APPLICATION OF PREMIER REAL ESTATE SERVICES II, LLC, FOR SITE PLAN APPROVAL, 41 RENTAL APARTMENT HOMES UNDER C.G.S. § 8-30g, 103 LOUIS STREET, NEWINGTON, CT

Newington Town Plan and Zoning Commission
December 8, 2025

Building Design:
Patrick Snow
pat@buildingct.com
Centerpoint Apartments, LLC
110 Court Street, Suite 1
Cromwell, CT 06416
860.899.1914

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Hinckley Allen
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Traffic Engineer:
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Applicant:
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pat@buildingct.com
110 Court Street, 1A
Cromwell, CT 06416

Civil Engineer:
Daniel Vill, P.E.
daniel.vill@zuvic.com
Zuvic Inc.
40 Cold Spring Road
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860.436.4901

Code Compliance:
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Versteeg Associates, LLC
86 University Drive
Torrington, CT 06790
860.480.3951

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Tab:

Submitted separately:

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HINCKLEY ALLEN

20 Church Street
Hartford, CT 06103-1221
p: 860-725-6200 f: 860-278-3802
hinckleyallen.com

Timothy S. Hollister
860.331.2823 (Direct)
860.558.1512 (Cell)
thollister@hinckleyallen.com

December 8, 2025

Via email to pdickson@newingtonct.gov and hand delivery

Stanley Sobieski, Chair, and Members
Newington Town Plan & Zoning Commission
200 Garfield Street
Newington, CT 06111

Paul Dickson, Town Planner
Town of Newington
200 Garfield Street
Newington, CT 06111

Re: Application of Premier Real Estate Services II, LLC for Site Plan Approval, 41 Rental Apartment Homes Under C.G.S. § 8-30g, 103 Louis Street, Newington, Connecticut

Dear Chairman Sobieski, Commission Members, and Mr. Dickson:

On behalf of our client Premier Real Estate Services II, LLC ("Premier"), contract purchaser of the subject property, we are pleased to submit to the Newington Town Plan and Zoning Commission this site plan application for the development 103 Louis Street, Newington as a 41 unit rental development community, in which 30 percent of the units (13 units) will be "set aside" and preserved for 40 years for moderate income households in compliance with Connecticut General Statutes § 8-30g. **Published notices (newspaper and online) should state that this application is submitted pursuant to § 8-30g**.

The purpose of this letter is to explain the application and to answer anticipated questions.

Subject Property

The subject property is located at the intersection of Louis Street and Pascone Place and is unimproved; it consists mainly of an open field with trees and vegetation in the south. The property is approximately 2.7 acres and in the Planned Development "PD" Zone. An existing conditions survey is in the civil plan set.

Site Plan Applications Made Under General Statutes § 8-30g

In 1995, the Connecticut Appellate Court affirmed that when processing a site plan application made under § 8-30g, a zoning commission may not deny the application merely because the plan does not comply with the standards of the existing zone (in this case, the PD). An application may be denied only if the commission receives evidence that the proposed plan will result in a "substantial public health or safety" concern that "clearly outweighs" the need for more lower-cost housing in the municipality and its surrounding region, and that the commission's concern cannot be addressed by "reasonable changes" to the site plan. Thus, in this application, the site plan does not fully comply with the PD zone, but the differences do not present any public health or safety concern, as documented in this application.

This application does not include a special permit application because special permit procedures and review standards conflict with zoning commission § 8-30g review standards. The courts have affirmed that a special permit is not required with a § 8-30g application.

The need for more lower-cost housing in Newington and the region is detailed in the "Affordable Housing Need" materials filed as a separate package with this application.

Proposed Development

Premier proposes developing the property as four rows of townhouses with 41 total units; the number of units in each townhouse row ranges from five to 14 units. Each townhouse unit will have its own private driveway, entrance, and in-unit washer and dryer. An office/mail room will be in the north. The site will be accessed by two connecting driveways, one from Louis Street and the other from Pascone Place. Pedestrian circulation will be via a series of internal sidewalks and a crosswalk that will provide access to Louis Street and Pascone Place.

There will be a total of 96 parking spaces onsite. Each unit will have a driveway accommodating one parking space (41 spaces); 39 of the units will have a garage accommodating one parking space (39 spaces), and there will be 16 visitor parking spaces adjacent to the office/mail room. The total ratio of parking spaces to units is 2.34, exceeding the two space per unit standard set forth in § 6.1.1.B of the Zoning Regulations.

The units will be between two to three levels. The two-bedroom units will range from 1,100 to 1,125 square feet and the three-bedroom units will be 1,275 square feet. Proposed building coverage is 25 percent. A list of minimum construction requirements, materials, and standards for the rental units is shown in Schedule A of the Affordability Plan, *see* Tab 8.

This application is accompanied by a civil plan set and a Hydraulic Analysis. Site plan features include a utility layout plan, landscaping plan, and turning movement plan. Stormwater management will be facilitated via a series of catch basins that will capture stormwater runoff, channel it into underground detention structures in the north, then ultimately discharge it into the existing stormwater sewer system along Louis Street. The Drainage Analysis concludes, "The on-storm drainage system has been designed to convey stormwater runoff from the 25-year storm. The proposed infiltration and detention galleries are designed for peak discharge flows for developed conditions to be equal to or less than peak discharge flows under existing conditions. The site discharge for developed conditions…will be less than or equal to existing peak discharges."

This application also includes an architectural plan set showing elevations, floor plans, and height measurements. Building materials include vinyl siding, asphalt roofing, and vinyl double hung windows. The maximum height of the townhouses will be approximately 40 feet, or three stories. Zoning data tables showing the PD zoning standards compared to the proposed development are included in the complete plan set.

Traffic

A December 2025 traffic analysis has been prepared by Scott Hesketh, P.E., of F.A. Hesketh & Associates, Inc., *see* Tab 4. The development is estimated to generate 27 trip ends during the morning and 27 trip ends during the afternoon peak hours.

The Pascone Place/Louis Street intersection Level of Service will change from a C to D rating during the afternoon peak hour but will remain the same at all other times. Sufficient site lines will be provided for the proposed driveway.

A stop sign and stop bar will be placed at the end of the driveways onto Louis Street and Pascone Place to control exiting traffic. The traffic analysis concludes, "Based on the background traffic volumes, the anticipated site generated traffic volumes and the capacity analyses…the local roadway network has sufficient capacity to accommodate the anticipated site generated traffic…. [T]he traffic associated with the proposed development will not represent a hazard or a safety concern to the traveling public."

Emergency Response and Fire Safety

The buildings will be constructed in compliance with the Connecticut Fire Prevention Code, the Fire Safety Code, and the Building Code. Fire safety features will include:

- Fire resistant construction materials separating each unit
- Smoke and carbon monoxide detectors in all units
- Dedicated independent exits from each unit
- Utilities will be underground
- Hydrant accessible locations available
- New sidewalks, driveway apron, and concrete curbs

The property is one mile from the Newington Fire Department Company 2 building located at 190 Richard Street.

Code Compliance

A Code Compliance Review Letter, prepared by Versteeg Associates, LLC is at Tab 7. The development plans are "compliant with the 2021 International Residential Code portion of the 2022 Connecticut State Building Code." The letter concludes, "It is my professional opinion that the proposed residential development does not result in an adverse impact to a substantial public interest in health, safety or welfare."

Energy Efficient and Environmental Features

The buildings will have the following energy and environmental features:

- Windows will meet National Fenestration Rating Council (NFRC) U-values
- Buildings designed to meet Connecticut Building Code and International Energy Conservation Code
- High efficiency building systems and equipment including mechanical equipment, kitchen appliances, and lighting fixtures
- Green building materials for wall and roof systems where feasible
- Water-saving plumbing fixtures including toilets, shower heads, faucets, and washing machines

Affordability Plan

A draft Affordability Plan that will govern the 13 affordable units is at Tab 8.

The maximum income and rents, based on 2025 data, will be:

- 13 units total
  - 6 units at 80 percent of area median income
  - 7 units at 60 percent of area median income

- 2 bedroom/80 percent unit
  - maximum household income (2025 HUD data) $89,712
  - maximum monthly rent (net of utilities) $1,834

- 2 bedroom/60 percent unit:
  - maximum household income (2025 HUD data) $67,284
  - maximum monthly rent (net of utilities) $1,503

- 3 bedroom/80 percent units:
  - maximum household income: (2025 HUD data) $103,668
  - maximum monthly rent (net of utilities) $2,216

- 3 bedroom/60 percent units:
  - maximum household income: (2025 HUD data) $77,751
  - maximum monthly rent (net of utilities) $1,769

Twelve of the 39 two-bedroom units and one of two three-bedroom units will be reserved as affordable. All units in this building will contain the same construction materials.

Reasons for Approval

The subject property is an ideal location for a multi-family development; it is proximate to:

- Restaurants, a grocery store, gyms, and a variety of commercial retail uses at the Turnpike Plaza and 3001 Berlin Tpke shopping centers;
- Walking trails, sports fields, and a public swimming pool at Churchill Park and Clem Lemire Recreation Complex;
- Two CT Transit bus stops, at the Louis Street/Willard Ave and Louis Street/Main Street intersections; and
- Other multi-family developments along Louis Street.

An aerial of the neighborhood is at Tab 9.

In addition, the development will provide the Town with 13 rental units preserved for 40 years for moderate-income households, without creating any substantial public health or safety concerns, or impacts to neighboring properties. We look forward to presenting this application to the Commission.

Very truly yours,

Timothy S. Hollister

TSH:afz
cc: Premier Real Estate Services II, LLC and development team

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TOWN OF NEWINGTON

200 Garfield Street Newington, CT 06111

Town Plan and Zoning Commission

TPZ APPLICATION FORM

Paul Dickson
Town Planner

TO BE COMPLETED BY STAFF:

Petition # _____ Date _____ Zone _____ Fee paid _____ Check # _____

Address of Subject Property (provide business name, if applicable) 103 Louis Street, Newington, CT 06111

Owner of Record of property Innate Investments, LLC Owner Signature [signature] c/o Hinckley Allen Date 11/18/2025

Applicant Name Premier Real Estate Services II, LLC

Address 110 Court Street, 1A, Cromwell, CT 06416 Phone 860.899.1914

Email pat@buildingct.com Applicant Signature [signature] c/o Hinckley Allen Date 11/18/2025

Contact Name Andrew R. Morin, Esq. Phone 860.331.2619

Address 20 Church Street, Hartford, CT 06103 Email amorin@hinckleyallen.com

Email Amorin@hinckleyallen.com Contact Signature [signature] Date 11/18/2025

COMPLETE APPLICATIONS SUBMITTED, NOT LESS THAN 14 DAYS BEFORE THE NEXT REGULARLY SCHEDULED TPZ MEETING, MAY BE PUT ON THE AGENDA.

A COMPLETE APPLICATION CONSISTS OF: THE APPLICATION AND FEE; SITE PLANS, (IF APPROPRIATE); STORMWATER MANAGEMENT ANALYSIS (FOR SITE PLANS); AND NARRATIVE EXPLANATION (FOR SPECIAL PERMITS).

THIS APPLICATION IS FOR (CHECK ONE OF THE FOLLOWING):

o Zoning Map Change from the _____ Zone to the _____ Zone (Public Hearing required).

o Zoning Text Amendment to Section _____. *A copy of the proposed amendment and the reason for amendment is attached* (Public Hearing required).

o Subdivision (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").

o Resubdivision (Public Hearing required). (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").

o Special Permit per Section_____ of the Zoning Regulations. *Explanation of the proposed activity is attached* (Public Hearing required).

X Site Plan Approval (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").

o Site Plan Modification (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").

o Other (describe in detail, or attach): _____.

PROPERTY OWNER SIGNATURE: [signature] c/o Hinckley Allen **DATE:** 11/18/2025

"I hereby consent to site inspections before, during and after construction to verify proper functioning of the erosion and sediment controls and of the stormwater management design."

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Newington

Unique ID: C0524110 **Card No:** 1 Of 1

Location:	103 LOUIS ST	Map Id:	27/001/00A	Zone:	PD	Date Printed:	11/10/2025
		Neighborhood:	304			Last Update:	11/9/2025

Owner Of Record	Volume/Page	Date	Sales Type	Valid	Sale Price
INNATE INVESTMENTS LLC	1887/0745	3/22/2006	Trustee's Deed	Yes	300,000
C/O TAMMY & STEPHEN JUDSON, 133 LOUIS ST, NEWINGTON, CT 06111			Exempt		

Prior Owner History

CASEY JOSEPH F & PATRICIA A TR	0799/0173	9/4/1991		No	0
CASEY PATRICIA A	0233/0061	6/29/1973		No	0

Permit Number	Date	Permit Description

Supplemental Data

Census/Tract	494100	VisionPID	2490
Dev Map ID	3048/0/3	Income & Expense	VACANT LAND
GIS ID		Solar	
Route			
District			
Utilities			

Appraised Value

Total Land Value	217,000
Total Building Value	0
Total Outbldg Value	0
Total Market Value	217,000

Acres

Land Type	Acres	490	Total Value
Commercial Primary Vacant	2.00	0.00	200,000
Comm Vac Excess	0.68	0.00	17,000
Total	2.6800	0.00	217,000

State Item Codes

Code	Quantity	Value
52-Commercial Vacant Land	2.68	151.900

Assessment History (Prior Years as of Oct 1)

	2025	2024	2023	2022	2021
Land	151,900	151,900	151,900	151,900	151,900
Building	0	0	0	0	0
Outbuilding	0	0	0	0	0
Total	**151,900**	**151,900**	**151,900**	**151,900**	**151,900**

490 Appraised Totals

Type	Acres	Value

Type	Acres	Value
Totals	**0.00**	**0**

Application Date: **Expiration Date:**

Comments

Information may be deemed reliable, but not guaranteed. **Revaluation Date:** 10/1/2020

Newington

Unique ID: C0524110

Location:	103 LOUIS ST	**Unit**	

Commercial Building Description	Description	Area/Qty
Building Use		
Class		
Overall Condition		
Construction Quality		
Stories		
Year Built		
Remodel		
Percent Complete		
GLA		
Basement		
Basement Area		
HVAC		
Heating Type		
Fuel Type		
Cooling Type		
Interior		
Floors		
Walls		
Wall Height		
Exterior		
Exterior Walls		
Roof Type		
Roof Cover		
Special Features		

Attached Component Computations

Type	Yr Blt	Area/Qty

Detached Component Computations

Type	Year	Condition	Area/Qty	Type	Year	Condition	Area/Qty

Information may be deemed reliable, but not guaranteed.

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TRUSTEE'S DEED

TO ALL PERSONS TO WHOM THESE PRESENTS SHALL COME:

KNOW YE THAT PATRICIA A. CASEY and JOSEPH F. CASEY, TRUSTEES OF PATRICIA CASEY REALTY TRUST under Declaration of Trust dated August 26, 1991 (collectively, the "Grantor") both of the Town of Auburndale and State of Massachusetts in consideration of One Dollar ($1.00) and other good and valuable consideration, grant to INNATE INVESTMENTS, LLC, a Connecticut limited liability company (the "Grantee") with an office in the Town of Wethersfield and State of Connecticut with

TRUSTEE'S COVENANTS

a certain piece and parcel of land located in the Town of Newington and the State of Connecticut and more commonly referred to as Lot 3 Subdivision Plan Property of Patricia A. Casey Louis Street, being more particularly described in **Schedule A** attached hereto and made a part hereof.

IN WITNESS WHEREOF, we have hereunto set our hands and seals as of March __, 2006.

Witnessed by:
(as to both)

Grantor:

Patricia A. Casey
Patricia A. Casey, Trustee for the Patricia Casey Realty Trust

Joseph F. Casey Trustee
Joseph F. Casey, Trustee for the Patricia Casey Realty Trust

STATE OF MASSACHUSETTS)
) ss: Auburndale March 21, 2006
COUNTY OF Middlesex)

Personally appeared Patricia A. Casey and Joseph F. Casey, Trustees, of the Patricia Casey Realty Trust, known to be or satisfactorily proven to be the person described in the foregoing instrument and acknowledged that they executed the same in the capacity therein stated and for the purposes therein contained.

Patricia Montgomery
Notary Public
My Commission Expires: 10/4/07

PATRICIA MONTGOMERY
Notary Public
Commonwealth of Massachusetts
My Commission Expires
October 4, 2007

Grantee's Address:
662 Highland Street
Wethersfield, Connecticut

$750.00 Conveyance Tax Received $1,500.00
Tanya D Lane
Town Clerk of Newington

SCHEDULE A

A certain piece or parcel of land consisting of 2.679 acres, located in the Town of Newington, County of Hartford and State of Connecticut, at the southwesterly corner of Louis Street and Pascone Place, shown as "Lot 3" on a map or plan entitled "SUBDIVISION PLAN PROPERTY OF PATRICIA A. CASEY 133 LOUIS STREET NEWINGTON, CONNECTICUT Scale 1" = 40' Date 08-09-90 Revisions No. 1 Date 9-07-90 Property Line Sheet No. 1 of 1 Job No. 36130" made by Close, Jensen & Miller, Consulting Engineers, Land Planners & Surveyors, which map is on file in the Newington Town Clerk's office and to which reference may be had. Said premises are more particularly bounded and described as follows:

Commencing at a point on the southerly line of Louis Street at the northeasterly corner of Lot No. 2 as shown on said map, being land formerly of the Grantor herein and now of L.E.S. Realty Trust; thence running N 64°-17'-09" E 45.68 feet to a monument to be set; thence continuing along the southerly line of Louis Street along the radius of a curve to the East having a radius of 460 feet, 146.25 feet to a monument to be set; thence continuing along the southerly line of Louis Street N 82°-30'-09" E 204.64 feet to a monument to be set; thence turning and running easterly and southerly along the line of a curve having a radius of 25 feet connecting the southerly line of Louis Street with the westerly line of Pascone Place, 39.27 feet to a monument to be set; thence continuing along the westerly line of Pascone Place S 07°-29'-51 E 25 feet to a monument to be set; thence turning and continuing along the westerly and northwesterly line of Pascone Place along a curve to the southwest having a radius of 140 feet, 69.88 feet to a monument to be set; thence continuing southwesterly along the northwesterly line of Pascone Place S 21°-06'-09" W 234.98 feet to an iron pin to be set marking the northeasterly corner of Lot No. 1 as shown on said map, being land now or formerly of Hamilton Emission Control; thence turning and running westerly along the northerly line of said Lot No. 1, S 81°-21'-09" W 281.46 feet to an iron pin to be set; thence turning and running northerly along the easterly line of Lot No. 2 as shown on said map, N 08°-38'-51"W 291.70 feet to the point and place of beginning.

Said Premises are conveyed subject to:

1. Any and all provisions of any municipal, ordinance or regulation or public or private law with special reference to the provisions of any zoning regulations and regulations governing the said Premises.

2. Real property taxes on the 2005 Grand List and any municipal liens or assessments becoming due and payable on or after the delivery of this Deed.

3. A utility easement in favor of the Southern New England Telephone Company dated June 21, 1974 and recorded July 12, 1974 in Volume 95 at Page 189 of the Newington Land records.

4. An agreement between Patricia A. Casey and The Metropolitan District dated dated June 21, 1974 and recorded July 12, 1974 in Volume 255 at page 112 of the Newington Land Records.

RECEIVED & RECORDED IN
NEWINGTON LAND RECORDS

2006 MAR 22 P 1:59

VOLUME 1887 PAGE 745
BY Tanya D Lane
TOWN CLERK

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Hesketh

Civil & Traffic Engineers • Surveyors • Planners • Landscape Architects

F. A. Hesketh
& Associates, Inc.

December 4, 2025

Premier Real Estate Services II, LLC
110 Court Street, Suite 1
Cromwell, CT 06416

Attn: Mr. Patrick T. Snow

RE: Traffic Impact Statement
Proposed Residential Development
103 Louis Street – Newington, CT
Our File: 25033

Dear Mr. Snow,

Pursuant to your request and authorization our office has prepared this report to outline the trip generation potential of a proposed 41 unit multi family residential development on a parcel located at 103 Louis Street in the Town of Newington, Connecticut. The location of the proposed site with respect to the surrounding roadways is depicted in Figure 1. This report is intended to accompany an application for a site plan approval, pursuant to CT General Statutes 8-30g, from the Newington Planning and Zoning Commission.

The site proposed for development is located at 103 Louis Street in the Town of Newington. The site is located on the southwest corner of Louis Street and Pascone Place. The property is currently undeveloped.

The current proposal is to construct a total of 41 single family attached residential units in 12 structures, plus a small office / mail room. Access to the site is proposed by two driveways, one to Louis Street and one to Pascone Place. The site driveways are proposed to prove 22 feet of pavement with a single 11 foot lane for both entering and exiting traffic. The two driveway approaches will operate under stop sign control. Each unit is proposed to have a driveway, capable of accommodating one parked vehicle per unit. 39 units have a garage, capable of accommodating one vehicle per unit. Another 16 visitor parking spaces are also proposed, for a total of 96 parking spaces.

Louis Street is a Town maintained roadway that originates at an un-signalized intersection with Route 176, Main Street, and extends in a westerly direction, through an

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un-signalized intersection with Pascone Place and Foxboro Drive. Louis Street continues west past the subject site to its terminus at an unsignalized intersection with Route 173, Willard Avenue. Across the site frontage Louis Street provides 36 feet of pavement with a single 18 foot travel lane in each direction, separated by a painted double yellow centerline. A sidewalk runs the length of the roadway on the north side. The roadway s posted at 35 mph. Land use along the roadway is a mix of commercial, industrial and multi-family residential.

Pascone Place is a Town maintained roadway that originates at a signalized intersection with the Berlin Turnpike and extends in a westerly direction a short distance before turning 90 degrees to the north. Pascone Place continues north past the subject site to its terminus at an un-signalized intersection with Louis Street and Foxboro Drive. Across the site frontage Pascone Place provides 40 feet of pavement with a single 20 foot travel lane in each direction, separated by a painted double yellow centerline. The roadway is posted at 30 mph. Land use along the roadway is a mix of commercial and industrial uses.

The Connecticut DOT maintains a traffic volume count program on all state highways and some local roadways. Unfortunately, the DOT does not have any count stations on Louis Street or Pascone Place. Our office arranged for the conduct of an automated count on Louis Street west of Pascone Place. The count was conducted between April 14 and 21, 2025. That count indicates that Kitts Lane carries an average daily traffic volume (ADT) of 6,020 vehicles with peak hour volumes of 374 vehicles during the a.m. peak hour (9:00 a.m.) and 619 vehicles during the p.m. peak hour (4:00 p.m.). A Saturday peak hour (11: 00 a.m.) volume of 559 vehicles was recorded. The count is presented in Table 1.

In addition to the automated count, manual turning movement counts were conducted at the intersection of Louis Street and Pascone Place during the morning, afternoon, and Saturday peak hours during April 2025. Figure 2 presents the results of the counts for each of the peak hours.

The count volumes were adjusted by holding the higher observed volume between the automated and manual counts. A review of recent ConnDOT counts on Route 173 and Route 176 indicate that traffic volumes have declined between 2015 and 2024. Copies of those counts are included in the appendix. To be conservative in our analysis, we have applied a 1% per year growth rate to the observed volumes to increase traffic to a design year of 2028. The resultant volumes represent the 2028 background traffic volumes for the intersection of Louis Street and Pascone Place and for the proposed site driveway intersections. These volumes are presented in Figure 3.

To estimate the traffic to be generated by the proposed residential development the ITE *Trip Generation* Report, 12th Edition, published by the Institute of Transportation

Engineers, was consulted. The Trip Generation Report includes two Land Use Codes (LUC's) that could be applicable to the proposed development. They include LUC: 215 – Single Family Attached Housing and LUC: 220 – Multifamily Housing (Low Rise). The proposed development is actually a single family attached development. However, we have run trip generation for both land uses and will present the highest volumes for each time period. Based on this methodology the proposed residential development is projected to generate a total of 351 trips daily with a morning commuter peak hour volume of 27 trips, made up of 7 entering and 20 exiting vehicles, and an afternoon commuter peak hour volume of 27 trips, made up of 17 entering and 10 exiting vehicles. A Saturday volume of 190 trips is projected daily, with a peak hour volume of 20 trips made up of 8 entering and 12 exiting movements. The trip generation results are summarized in Table 2.

Figure 4 presents the anticipated directional distribution of site generated traffic. We anticipate 60% of the site generated traffic will be oriented to and from the east on Louis Street, 15% to and from the west on Louis Street, and 25% to and from the south on Pascone Place. Figure 4 presents the site generated traffic based on this distribution. By adding the site generated traffic to the background traffic, the combined traffic upon completion of the development. This data is presented in Figure 5 as the 2028 combined traffic volumes.

Capacity analyses were conducted for the background and combined traffic volumes for the intersection of Louis Street and Pascone Place and for the two proposed site driveway intersections. The analysis was completed utilizing the intersection capacity analysis program called SYNCHRO. The analyses were conducted for the morning, afternoon, and Saturday peak hours. The results are summarized in table 3.

The intersection of Louis Street and Pascone Place is an existing unsignalized intersection with louis Street oriented in an east/west orientation. Pascone Place approaches from the south. Foxboro Drive approaches from the north. All approaches provide a single lane approach. The Pascone Place and Foxboro Drive approaches operate under stop sign control. The analysis results for the background traffic volumes indicate that the eastbound and westbound Louis Street approaches operate at a LOS A during peak hours. The northbound Pascone Place approach operates at a LOS B during the morning and Saturday peak hours and at a LOS C during the afternoon peak hour. The southbound Foxboro Drive approach operates at a LOS C during the morning and afternoon peak hours and at a LOS B during the Saturday peak hour. With the addition of the site related traffic, the eastbound and westbound Louis Street approaches continue to operate at a LOS A during peak hours. The northbound Pascone Place approach operates at a LOS B during the morning and Saturday peak hours and at a LOS D during the afternoon peak hour. The southbound Foxboro Drive approach will continue to operate at a LOS C during the morning and afternoon peak hours and at a LOS B during the Saturday peak hour.

The proposed site driveway to Louis Street will be an unsignalized intersection. Louis Street is oriented in an east/west orientation. The site driveway will approach from the south. All approaches provide a single lane. The site driveway approach will operate under stop sign control. The analysis results indicate that the eastbound and westbound Louis Street approaches will operate at a LOS A during peak hours under the combined traffic volumes. The site driveway approach will operate at a LOS B.

The proposed site driveway to Pascone Place will be an unsignalized intersection. Pascone Place is oriented in a north/south orientation. The site driveway will approach from the west. All approaches provide a single lane. The site driveway approach will operate under stop sign control. The analysis results indicate that all approaches operate at a LOS A during peak hours under the combined traffic volumes.

Observations at the proposed Louis Street site driveway location indicate that the available intersection sight distances are in excess of 450 feet in each direction. Observations at the proposed Pascone Place site driveway location indicate that the available intersection sight distances are in excess of 450 feet looking south and extend to the intersection of Louis Street to the north, a distance of approximately 250 feet. The available sight distances meet the current ConnDOT criteria for an approach speeds of 40 miles per hour. Louis Street is posted at 35 mph. Pascone Place is posted at 30 mph. Based on the recent automated count 85% speeds of 37 mph and 40 mph were recorded for the eastbound and westbound directions on Louis Street, respectively. A copy of the speed count is included in the appendix.

A review of the ConnDOT Crash Data repository indicates that there were a total of 16 accidents involving a total of 30 vehicles reported on Louis Street and Pascone Place between October 1, 2022 and October 1, 2025. Of those accidents, 7 occurred on Louis Street, 7 occurred on Pascone Place and two accidents occurred at the intersection of the two roadways. On Louis Street there were three accidents at Willard Avenue, three accidents at Main Street, one accident at the Price Chopper driveway, and one accident along the roadway. On Pascone Place there were three accidents at the Berlin Turnpike, four accidents at the Price Chopper driveway and one accident along the roadway. There were six rear end accidents, six angle accidents, two sideswipe and two fixed object accidents. Of the 16 recoded accidents 13 were property only accidents and three involved a possible injury. There were no fatalities reported.

Based on the background traffic volumes, the anticipated site generated traffic volumes and the capacity analyses as outlined in this report, it is my professional opinion that the local roadway network has sufficient capacity to accommodate the anticipated site generated traffic. The proposed site driveway is properly located with respect to adjacent driveways, and available intersection sight distances. The site driveway is properly designed for the anticipated driveway volumes. It is further my opinion that the

traffic associated with the proposed development will not represent a hazard or a safety concern to the traveling public.

We appreciate the opportunity to provide this information to you. A representative from our firm will be available to present testimony before local commissions or boards of review if needed. If you require any additional information, please do not hesitate to contact our office.

Very truly yours,
F. A. Hesketh & Associates, Inc.

Scott F. Hesketh, P.E.
Manager of Transportation Engineering

T:\pf\25033\report.2025.05.10.docx


Google Maps
SITE
Halleran Dr
Foxboro Dr
Hunters Ln
Cornish Dr
Kidz corner E&D Learning Center
Fox Ln
Lincoln Rd
John Wallace Middle School
Saccuzzo Coffee Company
Louis St
Pascone Pl
Willard Ave
Rockhole Brook
GKN Aerospace, Engine Systems, Newington
Stanwell Rd
Turnpike Plaza
Hungry Bowl Mongolian Grill, Sushi & Ramen
Civita Care Center at Newington
Priority Urgent Care Newington, CT
Casadoro Ristorante & Bar
Firestone Complete Auto Care
Schedule An Oil Change Today
Griswold Hills of Newington
Waverly Dr
Griswoldville Ave
Meadowview Ct
Peckham Farm Dr
Deming St
Ridgeview Crossing
Barn Hill Ln
Deer Path
ROY&LIGY
JOANN Fabric and Crafts
Closing in a few weeks. Hurry.
Scottish Rite
Savers
Moe's Southwest Grill
Winner Winner Burrito Dinner
Walmart
Yard Pro
Jumping Beans Day Care
Candlewyck Park
Candlewyck Dr
Lamplighter Ln
Cambridge Dr
Culver St
Southfield Children's Center
Southfield Apartments
Pebble Dr
Faith Rd
Pfister Dr
Richard St
Bob's Discount Furniture and Mattress Store
Google
Map data ©2025
500 ft

FIGURE 1

Louis Street West Pascal Place
Newington, Connecticut

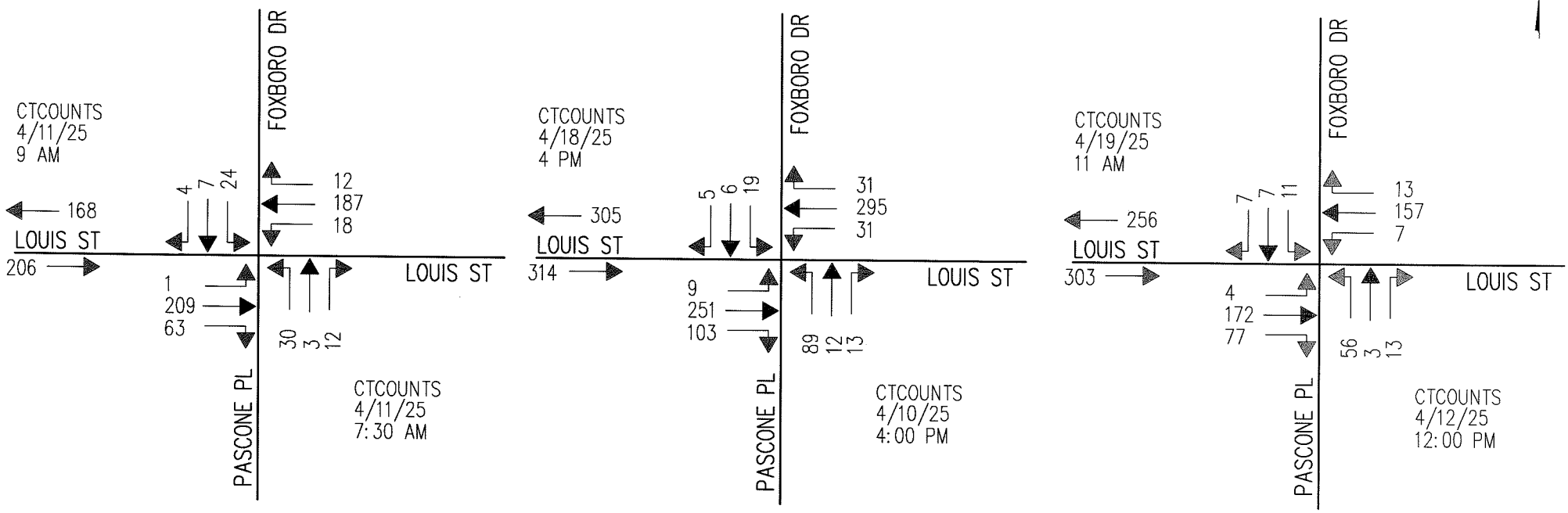
Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Start	14-Apr-25		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	Eastbound	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou
12:00 AM	0	0	6	16	6	11	9	21	12	16	21	23	19	23	10	16
01:00	0	0	9	4	10	6	8	0	5	6	7	7	6	18	6	6
02:00	0	0	2	9	2	7	1	6	2	8	3	10	13	12	3	7
03:00	0	0	8	1	2	1	2	4	3	4	3	10	3	7	3	4
04:00	0	0	8	7	14	7	12	8	14	4	7	3	4	9	8	5
05:00	0	0	48	16	52	25	54	25	37	8	23	5	24	7	34	12
06:00	0	0	95	86	84	84	81	78	68	52	35	28	34	25	57	50
07:00	0	0	171	126	188	112	151	122	130	89	63	49	47	70	107	81
08:00	0	0	170	153	202	140	182	145	163	113	132	104	74	93	132	107
09:00	0	0	152	133	197	170	206	168	178	138	185	210	126	136	149	136
10:00	0	0	182	162	169	155	210	**219**	**237**	179	272	**257**	**199**	160	181	162
11:00	**136**	**92**	**195**	**168**	**213**	**206**	**226**	198	226	**196**	**303**	256	180	**170**	**211**	**184**
12:00 PM	226	220	246	212	239	215	246	216	279	255	233	**269**	**214**	159	240	221
01:00	199	205	160	183	194	228	220	215	257	219	261	260	206	**179**	214	213
02:00	187	213	210	194	197	210	253	222	226	263	251	259	168	151	213	216
03:00	248	232	273	250	230	263	**277**	260	227	238	248	254	129	151	233	235
04:00	248	**308**	**296**	287	**286**	302	267	294	**314**	**305**	**263**	218	124	164	**257**	268
05:00	**250**	268	261	**308**	275	**340**	236	**296**	278	305	217	238	120	144	234	**271**
06:00	218	210	221	185	198	229	212	248	205	255	219	230	113	144	198	214
07:00	155	189	126	185	121	164	158	186	189	150	168	199	95	135	145	173
08:00	103	138	93	135	94	136	126	163	147	174	114	142	50	89	104	140
09:00	54	93	38	94	48	89	63	114	71	120	85	109	29	58	55	97
10:00	30	52	28	69	29	79	42	60	43	96	60	104	23	28	36	70
11:00	12	30	21	44	14	30	14	29	18	57	36	63	6	18	17	39
Lane	2066	2250	3019	3027	3064	3209	3256	3297	3329	3250	3209	3307	2006	2150	2847	2927
Day	4316		6046		6273		6553		6579		6516		4156		5774	
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	10:00	10:00	11:00	11:00	10:00	10:00	11:00	11:00	11:00
Vol.	136	92	195	168	213	206	226	219	237	196	303	257	199	170	211	184
PM Peak	17:00	16:00	16:00	17:00	16:00	17:00	15:00	17:00	16:00	16:00	16:00	12:00	12:00	13:00	16:00	17:00
Vol.	250	308	296	308	286	340	277	296	314	305	263	269	214	179	257	271

TABLE 1



A.M. PEAK HOUR

P.M. PEAK HOUR

SATURDAY PEAK HOUR

FIGURE 2

5-07-25

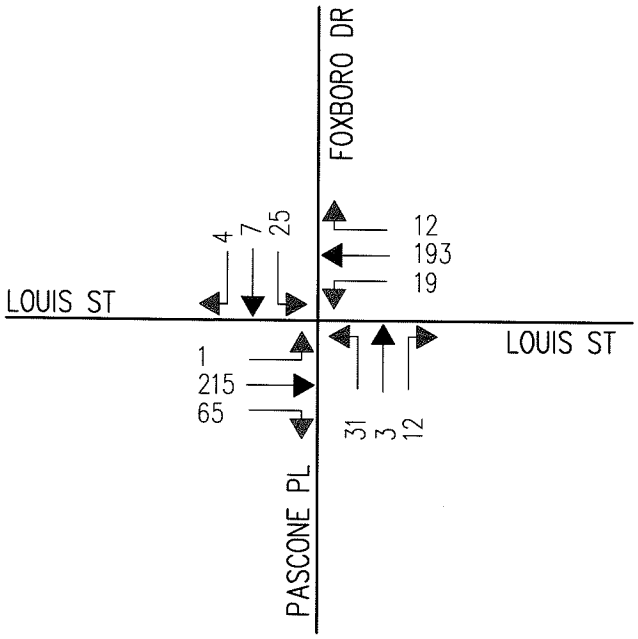
OBSERVED TRAFFIC VOLUMES
A.M., P.M., AND SATURDAY
PEAK HOURS

PROPOSED RESIDENTIAL

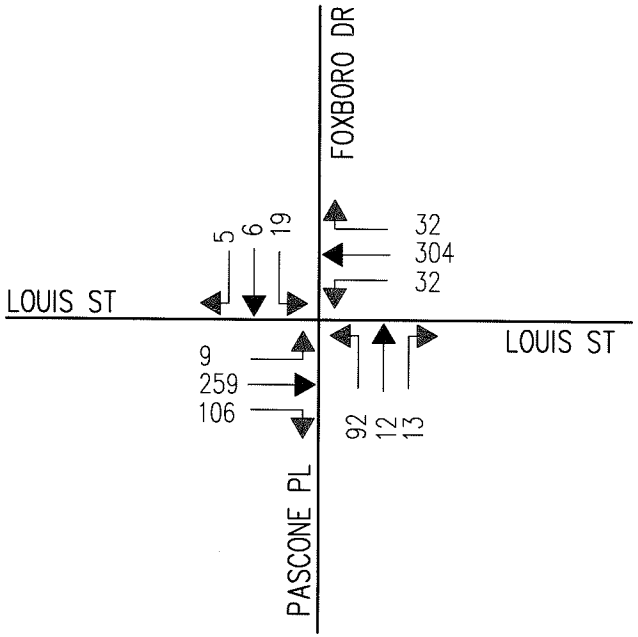
103 LOUIS STREET
NEWINGTON, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC
PLANNING
ENGINEERING
DESIGN

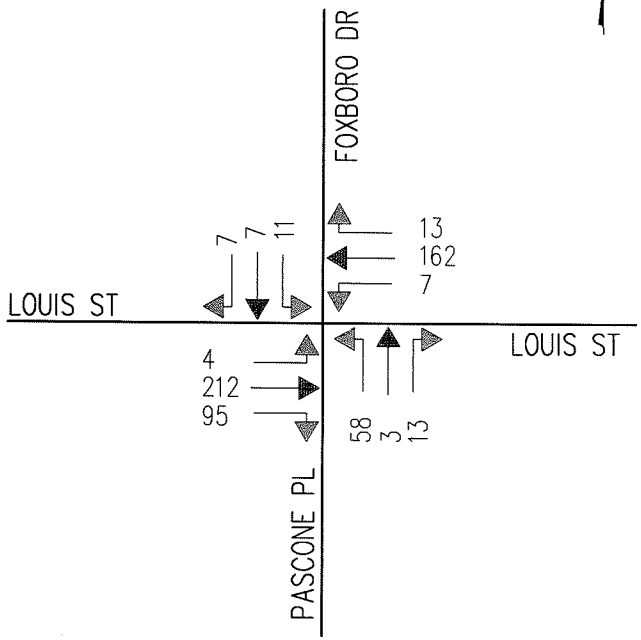
NOT TO SCALE



A.M. PEAK HOUR



P.M. PEAK HOUR



SATURDAY PEAK HOUR

1% PER YEAR GROWTH RATE (3% TOTAL) TO 2028 DESIGN YEAR

FIGURE 3

5-07-25

2028 BACKGROUND TRAFFIC
A.M., P.M., AND SATURDAY
PEAK HOURS

PROPOSED RESIDENTIAL

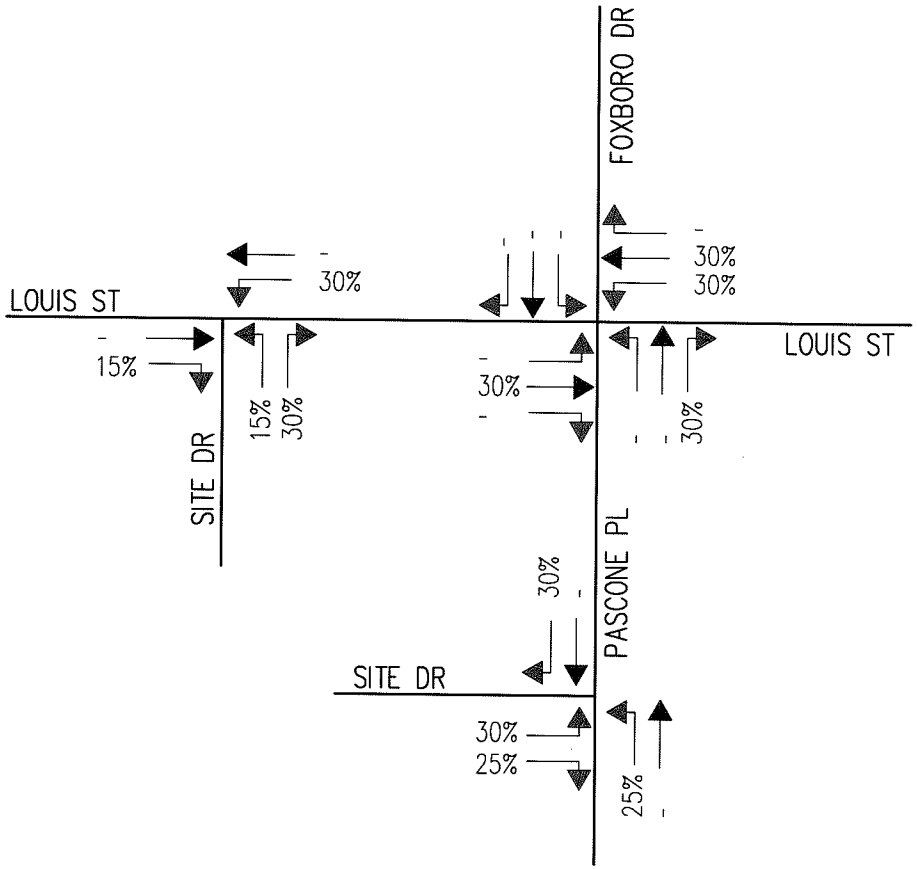
103 LOUIS STREET
NEWINGTON, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC
PLANNING
ENGINEERING
DESIGN

NOT TO SCALE

Table 2
Trip Generation
Proposed Residential Development
105 Louis Street - Newington, CT

LUC	Land Use	Size	Weekday ADT	A.M. Peak Hour Enter	A.M. Peak Hour Exit	A.M. Peak Hour Total	P.M. Peak Hour Enter	P.M. Peak Hour Exit	P.M. Peak Hour Total	Saturday ADT	Saturday Peak Hour Enter	Saturday Peak Hour Exit	Saturday Peak Hour Total
Proposed Development													
215	Single family Attached Housing												
		41 units	271	5	14	19	12	9	21	**190**	9	10	19
220	Multifamily Housong (Low Rise)												
		41 units	**351**	**7**	**20**	**27**	**17**	**10**	**27**	187	**8**	**12**	**20**



SATURDAY PEAK HOUR

FIGURE 4

5-07-25

DIRECTIONAL DISTRIBUTION OF SITE GENERATED TRAFFIC

PROPOSED RESIDENTIAL

103 LOUIS STREET

NEWINGTON, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026

FAH

TRAFFIC
PLANNING
ENGINEERING
DESIGN

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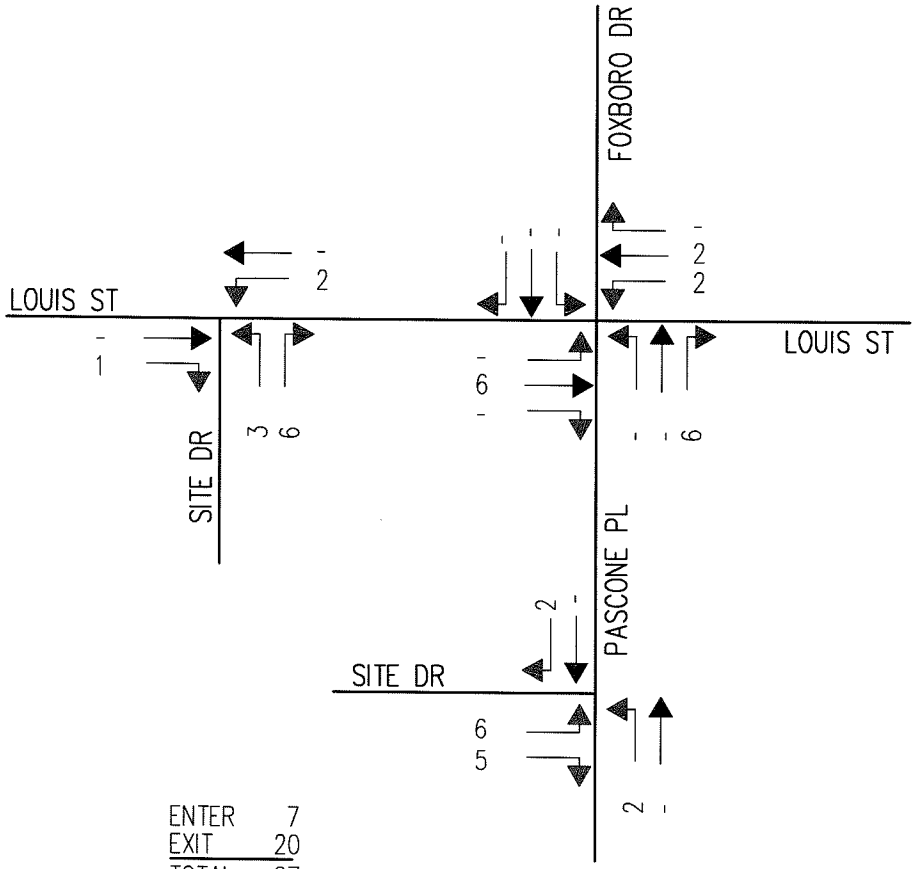
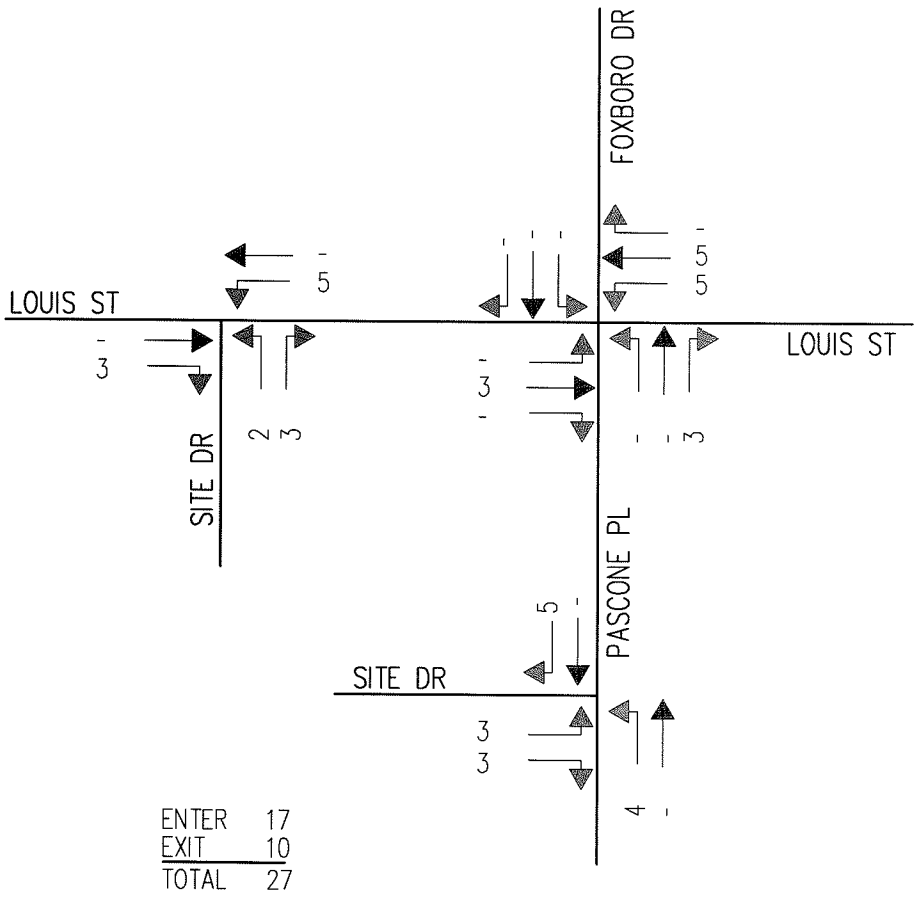


A.M. PEAK HOUR



P.M. PEAK HOUR

FIGURE 5

11/20/25

SITE GENERATED TRAFFIC
A.M. AND P.M. PEAK HOURS

PROPOSED RESIDENTIAL
103 LOUIS STREET
NEWINGTON, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026

FAH

TRAFFIC
PLANNING
ENGINEERING
DESIGN

NOT TO SCALE

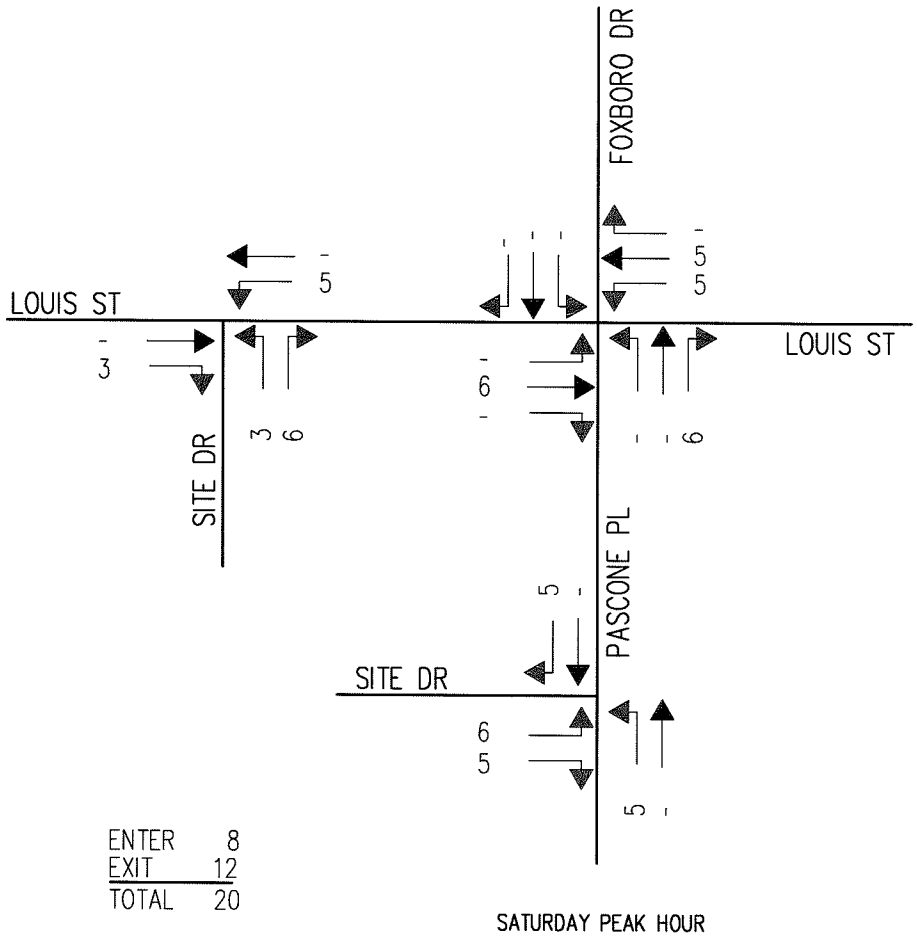


FIGURE 6

11/20/25

SITE GENERATED TRAFFIC
SATURDAY PEAK HOUR

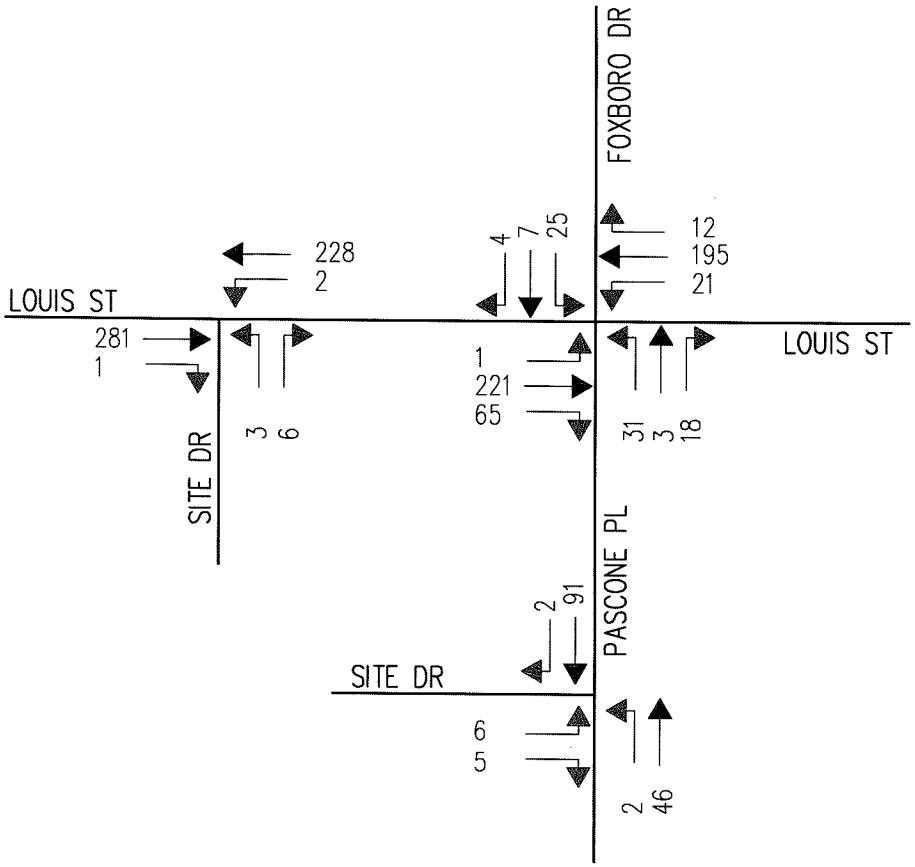
PROPOSED RESIDENTIAL
103 LOUIS STREET
NEWINGTON, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026

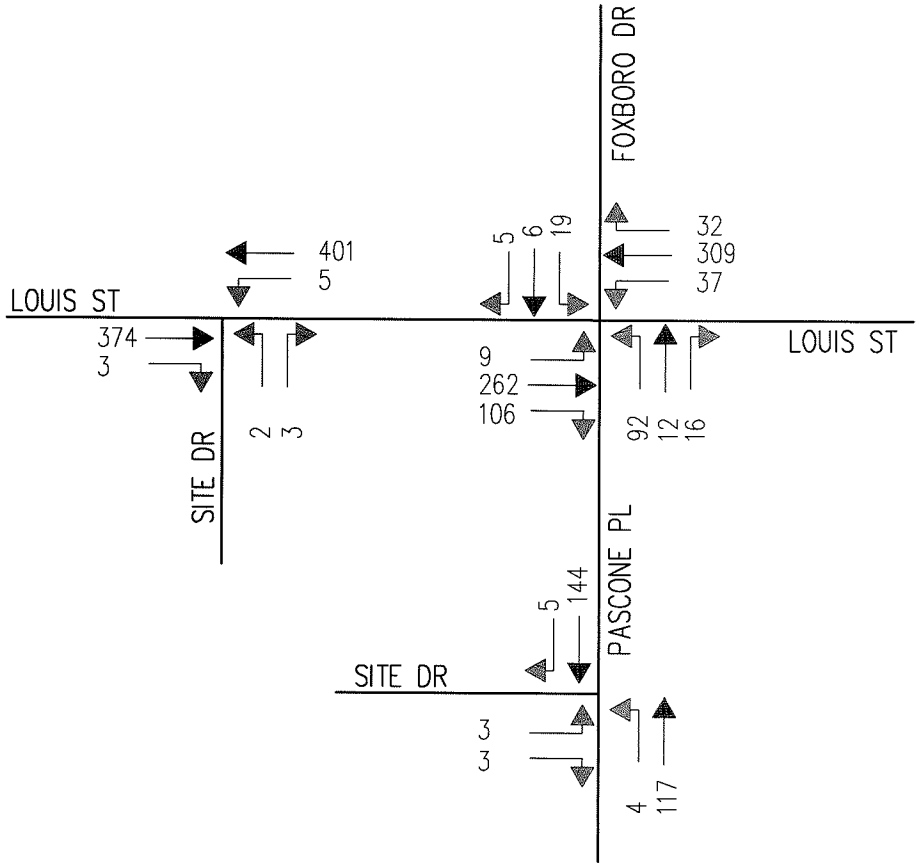
FAH

TRAFFIC
PLANNING
ENGINEERING
DESIGN

NOT TO SCALE



A.M. PEAK HOUR



P.M. PEAK HOUR

FIGURE 7

5-07-25

2028 COMBINED TRAFFIC
A.M. AND P.M. PEAK HOURS

PROPOSED RESIDENTIAL
103 LOUIS STREET
NEWINGTON, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026

FAH
TRAFFIC
PLANNING
ENGINEERING
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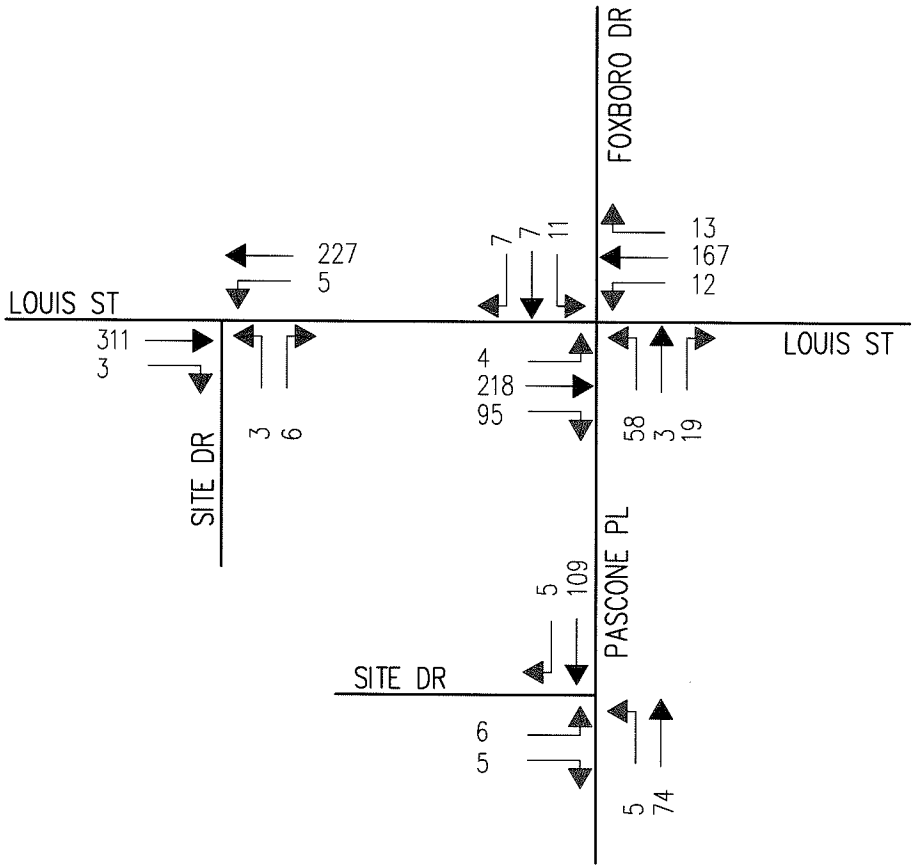
NOT TO SCALE



SATURDAY PEAK HOUR

FIGURE 8

5-07-25

2028 COMBINED TRAFFIC
SATURDAY PEAK HOUR

PROPOSED RESIDENTIAL
103 LOUIS STREET
NEWINGTON, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC
PLANNING
ENGINEERING
DESIGN

NOT TO SCALE

Table 3
Level of Service Summary
Proposed Residential Development
Kitts Lane - Newington, CT

	A.M. Peak Hour								P.M. Peak Hour								P.M. Peak Hour							
	Background Traffic				Combined Traffic				Background Traffic				Combined Traffic				Background Traffic				Combined Traffic			
Time Period	LOS	delay	v/c	queue	LOS	delay	v/c	queue	LOS	delay	v/c	queue	LOS	delay	v/c	queue	LOS	delay	v/c	queue	LOS	delay	v/c	queue
Louis Street at Pascone Place / Foxboro Drive																								
NB	B	14.8	0.14	12	B	14.7	0.15	13	C	24.4	0.41	48	D	25.4	0.43	52	B	13.0	0.14	12	B	13.2	0.16	14
SB	C	15.5	0.12	10	C	16.0	0.12	10	C	18.1	0.11	9	C	18.8	0.11	9	B	11.9	0.05	4	B	12.2	0.05	4
EB	A	0.0	0.00	0	A	0.0	0.00	0	A	0.3	0.01	1	A	0.3	0.01	1	A	0.1	0.00	0	A	0.1	0.00	0
WB	A	0.9	0.02	2	A	0.9	0.02	2	A	1.0	0.03	2	A	1.1	0.04	3	A	0.3	0.01	0	A	0.6	0.01	1
Louis Street at site Driveway																								
NB					B	11.5	0.02	2					B	12.9	0.01	1					B	10.9	0.01	1
EB					A	0.0	0.22	0					A	0.0	0.24	0					A	0.0	0.19	0
WB					A	0.1	0.00	0					A	0.1	0.00	0					A	0.2	0.00	0
Pascone Place at Site Driveway																								
NB					A	0.4	0.00	0					A	0.2	0.00	0					A	0.5	0.00	0
SB					A	0.0	0.07	0					A	0.0	0.10	0					A	0.0	0.07	0
EB					A	9.3	0.02	1					A	9.7	0.01	1					A	9.3	0.01	1

20-Nov-25

Appendix

ConnDOT Traffic Volume Counts

Status: OK North Combined South Class

NEWI-017 - Combined - n/s

Route 173 - 1.13 mi South of Route 174(S Jct)

Town.....Newington
Station.....17
Location..... 41.674956,-72.729119
Posted Speed Limit.....40 MPH
A.K.A.....5017
2015-Minor Arterial 4.....2015-Urban
Start Report.....22-Oct-2024 11:00AM
End Report.....24-Oct-2024 08:00PM
Annualized ADT.....11200
24-Hour Count...11884 * G4(0.93) = 11052.1
Day 1.....+12118 * G4(0.93) = 22321.9
UnRounded AADT.....22321.9 / 2 = 11160.9
OK 2024 Tue 22-Oct -this report-...11200
OK 2021 Wed 17-Nov 11400
OK 2018 Wed 04-Apr 11400
OK 2015 Mon 31-Aug 11400
OK 2012 Tue 18-Dec 12700
OK 2009 Mon 16-Nov 12300
OK 2006 Wed 23-Aug 12500
Dataset Details.....2

	22-Oct Tue	23-Oct Wed	24-Oct Thu
12:00am		28	31
01:00am		28	24
02:00am		30	33
03:00am		16	23
04:00am		57	55
05:00am		176	164
06:00am		330	313
07:00am		660	597
08:00am		680	654
09:00am		619	570
10:00am	x	627	652
11:00am	674	710	699
12:00pm	792	758	830
01:00pm	792	743	817
02:00pm	879	860	846
03:00pm	956	1060	1021
04:00pm	1058	1134	1127
05:00pm	1084	1146	1094
06:00pm	877	900	908
07:00pm	567	623	680
08:00pm	411	408	
09:00pm	303	273	
10:00pm	155	169	
11:00pm	85	83	
Totals	8633	12118	11138

Status: OK [North] [Combined] [South]

NEWI-087 - Combined - n/s

Route 176 - 0.01 mi South of Louis Street

Town.....Newington
Station.....87
Location..... 41.670338,-72.718206
Posted Speed Limit.....40 MPH
2015-Minor Arterial 4.....2015-Urban
Start Report.....23-Oct-2024 01:00PM
End Report.....25-Oct-2024 11:00AM
Annualized ADT.....10200
24-Hour Count...10849 * G4(0.93) = 10089.6
Day 1.....+11039 * G4(0.93) = 20355.8
UnRounded AADT.....20355.8 / 2 = 10177.9
OK 2024 Wed 23-Oct -this report-...10200
OK 2021 Tue 02-Nov 12100
OK 2018 Mon 19-Mar 12200
OK 2015 Wed 02-Sep 14200
OK 2009 Thu 12-Nov 12800
OK 2006 Mon 21-Aug 14100
Dataset Details.....2

	23-Oct Wed	24-Oct Thu	25-Oct Fri
12:00am		38	42
01:00am		34	25
02:00am		27	18
03:00am		22	20
04:00am		44	43
05:00am		165	171
06:00am		378	365
07:00am		690	669
08:00am		708	669
09:00am		593	617
10:00am		635	629
11:00am		589	x
12:00pm	x	720	
01:00pm	642	702	
02:00pm	658	732	
03:00pm	827	850	
04:00pm	953	910	
05:00pm	962	868	
06:00pm	698	759	
07:00pm	561	579	
08:00pm	410	425	
09:00pm	242	299	
10:00pm	169	179	
11:00pm	84	93	
Totals	6206	11039	3268

Automatic Traffic Count

Louis Street

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Start	07-Apr-25		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	Eastbound	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou
12:00 AM	*	*	*	*	*	*	*	*	0	27	0	32	0	0	0	20
01:00	*	*	*	*	*	*	*	*	0	13	0	23	0	0	0	12
02:00	*	*	*	*	*	*	*	*	0	8	0	16	0	0	0	8
03:00	*	*	*	*	*	*	*	*	0	13	0	5	0	0	0	6
04:00	*	*	*	*	*	*	*	*	0	17	0	8	0	0	0	8
05:00	*	*	*	*	*	*	*	*	0	72	0	30	0	0	0	34
06:00	*	*	*	*	*	*	*	*	0	157	0	59	0	0	0	72
07:00	*	*	*	*	*	*	*	*	0	**401**	0	106	0	0	0	169
08:00	*	*	*	*	*	*	*	*	0	362	0	182	0	0	0	181
09:00	*	*	*	*	*	*	*	*	0	282	0	285	0	0	0	189
10:00	*	*	*	*	*	*	*	*	0	334	0	331	0	0	0	222
11:00	*	*	*	*	*	*	**169**	**134**	0	399	0	**419**	0	0	**42**	**238**
12:00 PM	*	*	*	*	*	*	**229**	206	0	461	0	**68**	0	0	**57**	184
01:00	*	*	*	*	*	*	204	218	0	440	0	0	0	0	51	164
02:00	*	*	*	*	*	*	201	226	0	488	0	0	0	0	50	178
03:00	*	*	*	*	*	*	194	416	0	576	0	0	0	0	48	248
04:00	*	*	*	*	*	*	0	**644**	0	**602**	0	0	0	0	0	**312**
05:00	*	*	*	*	*	*	0	602	0	581	0	0	0	0	0	296
06:00	*	*	*	*	*	*	0	468	0	424	0	0	0	0	0	223
07:00	*	*	*	*	*	*	0	329	0	325	0	0	0	0	0	164
08:00	*	*	*	*	*	*	0	226	0	269	0	0	0	0	0	124
09:00	*	*	*	*	*	*	0	135	0	191	0	0	0	0	0	82
10:00	*	*	*	*	*	*	0	80	0	164	0	0	0	0	0	61
11:00	*	*	*	*	*	*	0	56	0	82	0	0	0	0	0	34
Lane	0	0	0	0	0	0	997	3740	0	6688	0	1564	0	0	248	3229
Day	0		0		0		4737		6688		1564		0		3477	
AM Peak	-	-	-	-	-	-	11:00	11:00	-	07:00	-	11:00	-	-	11:00	11:00
Vol.	-	-	-	-	-	-	169	134	-	401	-	419	-	-	42	238
PM Peak	-	-	-	-	-	-	12:00	16:00	-	16:00	-	12:00	-	-	12:00	16:00
Vol.	-	-	-	-	-	-	229	644	-	602	-	68	-	-	57	312

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Start	14-Apr-25		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	Eastbound	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou
12:00 AM	0	0	6	16	6	11	9	21	12	16	21	23	19	23	10	16
01:00	0	0	9	4	10	6	8	0	5	6	7	7	6	18	6	6
02:00	0	0	2	9	2	7	1	6	2	8	3	10	13	12	3	7
03:00	0	0	8	1	2	1	2	4	3	4	3	10	3	7	3	4
04:00	0	0	8	7	14	7	12	8	14	4	7	3	4	9	8	5
05:00	0	0	48	16	52	25	54	25	37	8	23	5	24	7	34	12
06:00	0	0	95	86	84	84	81	78	68	52	35	28	34	25	57	50
07:00	0	0	171	126	188	112	151	122	130	89	63	49	47	70	107	81
08:00	0	0	170	153	202	140	182	145	163	113	132	104	74	93	132	107
09:00	0	0	152	133	197	170	206	168	178	138	185	210	126	136	149	136
10:00	0	0	182	162	169	155	210	**219**	**237**	179	272	**257**	**199**	160	181	162
11:00	**136**	**92**	**195**	**168**	**213**	**206**	**226**	198	226	**196**	**303**	256	180	**170**	**211**	**184**
12:00 PM	226	220	246	212	239	215	246	216	279	255	233	**269**	**214**	159	240	221
01:00	199	205	160	183	194	228	220	215	257	219	261	260	206	**179**	214	213
02:00	187	213	210	194	197	210	253	222	226	263	251	259	168	151	213	216
03:00	248	232	273	250	230	263	**277**	260	227	238	248	254	129	151	233	235
04:00	248	**308**	**296**	287	**286**	302	267	294	**314**	**305**	**263**	218	124	164	**257**	268
05:00	**250**	268	261	**308**	275	**340**	236	**296**	278	305	217	238	120	144	234	**271**
06:00	218	210	221	185	198	229	212	248	205	255	219	230	113	144	198	214
07:00	155	189	126	185	121	164	158	186	189	150	168	199	95	135	145	173
08:00	103	138	93	135	94	136	126	163	147	174	114	142	50	89	104	140
09:00	54	93	38	94	48	89	63	114	71	120	85	109	29	58	55	97
10:00	30	52	28	69	29	79	42	60	43	96	60	104	23	28	36	70
11:00	12	30	21	44	14	30	14	29	18	57	36	63	6	18	17	39
Lane	2066	2250	3019	3027	3064	3209	3256	3297	3329	3250	3209	3307	2006	2150	2847	2927
Day	4316		6046		6273		6553		6579		6516		4156		5774	
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	10:00	10:00	11:00	11:00	10:00	10:00	11:00	11:00	11:00
Vol.	136	92	195	168	213	206	226	219	237	196	303	257	199	170	211	184
PM Peak	17:00	16:00	16:00	17:00	16:00	17:00	15:00	17:00	16:00	16:00	16:00	12:00	12:00	13:00	16:00	17:00
Vol.	250	308	296	308	286	340	277	296	314	305	263	269	214	179	257	271

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Start	21-Apr-25		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	Eastbound	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou	Eastboun	Westbou
12:00 AM	4	8	*	*	*	*	*	*	*	*	*	*	*	*	4	8
01:00	1	4	*	*	*	*	*	*	*	*	*	*	*	*	1	4
02:00	0	8	*	*	*	*	*	*	*	*	*	*	*	*	0	8
03:00	5	0	*	*	*	*	*	*	*	*	*	*	*	*	5	0
04:00	7	4	*	*	*	*	*	*	*	*	*	*	*	*	7	4
05:00	46	25	*	*	*	*	*	*	*	*	*	*	*	*	46	25
06:00	83	71	*	*	*	*	*	*	*	*	*	*	*	*	83	71
07:00	166	**166**	*	*	*	*	*	*	*	*	*	*	*	*	166	**166**
08:00	**196**	149	*	*	*	*	*	*	*	*	*	*	*	*	**196**	149
09:00	165	163	*	*	*	*	*	*	*	*	*	*	*	*	165	163
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lane	673	598	0	0	0	0	0	0	0	0	0	0	0	0	673	598
Day	1271		0		0		0		0		0		0		1271	
AM Peak	08:00	07:00	-	-	-	-	-	-	-	-	-	-	-	-	08:00	07:00
Vol.	196	166	-	-	-	-	-	-	-	-	-	-	-	-	196	166
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comb. Total	5587	6046	6273	11290	13267	8080	4156	10522

ADT ADT 6,076 AADT 6,076

Manual Turning Movement Counts

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Louis Street at Pascal Place
Newington, Connecticut

File Name : 26886
Site Code : 26886
Start Date : 4/11/2025
Page No : 1

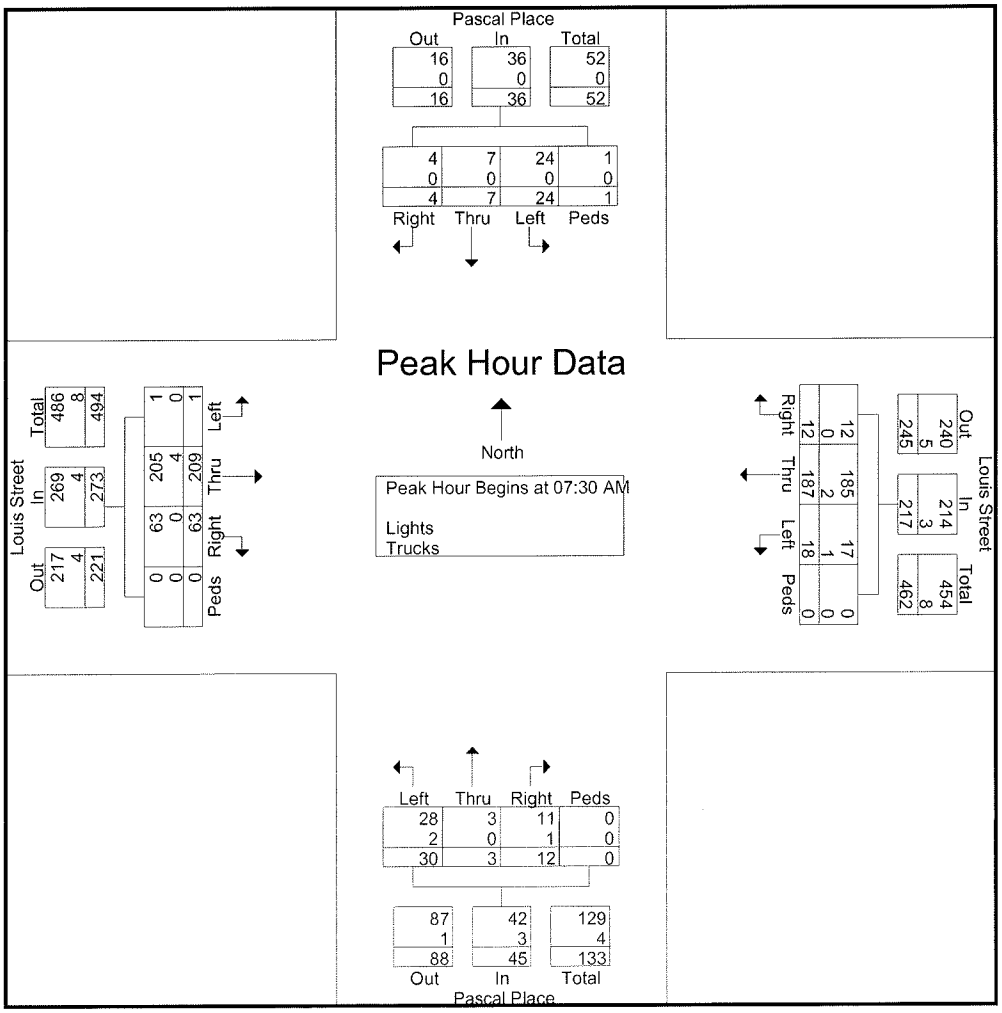
Groups Printed- Lights - Trucks

	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	1	3	0	4	3	32	3	0	38	2	0	5	0	7	10	27	0	0	37	86
07:15 AM	2	2	4	0	8	1	36	2	0	39	1	0	5	0	6	7	35	0	0	42	95
07:30 AM	0	1	3	0	4	0	52	4	0	56	2	0	4	0	6	13	39	0	0	52	118
07:45 AM	0	1	7	1	9	0	44	3	0	47	4	0	10	0	14	9	37	0	0	46	116
Total	2	5	17	1	25	4	164	12	0	180	9	0	24	0	33	39	138	0	0	177	415
08:00 AM	4	4	6	0	14	8	53	5	0	66	4	1	8	0	13	21	71	0	0	92	185
08:15 AM	0	1	8	0	9	4	38	6	0	48	2	2	8	0	12	20	62	1	0	83	152
*** BREAK ***																					
08:45 AM	1	0	7	0	8	5	32	4	0	41	2	0	4	0	6	5	27	0	0	32	87
Total	5	5	21	0	31	17	123	15	0	155	8	3	20	0	31	46	160	1	0	207	424
Grand Total	7	10	38	1	56	21	287	27	0	335	17	3	44	0	64	85	298	1	0	384	839
Apprch %	12.5	17.9	67.9	1.8		6.3	85.7	8.1	0		26.6	4.7	68.8	0		22.1	77.6	0.3	0		
Total %	0.8	1.2	4.5	0.1	6.7	2.5	34.2	3.2	0	39.9	2	0.4	5.2	0	7.6	10.1	35.5	0.1	0	45.8	
Lights	7	10	38	1	56	21	285	26	0	332	16	3	41	0	60	85	293	1	0	379	827
% Lights	100	100	100	100	100	100	99.3	96.3	0	99.1	94.1	100	93.2	0	93.8	100	98.3	100	0	98.7	98.6
Trucks	0	0	0	0	0	0	2	1	0	3	1	0	3	0	4	0	5	0	0	5	12
% Trucks	0	0	0	0	0	0	0.7	3.7	0	0.9	5.9	0	6.8	0	6.2	0	1.7	0	0	1.3	1.4

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

File Name : 26886
Site Code : 26886
Start Date : 4/11/2025
Page No : 2

	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	1	3	0	4	0	52	4	0	56	2	0	4	0	6	13	39	0	0	52	118
07:45 AM	0	1	7	**1**	9	0	44	3	0	47	**4**	0	**10**	0	**14**	9	37	0	0	46	116
08:00 AM	**4**	**4**	6	0	**14**	**8**	**53**	5	0	**66**	4	1	8	0	13	**21**	**71**	0	0	**92**	**185**
08:15 AM	0	1	**8**	0	9	4	38	**6**	0	48	2	**2**	8	0	12	20	62	**1**	0	83	152
Total Volume	4	7	24	1	36	12	187	18	0	217	12	3	30	0	45	63	209	1	0	273	571
% App. Total	11.1	19.4	66.7	2.8		5.5	86.2	8.3	0		26.7	6.7	66.7	0		23.1	76.6	0.4	0		
PHF	.250	.438	.750	.250	.643	.375	.882	.750	.000	.822	.750	.375	.750	.000	.804	.750	.736	.250	.000	.742	.772
Lights	4	7	24	1	36	12	185	17	0	214	11	3	28	0	42	63	205	1	0	269	561
% Lights	100	100	100	100	100	100	98.9	94.4	0	98.6	91.7	100	93.3	0	93.3	100	98.1	100	0	98.5	98.2
Trucks	0	0	0	0	0	0	2	1	0	3	1	0	2	0	3	0	4	0	0	4	10
% Trucks	0	0	0	0	0	0	1.1	5.6	0	1.4	8.3	0	6.7	0	6.7	0	1.9	0	0	1.5	1.8



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Louis Street at Pascal Place
Newington, Connecticut

File Name : 26887
Site Code : 26887
Start Date : 4/10/2025
Page No : 1

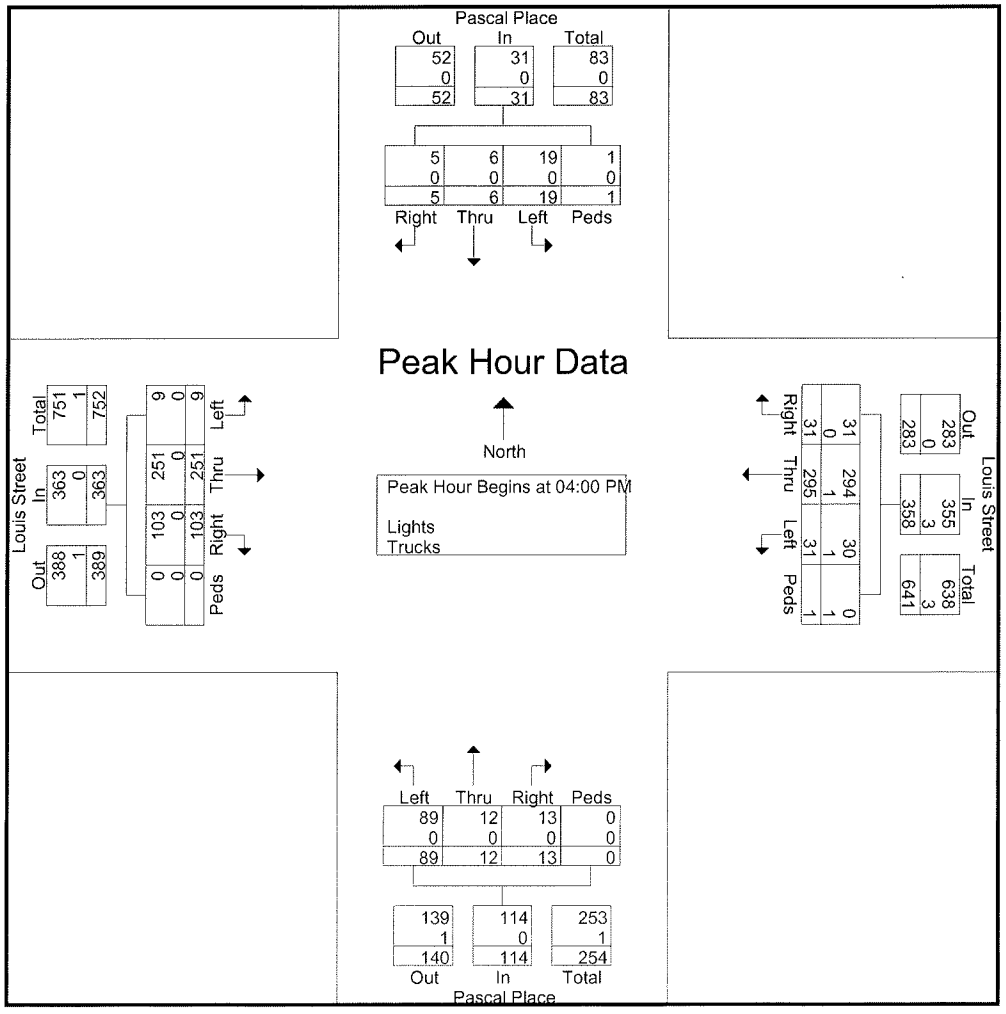
Groups Printed- Lights - Trucks

	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	1	3	2	1	7	3	59	3	1	66	5	4	21	0	30	26	61	3	0	90	193
04:15 PM	1	0	2	0	3	5	70	7	0	82	4	4	19	0	27	25	64	2	0	91	203
04:30 PM	0	1	4	0	5	12	83	14	0	109	0	2	23	0	25	27	64	1	0	92	231
04:45 PM	3	2	11	0	16	11	83	7	0	101	4	2	26	0	32	25	62	3	0	90	239
Total	5	6	19	1	31	31	295	31	1	358	13	12	89	0	114	103	251	9	0	363	866
05:00 PM	0	3	5	0	8	4	66	6	0	76	0	1	18	0	19	20	56	3	0	79	182
05:15 PM	0	0	2	0	2	2	55	4	0	61	4	2	14	0	20	16	39	2	0	57	140
05:30 PM	0	0	1	0	1	2	51	3	0	56	0	1	11	0	12	14	32	1	0	47	116
05:45 PM	1	5	2	1	9	5	53	2	1	61	4	1	24	0	29	15	49	1	0	65	164
Total	1	8	10	1	20	13	225	15	1	254	8	5	67	0	80	65	176	7	0	248	602
Grand Total	6	14	29	2	51	44	520	46	2	612	21	17	156	0	194	168	427	16	0	611	1468
Apprch %	11.8	27.5	56.9	3.9		7.2	85	7.5	0.3		10.8	8.8	80.4	0		27.5	69.9	2.6	0		
Total %	0.4	1	2	0.1	3.5	3	35.4	3.1	0.1	41.7	1.4	1.2	10.6	0	13.2	11.4	29.1	1.1	0	41.6	
Lights	6	14	29	2	51	44	519	45	1	609	21	17	156	0	194	168	426	16	0	610	1464
% Lights	100	100	100	100	100	100	99.8	97.8	50	99.5	100	100	100	0	100	100	99.8	100	0	99.8	99.7
Trucks	0	0	0	0	0	0	1	1	1	3	0	0	0	0	0	0	1	0	0	1	4
% Trucks	0	0	0	0	0	0	0.2	2.2	50	0.5	0	0	0	0	0	0	0.2	0	0	0.2	0.3

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

File Name : 26887
Site Code : 26887
Start Date : 4/10/2025
Page No : 2

	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	1	**3**	2	**1**	7	3	59	3	**1**	66	**5**	**4**	21	0	30	26	61	**3**	0	90	193
04:15 PM	1	0	2	0	3	5	70	7	0	82	4	4	19	0	27	25	**64**	2	0	91	203
04:30 PM	0	1	4	0	5	**12**	**83**	**14**	0	**109**	0	2	23	0	25	**27**	64	1	0	**92**	231
04:45 PM	**3**	2	**11**	0	**16**	11	83	7	0	101	4	2	**26**	0	**32**	25	62	3	0	90	**239**
Total Volume	5	6	19	1	31	31	295	31	1	358	13	12	89	0	114	103	251	9	0	363	866
% App. Total	16.1	19.4	61.3	3.2		8.7	82.4	8.7	0.3		11.4	10.5	78.1	0		28.4	69.1	2.5	0		
PHF	.417	.500	.432	.250	.484	.646	.889	.554	.250	.821	.650	.750	.856	.000	.891	.954	.980	.750	.000	.986	.906
Lights	5	6	19	1	31	31	294	30	0	355	13	12	89	0	114	103	251	9	0	363	863
% Lights	100	100	100	100	100	100	99.7	96.8	0	99.2	100	100	100	0	100	100	100	100	0	100	99.7
Trucks	0	0	0	0	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	0	3
% Trucks	0	0	0	0	0	0	0.3	3.2	100	0.8	0	0	0	0	0	0	0	0	0	0	0.3



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Louis Street at Pascal Place
Newington, Connecticut

File Name : 26888
Site Code : 26888
Start Date : 4/12/2025
Page No : 1

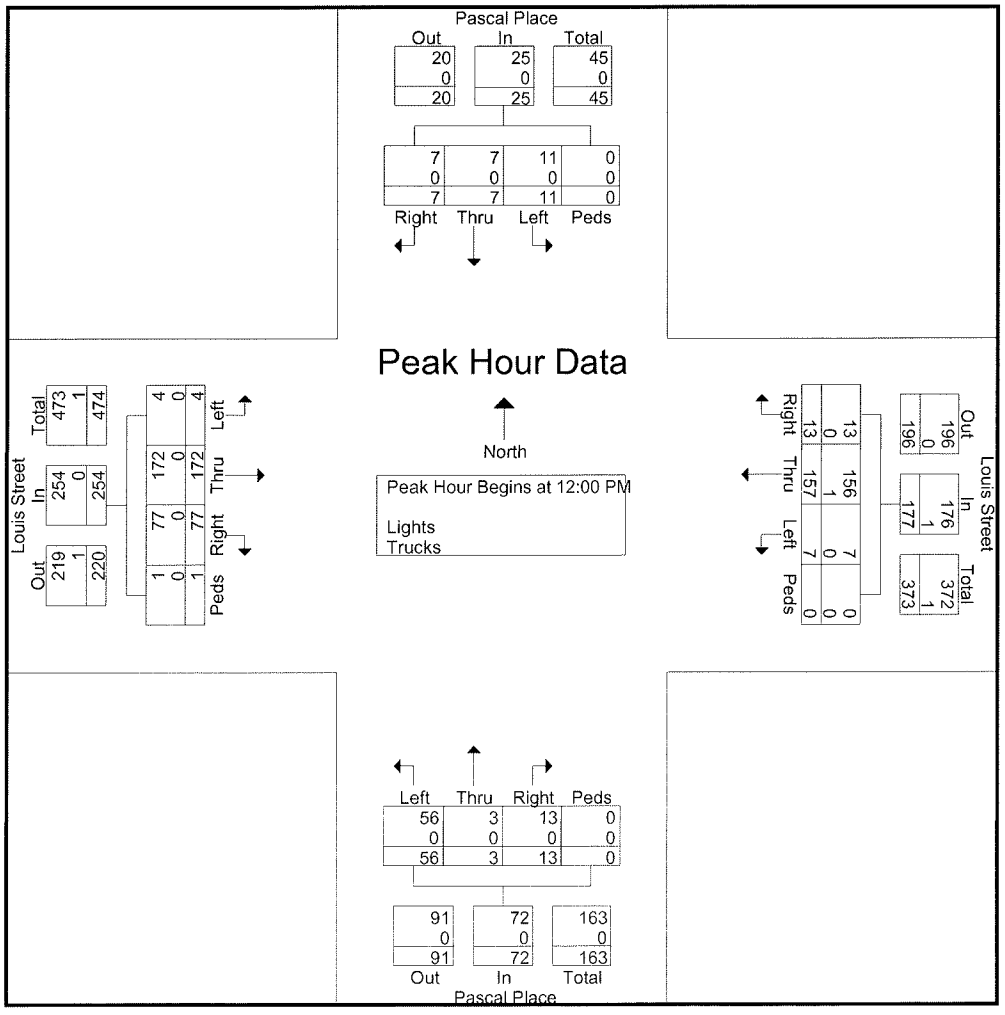
Groups Printed- Lights - Trucks

	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	0	2	6	0	8	2	50	1	0	53	1	0	10	0	11	18	38	0	1	57	129
11:15 AM	0	1	11	1	13	3	34	1	0	38	1	1	10	0	12	14	34	0	0	48	111
11:30 AM	0	2	4	0	6	4	43	5	0	52	0	2	7	0	9	15	45	1	0	61	128
11:45 AM	1	0	6	0	7	3	32	6	0	41	4	0	13	0	17	19	41	0	0	60	125
Total	1	5	27	1	34	12	159	13	0	184	6	3	40	0	49	66	158	1	1	226	493
12:00 PM	3	1	1	0	5	5	40	2	0	47	3	3	11	0	17	18	48	0	0	66	135
12:15 PM	0	2	3	0	5	4	47	2	0	53	4	0	14	0	18	14	41	4	0	59	135
12:30 PM	3	3	3	0	9	2	28	0	0	30	1	0	17	0	18	20	46	0	0	66	123
12:45 PM	1	1	4	0	6	2	42	3	0	47	5	0	14	0	19	25	37	0	1	63	135
Total	7	7	11	0	25	13	157	7	0	177	13	3	56	0	72	77	172	4	1	254	528
Grand Total	8	12	38	1	59	25	316	20	0	361	19	6	96	0	121	143	330	5	2	480	1021
Apprch %	13.6	20.3	64.4	1.7		6.9	87.5	5.5	0		15.7	5	79.3	0		29.8	68.8	1	0.4		
Total %	0.8	1.2	3.7	0.1	5.8	2.4	31	2	0	35.4	1.9	0.6	9.4	0	11.9	14	32.3	0.5	0.2	47	
Lights	8	12	38	1	59	25	315	20	0	360	19	6	96	0	121	143	330	5	2	480	1020
% Lights	100	100	100	100	100	100	99.7	100	0	99.7	100	100	100	0	100	100	100	100	100	100	99.9
Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0.1

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

File Name : 26888
Site Code : 26888
Start Date : 4/12/2025
Page No : 2

	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	**3**	1	1	0	5	**5**	40	2	0	47	3	**3**	11	0	17	18	**48**	0	0	**66**	**135**
12:15 PM	0	2	3	0	5	4	**47**	2	0	**53**	4	0	14	0	18	14	41	**4**	0	59	135
12:30 PM	3	**3**	3	0	**9**	2	28	0	0	30	1	0	**17**	0	18	20	46	0	0	66	123
12:45 PM	1	1	**4**	0	6	2	42	**3**	0	47	**5**	0	14	0	**19**	**25**	37	0	**1**	63	135
Total Volume	7	7	11	0	25	13	157	7	0	177	13	3	56	0	72	77	172	4	1	254	528
% App. Total	28	28	44	0		7.3	88.7	4	0		18.1	4.2	77.8	0		30.3	67.7	1.6	0.4		
PHF	.583	.583	.688	.000	.694	.650	.835	.583	.000	.835	.650	.250	.824	.000	.947	.770	.896	.250	.250	.962	.978
Lights	7	7	11	0	25	13	156	7	0	176	13	3	56	0	72	77	172	4	1	254	527
% Lights	100	100	100	0	100	100	99.4	100	0	99.4	100	100	100	0	100	100	100	100	100	100	99.8
Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0.6	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0.2



ITE Trip Generation Worksheets

Graph Look Up

Search | Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
220

LAND USE GROUP:
(200-299) Residential

LAND USE :
220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:
Not Close to Rail Transit

SETTING/LOCATION:
General Urban/Suburban

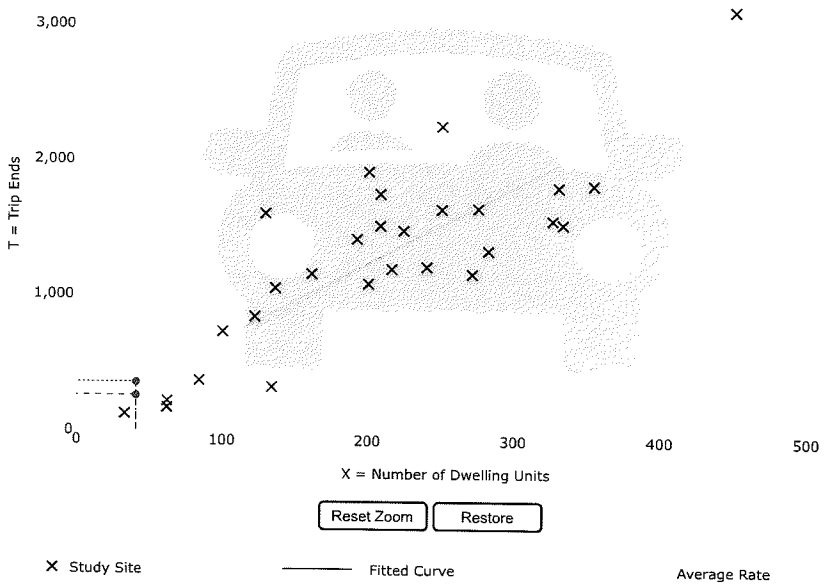
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
28

Avg. Num. of Dwelling Units:
208

Average Rate:
6.21

Range of Rates:
2.46 - 12.50

Standard Deviation:
1.87

Fitted Curve Equation:
$T = 5.63(X) + 120.45$

R^2:
0.70

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 255 (Total), 127 (Entry), 128 (Exit)
Fitted Curve: 351 (Total), 176 (Entry), 175 (Exit)

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Graph Look Up

Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
220

LAND USE GROUP:
(200-299) Residential

LAND USE :
220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:
Not Close to Rail Transit

SETTING/LOCATION:
General Urban/Suburban

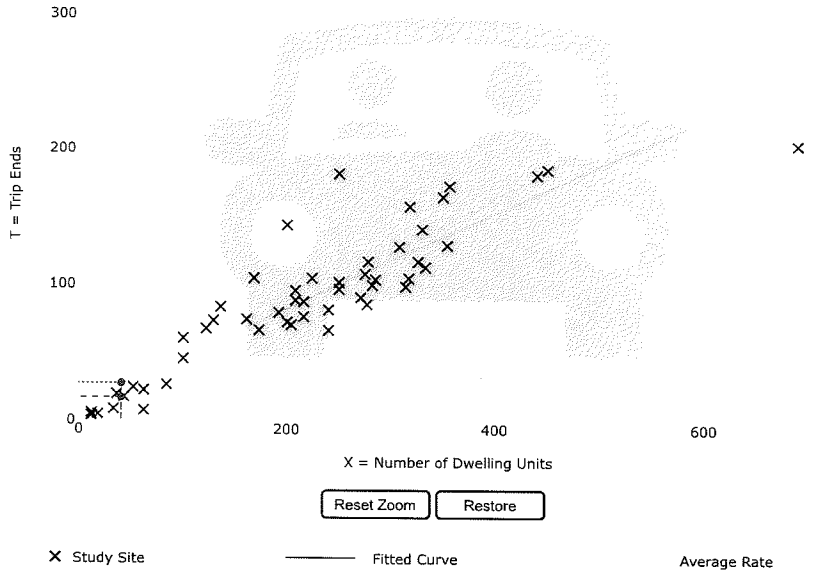
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday, Peak Hour of Adjacent Stre

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
51

Avg. Num. of Dwelling Units:
219

Average Rate:
0.41

Range of Rates:
0.13 - 0.73

Standard Deviation:
0.10

Fitted Curve Equation:
$T = 0.35(X) + 12.93$

R^2:
0.81

Directional Distribution:
24% entering, 76% exiting

Calculated Trip Ends:
Average Rate: 17 (Total), 4 (Entry), 13 (Exit)
Fitted Curve: 27 (Total), 7 (Entry), 20 (Exit)

TERMS AND CONDITIONS | PRIVACY | ITE MARKETPLACE | SUBMIT DATA

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Graph Look Up

Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
220

LAND USE GROUP:
(200-299) Residential

LAND USE :
220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:
Not Close to Rail Transit

SETTING/LOCATION:
General Urban/Suburban

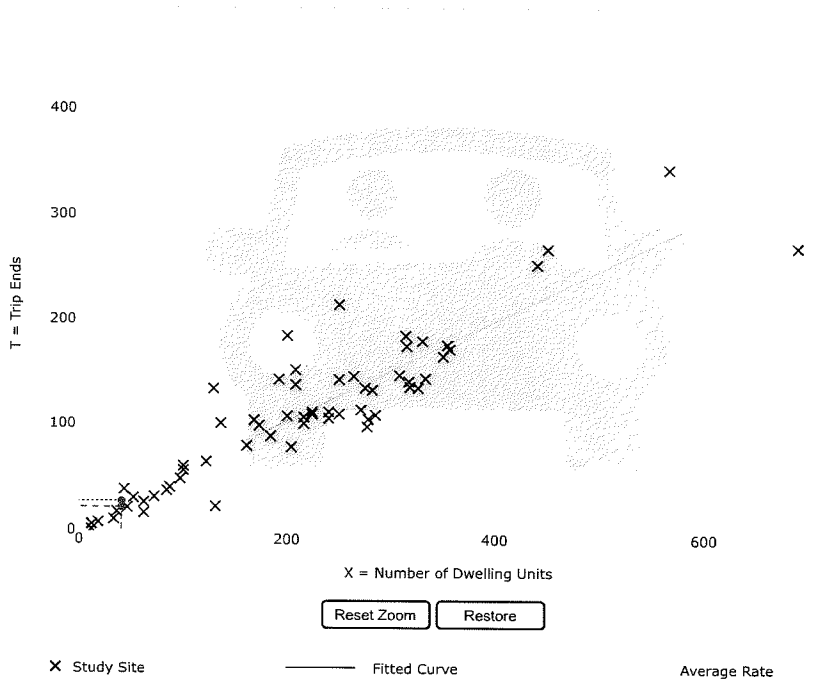
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday, Peak Hour of Adjacent Stre

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
61

Avg. Num. of Dwelling Units:
215

Average Rate:
0.52

Range of Rates:
0.08 - 1.04

Standard Deviation:
0.13

Fitted Curve Equation:
$T = 0.48(X) + 7.35$

R^2:
0.83

Directional Distribution:
62% entering, 38% exiting

Calculated Trip Ends:
Average Rate: 21 (Total), 13 (Entry), 8 (Exit)
Fitted Curve: 27 (Total), 17 (Entry), 10 (Exit)

TERMS AND CONDITIONS | PRIVACY | ITE MARKETPLACE | SUBMIT DATA

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Graph Look Up

Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
220

LAND USE GROUP:
(200-299) Residential

LAND USE :
220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:
Not Close to Rail Transit

SETTING/LOCATION:
General Urban/Suburban

INDEPENDENT VARIABLE (IV):
Dwelling Units

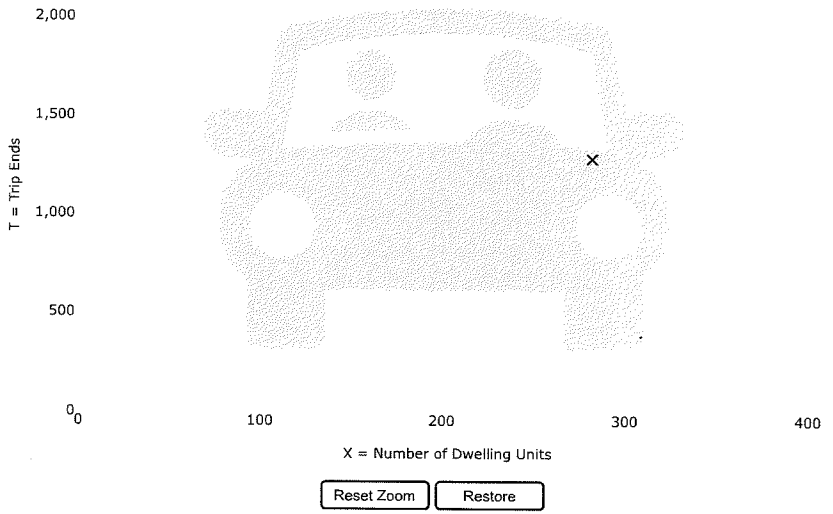
TIME PERIOD:
Saturday

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation

Caution – Small Sample Size



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Saturday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
1

Avg. Num. of Dwelling Units:
282

Average Rate:
4.55

Range of Rates:
4.55 - 4.55

Standard Deviation:
***

Fitted Curve Equation:
Not Given

R^2:
***

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 187 (Total), 93 (Entry), 94 (Exit)

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Graph Look Up

Search | Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
220

LAND USE GROUP:
(200-299) Residential

LAND USE :
220 - Multifamily Housing (Low-Rise)

LAND USE SUBCATEGORY:
Not Close to Rail Transit

SETTING/LOCATION:
General Urban/Suburban

INDEPENDENT VARIABLE (IV):
Dwelling Units

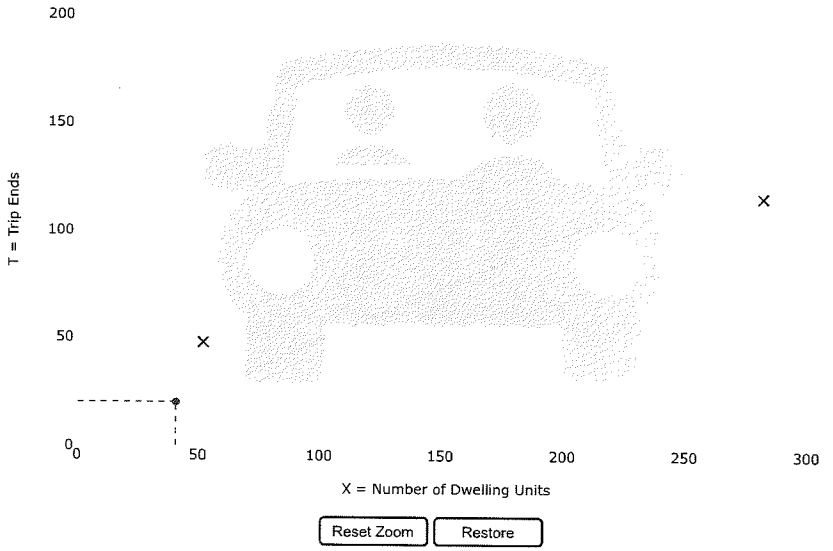
TIME PERIOD:
Saturday, Peak Hour of Generator

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation

Caution – Small Sample Size



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Multifamily Housing (Low-Rise) - Not Close to Rail Transit (220) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Saturday
Peak Hour of Generator

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
2

Avg. Num. of Dwelling Units:
167

Average Rate:
0.49

Range of Rates:
0.41 - 0.92

Standard Deviation:
***

Fitted Curve Equation:
Not Given

R^2:
***

Directional Distribution:
38% entering, 62% exiting

Calculated Trip Ends:
Average Rate: 20 (Total), 8 (Entry), 12 (Exit)

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Graph Look Up

Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
215

LAND USE GROUP:
(200-299) Residential

LAND USE :
215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

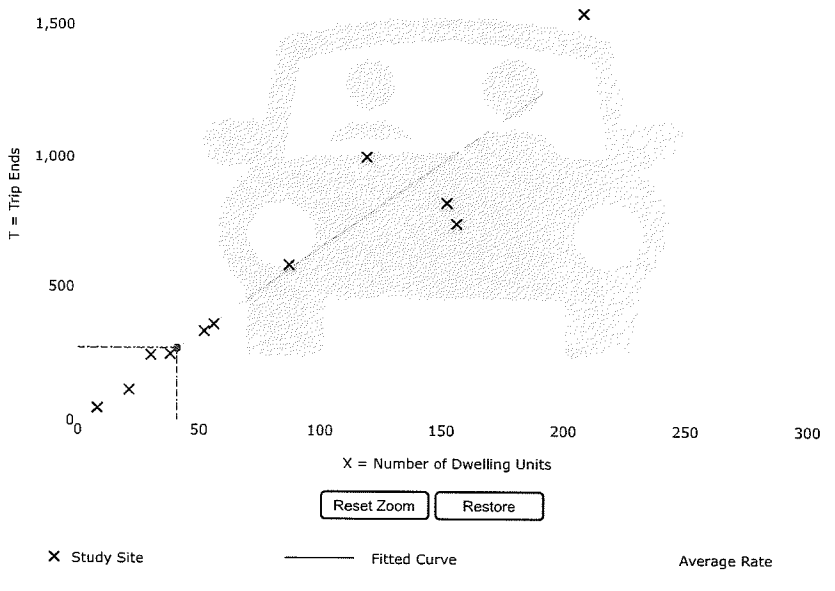
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Single-Family Attached Housing (215) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
11

Avg. Num. of Dwelling Units:
84

Average Rate:
6.57

Range of Rates:
4.80 - 8.45

Standard Deviation:
1.28

Fitted Curve Equation:
$T = 6.53(X) + 3.25$

R^2:
0.91

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 269 (Total), 135 (Entry), 134 (Exit)
Fitted Curve: 271 (Total), 135 (Entry), 136 (Exit)

TERMS AND CONDITIONS | PRIVACY | ITE MARKETPLACE | SUBMIT DATA

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Graph Look Up

Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
215

LAND USE GROUP:
(200-299) Residential

LAND USE :
215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

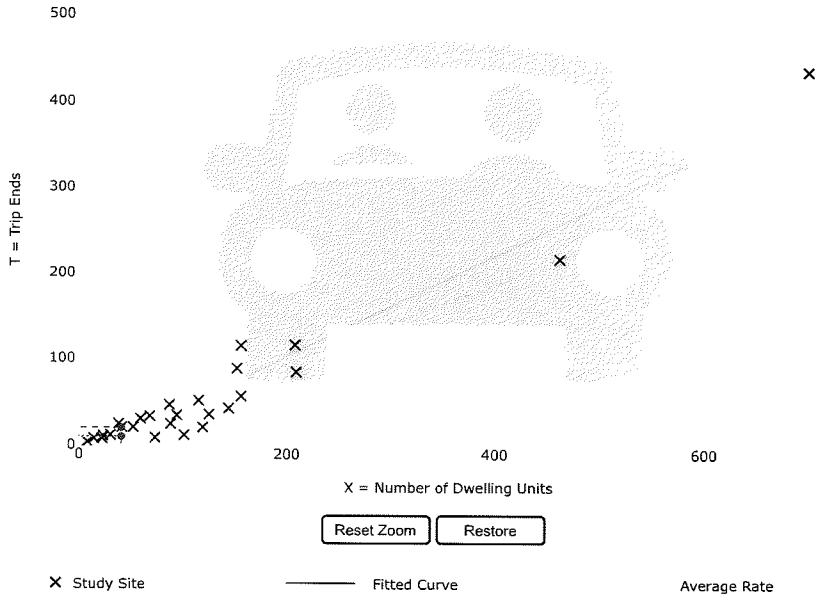
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday, Peak Hour of Adjacent Stre

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Single-Family Attached Housing (215) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
26

Avg. Num. of Dwelling Units:
129

Average Rate:
0.47

Range of Rates:
0.12 - 0.74

Standard Deviation:
0.16

Fitted Curve Equation:
T = 0.59(X) - 15.25

R^2:
0.94

Directional Distribution:
25% entering, 75% exiting

Calculated Trip Ends:
Average Rate: 19 (Total), 5 (Entry), 14 (Exit)
Fitted Curve: 9 (Total), 2 (Entry), 7 (Exit)

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Graph Look Up

Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
215

LAND USE GROUP:
(200-299) Residential

LAND USE :
215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

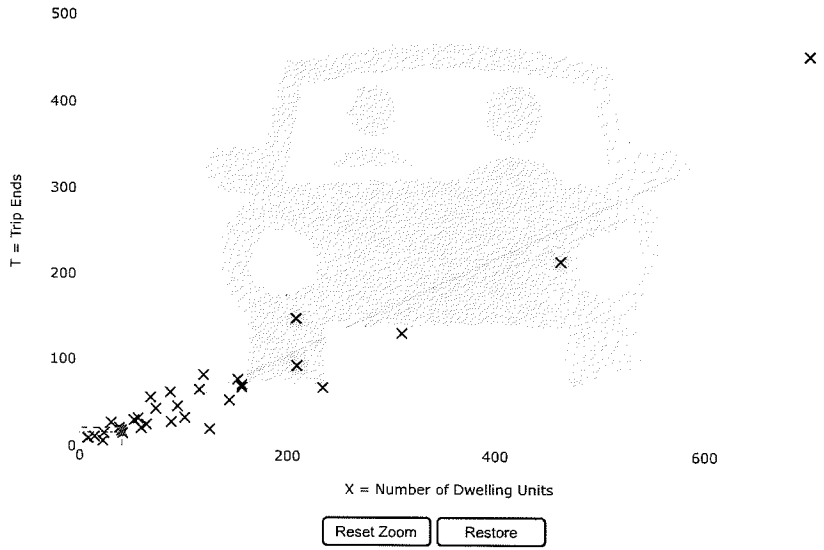
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday, Peak Hour of Adjacent Stre

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Single-Family Attached Housing (215) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
31

Avg. Num. of Dwelling Units:
131

Average Rate:
0.51

Range of Rates:
0.17 - 1.25

Standard Deviation:
0.16

Fitted Curve Equation:
T = 0.57(X) - 7.84

R^2:
0.92

Directional Distribution:
57% entering, 43% exiting

Calculated Trip Ends:
Average Rate: 21 (Total), 12 (Entry), 9 (Exit)
Fitted Curve: 16 (Total), 9 (Entry), 7 (Exit)

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Graph Look Up

Filter

DATA SOURCE:
Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:
215

LAND USE GROUP:
(200-299) Residential

LAND USE :
215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

INDEPENDENT VARIABLE (IV):
Dwelling Units

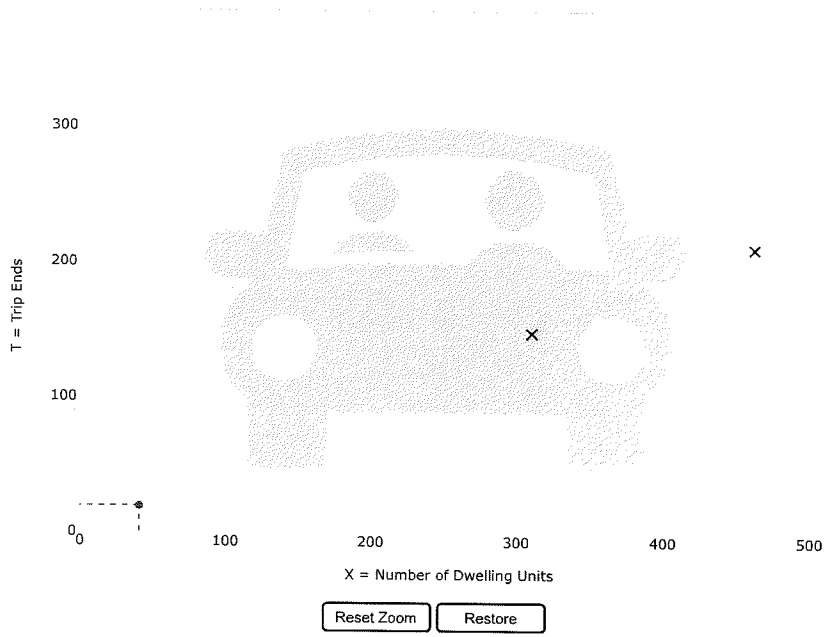
TIME PERIOD:
Saturday, Peak Hour of Generator

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
41 Calculate

Data Plot and Equation

Caution – Small Sample Size



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Single-Family Attached Housing (215) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Saturday
Peak Hour of Generator

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
2

Avg. Num. of Dwelling Units:
386

Average Rate:
0.47

Range of Rates:
0.46 - 0.48

Standard Deviation:
***

Fitted Curve Equation:
Not Given

R^2:
***

Directional Distribution:
48% entering, 52% exiting

Calculated Trip Ends:
Average Rate: 19 (Total), 9 (Entry), 10 (Exit)

TERMS AND CONDITIONS | PRIVACY | ITE MARKETPLACE | SUBMIT DATA

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SYNCHRO Capacity Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	1	215	65	19	193	12	31	3	12	25	7	4
Future Volume (Veh/h)	1	215	65	19	193	12	31	3	12	25	7	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	1	279	84	25	251	16	40	4	16	32	9	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	267			363			642	640	321	650	674	259
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	267			363			642	640	321	650	674	259
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			89	99	98	91	98	99
cM capacity (veh/h)	1297			1196			371	385	720	365	368	780

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	364	292	60	46
Volume Left	1	25	40	32
Volume Right	84	16	16	5
cSH	1297	1196	428	388
Volume to Capacity	0.00	0.02	0.14	0.12
Queue Length 95th (ft)	0	2	12	10
Control Delay (s)	0.0	0.9	14.8	15.5
Lane LOS	A	A	B	C
Approach Delay (s)	0.0	0.9	14.8	15.5
Approach LOS			B	C

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	9	259	106	32	304	32	92	12	13	19	6	5
Future Volume (Veh/h)	9	259	106	32	304	32	92	12	13	19	6	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	10	285	116	35	334	35	101	13	14	21	7	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	369			401			793	802	343	805	842	352
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	369			401			793	802	343	805	842	352
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			97			65	96	98	92	98	99
cM capacity (veh/h)	1190			1158			290	305	700	277	289	692

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	411	404	128	33
Volume Left	10	35	101	21
Volume Right	116	35	14	5
cSH	1190	1158	311	308
Volume to Capacity	0.01	0.03	0.41	0.11
Queue Length 95th (ft)	1	2	48	9
Control Delay (s)	0.3	1.0	24.4	18.1
Lane LOS	A	A	C	C
Approach Delay (s)	0.3	1.0	24.4	18.1
Approach LOS			C	C

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	212	95	7	162	13	58	3	13	11	7	7
Future Volume (Veh/h)	4	212	95	7	162	13	58	3	13	11	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	4	216	97	7	165	13	59	3	13	11	7	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	178			313			468	464	264	472	506	172
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	178			313			468	464	264	472	506	172
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			88	99	98	98	98	99
cM capacity (veh/h)	1398			1247			492	491	774	488	465	872

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	317	185	75	25
Volume Left	4	7	59	11
Volume Right	97	13	13	7
cSH	1398	1247	525	548
Volume to Capacity	0.00	0.01	0.14	0.05
Queue Length 95th (ft)	0	0	12	4
Control Delay (s)	0.1	0.3	13.0	11.9
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	0.3	13.0	11.9
Approach LOS			B	B

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	32.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	1	221	65	21	195	12	31	3	18	25	7	4
Future Volume (Veh/h)	1	221	65	21	195	12	31	3	18	25	7	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	1	287	84	27	253	16	40	4	23	32	9	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	269			371			656	654	329	671	688	261
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	269			371			656	654	329	671	688	261
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			89	99	97	91	98	99
cM capacity (veh/h)	1295			1188			363	377	712	349	361	778

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	372	296	67	46
Volume Left	1	27	40	32
Volume Right	84	16	23	5
cSH	1295	1188	438	374
Volume to Capacity	0.00	0.02	0.15	0.12
Queue Length 95th (ft)	0	2	13	10
Control Delay (s)	0.0	0.9	14.7	16.0
Lane LOS	A	A	B	C
Approach Delay (s)	0.0	0.9	14.7	16.0
Approach LOS			B	C

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	37.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	5	2	46	91	2
Future Volume (Veh/h)	6	5	2	46	91	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	8	6	3	60	118	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	186	120	121			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	186	120	121			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	100			
cM capacity (veh/h)	802	932	1467			

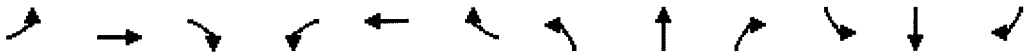
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	14	63	121
Volume Left	8	3	0
Volume Right	6	0	3
cSH	853	1467	1700
Volume to Capacity	0.02	0.00	0.07
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.3	0.4	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	0.4	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	14.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	281	1	2	228	3	6
Future Volume (Veh/h)	281	1	2	228	3	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	365	1	3	296	4	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			366		668	366
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			366		668	366
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1193		423	680

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	366	299	12
Volume Left	0	3	4
Volume Right	1	0	8
cSH	1700	1193	565
Volume to Capacity	0.22	0.00	0.02
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.1	11.5
Lane LOS		A	B
Approach Delay (s)	0.0	0.1	11.5
Approach LOS			B

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		24.9%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	9	262	106	37	309	32	92	12	16	19	6	5
Future Volume (Veh/h)	9	262	106	37	309	32	92	12	16	19	6	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	10	288	116	41	340	35	101	13	18	21	7	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	375			404			814	823	346	830	864	358
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	375			404			814	823	346	830	864	358
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			96			64	96	97	92	97	99
cM capacity (veh/h)	1183			1155			279	295	697	263	279	687

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	414	416	132	33
Volume Left	10	41	101	21
Volume Right	116	35	18	5
cSH	1183	1155	306	294
Volume to Capacity	0.01	0.04	0.43	0.11
Queue Length 95th (ft)	1	3	52	9
Control Delay (s)	0.3	1.1	25.4	18.8
Lane LOS	A	A	D	C
Approach Delay (s)	0.3	1.1	25.4	18.8
Approach LOS			D	C

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	374	3	5	401	2	3
Future Volume (Veh/h)	374	3	5	401	2	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	411	3	5	441	2	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			414		864	412
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			414		864	412
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1145		323	640

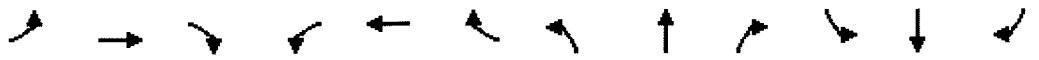
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	414	446	5
Volume Left	0	5	2
Volume Right	3	0	3
cSH	1700	1145	460
Volume to Capacity	0.24	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.1	12.9
Lane LOS		A	B
Approach Delay (s)	0.0	0.1	12.9
Approach LOS			B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	3	4	117	144	5
Future Volume (Veh/h)	3	3	4	117	144	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	3	3	4	129	158	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	298	160	163			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	298	160	163			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	692	885	1416			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	6	133	163
Volume Left	3	4	0
Volume Right	3	0	5
cSH	776	1416	1700
Volume to Capacity	0.01	0.00	0.10
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.7	0.2	0.0
Lane LOS	A	A	
Approach Delay (s)	9.7	0.2	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	19.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	4	218	95	12	167	13	58	3	19	11	7	7
Future Volume (Veh/h)	4	218	95	12	167	13	58	3	19	11	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	4	222	97	12	170	13	59	3	19	11	7	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	183			319			490	486	270	500	528	176
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	183			319			490	486	270	500	528	176
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			88	99	98	98	98	99
cM capacity (veh/h)	1392			1241			475	476	768	463	450	867

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	323	195	81	25
Volume Left	4	12	59	11
Volume Right	97	13	19	7
cSH	1392	1241	521	528
Volume to Capacity	0.00	0.01	0.16	0.05
Queue Length 95th (ft)	0	1	14	4
Control Delay (s)	0.1	0.6	13.2	12.2
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	0.6	13.2	12.2
Approach LOS			B	B

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	311	3	5	227	3	6
Future Volume (Veh/h)	311	3	5	227	3	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	317	3	5	232	3	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			320		560	318
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			320		560	318
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1240		487	722

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	320	237	9
Volume Left	0	5	3
Volume Right	3	0	6
cSH	1700	1240	622
Volume to Capacity	0.19	0.00	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.2	10.9
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	10.9
Approach LOS			B

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		26.6%	ICU Level of Service A
Analysis Period (min)		15	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	5	5	74	109	5
Future Volume (Veh/h)	6	5	5	74	109	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	6	5	5	76	111	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	200	114	116			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	200	114	116			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	100			
cM capacity (veh/h)	786	939	1473			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	11	81	116
Volume Left	6	5	0
Volume Right	5	0	5
cSH	849	1473	1700
Volume to Capacity	0.01	0.00	0.07
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.3	0.5	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	0.5	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		

Speed Counts

Louis Street

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/14/25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	0	**1**	**3**	**38**	**63**	**20**	**9**	0	0	0	0	0	**2**	0	**136**	26-35	101
12 PM	0	0	8	**61**	94	53	9	1	0	0	0	0	0	0	226	26-35	155
13:00	0	1	8	56	84	37	11	1	**1**	0	0	0	0	0	199	26-35	140
14:00	0	0	4	30	100	45	6	2	0	0	0	0	0	0	187	31-40	145
15:00	0	1	3	51	107	72	12	2	0	0	0	0	0	0	248	31-40	179
16:00	0	**2**	1	48	**114**	64	**14**	**5**	0	0	0	0	0	0	248	31-40	178
17:00	0	1	**13**	52	96	**74**	14	0	0	0	0	0	0	0	**250**	31-40	170
18:00	0	1	5	50	112	44	4	1	1	0	0	0	0	0	218	26-35	162
19:00	0	0	10	43	59	38	5	0	0	0	0	0	0	0	155	26-35	102
20:00	0	0	7	34	47	8	5	1	1	0	0	0	0	0	103	26-35	81
21:00	0	0	2	12	22	13	3	0	1	**1**	0	0	0	0	54	31-40	35
22:00	0	0	4	3	15	6	2	0	0	0	0	0	0	0	30	31-40	21
23:00	0	0	1	2	3	5	1	0	0	0	0	0	0	0	12	31-40	8
Total	0	7	69	480	916	479	95	13	4	1	0	0	2	0	2066		
Percent	0.0%	0.3%	3.3%	23.2%	44.3%	23.2%	4.6%	0.6%	0.2%	0.0%	0.0%	0.0%	0.1%	0.0%			
AM Peak		11:00	11:00	11:00	11:00	11:00	11:00						11:00		11:00		
Vol.		1	3	38	63	20	9						2		136		
PM Peak		16:00	17:00	12:00	16:00	17:00	16:00	16:00	13:00	21:00					17:00		
Vol.		2	13	61	114	74	14	5	1	1					250		

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/15/25	0	0	2	1	2	0	0	1	0	0	0	0	0	0	6	26-35	3
01:00	0	0	0	0	4	2	3	0	0	0	0	0	0	0	9	30-39	6
02:00	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	24-33	1
03:00	0	0	1	3	1	1	2	0	0	0	0	0	0	0	8	26-35	4
04:00	0	0	0	0	5	2	1	0	0	0	0	0	0	0	8	31-40	7
05:00	0	0	2	10	18	5	13	0	0	0	0	0	0	0	48	26-35	28
06:00	0	**1**	9	11	42	22	9	1	0	0	0	0	0	0	95	31-40	64
07:00	0	1	7	41	68	**41**	11	**2**	0	0	0	0	0	0	171	31-40	109
08:00	0	0	4	41	75	35	**15**	0	0	0	0	0	0	0	170	26-35	116
09:00	0	0	3	39	71	30	9	0	0	0	0	0	0	0	152	26-35	110
10:00	0	0	10	41	**90**	33	7	1	0	0	0	0	0	0	182	26-35	131
11:00	0	0	**11**	**67**	76	38	3	0	0	0	0	0	0	0	**195**	26-35	143
12 PM	0	0	**17**	**81**	100	38	8	1	**1**	0	0	0	0	0	246	26-35	181
13:00	0	0	5	45	77	26	7	0	0	0	0	0	0	0	160	26-35	122
14:00	0	0	2	58	90	48	8	**3**	1	0	0	0	0	0	210	26-35	148
15:00	0	0	7	47	138	**71**	10	0	0	0	0	0	0	0	273	31-40	209
16:00	0	0	10	66	**152**	58	9	1	0	0	0	0	0	0	**296**	26-35	218
17:00	0	0	7	51	126	71	6	0	0	0	0	0	0	0	261	31-40	197
18:00	0	0	5	51	98	54	**13**	0	0	0	0	0	0	0	221	31-40	152
19:00	0	**2**	4	29	62	25	3	1	0	0	0	0	0	0	126	26-35	91
20:00	0	1	8	32	39	10	3	0	0	0	0	0	0	0	93	26-35	71
21:00	0	0	1	8	21	6	2	0	0	0	0	0	0	0	38	26-35	29
22:00	0	0	2	8	9	7	2	0	0	0	0	0	0	0	28	26-35	17
23:00	0	0	2	1	6	6	3	3	0	0	0	0	0	0	21	31-40	12
Total	0	5	119	731	1371	629	147	15	2	0	0	0	0	0	3019		
Percent	0.0%	0.2%	3.9%	24.2%	45.4%	20.8%	4.9%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		06:00	11:00	11:00	10:00	07:00	08:00	07:00							11:00		
Vol.		1	11	67	90	41	15	2							195		
PM Peak		19:00	12:00	12:00	16:00	15:00	18:00	14:00	12:00						16:00		
Vol.		2	17	81	152	71	13	3	1						296		

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/16/25	0	0	2	3	0	1	0	0	0	0	0	0	0	0	6	21-30	5
01:00	0	0	0	2	6	2	0	0	0	0	0	0	0	0	10	31-40	8
02:00	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	19-28	1
03:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	19-28	1
04:00	0	0	1	5	4	2	2	0	0	0	0	0	0	0	14	26-35	9
05:00	0	0	2	7	18	15	7	1	**1**	**1**	0	0	0	0	52	31-40	33
06:00	0	1	3	10	34	25	9	**2**	0	0	0	0	0	0	84	31-40	59
07:00	**1**	1	2	46	70	47	**18**	2	1	0	0	0	0	0	188	31-40	117
08:00	0	0	2	51	75	**57**	15	2	0	0	0	0	0	0	202	31-40	132
09:00	0	0	10	59	79	39	9	1	0	0	0	0	0	0	197	26-35	138
10:00	0	**2**	6	**65**	66	23	6	1	0	0	0	0	0	0	169	26-35	131
11:00	1	0	**17**	52	**99**	37	5	2	0	0	0	0	0	0	**213**	26-35	151
12 PM	0	0	11	57	114	46	**11**	0	0	0	0	0	0	0	239	26-35	171
13:00	0	0	10	48	84	43	9	0	0	0	0	0	0	0	194	26-35	132
14:00	0	1	8	57	98	24	8	1	0	0	0	0	0	0	197	26-35	155
15:00	0	0	6	44	121	49	8	**2**	0	0	0	0	0	0	230	31-40	170
16:00	0	1	12	**62**	**139**	**62**	9	1	0	0	0	0	0	0	**286**	26-35	201
17:00	0	**3**	8	58	136	61	8	1	0	0	0	0	0	0	275	31-40	197
18:00	0	1	**17**	49	82	41	6	2	0	0	0	0	0	0	198	26-35	131
19:00	0	0	2	36	51	26	3	2	**1**	0	0	0	0	0	121	26-35	87
20:00	0	1	2	28	44	16	3	0	0	0	0	0	0	0	94	26-35	72
21:00	0	0	3	10	19	14	2	0	0	0	0	0	0	0	48	31-40	33
22:00	0	1	1	3	12	9	3	0	0	0	0	0	0	0	29	31-40	21
23:00	0	0	2	3	5	3	1	0	0	0	0	0	0	0	14	26-35	8
Total	2	12	127	757	1356	643	143	20	3	1	0	0	0	0	3064		
Percent	0.1%	0.4%	4.1%	24.7%	44.3%	21.0%	4.7%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	10:00	11:00	10:00	11:00	08:00	07:00	06:00	05:00	05:00					11:00		
Vol.	1	2	17	65	99	57	18	2	1	1					213		
PM Peak		17:00	18:00	16:00	16:00	16:00	12:00	15:00	19:00						16:00		
Vol.		3	17	62	139	62	11	2	1						286		

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/17/25	0	**1**	1	2	2	3	0	0	0	0	0	0	0	0	9	29-38	5
01:00	0	0	1	0	2	3	1	0	**1**	0	0	0	0	0	8	31-40	5
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	34-43	1
03:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	30-39	2
04:00	0	0	0	1	2	6	3	0	0	0	0	0	0	0	12	34-43	9
05:00	0	0	3	10	15	19	5	2	0	0	0	0	0	0	54	31-40	34
06:00	0	0	1	9	36	26	8	1	0	0	0	0	0	0	81	31-40	62
07:00	0	1	3	22	55	51	**17**	2	0	0	0	0	0	0	151	31-40	106
08:00	0	1	1	38	79	48	12	**3**	0	0	0	0	0	0	182	31-40	127
09:00	0	0	4	48	**109**	32	11	2	0	0	0	0	0	0	206	26-35	157
10:00	**1**	0	**14**	**72**	93	24	5	1	0	0	0	0	0	0	210	26-35	165
11:00	0	0	5	44	108	**57**	11	1	0	0	0	0	0	0	**226**	31-40	165
12 PM	0	0	10	58	115	53	8	2	0	0	0	0	0	0	246	26-35	173
13:00	0	0	3	52	106	52	3	4	0	0	0	0	0	0	220	26-35	158
14:00	**1**	1	**14**	59	127	45	5	1	0	0	0	0	0	0	253	26-35	186
15:00	0	0	6	59	**132**	61	13	**6**	0	0	0	0	0	0	**277**	30-39	193
16:00	0	0	2	38	121	**91**	14	1	0	0	0	0	0	0	267	31-40	212
17:00	0	**2**	13	53	100	53	**15**	0	0	0	0	0	0	0	236	30-39	153
18:00	0	0	10	**66**	99	29	6	2	0	0	0	0	0	0	212	26-35	165
19:00	0	0	6	34	64	44	9	0	0	**1**	0	0	0	0	158	31-40	108
20:00	0	0	11	33	53	23	5	1	0	0	0	0	0	0	126	26-35	86
21:00	0	0	3	18	27	8	7	0	0	0	0	0	0	0	63	26-35	45
22:00	0	1	2	7	18	8	6	0	0	0	0	0	0	0	42	29-38	26
23:00	0	0	1	1	5	4	3	0	0	0	0	0	0	0	14	31-40	9
Total	2	7	114	724	1468	742	168	29	1	1	0	0	0	0	3256		
Percent	0.1%	0.2%	3.5%	22.2%	45.1%	22.8%	5.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	00:00	10:00	10:00	09:00	11:00	07:00	08:00	01:00						11:00		
Vol.	1	1	14	72	109	57	17	3	1						226		
PM Peak	14:00	17:00	14:00	18:00	15:00	16:00	17:00	15:00		19:00					15:00		
Vol.	1	2	14	66	132	91	15	6		1					277		

Louis Street West Pascal Place
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Latitude: 0' 0.0000 Undefined

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/18/25	0	0	2	1	3	4	1	1	0	0	0	0	0	0	12	31-40	7
01:00	0	0	0	1	1	1	2	0	0	0	0	0	0	0	5	34-43	3
02:00	0	0	0	0	0	0	1	0	**1**	0	0	0	0	0	2	34-43	1
03:00	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3	24-33	2
04:00	0	0	2	5	3	3	1	0	0	0	0	0	0	0	14	24-33	8
05:00	0	0	1	5	16	10	5	0	0	0	0	0	0	0	37	31-40	26
06:00	0	0	2	9	24	23	10	0	0	0	0	0	0	0	68	31-40	47
07:00	0	0	1	21	60	38	8	1	1	0	0	0	0	0	130	31-40	98
08:00	0	0	3	42	64	43	10	1	0	0	0	0	0	0	163	29-38	107
09:00	0	0	3	34	89	36	**15**	1	0	0	0	0	0	0	178	30-39	125
10:00	0	0	**4**	**54**	**118**	53	6	**2**	0	0	0	0	0	0	**237**	26-35	172
11:00	0	0	4	48	107	**57**	9	1	0	0	0	0	0	0	226	31-40	164
12 PM	0	0	8	63	132	64	12	0	0	0	0	0	0	0	279	31-40	196
13:00	0	0	4	53	122	58	**18**	2	0	0	0	0	0	0	257	31-40	180
14:00	0	1	5	45	107	58	10	0	0	0	0	0	0	0	226	31-40	165
15:00	0	0	1	37	109	**69**	7	**3**	1	0	0	0	0	0	227	31-40	178
16:00	0	**2**	6	**81**	**156**	59	8	2	0	0	0	0	0	0	**314**	26-35	237
17:00	0	1	8	77	140	46	5	1	0	0	0	0	0	0	278	26-35	217
18:00	0	1	**9**	46	94	48	7	0	0	0	0	0	0	0	205	30-39	142
19:00	0	0	3	56	81	45	4	0	0	0	0	0	0	0	189	26-35	137
20:00	0	0	6	39	64	31	5	0	1	**1**	0	0	0	0	147	26-35	103
21:00	0	0	4	19	26	17	3	0	**2**	0	0	0	0	0	71	26-35	45
22:00	0	0	2	7	17	12	5	0	0	0	0	0	0	0	43	31-40	29
23:00	0	0	2	1	7	7	1	0	0	0	0	0	0	0	18	31-40	14
Total	0	5	80	745	1541	783	153	15	6	1	0	0	0	0	3329		
Percent	0.0%	0.2%	2.4%	22.4%	46.3%	23.5%	4.6%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak			10:00	10:00	10:00	11:00	09:00	10:00	02:00						10:00		
Vol.			4	54	118	57	15	2	1						237		
PM Peak		16:00	18:00	16:00	16:00	15:00	13:00	15:00	21:00	20:00					16:00		
Vol.		2	9	81	156	69	18	3	2	1					314		

Louis Street West Pascal Place
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Site Code:
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Latitude: 0' 0.0000 Undefined

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/19/25	0	0	2	4	6	7	2	0	0	0	0	0	0	0	21	31-40	13
01:00	0	0	0	0	2	5	0	0	0	0	0	0	0	0	7	31-40	7
02:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	29-38	3
03:00	0	0	0	1	1	0	1	0	0	0	0	0	0	0	3	24-33	2
04:00	0	0	0	1	4	1	0	0	**1**	0	0	0	0	0	7	29-38	5
05:00	0	0	1	5	10	4	1	**2**	0	0	0	0	0	0	23	26-35	15
06:00	0	0	2	5	15	12	0	1	0	0	0	0	0	0	35	31-40	27
07:00	0	0	0	15	26	20	2	0	0	0	0	0	0	0	63	31-40	46
08:00	0	**1**	2	32	55	31	9	1	0	**1**	0	0	0	0	132	26-35	87
09:00	0	1	11	43	68	51	**10**	1	0	0	0	0	0	0	185	31-40	119
10:00	0	0	**22**	69	136	42	2	1	0	0	0	0	0	0	272	26-35	205
11:00	0	0	9	**70**	**158**	**59**	7	0	0	0	0	0	0	0	**303**	26-35	228
12 PM	0	0	3	50	102	67	9	2	0	0	0	0	0	0	233	31-40	169
13:00	0	0	11	43	114	**80**	12	1	0	0	0	0	0	0	261	31-40	194
14:00	0	0	11	43	115	64	**15**	**3**	0	0	0	0	0	0	251	31-40	179
15:00	0	0	1	39	**138**	58	12	0	0	0	0	0	0	0	248	31-40	196
16:00	0	0	2	**61**	118	67	13	2	0	0	0	0	0	0	**263**	31-40	185
17:00	0	0	8	45	102	51	10	1	0	0	0	0	0	0	217	31-40	153
18:00	0	0	**14**	55	87	52	10	1	0	0	0	0	0	0	219	26-35	142
19:00	0	0	6	56	80	18	6	2	0	0	0	0	0	0	168	26-35	136
20:00	0	0	9	37	51	15	2	0	0	0	0	0	0	0	114	26-35	88
21:00	0	0	5	25	30	17	7	1	0	0	0	0	0	0	85	26-35	55
22:00	0	**1**	5	19	21	12	2	0	0	0	0	0	0	0	60	26-35	40
23:00	0	0	1	9	18	7	0	1	0	0	0	0	0	0	36	26-35	27
Total	0	3	125	727	1459	741	132	20	1	1	0	0	0	0	3209		
Percent	0.0%	0.1%	3.9%	22.7%	45.5%	23.1%	4.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		08:00	10:00	11:00	11:00	11:00	09:00	05:00	04:00	08:00					11:00		
Vol.		1	22	70	158	59	10	2	1	1					303		
PM Peak		22:00	18:00	16:00	15:00	13:00	14:00	14:00							16:00		
Vol.		1	14	61	138	80	15	3							263		

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Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/20/25	0	0	2	3	9	4	1	0	0	0	0	0	0	0	19	29-38	13
01:00	0	0	0	4	1	1	0	0	0	0	0	0	0	0	6	26-35	5
02:00	0	0	0	4	8	1	0	0	0	0	0	0	0	0	13	26-35	12
03:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	29-38	3
04:00	0	0	0	3	1	0	0	0	0	0	0	0	0	0	4	24-33	4
05:00	0	**1**	2	5	10	5	0	1	0	0	0	0	0	0	24	26-35	15
06:00	0	0	1	10	13	7	2	1	0	0	0	0	0	0	34	26-35	23
07:00	0	0	1	8	16	16	5	0	**1**	0	0	0	0	0	47	31-40	32
08:00	0	0	1	12	27	26	6	2	0	0	0	0	0	0	74	31-40	53
09:00	0	0	2	18	59	37	9	0	1	0	0	0	0	0	126	31-40	96
10:00	0	0	2	**22**	92	**73**	7	**3**	0	0	0	0	0	0	**199**	31-40	165
11:00	0	0	**4**	20	**94**	51	**10**	1	0	0	0	0	0	0	180	31-40	145
12 PM	0	0	2	**31**	**107**	**62**	11	1	0	0	0	0	0	0	**214**	31-40	169
13:00	0	0	3	26	102	60	**15**	0	0	0	0	0	0	0	206	31-40	162
14:00	0	0	5	23	63	62	13	**2**	0	0	0	0	0	0	168	31-40	125
15:00	0	0	1	13	60	41	14	0	0	0	0	0	0	0	129	31-40	101
16:00	0	0	2	19	59	29	14	1	0	0	0	0	0	0	124	31-40	88
17:00	0	0	**11**	19	50	31	9	0	0	0	0	0	0	0	120	31-40	81
18:00	0	**1**	3	27	53	27	2	0	0	0	0	0	0	0	113	26-35	80
19:00	0	0	5	23	39	25	3	0	0	0	0	0	0	0	95	31-40	64
20:00	0	0	2	12	24	9	3	0	0	0	0	0	0	0	50	26-35	36
21:00	0	0	1	9	15	2	2	0	0	0	0	0	0	0	29	26-35	24
22:00	0	0	0	9	4	6	4	0	0	0	0	0	0	0	23	26-35	13
23:00	0	0	0	0	3	3	0	0	0	0	0	0	0	0	6	31-40	6
Total	0	2	50	320	911	579	130	12	2	0	0	0	0	0	2006		
Percent	0.0%	0.1%	2.5%	16.0%	45.4%	28.9%	6.5%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		05:00	11:00	10:00	11:00	10:00	11:00	10:00	07:00						10:00		
Vol.		1	4	22	94	73	10	3	1						199		
PM Peak		18:00	17:00	12:00	12:00	12:00	13:00	14:00							12:00		
Vol.		1	11	31	107	62	15	2							214		

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Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/21/25	0	0	0	2	1	0	1	0	0	0	0	0	0	0	4	24-33	3
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	1	1	1	2	0	0	0	0	0	0	0	0	5	29-38	3
04:00	0	0	0	3	2	1	0	**1**	0	0	0	0	0	0	7	26-35	5
05:00	0	0	3	5	11	15	11	0	**1**	0	0	0	0	0	46	31-40	26
06:00	0	0	3	16	35	24	5	0	0	0	0	0	0	0	83	31-40	59
07:00	0	0	4	21	65	61	**13**	1	1	0	0	0	0	0	166	31-40	126
08:00	**1**	0	3	24	**93**	**62**	12	1	0	0	0	0	0	0	**196**	31-40	155
09:00	0	0	**7**	**52**	68	34	4	0	0	0	0	0	0	0	165	26-35	120
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	0	21	124	276	200	46	3	2	0	0	0	0	0	673		
Percent	0.1%	0.0%	3.1%	18.4%	41.0%	29.7%	6.8%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00		09:00	09:00	08:00	08:00	07:00	04:00	05:00						08:00		
Vol.	1		7	52	93	62	13	1	1						196		
PM Peak Vol.																	
Total	5	41	705	4608	9298	4796	1014	127	21	5	0	0	2	0	20622		
Percent	0.0%	0.2%	3.4%	22.3%	45.1%	23.3%	4.9%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			

	15th Percentile :	27 MPH
	50th Percentile :	32 MPH
	85th Percentile :	37 MPH
	95th Percentile :	40 MPH
Stats	10 MPH Pace Speed :	31-40 MPH
	Number in Pace :	14094
	Percent in Pace :	68.3%
	Number of Vehicles > 35 MPH :	5965
	Percent of Vehicles > 35 MPH :	28.9%
	Mean Speed(Average) :	33 MPH

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/14/25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	0	0	**3**	**7**	**28**	**39**	**8**	**4**	0	**1**	**1**	**1**	0	0	**92**	31-40	67
12 PM	0	0	0	17	90	71	32	**9**	1	0	0	0	0	0	220	31-40	161
13:00	0	0	1	23	71	75	29	4	**2**	0	0	0	0	0	205	31-40	146
14:00	0	0	1	19	81	77	30	5	0	0	0	0	0	0	213	31-40	158
15:00	0	0	2	23	72	92	38	5	0	0	0	0	0	0	232	31-40	164
16:00	0	0	0	11	**122**	**116**	**49**	9	0	**1**	0	0	0	0	**308**	31-40	238
17:00	0	0	0	22	107	105	32	2	0	0	0	0	0	0	268	31-40	212
18:00	0	0	2	**26**	71	76	28	5	2	0	0	0	0	0	210	31-40	147
19:00	0	**1**	3	26	67	64	19	7	0	1	0	0	**1**	0	189	31-40	131
20:00	0	0	**4**	25	62	35	9	2	1	0	0	0	0	0	138	31-40	97
21:00	0	0	1	18	33	30	9	1	1	0	0	0	0	0	93	31-40	63
22:00	0	0	4	12	18	12	5	1	0	0	0	0	0	0	52	26-35	30
23:00	0	0	2	4	13	6	5	0	0	0	0	0	0	0	30	30-39	19
Total	0	1	23	233	835	798	293	54	7	3	1	1	1	0	2250		
Percent	0.0%	0.0%	1.0%	10.4%	37.1%	35.5%	13.0%	2.4%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak			11:00	11:00	11:00	11:00	11:00	11:00		11:00	11:00	11:00			11:00		
Vol.			3	7	28	39	8	4		1	1	1			92		
PM Peak		19:00	20:00	18:00	16:00	16:00	16:00	12:00	13:00	16:00			19:00		16:00		
Vol.		1	4	26	122	116	49	9	2	1			1		308		

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Site Code:
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Latitude: 0' 0.0000 Undefined

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/15/25	0	0	0	1	7	5	2	1	0	0	0	0	0	0	16	31-40	12
01:00	0	0	0	0	1	2	1	0	0	0	0	0	0	0	4	30-39	3
02:00	0	0	1	1	2	3	1	0	1	0	0	0	0	0	9	31-40	5
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
04:00	0	0	0	0	4	2	1	0	0	0	0	0	0	0	7	31-40	6
05:00	0	0	0	1	6	5	4	0	0	0	0	0	0	0	16	31-40	11
06:00	0	0	1	3	19	40	17	**4**	**2**	0	0	0	0	0	86	31-40	59
07:00	0	0	1	6	38	62	16	1	2	0	0	0	0	0	126	31-40	100
08:00	0	0	0	12	57	**69**	12	2	1	0	0	0	0	0	153	31-40	126
09:00	0	0	0	12	40	53	**24**	3	1	0	0	0	0	0	133	31-40	93
10:00	0	**1**	**2**	**25**	62	55	12	4	1	0	0	0	0	0	162	31-40	117
11:00	0	0	1	16	**74**	62	14	1	0	0	0	0	0	0	**168**	31-40	136
12 PM	0	0	1	23	72	90	24	2	0	0	0	0	0	0	212	31-40	162
13:00	0	0	1	24	79	52	19	**7**	**1**	0	0	0	0	0	183	31-40	131
14:00	0	0	2	21	69	71	28	3	0	0	0	0	0	0	194	31-40	140
15:00	0	0	1	24	100	92	28	4	1	0	0	0	0	0	250	31-40	192
16:00	0	0	0	26	**119**	101	**39**	1	1	0	0	0	0	0	287	31-40	220
17:00	0	**1**	3	**35**	117	**111**	36	5	0	0	0	0	0	0	**308**	31-40	228
18:00	0	0	0	22	68	66	27	2	0	0	0	0	0	0	185	31-40	134
19:00	0	0	**5**	21	66	62	27	4	0	0	0	0	0	0	185	31-40	128
20:00	0	0	4	13	64	41	11	1	1	0	0	0	0	0	135	31-40	105
21:00	0	0	1	15	36	31	9	2	0	0	0	0	0	0	94	31-40	67
22:00	0	1	3	11	25	24	4	1	0	0	0	0	0	0	69	31-40	49
23:00	0	1	0	5	19	16	3	0	0	0	0	0	0	0	44	31-40	35
Total	0	4	27	318	1144	1115	359	48	12	0	0	0	0	0	3027		
Percent	0.0%	0.1%	0.9%	10.5%	37.8%	36.8%	11.9%	1.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		10:00	10:00	10:00	11:00	08:00	09:00	06:00	06:00						11:00		
Vol.		1	2	25	74	69	24	4	2						168		
PM Peak		17:00	19:00	17:00	16:00	17:00	16:00	13:00	13:00						17:00		
Vol.		1	5	35	119	111	39	7	1						308		

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Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/16/25	0	0	0	3	5	2	1	0	0	0	0	0	0	0	11	26-35	8
01:00	0	0	0	0	2	3	1	0	0	0	0	0	0	0	6	31-40	5
02:00	0	0	0	0	2	4	1	0	0	0	0	0	0	0	7	31-40	6
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	34-43	1
04:00	0	0	1	0	2	3	1	0	0	0	0	0	0	0	7	31-40	5
05:00	0	0	1	1	12	7	2	2	0	0	0	0	0	0	25	31-40	19
06:00	0	0	0	4	27	33	16	4	0	0	0	0	0	0	84	31-40	60
07:00	0	**1**	0	9	26	51	20	4	**1**	0	0	0	0	0	112	31-40	77
08:00	0	0	1	12	50	52	19	6	0	0	0	0	0	0	140	31-40	102
09:00	0	0	1	9	66	**57**	**31**	6	0	0	0	0	0	0	170	31-40	123
10:00	0	0	**4**	18	60	49	17	**7**	0	0	0	0	0	0	155	31-40	109
11:00	0	0	0	**35**	**97**	52	18	4	0	0	0	0	0	0	**206**	31-40	149
12 PM	0	0	1	17	75	90	26	6	0	0	0	0	0	0	215	31-40	165
13:00	0	0	4	15	91	92	19	6	**1**	0	0	0	0	0	228	31-40	183
14:00	0	0	**5**	28	89	72	16	0	0	0	0	0	0	0	210	31-40	161
15:00	0	0	4	28	98	93	30	**10**	0	0	0	0	0	0	263	31-40	191
16:00	0	0	2	**33**	112	122	29	4	0	0	0	0	0	0	302	31-40	234
17:00	0	0	0	18	**152**	**130**	**39**	1	0	0	0	0	0	0	**340**	31-40	282
18:00	**2**	0	3	26	93	85	19	1	0	0	0	0	0	0	229	31-40	178
19:00	0	**1**	1	17	70	51	19	4	1	0	0	0	0	0	164	31-40	121
20:00	0	0	3	14	63	40	11	4	1	0	0	0	0	0	136	31-40	103
21:00	0	0	1	18	34	29	3	4	0	0	0	0	0	0	89	31-40	63
22:00	0	0	0	11	35	26	4	3	0	0	0	0	0	0	79	31-40	61
23:00	0	0	1	3	7	13	5	1	0	0	0	0	0	0	30	31-40	20
Total	2	2	33	319	1268	1156	348	77	4	0	0	0	0	0	3209		
Percent	0.1%	0.1%	1.0%	9.9%	39.5%	36.0%	10.8%	2.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		07:00	10:00	11:00	11:00	09:00	09:00	10:00	07:00						11:00		
Vol.		1	4	35	97	57	31	7	1						206		
PM Peak	18:00	19:00	14:00	16:00	17:00	17:00	17:00	15:00	13:00						17:00		
Vol.	2	1	5	33	152	130	39	10	1						340		

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Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/17/25	0	0	**1**	3	8	3	4	1	1	0	0	0	0	0	21	26-35	11
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	1	1	1	0	0	2	1	0	0	0	0	0	6	46-55	3
03:00	0	0	1	0	2	0	1	0	0	0	0	0	0	0	4	24-33	2
04:00	0	0	0	0	3	3	2	0	0	0	0	0	0	0	8	31-40	6
05:00	0	0	0	1	9	7	6	1	1	0	0	0	0	0	25	31-40	16
06:00	0	0	0	4	14	34	17	**7**	**2**	0	0	0	0	0	78	36-45	51
07:00	0	0	1	3	29	53	**33**	2	1	0	0	0	0	0	122	36-45	86
08:00	0	0	1	13	49	52	22	7	1	0	0	0	0	0	145	31-40	101
09:00	0	0	0	18	48	68	26	7	1	0	0	0	0	0	168	31-40	116
10:00	0	0	1	**21**	**84**	**85**	25	3	0	0	0	0	0	0	**219**	31-40	169
11:00	0	0	1	19	74	75	27	1	1	0	0	0	0	0	198	31-40	149
12 PM	0	0	**4**	14	81	81	30	5	1	0	0	0	0	0	216	31-40	162
13:00	0	**1**	0	16	81	90	24	3	0	0	0	0	0	0	215	31-40	171
14:00	0	0	4	20	78	93	22	5	0	0	0	0	0	0	222	31-40	171
15:00	0	0	2	22	100	91	37	7	1	0	0	0	0	0	260	31-40	191
16:00	0	1	0	20	78	**124**	**63**	6	2	0	0	0	0	0	294	31-40	202
17:00	0	0	4	20	91	113	48	**12**	**8**	0	0	0	0	0	**296**	31-40	204
18:00	0	0	1	**26**	**104**	83	31	2	1	0	0	0	0	0	248	31-40	187
19:00	0	0	2	20	60	76	21	7	0	0	0	0	0	0	186	31-40	136
20:00	0	0	3	26	75	48	10	0	1	0	0	0	0	0	163	31-40	123
21:00	0	0	1	16	48	36	11	1	1	0	0	0	0	0	114	31-40	84
22:00	0	0	4	7	24	17	5	2	1	0	0	0	0	0	60	31-40	41
23:00	0	0	1	6	10	7	3	2	0	0	0	0	0	0	29	29-38	17
Total	0	2	33	296	1151	1239	468	83	25	0	0	0	0	0	3297		
Percent	0.0%	0.1%	1.0%	9.0%	34.9%	37.6%	14.2%	2.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak			00:00	10:00	10:00	10:00	07:00	06:00	06:00						10:00		
Vol.			1	21	84	85	33	7	2						219		
PM Peak		13:00	12:00	18:00	18:00	16:00	16:00	17:00	17:00						17:00		
Vol.		1	4	26	104	124	63	12	8						296		

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Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/18/25	0	0	**2**	3	3	2	4	1	**1**	0	0	0	0	0	16	36-45	6
01:00	0	0	0	0	3	3	0	0	0	0	0	0	0	0	6	31-40	6
02:00	0	0	0	1	2	3	1	0	1	0	0	0	0	0	8	31-40	5
03:00	0	0	0	0	1	2	1	0	0	0	0	0	0	0	4	30-39	3
04:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4	30-39	4
05:00	0	0	0	1	2	3	2	0	0	0	0	0	0	0	8	36-45	5
06:00	0	0	1	0	10	23	12	5	1	0	0	0	0	0	52	35-44	35
07:00	0	0	1	10	26	29	20	2	0	**1**	0	0	0	0	89	31-40	55
08:00	0	0	0	7	41	43	16	**6**	0	0	0	0	0	0	113	31-40	84
09:00	0	0	0	11	44	60	20	3	0	0	0	0	0	0	138	31-40	104
10:00	0	0	2	13	52	**86**	**23**	2	1	0	0	0	0	0	179	31-40	138
11:00	0	0	0	**17**	**79**	76	21	2	1	0	0	0	0	0	**196**	31-40	155
12 PM	0	0	2	14	88	111	28	11	1	0	0	0	0	0	255	31-40	199
13:00	0	0	1	18	88	82	23	6	0	**1**	0	0	0	0	219	31-40	170
14:00	0	0	3	18	108	94	30	9	1	0	0	0	0	0	263	31-40	202
15:00	0	0	0	20	94	77	**41**	4	**2**	0	0	0	0	0	238	31-40	171
16:00	0	0	2	18	**126**	111	36	**12**	0	0	0	0	0	0	**305**	31-40	237
17:00	0	0	3	**39**	116	**113**	27	7	0	0	0	0	0	0	305	31-40	229
18:00	0	0	3	30	112	83	22	5	0	0	0	0	0	0	255	31-40	195
19:00	0	**1**	1	10	59	61	14	4	0	0	0	0	0	0	150	31-40	120
20:00	0	1	1	25	77	56	13	0	1	0	0	0	0	0	174	31-40	133
21:00	0	0	**4**	14	57	34	9	2	0	0	0	0	0	0	120	31-40	91
22:00	0	0	2	12	43	23	11	4	0	0	**1**	0	0	0	96	31-40	66
23:00	0	0	2	5	20	19	7	4	0	0	0	0	0	0	57	31-40	39
Total	0	2	30	286	1253	1196	381	89	10	2	1	0	0	0	3250		
Percent	0.0%	0.1%	0.9%	8.8%	38.6%	36.8%	11.7%	2.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak			00:00	11:00	11:00	10:00	10:00	08:00	00:00	07:00					11:00		
Vol.			2	17	79	86	23	6	1	1					196		
PM Peak		19:00	21:00	17:00	16:00	17:00	15:00	16:00	15:00	13:00	22:00				16:00		
Vol.		1	4	39	126	113	41	12	2	1	1				305		

Louis Street West Pascal Place
Newington, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/19/25	0	0	0	5	6	7	3	0	**2**	0	0	0	0	0	23	30-39	13
01:00	0	0	0	1	2	4	0	0	0	0	0	0	0	0	7	31-40	6
02:00	0	0	0	2	2	3	2	1	0	0	0	0	0	0	10	36-45	5
03:00	0	0	0	3	4	2	1	0	0	0	0	0	0	0	10	26-35	7
04:00	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3	29-38	2
05:00	0	0	1	1	2	1	0	0	0	0	0	0	0	0	5	31-40	3
06:00	0	0	0	1	9	11	5	**2**	0	0	0	0	0	0	28	31-40	20
07:00	0	0	0	0	11	20	17	1	0	0	0	0	0	0	49	36-45	37
08:00	0	0	0	11	24	44	24	0	1	0	0	0	0	0	104	31-40	68
09:00	0	0	1	16	74	85	**31**	2	1	0	0	0	0	0	210	31-40	159
10:00	0	0	**2**	**33**	**113**	86	19	2	2	0	0	0	0	0	**257**	31-40	199
11:00	0	0	2	23	113	**95**	21	2	0	0	0	0	0	0	256	31-40	208
12 PM	**1**	2	4	19	**104**	111	25	2	**1**	0	0	0	0	0	**269**	31-40	215
13:00	0	0	1	29	93	105	26	6	0	0	0	0	0	0	260	31-40	198
14:00	0	0	1	16	94	113	30	5	0	0	0	0	0	0	259	31-40	207
15:00	0	0	2	19	77	**115**	**41**	0	0	0	0	0	0	0	254	31-40	192
16:00	0	0	0	13	85	83	30	**7**	0	0	0	0	0	0	218	31-40	168
17:00	0	0	1	21	87	92	31	5	1	0	0	0	0	0	238	31-40	179
18:00	1	**3**	**17**	27	69	81	29	3	0	0	0	0	0	0	230	31-40	150
19:00	0	0	2	**31**	83	66	13	4	0	0	0	0	0	0	199	31-40	149
20:00	0	1	1	26	65	40	6	3	0	0	0	0	0	0	142	31-40	105
21:00	0	0	2	17	57	24	9	0	0	0	0	0	0	0	109	31-40	81
22:00	0	0	5	22	41	27	8	1	0	0	0	0	0	0	104	31-40	68
23:00	0	0	5	11	23	15	7	2	0	0	0	0	0	0	63	31-40	38
Total	2	6	47	347	1239	1231	379	48	8	0	0	0	0	0	3307		
Percent	0.1%	0.2%	1.4%	10.5%	37.5%	37.2%	11.5%	1.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak			10:00	10:00	10:00	11:00	09:00	06:00	00:00						10:00		
Vol.			2	33	113	95	31	2	2						257		
PM Peak	12:00	18:00	18:00	19:00	12:00	15:00	15:00	16:00	12:00						12:00		
Vol.	1	3	17	31	104	115	41	7	1						269		

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Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/20/25	0	0	1	5	2	10	5	0	0	0	0	0	0	0	23	36-45	15
01:00	0	0	0	3	6	6	3	0	0	0	0	0	0	0	18	31-40	12
02:00	0	0	0	2	4	3	2	0	1	0	0	0	0	0	12	29-38	7
03:00	0	0	0	0	2	1	4	0	0	0	0	0	0	0	7	35-44	5
04:00	0	0	0	3	1	4	1	0	0	0	0	0	0	0	9	29-38	5
05:00	0	0	0	0	3	1	2	1	0	0	0	0	0	0	7	31-40	4
06:00	0	0	0	3	7	13	2	0	0	0	0	0	0	0	25	31-40	20
07:00	0	0	0	4	30	19	15	2	0	0	0	0	0	0	70	31-40	49
08:00	0	0	1	5	26	40	19	1	1	0	0	0	0	0	93	31-40	66
09:00	0	0	**2**	**6**	41	64	17	4	1	0	**1**	0	0	0	136	31-40	105
10:00	0	0	0	6	39	**76**	34	4	1	0	0	0	0	0	160	31-40	115
11:00	0	0	1	4	**46**	74	**35**	**7**	**3**	0	0	0	0	0	**170**	31-40	120
12 PM	0	0	0	**17**	52	72	15	2	1	0	0	0	0	0	159	31-40	124
13:00	0	0	1	11	**63**	**73**	**28**	2	0	0	**1**	0	0	0	**179**	31-40	136
14:00	0	0	**2**	14	45	57	27	4	2	0	0	0	0	0	151	31-40	102
15:00	0	0	0	15	44	57	28	4	**3**	0	0	0	0	0	151	31-40	101
16:00	0	0	1	10	51	70	26	3	3	0	0	0	0	0	164	31-40	121
17:00	0	0	0	12	49	49	26	**7**	1	0	0	0	0	0	144	31-40	98
18:00	0	0	1	14	43	65	16	3	2	0	0	0	0	0	144	31-40	108
19:00	0	**1**	1	17	54	47	11	3	1	0	0	0	0	0	135	31-40	101
20:00	0	0	1	10	39	29	7	3	0	0	0	0	0	0	89	31-40	68
21:00	0	0	1	2	22	27	5	1	0	0	0	0	0	0	58	31-40	49
22:00	0	0	0	2	13	9	4	0	0	0	0	0	0	0	28	31-40	22
23:00	0	0	1	4	4	7	2	0	0	0	0	0	0	0	18	31-40	11
Total	0	1	14	169	686	873	334	51	20	0	2	0	0	0	2150		
Percent	0.0%	0.0%	0.7%	7.9%	31.9%	40.6%	15.5%	2.4%	0.9%	0.0%	0.1%	0.0%	0.0%	0.0%			
AM Peak			09:00	09:00	11:00	10:00	11:00	11:00	11:00		09:00				11:00		
Vol.			2	6	46	76	35	7	3		1				170		
PM Peak		19:00	14:00	12:00	13:00	13:00	13:00	17:00	15:00		13:00				13:00		
Vol.		1	2	17	63	73	28	7	3		1				179		

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Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
04/21/25	0	0	0	1	2	2	3	0	0	0	0	0	0	0	8	34-43	5
01:00	0	0	0	1	0	2	1	0	0	0	0	0	0	0	4	34-43	3
02:00	0	0	1	1	3	1	2	0	0	0	0	0	0	0	8	31-40	4
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4	30-39	4
05:00	0	0	0	2	6	10	6	1	0	0	0	0	0	0	25	31-40	16
06:00	0	0	0	3	23	25	18	1	**1**	0	0	0	0	0	71	31-40	48
07:00	0	0	0	3	44	**83**	**33**	3	0	0	0	0	0	0	**166**	31-40	127
08:00	0	0	0	9	42	65	27	**5**	1	0	0	0	0	0	149	31-40	107
09:00	0	0	**3**	**17**	**57**	54	30	1	1	0	0	0	0	0	163	31-40	111
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	4	37	179	244	120	11	3	0	0	0	0	0	598		
Percent	0.0%	0.0%	0.7%	6.2%	29.9%	40.8%	20.1%	1.8%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak			09:00	09:00	09:00	07:00	07:00	08:00	06:00						07:00		
Vol.			3	17	57	83	33	5	1						166		
PM Peak																	
Vol.																	
Total	4	18	211	2005	7755	7852	2682	461	89	5	4	1	1	0	21088		
Percent	0.0%	0.1%	1.0%	9.5%	36.8%	37.2%	12.7%	2.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			

	15th Percentile :	30 MPH
	50th Percentile :	35 MPH
	85th Percentile :	40 MPH
	95th Percentile :	44 MPH
Stats	10 MPH Pace Speed :	31-40 MPH
	Number in Pace :	15607
	Percent in Pace :	74.0%
	Number of Vehicles > 35 MPH :	11095
	Percent of Vehicles > 35 MPH :	52.6%
	Mean Speed(Average) :	36 MPH

UCONN Crash Data

UCONN Crash Data Repository
Town of Newington
October 1, 2022 thru October 1, 2025

Louis Street

	CrashId	Date	Day of the Week	Crash Severity	No. Of Vehicles	Milemarker	Roadway Name	Intersecting Road	Distance	Unit	Direction	First Event	Manner of Crash	Location of First Event	Weather Condition	Light Condition
1	983030	10/15/2022	Saturday	Prop Dam Only	2	0.01	LOUIS ST	Willard Ave	50	Feet	E	Other Vehicle	Front to rear	On Roadway	Clear	Daylight
2	1043238	4/26/2023	Wednesday	Prop Dam Only	2	0.01	LOUIS ST	Willard Avenue	10	Feet	E	Other Vehicle	Front to rear	On Roadway	Clear	Daylight
3	1069851	7/22/2023	Saturday	Prop Dam Only	1	0.02	LOUIS ST	Willard Avenue	60	Feet	E	Fence	Not Applicable	On Roadway	Clear	Daylight
4	1006751	12/17/2022	Saturday	Prop Dam Only	1	0.22	LOUIS ST	PASCONE PA	540	Feet	W	Other Fixed Object	Not Applicable	Roadside	Clear	Dark-Lighted
5	1284264	6/21/2025	Saturday	Poss Injury	2	0.32	LOUIS ST	PASCONE PL				Other Vehicle	Angle	On Roadway	Clear	Daylight
6	1200976	9/21/2024	Saturday	Prop Dam Only	2	0.49	LOUIS ST	Main Street	15	Feet	W	Other Vehicle	Front to rear	On Roadway	Clear	Dusk
7	1052991	5/25/2023	Thursday	Prop Dam Only	2	0.5	LOUIS ST	Main St	20	Feet	W	Other Vehicle	SS SD	On Roadway	Clear	Daylight
8	1223001	11/26/2024	Tuesday	Prop Dam Only	2	0.5	LOUIS ST	MAIN ST	20	Feet	W	Other Vehicle	Front to rear	On Roadway	Clear	Daylight
					14											

Pascone Place

	CrashId	Date	Day of the Week	Crash Severity	No. Of Vehicles	Milemarker	Roadway Name	Intersecting Road	Distance	Unit	Direction	First Event	Manner of Crash	Location of First Event	Weather Condition	Light Condition
1	988210	10/25/2022	Tuesday	Poss Injury	2	0	PASCONE PL	LOUIS ST				Other Vehicle	Angle	On Roadway	Clear	Daylight
2	1037543	3/24/2023	Friday	Prop Dam Only	2	0.12	PASCONE PL	Louis St	650	Feet	S	Other Vehicle	Angle	On Roadway	Clear	Daylight
3	1024910	2/23/2023	Thursday	Prop Dam Only	2	0.28	PASCONE PL	5-N	345	Feet	W	Other Vehicle	SS OD	On Roadway	Clear	Daylight
4	1106601	11/17/2023	Friday	Prop Dam Only	2	0.34	PASCONE PL	Berlin Tpke	35	Feet	W	Other Vehicle	Front to rear	On Roadway	Clear	Dark-Lighted
5	1231726	12/14/2024	Saturday	Prop Dam Only	2	0.34	PASCONE PL	Berlin Turnpike	20	Feet	W	Other Vehicle	Angle	On Roadway	Clear	Dark-Lighted
6	1240388	1/22/2025	Wednesday	Prop Dam Only	2	0.34	PASCONE PL	BERLIN TPKE	25	Feet	W	Other Vehicle	Front to rear	On Roadway	Clear	Daylight
7	989469	10/28/2022	Friday	Poss Injury	2	0.35	PASCONE PL	Berlin Turnpike	300	Feet	W	Other Vehicle	Angle	On Roadway	Clear	Daylight
8	992510	10/18/2022	Tuesday	Prop Dam Only	2	0.35	PASCONE PL					Other Vehicle	Angle	On Roadway	Clear	Daylight
					16											

5

SUMMARY OF HYDRAULIC ANALYSIS

Residential Site Development

103 Louis Street
Newington, Connecticut

November, 2025

Prepared for

Premier Real Estate Services II, LLC
110 Court Street, Suite 1
Cromwell, CT 06416

Prepared by

ZUVIC Infrastructure Solutions
40 Cold Spring Road
Rocky Hill, CT 06067

Table of Contents

Appendices

Introduction

103 Louis Street is located southwest of the intersection with Louis Street and Pascone Place. The site is a single 2.68 acre undeveloped parcel owned by Innate Investments, LLC.

This drainage report has been prepared to describe proposed site improvements and proposed storm water collection, conveyance, and treatment systems.

Existing Site Conditions

The site is undeveloped with a field covering most of the property, and woods running along the southern property line. The site's average slope is approximately 1.5 percent, running from the southeast side of the property toward Louis Street to the northwest. The site is bound to the west by a warehouse at 133 Louis Street, to the north by Louis Street, to the east by Pascone Place, and to the south by a service center at 261 Pascone Place.

The broader site presently drains overland onto the neighboring property to the west, onto Louis Street to the northwest, and onto Pascone Place to the northeast.

Existing Soil Conditions

A review of NRCS soil survey data indicated that 57.2 percent of the soil on the site is classified as hydrologic soil group B, 36.0 percent of the soil on the site is classified as hydrologic soil group A, 3.7 percent of the soil on the site is classified as hydrologic soil group D, and 3.1 percent of the soil on the site is classified as hydrologic soil group B/D. The report of this soil data is in Appendix A. The soil type was used to calculate the runoff and design of stormwater quality structures.

Existing Drainage System Conditions

As previously described, the subject site drains west, northwest, and northeast via overland flow onto the neighboring property, Louis Street, and Pascone Place. Two existing catch basins at 103 Louis Street and in the southwest corner of the intersection of Pascone Place and Louis Street capture storm drainage from a majority of the site. No other drainage systems or structures were noted on the site.

Existing catchments: the figure titled “Existing Drainage Conditions” in Appendix A shows tributary areas that drain off the site. Time of concentration computations and runoff curve numbers are detailed in Appendix B.

Existing storm events: theoretical rainfall data drove a hydraulic model of the existing and proposed conditions. The storm intensity and return periods were collected from NOAA Atlas 14 and are included in Appendix A.

Existing off-site flows: using the above-mentioned catchment delineation and theoretical storm events, an existing conditions model was created in Hydrology Studio using the SCS TR-55 method. This model was used to estimate stormwater flows across the property lines. Flows from each catchment are shown in Appendix A.

Proposed Improvements

Clearing of all existing trees is proposed, followed by grading, construction of multi-family structures, various underground utilities, and paved parking areas.

A bituminous concrete road bounded by a 6-inch concrete curb is proposed. A network of catch basins connected via the proposed HDPE pipe will convey stormwater off-site to underground detention structures in

the northern portion of the site. As with the existing overland flows, this system will ultimately discharge stormwater across the northwestern property boundary into the Louis Street stormwater system.

Twelve (12) multi-family structures are proposed on the site. Roof leaders will convey stormwater into the previously mentioned stormwater collection system.

Pre-treatment structures are proposed to capture trash and sediment that enters the system from surface runoff.

Underground stormwater storage is proposed on the site to treat stormwater runoff. A series of 6-foot diameter CMP galleries is proposed to detain and infiltrate the required water quality volume (WQV). Calculations based on the CT stormwater quality manual for the WQV and the proposed gallery systems are included in Appendix D.

Proposed Conditions Design Approach

After constructing the proposed site improvements and water quality improvements, the sites will have more impervious coverage (proposed impervious coverage of 65.3 percent versus 0.0 percent) than the existing condition.

The intent of the proposed design is to:

1. Install water quality structures to treat the first flush runoff from the sites prior to discharging into the on-site detention system.
2. Provide a stormwater conveyance system to deliver runoff from the site into the town-owned system to the northwest while matching or reducing developed peak flows to equal to or less than existing peak flows.
3. Provide a stormwater detention system with a controlled outlet structure designed to limit flows off the site to their pre-development values, accounting for theoretical storms up to and including the 100-year return period. The detention structures are sized to contain and infiltrate the first 1.3-inch of runoff from the site for water quality.

Proposed Drainage Conditions

The proposed improvements will be constructed in compliance with applicable state regulations, including the general permit for stormwater discharge. These regulations call for the pretreatment of stormwater runoff and infiltration of the 1.3-inch theoretical storm event.

As required by the town of Newington zoning regulations, the proposed stormwater conveyance system design is based on a theoretical 25-year frequency storm event. The proposed stormwater collection system will be comprised of catch basins with at least 2-foot sumps, CMP infiltration galleries, and HDPE storm sewers.

Stormwater runoff calculations for the sizing of the stormwater sewer piping on the site were performed using the rational method, with catchment areas measured using civil 3d (cad). Proposed site hydraulics for the sizing of the CMP detention system were analyzed using Stormwater Studio and Hydrology Studio and based on 2-100 year 24-hour storm events.

Proposed conditions drainage area exhibits are included in Appendix B. The exhibits describe the drainage catchment areas. Runoff calculations are also included.

The proposed drainage model analysis results are included in Appendix C. Appendix C contains the following:

1. “Scenario: pre-development” and “scenario: post-development” showing the setup of the model.
2. Hydraulic model results: profiles for the theoretical 2, 5, 10, 25, 50, and 100-year storm events for the proposed drainage system
3. Hydrographs of the existing and proposed 2, 5, 10, 25, 50, and 100-year storm events.
4. 25-year conduit report

All overland stormwater runoff to the northwest is collected and conveyed across the property line to the Louis Street storm sewer, and ultimately, the town-owned system. A small section of the pervious area along the west side of the site would continue to flow overland to the west across the property line. Additionally, a small section of the pervious area along the northeast side of the site would continue to flow to the east across the property line into the Pascone Place storm sewer.

The included Appendix D contains the water quality calculations for the proposed site, following the guidance of the Connecticut stormwater quality manual. At the western portion of the site, underground infiltration galleries bedded in crushed stone will contain and infiltrate the required water quality volume. An overflow manhole with weir is proposed for the detention system, as shown in the calculations in Appendix D.

A summary of the results of the water quality calculations is as follows:

1. Water quality volume required = 8,117 cubic feet
2. Water quality storage elevation = 101.5 feet

Analysis Point – Site Outlet								
			Peak Runoff Rate (CFS)					
Storm Frequency (years)	**Area (ac)**	**Un/Detained**	2	5	10	25	50	100
Existing Condition (O-1) (W)	0.273	UD	0.00	0.01	0.05	0.13	0.22	0.33
Existing Condition (O-2) (N)	0.884	UD	0.02	0.15	0.37	0.78	1.12	1.53
Existing Condition (O-3) (CB)	1.412	UD	0.16	0.61	1.12	1.94	2.60	3.38
Existing Condition (O-4) (E)	0.110	UD	0.09	0.16	0.23	0.33	0.41	0.49
Total	2.679		**0.27**	**0.93**	**1.76**	**3.18**	**4.34**	**5.73**
Proposed Condition (O-1) (W)	0.056	UD	0.01	0.04	0.06	0.11	0.15	0.20
Proposed Condition (O-2) (N)	0.034	UD	0.00	0.00	0.00	0.01	0.03	0.04
Proposed Condition (O-3) (N)	0.025	UD	0.00	0.00	0.00	0.01	0.02	0.03
Proposed Condition (O-3) (CB)	2.536	D	0.00	0.30	0.87	1.78	2.53	3.35
Proposed Condition (O-4) (E)	0.029	UD	0.05	0.07	0.08	0.10	0.11	0.13
Total	2.679		0.06	0.41	1.02	2.01	2.83	3.75

The above analysis does not include the exfiltration from the gallery system for developed conditions.

Peak-flow rates from the proposed project site will be controlled by additional storage within the gallery structures above the elevation of the water quality volume in combination with the proposed outlet control structure. The outlet control structures have been designed with multiple outlets for discharge of peak flows for developed conditions at or below existing peak discharge rates for the 2, 5, 10, 25, 50, and 100-year design storms.

Summary

The on-site storm drainage system has been designed to convey stormwater runoff for the 25-year design storm. The proposed infiltration and detention galleries are designed for peak discharge flows for developed conditions to be equal to or less than peak discharge flows under existing conditions. The site discharge for developed conditions to all 4 existing locations will be less than or equal to existing peak discharges.

APPENDIX A

NOAA Atlas 14 Rainfall Data
103 Louis St Newington, CT

POINT PRECIPITATION FREQUENCY (PF) ESTIMATES
WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
NOAA Atlas 14, Volume 10, Version 3

PF tabular | PF graphical | Supplementary information | Print page

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches)[1]

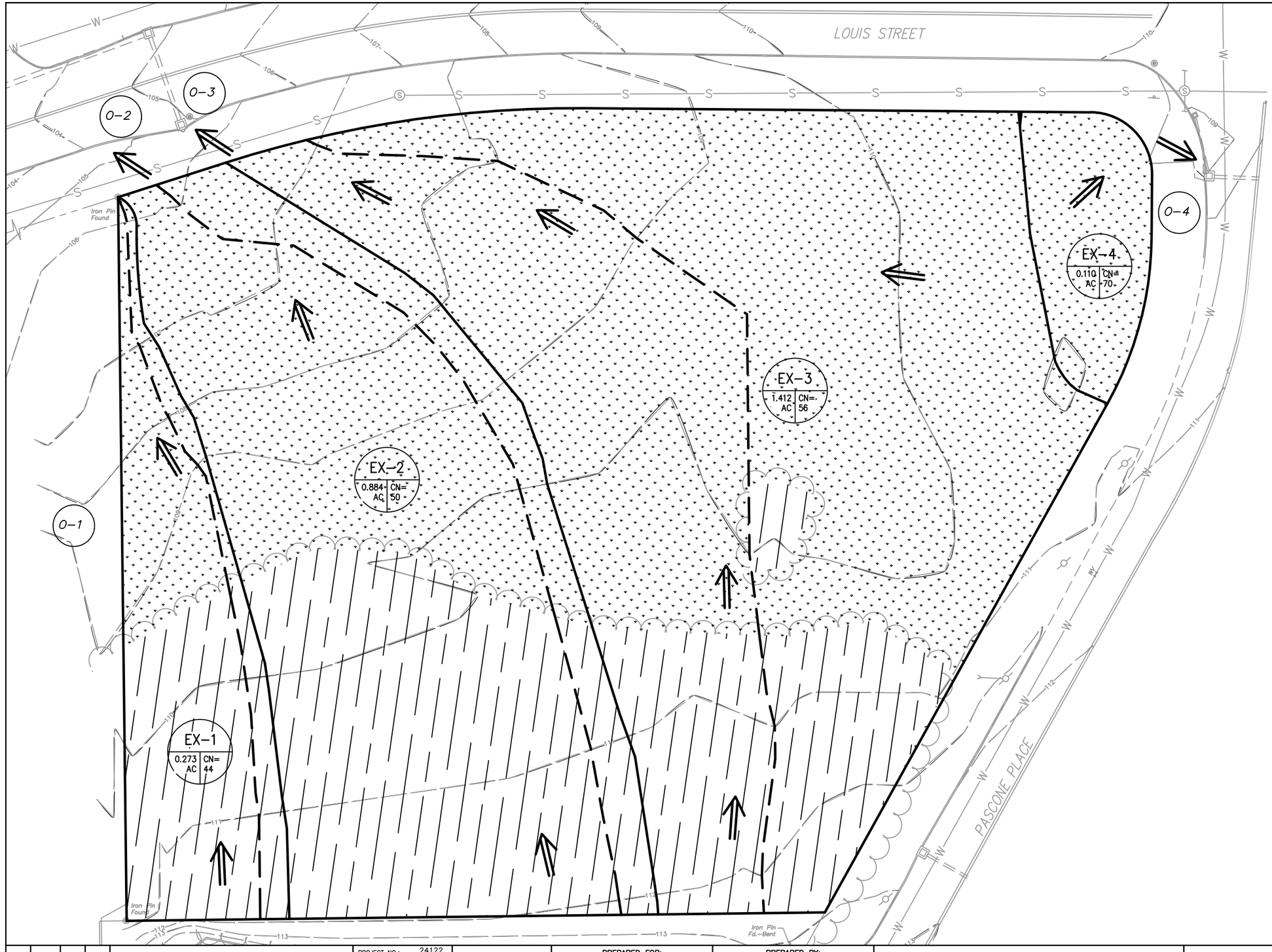
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.334 (0.263-0.419)	0.407 (0.320-0.511)	0.526 (0.412-0.663)	0.624 (0.487-0.794)	0.760 (0.573-1.01)	0.862 (0.635-1.18)	0.969 (0.693-1.38)	1.09 (0.736-1.59)	1.26 (0.818-1.91)	1.40 (0.886-2.17)
10-min	0.473 (0.373-0.594)	0.576 (0.454-0.725)	0.745 (0.584-0.940)	0.885 (0.690-1.12)	1.08 (0.811-1.44)	1.22 (0.901-1.67)	1.37 (0.981-1.95)	1.54 (1.04-2.25)	1.78 (1.16-2.70)	1.98 (1.26-3.07)
15-min	0.557 (0.439-0.699)	0.678 (0.534-0.852)	0.876 (0.687-1.11)	1.04 (0.811-1.32)	1.27 (0.954-1.69)	1.44 (1.06-1.96)	1.62 (1.16-2.30)	1.82 (1.23-2.65)	2.10 (1.36-3.18)	2.33 (1.48-3.62)
30-min	0.756 (0.596-0.950)	0.919 (0.724-1.16)	1.18 (0.930-1.50)	1.41 (1.10-1.79)	1.71 (1.29-2.28)	1.94 (1.43-2.65)	2.18 (1.56-3.10)	2.45 (1.65-3.57)	2.83 (1.84-4.29)	3.15 (1.99-4.88)
60-min	0.956 (0.753-1.20)	1.16 (0.913-1.46)	1.49 (1.17-1.89)	1.77 (1.38-2.25)	2.15 (1.62-2.87)	2.44 (1.80-3.33)	2.74 (1.96-3.90)	3.08 (2.08-4.49)	3.56 (2.31-5.40)	3.96 (2.51-6.14)
2-hr	1.25 (0.992-1.56)	1.51 (1.20-1.88)	1.93 (1.53-2.42)	2.28 (1.79-2.88)	2.77 (2.10-3.68)	3.13 (2.33-4.26)	3.51 (2.54-5.00)	3.97 (2.69-5.76)	4.65 (3.03-7.01)	5.23 (3.32-8.06)
3-hr	1.45 (1.15-1.80)	1.75 (1.39-2.17)	2.23 (1.77-2.79)	2.64 (2.08-3.32)	3.20 (2.44-4.24)	3.61 (2.70-4.91)	4.06 (2.95-5.77)	4.60 (3.12-6.65)	5.42 (3.53-8.15)	6.13 (3.90-9.41)
6-hr	1.82 (1.46-2.25)	2.21 (1.77-2.73)	2.84 (2.27-3.52)	3.36 (2.67-4.19)	4.08 (3.13-5.37)	4.60 (3.47-6.23)	5.18 (3.80-7.35)	5.89 (4.02-8.48)	6.99 (4.57-10.4)	7.94 (5.06-12.1)
12-hr	2.23 (1.80-2.73)	2.73 (2.20-3.35)	3.54 (2.85-4.36)	4.22 (3.37-5.23)	5.14 (3.98-6.74)	5.83 (4.42-7.85)	6.57 (4.85-9.29)	7.50 (5.13-10.7)	8.93 (5.86-13.3)	10.2 (6.50-15.4)
24-hr	2.61 (2.12-3.17)	3.24 (2.64-3.95)	4.28 (3.47-5.24)	5.14 (4.14-6.33)	6.33 (4.94-8.27)	7.20 (5.50-9.67)	8.16 (6.07-11.5)	9.38 (6.44-13.3)	11.3 (7.45-16.7)	13.0 (8.36-19.7)
2-day	2.94 (2.41-3.55)	3.73 (3.05-4.51)	5.01 (4.09-6.09)	6.08 (4.93-7.43)	7.55 (5.94-9.85)	8.62 (6.65-11.6)	9.82 (7.41-13.9)	11.4 (7.87-16.2)	14.1 (9.29-20.7)	16.5 (10.6-24.7)

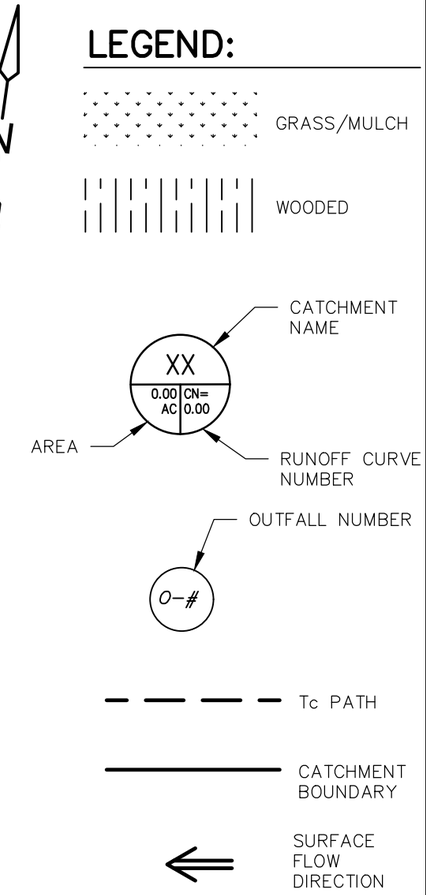
POINT PRECIPITATION FREQUENCY (PF) ESTIMATES
WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
NOAA Atlas 14, Volume 10, Version 3

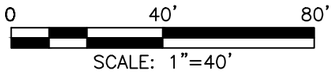
PF tabular | PF graphical | Supplementary information | Print page

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	4.01 (3.16-5.03)	4.88 (3.84-6.13)	6.31 (4.94-7.96)	7.49 (5.84-9.53)	9.12 (6.88-12.2)	10.3 (7.62-14.1)	11.6 (8.32-16.5)	13.1 (8.83-19.1)	15.1 (9.82-22.9)	16.8 (10.6-26.0)
10-min	2.84 (2.24-3.56)	3.46 (2.72-4.35)	4.47 (3.50-5.64)	5.31 (4.14-6.74)	6.46 (4.87-8.62)	7.33 (5.41-10.0)	8.24 (5.89-11.7)	9.26 (6.25-13.5)	10.7 (6.95-16.2)	11.9 (7.53-18.4)
15-min	2.23 (1.76-2.80)	2.71 (2.14-3.41)	3.50 (2.75-4.42)	4.16 (3.24-5.28)	5.07 (3.82-6.76)	5.75 (4.24-7.85)	6.46 (4.62-9.18)	7.26 (4.91-10.6)	8.40 (5.45-12.7)	9.33 (5.91-14.5)
30-min	1.51 (1.19-1.90)	1.84 (1.45-2.31)	2.37 (1.86-2.99)	2.81 (2.19-3.57)	3.42 (2.58-4.56)	3.88 (2.86-5.29)	4.36 (3.11-6.19)	4.90 (3.31-7.14)	5.67 (3.68-8.58)	6.29 (3.98-9.75)
60-min	0.956 (0.753-1.20)	1.16 (0.913-1.46)	1.49 (1.17-1.89)	1.77 (1.38-2.25)	2.15 (1.62-2.87)	2.44 (1.80-3.33)	2.74 (1.96-3.90)	3.08 (2.08-4.49)	3.56 (2.31-5.40)	3.96 (2.51-6.14)
2-hr	0.625 (0.496-0.779)	0.754 (0.598-0.942)	0.966 (0.763-1.21)	1.14 (0.896-1.44)	1.38 (1.05-1.84)	1.56 (1.16-2.13)	1.76 (1.27-2.50)	1.98 (1.34-2.88)	2.33 (1.51-3.51)	2.62 (1.66-4.03)
3-hr	0.481 (0.383-0.598)	0.581 (0.462-0.722)	0.743 (0.590-0.928)	0.878 (0.692-1.10)	1.06 (0.812-1.41)	1.20 (0.898-1.63)	1.35 (0.982-1.92)	1.53 (1.04-2.21)	1.80 (1.18-2.71)	2.04 (1.30-3.13)
6-hr	0.304 (0.244-0.375)	0.368 (0.295-0.455)	0.473 (0.378-0.587)	0.560 (0.445-0.699)	0.680 (0.523-0.897)	0.768 (0.579-1.04)	0.865 (0.634-1.23)	0.983 (0.671-1.42)	1.17 (0.763-1.74)	1.32 (0.845-2.02)
12-hr	0.185 (0.149-0.226)	0.226 (0.182-0.277)	0.293 (0.236-0.361)	0.349 (0.279-0.433)	0.426 (0.330-0.559)	0.483 (0.366-0.651)	0.545 (0.402-0.770)	0.622 (0.426-0.889)	0.740 (0.486-1.10)	0.843 (0.539-1.28)
24-hr	0.108 (0.088-0.132)	0.135 (0.109-0.164)	0.178 (0.144-0.218)	0.214 (0.172-0.263)	0.263 (0.205-0.344)	0.299 (0.229-0.402)	0.339 (0.253-0.480)	0.390 (0.268-0.556)	0.471 (0.310-0.697)	0.542 (0.348-0.819)
2-day	0.061 (0.050-0.073)	0.077 (0.063-0.093)	0.104 (0.085-0.126)	0.126 (0.102-0.154)	0.157 (0.123-0.205)	0.179 (0.138-0.241)	0.204 (0.154-0.290)	0.237 (0.163-0.336)	0.293 (0.193-0.431)	0.342 (0.220-0.514)







REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.: 24122
DESIGNED BY: DV
DRAWN BY: XX
SHEET CHK'D BY: DV
CROSS CHK'D BY: XX
APPROVED BY: XX
DATE: NOVEMBER 2025

PREPARED FOR:
PREMIER REAL ESTATE SERVICES, LLC
110 COURT STREET, SUITE 1
CROMWELL, CT 06416

PREPARED BY:
ZUVIC INFRASTRUCTURE ■ SOLUTIONS
40 Cold Spring Road, Suite 1, Rocky Hill, CT 06067
■ (860)436-4901 ■ WWW.ZUVIC.COM

RESIDENTIAL SITE DEVELOPMENT

103 LOUIS STREET NEWINGTON, CT

EXISTING DRAINAGE CONDITIONS

SHEET NO.
EXDR

FILE PATH: H:\Projects\24122 - P Snow 103 Louis St Newington\AutoCAD\C124122 - EXDR_v2.dwg PLOT DATE: 11/18/2025 PLOT TIME: 8:39:37 AM

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for State of Connecticut, Western Part

103 Louis St, Newington, CT

November 11, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:672 if printed on B landscape (17" x 11") sheet.

N

Meters
0 5 10 20 30

Feet
0 30 60 120 180

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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: State of Connecticut, Western Part
Survey Area Data: Version 6, Sep 16, 2025

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

Date(s) aerial images were photographed: Mar 1, 2024—Jul 1, 2024

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
37E	Manchester gravelly sandy loam, 15 to 45 percent slopes	0.8	29.0%
306	Udorthents-Urban land complex	1.8	67.8%
307	Urban land	0.1	3.2%
Totals for Area of Interest		**2.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

State of Connecticut, Western Part

37E—Manchester gravelly sandy loam, 15 to 45 percent slopes

Map Unit Setting

National map unit symbol: 9ln7
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Manchester and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Manchester

Setting

Landform: Terraces, outwash plains, kames, eskers
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and gravelly glaciofluvial deposits derived from sandstone and shale and/or basalt

Typical profile

Ap - 0 to 9 inches: gravelly sandy loam
Bw - 9 to 18 inches: gravelly loamy sand
C - 18 to 65 inches: stratified extremely gravelly coarse sand to very gravelly loamy sand

Properties and qualities

Slope: 15 to 45 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: F145XY008MA - Dry Outwash
Hydric soil rating: No

Minor Components

Penwood

Percent of map unit: 5 percent
Landform: Terraces, outwash plains

Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Hartford

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Branford

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Walpole

Percent of map unit: 3 percent
Landform: Drainageways on terraces, depressions on terraces
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Scitico

Percent of map unit: 2 percent
Landform: Terraces, drainageways, depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

306—Udorthents-Urban land complex

Map Unit Setting

National map unit symbol: 9lmg
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 50 percent
Urban land: 39 percent
Minor components: 11 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Parent material: Human-transported material

Typical profile

^A - 0 to 5 inches: loam
^C1 - 5 to 21 inches: gravelly loam
^C2 - 21 to 79 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Urban Land

Typical profile

M - 0 to 6 inches: cemented material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Udorthents, wet substratum

Percent of map unit: 9 percent
Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent
Landform: Hills
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

307—Urban land

Map Unit Setting

National map unit symbol: 9lmh
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Typical profile

H - 0 to 6 inches: material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Udorthents, wet substratum

Percent of map unit: 10 percent
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Unnamed, undisturbed soils

Percent of map unit: 10 percent
Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

Hydrologic Soil Group and Surface Runoff

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

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 four hydrologic soil groups are:

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.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

Report—Hydrologic Soil Group and Surface Runoff

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff–State of Connecticut, Western Part			
Map symbol and soil name	**Pct. of map unit**	**Surface Runoff**	**Hydrologic Soil Group**
37E—Manchester gravelly sandy loam, 15 to 45 percent slopes			
Manchester	80	High	A
306—Udorthents-Urban land complex			
Udorthents	50	Medium	B
Urban land	39	Very high	D
307—Urban land			
Urban land	80	Very high	D

APPENDIX B

EXISTING CONDITIONS INDIVIDUAL BASIN CALCULATIONS

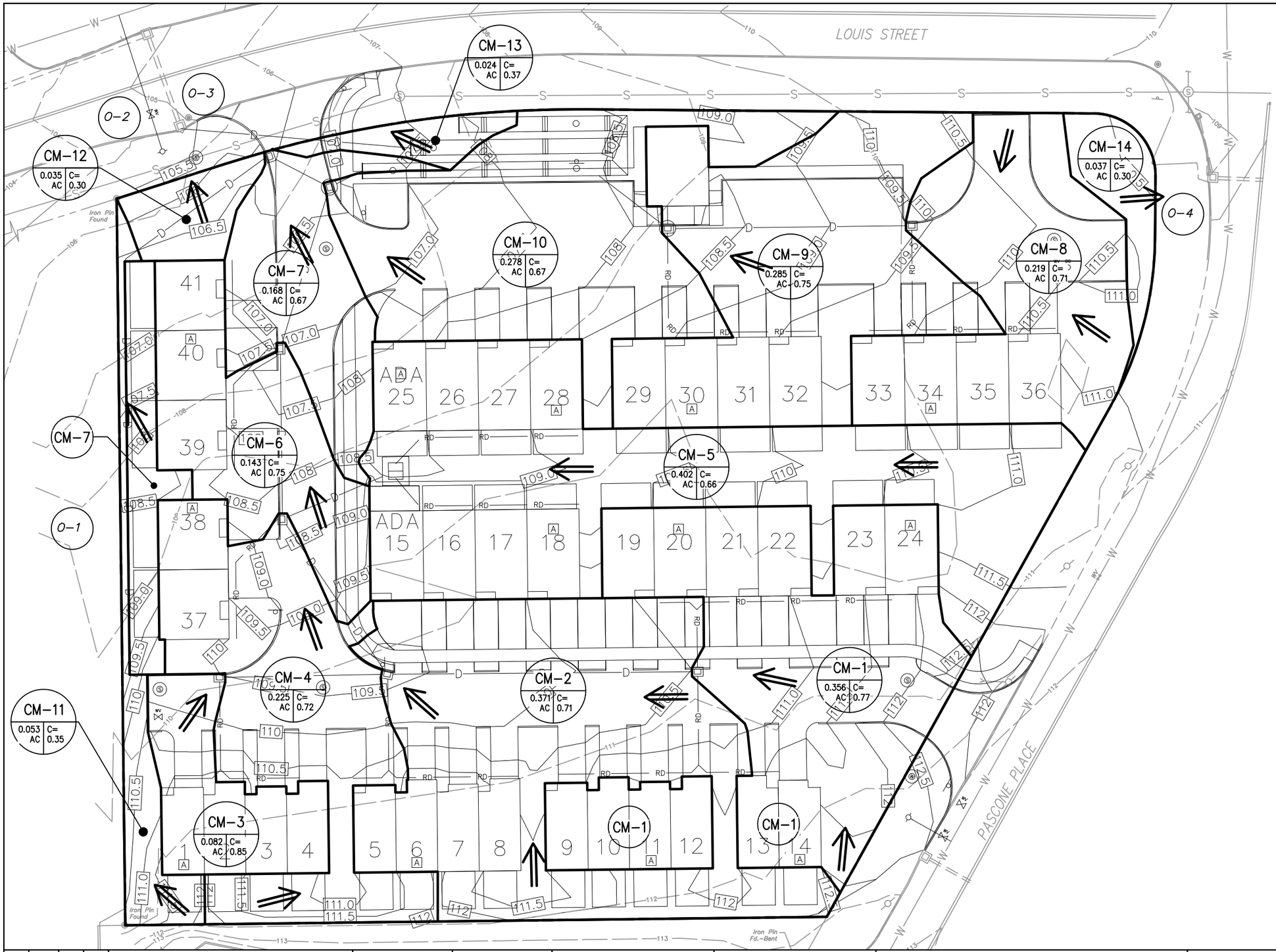
Project: Louis St
Location: 103 Louis St

By: JB Date: 11/14/2025
Checked: GS Date:

SCS Method Basin Calculations - Hydrologic Soil Type (HSG) and Curve Number (CN)

	Cover Type (sf)	Impervious	Gravel	Lawn			Woods			Total Area (sf)	Total Area (ac)	Weighted CN	Tc (min)*	% Impervious
	HSG	-	-	A	B	D	A	B	D					
	CN	-	-	39	61	80	30	55	77					
Basin Name	EX-1			4304			2378	5206		11887	0.273	44	21.0	0%
	EX-2			12798	6290		1325	18091		38504	0.884	50	22.5	0%
	EX-3			13056	34147	1547		12771		61521	1.412	56	21.3	0%
	EX-4			7	2590	2198				4795	0.110	70	13.4	0%
	TOTAL	0								116707	2.679			0%

*Minimum Tc = 5 min.



LEGEND:

- GRASS/MULCH
- WOODED
- CATCHMENT NAME / AREA / RUNOFF COEFFICIENT (XX: 0.00 AC C= 0.00)
- OUTFALL NUMBER (O-#)
- CATCHMENT BOUNDARY
- SURFACE FLOW DIRECTION

0 40' 80'

SCALE: 1"=40'

REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.: 24122
DESIGNED BY: DV
DRAWN BY: JB
SHEET CHK'D BY: DV
CROSS CHK'D BY: XX
APPROVED BY: XX
DATE: NOVEMBER 2025

PREPARED FOR:
PREMIER REAL ESTATE SERVICES, LLC
110 COURT STREET, SUITE 1
CROMWELL, CT 06416

PREPARED BY:
ZUVIC INFRASTRUCTURE ■ SOLUTIONS
40 Cold Spring Road, Suite 1, Rocky Hill, CT 06067
■ (860)436-4901 ■ WWW.ZUVIC.COM

RESIDENTIAL SITE DEVELOPMENT

103 LOUIS STREET NEWINGTON, CT

PROPOSED DRAINAGE CONDITIONS

SHEET NO.
PRDR

FILE PATH: H:\Projects\24122 - P Snow 103 Louis St Newington\AutoCAD\C124122 - PRDR.dwg PLOT DATE: 11/4/2025 PLOT TIME: 10:41:30 AM

PROPOSED DRAINAGE INDIVIDUAL BASIN CALCULATIONS

Project:	Louis St	By:	JB	Date:	11/14/2025
Location:	103 Louis St.	Checked:	GS	Date:	

Rational Method Individual Basin Calculation - Runoff Coefficient (C)

Basin Name	Impervious Area C=.9 (sf)	Gravel Area C=.6 (sf)	Grassed Area C=.3 (sf)	Wooded Area C=.2 (sf)	Total Area (sf)	Total Area (ac)	Weighted C	Tc (min)*	% Impervious
CM-1	12149		3377		15525	0.356	0.77	5.0	78%
CM-2	11105		5055		16161	0.371	0.71	5.0	69%
CM-3	3269		309		3578	0.082	0.85	5.0	91%
CM-4	6866		2946		9813	0.225	0.72	5.0	70%
CM-5	10591		6903		17494	0.402	0.66	5.0	61%
CM-6	4680		1569		6249	0.143	0.75	5.0	75%
CM-7	4461		2871		7332	0.168	0.67	5.0	61%
CM-8	6587		2948		9535	0.219	0.71	5.0	69%
CM-9	9257		3158		12415	0.285	0.75	5.0	75%
CM-10	7474		4620		12095	0.278	0.67	5.0	62%
CM-11	200		2098		2298	0.053	0.35	5.0	9%
CM-12			1534		1534	0.035	0.30	5.0	0%
CM-13	123		940		1062	0.024	0.37	5.0	12%
CM-14			1617		1617	0.037	0.30	5.0	0%
TOTAL	76764		39943		116707	2.679			66%

*Minimum Tc = 5 min.

SCS Method Basin Calculations - Hydrologic Soil Type (HSG) and Curve Number (CN)

Cover Type (sf)	Impervious	Gravel Area	Lawn			Total Area (sf)	Total Area (ac)	Weighted CN	Tc (min)*	% Impervious
HSG	-	-	A	B	D					
CN	98	-	39	61	80					
CM-11	200		928	1170		2298	0.053	55	5.0	9%
CM-12			1534			1534	0.035	39	5.0	0%
CM-1 to CM-10	76441		9295	23552	909	110197	2.530	85	6.0	69%
CM-13	123		940			1062	0.024	46	5.0	12%
CM-14				839	778	1617	0.037	70	5.0	0%
TOTAL	76764					116707	2.679			

*Minimum Tc = 5 min.

zuvic

40 COLD SPRING ROAD
ROCKY HILL, CT 06067

860.436.4901
(FAX) 860.436.4953

PROJECT		PROJECT NO.	24122		
	MULTI-FAMILY DEVELOPMENT	COMPUTED BY	DS	DATE	Jun-25
LOCATION	103 Louis St	CHECKED BY	DV	DATE	
	NEWINGTON, CT				

TIME OF CONCENTRATION WORKSHEET

Sheet Flow (applicable to Tc only)

Segment ID		EX-1
1. Surface description		Wood
2. Manning's roughness coeff. for sheet flow, n		0.6
3. Flow Length, L (<300ft)	ft.	23
4. Two-year 24-hr rainfall, P_2	in.	3.24
5. Land slope, s	ft./ft.	0.018657
6. $Tc = \frac{0.007(nL)^{0.8}}{P_2^{0.5}(s^{0.4})}$	hr.	0.156097

Shallow Concentrated Flow

Segment ID		1	2	3				
7. Surface Description		Wood	Grass	Grass				
8. Mannings Roughness coeff., n		0.4	0.2	0.2				
9. paved or unpaved		unpaved	unpaved	unpaved				
10. Depth of flow, d (default values: d=.4 unpaved; d=.2 paved)	ft.	0.4	0.4	0.4				
11. Flow length, L	ft.	111	51	116				
12. Watercourse slope, s	ft./ft.	0.0186	0.009804	0.02931				
13. Average velocity, $V=\frac{1.49}{n}(d^{2/3})(s^{1/2})$	fps.	0.275797	0.400463	0.692426	0	0		
14. Tc= L/(3600*V)	hr.	0.111797	+ 0.035376	+ 0.046535	+ 0	+ 0	=	0.193708

Channel Flow

Segment ID								
15. Channel Bottom width, b	ft.							
16. Horizontal side slope component, z (z horiz:1vert)	ft.							
17. Depth of flow, d	ft.							
18. Cross sectional flow area, A (assume trapazoidal)	$ft.^2$	0	0	0	0	0		
19. Wetted permieter, P_w	ft.							
20. Hydraulic Radius, $R = A/P_w$	ft.	0	0	0	0	0		
21. Channel slope, s	ft./ft.							
22. Manning's roughness coeff., n								
23. $V=\frac{1.49}{n}(d^{2/3})(s^{1/2})$	fps.	0	0	0	0	0		
24. Flow length, L	ft.							
25. Tt = L/(3600*V)	hr.	0	+ 0	+ 0	+ 0	+ 0	=	0
26. Watershed or subarea T_c or T_t (add T_t in steps 6, 14 & 25)							hr.	0.349805

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40 COLD SPRING ROAD
ROCKY HILL, CT 06067

860.436.4901
(FAX) 860.436.4953

PROJECT		PROJECT NO.	24122		
	MULTI-FAMILY DEVELOPMENT	COMPUTED BY	DS	DATE	Jun-25
LOCATION	103 Louis St	CHECKED BY	DV	DATE	
	NEWINGTON, CT				

TIME OF CONCENTRATION WORKSHEET

Sheet Flow (applicable to Tc only)

	Segment ID	EX-2
1. Surface description		
2. Manning's roughness coeff. for sheet flow, n		0.6
3. Flow Length, L (<300ft)	ft.	7
4. Two-year 24-hr rainfall, P_2	in.	3.24
5. Land slope, s	ft./ft.	0.071429
6. $Tc = \frac{0.007(nL)^{0.8}}{P_2^{0.5}(s^{0.4})}$	hr.	0.035227

Shallow Concentrated Flow

	Segment ID	1						
7. Surface Description		Wood	grass					
8. Mannings Roughness coeff., n		0.2	0.2					
9. paved or unpaved		unpaved	unpaved					
10. Depth of flow, d (default values: d=.4 unpaved; d=.2 paved)	ft.	0.4	0.4					
11. Flow length, L	ft.	116	255					
12. Watercourse slope, s	ft./ft.	0.001434	0.018431					
13. Average velocity, $V=\frac{1.49}{n}(d^{2/3})(s^{1/2})$	fps.	0.153141	0.549088	0	0	0		
14. Tc= L/(3600*V)	hr.	0.210409	+ 0.129002	+ 0	+ 0	+ 0	=	0.339411

Channel Flow

	Segment ID							
15. Channel Bottom width, b	ft.							
16. Horizontal side slope component, z (z horiz:1vert)	ft.							
17. Depth of flow, d	ft.							
18. Cross sectional flow area, A (assume trapazoidal)	$ft.^2$	0	0	0	0	0		
19. Wetted permieter, P_w	ft.							
20. Hydraulic Radius, $R = A/P_w$	ft.	0	0	0	0	0		
21. Channel slope, s	ft./ft.							
22. Manning's roughness coeff., n								
23. $V=\frac{1.49}{n}(d^{2/3})(s^{1/2})$	fps.	0	0	0	0	0		
24. Flow length, L	ft.							
25. Tt = L/(3600*V)	hr.	0	+ 0	+ 0	+ 0	+ 0	=	0
26. Watershed or subarea T_c or T_t (add T_t in steps 6, 14 & 25)							hr.	0.374638

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40 COLD SPRING ROAD
ROCKY HILL, CT 06067

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PROJECT		PROJECT NO.	24122		
	MULTI-FAMILY DEVELOPMENT	COMPUTED BY	DS	DATE	Jun-25
LOCATION	103 Louis St	CHECKED BY	DV	DATE	
	NEWINGTON, CT				

TIME OF CONCENTRATION WORKSHEET

Sheet Flow (applicable to Tc only)

			Segment ID	EX-3
1. Surface description				
2. Manning's roughness coeff. for sheet flow, n				0.6
3. Flow Length, L (<300ft)		ft.		15
4. Two-year 24-hr rainfall, P_2		in.		3.24
5. Land slope, s	1.5/58	ft./ft.		0.033333
6. $Tc = \frac{0.007(nL)^{0.8}}{P_2^{0.5}(s^{0.4})}$		hr.		0.087916

Shallow Concentrated Flow

			Segment ID						
7. Surface Description				Wood	grass				
8. Mannings Roughness coeff., n				0.2	0.2				
9. paved or unpaved				unpaved	unpaved				
10. Depth of flow, d (default values: d=.4 unpaved; d=.2 paved)		ft.		0.4	0.4				
11. Flow length, L		ft.		97	327				
12. Watercourse slope, s		ft./ft.		0.015464	0.011009				
13. Average velocity, $V=\frac{1.49}{n}(d^{2/3})(s^{1/2})$		fps.		0.502948	0.424366	0	0	0	
14. Tc= L/(3600*V)		hr.		0.053573	+ 0.214045	+ 0	+ 0	+ 0	= 0.267618

Channel Flow

			Segment ID						
15. Channel Bottom width, b		ft.							
16. Horizontal side slope component, z (z horiz:1vert)		ft.							
17. Depth of flow, d		ft.							
18. Cross sectional flow area, A (assume trapazoidal)		$ft.^2$		0	0	0	0	0	
19. Wetted permieter, P_w		ft.							
20. Hydraulic Radius, $R = A/P_w$		ft.		0	0	0	0	0	
21. Channel slope, s		ft./ft.							
22. Manning's roughness coeff., n									
23. $V=\frac{1.49}{n}(d^{2/3})(s^{1/2})$		fps.		0	0	0	0	0	
24. Flow length, L		ft.							
25. Tt = L/(3600*V)		hr.		0	+ 0	+ 0	+ 0	+ 0	= 0
26. Watershed or subarea T_c or T_t (add T_t in steps 6, 14 & 25)									hr. 0.355534

zuvic

40 COLD SPRING ROAD
ROCKY HILL, CT 06067

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(FAX) 860.436.4953

PROJECT		PROJECT NO.	24122		
	MULTI-FAMILY DEVELOPMENT	COMPUTED BY	DS	DATE	Jun-25
LOCATION	103 Louis St	CHECKED BY	DV	DATE	
	NEWINGTON, CT				

TIME OF CONCENTRATION WORKSHEET

Sheet Flow (applicable to Tc only)

		Segment ID	EX-4
1. Surface description			Grass
2. Manning's roughness coeff. for sheet flow, n			0.24
3. Flow Length, L (<300ft)		ft.	60
4. Two-year 24-hr rainfall, P_2		in.	3.24
5. Land slope, s	6/124	ft./ft.	0.008333
6. $Tc = \frac{0.007(nL)^{0.8}}{P_2^{0.5}(s^{0.4})}$		hr.	0.22294

Shallow Concentrated Flow

	Segment ID							
7. Surface Description								
8. Mannings Roughness coeff., n								
9. paved or unpaved								
10. Depth of flow, d (default values: d=.4 unpaved; d=.2 paved)	ft.							
11. Flow length, L	ft.							
12. Watercourse slope, s	ft./ft.							
13. Average velocity, $V=\frac{1.49}{n}(d^{2/3})(s^{1/2})$	fps.	0	0	0	0	0		
14. Tc= L/(3600*V)	hr.	0	+ 0	+ 0	+ 0	+ 0	=	0

Channel Flow

	Segment ID							
15. Channel Bottom width, b	ft.							
16. Horizontal side slope component, z (z horiz:1vert)	ft.							
17. Depth of flow, d	ft.							
18. Cross sectional flow area, A (assume trapazoidal)	$ft.^2$	0	0	0	0	0		
19. Wetted permieter, P_w	ft.							
20. Hydraulic Radius, $R = A/P_w$	ft.	0	0	0	0	0		
21. Channel slope, s	ft./ft.							
22. Manning's roughness coeff., n								
23. $V=\frac{1.49}{n}(d^{2/3})(s^{1/2})$	fps.	0	0	0	0	0		
24. Flow length, L	ft.							
25. Tt = L/(3600*V)	hr.	0	+ 0	+ 0	+ 0	+ 0	=	0
26. Watershed or subarea T_c or T_t (add T_t in steps 6, 14 & 25)							hr.	0.22294

APPENDIX C

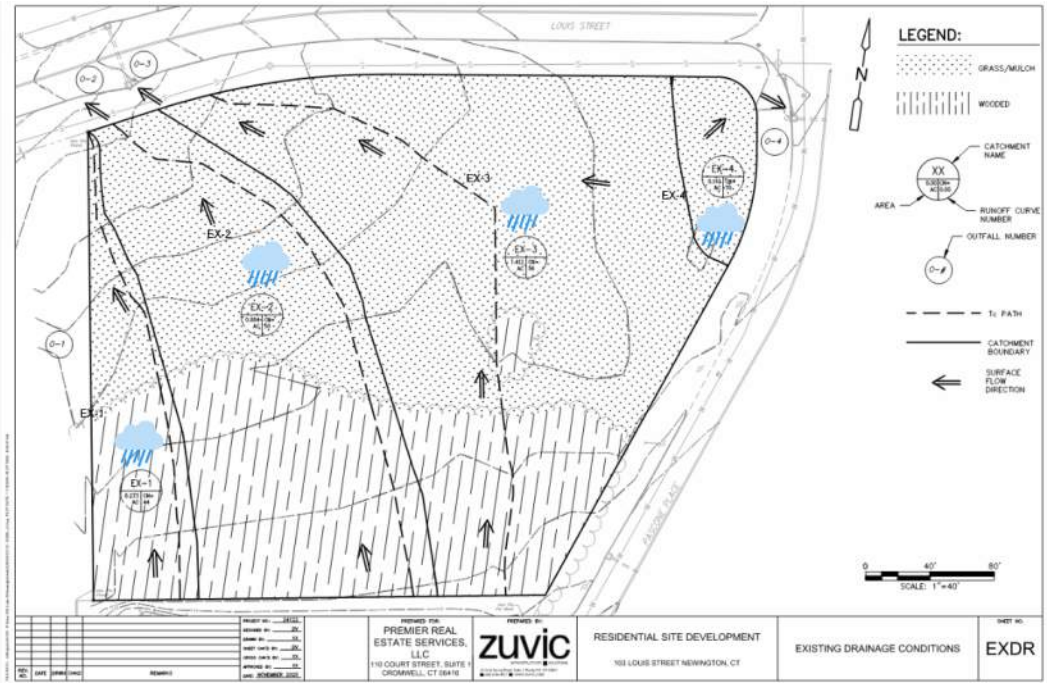
Table of Contents

Contents continued...

Basin Model

Hydrology Studio v 3.0.0.40

File: 24122 - Pre Dev EXDR SCS.hys
11-18-2025



Hydrograph by Return Period

Hydrology Studio v 3.0.0.40

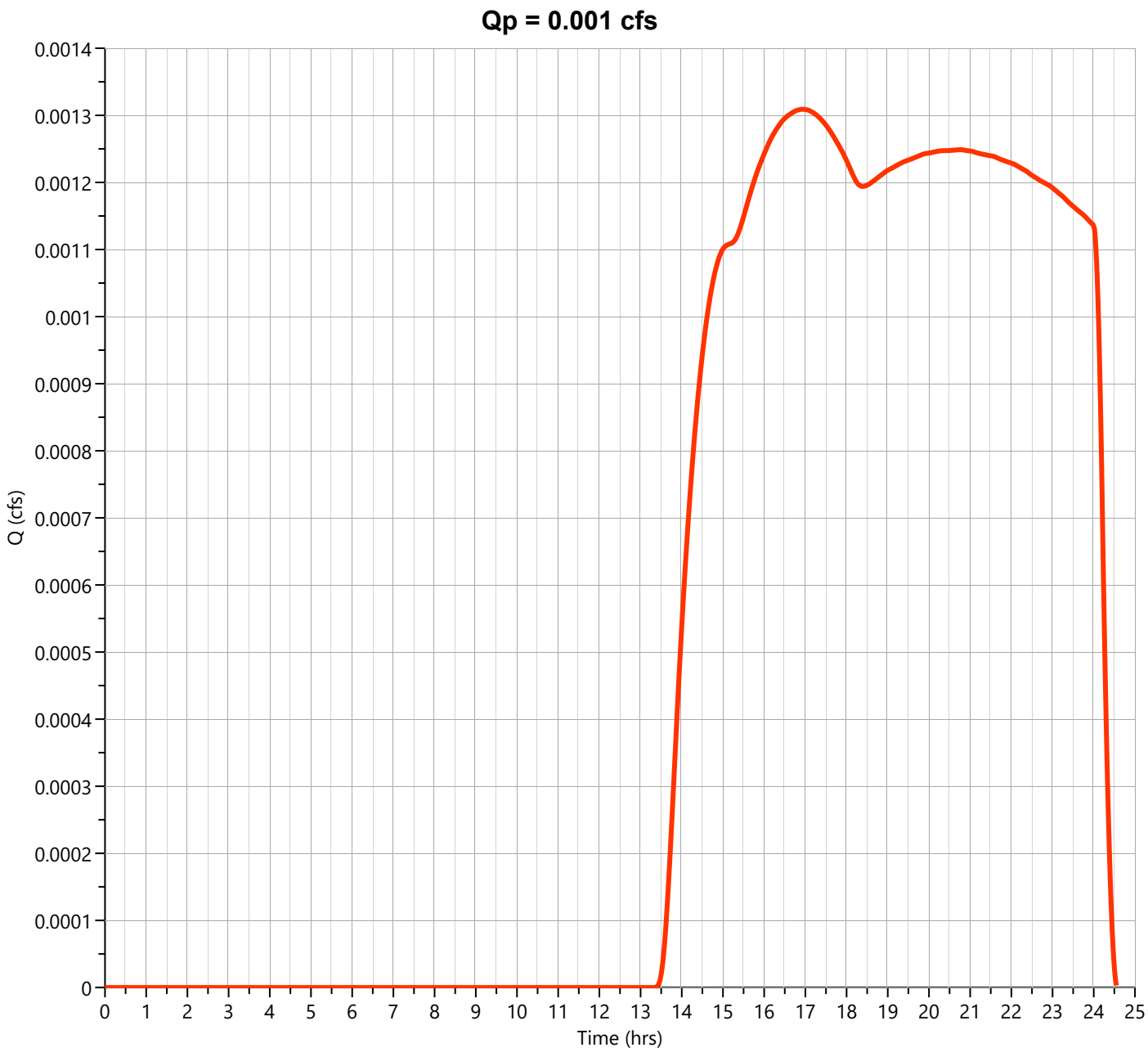
File: 24122 - Pre Dev EXDR SCS.hys
11-18-2025

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	NRCS Runoff	EX-1		0.001		0.013	0.045	0.133	0.221	0.333
2	NRCS Runoff	EX-2		0.023		0.153	0.368	0.775	1.115	1.527
3	NRCS Runoff	EX-3		0.158		0.605	1.115	1.937	2.599	3.379
4	NRCS Runoff	EX-4		0.085		0.160	0.229	0.330	0.407	0.493

EX-1

Hyd. No. 1

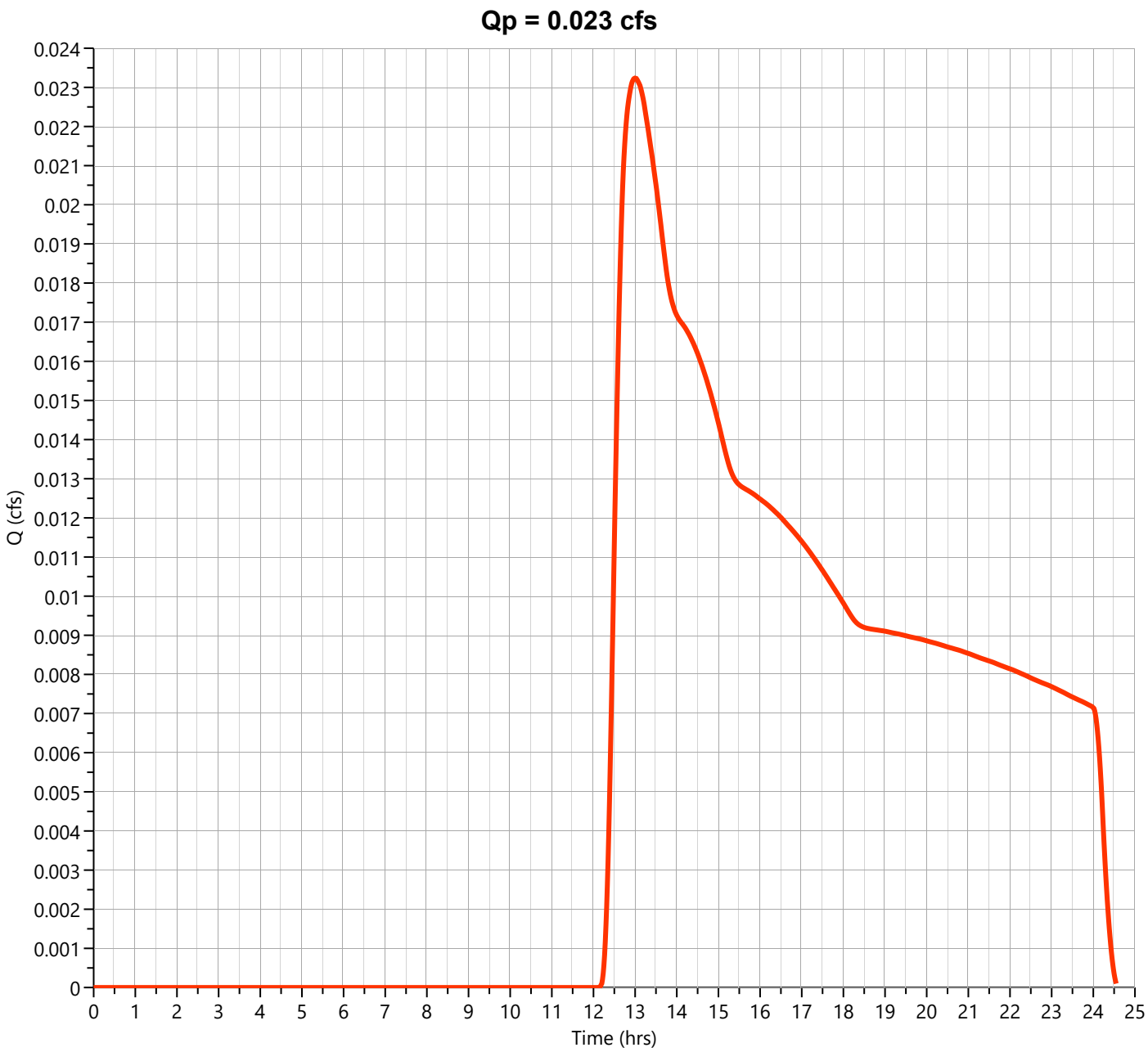
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.001 cfs
Storm Frequency	= 2-yr	Time to Peak	= 16.90 hrs
Time Interval	= 1 min	Runoff Volume	= 44.5 cuft
Drainage Area	= 0.273 ac	Curve Number	= 44.00
Tc Method	= User	Time of Conc. (Tc)	= 21.0 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-2

Hyd. No. 2

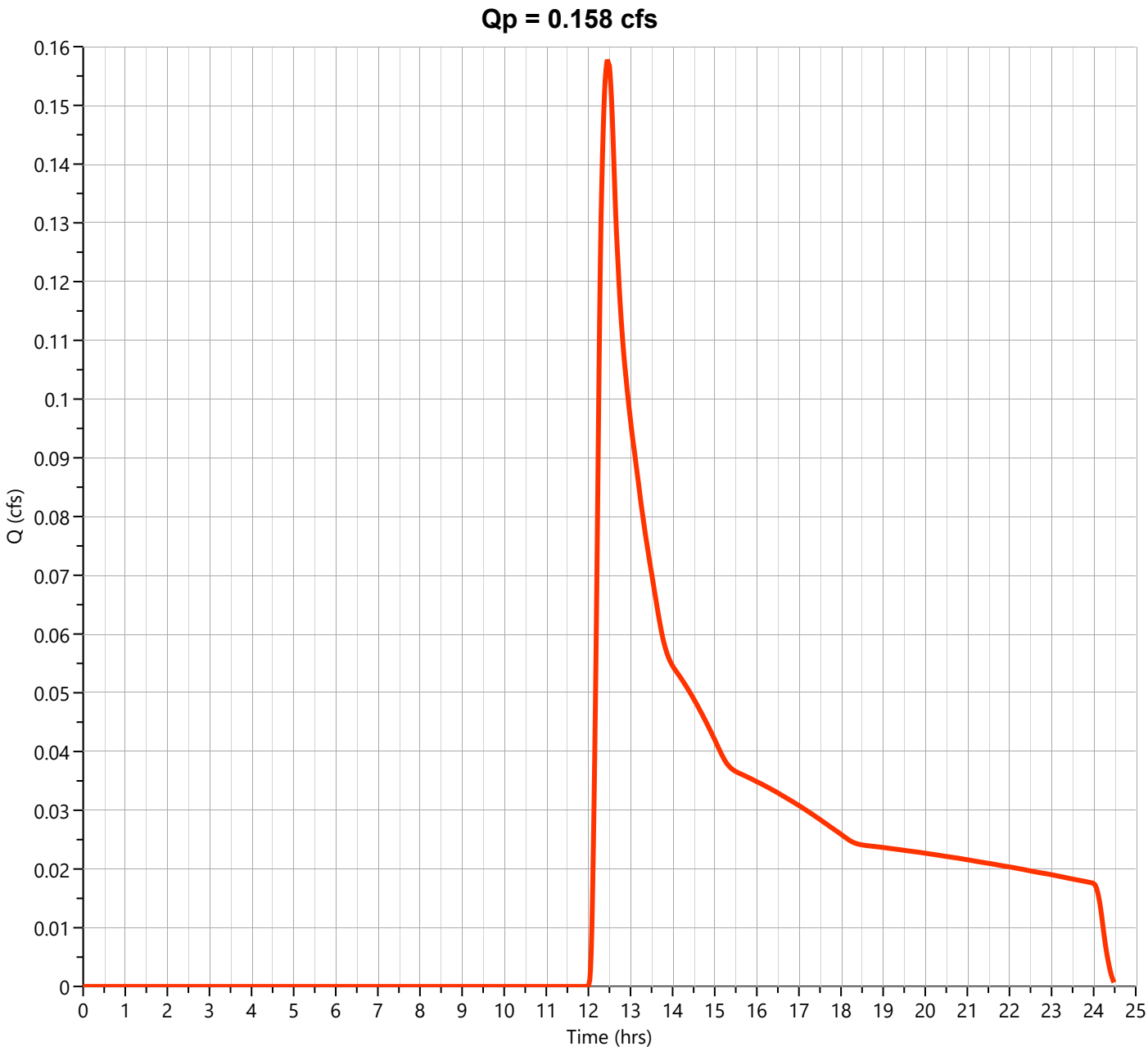
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.023 cfs
Storm Frequency	= 2-yr	Time to Peak	= 13.00 hrs
Time Interval	= 1 min	Runoff Volume	= 490 cuft
Drainage Area	= 0.884 ac	Curve Number	= 50.00
Tc Method	= User	Time of Conc. (Tc)	= 22.47 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 3

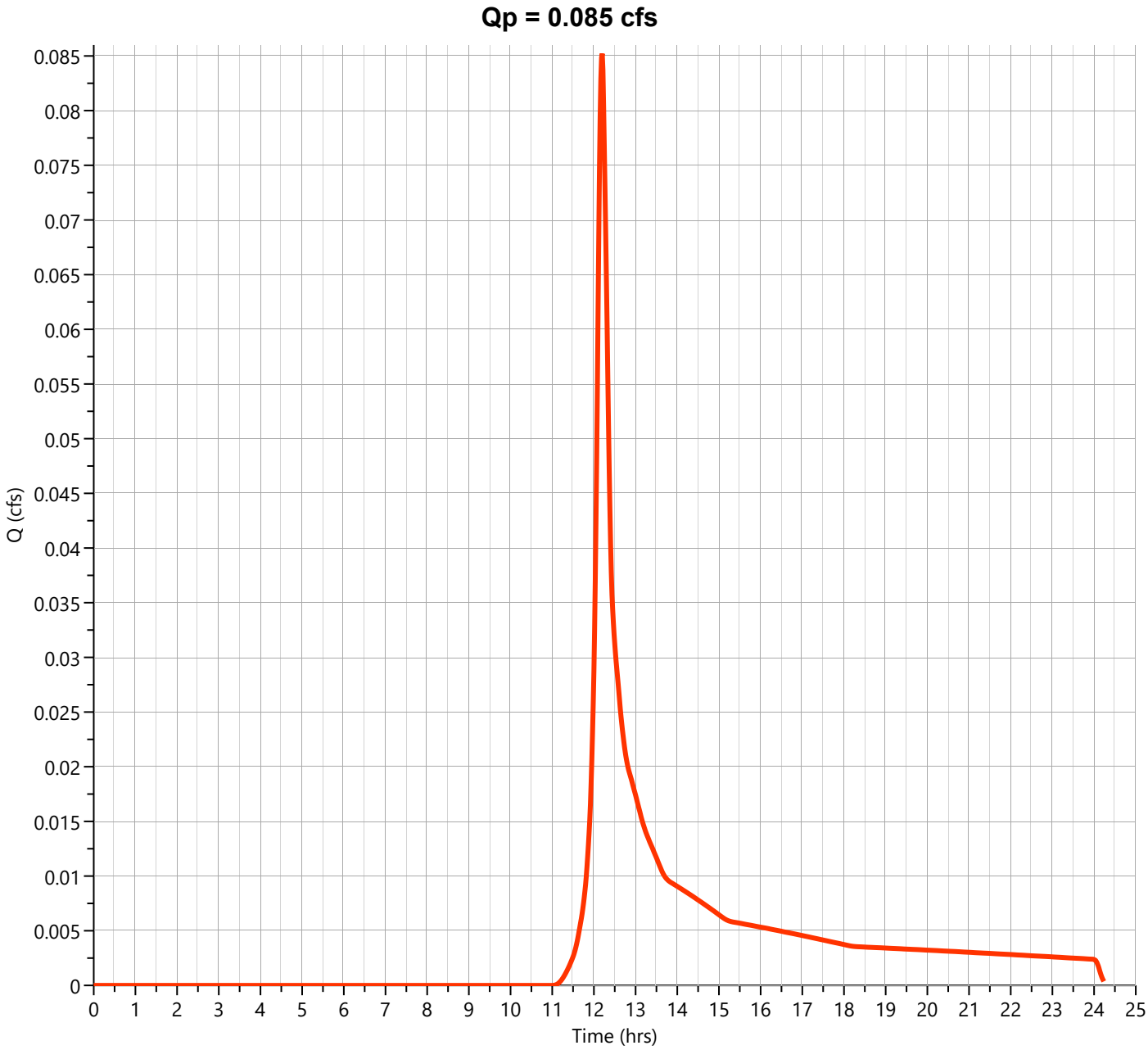
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.158 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.47 hrs
Time Interval	= 1 min	Runoff Volume	= 1,647 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.33 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-4

Hyd. No. 4

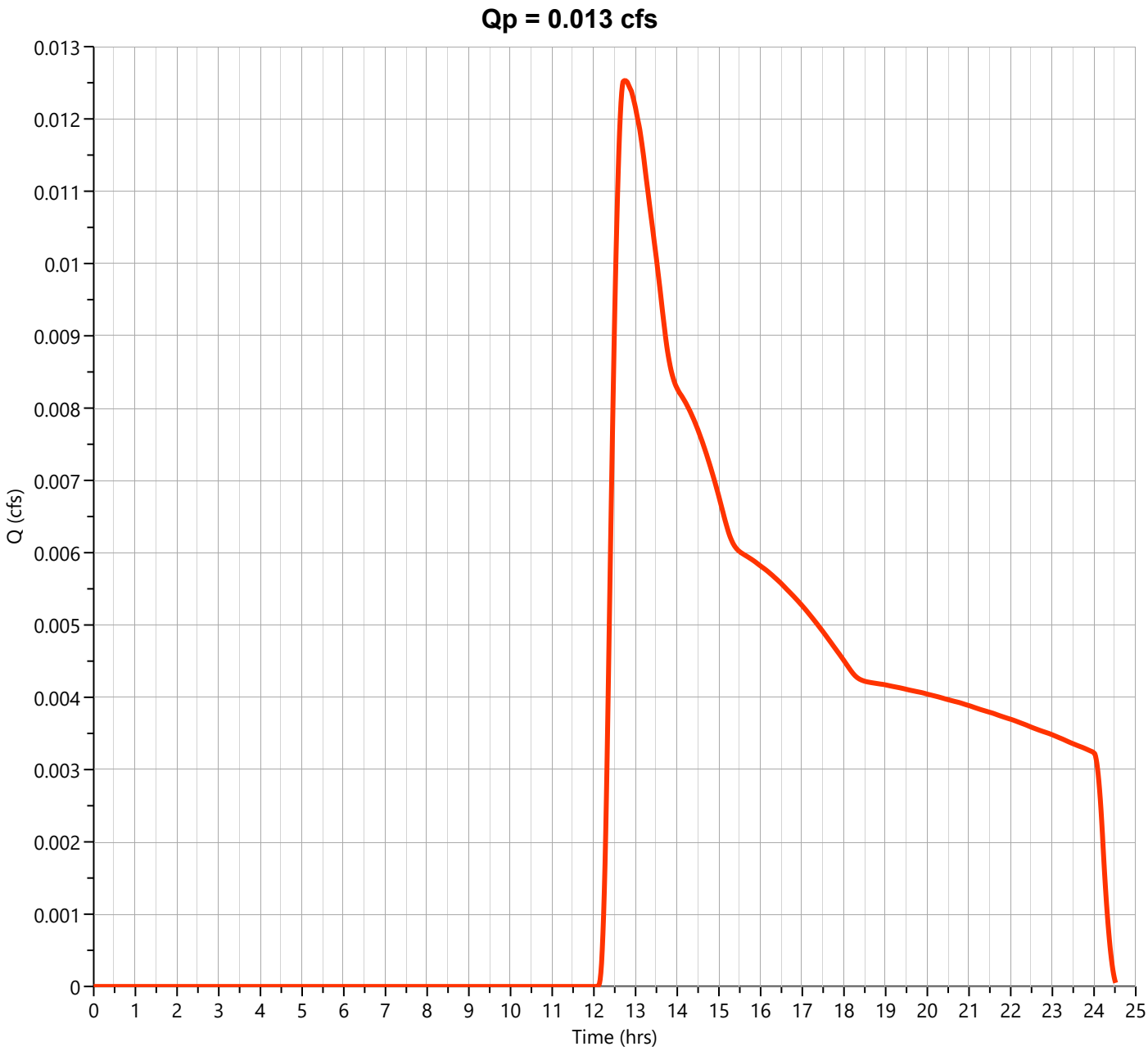
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.085 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.20 hrs
Time Interval	= 1 min	Runoff Volume	= 353 cuft
Drainage Area	= 0.11 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 13.38 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-1

Hyd. No. 1

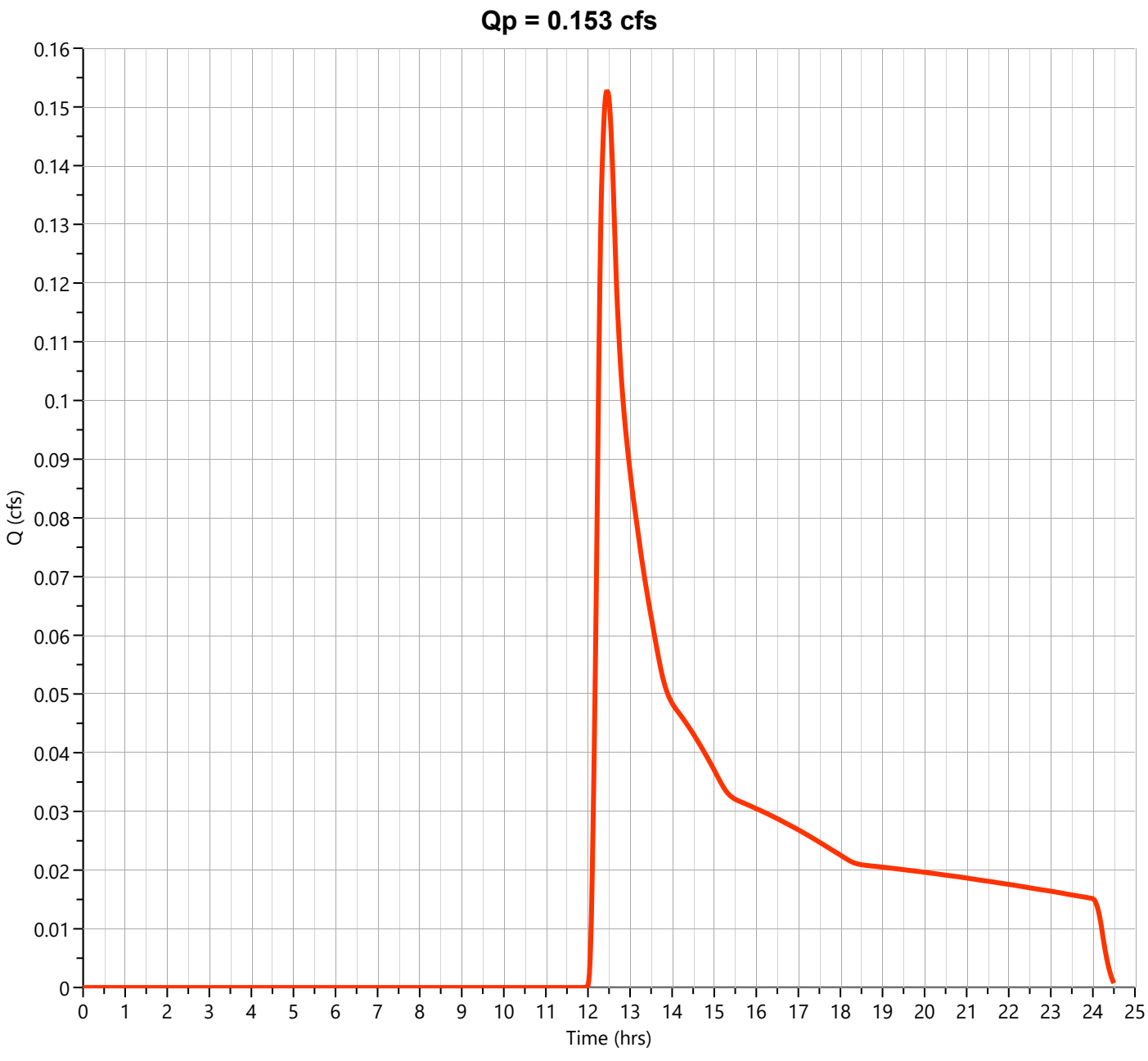
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.013 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.73 hrs
Time Interval	= 1 min	Runoff Volume	= 236 cuft
Drainage Area	= 0.273 ac	Curve Number	= 44.00
Tc Method	= User	Time of Conc. (Tc)	= 21.0 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-2

Hyd. No. 2

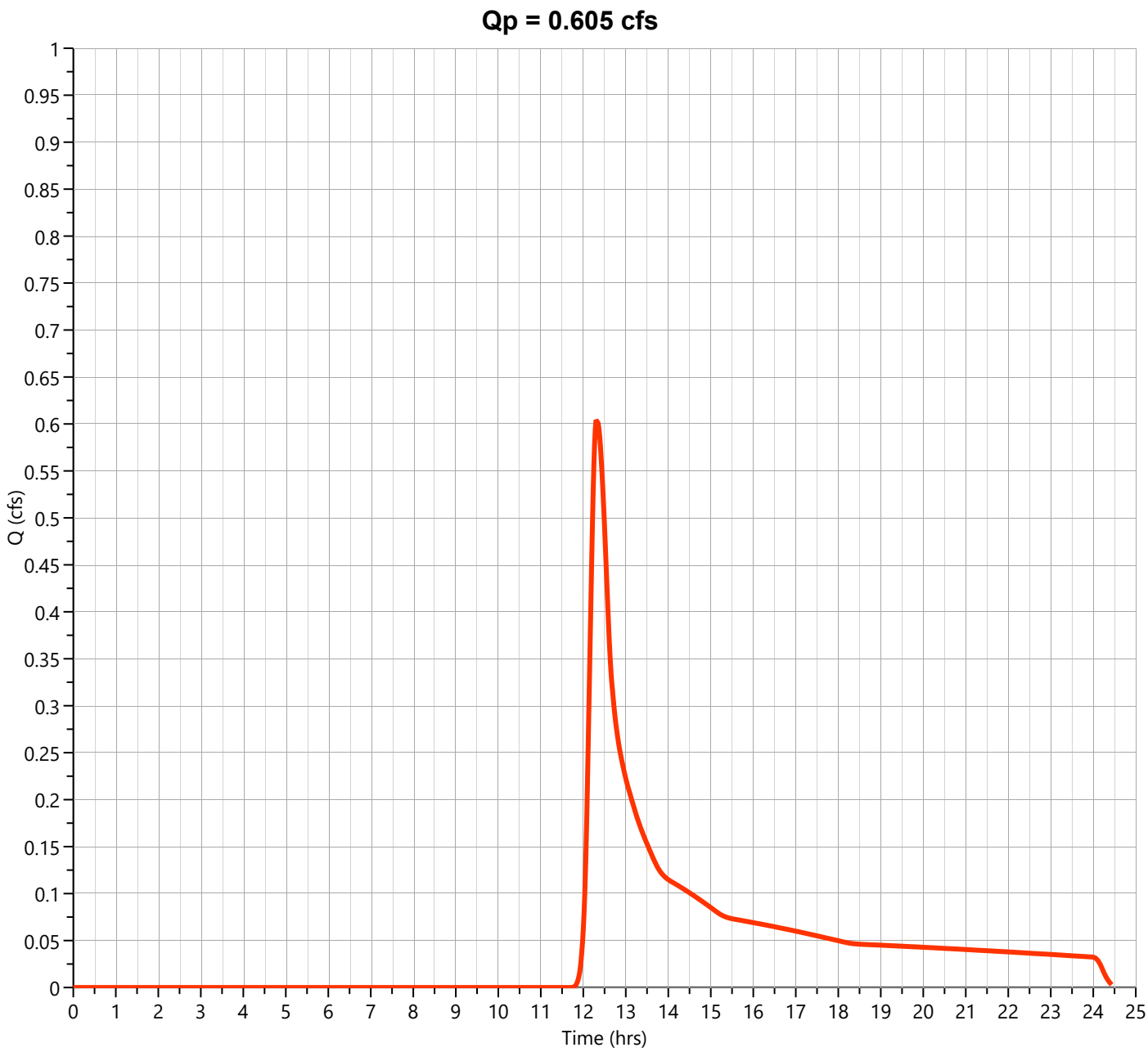
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.153 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.45 hrs
Time Interval	= 1 min	Runoff Volume	= 1,477 cuft
Drainage Area	= 0.884 ac	Curve Number	= 50.00
Tc Method	= User	Time of Conc. (Tc)	= 22.47 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 3

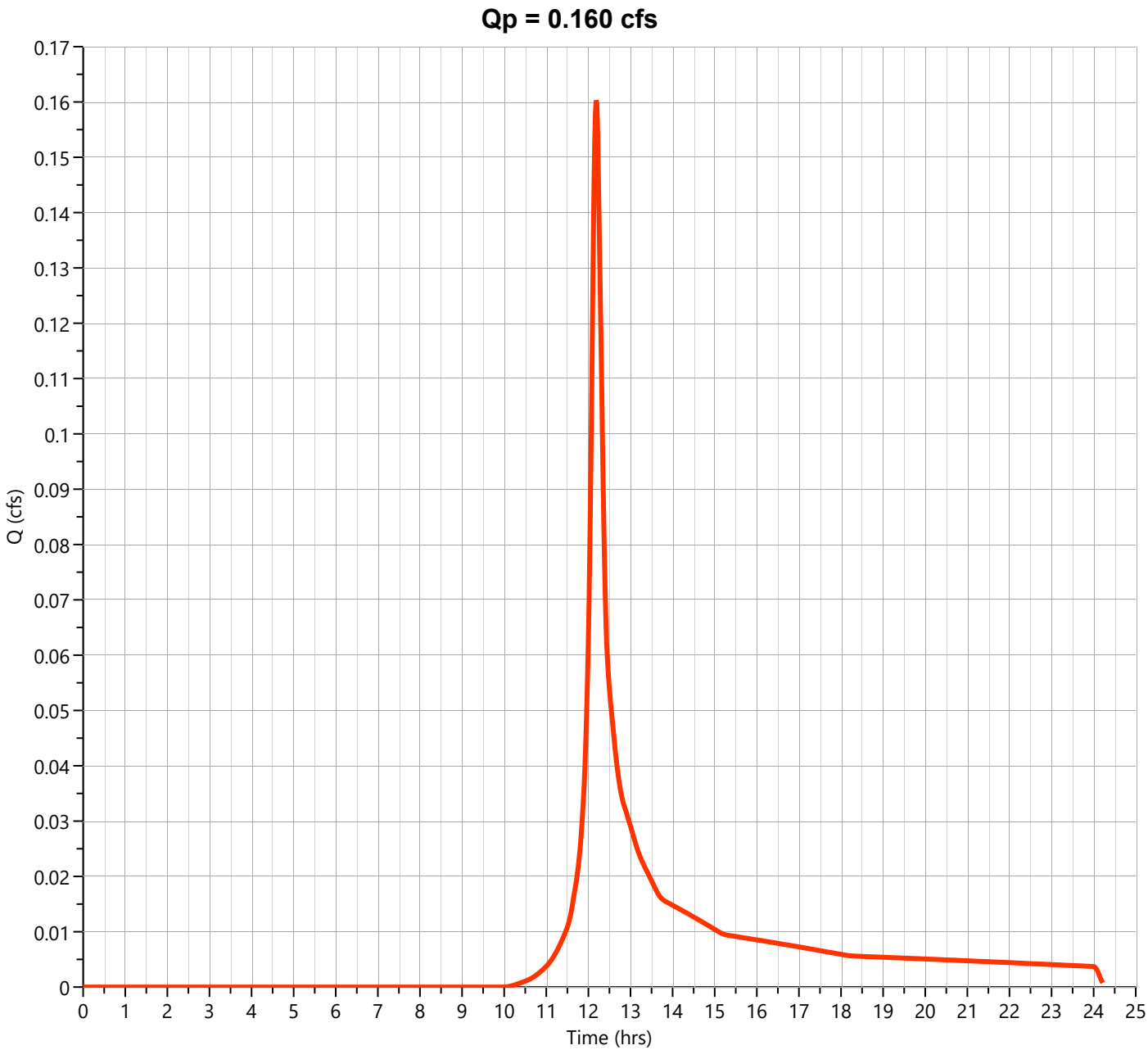
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.605 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.32 hrs
Time Interval	= 1 min	Runoff Volume	= 3,875 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.33 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-4

Hyd. No. 4

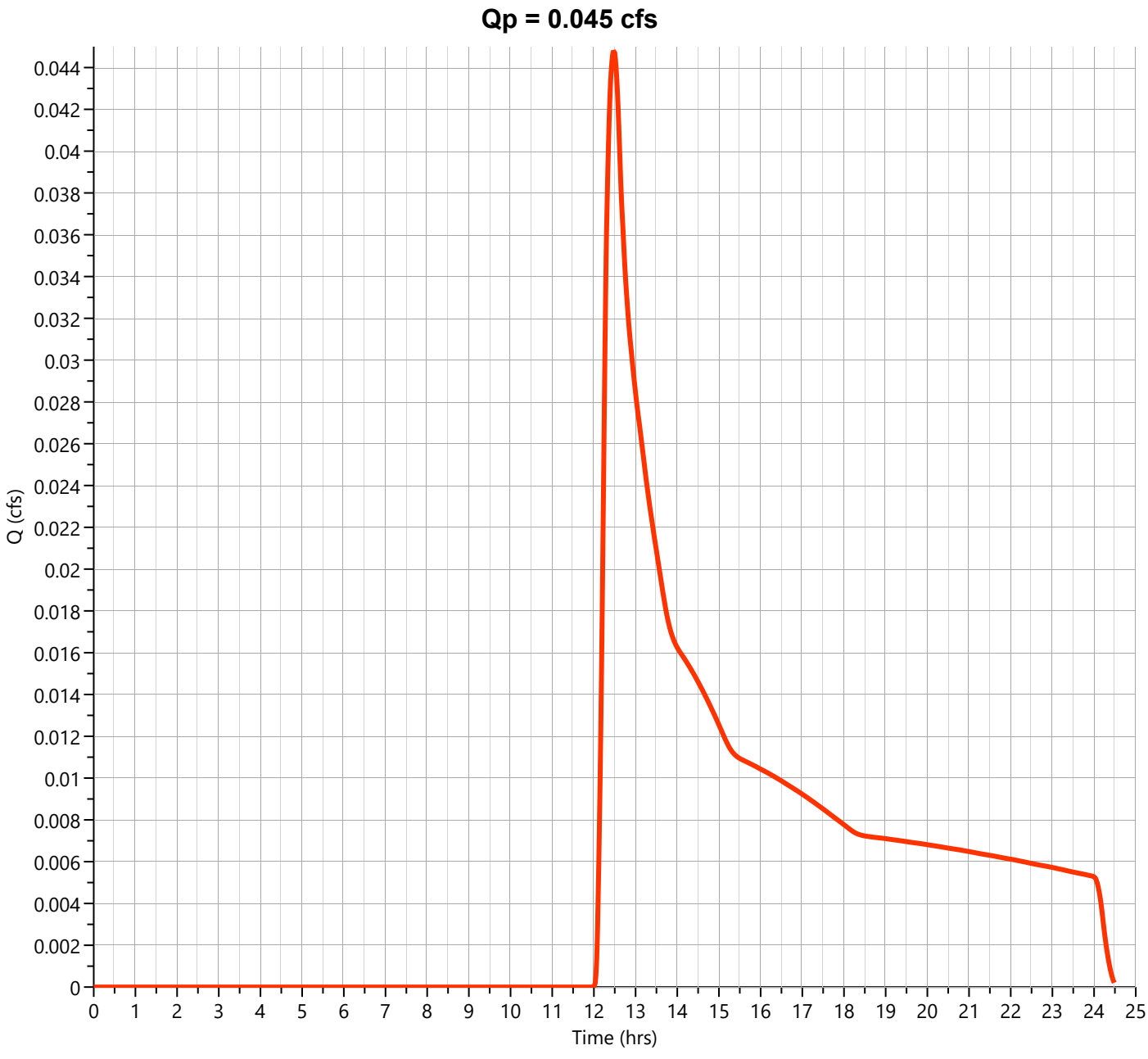
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.160 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.18 hrs
Time Interval	= 1 min	Runoff Volume	= 630 cuft
Drainage Area	= 0.11 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 13.38 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-1

Hyd. No. 1

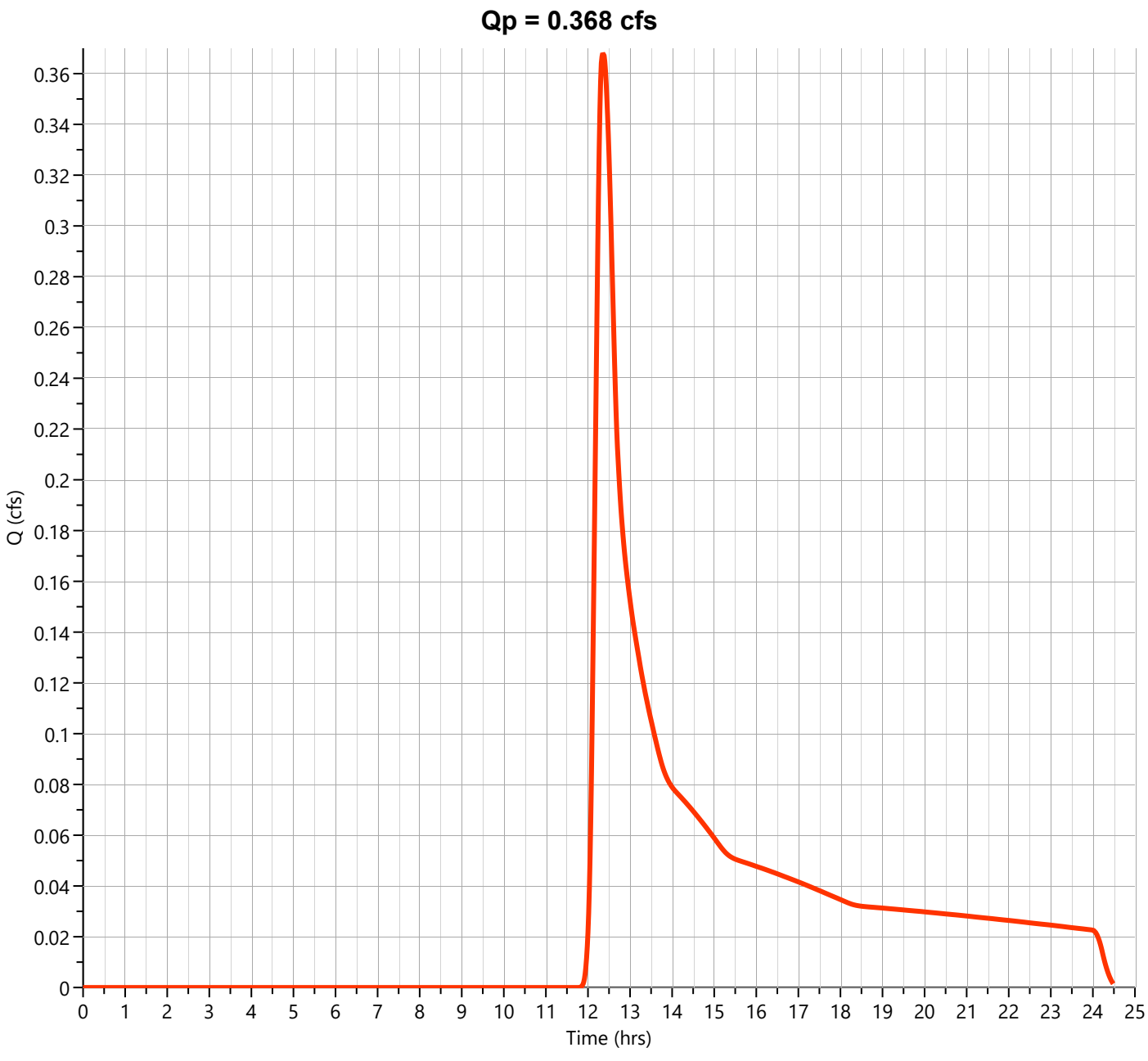
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.045 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.48 hrs
Time Interval	= 1 min	Runoff Volume	= 487 cuft
Drainage Area	= 0.273 ac	Curve Number	= 44.00
Tc Method	= User	Time of Conc. (Tc)	= 21.0 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-2

Hyd. No. 2

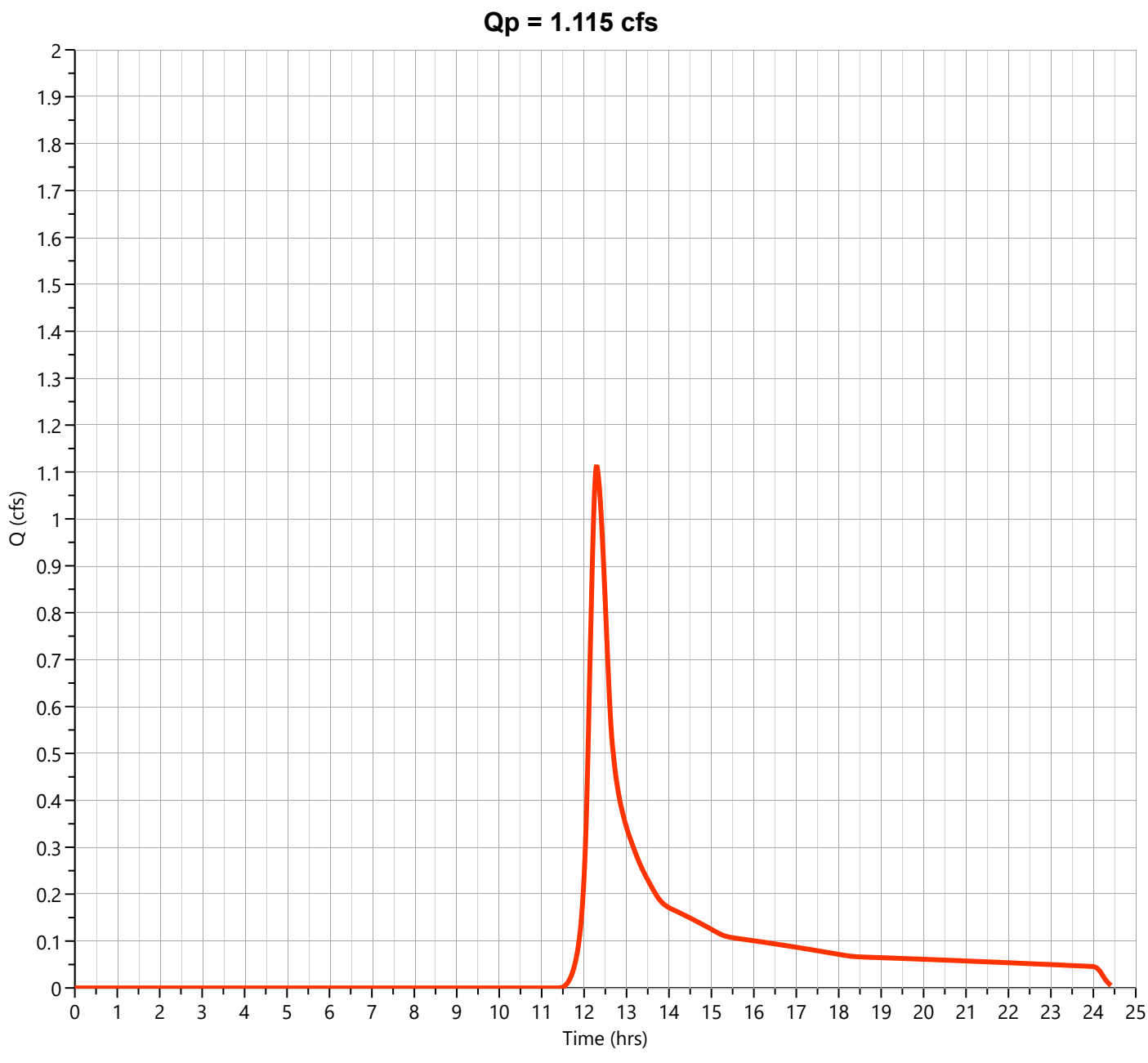
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.368 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.37 hrs
Time Interval	= 1 min	Runoff Volume	= 2,590 cuft
Drainage Area	= 0.884 ac	Curve Number	= 50.00
Tc Method	= User	Time of Conc. (Tc)	= 22.47 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 3

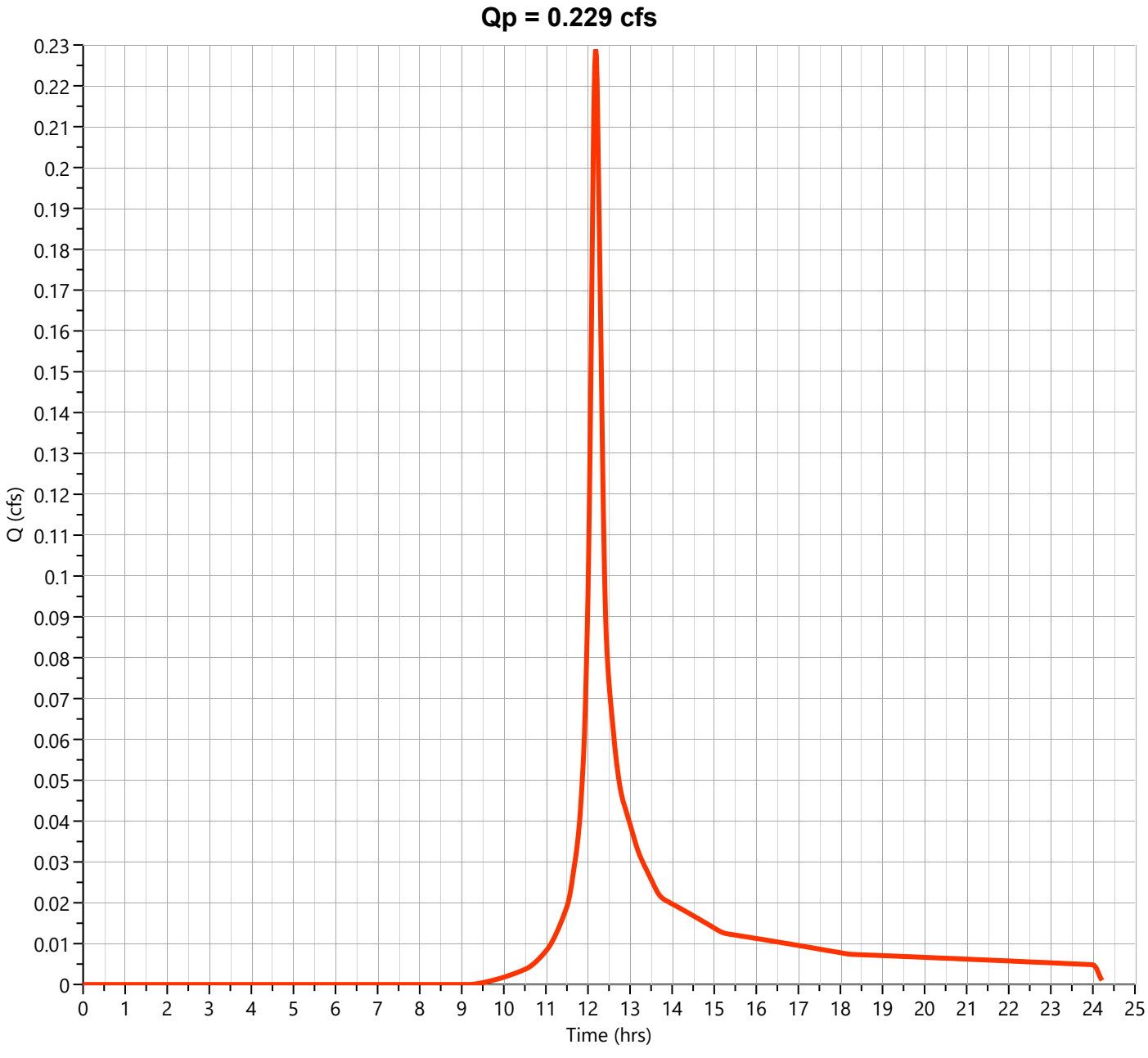
Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.115 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.30 hrs
Time Interval	= 1 min	Runoff Volume	= 6,182 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.33 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-4

Hyd. No. 4

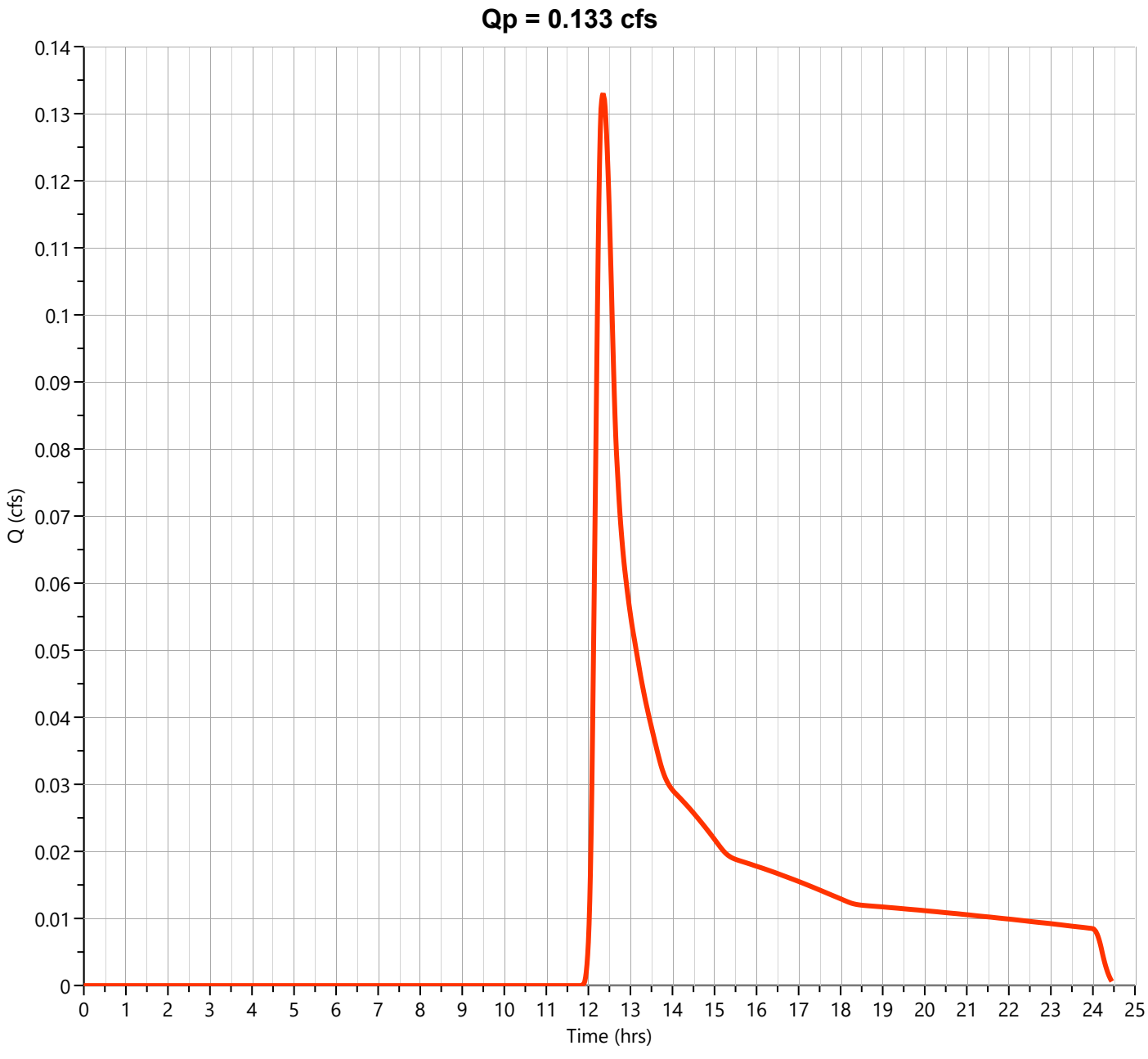
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.229 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.18 hrs
Time Interval	= 1 min	Runoff Volume	= 886 cuft
Drainage Area	= 0.11 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 13.38 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-1

Hyd. No. 1

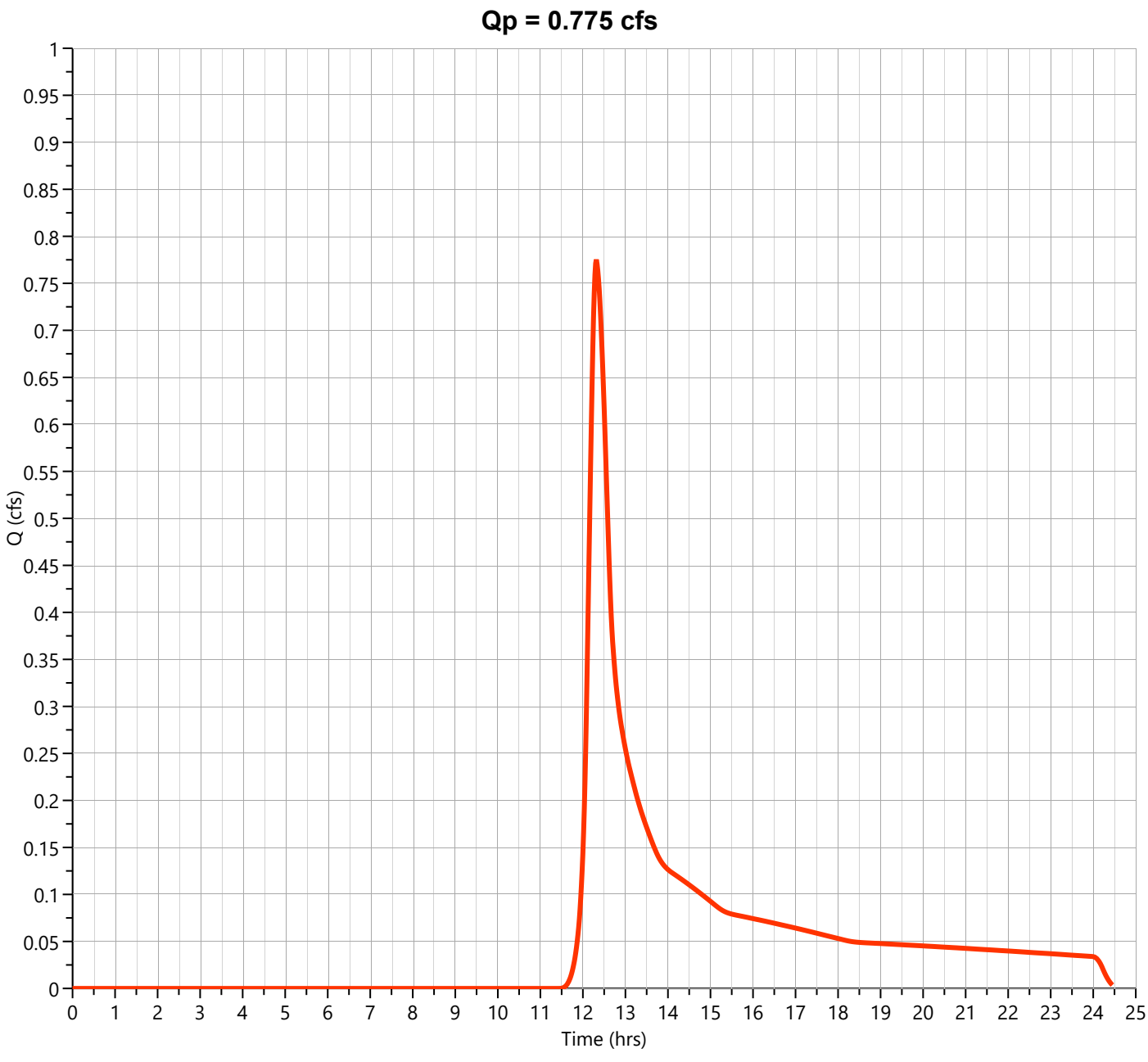
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.133 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.35 hrs
Time Interval	= 1 min	Runoff Volume	= 950 cuft
Drainage Area	= 0.273 ac	Curve Number	= 44.00
Tc Method	= User	Time of Conc. (Tc)	= 21.0 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-2

Hyd. No. 2

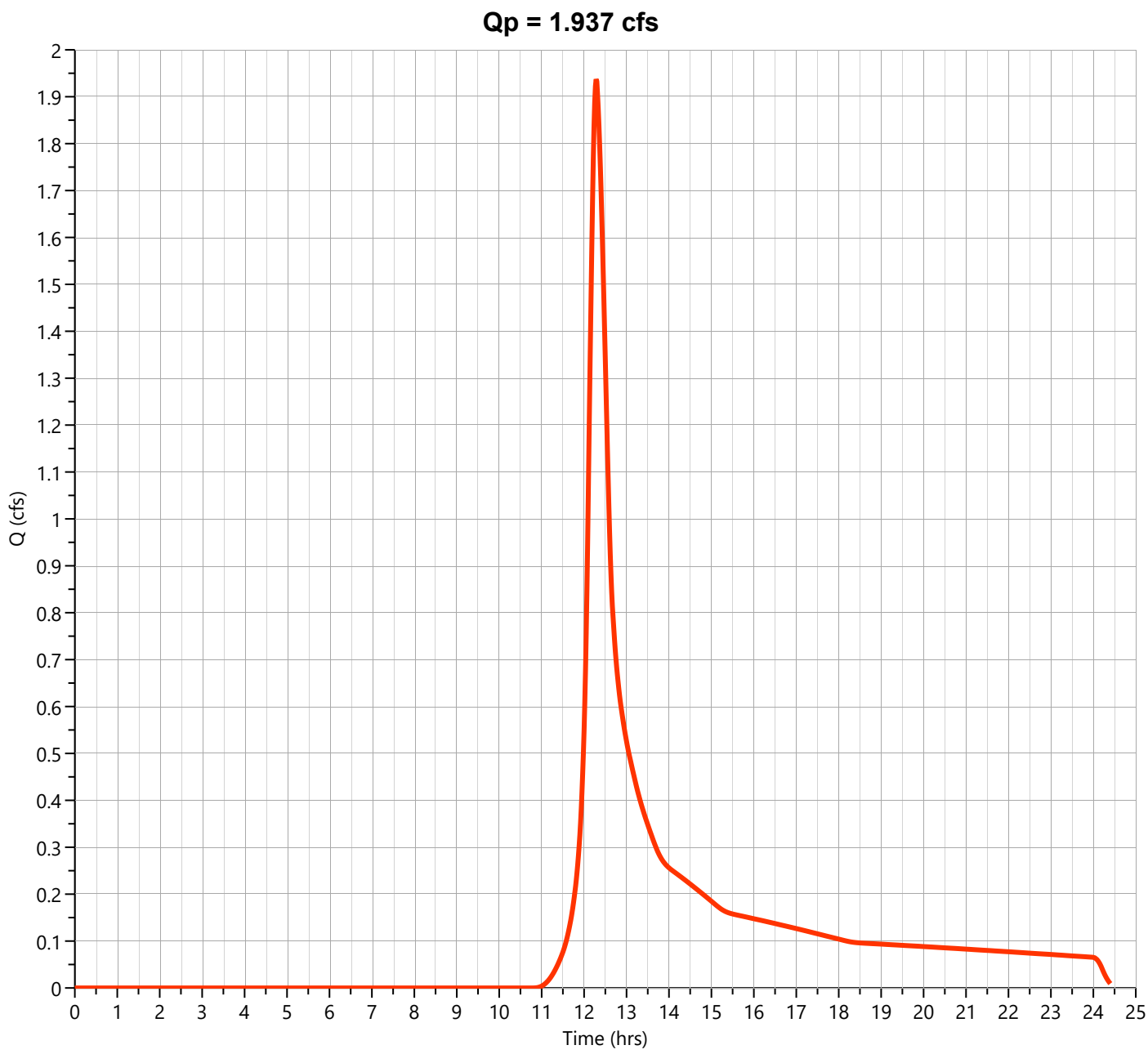
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.775 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.32 hrs
Time Interval	= 1 min	Runoff Volume	= 4,492 cuft
Drainage Area	= 0.884 ac	Curve Number	= 50.00
Tc Method	= User	Time of Conc. (Tc)	= 22.47 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 3

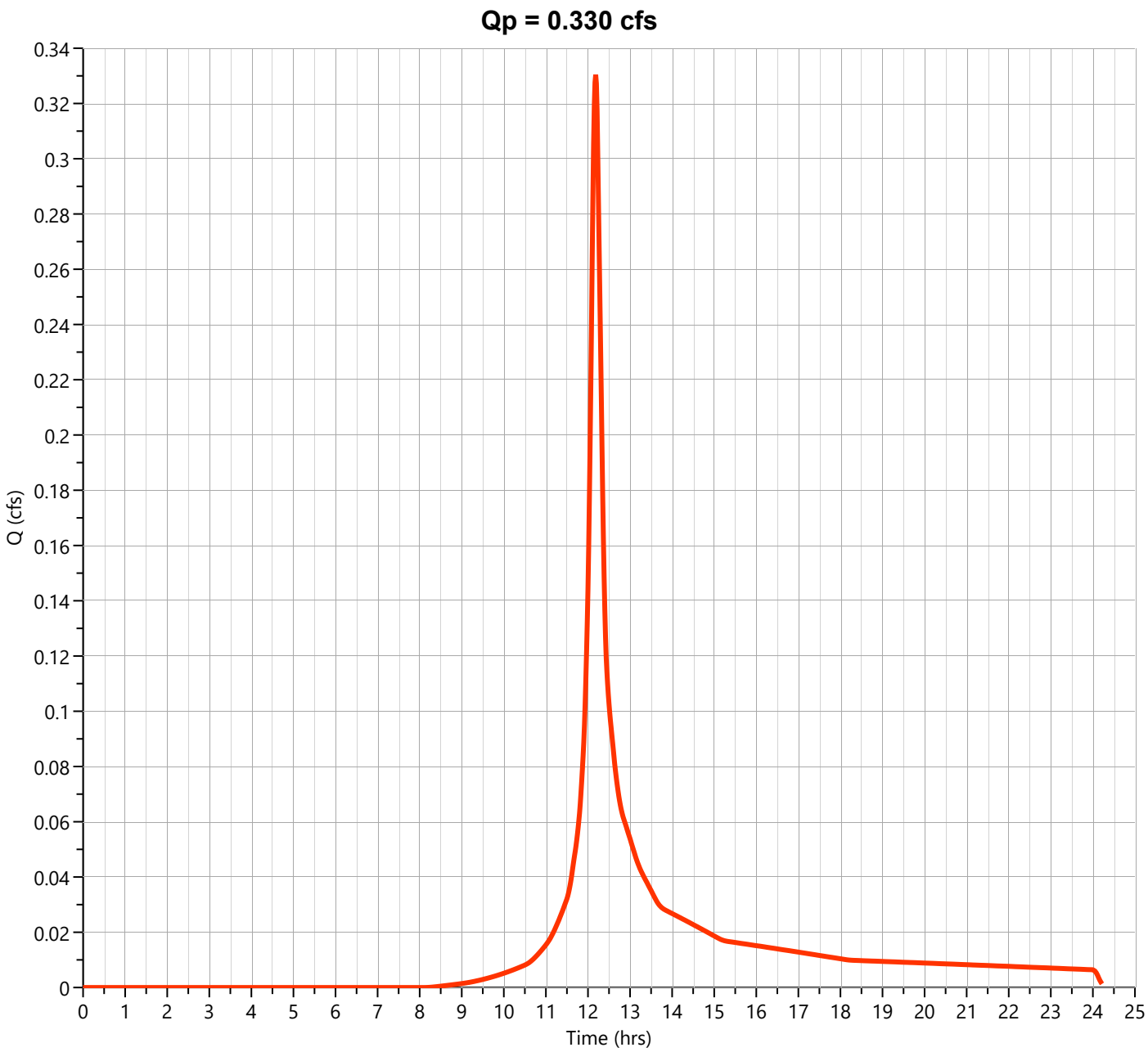
Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.937 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.28 hrs
Time Interval	= 1 min	Runoff Volume	= 9,928 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.33 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-4

Hyd. No. 4

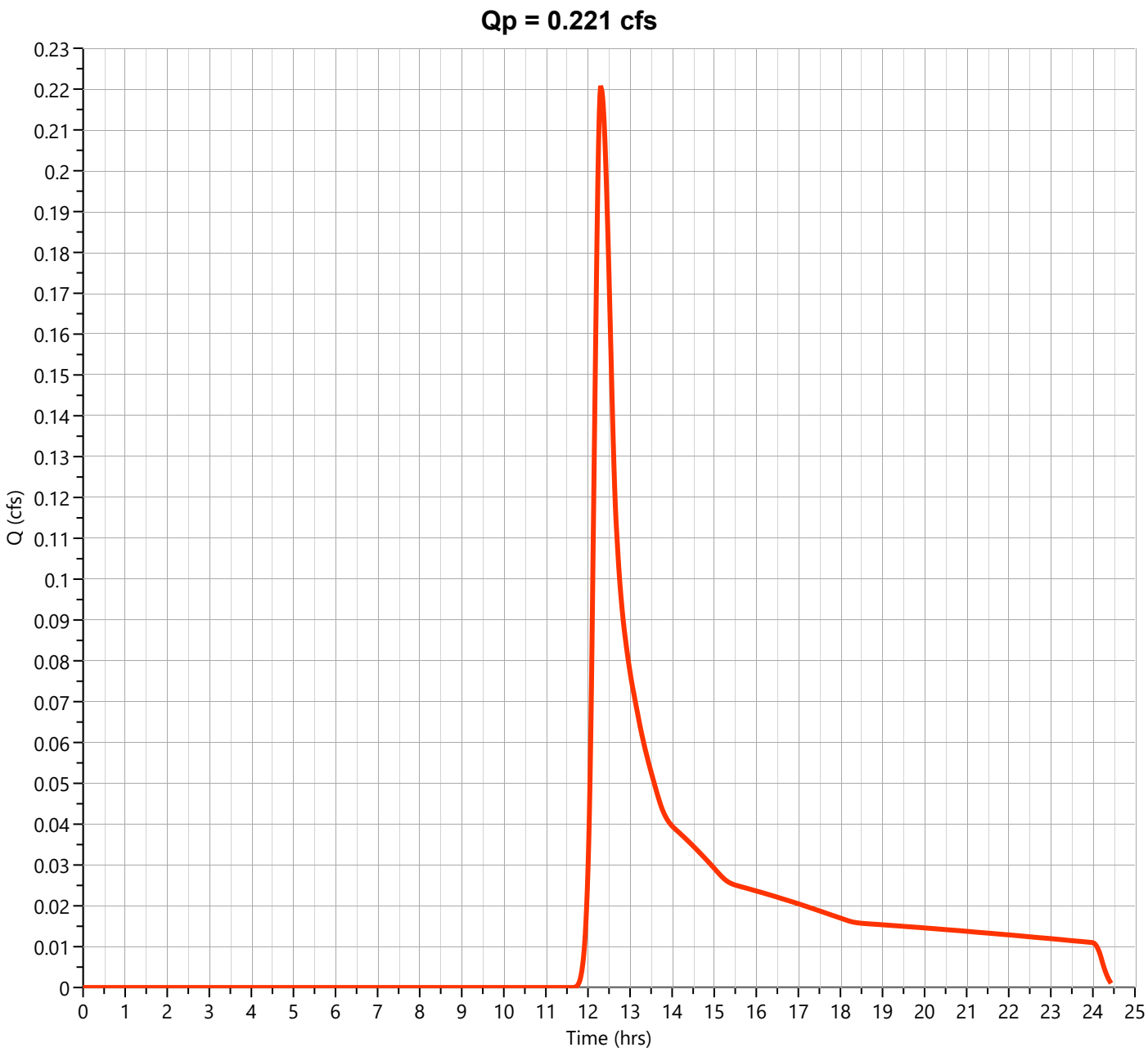
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.330 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.18 hrs
Time Interval	= 1 min	Runoff Volume	= 1,270 cuft
Drainage Area	= 0.11 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 13.38 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-1

Hyd. No. 1

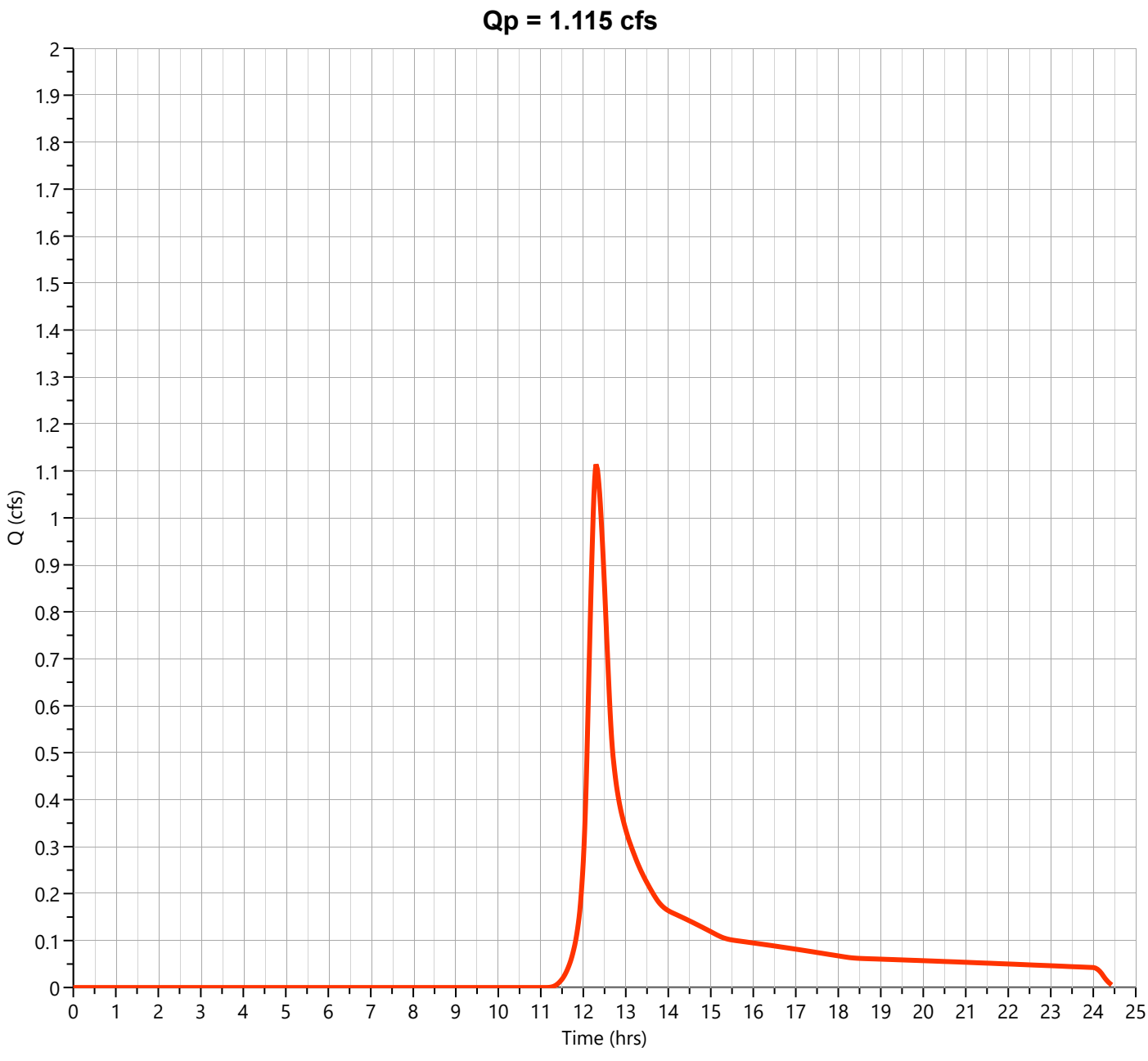
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.221 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.30 hrs
Time Interval	= 1 min	Runoff Volume	= 1,355 cuft
Drainage Area	= 0.273 ac	Curve Number	= 44.00
Tc Method	= User	Time of Conc. (Tc)	= 21.0 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-2

Hyd. No. 2

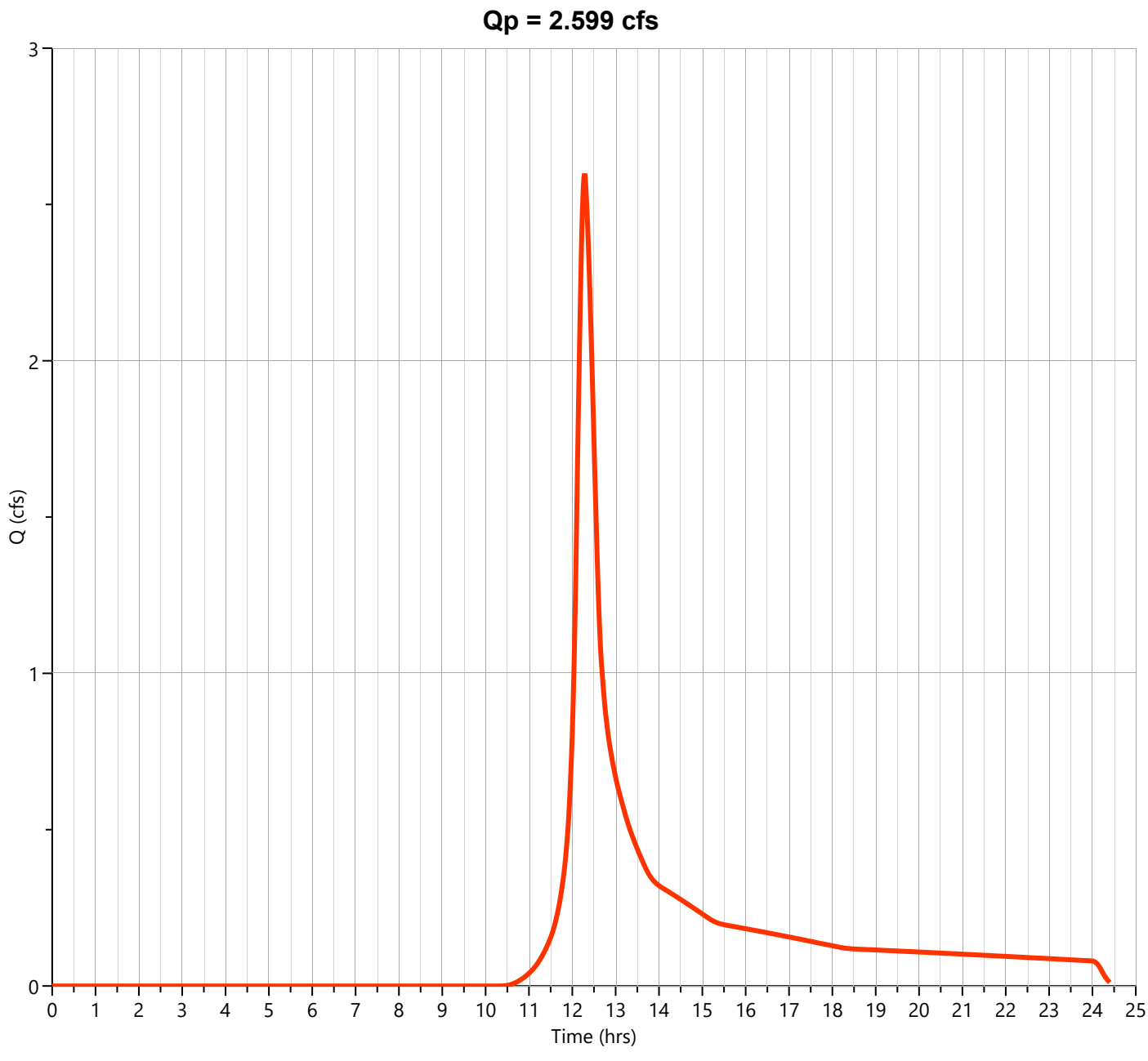
Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.115 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.32 hrs
Time Interval	= 1 min	Runoff Volume	= 6,077 cuft
Drainage Area	= 0.884 ac	Curve Number	= 50.00
Tc Method	= User	Time of Conc. (Tc)	= 22.47 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 3

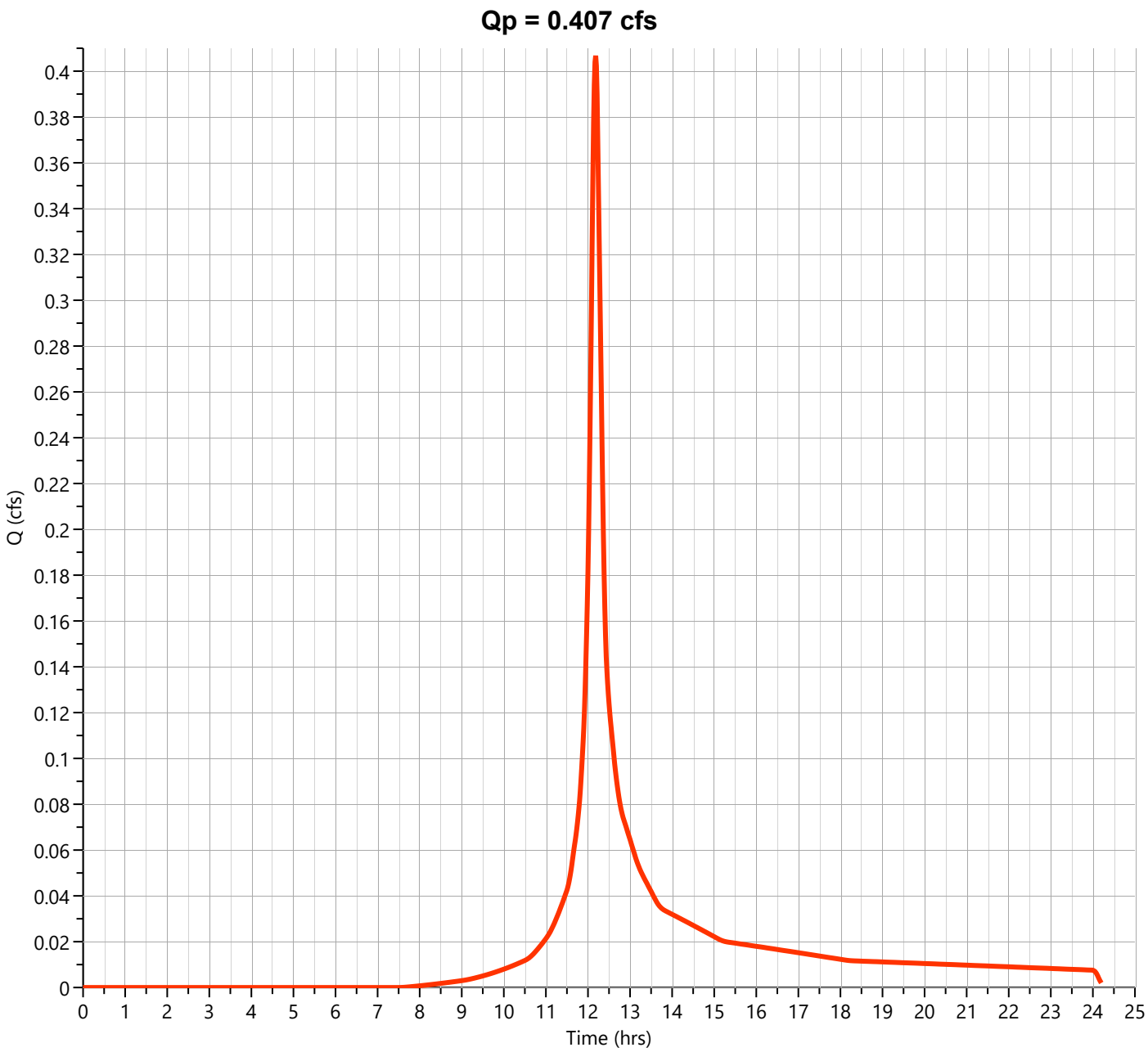
Hydrograph Type	= NRCS Runoff	Peak Flow	= 2.599 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.28 hrs
Time Interval	= 1 min	Runoff Volume	= 12,950 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.33 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-4

Hyd. No. 4

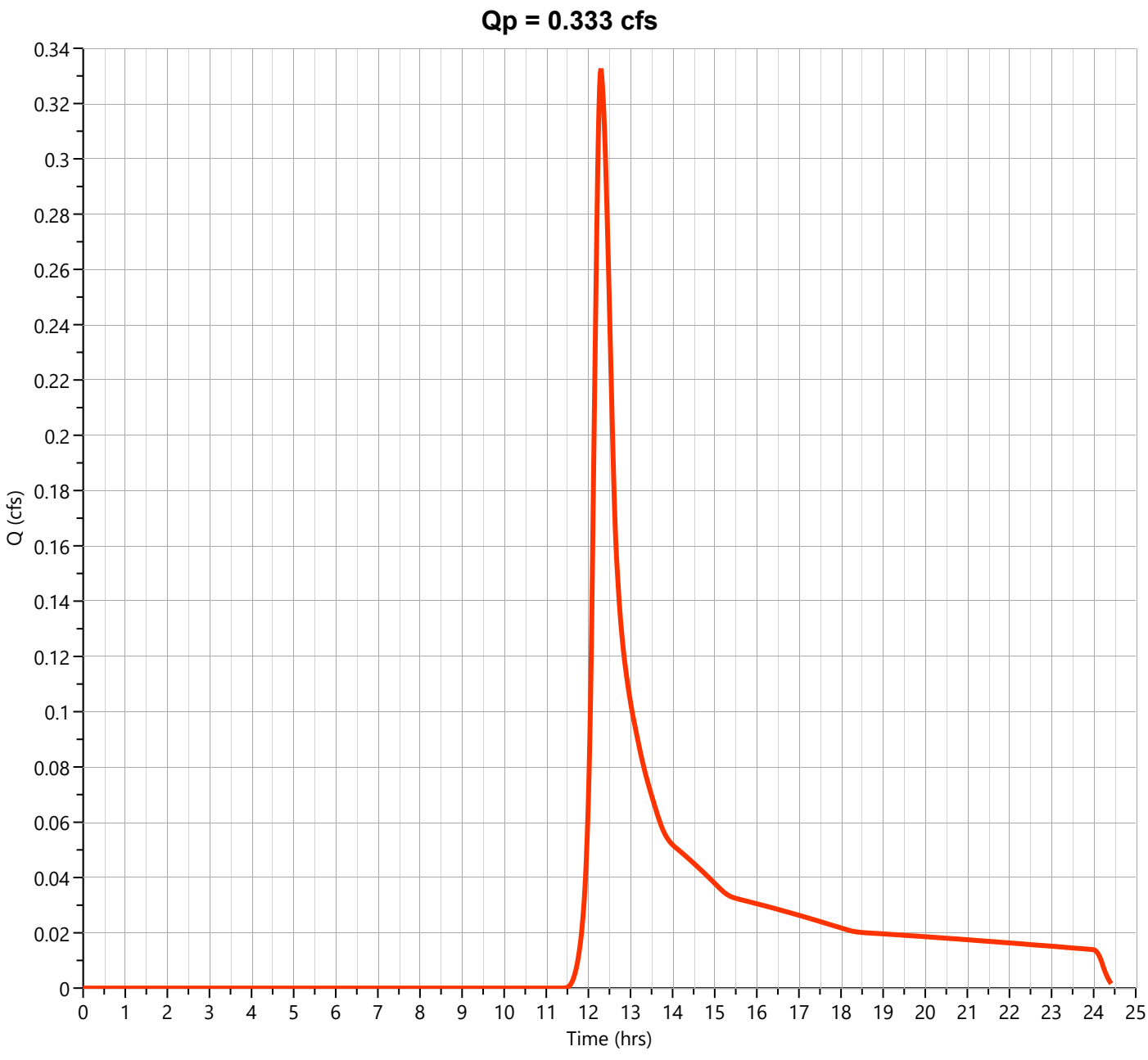
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.407 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.18 hrs
Time Interval	= 1 min	Runoff Volume	= 1,564 cuft
Drainage Area	= 0.11 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 13.38 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-1

Hyd. No. 1

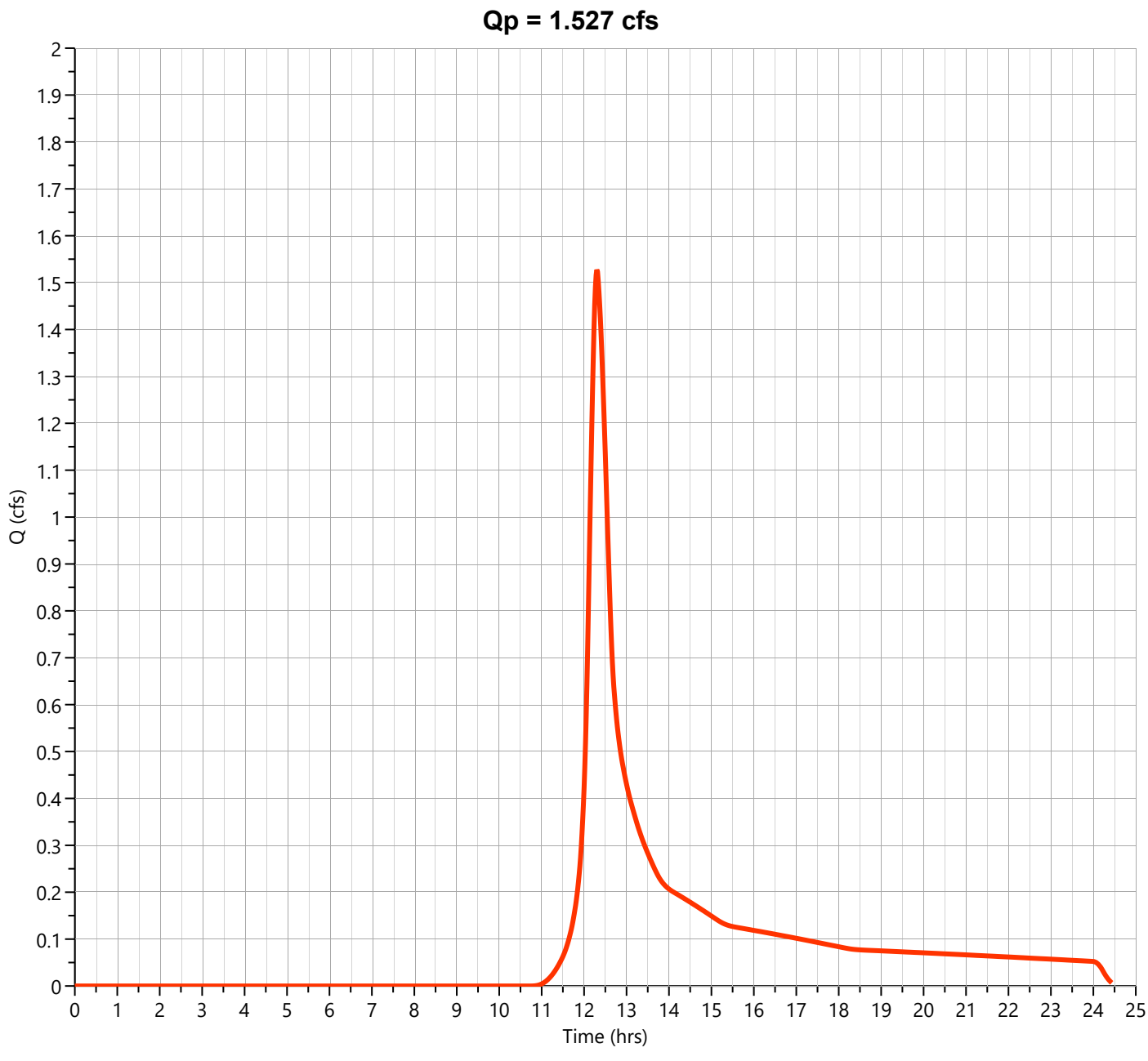
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.333 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.30 hrs
Time Interval	= 1 min	Runoff Volume	= 1,861 cuft
Drainage Area	= 0.273 ac	Curve Number	= 44.00
Tc Method	= User	Time of Conc. (Tc)	= 21.0 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-2

Hyd. No. 2

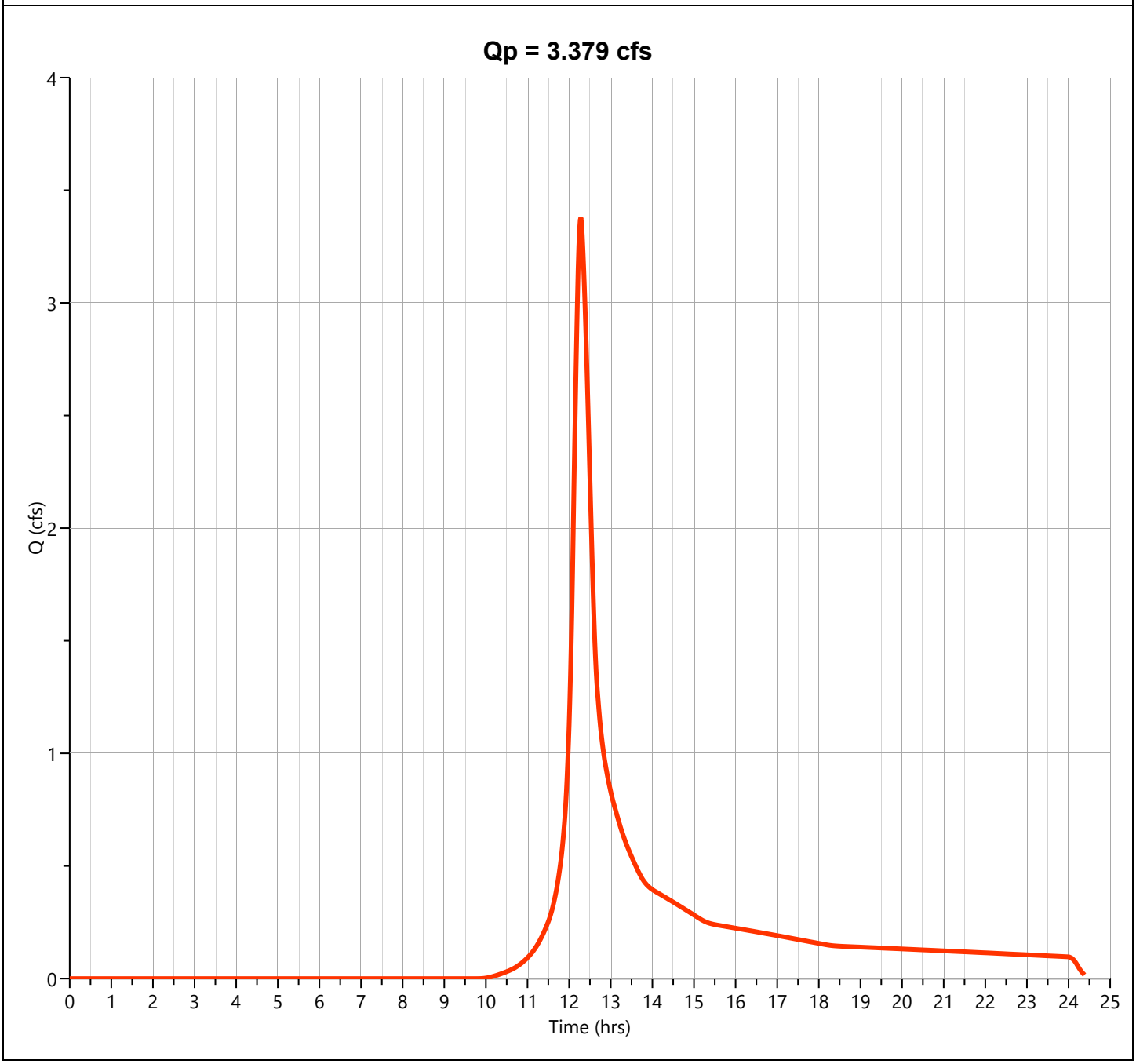
Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.527 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.30 hrs
Time Interval	= 1 min	Runoff Volume	= 8,003 cuft
Drainage Area	= 0.884 ac	Curve Number	= 50.00
Tc Method	= User	Time of Conc. (Tc)	= 22.47 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 3

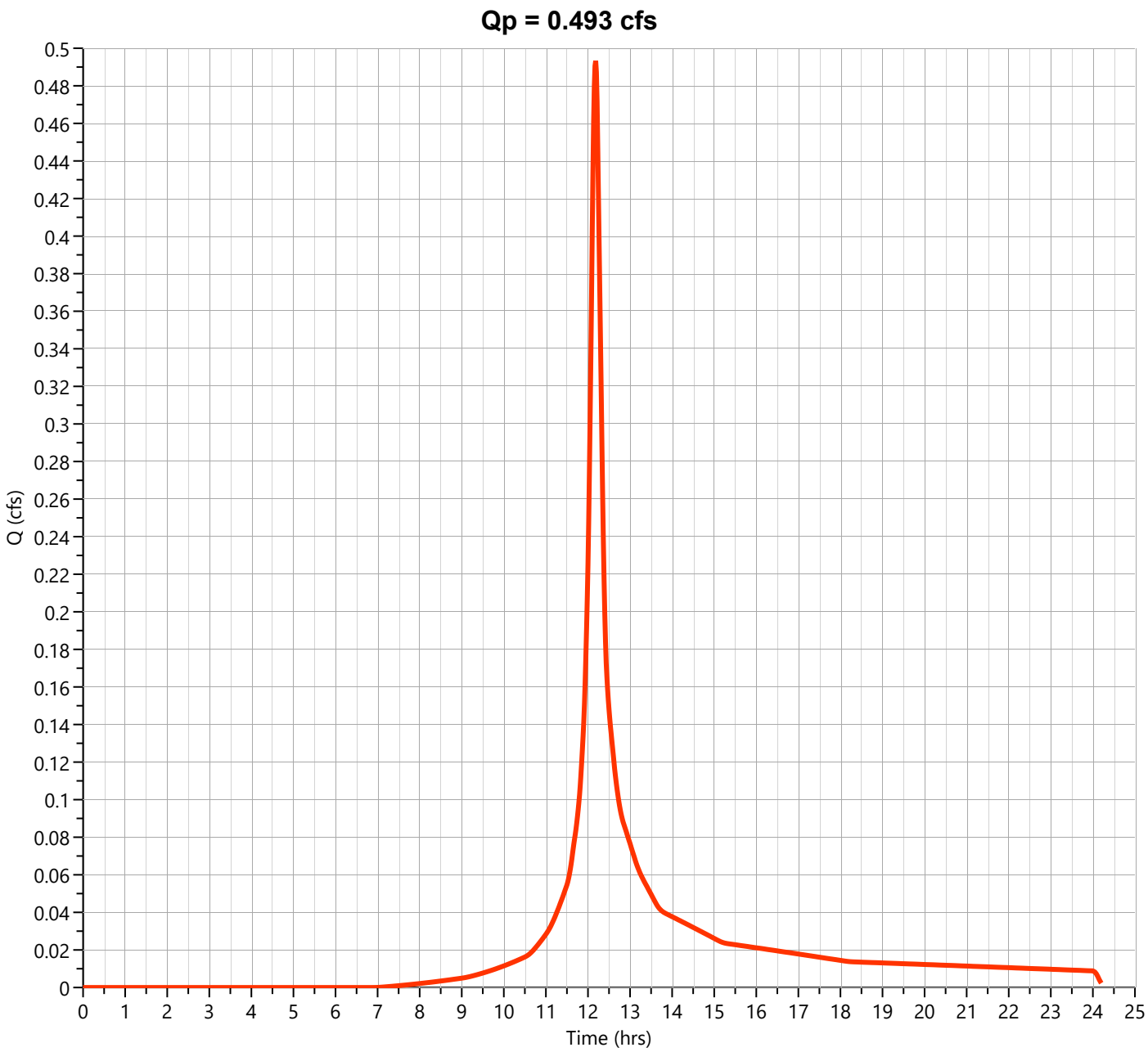
Hydrograph Type	= NRCS Runoff	Peak Flow	= 3.379 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.28 hrs
Time Interval	= 1 min	Runoff Volume	= 16,542 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.33 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-4

Hyd. No. 4

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.493 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.18 hrs
Time Interval	= 1 min	Runoff Volume	= 1,901 cuft
Drainage Area	= 0.11 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 13.38 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



IDF Report

IDF filename: 24122 - Louis St.idf

Hydrology Studio v 3.0.0.40

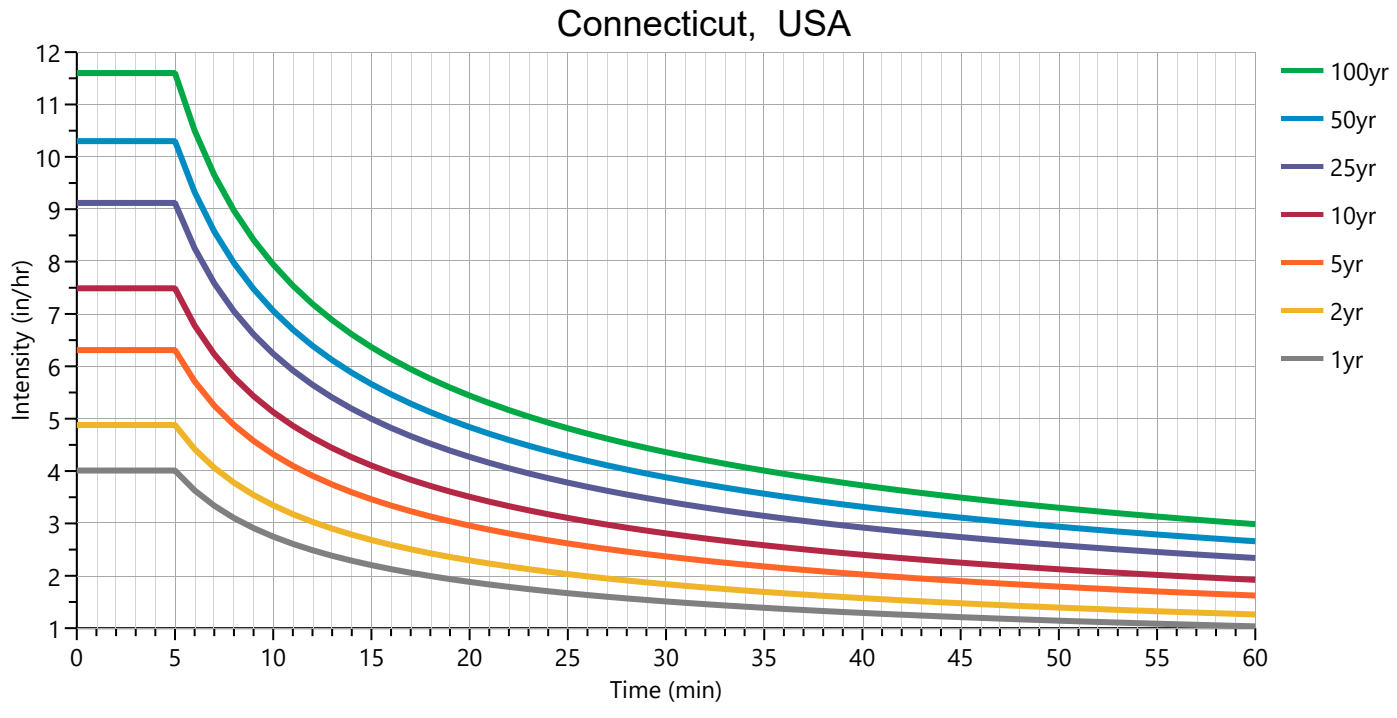
11-18-2025

Equation Coefficients	Intensity = B / (Tc + D)^E (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
B	9.6416	11.7197	0.0000	15.2067	18.0689	22.0099	24.7570	27.9374	
D	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
E	0.5451	0.5444	0.0000	0.5465	0.5472	0.5474	0.5449	0.5461	

Minimum Tc = 5 minutes

Tc (min)	Intensity Values (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Cf	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
5	4.01	4.88	0	6.31	7.49	9.12	10.30	11.60	
10	2.75	3.35	0	4.32	5.13	6.24	7.06	7.94	
15	2.20	2.68	0	3.46	4.11	5.00	5.66	6.37	
20	1.88	2.29	0	2.96	3.51	4.27	4.84	5.44	
25	1.67	2.03	0	2.62	3.10	3.78	4.29	4.82	
30	1.51	1.84	0	2.37	2.81	3.42	3.88	4.36	
35	1.39	1.69	0	2.18	2.58	3.14	3.57	4.01	
40	1.29	1.57	0	2.03	2.40	2.92	3.32	3.73	
45	1.21	1.48	0	1.90	2.25	2.74	3.11	3.49	
50	1.14	1.39	0	1.79	2.12	2.59	2.94	3.30	
55	1.09	1.32	0	1.70	2.02	2.45	2.79	3.13	
60	1.03	1.26	0	1.62	1.92	2.34	2.66	2.99	

Cf = Correction Factor applied to Rational Method runoff coefficient.



Precipitation Report

Precipitation filename: NewBritainCT.pcp

Hydrology Studio v 3.0.0.40 (Rainfall totals in Inches)

11-18-2025

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
SCS Storms	**> SCS Dimensionless Storms**								
SCS 6hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
Type I, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type IA, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type II, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type II FL, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type III, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Synthetic Storms	**> IDF-Based Synthetic Storms**								
1-hr		1.03	1.26	0	1.62	1.92	2.34	2.66	2.99
2-hr		1.42	1.73	0	2.22	2.63	3.20	3.65	4.09
3-hr		1.71	2.08	0	2.67	3.16	3.85	4.38	4.92
6-hr		2.34	2.85	0	3.66	4.33	5.27	6.01	6.73
12-hr		3.20	3.91	0	5.01	5.92	7.21	8.24	9.22
24-hr		4.39	5.37	0	6.86	8.11	9.86	11.30	12.63
Huff Distribution	**> 1st Quartile (0 to 6 hrs)**								
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
Huff Distribution	**> 2nd Quartile (>6 to 12 hrs)**								
8-hr		0	0	0	0	0	0	0	0
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
Huff Distribution	**> 3rd Quartile (>12 to 24 hrs)**								
18-hr		0	0	0	0	0	0	0	0
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Custom Storms	**> Custom Storm Distributions**								
My Custom Storm 1		0	0	0	0	0	0	0	0
My Custom Storm 2		0	0	0	0	0	0	0	0
My Custom Storm 3		0	0	0	0	0	0	0	0
My Custom Storm 4		0	0	0	0	0	0	0	0
My Custom Storm 5		0	0	0	0	0	0	0	0
My Custom Storm 6		0	0	0	0	0	0	0	0
My Custom Storm 7		0	0	0	0	0	0	0	0
My Custom Storm 8		0	0	0	0	0	0	0	0
My Custom Storm 9		0	0	0	0	0	0	0	0
My Custom Storm 10		0	0	0	0	0	0	0	0

Precipitation Report Cont'd

Precipitation filename: NewBritainCT.pcp

Rainfall totals in Inches

11-18-2025

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
Huff Indiana	**> Indianapolis**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> Evansville**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> Fort Wayne**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> South Bend**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43

Precipitation Report Cont'd

Precipitation filename: NewBritainCT.pcp

Rainfall totals in Inches

11-18-2025

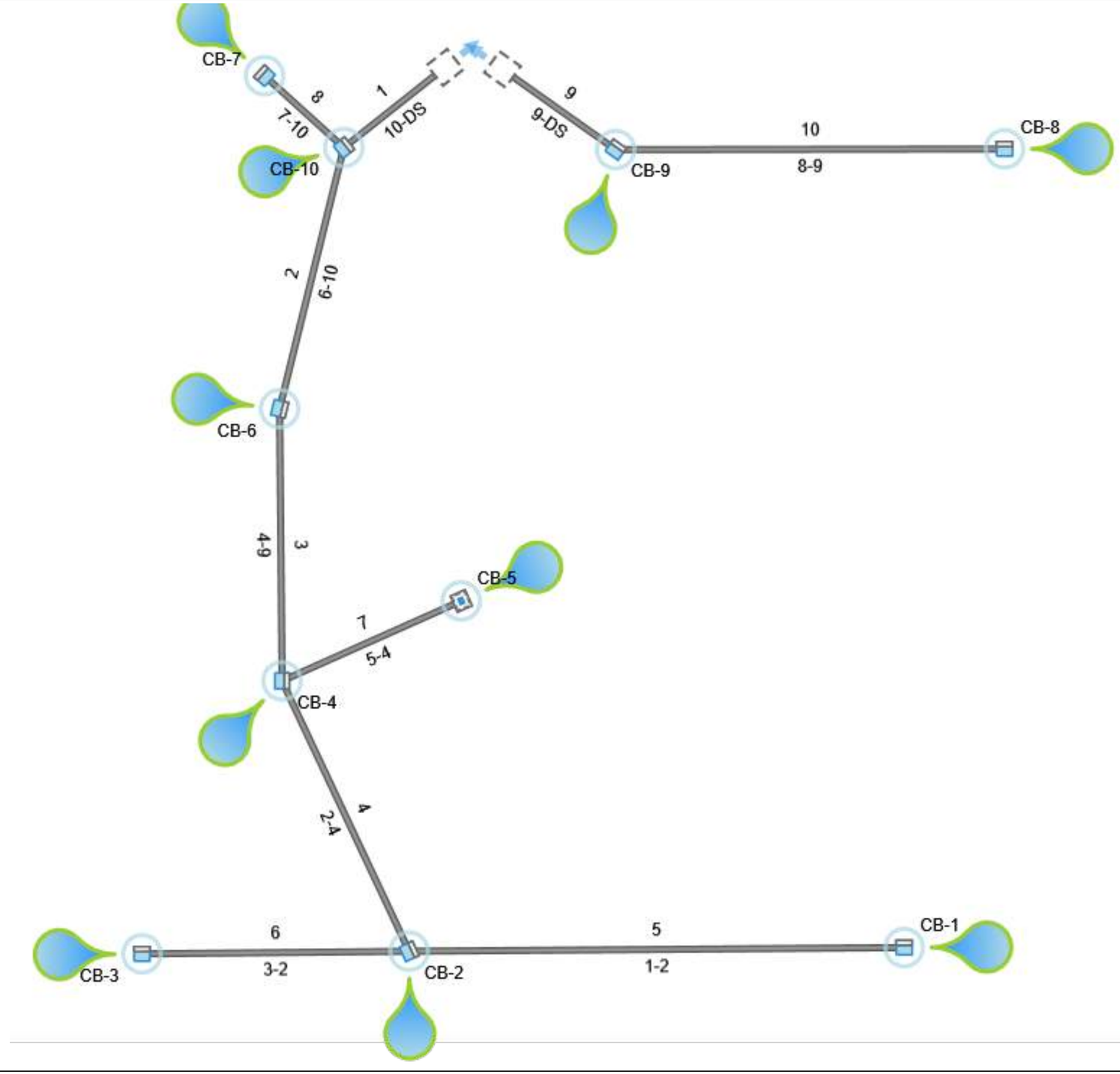
	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
NRCS Storms	**> NRCS Dimensionless Storms**								
NRCS MSE1, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE2, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE3, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE4, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE5, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE6, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-A, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-B, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-C, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-D, 24-hr	✔	2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-A, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-B, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-C, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-D, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-1, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-2, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-3, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-4, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-5, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-6, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
FDOT Storms	**> Florida DOT Storms**								
FDOT, 1-hr		0	0	0	0	0	0	0	0
FDOT, 2-hr		0	0	0	0	0	0	0	0
FDOT, 4-hr		0	0	0	0	0	0	0	0
FDOT, 8-hr		0	0	0	0	0	0	0	0
FDOT, 24-hr		0	0	0	0	0	0	0	0
FDOT, 72-hr		0	0	0	0	0	0	0	0
SFWMD, 72-hr		0	0	0	0	0	0	0	0
Austin Storms	**> Austin Frequency Storms**								
Austin Zone 1, 24-hr		0	0	0	0	0	0	0	0
Austin Zone 2, 24-hr		0	0	0	0	0	0	0	0

Plan View

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

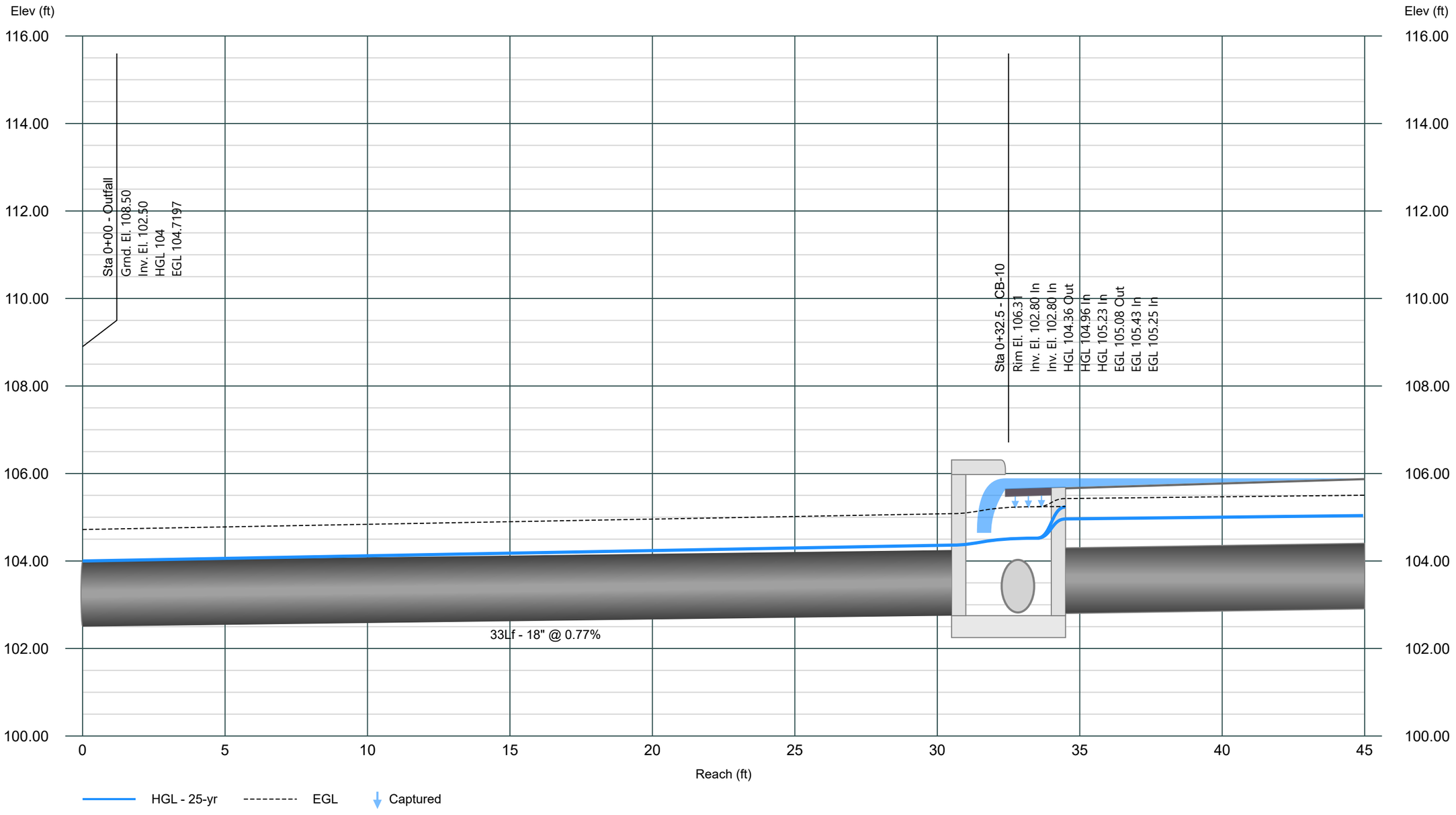


Line 1 - 10-DS

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

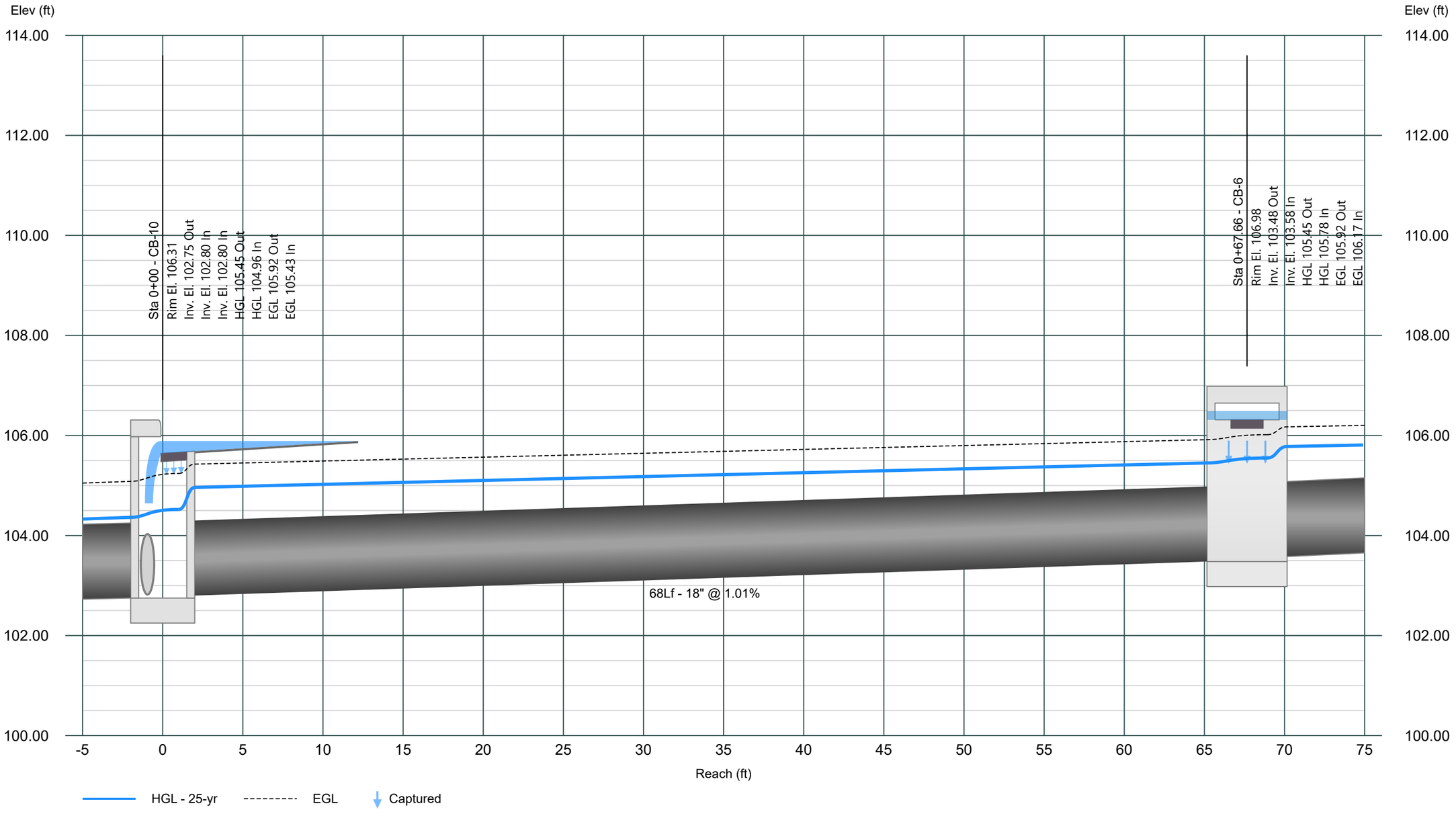


Line 2 - 6-10

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

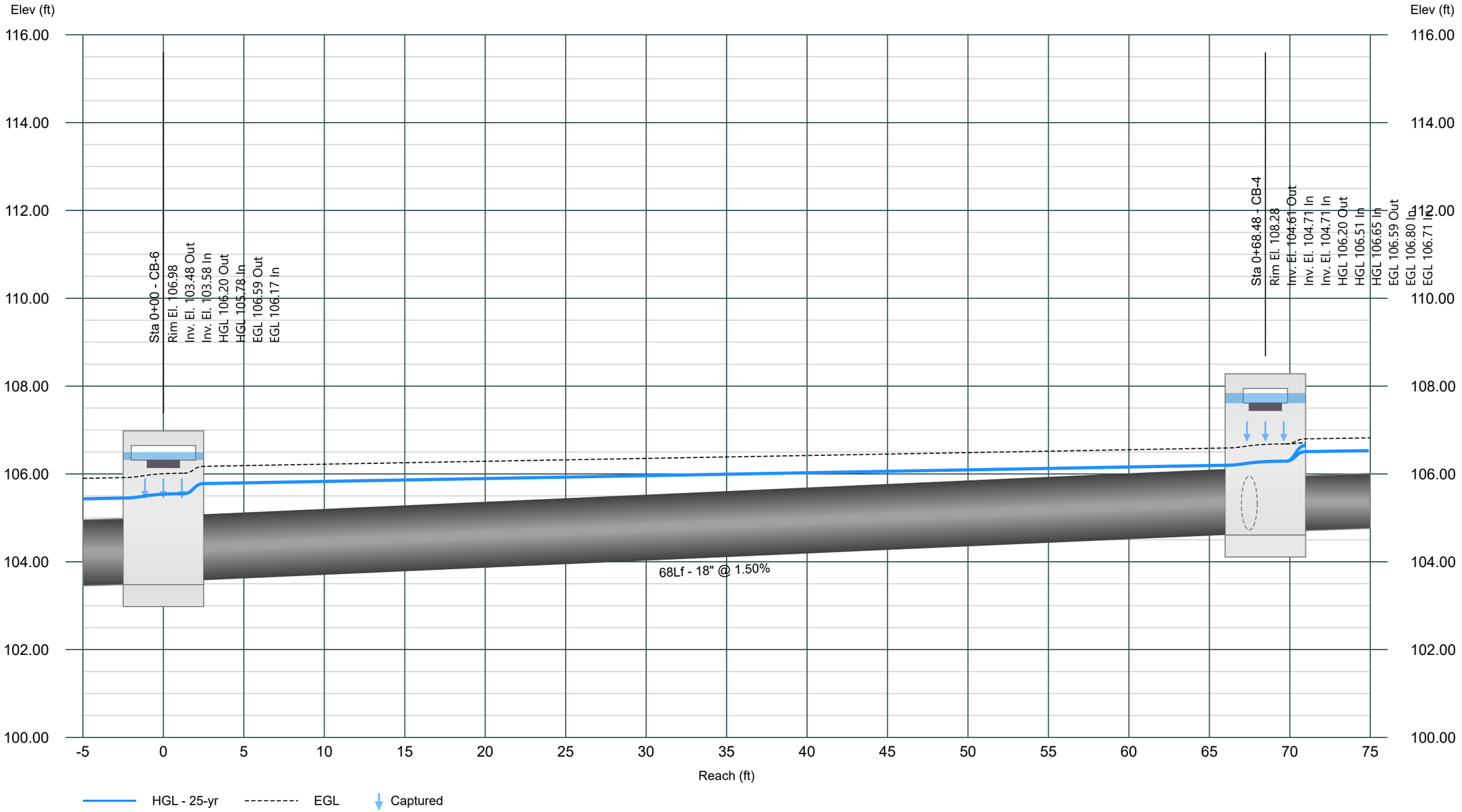


Line 3 - 4-9

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

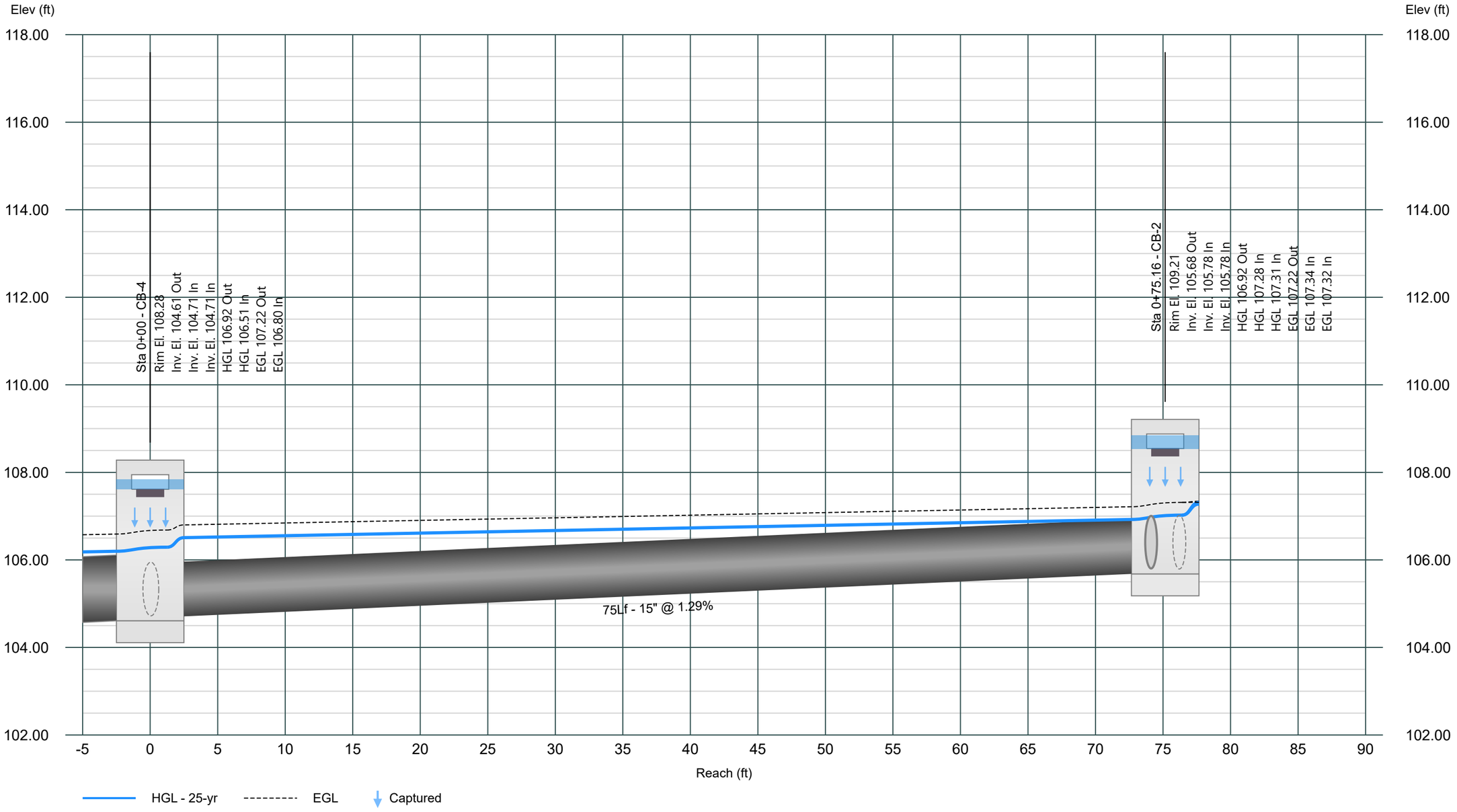


Line 4 - 2-4

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

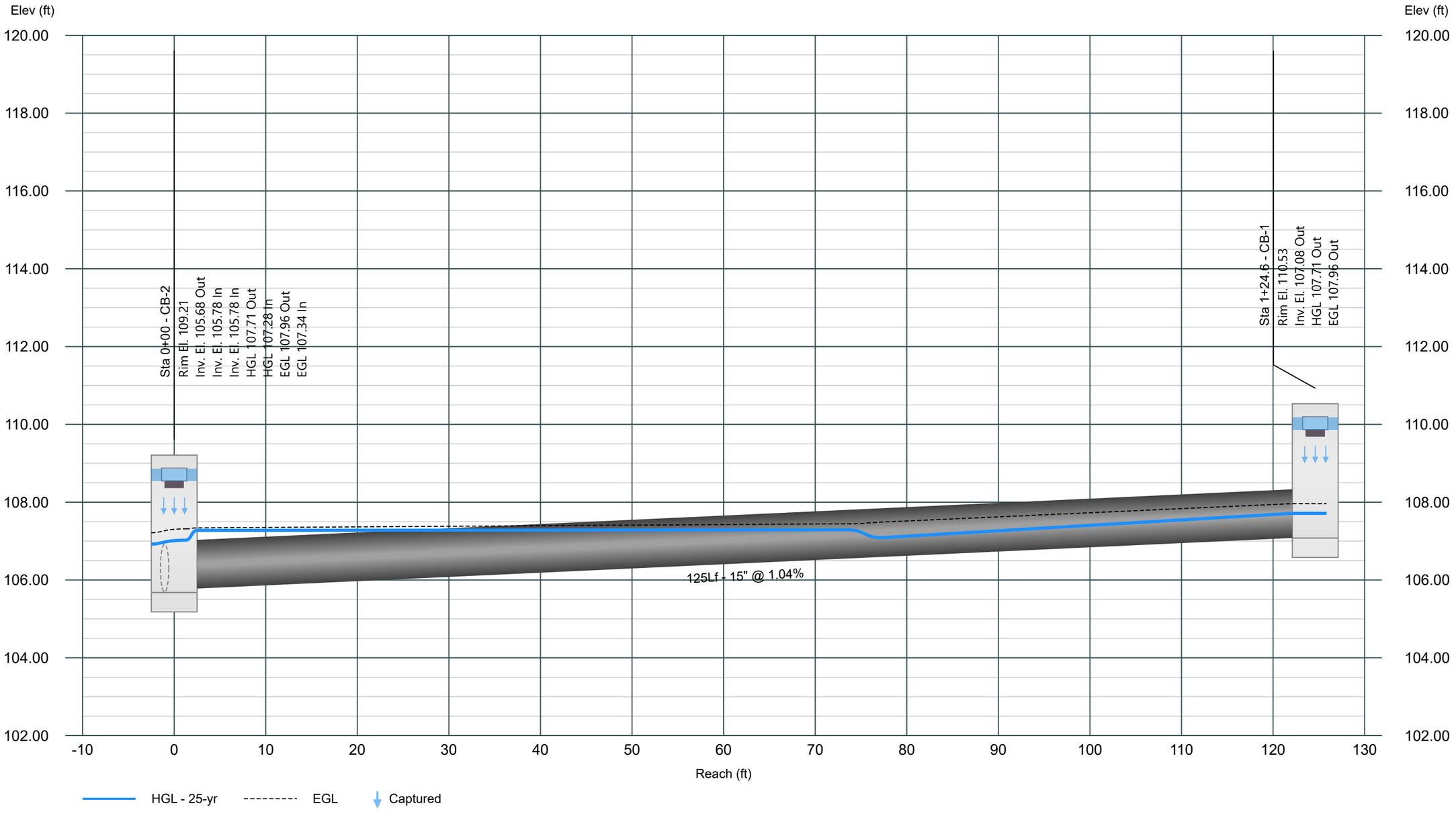


Line 5 - 1-2

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

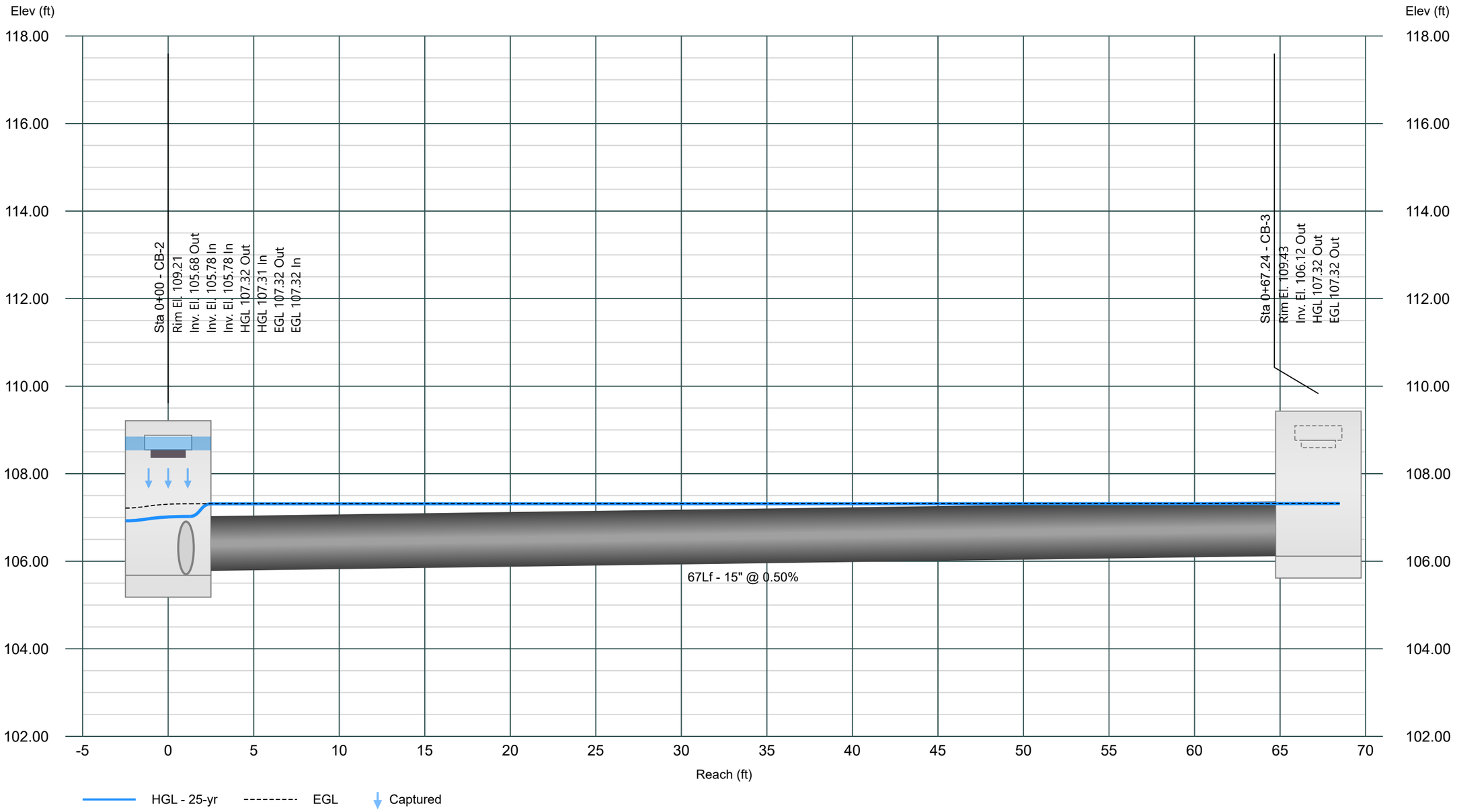


Line 6 - 3-2

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

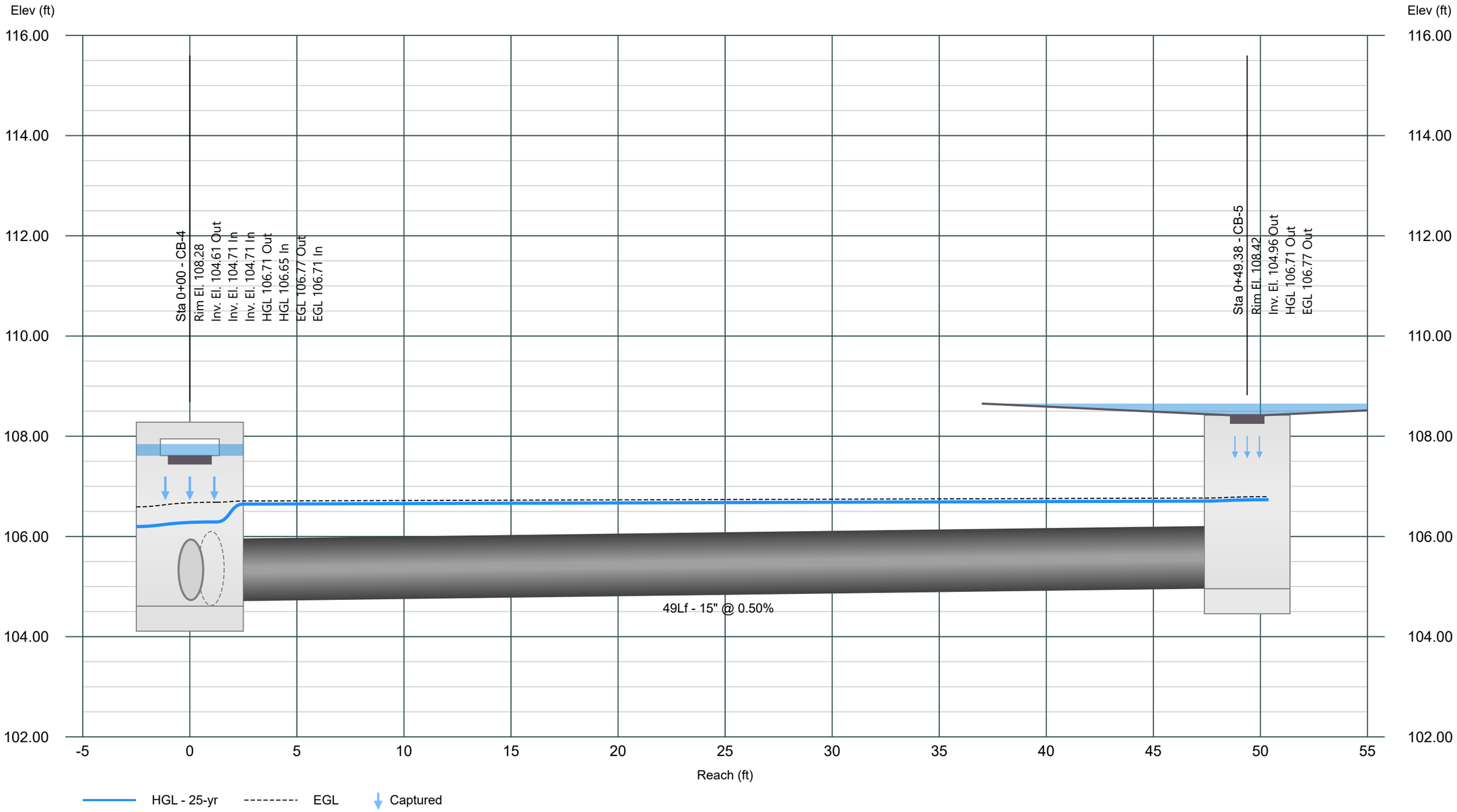


Line 7 - 5-4

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

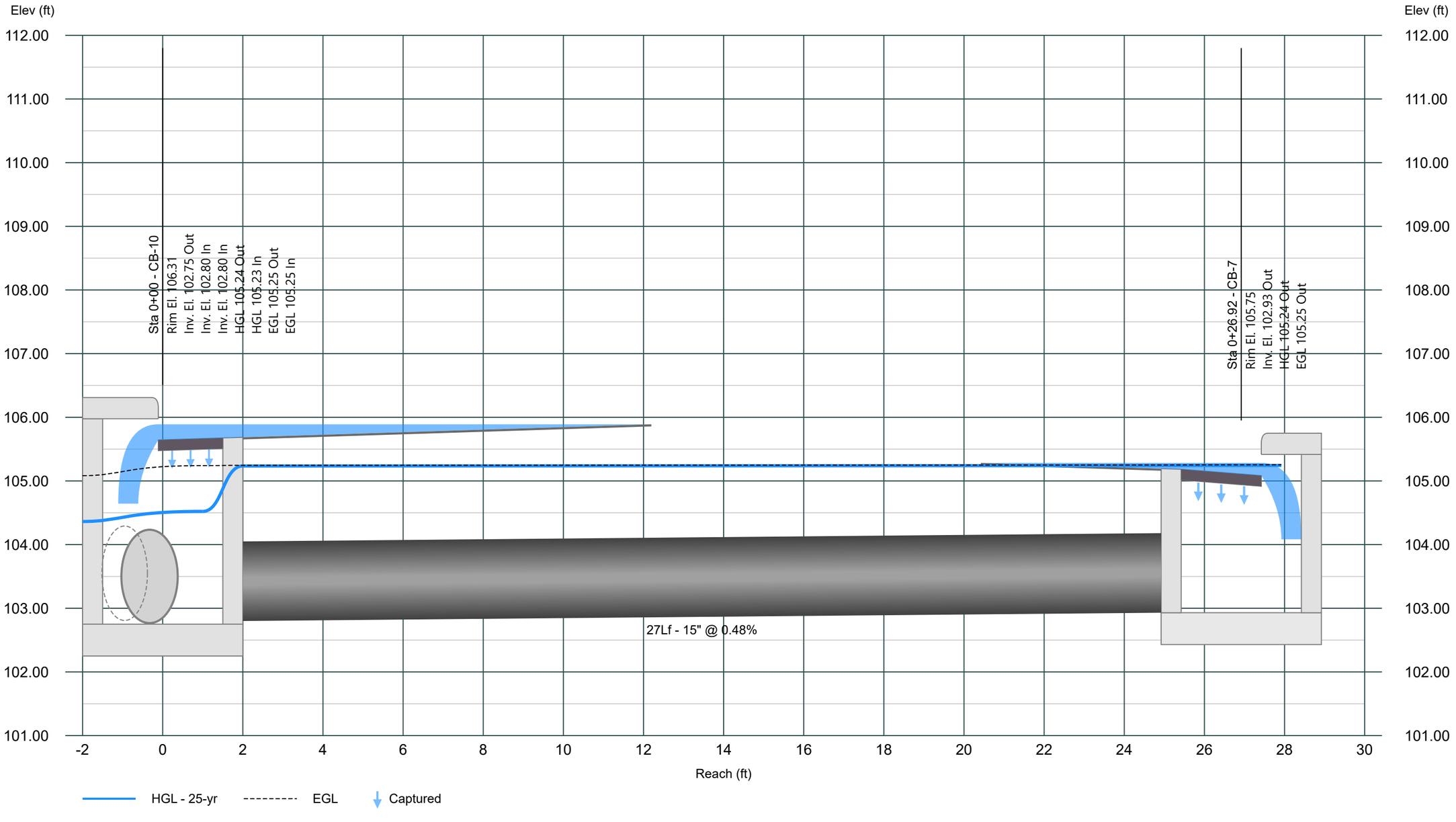


Line 8 - 7-10

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

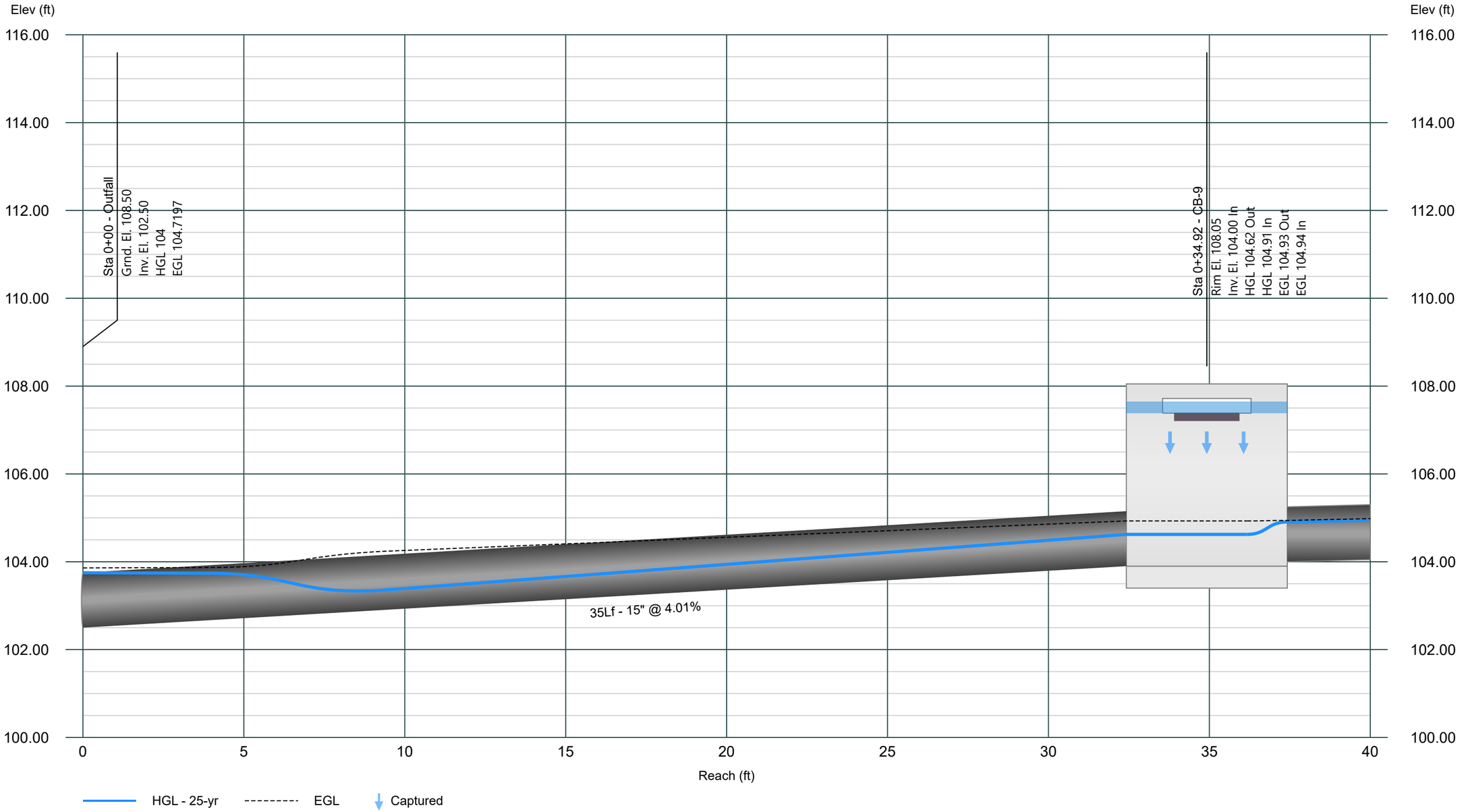


Line 9 - 9-DS

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

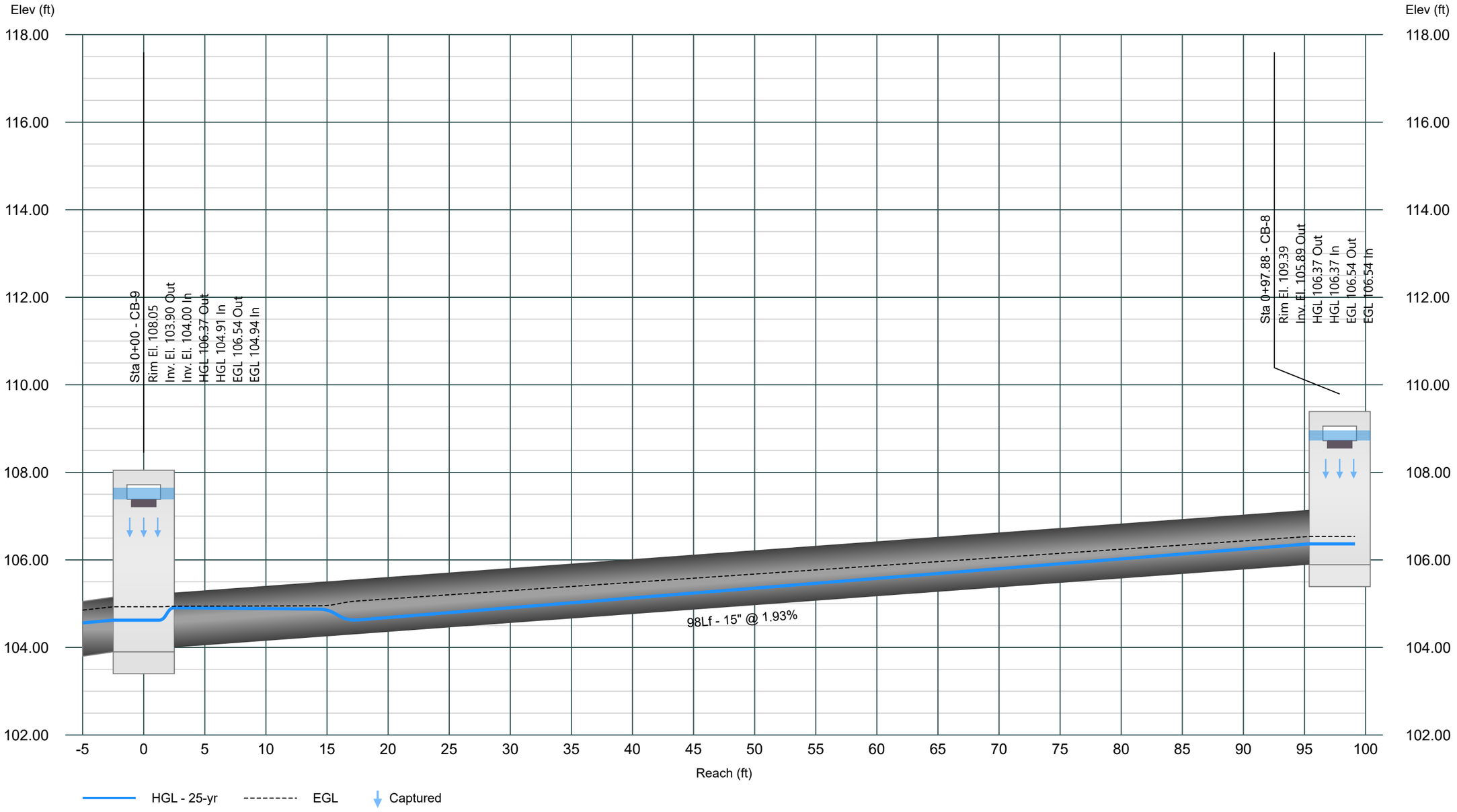


Line 10 - 8-9

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

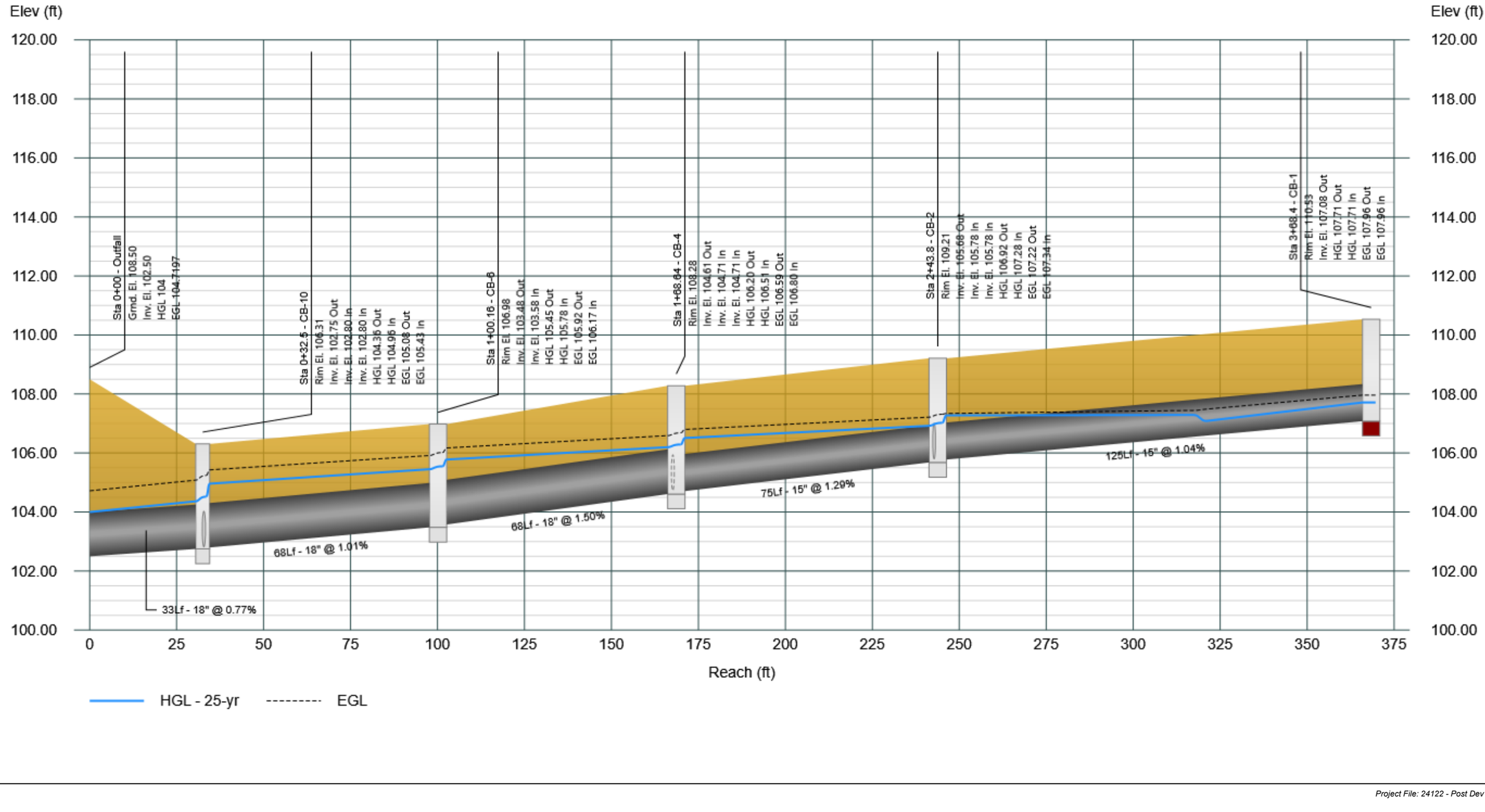


Profile View

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

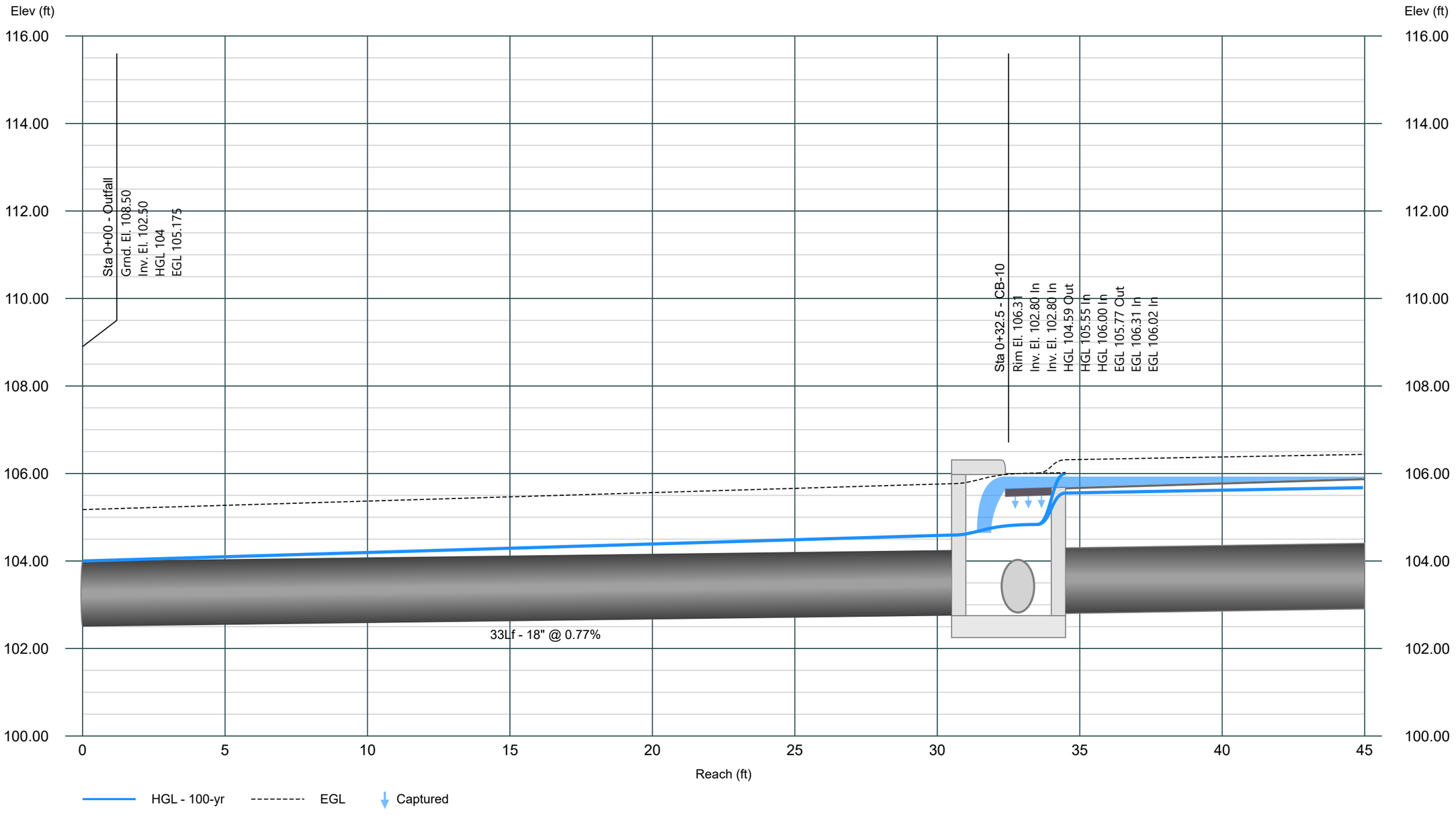


Line 1 - 10-DS

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

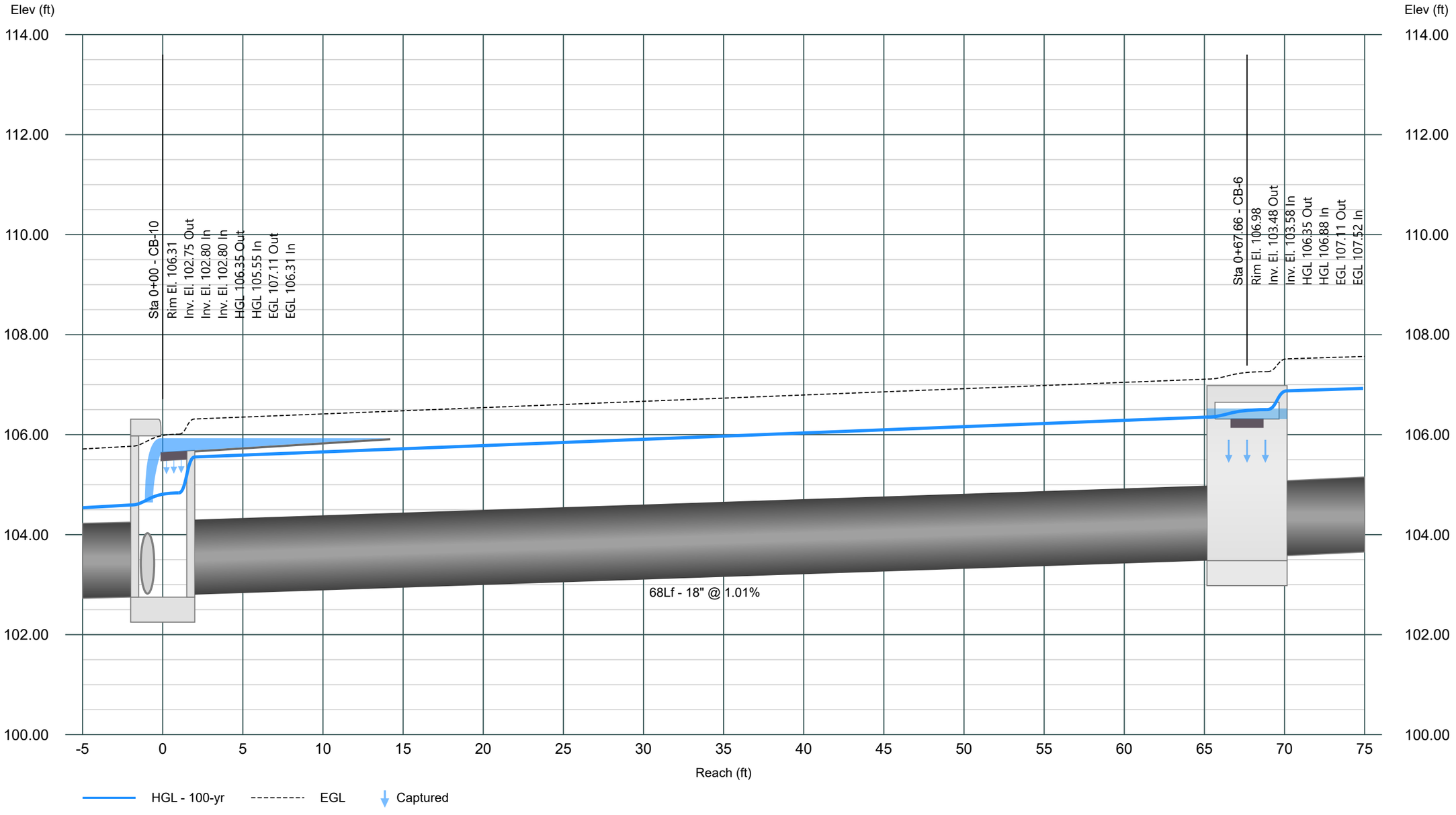


Line 2 - 6-10

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

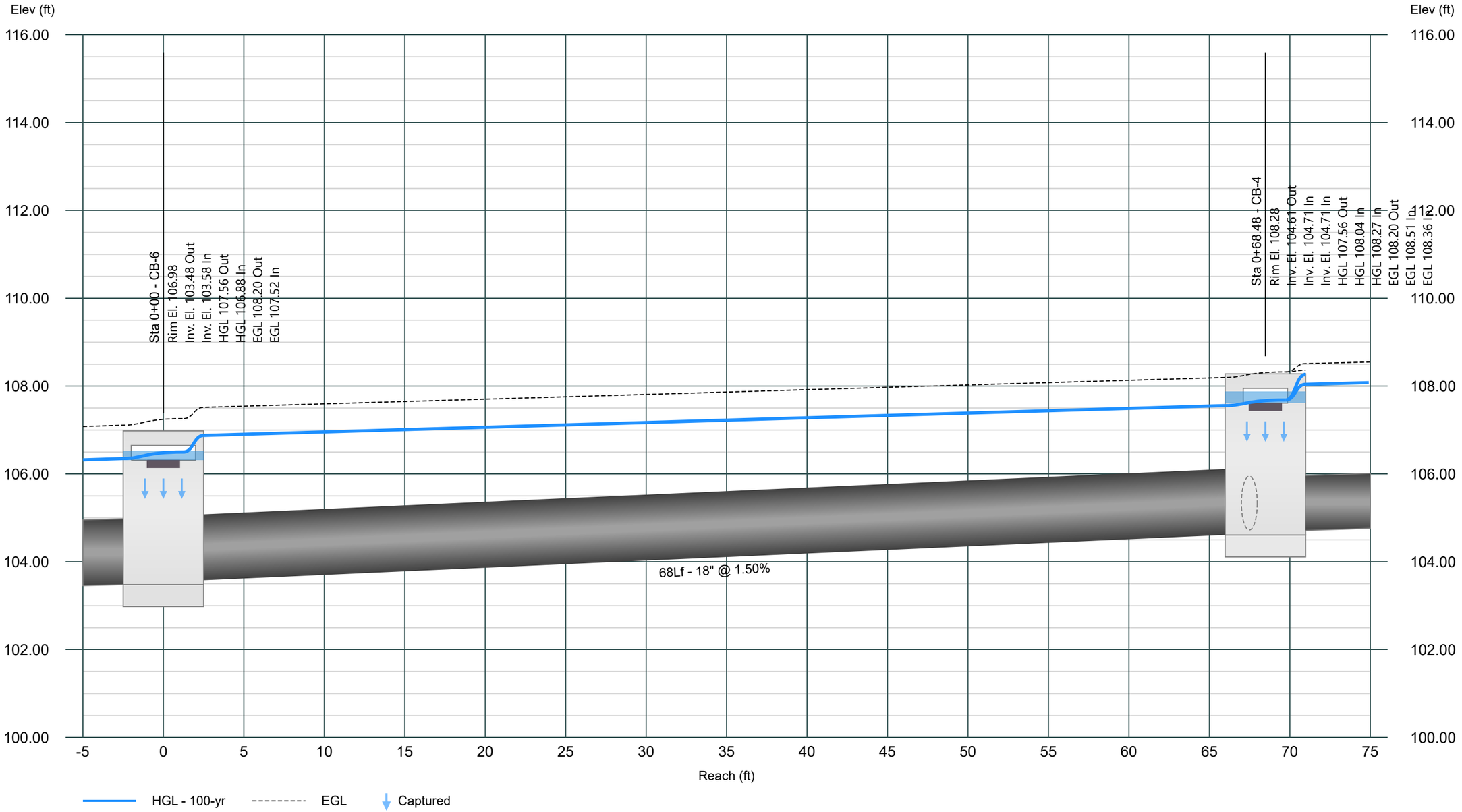


Line 3 - 4-9

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

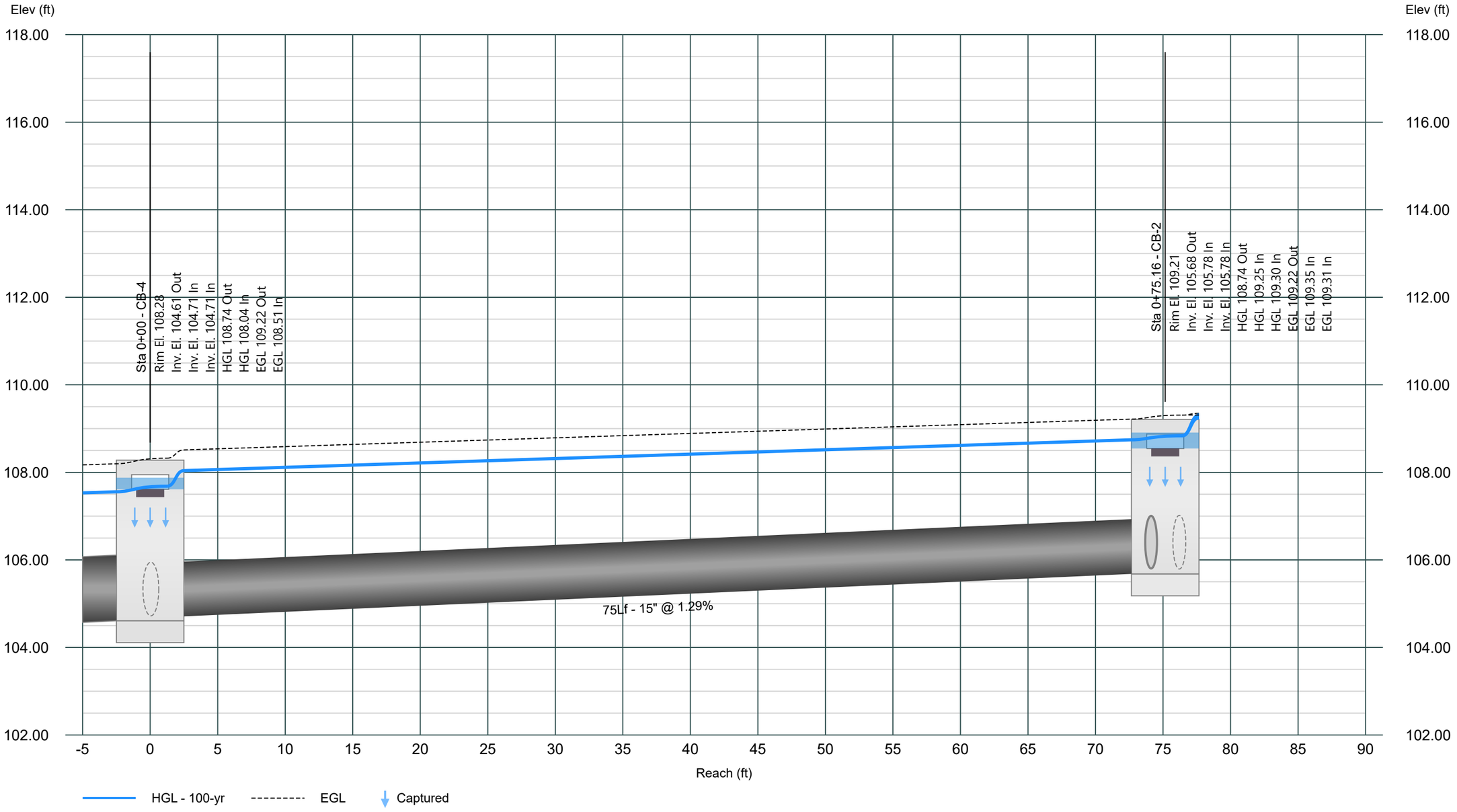


Line 4 - 2-4

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

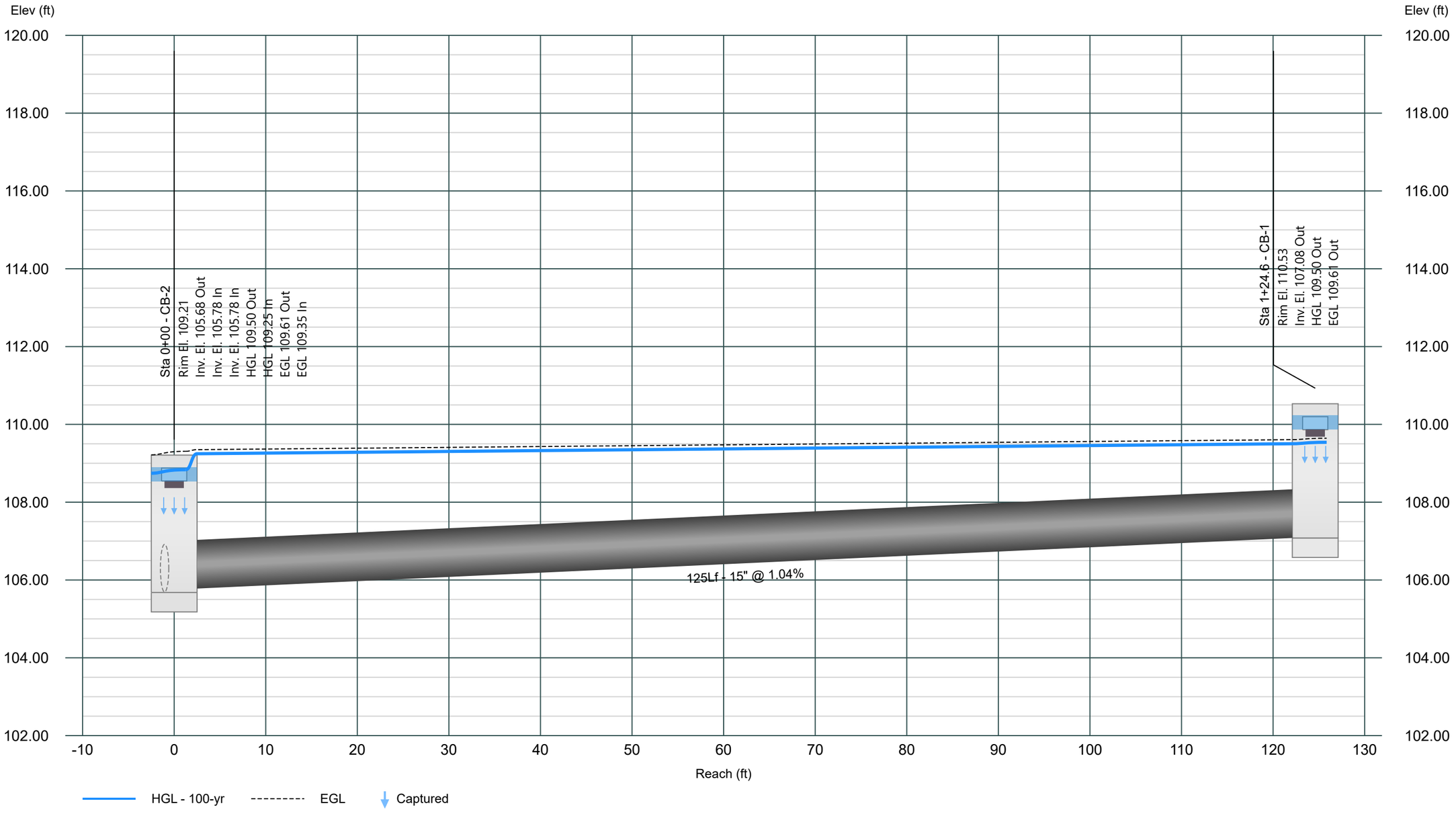


Line 5 - 1-2

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

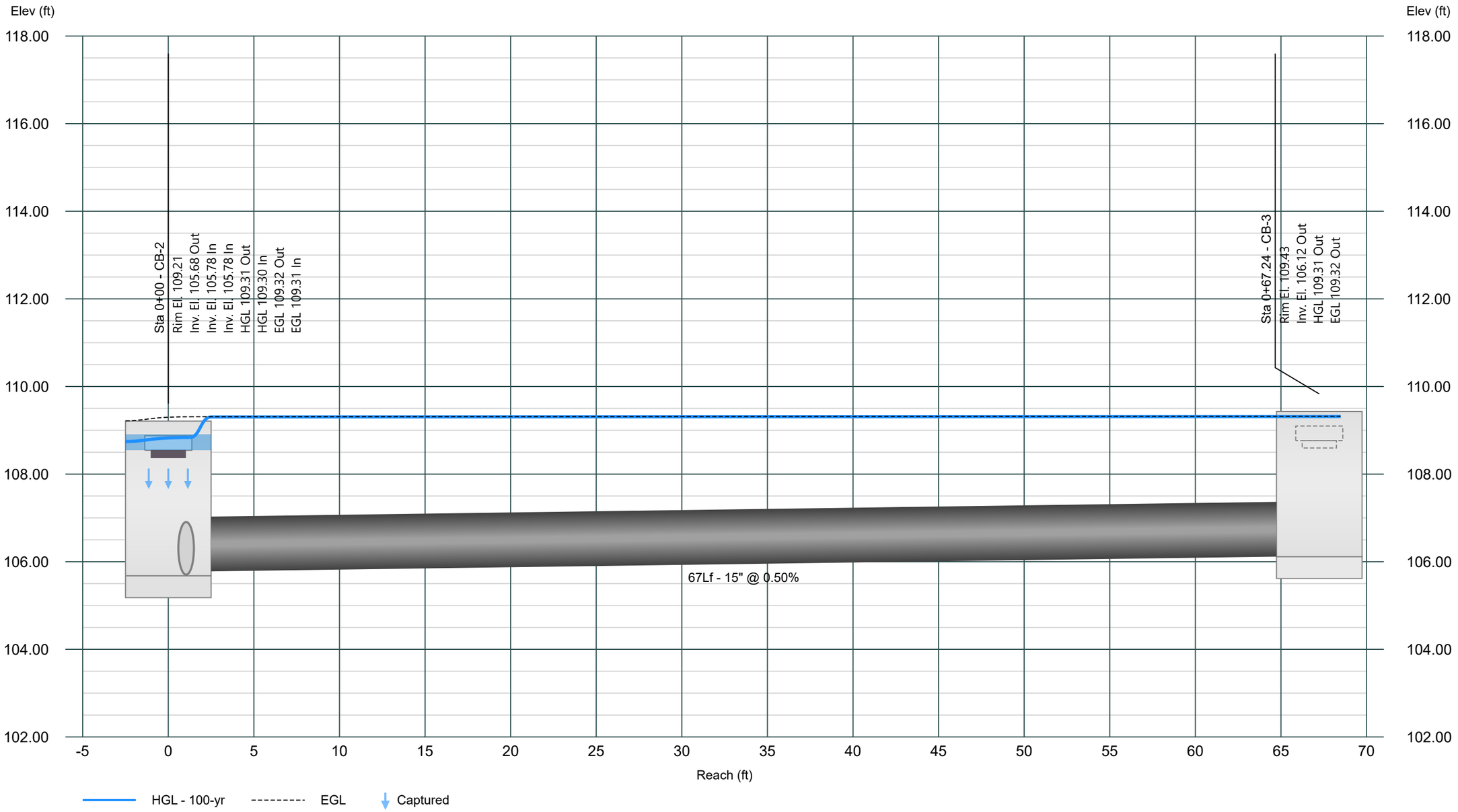


Line 6 - 3-2

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

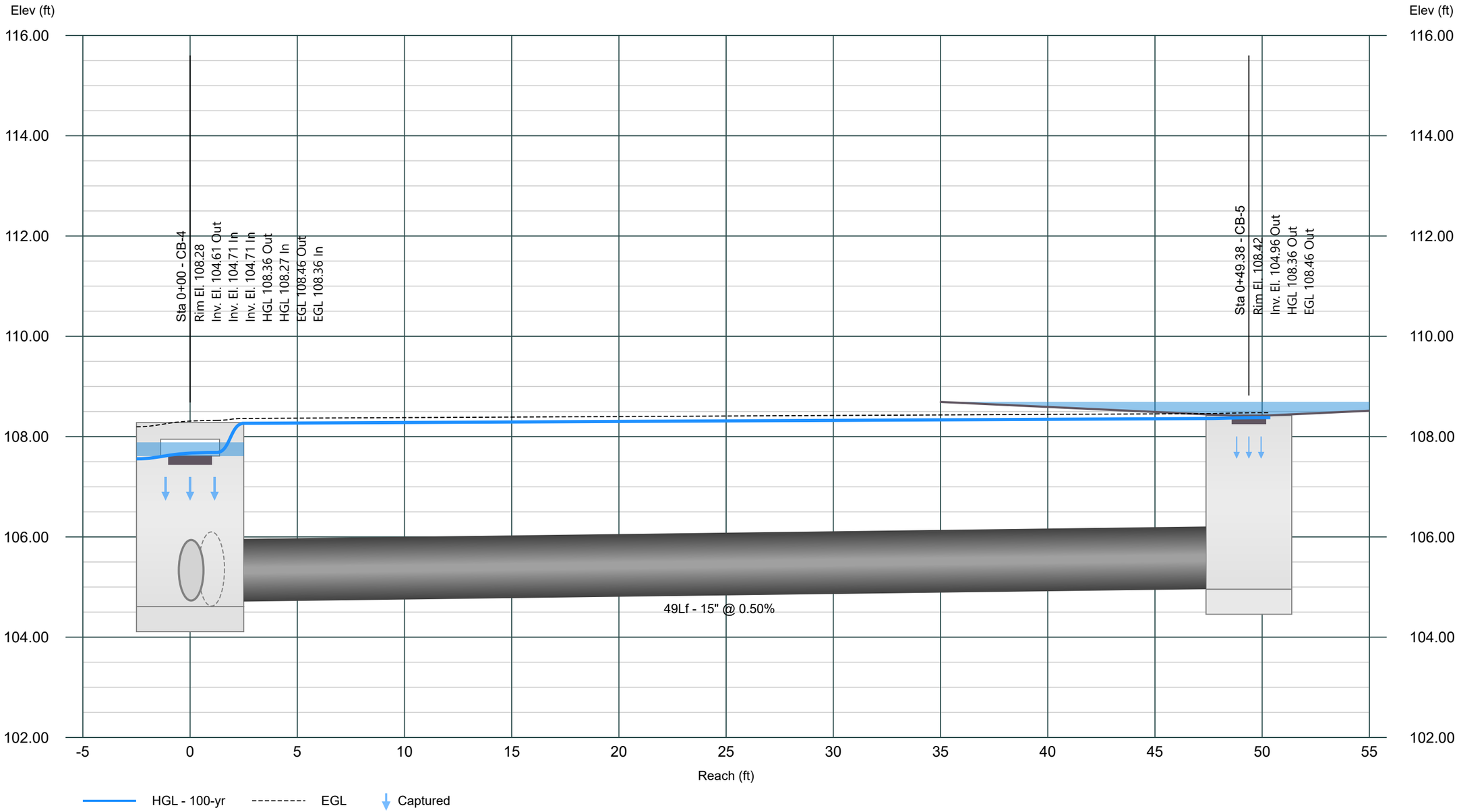


Line 7 - 5-4

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

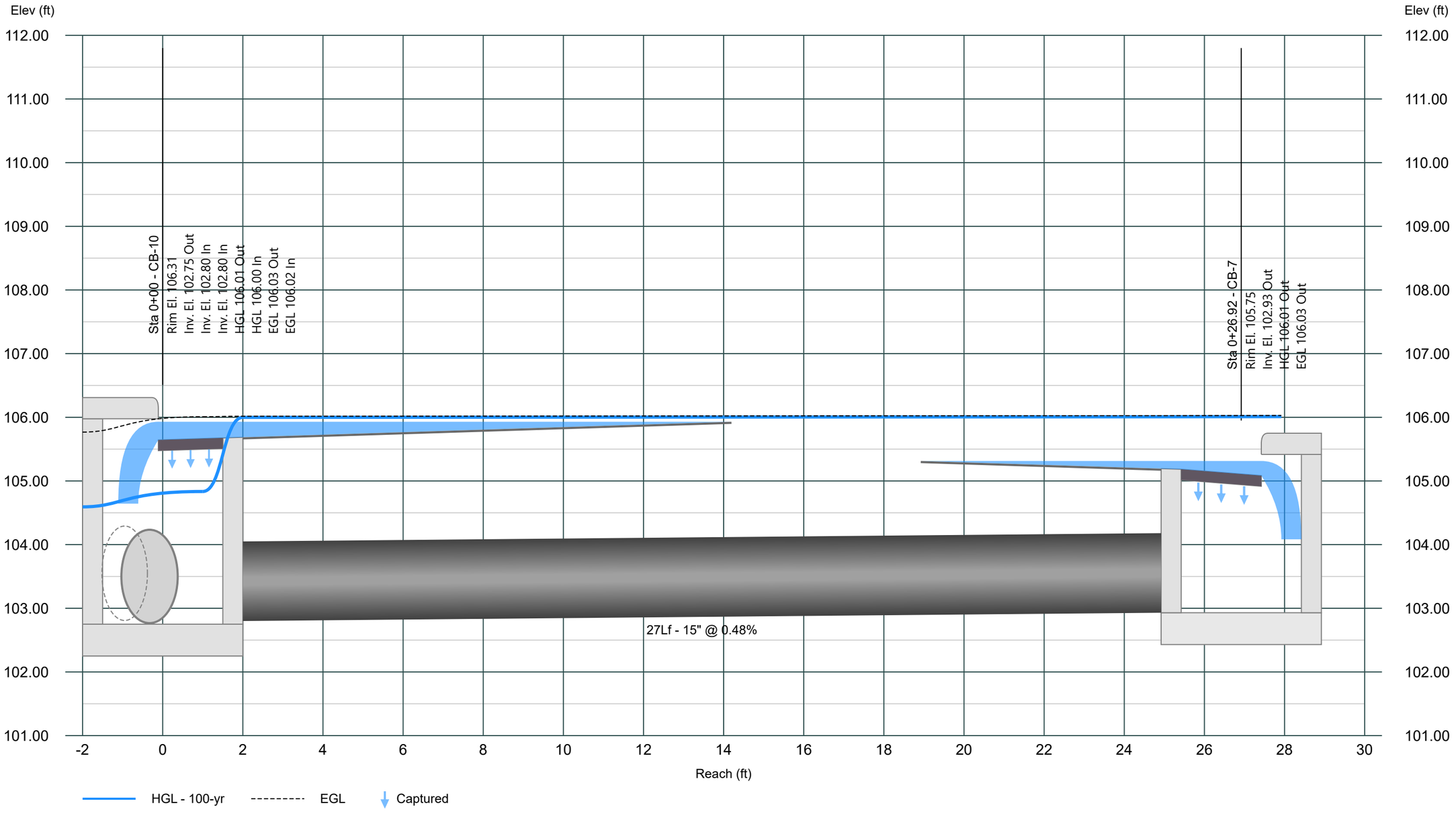


Line 8 - 7-10

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

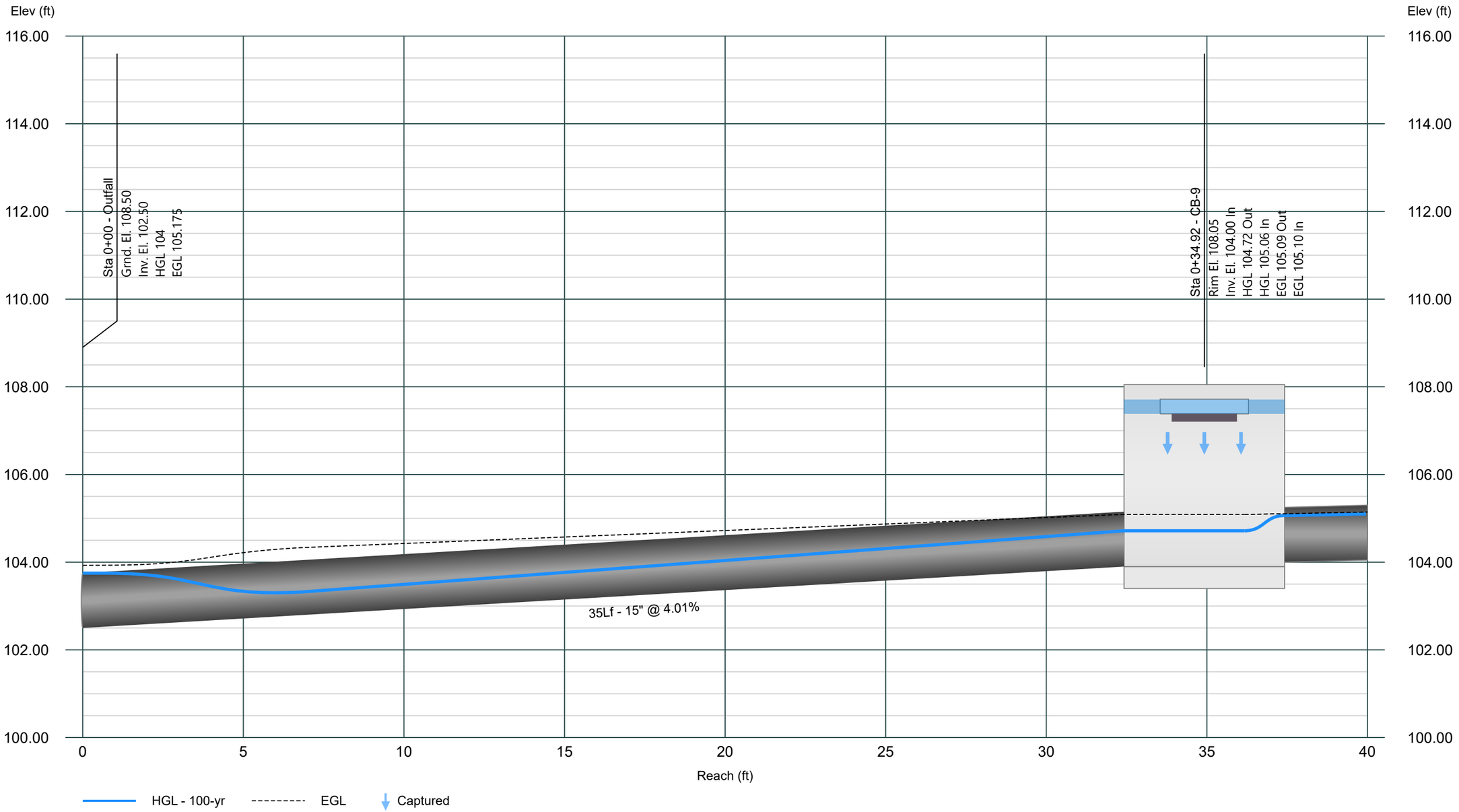


Line 9 - 9-DS

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

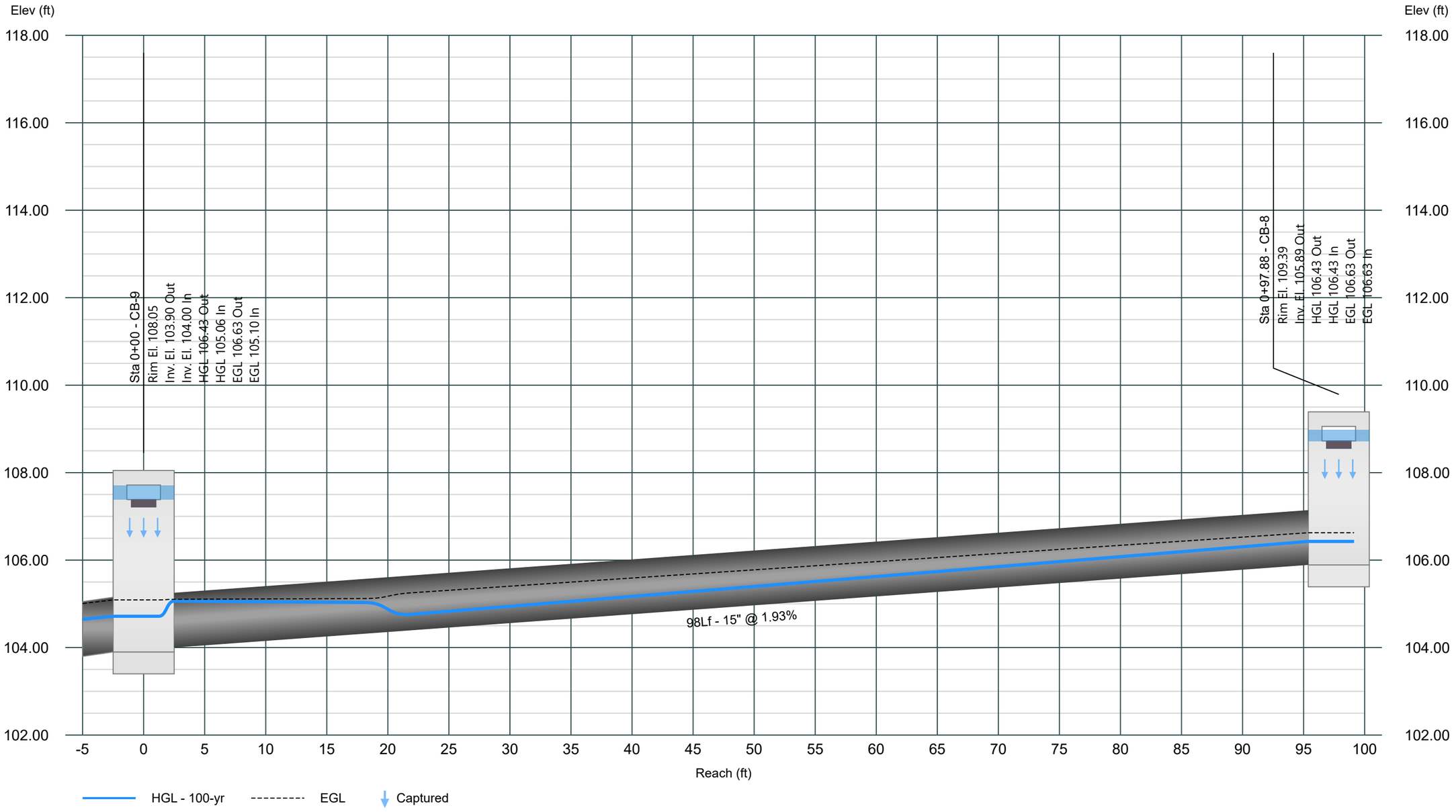


Line 10 - 8-9

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

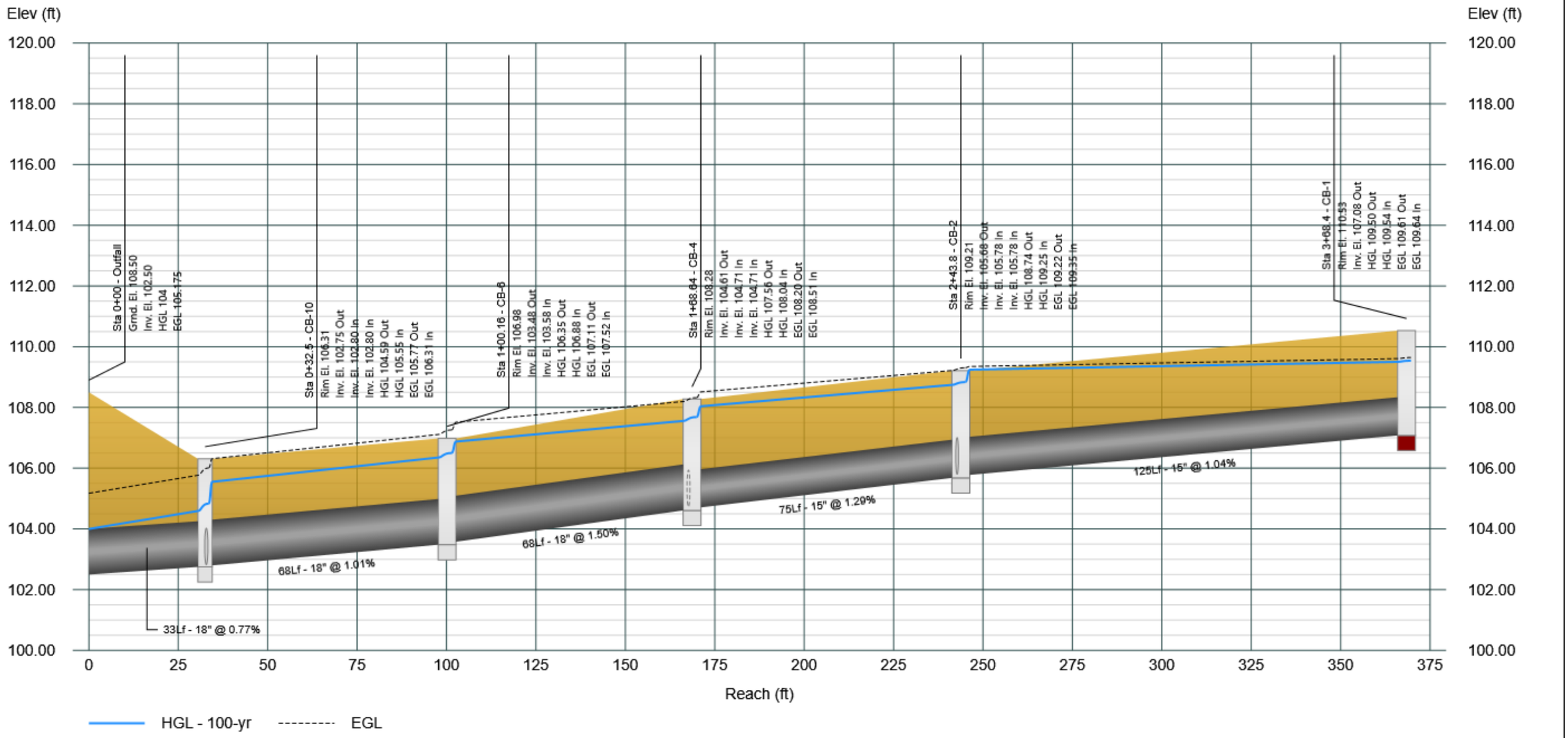


Profile View

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025



Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2026 v 3.0.0.40

11-04-2025

Line ID	Length	Drng Area		Rational	C x A		Tc		Intensity	Total Q	Capacity	Velocity	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Up	Dn	Up	Dn	Up	Dn	
	(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
10-DS	32.50	0.278	2.025	0.67	0.19	1.44	5.0	5.88	8.34	12.02	9.98	6.80	18	0.77	102.75	102.50	104.36	104.00	106.31	108.50	1
6-10	67.66	0.143	1.579	0.75	0.11	1.14	5.0	5.72	8.47	9.67	11.40	5.47	18	1.01	103.48	102.80	105.45	104.96	106.98	106.31	2
4-9	68.48	0.225	1.436	0.72	0.16	1.03	5.0	5.59	8.58	8.88	13.95	5.03	18	1.50	104.61	103.58	106.20	105.78	108.28	106.98	3
2-4	75.16	0.371	0.809	0.71	0.26	0.61	5.0	5.40	8.74	5.31	7.95	4.33	15	1.29	105.68	104.71	106.92	106.51	109.21	108.28	4
1-2	124.60	0.356	0.356	0.77	0.27	0.27	5.0	5.00	9.12	2.50	7.15	3.02	15	1.04	107.08	105.78	107.71	107.28	110.53	109.21	5
3-2	67.24	0.082	0.082	0.85	0.07	0.07	5.0	5.00	9.12	0.64	4.95	0.52	15	0.50	106.12	105.78	107.32	107.31	109.43	109.21	6
5-4	49.38	0.402	0.402	0.66	0.27	0.27	5.0	5.00	9.12	2.42	4.95	1.97	15	0.50	104.96	104.71	106.71	106.65	108.42	108.28	7
7-10	26.92	0.168	0.168	0.67	0.11	0.11	5.0	5.00	9.12	1.03	4.86	0.84	15	0.48	102.93	102.80	105.24	105.23	105.75	106.31	8
9-DS	34.92	0.285	0.504	0.75	0.21	0.37	5.0	5.29	8.84	3.27	14.01	3.55	15	4.01	103.90	102.50	104.62	103.75	108.05	108.50	9
8-9	97.88	0.219	0.219	0.71	0.16	0.16	5.0	5.00	9.12	1.42	9.72	2.39	15	1.93	105.89	104.00	106.37	104.91	109.39	108.05	10

Notes: IDF File = 24122 - Louis St.idf, Return Period = 25-yrs.

Project File: 24122 - Post Dev PRDR.sws

Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2026 v 3.0.0.40

11-04-2025

Line ID	Length	Drng Area		Rational	C x A		Tc		Intensity	Total Q	Capacity	Velocity	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Up	Dn	Up	Dn	Up	Dn	
	(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
10-DS	32.50	0.278	2.025	0.67	0.19	1.44	5.0	5.84	10.66	15.36	9.98	8.69	18	0.77	102.75	102.50	104.59	104.00	106.31	108.50	1
6-10	67.66	0.143	1.579	0.75	0.11	1.14	5.0	5.68	10.82	12.35	11.40	6.99	18	1.01	103.48	102.80	106.35	105.55	106.98	106.31	2
4-9	68.48	0.225	1.436	0.72	0.16	1.03	5.0	5.55	10.96	11.34	13.95	6.41	18	1.50	104.61	103.58	107.56	106.88	108.28	106.98	3
2-4	75.16	0.371	0.809	0.71	0.26	0.61	5.0	5.38	11.15	6.77	7.95	5.52	15	1.29	105.68	104.71	108.74	108.04	109.21	108.28	4
1-2	124.60	0.356	0.356	0.77	0.27	0.27	5.0	5.00	11.60	3.18	7.15	2.59	15	1.04	107.08	105.78	109.50	109.25	110.53	109.21	5
3-2	67.24	0.082	0.082	0.85	0.07	0.07	5.0	5.00	11.60	0.81	4.95	0.66	15	0.50	106.12	105.78	109.31	109.30	109.43	109.21	6
5-4	49.38	0.402	0.402	0.66	0.27	0.27	5.0	5.00	11.60	3.08	4.95	2.51	15	0.50	104.96	104.71	108.36	108.27	108.42	108.28	7
7-10	26.92	0.168	0.168	0.67	0.11	0.11	5.0	5.00	11.60	1.31	4.86	1.06	15	0.48	102.93	102.80	106.01	106.00	105.75	106.31	8
9-DS	34.92	0.285	0.504	0.75	0.21	0.37	5.0	5.27	11.27	4.16	14.01	4.15	15	4.01	103.90	102.50	104.72	103.75	108.05	108.50	9
8-9	97.88	0.219	0.219	0.71	0.16	0.16	5.0	5.00	11.60	1.80	9.72	2.60	15	1.93	105.89	104.00	106.43	105.06	109.39	108.05	10

Notes: IDF File = 24122 - Louis St.idf, Return Period = 100-yrs.

Project File: 24122 - Post Dev PRDR.sws

Table of Contents

Contents continued...

Basin Model

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys
11-18-2025

Hydrograph by Return Period

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys

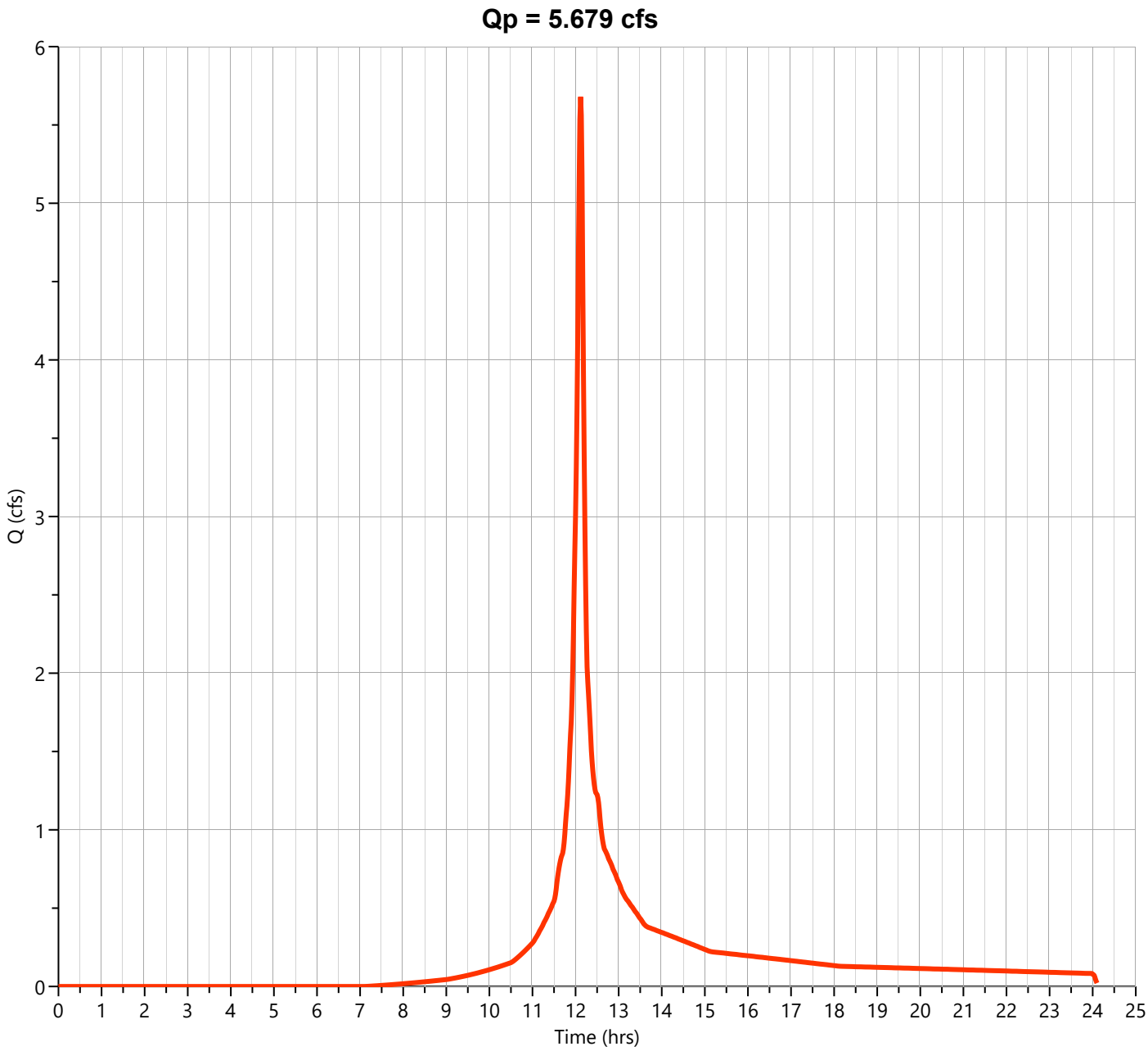
11-18-2025

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	NRCS Runoff	CM-1 to CM-10		5.679		8.493	10.84	14.10	16.47	19.08
2	Pond Route	Ret. System		0.000		0.301	0.875	1.775	2.525	3.348
3	NRCS Runoff	CM-13		0.000		0.000	0.001	0.007	0.017	0.030
4	NRCS Runoff	EX-3		0.158		0.605	1.115	1.937	2.599	3.379
5	NRCS Runoff	CM-12		0.000		0.000	0.002	0.011	0.025	0.044
6	NRCS Runoff	CM-11		0.007		0.035	0.064	0.111	0.150	0.195
7	NRCS Runoff	CM-14		0.038		0.071	0.101	0.145	0.178	0.216

CM-1 to CM-10

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 5.679 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 17,621 cuft
Drainage Area	= 2.53 ac	Curve Number	= 85.00
Tc Method	= User	Time of Conc. (Tc)	= 6.0 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



Ret. System

Hyd. No. 2

Hydrograph Type	= Pond Route	Peak Flow	= 0.000 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.00 hrs
Time Interval	= 1 min	Hydrograph Volume	= 0.000 cuft
Inflow Hydrograph	= 1 - CM-1 to CM-10	Max. Elevation	= 102.47 ft
Pond Name	= Retention System	Max. Storage	= 17,621 cuft

Pond Routing by Storage Indication Method

Qp = 0.000 cfs

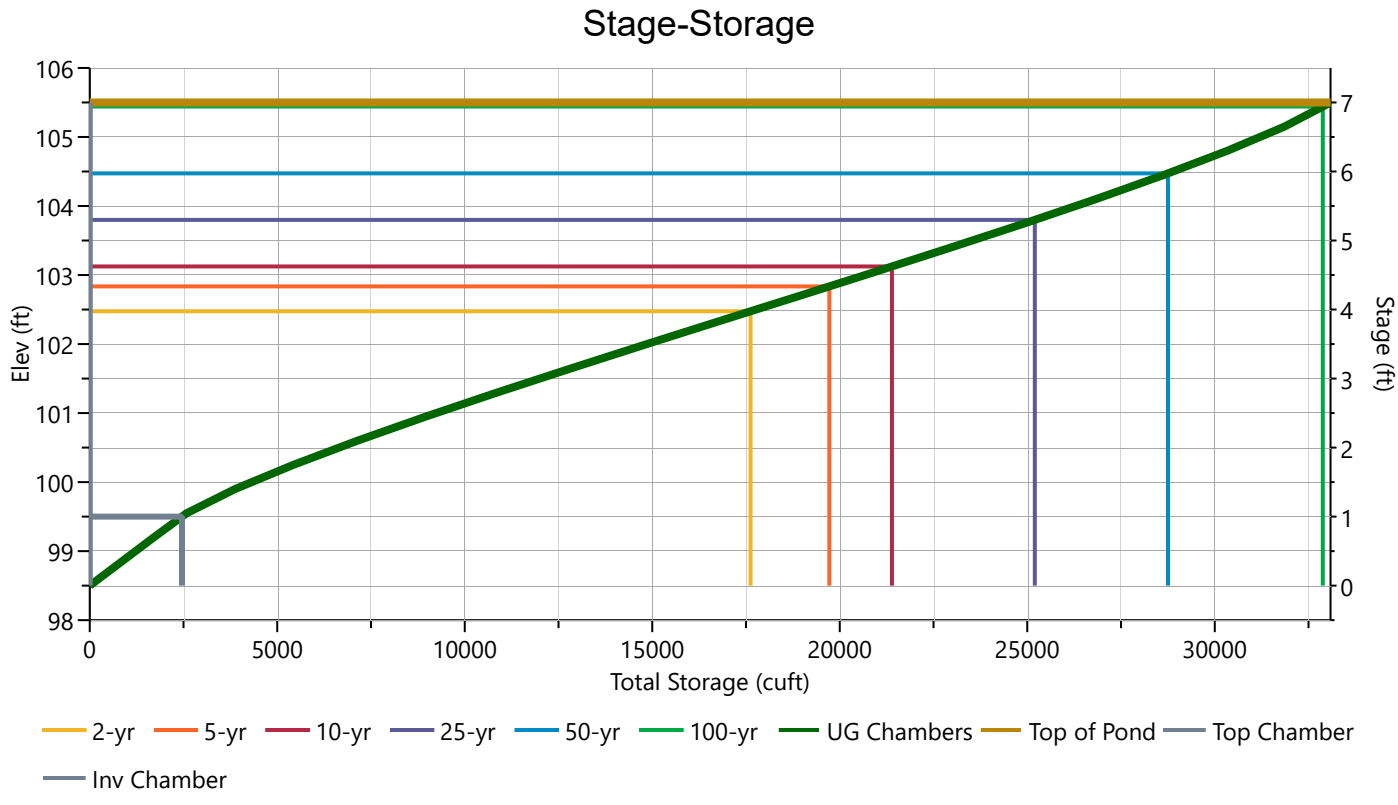
Retention System

Stage-Storage

Underground Chambers	
Description	**Input**
Invert Elev Down, ft	99.50
Chamber Rise, ft	6.00
Chamber Shape	Circular
Chamber Span, ft	6.00
Barrel Length, ft	870.00
No. Barrels	1
Barrel Slope, %	0.00
Headers, y/n	No
Stone Encasement, y/n	Yes
Encasement Bottom Elevation, ft	98.50
Encasement Width per Chamber, ft	8.00
Encasement Depth, ft	7.00
Encasement Voids, %	35.00

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	98.50	6,976	0.000	0.000
0.35	98.85	6,976	855	855
0.70	99.20	6,976	855	1,709
1.05	99.55	6,976	875	2,585
1.40	99.90	6,976	1,292	3,877
1.75	100.25	6,976	1,551	5,429
2.10	100.60	6,976	1,710	7,139
2.45	100.95	6,976	1,826	8,965
2.80	101.30	6,976	1,910	10,875
3.15	101.65	6,976	1,973	12,848
3.50	102.00	6,976	2,008	14,856
3.85	102.35	6,976	2,036	16,892
4.20	102.70	6,976	2,044	18,936
4.55	103.05	6,976	2,031	20,967
4.90	103.40	6,976	2,003	22,970
5.25	103.75	6,976	1,966	24,937
5.60	104.10	6,976	1,897	26,833
5.95	104.45	6,976	1,810	28,644
6.30	104.80	6,976	1,691	30,335
6.65	105.15	6,976	1,523	31,857
7.00	105.50	6,976	1,230	33,087



Pond Report

File: 24122 - Post Dev PRDR SCS.hys

Hydrology Studio v 3.0.0.40

11-18-2025

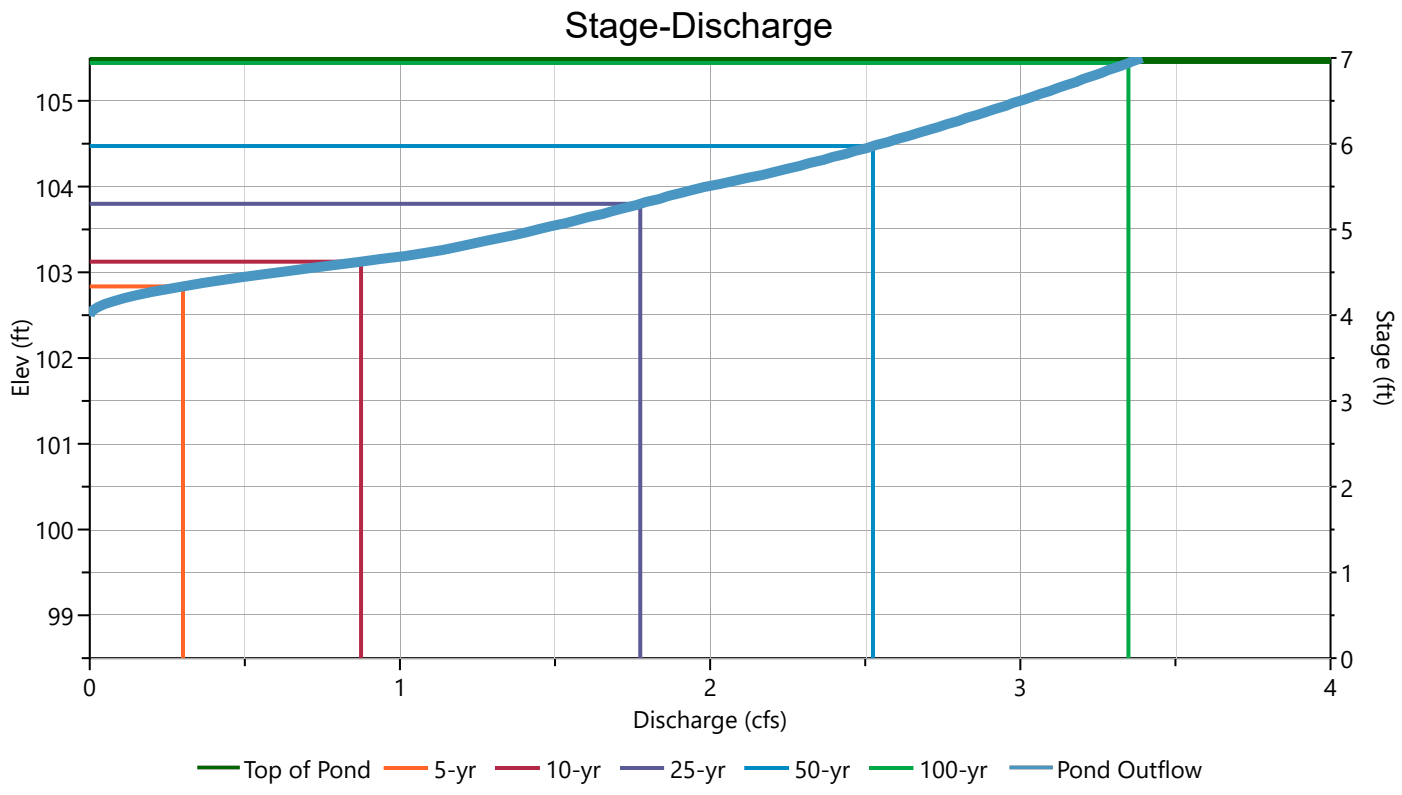
Retention System

Stage-Discharge

Culvert / Orifices	Cir Culvert	Orifice			Perforated Riser	
		1 (m)	2	3 (m)		
Rise, in	18	9		3	Hole Diameter, in	
Span, in	18	9		3	No. holes	
No. Barrels	1	1		1	Invert Elevation, ft	
Invert Elevation, ft	102.50	102.50		103.90	Height, ft	
Orifice Coefficient, Co	0.60	0.60		0.60	Orifice Coefficient, Co	
Length, ft	92.27					
Barrel Slope, %	.54					
N-Value, n	0.012					

Weirs	Riser	Weir			Ancillary	
		1	2	3		
Shape / Type					Exfiltration, in/hr	
Crest Elevation, ft						
Crest Length, ft						
Angle, deg						
Weir Coefficient, Cw						

m = Flows through Culvert, i = Independent



Retention System

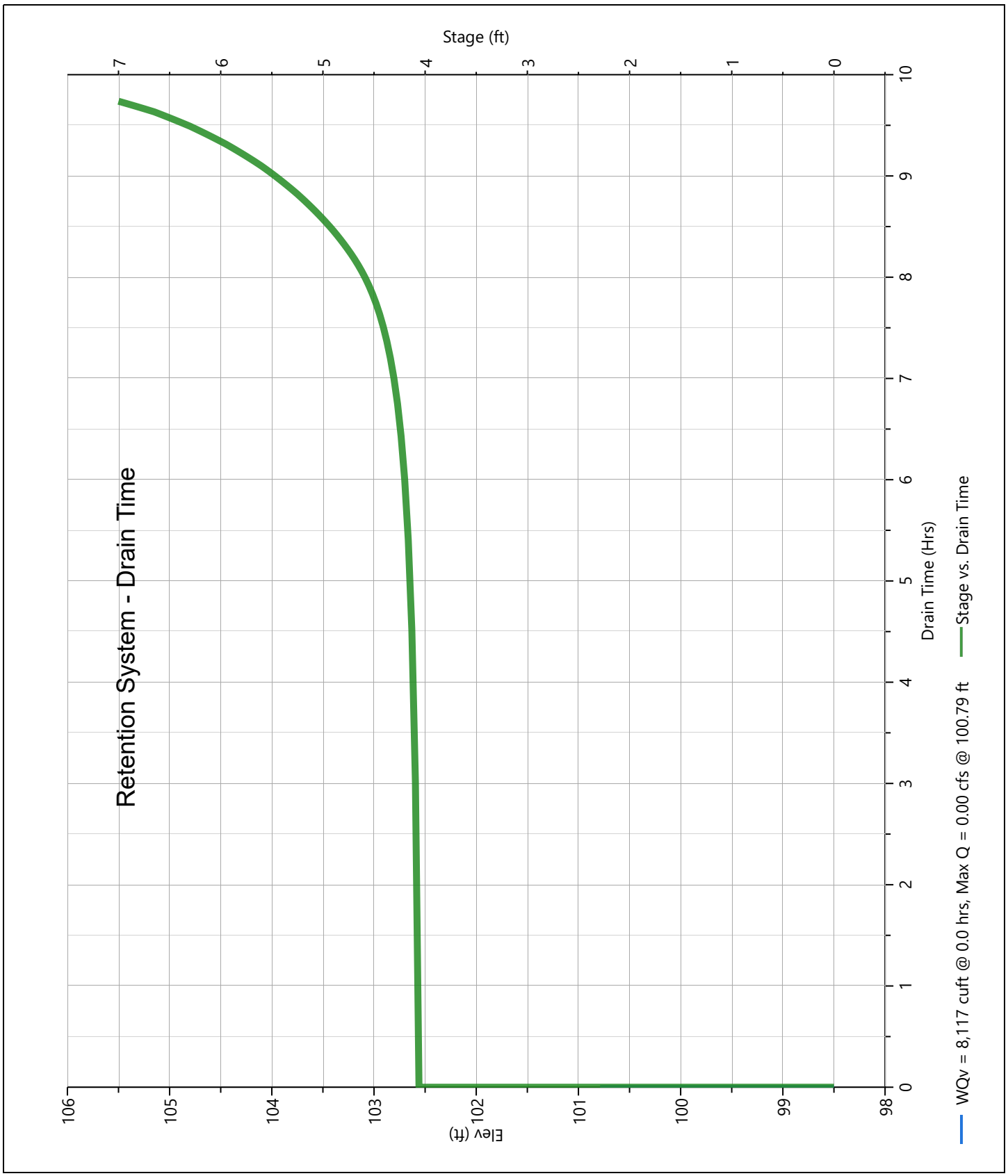
Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	98.50	0.000	0.000	0.000		0.000								0.000
0.35	98.85	855	0.000	0.000		0.000								0.000
0.70	99.20	1,709	0.000	0.000		0.000								0.000
1.05	99.55	2,585	0.000	0.000		0.000								0.000
1.40	99.90	3,877	0.000	0.000		0.000								0.000
1.75	100.25	5,429	0.000	0.000		0.000								0.000
2.10	100.60	7,139	0.000	0.000		0.000								0.000
2.45	100.95	8,965	0.000	0.000		0.000								0.000
2.80	101.30	10,875	0.000	0.000		0.000								0.000
3.15	101.65	12,848	0.000	0.000		0.000								0.000
3.50	102.00	14,856	0.000	0.000		0.000								0.000
3.85	102.35	16,892	0.000	0.000		0.000								0.000
4.20	102.70	18,936	0.112 ic	0.112		0.000								0.112
4.55	103.05	20,967	0.713 ic	0.713		0.000								0.713
4.90	103.40	22,970	1.322 ic	1.322		0.000								1.322
5.25	103.75	24,937	1.723 ic	1.723		0.000								1.723
5.60	104.10	26,833	2.118 ic	2.054		0.064								2.118
5.95	104.45	28,644	2.507 ic	2.353		0.154								2.507
6.30	104.80	30,335	2.826 ic	2.618		0.208								2.826
6.65	105.15	31,857	3.121 ic	2.870		0.251								3.121
7.00	105.50	33,087	3.393 ic	3.106		0.287								3.393

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Retention System

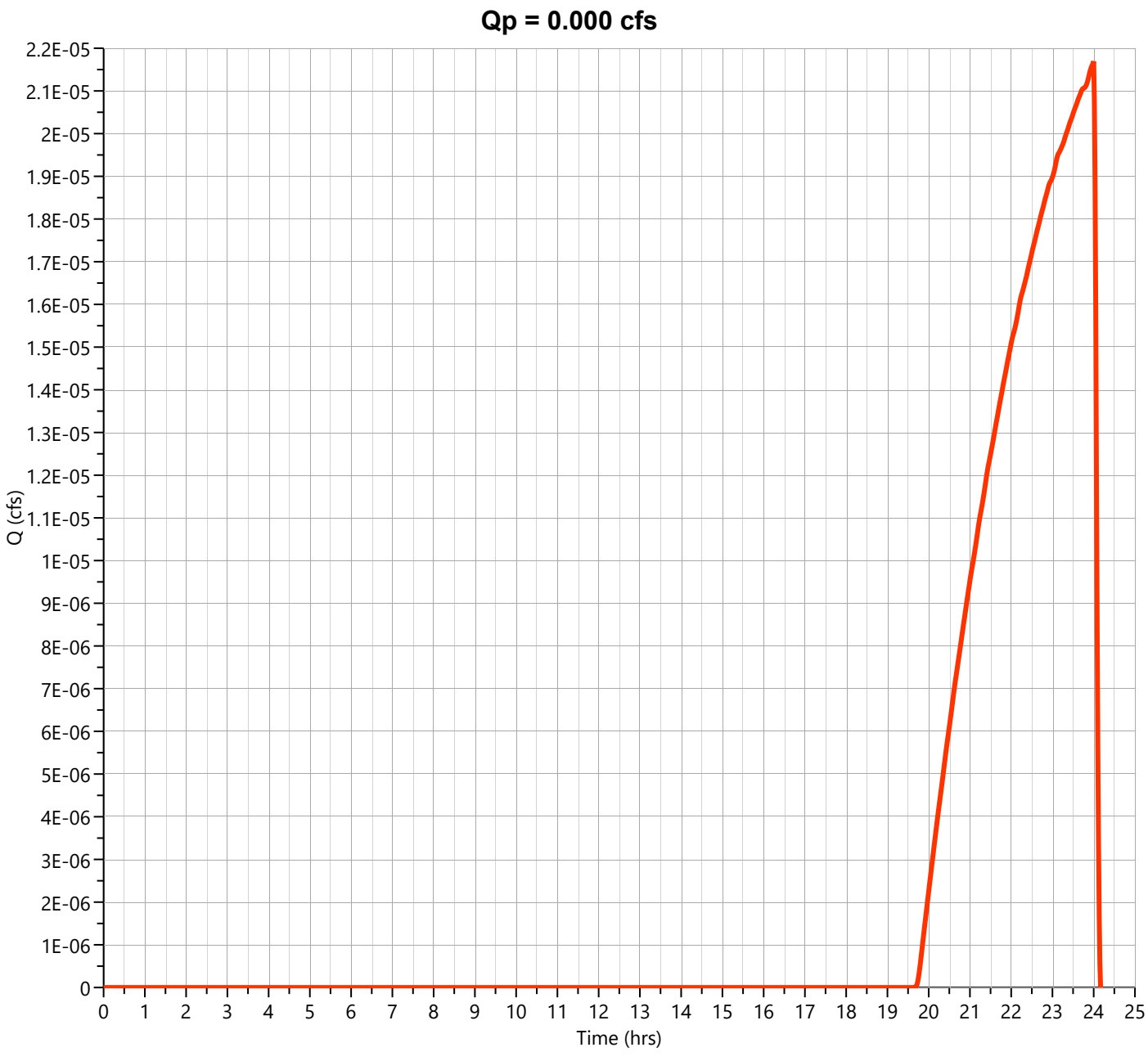
Extended Detention



CM-13

Hyd. No. 3

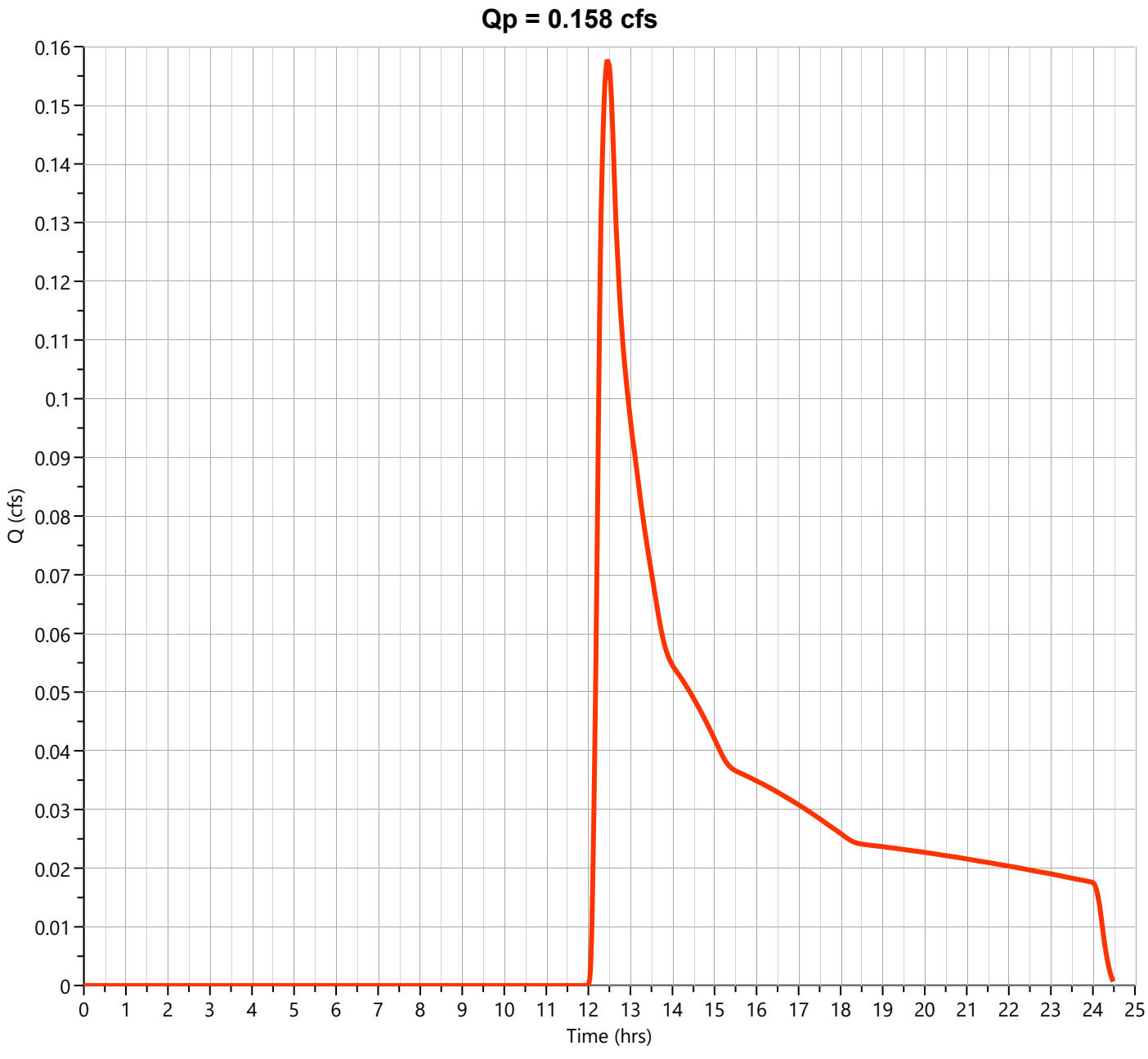
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.000 cfs
Storm Frequency	= 2-yr	Time to Peak	= 24.00 hrs
Time Interval	= 1 min	Runoff Volume	= 0.209 cuft
Drainage Area	= 0.024 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 4

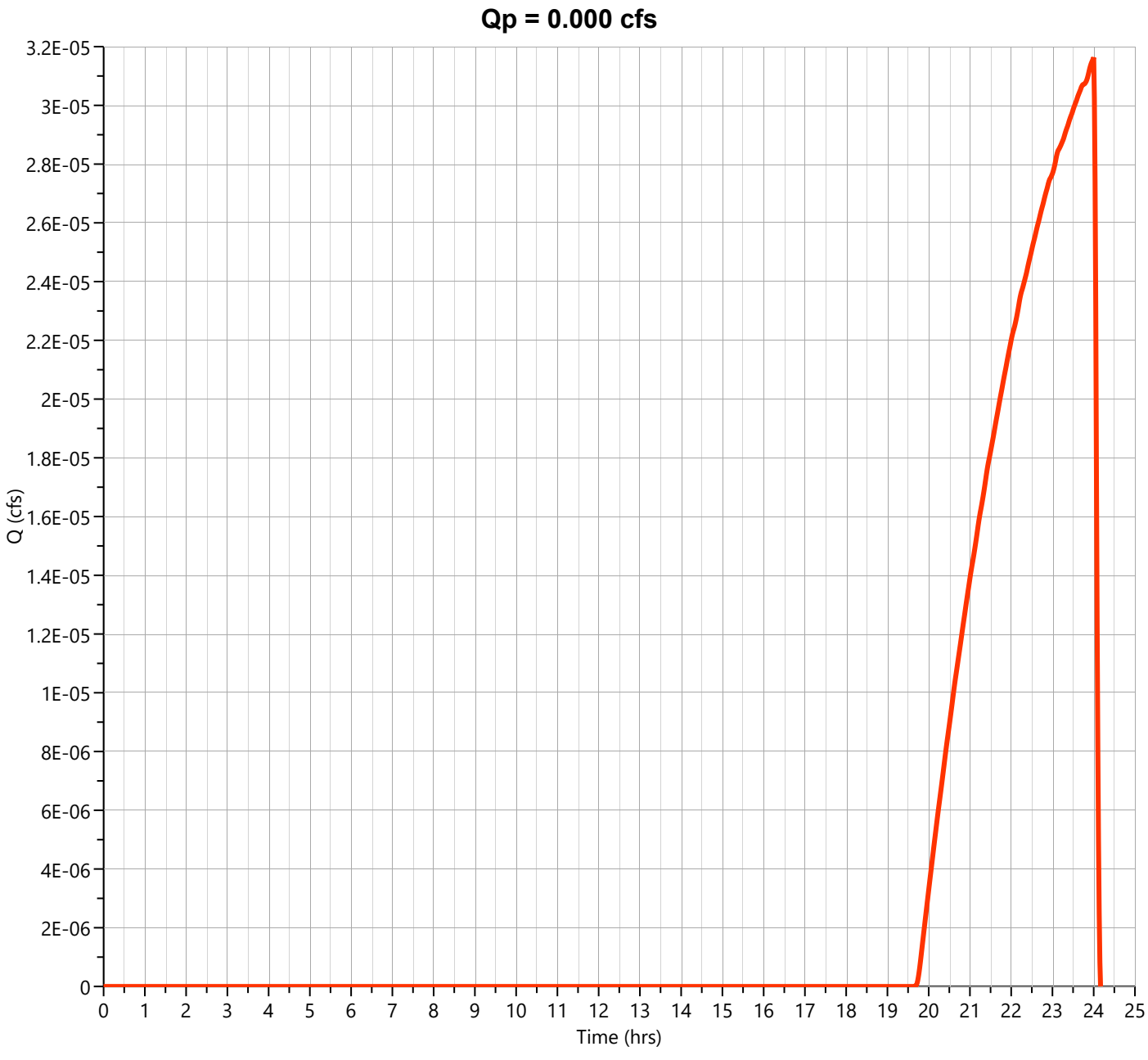
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.158 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.47 hrs
Time Interval	= 1 min	Runoff Volume	= 1,647 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.3 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-12

Hyd. No. 5

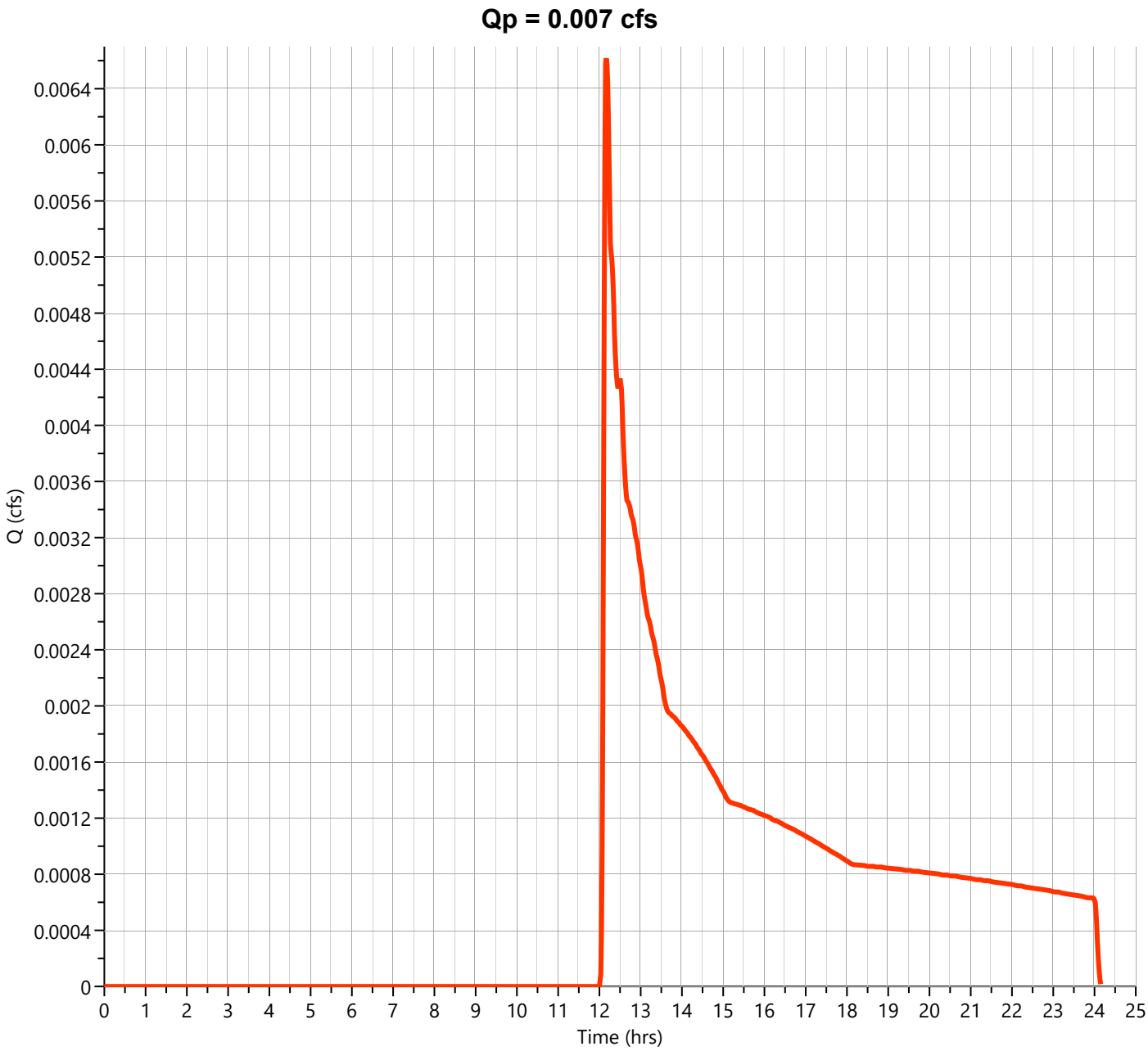
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.000 cfs
Storm Frequency	= 2-yr	Time to Peak	= 24.00 hrs
Time Interval	= 1 min	Runoff Volume	= 0.304 cuft
Drainage Area	= 0.035 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-11

Hyd. No. 6

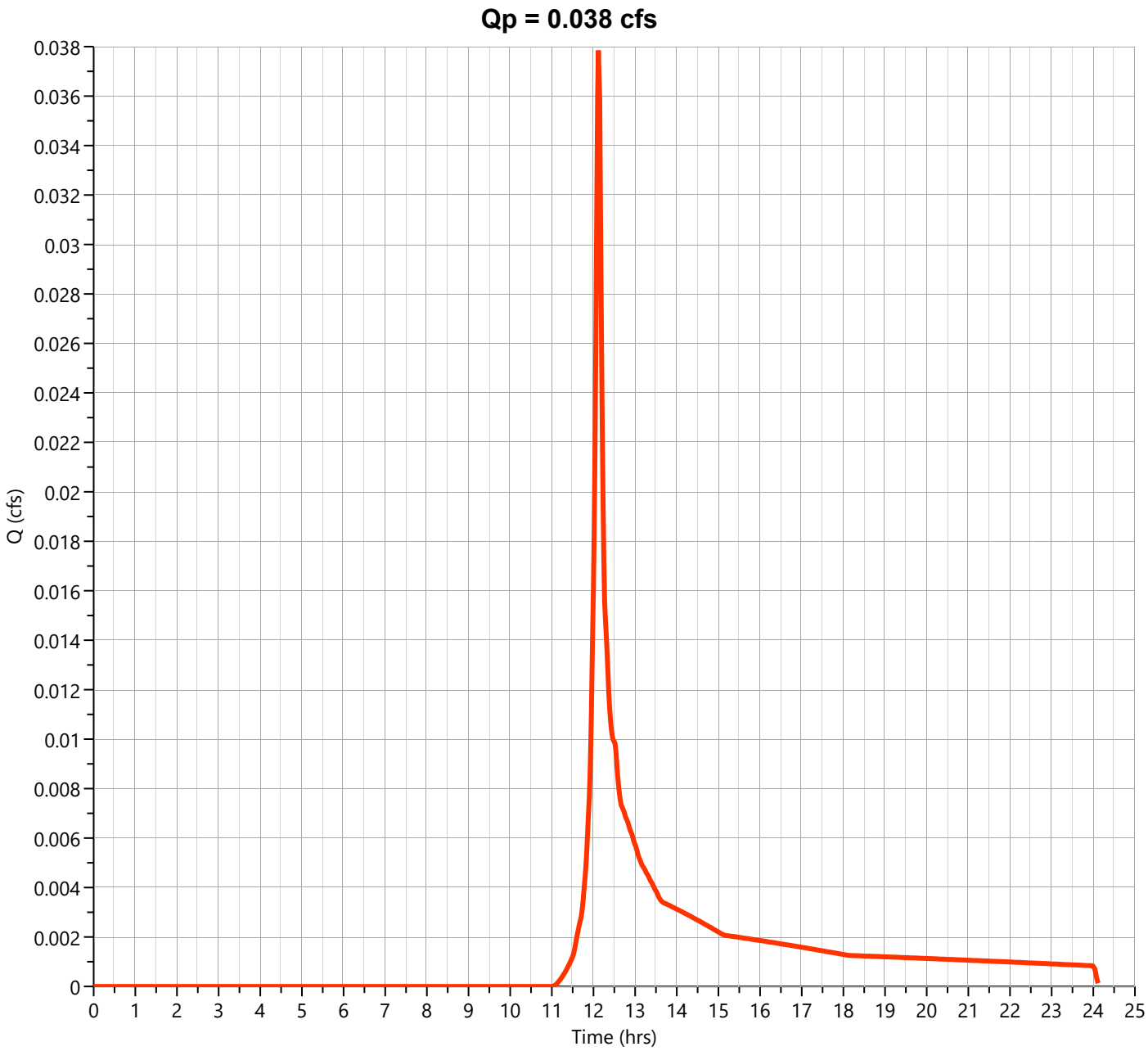
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.007 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.17 hrs
Time Interval	= 1 min	Runoff Volume	= 57.0 cuft
Drainage Area	= 0.053 ac	Curve Number	= 55.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-14

Hyd. No. 7

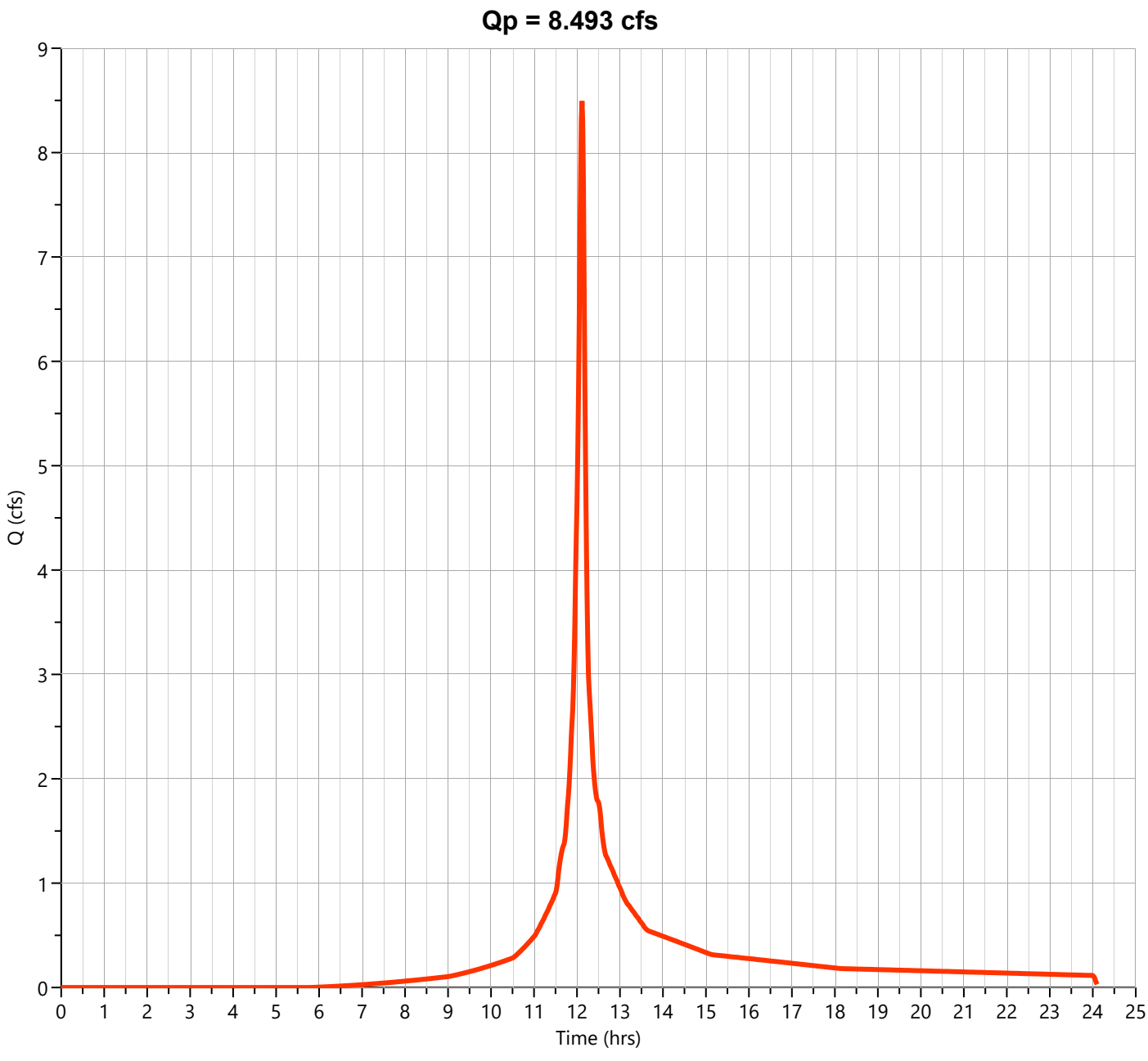
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.038 cfs
Storm Frequency	= 2-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 124 cuft
Drainage Area	= 0.037 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 3.32 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-1 to CM-10

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 8.493 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 26,691 cuft
Drainage Area	= 2.53 ac	Curve Number	= 85.00
Tc Method	= User	Time of Conc. (Tc)	= 6.0 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



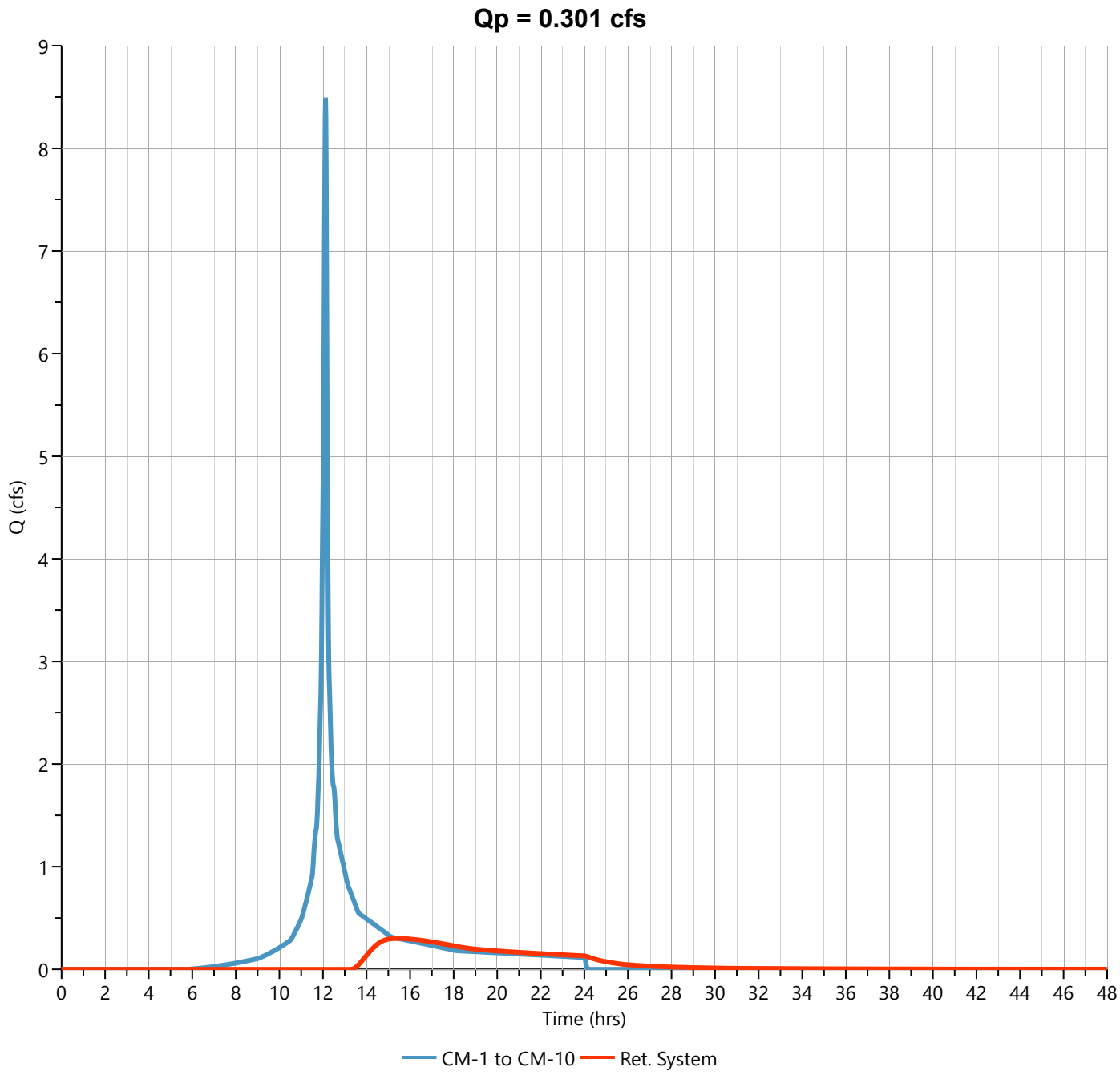
Ret. System

Hyd. No. 2

Hydrograph Type	= Pond Route	Peak Flow	= 0.301 cfs
Storm Frequency	= 5-yr	Time to Peak	= 15.47 hrs
Time Interval	= 1 min	Hydrograph Volume	= 8,817 cuft
Inflow Hydrograph	= 1 - CM-1 to CM-10	Max. Elevation	= 102.84 ft
Pond Name	= Retention System	Max. Storage	= 19,722 cuft

Pond Routing by Storage Indication Method

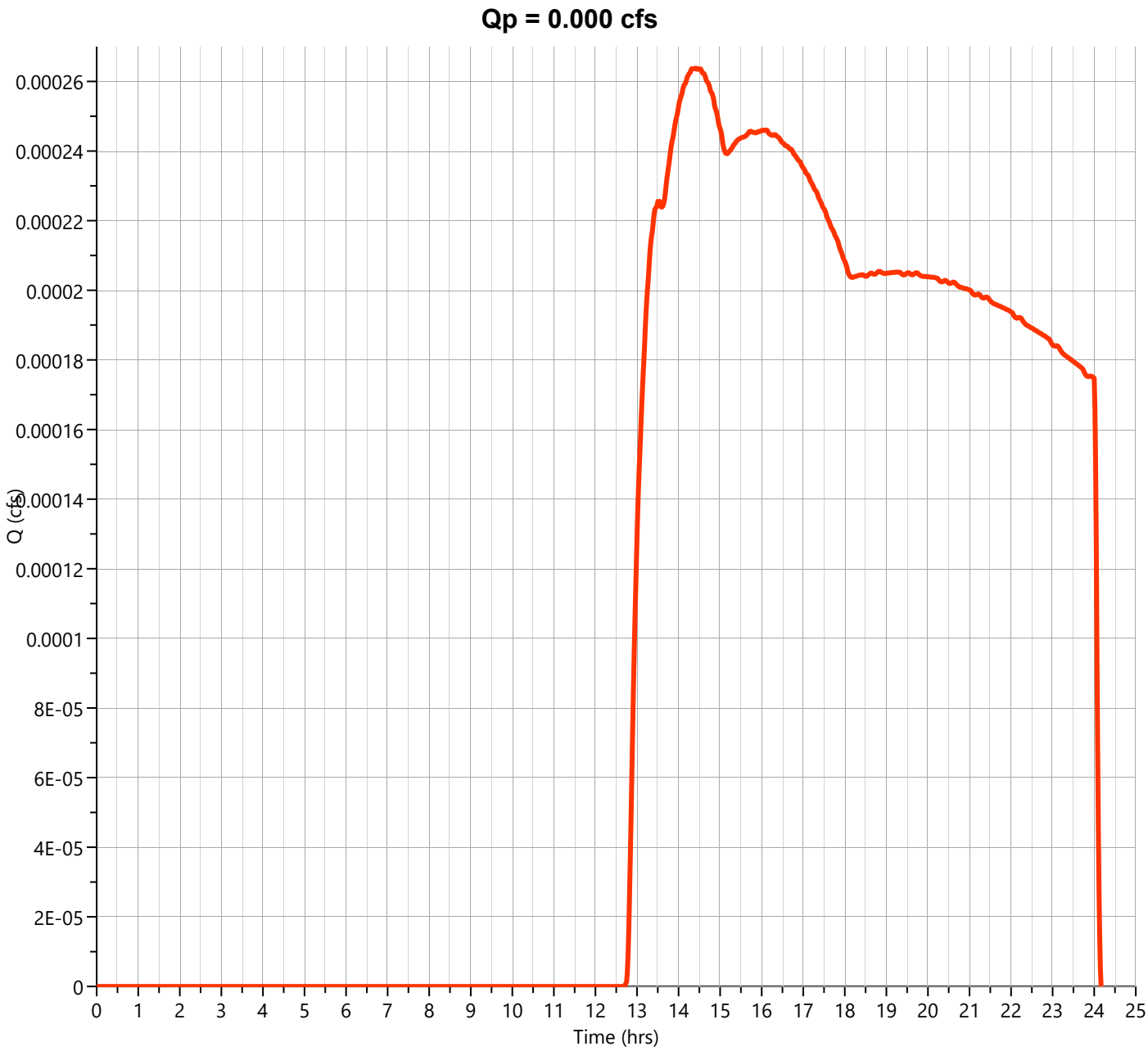
Center of mass detention time = 5.74 hrs



CM-13

Hyd. No. 3

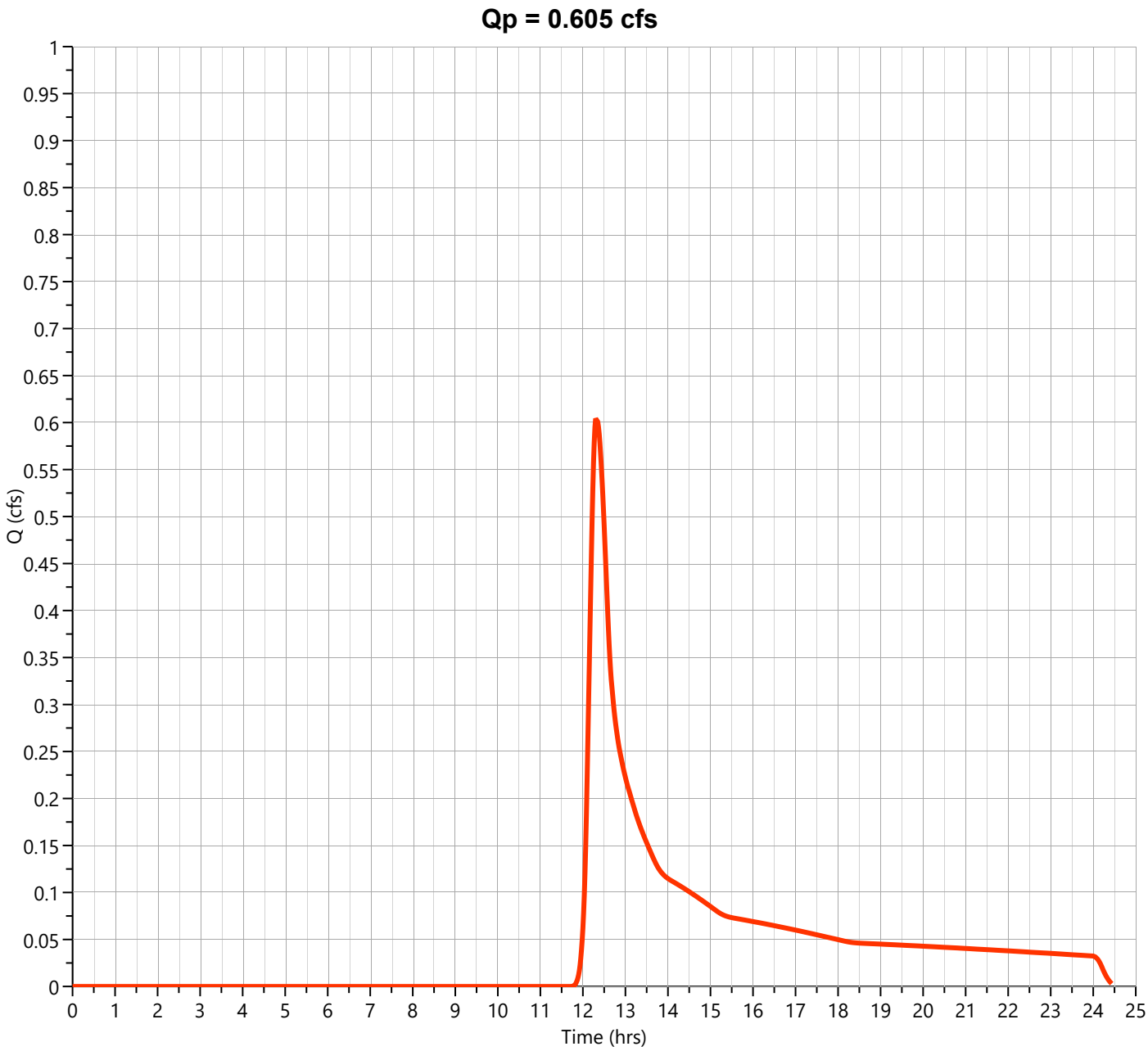
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.000 cfs
Storm Frequency	= 5-yr	Time to Peak	= 14.42 hrs
Time Interval	= 1 min	Runoff Volume	= 8.59 cuft
Drainage Area	= 0.024 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 4

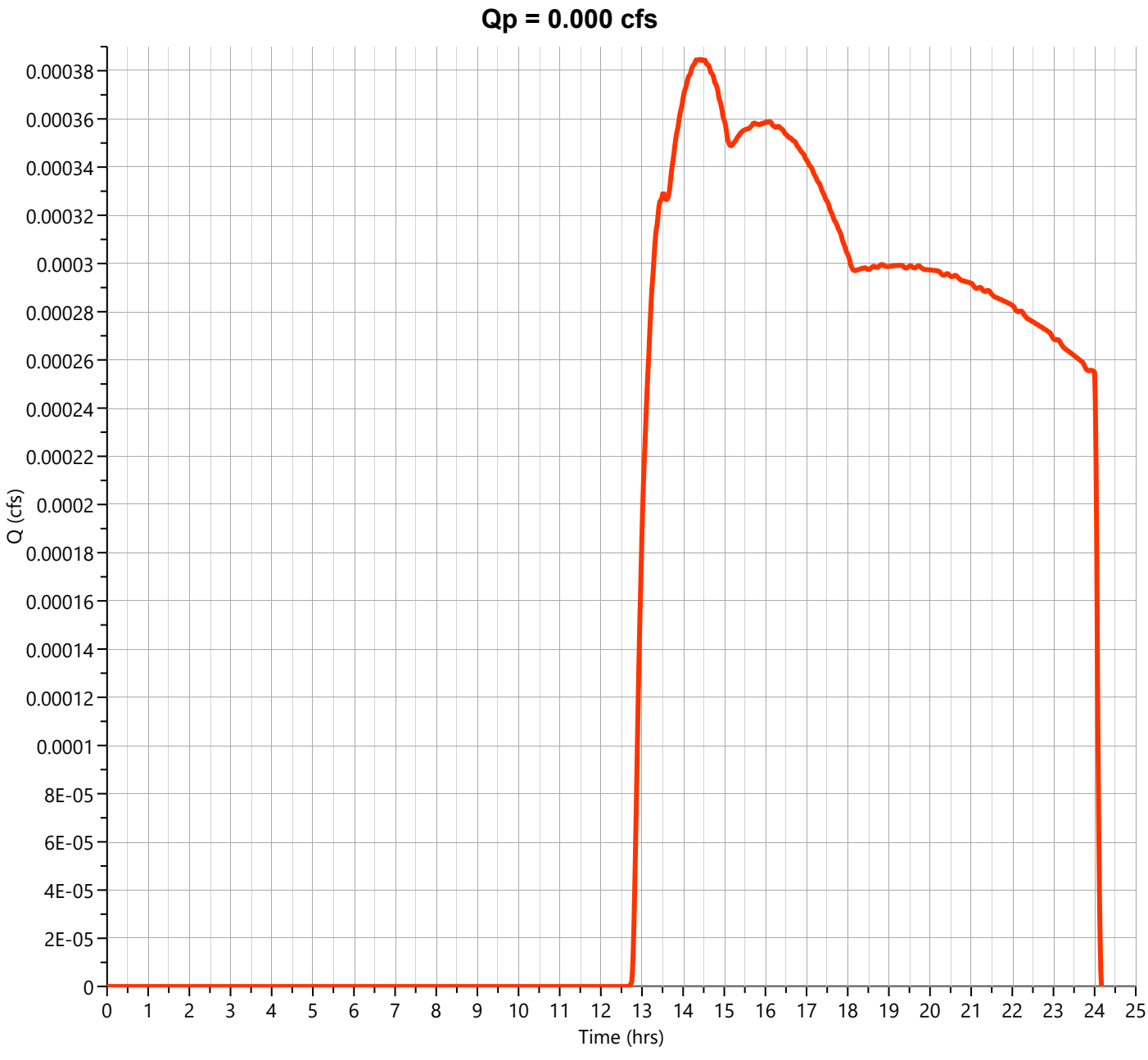
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.605 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.32 hrs
Time Interval	= 1 min	Runoff Volume	= 3,875 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.3 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-12

Hyd. No. 5

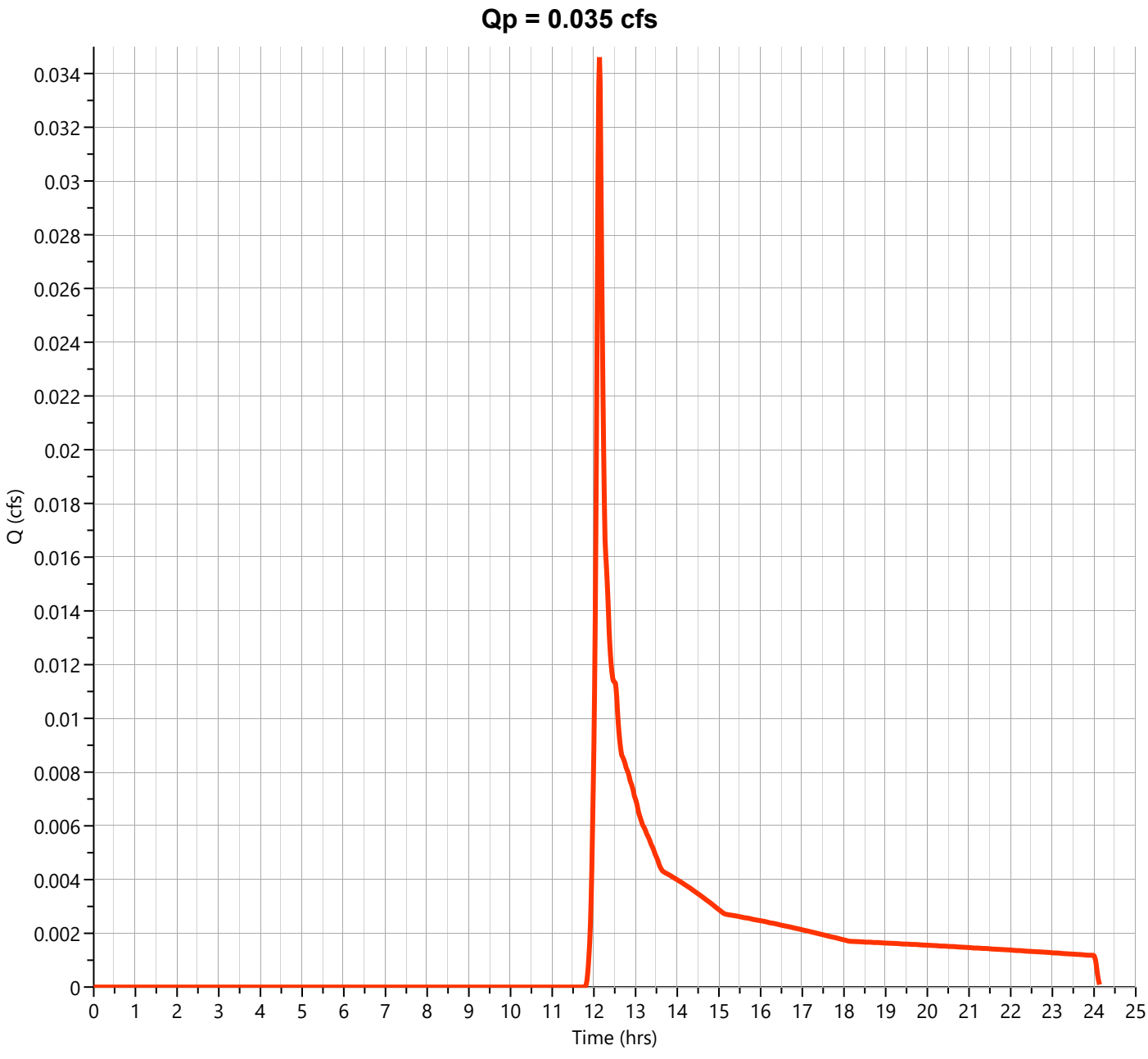
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.000 cfs
Storm Frequency	= 5-yr	Time to Peak	= 14.42 hrs
Time Interval	= 1 min	Runoff Volume	= 12.5 cuft
Drainage Area	= 0.035 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-11

Hyd. No. 6

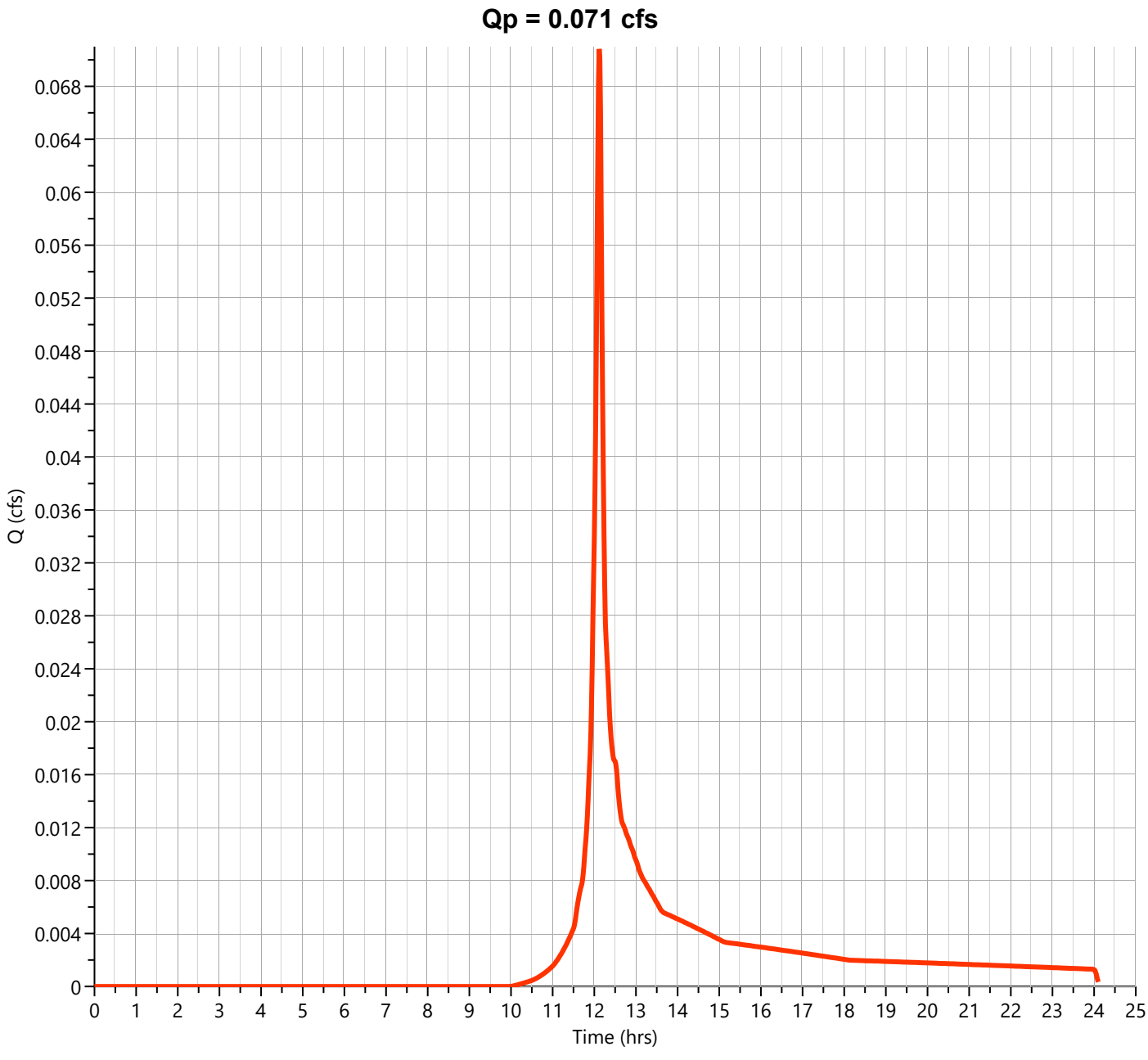
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.035 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.13 hrs
Time Interval	= 1 min	Runoff Volume	= 138 cuft
Drainage Area	= 0.053 ac	Curve Number	= 55.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-14

Hyd. No. 7

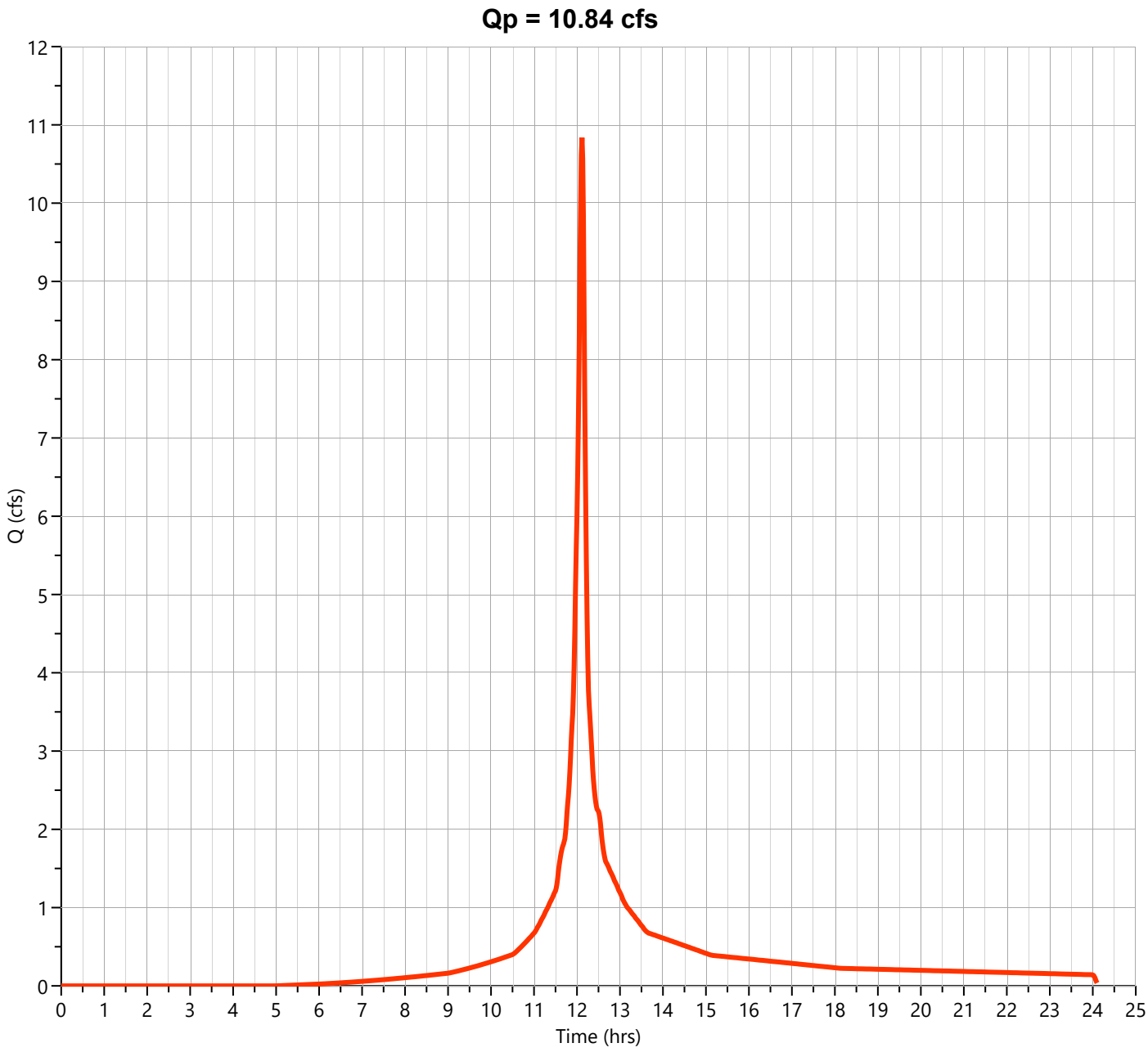
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.071 cfs
Storm Frequency	= 5-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 222 cuft
Drainage Area	= 0.037 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 4.40 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-1 to CM-10

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 10.84 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 34,446 cuft
Drainage Area	= 2.53 ac	Curve Number	= 85.00
Tc Method	= User	Time of Conc. (Tc)	= 6.0 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



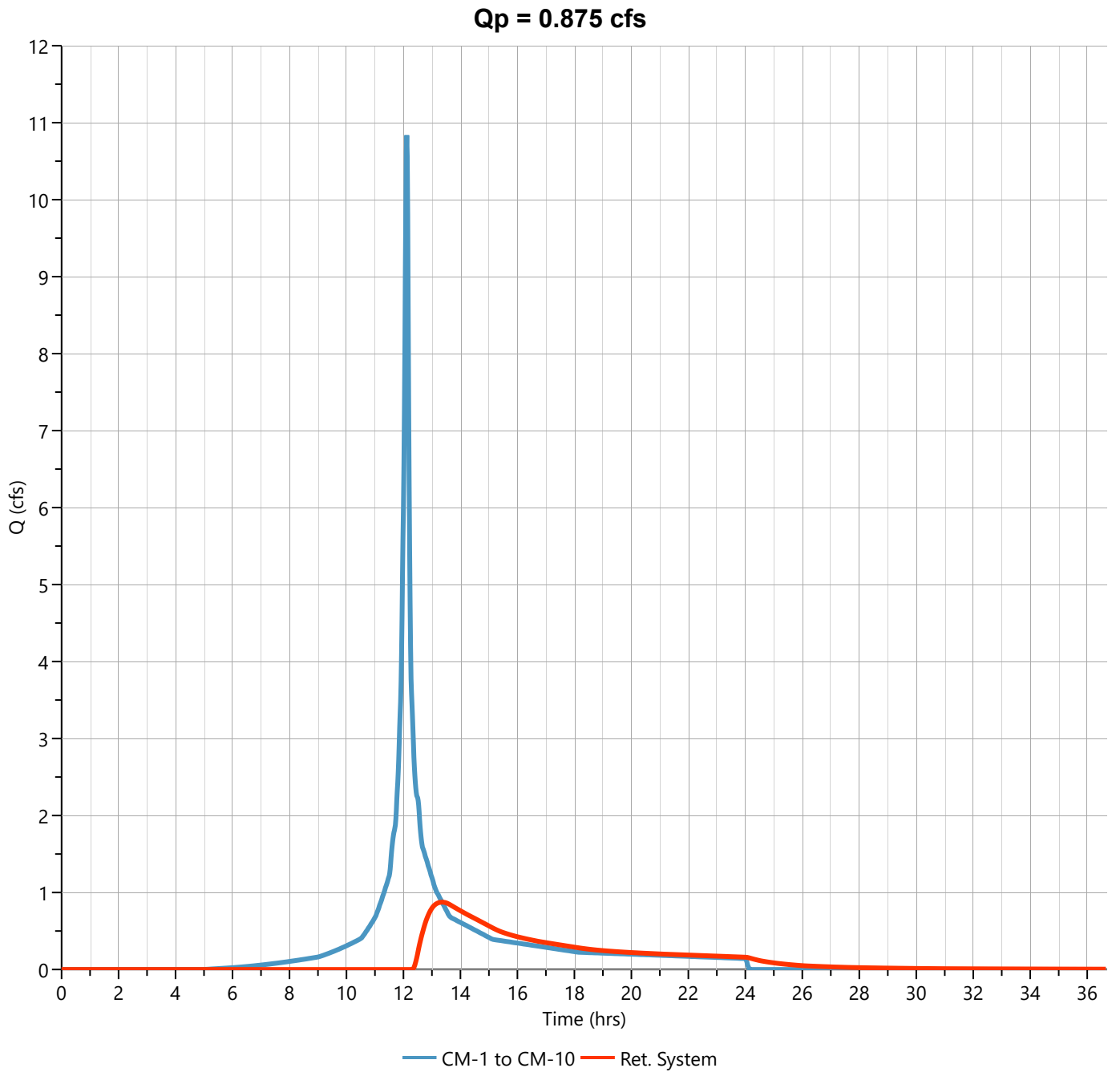
Ret. System

Hyd. No. 2

Hydrograph Type	= Pond Route	Peak Flow	= 0.875 cfs
Storm Frequency	= 10-yr	Time to Peak	= 13.35 hrs
Time Interval	= 1 min	Hydrograph Volume	= 16,571 cuft
Inflow Hydrograph	= 1 - CM-1 to CM-10	Max. Elevation	= 103.12 ft
Pond Name	= Retention System	Max. Storage	= 21,391 cuft

Pond Routing by Storage Indication Method

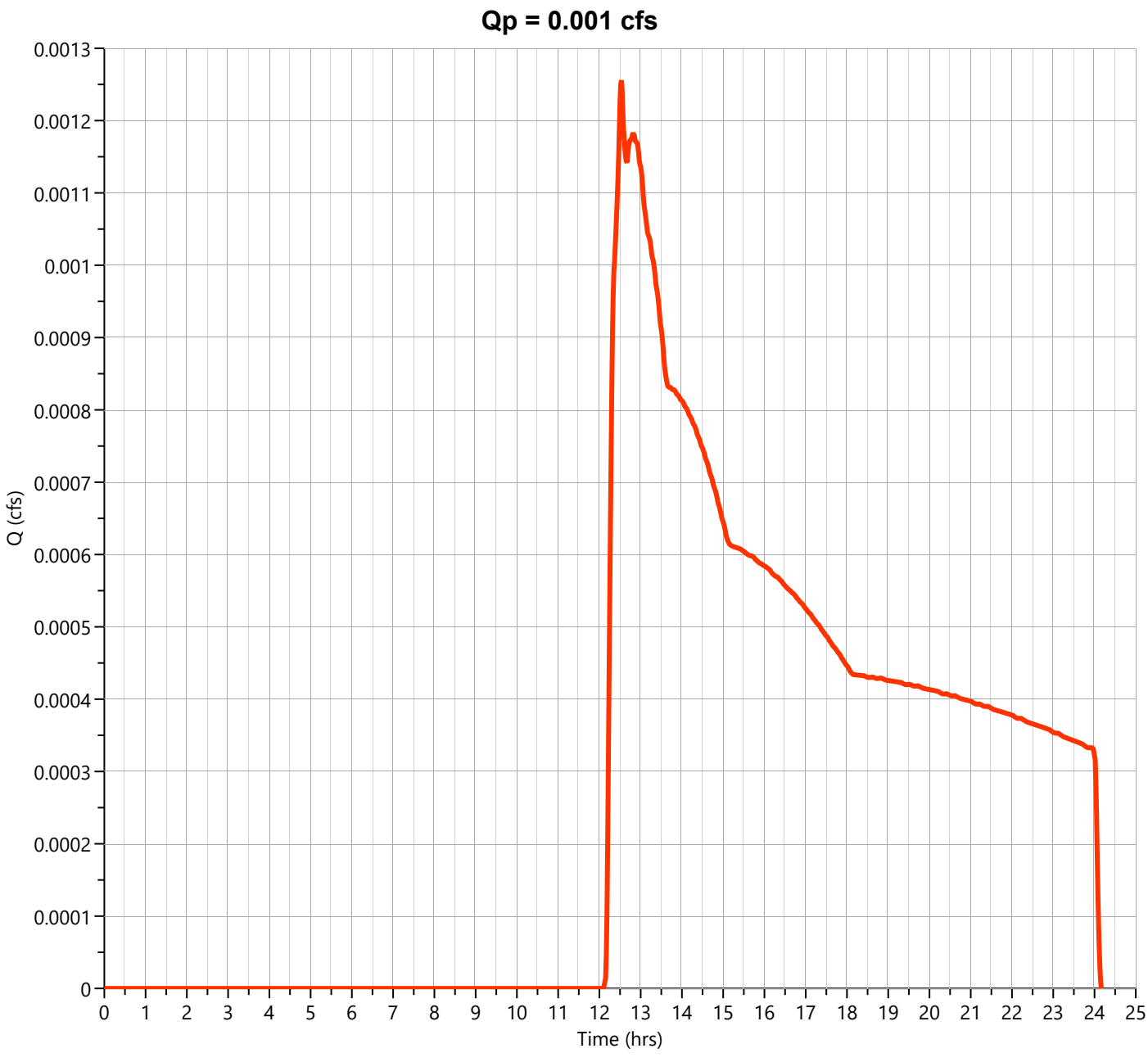
Center of mass detention time = 3.68 hrs



CM-13

Hyd. No. 3

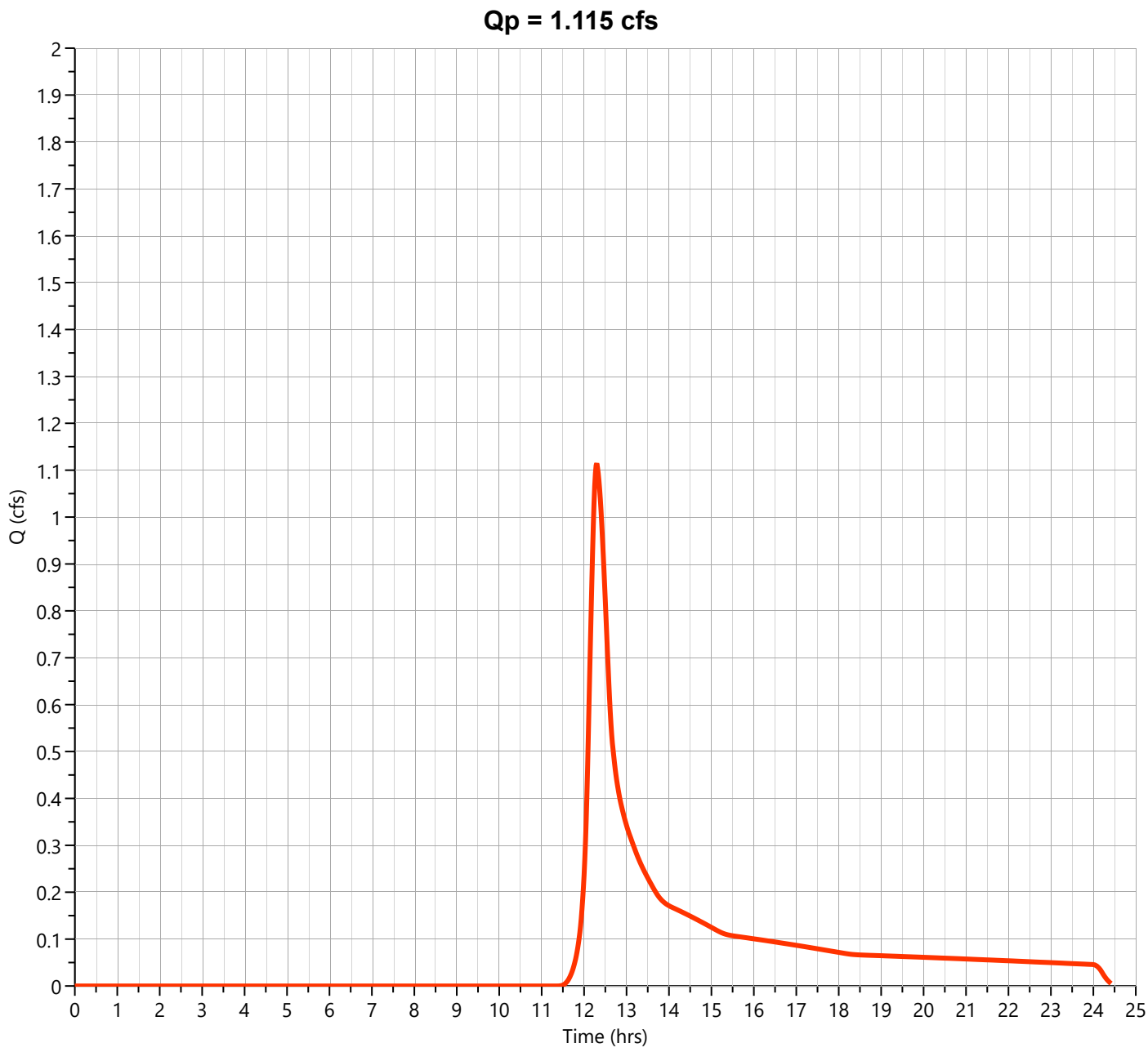
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.001 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.53 hrs
Time Interval	= 1 min	Runoff Volume	= 23.6 cuft
Drainage Area	= 0.024 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 4

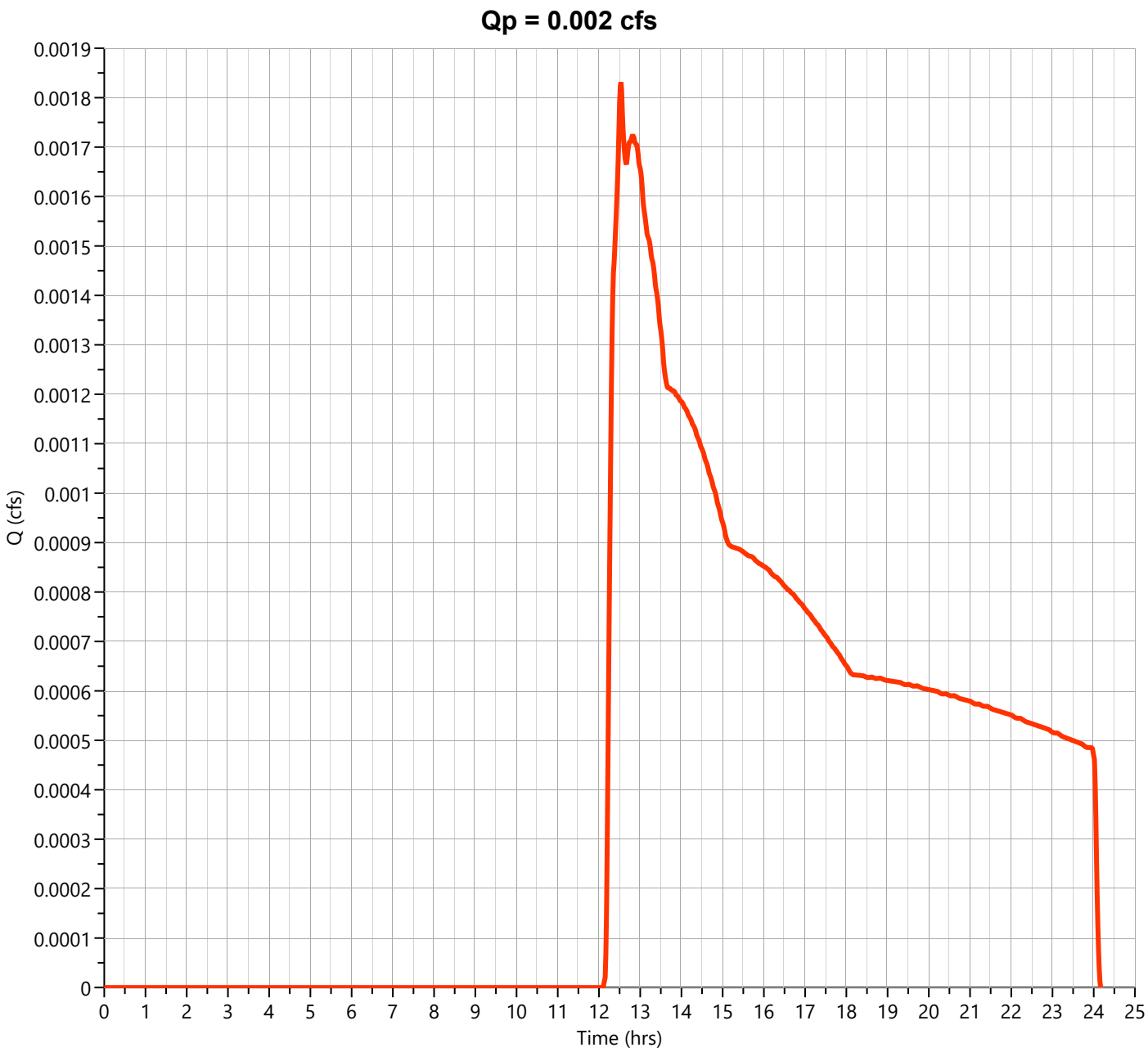
Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.115 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.30 hrs
Time Interval	= 1 min	Runoff Volume	= 6,182 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.3 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-12

Hyd. No. 5

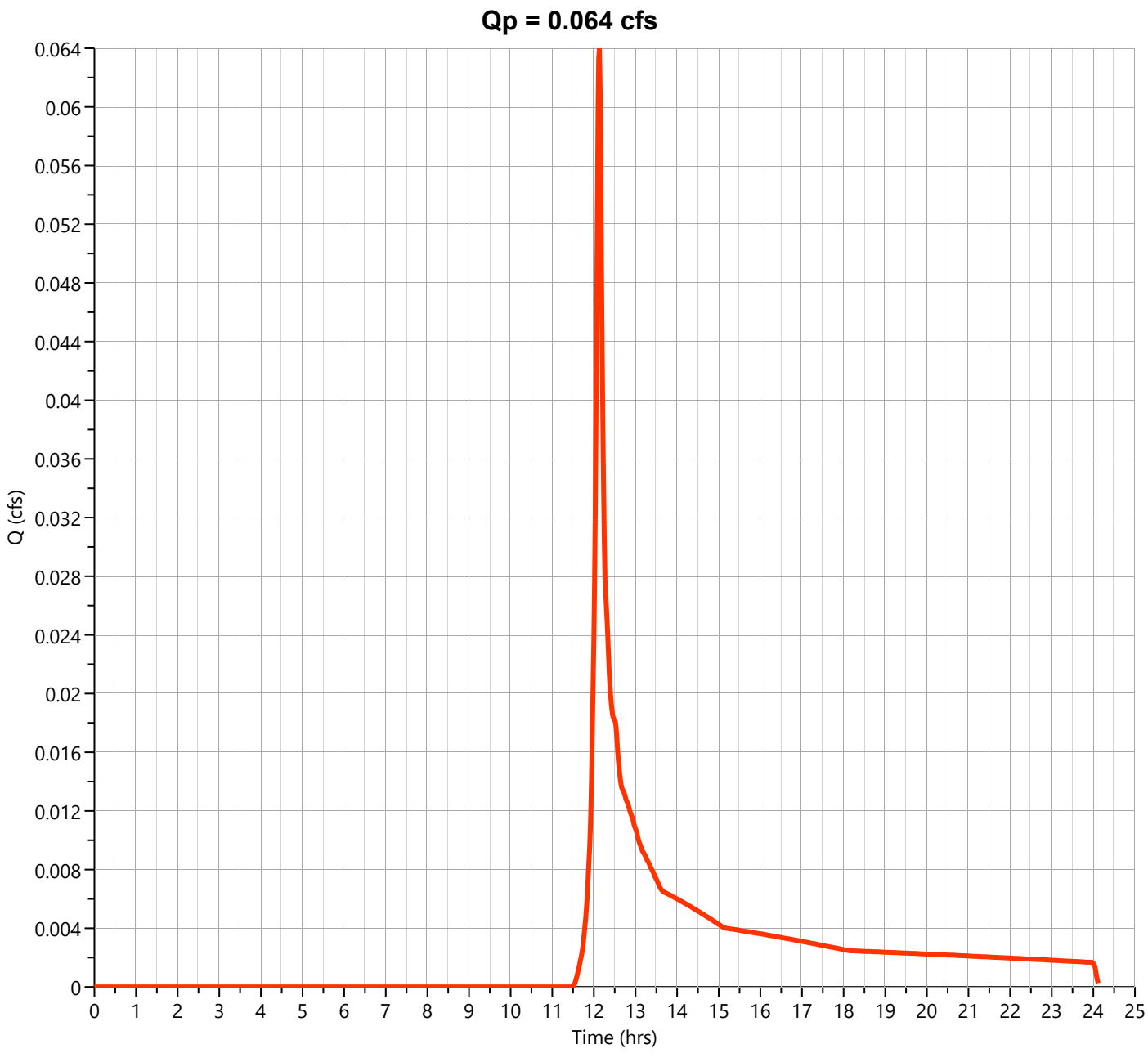
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.002 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.53 hrs
Time Interval	= 1 min	Runoff Volume	= 34.4 cuft
Drainage Area	= 0.035 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-11

Hyd. No. 6

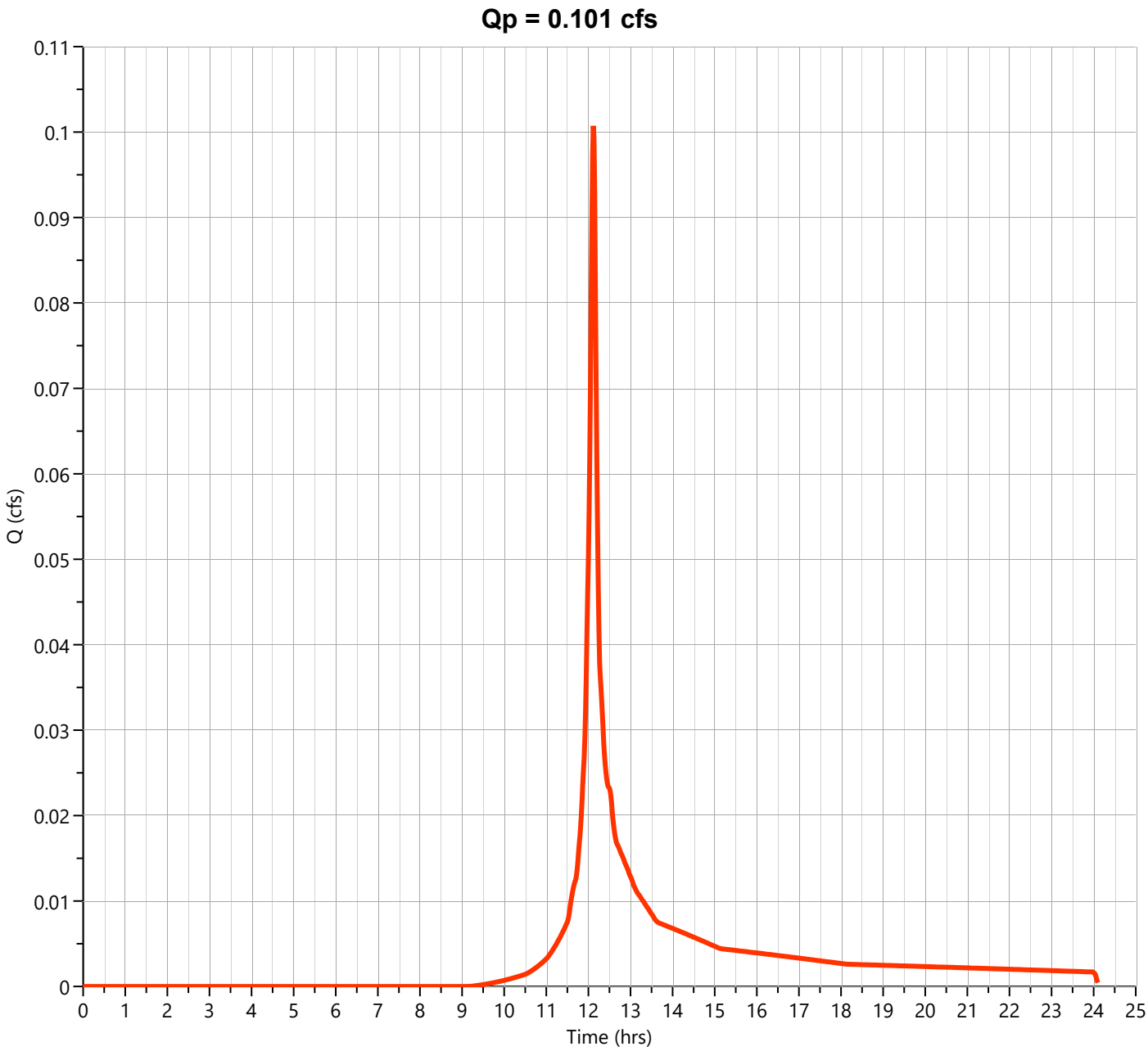
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.064 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.13 hrs
Time Interval	= 1 min	Runoff Volume	= 224 cuft
Drainage Area	= 0.053 ac	Curve Number	= 55.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-14

Hyd. No. 7

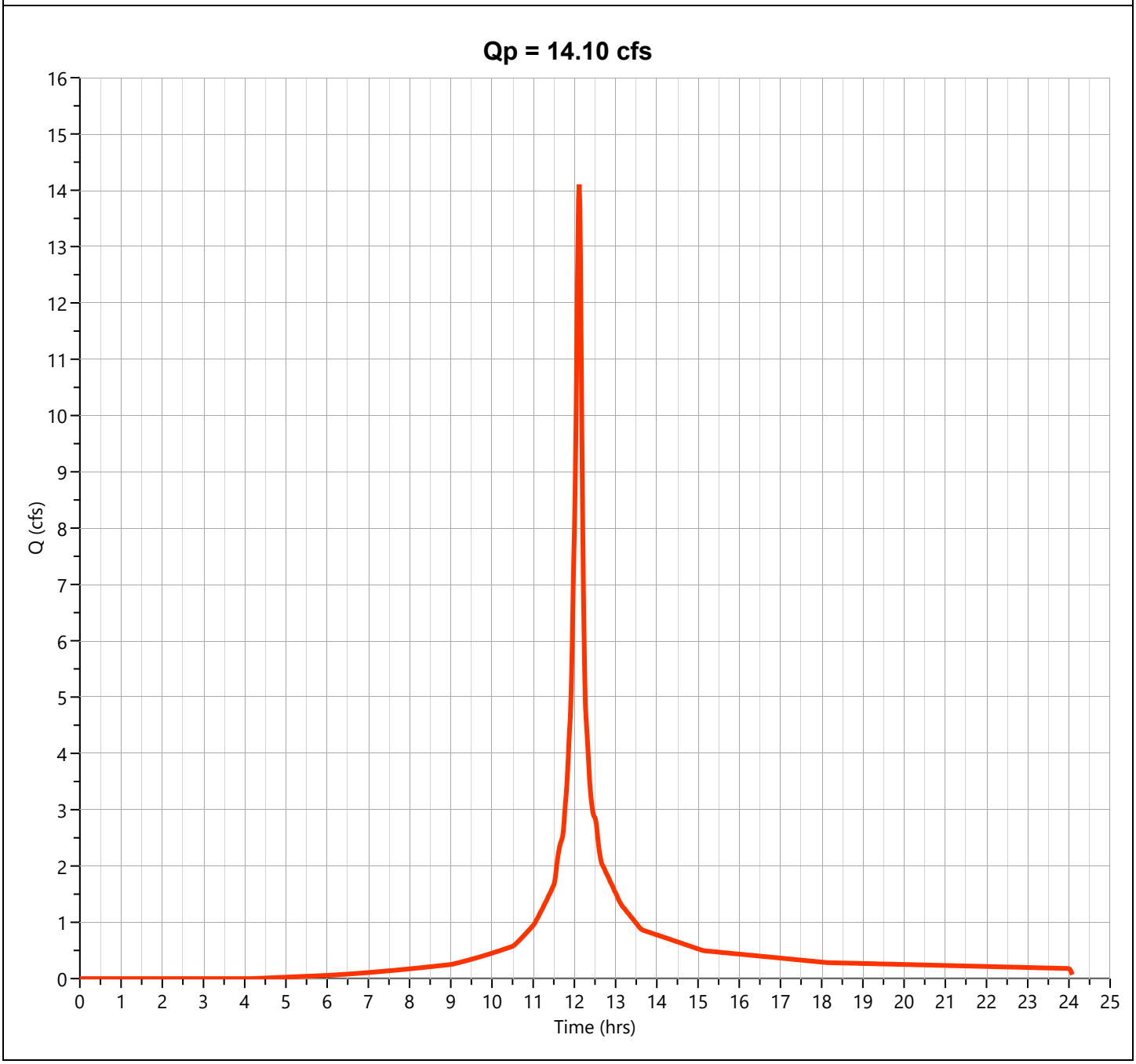
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.101 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 312 cuft
Drainage Area	= 0.037 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 5.29 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-1 to CM-10

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 14.10 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 45,503 cuft
Drainage Area	= 2.53 ac	Curve Number	= 85.00
Tc Method	= User	Time of Conc. (Tc)	= 6.0 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



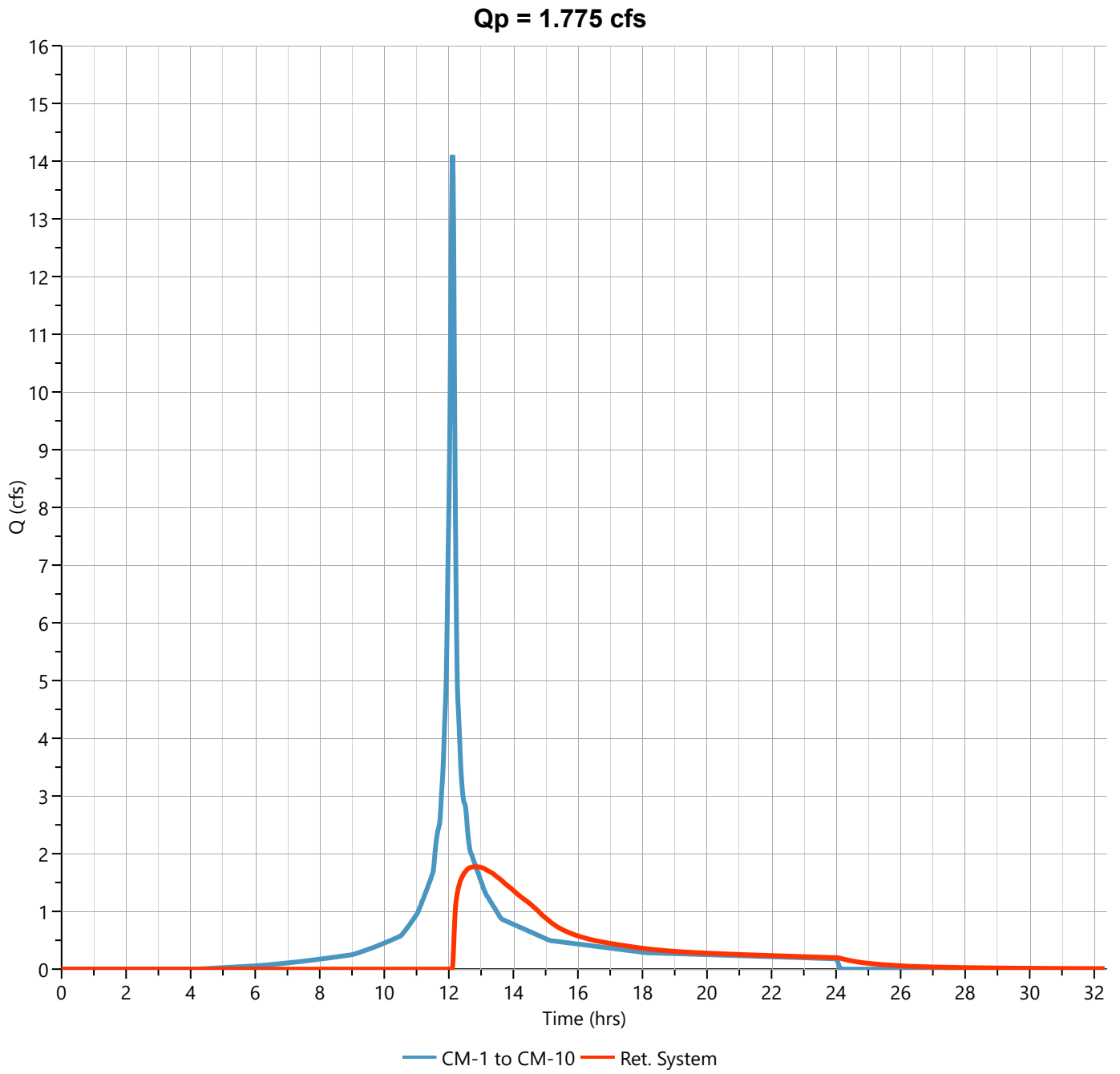
Ret. System

Hyd. No. 2

Hydrograph Type	= Pond Route	Peak Flow	= 1.775 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.83 hrs
Time Interval	= 1 min	Hydrograph Volume	= 27,626 cuft
Inflow Hydrograph	= 1 - CM-1 to CM-10	Max. Elevation	= 103.80 ft
Pond Name	= Retention System	Max. Storage	= 25,201 cuft

Pond Routing by Storage Indication Method

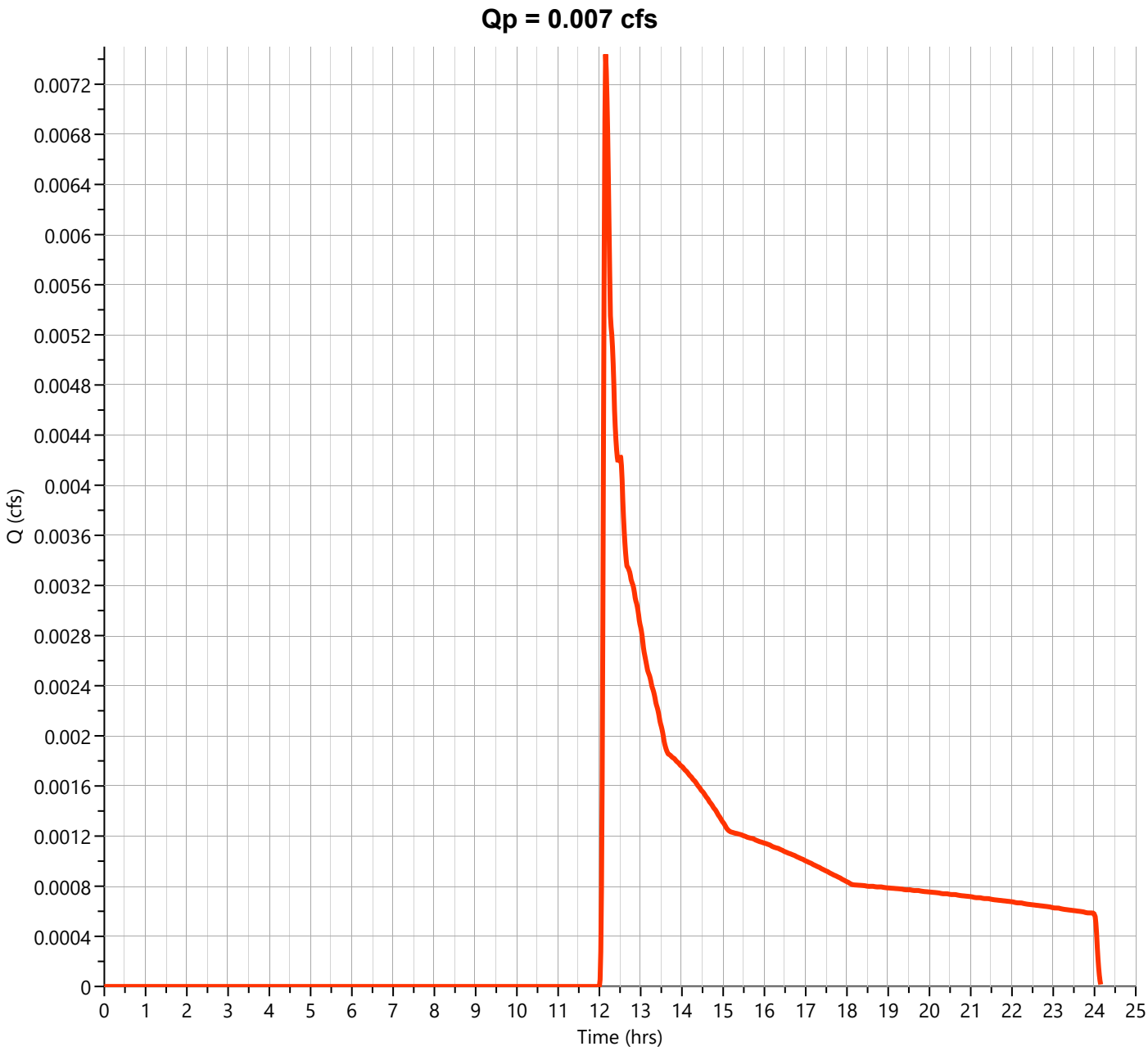
Center of mass detention time = 2.71 hrs



CM-13

Hyd. No. 3

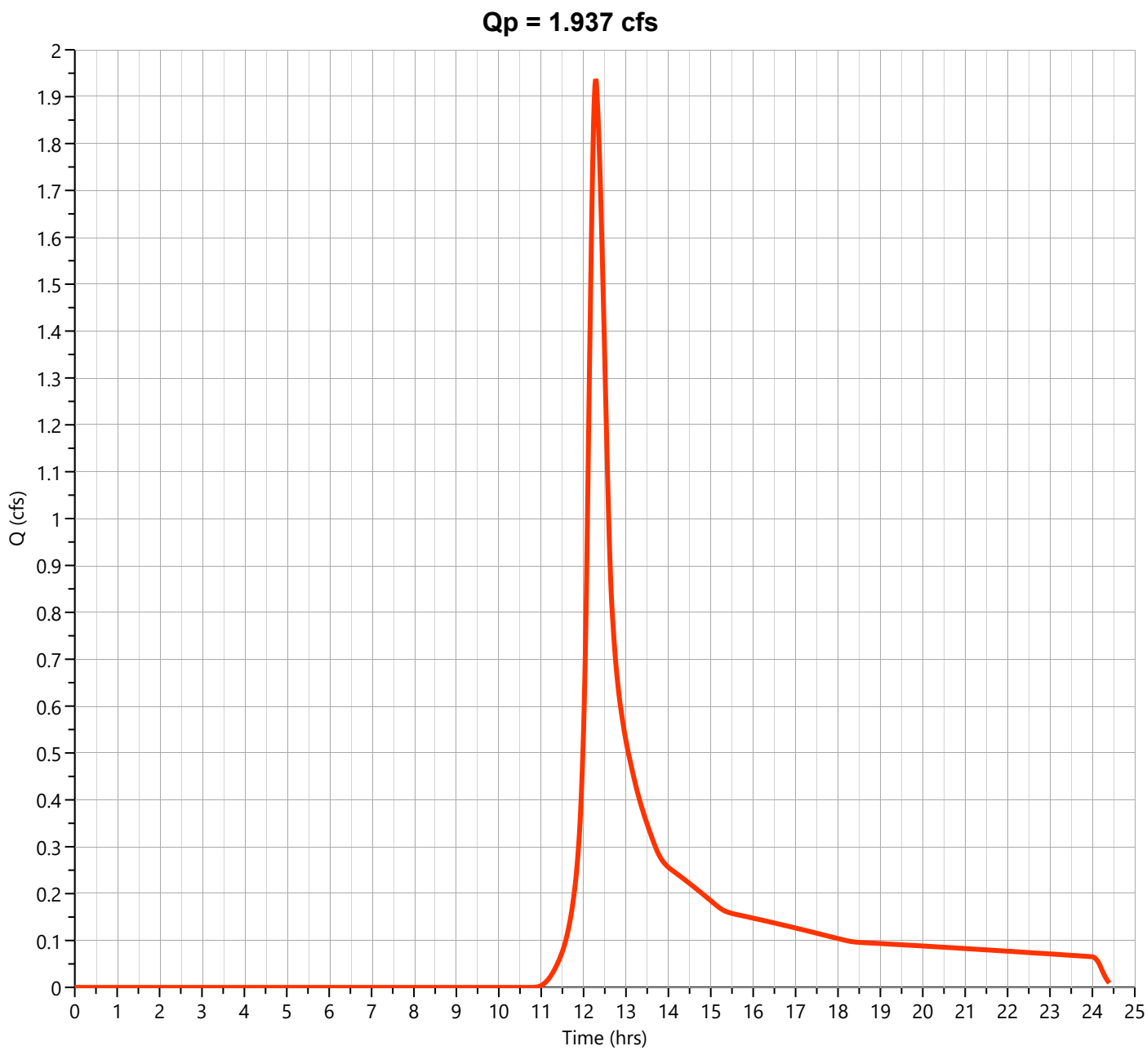
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.007 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.15 hrs
Time Interval	= 1 min	Runoff Volume	= 54.6 cuft
Drainage Area	= 0.024 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 4

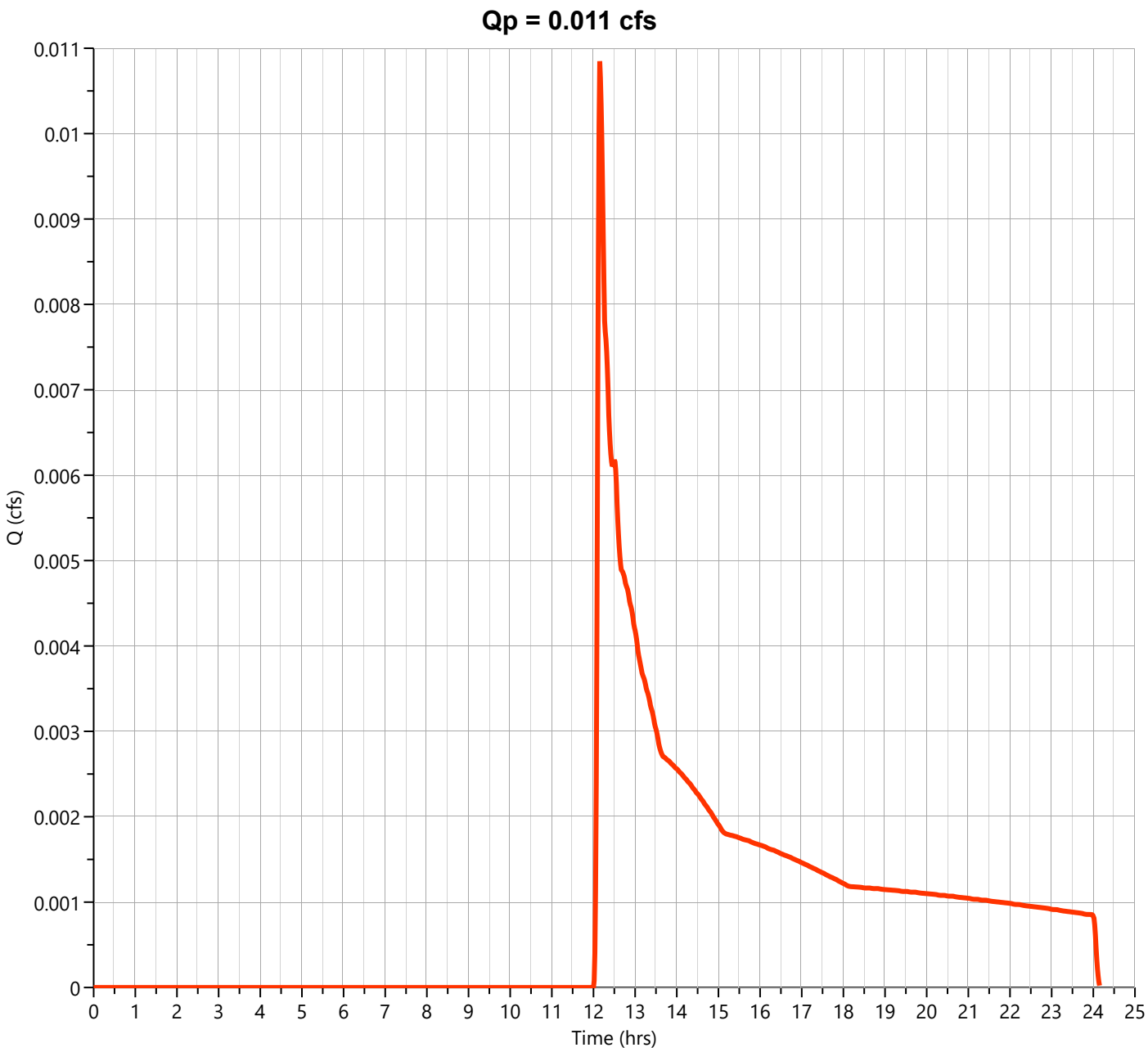
Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.937 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.28 hrs
Time Interval	= 1 min	Runoff Volume	= 9,928 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.3 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-12

Hyd. No. 5

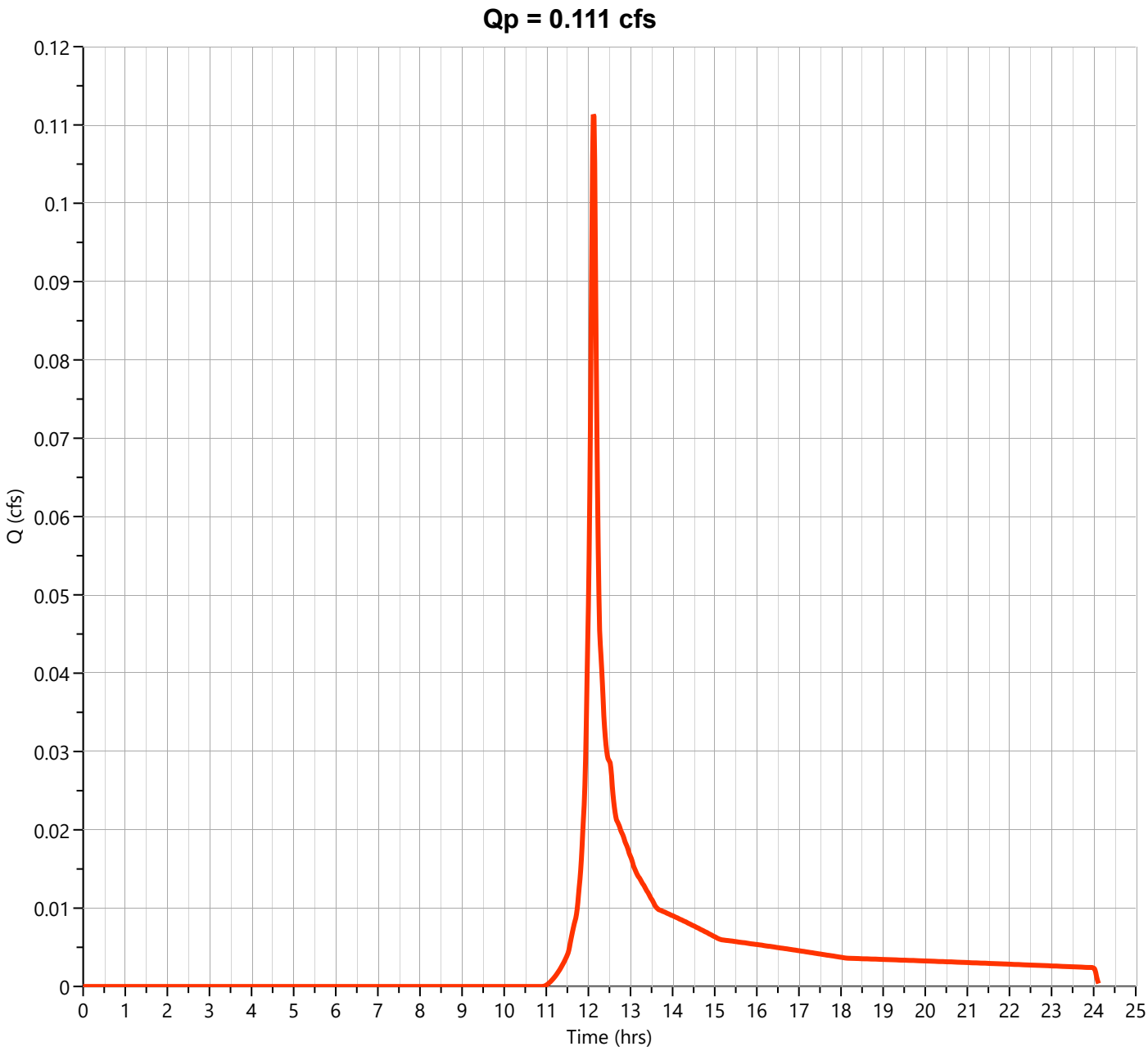
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.011 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.15 hrs
Time Interval	= 1 min	Runoff Volume	= 79.6 cuft
Drainage Area	= 0.035 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-11

Hyd. No. 6

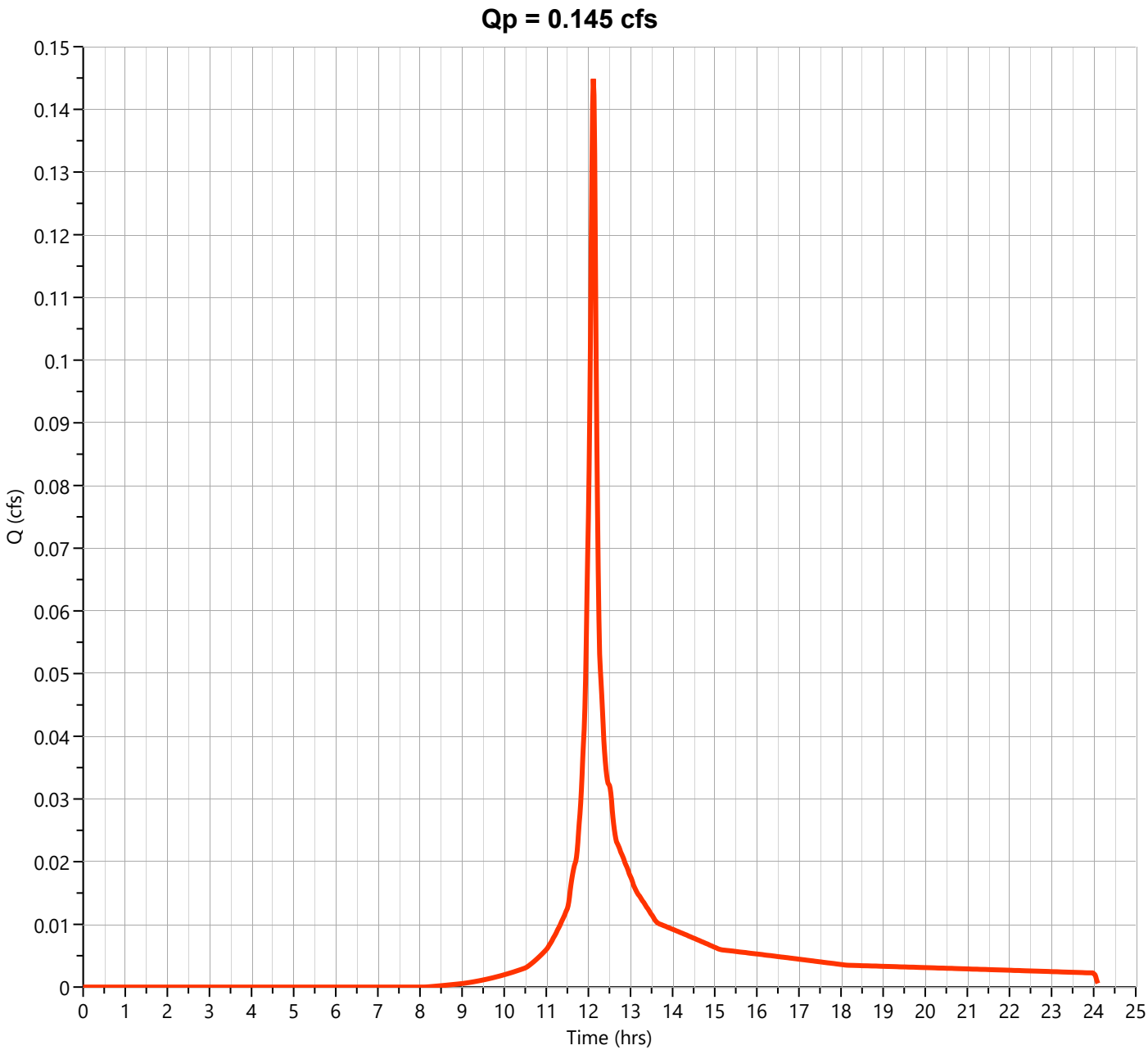
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.111 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 363 cuft
Drainage Area	= 0.053 ac	Curve Number	= 55.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-14

Hyd. No. 7

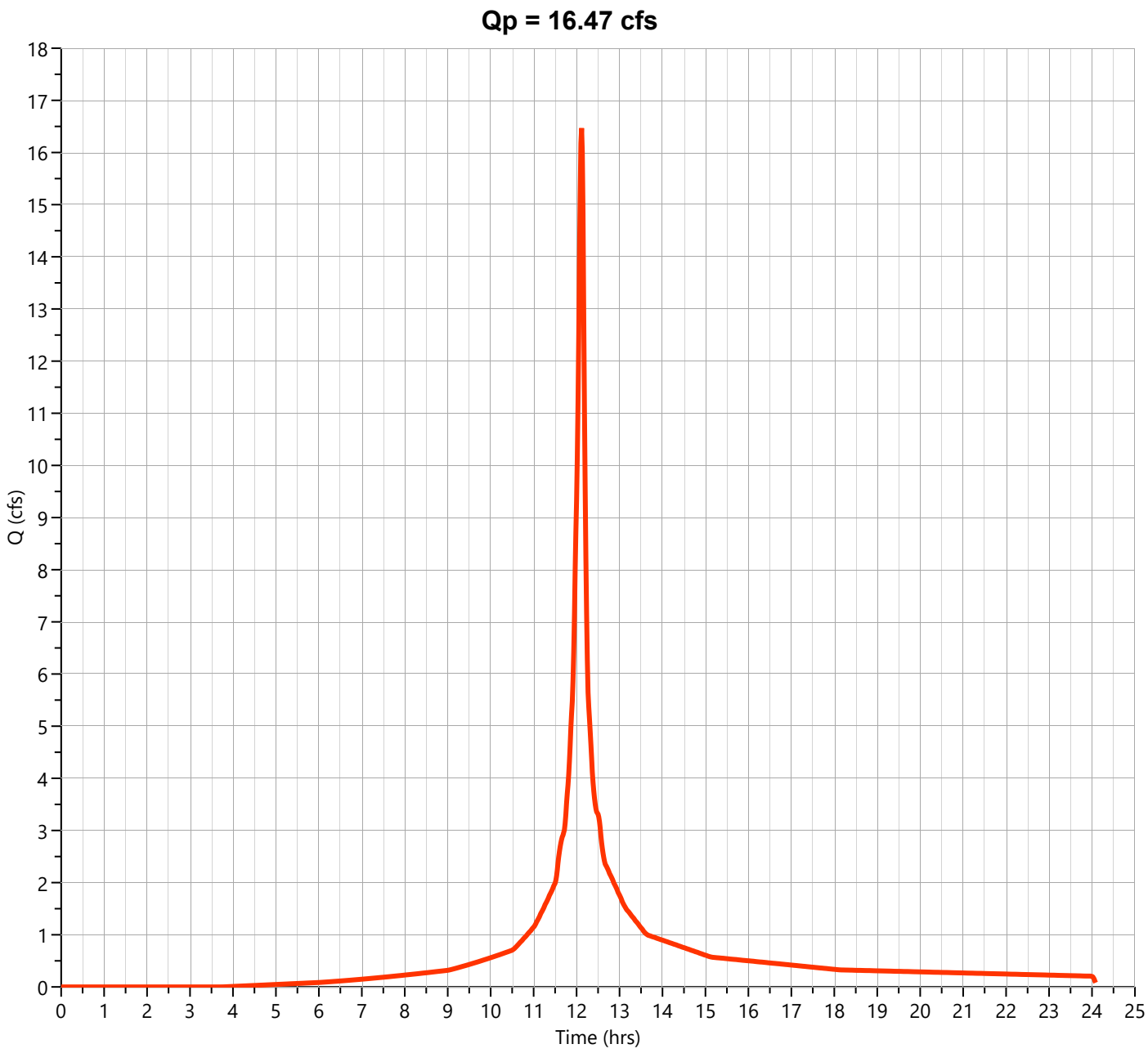
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.145 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 448 cuft
Drainage Area	= 0.037 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 6.53 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-1 to CM-10

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 16.47 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 53,649 cuft
Drainage Area	= 2.53 ac	Curve Number	= 85.00
Tc Method	= User	Time of Conc. (Tc)	= 6.0 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



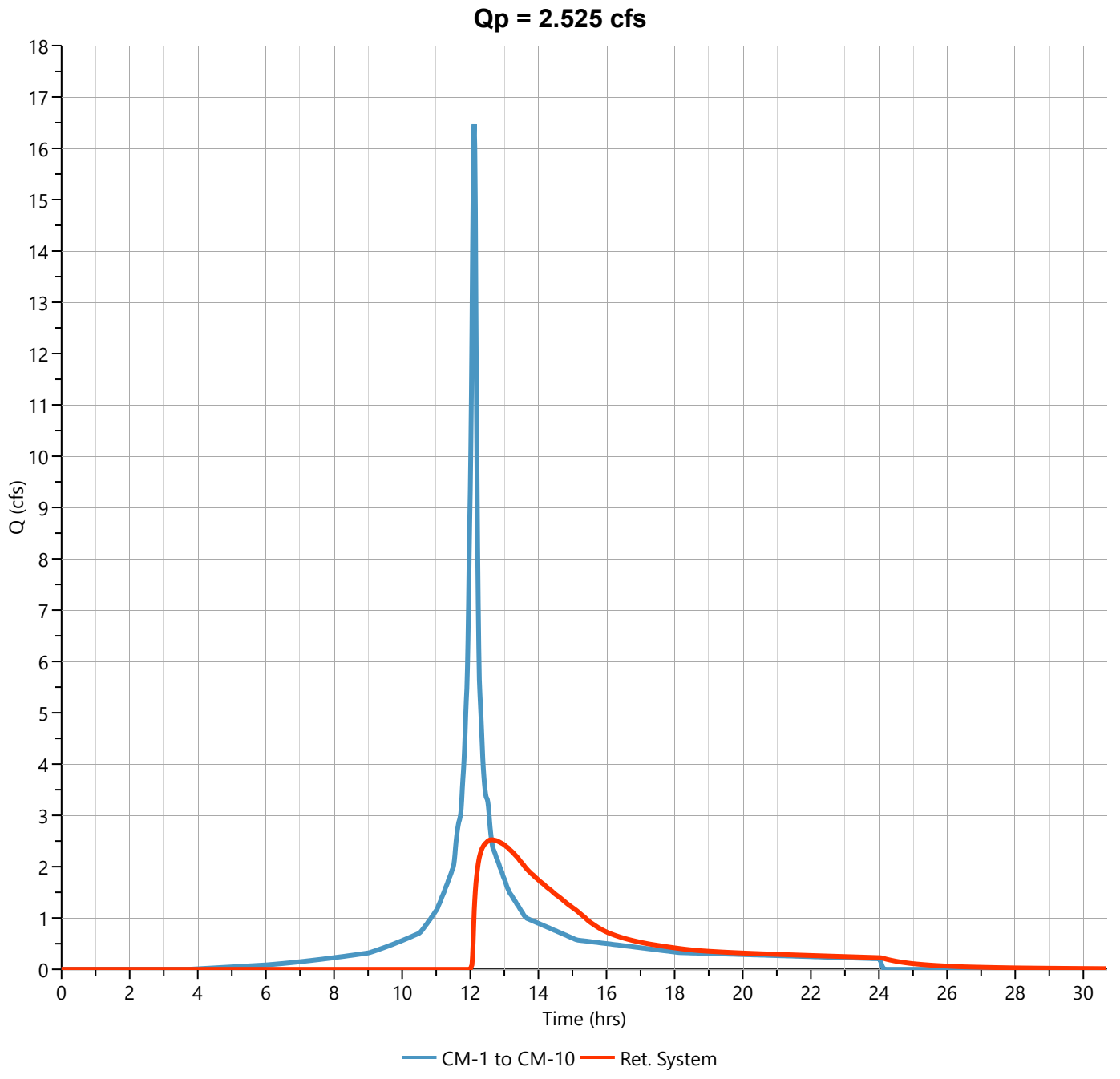
Ret. System

Hyd. No. 2

Hydrograph Type	= Pond Route	Peak Flow	= 2.525 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.62 hrs
Time Interval	= 1 min	Hydrograph Volume	= 35,771 cuft
Inflow Hydrograph	= 1 - CM-1 to CM-10	Max. Elevation	= 104.47 ft
Pond Name	= Retention System	Max. Storage	= 28,752 cuft

Pond Routing by Storage Indication Method

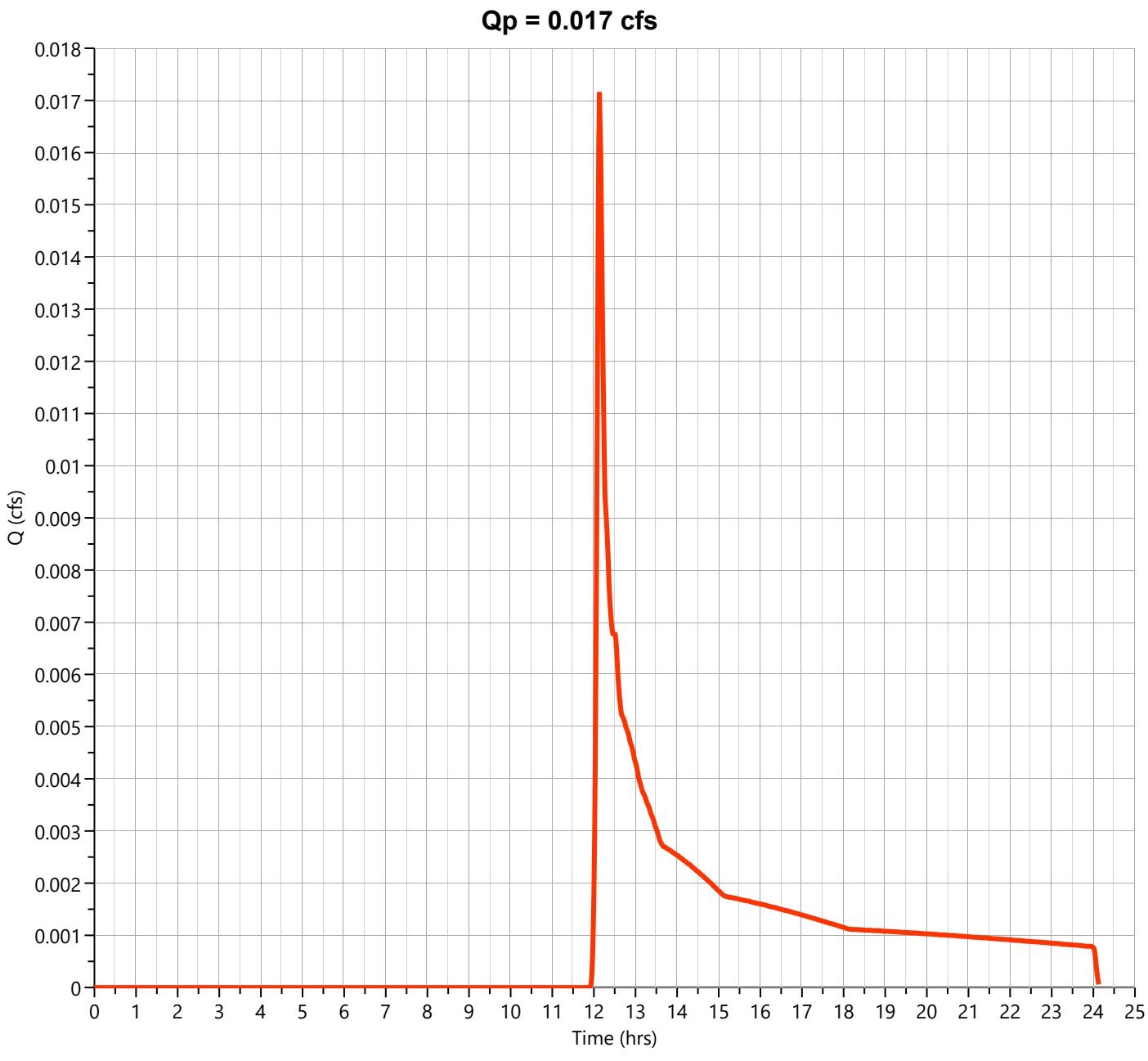
Center of mass detention time = 2.44 hrs



CM-13

Hyd. No. 3

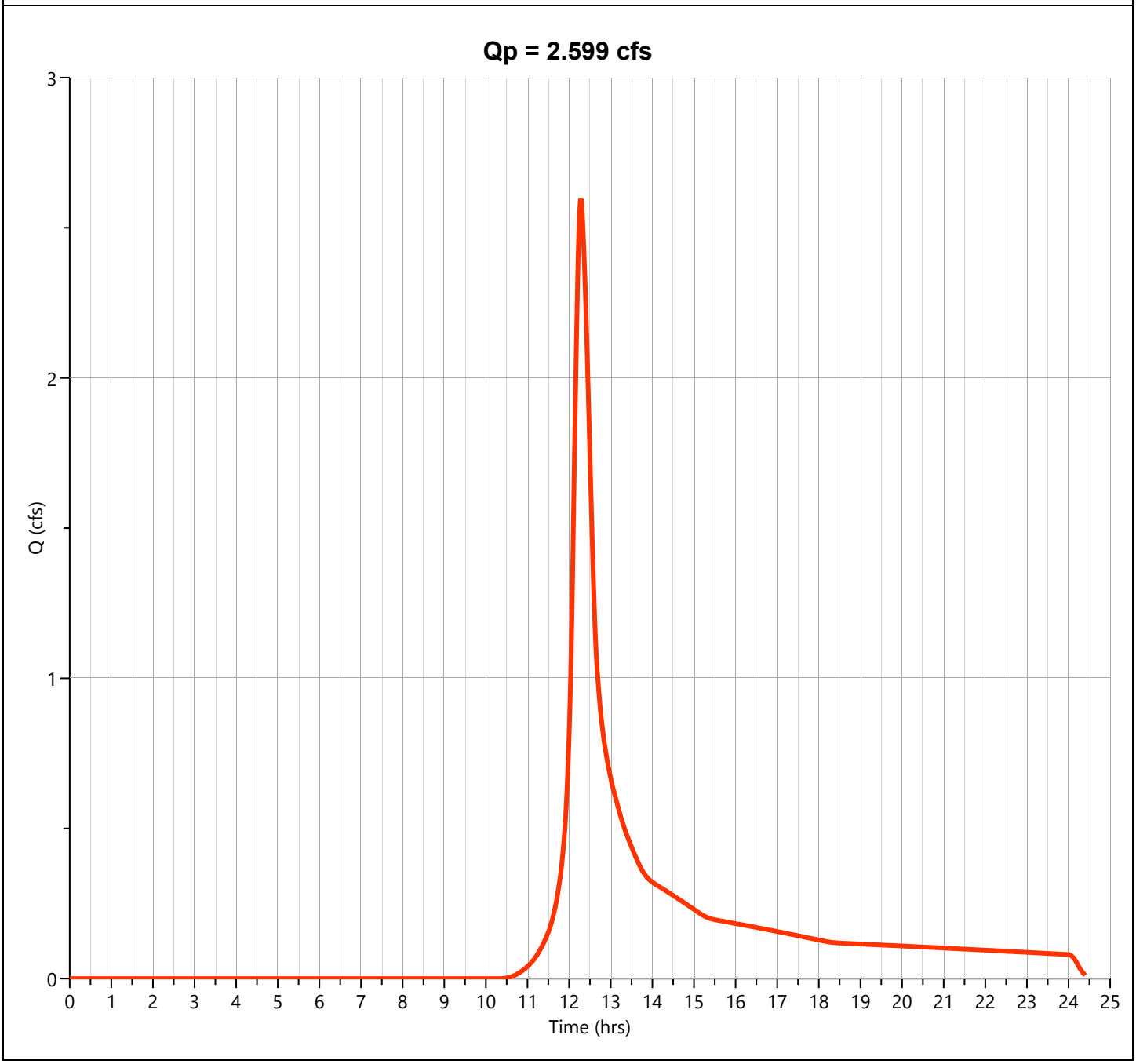
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.017 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.13 hrs
Time Interval	= 1 min	Runoff Volume	= 83.4 cuft
Drainage Area	= 0.024 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 4

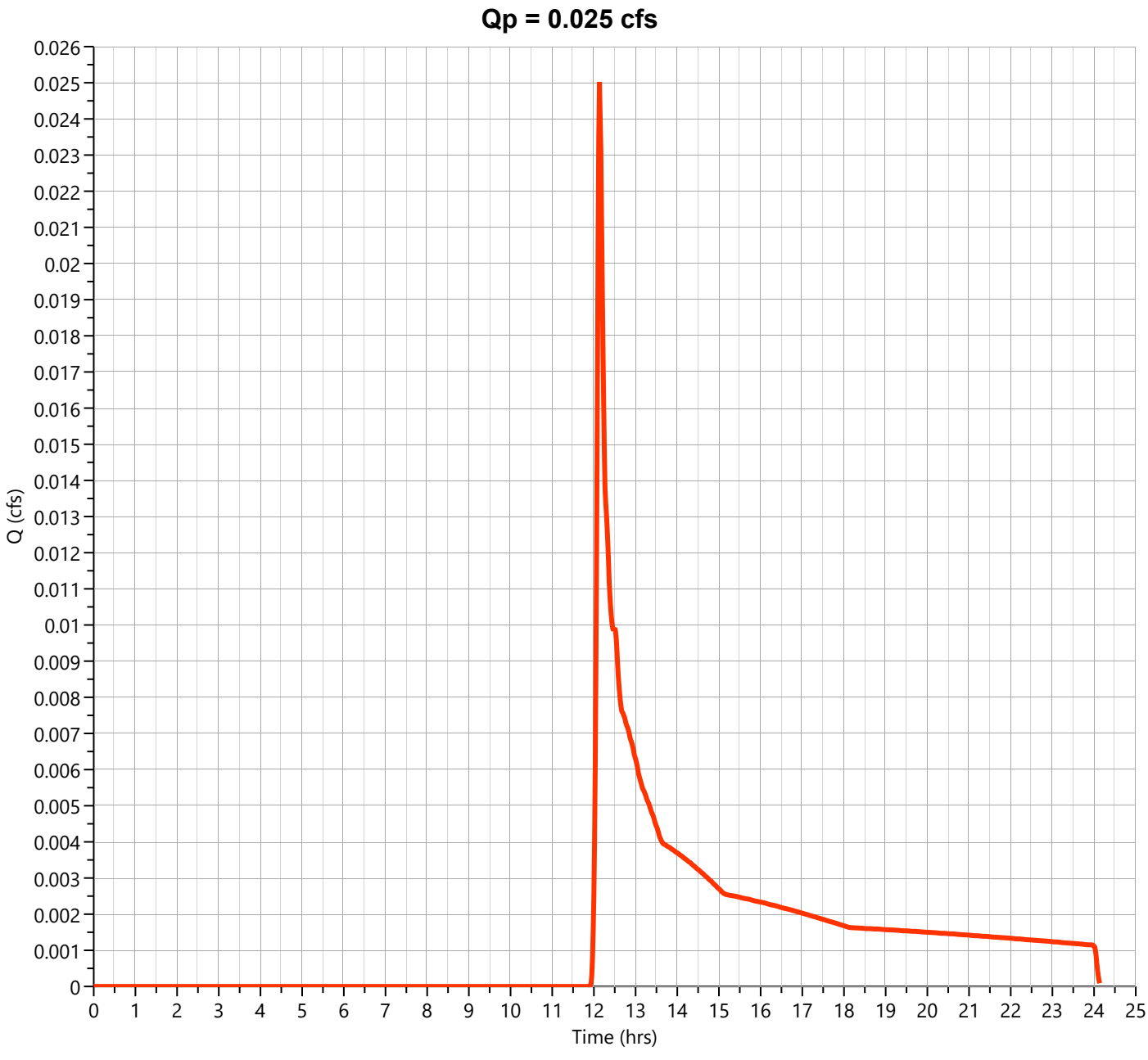
Hydrograph Type	= NRCS Runoff	Peak Flow	= 2.599 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.28 hrs
Time Interval	= 1 min	Runoff Volume	= 12,950 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.3 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-12

Hyd. No. 5

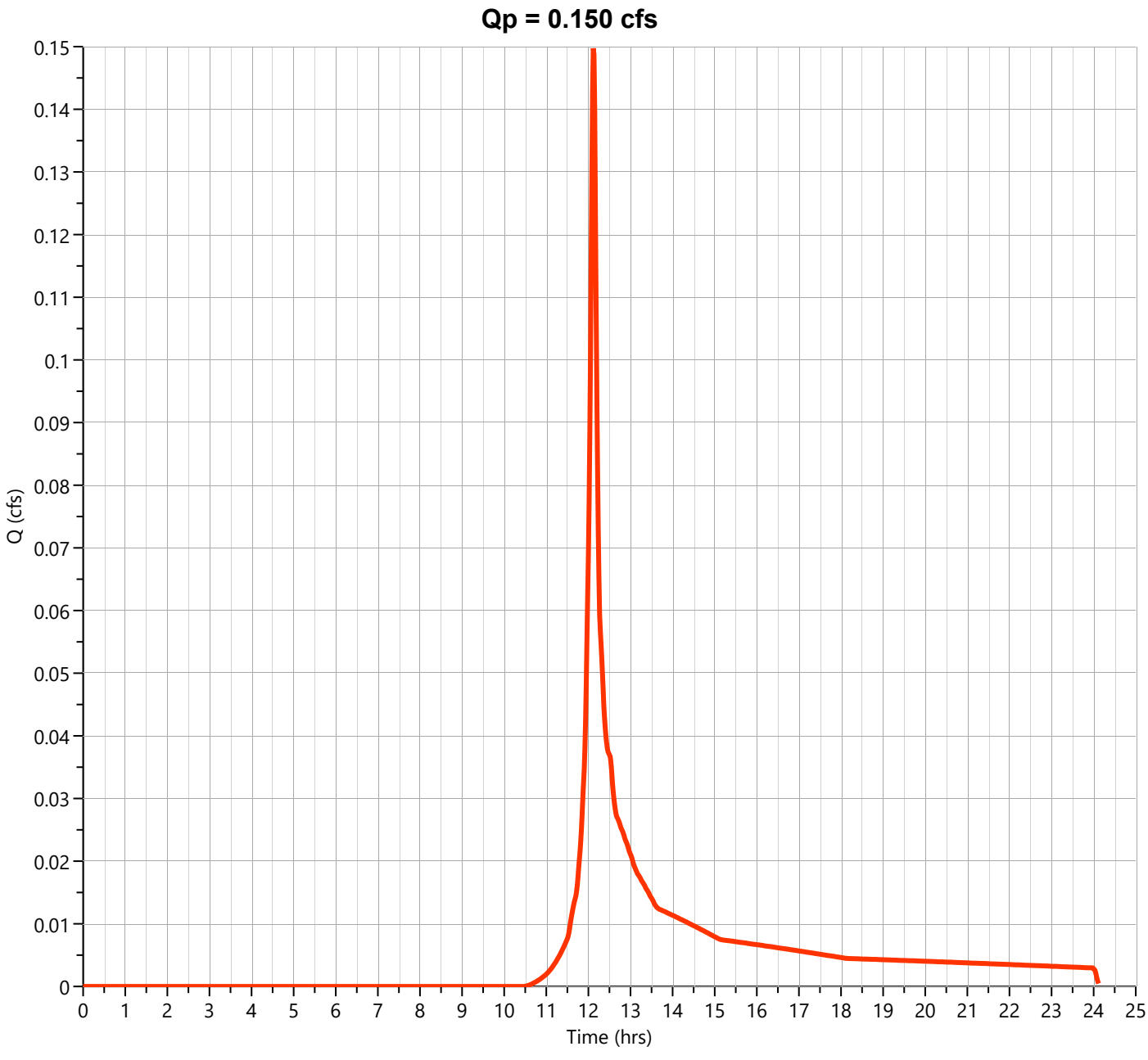
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.025 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.13 hrs
Time Interval	= 1 min	Runoff Volume	= 122 cuft
Drainage Area	= 0.035 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-11

Hyd. No. 6

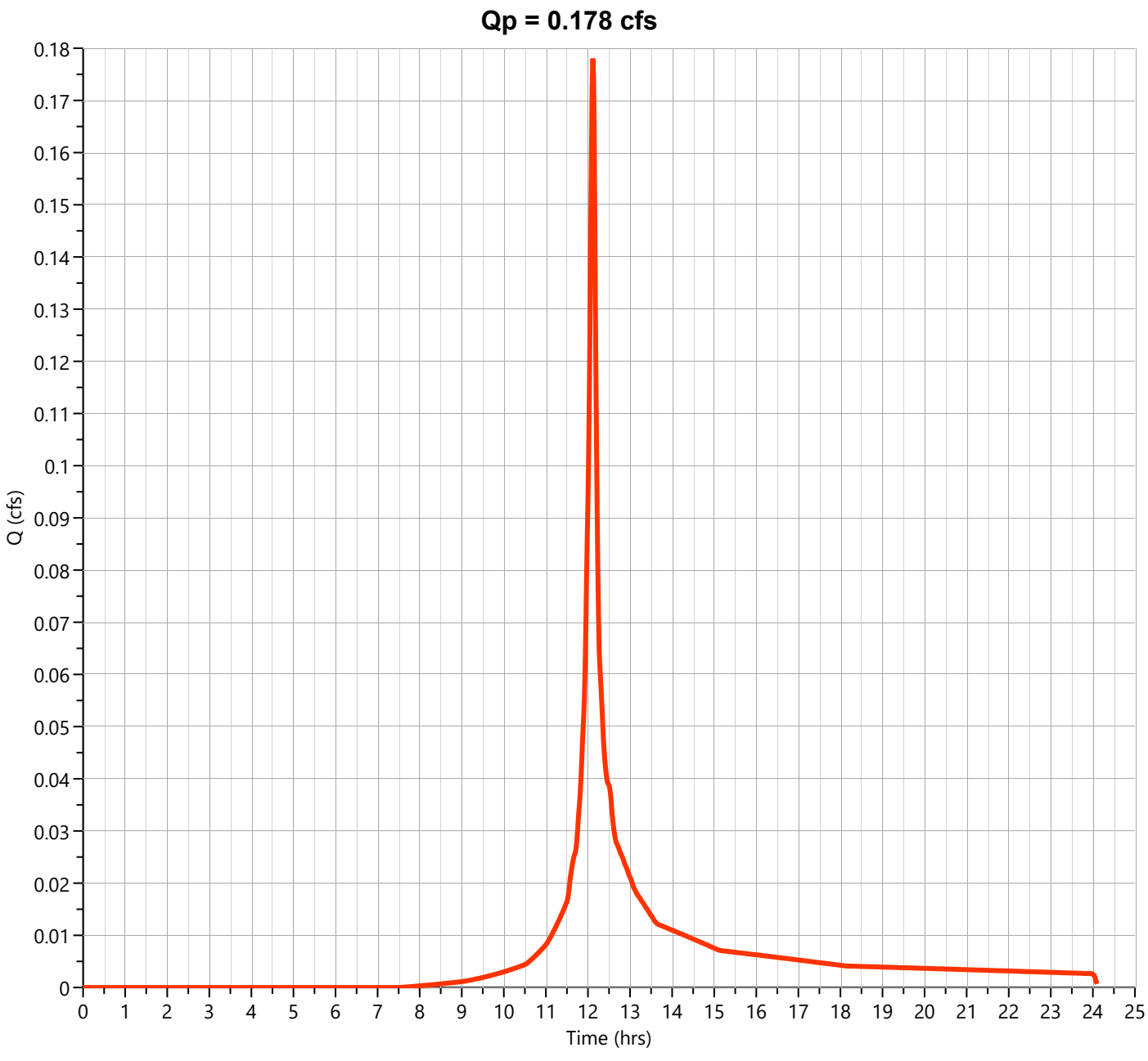
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.150 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 477 cuft
Drainage Area	= 0.053 ac	Curve Number	= 55.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-14

Hyd. No. 7

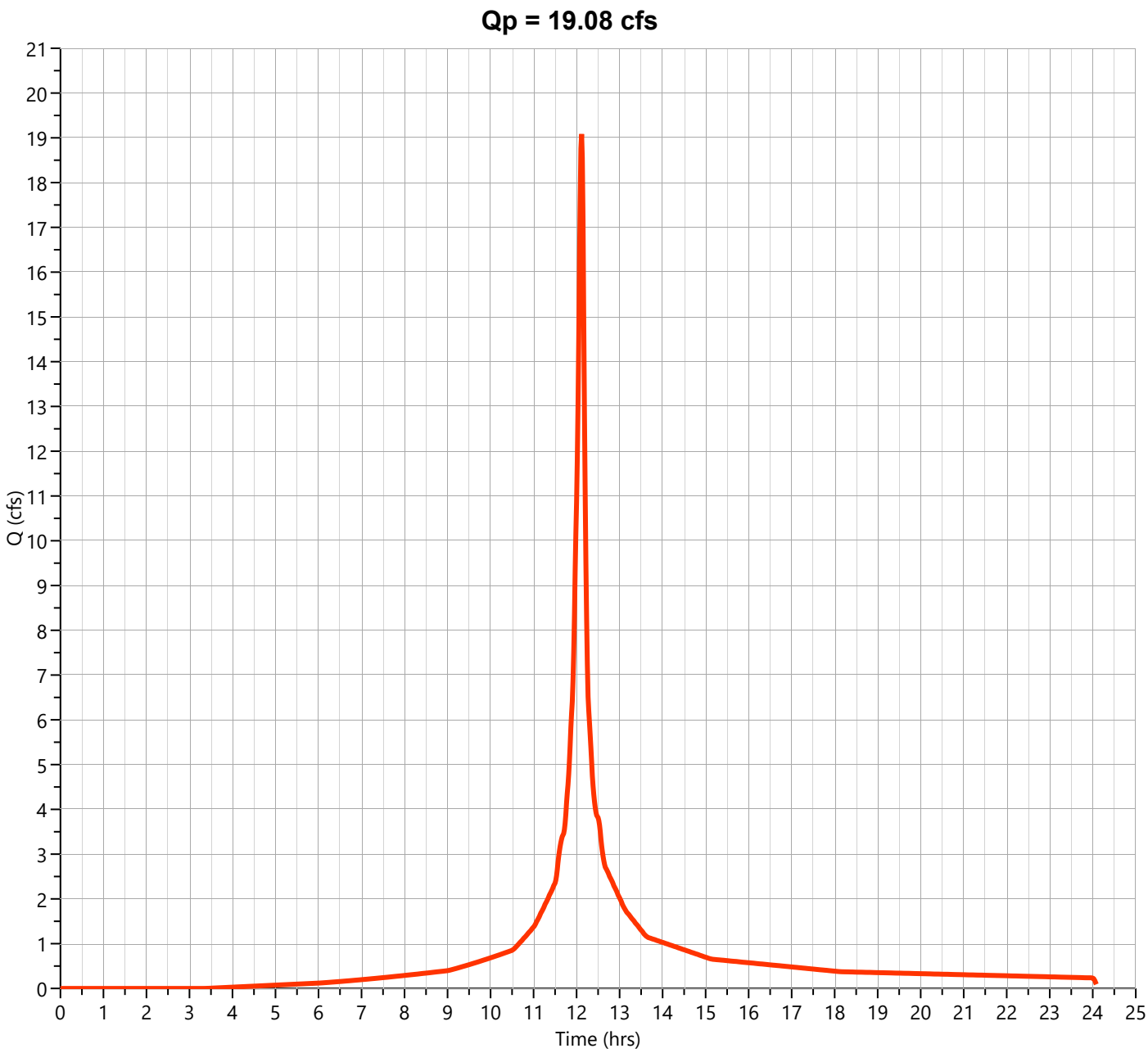
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.178 cfs
Storm Frequency	= 50-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 551 cuft
Drainage Area	= 0.037 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 7.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-1 to CM-10

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 19.08 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 62,780 cuft
Drainage Area	= 2.53 ac	Curve Number	= 85.00
Tc Method	= User	Time of Conc. (Tc)	= 6.0 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



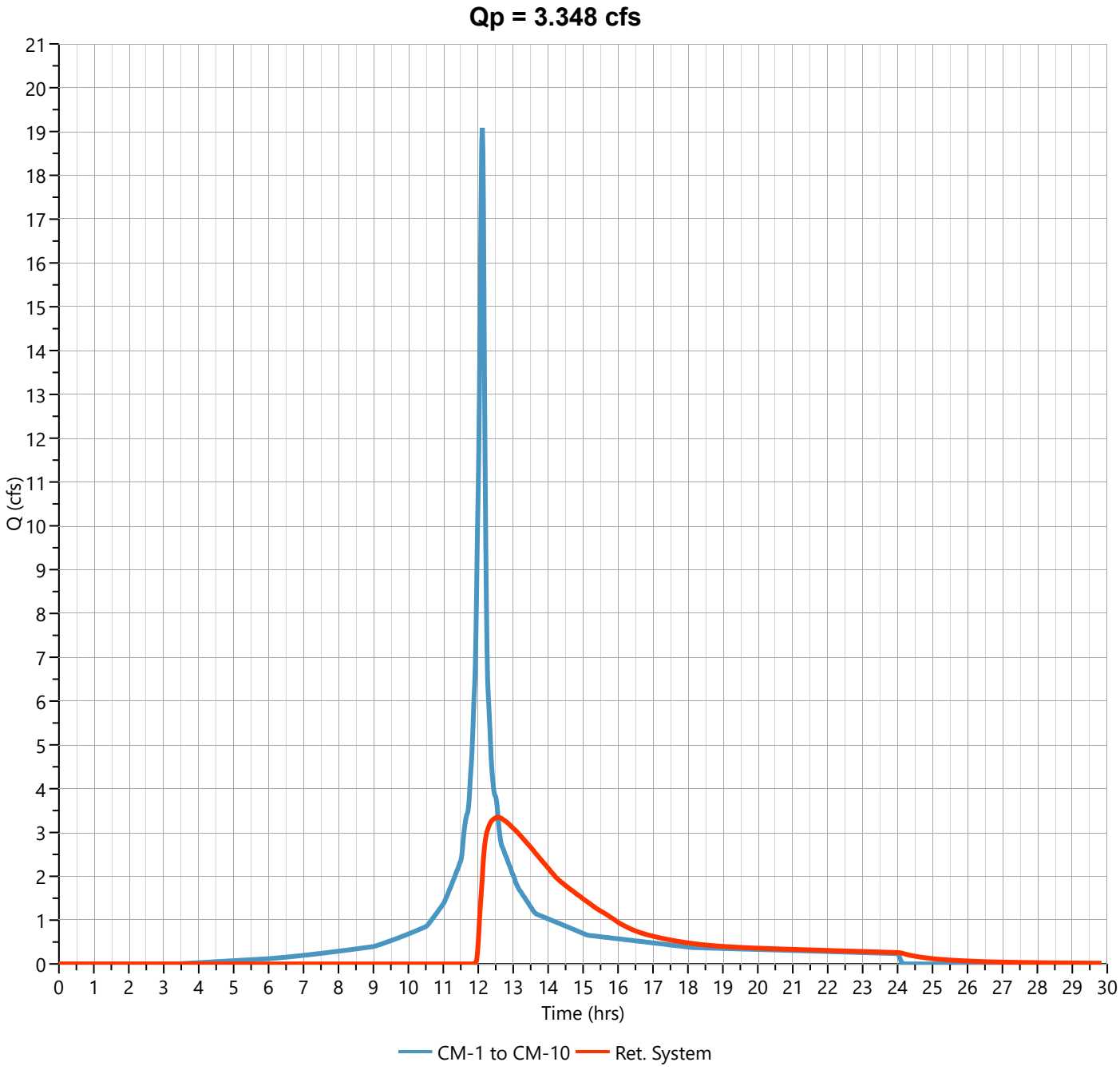
Ret. System

Hyd. No. 2

Hydrograph Type	= Pond Route	Peak Flow	= 3.348 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.57 hrs
Time Interval	= 1 min	Hydrograph Volume	= 44,902 cuft
Inflow Hydrograph	= 1 - CM-1 to CM-10	Max. Elevation	= 105.44 ft
Pond Name	= Retention System	Max. Storage	= 32,880 cuft

Pond Routing by Storage Indication Method

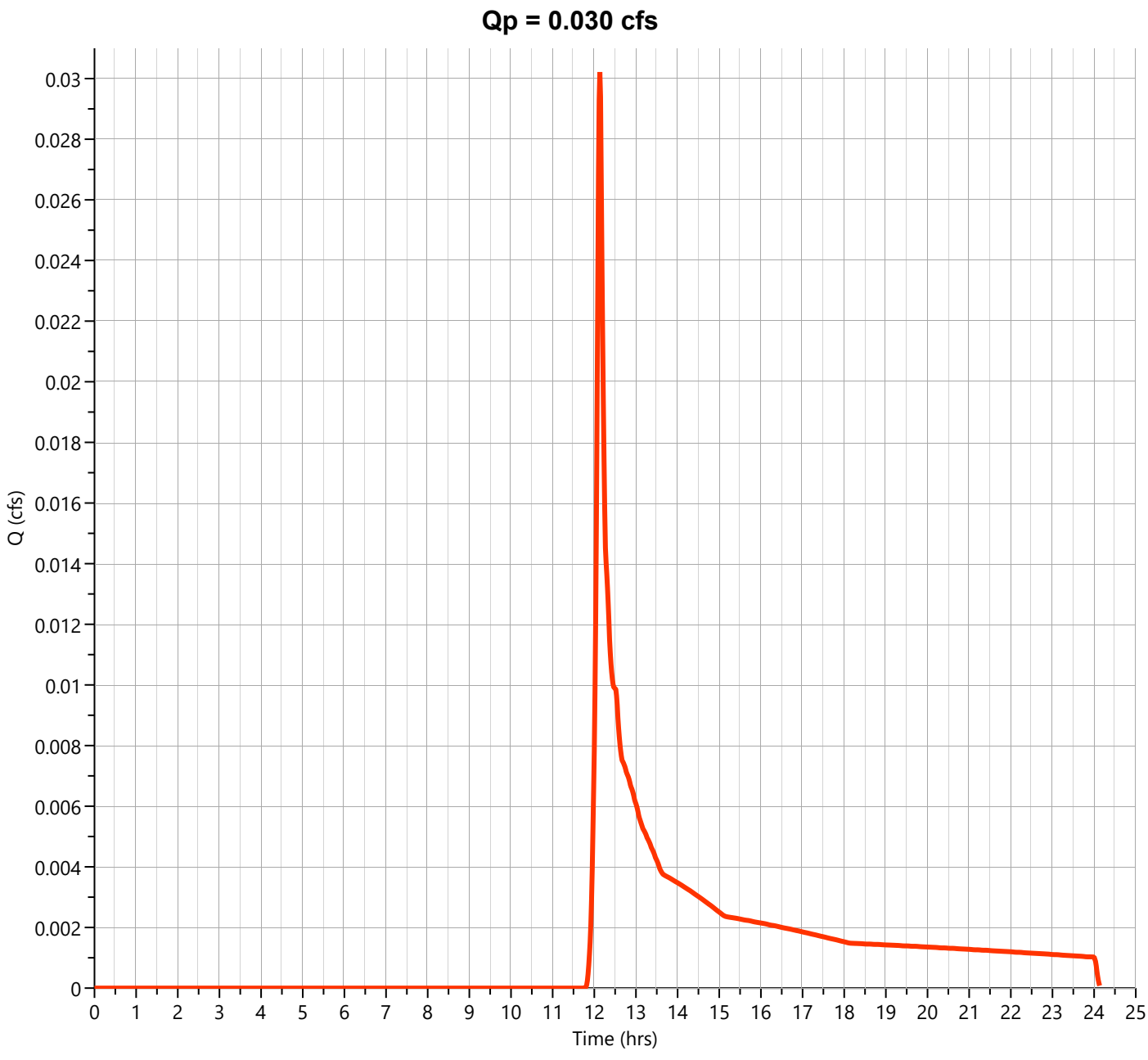
Center of mass detention time = 2.28 hrs



CM-13

Hyd. No. 3

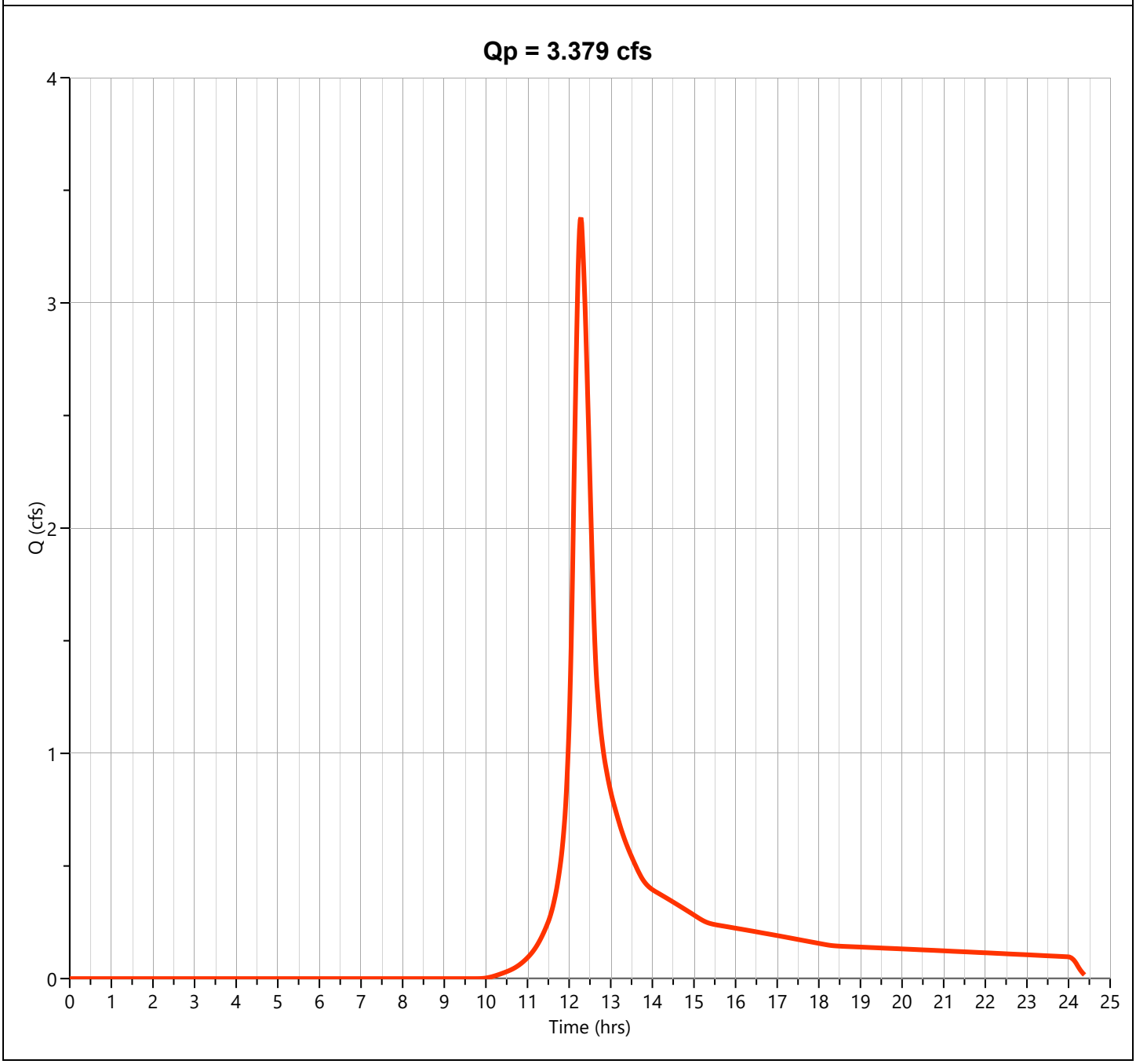
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.030 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.13 hrs
Time Interval	= 1 min	Runoff Volume	= 121 cuft
Drainage Area	= 0.024 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



EX-3

Hyd. No. 4

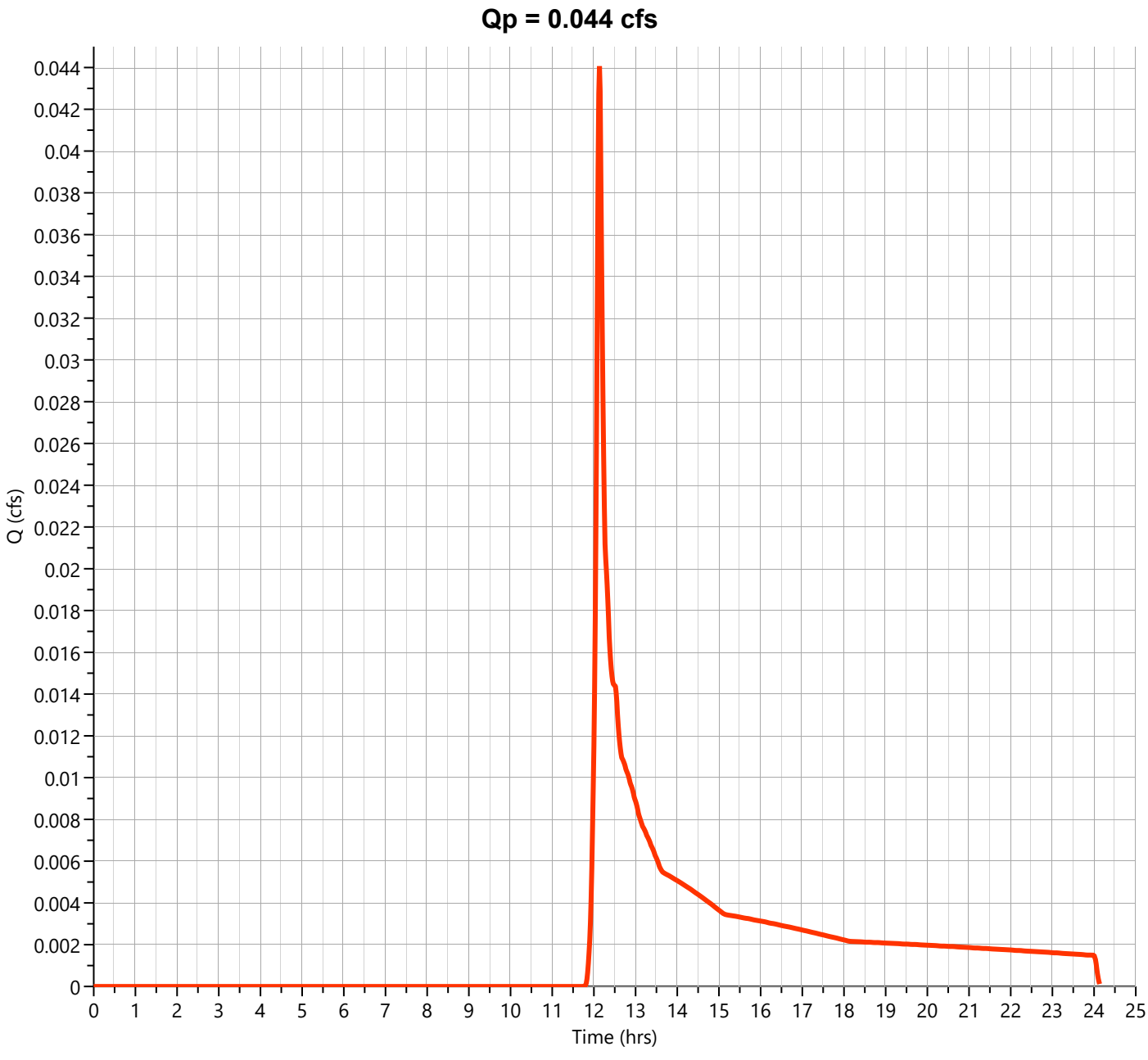
Hydrograph Type	= NRCS Runoff	Peak Flow	= 3.379 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.28 hrs
Time Interval	= 1 min	Runoff Volume	= 16,542 cuft
Drainage Area	= 1.412 ac	Curve Number	= 56.00
Tc Method	= User	Time of Conc. (Tc)	= 21.3 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-12

Hyd. No. 5

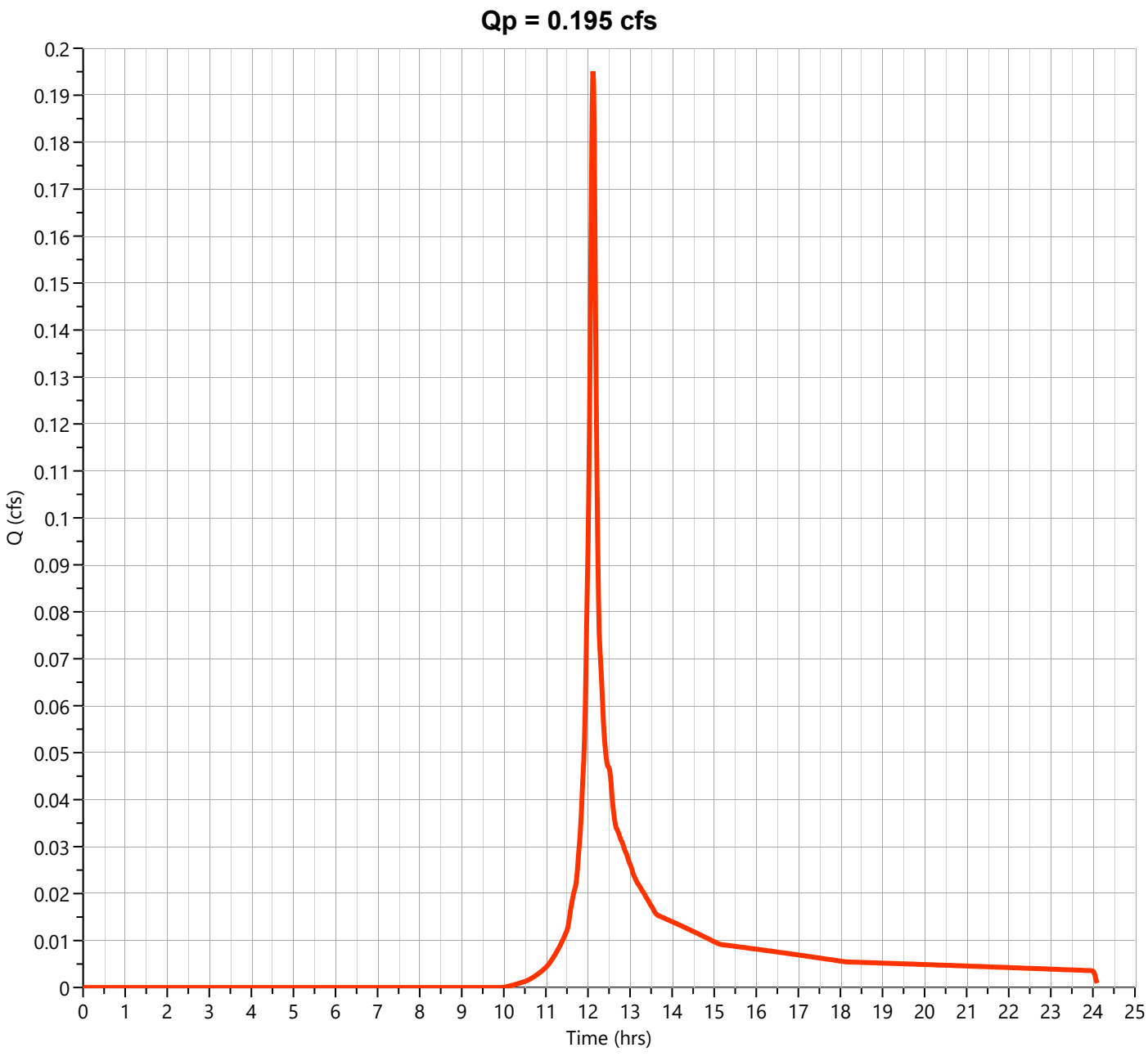
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.044 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.13 hrs
Time Interval	= 1 min	Runoff Volume	= 176 cuft
Drainage Area	= 0.035 ac	Curve Number	= 39.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-11

Hyd. No. 6

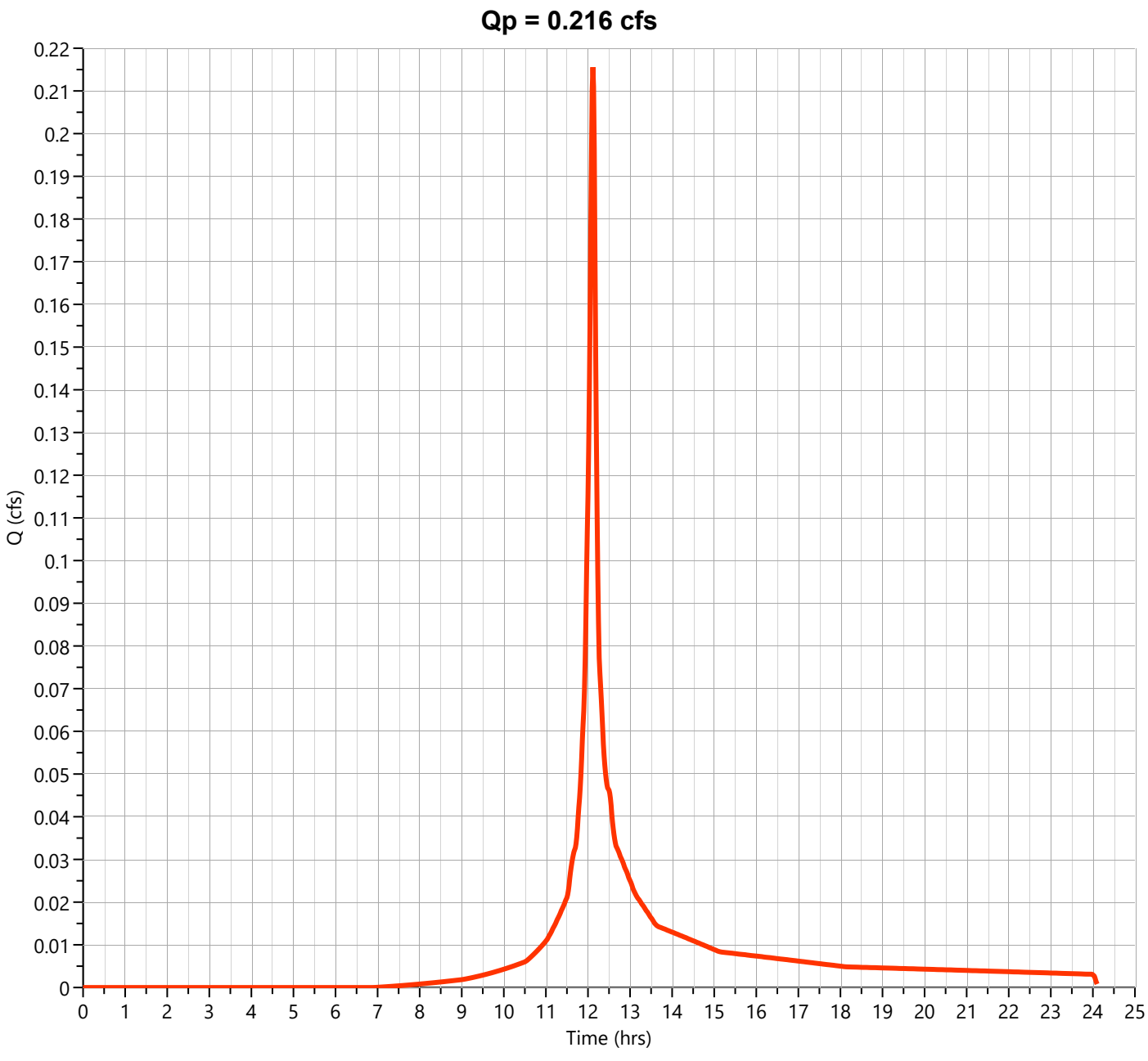
Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.195 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 611 cuft
Drainage Area	= 0.053 ac	Curve Number	= 55.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



CM-14

Hyd. No. 7

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.216 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.12 hrs
Time Interval	= 1 min	Runoff Volume	= 670 cuft
Drainage Area	= 0.037 ac	Curve Number	= 70.00
Tc Method	= User	Time of Conc. (Tc)	= 5.0 min
Total Rainfall	= 8.43 in	Design Storm	= NOAA-D
Storm Duration	= 24 hrs	Shape Factor	= 484



IDF Report

IDF filename: 24122 - Louis St.idf

Hydrology Studio v 3.0.0.40

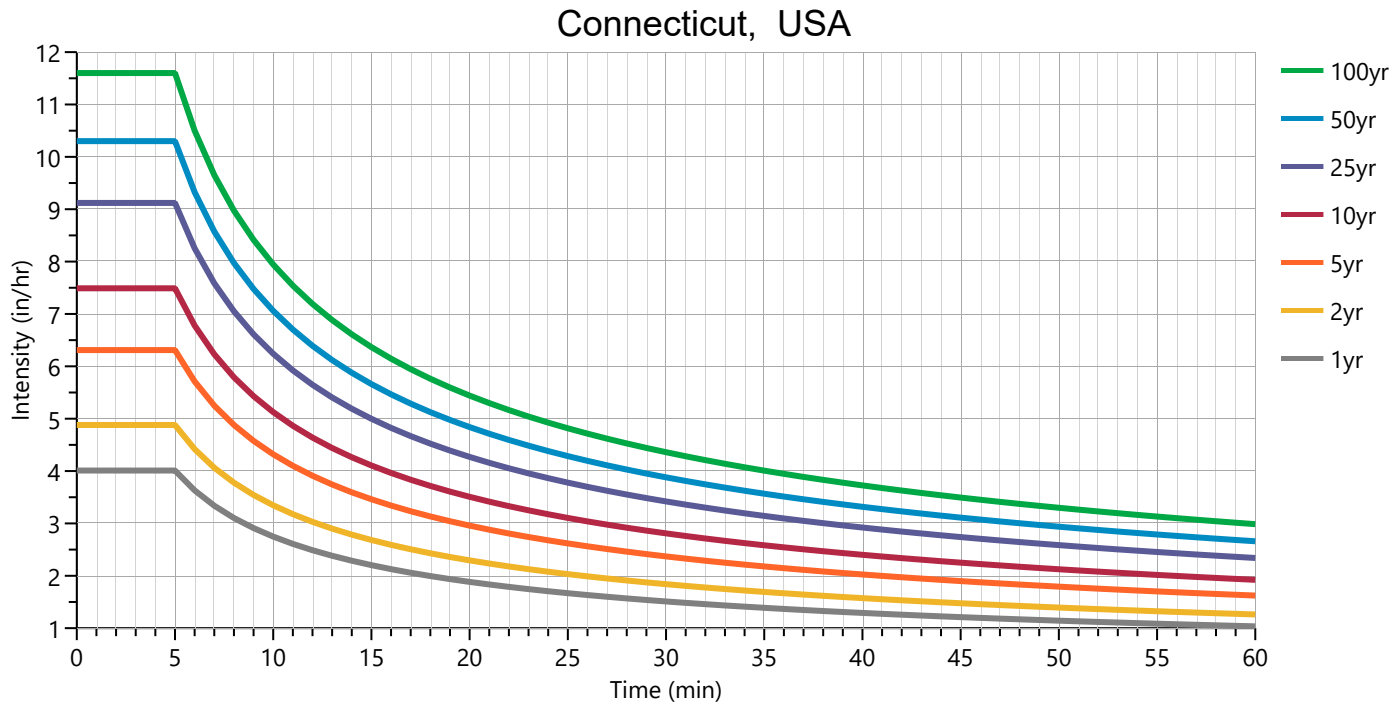
11-18-2025

Equation Coefficients	Intensity = B / (Tc + D)^E (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
B	9.6416	11.7197	0.0000	15.2067	18.0689	22.0099	24.7570	27.9374	
D	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
E	0.5451	0.5444	0.0000	0.5465	0.5472	0.5474	0.5449	0.5461	

Minimum Tc = 5 minutes

Tc (min)	Intensity Values (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Cf	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
5	4.01	4.88	0	6.31	7.49	9.12	10.30	11.60	
10	2.75	3.35	0	4.32	5.13	6.24	7.06	7.94	
15	2.20	2.68	0	3.46	4.11	5.00	5.66	6.37	
20	1.88	2.29	0	2.96	3.51	4.27	4.84	5.44	
25	1.67	2.03	0	2.62	3.10	3.78	4.29	4.82	
30	1.51	1.84	0	2.37	2.81	3.42	3.88	4.36	
35	1.39	1.69	0	2.18	2.58	3.14	3.57	4.01	
40	1.29	1.57	0	2.03	2.40	2.92	3.32	3.73	
45	1.21	1.48	0	1.90	2.25	2.74	3.11	3.49	
50	1.14	1.39	0	1.79	2.12	2.59	2.94	3.30	
55	1.09	1.32	0	1.70	2.02	2.45	2.79	3.13	
60	1.03	1.26	0	1.62	1.92	2.34	2.66	2.99	

Cf = Correction Factor applied to Rational Method runoff coefficient.



Precipitation Report

Precipitation filename: NewBritainCT.pcp

Hydrology Studio v 3.0.0.40 (Rainfall totals in Inches)

11-18-2025

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
SCS Storms	**> SCS Dimensionless Storms**								
SCS 6hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
Type I, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type IA, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type II, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type II FL, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type III, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Synthetic Storms	**> IDF-Based Synthetic Storms**								
1-hr		1.03	1.26	0	1.62	1.92	2.34	2.66	2.99
2-hr		1.42	1.73	0	2.22	2.63	3.20	3.65	4.09
3-hr		1.71	2.08	0	2.67	3.16	3.85	4.38	4.92
6-hr		2.34	2.85	0	3.66	4.33	5.27	6.01	6.73
12-hr		3.20	3.91	0	5.01	5.92	7.21	8.24	9.22
24-hr		4.39	5.37	0	6.86	8.11	9.86	11.30	12.63
Huff Distribution	**> 1st Quartile (0 to 6 hrs)**								
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
Huff Distribution	**> 2nd Quartile (>6 to 12 hrs)**								
8-hr		0	0	0	0	0	0	0	0
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
Huff Distribution	**> 3rd Quartile (>12 to 24 hrs)**								
18-hr		0	0	0	0	0	0	0	0
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Custom Storms	**> Custom Storm Distributions**								
My Custom Storm 1		0	0	0	0	0	0	0	0
My Custom Storm 2		0	0	0	0	0	0	0	0
My Custom Storm 3		0	0	0	0	0	0	0	0
My Custom Storm 4		0	0	0	0	0	0	0	0
My Custom Storm 5		0	0	0	0	0	0	0	0
My Custom Storm 6		0	0	0	0	0	0	0	0
My Custom Storm 7		0	0	0	0	0	0	0	0
My Custom Storm 8		0	0	0	0	0	0	0	0
My Custom Storm 9		0	0	0	0	0	0	0	0
My Custom Storm 10		0	0	0	0	0	0	0	0

Precipitation Report Cont'd

Precipitation filename: NewBritainCT.pcp

Rainfall totals in Inches

11-18-2025

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
Huff Indiana	**> Indianapolis**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> Evansville**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> Fort Wayne**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> South Bend**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43

Precipitation Report Cont'd

Precipitation filename: NewBritainCT.pcp

Rainfall totals in Inches

11-18-2025

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
NRCS Storms	**> NRCS Dimensionless Storms**								
NRCS MSE1, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE2, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE3, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE4, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE5, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE6, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-A, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-B, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-C, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-D, 24-hr	✔	2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-A, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-B, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-C, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-D, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-1, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-2, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-3, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-4, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-5, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-6, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
FDOT Storms	**> Florida DOT Storms**								
FDOT, 1-hr		0	0	0	0	0	0	0	0
FDOT, 2-hr		0	0	0	0	0	0	0	0
FDOT, 4-hr		0	0	0	0	0	0	0	0
FDOT, 8-hr		0	0	0	0	0	0	0	0
FDOT, 24-hr		0	0	0	0	0	0	0	0
FDOT, 72-hr		0	0	0	0	0	0	0	0
SFWMD, 72-hr		0	0	0	0	0	0	0	0
Austin Storms	**> Austin Frequency Storms**								
Austin Zone 1, 24-hr		0	0	0	0	0	0	0	0
Austin Zone 2, 24-hr		0	0	0	0	0	0	0	0

APPENDIX D

Detention Pipe Volume Calculator

System #1

Storage Volume Provided by Horizontal Pipe of Diameter d

Pipe Diameter (d)	**6.0**	**ft**
Pipe Length	**270**	**ft**
Invert Elevation:	**99.5**	**ft**
Overflow Elevation:	**104.5**	**ft**
WQV Required	**8,117.00**	**cf**
Total Trench Width	**8.00**	**ft**
Gravel Porosity	**35%**	**%**

Pond Volume at Overflow (cu ft): **8183**

Pond Volume Table

Circular Section Geometry Read from CircularSections Tab

elev. ft	y/d	Pipe Wetted Area s.f.	Pipe storage cu.ft.	Gravel Wetted Area s.f.	Gravel Storage cu. ft.	elev. ft	Total Storage cu. ft.	
99.50	0.000	0.000	0.00	0.000	0.00	99.50	0.00	
99.60	0.020	0.133	35.96	0.667	63.01	99.60	98.98	
99.70	0.030	0.248	67.07	1.352	127.73	99.70	194.79	
99.80	0.050	0.529	142.88	1.871	176.79	99.80	319.67	
99.90	0.070	0.871	235.22	2.329	220.07	99.90	455.30	
100.00	0.080	1.058	285.77	2.942	277.98	100.00	563.75	
100.10	0.100	1.472	397.55	3.328	314.46	100.10	712.01	
100.20	0.120	1.922	519.05	3.678	347.53	100.20	866.58	
100.30	0.130	2.160	583.20	4.240	400.68	100.30	983.88	
100.40	0.150	2.660	718.31	4.540	428.99	100.40	1147.30	
100.50	0.170	3.186	860.22	4.814	454.92	100.50	1315.14	
100.60	0.180	3.460	934.09	5.340	504.67	100.60	1438.76	
100.70	0.200	4.025	1086.70	5.575	526.86	100.70	1613.55	
100.80	0.220	4.612	1245.13	5.788	547.00	100.80	1792.14	
100.90	0.230	4.914	1326.78	6.286	594.03	100.90	1920.81	
101.00	0.250	5.526	1492.02	6.474	611.79	101.00	2103.81	
101.10	0.270	6.160	1663.09	6.640	627.52	101.10	2290.61	
101.20	0.280	6.480	1749.60	7.120	672.84	101.20	2422.44	
101.30	0.300	7.135	1926.50	7.265	686.52	101.30	2613.03	
101.40	0.320	7.801	2106.32	7.399	699.19	101.40	2805.51	
101.50	0.330	8.136	2196.72	7.864	743.15	101.50	2939.87	
101.60	0.350	8.820	2381.40	7.980	754.11	101.60	3135.51	
101.70	0.370	9.511	2568.02	8.089	764.39	101.70	3332.42	
101.80	0.380	9.860	2662.31	8.540	806.99	101.80	3469.30	
101.90	0.400	10.562	2851.85	8.638	816.25	101.90	3668.10	
102.00	0.420	11.275	3044.30	8.725	824.49	102.00	3868.80	
102.10	0.430	11.624	3138.59	9.176	867.09	102.10	4005.68	
102.20	0.450	12.341	3332.02	9.259	874.99	102.20	4207.01	
102.30	0.470	13.057	3525.44	9.343	882.89	102.30	4408.34	
102.40	0.480	13.417	3622.64	9.783	924.47	102.40	4547.12	
102.50	0.500	14.137	3817.04	9.863	932.03	102.50	4749.08	
102.60	0.520	14.857	4011.44	9.943	939.59	102.60	4951.04	
102.70	0.530	15.217	4108.64	10.383	981.17	102.70	5089.82	
102.80	0.550	15.934	4302.07	10.466	989.07	102.80	5291.15	
102.90	0.570	16.650	4495.50	10.550	996.97	102.90	5492.47	
103.00	0.580	17.003	4590.76	10.997	1039.24	103.00	5629.99	
103.10	0.600	17.712	4782.24	11.088	1047.82	103.10	5830.06	
103.20	0.620	18.414	4971.78	11.186	1057.08	103.20	6028.86	
103.30	0.630	18.763	5066.06	11.637	1099.68	103.30	6165.74	
103.40	0.650	19.454	5252.69	11.746	1109.96	103.40	6362.65	
103.50	0.670	20.138	5437.37	11.862	1120.92	103.50	6558.29	
103.60	0.680	20.473	5527.76	12.327	1164.88	103.60	6692.65	
103.70	0.700	21.139	5707.58	12.461	1177.55	103.70	6885.13	
103.80	0.720	21.794	5884.49	12.606	1191.23	103.80	7075.72	
103.90	0.730	22.115	5971.00	13.085	1236.55	103.90	7207.55	
104.00	0.750	22.745	6141.10	13.255	1252.62	104.00	7393.71	
104.10	0.770	23.360	6307.31	13.440	1270.04	104.10	7577.35	
104.20	0.780	23.663	6388.96	13.937	1317.07	104.20	7706.02	
104.30	0.800	24.250	6547.39	14.150	1337.21	104.30	7884.60	
104.40	0.820	24.815	6700.00	14.385	1359.40	104.40	8059.40	WQV = 104.5
104.50	0.830	25.088	6773.87	14.912	1409.15	104.50	8183.01	
104.60	0.850	25.614	6915.78	15.186	1435.08	104.60	8350.86	
104.70	0.870	26.114	7050.89	15.486	1463.39	104.70	8514.28	
104.80	0.880	26.352	7115.04	16.048	1516.54	104.80	8631.58	
104.90	0.900	26.802	7236.54	16.398	1549.61	104.90	8786.15	
105.00	0.920	27.216	7348.32	16.784	1586.09	105.00	8934.41	
105.10	0.930	27.403	7398.86	17.397	1644.00	105.10	9042.86	
105.20	0.950	27.745	7491.20	17.855	1687.28	105.20	9178.48	
105.30	0.970	28.026	7567.02	18.374	1736.34	105.30	9303.36	
105.40	0.980	28.138	7597.15	19.062	1801.40	105.40	9398.55	
105.50	1.000	28.274	7634.09	19.726	1864.07	105.50	9498.16	

40 COLD SPRING ROAD, SUITE 1
ROCKY HILL, CT 06067

PROJECT Pat Snow Louis Street
103 Louis St. DATE
LOCATION Newington, CT DATE Oct-25

Proposed 1.3" WQV

	Basin	A Total Area (Ac)	A_i Total Impervious Area (Ac)	Weighted C (Rational runoff coefficient)	I (Rainfall Intensity)	Q (CFS) = CIA	I= (Total Impervious/total Area)X 100	R= 0.05+0.009*I	WQV (AC-FT) = (1.3")(R)(A) / 12	1.3" WQV (CFT)
	Site	2.68	1.76				65.77	0.64	0.19	8,117
	Total	2.68	1.76							

Pond Report

File: 24122 - Post Dev PRDR SCS.hys

Hydrology Studio v 3.0.0.40

11-18-2025

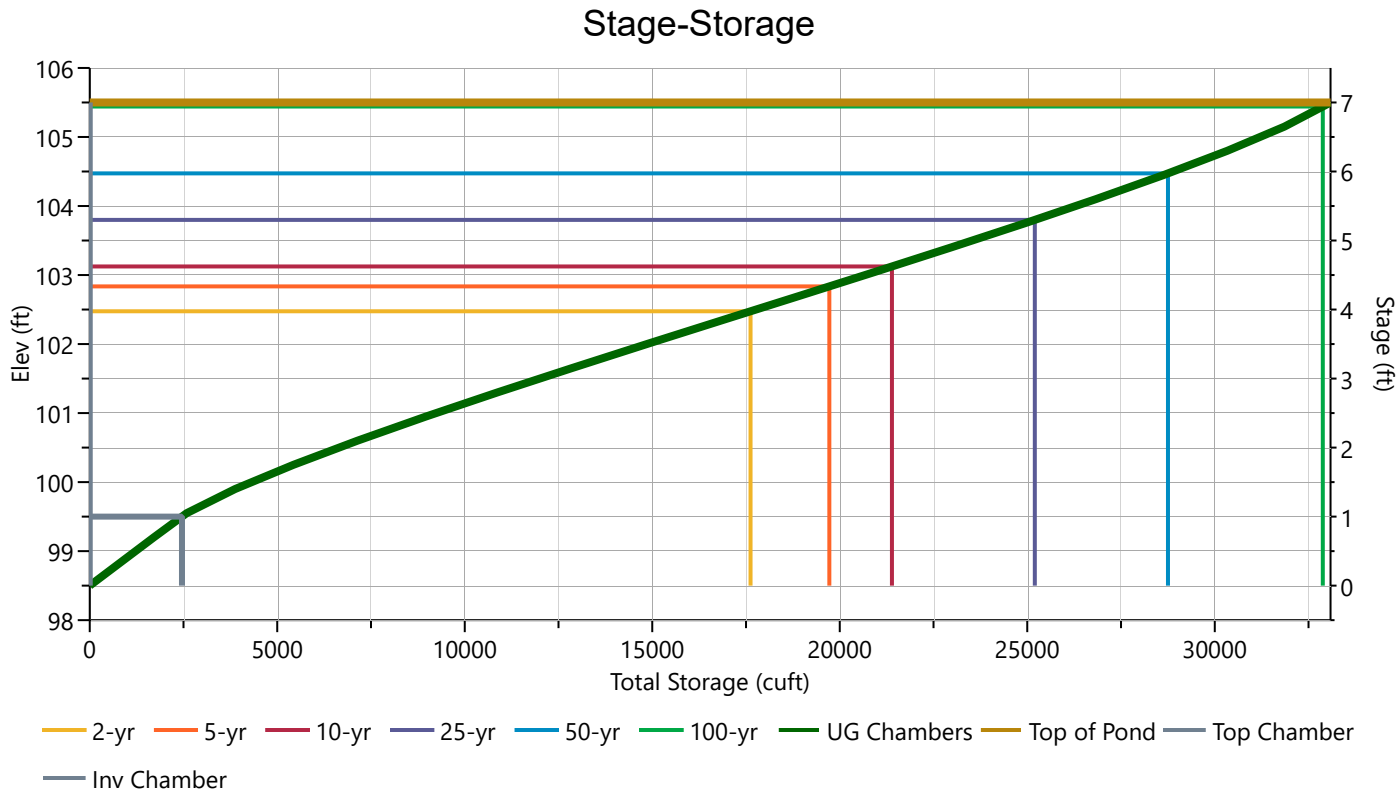
Retention System

Stage-Storage

Underground Chambers	
Description	**Input**
Invert Elev Down, ft	99.50
Chamber Rise, ft	6.00
Chamber Shape	Circular
Chamber Span, ft	6.00
Barrel Length, ft	870.00
No. Barrels	1
Barrel Slope, %	0.00
Headers, y/n	No
Stone Encasement, y/n	Yes
Encasement Bottom Elevation, ft	98.50
Encasement Width per Chamber, ft	8.00
Encasement Depth, ft	7.00
Encasement Voids, %	35.00

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	98.50	6,976	0.000	0.000
0.35	98.85	6,976	855	855
0.70	99.20	6,976	855	1,709
1.05	99.55	6,976	875	2,585
1.40	99.90	6,976	1,292	3,877
1.75	100.25	6,976	1,551	5,429
2.10	100.60	6,976	1,710	7,139
2.45	100.95	6,976	1,826	8,965
2.80	101.30	6,976	1,910	10,875
3.15	101.65	6,976	1,973	12,848
3.50	102.00	6,976	2,008	14,856
3.85	102.35	6,976	2,036	16,892
4.20	102.70	6,976	2,044	18,936
4.55	103.05	6,976	2,031	20,967
4.90	103.40	6,976	2,003	22,970
5.25	103.75	6,976	1,966	24,937
5.60	104.10	6,976	1,897	26,833
5.95	104.45	6,976	1,810	28,644
6.30	104.80	6,976	1,691	30,335
6.65	105.15	6,976	1,523	31,857
7.00	105.50	6,976	1,230	33,087



Pond Report

File: 24122 - Post Dev PRDR SCS.hys

Hydrology Studio v 3.0.0.40

11-18-2025

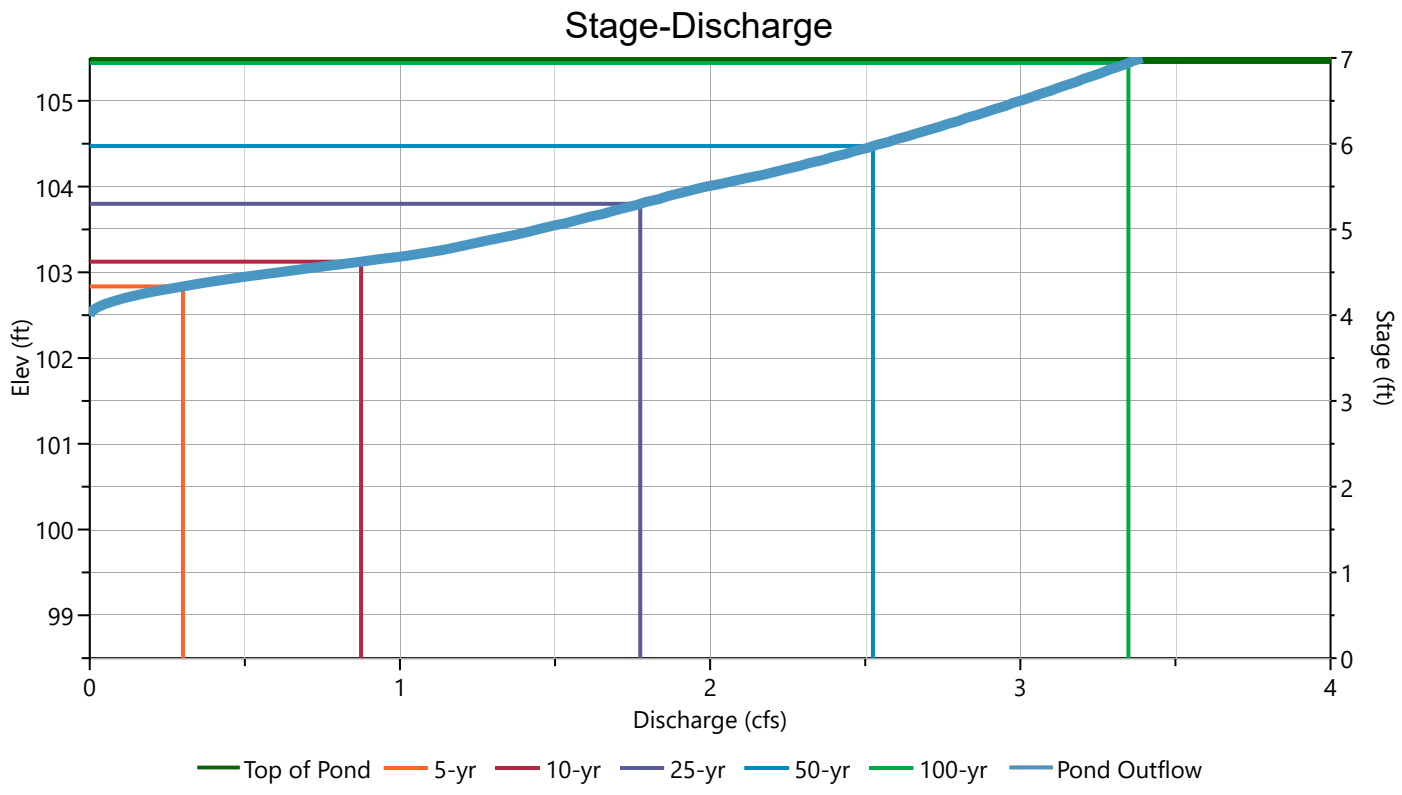
Retention System

Stage-Discharge

Culvert / Orifices	Cir Culvert	Orifice			Perforated Riser	
		1 (m)	2	3 (m)		
Rise, in	18	9		3	Hole Diameter, in	
Span, in	18	9		3	No. holes	
No. Barrels	1	1		1	Invert Elevation, ft	
Invert Elevation, ft	102.50	102.50		103.90	Height, ft	
Orifice Coefficient, Co	0.60	0.60		0.60	Orifice Coefficient, Co	
Length, ft	92.27					
Barrel Slope, %	.54					
N-Value, n	0.012					

Weirs	Riser	Weir			Ancillary	
		1	2	3		
Shape / Type					Exfiltration, in/hr	
Crest Elevation, ft						
Crest Length, ft						
Angle, deg						
Weir Coefficient, Cw						

m = Flows through Culvert, i = Independent



Pond Report

File: 24122 - Post Dev PRDR SCS.hys

Hydrology Studio v 3.0.0.40

11-18-2025

Retention System

Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	98.50	0.000	0.000	0.000		0.000								0.000
0.35	98.85	855	0.000	0.000		0.000								0.000
0.70	99.20	1,709	0.000	0.000		0.000								0.000
1.05	99.55	2,585	0.000	0.000		0.000								0.000
1.40	99.90	3,877	0.000	0.000		0.000								0.000
1.75	100.25	5,429	0.000	0.000		0.000								0.000
2.10	100.60	7,139	0.000	0.000		0.000								0.000
2.45	100.95	8,965	0.000	0.000		0.000								0.000
2.80	101.30	10,875	0.000	0.000		0.000								0.000
3.15	101.65	12,848	0.000	0.000		0.000								0.000
3.50	102.00	14,856	0.000	0.000		0.000								0.000
3.85	102.35	16,892	0.000	0.000		0.000								0.000
4.20	102.70	18,936	0.112 ic	0.112		0.000								0.112
4.55	103.05	20,967	0.713 ic	0.713		0.000								0.713
4.90	103.40	22,970	1.322 ic	1.322		0.000								1.322
5.25	103.75	24,937	1.723 ic	1.723		0.000								1.723
5.60	104.10	26,833	2.118 ic	2.054		0.064								2.118
5.95	104.45	28,644	2.507 ic	2.353		0.154								2.507
6.30	104.80	30,335	2.826 ic	2.618		0.208								2.826
6.65	105.15	31,857	3.121 ic	2.870		0.251								3.121
7.00	105.50	33,087	3.393 ic	3.106		0.287								3.393

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Pond Report

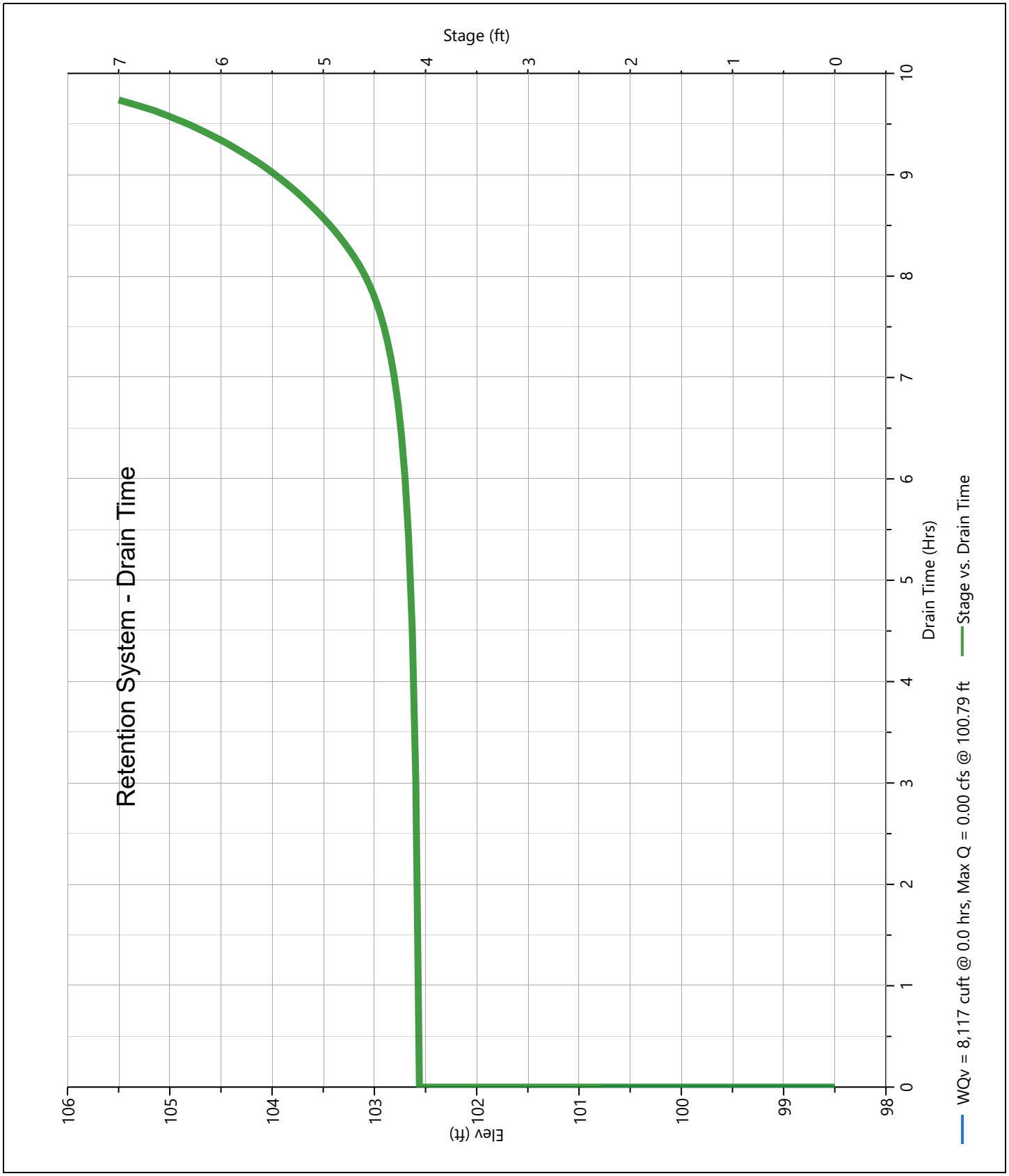
File: 24122 - Post Dev PRDR SCS.hys

Hydrology Studio v 3.0.0.40

11-18-2025

Retention System

Extended Detention



IDF Report

IDF filename: 24122 - Louis St.idf

Hydrology Studio v 3.0.0.40

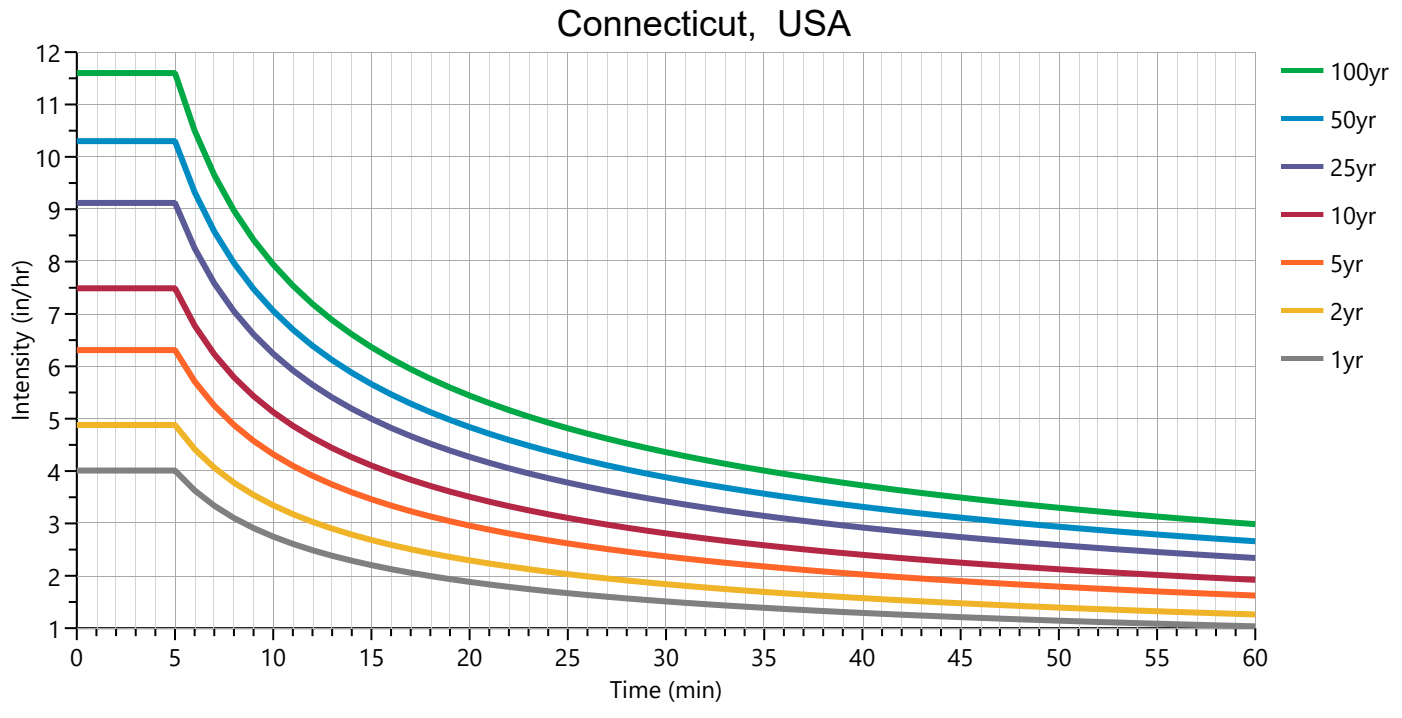
11-18-2025

Equation Coefficients	Intensity = B / (Tc + D)^E (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
B	9.6416	11.7197	0.0000	15.2067	18.0689	22.0099	24.7570	27.9374	
D	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
E	0.5451	0.5444	0.0000	0.5465	0.5472	0.5474	0.5449	0.5461	

Minimum Tc = 5 minutes

Tc (min)	Intensity Values (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Cf	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
5	4.01	4.88	0	6.31	7.49	9.12	10.30	11.60	
10	2.75	3.35	0	4.32	5.13	6.24	7.06	7.94	
15	2.20	2.68	0	3.46	4.11	5.00	5.66	6.37	
20	1.88	2.29	0	2.96	3.51	4.27	4.84	5.44	
25	1.67	2.03	0	2.62	3.10	3.78	4.29	4.82	
30	1.51	1.84	0	2.37	2.81	3.42	3.88	4.36	
35	1.39	1.69	0	2.18	2.58	3.14	3.57	4.01	
40	1.29	1.57	0	2.03	2.40	2.92	3.32	3.73	
45	1.21	1.48	0	1.90	2.25	2.74	3.11	3.49	
50	1.14	1.39	0	1.79	2.12	2.59	2.94	3.30	
55	1.09	1.32	0	1.70	2.02	2.45	2.79	3.13	
60	1.03	1.26	0	1.62	1.92	2.34	2.66	2.99	

Cf = Correction Factor applied to Rational Method runoff coefficient.



Precipitation Report

Precipitation filename: NewBritainCT.pcp

Hydrology Studio v 3.0.0.40 (Rainfall totals in Inches)

11-18-2025

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
SCS Storms	**> SCS Dimensionless Storms**								
SCS 6hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
Type I, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type IA, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type II, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type II FL, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Type III, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Synthetic Storms	**> IDF-Based Synthetic Storms**								
1-hr		1.03	1.26	0	1.62	1.92	2.34	2.66	2.99
2-hr		1.42	1.73	0	2.22	2.63	3.20	3.65	4.09
3-hr		1.71	2.08	0	2.67	3.16	3.85	4.38	4.92
6-hr		2.34	2.85	0	3.66	4.33	5.27	6.01	6.73
12-hr		3.20	3.91	0	5.01	5.92	7.21	8.24	9.22
24-hr		4.39	5.37	0	6.86	8.11	9.86	11.30	12.63
Huff Distribution	**> 1st Quartile (0 to 6 hrs)**								
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
Huff Distribution	**> 2nd Quartile (>6 to 12 hrs)**								
8-hr		0	0	0	0	0	0	0	0
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
Huff Distribution	**> 3rd Quartile (>12 to 24 hrs)**								
18-hr		0	0	0	0	0	0	0	0
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Custom Storms	**> Custom Storm Distributions**								
My Custom Storm 1		0	0	0	0	0	0	0	0
My Custom Storm 2		0	0	0	0	0	0	0	0
My Custom Storm 3		0	0	0	0	0	0	0	0
My Custom Storm 4		0	0	0	0	0	0	0	0
My Custom Storm 5		0	0	0	0	0	0	0	0
My Custom Storm 6		0	0	0	0	0	0	0	0
My Custom Storm 7		0	0	0	0	0	0	0	0
My Custom Storm 8		0	0	0	0	0	0	0	0
My Custom Storm 9		0	0	0	0	0	0	0	0
My Custom Storm 10		0	0	0	0	0	0	0	0

Precipitation Report Cont'd

Precipitation filename: NewBritainCT.pcp

Rainfall totals in Inches

11-18-2025

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
Huff Indiana	**> Indianapolis**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> Evansville**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> Fort Wayne**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
Huff Indiana	**> South Bend**								
30-min		0.77	0.93	0	1.19	1.41	1.71	1.94	2.18
1-hr		0.97	1.17	0	1.50	1.78	2.16	2.45	2.74
2-hr		1.26	1.52	0	1.94	2.29	2.78	3.13	3.52
3-hr		1.46	1.76	0	2.25	2.65	3.21	3.63	4.08
6-hr		1.84	2.23	0	2.87	3.40	4.14	4.67	5.26
12-hr		2.27	2.78	0	3.62	4.32	5.28	5.98	6.76
24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43

Precipitation Report Cont'd

Precipitation filename: NewBritainCT.pcp

Rainfall totals in Inches

11-18-2025

	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✔		✔	✔	✔	✔	✔
NRCS Storms	**> NRCS Dimensionless Storms**								
NRCS MSE1, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE2, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE3, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE4, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE5, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE6, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-A, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-B, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-C, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NOAA-D, 24-hr	✔	2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-A, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-B, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-C, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCC-D, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-1, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-2, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-3, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-4, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-5, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
CA-6, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
FDOT Storms	**> Florida DOT Storms**								
FDOT, 1-hr		0	0	0	0	0	0	0	0
FDOT, 2-hr		0	0	0	0	0	0	0	0
FDOT, 4-hr		0	0	0	0	0	0	0	0
FDOT, 8-hr		0	0	0	0	0	0	0	0
FDOT, 24-hr		0	0	0	0	0	0	0	0
FDOT, 72-hr		0	0	0	0	0	0	0	0
SFWMD, 72-hr		0	0	0	0	0	0	0	0
Austin Storms	**> Austin Frequency Storms**								
Austin Zone 1, 24-hr		0	0	0	0	0	0	0	0
Austin Zone 2, 24-hr		0	0	0	0	0	0	0	0

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Versteeg Associates

Code Compliance & Fire Safety Consultants

86 University Drive
Torrington, CT 06790
860-480-3951
josephversteeg@gmail.com

December 03, 2025

Plan and Zoning Commission
Town Hall
200 Garfield Street
Newington, CT 06111

Subject: Proposed Multifamily Residential Development
103 Louis Street, Newington CT

I am the Principal of Versteeg Associates LLC, an independent consulting firm specializing in building and fire code compliance and have been retained by the applicant in this matter.

The buildings are designed in accordance with the 2021 International Residential Code portion of the 2022 Connecticut State Building Code. As such, the fire department access requirements in the 2022 Connecticut Fire Safety Code and 2022 Connecticut Fire Prevention Code are NOT applicable. That said, the fire department access shown does comply with the 2022 Connecticut Fire Safety Code if it were applicable.

I have reviewed the site and development plans as well as the architectural floor plans and elevations prepared for this project and determined them to be compliant with the 2021 International Residential Code portion of the 2022 Connecticut State Building Code.

It is my professional opinion that the proposed residential development does not result in an adverse impact to a substantial public interest in health, safety or welfare.

Joseph H. Versteeg

Joseph H. Versteeg

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PREMIER REAL ESTATE SERVICES II, LLC
Newington, Connecticut

Section 8-30g Affordability Plan

November 2025

Submission Draft

Submitted by:

Premier Real Estate Services II, LLC and Hinckley, Allen & Snyder

AFFORDABILITY PLAN FOR PREMIER REAL ESTATE SERVICES II, LLC

INTRODUCTION

Premier Real Estate Services II, LLC ("Premier") submits this draft Affordability Plan in connection with a residential development comprised of 41 rental apartments, located at 103 Louis Street in Newington, Connecticut (the "Community").

Under this plan, thirty percent (30%) of the apartment homes will meet the criteria for "affordable housing" as defined in C.G.S. § 8-30g. C.G.S. § 8-30g requires that fifteen percent (15%) of the apartment homes be affordable for 40 years to families earning eighty percent (80%) or less of the area or State median income, whichever is less, and that fifteen percent (15%) be affordable to families earning sixty percent (60%) or less of the area or State median income, whichever is less. This Affordability Plan satisfies these requirements and describes how the affordable housing apartment homes will be administered.

This Plan includes updated maximum household income and maximum monthly housing payment / rent calculations based on 2025 data from the U.S. Department of Housing and Urban Development ("HUD"). These calculations will be revised annually based on changes in HUD median income data.

I. Apartment Homes Designated as Affordable Units.

Thirty percent (30%) of the apartment homes in the Community, or thirteen (13) of the 41 units, will be designated as affordable housing pursuant to C.G.S. § 8-30g (the "Affordable Units"). The specific apartments designated as affordable housing, and a description of the property are set forth in Schedule B attached hereto.

II. Forty (40) Year Period.

The Affordable Units in the Community shall be designated as affordable units for at least forty (40) years. The 40 years shall begin on the date that the certificate of occupancy is issued for the Unit that establishes compliance with the thirty percent (30%) requirement.

III. Pro-Rata Construction and Dispersion.

The Affordable Units shall be built and offered for rent on a *pro rata* basis as construction proceeds for the development of the Community. It is the intent of this Plan that one (1) Affordable Unit will be built and offered for rental within the time that three (3) market-rate units are completed and offered for rental.

IV. Nature of Construction of Affordable Units and Market-Rate Units.

The Affordable Units shall be constructed in substantial conformance with the site plans and floor plans approved by the commission for the Community, as may be modified based on the requirements of the Newington Building Inspector or other Town staff in signing off on administrative permits or approvals. The minimum standards and specifications applicable to the Community are set forth in Schedule A, attached.

V. Entity Responsible for Administration and Compliance.

This Affordability Plan will be administered by Premier Real Estate Services II, LLC, or its successors and assigns (the "Administrator"). Premier Real Estate Services II, LLC hereby represents that its staff has the experience necessary to administer this Plan, which includes administering affordability plans for four other Connecticut developments. The principal point of contact under this Plan shall be Patrick Snow. Contact information for the principal point of contact shall be provided to the Town of Newington and the Commission prior to the issuance of a Certificate of Occupancy.

The Administrator shall submit annually a written status report to the Newington TPZC or its designee, as required by 8-30h. The role of Administrator may be transferred or assigned to another entity, provided that such entity has the experience and qualifications to administer this Plan. In the event of any assignment of the role of Administrator, Premier, or its successors will provide prior written notice to the TPZC.

VI. Notice of Initial Rental of Affordable Units.

At the same time that market rate units are advertised to the general public, an affirmative fair housing marketing plan as required by Connecticut General Statutes §8-30g(b)(1)(B) shall proceed, which marketing plan shall provide for advertising the availability of the Affordable Units in the real estate section of a newspaper of general circulation in the Town of Newington, abutting municipalities, and the planning region in which Newington is located. The intent of the marketing plan shall be to notify or come to the attention of those “least likely to apply” for the available Affordable Units. Notice shall also be given to the Newington Town Council, the Newington Town Clerk, and the Commission. Published and distributed notices shall include at a minimum a description of the available Affordable Unit(s), the income limits applicable to such units, and the locations of availability of application forms and additional information that may be prescribed by the Commission.

VII. Resident Eligibility.

The Affordable Units shall only be offered for rent to families whose income is less than or equal to eighty percent (80%) of the Area Median Income for the Town of Newington in the year for which each such Affordable Unit is available for rent or renewal, as determined by the U.S. Department of Housing and Urban Development (HUD) for the Hartford-West Hartford-East Hartford, CT HUD Metro Fair Market Rent (FMR) Area.

In the event that the number of qualified Applicants exceeds the number of Affordable Units, then the Administrator shall compile a waiting list, from which Applicants will be selected on a first-come, first-served basis. For purposes of this section, an application shall be considered received when a completed and signed application form is submitted with the $50 application fee.

VIII. Application Process.

A person seeking to rent one of the Affordable Units ("Applicant") must complete an application to demonstrate eligibility. The application form and process shall comply with the Fair Housing Acts.

A. Application Form.

The application form shall be provided by the Administrator and shall include an income certification form. In general, "income" for purposes of determining an Applicant's qualification shall include the Applicant family's total anticipated income from all sources for the twelve (12) month period following the date the lease commences (the "Lease Begin Date"). If the Applicant's financial disclosures indicate that the Applicant may experience a significant change in the Applicant's future income during the twelve (12) month period, the Administrator shall not consider this change unless there is a reasonable assurance that the change will in fact occur.

In determining what is and is not to be included in the definition of annual family income, the Administrator shall use the criteria set forth by HUD and listed on Schedule C, attached.[1]

B. *Applicant Interview*.

The Administrator shall interview an Applicant upon submission of a completed application. Specifically, the Administrator shall, during the interview, undertake the following:

1. Review with the Applicant all the information provided on the application.

2. Explain to the Applicant the requirements for eligibility, verification procedures, and the penalties for supplying false information.

3. Verify that all sources of family income and family assets have been listed in the application. Make clear that the term "family" includes all individuals who are to occupy the home, and that no relationship by blood or marriage is required.

[1] See 24 C.F.R. § 5.609. Federal regulations are subject to change, and it is the intent of this Affordability Plan to follow HUD regulations with respect to income certification as such regulations may be amended from time to time. This Plan acknowledges and refers the reader to 2024 amendments to the Housing Opportunity Through Modernization Act (HOTMA).

4. Request the Applicant to sign the necessary release forms to be used in verifying income. Inform the Applicant of what verification and documentation must be provided before the application is deemed complete.

5. Inform the Applicant that a decision as to eligibility cannot be made until all items on the application have been verified.

C. *Verification of Applicant's Income*.

Where it is evident from the income certification form provided by the Applicant that the Applicant is not eligible, additional verification procedures shall not be necessary. However, if the Applicant appears to be eligible, the Administrator shall require verification of the Applicant's reported income.

If applicable, the Applicant shall provide the documentation listed on Schedule D, attached hereto, to the Administrator. This list is not exclusive, and the Administrator may require any other verification or documentation as the Administrator deems necessary. The Administrator should note 2024 federal amendments affecting income calculations based on student financial aid, child support and alimony, and assets and imputed income.

A sample rider to the lease agreement for Affordable Units is attached hereto as Schedule E.

IX. **Maximum Rental Price.**

Calculation of the maximum rental price ("Maximum Rental Price") for an affordable unit, so as to satisfy C.G.S. § 8-30g, shall utilize the lesser of the area median income for the Town of Newington or the statewide median income as published by HUD as in effect on the day a lease is signed by the lessee of the affordable unit ("Resident"). Such income shall then be adjusted for household size assuming occupancy by 1.5 persons per bedroom and using the adjustment formula adopted by HUD. The Maximum Rental Price shall be calculated as follows:

TWO BEDROOM RENTAL UNIT FOR FAMILY EARNING LESS THAN 80 PERCENT OF AREA MEDIAN INCOME	SAMPLE COMPUTATIONS BASED ON FY 2025 DATA
1. Determine lower of relevant year (2025) area median income for Hartford-West Hartford-East Hartford, CT HUD Metro ($126,600) or statewide median income ($124,600), adjusted for family size (family of 4), as published by HUD	$124,600
2. Determine adjusted income for household of 3 persons by calculating 90 percent of Item 1	$112,140
3. Calculate 80 percent of Item 2	$89,712
4. Calculate 30 percent of Item 3, representing maximum portion of a family's income that may be used for housing	$26,914
5. Divide Item 4 by 12 to determine maximum monthly housing expense	$2,243
6. Compare HUD 2025 Fair Market Rents for Hartford-West Hartford-East Hartford, CT HUD Metro ($1,653) times 120 percent	$1,984
7. Use Lesser if calculated maximum monthly expense (Item 5) and HUD fair market rent (Item 6)	$1,984
8. Determine by reasonable estimate monthly expenses for heat and utility costs, excluding telephone and cable television but including any fee required for all tenants (tenant responsible for such expenses)	$150
9. Subtract reasonable monthly expenses (Items 8) from maximum housing expense (Item 7) to determine maximum amount available for rent	$1,834

TWO BEDROOM RENTAL UNIT FOR FAMILY EARNING LESS THAN 60 PERCENT OF STATEWIDE MEDIAN INCOME	SAMPLE COMPUTATIONS BASED ON FY 2025 DATA
1. Determine lower of relevant year (2025) area median income for Hartford-West Hartford-East Hartford, CT HUD Metro ($126,600) or statewide median income ($124,600), adjusted for family size (family of 4), as published by HUD	$124,600
2. Determine adjusted income for household of 3 persons by calculating 90 percent of Item 1	$112,140
3. Calculate 60 percent of Item 2	$67,284
4. Calculate 30 percent of Item 3, representing maximum portion of a family's income that may be used for housing	$20,186
5. Divide Item 4 by 12 to determine maximum monthly housing expense	$1,683
6. Compare HUD 2025 Fair Market Rents for Hartford-West Hartford-East Hartford, CT HUD Metro	$1,653
7. Use Lesser if calculated maximum monthly expense (Item 5) and HUD fair market rent (Item 6)	$1,653
8. Determine by reasonable estimate monthly expenses for heat and utility costs, excluding telephone and cable television but including any fee required for all tenants (tenant responsible for such expenses)	$150
9. Subtract reasonable monthly expenses (Items 8) from maximum housing expense (Item 7) to determine maximum amount available for rent	$1,503

THREE BEDROOM RENTAL UNIT FOR FAMILY EARNING LESS THAN 80 PERCENT OF STATEWIDE MEDIAN INCOME	SAMPLE COMPUTATIONS BASED ON FY 2025 DATA
1. Determine lower of relevant year (2025) area median income for Hartford-West Hartford-East Hartford, CT HUD Metro ($126,600) or statewide median income ($124,600), adjusted for family size (family of 4), as published by HUD	$124,600
2. Determine adjusted income for household of 4.5 persons by calculating 104 percent of Item 1	$129,584
3. Calculate 80 percent of Item 2	$103,668
4. Calculate 30 percent of Item 3, representing maximum portion of a family's income that may be used for housing	$31,101
5. Divide Item 4 by 12 to determine maximum monthly housing expense	$2,592
6. Compare HUD 2025 Fair Market Rents for Hartford-West Hartford-East Hartford, CT HUD Metro ($1,992) times 120 percent	$2,391
7. Use Lesser if calculated maximum monthly expense (Item 5) and HUD fair market rent (Item 6)	$2,391
8. Determine by reasonable estimate monthly expenses for heat and utility costs, excluding telephone and cable television but including any fee required for all tenants (tenant responsible for such expenses)	$175
9. Subtract reasonable monthly expenses (Items 8) from maximum housing expense (Item 7) to determine maximum amount available for rent	$2,216

THREE BEDROOM RENTAL UNIT FOR FAMILY EARNING LESS THAN 60 PERCENT OF STATEWIDE MEDIAN INCOME	SAMPLE COMPUTATIONS BASED ON FY 2025 DATA
1. Determine lower of relevant year (2025) area median income for Hartford-West Hartford-East Hartford, CT HUD Metro ($126,600) or statewide median income ($124,600), adjusted for family size (family of 4), as published by HUD	$124,600
2. Determine adjusted income for household of 4.5 persons by calculating 104 percent of Item 1	$129,584
3. Calculate 60 percent of Item 2	$77,751
4. Calculate 30 percent of Item 3, representing maximum portion of a family's income that may be used for housing	$23,326
5. Divide Item 4 by 12 to determine maximum monthly housing expense	$1,944
6. Compare HUD 2025 Fair Market Rents for Hartford-West Hartford-East Hartford, CT HUD Metro	$1,992
7. Use Lesser if calculated maximum monthly expense (Item 5) and HUD fair market rent (Item 6)	$1,944
8. Determine by reasonable estimate monthly expenses for heat and utility costs, excluding telephone and cable television but including any fee required for all tenants (tenant responsible for such expenses)	$175
9. Subtract reasonable monthly expenses (Items 8) from maximum housing expense (Item 7) to determine maximum amount available for rent	$1,769

X. Principal Residence.

Affordable Units shall be occupied only as a Resident's principal residence. Notwithstanding any zoning, subdivision or other regulation to the contrary, subleasing of Affordable Units shall be prohibited, including short-term rentals such as AirBnb.

XI. Requirement to Maintain Condition.

All Residents are required to maintain their apartment homes. The Resident shall not destroy, damage or impair the home, allow the home to deteriorate, or commit waste on the home. When an affordable unit is offered again for rental, the Administrator shall cause the home to be inspected.

XII. Change of Income or Qualifying Status of Resident.

In the event that a Resident's income changes so as to exceed the qualifying maximum, or if the Resident otherwise becomes disqualified, such Resident must provide notice to the Administrator within seven (7) days of the disqualification. When a resident becomes disqualified, the Administrator shall require the Resident to vacate the affordable unit within sixty (60) days. The Administrator (or owner, if the Administrator is not the owner) in his / her sole discretion may elect to move the Resident to a market rate apartment if the Resident satisfies the Administrator's (or owner's) normal criteria for such unit.

If the tenant and owner agree, the tenant may be allowed to remain in the currently occupied unit at the adjusted rental rate (60% increased to 80%, or 80% increased to FMR). In the case where a current tenant changes from an 80% HOU to FMR, the next available unit of similar size shall be offered as an 80% HOU.

XIII. Enforcement.

A violation of this Affordability Plan shall not result in a forfeiture of title, but the PZC shall otherwise retain all enforcement powers granted by the General Statutes, including § 8-12, which powers include, but are not limited to, the authority, at any reasonable time, to inspect the property and to examine the books and records of the Administrator to determine compliance of Affordable Units with this Affordability Plan and applicable state statutes and regulations. Such records are confidential and not subject to disclosure under the Freedom of Information Act.

Schedule A

Minimum Specifications For Each Residential Apartment Home In The Community

Exterior:

- Wall Assembly – 2x6 framing; Sheathing (taped); air and water barrier; Insulated in accordance with IECC 2021 with CT amendments; vapor barrier; ½" gyp board; Cement Board or Vinyl horizontal siding; Synthetic trim boards and panel siding.
- Roof Assembly – Engineered Lumber Framing; 3/4"roof deck sheathing; ice & water shield eave flashing; asphalt shingle (25 year); synthetic fascia and soffit; Insulated in accordance with IECC 2021 with CT amendments; 1/2 in. gyp board.
- Foundation Plantings
- EIFS, formed Concrete, or siding (at garage levels).
- Aluminum gutters and downspouts.
- Energy efficient vinyl double hung windows and/or sliding doors.
- Asphalt driveways; concrete or concrete paver walkways.

Interior:

- Interior walls: 2x4 framing; 1/2 in. gyp. Board each side.
- Wall to wall carpeting or vinyl plank flooring.
- Energy efficient heating/cooling system.
- Energy efficient hot water heater.
- Direct wire smoke and CO detectors.
- Vinyl clad wire shelving at closets.
- Pre-wired telephone and CATV outlets
- Laundry Closet with Washer and Dryer.
- Ground fault outlets at kitchen counters and bathrooms.
- Fire rated apartment entry doors; Paneled interior doors (or comparable); brushed chrome hardware (or equal).

Kitchens:

- Vinyl plank or tile floors.
- Laminate or foil faced kitchen cabinets; synthetic stone counters.
- GE self-cleaning oven, stovetop, refrigerator and microwave (or equal).
- Sound insulated, water saving dishwasher.
- Stainless steel sink with single lever faucet.

Bathrooms:

- Vinyl plank flooring or tile.
- Acrylic tub/shower units.

- Acrylic or tile tub/shower surrounds.
- Brushed chrome (or equal) faucets and shower/tub fixtures.
- Low-flow toilets.
- Laminate bathroom vanity cabinet; synthetic stone countertop; and brushed chrome (or equal) faucets.
- Brushed chrome (or equal) toilet tissue holder and towel hook/bar.

SCHEDULE B

DESIGNATION OF SUBJECT PROPERTY AND AFFORDABLE UNITS

Total Number of Apartment Homes:

Market Rate Apartments	28
Affordable Units	13
Total	41

Total Number of Units:

	Two Bedrooms	Three Bedrooms
Market-Rate Units	27	1
Affordable Units	12	1
Total Apartments	39	2

The specific apartment units designated as Affordable Units are shown on the civil and architectural plan sets, and are disbursed evenly throughout the community.

Property Description:

A certain piece or parcel of land consisting of 2.679 acres, located in the Town of Newington, County of Hartford and State of Connecticut, at the southwesterly corner of Louis Street and Pascone Place, shown as "Lot 3" on a map or plan entitled "SUBDIVISION PLAN PROPERTY OF PATRICIA A. CASEY 133 LOUIS STREET NEWINGTON, CONNECTICUT Scale 1" = 40' Date 08-09-90 Revisions No. 1 Date 9-07-90 Property Line Sheet No. 1 of 1 Job No. 36130" made by Close, Jensen & Miller, Consulting Engineers, Land Planners & Surveyors, which map is on file in the Newington Town Clerk's office and to which reference may be had. Said premises are more particularly bounded and described as follows:

Commencing at a point on the southerly line of Louis Street at the northeasterly corner of Lot No. 2 as shown on said map, being land formerly of the Grantor herein and now of L.E.S. Realty Trust; thence running N 64°-17'-09" E 45.68 feet to a monument to be set; thence continuing along the southerly line of Louis Street along the radius of a curve to the East having a radius of 460 feet, 146.25 feet to a monument to be set; thence continuing along the southerly line of Louis Street N 82°-30'-09" E 204.64 feet to a monument to be set; thence turning and running easterly and southerly along the line of a curve having a radius of 25 feet connecting the southerly line of Louis Street with the westerly line of Pascone Place, 39.27 feet to a monument to be set; thence continuing along the westerly line of Pascone Place S 07°-29'-51 E 25 feet to a monument to be set; thence turning and continuing along the westerly and northwesterly line of Pascone Place along a curve to the southwest having a radius of 140 feet, 69.88 feet to a monument to be set; thence continuing southwesterly along the northwesterly line of Pascone Place S 21°-06'-09" W 234.98 feet to an iron pin to be set marking the northeasterly corner of Lot No. 1 as shown on said map, being land now or formerly of Hamilton Emission Control; thence turning and running westerly along the northerly line of said Lot No. 1, S 81°-21'-09" W 281.46 feet to an iron pin to be set; thence turning and running northerly along the easterly line of Lot No. 2 as shown on said map, N 08°-38'-51"W 291.70 feet to the point and place of beginning.

SCHEDULE C

DEFINITIONS AND ELEMENTS OF ANNUAL FAMILY INCOME[2]

1. Annual income shall be calculated with reference to 24 C.F.R. § 5.609, as amended from time to time, and includes, but is not limited to, the following:

   a. All amounts, not specifically excluded in paragraph (b) of 24 C.F.R. § 5.609, received from all sources by each member of the family who is 18 years of age or older or is the head of household or spouse of the head of household, plus unearned income by or on behalf of each dependent who is under 18 years of age, and

   b. When the value of net family assets exceeds $50,000 (which amount HUD will adjust annually in accordance with the Consumer Price Index for Urban Wage Earners and Clerical Workers) and the actual returns from a given asset cannot be calculated, imputed returns on the asset based on the current passbook savings rate, as determined by HUD.

2. Excluded from the definition of family annual income are the following, as amended from time to time:

   a. * Any imputed return on an asset when net family assets total $50,000 or less (which amount HUD will adjust annually in accordance with the Consumer Price Index for Urban Wage Earners and Clerical Workers) and no actual income from the net family assets can be determined;

   b. The following types of trust distributions:
      i. For an irrevocable trust or a revocable trust outside the control of the family or household excluded from the definition of net family assets under § 5.603(b):
         1. Distributions of the principal or corpus of the trust; and
         2. Distributions of income from the trust when the distributions are used to pay the costs of health and medical care expenses for a minor.
      ii. For a revocable trust under the control of the family or household, any distributions from the trust; except that any actual income earned by the trust, regardless of whether it is distributed, shall be considered income to the family at the time it is received by the trust.

   c. Earned income of children under the 18 years of age;

[2] The reader should review 2024 Federal Amendments to the Housing Opportunity Through Modernization Act (HOTMA) regarding student financial aid, alimony and child support, and assets and imputed income. Potentially affected sections are indicated with an asterisk *.

d. Payments received for the care of foster children or foster adults, or State or Tribal kinship or guardianship care payments;

e. Insurance payments and settlements for personal or property losses, including but not limited to payments through health insurance, motor vehicle insurance, and workers' compensation;

f. Amounts received by the family that are specifically for, or in reimbursement of, the cost of health and medical care expenses for any family member;

g. Any amounts recovered in any civil action or settlement based on a claim of malpractice, negligence, or other breach of duty owed to a family member arising out of law, that resulted in a member of the family becoming disabled;

h. Income of a live-in aide, foster child, or foster adult as defined in §§ 5.403 and 5.603, respectively;

i. * Any assistance that section 479B of the Higher Education Act of 1965, as amended (20 U.S.C. 1087uu), requires be excluded from a family's income[3]; and

j. * Student financial assistance for tuition, books, and supplies (including supplies and equipment to support students with learning disabilities or other disabilities), room and board, and other fees required and charged to a student by an institution of higher education (as defined under Section 102 of the Higher Education Act of 1965 (20 U.S.C. 1002)) and, for a student who is not the head of household or spouse, the reasonable and actual costs of housing while attending the institution of higher education and not residing in an assisted unit;

k. * Income and distributions from any Coverdell education savings account under section 530 of the Internal Revenue Code of 1986 or any qualified tuition program under section 529 of such Code; and income earned by government contributions to, and distributions from, “baby bond” accounts created, authorized, or funded by Federal, State, or local government;

l. The special pay to a family member serving in the Armed Forces who is exposed to hostile fire;

m. Amounts received by a person with a disability that are disregarded for a limited time for purposes of Supplemental Security Income eligibility and benefits because they are set aside for use under a Plan to Attain Self–Sufficiency (PASS);

n. Amounts received by a participant in other publicly assisted programs which are specifically for or in reimbursement of out-of-pocket expenses incurred (e.g.,

[3] For additional information on the calculation of student financial assistance, please see 24 C.F.R. § 5.609(b)(9)(ii).

special equipment, clothing, transportation, child care, etc.) and which are made solely to allow participation in a specific program;

o. Incremental earnings and benefits resulting to any family member from participation in training programs funded by HUD or in qualifying Federal, State, Tribal, or local employment training programs (including training programs not affiliated with a local government) and training of a family member as resident management staff. Amounts excluded by this provision must be received under employment training programs with clearly defined goals and objectives and are excluded only for the period during which the family member participates in the employment training program unless those amounts are excluded under paragraph (b)(9)(i) of 24 C.F.R. § 5.609;

p. Reparation payments paid by a foreign government pursuant to claims filed under the laws of that government by persons who were persecuted during the Nazi era;

q. Earned income of dependent full-time students in excess of the amount of the deduction for a dependent in § 5.611;

r. Adoption assistance payments for a child in excess of the amount of the deduction for a dependent in § 5.611;

s. Deferred periodic amounts from Supplemental Security Income and Social Security benefits that are received in a lump sum amount or in prospective monthly amounts, or any deferred Department of Veterans Affairs disability benefits that are received in a lump sum amount or in prospective monthly amounts;

t. Payments related to aid and attendance under 38 U.S.C. 1521 to veterans in need of regular aid and attendance;

u. Amounts received by the family in the form of refunds or rebates under State or local law for property taxes paid on the dwelling unit;

v. Payments made by or authorized by a State Medicaid agency (including through a managed care entity) or other State or Federal agency to a family to enable a family member who has a disability to reside in the family's assisted unit. Authorized payments may include payments to a member of the assisted family through the State Medicaid agency (including through a managed care entity) or other State or Federal agency for caregiving services the family member provides to enable a family member who has a disability to reside in the family's assisted unit;

w. Loan proceeds (the net amount disbursed by a lender to or on behalf of a borrower, under the terms of a loan agreement) received by the family or a third party (e.g., proceeds received by the family from a private loan to enable attendance at an educational institution or to finance the purchase of a car);

x. Payments received by Tribal members as a result of claims relating to the mismanagement of assets held in trust by the United States, to the extent such payments are also excluded from gross income under the Internal Revenue Code or other Federal law;

y. Amounts that HUD is required by Federal statute to exclude from consideration as income for purposes of determining eligibility or benefits under a category of assistance programs that includes assistance under any program to which the exclusions set forth in paragraph (b) of this section apply. HUD will publish a notice in the Federal Register to identify the benefits that qualify for this exclusion. Updates will be published when necessary;

z. Replacement housing "gap" payments made in accordance with 49 CFR part 24 that offset increased out of pocket costs of displaced persons that move from one federally subsidized housing unit to another federally subsidized housing unit. Such replacement housing "gap" payments are not excluded from annual income if the increased cost of rent and utilities is subsequently reduced or eliminated, and the displaced person retains or continues to receive the replacement housing "gap" payments;

aa. Nonrecurring income[4], which is income that will not be repeated in the coming year based on information provided by the family. Income received as an independent contractor, day laborer, or seasonal worker is not excluded from income under this paragraph, even if the source, date, or amount of the income varies;

bb. Civil rights settlements or judgments, including settlements or judgments for back pay;

cc. Income received from any account under a retirement plan recognized as such by the Internal Revenue Service, including individual retirement arrangements (IRAs), employer retirement plans, and retirement plans for self-employed individuals; except that any distribution of periodic payments from such accounts shall be income at the time they are received by the family;

dd. Income earned on amounts placed in a family's Family Self Sufficiency Account; and

ee. Gross income a family member receives through self-employment or operation of a business; except that the following shall be considered income to a family member:

i. Net income from the operation of a business or profession. Expenditures for business expansion or amortization of capital indebtedness shall not be used as deductions in determining net income. An allowance for depreciation of assets used in a business or

[4] For additional information on the definition of nonrecurring income, please see 24 C.F.R. § 5.609(b)(24)

profession may be deducted, based on straight line depreciation, as provided in Internal Revenue Service regulations; and

ii. Any withdrawal of cash or assets from the operation of a business or profession will be included in income, except to the extent the withdrawal is reimbursement of cash or assets invested in the operation by the family.

SCHEDULE D

DOCUMENTATION OF INCOME

The following documents shall be provided, where applicable, to the Administrator to determine income eligibility:

1. Employment Income.

Verification forms must request the employer to specify the frequency of pay, the effective date of the last pay increase, and the probability and effective date of any increase during the next twelve (12) months. Acceptable forms of verification (of which at least one must be included in the Applicant file) include:

(a) An employment verification form completed by the employer.

(b) Check stubs or earnings statement showing Applicant's gross pay per pay period and frequency of pay.

(c) W-2 forms if the Applicant has had the same job for at least two years and pay increases can be accurately projected.

(d) Notarized statements, affidavits or income tax returns signed by the Applicant describing self-employment and amount of income, or income from tips and other gratuities.

2. Social Security, Pensions, Supplementary Security Income, Disability Income.

(a) Benefit verification form completed by agency providing the benefits.

(b) Award or benefit notification letters prepared and signed by the authorizing agency. (Since checks or bank deposit slips show only net amounts remaining after deducting SSI or Medicare, they may be used only when award letter cannot be obtained.)

(c) If a local Social Security Administration ("SSA") office refuses to provide written verification, the Administrator should meet with the SSA office supervisor. If the supervisor refuses to complete the verification forms in a timely manner, the Administrator may accept a check or automatic deposit slip as interim verification of Social Security or SSI benefits as long as any Medicare or state health insurance withholdings are included in the annual income.

3. Unemployment Compensation.

(a) Verification form completed by the unemployment compensation agency.

(b) Records from unemployment office stating payment dates and amounts.

4. Government Assistance.

(a) All Government Assistance Programs. Agency's written statements as to type and amount of government assistance the Applicant is now receiving, including but not limited to assistance under the federal Section 8 program, and any changes in such assistance expected during the next twelve (12) months.

(b) Additional Information for "As-paid" Programs: Agency's written schedule or statement that describes how the "as-paid" system works, the maximum amount the Applicant may receive for shelter and utilities and, if applicable, any factors used to ratably reduce the Applicant's grant.

5. *Alimony or Child Support Payments.[5]

(a) Copy of a separation or settlement agreement or a divorce decree stating amount and type of support and payment schedules.

(b) A letter from the person paying the support.

(c) Copy of latest check. The date, amount, and number of the check must be documented.

(d) Applicant's notarized statement or affidavit of amount received or that support payments are not being received and the likelihood of support payments being received in the future.

6. Net Income from a Business.

The following documents show income for the prior years. The Administrator must consult with Applicant and use this data to estimate income for the next twelve (12) months.

(a) IRS Tax Return, Form 1040, including any:
Schedule C (Small Business)
Schedule E (Rental Property Income)
Schedule F (Farm Income)

[5] This Plan acknowledges and refers the reader to 2024 amendments to the Housing Opportunity Through Modernization Act (HOTMA). Potentially affected sections are indicated with an asterisk *.

(b) An accountant's calculation of depreciation expense, computed using straight-line depreciation rules. (Required when accelerated depreciation was used on the tax return or financial statement.)

(c) Audited or unaudited financial statement(s) of the business.

(d) A copy of a recent loan application listing income derived from the business during the previous twelve (12) months.

(e) Applicant's notarized statement or affidavit as to net income realized from the business during previous years.

7. Recurring Gifts.

(a) Notarized statement or affidavit signed by the person providing the assistance. Must give the purpose, dates and value of gifts.

(b) Applicant's notarized statement or affidavit that provides the information above.

8. *Scholarships, Grants, and Veterans Administration Benefits for Education.

(a) Benefactor's written confirmation of amount of assistance, and educational institution's written confirmation of expected cost of the student's tuition, fees, books and equipment for the next twelve (12) months. To the extent the amount of assistance received is less than or equal to actual educational costs, the assistance payments will be excluded from the Applicant's gross income. Any excess will be included in income.

(b) Copies of latest benefit checks, if benefits are paid directly to student. Copies of canceled check or receipts for tuition, fees, books, and equipment, if such income and expenses are not expected to change for the next twelve (12) months.

(c) Lease and receipts or bills for rent and utility costs paid by students living away from home.

9. *Family Assets Currently Held.

For non-liquid assets, collect enough information to determine the current cash value (i.e., the net amount the Applicant would receive if the asset were converted to cash).

(a) Verification forms, letters, or documents from a financial institution, broker, etc.

(b) Passbooks, checking account statements, certificates of deposit, bonds, or financial statements completed by a financial institution or broker.

(c) Quotes from a stock broker or realty agent as to net amount Applicant would receive if Applicant liquidated securities or real estate.

(d) Real estate tax statements if tax authority uses approximate market value.

(e) Copies of closing documents showing the selling price, the distribution of the sales proceeds and the net amount to the borrower.

(f) Appraisals of personal property held as an investment.

(g) Applicant's notarized statements or signed affidavits describing assets or verifying the amount of cash held at the Applicant's home or in safe deposit boxes.

10. Assets Disposed of for Less Than Fair Market Value ("FMV") During Two Years Preceding Lease Begin Date.

(a) Applicant's certification as to whether it has disposed of assets for less than FMV during the two (2) years preceding the Lease Begin Date.

(b) If the Applicant states that it did dispose of assets for less than FMV, then a written statement by the Applicant must include the following:

(i) A list of all assets disposed of for less than FMV;

(ii) The date Applicant disposed of the assets;

(iii) The amount the Applicant received; and

(iv) The market value to the asset(s) at the time of disposition.

11. Savings Account Interest Income and Dividends.

(a) Account statements, passbooks, certificates of deposit, etc., if they show enough information and are signed by the financial institution.

(b) Broker's quarterly statements showing value of stocks or bonds and the earnings credited the Applicant.

(c) If an IRS Form 1099 is accepted from the financial institution for prior year earnings, the Administrator must adjust the information to project earnings expected for the next twelve (12) months.

12. Rental Income from Property Owned by Applicant.

The following, adjusted for changes expected during the next twelve (12) months, may be used:

(a) IRS Form 1040 with Schedule E (Rental Income).

(b) Copies of latest rent checks, leases, or utility bills.

(c) Documentation of Applicant's income and expenses in renting the property (tax statements, insurance premiums, receipts for reasonable maintenance and utilities, bank statements or amortization schedule showing monthly interest expense).

(d) Lessee's written statement identifying monthly payments due the Applicant and Applicant's affidavit as to net income realized.

13. Full-Time Student Status.

(a) Written verification from the registrar's office or appropriate school official.

(b) School records indicating enrollment for sufficient number of credits to be considered a full-time student by the school.

SCHEDULE E

SAMPLE LEASE RIDER FOR AFFORDABLE UNITS

RIDER TO THE LEASE AGREEMENT FOR AFFORDABLE INCOME APARTMENTS (80%)*

1. TERM & PROVISIONS

The annexed Lease Agreement for an affordable housing apartment home is for a term of at least (1) year.

This apartment is being rented as an "affordable housing unit" as defined by Section 8-30g of the Connecticut General Statutes, and is to be rented at or below the lesser of 80 percent of the area median income for Newington or 80 percent of the State Median Income as determined by the U.S. Department of Housing and Urban Development ("HUD"). (Rates are determined on an annual basis.) This development has been approved by the Newington Town Plan and Zoning Commission based in part on the condition that a defined percentage of apartment homes will be rented as affordable housing apartment homes. The Landlord is required by law to strictly enforce these restrictions.

2. INCOME LIMITS

Prior to the commencement of the lease term, resident must provide Landlord with a copy of his or her most recently filed Federal Income Tax Return (Form 1040 or 1040A) or any other proof requested or allowed by law for the purpose of verifying income. Resident must certify that such proof is true and accurate and that the total annual income of all the members of Resident's family who will occupy the apartment subject to this lease does not exceed the amount set forth below which applies to the number of persons in Resident's family who will be residing in the subject apartment:

FAMILY SIZE:			
1	2	3	4
$_____	$_____	$_____	$_____

3. MAXIMUM RENTS

Notwithstanding anything in the Lease Agreement to the contrary, the total rent for the affordable housing apartment homes shall not exceed the amounts set forth below:

* A similar Rider will be used for the sixty percent (60%) affordable income apartments.

	MAXIMUM RENT	ACTUAL RENT (Less a Utility Allowance)
1 bedroom:		
Annual	$_____	
Monthly	$_____	$_____
2 bedroom:		
Annual	$_____	
Monthly	$_____	$_____

4. UTILITY ALLOWANCE

The monthly rent for an affordable rental unit includes a monthly allowance for utilities, which are heat, hot water, electricity, trash but excluding telephone and cable television. Heat and utility costs are calculated by a reasonable estimate.

5. CERTIFICATION OF INCOME

Prospective residents will be required to fill out an application form containing detailed instructions for calculating their family income and allowing the Community Manager to verify the information. Applicants will be required to sign a verification of their review and understanding of the income maximums, the penalties for false information, and the applicable procedures in the event that their income increases at some future time above the allowable maximum. Applicants will also be required to provide appropriate documentation to verify their income. Incomes of resident(s) in each affordable unit will be re-verified annually at the time of the lease renewal.

This Agreement shall terminate and the Resident may be evicted for failure to qualify, if the Resident has falsely certified family income or family composition. Such false certification constitutes material noncompliance under the Lease Agreement. Resident is obligated to provide such subsequent re-certification of income as the Landlord shall require.

The Town of Newington will be entitled to inspect the income statements of the residents of the Affordable Units upon which the Community Manager bases the certification.

6. CHANGE OF INCOME

In the event that an affordable unit resident's income changes so as to exceed the qualifying maximum or if the resident otherwise becomes disqualified, such resident must provide notice to the Landlord's representative within seven (7) days of the disqualification. Upon being disqualified, such resident, following the procedures set forth below, shall have the option to vacate the unit within ninety (90) days or to remain in the unit and sign a market rate lease and pay market rate for the unit.

7. LANDLORD'S RIGHT TO INCREASE RENT

In the event that the Resident's residence is no longer being subsidized under Section 8 of the United States Housing Act of 1937, the Landlord's right to increase the monthly rent shall be conditioned upon the Landlord's furnishing Resident with a notice at least sixty (60) days prior to such increase.

8. LANDLORD'S RIGHT TO REASSIGN PREMISES

Whereas the monthly rent for this unit is calculated on the basis of the number of bedrooms in the unit, Resident may, during the term of the Lease, be reassigned to different premises if an increase or decrease in the number of Resident's family members residing in the apartment warrants such a change under applicable statutes and regulations. In the event of such reassignment, Resident's monthly rent shall be based upon the size of the unit occupied for the remaining Lease term.

9. NO SUBLETTING OR ASSIGNMENT

Subletting of Affordable Units shall be prohibited. In addition, the affordable unit shall be occupied only as the resident's principal residence.

10. RESTRICTIONS ON USE

No portion of the residence may at any time during the term of this Agreement be used on a transient basis, for example, as a hotel, motel, dormitory, fraternity house, sorority house, rooming house, hospital, nursing home, sanitarium, or rest home.

11. ACCESS TO COMMON FACILITIES

Residents shall be given equal access with all other Residents, at an equal charge if any, to all on-site and all off-site common facilities of the Community. The Landlord shall ensure that handicapped or disabled individuals are afforded equal access to all facilities of the Community.

12. INTERPRETATION

Unless otherwise indicated, the terms used herein shall have the same meaning ascribed to them in the main body of this Lease Agreement. This rider shall control any conflict between terms herein and the Lease Agreement.

13. PROCEDURES FOR INITIAL DESIGNATION AND LEASING OF AFFORDABLE UNITS

Attached to this Lease Agreement is the developer's initial designation of the units that shall be rented as Affordable Units. These units shall remain vacant until a qualified family is found.

In the event that the development is fully leased and the development contains the minimum number of Affordable Units containing income-qualified families, if one of the families occupying these units vacates voluntarily or otherwise, this unit will be kept vacant until another qualified family is found.

RIDER TO THE LEASE AGREEMENT
FOR AFFORDABLE UNITS

IN WITNESS WHEREOF, the parties hereto have executed this Rider to the Lease Agreement on the _____ day of _____ Year _____.

RESIDENT:

_____

_____

_____
PRINT NAME

_____
PRINT NAME

_____
DATE

_____ Development

_____
SIGNATURE MANAGEMENT REPRESENTATIVE

9


Clem Lemire Recreation Complex
Churchill Park
Main St
Berlin Tpke
CT Transit Bus Stop
Commercial plazas
Multi-family communities
Willard Ave
Louis St
Pascone Pl
CT Transit Bus Stop
Restaurants

10

Ian Cole, LLC

Professional Registered Soil Scientist / Professional Wetland Scientist
PO BOX 619
Middletown, CT 06457
Itcole@gmail.com
860-514-5642

August 22, 2024

Diamond Estates LLC
Mr. Patrick T. Snow
110 Court Street
Suite 1
Cromwell, CT 06416

RE: WETLAND AND WATERCOURSE DELINEATION REPORT
103 LOUIS STREET
MBL: 27-001-00A
2.68-AC
NEWINGTON, CONNECTICUT

Dear Mr. Snow,

At your request, I completed a field survey of the above reference 2.68-acre parcel located at the southwest corner of Louis Street and Pascone Place in the Town of Newington in search of Connecticut jurisdictional inland wetlands and watercourses boundaries.

DELINEATION METHODOLOGY

A soil and wetland survey were completed in accordance with the standards of the Natural Resources Conservation Services (NRCS) National Cooperative Soil Survey and the definitions of inland wetlands and watercourses as found in the Connecticut General Statutes, Chapter 440, Sections 22a-36 through 22a-45 as amended. Wetlands, as defined by the Statute, are those soil types designated as poorly drained, very poorly drained, floodplain or alluvial in accordance with the NRCS National Cooperative Soil Survey. Such areas may also include disturbed areas that have been filled, graded, or excavated and which possess an aquic (saturated) soil moisture regime.

Watercourses means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, vernal, or intermittent, public, or private, which are contained within, flow through or border upon the Town of Newington or any portion thereof not regulated pursuant to sections 22a-28 through 22a-35, inclusive,

of the Connecticut General Statutes. Intermittent watercourses are defined permanent channel and bank and the occurrence of two or more of the following characteristics: (a) evidence of scour or deposits of recent alluvium or detritus, (b) the presence of standing or flowing water for duration longer than a particular storm incident, and (c) the presence of hydrophytic vegetation.

WETLAND FIELD SURVEY RESULTS

The on-site soil and wetland survey was completed on August 1, 2024, to examine the upper 20" of the soil profile for the presence of hydric soil conditions and if present to delineate any wetland and/or watercourse boundaries located on the property.

After examining the existing site conditions including soils, hydrology, and vegetation it is my professional opinion that there are ***no inland wetlands or watercourses*** on the subject parcel.

As illustrated on the attached copy of the Town of GIS mapping, the site is currently vacant and undeveloped. The subject lot is maintained lawn with exception of a narrow-wooded area along the south property line. The attached photo illustrates the general on-site conditions.

SOIL SURVEY

The soils identified on-site are a refinement of the Natural Resources Conservation Service (NRCS) Websoil Soil Survey.

The bulk of the on-site soils have long been disturbed throughout. The soils are classified as belonging to the Udorthents / Urban Land soil complex which contains miscellaneous soil types that are present on the landscape in a complex pattern that is not practical or necessary to sperate. These soils are used to denote moderately well to well drained earthen material which has been so disturbed by cutting, filling, or grading, that the original soil profile can no longer be decerned and are co-associated with buildings, roads, parking lots and landscaping of developed areas.

The property is a level topographic plateau of well drained sandy soils originating from water sorted outwash material belonging to the Manchester gravelly loam soil series. No areas of poorly drained, very poorly drained, alluvial or otherwise hydric soils were noted on the subject parcel.

If you have any questions or comments, please do not hesitate to contact me at itcole@gmail.com or (860) 514-5642.

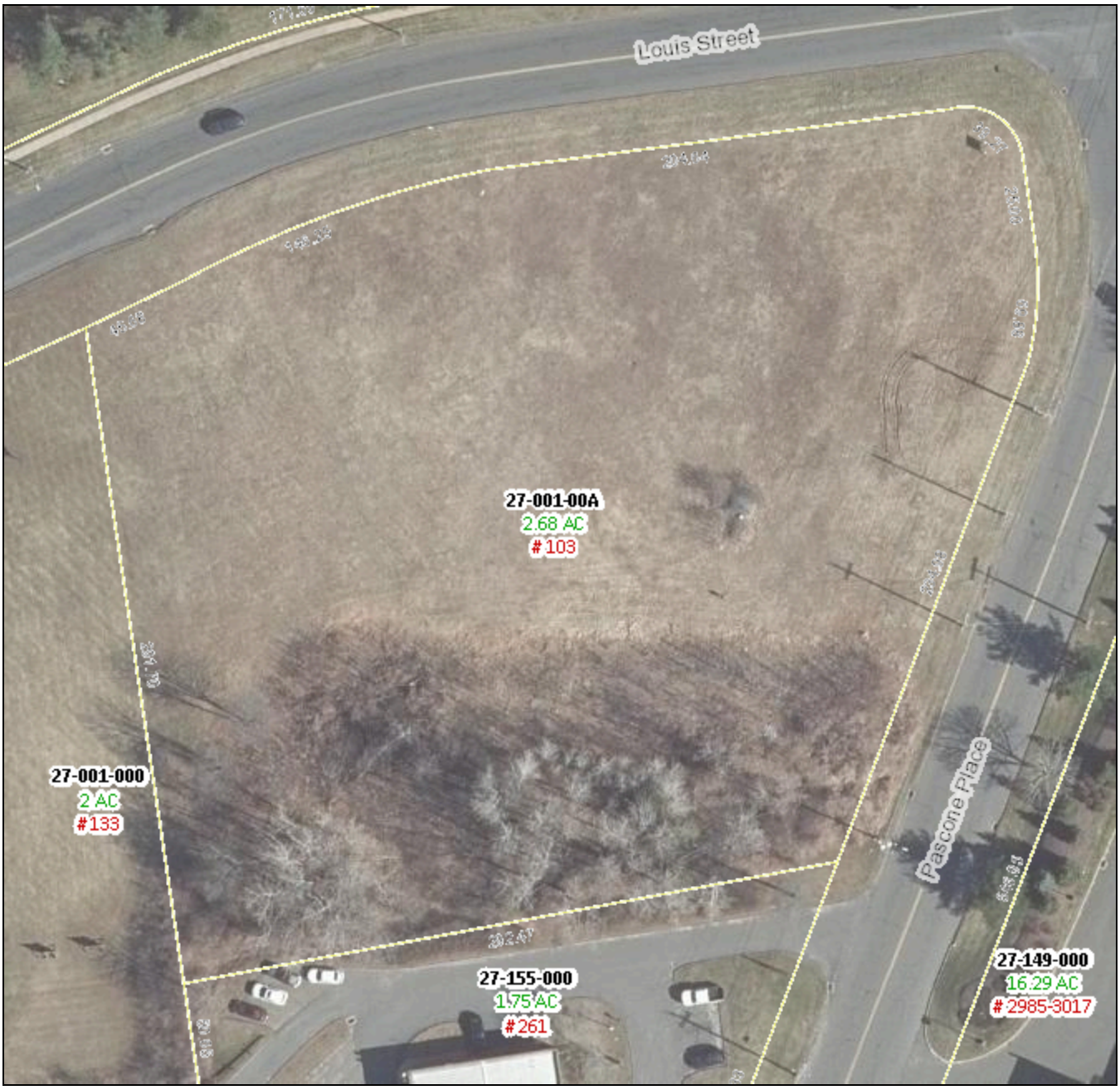
Sincerely,

Ian T. Cole
Professional Registered Soil Scientist
Professional Wetland Scientist #2006

Town of Newington

Geographic Information System (GIS)

Date Printed: 8/18/2024



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Newington and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 94 feet

Soil Map—State of Connecticut, Western Part
(103 LOUIS ST NEWINGTON)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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: State of Connecticut, Western Part
Survey Area Data: Version 1, Sep 15, 2023

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

Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
37E	Manchester gravelly sandy loam, 15 to 45 percent slopes	0.9	29.0%
306	Udorthents-Urban land complex	1.9	63.7%
307	Urban land	0.2	7.3%
Totals for Area of Interest		**3.0**	**100.0%**

Photo 1: Example of the general upland conditions on the vacant undeveloped parcel listed at 103 Louis Street - Newington.

Photo taken August 1, 2024

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Premier Real Estate Services II, LLC
110 Court Street, Suite 1
Cromwell, CT 06416

November 19, 2025

Stanley Sobieski, Chair, and Members
Newington Town Plan & Zoning Commission
200 Garfield Street
Newington, CT 06111

Paul Dickson, Town Planner
Town of Newington
200 Garfield Street
Newington, CT 06111

Re: Application of Premier Real Estate Services II, LLC for Site Plan Approval, 41 Rental Apartment Homes Under C.G.S. § 8-30g, 103 Louis Street, Newington, Connecticut

Dear Chairman Sobieski, Commission Members, and Mr. Dickson:

Premier Real Estate Services II, LLC ("Premier") is under contract to purchase the parcel located at 103 Louis Street (MBL 27-001-00A), Newington, Connecticut (the "Subject Property"). Premier will be submitting an application for site plan approval for the development of a multifamily residential community on the Subject Property, in accordance with General Statutes § 8-30g.

The law firm of Hinckley Allen is Premier's legal counsel for this application. I hereby authorize Hinckley Allen and its attorneys to execute any application forms or other documents in connection with this application, and to submit documentation pertaining to the application on behalf of Premier.

Very truly yours,

By: _____
Patrick Snow
Duly Authorized

Innate Investments, LLC
133 Louis Street
Newington, CT 06111

November 14, 2025

Stanley Sobieski, Chair, and Members
Newington Town Plan & Zoning Commission
200 Garfield Street
Newington, CT 06111

Paul Dickson, Town Planner
Town of Newington
200 Garfield Street
Newington, CT 06111

Re: Application of Premier Real Estate Services II, LLC for Site Plan Approval, 41 Rental Apartment Homes Under C.G.S. § 8-30g, 103 Louis Street, Newington, Connecticut

Dear Chairman Sobieski, Commission Members, and Mr. Dickson:

Innate Investments, LLC (Innate) is the owner of the parcel located at 103 Louis Street (MBL 27-001-00A), Newington, Connecticut (the "Subject Property"). Premier Real Estate Services II, LLC is under contract to purchase the Subject Property.

Premier Real Estate Services II, LLC will be filing an application for site plan approval for the development of a multifamily residential community on the Subject Property, in accordance with General Statutes § 8-30g. We hereby authorize Premier Real Estate Services II, LLC and its legal counsel at the law firm of Hinckley Allen to execute any application forms or other documents in connection with this application, and to submit documentation pertaining to the application on behalf of Innate.

Thank you for your consideration.

Very truly yours,

By:
Innate Investments, LLC
Duly Authorized
STEPHEN C. JUDSON JR

70110938 v1

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Joseph H. Versteeg

Professional Profile

Principal of Versteeg Associates LLC, a consulting firm specializing in the interpretation and proper application of building codes, fire/life safety codes, and accessibility standards; compliance reviews of architectural and engineering plans and specifications; compliance inspections of buildings and life safety systems; formulating and implementing fire safety/protection strategies; evacuation planning, as well as developing and instructing fire/life safety training programs. Established 1994.

Summary of Qualifications

- Commanding Officer of the Technical Services Section; Supervisor of the Fire Safety Code and Plan Review Units - Office of the Connecticut State Fire Marshal responsible for all compliance activities, investigations of complaints, post fire examinations, the evaluation of alternative methods of compliance and monitoring of corrective actions, conduct inspections of buildings and reviews of architectural drawings for compliance with the Fire Safety Code; develop and present training programs in code related topics.
- Certified Fire Marshal and Licensed Building Official – State of Connecticut
- Principal member of the Technical Committees on Means of Egress and Residential Occupancies of the National Fire Protection Association's *Life Safety Code* (NFPA-101) and the *Building Construction and Safety Code* of the National Fire Protection Association (NFPA-5000);
- Former chairperson of the Technical Committee on *Alternative Approaches to Life Safety* of the National Fire Protection Association (NFPA-101A).
- Former member of the Technical Correlating Committee on *Healthcare Facilities* of the National Fire Protection Association (NFPA-99).
- Principal member of the Technical Committee on *Fire Protection for Marinas and Boatyards* of the National Fire Protection Association (NFPA-303).
- Principal member and former Chairperson of the Technical Committees on Structures and Materials and Building Construction for the *Building Construction and Safety Code* of the National Fire Protection Association (NFPA-5000).
- Former principal member of the Technical Committee on Means of Egress for the *International Building Code* of the International Code Council.
- Instructor of NFPA-1, the *Fire Code* for the National Fire Protection Association. (2010 – 2015)
- Instructor of NFPA-101, the *Life Safety Code* and NFPA-5000, the *Building Construction and Safety Code* for the National Fire Protection Association. (1994 – 2013)
- Instructor *Applying NFPA 101/Life Safety Code to the Joint Commission Statement of Conditions* for the National Fire Protection Association and Joint Commission Resources. (2003 – 2013)
- Contributing author to the National Fire Protection Association's NFPA 1 *Fire Prevention Code Handbook* and *Fire and Life Safety Inspection Manual*.
- Co-author of the National Fire Protection Association's *Performing Plan Reviews for Life Safety Code Compliance*.
- Recipient of the National Fire Protection Association's *Committee Service Award.*
- AIA Connecticut Design Award - Gillette Castle Restoration and Life Safety Enhancements: East Haddam CT - December 2002. Code consultant to Barkin Andrade Architects, Project Architects.

SCOTT F. HESKETH, P. E.
Manager of Traffic and Transportation Engineering
F. A. Hesketh & Associates, Inc.
East Granby, CT

Background

Over 33 years of traffic, civil and transportation engineering experience including preparation of traffic impact studies for industrial, commercial and residential developments, transportation planning, roadway improvements and traffic signal design and site design.

Education

University of Detroit
Detroit, Michigan
Bachelor of Civil Engineering, 1989

University of Minnesota
Minneapolis, Minnesota
Masters of Civil Engineering, 1992

Additional Studies at University of Hartford, 1984-86

Professional Qualifications

Licensed Engineer – Connecticut No. 20448 (Active) and North Carolina No. 034010 (Inactive)

Professional Affiliations

Institute of Transportation Engineers American
American Society of Civil Engineers

Professional Experience

1990 - Present

F.A. Hesketh & Associates, Inc.
East Granby, Connecticut

Manager of Transportation Engineering responsible for the collection and analysis of data related to the impact of development projects on the surrounding highway network. Responsible for the preparation and presentation of traffic impact reports to local and state agencies. Emphasis in traffic projection, traffic signal capacity and design, and the development of roadway plans and constructions documents for these projects. Extensive experience with numerous capacity analysis and traffic modeling programs and preparation of applications to OSTA.

ZUVIC | Infrastructure Solutions

General Information & Company Background

ZUVIC Inc. is a full-service civil/environmental engineering company based in Rocky Hill, Connecticut. We have provided professional expertise to public and private sector clients throughout the state since 1988. We have worked successfully with owners, attorneys, utility companies and architects in New York, Rhode Island, and Massachusetts on a number of landmark building projects in recent years. Our inspired and knowledgeable team of professionals and comprehensive list of services allow us to respond to all of our clients' engineering, environmental, geotechnical and surveying needs quickly while maintaining project schedules and budgets.

Our company provides on-call professional services for Connecticut Department of Administrative Services (CT DAS), Eversource Energy, Metropolitan District (MDC), Connecticut Department of Transportation (CTDOT), City of Norwich, Town of Bloomfield, Capitol Region Council of Governments (CRCOG) and Goodwin University.

ZUVIC is a Connecticut Department of Administrative Services certified Minority Business Enterprise (CTDAS MBE) and MDC-registered Small Local Business Enterprise (SLBE) firm.

Our Professional Licensures include:

- Licensed Environmental Professionals
- Licensed Asbestos Inspectors
- Licensed Professional Engineers (CT, NY, MA, RI)
- Land Surveyors

Our field staff are OSHA trained:

- 40-Hour Hazardous Waste Operations and Emergency Response Certification
- 8-Hour Hazardous Waste Site Supervisors Training
- 10-Hour Construction Safety Training

Civil Engineering Services

ZUVIC provides quality civil engineering services, from site planning and development to utility upgrades. Our engineering services include the following:

- **Feasibility Studies** – Prior to conceptual design, ZUVIC reviews applicable codes and regulations and determines site restrictions, to assure that a client's goals can be met prior to making a financial commitment to the project.
- **Site Planning and Development** – After completion of the conceptual design, ZUVIC develops site plans that meet the needs of its clients and comply with applicable codes and regulations.
- **Utility Design** – We design new water supply and distribution systems, sanitary and storm sewer systems, and repair/replacement/relocation of existing utility systems.
- **Hydrologic and Hydraulic Studies and Analyses** – From designing small stormwater collection systems to completing detailed hydrologic/hydraulic analyses of urban watersheds, ZUVIC uses the latest software to efficiently complete projects.
- **Highway Design** – ZUVIC provides roadway inspection, partial or full-depth repair design, and construction phase services. Roadway improvements are designed to meet all applicable State and local requirements. Our firm is prequalified by CTDOT for Highway Design services.
- **Construction Services** – ZUVIC provides environmental and civil construction administration and inspection services to ensure compliance with plans and specifications. Other construction services include preparation of construction estimates, response to RFIs, shop drawing/submittal review, contractor invoice review, change order review, and budget tracking. Our firm is prequalified by CTDOT for Construction Engineering and Inspection (Road & Bridge) services.
- **Surveying** – ZUVIC uses the latest GPS and total station technology to provide cost effective and accurate property, building, and topographic surveys.
- **Structural Design and Evaluation** – Whether it's determining the structural integrity of an existing building or designing a new structure, ZUVIC has the professional capabilities needed to make any structural project a success.

DANIEL VILL, P.E.
Civil Engineer / Project Manager

zuvic

Experience Summary

Daniel Vill has a broad range of experience as a civil engineer. Mr. Vill has demonstrated knowledge in Highway Design, Utility Planning, Site Design and Drainage Design, including preparing hydraulic models for CT DOT projects. He has also performed full time construction inspection services for a variety of construction projects, including DOT Bridge Construction & Rehabilitation, Highway Construction, various Underground Utility Installations, and private Site Development, as well as Contract Administration for those projects.

Professional Licenses/Certifications

Licensed Professional Engineer in Connecticut (32077)

Education

B.S. Civil/Environmental Engineering, University of Connecticut, Storrs, CT, 2012

Relevant Project Experience

Design

Reconstruction of Railtree Hill Road, Woodbury, CT (2023-Present) – Project Manager responsible for the coordination and design of this roadway reconstruction project, Dan prepared plans for alignment, pavement, and drainage improvements. The design specifically addressed the conveyance of stormwater away from neighboring properties, and reducing stormwater flows over the roadway at steep grades. The project required permitting from the Woodbury Inland Wetlands Agency.

Goodwin University, 339 Main Street, East Hartford, CT (2023) – Project Manager responsible for the design and construction of an office building and full site redevelopment. Project features included overhead doors, security fencing, lighting, sidewalks and ramps, parking lots and striping, utility relocation including water and fire services, underground drainage, infiltration, and detention structures, and hydraulic design compliant with MS4 requirements. Permits included CTDOT encroachment, and East Hartford Planning & Zoning Special Permit.

Goodwin University, Site Drainage Improvements, East Hartford (4/2022-Present) – Project engineer for the design and construction of site and drainage improvements at various locations on Main Street. Hydraulic models were created for the sites to examine stormwater flow, and the effects of connection to the Town of East Hartford drainage system. Best management practices including detention and infiltration were applied in accordance with MS4 guidelines and the CT Stormwater Quality Manual. The projects required Special Permit approval by the Town of East Hartford Planning and Zoning Commission.

Rocky Hill Town Farm Remediation and Redevelopment (2022-2024) – Project engineer for the design, bidding, and construction of open space redevelopment in Rocky Hill. The town park site plan included gravel roads, parking areas, community gardens, future barn pad grading, drainage swales. The construction plans and drainage report were prepared in conformance with Town of Rocky Hill and CT DOT Drainage Manual guidance. The site plan was developed in conjunction with plans for remediation of contaminated soil and underground storage tanks. The site plan required approval from the Rocky Hill Inland Wetlands Commission and from the Planning & Zoning Commission. The project utilized funds from DECD grants.

Camp Schade, Boys and Girls Club of New Britain, Burlington, CT (2022-2024) – Project Manager responsible for the civil site design in support of the revitalization of a rural overnight camp. Site features included demolition of in-ground pools, resurfacing of athletic courts, and installation of concrete sidewalk, curbing, fencing, and a splash pad. In support of the mechanical design, the site design included slabs for pre-fabricated buildings and water storage tanks. The site required DEEP approval for the discharge of pool filter backwash, and local approvals from Planning and Zoning.

Goodwin University, South Meadows Multi-Use Recreational Trails Phase IV, East Hartford, CT (2023) – Project engineer for the design, bidding, and construction of the South Meadows Multi-use paved trail along the Connecticut River. Project features include wood fencing, bituminous pavement, signage, outdoor exercise equipment, and hardscape features. The design was completed in accordance with permits from DEEP with considerations for protection of endangered species. Flood management certification was also acquired for this project, which was constructed partly within the 100-year floodplain.

Spruce Brook Apartments, Berlin, CT (3/2023-Present) – Project engineer for the design and construction of site and drainage for a 58 unit multi family development located on the Berlin Turnpike in Berlin CT. Site design concepts were prepared in conformance with the Town of Berlin design criteria. Hydrologic and hydraulic models were created per CT DOT Drainage Manual and Town's guidance for the approx. 6Ac site to determine theoretical stormwater discharge, and the effects of the development on the adjacent CT DOT drainage system and the neighboring properties. Best management practices including detention and infiltration were applied in accordance with MS4 guidelines and the CT Stormwater Quality Manual.

The Metropolitan District, Water Main Design-Build, Hartford, CT (2023) – Project Engineer for the design-build team tasked with replacement of 5,400 LF of water main in the Hubbard Rd neighborhood. In cooperation with the prime contractor and MDC project manager, Dan prepared the plans and profiles for construction. Utility crossings were coordinated with the local health district.

CT DOT

CT DOT I-691 Improvements Design Build, Southington/Meriden, CT – Drainage Design lead for the design-build team on State Project 79-244, tasked with pavement resurfacing, bridge rehabilitation and safety improvements on I-691 in the Town of Southington and the City of Meriden. More specifically, Tasks included assessment of the existing drainage facilities, making recommendations for rehabilitation, and revising the StormCAD model to evaluate the proposed rehabilitation of over 50 storm sewer runs. Drainage system rehabilitation included pipe lining, structure repairs, and design of outlet protection.

CT DOT I-84 Improvements Exits 1-8, Danbury, CT – Dan served as a project engineer on the design team for this project. The project explored options to reduce congestion and improve safety on the I-84 corridor in the City of Danbury. During these evaluations, Dan developed high level cost estimates for project alternatives ranging from resurfacing to major highway realignments and property acquisitions. Dan led the visualization team, developing a model of the corridor using RDV Systems software.

NVCOG, Route 34 Main Street, Derby, CT – Dan served as a project engineer on the design team for State Project 36-184, which consisted of the widening of Main Street (CT Route 34) with the intent to improve traffic flow and reduce congestion while improving pedestrian safety. This economic development-oriented design project was overseen by the Naugatuck Valley Council of Governments (NVCOG), and subject to review and approval by CTDOT. Project features include raised medians, new traffic signals, high visibility crosswalks, on-street parking, sidewalk improvements, and utility relocations. Following preliminary design, Dan led efforts to develop a 3D Visualization of the project's existing and proposed conditions using RDV Systems software.

CTDOT, Interchange Improvements to I-91/I-691 and Route 15 Visualization, Meriden, CT – Dan served as a project engineer on the design Visualization team for State Projects 79-240/245/246, using RDV Systems software. The project consists of highway widening, and ramp relocation with the intent to improve safety and reduce congestion. The visualization was produced during the preliminary engineering phase and used at the CTDOT scoping meeting.

Towns

Town of Rocky Hill, Belden Lane Culvert Rehabilitation Project, Rocky Hill, CT (2022-2023) – Design Engineer responsible for the preparation of the plans and specifications for the rehabilitation of the 48-inch CMP that coveys stormwater under Belden Lane. The project included the extension and lining of the existing 48-inch storm sewer, the installation of a scour hole and regrading of the embankment above the proposed storm sewer outlet to reduce the potential for erosion. Prepared a drainage report according to the CT DOT drainage manual, including updating the hydrology for the drainage basin using revised rainfall intensity criteria and TR-55, modelling the proposed culvert using HY8, and sizing the scour hole.

Ansonia Riverwalk Extension, Ansonia, CT – Dan was a project engineer on this project, responsible for community coordination, CT DEEP/USACE permitting for construction on a flood control dike, site restoration design, and bid services. The project features included a bituminous concrete multi-use path, wood and metal fencing, hardscaping, seating, and coordination with local utilities.

LOTCIP Beacon Valley Road Resurfacing and Safety Improvements, Beacon Falls, CT – Dan served as lead design engineer for the widening and resurfacing of Beacon Valley Road in Beacon Falls, CT. The roadway upgrades were designed based on LOTCIP criteria, and included metal beam guiderail systems, relocation of utility poles and drainage structures, partial depth reconstruction of the pavement, layout of pavement markings to current standards, and realignment of portions of the roadway. The design yielded increased stopping sight distances and uniform lane widths to improve traffic safety.

Construction Inspection

Town of Beacon Falls, CE&I South Main Street Streetscape, Beacon Falls, CT – Assistant Inspector under the CTDOT MSAT Program for construction of riverwalk paths, sidewalks, site amenities and streetscape improvements along South Main Street and the Naugatuck River in downtown Beacon Falls. Oversaw all on-site job testing; coordinated lab reports with test labs and Town. Maintained project construction reports. Recorded contractor payroll and payments for review and acceptance by Town and other funding partners. Processed construction change orders. Assisted with MSAT project close-out documentation including certificates of substantial completion, final payment requisitions and coordinate as-built drawings. Received and processed shop drawings required with design plans and specifications; maintain shop drawing log. Dan prepared and/or reviewed all project 4-Volume documentation submitted to MSAT for audit and final acceptance.