FINAL STORMWATER MANAGEMENT REPORT

PROJECT SITE:

THE RESIDENCES AT NAPER AND PLANK
PLANK ROAD AND TUTHILL ROAD
NAPERVILLE, DUPAGE COUNTY, ILLINOIS

PREPARED FOR:

Gen-Land, LLC
120 N. LaSalle Street, Suite 2900
Chicago, IL 60602

PREPARED BY:

V3 COMPANIES, LTD.
7325 JANES AVENUE
WOODRIDGE, ILLINOIS 60517
630.724.9200

JULY 28, 2025

REVISED SEPTEMBER 26, 2025

DuPage County Stormwater Permit Submittal
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The Residences at Naper and Plank
Naperville, DuPage County, Illinois

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- There is not any floodplain on the proposed site

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TAB 1

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (1/2)

1. Community and Status	2. Date of Application	3. Stormwater Application No.	4. Community Tracking No.
Naperville ☐ Non ☑ Partial ☐ Complete			

5. Applicant:
Name: Peter Kelly
Company Name: Gen-Land LLC
Address: 120 N. LaSalle Street, Suite 2900
City, ST, Zip: Chicago, IL 60602
Phone:
Email: pkelly@lpc.com

6. Owner:
Name: Peter Kelly
Company Name: Gen-Land LLC
Address: 120 N. LaSalle Street, Suite 2900
City, ST, Zip: Chicago, IL 60602
Phone:
Email: pkelly@lpc.com

7. Description of Proposed Development:
The project proposes construction of 17 new townhome/rowhome buildings with associated infrastructure, parking, and stormwater management facilities

8. Location of Development:
(If not address use nearest major intersection)
Address: NWC Plank Road and Tuthill Road
Municipality: Naperville
Watershed Planning Area & Trib: East Branch DuPage River

9. Legal Description (attach additional sheets if needed)
08 (¼ Section) 38N (Township) 10E (Range)
PIN 08 - 08 - 106 - 041
PIN 08 - 08 - 106 - 042

10. Check all of the conditions which apply:
☐ Flood Plain ☑ Stormwater Detention ☑ Best Management Practices ☑ Soil Erosion & Sediment Control
☑ Wetland ☑ Wetland Buffer ☐ Riparian Buffer

11. Acknowledgement of On-Site Infiltration PCBMPs
I acknowledge that I have used my best effort to identify zones for which on-site infiltration are prohibited for Post Construction Best Management Practices (PCBMPs) in accordance with the Ordinance (15-63.B)

DocuSigned by: [signature] AD0E61736DFE430
Signature of Applicant — Peter Kelly (Print Name) — 8/4/2025 (Date)

12. Freedom of Information Act (FOIA)
I acknowledge that all architects' drawings, engineers' technical submissions and other construction-related technical documents containing stormwater management information submitted with this application may be made available for inspection or copying by the County, notwithstanding 5 ILCS 140/7(1)(k), upon the written request for such materials. Such productions will be restricted to the following parties: i) the Applicant ii) any subsequent owner of the subject property; or iii) any governmental unit having planning or drainage jurisdiction within 1 and ½ mile of the subject property.

DocuSigned by: [signature] AD0E61736DFE430
Signature of Applicant — Peter Kelly (Print Name) — 8/4/2025 (Date)
DocuSigned by: [signature] AD0E61736DFE430
Signature of Owner — Peter Kelly (Print Name) — 8/4/2025 (Date)

13. Statement of Opinion for Minimum Criteria for Stormwater Management
I am a Professional Engineer under the employment of the Applicant. It is my professional opinion that the development meets the minimum criteria for stormwater management in accordance with the Ordinance (15-36)

[signature]
Signature of Professional Engineer — Daniel Free (Print Name) — 07-22-25 (Date)

_____ Community Copy _____ DuPage County SM Copy _____ Applicant Copy

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (2/2)

Stormwater Application No:	Community Tracking No:

14. Statement of Opinion for Presence of Flood Plain, Wetlands, and Buffers (15-47-A.5)

☐ I acknowledge the presence of flood plain. ☑ I deny the presence of flood plain.	☑ I acknowledge the presence of wetlands. ☐ I deny the presence of wetlands.	☑ I acknowledge the presence of buffers. ☐ I deny the presence of buffers.
Daniel Free — 07-22-25 Signature of Qualified Professional — Date	Jedd Anderson — July 22, 2025 Signature of Qualified Professional — Date	Jedd Anderson — July 22, 2025 Signature of Qualified Professional — Date
Daniel Free Printed Name	Jedd Anderson Printed Name	Jedd Anderson Printed Name

15. Soil Erosion & Sediment Control Submittal Requirements (15-50.B)

(For developments with less than 1 acre of land disturbance that are not part of a larger common plan)

I certify that the development meets the soil erosion and sediment control design criteria found in Article VII have been met.

Daniel Free — Signature of Qualified Designer

Daniel Free — Print Name

07-22-25 — Date

16. Soil Erosion & Sediment Control Requirements (15-59.W) (For developments with land disturbing activities greater than 1 acre)

I acknowledge that the site complies with the IEPA NPDES ILR10 Permit.

DocuSigned by: — Signature of Applicant

Peter Kelly — Print Name

8/4/2025 — Date

17. Acknowledgement of Required As-Built Plans (15-47.B)

I acknowledge that a record drawing signed by either a Professional Engineer or a Professional Land Surveyor depicting the as-constructed size, rim, and invert elevations of pipes, stormwater structures and culverts, and contours and flood storage volumes of all required basins of the major stormwater systems and minor stormwater systems shall be submitted for review and approval upon completion of the stormwater facilities.

DocuSigned by: — Signature of Owner

Peter Kelly — Print Name

DocuSigned by: — Date

18. Intentional Misrepresentation Under Penalty of Perjury

I declare that I have examined and/or made this application and rider, and it is true and correct to the best of my knowledge and belief. I realize that the information that I have affirmed hereon forms a basis for the issuance of the stormwater management certification(s) herein applied for and approval of plans in connection therewith shall not be construed to permit any construction upon said premises or use thereof in violation of any provision of any applicable ordinance or to excuse the owner or his successors in title from complying therewith. The Owner and Applicant each understand and agree to construct said improvement in compliance with all provisions of the applicable ordinances.

DocuSigned by: — Signature of Applicant

Peter Kelly — Print Name

8/4/2025 — Date

DocuSigned by: — Signature of Owner

Peter Kelly — Print Name

8/4/2025 — Date

DO NOT WRITE BELOW THIS LINE

19. Security (15-54)

Stormwater Facilities	$
Wetlands/Natural Area	$
SE/SC	$
Total	$

20. Stormwater Fees

Community Review	$	
DCSM Review	$	
Fee-in-Lieu	$ Wetland	$ BMP

Seal/Stamp

Certifications expire December 31st of the third year of Certification or Authorization, whichever is earlier.

21. Final Approvals (See Certification letter for special conditions and general conditions.)

Community Certification — Date — Approved by/title

County Authorization — Date — Approved by/title

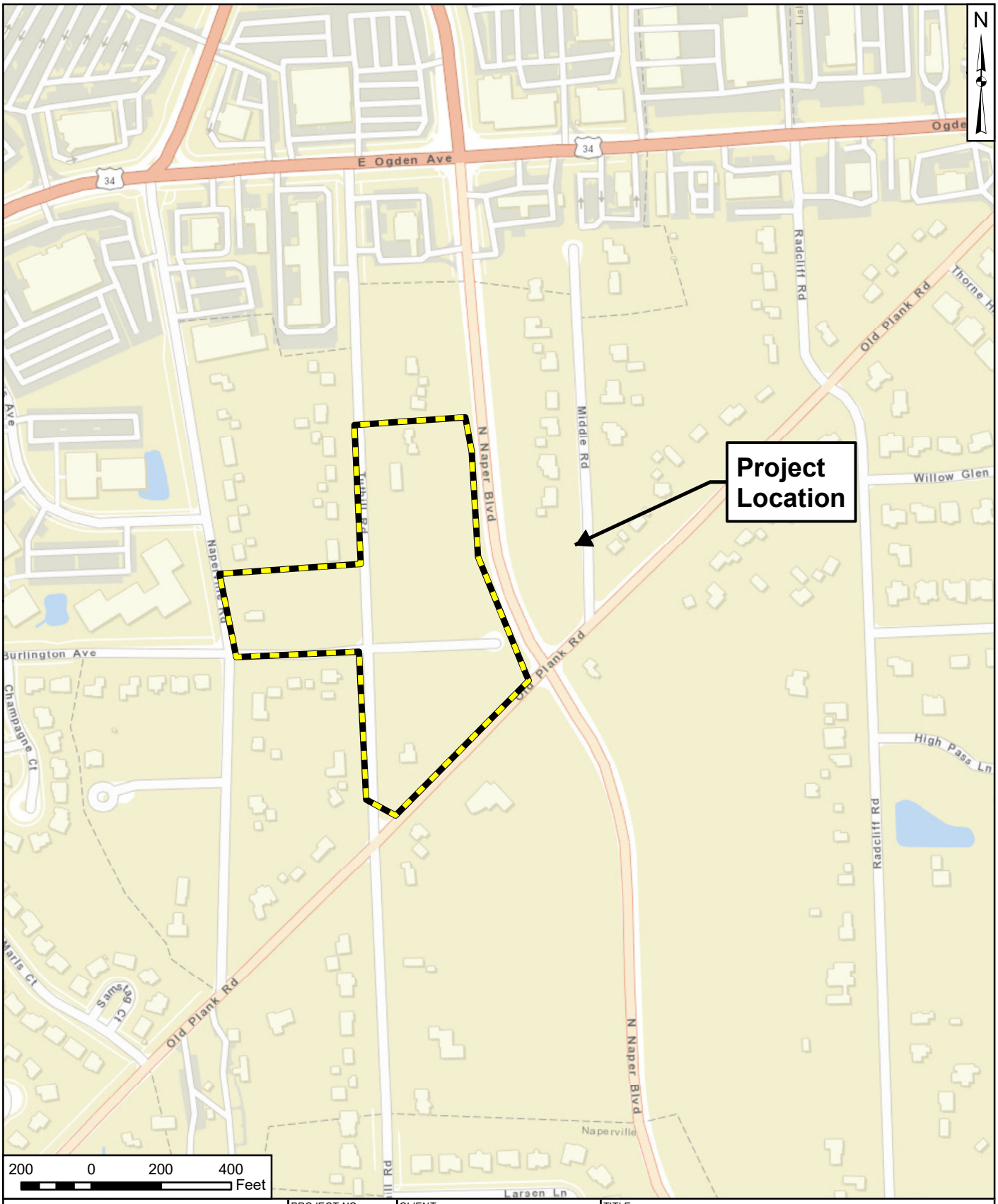
____ Community Copy ____ DuPage County SM Copy ____ Applicant Copy

The Residences at Naper and Plank

Naperville, DuPage COUNTY, ILLINOIS

Project Overview

Lincoln Property Company is proposing a development consisting of 17 townhome/rowhome buildings along with improvements to Tuthill, Burlington, and Plank roads. The development is located north of the intersection of Tuthill and Plank roads in the City of Naperville, DuPage County Illinois. The project site is split into west and east parcels by Tuthill Road. The total on-site area is approximately 8.08 acres including 1.52 acres west of Tuthill and 6.56 acres to the east side. The stormwater analysis was performed based on the site plan and the topographic survey prepared by both Cemcon and V3 Companies and in accordance with the requirements of the DuPage County Stormwater and Floodplain Ordinance with amendments by the City of Naperville.



7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 241072 CREATED BY: JEM	CLIENT: Lincoln Property Company 120 N. LaSalle Street, Suite 2900 Chicago, IL 60602	TITLE: **PROJECT LOCATION MAP**
	DATE: 9/23/2025	BASE LAYER: ESRI World Street Map	SITE: Plank Road Multifamily Naperville, IL — FIGURE: 1.0
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		

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PROJECT NO.: 241072	CLIENT: Lincoln Property Company 120 N. LaSalle Street, Suite 2900 Chicago, IL 60602	TITLE: **AERIAL MAP**	
CREATED BY: JEM			
DATE: 9/23/2025	BASE LAYER: Aerial Imagery (2020)	SITE: Plank Road Multifamily Naperville, IL	FIGURE: 2.0
SCALE: See Scale Bar			

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PROJECT NO.: 241072	CLIENT: Lincoln Property Company 120 N. LaSalle Street, Suite 2900 Chicago, IL 60602	TITLE: **USGS TOPOGRAPHIC MAP**	
CREATED BY: JEM			
DATE: 9/23/2025	BASE LAYER: USGS Topographic Map Naperville & Weaton Quadrangles (1993)	SITE: Plank Road Multifamily Naperville, IL	FIGURE: 3.0
SCALE: See Scale Bar			

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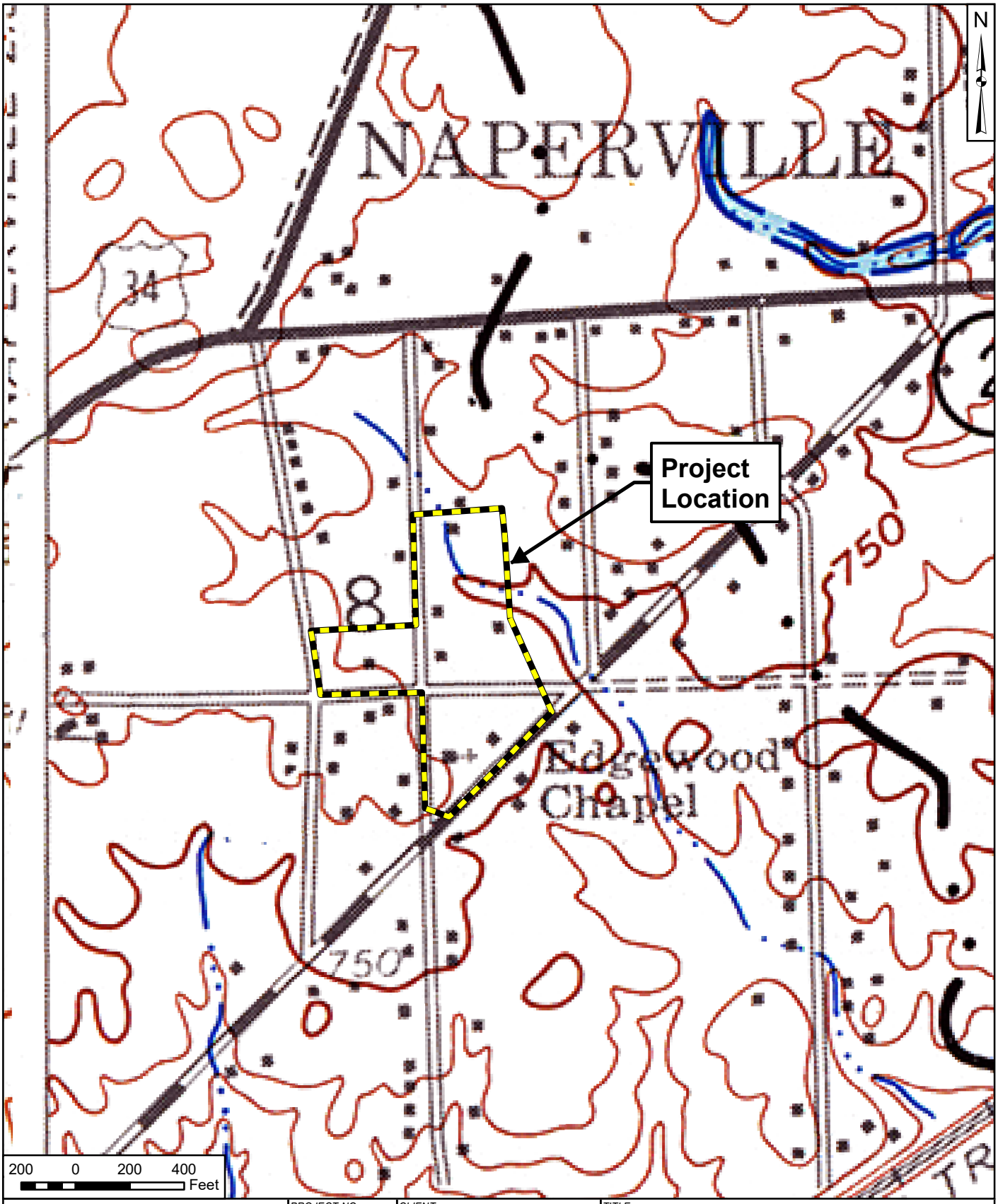

7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com	PROJECT NO.: 241072 CREATED BY: JEM	CLIENT: Lincoln Property Company 120 N. LaSalle Street, Suite 2900 Chicago, IL 60602	TITLE: **USGS HYDROLOGIC ATLAS**	
	DATE: 9/23/2025	BASE LAYER: USGS Hydrologic Atlas Naperville & Weaton Quadrangles	SITE: Plank Road Multifamily Naperville, IL	FIGURE: 4.0
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar			

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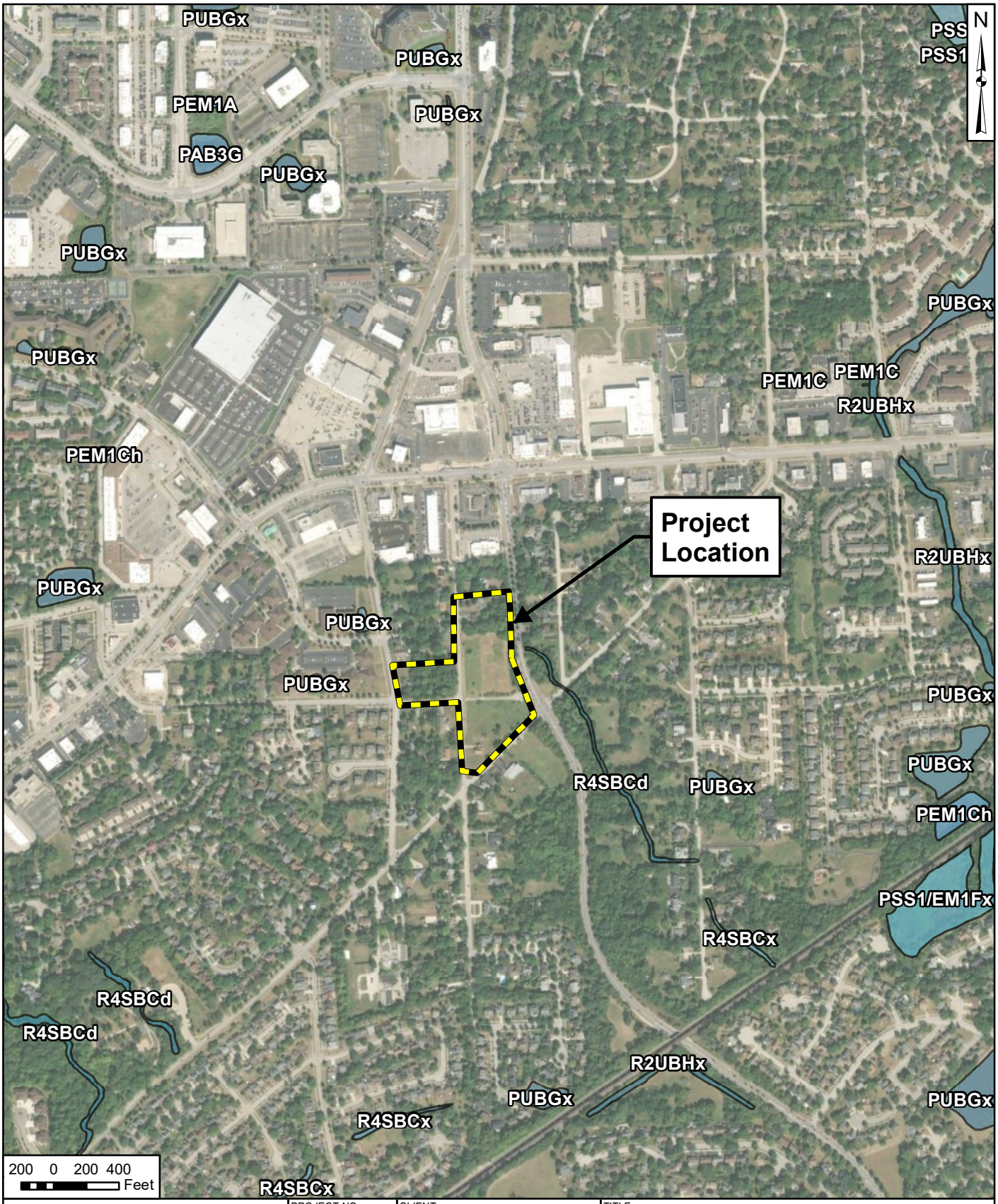

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PROJECT NO.:	241072
CREATED BY:	JEM
DATE:	9/23/2025
SCALE:	See Scale Bar
CLIENT:	Lincoln Property Company 120 N. LaSalle Street, Suite 2900 Chicago, IL 60602
BASE LAYER:	USGS Topographic Map Naperville & Weaton Quadrangles (1993)

TITLE: **NATIONAL WETLANDS INVENTORY (NWI) MAP**

SITE: Plank Road Multifamily
Naperville, IL

FIGURE: 5.0

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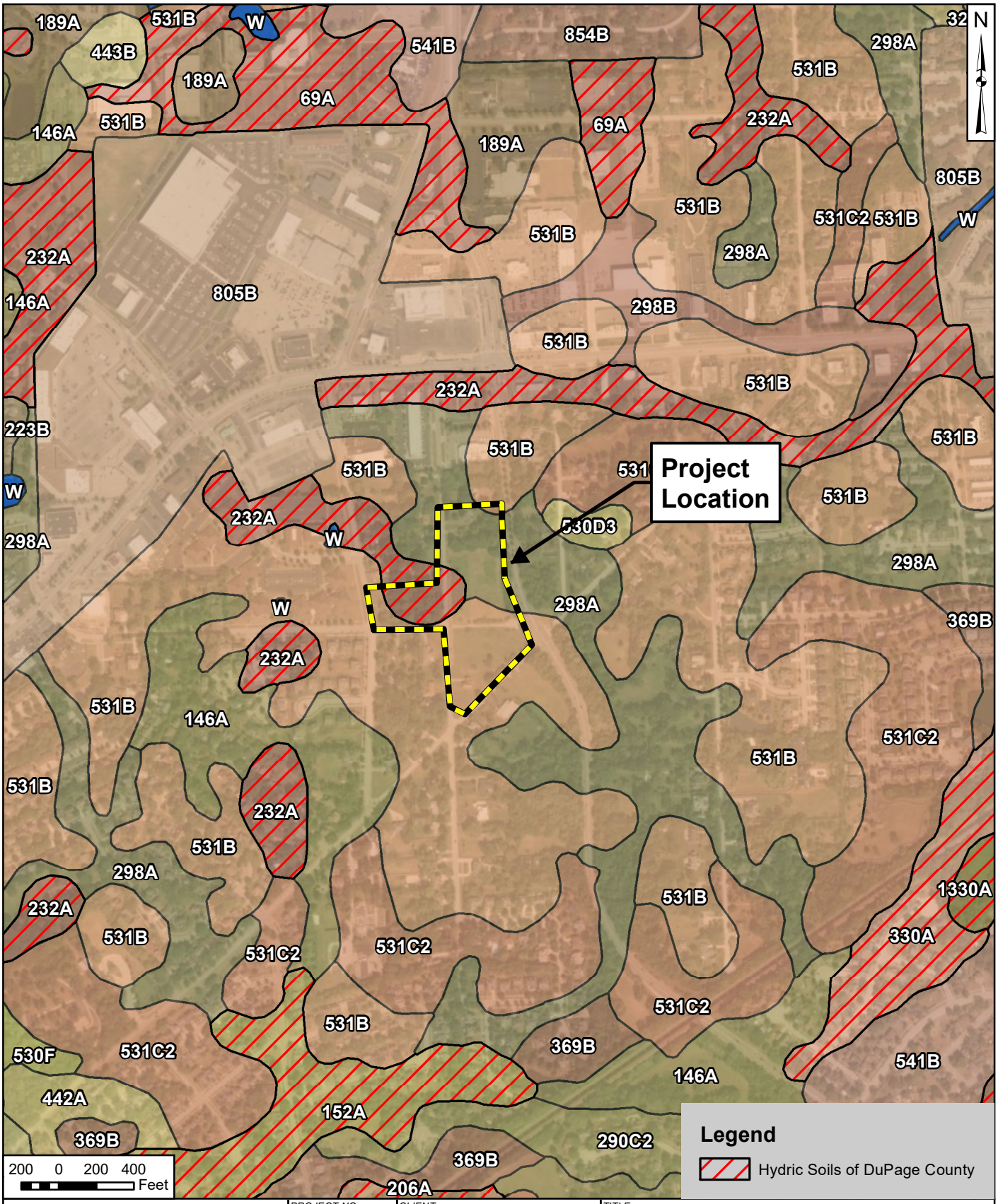

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PROJECT NO.: 241072	CLIENT: Lincoln Property Company, 120 N. LaSalle Street, Suite 2900, Chicago, IL 60602	TITLE: **SOIL SURVEY OF DUPAGE COUNTY, ILLINIOIS MAP**	
CREATED BY: JEM			
DATE: 9/23/2025	BASE LAYER: Aerial Imagery (2020)	SITE: Plank Road Multifamily, Naperville, IL	FIGURE: 6.0
SCALE: See Scale Bar			

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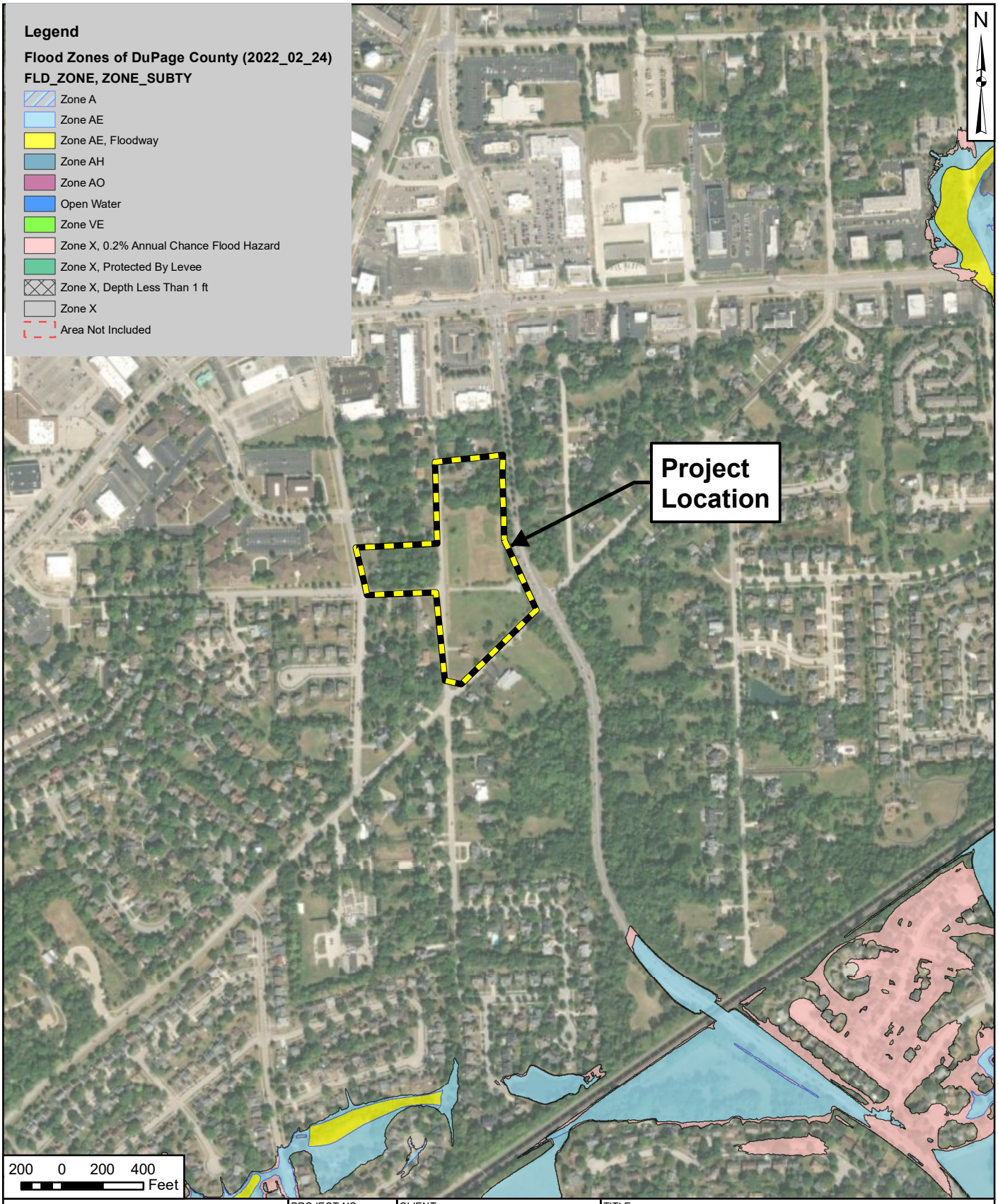

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PROJECT NO.: 241072	CLIENT: Lincoln Property Company 120 N. LaSalle Street, Suite 2900 Chicago, IL 60602	TITLE: **FLOOD ZONES OF DUPAGE COUNTY, ILLINOIS MAP**	
CREATED BY: JEM			
DATE: 9/23/2025	BASE LAYER: Aerial Imagery (2020)	SITE: Plank Road Multifamily Naperville, IL	FIGURE: 7.0
SCALE: See Scale Bar			

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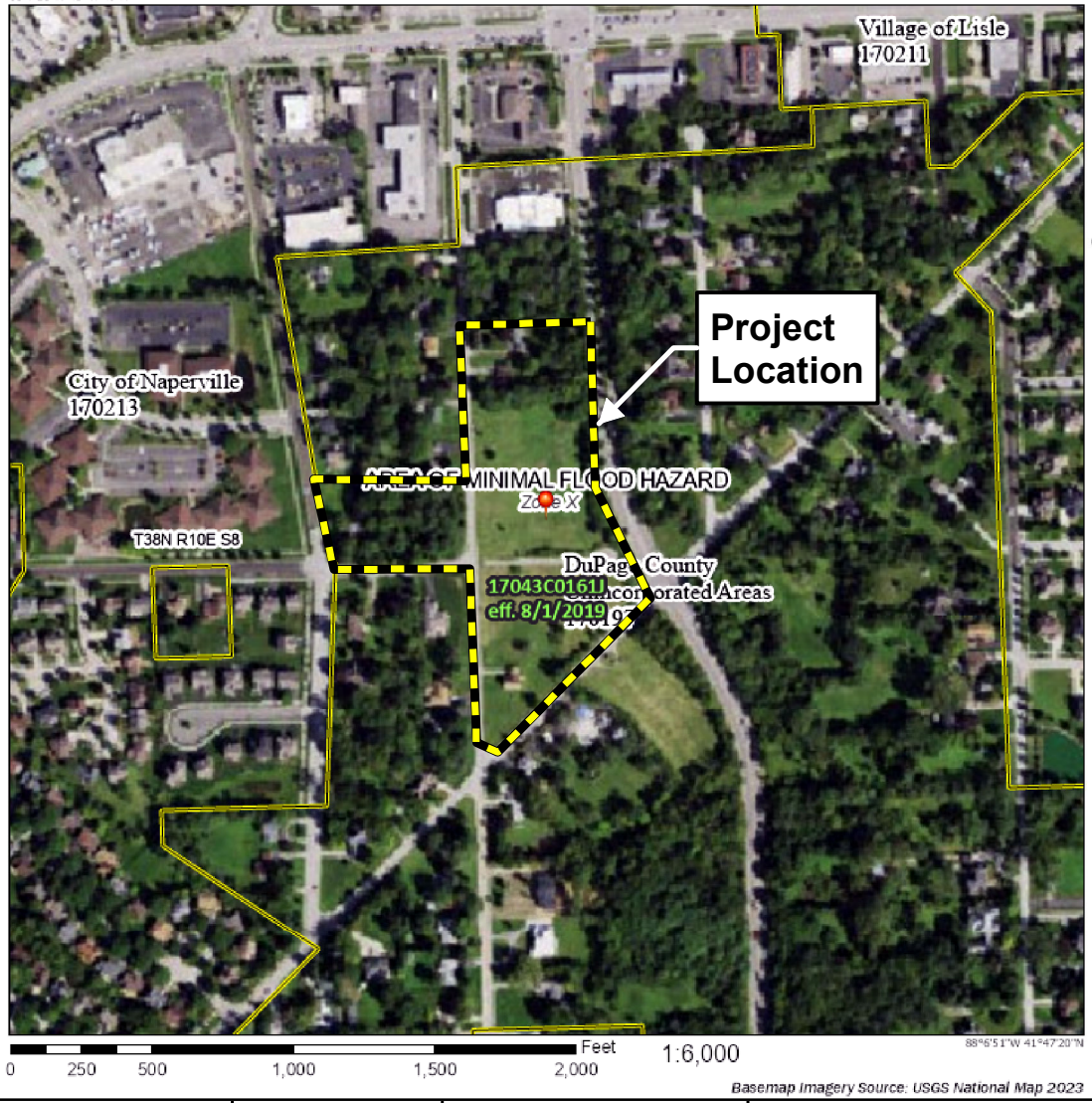
National Flood Hazard Layer FIRMette



Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS
  - Without Base Flood Elevation (BFE) Zone A, V, A99
  - With BFE or Depth Zone AE, AO, AH, VE, AR
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
  - Future Conditions 1% Annual Chance Flood Hazard Zone X
  - Area with Reduced Flood Risk due to Levee. See Notes. Zone X
  - Area with Flood Risk due to Levee Zone D
- OTHER AREAS
  - NO SCREEN Area of Minimal Flood Hazard Zone X
  - Effective LOMRs
  - Area of Undetermined Flood Hazard Zone D
- GENERAL STRUCTURES
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES
  - 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/28/2025 at 2:50 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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PROJECT NO.:	241072
CREATED BY:	JEM
DATE:	09/23/2025
SCALE:	NTS

CLIENT:
Lincoln Property Company
120 N LaSalle St Suite 2900
Chicago, IL 60602

BASE LAYER:
FIRM Panel
17043C0161J (2019)

TITLE:
FEMA FLOOD INSURANCE RATE MAP (FIRM)

SITE:
Plank Road Multifamily
Naperville, IL

FIGURE:
8.0

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TAB 2

Pursuant to the DuPage County Countywide Stormwater and Flood Plain Ordinance Stormwater Submittal Checklist, we hereby certify that this submittal for development in DuPage County has been prepared by V3 Companies for use by Gen Land, LLC, their affiliates, lenders and assignees.

All plans, statements and depictions included in Tab 2 are accurate to the best of our knowledge. The enclosed report and calculations demonstrate that the proposed plans for The Residences at Naper and Plank are in compliance with the Ordinance.

Approved by: _____

Dan Free, P.E.
Project Engineer, Land Development Group
Illinois Licensed Professional Engineer 062-068404
License Expires on November 30, 2025

THE RESIDENCES AT NAPER AND PLANK
NAPERVILLE, DUPAGE COUNTY, ILLINOIS

INTRODUCTION

Lincoln Property Company is proposing a development consisting of 17 townhome/rowhome buildings along with improvements to Tuthill, Burlington, and Plank Roads. The development is located at the intersection of Tuthill and Plank Roads in the City of Naperville, DuPage County Illinois. The total on-site area is approximately 8.06 acres. The stormwater analysis was performed based on the site plan and the topographic survey prepared by Cemcon and V3 Companies and in accordance with the requirements of the DuPage County Stormwater and Floodplain Ordinance with amendments by the City of Naperville.

EXISTING SITE CONDITION

Currently, there is one existing building on the parcel to the west of Tuthill road, and three existing buildings on the parcel to the east of Tuthill Road. Several other houses were located on the property but have been previously demolished. There is also a rounded drive connecting to one of the buildings on the eastern parcel to Tuthill, as well as a gravel drive going through the middle of the eastern parcel. No previous detention has been provided for the onsite area. The western parcel is 1.52 acres, with a ridge line along the southern border which generally makes the parcel drain from the south to the north. The eastern parcel contains 6.54 acres, and sheet drains to ditches around the perimeter, along Tuthill and Plank roads to the west and south, and another roadside ditch to the east along Naper Boulevard. See the existing overall drainage exhibit.

The site is located outside of the floodplain, according to Flood Insurance Rate Map (FIRM) 17043C0161J with a date of August 1, 2019. See the attached FIRM map/panel.

There is existing depressional storage on the west parcel which crosses the north property line onto the property to the north. The existing depressional storage volume on the subject property is approximately 0.024 ac-ft and flows east off the property to the north toward inlets along the west side of Tuthill road. This existing depressional storage will be compensated for with additional BMP volume in the proposed underground detention system.

PROPOSED SITE CONDITION

The proposed development consists of 17 townhome / rowhome buildings with ground level garages, roadway improvements, 6 underground stormwater detention vaults, and 1 detention pond. Per the DuPage County Stormwater and Floodplain Ordinance, the development requires runoff storage (detention) and post construction best management practices (PCBMPs). Both detention and PCBMPs will be provided in the proposed underground detention areas. In the proposed conditions, the western parcel of 1.52 acres will be independently detained from the rest of the site but will drain through the main system and outlet at Naper Blvd. Some flow will be conveyed from Tuthill and Plank but not included in the provided detention storage. This flow will be bypassed through the system.

POST CONSTRUCTION BEST MANAGEMENT PRACTICES/RETENTION

As specified in Article 8 of the DuPage County Stormwater and Floodplain Ordinance, PCBMPs are required as part of the proposed development in addition to the required detention storage. BMPs (Best Management Practices) are used to treat the stormwater runoff for pollutants and reduce overall runoff volume. The proposed underground detention chambers will have an open bottom with open graded stone surrounding the system to allow runoff to infiltrate into the ground before discharging from the storm sewer system.

The BMP volume requirement is equal to infiltration of 1.25 inches for all new impervious surfaces in the disturbed area. The required BMP volume for the west detention systems is 0.099 ac-ft for the development of the west parcel and improvements to Burlington Avenue right-of-way. The required BMP volume for the east detention systems is 0.410 ac-ft for development of the east parcel and improvements to Tuthill and Plank Road right-of-ways. Approximately 0.51 ac-ft of BMP volume is required in total for the proposed development which will be provided by allowing infiltration below the underground detention systems.

The outlet pipe of the west detention systems (UDS 1 and 2) is set at elevation 752.00 to provide 0.146 ac-ft of BMP volume control, within the chambers below the outlet pipe and in the stone bed below the chambers. An underdrain is provided from the west system at invert elevation 751.00 to provide drainage from the chambers. The outlet pipe of the east system is at elevation 749.75 to provide 0.440 ac-ft of BMP volume control storage within the chambers below the outlet pipe and in the stone bed below the chambers.

DETENTION

Site detention storage is based on the 100-year allowable release rate of 0.10 cfs/acre as required by the DuPage County Stormwater and Floodplain Ordinance. An estimated ultimate release rate of 0.81 cfs was calculated by the sites overall size of 8.06 acres. Runoff from the 1.52 acres west of Tuthill Road will be independently restricted to 0.15 cfs before it flows into the connected detention facilities on the east side.

The roadway improvements include a net new impervious area of 23,519 sf. This exceeds the 2,500 sf increase to trigger PCBMP requirements, which is included in the volumes described in the PCBMP section. However, the detention trigger of 25,000 sf is not met, so no detention is provided for the roadway improvements.

Detention is provided in underground storm vaults and pond storage. A summary of detention provided is shown in the table below. Approximately 3.59 ac-ft of storage is required for the proposed development. 2.35 ac-ft of detention volume is provided in underground detention, and 1.28 ac-ft is provided within the detention pond.

Combined Storage Summary

Vault Name	BMP Volume (below pipe invert)	Detention Volume (above pipe invert)	Total Volume Provided
UDS 1	0.081 ac-ft	0.299 ac-ft	0.380 ac-ft
UDS 2	0.064 ac-ft	0.239 ac-ft	0.303 ac-ft
UDS 3	0.135 ac-ft	0.373 ac-ft	0.508 ac-ft
UDS 4	0.048 ac-ft	0.135 ac-ft	0.183 ac-ft
USD 5	0.048 ac-ft	0.135 ac-ft	0.183 ac-ft
UDS 6	0.208 ac-ft	0.582 ac-ft	0.790 ac-ft
Detention Pond	0.000 ac-ft	1.280 ac-ft	1.280 ac-ft
SUM	**0.584 ac-ft**	**3.043 ac-ft**	**3.627 ac-ft**

RESTRICTOR SUMMARY

Restrictor	Allowed Release @ HWL	Actual Release @ HWL (cfs)	Restrictor Size (in)
1	0.15	0.15	0.80”
2	0.81	0.81	3.54”

The release rate from the proposed development is controlled by two proposed restrictor structures. The first restrictor will limit the peak release from the 1.52 acres west of Tuthill to 0.15 cfs through a 0.8-inch orifice. This flow will discharge to the proposed connected underground detention system for the 6.56 acres east of Tuthill. The release rate for the overall site is 0.81 cfs. The proposed detention system east of Tuthill will discharge to existing City of Naperville storm sewers through a 3.54” orifice restrictor which will limit the release for the overall development to 0.10 cfs/acre per County requirements.

EMERGENCY OVERFLOW

In the case that the underground detention systems overflow, the water will flow towards Naper Blvd where site grading will allow the water to match the existing drainage pattern. The pond will have an emergency overflow at the southeast corner of the lot holding the pond.

WETLANDS

The site contains a small drainage ditch/wetland associated with drainage for Naper Boulevard. The 2,400 square foot wetland/ditch is regulated by the US Army Corps of Engineers, and an application to fill the entire wetland was submitted to the Corps on October 2, 2024. The wetland/ditch is very low quality and is a man-made feature. Because of the wetland’s small size, no mitigation is required for the fill.

The wetland is also regulated under the DuPage County Countywide Stormwater and Flood Plain Ordinance. The wetland boundary has been approved by DuPage County. The wetland falls below the 0.1-acre threshold requirement for mitigation due to the proposed filling. DuPage County will review and certify the request to impact the wetland area.

The wetland delineation was performed for the site by Christopher B. Burke Engineering, Ltd. on August 23, 2024 and is provided under Tab 4 of this submittal.

SEDIMENT AND EROSION CONTROL PLAN

Since the proposed construction activities will disturb more than 1 acre, the site is subject to comply with the IEPA National Pollution Discharge Elimination System (NPDES) ILR10 permit. In accordance with NPDES ILR10, the owner is responsible for installing erosion and sediment control measures, and maintaining them in place until the site has been stabilized at which time they will be removed. Inspections, remedial work, and record keeping for all soil erosion and sediment control related work shall be performed and documented by the owner. The erosion control plans are included.

SCHEDULE FOR IMPLEMENTATION OF STORMWATER MANAGEMENT PLAN

Erosion control measures shall be installed before site construction commences based on the schedule below:

- Install Erosion Control Measures
- Demolition, Clearing and Grubbing
- Site Grading
- Installation of Site Utilities & BMPs
- Temporary Stabilization of Disturbed Areas
- Ongoing Maintenance of Erosion Control
- Establishment of Permanent stabilization
- Removal of Temporary Erosion Control Measures

CONCLUSION

Stormwater management facilities for the proposed development, The Residences at Naper and Plank, have been designed to meet the requirements of the Ordinance. All of the facilities will provide both detention and PCBMPs for stormwater runoff from developed areas of the site.

It is our professional opinion that this report complies with the requirements of the Ordinance, and provides a stormwater management system that will effectively control stormwater runoff from the proposed development.

Existing Conditions Analysis

Worksheet 2: Runoff curve number and runoff

Project	The Residences at Naper and Plank	By	JEM	Date	7/22/2025
Location	Naperville, DuPage County, IL	Checked		Date	

Check one: ☑ Present ☐ Developed

1. Runoff curve number

Soil name and hydrologic group (appendix A)	Cover description (cover type, treatment, and hydrologic condition; percent impervious; unconnected impervious area ratio)	CN [1] Table 2-2	CN [1] Figure 2-3	CN [1] Figure 2-4	Area ☑ acres ☐ mi2 ☐ %	Product of CN x area
B	Pavement	98			0.37	36.26
B	Open space - Grass	61			7.71	470.31

[1] Use only one CN source per line

Totals ➡ 8.08 | 506.57

CN (weighted) = total product/total area = 62.69 ; **Use CN** ➡ **63**

2. Runoff

		Storm #1	Storm #2	Storm #3
Frequency ……..……	yr			
Rainfall, P (24-hour) ……..….	in			
Runoff, Q ……..……	in			

(Use P and CN with table 2-1, figure 2-1, or equations 2-3 and 2-4)

RUNOFF COEFFICIENT CALCULATION

PROJECT: Naperville Multifamily - Existing
V3 FILE NO.: **241072**
DATE: 07/22/25
PREPARED BY: JEM
REVIEWED DATE:
REVIEWED BY:

Impervious Area (ACRE)	0.37
Impervious c-factor	0.95
Pervious Area (ACRE)	7.71
Pervious c-factor	0.30
TOTAL AREA (ACRE)	8.08

$$C = \frac{0.95 * (\text{Impervious Area}) + 0.30 * (\text{Pervious Area})}{\text{Total Area}}$$

$$C = \frac{0.95 * 0.37 + 0.30 * 7.71}{8.08}$$

C = 0.33

EXISTING CONDITIONS DRAINAGE EXHIBIT

PLANK ROAD MULTIFAMILY

NAPERVILLE ILLINOIS

PROJECT NO.:	241072
PROJECT MANAGER:	DF
DESIGNED BY:	NB
DRAWN BY:	NB

ORIGINAL ISSUE DATE: NOVEMBER 1, 2024

REVISIONS

NO.	DATE	DESCRIPTION

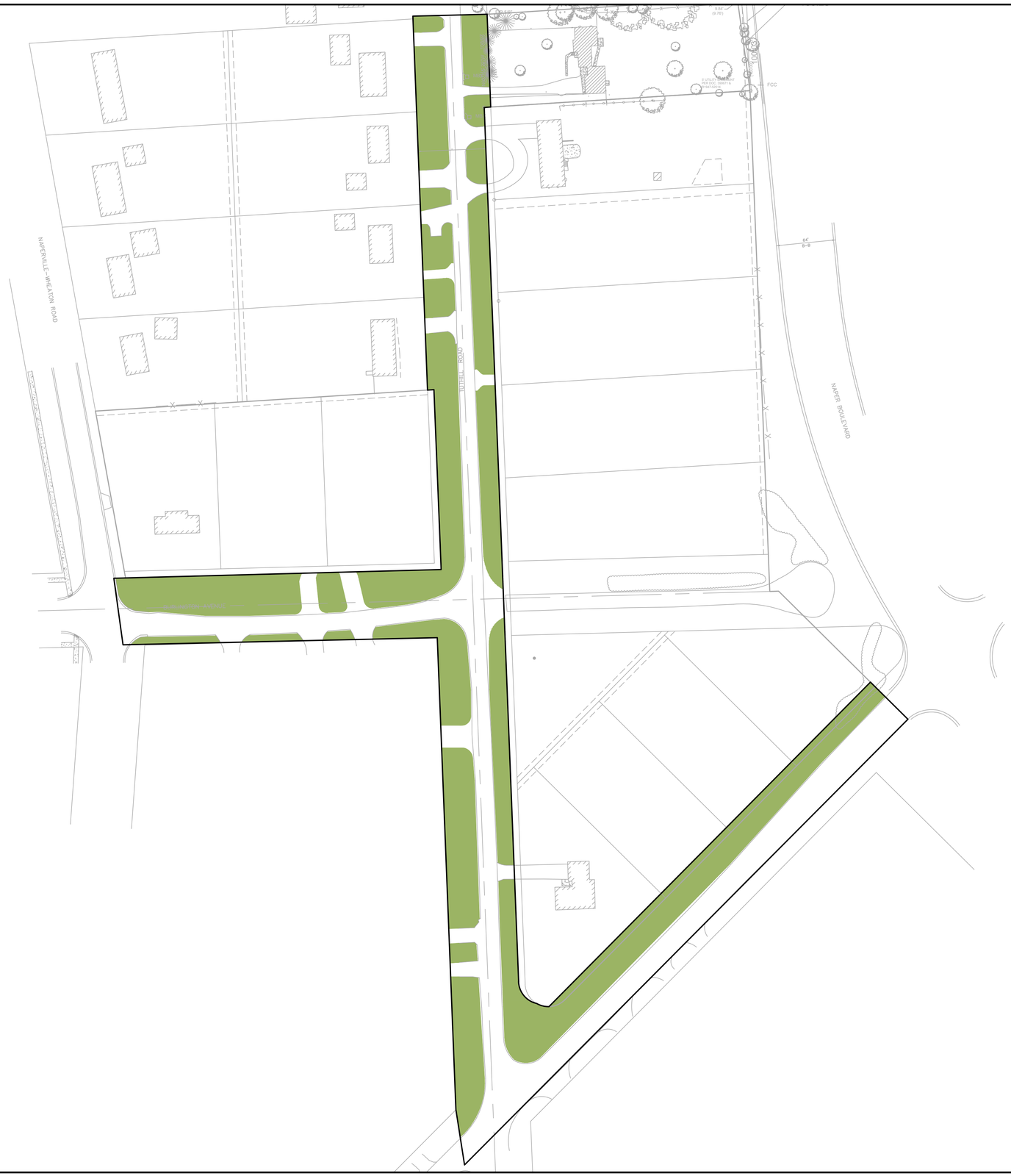
NO.	DATE	DESCRIPTION

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

EX3

N:\2024\241072\Drawings\ACAD\LD\S04\Misc Drawings\241072 EX Drainage S04.dwg 9/26/2025



LEGEND	
	IMPERVIOUS AREA 61,838 SF (1.42 AC) - 42.8%
	PERVIOUS AREA 82,811 SF (1.90 AC) - 57.2%
TOTAL R.O.W. AREA = 144,649 SF (3.32 AC)	

GRAPHIC SCALE

60 30 0 60

1" = 60'

ORIGINAL ISSUE DATE: FEBRUARY 27, 2025

REVISIONS

NO.	DATE	DESCRIPTION

NO.	DATE	DESCRIPTION

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: DF
DRAWN BY: NB

EXISTING CONDITIONS
R.O.W. IMPERVIOUS EXHIBIT
THE RESIDENCES AT
NAPERVILLE NAPER AND PLANK ILLINOIS

7325 Janes Avenue
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DRAWING NO.
1.0

LEGEND

	WEST	EAST	OVERALL
PERVIOUS	1.50 AC	6.19 AC	7.69 AC
IMPERVIOUS	0.02 AC	0.35 AC	0.37 AC
TOTAL AREA	1.52 AC	6.54 AC	8.06 AC
% PERVIOUS	98.7%	94.8%	95.4%

GRAPHIC SCALE

60 30 0 60

1" = 60'

REVISIONS

NO.	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: FEBRUARY 27, 2025

NO.	DATE	DESCRIPTION

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: DF
DRAWN BY: NB

EXISTING CONDITIONS
IMPERVIOUS EXHIBIT

THE RESIDENCES AT
NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
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DRAWING NO.

1.0

Proposed Conditions Analysis

GRAPHIC SCALE

60 30 0 60

1" = 60'

REVISIONS			
NO.	DATE	DESCRIPTION	
#	#	#	
#	#	#	
#	#	#	
#	#	#	
#	#	#	
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#	#	#	

NO.	DATE	DESCRIPTION
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#

ORIGINAL ISSUE DATE: 07-22-2025

PROJECT NO.: 241072
PROJECT MANAGER: DEF
DESIGNED BY: JEM
DRAWN BY: JEM

PROPOSED INLET AREA EXHIBIT

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

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DRAWING NO.

EXH

LEGEND
IMPERVIOUS AREA 85,357 SF (1.95 AC) - 60.6%
PERVIOUS AREA 55,122 SF (1.27 AC) - 39.4%
TOTAL R.O.W. AREA = 140,479 SF (3.22 AC)

*NET NEW IMPERVIOUS AREA = 23,519 SF

GRAPHIC SCALE
60 30 0 60
1" = 60'

REVISIONS

NO.	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: FEBRUARY 26, 2025

NO.	DATE	DESCRIPTION

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: DF
DRAWN BY: NB

PROPOSED CONDITIONS R.O.W. IMPERVIOUS EXHIBIT

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

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DRAWING NO.
1.0

LEGEND

	WEST	EAST	OVERALL
PERVIOUS	0.65 AC	2.69 AC	3.34 AC
IMPERVIOUS	0.87 AC	3.85 AC	4.72 AC
TOTAL AREA	1.52 AC	6.54 AC	8.06 AC
% PERVIOUS	42.8%	41.1%	41.4%

WEST PARCEL NET NEW IMPERVIOUS AREA = 36,865 SF (0.85 AC)
EAST PARCEL NET NEW IMPERVIOUS AREA = 152,567 SF (3.50 AC)

GRAPHIC SCALE
60 30 0 60
1" = 60'

REVISIONS

NO.	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: FEBRUARY 26, 2025
DESCRIPTION

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: DF
DRAWN BY: NB

PROPOSED CONDITIONS
IMPERVIOUS EXHIBIT
THE RESIDENCES AT
NAPER AND PLANK
NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
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DRAWING NO.
1.0

Worksheet 2: Runoff curve number and runoff

Project	The Residences at Naper and Plank	By	JEM	Date	7/22/2025
Location	Naperville, DuPage County, IL	Checked		Date	

Check one: ☐ Present ☑ Developed

1. Runoff curve number

Soil name and hydrologic group (appendix A)	Cover description (cover type, treatment, and hydrologic condition; percent impervious; unconnected impervious area ratio)	CN [1] Table 2-2	CN [1] Figure 2-3	CN [1] Figure 2-4	Area ☑ acres ☐ mi2 ☐ %	Product of CN x area
B	Pavement	98			4.87	477.26
B	Open space - Grass(onsite)	61			2.97	181.17
B	Open space - Grass(Parks Department)	61			0.24	14.64
[1] Use only one CN source per line				**Totals** ➡	8.08	673.07

CN (weighted) = total product/total area = 83.30 ; **Use CN** ➡ **83**

2. Runoff

		Storm #1	Storm #2	Storm #3
Frequency ……..……	yr			
Rainfall, P (24-hour) ……..….	in			
Runoff, Q ……..……	in			

(Use P and CN with table 2-1, figure 2-1, or equations 2-3 and 2-4)

RUNOFF COEFFICIENT CALCULATION

PROJECT: Naperville Multifamily
V3 FILE NO.: **241072**
DATE: 07/22/25
PREPARED BY: JEM
REVIEWED DATE:
REVIEWED BY:

Impervious Area (ACRE)	4.87
Impervious c-factor	0.95
Pervious Area (ACRE)	3.21
Pervious c-factor	0.30
TOTAL AREA (ACRE)	8.08

$$C = \frac{0.95 * (\text{Impervious Area}) + 0.30 * (\text{Pervious Area})}{\text{Total Area}}$$

$$C = \frac{0.95 * 4.87 + 0.30 * 3.21}{8.08}$$

C = 0.69

PROPOSED UNDERGROUND STORAGE "WEST"
Underground Detention Systems 1 and 2

PROJECT: **The Residences at Naper and Plank**
V3 FILE NO.: 241072
DATE: 09/04/25
PREPARED BY: JEM
CHECKED BY:

PROPOSED BASIN

ELEVATION	AREA (acres)	AVERAGE AREA (acres)	STAGE VOLUME (acre-feet)	UDS STAGE VOLUME (acre-feet)	CUMULATIVE VOLUME (acre-feet)	COMMENT
751.0	0.00				0.030	*0.36 void space below outlet*
		0.000	0.000	0.000		
751.50	0.00				0.056	*Chamber bottom*
		0.000	0.000	0.128		
752.5	0.00				0.184	
		0.000	0.000	0.133		
753.5	0.00				0.317	
		0.000	0.000	0.126		
754.5	0.00				0.443	
		0.000	0.000	0.114		
755.5	0.00				0.557	
		0.000	0.000	0.081		
756.5	0.00				0.638	
		0.000	0.000	0.045		
757.5	0.00				0.683	*Chamber top*

Total Volume Provided = **0.683** ac-ft

PROPOSED STORAGE "EAST"
Pond & Underground Detention Systems 3-6

PROJECT: **The Residences at Naper and Plank**
V3 FILE NO.: 241072
DATE: 09/04/25
PREPARED BY: JEM
CHECKED BY:

PROPOSED BASIN

ELEVATION	AREA (acres)	AVERAGE AREA (acres)	STAGE VOLUME (acre-feet)	UDS STAGE VOLUME (acre-feet)	CUMULATIVE VOLUME (acre-feet)	COMMENT
748.5	0.00				0.074	*0.36 void space below outlet*
		0.000	0.000	0.000		
749.00	0.04				0.137	
		0.065	0.065	0.311		
750.0	0.09				0.513	
		0.115	0.115	0.322		
751.0	0.14				0.950	
		0.170	0.170	0.307		
752.0	0.20				1.427	
		0.235	0.235	0.276		
753.0	0.27				1.938	
		0.305	0.305	0.199		
754.0	0.34				2.442	
		0.390	0.390	0.112		
755.0	0.44				2.944	

Total Volume Provided = **2.94** ac-ft

UDS 1

Chamber Model	HS290		
Number of Chambers	99		
Number of Endcaps	6		
Stone Voids (porosity)	36%		
Base of Stone Elevation	750.75	ft	
Stone Below Chambers*	9	in.	**Include perimeter stone?** Yes
Stone Above Chambers*	12	in.	

Area of System** 4,049 sq.ft

***Area must be greater than:* **3974 sq.ft**

*The minimum stone below and above the chambers to be determinded by the design engineer.

System Height (in)	Incremental Single Chamber Storage (cu.ft)	Incremental Single End Cap Storage (cu.ft)	Incremental Total Chamber Storage (cu.ft)	Incremental Total End Cap Storage (cu.ft)	Incremental Stone Storage (cu.ft)	Incremental Chamber, End Cap, & Stone (cu.ft)	Cumulative System Storage (cu.ft)	Elevation (ft)
78	0.000	0.000	0.000	0.000	121.46	121.46	16574.99	757.25
72	0.000	0.000	0.000	0.000	121.46	121.46	15846.20	756.75
66	0.270	0.070	26.730	0.420	111.69	138.84	15101.34	756.25
60	1.150	0.240	113.850	1.440	79.96	195.25	14131.92	755.75
54	1.580	0.420	156.420	2.520	64.25	223.19	12882.47	755.25
48	1.850	0.580	183.150	3.480	54.28	240.91	11494.85	754.75
42	2.040	0.710	201.960	4.260	47.23	253.45	10016.46	754.25
36	2.160	0.810	213.840	4.860	42.73	261.43	8475.74	753.75
30	2.240	0.890	221.760	5.340	39.71	266.81	6893.63	753.25
24	2.310	0.950	228.690	5.700	37.08	271.47	5280.80	752.75
18	2.380	1.000	235.620	6.000	34.48	276.10	3640.01	752.25
12	2.450	1.040	242.550	6.240	31.90	280.69	1973.48	751.75
6	0.000	0.000	0.000	0.000	121.46	121.46	728.79	751.25
0	0.000	0.000	0.000	0.000	0.00	0.00	0.00	750.75

UDS 2

Chamber Model	HS290		
Number of Chambers	78		
Number of Endcaps	6		
Stone Voids (porosity)	36%		
Base of Stone Elevation	750.75	ft	
Stone Below Chambers*	9	in.	**Include perimeter stone?** Yes
Stone Above Chambers*	12	in.	

Area of System** 3,235 sq.ft

***Area must be greater than:* **3170 sq.ft**

*The minimum stone below and above the chambers to be determinded by the design engineer.

System Height (in)	Incremental Single Chamber Storage (cu.ft)	Incremental Single End Cap Storage (cu.ft)	Incremental Total Chamber Storage (cu.ft)	Incremental Total End Cap Storage (cu.ft)	Incremental Stone Storage (cu.ft)	Incremental Chamber, End Cap, & Stone (cu.ft)	Cumulative System Storage (cu.ft)	Elevation (ft)
78	0.000	0.000	0.000	0.000	97.06	97.06	13197.12	757.25
72	0.000	0.000	0.000	0.000	97.06	97.06	12614.79	756.75
66	0.270	0.070	21.060	0.420	89.32	110.80	12019.74	756.25
60	1.150	0.240	89.700	1.440	64.25	155.39	11247.18	755.75
54	1.580	0.420	123.240	2.520	51.78	177.54	10253.04	755.25
48	1.850	0.580	144.300	3.480	43.85	191.63	9149.24	754.75
42	2.040	0.710	159.120	4.260	38.24	201.62	7973.20	754.25
36	2.160	0.810	168.480	4.860	34.65	207.99	6747.48	753.75
30	2.240	0.890	174.720	5.340	32.23	212.29	5488.69	753.25
24	2.310	0.950	180.180	5.700	30.14	216.02	4205.36	752.75
18	2.380	1.000	185.640	6.000	28.07	219.71	2899.73	752.25
12	2.450	1.040	191.100	6.240	26.01	223.35	1573.59	751.75
6	0.000	0.000	0.000	0.000	97.06	97.06	582.33	751.25
0	0.000	0.000	0.000	0.000	0.00	0.00	0.00	750.75

UDS 3

Chamber Model	HS290	
Number of Chambers	127	
Number of Endcaps	8	
Stone Voids (porosity)	36%	
Base of Stone Elevation	748.25	ft
Stone Below Chambers*	9	in.
Stone Above Chambers*	12	in.

Include perimeter stone? Yes

Area of System** 5,563 sq.ft

***Area must be greater than:* **5049 sq.ft**

*The minimum stone below and above the chambers to be determinded by the design engineer.

System Height (in)	Incremental Single Chamber Storage (cu.ft)	Incremental Single End Cap Storage (cu.ft)	Incremental Total Chamber Storage (cu.ft)	Incremental Total End Cap Storage (cu.ft)	Incremental Stone Storage (cu.ft)	Incremental Chamber, End Cap, & Stone (cu.ft)	Cumulative System Storage (cu.ft)	Elevation (ft)
78	0.000	0.000	0.000	0.000	166.90	166.90	22134.87	754.75
72	0.000	0.000	0.000	0.000	166.90	166.90	21133.47	754.25
66	0.270	0.070	34.290	0.560	154.35	189.20	20111.45	753.75
60	1.150	0.240	146.050	1.920	113.63	261.60	18801.21	753.25
54	1.580	0.420	200.660	3.360	93.45	297.47	17131.52	752.75
48	1.850	0.580	234.950	4.640	80.65	320.24	15284.39	752.25
42	2.040	0.710	259.080	5.680	71.59	336.35	13320.64	751.75
36	2.160	0.810	274.320	6.480	65.81	346.61	11276.79	751.25
30	2.240	0.890	284.480	7.120	61.92	353.52	9179.75	750.75
24	2.310	0.950	293.370	7.600	58.55	359.52	7043.21	750.25
18	2.380	1.000	302.260	8.000	55.21	365.47	4870.74	749.75
12	2.450	1.040	311.150	8.320	51.89	371.36	2665.19	749.25
6	0.000	0.000	0.000	0.000	166.90	166.90	1001.40	748.75
0	0.000	0.000	0.000	0.000	0.00	0.00	0.00	748.25

UDS 4

Chamber Model	HS290	
Number of Chambers	46	
Number of Endcaps	4	
Stone Voids (porosity)	36%	
Base of Stone Elevation	748.25	ft
Stone Below Chambers*	9	in.
Stone Above Chambers*	12	in.

Include perimeter stone? Yes

Area of System** 1,979 sq.ft

***Area must be greater than:* **1926 sq.ft**

*The minimum stone below and above the chambers to be determinded by the design engineer.

System Height (in)	Incremental Single Chamber Storage (cu.ft)	Incremental Single End Cap Storage (cu.ft)	Incremental Total Chamber Storage (cu.ft)	Incremental Total End Cap Storage (cu.ft)	Incremental Stone Storage (cu.ft)	Incremental Chamber, End Cap, & Stone (cu.ft)	Cumulative System Storage (cu.ft)	Elevation (ft)
78	0.000	0.000	0.000	0.000	59.36	59.36	7959.85	754.75
72	0.000	0.000	0.000	0.000	59.36	59.36	7603.71	754.25
66	0.270	0.070	12.420	0.280	54.78	67.48	7240.06	753.75
60	1.150	0.240	52.900	0.960	39.97	93.83	6771.50	753.25
54	1.580	0.420	72.680	1.680	32.59	106.95	6171.93	752.75
48	1.850	0.580	85.100	2.320	27.89	115.31	5507.39	752.25
42	2.040	0.710	93.840	2.840	24.55	121.23	4800.00	751.75
36	2.160	0.810	99.360	3.240	22.42	125.02	4063.08	751.25
30	2.240	0.890	103.040	3.560	20.98	127.58	3306.51	750.75
24	2.310	0.950	106.260	3.800	19.73	129.79	2535.35	750.25
18	2.380	1.000	109.480	4.000	18.50	131.98	1750.92	749.75
12	2.450	1.040	112.700	4.160	17.29	134.15	954.32	749.25
6	0.000	0.000	0.000	0.000	59.36	59.36	356.14	748.75
0	0.000	0.000	0.000	0.000	0.00	0.00	0.00	748.25

UDS 5

Chamber Model	HS290	
Number of Chambers	46	
Number of Endcaps	4	
Stone Voids (porosity)	36%	
Base of Stone Elevation	748.25	ft
Stone Below Chambers*	9	in.
Stone Above Chambers*	12	in.

Include perimeter stone? Yes

Area of System** 1,979 sq.ft

***Area must be greater than:* **1926 sq.ft**

*The minimum stone below and above the chambers to be determinded by the design engineer.

System Height (in)	Incremental Single Chamber Storage (cu.ft)	Incremental Single End Cap Storage (cu.ft)	Incremental Total Chamber Storage (cu.ft)	Incremental Total End Cap Storage (cu.ft)	Incremental Stone Storage (cu.ft)	Incremental Chamber, End Cap, & Stone (cu.ft)	Cumulative System Storage (cu.ft)	Elevation (ft)
78	0.000	0.000	0.000	0.000	59.36	59.36	7959.85	754.75
72	0.000	0.000	0.000	0.000	59.36	59.36	7603.71	754.25
66	0.270	0.070	12.420	0.280	54.78	67.48	7240.06	753.75
60	1.150	0.240	52.900	0.960	39.97	93.83	6771.50	753.25
54	1.580	0.420	72.680	1.680	32.59	106.95	6171.93	752.75
48	1.850	0.580	85.100	2.320	27.89	115.31	5507.39	752.25
42	2.040	0.710	93.840	2.840	24.55	121.23	4800.00	751.75
36	2.160	0.810	99.360	3.240	22.42	125.02	4063.08	751.25
30	2.240	0.890	103.040	3.560	20.98	127.58	3306.51	750.75
24	2.310	0.950	106.260	3.800	19.73	129.79	2535.35	750.25
18	2.380	1.000	109.480	4.000	18.50	131.98	1750.92	749.75
12	2.450	1.040	112.700	4.160	17.29	134.15	954.32	749.25
6	0.000	0.000	0.000	0.000	59.36	59.36	356.14	748.75
0	0.000	0.000	0.000	0.000	0.00	0.00	0.00	748.25

UDS 6

Chamber Model	HS290	
Number of Chambers	208	
Number of Endcaps	4	
Stone Voids (porosity)	36%	
Base of Stone Elevation	748.25	ft
Stone Below Chambers*	9	in.
Stone Above Chambers*	12	in.

Include perimeter stone? Yes

Area of System** 8,431 sq.ft

***Area must be greater than:* **8270 sq.ft**

*The minimum stone below and above the chambers to be determinded by the design engineer.

System Height (in)	Incremental Single Chamber Storage (cu.ft)	Incremental Single End Cap Storage (cu.ft)	Incremental Total Chamber Storage (cu.ft)	Incremental Total End Cap Storage (cu.ft)	Incremental Stone Storage (cu.ft)	Incremental Chamber, End Cap, & Stone (cu.ft)	Cumulative System Storage (cu.ft)	Elevation (ft)
78	0.000	0.000	0.000	0.000	252.93	252.93	34429.47	754.75
72	0.000	0.000	0.000	0.000	252.93	252.93	32911.87	754.25
66	0.270	0.070	56.160	0.280	232.62	289.06	31360.83	753.75
60	1.150	0.240	239.200	0.960	166.48	406.64	29342.01	753.25
54	1.580	0.420	328.640	1.680	134.02	464.34	26741.17	752.75
48	1.850	0.580	384.800	2.320	113.57	500.69	23855.55	752.25
42	2.040	0.710	424.320	2.840	99.16	526.32	20784.01	751.75
36	2.160	0.810	449.280	3.240	90.03	542.55	17585.48	751.25
30	2.240	0.890	465.920	3.560	83.92	553.40	14303.02	750.75
24	2.310	0.950	480.480	3.800	78.59	562.87	10958.27	750.25
18	2.380	1.000	495.040	4.000	73.28	572.32	7556.71	749.75
12	2.450	1.040	509.600	4.160	67.98	581.74	4102.54	749.25
6	0.000	0.000	0.000	0.000	252.93	252.93	1517.60	748.75
0	0.000	0.000	0.000	0.000	0.00	0.00	0.00	748.25

STAGE DISCHARGE CALCULATION WORKSHEET

Restrictor Pipe	○ YES ◉ NO
Orifice 1	◉ YES ○ NO — CIRCULAR
Orifice 2	○ YES ◉ NO — NONE
Weir	◉ YES ○ NO — RECTANGULAR
Storm Inlet	○ YES ◉ NO

PROJECT: Naperville Multifamily - West
V3 FILE NO.: 241072
DATE: 7/15/2025
PREPARED BY: JEM

EMERGENCY OVERFLOW WEIR	
WEIR COEFF.	
WEIR LENGTH (feet)	
WEIR CREST ELEVATION	
BROAD-CRESTED	

ORIFICE 1 INFORMATION	
DIA. (inches)	0.8
AREA ($feet^2$)	0.003
DIS. COEFF.	0.610
ORIFICE INV ELEV.	751.50
C/L ELEV.	751.53

WEIR INFORMATION	
WEIR COEFF.	3.330
WEIR LENGTH (feet)	6.00
WEIR CREST ELEV.	757.50
CONTRACTIONS	

OUTLET PIPE INFORMATION	
Applicable to Design?	NO
DIAMETER (inches)	12
AREA ($feet^2$)	0.785
MANNING'S COEFFICIENT	0.012
INLET DISCHARGE ELEVATION	751.50
DISCHARGE INVERT ELEV	751.50
DISCHARGE T/P ELEV	752.50
PIPE LENGTH (feet)	81.36
PIPE SLOPE (FT/FT)	0.0000

SUMMARY OF ALLOWABLE DISCHARGES

2-yr:	$Q_{release}$ =		cfs
	$Q_{offsite}$ =		cfs
	$Q_{undetained}$ =		cfs
	$Q_{allowable}$ =	**0.00**	cfs
100-yr:	$Q_{release}$ =	**0.15**	cfs
	$Q_{offsite}$ =		cfs
	$Q_{undetained}$ =		cfs
	$Q_{allowable}$ =	**0.15**	cfs

v2.0

POND H_2O ELEVATION	TAIL WATER ELEVATION	OUTLET PIPE HYDR. SLOPE	Q_{pipe} (cfs)	$HEAD_{overflow}$ (ft)	$Q_{overflow}$ (cfs)	$HEAD_{orifice(1)}$ (ft)	$Q_{orifice(1)}$ (cfs)	$HEAD_{weir}$ (ft)	Q_{weir} (cfs)	$Q_{CONTROL}$ (cfs)
751.50		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	**0.000**
752.50		0.00%	0.000	0.00	0.000	0.97	0.017	0.00	0.000	**0.017**
753.50		1.23%	4.279	0.00	0.000	1.97	0.024	0.00	0.000	**0.024**
754.50		2.46%	6.052	0.00	0.000	2.97	0.029	0.00	0.000	**0.029**
755.50		3.69%	7.412	0.00	0.000	3.97	0.034	0.00	0.000	**0.034**
756.50		4.92%	8.559	0.00	0.000	4.97	0.038	0.00	0.000	**0.038**
757.50		6.15%	9.569	0.00	0.000	5.97	0.042	0.00	0.000	**0.042**
758.00		6.76%	10.036	0.00	0.000	6.47	0.043	0.50	7.064	**7.107**
758.50		7.37%	10.482	0.00	0.000	6.97	0.045	1.00	19.980	**20.025**
759.00		7.99%	10.910	0.00	0.000	7.47	0.047	1.50	36.706	**36.752**
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	

EQUATIONS

MANNINGS EQUATION FOR OUTLET PIPE:

$Q = (1.486/n) \times A_{pipe} \times (r_h^{2/3}) \times (S^{1/2})$

where:

A_{pipe} = AREA OF DISCHARGE PIPE
n = MANNINGS ROUGHNESS CONSTANT
r_h = HYDRAULIC RADIUS OF DISCHARGE PIPE
S = HYDRAULIC SLOPE OF DISCHARGE PIPE

EMERGENCY OVERFLOW BROAD-CRESTED WEIR:

Q = C x L x H^3/2

where:

C = DISCHARGE COEFFICIENT
H = TOTAL HEAD, ft
L = LENGTH OF CREST, ft

ORIFICE 1:

$Q = C_d \times A_{orifice} \times (2 \times g \times H)^{1/2}$

where:

Aorifice = AREA OF ORIFICE, ft^2
C_d = DISCHARGE COEFFICIENT
H = TOTAL HEAD, ft
g = ACC. DUE TO GRAVITY

NOTE: WHEN WSEL IS BELOW CL OF ORIFICE THEN WEIR FLOW THRU ORIFICE IS USED. WHEN WSEL IS BETWEEN CL AND TOP OF ORIFICE, WEIR FLOW & ORIFICE FLOW IS COMPARED AND MOST RESTRICTIVE FLOW VALUE IS USED.

RECTANGULAR WEIR:

Q = C x (L - 0.1 x i x H) x H^3/2

where:

C = DISCHARGE COEFFICIENT
H = TOTAL HEAD, ft
L = WEIR OPENING WIDTH, ft
i = NUMBER OF CONTRACTIONS

STAGE DISCHARGE CALCULATION WORKSHEET

Restrictor Pipe	◯ YES	◉ NO	
Orifice 1	◉ YES	◯ NO	CIRCULAR
Orifice 2	◯ YES	◉ NO	NONE
Weir	◉ YES	◯ NO	RECTANGULAR
Storm Inlet	◯ YES	◉ NO	

PROJECT:	Naperville Multifamily - East
V3 FILE NO.:	241072
DATE:	7/15/2025
PREPARED BY:	JEM

EMERGENCY OVERFLOW WEIR	
WEIR COEFF.	3.33
WEIR LENGTH (feet)	10.00
WEIR CREST ELEVATION	757.00
BROAD-CRESTED	

ORIFICE 1 INFORMATION	
DIA. (inches)	3.54
AREA (feet^2)	0.068
DIS. COEFF.	0.610
ORIFICE INV ELEV.	749.00
C/L ELEV.	749.15

WEIR INFORMATION	
WEIR COEFF.	3.330
WEIR LENGTH (feet)	6.00
WEIR CREST ELEV.	755.00
CONTRACTIONS	

OUTLET PIPE INFORMATION	
Applicable to Design?	NO
DIAMETER (inches)	12
AREA (feet^2)	0.785
MANNING'S COEFFICIENT	0.012
INLET DISCHARGE ELEVATION	749.00
DISCHARGE INVERT ELEV	748.50
DISCHARGE T/P ELEV	749.50
PIPE LENGTH (feet)	18.75
PIPE SLOPE (FT/FT)	0.0267

SUMMARY OF ALLOWABLE DISCHARGES

2-yr:	$Q_{release}$ =		cfs
	$Q_{offsite}$ =		cfs
	$Q_{undetained}$ =		cfs
	$Q_{allowable}$ =	**0.00**	cfs
100-yr:	$Q_{release}$ =	**0.81**	cfs
	$Q_{offsite}$ =		cfs
	$Q_{undetained}$ =		cfs
	$Q_{allowable}$ =	**0.81**	cfs

v2.0

POND H_2O ELEVATION	TAIL WATER ELEVATION	OUTLET PIPE HYDR. SLOPE	Q_{pipe} (cfs)	$HEAD_{overflow}$ (ft)	$Q_{overflow}$ (cfs)	$HEAD_{orifice(1)}$ (ft)	$Q_{orifice(1)}$ (cfs)	$HEAD_{weir}$ (ft)	Q_{weir} (cfs)	$Q_{CONTROL}$ (cfs)
749.00		2.67%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	**0.000**
750.00		2.67%	6.303	0.00	0.000	0.85	0.309	0.00	0.000	**0.309**
751.00		8.00%	10.917	0.00	0.000	1.85	0.455	0.00	0.000	**0.455**
752.00		13.33%	14.094	0.00	0.000	2.85	0.565	0.00	0.000	**0.565**
753.00		18.67%	16.677	0.00	0.000	3.85	0.657	0.00	0.000	**0.657**
754.00		24.00%	18.909	0.00	0.000	4.85	0.737	0.00	0.000	**0.737**
755.00		29.33%	20.905	0.00	0.000	5.85	0.809	0.00	0.000	**0.809**
755.50		32.00%	21.835	0.00	0.000	6.35	0.843	0.50	7.064	**7.907**
756.00		34.67%	22.726	0.00	0.000	6.85	0.876	1.00	19.980	**20.856**
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	
		0.00%	0.000	0.00	0.000	0.00	0.000	0.00	0.000	

EQUATIONS

MANNINGS EQUATION FOR OUTLET PIPE:

$Q = (1.486/n) \times A_{pipe} \times (r_h^{2/3}) \times (S^{1/2})$

where:

A_{pipe} = AREA OF DISCHARGE PIPE

n = MANNINGS ROUGHNESS CONSTANT

r_h = HYDRAULIC RADIUS OF DISCHARGE PIPE

S = HYDRAULIC SLOPE OF DISCHARGE PIPE

EMERGENCY OVERFLOW BROAD-CRESTED WEIR:

Q = C x L x H^3/2

where:

C = DISCHARGE COEFFICIENT

H = TOTAL HEAD, ft

L = LENGTH OF CREST, ft

ORIFICE 1:

$Q = C_d \times A_{orifice} \times (2 \times g \times H)^{1/2}$

where:

Aorifice = AREA OF ORIFICE, ft^2

C_d = DISCHARGE COEFFICIENT

H = TOTAL HEAD, ft

g = ACC. DUE TO GRAVITY

NOTE: WHEN WSEL IS BELOW CL OF ORIFICE THEN WEIR FLOW THRU ORIFICE IS USED. WHEN WSEL IS BETWEEN CL AND TOP OF ORIFICE, WEIR FLOW & ORIFICE FLOW IS COMPARED AND MOST RESTRICTIVE FLOW VALUE IS USED.

RECTANGULAR WEIR:

Q = C x (L - 0.1 x i x H) x H^3/2

where:

C = DISCHARGE COEFFICIENT

H = TOTAL HEAD, ft

L = WEIR OPENING WIDTH, ft

i = NUMBER OF CONTRACTIONS

WinTR-20 Printed Page File Beginning of Input Data List
N:\2024\241072\TR20\Naperville Multifamily_2_10_100_B75_Northeast.inp

WinTR-20: version 3.20 0 0 0.1 0
241072 -- Naperville Multifamily -- B75 Northeast - 2, 10, 100 year
Detention Schematic -- 20250714 JEM

SUB-AREA:
001 R_Pond1 .00237 83. .18
002 R_Pond2 .0103 83. .18

STREAM REACH:
R_Pond1 R_Pond2 Pond 1
R_Pond2 Outlet Pond 2

STORM ANALYSIS:
2y,24h 3.34 Huff3-24 2 3.34
10y,24h 5.15 Huff3-24 2 3.34
100y,24h 8.57 Huff3-24 2 3.34

STRUCTURE RATING:
Pond 1 751.5
751.5 0. 0.056
752.5 0.017 .184
753.5 0.024 0.317
754.5 0.029 .443
755.5 0.034 .557
756.5 0.038 0.638
757.5 0.042 .683
758. 10. 10.
Pond 2 749.
749. 0. .137
750. .309 .513
751. .455 0.950
752. .565 1.427
753. .657 1.938
754. .737 2.442
755. .809 2.944
755.5 7.907 3.
756. 20.856 10.

RAINFALL DISTRIBUTION:
Huff1-5m 0.0034722
0.0000 0.0836 0.1773 0.2811 0.3833
0.4745 0.5550 0.6225 0.6722 0.7082
0.7417 0.7697 0.7981 0.8255 0.8518
0.8740 0.8947 0.9117 0.9270 0.9403
0.9536 0.9656 0.9774 0.9885 1.0000
Huff1-10m 0.0069444
0.0000 0.0836 0.1773 0.2811 0.3833
0.4745 0.5550 0.6225 0.6722 0.7082
0.7417 0.7697 0.7981 0.8255 0.8518
0.8740 0.8947 0.9117 0.9270 0.9403
0.9536 0.9656 0.9774 0.9885 1.0000
Huff1-15m 0.01041667
0.0000 0.0836 0.1773 0.2811 0.3833
0.4745 0.5550 0.6225 0.6722 0.7082
0.7417 0.7697 0.7981 0.8255 0.8518
0.8740 0.8947 0.9117 0.9270 0.9403
0.9536 0.9656 0.9774 0.9885 1.0000
Huff1-30m 0.020833
0.0000 0.0836 0.1773 0.2811 0.3833
0.4745 0.5550 0.6225 0.6722 0.7082

0.7417 0.7697 0.7981 0.8255 0.8518
0.8740 0.8947 0.9117 0.9270 0.9403
0.9536 0.9656 0.9774 0.9885 1.0000
Huff1-1 0.041667
0.0000 0.0836 0.1773 0.2811 0.3833
0.4745 0.5550 0.6225 0.6722 0.7082
0.7417 0.7697 0.7981 0.8255 0.8518
0.8740 0.8947 0.9117 0.9270 0.9403
0.9536 0.9656 0.9774 0.9885 1.0000
Huff1-2 0.083333
0.0000 0.0836 0.1773 0.2811 0.3833
0.4745 0.5550 0.6225 0.6722 0.7082
0.7417 0.7697 0.7981 0.8255 0.8518
0.8740 0.8947 0.9117 0.9270 0.9403
0.9536 0.9656 0.9774 0.9885 1.0000
Huff1-3 0.125
0.0000 0.0836 0.1773 0.2811 0.3833
0.4745 0.5550 0.6225 0.6722 0.7082
0.7417 0.7697 0.7981 0.8255 0.8518
0.8740 0.8947 0.9117 0.9270 0.9403
0.9536 0.9656 0.9774 0.9885 1.0000
Huff1-6 0.25
0.0000 0.0836 0.1773 0.2811 0.3833
0.4745 0.5550 0.6225 0.6722 0.7082
0.7417 0.7697 0.7981 0.8255 0.8518
0.8740 0.8947 0.9117 0.9270 0.9403
0.9536 0.9656 0.9774 0.9885 1.0000
Huff2-12 0.5
0.0000 0.0229 0.0482 0.0778 0.1133
0.1579 0.2139 0.2841 0.3644 0.4529
0.5435 0.6238 0.6976 0.7548 0.8038
0.8470 0.8781 0.9022 0.9217 0.9381
0.9529 0.9657 0.9774 0.9884 1.0000
Huff3-18 0.75
0.0000 0.0205 0.0431 0.0667 0.0912
0.1171 0.1436 0.1691 0.1964 0.2278
0.2633 0.3093 0.3635 0.4392 0.5211
0.6102 0.6989 0.7819 0.8492 0.8974
0.9311 0.9534 0.9706 0.9856 1.0000
Huff3-24 1.
0.0000 0.0205 0.0431 0.0667 0.0912
0.1171 0.1436 0.1691 0.1964 0.2278
0.2633 0.3093 0.3635 0.4392 0.5211
0.6102 0.6989 0.7819 0.8492 0.8974
0.9311 0.9534 0.9706 0.9856 1.0000
Huff4-48 2.
0.0000 0.0231 0.0479 0.0712 0.0978
0.1253 0.1523 0.1791 0.2033 0.2283
0.2541 0.2835 0.3125 0.3390 0.3633
0.3861 0.4124 0.4508 0.5129 0.5931
0.6919 0.8005 0.8971 0.9604 1.0000
Huff4-72 3.
0.0000 0.0231 0.0479 0.0712 0.0978
0.1253 0.1523 0.1791 0.2033 0.2283
0.2541 0.2835 0.3125 0.3390 0.3633
0.3861 0.4124 0.4508 0.5129 0.5931
0.6919 0.8005 0.8971 0.9604 1.0000
Huff4-120 5.
0.0000 0.0231 0.0479 0.0712 0.0978
0.1253 0.1523 0.1791 0.2033 0.2283
0.2541 0.2835 0.3125 0.3390 0.3633
0.3861 0.4124 0.4508 0.5129 0.5931
0.6919 0.8005 0.8971 0.9604 1.0000
Huff4-240 10.
0.0000 0.0231 0.0479 0.0712 0.0978
0.1253 0.1523 0.1791 0.2033 0.2283
0.2541 0.2835 0.3125 0.3390 0.3633
0.3861 0.4124 0.4508 0.5129 0.5931
0.6919 0.8005 0.8971 0.9604 1.0000

GLOBAL OUTPUT:
2 0.1 0.1 YN N YY N

WinTR-20 Printed Page File End of Input Data List

241072 -- Naperville Multifamily -- B75 Northeast - 2, 10, 100 year
Detention Schematic -- 20250714 JEM

Name of printed page file:
N:\2024\241072\TR20\Naperville Multifamily_2_10_100_B75_Northeast.out

STORM 2y,24h

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
001	0.002		1.398		16.02	0.33	139.36
R_Pond1	0.002	Upstream	1.398		16.02	0.33	139.36

Line
Start Time ---------- Flow Values @ time increment of 0.100 hr ----------

(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
11.000	0.0	0.10	0.11	0.12	0.12	0.12	0.12
11.700	0.13	0.13	0.13	0.13	0.15	0.18	0.19
12.400	0.20	0.20	0.20	0.21	0.21	0.21	0.21
13.100	0.22	0.24	0.24	0.24	0.25	0.25	0.25
13.800	0.26	0.26	0.26	0.27	0.29	0.29	0.30
14.500	0.30	0.30	0.30	0.31	0.31	0.31	0.31
15.200	0.31	0.32	0.32	0.32	0.32	0.32	0.33
15.900	0.33	0.33	0.33	0.32	0.31	0.32	0.32
16.600	0.32	0.32	0.32	0.32	0.32	0.31	0.28
17.300	0.27	0.27	0.27	0.27	0.27	0.27	0.27
18.000	0.27	0.25	0.21	0.20	0.20	0.20	0.20
18.700	0.20	0.20	0.20	0.20	0.18	0.15	0.14
19.400	0.14	0.14	0.14	0.14	0.14	0.14	0.14
20.100	0.12	0.10	0.0				

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
R_Pond1	0.002	Downstream	0.0	751.50	11.08	0.0	0.0
002	0.010		1.707		16.02	1.44	139.36
R_Pond2	0.013	Upstream	1.388		16.02	1.44	113.30

Line
Start Time ---------- Flow Values @ time increment of 0.100 hr ----------

(hr)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
7.500	0.0	0.10	0.11	0.11	0.11	0.12	0.13
8.200	0.14	0.15	0.15	0.16	0.16	0.17	0.17
8.900	0.18	0.18	0.20	0.21	0.22	0.23	0.23
9.600	0.24	0.24	0.25	0.25	0.26	0.29	0.34
10.300	0.36	0.37	0.37	0.38	0.39	0.40	0.40
11.000	0.41	0.44	0.49	0.51	0.52	0.53	0.54
11.700	0.55	0.56	0.56	0.57	0.65	0.78	0.83
12.400	0.85	0.87	0.88	0.89	0.91	0.92	0.93
13.100	0.97	1.02	1.05	1.06	1.07	1.09	1.10

13.800	1.11	1.12	1.13	1.18	1.24	1.27	1.28
14.500	1.29	1.31	1.32	1.33	1.34	1.35	1.36
15.200	1.36	1.37	1.38	1.39	1.40	1.41	1.42

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
15.900	1.43	1.43	1.41	1.37	1.37	1.37	1.38
16.600	1.38	1.39	1.39	1.40	1.41	1.33	1.20
17.300	1.16	1.16	1.16	1.16	1.17	1.17	1.17
18.000	1.18	1.07	0.91	0.86	0.85	0.85	0.85
18.700	0.85	0.86	0.86	0.86	0.78	0.65	0.61
19.400	0.61	0.60	0.61	0.61	0.61	0.61	0.61
20.100	0.54	0.44	0.41	0.41	0.40	0.40	0.40
20.800	0.40	0.41	0.41	0.38	0.33	0.32	0.31
21.500	0.31	0.31	0.31	0.31	0.31	0.31	0.30
22.200	0.28	0.28	0.28	0.27	0.27	0.28	0.28
22.900	0.28	0.28	0.27	0.27	0.27	0.26	0.26
23.600	0.27	0.27	0.27	0.27	0.27	0.18	0.0

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
R_Pond2	0.013	Downstream	1.187	750.59	21.07	0.39	31.17

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
12.400	0.0	0.10	0.11	0.11	0.12	0.12	0.13
13.100	0.14	0.14	0.15	0.15	0.16	0.17	0.17
13.800	0.18	0.18	0.19	0.20	0.20	0.21	0.22
14.500	0.23	0.23	0.24	0.25	0.26	0.26	0.27
15.200	0.28	0.29	0.29	0.30	0.31	0.31	0.31
15.900	0.32	0.32	0.32	0.33	0.33	0.33	0.34
16.600	0.34	0.34	0.34	0.35	0.35	0.35	0.35
17.300	0.36	0.36	0.36	0.36	0.37	0.37	0.37
18.000	0.37	0.37	0.38	0.38	0.38	0.38	0.38
18.700	0.38	0.38	0.39	0.39	0.39	0.39	0.39
19.400	0.39	0.39	0.39	0.39	0.39	0.39	0.39
20.100	0.39	0.39	0.39	0.39	0.39	0.39	0.39
20.800	0.39	0.39	0.39	0.39	0.39	0.39	0.39
21.500	0.39	0.39	0.39	0.39	0.39	0.39	0.39
22.200	0.39	0.39	0.39	0.39	0.39	0.39	0.39
22.900	0.39	0.39	0.39	0.39	0.39	0.39	0.39
23.600	0.39	0.39	0.39	0.39	0.39	0.39	0.39
24.300	0.38	0.38	0.38	0.38	0.38	0.38	0.38
25.000	0.38	0.38	0.37	0.37	0.37	0.37	0.37
25.700	0.37	0.37	0.37	0.37	0.37	0.36	0.36
26.400	0.36	0.36	0.36	0.36	0.36	0.36	0.36
27.100	0.36	0.35	0.35	0.35	0.35	0.35	0.35
27.800	0.35	0.35	0.35	0.35	0.35	0.34	0.34
28.500	0.34	0.34	0.34	0.34	0.34	0.34	0.34
29.200	0.34	0.33	0.33	0.33	0.33	0.33	0.33
29.900	0.33	0.33	0.33	0.33	0.33	0.32	0.32
30.600	0.32	0.32	0.32	0.32	0.32	0.32	0.32
31.300	0.32	0.32	0.32	0.31	0.31	0.31	0.31

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
32.000	0.31	0.31	0.31	0.31	0.30	0.30	0.30
32.700	0.30	0.30	0.29	0.29	0.29	0.29	0.29
33.400	0.28	0.28	0.28	0.28	0.28	0.28	0.27
34.100	0.27	0.27	0.27	0.27	0.26	0.26	0.26
34.800	0.26	0.26	0.26	0.25	0.25	0.25	0.25
35.500	0.25	0.25	0.24	0.24	0.24	0.24	0.24
36.200	0.24	0.23	0.23	0.23	0.23	0.23	0.23
36.900	0.22	0.22	0.22	0.22	0.22	0.22	0.22
37.600	0.21	0.21	0.21	0.21	0.21	0.21	0.21
38.300	0.20	0.20	0.20	0.20	0.20	0.20	0.20
39.000	0.19	0.19	0.19	0.19	0.19	0.19	0.19
39.700	0.19	0.18	0.18	0.18	0.18	0.18	0.18
40.400	0.18	0.18	0.17	0.17	0.17	0.17	0.17
41.100	0.17	0.17	0.17	0.17	0.16	0.16	0.16
41.800	0.16	0.16	0.16	0.16	0.16	0.16	0.15
42.500	0.15	0.15	0.15	0.15	0.15	0.15	0.15
43.200	0.15	0.15	0.14	0.14	0.14	0.14	0.14
43.900	0.14	0.14	0.14	0.14	0.14	0.13	0.13
44.600	0.13	0.13	0.13	0.13	0.13	0.13	0.13
45.300	0.13	0.13	0.13	0.12	0.12	0.12	0.12
46.000	0.12	0.12	0.12	0.12	0.12	0.12	0.12
46.700	0.12	0.11	0.11	0.11	0.11	0.11	0.11
47.400	0.11	0.11	0.11	0.11	0.11	0.11	0.11
48.100	0.10	0.10	0.10	0.10	0.10	0.10	0.10
48.800	0.10	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.013		1.187		21.07	0.39	31.17

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
12.400	0.0	0.10	0.11	0.11	0.12	0.12	0.13
13.100	0.14	0.14	0.15	0.15	0.16	0.17	0.17
13.800	0.18	0.18	0.19	0.20	0.20	0.21	0.22
14.500	0.23	0.23	0.24	0.25	0.26	0.26	0.27
15.200	0.28	0.29	0.29	0.30	0.31	0.31	0.31
15.900	0.32	0.32	0.32	0.33	0.33	0.33	0.34
16.600	0.34	0.34	0.34	0.35	0.35	0.35	0.35
17.300	0.36	0.36	0.36	0.36	0.37	0.37	0.37
18.000	0.37	0.37	0.38	0.38	0.38	0.38	0.38
18.700	0.38	0.38	0.39	0.39	0.39	0.39	0.39
19.400	0.39	0.39	0.39	0.39	0.39	0.39	0.39
20.100	0.39	0.39	0.39	0.39	0.39	0.39	0.39
20.800	0.39	0.39	0.39	0.39	0.39	0.39	0.39
21.500	0.39	0.39	0.39	0.39	0.39	0.39	0.39
22.200	0.39	0.39	0.39	0.39	0.39	0.39	0.39

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
22.900	0.39	0.39	0.39	0.39	0.39	0.39	0.39
23.600	0.39	0.39	0.39	0.39	0.39	0.39	0.39
24.300	0.38	0.38	0.38	0.38	0.38	0.38	0.38
25.000	0.38	0.38	0.37	0.37	0.37	0.37	0.37
25.700	0.37	0.37	0.37	0.37	0.37	0.36	0.36
26.400	0.36	0.36	0.36	0.36	0.36	0.36	0.36
27.100	0.36	0.35	0.35	0.35	0.35	0.35	0.35
27.800	0.35	0.35	0.35	0.35	0.35	0.34	0.34
28.500	0.34	0.34	0.34	0.34	0.34	0.34	0.34
29.200	0.34	0.33	0.33	0.33	0.33	0.33	0.33
29.900	0.33	0.33	0.33	0.33	0.33	0.32	0.32
30.600	0.32	0.32	0.32	0.32	0.32	0.32	0.32
31.300	0.32	0.32	0.32	0.31	0.31	0.31	0.31
32.000	0.31	0.31	0.31	0.31	0.30	0.30	0.30
32.700	0.30	0.30	0.29	0.29	0.29	0.29	0.29
33.400	0.28	0.28	0.28	0.28	0.28	0.28	0.27
34.100	0.27	0.27	0.27	0.27	0.26	0.26	0.26
34.800	0.26	0.26	0.26	0.25	0.25	0.25	0.25
35.500	0.25	0.25	0.24	0.24	0.24	0.24	0.24
36.200	0.24	0.23	0.23	0.23	0.23	0.23	0.23
36.900	0.22	0.22	0.22	0.22	0.22	0.22	0.22
37.600	0.21	0.21	0.21	0.21	0.21	0.21	0.21
38.300	0.20	0.20	0.20	0.20	0.20	0.20	0.20
39.000	0.19	0.19	0.19	0.19	0.19	0.19	0.19
39.700	0.19	0.18	0.18	0.18	0.18	0.18	0.18
40.400	0.18	0.18	0.17	0.17	0.17	0.17	0.17
41.100	0.17	0.17	0.17	0.17	0.16	0.16	0.16
41.800	0.16	0.16	0.16	0.16	0.16	0.16	0.15
42.500	0.15	0.15	0.15	0.15	0.15	0.15	0.15
43.200	0.15	0.15	0.14	0.14	0.14	0.14	0.14
43.900	0.14	0.14	0.14	0.14	0.14	0.13	0.13
44.600	0.13	0.13	0.13	0.13	0.13	0.13	0.13
45.300	0.13	0.13	0.13	0.12	0.12	0.12	0.12
46.000	0.12	0.12	0.12	0.12	0.12	0.12	0.12
46.700	0.12	0.11	0.11	0.11	0.11	0.11	0.11
47.400	0.11	0.11	0.11	0.11	0.11	0.11	0.11
48.100	0.10	0.10	0.10	0.10	0.10	0.10	0.10
48.800	0.10	0.0					

STORM 10y,24h

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
001	0.002		3.161	16.02	0.59	248.62	
R_Pond1	0.002	Upstream	3.161		16.02	0.59	248.62

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
8.200	0.0	0.10	0.10	0.11	0.11	0.11	0.11
8.900	0.11	0.11	0.12	0.13	0.13	0.14	0.14
9.600	0.14	0.14	0.14	0.14	0.15	0.16	0.19
10.300	0.20	0.20	0.20	0.20	0.21	0.21	0.21
11.000	0.21	0.23	0.25	0.26	0.26	0.27	0.27
11.700	0.27	0.27	0.28	0.28	0.32	0.38	0.40
12.400	0.40	0.41	0.41	0.42	0.42	0.42	0.43
13.100	0.44	0.46	0.47	0.48	0.48	0.48	0.49
13.800	0.49	0.49	0.50	0.51	0.54	0.55	0.55
14.500	0.56	0.56	0.56	0.56	0.57	0.57	0.57
15.200	0.57	0.57	0.58	0.58	0.58	0.58	0.59
15.900	0.59	0.59	0.58	0.56	0.56	0.56	0.56
16.600	0.56	0.56	0.56	0.57	0.57	0.53	0.48
17.300	0.47	0.46	0.46	0.46	0.47	0.47	0.47
18.000	0.47	0.43	0.36	0.34	0.34	0.34	0.34
18.700	0.34	0.34	0.34	0.34	0.31	0.26	0.24
19.400	0.24	0.24	0.24	0.24	0.24	0.24	0.24
20.100	0.21	0.17	0.16	0.16	0.16	0.16	0.16
20.800	0.16	0.16	0.16	0.15	0.13	0.12	0.12
21.500	0.12	0.12	0.12	0.12	0.12	0.12	0.12
22.200	0.11	0.11	0.11	0.11	0.11	0.11	0.11
22.900	0.11	0.11	0.11	0.10	0.10	0.10	0.10
23.600	0.10	0.10	0.10	0.10	0.10	0.0	

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
R_Pond1	0.002	Downstream	0.0	751.50	8.23	0.0	0.0
002	0.010		3.302		16.02	2.56	248.62
R_Pond2	0.013	Upstream	2.684		16.02	2.56	202.11

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
4.600	0.0	0.11	0.12	0.12	0.13	0.14	0.15
5.300	0.16	0.17	0.18	0.19	0.20	0.21	0.22
6.000	0.22	0.23	0.23	0.24	0.24	0.25	0.26
6.700	0.26	0.27	0.28	0.28	0.30	0.31	0.32
7.400	0.33	0.34	0.34	0.35	0.36	0.36	0.37
8.100	0.39	0.43	0.44	0.45	0.46	0.47	0.47
8.800	0.48	0.49	0.50	0.52	0.56	0.58	0.59
9.500	0.60	0.61	0.61	0.62	0.63	0.64	0.71
10.200	0.81	0.85	0.87	0.88	0.89	0.90	0.91
10.900	0.92	0.93	0.99	1.09	1.12	1.14	1.15
11.600	1.17	1.18	1.19	1.20	1.21	1.38	1.64
12.300	1.72	1.75	1.77	1.79	1.81	1.83	1.84
13.000	1.86	1.92	2.01	2.05	2.07	2.09	2.10
13.700	2.12	2.13	2.14	2.16	2.23	2.34	2.38
14.400	2.40	2.41	2.43	2.44	2.45	2.46	2.47

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
15.100	2.48	2.49	2.50	2.51	2.52	2.52	2.53
15.800	2.54	2.55	2.56	2.52	2.44	2.42	2.43
16.500	2.43	2.44	2.44	2.45	2.46	2.46	2.32
17.200	2.09	2.03	2.02	2.02	2.02	2.02	2.03
17.900	2.03	2.03	1.85	1.56	1.48	1.47	1.46
18.600	1.47	1.47	1.47	1.47	1.47	1.33	1.11
19.300	1.05	1.04	1.03	1.03	1.03	1.03	1.04
20.000	1.04	0.92	0.75	0.70	0.69	0.69	0.69
20.700	0.69	0.69	0.69	0.69	0.64	0.56	0.54
21.400	0.53	0.53	0.53	0.53	0.53	0.53	0.53
22.100	0.51	0.48	0.47	0.47	0.47	0.47	0.47
22.800	0.47	0.47	0.47	0.46	0.45	0.45	0.45
23.500	0.45	0.45	0.45	0.45	0.45	0.45	0.30
24.200	0.0						

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
R_Pond2	0.013	Downstream	2.480	752.02	21.18	0.57	44.77

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
9.700	0.0	0.10	0.11	0.11	0.11	0.12	0.12
10.400	0.13	0.13	0.14	0.14	0.15	0.15	0.16
11.100	0.16	0.17	0.18	0.18	0.19	0.20	0.20
11.800	0.21	0.22	0.22	0.23	0.24	0.25	0.26
12.500	0.27	0.28	0.29	0.30	0.31	0.31	0.32
13.200	0.32	0.33	0.33	0.34	0.34	0.35	0.35
13.900	0.36	0.36	0.37	0.37	0.38	0.38	0.39
14.600	0.39	0.40	0.41	0.41	0.42	0.42	0.43
15.300	0.43	0.44	0.44	0.45	0.46	0.46	0.46
16.000	0.47	0.47	0.48	0.48	0.48	0.49	0.49
16.700	0.49	0.50	0.50	0.51	0.51	0.51	0.52
17.400	0.52	0.52	0.52	0.53	0.53	0.53	0.54
18.100	0.54	0.54	0.54	0.54	0.55	0.55	0.55
18.800	0.55	0.55	0.55	0.56	0.56	0.56	0.56
19.500	0.56	0.56	0.56	0.56	0.56	0.56	0.57
20.200	0.57	0.57	0.57	0.57	0.57	0.57	0.57
20.900	0.57	0.57	0.57	0.57	0.57	0.57	0.57
21.600	0.57	0.57	0.57	0.57	0.57	0.57	0.57
22.300	0.57	0.57	0.57	0.57	0.57	0.57	0.57
23.000	0.57	0.57	0.57	0.56	0.56	0.56	0.56
23.700	0.56	0.56	0.56	0.56	0.56	0.56	0.56
24.400	0.56	0.56	0.56	0.56	0.56	0.55	0.55
25.100	0.55	0.55	0.55	0.55	0.55	0.55	0.55
25.800	0.55	0.54	0.54	0.54	0.54	0.54	0.54
26.500	0.54	0.54	0.54	0.54	0.53	0.53	0.53
27.200	0.53	0.53	0.53	0.53	0.53	0.53	0.53

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
27.900	0.52	0.52	0.52	0.52	0.52	0.52	0.52
28.600	0.52	0.52	0.52	0.51	0.51	0.51	0.51
29.300	0.51	0.51	0.51	0.51	0.51	0.51	0.50
30.000	0.50	0.50	0.50	0.50	0.50	0.50	0.50
30.700	0.50	0.50	0.49	0.49	0.49	0.49	0.49
31.400	0.49	0.49	0.49	0.49	0.49	0.49	0.48
32.100	0.48	0.48	0.48	0.48	0.48	0.48	0.48
32.800	0.48	0.48	0.48	0.47	0.47	0.47	0.47
33.500	0.47	0.47	0.47	0.47	0.47	0.47	0.47
34.200	0.46	0.46	0.46	0.46	0.46	0.46	0.46
34.900	0.46	0.46	0.46	0.46	0.46	0.45	0.45
35.600	0.45	0.45	0.45	0.45	0.45	0.45	0.44
36.300	0.44	0.44	0.44	0.44	0.44	0.44	0.44
37.000	0.43	0.43	0.43	0.43	0.43	0.43	0.43
37.700	0.43	0.42	0.42	0.42	0.42	0.42	0.42
38.400	0.42	0.42	0.42	0.41	0.41	0.41	0.41
39.100	0.41	0.41	0.41	0.41	0.41	0.40	0.40
39.800	0.40	0.40	0.40	0.40	0.40	0.40	0.40
40.500	0.39	0.39	0.39	0.39	0.39	0.39	0.39
41.200	0.39	0.39	0.38	0.38	0.38	0.38	0.38
41.900	0.38	0.38	0.38	0.38	0.38	0.37	0.37
42.600	0.37	0.37	0.37	0.37	0.37	0.37	0.37
43.300	0.36	0.36	0.36	0.36	0.36	0.36	0.36
44.000	0.36	0.36	0.36	0.36	0.35	0.35	0.35
44.700	0.35	0.35	0.35	0.35	0.35	0.35	0.35
45.400	0.34	0.34	0.34	0.34	0.34	0.34	0.34
46.100	0.34	0.34	0.34	0.34	0.33	0.33	0.33
46.800	0.33	0.33	0.33	0.33	0.33	0.33	0.33
47.500	0.33	0.32	0.32	0.32	0.32	0.32	0.32
48.200	0.32	0.32	0.32	0.32	0.32	0.31	0.31
48.900	0.31	0.31	0.31	0.31	0.31	0.31	0.31
49.600	0.30	0.30	0.30	0.30	0.30	0.29	0.29
50.300	0.29	0.29	0.29	0.28	0.28	0.28	0.28
51.000	0.28	0.27	0.27	0.27	0.27	0.27	0.26
51.700	0.26	0.26	0.26	0.26	0.26	0.25	0.25
52.400	0.25	0.25	0.25	0.25	0.24	0.24	0.24
53.100	0.24	0.24	0.24	0.23	0.23	0.23	0.23
53.800	0.23	0.23	0.23	0.22	0.22	0.22	0.22
54.500	0.22	0.22	0.21	0.21	0.21	0.21	0.21
55.200	0.21	0.21	0.20	0.20	0.20	0.20	0.20
55.900	0.20	0.20	0.20	0.19	0.19	0.19	0.19
56.600	0.19	0.19	0.19	0.18	0.18	0.18	0.18
57.300	0.18	0.18	0.18	0.18	0.18	0.17	0.17
58.000	0.17	0.17	0.17	0.17	0.17	0.17	0.16
58.700	0.16	0.16	0.16	0.16	0.16	0.16	0.16
59.400	0.16	0.15	0.15	0.15	0.15	0.15	0.15
60.100	0.15	0.15	0.15	0.15	0.14	0.14	0.14
60.800	0.14	0.14	0.14	0.14	0.14	0.14	0.14
61.500	0.14	0.13	0.13	0.13	0.13	0.13	0.13
62.200	0.13	0.13	0.13	0.13	0.13	0.12	0.12
62.900	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
63.600	0.12	0.12	0.12	0.11	0.11	0.11	0.11
64.300	0.11	0.11	0.11	0.11	0.11	0.11	0.11
65.000	0.11	0.11	0.11	0.10	0.10	0.10	0.10
65.700	0.10	0.10	0.10	0.0			

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
OUTLET	0.013		2.480		21.18	0.57	44.77

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
9.700	0.0	0.10	0.11	0.11	0.11	0.12	0.12
10.400	0.13	0.13	0.14	0.14	0.15	0.15	0.16
11.100	0.16	0.17	0.18	0.18	0.19	0.20	0.20
11.800	0.21	0.22	0.22	0.23	0.24	0.25	0.26
12.500	0.27	0.28	0.29	0.30	0.31	0.31	0.32
13.200	0.32	0.33	0.33	0.34	0.34	0.35	0.35
13.900	0.36	0.36	0.37	0.37	0.38	0.38	0.39
14.600	0.39	0.40	0.41	0.41	0.42	0.42	0.43
15.300	0.43	0.44	0.44	0.45	0.46	0.46	0.46
16.000	0.47	0.47	0.48	0.48	0.48	0.49	0.49
16.700	0.49	0.50	0.50	0.51	0.51	0.51	0.52
17.400	0.52	0.52	0.52	0.53	0.53	0.53	0.54
18.100	0.54	0.54	0.54	0.54	0.55	0.55	0.55
18.800	0.55	0.55	0.55	0.56	0.56	0.56	0.56
19.500	0.56	0.56	0.56	0.56	0.56	0.56	0.57
20.200	0.57	0.57	0.57	0.57	0.57	0.57	0.57
20.900	0.57	0.57	0.57	0.57	0.57	0.57	0.57
21.600	0.57	0.57	0.57	0.57	0.57	0.57	0.57
22.300	0.57	0.57	0.57	0.57	0.57	0.57	0.57
23.000	0.57	0.57	0.57	0.56	0.56	0.56	0.56
23.700	0.56	0.56	0.56	0.56	0.56	0.56	0.56
24.400	0.56	0.56	0.56	0.56	0.56	0.55	0.55
25.100	0.55	0.55	0.55	0.55	0.55	0.55	0.55
25.800	0.55	0.54	0.54	0.54	0.54	0.54	0.54
26.500	0.54	0.54	0.54	0.54	0.53	0.53	0.53
27.200	0.53	0.53	0.53	0.53	0.53	0.53	0.53
27.900	0.52	0.52	0.52	0.52	0.52	0.52	0.52
28.600	0.52	0.52	0.52	0.51	0.51	0.51	0.51
29.300	0.51	0.51	0.51	0.51	0.51	0.51	0.50
30.000	0.50	0.50	0.50	0.50	0.50	0.50	0.50
30.700	0.50	0.50	0.49	0.49	0.49	0.49	0.49
31.400	0.49	0.49	0.49	0.49	0.49	0.49	0.48
32.100	0.48	0.48	0.48	0.48	0.48	0.48	0.48
32.800	0.48	0.48	0.48	0.47	0.47	0.47	0.47
33.500	0.47	0.47	0.47	0.47	0.47	0.47	0.47
34.200	0.46	0.46	0.46	0.46	0.46	0.46	0.46

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
34.900	0.46	0.46	0.46	0.46	0.46	0.45	0.45
35.600	0.45	0.45	0.45	0.45	0.45	0.45	0.44
36.300	0.44	0.44	0.44	0.44	0.44	0.44	0.44
37.000	0.43	0.43	0.43	0.43	0.43	0.43	0.43
37.700	0.43	0.42	0.42	0.42	0.42	0.42	0.42
38.400	0.42	0.42	0.42	0.41	0.41	0.41	0.41
39.100	0.41	0.41	0.41	0.41	0.41	0.40	0.40
39.800	0.40	0.40	0.40	0.40	0.40	0.40	0.40
40.500	0.39	0.39	0.39	0.39	0.39	0.39	0.39
41.200	0.39	0.39	0.38	0.38	0.38	0.38	0.38
41.900	0.38	0.38	0.38	0.38	0.38	0.37	0.37
42.600	0.37	0.37	0.37	0.37	0.37	0.37	0.37
43.300	0.36	0.36	0.36	0.36	0.36	0.36	0.36
44.000	0.36	0.36	0.36	0.36	0.35	0.35	0.35
44.700	0.35	0.35	0.35	0.35	0.35	0.35	0.35
45.400	0.34	0.34	0.34	0.34	0.34	0.34	0.34
46.100	0.34	0.34	0.34	0.34	0.33	0.33	0.33
46.800	0.33	0.33	0.33	0.33	0.33	0.33	0.33
47.500	0.33	0.32	0.32	0.32	0.32	0.32	0.32
48.200	0.32	0.32	0.32	0.32	0.32	0.31	0.31
48.900	0.31	0.31	0.31	0.31	0.31	0.31	0.31
49.600	0.30	0.30	0.30	0.30	0.30	0.29	0.29
50.300	0.29	0.29	0.29	0.28	0.28	0.28	0.28
51.000	0.28	0.27	0.27	0.27	0.27	0.27	0.26
51.700	0.26	0.26	0.26	0.26	0.26	0.25	0.25
52.400	0.25	0.25	0.25	0.25	0.24	0.24	0.24
53.100	0.24	0.24	0.24	0.23	0.23	0.23	0.23
53.800	0.23	0.23	0.23	0.22	0.22	0.22	0.22
54.500	0.22	0.22	0.21	0.21	0.21	0.21	0.21
55.200	0.21	0.21	0.20	0.20	0.20	0.20	0.20
55.900	0.20	0.20	0.20	0.19	0.19	0.19	0.19
56.600	0.19	0.19	0.19	0.18	0.18	0.18	0.18
57.300	0.18	0.18	0.18	0.18	0.18	0.17	0.17
58.000	0.17	0.17	0.17	0.17	0.17	0.17	0.16
58.700	0.16	0.16	0.16	0.16	0.16	0.16	0.16
59.400	0.16	0.15	0.15	0.15	0.15	0.15	0.15
60.100	0.15	0.15	0.15	0.15	0.14	0.14	0.14
60.800	0.14	0.14	0.14	0.14	0.14	0.14	0.14
61.500	0.14	0.13	0.13	0.13	0.13	0.13	0.13
62.200	0.13	0.13	0.13	0.13	0.13	0.12	0.12
62.900	0.12	0.12	0.12	0.12	0.12	0.12	0.12
63.600	0.12	0.12	0.12	0.11	0.11	0.11	0.11
64.300	0.11	0.11	0.11	0.11	0.11	0.11	0.11
65.000	0.11	0.11	0.11	0.10	0.10	0.10	0.10
65.700	0.10	0.10	0.10	0.0			

STORM 100y,24h

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
001	0.002		6.456		16.01	1.08	454.18
R_Pond1	0.002	Upstream	6.456		16.01	1.08	454.18

Line Start Time (hr) — Flow Values (cfs) @ time increment of 0.100 hr

4.200	0.0	0.10	0.11	0.11	0.12	0.12	0.12
4.900	0.13	0.13	0.14	0.14	0.14	0.15	0.15
5.600	0.15	0.16	0.16	0.16	0.17	0.17	0.17
6.300	0.17	0.17	0.17	0.18	0.18	0.18	0.18
7.000	0.18	0.19	0.20	0.20	0.21	0.21	0.21
7.700	0.21	0.21	0.22	0.22	0.23	0.25	0.26
8.400	0.26	0.26	0.27	0.27	0.27	0.27	0.27
9.100	0.29	0.31	0.32	0.32	0.32	0.33	0.33
9.800	0.33	0.33	0.33	0.37	0.42	0.44	0.44
10.500	0.45	0.45	0.45	0.46	0.46	0.46	0.49
11.200	0.54	0.55	0.56	0.56	0.56	0.57	0.57
11.900	0.57	0.57	0.65	0.77	0.81	0.82	0.82
12.600	0.83	0.83	0.84	0.84	0.84	0.87	0.91
13.300	0.92	0.93	0.93	0.94	0.94	0.94	0.95
14.000	0.95	0.98	1.02	1.04	1.04	1.05	1.05
14.700	1.05	1.06	1.06	1.06	1.06	1.06	1.06
15.400	1.06	1.07	1.07	1.07	1.07	1.07	1.08
16.100	1.06	1.02	1.01	1.01	1.01	1.02	1.02
16.800	1.02	1.02	1.02	0.96	0.86	0.84	0.83
17.500	0.83	0.83	0.83	0.83	0.83	0.83	0.76
18.200	0.64	0.61	0.60	0.60	0.60	0.60	0.60
18.900	0.60	0.60	0.54	0.45	0.43	0.42	0.42
19.600	0.42	0.42	0.42	0.42	0.42	0.38	0.30
20.300	0.29	0.28	0.28	0.28	0.28	0.28	0.28
21.000	0.28	0.26	0.23	0.22	0.22	0.22	0.22
21.700	0.22	0.22	0.22	0.22	0.21	0.19	0.19
22.400	0.19	0.19	0.19	0.19	0.19	0.19	0.19
23.100	0.19	0.18	0.18	0.18	0.18	0.18	0.18
23.800	0.18	0.18	0.18	0.12	0.0		

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
R_Pond1	0.002	Downstream	0.854	757.51	24.07	0.15	64.81

West side peak

Line Start Time (hr) — Flow Values (cfs) @ time increment of 0.100 hr

19.100	0.07	0.10	0.11	0.11	0.11	0.11	0.12
19.800	0.12	0.12	0.13	0.13	0.13	0.13	0.13
20.500	0.13	0.13	0.14	0.14	0.14	0.14	0.14
21.200	0.14	0.14	0.14	0.14	0.14	0.15	0.15

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
21.900	0.15	0.15	0.15	0.15	0.15	0.15	0.15
22.600	0.15	0.15	0.15	0.15	0.15	0.15	0.15
23.300	0.15	0.15	0.15	0.15	0.15	0.15	0.15
24.000	0.15	0.15	0.15	0.15	0.15	0.15	0.15
24.700	0.15	0.14	0.14	0.14	0.14	0.14	0.14
25.400	0.14	0.14	0.13	0.13	0.13	0.13	0.13
26.100	0.13	0.13	0.13	0.13	0.12	0.12	0.12
26.800	0.12	0.12	0.12	0.12	0.12	0.12	0.11
27.500	0.11	0.11	0.11	0.11	0.11	0.11	0.11
28.200	0.11	0.11	0.11	0.10	0.10	0.10	0.10
28.900	0.10	0.0					

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
002	0.010		6.519		16.01	4.68	454.18
R_Pond2	0.013	Upstream	5.459		16.01	4.68	369.22

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
2.700	0.0	0.11	0.14	0.16	0.18	0.21	0.23
3.400	0.25	0.27	0.29	0.31	0.33	0.35	0.37
4.100	0.40	0.43	0.45	0.47	0.48	0.50	0.52
4.800	0.54	0.55	0.57	0.59	0.61	0.63	0.64
5.500	0.66	0.67	0.68	0.70	0.71	0.72	0.73
6.200	0.72	0.73	0.74	0.75	0.76	0.77	0.78
6.900	0.79	0.80	0.83	0.87	0.88	0.90	0.91
7.600	0.92	0.93	0.93	0.94	0.95	1.01	1.09
8.300	1.12	1.13	1.15	1.16	1.17	1.18	1.19
9.000	1.19	1.25	1.34	1.38	1.39	1.40	1.41
9.700	1.42	1.43	1.44	1.45	1.60	1.83	1.90
10.400	1.93	1.95	1.96	1.97	1.98	2.00	2.01
11.100	2.13	2.33	2.39	2.42	2.43	2.45	2.46
11.800	2.47	2.49	2.50	2.83	3.35	3.50	3.56
12.500	3.58	3.60	3.62	3.64	3.65	3.67	3.78
13.200	3.95	4.01	4.03	4.05	4.07	4.08	4.10
13.900	4.11	4.12	4.25	4.45	4.51	4.54	4.55
14.600	4.56	4.58	4.59	4.60	4.61	4.61	4.61
15.300	4.62	4.63	4.64	4.65	4.65	4.66	4.67
16.000	4.68	4.59	4.44	4.41	4.41	4.41	4.41
16.700	4.42	4.43	4.43	4.44	4.17	3.75	3.64
17.400	3.62	3.61	3.62	3.62	3.62	3.62	3.63
18.100	3.30	2.78	2.65	2.61	2.61	2.61	2.61
18.800	2.61	2.61	2.61	2.42	2.07	1.97	1.94
19.500	1.94	1.94	1.95	1.95	1.95	1.96	1.76
20.200	1.45	1.37	1.35	1.35	1.35	1.35	1.35
20.900	1.35	1.35	1.27	1.13	1.09	1.08	1.08
21.600	1.08	1.08	1.08	1.08	1.09	1.05	0.99

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
22.300	0.97	0.97	0.97	0.97	0.97	0.97	0.97
23.000	0.97	0.96	0.94	0.94	0.94	0.94	0.94
23.700	0.94	0.94	0.94	0.94	0.69	0.29	0.15
24.400	0.15	0.15	0.15	0.15	0.14	0.14	0.14
25.100	0.14	0.14	0.14	0.14	0.14	0.13	0.13
25.800	0.13	0.13	0.13	0.13	0.13	0.13	0.13
26.500	0.12	0.12	0.12	0.12	0.12	0.12	0.12
27.200	0.12	0.12	0.11	0.11	0.11	0.11	0.11
27.900	0.11	0.11	0.11	0.11	0.11	0.11	0.10
28.600	0.10	0.10	0.10	0.10	0.0		

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Time (hr)	Rate (cfs)	Rate (csm)
R_Pond2	0.013	Downstream	5.263	754.99	24.07	0.81	63.82

East side peak

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
6.200	0.0	0.10	0.11	0.11	0.12	0.12	0.12
6.900	0.13	0.13	0.14	0.14	0.15	0.15	0.16
7.600	0.16	0.17	0.17	0.18	0.18	0.19	0.19
8.300	0.20	0.21	0.21	0.22	0.23	0.23	0.24
9.000	0.25	0.25	0.26	0.27	0.27	0.28	0.29
9.700	0.30	0.30	0.31	0.31	0.32	0.32	0.33
10.400	0.33	0.33	0.34	0.34	0.35	0.35	0.36
11.100	0.36	0.37	0.37	0.38	0.38	0.39	0.39
11.800	0.40	0.41	0.41	0.42	0.43	0.43	0.44
12.500	0.45	0.46	0.46	0.47	0.48	0.48	0.49
13.200	0.49	0.50	0.51	0.51	0.52	0.53	0.54
13.900	0.54	0.55	0.56	0.56	0.57	0.57	0.58
14.600	0.59	0.59	0.60	0.60	0.61	0.62	0.62
15.300	0.63	0.63	0.64	0.65	0.65	0.66	0.66
16.000	0.67	0.67	0.68	0.68	0.69	0.69	0.70
16.700	0.70	0.71	0.71	0.72	0.72	0.73	0.73
17.400	0.73	0.74	0.74	0.74	0.75	0.75	0.76
18.100	0.76	0.76	0.76	0.77	0.77	0.77	0.77
18.800	0.77	0.78	0.78	0.78	0.78	0.78	0.79
19.500	0.79	0.79	0.79	0.79	0.79	0.79	0.79
20.200	0.80	0.80	0.80	0.80	0.80	0.80	0.80
20.900	0.80	0.80	0.80	0.80	0.80	0.80	0.80
21.600	0.80	0.80	0.80	0.80	0.80	0.81	0.81
22.300	0.81	0.81	0.81	0.81	0.81	0.81	0.81
23.000	0.81	0.81	0.81	0.81	0.81	0.81	0.81
23.700	0.81	0.81	0.81	0.81	0.81	0.81	0.81
24.400	0.81	0.81	0.81	0.80	0.80	0.80	0.80
25.100	0.80	0.80	0.80	0.80	0.80	0.80	0.80
25.800	0.80	0.79	0.79	0.79	0.79	0.79	0.79
26.500	0.79	0.79	0.79	0.79	0.79	0.79	0.79

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
27.200	0.78	0.78	0.78	0.78	0.78	0.78	0.78
27.900	0.78	0.78	0.78	0.78	0.78	0.78	0.77
28.600	0.77	0.77	0.77	0.77	0.77	0.77	0.77
29.300	0.77	0.77	0.77	0.76	0.76	0.76	0.76
30.000	0.76	0.76	0.76	0.76	0.76	0.76	0.76
30.700	0.76	0.75	0.75	0.75	0.75	0.75	0.75
31.400	0.75	0.75	0.75	0.75	0.75	0.74	0.74
32.100	0.74	0.74	0.74	0.74	0.74	0.74	0.74
32.800	0.74	0.74	0.73	0.73	0.73	0.73	0.73
33.500	0.73	0.73	0.73	0.73	0.73	0.72	0.72
34.200	0.72	0.72	0.72	0.72	0.72	0.72	0.72
34.900	0.72	0.72	0.71	0.71	0.71	0.71	0.71
35.600	0.71	0.71	0.71	0.71	0.71	0.71	0.70
36.300	0.70	0.70	0.70	0.70	0.70	0.70	0.70
37.000	0.70	0.70	0.70	0.69	0.69	0.69	0.69
37.700	0.69	0.69	0.69	0.69	0.69	0.69	0.69
38.400	0.68	0.68	0.68	0.68	0.68	0.68	0.68
39.100	0.68	0.68	0.68	0.68	0.67	0.67	0.67
39.800	0.67	0.67	0.67	0.67	0.67	0.67	0.67
40.500	0.67	0.66	0.66	0.66	0.66	0.66	0.66
41.200	0.66	0.66	0.66	0.66	0.66	0.66	0.65
41.900	0.65	0.65	0.65	0.65	0.65	0.65	0.65
42.600	0.65	0.65	0.64	0.64	0.64	0.64	0.64
43.300	0.64	0.64	0.64	0.64	0.64	0.63	0.63
44.000	0.63	0.63	0.63	0.63	0.63	0.63	0.63
44.700	0.63	0.63	0.62	0.62	0.62	0.62	0.62
45.400	0.62	0.62	0.62	0.62	0.62	0.62	0.61
46.100	0.61	0.61	0.61	0.61	0.61	0.61	0.61
46.800	0.61	0.61	0.61	0.60	0.60	0.60	0.60
47.500	0.60	0.60	0.60	0.60	0.60	0.60	0.60
48.200	0.59	0.59	0.59	0.59	0.59	0.59	0.59
48.900	0.59	0.59	0.59	0.59	0.58	0.58	0.58
49.600	0.58	0.58	0.58	0.58	0.58	0.58	0.58
50.300	0.58	0.58	0.57	0.57	0.57	0.57	0.57
51.000	0.57	0.57	0.57	0.57	0.57	0.57	0.57
51.700	0.56	0.56	0.56	0.56	0.56	0.56	0.56
52.400	0.56	0.56	0.55	0.55	0.55	0.55	0.55
53.100	0.55	0.55	0.55	0.55	0.55	0.54	0.54
53.800	0.54	0.54	0.54	0.54	0.54	0.54	0.54
54.500	0.53	0.53	0.53	0.53	0.53	0.53	0.53
55.200	0.53	0.53	0.53	0.52	0.52	0.52	0.52
55.900	0.52	0.52	0.52	0.52	0.52	0.52	0.51
56.600	0.51	0.51	0.51	0.51	0.51	0.51	0.51
57.300	0.51	0.51	0.51	0.50	0.50	0.50	0.50
58.000	0.50	0.50	0.50	0.50	0.50	0.50	0.49
58.700	0.49	0.49	0.49	0.49	0.49	0.49	0.49
59.400	0.49	0.49	0.49	0.48	0.48	0.48	0.48
60.100	0.48	0.48	0.48	0.48	0.48	0.48	0.48
60.800	0.47	0.47	0.47	0.47	0.47	0.47	0.47
61.500	0.47	0.47	0.47	0.47	0.46	0.46	0.46
62.200	0.46	0.46	0.46	0.46	0.46	0.46	0.46

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
62.900	0.46	0.45	0.45	0.45	0.45	0.45	0.45
63.600	0.45	0.45	0.45	0.44	0.44	0.44	0.44
64.300	0.44	0.44	0.44	0.44	0.43	0.43	0.43
65.000	0.43	0.43	0.43	0.43	0.43	0.42	0.42
65.700	0.42	0.42	0.42	0.42	0.42	0.42	0.42
66.400	0.41	0.41	0.41	0.41	0.41	0.41	0.41
67.100	0.41	0.41	0.40	0.40	0.40	0.40	0.40
67.800	0.40	0.40	0.40	0.40	0.39	0.39	0.39
68.500	0.39	0.39	0.39	0.39	0.39	0.39	0.38
69.200	0.38	0.38	0.38	0.38	0.38	0.38	0.38
69.900	0.38	0.38	0.37	0.37	0.37	0.37	0.37
70.600	0.37	0.37	0.37	0.37	0.36	0.36	0.36
71.300	0.36	0.36	0.36	0.36	0.36	0.36	0.36
72.000	0.35	0.35	0.35	0.35	0.35	0.35	0.35
72.700	0.35	0.35	0.35	0.35	0.34	0.34	0.34
73.400	0.34	0.34	0.34	0.34	0.34	0.34	0.34
74.100	0.33	0.33	0.33	0.33	0.33	0.33	0.33
74.800	0.33	0.33	0.33	0.33	0.32	0.32	0.32
75.500	0.32	0.32	0.32	0.32	0.32	0.32	0.32
76.200	0.32	0.32	0.31	0.31	0.31	0.31	0.31
76.900	0.31	0.31	0.31	0.31	0.30	0.30	0.30
77.600	0.30	0.29	0.29	0.29	0.29	0.29	0.29
78.300	0.28	0.28	0.28	0.28	0.28	0.27	0.27
79.000	0.27	0.27	0.27	0.26	0.26	0.26	0.26
79.700	0.26	0.26	0.25	0.25	0.25	0.25	0.25
80.400	0.25	0.24	0.24	0.24	0.24	0.24	0.24
81.100	0.23	0.23	0.23	0.23	0.23	0.23	0.22
81.800	0.22	0.22	0.22	0.22	0.22	0.22	0.21
82.500	0.21	0.21	0.21	0.21	0.21	0.21	0.20
83.200	0.20	0.20	0.20	0.20	0.20	0.20	0.19
83.900	0.19	0.19	0.19	0.19	0.19	0.19	0.19
84.600	0.18	0.18	0.18	0.18	0.18	0.18	0.18
85.300	0.18	0.17	0.17	0.17	0.17	0.17	0.17
86.000	0.17	0.17	0.17	0.16	0.16	0.16	0.16
86.700	0.16	0.16	0.16	0.16	0.16	0.15	0.15
87.400	0.15	0.15	0.15	0.15	0.15	0.15	0.15
88.100	0.15	0.14	0.14	0.14	0.14	0.14	0.14
88.800	0.14	0.14	0.14	0.14	0.14	0.13	0.13
89.500	0.13	0.13	0.13	0.13	0.13	0.13	0.13
90.200	0.13	0.13	0.12	0.12	0.12	0.12	0.12
90.900	0.12	0.12	0.12	0.12	0.12	0.12	0.12
91.600	0.11	0.11	0.11	0.11	0.11	0.11	0.11
92.300	0.11	0.11	0.11	0.11	0.11	0.11	0.11
93.000	0.10	0.10	0.10	0.10	0.10	0.10	0.10
93.700	0.0						

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
OUTLET	0.013		5.263		24.07	0.81	63.82

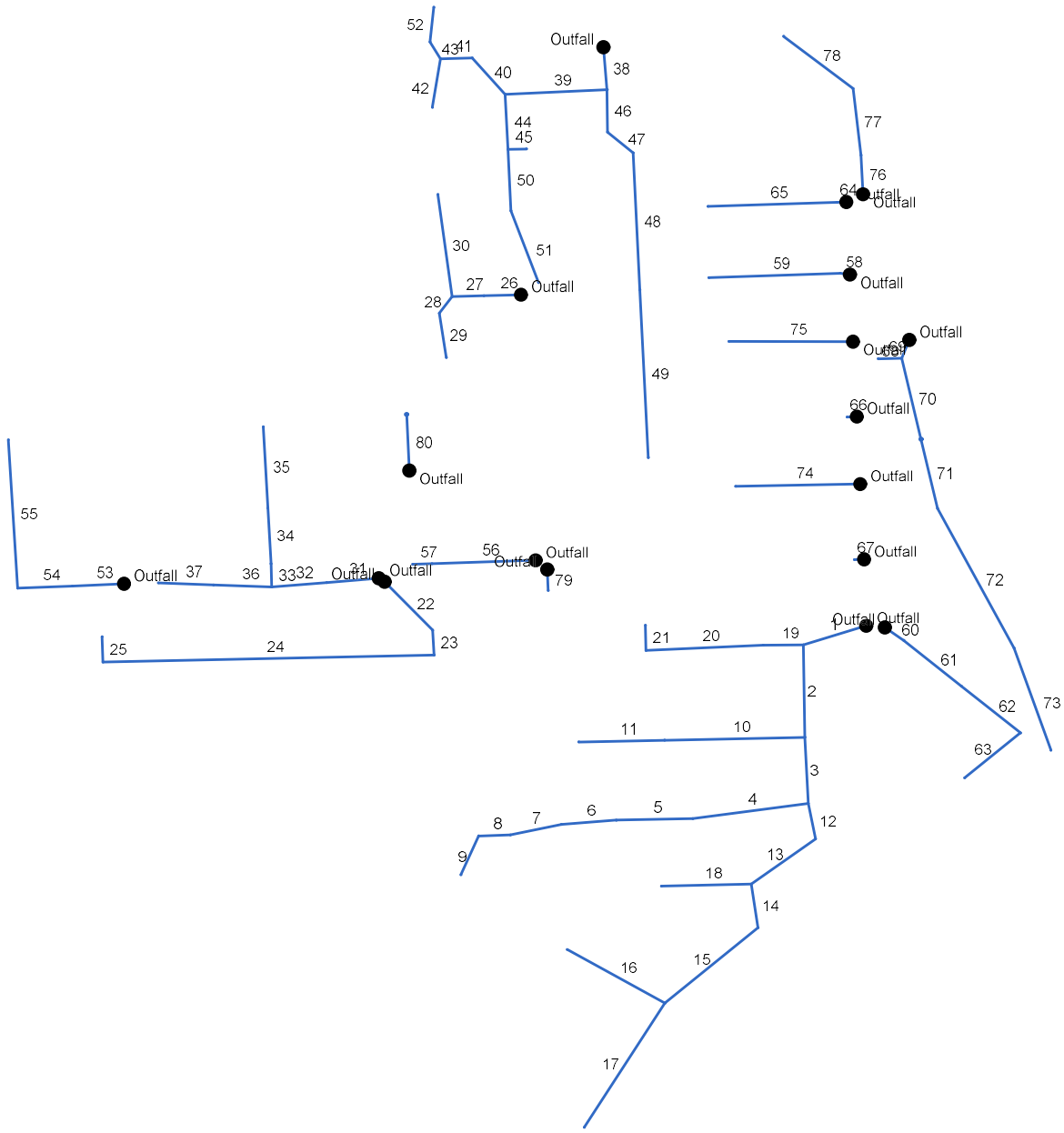
Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)						
6.200	0.0	0.10	0.11	0.11	0.12	0.12	0.12
6.900	0.13	0.13	0.14	0.14	0.15	0.15	0.16
7.600	0.16	0.17	0.17	0.18	0.18	0.19	0.19
8.300	0.20	0.21	0.21	0.22	0.23	0.23	0.24
9.000	0.25	0.25	0.26	0.27	0.27	0.28	0.29
9.700	0.30	0.30	0.31	0.31	0.32	0.32	0.33
10.400	0.33	0.33	0.34	0.34	0.35	0.35	0.36
11.100	0.36	0.37	0.37	0.38	0.38	0.39	0.39
11.800	0.40	0.41	0.41	0.42	0.43	0.43	0.44
12.500	0.45	0.46	0.46	0.47	0.48	0.48	0.49
13.200	0.49	0.50	0.51	0.51	0.52	0.53	0.54
13.900	0.54	0.55	0.56	0.56	0.57	0.57	0.58
14.600	0.59	0.59	0.60	0.60	0.61	0.62	0.62
15.300	0.63	0.63	0.64	0.65	0.65	0.66	0.66
16.000	0.67	0.67	0.68	0.68	0.69	0.69	0.70
16.700	0.70	0.71	0.71	0.72	0.72	0.73	0.73
17.400	0.73	0.74	0.74	0.74	0.75	0.75	0.76
18.100	0.76	0.76	0.76	0.77	0.77	0.77	0.77
18.800	0.77	0.78	0.78	0.78	0.78	0.78	0.79
19.500	0.79	0.79	0.79	0.79	0.79	0.79	0.79
20.200	0.80	0.80	0.80	0.80	0.80	0.80	0.80
20.900	0.80	0.80	0.80	0.80	0.80	0.80	0.80
21.600	0.80	0.80	0.80	0.80	0.80	0.81	0.81
22.300	0.81	0.81	0.81	0.81	0.81	0.81	0.81
23.000	0.81	0.81	0.81	0.81	0.81	0.81	0.81
23.700	0.81	0.81	0.81	0.81	0.81	0.81	0.81
24.400	0.81	0.81	0.81	0.80	0.80	0.80	0.80
25.100	0.80	0.80	0.80	0.80	0.80	0.80	0.80
25.800	0.80	0.79	0.79	0.79	0.79	0.79	0.79
26.500	0.79	0.79	0.79	0.79	0.79	0.79	0.79
27.200	0.78	0.78	0.78	0.78	0.78	0.78	0.78
27.900	0.78	0.78	0.78	0.78	0.78	0.78	0.77
28.600	0.77	0.77	0.77	0.77	0.77	0.77	0.77
29.300	0.77	0.77	0.77	0.76	0.76	0.76	0.76
30.000	0.76	0.76	0.76	0.76	0.76	0.76	0.76
30.700	0.76	0.75	0.75	0.75	0.75	0.75	0.75
31.400	0.75	0.75	0.75	0.75	0.75	0.74	0.74
32.100	0.74	0.74	0.74	0.74	0.74	0.74	0.74
32.800	0.74	0.74	0.73	0.73	0.73	0.73	0.73
33.500	0.73	0.73	0.73	0.73	0.73	0.72	0.72
34.200	0.72	0.72	0.72	0.72	0.72	0.72	0.72
34.900	0.72	0.72	0.71	0.71	0.71	0.71	0.71
35.600	0.71	0.71	0.71	0.71	0.71	0.71	0.70
36.300	0.70	0.70	0.70	0.70	0.70	0.70	0.70
37.000	0.70	0.70	0.70	0.69	0.69	0.69	0.69

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
37.700	0.69	0.69	0.69	0.69	0.69	0.69	0.69
38.400	0.68	0.68	0.68	0.68	0.68	0.68	0.68
39.100	0.68	0.68	0.68	0.68	0.67	0.67	0.67
39.800	0.67	0.67	0.67	0.67	0.67	0.67	0.67
40.500	0.67	0.66	0.66	0.66	0.66	0.66	0.66
41.200	0.66	0.66	0.66	0.66	0.66	0.66	0.65
41.900	0.65	0.65	0.65	0.65	0.65	0.65	0.65
42.600	0.65	0.65	0.64	0.64	0.64	0.64	0.64
43.300	0.64	0.64	0.64	0.64	0.64	0.63	0.63
44.000	0.63	0.63	0.63	0.63	0.63	0.63	0.63
44.700	0.63	0.63	0.62	0.62	0.62	0.62	0.62
45.400	0.62	0.62	0.62	0.62	0.62	0.62	0.61
46.100	0.61	0.61	0.61	0.61	0.61	0.61	0.61
46.800	0.61	0.61	0.61	0.60	0.60	0.60	0.60
47.500	0.60	0.60	0.60	0.60	0.60	0.60	0.60
48.200	0.59	0.59	0.59	0.59	0.59	0.59	0.59
48.900	0.59	0.59	0.59	0.59	0.58	0.58	0.58
49.600	0.58	0.58	0.58	0.58	0.58	0.58	0.58
50.300	0.58	0.58	0.57	0.57	0.57	0.57	0.57
51.000	0.57	0.57	0.57	0.57	0.57	0.57	0.57
51.700	0.56	0.56	0.56	0.56	0.56	0.56	0.56
52.400	0.56	0.56	0.55	0.55	0.55	0.55	0.55
53.100	0.55	0.55	0.55	0.55	0.55	0.54	0.54
53.800	0.54	0.54	0.54	0.54	0.54	0.54	0.54
54.500	0.53	0.53	0.53	0.53	0.53	0.53	0.53
55.200	0.53	0.53	0.53	0.52	0.52	0.52	0.52
55.900	0.52	0.52	0.52	0.52	0.52	0.52	0.51
56.600	0.51	0.51	0.51	0.51	0.51	0.51	0.51
57.300	0.51	0.51	0.51	0.50	0.50	0.50	0.50
58.000	0.50	0.50	0.50	0.50	0.50	0.50	0.49
58.700	0.49	0.49	0.49	0.49	0.49	0.49	0.49
59.400	0.49	0.49	0.49	0.48	0.48	0.48	0.48
60.100	0.48	0.48	0.48	0.48	0.48	0.48	0.48
60.800	0.47	0.47	0.47	0.47	0.47	0.47	0.47
61.500	0.47	0.47	0.47	0.47	0.46	0.46	0.46
62.200	0.46	0.46	0.46	0.46	0.46	0.46	0.46
62.900	0.46	0.45	0.45	0.45	0.45	0.45	0.45
63.600	0.45	0.45	0.45	0.44	0.44	0.44	0.44
64.300	0.44	0.44	0.44	0.44	0.43	0.43	0.43
65.000	0.43	0.43	0.43	0.43	0.43	0.42	0.42
65.700	0.42	0.42	0.42	0.42	0.42	0.42	0.42
66.400	0.41	0.41	0.41	0.41	0.41	0.41	0.41
67.100	0.41	0.41	0.40	0.40	0.40	0.40	0.40
67.800	0.40	0.40	0.40	0.40	0.39	0.39	0.39
68.500	0.39	0.39	0.39	0.39	0.39	0.39	0.38
69.200	0.38	0.38	0.38	0.38	0.38	0.38	0.38
69.900	0.38	0.38	0.37	0.37	0.37	0.37	0.37
70.600	0.37	0.37	0.37	0.37	0.36	0.36	0.36
71.300	0.36	0.36	0.36	0.36	0.36	0.36	0.36
72.000	0.35	0.35	0.35	0.35	0.35	0.35	0.35
72.700	0.35	0.35	0.35	0.35	0.34	0.34	0.34

Line Start Time (hr)	Flow Values @ time increment of 0.100 hr (cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
73.400	0.34	0.34	0.34	0.34	0.34	0.34	0.34
74.100	0.33	0.33	0.33	0.33	0.33	0.33	0.33
74.800	0.33	0.33	0.33	0.33	0.32	0.32	0.32
75.500	0.32	0.32	0.32	0.32	0.32	0.32	0.32
76.200	0.32	0.32	0.31	0.31	0.31	0.31	0.31
76.900	0.31	0.31	0.31	0.31	0.30	0.30	0.30
77.600	0.30	0.29	0.29	0.29	0.29	0.29	0.29
78.300	0.28	0.28	0.28	0.28	0.28	0.27	0.27
79.000	0.27	0.27	0.27	0.26	0.26	0.26	0.26
79.700	0.26	0.26	0.25	0.25	0.25	0.25	0.25
80.400	0.25	0.24	0.24	0.24	0.24	0.24	0.24
81.100	0.23	0.23	0.23	0.23	0.23	0.23	0.22
81.800	0.22	0.22	0.22	0.22	0.22	0.22	0.21
82.500	0.21	0.21	0.21	0.21	0.21	0.21	0.20
83.200	0.20	0.20	0.20	0.20	0.20	0.20	0.19
83.900	0.19	0.19	0.19	0.19	0.19	0.19	0.19
84.600	0.18	0.18	0.18	0.18	0.18	0.18	0.18
85.300	0.18	0.17	0.17	0.17	0.17	0.17	0.17
86.000	0.17	0.17	0.17	0.16	0.16	0.16	0.16
86.700	0.16	0.16	0.16	0.16	0.16	0.15	0.15
87.400	0.15	0.15	0.15	0.15	0.15	0.15	0.15
88.100	0.15	0.14	0.14	0.14	0.14	0.14	0.14
88.800	0.14	0.14	0.14	0.14	0.14	0.13	0.13
89.500	0.13	0.13	0.13	0.13	0.13	0.13	0.13
90.200	0.13	0.13	0.12	0.12	0.12	0.12	0.12
90.900	0.12	0.12	0.12	0.12	0.12	0.12	0.12
91.600	0.11	0.11	0.11	0.11	0.11	0.11	0.11
92.300	0.11	0.11	0.11	0.11	0.11	0.11	0.11
93.000	0.10	0.10	0.10	0.10	0.10	0.10	0.10
93.700	0.0						

Area or Reach Identifier	Drainage Area (sq mi)	Peak Flow by Storm 2y,24h (cfs)	10y,24h (cfs)	100y,24h (cfs)	(cfs)	(cfs)
001	0.002	0.33	0.59	1.08		
002	0.010	1.44	2.56	4.68		
R_Pond1	0.002	0.33	0.59	1.08		
DOWNSTREAM		0.0	0.0	0.15		
R_Pond2	0.013	1.44	2.56	4.68		
DOWNSTREAM		0.39	0.57	0.81		
OUTLET	0.013	0.39	0.57	0.81		

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Naperville Multifamily 2025 0904_2.stm	Number of lines: 80	Date: 9/26/2025

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	52.816	0.29	3.74	0.70	0.20	2.62	15.0	19.0	5.0	13.10	15.56	5.56	24	0.47	749.00	749.25	750.41	750.65	758.21	758.21	ST 2-15 -- UDS 6
2	1	90.682	0.14	3.09	0.70	0.10	2.16	10.0	18.8	5.0	10.89	12.08	6.51	18	1.32	749.55	750.75	751.11	752.01	758.21	758.00	ST 2-20 -- ST 2-1
3	2	64.752	0.11	2.72	0.70	0.08	1.90	10.0	18.6	5.1	9.63	10.92	6.61	18	1.08	750.90	751.60	752.01	752.80	758.00	758.00	ST 2-21 -- ST 2-2
4	3	91.762	0.09	1.62	0.70	0.06	1.13	15.0	15.8	5.5	6.18	6.91	5.64	15	1.14	751.70	752.75	752.80	753.75	758.00	759.91	ST 2-28 -- ST 2-2
5	4	59.966	0.08	1.53	0.70	0.06	1.07	15.0	15.5	5.5	5.88	6.46	5.63	15	1.00	752.75	753.35	753.75	754.33	759.91	759.92	ST 2-29 -- ST 2-2
6	5	43.114	0.08	1.45	0.70	0.06	1.02	15.0	15.4	5.5	5.59	6.45	5.48	15	1.00	753.35	753.78	754.33	754.74	759.92	760.45	ST 2-30 -- ST 2-2
7	6	41.385	0.31	1.37	0.70	0.22	0.96	10.0	15.2	5.5	5.31	6.88	5.33	15	1.14	753.78	754.25	754.74	755.18	760.45	761.13	ST 2-31 -- ST 2-3
8	7	24.833	0.14	1.06	0.70	0.10	0.74	10.0	15.1	5.5	4.12	5.05	6.46	12	2.01	754.50	755.00	755.19	755.86	761.13	761.13	ST 2-32 -- ST 2-3
9	8	40.508	0.92	0.92	0.70	0.64	0.64	15.0	15.0	5.6	3.59	3.96	5.49	12	1.23	756.00	756.50	756.75	757.31	761.13	760.50	ST 2-33 -- ST 2-3
10	2	110.160	0.11	0.23	0.70	0.08	0.16	10.0	11.6	6.2	0.99	2.52	3.02	12	0.50	753.00	753.55	753.44	753.99	758.00	760.10	ST 2-26 -- ST 2-2
11	10	67.198	0.12	0.12	0.70	0.08	0.08	10.0	10.0	6.5	0.55	1.94	2.12	12	0.30	754.80	755.00	755.16	755.36	760.10	760.00	ST 2-27 -- ST 2-2
12	3	35.243	0.00	0.99	0.70	0.00	0.69	15.0	18.4	5.1	3.52	3.61	3.35	15	0.31	752.20	752.31	753.20	753.31	758.00	758.71	ST 2-22 -- ST 2-2
13	12	67.208	0.07	0.99	0.70	0.05	0.69	10.0	18.0	5.1	3.56	3.78	3.07	15	0.34	752.31	752.54	753.46	753.63	758.71	759.50	ST 2-22 -- ST 2-2
14	13	43.108	0.11	0.73	0.70	0.08	0.51	15.0	17.8	5.2	2.64	3.56	3.36	12	1.00	752.57	753.00	753.76	753.99	759.50	758.11	ST 2-23 -- ST 2-2
15	14	103.712	0.30	0.62	0.70	0.21	0.43	15.0	17.2	5.2	2.27	2.42	2.93	12	0.46	753.10	753.58	754.13	754.52	758.11	757.75	ST 2-24 -- ST 2-2
16	15	92.760	0.14	0.14	0.70	0.10	0.10	15.0	15.0	5.6	0.55	2.51	0.88	12	0.50	753.60	754.06	754.65	754.68	757.75	759.50	ST 2-25 -- ST 2-2
17	15	137.394	0.18	0.18	0.70	0.13	0.13	10.0	10.0	6.5	0.82	1.77	1.14	12	0.25	753.60	753.94	754.65	754.72	757.75	757.19	ST 3-1 -- FES 3-1
18	13	70.414	0.19	0.19	0.70	0.13	0.13	10.0	10.0	6.5	0.86	2.51	1.32	12	0.50	752.77	753.12	753.76	753.79	759.50	759.50	ST 2-34 -- ST 2-2
19	1	31.471	0.09	0.36	0.70	0.06	0.25	10.0	12.2	6.1	1.53	4.95	0.92	18	0.22	749.75	749.82	751.11	751.11	758.21	758.00	ST 2-16 -- ST 2-1
20	19	92.040	0.21	0.27	0.70	0.15	0.19	10.0	11.2	6.2	1.18	2.57	2.43	12	0.52	750.32	750.80	751.12	751.29	758.00	758.06	ST 2-17 -- ST 2-1
21	20	24.837	0.06	0.06	0.70	0.04	0.04	10.0	10.0	6.5	0.27	2.58	0.60	12	0.52	750.80	750.93	751.44	751.44	758.06	758.06	ST 2-18 -- ST 2-1
22	End	60.546	0.10	0.93	0.70	0.07	0.65	10.0	12.1	6.1	3.96	3.96	5.68	12	1.24	752.00	752.75	752.82	753.59	761.41	761.87	ST 1-23 -- UDS 2

Project File: Naperville Multifamily 2025 0904_2.stm | Number of lines: 80 | Run Date: 9/26/2025

NOTES:Intensity = 147.00 / (Inlet time + 18.00) ^ 0.94; Return period =Yrs. 10 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
23	22	24.456	0.28	0.83	0.70	0.20	0.58	10.0	12.0	6.1	3.54	3.60	5.12	12	1.02	752.75	753.00	753.59	753.81	761.87	761.72	ST 1-24 -- ST 1-2
24	23	259.700	0.43	0.55	0.70	0.30	0.39	10.0	10.6	6.4	2.45	2.47	3.12	12	0.48	753.00	754.25	754.23	755.46	761.72	762.15	ST 1-25 -- ST 1-2
25	24	24.833	0.12	0.12	0.70	0.08	0.08	10.0	10.0	6.5	0.55	2.58	0.70	12	0.52	754.25	754.38	755.61	755.62	762.15	762.15	ST 1-26 -- ST 1-2
26	End	29.160	0.36	1.02	0.70	0.25	0.71	10.0	19.1	5.0	3.57	4.76	2.96	18	0.21	749.00	749.06	749.97	750.03	761.41	757.82	ST 1-19 -- ST 1-1
27	26	24.837	0.26	0.66	0.70	0.18	0.46	10.0	18.8	5.0	2.32	4.71	1.92	18	0.20	749.06	749.11	750.05	750.06	757.82	757.82	ST 1-18 -- EX ST
28	27	19.117	0.07	0.20	0.70	0.05	0.14	15.0	16.1	5.4	0.76	2.30	2.63	12	0.42	753.02	753.10	753.41	753.49	757.82	757.00	EX ST -- ST 1-18
29	28	43.880	0.13	0.13	0.70	0.09	0.09	15.0	15.0	5.6	0.51	2.52	1.92	12	0.50	753.10	753.32	753.57	753.63	757.00	757.63	Pipe - (194)
30	27	100.831	0.20	0.20	0.70	0.14	0.14	15.0	15.0	5.6	0.78	8.43	2.85	18	0.64	752.25	752.90	752.56	753.23	757.82	761.00	EX ST -- EX ST
31	End	41.027	0.18	0.78	0.70	0.13	0.55	15.0	18.8	5.0	2.75	0.00	1.55	18	0.00	752.00	752.00	753.50	753.53	761.41	760.75	ST 1-8 -- UDS 2 (
32	31	43.434	0.00	0.60	0.70	0.00	0.42	15.0	18.2	5.1	2.14	0.00	1.21	18	0.00	752.00	752.00	753.53	753.55	760.75	762.55	ST 1-8 -- UDS 2
33	32	22.936	0.12	0.36	0.70	0.08	0.25	15.0	18.0	5.1	1.29	3.49	1.71	12	0.96	752.50	752.72	753.57	753.60	762.55	760.24	ST 1-27 -- ST 1-8
34	33	54.662	0.12	0.24	0.70	0.08	0.17	15.0	17.2	5.2	0.88	2.04	1.32	12	0.33	752.72	752.90	753.60	753.63	760.24	759.60	ST 1-28 -- ST 1-2
35	34	79.732	0.12	0.12	0.70	0.08	0.08	15.0	15.0	5.6	0.47	2.52	1.23	12	0.50	752.90	753.30	753.64	753.68	759.60	757.60	ST 1-29 -- ST 1-2
36	32	45.695	0.05	0.24	0.70	0.04	0.17	15.0	16.7	5.3	0.89	0.00	0.51	18	0.00	752.00	752.00	753.57	753.58	762.55	761.10	UDS 1 -- ST 1-8 (
37	36	43.281	0.19	0.19	0.70	0.13	0.13	15.0	15.0	5.6	0.74	0.00	0.42	18	0.00	752.00	752.00	753.58	753.58	761.10	761.00	UDS 1 -- ST 1-8
38	End	41.793	0.00	1.29	0.70	0.00	0.90	15.0	30.9	3.9	3.49	11.06	3.12	24	0.24	749.00	749.10	749.77	749.87	751.33	755.70	ST 1-1 -- FES 1-1
39	38	80.015	0.00	0.64	0.70	0.00	0.45	15.0	29.1	4.0	1.79	11.02	1.45	24	0.24	749.10	749.29	750.02	750.05	755.70	757.86	ST 1-12 -- ST 1-1
40	39	44.220	0.05	0.37	0.70	0.04	0.26	10.0	18.2	5.1	1.32	3.79	3.94	12	1.13	750.50	751.00	750.91	751.49	757.86	757.66	ST 1-13 -- ST 1-1
41	40	24.833	0.05	0.32	0.70	0.04	0.22	10.0	17.9	5.1	1.15	3.64	3.73	12	1.05	751.52	751.78	751.91	752.23	757.66	757.66	ST 1-14 -- ST 1-1
42	41	47.822	0.17	0.17	0.70	0.12	0.12	15.0	15.0	5.6	0.66	2.57	2.75	12	0.52	752.20	752.45	752.55	752.80	757.66	757.00	EX ST -- ST 1-14
43	41	18.493	0.05	0.10	0.70	0.04	0.07	15.0	17.3	5.2	0.37	2.62	2.35	12	0.54	752.20	752.30	752.45	752.55	757.66	757.00	Pipe - (193)
44	39	54.061	0.05	0.27	0.70	0.04	0.19	15.0	26.3	4.2	0.80	11.09	0.77	24	0.24	749.29	749.42	750.09	750.09	757.86	758.34	ST 1-15 -- ST 1-1

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Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
45	44	14.597	0.06	0.06	0.70	0.04	0.04	15.0	15.0	5.6	0.23	1.62	1.46	12	0.21	751.97	752.00	752.23	752.26	758.34	756.73	ST 1-16 -- ST 1-1
46	38	41.608	0.10	0.65	0.70	0.07	0.46	10.0	19.8	4.9	2.23	5.87	3.09	18	0.31	750.25	750.38	750.89	751.02	755.70	756.03	ST 1-2 -- ST 1-1
47	46	28.508	0.09	0.55	0.70	0.06	0.39	15.0	19.5	4.9	1.90	3.20	2.72	15	0.25	750.63	750.70	751.32	751.40	756.03	757.16	ST 1-3 -- ST 1-2
48	47	134.264	0.27	0.46	0.70	0.19	0.32	15.0	17.9	5.1	1.66	3.30	2.35	15	0.26	750.70	751.05	751.48	751.69	757.16	756.36	ST 1-4 -- ST 1-3
49	48	164.852	0.19	0.19	0.70	0.13	0.13	15.0	15.0	5.6	0.74	2.32	2.61	12	0.42	751.30	752.00	751.70	752.38	756.36	758.25	ST 1-20 -- ST 1-4
50	44	60.020	0.00	0.16	0.70	0.00	0.11	15.0	21.2	4.7	0.53	11.31	0.67	24	0.25	749.42	749.57	750.10	750.10	758.34	758.65	ST 1-17 -- ST 1-1
51	50	73.888	0.16	0.16	0.70	0.11	0.11	15.0	15.0	5.6	0.62	11.16	1.18	24	0.24	749.57	749.75	750.11	750.14	758.65	760.00	UDS 3 -- ST 1-17
52	43	34.338	0.05	0.05	0.70	0.04	0.04	15.0	15.0	5.6	0.20	2.58	1.46	12	0.52	752.30	752.48	752.60	752.66	757.00	758.12	Pipe - (195)
53	End	40.485	0.10	0.34	0.70	0.07	0.24	15.0	20.5	4.8	1.15	2.50	3.12	12	0.49	752.00	752.20	752.48	752.68	760.00	761.10	ST 1-10 -- UDS 1
54	53	42.893	0.14	0.24	0.70	0.10	0.17	15.0	19.9	4.9	0.82	2.55	2.55	12	0.51	752.20	752.42	752.70	752.80	761.10	761.20	ST 1-10 -- UDS 1
55	54	145.449	0.10	0.10	0.70	0.07	0.07	15.0	15.0	5.6	0.39	2.51	1.69	12	0.50	752.42	753.14	752.94	753.40	761.20	759.80	ST 1-11 -- ST 1-1
56	End	81.362	0.00	0.20	0.70	0.00	0.14	15.0	15.0	5.6	0.78	16.06	2.62	24	0.50	750.59	751.00	750.89	751.30	760.00	761.22	ST 1-7 -- UDS 3
57	56	15.270	0.20	0.20	0.70	0.14	0.14	10.0	10.0	6.5	0.91	16.37	2.75	24	0.52	751.92	752.00	752.24	752.33	761.22	760.00	UDS 2 -- ST 1-7
58	End	7.676	0.13	0.37	0.70	0.09	0.26	10.0	11.2	6.2	1.62	2.57	3.46	12	0.52	749.75	749.79	750.33	750.36	760.00	756.30	ST 2-7 -- UDS 6
59	58	103.239	0.24	0.24	0.70	0.17	0.17	10.0	10.0	6.5	1.09	2.48	3.06	12	0.48	750.74	751.24	751.20	751.70	756.30	756.36	ST 2-8 -- ST 2-7
60	End	19.635	0.00	0.50	0.70	0.00	0.35	15.0	16.6	5.3	1.87	3.11	4.04	12	0.76	749.75	749.90	750.31	750.48	760.00	758.21	ST 2-35 -- UDS 6
61	60	63.515	0.11	0.50	0.70	0.08	0.35	15.0	16.1	5.4	1.89	2.72	3.74	12	0.58	750.10	750.47	750.71	751.08	758.21	755.50	ST 2-36 -- ST 2-3
62	61	65.282	0.01	0.39	0.70	0.01	0.27	15.0	15.5	5.5	1.50	1.71	2.45	12	0.23	750.47	750.62	751.20	751.35	755.50	754.75	ST 2-37 -- ST 2-3
63	62	62.112	0.38	0.38	0.70	0.27	0.27	15.0	15.0	5.6	1.48	2.60	2.60	12	0.53	750.62	750.95	751.44	751.54	754.75	755.50	ST 2-38 -- ST 2-3
64	End	7.236	0.17	0.28	0.70	0.12	0.20	10.0	12.7	6.0	1.17	2.65	3.27	12	0.55	749.75	749.79	750.22	750.26	760.00	755.75	ST 2-5 -- UDS 6
65	64	101.411	0.11	0.11	0.70	0.08	0.08	10.0	10.0	6.5	0.50	2.53	2.50	12	0.50	750.26	750.77	750.56	751.07	755.75	755.75	ST 2-6 -- ST 2-5
66	End	7.685	0.13	0.13	0.70	0.09	0.09	10.0	10.0	6.5	0.59	0.00	0.19	24	0.00	749.75	749.75	751.75	751.75	760.00	757.10	ST 2-10 -- UDS 6

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Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
67	End	7.683	0.13	0.13	0.70	0.09	0.09	10.0	10.0	6.5	0.59	0.00	0.19	24	0.00	749.75	749.75	751.75	751.75	760.00	757.92	ST 2-13 -- UDS 6
68	End	19.053	0.00	0.84	0.70	0.00	0.51	15.0	39.8	3.3	1.68	17.95	3.39	24	0.63	748.38	748.50	748.79	748.95	755.45	758.98	ST 2-2 -- ST 2-1
69	68	18.500	0.01	0.01	0.70	0.01	0.01	15.0	15.0	5.6	0.04	16.63	1.10	24	0.54	749.65	749.75	749.72	749.82	758.98	760.00	UDS 6 -- ST 2-2
70	68	80.640	0.11	0.83	0.00	0.00	0.50	0.0	16.2	5.4	2.72	1.25	3.46	12	0.12	748.50	748.60	749.50	749.97	758.98	753.62	Pipe - (192)
71	70	68.900	0.12	0.72	0.70	0.08	0.50	15.0	15.8	5.4	2.74	1.36	3.49	12	0.15	748.60	748.70	750.02	750.43	753.62	754.30	Pipe - (192)(2)
72	71	149.773	0.29	0.60	0.70	0.20	0.42	15.0	15.0	5.6	2.34	1.20	2.98	12	0.11	748.70	748.87	750.48	751.13	754.30	754.30	Pipe - (191)
73	72	104.095	0.31	0.31	0.70	0.22	0.22	10.0	10.0	6.5	1.41	1.16	1.80	12	0.11	748.87	748.98	751.15	751.31	754.30	753.35	Pipe - (190)
74	End	97.869	0.22	0.22	0.70	0.15	0.15	10.0	10.0	6.5	1.00	2.25	2.78	12	0.40	749.75	750.14	750.22	750.61	760.00	757.90	ST 2-12 -- UDS 6
75	End	97.379	0.22	0.22	0.70	0.15	0.15	10.0	10.0	6.5	1.00	2.55	3.05	12	0.51	749.75	750.25	750.19	750.68	760.00	757.09	ST 2-9 -- UDS 6
76	End	38.305	0.03	0.10	0.70	0.02	0.07	15.0	128.0	1.4	0.10	0.00	0.03	24	0.00	749.00	749.00	751.00	751.00	756.00	755.50	ST 2-3 -- UDS 6
77	76	65.661	0.06	0.07	0.70	0.04	0.05	15.0	115.2	1.5	0.07	0.00	0.02	24	0.00	749.00	749.00	751.00	751.00	755.50	755.50	ST 2-4 -- ST 2-3
78	77	74.617	0.01	0.01	0.70	0.01	0.01	15.0	15.0	5.6	0.04	0.00	0.01	24	0.00	749.00	749.00	751.00	751.00	755.50	751.33	FES 2-1 -- ST 2-4
79	End	20.624	0.12	0.12	0.70	0.08	0.08	15.0	15.0	5.6	0.47	3.51	2.83	12	0.97	749.00	749.20	749.25	749.48	756.00	757.35	ST 1-21 -- UDS 3
80	End	55.000	0.02	0.02	0.70	0.01	0.01	15.0	15.0	5.6	0.08	2.54	1.46	12	0.51	751.50	751.78	751.62	751.90	760.00	757.60	Pipe - (196)

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TAB 3

DuPage County Stormwater Permit Submittal
Table of Contents

Plank Road Multifamily
Naperville, DuPage County, Illinois

TAB 3: Floodplain Submittal (Article X)

- There is not any mapped floodplain on the proposed site.

TAB 4 & 5

WETLAND/WATERS ASSESSMENT REPORT
LINCOLN PROPERTY COMPANY
NAPERVILLE, DUPAGE COUNTY, ILLINOIS
CBBEL Project No. 240402
JUNE 17, 2024
REVISED AUGUST 23, 2024

WETLAND DELINEATION

As requested, on June 14, 2024, and August 23, 2024, Christopher B. Burke Engineering, Ltd. (CBBEL) completed a wetland/waters assessment of the study area using the U.S. Army Corps of Engineers (USACE) Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (August 2010). One wetland/waters of the U.S. and one man-made roadside drainage ditch were identified onsite. Only the wetland/waters was flagged at the time of our field delineation. The wetland/waters was field located with a sub-meter accuracy GPS unit. An aerial photograph depicting the identified area is included as Exhibit 9. Representative photographs are included on Exhibit RP. Information collected on-site is listed in the data forms.

Please note that CBBEL previously delineated this site in 2018. The same two locations were identified during that field visit. The man-made roadside drainage ditch was found to be exempt from Corps and County regulation at that time, and therefore was not flagged during this field visit. A copy of the original Corps of Engineers Jurisdictional Determination is attached.

The USACE jurisdictional determination found that Tributary/Waters 1 was jurisdictional determination on February 9, 2018, that states the identified wetland/waters of the U.S. has been determined to be federally jurisdictional, however the drainage swale is exempt from federal regulation.

CBBEL met with DuPage County Stormwater wetland staff to verify the wetland boundaries on-site on March 6, 2018.

CBBEL met with DuPage County Stormwater wetland staff on August 23, 2024 and confirmed the boundaries.

METHODOLOGY

The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (August 2010), identifies the mandatory technical criteria for wetland identification. The three essential characteristics of a jurisdictional wetland are hydrophytic vegetation, hydric soils and wetland hydrology as described below:

Hydrophytic Vegetation: The hydrophytic vegetation criterion is based on a separation of plants into five basic groups:

(1) Obligate wetland plants (OBL) almost always occur (estimated probability >99%) in wetlands under natural conditions;

(2) Facultative wetland plants (FACW) usually occur in wetlands (estimated probability 67-99%), but occasionally are found in non-wetlands;

(3) Facultative plants (FAC) are equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%);

(4) Facultative upland plants (FACU) usually occur in non-wetlands (estimated probability 67-99%), but occasionally are found in wetlands; and

(5) Obligate upland plants (UPL) almost always occur (estimated probability >99%) in non-wetlands under natural conditions.

Four procedures completed in the following order are used to determine if hydrophytic vegetation is present:

1) Rapid Test: The Rapid Test for hydrophytic vegetation is met if all dominant species across all strata are OBL or FACW, or a combination of the two based on a visual assessment.

2) Dominance Test: Using the 50/20 Rule, if greater than 50% of the plants present are FAC, FACW, or OBL, the subject area meets the hydrophytic vegetation criterion.

3) Prevalence Index: Each plant species in a sampling plot is assigned a numeric value (OBL=1; FACW=2; FAC=3; FACU=4; UPL=5). Based on the sampling data, the absolute cover is calculated for each species in each stratum and using the specified formula, if the Prevalence Index is 3 or less, hydrophytic vegetation is present.

4) Morphological Adaptations: Various species may develop physical characteristics after growing in wetland areas such as multi-stemmed trunks, shallow roots and buttressed stems. Hydrophytic vegetation is present if an adaptation is observed in more than 50% of FACU species growing in an area that contains hydric soil and wetland hydrology.

Hydric Soils: Hydric soils are defined in the manual as "soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part." Field indicators of hydric soil are found in the NTCHS Field Indicators of Hydric Soils in the United States (USDA Natural Resources Conservation Service 2006b or current version).

Wetland Hydrology: The wetland hydrology criterion is often the most difficult to determine. Typically, the presence of water for a portion of the growing season creates anaerobic conditions. Anaerobic conditions lead to the prevalence of wetland plants.

Morphological adaptations of plants, drift lines and watermarks are examples of wetland hydrology field indicators.

RESULTS AND DISCUSSION

STUDY AREA

Historically, the study area was agricultural land, then large-lot single family residential. Currently, homes on site appear to be vacant. All non-wooded areas on site are periodically mown. The study area currently contains wooded area, open field, a man-made roadside drainage ditch associated with a now abandoned section Burlington Avenue and a wetland/waters of the U.S. (Exhibit 9).

Based on a recent Supreme Court ruling, in our opinion, the wetland/waters is likely to no longer be Corps Jurisdictional. The roadside ditch, in our opinion, continues to be exempt from regulation.

The following is a brief description of the identified wetland/waters of the U.S. with a list of the dominant plant species observed and their corresponding wetland indicator categories. A coefficient of conservatism (*C*-value) is also included for each plant species. *C*-values were established by Swink and Wilhelm (1999) to quantify a wetland's native attribute for comparative purposes.

Each plant species is rated on a scale of 0 to 10, 0-representing non-native or noxious species commonly found in a variety of habitats, and 10 representing plants found only under specific ecological conditions. The *C*-values of plants found in wetland areas can give some insight as to the overall quality or value of the wetland. Wetlands containing an abundance of plants with a low *C*-value suggest that these wetlands have been disturbed in the past. Wetlands containing an abundance of plants with a high *C*-value suggest that specific ecological conditions necessary for their survival are intact thus disturbance is probably minimal and the wetland maintains at least some of its original integrity.

Waters of the U.S. are defined as the ordinary high-water mark in non-tidal waters, provided the jurisdiction is not extended by the presence of wetlands. The term "ordinary high-water mark" (OHWM) refers to the line established by the fluctuations of water. These fluctuations can be indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, or the presence of litter and debris.

Wetland/Waters of the U.S. – Constructed Drainage Swale

The identified wetland/waters of the U.S. characterized at data point 1A, consists of a drainage swale found in the northeast corner of the property, associate with a larger drainage ditch that extends offsite to the south, associated with Naperville Boulevard and east (Exhibit 9). A large storm sewer surface drain and culvert that drains towards Naperville Blvd. are located within the drainage swale, as shown on the attached photographs. A small area around the storm sewer structures qualifies as wetland.

Dominant vegetation within the wetland/waters of the U.S. consisted of Lonicera tartarica (Honeysuckle), Ulmus americana (elm), Acer negundo (box elder), Rhamnus cathartica (common buckthorn.

The following plant list was collected within the wetland/waters of the U.S. area:

CONSERVATISM-BASED METRICS			ADDITIONAL METRICS
MEAN C (NATIVE SPECIES)	1.25	SPECIES RICHNESS (ALL)	6
MEAN C (ALL SPECIES)	0.83	SPECIES RICHNESS (NATIVE)	4
MEAN C (NATIVE TREES)	1.33	% NON-NATIVE	0.33
MEAN C (NATIVE SHRUBS)	0.00	WET INDICATOR (ALL)	-0.33
MEAN C (NATIVE HERBACEOUS)	n/a	WET INDICATOR (NATIVE)	-0.75
FQAI (NATIVE SPECIES)	2.50	% HYDROPHYTE (MIDWEST)	0.83
FQAI (ALL SPECIES)	2.04	% NATIVE PERENNIAL	0.67
ADJUSTED FQAI	10.21	% NATIVE ANNUAL	0.00
% C VALUE 0	0.50	% ANNUAL	0.00
% C VALUE 1-3	0.50	% PERENNIAL	1.00
% C VALUE 4-6	0.00		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	NC-NE WET INDICATOR	WET INDICATOR (NUMERIC)
ACENEG	Acer negundo	Acer negundo var. violaceum	Ash-Leaf Maple	0	FAC	FAC	0
ACESAI	Acer saccharinum	Acer saccharinum	Silver Maple	1	FACW	FACW	-1
LONTAT	Lonicera tatarica	LONICERA TATARICA	Twinsisters	0	FACU	FACU	1
RHACAT	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	FAC	0
ULMAME	Ulmus americana	Ulmus americana	American Elm	3	FACW	FACW	-1
VITRIP	Vitis riparia	Vitis riparia var. syrticola	River-Bank Grape	1	FACW	FAC	-1

Roadside Ditch – Exempt

The roadside ditch is located on the north side of the now abandoned section of Burlington Avenue. The roadside ditch was characterized at data point 2A (Exhibit 9). The ditch is manmade created for the purposes of stormwater drainage. Dominant vegetation within the swale consisted of sandbar willow saplings (*Salix interior*), silver maple saplings (*Acer saccharinum*), common blue violet (*Viola sororia*) and White Oldfield American-aster (*Symphyotrichum pilosum*). Soils were mapped as Markham silt loam, a non-hydric soil.

The following plant list was collected within the drainage swale:

CONSERVATISM-BASED METRICS		ADDITIONAL METRICS	
MEAN C (NATIVE SPECIES)	**1.50**	SPECIES RICHNESS (ALL)	6
MEAN C (ALL SPECIES)	1.00	SPECIES RICHNESS (NATIVE)	4
MEAN C (NATIVE TREES)	1.00	% NON-NATIVE	0.33
MEAN C (NATIVE SHRUBS)	2.00	WET INDICATOR (ALL)	-0.33
MEAN C (NATIVE HERBACEOUS)	1.50	WET INDICATOR (NATIVE)	-0.25
FQAI (NATIVE SPECIES)	**3.00**	% HYDROPHYTE (MIDWEST)	0.83
FQAI (ALL SPECIES)	2.45	% NATIVE PERENNIAL	0.67
ADJUSTED FQAI	12.25	% NATIVE ANNUAL	0.00
% C VALUE 0	0.50	% ANNUAL	0.00
% C VALUE 1-3	0.50	% PERENNIAL	1.00
% C VALUE 4-6	0.00		
% C VALUE 7-10	0.00		

SPECIES NAME (NWPL/MOHLENBROCK)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
Acer saccharinum	Silver Maple	1	FACW	-1	Tree	Perennial	Native
Phalaris arundinacea	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive
Rhamnus cathartica	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
Salix interior	Sandbar Willow	2	FACW	-1	Shrub	Perennial	Native
Symphyotrichum pilosum	White Oldfield American-Aster	0	FACU	1	Forb	Perennial	Native
Viola sororia	Hooded Blue Violet	3	FAC	0	Forb	Perennial	Native

The roadside ditch was determined by the USACE, in 2018, to be exempt from regulation. In our opinion, the roadside ditch should be exempt from regulation by DuPage County since it is a manmade feature excavated in non-hydric soil and is not connected to any other waterbody or drainageway.

WETLAND CLASSIFICATION

The on-site wetland must be classified as either “regulatory” or “critical”, as required in the Ordinance, Section 15-85.E. To make this determination, four criteria, specified by DuPage County, were evaluated for the on-site wetland/waters of the U.S. Critical wetland status is assigned to a wetland that has been determined to satisfy one or more of the following criteria.

- Is the site known to possess, or have a recorded presence of a State listed threatened or endangered species?

  An Endangered and Threatened Species Information Request (EcoCAT) with the Illinois Department of Natural Resources (IDNR) was submitted on

June 17, 2024, and was terminated. The Illinois Natural Heritage Database indicates that there is no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location (Appendix A).

- Is the site known to possess, or have a recorded presence of a Federal listed threatened or endangered species?

  CBBEL initiated consultation using the U.S. Fish and Wildlife Service (USFWS) on-line IPaC procedures for Section 7 of the Endangered Species Act of 1973 (Appendix A), June 17, 2024. The project "may effect" on Indiana Bat. The developer will only remove trees during the winter months when bats are not typically present.

- Is the native mean *C*-value as defined by Swink and Wilhelm (1994) greater than or equal to 3.5, or is the native mean floristic quality index of 20 or higher during a single season assessment?

  No. The Swink and Wilhelm Method was applied to the identified wetland/waters of the U.S. As described in the preceding narrative, the native mean *C*-value for the wetland/waters of the U.S. was 1.25 and the native FQI was 2.50.

- Is the Mean Rated Wildlife Quality (MRWQ) 5.0 or higher as defined by the Modified Michigan Department of Natural Resources (MDNR) Method?

  No. The identified wetland/waters of the U.S. received an MRWQ value of 2.5. Three habitat parameters were evaluated as described in the MDNR Method. These three assessment parameters include utilization by wildlife, interspersion of vegetative cover, and vegetative cover to open water. Appendix B contains the evaluation score sheets.

- Is the wetland mapped as critical on the DuPage County Wetland Inventory (DCWI)?

  No. <u>No wetlands are mapped within the study area on the DCWI</u>.

Based on the above information, we believe the on-site wetland/waters of the U.S. is regulatory.

<u>REFERENCE MATERIALS</u>

The following reference materials were reviewed and used to assist in the wetland field reconnaissance. They are included as Exhibits 1-6.

<u>LOCATION MAP</u>

The study area is located north of Plank Road and east and west of Tuthill Drive in Naperville, DuPage County, Illinois (Exhibit 1). Geographically, the study area is in the northeast quarter of Section 8, Township 38 North, and Range 10 East of the Third Principal Meridian (41.792204 ˚N, -88.120008˚W).

NATIONAL WETLAND INVENTORY

The National Wetland Inventory (NWI), Wheaton Quadrangle (1983), indicates no wetlands are mapped within the study area (Exhibit 2). The NWI serves only as a large-scale guide and actual wetland locations and types often vary from that mapped.

DUPAGE COUNTY WETLAND INVENTORY

The DuPage County Wetland Inventory (DCWI), Lisle Township (2001) indicates no wetlands are mapped within the study area (Exhibit 3). The DCWI serves only as a large-scale guide and actual wetland locations and types often vary from those that are mapped.

SOIL SURVEY

The Soil Survey of DuPage County, Illinois (2001) was reviewed to determine the location of hydric soils within the study area (Exhibit 4). The following soil types are mapped within the study area:

232A	-	Ashkum silty clay loam	-	Hydric
298A	-	Beecher silt loam		
531B	-	Markham silt loam		

UNITED STATES GEOLOGICAL SURVEY

The United States Geological Survey (USGS), Wheaton Quadrangle (1993) was reviewed to determine historic local drainage patterns (Exhibit 5). The USGS indicates that surface runoff from the study area drains off-site, generally southeast.

FLOOD INSURANCE RATE MAP

The Flood Insurance Rate Map (FIRM) for DuPage County and Incorporated Areas, Illinois, Map Number 17043C0801 H effective December 16, 2004, was reviewed to determine the location of regulatory floodplain within the study area (Exhibit 6). The presence of floodplain can be indicative of wetland hydrology. The FIRM indicates that there is no mapped 100-year regulatory floodplain within the study area.

REGULATORY FLOOD MAP

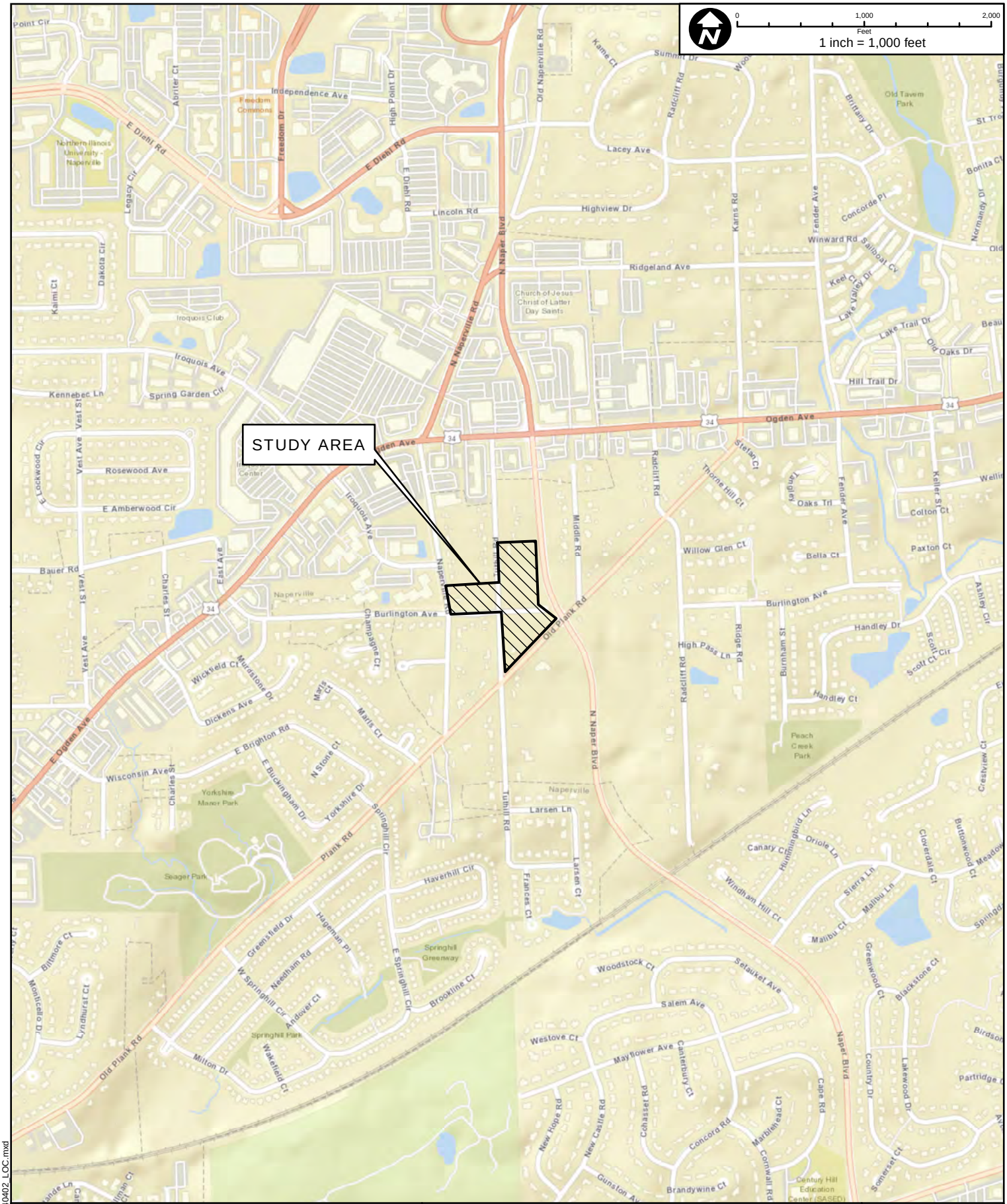
The Regulatory Flood Map (RFM) of DuPage County, Illinois, map number 17043C0161A, effective July 7, 2010, was reviewed to determine the location of special flood hazard areas on-site (Exhibit 7). The presence of special flood hazard areas can

be indicative of wetland hydrology. The RFM indicates there are no mapped special flood hazard areas on-site.

DUPAGE COUNTY FLOOD INSURANCE RATE MAP

The DuPage County Flood Insurance Rate Map (DFIRM), Map Number 17043C0801 H effective December 16, 2004, was reviewed to determine the location of special flood hazard areas within the study area (Exhibit 8). The presence of special flood hazard areas can be indicative of wetland hydrology. The FIRM indicates that there are no mapped special flood hazard areas within the study area.

N:\Naperville\240402\Env\Docs\WetDel.061724.doc



CLIENT: CITY OF NAPERVILLE

TITLE: LOCATION MAP

CBBEL # 24-0402

DATE: 6/12/2024

EXH 1

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 1,000 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	6/12/2024
FILE NAME:	240402_LOC			

N:\Naperville\240402\GIS\Exhibits\240402_LOC.mxd

NOTE: TAKEN FROM THE NATIONAL WETLAND INVENTORY(NWI), WHEATON QUADRANGLE(1983)

0 150 300
Feet
1 inch = 150 feet

NO WETLAND ON-SITE

Esri, HERE, Garmin, (c) OpenStreetMap contributors, Copyright nearmap 2015

CLIENT: CITY OF NAPERVILLE

TITLE: NATIONAL WETLAND INVENTORY

CBBEL # 24-0402

DATE: 6/12/2024

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 150 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	6/12/2024
FILE NAME:	240402_NWI			

EXH 2

N:\Naperville\240402\GIS\Exhibits\240402_NWI.mxd

NOTE: TAKEN FROM THE DUPAGE COUNTY WETLAND INVENTORY(DCWI), LISLE TOWNSHIP(2001)

0 150 300
Feet
1 inch = 150 feet

NO WETLAND ON-SITE

Esri, HERE, Garmin, (c) OpenStreetMap contributors, Copyright nearmap 2015

CLIENT: CITY OF NAPERVILLE

TITLE: DUPAGE COUNTY WETLAND INVENTORY

CBBEL # 24-0402
DATE: 6/12/2024

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 150 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	6/12/2024
FILE NAME:	240402_DCWI			

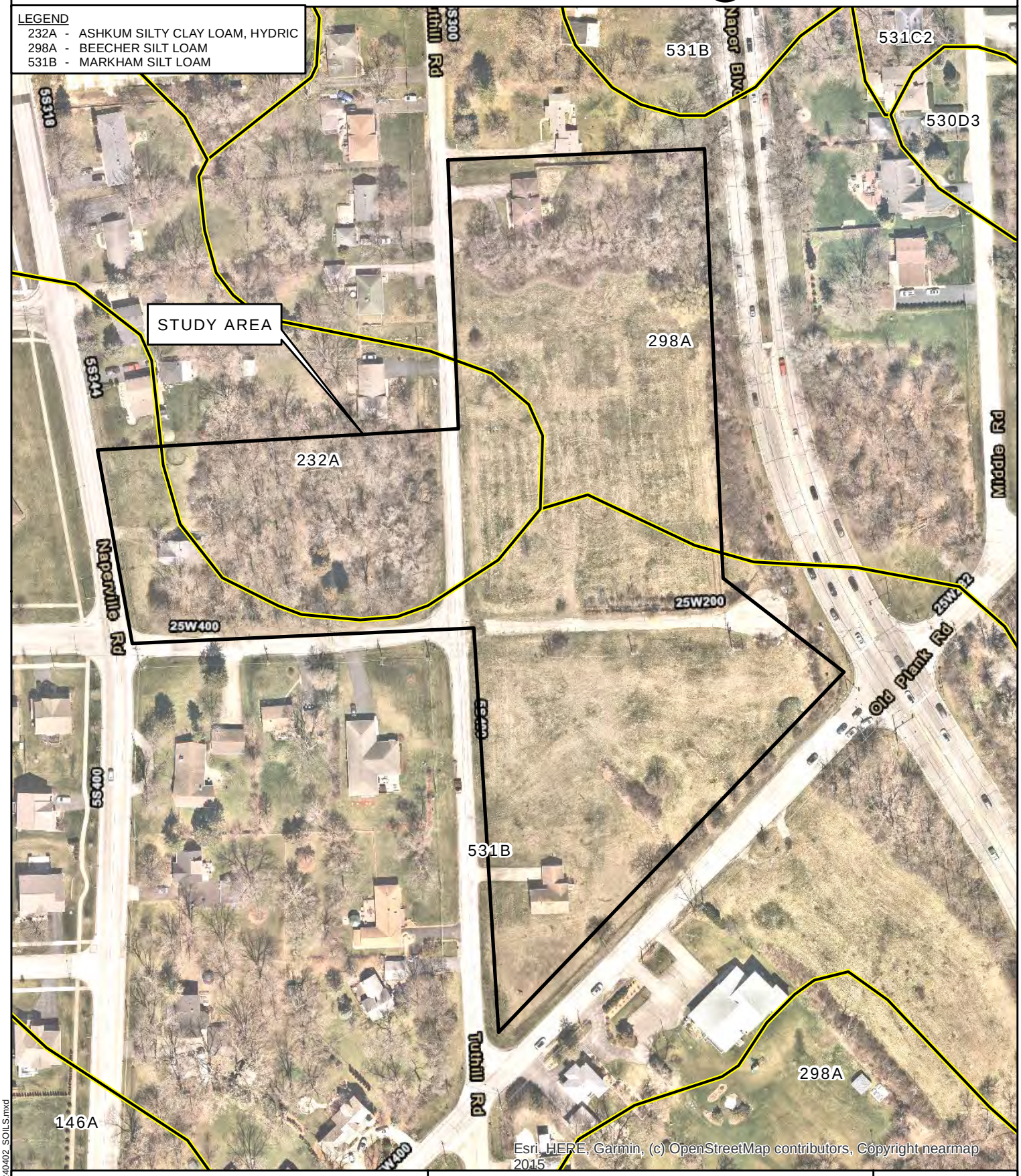
EXH 3

N:\Naperville\240402\GIS\Exhibits\240402_DCWI.mxd

NOTE: TAKEN FROM THE SOIL SURVEY OF DUPAGE COUNTY, ILLINOIS(2001)

0 150 300
Feet
1 inch = 150 feet

LEGEND
232A - ASHKUM SILTY CLAY LOAM, HYDRIC
298A - BEECHER SILT LOAM
531B - MARKHAM SILT LOAM



Esri, HERE, Garmin, (c) OpenStreetMap contributors, Copyright nearmap 2015

CLIENT: CITY OF NAPERVILLE

TITLE: SOIL SURVEY

CBBEL # 24-0402
DATE: 6/12/2024

EXH 4

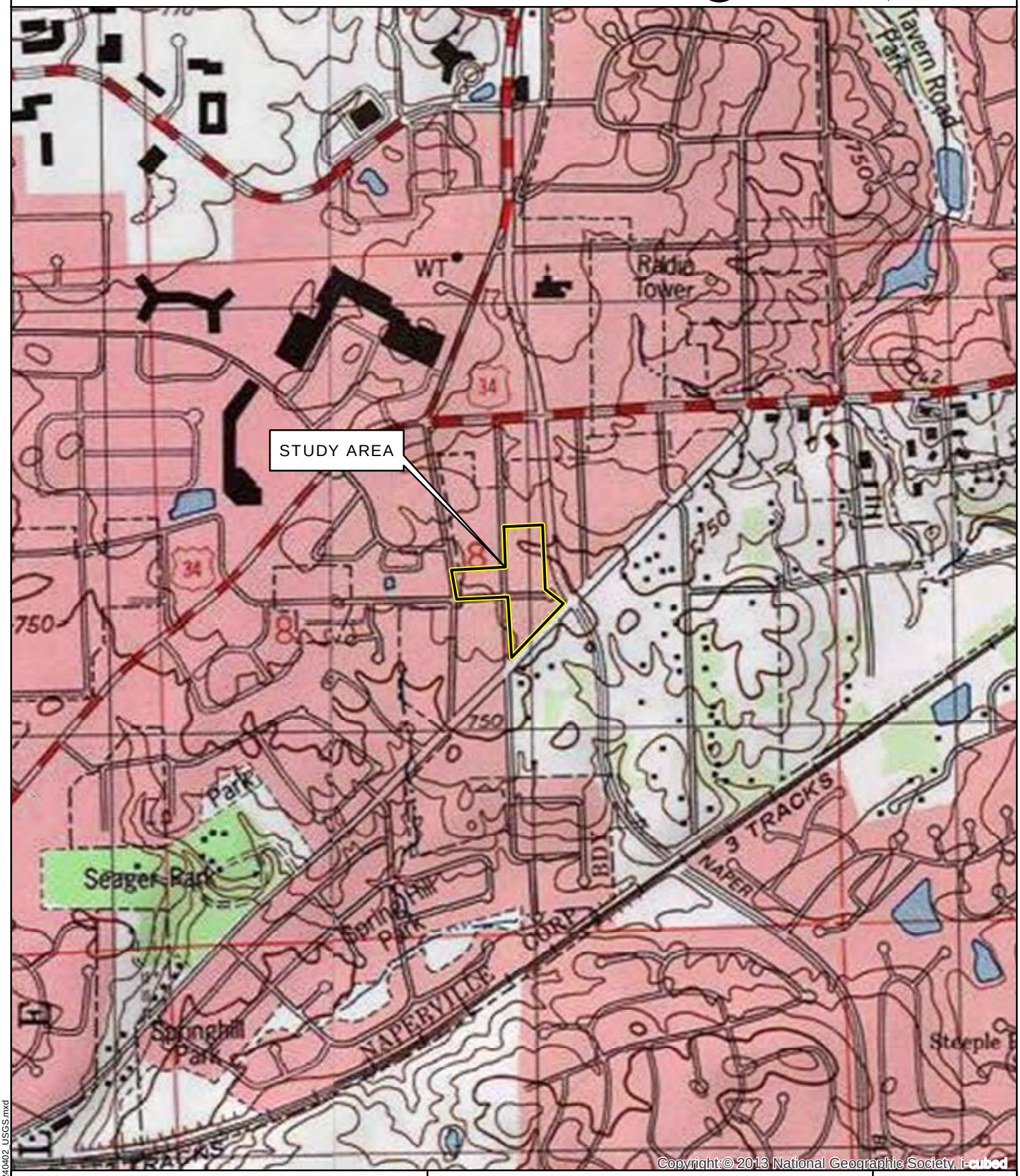
CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 150 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	6/12/2024
FILE NAME:	240402_SOILS			

N:\Naperville\240402\GIS\Exhibits\240402_SOILS.mxd

NOTE: TAKEN FROM THE UNITED STATES GEOLOGICAL SURVEY(USGS), WHEATON QUADRANGLE(1993)

0 990 1,980
Feet
1 inch = 1,000 feet



CLIENT: CITY OF NAPERVILLE

TITLE: UNITED STATES GEOLOGICAL SURVEY

CBBEL # 24-0402

DATE: 6/12/2024

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 1,000 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	6/12/2024
FILE NAME:	240402_USGS			

EXH 5

N:\Naperville\240402\GIS\Exhibits\240402_USGS.mxd

NOTE: TAKEN FROM THE FLOOD INSURANCE RATE MAP(FIRM), DUPAGE COUNTY AND INCORPORATED AREAS, ILLINOIS, MAP NUMBER 17043C0801H, EFFECTIVE DATE: DECEMBER 16, 2004

0 150 300
Feet
1 inch = 150 feet

NO FLOODPLAIN ON-SITE

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CLIENT: CITY OF NAPERVILLE

TITLE: FLOOD INSURANCE RATE MAP

CBBEL # 24-0402

DATE: 6/12/2024

EXH 6

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 150 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	6/12/2024
FILE NAME:	240402_FIRM			

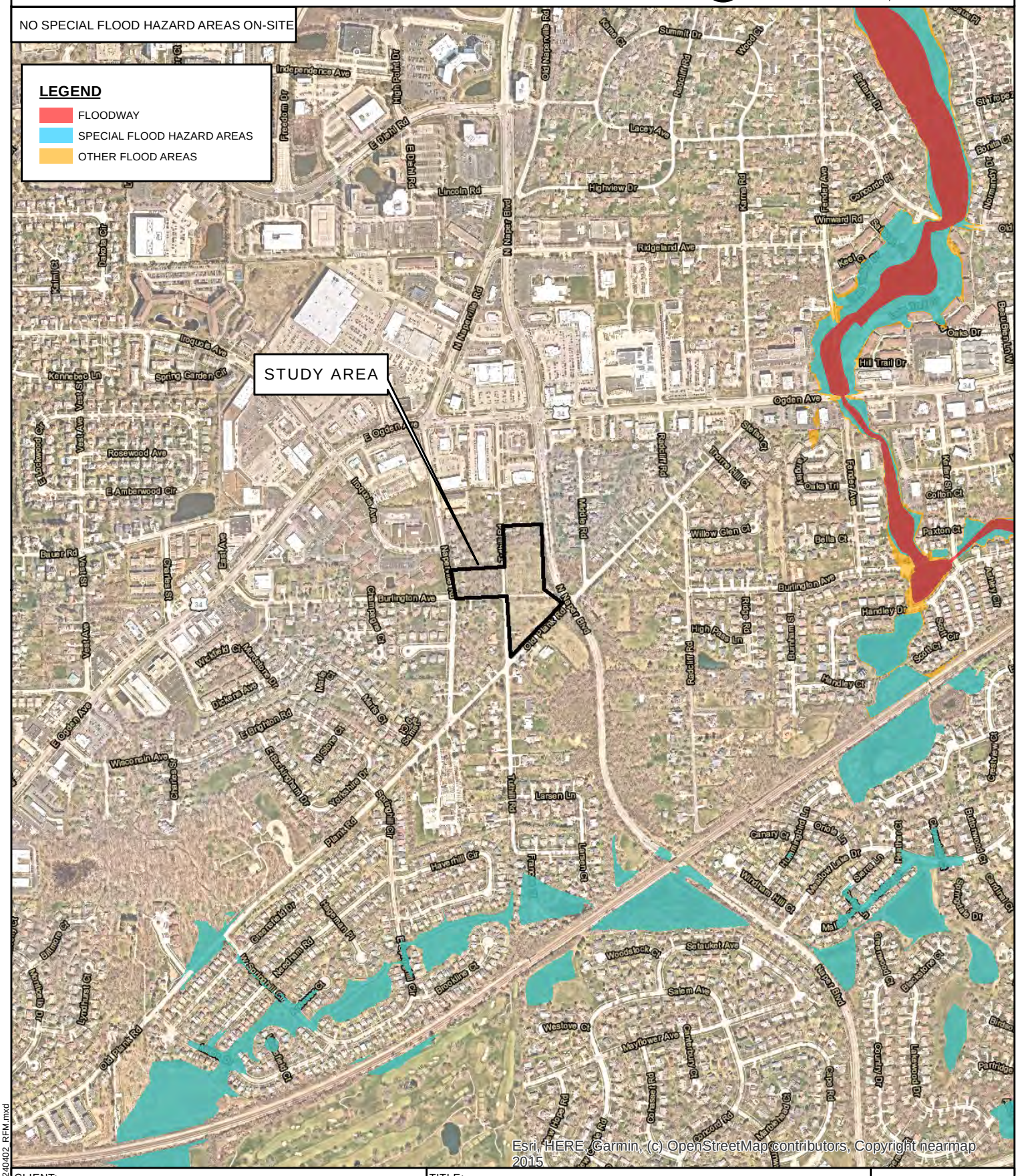
N:\Naperville\240402\GIS\Exhibits\240402_FIRM.mxd

NOTE: TAKEN FROM THE REGULATORY FLOOD MAP (RFM), DUPAGE COUNTY ILLINOIS, MAP NUMBER 17043C0161A, EFFECTIVE DATE: JULY 7, 2010

0 1,000 2,000 Feet

1 inch = 1,000 feet

NO SPECIAL FLOOD HAZARD AREAS ON-SITE



CLIENT: CITY OF NAPERVILLE

TITLE: REGULATORY FLOOD MAP

CBBEL # 24-0402

DATE: 6/13/2024

EXH 7

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 1,000 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	6/13/2024
FILE NAME:	240402_RFM			

N:\Naperville\240402\GIS\Exhibits\240402_RFM.mxd

NOTE: TAKEN FROM THE DUPAGE COUNTY FLOOD INSURANCE RATE MAP (dFIRM), ILLINOIS, MAP NUMBER 17043C0801H, EFFECTIVE DATE: DECEMBER 16, 2004

0 150 300
Feet
1 inch = 150 feet

NO SPECIAL FLOOD HAZARD AREAS ON-SITE

CLIENT: CITY OF NAPERVILLE

TITLE: DUPAGE COUNTY FLOOD INSURANCE RATE MAP

CBBEL # 24-0402
DATE: 6/13/2024

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

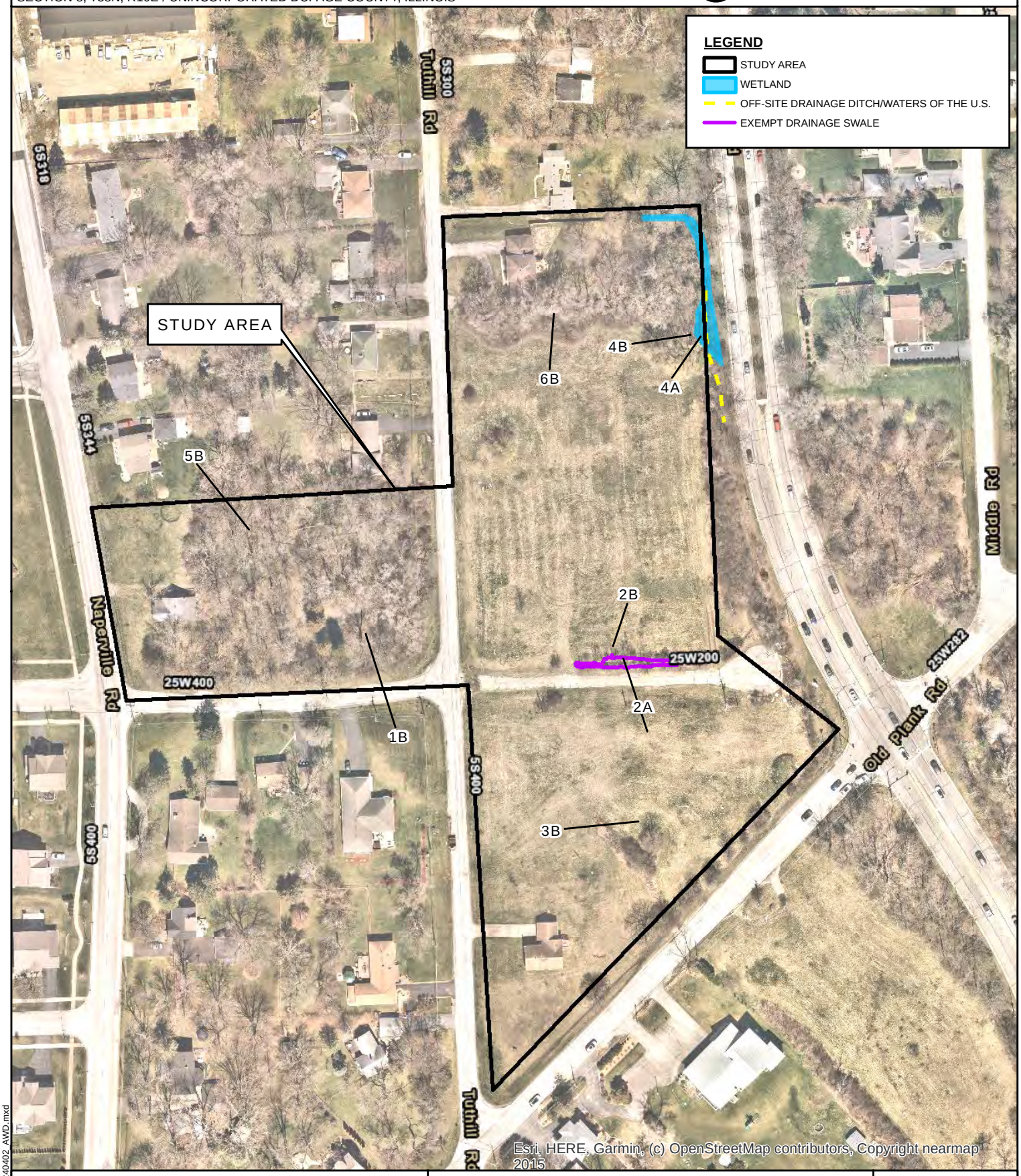
DSGN.			SCALE:	1 "= 150 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	6/13/2024
FILE NAME:	240402_DFIRM			

EXH 8

N:\Naperville\240402\GIS\Exhibits\240402_DFIRM.mxd

NOTE: AERIAL PHOTOGRAPH TAKEN FROM NEARMAP, DATED: MARCH 19, 2024
*JURISDICTIONAL STATUS & BUFFER WIDTHS ARE SUBJECT TO REGULATORY APPROVAL
SECTION 8, T38N, R10E / UNINCORPORATED DUPAGE COUNTY, ILLINOIS

0 150 300
Feet
1 inch = 150 feet



CLIENT: CITY OF NAPERVILLE

TITLE: APPROXIMATE WETLAND DELINEATION

CBBEL # 24-0402
DATE: 8/23/2024

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 150 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	8/23/2024
FILE NAME:	240402_AWD			

EXH 9

N:\Naperville\240402\GIS\Exhibits\240402_AWD.mxd

DSCN9402 – Road side Ditch

DSCN9403

DSCN9404

DSCN9405 – Waters/Wetland next to Naperville Blvd.

DSCN9407 – Pipe to Naperville Blvd.

DSCN9408 – Drainage Swale on property, along Blvd.

DSCN9409 – Wetland fringe all swale along Blvd.

DSCN9410

DSCN9411

DSCN9412

DSCN9413 – Data point 1B

DSCN9414

DSCN9415

DSCN9416

DSCN9418

DSCN9419

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Plank Road | City/County: Naperville, DuPage | Sampling Date: 06/14/2024
Applicant/Owner: Lincoln | State: IL | Sampling Point: 1B
Investigator(s): Jedd Anderson | Section, Township, Range: 8, T. 38N, R. 10E
Landform (hillslope, terrace, etc.): Channel | Local relief (concave, convex, none): Concave
Slope (%): | Lat: 41.792204 | Long: -88.120008 | Datum:
Soil Map Unit Name: Ashkum silty clay loam | NWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? N
Hydric soil present? N
Wetland hydrology present? N

Is the sampled area within a wetlan N
f yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

This data point represents an unvegetated waters of the U.S.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Staus
Tree Stratum (Plot size:)			
1 *Ulmus pumila*	40	Y	UPL
2 *Acer saccharinum*	20	Y	FACW
3 *Ulmus americana*	20	Y	FACW
4			
5			
	80	= Total Cover	
Sapling/Shrub stratum (Plot size: 15)			
1 *Rhamnus cathartica*	40	Y	FAC
2 *Lonicera tatarica*	40	Y	FACU
3 *Rubus occidentalis*	20	Y	UPL
4			
5			
	100	= Total Cover	
Herb stratum (Plot size: 5)			
1 *Viola sororia*	30	Y	FAC
2 *Glechoma hederacea*	30	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	60	= Total Cover	
Woody vine stratum (Plot size: 30)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across all Strata: 8 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	70	x 3 =	210
FACU species	70	x 4 =	280
UPL species	60	x 5 =	300
Column totals	240 (A)		870 (B)

Prevalence Index = B/A = 3.63

Hydrophytic Vegetation Indicators:

- Rapid test for hydrophytic vegetation
- Dominance test is >50%
- Prevalence index is ≤3.0*
- Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: 1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 3/2	100					silt loam	
6-12	10YR 3/2						silt loam	10YR 5/2 mixed in
12-18	10YR 4/3						silty clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No	X	Depth (inches):	___
Water table present?	Yes ___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	___

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Plank Road | City/County: Naperville, DuPage | Sampling Date: 06/14/2024
Applicant/Owner: Lincoln | State: IL | Sampling Point: 2A
Investigator(s): Jedd Anderson | Section, Township, Range: 8, T. 38N, R. 10E
Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none):
Slope (%): | Lat: 41.792204 | Long: -88.120008 | Datum:
Soil Map Unit Name: Markham silt loam | NWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? Y
Hydric soil present?
Wetland hydrology present? Y

Is the sampled area within a wetlan N
f yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

This data point represents an exempt drainage swale

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	
Sapling/Shrub stratum (Plot size: 15)			
1 *Salix exigua subsp. interior*	40	Y	OBL
2 *Acer saccharinum*	20	Y	FACW
3			
4			
5			
	60	= Total Cover	
Herb stratum (Plot size: 5)			
1 *Aster pilosus*	30	Y	FACU
2 *Solidago canadensis*	30	Y	FACU
3 *Viola sororia*	20	Y	FAC
4			
5			
6			
7			
8			
9			
10			
	80	= Total Cover	
Woody vine stratum (Plot size: 30)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across all Strata: 5 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 60.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	40	x 1 =	40
FACW species	20	x 2 =	40
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column totals	140 (A)		380 (B)

Prevalence Index = B/A = 2.71

Hydrophytic Vegetation Indicators:

- Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: 2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	X	No	X	Depth (inches):	
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Plank Road | City/County: Naperville, DuPage | Sampling Date: 06/14/2024
Applicant/Owner: Lincoln | State: IL | Sampling Point: 2B
Investigator(s): Jedd Anderson | Section, Township, Range: 8, T. 38N, R. 10E
Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none):
Slope (%): | Lat: 41.792204 | Long: -88.120008 | Datum:
Soil Map Unit Name: Markham silt loam | NWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? N
Hydric soil present? N
Wetland hydrology present? N

Is the sampled area within a wetlan N
f yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

This data point represents an unvegetated waters of the U.S.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Staus
Tree Stratum (Plot size:)			
1			
2			
3			
4			
5			
	0 = Total Cover		
Sapling/Shrub stratum (Plot size: 15)			
1			
2			
3			
4			
5			
	0 = Total Cover		
Herb stratum (Plot size: 5)			
1 *Poa pratensis*	60	Y	FAC
2 *Glechoma hederacea*	30	Y	FACU
3 *Taraxacum officinale*	30	Y	FACU
4			
5			
6			
7			
8			
9			
10			
	120 = Total Cover		
Woody vine stratum (Plot size: 30)			
1			
2			
	0 = Total Cover		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across all Strata: 3 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 33.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column totals	120 (A)		420 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

- Rapid test for hydrophytic vegetation
- Dominance test is >50%
- Prevalence index is ≤3.0*
- Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: 2B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 3/2	100					silt loam	
6-12	10YR 3/2						silt loam	10YR 5/2 mixed in
12-18	10YR 4/3						silty clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No	X	Depth (inches):	___
Water table present?	Yes ___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	___

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Plank Road | City/County: Naperville, DuPage | Sampling Date: 06/14/2024
Applicant/Owner: Lincoln | State: IL | Sampling Point: 3B
Investigator(s): Jedd Anderson | Section, Township, Range: 8, T. 38N, R. 10E
Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none):
Slope (%): | Lat: 41.792204 | Long: -88.120008 | Datum:
Soil Map Unit Name: Markham silt loam | NWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? N
Hydric soil present? N
Wetland hydrology present? N

Is the sampled area within a wetlan N
f yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Staus
Tree Stratum (Plot size:)			
1			
2			
3			
4			
5			
	0 = Total Cover		
Sapling/Shrub stratum (Plot size: 15)			
1 *Rhamnus cathartica*	20	Y	FAC
2			
3			
4			
5			
	20 = Total Cover		
Herb stratum (Plot size: 5)			
1 *Poa pratensis*	40	Y	FAC
2 *Aster pilosus*	30	Y	FACU
3 *Cirsium arvense*	30	Y	FACU
4 *Solidago canadensis*	30	Y	FACU
5			
6			
7			
8			
9			
10			
	130 = Total Cover		
Woody vine stratum (Plot size: 30)			
1			
2			
	0 = Total Cover		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across all Strata: 5 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 40.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column totals	150 (A)		540 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

- Rapid test for hydrophytic vegetation
- Dominance test is >50%
- Prevalence index is ≤3.0*
- Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: 3B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 3/2	100					silt loam	
6-12	10YR 3/2						silt loam	10YR 5/2 mixed in
12-18	10YR 4/3						silty clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No	X	Depth (inches):	___
Water table present?	Yes ___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	___

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Plank Road | City/County: Naperville, DuPage | Sampling Date: 06/14/2024
Applicant/Owner: Lincoln | State: IL | Sampling Point: 4A
Investigator(s): Jedd Anderson | Section, Township, Range: 8, T. 38N, R. 10E
Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none):
Slope (%): | Lat: 41.792204 | Long: -88.120008 | Datum:
Soil Map Unit Name: Markham silt loam | NWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	Y
Hydric soil present?	Y
Wetland hydrology present?	Y
Is the sampled area within a wetlan	Y
f yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

This data point represents the on-site wetland.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Acer negundo*	40	Y	FACW
2 *Acer saccharinum*	40	Y	FACW
3			
4			
5			
	80	= Total Cover	
Sapling/Shrub stratum (Plot size: 15)			
1 *Rhamnus cathartica*	30	Y	FAC
2 *Lonicera tatarica*	30	Y	FACU
3			
4			
5			
	60	= Total Cover	
Herb stratum (Plot size: 5)			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0	= Total Cover	
Woody vine stratum (Plot size: 30)			
1 *Vitis riparia*	5	Y	FACW
2			
	5	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across all Strata: 5 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 80.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	30	x 3 =	90
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column totals	140 (A)		370 (B)

Prevalence Index = B/A = 2.64

Hydrophytic Vegetation Indicators:

- Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** 4A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-18	10YR 2/1	100					silty clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	X	No	X	Depth (inches):	
Water table present?	Yes		No	X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Plank Road | City/County: Naperville, DuPage | Sampling Date: 06/14/2024
Applicant/Owner: Lincoln | State: IL | Sampling Point: 4B
Investigator(s): Jedd Anderson | Section, Township, Range: 8, T. 38N, R. 10E
Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none):
Slope (%): | Lat: 41.792204 | Long: -88.120008 | Datum:
Soil Map Unit Name: Markham silt loam | NWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? N
Hydric soil present? N
Wetland hydrology present? N

Is the sampled area within a wetlan N
f yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Morus alba*	20	Y	FAC
2			
3			
4			
5			
	20 = Total Cover		
Sapling/Shrub stratum (Plot size: 15)			
1 *Rhamnus cathartica*	40	Y	FAC
2 *Rosa multiflora*	30	Y	FACU
3 *Lonicera tatarica*	30	Y	FACU
4			
5			
	100 = Total Cover		
Herb stratum (Plot size: 5)			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0 = Total Cover		
Woody vine stratum (Plot size: 30)			
1			
2			
	0 = Total Cover		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across all Strata: 4 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column totals	120 (A)		420 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

- Rapid test for hydrophytic vegetation
- Dominance test is >50%
- Prevalence index is ≤3.0*
- Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: 4B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 3/2	100					silt loam	
6-12	10YR 3/2						silt loam	10YR 5/2 mixed in
12-18	10YR 4/3						silty clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No	X	Depth (inches):	___
Water table present?	Yes ___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	___

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Plank Road | City/County: Naperville, DuPage | Sampling Date: 06/14/2024
Applicant/Owner: Lincoln | State: IL | Sampling Point: 5B
Investigator(s): Jedd Anderson | Section, Township, Range: 8, T. 38N, R. 10E
Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none):
Slope (%): | Lat: 41.792204 | Long: -88.120008 | Datum:
Soil Map Unit Name: Ashkum silty clay loam | NWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	N		
Hydric soil present?	Y	**Is the sampled area within a wetlan**	N
Wetland hydrology present?	N	f yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Staus
Tree Stratum (Plot size:)			
1 *Acer saccharinum*	30	Y	FACW
2			
3			
4			
5			
	30 = Total Cover		
Sapling/Shrub stratum (Plot size: 15)			
1 *Rhamnus cathartica*	40	Y	FAC
2 *Lonicera tatarica*	40	Y	FACU
3 *Rosa multiflora*	30	Y	FACU
4			
5			
	110 = Total Cover		
Herb stratum (Plot size: 5)			
1 *Viola sororia*	30	Y	FAC
2 *Glechoma hederacea*	30	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	60 = Total Cover		
Woody vine stratum (Plot size: 30)			
1			
2			
	0 = Total Cover		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across all Strata: 6 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	70	x 3 =	210
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column totals	200 (A)		670 (B)

Prevalence Index = B/A = 3.35

Hydrophytic Vegetation Indicators:

- Rapid test for hydrophytic vegetation
- Dominance test is >50%
- Prevalence index is ≤3.0*
- Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** 5B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-12	10YR 2/1	100					silt loam	
12-18	10YR 3/2						silty clay loam	10YR 5/2 mixed in

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	___	No	X	Depth (inches):	___
Water table present?	Yes	___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes	___	No	X	Depth (inches):	___

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Plank Road | City/County: Naperville, DuPage | Sampling Date: 06/14/2024
Applicant/Owner: Lincoln | State: IL | Sampling Point: 6B
Investigator(s): Jedd Anderson | Section, Township, Range: 8, T. 38N, R. 10E
Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none):
Slope (%): | Lat: 41.792204 | Long: -88.120008 | Datum:
Soil Map Unit Name: Markham silt loam | NWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? N
Hydric soil present? N
Wetland hydrology present? N

Is the sampled area within a wetlan N
f yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	

Sapling/Shrub stratum (Plot size: 15)			
1 *Rhus glabra*	40	Y	UPL
2			
3			
4			
5			
	40	= Total Cover	

Herb stratum (Plot size: 5)			
1 *Phragmites australis*	30	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	30	= Total Cover	

Woody vine stratum (Plot size: 30)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across all Strata: 2 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	40	x 5 =	200
Column totals	70 (A)		260 (B)

Prevalence Index = B/A = 3.71

Hydrophytic Vegetation Indicators:

- Rapid test for hydrophytic vegetation
- Dominance test is >50%
- Prevalence index is ≤3.0*
- Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** 6B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/1	100					silt loam	
4-8	10YR 3/2	100					silt loam	
8-16	10YR 4/3	100					silt loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No	X	Depth (inches):	___
Water table present?	Yes ___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	___

Wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

OBSERVER: Jedd Anderson
DATE: June 17, 2024
LOCATION: Wetland/Waters of the U.S.

WILDLIFE HABITAT/USE EVALUATION SCORE SHEET

To assess the existing and/or potential wildlife habitat use of the subject wetland, the applicant must first complete this score sheet. The attached documentation provides examples of each scoring parameter.

A separate sheet must be completed for each wetland considered.

Applicants must document their basis for scoring decisions with field surveys followed by current photographs, aerial photographs, and other appropriate information.

A. Utilization by Wildlife

Wildlife Use	Score
Significant	3
Evident	2
Low	1
Occasional	0.5
Non-Existent	0

SUB-TOTAL SCORE = 1.0

B. Interspersion of Vegetative Cover

Interspersion	Score
High	3
Medium	2
Low	1

SUB-TOTAL SCORE = 1.0

C. Vegetative Cover to Open Water

Cover	Score
>95% Cover	0.5
76% - 95% Cover, Peripheral	1.5
76% - 95% Cover, Various	2.5
26% - 75% Cover, Peripheral	2.0
26% - 75% Cover, Patches	3.0
5% - 25% Cover, Peripheral	1.0
<5% Cover	0.5

SUB-TOTAL SCORE = 0.5

TOTAL SCORE = 2.5

Total score > 5.00 wetland receives critical status
Total score < 5.00 wetland receives regulatory status

N:\Naperville\240402\Env\Docs\MDNR.061724.doc

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: Christopher B. Burke Engineering Ltd.
Contact: Jedd Anderson
Address: 9575 W. Higgins Road, Suite 600
Rosemont, IL 60018

Project: Lincoln Property Company
Address: Tuthill Road, Naperville

Description: Residential Development

IDNR Project Number: 2416744
Date: 06/17/2024
Alternate Number: 240402, 1810655

Natural Resource Review Results

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: DuPage

Township, Range, Section:
38N, 10E, 8

IL Department of Natural Resources Contact
Bradley Hayes
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
U.S. Army Corps of Engineers

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chicago Ecological Service Field Office
U.s. Fish And Wildlife Service Chicago Ecological Services Office
230 South Dearborn St., Suite 2938
Chicago, IL 60604-1507
Phone: (312) 485-9337

In Reply Refer To: 06/17/2024 15:22:46 UTC
Project code: 2024-0104735
Project Name: Lincoln Property Company

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Technical assistance for 'Lincoln Property Company'

Dear Jedd Anderson:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 17, 2024, for 'Lincoln Property Company' (here forward, Project). This project has been assigned Project Code 2024-0104735 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.**

Determination for the Northern Long-Eared Bat

Based on your IPaC submission and the standing analysis for the Dkey, your project has reached the determination of "May Affect" the northern long-eared bat.

Next Steps

Your action may qualify for the Interim Consultation Framework for the northern long-eared bat. To determine if it qualifies, review the Interim Consultation Framework posted here https://www.fws.gov/library/collections/interim-consultation-framework-northern-long-eared-bat. If you

determine it meets the requirements of the Interim Consultation Framework, follow the procedures outlined there to complete section 7 consultation.

If your project does **not** meet the requirements of the Interim Consultation Framework, please contact the Chicago Ecological Service Field Office for further coordination on this project. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of “May Affect”.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Eastern Prairie Fringed Orchid *Platanthera leucophaea* Threatened
- Hine's Emerald Dragonfly *Somatochlora hineana* Endangered
- Leafy Prairie-clover *Dalea foliosa* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Lincoln Property Company

2. Description

The following description was provided for the project 'Lincoln Property Company':

> Residential Development

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.7921966,-88.11999507345482,14z

DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of "may affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

3. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   No

5. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   No

6. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

7. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

8. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

   If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

   Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

   No

9. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

   Automatically answered

   No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

    No

11. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
    (If unsure, answer "Yes.")

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

12. Will the action cause effects to a bridge?

    No

13. Will the action result in effects to a culvert or tunnel?

    No

14. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

    Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures

    No

15. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

16. Will the action directly or indirectly cause construction of one or more new roads that are open to the public?

    Note: The answer may be yes when a publicly accessible road either (1) is constructed as part of the proposed action or (2) would not occur but for the proposed action (i.e., the road construction is facilitated by the proposed action but is not an explicit component of the project).

    No

17. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic on one or more existing roads?

    Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

19. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)?

    No

20. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

21. Will the action include drilling or blasting?

    No

22. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

    No

23. Will the proposed action involve the use of herbicide or other pesticides (e.g., fungicides, insecticides, or rodenticides)?

    No

24. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

25. Does the action include, or is it reasonably certain to cause, the use of artificial lighting within 1000 feet of suitable northern long-eared bat roosting habitat?

    Note: Additional information defining suitable roosting habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

26. Will the action use only downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting)
    when installing new or replacing existing permanent lights? Or for those transportation agencies using the Backlight, Uplight, Glare (BUG) system developed by the Illuminating Engineering Society, will all three ratings (backlight, uplight, and glare) be as close to zero as is possible, with a priority of "uplight" of 0?

    Yes

27. Will the action direct any temporary lighting away from suitable northern long-eared bat roosting habitat during the active season?

    Note: Active season dates for northern long-eared bat can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas.

    Yes

28. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    Yes

29. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

    Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property and has a diameter breast height of six inches or greater.

    Yes

30. Are any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming suitable for northern long-eared bat roosting (i.e., live trees and/or snags ≥3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities)?

    Yes

31. [Semantic] Does your project intersect a known sensitive area for the northern long-eared bat?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state agency or USFWS field office

    Automatically answered
    Yes

PROJECT QUESTIONNAIRE

Will all project activities by completed by November 30, 2024?

No

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

2

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

2

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

0

Will all potential northern long-eared bat (NLEB) roost trees (trees ≥3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

2

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees) ≥3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

IPAC USER CONTACT INFORMATION

Agency: Christopher B. Burke Engineering, Ltd.
Name: Jedd Anderson
Address: 9575 W. Higgins Rd
Address Line 2: Suite 600
City: Rosemont
State: IL
Zip: 60018
Email jedd@cbbel.com
Phone: 8478230500

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chicago Ecological Service Field Office
U.s. Fish And Wildlife Service Chicago Ecological Services Office
230 South Dearborn St., Suite 2938
Chicago, IL 60604-1507
Phone: (312) 485-9337

In Reply Refer To: 06/17/2024 15:18:49 UTC
Project Code: 2024-0104735
Project Name: Lincoln Property Company

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing

determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and

their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chicago Ecological Service Field Office
U.s. Fish And Wildlife Service Chicago Ecological Services Office
230 South Dearborn St., Suite 2938
Chicago, IL 60604-1507
(312) 485-9337

PROJECT SUMMARY

Project Code: 2024-0104735
Project Name: Lincoln Property Company
Project Type: Residential Construction
Project Description: Residential Development
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.7921966,-88.11999507345482,14z

Counties: DuPage County, Illinois

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Hine's Emerald Dragonfly *Somatochlora hineana* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7877	Endangered
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Follow the guidance provided at https://www.fws.gov/midwest/endangered/section7/s7process/plants/epfos7guide.html Species profile: https://ecos.fws.gov/ecp/species/601	Threatened
Leafy Prairie-clover *Dalea foliosa* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5498	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency:	Christopher B. Burke Engineering, Ltd.
Name:	Jedd Anderson
Address:	9575 W. Higgins Rd
Address Line 2:	Suite 600
City:	Rosemont
State:	IL
Zip:	60018
Email	jedd@cbbel.com
Phone:	8478230500

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
231 SOUTH LA SALLE STREET
CHICAGO, ILLINOIS 60604-1437

REPLY TO
ATTENTION OF:

February 9, 2018

Technical Services Division
Regulatory Branch
LRC-2018-00038

SUBJECT: Jurisdictional Determination for the Plank Road Property Located Northwest of Naper Boulevard and Old Plank Road in Naperville, DuPage County, Illinois (Latitude 41.793296, Longitude -88.119127)

Michael Siurek
Michael Siurek ROC/Plank Road, LLL
1804 North Naper Boulevard
Naperville, Illinois 60563

Dear Mr. Siurek:

This is in response to your request that the U.S. Army Corps of Engineers complete a jurisdictional determination for the above-referenced site submitted on your behalf by Christopher B. Burke Engineering, Ltd. (CBBEL). The subject project has been assigned number LRC-2018-00038. Please reference this number in all future correspondence concerning this project.

Following a review of the information you submitted, this office has determined that the subject property contains "waters of the United States".

The Wetland has been determined to be under the jurisdiction of this office and therefore, subject to Federal regulation.

The Drainage Swale is a water feature Exempt from Federal regulation. Please be informed that this office does not concur with the boundaries of waters not subject to Federal regulation.

Although this determination provides a notification of the presence of waters of the U.S., this determination does not finalize the wetland boundary. In the event an application is submitted for work within jurisdictional areas, wetland delineation will need to be prepared and submitted to this office.

For a detailed description of our determination please refer to the enclosed decision document. This determination covers only your project as depicted in the Jurisdictional Determination Request dated January 8, 2018, prepared by CBBEL.

This determination is valid for a period of five (5) years from the date of the letter, unless new information warrants revision of the determination before the expiration date or a District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

This letter is considered an approved jurisdictional determination for your subject site. If you object to this determination, you may appeal, according to 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and a Request for Appeal (RFA) form. If you request to appeal the above determination, you must submit a completed RFA form to the Great Lakes/Ohio River Division Office at the following address:

Jacob Siegrist
Appeal Review Officer
Great Lakes and Ohio River Division
CELRD-PD-REG
550 Main Street, Room 10032
Cincinnati, Ohio 45202-3222
Phone: (513) 684-2699 Fax: (513) 684-2460

In order to be accepted, your RFA must be complete, meet the criteria for appeal and be received by the Division Office within sixty (60) days of the date of the NAP. If you concur with the determination in this letter, submittal of the RFA form to the Division office is not necessary.

This determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

For projects located in DuPage County, please contact the DuPage County Department of Environmental Concerns at (630) 682-6724.

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into waters of the United States, including wetlands. A Department of the Army permit is required for any proposed work involving the discharge of dredged or fill material within the jurisdiction of this office. To initiate the permit process, please submit a joint permit application form along with detailed plans of the proposed work. Information concerning our program, including the application form and an application checklist, can be found at and downloaded from our website:
http://www.lrc.usace.army.mil/Missions/Regulatory.aspx

If you have any questions, please contact Mr. Michael J. Machalek of my staff by telephone at (312) 846-5534 or email at Mike.J.Machalek@usace.army.mil.

Sincerely,

Kathleen G. Chernich
Chief, East Section
Regulatory Branch

Enclosures

Copy Furnished w/out Enclosures

DuPage County Stormwater Management (Jenna Fahey)
CBBEL (Amber Kowal)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Michael Siurek, Michael Siurek ROC/Plank Road, LLL	File Number: LRC-2018-00038	Date: February 5, 2018

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A. INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit or a Letter of Permission (LOP), you may sign the permit document and return it to the district commander for final authorization. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district commander. Your objections must be received by the district commander within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district commander will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district commander will send you a proffered permit for your reconsideration, as indicated in Section B below.

B. PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit or a Letter of Permission (LOP), you may sign the permit document and return it to the district commander for final authorization. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

C. PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

D. APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

E. PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

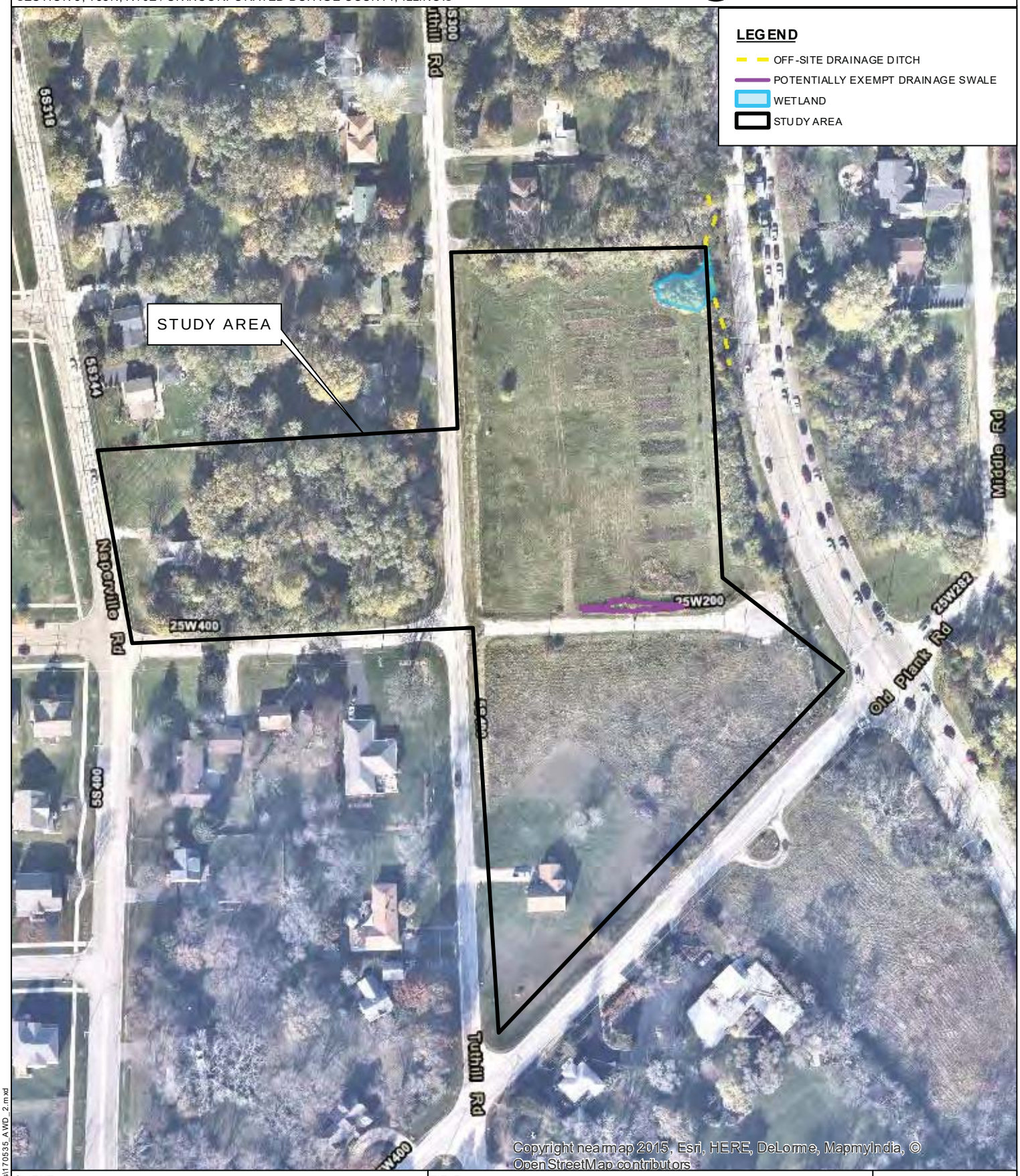
If you have questions regarding this decision and/or the appeal process you may contact: Regulatory Branch Chicago District Corps of Engineers 231 South LaSalle Street, Suite 1500 Chicago, IL 60604-1437 Phone: (312) 846-5530 Fax: (312) 353-4110	If you only have questions regarding the appeal process you may also contact: Jacob Siegrist Appeal Review Officer Great Lakes and Ohio River Division CELRD-PD-REG 550 Main Street, Room 10032 Cincinnati, Ohio 45202-3222 Phone: (513) 684-2699 Fax: (513) 684-2460

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Commanders personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

NOTE: AERIAL PHOTOGRAPH TAKEN FROM NEARMAP (2/4/16)
*JURISDICTIONAL STATUS & BUFFER WIDTHS ARE SUBJECT TO REGULATORY APPROVAL
SECTION 8, T38N, R10E / UNINCORPORATED DUPAGE COUNTY, ILLINOIS

0 150 300
Feet
1 inch = 150 feet



CLIENT: PulteGroup

TITLE:
PLANK ROAD TOWNHOMES
APPROXIMATE WETLAND DELINEATION

CBBEL # 170535.00000
DATE: 12/29/17

EXH 7

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 150 '
DWN.	KEK		USER:	kkopija
CHKD.	JRG		PLOT DATE:	12/29/2017
FILE NAME:	170535_AWD_2			

N:\PulteHomes\170535\GIS\Exhibits\170535_AWD_2.mxd

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 9, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, Plank Road Property, LRC-2018-38

C. PROJECT LOCATION AND BACKGROUND INFORMATION: NW Corner of Naper Blvd. & Old Plank Rd.
State: Illinois County/parish/borough: **DuPage** City: Naperville
Center coordinates of site (lat/long in degree decimal format): Lat. 41.793296°N, Long. -88.119127° W.
Universal Transverse Mercator: Zone 16
Name of nearest waterbody: E. Br. DuPage River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Des Plaines River**
Name of watershed or Hydrologic Unit Code (HUC): **Des Plaines (07120004)**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: February 5, 2018
☒ Field Determination. Date(s): February 1, 2018

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

2. Non-regulated waters/wetlands (check if applicable):[1]
☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **Roadside drainage swale was a constructed feature in upland, and is exempt**.

SECTION III: CWA ANALYSIS

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Other: (explain, if not covered above): .

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: CBBEL Jurisdictional Determination Submittal dated January 8, 2018.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: Wheaton HA 148, 1965, .

[1] Supporting documentation is presented in Section III.F.

☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: Wheaton 7.5", 1993, Pick List, Pick List, Pick List, .
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey.
☒ National wetlands inventory map(s). Cite name: Wheaton, .
☒ State/Local wetland inventory map(s): DuPage County ADID, Pick List, .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Drainage Swale was constructed when Cul-de-Sac was built for roadside drainage, and therefore is exempt.

☒ Areas are ditches (check all that apply): .
☒ Non-tidal drainage and irrigation ditches excavated on dry land (51 FR 41217, Nov. 13, 1986). Drainage Swale.
☐ Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water (USACE JD Form Instructional Guidebook 5/30/2007). .
☐ Ditches that do not have a relatively permanent flow into waters of the U.S. or between two (or more) waters of the U.S. (USACE JD Form Instructional Guidebook 5/30/2007). .

☐ Area(s) are artificial waters created in upland or dry land: .
☐ Artificially irrigated areas which would revert to upland if the irrigation ceased (51 FR 41217, Nov. 13, 1986). .
☐ Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing (51 FR 41217, Nov. 13, 1986). .
☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons (51 FR 41217, Nov. 13, 1986). .
☐ Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (51 FR 41217, Nov. 13, 1986). .
☐ Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet criteria of this definition) (33 CFR 328.3 (a)). .

☐ Area(s) are swales (USACE JD Form Instructional Guidebook 5/30/2007). .
☐ Area(s) are erosional features (including gullies) (USACE JD Form Instructional Guidebook 5/30/2007). .
☐ Area(s) are prior converted cropland (33 CFR 328.3(a)(8)). .
☐ Area(s) are uplands. .
☐ Other: .

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 9, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Chicago District, Plank Road Property, LRC-2018-38

C. PROJECT LOCATION AND BACKGROUND INFORMATION: NW of Naper Blvd. & Old Plank Rd.
State: Illinois County/parish/borough: **DuPage** City: Naperville
Center coordinates of site (lat/long in degree decimal format): Lat. 41.793296°N, Long. -88.119127° W.
Universal Transverse Mercator: Zone 16
Name of nearest waterbody: E. Br. DuPage River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Des Plaines River**
Name of watershed or Hydrologic Unit Code (HUC): **Des Plaines (07120004)**
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: February 5, 2018
☒ Field Determination. Date(s): February 1, 2018

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: Defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. Waters of the U.S.
a. Indicate presence of waters of U.S. in review area (check all that apply): [1]
☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

b. Identify (estimate) size of waters of the U.S. in the review area:
Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: 0.09 acres.

c. Limits (boundaries) of jurisdiction based on: **Not established at this time.**
Elevation of established OHWM (if known): .

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: **Pick List**.
Summarize rationale supporting determination: As defined in People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, slip op. at 7 (S.D.Ill. Jan. 20, 1979).

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Off-site tributary flows under roadway in to large wide channel with permanent flow.
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
     - ☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Subject wetland is sloped down to tributary along Naper Boulevard that flows east.**

     - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   Provide acreage estimates for jurisdictional wetlands in the review area: **0.09** acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: CBBEL Jurisdictional Determination Request dated January 8, 2018.
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☒ U.S. Geological Survey Hydrologic Atlas: Wheaton HA 148, 1965, .
  - ☐ USGS NHD data.
  - ☒ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Wheaton 7.5", 1993, Pick List, Pick List, Pick List, .
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey.
- ☒ National wetlands inventory map(s). Cite name: Wheaton, .
- ☒ State/Local wetland inventory map(s): DuPage County ADID, Pick List, .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☐ Photographs: ☐ Aerial (Name & Date): .
  or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: People of State of Ill. ex rel. Scott v. Hoffman, No. P-CIV-76-45, (S.D.Ill. Jan. 20, 1979)
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Site visit on February 1, 2018 to observe flowing tributary and abutting wetland.

WETLAND/WATERS ASSESSMENT REPORT
(NEGATIVE FINDINGS)
5S321 TUTHILL ROAD
NAPERVILLE, DUPAGE COUNTY, ILLINOIS
CBBEL Project No. 240402.00001
FEBRUARY 4, 2025

WETLAND DELINEATION

As requested, on February 28, 2025, Christopher B. Burke Engineering, Ltd. (CBBEL) completed a wetland/waters assessment of the study area using the U.S. Army Corps of Engineers (USACE) Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (August 2010). **No wetland or waters of the U.S. were identified onsite.**

An aerial photograph depicting the identified area is included as Exhibit 8. Representative photographs are included on a Photo Exhibit.

METHODOLOGY

The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (August 2010), identifies the mandatory technical criteria for wetland identification. The three essential characteristics of a jurisdictional wetland are hydrophytic vegetation, hydric soils and wetland hydrology as described below:

Hydrophytic Vegetation: The hydrophytic vegetation criterion is based on a separation of plants into five basic groups:

(1) Obligate wetland plants (OBL) almost always occur (estimated probability >99%) in wetlands under natural conditions;

(2) Facultative wetland plants (FACW) usually occur in wetlands (estimated probability 67-99%), but occasionally are found in non-wetlands;

(3) Facultative plants (FAC) are equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%);

(4) Facultative upland plants (FACU) usually occur in non-wetlands (estimated probability 67-99%), but occasionally are found in wetlands; and

(5) Obligate upland plants (UPL) almost always occur (estimated probability >99%) in non-wetlands under natural conditions.

Four procedures completed in the following order are used to determine if hydrophytic vegetation is present:

1) Rapid Test: The Rapid Test for hydrophytic vegetation is met if all dominant species across all strata are OBL or FACW, or a combination of the two based on a visual assessment.

2) Dominance Test: Using the 50/20 Rule, if greater than 50% of the plants present are FAC, FACW, or OBL, the subject area meets the hydrophytic vegetation criterion.

3) Prevalence Index: Each plant species in a sampling plot is assigned a numeric value (OBL=1; FACW=2; FAC=3; FACU=4; UPL=5). Based on the sampling data, the absolute cover is calculated for each species in each stratum and using the specified formula, if the Prevalence Index is 3 or less, hydrophytic vegetation is present.

4) Morphological Adaptations: Various species may develop physical characteristics after growing in wetland areas such as multi-stemmed trunks, shallow roots and buttressed stems. Hydrophytic vegetation is present if an adaptation is observed in more than 50% of FACU species growing in an area that contains hydric soil and wetland hydrology.

Hydric Soils: Hydric soils are defined in the manual as "soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part." Field indicators of hydric soil are found in the NTCHS Field Indicators of Hydric Soils in the United States (USDA Natural Resources Conservation Service 2006b or current version).

Wetland Hydrology: The wetland hydrology criterion is often the most difficult to determine. Typically, the presence of water for a portion of the growing season creates anaerobic conditions. Anaerobic conditions lead to the prevalence of wetland plants. Morphological adaptations of plants, drift lines and watermarks are examples of wetland hydrology field indicators.

RESULTS AND DISCUSSION

STUDY AREA

The study area consists of a single-family residential lot that is routinely mown. **There are no wetlands or waters of the United States located on the lot. Immediately south of the lot is wetland/waters of the United States as shown on Exhibit 8.**

REFERENCE MATERIALS

The following reference materials were reviewed and used to assist in the wetland field reconnaissance. They are included as Exhibits 1-8.

LOCATION MAP

The study area is located at 5S321 Tuthill Drive in Naperville, DuPage County, Illinois (Exhibit 1). Geographically, the study area is in the northeast quarter of Section 8,

Township 38 North, and Range 10 East of the Third Principal Meridian (41.793770 ˚N, -88.119606˚W).

NATIONAL WETLAND INVENTORY

The National Wetland Inventory (NWI), Wheaton Quadrangle (1983), indicates no wetlands are mapped within the study area (Exhibit 2). The NWI serves only as a large-scale guide and actual wetland locations and types often vary from that mapped.

DUPAGE COUNTY WETLAND INVENTORY

The DuPage County Wetland Inventory (DCWI), Lisle Township (2001) indicates no wetlands are mapped within the study area (Exhibit 3). The DCWI serves only as a large-scale guide and actual wetland locations and types often vary from those that are mapped.

SOIL SURVEY

The Soil Survey of DuPage County, Illinois (2001) was reviewed to determine the location of hydric soils within the study area (Exhibit 4). No hydric soils are mapped on site The following soil types are mapped within the study area:

298A	-	Beecher silt loam
531B	-	Markham silt loam

HYDROLOGIC ATLAS

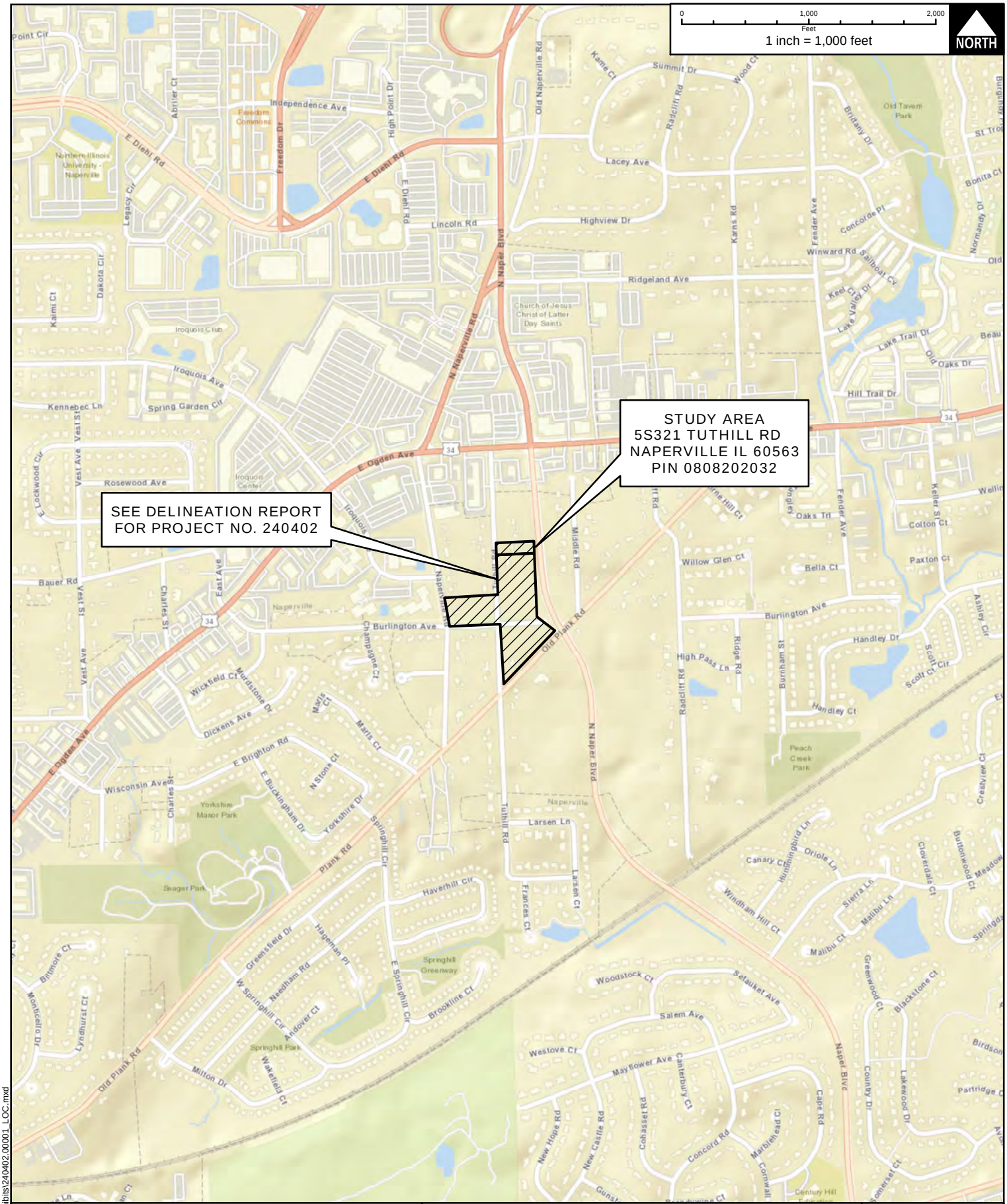
The United States Geological Survey – Hydrologic Atlas (USGS), Wheaton Quadrangle (1993) was reviewed to determine historic local drainage patterns (Exhibit 5). The USGS indicates that surface runoff from the study area drains off-site, generally southeast.

USGS TOPOGRAHIC SURVEY

The United States Geological Survey – Topographic Map (USGS), Wheaton Quadrangle (1993) was reviewed to determine historic local drainage patterns (Exhibit 6). The USGS indicates that surface runoff from the study area drains off-site, generally southeast.

FLOOD INSURANCE RATE MAP

The Flood Insurance Rate Map (FIRM) for DuPage County and Incorporated Areas, Illinois, Map Number 17043C0801 H effective December 16, 2004, was reviewed to determine the location of regulatory floodplain within the study area (Exhibit 6). The presence of floodplain can be indicative of wetland hydrology. The FIRM indicates that there is no mapped 100-year regulatory floodplain within the study area.



CLIENT: CITY OF NAPERVILLE

TITLE: LOCATION MAP

CBBEL # 24-0402.00001

DATE: 2/20/2025

EXH 1

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 1,000 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	2/20/2025
FILE NAME:	240402.00001_LOC			

N:\Naperville\240402.00001\GIS\Exhibits\240402.00001_LOC.mxd

NOTE: TAKEN FROM THE NATIONAL WETLAND INVENTORY(NWI), WHEATON QUADRANGLE(1983)

0 200 400
Feet
1 inch = 200 feet

NORTH

NO WETLAND MAPPED ON-SITE

CLIENT:

CITY OF NAPERVILLE

TITLE:

NATIONAL WETLAND INVENTORY

CBBEL # 24-0402.00001

DATE: 2/20/2025

EXH 2

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 200 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	2/20/2025
FILE NAME:	240402.00001_NWI			

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NOTE: TAKEN FROM THE DUPAGE COUNTY WETLAND INVENTORY(DCWI), LISLE TOWNSHIP(2001)

0 200 400
Feet
1 inch = 200 feet

NORTH

CLIENT: CITY OF NAPERVILLE

TITLE: DUPAGE COUNTY WETLAND INVENTORY

CBBEL # 24-0402.00001

DATE: 2/20/2025

EXH 3

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 200 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	2/20/2025
FILE NAME:	240402.00001_DCWI			

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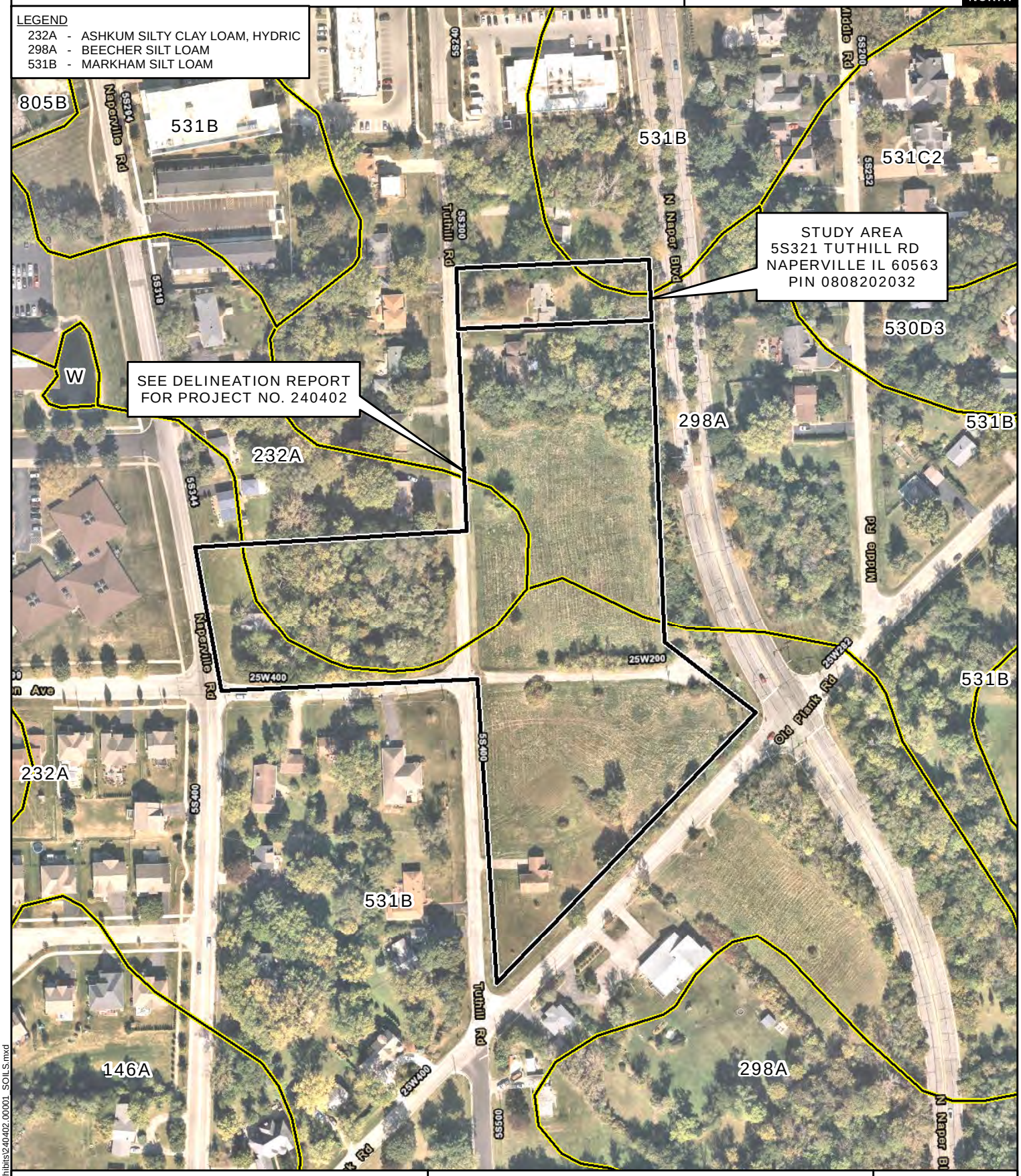
NOTE: TAKEN FROM THE SOIL SURVEY OF DUPAGE COUNTY, ILLINOIS(2019)

0 200 400
Feet
1 inch = 200 feet

NORTH

LEGEND
232A - ASHKUM SILTY CLAY LOAM, HYDRIC
298A - BEECHER SILT LOAM
531B - MARKHAM SILT LOAM



CLIENT: CITY OF NAPERVILLE

TITLE: SOIL SURVEY

CBBEL # 24-0402.00001

DATE: 3/4/2025

EXH 4

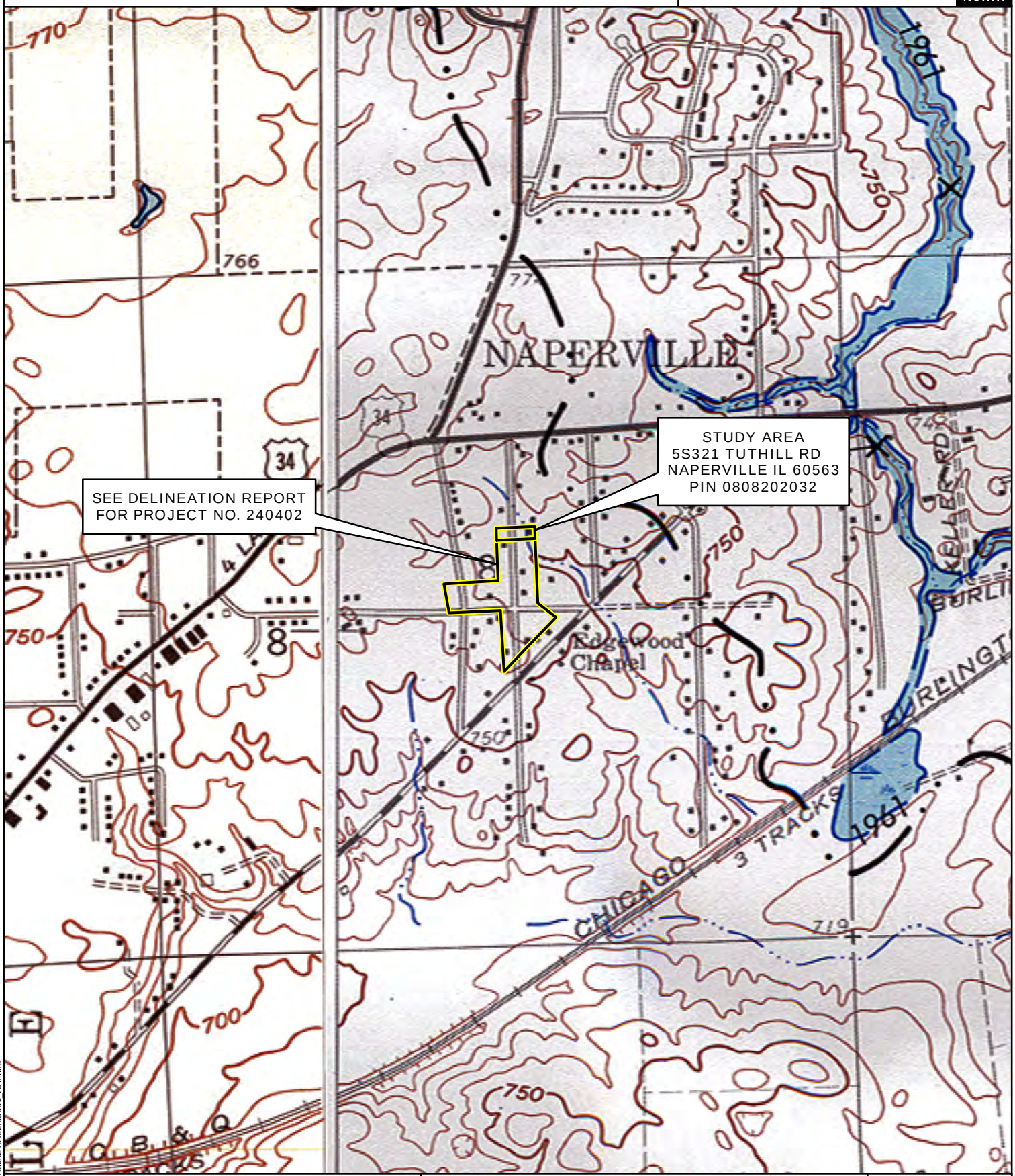
CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 200 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	3/4/2025
FILE NAME:	240402.00001_SOILS			

N:\Naperville\240402.00001\GIS\Exhibits\240402.00001_SOILS.mxd

NOTE: TAKEN FROM THE HYDROLOGIC ATLAS(HA), WHEATON QUADRANGLE(1964)

0 1,000 2,000 Feet
1 inch = 1,000 feet
NORTH



CLIENT: CITY OF NAPERVILLE

TITLE: HYDROLOGIC ATLAS

CBBEL # 24-0402.00001
DATE: 2/20/2025

EXH 5

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 1,000 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	2/20/2025
FILE NAME:	240402.00001_HA			

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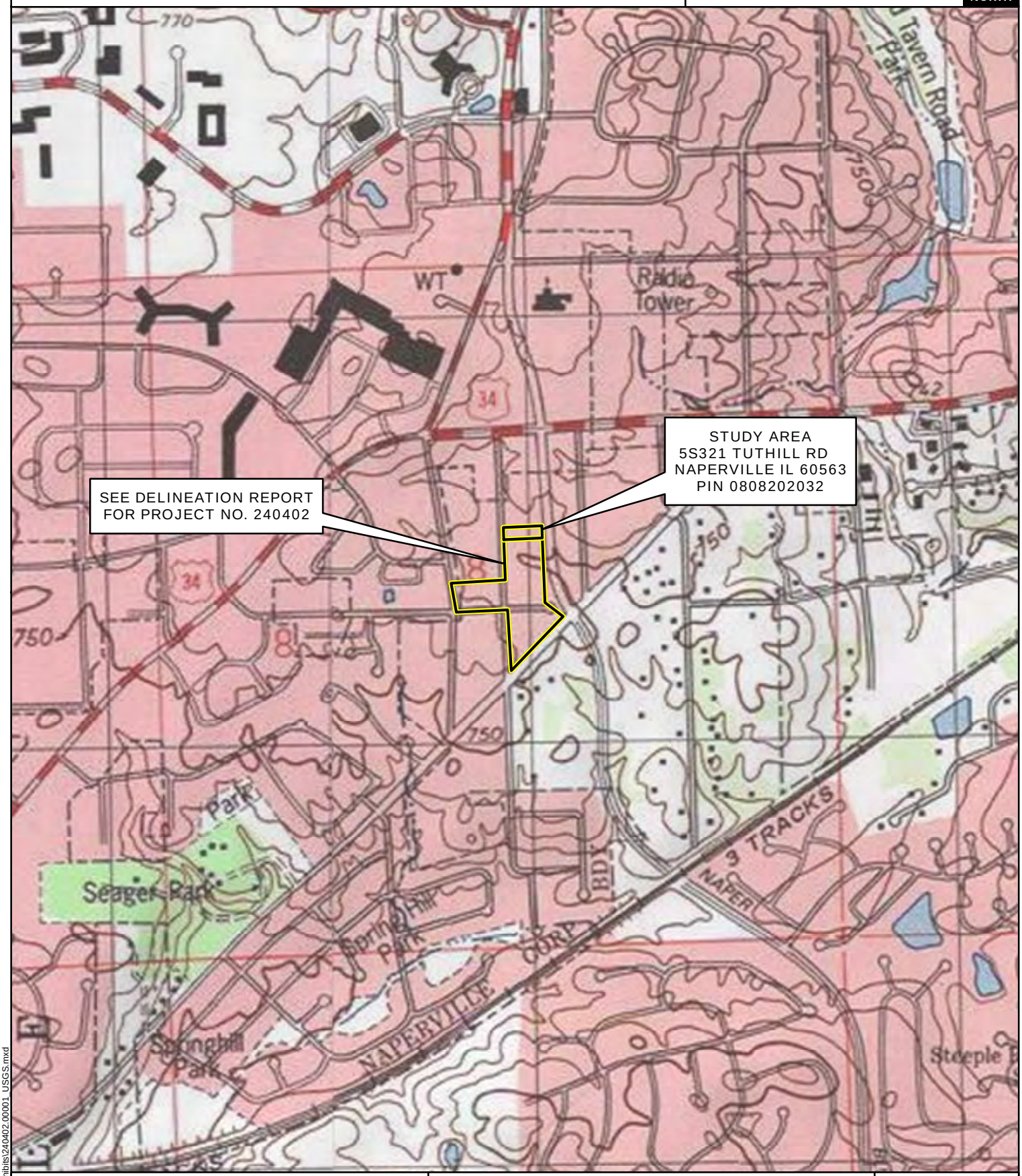
NOTE: TAKEN FROM THE UNITED STATES GEOLOGICAL SURVEY(USGS), WHEATON QUADRANGLE(1993)

0 1,000 2,000 Feet

1 inch = 1,000 feet

NORTH



CLIENT: CITY OF NAPERVILLE

TITLE: UNITED STATES GEOLOGICAL SURVEY

CBBEL # 24-0402.00001

DATE: 2/20/2025

EXH 6

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 1,000 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	2/20/2025
FILE NAME:	240402.00001_USGS			

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NOTE: TAKEN FROM THE FLOOD INSURANCE RATE MAP(FIRM), DUPAGE COUNTY AND INCORPORATED AREAS, ILLINOIS, MAP NUMBER 17043C0161J, EFFECTIVE DATE: AUGUST 1, 2019

0 200 400
Feet
1 inch = 200 feet

NORTH

NO FLOODPLAIN MAPPED ON-SITE

CLIENT: CITY OF NAPERVILLE

TITLE: FLOOD INSURANCE RATE MAP

CBBEL # 24-0402.00001

DATE: 2/20/2025

EXH 7

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 200 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	2/20/2025
FILE NAME:	240402.00001_FIRM			

N:\Naperville\240402.00001\GIS\Exhibits\240402.00001_FIRM.mxd

NOTE: AERIAL PHOTOGRAPH TAKEN FROM NEARMAP, DATED: OCTOBER 9, 2024

0 200 400
Feet
1 inch = 200 feet

NORTH

CLIENT: CITY OF NAPERVILLE

TITLE: APPROXIMATE WETLAND DELINEATION

CBBEL # 24-0402.00001

DATE: 3/4/2025

EXH 8

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.			SCALE:	1 "= 200 '
DWN.	KEK		USER:	kkopija
CHKD.	JMA		PLOT DATE:	3/4/2025
FILE NAME:	240402.00001_AWD			

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DSCN9848

DSCN9849

DSCN9850

DSCN9851

DSCN9852

DSCN9853

DSCN9854

DSCN9855

DSCN9856

TAB 6

FINAL ENGINEERING PLANS
FOR

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE, IL

PROJECT TEAM

OWNER/DEVELOPER

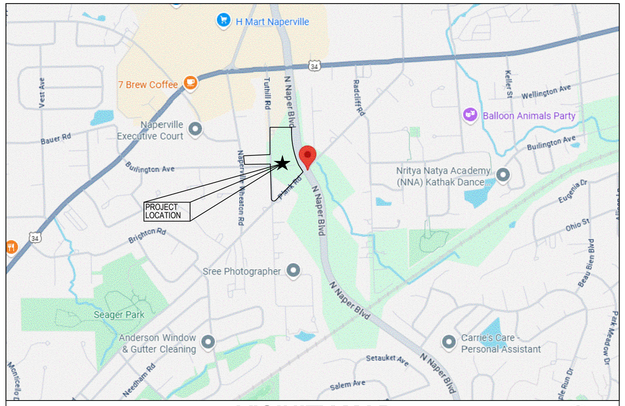
Lincoln Property Company
120 N. LaSalle Street, Suite 2900
Chicago, IL 60602
847-208-0915
Contact: Zack Grabijas, PE

ENGINEER

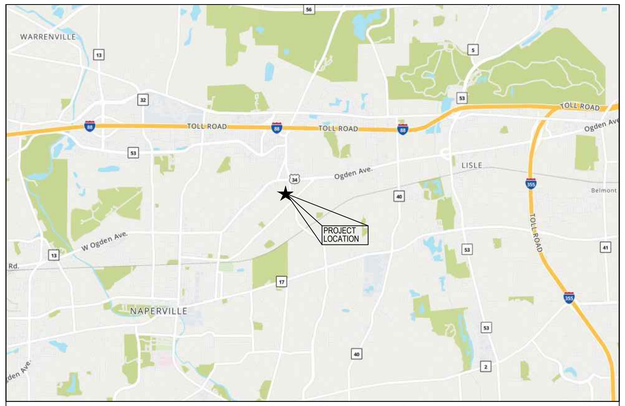
V3 Companies, Ltd.
7325 Janes Avenue
Woodridge, Illinois 60517
630-724-9200
Project Manager: Dan Free
dfree@v3co.com
Project Engineer: Tom Kunschke
tkunschke@v3co.com
Design Engineer: Noah Brackenbury
nbrakenbury@v3co.com

LANDSCAPE ARCHITECT

BSB Design
220 N. Smith Street, Suite 210
Palatine, IL 60067
847-705-2200
Contact: Terry Smith



VICINITY MAP
NO SCALE



LOCATION MAP
NO SCALE

INDEX

CIVIL ENGINEERING PLANS

Call Before You Dig
JULIE
800.892.0123
Call 48 hours before you dig
Joint Utility Locating Information for Excavators

PROFESSIONAL ENGINEER'S CERTIFICATION

I, DANIEL FREE, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THE CIVIL ENGINEERING PLANS WERE PREPARED ON BEHALF OF LINCOLN PROPERTY COMPANY BY V3 COMPANIES, LTD. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

DATED THIS _____DAY OF_____, A.D., 2025.

ILLINOIS LICENSED PROFESSIONAL ENGINEER 062-068404
MY LICENSE EXPIRES ON NOVEMBER 30, 2025

ILLINOIS LICENSED DESIGN FIRM NO. 184-000902

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

TITLE SHEET

THE RESIDENCES AT NAPER AND PLANK
NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C0.0

GENERAL NOTES

1. EXISTING SITE TOPOGRAPHY, UTILITIES, RIGHT-OF-WAY AND HORIZONTAL CONTROL SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SURVEY PREPARED BY:

   V3 COMPANIES, LTD.
   7325 JANES AVENUE
   WOODRIDGE, IL 60517
   &
   CEMCON, LTD.
   2280 WHITE OAK CIRCLE, SUITE 100
   AURORA, IL 60502-9675

   COPIES OF THE SURVEY ARE AVAILABLE FROM THE SURVEYOR. SITE CONDITIONS MAY HAVE CHANGED SINCE THE SURVEY WAS PREPARED. CONTRACTORS TO VISIT SITE TO FAMILIARIZE THEMSELVES WITH THE CURRENT CONDITIONS.

2. ALL EXISTING TOPOGRAPHY, UNDERGROUND UTILITIES, STRUCTURES AND ASSOCIATED FACILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS AND ELEVATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER FACILITIES, THE EXISTENCE OF WHICH ARE NOT PRESENTLY KNOWN.

3. CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.

4. ALL APPLICABLE PROVISIONS OF THE CURRENT OCCUPATIONAL SAFETY AND HEALTH ACT ARE HEREIN INCORPORATED BY REFERENCE.

5. THE CONTRACTOR SHALL SUBSCRIBE TO ALL GOVERNING REGULATIONS AND SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO STARTING WORK. THE CONTRACTOR, BY USING THESE PLANS FOR HIS/HER WORK, AGREE TO HOLD HARMLESS V3 COMPANIES LTD., THE MUNICIPALITY, THEIR EMPLOYEES AND AGENTS AND THE OWNER WHILE ACTING WITHIN THE SCOPE OF THEIR DUTIES FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND THE COST OF DEFENSE ARISING OUT OF CONTRACTOR(S) PERFORMANCE OF THE WORK DESCRIBED HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, HIS/HER AGENTS, THE ENGINEER, HIS/HER EMPLOYEES AND AGENTS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE OWNER OF THE ROADWAY.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION. BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS. ALL TRAFFIC CONTROL WORK SHALL BE DONE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

8. EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK PROPOSED HEREON SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS WHICH ARE HEREBY MADE A PART HEREOF:

   A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS," AS PREPARED BY IDOT, LATEST EDITION.

   B. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS," LATEST EDITION.

   C. ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS," AS PUBLISHED BY THE IEPA. LATEST EDITION.

   D. THE LATEST EDITIONS OF THE MUNICIPAL CODE AND STANDARDS OF THE CITY OF NAPERVILLE.

   E. THE NATIONAL ELECTRIC CODE.

   F. THE ILLINOIS ACCESSIBILITY CODE.

   G. CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD) REQUIREMENTS AS PUBLISHED BY THE IEPA. TESTING OF SOILS BEING EXPORTED FROM THE SITE AND APPROPRIATE DISPOSAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

   IN THE EVENT OF CONFLICTING SPECIFICATIONS WITH REGARD TO SITEWORK ISSUES DESIGNED BY THE ENGINEER, THE MORE STRINGENT REQUIREMENT SHALL GOVERN

9. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO COMMENCING ANY WORK AND FOR ANY NEW CONSTRUCTION REQUIRING INSPECTION.

10. ALL TREES TO BE SAVED SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION AND SHALL BE PROTECTED PER IDOT STANDARDS. THE RIGHT-OF-WAY LINE AND LIMITS OF THE CONTRACTOR'S OPERATIONS SHALL BE CLEARLY DEFINED THROUGHOUT THE CONSTRUCTION PERIOD. ALL TREES IDENTIFIED TO REMAIN SHALL BE PROTECTED FROM DAMAGE INCLUDING TRUNKS, BRANCHES AND ROOTS. NO EXCAVATING, FILLING OR GRADING IS TO BE DONE INSIDE THE DRIP LINE OF TREES UNLESS OTHERWISE INDICATED.

11. CONSTRUCTION ACCESS POINTS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT ACCUMULATION OF MUD OR SOIL ON PUBLIC THOROUGHFARES. AT THE END OF EACH DAY AND AS OFTEN AS OTHERWISE NECESSARY THE CONTRACTOR SHALL CLEAN UP ALL MUD OR SOIL WHICH HAS BEEN TRACKED ONTO PUBLIC STREETS AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND AS DETAILED IN THE STORM WATER POLLUTION PREVENTION PLAN.

12. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS WHERE HIS/HER OPERATIONS ABUT PUBLIC THOROUGHFARES AND ADJACENT PROPERTY IN ACCORDANCE WITH THE CITY OF NAPERVILLE MUNICIPAL CODE AND IDOT REQUIREMENTS.

13. NO HOLES ARE TO BE LEFT OPEN IN THE PAVEMENT OR PARKWAY OVER A HOLIDAY, WEEKEND OR AFTER 3:00 P.M. ON THE DAY PRECEDING A HOLIDAY OR A WEEKEND.

14. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT ALONG LIMITS OF PROPOSED REMOVAL BEFORE COMMENCEMENT OF PAVEMENT REMOVAL.

15. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR AS PART OF THE BASE CONTRACT.

16. NO BURNING OR INCINERATION OF RUBBISH WILL BE PERMITTED ON SITE.

17. FOR REGULATED UTILITY LOCATIONS, THE CONTRACTOR SHALL CONTACT THE JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS, "J.U.L.I.E." AT 1-800-892-0123. LOCAL GOVERNMENT AGENCIES SHOULD BE CONTACTED BY THE CONTRACTOR FOR LOCATION OF ALL NONREGULATED UTILITY LOCATIONS. CALL FOR LOCATES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION.

18. BEFORE EXCAVATING OVER OR ADJACENT TO ANY EXISTING UTILITIES, CONTRACTOR SHALL NOTIFY THE OWNER OF SUCH UTILITIES TO ENSURE THAT PROTECTIVE WORK WILL BE COORDINATED AND PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER OF THE UTILITY INVOLVED. IF ANY EXISTING SERVICE LINES, UTILITIES AND UTILITY STRUCTURES WHICH ARE TO REMAIN IN SERVICE ARE UNCOVERED OR ENCOUNTERED DURING THIS OPERATION, THEY SHALL BE SAFEGUARDED, PROTECTED FROM DAMAGE AND SUPPORTED IF NECESSARY.

19. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF "APPROVED" ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AS DETAILED IN THE STORM WATER POLLUTION PREVENTION PLAN.

21. ALL CURB RADII REFER TO BACK OF CURB.

22. ANY AREAS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN CONFORMANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND SHALL BE INCIDENTAL TO THE CONTRACT.

23. STREET PAVING AND CURBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE AND IF DAMAGED, SHALL BE REPLACED PROMPTLY IN CONFORMANCE WITH THE MUNICIPALITY OR IDOT STANDARD SPECIFICATIONS IN MATERIALS AND WORKMANSHIP.

24. PROPOSED ELEVATIONS INDICATE FINISHED CONDITIONS. FOR ROUGH GRADING ELEVATIONS ALLOW FOR THICKNESS OF PROPOSED PAVING (ROADS, WALKS, DRIVES, ETC.) OR TOPSOIL AS INDICATED ON DRAWINGS.

25. CAD FILES ARE AVAILABLE FOR CONSTRUCTION LAYOUT UPON REQUEST.

26. BACKFILL SHALL BE PLACED NEXT TO THE CURB AS SOON AS PERMISSIBLE AFTER CONSTRUCTION TO PREVENT SCOURING AND UNDERCUTTING BY STORM WATER RUNOFF.

27. BUTT JOINTS SHALL BE PROVIDED WHEREVER NEW PAVEMENT ABUTS EXISITNG PAVEMENT. ALL BUTT JOINTS SHALL BE CONSTRUCTED BY MILLING AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE BITUMINOUS SURFACE COURSE.

28. WHEN AN EXISTING DRAINAGE ROUTE, EITHER A STORM SEWER OR WATERWAY, IS INTERRUPTED DUE TO CONSTRUCTION, THE DRAINAGE ROUTE SHALL BE REESTABLISHED TO ORIGINAL CONDITIONS BY THE END OF THE SAME WORK DAY. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

29. PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.

30. FINAL ADJUSTMENT OF FIRE HYDRANTS, VALVE VAULTS AND MANHOLES TO FINISHED GRADE ARE INCIDENTAL TO THEIR COST.

31. ANY EXISTING UTILITY STRUCTURES REQUIRING ADJUSTMENT ARE TO BE ADJUSTED OR RECONSTRUCTED BY THE CONTRACTOR TO THE UTILITY OWNER'S SATISFACTION. ADJUSTMENTS OR RECONSTRUCTIONS NOT CALLED FOR ON THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

32. ALL UTILITY CONNECTIONS TO EXISTING LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND TO THE SATISFACTION OF THE UTILITY OWNER.

33. PROVIDE TRENCH BACKFILL IN ACCORDANCE WITH THE DETAILS OF THE PLANS FOR ALL UTILITY LINES (OR AS OTHERWISE NOTED ON PLANS). BACKFILL SHALL BE PLACED AND COMPACTED PER THE MUNICIPALITY AND IDOT SPECIFICATIONS. COST OF BACKFILL IS TO BE CONSIDERED INCIDENTAL TO THE UTILITY WORK.

34. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

35. PRIOR TO DEMOBILIZATION, ALL WORK SHALL BE CLEANED AND INSPECTED TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

36. THE GENERAL CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PROVIDE CABLE TV, PHONE, ELECTRIC, GAS AND IRRIGATION SERVICES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SITE LAYOUTS FOR THESE UTILITIES AND SHALL COORDINATE AND PROVIDE CONDUIT CROSSINGS AS REQUIRED. THIS COORDINATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ANY CONFLICTS IN UTILITIES SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

37. BAND-SEAL CONNECTORS OR EQUIVALENT SHALL BE USED TO JOIN PIPES OF DISSIMILAR MATERIAL.

38. CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL CONSTRUCTION IN CONFORMANCE WITH ALL MUNICIPAL AND CLIENT REQUIREMENTS FOR USE IN PREPARING RECORD DRAWINGS.

39. THE SUBCONTRACTOR SHALL INSTALL A 2"x4"x6' POST ADJACENT TO THE TERMINUS OF UTILITY MAINS AND SERVICE LINES. POSTS SHALL BE MARKED IN ACCORDANCE WITH THE CITY STANDARDS.

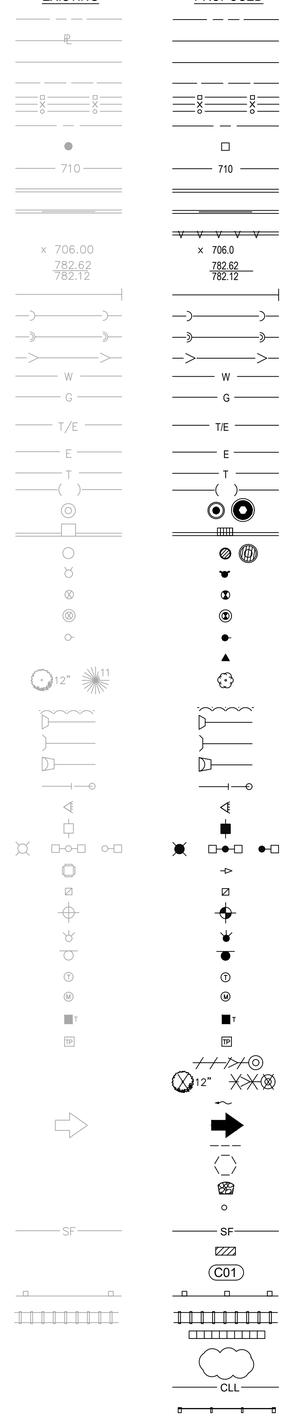
40. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ANY EXCAVATION. ANY DEWATERING REQUIRED SHALL BE INCIDENTAL TO THE CONTRACT.

41. COPIES OF SOILS INVESTIGATION REPORTS MAY BE OBTAINED FROM THE OWNER. ANY BRACING, SHEETING OR SPECIAL CONSTRUCTION METHODS REQUIRED IN ORDER TO INSTALL THE PROPOSED IMPROVEMENTS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT. ANY ADDITIONAL SOILS DATA NEEDED TO CONFIRM THE CONTRACTOR'S OPINIONS OF THE SUBSOIL CONDITIONS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL OBTAIN THE OWNER'S WRITTEN AUTHORIZATION TO ACCESS THE SITE TO CONDUCT A SUPPLEMENTAL SOILS INVESTIGATION.

42. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE WAY AS DETERMINED BY THE ENGINEER. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE OPERATIONAL CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE FOR ON-SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE SUBCONTRACTOR AND SUBMITTED TO THE ENGINEER UPON COMPLETION OF THE PROJECT. ALL FIELD TILE REPAIRS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

43. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS/HER WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

LEGEND



ABBREVIATIONS

DESCRIPTION		
RIGHT-OF-WAY LINE	A	ARC LENGTH
PROPERTY LINE (EXTERIOR)	B-B	BACK TO BACK OF CURB
LOT LINE (INTERIOR)	B/C	BACK OF CURB
EASEMENT LINE	BLDG	BUILDING
FENCE LINE	BM	BENCHMARK
CENTERLINE	B/P	BOTTOM OF PIPE
PROPERTY CORNER	BV/VV	BUTTERFLY VALVE IN VALVE VAULT
CONTOUR	C & G	CURB AND GUTTER
CURB & GUTTER	CB	CATCH BASIN
DEPRESSED CURB & GUTTER	℄	CENTERLINE
REVERSE PITCHED CURB	CL	CLOSED LID
SPOT ELEVATION	CO	CLEAN OUT
TOP OF CURB ELEVATION EDGE OF PAVEMENT ELEVATION	DIP	DUCTILE IRON PIPE
UTILITY STUB	DIA	DIAMETER
SANITARY SEWER	DIWM	DUCTILE IRON WATER MAIN
SANITARY FORCE MAIN	DWG	DRAWING
STORM SEWER	E	EAST OR ELECTRIC OR EDGE
WATER MAIN	EJ	EXPANSION JOINT
GAS MAIN	ELEV	ELEVATION
UNDERGROUND TELEPHONE & ELECTRIC DUCT BANK	E/P	EDGE OF PAVEMENT
BURIED CABLE-ELECTRIC	EX.	EXISTING
BURIED CABLE-TELEPHONE	F & CL	FRAME & CLOSED LID
ATLAS LOCATED UTILITY	F & G	FRAME & GRATE
UTILITY STRUCTURE WITH CLOSED LID	F & OL	FRAME & OPEN LID
CURB INLET	FES	FLARED END SECTION
DRAINAGE STRUCTURE WITH OPEN LID	F-F	FACE TO FACE OF CURB
FIRE HYDRANT	FF	FINISHED FLOOR
VALVE IN VALVE BOX	F/G	FINISHED GRADE
GATE VALVE IN VALVE VAULT	FH	FIRE HYDRANT
POST INDICATOR VALVE	F/L	FLOW LINE
THRUST BLOCK	G	GAS LINE
TREE	GV/VB	GATE VALVE IN VALVE BOX
TREE LINE	GV/VV	GATE VALVE IN VALVE VAULT
CONCRETE HEADWALL	HDCP	HANDICAP
SUBMERGED HEADWALL	HDPE	HIGH DENSITY POLYETHYLENE PIPE
FLARED END SECTION	HDW	HEADWALL
GUY WIRES	HOR	HORIZONTAL
FLOOD LIGHT	HP	HIGH POINT
UTILITY POLE	HWL	HIGH WATER LEVEL
LIGHT STANDARD	IE	INVERT ELEVATION
TRAFFIC SIGNAL POLE	IN	INLET
HAND HOLE	LF	LINEAL FEET
SOIL BORING	LP	LOW POINT OR LIGHT POLE
IRRIGATION HEADS	L	LEFT
SIGN	ME	MATCH EXISTING
TELEPHONE MANHOLE	MH	MANHOLE
MONITORING WELL	MW	MONITORING WELL
TELEPHONE PEDESTAL	N	NORTH
TRANSFORMER PAD	NIC	NOT IN CONTRACT / NOT INCLUDED
UTILITY TO BE ABANDONED	NWL	NORMAL WATER LEVEL
FEATURE TO BE REMOVED	OC	ON CENTER
STORMWATER FLOW DIRECTION	OL	OPEN LID
STORMWATER OVERFLOW ROUTE	PC	POINT OF CURVATURE
DITCH CHECK	PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVE
INLET FILTER BASKET	PGL	PROFILE GRADE LINE
RIP RAP	PI	POINT OF INTERSECTION
BOLLARD	PL	PROPERTY LINE
SILT FENCE	PP	POWER POLE
WATER MAIN PROTECTION	PRC	POINT OF REVERSE CURVATURE
UTILITY CROSSING LABEL	PT	POINT OF TANGENCY
GUARDRAIL	PUE	PUBLIC UTILITY EASEMENT
RAILROAD TRACKS	PVC	POINT OF VERTICAL CURVATURE OR POLYVINYL CHLORIDE PIPE
RETAINING WALL	PVI	POINT OF VERTICAL INTERSECTION
REVISION DELINEATION	PVT	POINT OF VERTICAL TANGENCY
CONSTRUCTION LIMIT LINE	R	RADIUS OR RIGHT
TREE PROTECTION FENCE	RCP	REINFORCED CONCRETE PIPE
	ROW	RIGHT OF WAY
	S	SLOPE OR SOUTH
	SAN	SANITARY
	SF	SILTATION FENCE
	SFM	SANITARY FORCE MAIN
	SHT	SHEET
	SHW	SUBMERGED HEADWALL
	SMH	SANITARY MANHOLE
	STA	STATION
	ST	STORM STRUCTURE OR STORM SEWER
	STMH	STORM MANHOLE
	T	TANGENT LENGTH OR TELEPHONE
	T/C	TOP OF CURB
	T/P	TOP OF PIPE
	T/W	TOP OF WALL
	TY	TYPE
	TYP	TYPICAL
	UP	UTILITY POLE
	VC	VERTICAL CURVE
	VERT	VERTICAL
	VCP	VITRIFIED CLAY PIPE
	W	WEST
	WM	WATER MAIN

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

GENERAL NOTES, LEGEND, AND ABBREVIATIONS

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
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DRAWING NO.

C1.0

General Notes

The General Notes in this section should be included in all final engineering plans regardless of the type of project.

1	THE OWNER OR THEIR REPRESENTATIVE IS RESPONSIBLE TO OBTAIN ANY AND ALL PERMITS REQUIRED BY APPLICABLE GOVERNMENTAL AGENCIES.
2	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NAPERVILLE DESIGN MANUAL AND STANDARD SPECIFICATIONS (CURRENT EDITION) AND WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (CURRENT EDITION).
3	ALL CONTRACTORS DOING WORK IN THE PUBLIC RIGHT-OF-WAY MUST BE LICENSED (WHEN APPLICABLE) TO MAKE PUBLIC IMPROVEMENTS WITHIN THE NAPERVILLE CORPORATE LIMITS.
4	THE CONTRACTOR/DEVELOPER ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR ANY ACTION RESULTING FROM THEIR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
5	THE CONTRACTOR/DEVELOPER SHALL INDEMNIFY AND HOLD HARMLESS THE CITY OF NAPERVILLE.
6	PRIOR TO COMMENCEMENT OF ANY OFF-SITE CONSTRUCTION, THE CONTRACTOR SHALL SECURE WRITTEN AUTHORIZATION THAT ALL OFF-SITE EASEMENTS HAVE BEEN SECURED AND THAT PERMISSION HAS BEEN GRANTED TO ENTER ONTO PRIVATE PROPERTY.
7	THE CONTRACTOR AND THEIR ON-SITE REPRESENTATIVES WILL BE REQUIRED TO ATTEND A PRE-CONSTRUCTION MEETING WITH THE CITY OF NAPERVILLE PRIOR TO ANY WORK BEING STARTED. A PRE-CONSTRUCTION MEETING WILL NOT BE SCHEDULED UNTIL THE PROJECT HAS BEEN APPROVED BY THE CITY OF NAPERVILLE DEVELOPMENT REVIEW TEAM AND THE REQUIRED SURETY HAS BEEN POSTED.
8	A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN TO THE CITY OF NAPERVILLE TED BUSINESS GROUP (630-420-6100 OPTION 1) PRIOR TO STARTING WORK OR RESTARTING WORK AFTER SOME ABSENCE OF WORK FOR ANY REASON.
9	IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADEQUATELY IDENTIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT JULIE FOR THE LOCATION OF ANY AND ALL UTILITIES. THE TOLL-FREE NUMBER IS 800-892-0123. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY PRIVATE FACILITIES OR NON-JULIE MEMBER FACILITIES.
10	THE CONTRACTOR CAN SCHEDULE ALL NECESSARY SITE INSPECTIONS WITH THE CITY OF NAPERVILLE BY CALLING (630) 420-6100 OPTION 1 BETWEEN THE HOURS OF 8:00AM AND 4:00PM (CLOSED 1:00PM TO 2:00PM DAILY) ON WEEKDAYS WHEN THE CITY IS OPEN FOR BUSINESS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE THE SITE PERMIT NUMBER FOR THE PROJECT IN ORDER TO SCHEDULE THE INSPECTION(S).
11	RECORD DRAWINGS ARE REQUIRED TO BE SUBMITTED AND APPROVED BY THE CITY OF NAPERVILLE PRIOR TO FINAL OCCUPANCY BEING GRANTED.
12	FINAL ACCEPTANCE OF PUBLIC IMPROVEMENTS SHALL BE GRANTED ONLY AFTER A FINAL INSPECTION HAS BEEN COMPLETED AND HAS REVEALED THAT ALL IMPROVEMENTS HAVE BEEN SATISFACTORILY COMPLETED IN ACCORDANCE WITH THE NAPERVILLE STANDARD SPECIFICATIONS. UTILITIES ARE NOT CONSIDERED ACCEPTED UNTIL THEY ARE FORMALLY ACCEPTED BY THE CITY COUNCIL AS REQUIRED IN ACCORDANCE WITH THE NAPERVILLE MUNICIPAL CODE.

General Notes (Project Specific)

1	TRAFFIC SIGNALS AND THEIR ASSOCIATED EQUIPMENT UNDER THE JURISDICTION OF DUPAGE COUNTY ARE NOT INCLUDED IN THE JULIE SYSTEM. THE CONTRACTOR SHALL CONTACT DUPAGE COUNTY DOT AND IDOT DIRECTLY REGARDING THE LOCATION OF TRAFFIC SIGNALS (CABLING AND ASSOCIATED SYSTEMS) UNDER DUPAGE COUNTY OR IDOT JURISDICTION.

Storm Sewer Notes (General)

1	NO CONNECTION TO AN EXISTING PUBLIC STORM SEWER MAY BE MADE WITHOUT PERMISSION OF THE CITY ENGINEER.
2	THE CONTRACTOR SHALL REPAIR ANY EXISTING FIELD DRAINAGE TILE DAMAGED DURING CONSTRUCTION AND PROPERLY REROUTE AND/OR CONNECT SAID TILE TO THE NEAREST STORM SEWER OUTLET. ALL LOCATIONS OF ENCOUNTERED FIELD DRAINAGE TILE SHALL BE PROPERLY INDICATED ON THE CONTRACTOR'S RECORD DRAWINGS.

Storm Sewer Notes (Storm Sewer Work in Plans

1	THE FOLLOWING MATERIALS ARE PERMITTED FOR STORM SEWER AND PIPE CULVERTS. WHERE A PARTICULAR MATERIAL IS SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS, NO OTHER KIND OF MATERIAL WILL BE PERMITTED:
1a	REINFORCED CONCRETE PIPE (RCP) - REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM DESIGNATION C 76, CLASSES I, II, III, IV OR V. BITUMINOUS JOINTS SHALL CONFORM TO ASTM DESIGNATIONS C 14 OR C 76 AS MAY BE APPLICABLE. BITUMINOUS MATERIAL SHALL CONSIST OF A HOMOGENEOUS BLEND OF BITUMEN, INERT FILLER, AND SUITABLE SOLVENT APPROVED BY THE CITY ENGINEER. RUBBER GASKET JOINTS SHALL CONFORM TO ASTM C 433. REINFORCED CONCRETE PIPE SHALL ALSO BE PERMITTED AS ROUND, ELLIPTICAL, OR BOX SHAPED OR AS REINFORCED CONCRETE ARCH CULVERT.

1c	DUCTILE IRON PIPE (DIP) - DUCTILE IRON PIPE SHALL CONFORM TO ANSI A 21.51 (AWWA C-151), CLASS THICKNESS DESIGNED PER ANSI A 21.50 (AWWA C-150), TAR (SEAL) COATED AND CEMENT LINED PER ANSI A21.4 (AWWA C-104), WITH MECHANICAL OR RUBBER RING (SLIP SEAL OR PUSH ON) JOINTS. ALL DUCTILE IRON PIPE SHALL BE WRAPPED WITH POLYETHYLENE.
1d	POLYVINYL CHLORIDE PIPE (PVC) - POLYVINYL CHLORIDE (PVC) PIPE SHALL CONFORM TO ASTM D 3034, TYPE PSM. THE MINIMUM STANDARD DIMENSION RATIO (SDR) SHALL BE 26. THE PIPE SHALL BE MADE OF PVC PLASTIC HAVING A MINIMUM CELL CLASSIFICATION OF 12454-C AND SHALL HAVE A MINIMUM PIPE STIFFNESS OF FORTY-SIX (46) LBS. PER INCH (317 KPA). JOINTS FOR PVC PIPE SHALL BE FLEXIBLE ELASTOMETRIC SEALS PER ASTM D3212.
1e	HIGH DENSITY POLYETHELYNE PIPE (HDPE) - HIGH-DENSITY POLYETHYLENE (HDPE) PIPE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 252 AND M 294. PIPE AND FITTINGS SHALL BE MADE FROM VIRGIN PE COMPOUNDS WHICH CONFORM TO THE REQUIREMENTS OF CELL CLASS 324420C AS DEFINED AND DESCRIBED IN ASTM D3350. RUBBER GASKET JOINTS SHALL BE USED.

2	BEDDING, OTHER THAN CONCRETE EMBEDMENT, SHALL CONSIST OF GRAVEL, CRUSHED GRAVEL, OR CRUSHED STONE 1/4 INCH TO 1 INCH IN SIZE. AS A MINIMUM, THE MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF IDOT STANDARD SPECIFICATIONS. THE GRADATION SHALL CONFORM TO GRADATION CA-7 OR CA-11 OF THE STANDARD SPECIFICATIONS.
3	BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF IDOT STANDARD SPECIFICATIONS. THE GRADATION SHALL CONFORM TO GRADATION CA-6 OF THE STANDARD SPECIFICATIONS. BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
4	JOINTS CONNECTING DISSIMILAR PIPE MATERIALS SHALL BE MADE WITH SEWER CLAMP NON-SHEAR TYPE COUPLINGS; CASCADE CSS, ROMAC LSS, FERNCO, INC. SHEAR RING, OR APPROVED EQUAL. WHEN AVAILABLE, A STANDARD JOINT WITH A TRANSITION GASKET MAY BE USED. THE NAME OF THE MANUFACTURER, CLASS, AND DATE OF ISSUE SHALL BE CLEARLY IDENTIFIED ON ALL SECTIONS OF PIPE. THE CONTRACTOR SHALL ALSO SUBMIT BILLS OF LADING, OR OTHER QUALITY ASSURANCE DOCUMENTATION WHEN REQUESTED BY THE CITY ENGINEER. ALL NUTS AND BOLTS FOR COUPLINGS SHALL BE STAINLESS STEEL.
5	MANHOLES FOR STORM SEWERS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES AND SHALL BE CONSTRUCTED OF PRECAST CONCRETE UNITS IN ACCORDANCE WITH ASTM C478-05 (OR LATEST EDITION) AND SHALL CONFORM TO THE CITY OF NAPERVILLE STANDARD DETAIL. ALL MANHOLES SHALL BE WATER-TIGHT. ALL VISIBLE LEAKS SHALL BE SEALED IN A MANNER ACCEPTABLE TO THE CITY ENGINEER.
6	MANHOLES SHALL BE FURNISHED WITH A SELF-SEALING FRAME AND SOLID COVER (EAST JORDAN IRON WORKS 1022 WITH TYPE A SOLID COVER, OR APPROVED EQUAL) WITH THE WORD "STORM" IMPRINTED ON THE COVER IN RAISED LETTERS. ALL FRAMES AND LIDS SHALL MEET OR EXCEED AASHTO H-20 LOADING SPECIFICATIONS. FRAMES SHALL BE SHOP PAINTED WITH ASPHALTIC BASE PAINT. BOTH THE MANHOLE FRAME AND COVER SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. INVERTED MANHOLE FRAMES ARE NOT ALLOWED. PICK HOLES SHALL NOT CREATE OPENINGS IN THE MANHOLE COVER.

7	MANHOLE STEPS ON MAXIMUM 16 INCH CENTER SHALL BE FURNISHED WITH EACH MANHOLE, SECURELY ANCHORED IN PLACE, TRUE TO VERTICAL ALIGNMENT, IN ACCORDANCE WITH THE NAPERVILLE STANDARD DETAILS. STEPS SHALL BE COPOLYMER POLYPROPYLENE REINFORCED WITH 1/2 INCH A615/A615M-05A (OR LATEST EDITION) GRADE 60 STEEL REINFORCEMENT, MEETING OR EXCEEDING ASTM C 478-05 (OR LATEST EDITION) AND OSHA STANDARDS.
8	CATCH BASINS AND INLETS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 24 INCHES AND SHALL BE CONSTRUCTED OF PRECAST CONCRETE UNITS IN ACCORDANCE WITH ASTM C478-05 (OR LATEST EDITION) AND SHALL CONFORM TO THE CITY OF NAPERVILLE STANDARD DETAIL. ALL CATCH BASINS AND INLETS SHALL BE WATER-TIGHT AT ALL POINTS BELOW GRADE. ALL VISIBLE LEAKS SHALL BE SEALED IN A MANNER ACCEPTABLE TO THE CITY ENGINEER. CATCH BASINS AND INLETS SHALL BE FURNISHED WITH A FRAME AND GRATE BASED UPON THE LOCATION OF THE INSTALLATION AS LISTED BELOW. ALL FRAMES AND GRATES SHALL MEET OR EXCEED AASHTO H-20 LOADING SPECIFICATIONS. FRAMES SHALL BE SHOP PAINTED WITH ASPHALTIC BASE PAINT. A) PAVEMENT: EAST JORDAN IRON WORKS 1022 FRAME WITH TYPE M1 RADIAL FLAT GRATE, NEENAH R-2502, OR APPROVED EQUAL FOR OPEN GRATES. EAST JORDAN IRON WORKS 1022 FRAME WITH TYPE A SOLID COVER, NEENAH R-1772, OR APPROVED EQUAL FOR CLOSE LIDS. B) BARRIER CURB AND GUTTER: EAST JORDAN IRON WORKS 7220 FRAME WITH TYPE M1 GRATE AND T1 CURB BOX, NEENAH R-3278-A, OR APPROVED EQUAL. C) DEPRESSED CURB: EAST JORDAN IRON WORKS 5120 FRAME AND GRATE, NEENAH R-3225-L, OR APPROVED EQUAL. D) MOUNTABLE CURB: EAST JORDAN IRON WORKS 7525 FRAME AND GRATE, NEENAH R-3501-P, OR APPROVED EQUAL. E) NON-PAVED AREAS: EAST JORDAN IRON WORKS 6527 BEEHIVE GRATE, NEENAH R-4340-B, OR APPROVED EQUAL. ALTERNATELY, IN AREAS WHERE THERE IS THE LIKELIHOOD OF PEDESTRIAN TRAFFIC, EAST JORDAN IRON WORKS 1022 FRAME WITH TYPE M1 RADIAL FLAT GRATE, OR APPROVED EQUAL MAY BE USED.

10	ALL PIPE SHALL BE LAID TRUE TO LINE AND GRADE. DIRT AND OTHER FOREIGN MATERIAL SHALL BE PREVENTED FROM ENTERING THE PIPE OR PIPE JOINT DURING HANDLING OR LAYING OPERATIONS. ALL STORM SEWER PIPE TO PIPE CONNECTIONS SHALL BE SEALED WITH BUTYL MASTIC TO ENSURE WATER TIGHTNESS. LIFT HOLES TO BE SEALED USING BUTYL MASTIC AND CONCRETE PLUGS. AT NO TIME SHALL CONNECTIONS BETWEEN THE STORM SEWER AND SANITARY SEWER BE ALLOWED.
11	FOR STRUCTURES LOCATED IN PAVED AREAS, A MINIMUM OF FOUR, 2-INCH DIAMETER HOLES SHALL BE DRILLED OR PRECAST INTO THE STRUCTURE WITHIN 1 FOOT OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1-FOOT BY 1-FOOT
	SECTION OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE SUFFICIENTLY FIXED TO THE OUTSIDE OF THE MANHOLE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.
12	ALL STORM SEWER STRUCTURE FRAMES WITHOUT INSIDE FLANGES SHALL BE SHAPED WITH NON-SHRINKING HYDRAULIC CEMENT TO FORM A FILLET TO THE STRUCTURE OR ADJUSTING RING. WHEN ADJUSTMENTS ARE NECESSARY, NO MORE THAN 12 INCHES OF VERTICAL ADJUSTMENT MAY BE MADE USING THE MINIMUM PRACTICAL NUMBER OF INDIVIDUAL RINGS. ALL RINGS SHALL BE HIGH DENSITY POLYETHYLENE PLASTIC (HDPE), RECYCLED RUBBER, HIGH DENSITY EXPANDING POLYSTYRENE, EXPANDED POLYPROPYLENE (EPP), OR OTHER MATERIAL AS APPROVED BY THE CITY ENGINEER. PRECAST CONCRETE RINGS, BRICKS, ROCKS, SHIMS, OR CONCRETE BLOCKS WILL NOT BE ALLOWED. TAPERED ADJUSTING RINGS SHALL BE REQUIRED WHEN THE FRAME WILL NEED TO MATCH THE SLOPE OF THE ROADWAY. A RESILIENT, FLEXIBLE, NON-HARDENING, PREFORMED BITUMINOUS MASTIC MATERIAL, CONSEAL 102 B OR APPROVED EQUAL, SHALL BE USED BETWEEN THE CONE OR TOP BARREL SECTION OF THE STRUCTURE AND THE ADJUSTING RINGS. A THICK BEAD OF NON-HARDENING ELASTOMERIC JOINT SEALANT CONFORMING TO ASTM C-920, TYPE S, GRADE NS, SHALL BE APPLIED BETWEEN ALL INDIVIDUAL RINGS, AND BETWEEN THE ADJUSTING RINGS AND THE FRAME. THE SEALANT OR MASTIC MATERIAL SHALL BE APPLIED IN SUCH A MANNER THAT NO SURFACE WATER OR GROUND WATER INFLOW CAN ENTER THE STRUCTURE.

Erosion Control and Drainage Notes (General)

The Erosion Control and Drainage Notes in this section should be included in all final engineering plans regardless of the type of work in the project.

1	THE CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
2	DURING EXTENDED DRY PERIODS, THE CONSTRUCTION AREA(S) MAY NEED TO BE WATERED DOWN TO PREVENT THE BLOWING OF SOIL FROM THE SITE.
3	DURING CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED TO MINIMIZE THE TRACKING OF DIRT ONTO THE PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP PUBLIC STREET PAVEMENT CLEAN OF DIRT AND DEBRIS. ANY DIRT THAT IS TRACKED ONTO THE PUBLIC STREETS SHALL BE REMOVED THE SAME DAY. IF THE AMOUNT TRACKED ON THE PUBLIC STREET IS EXCESSIVE, CLEANING MAY BE REQUIRED MORE FREQUENTLY.

Erosion Control and Drainage Notes (Project Specific)

The Erosion Control and Drainage Notes in this section are intended to be included when a project includes erosion control work as part of the project. The Consultant should review the following Notes to determine if they are applicable to the work being completed.

1	ALL EROSION CONTROL MEASURES SHALL BE PROPERLY INSTALLED, AS PERMITTED, PRIOR TO ANY LAND DISTURBANCE ACTIVITIES. ALL EROSION CONTROL SHALL BE MAINTAINED UNTIL TURF IS ESTABLISHED.
2	ACCEPTABLE PERIMETER EROSION CONTROL INCLUDES SILT FENCE, SILT WORM AND ANY OTHER APPLICATION APPROVED BY THE CITY ENGINEER.
3	ALL OPEN GRATE STRUCTURES SHALL HAVE EROSION CONTROL PROTECTION IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLANS. STRAW BALES SHALL NOT BE USED.
4	STOCKPILES NOT BEING DISTURBED FOR MORE THAN 14 DAYS SHALL BE SEEDED.
5	ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY, AFTER ANY 0.5 INCH OR GREATER RAINFALL, OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN THEIR FUNCTION.

Erosion Control and Drainage Notes (NPDES Permit)

The Erosion Control and Drainage Note in this section should be included if the project requires an NPDES permit.

1	IT IS THE RESPONSIBILITY OF THE OWNER OR HIS DESIGNEE TO INSPECT ALL TEMPORARY EROSION CONTROL MEASURES PER THE REQUIREMENTS OF THE NPDES PERMIT AND CORRECT ANY DEFICIENCIES AS NEEDED.

Geometric and Paving Notes (General)

The Geometric and Paving Notes in this section should be included in all final engineering plans regardless of the type of work in the project.

1	THE DEVELOPER AND CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO ADEQUATELY PROTECT THE PAVEMENT AND PROPERTY, CURB AND GUTTER AND OTHER RIGHT-OF-WAY IMPROVEMENTS, WHETHER NEWLY CONSTRUCTED OR EXISTING, FROM ANY AND ALL DAMAGE. SUFFICIENT MEANS SHALL BE EMPLOYED BY THE CONTRACTOR TO PROTECT AGAINST SUCH DAMAGE TO THE SATISFACTION OF THE CITY ENGINEER.
2	ANY NEW OR EXISTING IMPROVEMENTS THAT ARE DAMAGED SHALL BE REPAIRED OR REPLACED IN A MANNER THAT IS SATISFACTORY TO THE CITY ENGINEER.
3	THE CONTRACTOR AND/OR DEVELOPER SHALL SECURE ALL NECESSARY RIGHTS AND PERMISSIONS TO PERFORM ANY WORK ON PRIVATE PROPERTY NOT WITHIN THE OWNERSHIP RIGHTS OF THE DEVELOPER. THE DEVELOPER SHALL BEAR THE SOLE RESPONSIBILITY FOR DAMAGES THAT MAY OCCUR AS A RESULT OF WORK PERFORMED UNDER CONTRACTS THEY INITIATE.
4	THE CONTRACTOR/DEVELOPER WILL BE RESPONSIBLE FOR BRINGING PAVEMENTS (STREET, CURB AND GUTTER, SIDEWALK, DRIVEWAY) ON THE PROPERTY UP TO CITY STANDARDS INCLUDING ANY REPAIRS TO SUBSTANDARD PAVEMENTS THAT EXISTED PRIOR TO OR OCCURRED DURING CONSTRUCTION.
5	WHEREVER NEW WORK WILL MEET EXISTING CONDITIONS OTHER THAN LAWN AREAS, REGARDLESS OF WHETHER THE NEW OR EXISTING WORK IS ASPHALT OR CONCRETE, THE EXISTING ADJACENT SIDEWALK, DRIVEWAYS, PAVEMENT OR CURB SHALL BE NEATLY SAWCUT. THE SAWCUT SHALL BE IN A NEAT STRAIGHT LINE SUFFICIENTLY DEEP SO THAT IT RENDERS A SMOOTH VERTICAL FACE TO MATCH TO. IF THE CONTRACTOR IS NOT CAREFUL OR DOES NOT SAW DEEP ENOUGH AND THE CUT LINE BREAKS OUT OR CHIPS TO AN IMPERFECT EDGE, THEN THE EXISTING SIDE MUST BE RE-CUT SQUARE AND DONE OVER UNTIL IT IS CORRECT.
6	ALL PAVEMENT PATCHES WITHIN THE PUBLIC RIGHT-OF-WAY MUST CONFORM TO CITY STANDARDS. REFERENCE NAPERVILLE STANDARD DETAILS 590.12 AND 590.13.

Traffic Control and Protection Notes (General)

The Traffic Control and Protection Notes in this section should be included in all final engineering plans regardless of the type of work in the project.

1	ALL DEVELOPERS AND CONTRACTORS SHALL PROVIDE SUITABLE TRAFFIC CONTROL FOR THEIR CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. TRAFFIC CONTROL MUST BE PROVIDED FOR ANY ACTIVITY THAT IMPACTS TRAFFIC FLOW. THIS INCLUDES, BUT IS NOT LIMITED TO, ROAD CLOSURES REQUIRING DETOURS, DAILY LANE CLOSURES, LONG TERM LANE CLOSURES, NARROW LANES, AND CONSTRUCTION VEHICLES ENTERING AND EXITING THE PUBLIC ROADWAY. ALL TRAFFIC CONTROL SET-UPS MAY BE INSPECTED BY THE CITY OF NAPERVILLE TO ENSURE THAT THEY ARE PROVIDING POSITIVE GUIDANCE TO MOTORISTS AND ARE NOT IN THEMSELVES PRESENTING A HAZARDOUS SITUATION. A REPRESENTATIVE OF THE DEVELOPER OR CONTRACTOR MUST PROVIDE PHONE NUMBERS AT WHICH THEY CAN BE REACHED 24 HOURS A DAY AND ON WEEKENDS SO THAT THEY CAN MAINTAIN TRAFFIC CONTROL DEVICES.
2	PEDESTRIANS MUST BE PROVIDED WITH A SAFE ALTERNATE ROUTE IF PEDESTRIAN FACILITIES ARE TO BE CLOSED AS A RESULT OF CONSTRUCTION ACTIVITIES. GUIDANCE MUST BE PROVIDED TO PEDESTRIANS SO THAT THEY MAY AVOID THE WORK ZONE. SAID PEDESTRIAN DETOUR PLAN (WITH SIGNAGE) IS TO BE REVIEWED AND ACCEPTED BY THE CITY IN WRITING, PRIOR TO THE COMMENCEMENT OF THE WORK.
3	THE CONTRACTOR SHALL EMPLOY THE APPROPRIATE METHODS OF TRAFFIC CONTROL IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SUCH THAT THE SAFETY OF VEHICLES, AND PEDESTRIANS IS PRESERVED AT ALL TIMES. THE ERECTION AND MAINTENANCE OF THE TRAFFIC CONTROL DEVICES SHALL BE TO THE SATISFACTION OF THE AGENCY OF JURISDICTION AND THE CITY ENGINEER.
4	ANY TEMPORARY OPEN HOLES SHOULD BE BARRICADED AND PROTECTED IN ACCORDANCE WITH APPLICABLE STANDARDS.

Traffic Control and Protection Notes (Arterial Roads)

The Traffic Control and Protection Notes in this section should be included in all final engineering plans if the project involves work either in or adjacent to arterial roadways.

1	LANE CLOSURES ON ARTERIAL ROADWAYS WITHIN THE CITY OF NAPERVILLE ARE NOT PERMITTED BETWEEN THE HOURS OF 6AM-9AM AND 3PM-7PM MONDAY THROUGH FRIDAY, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. LANE CLOSURES ON ARTERIAL STREETS ARE NOT PERMITTED BETWEEN 7AM AND 7PM ON WEEKENDS, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. ARTERIAL ROADWAYS ARE DEFINED AS BOTH MAJOR AND MINOR ARTERIAL ROADWAYS AS DESIGNATED ON THE CITY'S MASTER THOROUGHFARE PLAN, LATEST EDITION.
2	ANY WORK THAT IMPACTS A TRAFFIC LANE ON AN ARTERIAL ROADWAY REQUIRES AN ARROW BOARD AS PART OF THE TRAFFIC CONTROL.
3	AT THE END OF EACH DAY OF WORK, THE ROADWAY MUST BE COMPLETELY REOPENED TO TRAFFIC. ANY OPEN HOLES MUST BE PLATED OR COLD PATCHED; THE CITY WILL NOT ALLOW THE HOLES TO BE FILLED WITH GRAVEL.

DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC GENERAL NOTES

1. The developer SHALL supply the DPU-E engineer with catalog cuts for all CT/meter equipment (including but not limited to meter sockets, PT cabinet, CT cabinet, disconnect cabinet) and transformer pad/vault. The catalog cuts SHALL be approved by DPU- E prior to purchasing.

   The CT/meter cabinet SHALL be top fed.

   CT/meter equipment are long lead time items and DPU-E shall not be held responsible for delays resulting from non-compliant CT/meter equipment.

   Please provide name and contact information for Electrical Contractor for this project.
2. DPUE will provide, install, and maintain the transformers, all primary(15kV) cable and conduit, and the meters and instrument transformers. DPUE will also make the final connections in the transformers once the inspection is complete and the building is ready to be energized.

   The developer is responsible for providing, installing, and maintaining the transformer pad/vault, all service lateral (480V) cable and conduit, the service entrance equipment including the CT/meter cabinet and banked meter sockets.
3. The developer SHALL coordinate site construction with DPU-E to allow electric facilities to be installed prior paving and curbing. DPU-E requires 30 working days advance written notice prior to pavement installation to allow for the installation of electric facilities. Grade elevation must be within 4" of final grading before electric facilities can be installed.
4. Electric facilities SHALL be installed pursuant to Section 8-1C-3 of the City of Naperville Municipal Code, which requires a construction fee payment for installation of electric facilities.
5. At all times, the Customer shall be solely responsible for maintaining suitable approach to the meter location, with no obstructions within four (4') feet of the front and two (2') feet of the sides of NAPERVILLE SERVICE RULES AND POLICIES 22.2.F.
6. DPU-E requires a minimum 5' of separation between the electric facilities and any fire hydrants, storm drains, storm sewer, water main, gas main etc. that run parallel to its facilities.
7. To have an existing service disconnected call the City Dispatch office 630-420-6187. Please allow at least 24 hours' notice. Meters and meter seals are to be removed only by DPU-E personnel. The location and type of new or replacement meter related equipment must be pre-approved in writing by DPU-E. An electric service must be inspected by the Development Services Team electrical inspector prior to connection.
8. Label all meter sockets with the complete address in 1" letters using permanent stickers. In multiple meter banks the complete address may be on the disconnect switch and the suite numbers on the meter sockets. The electrical service equipment will not pass inspection with appropriate address labeling.
9. Approval of metering equipment by DPU-E does not remove your responsibility to comply with the latest version of the National Electrical Code as adopted by the City of Naperville. Determination of compliance with the National Electrical Code will be made by Transportation Engineering and Development department.
10. A customer's grounding conductor shall not be distribution equipment.
11. Due to supply chain issues DPU-E is experiencing long lead times (+900 days) on transformers. Please take this into consideration when planning construction.
12. DPU-E will install and energize all meters in multiple meter banks at one time, provided all meter sockets pass inspection. In the event of an incomplete installation, only the inspected and approved equipment shall be energized and a meter installed. Individual tenants permit will be required for installation of the other meters in the meter bank.
13. The Transformer must be shown on the site plan and should be located between 8' and 50' from commercial buildings. Meters, instrumental transformers, and main disconnect shall be located within 50' of the transformer, and main disconnect shall be located with 50' of the transformer and shall be installed on the exterior of the building. If the transformer will be located at the distance greater than 50', then metering cabinet and main disconnect must be free standing and located between 10' and 15' of the transformer. The instrument transformers and main disconnect may be installed inside the building if the service entrance capacity is 1200 amps or greater. Meters shall be installed on the building exterior.
14. The developer is responsible for the construction and installation of a transformer pad and vault. The DPU-E engineer must be informed prior to the installation of the and vault. A main disconnect or circuit breaker is required for DPU-E access in case of a need for service or in an emergency. DPU-E shall make the final connections of the customer's service to the transformer terminals. A minimum of eight feet of additional conductor length must be left on the customer's service cables.
15. The transformer is located near vehicular traffic. Developer is responsible for providing and installing 8" bollards per DPU-E specification C10-2222.
16. Additional easement is required. ALL DPU-E owned primary/ secondary cable and equipment (transformer, switches, etc.…) must be installed inside of public utility easement.

WATER UTILITES GENERAL NOTES

a. New water main valves, including pressure tap valves, adjacent to an existing water main, and existing water main valves shall only be operated by the City of Naperville, Department of Public Utilities CEE/CM Division personnel with 48-hour notice (Monday-Friday). Contact Naperville TED Business Group at 630-420-6082 for scheduling.
b. Any existing utility structures requiring adjustment or reconstruction shall be completed by the contractor to the satisfaction of the utility owner. Adjustments and/or reconstructions not called for on the plans shall be considered incidental to the contract. No more than a total of 12 inches of adjusting rings and/or 2 adjusting rings shall be allowed. All structure frames shall be flush with final grade.
c. Trees shall be installed a minimum of five (5) feet horizontally from underground electrical feeders, sanitary sewers, sanitary services, water mains, and water services. Trees shall be installed a minimum of ten (10) feet horizontally from utility structures and appurtenances, including, but not limited to, manholes, valve vaults, valve boxes and fire hydrants. No trees, shrubs or obstacles will be allowed 10' in front of, 5' on the sides, and 7' to the rear of the electrical transformer.
d. All retainer glands when required to restrain valves, fittings, hydrants, and pipe joints shall be mechanical joint wedge action type MEGALUG 1100 Series as manufactured by EBBA Iron, Inc. or UNI-FLANGE BLOCKBUSTER 1400 SERIES as manufactured by Ford Meter Box Co. and shall be for use on ductile iron pipe conforming to ANSI/AWWA C151/A21.51, for nominal pipe sizes 3" through 48".
e. Existing ductile iron systems for restraining push-on pipe bells shall be MEGALUG SERIES 1100HD or FORD SERIES 1390.
f. Existing ductile iron systems requiring restraint shall be MEGALUG SERIES 1100SD (split MEGALUG) for mechanical joints.
g. Ductile iron water main to be Class 52. All ductile iron pipe is to be encased in polyethylene film Polyethylene encasement to be installed in accordance with ANSI/AWWA C105/A21.5-05.
h. A set of as-built record drawing shall be given to the City of Naperville upon completion of improvements showing the elevation and location (tied to two points) of all new and existing structures including fire hydrants, valve boxes and vaults, linestop sleeves, water service corporation stops, water main fittings/bends, manholes, sanitary service wyes (measured from downstream manhole), and abandoned water or sanitary service lines. All elevations should be referenced to the same benchmark datum as the original design plans. Horizontal ties shall be referenced to lot lines, back of curb, or property corners.
i. All sanitary sewer piping shall be PVC pipe meeting the requirements of ASTM D-2241 with joints conforming to ASTM D-3139. All sanitary sewer fittings shall be PVC meeting the following requirements: 4" to 12" shall be Injection Molded Fittings meeting ASTM D-2241. Greater than 12" shall be Fabricated. Fittings meeting ASTM D-2241 or C905. Minimum pressure rating shall be 150 psi.
j. The valves less than 16" shall be standard pattern, gate valves and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body. Valves may be approved from one of the following manufacturers: American, Clow, Waterous or Kennedy.
k. Stainless steel nuts, bolts/T-bolts, and washers, Type 304 or better, will be required on all water main installations. This would apply to hydrants, tapping sleeves, valves, fittings, restraint, and other appurtenances buried or in valve vaults. Mechanical joints and restraint glands require 304 stainless steel T-bolts. An anti-seize compound shall be factory applied to nuts or bolts - any damage to this coating shall be repair with field applied approved anti-seize compound that is a molybdenum-base lubricant, Bostik Never-Seez or approved equal.
l. The contractor shall rotate and/or adjust any existing and/or new hydrant to the satisfaction of the Department of Public Utilities.
m. Water mains shall be subjected to a hydrostatic/leakage test in accordance with Naperville Standard Specifications. Test pressure shall be no less than 150 psi for a period of 4 hours and not vary by more than ± 5 psi. during the test. The test gauge shall be approved by the City and shall be glycerin or oil filled, with a range of not more than 200 psi and increments not greater than 5 psi, 4 " minimum dial size. Water recovery test shall be completed at the end of the testing period to show actual leaking and that the water main did not have too much trapped air in the tested section.
n. The City of Naperville Public Utilities does not guarantee that any valve or fitting in the existing water distribution system will hold against a hydrostatic/leakage test. The Contractor is solely responsible for providing and acceptable pressure test which shall include provisions around existing valves and fittings.
o. Fire hydrant should be bagged "NOT IN SERVICE" until all testing and disinfection has been completed and new water main section is service.
p. Sanitary sewer and water shall be constructed, tested, and placed into service in accordance with City of Naperville Standard Specification and Specifications for Water and Sewer Main Construction in Illinois, Latest Edition.
q. All valve boxes, vaults, hydrants, and manholes shall not be covered with construction debris and shall remain accessible to the respective utility company.
r. Water service line smaller than 3" shall be type K copper. If joints are required due to length of service, then only compression type coupling shall be permitted. No soldered or flared type joints are allowed.
s. All sanitary manholes shall be tested for leakage by vacuum testing. The manhole frame and adjusting rings shall be in place when testing. Any leaks shall be repaired from exterior of manhole - patching inside of manhole shall not be acceptable. A vacuum of 10" (254 mm) Hg shall be place on the manhole and the time shall be measured for the vacuum to drop to 9" (229 mm) Hg. The vacuum shall not drop below 9" (229 mm) Hg for the following time periods for each size of manhole:
   a) 48-inch diameter - 60 seconds
   b) 60-inch diameter - 75 seconds
   c) 72-inch diameter - 90 seconds
   d) 84-inch diameter - 105 seconds

Any manholes that fail the test shall be sealed and re-tested until acceptable.

a. The contractor shall provide internal televised inspection of all installed sanitary sewer, laterals, manholes and connections to the public system. Following completion of televising work, the contractor shall submit video recordings on DVD or flash drive along with a comprehensive televising report which will indicate the location, footages and nature of any defects. Prior to final acceptance, these defects shall be repaired to the satisfaction of the Water/Wastewater Utility and re-televised.
b. Contractor work hours are only allowed from 7:00 a.m. to 5:00 p.m., Monday through Saturday. No work shall be permitted on Sundays.
c. Sanitary pipes with less than 4 feet or more than 25 feet of cover shall be constructed of ductile iron piping (Class 50, minimum) and encased in polywrap.
d. All excavations more than 20 feet deep must be protected by a system designed by a registered professional engineer.
e. Contractor shall maintain 2' minimum clearance between existing utilities and new foundations and underground facilities. In areas where foundations and underground facilities are proposed adjacent to existing utilities, the contractor shall pot hole by vacuum excavation or hand excavation to locate the existing utility to verify minimum clearance requirement.
f. Fences shall be installed a minimum of 5 feet from any water or sanitary mains when running parallel with them. Where fences are installed crossing water or sanitary mains, the posts shall be located to have the main between them.
g. All brass components shall be certified to be lead free in compliance with NSF 61 and NSF 372 and identified with applicable markings.
h. **Sanitary Force Main -** Force man shall be tested a minimum of 1 hour at 1.5 the shut off head of the pump, 2.5 times the operating pressure, or 20 psi whichever is greatest. Allowable leakage shall be in accordance with section 41-2.14C of the standard specifications for water and sewer construction.

REVISIONS

NO.	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: JULY 28, 2025

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

PROJECT NO.: 241072

PROJECT MANAGER: DF

DESIGNED BY: NB

DRAWN BY: RI

NAPERVILLE SPECIFICATIONS

THE RESIDENCES AT
NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C1.1

GRAPHIC SCALE
60 30 0 60
1" = 60'

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

EXISTING CONDITIONS PLAN

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

DRAWING NO. C2.0

PROJECT NO.:	241072
PROJECT MANAGER:	DF
DESIGNED BY:	NB
DRAWN BY:	RI

ORIGINAL ISSUE DATE: JULY 28, 2025

REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
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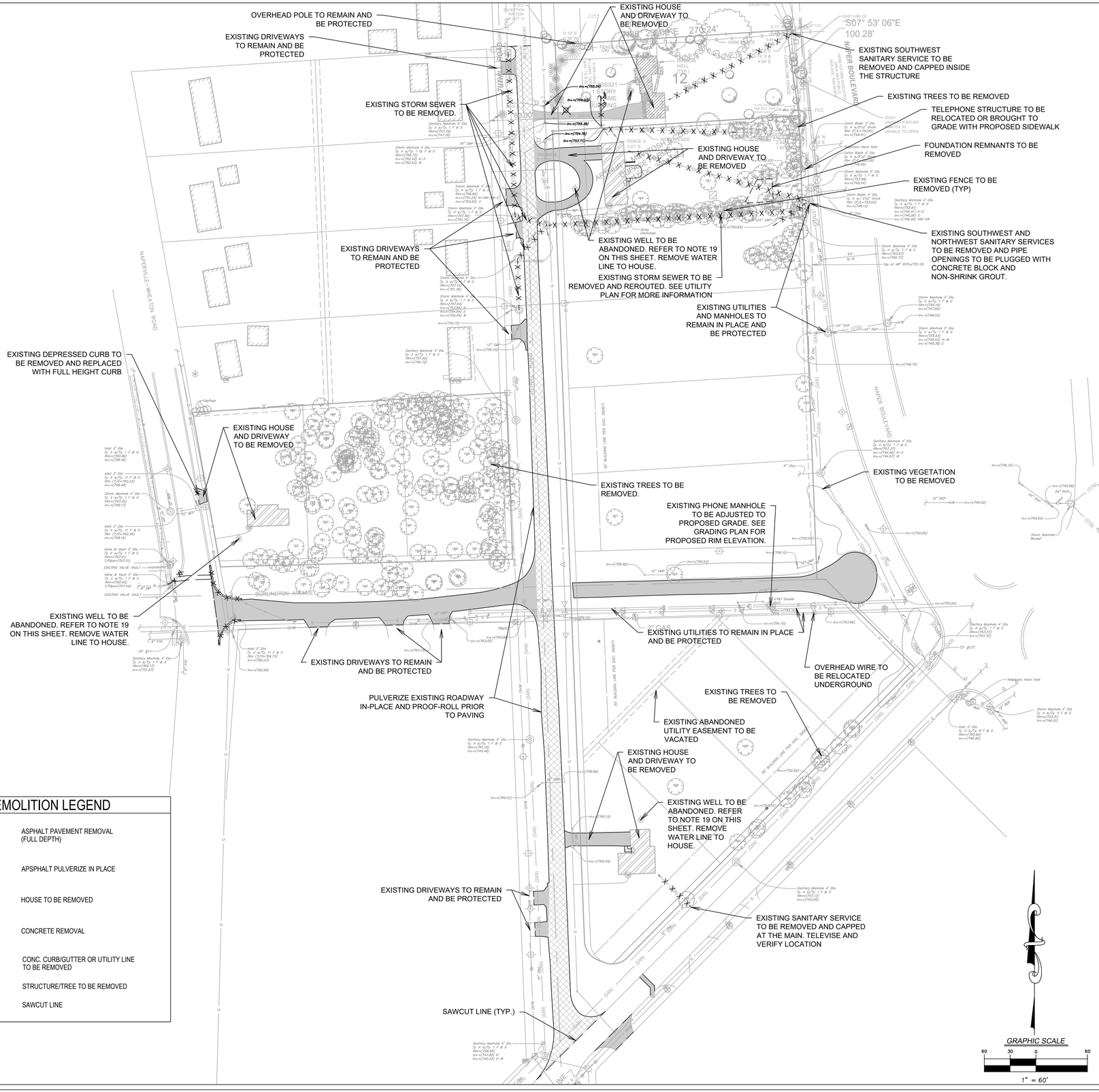

DEMOLITION LEGEND

- ASPHALT PAVEMENT REMOVAL (FULL DEPTH)
- APSPHALT PULVERIZE IN PLACE
- HOUSE TO BE REMOVED
- CONCRETE REMOVAL
- CONC. CURB/GUTTER OR UTILITY LINE TO BE REMOVED
- STRUCTURE/TREE TO BE REMOVED
- SAWCUT LINE

DEMOLITION PLAN

1. THE EXTENT OF DEMOLITION WORK IS AS GENERALLY SHOWN ON THE CONSTRUCTION DOCUMENTS. SPECIFIC DEMOLITION PROCESSES OR PROCEDURES FOR DEMOLITION AND STRUCTURAL CONSIDERATIONS ARE THE RESPONSIBILITY OF OTHERS. DEMOLITION INCLUDES, BUT IS NOT LIMITED TO, REMOVAL AND DISPOSAL OFFSITE OF THE FOLLOWING ITEMS:
   - SIDEWALK AND ON-SITE PAVEMENT
   - BUILDINGS, FOUNDATIONS, AND SUPPORTING WALLS AND SLABS
   - UTILITIES
   - CONSTRUCTION DEBRIS
2. ALL PAVEMENT TO BE REMOVED ADJACENT TO PAVEMENT THAT IS TO REMAIN SHALL BE SAWCUT FULL DEPTH AT THE EDGES PRIOR TO REMOVAL TO OBTAIN A "CLEAN" JOINT WHERE IT ABUTS NEW CURB OR PAVEMENT.
3. CONTRACTOR MUST RECEIVE APPROVAL FROM CIVIL ENGINEER AND GEOTECHNICAL ENGINEER FOR THE MATERIAL TYPE AND USE IF CONTRACTOR DESIRES TO REUSE DEMOLISHED SITE PAVEMENT AS STRUCTURAL FILL.
4. STRUCTURES TO BE DEMOLISHED SHALL BE VACATED AND DISCONTINUED FROM USE PRIOR TO START OF WORK. OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF STRUCTURES TO BE DEMOLISHED. CONDITIONS EXISTING AT TIME OF INSPECTION FOR BIDDING PURPOSES WILL BE MAINTAINED BY OWNER IN SO FAR AS PRACTICABLE. HOWEVER, VARIATIONS WITHIN THE STRUCTURES MAY OCCUR BY OWNER'S REMOVAL AND SALVAGE OPERATIONS PRIOR TO START OF DEMOLITION WORK.
5. ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED AS WORK PROGRESSES AND AS APPROVED BY THE OWNER. SALVAGED ITEMS MUST BE TRANSPORTED FROM THE SITE AS THEY ARE REMOVED. STORAGE OR SALE OF REMOVED ITEMS ON SITE WILL NOT BE PERMITTED.
6. CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF BUILDINGS, PAVEMENTS AND UTILITIES TO REMAIN FROM ANY DAMAGE AND SHALL BE RESPONSIBLE FOR REPAIRING THE SAME.
8. EXISTING UTILITIES, WHICH DO NOT SOLEY SERVICE STRUCTURES BEING DEMOLISHED, ARE TO BE KEPT IN SERVICE AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR SHALL ARRANGE FOR SHUT-OFF OF UTILITIES SERVING STRUCTURES TO BE DEMOLISHED. CONTRACTOR IS RESPONSIBLE FOR TURNING OFF, DISCONNECTING, AND SEALING INDICATED UTILITIES BEFORE STARTING DEMOLITION OPERATIONS.
9. EXISTING UTILITIES TO BE ABANDONED ARE TO BE CAPPED AT BOTH ENDS AND FILLED WITH FA-1 OR APPROVED EQUAL. ALL UNDERGROUND UTILITIES TO BE REMOVED ARE TO HAVE THEIR TRENCHES BACKFILLED WITH ENGINEERED FILL OR SELECT EXCAVATED MATERIAL, AS APPROVED BY THE GEOTECHNICAL ENGINEER, TO 95% OF MODIFIED PROCTOR DENSITY.
10. ALL PRIVATE UTILITIES (ELECTRIC, CABLE, TELEPHONE, FIBER OPTIC, GAS) SHALL BE REMOVED AND RELOCATED PER THE UTILITY OWNER AND THE LOCAL MUNICIPALITY'S REQUIREMENTS.
11. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UNDERGROUND AND OVERHEAD UTILITIES DURING CONSTRUCTION. UTILITY PROTECTION SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY OWNER AND THE GOVERNING MUNICIPALITY. DAMAGED CABLES/CONDUITS SHALL BE REPLACED IMMEDIATELY. ALL EXISTING STRUCTURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PROCESS. ALL DAMAGED STRUCTURES SHALL BE REPLACED IN-KIND AND THEIR REPLACEMENT COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
12. REMOVAL, ABANDONMENT, AND RELOCATION OF EXISTING UTILITIES SHALL BE COMPLETED AS GENERALLY DEPICTED ON THESE PLANS. CONTRACTOR TO COORDINATE RELOCATIONS WITH THE UTILITY OWNER. CONTRACTOR SHALL MINIMIZE DISRUPTION OF SERVICE AND SHALL WORK WITH UTILITY OWNER TO MAINTAIN AN ACCEPTABLE LEVEL OF SERVICE.
13. USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO MINIMIZE DUST AND DIRT FROM RISING AND SCATTERING IN THE AIR. COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
14. DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
15. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION TO THE FINAL LINES AND GRADES SHOWN ON THE CONTRACT DOCUMENTS. BACKFILL MATERIAL SHALL BE IDOT APPROVED AGGREGATE (CA-6) OR APPROVED EQUAL.
16. SEE LANDSCAPE PLANS FOR INFORMATION ON LANDSCAPE AND TREE PROTECTION, PRESERVATION, AND REMOVAL.
17. EXISTING MONITORING WELLS ARE TO BE REMOVED AS NECESSARY AND SEALED BY STATE LICENSED WELL DRILLER PER ILLINOIS DEPARTMENT OF PUBLIC HEALTH REQUIREMENTS AND/OR LOCAL/COUNTY REQUIREMENTS.
18. THESE DRAWINGS DO NOT INCLUDE THE REMOVAL OF UNDERGROUND STORAGE TANKS. SHOULD UNDERGROUND STORAGE TANKS BE ENCOUNTERED, CONTRACTOR TO CONTACT OWNER AND ENGINEER TO DETERMINE RESPONSIBILITY FOR ANY ENVIRONMENTAL REMEDIATION OR REMOVAL WORK AS NECESSARY. ANY REMOVAL OF UNDERGROUND STORAGE TANKS MUST BE IN CONFORMANCE WITH LOCAL AND STATE STANDARDS.
19. ANY SEPTIC FIELD OR WELL THAT IS TO BE ABANDONED AS PART OF THIS DEVELOPMENT MUST BE TERMINATED PER COUNTY HEALTH REGULATIONS AND DOCUMENTATION FORWARDED TO THE WATER DEPARTMENT.

REVISIONS

NO.	DATE	DESCRIPTION
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ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

DEMOLITION PLAN

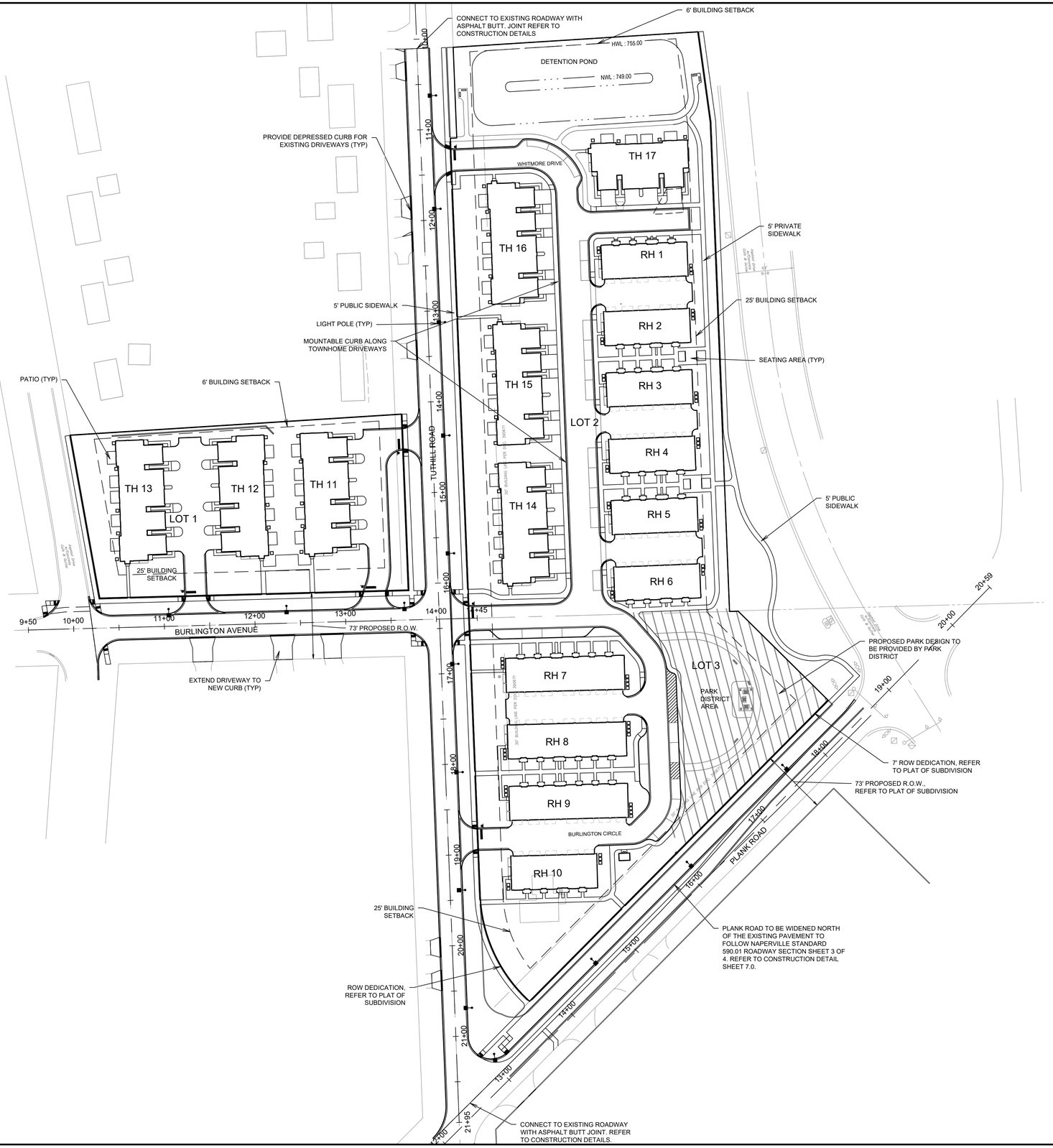
THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C2.1



NOTES:

1. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED WHITE UNLESS OTHERWISE NOTED.
3. BUILDING DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ALL CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.
5. PUBLIC ROADWAYS TO BE DESIGNED PER NAPERVILLE STANDARDS 590.01, REFER TO CONSTRUCTION DETAIL SHEET 7.0.
   -PLANK ROAD - 37' PAVEMENT WITHIN 80' ROW
   -TUTHILL ROAD - 28' PAVEMENT WITHIN 66' ROW
   -BURLINGTON AVENUE - 28' PAVEMENT WITHIN 66' ROW

SITE DATA

LOT1
AREA = 1.52 AC(66,154 SF)

3 TOWNHOME BUILDINGS - 15 UNITS

PARKING
REQUIRED: 2 PARKING SPACES PER DWELLING UNIT PLUS 0.25 GUESTS PARKING SPACES (34)
PROVIDED: 60 PARKING SPACES
30 GARAGE SPACES, 30 DRIVEWAY SPACES

LOT2
AREA = 5.92 AC(257,996 SF)

4 TOWNHOME BUILDINGS - 19 UNITS

PARKING
REQUIRED: 2 PARKING SPACES PER DWELLING UNIT PLUS 0.25 GUESTS PARKING SPACES (43)
PROVIDED: 76 PARKING SPACES
38 GARAGE SPACES, 38 DRIVEWAY SPACES

10 ROWHOME BUILDINGS - 56 UNITS

PARKING
REQUIRED: 2 PARKING SPACES PER DWELLING UNIT PLUS 0.25 GUESTS PARKING SPACES (126)
PROVIDED: 138 PARKING SPACES
112 GARAGE SPACES, 26 STREET SPACES

LOT3
AREA = 0.62 AC(27,047 SF)

PARK DISTRICT

GRAPHIC SCALE
60 30 0 60
1" = 60'

REVISIONS

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PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

OVERALL SITE PLAN

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C3.0

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   -TUTHILL ROAD - 28' PAVEMENT WITHIN 66' ROW
   -BURLINGTON AVENUE - 28' PAVEMENT WITHIN 66' ROW

PAVING LEGEND

BITUMINOUS PAVEMENT (LIGHT DUTY)(SN = 2.50)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 2" HOT MIX ASPHALT BINDER COURSE
- 8" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

BITUMINOUS PAVEMENT (LOCAL ROAD)(SN = 3.00)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 3.5" HOT MIX ASPHALT BINDER COURSE
- 8" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

BITUMINOUS PAVEMENT (COLLECTOR ROAD)(SN = 4.01)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 5" HOT MIX ASPHALT BINDER COURSE
- 12" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE PAVEMENT (SN = 3.52)
- 6" P.C. CONCRETE PAVEMENT
- 4" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE SIDEWALK (SN = 2.26)
- 4" P.C. CONCRETE PAVEMENT
- 2" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE PAVEMENT ENTRANCE (SN = 4.52)
- 8" P.C. CONCRETE PAVEMENT
- 4" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

DRIVEWAY
2.0% MIN. (TYP.)
SIDEWALK
1.5% (TYP.)
3"
ROADWAY
SLOPE VARIES
5"
19"
3" REVERSE PITCH MOUNTABLE CURB
(NOT TO SCALE)

KEY MAP
C3.1
C3.2
C3.3
C3.4

GRAPHIC SCALE
20 10 0 20
1" = 20'

FOR CONTINUATION SEE SHEET C3.3

REVISIONS			
NO.	DATE	DESCRIPTION	
1	09-04-25	REVISED PER CITY COMMENTS	
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ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

LAYOUT AND PAVING PLAN - AREA 1

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C3.1

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FOR CONTINUATION SEE SHEET C3.1

NOTES:

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4. ALL CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.
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   -PLANK ROAD - 37' PAVEMENT WITHIN 80' ROW
   -TUTHILL ROAD - 28' PAVEMENT WITHIN 66' ROW
   -BURLINGTON AVENUE - 28' PAVEMENT WITHIN 66' ROW

PAVING LEGEND

BITUMINOUS PAVEMENT (LIGHT DUTY)(SN = 2.50)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 2" HOT MIX ASPHALT BINDER COURSE
- 8" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

BITUMINOUS PAVEMENT (LOCAL ROAD)(SN = 3.00)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 3.5" HOT MIX ASPHALT BINDER COURSE
- 8" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

BITUMINOUS PAVEMENT (COLLECTOR ROAD)(SN = 4.01)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 5" HOT MIX ASPHALT BINDER COURSE
- 12" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

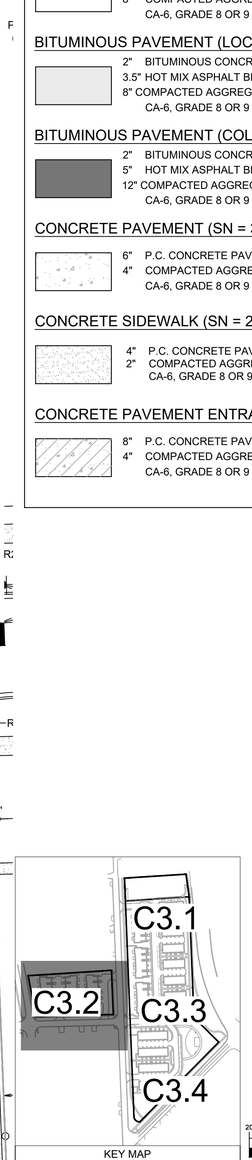
CONCRETE PAVEMENT (SN = 3.52)
- 6" P.C. CONCRETE PAVEMENT
- 4" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE SIDEWALK (SN = 2.26)
- 4" P.C. CONCRETE PAVEMENT
- 2" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE PAVEMENT ENTRANCE (SN = 4.52)
- 8" P.C. CONCRETE PAVEMENT
- 4" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

FOR CONTINUATION SEE SHEET C3.3

FOR CONTINUATION SEE SHEET C3.3



GRAPHIC SCALE
20 10 0 20
1" = 20'

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ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

LAYOUT AND PAVING PLAN - AREA 2

THE RESIDENCES AT NAPERVILLE

NAPER AND PLANK

ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C3.2

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FOR CONTINUATION SEE SHEET C3.1

FOR CONTINUATION SEE SHEET C3.2

FOR CONTINUATION SEE SHEET C3.4

TH 15

TH 14

RH 3

RH 4

RH 5

RH 6

RH 7

RH 8

LOT 2

LOT 3

PARK DISTRICT AREA

NAPER BOULEVARD

30' BUILDING LINE PER DOC. 390671

MOUNTABLE CURB ALONG TOWNHOMES 14 THROUGH 16

PROPOSED 4" PAINTED YELLOW EDGE LINE (TYP.)

PATIO (TYP)

PARALLEL PARKING STALL (TYP)

BEGIN B6.12 CURB AND GUTTER

AC UNIT (TYP)

PROPOSED 24" WHITE STOP BAR AND STOP SIGN

12" FLUSH CURB

B6 BARRIER CURB (TYP.)

PROPOSED 4" PAINTED YELLOW STRIPING 3' O.C. (TYP.)

PROPOSED PARK DESIGN CURRENTLY BEING COORDINATED WITH PARK DISTRICT

7' R.O.W. DEDICATION, REFER TO PLAT OF SUBDIVISION

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   -TUTHILL ROAD - 28' PAVEMENT WITHIN 66' ROW
   -BURLINGTON AVENUE - 28' PAVEMENT WITHIN 66' ROW

PAVING LEGEND

BITUMINOUS PAVEMENT (LIGHT DUTY)(SN = 2.50)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 2" HOT MIX ASPHALT BINDER COURSE
- 8" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

BITUMINOUS PAVEMENT (LOCAL ROAD)(SN = 3.00)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 3.5" HOT MIX ASPHALT BINDER COURSE
- 8" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

BITUMINOUS PAVEMENT (COLLECTOR ROAD)(SN = 4.01)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 5" HOT MIX ASPHALT BINDER COURSE
- 12" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE PAVEMENT (SN = 3.52)
- 6" P.C. CONCRETE PAVEMENT
- 4" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE SIDEWALK (SN = 2.26)
- 4" P.C. CONCRETE PAVEMENT
- 2" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE PAVEMENT ENTRANCE (SN = 4.52)
- 8" P.C. CONCRETE PAVEMENT
- 4" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

KEY MAP

C3.1
C3.2
C3.3
C3.4

GRAPHIC SCALE
20 10 0 20
1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

LAYOUT AND PAVING PLAN - AREA 3

THE RESIDENCES AT NAPERVILLE NAPER AND PLANK

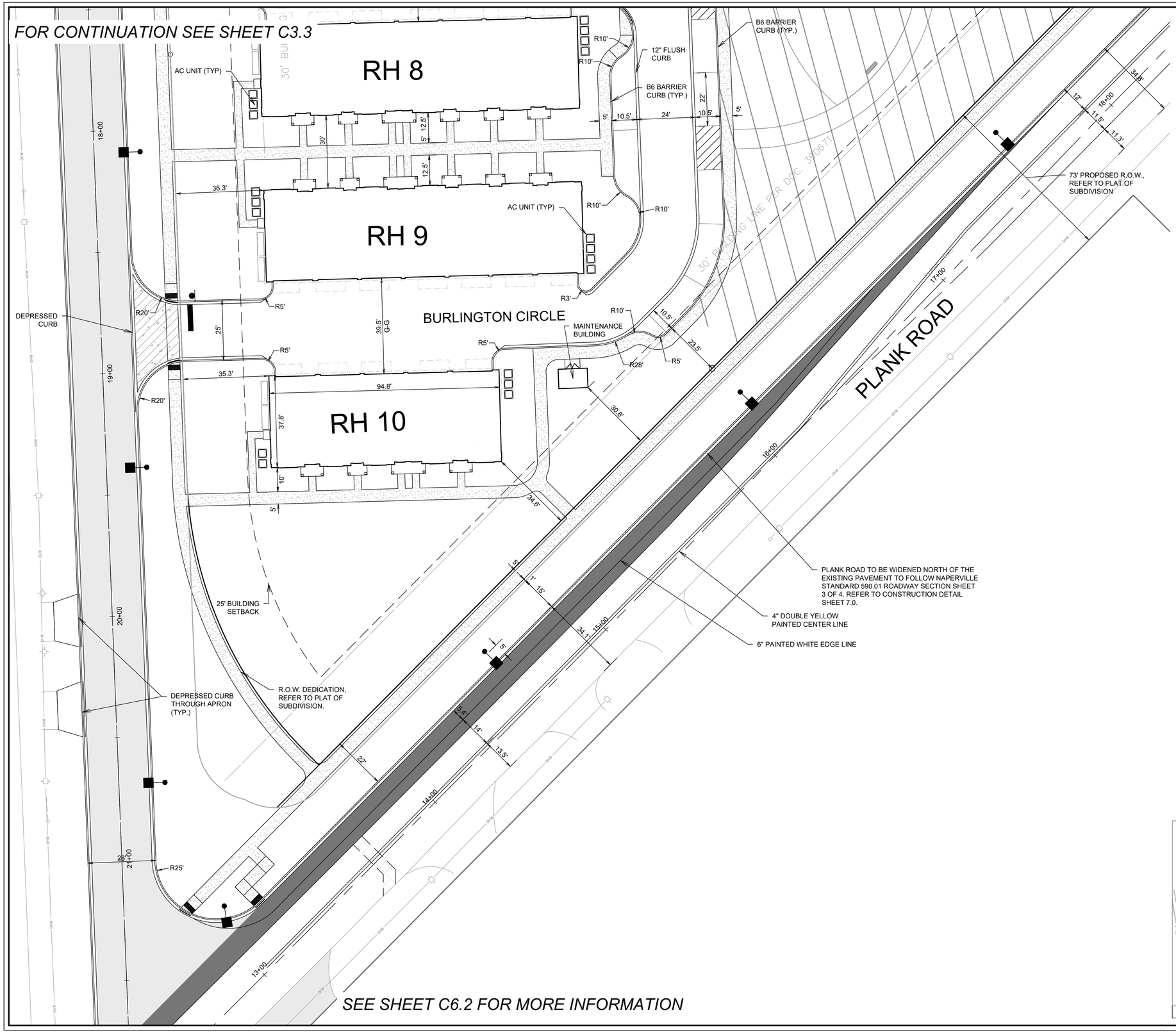
ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C3.3

n:\2024\241072\Drawings\ACAD\LD\S04\sheet drawings\C3.1 Lay241072.dwg 9/30/2025

FOR CONTINUATION SEE SHEET C3.3



SEE SHEET C6.2 FOR MORE INFORMATION

NOTES:

1. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL PROPOSED ON-SITE STRIPING SHALL BE PAINTED WHITE UNLESS OTHERWISE NOTED.
3. BUILDING DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ALL CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.
5. PUBLIC ROADWAYS TO BE DESIGNED PER NAPERVILLE STANDARDS 590.01, REFER TO CONSTRUCTION DETAIL SHEET 7.0.
   -PLANK ROAD - 37' PAVEMENT WITHIN 80' ROW
   -TUTHILL ROAD - 28' PAVEMENT WITHIN 66' ROW
   -BURLINGTON AVENUE - 28' PAVEMENT WITHIN 66' ROW

PAVING LEGEND

BITUMINOUS PAVEMENT (LIGHT DUTY)(SN = 2.50)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 2" HOT MIX ASPHALT BINDER COURSE
- 8" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

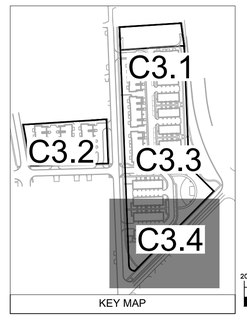
BITUMINOUS PAVEMENT (LOCAL ROAD)(SN = 3.00)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 3.5" HOT MIX ASPHALT BINDER COURSE
- 8" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

BITUMINOUS PAVEMENT (COLLECTOR ROAD)(SN = 4.01)
- 2" BITUMINOUS CONCRETE SURFACE COURSE
- 5" HOT MIX ASPHALT BINDER COURSE
- 12" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE PAVEMENT (SN = 3.52)
- 6" P.C. CONCRETE PAVEMENT
- 4" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE SIDEWALK (SN = 2.26)
- 4" P.C. CONCRETE PAVEMENT
- 2" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9

CONCRETE PAVEMENT ENTRANCE (SN = 4.52)
- 8" P.C. CONCRETE PAVEMENT
- 4" COMPACTED AGGREGATE BASE COURSE, TYPE B, CA-6, GRADE 8 OR 9



KEY MAP

GRAPHIC SCALE
20 10 0 20
1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
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ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

LAYOUT AND PAVING PLAN - AREA 4

THE RESIDENCES AT NAPERVILLE

NAPER AND PLANK

ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C3.4

NOTES:

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. SUBTRACT TOPSOIL THICKNESS OR PAVEMENT SECTION TO ESTABLISH SUBGRADE ELEVATIONS.
3. PROVIDE 1.50% CROSS SLOPE AND 4.00% MAXIMUM LONGITUDINAL SLOPE ON ALL SIDEWALKS AND PEDESTRIAN PATHS UNLESS OTHERWISE INDICATED. PLEASE NOTE THAT THE ILLINOIS ACCESSIBILITY CODE REQUIRES A MAXIMUM CONSTRUCTED CROSS SLOPE OF 2.00% AND LONGITUDINAL SLOPE OF 5.00%.

GRAPHIC SCALE
60 30 0 60
1" = 60'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

PROJECT NO.: 241072
ORIGINAL ISSUE DATE: JULY 28, 2025
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

OVERALL GRADING PLAN

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 James Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C4.0

NOTES:

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
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3. PROVIDE 1.50% CROSS SLOPE AND 4.00% MAXIMUM LONGITUDINAL SLOPE ON ALL SIDEWALKS AND PEDESTRIAN PATHS UNLESS OTHERWISE INDICATED. PLEASE NOTE THAT THE ILLINOIS ACCESSIBILITY CODE REQUIRES A MAXIMUM CONSTRUCTED CROSS SLOPE OF 2.00% AND LONGITUDINAL SLOPE OF 5.00%.
4. MINUMUM SEPARATION BETWEEN POND HWL AND RIGHT-OF-WAY TO BE 10' PLUS 1.5 TIMES THE POND DEPTH 10+(1.5*6)=19'.

TUTHILL ROAD

NAPER BOULEVARD

WHITMORE DRIVE

1.28 AC-ft
HWL : 755.0
NWL : 749.0
6:1 Side Slopes

MIN SEPARATION BETWEEN HWL AND ROW = 10' + (1.5*POND DEPTH)

SEPARATION = 10' + (1.5*6) = 19'

LIMITS OF UNDERGROUND DETENTION (TYP)

TH 17
FF = 757.40

TH 16
FF = 758.10

TH 15

RH 1
FF = 758.00

RH 2
FF = 758.00

Catch Basin 3' Dia.
Ty. A w/2'x2' Grate
Rim (F/L=753.61)
Inv.=(749.51)

Telephone Hand Hole

Catch Basin 4' Dia.
Ty. A w/2'x2' Grate
Rim (F/L=753.59)
Inv.=(749.09)

Storm Manhole 5' Dia.
Ty. A w/Ty. 1 F & G
Rim=(753.99)
Inv.=(748.54)

Catch Basin 4' Dia.
Ty. A w/ 2'x2' Grate
Rim (F/L=753.63)
Inv.=(749.13)

8" Clay

FOR CONTINUATION SEE SHEET C4.2

FOR CONTINUATION SEE SHEET C4.3

KEY MAP

C4.1
C4.2
C4.3
C4.4

GRAPHIC SCALE
20 10 0 20
1" = 20'

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GRADING PLAN - AREA 1

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

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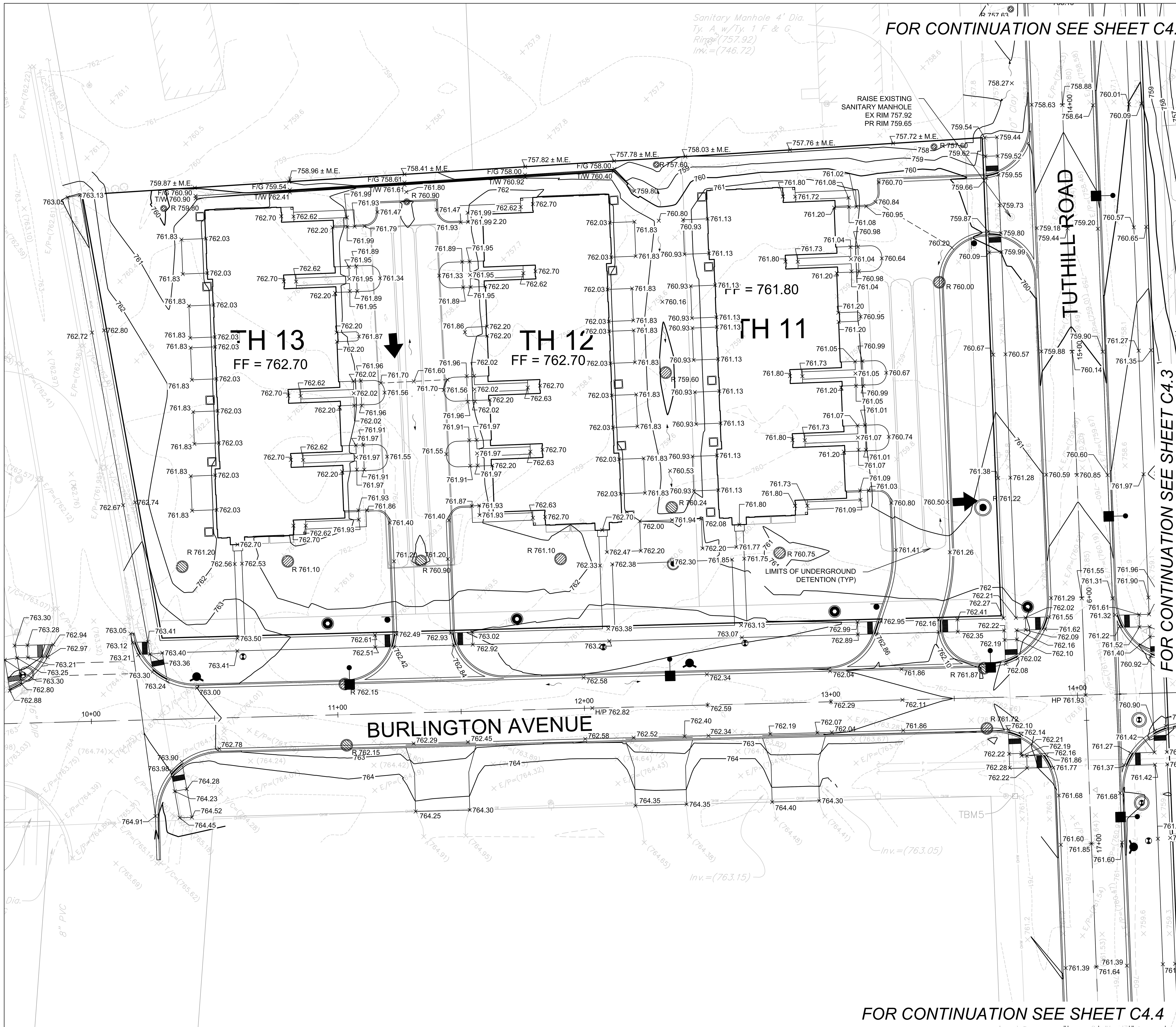
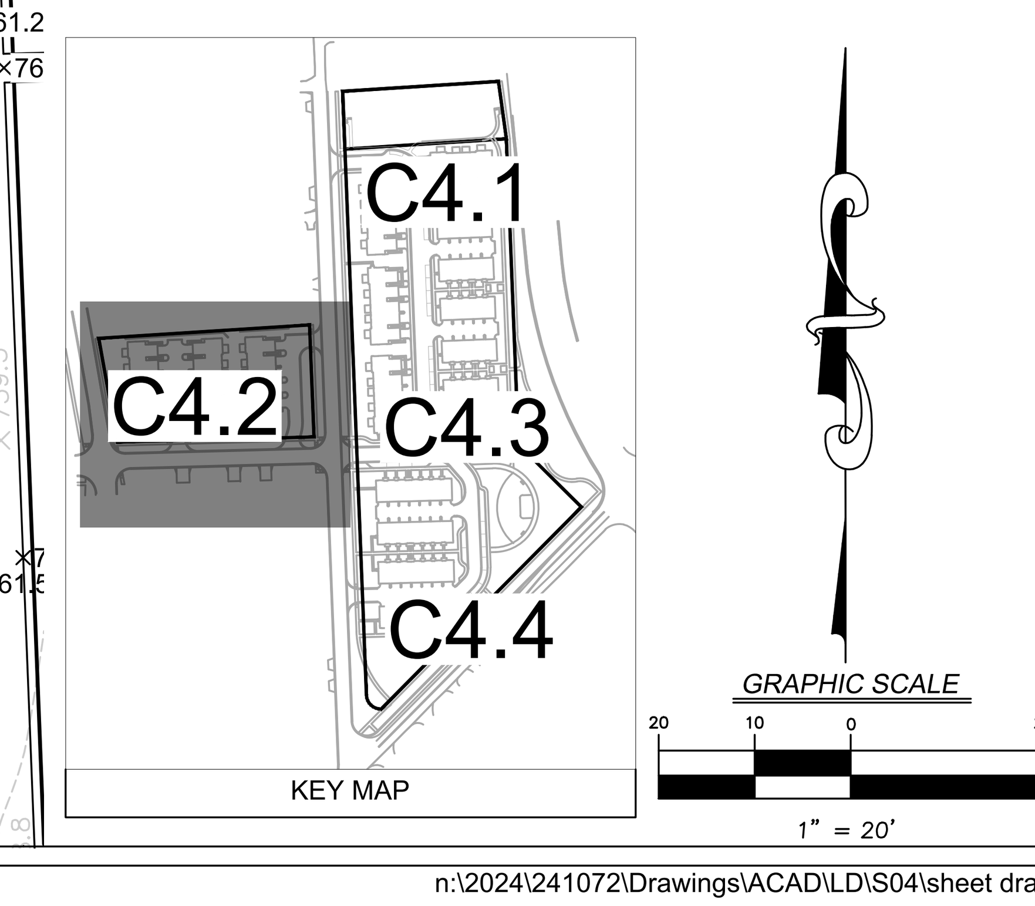
DRAWING NO.
C4.1



NOTES:

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. SUBTRACT TOPSOIL THICKNESS OR PAVEMENT SECTION TO ESTABLISH SUBGRADE ELEVATIONS.
3. PROVIDE 1.50% CROSS SLOPE AND 4.00% MAXIMUM LONGITUDINAL SLOPE ON ALL SIDEWALKS AND PEDESTRIAN PATHS UNLESS OTHERWISE INDICATED. PLEASE NOTE THAT THE ILLINOIS ACCESSIBILITY CODE REQUIRES A MAXIMUM CONSTRUCTED CROSS SLOPE OF 2.00% AND LONGITUDINAL SLOPE OF 5.00%.
4. MINUMUM SEPARATION BETWEEN POND HWL AND RIGHT-OF-WAY TO BE 10' PLUS 1.5 TIMES THE POND DEPTH 10+(1.5*6)=19'.



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PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

GRADING PLAN - AREA 2

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C4.2

FOR CONTINUATION SEE SHEET C4.1

TH 15
FF = 758.80

RH 3
FF = 758.80

RH 4
FF = 758.80

TH 14
FF = 759.85

FF = 759.60
RH 5

RH 6
FF = 759.60

RH 7
FF = 761.50

RH 8

FOR CONTINUATION SEE SHEET C4.2

FOR CONTINUATION SEE SHEET C4.4

RAISE TELEPHONE STRUCTURE RIM
EX 755.80
PR 759.20

Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(757.37)
Inv.=(744.92) N-S
Inv.=(744.97) W

NOTES:

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. SUBTRACT TOPSOIL THICKNESS OR PAVEMENT SECTION TO ESTABLISH SUBGRADE ELEVATIONS.
3. PROVIDE 1.50% CROSS SLOPE AND 4.00% MAXIMUM LONGITUDINAL SLOPE ON ALL SIDEWALKS AND PEDESTRIAN PATHS UNLESS OTHERWISE INDICATED. PLEASE NOTE THAT THE ILLINOIS ACCESSIBILITY CODE REQUIRES A MAXIMUM CONSTRUCTED CROSS SLOPE OF 2.00% AND LONGITUDINAL SLOPE OF 5.00%.
4. MINUMUM SEPARATION BETWEEN POND HWL AND RIGHT-OF-WAY TO BE 10' PLUS 1.5 TIMES THE POND DEPTH 10+(1.5*6)=19'.

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GRADING PLAN - AREA 3

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

KEY MAP

GRAPHIC SCALE
20 10 0 20
1" = 20'

DRAWING NO.
C4.3

FOR CONTINUATION SEE SHEET C4.3

RH 8
FF = 761.50

RH 9
FF = 760.90

RH 10
FF = 760.90

BURLINGTON CIRCLE

PLANK ROAD

SIDEWALK TO TRANSITION PITCH TO INTERIOR OF SITE

SIDEWALK TO PITCH TOWARDS THE STREET AFTER THE SIDEWALK INTERSECTION

Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(757.13)
Inv.=(743.05)

SEE SHEET C6.2 FOR MORE INFORMATION

NOTES:

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
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4. MINUMUM SEPARATION BETWEEN POND HWL AND RIGHT-OF-WAY TO BE 10' PLUS 1.5 TIMES THE POND DEPTH 10+(1.5*6)=19'.

KEY MAP

C4.1
C4.2
C4.3
C4.4

GRAPHIC SCALE
20 10 0 20
1" = 20'

REVISIONS

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2	09-29-25	REVISED PER CITY COMMENTS

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI
ORIGINAL ISSUE DATE: JULY 28, 2025

GRADING PLAN - AREA 4

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C4.4

EROSION CONTROL NOTES:

1. CONTRACTOR TO INSTALL CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF WORK.
2. CONTRACTOR TO INSTALL SILT FENCE PRIOR TO COMMENCEMENT OF ANY EARTHWORK. CONTRACTOR TO MAINTAIN SILT FENCE AS SHOWN AND INSTALL ADDITIONAL SILT FENCE WHEREVER NECESSARY THROUGHOUT CONSTRUCTION ACTIVITIES TO MINIMIZE SOIL EROSION.
3. CONTRACTOR TO INSTALL INLET PROTECTION ON ALL OPEN LID STRUCTURES. SEE INLET PROTECTION DETAIL ON SHEET C4.6.
4. EROSION CONTROL BLANKET (ROLLMAX ERONET S150 OR APPROVED EQUAL) SHALL BE PLACED ON ALL AREAS WITH SIDE SLOPES OF 4:1 OR GREATER, AND IN BOTTOM AND SIDE SLOPES OF SWALES WHERE NOTED.
5. ALL SEDIMENT AND EROSION CONTROL MEASURES IN AND AROUND THE PROPOSED IMPROVEMENTS ARE TO REMAIN IN PLACE AND TO BE MAINTAINED THROUGHOUT CONSTRUCTION ACTIVITIES UNTIL THE PROPOSED IMPROVEMENTS ARE COMPLETED AND THE SITE ADEQUATELY STABILIZED.
6. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS INDICATED ON THIS SHEET IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED BY V3 COMPANIES. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE PROVISIONS INDICATED IN THE SWPPP, INCLUDING EROSION CONTROL MEASURES AND INSPECTION FREQUENCY, AS REQUIRED BY THE IEPA NPDES PHASE II PERMIT PROGRAM REQUIREMENTS.

LEGEND

- INLET PROTECTION FILTER
- SF — SILT FENCE
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET
- RIP RAP

KANE-DUPAGE SOIL & WATER CONSERVATION DISTRICT NOTES:

a. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIIMUM STANDARDS AND SPECIFICATIONS OF THE ILLINOIS URBAN MANUAL'S LATEST EDITION.
b. THE KAND-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND-DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
c. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
d. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE KDSWCD.
e. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD.
f. DURING DEWATERING OPERATIONS, WATER WILL BE FILTERED OR PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
g. IT IS THE RESPONSIBILITY OF THE LANDOWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND ASSURE COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
h. DEWATERING OPERATIONS SHALL FOLLOW ILLINOIS URBAN MANUAL PRACTICE STANDARD 813 - DEWATERING.

GRAPHIC SCALE
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1" = 60'

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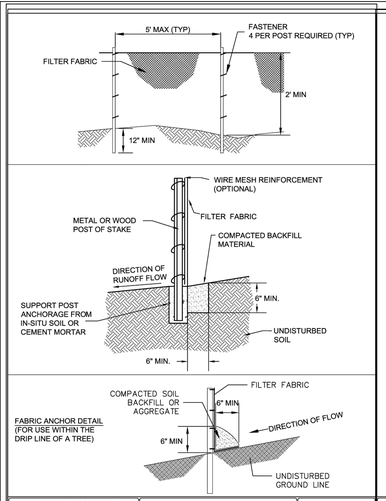
EROSION CONTROL PLAN

THE RESIDENCES AT NAPER AND PLANK

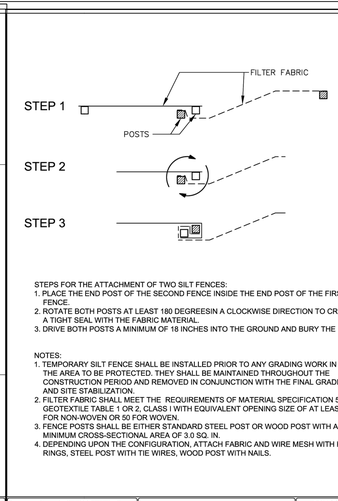
NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C4.5



City of Naperville STANDARD DETAIL	TEMPORARY EROSION CONTROL MEASURE - SILT FENCE	LANDSCAPE 3 790.03
	REVISED: 01/01/2013	SHEET 1 OF 2

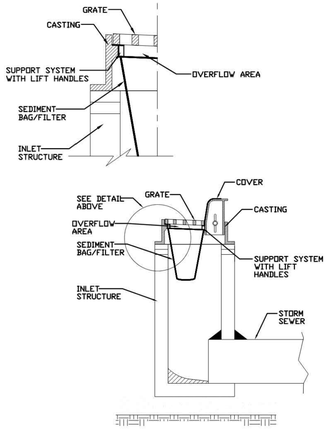


STEPS FOR THE ATTACHMENT OF TWO SILT FENCES:
1. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE.
2. ROTATE BOTH POSTS AT LEAST 180 DEGREESIN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
3. DRIVE BOTH POSTS A MINIMUM OF 18 INCHES INTO THE GROUND AND BURY THE FLAP.

NOTES:
1. TEMPORARY SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. THEY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NON-WOVEN OR 50 FOR WOVEN.
3. FENCE POSTS SHALL BE EITHER STANDARD STEEL POST OR WOOD POST WITH A MINIMUM CROSS-SECTIONAL AREA OF 3.0 SQ. IN.
4. DEPENDING UPON THE CONFIGURATION, ATTACH FABRIC AND WIRE MESH WITH HOG RINGS, STEEL POST WITH TIE WIRES, WOOD POST WITH NAILS.

City of Naperville STANDARD DETAIL	TEMPORARY EROSION CONTROL MEASURE - SILT FENCE	LANDSCAPE 3 790.03
	REVISED: 01/01/2013	SHEET 2 OF 2

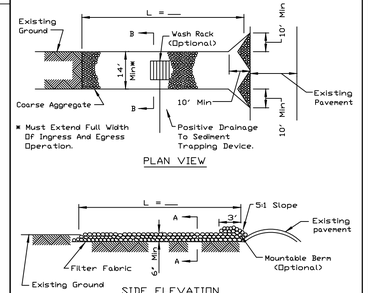
INLET PROTECTION - PAVED AREAS DROP-IN PROTECTION



REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

STANDARD DWG. NO. IUM-561D
SHEET 1 OF 1
DATE 01-11-11

STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW

SIDE ELEVATION

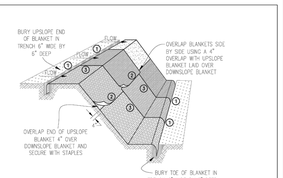
NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

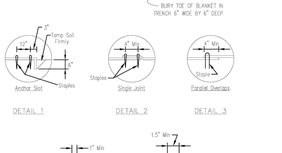
REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS Natural Resources Conservation Service

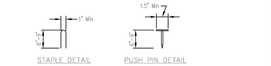
STANDARD DWG. NO. IL-630
SHEET 1 OF 2
DATE 8-10-94

AUTOCAD2006





DETAIL 1 DETAIL 2 DETAIL 3

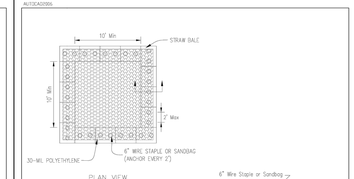


STAPLE DETAIL PUSH PIN DETAIL

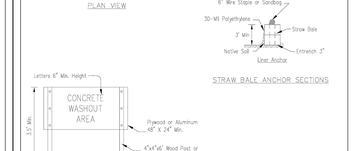
NOTES:
1. Staples shall be placed in a diamond pattern at 2 per s.y. for stitched blankets. Non-stitched shall use 4 staples per s.y. of material. This equates to 200 staples with stitched blanket and 400 staples with non-stitched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

EROSION CONTROL BLANKET INSTALLATION DETAILS

AUTOCAD2006



PLAN VIEW



STRAW BALE ANCHOR SECTIONS

SIGN DETAIL

NOTES:
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.
3. Each straw bale is to be staked in place using (2) 2"x2"x4' wooden stakes.

TEMPORARY CONCRETE WASHOUT FACILITY - STRAW BALE

REVISIONS		
NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI
ORIGINAL ISSUE DATE: JULY 28, 2025

EROSION CONTROL DETAILS

THE RESIDENCES AT NAPER AND PLANK

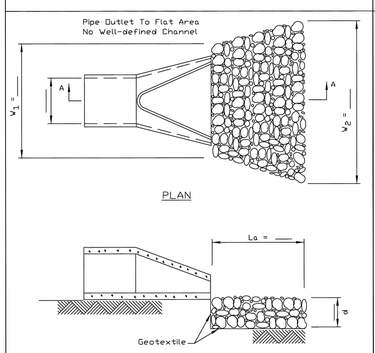
NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C4.6

RIP RAP SIZING TABLE					
STRUCTURE	W1	W2	La	DEPTH	GRADATION
FES 1-1	6	22	20	20	RR - 4
FES 2-1	6	22	20	20	RR - 4

PIPE OUTLET TO FLAT AREA



PLAN

SECTION A-A

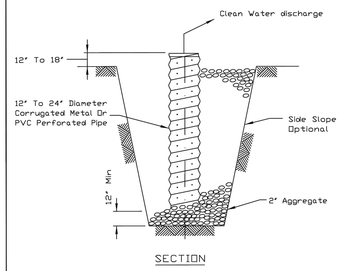
NOTES:
1. The filter fabric shall meet the requirements in material specifications 592 GEOTEXTILE Table 1 or 2, class I, II or III.
2. The rock riprap shall shall meet the IDOT requirements for the following gradation: RR _____. Quality _____.
3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL-610
SHEET 1 OF 1
DATE 9-15-93

SUMP PIT PLAN



SECTION

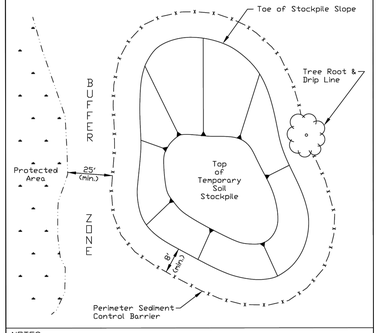
NOTES:
1. Pit dimensions are optional.
2. The standpipe will be constructed by perforating a 12"-24" diameter corrugated metal or PVC pipe.
3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
4. The standpipe will extend 12" to 18" above the lip of the pit.
5. If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
6. If desired, 1/4"-1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL-650
SHEET 1 OF 1
DATE 8-11-94

TEMPORARY SOIL STOCKPILE DETAIL



NOTES:
1. Stockpile slopes should be based on angle of repose of the soil material to avoid potential sloughing of the slope.
2. Soil stockpile to be stabilized in accordance with practical standards.
3. Do not locate stockpile within overland drainage flow path, designated floodways, drip line or over the root crown of adjacent trees.
4. Provisions for sediment control practices may be required along haul roads and entrance/exit locations for access the soil stockpile that can create flow path for stormwater runoff.
5. Installation of benches, terraces, or slope interrupters should be considered.
6. Avoid building soil stockpiles on impervious surfaces.
7. Linear sediment trap surrounding the stockpile base may be used to control sediment.

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

STANDARD DWG. NO. IUM-627
SHEET 1 OF 1
DATE JANUARY 2017

SOIL EROSION AND SEDIMENT CONTROL CONSTRUCTION SEQUENCE CHART

CONSTRUCTION ACTIVITY	CORRESPONDING EROSION CONTROL MEASURE	RESPONSIBILITY FOR EROSION CONTROL MEASURE	APPROXIMATE START DATE	APPROXIMATE COMPLETION DATE
1. SITE CLEARING AND GRUBBING	CONSTRUCTION OF STABILIZED CONSTRUCTION ENTRANCE AND INSTALLATION OF SILT FENCE	EARTHWORK CONTRACTOR	SEPTEMBER 16, 2025	SEPTEMBER 30, 2025
2. STRIPPING OF TOPSOIL AND EXCAVATION FOR PARKING AND LOT AREAS.	INSPECTION AND MAINTENANCE OF EROSION CONTROL MEASURES	EARTHWORK CONTRACTOR	SEPTEMBER 25, 2025	OCTOBER 15, 2025
4. INSTALLATION OF UTILITIES.	INSTALLATION OF INLET SEDIMENT TRAPS AND FILTER FABRIC AT OPEN-GRATED STORM STRUCTURES	UNDERGROUND CONTRACTOR	OCTOBER 23, 2025	FEBRUARY 15, 2026
5. PLACEMENT OF PAVEMENT	INSPECTION AND MAINTENANCE OF EROSION CONTROL MEASURES	PAVING CONTRACTOR	FEBRUARY 28, 2026	MARCH 15, 2026
6. FINAL GRADING, PLACEMENT OF TOPSOIL WITHIN ALL OPEN SPACES.	ESTABLISHMENT OF PERMANENT VEGETATION	EARTHWORK CONTRACTOR	FEBRUARY 16, 2026	MARCH 1, 2026
7. CLEAN OUT ALL STORM SEWERS AND DETENTION BASINS AND RESTORE TO DESIGN SPECIFICATIONS.	REMOVE SILT FENCE AND INLET BASKET FILTERS FOLLOWING FINAL INSPECTION AND W.C.D.O.E APPROVAL.	EARTHWORK CONTRACTOR	JUNE 2, 2026	JUNE 16, 2026

DETENTION POND
NWL = 749.00
HWL = 755.00

UNDERGROUND DETENTION
SYSTEM 3
NWL = 749.00
HWL = 755.00

UNDERGROUND DETENTION
SYSTEM 1
NWL = 751.50
HWL = 757.50

UNDERGROUND DETENTION
SYSTEM 2
NWL = 751.50
HWL = 757.50

6' RESTRICTOR
MANHOLE

6' RESTRICTOR
MANHOLE

UNDERGROUND DETENTION
SYSTEM 4
NWL = 749.00
HWL = 755.00

UNDERGROUND DETENTION
SYSTEM 5
NWL = 749.00
HWL = 755.00

UNDERGROUND DETENTION
SYSTEM 6
NWL = 749.00
HWL = 755.00

ELECTRIC STRUCTURES AND LINE SHOWN FOR REFERENCE ONLY. SEE PLANS BY NAPERVILLE DPU-ELECTRIC FOR MORE INFORMATION.

WATERMAIN EXTENSION TO
EXISTING STUB NEAR
NAPERVILLE- WHEATON ROAD

TUTHILL ROAD
NAPER BOULEVARD
WHITMORE DRIVE
BURLINGTON AVENUE
BURLINGTON CIRCLE
PLANK ROAD
NAPERVILLE- WHEATON ROAD

TH 11 TH 12 TH 13 TH 15 TH 16 TH 17
RH 1 RH 2 RH 3 RH 4 RH 5 RH 6 RH 7 RH 8 RH 9 RH 10

NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATION, INVERT, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING UTILITY WORK. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
2. UNLESS INDICATED OTHERWISE, FRAME AND OPEN LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-2502 WITH TYPE D LID OR APPROVED EQUAL, AND FRAME AND CLOSED LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-1772 OR APPROVED EQUAL. FRAME AND OPEN LID STORM STRUCTURES IN OPEN SPACE SHALL BE R-4340-B OR APPROVED EQUAL. ALL FRAME AND GRATES SHALL CONFORM TO LOCAL MUNICIPALITY REQUIREMENTS.
   FRAME AND CLOSED LID STORM STRUCTURES LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE "NEENAH R-1772 WITH TYPE C LID (OR EQUIVALENT) WITH PERMA-GRIP SURFACE. DRILL 1 - 1" DIAMETER LIFT HOLE INSTEAD OF A STANDARD PICK HOLE."
3. ALL WATER SERVICES TO BE 6" DIP COMBINED FIRE AND DOMESTIC
4. ALL SANITARY SERVICES FROM INDIVIDUAL BUILDINGS TO BE 6" PVC SDR 26.
5. ROOF DRAIN CONNECTIONS TO BE 6" FOR RH BUILDINGS AND 8" FOR TH BUILDINGS AT 1% MINIMUM SLOPE. SEE DOWNSPOUT DETAIL FOR RH ON 5.4 AND CONNECTOR DETAIL ON C7.2 FOR MORE INFORMATION.
6. PUBLIC WATER MAIN TO BE 8" DIP CL 52 WITH CEMENT LINING.
7. SHARED/PUBLIC SANITARY SEWER TO BE 8" PVC SDR 26.
8. 6" WATER SERVICES TO BE INSTALLED TO AVOID CONFLICTS WITH WET UTILITIES.
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11. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L" (SEE VERTICAL SEPARATION DETAIL ON SHEET C7.3).
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    - 11.b. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
    - 11.c. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING (SEE VERTICAL SEPARATION DETAIL ON SHEET C7.3).

DETENTION SUMMARY:

TOTAL SITE AREA: 8.06 AC
WEST PARCEL AREA: 1.52 AC
EAST PARCEL AREA: 6.54 AC

WEST DETENTION VOLUME REQUIRED: 0.677 AC-FT
EAST DETENTION VOLUME REQUIRED: 2.91 AC-FT
DETENTION VOLUME REQUIRED: 3.59 AC-FT

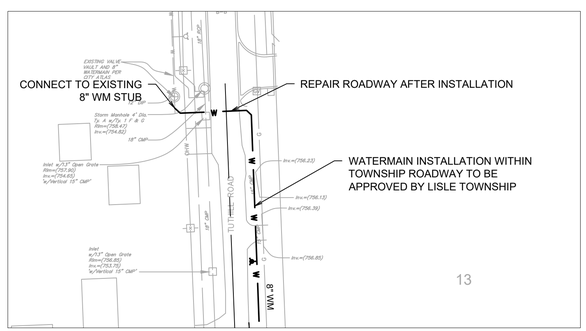
DETENTION VOLUME PROVIDED: 3.63 AC-FT
- 0.683 AC-FT IN WESTERN PARCEL CHAMBERS
- 1.664 AC-FT IN EASTERN PARCEL CHAMBERS
- 1.280 AC-FT IN DETENTION POND

POST-CONSTRUCTION BEST MANAGEMENT PRACTICE SUMMARY:

WEST BMP VOLUME REQUIRED: 0.088 AC-FT
EAST BMP VOLUME REQUIRED: 0.365 AC-FT
WEST ROW (BURLINGTON) BMP VOLUME REQUIRED: 0.011 AC-FT
EAST ROW (TUTHILL AND PLANK) BMP VOLUME REQUIRED: 0.045 AC-FT

TOTAL BMP VOLUME REQUIRED: 0.509 AC-FT

BMP VOLUME PROVIDED IN UNDERGROUND CHAMBERS: 0.586 AC-FT
- 0.146 AC-FT IN WESTERN PARCEL CHAMBERS
- 0.440 AC-FT IN EASTERN PARCEL CHAMBERS



GRAPHIC SCALE
60 30 0 60
1" = 60'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

OVERALL UTILITY PLAN

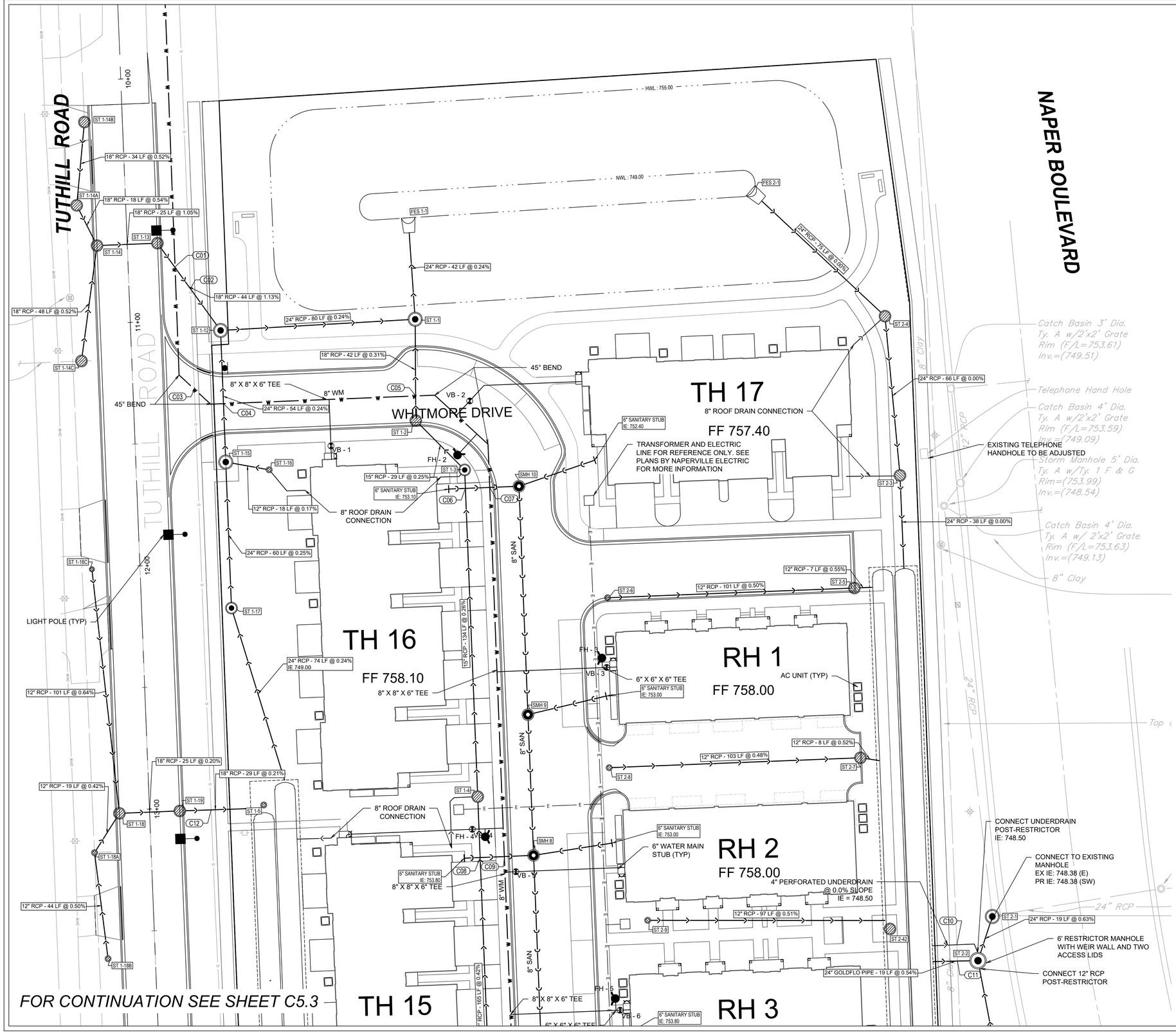
THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C5.0

n:\2024\241072\Drawings\ACAD\LD\S04\sheet drawings\C5.0 OverallUtil241072.dwg 9/30/2025



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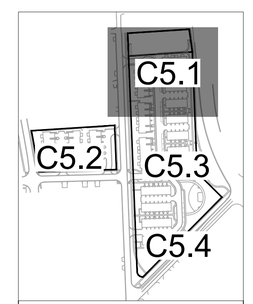

GRAPHIC SCALE
20 10 0 20
1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

UTILITY PLAN - AREA 1

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C5.1

FOR CONTINUATION SEE SHEET C5.1

Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(757.92)
Inv.=(746.72)

UNDERGROUND DETENTION SYSTEM 1
WITH 4" PERFORATED UNDERDRAIN AT ELEV. 751.00.
SEE PLANS BY PRINSCO FOR MORE INFORMATION
NWL = 751.50
HWL = 757.50

UNDERGROUND DETENTION SYSTEM 2
WITH 4" PERFORATED UNDERDRAIN AT ELEV. 751.00.
SEE PLANS BY PRINSCO FOR MORE INFORMATION
NWL = 751.50
HWL = 757.50

TH 13
FF 762.70

TH 12
FF 762.70

TH 11
FF 761.80

TUTHILL ROAD

BURLINGTON AVENUE

ST 1-11
ST 1-30
12" RCP - 10 LF @ 0.52%
ST 1-29
12" RCP - 94 LF @ 0.50%
ST 1-28
12" RCP - 55 LF @ 0.50%
ST 1-27
ST 1-8
ST 1-22A
12" RCP - 55 LF @ 0.51%
ST 1-22
RAISE RIM OF EXISTING MANHOLE
4" INSPECTION PORT (TYP)
12" RCP - 145 LF @ 0.50%
4" INSPECTION PORT (TYP)
FDC TO BE ON FIRE RISER ROOMS (TYP)
8" ROOF DRAIN CONNECTION
6" WATER MAIN STUB (TYP)
6" SANITARY STUB IE: 757.70
6" SANITARY STUB IE: 757.70
8" ROOF DRAIN CONNECTION
6" SANITARY STUB IE: 756.80
12" RCP - 23 LF @ 0.96%
24" GOLDFLO PIPE - 15 LF @ 0.52%
6' RESTRICTOR MANHOLE WITH WEIR WALL AND TWO ACCESS LIDS
24" RCP - 81 LF @ 0.50%
ST 1-7
C15
C14
CONNECT UNDERDRAIN POST-RESTRICTOR IE: 751.00
4" SOLID WALL UNDERDRAIN @ 0.0% SLOPE IE = 751.00
12" RCP - 43 LF @ 0.51%
C18
ST 1-9
18" RCP - 43 LF @ 0.28%
C17
ST 1-8B
18" RCP - 46 LF @ 0.28%
18" RCP - 41 LF @ 0.32%
C16
ST 1-8A
ST 1-9A
ST 1-10
12" RCP - 40 LF @ 0.49%
4" SOLID WALL UNDERDRAIN @ 0.0% SLOPE IE = 751.00
18" RCP - 43 LF @ 0.28%
C20
SMH 13
SMH 12
SMH 11
SMH 7
12" RCP - 61 LF @ 1.24%
C21
C40
C19
VB - 11
VB - 12
VB - 13
FH - 10
FH - 11
ST 1-23
45° BEND
8" X 8" X 6" TEE
8" X 8" X 6" TEE
8" X 8" X 6" TEE
ST 1-26
12" RCP - 25 LF @ 0.52%
12" RCP - 24 LF @ 1.02%
ST 1-24
ST 1-25
12" RCP - 260 LF @ 0.48%
PRESSURE CONNECTION TO EXISTING 16" WM
VV - 2
VV - 3
C24
C25
C26
C41
VB - 14
FH - 12
8" X 8" X 6" TEE
C42
8" X 8" X 6" TEE
10" RCP
10" RCP
10" Clay
8" Dia.
12" CMP
TBM5
Inv.=(763.05)
Inv.=(763.15)
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00

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    - 11.c. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING (SEE VERTICAL SEPARATION DETAIL ON SHEET C7.3).

FOR CONTINUATION SEE SHEET C5.4

KEY MAP
C5.1
C5.2
C5.3
C5.4

GRAPHIC SCALE
20 10 0 20
1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

UTILITY PLAN - AREA 2

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C5.2

FOR CONTINUATION SEE SHEET C5.1

FOR CONTINUATION SEE SHEET C5.2

TH 15

FF 758.80

UNDERGROUND DETENTION SYSTEM 3 WITH 4" PERFORATED UNDERDRAIN AT ELEV. 748.50. SEE PLANS BY PRINSCO FOR MORE INFORMATION
NWL = 749.00
HWL = 755.00

RH 3

FF 758.80

4" INSPECTION PORT (TYP)

UNDERGROUND DETENTION SYSTEM 4 WITH 4" PERFORATED UNDERDRAIN AT ELEV. 748.50. SEE PLANS BY PRINSCO FOR MORE INFORMATION
NWL = 749.00
HWL = 755.00

RH 4

FF 758.80

TH 14

FF 759.85

RH 5

FF 759.60

RH 6

FF 759.60

RH 7

FF 761.50

RH 8

UNDERGROUND DETENTION SYSTEM 5 WITH 4" PERFORATED UNDERDRAIN AT ELEV. 748.50. SEE PLANS BY PRINSCO FOR MORE INFORMATION
NWL = 749.00
HWL = 755.00

UNDERGROUND DETENTION SYSTEM 6 WITH 4" PERFORATED UNDERDRAIN AT ELEV. 748.50. SEE PLANS BY PRINSCO FOR MORE INFORMATION
NWL = 749.00
HWL = 755.00

ACCESS LIDS

CONNECT 12" RCP POST-RESTRICTOR

Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(757.37)
Inv.=(744.92) N-S
Inv.=(744.97) W

12" RCP

AT&T Double Duct

10" Clay

4" UNDERDRAIN @ 0.0% SLOPE

8" ROOF DRAIN CONNECTION

45° BEND

VALVE VAULT (TYP)

6" WATER MAIN STUB (TYP)

758.933 GROUND SHOT
756.36 TOP TELECOM UNE
756.434 TOP GAS 2

NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATION, INVERT, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING UTILITY WORK. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
2. UNLESS INDICATED OTHERWISE, FRAME AND OPEN LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-2502 WITH TYPE D LID OR APPROVED EQUAL, AND FRAME AND CLOSED LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-1772 OR APPROVED EQUAL. FRAME AND OPEN LID STORM STRUCTURES IN OPEN SPACE SHALL BE R-4340-B OR APPROVED EQUAL. ALL FRAME AND GRATES SHALL CONFORM TO LOCAL MUNICIPALITY REQUIREMENTS.
   FRAME AND CLOSED LID STORM STRUCTURES LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL BE "NEENAH R-1772 WITH TYPE C LID (OR EQUIVALENT) WITH PERMA-GRIP SURFACE. DRILL 1 - 1" DIAMETER LIFT HOLE INSTEAD OF A STANDARD PICK HOLE."
3. ALL WATER SERVICES TO BE 6" DIP COMBINED FIRE AND DOMESTIC
4. ALL SANITARY SERVICES FROM INDIVIDUAL BUILDINGS TO BE 6" PVC SDR 26.
5. ROOF DRAIN CONNECTIONS TO BE 6" FOR RH BUILDINGS AND 8" FOR TH BUILDINGS AT 1% MINIMUM SLOPE. SEE DOWNSPOUT DETAIL FOR RH ON 5.4 AND CONNECTOR DETAIL ON C7.2 FOR MORE INFORMATION.
6. PUBLIC WATER MAIN TO BE 8" DIP CL 52 WITH CEMENT LINING.
7. SHARED/PUBLIC SANITARY SEWER TO BE 8" PVC SDR 26.
8. 6" WATER SERVICES TO BE INSTALLED TO AVOID CONFLICTS WITH WET UTILITIES.
9. PROPOSED DRY UTILITIES TO BE INSTALLED TO AVOID CONFLICTS WITH WET UTILITIES.
10. BOTH THE WATERMAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE OR PVC PIPE MEETING THE REQUIREMENTS OF SECTION 653.111 OF THE ILLINOIS ADMINISTRATIVE CODE WHEN THE WATERMAIN PASSES UNDER A SEWER DRAIN. A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATERMAIN SHALL BE MAINTAINED WHERE A WATERMAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATERMAIN.
11. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L" (SEE VERTICAL SEPARATION DETAIL ON SHEET C7.3).
    - 11.a. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
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KEY MAP

C5.1
C5.2
C5.3
C5.4

GRAPHIC SCALE
20 10 0 20
1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

UTILITY PLAN - AREA 3

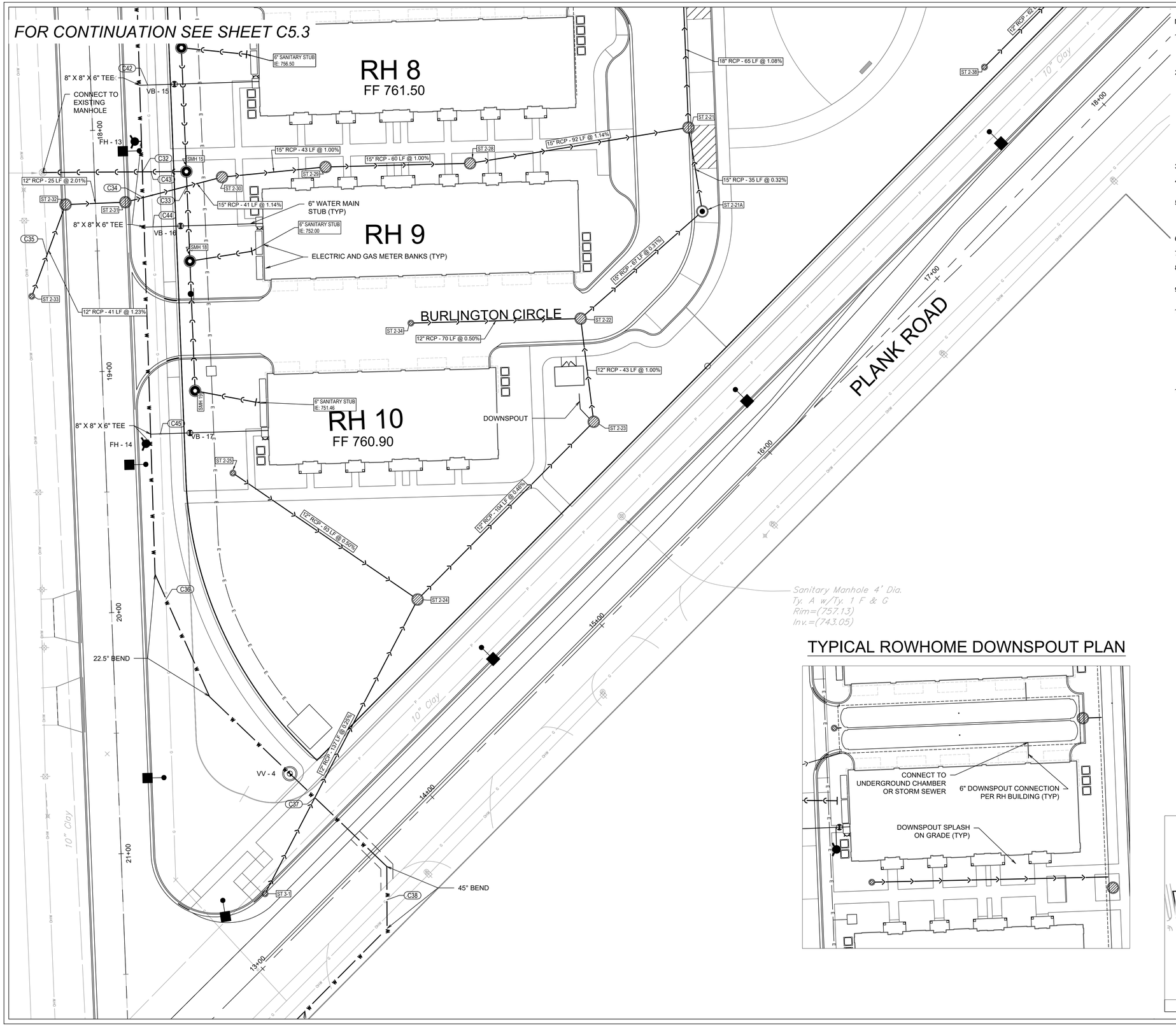
THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C5.3

FOR CONTINUATION SEE SHEET C5.3



Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(757.13)
Inv.=(743.05)

NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATION, INVERT, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING UTILITY WORK. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
2. UNLESS INDICATED OTHERWISE, FRAME AND OPEN LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-2502 WITH TYPE D LID OR APPROVED EQUAL, AND FRAME AND CLOSED LID STORM STRUCTURES IN PAVEMENT SHALL BE NEENAH R-1772 OR APPROVED EQUAL. FRAME AND OPEN LID STORM STRUCTURES IN OPEN SPACE SHALL BE R-4340-B OR APPROVED EQUAL. ALL FRAME AND GRATES SHALL CONFORM TO LOCAL MUNICIPALITY REQUIREMENTS.
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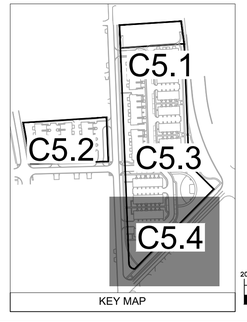
    - 11.b. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
    - 11.c. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING (SEE VERTICAL SEPARATION DETAIL ON SHEET C7.3).

TYPICAL ROWHOME DOWNSPOUT PLAN



GRAPHIC SCALE
20 10 0 20
1" = 20'

REVISIONS			
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ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

UTILITY PLAN - AREA 4

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C5.4

STORM STRUCTURE TABLE

STRUCTURE	DESCRIPTION	RIM	INVERT IN	INVERT OUT
FES 1-1	24" FES	RIM: 749.00	749.00 (24" S)	
FES 2-1	24" FES	RIM: 749.00		749.00 (24" SE)
ST 1-1	5' MH (Closed)	RIM: 756.08	749.10 (24" W) 750.25 (18" S)	749.10 (24" N)
ST 1-2	4' MH (Open)	RIM: 756.03	750.63 (15" SE)	750.38 (18" N)
ST 1-3	4' MH (Closed)	RIM: 757.18	750.70 (15" S)	750.70 (15" NW)
ST 1-4	4' MH (Open)	RIM: 756.36	751.30 (12" S)	751.05 (15" N)
ST 1-5	2' Inlet	RIM: 755.96		
ST 1-6	2' Inlet	RIM: 756.45		
ST 1-7	Restrictor Structure	RIM: 761.22	751.92 (24" W)	751.00 (24" E)
ST 1-8	4' MH (Closed)	RIM: 762.33	751.75 (18" W) 752.50 (12" N)	751.75 (18" E)
ST 1-8A	4' MH (Open)	RIM: 760.75	751.63 (18" W)	751.63 (18" E)
ST 1-8B	4' MH (Open)	RIM: 761.10	751.88 (18" W)	751.88 (18" E)
ST 1-9	4' MH (Open)	RIM: 760.90		
ST 1-9A	4' MH (Open)	RIM: 761.10	752.20 (12" W)	752.20 (12" E)
ST 1-10	4' MH (Open)	RIM: 761.20	752.42 (12" N)	752.42 (12" E)
ST 1-11	2' Inlet	RIM: 759.80		753.14 (12" S)
ST 1-12	5' MH (Closed)	RIM: 757.86	749.29 (24" S) 750.50 (18" NW)	749.29 (24" E)
ST 1-13	4' MH (Open)	RIM: 757.66	751.52 (18" W)	751.00 (18" SE)
ST 1-14	4' MH (Open)	RIM: 757.66	752.20 (18" S) 752.20 (18" NW)	751.78 (18" E)
ST 1-14A	4' MH (Open)	RIM: 757.00	752.30 (18" N)	752.30 (18" SE)
ST 1-14B	4' MH (Open)	RIM: ???		752.48 (18" S)
ST 1-14C	4' MH (Open)	RIM: 757.00		752.45 (18" N)
ST 1-15	5' MH (Closed)	RIM: 758.35	749.42 (24" S) 751.97 (12" E)	749.42 (24" N)
ST 1-16	2' Inlet	RIM: 755.81		752.00 (12" W)
ST 1-17	4' MH (Closed)	RIM: 758.74	749.57 (24" S)	749.57 (24" N)
ST 1-18	4' MH (Open)	RIM: 757.82	752.25 (12" N) 753.02 (12" SW)	749.11 (18" E)
ST 1-18A	2' Inlet	RIM: 755.00	753.10 (12" S)	753.10 (12" NE)
ST 1-18B	2' Inlet	RIM: 757.63		753.32 (12" N)
ST 1-18C	2' Inlet	RIM: 757.40		752.90 (12" S)
ST 1-19	4' MH (Open)	RIM: 757.82	749.06 (18" W)	749.06 (18" E)
ST 1-20	4' MH (Closed)	RIM: 758.71		752.00 (12" N)
ST 1-21	2' Inlet	RIM: 757.30		749.20 (12" N)
ST 1-22	4' MH (Open)	RIM: 760.00	751.50 (12" N)	
ST 1-22A	2' Inlet	RIM: ???		751.78 (12" S)
ST 1-23	4' MH (Open)	RIM: 761.87	752.75 (12" S)	752.75 (12" NW)
ST 1-24	4' MH (Open)	RIM: 761.72	753.00 (12" W)	753.00 (12" N)
ST 1-25	4' MH (Open)	RIM: 762.15	754.25 (12" N)	754.25 (12" E)
ST 1-26	4' MH (Open)	RIM: 762.15		754.38 (12" S)
ST 1-27	4' MH (Open)	RIM: 760.24	752.72 (12" N)	752.72 (12" S)
ST 1-28	4' MH (Open)	RIM: 759.60	752.90 (12" N)	752.90 (12" S)
ST 1-29	2' Inlet	RIM: 757.60		753.32 (12" S)
ST 1-30	2' Inlet	RIM: 760.90		752.05 (12" S)
ST 2-1	5' MH (Closed)	RIM: 755.45	748.38 (24" S)	
ST 2-2	Restrictor Structure	RIM: 757.25	749.65 (24" W) 748.50 (12" S)	748.50 (24" N)

STORM STRUCTURE TABLE

STRUCTURE	DESCRIPTION	RIM	INVERT IN	INVERT OUT
ST 2-3	4' MH (Open)	RIM: 755.50	749.00 (24" N)	749.00 (24" S)
ST 2-4	4' MH (Open)	RIM: 755.10	749.00 (24" NW)	749.00 (24" S)
ST 2-5	4' MH (Open)	RIM: 755.75	750.26 (12" W)	749.79 (12" E)
ST 2-6	2' Inlet	RIM: 755.75		750.77 (12" E)
ST 2-7	4' MH (Open)	RIM: 756.70	750.74 (12" W)	749.79 (12" E)
ST 2-8	2' Inlet	RIM: 756.60		751.24 (12" E)
ST 2-9	2' Inlet	RIM: 756.71		750.25 (12" E)
ST 2-10	4' MH (Open)	RIM: 757.49		749.75 (24" E)
ST 2-11	2' Inlet	RIM: 757.50		749.81 (12" E)
ST 2-12	2' Inlet	RIM: 757.51		750.14 (12" E)
ST 2-13	4' MH (Open)	RIM: 758.10		749.75 (24" E)
ST 2-14	2' Inlet	RIM: 758.10		749.80 (12" E)
ST 2-15	4' MH (Open)	RIM: 758.28	749.75 (18" W) 749.55 (18" S)	749.25 (24" NE)
ST 2-16	4' MH (Open)	RIM: 757.90	750.32 (12" W)	749.82 (18" E)
ST 2-17	2' Inlet	RIM: 758.30		750.93 (12" S)
ST 2-18	4' MH (Open)	RIM: 758.30	750.80 (12" N)	750.80 (12" E)
ST 2-20	4' MH (Open)	RIM: 758.50	753.00 (12" W) 750.90 (18" S)	750.75 (18" N)
ST 2-21	4' MH (Open)	RIM: 758.45	751.70 (15" W) 752.20 (15" S)	751.60 (18" N)
ST 2-21A	4' MH (Closed)	RIM: 758.86	752.31 (15" SW)	752.31 (15" N)
ST 2-22	4' MH (Open)	RIM: 759.50	752.57 (12" S) 752.77 (12" W)	752.52 (15" NE)
ST 2-23	4' MH (Open)	RIM: 758.11	753.10 (12" SW)	753.00 (12" N)
ST 2-24	4' MH (Open)	RIM: 757.75	753.60 (12" NW) 753.60 (12" SW)	753.58 (12" NE)
ST 2-25	2' Inlet	RIM: 759.50		754.06 (12" SE)
ST 2-26	4' MH (Open)	RIM: 760.40	754.80 (12" W)	753.55 (12" E)
ST 2-27	2' Inlet	RIM: 760.40		755.00 (12" E)
ST 2-28	4' MH (Open)	RIM: 759.91	752.75 (15" W)	752.75 (15" E)
ST 2-29	4' MH (Open)	RIM: 759.92	753.35 (15" W)	753.35 (15" E)
ST 2-30	4' MH (Open)	RIM: 760.45	753.78 (15" W)	753.78 (15" E)
ST 2-31	4' MH (Open)	RIM: 761.13	754.50 (12" W)	754.25 (15" E)
ST 2-32	4' MH (Open)	RIM: 761.13	756.00 (12" S)	755.00 (12" E)
ST 2-33	2' Inlet	RIM: 760.50		756.50 (12" N)
ST 2-34	2' Inlet	RIM: 759.50		753.12 (12" E)
ST 2-35	4' MH (Closed)	RIM: 758.20	750.10 (12" SE)	749.90 (12" NW)
ST 2-36	4' MH (Open)	RIM: 755.50	750.47 (12" SE)	750.47 (12" NW)
ST 2-37	4' MH (Open)	RIM: 754.75	750.62 (12" SW)	750.62 (12" NW)
ST 2-38	2' Inlet	RIM: 755.50		750.75 (12" NE)
ST 2-39	4' MH (Open)	RIM: 754.30	748.70 (12" SE)	748.70 (12" N)
ST 2-39A	4' MH (Open)	RIM: ???	748.61 (12" S)	748.61 (12" N)
ST 2-40	4' MH (Open)	RIM: 754.30	748.87 (12" S)	748.87 (12" NW)
ST 2-41	4' MH (Open)	RIM: 753.35		748.98 (12" N)
ST 2-42	4' MH (Open)	RIM: ???		
ST 2-43	4' MH (Open)	RIM: ???		
ST 3-1	2' Inlet	RIM: 757.19		753.94 (12" NE)

WATER STRUCTURE TABLE

STRUCTURE NAME	STRUCTURE DESCRIPTION	RIM GRADE
FH - 1	FH	F/G: 758.05
FH - 2	FH	F/G: 757.22
FH - 3	FH	F/G: 757.05
FH - 4	FH	F/G: 757.46
FH - 5	FH	F/G: 757.55
FH - 7	FH	F/G: 758.18
FH - 9	FH	F/G: 759.14
FH - 10	FH	F/G: 763.51
FH - 11	FH	F/G: 762.89
FH - 12	FH	F/G: 761.82
FH - 13	FH	F/G: 761.69
FH - 14	FH	F/G: 762.52
FH - 15	FH	F/G: 754.38
FH - 16	FH	F/G: 753.33
VB - 1	VB	F/G: 757.51
VB - 2	VB	F/G: 756.46
VB - 3	VB	F/G: 757.15
VB - 4	VB	F/G: 757.44
VB - 5	VB	F/G: 756.94
VB - 6	VB	F/G: 757.56
VB - 7	VB	F/G: 758.24
VB - 8	VB	F/G: 758.76
VB - 9	VB	F/G: 759.17
VB - 10	VB	F/G: 758.60
VB - 11	VB	F/G: 763.29
VB - 12	VB	F/G: 763.23
VB - 13	VB	F/G: 762.99
VB - 14	VB	F/G: 761.44
VB - 15	VB	F/G: 761.78
VB - 16	VB	F/G: 762.06
VB - 17	VB	F/G: 762.51
VV - 1	VV	F/G: 758.50
VV - 2	VV	F/G: 761.31
VV - 3	VV	F/G: 762.01
VV - 4	VV	F/G: 758.61
VV - 5	VV	F/G: 754.13
VV - 6	VV	F/G: 763.28

UTILITY CROSSINGS

C01 18" STM B/P 750.56 W/WM PROTECTION
8" WM T/P 749.15

C02 EX. GAS B/P 754.45 CONTRACTOR TO F.V.
18" STM T/P 751.91

C03 EX. GAS B/P 752.14 CONTRACTOR TO F.V.
8" WM T/P 750.64

C04 24" STM B/P 748.75 W/WM PROTECTION
8" WM T/P 747.25

C05 18" STM B/P 750.17 W/WM PROTECTION
8" WM T/P 748.67

C06 6" SAN B/P 753.01
15" STM 752.16

C07 6" SAN B/P 752.91 W/WM PROTECTION
8" WM T/P 751.41

C08 6" SAN B/P 753.71
12" STM T/P 752.53

C09 6" SAN B/P 753.61 W/WM PROTECTION
8" WM T/P 751.96

C10 4" STM B/P 748.48
EX. 8" SAN T/P 746.30

C11 24" STM B/P 748.70
EX. 8" SAN T/P 746.27

C12 EX. GAS B/P 754.33 CONTRACTOR TO F.V.
18" STM T/P 750.74

C13 6" SAN B/P 754.65 W/WM PROTECTION
8" WM T/P 753.15

C14 EX. GAS B/P 754.78 CONTRACTOR TO F.V.
24" STM T/P 752.93

C15 24" STM B/P 750.67
EX. 8" SAN T/P 747.40 CONTRACTOR TO F.V.

C16 6" SAN B/P 756.62
24" STM T/P 753.75

C17 6" SAN B/P 757.54
24" STM T/P 753.75

C18 6" SAN B/P 757.50
12" STM T/P 752.80

C19 EX. GAS B/P 758.16 CONTRACTOR TO F.V.
8" WM T/P 756.66

C20 8" SAN B/P 765.02
12" STM T/P 753.04

C21 12" STM B/P 751.93 W/WM PROTECTION
8" WM T/P 750.43

C22 8" SAN B/P 749.72 W/ WM PROTECTION
8" WM T/P 748.22

C23 12" STM B/P 750.59 W/WM PROTECTION
8" WM T/P 748.82

C24 EX. GAS B/P 756.22 CONTRACTOR TO F.V.
8" WM T/P 754.72

C25 EX. TELE B/P 754.86 CONTRACTOR TO F.V.
8" WM T/P 753.36

C26 EX. 2" GAS B/P 756.86 CONTRACTOR TO F.V.
8" WM T/P 753.98

C27 EX. TELE B/P 752.87 CONTRACTOR TO F.V.
15" STM T/P 751.37

C28 EX. 2" GAS B/P 752.68 CONTRACTOR TO F.V.
15" STM T/P 751.18

C29 EX. TELE B/P 752.29 CONTRACTOR TO F.V.
15" STM T/P 750.79

C30 EX. 2" GAS B/P 752.98 CONTRACTOR TO F.V.
15" STM T/P 750.82

C31 12" STM B/P 748.75
EX. 8" SAN T/P 744.67 CONTRACTOR TO F.V

C32 8" WM B/P 756.38
8" SAN T/P 752.13

C33 15" STM B/P 753.76
8" SAN T/P 752.26

C34 15" STM B/P 753.97 W/WM PROTECTION
8" WM T/P 748.47

C35 12" STM B/P 756.10
EX. 10" SAN T/P 746.17 CONTRACTOR TO F.V.

C36 EX. 2" GAS B/P 760.26 CONTRACTOR TO F.V.
8" WM T/P 757.84

C37 12" STM B/P 753.46 W/WM PROTECTION
8" WM T/P 751.96

C38 EX. 8" GAS B/P 752.48 CONTRACTOR TO F.V.
8" WM T/P 750.86

C39 EX. 8" GAS B/P 747.80 CONTRACTOR TO F.V.
8" WM T/P 745.61

C40 EX. 8" GAS B/P 755.63 CONTRACTOR TO F.V.
8" SAN T/P 749.84

C41 EX. 8" GAS B/P 755.68 CONTRACTOR TO F.V.
6" WM T/P 754.18

C42 EX. 8" GAS B/P 756.21 CONTRACTOR TO F.V.
6" WM T/P 754.71

C43 EX. 8" GAS B/P 756.21 CONTRACTOR TO F.V.
8" SAN T/P 752.14

C44 EX. 8" GAS B/P 756.33 CONTRACTOR TO F.V.
6" WM T/P 754.83

C45 EX. 8" GAS B/P 757.18 CONTRACTOR TO F.V.
6" WM T/P 755.68

DPU-E TO DESIGN AND INSTALL ELECTRIC LINES.
ELECTRIC LINES TO HAVE A MINIMUM 12" SEPARATION FROM
EXISTING NICOR GAS MAINS.

REVISIONS

NO.	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: JULY 28, 2025

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

STRUCTURE TABLES AND UTILITY CROSSINGS

THE RESIDENCES AT NAPERVILLE

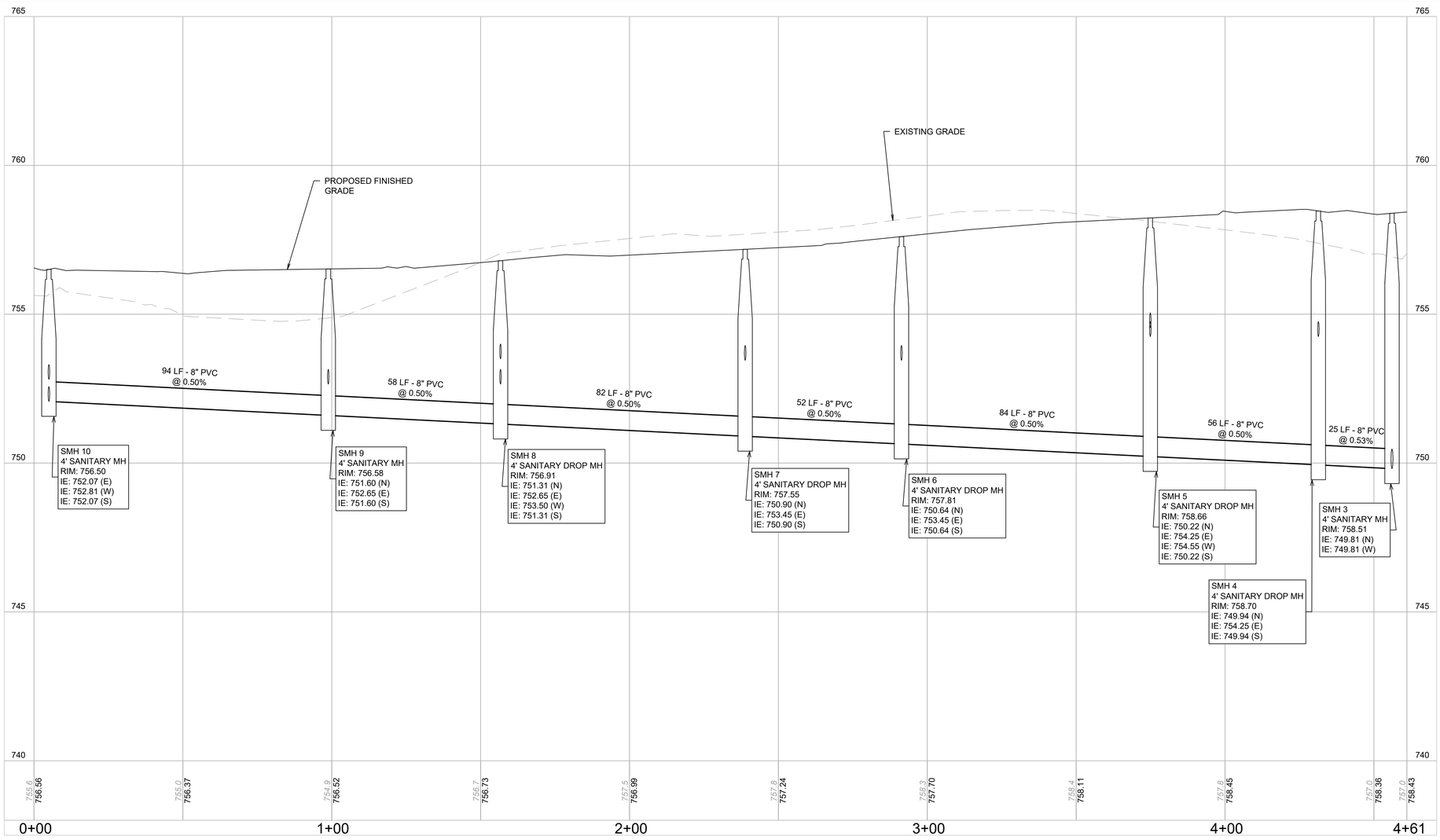
NAPER AND PLANK

ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C5.5



SANITARY SEWER PROFILE SMH 10 TO SMH 3

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
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ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

SANITARY SEWER PROFILES

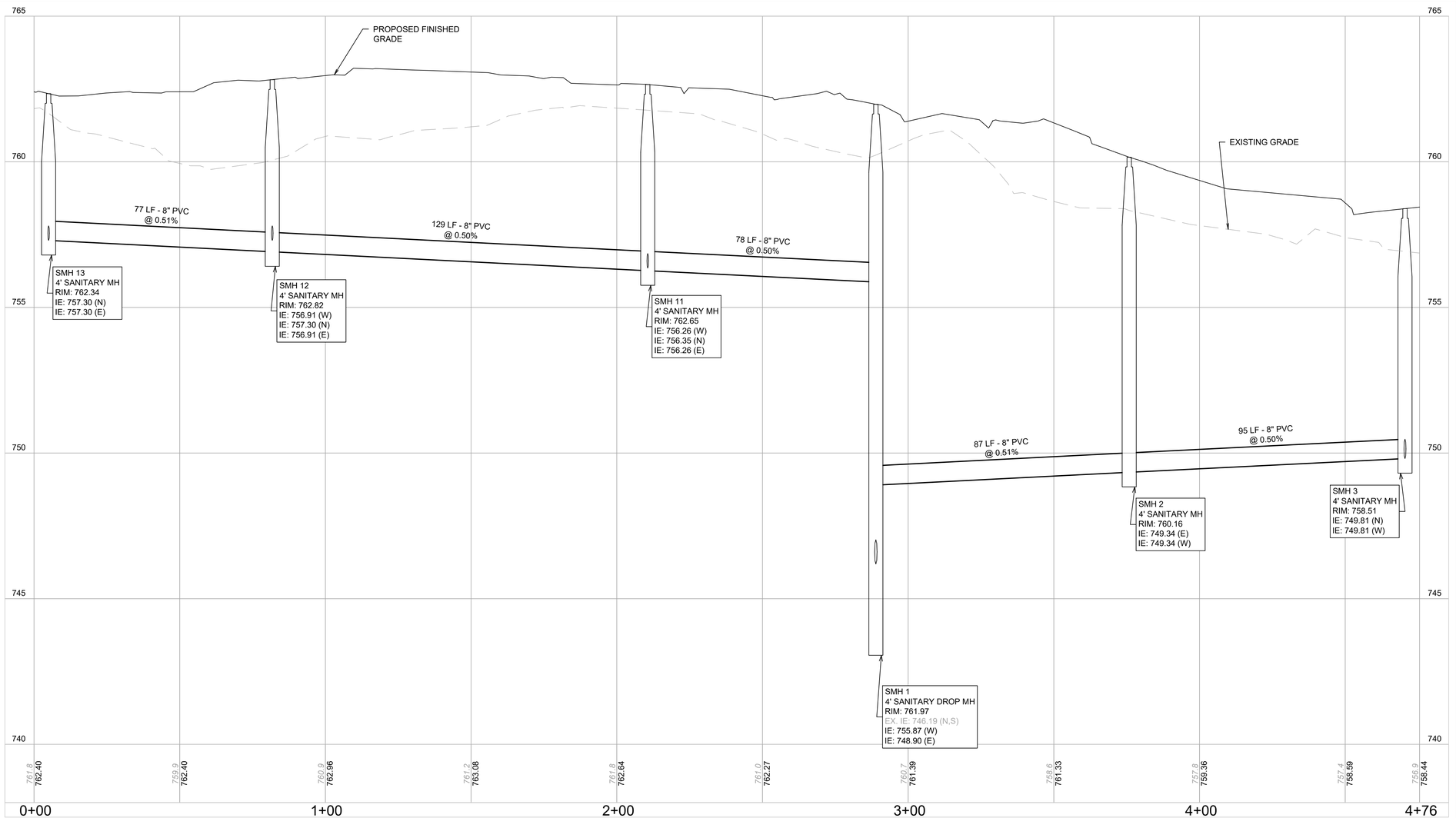
THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C5.6



SANITARY SEWER PROFILE SMH 13 TO SMH 3

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
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ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

SANITARY SEWER PROFILES

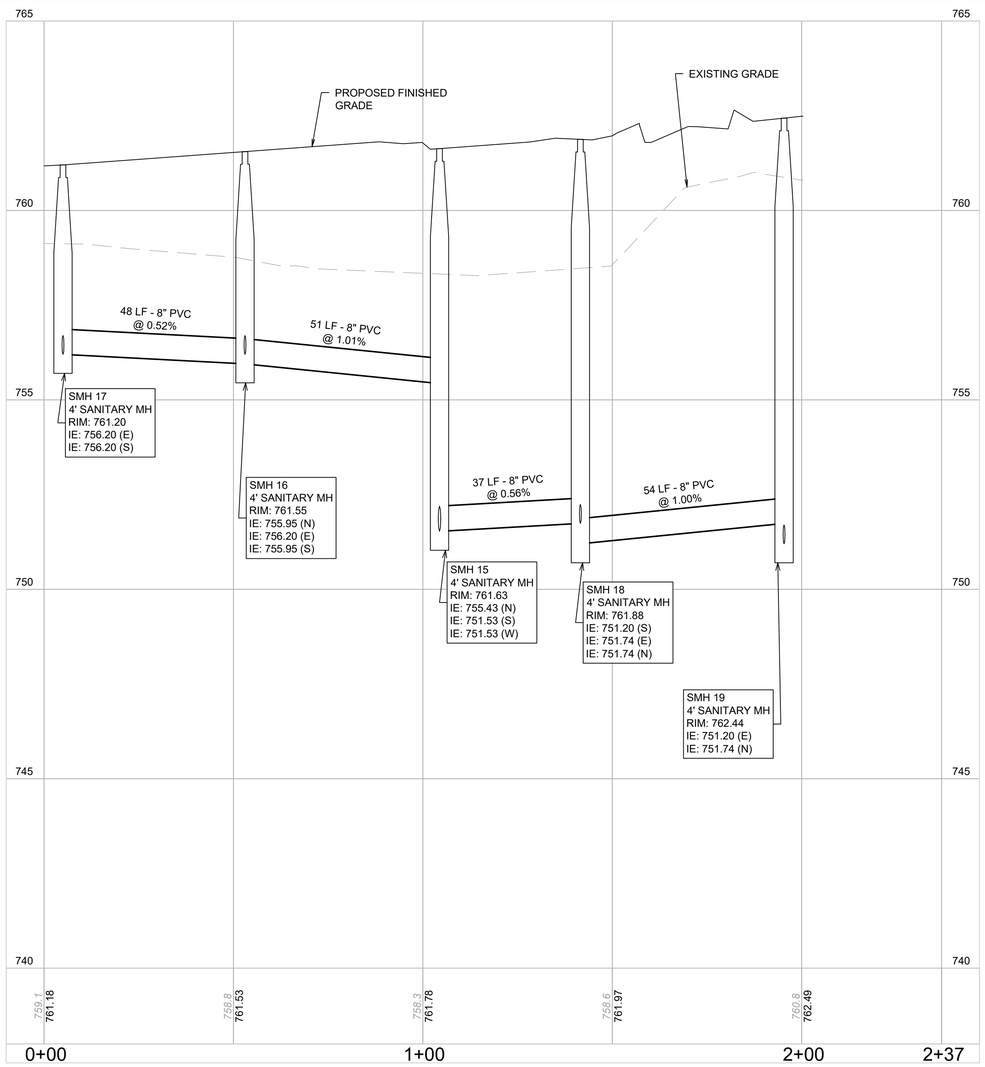
THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

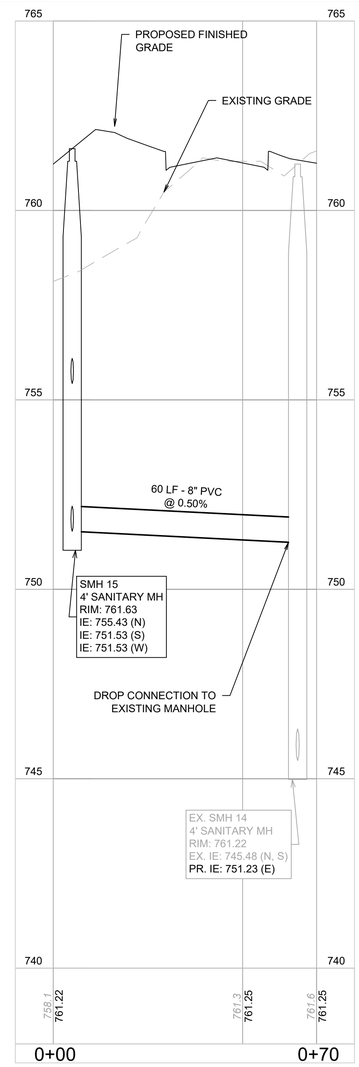
DRAWING NO.

C5.7



SANITARY SEWER PROFILE SMH 17 TO SMH 19

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



SANITARY SEWER PROFILE SMH 15 TO EX. SMH 14

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

REVISIONS

NO.	DATE	DESCRIPTION
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PROJECT MANAGER: DF
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DRAWN BY: RI

SANITARY SEWER PROFILES

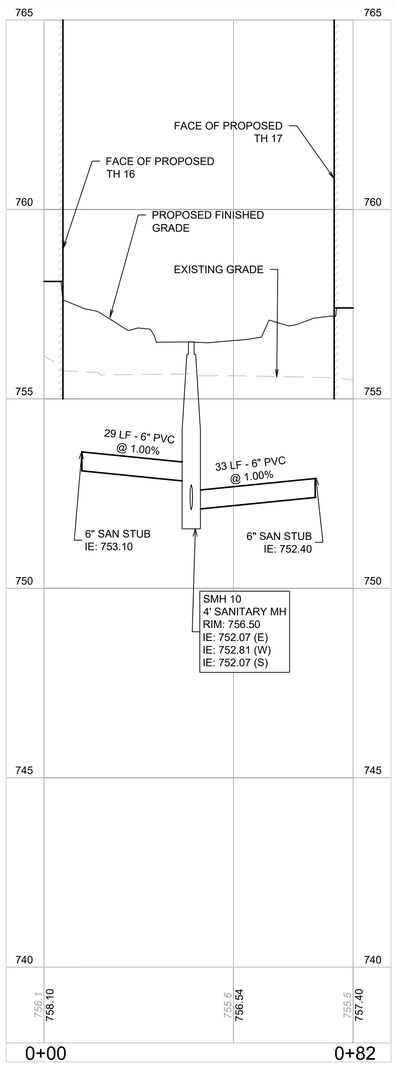
THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

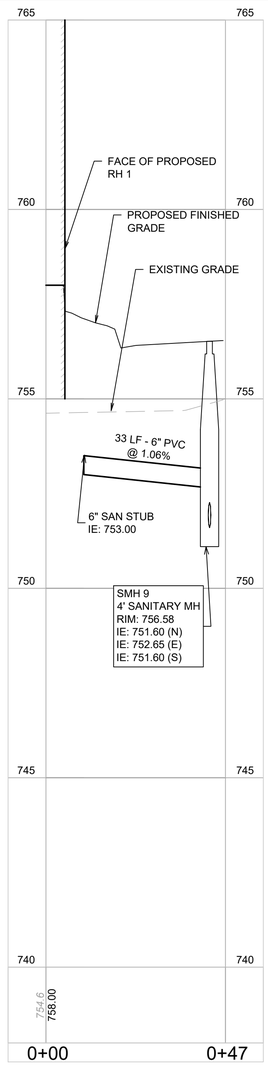
DRAWING NO.

C5.8



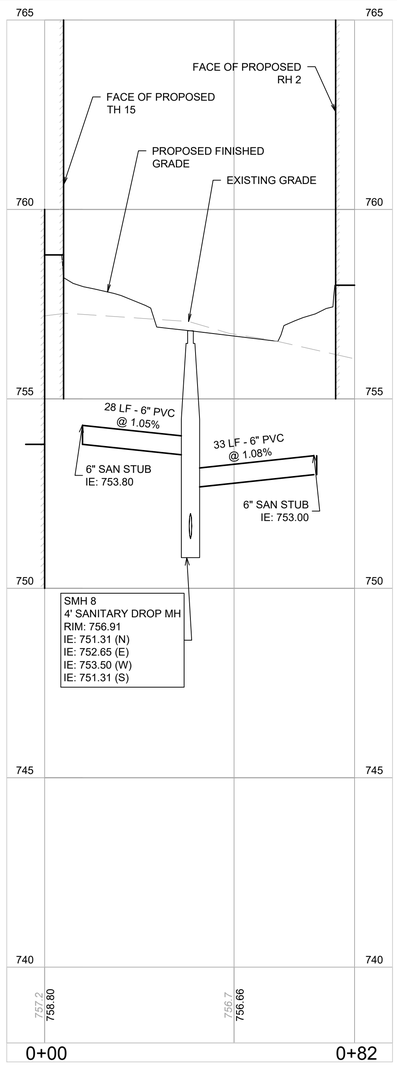
SANITARY SERVICE PROFILE TH 16 TO TH 17

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



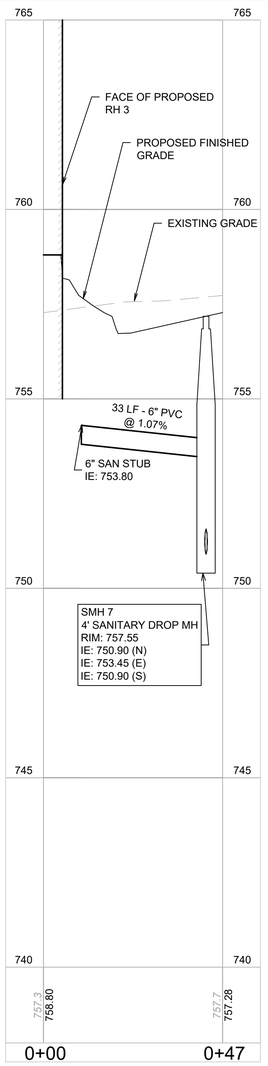
SANITARY SERVICE PROFILE RH 1 TO SMH 9

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



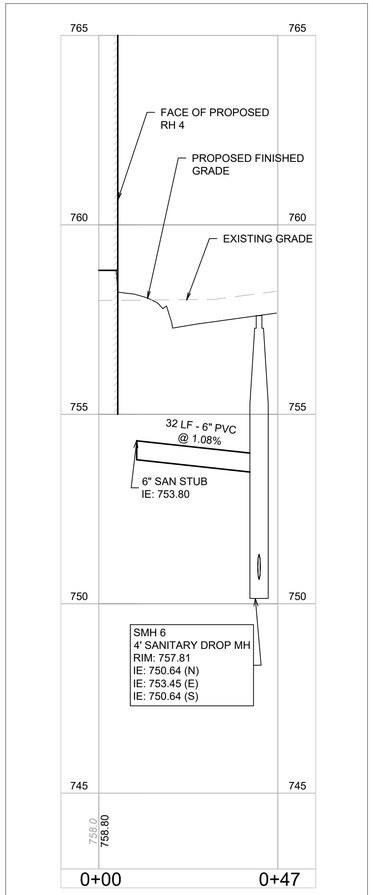
SANITARY SERVICE PROFILE TH 15 TO RH 2

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



SANITARY SERVICE PROFILE RH 3 TO SMH 7

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



SANITARY SERVICE PROFILE RH 4 TO SMH 6

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
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ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

SANITARY SERVICE PROFILES

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
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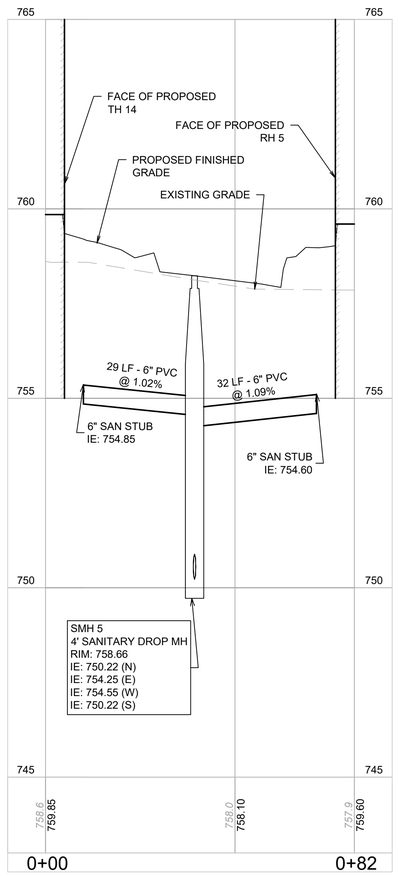
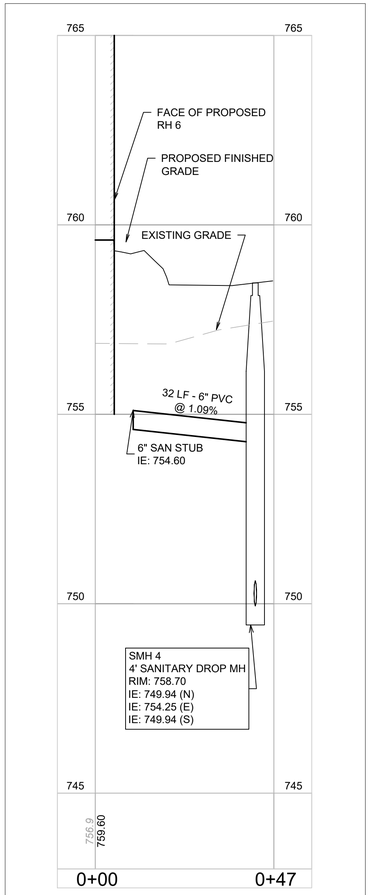
DRAWING NO.

C5.9



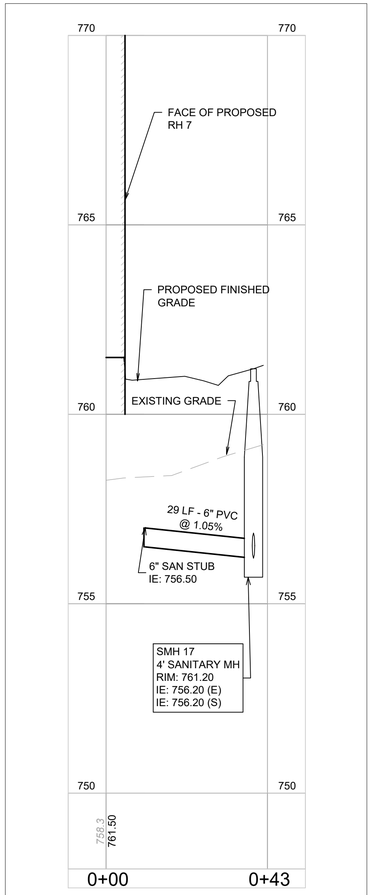
SANITARY SERVICE PROFILE TH 14 TO RH 5

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



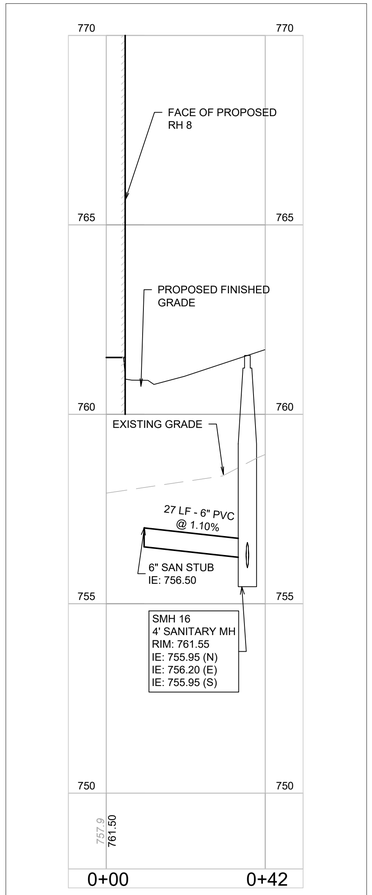
SANITARY SERVICE PROFILE RH 6 TO SMH 4

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



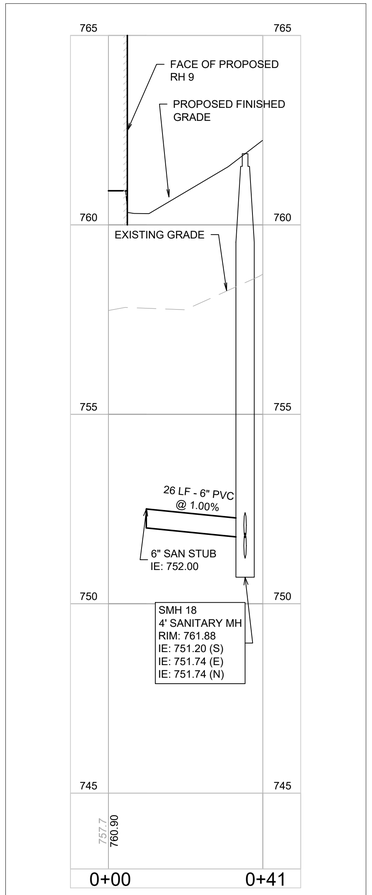
SANITARY SERVICE PROFILE RH 7 TO SMH 17

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



SANITARY SERVICE PROFILE RH 8 TO SMH 16

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



SANITARY SERVICE PROFILE RH 9 TO SMH 18

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

REVISIONS

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PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

SANITARY SERVICE PROFILES

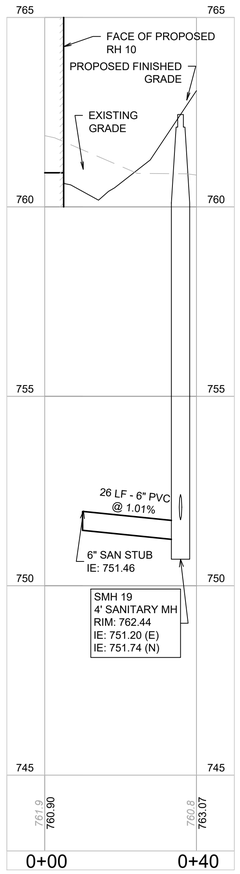
THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

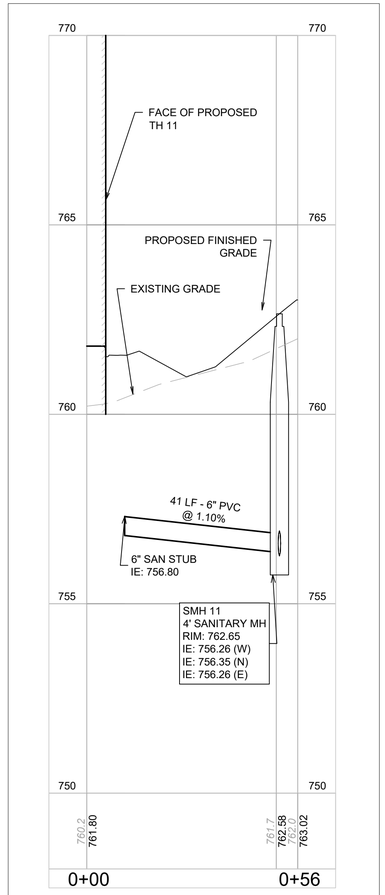
DRAWING NO.

C5.10



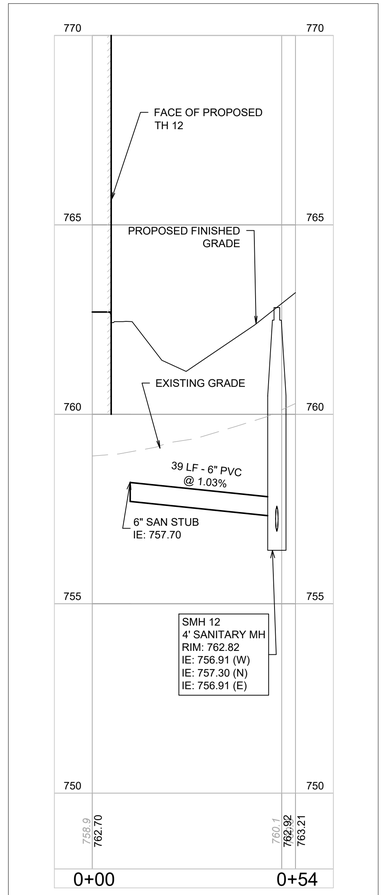
SANITARY SERVICE PROFILE RH 10 TO SMH 19

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



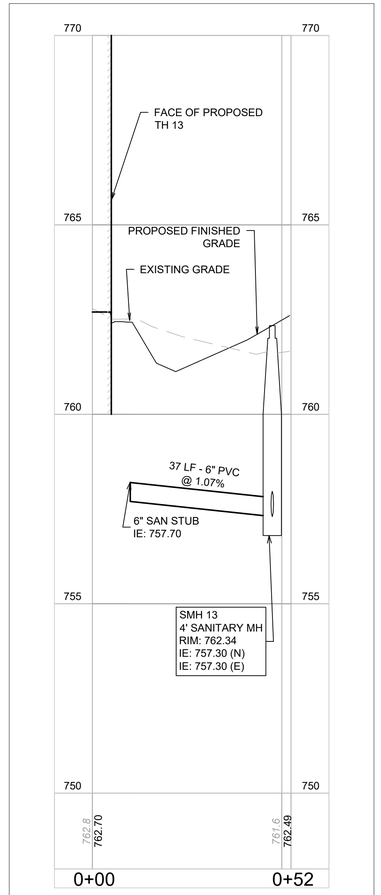
SANITARY SERVICE PROFILE TH 11 TO SMH 11

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



SANITARY SERVICE PROFILE TH 12 TO SMH 12

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



SANITARY SERVICE PROFILE TH 13 TO SMH 13

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

PROJECT NO.: 241072
ORIGINAL ISSUE DATE: JULY 28, 2025
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

SANITARY SERVICE PROFILES

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 James Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C5.11

NOTES:

1. CONTRACTOR TO PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS AS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.

REMOVE VEGETATION WITHIN RIGHT-OF-WAY AS NECESSARY TO INSTALL WATERMAIN

REPAIR DRIVEWAY AFTER INSTALLATION

SAWCUT (TYP)

REPAIR ROADWAY AFTER INSTALLATION. MATCH EXISTING ROAD SECTION.

ASPHALT BUTT CONNECTION

WATER MAIN INSTALLATION WITHIN TOWNSHIP ROADWAY TO BE APPROVED BY LISLE TOWNSHIP

CONNECT TO EXISTING 8" WM STUB

8" WM

TUTHILL ROAD

TH 16

FF 758.1

Inv.=(756.23)

Inv.=(756.13)

Inv.=(756.39)

Inv.=(756.85)

12" DIP

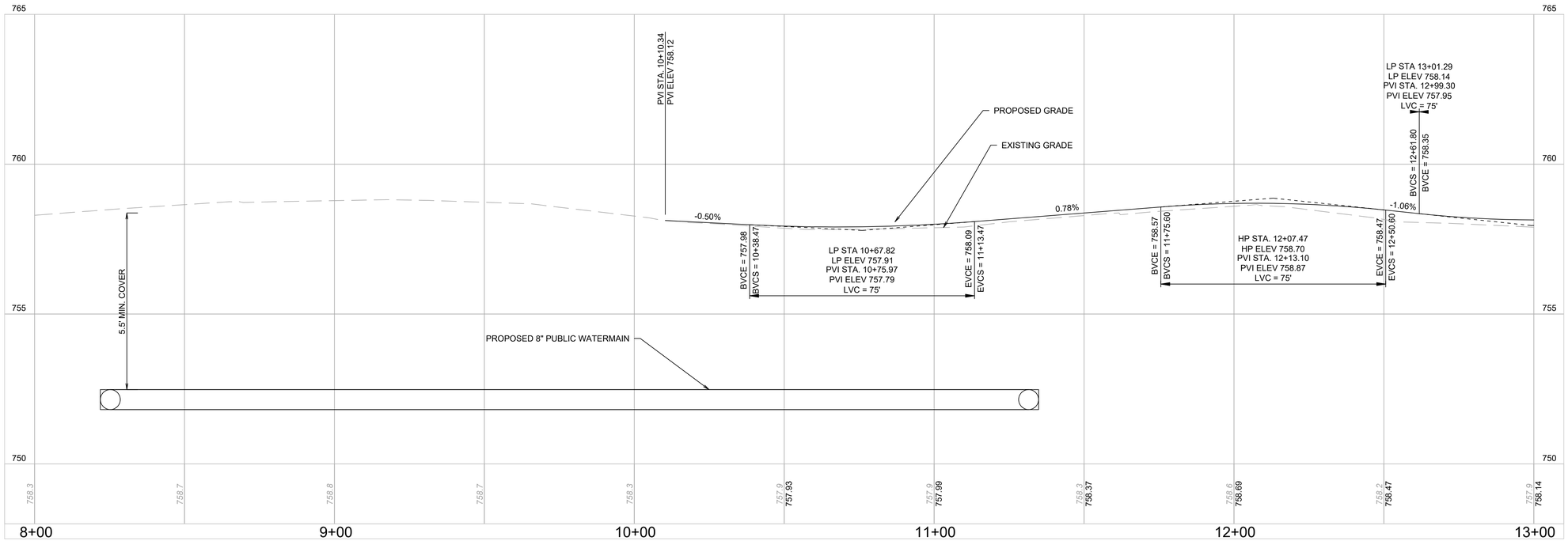
18" CMP

Storm Manhole 4' Dia. Tyₓ A w/Tyₓ 1 F & G Rim=(758.47) Inv.=(754.82)

Inlet w/13" Open Grate Rim=(756.85) Inv.=(753.75) w/Vertical 15" CMP

Sanitary Manhole 4' Dia. Tyₓ A w/Tyₓ 1 F & G Rim=(757.79) Inv.=(747.79)

8+00 9+00 10+00 11+00 12+00 13+00



FOR CONTINUATION SEE SHEET C6.1

GRAPHIC SCALE
20 10 0 20
1" = 20'

GRAPHIC SCALE
HORIZONTAL: 0 10 20 (IN FEET)
VERTICAL: 0 1 2 (IN FEET)

REVISIONS

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PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

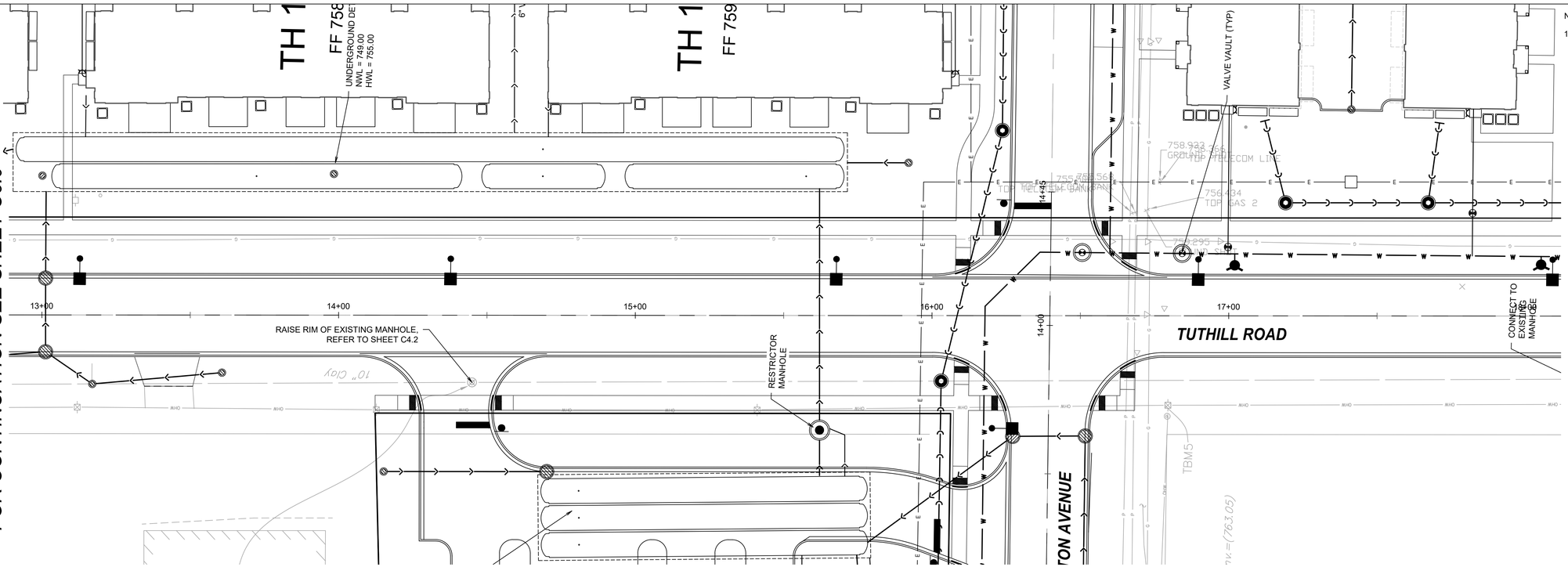
TUTHILL ROAD PLAN & PROFILE STA. 8+00 TO STA. 13+00

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C6.0



GRAPHIC SCALE

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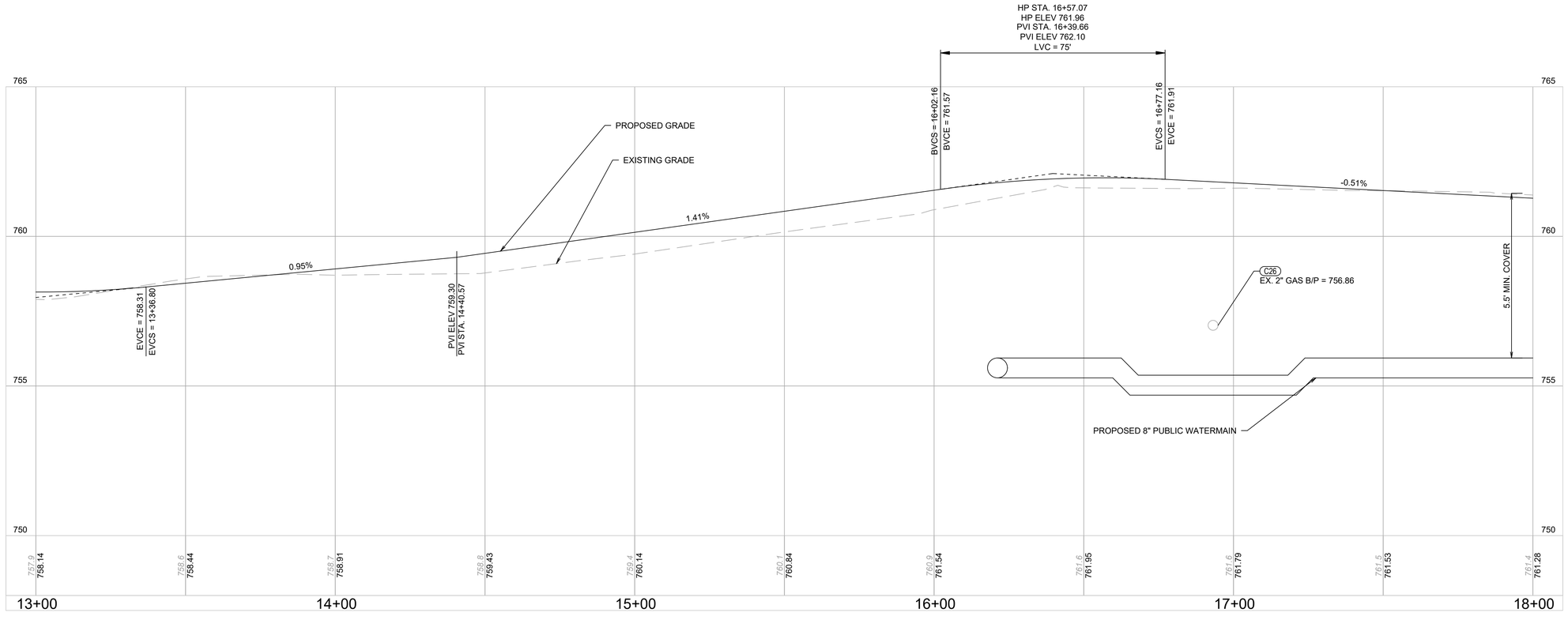
1" = 20'



GRAPHIC SCALE

HORIZONTAL: 0 10 20 (IN FEET)

VERTICAL: 0 1 2 (IN FEET)

REVISIONS		
NO.	DATE	DESCRIPTION
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PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

TUTHILL ROAD PLAN & PROFILE STA. 13+00 TO STA. 18+00

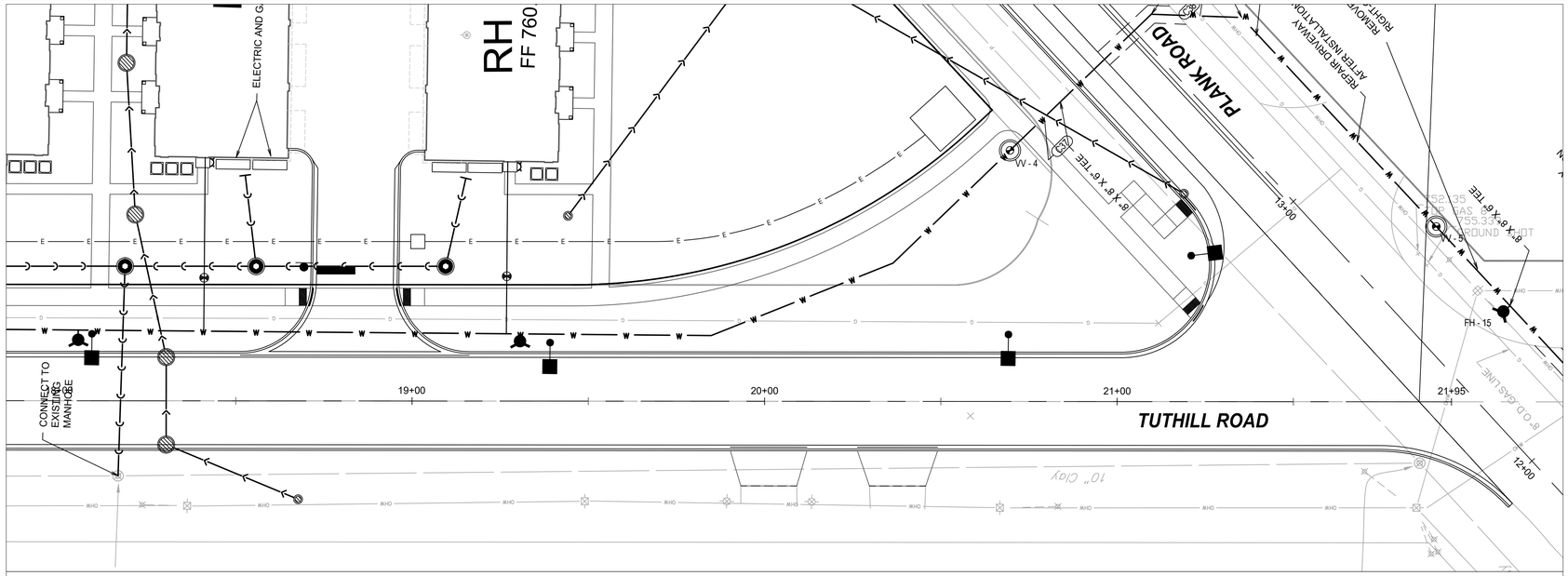
THE RESIDENCES AT NAPERVILLE NAPER AND PLANK ILLINOIS

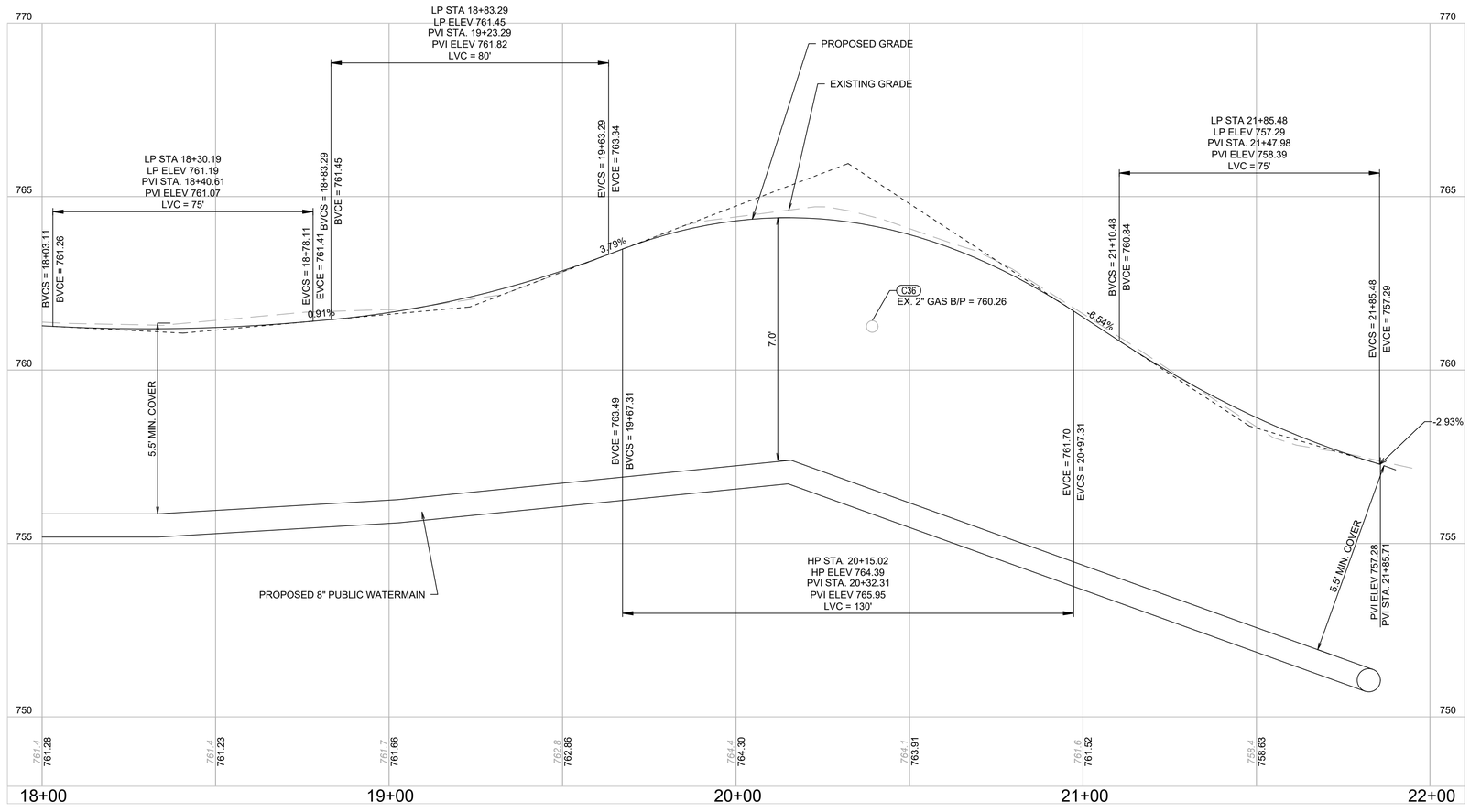
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C6.1

FOR CONTINUATION SEE SHEET C6.1





FOR CONTINUATION SEE SHEET C6.4

NOTES:

1. CONTRACTOR TO PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS AS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.

GRAPHIC SCALE

20 10 0 20

1" = 20'

GRAPHIC SCALE

HORIZONTAL: 0 10 20 (IN FEET)

VERTICAL: 0 1 2 (IN FEET)

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

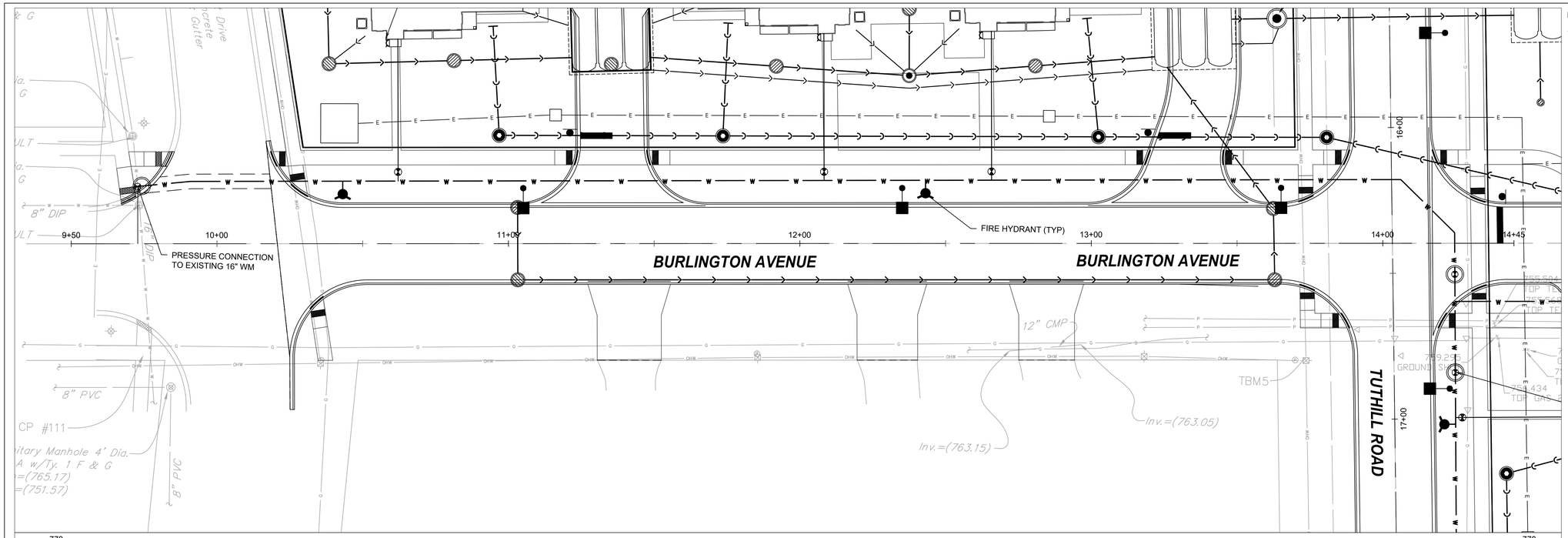
TUTHIL ROAD PLAN & PROFILE
STA. 18+00 TO STA. 22+00
THE RESIDENCES AT
NAPERVILLE NAPER AND PLANK
ILLINOIS

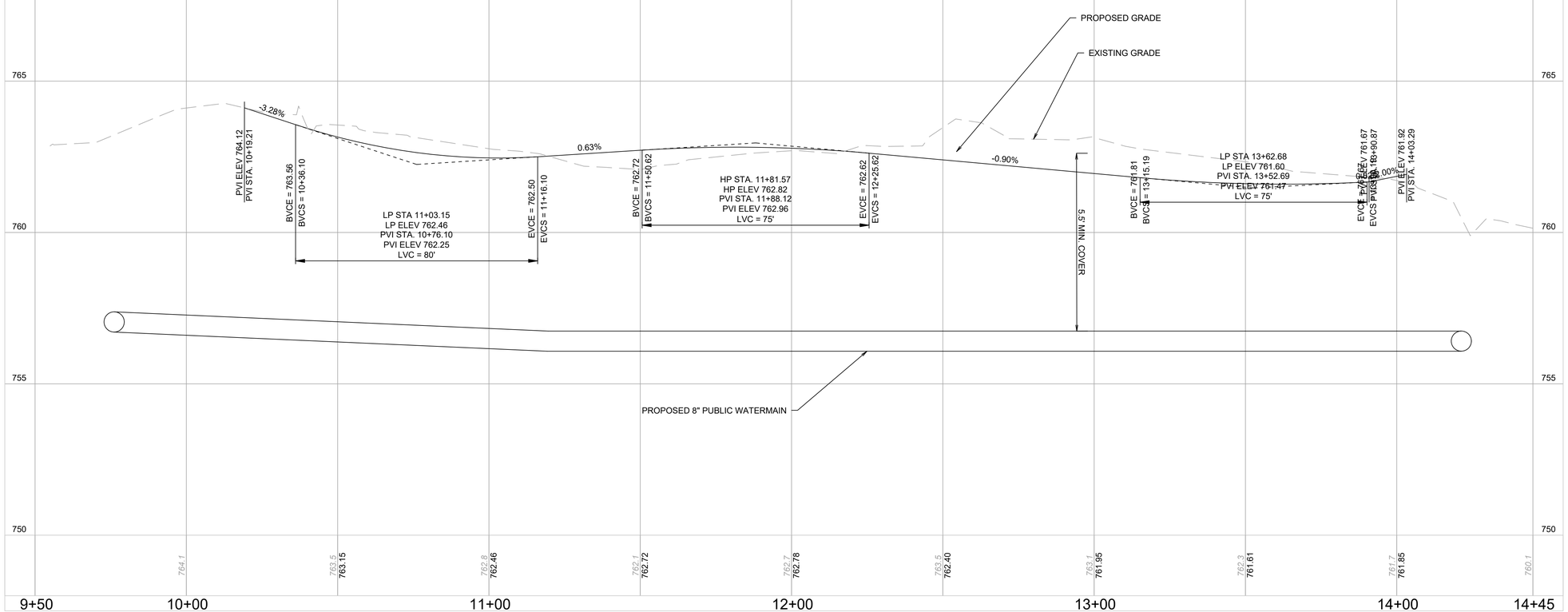
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.
C6.2

NOTES:

1. CONTRACTOR TO PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS AS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.





GRAPHIC SCALE

HORIZONTAL: 0 10 20 (IN FEET)

VERTICAL: 0 1 2 (IN FEET)

GRAPHIC SCALE

20 10 0 20

1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION
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2	09-29-25	REVISED PER CITY COMMENTS

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PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

BURLINGTON AVENUE PLAN & PROFILE - STA. 10+00 TO STA. 14+45

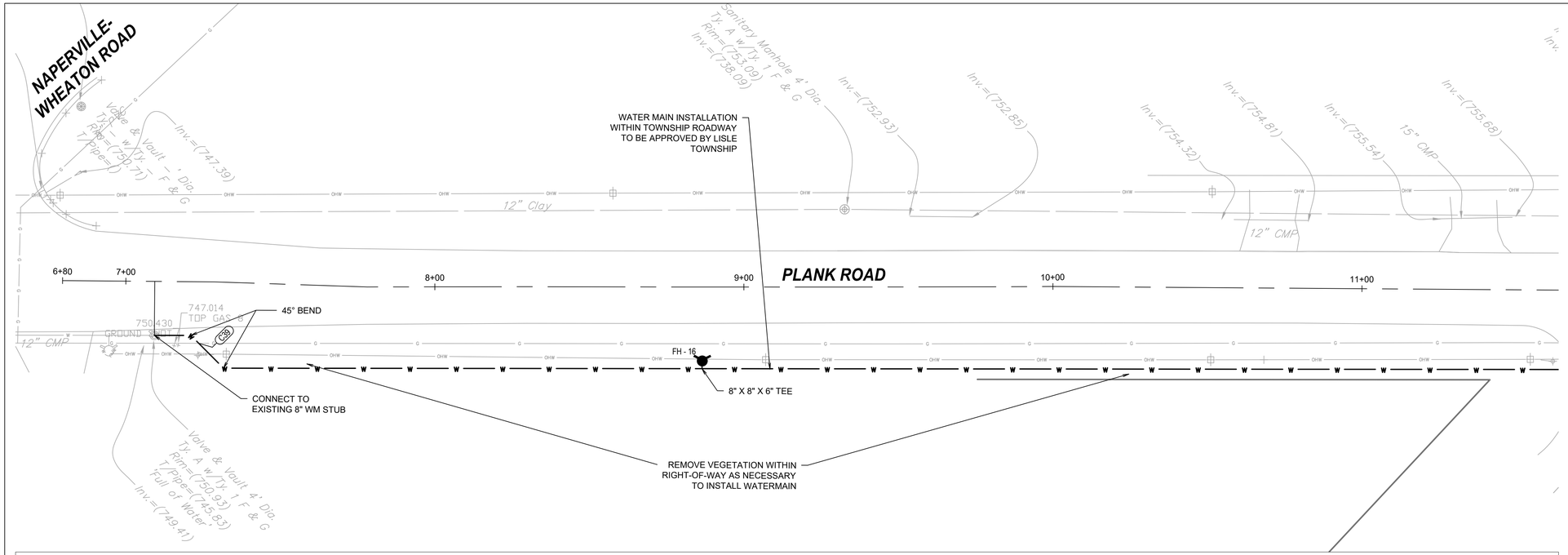
THE RESIDENCES AT NAPERVILLE NAPER AND PLANK

ILLINOIS

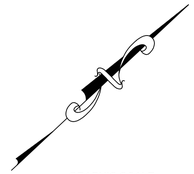
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C6.3



FOR CONTINUATION SEE SHEET C6.5



GRAPHIC SCALE

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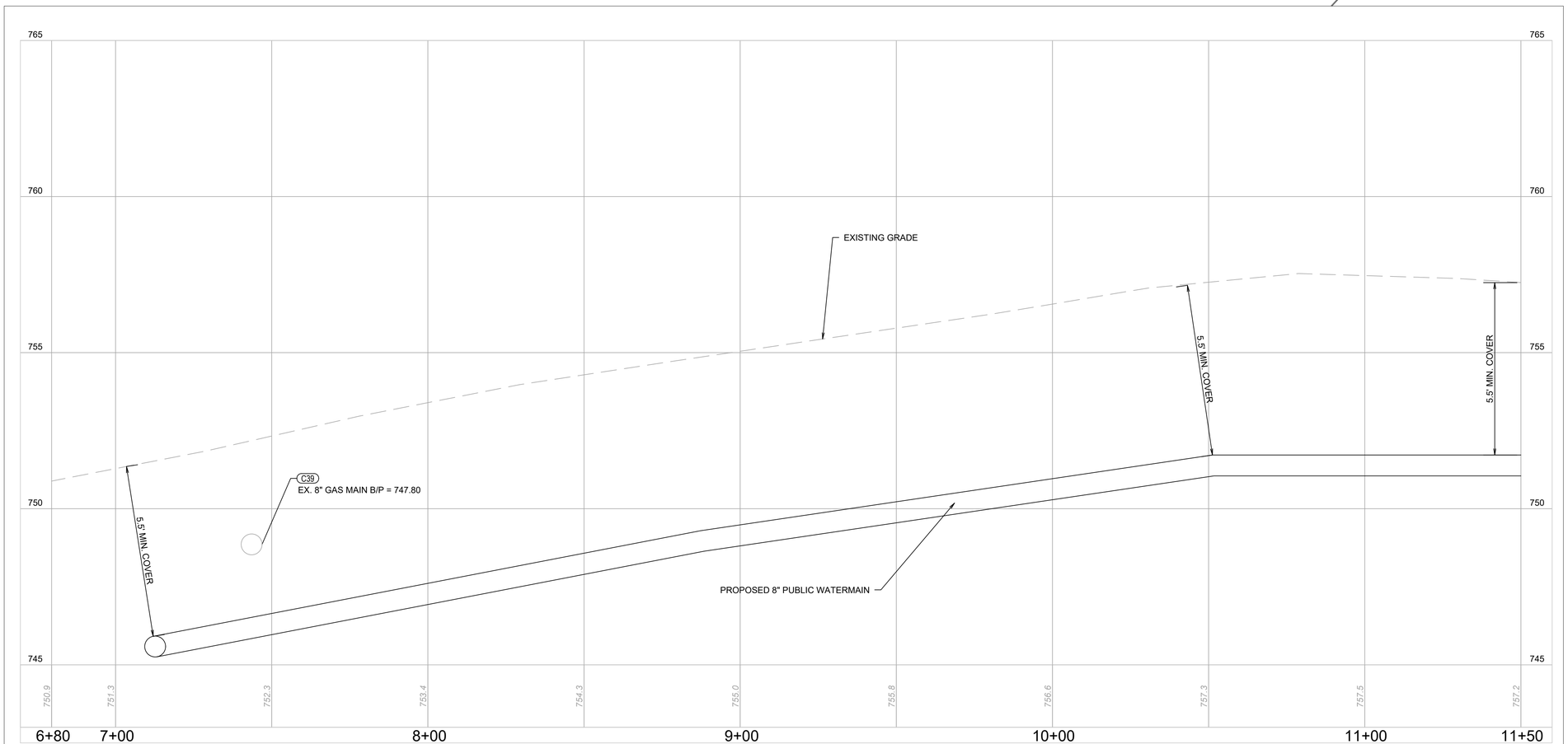
1" = 20'



GRAPHIC SCALE

HORIZONTAL: 0 10 20 (IN FEET)

VERTICAL: 0 1 2 (IN FEET)

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO.: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

PLANK ROAD PLAN & PROFILE
STA. 7+00 TO STA. 11+50
THE RESIDENCES AT
NAPERVILLE NAPER AND PLANK
ILLINOIS

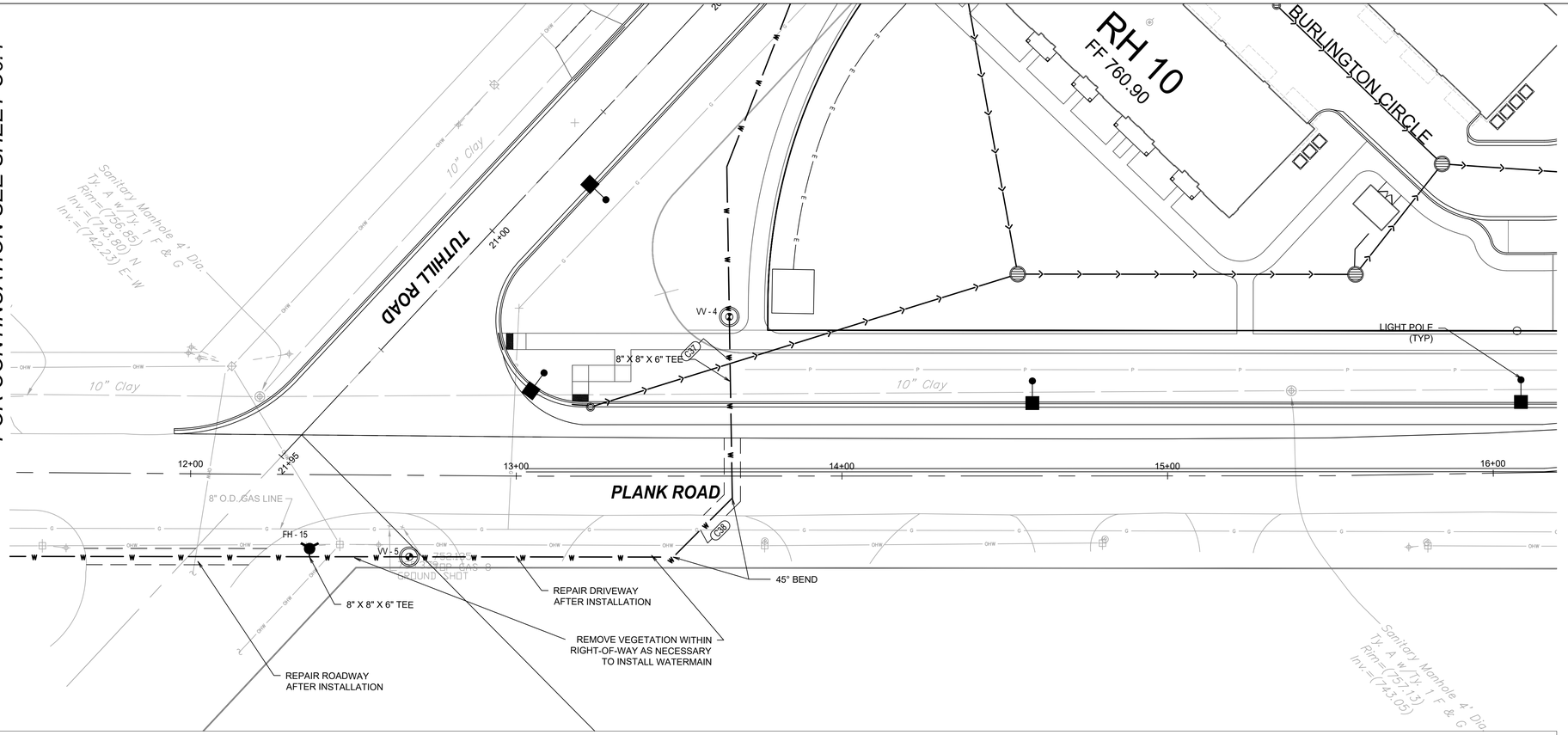
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

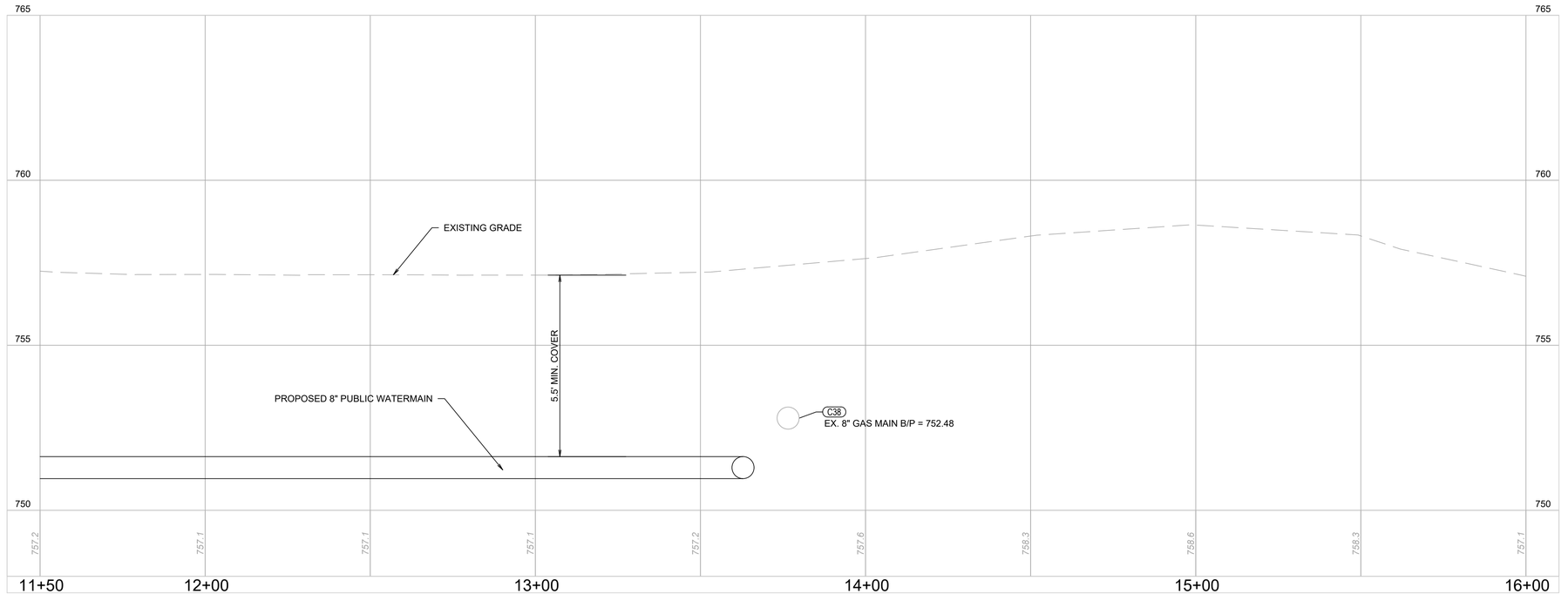
DRAWING NO.

C6.4

FOR CONTINUATION SEE SHEET C6.4

FOR CONTINUATION SEE SHEET C6.6





GRAPHIC SCALE

20 10 0 20

1" = 20'

GRAPHIC SCALE

HORIZONTAL: 0 10 20 (IN FEET)

VERTICAL: 0 1 2 (IN FEET)

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072

PROJECT MANAGER: DF

DESIGNED BY: NB

DRAWN BY: RI

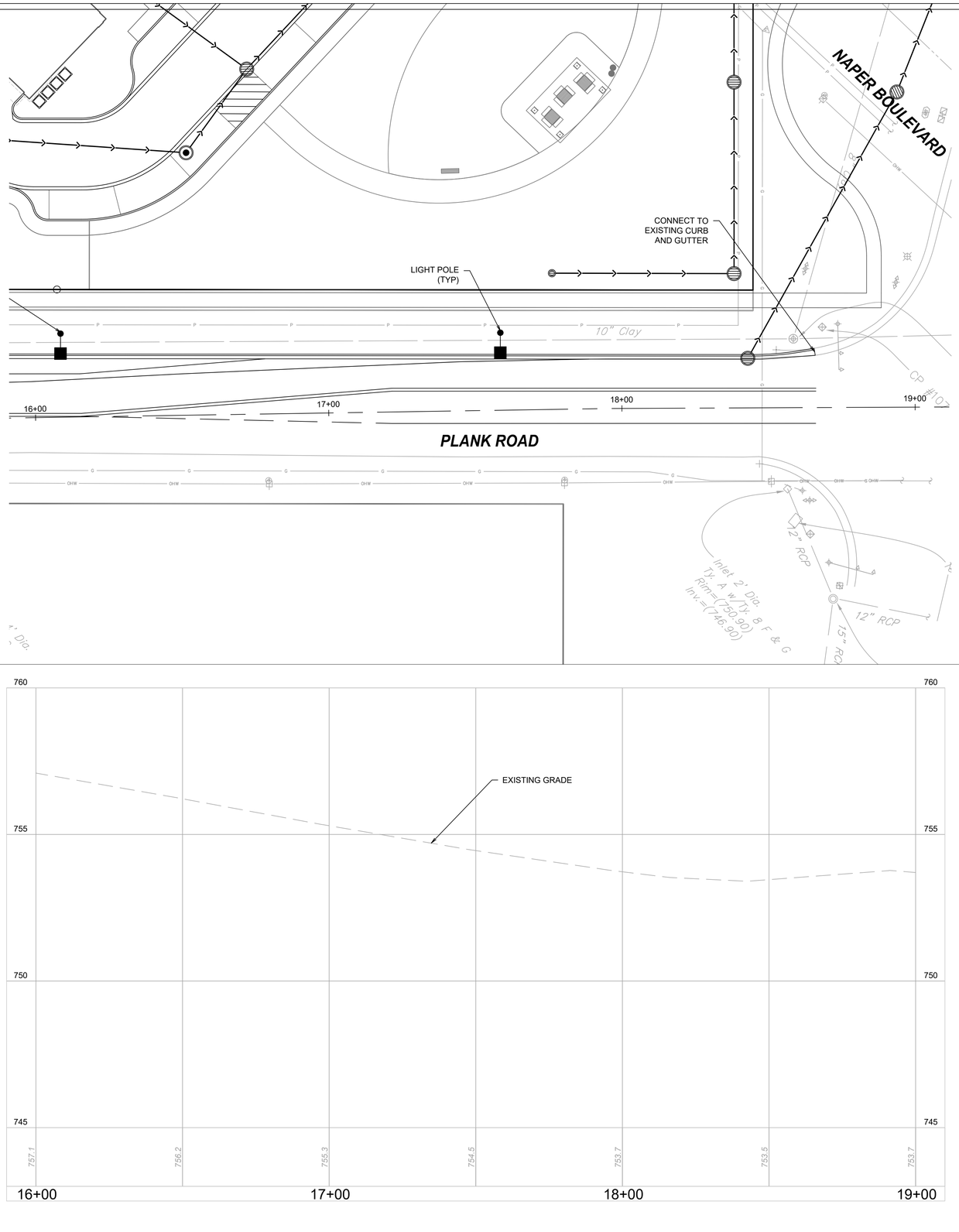
PLANK ROAD PLAN & PROFILE
STA. 11+50 TO STA. 16+00
THE RESIDENCES AT
NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C6.5



GRAPHIC SCALE

20 10 0 20

1" = 20'

GRAPHIC SCALE

HORIZONTAL: 0 10 20 (IN FEET)

VERTICAL: 0 1 2 (IN FEET)

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072

PROJECT MANAGER: DF

DESIGNED BY: NB

DRAWN BY: RI

PLANK ROAD PLAN & PROFILE
STA. 16+00 TO STA. 19+00
THE RESIDENCES AT
NAPERVILLE NAPER AND PLANK
ILLINOIS

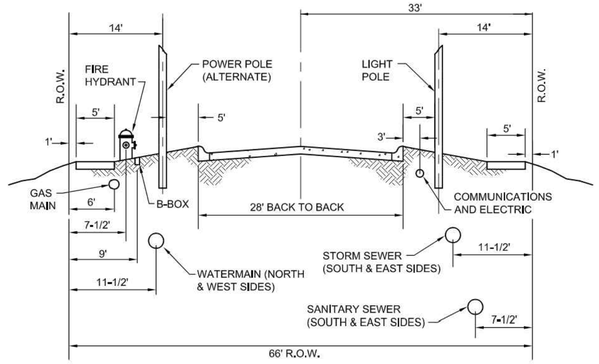
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C6.6

STANDARD UTILITIES LOCATION

28' PAVEMENT WITHIN 66' R.O.W.



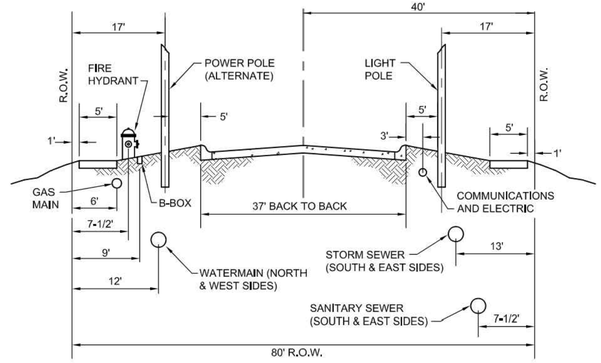
City of Naperville STANDARD DETAIL

STANDARD ROADWAY SECTION

REVISED: 01/01/2013 | SHEET 2 OF 4 | PAVEMENT 1 | **590.01**

STANDARD UTILITIES LOCATION

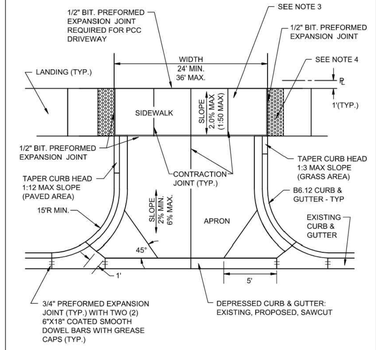
37' PAVEMENT WITHIN 80' R.O.W.



City of Naperville STANDARD DETAIL

STANDARD ROADWAY SECTION

REVISED: 01/01/2013 | SHEET 3 OF 4 | PAVEMENT 1 | **590.01**



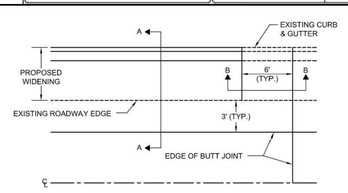
NOTES:

1. ALL AGGREGATE SUB BASE SHALL BE MECHANICALLY COMPACTED.
2. SIDEWALK SHALL CONTINUE THROUGH DRIVEWAYS.
3. SIDEWALK THICKNESS ACROSS DRIVEWAYS SHALL BE A MINIMUM OF 8" PCC ON 4" AGGREGATE SUB BASE.
4. EXPANSION JOINT MATERIAL MUST MATCH THE FULL DEPTH OF THE PAVEMENT.
5. DETECTABLE WARNINGS SHALL ONLY BE INSTALLED AT DRIVEWAYS WITH PERMANENT TRAFFIC CONTROL DEVICES.
6. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
7. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

City of Naperville STANDARD DETAIL

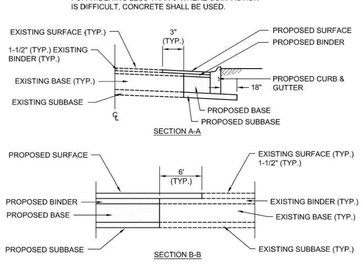
TYPICAL COMMERCIAL DRIVEWAY DETAIL

REVISED: 08/01/2018 | SHEET 1 OF 1 | PAVEMENT 5 | **590.05**



NOTE:

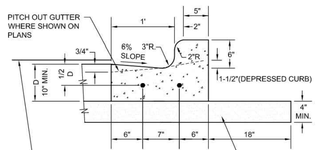
FOR WIDENING LESS THAN 8' WHERE COMPACTION IS DIFFICULT, CONCRETE SHALL BE USED.



City of Naperville STANDARD DETAIL

BUTT JOINT DETAIL

REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 11 | **590.11**



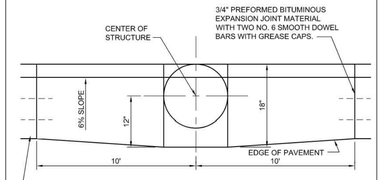
NOTES:

1. 3/4" PREFORMED BITUMINOUS EXPANSION JOINT WITH TWO (2) NUMBER 6 COATED SMOOTH DOWEL BARS (3/4" DIA. X 18") WITH GREASE CAPS SHALL BE PLACED EVERY 150', 10' EITHER SIDE OF DRAINAGE STRUCTURES, P.C.'S, RADIUS POINTS AND BACK OF CUL-DE-SACS. WHEN EXPANSION JOINTS ARE CONSTRUCTED ADJACENT TO EXISTING CURB & GUTTER THE EXISTING CURB SHALL BE DRILLED AND TWO (2) NUMBER 6 COATED SMOOTH DOWEL BARS (3/4" X 18") GROUTED IN PLACE. GREASE CAPS SHALL BE PLACED ON THE SIDE OF THE NEW CURB AND GUTTER SHALL HAVE A PINCHED STOP THAT WILL PROVIDE A MINIMUM 1" EXPANSION.
2. TOOLED CONTROL JOINTS OR SAWCUTS SHALL BE MADE EVERY 15'.
3. SAWCUTS SHALL BE MADE WITHIN TWENTY-FOUR (24) HOURS AND SEALED WITH A CITY APPROVED JOINT SEALANT. JOINTS SHALL BE CLEAN AND DRY PRIOR TO APPLICATION OF SEALANT.
4. FOR CURB AND GUTTER CONSTRUCTED OVER UTILITY TRENCHES, TWO (2) EPOXY COATED REINFORCING BARS (NO. 4) SHALL BE PLACED IN THE CURB AND GUTTER, CENTERED OVER THE TRENCH.

City of Naperville STANDARD DETAIL

B6.12 BARRIER CURB & GUTTER

REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 20 | **590.20**



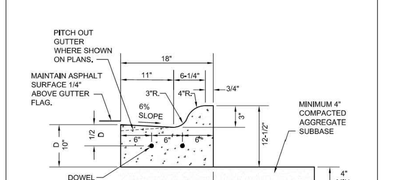
NOTES:

1. GRATE & CASTING SHALL BE EAST JORDAN 7220 OR NEENAH R-3278-A OR AS APPROVED BY THE CITY ENGINEER.
2. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE.

City of Naperville STANDARD DETAIL

B6.12 BARRIER CURB & GUTTER AT CURB INLETS

REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 21 | **590.21**



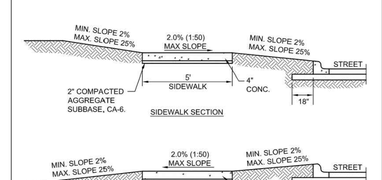
NOTES:

1. 3/4" PREFORMED BITUMINOUS EXPANSION JOINT WITH TWO (2) NUMBER 6 COATED SMOOTH DOWEL BARS (3/4" DIA. X 18") WITH GREASE CAPS SHALL BE PLACED EVERY 150', 10' EITHER SIDE OF DRAINAGE STRUCTURES, P.C.'S, RADIUS POINTS AND BACK OF CUL-DE-SACS. WHEN EXPANSION JOINTS ARE CONSTRUCTED ADJACENT TO EXISTING CURB & GUTTER THE EXISTING CURB SHALL BE DRILLED AND TWO (2) NUMBER 6 COATED SMOOTH DOWEL BARS (3/4" X 18") GROUTED IN PLACE. GREASE CAPS SHALL BE PLACED ON THE SIDE OF THE NEW CURB AND GUTTER SHALL HAVE A PINCHED STOP THAT WILL PROVIDE A MINIMUM 1" EXPANSION.
2. TOOLED CONTROL JOINTS OR SAWCUTS SHALL BE MADE EVERY 15'.
3. SAWCUTS SHALL BE MADE WITHIN TWENTY-FOUR (24) HOURS AND SEALED WITH A CITY APPROVED JOINT SEALANT. JOINTS SHALL BE CLEAN AND DRY PRIOR TO APPLICATION OF SEALANT.
4. FOR CURB AND GUTTER CONSTRUCTED OVER UTILITY TRENCHES, TWO (2) EPOXY COATED REINFORCING BARS (NO. 4) SHALL BE PLACED IN THE CURB AND GUTTER, CENTERED OVER THE TRENCH.

City of Naperville STANDARD DETAIL

M3.12 MOUNTABLE CURB & GUTTER

REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 22 | **590.22**



NOTES:

1. CONCRETE SHALL BE IDOT CLASS SI.
2. MINIMUM SIDEWALK THICKNESS SHALL BE 4".
3. SIDEWALK THICKNESS ACROSS DRIVEWAYS SHALL BE AT A MINIMUM 6" FOR RESIDENTIAL DRIVEWAYS AND 8" FOR COMMERCIAL DRIVEWAYS.
4. MAXIMUM LONGITUDINAL SLOPE SHALL NOT EXCEED 5% (20:1). FOR ANY SLOPE IN EXCESS OF 5%, ALL REQUIREMENTS OF THE ILLINOIS ACCESSIBILITY CODE (LATEST EDITION) SHALL BE MET.
5. MINIMUM TRANSVERSE SLOPE SHALL BE 1.0% (1:100). MAXIMUM TRANSVERSE SLOPE SHALL BE 2.0% (1:50).
6. A MINIMUM 2" AGGREGATE SUBBASE (CA-6) SHALL BE PROVIDED. (4" THROUGH COMMERCIAL DRIVEWAYS).
7. AGGREGATE SUBBASE SHALL BE MECHANICALLY COMPACTED.
8. ALL SIDEWALKS SHALL BE PROMPTLY BACKFILLED AND PROTECTED FROM DAMAGE.
9. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
10. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

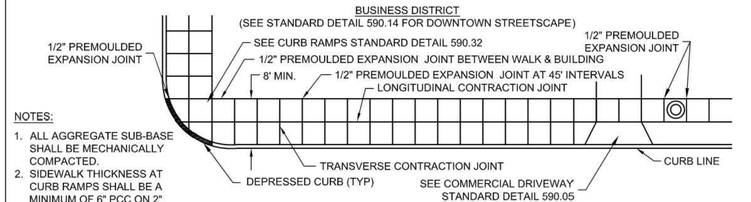
City of Naperville STANDARD DETAIL

SIDEWALK

REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 30 | **590.30**

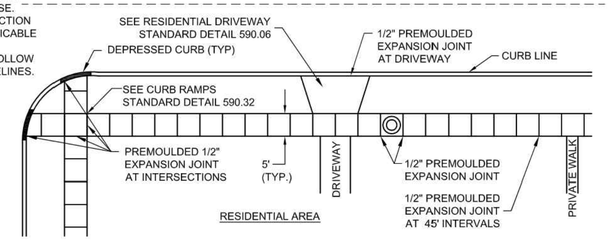
BUSINESS DISTRICT

(SEE STANDARD DETAIL 590.14 FOR DOWNTOWN STREETSCAPE)



NOTES:

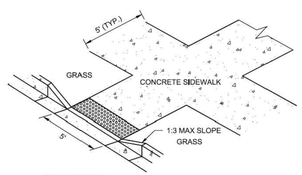
1. ALL AGGREGATE SUB-BASE SHALL BE MECHANICALLY COMPACTED.
2. SIDEWALK THICKNESS AT CURB RAMPS SHALL BE A MINIMUM OF 6" PCC ON 2" AGGREGATE SUB BASE.
3. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
4. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.



City of Naperville STANDARD DETAIL

SIDEWALK CONSTRUCTION

REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 31 | **590.31**



ISOMETRIC VIEW

NOTES:

1. ALL AGGREGATE SUB-BASE SHALL BE MECHANICALLY COMPACTED.
2. SIDEWALK THICKNESS AT CURB RAMPS SHALL BE A MINIMUM OF 6" PCC ON 2" AGGREGATE SUB BASE.
3. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
4. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

APPLICABLE IDOT STANDARD DETAILS (USE LATEST REVISION):

424001-XX	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-XX	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011-XX	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424016-XX	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424021-XX	DEPRESSED CORNER FOR SIDEWALKS
424026-XX	ENTRANCE/ALLEY PEDESTRIAN CROSSINGS
424031-XX	MEDIAN PEDESTRIAN CROSSINGS
606001-XX	CONCRETE CURB TYPE B AND COMB CONCRETE CURB AND GUTTER

APPROVED ADA DETECTABLE WARNING TILES:

1. ADA SOLUTIONS - CAST IN PLACE REPLACEABLE
2. ARMOR TILE - CAST IN PLACE
3. DETECTILE - SLIMTEK II
4. TUFTILE - POLYMER WET-SET

City of Naperville STANDARD DETAIL

CURB RAMPS

REVISED: 08/01/2018 | SHEET 1 OF 1 | PAVEMENT 32 | **590.32**

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

CONSTRUCTION DETAILS

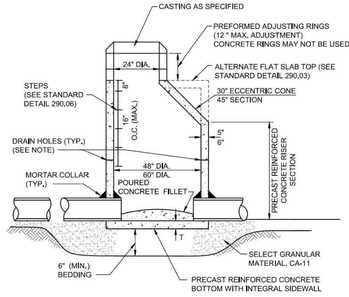
THE RESIDENCES AT NAPERVILLE NAPER AND PLANK ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C7.0

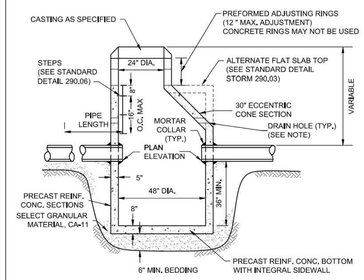
WHEN MANHOLE DEPTH IS 12 FT OR LESS T = 8 INCHES
WHEN MANHOLE DEPTH IS OVER 12 FT, T = 10 INCHES



NOTE:

A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT, THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE, A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

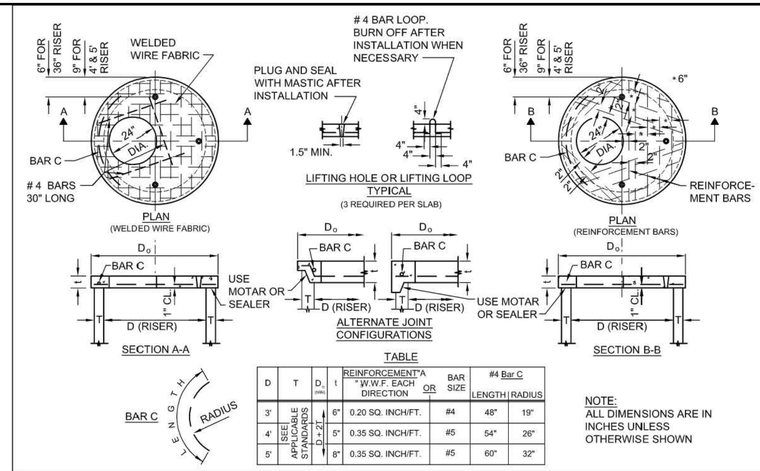
City of Naperville STANDARD DETAIL | STORM MANHOLE- TYPE A | REVISED: 08/01/2018 | SHEET 1 OF 1 | STORM 1 | 290.01



NOTE:

A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT, THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE, A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

City of Naperville STANDARD DETAIL | CATCH BASIN - TYPE A | REVISED: 08/01/2018 | SHEET 1 OF 1 | STORM 2 | 290.02

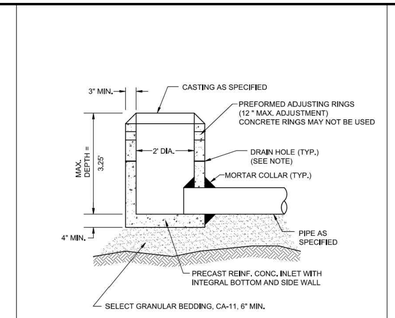


TABLE

D	T	D_o (min)	t	REINFORCEMENT"A" W.W.F. EACH DIRECTION	OR	BAR SIZE	#4 Bar C LENGTH	#4 Bar C RADIUS
3'	SEE APPLICABLE STANDARDS D + 2T	6"		0.20 SQ. INCH/FT.		#4	48"	19"
4'		5"		0.35 SQ. INCH/FT.		#5	54"	26"
5'		8"		0.35 SQ. INCH/FT.		#5	60"	32"

NOTE:
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN

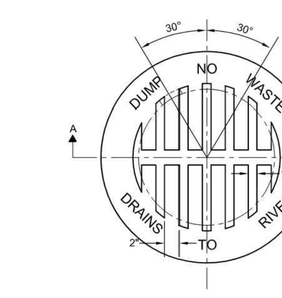
City of Naperville STANDARD DETAIL | FLAT SLAB TOP PRECAST REINFORCED CONCRETE | REVISED: 01/01/2013 | SHEET 1 OF 1 | STORM 3 | 290.03



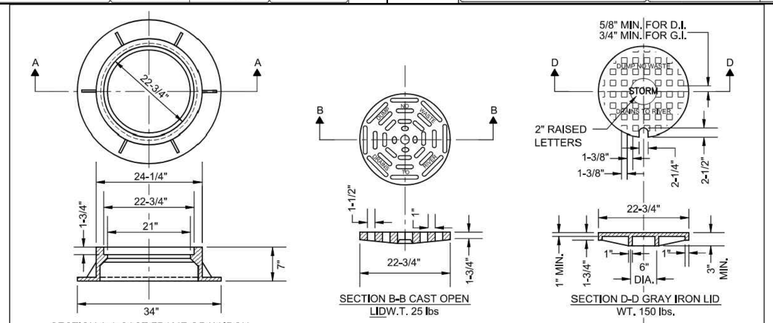
NOTE:

IN PAVED AREAS A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT, THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE, A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

City of Naperville STANDARD DETAIL | INLET - TYPE A | REVISED: 08/01/2018 | SHEET 1 OF 1 | STORM 5 | 290.05



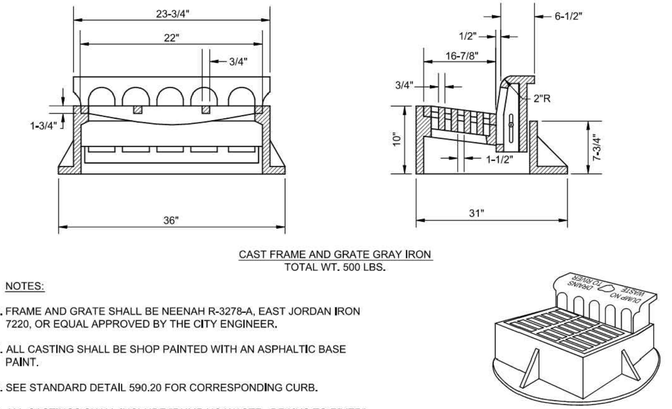
City of Naperville STANDARD DETAIL | CAST IRON STEPS | REVISED: 01/01/2013 | SHEET 1 OF 1 | STORM 6 | 290.06



NOTES:

1. FRAME AND GRATE (LID) SHALL BE NEENAH R-2502 FOR OPEN GRATES, R-1772 FOR CLOSED LIDS; EAST JORDAN 1022-2 WITH M-1 GRATE OR TYPE A SOLID COVER, OR EQUAL APPROVED BY THE CITY ENGINEER.
2. ALL LIDS AND COVERS SHALL HAVE MACHINED SURFACES AND SEATS.
3. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.
4. ALL CASTINGS SHALL INCLUDE "DUMP NO WASTE. DRAINS TO RIVER".

City of Naperville STANDARD DETAIL | FRAME & LID OR GRATE | REVISED: 05/15/2015 | SHEET 1 OF 1 | STORM 10 | 290.10



NOTES:

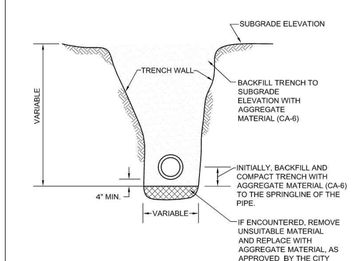
1. FRAME AND GRATE SHALL BE NEENAH R-3278-A, EAST JORDAN IRON 7220, OR EQUAL APPROVED BY THE CITY ENGINEER.
2. ALL CASTING SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.
3. SEE STANDARD DETAIL 590.20 FOR CORRESPONDING CURB.
4. ALL CASTINGS SHALL INCLUDE "DUMP NO WASTE. DRAINS TO RIVER".

City of Naperville STANDARD DETAIL | FRAME & GRATE FOR B-6.12 CURB & GUTTER | REVISED: 05/15/2015 | SHEET 1 OF 1 | STORM 11 | 290.11

NOTES:

1. BEEHIVE GRATE SHALL BE NEENAH R4340B, EAST JORDAN 6527, OR EQUAL APPROVED BY THE CITY ENGINEER.
2. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.
3. ALL CASTINGS SHALL INCLUDE "DUMP NO WASTE. DRAINS TO RIVER".

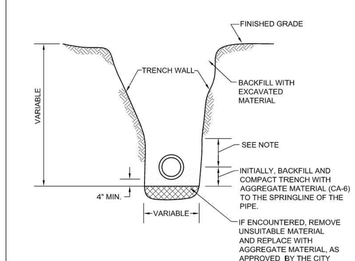
City of Naperville STANDARD DETAIL | BEEHIVE GRATE | REVISED: 05/15/2015 | SHEET 1 OF 1 | STORM 14 | 290.14



NOTES:

1. TRENCH BACKFILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 550.07 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. THIS DETAIL SHALL BE USED WHEREVER THE TRENCH IS MADE IN THE PROPOSED ROADWAY SUBGRADE, AND WHEREVER THE INNER EDGE OF THE TRENCH IS CLOSER THAN 2' TO THE EDGE OF THE PROPOSED PAVEMENT, CURB AND GUTTER, AND SIDEWALK.

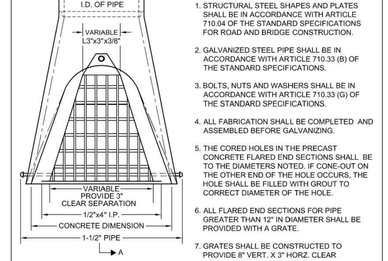
City of Naperville STANDARD DETAIL | STORM SEWER TRENCH SECTION IN PAVED AREAS | REVISED: 01/01/2013 | SHEET 1 OF 1 | STORM 20 | 290.20



NOTE:

FOR PVC AND HDPE PIPE, BACKFILL WITH AGGREGATE MATERIAL (CA-6) TO 6" ABOVE THE TOP OF PIPE.

City of Naperville STANDARD DETAIL | STORM SEWER TRENCH SECTION IN NON-PAVED AREAS | REVISED: 01/01/2013 | SHEET 1 OF 1 | STORM 21 | 290.21



NOTES:

1. STRUCTURAL STEEL SHAPES AND PLATES SHALL BE IN ACCORDANCE WITH ARTICLE 710.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. GALVANIZED STEEL PIPE SHALL BE IN ACCORDANCE WITH ARTICLE 710.33 (B) OF THE STANDARD SPECIFICATIONS.
3. BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 710.33 (G) OF THE STANDARD SPECIFICATIONS.
4. ALL FABRICATION SHALL BE COMPLETED AND ASSEMBLED BEFORE GALVANIZING.
5. THE CORED HOLES IN THE PRECAST CONCRETE FLARED END SECTIONS SHALL BE TO THE DIAMETERS NOTED. IF CONE-OUT ON THE OTHER END OF THE HOLE OCCURS, THE HOLE SHALL BE FILLED WITH GROUT TO CORRECT DIAMETER OF THE HOLE.
6. ALL FLARED END SECTIONS FOR PIPE GREATER THAN 12" IN DIAMETER SHALL BE PROVIDED WITH A GRATE.
7. GRATES SHALL BE CONSTRUCTED TO PROVIDE 8" VERT. X 3" HORZ. CLEAR SEPARATION BETWEEN BARS.

City of Naperville STANDARD DETAIL | GRATING FOR CONCRETE FLARED END SECTION | REVISED: 01/01/2013 | SHEET 1 OF 1 | STORM 22 | 290.22

REVISIONS

NO.	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: JULY 28, 2025
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

CONSTRUCTION DETAILS

THE RESIDENCES AT NAPERVILLE NAPER AND PLANK ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
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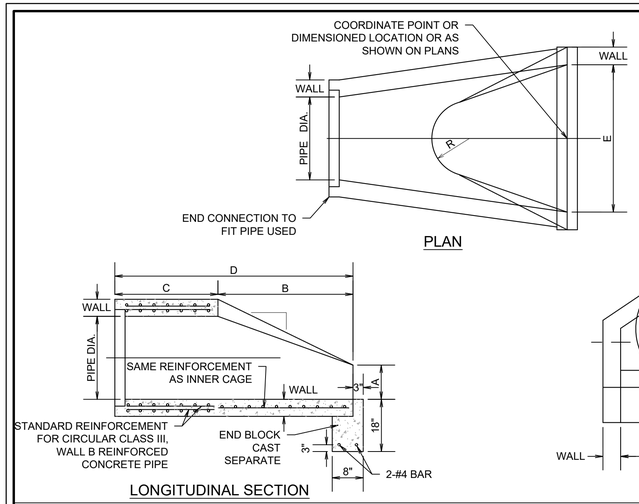
DRAWING NO.
C7.1

n:\2024\241072\Drawings\ACAD\LD\S04\sheet drawings\C7.0 Det241072.dwg 9/30/2025



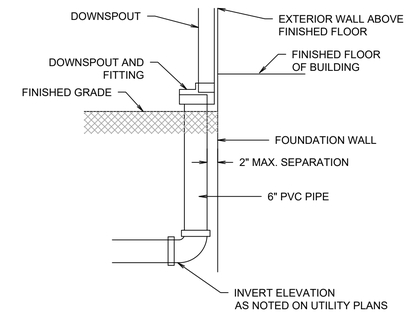
PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	9"	3:1
15"	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
21"	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	13"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	14"	3:1
27"	3 1/4"	10 1/2"	4'-0"	2'-5 1/2"	6'-1 1/2"	4'-6"	14 1/2"	3:1
30"	3 1/2"	12"	4'-6"	1'-9 3/4"	6'-1 3/4"	5'-0"	15"	3:1
33"	3 3/4"	13 1/2"	4'-10 1/2"	3'-9 3/4"	8'-1 3/4"	5'-6"	17 1/2"	3:1
36"	4"	15"	5'-3"	3'-4 3/4"	8'-1 3/4"	6'-0"	20"	3:1
42"	4 1/2"	21"	5'-3"	35"	8'-2"	6'-6"	22"	3:1
48"	5"	24"	6'-0"	26"	8'-2"	7'-0"	22"	3:1
54"	5 1/2"	27"	5'-5"	35"	8'-4"	7'-6"	24"	2.4:1
60"	6"	35"	5'-0"	39"	8'-3"	8'-0"	*	2:1
66"	6 1/2"	30"	6'-0"	27"	8'-3"	8'-6"	*	2:1
72"	7"	36"	6'-6"	21"	8'-3"	9'-0"	*	2.26:1
78"	7 1/2"	36"	7'-6"	21"	9'-3 1/2"	10'-0"	*	2.12:1
84"	8"	36"	7'-6 1/2"	21"	9'-3 1/2"	10'-0"	*	1.94:1

* RADIUS AS FURNISHED BY MANUFACTURER

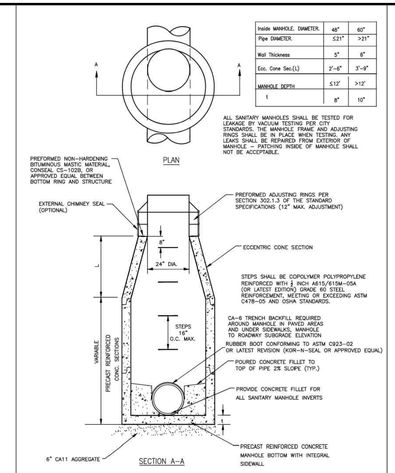
NOTES:

1. PRECAST CONCRETE FLARED END SECTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
2. LENGTHS OF PIPE WHICH TERMINATE WITH A FLARED END SECTION INCLUDE THE LENGTH OF THE FLARED END SECTION.

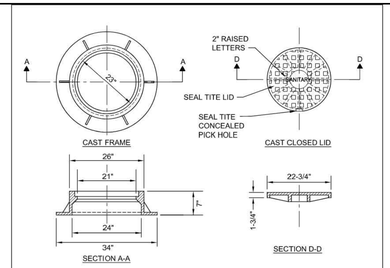
PRECAST REINFORCED CONCRETE FLARED END SECTION



DOWNSPOUT CONNECTOR



City of Naperville STANDARD DETAIL | SANITARY SEWER MANHOLE | REVISED: 08/01/2018 | SHEET 1 OF 1 | SANITARY 1 | 390.01



NOTES:

1) DUCTILE IRON SHALL BE GRADE 65-45-12 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.

2) ALL FRAMES AND COVERS SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. PICK HOLES SHALL NOT CREATE OPENINGS IN THE COVER.

3) THE MANHOLE COVERS SHALL HAVE 2" RAISED LETTERS AS SHOWN.

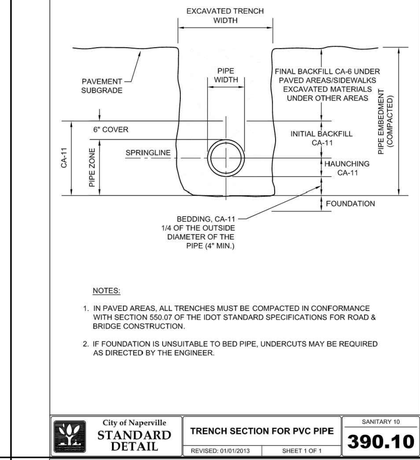
4) ALTERNATIVE TO DUCTILE IRON LID, GREY IRON CL 35 LID MAY BE USED.

5) CASTINGS ARE SHALL BE EAST JORDAN 1022-Z3; NEENAH R-1772 OR APPROVED EQUAL.

6) WATERPROOF, BOLTDOWN FRAME AND COVER SHALL BE USED IN FLOOD PLAIN AREA, AND AS NOTED ON THE PLANS. NEENAH R-1916-F1, EAST JORDAN IRON WORKS 1022-Z1PT OR APPROVED EQUAL.

7. LIDS AND FRAMES TO MEET ASSHTO M306 PROOF LOADING SPECIFICATIONS

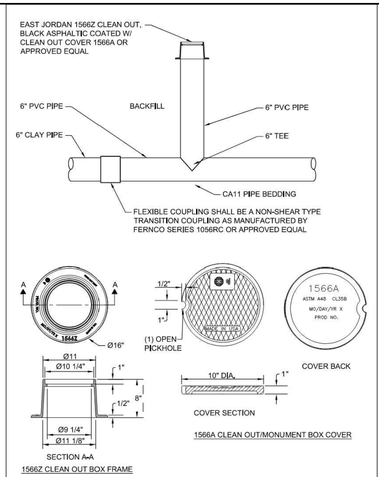
City of Naperville STANDARD DETAIL | SANITARY MANHOLE - FRAME & COVER | REVISED: 01/01/2013 | SHEET 1 OF 1 | SANITARY 6 | 390.06



NOTES:

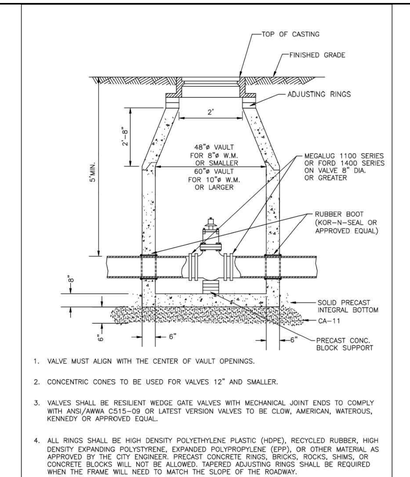
1. IN PAVED AREAS, ALL TRENCHES MUST BE COMPACTED IN CONFORMANCE WITH SECTION 550.07 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.
2. IF FOUNDATION IS UNSUITABLE TO BED PIPE, UNDERCUTS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

City of Naperville STANDARD DETAIL | TRENCH SECTION FOR PVC PIPE | REVISED: 01/01/2013 | SHEET 1 OF 1 | SANITARY 10 | 390.10



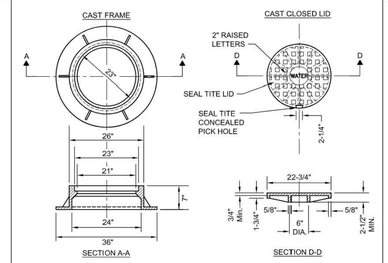
1566Z CLEAN OUT BOX FRAME

City of Naperville STANDARD DETAIL | SANITARY SEWER CLEANOUT | REVISED: 10/04/2023 | SHEET 1 OF 1 | SANITARY 23 | 390.23



1. VALVE MUST ALIGN WITH THE CENTER OF VAULT OPENINGS.
2. CONCENTRIC CONES TO BE USED FOR VALVES 12" AND SMALLER.
3. VALVES SHALL BE RESILIENT WEDGE GATE VALVES WITH MECHANICAL JOINT ENDS TO COMPLY WITH ANSI/AWWA C515–09 OR LATEST VERSION VALVES TO BE CLOW, AMERICAN, WATEROUS, KENNEDY OR APPROVED EQUAL.
4. ALL RINGS SHALL BE HIGH DENSITY POLYETHYLENE PLASTIC (HDPE), RECYCLED RUBBER, HIGH DENSITY EXPANDING POLYSTYRENE, EXPANDED POLYPROPYLENE (EPP), OR OTHER MATERIAL AS APPROVED BY THE CITY ENGINEER. PRECAST CONCRETE RINGS, BRICKS, ROCKS, SHIMS, OR CONCRETE BLOCKS WILL NOT BE ALLOWED. TAPERED ADJUSTING RINGS SHALL BE REQUIRED WHEN THE FRAME WILL NEED TO MATCH THE SLOPE OF THE ROADWAY.

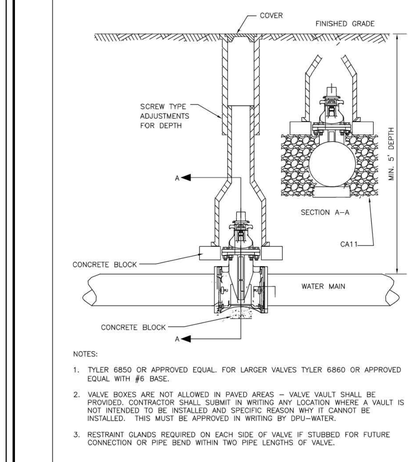
City of Naperville STANDARD DETAIL | VALVE VAULT | REVISED: 10/03/2023 | SHEET 1 OF 1 | WATER 1 | 490.01



NOTES:

1. DUCTILE IRON SHALL BE GRADE 65-45-12 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. ALL FRAMES AND COVERS SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. PICK HOLES SHALL NOT CREATE OPENINGS IN THE COVER.
3. THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.
4. ALTERNATIVE TO DUCTILE IRON LID, GREY IRON CL 35 LID MAY BE USED.
5. DIMENSIONS FOR CASTINGS ARE COMPARABLE TO EAST JORDAN 1022 OR NEENAH R-1772-C, HEAVY DUTY.
6. LIDS AND FRAMES TO MEET AASHTO M306 PROOF LOADING SPECIFICATIONS.

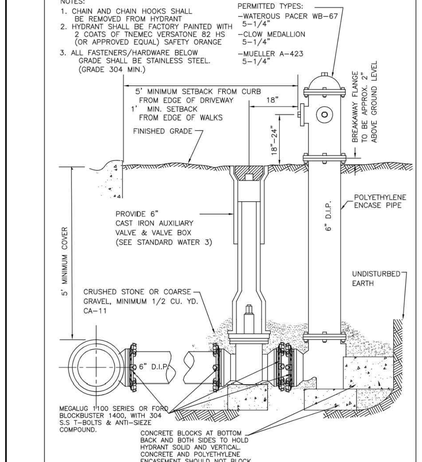
City of Naperville STANDARD DETAIL | VALVE VAULT - FRAME & COVER | REVISED: 01/01/2013 | SHEET 1 OF 1 | WATER 4 | 490.04



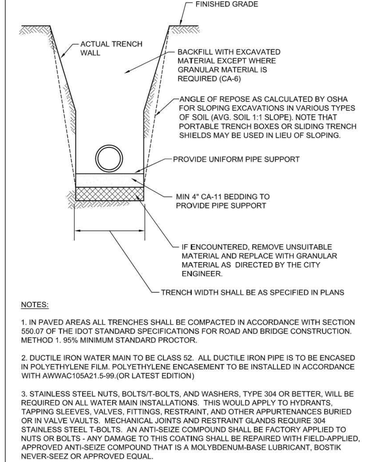
NOTES:

1. TYLER 6850 OR APPROVED EQUAL. FOR LARGER VALVES TYLER 6860 OR APPROVED EQUAL WITH ø6 BASE.
2. VALVE BOXES ARE NOT ALLOWED IN PAVED AREAS – VALVE VAULT SHALL BE PROVIDED. CONTRACTOR SHALL SUBMIT IN WRITING ANY LOCATION WHERE A VAULT IS NOT INTENDED TO BE INSTALLED AND SPECIFIC REASON WHY IT CANNOT BE INSTALLED. THIS MUST BE APPROVED IN WRITING BY DPU–WATER.
3. RESTRAINT GLANDS REQUIRED ON EACH SIDE OF VALVE IF STUBBED FOR FUTURE CONNECTION OR PIPE BEND WITHIN TWO PIPE LENGTHS OF VALVE.

City of Naperville STANDARD DETAIL | VALVE BOX | REVISED: 01/01/2013 | SHEET 1 OF 1 | WATER 5 | 490.05



City of Naperville STANDARD DETAIL | HYDRANT | REVISED: 05/15/2015 | SHEET 1 OF 1 | WATER 6 | 490.06



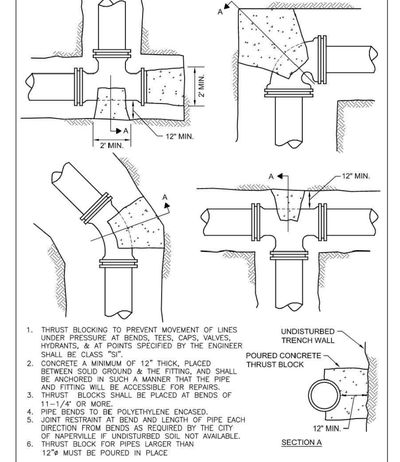
NOTES:

1. IN PAVED AREAS ALL TRENCHES SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 550.07 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. METHOD 1. 95% MINIMUM STANDARD PROCTOR.

2. DUCTILE IRON WATER MAIN TO BE CLASS 52. ALL DUCTILE IRON PIPE IS TO BE ENCASED IN POLYETHYLENE FILM. POLYETHYLENE ENCASEMENT TO BE INSTALLED IN ACCORDANCE WITH AWWAC105A21.5-99.(OR LATEST EDITION)

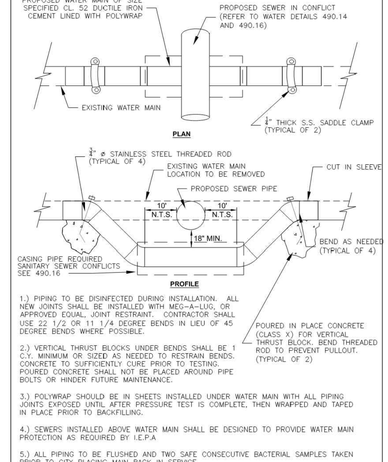
3. STAINLESS STEEL NUTS, BOLTS/T-BOLTS, AND WASHERS, TYPE 304 OR BETTER, WILL BE REQUIRED ON ALL WATER MAIN INSTALLATIONS. THIS WOULD APPLY TO HYDRANTS, TAPPING SLEEVES, VALVES, FITTINGS, RESTRAINT, AND OTHER APPURTENANCES BURIED OR IN VALVE VAULTS. MECHANICAL JOINTS AND RESTRAINT GLANDS REQUIRE 304 STAINLESS STEEL T-BOLTS. AN ANTI-SEIZE COMPOUND SHALL BE FACTORY APPLIED TO NUTS OR BOLTS - ANY DAMAGE TO THIS COATING SHALL BE REPAIRED WITH FIELD-APPLIED, APPROVED ANTI-SEIZE COMPOUND THAT IS A MOLYBDENUM-BASE LUBRICANT, BOSTIK NEVER-SEEZ OR APPROVED EQUAL.

City of Naperville STANDARD DETAIL | WATER MAIN TRENCH SECTION | REVISED: 01/01/2013 | SHEET 1 OF 1 | WATER 10 | 490.10



1. THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, & AT POINTS SPECIFIED BY THE ENGINEER SHALL BE CLASS "SI".
2. CONCRETE A MINIMUM OF 12" THICK, PLACED BETWEEN SOLID GROUND & THE FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT THE PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIRS.
3. THRUST BLOCKS SHALL BE PLACED AT BENDS OF 11–1/4° OR MORE.
4. PIPE BENDS TO BE POLYETHYLENE ENCASED.
5. JOINT RESTRAINT AT BEND AND LENGTH OF PIPE EACH DIRECTION FROM BENDS AS REQUIRED BY THE CITY OF NAPERVILLE IF UNDISTURBED SOIL NOT AVAILABLE.
6. THRUST BLOCK FOR PIPES LARGER THAN 12"ø MUST BE POURED IN PLACE

City of Naperville STANDARD DETAIL | THRUST BLOCK | REVISED: 05/15/2015 | SHEET 1 OF 1 | WATER 11 | 490.11



City of Naperville STANDARD DETAIL | LOWERING/ADJUSTING WATER MAIN | REVISED: 05/15/2015 | SHEET 1 OF 1 | WATER 13 | 490.13

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

CONSTRUCTION DETAILS

THE RESIDENCES AT NAPERVILLE NAPER AND PLANK ILLINOIS

7325 Janes Avenue
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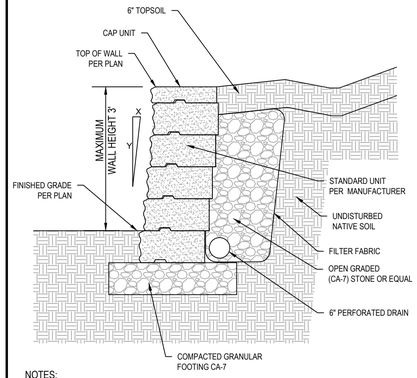
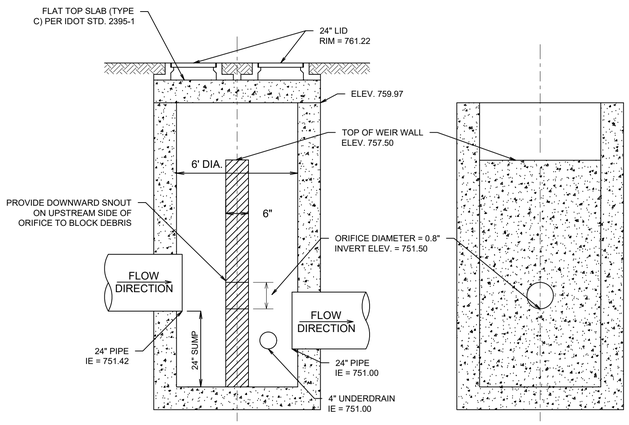
n:\2024\241072\Drawings\ACAD\LD\S04\sheet drawings\C7.0 Det241072.dwg 9/30/2025



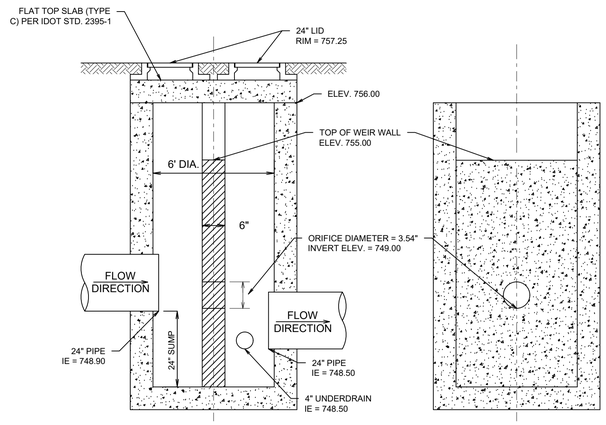
NOTES:

1. ALL WALLS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
2. IF WALL IS GREATER THAN 3', WALL SUPPLIER MUST PROVIDE STAMPED STRUCTURE DESIGN.
3. VERIFY BATTER SLOPE WITH MANUFACTURER.

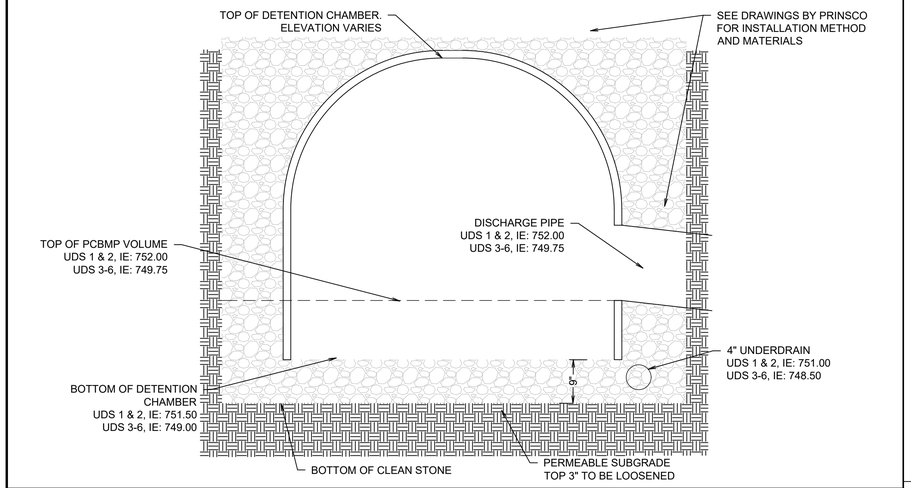
BLOCK RETAINING WALL SECTION (NON-STRUCTURAL)



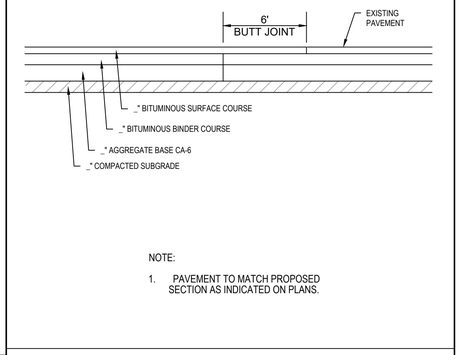
ORIFICE / WEIR RESTRICTOR STRUCTURE (ST 1-7)



ORIFICE / WEIR RESTRICTOR STRUCTURE (ST 2-2)



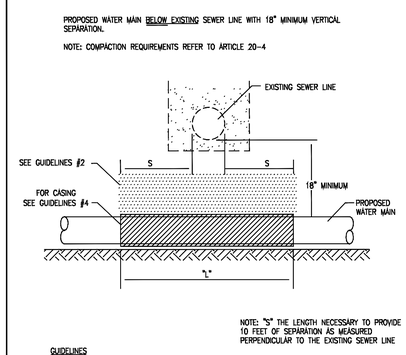
DETENTION CHAMBER UNDERDRAIN



NOTE:

1. PAVEMENT TO MATCH PROPOSED SECTION AS INDICATED ON PLANS.

BUTT JOINT



NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE

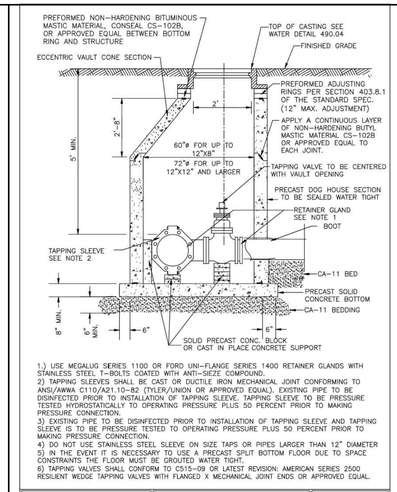
GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

WATER AND SEWER SEPARATION REQUIREMENTS

VERTICAL SEPARATION

STANDARD DRAWING NO.23



1.) USE MEGALUG SERIES 1100 OR FORD UNI-FLANGE SERIES 1400 RETAINER GLANDS WITH STAINLESS STEEL T-BOLTS COATED WITH ANTI-SIEZE COMPOUND.
2) TAPPING SLEEVES SHALL BE CAST OR DUCTILE IRON MECHANICAL JOINT CONFORMING TO ANSI/AWWA C110/A21.10-82 (TYLER/UNION OR APPROVED EQUAL). EXISTING PIPE TO BE DISINFECTED PRIOR TO INSTALLATION OF TAPPING SLEEVE. TAPPING SLEEVE TO BE PRESSURE TESTED HYDROSTATICALLY TO OPERATING PRESSURE PLUS 50 PERCENT PRIOR TO MAKING PRESSURE CONNECTION.
3) EXISTING PIPE TO BE DISINFECTED PRIOR TO INSTALLATION OF TAPPING SLEEVE AND TAPPING SLEEVE IS TO BE PRESSURE TESTED TO OPERATING PRESSURE PLUS 50 PERCENT PRIOR TO MAKING PRESSURE CONNECTION.
4) DO NOT USE STAINLESS STEEL SLEEVE ON SIZE TAPS OR PIPES LARGER THAN 12" DIAMETER
5) IN THE EVENT IT IS NECESSARY TO USE A PRECAST SPLIT BOTTOM FLOOR DUE TO SPACE CONSTRAINTS THE FLOOR MUST BE GROUTED WATER TIGHT.
6) TAPPING VALVES SHALL CONFORM TO CS15-09 OR LATEST REVISION: AMERICAN SERIES 2500 RESILIENT WEDGE TAPPING VALVES WITH FLANGED X MECHANICAL JOINT ENDS OR APPROVED EQUAL.

City of Naperville
STANDARD DETAIL

VALVE VAULT WITH CAST/DUCTILE IRON SLEEVE PRESSURE TAP

REVISED: 01/01/2013 | SHEET 1 OF 1

WATER 2

490.02

ORIGINAL ISSUE DATE: JULY 28, 2025

REVISIONS

NO.	DATE	DESCRIPTION
1	09-04-25	REVISED PER CITY COMMENTS
2	09-29-25	REVISED PER CITY COMMENTS

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

CONSTRUCTION DETAILS

THE RESIDENCES AT NAPERVILLE NAPER AND PLANK

ILLINOIS

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Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C7.3

NOTES:

1. ELECTRIC STRUCTURES AND ROUTING SHOWN FOR REFERENCE ONLY.
2. SEE FINAL PLAT OF SUBDIVISION FOR EASEMENT PROVISIONS.

LEGEND

- STORMWATER MANAGEMENT EASEMENT
- PUBLIC UTILITY & DRAINAGE EASEMENT
- STORM SEWER
- SANITARY SEWER
- WATERMAIN
- ELECTRIC LINE

STORMWATER DETENTION EASEMENT (TYP)

UNDERGROUND DETENTION (TYP)

STORM SEWER (TYP)

ELECTRIC (TYP)

SANITARY SEWER (TYP)

UTILITY EASEMENT (TYP)

WATERMAIN (TYP)

TUTHILL ROAD

NAPER BOULEVARD

WESTMORE DRIVE

BURLINGTON AVENUE

BURLINGTON CIRCLE

PLANK ROAD

TH 11 TH 12 TH 13 TH 14 TH 15 TH 16 TH 17

RH 1 RH 2 RH 3 RH 4 RH 5 RH 6 RH 7 RH 8 RH 9 RH 10

GRAPHIC SCALE

60 30 0 60

1" = 60'

REVISIONS			
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2	09-29-25	REVISED PER CITY COMMENTS	

ORIGINAL ISSUE DATE: JULY 28, 2025

PROJECT NO: 241072
PROJECT MANAGER: DF
DESIGNED BY: NB
DRAWN BY: RI

EASEMENT EXHIBIT

THE RESIDENCES AT NAPER AND PLANK

NAPERVILLE ILLINOIS

7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
www.v3co.com

DRAWING NO.

C8.0

PRINSCO
WATER MANAGEMENT SOLUTIONS℠

PLANK ROAD MULTIFAMILY

NAPERVILLE, IL

HYDROSTOR HS290 STORMWATER CHAMBER SYSTEM

STORMWATER CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE HYDROSTOR HS290 OR APPROVED EQUIVALENT.
2. CHAMBERS SHALL BE MADE FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
5. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-12, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS."
6. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
   A. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
   B. A STRUCTURAL EVALUATION SEAL BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO CERTIFY LONG-TERM PERFORMANCE.
   C. STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
7. CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

NOTES:

1. PRIOR TO BEGINNING INSTALLATION OF HYDROSTOR STORMWATER CHAMBERS, A PRECONSTRUCTION MEETING SHALL BE HELD WITH A PRINSCO REPRESENTATIVE AND THE INSTALLERS.
2. HYDROSTOR STORMWATER CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRINSCO "HYDROSTOR CONSTRUCTION GUIDE."
3. HYDROSTOR STORMWATER CHAMBERS SHALL NOT BE INSTALLED ON WET OR UNSTABLE FOUNDATION OR SUBGRADE. FOUNDATION STONE MUST BE LEVEL AND COMPACTED.
4. PRINSCO RECOMMENDS PRETREATMENT OF STORMWATER RUNOFF USING A PRINSCO STORMWATER QUALITY UNIT AND/OR A SEDIMENT ROW.
5. MAINTAIN MINIMUM SPACING OF 8.5" (SPECIFICALLY HS290) BETWEEN CHAMBERS.
6. CONSTRUCTION EQUIPMENT SHALL NOT BE SITUATED ATOP THE CHAMBERS UNTIL SUFFICIENT COVER HAS BEEN ACHIEVED. DUMP TRUCKS, RUBBER TIRE LOADERS, EXCAVATORS, WHEEL OR ROLLER LOADS ARE NOT ALLOWED UNTIL PROPER FILL HEIGHTS HAVE BEEN ACHIEVED. REFER TO PRINSCO "HYDROSTOR CONSTRUCTION GUIDE" FOR SPECIFIC LOADING CRITERIA.
7. EMBEDMENT BACKFILL MUST BE PLACED USING THE FOLLOWING METHODS ONLY:
   - BACKFILL WITH AN EXCAVATOR LOCATED OUTSIDE THE EXCAVATION
   - BACKFILL WITH A STONE SHOOTER LOCATED OUTSIDE THE EXCAVATION
   - BACKFILL AS ROWS ARE BUILT WITH AN EXCAVATOR ON THE SUBGRADE OR FOUNDATION STONE
8. EMBEDMENT BACKFILL SHALL NOT BE PLACED USING THE "DUMP AND PUSH" METHOD. THIS MAY CAUSE DAMAGE TO THE CHAMBERS, WILL RESULT IN IMPROPER INSTALLATION AND WILL VOID THE PRINSCO STANDARD WARRANTY.
9. ONCE SUFFICIENT COVER IS ACHIEVED (12" FOR HS290), GRADING MAY COMMENCE WITH A SMALL DOZER OR SKID LOADER (LESS THAN 4.5 PSI GROUND PRESSURE). EQUIPMENT SHALL ALWAYS TRAVEL PARALLEL TO CHAMBER ROWS. SEE PRINSCO "HYDROSTOR CONSTRUCTION GUIDE" FOR SPECIFIC LOADING CRITERIA.

PROJECT INFORMATION:

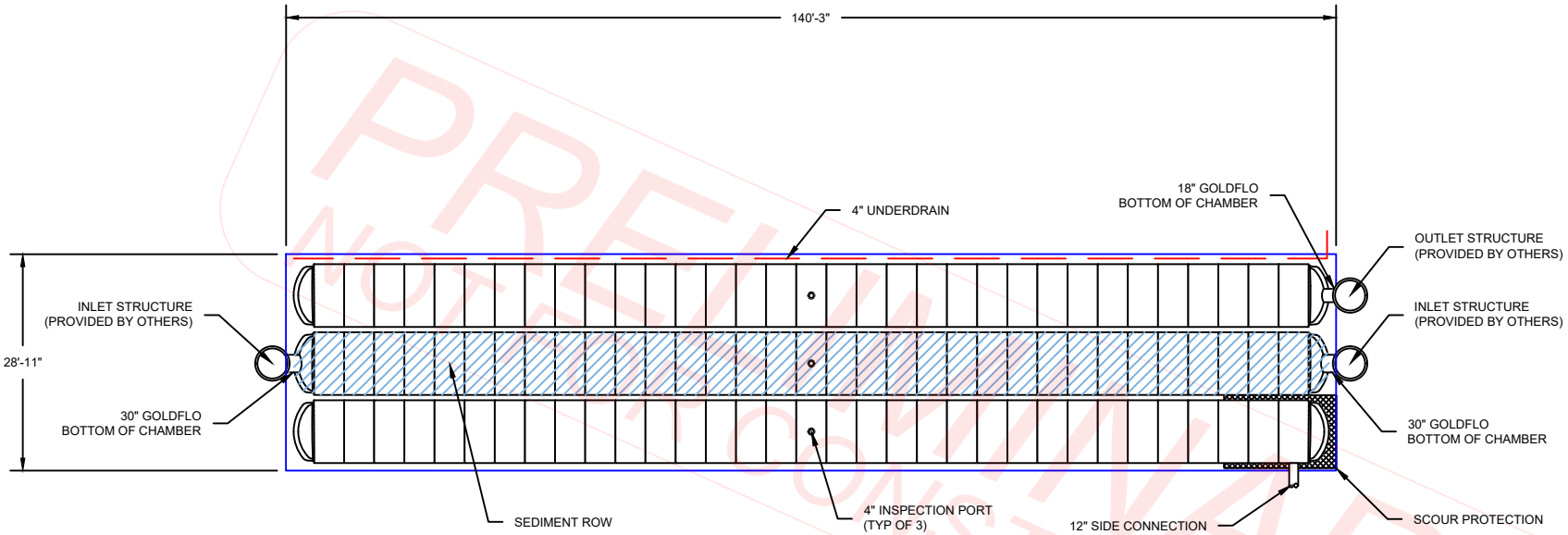
- PROJECT NUMBER: 24-1100
- PRINSCO SALES CONTACT: Adam Johnson: 331-222-8384
- ENGINEER: ----
- CONTRACTOR: ----
- DISTRIBUTOR: ----

THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (13) PAGES

CUSTOMER _____ DATE _____

REV: E

PRINSCO'S DESIGN ASSUMES 4.4 SOIL BEARING CAPACITY DUE TO UNKNOWN SITE SPECIFIC CONDITIONS. FOUNDATION STONE DEPTH REQUIREMENTS TO BE DETERMINED BY PROJECT ENGINEER BASED ON SOIL BEARING CAPACITY AND COVER HEIGHTS PER PRINSCO DESIGN GUIDE FOUNDATION REQUIREMENTS.



BILL OF MATERIALS - SYSTEM 1

PART	DESCRIPTION	QTY.	PART	DESCRIPTION	QTY.
A1	HYDROSTOR HS290 CHAMBER (HS290C)	99	A2	HYDROSTOR HS290 END CAP (HS290E)	3
A3	HYDROSTOR HS290 END CAP w/ 30" CORED HOLE BOTTOM (HS290E-30HB)	2	A4	30GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	20'
A5	HYDROSTOR HS290 END CAP w/ 18" CORED HOLE BOTTOM (HS290E-18HB)	1	A6	18GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	20'
A7	4" INSPECTION PORT	3	A8	4" UNDERDRAIN (04GF20PF-WT)	140'
A9	4" HDPE 90° ELBOW (E04-90-HIM)	1	A10	4" EXTERNAL END CAP (EC04-BM)	1

TOTAL VC STORAGE PROVIDED BELOW 751.50 (ft^3): 1,093
TOTAL DETENTION STORAGE PROVIDED ABOVE 751.50 (ft^3): 15,782

TYPICAL ELEVATIONS - HS290 BEDS (ft)	
MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	764.46
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	758.96
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	758.46
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	758.46
MINIMUM ALLOWABLE GRADE (TOP OF REINFORCED CONCRETE PAVEMENT):	758.46
TOP OF STONE (MIN):	757.46
TOP OF CHAMBER:	756.46
30" BOTTOM OF CHAMBER (INVERT):	751.78
18" BOTTOM OF CHAMBER (INVERT):	751.72
BOTTOM OF CHAMBER (MIN):	751.50
4" UNDERDRAIN (INVERT):	751.00
BOTTOM OF FOUNDATION STONE:	750.75

PROPOSED SYSTEM LAYOUT HS290	
INSTALLED SYSTEM VOLUME (ft^3):	16,875
VOLUME CALCULATED WITH 36% STONE VOID SPACE	
INSTALLED SYSTEM FOOTPRINT (ft^2):	4,049
SYSTEM PERIMETER (ft):	338
TOTAL CHAMBERS:	99
TOTAL END CAPS:	6
STONE REQUIRED (yd^3):	595
NON-WOVEN GEOTEXTILE (yd^2):	1,382
WOVEN GEOTEXTILE (yd^2):	166

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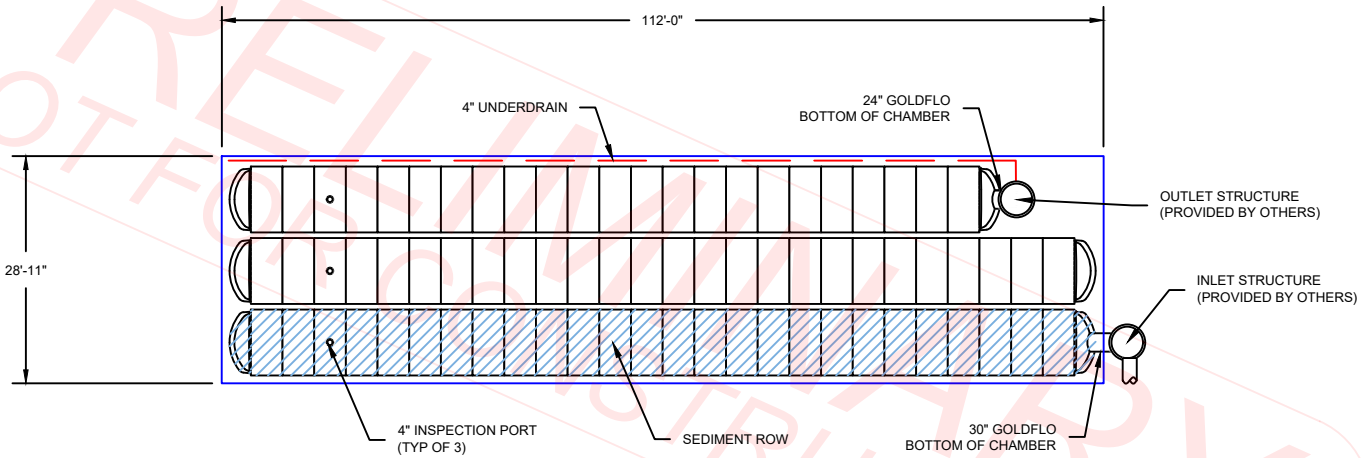
TITLE:	PLANK ROAD MULTIFAMILY NAPERVILLE, IL		REV: E
CHECKED BY: TJW	PRINSCO SALES CONTACT:	Adam Johnson: 331-222-8384	
DRAWN BY: HDC	DATE: 26-Sep-25	DRAWING NUMBER: 24-1100	
SCALE: NTS	SHEET: 1 OF 7		

PRINSCO'S DESIGN ASSUMES 4.4 SOIL BEARING CAPACITY DUE TO UNKNOWN SITE SPECIFIC CONDITIONS. FOUNDATION STONE DEPTH REQUIREMENTS TO BE DETERMINED BY PROJECT ENGINEER BASED ON SOIL BEARING CAPACITY AND COVER HEIGHTS PER PRINSCO DESIGN GUIDE FOUNDATION REQUIREMENTS.



TOTAL VC STORAGE PROVIDED BELOW 751.50 (ft³): 873
TOTAL DETENTION STORAGE PROVIDED ABOVE 751.50 (ft³): 12,353

BILL OF MATERIALS - SYSTEM 2

PART	DESCRIPTION	QTY.	PART	DESCRIPTION	QTY.
B1	HYDROSTOR HS290 CHAMBER (HS290C)	75	B2	HYDROSTOR HS290 END CAP (HS290E)	4
B3	HYDROSTOR HS290 END CAP w/ 30" CORED HOLE BOTTOM (HS290E-30HB)	2	B4	30GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	20'
B5	4" INSPECTION PORT	3	B6	4" UNDERDRAIN (04GF20PF-WT)	100'
B7	4" EXTERNAL END CAP (EC04-BM)	1	B8	4" HDPE 90° ELBOW (E04-90-HIM)	1

TYPICAL ELEVATIONS - HS290 BEDS (ft)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	764.46
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	758.96
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	758.46
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	758.46
MINIMUM ALLOWABLE GRADE (TOP OF REINFORCED CONCRETE PAVEMENT):	758.46
TOP OF STONE (MIN):	757.46
TOP OF CHAMBER:	756.46
24" BOTTOM OF CHAMBER (INVERT):	751.75
18" BOTTOM OF CHAMBER (INVERT):	751.72
BOTTOM OF CHAMBER (MIN):	751.50
4" UNDERDRAIN (INVERT):	751.00
BOTTOM OF FOUNDATION STONE:	750.75

PROPOSED SYSTEM LAYOUT HS290

INSTALLED SYSTEM VOLUME (ft³):	13,226
VOLUME CALCULATED WITH 36% STONE VOID SPACE	
INSTALLED SYSTEM FOOTPRINT (ft²):	3,235
SYSTEM PERIMETER (ft):	282
TOTAL CHAMBERS:	75
TOTAL END CAPS:	6
STONE REQUIRED (yd³):	491
NON-WOVEN GEOTEXTILE (yd²):	1,115
WOVEN GEOTEXTILE (yd²):	120

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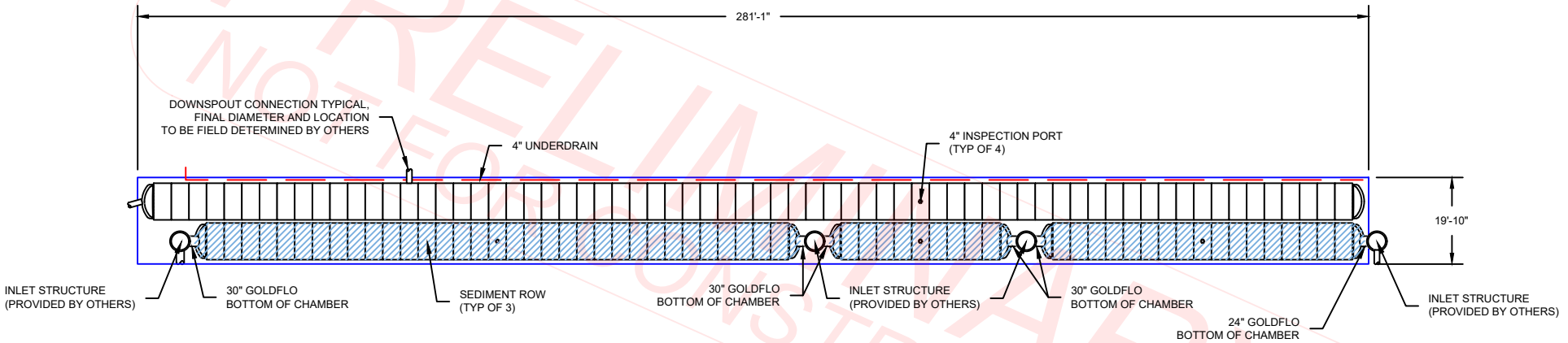
CHECKED BY: TJW	PRINSCO SALES CONTACT:	Adam Johnson: 331-222-8384	
DRAWN BY: HDC	DATE: 26-Sep-25	DRAWING NUMBER: 24-1100	
SCALE: NTS	SHEET: 2 OF 7		

PRINSCO'S FOUNDATION DESIGN ASSUMES 4.4 KSF SOIL BEARING CAPACITY DUE TO UNKNOWN SITE SPECIFIC CONDITIONS. FOUNDATION STONE DEPTH REQUIREMENTS TO BE DETERMINED BY PROJECT ENGINEER BASED ON SOIL BEARING CAPACITY AND COVER HEIGHTS PER PRINSCO DESIGN GUIDE FOUNDATION REQUIREMENTS.



BILL OF MATERIALS - SYSTEM 3

PART	DESCRIPTION	QTY.	PART	DESCRIPTION	QTY.
C1	HYDROSTOR HS290 CHAMBER (HS290C)	127	C2	HYDROSTOR HS290 END CAP (HS290E)	2
C3	HYDROSTOR HS290 END CAP w/ 30" CORED HOLE BOTTOM (HS290E-30HB)	5	C4	30GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	20'
C5	4" UNDERDRAIN (04GF20PF-WT)	280'	C6	4" EXTERNAL END CAP (EC04-BM)	1
C7	4" HDPE 90° ELBOW (E04-90-HIM)	1	C8	4" INSPECTION PORT	4
C9	HYDROSTOR HS290 END CAP w/ 24" CORED HOLE BOTTOM (HS290E-24HB)	1	C10	24GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	20'

TOTAL VC STORAGE PROVIDED BELOW 749.00 (ft³): 1,502
TOTAL DETENTION STORAGE PROVIDED ABOVE 749.00 (ft³): 21,075

TYPICAL ELEVATIONS - HS290 BEDS (ft)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	761.96
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	756.46
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	755.96
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	755.96
MINIMUM ALLOWABLE GRADE (TOP OF REINFORCED CONCRETE PAVEMENT):	755.96
TOP OF STONE (MIN):	754.96
TOP OF CHAMBER:	753.96
30" BOTTOM OF CHAMBER (INVERT):	749.28
24" BOTTOM OF CHAMBER (INVERT):	749.25
BOTTOM OF CHAMBER (MIN):	749.00
4" UNDERDRAIN (INVERT):	751.00
BOTTOM OF FOUNDATION STONE:	748.25

PROPOSED SYSTEM LAYOUT HS290

INSTALLED SYSTEM VOLUME (ft³):	22,577
VOLUME CALCULATED WITH 36% STONE VOID SPACE	
INSTALLED SYSTEM FOOTPRINT (ft²):	5,563
SYSTEM PERIMETER (ft):	602
TOTAL CHAMBERS:	127
TOTAL END CAPS:	8
STONE REQUIRED (yd³):	852
NON-WOVEN GEOTEXTILE (yd²):	2,022
WOVEN GEOTEXTILE (yd²):	290

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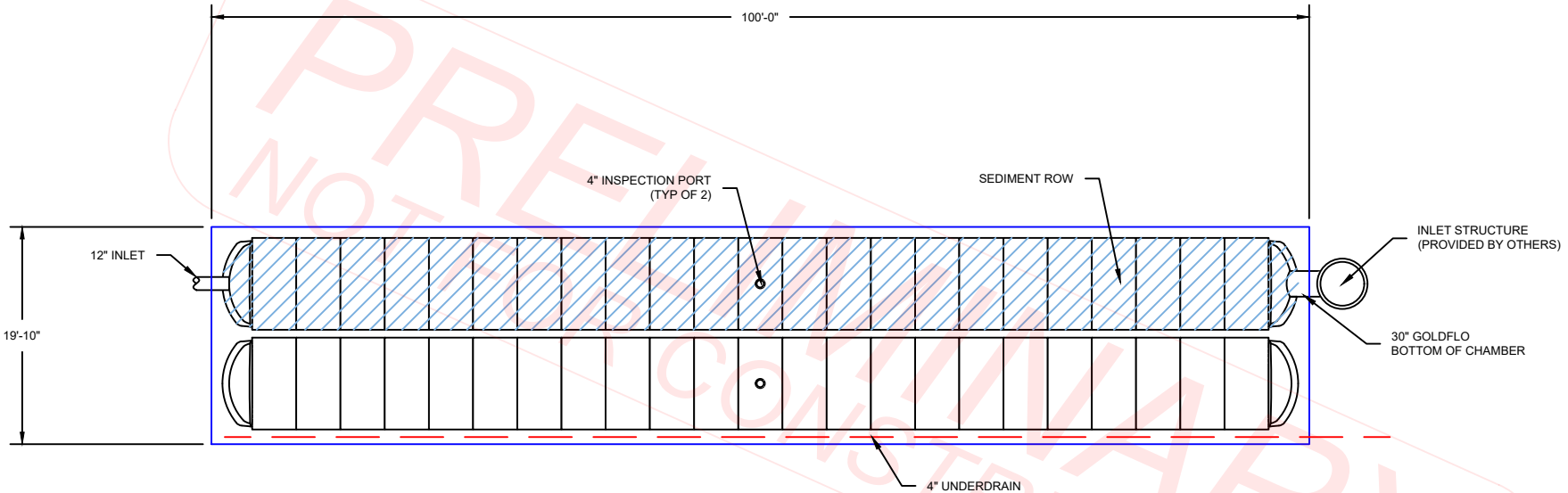

TOTAL VC STORAGE PROVIDED BELOW 749.00 (ft³): 534
TOTAL DETENTION STORAGE PROVIDED ABOVE 749.00 (ft³): 7,572

BILL OF MATERIALS - SYSTEM 4

PART	DESCRIPTION	QTY.	PART	DESCRIPTION	QTY.
D1	HYDROSTOR HS290 CHAMBER (HS290C)	46	D2	HYDROSTOR HS290 END CAP (HS290E)	3
D3	HYDROSTOR HS290 END CAP w/ 30" CORED HOLE BOTTOM (HS290E-30HB)	1	D4	30GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	20'
D5	4" INSPECTION PORT	2	D6	4" UNDERDRAIN (04GF20PF-WT)	100'
D7	4" EXTERNAL END CAP (EC04-BM)	1			

TYPICAL ELEVATIONS - HS290 BEDS (ft)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	761.96
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	756.46
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	755.96
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	755.96
MINIMUM ALLOWABLE GRADE (TOP OF REINFORCED CONCRETE PAVEMENT):	755.96
TOP OF STONE (MIN):	754.96
TOP OF CHAMBER:	753.96
30" BOTTOM OF CHAMBER (INVERT):	749.28
BOTTOM OF CHAMBER (MIN):	749.00
4" UNDERDRAIN (INVERT):	748.50
BOTTOM OF FOUNDATION STONE:	748.25

PROPOSED SYSTEM LAYOUT HS290

INSTALLED SYSTEM VOLUME (ft³):	8,106
VOLUME CALCULATED WITH 36% STONE VOID SPACE	
INSTALLED SYSTEM FOOTPRINT (ft²):	1,979
SYSTEM PERIMETER (ft):	240
TOTAL CHAMBERS:	46
TOTAL END CAPS:	4
STONE REQUIRED (yd³):	299
NON-WOVEN GEOTEXTILE (yd²):	742
WOVEN GEOTEXTILE (yd²):	106

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SCALE: NTS	SHEET: 4 OF 7		

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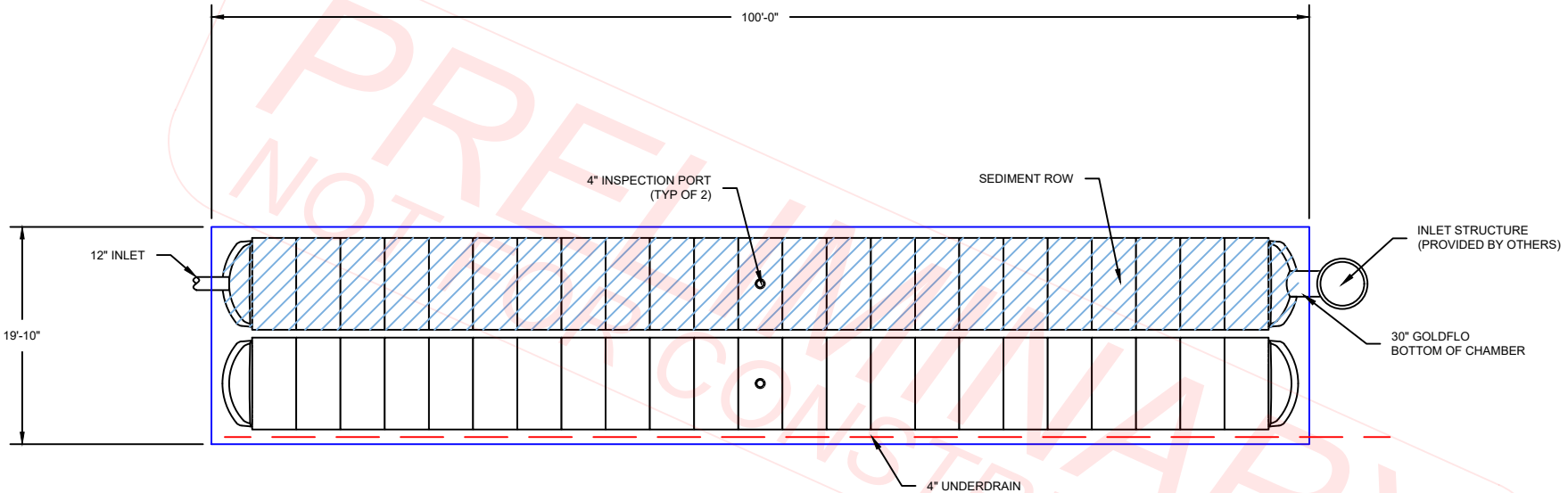

TOTAL VC STORAGE PROVIDED BELOW 749.00 (ft³): 534
TOTAL DETENTION STORAGE PROVIDED ABOVE 749.00 (ft³): 7,572

BILL OF MATERIALS - SYSTEM 5

PART	DESCRIPTION	QTY.	PART	DESCRIPTION	QTY.
E1	HYDROSTOR HS290 CHAMBER (HS290C)	46	E2	HYDROSTOR HS290 END CAP (HS290E)	3
E3	HYDROSTOR HS290 END CAP w/ 30" CORED HOLE BOTTOM (HS290E-30HB)	1	E4	30GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	20'
E5	4" INSPECTION PORT	2	E6	4" UNDERDRAIN (04GF20PF-WT)	100'
E7	4" EXTERNAL END CAP (EC04-BM)	1			

TYPICAL ELEVATIONS - HS290 BEDS (ft)	
MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	761.96
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	756.46
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	755.96
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	755.96
MINIMUM ALLOWABLE GRADE (TOP OF REINFORCED CONCRETE PAVEMENT):	755.96
TOP OF STONE (MIN):	754.96
TOP OF CHAMBER:	753.96
30" BOTTOM OF CHAMBER (INVERT):	749.28
BOTTOM OF CHAMBER (MIN):	749.00
4" UNDERDRAIN (INVERT):	748.50
BOTTOM OF FOUNDATION STONE:	748.25

PROPOSED SYSTEM LAYOUT HS290	
INSTALLED SYSTEM VOLUME (ft³):	8,106
VOLUME CALCULATED WITH 36% STONE VOID SPACE	
INSTALLED SYSTEM FOOTPRINT (ft²):	1,979
SYSTEM PERIMETER (ft):	240
TOTAL CHAMBERS:	46
TOTAL END CAPS:	4
STONE REQUIRED (yd³):	299
NON-WOVEN GEOTEXTILE (yd²):	742
WOVEN GEOTEXTILE (yd²):	106

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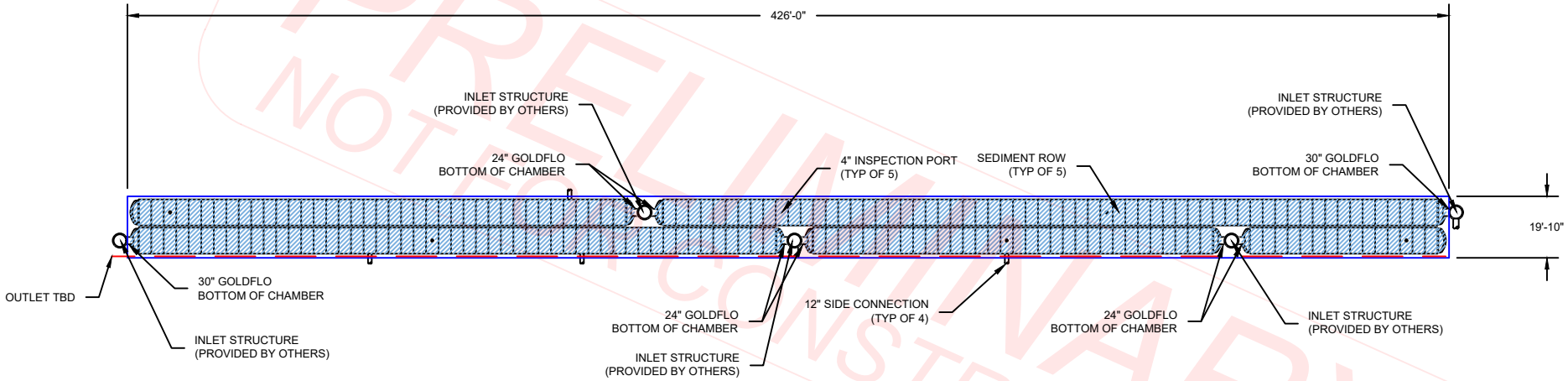

BILL OF MATERIALS - SYSTEM 6

PART	DESCRIPTION	QTY.	PART	DESCRIPTION	QTY.
F1	HYDROSTOR HS290 CHAMBER (HS290C)	199	F2	HYDROSTOR HS290 END CAP (HS290E)	2
F3	HYDROSTOR HS290 END CAP w/ 30" CORED HOLE BOTTOM (HS290E-30HB)	2	F4	30GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	20'
F5	4" UNDERDRAIN (04GF20PF-WT)	440'	F6	4" EXTERNAL END CAP (EC04-BM)	1
F7	4" INSPECTION PORT	2	F8	4" HDPE TEE (T04-HIM)	2
F9	HYDROSTOR HS290 END CAP w/ 24" CORED HOLE BOTTOM (HS290E-24HB)	6	F10	24GF20NP-WT (FIELD CUT PIPE FOR MANIFOLD)	40'

TOTAL VC STORAGE PROVIDED BELOW 749.00 (ft³): 2,276
TOTAL DETENTION STORAGE PROVIDED ABOVE 749.00 (ft³): 32,342

TYPICAL ELEVATIONS - HS290 BEDS (ft)

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	761.96
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	756.46
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	755.96
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	755.96
MINIMUM ALLOWABLE GRADE (TOP OF REINFORCED CONCRETE PAVEMENT):	755.96
TOP OF STONE (MIN):	754.96
TOP OF CHAMBER:	753.96
30" BOTTOM OF CHAMBER (INVERT):	749.28
24" BOTTOM OF CHAMBER (INVERT):	749.25
BOTTOM OF CHAMBER (MIN):	749.00
4" UNDERDRAIN (INVERT):	748.50
BOTTOM OF FOUNDATION STONE:	748.25

PROPOSED SYSTEM LAYOUT HS290

INSTALLED SYSTEM VOLUME (ft³):	34,618
VOLUME CALCULATED WITH 36% STONE VOID SPACE	
INSTALLED SYSTEM FOOTPRINT (ft²):	8,431
SYSTEM PERIMETER (ft):	892
TOTAL CHAMBERS:	199
TOTAL END CAPS:	10
STONE REQUIRED (yd³):	1,268
NON-WOVEN GEOTEXTILE (yd²):	3,046
WOVEN GEOTEXTILE (yd²):	919

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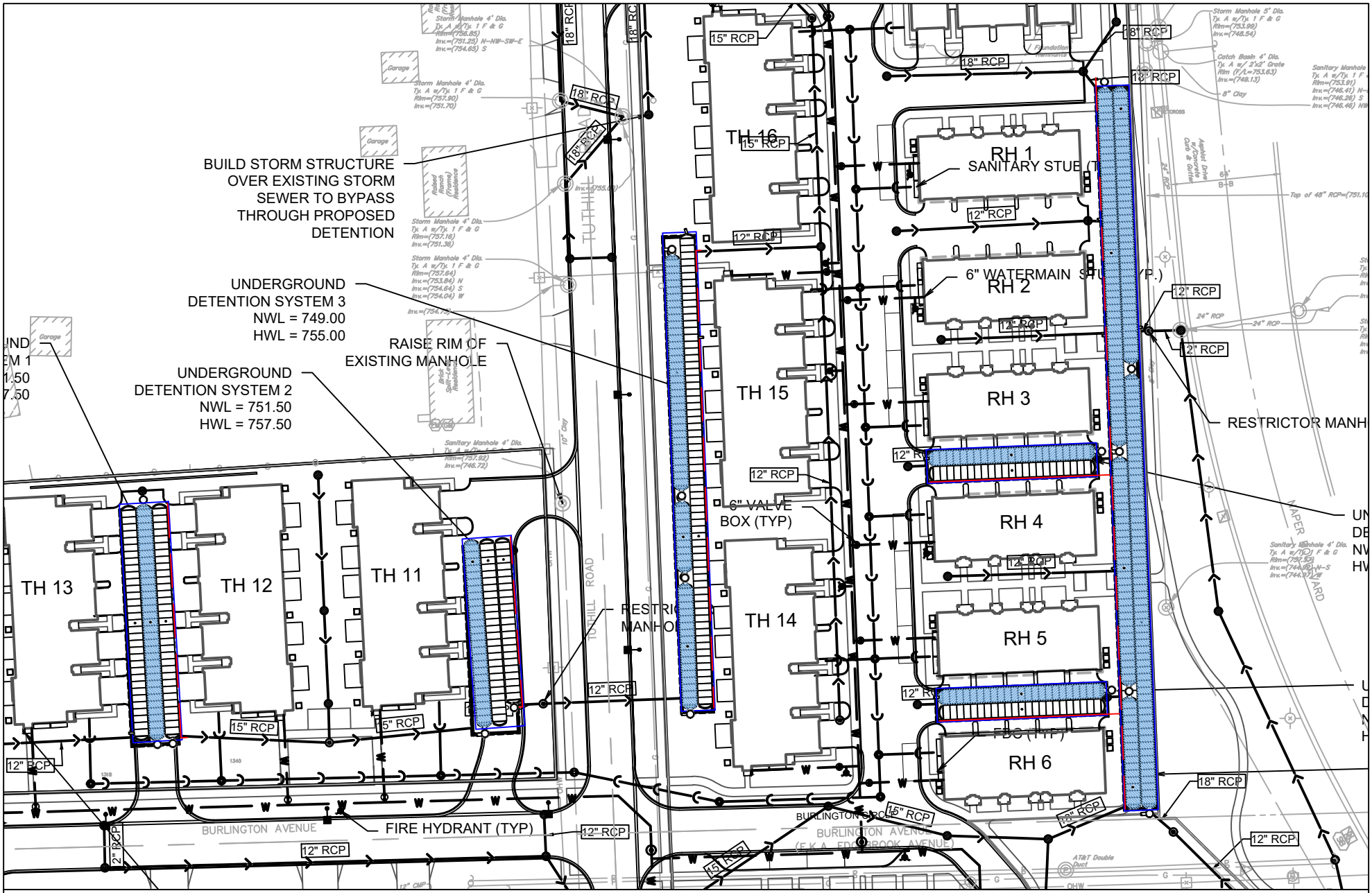

OVERLAY

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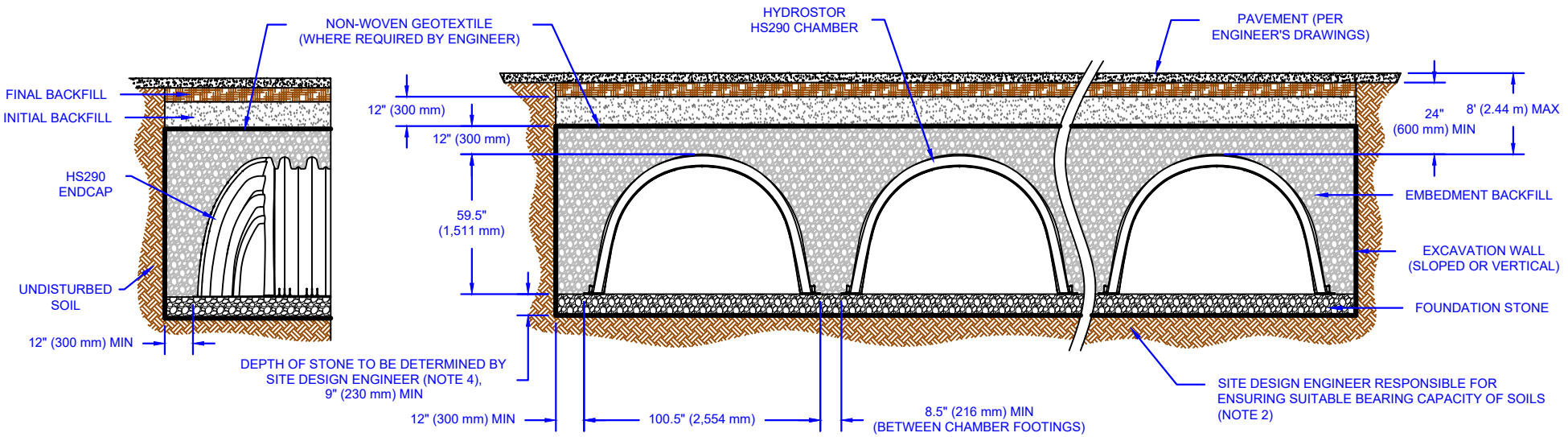
CHECKED BY: TJW	PRINSCO SALES CONTACT:	Adam Johnson: 331-222-8384	
DRAWN BY: HDC	DATE:	26-Sep-25	DRAWING NUMBER: 24-1100
SCALE: NTS	SHEET:	7 OF 7	



NOTES:

1. HYDROSTOR HS290 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418. HS180 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION GUIDELINES.
2. **SUBGRADE:** TRENCH BOTTOMS WITH UNSTABLE OR UNYIELDING MATERIAL SHALL BE EXCAVATED TO A DEPTH DIRECTED BY THE ENGINEER AND REPLACED WITH SUITABLE MATERIAL. FOR UNSTABLE MATERIALS, GEOTEXTILE MAY BE USED TO STABILIZE THE TRENCH BOTTOM, IF DIRECTED BY THE ENGINEER. THE DESIGN ENGINEER IS RESPONSIBLE FOR VERIFYING SUBGRADE SUITABILITY WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
3. **GEOTEXTILE:** AN AASHTO M288 CLASS 2 OR 3 NON-WOVEN GEOTEXTILE SHOULD BE USED FOR EMBEDMENT BACKFILL MATERIAL 3/4 TO 2 INCH (19 - 51 MM). GEOTEXTILE FILTER FABRIC IS PLACED AROUND THE SYSTEM TO PREVENT NATIVE SOIL FROM MIGRATING INTO THE EMBEDMENT BACKFILL MATERIAL. TO ENSURE FABRIC IS SUITABLE WITH IN SITU SOILS, A GEOTECHNICAL ENGINEER SHOULD BE CONSULTED.
4. **FOUNDATION STONE:** SUITABLE MATERIAL SHALL BE A 3/4 - 2 INCH (19 - 51 mm), CLEAN, CRUSHED ANGULAR STONE, OR AASHTO M43 SIZES (3, 357, 4, 467, 5, 56, 57) WITH CLEAN, CRUSHED, ANGULAR STONE ADDED TO THE GRADATION, e.g., CLEAN, CRUSHED, ANGULAR #3 (AASHTO M43) STONE. COMPACTION SHOULD BE DONE IN LIFTS OF NO MORE THAN 9 INCHES (230 mm).THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE ALLOWABLE BEARING CAPACITY OF THE SUBGRADE SOIL AND DETERMINING THE FOUNDATION STONE THICKNESS. REFER TO PRINSCO'S HYDROSTOR DESIGN GUIDE SECTION 4.1 FOR ADDITIONAL GUIDANCE.
5. **EMBEDMENT BACKFILL:** SUITABLE MATERIAL SHALL BE A 3/4 - 2 INCH (19 - 51 mm), CLEAN, CRUSHED ANGULAR STONE, OR AASHTO M43 SIZES (3, 357, 4, 467, 5, 56, 57) WITH CLEAN, CRUSHED, ANGULAR STONE ADDED TO THE GRADATION, e.g., CLEAN, CRUSHED, ANGULAR #3 (AASHTO M43) STONE. EMBEDMENT BACKFILL SHALL EXTEND FROM TOP OF BEDDING TO NOT LESS THAN 12 INCHES (300 mm) ABOVE THE TOP OF THE CHAMBER. NO COMPACTION IS REQUIRED BUT AN EFFORT SHOULD BE MADE TO HAND KNIFE STONE IN BETWEEN ALL CORRUGATIONS.
6. **INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE A GRANULAR, WELL GRADED SOIL WITH LESS THAN 35% FINES OR AASHTO M43 SIZES (3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10). MOST PAVEMENT SUBBASE MATERIALS FALL WITHIN THIS GRADING CRITERIA. INITIAL BACKFILL SHALL EXTEND FROM TOP OF EMBEDMENT BACKFILL TO NOT LESS THAN 24 INCHES (600 mm) ABOVE THE TOP OF THE CHAMBER. COMPACT TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
7. **FINAL BACKFILL:** SUITABLE MATERIALS SHALL BE ANY SOIL DIRECTED BY THE ENGINEER. FINAL BACKFILL SHALL EXTEND FROM TOP OF INITIAL BACKFILL TO NO MORE THAN 8 FEET (2.44 m) ABOVE THE TOP OF THE CHAMBER. COMPACTION LEVELS SHOULD FOLLOW ENGINEERS RECOMMENDATIONS.
8. **MINIMUM COVER:** FOR TRAFFIC APPLICATIONS A MINIMUM COVER OF 24 INCHES (600 mm) IS REQUIRED, MEASURED FROM THE TOP OF THE CHAMBER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR TO THE TOP OF RIGID PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING MAY OCCUR, INCREASE COVER TO 30 INCHES (750 mm) FOR H-20 LOADING. ADDITIONAL COVER MAY BE REQUIRED FOR CONSTRUCTION LOADS.
9. **MAXIMUM COVER:** A COVER HEIGHT OF OVER 8 FEET (2.44 m) IS NOT RECOMMENDED. COVER HEIGHT IS MEASURED FROM THE TOP OF THE CHAMBER TO THE TOP OF THE PAVEMENT.
10. **LOAD RATING:** HS290 CHAMBERS ARE TRAFFIC RATED FOR H-20 VEHICLES WITH ADDITIONAL CONSIDERATION FOR LANE LOADING, COMMONLY REFERRED TO AS HL-93 LOAD RATING (AASHTO DESIGN TRUCK).

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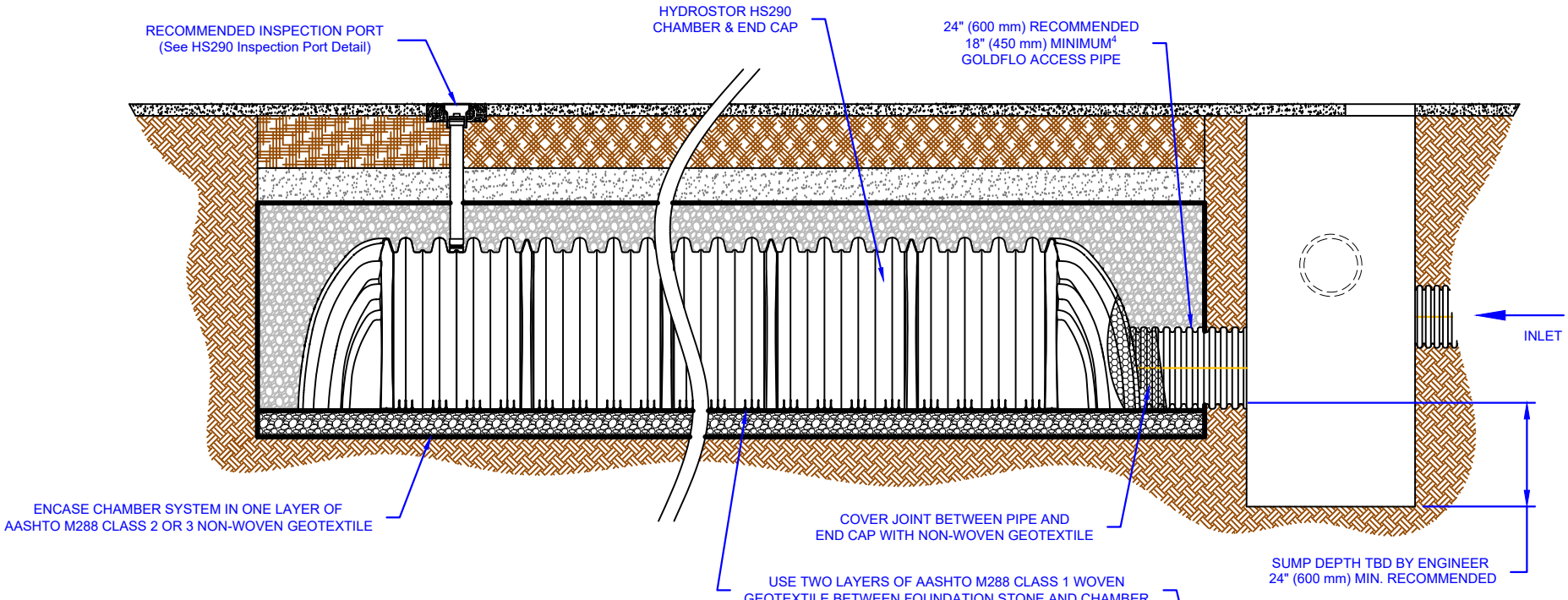
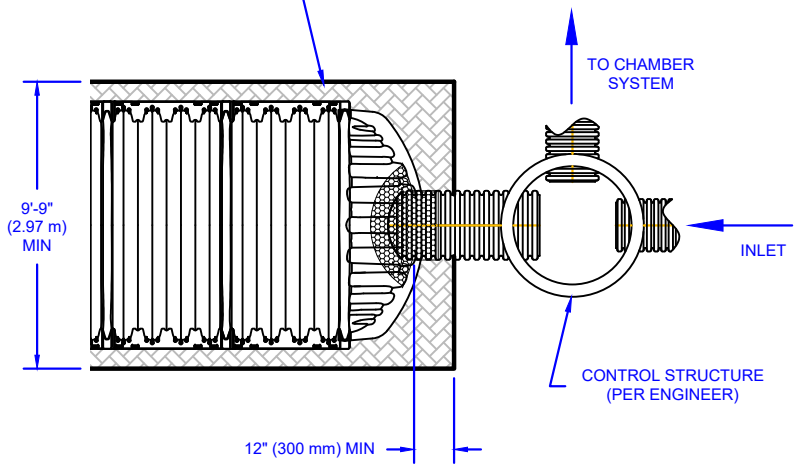
TITLE: HYDROSTOR HS290 - CROSS SECTION			
DRAWN BY: AED	DATE: 12-Jan-24	DRAWING NUMBER: D-7-500A	
SCALE: NTS	SHEET: 1 OF 1		





NOTES:

1. HYDROSTOR HS290 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418. HS290 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION GUIDELINES.
2. **GEOTEXTILE:** TWO DIFFERENT GEOTEXTILES WILL BE USED IN CREATING A FUNCTIONING SEDIMENT ROW. TO ENSURE FABRIC IS SUITABLE WITH IN SITU SOILS, A GEOTECHNICAL ENGINEER SHOULD BE CONSULTED.

- AN AASHTO M288 CLASS 2 OR 3 NON-WOVEN GEOTEXTILE SHOULD BE USED FOR EMBEDMENT BACKFILL MATERIAL 3/4 TO 2 INCH (19 - 51 MM). GEOTEXTILE FILTER FABRIC IS PLACED AROUND THE SYSTEM TO PREVENT NATIVE SOIL FROM MIGRATING INTO THE EMBEDMENT BACKFILL MATERIAL. TO ENSURE FABRIC IS SUITABLE WITH IN SITU SOILS, A GEOTECHNICAL ENGINEER SHOULD BE CONSULTED.
- TWO LAYERS OF AN AASHTO M288 CLASS 1 WOVEN FABRIC IS PLACED BETWEEN THE FOUNDATION AND THE CHAMBER FOR THE CREATION OF THE SEDIMENT ROW. THE TWO LAYERS PROVIDE A PROTECTIVE BARRIER FOR THE EMBEDMENT BACKFILL BUT STILL ALLOW WATER TO INFILTRATE INTO THE SYSTEM. THE WOVEN GEOTEXTILE IS DURABLE ENOUGH TO ALLOW JETTING TO CLEAN THE SEDIMENT ROW.

3. **INSPECTION AND MAINTENANCE**: INSPECTION OF THE SYSTEM SHOULD OCCUR BIANNUALLY TO ENSURE LARGE AMOUNTS OF SEDIMENT OR DEBRIS HAVE NOT BEEN DEPOSITED IN THE SEDIMENT ROW. DURING THE FIRST YEAR INSPECTION SHOULD OCCUR MORE FREQUENTLY DUE TO CONSTRUCTION SEDIMENT LOADING. TO CLEAN THE SYSTEM, A JET/VAC PROCESS CAN BE USED TO REMOVE SEDIMENT AND DEBRIS FROM THE SEDIMENT ROW. FOR MORE INFORMATION, REFER TO PRINSCO'S "RETENTION/DETENTION CLEANING AND MAINTENANCE" TECHNICAL NOTE.
4. **ACCESS PIPE**: PRINSCO RECOMMENDS A 24 INCH (600 mm) DIAMETER ACCESS PIPE TO THE SEDIMENT ROW. CONTACT YOUR LOCAL SALES REPRESENTATIVE WITH ANY QUESTIONS.

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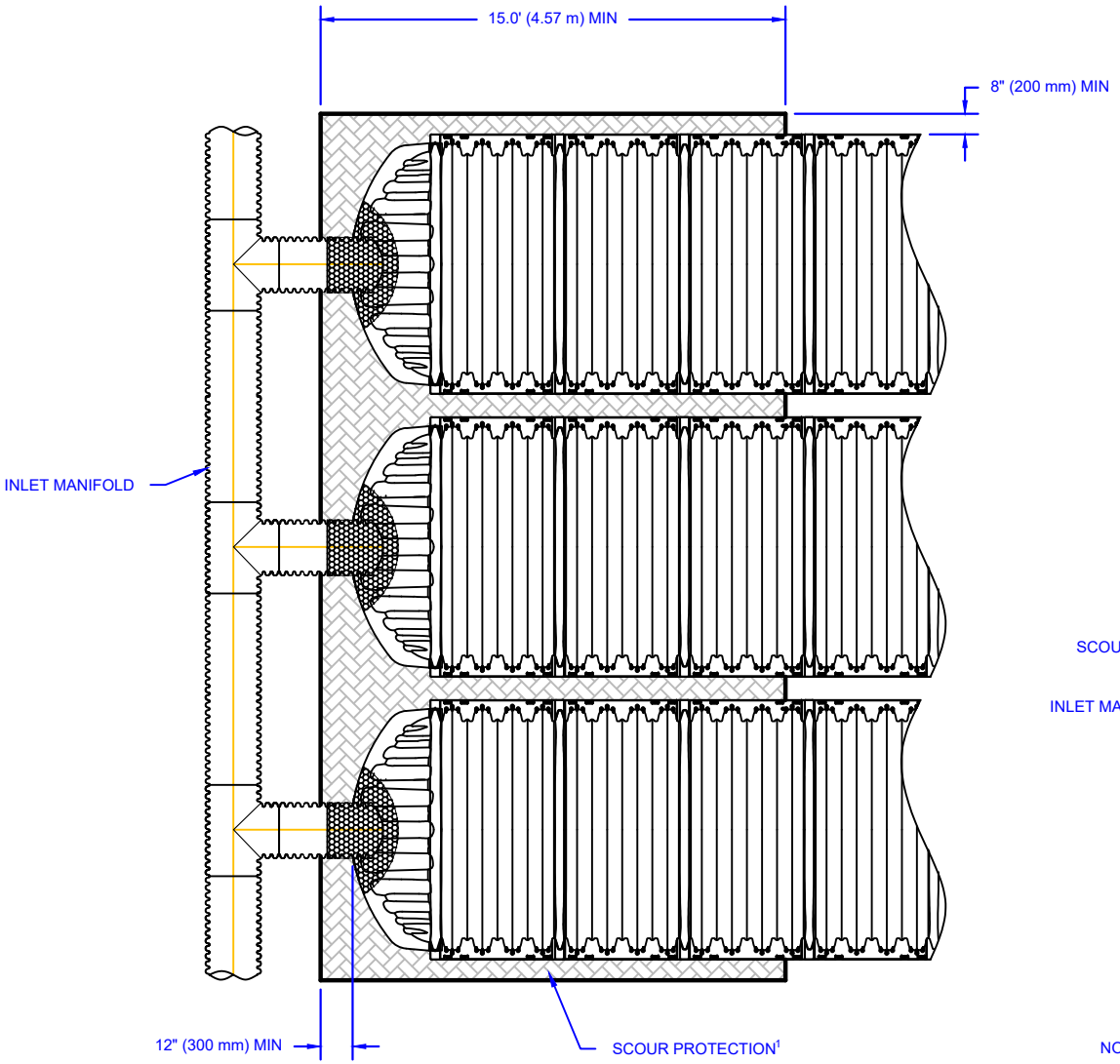
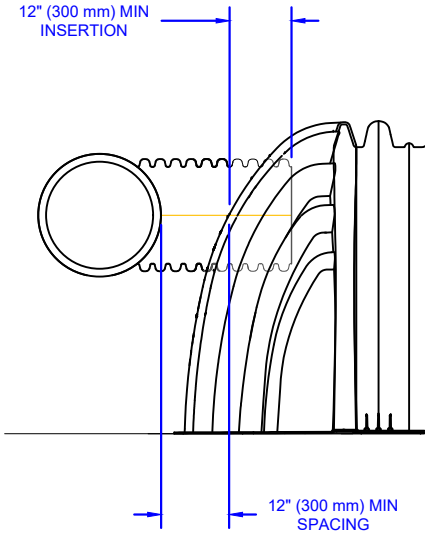
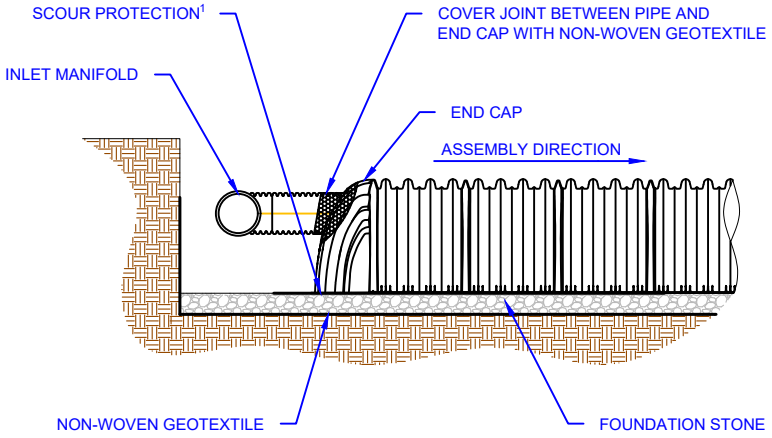
TITLE:	HYDROSTOR HS290 - SEDIMENT ROW			
DRAWN BY:	DJW	DATE:	03-Aug-21	DRAWING NUMBER: D-7-502
SCALE:	NTS	SHEET:	1 OF 1	







NOTES:

1. SCOUR PROTECTION SHOULD USE A WOVEN GEOTEXTILE.
   GEOTEXTILE SHOULD MEET AASHTO M288 CLASS 1 SPECIFICATION.
2. SCOUR PROTECTION IS ONLY NEEDED WITH CHAMBER ROWS CONNECTED TO THE INLET MANIFOLD.

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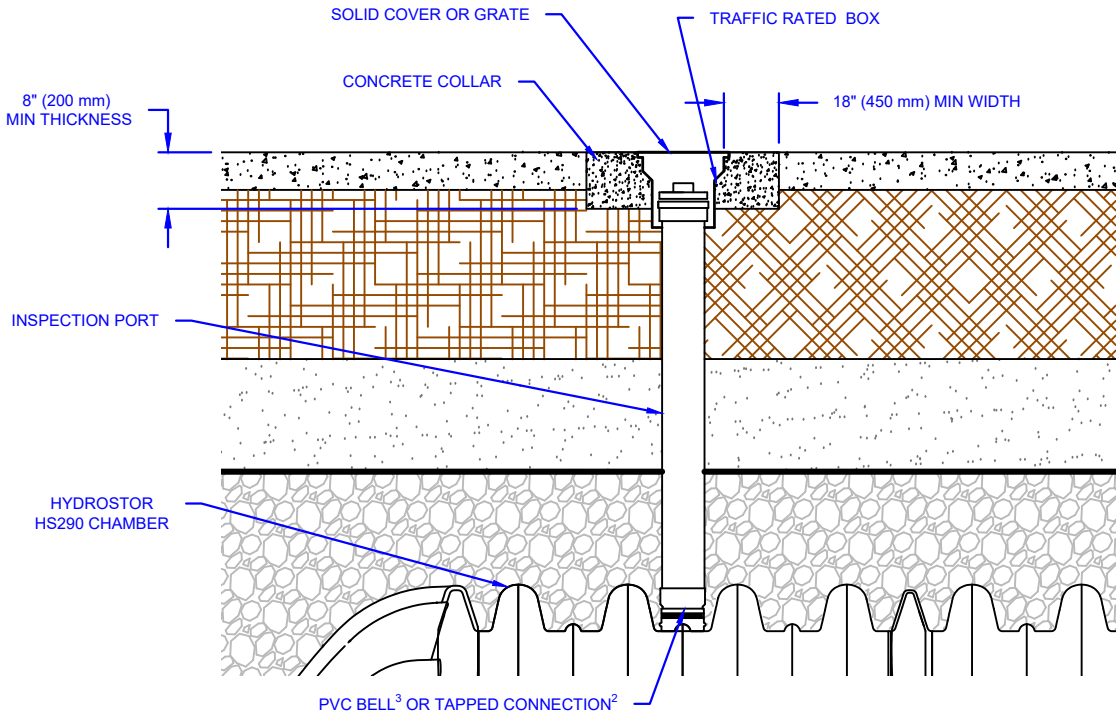
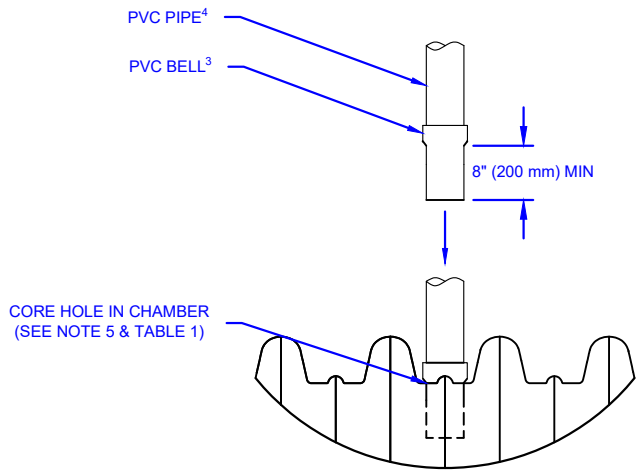
TITLE: HYDROSTOR HS290 - SCOUR PROTECTION

DRAWN BY:	RMA	DATE:	03-Jan-24	DRAWING NUMBER:
SCALE:	NTS	SHEET:	1 OF 1	D-7-507





PVC BELL
CONNECTION DETAIL

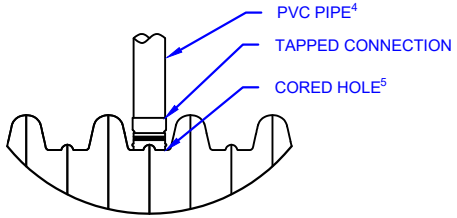
NOTES:

1. REFER TO TABLE 1 FOR DETAILS.
2. TAPPED CONNECTION CAN CONSIST OF QWIKSEAL OR APPROVED ENGINEERING EQUIVALENT.
3. PVC FITTING CAN CONSIST OF BELL OR OTHER CONNECTION WHICH PREVENTS PIPE FROM SLIDING INTO THE CHAMBER. ALL PVC FITTINGS TO BE SOLVENT CEMENTED.
4. PVC MAY BE EITHER SDR 35 OR SCH 40.
5. HOLES SHOULD BE CUT WITH A HOLE SAW, ALTHOUGH A RECIPROCATING SAW MAY BE NEEDED FOR 6" AND 8" HOLES ON THIS CHAMBER. IF NEEDED, START WITH SMALLER HOLE AND SLOWLY CUT OUT MORE EVENLY FROM SIDES UNTIL TIGHT FIT OF CONNECTION IN HOLE.

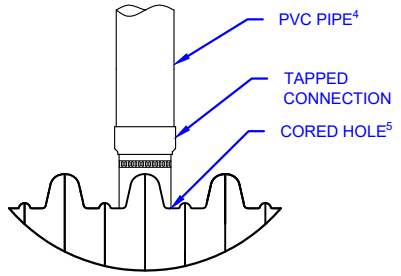
TABLE 1

CORED HOLE SIZE ESTIMATES (CONFIRM DIMENSIONS PRIOR TO CUTTING)			
CONNECTION	**4" (100 mm) PVC INSPECTION PORT**	**6" (150 mm) PVC INSPECTION PORT**	**8" (200 mm) PVC INSPECTION PORT**
QWIKSEAL	5" (125 mm) hole centered in valley of corrugation.	Not Recommended	Not Recommended
SDR 35*	~4-1/4" (108 mm) hole centered in valley of corrugation.	~6-3/8" (162 mm) hole centered in valley of corrugation.	~8-1/2" (216 mm) hole centered on corrugation crest.
SCH 40*	~4-5/8" (117 mm) hole centered in valley of corrugation.	~6-3/4" (172 mm) hole centered in valley of corrugation.	~8-3/4" (222 mm) hole centered on corrugation crest.

*CONFIRM O.D. OF PIPE PRIOR TO CUTTING TO ENSURE HOLE IS TIGHT FITTING AROUND PVC PIPE. CUT HOLE TO MATCH O.D. AS CLOSE AS POSSIBLE.



CENTERED IN VALLEY OF
CORRUGATION
CONNECTION DETAIL



CENTERED ON CORRUGATION CREST
CONNECTION DETAIL

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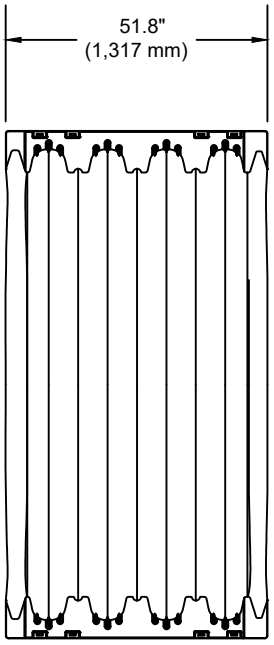
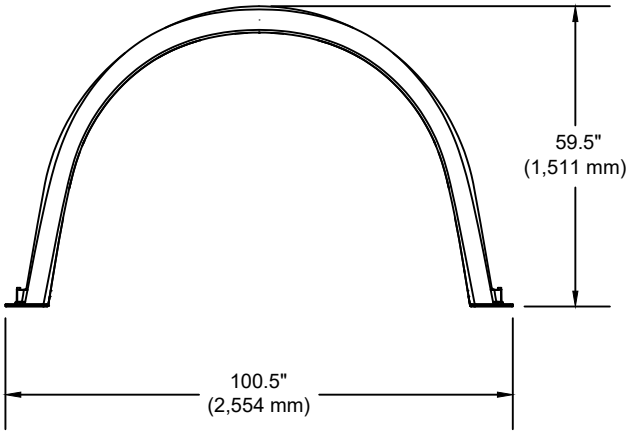
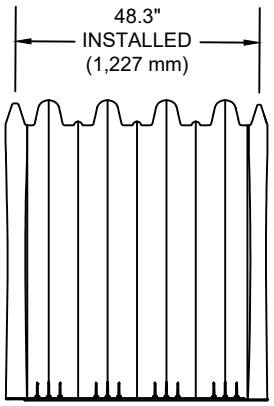
SCALE:	NTS	SHEET:	1 OF 1	

HydroStor™ HS290

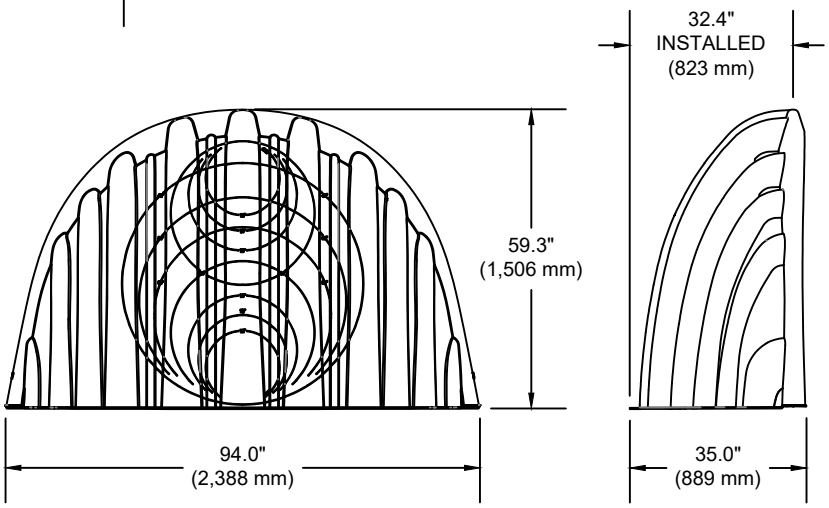
Chamber Specifications	
Chamber Size (L x W x H)	51.8" x 100.5" x 59.5" (1,317 x 2,554 x 1,511 mm)
Installed Length	48.3" (1,227 mm)
Chamber Storage	109.6 ft^3 (3.10 m^3)
Min. Installed Storage*	164.5 ft^3 (4.66 m^3)
Weight / Chamber	112 lbs (50.80 kg)
Chambers / Pallet	10
Approx. Weight / Pallet	1,350 lbs (612 kg)







End Cap Specifications	
End Cap Size (L x W x H)	35.0" x 94.0" x 59.3" (889 x 2,388 x 1,506 mm)
Installed Length	32.4" (823 mm)
End Cap Storage	39.6 ft^3 (1.12 m^3)
Min. Installed Storage*	114.46 ft^3 (3.10 m^3)
Weight	79.9 lbs (36.24 kg)



*ASSUMES 12" (300 mm) STONE ABOVE CHAMBERS/END CAPS, 9" (230 mm) OF STONE FOR FOUNDATION STONE, 9" (230 mm) OF STONE BETWEEN CHAMBERS/END CAPS, 12" (150 mm) OF STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

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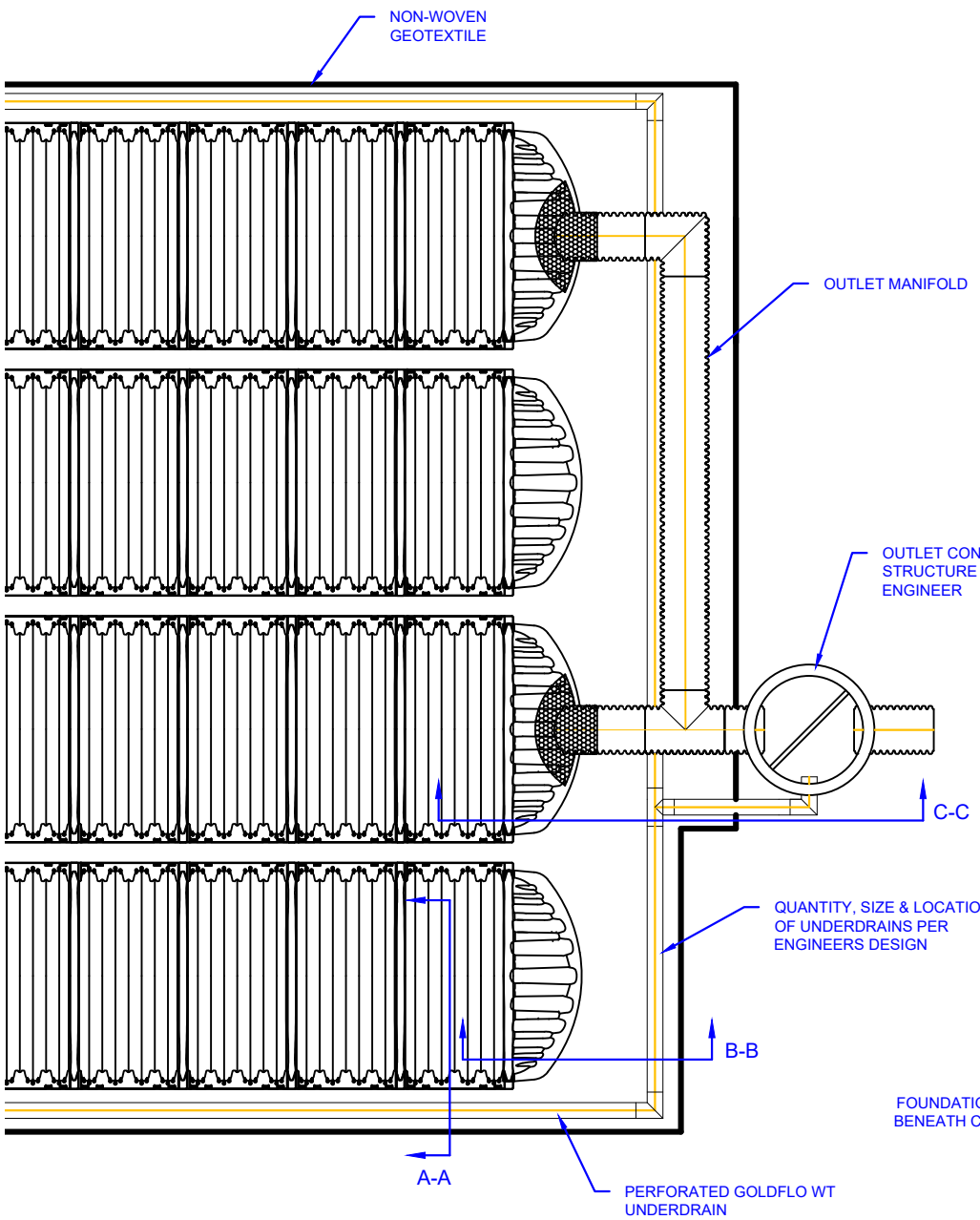
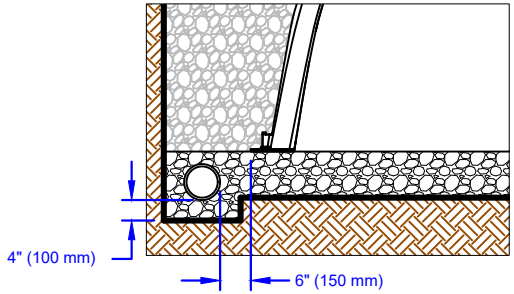
SCALE:	NTS	SHEET:	1 OF 1	D-7-501



SECTION A-A



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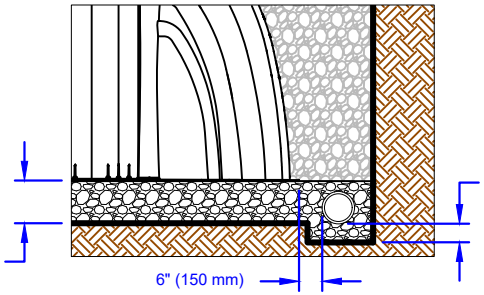
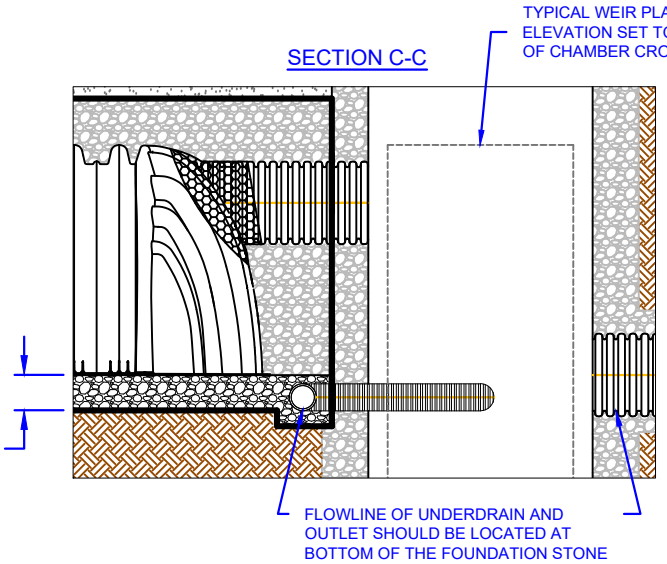


SECTION C-C



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TITLE: HYDROSTOR HS290 - UNDERDRAIN				
DRAWN BY:	RMA	DATE:	09-Feb-24	DRAWING NUMBER: D-7-506
SCALE:	NTS	SHEET:	1 OF 1	

TAB 7

TAB 7

Maintenance

SCHEDULE OF IMPLEMENTATION

1. The Contractor shall be responsible for constructing all erosion control measures required on the subject project prior to initiating any construction activities.

2. The stormwater detention facility and outlet control structure shall be completed prior to any other grading or construction on the site.

3. All erosion control measures must be checked and repaired or reinstalled as required throughout the construction process. Erosion control measures shall meet County of DuPage standards at all times.

4. Immediately after the grading is completed on the detention facility and other pervious areas, they shall be seeded and watered to establish vegetation.

5. All storm sewers shall be cleaned by the Contractor before completion of the project to remove built up sediments.

MAINTENANCE PLAN

1. The Contractor shall be responsible for all maintenance activities until the project is constructed, undergoes required maintenance of naturalized basins and wetland buffers, and receives sign off. After construction sign-off, the applicant, or their agent, shall perform maintenance for the property.

INSPECTION TASK	FREQUENCY OF INSPECTION	RESPONSIBLE PARTY
Mowing	Periodically	Applicant
Selective weed control	As needed	Applicant
Inspect banks for burrowing animals	Monthly	Applicant
Checking for debris in facility, especially the outlet control structures and surrounding area	Once a month and after storm events	Applicant

The entity responsible for maintaining erosion control and providing maintenance is:

Gen-Land, LLC
120 N LaSalle Street, Suite 2900
Chicago, Illinois 60602
312-345-8780

TAB 8

FINAL ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

for

The Residences at Naper and Plank

Public Improvements

Naperville, Illinois

September 26, 2025

1.0	EARTHWORK & EROSION CONTROL	QUANTITY	UNITS	UNIT PRICE	COST
1.01	EROSION CONTROL ITEMS (SILT FENCE, INLET PROTECTION, ENTRANCE)	1	ls	$ 15,000.00	$ 15,000.00
1.02	CLAY EXCAVATION	7,007	cy	$ 3.50	$ 24,524.50
1.03	STRUCTURAL FILL	27,807	cy	$ 3.00	$ 83,421.00
1.04	STRUCTURAL IMPORT	9,587	cy	$ 35.00	$ 335,545.00
1.05	TOPSOIL STRIP	14,071	cy	$ 3.25	$ 45,730.75
1.06	TOPSOIL RESPREAD OPEN SPACES	4,152	cy	$ 3.25	$ 13,494.00
			Subtotal Division 1.0:		$ 517,715.25

2.0	SANITARY SEWER	QUANTITY	UNITS	UNIT PRICE	COST
2.01	8" PVC SANITARY SEWER (<15' depth)	1,167	lf	$ 45.00	$ 52,515.00
2.02	4' SANITARY MANHOLE (<15' depth)	18	each	$ 4,000.00	$ 72,000.00
2.03	TRENCH BACKFILL	800	cy	$ 35.00	$ 28,000.00
2.04	NEW MANHOLE OVER EXISTING PIPE	2	each	$ 6,000.00	$ 12,000.00
			Subtotal Division 2.0:		$ 164,515.00

3.0	WATER SUPPLY	QUANTITY	UNITS	UNIT PRICE	COST
3.01	8" D.I.P. CLASS 52	2,782	lf	$ 56.00	$ 155,792.00
3.02	8" GATE VALVE IN 5' DIA. VAULT	5	each	$ 3,500.00	$ 17,500.00
3.03	6" D.I.P. CLASS 52	915	lf	$ 42.00	$ 38,430.00
3.04	WATER SERVICE VALVE BOX	17	each	$ 1,500.00	$ 25,500.00
3.05	FIRE HYDRANT	14	each	$ 4,500.00	$ 63,000.00
3.06	TRENCH BACKFILL	2,000	cy	$ 35.00	$ 70,000.00
3.07	PRESSURE CONNECTION TO EXISTING WATERMAIN	1	each	$ 10,000.00	$ 10,000.00
3.08	CONNECTION TO EXISTING WATERMAIN	2	each	$ 3,500.00	$ 7,000.00
			Subtotal Division 3.0:		$ 387,222.00

4.0	STORM SEWER SYSTEM	QUANTITY	UNITS	PRICE	COST
4.01	STORM SEWER, RCP (12")	2,926	lf	$ 30.00	$ 87,780.00
4.02	STORM SEWER, RCP (15")	501	lf	$ 32.00	$ 16,032.00
4.03	STORM SEWER, RCP (18")	726	lf	$ 35.00	$ 25,410.00
4.04	STORM SEWER, RCP (24")	692	lf	$ 40.00	$ 27,680.00
4.05	FLARED END SECTION W/ GRATE (24")	2	each	$ 2,500.00	$ 5,000.00
4.06	4' DIA. STORM MANHOLE	55	each	$ 2,800.00	$ 154,000.00
4.07	5' DIA. STORM MANHOLE	4	each	$ 3,500.00	$ 14,000.00
4.08	6' DIA. STORM MANHOLE W/ RESTRICTOR	2	each	$ 5,000.00	$ 10,000.00
4.09	2' INLET	22	each	$ 2,000.00	$ 44,000.00
4.10	CONNECT TO EXISTING STRUCTURE	4	each	$ 1,500.00	$ 6,000.00
4.11	TRENCH BACKFILL	2,750	cy	$ 34.00	$ 93,500.00
4.12	UNDERGROUND DETENTION SYSTEM, INCLUDING EXCAVATION AND STONE BACKFILL	1	ls	$ 1,017,875.00	$ 1,017,875.00
			Subtotal Division 4.0:		$ 1,501,277.00

5.0	PAVING	QUANTITY	UNITS	UNIT PRICE	COST
	BITUMINOUS PAVEMENT (BURLINGTON, TUTHILL, AND PLANK WIDENING)				
5.01	BURLINGTON AVE FULL DEPTH REMOVAL	1,911	sy	$ 12.00	$ 22,932.00
5.02	TUTHILL PAVEMENT MILLING/RUBBLEIZATION	2,516	sy	$ 5.00	$ 12,580.00
5.03	HMA SURFACE COURSE (2.0") (BURLINGTON, TUTHILL, AND PLANK WIDENING)	5,019	sy	$ 8.50	$ 42,661.50
5.04	HMA BINDER COURSE (3.5") (BURLINGTON AND TUTHILL)	4,550	sy	$ 11.00	$ 50,050.00
5.05	HMA BINDER COURSE (5.0") (PLANK WIDENING)	469	sy	$ 16.00	$ 7,504.00
5.06	8" AGGR. BASE COURSE TYPE B (CA-6) W/PRIME COAT (BURLINGTON & TUTHILL)	4,550	sy	$ 10.00	$ 45,500.00
5.07	12" AGGR. BASE COURSE TYPE B (CA-6) W/PRIME COAT (PLANK WIDENING)	469	sy	$ 15.00	$ 7,035.00
	BITUMINOUS PAVEMENT (ONSITE DRIVEWAYS AND PARKING AREAS)				
5.08	HMA SURFACE COURSE (1.5")	7,390	sy	$ 7.00	$ 51,730.00
5.09	HMA BINDER COURSE (2.5")	7,390	sy	$ 7.50	$ 55,425.00
5.10	8" AGGR. BASE COURSE TYPE B (CA-6) W/PRIME COAT	7,390	sy	$ 10.00	$ 73,900.00
	CONCRETE PAVEMENT				
5.11	4" PCC SIDEWALK W/ 2" COMPACTED CA-6	42,961	sf	$ 6.50	$ 279,246.50
5.12	6" PCC SIDEWALK W/ 4" COMPACTED CA-6	2,586	sf	$ 8.00	$ 20,688.00
5.13	8" PCC DRIVEWAY ENTRANCE W/ 4" COMPACTED CA-6	3,475	sf	$ 9.00	$ 31,275.00
5.14	B6.12 CURB AND GUTTER W/AGGR. BASE	7,351	lf	$ 28.00	$ 205,828.00
5.15	STRIPING & SIGNAGE	1	allowance	$ 2,000.00	$ 2,000.00
			Subtotal Division 5.0:		$ 908,355.00

6.0	ELECTRICAL	QUANTITY	UNITS	UNIT PRICE	COST
6.01	SITE LIGHTING W/CONNECTIONS	16	each	$ 7,000.00	$ 112,000.00
			Subtotal Division 6.0:		$ 112,000.00

7.0	LANDSCAPING	QUANTITY	UNITS	UNIT PRICE	COST
7.01	PARKWAY TREES (WITHIN RIGHT-OF-WAY)	70	ea	$ 600.00	$ 42,000.00
7.02	RIGHT-OF-WAY LANDSCAPE MISCELLANEOUS	1	ls	$ 50,000.00	$ 50,000.00
			Subtotal Division 7.0:		$ 92,000.00

TOTALS:

1.0	EARTHWORK AND EROSION CONTROL	$ 517,715.25
2.0	SANITARY SEWER SYSTEM	$ 164,515.00
3.0	WATER SUPPLY SYSTEM	$ 387,222.00
4.0	STORM SEWER SYSTEM	$ 1,501,277.00
5.0	PAVING	$ 908,355.00
6.0	ELECTRICAL	$ 112,000.00
7.0	LANDSCAPING	$ 92,000.00
	Subtotal	$ 3,683,084.25
	10% Contingency	$ 368,308.43
	TOTAL:	**$ 4,051,392.68**

This Engineer's Opinion of Probable Cost is based upon the Preliminary Engineering Plans for Plank Road Multifamily, prepared by V3 Companies, dated September 26th, 2025. Since V3 Companies has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, this Opinion of Probable Construction Costs is made based on V3 Companies' best judgment as an experienced and qualified professional engineer, familiar with the construction industry; however, V3 Companies can not and does not guarantee that proposals, bids or actual Construction Costs will not vary from the Opinions of Probable Construction Costs prepared by V3 Companies.

Typical Exclusions/Assumptions

** This Engineer's Opinion of Probable Construction cost does not include burial of any overhead utility lines.*

** Landscaping is not included*

Typical Units

lf = linear feet
sf = square feet
sy = square yards
cy = cubic yards
ea = each
ls = lump sum
acre
allowance
ton

TAB 9

DuPage County Stormwater Permit Submittal
Table of Contents

Plank Road Multifamily
Naperville, DuPage County, Illinois

TAB 9: Variance (Article XVI)

- NO DOCUMENTS REQUIRED