

**PRELIMINARY  
STORMWATER  
DRAINAGE  
REPORT**

for

***QuikTrip Store #4452***

***1610 Plainfield Road  
Crest Hill, Will County, Illinois 60403***


***Prepared For:  
QuikTrip Corporation  
5725 Foxridge Drive  
Mission, Kansas 66202***

***Prepared By:  
Midwest Design Group  
P.O. Box 860015  
Shawnee, Kansas 66286-0015  
913.248.9385***

**ENGINEER'S CERTIFICATION**  
**Stormwater Drainage Report**  
**QuikTrip Store #4452**

1610 Plainfield Road  
Crest Hill, Will County, Illinois 60403

I Hereby Certify that this Engineering Document was prepared by me, or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Illinois.

  
\_\_\_\_\_  
Jonathon Smith, P.E.  
Project Manager  
IL Registration No. 062-073894

January 9, 2026  
\_\_\_\_\_  
Date



Seal

**REPORT PURPOSE**

This stormwater drainage report has been prepared to detail the stormwater drainage design for the QuikTrip Store #4452 facility to be located at the north corner of the intersection of Plainfield Road and Theodore Street in Crest Hill, Will County, Illinois. This study will confirm that the proposed development will comply with the design parameters set forth by the Crest Hill Stormwater Drainage and Detention Ordinance.

**PROJECT SUMMARY**

QuikTrip Corporation is proposing to build a new convenience store with fuel offerings in the north corner of the intersection of Plainfield Road and Theodore Street. The development will include a convenience store, auto fuel canopy, parking stalls, and associated sidewalk and curb and gutter. The store will be oriented to face Plainfield Road (southwest) with an auto fuel canopy southwest of the store. The new QuikTrip facility will be constructed on a parcel of land located in the Southeast ¼ of Section 31, Township 36 North, Range 10 East of the Third Principal Meridian in Crest Hill, Will County, Illinois. The land will be split into Lot 1 (87,201 sf), Lot 2 (71,685 sf), and Tract A (53,529 sf). The new QuikTrip project will be constructed on Lot 1 and a detention facility will be constructed on Tract A that will serve both Lots 1 and 2. The entire property will contain 212,415 s.f. (4.876 acres). The Overall Site Plan (C010) and Site Plan (C100) have been included in the Appendix of this report for reference.

## WATERSHED

This property lies within the Des Plaines River Watershed. The detention facility will outlet north using the existing control structure's outlet pipe, which outlets to a ditch along Knapp Drive which drains to an outlet point under Larkin Avenue to the Rock Run located along the west side of Larkin Avenue. Ultimately, runoff drains to the Des Plaines River. Refer to FEMA and USGS map in the Appendix.

## FLOODPLAIN CERTIFICATE

According to the National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) Panel No. 17197C0161G, effective February 15, 2019, as published by the Federal Emergency Management Agency, the subject property lies mostly within Flood Zone "X", areas determined to be "outside the 0.2% annual chance floodplain". It appears a minimal portion of the south corner of the property is within Zone AE, but no grading or improvements are proposed in this area.



Map taken from FIRM Panel Number 17197C0161G, dated February 15, 2019.



## SITE SOIL CHARACTERISTICS

This property contains the following soil classifications:

- 149A – Brenton Silt Loam, 0-2% slopes, HSG B/D
- 223C2 – Varna Silt Loam, 4-6% slopes, HSG C
- 223D2 – Varna Silt Loam, 6-12% slopes, HSG C
- 329A – Will silty clay loam, 0-2% slopes, HSG B/D

The USDA/NRCS soil survey can be found in the Appendix.



Map taken from USDA/NRCS Soil Survey

## WETLANDS

Per the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) map, there are no wetlands present within the property. Refer to the Appendix for the NWI map.



## **METHODOLOGY**

The proposed drainage characteristics of the site were evaluated and analyzed based on the Crest Hill Stormwater Drainage and Detention Ordinance criteria. Hydrologic calculations were performed and detention requirements were determined using the Autodesk Hydraflow Hydrographs program (SCS Method). Runoff curve numbers of 80 for proposed pervious areas and 98 for impervious areas were used. Illinois State Water Survey (ISWS) Bulletin 75 rainfall data was used with Huff 3<sup>rd</sup> Quartile distribution for a 24-hour storm event.

## **EXISTING DEVELOPMENT**

The existing property is currently partially developed with a commercial development (Crest Hill Public Works) within Lot 1 and part of Tract A. Lot 2 was previously rough graded and storm sewer was installed for a pad site but was never fully developed. Tract A was also previously partially developed as a pad site and an existing detention facility was constructed. It appears Lot 2 and Tract A drain to the existing detention facility but it does not appear that the Crest Hill Public Works building development drains to the existing detention facility. The property is bordered on the east by Knapp Drive, on the northwest by an adjacent commercial property, on the southwest by Plainfield Road, and on the south by Theodore Street.

In the existing conditions, the site generally drains from southwest to northeast either into the detention facility or into Knapp Drive. It appears the southern corner of the site drains directly into Rock Run. The rest of the site drains either directly into Knapp Drive, which appears to have drainage swales adjacent to the property, or through the detention facility which then outlets north and it is assumed it ultimately drains to Rock Run.

The existing site contains approximately 75,122 sf of impervious areas (35.4%), 1,746 sf of gravel area (0.8%), and 135,547 sf of pervious areas (63.8%). A pre-development runoff coefficient and Curve Number was calculated for all drainage areas using the NRCS Soils Report and TR-55 runoff coefficient tables. The pre-development composite runoff coefficient and Curve Number (CN) is 0.52 and 86.5, accordingly. The associated calculations are included in the Appendix. Refer to the Pre-Developed Drainage Map in the Appendix (**Pending final report**).

## **PROPOSED DEVELOPMENT**

The proposed development will be graded to generally maintain existing drainage patterns. Stormwater runoff from the QuikTrip development will be captured and conveyed in private storm sewers to the detention facility within Tract A. The private storm sewer has been designed to convey the 100-year design storm. The proposed detention facility will have a control structure to reduce peak runoff from the proposed improvements. The proposed control structure will utilize the existing outlet pipe from the existing control structure.

For this preliminary report, simplified drainage areas were used for analysis purposes. Drainage area "Detained" is the estimated area that will be detained in full build out condition (when Lots 1 and 2 are fully developed). A Curve Number (CN) value of 95 was assumed based on the TR-55 Manual, using a cover type of Urban Districts, Commercial and Businesses and Hydrologic Soil Group (HSG) D. It is preliminarily estimated that 12% of the total site area will not be

captured and will be uncontrolled runoff (Drainage area “Uncontrolled”). A CN Value of 85 was assumed for the uncontrolled area.

It is estimated the full build out condition will contain 172,665 sf of impervious areas (81.3%) and 39,750 sf of pervious areas (18.7%). This is an increase of 95,797 square feet in impervious area from existing conditions. A post-development runoff coefficient and Curve Number was calculated for all drainage areas using the NRCS Soils Report and TR-55 runoff coefficient tables. The post-development composite runoff coefficient and Curve Number (CN) is 0.79 and 94.6, accordingly. The proposed storm sewer system, detention facilities, and associated calculations are included in the Appendix. Refer to the Post-Developed Drainage Map in the Appendix (**Pending final report**).

## **DETENTION REQUIREMENTS**

Per the Crest Hill Stormwater Drainage and Detention Ordinance, *“The peak discharge from events less than or equal to the two-year event shall not be greater than 0.04 cfs per acre of property drained. The peak 100-year discharge shall not be greater than 0.15 cfs per acres of property drained.”*

The total property drained is 4.876 acres, which results in allowable release rates for the 2-year and 100-year storm events of 0.195 cfs and 0.731 cfs, accordingly. Peak discharges from the facility will be controlled through a control structure with an internal weir wall and multi-stage orifices. Additional detention information and design calculations can be found in the Appendix.

## **DOWNSTREAM DRAINAGE IMPACTS**

The proposed stormwater detention facilities will control peak runoff so that there will be no adverse impacts to downstream drainage facilities.

## **STORMWATER TREATMENT**

QuikTrip will install SNOUT water quality units upstream of the detention facility and in the detention outlet structure. Bio-skirts will be added to the SNOUT units for oil absorption. Information on these water quality units can be found in the Appendix.

## **FLOOD STUDY**

The QuikTrip Store No. 4452 improvements will be within Zone “X” on the property, as shown in the Floodplain Certificate section. This development is not expected to incur damages as a result of flooding.

## **U.S. ARMY CORPS OF ENGINEERS REQUIREMENTS**

The QuikTrip Store No. 4452 project will not disturb jurisdictional waters or wetlands of the U.S.

## CONCLUSION

The QuikTrip Store No. 4452 development will comply with the design parameters set forth by the Crest Hill Stormwater Drainage and Detention Ordinance. The existing detention pond provides approximately 75,213 cubic-feet of detention volume (at elevation 603.00). The existing detention pond will be removed and replaced with a new detention facility that will provide 153,030 cubic-feet of volume (at elevation 603.00). The required detention volume, based on the CN assumptions described in the *Proposed Development* section, will be approximately 106,476 cubic-feet and will be provided at pond elevation 601.72. A stormwater detention facility has been designed to control the peak stormwater runoff from Lots 1 and 2 and Tract A (see table below for release rate summary). A private stormwater drainage system will convey runoff to the stormwater detention facility. Best Management Practices will be implemented to help improve water quality. No adverse effects are expected on adjacent properties or downstream drainage systems after the proposed improvements are completed.

Allowable Release Rates vs Post-Developed Release Rates Summary

Storm Event	Allowable Release Rate (cfs)	Post-Developed Peak Release Rate (cfs)
2-year	0.195	0.179
100-year	0.731	0.686



## ***QuikTrip Store #4452***

***1610 Plainfield Road  
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## **APPENDIX**

# ***QuikTrip Store #4452***

## **AutoDesk Hydraflow Hydrographs Results**

# Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

**1 - Detained**



**3 - Detention**



**2 - Uncontrolled**



**4 - PR-Outlet**





# Hydraflow Rainfall Report

Precip. file name: \\DESKTOP-HIMC8GB\Documents\IL Northeast Precip (Bulletin 75-HUFF) Depths.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	0.00	0.00	3.30	0.00	5.77	5.83	0.00
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	4.33	0.00
Huff-1st	0.00	0.00	0.00	2.75	0.00	5.38	6.50	0.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	3.34	0.00	0.00	5.15	0.00	0.00	8.57
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	0.00	0.00	2.80	0.00	5.25	6.00	0.00



# Pond Report

## Pond No. 3 - Detention

### Pond Data

**Contours** -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 596.00 ft

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	596.00	00	0	0
1.00	597.00	10,000	3,333	3,333
2.00	598.00	15,000	12,415	15,748
3.00	599.00	20,000	17,438	33,186
4.00	600.00	25,000	22,451	55,637
5.00	601.00	30,000	27,459	83,097
6.00	602.00	35,000	32,465	115,561
7.00	603.00	40,000	37,468	153,030

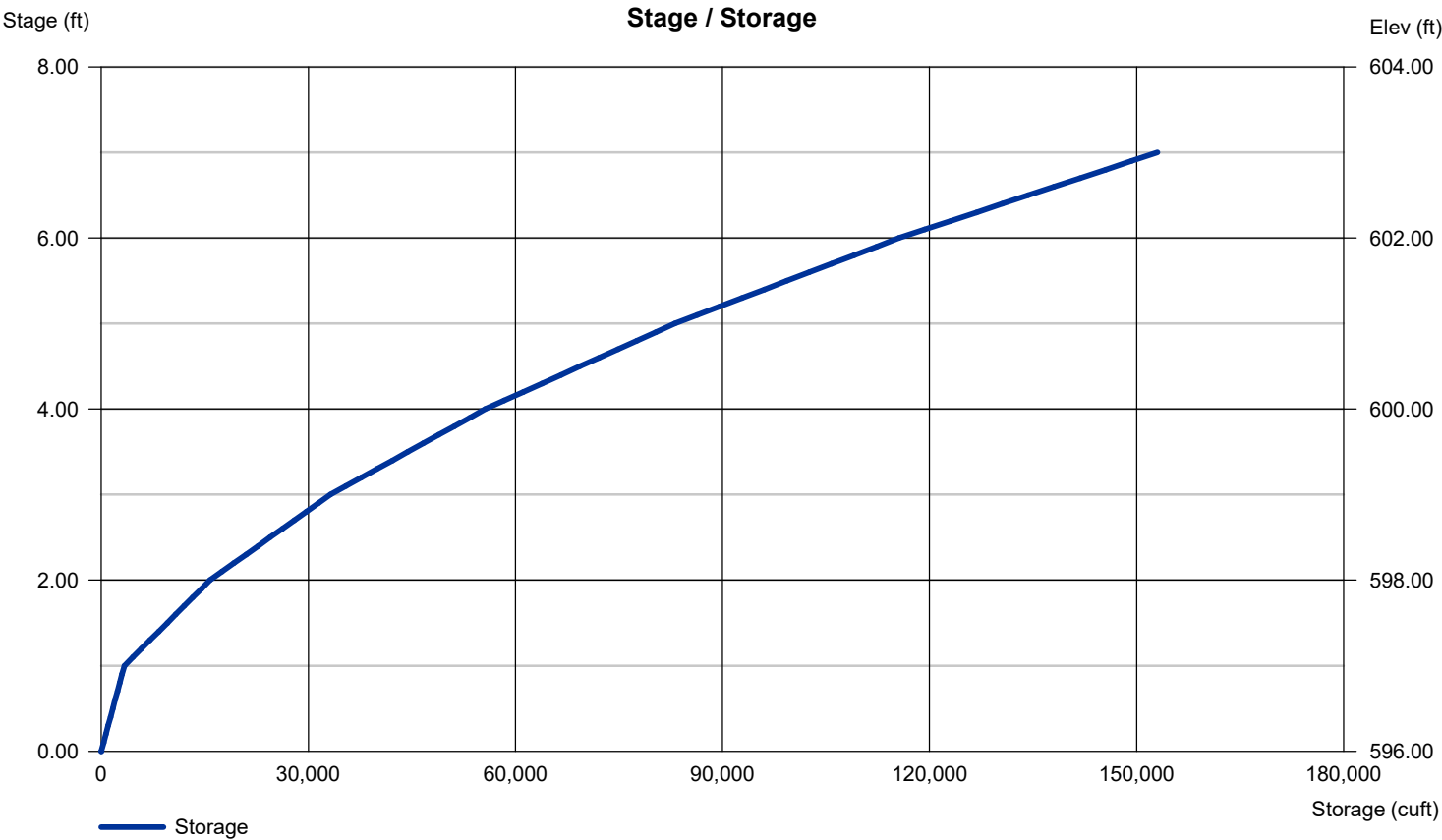
### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.75	2.25	0.00	0.00
Span (in)	= 0.75	2.25	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 596.00	599.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

### Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).





# Pond Report

## Pond No. 3 - Detention

### Pond Data

**Contours** -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 596.00 ft

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	596.00	00	0	0
1.00	597.00	10,000	3,333	3,333
2.00	598.00	15,000	12,415	15,748
3.00	599.00	20,000	17,438	33,186
4.00	600.00	25,000	22,451	55,637
5.00	601.00	30,000	27,459	83,097
6.00	602.00	35,000	32,465	115,561
7.00	603.00	40,000	37,468	153,030

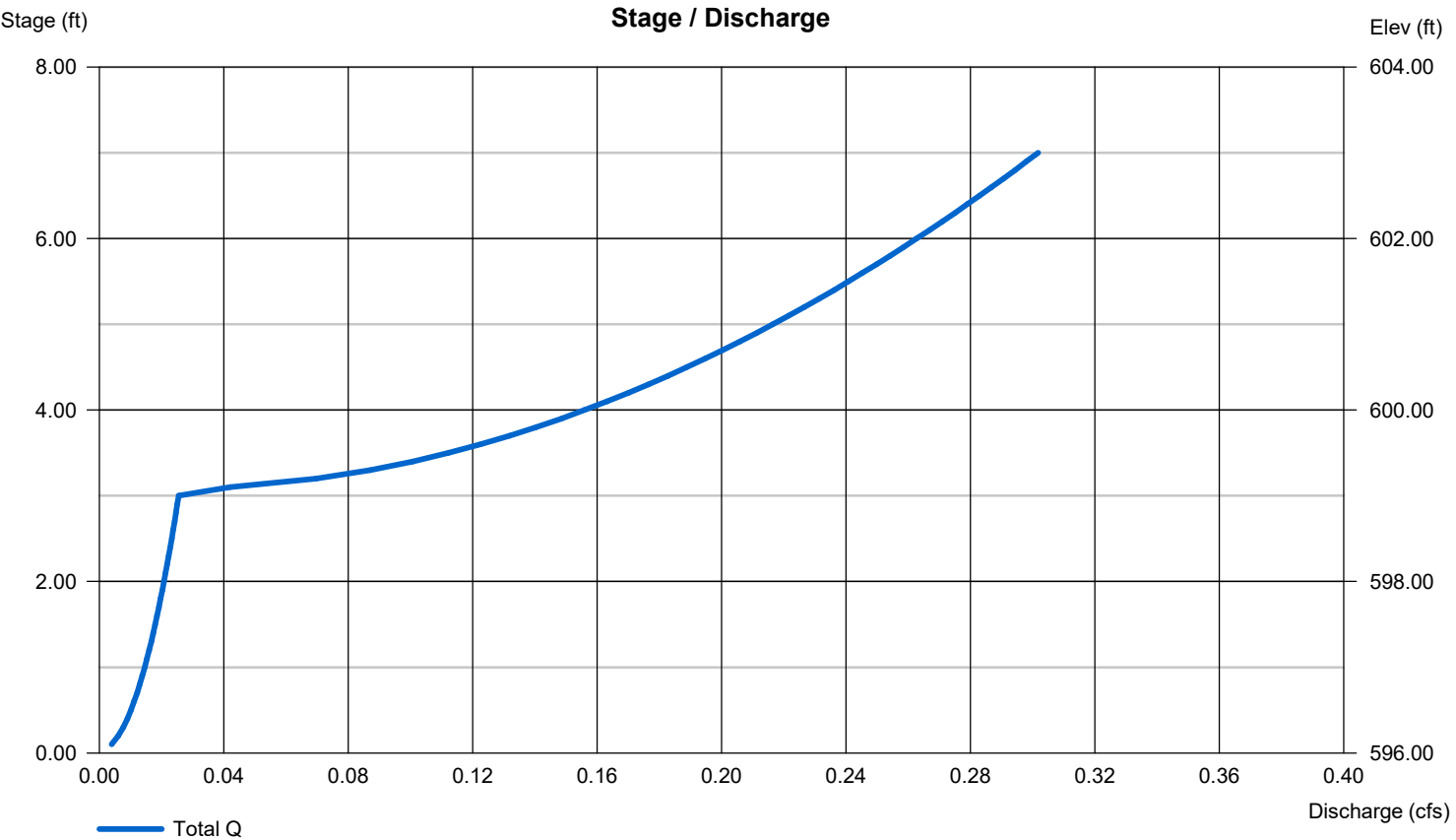
### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.75	2.25	0.00	0.00
Span (in)	= 0.75	2.25	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 596.00	599.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

### Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



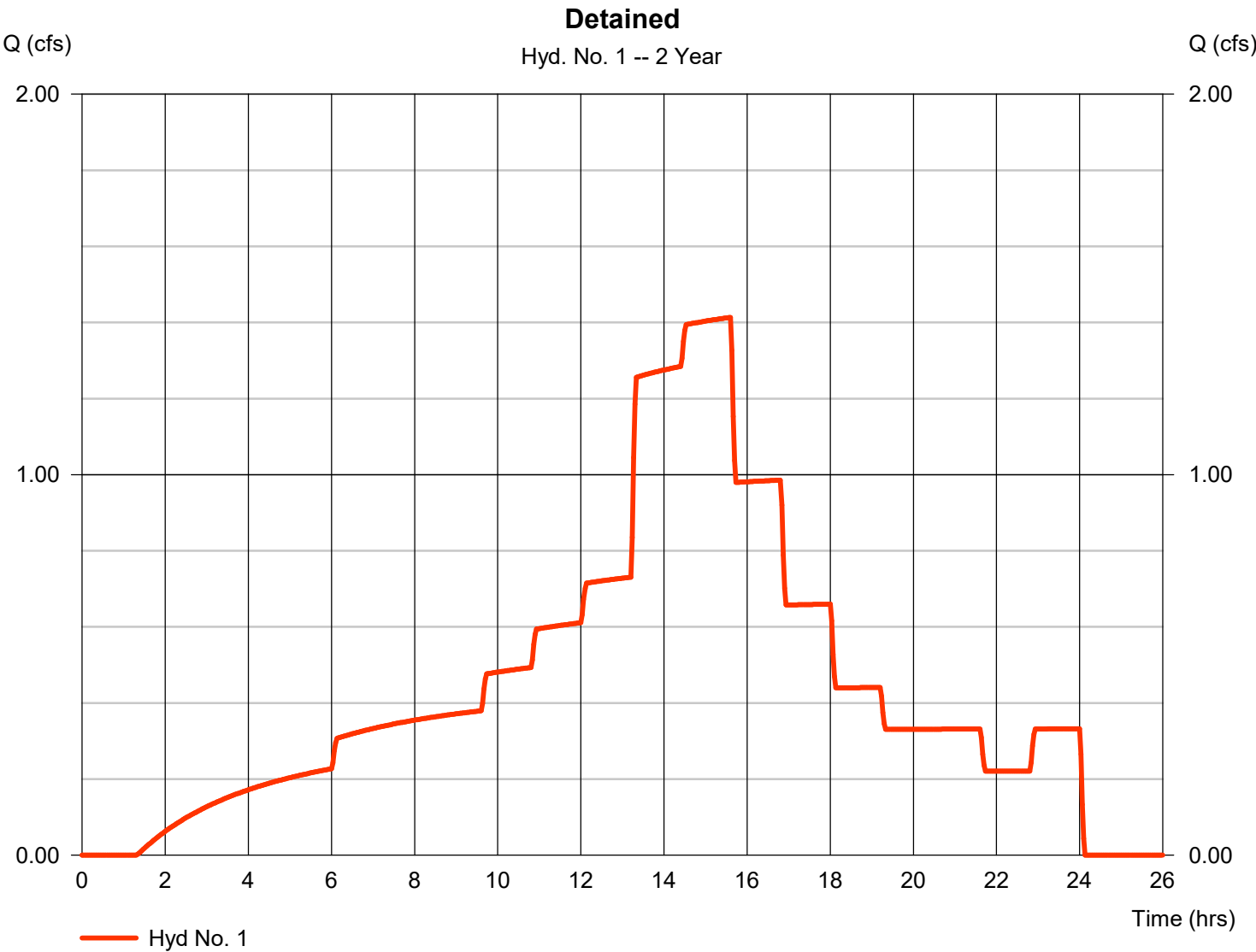
# Hydrograph Report

## Hyd. No. 1

Detained

Hydrograph type	=	SCS Runoff	Peak discharge	=	1.413 cfs
Storm frequency	=	2 yrs	Time to peak	=	15.60 hrs
Time interval	=	2 min	Hyd. volume	=	40,626 cuft
Drainage area	=	4.291 ac	Curve number	=	95*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	5.00 min
Total precip.	=	3.34 in	Distribution	=	Huff-3rd
Storm duration	=	24.00 hrs	Shape factor	=	484

\* Composite (Area/CN) = [(1.550 x 98) + (0.560 x 80)] / 4.291

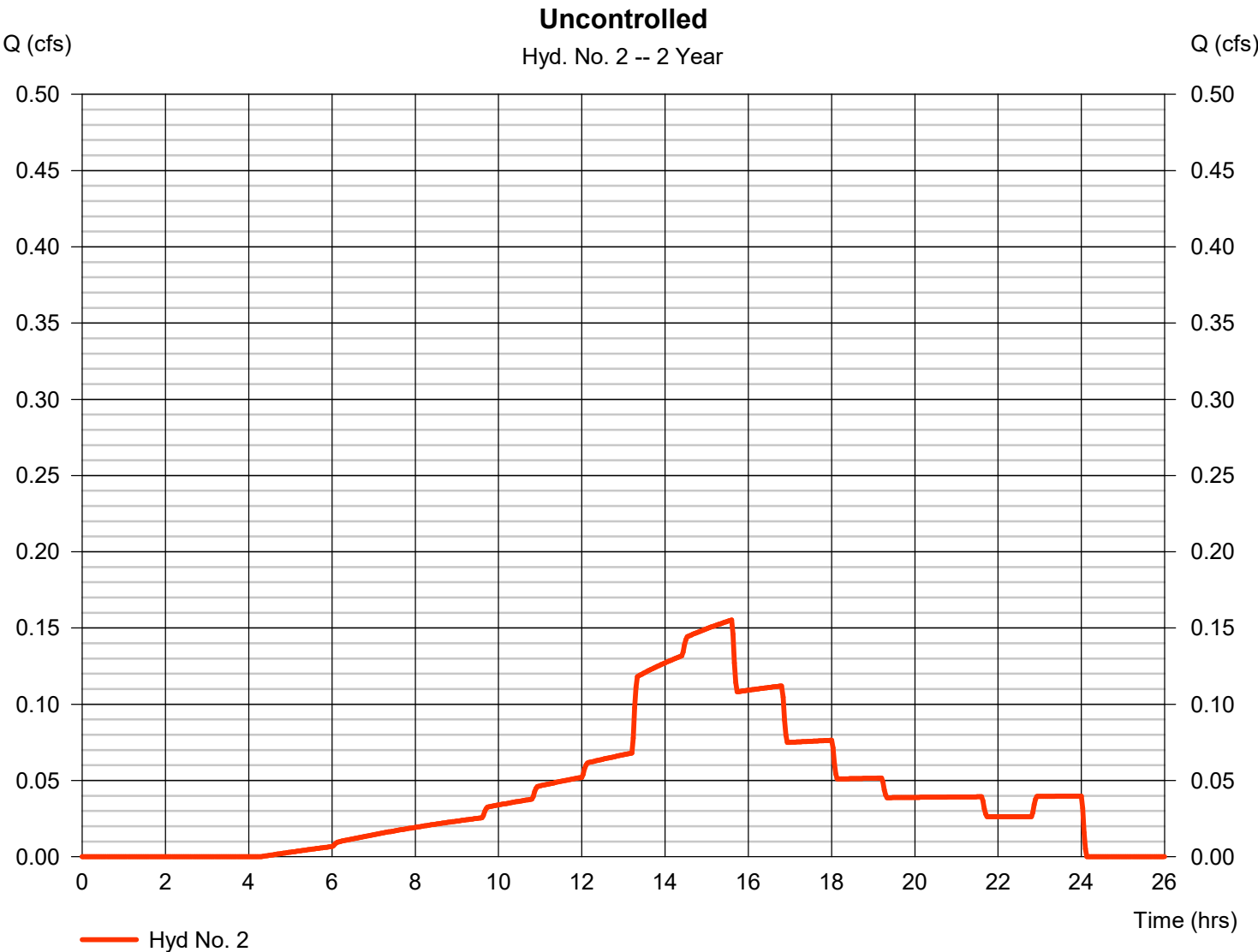


# Hydrograph Report

## Hyd. No. 2

Uncontrolled

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.155 cfs
Storm frequency	=	2 yrs	Time to peak	=	15.60 hrs
Time interval	=	2 min	Hyd. volume	=	3,738 cuft
Drainage area	=	0.585 ac	Curve number	=	85
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	5.00 min
Total precip.	=	3.34 in	Distribution	=	Huff-3rd
Storm duration	=	24.00 hrs	Shape factor	=	484



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

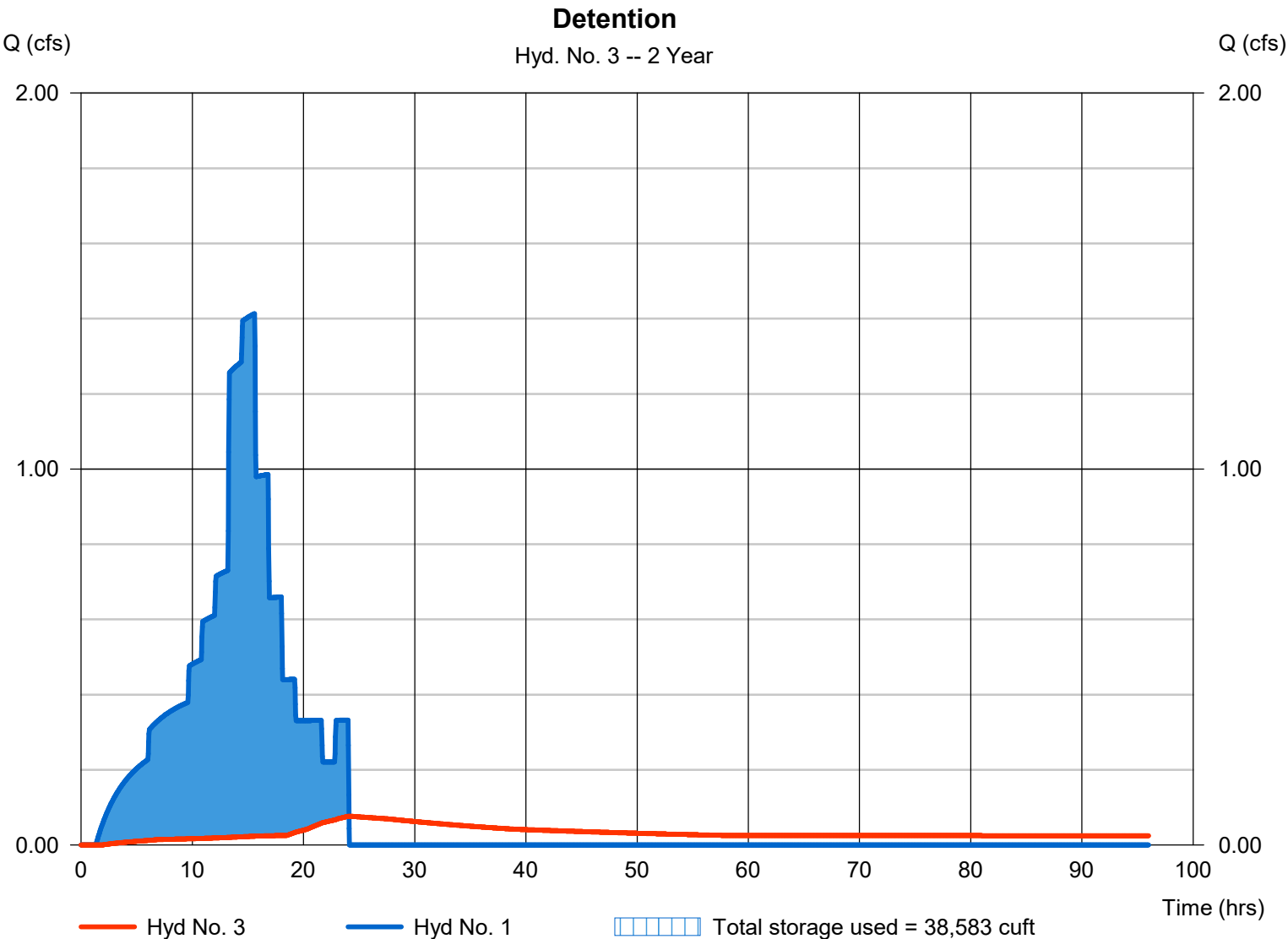
Wednesday, 02 / 26 / 2025

## Hyd. No. 3

### Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.077 cfs
Storm frequency	= 2 yrs	Time to peak	= 24.10 hrs
Time interval	= 2 min	Hyd. volume	= 10,878 cuft
Inflow hyd. No.	= 1 - Detained	Max. Elevation	= 599.24 ft
Reservoir name	= Detention	Max. Storage	= 38,583 cuft

Storage Indication method used.

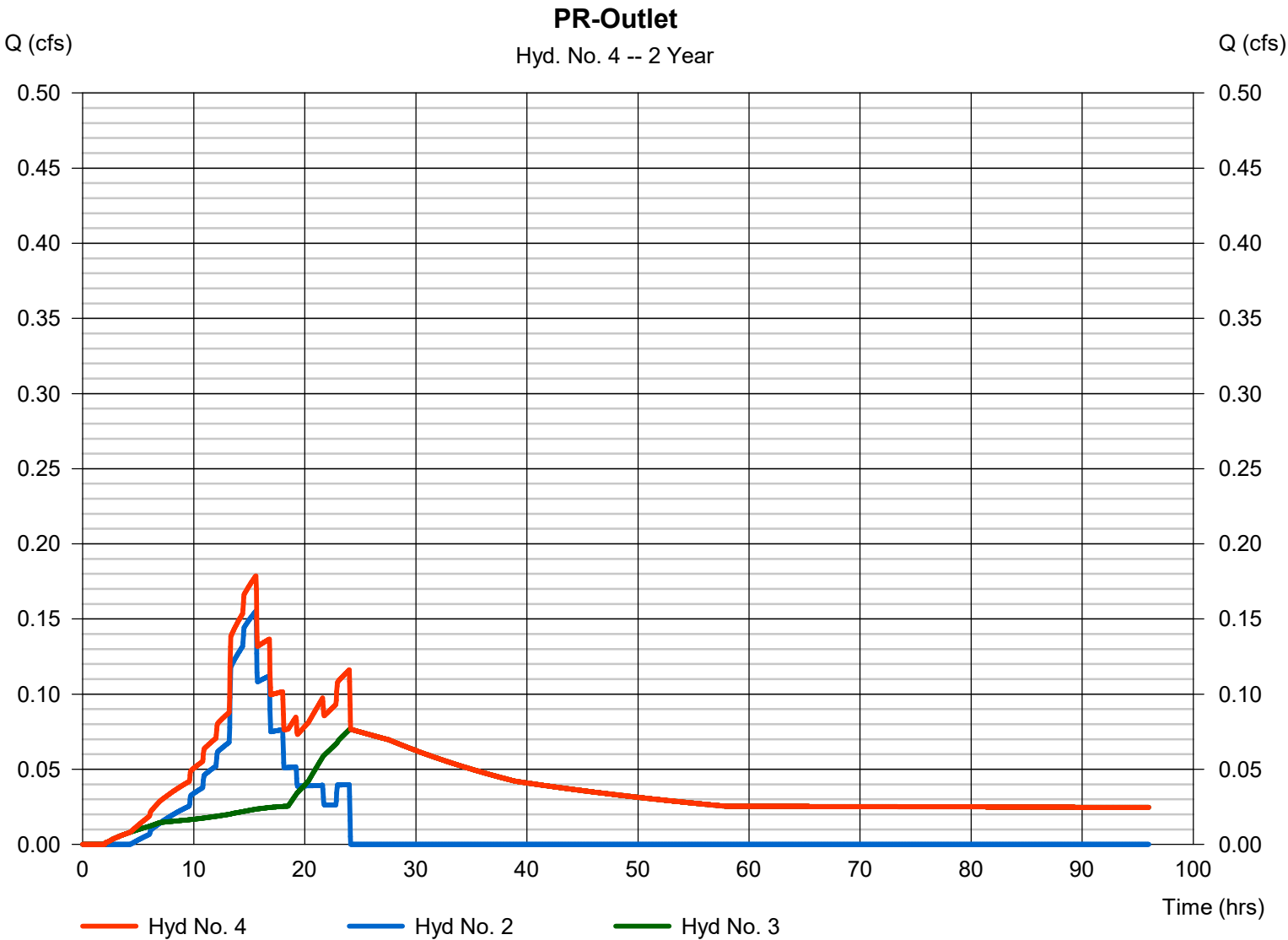


# Hydrograph Report

## Hyd. No. 4

PR-Outlet

Hydrograph type	= Combine	Peak discharge	= 0.179 cfs
Storm frequency	= 2 yrs	Time to peak	= 15.60 hrs
Time interval	= 2 min	Hyd. volume	= 14,617 cuft
Inflow hyds.	= 2, 3	Contrib. drain. area	= 0.585 ac



# Hydrograph Report

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Wednesday, 02 / 26 / 2025

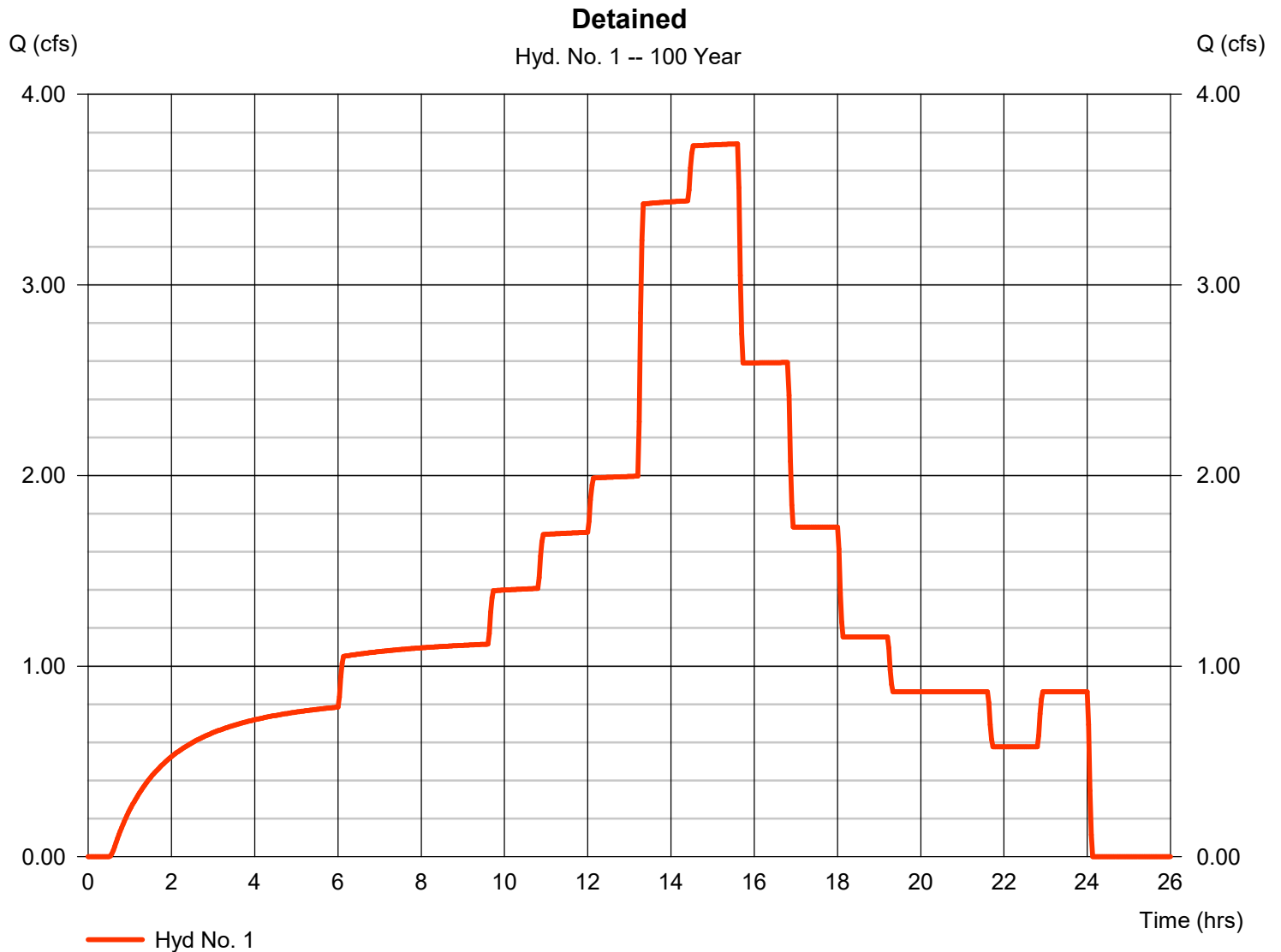
## Hyd. No. 1

Detained

Hydrograph type = SCS Runoff  
 Storm frequency = 100 yrs  
 Time interval = 2 min  
 Drainage area = 4.291 ac  
 Basin Slope = 0.0 %  
 Tc method = User  
 Total precip. = 8.57 in  
 Storm duration = 24.00 hrs

Peak discharge = 3.740 cfs  
 Time to peak = 15.60 hrs  
 Hyd. volume = 116,373 cuft  
 Curve number = 95\*  
 Hydraulic length = 0 ft  
 Time of conc. (Tc) = 5.00 min  
 Distribution = Huff-3rd  
 Shape factor = 484

\* Composite (Area/CN) =  $[(1.550 \times 98) + (0.560 \times 80)] / 4.291$



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

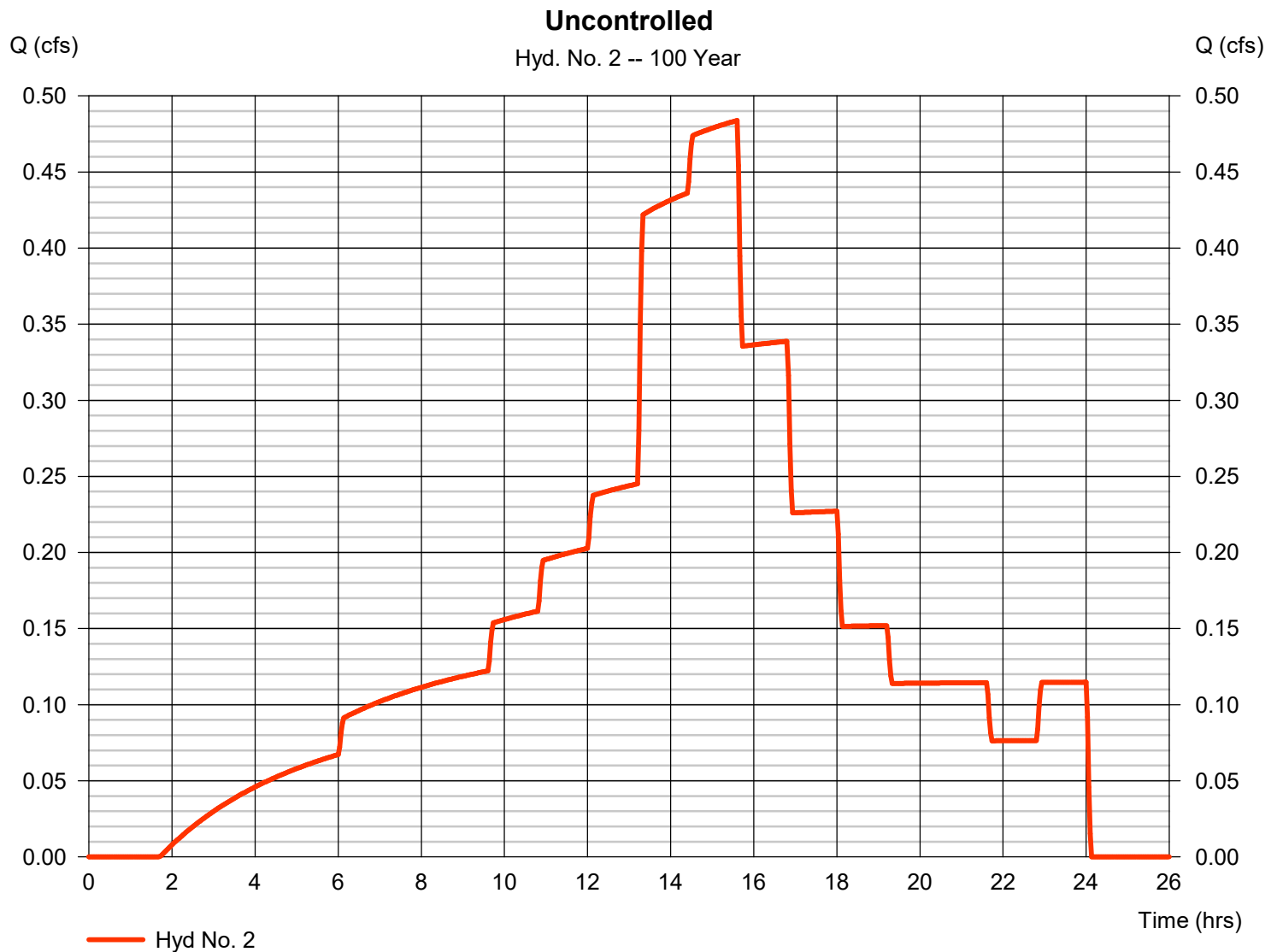
Wednesday, 02 / 26 / 2025

## Hyd. No. 2

Uncontrolled

Hydrograph type = SCS Runoff  
 Storm frequency = 100 yrs  
 Time interval = 2 min  
 Drainage area = 0.585 ac  
 Basin Slope = 0.0 %  
 Tc method = User  
 Total precip. = 8.57 in  
 Storm duration = 24.00 hrs

Peak discharge = 0.484 cfs  
 Time to peak = 15.60 hrs  
 Hyd. volume = 13,467 cuft  
 Curve number = 85  
 Hydraulic length = 0 ft  
 Time of conc. (Tc) = 5.00 min  
 Distribution = Huff-3rd  
 Shape factor = 484





# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

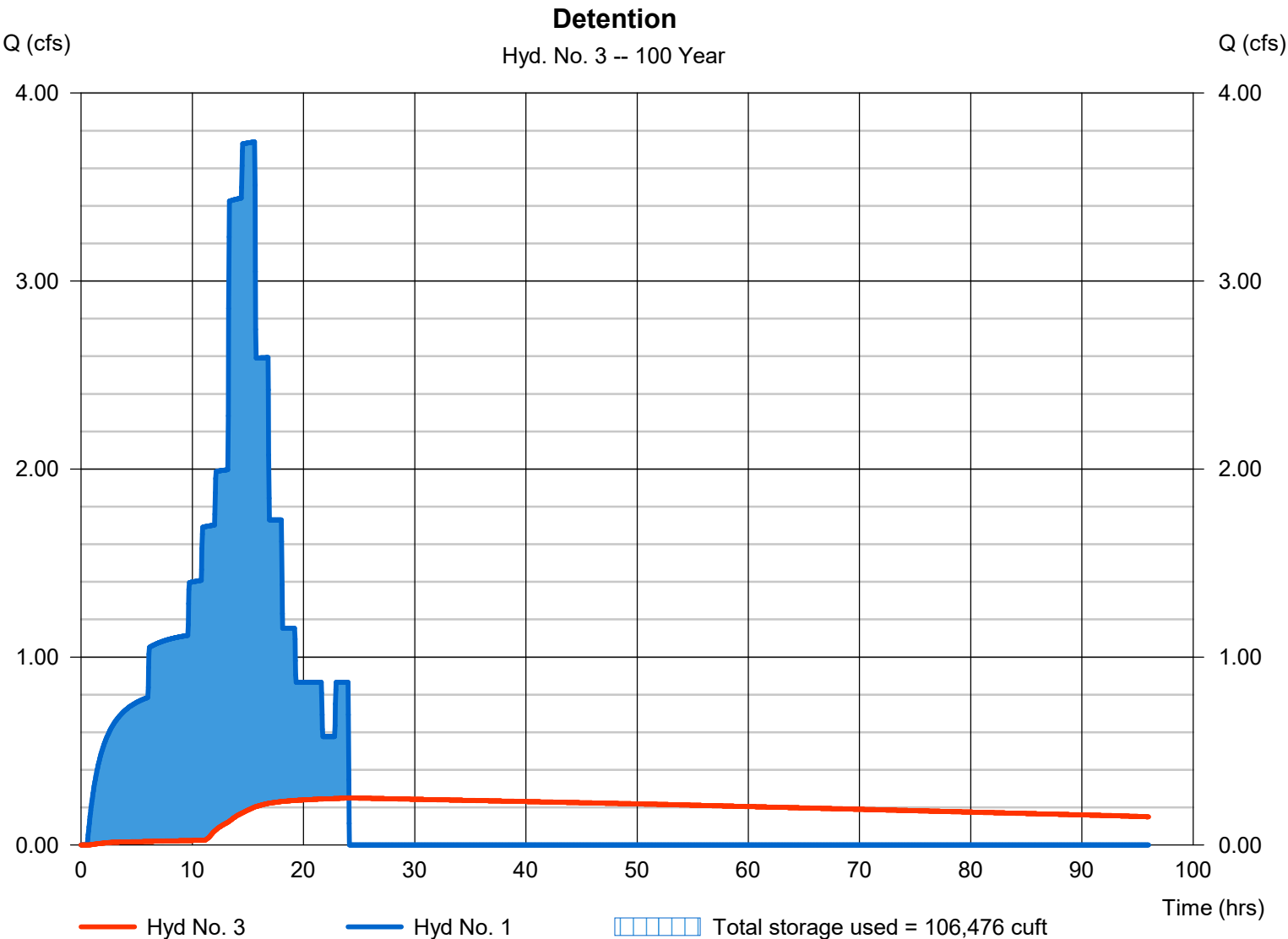
Wednesday, 02 / 26 / 2025

## Hyd. No. 3

### Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.251 cfs
Storm frequency	= 100 yrs	Time to peak	= 24.07 hrs
Time interval	= 2 min	Hyd. volume	= 62,483 cuft
Inflow hyd. No.	= 1 - Detained	Max. Elevation	= 601.72 ft
Reservoir name	= Detention	Max. Storage	= 106,476 cuft

Storage Indication method used.



# Hydrograph Report

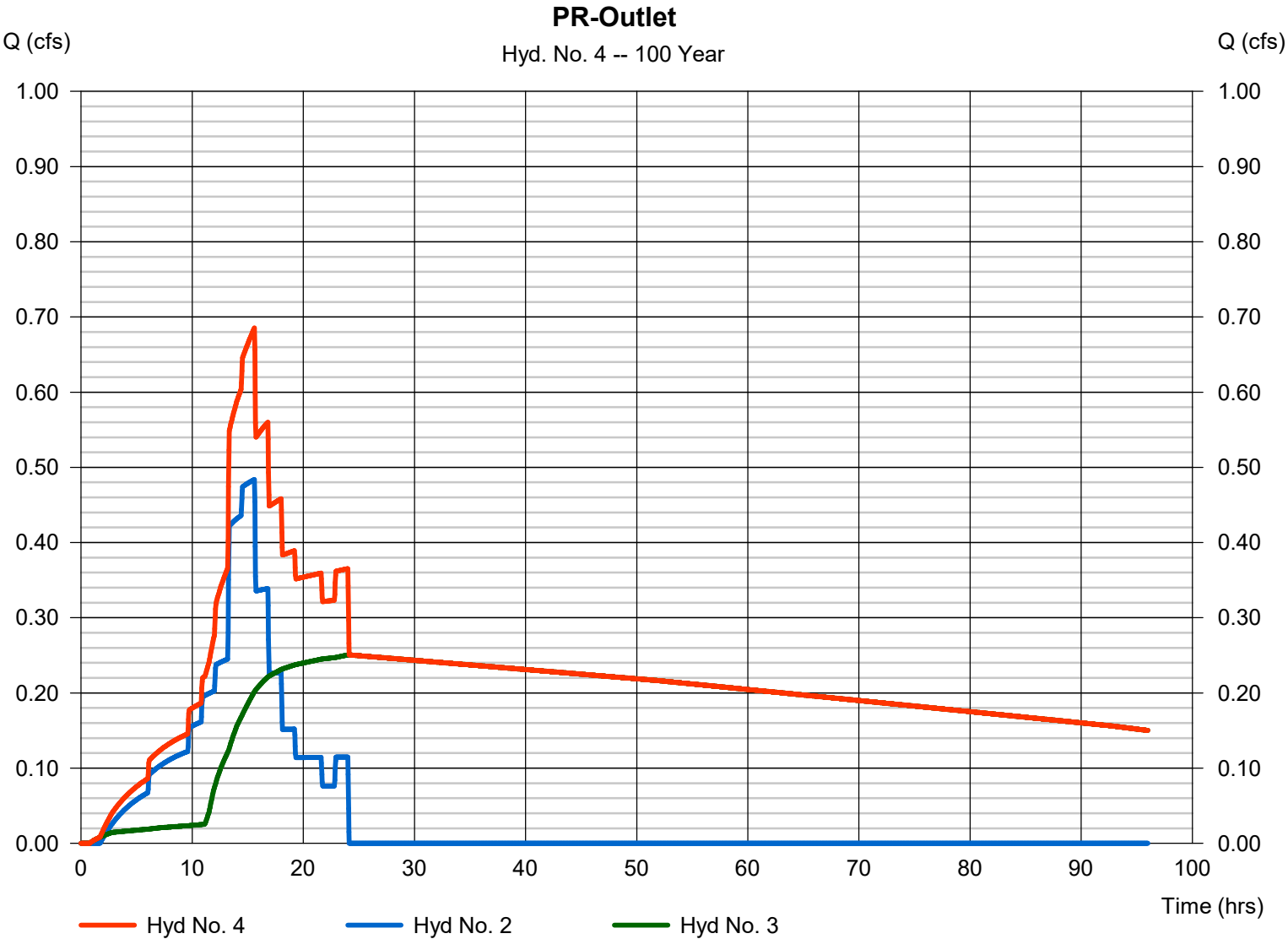
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

Wednesday, 02 / 26 / 2025

## Hyd. No. 4

PR-Outlet

Hydrograph type	= Combine	Peak discharge	= 0.686 cfs
Storm frequency	= 100 yrs	Time to peak	= 15.60 hrs
Time interval	= 2 min	Hyd. volume	= 75,950 cuft
Inflow hyds.	= 2, 3	Contrib. drain. area	= 0.585 ac



## ***QuikTrip Store #4452***


- **NRCS Soils Report**
- **NWI Wetland Map**
- **USGS Maps**
- **FEMA Maps**

Hydrologic Soil Group—Will County, Illinois  
(QT4452 Spring Hill)




## MAP LEGEND

### Area of Interest (AOI)









 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons





 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Lines

 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Points






 A  
 A/D  
 B  
 B/D

 C  
 C/D  
 D  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Will County, Illinois  
Survey Area Data: Version 19, Aug 21, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 7, 2020—Oct 13, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
149A	Brenton silt loam, 0 to 2 percent slopes	B/D	0.6	10.9%
223C2	Varna silt loam, 4 to 6 percent slopes, eroded	C	1.0	18.1%
223D2	Varna silt loam, 6 to 12 percent slopes, eroded	C	3.6	64.2%
329A	Will silty clay loam, 0 to 2 percent slopes	B/D	0.4	6.8%
<b>Totals for Area of Interest</b>			<b>5.6</b>	<b>100.0%</b>



## Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

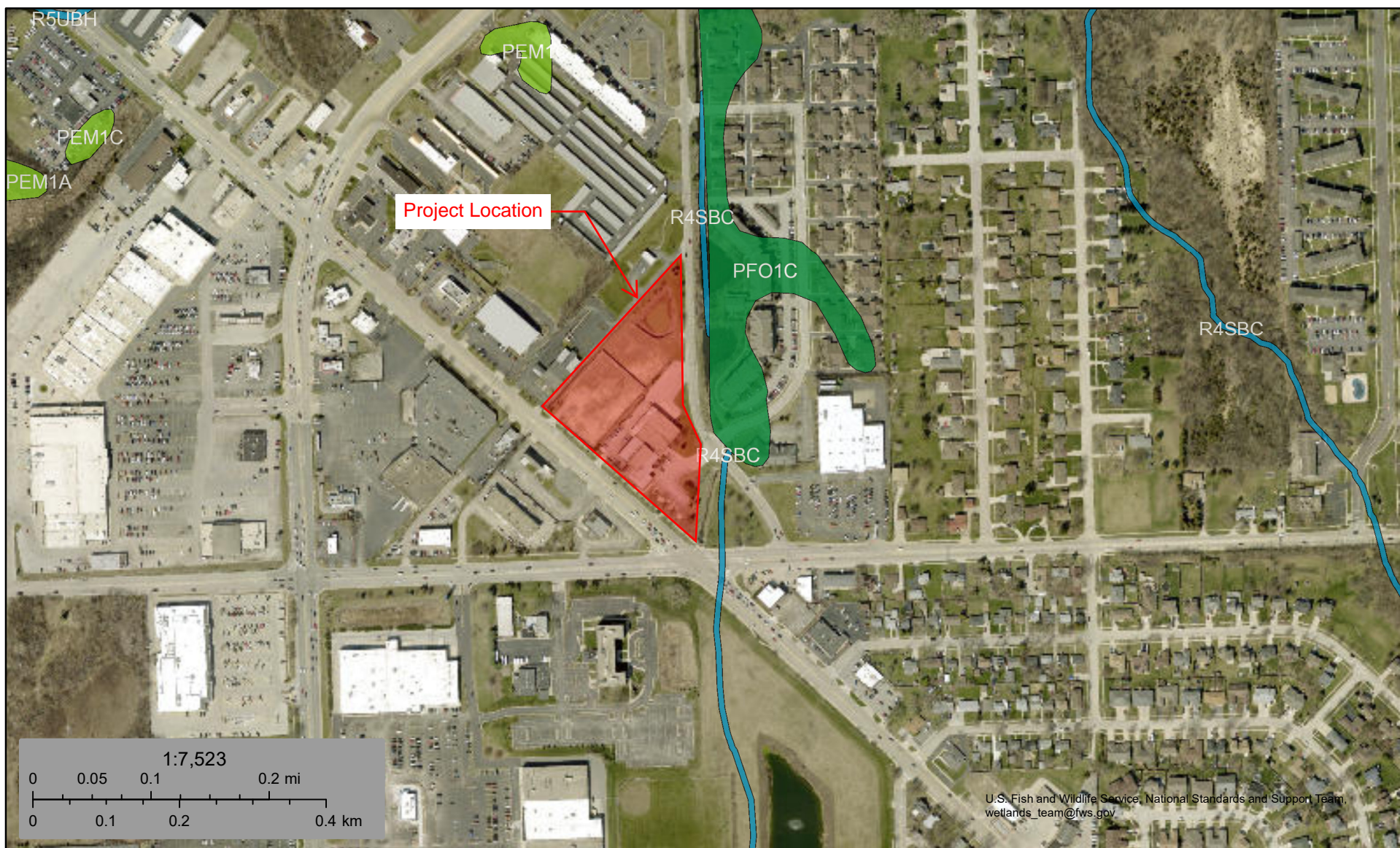




U.S. Fish and Wildlife Service

# National Wetlands Inventory

QT4452 Crest Hill



February 25, 2025

## Wetlands

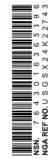
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



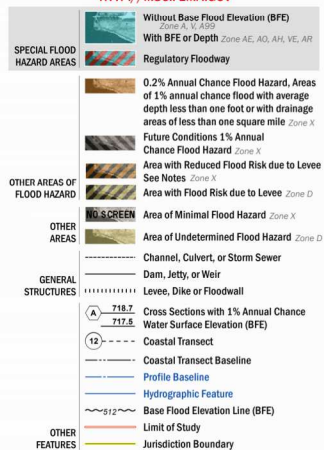






## FLOOD HAZARD INFORMATION

SEE FIRM REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT  
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING  
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT  
[HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)



## NOTES TO USERS

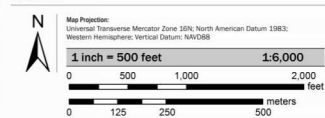
For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with the FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information Exchange at 1-877-FEMA-MAI (1-877-362-6277) or visit the FEMA Flood Map Service Center website at <http://fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of the map. Many of these products can be obtained directly from the website.

For community and countywide map dates refer to the Flood Insurance Study report for the jurisdiction. To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6820.

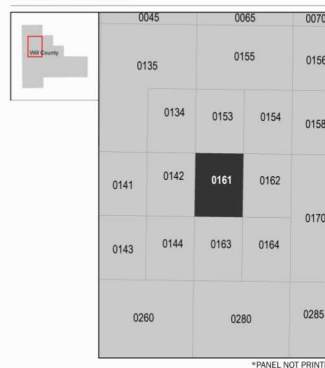
Base map information shown on the FIRM was provided in digital format by Will County, Illinois. This information was derived from digital orthophotography at a spatial resolution of 4 inches where available and 8 inches otherwise, from aerial photography dated 2013.

ILLINOIS  
Illinois State Water Survey  
FEMA REGIONAL OFFICE

## SCALE



## PANEL LOCATOR



## NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

WILL COUNTY, ILLINOIS  
and Incorporated Areas

PANEL 161 or 585



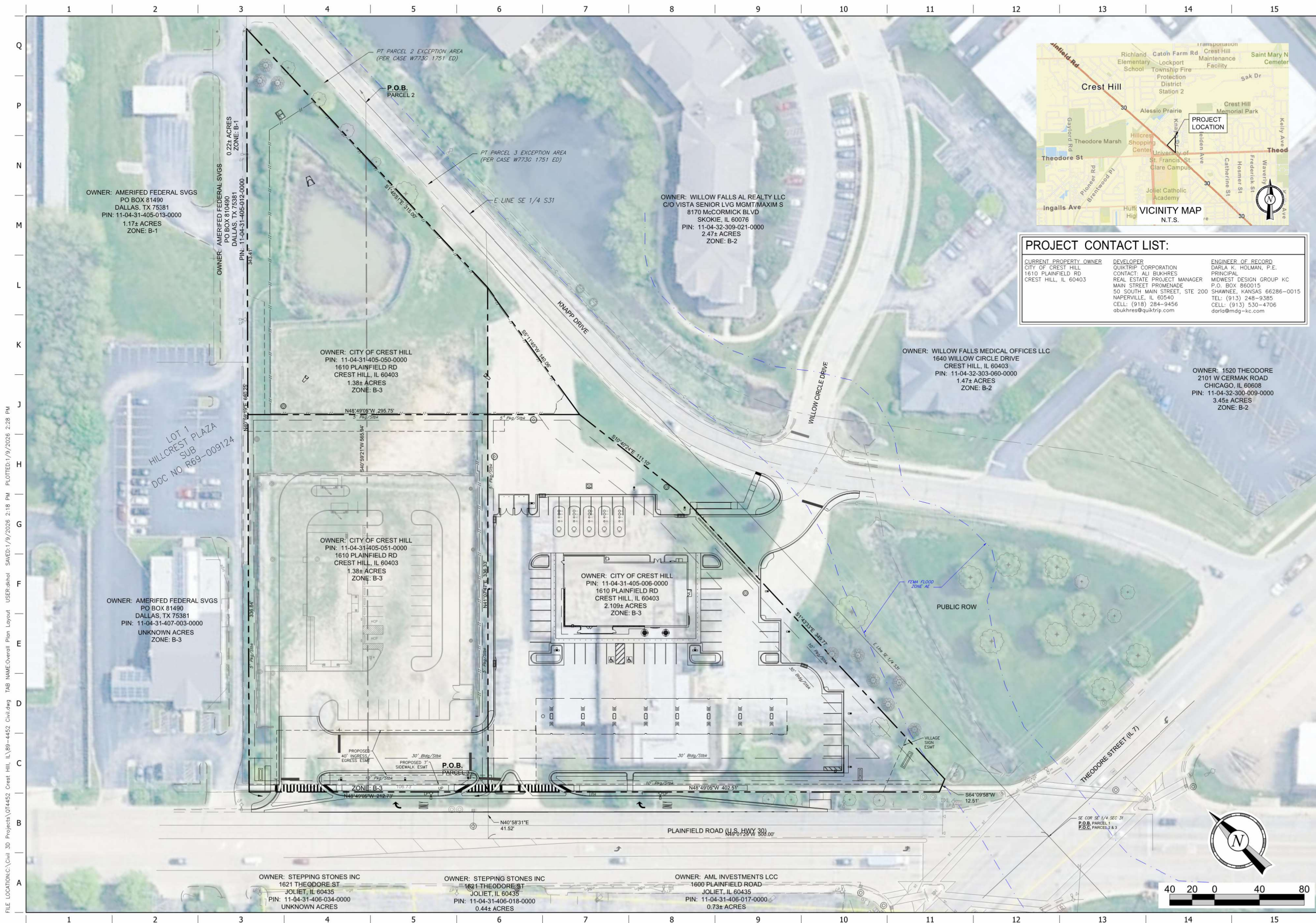
COMMUNITY	NUMBER	PANEL	SUFFIX
CREST HILL, CITY OF	170699	0161	G
JOLIET, CITY OF	170702	0161	G

Panel Contains:  
FEMA  
National Flood Insurance Program  
VERSION NUMBER  
2.3.3.3  
MAP NUMBER  
17197C0161G  
MAP REVISED  
FEBRUARY 15, 2019

# ***QuikTrip Store #4452***

## **Plan Sheets**





PROJECT NO.:84-4452



PO Box 860015  
Shawnee, KS 66286-0015  
P 913.248.9385

## QuikTrip No. 4452

1610 PLAINFIELD ROAD  
CREST HILL, WILL COUNTY, ILLINOIS 60403



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PROTOTYPE: P-122	F
DIVISION: 84	
VERSION: 001	
DESIGNED BY: DKH	
DRAWN BY: CSH	
REVIEWED BY: CJC	

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	C	D	E
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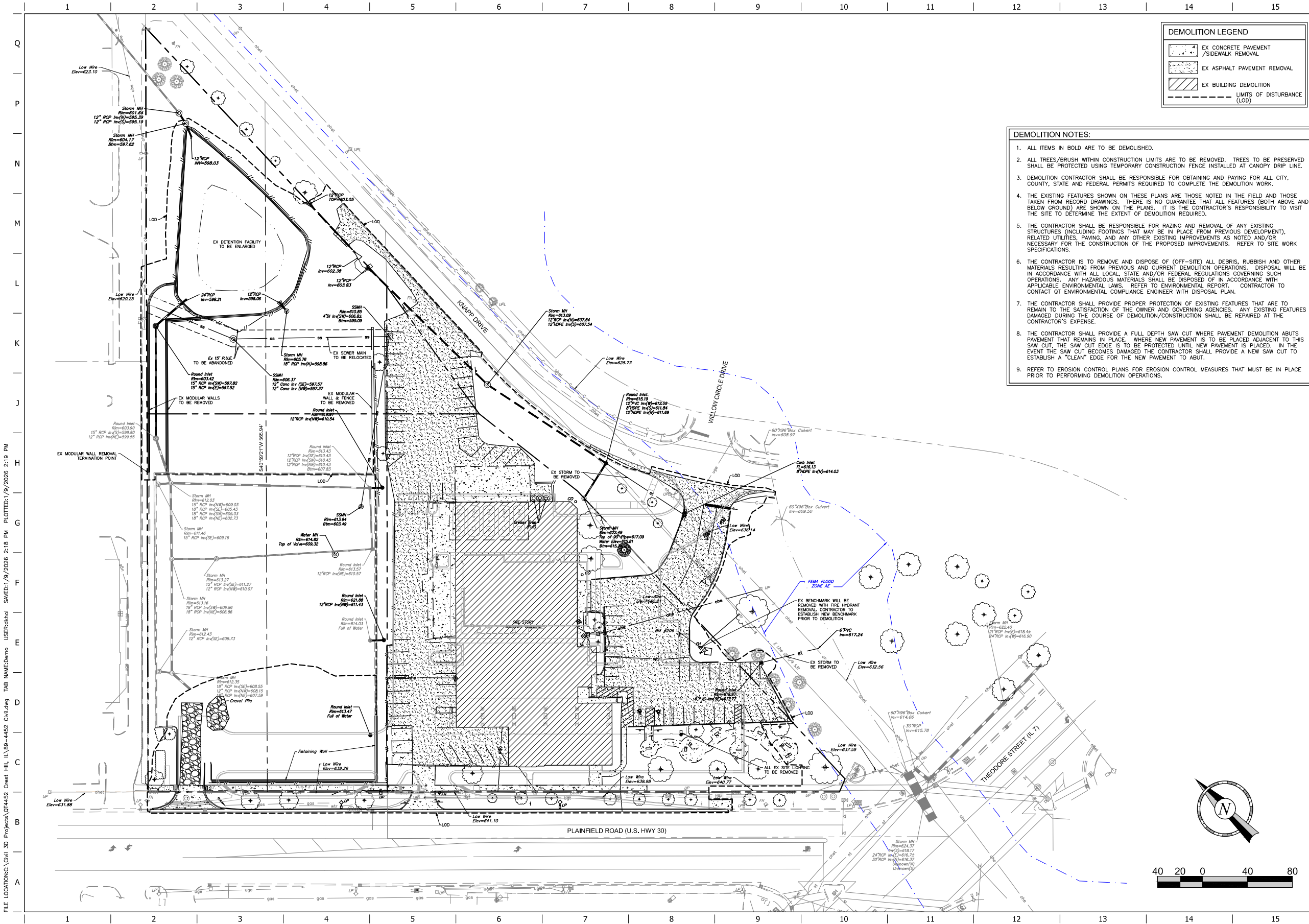
SHEET TITLE:

ALL DEVELOPMENTS  
PLAN

SHEET NUMBER:

C010





**DEMOLITION LEGEND**

- EX CONCRETE PAVEMENT /SIDEWALK REMOVAL
- EX ASPHALT PAVEMENT REMOVAL
- EX BUILDING DEMOLITION
- LIMITS OF DISTURBANCE (LOD)

- DEMOLITION NOTES:**
- ALL ITEMS IN BOLD ARE TO BE DEMOLISHED.
  - ALL TREES/BRUSH WITHIN CONSTRUCTION LIMITS ARE TO BE REMOVED. TREES TO BE PRESERVED SHALL BE PROTECTED USING TEMPORARY CONSTRUCTION FENCE INSTALLED AT CANOPY DRIP LINE.
  - DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL CITY, COUNTY, STATE AND FEDERAL PERMITS REQUIRED TO COMPLETE THE DEMOLITION WORK.
  - THE EXISTING FEATURES SHOWN ON THESE PLANS ARE THOSE NOTED IN THE FIELD AND THOSE TAKEN FROM RECORD DRAWINGS. THERE IS NO GUARANTEE THAT ALL FEATURES (BOTH ABOVE AND BELOW GROUND) ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF ANY EXISTING STRUCTURES (INCLUDING FOOTINGS THAT MAY BE IN PLACE FROM PREVIOUS DEVELOPMENT), RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED AND/OR NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. REFER TO SITE WORK SPECIFICATIONS.
  - THE CONTRACTOR IS TO REMOVE AND DISPOSE OF (OFF-SITE) ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS. ANY HAZARDOUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE ENVIRONMENTAL LAWS. REFER TO ENVIRONMENTAL REPORT. CONTRACTOR TO CONTACT QT ENVIRONMENTAL COMPLIANCE ENGINEER WITH DISPOSAL PLAN.
  - THE CONTRACTOR SHALL PROVIDE PROPER PROTECTION OF EXISTING FEATURES THAT ARE TO REMAIN TO THE SATISFACTION OF THE OWNER AND GOVERNING AGENCIES. ANY EXISTING FEATURES DAMAGED DURING THE COURSE OF DEMOLITION/CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
  - THE CONTRACTOR SHALL PROVIDE A FULL DEPTH SAW CUT WHERE PAVEMENT DEMOLITION ABUTS PAVEMENT THAT REMAINS IN PLACE. WHERE NEW PAVEMENT IS TO BE PLACED ADJACENT TO THIS SAW CUT, THE SAW CUT EDGE IS TO BE PROTECTED UNTIL NEW PAVEMENT IS PLACED. IN THE EVENT THE SAW CUT BECOMES DAMAGED THE CONTRACTOR SHALL PROVIDE A NEW SAW CUT TO ESTABLISH A "CLEAN" EDGE FOR THE NEW PAVEMENT TO ABUT.
  - REFER TO EROSION CONTROL PLANS FOR EROSION CONTROL MEASURES THAT MUST BE IN PLACE PRIOR TO PERFORMING DEMOLITION OPERATIONS.



**PROJECT NO. 294-4452**

**MDG**  
Midwest Design Group  
Kansas City  
PO Box 860015  
Shawnee, KS 66286-0015  
P 913.248.9385

**QuikTrip No. 4452**  
1610 PLAINFIELD ROAD  
CREST HILL, WILL COUNTY, ILLINOIS 60403



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PROTOTYPE:	P-122
DIVISION:	84
VERSION:	001
DESIGNED BY:	DKH
DRAWN BY:	CSH
REVIEWED BY:	CJC

REV	DATE	DESCRIPTION

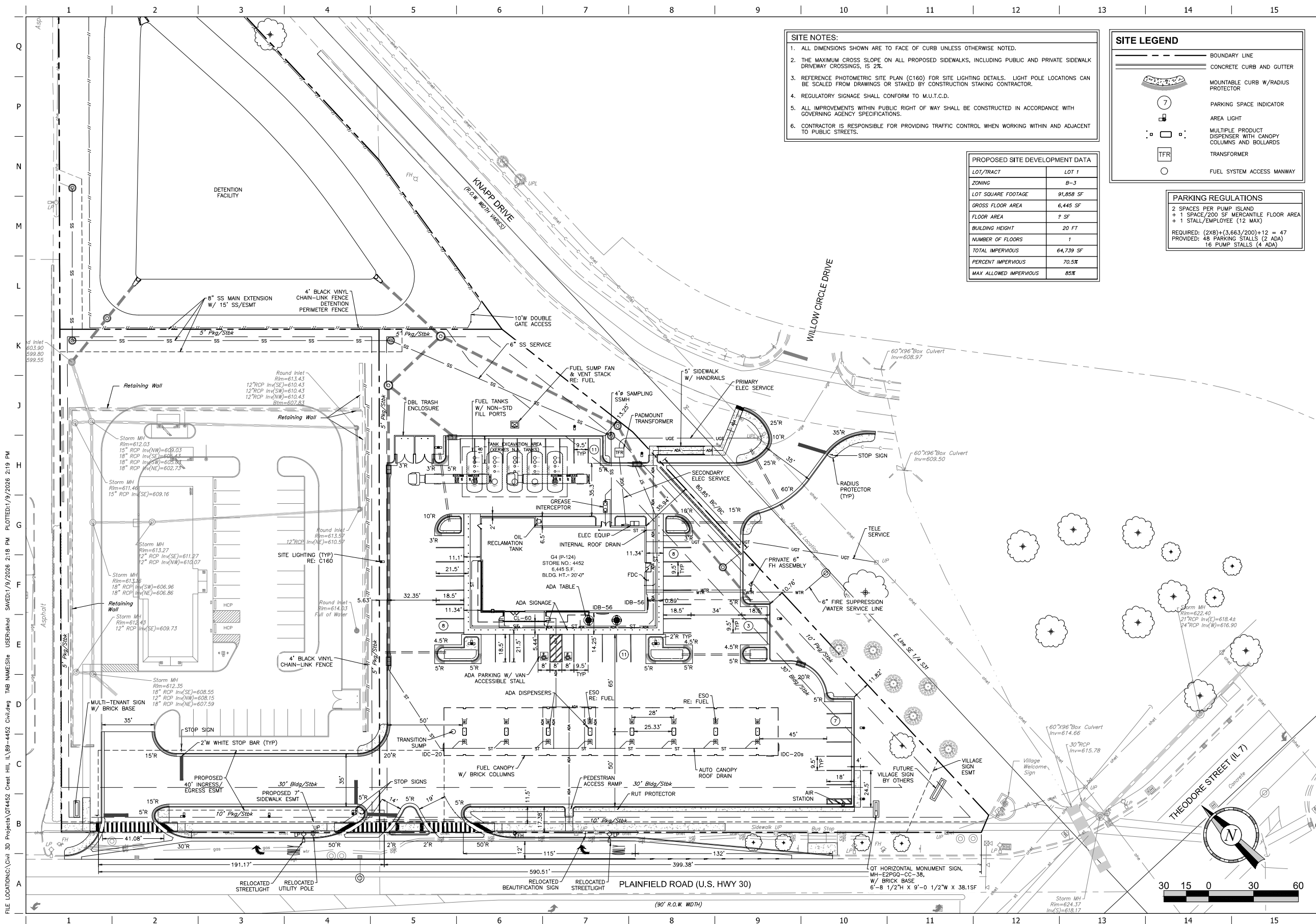
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**DEMOLITION PLAN**

SHEET NUMBER:  
**C030**

FILE LOCATION: C:\Civil 3D Projects\014452 Crest Hill, IL\89-4452 Civil.dwg TAB NAME: Demo USER: dkhall SAVEd: 1/9/2026 2:18 PM PLOTTED: 1/9/2026 2:19 PM















**SITE NOTES:**

1. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. THE MAXIMUM CROSS SLOPE ON ALL PROPOSED SIDEWALKS, INCLUDING PUBLIC AND PRIVATE SIDEWALK DRIVEWAY CROSSINGS, IS 2%.
3. REFERENCE PHOTOMETRIC SITE PLAN (C160) FOR SITE LIGHTING DETAILS. LIGHT POLE LOCATIONS CAN BE SCALED FROM DRAWINGS OR STAKED BY CONSTRUCTION STAKING CONTRACTOR.
4. REGULATORY SIGNAGE SHALL CONFORM TO M.U.T.C.D.
5. ALL IMPROVEMENTS WITHIN PUBLIC RIGHT OF WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AGENCY SPECIFICATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL WHEN WORKING WITHIN AND ADJACENT TO PUBLIC STREETS.

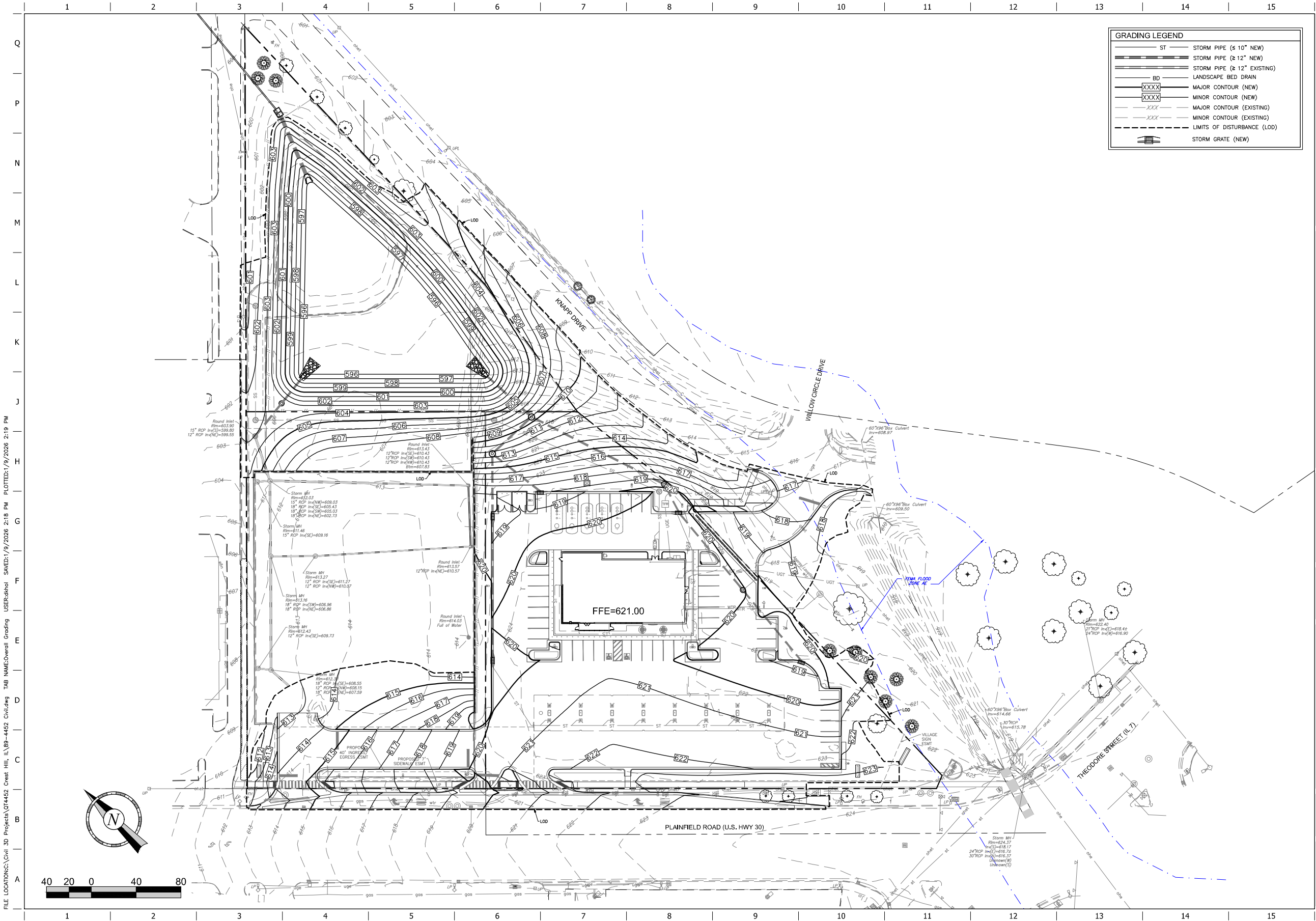
PROPOSED SITE DEVELOPMENT DATA	
LOT/TRACT	LOT 1
ZONING	B-3
LOT SQUARE FOOTAGE	91,858 SF
GROSS FLOOR AREA	6,445 SF
FLOOR AREA	? SF
BUILDING HEIGHT	20 FT
NUMBER OF FLOORS	1
TOTAL IMPERVIOUS	64,739 SF
PERCENT IMPERVIOUS	70.5%
MAX ALLOWED IMPERVIOUS	85%

## SITE LEGEND


	BOUNDARY LINE
	CONCRETE CURB AND GUTTER
	MOUNTABLE CURB W/RADIUS PROTECTOR
	PARKING SPACE INDICATOR
	AREA LIGHT
	MULTIPLE PRODUCT DISPENSER WITH CANOPY COLUMNS AND BOLLARDS
	TRANSFORMER
	FUEL SYSTEM ACCESS MANWAY

PARKING REGULATIONS	
2 SPACES PER PUMP ISLAND	
+ 1 SPACE/200 SF MERCANTILE FLOOR AREA	
+ 1 STALL/EMPLOYEE (12 MAX)	
REQUIRED: $(2 \times 8) + (3,663/200) + 12 = 47$	
PROVIDED: 48 PARKING STALLS (2 ADA)	
16 PUMP STALLS (4 ADA)	

[illegible]




GRADING LEGEND	
ST	STORM PIPE (≤ 10" NEW)
ST	STORM PIPE (≥ 12" NEW)
ST	STORM PIPE (≥ 12" EXISTING)
BD	LANDSCAPE BED DRAIN
XXXX	MAJOR CONTOUR (NEW)
XXXX	MINOR CONTOUR (NEW)
XXXX	MAJOR CONTOUR (EXISTING)
XXXX	MINOR CONTOUR (EXISTING)
---	LIMITS OF DISTURBANCE (LOD)
SG	STORM GRATE (NEW)



PROJECT NO.: 89-4452

**MDG**  
Midwest Design Group  
Kansas City  
PO Box 860015  
Shawnee, KS 66286-0015  
P 913.248.9385

**QuikTrip No. 4452**  
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DIVISION:	84
VERSION:	001
DESIGNED BY:	DKH
DRAWN BY:	CSH
REVIEWED BY:	CJC

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 01/09/2026

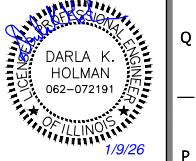
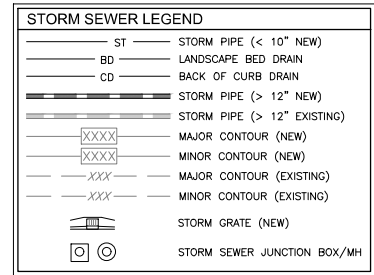
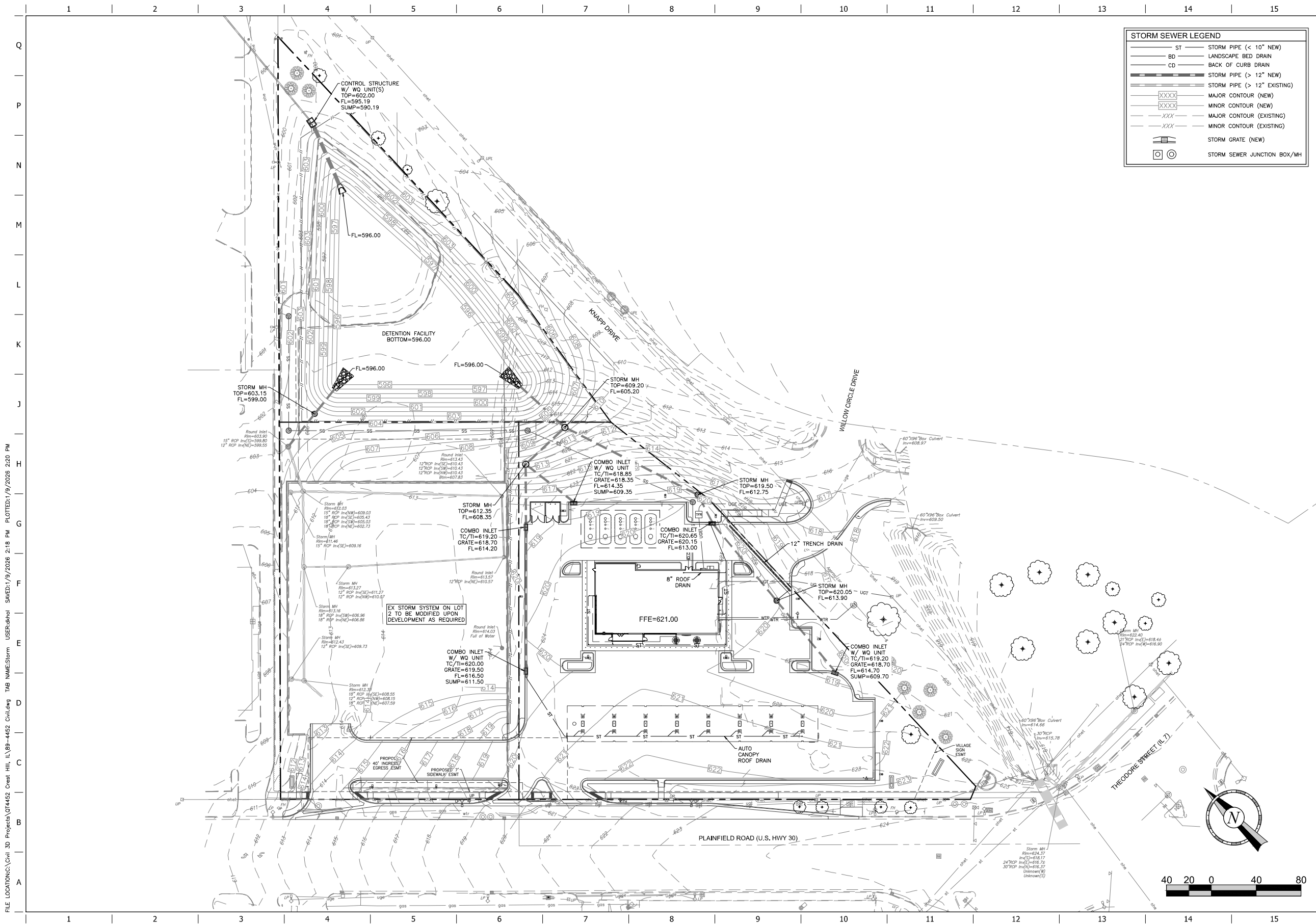
SHEET TITLE:

OVERALL GRADING PLAN

SHEET NUMBER:

C110





PROJECT NO.: 84-4452

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**MDG**

Midwest Design Group  
Kansas City

PO Box 860015  
Shawnee, KS 66286-0015  
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DIVISION: 84  
VERSION: 001  
DESIGNED BY: DKH  
DRAWN BY: CSH  
REVIEWED BY: CJC

[illegible]

SHEET TITLE:	
STORM SEWER PLAN	B

SHEET NUMBER:

C120

A



