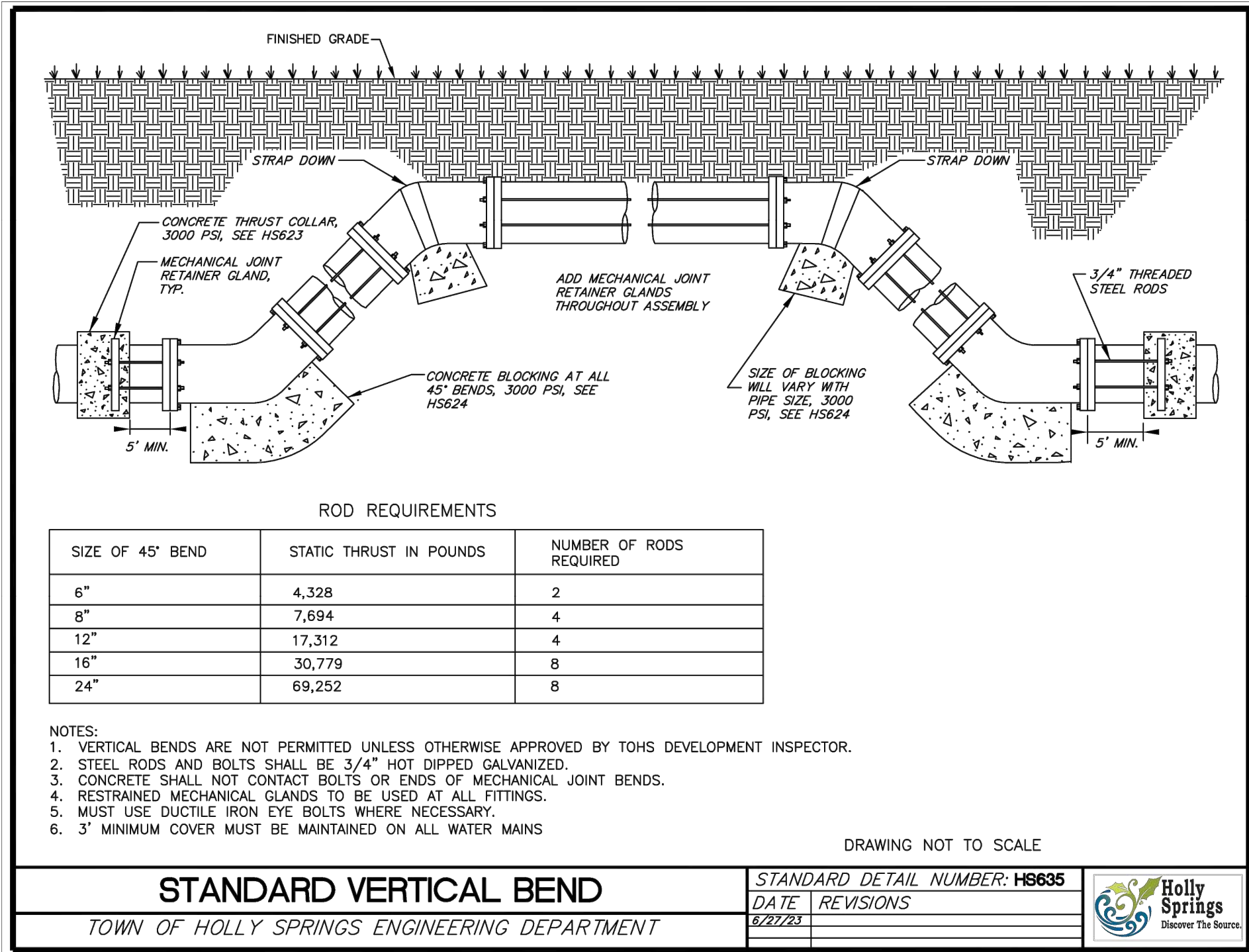
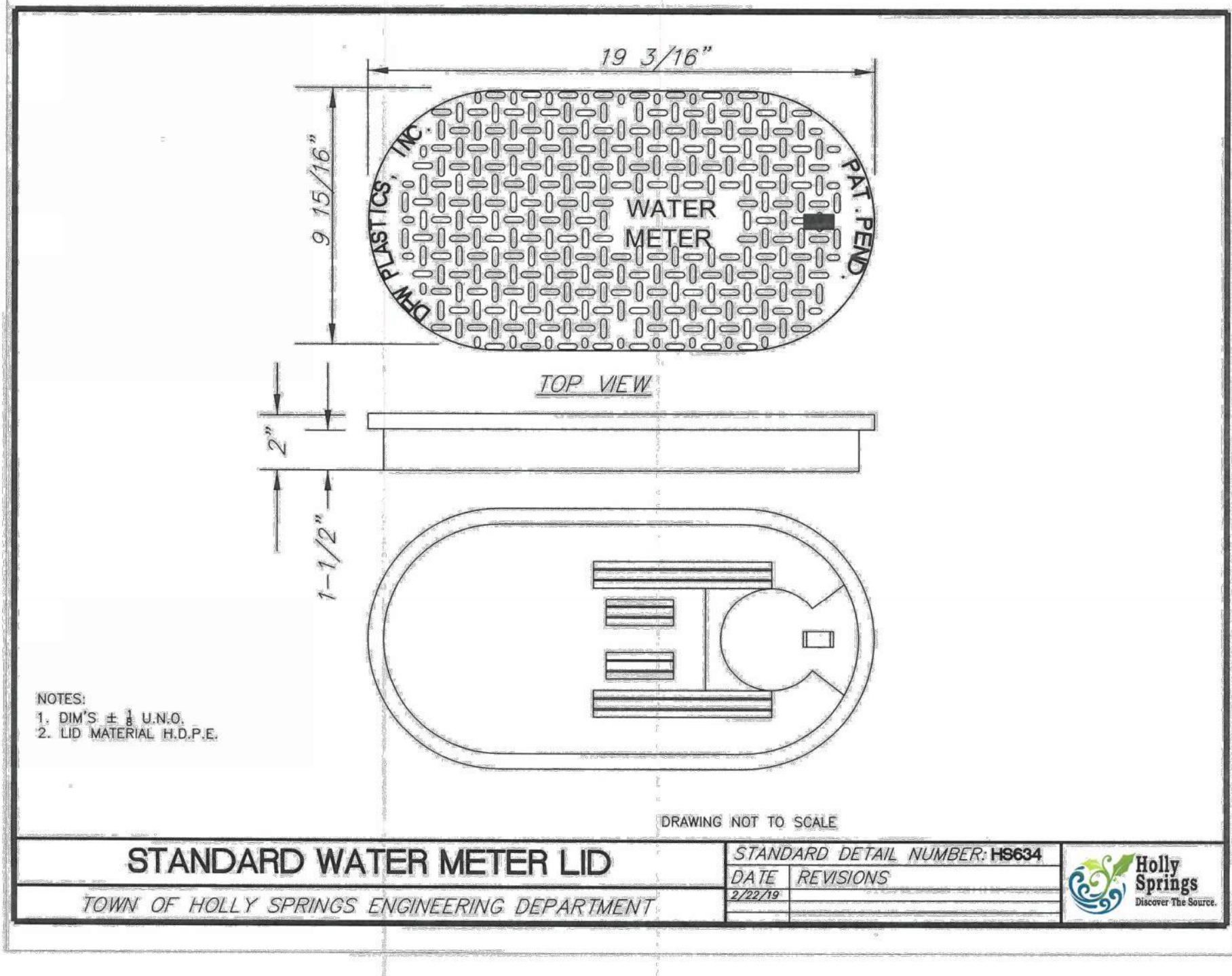
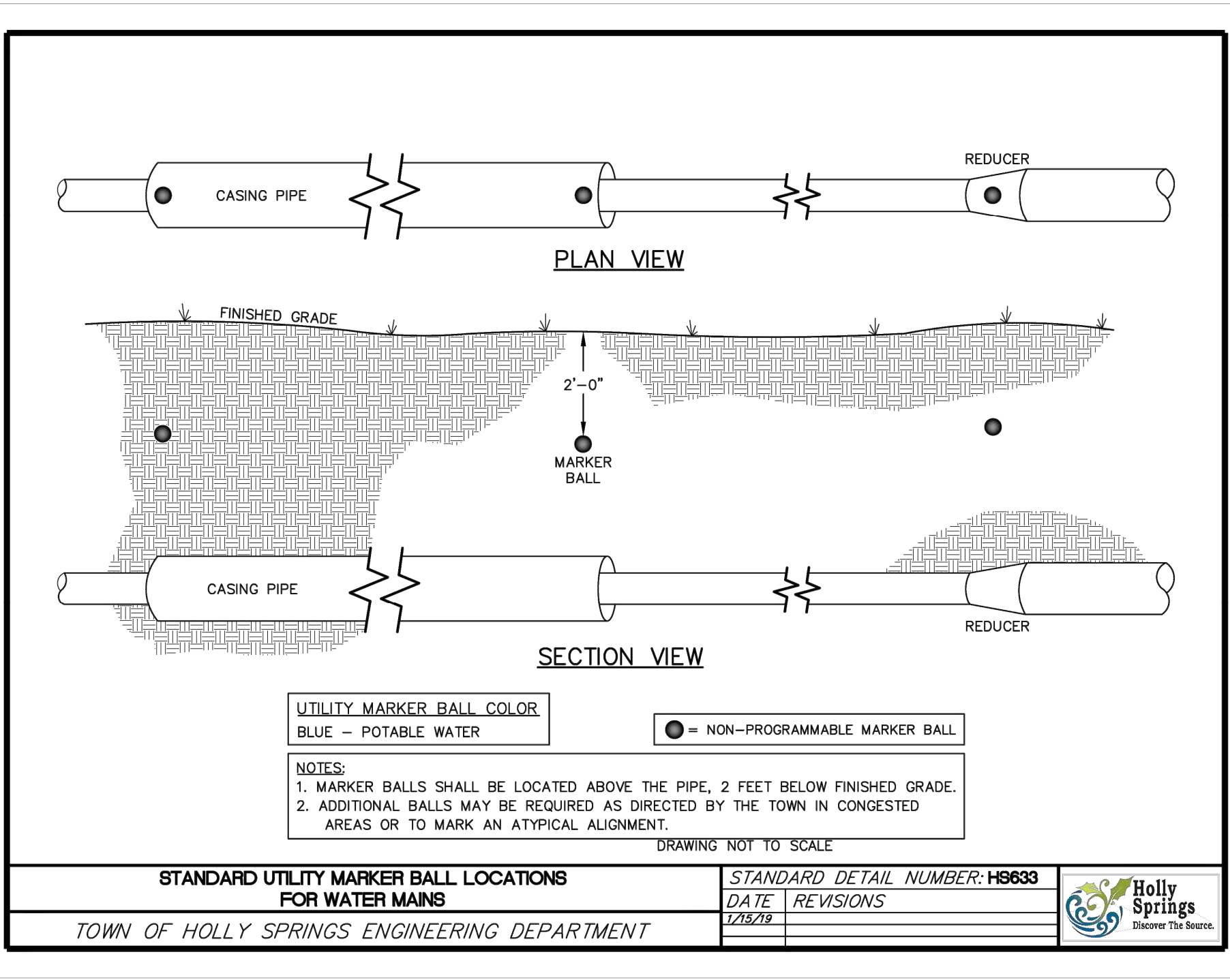
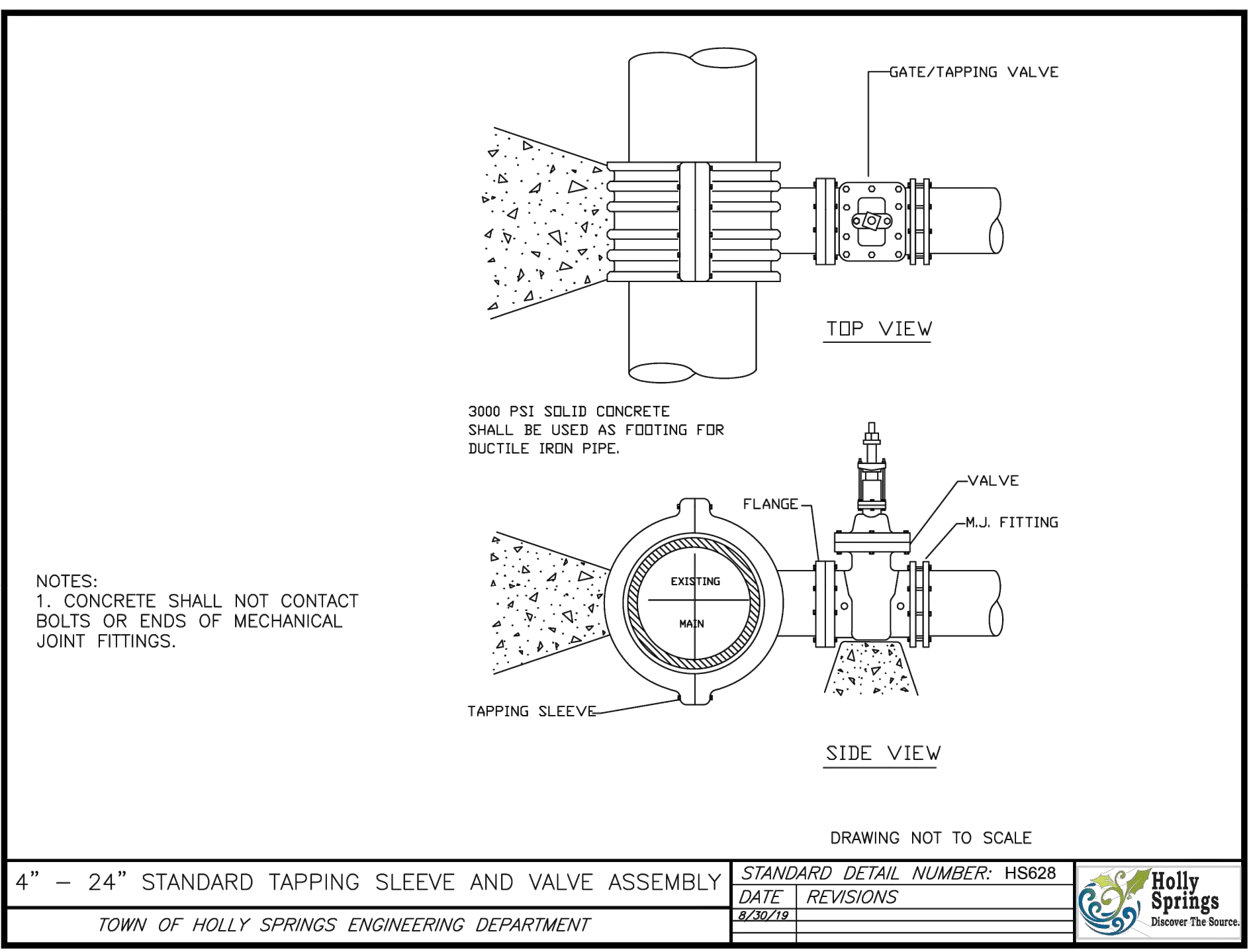
PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1 

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

Page 94 of 11

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PLOT DATE: 11/7/2024 3:21 PM BY: SMILLER



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Hazen

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LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

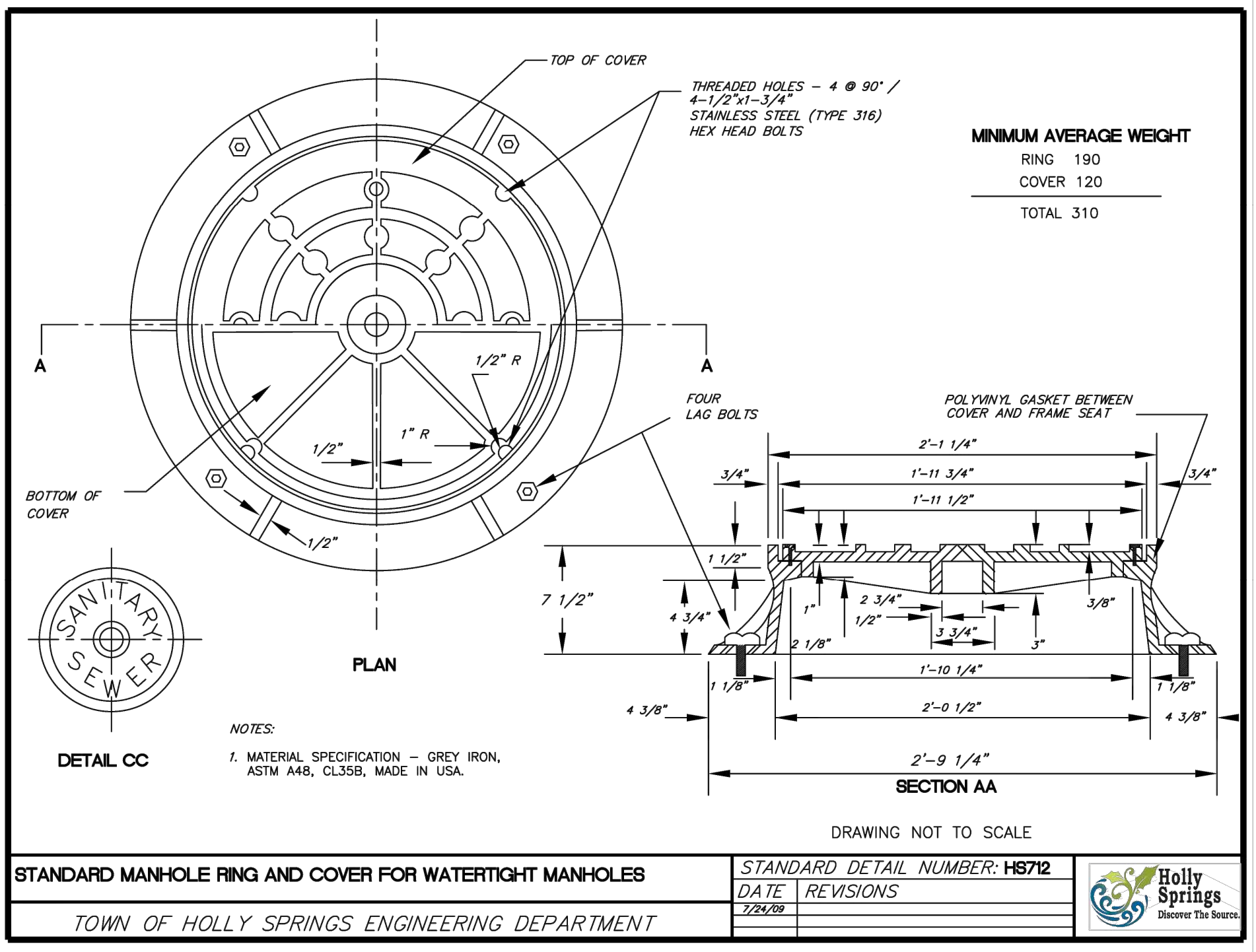
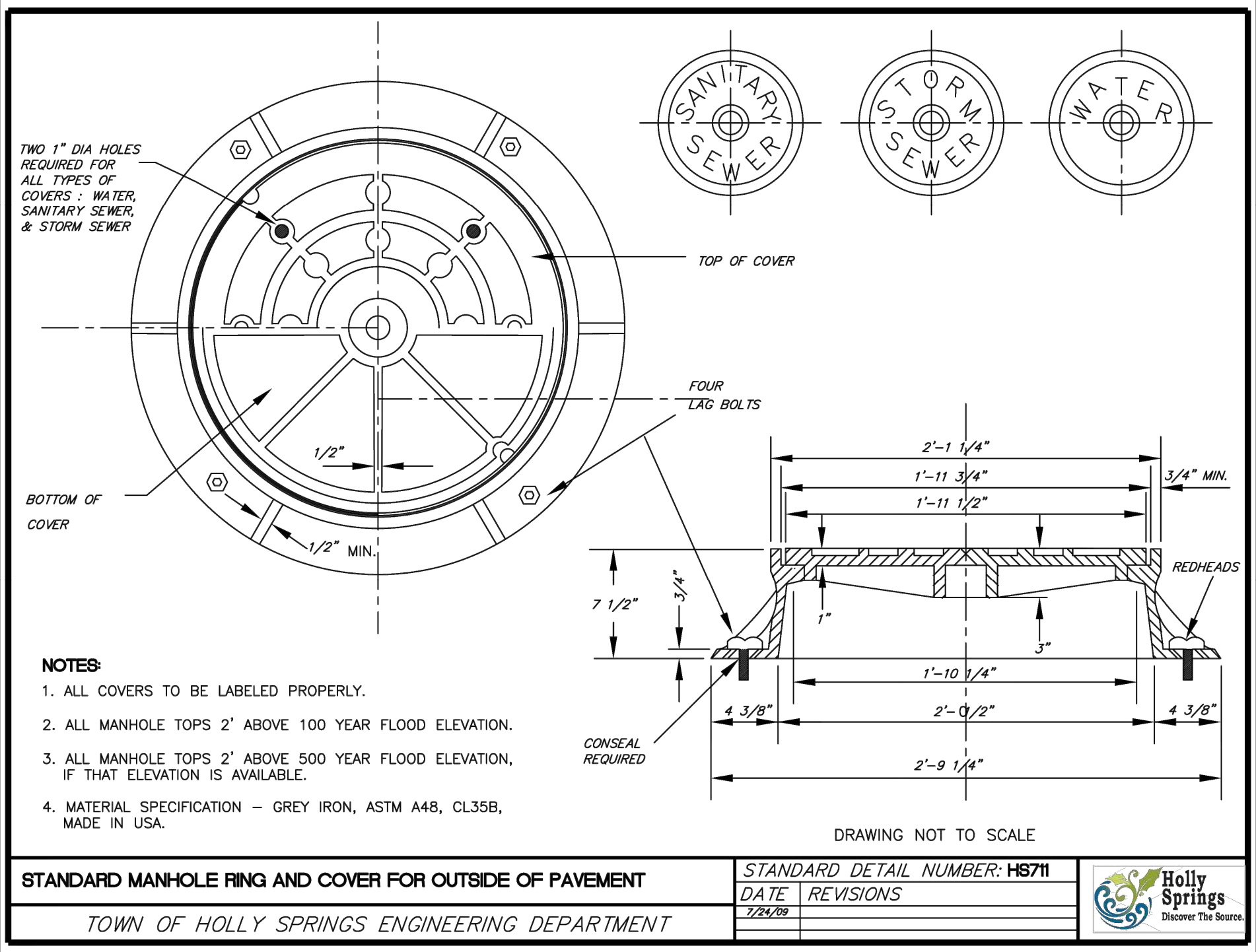
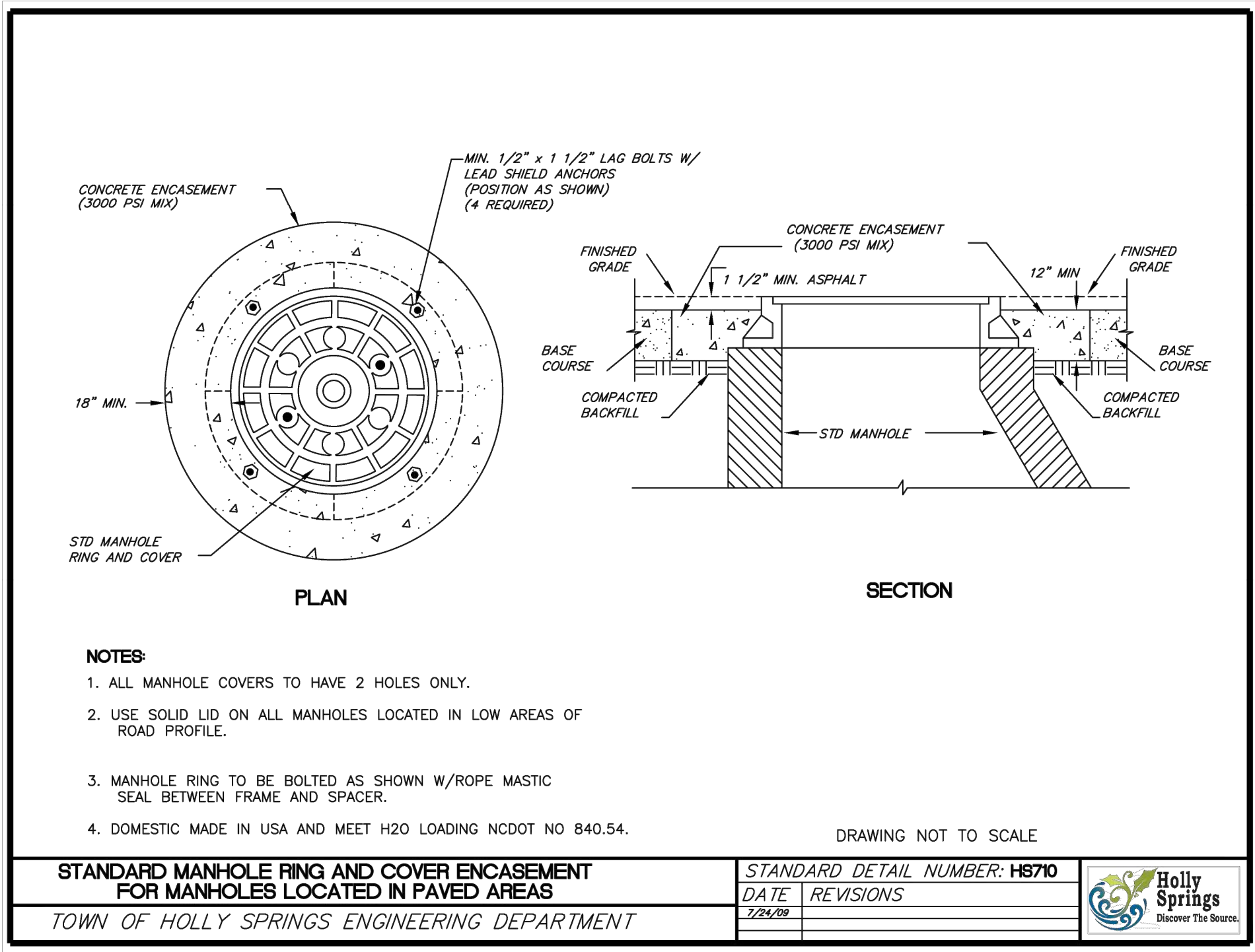
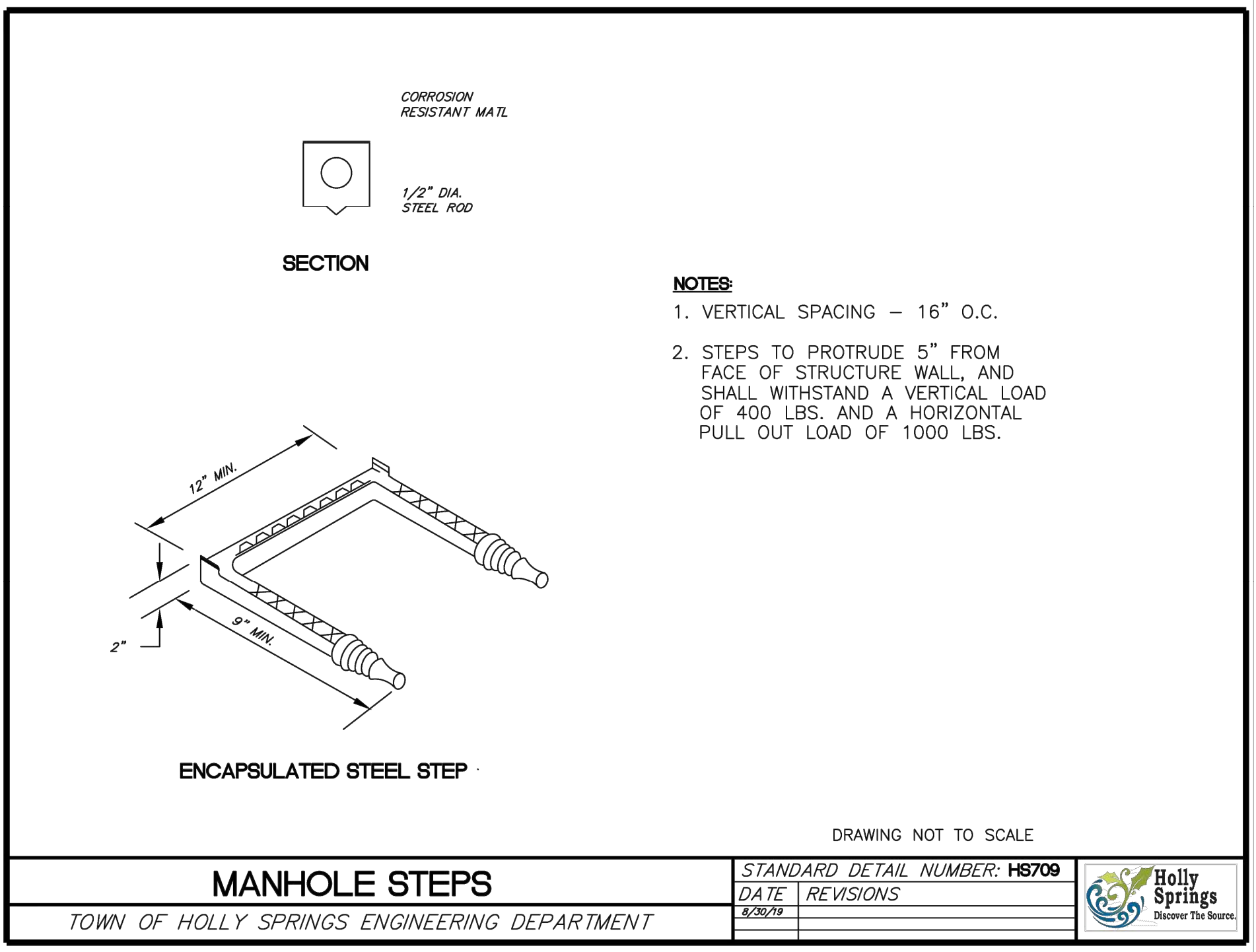
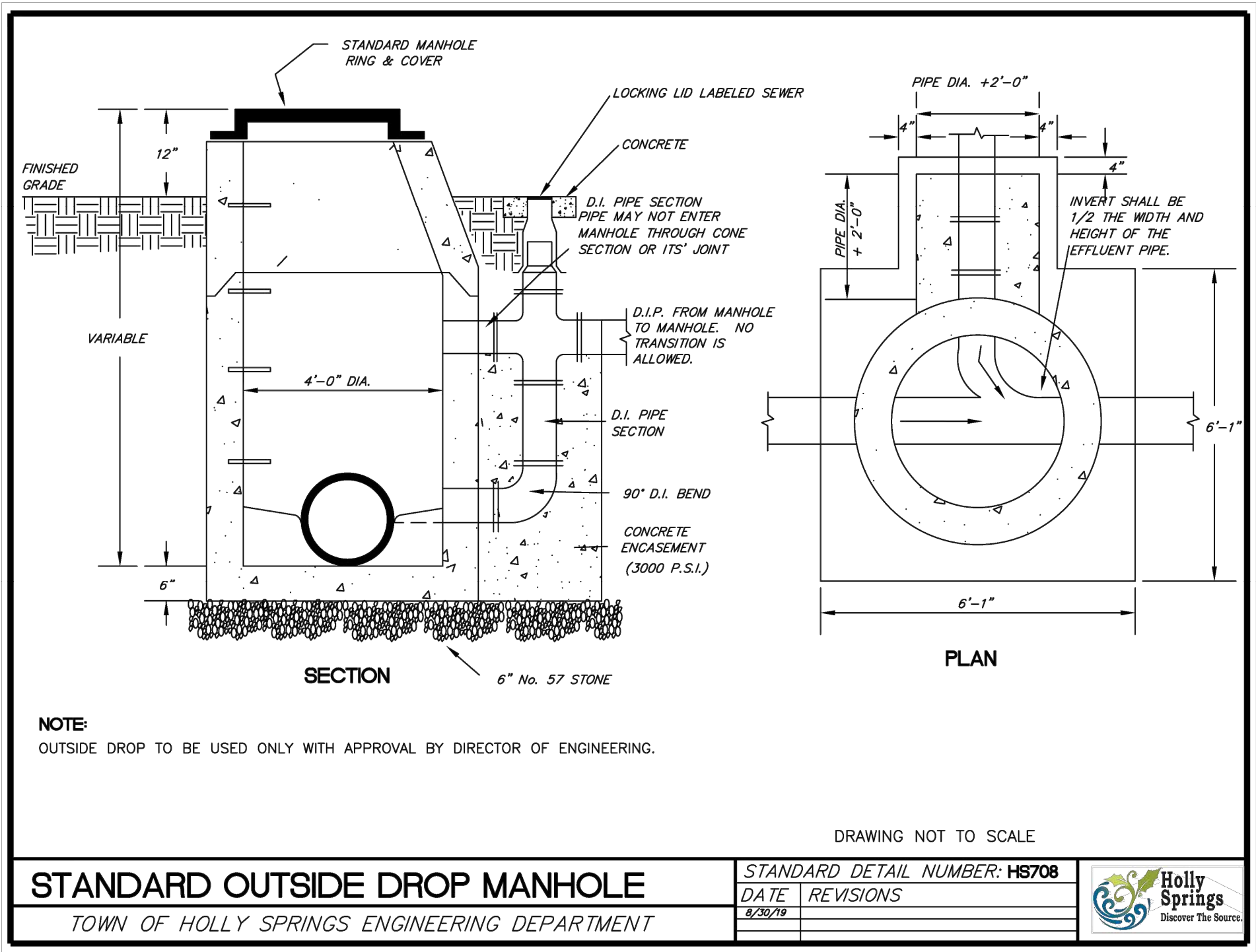
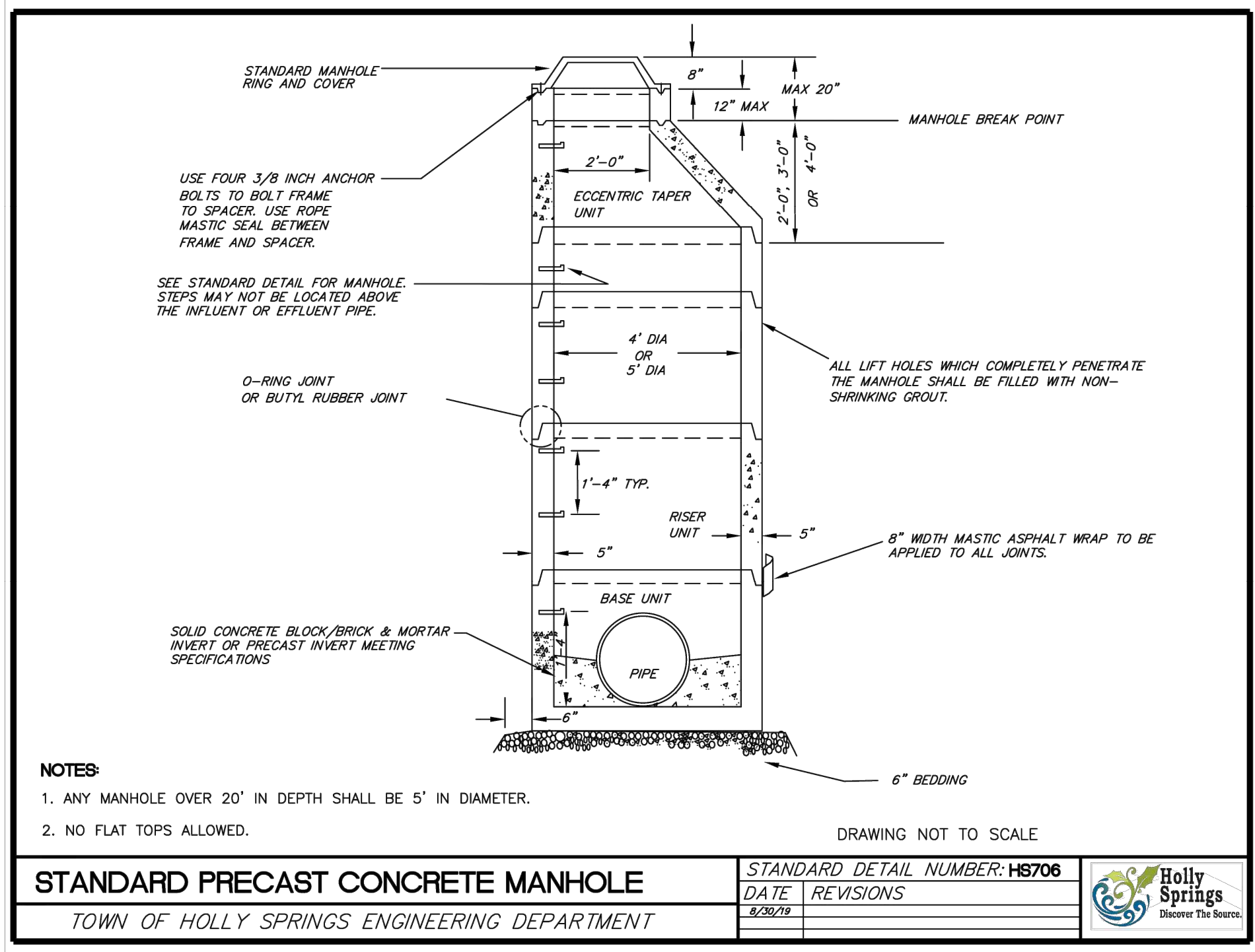
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
DETAILS

DATE: NOVEMBER 2024
HAZEN NO.: 31407-006
CONTRACT NO.: --
DRAWING NUMBER: CD07

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PLOT DATE: 11/7/2024 3:21 PM BY: SMILLER



REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL - DO NOT USE FOR CONSTRUCTION

Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	CD08



DRAWING NOT TO SCALE

STANDARD DETAIL NUMBER: HS716	
DATE	REVISIONS
7/24/09	



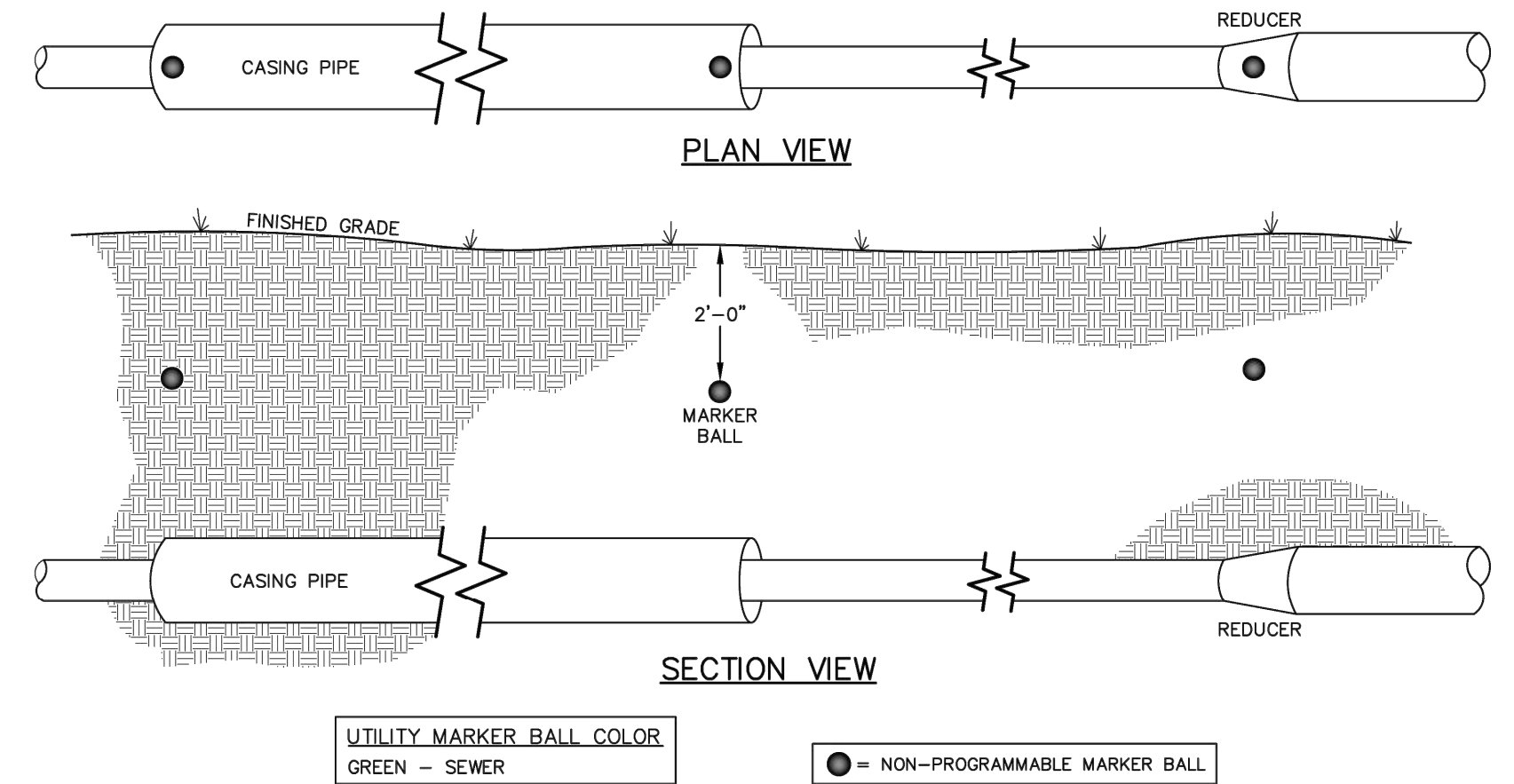
SPECIFICATION TIME (min-sec) REQUIRED FOR PRESSURE DROP FROM 3-1/2 TO 2-1/2 PSIG
WHEN TESTING ONE PIPE DIAMETER ONLY

		PIPE DIAMETER, INCHES								
		4	6	8	10	12	15	18	21	24
LENGTH OF LINE, FEET	25	0:04	0:10	0:18	0:28	0:40	1:02	1:29	2:01	2:38
	50	0:09	0:20	0:35	0:55	1:19	2:04	2:58	4:03	5:17
	75	0:13	0:30	0:53	1:23	1:59	3:06	4:27	6:04	7:55
	100	0:18	0:40	1:10	1:50	2:38	4:08	5:56	8:05	10:34
	125	0:22	0:50	1:28	2:18	3:18	5:09	7:26	9:55	11:20
	150	0:26	0:59	1:46	2:45	3:58	6:11	8:30		
	175	0:31	1:09	2:03	3:13	4:37	7:05			
	200	0:35	1:19	2:21	3:40	5:17				12:06
	225	0:40	1:29	2:38	4:08	5:40			10:25	13:36
	250	0:44	1:39	2:56	4:35			8:31	11:35	15:07
	275	0:48	1:49	3:14	4:43			9:21	12:44	16:38
	300	0:53	1:59	3:31				10:12	13:53	18:09
	350	1:02	2:19	3:47			8:16	11:54	16:12	21:10
	400	1:10	2:38			6:03	9:27	13:36	18:31	24:12
	450	1:19	2:50			6:48	10:38	15:19	20:50	27:13
	500	1:28			5:14	7:34	11:49	17:01	23:09	30:14

STANDARD AIR TEST TABLE

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS719	
DATE	REVISIONS
8/30/19	



DRAWING NOT TO SCALE

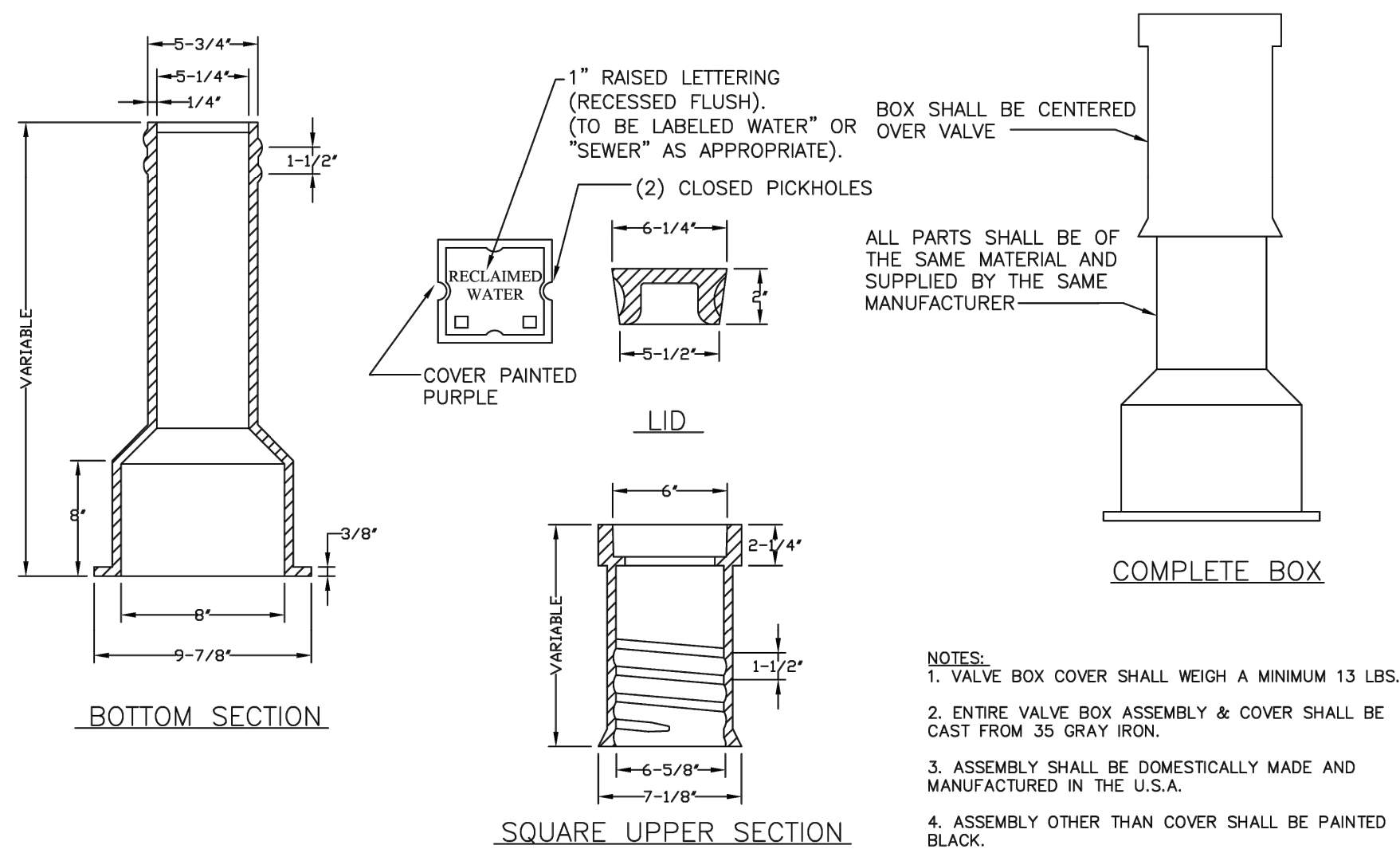
STANDARD UTILITY MARKER BALL LOCATIONS FOR SEWER FORCE MAINS

STANDARD DETAIL NUMBER: HS729	
DATE	REVISIONS
2/22/19	



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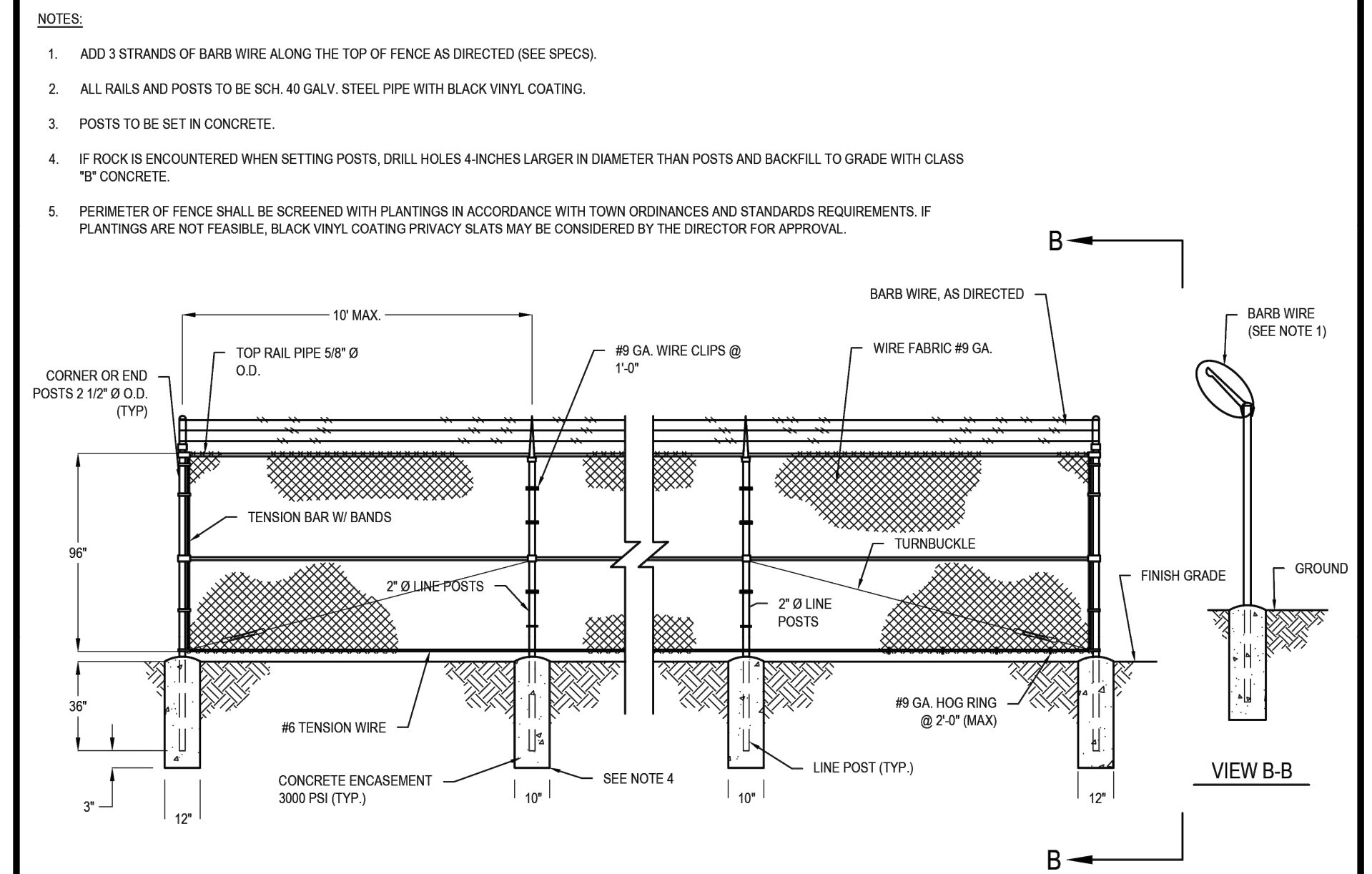
STANDARD DETAIL NUMBER: HS814	
DATE	REVISIONS
7/24/09	



DRAWING NOT TO SCALE

STANDARD VALVE BOX (RECLAIMED WATER)

STANDARD DETAIL NUMBER: HS1109	
DATE	REVISIONS
7/24/09	



DRAWING NOT TO SCALE

STANDARD DETAIL NUMBER: HS1303	
DATE	REVISIONS
6/11/24	



PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1 

60% SUBMITTAL -
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Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL DETAILS

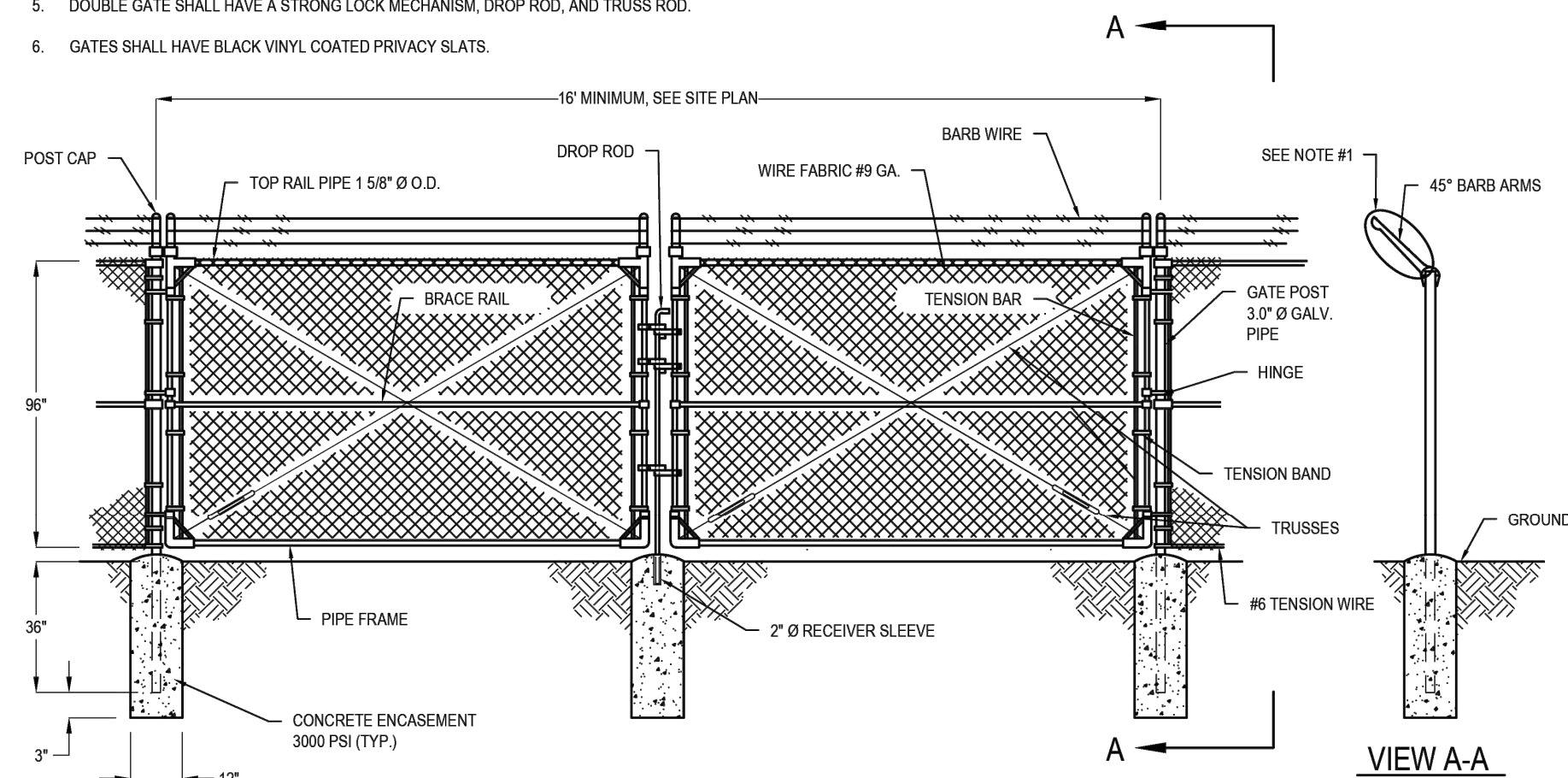
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HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

CD09

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NOTES:

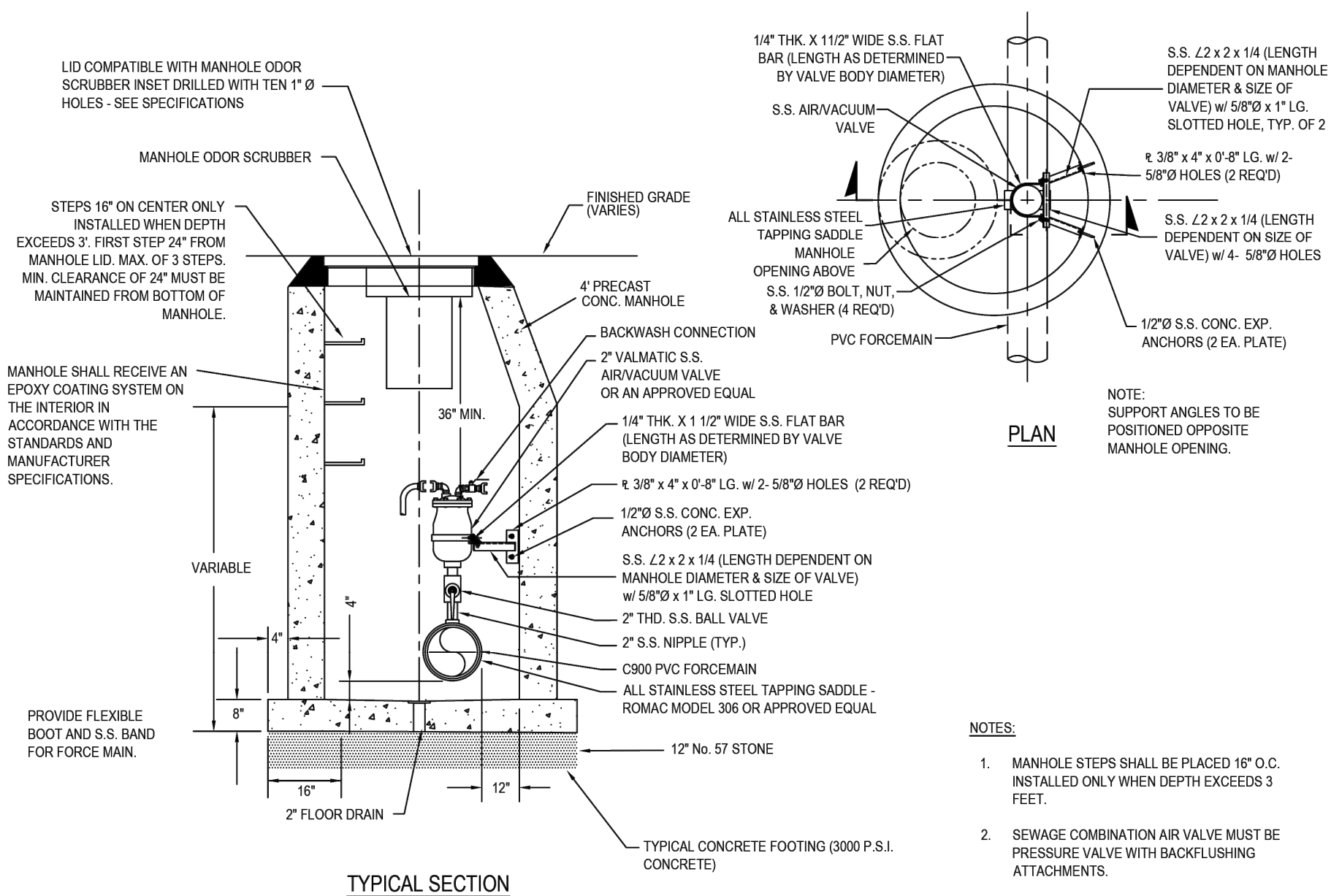
1. ADD 3 STRANDS OF BARB WIRE ALONG THE TOP OF FENCE AS DIRECTED (SEE SPECS).
2. ALL RAILS AND POSTS TO BE SCH. 40 GALV. STEEL PIPE WITH BLACK VINYL COATING.
3. POSTS TO BE SET IN CONCRETE
4. IF ROCK IS ENCOUNTERED WHEN SETTING POSTS, DRILL HOLES 4-INCHES LARGER IN DIAMETER THAN POSTS AND BACKFILL TO GRADE WITH CLASS "B" CONCRETE.
5. DOUBLE GATE SHALL HAVE A STRONG LOCK MECHANISM, DROP ROD, AND TRUSS ROD.
6. GATES SHALL HAVE BLACK VINYL COATED PRIVACY SLATS.



TYPICAL SECURITY DOUBLE GATE

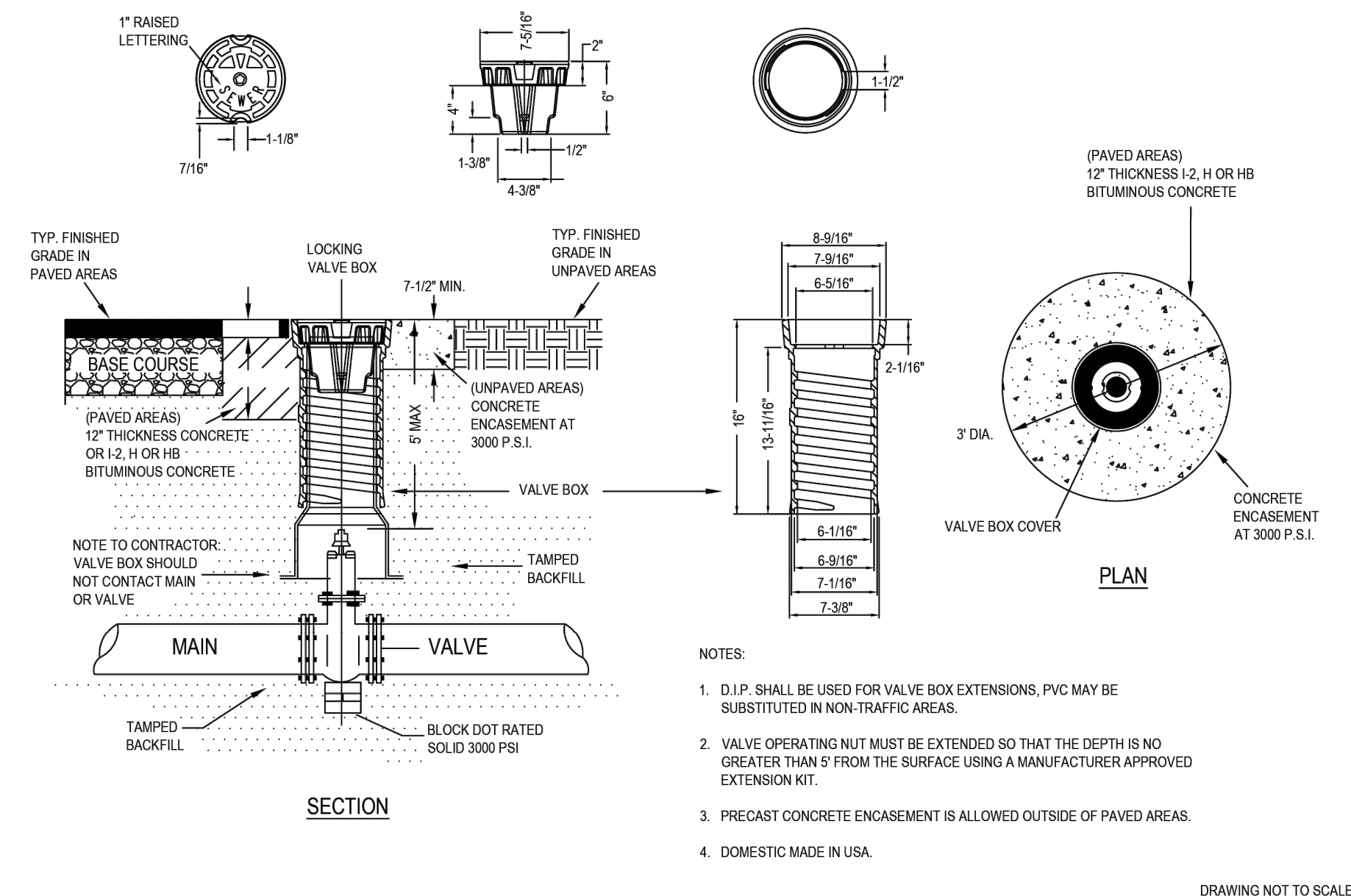
TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS1304	
DATE	REVISIONS
6/11/24	



COMBINATION SEWAGE AIR VALVE MANHOLE
WITH ODOR SCRUBBER
TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS1311	
DATE	REVISIONS
6/11/24	



SEWER VALVE BOX INSTALLATION

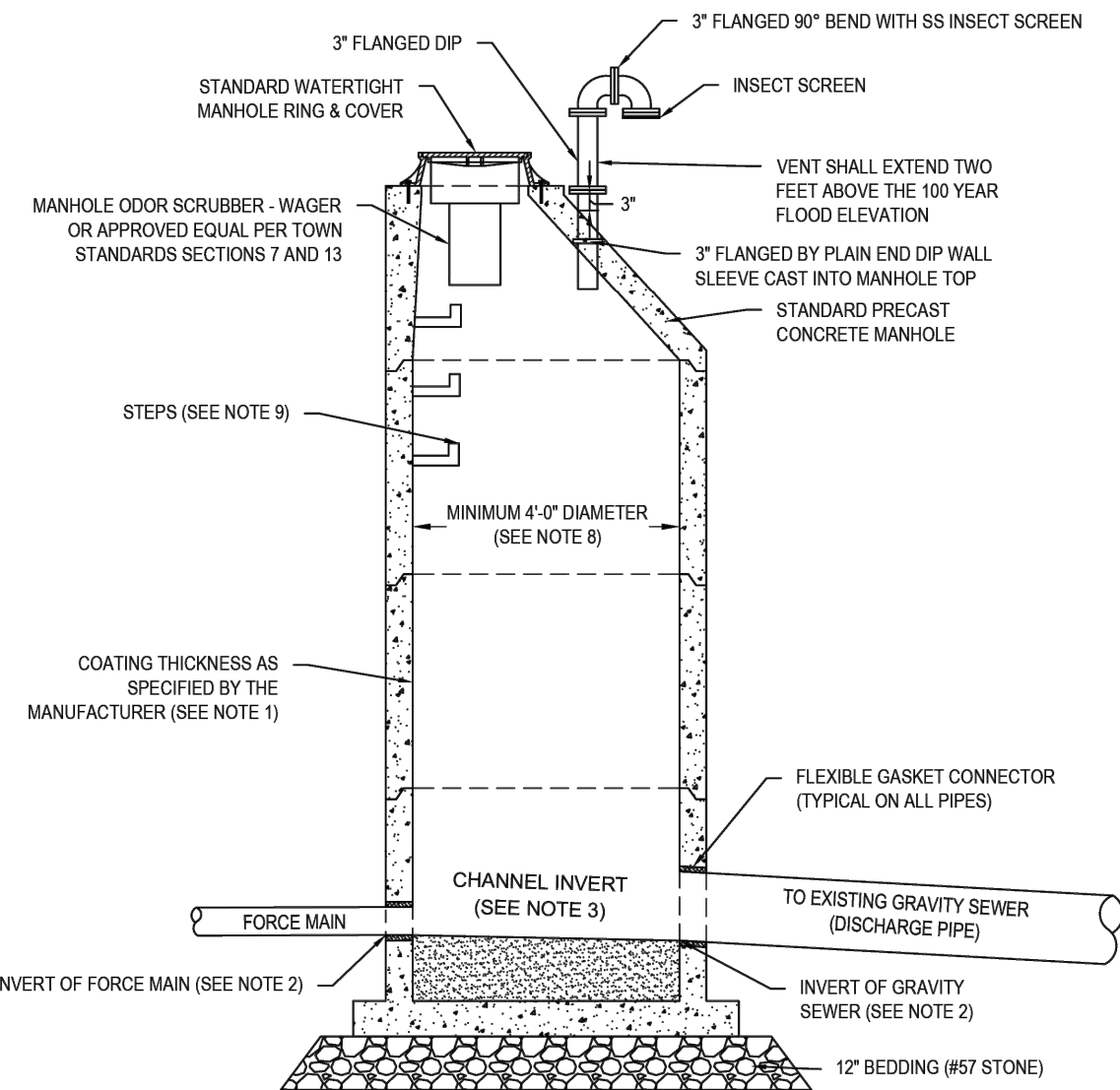
TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS1312	
DATE	REVISIONS
8/30/19	
9/22/23	RJ/RH
9/21/24	



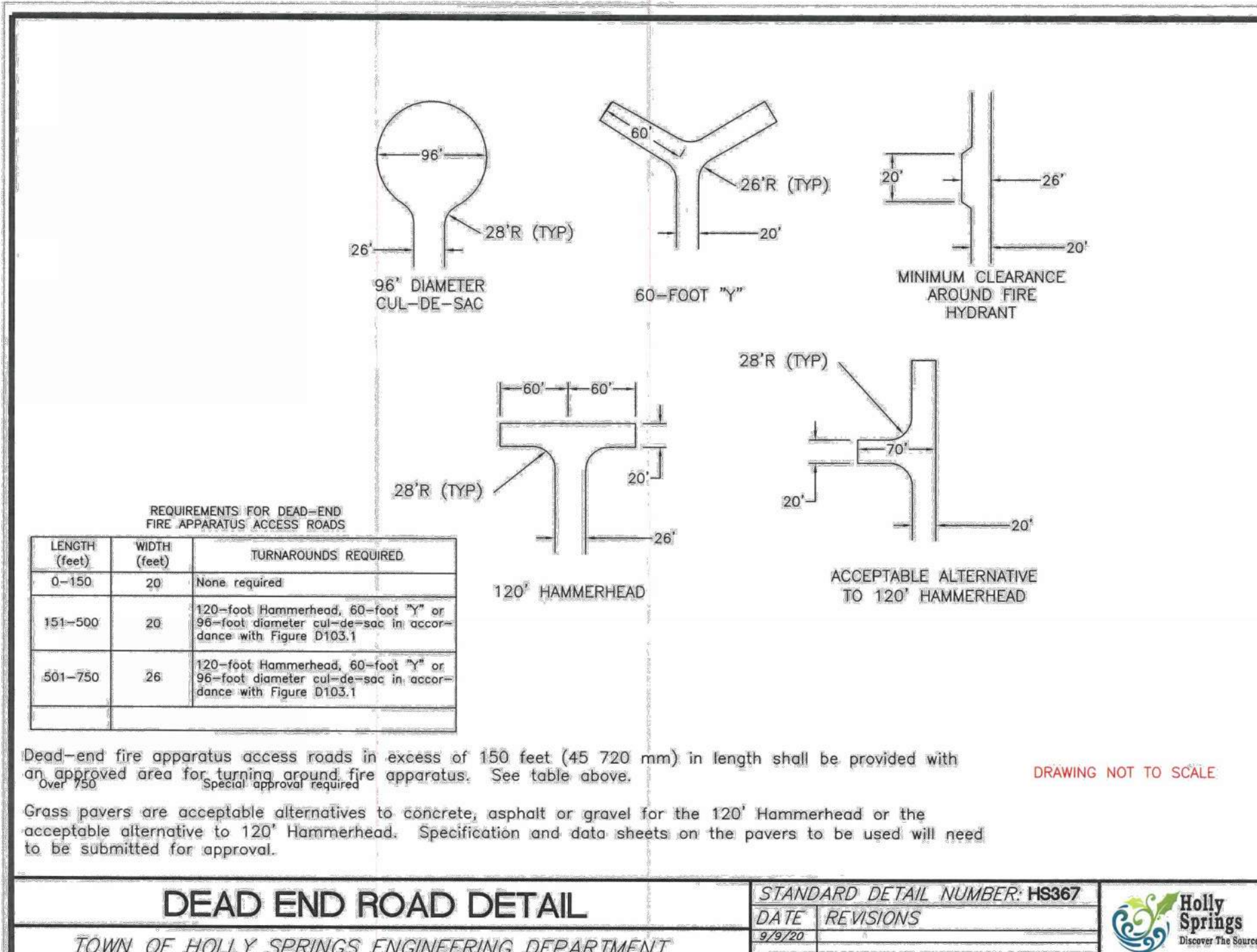
NOTES:

1. COAT INTERIOR OF MANHOLE WITH APPROVED EPOXY OR POLYURETHANE COATING APPLIED PER THE MANUFACTURER'S SPECIFICATIONS. COATINGS SHALL CONFORM TO TOWN OF HOLLY SPRINGS STANDARDS SECTION 13.
2. ELEVATION OF FORCE MAIN INVERT SHALL BE 1/10 OF A FOOT HIGHER THAN GRAVITY DISCHARGE INVERT ELEVATION. INSTALLATIONS GREATER THAN 10-FT WILL REQUIRE APPROVAL BY THE DIRECTOR.
3. PROVIDE SMOOTH CHANNEL FROM FORCE MAIN TO GRAVITY SEWER.
4. FORCE MAINS SHALL BE CONSTRUCTED OF 6000 PVC PIPE AND SHALL CONFORM TO TOWN STANDARDS SECTION 13.
5. ANY DUCTILE IRON PIPE SHALL BE LINED WITH PROTECTO 401 AND CONFORM TO ALL CRITERIA IN TOWN STANDARDS SECTION 13.
6. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC TEST ACCORDING TO THE PROVISIONS OF TOWN STANDARDS SECTION 13.
7. A CHECK VALVE AND PLUG VALVE SHALL BE PROVIDED FOR THE DISCHARGE LINE OF EACH PUMP.
8. MANHOLE DIAMETER SHALL BE CAPABLE OF RECEIVING FLOW WITHOUT EXCEEDING 50% SURCHARGE CONDITIONS IN THE EXISTING GRAVITY SEWER.
9. STEPS 10% ON CENTER ONLY INSTALLED WHEN DEPTH EXCEEDS 3'. FIRST STEP 24" FROM MANHOLE LID. MAXIMUM OF 3" STEPS. MINIMUM CLEARANCE OF 24" MUST BE MAINTAINED FROM BOTTOM OF MANHOLE



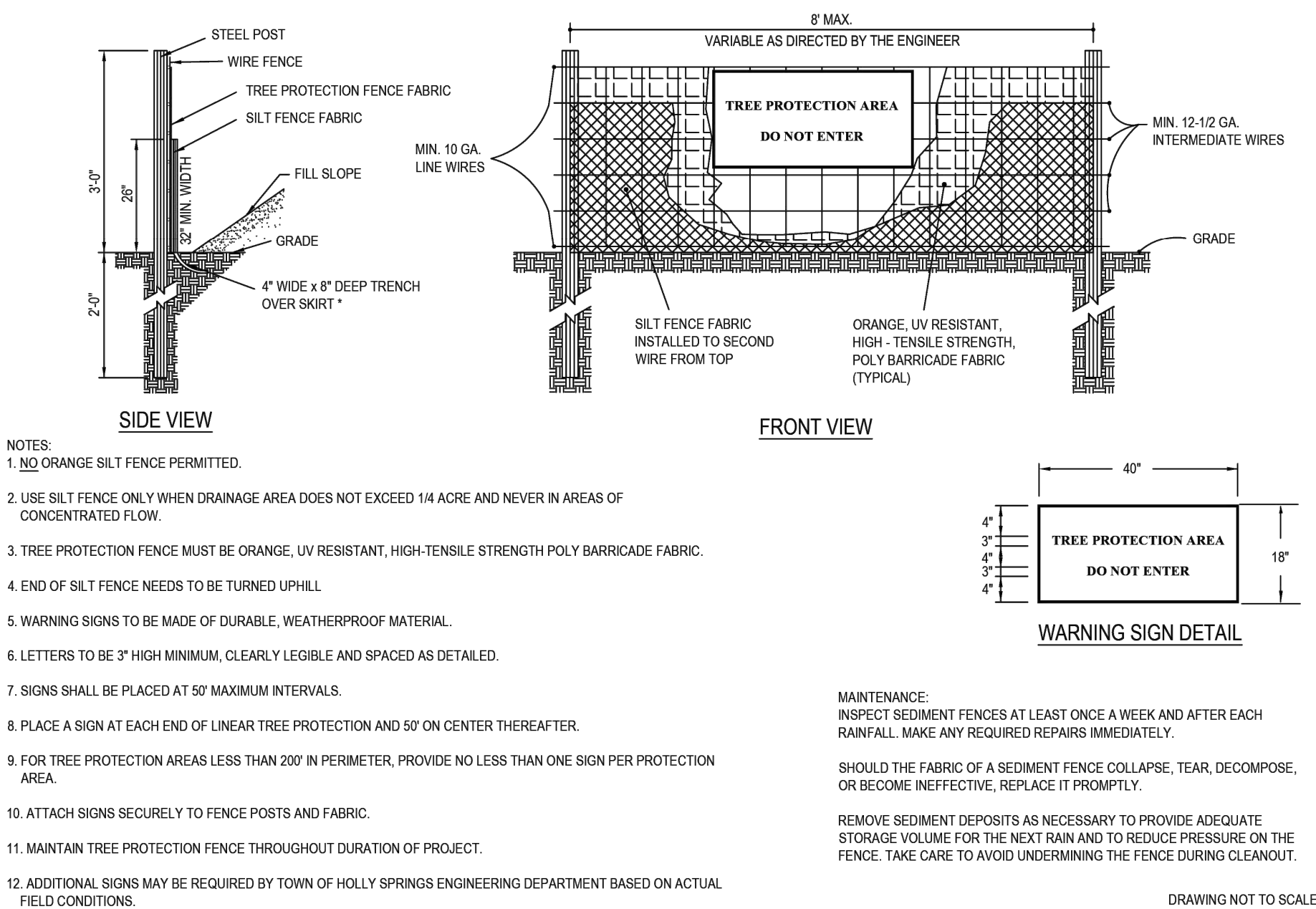
FORCE MAIN DISCHARGE MANHOLE
TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS1313	
DATE	REVISIONS
8/30/19	
6/21/23	RJ



DEAD END ROAD DETAIL

STANDARD DETAIL NUMBER: HS367	
DATE	REVISIONS
9/9/20	



COMBINATION SILT / TREE PROTECTION FENCE
TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS402	
DATE	REVISIONS
9/22/16	
6/11/24	

[illegible]

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1 

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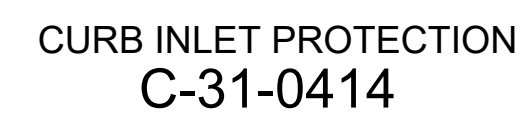
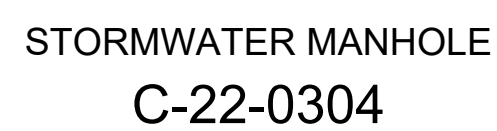
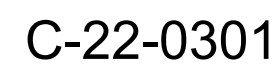
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	

CD10

[illegible]

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1" 

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

DATE: NOVEMBER 2024

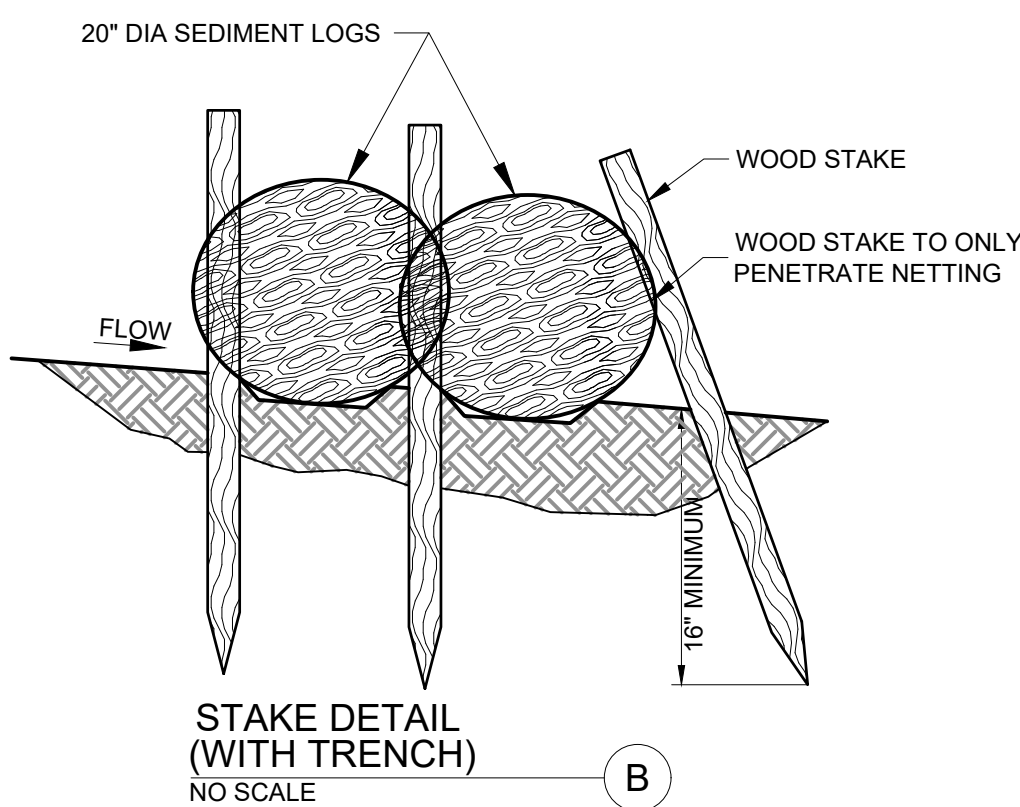
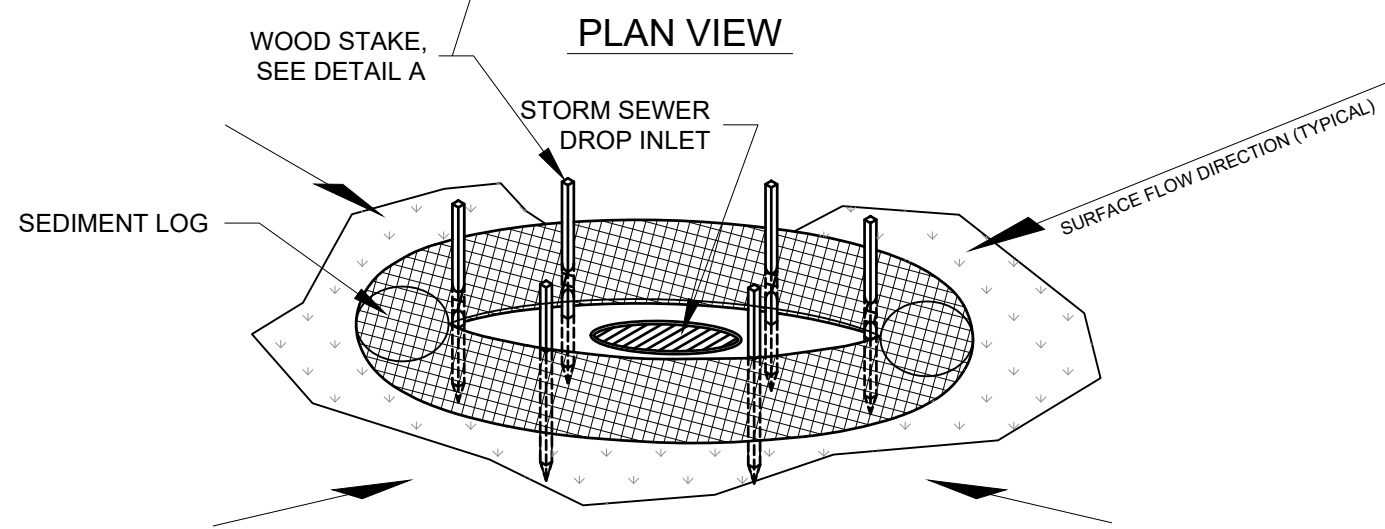
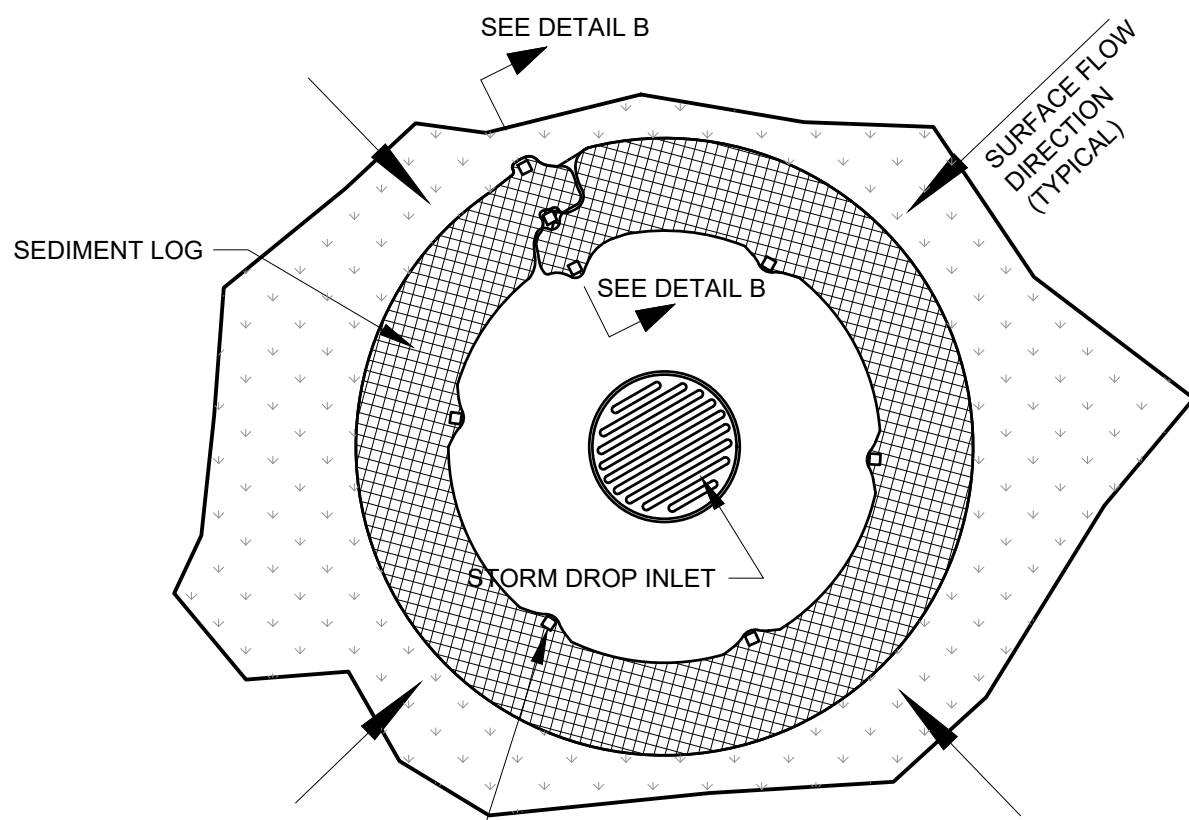
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CONTRACT NO.: --

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NUMBER:

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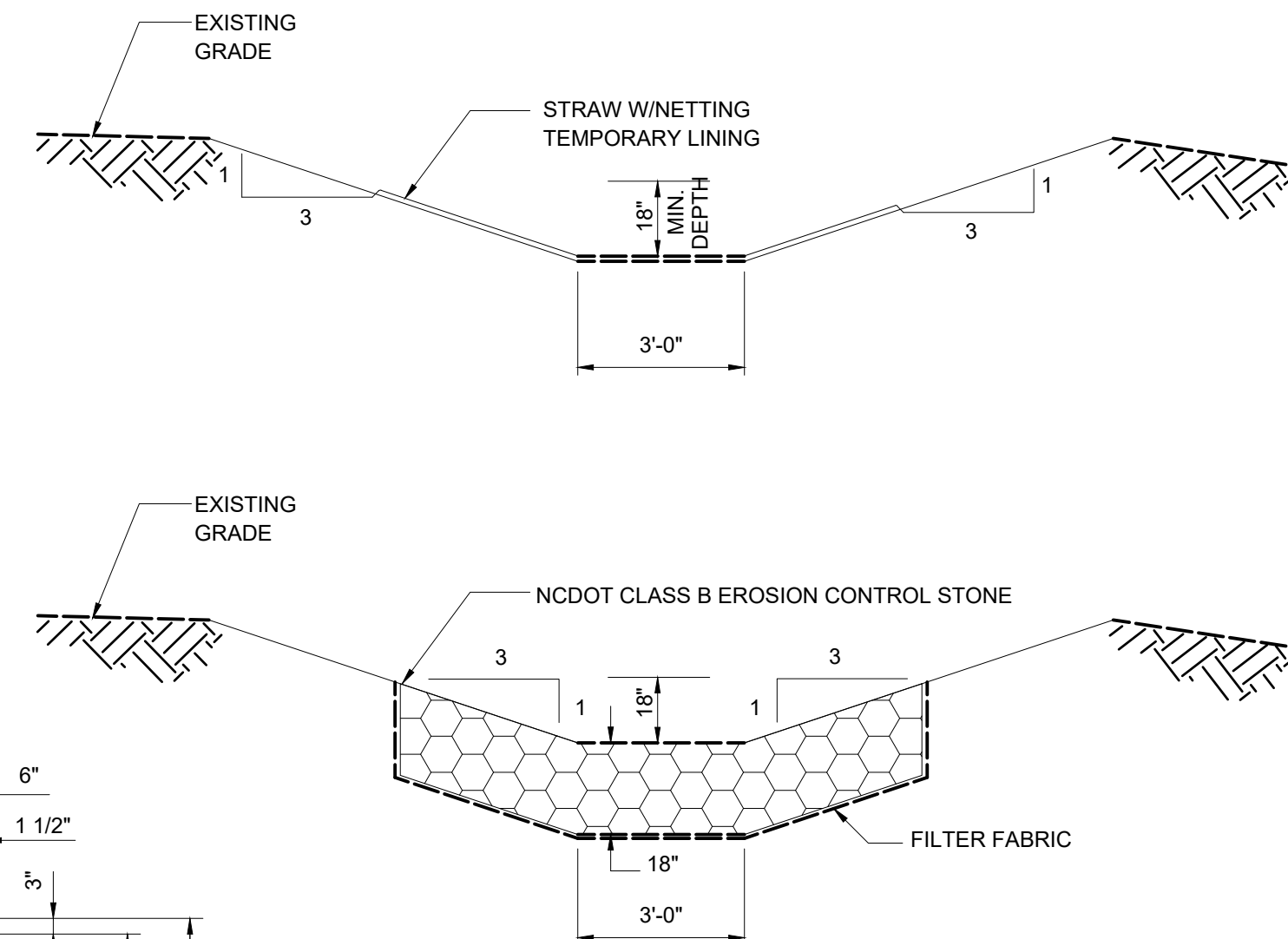
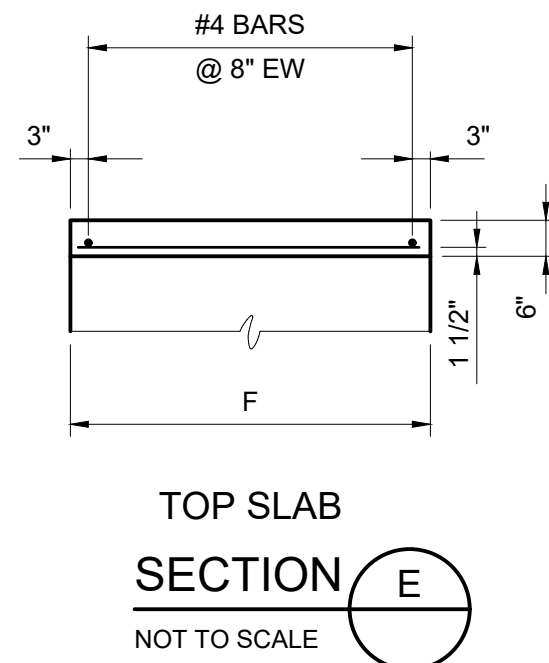
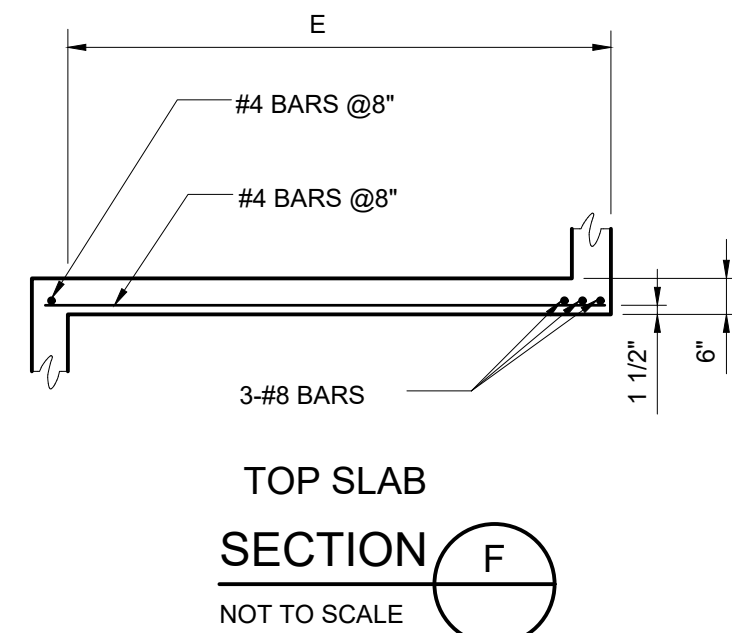
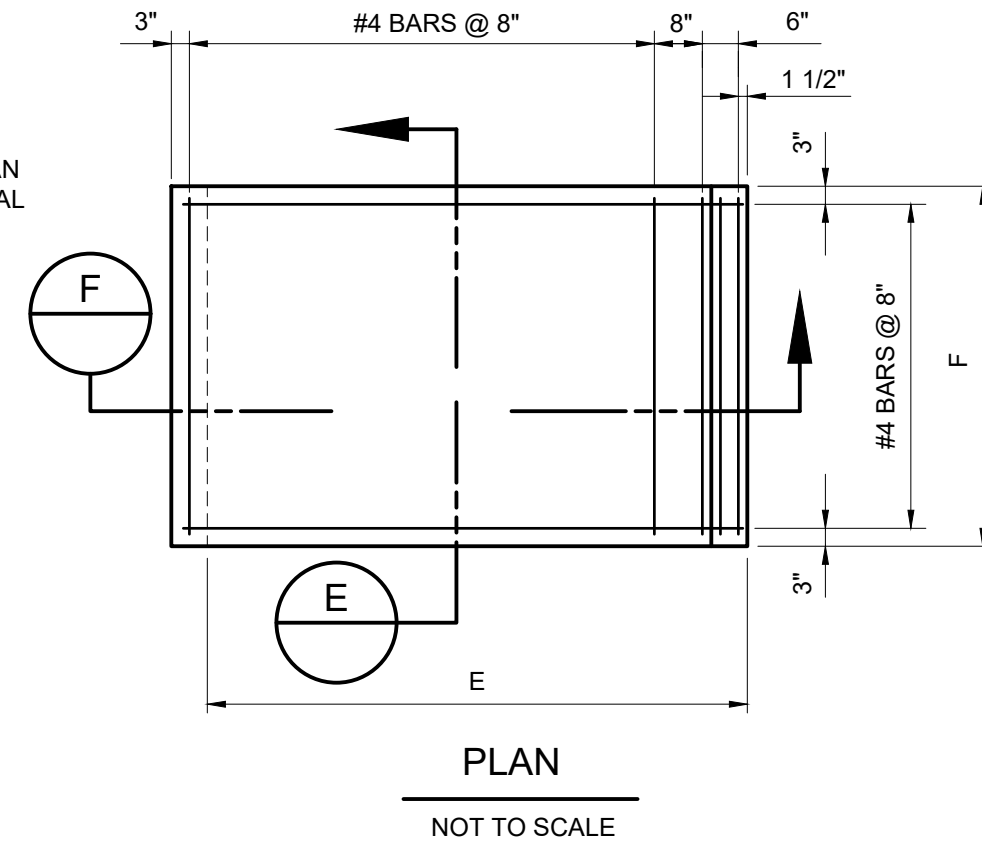
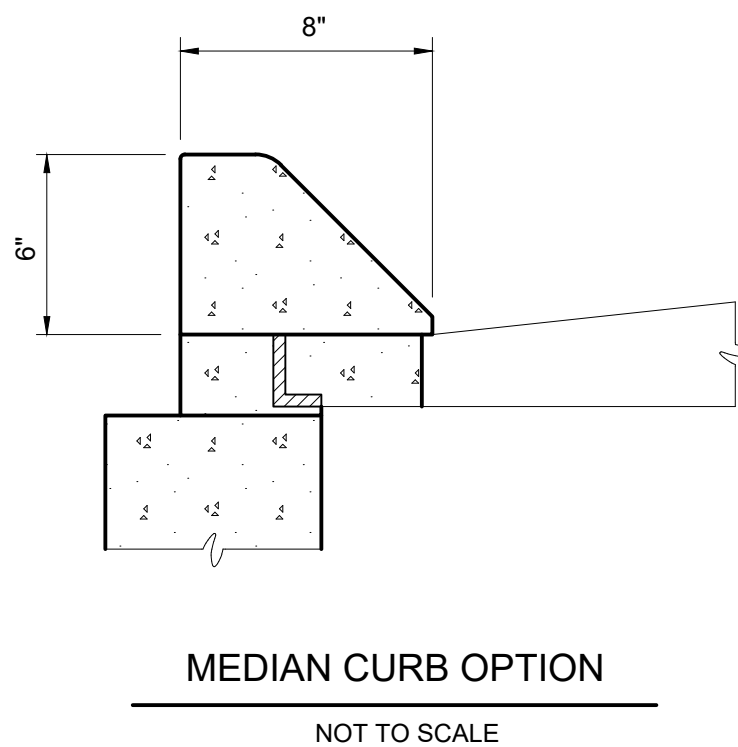
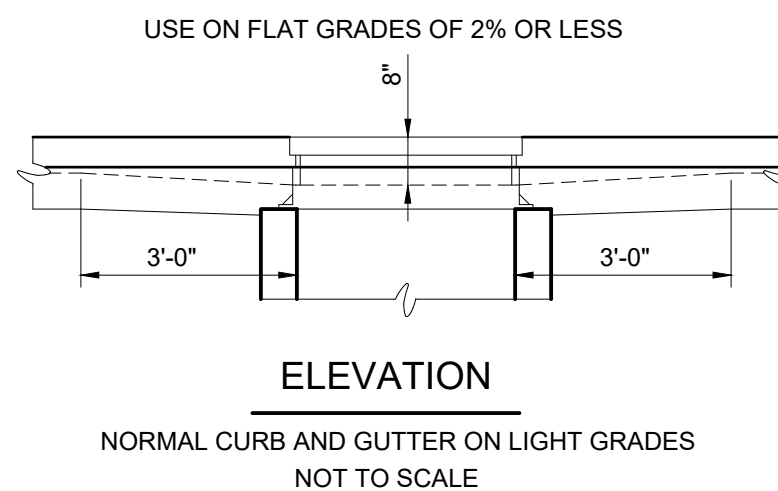
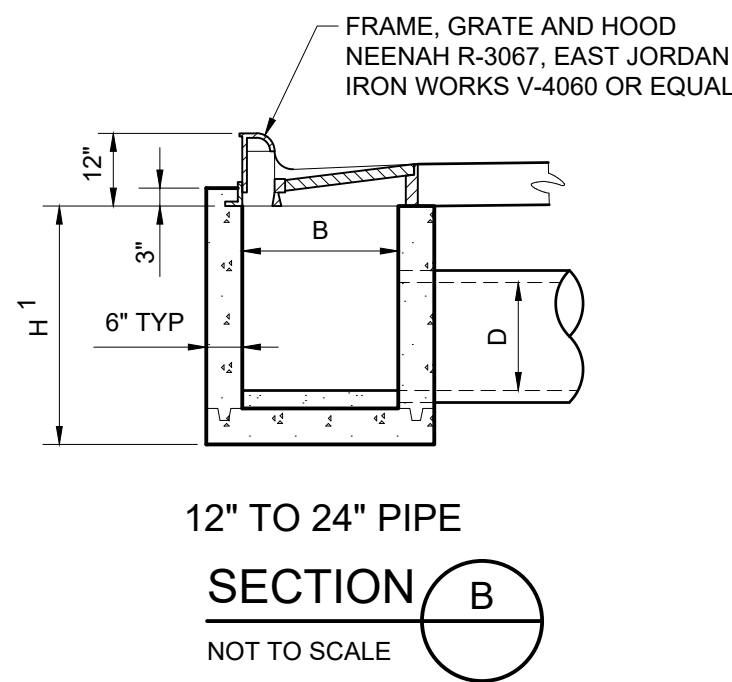
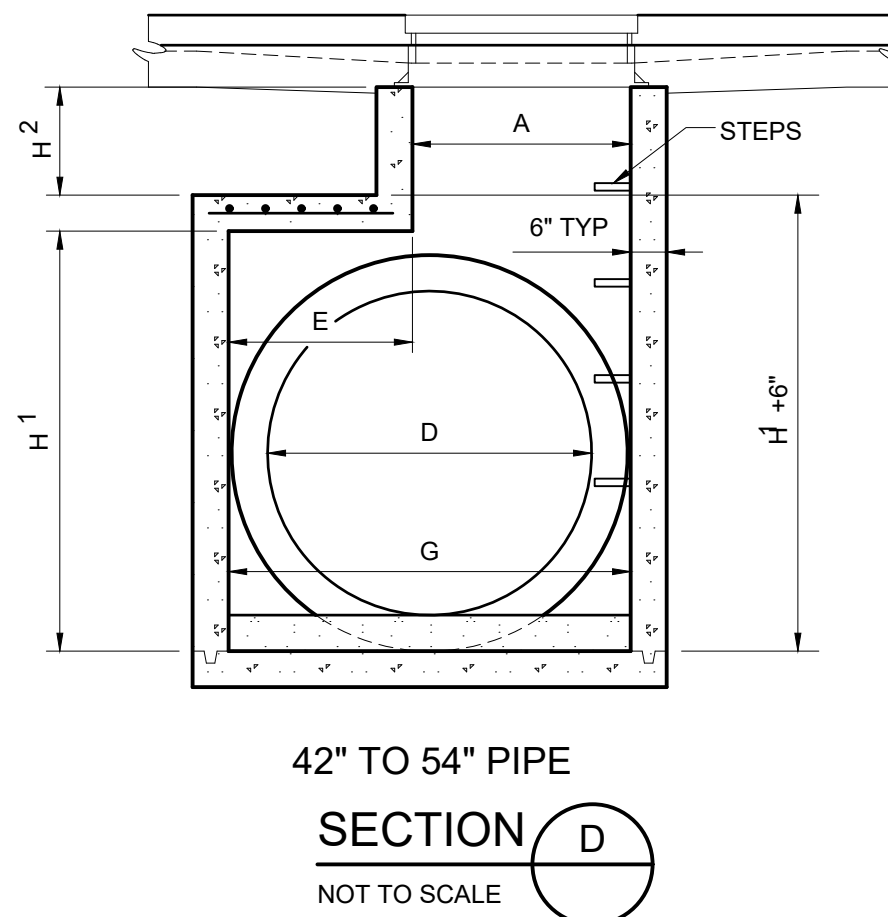
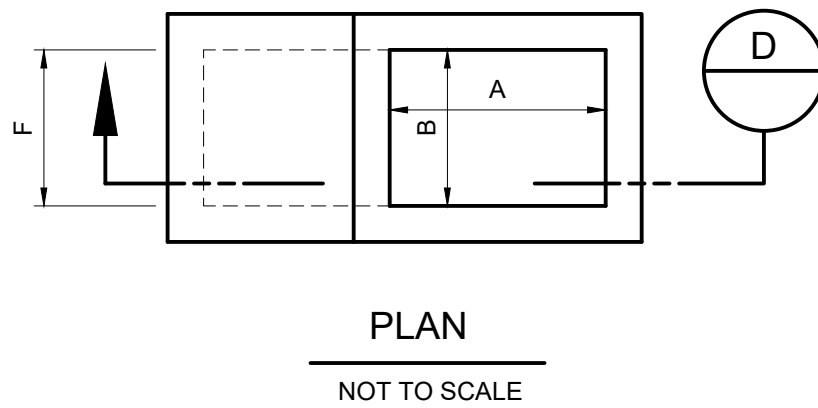
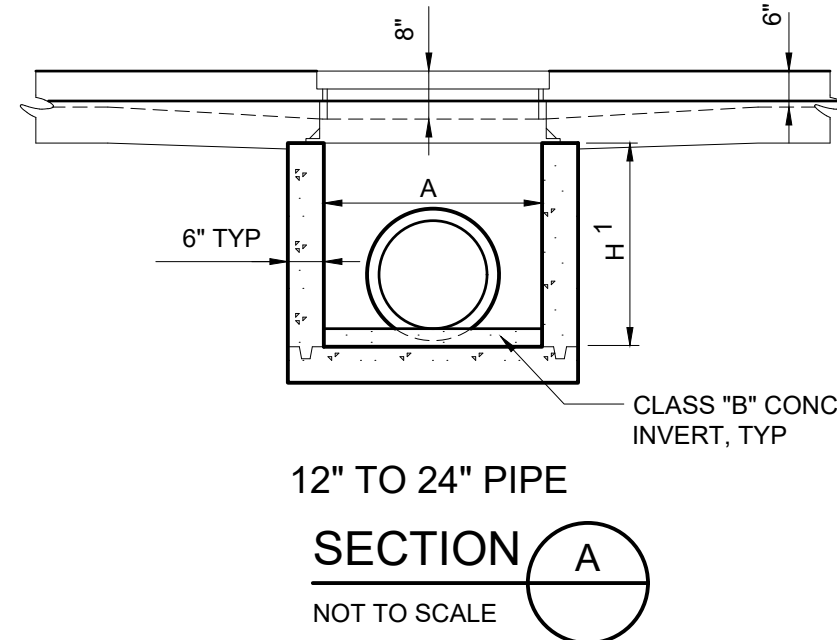
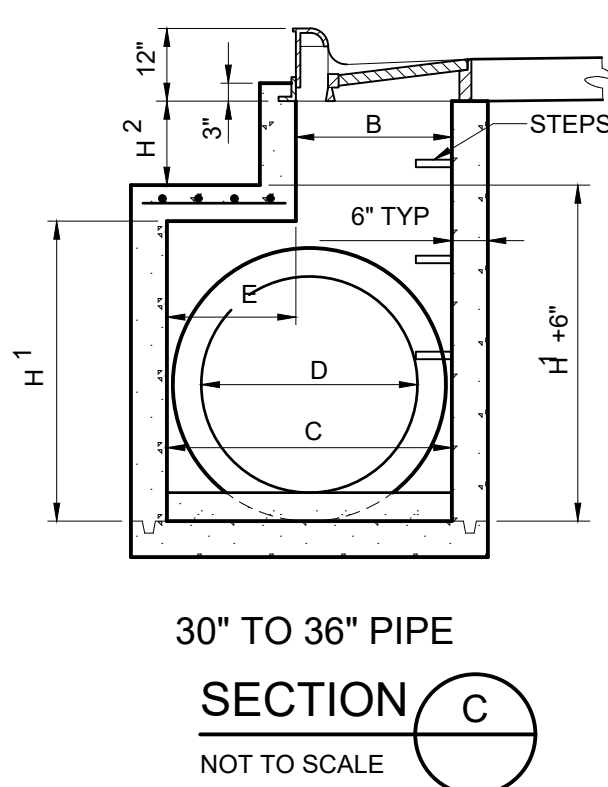
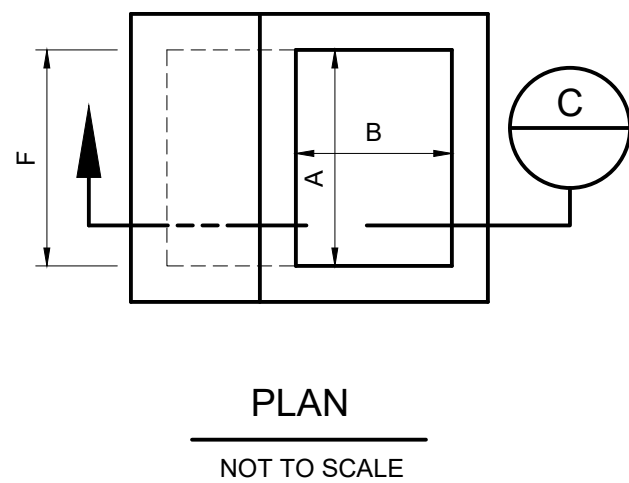
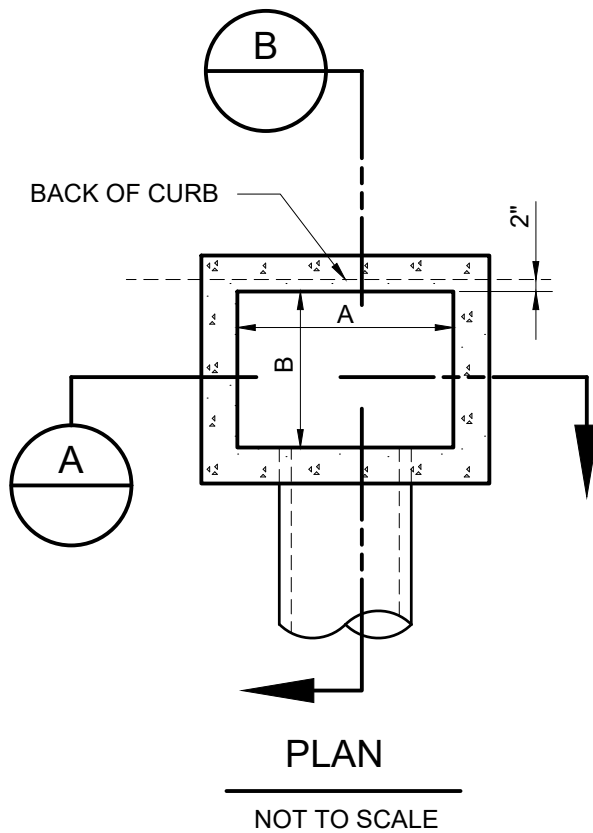
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PLOT DATE: 11/7/2024 3:24 PM BY: SMILLER



FFT - DROP INLET PROTECTION
C-31-0419

MAINTENANCE REQUIREMENTS:

1. INSPECT WEEKLY AND AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2 INCH OR MORE OF RAIN. REMOVE ANY ACCUMULATED SEDIMENT AND/OR WOODY DEBRIS.
2. FFTs SHALL BE ENTRENCHED AS SHOWN TO PREVENT UNDERCUTTING. ANY EVIDENCE OF UNDERCUTTING AND/OR EROSION SHALL BE REPAIRED IMMEDIATELY.
3. STAKES AND/OR STAPLES THAT HAVE BECOME LOOSE OR DISPLACED SHALL BE REPAIRED IMMEDIATELY.
4. WHEN SEDIMENT ACCUMULATION REACHES 1/2 THE DIAMETER OF THE FFT, IT SHALL BE REMOVED AND DISPOSED OFF-SITE BY THE CONTRACTOR IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
5. ANY VISIBLE DAMAGE TO THE FFT SHALL BE REPAIRED OR REPLACED IMMEDIATELY.



PERMANENT DIVERSION SWALE
C-31-0442

NOTE:

1. STRUCTURAL GEOMETRY AND REINFORCEMENT SHOWN ON THIS DRAWING ARE FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN OF ALL UTILITY STRUCTURE ELEMENTS PER SPECIFICATION SECTION 33 05 61.

MINIMUM DIMENSIONS FOR CONCRETE CURB INLETS									
DIMENSIONS OF BOX AND PIPE							COVER DIMENSIONS		
PIPE	SPAN	WIDTH	WIDTH	SPAN	HEIGHT	HEIGHT			
D	A	B	C	G	MIN H ¹	H ²	E	F	
12"	3'-0"	2'-2"	—	—	2'-6"	—	—	—	—
15"	3'-0"	2'-2"	—	—	2'-9"	—	—	—	—
18"	3'-0"	2'-2"	—	—	3'-1"	—	—	—	—
24"	3'-0"	2'-2"	—	—	3'-7"	—	—	—	—
30"	3'-0"	2'-2"	3'-4"	3'-4"	3'-6"	VARIABLE	1'-8"	4'-0"	—
36"	3'-0"	2'-2"	3'-10"	3'-10"	4'-1"		2'-2"	4'-0"	—
42"	3'-0"	2'-2"	—	4'-5"	4'-10"		1'-11"	3'-2"	—
48"	3'-0"	2'-2"	—	5'-0"	5'-4"		2'-6"	3'-2"	—
54"	3'-0"	2'-2"	—	5'-7"	5'-11"		3'-1"	3'-2"	—

CONCRETE CURB INLET NOTES:

1. CLASS "A1" CONCRETE TO BE USED THROUGHOUT.
2. ALL WALLS SHALL BE REINFORCED WITH #4 BARS @ 12" EACH WAY PLACED AT MID-DEPTH. BARS SHALL BE BENT AT CORNERS WITH STD. 90° HOOKS. BOTTOM SLAB SHALL BE REINFORCED WITH #5@12" EACH WAY AT MID-DEPTH.
3. ALL CURB INLETS OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 14" OC. STEPS SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
4. FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" AND UP TO 15'-0" USE 8" WALLS AND BOTTOM SLAB.

STANDARD CONCRETE CURB INLET
12" THROUGH 54" PIPE

C-22-0303

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

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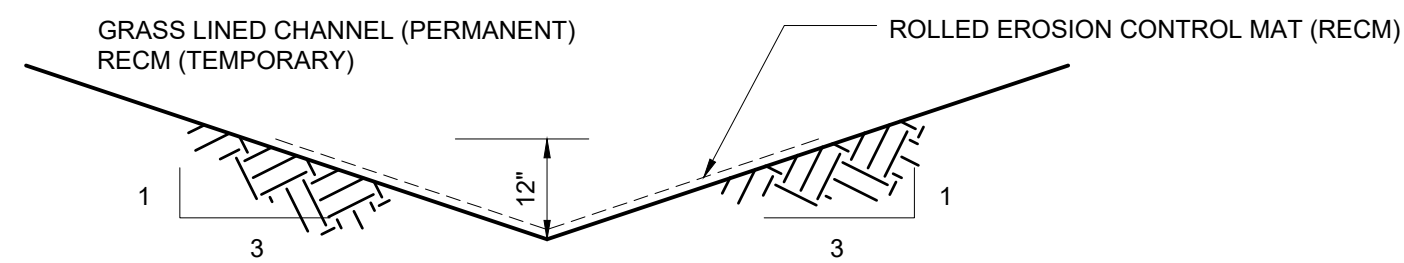
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

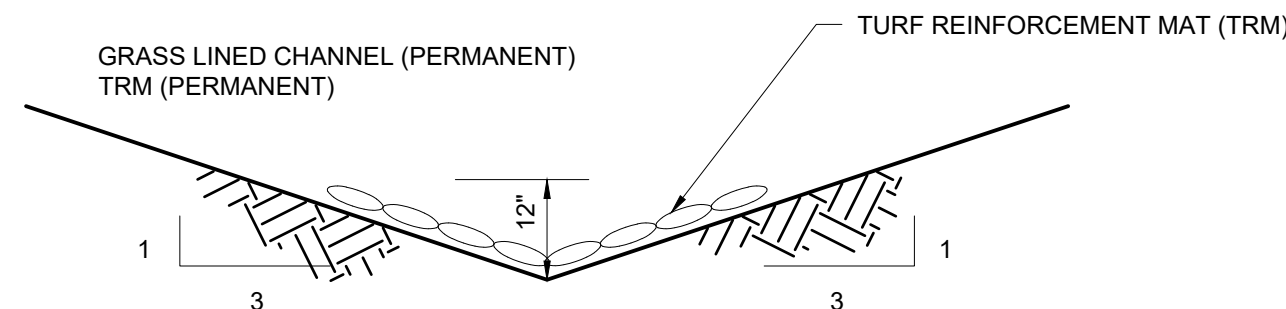
CIVIL
DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	CD12

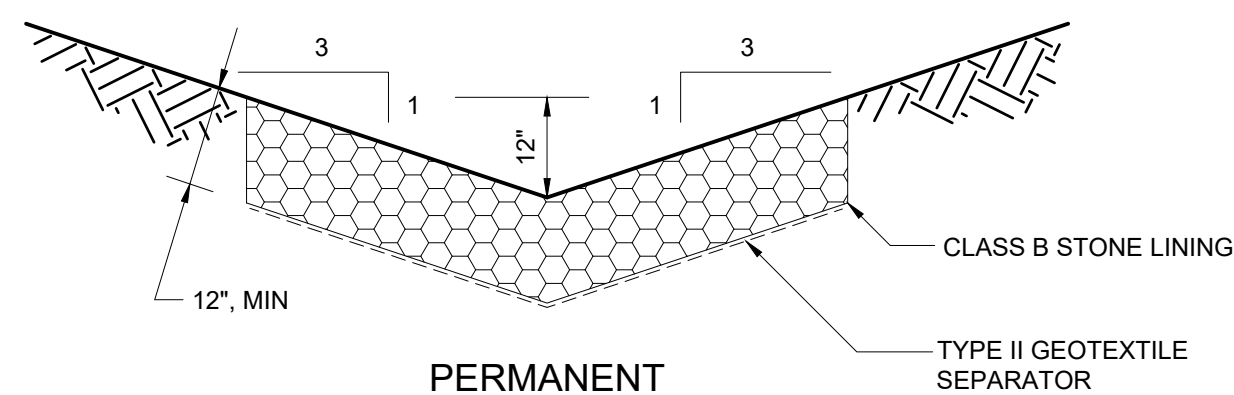
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TEMPORARY



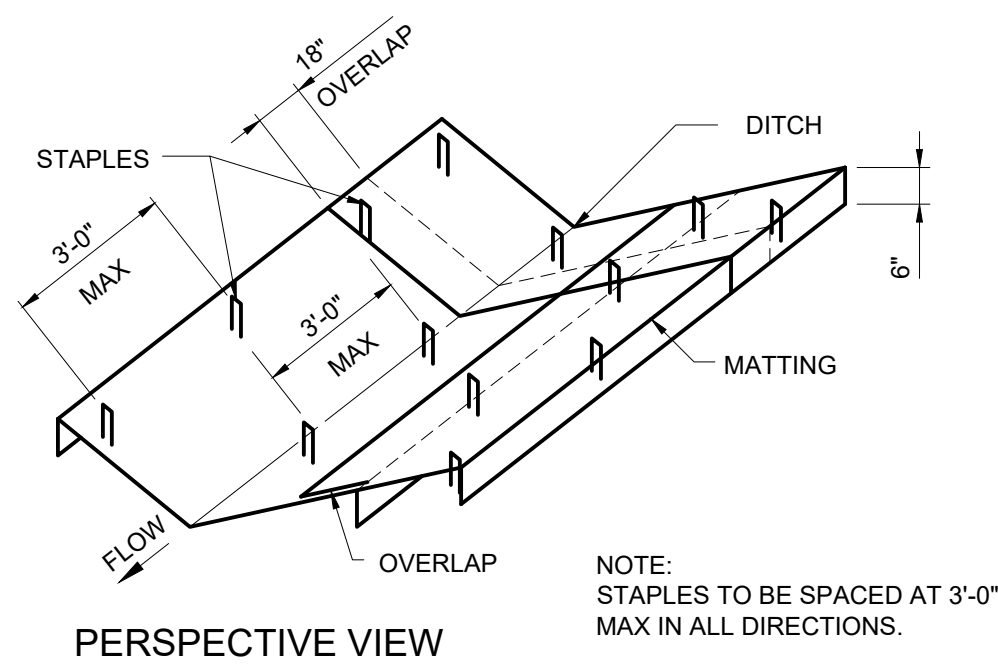
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PERMANENT
TYPICAL DITCH DETAIL

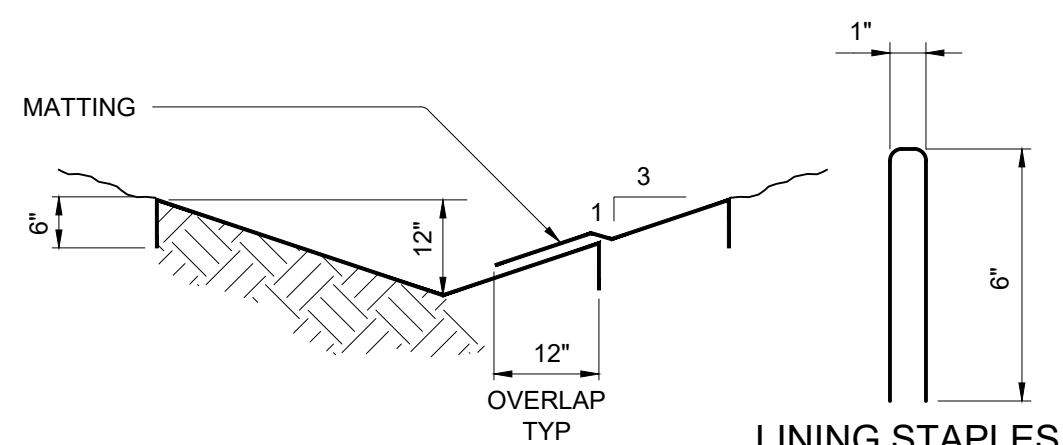
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INSTALLATION DETAIL

C-31-0450



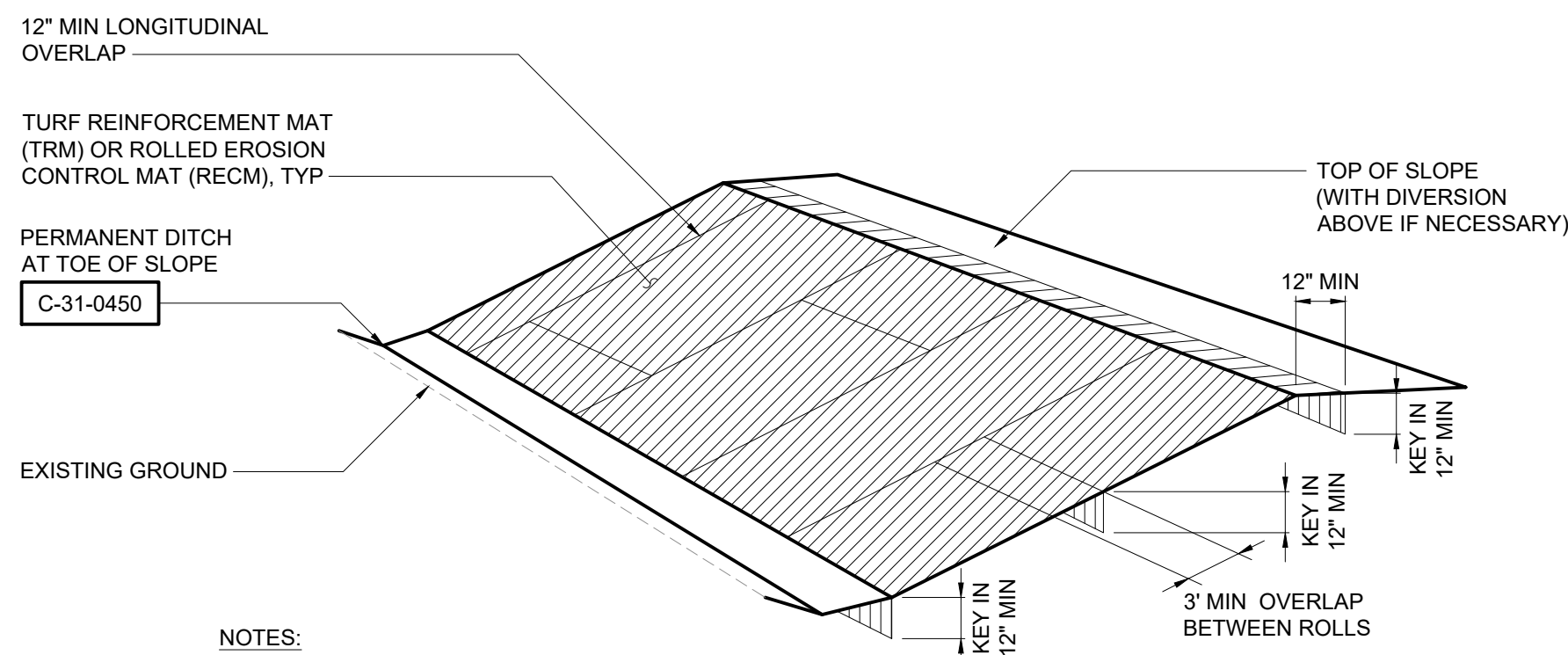
PERSPECTIVE VIEW

NOTE:
STAPLES TO BE SPACED AT 3'-0"
MAX IN ALL DIRECTIONS.



LINING STAPLES

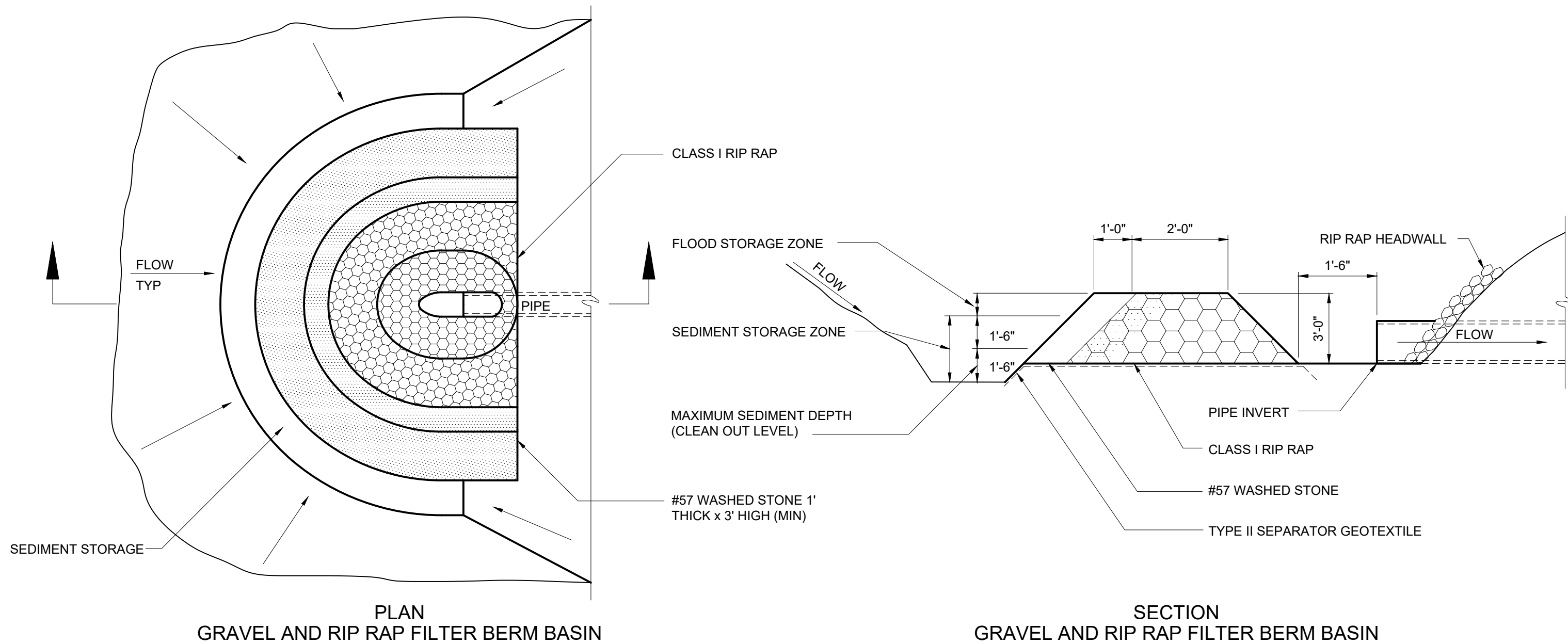
RECM AND TRM INSTALLATION
C-31-0470



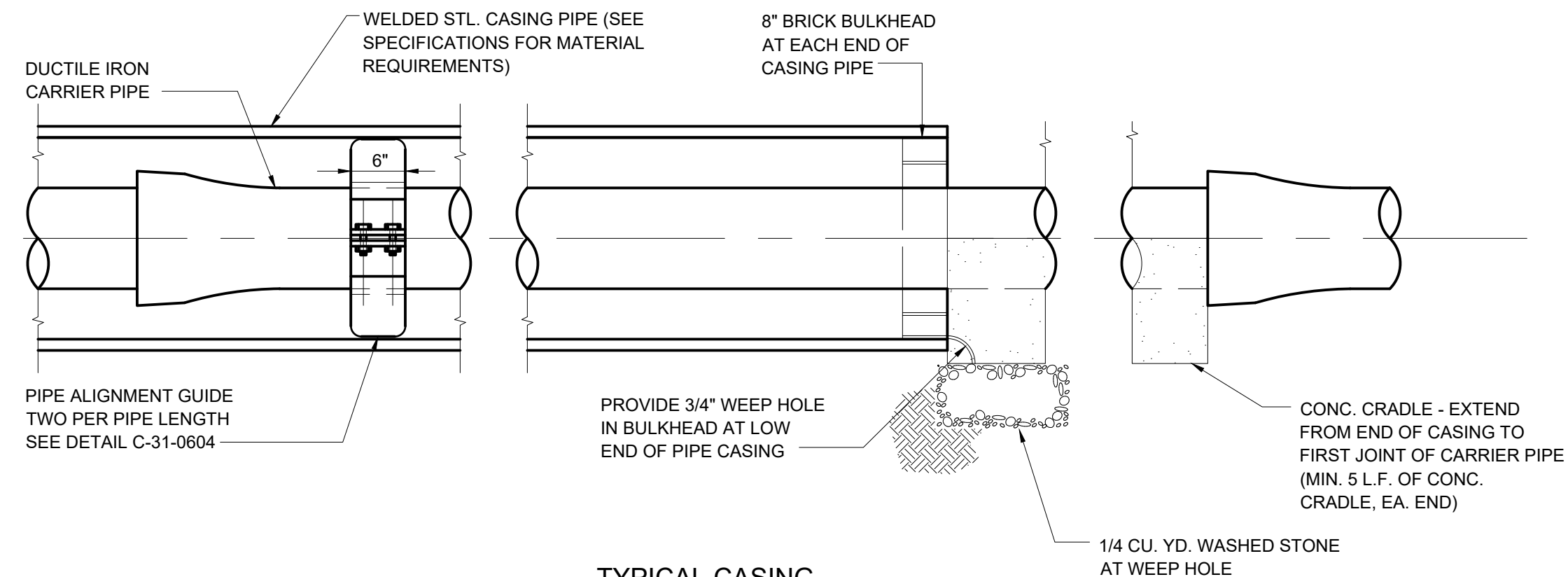
NOTES:

1. TRM OR RECM SHALL BE STAPLED TO SLOPE AS SPECIFIED BY MANUFACTURER.
2. PREPARE, SEED AND FERTILIZE SLOPE IMMEDIATELY PRIOR TO MAT INSTALLATION.

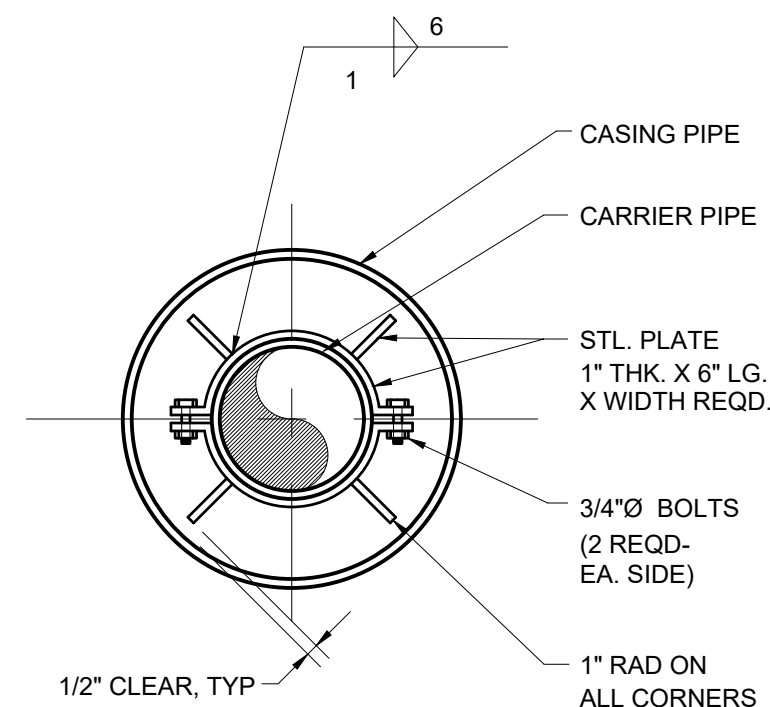
SLOPE MATTING
C-31-0471



C-31-0480



TYPICAL CASING
C-31-0603



PIPE ALIGNMENT GUIDE
C-31-0604

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

60% SUBMITTAL -
DO NOT USE FOR
CONSTRUCTION

DAVID E. SKEGGS
MECHANICAL
36223
NORTH CAROLINA
PROFESSIONAL ENGINEER

Hazen

HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
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TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	CD13

TYPICAL CONCRETE WALKWAY
C-32-0520

CONCRETE YARD STEPS
C-32-0521

The diagram illustrates a cantilever slide gate system. It shows a gate panel sliding along a track. The system includes an ornamental sliding gate and a cantilever slide gate operator and vehicle detector control. The gate is controlled by an access proximity reader and control wiring. The diagram also shows the gate's position relative to the outside area and the controlled area, with a request to exit loop and a power wiring and conduit connection.

OUTSIDE AREA

ACCESS PROXIMITY READER, TYP

CONTROL WIRING

LOOP TO CLOSE GATE

ORNAMENTAL SLIDING GATE

ORNAMENTAL GATE

CANTILEVER SLIDE GATE OPERATOR AND VEHICLE DETECTOR CONTROL, TYP SEE DETAIL 1/REGEN-C-600

REQUEST TO EXIT LOOP

POWER WIRING AND CONDUIT (SEE ELECTRICAL SITE DRAWINGS)

CONTROLLED AREA

SLIDE GATE

C-32-0511

CURB AND GUTTER
C-32-0530

SPILL-OUT CURB AND GUTTER
C-32-0532

BOLLARD TYPE 3

BOLLARD TYPE 1

BOLLARD TYPE 2
C-32-0540

TYPICAL PAVEMENT JUNCTION WITH
RESURFACING OF EXISTING PAVEMENT

TYPICAL PAVEMENT JUNCTION

C-32-0556

				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	W. ELLIS
				DRAWN BY:	G. MCDANIEL
				CHECKED BY:	D. SKEGGS
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1 
REV	ISSUED FOR	DATE	BY		

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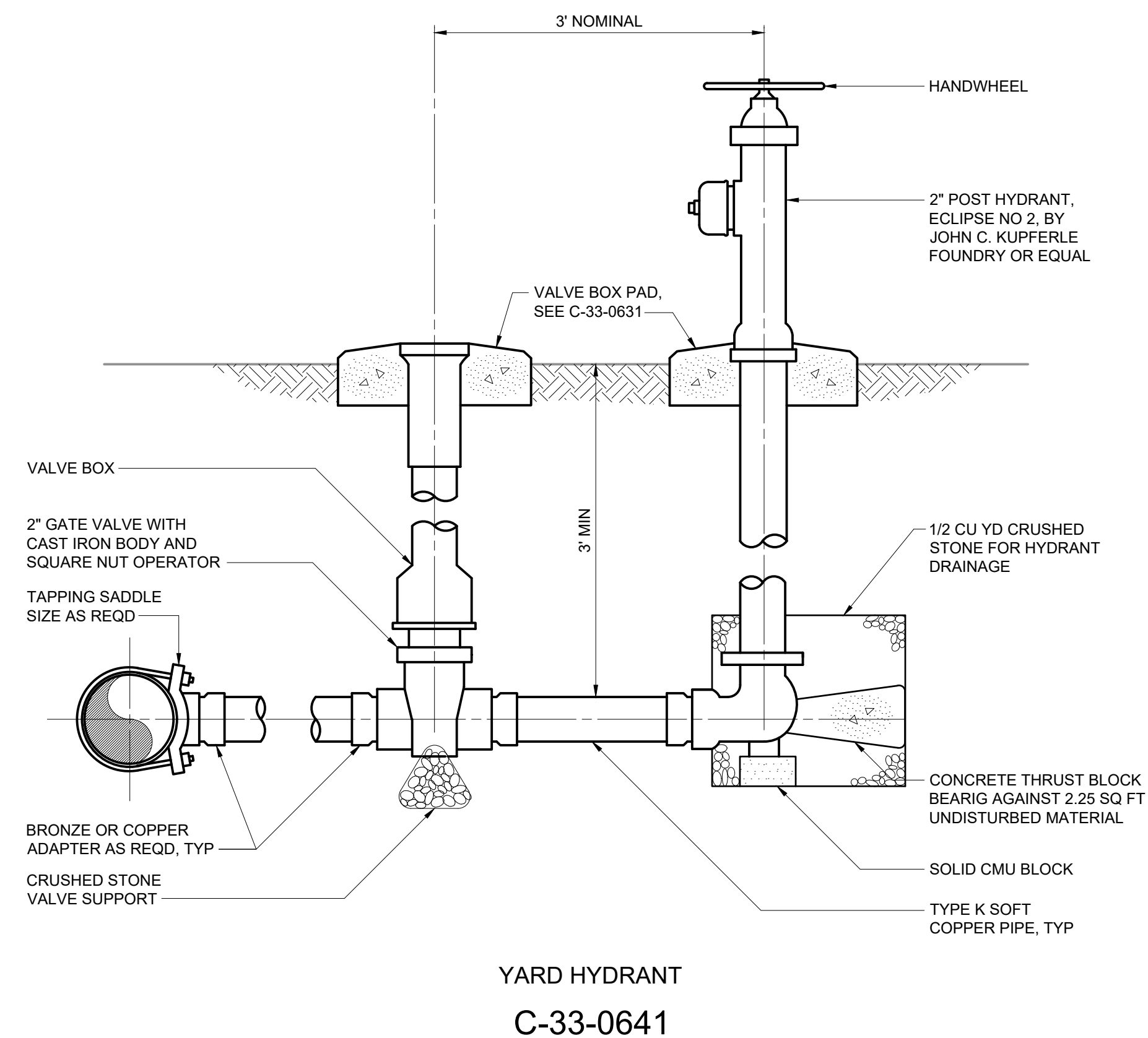
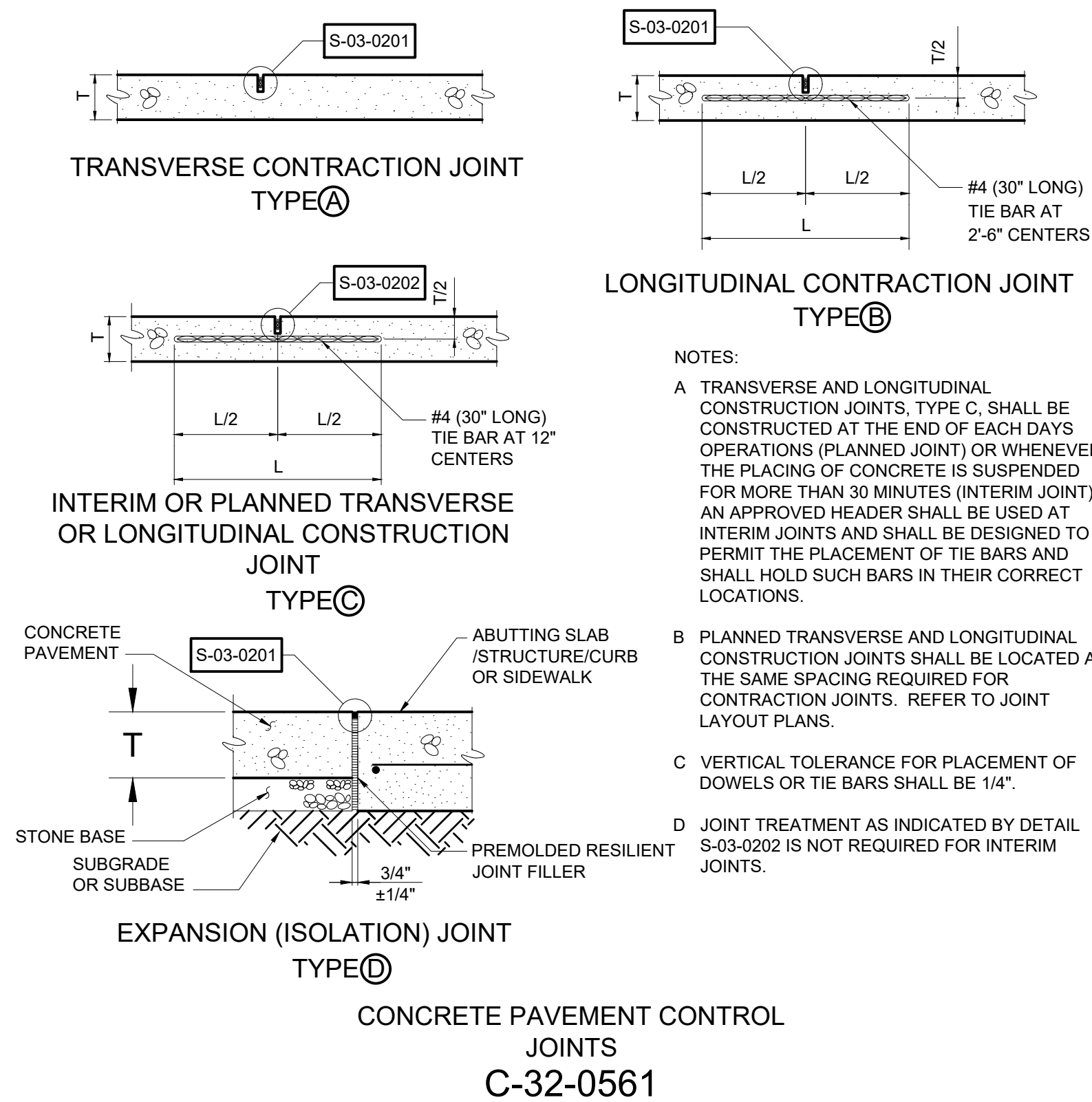
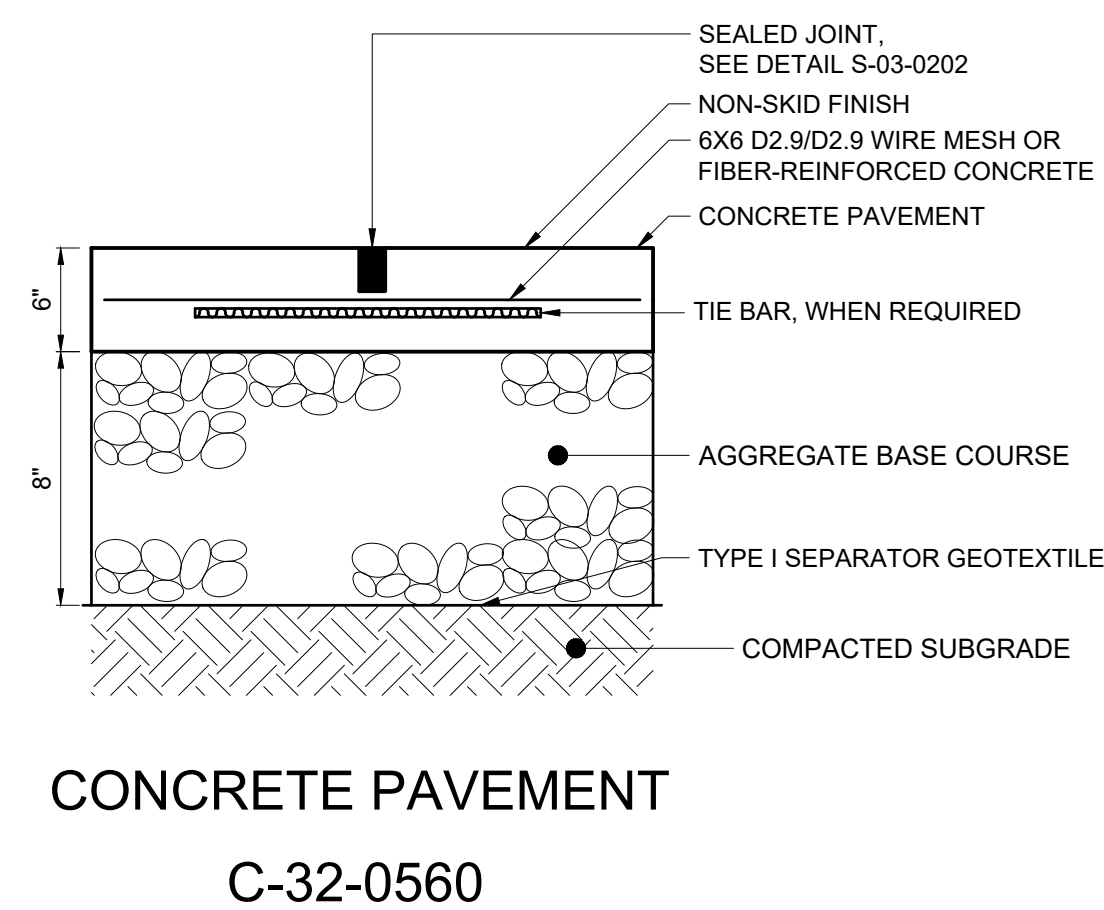
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TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	CD14



				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	W. ELLIS
				DRAWN BY:	G. MCDANIEL
				CHECKED BY:	D. SKEGGS
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1" 
REV	ISSUED FOR	DATE	BY		

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TOWN OF HOLLY SPRINGS
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UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

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DATE: NOVEMBER 2024

HAZEN NO.: 31407-006

CONTRACT NO.: --

DRAWING
NUMBER:

CD15

TYPE A
IN EARTH
C-01-0100

TYPE A
IN ROCK
C-01-0101

TYPE B
C-01-0102

TYPE C

C-01-0103

CONCRETE ENCASEMENT
(SEE NOTE 1)

C-01-0104

CONCRETE ARCH
(SEE NOTE 1)
C-01-0105

TYPICAL TRENCH
C-01-0106

C-01-0107

TYPICAL SECTION
TEE OR BEND

PLAN - TEE

PLAN - BEND

THRUST BLOCKS
(SEE NOTE 1)
C-01-0110

				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	W. ELLIS
				DRAWN BY:	G. MCDANIEL
				CHECKED BY:	D. SKEGGS
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1 
REV	ISSUED FOR	DATE	BY		

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TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

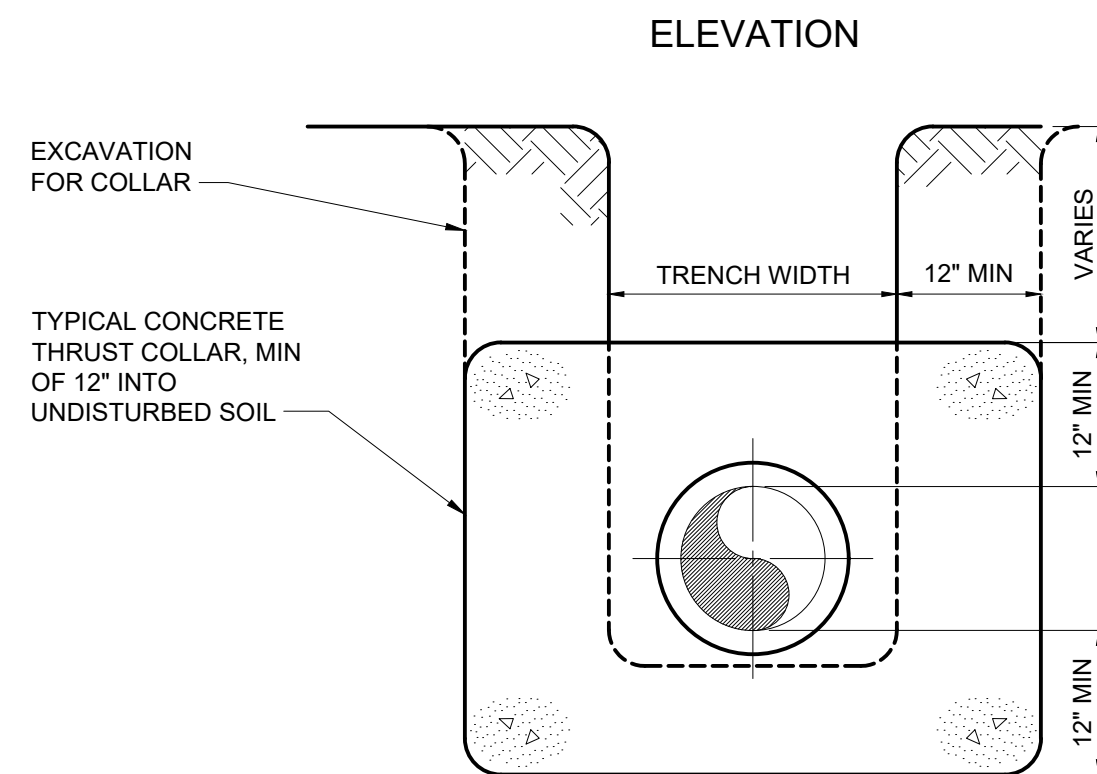
UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL DETAILS

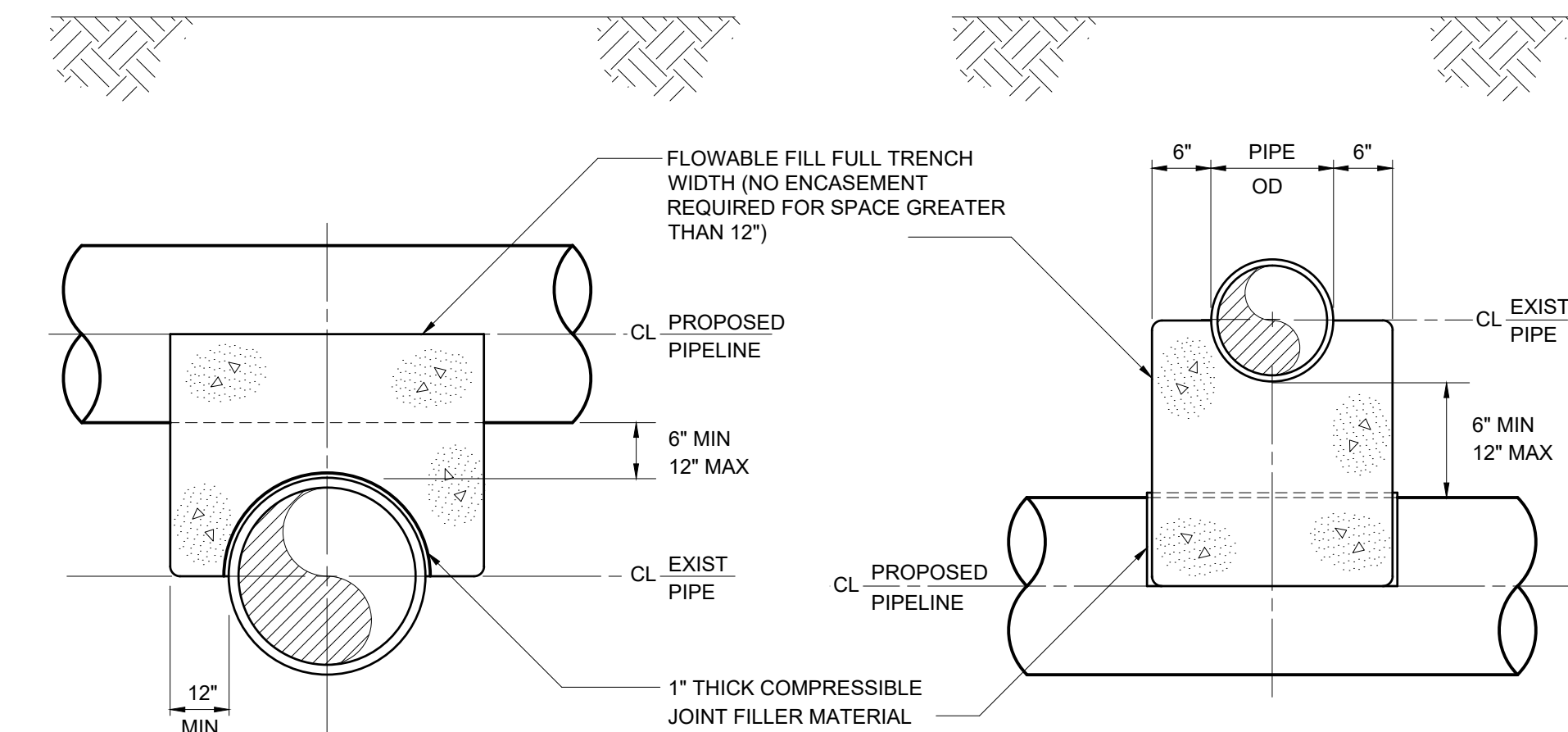
DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	CD16

1. STANDARD DETAIL RESTRICTIONS ARE LISTED BELOW. FOR SITUATIONS OUTSIDE THESE RESTRICTIONS ANCHORAGE SHALL BE AS RECOMMENDED BY THE ENGINEER.

- A) NOMINAL SOIL COVER = 4'-0" ABOVE PIPE
- B) SOIL PHI = 30°
- C) SOIL UNIT WEIGHT = 120 PCF
- D) PIPE DESIGN PRESSURE = 100 PSI
- E) PIPE SIZE $\leq 12''\phi$
- F) VERTICAL PIPE BENDS (DOWN) $< 11.25^\circ$ MAX
- F) ALL VERTICAL PIPE BENDS (UPWARD) $< 6^\circ$ MAX
- G) UNDISTURBED IN-SITU EARTH SHALL BE MAINTAINED FOR AT LEAST 10'-0" EITHER SIDE OF THRUST COLLAR.



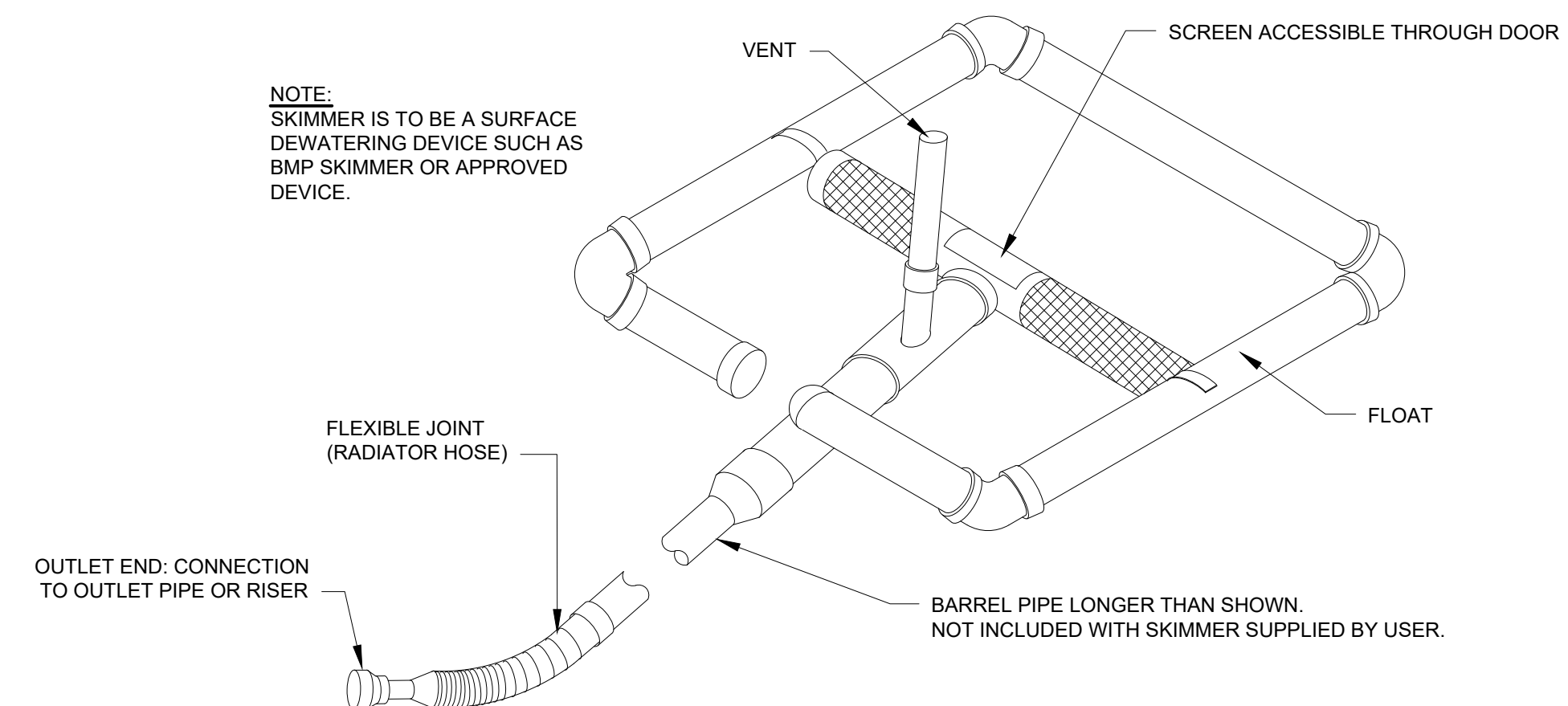
THRUST COLLAR
C-01-0111



PROPOSED PIPELINE OVER EXIST PIPE

PROPOSED PIPELINE UNDER EXIST PIPE

C-01-0120



SKIMMER OUTLET

C-31-0437

				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	W. ELLIS
				DRAWN BY:	G. MCDANIEL
				CHECKED BY:	D. SKEGGS
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1" 
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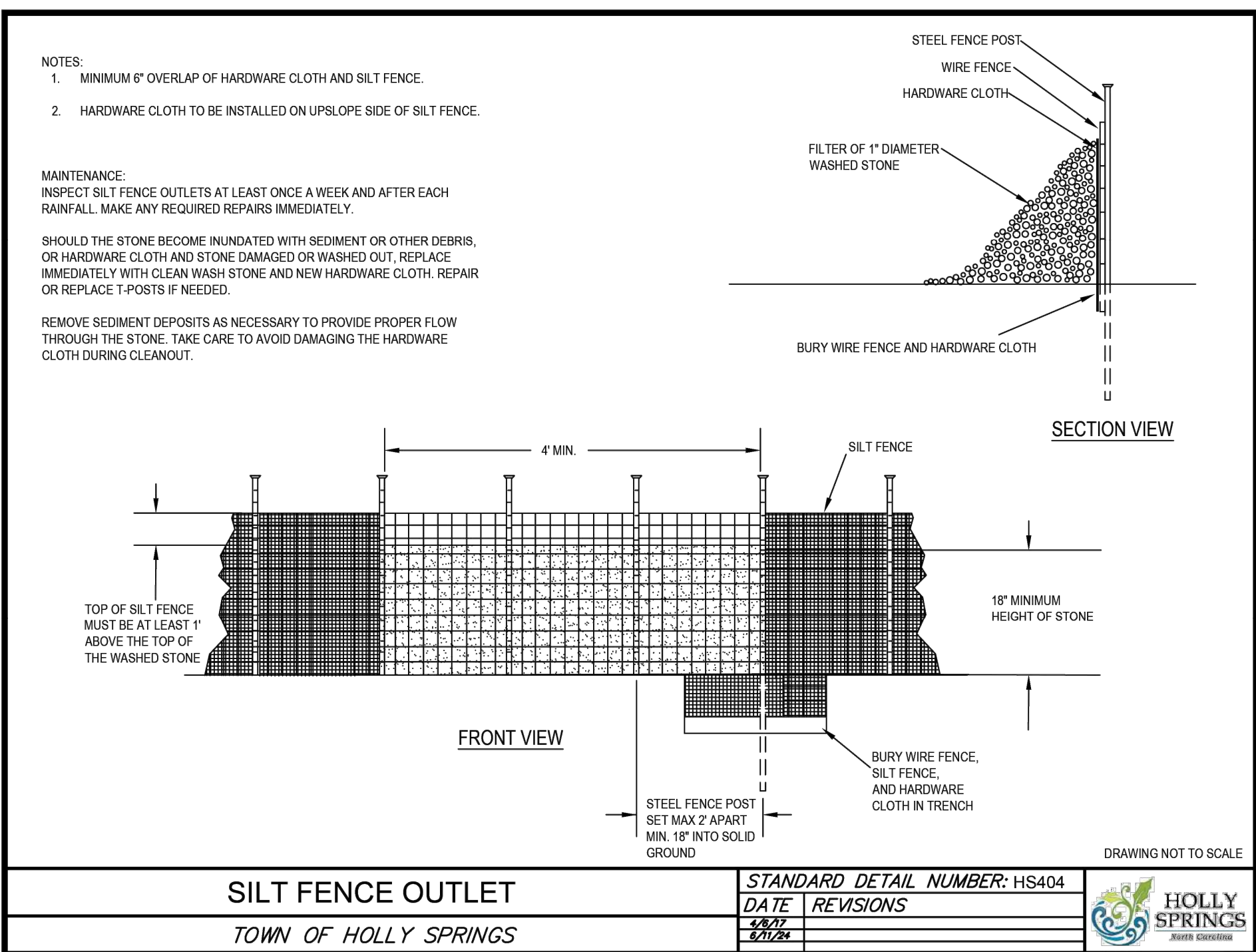
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4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
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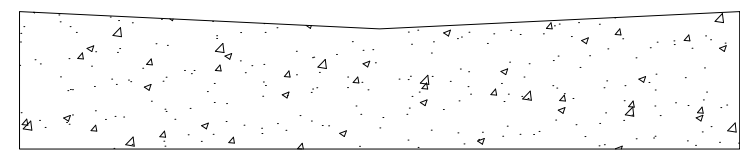
TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

CIVIL DETAILS

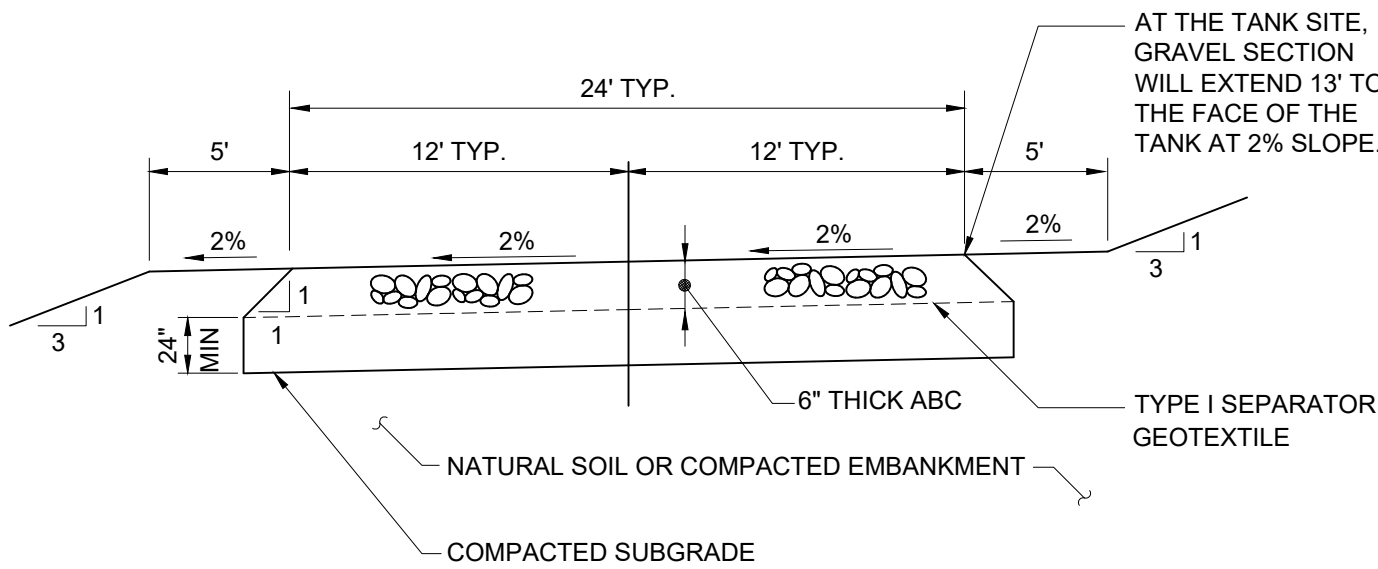
DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	CD17

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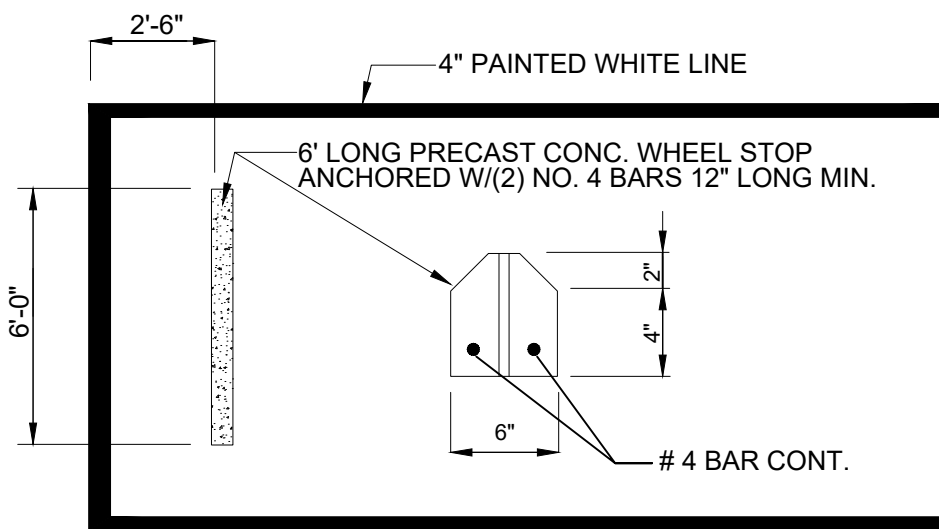


3' VALLEY GUTTER DETAIL

DETAIL 1
NTS



TYPICAL GRAVEL ROADWAY SECTION
C-32-0553

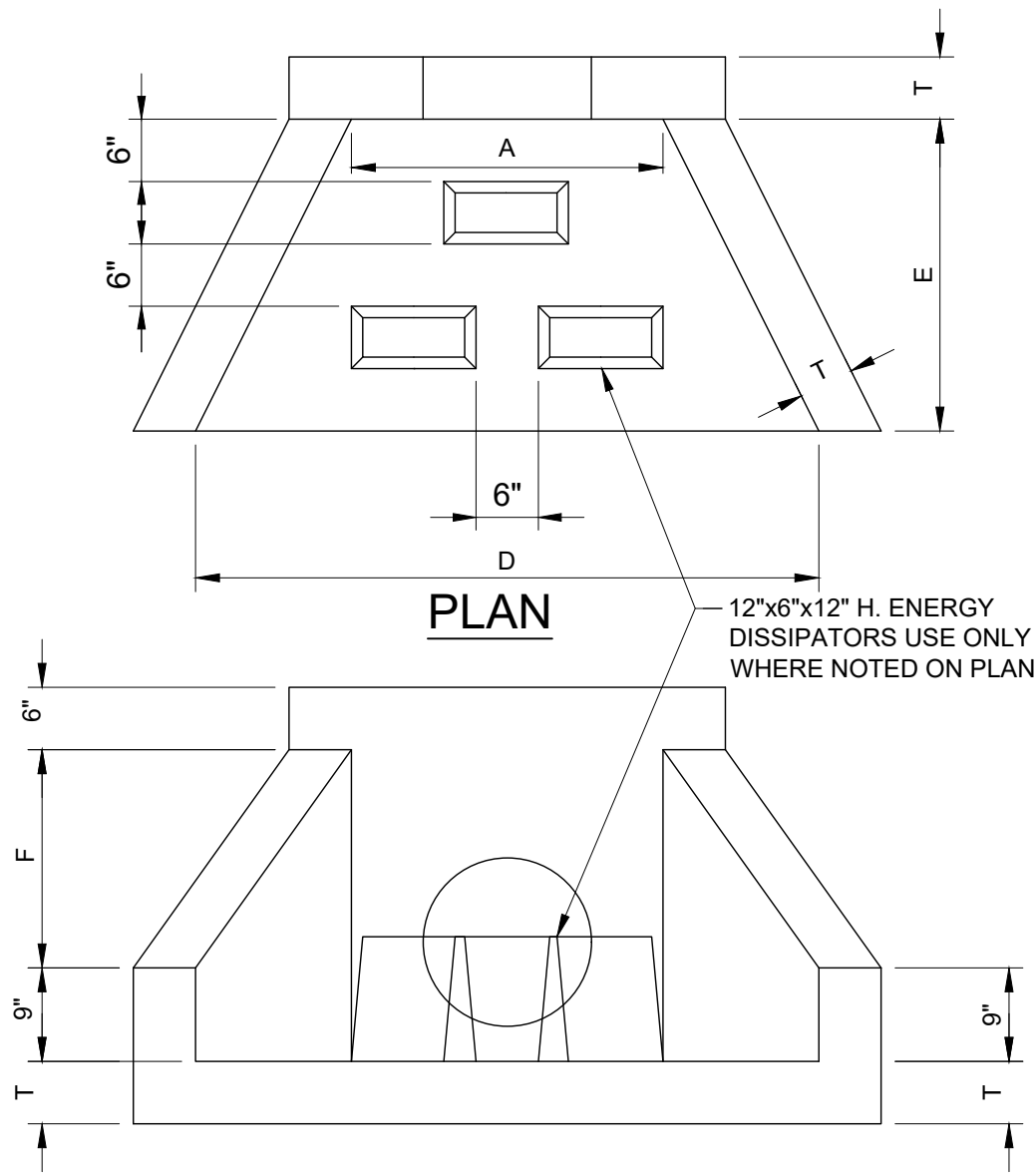


NOTE: SEE SITE PLAN FOR PARKING SPACE SIZE AND FOR WHEEL STOP LOCATIONS. PAINT WHEEL STOPS OSHA YELLOW

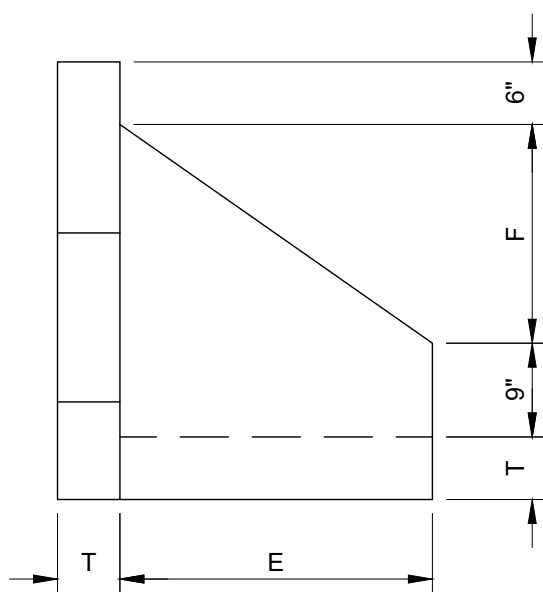
CONCRETE WHEEL STOP

DETAIL 2
NTS

TABLE OF DIMENSIONS					
PIPE SIZES	A	D	E	F	T _(MIN)
15"	2'-6"	5'-0"	2'-6"	1'-9"	6"
18"	2'-6"	5'-0"	2'-6"	1'-9"	6"
21"	2'-6"	5'-0"	2'-6"	1'-9"	6"
24"	4'-0"	6'-6"	3'-6"	3'-3"	6"
30"	4'-0"	6'-6"	3'-6"	3'-3"	6"
36"	5'-6"	8'-0"	3'-6"	4'-5"	6"
42"	5'-6"	8'-0"	4'-0"	4'-5"	6"
48"	5'-6"	8'-0"	4'-0"	4'-5"	6"
54"	7'-0"	9'-5"	4'-6"	5'-9"	6"
60"	7'-0"	9'-5"	4'-6"	5'-9"	6"
66"	8'-6"	11'-0"	5'-6"	6'-11"	6"
72"	8'-6"	11'-0"	5'-6"	6'-11"	6"



FRONT ELEVATION



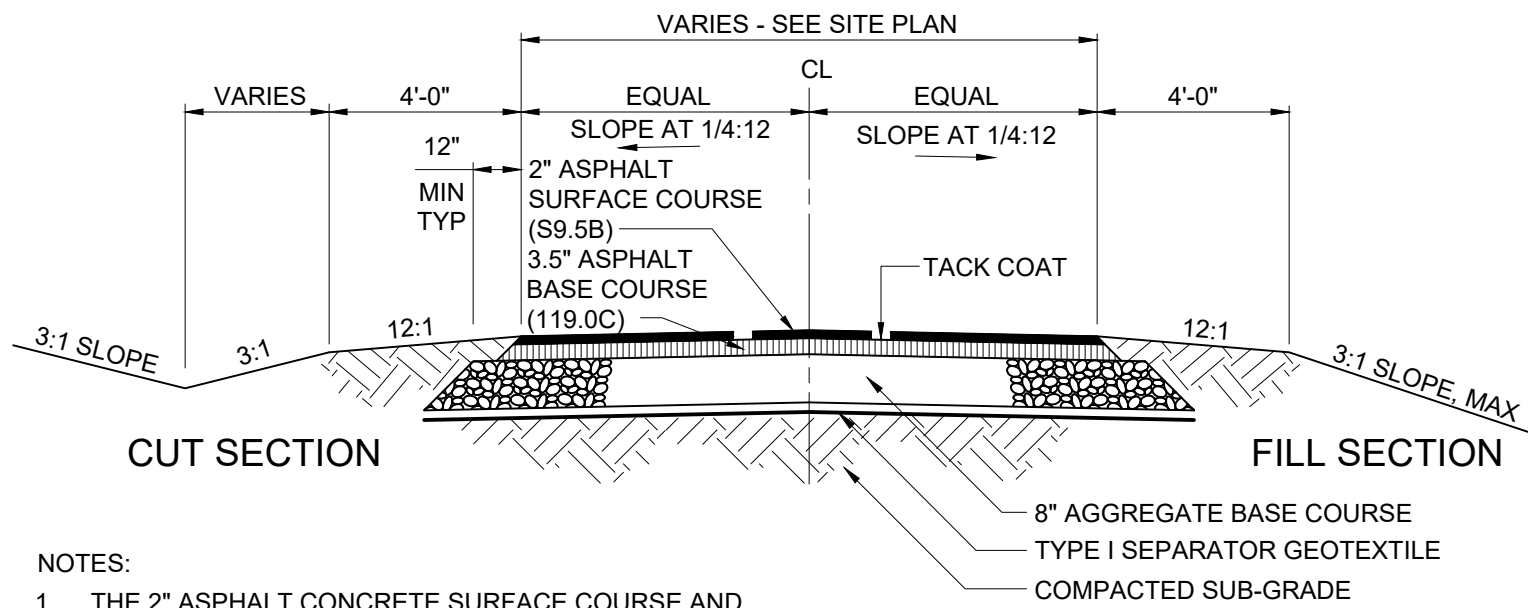
SIDE ELEVATION

CONCRETE: 4000 PSI AT 28 DAYS
REINFORCED WITH NO. 4 BARS 10" C/C EACH WAY WITH WINGS
AND TOE SLAB DOWELLED TO HEADWALL WITH NO. 5 BARS.
3/4" CHAMFER ON ALL EXPOSED EDGES.

NOTE: DISSIPATORS ONLY NECESSARY ON OUTLET HEADWALLS

ENERGY DISSIPATION HEADWALL

DETAIL 3
NTS



NOTES:

- THE 2" ASPHALT CONCRETE SURFACE COURSE AND THE TACK COAT SHALL NOT BE PLACED UNTIL COMPLETION OF ALL OTHER WORK IN CONTRACT.
- THIS ROADWAY SECTION HAS BEEN SELECTED TO MEET BOTH TOWN OF HOLLY SPRINGS REQUIREMENTS AND PAVEMENT DESIGN RECOMMENDATIONS PROVIDED IN THE PROJECT GEOTECHNICAL REPORT.

TYPICAL ROADWAY SECTION

C-32-0551R

File: C:\USERS\SMILLER\Documents\HAZEN AND SAWYER\31407-006 CD19 Saved by M\AUTISTA Save date: 10/16/2024 4:12 PM
PLOT DATE: 11/7/2024 3:28 PM BY: SMILLER

REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	D. WANKMULLER
DESIGNED BY:	W. ELLIS
DRAWN BY:	G. MCDANIEL
CHECKED BY:	D. SKEGGS
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

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Hazen

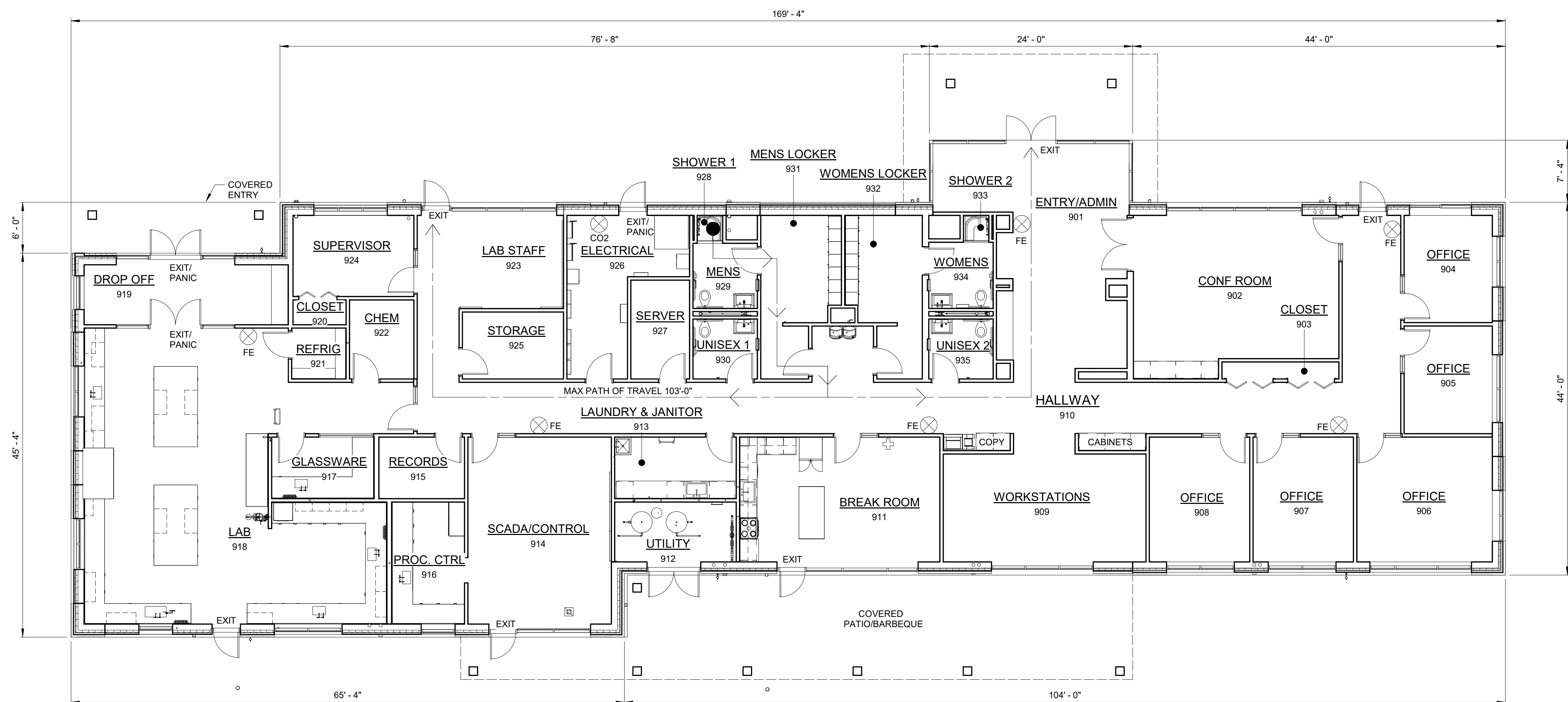
HAZEN AND SAWYER
4011 WESTCHASE BOULEVARD, SUITE 500
RALEIGH, NORTH CAROLINA 27607
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TOWN OF HOLLY SPRINGS
HOLLY SPRINGS, NORTH CAROLINA

UTLEY CREEK WRF
LAB & OPERATOR'S BUILDING
DEVELOPMENT PLAN

CIVIL
DETAILS

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	CD19


$$1/8'' = 1'-0''$$

EXIT	ENTRANCE/EXIT		RECESSED DRY CHEMICAL FIRE EXTINGUISHER
PANIC	PROVIDE PANIC HARDWARE		CARBON DIOXIDE FIRE EXTINGUISHER
	DIRECTION OF TRAVEL		
	MOST REMOTE POINT		
	FIRST AID CABINET		

DEVELOPMENT SERVICES PROJECT NUMBER
 24-DP-06/PI DP202400175

DEVELOPMENT SERVICES PROJECT NUMBER:
24-DP-06/PLDP202400175

				PROJECT ENGINEER:	D. WANKMULLER
				DESIGNED BY:	J. ROUSSEAU
				DRAWN BY:	S. BARRENTINE
				CHECKED BY:	W. RUSSELL
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1" 
REV	ISSUED FOR	DATE	BY		



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H&S ENGINEERING AND ARCHITECTURE PC
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RALEIGH, NORTH CAROLINA 27607
LICENSE NO.: C-0381
TELEPHONE NO.: (919) 833-7152

UTLEY CREEK WRF LAB & OPERATOR'S BUILDING DEVELOPMENT PLAN

LAB AND OPERATORS BUILDING
ARCHITECTURAL
LIFE SAFETY AND OVERALL FLOOR PLAN

DATE:	NOVEMBER 2024
HAZEN NO.:	31407-006
CONTRACT NO.:	--
DRAWING NUMBER:	A800

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