# FINAL STORMWATER MANAGEMENT REPORT

**PROJECT SITE:**

**1200 E. DIEHL ROAD**
**NAPERVILLE, DUPAGE COUNTY, ILLINOIS**

**PREPARED FOR:**

Hines
444 W. Lake St. Suite 2400
Chicago, IL 60606
312.419.4702

**PREPARED BY:**

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

FEBRUARY 19, 2025
LATEST REVISION APRIL 4, 2025

# 1200 E. Diehl Road

**NAPERVILLE, DUPAGE COUNTY, ILLINOIS**

## Final Stormwater Report
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# Final Stormwater Narrative

**1200 E. Diehl Road**
**Naperville, DuPage County, Illinois**

## INTRODUCTION

The proposed mixed-use project is located at 1200 E. Diehl Road in Naperville, Illinois. The site is surrounded by Diehl Road to the north, existing office development to the east, an existing stormwater management basin and commercial development to the south, and commercial development to the west. The existing site is approximately 9.6 acres. The existing site contains a vacant commercial building, an existing parking structure, and existing surface parking and drive lanes. A Project Location Exhibit, Aerial Map, National Wetland Index (NWI) Map and FEMA Flood Insurance Rate Map (FIRM) are included in this report. These maps show that there are no wetlands or floodplain on site.

The proposed site is a mixed-use development that will contain a multi-family residential building and two commercial out lots. The existing parking structure and surface parking on the east side of the site will remain. The existing surface parking areas and drive aisles will be reworked in the proposed condition based on the proposed site modifications.

## EXISTING CONDITIONS

The existing site contains one existing building and a two-story parking structure. The site also contains surface parking and perimeter drive lanes. There is storm sewer throughout the site that conveys drainage and ultimately discharges into the existing stormwater management basin south of the subject site. A survey was completed of the existing site and was used to determine the existing pervious and impervious coverage. The existing site has approximately 7.01 acres of impervious surface, and 2.58 acres of pervious surface. An existing impervious/pervious exhibit is included in this report.

Various historical plans and reports were reviewed to determine the existing stormwater management that was provided for the site. These documents show that when the site was originally constructed, stormwater management was provided for in the basin south of the site. The historical documents show that this is a regional detention basin that provides storage for the Ogden Mall development (now Costco), the subject property, the Indian Hills Unit 7 development, as well as some storage benefits for future upstream properties.

## PROPOSED CONDITIONS

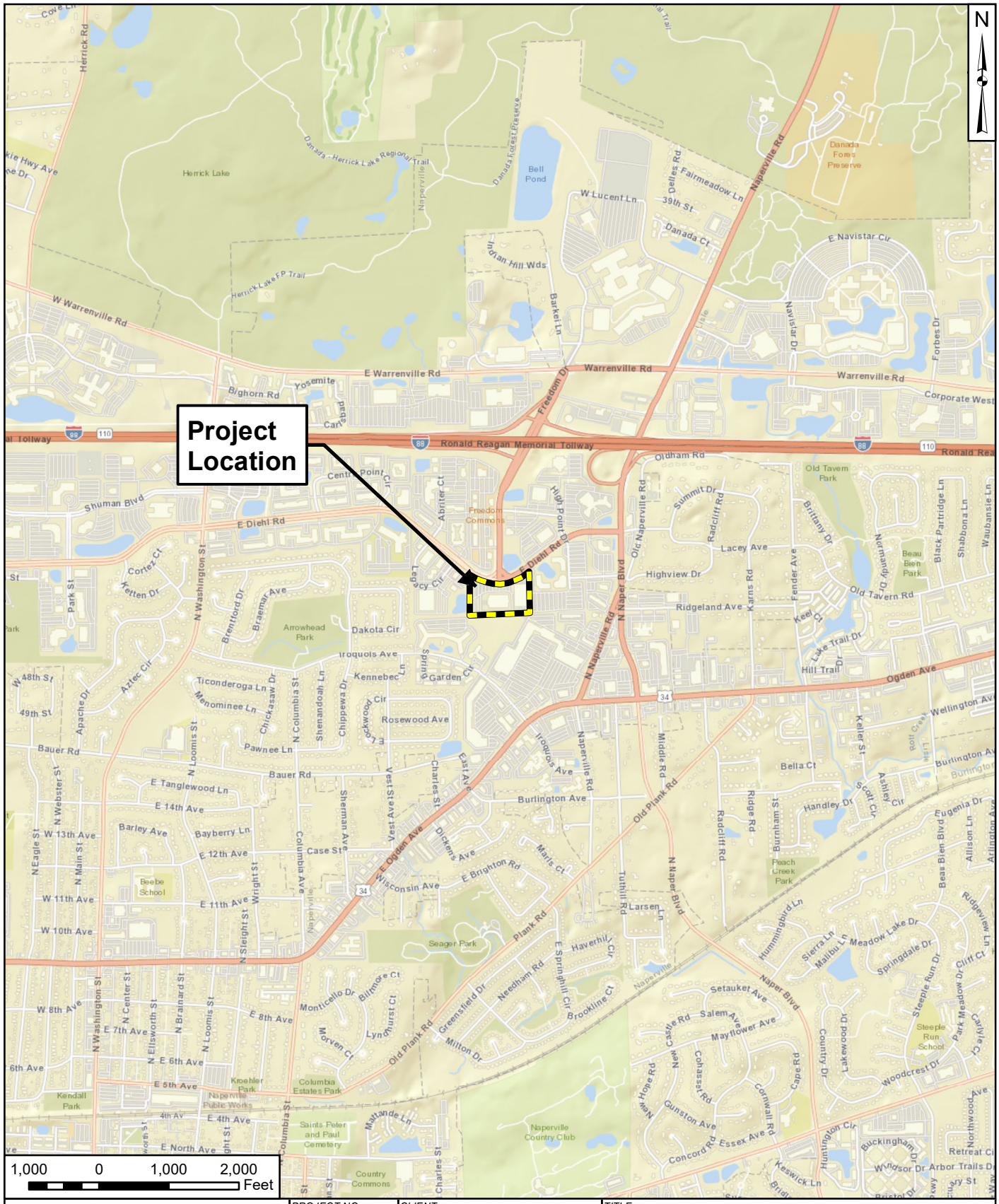
The stormwater management requirements for the site fall under the jurisdiction of the DuPage County Stormwater Ordinance. The ordinance requires site runoff storage for new developments, except for those that do not increase impervious area by 25,000 SF or more compared to the site as it existed in 1992. Post Construction Best Management Practices are required when the impervious area increases by 2,500 SF or more.

The proposed site plan will maintain existing drainage patterns and will have no net increase in impervious surface as compared to existing conditions. Permeable pavers will be incorporated into the proposed site plan to maintain impervious coverage as in existing conditions. Therefore, stormwater discharge from the site will not change since the impervious area is being maintained to match existing. There are multiple smaller storm pipes proposed into the existing pond (instead of the one 24" RCP in existing conditions), but the overall discharge rate into the pond will remain the same since the pervious/impervious ratio is the same in existing and proposed conditions. A proposed impervious/pervious exhibit is included in this report.

Proposed storm sewer will be included in the design to convey drainage to the existing stormwater management basin south of the subject site. The storm sewers will be designed to convey drainage up to the 10-year rainfall event. Runoff from the 10-year through 100-year rainfall events will be conveyed overland and ultimately directed to the existing stormwater management basin.

## CONCLUSION

It is our opinion that the proposed stormwater design conforms to the requirements of the City of Naperville and DuPage County. Because the proposed site will not result in an increased amount of impervious area, therefore not increasing the site runoff from the property, additional stormwater management requirements will not be required.




| | | | |
|---|---|---|---|
| 7325 Janes Avenue<br>Woodridge, IL 60517<br>630.724.9200 phone<br>www.v3co.com | PROJECT NO.: 240048<br>CREATED BY: JRL | CLIENT: Hines<br>444 W. Lake St, Suite 2400<br>Chicago, IL 60606 | TITLE: **PROJECT LOCATION** |
| | DATE: 02/26/2024 | BASE LAYER: ESRI World Street Map | SITE: 1200 E. Diehl Road<br>Naperville, Illinois |
| Visio, Vertere, Virtute...<br>*"The Vision To Transform with Excellence"* | SCALE: See Scale Bar | | FIGURE: 1 |

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| | | | |
|---|---|---|---|
| PROJECT NO.: 240048 | CLIENT: Hines, 444 W. Lake St, Suite 2400, Chicago, IL 60606 | TITLE: **AERIAL** | |
| CREATED BY: JRL | | | |
| DATE: 02/26/2024 | BASE LAYER: ESRI Imagery | SITE: 1200 E. Diehl Road, Naperville, Illinois | FIGURE: 2 |
| SCALE: See Scale Bar | | | |

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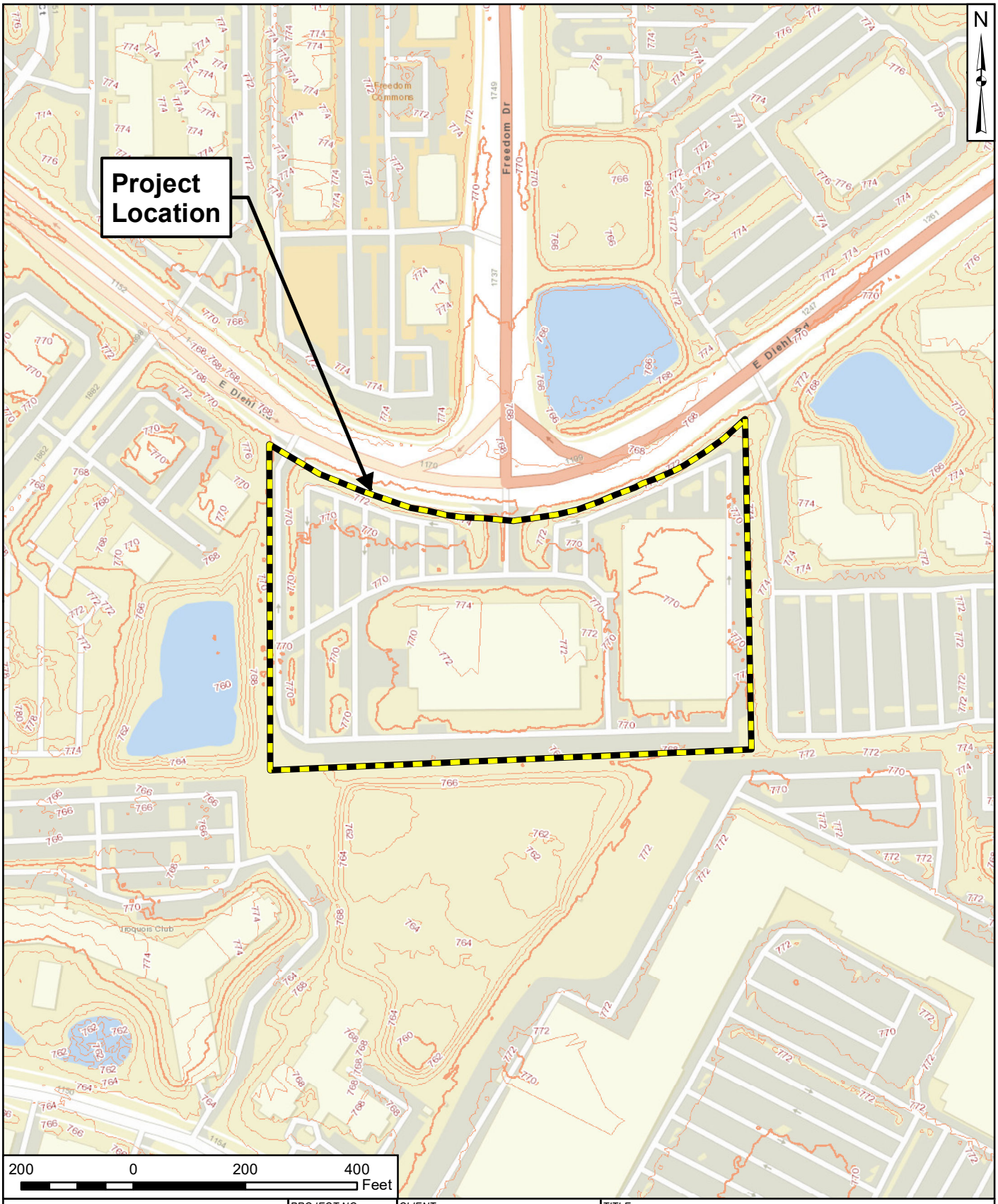


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| 7325 Janes Avenue<br>Woodridge, IL 60517<br>630.724.9200 phone<br>www.v3co.com | PROJECT NO.: 240048<br>CREATED BY: JRL | CLIENT: Hines<br>444 W. Lake St, Suite 2400<br>Chicago, IL 60606 | TITLE: **TOPOGRAPHY 2' CONTOURS** |
| | DATE: 02/26/2024 | BASE LAYER: ESRI World Street Map | SITE: 1200 E. Diehl Road Naperville, Illinois |
| Visio, Vertere, Virtute...<br>*"The Vision To Transform with Excellence"* | SCALE: See Scale Bar | | FIGURE: 3 |

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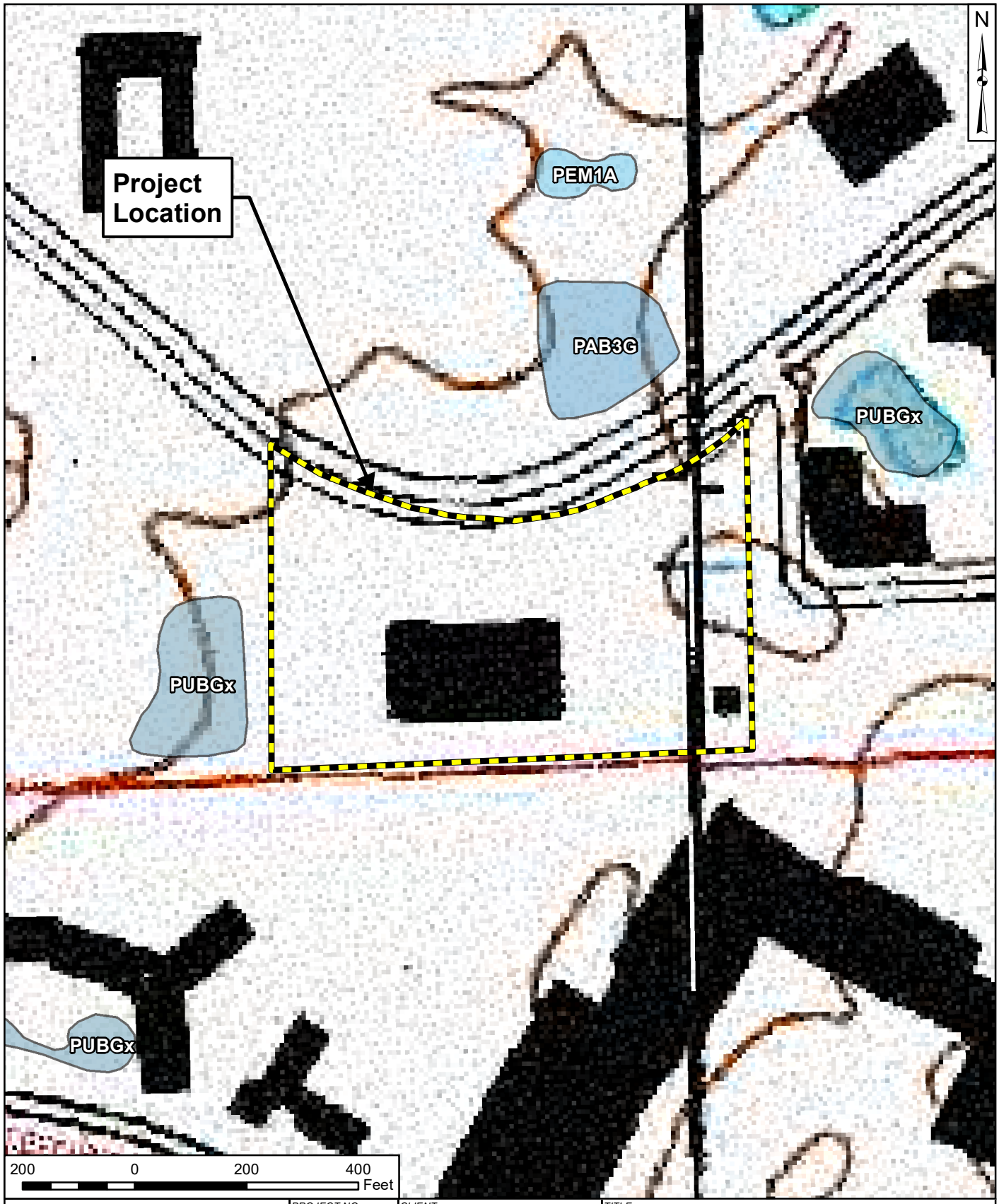


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| | |
|---|---|
| PROJECT NO.: | 240048 |
| CREATED BY: | JRL |
| DATE: | 02/26/2024 |
| SCALE: | See Scale Bar |

CLIENT: Hines
444 W. Lake St, Suite 2400
Chicago, IL 60606

BASE LAYER: USGS Topographic Map
Naperville Quadrangle

TITLE: **NATIONAL WETLAND INVERNTORY (NWI) MAP**

SITE: 1200 E. Diehl Road
Naperville, Illinois

FIGURE: 4

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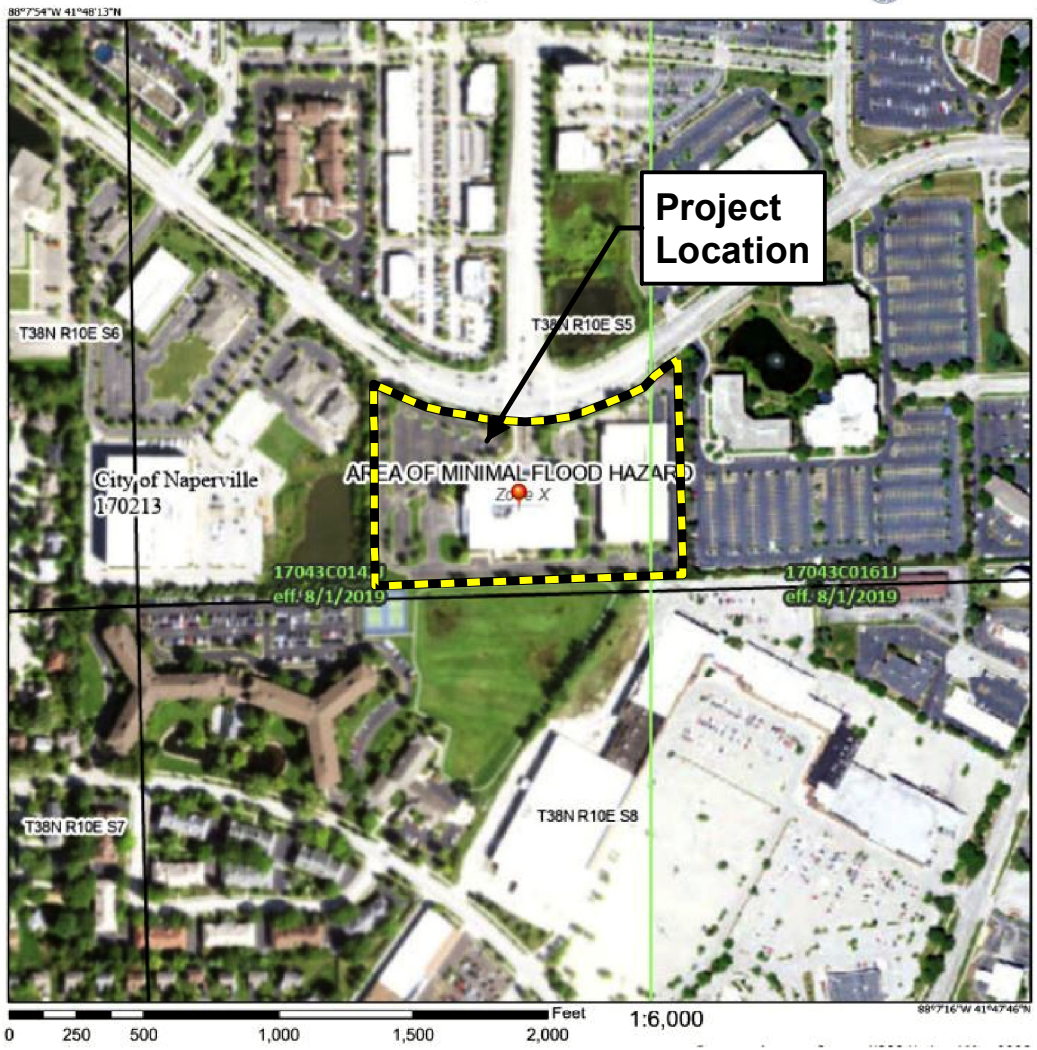
# National Flood Hazard Layer FIRMette

FEMA




## 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

N

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 2/26/2024 at 2:52 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.

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0142J

**FIRM**
FLOOD INSURANCE RATE MAP
DU PAGE COUNTY, ILLINOIS
AND INCORPORATED AREAS

PANEL 142 OF 287

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| DU PAGE COUNTY | 170197 | 0142 | J |
| NAPERVILLE, CITY OF | 170213 | 0142 | J |
| WARRENVILLE, CITY OF | 170218 | 0142 | J |

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
17043C0142J

MAP REVISED
AUGUST 1, 2019

Federal Emergency Management Agency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| PROJECT NO.: | CLIENT: | TITLE: | |
|---|---|---|---|
| 240048 | Hicks<br>444 W. Lake St, Suite 2400<br>Chicago, IL 60606 | **FEMA FLOOD INSURANCE RATE MAP (FIRM)** | |
| CREATED BY: JRL | | | |
| DATE: 02/26/2024 | BASE LAYER: USGS National Map (2023) | SITE: 1200 E. DIEHL ROAD NAPERVILLE, IL 60515 | EXHIBIT: 5 |
| SCALE: See Scale Bar | | | |

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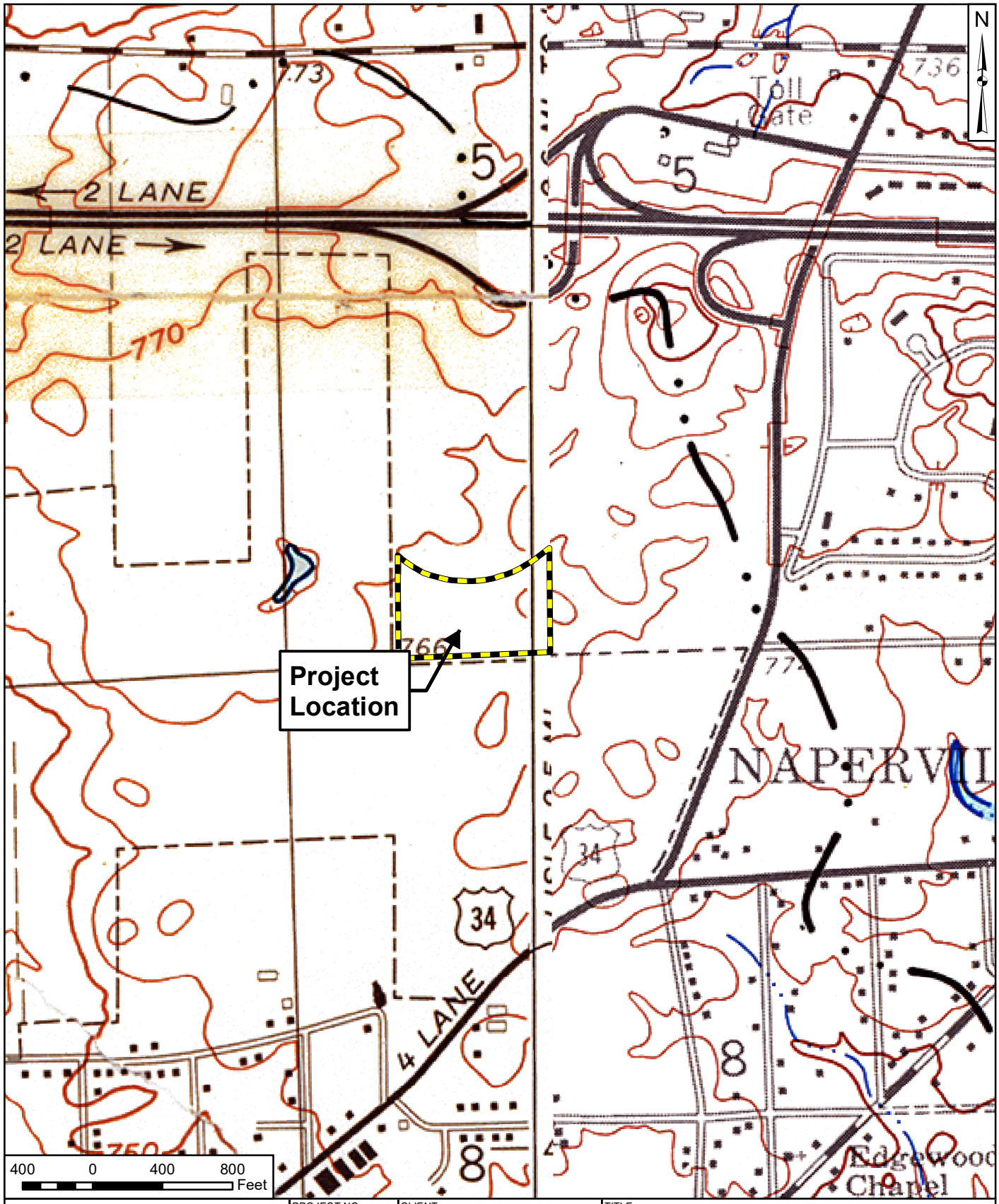


| | | | |
|---|---|---|---|
| 7325 Janes Avenue<br>Woodridge, IL 60517<br>630.724.9200 phone<br>www.v3co.com | PROJECT NO.: 240048<br>CREATED BY: CJL | CLIENT: Hines<br>444 West Lake Street<br>Chicago, IL 60606 | TITLE: **USGS HYDROLOGIC ATLAS** |
| Visio, Vertere, Virtute...<br>*"The Vision To Transform with Excellence"* | DATE: 02/06/2024<br>SCALE: See Scale Bar | BASE LAYER: USGS Hydrologic Atlas Naperville and Wheaton Quads | SITE: 1200 E Diehl Road<br>Naperville, DuPage County, IL<br>FIGURE: 6 |

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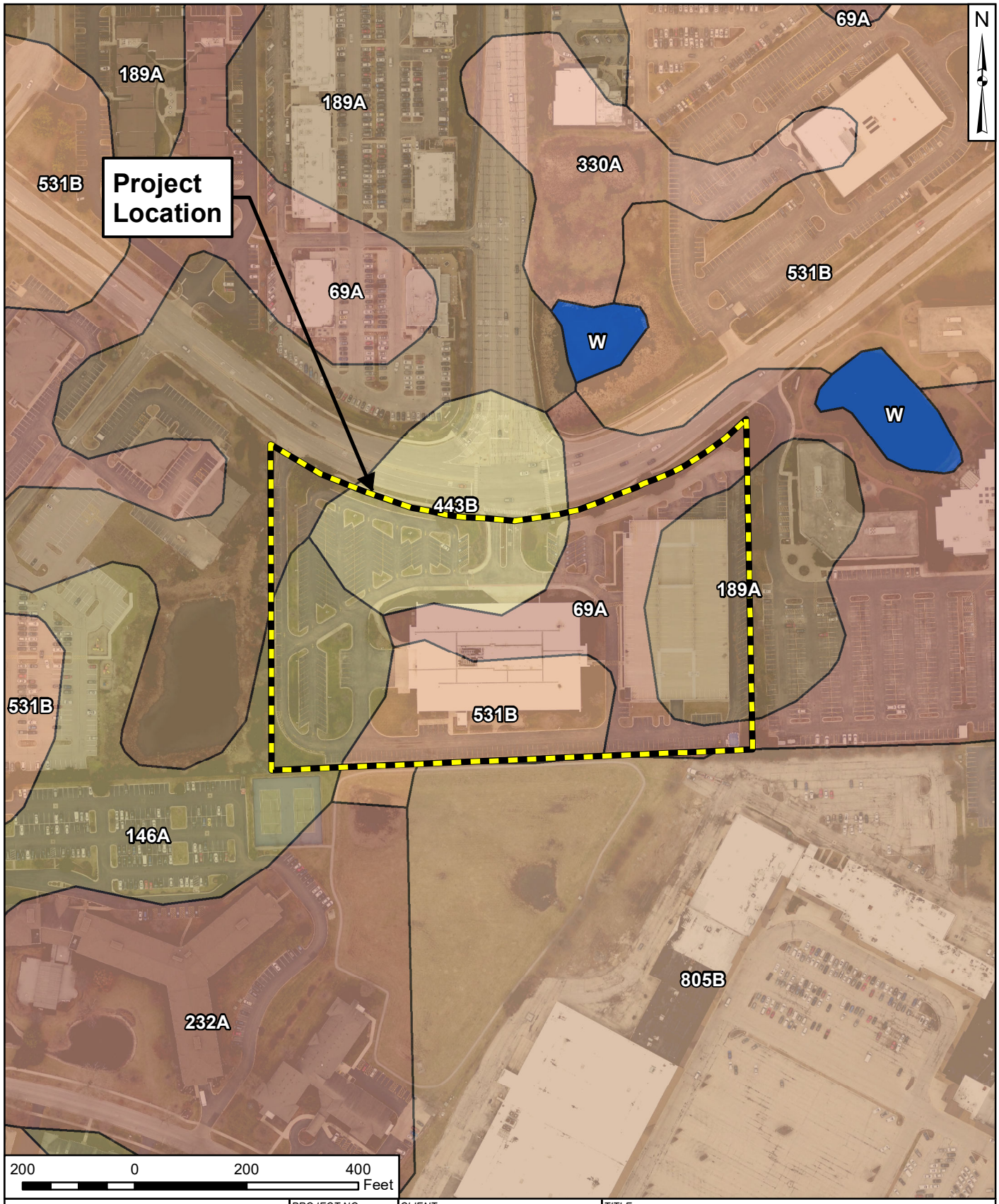


| | | | |
|---|---|---|---|
| 7325 Janes Avenue<br>Woodridge, IL 60517<br>630.724.9200 phone<br>www.v3co.com | PROJECT NO.: 240048<br>CREATED BY: JRL | CLIENT: Hines<br>444 W. Lake St, Suite 2400<br>Chicago, IL 60606 | TITLE: **SOIL SURVEY OF DUPAGE COUNTY, ILLINOIS** |
| Visio, Vertere, Virtute...<br>*"The Vision To Transform with Excellence"* | DATE: 01/10/2025<br>SCALE: See Scale Bar | BASE LAYER: DuPage Coutny Aerial Imagery (2019) | SITE: 1200 E. Diehl Road Naperville, Illinois<br>FIGURE: 7 |

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PERVIOUS AREA = 2.58 AC

IMPERVIOUS AREA = 7.01 AC

TOTAL AREA = 9.59 AC


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# 1200 E. DIEHL ROAD

NAPERVILLE ILLINOIS

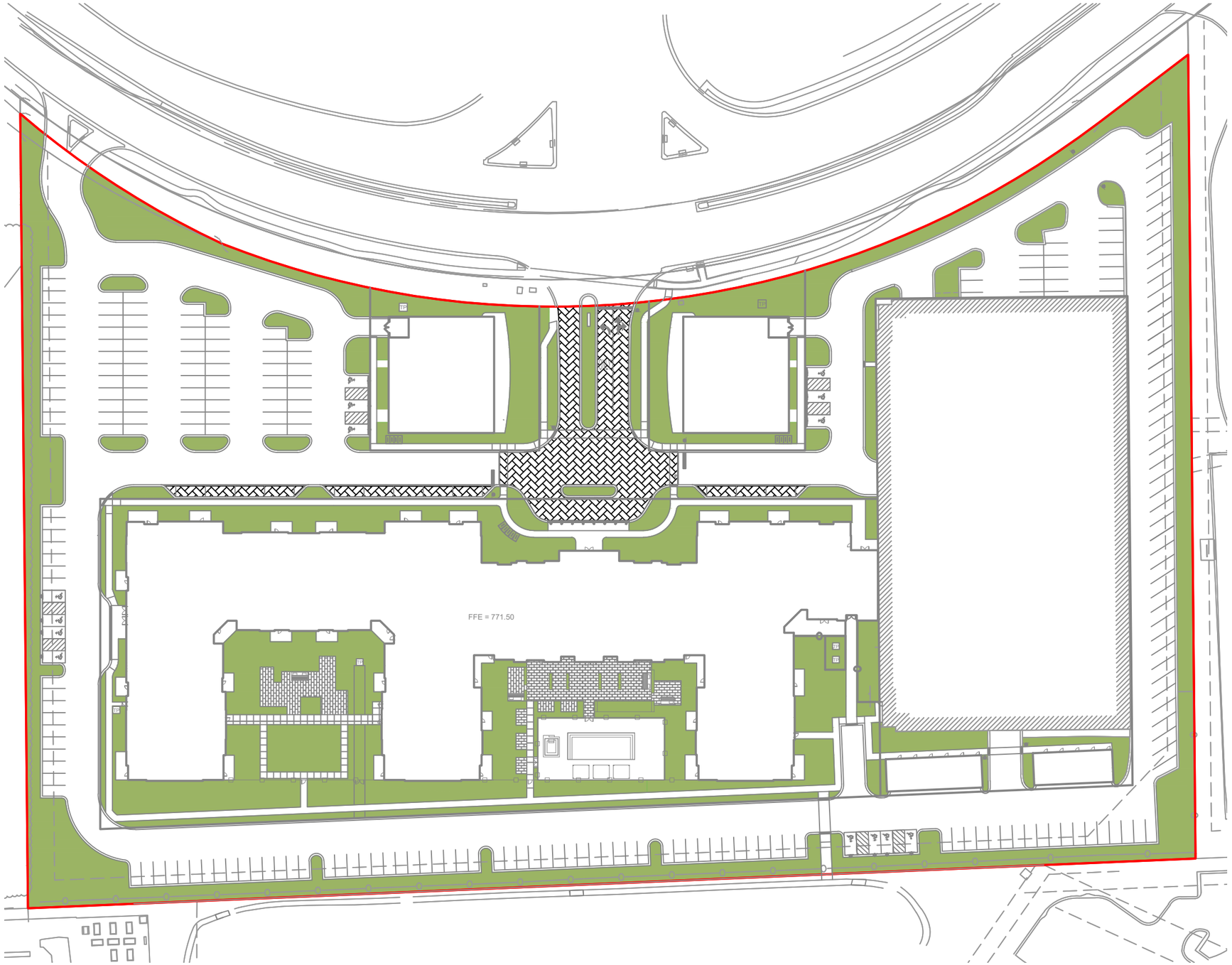
# EXISTING IMPERVIOUS EXHIBIT

DATE: 02-27-24

0 40 80

SCALE: 1"=80'

N:\2024\240048\Drawings\ACAD\LD\S01\Misc Drawings\Impervious Exhibits\Existing Impervious Area Exhibit.dwg 2/27/2024




## LEGEND

PERVIOUS AREA = 2.30 AC

PERMEABLE PAVERS AREA = 0.28 AC

IMPERVIOUS AREA = 7.01 AC

TOTAL AREA = 9.59 AC

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# 1200 E. DIEHL

*NAPERVILLE* *ILLINOIS*

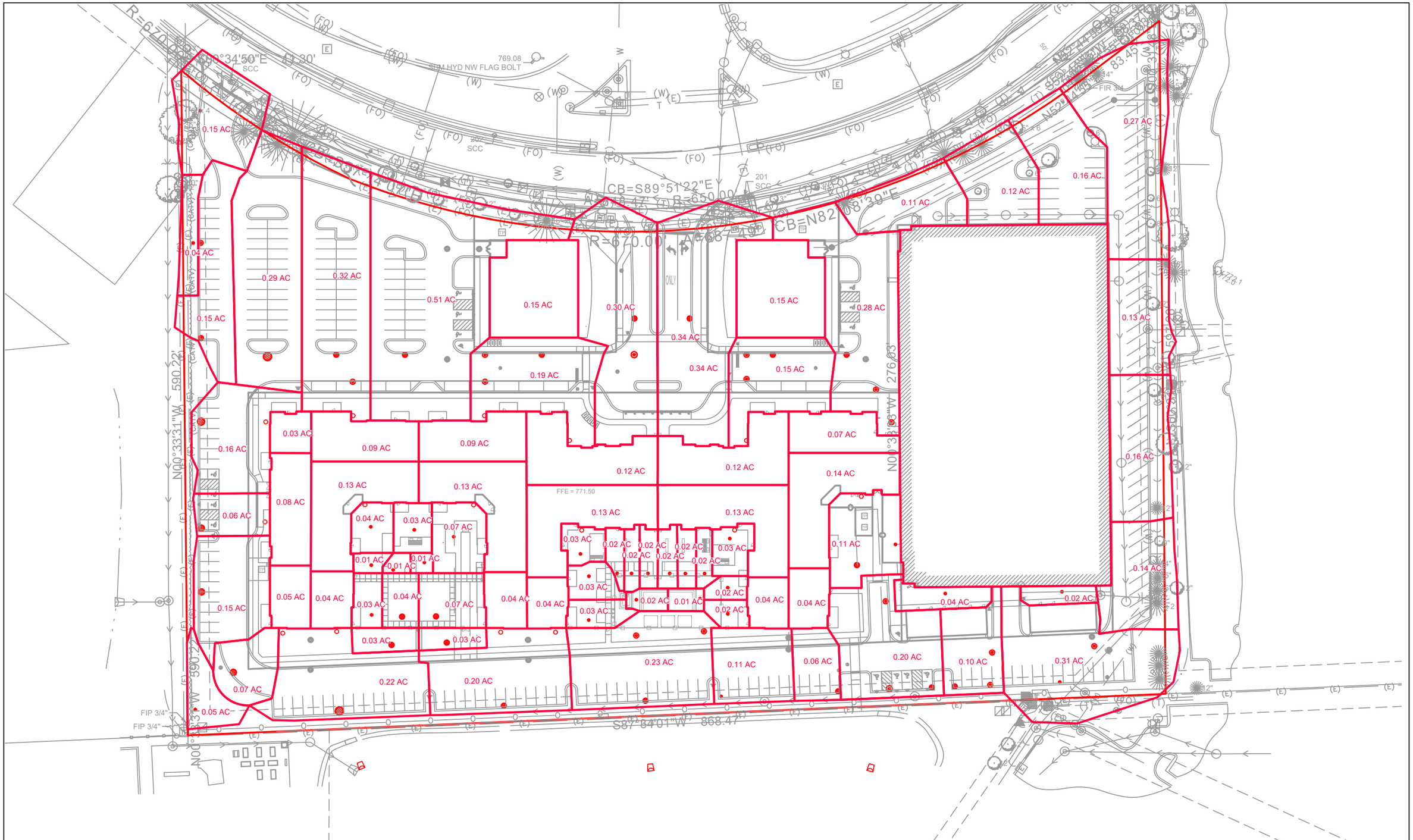
# PROPOSED IMPERVIOUS EXHIBIT

*DATE: 02-19-25*

0 40 80

*SCALE: 1"=80'*

N:\2024\240048\Drawings\ACAD\LD\S04\Misc Drawings\Proposed Pervious Impervious Exhibit.dwg 2/19/2025

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# 1200 E. DIEHL

NAPERVILLE ILLINOIS

# INLET DRAINAGE AREA EXHIBIT

DATE: 02-19-25

0 40 80

SCALE: 1"=80'

N:\2024\240048\Drawings\ACAD\LD\S04\Misc Drawings\Proposed Drainage Areas.dwg 2/19/2025

# RUNOFF COEFFICIENT CALCULATION

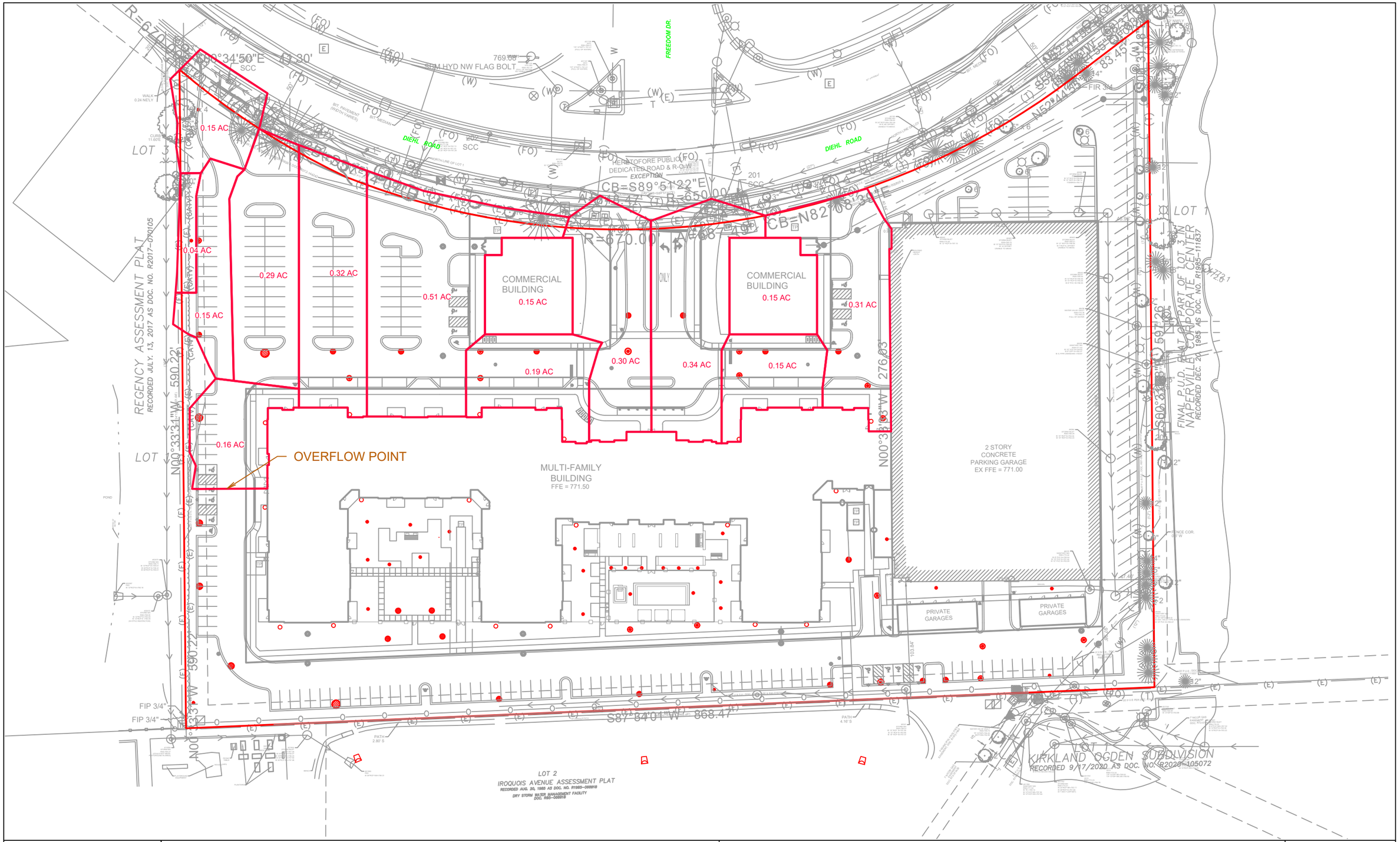
**PROJECT:** **1200 E. DIEHL ROAD**
**V3 FILE NO.:** **240048**
**DATE:** 04/04/25
**PREPARED BY:** JRL
**REVIEWED DATE:**
**REVIEWED BY:**

| | |
|---|---|
| **Impervious Area (ACRE)** | 7.01 |
| **Impervious c-factor** | 0.90 **Per 74-615 Calcs |
| **Pervious Area (ACRE)** | 2.58 |
| **Pervious c-factor** | 0.45 **Per 74-615 Calcs |
| **TOTAL AREA (ACRE)** | 9.59 |

$$C = \frac{0.90 * (\text{Impervious Area}) + 0.45 * (\text{Pervious Area})}{\text{Total Area}}$$

$$C = \frac{0.90 * (7.01 \text{ acre}) + 0.45 * (2.58 \text{ acre})}{9.59}$$

**C = 0.78**

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# 1200 E. DIEHL

NAPERVILLE ILLINOIS

# OVERFLOW EXHIBIT

DATE: 02-19-25

N

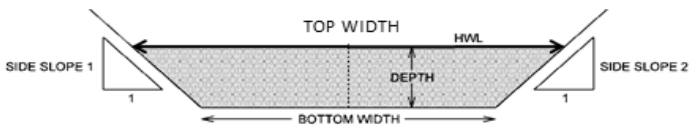
0 40 80

SCALE: 1"=80'

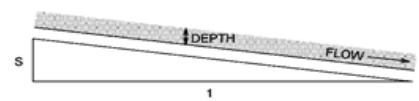
N:\2024\240048\Drawings\ACAD\LD\S04\Misc Drawings\Overflow Exhibit.dwg 2/21/2025

# 100 YEAR OVERFLOW CAPACITY CALCULATIONS
## 1200 Diehl Road
## Naperville, IL

| | Q required | | | | | | | | | Cross Section | | | Channel Flow | | | Weir Flow | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Overflow Route # | High Point | Tributary Area (acres) | Runoff Coefficient | Tc (FAA equation) (minutes) | Intensity (in/hr) | Q100 (cfs) | Additional $Q_{100}$ (cfs) From | Additional $Q_{100}$ (cfs) Flow Rate | $Q_{100TOTAL}$ | Bottom Width (feet) | Side Slope 1 | Side Slope 2 | Manning's Coefficient (n) | Longitudinal Slope (S) | $Q_{provided}$ | $C_w$ | $Q_{provided}$ | Overflow Depth (feet) | HWL | FF - HWL (min 1') |
| 1 | 770.70 | 3.06 | 0.78 | 30 | 6.34 | 15.13 | | | *15.13* | 0.00 | 1.00 | 0.02 | 0.012 | 0.01 | 10.06 | 2.70 | 16.15 | **0.50** | 769.80 | 1.7 |
| 2 | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |

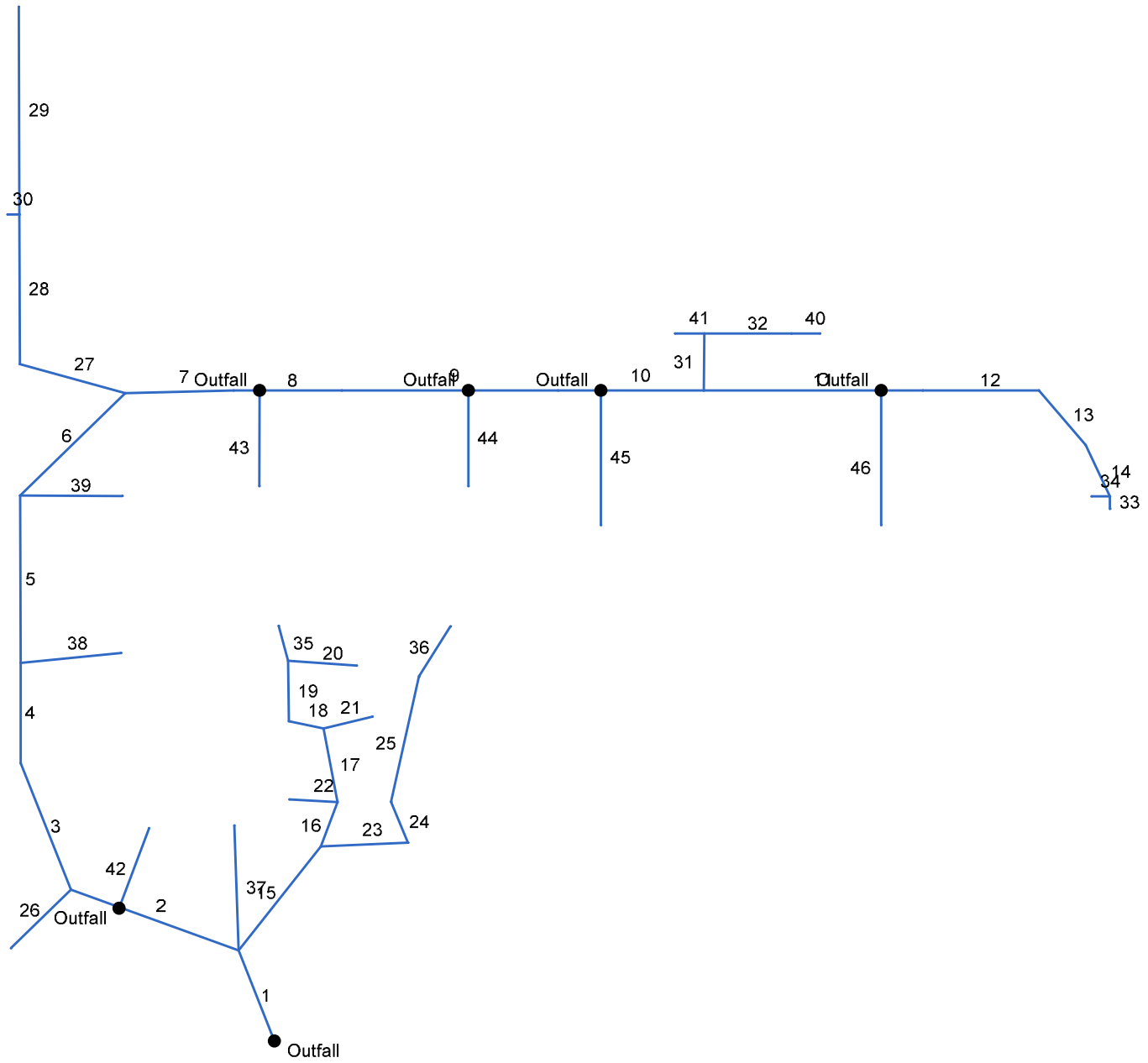


CROSS SECTION OF CHANNEL OR WEIR



CHANNEL SIDE VIEW

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




| Project File: Run 1.stm | Number of lines: 46 | Date: 2/19/2025 |
|---|---|---|

Storm Sewers v2024.00

# 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 | 55.005 | 0.22 | 5.05 | 0.78 | 0.17 | 3.94 | 10.0 | 20.0 | 4.9 | 21.62 | 22.03 | 3.55 | 36 | 0.11 | 761.00 | 761.06 | 763.41 | 763.47 | 761.00 | 768.55 | ST 1-1 - FES 1-1 |
| 2 | 1 | 100.128 | 0.07 | 4.16 | 0.78 | 0.05 | 3.24 | 10.0 | 18.5 | 5.1 | 18.83 | 19.23 | 3.90 | 30 | 0.22 | 761.06 | 761.28 | 763.47 | 763.65 | 768.55 | 768.80 | ST 1-2 - ST 1-1 |
| 3 | 2 | 76.783 | 0.15 | 4.04 | 0.78 | 0.12 | 3.15 | 10.0 | 18.2 | 5.1 | 18.24 | 18.72 | 3.81 | 30 | 0.21 | 761.28 | 761.44 | 763.65 | 763.78 | 768.80 | 768.55 | ST 1-3 - ST 1-2 |
| 4 | 3 | 56.614 | 0.06 | 3.89 | 0.78 | 0.05 | 3.03 | 10.0 | 17.9 | 5.1 | 17.75 | 18.08 | 3.73 | 30 | 0.19 | 761.44 | 761.55 | 763.78 | 763.87 | 768.55 | 768.90 | ST 1-4 - ST 1-3 |
| 5 | 4 | 94.512 | 0.16 | 3.75 | 0.78 | 0.12 | 2.93 | 10.0 | 17.5 | 5.2 | 17.36 | 17.39 | 3.67 | 30 | 0.18 | 761.55 | 761.72 | 763.87 | 764.01 | 768.90 | 768.55 | ST 1-5 - ST 1-4 |
| 6 | 5 | 82.593 | 0.29 | 3.56 | 0.78 | 0.23 | 2.78 | 10.0 | 17.1 | 5.3 | 16.74 | 16.89 | 3.57 | 30 | 0.17 | 761.72 | 761.86 | 764.01 | 764.13 | 768.55 | 768.55 | ST 1-6 - ST 1-5 |
| 7 | 6 | 60.955 | 0.32 | 2.93 | 0.78 | 0.25 | 2.29 | 10.0 | 12.4 | 6.0 | 15.90 | 16.61 | 3.41 | 30 | 0.16 | 761.86 | 761.96 | 764.13 | 764.21 | 768.55 | 768.55 | ST 1-7 - ST 1-6 |
| 8 | 7 | 61.006 | 0.51 | 2.61 | 0.78 | 0.40 | 2.04 | 10.0 | 12.0 | 6.1 | 14.53 | 14.85 | 3.14 | 30 | 0.13 | 761.96 | 762.04 | 764.21 | 764.27 | 768.55 | 768.55 | ST 1-8 - ST 1-7 |
| 9 | 8 | 121.424 | 0.19 | 2.10 | 0.78 | 0.15 | 1.64 | 10.0 | 11.5 | 6.2 | 11.82 | 11.97 | 3.76 | 24 | 0.28 | 762.04 | 762.38 | 764.27 | 764.60 | 768.55 | 768.55 | ST 1-9 - ST 1-8 |
| 10 | 9 | 81.950 | 0.00 | 1.91 | 0.78 | 0.00 | 1.49 | 10.0 | 11.2 | 6.2 | 10.51 | 11.42 | 5.95 | 18 | 1.18 | 762.38 | 763.35 | 764.60 | 765.42 | 768.55 | 769.20 | ST 1-10 - ST 1-9 |
| 11 | 10 | 123.047 | 0.15 | 0.97 | 0.78 | 0.12 | 0.76 | 10.0 | 10.8 | 6.3 | 5.40 | 6.51 | 4.40 | 15 | 1.02 | 763.35 | 764.60 | 765.42 | 766.29 | 769.20 | 768.55 | ST 1-11 - ST 1-10 |
| 12 | 11 | 65.371 | 0.29 | 0.82 | 0.78 | 0.23 | 0.64 | 10.0 | 10.4 | 6.4 | 4.09 | 4.59 | 3.34 | 15 | 0.50 | 764.60 | 764.93 | 766.29 | 766.55 | 768.55 | 768.95 | ST 1-12 - ST 1-11 |
| 13 | 12 | 40.520 | 0.00 | 0.53 | 0.78 | 0.00 | 0.41 | 10.0 | 10.3 | 6.4 | 2.66 | 2.85 | 3.39 | 12 | 0.64 | 764.93 | 765.19 | 766.55 | 766.78 | 768.95 | 770.52 | ST 1-13 - ST 1-12 |
| 14 | 13 | 32.056 | 0.00 | 0.53 | 0.78 | 0.00 | 0.41 | 10.0 | 10.1 | 6.5 | 2.68 | 2.73 | 3.41 | 12 | 0.50 | 765.19 | 765.35 | 766.78 | 766.93 | 770.52 | 771.28 | ST 1-14 - ST 1-13 |
| 15 | 1 | 74.717 | 0.03 | 0.63 | 0.78 | 0.02 | 0.49 | 15.0 | 19.6 | 4.9 | 2.42 | 4.53 | 5.11 | 12 | 1.62 | 765.05 | 766.26 | 765.57 | 766.93 | 768.55 | 770.00 | ST 1-15 - ST 1-1 |
| 16 | 15 | 26.784 | 0.04 | 0.30 | 0.78 | 0.03 | 0.23 | 15.0 | 19.4 | 5.0 | 1.16 | 2.57 | 2.35 | 12 | 0.52 | 766.26 | 766.40 | 766.93 | 766.95 | 770.00 | 770.40 | ST 1-16 - ST 1-15 |
| 17 | 16 | 42.237 | 0.01 | 0.23 | 0.78 | 0.01 | 0.18 | 15.0 | 18.8 | 5.0 | 0.90 | 2.74 | 2.57 | 12 | 0.59 | 766.40 | 766.65 | 766.95 | 767.05 | 770.40 | 770.70 | ST 1-17 - ST 1-16 |
| 18 | 17 | 19.932 | 0.01 | 0.21 | 0.78 | 0.01 | 0.16 | 15.0 | 17.2 | 5.2 | 0.86 | 2.76 | 3.00 | 12 | 0.60 | 766.65 | 766.77 | 767.05 | 767.16 | 770.70 | 770.60 | ST 1-18 - ST 1-17 |
| 19 | 18 | 34.036 | 0.04 | 0.20 | 0.78 | 0.03 | 0.16 | 15.0 | 16.7 | 5.3 | 0.83 | 2.52 | 2.87 | 12 | 0.50 | 766.77 | 766.94 | 767.17 | 767.34 | 770.60 | 770.50 | ST 1-19 - ST 1-18 |
| 20 | 19 | 38.676 | 0.03 | 0.03 | 0.78 | 0.02 | 0.02 | 15.0 | 15.0 | 5.6 | 0.13 | 1.21 | 1.27 | 8 | 1.01 | 766.94 | 767.33 | 767.34 | 767.49 | 770.50 | 770.50 | ST 1-20 - ST 1-19 |
| 21 | 17 | 28.353 | 0.01 | 0.01 | 0.78 | 0.01 | 0.01 | 15.0 | 15.0 | 5.6 | 0.04 | 1.16 | 1.51 | 8 | 0.92 | 767.27 | 767.53 | 767.36 | 767.62 | 770.70 | 770.70 | ST 1-21 - ST 1-17 |
| 22 | 16 | 27.012 | 0.03 | 0.03 | 0.78 | 0.02 | 0.02 | 15.0 | 15.0 | 5.6 | 0.13 | 1.23 | 2.12 | 8 | 1.04 | 766.95 | 767.23 | 767.10 | 767.39 | 770.40 | 770.40 | ST 1-22 - ST 1-16 |

Project File: Run 1.stm | Number of lines: 46 | Run Date: 2/19/2025

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 | 15 | 49.031 | 0.03 | 0.30 | 0.78 | 0.02 | 0.23 | 15.0 | 16.4 | 5.4 | 1.25 | 2.49 | 2.66 | 12 | 0.49 | 766.26 | 766.50 | 766.93 | 767.02 | 770.00 | 770.00 | ST 1-23 - ST 1-15 |
| 24 | 23 | 25.100 | 0.07 | 0.27 | 0.78 | 0.05 | 0.21 | 15.0 | 16.1 | 5.4 | 1.14 | 2.75 | 3.05 | 12 | 0.60 | 766.50 | 766.65 | 767.02 | 767.10 | 770.00 | 770.40 | ST 1-24 - ST 1-23 |
| 25 | 24 | 72.439 | 0.07 | 0.20 | 0.78 | 0.05 | 0.16 | 15.0 | 15.0 | 5.6 | 0.87 | 2.48 | 2.79 | 12 | 0.48 | 766.65 | 767.00 | 767.10 | 767.39 | 770.40 | 770.50 | ST 1-25 - ST 1-24 |
| 26 | 2 | 47.210 | 0.05 | 0.05 | 0.78 | 0.04 | 0.04 | 15.0 | 15.0 | 5.6 | 0.22 | 1.14 | 2.38 | 8 | 0.89 | 765.01 | 765.43 | 765.21 | 765.64 | 768.80 | 768.60 | ST 1-26 - ST 1-2 |
| 27 | 6 | 61.347 | 0.15 | 0.34 | 0.78 | 0.12 | 0.27 | 10.0 | 16.6 | 5.3 | 1.41 | 2.49 | 3.27 | 12 | 0.49 | 764.23 | 764.53 | 764.77 | 765.07 | 768.55 | 768.55 | ST 1-27 - ST 1-6 |
| 28 | 27 | 84.417 | 0.00 | 0.19 | 0.78 | 0.00 | 0.15 | 10.0 | 15.2 | 5.5 | 0.82 | 2.48 | 2.44 | 12 | 0.49 | 764.53 | 764.94 | 765.07 | 765.32 | 768.55 | 769.62 | ST 1-28 - ST 1-27 |
| 29 | 28 | 117.337 | 0.15 | 0.15 | 0.78 | 0.12 | 0.12 | 10.0 | 10.0 | 6.5 | 0.76 | 2.46 | 2.76 | 12 | 0.48 | 764.94 | 765.50 | 765.32 | 765.88 | 769.62 | 769.00 | ST 1-29 - ST 1-28 |
| 30 | 28 | 6.635 | 0.04 | 0.04 | 0.78 | 0.03 | 0.03 | 15.0 | 15.0 | 5.6 | 0.17 | 1.15 | 2.24 | 8 | 0.90 | 765.77 | 765.83 | 765.95 | 766.02 | 769.62 | 769.00 | ST 1-30 - ST 1-28 |
| 31 | 10 | 32.105 | 0.30 | 0.94 | 0.78 | 0.23 | 0.73 | 10.0 | 10.4 | 6.4 | 4.70 | 5.14 | 5.99 | 12 | 2.09 | 764.14 | 764.81 | 765.42 | 765.99 | 769.20 | 768.90 | ST 1-31 - ST 1-10 |
| 32 | 31 | 49.008 | 0.34 | 0.49 | 0.78 | 0.27 | 0.38 | 10.0 | 10.1 | 6.5 | 2.47 | 2.49 | 3.15 | 12 | 0.49 | 764.81 | 765.05 | 765.99 | 766.22 | 768.90 | 768.55 | ST 1-32 - ST 1-31 |
| 33 | 14 | 7.003 | 0.46 | 0.46 | 0.78 | 0.36 | 0.36 | 10.0 | 10.0 | 6.5 | 2.33 | 2.69 | 2.97 | 12 | 0.57 | 765.35 | 765.39 | 766.93 | 766.96 | 771.28 | 771.50 | ROOF DRAIN - S |
| 34 | 14 | 10.189 | 0.07 | 0.07 | 0.78 | 0.05 | 0.05 | 10.0 | 10.0 | 6.5 | 0.35 | 0.00 | 1.81 | 6 | -2.75 | 768.28 | 768.00 | 768.78 | 768.82 | 771.28 | 771.50 | ROOF DRAIN - S |
| 35 | 19 | 20.306 | 0.13 | 0.13 | 0.78 | 0.10 | 0.10 | 10.0 | 10.0 | 6.5 | 0.66 | 0.88 | 4.37 | 6 | 2.46 | 767.50 | 768.00 | 767.82 | 768.41 | 770.50 | 771.50 | ROOF DRAIN - S |
| 36 | 25 | 33.278 | 0.13 | 0.13 | 0.78 | 0.10 | 0.10 | 10.0 | 10.0 | 6.5 | 0.66 | 0.69 | 3.90 | 6 | 1.50 | 767.50 | 768.00 | 767.89 | 768.41 | 770.50 | 771.50 | ROOF DRAIN - S |
| 37 | 1 | 70.551 | 0.04 | 0.04 | 0.78 | 0.03 | 0.03 | 10.0 | 10.0 | 6.5 | 0.20 | 1.04 | 3.24 | 6 | 3.47 | 765.55 | 768.00 | 765.70 | 768.23 | 768.55 | 771.50 | ROOF DRAIN - S |
| 38 | 4 | 56.726 | 0.08 | 0.08 | 0.78 | 0.06 | 0.06 | 10.0 | 10.0 | 6.5 | 0.41 | 1.08 | 4.06 | 6 | 3.70 | 765.90 | 768.00 | 766.11 | 768.32 | 768.90 | 771.50 | ROOF DRAIN - S |
| 39 | 5 | 57.463 | 0.03 | 0.03 | 0.78 | 0.02 | 0.02 | 10.0 | 10.0 | 6.5 | 0.15 | 1.16 | 3.12 | 6 | 4.26 | 765.55 | 768.00 | 765.67 | 768.19 | 768.55 | 771.50 | ROOF DRAIN - S |
| 40 | 32 | 16.146 | 0.15 | 0.15 | 0.78 | 0.12 | 0.12 | 10.0 | 10.0 | 6.5 | 0.76 | 3.56 | 2.77 | 8 | 8.67 | 765.38 | 766.78 | 766.22 | 767.19 | 768.55 | 770.45 | ROOF DRAIN - S |
| 41 | 31 | 16.357 | 0.15 | 0.15 | 0.78 | 0.12 | 0.12 | 10.0 | 10.0 | 6.5 | 0.76 | 3.06 | 4.77 | 8 | 6.42 | 765.73 | 766.78 | 765.99 | 767.19 | 768.90 | 770.45 | ROOF DRAIN - S |
| 42 | End | 48.336 | 0.04 | 0.04 | 0.78 | 0.03 | 0.03 | 10.0 | 10.0 | 6.5 | 0.20 | 1.01 | 3.19 | 6 | 3.25 | 766.43 | 768.00 | 766.58 | 768.23 | 769.43 | 771.50 | ROOF DRAIN - PI |
| 43 | End | 54.034 | 0.09 | 0.09 | 0.78 | 0.07 | 0.07 | 10.0 | 10.0 | 6.5 | 0.46 | 1.16 | 4.35 | 6 | 4.26 | 765.70 | 768.00 | 765.92 | 768.34 | 768.70 | 771.50 | ROOF DRAIN - PI |
| 44 | End | 54.030 | 0.09 | 0.09 | 0.78 | 0.07 | 0.07 | 10.0 | 10.0 | 6.5 | 0.46 | 1.07 | 4.20 | 6 | 3.65 | 766.03 | 768.00 | 766.26 | 768.34 | 769.03 | 771.50 | ROOF DRAIN - PI |

Project File: Run 1.stm | Number of lines: 46 | Run Date: 2/19/2025

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

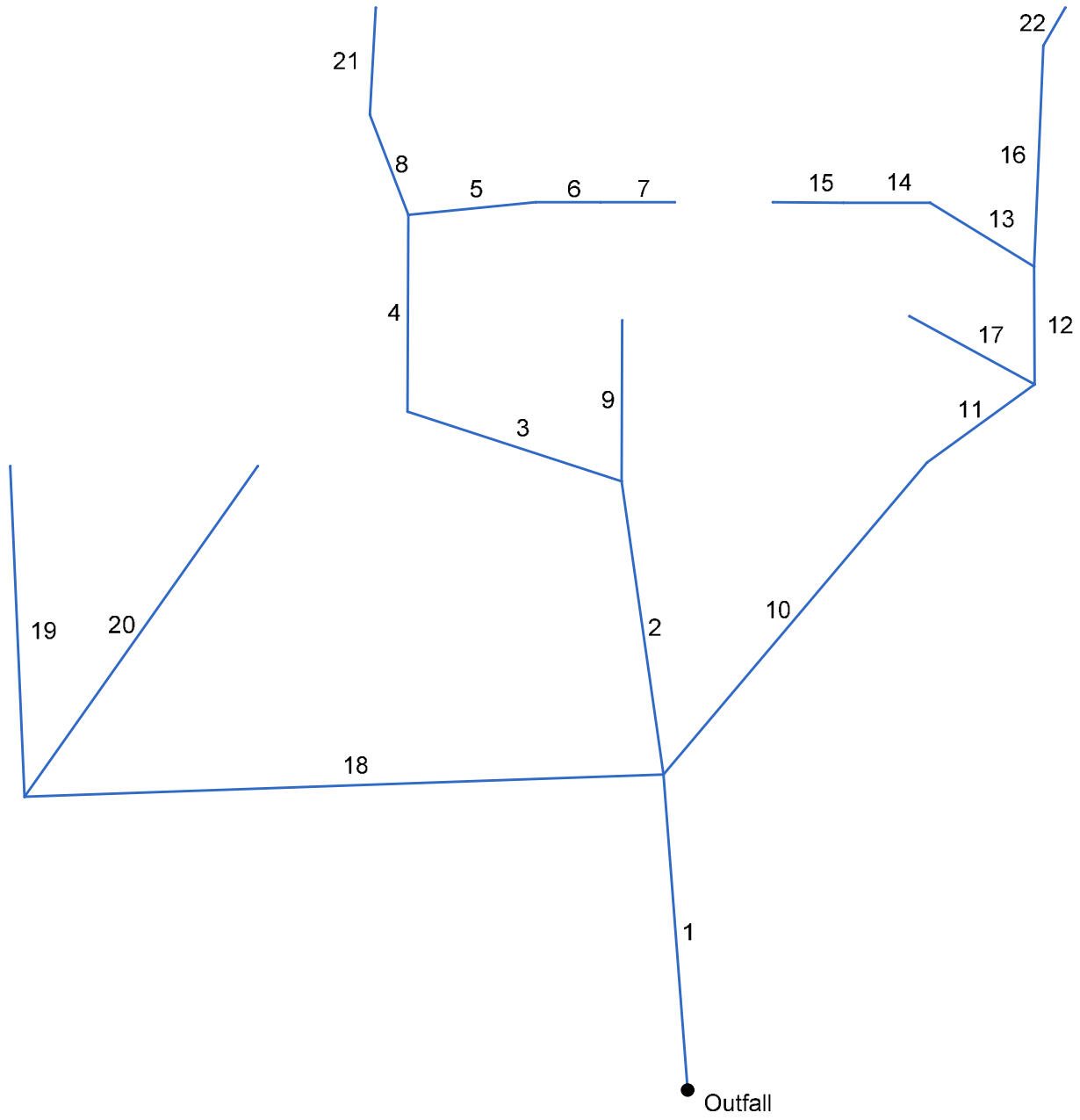
# Storm Sewer Tabulation

| 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) | |
| 45 | End | 76.074 | 0.12 | 0.12 | 0.78 | 0.09 | 0.09 | 10.0 | 10.0 | 6.5 | 0.61 | 0.97 | 4.44 | 6 | 3.01 | 765.71 | 768.00 | 766.00 | 768.40 | 768.71 | 771.50 | ROOF DRAIN - PI |
| 46 | End | 76.000 | 0.12 | 0.12 | 0.78 | 0.09 | 0.09 | 10.0 | 10.0 | 6.5 | 0.61 | 0.94 | 4.37 | 6 | 2.83 | 765.85 | 768.00 | 766.14 | 768.40 | 768.85 | 771.50 | ROOF DRAIN - PI |

Project File: Run 1.stm | Number of lines: 46 | Run Date: 2/19/2025

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

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




| | | |
|---|---|---|
| Project File: Run 2.stm | Number of lines: 22 | Date: 2/19/2025 |

Storm Sewers v2024.00

# Storm Sewer Tabulation

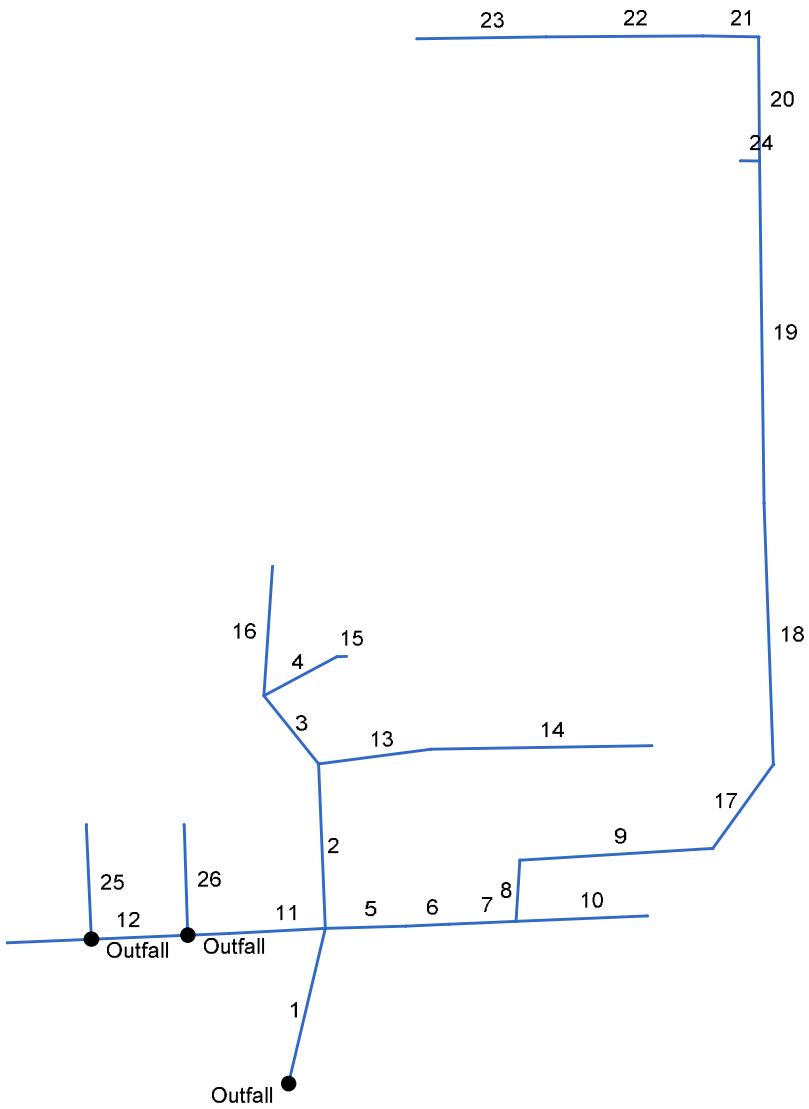


| Station | | Len | Drng Area | | Rnoff coeff | Area x C | | Tc | | Rain (I) | Total flow | Cap full | Vel | Pipe | | Invert Elev | | HGL Elev | | Grnd / Rim Elev | | Line ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | To Line | (ft) | Incr (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 | 62.415 | 0.23 | 1.08 | 0.78 | 0.18 | 0.84 | 10.0 | 17.3 | 5.2 | 4.40 | 6.05 | 7.21 | 12 | 2.88 | 763.00 | 764.80 | 763.63 | 765.68 | 763.00 | 768.90 | ST 2-1 - FES 2-1 |
| 2 | 1 | 58.381 | 0.00 | 0.30 | 0.78 | 0.00 | 0.23 | 15.0 | 16.5 | 5.3 | 1.25 | 4.09 | 4.00 | 12 | 1.32 | 765.40 | 766.17 | 765.78 | 766.64 | 768.90 | 770.75 | ST 2-2 - ST 2-1 |
| 3 | 2 | 44.333 | 0.03 | 0.28 | 0.78 | 0.02 | 0.22 | 15.0 | 16.3 | 5.4 | 1.17 | 1.30 | 4.14 | 8 | 1.15 | 766.17 | 766.68 | 766.67 | 767.19 | 770.75 | 770.30 | ST 2-3 - ST 2-2 |
| 4 | 3 | 38.875 | 0.03 | 0.25 | 0.78 | 0.02 | 0.20 | 15.0 | 16.1 | 5.4 | 1.05 | 1.30 | 3.76 | 8 | 1.16 | 766.68 | 767.13 | 767.19 | 767.62 | 770.30 | 770.30 | ST 2-4 - ST 2-3 |
| 5 | 4 | 25.213 | 0.02 | 0.06 | 0.78 | 0.02 | 0.05 | 15.0 | 15.8 | 5.4 | 0.26 | 0.57 | 2.02 | 6 | 1.03 | 767.21 | 767.47 | 767.62 | 767.72 | 770.30 | 770.75 | ST 2-5 - ST 2-4 |
| 6 | 5 | 12.726 | 0.02 | 0.04 | 0.78 | 0.02 | 0.03 | 15.0 | 15.5 | 5.5 | 0.17 | 0.57 | 1.97 | 6 | 1.02 | 767.47 | 767.60 | 767.72 | 767.81 | 770.75 | 770.75 | ST 2-6 - ST 2-5 |
| 7 | 6 | 14.559 | 0.02 | 0.02 | 0.78 | 0.02 | 0.02 | 15.0 | 15.0 | 5.6 | 0.09 | 0.57 | 1.49 | 6 | 1.03 | 767.60 | 767.75 | 767.81 | 767.90 | 770.75 | 770.75 | ST 2-7 - ST 2-6 |
| 8 | 4 | 21.192 | 0.03 | 0.16 | 0.78 | 0.02 | 0.12 | 15.0 | 15.0 | 5.6 | 0.70 | 1.17 | 2.90 | 8 | 0.94 | 767.13 | 767.33 | 767.62 | 767.72 | 770.30 | 770.50 | ST 2-8 - ST 2-4 |
| 9 | 2 | 31.799 | 0.02 | 0.02 | 0.78 | 0.02 | 0.02 | 10.0 | 10.0 | 6.5 | 0.10 | 0.56 | 2.04 | 6 | 1.01 | 767.68 | 768.00 | 767.82 | 768.16 | 770.75 | 771.00 | ST 2-9 - ST 2-2 |
| 10 | 1 | 80.515 | 0.00 | 0.27 | 0.78 | 0.00 | 0.21 | 15.0 | 16.4 | 5.4 | 1.13 | 4.42 | 4.01 | 12 | 1.54 | 765.40 | 766.64 | 765.74 | 767.09 | 768.90 | 770.80 | ST 2-10 - ST 2-1 |
| 11 | 10 | 26.155 | 0.02 | 0.27 | 0.78 | 0.02 | 0.21 | 15.0 | 16.3 | 5.4 | 1.13 | 1.25 | 4.03 | 8 | 1.07 | 766.64 | 766.92 | 767.14 | 767.42 | 770.80 | 770.40 | ST 2-11 - ST 2-10 |
| 12 | 11 | 23.297 | 0.02 | 0.24 | 0.78 | 0.02 | 0.19 | 15.0 | 16.1 | 5.4 | 1.01 | 1.15 | 3.67 | 8 | 0.90 | 766.92 | 767.13 | 767.42 | 767.61 | 770.40 | 770.40 | ST 2-12 - ST 2-11 |
| 13 | 12 | 24.087 | 0.02 | 0.06 | 0.78 | 0.02 | 0.05 | 15.0 | 15.8 | 5.4 | 0.25 | 0.56 | 2.01 | 6 | 1.00 | 767.20 | 767.44 | 767.61 | 767.69 | 770.40 | 770.75 | ST 2-13 - ST 2-12 |
| 14 | 13 | 17.031 | 0.02 | 0.04 | 0.78 | 0.02 | 0.03 | 15.0 | 15.5 | 5.5 | 0.17 | 0.56 | 1.97 | 6 | 1.00 | 767.44 | 767.61 | 767.69 | 767.82 | 770.75 | 770.75 | ST 2-14 - ST 2-13 |
| 15 | 14 | 13.881 | 0.02 | 0.02 | 0.78 | 0.02 | 0.02 | 15.0 | 15.0 | 5.6 | 0.09 | 0.56 | 1.49 | 6 | 1.01 | 767.61 | 767.75 | 767.82 | 767.90 | 770.75 | 770.75 | ST 2-15 - ST 2-14 |
| 16 | 12 | 43.661 | 0.03 | 0.16 | 0.78 | 0.02 | 0.12 | 15.0 | 15.0 | 5.6 | 0.70 | 1.16 | 2.92 | 8 | 0.92 | 767.13 | 767.53 | 767.61 | 767.92 | 770.40 | 770.70 | ST 2-16 - ST 2-12 |
| 17 | 11 | 28.127 | 0.01 | 0.01 | 0.78 | 0.01 | 0.01 | 10.0 | 10.0 | 6.5 | 0.05 | 0.63 | 1.75 | 6 | 1.24 | 767.40 | 767.75 | 767.50 | 767.86 | 770.40 | 770.75 | ST 2-17 - ST 2-11 |
| 18 | 1 | 125.751 | 0.20 | 0.28 | 0.78 | 0.16 | 0.22 | 10.0 | 11.3 | 6.2 | 1.36 | 2.46 | 2.49 | 12 | 0.48 | 764.80 | 765.40 | 765.68 | 765.94 | 768.90 | 768.90 | ST 2-18 - ST 2-1 |
| 19 | 18 | 65.274 | 0.04 | 0.04 | 0.78 | 0.03 | 0.03 | 10.0 | 10.0 | 6.5 | 0.20 | 1.01 | 3.18 | 6 | 3.22 | 765.90 | 768.00 | 766.05 | 768.23 | 768.90 | 771.50 | ROOF DRAIN - S |
| 20 | 18 | 79.713 | 0.04 | 0.04 | 0.78 | 0.03 | 0.03 | 10.0 | 10.0 | 6.5 | 0.20 | 0.91 | 3.04 | 6 | 2.63 | 765.90 | 768.00 | 766.06 | 768.23 | 768.90 | 771.50 | ROOF DRAIN - S |
| 21 | 8 | 21.056 | 0.13 | 0.13 | 0.78 | 0.10 | 0.10 | 10.0 | 10.0 | 6.5 | 0.66 | 0.86 | 4.33 | 6 | 2.37 | 767.50 | 768.00 | 767.83 | 768.41 | 770.50 | 771.50 | ROOF DRAIN - S |
| 22 | 16 | 8.653 | 0.13 | 0.13 | 0.78 | 0.10 | 0.10 | 10.0 | 10.0 | 6.5 | 0.66 | 1.04 | 4.72 | 6 | 3.47 | 767.70 | 768.00 | 767.99 | 768.41 | 770.70 | 771.50 | ROOF DRAIN - S |

Project File: Run 2.stm | Number of lines: 22 | Run Date: 2/19/2025

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

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




| Project File: Run 3.stm | Number of lines: 26 | Date: 2/18/2025 |
|---|---|---|

Storm Sewers v2024.00

# 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 | 75.098 | 0.00 | 3.10 | 0.78 | 0.00 | 2.42 | 10.0 | 23.8 | 4.5 | 11.19 | 12.24 | 4.42 | 24 | 0.29 | 762.00 | 762.22 | 763.50 | 763.72 | 762.00 | 769.25 | ST 3-1 - FES 3-1 |
| 2 | 1 | 77.663 | 0.00 | 0.77 | 0.78 | 0.00 | 0.60 | 10.0 | 23.1 | 4.5 | 2.72 | 3.58 | 1.55 | 18 | 0.12 | 762.22 | 762.31 | 763.72 | 763.77 | 769.25 | 770.07 | ST 3-2 - ST 3-1 |
| 3 | 2 | 41.038 | 0.11 | 0.71 | 0.78 | 0.09 | 0.55 | 10.0 | 10.3 | 6.4 | 3.56 | 3.90 | 2.91 | 15 | 0.37 | 762.31 | 762.46 | 763.77 | 763.90 | 770.07 | 770.40 | ST 3-3 - ST 3-2 |
| 4 | 3 | 38.839 | 0.00 | 0.46 | 0.78 | 0.00 | 0.36 | 10.0 | 10.0 | 6.5 | 2.33 | 3.08 | 2.97 | 12 | 0.75 | 762.46 | 762.75 | 763.90 | 764.06 | 770.40 | 770.40 | ST 3-4 - ST 3-3 |
| 5 | 1 | 37.698 | 0.20 | 2.16 | 0.78 | 0.16 | 1.68 | 10.0 | 14.6 | 5.6 | 9.49 | 11.65 | 3.79 | 24 | 0.27 | 762.22 | 762.32 | 763.72 | 763.80 | 769.25 | 768.95 | ST 3-5 - ST 3-1 |
| 6 | 5 | 20.315 | 0.10 | 1.96 | 0.78 | 0.08 | 1.53 | 10.0 | 14.5 | 5.7 | 8.64 | 10.03 | 3.48 | 24 | 0.20 | 762.32 | 762.36 | 763.80 | 763.83 | 768.95 | 768.95 | ST 3-6 - ST 3-5 |
| 7 | 6 | 31.557 | 0.00 | 1.86 | 0.78 | 0.00 | 1.45 | 10.0 | 14.3 | 5.7 | 8.25 | 10.65 | 3.35 | 24 | 0.22 | 762.36 | 762.43 | 763.83 | 763.88 | 768.95 | 769.17 | ST 3-7 - ST 3-6 |
| 8 | 7 | 28.868 | 0.00 | 1.55 | 0.78 | 0.00 | 1.21 | 10.0 | 14.2 | 5.7 | 6.90 | 7.31 | 3.97 | 18 | 0.49 | 762.43 | 762.57 | 763.88 | 763.98 | 769.17 | 769.63 | ST 3-8 - ST 3-7 |
| 9 | 8 | 90.798 | 0.00 | 1.55 | 0.78 | 0.00 | 1.21 | 10.0 | 13.8 | 5.8 | 6.98 | 7.23 | 4.15 | 18 | 0.47 | 762.57 | 763.00 | 763.98 | 764.31 | 769.63 | 769.48 | ST 3-9 - ST 3-8 |
| 10 | 7 | 61.715 | 0.31 | 0.31 | 0.78 | 0.24 | 0.24 | 10.0 | 10.0 | 6.5 | 1.57 | 2.48 | 3.35 | 12 | 0.49 | 764.50 | 764.80 | 765.08 | 765.38 | 769.17 | 768.30 | ST 3-10 - ST 3-7 |
| 11 | 1 | 45.440 | 0.06 | 0.17 | 0.78 | 0.05 | 0.13 | 10.0 | 11.4 | 6.2 | 1.22 | 2.48 | 3.14 | 12 | 0.48 | 765.03 | 765.25 | 765.53 | 765.75 | 769.25 | 769.45 | ST 3-11 - ST 3-1 |
| 12 | 11 | 104.061 | 0.11 | 0.11 | 0.78 | 0.09 | 0.09 | 10.0 | 10.0 | 6.5 | 0.96 | 2.47 | 2.80 | 12 | 0.48 | 765.25 | 765.75 | 765.75 | 766.16 | 769.45 | 769.25 | ST 3-12 - ST 3-11 |
| 13 | 2 | 53.340 | 0.04 | 0.06 | 0.78 | 0.03 | 0.05 | 15.0 | 21.9 | 4.7 | 0.22 | 1.15 | 2.39 | 8 | 0.90 | 764.72 | 765.20 | 764.92 | 765.41 | 770.07 | 769.20 | ST 3-13 - ST 3-2 |
| 14 | 13 | 103.556 | 0.02 | 0.02 | 0.78 | 0.02 | 0.02 | 15.0 | 15.0 | 5.6 | 0.09 | 1.14 | 1.32 | 8 | 0.90 | 765.20 | 766.13 | 765.41 | 766.26 | 769.20 | 769.30 | ST 3-14 - ST 3-13 |
| 15 | 4 | 4.369 | 0.46 | 0.46 | 0.78 | 0.36 | 0.36 | 10.0 | 10.0 | 6.5 | 2.33 | 3.41 | 2.97 | 12 | 0.92 | 762.75 | 762.79 | 764.06 | 764.08 | 770.40 | 771.00 | ROOF DRAIN - S |
| 16 | 3 | 61.032 | 0.14 | 0.14 | 0.78 | 0.11 | 0.11 | 10.0 | 10.0 | 6.5 | 0.71 | 0.89 | 4.51 | 6 | 2.51 | 766.97 | 768.50 | 767.31 | 768.92 | 770.40 | 771.50 | ROOF DRAIN - S |
| 17 | 9 | 48.653 | 0.14 | 1.55 | 0.78 | 0.11 | 1.21 | 10.0 | 13.6 | 5.8 | 7.02 | 7.22 | 4.35 | 18 | 0.47 | 763.00 | 763.23 | 764.31 | 764.49 | 769.48 | 768.46 | EX. MH - ST 3-9 |
| 18 | 17 | 123.291 | 0.16 | 1.41 | 0.78 | 0.12 | 1.10 | 10.0 | 13.2 | 5.9 | 6.46 | 5.84 | 5.26 | 15 | 0.82 | 763.23 | 764.24 | 764.49 | 765.73 | 768.46 | 769.29 | EXISTING PIPE |
| 19 | 18 | 161.276 | 0.13 | 1.25 | 0.78 | 0.10 | 0.98 | 10.0 | 12.7 | 6.0 | 5.82 | 4.85 | 4.74 | 15 | 0.56 | 764.54 | 765.45 | 765.79 | 767.10 | 769.29 | 769.55 | EXISTING PIPE |
| 20 | 19 | 58.489 | 0.27 | 0.66 | 0.78 | 0.21 | 0.51 | 10.0 | 12.4 | 6.0 | 3.09 | 3.33 | 3.94 | 12 | 0.87 | 765.55 | 766.06 | 767.10 | 767.54 | 769.55 | 769.41 | EXISTING PIPE |
| 21 | 20 | 26.230 | 0.16 | 0.39 | 0.78 | 0.12 | 0.30 | 10.0 | 12.3 | 6.0 | 1.84 | 1.97 | 2.34 | 12 | 0.31 | 766.06 | 766.14 | 767.54 | 767.61 | 769.41 | 769.94 | EXISTING PIPE |
| 22 | 21 | 73.760 | 0.12 | 0.23 | 0.78 | 0.09 | 0.18 | 10.0 | 11.4 | 6.2 | 1.11 | 2.81 | 1.42 | 12 | 0.62 | 766.14 | 766.60 | 767.61 | 767.68 | 769.94 | 769.70 | EXISTING PIPE |

Project File: Run 3.stm | Number of lines: 26 | Run Date: 2/18/2025

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 | 60.506 | 0.11 | 0.11 | 0.78 | 0.09 | 0.09 | 10.0 | 10.0 | 6.5 | 0.56 | 3.24 | 0.93 | 12 | 0.83 | 766.60 | 767.10 | 767.68 | 767.69 | 769.70 | 770.30 | EXISTING PIPE |
| 24 | 19 | 8.896 | 0.46 | 0.46 | 0.78 | 0.36 | 0.36 | 10.0 | 10.0 | 6.5 | 2.33 | 0.59 | 11.87 | 6 | 1.12 | 766.55 | 766.65 | 767.10 | 768.64 | 769.55 | 771.00 | EXISTING PIPE |
| 25 | End | 54.101 | 0.04 | 0.04 | 0.78 | 0.03 | 0.03 | 10.0 | 10.0 | 6.5 | 0.20 | 1.06 | 3.27 | 6 | 3.60 | 766.55 | 768.50 | 766.70 | 768.73 | 769.55 | 771.50 | ROOF DRAIN - PI |
| 26 | End | 52.144 | 0.04 | 0.04 | 0.78 | 0.03 | 0.03 | 10.0 | 10.0 | 6.5 | 0.20 | 1.07 | 3.27 | 6 | 3.64 | 766.60 | 768.50 | 766.75 | 768.73 | 769.60 | 771.50 | ROOF DRAIN - PI |

Project File: Run 3.stm | Number of lines: 26 | Run Date: 2/18/2025

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