

TOWN OF NEWINGTON
**TOWN PLAN AND ZONING COMMISSION
REGULAR MEETING**

January 28, 2026 - 7:00 P.M.

Town Council Chamber, Room 103 - Town Hall, 200 Garfield St.
This meeting will be presented as a Zoom Webinar/Hybrid Meeting.
Information on how to attend will be posted on the Town website at:
<https://www.newingtonct.gov/virtualmeetingschedule>

AGENDA

- I. PLEDGE OF ALLEGIANCE
- II. ROLL CALL AND SEATING OF ALTERNATES
- III. APPROVAL OF AGENDA
- IV. PUBLIC PARTICIPATION (For Items Not Listed On The Agenda; Speakers Limited To 3 Minutes)
- V. REMARKS BY COMMISSIONERS
- VI. PUBLIC HEARING
 - A. Petition TPZ-25-28: Site Plan For A 41-Unit Rental Apartment Home Development Under CGS § 8-30g (Affordable Housing Application), At 103 Louis Street In The PD (Planned Development) Zone. Applicant: Premier Real Estate Services II, LLC, Owner: Innate Investments, LLC, Contact: Andrew R. Morin, Esq. (Application Received 12/10/25 - 65 Days To Open Public Hearing 2/13/26)
 - 1. Petition TPZ-25-28 Items
 - Documents:
 - 1 TPZ-25-28 STAFF REPORT 1-22.PDF
 - 2 TPZ 25-28 - 103 LOUIS STREET APPLICATION PACKAGE 12-10.PDF
 - 3 TPZ 25-28 - AH NEEDS MEMO PACKAGE - 12-10.PDF
 - 4 TPZ 25-28 (SITE PLAN) CIVIL PLANS 12-10.PDF
 - 5 TPZ 25-28 - ARCHITECTURAL PLANS 12-10.PDF
- VII. APPROVAL OF MINUTES
 - A. Approval Of Minutes From January 14, 2026 Regular Meeting
 - Documents:
 - TPZ REGULAR MEETING MINUTES 1.14.26.PDF
- VIII. NEW BUSINESS
 - A. Petition TPZ-25-28: Site Plan For A 41-Unit Rental Apartment Home Development Under CGS § 8-30g (Affordable Housing Application), At 103 Louis Street In The PD (Planned Development) Zone. Applicant: Premier Real Estate Services II, LLC, Owner: Innate

Investments, LLC, Contact: Andrew R. Morin, Esq. (Application Received 12/10/25 - 65 Days To Open Public Hearing 2/13/26)

IX. OLD BUSINESS

X. PETITIONS RECEIVED FOR SCHEDULING

XI. TOWN PLANNER REPORT

A. Town Planner Update

B. Current Land Use Applications

These may be viewed on the [CURRENT LAND USE APPLICATIONS](#) website.

XII. COMMUNICATIONS

XIII. PUBLIC PARTICIPATION (For Items Not Listed On The Agenda; Speakers Limited To 3 Minutes)

XIV. REMARKS BY COMMISSIONERS

XV. CLOSING REMARKS BY THE CHAIRMAN

XVI. ADJOURN



TOWN OF NEWINGTON

200 Garfield Street Newington, Connecticut 06111

Town Planner

Paul Dickson
Town Planner

Memorandum

To: TPZ Commission
From: Town Planning Staff
Date: 1/22/2026

Petition TPZ-25-28: Site Plan for a 41-unit rental apartment home development under CGS § 8-30g (affordable housing application), at 103 Louis Street in the PD (Planned Development) Zone. Applicant: Premier Real Estate Services II, LLC, Owner: Innate Investments, LLC, Contact: Andrew R. Morin, Esq.



Phone: (860) 665-8575 Fax: (860) 665-8577
townplanner@newingtonct.gov
www.newingtonct.gov

Zoning map of subject property and adjacent uses:



Subject parcel outlined in red

Zones:

PD = Planned Development

RP = Residential Planned

Subject parcel use: Vacant land

Adjacent uses:

1. Multifamily (Condominium)
2. Mixed Tenant Commercial/Office
3. Turnpike Plaza (Price Chopper)
4. Distribution (Soda Service)
5. Personal Service (Chiropractic/Massage/CrossFit)

Application Summary:

Premier Real Estate Services II, LLC (the “**Applicant**”) is seeking site plan approval for a 41-unit apartment development under an Affordable Housing Application (the “**Application**”). The Applicant is seeking site plan approval as a “set aside development,” pursuant to *Conn. Gen. Stat.* § 8-30g(a)(1)(B).

A set-aside development requires that at least thirty percent (30%) of the dwelling units sold or rented will be conveyed by deeds containing covenants or restrictions which shall require that, for at least forty (40) years, for which persons and families pay thirty percent or less of their annual income. Of these thirty percent (30%) of units, not less than fifteen percent (15%) of all dwelling units in the development shall be sold or rented to persons and families whose income is less than or equal to sixty percent (60%) of the median income. *Conn. Gen. Stat.* § 8-30g(a)(h). The remainder of the dwelling units conveyed by deeds containing covenants or restrictions shall be rented to persons and families whose income is less than or equal to eighty percent (80%) of the median income. *Conn. Gen. Stat.* § 8-30g(a)(h).

The Applicant is proposing developing the 2.68-acre vacant parcel at 103 Louis Street (the “**Property**”). The Property is located within the Planned Development (“**PD**”) Zone. The Application was received by the Town Planning & Zoning Commission (the “**Commission**”) at its December 10, 2025 meeting. Town staff reviewed the site plans and submitted comments to the Applicant on January 11, 2026.

Zoning Considerations

The Application is an affordable housing application subject to the provisions of *Conn. Gen. Stat.* § 8-30g. The narrow, rigorous standard of *Conn. Gen. Stat.* § 8-30g dictates that the Commission may not deny the Applicant on broad grounds such as noncompliance with zoning regulations. Rather, if the Application is denied, the Commission has the burden of demonstrating, upon appeal, that: (1) the denial was necessary to protect a substantial public interest in the Town’s health and safety; (2) such public interests clearly outweigh the public interest in affordable housing; and (3) such public interests cannot be protected by reasonable changes to the Property.

The PD Zone allows residential buildings subject to specific provisions in the regulations, upon the filing of a Special Permit (Zoning Regulations § 3.19). The PD zone bulk zoning requirements vary by use category, with 25’ side and 35’ rear yard setbacks for residential use (Zoning Regulations § 4.5). In comparison, commercial/industrial uses require 10’ side and 15’ rear yard setbacks (Zoning Regulations § 4.5). Additional requirements for residential buildings in the PD zone include a five-acre (5) minimum lot size, at least 200 square feet of recreation area per dwelling unit, and a 35’ setback from the street line for parking spaces.

Staff Review and Comments

Members of the Staff have reviewed the Application. The Town has provided initial comments to the Applicant. These comments include requests for clarification, plan updates, and additional information to review the health and safety impacts of the proposal.

Erosion and Control Plan

The Commission is required to certify the erosion control plan. The Applicant's plan requires the most recent 2024 revisions to the Connecticut DEEP 2002 Guidelines for Soil Erosion and Sedimentation Control. The Applicant's plan does not include materials stockpile areas with appurtenant E & S measures, and they have been asked to update the plan accordingly. The Applicant has also been asked to review the site for additional perimeter stabilization during construction behind units 1-13, indicate any borings and test pits performed onsite and include the findings to quantify infiltration, and to show all soil types on the E&S plan.

Site Plan

The Applicant has been asked to provide additional information on the site plan. This additional information requested includes, without limitation: (1) Available and required sight lines for intersection sight distance (“**ISD**”) and stopping sight distance (“**SSD**”) on the site plan; (2) Available snow storage areas; (3) Accessible parking signage for proposed spaces; (4) Dimensions for roadway and driveway in front of units 37-41 on the Property; (5) Information on refuse disposal; (6) Revisions to the zoning table to accurately reflect the bulk area and yard requirements for the PD Zone; (7) Setbacks on site plan; (8) Clarification of ADA-compliant ramps and grading; (9) Documentation of electric vehicle (“**EV**”) infrastructure capable of supporting Level 2 or direct current fast charging stations, as required under *Conn. Gen. Stat. § 4b-77(c)*; (10) d.

Onsite Parking: The applicant has provided an overall ratio of 2.34 parking spaces per unit. This number is greater than the number of parking spaces required in the Newington Zoning Regulations for two or more (2+) bedroom units (2 spaces per unit) and includes sixteen (16) visitor spots adjacent to the mail office including two (2) accessible spaces. The plan is designed with an interior site driveway that varies between 22’ and 24’. Staff has recommended that ‘no parking’ signs should be provided along the site driveway, to ensure emergency access.

Site Landscaping

The applicant is proposing to install eight (8) street trees (sugar maple and red maple) along the perimeter of the site and 9 smaller interior trees (kousa dogwood) in front of several units. The remainder of the site is proposed as lawn area.

Town staff has asked the applicant to incorporate foundation plantings as noted in the affordability plan, and to explore additional opportunities for landscaping on the site. One area of focus is the landscaping border along the southern property line. This area currently contains an

unmanaged vegetative border on the subject site, and existing plantings on the adjacent site. The addition of planting along the southern property line represents an opportunity to provide a substantial vegetative buffer between the existing trucking oriented commercial use (Wholesale – Soda Service) and the proposed residential use. In addition, staff has recommended additional plantings for screening for the patio areas around units 36 and 14 due to their close proximity to the property line and roadway and additional screening along the western boundary line behind units 37-41.

Vehicular Access and Traffic Report

The Applicant’s site plan includes two (2) site driveways, one on Louis Street and one on Pascone Place. Town staff has reviewed the traffic report. Additional information is necessary to complete the staff review of the proposed site driveways. As noted above, Staff has asked the Applicant to provide the calculated minimum required SSD and ISD for cars traveling on Louis Street and Pascone Place and exiting the site driveways. In addition, speed data was not presented for Pascone Place and information on the 85% percentile speed should be included for the calculated sight and stopping distances.

Site hammerhead: The Applicant is proposing to construct a hammerhead onsite for emergency vehicles. In support thereof, the Applicant has provided turning movements of Newington Truck 2 (2021) on Sheet TURN-1. The Town Engineer and Fire Chief have recommended the utilization of a gated emergency access drive on the Property as an alternative to the site hammerhead. This proposed change would likely benefit the site design by reducing the size of the hammerhead and site impervious surface.

Pedestrian Accessibility

The Property and site lack pedestrian connectivity, especially to the nearby bus stops referenced in the application narrative. While there is a sidewalk on the north side of Louis Street, there is no sidewalk along the southern side.

The Applicant’s plan includes an internal site sidewalk along the interior site driveway and adjacent to the visitor’s spaces and the mail/office building. The site sidewalks terminate at proposed pedestrian ramps that orientate pedestrian traffic into the roadway. Louis Street, as noted in the traffic report, has an estimated ADT of 6,020 vehicles with 374 vehicles during the peak morning hour and 619 vehicles during the evening hour and connects to the exceptionally busy thoroughfares of Main Street and the Berlin Turnpike. Orienting pedestrians into this busy roadway without pedestrian infrastructure, forcing pedestrians and wheelchair users to travel in the roadway, represents a significant safety concern.

The Town has requested that the Applicant revise the Application and/or site plan to ensure adequate and safe pedestrian access, which both pose a potential health and safety risk to the Town, if unmitigated. Town staff and/or the local traffic authority must review any revisions to the Application and accompanying documents.

Emergency access

As noted in the vehicular access section above, the Town requested that the Applicant explore an alternate design for the fire truck access other than the hammerhead, such as a gated emergency access drive to Pascone Place. In addition to the hammerhead, the Fire Chief has asked the applicant to explore options to increase the road width for emergency access. The practical operational width for staging onsite, as provided by the Fire Chief, is 25' due to placement of fire equipment outriggers.

Site Utilities

The proposed development will require sewer and water connections to the Metropolitan District (“MDC”) system and these connections are shown on the plan. As part of the proposed water service to the site, including the two (2) proposed hydrants, the MDC has recommended that flow testing be performed. Flow testing is also required by the Fire Marshals Office to confirm available fire-flows for the proposed hydrants. The applicant’s plan does not show proposed electrical or telecom/data infrastructure on the plan and the applicant has been asked to provide them on the plan. The Property will be served by an underground detention system that has been reviewed by the Town Engineer. Staff comments regarding the drainage system include the minimum pitch of two pipes onsite, two trees proposed over the underground system, and providing a maintenance plan/inspection/schedule for the underground detention system.

In addition, the Town Engineer has asked the Applicant to explore opportunities to incorporate a shallow swale or rain garden into the plan and direct clean water into these low impact features, as roof leaders are considered clean water and should be discharged to the ground where possible for MS4 disconnected drainage.

Affordability Plan

The affordability plan is under review and staff will provide the Commission and Applicant with any comments upon completion of the review.

Commission Review

With the opening of the public hearing, and the applicant’s initial presentation to the Commission at the 1/28/26 meeting, the Commission is encouraged to review the submitted documents and raises any questions or requests for additional information from the applicant and staff. When reviewing this affordable housing application, you may consider any issues that the Commission may legally consider in reviewing this type of development proposal. As you know, this application is filed under Section 8-30g of the CT General Statutes, and that statute requires that your decision on the application and the reasons cited for your decision be supported by sufficient evidence in the record.

**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

Applicant:

Premier Real Estate
Services II, LLC
pat@buildingct.com
110 Court Street, 1A
Cromwell, CT 06416

Agent/Counsel:

Timothy S. Hollister, Esq.
thollister@hinckleyallen.com
Andrew R. Morin, Esq.
amorin@hinckleyallen.com
Hinckley Allen
20 Church Street
Hartford, CT 06103
860.331.2823

Civil Engineer:

Daniel Vill, P.E.
daniel.vill@zuvic.com
Zuvic Inc.
40 Cold Spring Road
Rocky Hill, CT 06067
860.436.4901

Traffic Engineer:

Scott F. Hesketh, P.E.
shesketh@fahesketh.com
F.A. Hesketh & Associates, Inc.
3 Creamery Brook
East Granby, CT, 06026-8702
860.653.8000

Code Compliance:

Joseph H. Versteeg
josephversteeg@gmail.com
Versteeg Associates, LLC
86 University Drive
Torrington, CT 06790
860.480.3951

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December 8, 2025

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1. Transmission and Overview Letter
2. Newington Town Plan and Zoning Commission Application Form
3. Property Card and Deed
4. Traffic Report, prepared by F.A. Hesketh & Associates, Inc., December 4, 2025
5. Hydraulic Analysis, prepared by Zuvic Inc., June 2025
6. Architectural Rendering, prepared by Centerpoint Apartments, LLC
7. Code Compliance Review Letter, prepared by Versteeg Associates, LLC, December 3, 2025
8. Affordability Plan, prepared by applicant and Hinckley Allen, November 2025
9. Neighborhood Aerial
10. Wetland and Watercourse Delineation Report, August 22, 2024
11. Owner and Applicant Authorization Letters
12. Consultant Resumes/CV's

Submitted separately:

1. Memorandum with attachments regarding affordable housing need in Newington, prepared by Hinckley Allen, November 2025
2. Civil plan set – including existing conditions survey, prepared by Zuvic Inc., December 3, 2025
3. Architectural elevations and floor plan set, prepared by Centerpoint Apartments, LLC, October 4, 2025
4. Application fee, payable to the Town of Newington, in the amount of \$275.00

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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

2



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 *A Hinckley* Date 11/18/2025
c/o Hinckley Allen

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 *A Hinckley* Date 11/18/2025
c/o Hinckley Allen

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 *A Hinckley* 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):

- Zoning Map Change from the _____ Zone to the _____ Zone (Public Hearing required).
- Zoning Text Amendment to Section _____. *A copy of the proposed amendment and the reason for amendment is attached* (Public Hearing required).
- Subdivision (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").
- Resubdivision (Public Hearing required). (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").
- Special Permit per Section _____ of the Zoning Regulations. *Explanation of the proposed activity is attached* (Public Hearing required).
- Site Plan Approval (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").
- Site Plan Modification (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").
- Other (describe in detail, or attach): _____.

PROPERTY OWNER SIGNATURE: *A Hinckley* 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."

3

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				Appraised Value	
Census/Tract	494100	VisionPID	2490	Total Land Value	217,000
Dev Map ID	3048/0/3	Income & Expense	VACANT LAND	Total Building Value	0
GIS ID		Solar		Total Outbldg Value	0
Route				Total Market Value	217,000
District					
Utilities					

Acres				State Item Codes		
Land Type	Acres	490	Total Value	Code	Quantity	Value
Commercial Primary Vacant	2.00	0.00	200,000	52-Commercial Vacant Land	2.68	151,900
Comm Vac Excess	0.68	0.00	17,000			
Total	2.6800	0.00	217,000			

Assessment History (Prior Years as of Oct 1)						490 Appraised Totals					
	2025	2024	2023	2022	2021	Type	Acres	Value	Type	Acres	Value
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				Totals	0.00	0

Comments

Application Date: _____ **Expiration Date:** _____

Unique ID: C0524110

Newinaton

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		Attached Component Computations	
Fuel Type		Type	Yr Bit Area/Qty
Cooling Type			
Interior			
Floors			
Walls			
Wall Height			
Exterior			
Exterior Walls			
Roof Type			
Roof Cover			
Special Features			
Detached Component Computations			
Type	Year	Condition	Area/Qty
Type	Year	Condition	Area/Qty

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)

Patricia A. Casey
Joseph F. Casey

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)
COUNTY OF Middlesex)

ss: Auburndale March 21, 2006

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 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

4

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 provide 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

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 is 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.

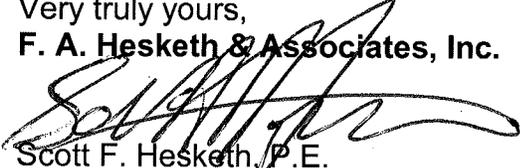
Based on the background traffic volumes, the anticipated site generated traffic volumes and the capacity analyses as outlined in this report, it is my professional opinion that the local roadway network has sufficient capacity to accommodate the anticipated site generated traffic. The proposed site driveway 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

Mr. Patrick T. Snow
December 4, 2025
Page 2

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

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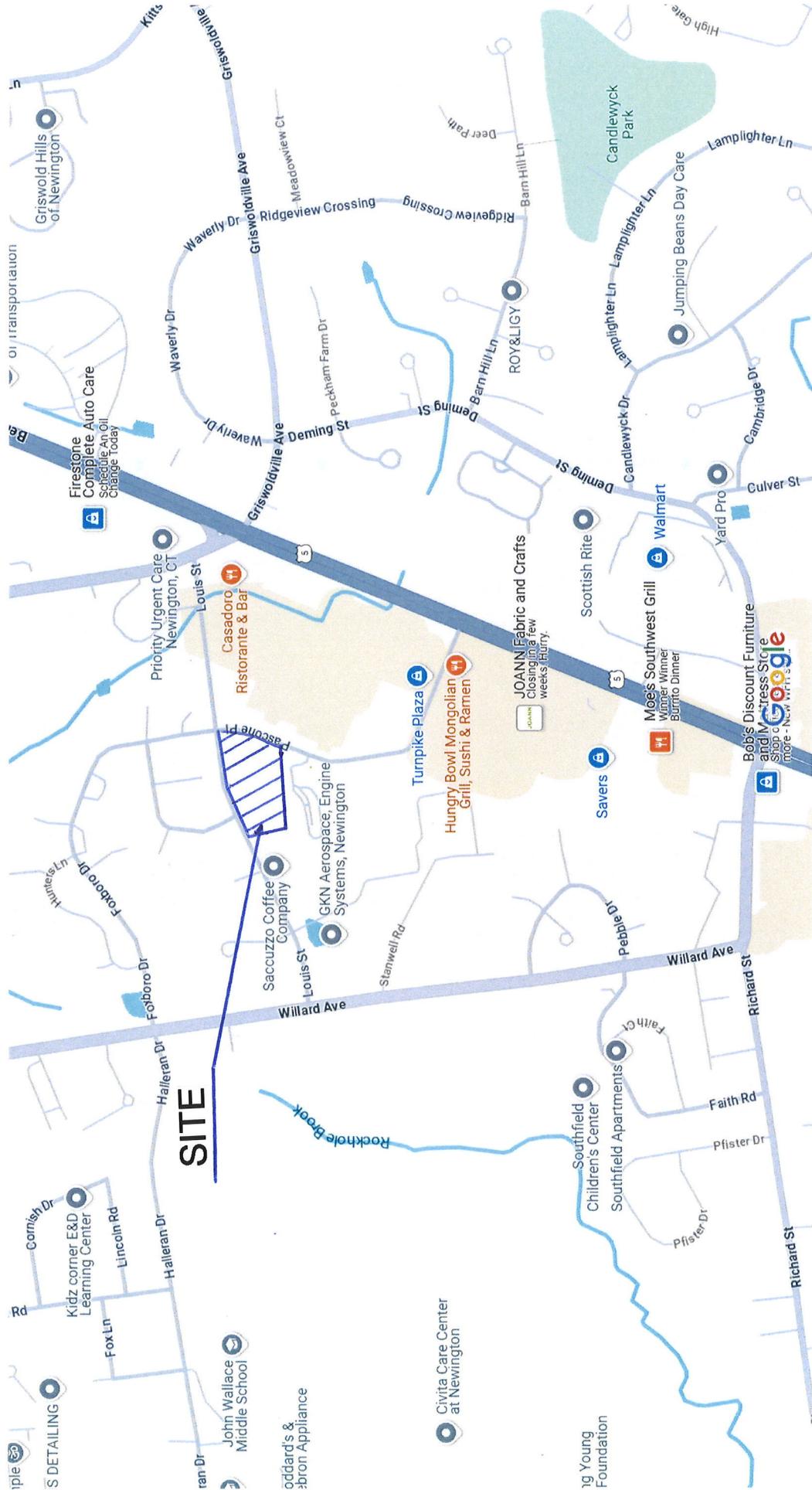


FIGURE 1

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

Louis Street West Pascal Place
 Newington, Connecticut

Site Code:
 Station ID: 6147

Latitude: 0' 0.0000 Undefined

Start Time	14-Apr-25		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	Eastbound	Westbound	Eastbound	Westbound												
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	74	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	136	185	136	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	93	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

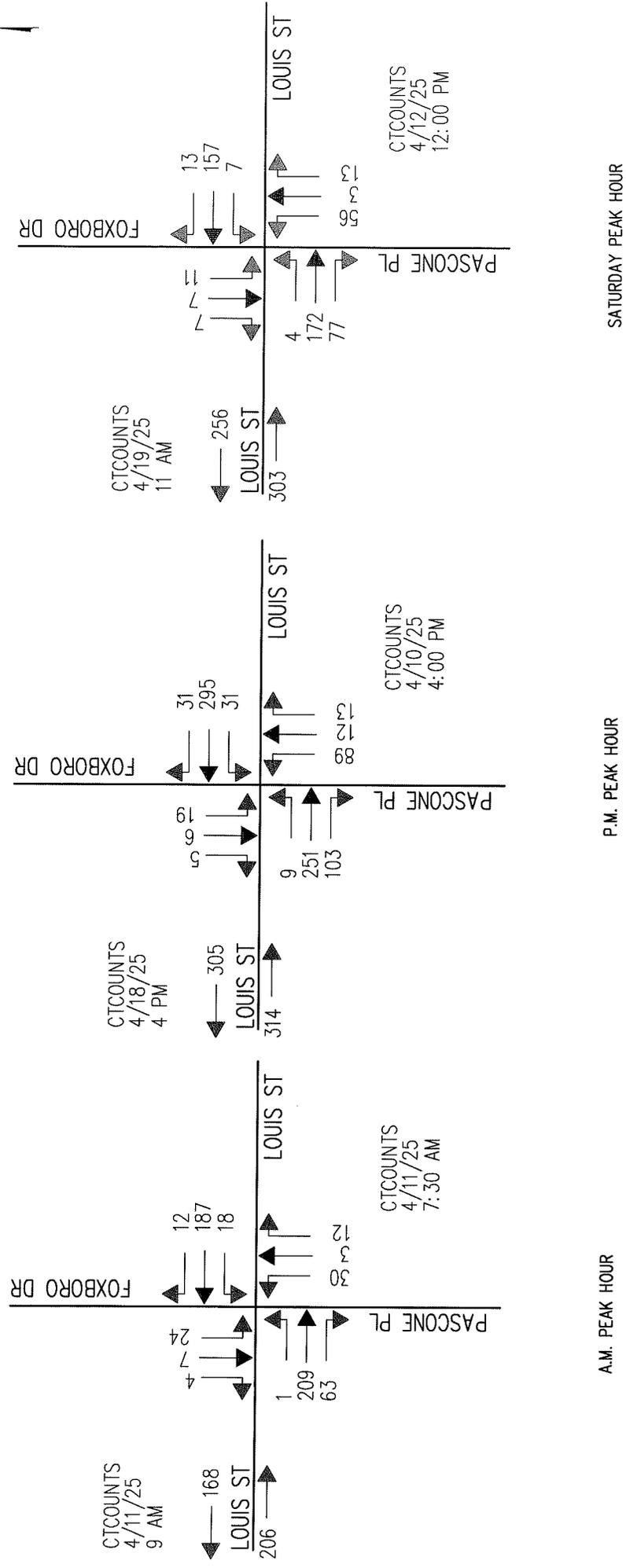


FIGURE 2

5-07-25

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06028

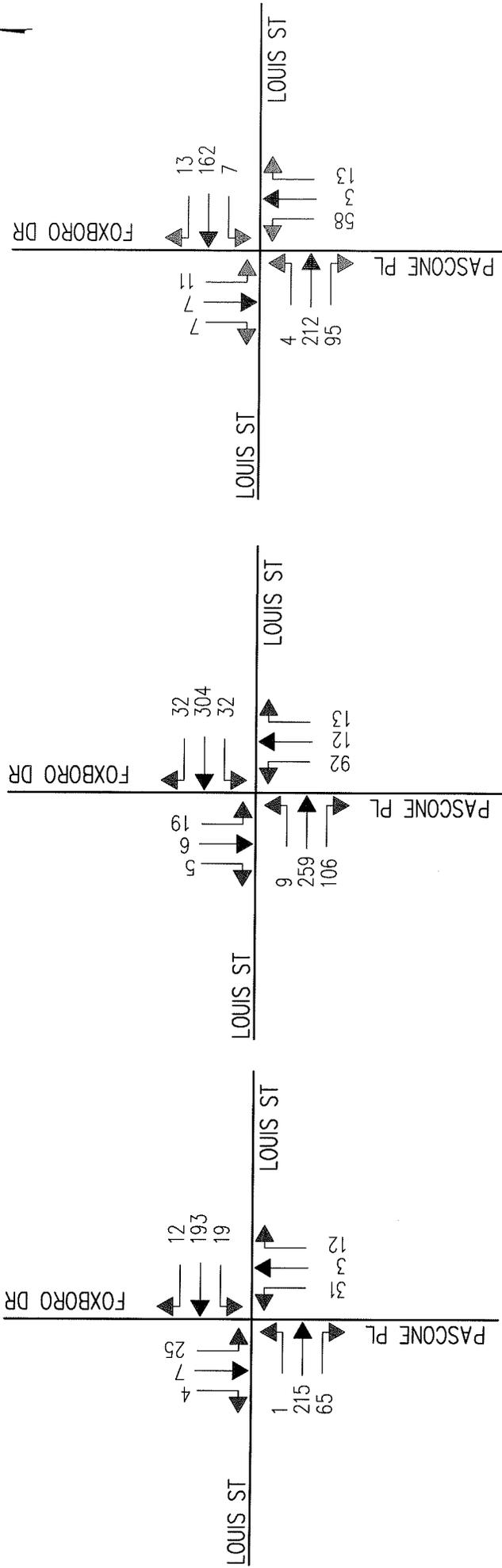
FAH

TRAFFIC
PLANNING
ENGINEERING
DESIGN

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

PROPOSED RESIDENTIAL
103 LOUIS STREET
NEWINGTON, CONNECTICUT

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 06028

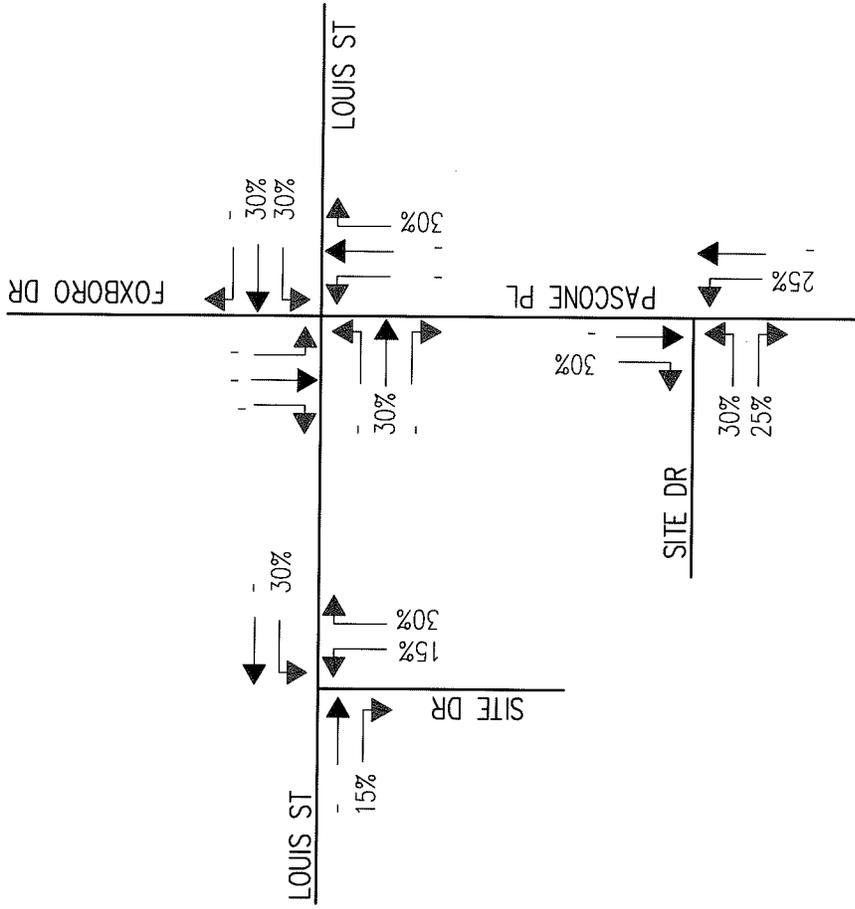


TRAFFIC
 PLANNING
 ENGINEERING
 DESIGN

NOT TO SCALE

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

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

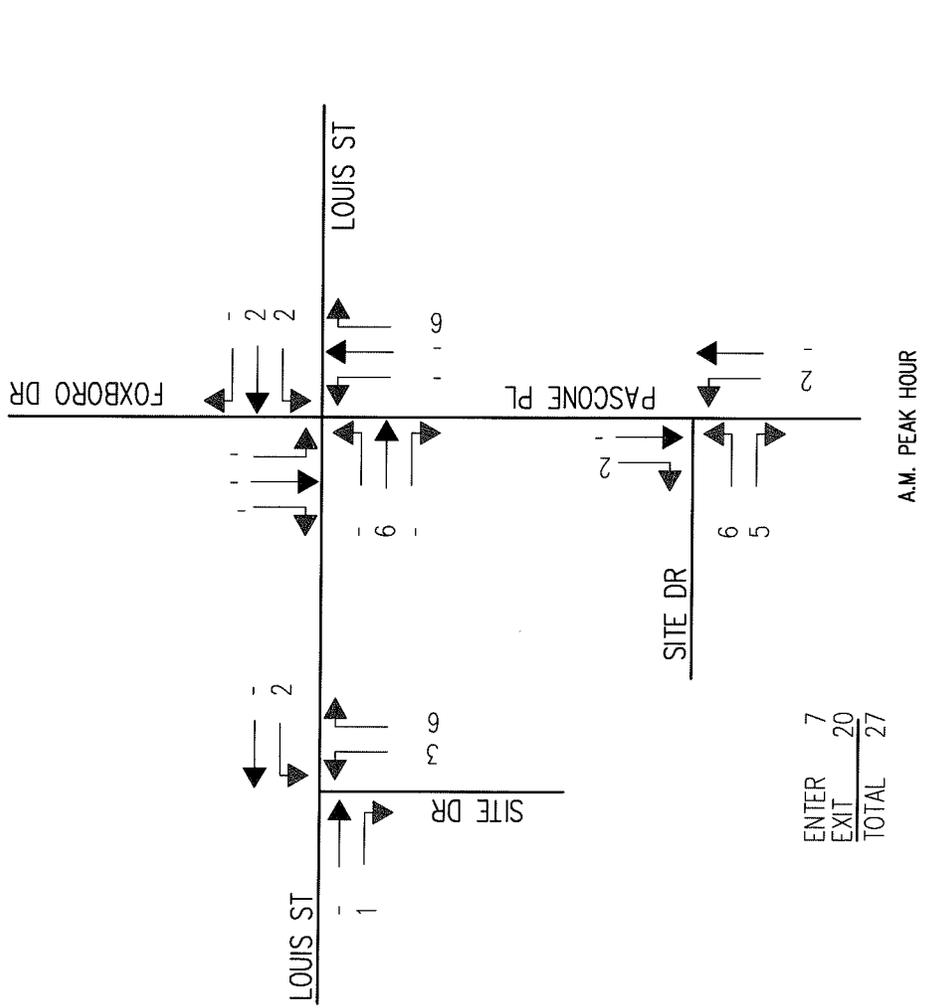
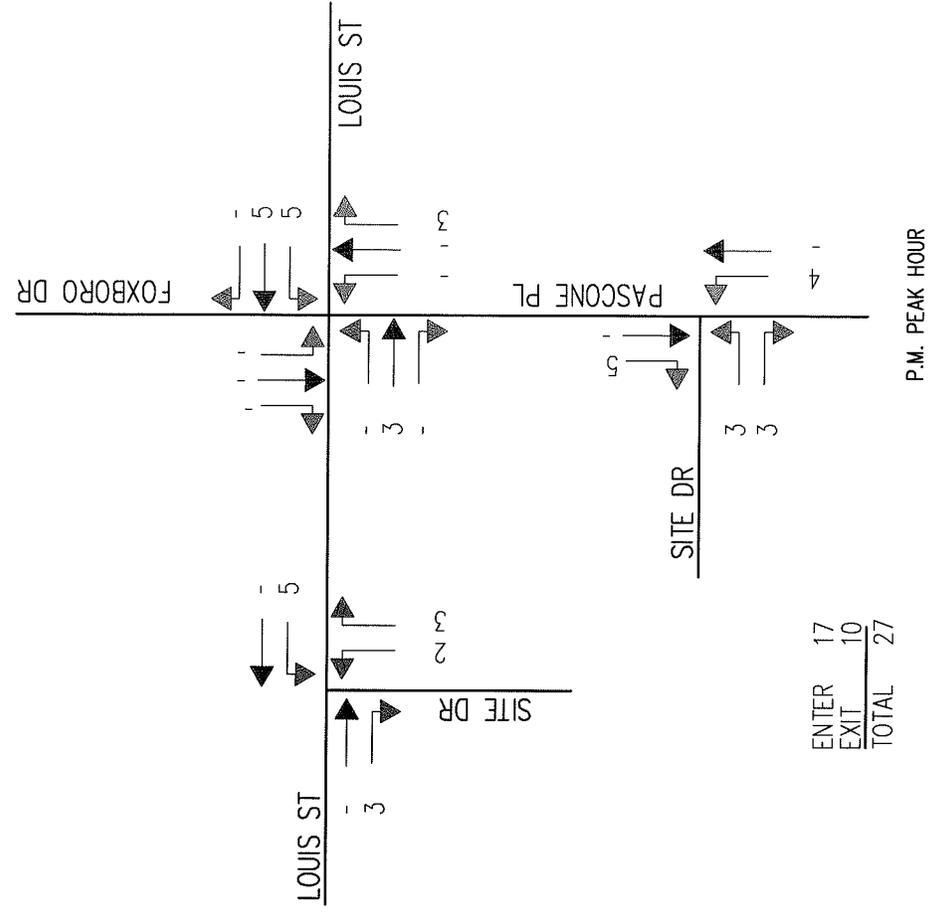


SATURDAY PEAK HOUR

FIGURE 4 5-07-25

<p>DIRECTIONAL DISTRIBUTION OF SITE GENERATED TRAFFIC</p>	<p>F. A. Hesketh & Associates, Inc. 8 CREAMERY BROOK, EAST GRANBY, CT 06026</p>
<p>PROPOSED RESIDENTIAL 103 LOUIS STREET NEWINGTON, CONNECTICUT</p>	<p>FAH TRAFFIC PLANNING ENGINEERING DESIGN</p>

NOT TO SCALE



11/20/25

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

FAH

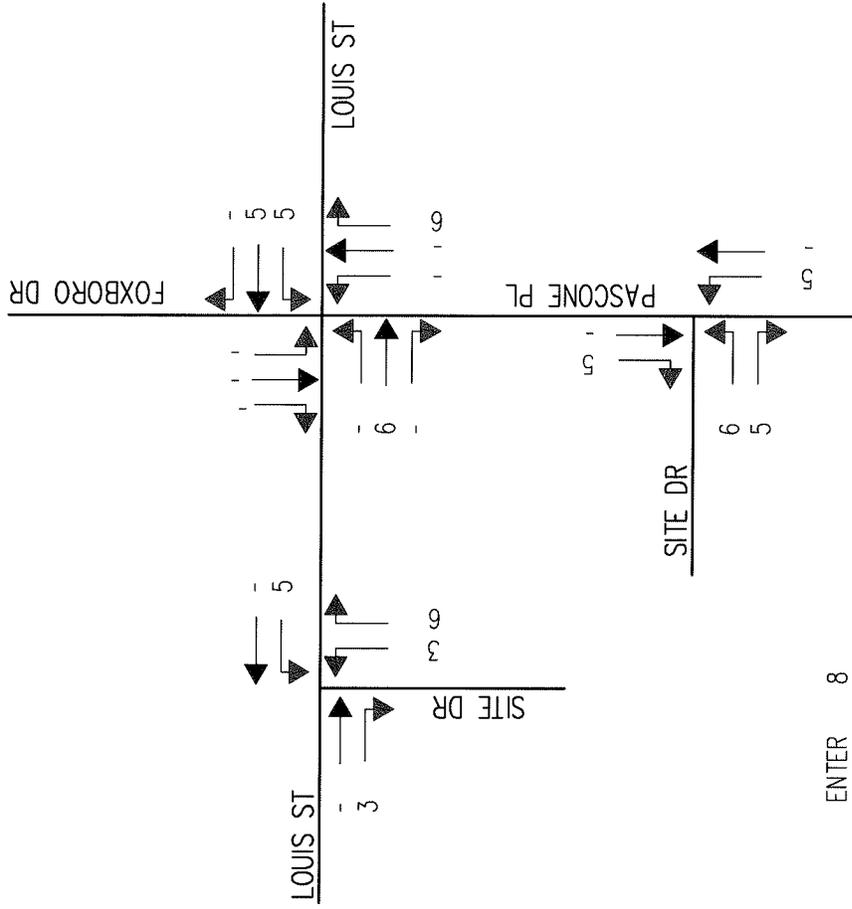
TRAFFIC
 PLANNING
 ENGINEERING
 DESIGN

FIGURE 5

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

PROPOSED RESIDENTIAL
 103 LOUIS STREET
 NEWINGTON, CONNECTICUT

NOT TO SCALE



ENTER	8
EXIT	12
TOTAL	20

SATURDAY PEAK HOUR

FIGURE 6 11/20/25

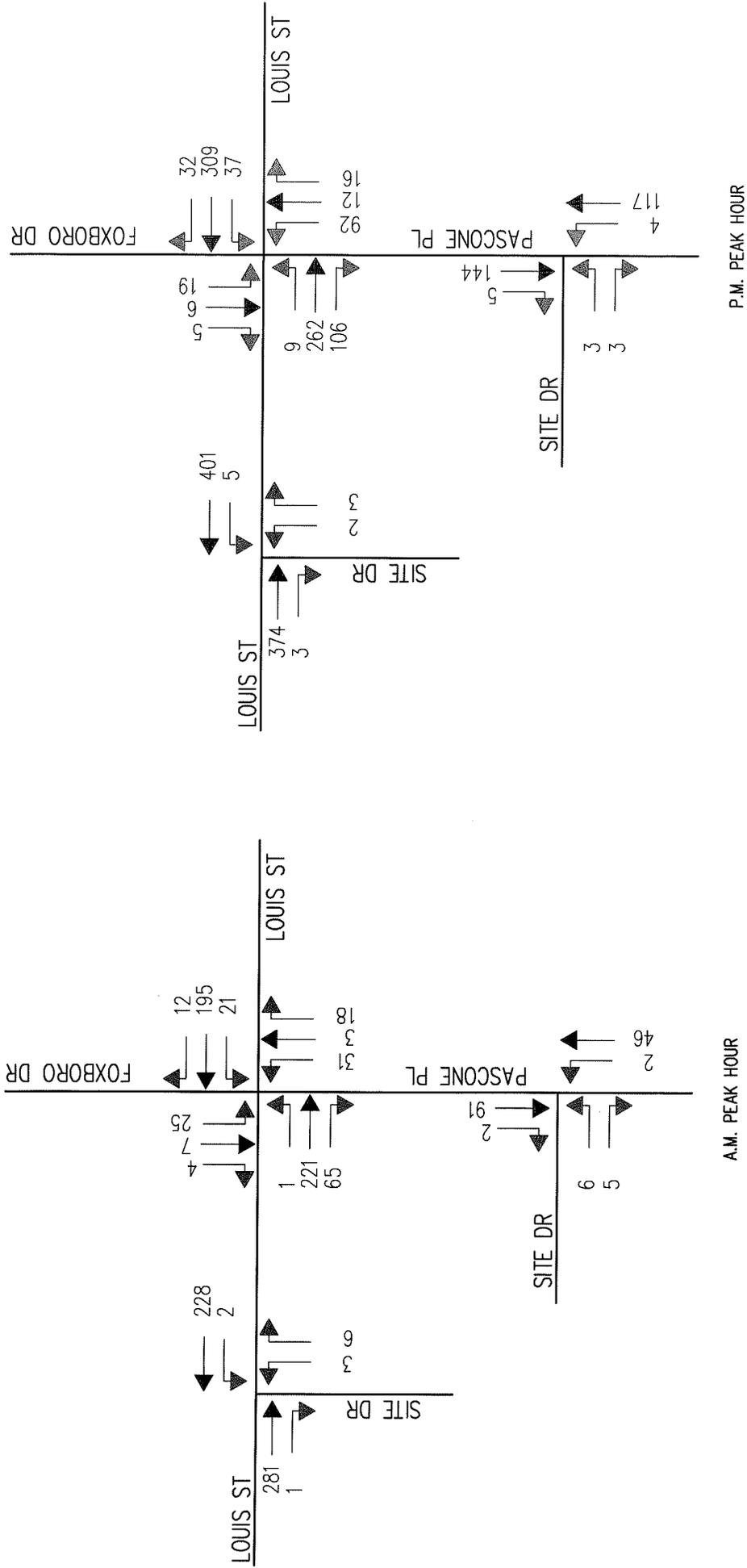
F. A. Hesketh & Associates, Inc.
 6 CREAMERY BROOK, EAST GRANBY, CT 06028

FAH
 TRAFFIC
 PLANNING
 ENGINEERING
 DESIGN

SITE GENERATED TRAFFIC
 SATURDAY PEAK HOUR

PROPOSED RESIDENTIAL
 103 LOUIS STREET
 NEWINGTON, CONNECTICUT

NOT TO SCALE



5-07-25

F. A. Hesketh & Associates, Inc.
 6 CREAMERY BROOK, EAST GRANBY, CT 06028

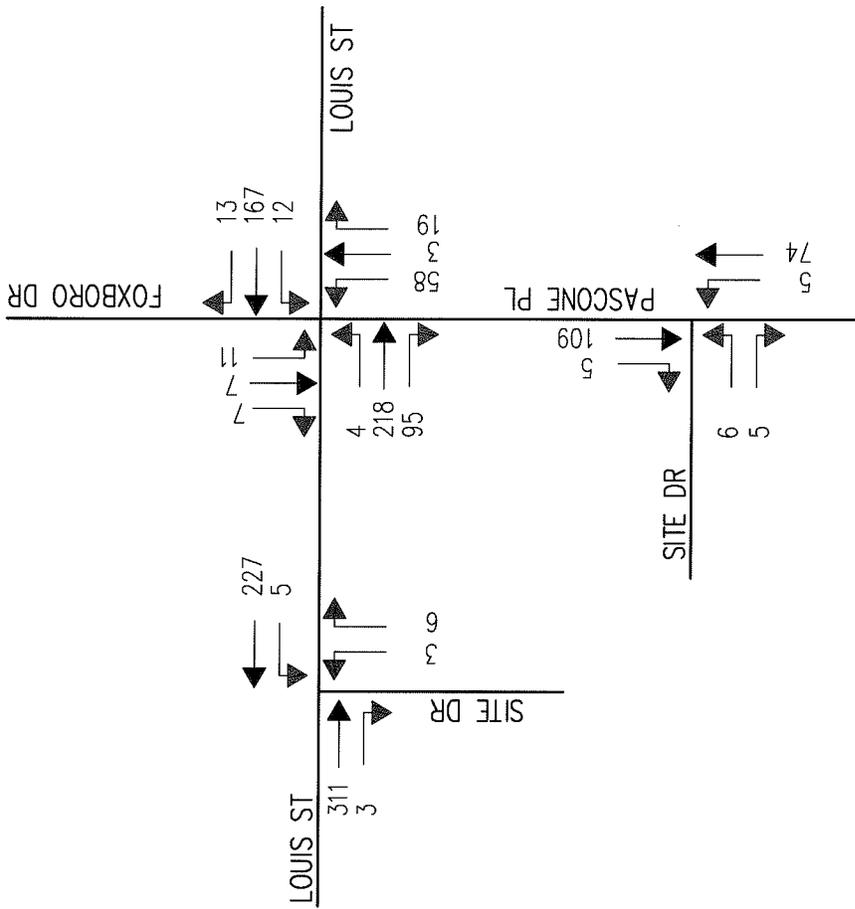
FAH
 TRAFFIC
 PLANNING
 ENGINEERING
 DESIGN

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

PROPOSED RESIDENTIAL
 103 LOUIS STREET
 NEWINGTON, CONNECTICUT

NOT TO SCALE

FIGURE 7



SATURDAY PEAK HOUR

5-07-25

<p>2028 COMBINED TRAFFIC SATURDAY PEAK HOUR</p> <p>PROPOSED RESIDENTIAL 103 LOUIS STREET NEWINGTON, CONNECTICUT</p>	<p>F. A. Hesketh & Associates, Inc. 6 CREAMERY BROOK, EAST GRANBY, CT 06026</p> <p>FAH</p> <p>TRAFFIC PLANNING ENGINEERING DESIGN</p>
---	---

NOT TO SCALE

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

Time Period	A.M. Peak Hour				P.M. Peak Hour				P.M. Peak Hour															
	Background Traffic		Combined Traffic		Background Traffic		Combined Traffic		Background Traffic		Combined Traffic													
	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	12.9	0.01	1	B	10.9	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	0.24	0	A	0.0	0.19	0	A	0.0	0.19	0
WB					A	0.1	0.00	0	A	0.1	0.00	0	A	0.1	0.00	0	A	0.2	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	0.2	0.00	0	A	0.5	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	0.10	0	A	0.0	0.07	0	A	0.0	0.07	0
EB					A	9.3	0.02	1	A	9.7	0.01	1	A	9.7	0.01	1	A	9.3	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)

	22-Oct	23-Oct	24-Oct
	Tue	Wed	Thu
Town.....Newington			
Station.....17			
Location..... 41.674956,-72.729119	12:00am	28	31
Posted Speed Limit.....40 MPH	01:00am	28	24
A.K.A.....5017	02:00am	30	33
2015-Minor Arterial 4.....2015-Urban	03:00am	16	23
Start Report.....22-Oct-2024 11:00AM	04:00am	57	55
End Report.....24-Oct-2024 08:00PM	05:00am	176	164
Annualized AADT.....11200	06:00am	330	313
24-Hour Count...11884 * G4(0.93) = 11052.1	07:00am	660	597
Day 1.....+12118 * G4(0.93) = 22321.9	08:00am	680	654
UnRounded AADT.....22321.9 / 2 = 11160.9	09:00am	619	570
OK 2024 Tue 22-Oct -this report-...11200	10:00am	x	627
OK 2021 Wed 17-Nov11400	11:00am	674	710
OK 2018 Wed 04-Apr11400	12:00pm	792	758
OK 2015 Mon 31-Aug11400	01:00pm	792	743
OK 2012 Tue 18-Dec12700	02:00pm	879	860
OK 2009 Mon 16-Nov12300	03:00pm	956	1060
OK 2006 Wed 23-Aug12500	04:00pm	1058	1134
Dataset Details.....2	05:00pm	1084	1146
	06:00pm	877	900
	07:00pm	567	623
	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

	23-Oct	24-Oct	25-Oct
	Wed	Thu	Fri
Town.....Newington			
Station.....87			
Location..... 41.670338,-72.718206	12:00am	38	42
Posted Speed Limit.....40 MPH	01:00am	34	25
2015-Minor Arterial 4.....2015-Urban	02:00am	27	18
Start Report.....23-Oct-2024 01:00PM	03:00am	22	20
End Report.....25-Oct-2024 11:00AM	04:00am	44	43
Annualized ADT.....10200	05:00am	165	171
24-Hour Count...10849 * G4(0.93) = 10089.6	06:00am	378	365
Day 1.....+11039 * G4(0.93) = 20355.8	07:00am	690	669
UnRounded AADT.....20355.8 / 2 = 10177.9	08:00am	708	669
OK 2024 Wed 23-Oct -this report-...10200	09:00am	593	617
OK 2021 Tue 02-Nov12100	10:00am	635	629
OK 2018 Mon 19-Mar12200	11:00am	589	x
OK 2015 Wed 02-Sep14200	12:00pm	x	720
OK 2009 Thu 12-Nov12800	01:00pm	642	702
OK 2006 Mon 21-Aug14100	02:00pm	658	732
Dataset Details.....2	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

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Start Time	07-Apr-25		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	Eastbound	Westbound	Eastbound	Westbound												
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	0	0	0	0	0	0	997	3740	0	6688	0	1564	0	0	248	3229
Day	0	0	0	0	0	0	4737	0	6688	0	1564	0	0	0	3477	0
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

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

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

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

Start Time	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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

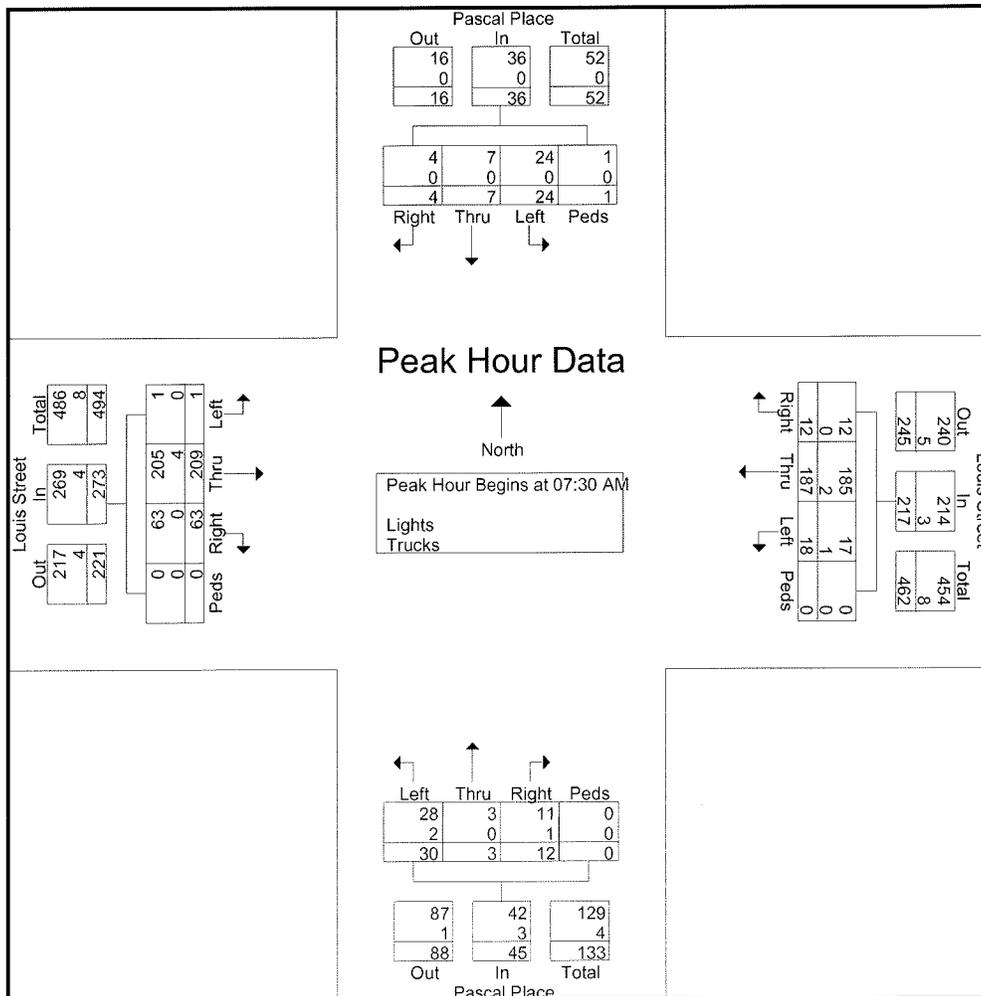
(860) 828-1693

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

Start Time	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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

Start Time	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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

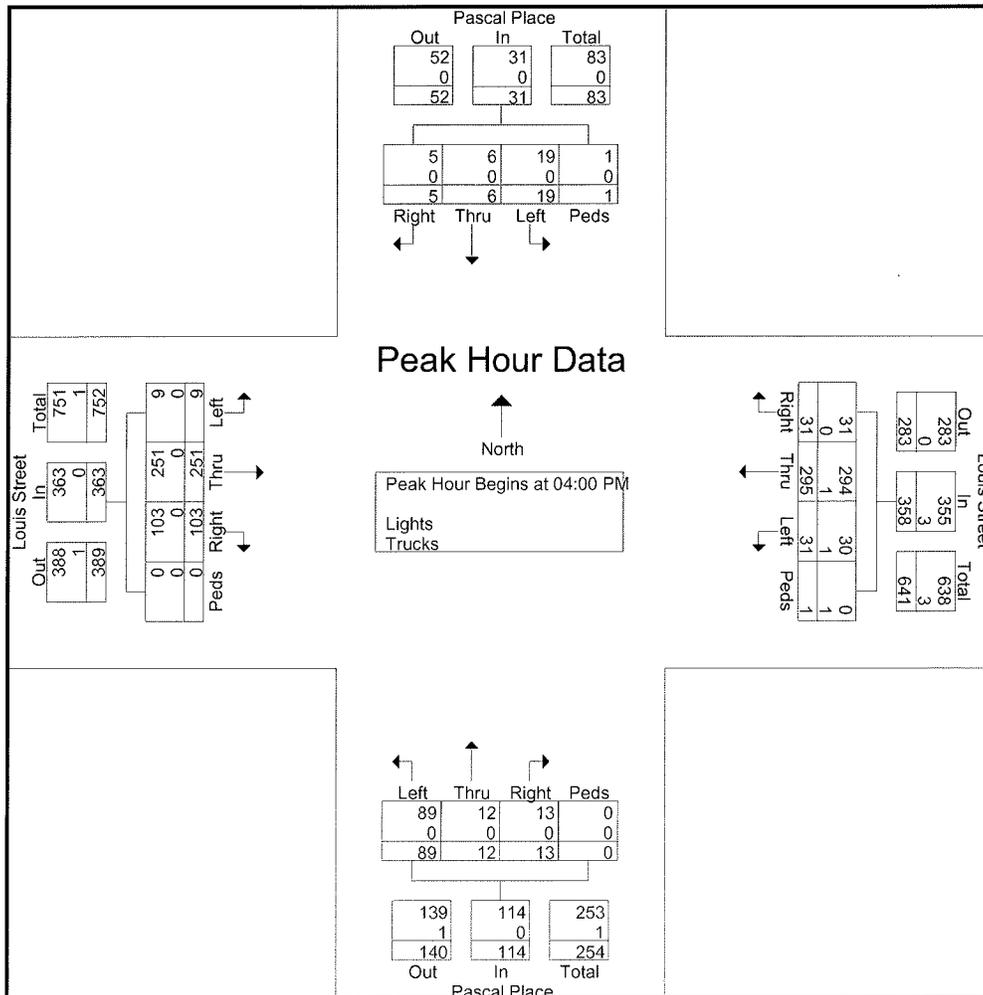
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

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

Start Time	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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

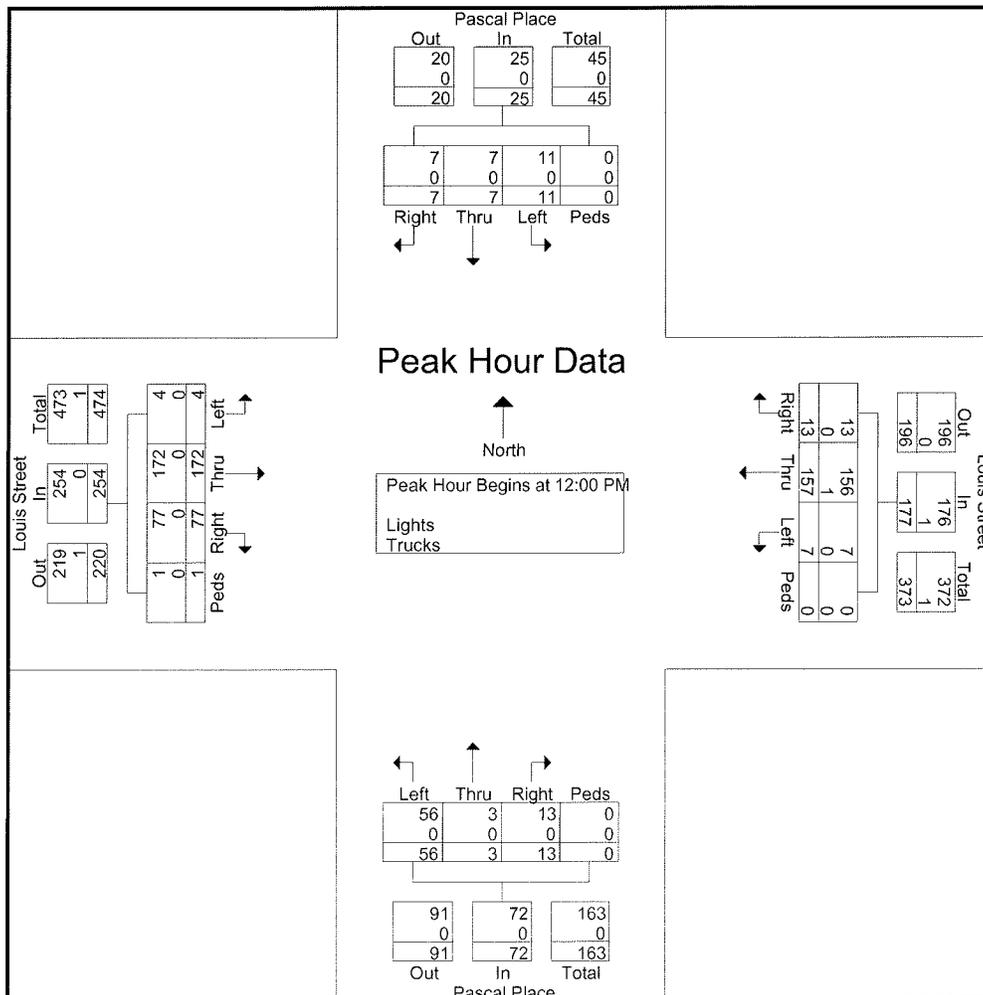
Start Time	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	0	2	6	0	8	2	50	1	0	53	1	0	10	0	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

Start Time	Pascal Place From North					Louis Street From East					Pascal Place From South					Louis Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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

Graph Look Up

How to Use the TripGen

Table Data Reference

Table Annotations

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Add users

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City 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

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: $T = 5.63(X) + 120.45$

R²: 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)

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



DATA SOURCE: Trip Generation Manual, 12th Ed

SEARCH BY LAND USE CODE:

LAND USE GROUP: (200-299) Residential

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

LAND USE SUBCATEGORY: Not Close to Rail Transit

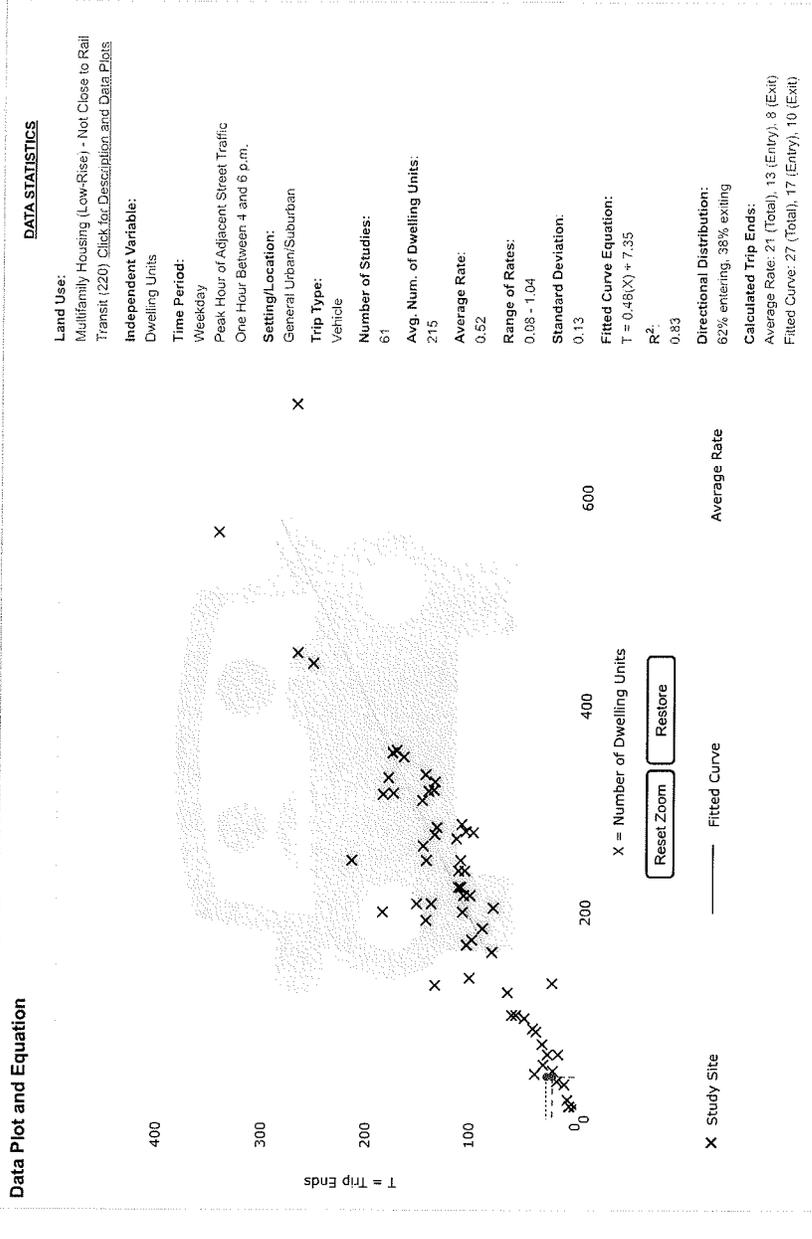
SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): Dwelling Units

TIME PERIOD: Weekday, Peak Hour of Adjacent Stre

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:



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

Graph Look Up

Graph Look Up

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

Data Plot and Equation

Caution - Small Sample Size

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

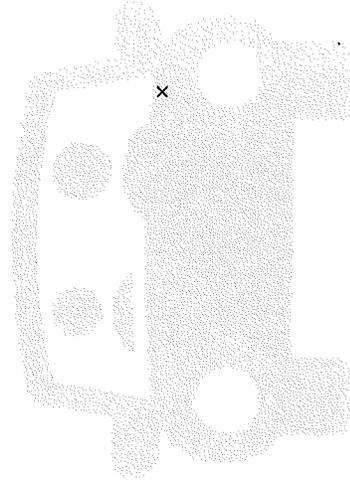
Standard Deviation: ****

Fitted Curve Equation: Not Given

R²: ****

Directional Distribution: 50% entering, 50% exiting

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



X = Number of Dwelling Units

X Study Site

Average Rate

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

Graph Look Up

Copy 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

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

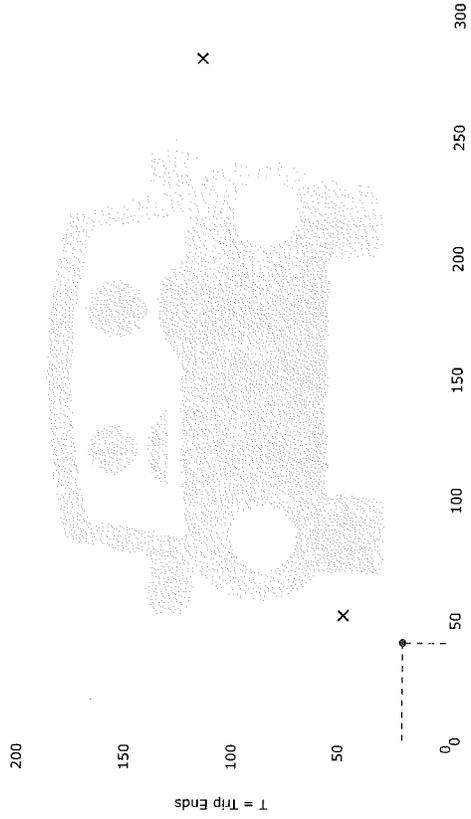
Standard Deviation:

Fitted Curve Equation:
Not Given

R²:

Directional Distribution:
38% entering, 62% exiting

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



X = Number of Dwelling Units

Reset Zoom

Restore

X Study Site

Average Rate

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

Graph Look Up

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Address: 1000 Main St

Ty: 01555.874

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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

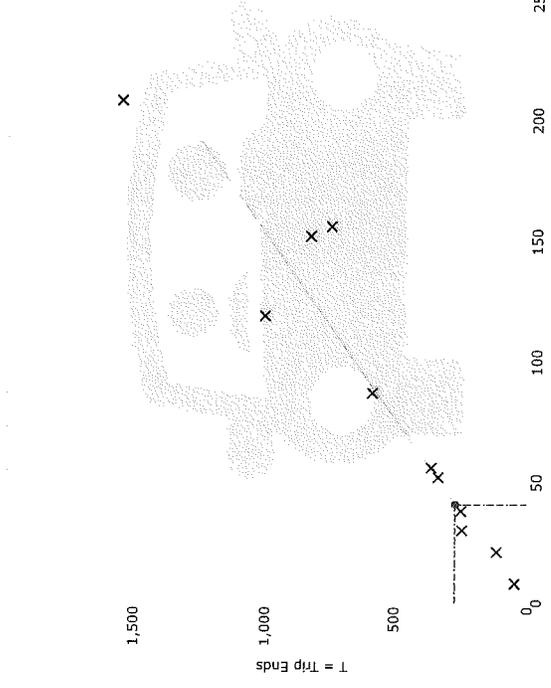
INDEPENDENT VARIABLE (IV): Dwelling Units

TIME PERIOD: Weekday

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 41 Calculate

Data Plot and Equation



X = Number of Dwelling Units
Reset Zoom Restore

Fitted Curve

X Study Site

Average Rate

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: $T = 6.53(X) + 3.25$

R²: 0.91

Directional Distribution: 50% entering, 50% exiting

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

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

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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

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

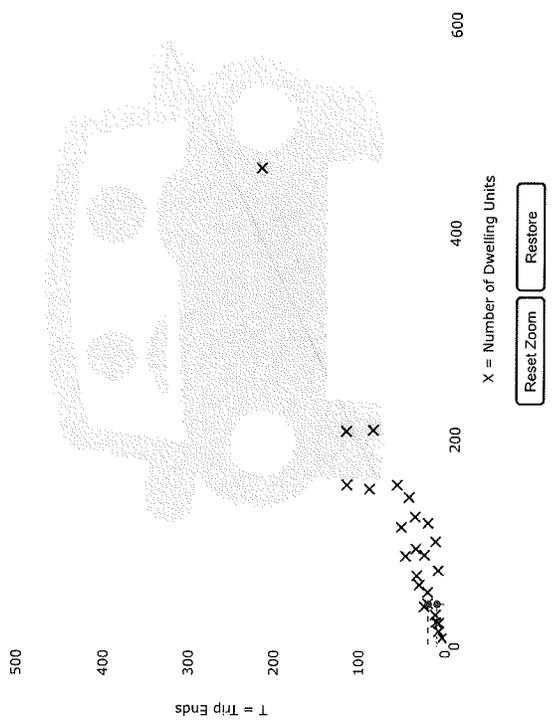
Standard Deviation: 0.16

Fitted Curve Equation: $T = 0.59(X) + 15.25$

R²: 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)



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

Graph Look Up

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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

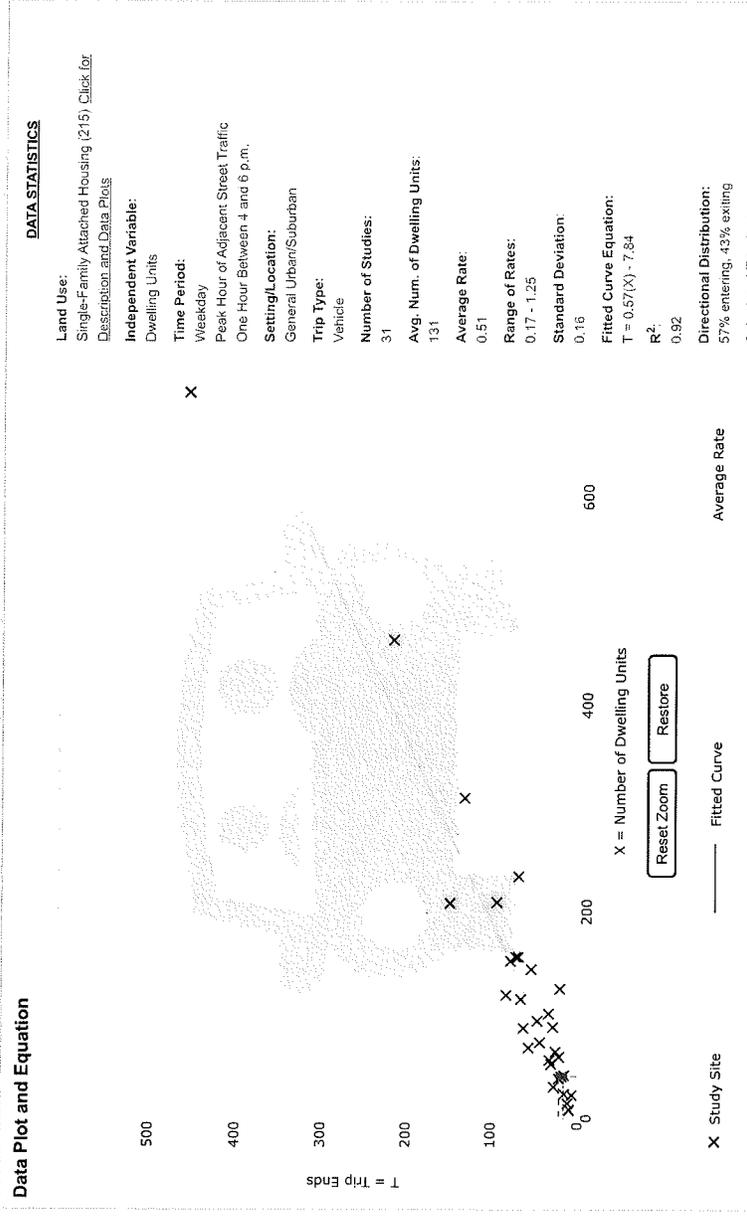
SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): Dwelling Units

TIME PERIOD: Weekday, Peak Hour of Adjacent Site

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 41 **Calculate**



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

Graph Look Up



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Graph Look Up

Home > 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

Data Plot and Equation

Caution - Small Sample Size

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

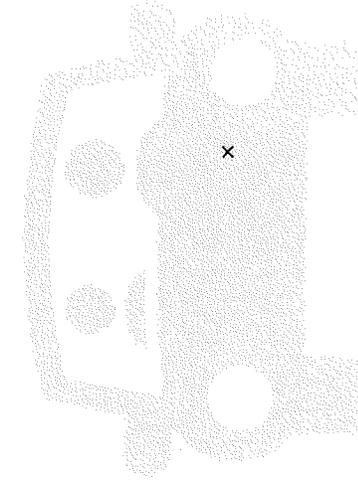
Standard Deviation:

Fitted Curve Equation:
Not Given

R²:

Directional Distribution:
48% entering, 52% exiting

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



X = Number of Dwelling Units

X Study Site

Average Rate

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

SYNCHRO Capacity Analysis Worksheets

HCM Unsignalized Intersection Capacity Analysis
 3: Pascone Place/Foxboro Drive & Louis Street

2028 Background Traffic
 A.M. Peak Hour

												
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									

HCM Unsignalized Intersection Capacity Analysis
 3: Pascone Place/Foxboro Drive & Louis Street

2028 Background Traffic
 P.M. Peak Hour



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		

HCM Unsignalized Intersection Capacity Analysis
 3: Pascone Place/Foxboro Drive & Louis Street

2028 Background Traffic
 Saturday Peak Hour



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	

HCM Unsignalized Intersection Capacity Analysis
 3: Pascone Place/Foxboro Drive & Louis Street

2028 Combined Traffic
 AM Peak Hour



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
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 8: Pascone Place & Site Dr 2

2028 Combined Traffic
 AM Peak Hour



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			

HCM Unsignalized Intersection Capacity Analysis
 6: Site Dr 1 & Louis Street

2028 Combined Traffic
 AM Peak Hour



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			

HCM Unsignalized Intersection Capacity Analysis
 3: Pascone Place/Foxboro Drive & Louis Street

2028 Combined Traffic
 P.M. Peak Hour



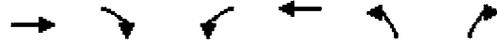
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR												
Lane Configurations		↔			↔			↔			↔													
Traffic Volume (veh/h)	9	262	106	37	309	32	92	12	16	19	6	5												
Future Volume (Veh/h)	9	262	106	37	309	32	92	12	16	19	6	5												
Sign Control		Free			Free			Stop			Stop													
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		

HCM Unsignalized Intersection Capacity Analysis
6: Site Dr 1 & Louis Street

2028 Combined Traffic
P.M. Peak Hour



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	

HCM Unsignalized Intersection Capacity Analysis
 8: Pascone Place & Site Dr 2

2028 Combined Traffic
 P.M. Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑	
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		

HCM Unsignalized Intersection Capacity Analysis
 3: Pascone Place/Foxboro Drive & Louis Street

2028 Combined Traffic
 Saturday Peak Hour



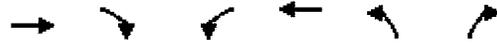
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	4	218	95	12	167	13	58	3	19	11	7	7
Future Volume (Veh/h)	4	218	95	12	167	13	58	3	19	11	7	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	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	

HCM Unsignalized Intersection Capacity Analysis
6: Site Dr 1 & Louis Street

2028 Combined Traffic
Saturday Peak Hour



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	

HCM Unsignalized Intersection Capacity Analysis
 8: Pascone Place & Site Dr 2

2028 Combined Traffic
 Saturday Peak Hour



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

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Eastbound	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number	
Start	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Speed	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	11:00	11:00	11:00	11:00	11:00	11:00	11:00			
Vol.	1	3	38	20	63	20	9						2		136			
PMI Peak	16:00	17:00	12:00	16:00	16:00	17:00	16:00	16:00	13:00	21:00					17:00			
Vol.	2	13	61	74	114	74	14	5	1	1					250			

Connecticut Counts LLC

Kensington, Connecticut 06037 (860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Eastbound		16	21	26	31	36	41	46	51	56	61	66	71	76	Pace	Number
Start	Time	20	25	30	35	40	45	50	55	60	65	70	75	999	Speed	in Pace
04/16/25	0	0	2	3	0	1	0	0	0	0	0	0	0	0	6	21-30
	0	0	0	2	6	2	0	0	0	0	0	0	0	0	10	31-40
	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	19-28
	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	19-28
	0	0	1	5	4	2	2	0	0	0	0	0	0	0	14	26-35
	0	0	2	7	18	15	7	1	1	1	0	0	0	0	52	31-40
	0	1	3	10	34	25	9	2	0	0	0	0	0	0	84	31-40
	1	1	2	46	70	47	18	2	1	0	0	0	0	0	188	31-40
	0	0	2	51	75	57	15	2	0	0	0	0	0	0	202	31-40
	0	0	10	59	79	39	9	1	0	0	0	0	0	0	197	26-35
	0	2	6	65	66	23	6	1	0	0	0	0	0	0	169	26-35
	1	0	17	52	99	37	5	2	0	0	0	0	0	0	213	26-35
12 PM	0	0	11	57	114	46	11	0	0	0	0	0	0	0	239	26-35
13:00	0	0	10	48	84	43	9	0	0	0	0	0	0	0	194	26-35
14:00	0	1	8	57	98	24	8	1	0	0	0	0	0	0	197	26-35
15:00	0	0	6	44	121	49	8	2	0	0	0	0	0	0	230	31-40
16:00	0	1	12	62	139	62	9	1	0	0	0	0	0	0	286	26-35
17:00	0	3	8	58	136	61	8	1	0	0	0	0	0	0	275	31-40
18:00	0	1	17	49	82	41	6	2	0	0	0	0	0	0	198	26-35
19:00	0	0	2	36	51	26	3	2	1	0	0	0	0	0	121	26-35
20:00	0	1	2	28	44	16	3	0	0	0	0	0	0	0	94	26-35
21:00	0	0	3	10	19	14	2	0	0	0	0	0	0	0	48	31-40
22:00	0	1	1	3	12	9	3	0	0	0	0	0	0	0	29	31-40
23:00	0	0	2	3	5	3	1	0	0	0	0	0	0	0	14	26-35
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	0.0%	0.0%	0.0%	0.0%	11:00	
Vol.	1	2	17	65	99	57	18	2	1	1				213		
PM Peak	17:00	18:00	18:00	16:00	16:00	16:00	12:00	15:00	19:00	19:00				16:00		
Vol.	3	17	17	62	139	62	11	2	1	1				286		

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	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	1	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		

Connecticut Counts LLC

Kensington, Connecticut 06037 (860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

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

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Eastbound	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Pace	Number	
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Speed	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	6	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	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	12:00	13:00	14:00							12:00		
Vol.	1	11	31	107	62	15	2								214		

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

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

Stats		10 MPH Pace Speed :	31-40 MPH
Total	5	Number in Pace :	14094
Percent	0.0%	Percent in Pace :	68.3%
		Number of Vehicles > 35 MPH :	5965
		Percent of Vehicles > 35 MPH :	28.9%
		Mean Speed(Average) :	33 MPH

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Westbound	1	16	21	26	31	36	41	46	51	56	61	66	71	76	76	999	Total	Pace	Number	
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90		Speed	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	0	0	92	31-40	67	
12 PM	0	0	0	17	90	71	32	9	1	0	0	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	0	0	205	31-40	146	
14:00	0	0	1	19	81	77	30	5	0	0	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	0	0	232	31-40	164	
16:00	0	0	0	11	122	116	49	9	0	1	0	0	0	0	0	0	308	31-40	238	
17:00	0	0	0	22	107	105	32	2	0	0	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	0	0	210	31-40	147	
19:00	0	1	3	26	67	64	19	7	0	1	0	0	1	0	0	0	189	31-40	131	
20:00	0	0	4	25	62	35	9	2	1	0	0	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	0	0	93	31-40	63	
22:00	0	0	4	12	18	12	5	1	0	0	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	0	0	30	30-39	19	
Total	0	1	23	233	835	798	293	54	7	3	1	1	1	0	0	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%	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	11:00	11:00	11:00	11:00	11:00			
Vol.			3	7	28	39	8	4	1	1	1	1	1	0	0	0	92			
PM Peak		19:00	20:00	18:00	16:00	16:00	16:00	12:00	13:00	16:00	16:00	16:00	19:00	16:00	16:00	16:00	16:00			
Vol.		1	4	26	122	116	49	9	2	1	1	1	1	0	0	0	308			

Connecticut Counts LLC

Kensington, Connecticut 06037

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Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

Westbound		1	16	21	26	31	36	41	46	51	56	61	66	71	76	Pace	Number	
Start	Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Speed	in	
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	10:00	11:00	08:00	09:00	06:00	06:00						11:00		
	Vol.	1	1	2	25	74	69	24	4	2						168		
	PM Peak	17:00	17:00	19:00	17:00	16:00	17:00	16:00	13:00	13:00						17:00		
	Vol.	1	1	5	35	119	111	39	7	1						308		

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

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

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Site Code:
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Latitude: 0' 0.0000 Undefined

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

Connecticut Counts LLC

Kensington, Connecticut 06037 (860) 828-1693

Louis Street West Pascal Place
Newington, Connecticut

Site Code:
Station ID: 6147

Latitude: 0' 0.0000 Undefined

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

Connecticut Counts LLC

Kensington, Connecticut 06037

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Site Code:
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Latitude: 0' 0.0000 Undefined

Westbound		15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85			
04/20/25	0	0	1	5	2	10	5	0	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	0	18	31-40	12
02:00	0	0	0	2	4	3	2	0	1	0	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	0	7	35-44	5
04:00	0	0	0	3	1	4	1	0	0	0	0	0	0	0	0	9	29-38	5
05:00	0	0	0	0	3	1	1	2	0	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	0	25	31-40	20
07:00	0	0	0	4	30	19	15	2	0	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	0	93	31-40	66
09:00	0	0	2	6	41	64	17	4	1	0	1	0	0	0	0	136	31-40	105
10:00	0	0	0	6	39	76	34	4	1	0	0	0	0	0	0	160	31-40	115
11:00	0	0	0	4	46	74	35	7	3	0	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	0	159	31-40	124
13:00	0	0	1	11	63	73	28	2	0	0	0	0	0	0	0	179	31-40	136
14:00	0	0	2	14	45	57	27	4	2	0	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	0	151	31-40	101
16:00	0	0	1	10	51	70	26	3	3	0	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	0	144	31-40	98
18:00	0	0	1	14	43	65	16	3	2	0	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	0	135	31-40	101
20:00	0	0	1	10	39	29	7	3	0	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	0	58	31-40	49
22:00	0	0	0	2	13	9	4	0	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	0	18	31-40	11
Total	0	1	14	169	686	873	334	51	20	0	2	0	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%	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		16	21	26	31	36	41	46	51	56	61	66	71	76	76	999	Total	Pace	Number
Start	Time	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	Speed	in Pace
04/21/25	0	0	0	0	1	2	2	3	0	0	0	0	0	0	0	0	8	34-43	5
01:00	0	0	0	1	1	0	2	1	0	0	0	0	0	0	0	0	4	34-43	3
02:00	0	0	1	1	3	1	1	2	0	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	0	0	*	*
04:00	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	4	30-39	4
05:00	0	0	0	2	6	10	10	6	1	0	0	0	0	0	0	0	25	31-40	16
06:00	0	0	0	3	18	25	25	18	1	1	0	0	0	0	0	0	71	31-40	48
07:00	0	0	0	3	44	83	83	33	3	0	0	0	0	0	0	166	31-40	127	
08:00	0	0	0	9	42	65	65	27	5	1	0	0	0	0	0	149	31-40	107	
09:00	0	0	3	17	57	54	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	244	120	11	3	0	0	0	0	0	598			
Percent	0.0%	0.0%	0.7%	6.2%	29.9%	40.8%	40.8%	20.1%	1.8%	0.5%	0.0%	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										
Vol.			3	17	57	83	83	33	5	1									
PM Peak																			
Vol.																			
Total	4	18	211	2005	7755	7852	7852	2682	461	89	5	1	1	0	0	21088			
Percent	0.0%	0.1%	1.0%	9.5%	36.8%	37.2%	37.2%	12.7%	2.2%	0.4%	0.0%	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	74.0%
Percent in Pace :	11095	52.6%
Number of Vehicles > 35 MPH :	36 MPH	
Percent of Vehicles > 35 MPH :	36 MPH	
Mean Speed(Average) :		

UCONN Crash Data

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

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Appendices

Appendix A

Rainfall Data, Existing Drainage Analysis, and Soils Map

Appendix B

Proposed Catchment Maps and Hydrologic Properties

Appendix C

Proposed Drainage System Analysis

Appendix D

Water Quality Calculations, Detention System Design

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.

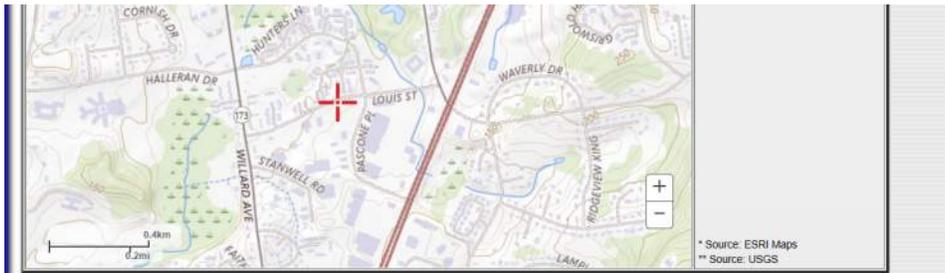
Summary

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](#)

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 (0.412-0.693)	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 (0.816-1.91)	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 (0.438-0.699)	0.678 (0.534-0.852)	0.875 (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 (2.79-4.91)	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 (4.32-8.48)	6.99 (4.57-10.4)	7.94 (5.06-12.1)
12-hr	2.22 (1.80-2.73)	2.72 (2.20-3.35)	3.54 (2.85-4.36)	4.22 (3.37-5.23)	5.14 (3.98-6.74)	5.83 (4.42-7.95)	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 (4.09-6.08)	6.08 (4.93-7.43)	7.55 (5.94-9.85)	8.62 (6.65-11.8)	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](#)
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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)

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REV. NO.	DATE	DRWN	CHKD	REMARKS

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 DRAWN BY: XX
 SHEET CHK'D BY: DV
 CROSS CHK'D BY: XX
 APPROVED BY: XX
 DATE: NOVEMBER 2025

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RESIDENTIAL SITE DEVELOPMENT
 103 LOUIS STREET NEWINGTON, CT

EXISTING DRAINAGE CONDITIONS

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United States
Department of
Agriculture

NRCS

Natural
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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



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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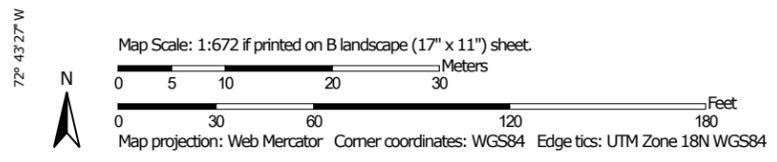
Soil Map

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



Soil Map may not be valid at this scale.



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

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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: 9In7
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

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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

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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

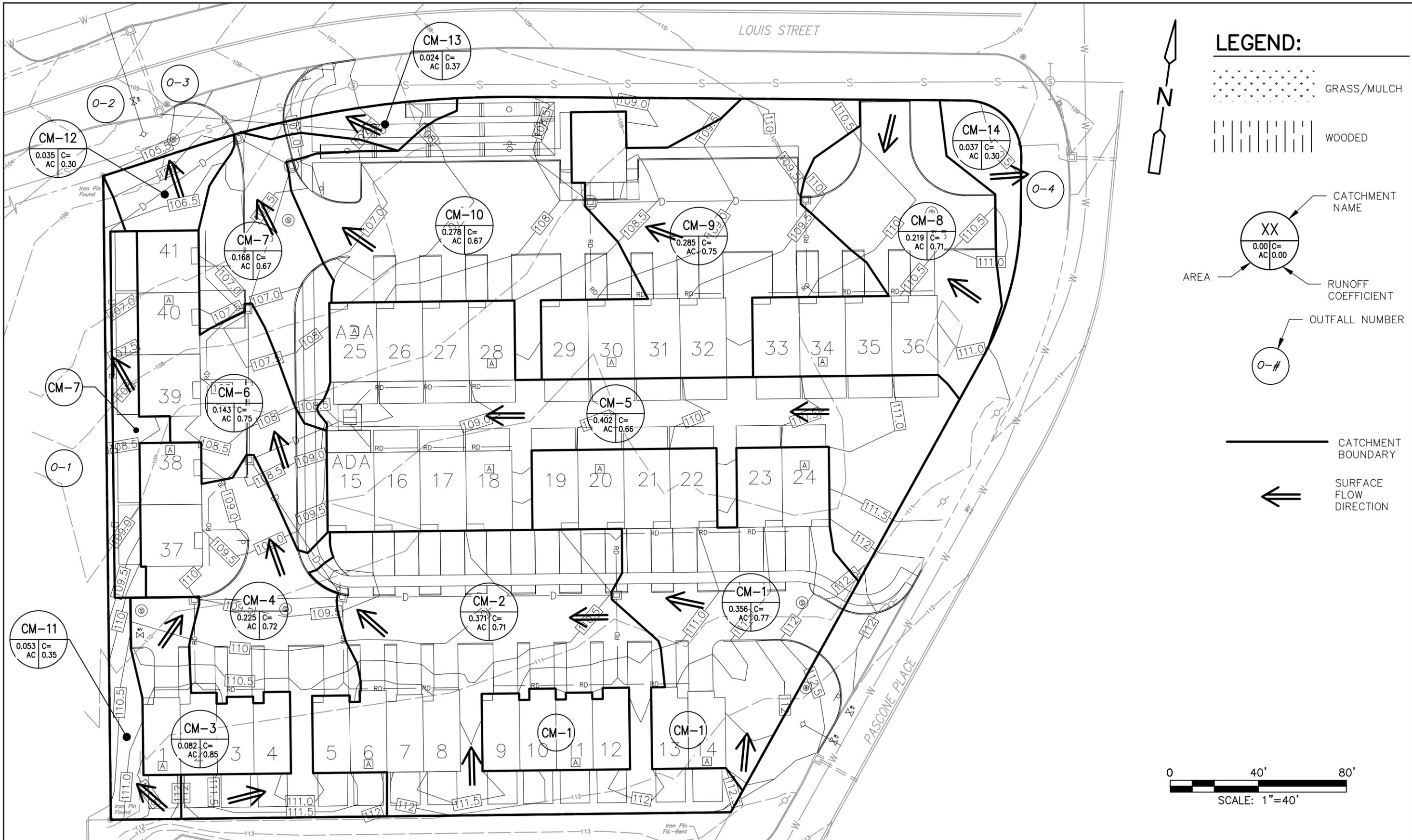
Project: Louis St
 Location: 103 Louis St

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

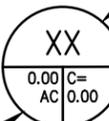
SCS Method Basin Calculations - Hydrologic Soil Type (HSG) and Curve Number (CN)

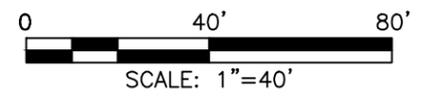
	Cover Type (sf)	Impervious	Gravel	Lawn			Woods			Total Area (sf)	Total Area (ac)	Weighted CN	Tc (min)*	% Impervious
	HSG	-	-	A	B	D	A	B	D					
	CN	-	-	39	61	80	30	55	77					
Basin Name	EX-1			4304			2378	5206		11887	0.273	44	21.0	0%
	EX-2			12798	6290		1325	18091		38504	0.884	50	22.5	0%
	EX-3			13056	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
OUTFALL NUMBER
-  CATCHMENT BOUNDARY
-  SURFACE FLOW DIRECTION



FILE PATH: H:\Projects\24122 - P Show 103 Louis St Newington\AutoCAD\24122 - PRDR.dwg PLOT DATE: 11/14/2025 PLOT TIME: 10:41:30 AM

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) 438-4901 WWW.ZUVIC.COM

RESIDENTIAL SITE DEVELOPMENT
 103 LOUIS STREET NEWINGTON, CT

PROPOSED DRAINAGE CONDITIONS

SHEET NO.
PRDR

PROPOSED DRAINAGE INDIVIDUAL BASIN CALCULATIONS

Project: Louis St
 Location: 103 Louis St.

By: JB Date: 11/14/2025
 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
			A	B	D					
HSG	-	-	39	61	80					
CN	98	-								
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.



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

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 = $\frac{1.49(d^{2/3})(s^{1/2})}{n}$	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 trapezoidal)	ft. ²	0	0	0	0
19. Wetted perimeter, P _w	ft.				
20. Hydraulic Radius, R = A/P _w	ft.	0	0	0	0
21. Channel slope, s	ft./ft.				
22. Manning's roughness coeff., n					
23. V = $\frac{1.49(d^{2/3})(s^{1/2})}{n}$	fps.	0	0	0	0
24. Flow length, L	ft.				
25. Tt = L/(3600*V)	hr.	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



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

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 = $\frac{1.49(d^{2/3})(s^{1/2})}{n}$	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 trapezoidal)	ft. ²	0	0	0	0
19. Wetted perimeter, P _w	ft.				
20. Hydraulic Radius, R = A/P _w	ft.	0	0	0	0
21. Channel slope, s	ft./ft.				
22. Manning's roughness coeff., n					
23. V = $\frac{1.49(d^{2/3})(s^{1/2})}{n}$	fps.	0	0	0	0
24. Flow length, L	ft.				
25. Tt = L/(3600*V)	hr.	0	0	0	0
26. Watershed or subarea T _c or T _t (add T _t in steps 6, 14 & 25)	hr.				0.374638



PROJECT	MULTI-FAMILY DEVELOPMENT	PROJECT NO.	24122	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
6. Tc = $\frac{0.007(nL)^{0.8}}{P_2^{0.5}(s^{0.4})}$	ft./ft. 0.033333
	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 = $\frac{1.49(d^{2/3})(s^{1/2})}{n}$	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 trapezoidal)	ft. ²	0	0	0	0
19. Wetted perimeter, P _w	ft.				
20. Hydraulic Radius, R = A/P _w	ft.	0	0	0	0
21. Channel slope, s	ft./ft.				
22. Manning's roughness coeff., n					
23. V = $\frac{1.49(d^{2/3})(s^{1/2})}{n}$	fps.	0	0	0	0
24. Flow length, L	ft.				
25. Tt = L/(3600*V)	hr.	0	0	0	0
26. Watershed or subarea T _c or T _t (add T _t in steps 6, 14 & 25)	hr.				0.355534



PROJECT	MULTI-FAMILY DEVELOPMENT	PROJECT NO.	24122	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. $T_c = \frac{0.007(nL)^{0.8}}{P_2^{0.5}(s^{0.4})}$	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, $V = \frac{1.49(d^{2/3})(s^{1/2})}{n}$	fps.	0	0	0	0
14. $T_c = L/(3600 \cdot V)$	hr.	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 trapezoidal)	ft. ²	0	0	0	0
19. Wetted perimeter, P _w	ft.				
20. Hydraulic Radius, R = A/P _w	ft.	0	0	0	0
21. Channel slope, s	ft./ft.				
22. Manning's roughness coeff., n					
23. $V = \frac{1.49(d^{2/3})(s^{1/2})}{n}$	fps.	0	0	0	0
24. Flow length, L	ft.				
25. $T_t = L/(3600 \cdot V)$	hr.	0	0	0	0
		+	+	+	+
26. Watershed or subarea T _c or T _i (add T _i in steps 6, 14 & 25)	hr.				0.22294

APPENDIX C

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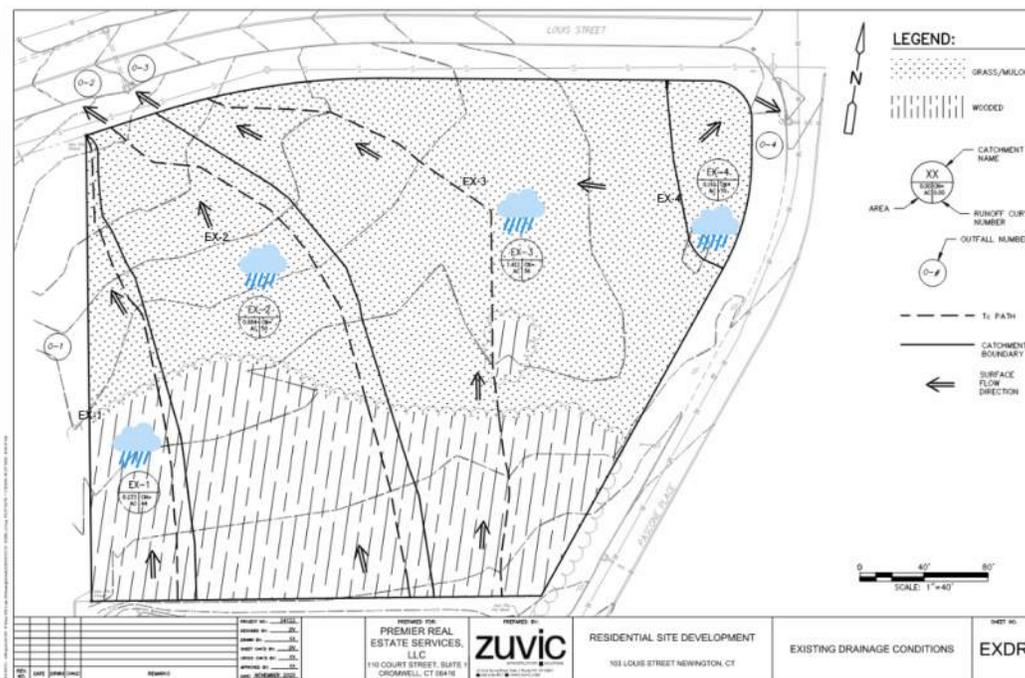
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Basin Model

Hydrology Studio v 3.0.0.40

File: 24122 - Pre Dev EXDR SCS.hys

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Hydrograph by Return Period

File: 24122 - Pre Dev EXDR SCS.hys

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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

Hydrograph Report

Hydrology Studio v 3.0.0.40

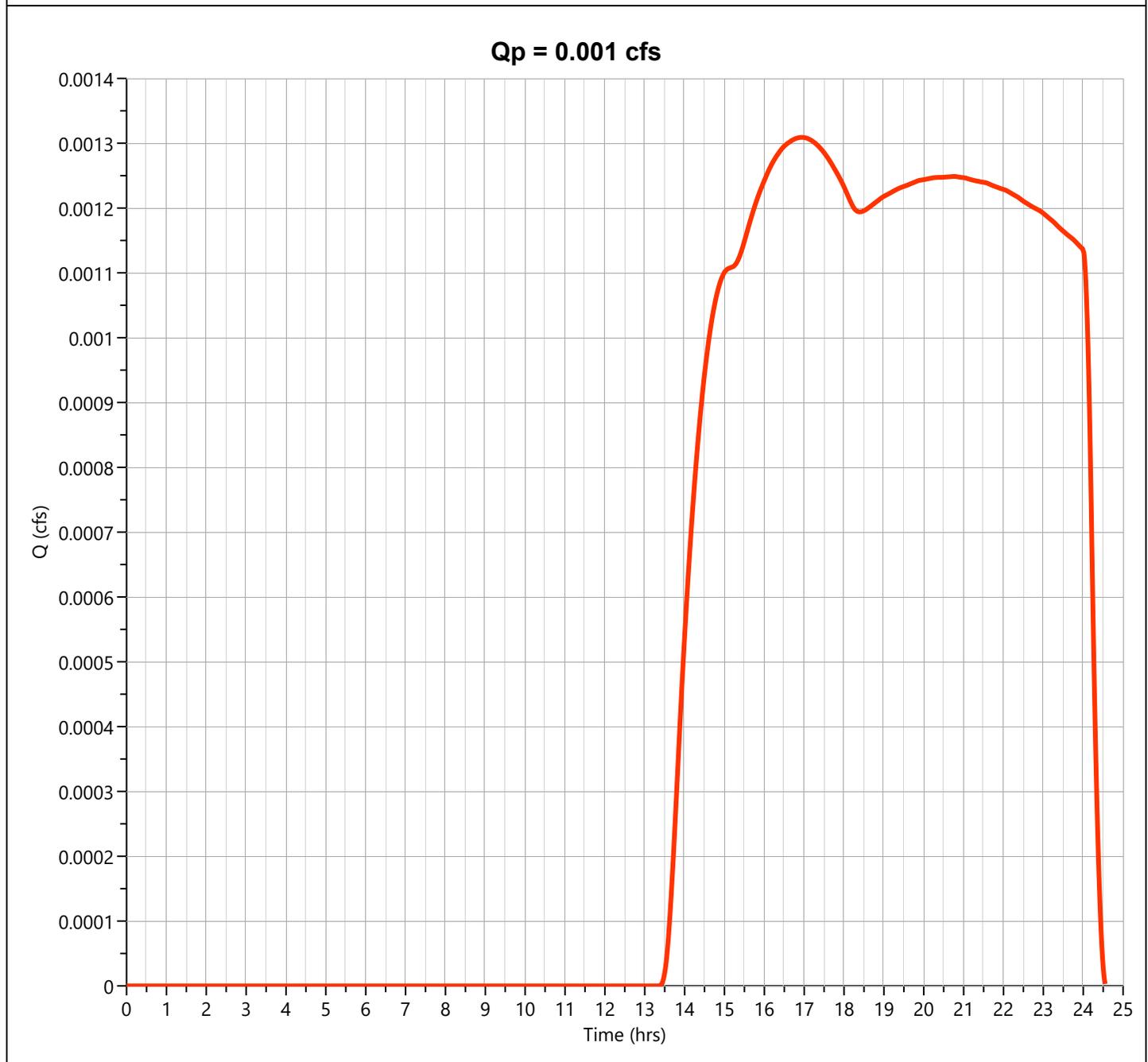
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

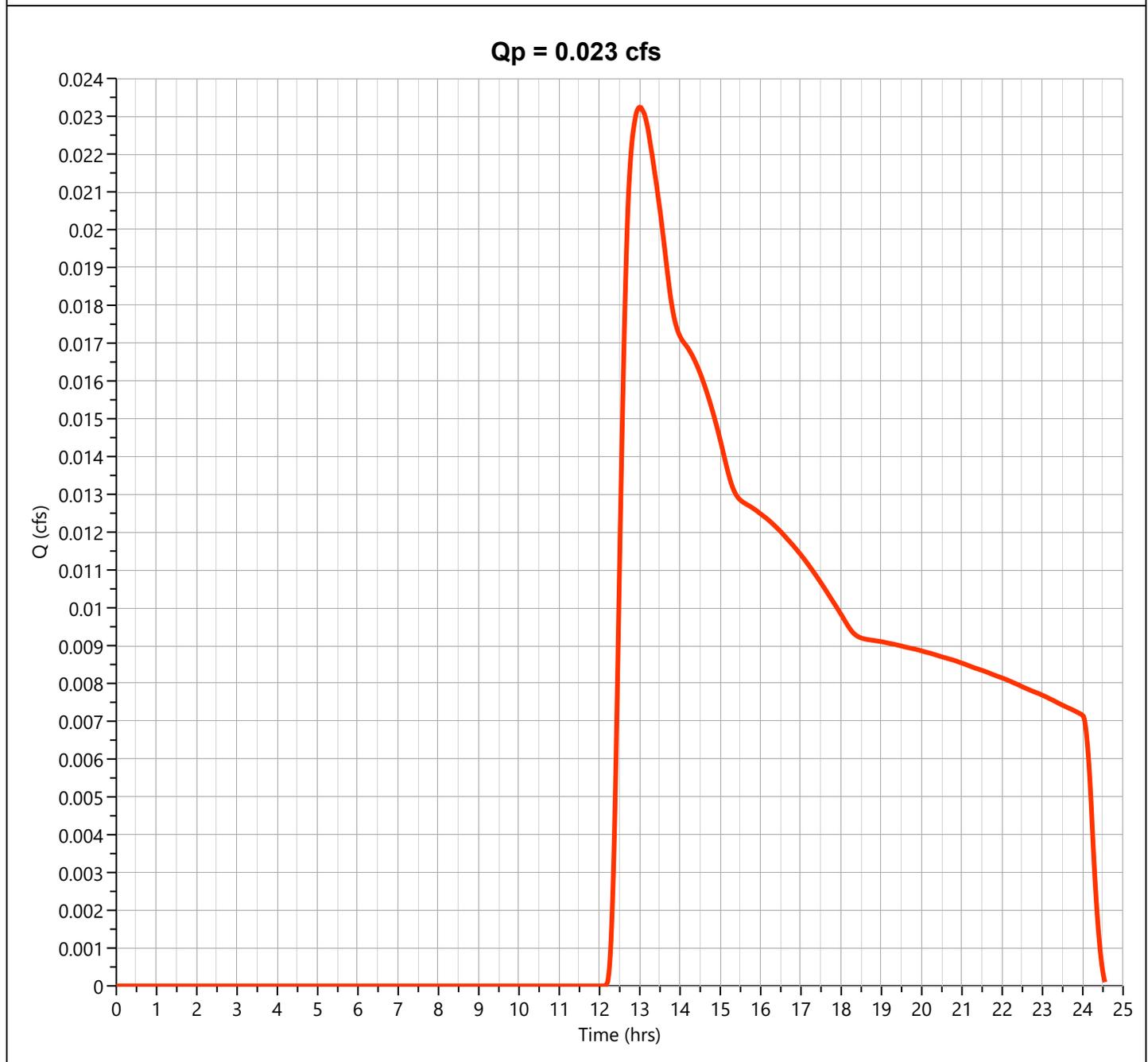
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

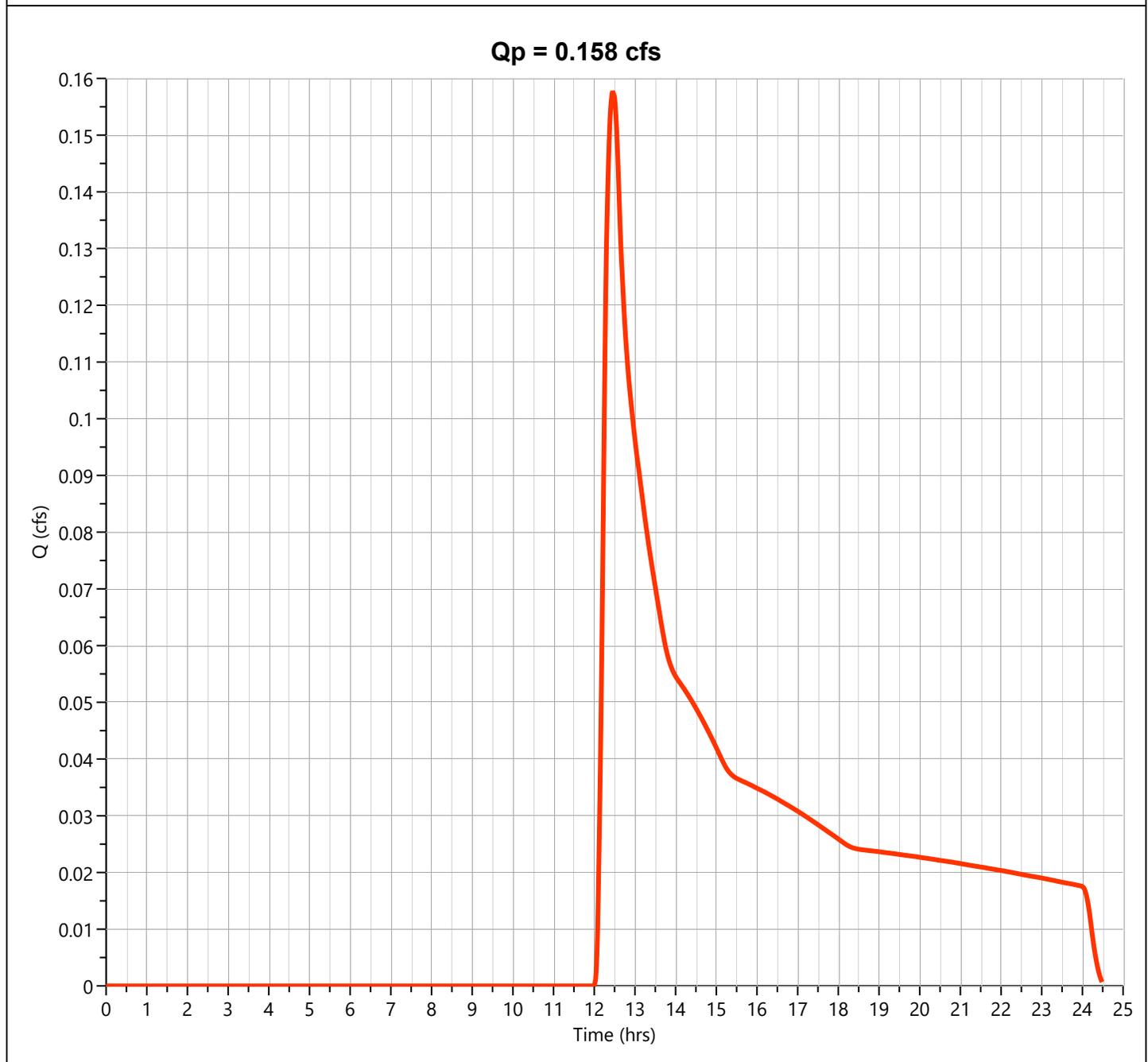
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

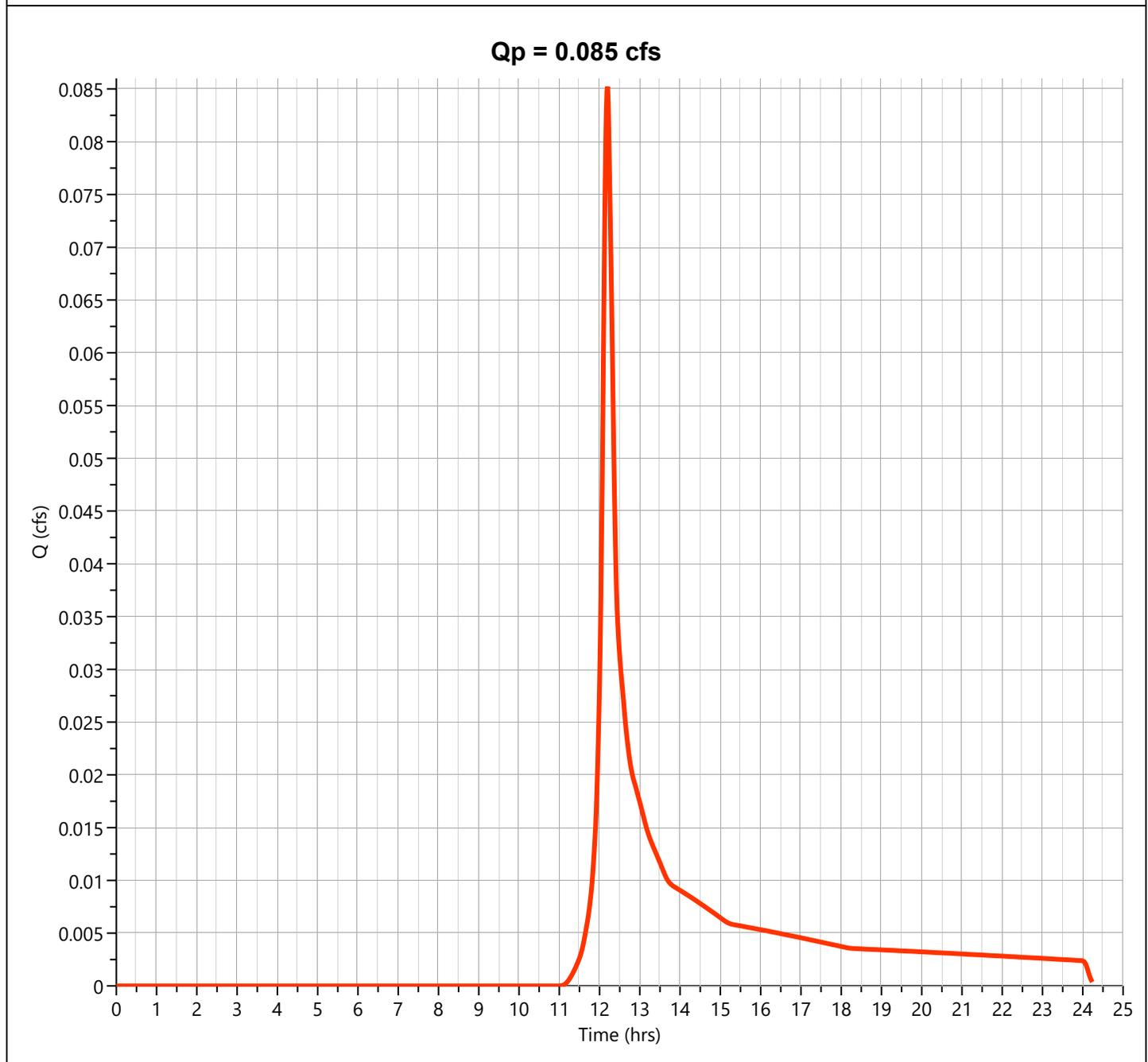
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

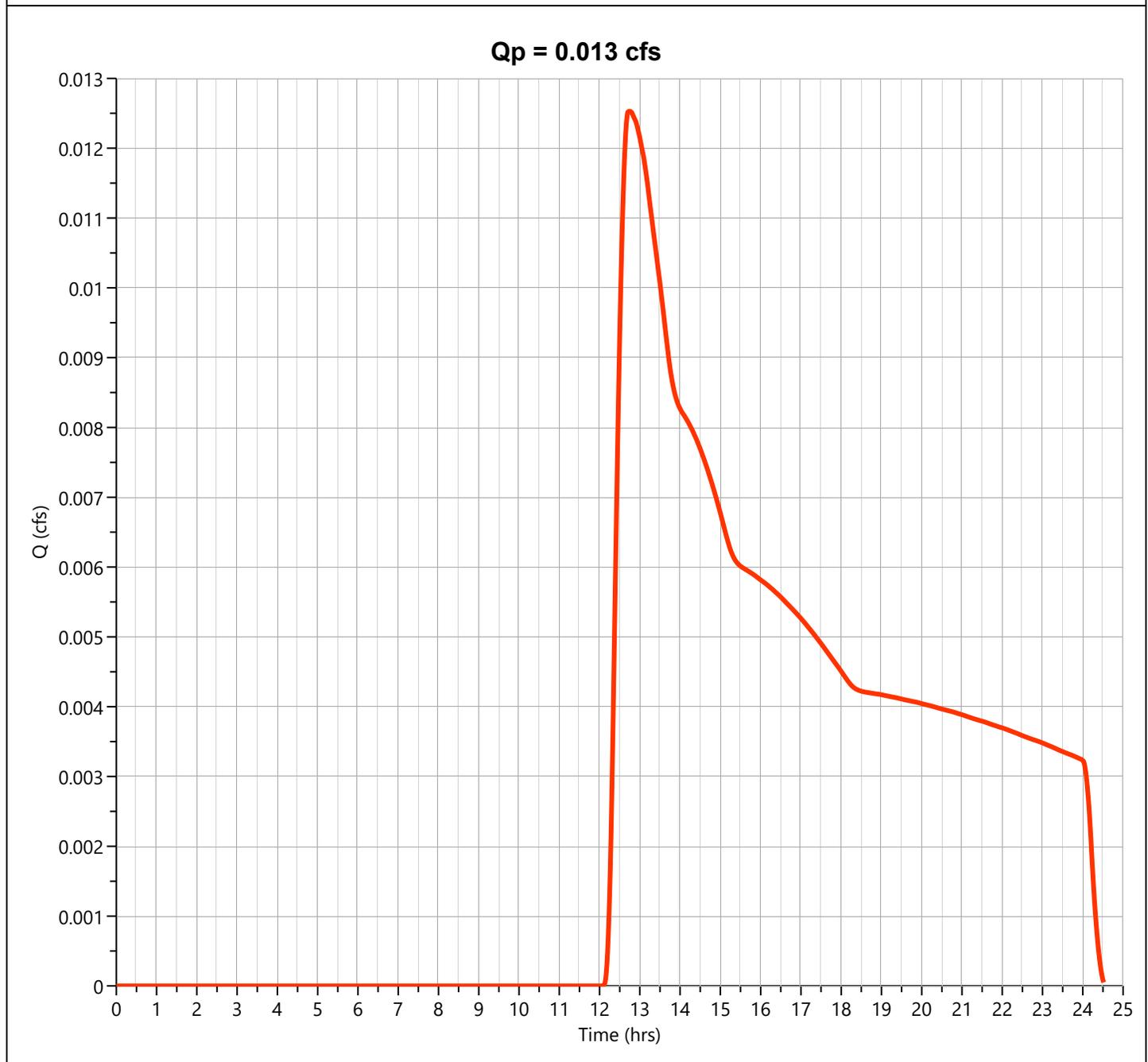
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

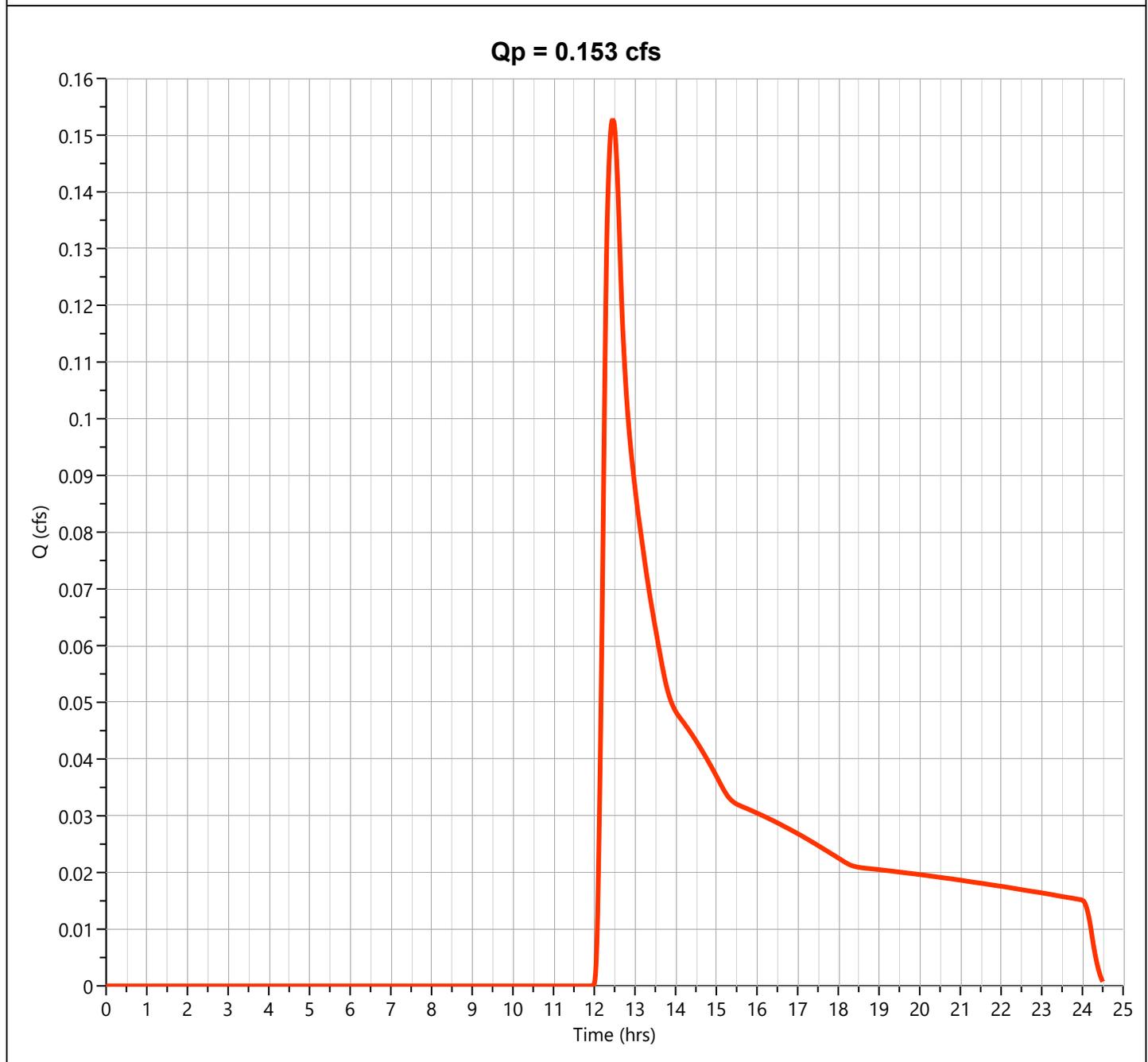
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

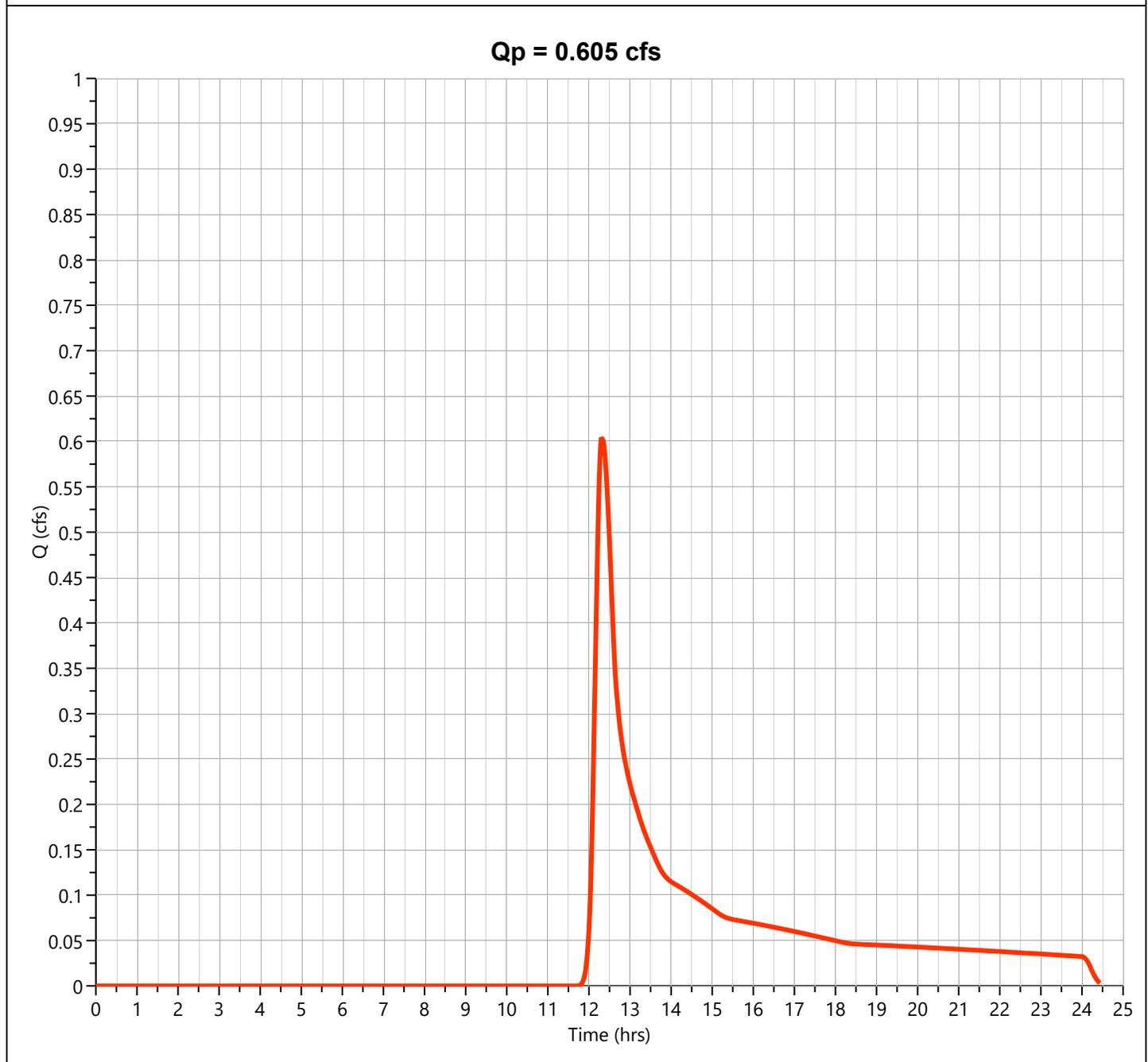
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

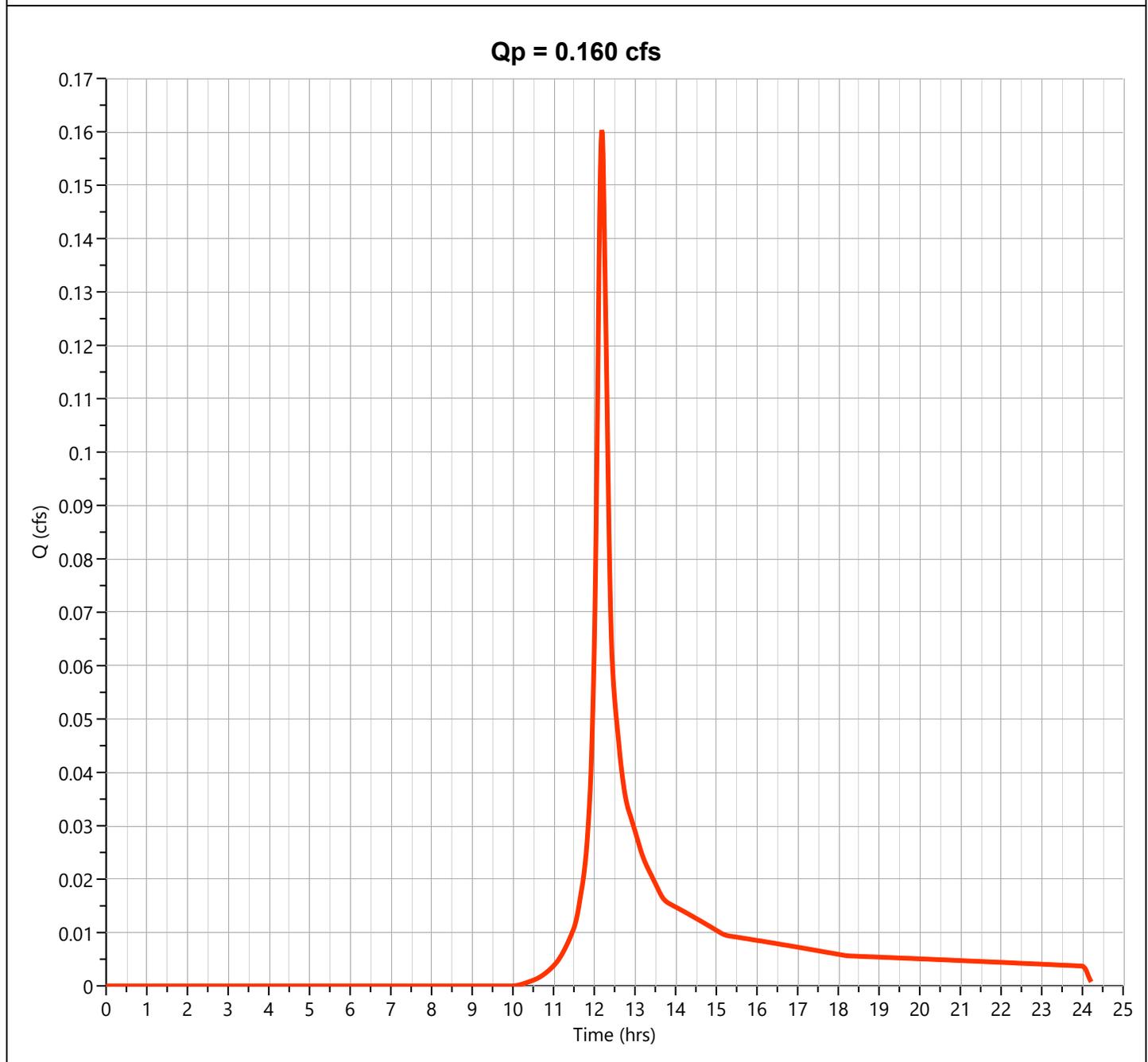
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

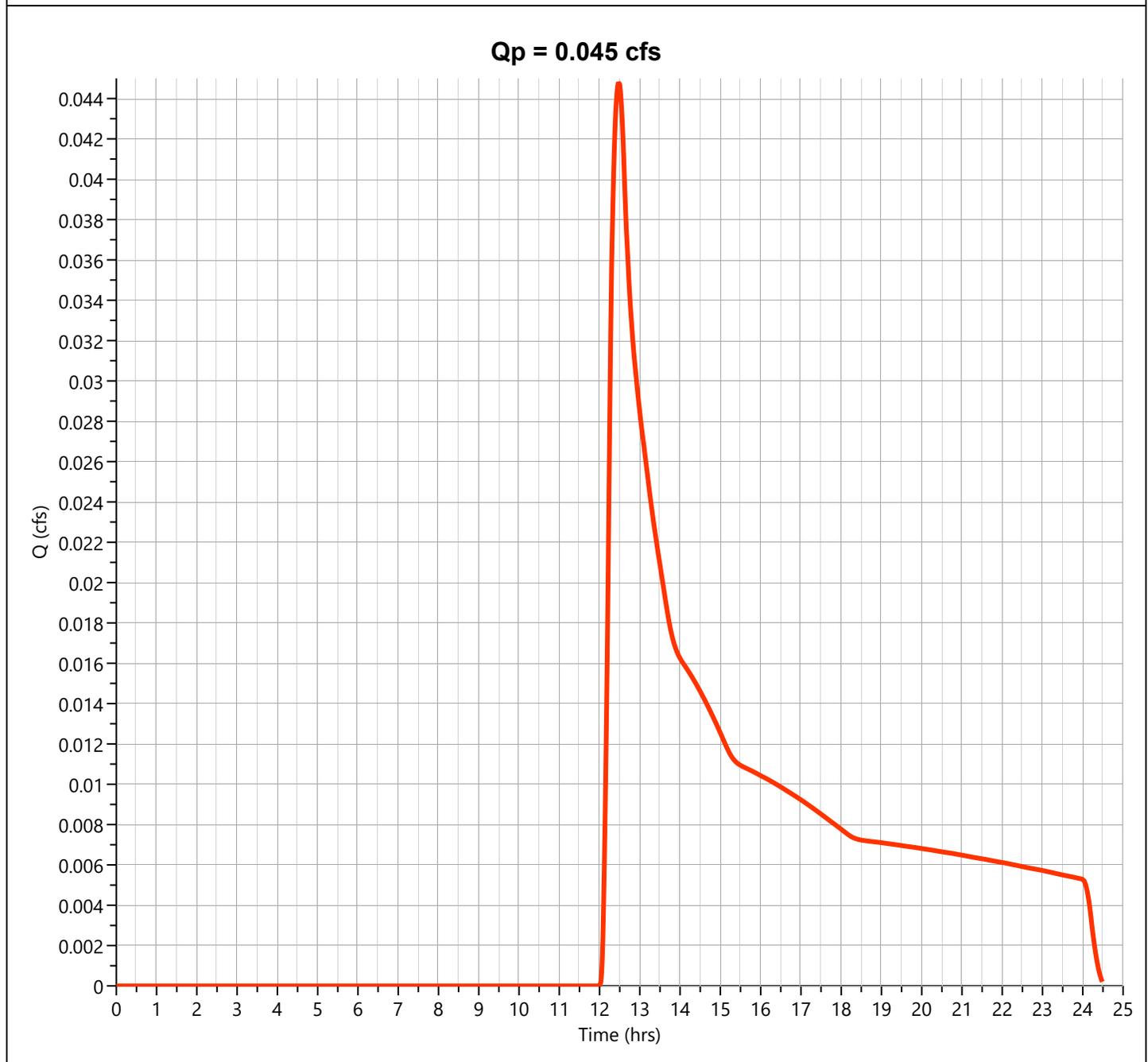
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

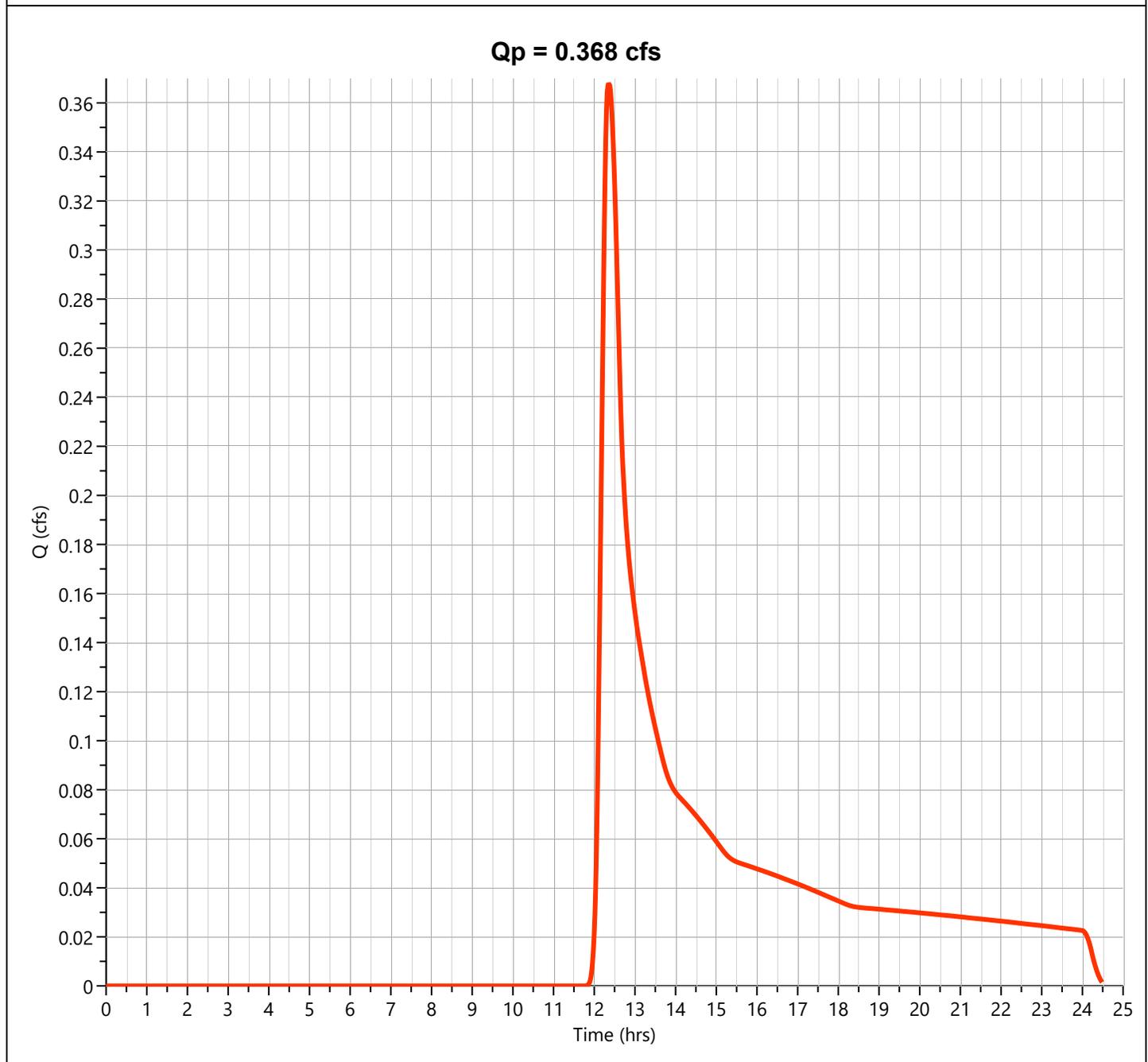
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

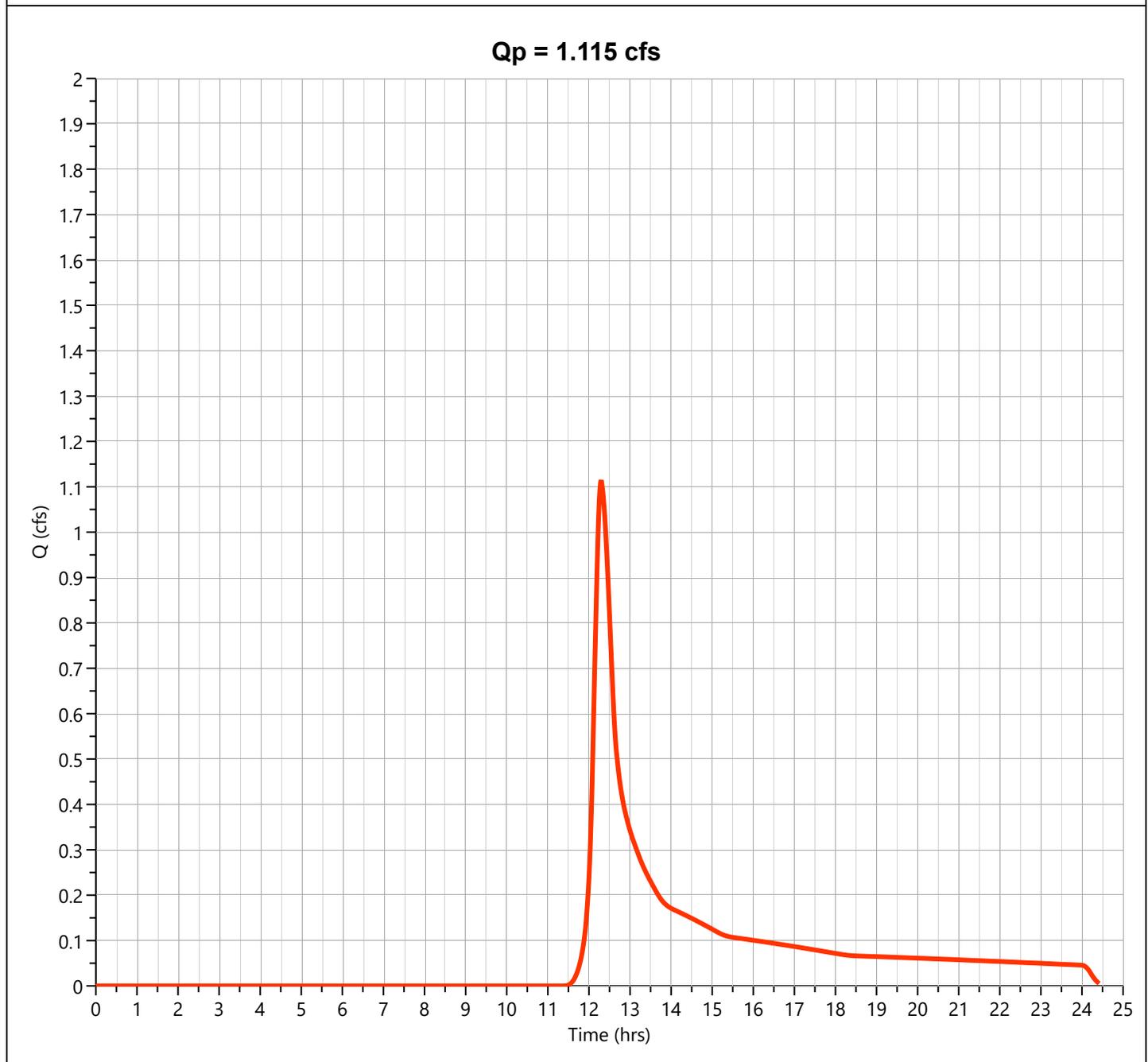
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

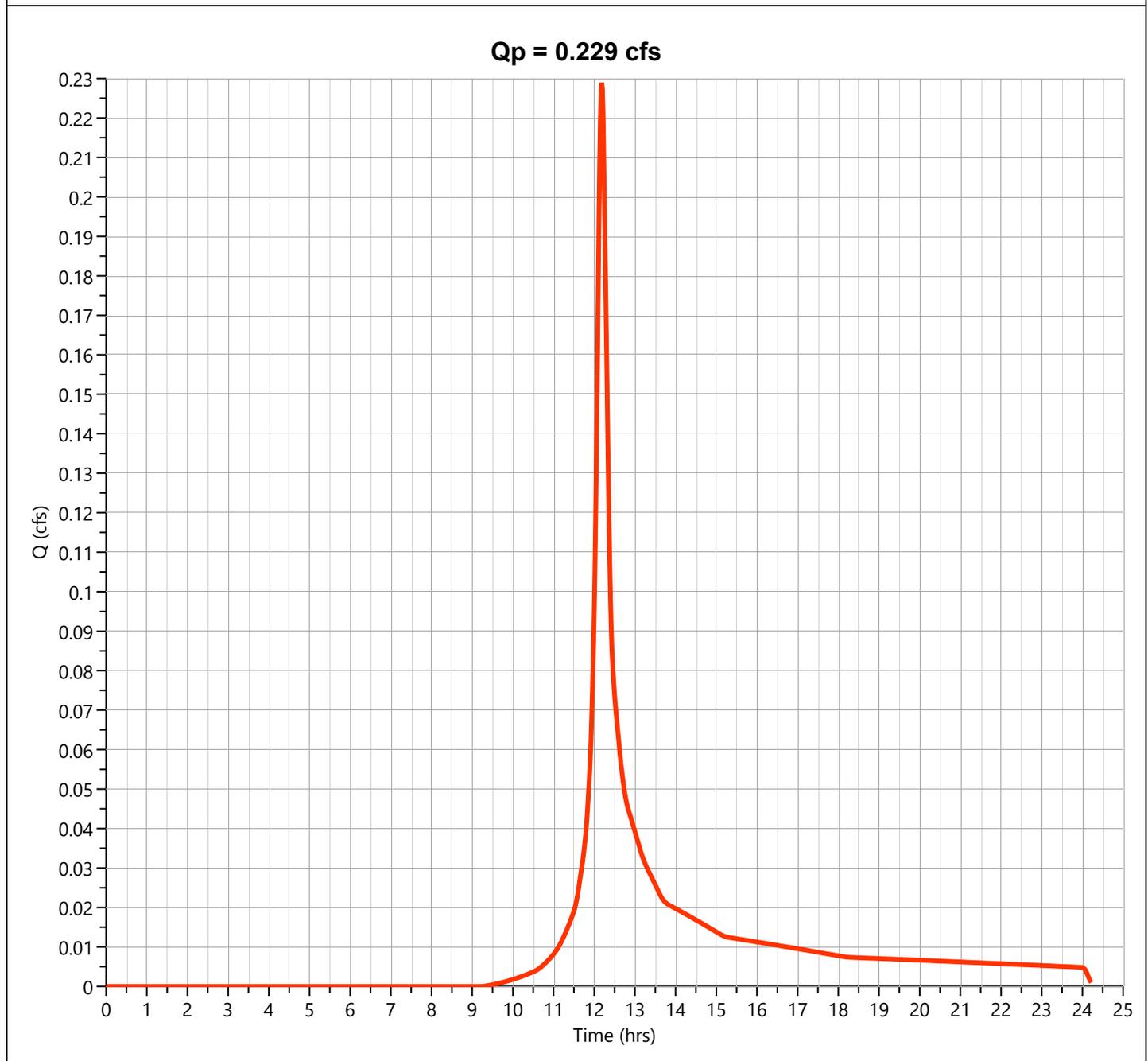
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

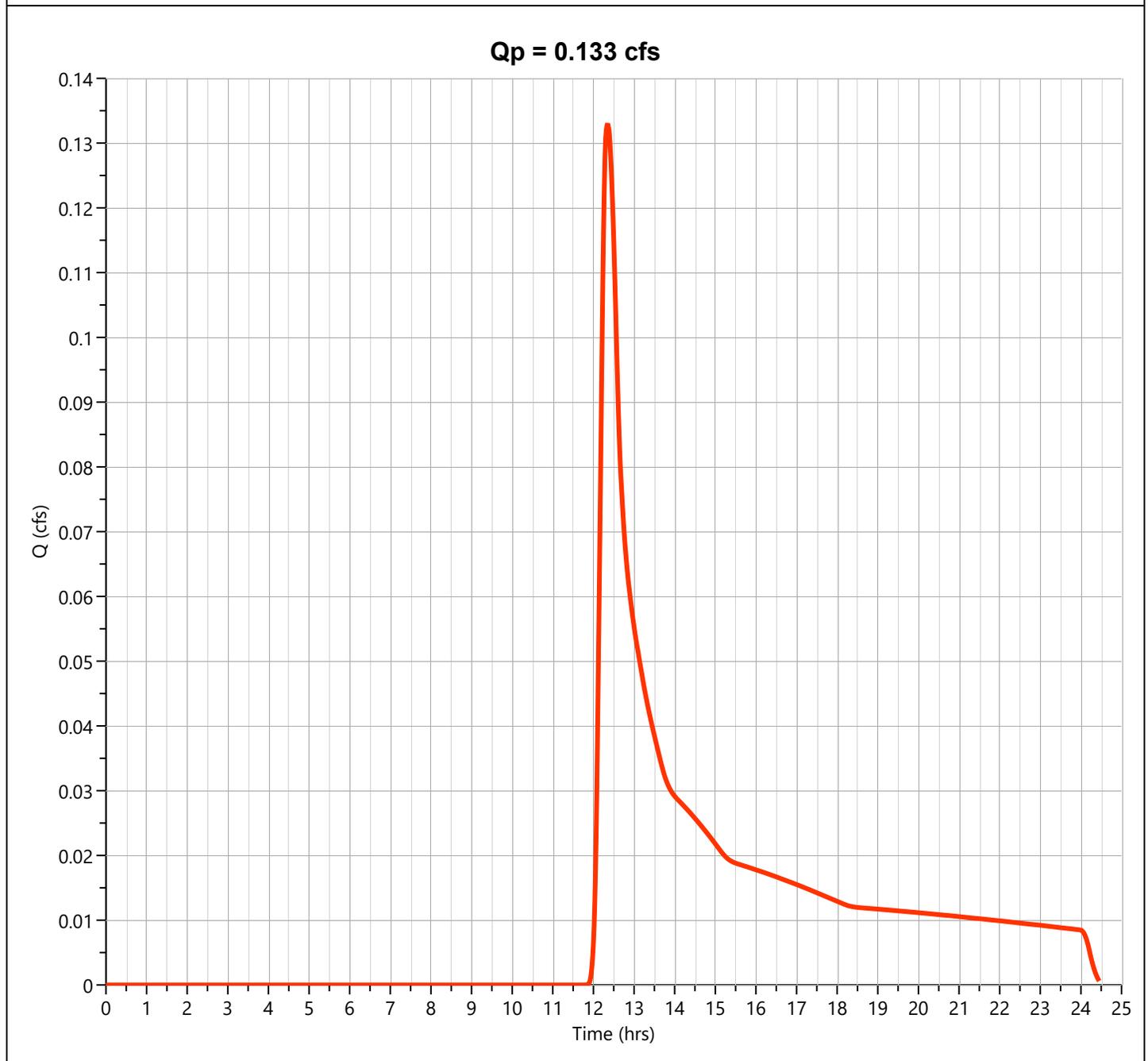
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

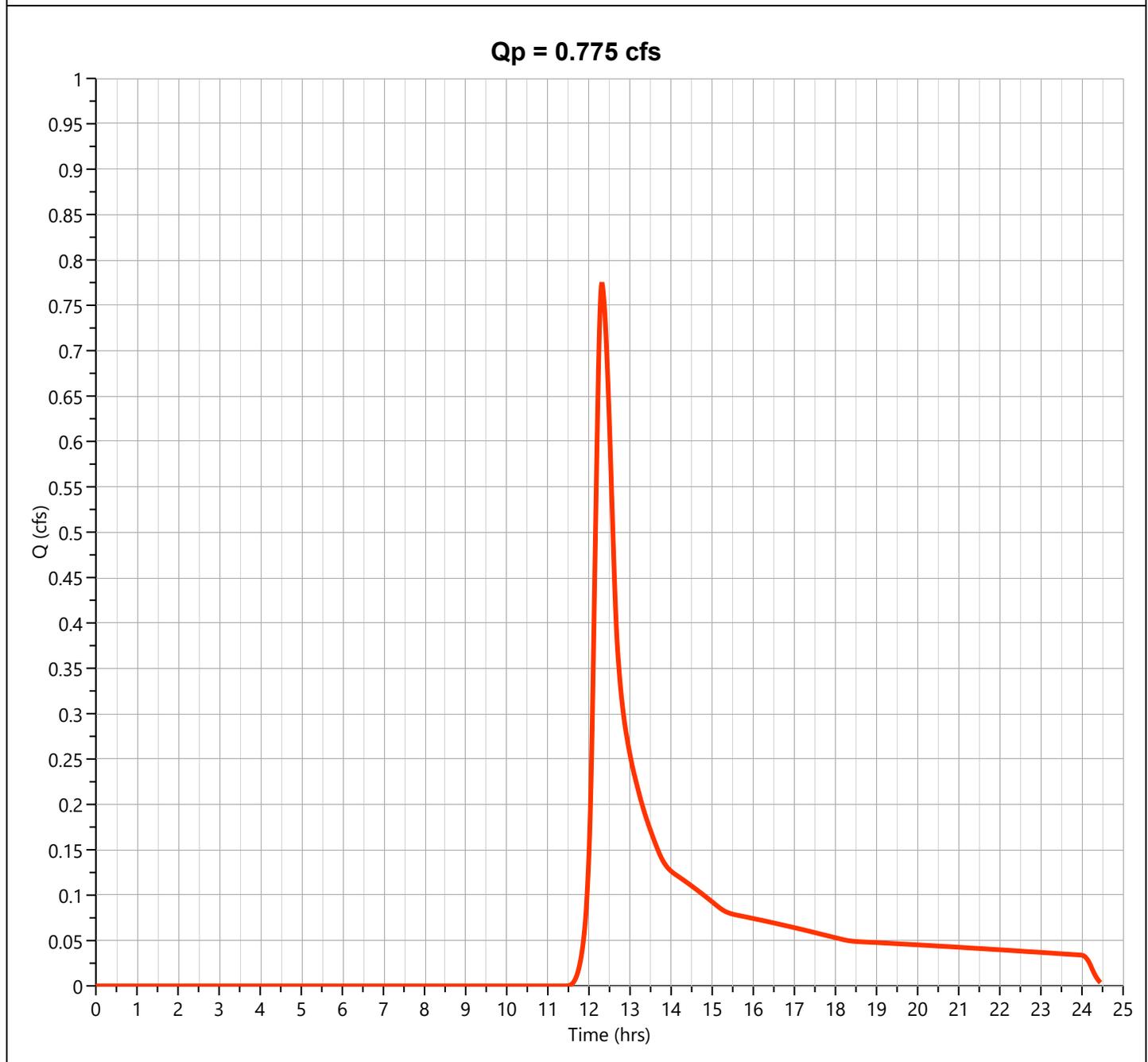
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

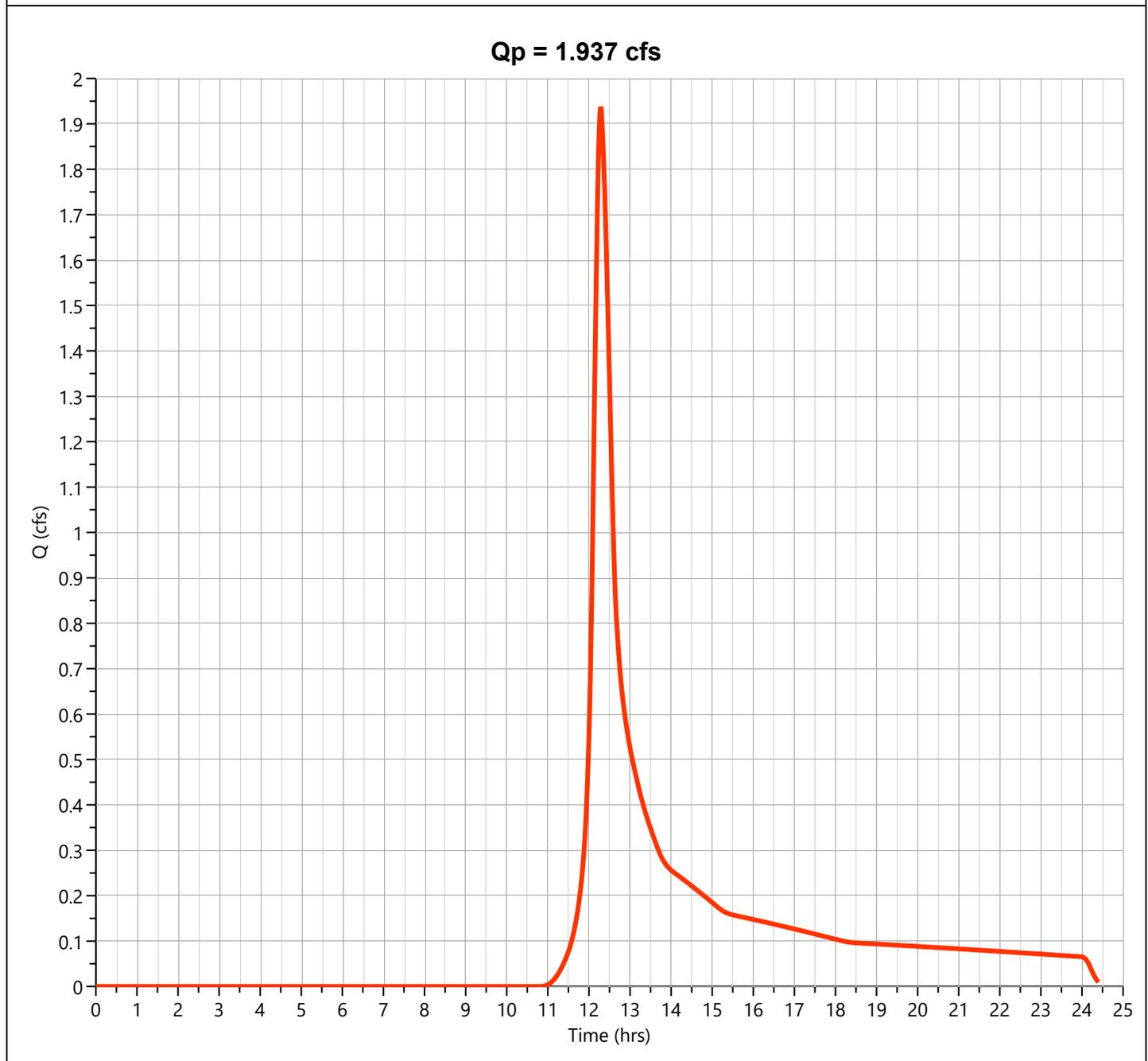
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

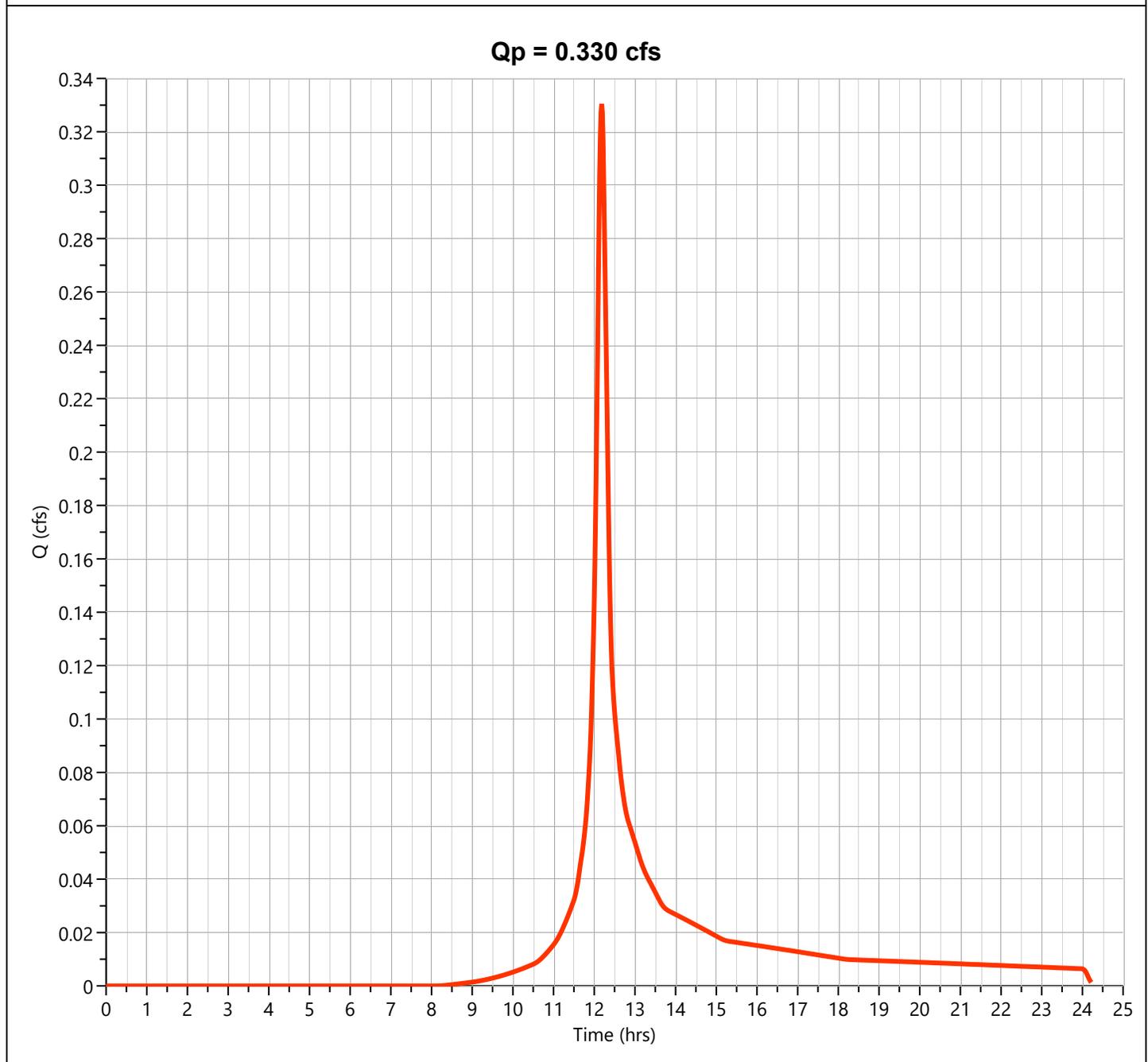
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

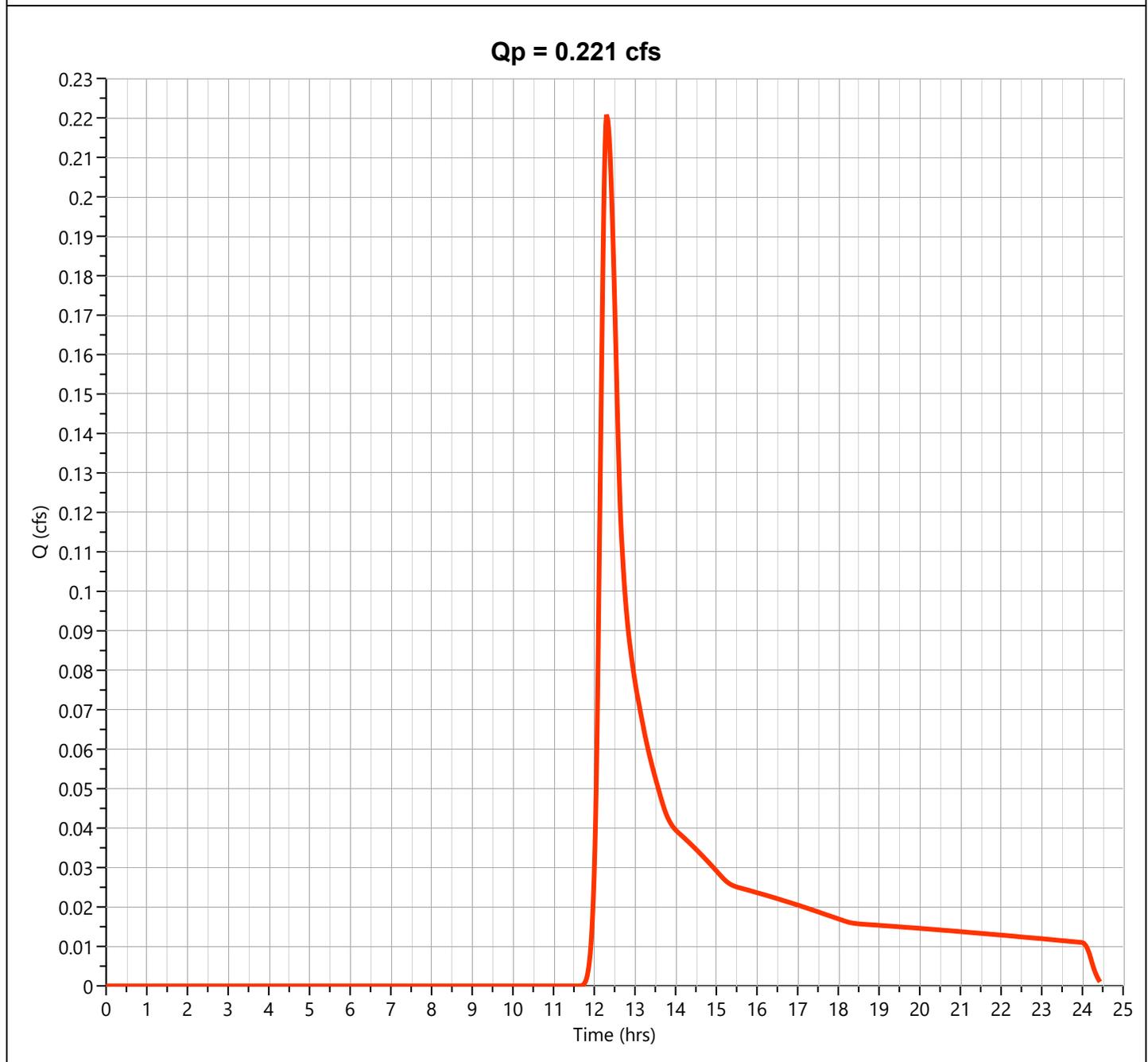
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

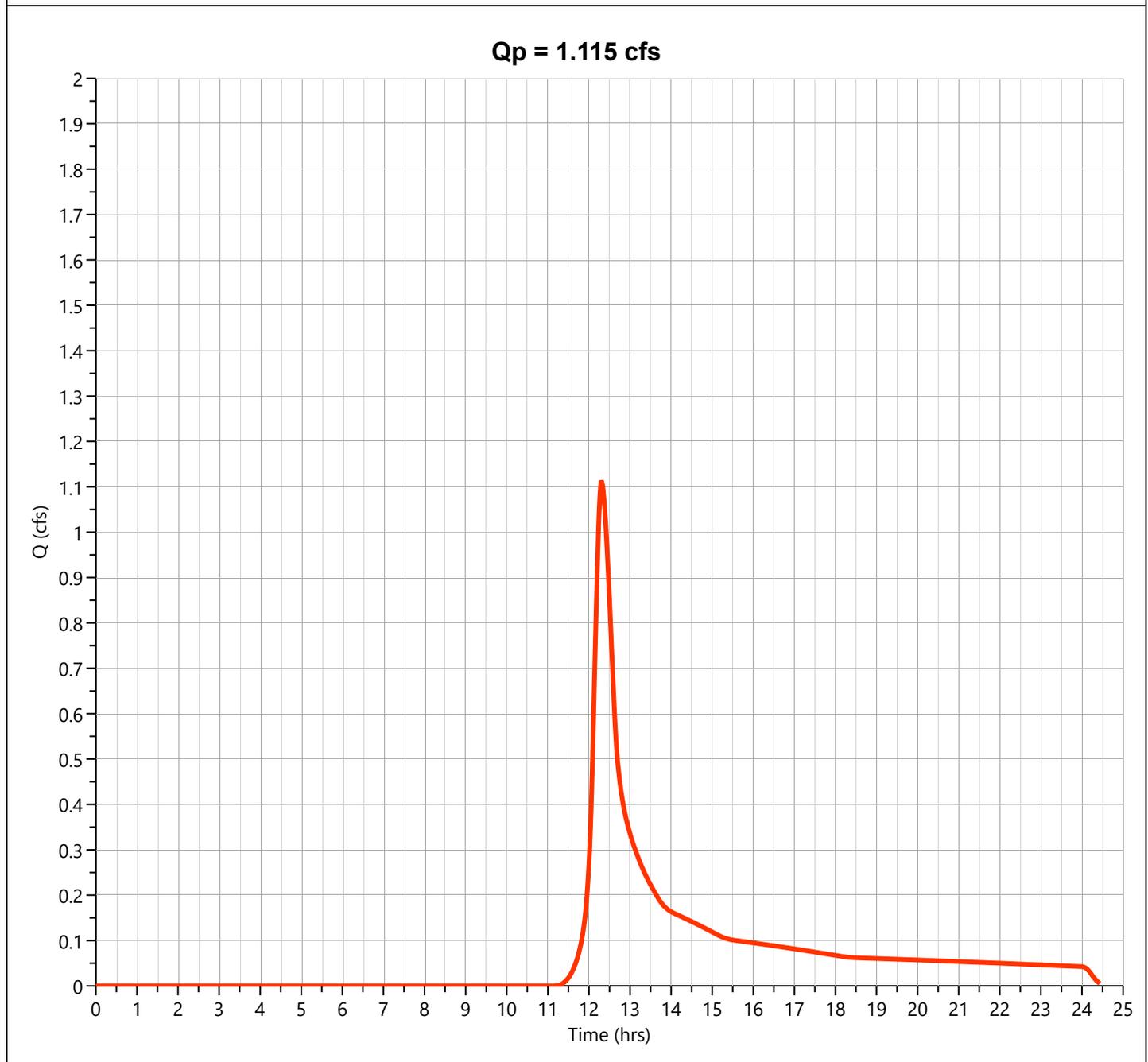
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

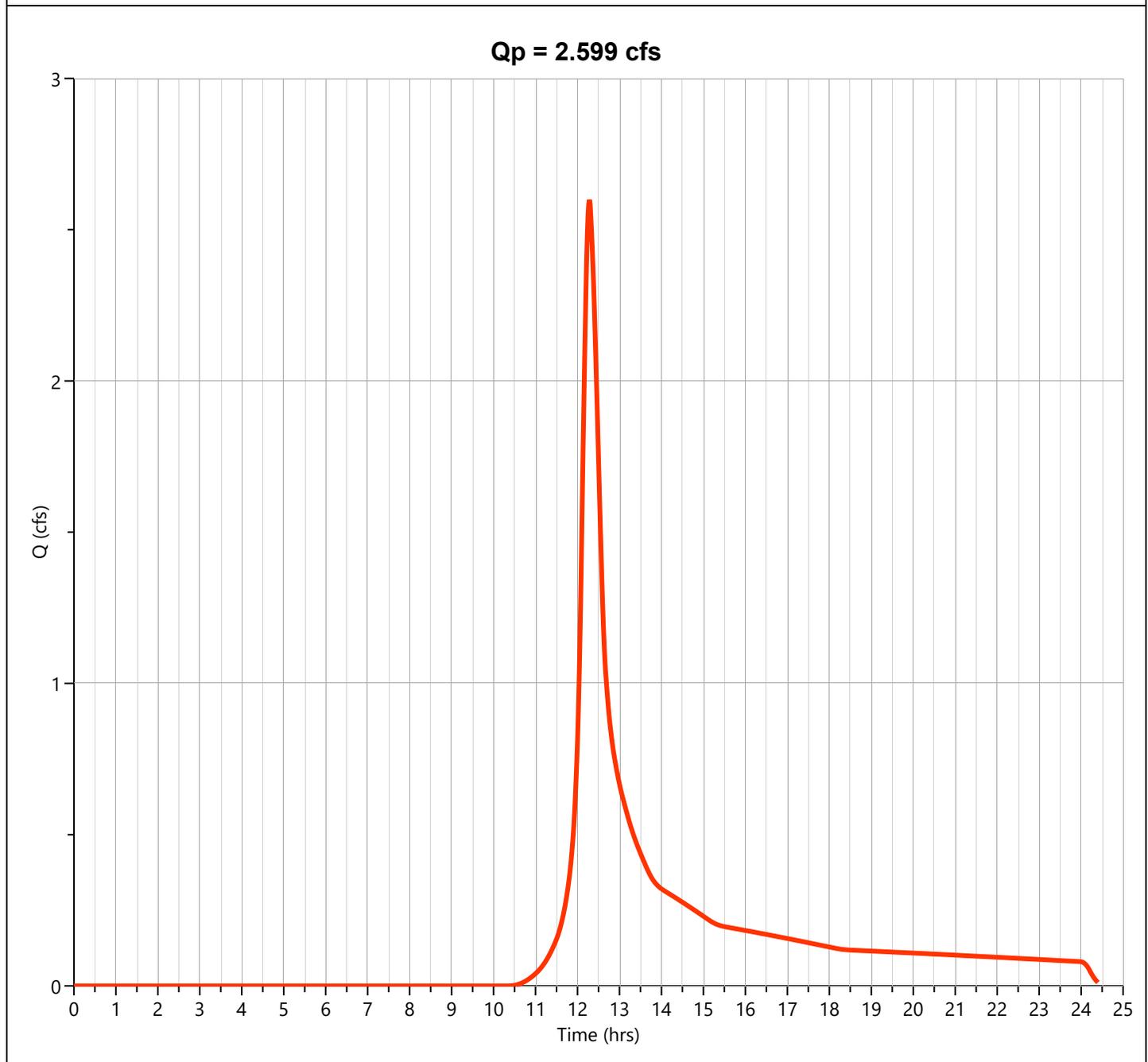
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

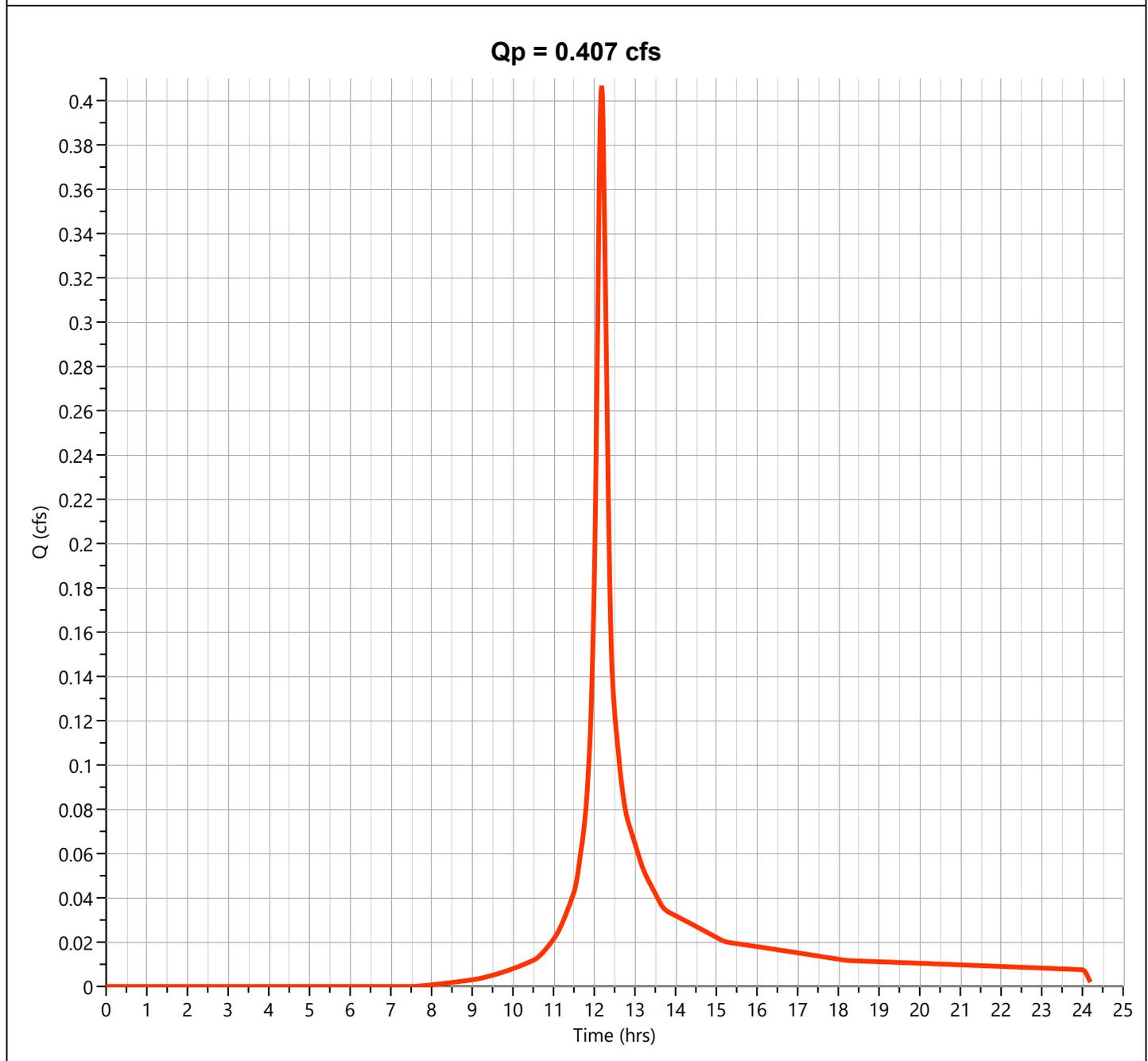
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

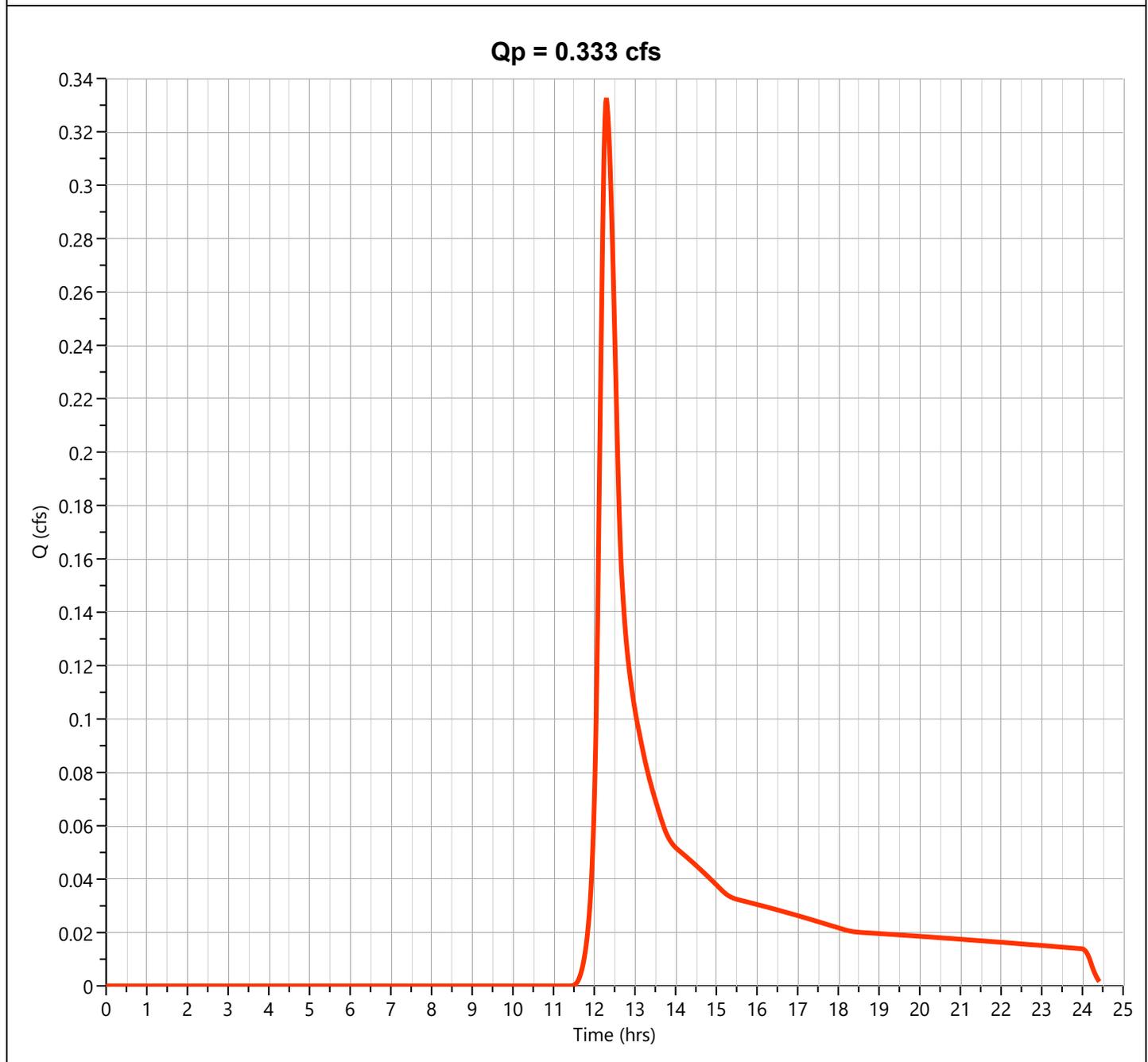
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

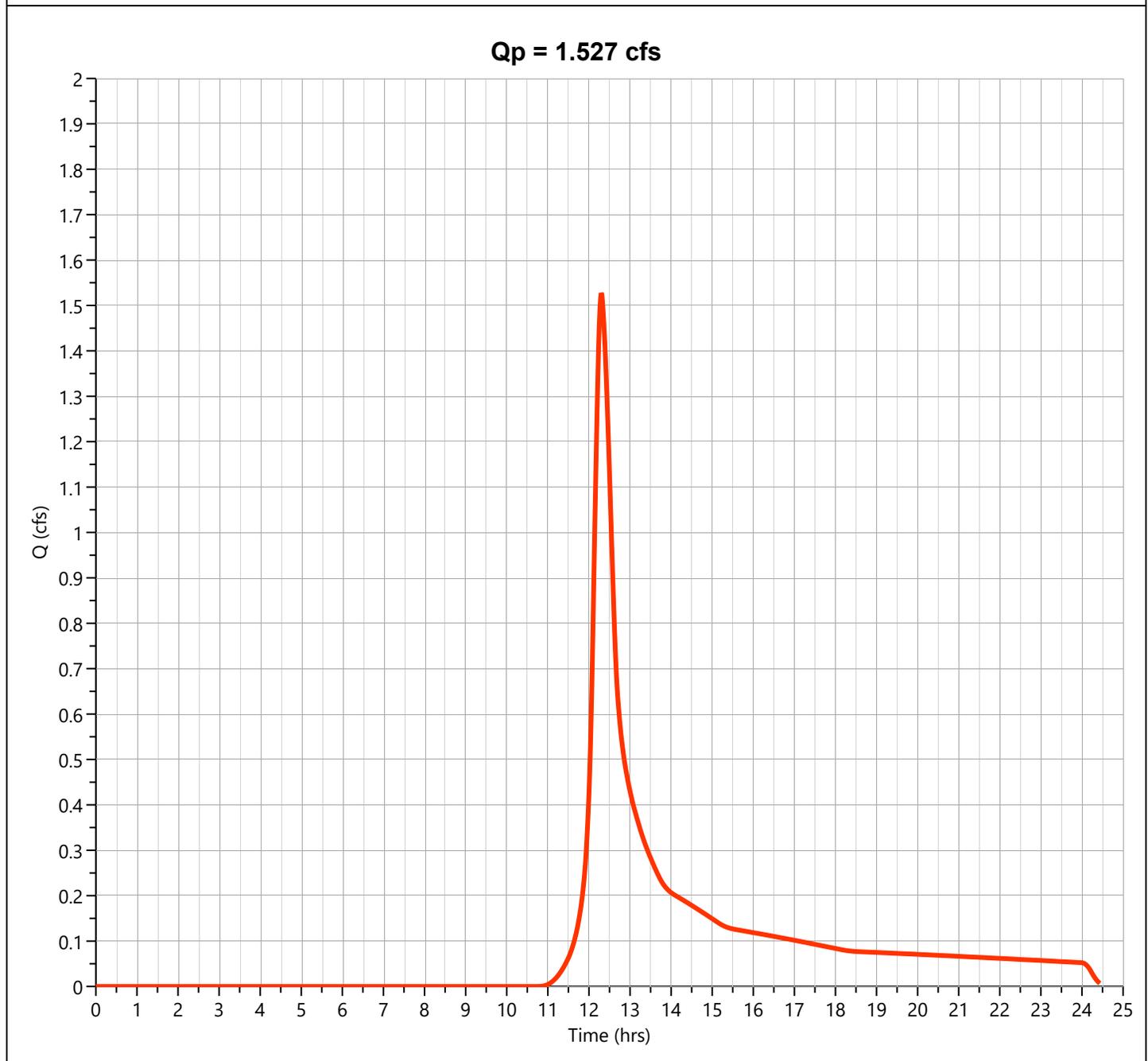
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

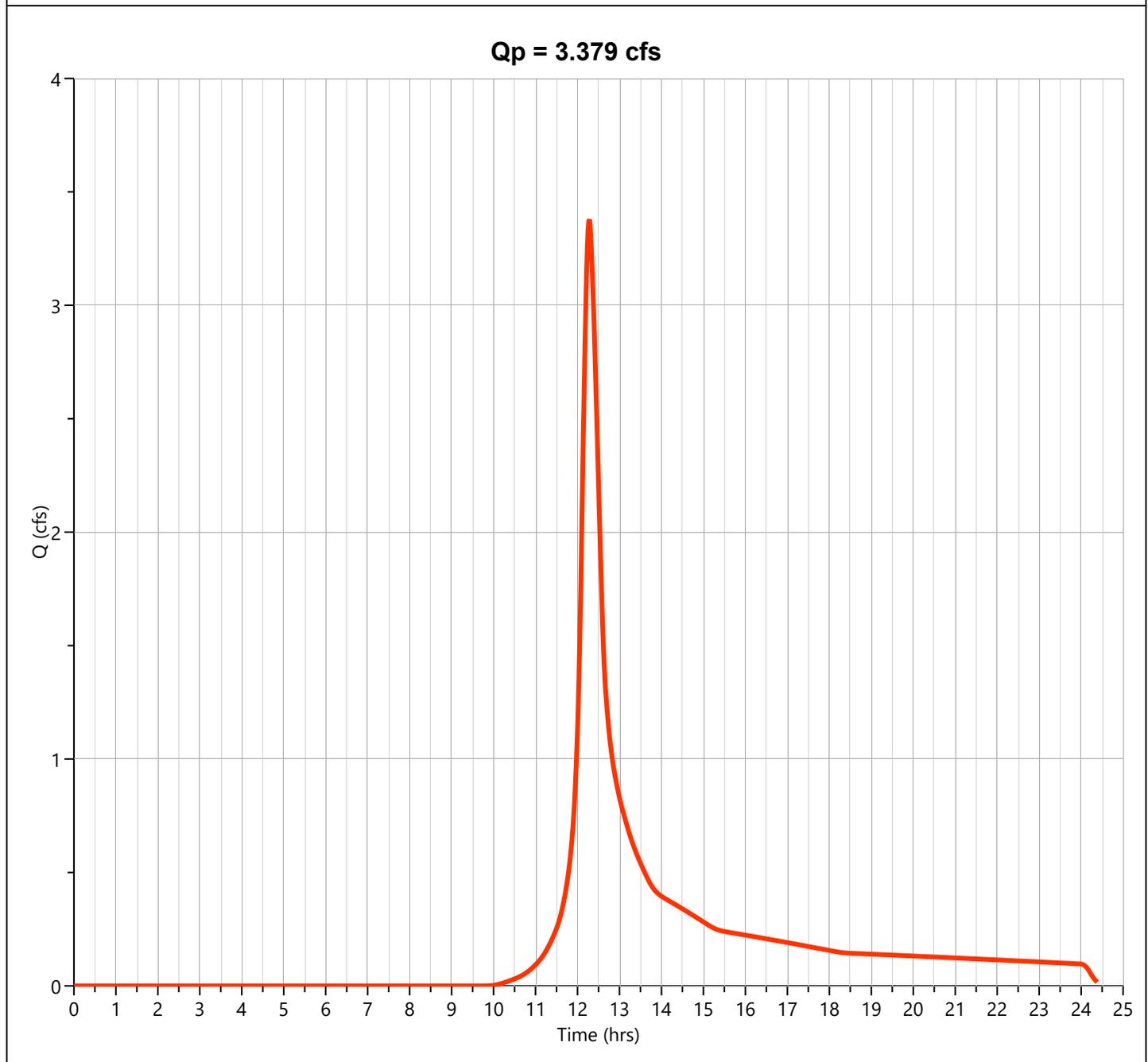
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

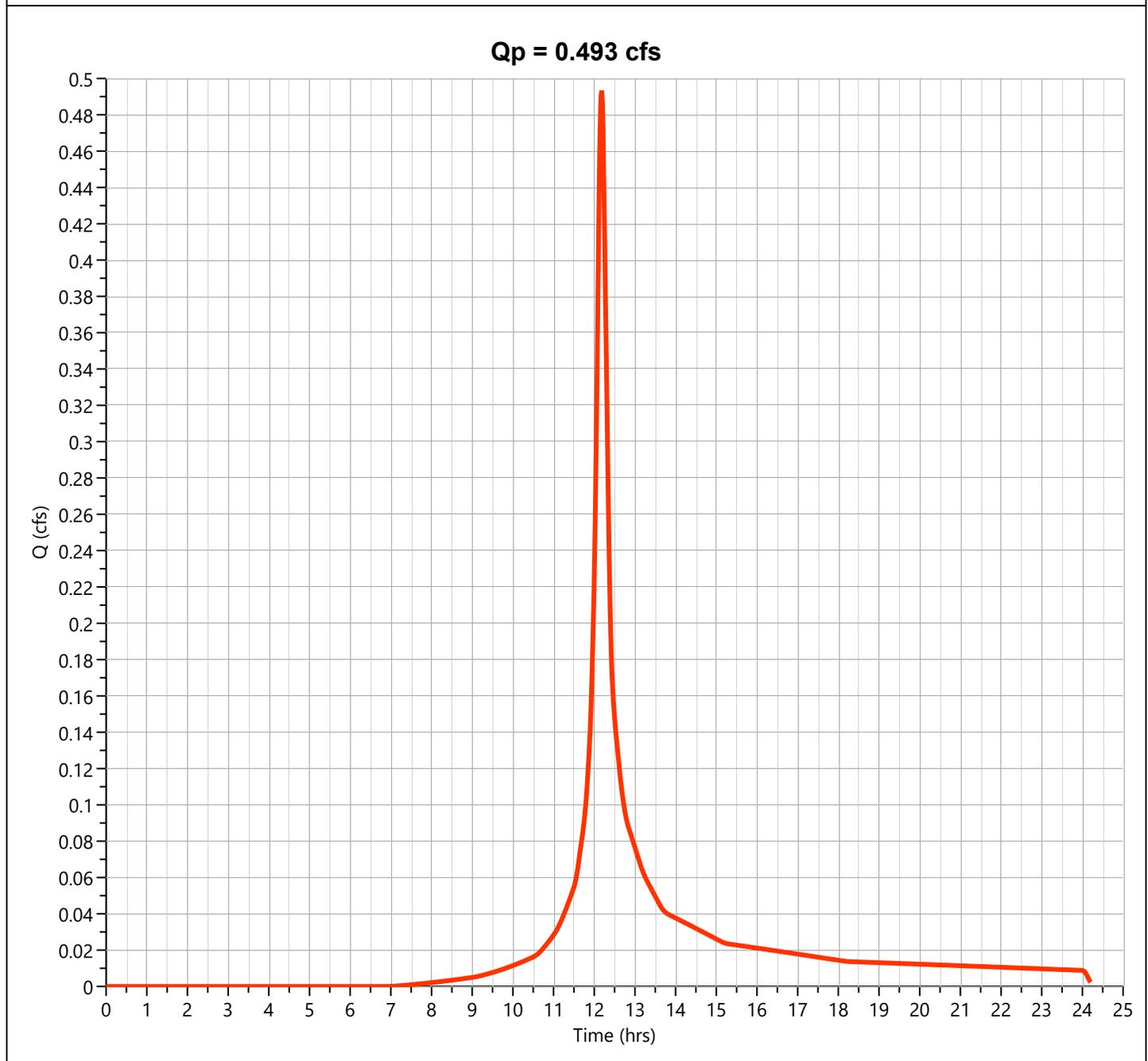
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11-18-2025

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

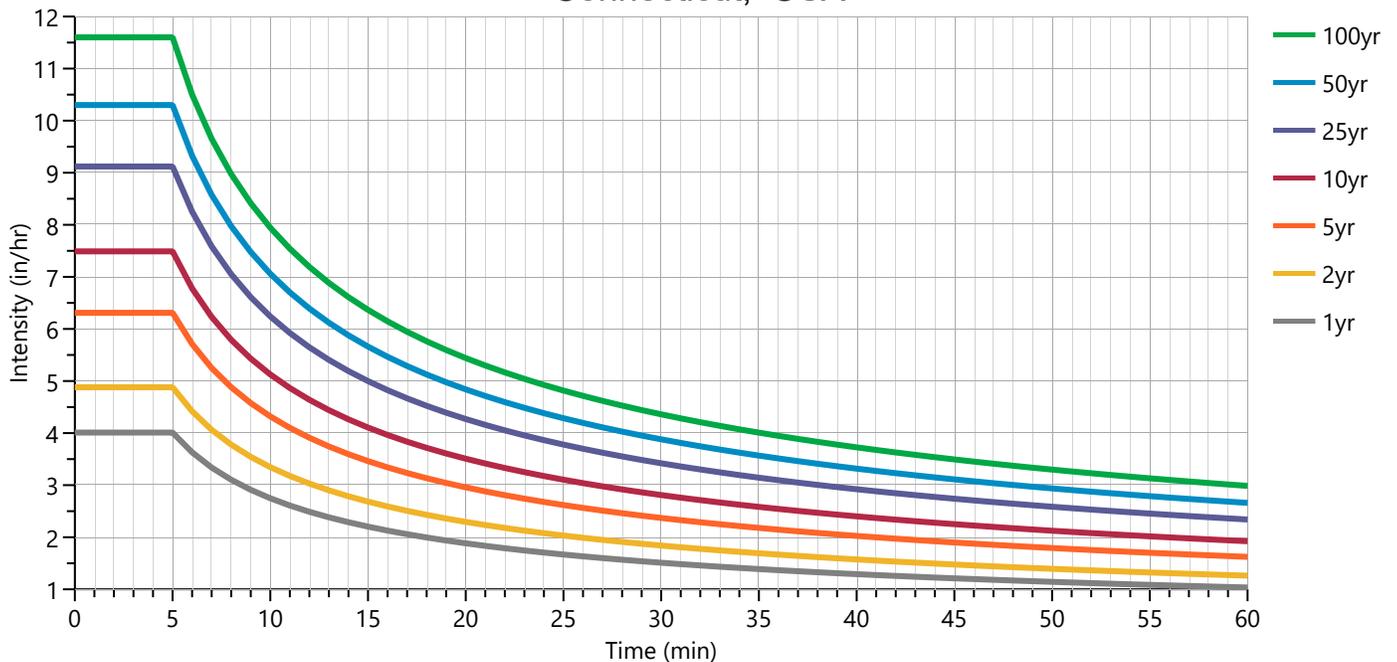
Equation Coefficients	Intensity = B / (Tc + D)^E (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
B	9.6416	11.7197	0.0000	15.2067	18.0689	22.0099	24.7570	27.9374	
D	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
E	0.5451	0.5444	0.0000	0.5465	0.5472	0.5474	0.5449	0.5461	

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.

Connecticut, USA



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

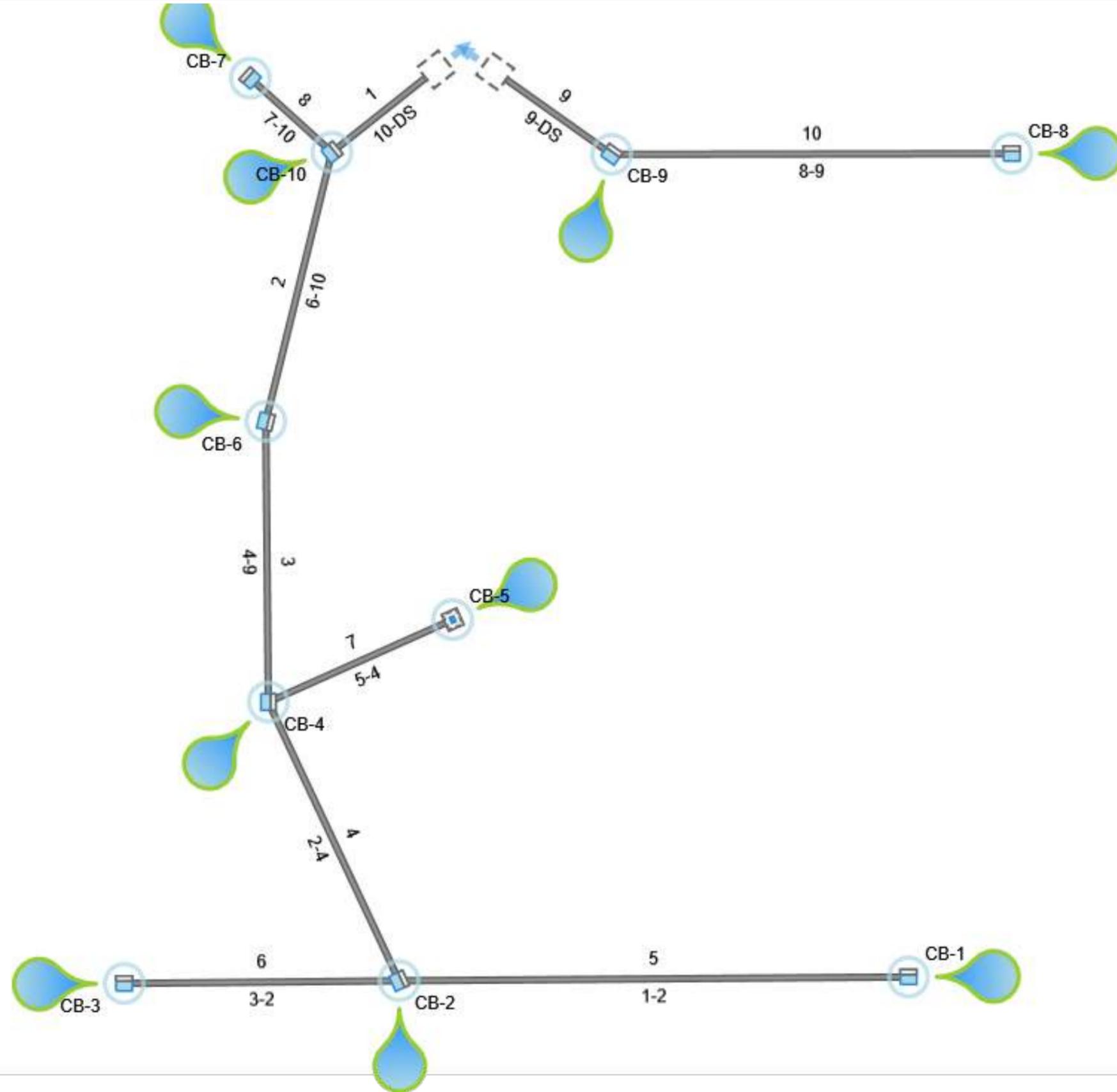
	Active	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Active			✓		✓	✓	✓	✓	✓
NRCS Storms	> NRCS Dimensionless Storms								
NRCS MSE1, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE2, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE3, 24-hr		2.65	3.32	0	4.40	5.29	6.53	7.43	8.43
NRCS MSE4, 24-hr		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

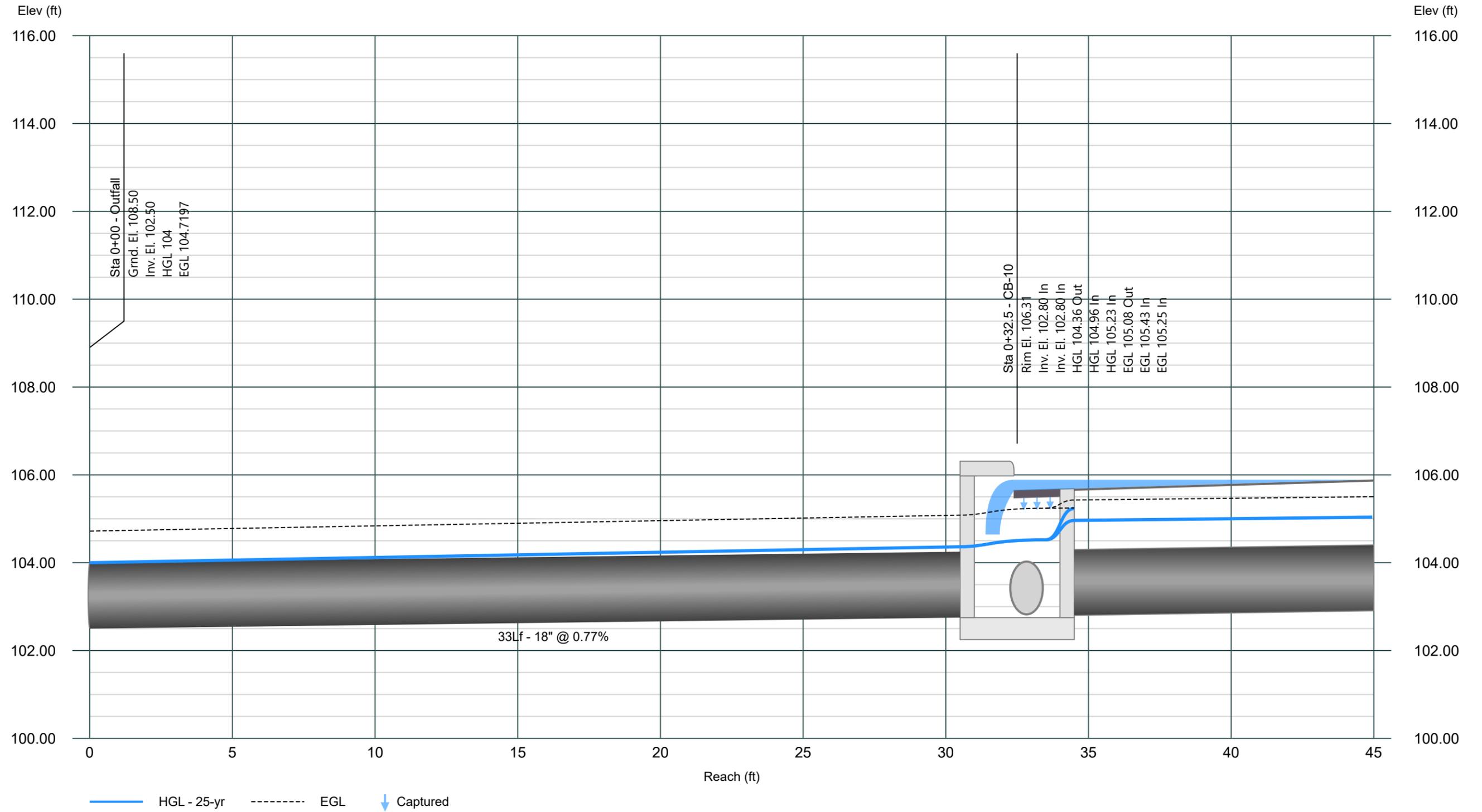


Line 1 - 10-DS

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

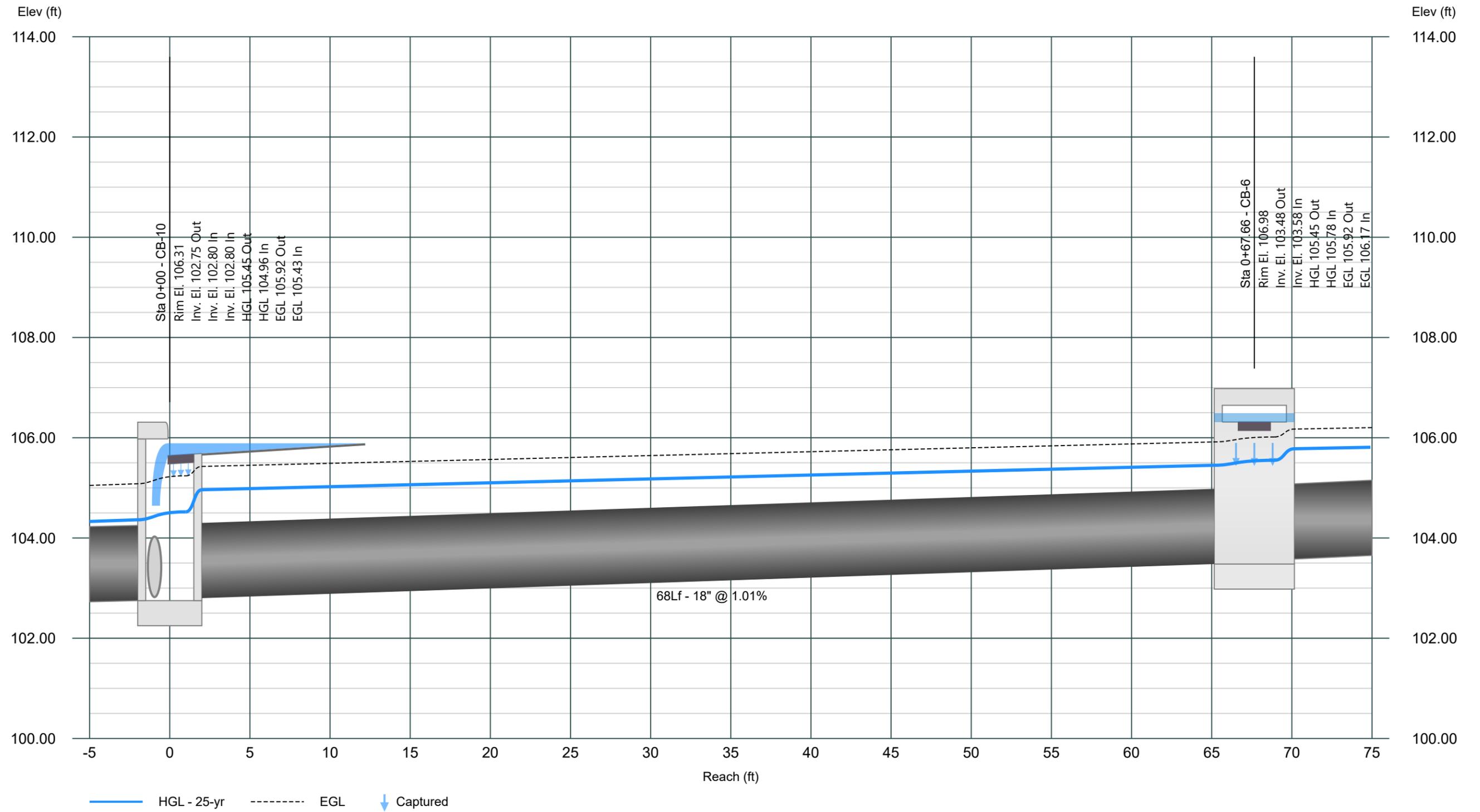


Line 2 - 6-10

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

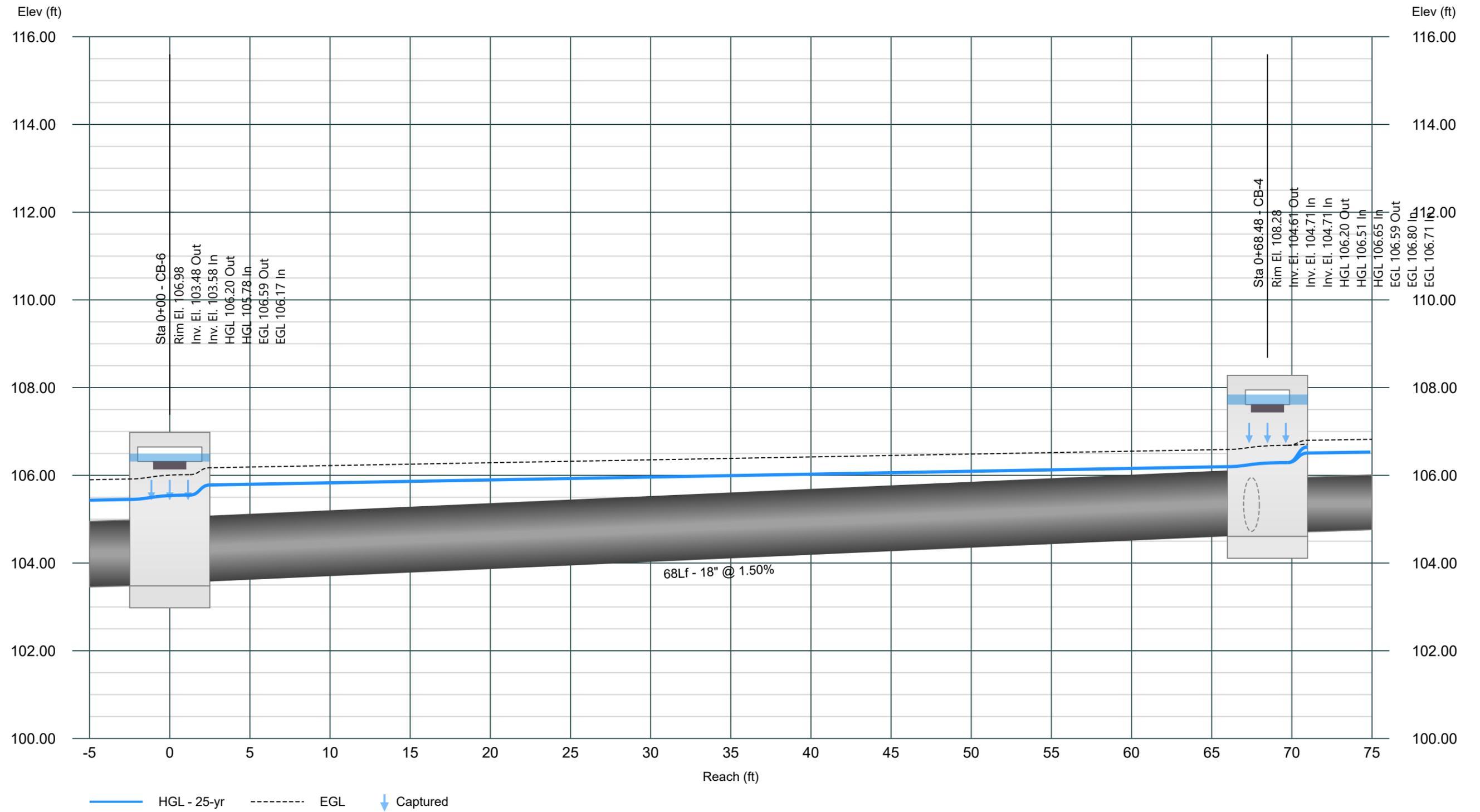


Line 3 - 4-9

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

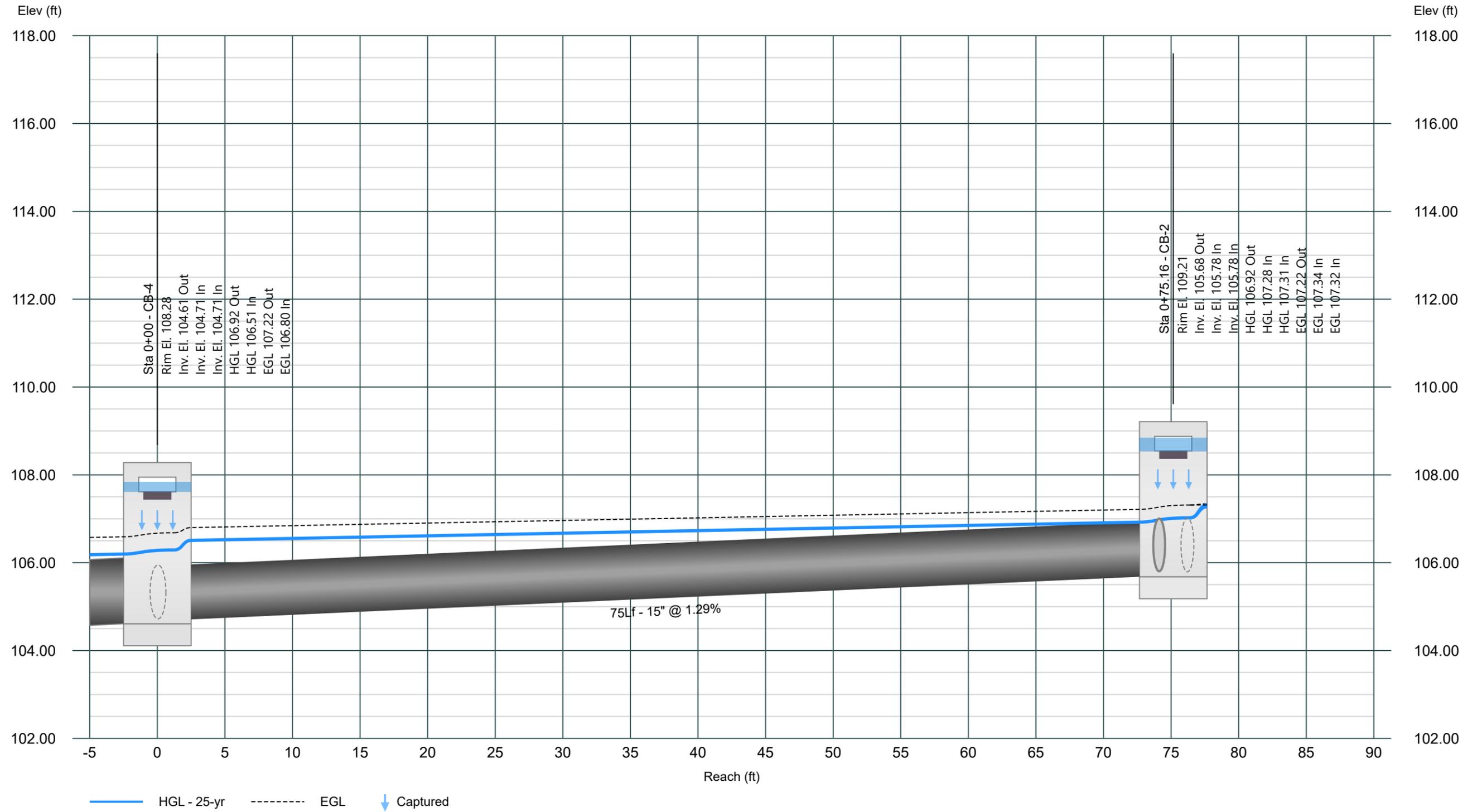


Line 4 - 2-4

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

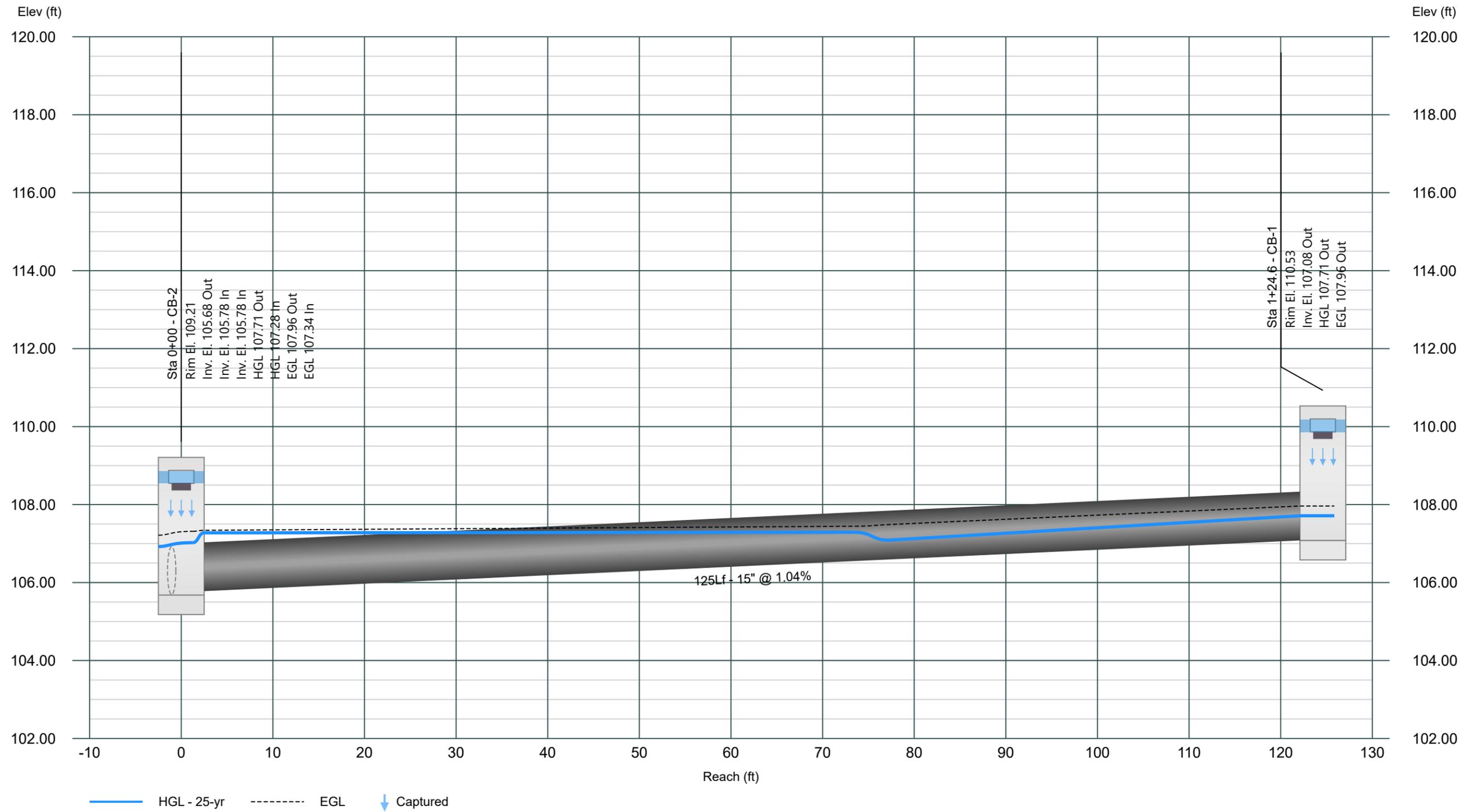


Line 5 - 1-2

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

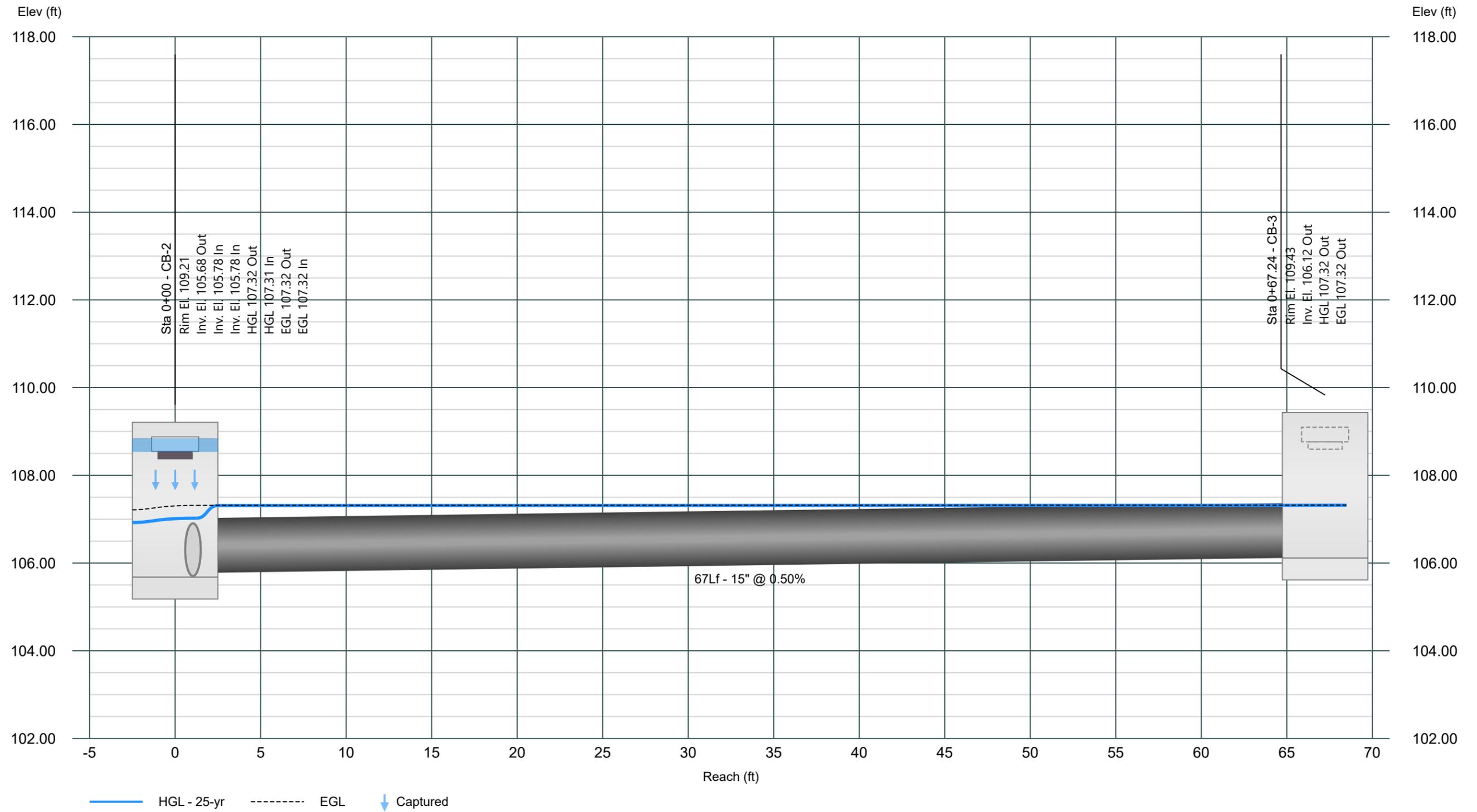


Line 6 - 3-2

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

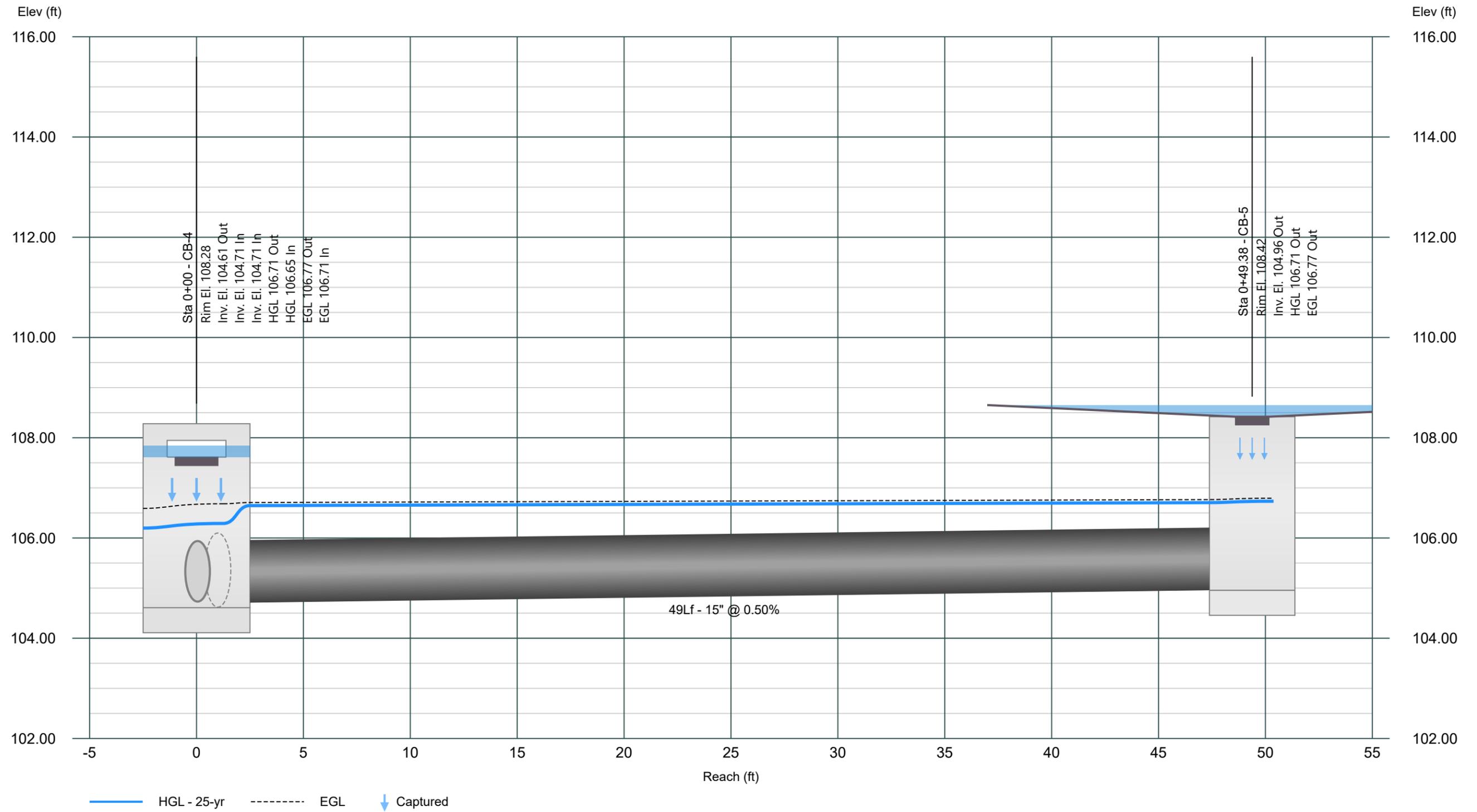


Line 7 - 5-4

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

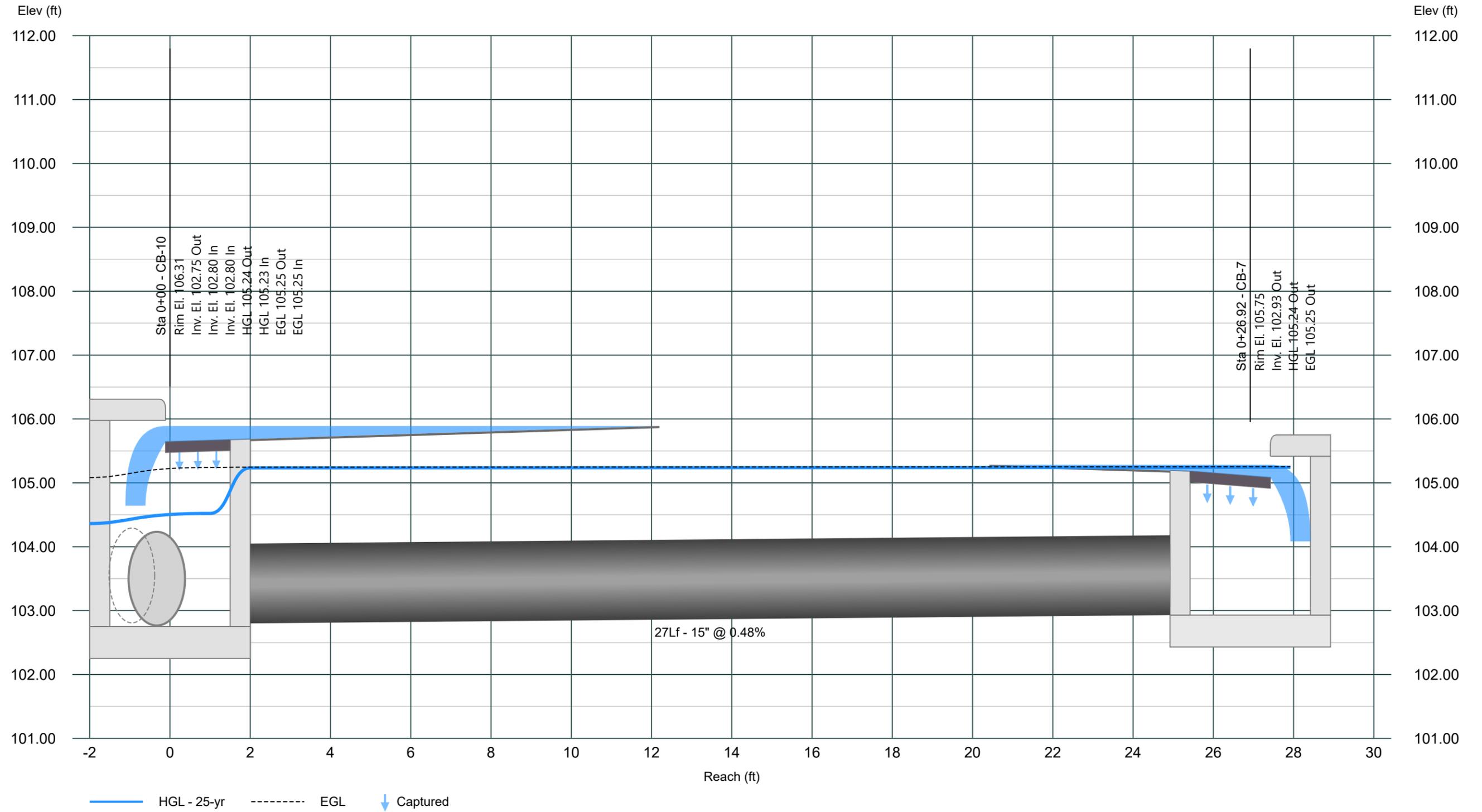


Line 8 - 7-10

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

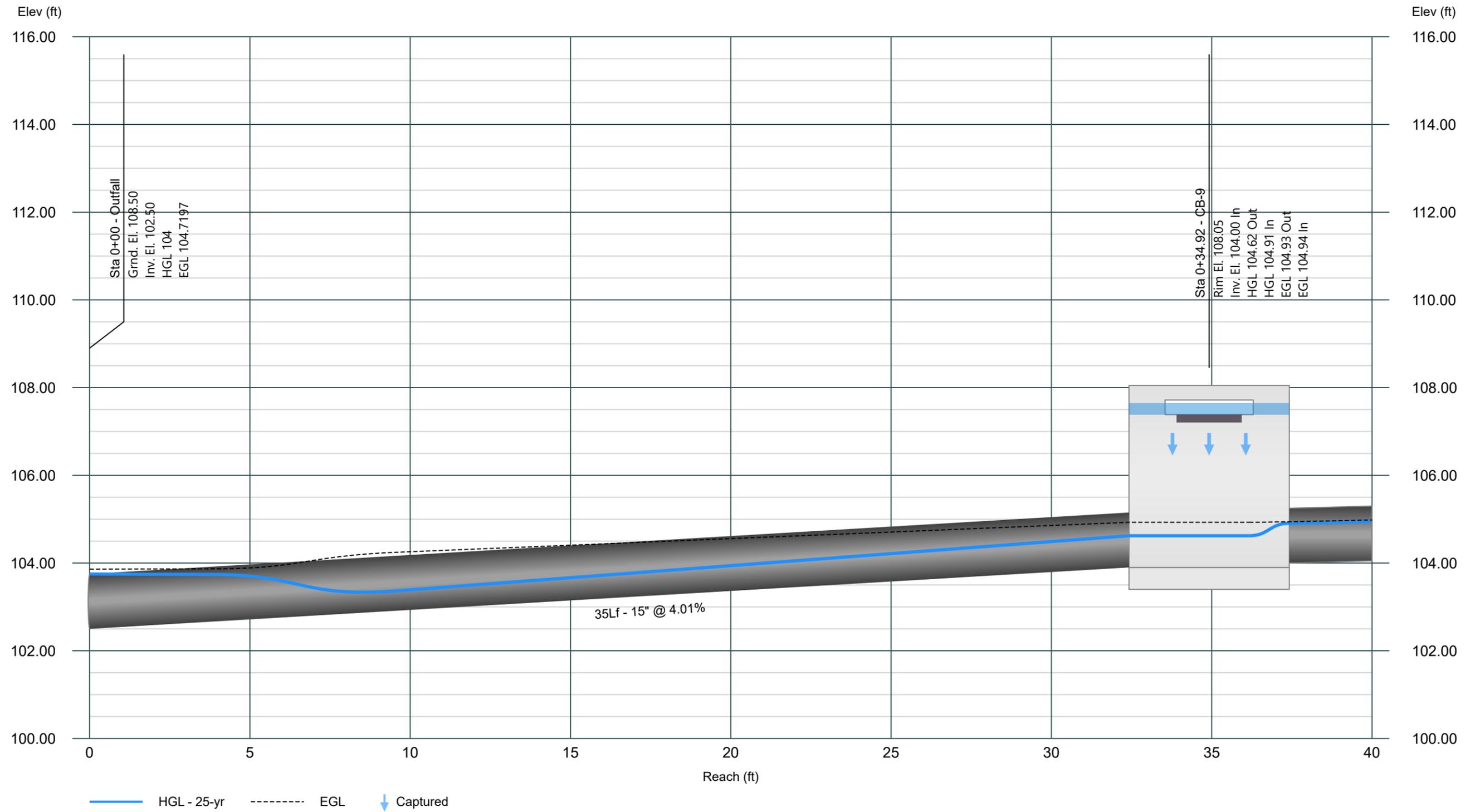


Line 9 - 9-DS

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

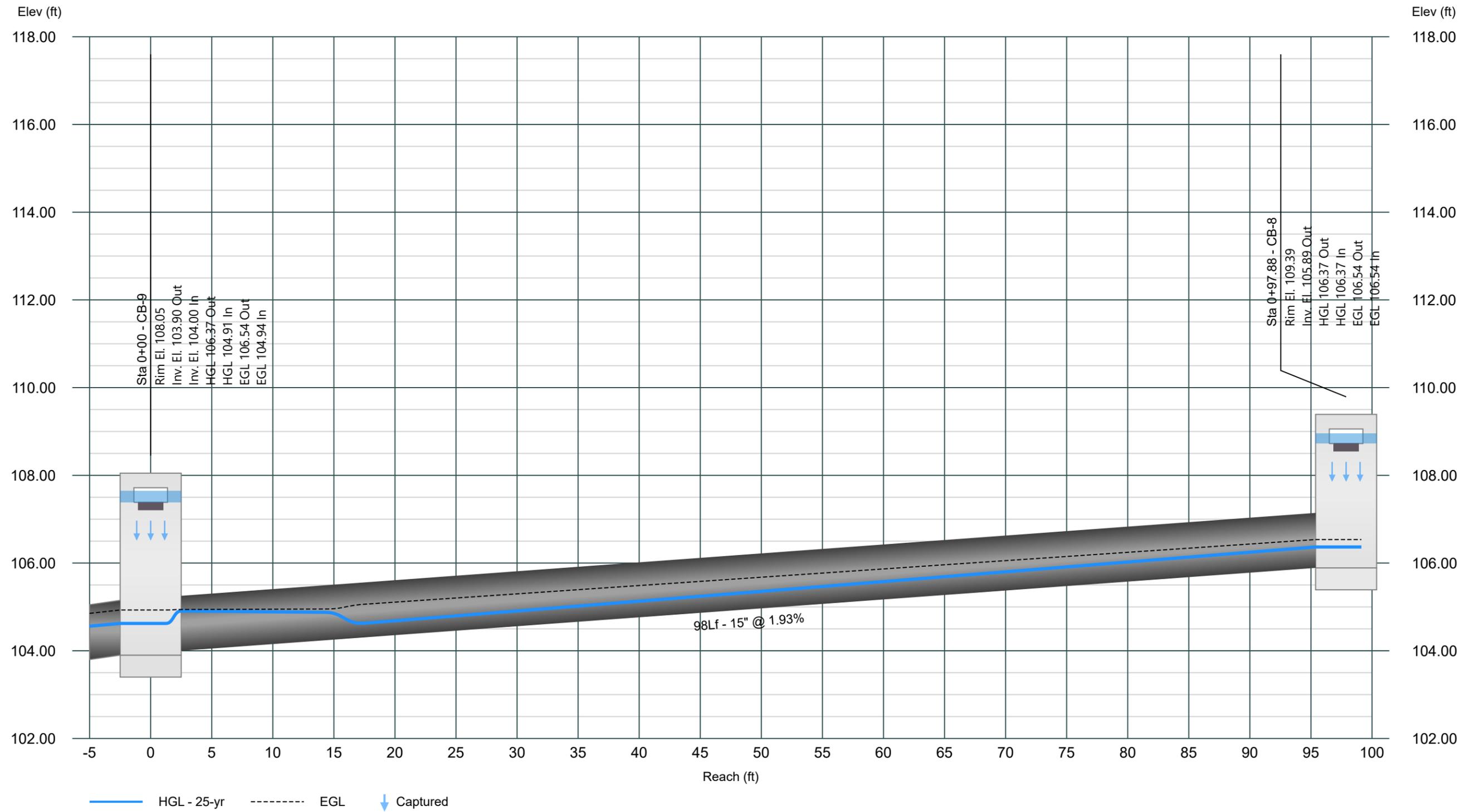


Line 10 - 8-9

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

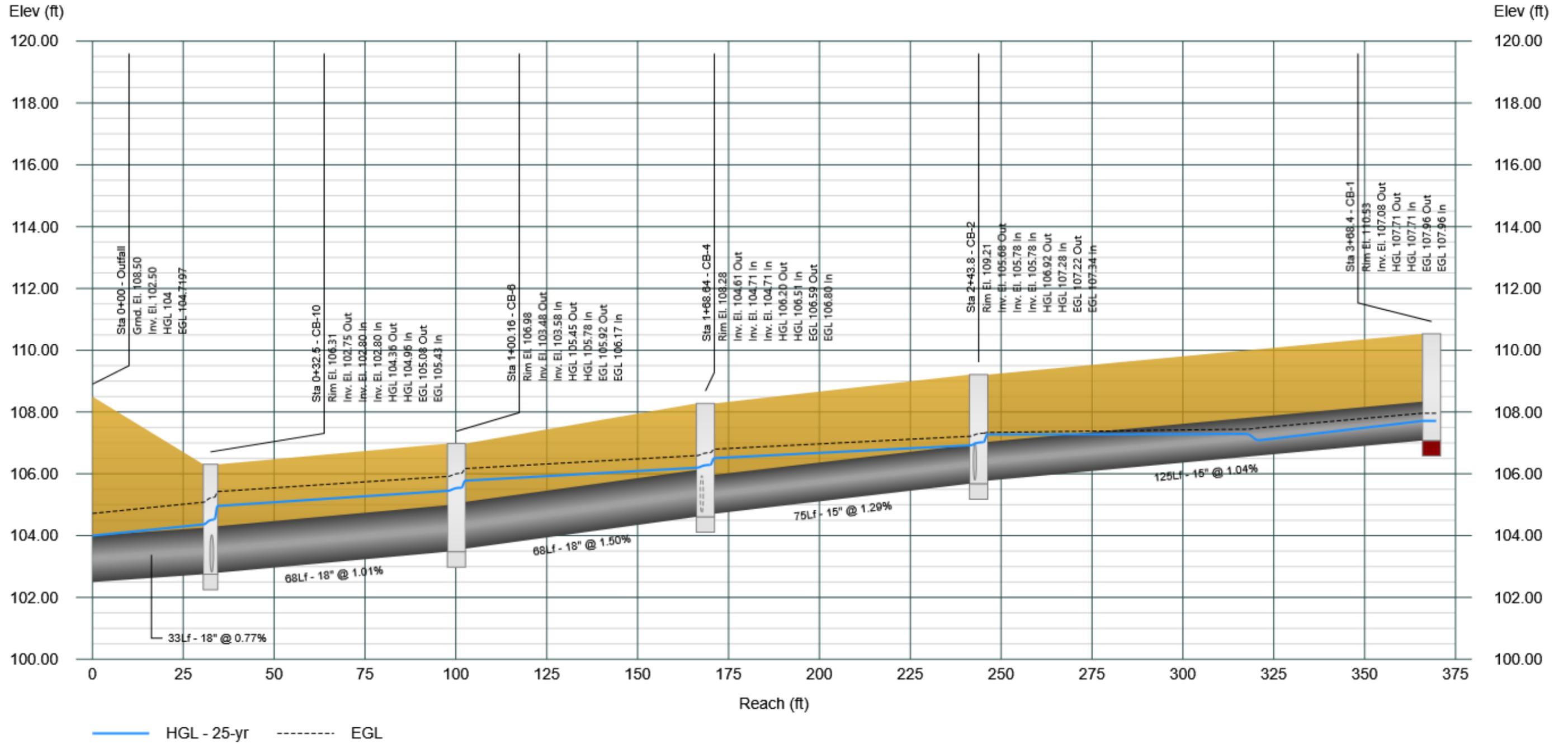


Profile View

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

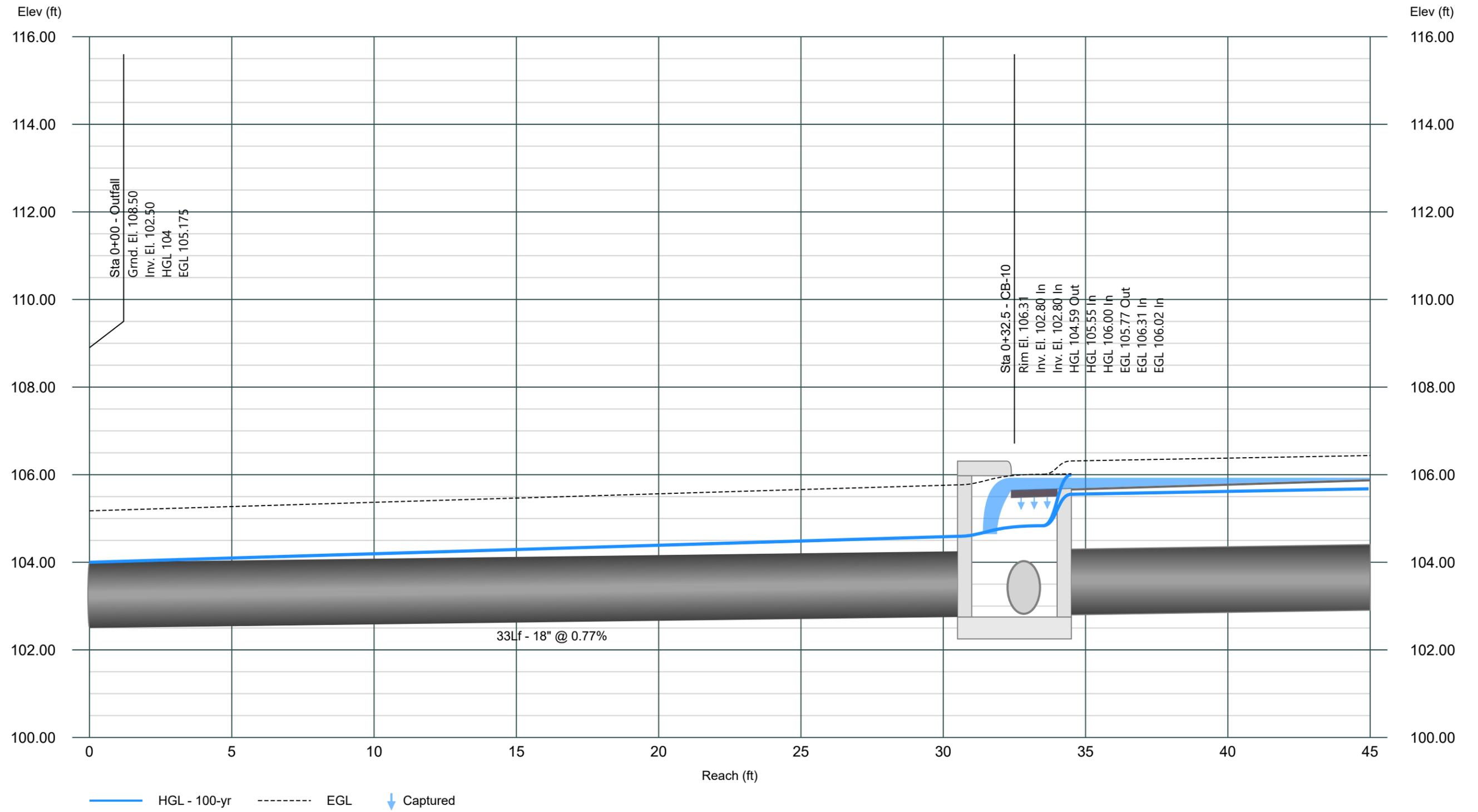


Line 1 - 10-DS

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

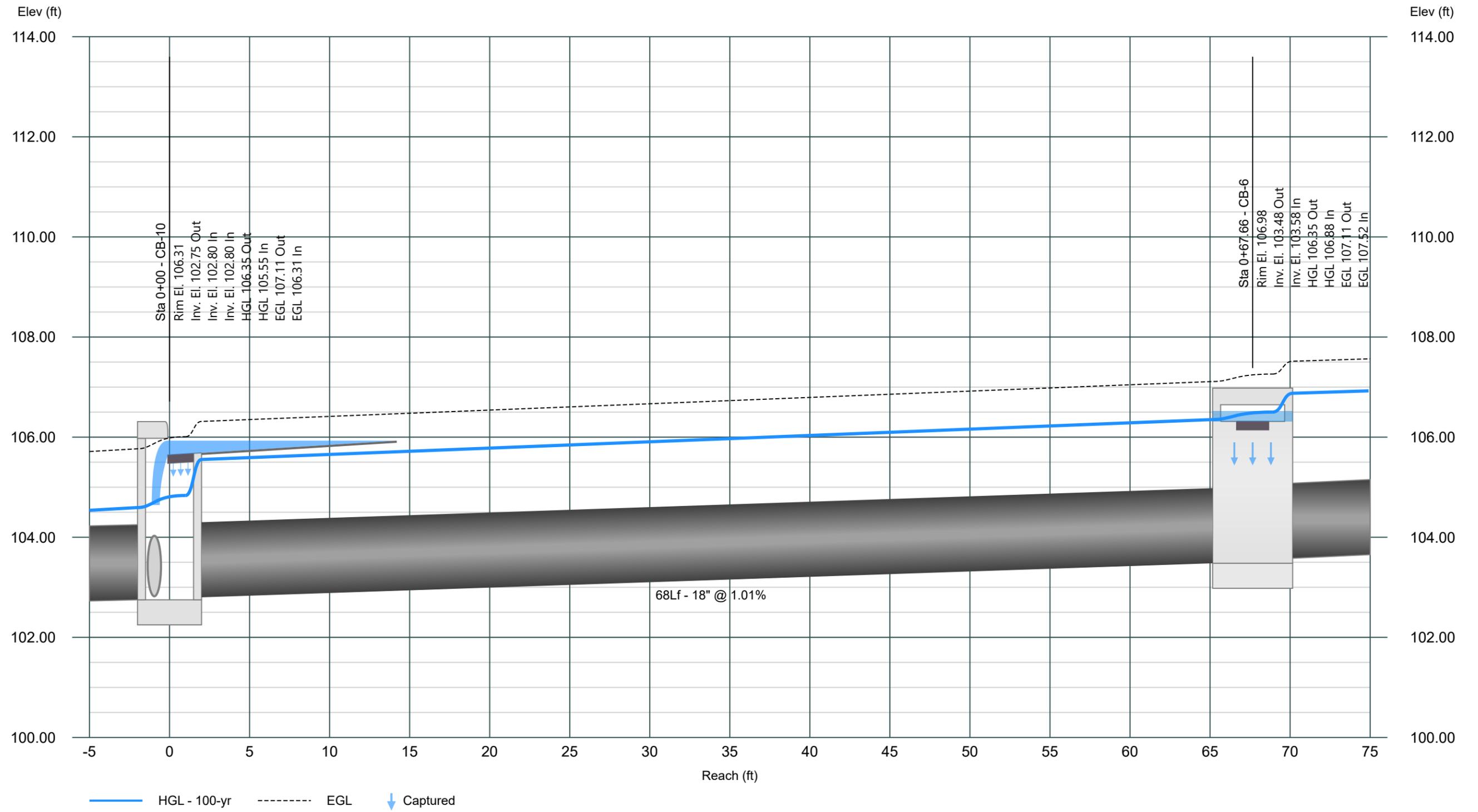


Line 2 - 6-10

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

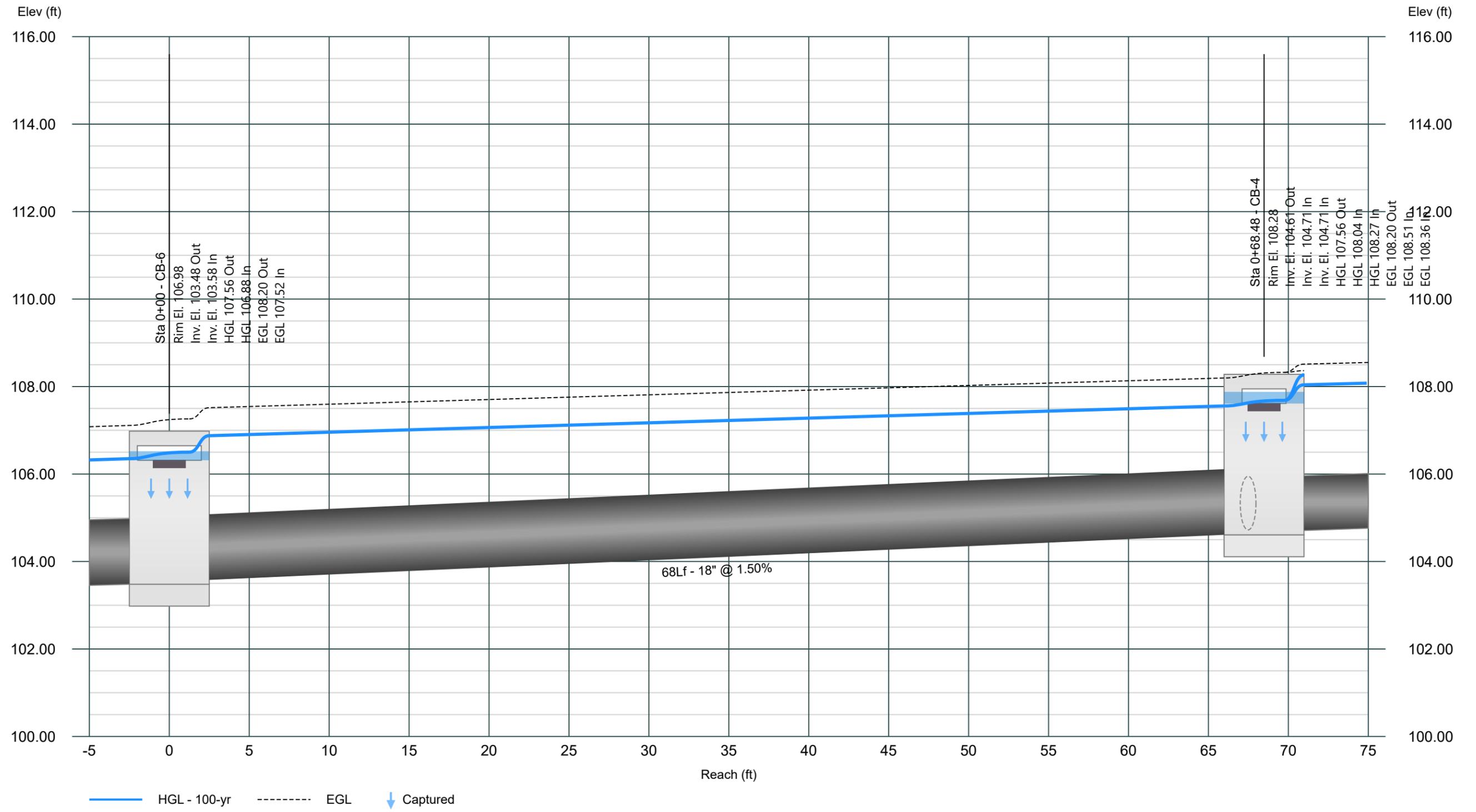


Line 3 - 4-9

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

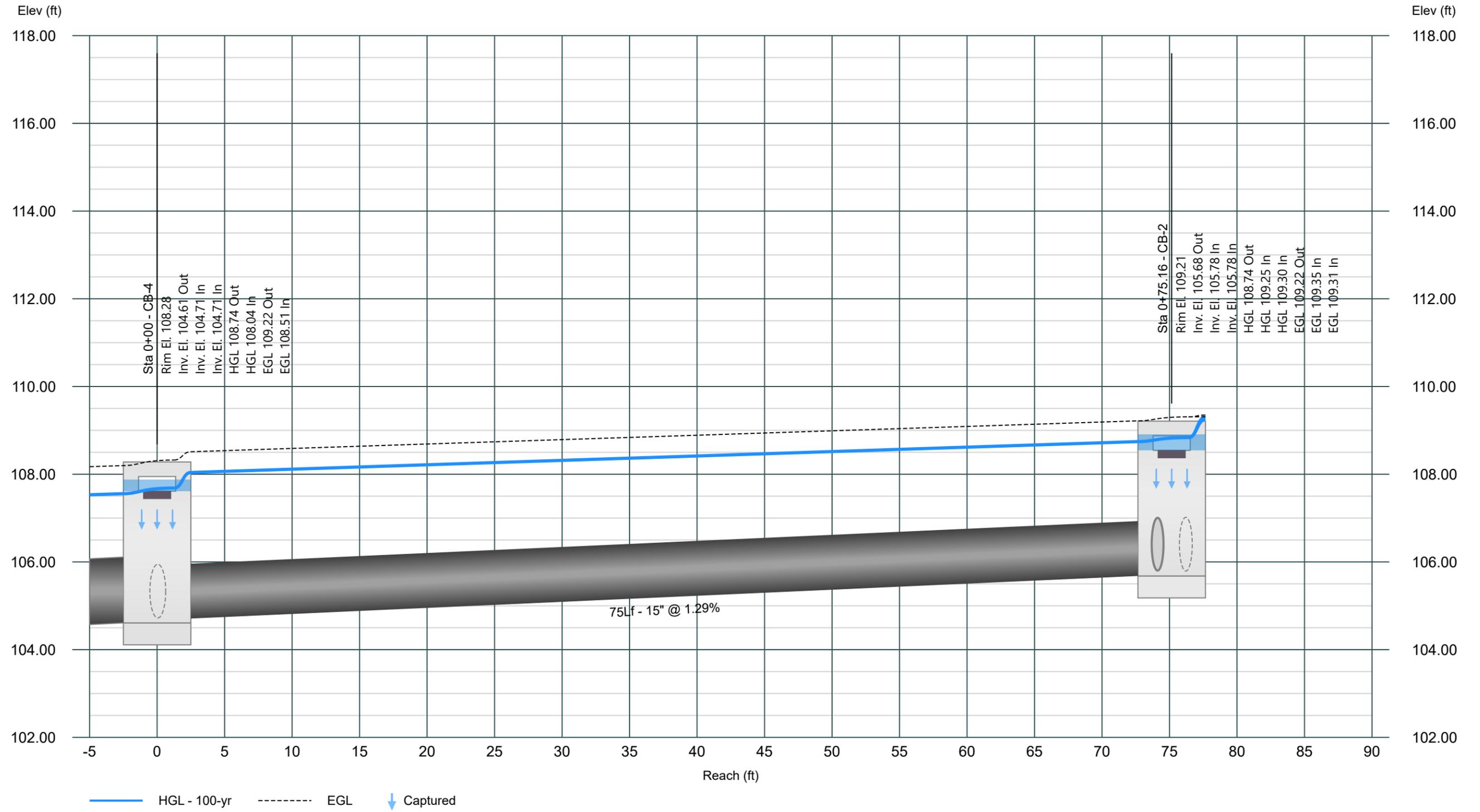


Line 4 - 2-4

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

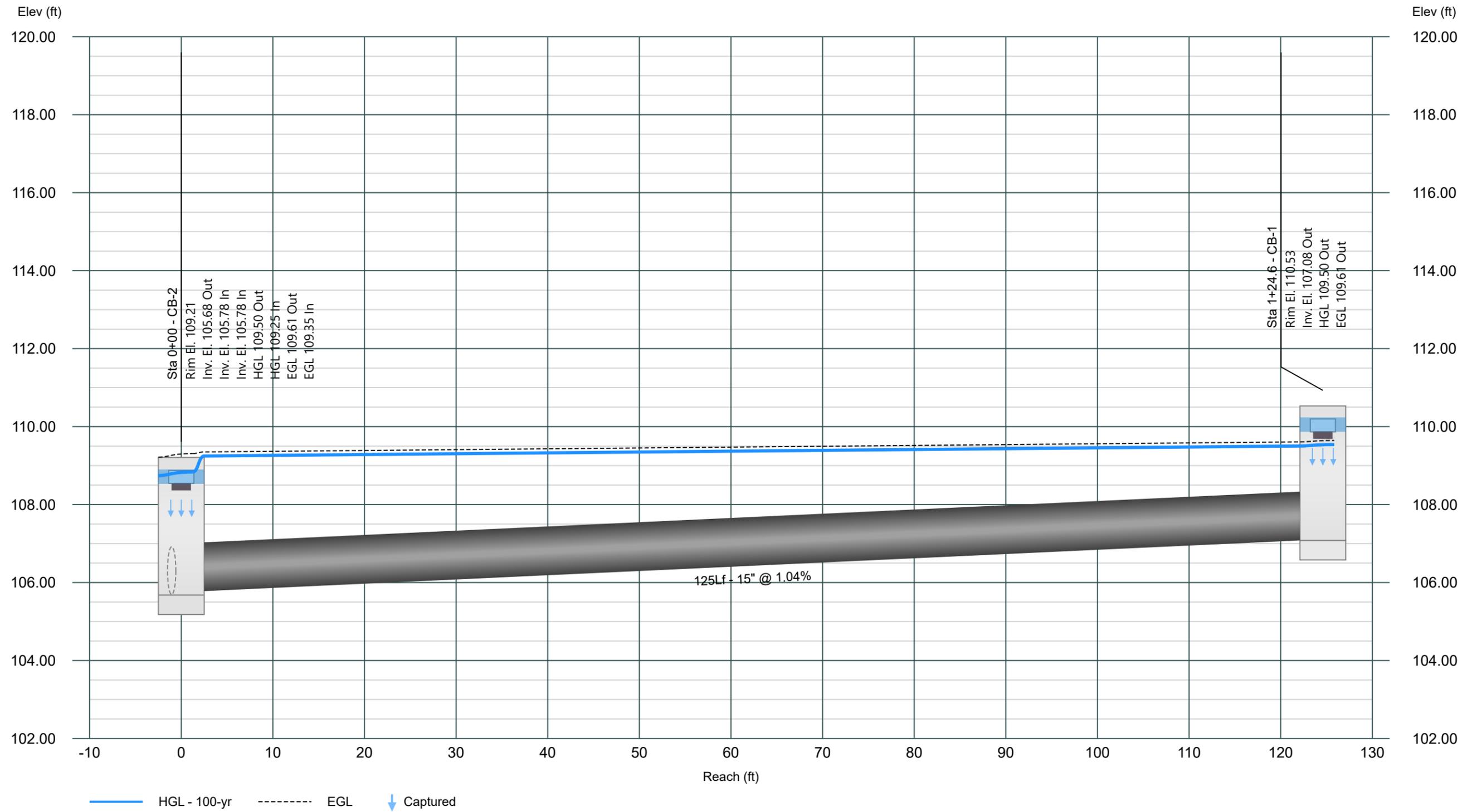


Line 5 - 1-2

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

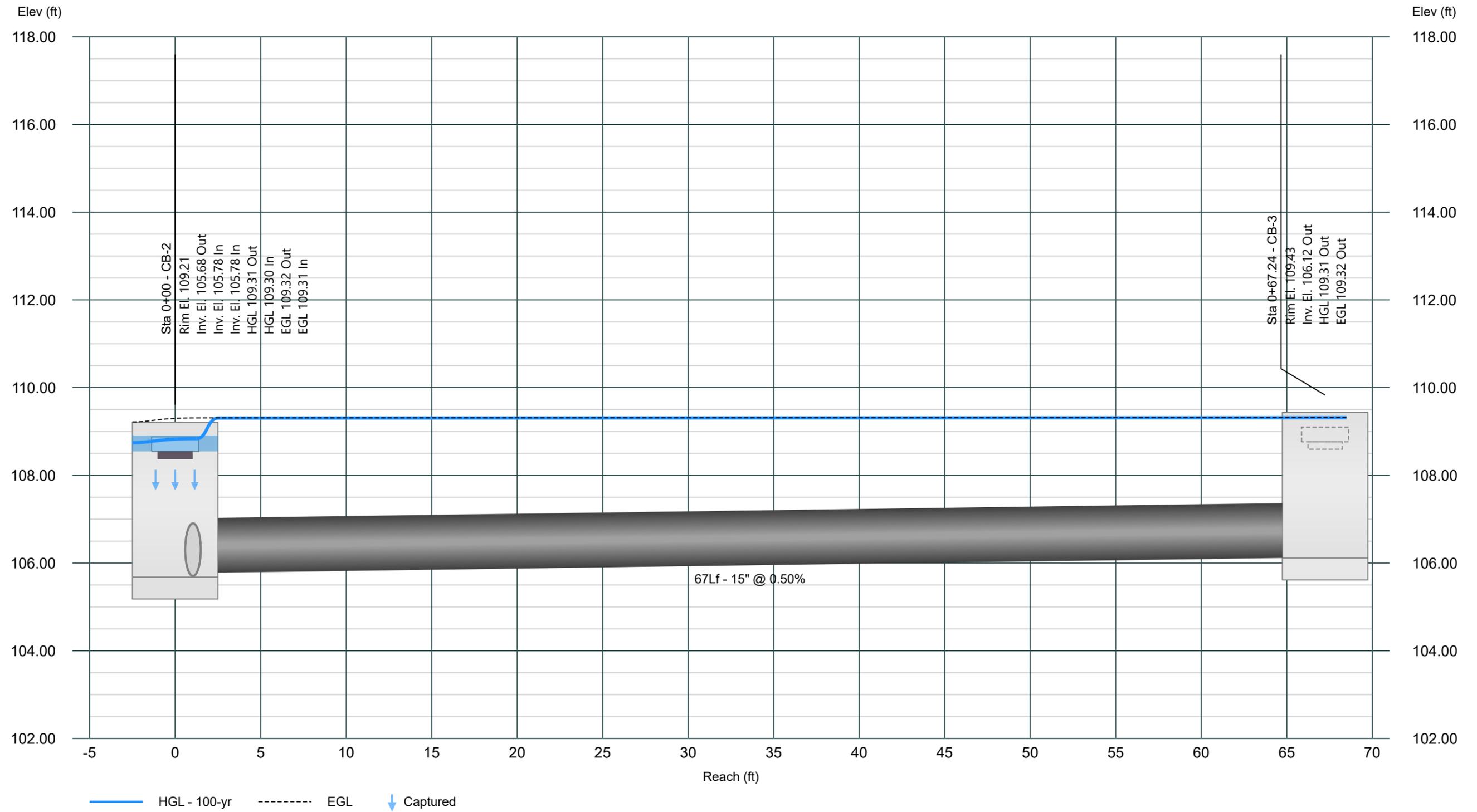


Line 6 - 3-2

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

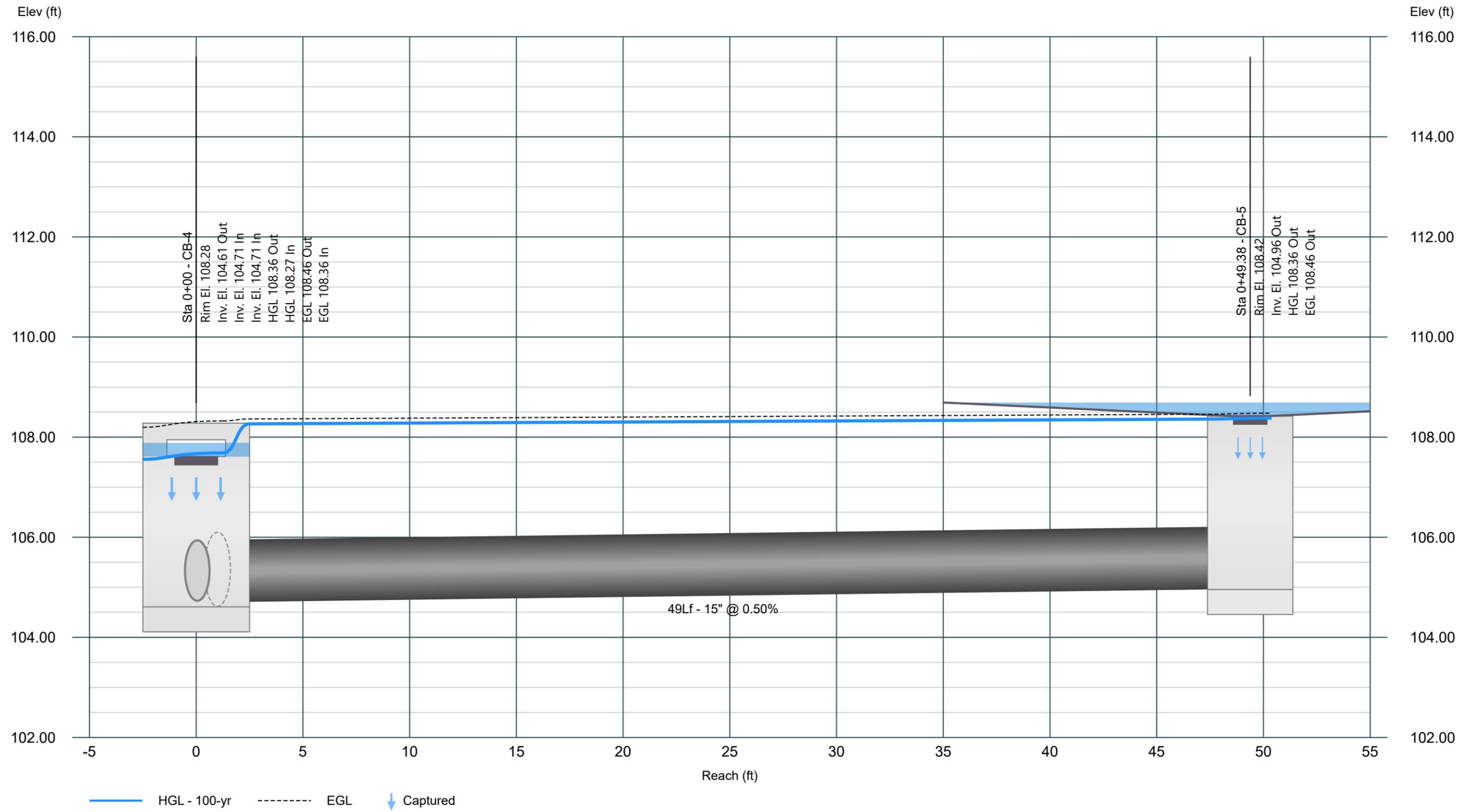


Line 7 - 5-4

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

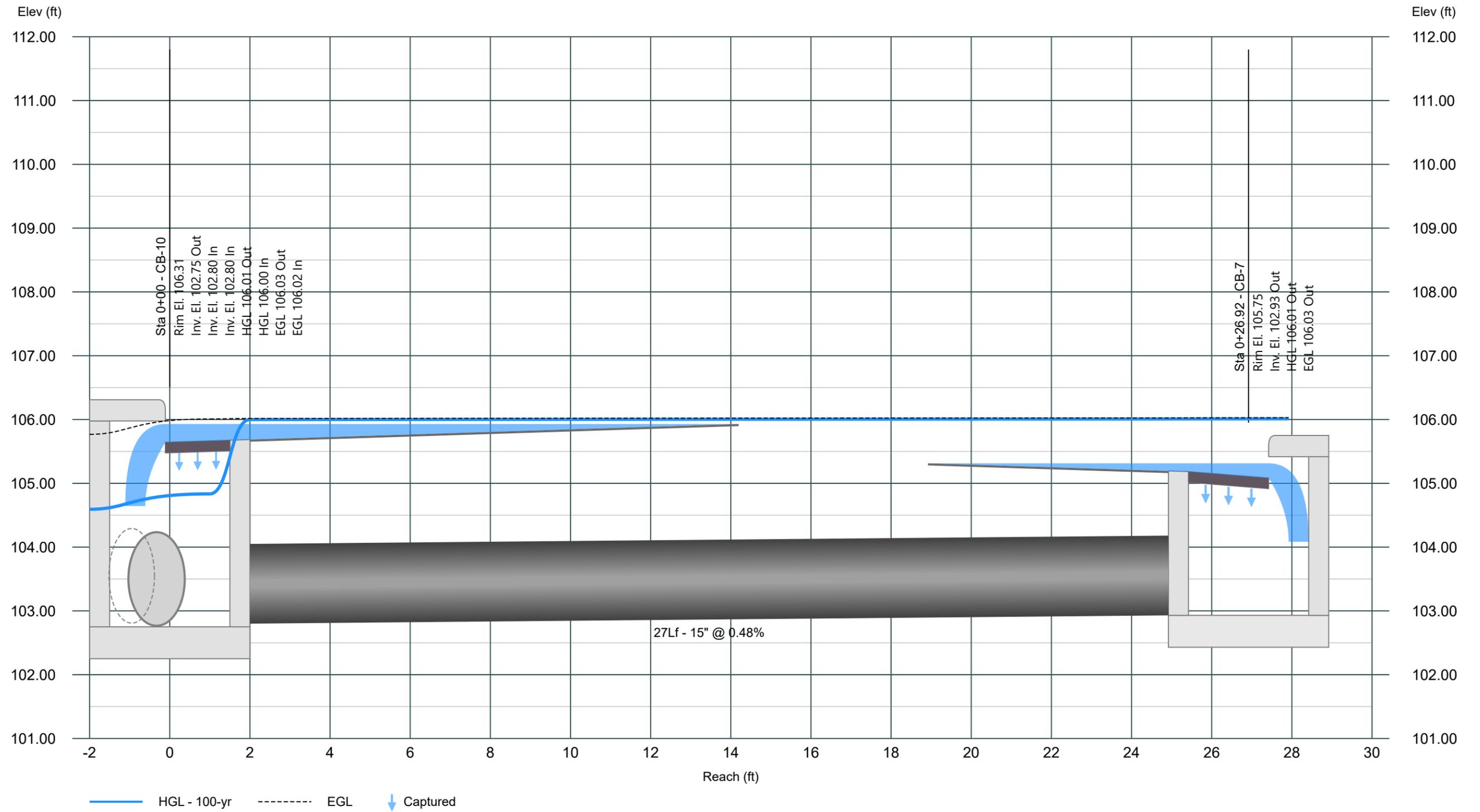


Line 8 - 7-10

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

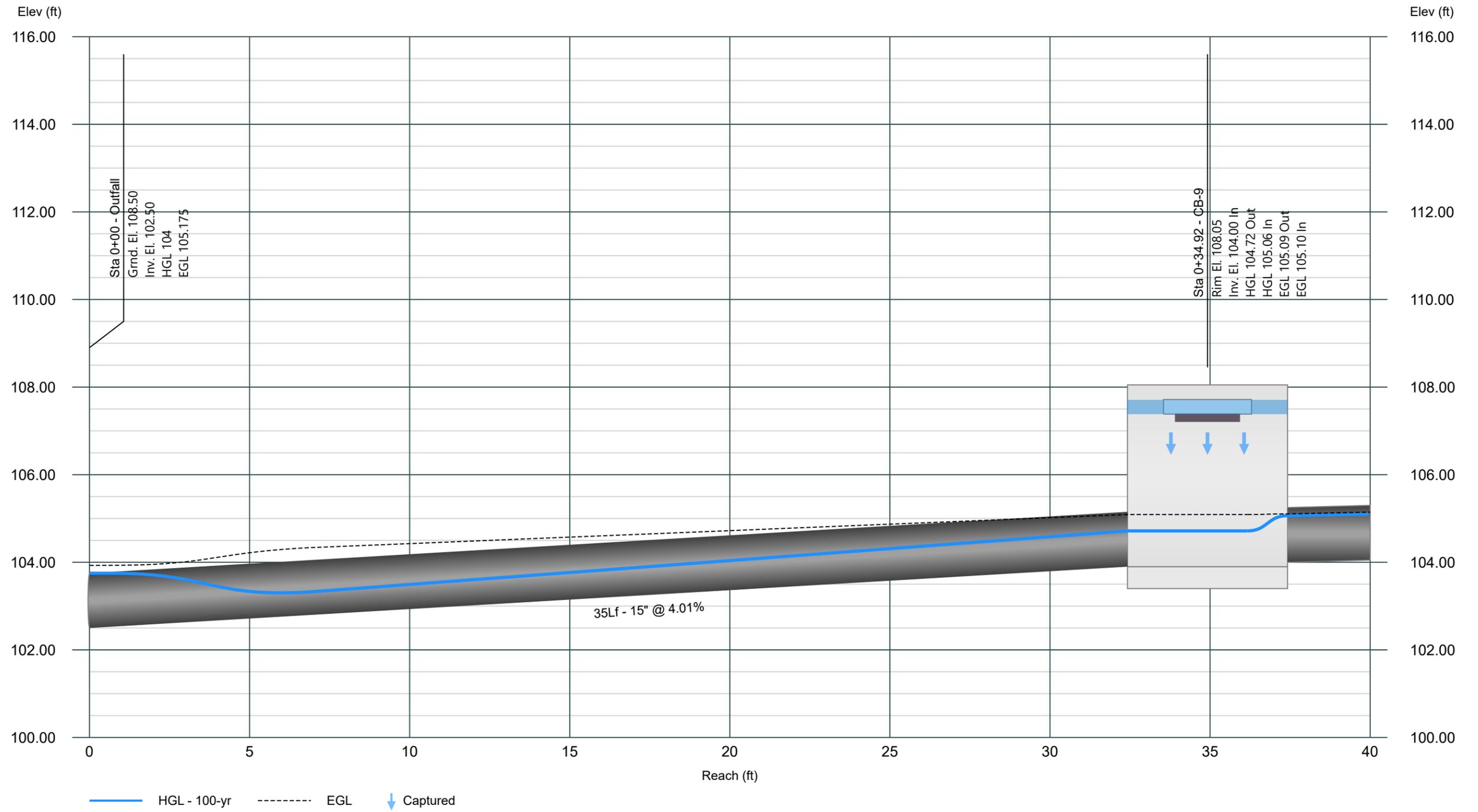


Line 9 - 9-DS

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

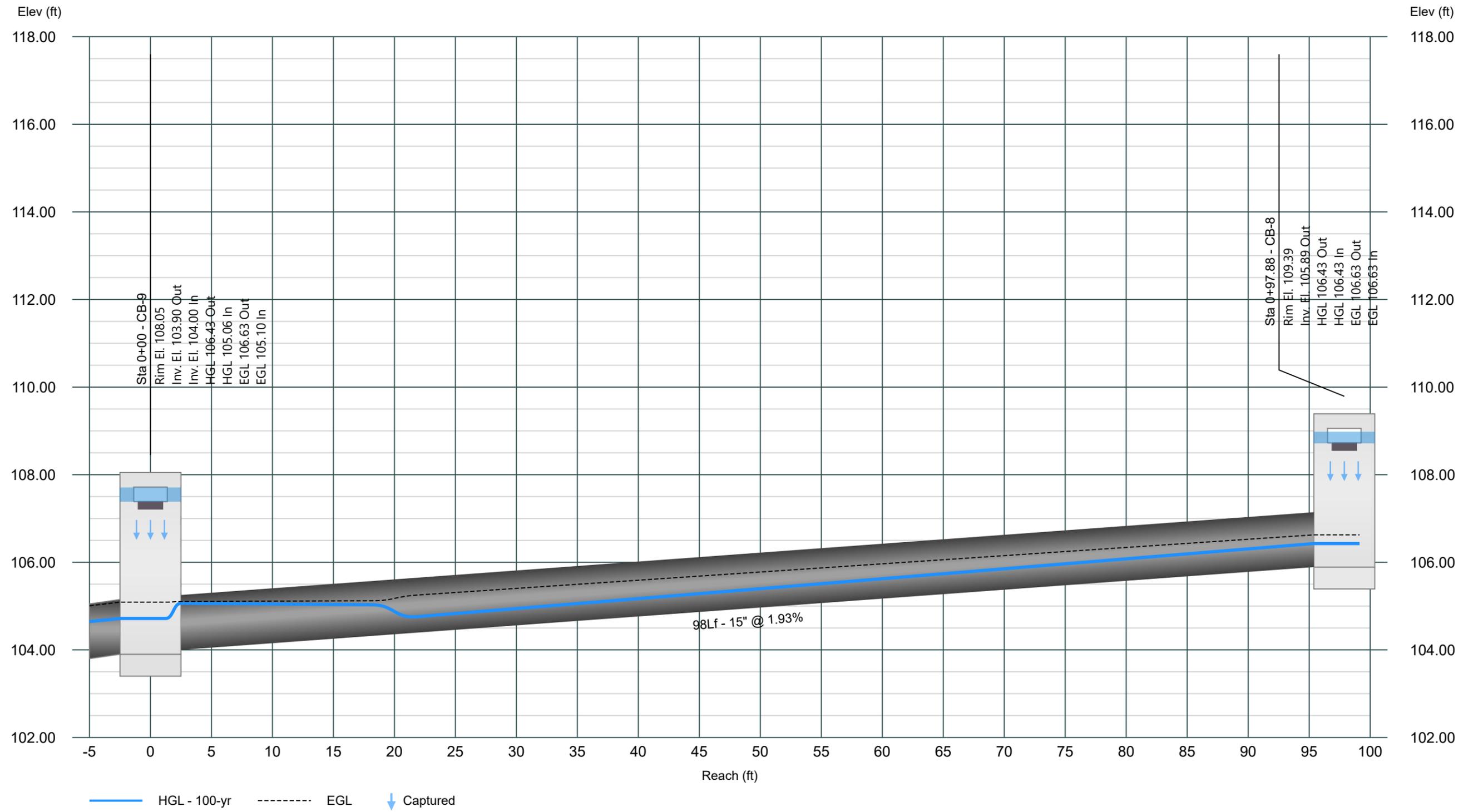


Line 10 - 8-9

Stormwater Studio 2026 v 3.0.0.40

Project Name: Enter Project Name...

11-04-2025

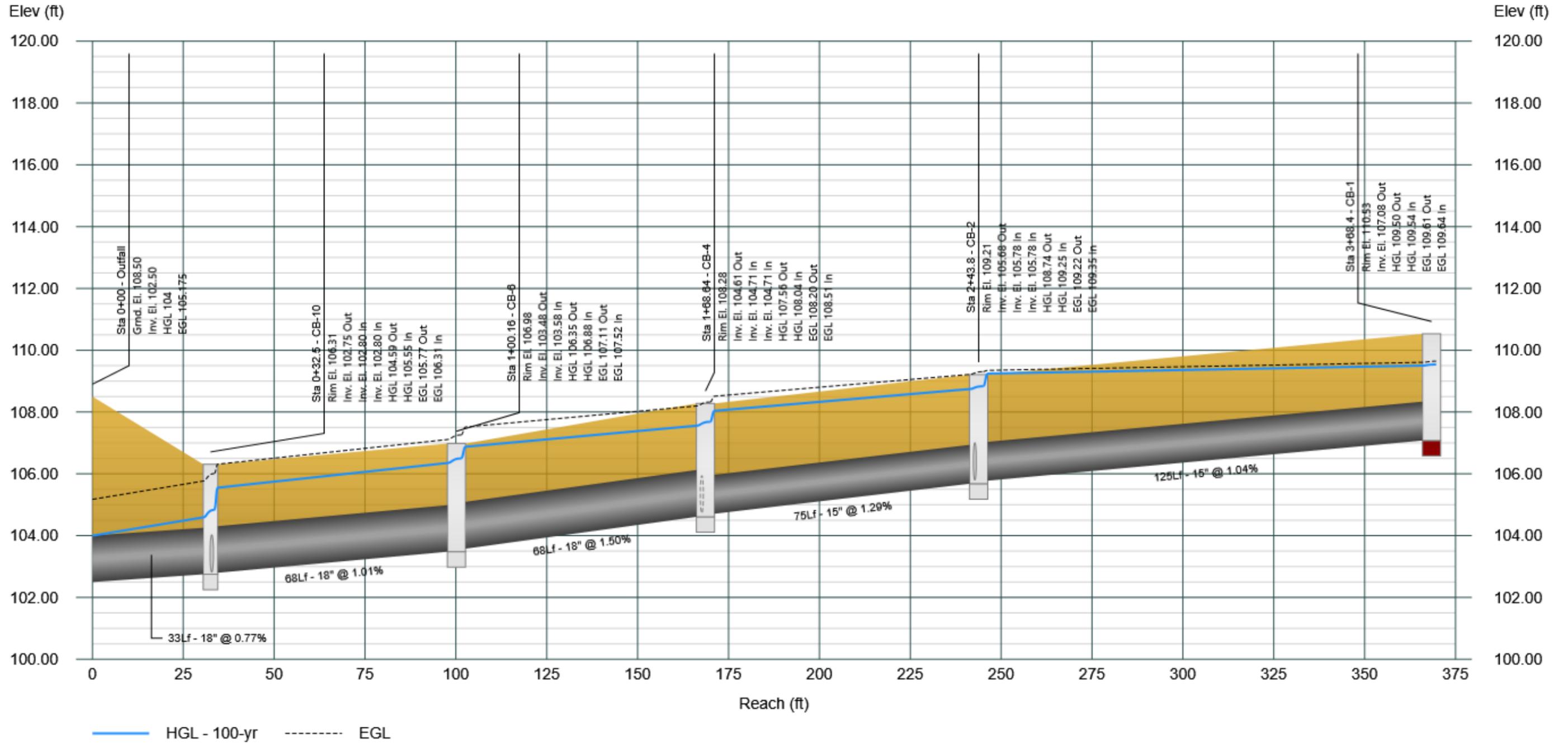


Profile View

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 (ft)	Drng Area		Rational (C)	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (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 (ft)	Drng Area		Rational (C)	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (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

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Basin Model

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys

11-18-2025



Hydrograph by Return Period

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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

Hydrograph Report

Hydrology Studio v 3.0.0.40

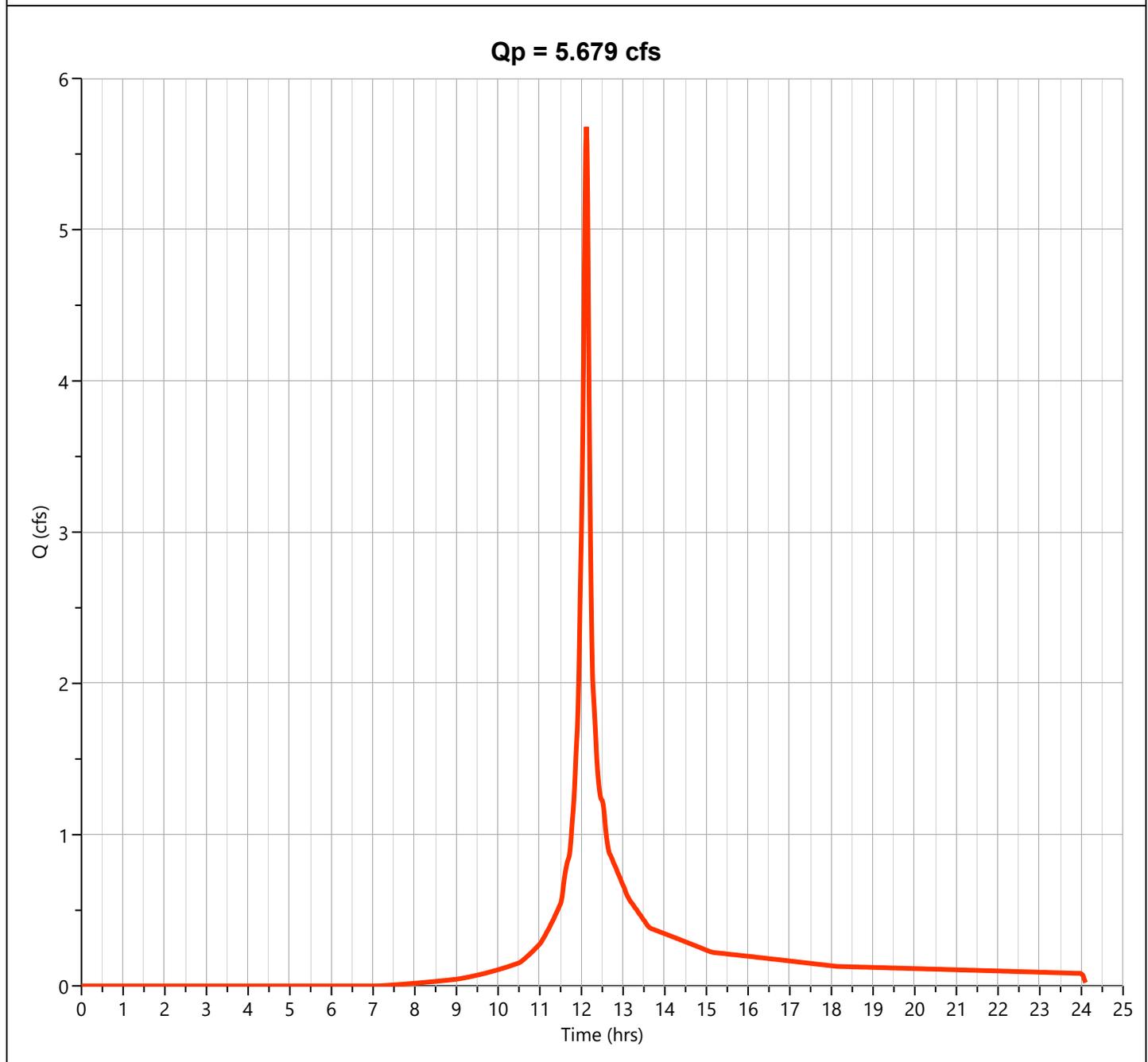
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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

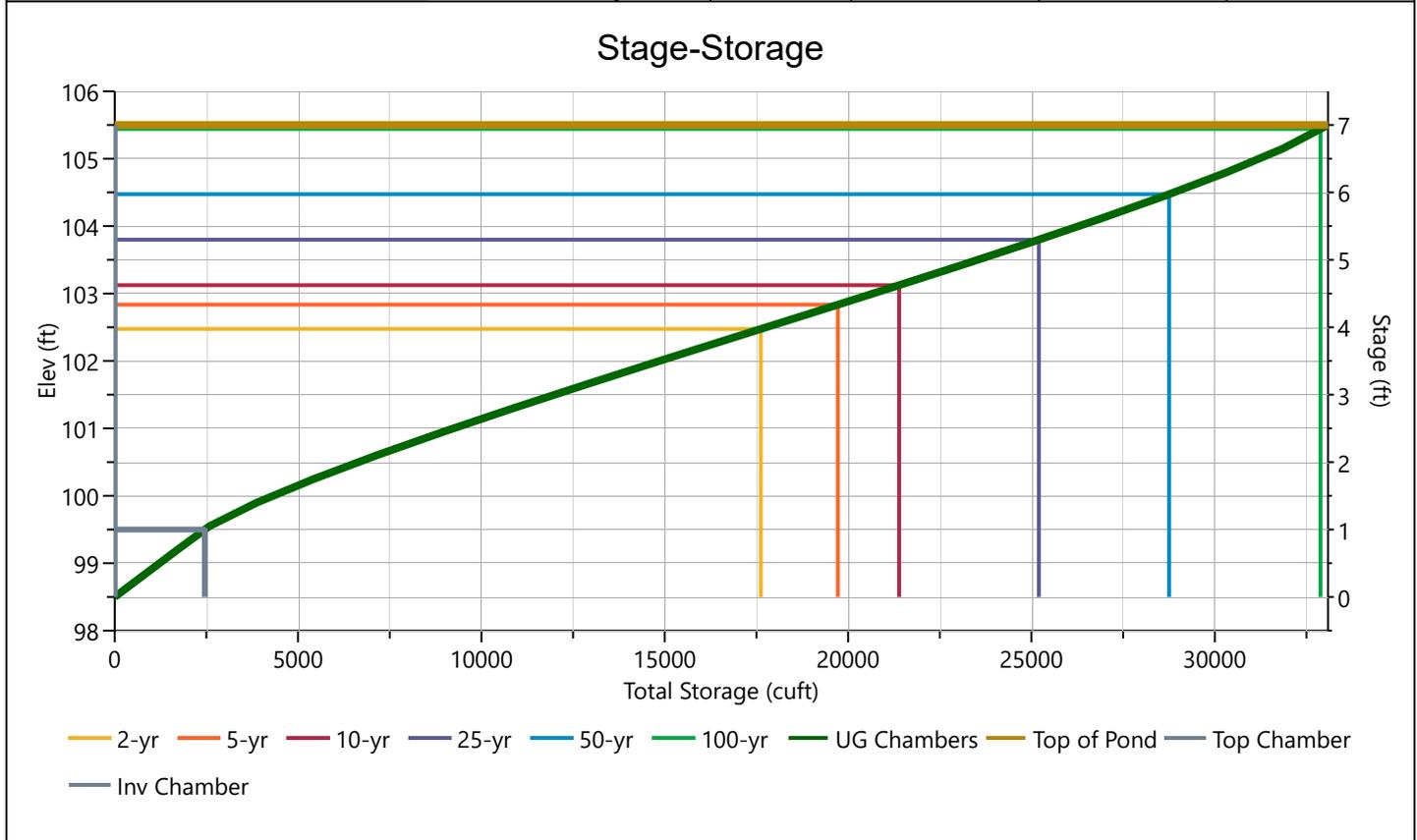
Qp = 0.000 cfs

Pond Report

Retention System

Stage-Storage

Underground Chambers		Stage / Storage Table				
Description	Input	Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
Invert Elev Down, ft	99.50	0.00	98.50	6,976	0.000	0.000
Chamber Rise, ft	6.00	0.35	98.85	6,976	855	855
Chamber Shape	Circular	0.70	99.20	6,976	855	1,709
Chamber Span, ft	6.00	1.05	99.55	6,976	875	2,585
Barrel Length, ft	870.00	1.40	99.90	6,976	1,292	3,877
No. Barrels	1	1.75	100.25	6,976	1,551	5,429
Barrel Slope, %	0.00	2.10	100.60	6,976	1,710	7,139
Headers, y/n	No	2.45	100.95	6,976	1,826	8,965
Stone Encasement, y/n	Yes	2.80	101.30	6,976	1,910	10,875
Encasement Bottom Elevation, ft	98.50	3.15	101.65	6,976	1,973	12,848
Encasement Width per Chamber, ft	8.00	3.50	102.00	6,976	2,008	14,856
Encasement Depth, ft	7.00	3.85	102.35	6,976	2,036	16,892
Encasement Voids, %	35.00	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

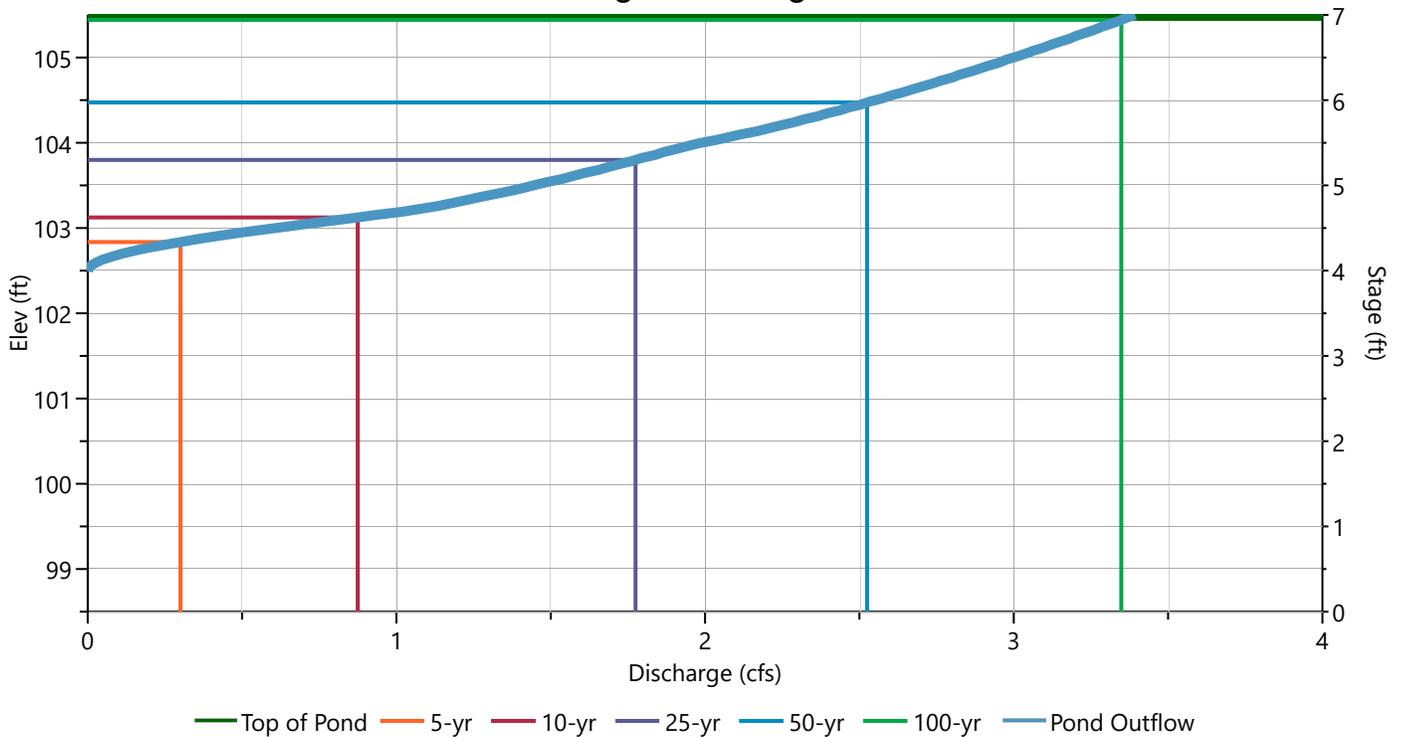
Retention System

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

Stage-Discharge



Pond Report

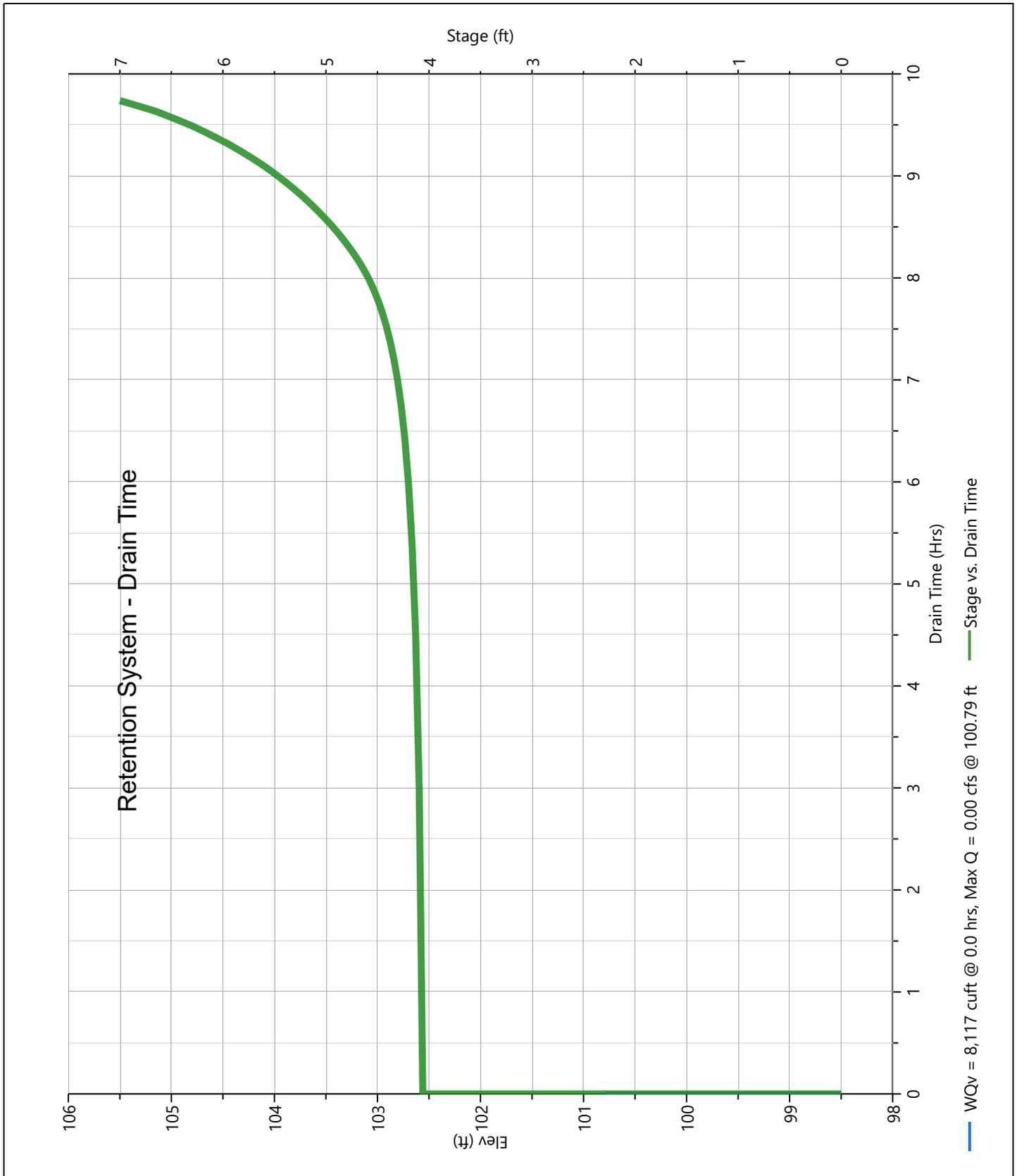
Retention System

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	

Retention System

Extended Detention



Hydrograph Report

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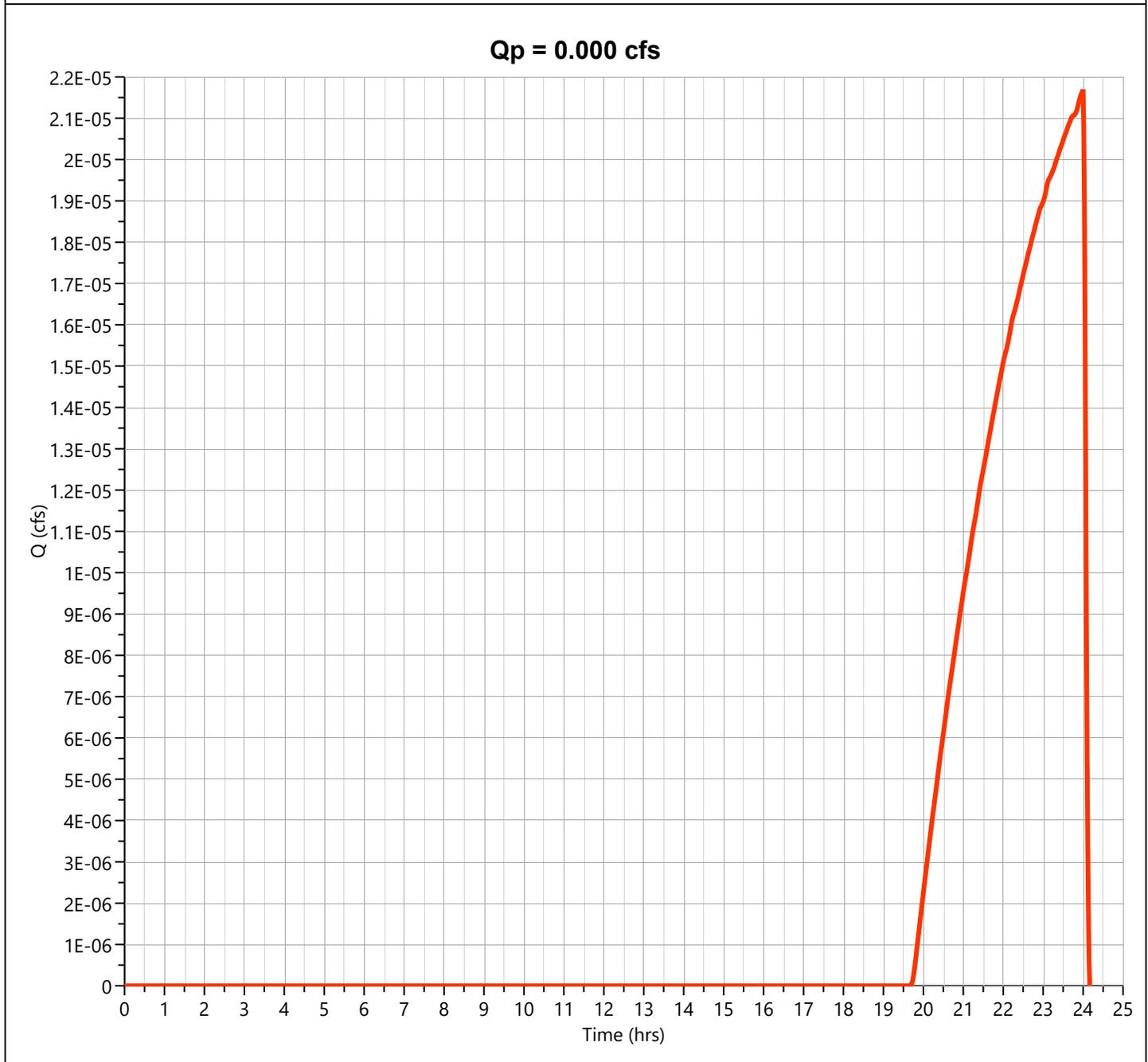
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

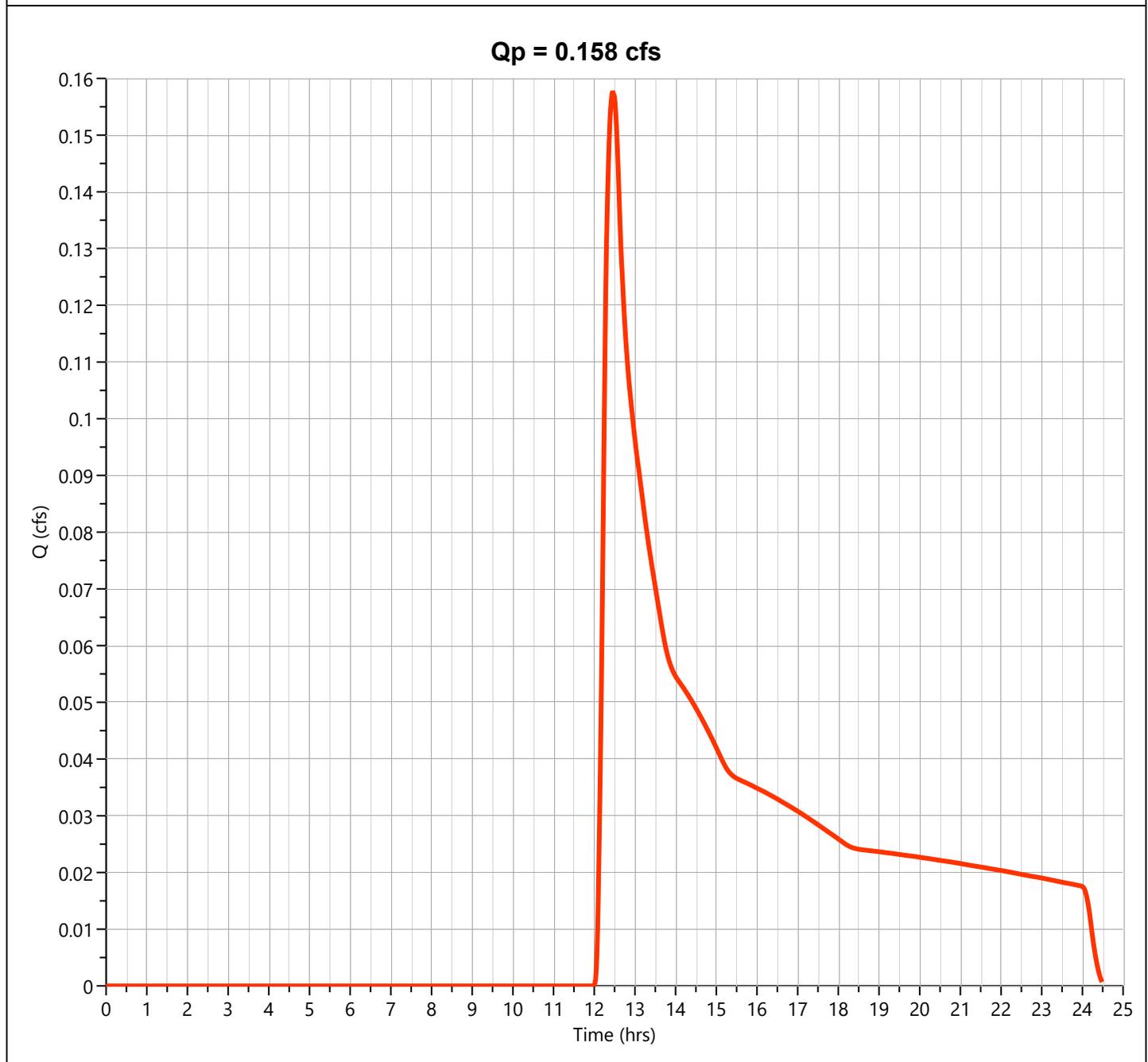
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

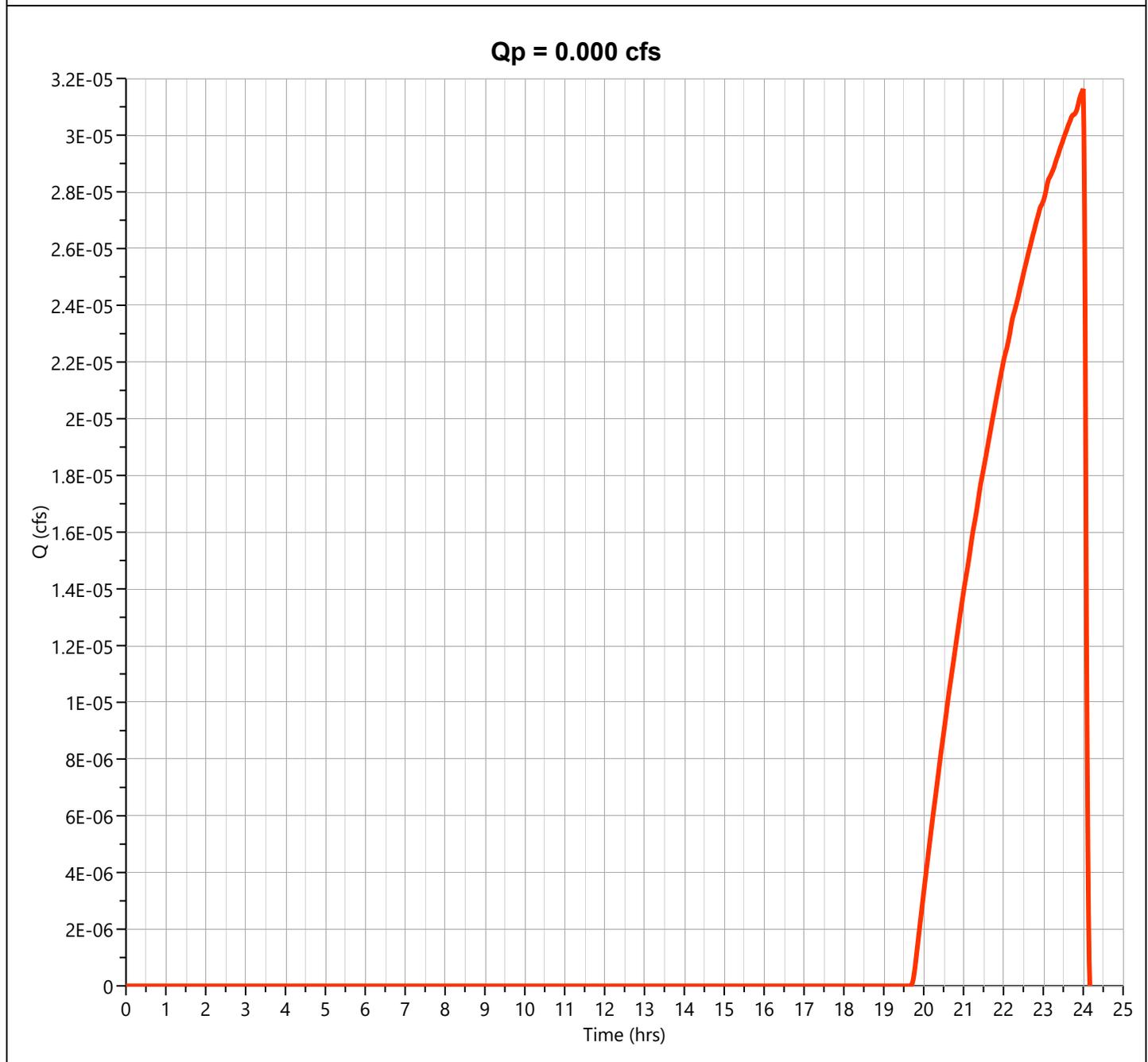
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

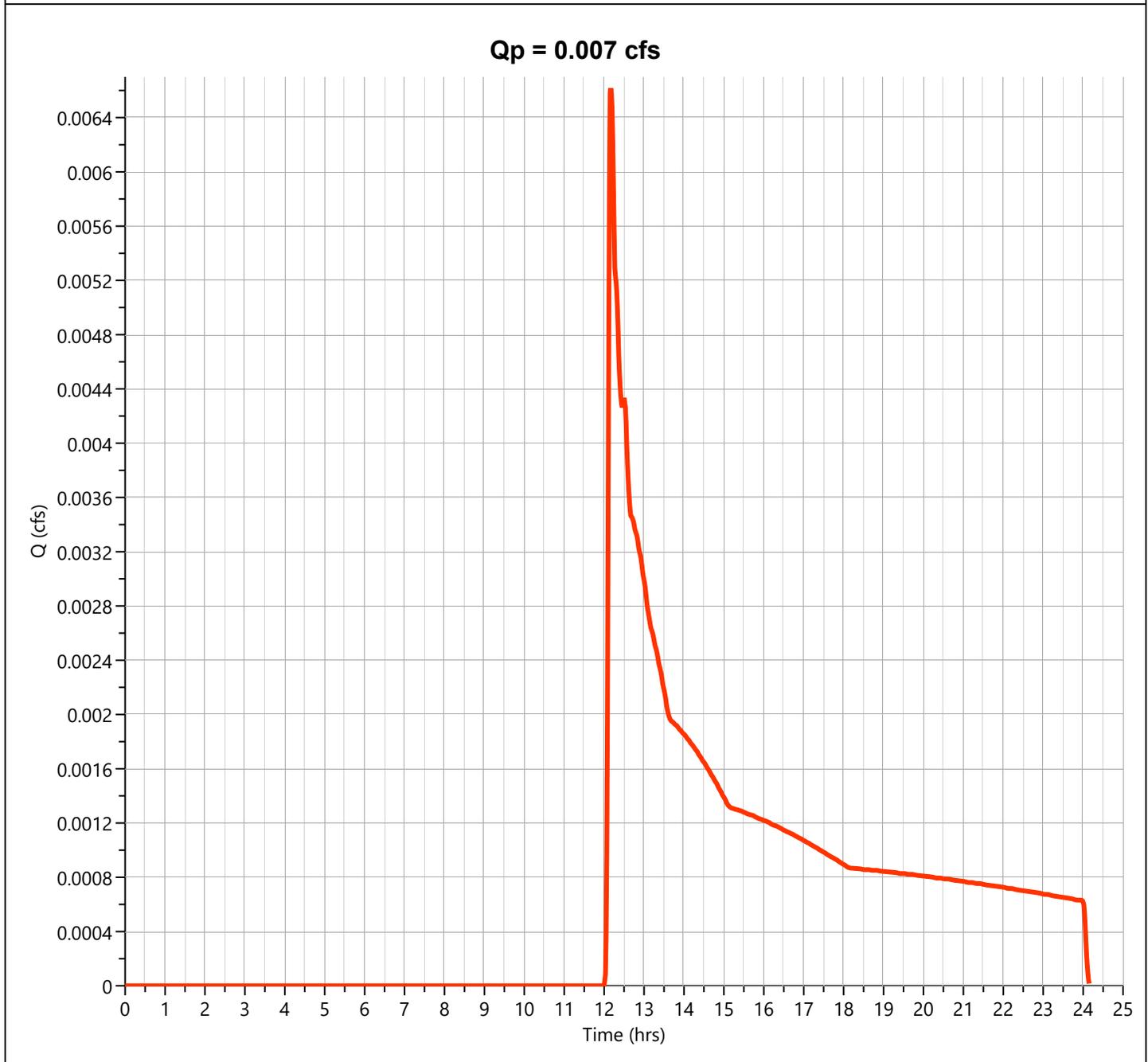
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

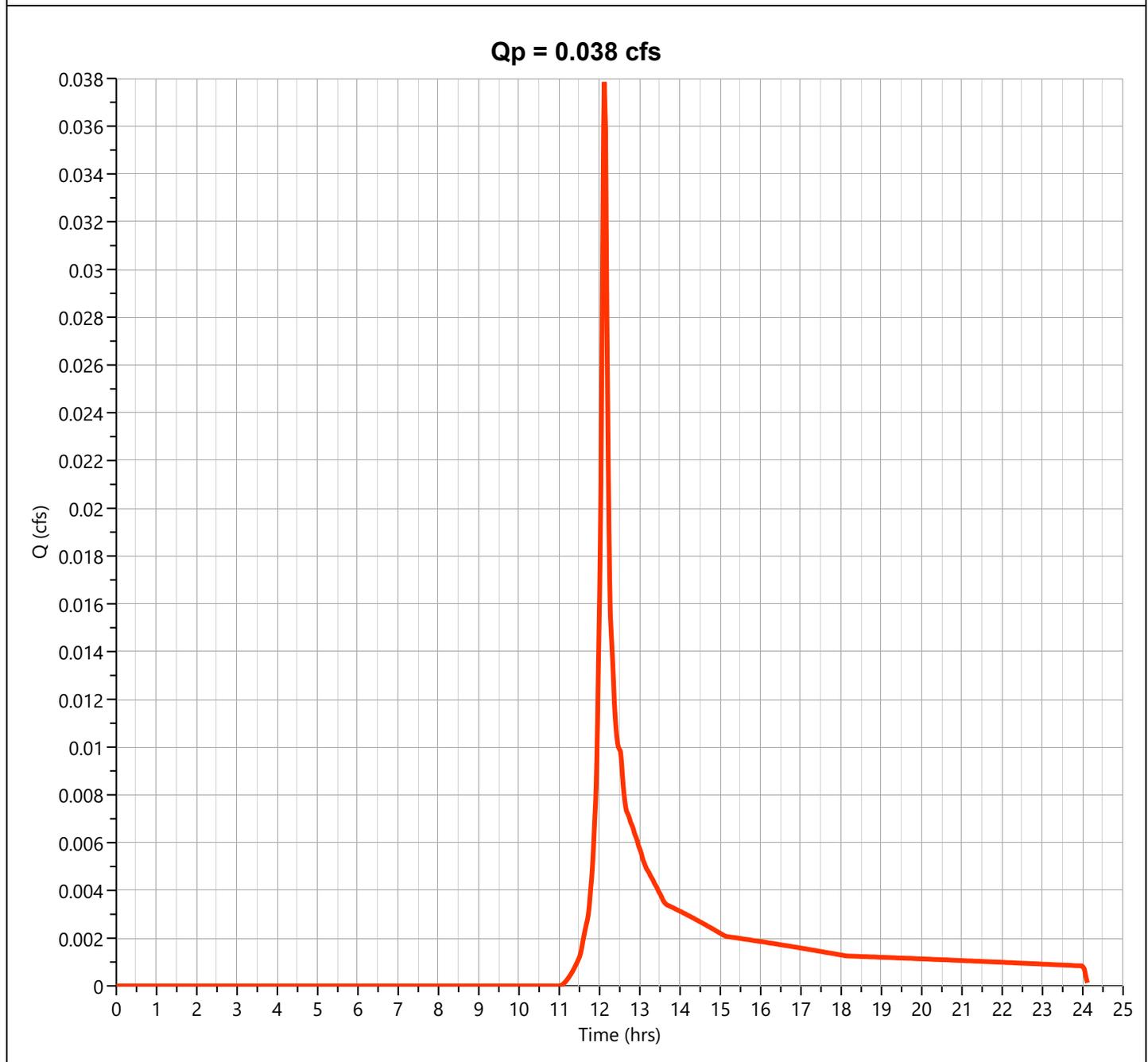
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

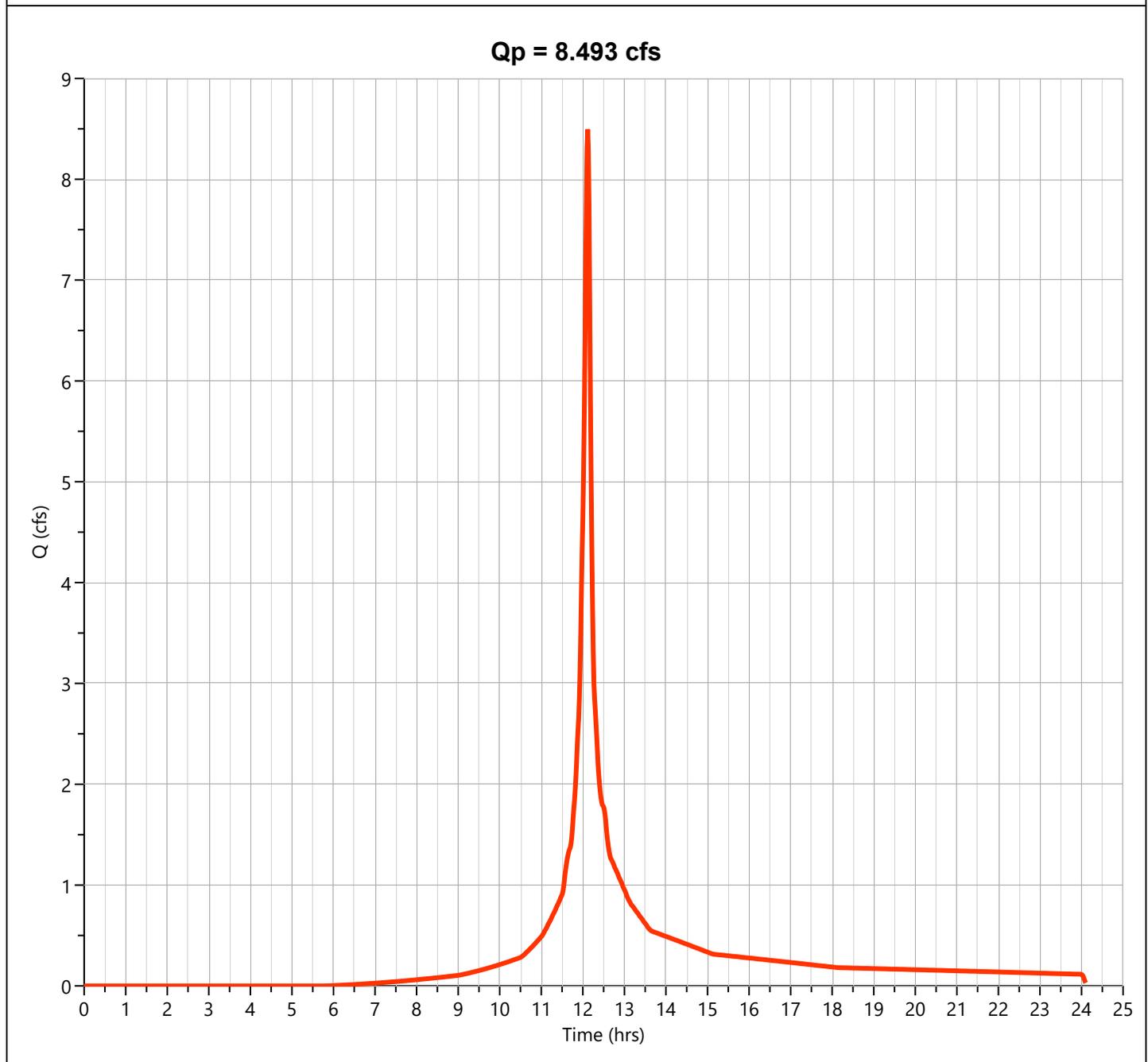
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

Ret. System

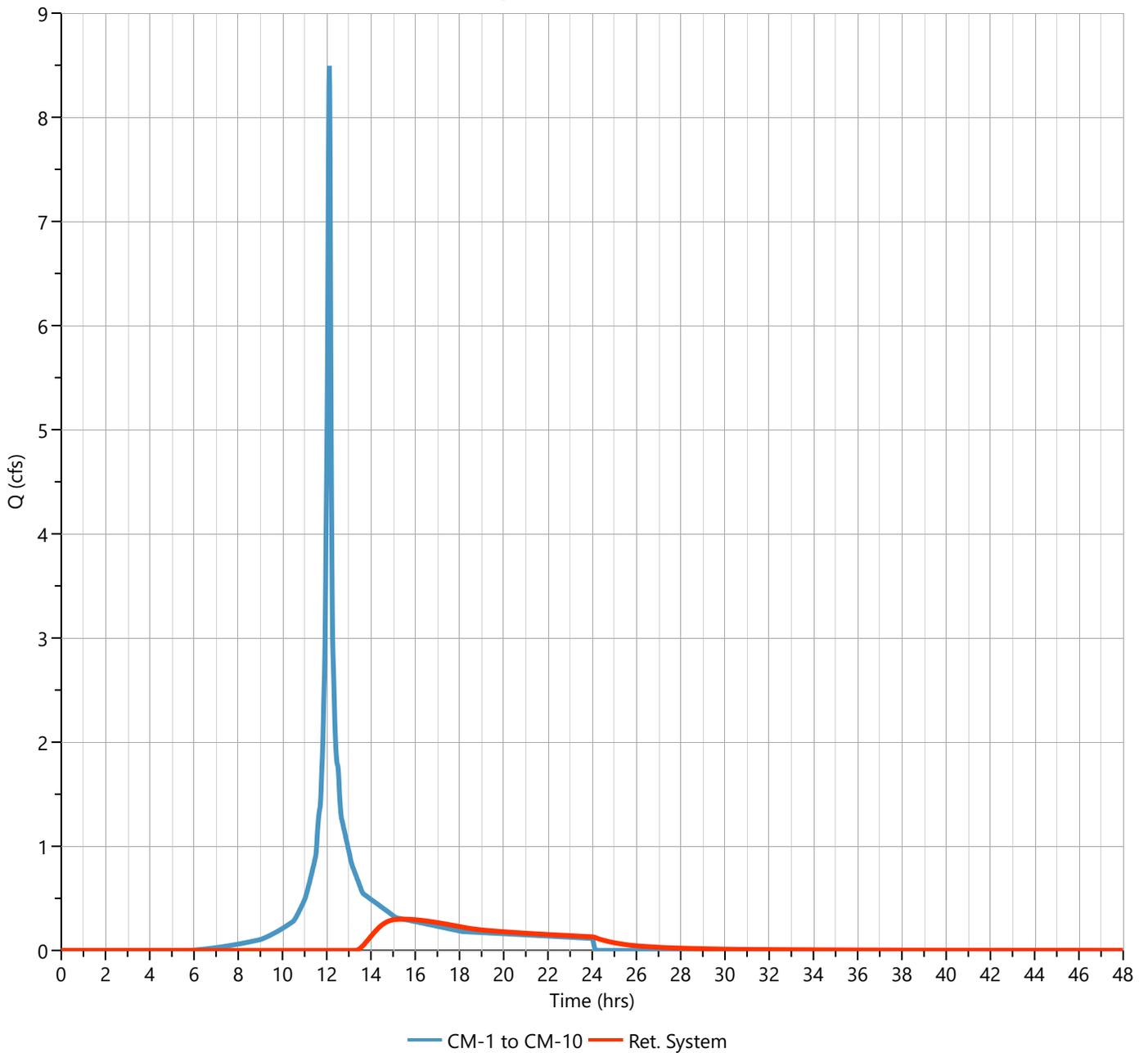
Hyd. No. 2

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

Qp = 0.301 cfs



Hydrograph Report

Hydrology Studio v 3.0.0.40

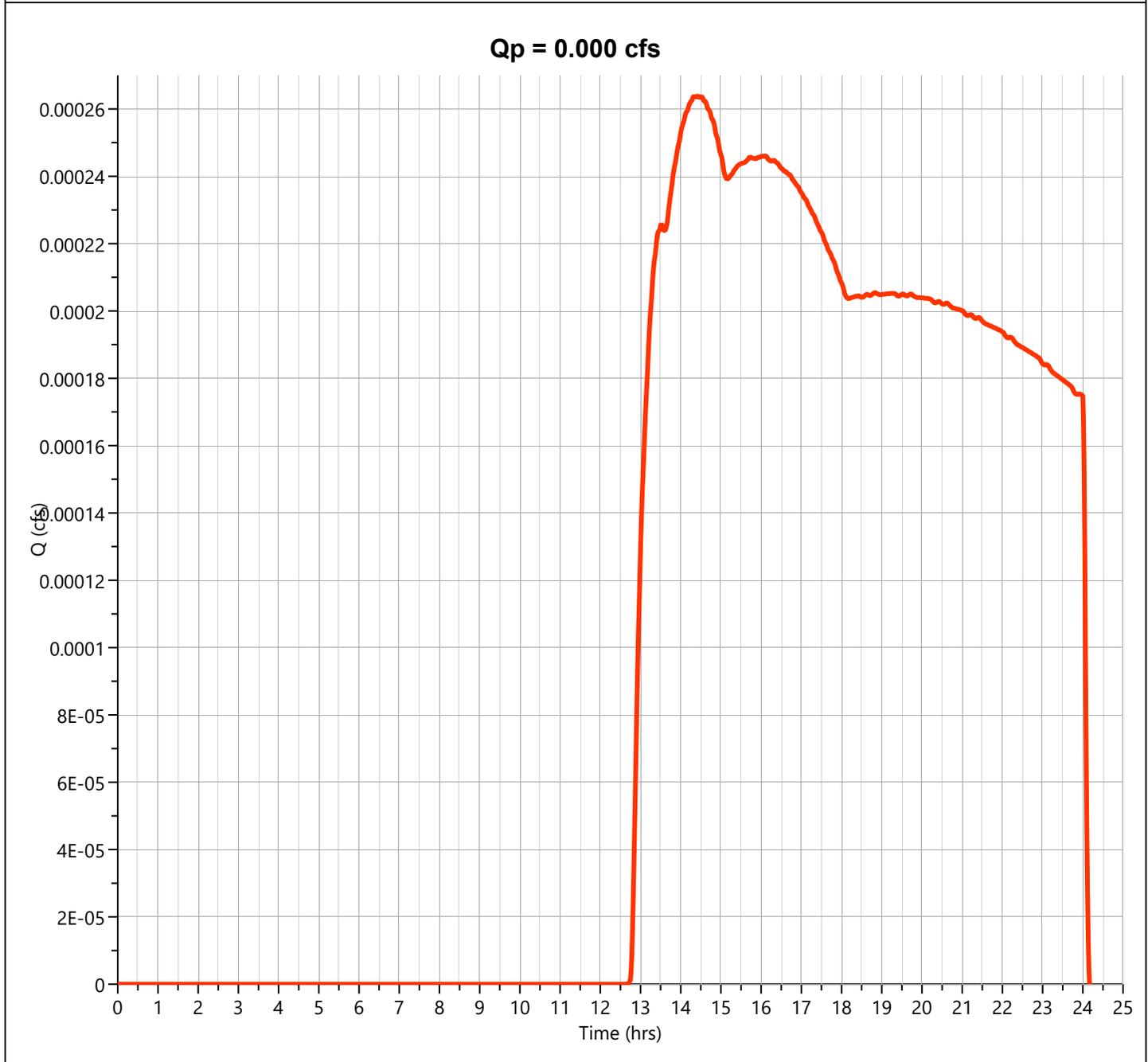
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

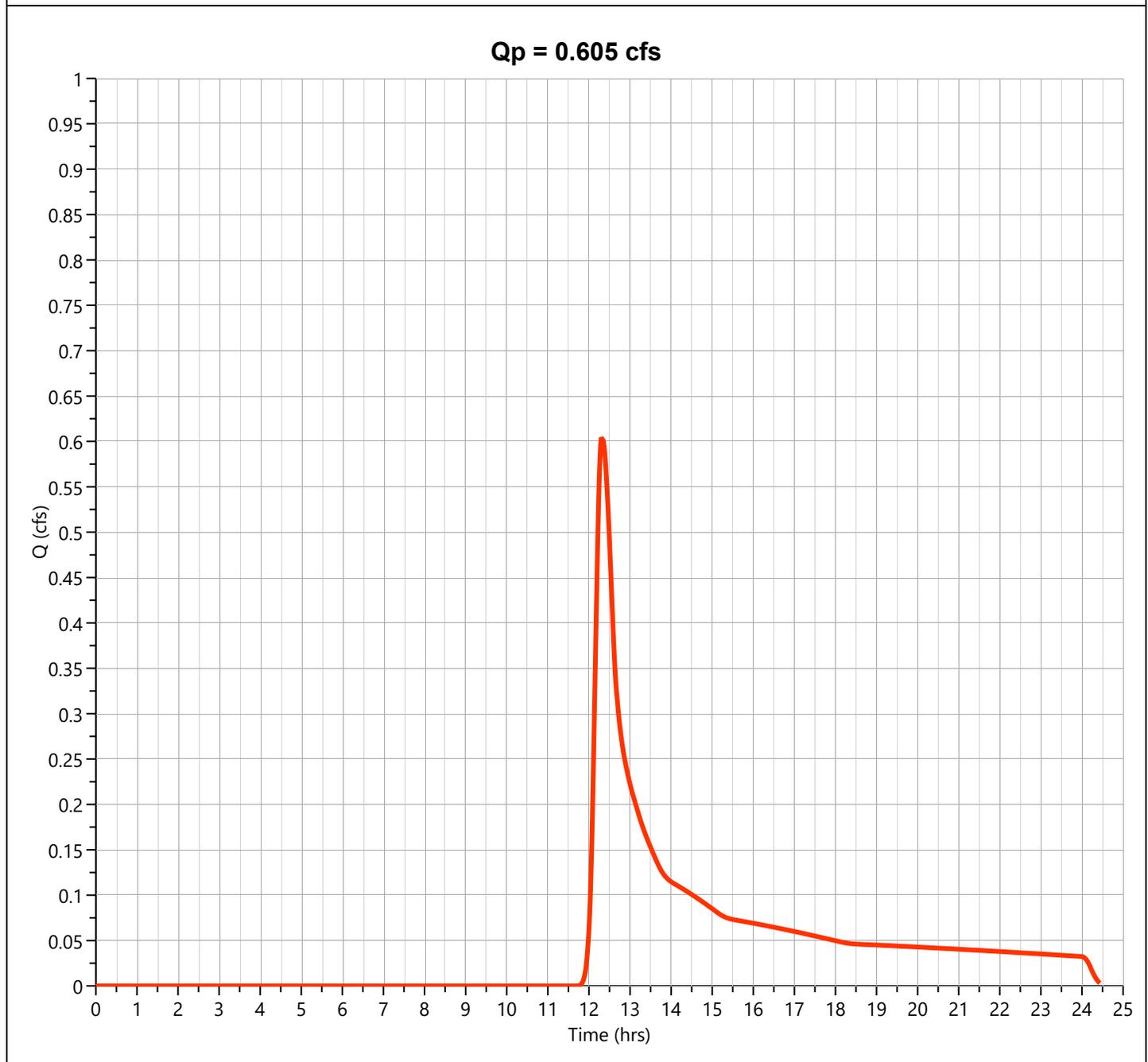
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

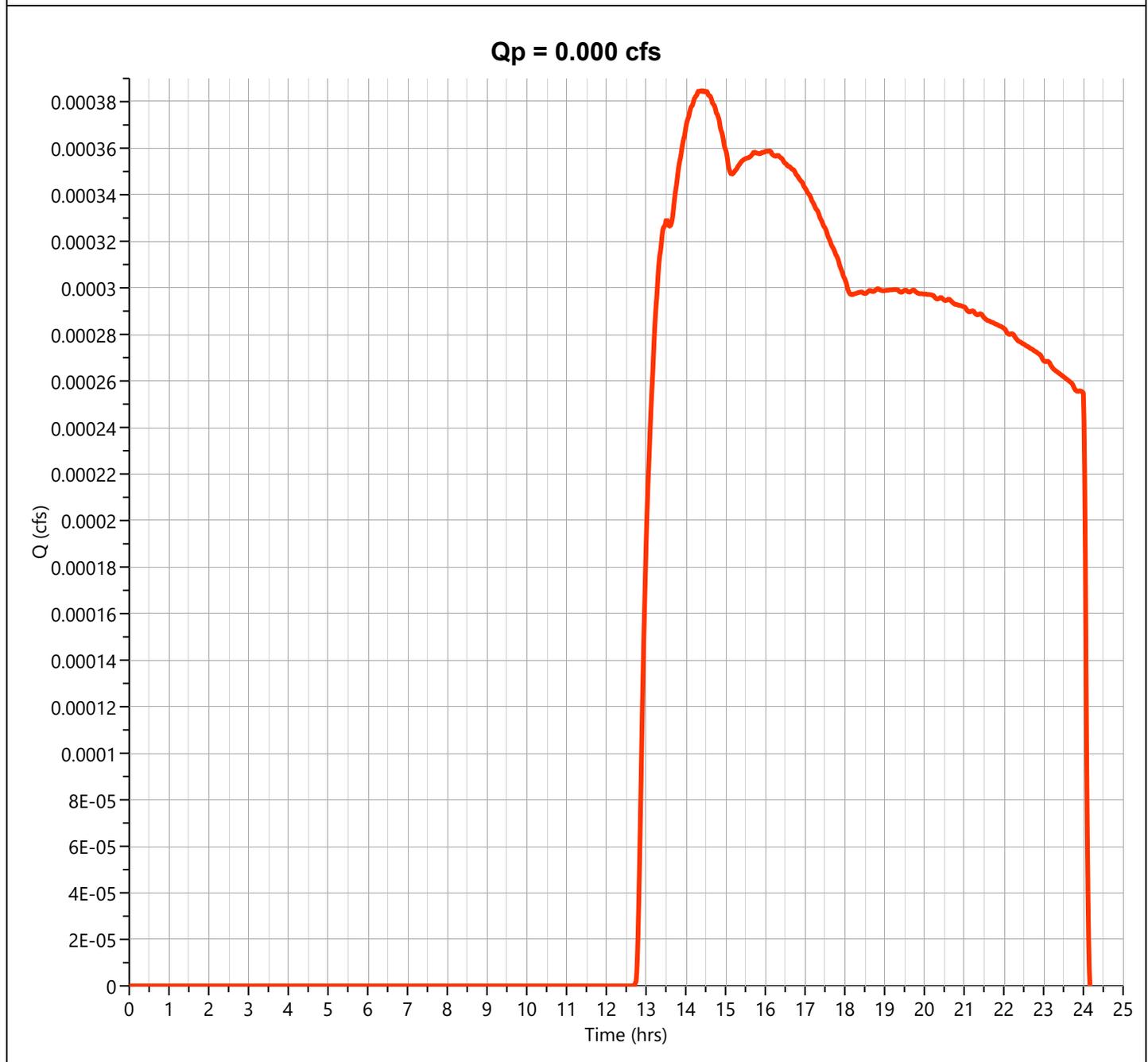
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

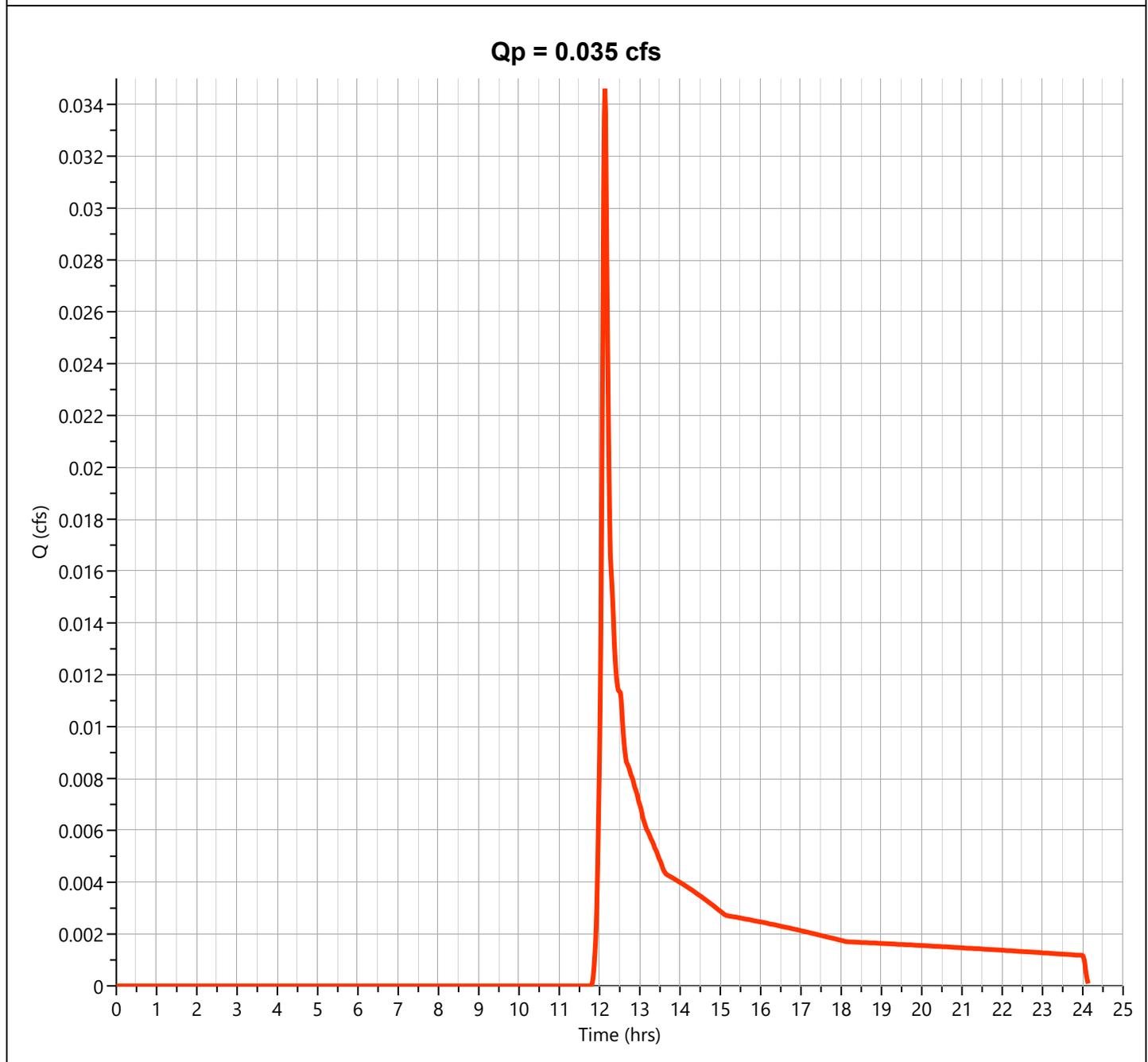
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

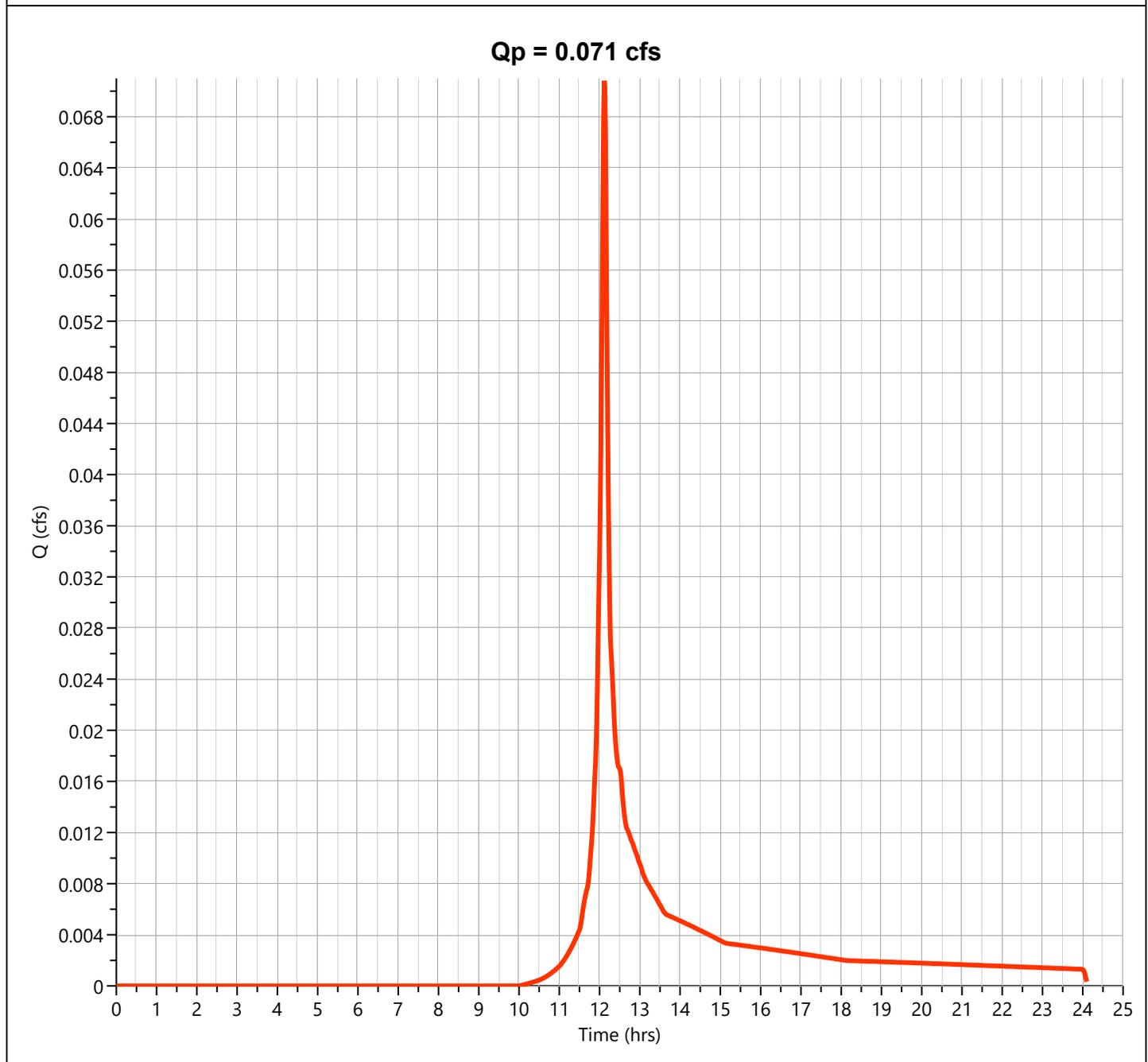
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

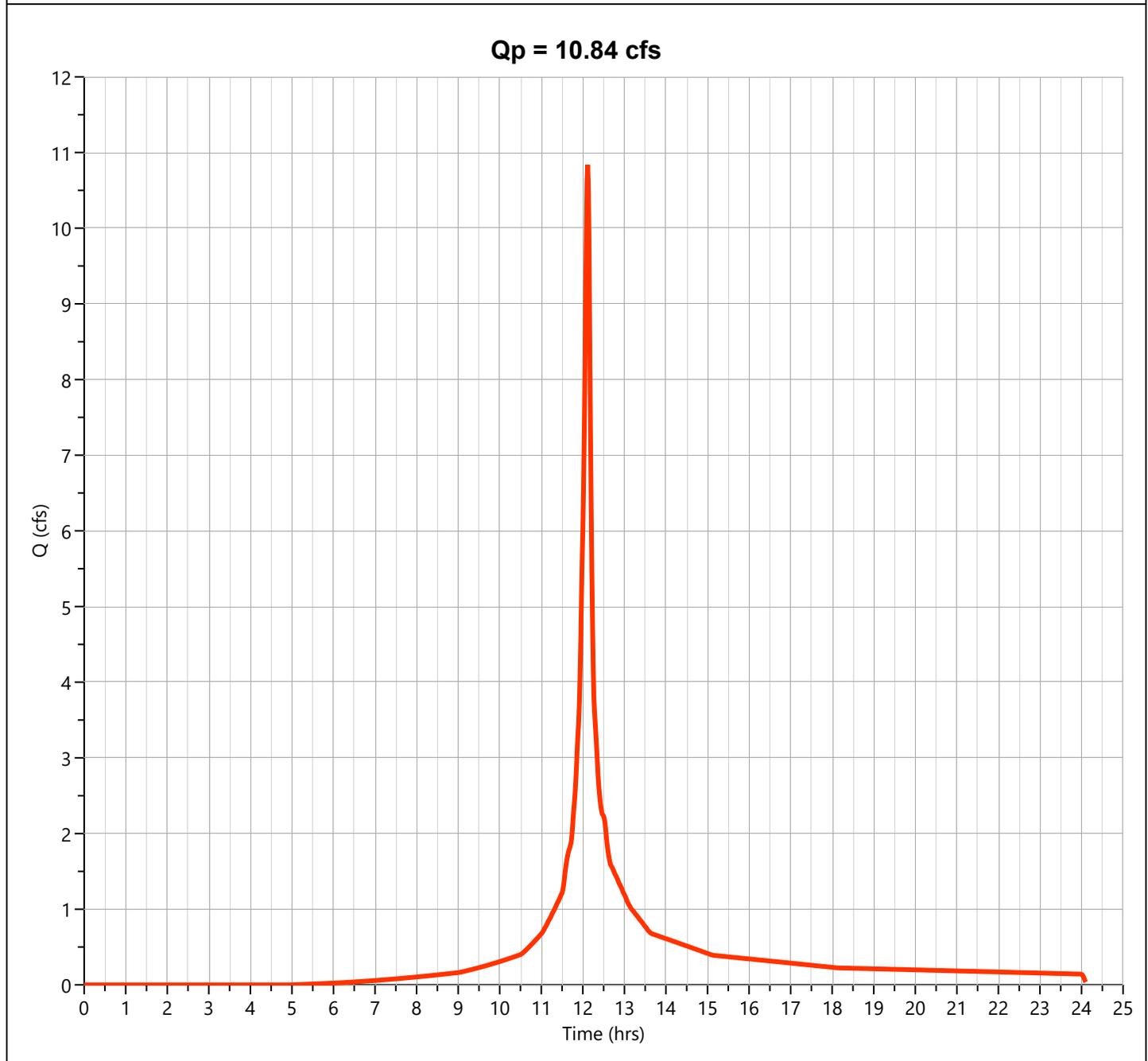
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

Ret. System

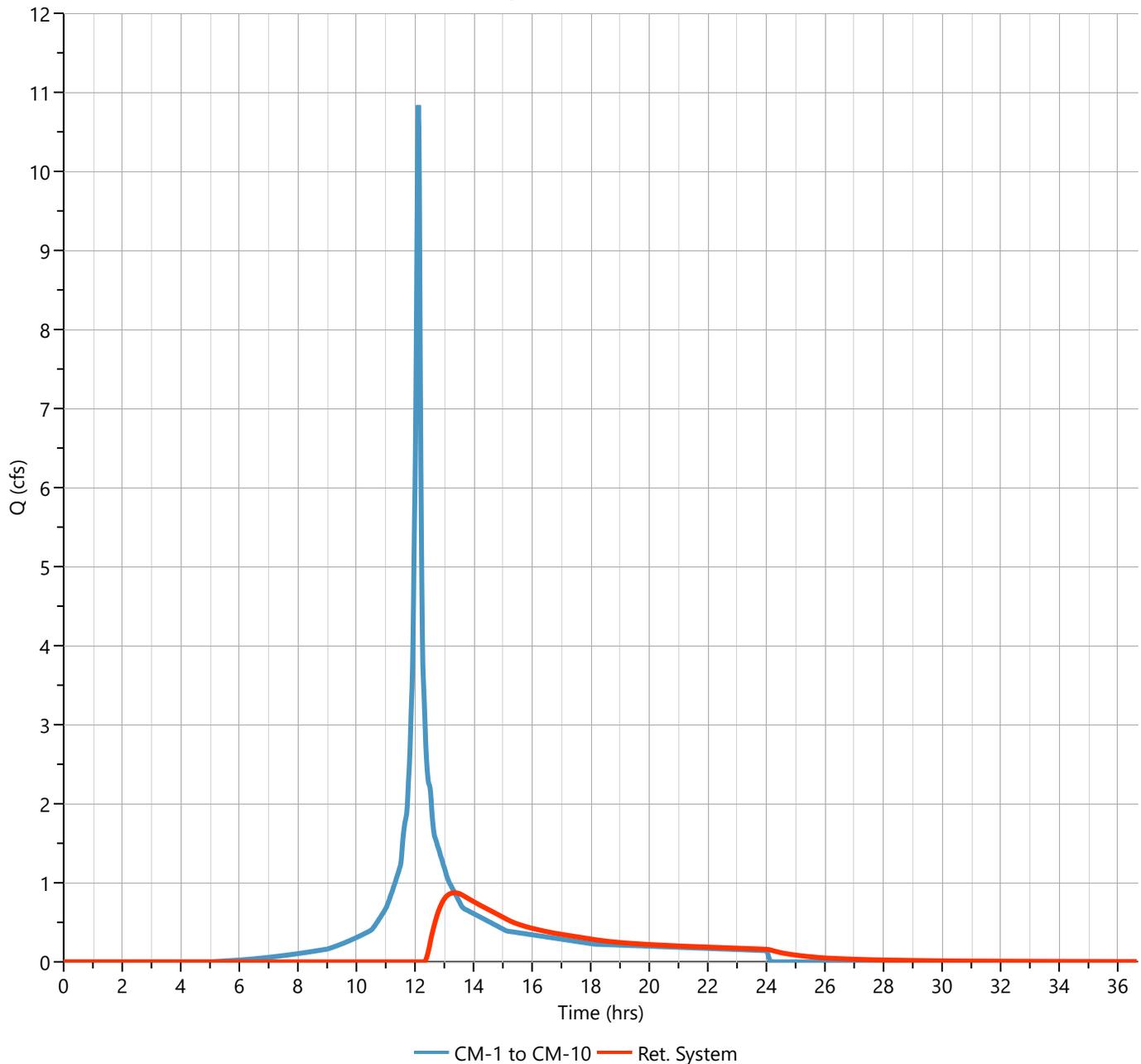
Hyd. No. 2

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

Qp = 0.875 cfs



Hydrograph Report

Hydrology Studio v 3.0.0.40

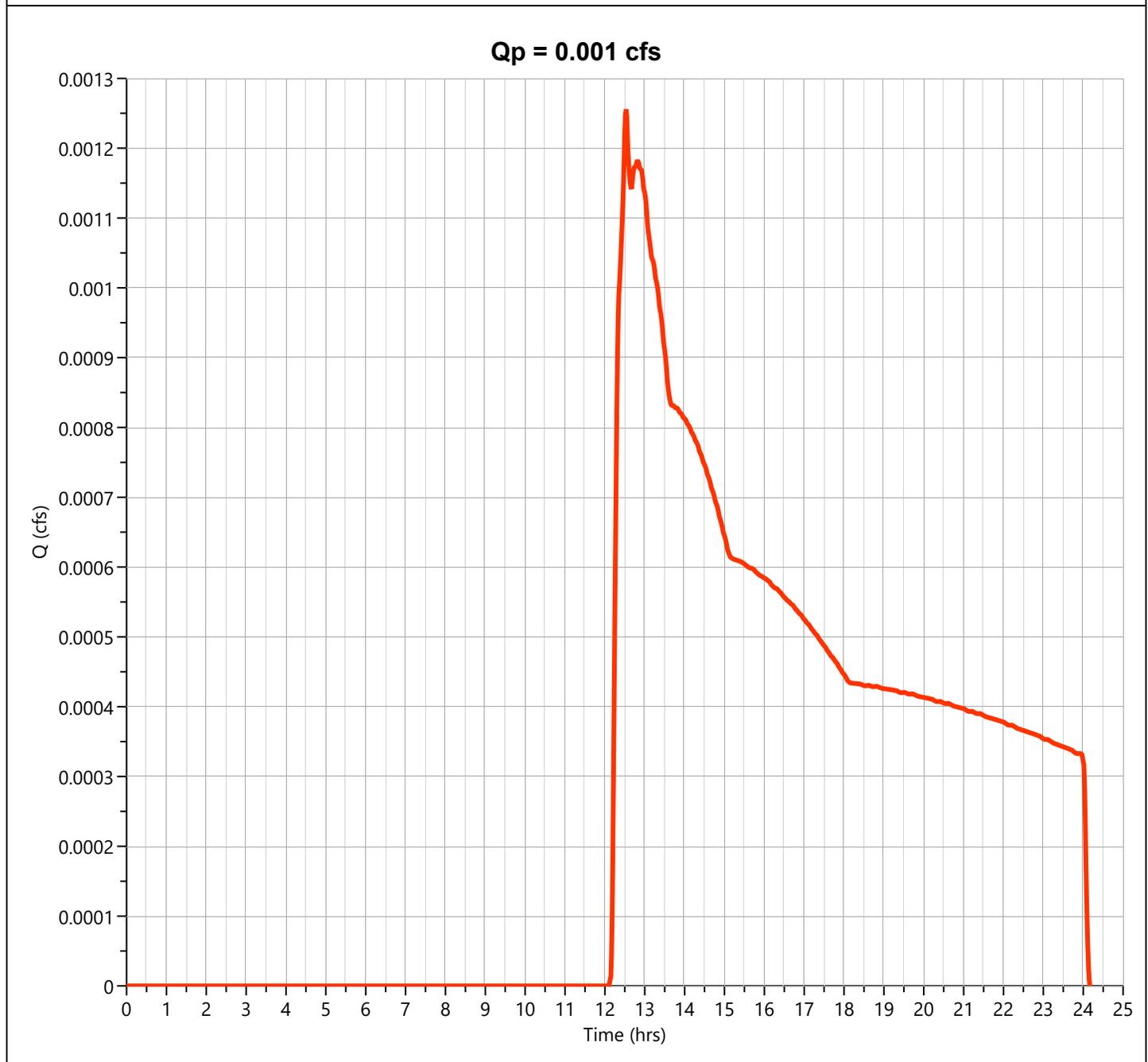
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

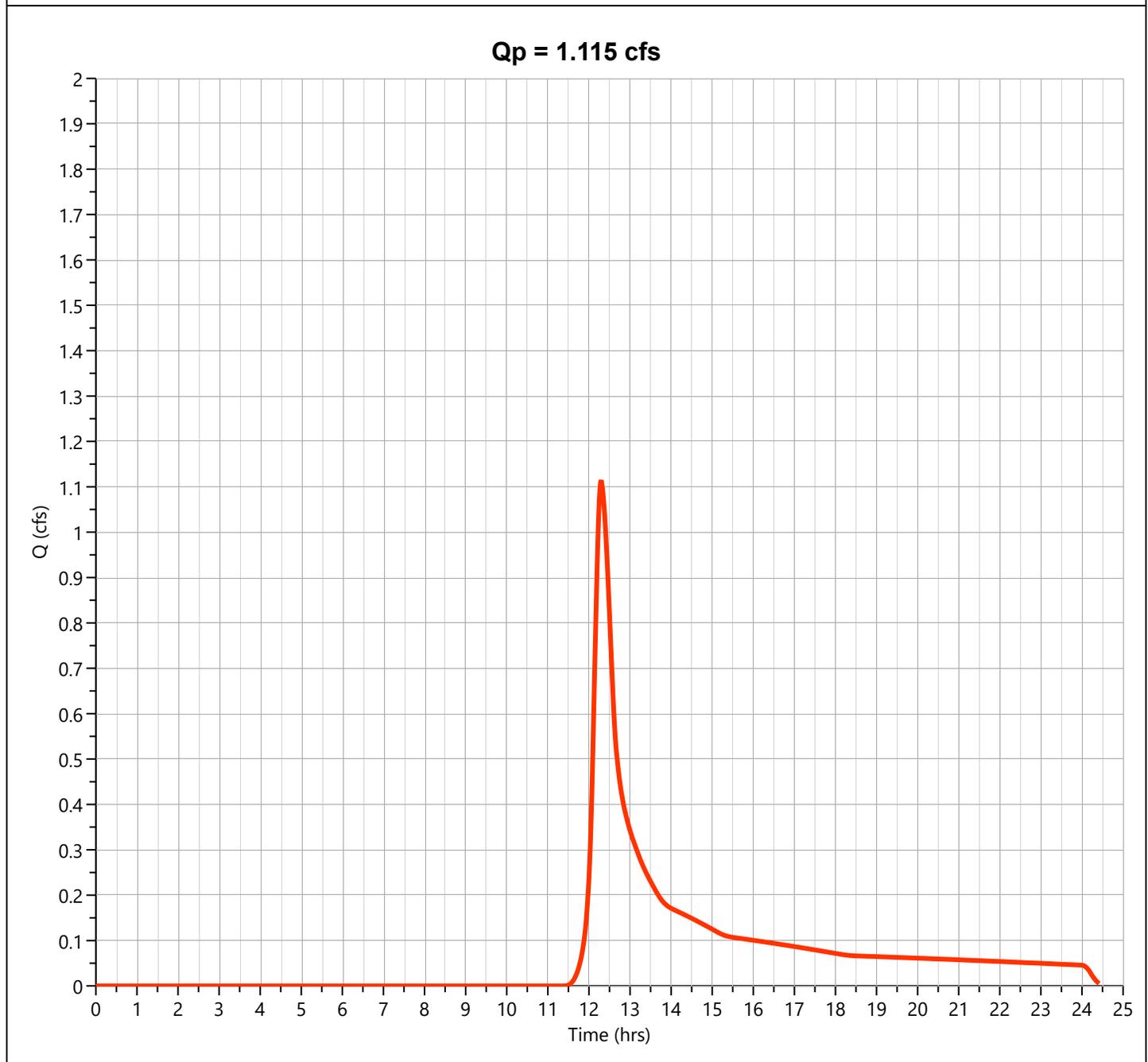
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

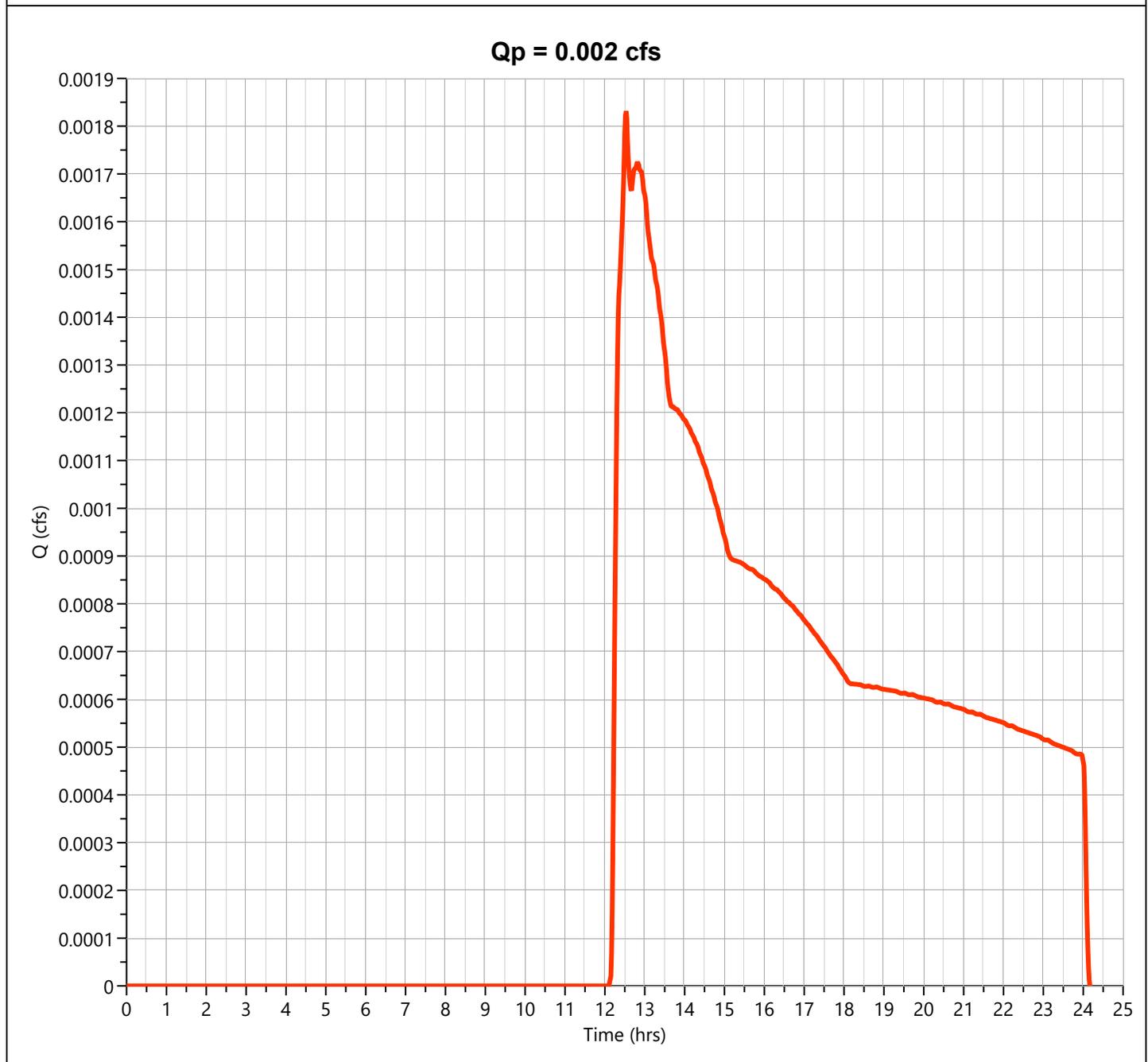
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

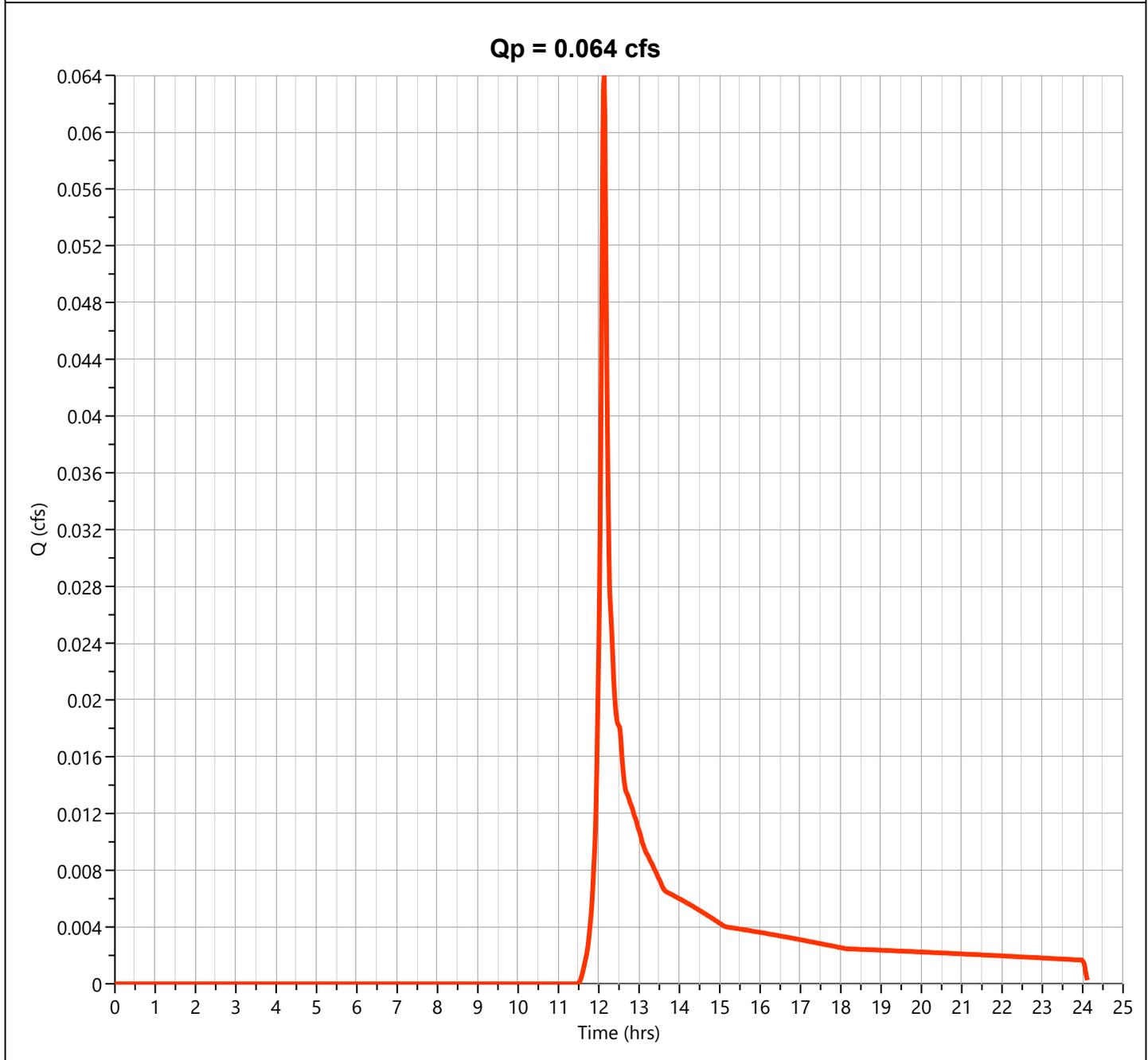
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

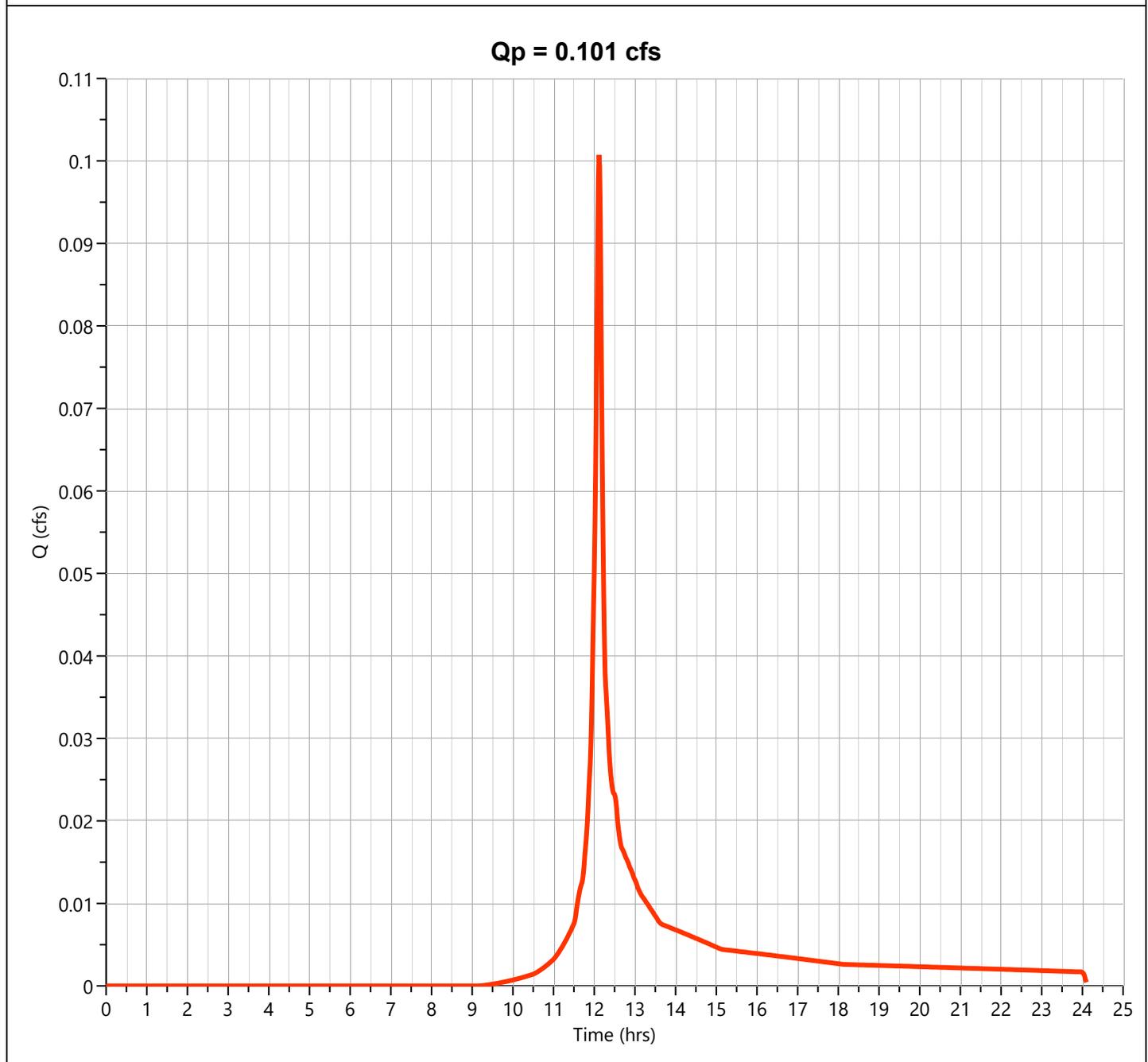
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

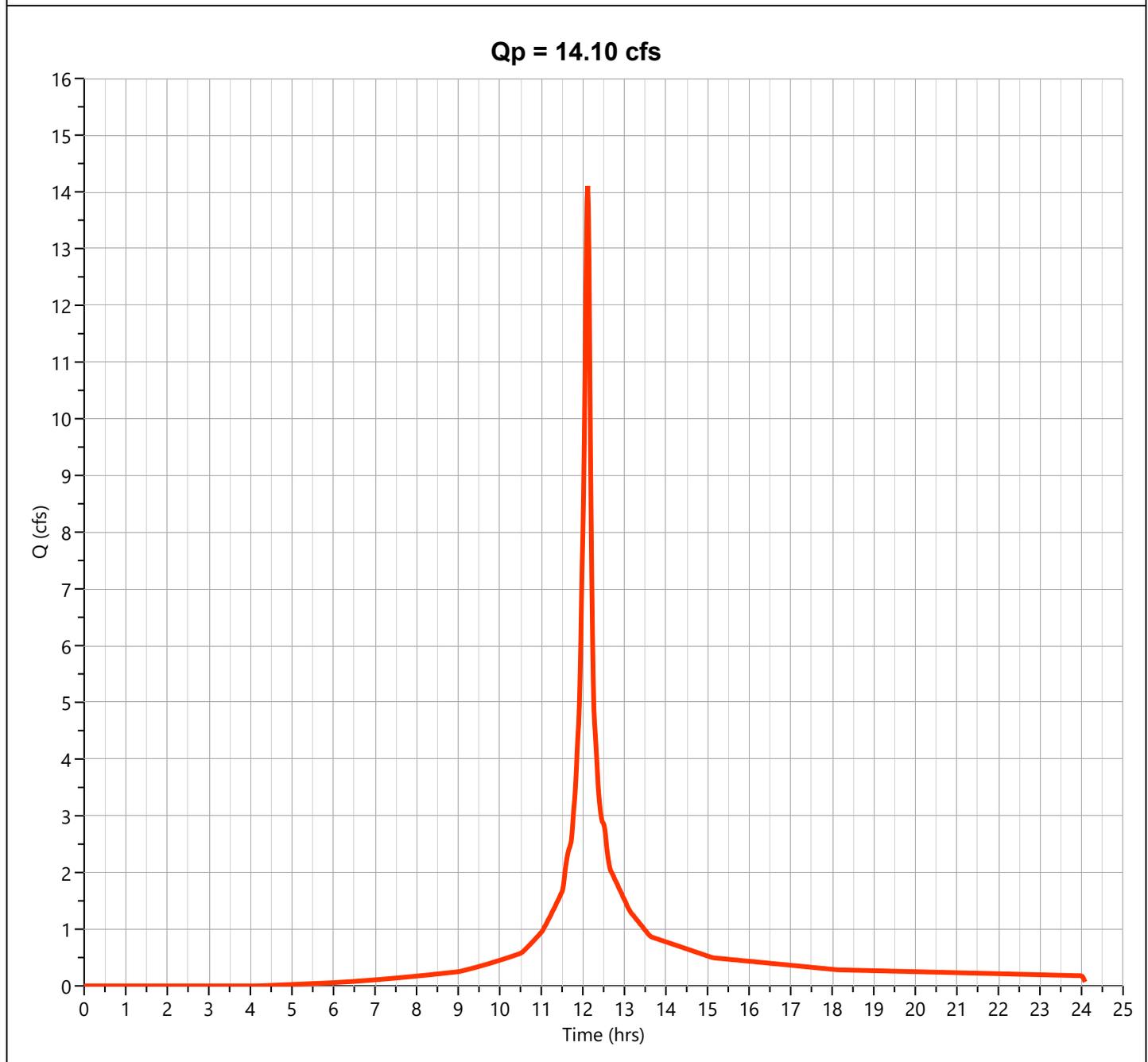
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

Ret. System

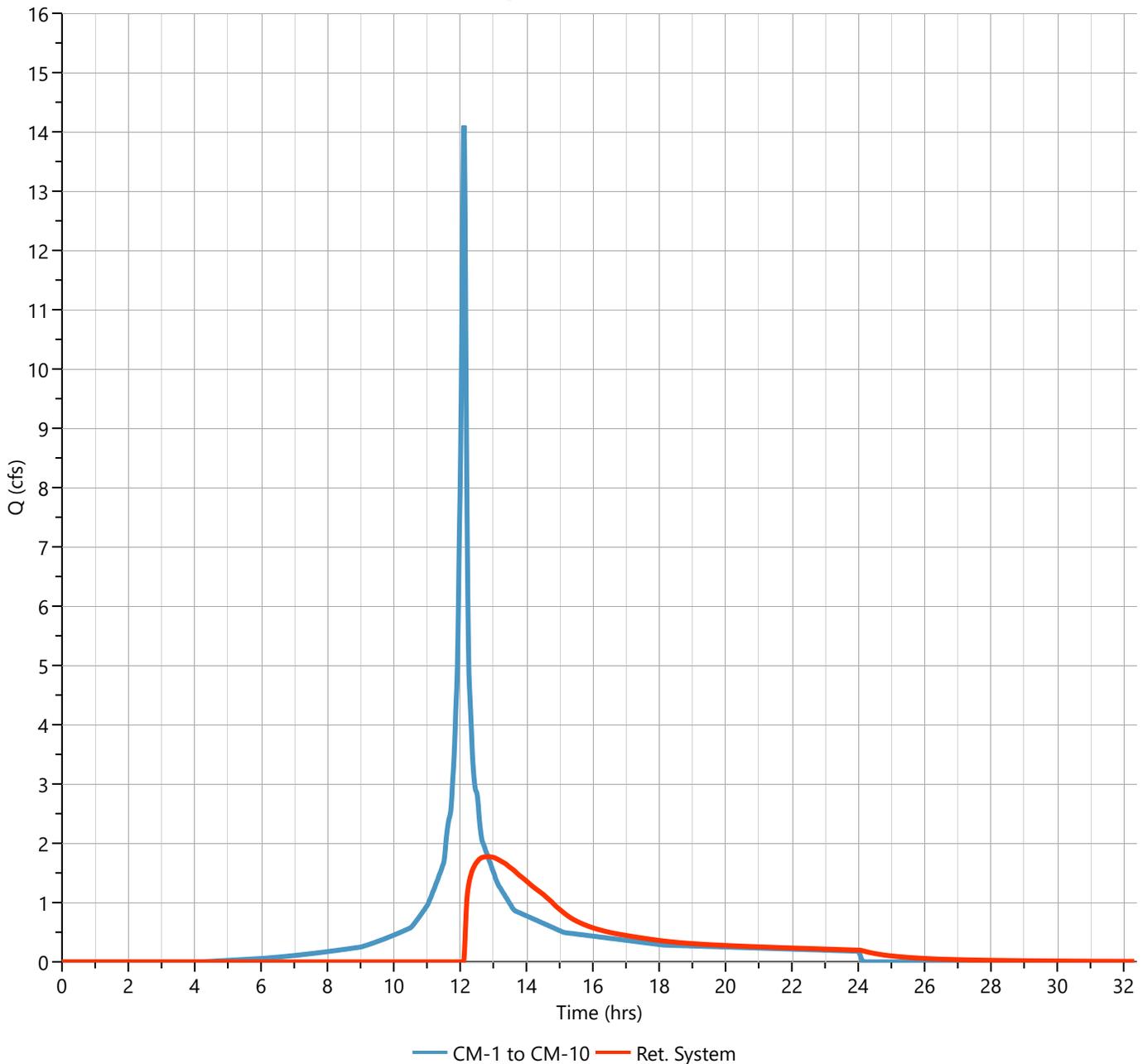
Hyd. No. 2

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

Qp = 1.775 cfs



Hydrograph Report

Hydrology Studio v 3.0.0.40

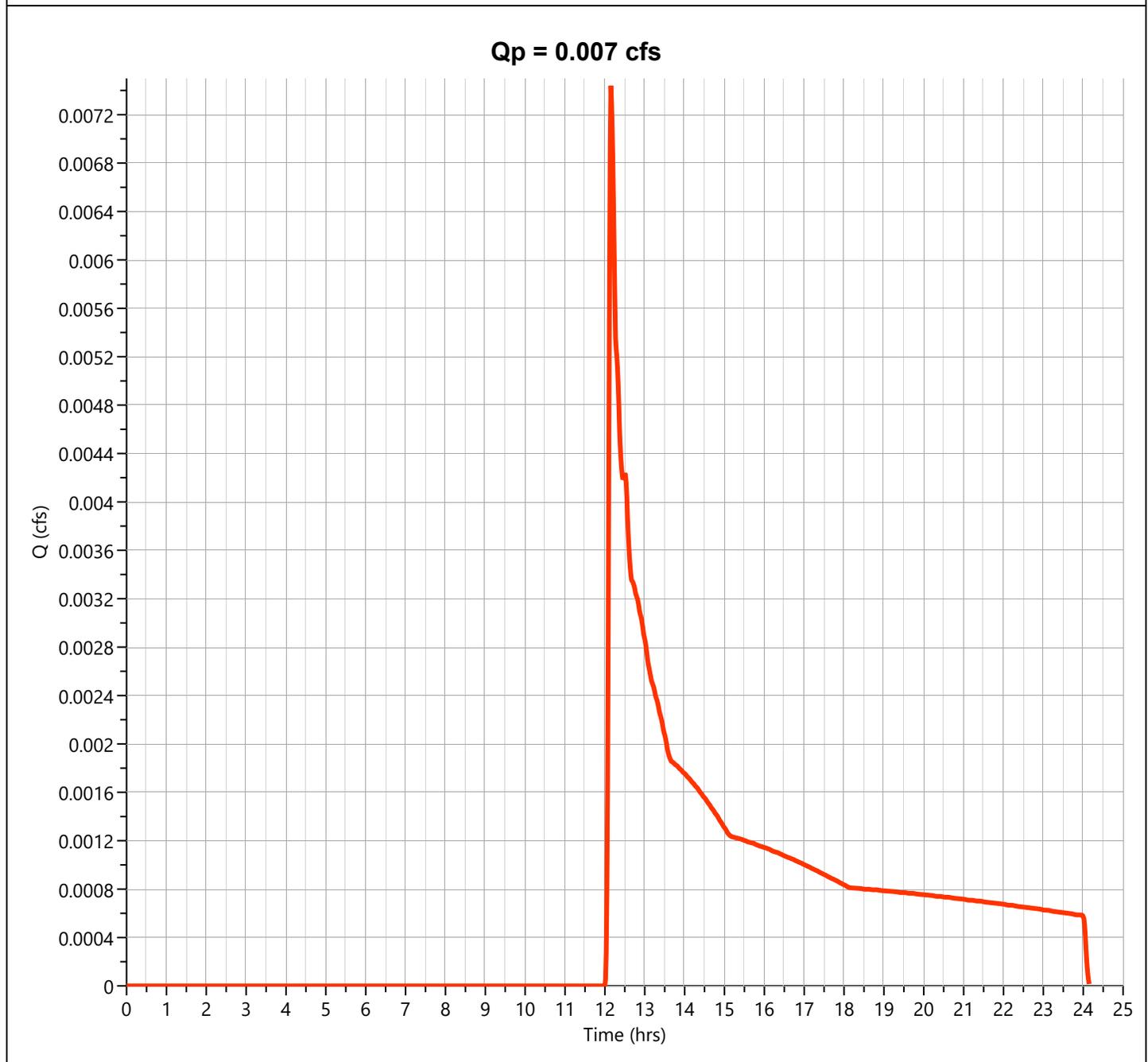
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

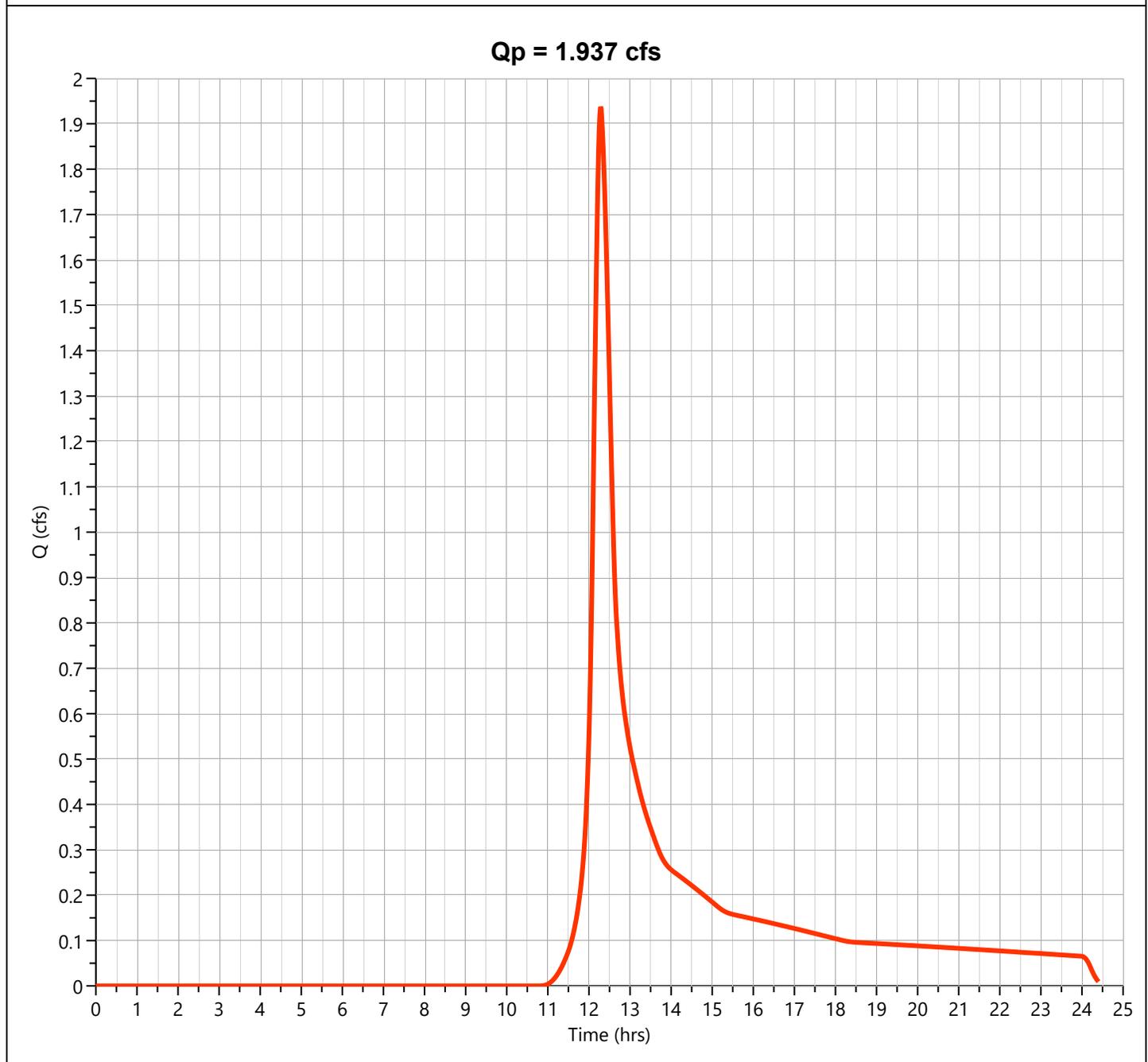
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

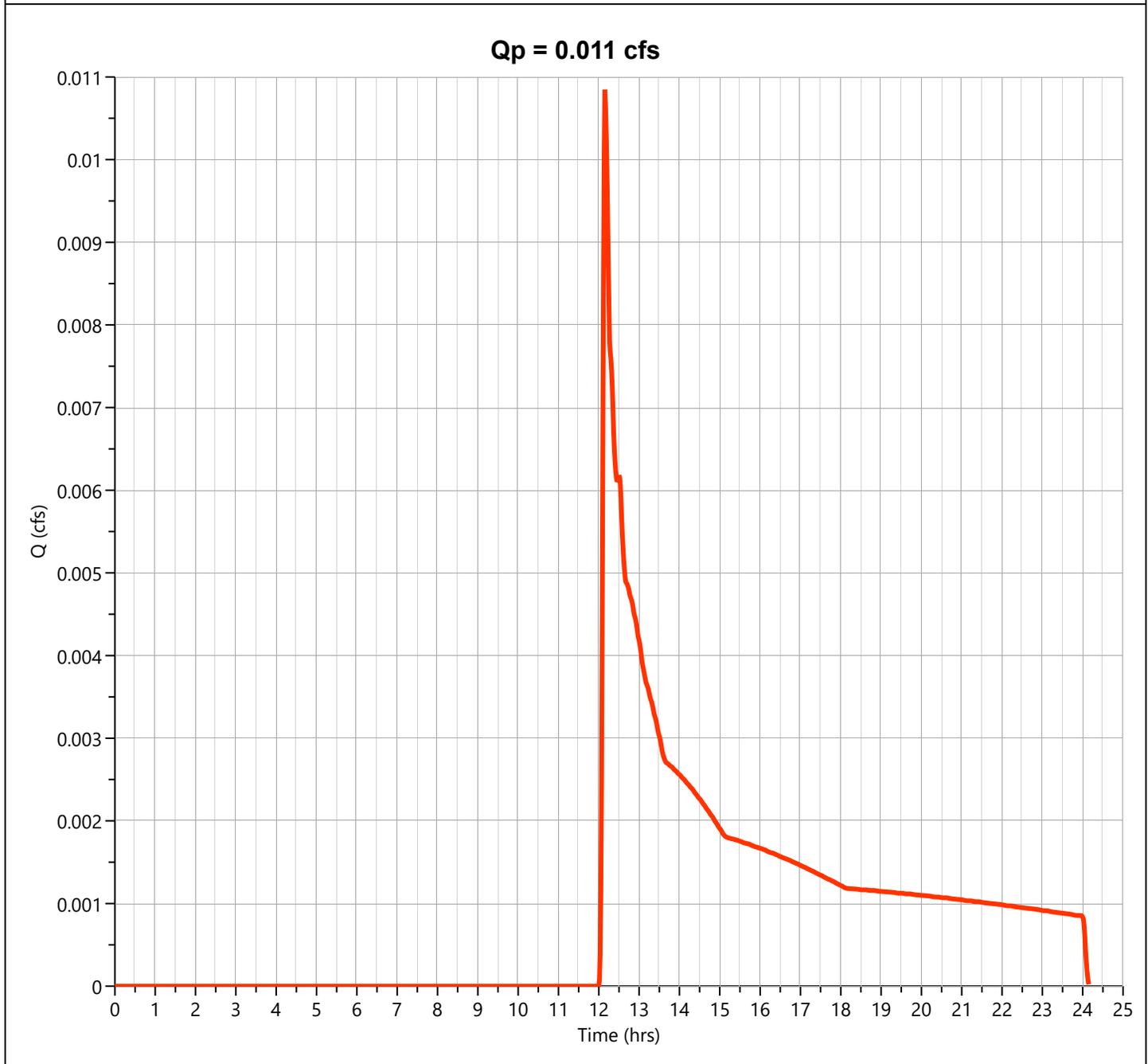
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

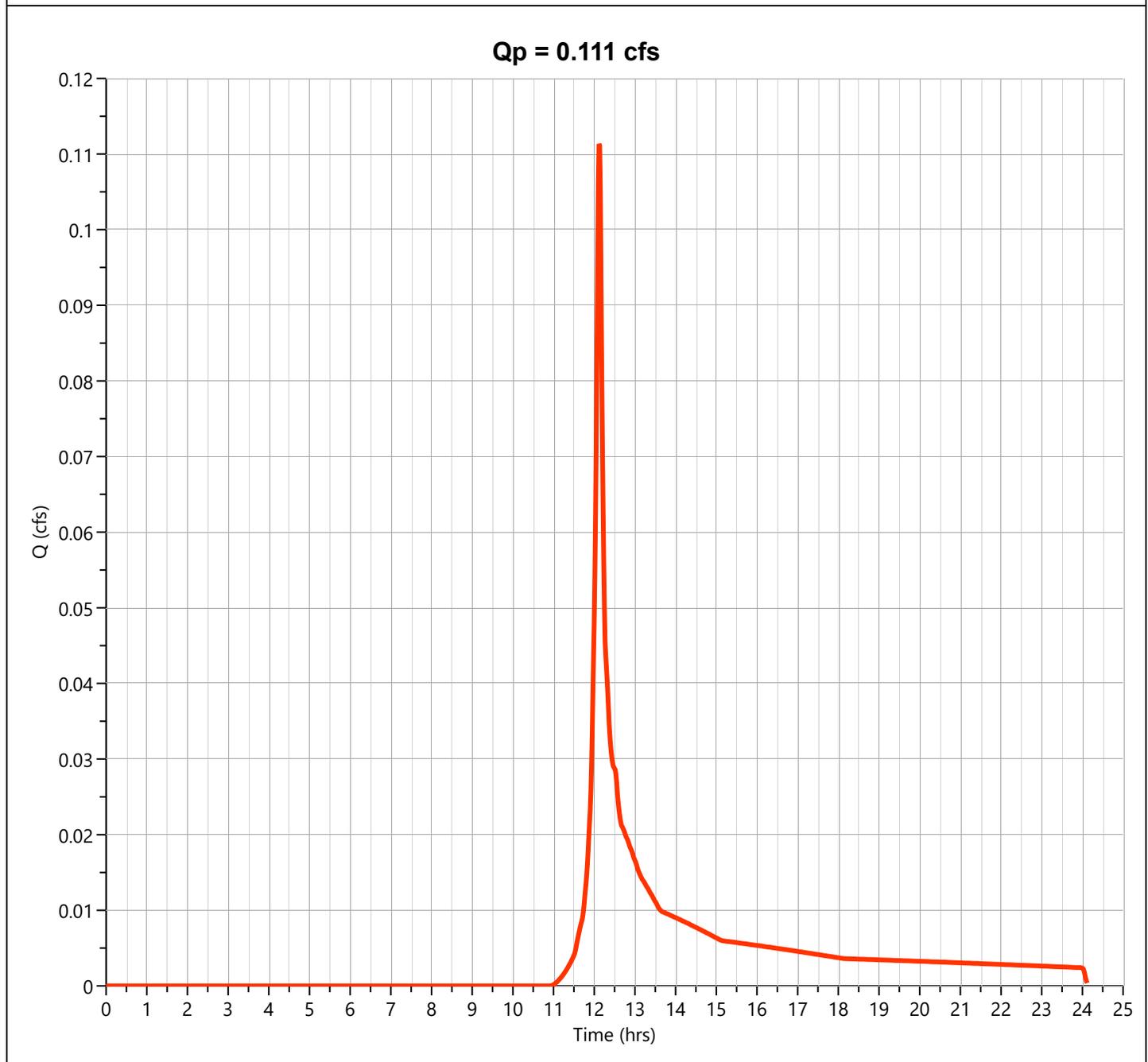
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

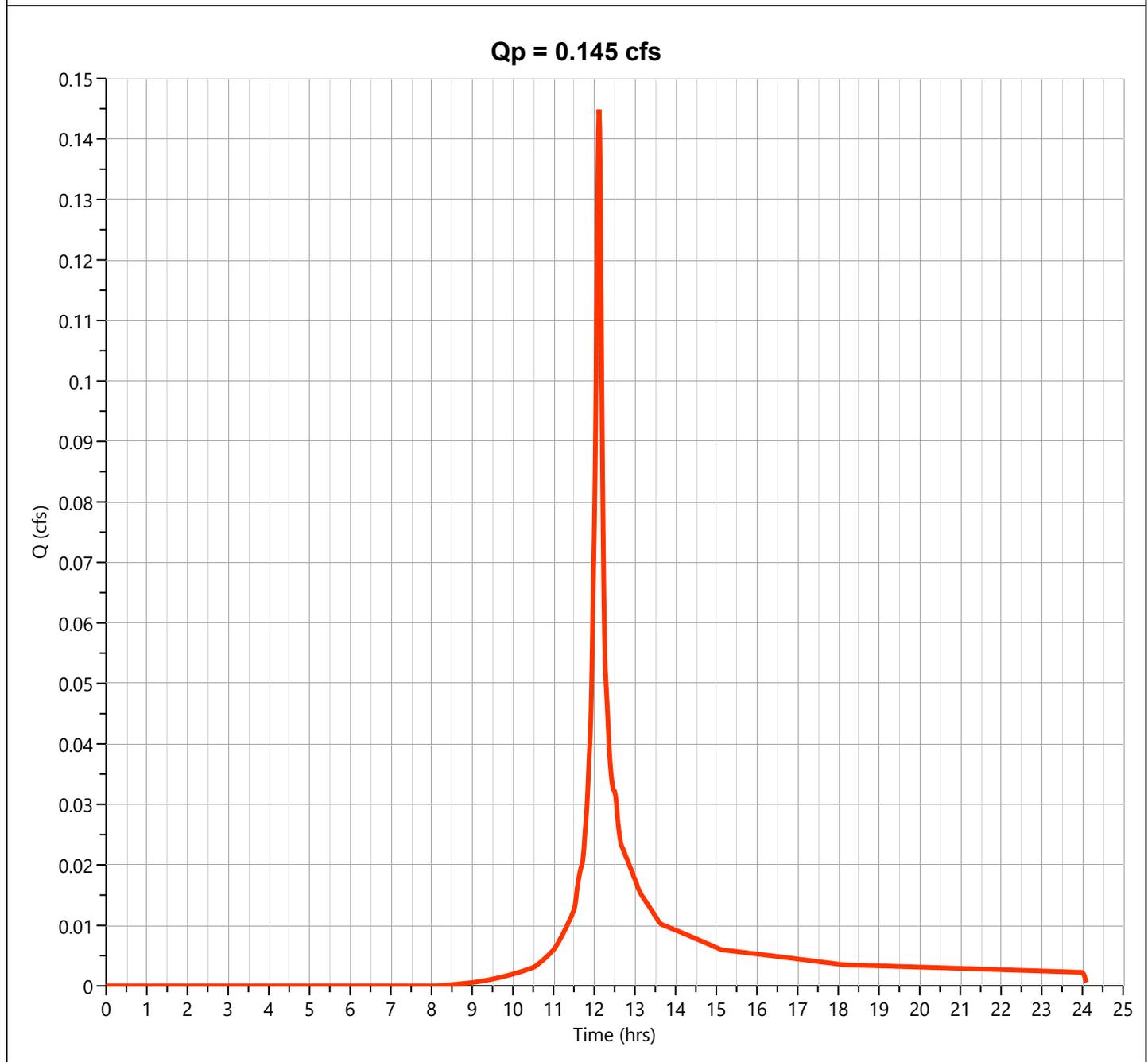
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

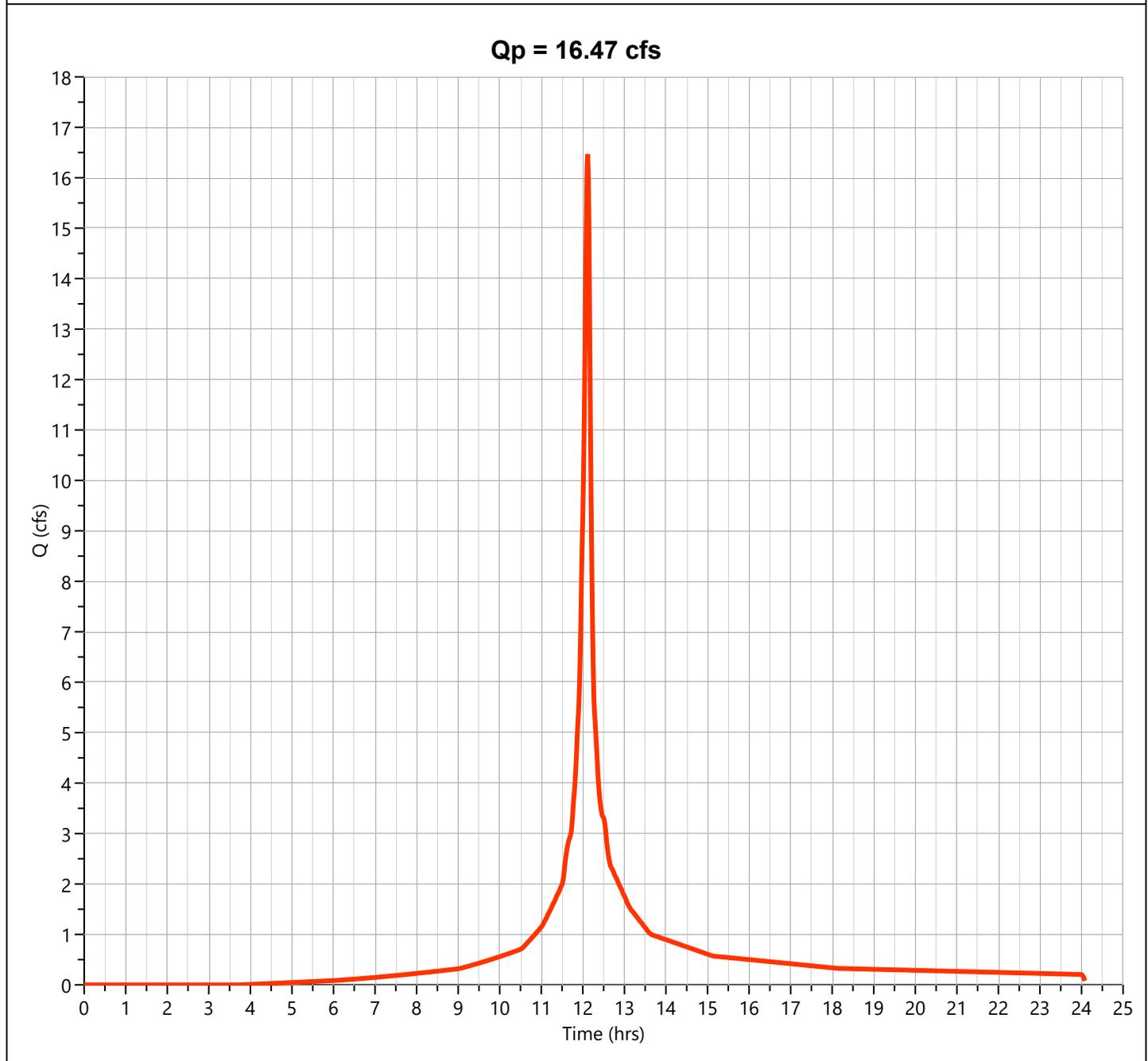
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

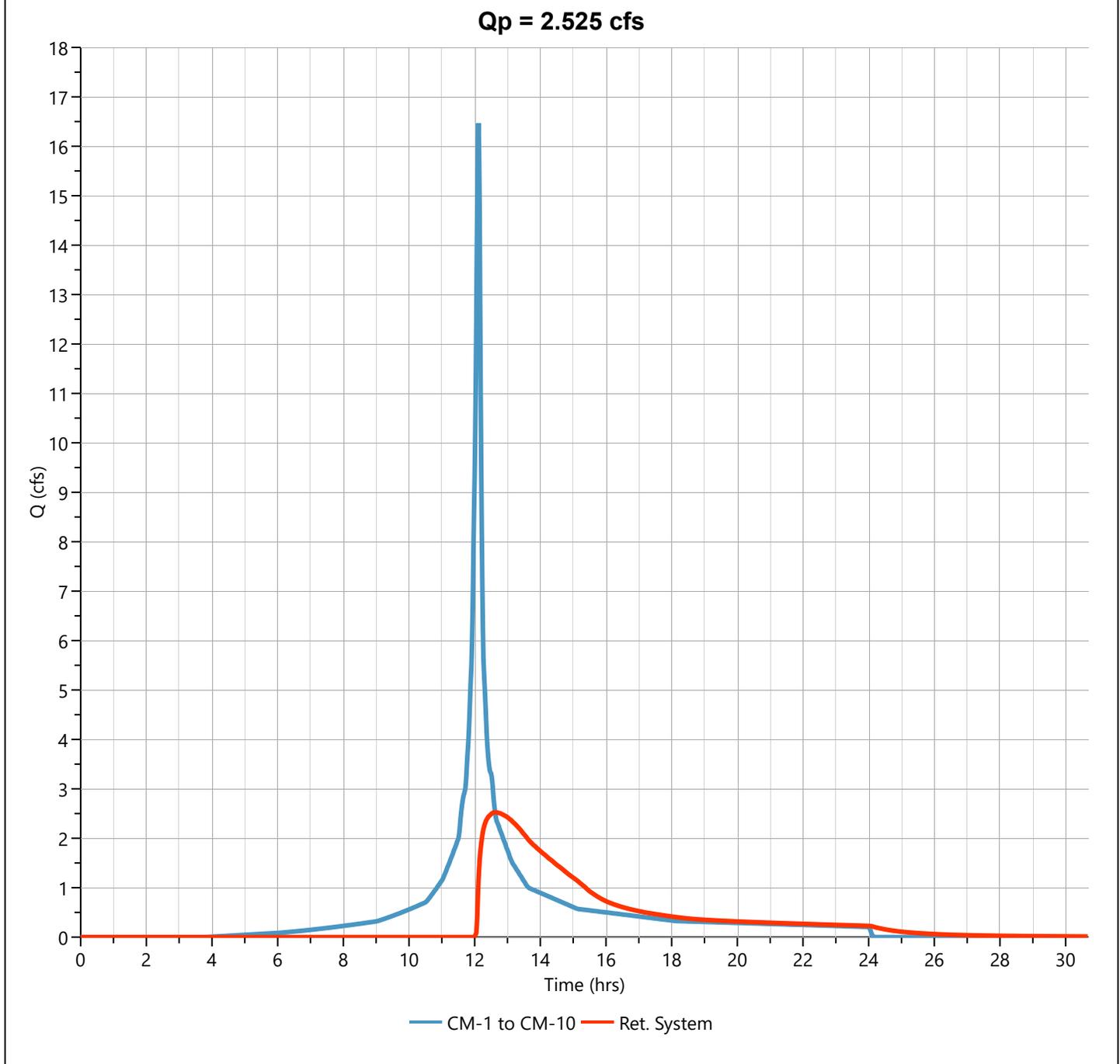
Ret. System

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

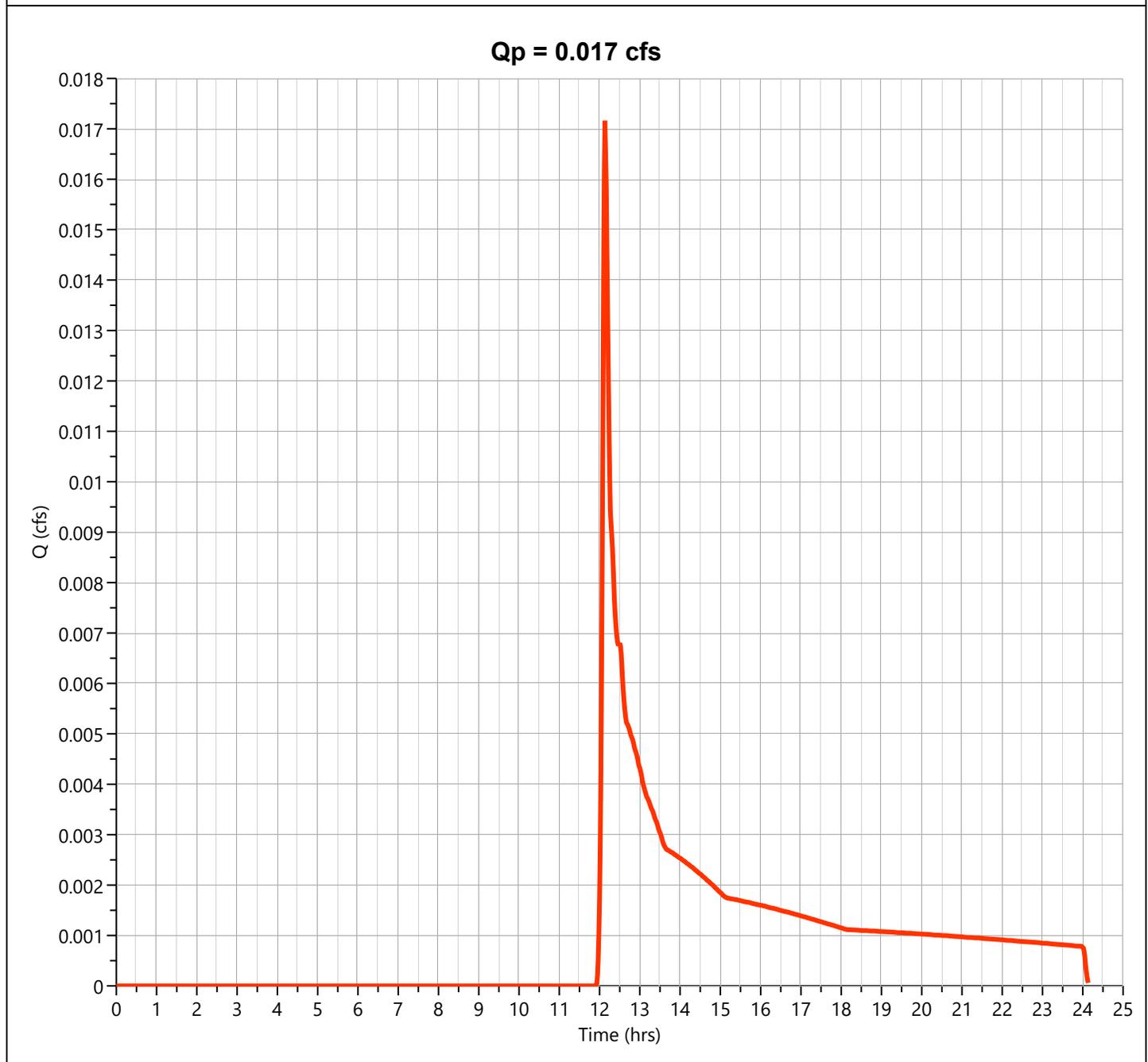
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

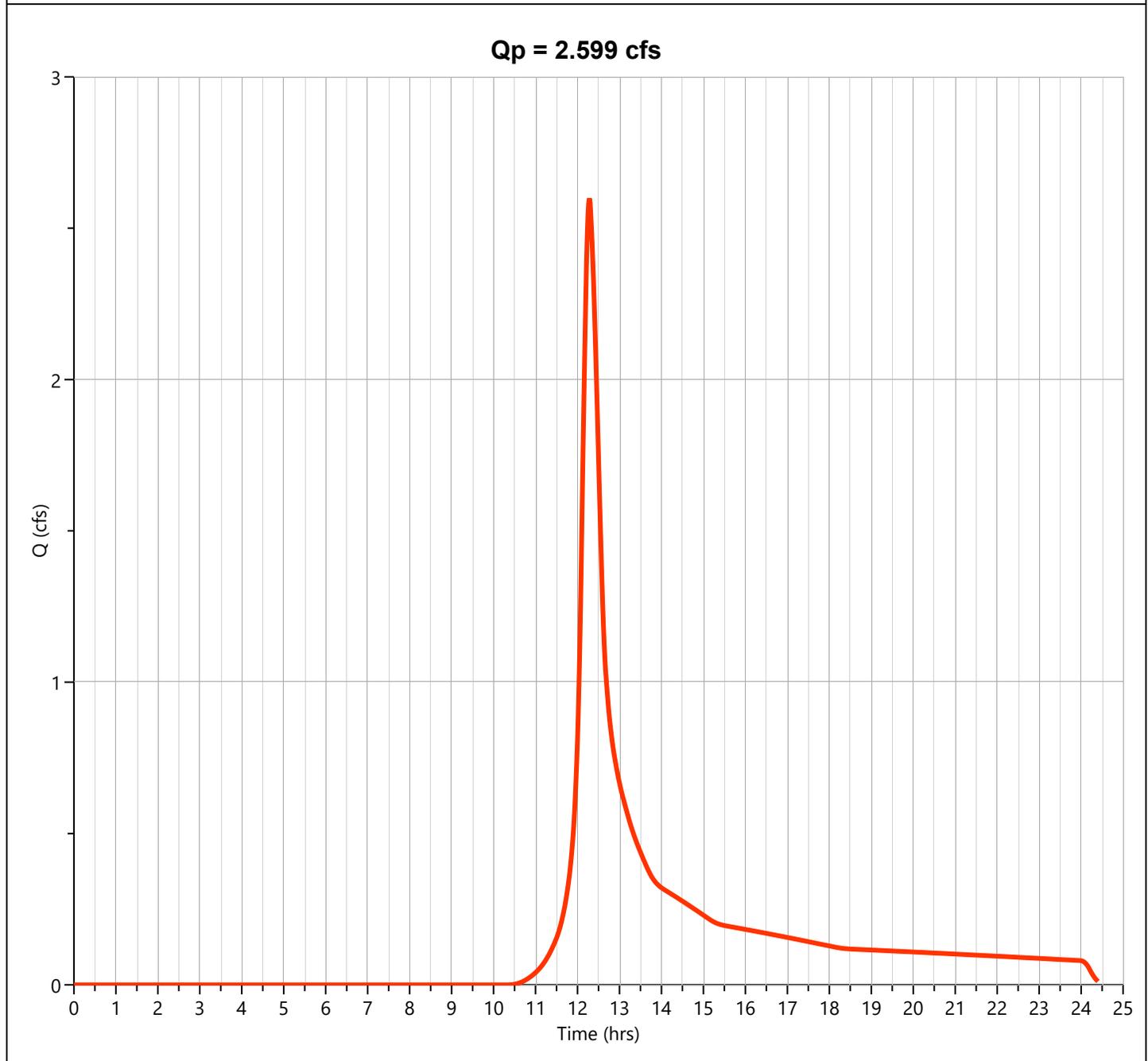
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11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

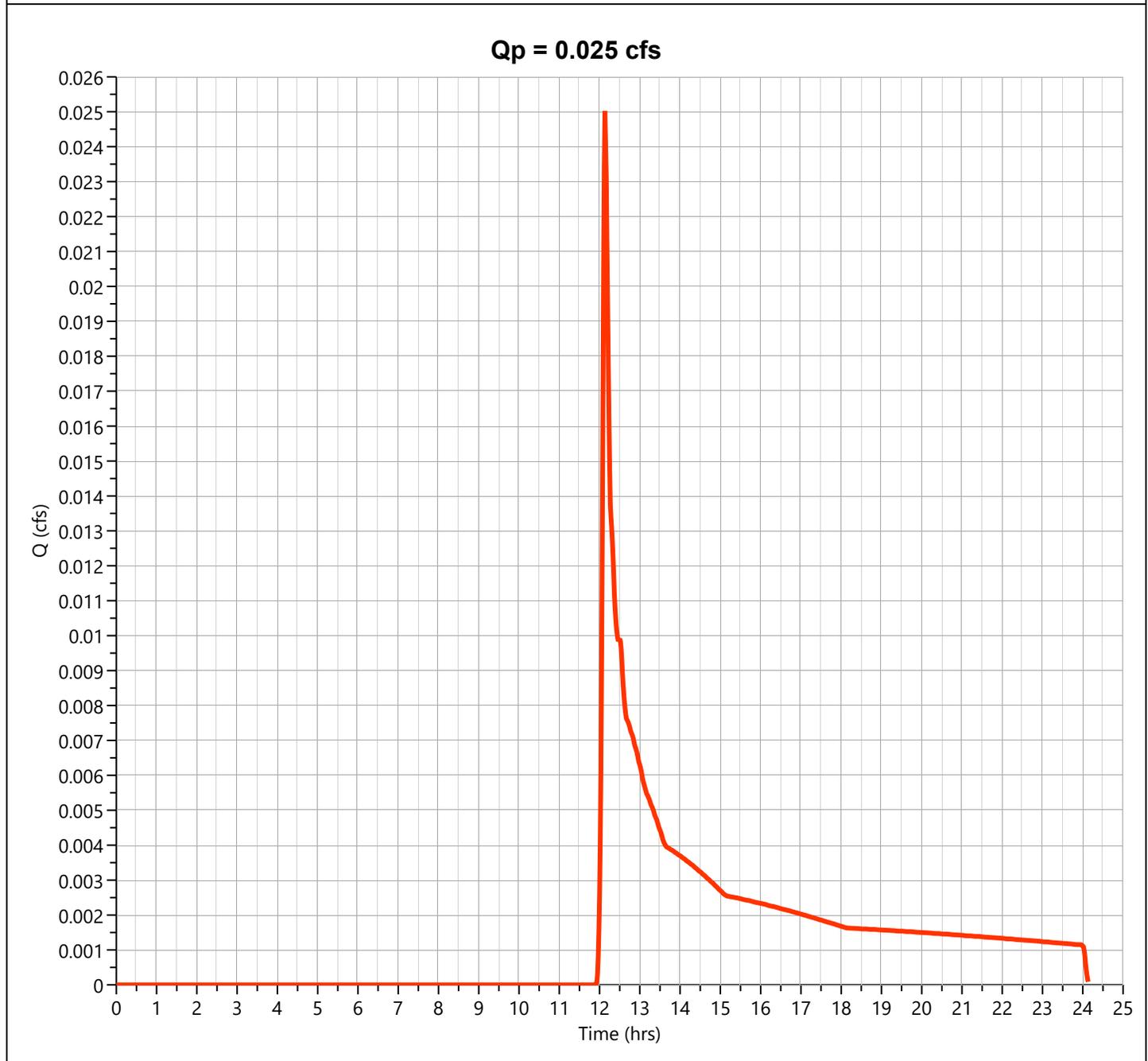
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

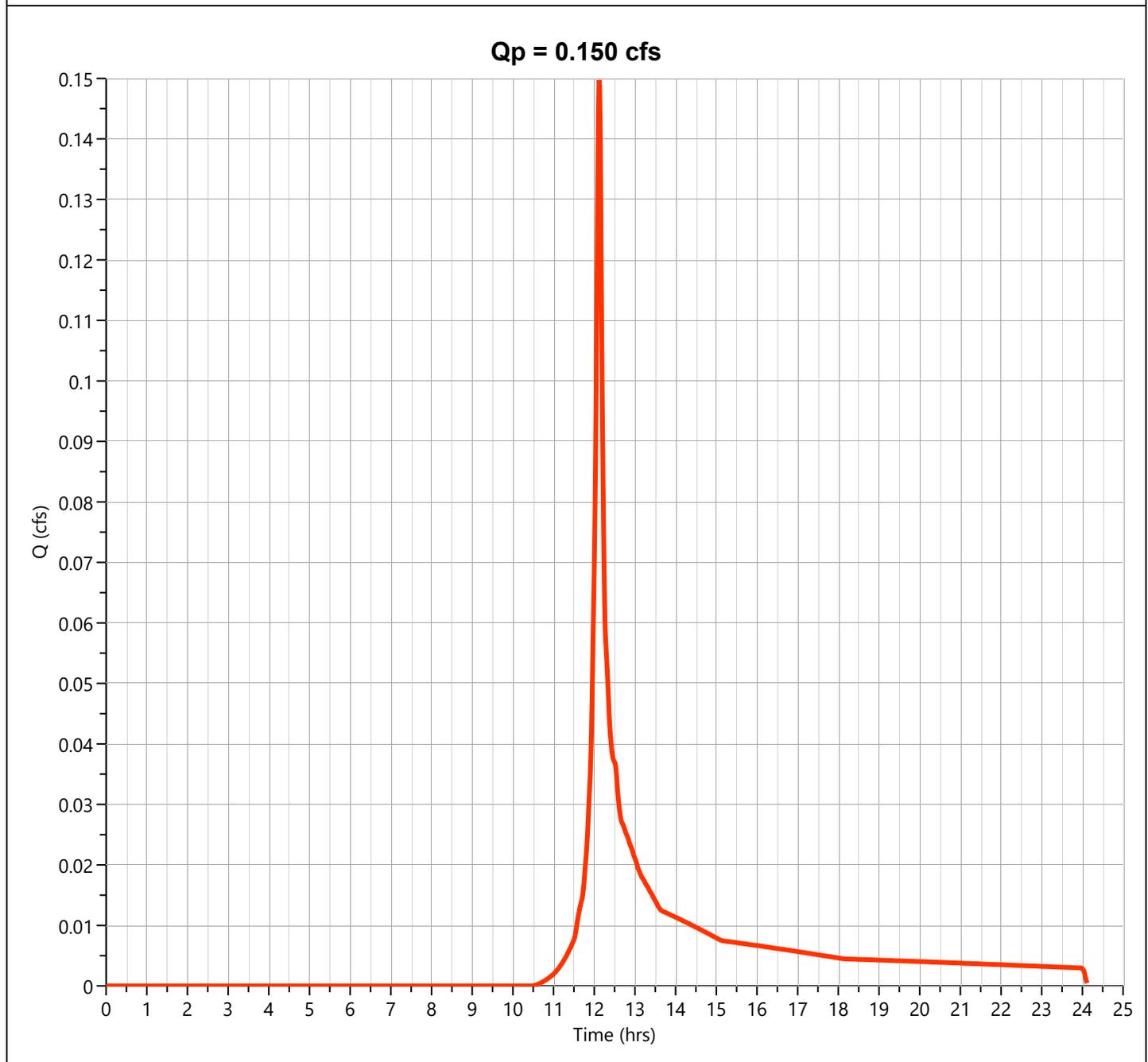
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

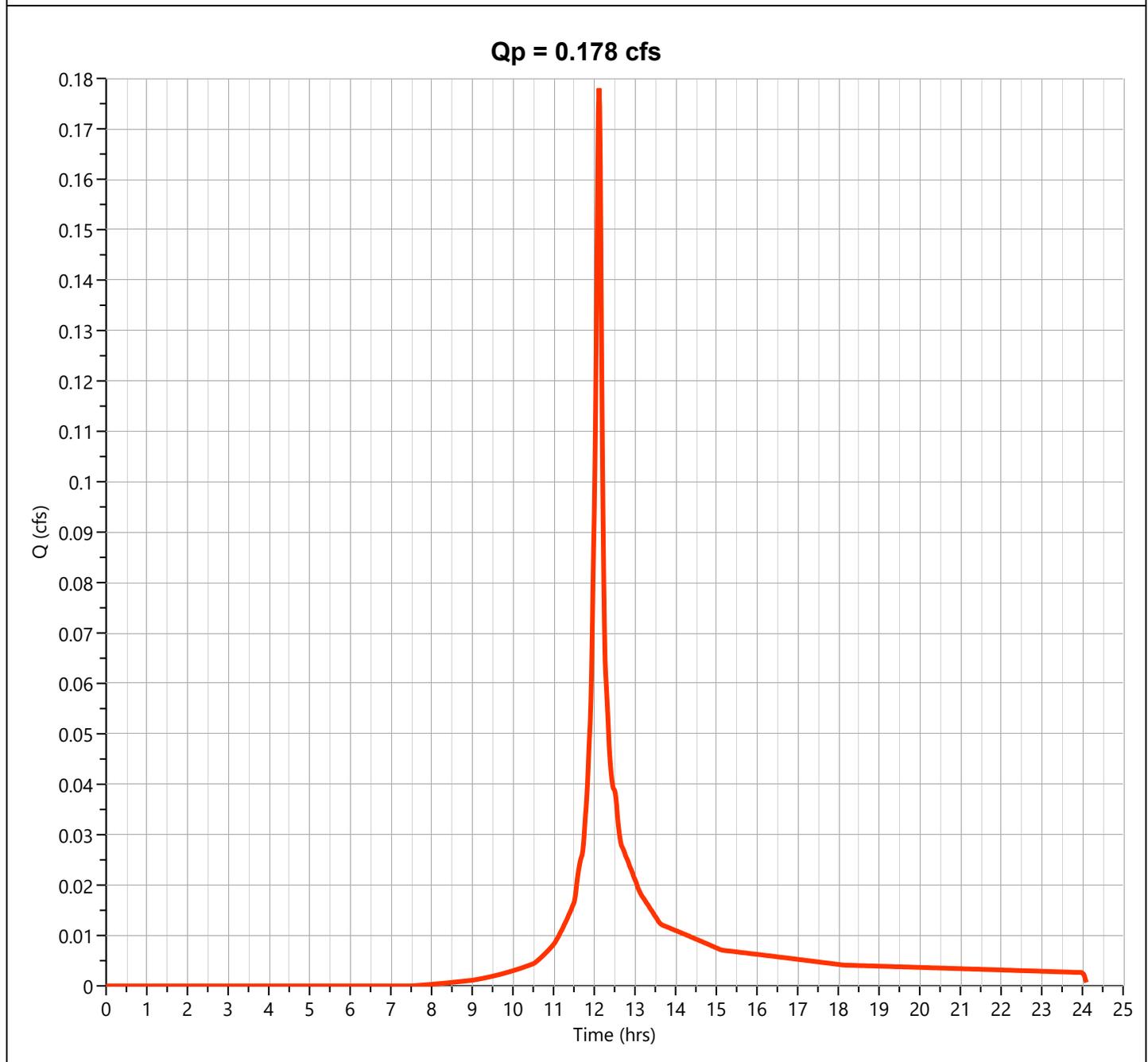
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

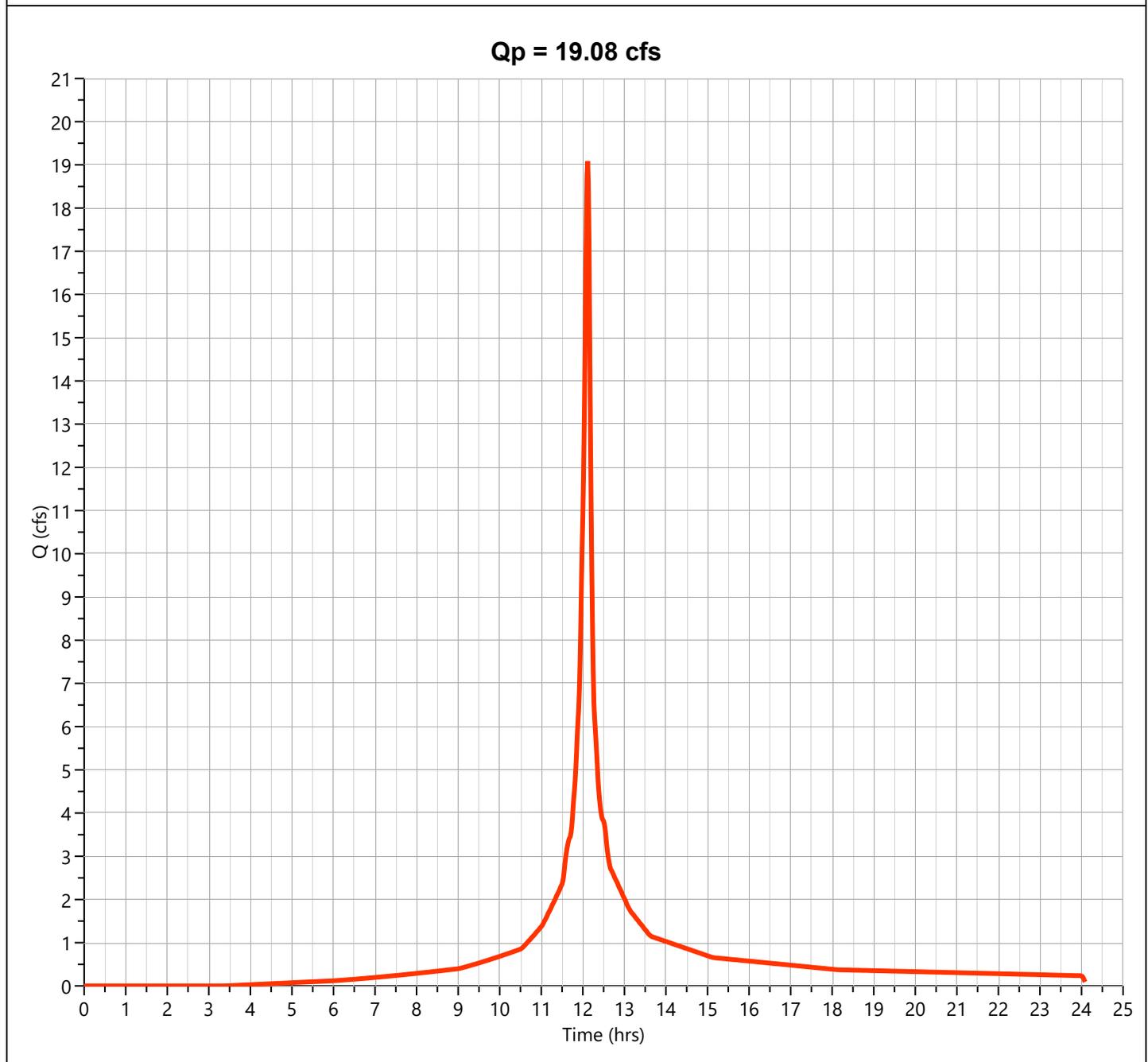
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

Ret. System

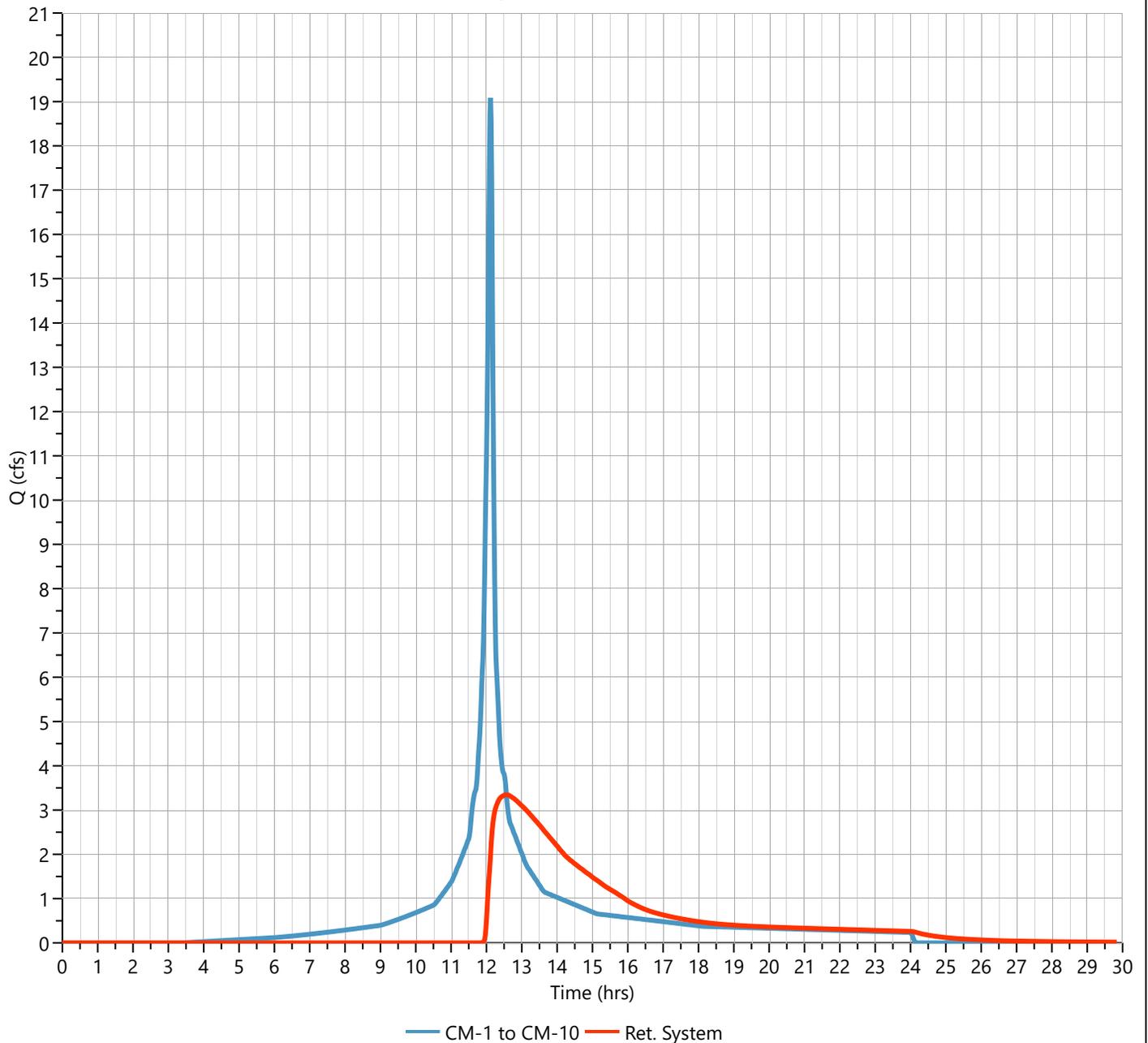
Hyd. No. 2

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

Qp = 3.348 cfs



Hydrograph Report

Hydrology Studio v 3.0.0.40

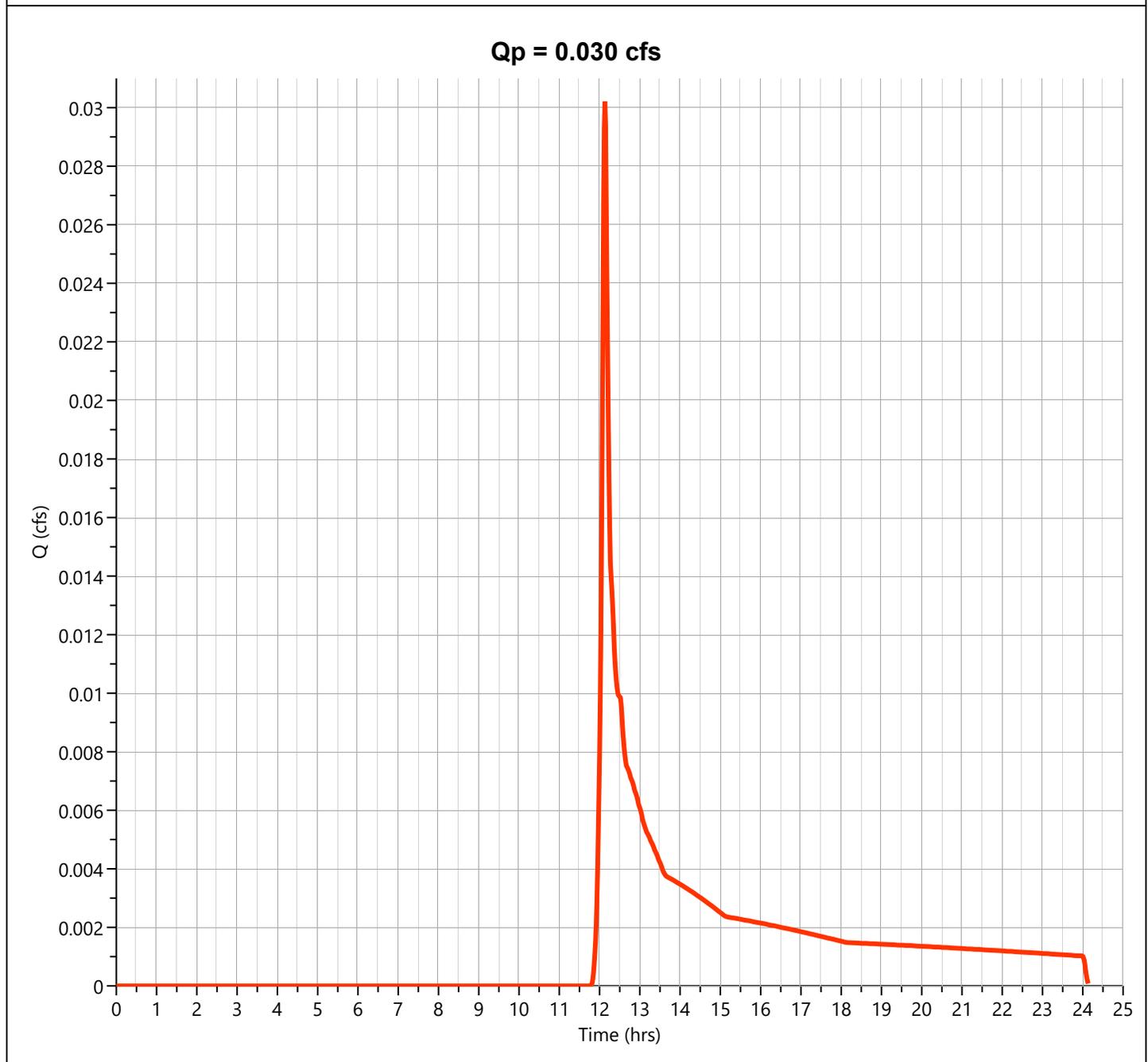
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

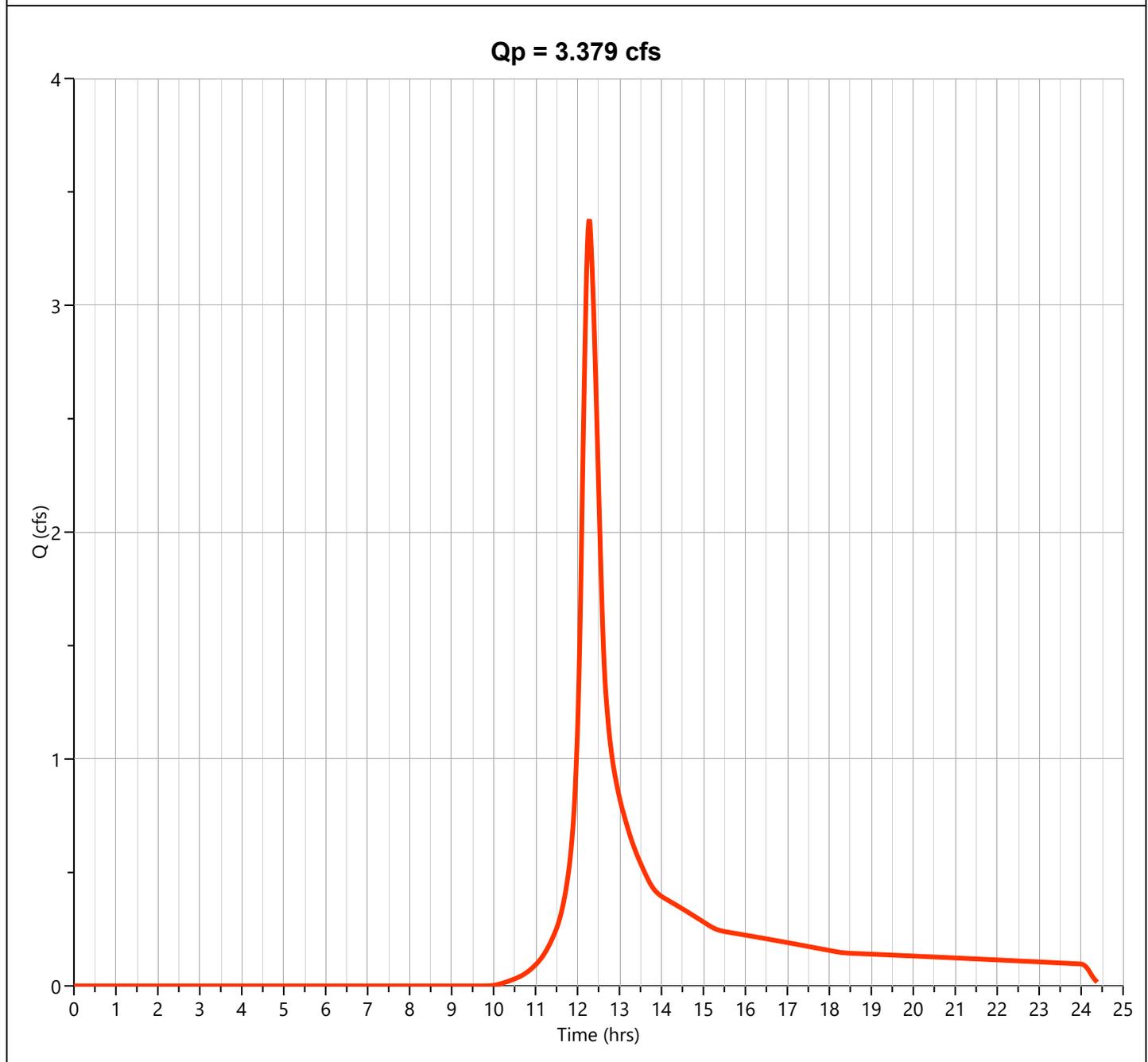
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

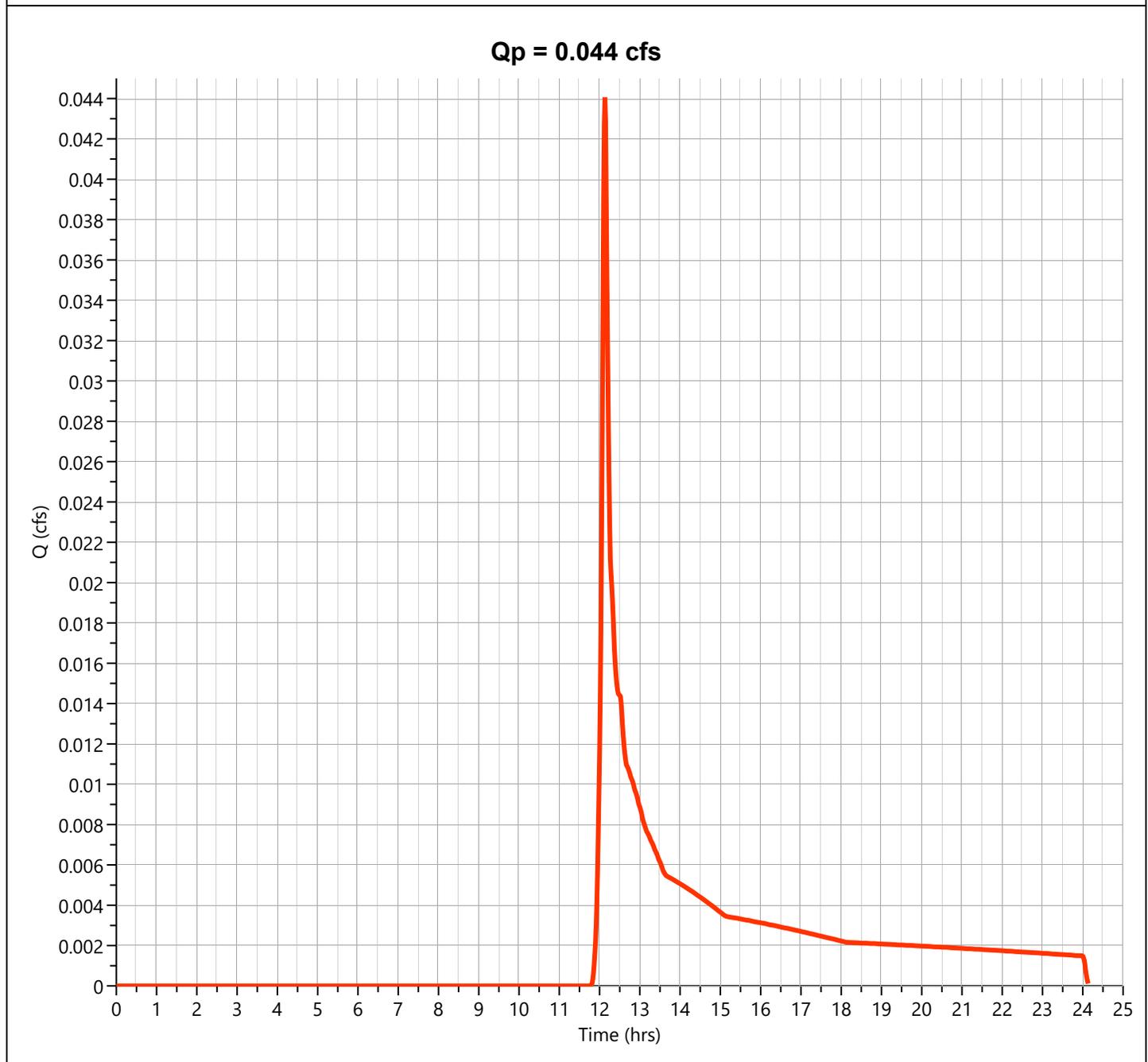
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

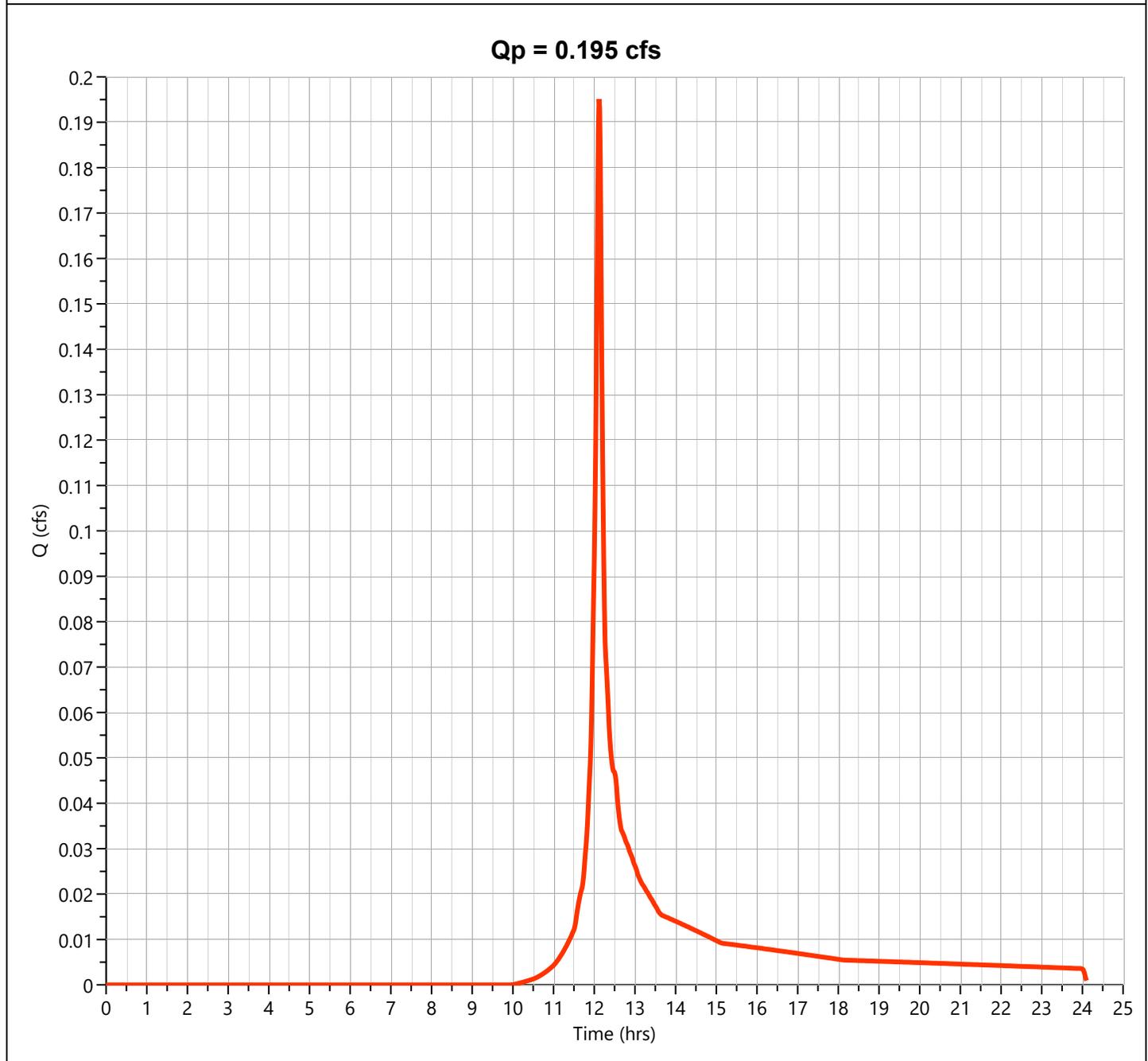
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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



Hydrograph Report

Hydrology Studio v 3.0.0.40

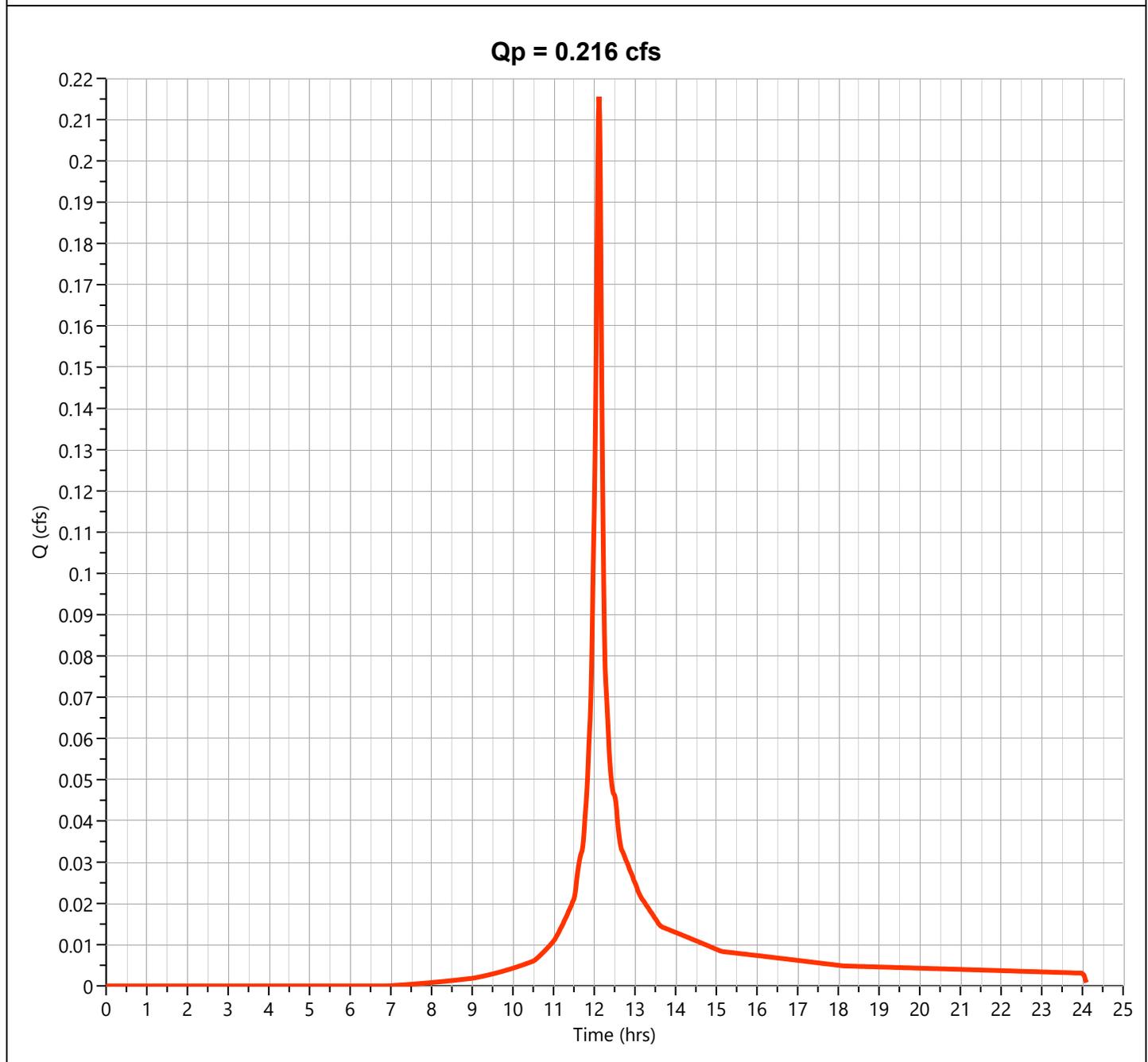
File: 24122 - Post Dev PRDR SCS.hys

11-18-2025

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

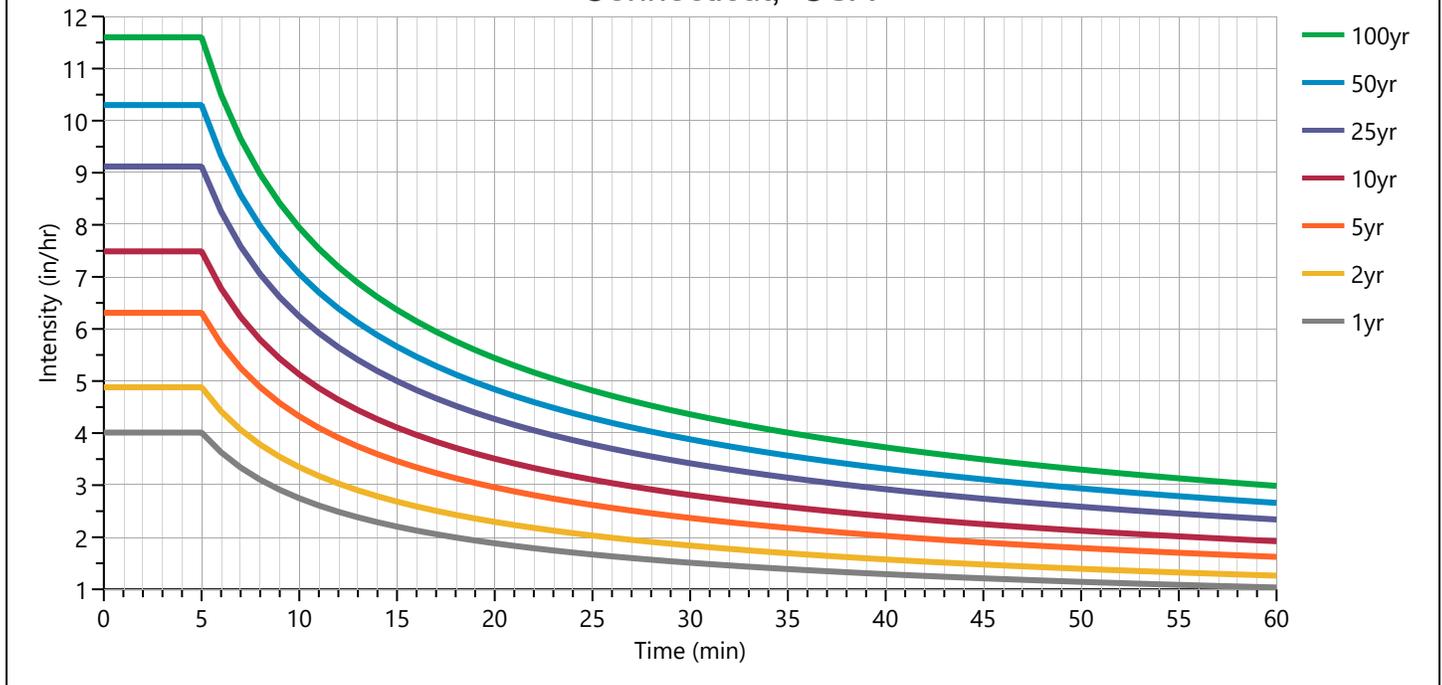
Equation Coefficients	Intensity = B / (Tc + D)^E (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
B	9.6416	11.7197	0.0000	15.2067	18.0689	22.0099	24.7570	27.9374	
D	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
E	0.5451	0.5444	0.0000	0.5465	0.5472	0.5474	0.5449	0.5461	

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.

Connecticut, USA



Precipitation Report

	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		Gravel		elev. ft	Total Storage cu. ft.
		Wetted Area s.f.	storage cu.ft.	Wetted Area s.f.	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
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

WQV = 104.5



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

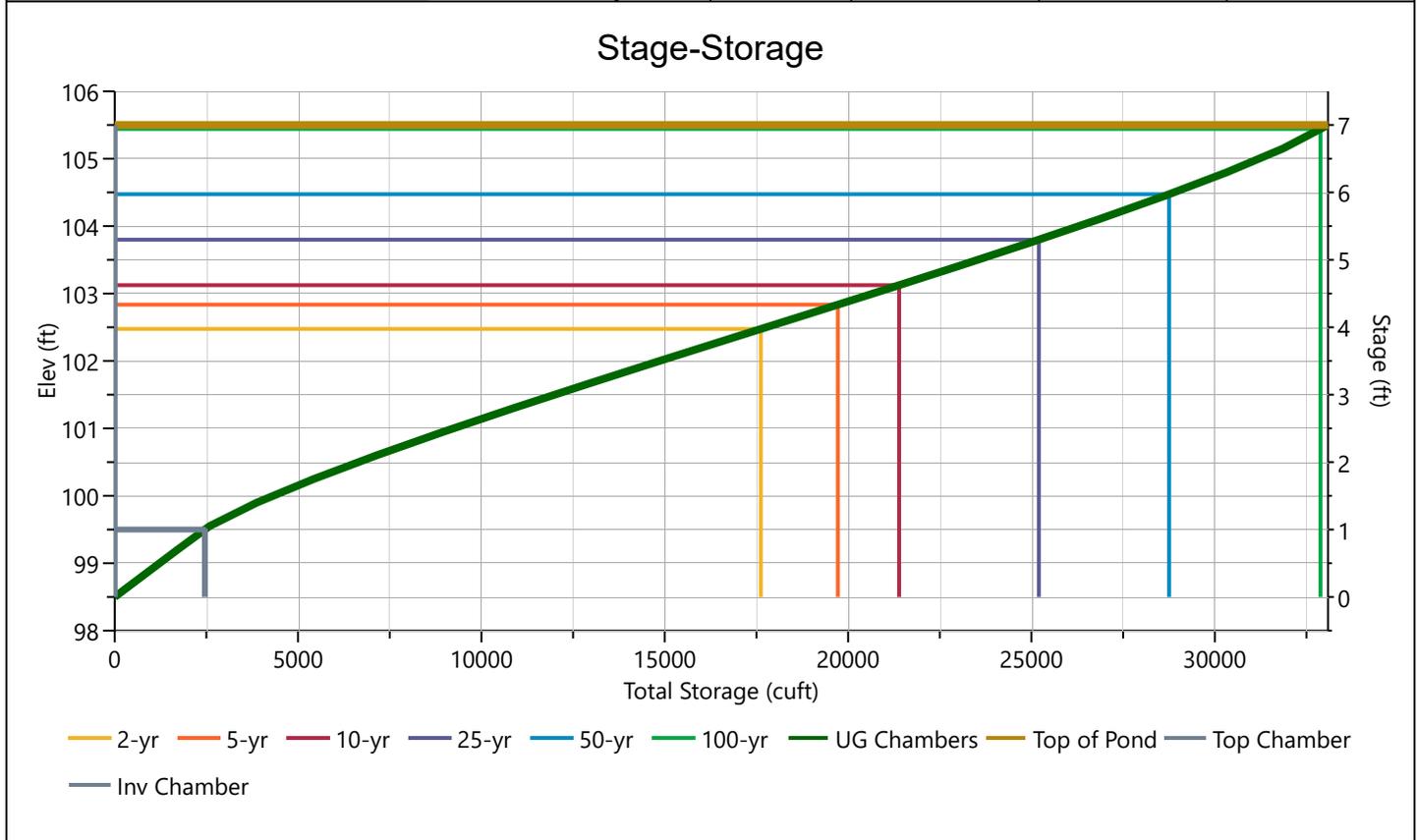
Basin	A Total Area (Ac)	A _i Total Impervious Area (Ac)	Weighted C (Rational runoff coefficient)	I (Rainfall Intensity)	Q (CFS) = CIA	I= (Total Impervious/total Area)X 100	R= 0.05+0.009*I	WQV (AC-FT) = (1.3")(R)(A) / 12	1.3" WQV (CFT)
Site	2.68	1.76				65.77	0.64	0.19	8,117
Total	2.68	1.76							

Pond Report

Retention System

Stage-Storage

Underground Chambers		Stage / Storage Table				
Description	Input	Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
Invert Elev Down, ft	99.50	0.00	98.50	6,976	0.000	0.000
Chamber Rise, ft	6.00	0.35	98.85	6,976	855	855
Chamber Shape	Circular	0.70	99.20	6,976	855	1,709
Chamber Span, ft	6.00	1.05	99.55	6,976	875	2,585
Barrel Length, ft	870.00	1.40	99.90	6,976	1,292	3,877
No. Barrels	1	1.75	100.25	6,976	1,551	5,429
Barrel Slope, %	0.00	2.10	100.60	6,976	1,710	7,139
Headers, y/n	No	2.45	100.95	6,976	1,826	8,965
Stone Encasement, y/n	Yes	2.80	101.30	6,976	1,910	10,875
Encasement Bottom Elevation, ft	98.50	3.15	101.65	6,976	1,973	12,848
Encasement Width per Chamber, ft	8.00	3.50	102.00	6,976	2,008	14,856
Encasement Depth, ft	7.00	3.85	102.35	6,976	2,036	16,892
Encasement Voids, %	35.00	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

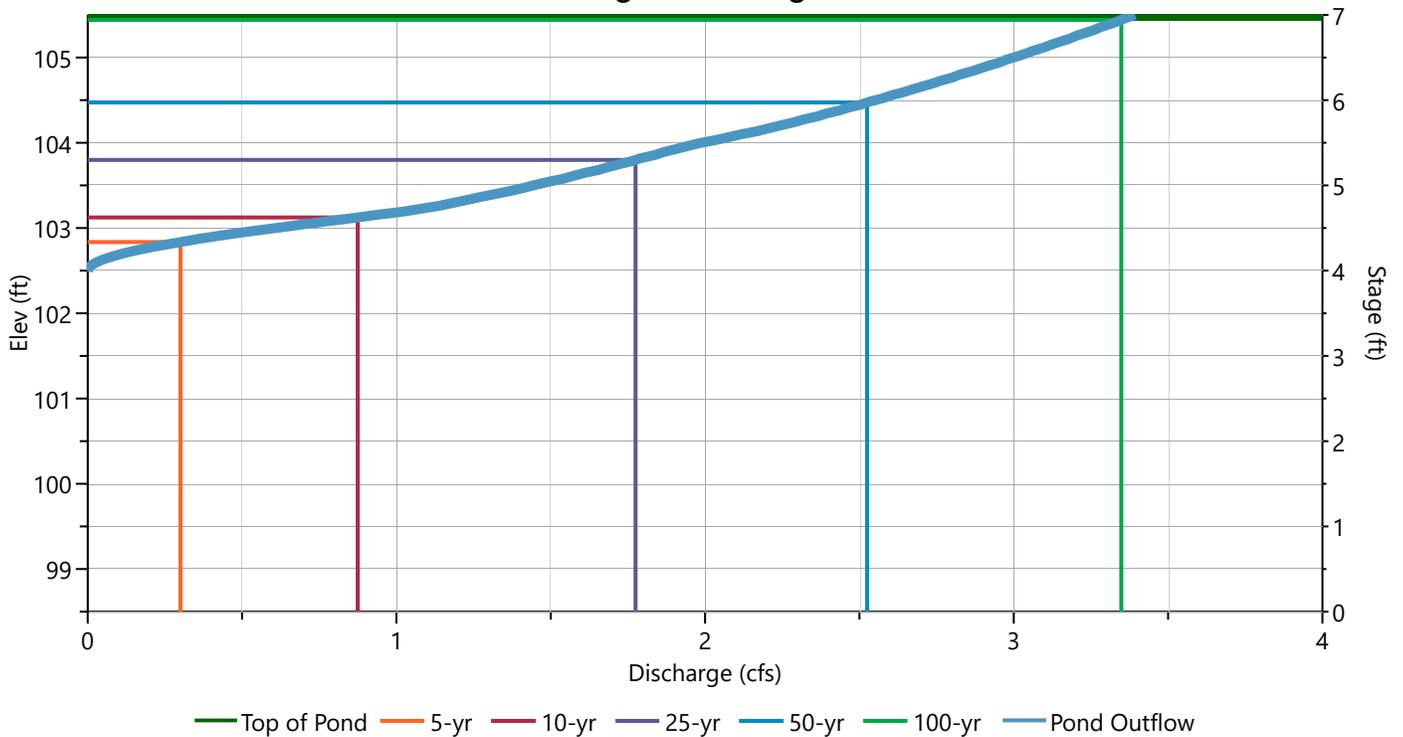
Retention System

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

Stage-Discharge



Pond Report

Retention System

Stage-Storage-Discharge Summary

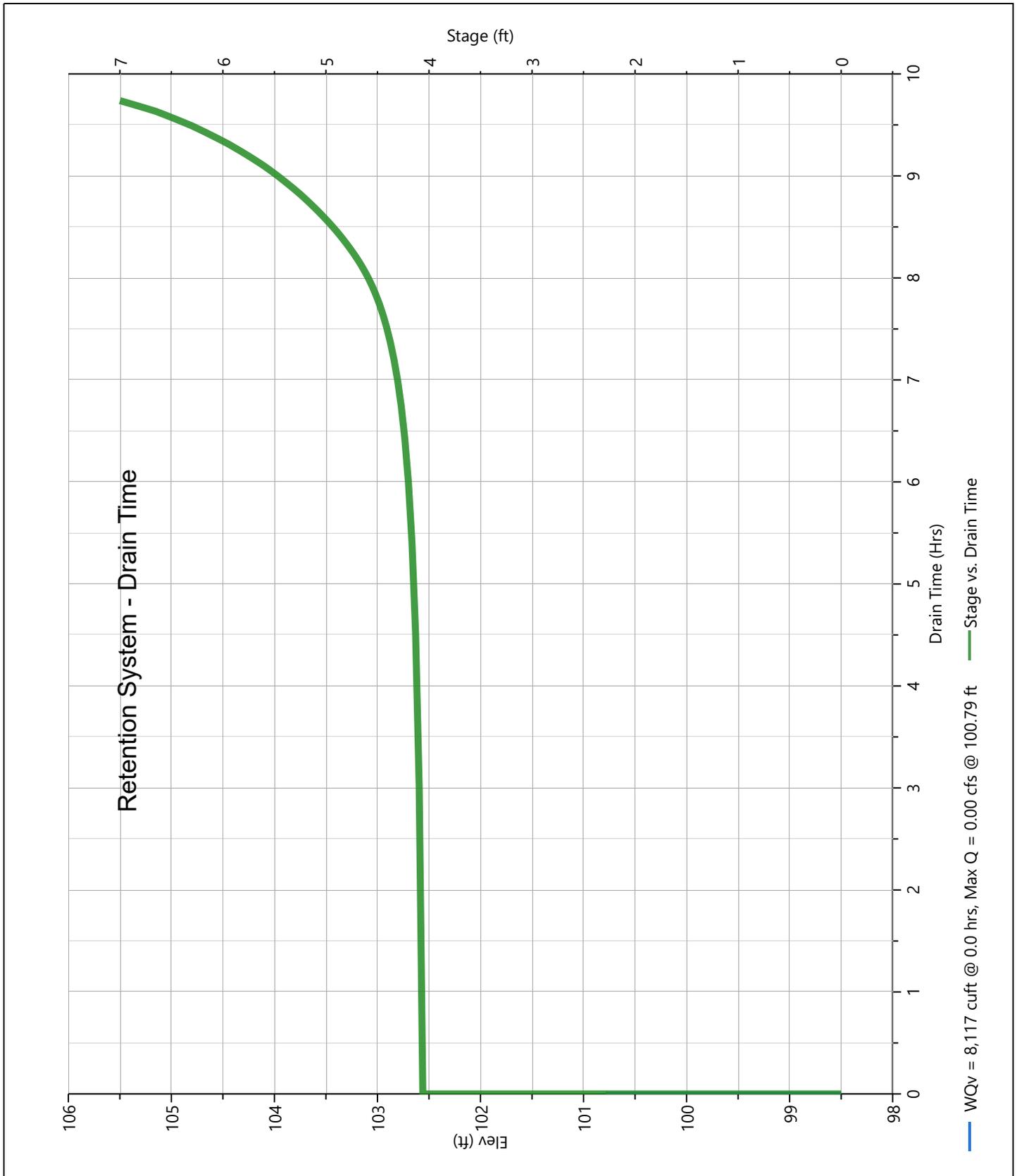
Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	98.50	0.000	0.000	0.000		0.000							0.000	
0.35	98.85	855	0.000	0.000		0.000							0.000	
0.70	99.20	1,709	0.000	0.000		0.000							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

Retention System

Extended Detention



IDF Report

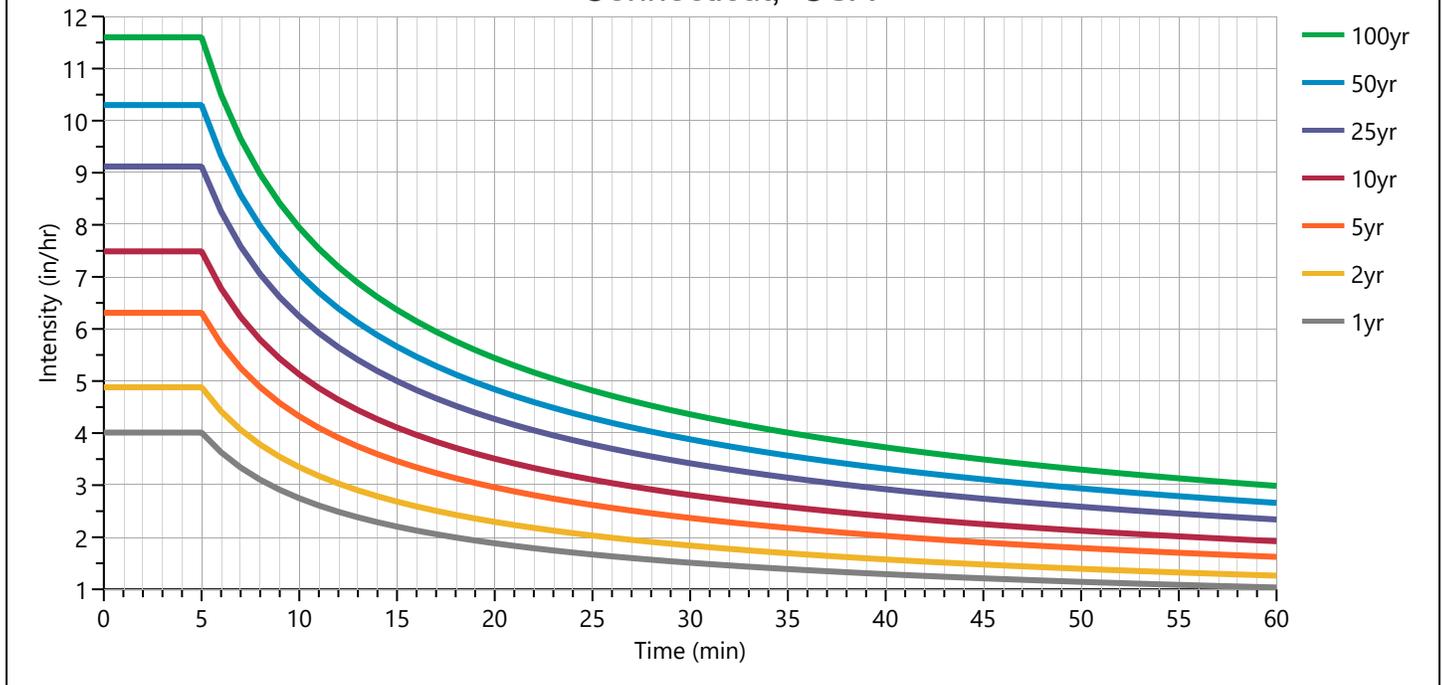
Equation Coefficients	Intensity = B / (Tc + D)^E (in/hr)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
B	9.6416	11.7197	0.0000	15.2067	18.0689	22.0099	24.7570	27.9374	
D	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
E	0.5451	0.5444	0.0000	0.5465	0.5472	0.5474	0.5449	0.5461	

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.

Connecticut, USA



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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 <u>80 PERCENT</u> 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 <u>60 PERCENT</u> 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 <u>80 PERCENT</u> 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	<u>13</u>	
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 INCOME²

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 income³; 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 income⁴, 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:			
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
\$ _____	\$ _____	\$ _____	\$ _____

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)
<u>1 bedroom:</u>		
Annual	\$ _____	
Monthly	\$ _____	\$ _____
 <u>2 bedroom:</u>		
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



Churchill Park

Clem Lemire
Recreation
Complex

Main St

Berlin Tpke

CT Transit
Bus Stop

Commercial
plazas

Multi-family
communities

Willard Ave

Louis St

Pascone Pl

Restaurants

CT Transit
Bus Stop



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,



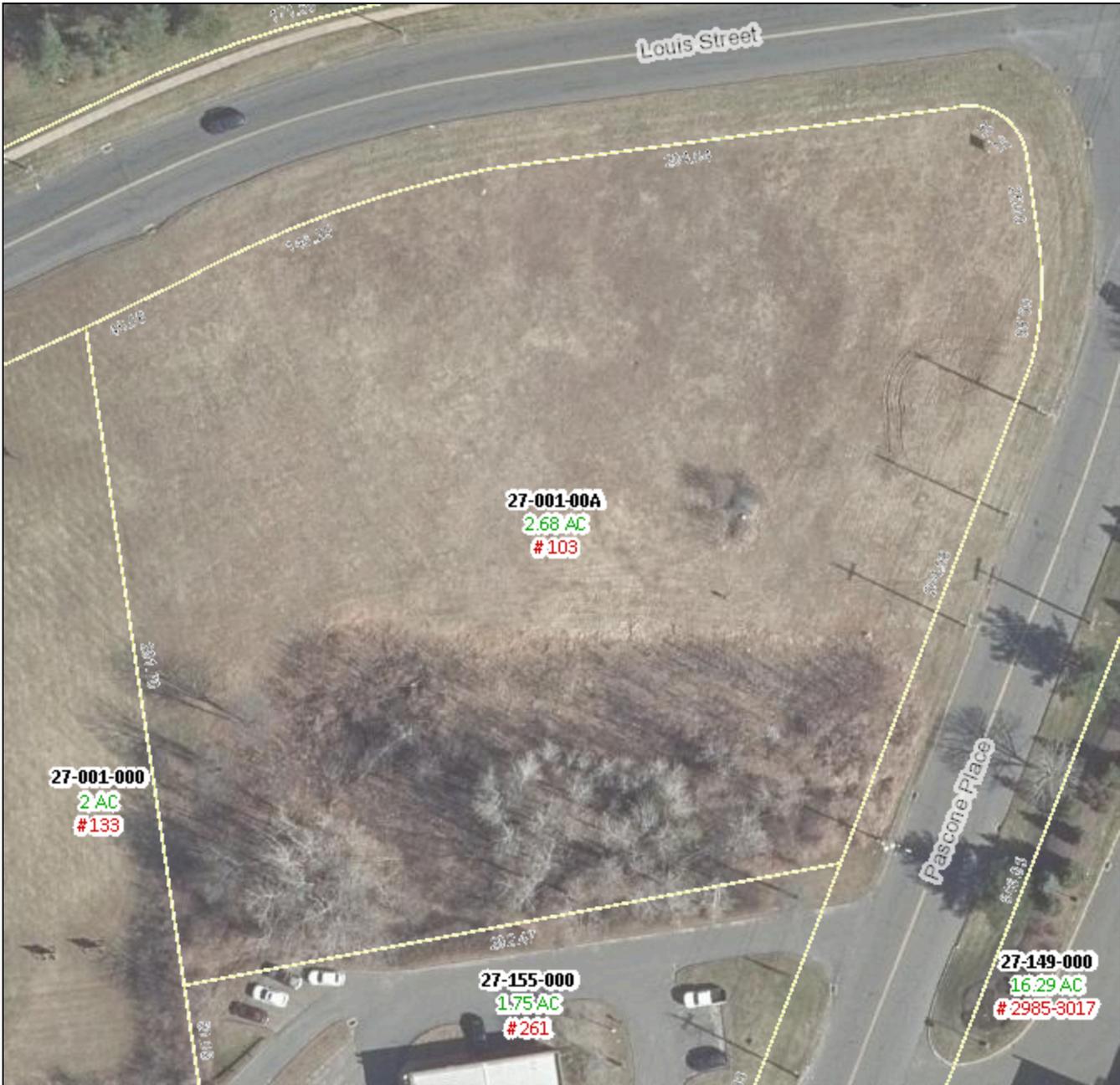
Ian T. Cole
Professional Registered Soil Scientist
Professional Wetland Scientist #2006

Town of Newington

Geographic Information System (GIS)



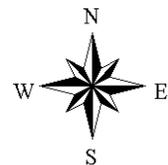
Date Printed: 8/18/2024



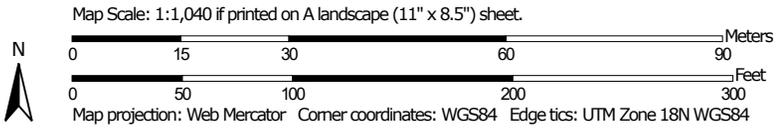
MAP DISCLAIMER - NOTICE OF LIABILITY

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 17, 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 Paul Dickson, Town Planner
Newington Town Plan & Zoning Commission of Newington
200 Garfield Street 200 Garfield Street
Newington, CT 06111 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. JOHNSON PC

12

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 construction documents for these projects. Extensive experience with numerous capacity analysis and traffic modeling programs and preparation of applications to OSTA.

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.

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 conveys 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.

LOTICIP 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 LOTICIP 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.

MEMORANDUM

TO: Newington Town Plan and Zoning Commission

FROM: Hinckley Allen & Snyder

CC: Premier Real Estate Services II, LLC

DATE: November 2025

RE: Affordable Housing Need in Newington and Surrounding Towns

This memorandum and the accompanying exhibits provide the Commission with data that will help it evaluate the need for affordable housing in Newington and surrounding towns.

I. Current Demand for Affordable Rental Housing

According to “The State of the Nation's Housing,” a 2024 study by the Joint Center for Housing Studies at Harvard University, the number of cost-burdened renters has “hit an all-time high as rents have escalated.” Tab A at 1. High interest rates, rising insurance/operating costs, and high construction costs have added further challenges to creating more affordable housing, which is in demand due in part to population increases. *Id.* at 1, 29. Moreover, the nation is still in the wake of the pandemic era surge in rental housing costs; for example, “rents remain up 26 percent nationwide since early 2020.” *Id.* at 2.

While it is true that development of market-rate rental housing has increased in recent years, production of affordable rental housing has not kept pace. In fact, the supply of low-income household rental stock has continued to decline, leaving such households even fewer housing options they can afford. “Between 2012 and 2022, the...market lost an astounding 4.0 million units with rents between \$600 and \$999.... The declining supply of these crucial units is attributable to rent increases among existing units, tenure conversions out of the rental stock, building condemnations, and demolitions.... Meanwhile, the supply of higher-rent units increased. The number of units...with rents of \$2,000 or more increased by 4.1 million. These changes have shifted the distribution of rents upward.” *Id.* at 30-31.

The combination of low affordable rental housing inventory, obstacles to developing more, higher costs of living and inflation, and rising population have resulted in the following: “Half of all renter households—22.4 million—were cost burdened at last measure in 2022, up 2 million since 2019 and the highest number on record. Likewise, the number of severely cost-burdened renter households—those spending more than half of household income on housing and utilities—also hit a new high of 12.1 million in 2022, up 1.5 million from pre-pandemic levels.” *Id.* at 2.

II. Current Affordable Rental Housing Situation

A. In Newington:

The Affordable Housing Appeals List is a report of the percentages of deed-restricted and governmentally-assisted affordable housing units for all of Connecticut's municipalities that is issued by the Connecticut Department of Housing (“DOH”). (It is not, strictly speaking, a measure of affordable housing need, but the legislature’s criterion for exemption from § 8-30g.) The 2024 list shows that 9.73% of the 13,219 dwelling units in Newington were counted as government subsidized or restricted in compliance with § 8-30g. *See* Tab B-1. As of 2004, 5.8% of Newington’s 12,264 dwelling units counted. *See* Tab B-2. Overall, the number of dwelling units in Newington has increased by approximately 8% in the past twenty years, yet the percentage of dwellings units restricted in compliance with § 8-30g has only risen 3.93%.

The Town of Newington issued its Plan of Conservation and Development on August 29, 2020. *See* Tab C-1. The Plan acknowledges that “Housing affordability is an issue throughout Connecticut and communities are recognizing that community vitality, community diversity, and economic development can all be enhanced by having a housing portfolio which includes affordable units.” *Id.* at 13. The Plan describes Newington’s rising demand to provide “housing options for a variety of household types, sizes, ages, tenures...income groups” and “housing that is more affordable for younger and older age groups....” *Id.* at 59.

Newington adopted its Affordable Housing Plan on May 25, 2021. *See* Tab C-2. The Plan similarly acknowledges the need for more affordable rental housing: “the Town has come to realize that the existing housing stock...does not meet the housing needs of everyone.... For example, existing housing units may not be well configured to meet the housing needs of older persons and people, young and old, earning less than the average income have a harder time finding housing to meet their needs at a price they can afford.” *Id.* at 1. Overall, “almost 3,500 Newington households are spending more than 30 percent of their income on housing.” *Id.* at 10.

The Partnership for Strong Communities’ 2024 Housing Data Profiles for Newington reveals that 30% of renters in Newington are cost-burdened, a sharp contrast to the percentage of cost-burdened homeowners, 22%. *See* Tab D at 4. Declining housing production, coupled with a rising population, will likely exacerbate this problem. Indeed, Newington’s population has increased by 2.7% between 2020 and 2023, yet the number of building permits issued has decreased by 50% in the past thirty years. *Id.* at 1, 2.

B. In the Region:

In the Capitol Region Council of Government area,¹ 47% of renters are burdened by the cost of housing. *Id.* at 11. In “Out of Reach 2024,” a study published by the National Low

¹ Comprising Andover, Avon, Berlin, Bloomfield, Bolton, Canton, Columbia, Coventry, East Granby, East Hartford, East Windsor, Ellington, Enfield, Farmington, Glastonbury, Granby, Hartford, Hebron, Manchester, Mansfield, Marlborough, New Britain, Newington, Plainville,

Income Housing Coalition, an average full-time (40-hour per week) worker in the Hartford-West Hartford-East Hartford HMFA has to earn \$31.81 an hour, or \$66,160 annually, to be able to afford a basic two-bedroom apartment. *See* Tab E at CT-50. Yet, the estimated hourly mean wage of renters living in the Hartford-West Hartford-East Hartford HMFA totaled only \$20.30 an hour. *Id.* This disparity in the cost of housing versus the actual income of the tenants who live in the Hartford-West Hartford-East Hartford HMFA creates a significant demand for more affordable rental housing.

C. In Connecticut:

“Out of Reach 2024” ranks Connecticut as the eleventh most expensive state in the United States with regard to housing. *Id.* at 16. An average full-time worker in Connecticut has to earn \$34.54 an hour, or \$71,837 annually, to be able to afford a basic two-bedroom apartment unit. *Id.* at 17. However, the estimated hourly mean renter wage in Connecticut is only \$22.30 an hour, another significant disparity in the cost of housing versus hourly renter wage. *Id.* The outlook for renters earning minimum wage in CT, \$15.69 an hour, is even more grim. A renter earning minimum wage would need to consistently work over 88 hours a week to afford a basic two-bedroom apartment. *Id.* at CT-49.

A report by the Partnership for Strong Communities entitled “Housing in Connecticut 2020” reveals that “[n]early 120,000 Connecticut households spend over half of their income on rental housing (including rent and utilities).” Tab F, p. 1. Obstacles for improving this statistic will soon ripen, because “in the next five years [or 2025], 4,843 publicly supported rental homes in Connecticut are set to have their affordability restrictions expire.” *Id.* Of the remaining inventory of affordable rental homes, the report lists Connecticut as having the fifth oldest housing stock of any state in the country, “[a]n estimated 2,230 units of public housing in Connecticut are in need of immediate investment.” *Id.* at 2. The report also suggests Connecticut has fallen behind other states in term of creating more multifamily housing, “In 2018, Connecticut ranked second-to-last of U.S. states in permit issuance rate, with a rate of 1.3 permits per 1,000 residents.” *Id.* at 1.

The report explains how the affordability crisis is impacting Connecticut renters, “they are forced to spend less on other needs, such as food, healthcare, and childcare. In turn, local businesses are negatively affected by residents’ lack of income for other essentials.” *Id.*

III. The Myth of Fiscal and Value Impacts

Recent studies have documented that mixed-income developments and affordable housing have no impact on home values in the communities where they are built. *See* Tabs G-1 – G-2.

In addition, recent findings show that one- and two-bedroom rental apartments have negligible impact on municipal and school expenditures. *See* Tab H.

Rocky Hill, Simsbury, Somers, South Windsor, Southington, Stafford, Suffield, Tolland, Vernon, West Hartford, Wethersfield, Willington, Windsor, and Windsor Locks

IV. **What Affordable Housing Looks Like**

Local officials from Kent, Avon, Darien, West Harford, and Wallingford assessed mixed-income housing developments built in their communities. *See* Tab I. For photographs of affordable housing built across the country, *see* Tab J.

V. **“House Poor” American Homeowners**

The New York Times published an article outlining how the number of “house poor” Americans now exceeds 27%. This means that 27% of US households are spending in excess of thirty percent (30%) of their income solely on housing. *See* Tab K.

VI. **Don’t Call This Affordable Housing**

The New York Times published an article showing that affordable housing does not need to have the stigma of being labeled as “affordable.” *See* Tab L.

VII. **Rework Regulations to Ease Housing Shortage**

The Day published an opinion letter stating that the inconsistency in zoning regulations, which vary greatly town by town, contributes to the shortage of affordable housing. Commission members may also not be trained in the complex nuances of land use and development. The article suggests that the State of Connecticut should prepare uniform regulations by region, with assistance from land use professionals, such as engineers. The letter argues that doing so will make it easier to build more affordable housing. *See* Tab M.

VIII. **A Unique Stand on Affordable Housing**

The Hartford Courant published an article reporting on a recent affordable housing development in Orange, CT. The development not only benefited those residents with lower incomes, it also benefited elderly and physically disabled individuals. The article submits that more towns should contribute their “Fair Share” of affordable housing for the benefit of those individuals who require it. *See* Tab N.

IX. **CT Ranks Worst State in the U.S. for Renters, Study Finds**

The *CT Mirror* published an article reporting that Connecticut has the worst environment for renters due to an unemployment rate higher than the national average, lower number of available rental units, and the advanced age of available rental units. *See* Tab O.

X. **Study: CT Homeownership Costs Among Highest in U.S. What to Know**

The Hartford Courant published an article reporting that Connecticut ranks among the highest in terms of homeownership costs. Specifically cited are large increases in homeowners’ insurance and taxes. *See* Tab P.

XI. **Memo to Interested Parties re General Statutes 8-30g Housing Units Produced**

Attorneys Timothy Hollister and Andrea Gomes authored a memo providing an updated number of housing units that have been built pursuant to § 8-30g since its enactment in 1990. The memo concludes that “in total, conservative and reasonable estimates are that § 8-30g has spurred the creation of about 8,500 units that are affordable in compliance with § 8-30g or an applicable government assistance program, and about 18,000 market-rate units in set aside developments constructed pursuant to § 8-30g.” *See* Tab Q at 2.

XII. **122 Wilton Road: Affordable Apartments “Life-Changing” For Local Residents**

A recent post in the local Westport blog “06880 Where Westport meets the word” captured the reactions of Westport residents to a recent affordable housing development. *See* Tab R. While many were initially apprehensive, their opinions changed once the tenants moved in, “Every resident of 122 Wilton is a ‘productive member of society’ They have at least one job. They work hard, serve employers and customers, pay taxes, and have hopes and dreams for the future. ‘This building will allow these people an opportunity to live in this wonderful town,’ where some already work.” *Id.* at 2. Tenants that moved there stated the opportunity was “life-changing,” including a young family that was able to give their two-year-old daughter her own room by moving from a one-bedroom to a two-bedroom apartment; and an older, disabled Westport resident who feared having to leave his local job due to the increased cost of housing. *Id.* at 3-4.

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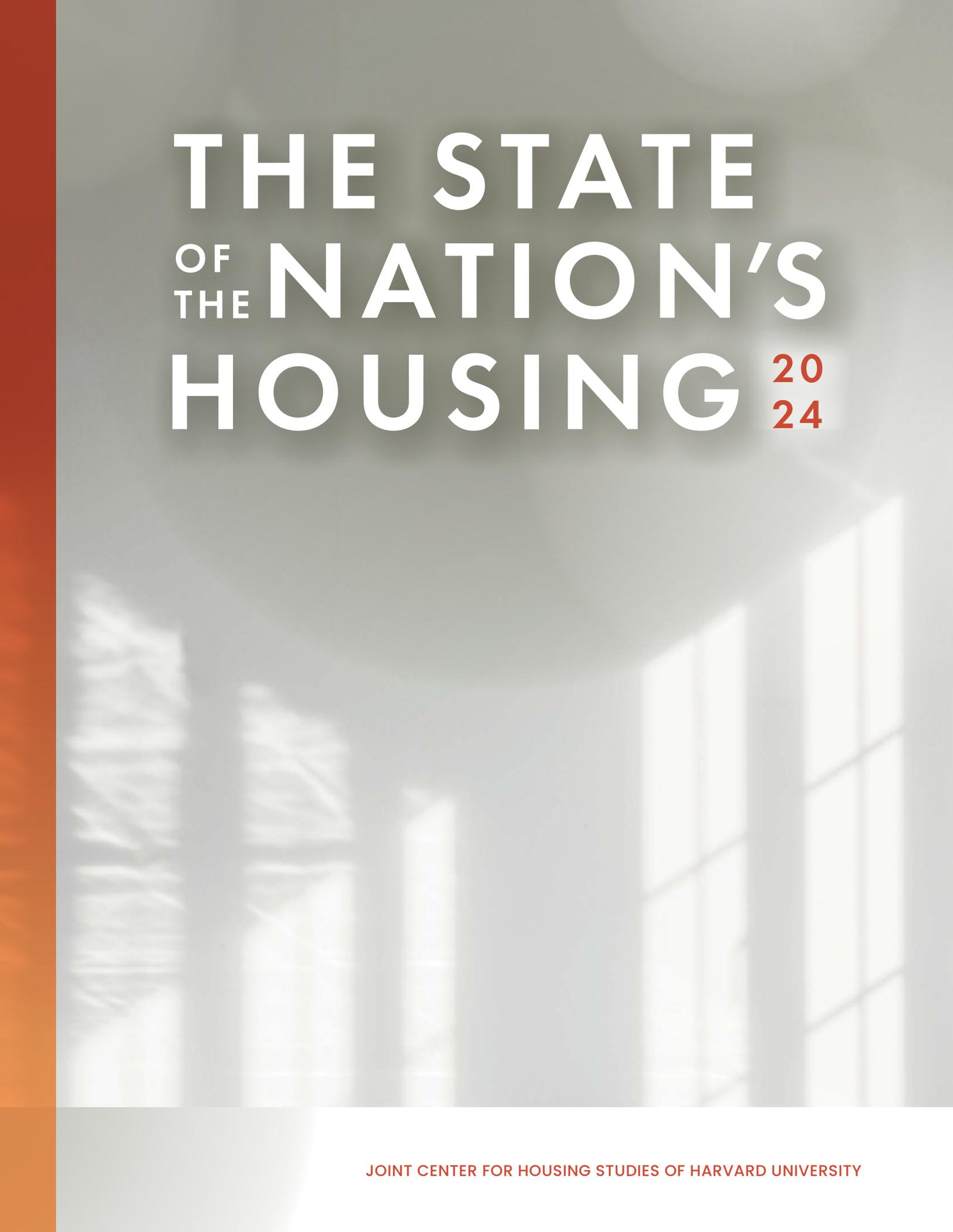
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THE STATE OF THE NATION'S HOUSING

20
24

EXECUTIVE SUMMARY

Both homeowners and renters are struggling with high housing costs. On the for-sale side, millions of potential homebuyers have been priced out of the market by elevated home prices and interest rates. Homeowner cost burdens are also on the rise, driven by growing taxes and insurance costs. For renters, the number with cost burdens has hit an all-time high as rents have escalated. While single-family construction is accelerating and a surge of new multifamily rental units is slowing rent growth, any gains in affordability are likely to be limited by robust household growth, ongoing development constraints, and high construction costs. All stakeholders must work together to address the affordability crisis and many related urgent housing challenges, including the inadequate housing safety net, the record number of people experiencing homelessness, and the growing threat of climate change.

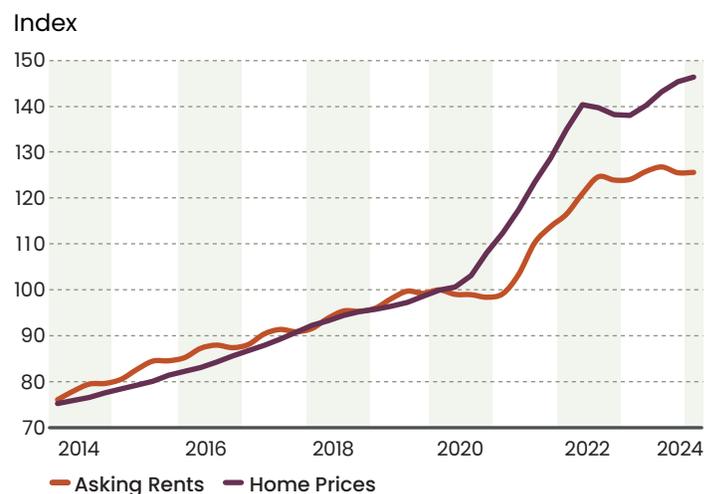
Housing Costs Continue to Rise

Lack of affordability defines both the for-sale and the for-rent housing markets. Home prices rebounded to a new all-time high in early 2024 despite persistently elevated interest rates. After declining briefly in early 2023, home prices ended the year up 5.6 percent annually and continued to rise in early 2024 at an annual rate of 6.4 percent in February, according to the S&P CoreLogic Case-Shiller US National Home Price Index. With these gains, the US home price index is now up 4.0 percent from its previous June 2022 peak and has jumped a whopping 47 percent since early 2020 (Figure 1).

Home price growth was widespread in early 2024, occurring in 97 of the top 100 markets, with higher increases in the Northeast and Midwest and more muted growth in the South and West. Additionally, home insurance premiums grew an average of 21 percent between May 2022 and May 2023 alone, according to Policygenius, and property taxes are on the rise, further increasing the cost of homeownership.

Figure 1

Housing Costs Remain Elevated After Pandemic-Era Surges



Notes: Asking rents are for professionally managed apartments in buildings with five or more units. Prices and rents are indexed to 100 in 2020:1. Home prices are seasonally adjusted and are an average of January and February data in 2024:1. Source: JCHS tabulations of RealPage data; S&P CoreLogic Case-Shiller US National Home Price Index.

In the rental market, although rent growth slowed to just 0.2 percent year over year in early 2024, rents remain up 26 percent nationwide since early 2020 after rapid pandemic-era growth. Rents are rising in three out of every five markets, including in much of the Midwest and Northeast. Declines were contained mostly to markets in the West and South, though rents there were still up from pre-pandemic levels by an average of 21 and 28 percent, respectively.

Cost Burdens Hit Record Highs

In the face of rising housing costs, burden rates are increasing. The number of cost-burdened homeowners, those who spend more than 30 percent of household income on housing and utilities, grew by 3 million to 19.7 million between 2019 and 2022. Nearly one in four homeowner households (23.2 percent) are now stretched worryingly thin, including 27.4 percent of homeowners age 65 and over.

Households earning less than \$30,000 annually constituted over half of the growth in cost-burdened homeowners from 2019 to 2022. While such burdens are difficult for any household, they present distinct challenges for these homeowners. During this period,

homeowners with incomes under \$30,000 saw their residual incomes—the amount of money left over each month after paying for housing and utilities—fall 18 percent to just \$627 after adjusting for inflation, forcing tough choices among daily necessities, basic home maintenance and repairs, and possibly accessibility improvements.

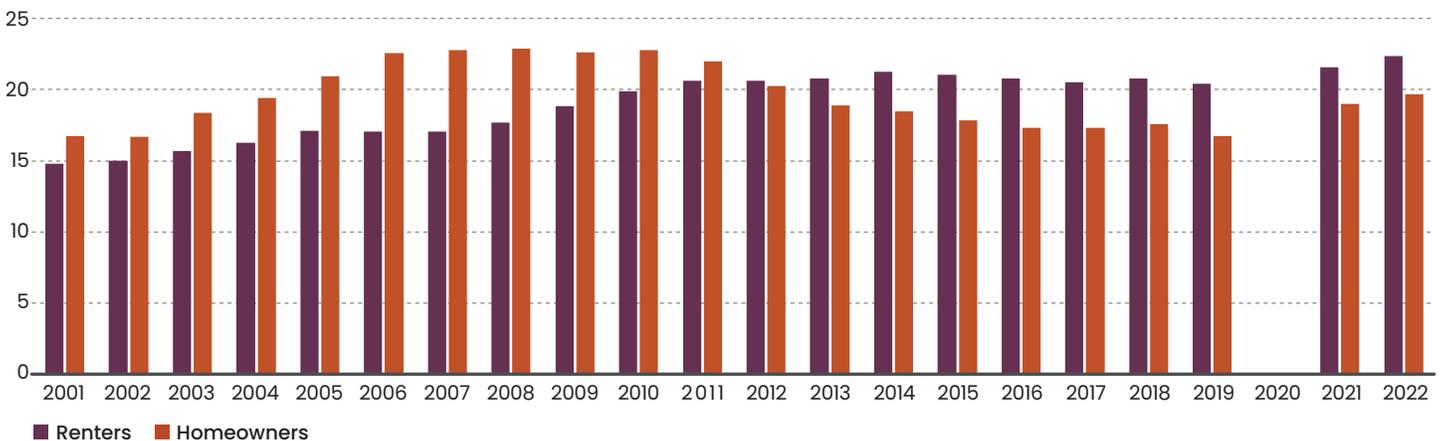
For renters, the landscape is even more challenging. While rents have been rising faster than incomes for decades, the pandemic-era rent surge produced an unprecedented affordability crisis. Half of all renter households—22.4 million—were cost burdened at last measure in 2022, up 2 million since 2019 and the highest number on record (**Figure 2**). Likewise, the number of severely cost-burdened renter households—those spending more than half of household income on housing and utilities—also hit a new high of 12.1 million in 2022, up 1.5 million from pre-pandemic levels.

Among renters, cost-burden rates have increased across the income spectrum. Still, renters with the lowest incomes have the highest cost-burden rates. Fully 83 percent of renter households earning less than \$30,000 annually were cost burdened in 2022, including 65 percent (9.4 million households) with

Figure 2

Cost Burdens Hit New High for Renters While Also Rising for Homeowners

Cost-Burdened Households (Millions)



Notes: Cost-burdened households spend more than 30% of income on housing and utilities. Estimates for 2020 are omitted due to data collection issues experienced during the pandemic.

Source: JCHS tabulations of US Census Bureau, American Community Survey 1-Year Estimates.

severe burdens. Renters with the lowest incomes have a median of just \$310 per month in residual income to cover all non-housing needs.

More than half of Black (57 percent), Hispanic (54 percent), and multiracial (50 percent) renter households were cost burdened at last measure in 2022. Rates were lower for white (45 percent), Asian (44 percent), and Native American (44 percent) households. While racial income inequality explains some of the difference, burden rates remain disproportionately high for lower-income renters of color, at 85 and 87 percent for Black and Hispanic renters, respectively, as compared to 80 percent of their white counterparts.

Household Growth Still High

Despite high housing costs, household growth remained robust through last year. The nation gained 1.7 million households between 2022 and 2023, according to the Housing Vacancy Survey. Though lower than the previous year’s 1.9 million new households, this is still a significant uptick from the 1.1 million annual pace averaged in the 2010s.

This growth is driven largely by Gen Zers (born 1995–2009) benefiting from the healthy labor market and

millennials (born 1980–1994) who got a late start on forming their own households because of the Great Recession. Additionally, the large population of baby boomers is increasing the number of older households.

Another major contributor to robust household growth is ballooning immigration, which peaked at 3.3 million in 2023 according to the Congressional Budget Office, after averaging 919,000 annually in the 2010s. The majority of this increase is asylum seekers facing challenges that will slow their housing trajectories. But household growth may remain strong for some time, as this population will eventually form households.

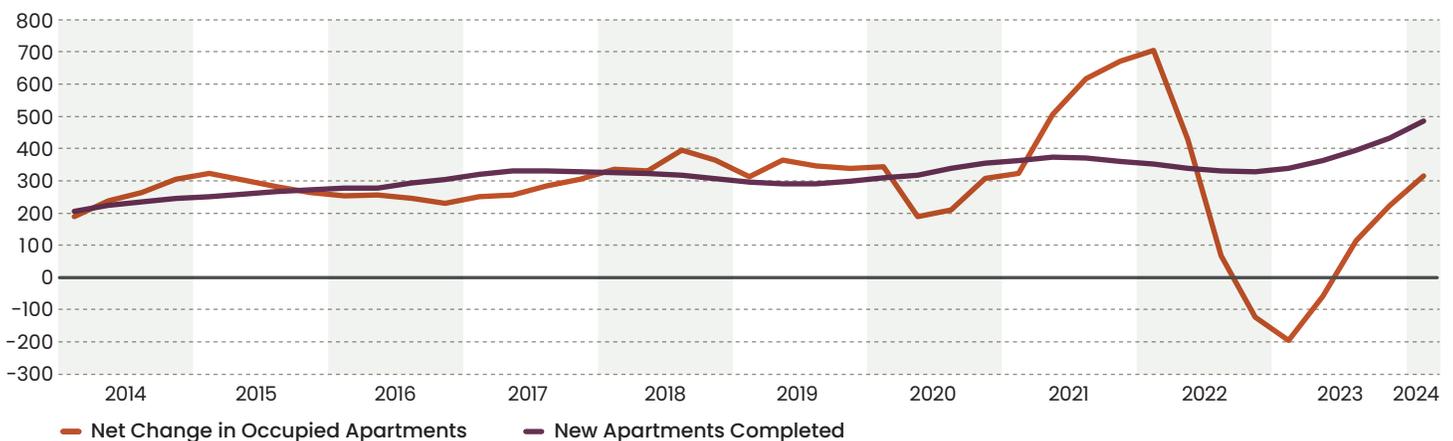
New Units Soften Rental Market

Multifamily completions rose by 22 percent to 449,900 in 2023, the highest annual level in more than three decades, and the number of units under construction in March 2024 remained near the record high. As these units have come online, they have outnumbered even sizeable increases in new renter households, and so the rental market has cooled slightly (**Figure 3**). RealPage reports vacancy rates in professionally managed apartments rose to 5.9 percent at the beginning of 2024, more than twice the record low of 2.5 percent recorded in early 2022.

Figure 3

Supply of New Apartments Is Outpacing Rental Demand

Units in Professionally Managed Properties (Thousands)



Note: Estimates are four-quarter rolling totals for professionally managed apartment buildings with five or more units. Source: JCHS tabulations of RealPage data.

At the same time vacancies have risen, so have operating costs, straining property owners' balance sheets. As of January 2024, apartment operating expenses increased by 7.1 percent year over year, according to Yardi Matrix, led by a 27.7 percent nationwide average increase in owners' insurance premiums. Against this backdrop, net operating income growth fell to 2.8 percent in the first quarter of 2024, down from 8.1 percent a year earlier. These declines affected valuations: apartment property prices fell in 2023 for the first time in more than a decade, down more than 10 percent nationwide by the end of the year, according to Real Capital Analytics. By March 2024, prices were falling 8.4 percent year over year.

Slowing revenues, combined with the rising cost of both debt and equity, make new multifamily projects more difficult to finance. Multifamily construction starts have plummeted from an annualized rate of 531,000 units in the first half of 2023 to just 343,000 units in the first quarter of 2024. This decline will slow the pace of new unit additions, but only after markets work through the backlog of units currently under construction.

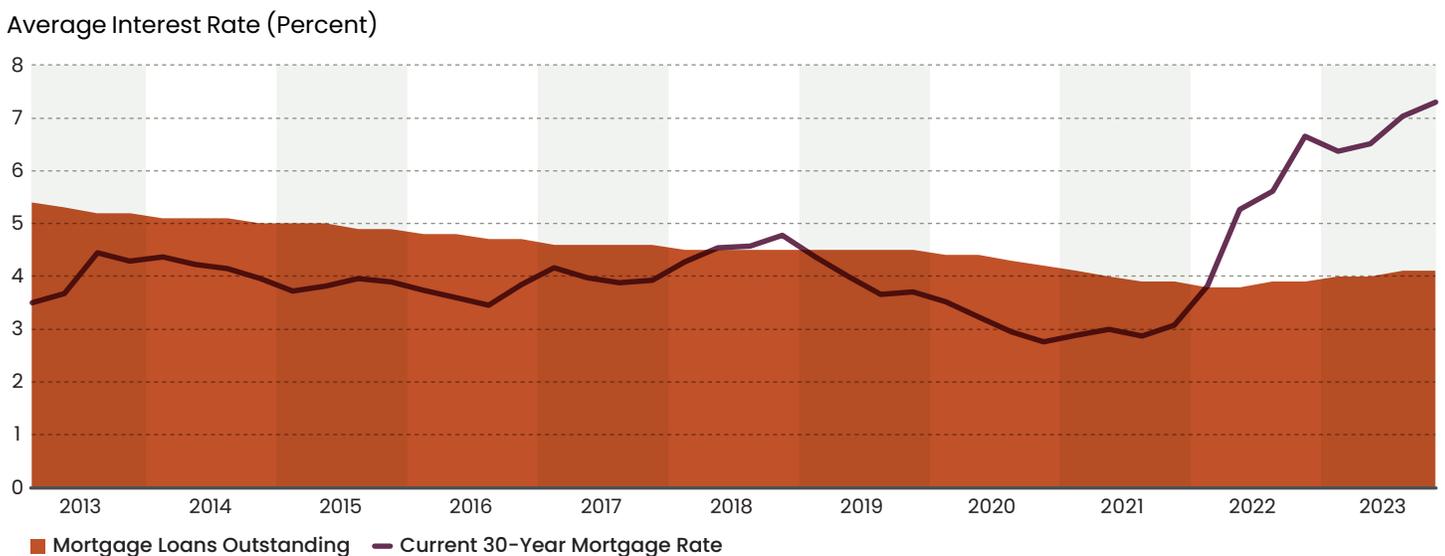
Low For-Sale Inventories Lead Homebuyers Toward New Homes

Existing homes for sale remain in short supply. Just 1.1 million homes were available for purchase in March 2024, down from 1.7 million in March of 2019, according to the National Association of Realtors (NAR). This is just 3.2 months of supply, even with the current reduced sales rate. Annual existing home sales dropped 19 percent to 4.1 million in 2023, nearly a 30-year low.

The shortage of homes for sale is due largely to the "lock-in" effect whereby current homeowners with below-market interest rates are disincentivized to move. Though the 30-year mortgage interest rate is hovering around 7 percent, the average interest rate on outstanding residential mortgages is just over 4 percent (Figure 4). This rate spread incentivizes current homeowners to stay put, dramatically reducing the number of homes available for sale.

Figure 4

Homeowners' Average Mortgage Rate Is far Below the Current Market Rate



Source: JCHS tabulations of Federal Housing Finance Agency, National Mortgage Database; Freddie Mac, Primary Mortgage Market Surveys.

With few existing homes for sale, aspiring homebuyers are turning to new construction. New home sales increased by 4 percent in 2023, constituting 15 percent of all single-family home sales compared to 12 percent just two years earlier. Though down for the year in 2023, single-family starts rose to an annualized rate of 1.06 million units in the last quarter, a 25 percent year-over-year increase.

While homebuilders are increasingly delivering smaller, lower-cost options, construction of entry-level housing is still hampered. Constraints from restrictive zoning and regulatory policies, skilled labor shortages, financing limitations, and other challenges increase the costs and reduce the amount of development. Alternative construction techniques, such as modular and manufactured housing, help to provide housing at a wider range of price points and fill supply gaps. Manufactured housing construction costs can be as little as 35 percent of an equivalent site-built home, but production remains just a fraction of levels from previous decades.

In response to the housing shortage and widespread concerns about affordability, an increasing number of state and local governments are removing supply barriers. Some local areas have changed zoning to allow a range of housing types on land previously zoned exclusively for single-family development, and a handful of states have preempted local zoning codes to do so. Other places are repurposing underutilized land for development. One example is California, which has also relaxed permitting and environmental review requirements to make projects easier, quicker, and less costly. Several cities, such as Charlottesville, Virginia, and Cambridge, Massachusetts, have removed minimum parking mandates. The US Department of Housing and Urban Development (HUD) is helping to spur these efforts by granting \$85 million to help states, cities, and metropolitan planning organizations identify and address zoning, land use, and regulatory barriers to housing production.

Homeownership Increasingly Out of Reach

The high affordability hurdle has reduced the number of first-time homebuyers and slowed the growth in homeownership over the past year. According to the Housing Vacancy Survey, the homeownership rate for households under age 35—a key first-time homebuyer demographic—fell 0.4 percentage points over the last year as first-time homebuying dropped. As a result, the US homeownership rate across all age groups inched up just 0.1 percentage points in 2023 to 65.9 percent, the smallest increase since 2016.

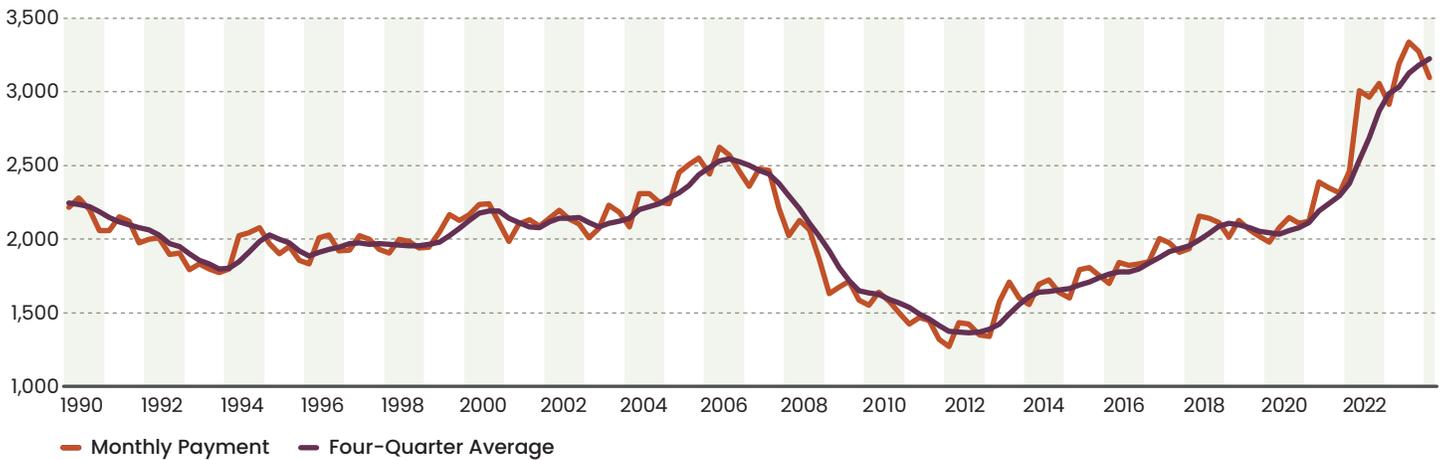
Atop the rebound in home prices, persistently high mortgage interest rates have further limited access to homeownership for many potential first-time buyers. The rate on the 30-year fixed-rate mortgage peaked in October 2023, hitting 7.79 percent, the highest in more than 20 years, according to the Freddie Mac Primary Mortgage Market Survey. After a brief dip in early 2024, rates were again over 7.0 percent by mid-April, more than twice the 3.0 percent rate averaged across 2020 and 2021.

This combination of rising interest rates and home prices pushed the median payment on home mortgage applications up \$108 over the past year (to \$2,201), according to the Mortgage Bankers Association, and the median is now up more than \$850 over the last three years. For the low-downpayment loans commonly pursued by first-time buyers, the total monthly payment on the median-priced home is now \$3,096 after taxes and insurance (**Figure 5**). To afford such a high payment under common payment-to-income ratios, a borrower would need an annual income of at least \$119,800, a threshold just one in seven (6.6 million) of the nation's 45 million renter households can meet. It now takes an annual household income of at least \$100,000 to afford the median-priced home in nearly half of all metro areas.

Figure 5

Monthly Payments on the Median-Priced Home Now Exceed \$3,000

Monthly Housing Payment on Median-Priced Home (2024 dollars)



Notes: Payments are inflation adjusted using the CPI-U for All Items Less Shelter. Monthly payments assume a mortgage with a 3.5% downpayment on a 30-year fixed-rate loan with zero points and 0.55% mortgage insurance, 0.35% property insurance, and 1.15% property tax rates.

Source: JCHS tabulations of Freddie Mac, Primary Mortgage Market Surveys; National Association of Realtors, Existing Home Sales.

Although rising home prices are a barrier for first-time buyers, the recent rapid home price appreciation has provided substantial equity gains for many homeowners. According to CoreLogic, the average home equity among owners with mortgages increased \$24,000 in 2023 and \$119,900 over the past four years. As of the fourth quarter of 2023, the average mortgaged home equity is a substantial \$298,000. Many current homeowners, especially those with higher incomes, are also enjoying the benefits of past historically low mortgage interest rates. Having locked in fixed rates with lower monthly payments, homeowners as a whole are paying less on housing debt service as a percentage of income than at any time since 1980.

Barriers to Narrowing Racial Homeownership Gaps

The higher costs of homebuying have hampered efforts to reduce the wide racial homeownership rate gaps. As of the first quarter of 2024, the Hispanic (49.9 percent) and Black (46.6 percent) homeownership rates are significantly lower than that of white households (74.0 percent). While these gaps have remained largely unchanged over the past 30 years, some incre-

mental progress had been made: growth in Black and Hispanic homeownership rates slightly outpaced the US average beginning in 2019 and through the majority of the pandemic. However, continuing even those modest gains became increasingly difficult in 2023 as the rising cost of homeownership disproportionately priced out most Hispanic and Black renter households. By the first quarter of 2024, just 8 percent of Black and 13 percent of Hispanic renter households had sufficient annual income to afford monthly mortgage payments on the median-priced home, as compared to 16 and 29 percent of their white and Asian counterparts, respectively.

Households of color face other disadvantages, too, including a lack of access to the intergenerational transfers of wealth that serve as a downpayment for many white homebuyers and a more difficult time accessing mortgage financing. Initiatives that offer downpayment assistance and increase access to affordable credit can help address these barriers. Special purpose credit programs that allow lenders to tailor affordable lending programs to specific populations with a history of disparate treatment, including racial groups, can further assist renters of color in transitioning to homeownership.

Expanding the Housing Safety Net

Growing numbers of income-eligible households need housing assistance but don't get it. The number of very low-income renter households increased by 4.4 million from 2001 to 2021, while the number of assisted households increased by just 910,000. As of 2021, three in every four income-eligible renter households go without help. Additionally, a record-high 8.5 million of these very low-income households had worst case housing needs, spending more than half their income on housing or living in severely inadequate housing, according to HUD.

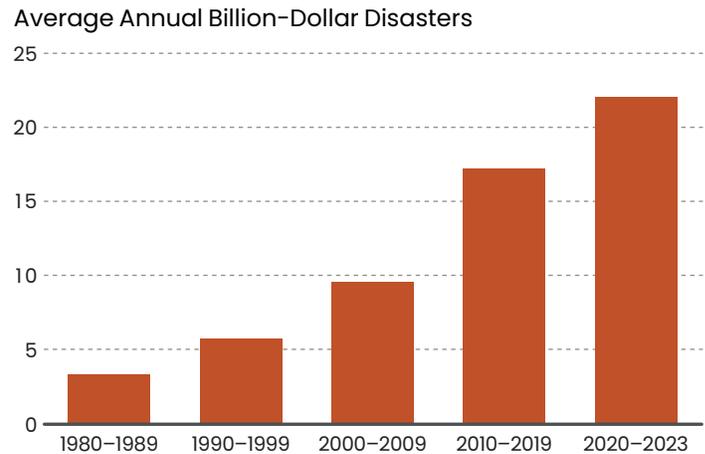
Given the hardships facing the vast majority of renters with very low incomes, expanding assistance is imperative. But federal funding has not grown to meet the rising need, and as housing costs increase, simply maintaining current levels of support requires more funding each year. In need of additional resources, many state and local governments are expanding their funding for housing assistance. They've been aided by roughly \$3 billion generated annually through housing trust funds, multifamily private activity bonds that totaled \$17.2 billion at last measure in 2020, and nearly \$18 billion allocated to housing needs through American Rescue Plan state and local fiscal recovery funds. While every bit helps, these efforts pale in comparison to the scope of the housing crisis, and increased federal resources are critical to meaningfully addressing the need.

As housing costs have risen, so has the number of people experiencing homelessness, reaching a record-high 653,100 people in 2023. The unsheltered population also hit an all-time high of 256,600 last year, following an increase of nearly 23,000 people from the previous year. Though the recent migrant crisis explains some of this growth, much of the increase reflects the end of pandemic protections, rapidly rising rents, and the already meager housing safety net.

As one piece of a broader federal strategy, in early 2024 HUD awarded a record \$3.2 billion through its Continuum of Care program to provide housing

Figure 6

Costly Climate Change-Related Disasters Are Increasing



Source: JCHS tabulations of National Oceanic and Atmospheric Administration, Billion-Dollar Weather and Climate Disasters.

opportunities and services for people experiencing homelessness. This program, in conjunction with other resources like Emergency Housing Vouchers, enabled HUD to help more than 424,000 households exit or avoid homelessness in 2023. Funding for homelessness assistance, prevention, and rehousing programs is crucial, but these programs can only go so far, given the lack of permanently affordable housing.

The Growing Threat of Climate Change to the Nation's Housing Stock

The housing stock is increasingly at risk of damage from severe hazards. The number of billion-dollar disasters related to climate change has grown from an annual average of 3 in the 1980s to 28 in 2023 alone (**Figure 6**). At last count, 60.5 million housing units were located in areas with at least moderate risk, according to the Federal Emergency Management Agency (FEMA) National Risk Index. An effective response requires both structural adaptations and financial resources to increase household, building, and land resiliency, and to reduce future risks by shrinking the residential sector's carbon footprint.

Federal resources are available to shore up the housing stock against the impacts of hurricanes, floods, wildfires, and other hazards. Eligible activities are property acquisition, retrofits, floodproofing, and long-term planning, among other strategies. Yet FEMA's hazard mitigation programs deliver an average of less than \$2 billion annually to states and tribal nations, and significantly more resources and strategies are needed to increase properties' resiliency. To date, the bulk of the funding has been dedicated to recovery and adaptation after a disaster. The programs help the hardest-hit households and communities after an event but are not designed to make households whole. This approach could leave critical needs unmet at a moment of extreme household vulnerability.

The best way to reduce the threat of climate change to the nation's housing stock is to reduce the carbon footprint of the residential sector, responsible for a stunning 18 percent of US greenhouse gas emissions. While improved construction materials and techniques have helped new homes to become more energy efficient, great potential lies in retrofitting older homes. However, the upfront cost of retrofits can be significant and a barrier to implementation. To help reduce costs, the Inflation Reduction Act of 2022 allocated more than \$9 billion for rebates and expanded property owner tax credits, and another \$27 billion to leverage financing for community and residential energy-efficiency improvements, among the largest such federal investments. Along with additional resources for the Weatherization Assistance Program through the Infrastructure Investment and Jobs Act of 2021 and various state resources, there is a concerted effort to mitigate housing's impact on climate change and reduce household energy burdens.

The Outlook

Looking forward, housing costs are likely to remain high. On the for-sale side, home prices are set to rise in the face of highly constrained supply, prolonging this unusually difficult market for first-time homebuyers. On the rental side, there may be some affordability

gains in the near term. Wage growth is high and the nearly 1 million new multifamily units currently under construction will soon come online, suppressing rent growth. But subdued rent growth will not last long. New construction starts are dropping rapidly, and financial conditions are increasingly impeding multifamily development projects.

Further pressuring the housing markets are the nation's shifting demographics. Housing demand will remain strong in the near term, fueled by the immigration surge, household formations among Gen Zers, and the large millennial generation's shifting housing needs. However, demand is expected to slow over the longer term. Native-born population growth is decelerating and will soon turn negative as baby boomer mortality rates overtake birth rates. Immigration will then become the primary, albeit much less predictable, source of population and household growth.

Households across the income spectrum will continue to struggle to secure affordable housing. Yet the shortage will remain most acute for those with low incomes, especially if the nation continues to lose low-rent units even as the population of financially vulnerable households grows. While regulatory relief and technological innovation can help to grow the private supply of lower-cost housing, there is also a need to expand the housing safety net beyond the market's reach to serve the growing number of renters with very low incomes.

Other housing challenges are also likely to become more urgent, including the imperative to both increase the housing stock's resiliency to climate change and reduce its significant carbon footprint. Given the importance of homeownership as a source of household stability and wealth, narrowing the wide racial homeownership disparities is also an increasingly urgent policy concern. Addressing these pressing needs will require contributions from policymakers at all levels of government as well as the private and nonprofit sectors to grow the supply of quality, affordable homes in thriving communities.

RENTAL HOUSING

Rental affordability is the worst on record. The number of renters with cost burdens has hit an all-time high, and the stock of low-rent units has continued to fall. Though a rush of new supply has helped to temper rent growth and increase vacancies, the slowdown will likely be short-lived. High interest rates and rising insurance and operating costs are weakening property performance and hindering new development. Yet, rental demand remains strong, bolstered by the large Gen Z, millennial, and baby boom generations and the growing number of higher-income renter households.

Renter Cost Burdens Reach New High

The number of cost-burdened renter households reached a record-breaking 22.4 million at last measure in 2022, an increase of 2.0 million households since 2019. The number of severely cost-burdened renter households also hit a record high at 12.1 million, fully 1.5 million households above pre-pandemic levels. This rise pushed the share of cost-burdened renter house-

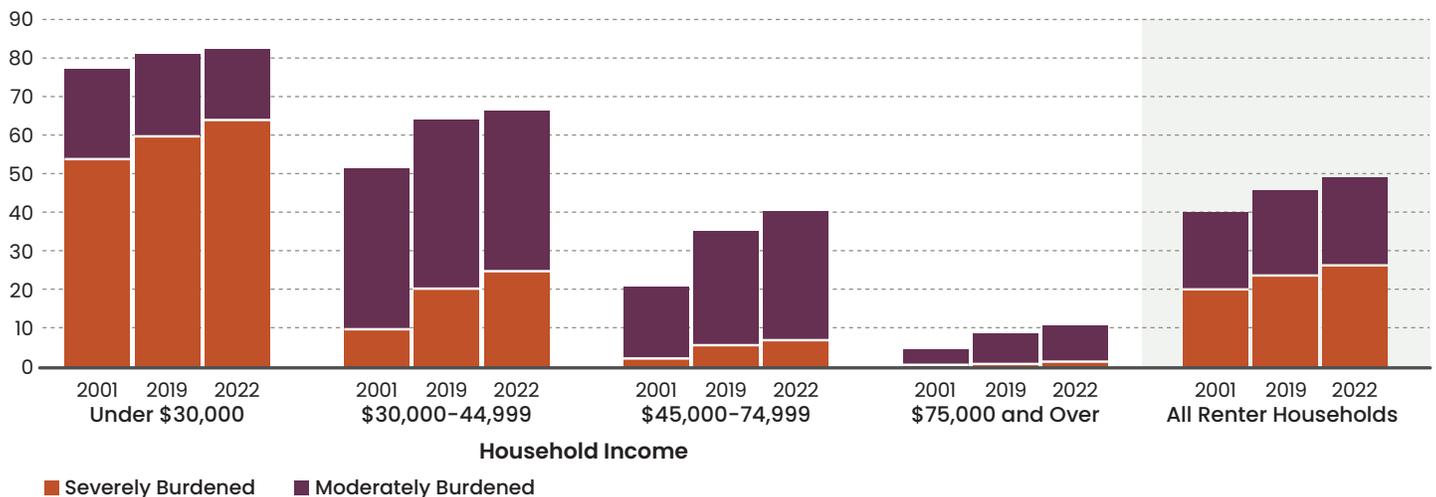
holds to an alarming 50 percent in 2022, an increase of 3.2 percentage points since 2019 and 9.0 percentage points since 2001.

Renter households at all income levels have experienced rising cost-burden rates over the last two decades, a trend that accelerated during the pandemic (**Figure 22**). Among renter households earning \$30,000 to \$44,999 per year, 67 percent were

Figure 22

Renter Cost Burdens Are Rising Fastest Among Middle-Income Households

Share of Renter Households with Cost Burdens (Percent)



Notes: Household incomes are adjusted for inflation using the CPI-U for All Items. Moderately (severely) cost-burdened households spend more than 30% (more than 50%) of income on housing and utilities.

Source: JCHS tabulations of US Census Bureau, American Community Survey 1-Year Estimates.

cost burdened in 2022, an increase of 2.6 percentage points from 2019 and 15.1 percentage points since 2001. Renter households with annual incomes of \$45,000 to \$74,999 experienced the fastest growth in their burden rates, up 5.4 percentage points since the start of the pandemic to 41 percent, nearly double the 2001 rate. Cost-burden rates among renter households earning at least \$75,000 annually grew 2.2 percentage points since the start of the pandemic, though they remain relatively low at 11 percent.

Burden rates also rose among renter households with annual incomes under \$30,000, which consistently have the highest cost-burden rates. In 2022, 83 percent of these households were cost burdened, an increase of 1.5 percentage points from 2019, including 65 percent who were severely burdened.

Long-standing discrimination in housing, employment, and education has contributed to disproportionately high cost-burden rates for renter households headed by a Black, Hispanic, or multiracial person. In 2022, more than half of Black (57 percent), Hispanic (54 percent), and multiracial (50 percent) renter households were cost burdened, as compared to white (45 percent), Asian (44 percent), and Native American (44 percent) households. Even among renters with incomes under \$30,000, households headed by a Hispanic (87 percent), Asian (86 percent), or Black person (85 percent) were more likely to be cost burdened than those headed by a white person (80 percent).

Because rents have been increasing faster than incomes for years, renters have less money to cover non-housing expenses. While median rents have risen 21 percent in inflation-adjusted terms since 2001, median renter household incomes have risen just 2 percent. Consequently, renters' median residual income—the amount of money available each month after paying for rent and utilities—declined 4 percent since 2001 to \$2,600 in 2022. Renters with lower incomes have been particularly stricken by rising housing costs.

Residual incomes for those making less than \$30,000 annually dropped to an all-time low of \$310 in 2022, 47 percent lower than in 2001. Among these renters, those with cost burdens had a scant \$170 in residual income.

High housing costs are forcing financially vulnerable renters to reduce their spending in areas critical to well-being. Center tabulations of the Consumer Expenditure Survey indicate that severely cost-burdened renter households in the lowest expenditure quartile (a proxy for low incomes) spent 39 percent less on food and 42 percent less on healthcare than their unburdened counterparts in 2022. Renters may also make other trade-offs to reduce housing costs, including relocating to an older or substandard unit or a different neighborhood, or opting for overcrowded living arrangements or longer commutes. These and other such choices may further threaten an already vulnerable household's health, financial stability, and economic mobility.

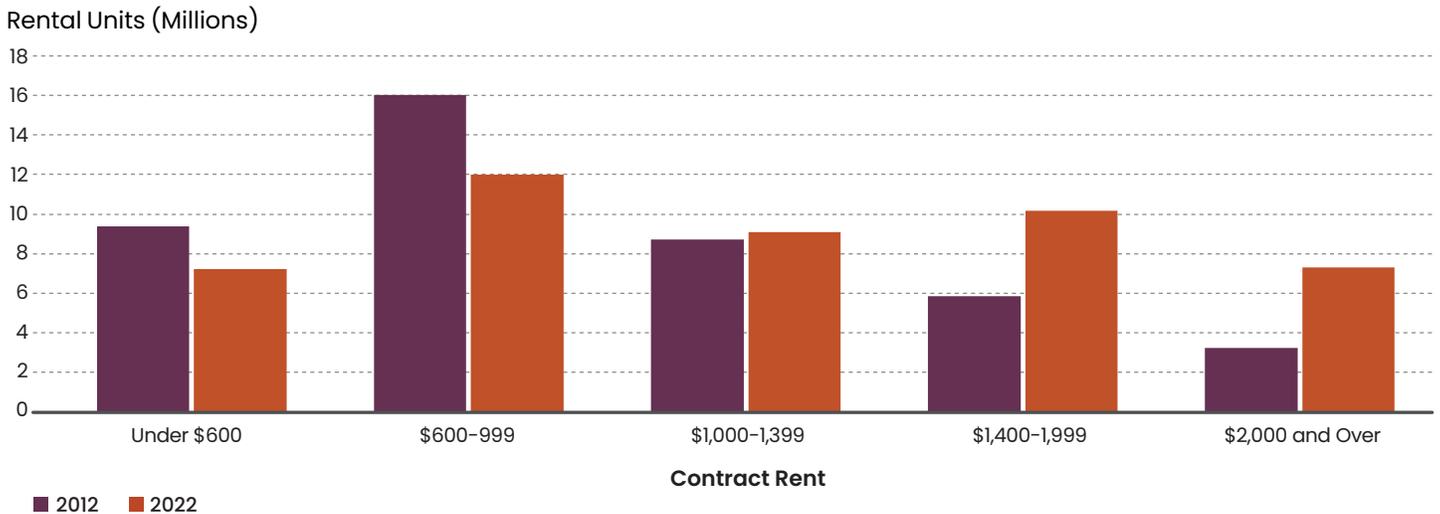
Shortage of Low-Rent Units Grows

Over the past decade, the supply of low-rent stock has continued to decline, leaving lower-income households even fewer housing options they can afford. Between 2012 and 2022, the nation lost 2.1 million units with rents under \$600 when adjusted for inflation, the maximum amount affordable to a household earning \$24,000 annually when applying the 30 percent of income standard. This left only 7.2 million units at this rent level as of 2022 (**Figure 23**).

The market also lost an astounding 4.0 million units with rents between \$600 and \$999, for a total loss of 6.1 million units with rents below \$1,000. The declining supply of these crucial units is attributable to rent increases among existing units, tenure conversions out of the rental stock, building condemnations, and demolitions.

Figure 23

The Rental Stock Is Shifting Toward Higher-Rent Units



Notes: Rents are inflated to 2022 dollars using the CPI-U for All Items Less Shelter. Units that are occupied but do not receive payment are excluded. Contract rents exclude utility costs.

Source: JCHS tabulations of US Census Bureau, American Community Survey 1-Year Estimates.

The loss of low-rent units has been geographically widespread, with decreases recorded in 47 states and the District of Columbia. Between 2012 and 2022, 42 states lost more than 10 percent of their low-rent stock, including 24 that lost more than 20 percent. Among the hardest-hit states were those previously considered more affordable that have seen swiftly growing rental demand, including Texas, North Carolina, and Georgia. Losses were also significant in several Midwestern states where renter household growth was relatively low over the decade, including Ohio, Michigan, and Indiana. In more expensive states already short on low-rent units, the net decline extended much farther up the rent spectrum, with 15 states losing units at all rent levels up to \$1,400.

Meanwhile, the supply of higher-rent units increased. The number of units with rents between \$1,000 and \$1,399 increased by 400,000, while those with rents between \$1,400 and \$1,999 grew by 4.3 million, and

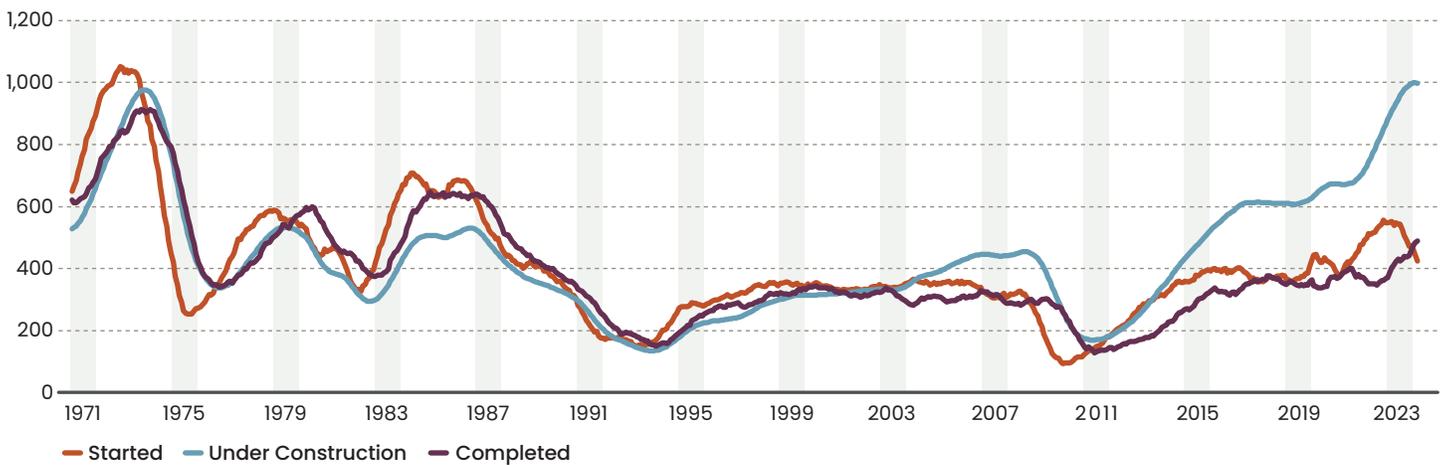
those with rents of \$2,000 or more increased by 4.1 million. These changes have shifted the distribution of rents upward. In 2022, just 16 percent of units had rents below \$600, down from 22 percent of the rental stock in 2012. Meanwhile, the share of units renting for \$2,000 or more increased from 7 percent to 16 percent.

One reason for the upward shift is that nearly all of the last decade's growth in the rental supply has come from units in large multifamily buildings, which have the highest median rents at \$1,300 as of 2022. Between 2012 and 2022, the number of units in large multifamily buildings with 20 or more units grew by 3.1 million to 12.3 million units. During the same period, the supply of units in midsize multifamily buildings with 5 to 19 units, which had a median monthly rent of \$1,100, increased by only 267,000 to 10.6 million units. The supply of rentals in small multifamily buildings with 2 to 4 units, which had the lowest median rents at \$980 in 2022, increased by just 14,000 to 8.3 million.

Figure 24

Apartment Completions Continue to Rise Even as Multifamily Starts Decline

Annualized Multifamily Units (Thousands, seasonally adjusted)



Note: Estimates are a 12-month trailing average.

Source: JCHS tabulations of US Census Bureau, New Residential Construction.

Flood of New Units Softens Rental Market

New multifamily units are coming online at a rate not seen since the 1980s (**Figure 24**). At the end of March 2024, multifamily completions reached their highest level since May 1988, with 487,000 units added over the prior 12 months, up 21 percent from the previous year (402,000 units).

The national rental vacancy rate rose to 6.6 percent in the first quarter of 2024, according to the Housing Vacancy Survey, up from the pandemic low of 5.6 percent in the second quarter of 2022 and approaching the 6.9 percent rate averaged in the five years leading up to the pandemic. Vacancies have also rebounded in the professionally managed apartment sector: rates climbed steadily through 2022 and 2023, reaching 5.9 percent in the first quarter of 2024, over 1 percentage point above the pre-pandemic rate of 4.8 percent averaged between 2015 and 2019, according to RealPage. As a result, rent growth slowed to 0.2 percent year over year in the first quarter of 2024 after reaching a record high of more than 15 percent annually in early 2022.

As supply has surged, new units are sitting vacant longer. According to the Survey of Market Absorption, 52 percent of new units were leased within three months of completion in the third quarter of 2023, down from a high of 75 percent in the third quarter of 2021. This indicates a slowdown in the market's ability to absorb the rush of new units.

Rising Costs Weaken Property Performance

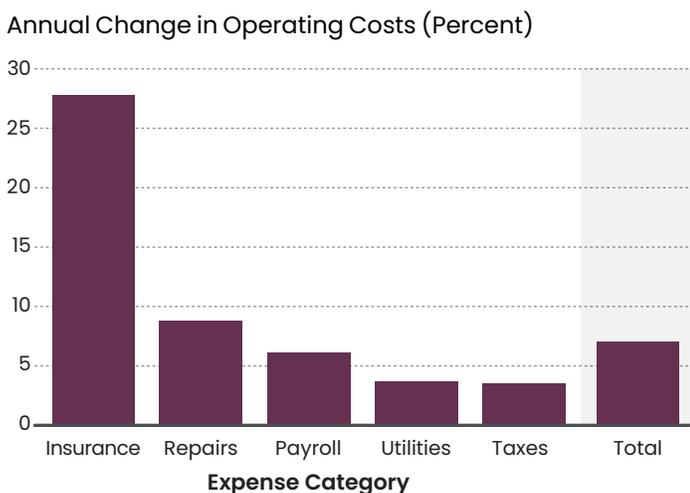
Total operating expenses for multifamily properties grew nationwide by 7.1 percent between January 2023 and January 2024, according to Yardi Matrix. Insurance premiums, which rose 27.7 percent year over year in January 2024, increased most rapidly, far outpacing other expenses, including repairs (8.8 percent), payroll (6.1 percent), utilities (3.7 percent), and taxes (3.5 percent) (**Figure 25**). Operating expenses grew most rapidly in markets in the Southeast, where greater disaster exposure has inflated insurance premiums. RealPage reported that per unit property insurance costs in the 50 largest metro areas have more than doubled since the start of the pandemic, with many of the largest increases in Florida.

As rent growth has stalled and operating costs have risen, property owners' net operating income growth has slowed. According to the National Council of Real Estate Investment Fiduciaries (NCREIF), net operating incomes for apartments grew by 2.8 percent annually in the first quarter of 2024. This was a substantial deceleration from the high of 24.8 percent in late 2021 and lower than the 5.4 percent annual rate averaged in the five years preceding the pandemic.

Against this backdrop, the risk of multifamily loan delinquencies has increased. According to the Mortgage Bankers Association (MBA), the 60-day delinquency rates for loans held by Fannie Mae grew to 0.46 percent in the fourth quarter of 2023 (from 0.24 percent a year earlier), and those held by Freddie Mac reached 0.28 percent (from 0.12 percent). Likewise, the 90-day noncurrent rate for longer-term commercial and multifamily loans for banks and thrifts climbed through the year to reach 0.94 percent in the fourth quarter of 2023, up from 0.45 percent in the fourth quarter of 2022. Nevertheless, delinquencies remain well below the 90-day peak of more than 4 percent reached during the Great Recession and are relatively low overall.

Figure 25

Insurance Costs for Multifamily Properties Are Up Significantly



Note: Estimates are for the 12 months ending in January 2024.
 Source: Yardi Matrix, March 2024 Research Bulletin, Multifamily Expenses.

Though longer-term loans constitute the bulk of the multifamily debt, it is short-term loans that are at greatest risk of delinquency. Properties with loans coming due in the near future face much higher borrowing costs, given today's higher interest rates, and potentially lower property values in light of rising capitalization rates. Shorter-term loans are more likely to be held by banks or investor-driven lenders or in commercial mortgage-backed securities (CMBS). The 30-day delinquency rate for CMBS loans has increased for six consecutive quarters, hitting 4.3 percent in the fourth quarter of 2023, according to MBA. However, CMBS are a small share of all multifamily loans, and the most recent delinquency rate is only slightly higher than the pre-pandemic average.

Multifamily Developers Face Financing Challenges

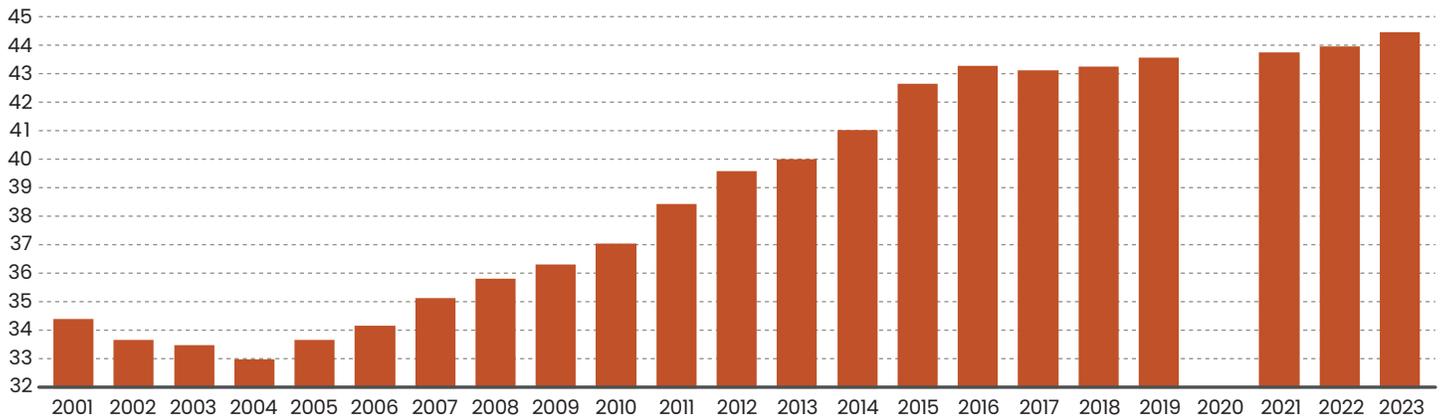
Even as property owners and investors contend with weakening property performance, they are confronting a more difficult financing environment. Rising interest rates have increased the cost of debt for acquiring and building multifamily properties, and high treasury yields have increased the cost of equity, as apartments now need to provide greater investor returns to compete with Treasury notes. Consequently, projects are less financially feasible, and demand for multifamily investment is slowing.

Apartment property prices have responded by declining, falling year over year in early 2023 for the first time in more than a decade. According to Real Capital Analytics, prices fell by nearly 14 percent in late 2023 and continued dropping in early 2024 at a decelerated pace of 8.4 percent annually in March. Falling property prices reflect rising capitalization rates—an indicator of returns used to compare investments—which hit 4.3 percent in early 2024, up from 3.9 percent a year earlier, according to NCREIF.

Figure 26

Renter Household Growth Ticked Up in 2023

Renter Households (Millions)



Note: Estimates for 2020 are omitted due to data collection issues experienced during the pandemic.

Source: JCHS tabulations of US Census Bureau, Housing Vacancy Surveys.

Borrowing and lending have also slowed substantially. According to MBA, multifamily mortgage originations in 2023 were 46 percent less than in 2022. With declining originations, the growth of multifamily debt outstanding has slowed, up \$88.5 billion annually in the fourth quarter of 2023 to \$2.09 trillion. Multifamily investment has also declined. Apartment transactions fell 45 percent year over year in January 2024, according to MSCI.

The triple threat to property owners and investors of slowing revenue growth, increasing expenses, and rising capital costs is contributing to a drop-off in new multifamily construction. Though new unit completions are high and likely to remain so through 2024 and into 2025 as the nearly 1 million units already under construction hit the market, starts are down. This suggests an imminent downturn that may be difficult to reverse quickly enough to meet future demand.

Demographic Drivers Support Rental Demand

Despite the softening market, rental demand remains strong. Nationally, the number of renter households rose by 514,000 in 2023, the largest annual increase since 2016, according to the Housing Vacancy Survey (**Figure 26**). This lifted the number of renter households to 44.5 million in 2023. The bulk of this growth is from the large millennial and baby boom generations, as well as the increasing numbers from Gen Z who are forming their own households.

The largest cohort of renters is millennials, born between 1980 and 1994, who constitute 34 percent (15.4 million) of all renter households in 2022. While millennials remain an important source of rental demand, they are no longer driving renter household growth. The number of renter households headed by a millennial

peaked in 2019 at 16.2 million. Since then, the number of millennial renter households has fallen by 797,000 households through 2022 as they have aged out of peak household formation years and into prime first-time homebuying years. However, the legacy of high student loan debt combined with current high home prices and interest rates is preventing more of these renters from transitioning into homeownership at the pace of previous generations, preserving their significant influence in the rental market.

Increasingly, Gen Z households are driving rental demand. Members of this generation, the oldest of whom turned 27 in 2022, are rapidly forming their own households. Between 2019 and 2022 alone, the number of Gen Z-headed renter households more than doubled to 7.9 million, accounting for all net growth in renter households during this period.

Gen X and the sizable baby boom generation are further bolstering rental demand. In 2022, members of Gen X headed 10.0 million renter households, while baby boomers headed 9.1 million. With the oldest baby boomers turning 80 in 2026, the number of renter households in this age group will grow in the coming years. Indeed, rentership rates increase past age 80 as many older homeowners transition to renting, often in search of accessibility features, amenities, and fewer maintenance responsibilities. In 2022, 21 percent of households headed by a person aged 65–79 were renters, as were 26 percent of households headed by a person age 80 and over.

Growth in the number of renter households with annual incomes of at least \$75,000 slowed between 2019 and 2022 amid the pandemic homebuying boom, as many households took advantage of low interest rates. Yet, over the longer term, this income group has propelled 74 percent of the net growth in renter households. From 2010 to 2022, the number of higher-income renter households increased by 43 percent to 13.5 million. These higher-income renters are more likely to be married and college educated, a demographic that fits previous generations' profile of first-time homebuyers. Increasingly common options like single-family rental construction and apartments with high-end amenities have also reflected this trend.

The Outlook

Slackening in the rental market is unlikely to last given the development slowdown and strong rental demand. Although new multifamily units are coming online in record numbers, declining construction starts suggest that completions will eventually recede, even as demographic shifts signal continued robust demand in the near term. Given the lengthy lag times for multifamily developments from permitting to completion, an extended downturn in construction amid rising demand will risk sparking another period of rapid rent increases similar to the recent run-up that has contributed to the worst renter affordability conditions on record.

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2024 Affordable Housing Appeals list - Exempt Municipalities

Town	2020 Census	2024 Gov Assisted	2024 Tenant Rental Assistance	2024 Single Family CHFA/ USDA Mortgages	2024 Deed Restricted Units	2024 Total Assisted Units	2024 Percent Affordable
Ansonia	8,104	232	823	152	0	1,207	14.89%
Bloomfield	9,717	645	137	309	0	1,091	11.23%
Bridgeport	58,874	7,151	4,410	813	12	12,386	21.04%
Bristol	27,251	1,919	992	1,095	0	4,006	14.70%
Danbury	33,562	1,653	1,321	369	210	3,553	10.59%
Derby	5,759	275	349	117	0	741	12.87%
E Hartford	21,361	1,671	756	1,079	0	3,506	16.41%
E Windsor	5,348	559	40	116	0	715	13.37%
Enfield	17,741	1,360	233	647	7	2,247	12.67%
Groton	18,154	3,897	101	319	10	4,327	23.83%
Hartford	53,259	11,677	9,152	1,539	0	22,368	42.00%
Manchester	26,445	1,916	974	899	32	3,821	14.45%
Meriden	26,177	2,222	1,448	1,009	11	4,690	17.92%
Middletown	21,671	3,220	1,189	490	25	4,924	22.72%
New Britain	31,510	3,041	1,672	1,189	89	5,991	19.01%
New Haven	57,525	10,139	7,764	847	343	19,093	33.19%
NewLondon	12,119	1,659	506	495	175	2,835	23.39%
Norwalk	38,152	2,606	1,641	368	738	5,353	14.03%
Norwich	18,769	2,362	844	578	0	3,784	20.16%
Plainfield	6,264	429	200	168	4	801	12.79%
Putnam	4,292	465	66	57	0	588	13.70%
Stamford	56,953	4,737	2,128	359	1268	8,492	14.91%
Torrington	17,040	992	345	612	17	1,966	11.54%
Vernon	14,761	1,539	497	344	12	2,392	16.20%
Waterbury	48,392	5,631	3,321	1,669	36	10,657	22.02%
West Haven	22,735	1,024	2,120	375	0	3,519	15.48%
Windham	9,663	1,873	642	323	0	2,838	29.37%
WindsorLocks	5,815	297	168	247	0	712	12.24%

2024 Affordable Housing Appeals list - Non-Exempt Municipalities

Town	2020 Census	2024 Gov Assisted	2024 Tenant Rental Assistance	2024 Single Family CHFA/ USDA Mortgages	2024 Deed Restricted Units	2024 Total Assisted Units	2024 Percent Affordable
Andover	1,324	24	1	32	0	57	4.31%

Ashford	1,923	32	1	30	0	63	3.28%
Avon	7,713	244	35	39	2	320	4.15%
Barkhamsted	1,566	0	6	25	0	31	1.98%
Beacon Falls	2,618	0	8	59	0	67	2.56%
Berlin	8,571	644	45	149	4	842	9.82%
Bethany	2,039	0	1	11	0	12	0.59%
Bethel	7,980	192	36	113	82	423	5.30%
Bethlehem	1,605	24	0	7	0	31	1.93%
Bolton	2,045	0	2	36	0	38	1.86%
Bozrah	1,131	0	2	26	0	28	2.48%
Branford	14,180	260	66	132	9	467	3.29%
Bridgewater	863	0	0	2	0	2	0.23%
Brookfield	7,116	155	26	78	112	371	5.21%
Brooklyn	3,342	205	16	51	0	272	8.14%
Burlington	3,628	27	0	50	0	77	2.12%
Canaan	639	1	1	6	3	11	1.72%
Canterbury	2,044	76	1	48	0	125	6.12%
Canton	4,383	251	33	57	32	373	8.51%
Chaplin	955	0	3	26	0	29	3.04%
Cheshire	10,401	259	17	90	17	383	3.68%
Chester	1,793	23	4	12	0	39	2.18%
Clinton	6,283	105	10	61	0	176	2.80%
Colchester	6,441	364	47	139	4	554	8.60%
Colebrook	694	0	0	6	1	7	1.01%
Columbia	2,294	24	2	49	0	75	3.27%
Cornwall	1,002	28	2	6	0	36	3.59%
Coventry	5,273	103	6	128	20	257	4.87%
Cromwell	6,162	212	13	170	0	395	6.41%
Darien	7,265	161	23	0	133	317	4.36%
Deep River	2,112	44	6	29	0	79	3.74%
Durham	2,828	36	0	25	0	61	2.16%
East Granby	2,183	72	2	43	0	117	5.36%
East Haddam	4,477	73	3	61	0	137	3.06%
East Hampton	5,637	70	5	101	25	201	3.57%
East Haven	12,394	613	185	274	0	1,072	8.65%
East Lyme	9,080	452	24	80	19	575	6.33%
Eastford	806	0	1	12	0	13	1.61%
Easton	2,756	0	0	4	7	11	0.40%
Ellington	7,054	260	7	116	0	383	5.43%
Essex	3,329	75	1	16	16	108	3.24%
Fairfield	21,982	254	175	69	240	738	3.36%
Farmington	11,667	586	136	133	181	1,036	8.88%
Franklin	790	27	1	21	0	49	6.20%
Glastonbury	14,481	605	67	104	2	778	5.37%

Goshen	1,708	1	1	5	0	7	0.41%
Granby	4,448	85	2	50	3	140	3.15%
Greenwich	25,677	988	487	11	36	1,522	5.93%
Griswold	5,027	222	58	121	0	401	7.98%
Guilford	9,693	184	10	31	1	226	2.33%
Haddam	3,540	22	2	26	0	50	1.41%
Hamden	25,984	1,049	864	482	126	2,521	9.70%
Hampton	790	0	1	12	0	13	1.65%
Hartland	843	2	0	5	0	7	0.83%
Harwinton	2,313	22	6	41	5	74	3.20%
Hebron	3,618	58	2	52	0	112	3.10%
Kent	1,687	61	3	3	1	68	4.03%
Killingly	7,884	467	147	129	0	743	9.42%
Killingworth	2,601	0	1	20	1	22	0.85%
Lebanon	3,147	26	6	77	0	109	3.46%
Ledyard	6,150	32	9	206	6	253	4.11%
Lisbon	1,728	2	0	52	0	54	3.13%
Litchfield	3,966	140	4	36	19	199	5.02%
Lyme	1,220	0	0	3	8	11	0.90%
Madison	8,060	90	4	13	29	136	1.69%
Mansfield	6,956	175	166	80	2	423	6.08%
Marlborough	2,388	24	0	27	0	51	2.14%
Middlebury	3,047	77	5	17	20	119	3.91%
Middlefield	1,882	30	4	27	1	62	3.29%
Milford	23,749	824	228	148	74	1,274	5.36%
Monroe	6,918	35	4	39	8	86	1.24%
Montville	7,402	81	52	253	0	386	5.21%
Morris	1,253	20	0	5	0	25	2.00%
Naugatuck	13,239	537	305	360	0	1,202	9.08%
New Canaan	7,502	255	35	8	0	298	3.97%
New Fairfield	5,635	0	6	48	16	70	1.24%
New Hartford	2,968	12	6	51	9	78	2.63%
New Milford	11,928	319	33	136	33	521	4.37%
Newington	13,219	603	128	519	36	1,286	9.73%
Newtown	10,322	134	7	85	71	297	2.88%
Norfolk	932	38	2	6	0	46	4.94%
North Branford	5,633	62	10	50	0	122	2.17%
North Canaan	1,582	111	0	10	0	121	7.65%
North Haven	9,981	393	47	96	23	559	5.60%
NoStonington	2,226	0	2	19	8	29	1.30%
Old Lyme	4,988	64	2	10	3	79	1.58%
Old Saybrook	5,870	52	12	20	78	162	2.76%
Orange	5,480	92	21	12	6	131	2.39%
Oxford	5,022	36	6	30	0	72	1.43%

Plainville	8,045	242	53	294	22	611	7.59%
Plymouth	5,151	178	23	194	0	395	7.67%
Pomfret	1,686	32	2	11	0	45	2.67%
Portland	4,128	120	96	69	0	285	6.90%
Preston	2,049	40	6	33	0	79	3.86%
Prospect	3,762	0	4	56	55	115	3.06%
Redding	3,664	0	3	14	0	17	0.46%
Ridgefield	9,506	175	6	22	79	282	2.97%
Rocky Hill	9,319	235	66	143	0	444	4.76%
Roxbury	1,163	19	0	4	0	23	1.98%
Salem	1,719	0	2	25	0	27	1.57%
Salisbury	2,519	24	1	1	14	40	1.59%
Scotland	650	0	0	23	0	23	3.54%
Seymour	7,112	262	32	109	0	403	5.67%
Sharon	1,724	32	1	3	0	36	2.09%
Shelton	17,174	432	87	135	82	736	4.29%
Sherman	1,834	0	1	5	0	6	0.33%
Simsbury	10,057	289	66	101	28	484	4.81%
Somers	3,622	146	7	35	0	188	5.19%
South Windsor	10,804	443	55	197	12	707	6.54%
Southbury	9,270	90	6	35	0	131	1.41%
Southington	18,145	499	59	363	66	987	5.44%
Sprague	1,268	20	13	23	1	57	4.50%
Stafford	5,237	257	25	119	0	401	7.66%
Sterling	1,479	0	7	24	0	31	2.10%
Stonington	9,447	484	23	69	14	590	6.25%
Stratford	21,643	524	439	360	33	1,356	6.27%
Suffield	5,879	296	5	63	4	368	6.26%
Thomaston	3,340	104	7	105	0	216	6.47%
Thompson	4,143	151	14	36	0	201	4.85%
Tolland	5,630	127	9	123	3	262	4.65%
Trumbull	13,159	315	15	83	293	706	5.37%
Union	377	0	0	4	0	4	1.06%
Voluntown	1,135	20	2	23	0	45	3.96%
Wallingford	18,938	482	149	280	35	946	5.00%
Warren	790	0	0	1	0	1	0.13%
Washington	2,056	17	1	3	28	49	2.38%
Waterford	8,873	253	41	236	16	546	6.15%
Watertown	9,137	205	33	235	0	473	5.18%
West Hartford	27,240	774	852	319	245	2,190	8.04%
Westbrook	3,976	140	7	26	29	202	5.08%
Weston	3,671	0	1	6	0	7	0.19%
Westport	10,567	265	55	1	99	420	3.97%
Wethersfield	11,809	748	113	269	0	1,130	9.57%

Willington	2,685	184	6	33	0	223	8.31%
Wilton	6,567	159	12	12	63	246	3.75%
Winchester	5,405	269	137	122	0	528	9.77%
Windsor	12,038	154	243	466	26	889	7.38%
Wolcott	6,408	313	8	195	0	516	8.05%
Woodbridge	3,476	30	8	5	0	43	1.24%
Woodbury	4,584	60	4	37	0	101	2.20%
Woodstock	3,669	24	1	23	0	48	1.31%
Totals	1,530,197	98,830	50,353	27,914	5768	182,865	

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TOWN 2000 CENSUS GOVERNMENTALLY CHFA/FmHA DEED TOTAL
HOUSING UNITS ASSISTED UNITS MORTGAGES RESTRICTED ASSISTED PERCENT

Towns which are exempt under Section 8-30g CGS

1	Ansonia	7,937	1,053	116		1,169	14.73%
2	Bloomfield	8,195	675	290		965	11.78%
3	Bridgeport	54,367	8,657	1,179	26	9,862	18.14%
4	Bristol	26,125	2,419	965	6	3,390	12.98%
5	Brooklyn	2,708	292	82		374	13.81%
6	Danbury	28,519	2,513	365	118	2,996	10.51%
7	East Hartford	21,273	2,093	939		3,032	14.25%
8	East Windsor	4,356	591	78	14	683	15.68%
9	Enfield	17,043	1,554	551	7	2,112	12.39%
10	Groton	16,817	3,398	284	10	3,692	21.95%
11	Hartford	50,644	16,748	1,644		18,392	36.32%
12	Killingly	6,909	575	201		776	11.23%
13	Manchester	24,256	2,717	764		3,481	14.35%
14	Mansfield	5,481	568	66	44	678	12.37%
15	Meriden	24,631	2,513	1,127	4	3,644	14.79%
16	Middletown	19,697	2,740	492		3,232	16.41%
17	New Britain	31,164	4,140	1,198	3	5,341	17.14%
18	New Haven	52,941	14,366	1,193	319	15,878	29.99%
19	New London	11,560	2,006	431	7	2,444	21.14%
20	Norwalk	33,753	3,228	258	486	3,972	11.77%
21	Norwich	16,600	2,577	535		3,112	18.75%
22	Plainfield	5,676	551	280		831	14.64%
23	Putnam	3,955	433	145		578	14.61%
24	Stamford	47,317	4,925	205	104	5,234	11.06%
25	Torrington	16,147	1,224	627		1,851	11.46%
26	Vernon	12,867	1,979	299	25	2,303	17.90%
27	Waterbury	46,827	7,143	2,553		9,696	20.71%
28	West Haven	22,336	2,342	440		2,782	12.46%
29	Winchester	4,922	493	20		513	10.42%
30	Windham	8,926	2,089	133		2,222	24.89%

Towns which are not exempt under Section 8-30g CGS

31	Andover	1,198	24	14		38	3.17%
32	Ashford	1,699	37	44		81	4.77%
33	Avon	6,480	141	14		155	2.39%
34	Barkhamsted	1,436	1	9		10	0.70%
35	Beacon Falls	2,104	6	25		31	1.47%
36	Berlin	6,955	210	28	21	259	3.72%
37	Bethany	1,792		2		2	0.11%
38	Bethel	6,653	214	61	46	321	4.82%
39	Bethlehem	1,388	24	2		26	1.87%
40	Bolton	1,969	2	15		17	0.86%
41	Bozrah	917	4	21		25	2.73%
42	Branford	13,342	257	121		378	2.83%
43	Bridgewater	779		0		0	0.00%
44	Brookfield	5,781	37	38	10	85	1.47%
45	Burlington	2,901	27	23		50	1.72%
46	Canaan	610	1	6	1	8	1.31%

47	Canterbury	1,762	76	40		116	6.58%
48	Canton	3,616	229	34	29	292	8.08%
49	Chaplin	897	4	19		23	2.56%
50	Cheshire	9,588	182	58	43	283	2.95%
51	Chester	1,613	27	6		33	2.05%
52	Clinton	5,757	87	33		120	2.08%
53	Colchester	5,409	354	80		434	8.02%
54	Colebrook	656	1	2		3	0.46%
55	Columbia	1,988	28	28		56	2.82%
56	Cornwall	873	18	1		19	2.18%
57	Coventry	4,486	111	120	20	251	5.60%
58	Cromwell	5,365	212	160		372	6.93%
59	Darien	6,792	90	1	32	123	1.81%
60	Deep River	1,910	31	11		42	2.20%
61	Derby	5,568	402	67		469	8.42%
62	Durham	2,349	35	6		41	1.75%
63	East Granby	1,903	74	21		95	4.99%
64	East Haddam	4,015	74	18		92	2.29%
65	East Hampton	4,412	75	52		127	2.88%
66	East Haven	11,698	502	274		776	6.63%
67	East Lyme	7,459	245	41		286	3.83%
68	Eastford	705		16		16	2.27%
69	Easton	2,511	1	0	10	11	0.44%
70	Ellington	5,417	262	79		341	6.29%
71	Essex	2,977	37	4		41	1.38%
72	Fairfield	21,029	398	23	113	534	2.54%
73	Farmington	9,854	529	83	85	697	7.07%
74	Franklin	711		6		6	0.84%
75	Glastonbury	12,614	614	72	35	721	5.72%
76	Goshen	1,482	2	6		8	0.54%
77	Granby	3,887	85	18	5	108	2.78%
78	Greenwich	24,511	1,101	0	13	1,114	4.54%
79	Griswold	4,530	171	114		285	6.29%
80	Guilford	8,724	133	27		160	1.83%
81	Haddam	2,822	22	2		24	0.85%
82	Hamden	23,464	1,271	381	4	1,656	7.06%
83	Hampton	695	1	16		17	2.45%
84	Hartland	759	2	1		3	0.40%
85	Harwinton	2,022	23	8		31	1.53%
86	Hebron	3,110	59	18		77	2.48%
87	Kent	1,463	25	2	24	51	3.49%
88	Killingworth	2,283		4		4	0.18%
89	Lebanon	2,820	32	42		74	2.62%
90	Ledyard	5,486	35	109		144	2.62%
91	Lisbon	1,563	4	49		53	3.39%
92	Litchfield	3,629	143	9	25	177	4.88%
93	Lyme	989		0	6	6	0.61%
94	Madison	7,386	91	3	19	113	1.53%
95	Marlborough	2,057	24	10		34	1.65%
96	Middlebury	2,494	76	9		85	3.41%
97	Middlefield	1,740	30	8		38	2.18%
98	Milford	21,962	1,094	180	107	1,381	6.29%

99	Monroe	6,601	30	7		37	0.56%
100	Montville	6,805	99	102		201	2.95%
101	Morris	1,181	20	1		21	1.78%
102	Naugatuck	12,341	757	305		1,062	8.61%
103	New Canaan	7,141	144	1	31	176	2.46%
104	New Fairfield	5,148	1	27	4	32	0.62%
105	New Hartford	2,369	23	29		52	2.20%
106	New Milford	10,710	148	125		273	2.55%
107	Newington	12,264	375	300	36	711	5.80%
108	Newtown	8,601	123	12	15	150	1.74%
109	Norfolk	871	29	3		32	3.67%
110	North Branford	5,246	64	34		98	1.87%
111	North Canaan	1,444	102	5		107	7.41%
112	North Haven	8,773	369	62		431	4.91%
113	North Stonington	2,052	3	12		15	0.73%
114	Old Lyme	4,570	63	6	3	72	1.58%
115	Old Saybrook	5,357	52	14		66	1.23%
116	Orange	4,870	45	6		51	1.05%
117	Oxford	3,420	34	7		41	1.20%
118	Plainville	7,707	238	294	32	564	7.32%
119	Plymouth	4,646	184	80		264	5.68%
120	Pomfret	1,503	33	13		46	3.06%
121	Portland	3,528	208	29		237	6.72%
122	Preston	1,901	41	20		61	3.21%
123	Prospect	3,094	1	17		18	0.58%
124	Redding	3,086		1		1	0.03%
125	Ridgefield	8,877	152	11		163	1.84%
126	Rocky Hill	7,962	238	133		371	4.66%
127	Roxbury	1,018	18	0		18	1.77%
128	Salem	1,655	1	13		14	0.85%
129	Salisbury	2,410	17	2		19	0.79%
130	Scotland	577	1	10		11	1.91%
131	Seymour	6,356	276	78		354	5.57%
132	Sharon	1,617	20	5		25	1.55%
133	Shelton	14,707	318	45	82	445	3.03%
134	Sherman	1,606		1		1	0.06%
135	Simsbury	8,739	261	39		300	3.43%
136	Somers	3,012	57	12		69	2.29%
137	South Windsor	9,071	284	138		422	4.65%
138	Southbury	7,799	85	11		96	1.23%
139	Southington	15,557	662	208	11	881	5.66%
140	Sprague	1,164	29	12		41	3.52%
141	Stafford	4,616	187	82		269	5.83%
142	Sterling	1,193	2	51		53	4.44%
143	Stonington	8,591	315	25		340	3.96%
144	Stratford	20,596	827	231	15	1,073	5.21%
145	Suffield	4,853	136	27	15	178	3.67%
146	Thomaston	3,014	97	101		198	6.57%
147	Thompson	3,710	202	60		262	7.06%
148	Tolland	4,665	94	56		150	3.22%
149	Trumbull	12,160	266	23	90	379	3.12%
150	Union	332	1	3		4	1.20%

151	Voluntown	1,091	53	38		91	8.34%
152	Wallingford	17,306	657	293	22	972	5.62%
153	Warren	650		1		1	0.15%
154	Washington	1,764	14	4	12	30	1.70%
155	Waterford	7,986	129	153		282	3.53%
156	Watertown	8,298	228	66		294	3.54%
157	West Hartford	25,332	1,197	264	162	1,623	6.41%
158	Westbrook	3,460	144	12	24	180	5.20%
159	Weston	3,532	1	0		1	0.03%
160	Westport	10,065	216	9		225	2.24%
161	Wethersfield	11,454	649	156		805	7.03%
162	Willington	2,429	132	29		161	6.63%
163	Wilton	6,113	89	1	69	159	2.60%
164	Windsor	10,900	361	308		669	6.14%
165	Windsor Locks	5,101	268	158		426	8.35%
166	Wolcott	5,544	310	111		421	7.59%
167	Woodbridge	3,189	34	3		37	1.16%
168	Woodbury	3,869	62	16		78	2.02%
169	Woodstock	3,044	30	39		69	2.27%

		1,385,978	119,015	24,804	2,444	146,263	10.55%
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C-1

Excerpts From 2020-2030 P.O.C.D.

NEWINGTON

2020-2030 Plan Of Conservation And Development

Effective August 29, 2020

TOWN PLAN & ZONING COMMISSION

Historic Housing Stock

1960	4,972
1970	7,655
1980	10,445
1990	11,609
2000	12,264
2010	12,550

Historic - 1900 - 2010 Census.

Average Household Size

1960	3.55
1970	3.40
1980	2.77
1990	2.56
2000	2.44
2010	2.43

Historic - 1900 - 2010 Census.

Housing In Newington

Overall Housing Growth

According to the American Community Survey, Newington had about 12,871 housing units in 2017. From 1990 to 2010, Newington added an average of about 47 housing units per year. This is well below the growth rate in prior decades when Newington was adding about 160 to 270 housing units per year.

While there is only a limited amount of undeveloped land remaining, there could be potential for additional housing development through redevelopment of existing properties.

Housing Occupancy

Over time, the number of people per occupied housing unit in Newington has been decreasing (although it may have stabilized between 2000 and 2010). In 2010, about 62 percent of all housing units in Newington were occupied by one or two people. Only about 3 in 8 households contained more than two residents.

If household sizes were to continue to get smaller and no new housing units were built, Newington would have a lower population in the future. In the past, Newington has added enough new housing units to offset the fact that exiting housing units are occupied by fewer people.

Single-Family Detached Home



Single-Family Detached Home



Townhouse (Piper Brook)



Multi-Unit Building (Bradford Commons)



Newington has a diverse housing stock. About 64% of all housing units in Newington are single-family detached homes and the other units are in 2-4 family dwellings or multi-family buildings. About 78% of all housing units in Newington are owner-occupied.

Housing affordability is an issue throughout Connecticut and communities are recognizing that community vitality, community diversity, and economic development can all be enhanced by having a housing portfolio which includes affordable units. Measures of affordability include units which:

- Represent “naturally occurring” affordable housing since they sell or rent at prices affordable to low- and moderate-income persons and families, and
- Meet the statutory definition of “affordable housing” (see sidebar).

Newington has a number of housing units which are naturally affordable to low- and moderate-income persons and families. While Newington has almost 1,100 units meeting the statutory definition of “affordable housing”, this represents less than 10 percent of the local housing stock and so Newington is subject the State affordable housing appeals procedure.

Affordable Housing Defined

In order for a housing unit to qualify as an affordable unit under CGS 8-30g, a dwelling must be:

- Governmentally assisted housing (funded under a state or federal program);
- Occupied by a person receiving tenant rental assistance under a program for income-qualifying persons or families);
- Financed under a government program for income-qualifying persons or families; or
- Housing that is deed restricted to be affordable to low- or moderate-income persons or families for at least 40 years.

Percent Single Family	
Berlin	76%
Wethersfield	74%
West Hartford	66%
Newington	64%
Rocky Hill	48%
New Britain	29%
Hartford	15%

CERC, 2019

Percent Owner-Occupied	
Berlin	83%
Newington	78%
Wethersfield	76%
West Hartford	71%
Rocky Hill	66%
New Britain	45%
Hartford	24%

CERC, 2019

Average Household Size	
Hartford	2.7
Berlin	2.6
New Britain	2.6
West Hartford	2.6
Newington	2.4
Rocky Hill	2.4
Wethersfield	2.4

CERC, 2019

Until 10% of a community’s housing stock is affordable, it is subject to an affordable housing appeals procedure that shifts the burden of proof to the community to show that threats to public health or safety outweigh the need for affordable housing.

Median Sales Price	
West Hartford	\$318,800
Berlin	\$288,000
Rocky Hill	\$254,400
Wethersfield	\$246,200
Newington	\$228,000
Hartford	\$159,100
New Britain	\$157,300

CERC, 2019

Median Rent	
Rocky Hill	\$1,304
West Hartford	\$1,236
Newington	\$1,163
Berlin	\$1,097
Wethersfield	\$1,025
New Britain	\$925
Hartford	\$914

CERC, 2019

Pct. “Affordable” Housing	
Hartford	38%
New Britain	18%
Wethersfield	9%
Berlin	9%
Newington	8%
West Hartford	8%
Rocky Hill	5%

CERC, 2019

RESIDENTIAL DEVELOPMENT

Promote a variety of housing types to meet changing needs while retaining Newington's character.



Newington is primarily a residential community since most of the land is zoned and used for residential development. While most residential areas are primarily single-family homes, about one-third of the housing units in Newington are multi-family developments (apartments or condominiums).

The overall goals are to:

- Provide housing options for a variety of household types, sizes, ages, tenures, and income groups within safe and stable neighborhoods.
- Protect and conserve the quality of existing housing stock from neglect, incompatible neighboring uses, and disinvestment.
- Maintain quality residential neighborhoods by avoiding the intrusion of non-compatible uses and/or non-residential traffic.

The diversity of Newington's housing stock including multi-family housing types) is a significant asset, since it increases the opportunity that people of all ages, means, and interests will be able to find housing in the community that meets their needs.

Future housing issues in Newington are likely to include:

- Continuing to diversify the housing portfolio (including upscale housing),
- Providing for housing that is more affordable for younger and older age groups, and
- Meeting the housing needs of an aging population.

Single Family Home



Multi-Family Development



NOAH Estimates

The United States Department of Housing and Urban Development (HUD) calculated the 2019 income for a four-person household in the Hartford region earning 80% of the area median income was \$78,320.

At the 30% threshold, a household earning that income could afford a housing payment of almost \$1,960 per month.

The American Community Survey (ACS) data for Newington reports that there were at least 2,100 apartments or homes in Newington where the gross rent was less than that.

In terms of buying a residence, a payment of \$1,960 per month for a mortgage, taxes, and utilities at prevailing terms in 2019 (4.0%, 30 years) would support a home sale price of more than \$200,000 if no down payment was made. ACS data indicate that about 3,400 housing units in Newington were valued at affordable levels (i.e. - less than \$200,000). With a down payment, even more housing units would be available.

Housing That Is More Affordable

Housing is considered affordable if a person or family spends less than 30 percent of their income on a mortgage or rent and related costs (taxes, utilities, etc.). For persons or families who earn 80 percent of area median income or below, it can be difficult to find adequate housing they can afford.

There are two types of housing that can meet this need:

- naturally occurring affordable housing units (NOAH) that sell or rent at affordable prices, and
- housing that is subsidized or deed-restricted to affordable prices.

Naturally Occurring Affordable Housing - As can be seen from the sidebar, there are about 5,500 housing units in Newington (over 40 percent of the housing stock) that are valued at affordable prices. Newington has a diverse housing stock and there is plenty of housing at different price levels to meet diverse housing needs. This is a strength of the community.

Subsidized / Deed-Restricted Affordable Housing - In Connecticut, the term “affordable housing” is used to refer to housing that is specifically dedicated or reserved in some way for households earning 80 percent or less of the area median income. Newington has over 1,100 housing units that meet these criteria and this totals about 8.6 percent of the housing stock in the community:

For Low / Moderate Income Households	
Governmentally Assisted Units	530
Tenant Rental Assistance	115
Single-Family CHFA/USDA Mortgages	435
Deed Restricted Units	36
Total Assisted Units	1,116
As Percent of 2010 Housing Units (13,011 units)	8.58%

In Connecticut, municipalities with *less than ten percent* of their housing stock meeting the above criteria are subject to the “Affordable Housing Appeals Procedure” (CGS Section 8-30g). This is an important consideration since, if a developer proposes a housing development containing affordable housing meeting certain criteria specified in the statute, such development may not have to comply with local land use regulations.

While the creation of affordable housing units can provide many benefits, communities often prefer that such units be created in locations and ways that fit with the character of the community.

Possible Strategies to Create Affordable Housing

ZONING APPROACHES

1. Adopt an inclusionary zoning requirement requiring that ***any housing development:***
 - create affordable units within that development or elsewhere in the community where such location is found acceptable by the Commission, and/or
 - pay a fee into a municipal Housing Trust Fund.
2. Provide for accessory apartments and other accessory dwelling units (see CGS Section 8-30g for how such units can be counted as affordable units).
3. Allow dimensional flexibility (such as building height or a density bonus) in appropriate areas when it will result in affordable housing units.

PARTNERSHIPS / FUNDING

4. Establish, maintain, and fund a local Housing Trust Fund.
5. Pursue grants for the construction and maintenance of affordable housing.
6. Work with local non-profit organizations to create affordable housing units.
7. Seek private donations of property for development of affordable and/or mixed-income housing.

OTHER APPROACHES

8. Research the potential for placing of deed-restrictions on “naturally-occurring affordable housing” so that Newington will get credit for such housing.
9. Seek ways to extend deed restrictions for a longer period.
10. Seek ways to convert existing housing units to deed-restricted affordable units through down payment assistance for new buyers, tax reduction for existing single-family and multi-family uses and purchase / restriction.

If Newington wishes to gain more control over the development of CGS 8-30g affordable housing in the community, there are two ways to become exempt:

- Find ways to create enough affordable housing units to meet the 10 percent threshold, or
- Find ways to create enough affordable housing units to get a series of four-year moratoria.

To meet the threshold -- 10 percent of the units in the last Census, Newington would need to have 1,301 affordable housing units. With 1,116 units today, reaching this threshold would require the creation of 185 affordable units. Note, however, that this threshold will change once the 2020 Census is released.

The other way to get a moratorium is to accumulate enough “housing unit equivalent points” to meet State-defined thresholds. Points can be obtained as follows:

	Ownership Unit	Rental Unit
Family units at 40% of area median income	2.0	2.5
Family units at 60% of area median income	1.5	2.0
Family units at 80% of area median income	1.0	1.5
Elderly units at 80% of area median income	0.5	0.5
Unrestricted units in a “set-aside” development	0.25	0.25
Bonuses for 3+ bedrooms, elderly units mixed with family units, approved incentive housing development, resident-owned mobile manufactured home park	varies	varies

Newington is in the process of applying to the Connecticut Department of Housing for a four-year moratorium based on “housing unit equivalent points” obtained since 1990.

Until that application is approved and the moratorium is granted, Newington is still subject to CGS 8-30g.

Housing For An Aging Population

Housing for an aging population is an important consideration for most communities and Newington is no exception.

For people with adequate incomes, Newington has a diverse array of housing choices for people to find a housing choice which meets their needs. In addition to independent living, Newington has several facilities which offer assisted living and other types of assistance / care.

For people who would prefer to remain in their own homes, Newington has a variety of services which can help people “age-in-place”. The demand for these services can be expected to increase significantly in the future.

The challenge can be that, although people’s life expectancies increase, their financial means do not. As a result, an increased need for subsidized housing for elder people can be anticipated in the future. Since there is already a substantial waiting list for housing managed by the Newington Housing Authority, work should begin now on finding ways to address this growing need.

Aging In Place

Newington offers several programs to assist the elderly age in place including:

- Elderly tax relief,
- Meals-on-Wheels,
- Dial-a-Ride, and
- Other services.

Multi-Family Housing



Housing Authority Housing



Housing Authority Housing



Assisted Living



Overall Housing Diversification

In addition to older age groups, there are other groups who may also seek housing options:

- Younger age groups starting to earn their way in the world who do not want to live at home,
- Younger age groups who may still be balancing college debt,
- Older persons who may experience job loss, divorce, or other events and would benefit from having housing options available when they need them,
- People with special needs (such as people who are mobility-impaired and use a walker or wheelchair).

Overall, there are many demographic segments where the current housing mix may not meet their current and future needs. Other communities have come to the realization that they can, and should, diversify their housing portfolio to provide for a variety of housing types.

Since accessory apartments can be an effective tool for addressing housing needs within the existing housing stock, the provisions in the Newington Zoning Regulations should be revisited to ensure they are meeting community needs.

Areas in Newington which may be best located to assimilate housing options within the community may include:

- **Newington Town Center (and nearby areas such as “Town Center East”) which will help support the strengthening of this area,**
- **Areas which are walkable to transit stations including:**
 - **the future train station location on Cedar Street,**
 - **the Cedar Street Fastrak station,**
 - **the Newington Junction Fastrak Station,**
- **Areas which are near existing CT-Transit bus routes.**

Single-Family Residential



Multi-Family Residential



C-2

**Excerpts from
2021-2026
Affordable
Housing Plan**

NEWINGTON

2021-26 Affordable Housing Plan



Town of Newington, CT

Adopted May 25, 2021

INTRODUCTION

1

1.1. Overview

Addressing changing housing needs and promoting diverse housing opportunities are priorities for the Town of Newington. While Newington already has a diverse housing stock, the Town has come to realize that the existing housing stock, which has served us so well over the years, does not meet the housing needs of everyone – even for some people who live here already.

For example, existing housing units may not be well configured to meet the housing needs of older persons and people, young and old, earning *less than the average income* have a harder time finding housing to meet their needs at a price they can afford. This can include:

- young adults (including people who grew up in Newington),
- young families just venturing out on their own,
- people working at businesses and industry in Newington,
- workers providing essential services to residents and businesses, and
- people who may have lived here their whole lives and now need or want smaller and less expensive housing so they can stay in Newington.

This Affordable Housing Plan is intended to help address this situation. The Plan looks at whether there will be affordable housing in the community that will be available for people who may need it at the time it is needed. Planning for housing needs is important since:

- Housing cannot be easily produced at the moment it is needed, and
- The lead times (planning, design, construction) are so long.

As a result, Newington needs to plan **today** for the affordable housing needs of the future.

“Decent, affordable housing should be a basic right for everybody in this country.

The reason is simple: without stable shelter, everything else falls apart.”

Matthew Desmond
American Sociologist

OVERALL GOAL

Seek to provide for housing opportunities in Newington for all people.

Affordability Explained

Housing is generally considered to be “affordable” if a household spends less than 30 percent of its income on housing (rent, mortgage, taxes, utilities, etc.).

While upper income households and typical income households may be able to afford to spend more than this on housing, lower income households generally cannot since doing so would take money away from food, transportation, healthcare, and other important expense categories.

Newington has thousands of rental and ownership units naturally affordable to persons earning 80% or less of the area median income

...

2.4. Affordability Characteristics

Housing affordability is an issue throughout Connecticut and communities are recognizing that community vitality, community diversity, and economic development can all be enhanced by having a housing portfolio which includes choices of housing units which are more affordable.

Using the methodology on page 9, the overall affordability of the existing housing stock can be evaluated.

Affordability of Existing Units Based On Census Data

Rental Units - When what people can afford to pay for gross rent (page 9) is compared to what people report paying (page 7), it becomes apparent that there are ***thousands of rental units*** in Newington which would be considered naturally affordable (even if the unit includes more bedrooms than the household might need):

Maximum Gross Rent	Estimated Number Of Rented Units Below That Value	Percent Of 2010 Housing Count
\$1,370	1,734 units	13.3%
\$1,570	2,187 units	16.8%
\$1,760	2,360 units	18.1%
\$1,960	2,542 units	19.5%
\$2,110+	2,661 units	20.5%

Planimetrics Based On HUD Income Data / American Community Survey, 5-Year Estimate (2018)

Owner Units– Similarly, comparing what housing price people can afford to pay at current financing terms after considering mortgage, taxes, insurance, etc. (page 9) to what people believe their house is worth (page 7), it becomes apparent that there are ***thousands of ownership units*** in Newington which would be considered naturally affordable (even if the unit includes more bedrooms than the household might need):

Maximum Sale Price	Estimated Number Of Owned Units Below That Value	Percent Of 2010 Housing Count
\$150,000	1,226 units	9.4%
\$169,000	1,996 units	15.38%
\$184,000	2,604 units	20.0%
\$197,000	3,131 units	24.1%

Planimetrics Based On HUD Income Data / American Community Survey, 5-Year Estimate (2018)

In addition, if a low-income household had enough funds for a 20% down payment, they could then afford housing priced about 20 percent higher than the purchase prices indicated above.

Estimating Affordability Of Existing Housing

A key measure of housing affordability is whether housing is available which is affordable to a household earning 80 percent or less of the area median income (generally considered to be lower income households). The calculation for Newington looks like this (2019 HUD data for Hartford metro region):

	Area Median Income A	80% of Median Income A x 0.8	30% Share For Housing B x 0.3	Monthly Allotment C / 12
1 -person HH	\$68,530	\$54,824	\$16,450	\$1,370
2 -person HH	\$78,320	\$62,656	\$18,800	\$1,570
3-person HH	\$88,110	\$70,488	\$21,150	\$1,760
4-person HH	\$97,900	\$78,320	\$23,500	\$1,960
5+ -person HH	\$105,732	\$84,586	\$25,380	\$2,110+

Planimetrics Based On HUD Income Data (2020)

The monthly housing allotment calculated above is the amount that could be spent on the maximum monthly gross rent (utilities included) where the number of bedrooms is one less than the size of the household.

	Maximum Gross Rent
Studio	\$1,370
1 Bedroom	\$1,570
2 Bedrooms	\$1,760
3 Bedrooms	\$1,960
4+ -Bedrooms	\$2,110+

Planimetrics Based On HUD Income Data (2020)

The monthly housing allotment calculated above can also be roughly translated to a maximum purchase price at prevailing financing terms (3.5 percent, fixed rate, 30-year mortgage, and assuming 100% financing and private mortgage insurance) where the number of bedrooms is one less than the size of the household. The purchase price was calculated using Zillow mortgage calculator after deducting utilities, property insurance, and taxes (at an equalized mill rate of 2.5% for Newington) from the monthly allotment.

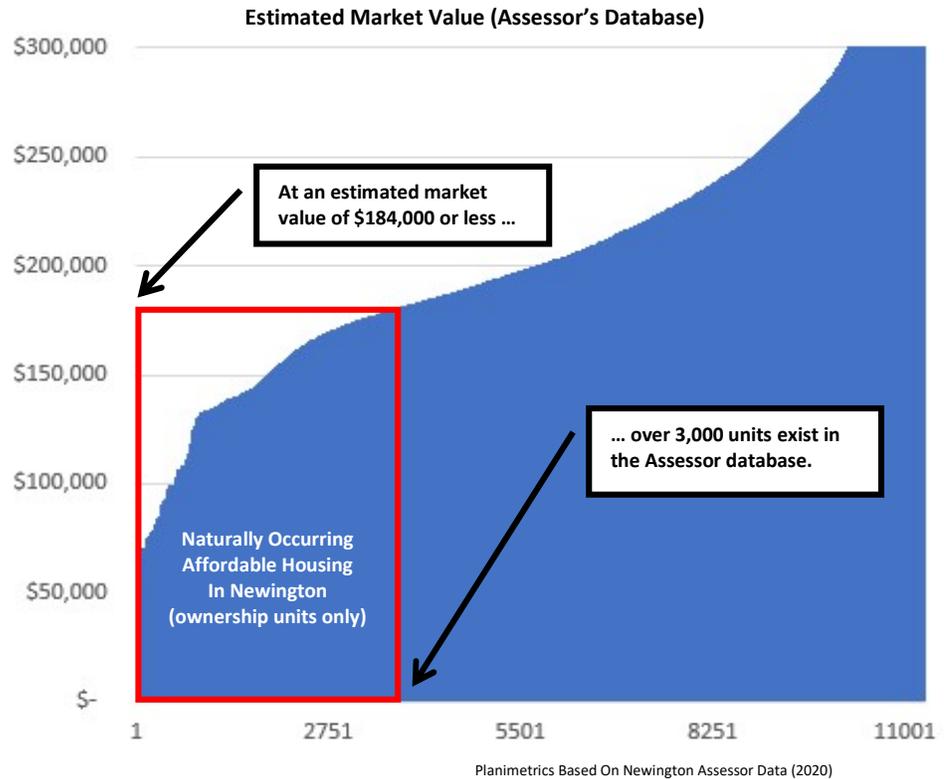
	Monthly Allotment	Allowances		Net For	
		Utilities	Insurances, Taxes, Etc.	Principal / Interest	Maximum Sale Price
Studio	\$1,370	\$210	\$486	\$674	\$150,000
1 Bedroom	\$1,570	\$270	\$541	\$759	\$169,000
2 Bedrooms	\$1,760	\$350	\$584	\$826	\$184,000
3 Bedrooms	\$1,960	\$450	\$925	\$885	\$197,000
4+ -Bedrooms	\$2,110+	\$600+	\$625+	\$885	\$197,000

Planimetrics Based On HUD Income Data (2020), DOH Allowance Estimates (2020), CERC Equalized Mill Rate (2020), and Zillow.

The Assessor's database also shows that Newington has many naturally affordable home ownership units ...

Affordability of Owner Units Based On Assessor Data

This finding of a considerable amount of naturally occurring affordable housing (ownership, not rental) is also supported by 2020 information from the Assessor's database of estimated market values.



Overall, almost 3,500 Newington households are spending more than 30 percent of their income on housing ...

Affordability Based On Cost Burden

Housing affordability can also be assessed by comparing actual housing costs to actual incomes. A household is considered to be cost burdened if more than 30% of their income goes towards housing costs.

Overall, almost 3,500 Newington households are spending more than 30 percent of their income on housing.

COST BURDEN	RENTER		OWNER w/ Mort.		OWNER No Mort.	
	Newington	Share	Newington	Share	Newington	Share
Less than 25.0 %	1,095	42%	3,647	60%	2,670	77%
25.0 to 29.9 %	425	16%	674	11%	161	5%
30.0 to 34.9 %	212	8%	428	7%	169	5%
35.0 % or more	898	34%	1,274	21%	502	14%

American Community Survey 5-Year Estimates (2019)

Older Households - Census data indicates that many elderly households have limited income and/or may be cost-burdened. Even though information from the American Association of Retired Persons (AARP) suggests that many households would prefer to age in place in their current homes, this could change quickly depending on health or financial circumstances, especially for those with lower incomes and/or higher cost burdens.

Older persons and households, especially those that are income constrained or cost-burdened, may want the opportunity or choice to transition to less expensive housing ...

Household Income By Householder Age Group							
OWNERS	\$0-20K	\$20-40K	\$40-60K	\$60-80K	\$80-100K	> \$100K	Total
Ages 20-29	3%	3%	14%	8%	13%	58%	100%
Ages 30-54	1%	4%	8%	9%	12%	66%	100%
Ages 55-64	2%	7%	7%	9%	17%	58%	100%
Ages 65-79	7%	16%	16%	15%	11%	35%	100%
Ages 80 +	18%	32%	21%	9%	6%	14%	100%
RENTERS							
Ages 20-29	3%	18%	30%	24%	14%	11%	100%
Ages 30-54	13%	14%	19%	14%	17%	23%	100%
Ages 55-64	19%	13%	12%	12%	24%	20%	100%
Ages 65-79	40%	29%	17%	7%	3%	5%	100%
Ages 80 +	39%	40%	11%	7%	2%	1%	100%

US Census / PUMS Micro-Sample Data

Cost Burden by Householder Age Group				
OWNERS	Less than 30%	30% To 34%	More Than 35%	Total
Ages 20-29	81%	6%	13%	100%
Ages 30-54	82%	5%	12%	100%
Ages 55-64	82%	4%	13%	100%
Ages 65-79	72%	5%	23%	100%
Ages 80 +	56%	7%	36%	100%
RENTERS				
Ages 20-29	57%	7%	36%	100%
Ages 30-54	65%	8%	27%	100%
Ages 55-64	66%	5%	29%	100%
Ages 65-79	42%	14%	44%	100%
Ages 80 +	34%	13%	53%	100%

US Census / PUMS Micro-Sample Data

ALICE Report

In 2020, the United Way issued an “ALICE” report on financial hardships faced by people in Connecticut. The term “ALICE” is an acronym for Asset Limited, Income Constrained, Employed.

The report looks at the number of households struggling to afford life’s basic necessities due to income limitations and/or expenses .

The 2020 ALICE Report estimated that 28 percent of the households in Newington fell below the ALICE threshold.

<https://alice.ctunited-way.org/meet-alice-2/>

Lower Income Households - Housing costs can also pose a significant burden for low- and moderate-income households earning less than 80 percent of area median income (see income levels on page 9).

As might be expected, lower income households are the most cost-burdened owners and renters. It is not until incomes get above \$60,000 per year that people are in a position to be able to afford rents or mortgages without paying more than 30 percent of their income for housing.

Cost Burden By Household Income Group				
OWNER	Less than 30%	30% To 34%	More Than 35%	Total
\$0 – \$19,999	4%	3%	93%	100%
\$20 – \$39,999	32%	10%	59%	100%
\$40 – \$59,999	52%	12%	36%	100%
\$60 – \$79,999	72%	10%	19%	100%
\$80 – \$99,999	85%	7%	8%	100%
\$100,000 +	96%	2%	2%	100%
RENTER				
\$0 – \$19,999	15%	11%	74%	100%
\$20 – \$39,999	22%	6%	72%	100%
\$40 – \$59,999	42%	26%	32%	100%
\$60 – \$79,999	92%	5%	3%	100%
\$80 – \$99,999	100%	0%	0%	100%
\$100,000 +	99%	1%	0%	100%

US Census / PUMS Micro-Sample Data

2.5. State-Defined Affordable Housing

Overall, there are about 1,155 housing units in Newington which are assisted or restricted in some way to remain affordable for some time (see sidebar),

	Newington	Share	County	State
Government-Assisted	531	4.1%	7.4%	6.1%
Tenant Rental Assistance	116	0.9%	4.0%	3.0%
CHFA / USDA Mortgages	472	3.6%	2.8%	1.9%
Deed-Restricted Units	36	0.3%	0.2%	0.4%
Total	1,155	8.9%	14.4%	11.3%

DOH Affordable Housing Appeals List (2019)

Government-Assisted Units - Newington has 531 government-assisted units. Since government assisted units have been funded by government programs related to housing, Newington can be fairly comfortable that these units will continue to be affordable for the foreseeable future.

Elderly + Disabled (214 units)	#	Year Built
Cedar Village (Housing Authority (NHA))	40	312-316 Cedar Street
Edmund J. Kelleher Park (NHA)	40	241 West Hill Road
New Meadow Village (NHA)	26	1 Mill Street Ext.
Market Square	76	65 Constance Leigh Drive
Meadowview	32	50 Mill St. Ext.
Family + Elderly (316 units)		
Griswold Hills	128	10 Griswold Hills Drive
Victory Gardens	74	555 Willard Avenue
Southfield Apartments	114	85 Faith Road
Other (1 unit)		
Group Home	1	98 Cedar Street

DOH Affordable Housing Database (2019)

Tenant Rental Assistance Units – The locations of the tenants receiving tenant rental assistance are not disclosed. The number and location of tenant rental assistance units can change over time since the assistance is provided to eligible people. Over the past decade, Newington has had *between 84 and 148 units*.

Overall, Newington has 1,155 housing units that meet State criteria for “affordable housing” ...

State statutes only consider housing which is encumbered in some way to sell or rent at affordable price levels:

- Governmentally assisted housing developments,
- Rental units occupied by households receiving tenant rental assistance,
- Ownership units financed by government mortgages for low/moderate income persons and families,
- Housing units subject to deed restrictions limiting the price to where persons or families earning eighty percent or less of the area median income pay thirty per cent or less of their income for housing.

CHFA/USDA Mortgages – The locations of the units financed by CHFA/USDA mortgages are not disclosed. The number and location of CHFA/USDA mortgage units can change over time since the assistance is provided to eligible people. Over the past decade or so, Newington has had between 366 and 472 units.

Deed-Restricted Units –Newington has 36 deed-restricted units on Hopkins Drive and these units are restricted in perpetuity.

Elderly / Disabled Housing

Cedar Village



Keleher Park



Meadow View



Family Housing

Southfield Apartments



Griswold Hills



Victory Gardens

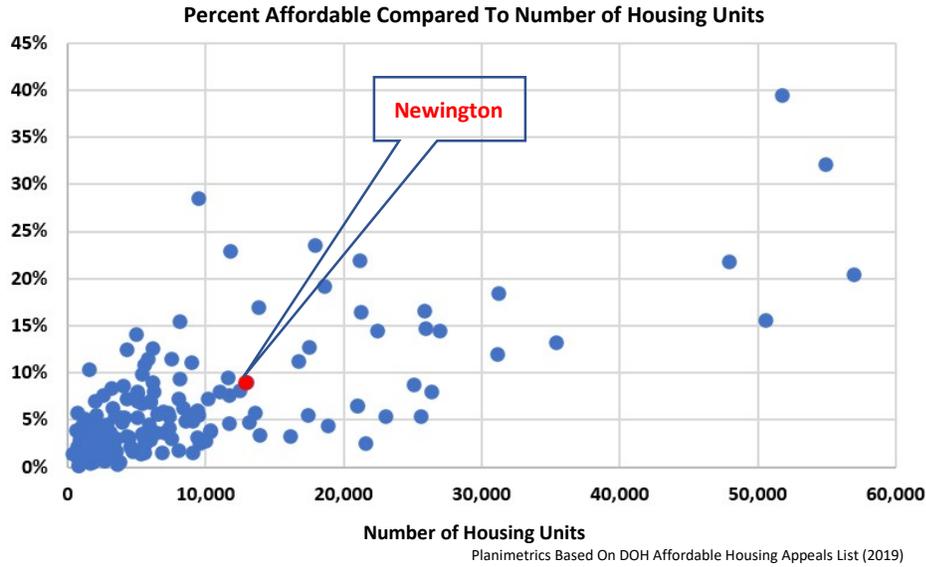


Deed-Restricted Housing

Hoskins Ridge



The following chart compares the number of State-defined affordable housing units in Newington to some other Connecticut communities.



Similar # of Housing Units	% AH	Similar Affordable %	# Units		
Branford	13,972	3.36%	Winchester	5,613	10.81%
Vernon	13,896	16.86%	North Canaan	1,587	10.27%
Glastonbury	13,656	5.72%	Windsor	5,429	9.82%
Trumbull	13,157	4.68%	Wethersfield	11,677	9.45%
Naugatuck	13,061	8.87%	Berlin	8,140	9.31%
Newington	13,011	8.88%	Newington	13,011	8.88%
East Haven	12,533	8.03%	Colchester	6,182	8.88%
New London	11,840	22.83%	Naugatuck	13,061	8.87%
Windsor	11,767	7.52%	Hamden	25,114	8.67%
New Milford	11,731	4.59%	Portland	4,077	8.49%
Wethersfield	11,677	9.45%	Brooklyn	3,235	8.28%

Planimetrics Based On DOH Affordable Housing Appeals List (2019)

3.3.1. Expand The Number Of Low-Income Elderly Units

Although there are 214 elderly housing units in Newington at the present time (106 managed by the Newington Housing Authority and 108 managed by other entities), it is not enough to meet the growing need. Most units were built in the 1970s and 1980s.

According to the Newington Housing Authority, there are currently about 150 people on the waiting list for an elderly housing unit in Newington and the estimate is that it might be **two years** before a unit becomes available. The waiting period at local elderly housing developments not managed by the Housing Authority may be even longer.

This is an issue because people and families often find themselves in situations where they need alternative housing at that time. When an elderly person or couple gets to the point that they realize they need lower cost housing they can afford, it can be heart-breaking to learn that there is a two-year waiting period (or more) before a unit may be available. Simply, there are not enough units to meet the current demand for elderly housing.

It is anticipated that the lack of elderly housing units will get worse over time since the number of elderly residents is expected to increase in the future. Improvements in healthcare and lifestyles have increased life expectancies and people may outlive their financial resources.

If no units are added, the wait times will get even longer and elderly people who need housing assistance will struggle to make ends meet.

There is a two-year waiting period for elderly households who may need an affordable unit now ...

Need For Elderly Housing Units

In terms of housing for low-income elderly persons, Newington has several developments to help address this need. However, more units are needed since:

- The elderly population is expected to continue to increase,
- Over the years, some of the units built for elderly have been repurposed for disabled persons so there are actually fewer elderly units than there were when the developments were built, and
- There is a long waiting period for people who want or need a unit.

Possible Sites

Cedarcrest Hospital Site
Russell Road

I-291 ROW

- Maple Hill Avenue
- New Britain Avenue
- Willard Avenue

Excess Town Land

Underused School Building
(Public or Parochial)

Day Street area

Other Site(s)

The only way to address the housing need for the lowest income elderly is to build subsidized elderly housing using State or Federal funding programs. Newington should start the process of working with State and/or Federal agencies to get funding to add more elderly housing units.

Of course, land is typically the biggest challenge for initiating a project such as this. In Newington, the following sites may have some potential for supporting the development of additional elderly housing units in Newington:

ADDRESS HOUSING NEEDS OF AN AGING POPULATION Expand The Number Of Low-Income Elderly Units		Leader Partners
1.	Obtain Land – a. Obtain and dedicate land in Newington for development of additional elderly housing units. b. Seek to acquire surplus State-owned parcels (or facilities) for affordable elderly housing.	Town NHA
2.	Start The Process - Start the process of working with State and/or Federal agencies to get funding to add more elderly housing units.	Town NHA

Legend on inside back cover

Elderly Couples



Seniors



Long-Time Residents



D

Newington Housing Data Profile

NEWINGTON



KEY FINDINGS

Housing

9%

of housing is subsidized

21%

of all homes occupied by renters

24%

of housing units are in multifamily buildings

Affordability

15%

of households spend between 30% and 50% of their income on housing

9%

of households spend more than half of their income on housing

\$28.83

the hourly wage needed to afford a 2-bedroom apartment

Population

45

the median age of residents

28%

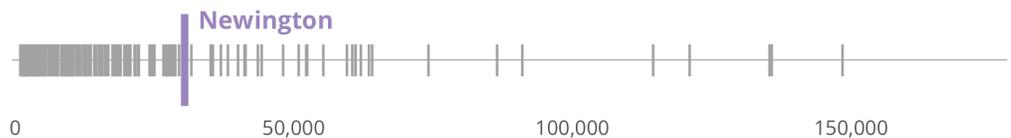
of residents are people of color (BIPOC)

+2.7%

population change between 2020 and 2023

HOW TO READ THIS REPORT

Throughout this report, a series of graphs like the one below are used to show how Newington compares to other towns in the state on a variety of measures.



ABOUT THE HOUSING DATA PROFILES

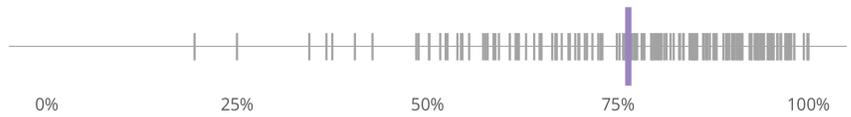
The Partnership for Strong Communities' Housing Data Profiles are a free resource to help Connecticut residents, developers, legislators, municipal officials, and others make data-informed decisions. Profiles are available for every town and Council of Governments in the state. To learn more, please visit pschousing.org or housingprofiles.pschousing.org to view the interactive version of the profiles.

DATA NOTES

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SINGLE-FAMILY HOMES AS PERCENT OF ALL HOMES

76%

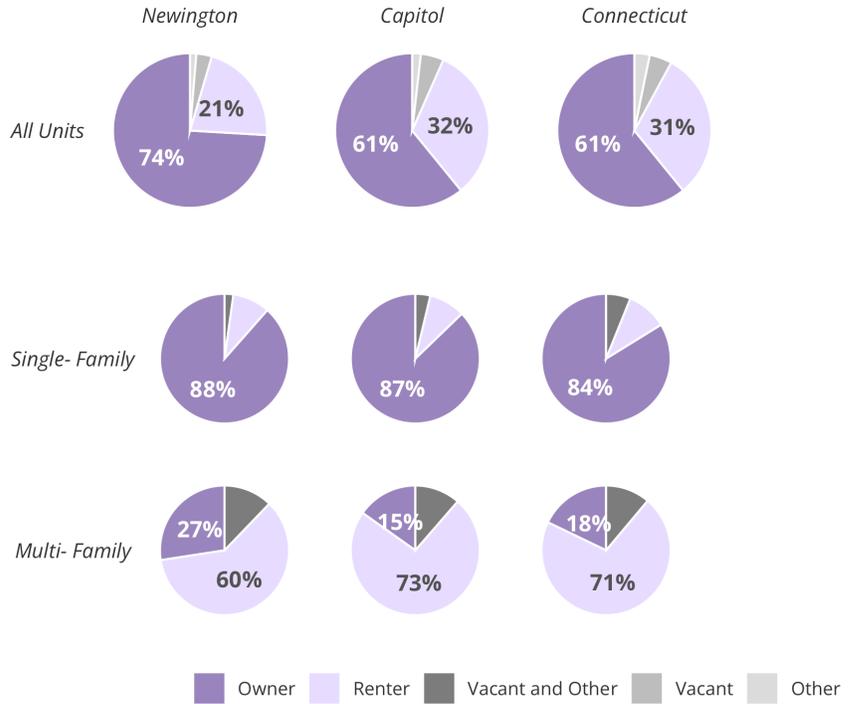


PERCENT OF ALL HOMES OCCUPIED BY OWNERS

74%

Overall, 65% of Connecticut's occupied housing stock is comprised of single-family housing, while 35% is multifamily housing (2+ units in structure). Most single-family homes are occupied by homeowners, while most multifamily units are occupied by renters.

In Newington, 76% of occupied homes are single-family, and 24% are multi-family. Owners live in 88% of Newington's 10,010 single-family homes, and renters live in 60% of its 3,095 multifamily homes.



Vacant units include units that are for rent and other vacant units, and Other units include units that are rented but not occupied, for sale, sold but not occupied, for seasonal/recreational/occasional use, and for migrant workers.

CHANGE IN BUILDING PERMITS, 1990-2023

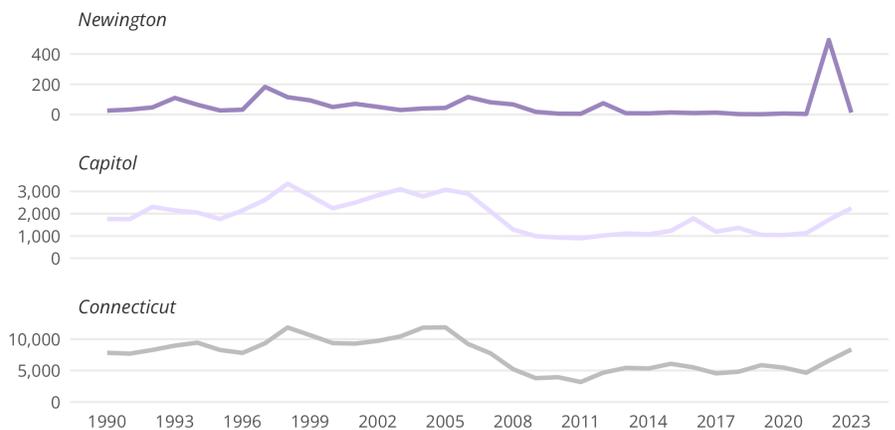
-50%

Growth is slow in the state, which has seen a 7% decrease in building permits between 1990 and 2023.

In Newington, there were 26 building permits issued in 1990, compared to 13 issued in 2023, representing a 50% decrease.

Number of building permits per year, 1990-2023

Note: y axis varies between locations



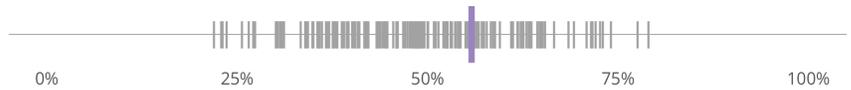
Source: Connecticut Department of Economic and Community Development



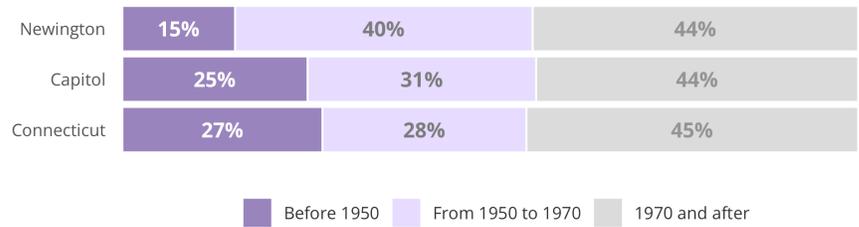
UNITS BUILT BEFORE 1970

56%

Older homes are prone to falling into disrepair, and often carry environmental risks such as lead paint. An aging housing stock can be a sign of poor housing quality.



Age of units

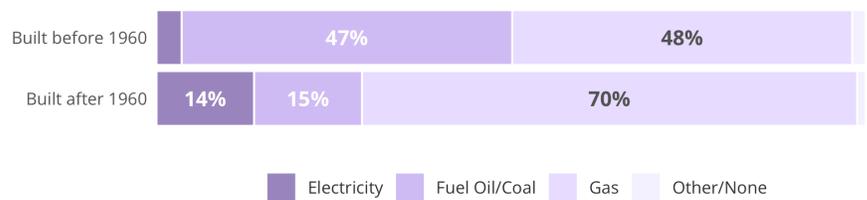


SPENDING ON ENERGY AS PERCENT OF TOTAL INCOME

3.1%

Households that use electricity spend 2.8% of their income on energy (3.4% for fuel oil/coal and 3.1% for gas).

Units by age and fuel type



Source: United States Department of Energy

AFFORDABLE HOMES AS A SHARE OF ALL HOUSING UNITS

9%

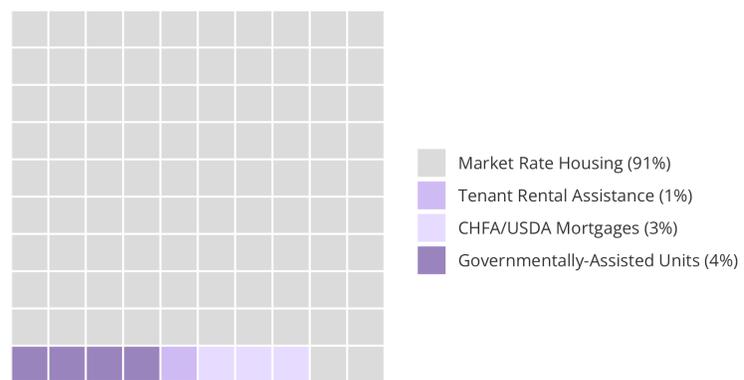
The CT Department of Housing calculates the percentage of affordable units in a municipality annually for the Affordable Housing Appeals List. Affordable units are units that are subsidized below market-rate through programs like Housing Choice Vouchers or CHFA/USDA mortgages.

Of the 13,219 total units in Newington, 1,134 are considered to be affordable.



Source: Connecticut Department of Housing

Affordable units by type



Source: Connecticut Department of Housing



PEOPLE BURDENED BY COST OF HOUSING

24%

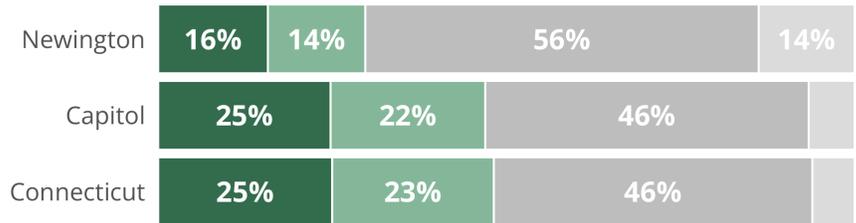
Households that are cost-burdened spend more than 30% of their income on housing. Severely cost-burdened spend more than 50% on housing.



RENTERS BURDENED BY COST OF HOUSING

30%

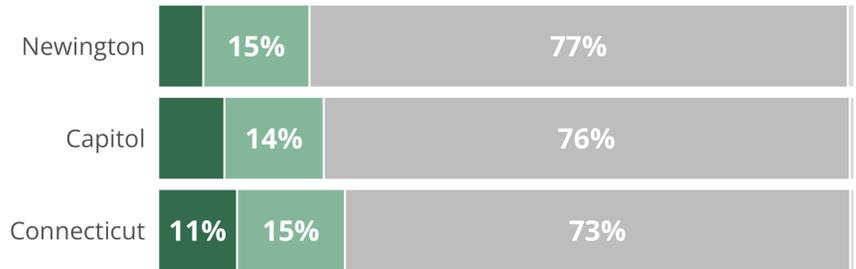
Housing cost burden for renters



OWNERS BURDENED BY COST OF HOUSING

22%

Housing cost burden for owners



Severe burden (50% or greater) Moderate burden (Between 30% and 50%) Not burdened (Less than 30%) Not Computed

RENTERS' HOUSING COSTS AS PERCENT OF INCOME

20%

Housing costs as percent of income

Housing costs as percent of income Median income



OWNERS' HOUSING COSTS AS PERCENT OF INCOME

16%



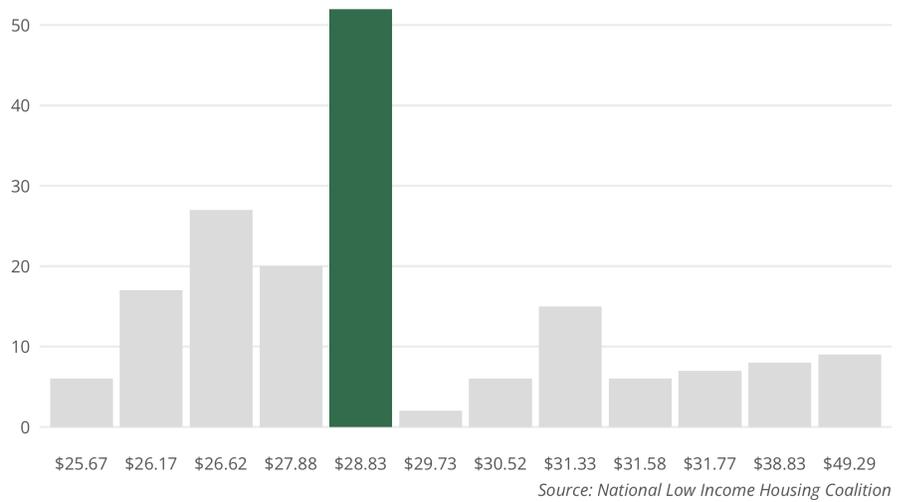
HOUSING WAGE

\$28.83

Each year, the National Low Income Housing Coalition calculates the "housing wage," the hourly wage needed to afford a two-bedroom rental home without paying more than 30% of income on housing.

Newington is included in the Hartford-West Hartford-East Hartford HMFA. Newington's housing wage is lower than the state housing wage of \$31.93.

Newington is one of 52 towns with a housing wage of \$28.83

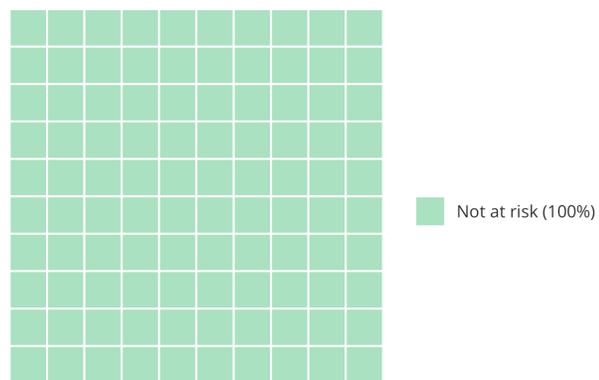


HOUSING PRESERVATION UNITS

0%

Newington has 423 federally assisted housing units, of which 0% are at risk of loss within the next 5 years.

Housing preservation by risk

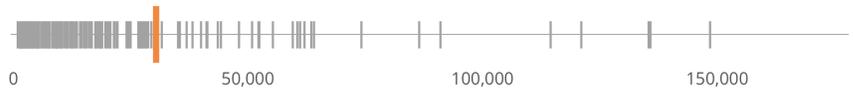


Source: National Housing Preservation Database



TOTAL POPULATION

30,458

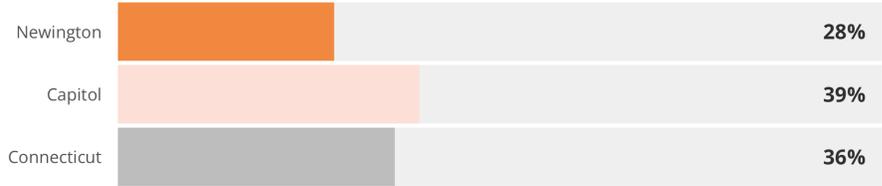


PEOPLE OF COLOR

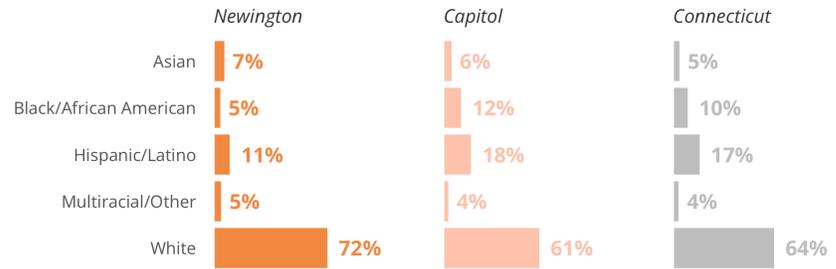
28%

Connecticut population is becoming increasingly diverse, but the BIPOC population is concentrated in certain municipalities, especially Connecticut's cities. In Newington, 28% of residents are BIPOC, while 72% are white.

Newington is less diverse than Connecticut



The largest race/ethnicity group in Newington is White at 72% of the population



MEDIAN AGE

44.7

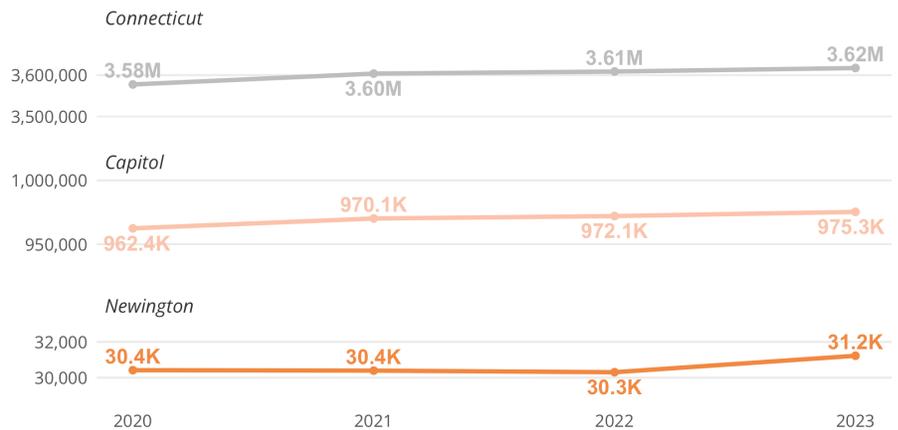


POPULATION ESTIMATES, 2020 TO 2023

+2.7%

From 2020 to 2023, Newington's population increased from 30,420 to 31,227.

Population Estimates From 2020 to 2023

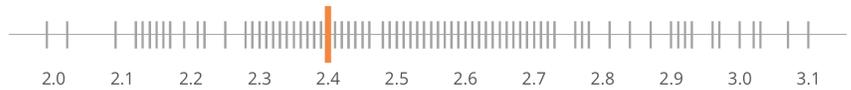


Source: Connecticut Department of Public Health



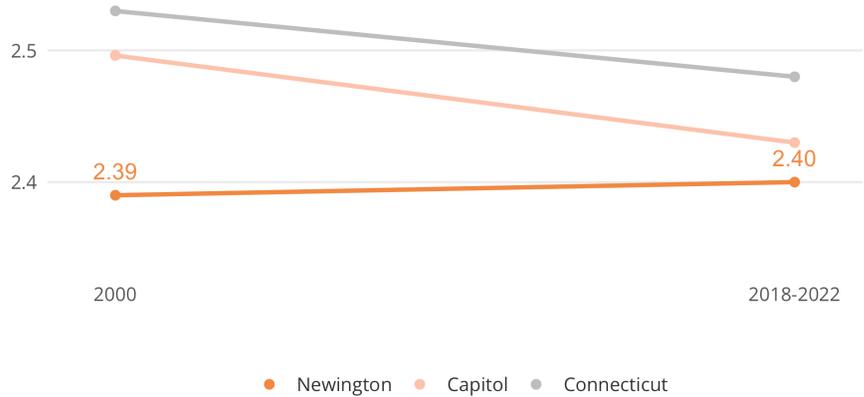
AVERAGE HOUSEHOLD SIZE

2.40



The average household size in Newington has grown between 2000 and 2022.

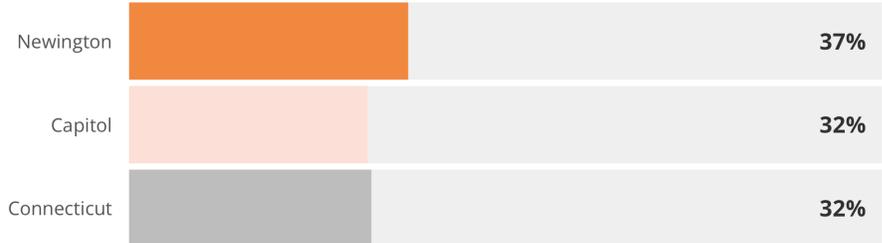
The average household size in Newington has grown from 2.39 in 2000 to 2.4 in 2022



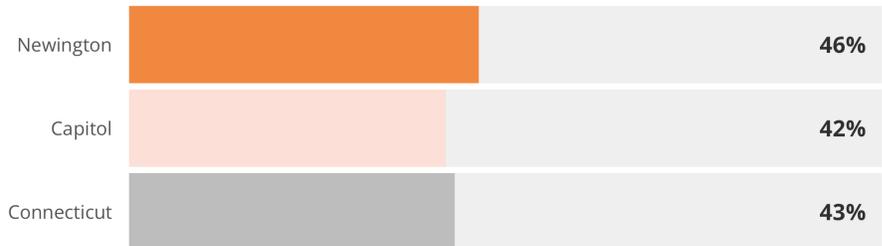
Understanding who lives in our towns provides insight into the housing and service needs for each community such as accessibility, transportation, child care, and education. Compared to Connecticut, Newington has more households with someone older than 60 and households with school-age children.

Household types as a percent of total

Householder living alone



Households with someone older than 60

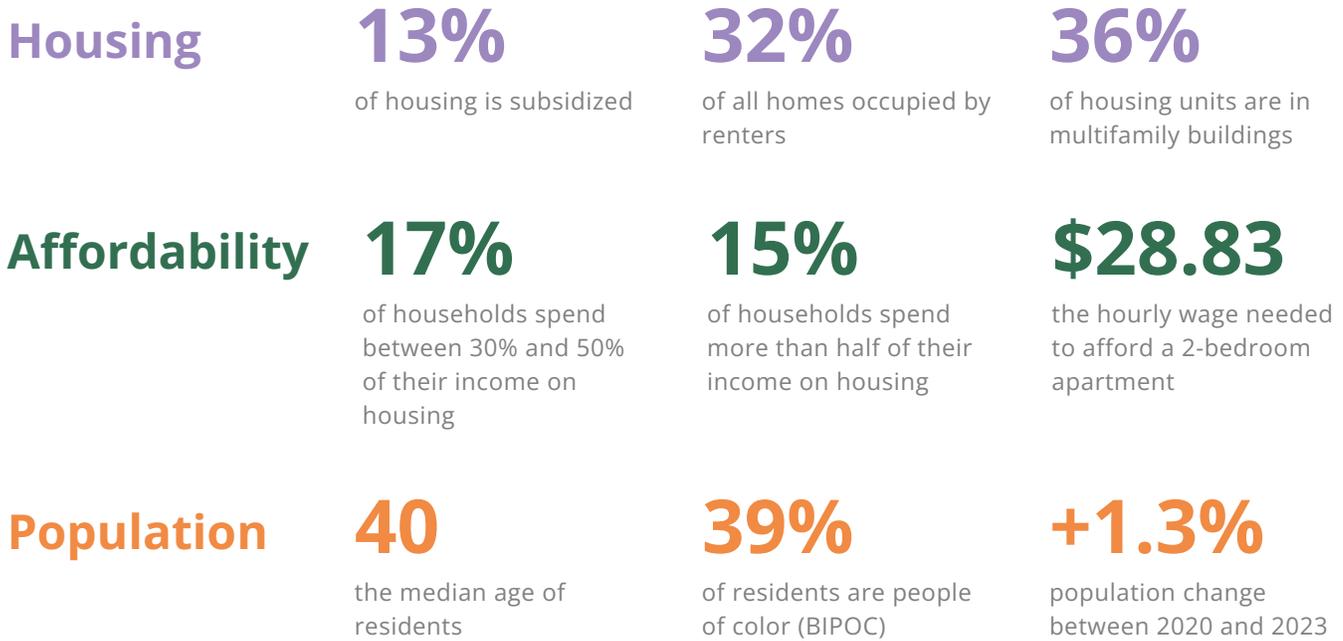


Capitol Region Housing DataProfile

CAPITOL

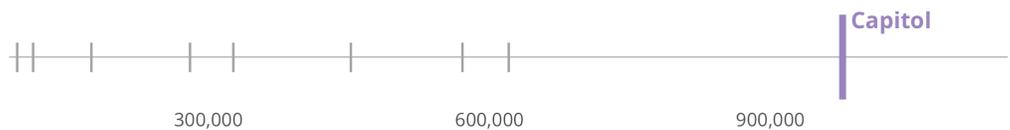


KEY FINDINGS



HOW TO READ THIS REPORT

Throughout this report, a series of graphs like the one below are used to show how **Capitol** compares to other planning regions in the state on a variety of measures.



ABOUT THE HOUSING DATA PROFILES

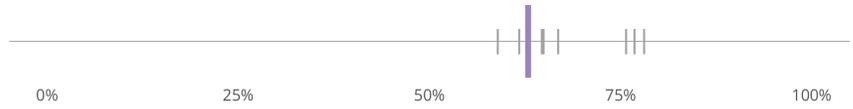
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DATA NOTES

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SINGLE-FAMILY HOMES AS PERCENT OF ALL HOMES

63%

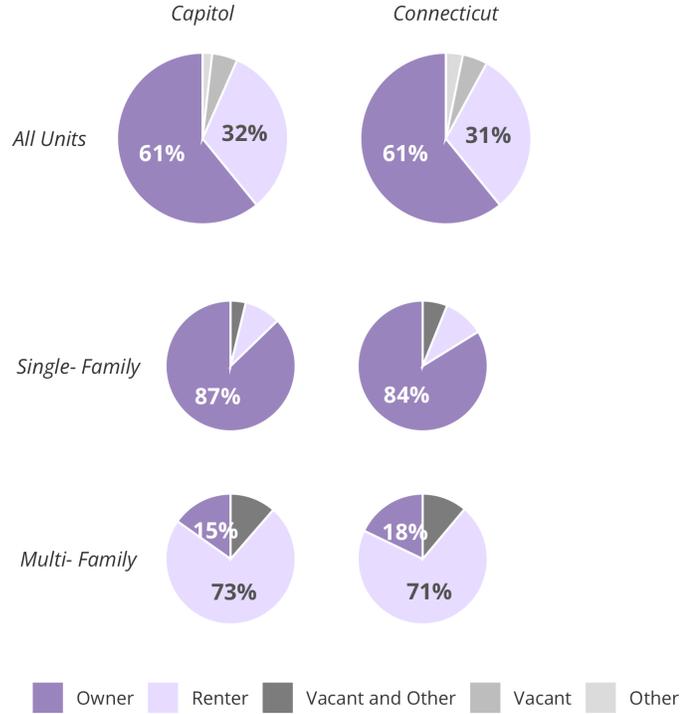


PERCENT OF ALL HOMES OCCUPIED BY OWNERS

61%

Overall, 65% of Connecticut's occupied housing stock is comprised of single-family housing, while 35% is multifamily housing (2+ units in structure). Most single-family homes are occupied by homeowners, while most multifamily units are occupied by renters.

In Capitol, 63% of occupied homes are single-family, and 36% are multi-family. Owners live in 87% of Capitol's 260,487 single-family homes, and renters live in 73% of its 150,689 multifamily homes.



Vacant units include units that are for rent and other vacant units, and Other units include units that are rented but not occupied, for sale, sold but not occupied, for seasonal/recreational/occasional use, and for migrant workers.

CHANGE IN BUILDING PERMITS, 1990-2023

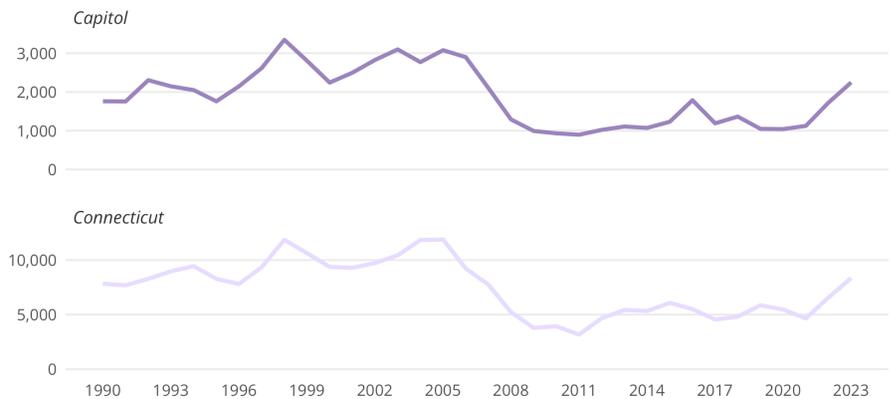
+28%

Growth is slow in the state, which has seen a 7% decrease in building permits between 1990 and 2023.

In Capitol, there were 1,760 building permits issued in 1990, compared to 2,246 issued in 2023, representing a 28% increase.

Number of building permits per year, 1990-2023

Note: y axis varies between locations



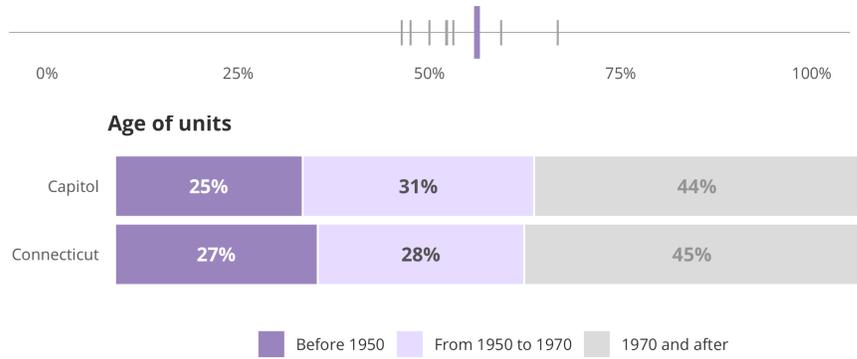
Source: Connecticut Department of Economic and Community Development



UNITS BUILT BEFORE 1970

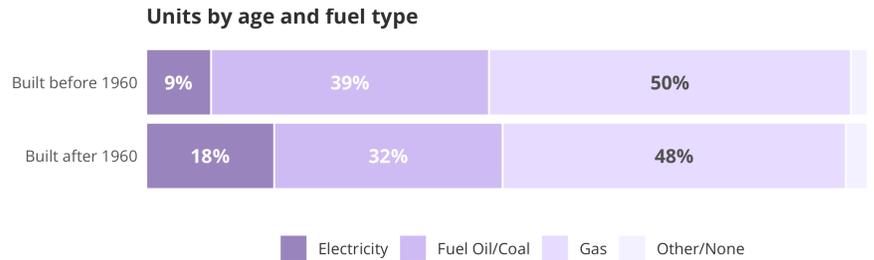
56%

Older homes are prone to falling into disrepair, and often carry environmental risks such as lead paint. An aging housing stock can be a sign of poor housing quality.



SPENDING ON ENERGY AS PERCENT OF TOTAL INCOME

Households that use electricity spend NA of their income on energy (3.1% for fuel oil/coal and NA for gas).



Source: United States Department of Energy

AFFORDABLE HOMES AS A SHARE OF ALL HOUSING UNITS

13%

The CT Department of Housing calculates the percentage of affordable units in a municipality annually for the Affordable Housing Appeals List. Affordable units are units that are subsidized below market-rate through programs like Housing Choice Vouchers or CHFA/USDA mortgages.

Of the 414,084 total units in Capitol, 55,285 are considered to be affordable.



Source: Connecticut Department of Housing



PEOPLE BURDENED BY COST OF HOUSING

32%

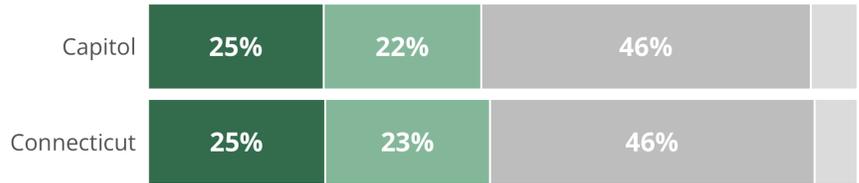
Households that are cost-burdened spend more than 30% of their income on housing. Severely cost-burdened spend more than 50% on housing.



RENTERS BURDENED BY COST OF HOUSING

47%

Housing cost burden for renters



OWNERS BURDENED BY COST OF HOUSING

24%

Housing cost burden for owners

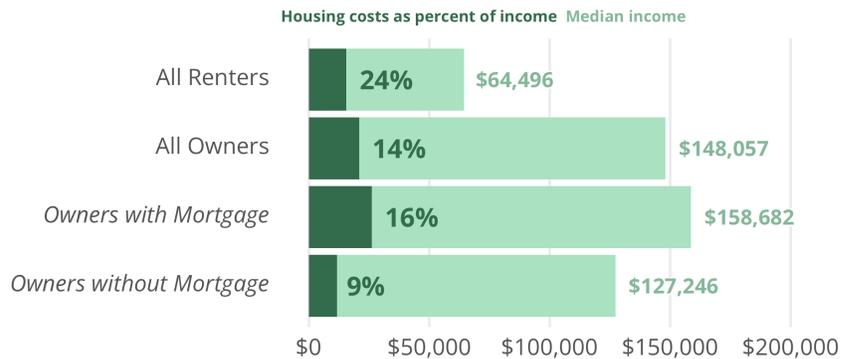


■ Severe burden (50% or greater)
 ■ Moderate burden (Between 30% and 50%)
 ■ Not burdened (Less than 30%)
 ■ Not Computed

RENTERS' HOUSING COSTS AS PERCENT OF INCOME

24%

Housing costs as percent of income



OWNERS' HOUSING COSTS AS PERCENT OF INCOME

14%



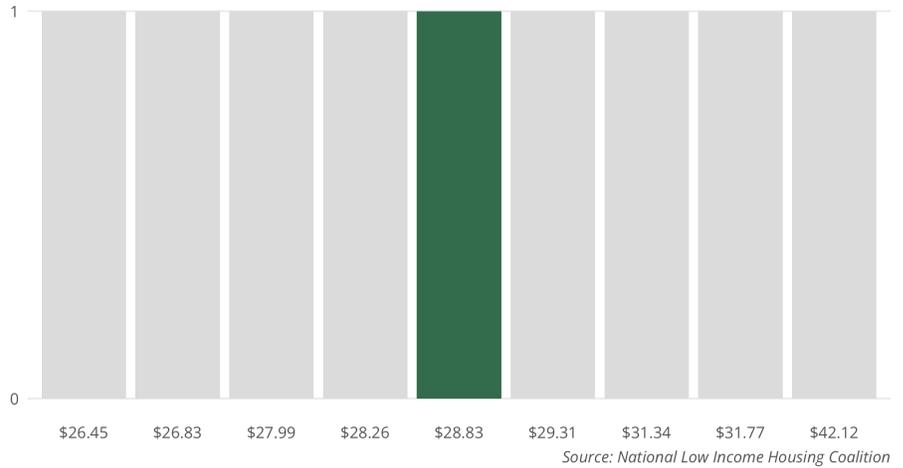
HOUSING WAGE

\$28.83

Each year, the National Low Income Housing Coalition calculates the "housing wage," the hourly wage needed to afford a two-bedroom rental home without paying more than 30% of income on housing.

Capitol's housing wage is lower than the state housing wage of \$31.93.

The housing wage in Capitol is \$28.83

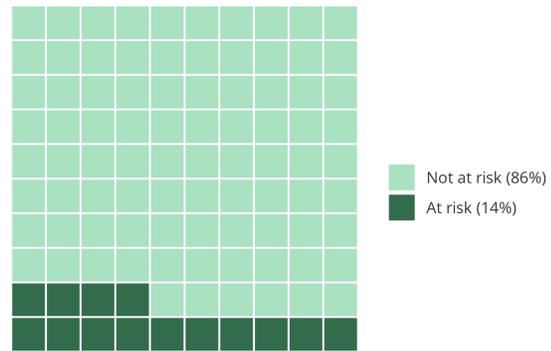


HOUSING PRESERVATION UNITS

14%

Capitol has 25,972 federally assisted housing units, of which 14% are at risk of loss within the next 5 years.

Housing preservation by risk

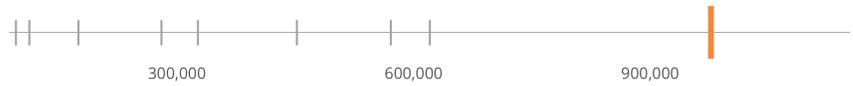


Source: National Housing Preservation Database



TOTAL POPULATION

977,165

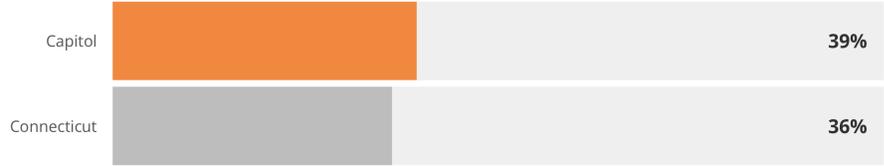


PEOPLE OF COLOR

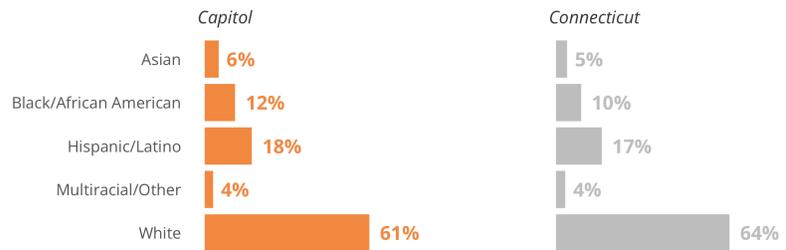
39%

Connecticut population is becoming increasingly diverse, but the BIPOC population is concentrated in certain municipalities, especially Connecticut's cities. In Capitol, 39% of residents are BIPOC, while 61% are white.

Capitol is more diverse than Connecticut

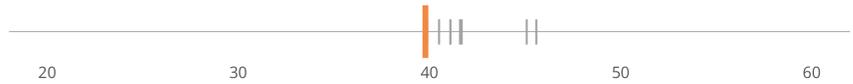


The largest race/ethnicity group in Capitol is White at 61% of the population



MEDIAN AGE

39.8

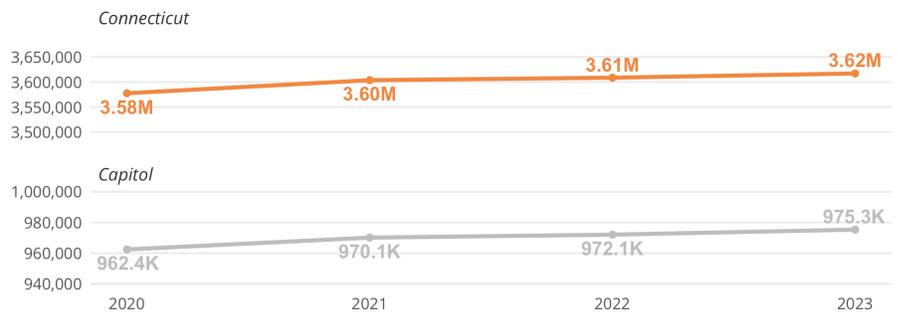


POPULATION ESTIMATES, 2020 TO 2023

+1.3%

From 2020 to 2023, Capitol's population increased from 962,436 to 975,328.

Population Estimates From 2020 to 2023



Source: Connecticut Department of Public Health



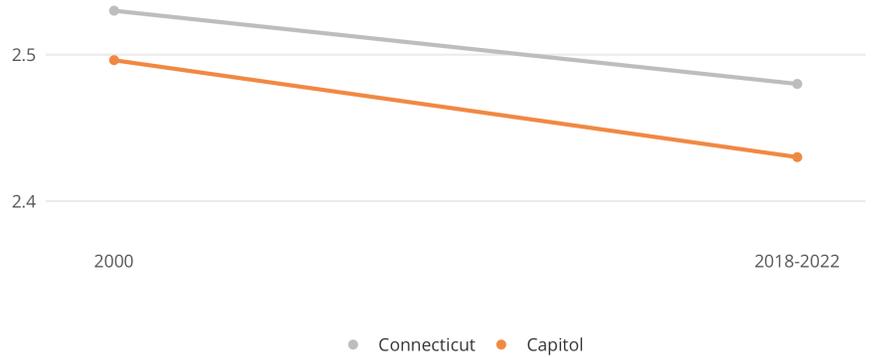
AVERAGE HOUSEHOLD SIZE

2.43



The average household size in Capitol has declined between 2000 and 2022.

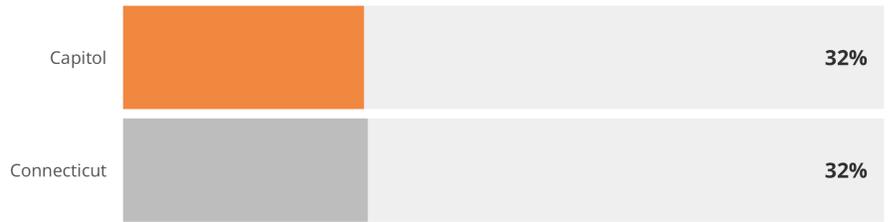
The average household size in Capitol has declined from 2.5 in 2000 to 2.43 in 2022



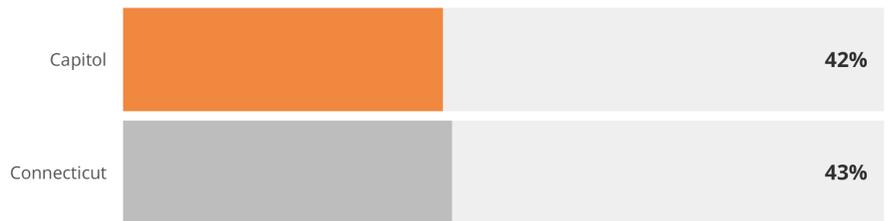
Understanding who lives in our towns provides insight into the housing and service needs for each community such as accessibility, transportation, child care, and education. Compared to Connecticut, Capitol has fewer households with someone older than 60 and households with school-age children.

Household types as a percent of total

Householder living alone



Households with someone older than 60



E

OUT *of* REACH

THE HIGH COST OF HOUSING



NATIONAL LOW INCOME HOUSING COALITION

INTRODUCTION

For far too long, accessible, safe, and affordable housing has been out of reach for millions of the nation's lowest-income renters. Although most indicators show that the economy is strong, the lowest-income renters continue to confront significant challenges finding and maintaining access to safe and affordable rental housing. Insufficient wages, rising rents, and an inadequate housing safety net all contribute to the problem. Substantial, long-term investments in affordable housing solutions are desperately needed to address this crisis once and for all.

The U.S. experienced the strongest economic growth among advanced economies in 2023 (International Monetary Fund (IMF), 2024). Additionally, the national unemployment rate fell from 14.8% in April 2020 to 3.8% in March 2024, just two tenths of a percentage point higher than it was prior to the beginning of the COVID-19 pandemic in January 2020 (U.S. Bureau of Labor Statistics (BLS), 2024). Meanwhile, workers at the bottom of the wage distribution are benefiting from strong wage growth. Between 2019 and 2023, wages for workers in the bottom 10th percentile of wages increased by 12.1% – the highest increase for any income group (Gould & DeCourcy, 2024). Yet, as this report will show, millions of low-income households are struggling to afford rent.

For more than 30 years, the National Low Income Housing Coalition's (NLIHC) *Out of Reach* report has called attention to the disparity between wages and the cost of rental housing in the U.S. Every year, the report shows that affordable rental homes are out of reach for millions of low-wage workers, families, and other renters. The report's

signature statistic, the "Housing Wage," is an estimate of the hourly wage a full-time worker must earn to afford a modest rental home at the U.S. Department of Housing and Urban Development's (HUD) fair market rent without spending more than 30% of their income. Fair market rents are estimates of what a household moving today can expect to pay for a modestly priced rental home of decent quality. Rental homes renting for a fair market rent are not luxury housing. The 2024 National Housing Wage is \$32.11 for a modest two-bedroom rental home and \$26.74 for a modest one-bedroom rental home.

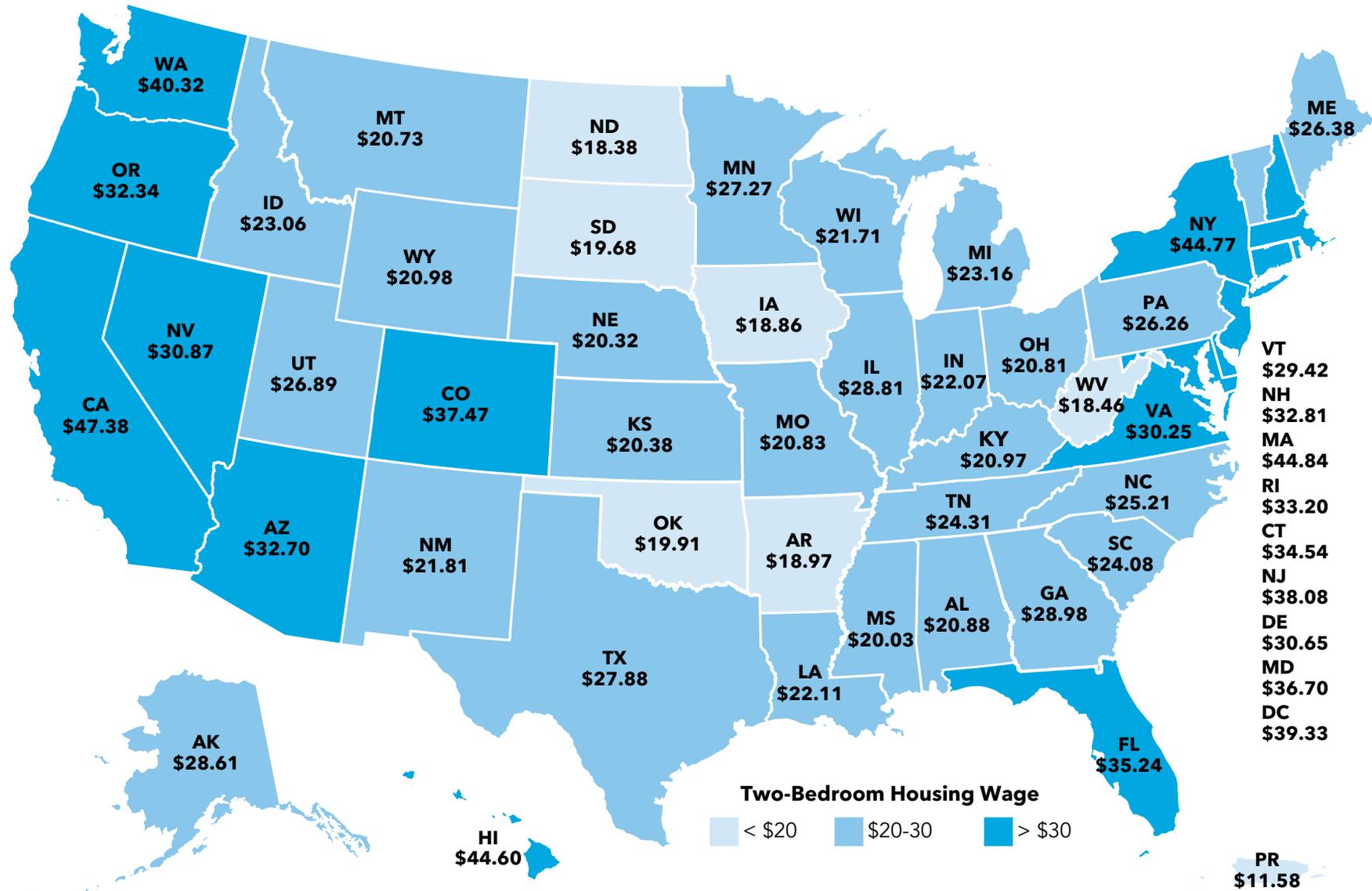
Figure 1 provides state-specific Housing Wage estimates, since the one- and two-bedroom Housing Wages vary across the country. As this report shows, the Housing Wage is far higher than federal or state minimum wages and higher than median wages for workers in some of the country's most common occupations, like home health and personal care aides, food service workers, and administrative assistants. Indeed, more than half of workers' median hourly wages are less than the one-bedroom Housing Wage (U.S. Bureau of Labor Statistics (BLS), 2023). People of color are disproportionately impacted by the gap between low-wages and high rents because they are more likely to work in low-wage jobs and rent their homes.

Even among those fortunate enough to have found relatively affordable homes, low-wage renters are often only one missed paycheck or unexpected expense away from not being able to pay their rent. Stable, affordable housing is a prerequisite for basic well-being, and no person

should live in danger of losing their home. Addressing the country's long-term housing affordability crisis requires bridging the gap between rents and incomes by raising wages and expanding Housing Choice Vouchers to all households in need of them. However, due to severe underfunding, just one out of every four income eligible households receives the help it needs from federal housing assistance (Mazzara, 2021). Only sustained, long-term federal investments in rental housing can ensure that the lowest-income renters have affordable homes. Congress must recognize the urgent need to fund rental assistance, expand the supply of affordable rental housing, preserve the existing housing stock, provide short-term assistance to renters in crisis, and protect renters from unfair treatment.

SUBSTANTIAL, LONG-TERM INVESTMENTS IN AFFORDABLE HOUSING SOLUTIONS ARE DESPERATELY NEEDED TO ADDRESS THIS CRISIS ONCE AND FOR ALL.

FIGURE 1. 2024 TWO-BEDROOM RENTAL HOUSING WAGES



This map displays the hourly wages that a full-time worker must earn (working 40 hours per week, 52 weeks per year) in every state, the District of Columbia, and Puerto Rico in order to afford Fair Market Rent for a **TWO-BEDROOM RENTAL HOME**, without paying more than 30% of income.

RENTAL HOUSING IS UNAFFORDABLE FOR LOW-WAGE WORKERS

Thirty states, the District of Columbia, and Puerto Rico have minimum wages that are higher than the federal minimum wage. State minimum wages range from \$8.75 in West Virginia to \$17.50 per hour in the District of Columbia. Fifty-eight localities also set higher minimum wages (Appendix A). Even when factoring in higher state and county-level minimum wages, the average minimum-wage worker in the U.S. must work 113 hours per week (2.8 full-time jobs) to afford a two-bedroom rental home at fair market rent, or 95 hours per week (2.4 full-time jobs) to afford a one-bedroom rental home at the fair market rent.

In no state, metropolitan area, or county in the U.S. can a full-time worker earning the federal minimum wage, or the prevailing state or local minimum wage, afford a modest two-bedroom rental home at fair market rent. In only 204 (6%) counties nationwide, not including Puerto Rico, can a full-time minimum-wage worker afford a one-bedroom rental home at the fair market rent. These counties are in states with a minimum wage higher than the federal minimum wage of \$7.25 per hour. While higher minimum wages are necessary, they alone will not solve the housing affordability crisis. Fifty-eight counties and municipalities have minimum wages set higher than the federal or, where applicable, state minimum wage, but in each of these jurisdictions, the local minimum wage falls short of the local one-bedroom and two-bedroom Housing Wages (Appendix A).

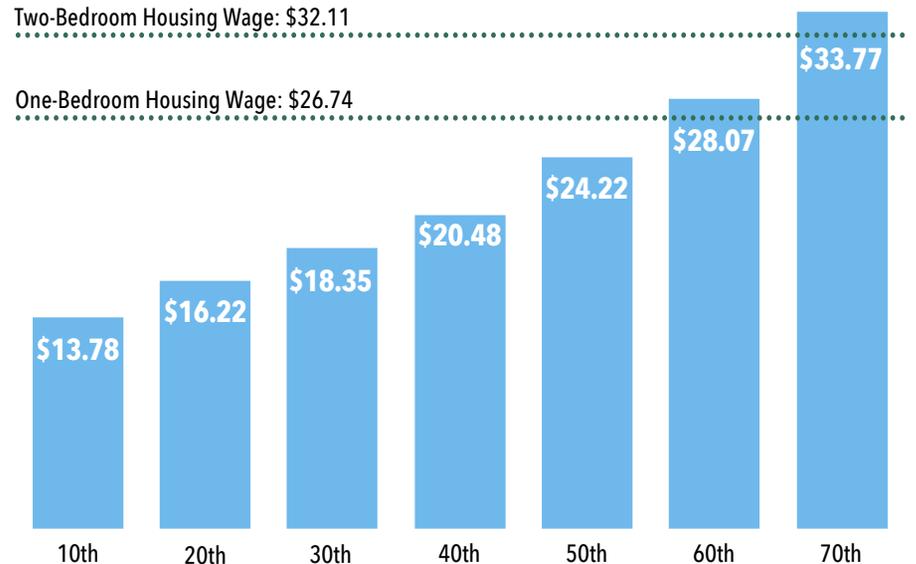
Minimum wage workers are not the only ones who struggle to afford rental housing. The wage distribution shown in Figure 2, which includes all wage and salary workers, indicates that modest rental housing is out of reach for workers in the bottom half of the wage distribution. More than 50% of wage earners cannot afford a modest one-bedroom rental home at the fair market rent while working a full-time job, and more than 60% of full-time wage earners cannot afford a modest two-bedroom rental home.

The average hourly wage earned by renters is \$23.18 in 2024, which is \$8.93 less than the two-bedroom Housing Wage of \$32.11 and \$3.56 less than the one-bedroom Housing Wage of \$26.74. In 49 states, full-time workers earning the average hourly wage for renters in their state earn less than their state's two-bedroom Housing Wage. North Dakota is the only state where a renter earning the average hourly renter's wage can afford a

two-bedroom rental home at fair market rent. In 33 states, workers earning their respective average hourly renter wage earn less than their state's one-bedroom Housing Wage. Even for efficiency style rental homes (studios), the average hourly wage for renters falls short of the Housing Wage in 25 states.

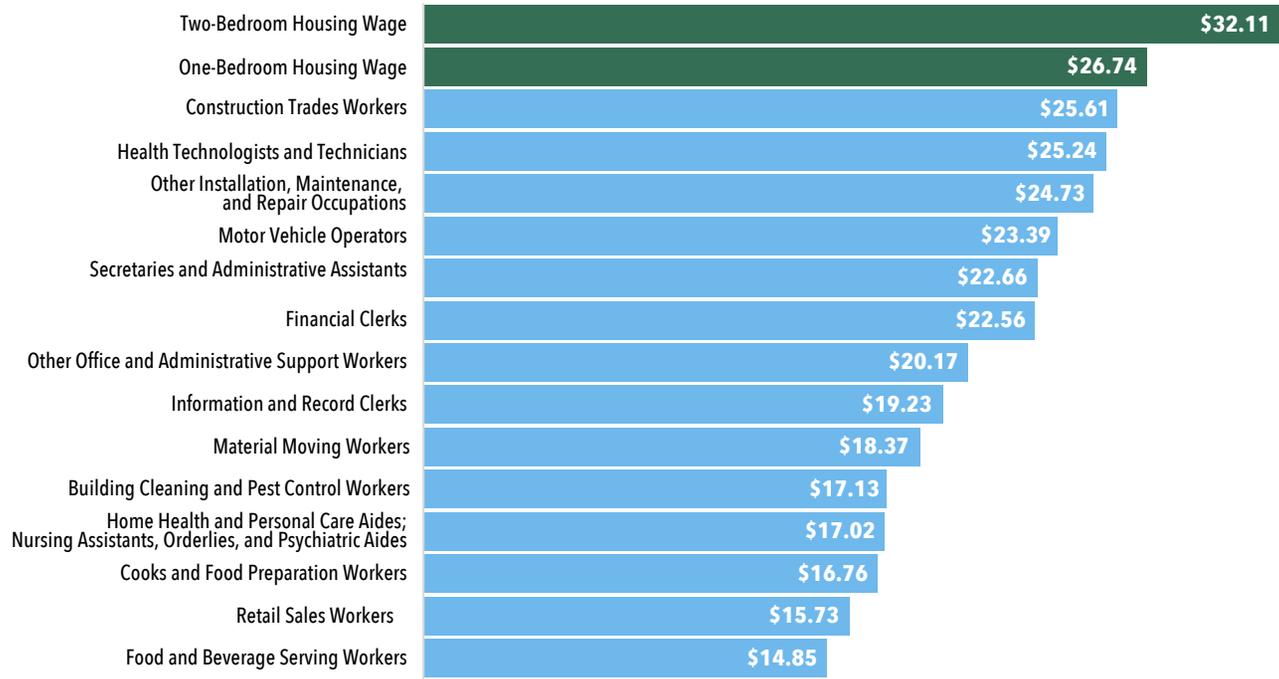
Fourteen of the nation's 20 most common occupations pay median wages that are less than what a full-time worker needs to afford a modest one-bedroom rental home at the national average fair market rent (Figure 3). Sixty-four million people, or 42% of the entire workforce, work in these 14 occupations. For example, the national median hourly wage for the vital work performed by home health aides, personal care aides, nursing assistants, orderlies, and psychiatric aides is \$17.02 – almost 10 dollars less than the full-time wage of \$26.74 needed to afford a one-bedroom rental home at the fair market rent.

FIGURE 2. HOURLY WAGES BY PERCENTILE VS. ONE- AND TWO-BEDROOM HOUSING WAGES



Source: Housing wages based on HUD fair market rents. The hourly wages by percentile are drawn from the Economic Policy Institute State of Working America Data Library 2023, adjusted to 2024 dollars.

FIGURE 3. 14 OF THE 20 LARGEST OCCUPATIONS IN THE UNITED STATES PAY MEDIAN WAGES LESS THAN THE ONE OR TWO-BEDROOM HOUSING WAGE



Source: NLIHC calculation of weighted-average HUD Fair Market Rent. Occupational wages from May 2023 BLS Occupational Employment and Wage Statistics, adjusted to 2024 dollars.



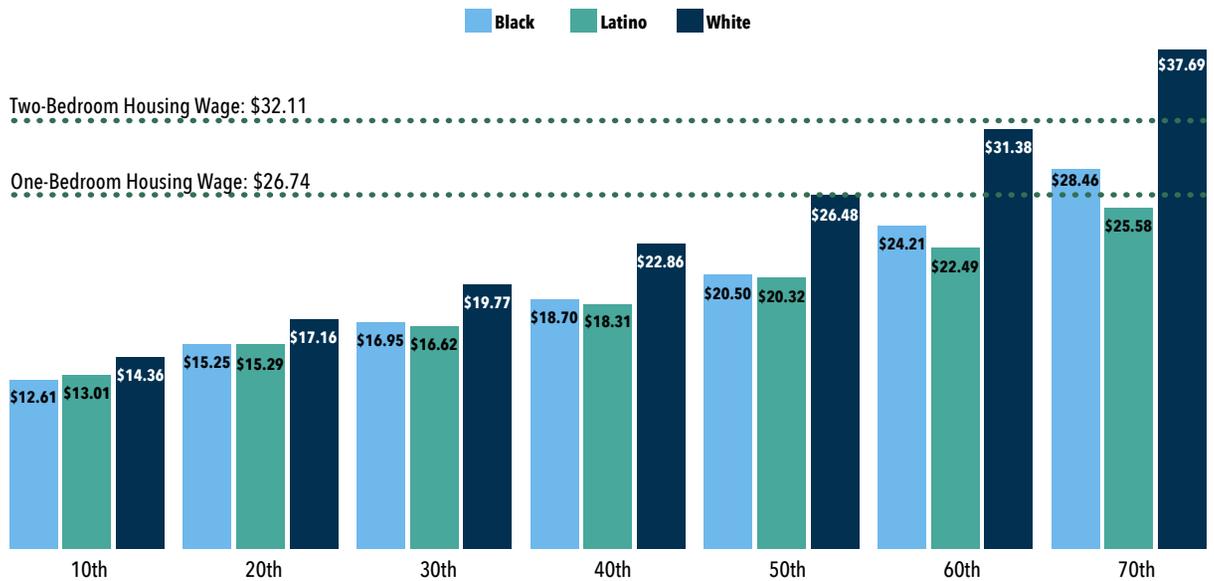
DISPROPORTIONATE HARM TO BLACK, LATINO, AND NATIVE AMERICAN, AND WOMEN WORKERS

Black, Latino, and Native American workers are more likely than white workers to be employed in sectors with lower median wages, like service, consumer-goods production, and transportation, while white workers are more likely to be employed in higher-paying management and professional positions (Allard & Brundage, 2019; Wilson et al., 2021). Even within the same professional occupations, however, the median earnings for white workers are often higher than the median earnings for Black and Latino workers (Wilson et al., 2021).

Figure 4 compares the hourly wage distributions of white, Black, and Latino workers. As a result of wage disparities, Black and Latino workers face larger gaps between their wage and the cost of rental housing than white workers. Nationally, the median wage of a white worker is just 26 cents less than the Housing Wage for a one-bedroom apartment, while the median wage of Black workers falls \$6.24 short and the median wage of Latino workers falls \$6.42 short. At the 70th percentile, a full-time white worker can afford a two-bedroom rental home at the fair market rent. In comparison, a full-time Black worker at this income level can only afford a one-bedroom rental home. However, for a Latino worker making a wage at the 70th percentile, even a one-bedroom rental home at fair market rent is not affordable.

Women earn less than their male counterparts and face more difficulty affording rental housing, particularly Black and Latina women (Figure 5).

FIGURE 4. HOURLY WAGE PERCENTILES VS. ONE- AND TWO-BEDROOM HOUSING WAGES, BY RACE & ETHNICITY



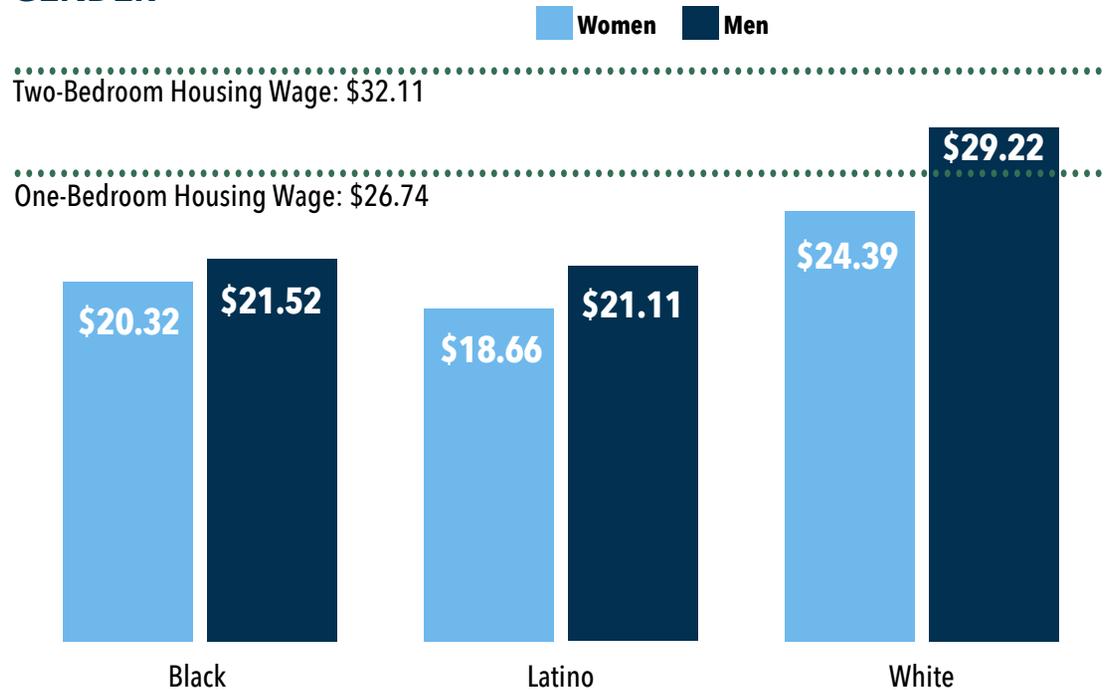
Source: Housing wages based on HUD Fair Market Rents. The hourly wages by percentile are drawn from the Economic Policy Institute State of Working America Data Library 2023, adjusted to 2024 dollars.



Black women earning the median wage for their race and gender make \$20.32, which is \$1.20 less than the median wage among Black male workers and \$8.90 less than the median wage among white male workers. The median wage of Latina women is \$2.45 less than the median wage of Latino men and \$10.56 less than the median wage of white male workers. While a white male worker earning the median wage can afford a one-bedroom apartment at the average fair market rent, all female workers who earn the median wage for their respective races are unable to afford the one-bedroom Housing Wage. Other research has shown that Native American women are paid significantly less than white men in every state, earning just 59 cents for every dollar paid to a white man nationally (Institute for Women’s Policy Research, 2023).

Beyond low wages, people of color are also more likely to face higher rates of unemployment and underemployment, adding to the challenges they face affording housing. The average annual unemployment rate among white participants in the labor market was 3.3% in 2023, compared to 4.6% for Hispanics or Latinos, 5.5% for Blacks, and 6.6% for American Indians or Alaska Natives (U.S. Bureau of Labor Statistics (BLS), 2024). These racial disparities in employment, particularly for Black workers, are driven by factors including higher rates of racial discrimination experienced both during the hiring process and once in the workforce (Schaeffer, 2023).

FIGURE 5. MEDIAN HOURLY WAGES BY RACE, ETHNICITY, AND GENDER



Source: Housing wages based on HUD Fair Market Rents. The hourly wages by percentile are drawn from the Economic Policy Institute State of Working America Data Library 2023, adjusted to 2024 dollars.

MOST EXPENSIVE JURISDICTIONS

Metropolitan Areas	Metropolitan Counties ²	Housing Wage for Two-Bedroom FMR ¹
Santa Cruz-Watsonville, CA MSA	Santa Cruz County, CA	\$77.96
San Francisco, CA HMFA	Marin County, San Francisco County, San Mateo County, CA	\$64.60
San Jose-Sunnyvale-Santa Clara, CA HMFA	Santa Clara County, CA	\$60.23
Santa Maria-Santa Barbara, CA MSA	Santa Barbara County, CA	\$57.58
Salinas, CA MSA	Monterey County, CA	\$55.37
San Diego - Carlsbad MSA	San Diego County, CA	\$54.48
Boston-Cambridge-Quincy, MA-NH HMFA		\$54.37
Santa Ana-Anaheim-Irvine, CA HMFA	Orange County, CA	\$53.52
New York, NY HMFA	New York County, Kings County, Queens County, Bronx County, Richmond County, Rockland County, Putnam County, NY	\$52.92
Napa, CA MSA	Napa County, CA	\$51.62

State Nonmetropolitan Areas (Combined)	Housing Wage for Two-Bedroom FMR	Nonmetropolitan Counties (or County-Equivalents)	Housing Wage for Two-Bedroom FMR
Massachusetts	\$44.70	Nantucket County, MA	\$48.58
Hawaii	\$40.60	Kauai County, HI	\$45.62
Alaska	\$29.31	Eagle County, CO	\$44.60
Connecticut	\$28.54	Summit County, CO	\$42.69
Colorado	\$28.27	Dukes County, MA	\$41.46
New Hampshire	\$25.61	Monroe County, FL	\$41.13
California	\$25.45	Pitkin County, CO	\$39.62
Nevada	\$24.66	Hawaii County, HI	\$38.65
Vermont	\$24.60	Aleutians West Census Area, AK	\$38.29
Washington	\$23.70	Bethel Census Area, AK	\$37.63

1. FMR = Fair Market Rent.

2. Excludes metropolitan counties in New England as FMR areas are not defined by county boundaries in New England.

3. HMFA = HUD Metro FMR Area. This term indicates that a portion of an Office of Management & Budget (OMB)-defined core-based statistical area (CBSA) is in the area to which the FMRs apply. HUD is required by OMB to alter the names of the metropolitan geographic entities it derives from CBSAs when the geographies are not the same as that established by the OMB.

4. MSA = Metropolitan Statistical Area. Geographic entities defined by OMB for use by the federal statistical agencies in collecting, tabulating, and publishing federal statistics. An MSA contains an urban core of 50,000 or more in population.

STATES RANKED BY TWO-BEDROOM HOUSING WAGE

States are ranked from most expensive to least expensive.

Rank ¹	State	Housing Wage for Two-Bedroom FMR ²	Rank ¹	State	Housing Wage for Two-Bedroom FMR ²
1	California	\$47.38	28	North Carolina	\$25.21
2	Massachusetts	\$44.84	29	Tennessee	\$24.31
3	New York	\$44.77	30	South Carolina	\$24.08
4	Hawaii	\$44.60	31	Michigan	\$23.16
5	Washington	\$40.32	32	Idaho	\$23.06
7	New Jersey	\$38.08	33	Louisiana	\$22.11
8	Colorado	\$37.47	34	Indiana	\$22.07
9	Maryland	\$36.70	35	New Mexico	\$21.81
10	Florida	\$35.24	36	Wisconsin	\$21.71
11	Connecticut	\$34.54	37	Wyoming	\$20.98
12	Rhode Island	\$33.20	38	Kentucky	\$20.97
13	New Hampshire	\$32.81	39	Alabama	\$20.88
14	Arizona	\$32.70	40	Missouri	\$20.83
15	Oregon	\$32.34	41	Ohio	\$20.81
16	Nevada	\$30.87	42	Montana	\$20.73
17	Delaware	\$30.65	43	Kansas	\$20.38
18	Virginia	\$30.25	44	Nebraska	\$20.32
19	Vermont	\$29.42	45	Mississippi	\$20.03
20	Georgia	\$28.98	46	Oklahoma	\$19.91
21	Illinois	\$28.81	47	South Dakota	\$19.68
22	Alaska	\$28.61	48	Arkansas	\$18.97
23	Texas	\$27.88	49	Iowa	\$18.86
24	Minnesota	\$27.27	50	West Virginia	\$18.46
25	Utah	\$26.89	51	North Dakota	\$18.38
26	Maine	\$26.38	OTHER		
27	Pennsylvania	\$26.26	6	District of Columbia	\$39.33
			52	Puerto Rico	\$11.58

¹ Includes District of Columbia and Puerto Rico.

² FMR = Fair Market Rent.

STATE SUMMARY

State	FY24 HOUSING WAGE	HOUSING COSTS			AREA MEDIAN INCOME (AMI)				RENTER HOUSEHOLDS				
	Hourly wage needed to afford 2 BR ¹ FMR ²	2 BR FMR	Annual income needed to afford 2 BR FMR	Full-time jobs at minimum wage ³ needed to afford 2BR FMR	Annual AMI ⁴	Monthly rent affordable at AMI ⁵	30% of AMI	Monthly rent affordable at 30% of AMI	Renter households (2018 - 2022)	% of total households (2018 - 2022)	Estimated hourly mean renter wage (2024)	Monthly rent affordable at mean renter wage	Full-time jobs at mean renter wage to afford 2BR FMR
Alabama	\$20.88	\$1,086	\$43,436	2.9	\$84,287	\$2,107	\$25,286	\$632	585,358	30%	\$16.70	\$868	1.3
Alaska	\$28.61	\$1,488	\$59,516	2.4	\$110,851	\$2,771	\$33,255	\$831	89,178	34%	\$23.35	\$1,214	1.2
Arizona	\$32.70	\$1,700	\$68,014	2.3	\$94,319	\$2,358	\$28,296	\$707	923,784	34%	\$22.87	\$1,189	1.4
Arkansas	\$18.97	\$987	\$39,466	1.7	\$77,271	\$1,932	\$23,181	\$580	395,738	34%	\$17.59	\$914	1.1
California	\$47.38	\$2,464	\$98,545	3.0	\$117,014	\$2,925	\$35,104	\$878	5,908,461	44%	\$30.93	\$1,608	1.5
Colorado	\$37.47	\$1,948	\$77,940	2.6	\$119,131	\$2,978	\$35,739	\$893	770,497	34%	\$25.66	\$1,334	1.5
Connecticut	\$34.54	\$1,796	\$71,837	2.2	\$124,577	\$3,114	\$37,373	\$934	477,219	34%	\$22.30	\$1,160	1.5
Delaware	\$30.65	\$1,594	\$63,742	2.3	\$108,334	\$2,708	\$32,500	\$813	109,077	28%	\$22.21	\$1,155	1.4
Florida	\$35.24	\$1,833	\$73,308	2.9	\$89,422	\$2,236	\$26,827	\$671	2,767,517	33%	\$22.63	\$1,177	1.6
Georgia	\$28.98	\$1,507	\$60,271	4.0	\$93,850	\$2,346	\$28,155	\$704	1,380,613	35%	\$21.79	\$1,133	1.3
Hawaii	\$44.60	\$2,319	\$92,776	3.2	\$115,000	\$2,875	\$34,500	\$863	185,090	38%	\$21.32	\$1,109	2.1
Idaho	\$23.06	\$1,199	\$47,969	3.2	\$90,155	\$2,254	\$27,047	\$676	189,044	28%	\$18.20	\$947	1.3
Illinois	\$28.81	\$1,498	\$59,933	2.1	\$105,311	\$2,633	\$31,593	\$790	1,655,952	33%	\$22.60	\$1,175	1.3
Indiana	\$22.07	\$1,148	\$45,913	3.0	\$90,595	\$2,265	\$27,178	\$679	793,030	30%	\$17.92	\$932	1.2
Iowa	\$18.86	\$981	\$39,232	2.6	\$98,070	\$2,452	\$29,421	\$736	367,455	28%	\$16.81	\$874	1.1
Kansas	\$20.38	\$1,060	\$42,390	2.8	\$91,543	\$2,289	\$27,463	\$687	380,760	33%	\$18.22	\$948	1.1
Kentucky	\$20.97	\$1,090	\$43,612	2.9	\$83,318	\$2,083	\$24,995	\$625	564,035	32%	\$17.51	\$910	1.2
Louisiana	\$22.11	\$1,150	\$45,999	3.1	\$78,654	\$1,966	\$23,596	\$590	579,631	33%	\$16.90	\$879	1.3
Maine	\$26.38	\$1,372	\$54,863	1.9	\$95,707	\$2,393	\$28,712	\$718	153,841	27%	\$17.04	\$886	1.5
Maryland	\$36.70	\$1,909	\$76,345	2.4	\$132,397	\$3,310	\$39,719	\$993	754,068	33%	\$21.97	\$1,142	1.7
Massachusetts	\$44.84	\$2,332	\$93,268	3.0	\$131,831	\$3,296	\$39,549	\$989	1,029,654	38%	\$28.70	\$1,492	1.6
Michigan	\$23.16	\$1,204	\$48,169	2.2	\$92,456	\$2,311	\$27,737	\$693	1,102,783	28%	\$18.76	\$975	1.2
Minnesota	\$27.27	\$1,418	\$56,728	2.5	\$113,163	\$2,829	\$33,949	\$849	624,425	28%	\$20.21	\$1,051	1.3
Mississippi	\$20.03	\$1,042	\$41,671	2.8	\$71,956	\$1,799	\$21,587	\$540	345,804	31%	\$14.39	\$748	1.4
Missouri	\$20.83	\$1,083	\$43,330	1.7	\$91,829	\$2,296	\$27,549	\$689	796,470	32%	\$18.49	\$962	1.1
Montana	\$20.73	\$1,078	\$43,127	2.0	\$89,302	\$2,233	\$26,790	\$670	137,485	31%	\$17.45	\$908	1.2
Nebraska	\$20.32	\$1,057	\$42,267	1.7	\$99,245	\$2,481	\$29,773	\$744	259,728	33%	\$17.49	\$909	1.2

1 BR = Bedroom.

2 FMR = Fiscal Year 2024 Fair Market Rent.

3 This calculation uses the higher of the state or federal minimum wage. Local minimum wages are not used. See Appendix B.

4 AMI = Fiscal Year 2024 Area Median Income

5 Affordable rents represent the generally accepted standard of spending no more than 30% of gross income on rent and utilities.

STATE SUMMARY

State	FY24 HOUSING WAGE	HOUSING COSTS			AREA MEDIAN INCOME (AMI)				RENTER HOUSEHOLDS				
	Hourly wage needed to afford 2 BR ¹ FMR ²	2 BR FMR	Annual income needed to afford 2 BR FMR	Full-time jobs at minimum wage ³ needed to afford 2BR FMR	Annual AMI ⁴	Monthly rent affordable at AMI ⁵	30% of AMI	Monthly rent affordable at 30% of AMI	Renter households (2018 - 2022)	% of total households (2018 - 2022)	Estimated hourly mean renter wage (2024)	Monthly rent affordable at mean renter wage	Full-time jobs at mean renter wage to afford 2BR FMR
Nevada	\$30.87	\$1,605	\$64,203	2.6	\$90,411	\$2,260	\$27,123	\$678	483,711	42%	\$21.80	\$1,134	1.4
New Hampshire	\$32.81	\$1,706	\$68,238	4.5	\$119,945	\$2,999	\$35,984	\$900	151,171	28%	\$20.61	\$1,072	1.6
New Jersey	\$38.08	\$1,980	\$79,215	2.5	\$125,225	\$3,131	\$37,568	\$939	1,242,331	36%	\$23.70	\$1,233	1.6
New Mexico	\$21.81	\$1,134	\$45,359	1.8	\$79,200	\$1,980	\$23,760	\$594	254,673	31%	\$17.57	\$914	1.2
New York	\$44.77	\$2,328	\$93,131	3.0	\$108,493	\$2,712	\$32,548	\$814	3,476,404	46%	\$32.98	\$1,715	1.4
North Carolina	\$25.21	\$1,311	\$52,437	3.5	\$90,930	\$2,273	\$27,279	\$682	1,387,271	34%	\$20.61	\$1,072	1.2
North Dakota	\$18.38	\$956	\$38,229	2.5	\$104,572	\$2,614	\$31,372	\$784	117,825	37%	\$20.14	\$1,047	0.9
Ohio	\$20.81	\$1,082	\$43,293	2.0	\$93,028	\$2,326	\$27,908	\$698	1,589,094	33%	\$18.26	\$950	1.1
Oklahoma	\$19.91	\$1,035	\$41,407	2.7	\$81,710	\$2,043	\$24,513	\$613	518,633	34%	\$17.99	\$935	1.1
Oregon	\$32.34	\$1,682	\$67,275	2.2	\$101,750	\$2,544	\$30,525	\$763	618,278	37%	\$21.93	\$1,141	1.5
Pennsylvania	\$26.26	\$1,365	\$54,614	3.6	\$100,505	\$2,513	\$30,151	\$754	1,600,237	31%	\$20.11	\$1,046	1.3
Rhode Island	\$33.20	\$1,726	\$69,054	2.4	\$113,701	\$2,843	\$34,110	\$853	161,269	37%	\$18.04	\$938	1.8
South Carolina	\$24.08	\$1,252	\$50,085	3.3	\$85,370	\$2,134	\$25,611	\$640	588,423	29%	\$17.32	\$900	1.4
South Dakota	\$19.68	\$1,024	\$40,944	1.8	\$95,231	\$2,381	\$28,569	\$714	110,854	32%	\$17.06	\$887	1.2
Tennessee	\$24.31	\$1,264	\$50,566	3.4	\$87,346	\$2,184	\$26,204	\$655	893,910	33%	\$20.73	\$1,078	1.2
Texas	\$27.88	\$1,450	\$57,980	3.8	\$94,298	\$2,357	\$28,289	\$707	3,944,826	38%	\$24.33	\$1,265	1.1
Utah	\$26.89	\$1,398	\$55,930	3.7	\$109,289	\$2,732	\$32,787	\$820	311,167	29%	\$19.91	\$1,035	1.4
Vermont	\$29.42	\$1,530	\$61,200	2.2	\$104,062	\$2,602	\$31,219	\$780	72,636	27%	\$17.38	\$904	1.7
Virginia	\$30.25	\$1,573	\$62,925	2.5	\$115,235	\$2,881	\$34,570	\$864	1,090,477	33%	\$23.17	\$1,205	1.3
Washington	\$40.32	\$2,097	\$83,865	2.5	\$121,443	\$3,036	\$36,433	\$911	1,079,020	36%	\$28.95	\$1,505	1.4
West Virginia	\$18.46	\$960	\$38,405	2.1	\$76,374	\$1,909	\$22,912	\$573	185,013	26%	\$14.45	\$751	1.3
Wisconsin	\$21.71	\$1,129	\$45,163	3.0	\$99,490	\$2,487	\$29,847	\$746	783,898	32%	\$18.51	\$963	1.2
Wyoming	\$20.98	\$1,091	\$43,647	2.9	\$95,857	\$2,396	\$28,757	\$719	65,763	28%	\$16.98	\$883	1.2
OTHER													
District of Columbia	\$39.33	\$2,045	\$81,800	2.2	\$154,700	\$3,868	\$46,410	\$1,160	184,920	59%	\$38.80	\$2,018	1.0
Puerto Rico	\$11.58	\$602	\$24,092	1.1	\$31,916	\$798	\$9,575	\$239	389,715	32%	\$9.16	\$476	1.3

1 BR = Bedroom.

2 FMR = Fiscal Year 2024 Fair Market Rent.

3 This calculation uses the higher of the state or federal minimum wage. Local minimum wages are not used. See Appendix B.

4 AMI = Fiscal Year 2024 Area Median Income

5 Affordable rents represent the generally accepted standard of spending no more than 30% of gross income on rent and utilities.

CONNECTICUT

#11*

In **Connecticut**, the Fair Market Rent (FMR) for a two-bedroom apartment is **\$1,796**. In order to afford this level of rent and utilities — without paying more than 30% of income on housing — a household must earn **\$5,986** monthly or **\$71,837** annually. Assuming a 40-hour work week, 52 weeks per year, this level of income translates into an hourly Housing Wage of:

\$34.54
PER HOUR
STATE HOUSING
WAGE

FACTS ABOUT CONNECTICUT:

STATE FACTS	
Minimum Wage	\$15.69
Average Renter Wage	\$22.30
2-Bedroom Housing Wage	\$34.54
Number of Renter Households	477219
Percent Renters	34%

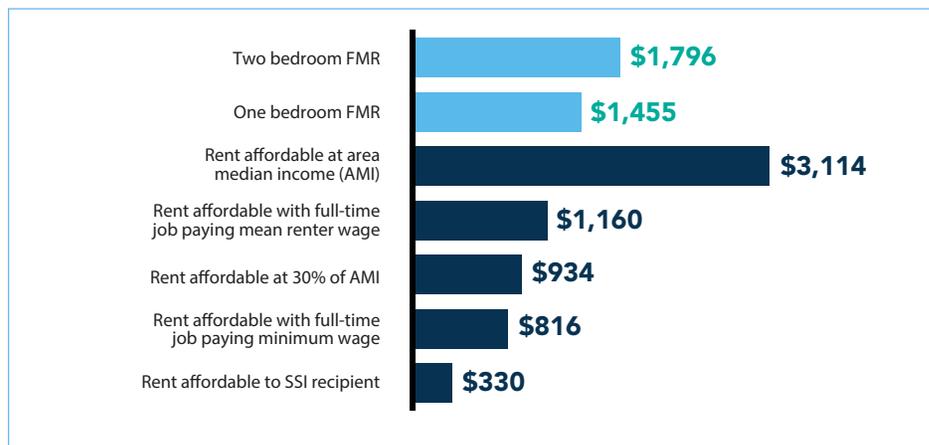
88
Work Hours Per Week At
**Minimum Wage To Afford a 2-Bedroom
Rental Home** (at FMR)

71
Work Hours Per Week At
**Minimum Wage To Afford a 1-Bedroom
Rental Home** (at FMR)

2.2
Number of Full-Time Jobs At
**Minimum Wage To Afford a
2-Bedroom Rental Home** (at FMR)

1.8
Number of Full-Time Jobs At
**Minimum Wage To Afford a
1-Bedroom Rental Home** (at FMR)

MOST EXPENSIVE AREAS	HOUSING WAGE
Stamford-Norwalk HMFA	\$50.54
Danbury HMFA	\$42.71
Bridgeport HMFA	\$37.83
Milford-Ansonia-Seymour HMFA	\$33.88
Southern Middlesex County HMFA	\$32.94



MSA = Metropolitan Statistical Area; HMFA = HUD Metro FMR Area.

* Ranked from Highest to Lowest 2-Bedroom Housing Wage. Includes District of Columbia and Puerto Rico.

CONNECTICUT

	FY24 HOUSING WAGE	HOUSING COSTS			AREA MEDIAN INCOME (AMI)				RENTERS				
	Hourly wage necessary to afford 2 BR ¹ FMR ²	2 BR FMR	Annual income needed to afford 2 BR FMR	Full-time jobs at minimum wage to afford 2BR FMR ³	Annual AMI ⁴	Monthly rent affordable at AMI ⁵	30% of AMI	Monthly rent affordable at 30% of AMI	Renter households (2018-2021)	% of total households (2018-2021)	Estimated hourly mean renter wage (2024)	Monthly rent affordable at mean renter wage	Full-time jobs at mean renter wage needed to afford 2 BR FMR
Connecticut	\$34.54	\$1,796	\$71,837	2.2	\$124,577	\$3,114	\$37,373	\$934	477,219	34%	\$22.30	\$1,160	1.5
Combined Nonmetro Areas	\$28.54	\$1,484	\$59,360	1.8	\$114,200	\$2,855	\$34,260	\$857	18,496	24%	\$14.48	\$753	2.0
<u>Metropolitan Areas</u>													
Bridgeport HMFA	\$37.83	\$1,967	\$78,680	2.4	\$117,100	\$2,928	\$35,130	\$878	42,936	32%	\$29.35	\$1,526	1.3
Colchester-Lebanon HMFA	\$32.62	\$1,696	\$67,840	2.1	\$148,500	\$3,713	\$44,550	\$1,114	1,595	18%	\$20.44	\$1,063	1.6
Danbury HMFA	\$42.71	\$2,221	\$88,840	2.7	\$147,700	\$3,693	\$44,310	\$1,108	19,731	27%	\$29.35	\$1,526	1.5
Hartford-West Hartford-East Hartford HMFA	\$31.81	\$1,654	\$66,160	2.0	\$121,800	\$3,045	\$36,540	\$914	157,112	34%	\$20.30	\$1,055	1.6
Milford-Ansonia-Seymour HMFA	\$33.88	\$1,762	\$70,480	2.2	\$130,300	\$3,258	\$39,090	\$977	13,262	27%	\$19.32	\$1,005	1.8
New Haven-Meriden HMFA	\$32.23	\$1,676	\$67,040	2.1	\$116,100	\$2,903	\$34,830	\$871	84,304	39%	\$19.32	\$1,005	1.7
Norwich-New London HMFA	\$29.92	\$1,556	\$62,240	1.9	\$107,000	\$2,675	\$32,100	\$803	33,132	33%	\$20.44	\$1,063	1.5
Southern Middlesex County HMFA	\$32.94	\$1,713	\$68,520	2.1	\$148,900	\$3,723	\$44,670	\$1,117	3,673	18%	\$17.18	\$893	1.9
Stamford-Norwalk HMFA	\$50.54	\$2,628	\$105,120	3.2	\$180,500	\$4,513	\$54,150	\$1,354	56,263	39%	\$29.35	\$1,526	1.7
Waterbury HMFA	\$27.27	\$1,418	\$56,720	1.7	\$91,600	\$2,290	\$27,480	\$687	32,475	41%	\$19.32	\$1,005	1.4
Windham County HMFA †	\$30.17	\$1,569	\$62,760	1.9	\$90,300	\$2,258	\$27,090	\$677	14,240	31%			
<u>Counties</u>													
Litchfield County	\$28.54	\$1,484	\$59,360	1.8	\$114,200	\$2,855	\$34,260	\$857	18,496	24%	\$14.48	\$753	2.0

† Wage data not available (See Appendix B).

1: BR = Bedroom

2: FMR = Fiscal Year 2024 Fair Market Rent.

3: This calculation uses the higher of the county, state, or federal minimum wage, where applicable.

4: AMI = Fiscal Year 2024 Area Median Income

5: Affordable rents represent the generally accepted standard of spending not more than 30% of gross income on gross housing.

F

Housing in CT 2020

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PARTNERSHIP FOR STRONG COMMUNITIES

A Cost We Can't Afford

Housing costs in Connecticut are the 9th highest in the nation. Connecticut's residents are burdened by the lack of modestly-priced rental options – a problem which affects all communities, regardless of income levels.

Nearly 120,000 Connecticut households spend over half of their income on rental housing (including rent and utilities). When households spend half their paycheck on home-related costs, they are forced to spend less on other needs, such as food, healthcare, and childcare. In turn, local businesses are negatively affected by residents' lack of income for other essentials.

*In the next five years, **4,843** publicly supported rental homes in Connecticut are set to have their affordability restrictions expire.*

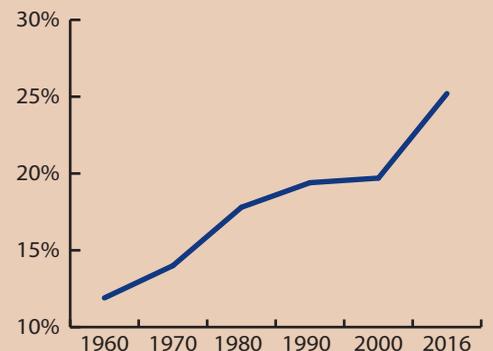
Growth Starts At Home

Housing construction in Connecticut has lagged behind that of its neighbors. In 2018, Connecticut ranked second-to-last of U.S. states in permit issuance rate, with a rate of 1.3 permits per 1,000 residents.

Analysis from the National Association of Homebuilders shows that, **for every \$1 of state investment in multi-family housing, \$4.57 in private investment is leveraged as a result.** Household sizes in the U.S. have fallen for decades, leading to an increase in demand for multi-family homes. Despite this trend, multi-family housing starts have plummeted in Connecticut in recent years.

60 YEARS OF RISING COSTS

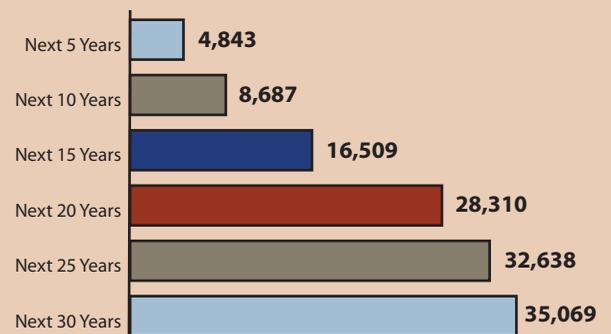
In 1960, just 11.9% of renters spent over half their income on housing costs. By 2016, that percentage had **more than doubled** to 25.2%.



— Renters Spending >50% of Income on Housing

PUBLICLY SUPPORTED RENTAL HOMES AT RISK

More than **one in twenty** publicly supported rental homes face an expiring affordability restriction in the next five years.



Source: Public and Affordable Housing Research Corporation (PAHRC)

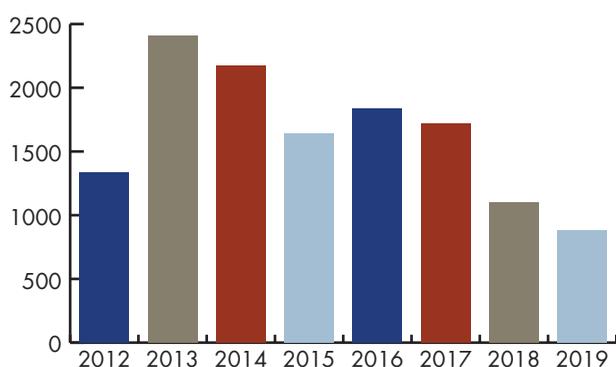
Housing in CT 2020

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Preserving Our Homes

Connecticut's housing problems are particularly dire when it comes to rental-assisted homes. In 2018, the State of Connecticut Department of Housing funded the construction of **884 rental-assisted homes**. Rental-assisted home construction fell for the fourth straight year and has declined 63 percent overall since 2013.

YEARLY RENTAL-ASSISTED HOME CONSTRUCTION, 2012-19



What You Can Do

We can reverse this trend of rising rents and priced-out households, while building a more equitable state. First, Connecticut needs to invest in rental options for all levels of income. At the same time, we need to recognize the value of knowledgeable, informed Planning & Zoning Commissions in making critical decisions on housing. The Partnership for Strong Communities is proposing these legislative items for the 2020 session:

- **Continue necessary strategic capital investments in affordable housing** by authorizing \$100 million each year in the Affordable Housing FLEX Fund, and \$50 million each year for the state Housing Trust Fund.
- **Reorganize CGS Section 8-2 to make it more readable** to land use commissions and the public, **develop guidelines for municipal compliance** with the state's existing requirement that each town prepare an affordable housing plan, and require municipal compliance in order to ensure that all families have housing choices in high-opportunity areas.
- **Develop training on housing issues for local Planning & Zoning commissions** to give P&Z commissioners the tools they need to make important land use decisions.

Visit www.pschousing.org to learn more and add your support.



PARTNERSHIP FOR STRONG COMMUNITIES

I: 227 LAWRENCE ST, HARTFORD CT 06106 * e: HOMECT@PSCHOUSING.ORG * p: 860.244.0066 * w: WWW.PSCHOUSING.ORG

The state can help renters and boost economic growth by investing in rent-assisted housing.

The state has averaged \$112.8 million in new bond authorizations for rent-assisted housing from FY 2011 through FY 2019. However, there were no new bond authorizations adopted during the 2019 legislative session. Without an expanded investment in rental-assisted homes, the proportion of households spending half or more of their income on housing will inevitably grow.

Connecticut's housing stock is the 5th oldest of any state in the country.

An estimated 2,230 units of public housing in Connecticut are in need of immediate investment – and thousands more privately-owned homes are similarly in disrepair.

*According to the Cheshire-based PAHRC research group, building rental-assisted housing results in a yearly average increase of **\$7,000** in disposable income for families living in these homes.*

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WE ARE OPERATING VIRTUALLY UNTIL FURTHER NOTICE. PLEASE READ THE DETAILS HERE. HABITAT HOMEOWNERS: CLICK HERE FOR SUPPORT

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Busted: Seven Myths About Affordable Housing

Posted by [Twin Cities Habitat for Humanity](#) on 8:00 AM on February 18, 2020



The need for affordable housing is a fact of life in most communities across the country, yet myths, fear, prejudice, and misunderstanding often overshadow the debate.

To give a little perspective to the debate, here are seven affordable housing myths and realities.

MYTH #1: Affordable housing drives down property values.

REALITY: Repeated research shows affordable housing has no negative impact on home prices or on the speed or frequency of sale of neighboring homes. According to the [National Low Income Housing Coalition](#), 85% of affordable housing meets or exceeds federal quality standards and over 40% of this housing is considered “excellent.” That means affordable housing is likely either on-par with its surrounding neighborhood or in even better condition than its neighbors!

MYTH #2: Affordable housing looks “cheap and undesirable.”

REALITY: Builders of affordable housing must comply with all the same restrictions on design and construction standards as market-rate projects. Furthermore, because affordable housing projects frequently rely on some public money, they have to comply with additional restrictions and higher standards than market-rate housing.

The reality is that affordable housing is affordable because public and private funds go into making it less costly to live in, not because it's lower quality construction.

[Take a look at our current available properties.](#)

MYTH #3: Affordable housing hurts the quality of local schools and lowers standardized test scores.

REALITY: The opposite is actually true. Without affordable housing, many families become trapped in a cycle of rising rents and have to move frequently to find living space they can afford. That means their children are not able to stay in the same school for long, resulting in lower test scores on standardized tests.

When a child has a stable home and can remain in a single school system, their test scores rise. It also means children are able to build long-term relationships with peers, teachers, and mentors that are key to increasing performance in elementary and secondary schools. Finally, it increases the likelihood that children will be able to attend college. [When housing disruptions are minimized, everybody wins.](#)

MYTH #4: Affordable housing is a burden on taxpayers and municipalities.

REALITY: Affordable housing actually enhances local tax revenues. By improving or replacing substandard housing, affordable housing becomes a net plus on the tax rolls. Instead of low or no payment of taxes by distressed properties, affordable housing owners actively contribute to the local economy in the taxes they pay, the money they spend in local businesses, and in how they increase property values and revenue in a neighborhood. In fact, in 2019, Twin Cities Habitat for Humanity homeowners contributed nearly \$2.7 million in property taxes alone.

MYTH #5: Affordable housing brings increased crime.

REALITY: There are no studies that show affordable housing brings crime to neighborhoods. In fact, families who own their own homes add stability to a neighborhood and lower the crime rate. Homeownership increases neighborhood cohesion and encourages cooperation in ridding communities of criminal activity. Families who live in affordable housing seek the same thing every family does – a safe place to raise children and the opportunity to enhance the value of what they own.

MYTH #6: Affordable housing is just another government hand-out.

REALITY: It isn't the poor who benefit the most from federal housing subsidies, it's the wealthy homeowner. Homeowners receive tax deductions for mortgage interests and a similar write-off for property taxes paid. According to the Department of Housing and Urban Development, in 2003 these subsidies cost the federal government \$87.8 billion, while building and subsidizing affordable housing cost only \$41.5 billion.

When you factor in improvements in property values, increases in taxes paid by stable employment, and enhanced revenues from a better-educated populace, affordable housing provides a net gain to governments at every level.

MYTH #7: Affordable housing only benefits the very poor, everyone else pays.

REALITY: Some of the people impacted by a lack of affordable housing include employers, seniors, low-income people, immigrants, low-wage or entry-level workers, firefighters, police officers, military personnel, and teachers. The lack of affordable housing means tax revenues are not in place to improve roads, schools, or air quality. It means businesses struggle to retain qualified workers, and lowers the amount of money available to spend in those businesses. Affordable housing isn't about doing something to help the poor, it's about improving business and raising the standards of working- and middle-class families, and the nation at large.

Here at Twin Cities Habitat for Humanity, our mission is to eliminate poverty housing from the Twin Cities and to make decent, affordable shelter for all people a matter of conscience. Despite the affordable housing myths, the truth is that helping people own their own home helps the community as a whole.

To learn more, read the [“Myths and Stereotypes About Affordable Housing”](#) report from Business and Professional People for the Public Interest.

G-2



Assessing the Impact of Affordable Housing on Nearby Property Values in Alexandria, Virginia

Christina Stacy and Christopher Davis

April 2022

Stable, affordable housing provides benefits to both people with low incomes and local economies overall. For individuals, it reduces homelessness, lifts people out of poverty, and improves health outcomes (Lubell, Crain, and Cohen 2007). It also improves youth educational outcomes and long-term earnings and reduces the likelihood of later adult incarceration (Andersson et al. 2016; Fischer 2015; Cunningham and McDonald 2012). Affordable housing can help maintain health, daily functioning, quality of life, and maximum independence for adults as they age (Spillman 2012). And it supports employment growth and stability, because low-wage workers are less willing to travel long distances for minimum wage jobs (Altali 2017; Chakrabarti 2014).

Despite these benefits, property owners who live near proposed affordable housing developments often oppose such projects, citing fear that the developments will cause their property values to decline (Sally 2014). However, empirical research provides little evidence that subsidized housing depresses neighborhood property values (Ellen et al, 2007; Galster 2002; Center for Housing Policy 2009). Projects financed through the Low-Income Housing Tax Credit (LIHTC), the largest affordable housing financing program in the United States, have been associated with an immediate positive increase of 3.8

Data provided by Zillow through the Zillow Transaction and Assessment Dataset (ZTRAX). More information on accessing the data can be found at <http://www.zillow.com/ztrax>. The results and opinions in this brief are those of the authors and do not reflect the position of Zillow Group.

Dr. Christina Stacy is a voluntary member of the Alexandria Housing Development Corporation, an affordable housing nonprofit developer in Alexandria, Virginia.

percentage points in nearby property values (Ellen et al. 2007). Another study found that LIHTC properties, on average, revitalize low-income neighborhoods, increasing house prices by 6.5 percent, lowering crime rates, and attracting racially and income-diverse populations (Diamond and McQuade 2016). However, some studies have found that LIHTC developments in higher-income areas are associated with house price declines (Diamond and McQuade 2016; Woo, Joh, and Van Zandt 2016). Other types of affordable developments, such as those funded by new markets tax credits, have not been found to depress property values and can increase property values under certain conditions (Theodos et al. 2021).

It is unclear what conditions and which types of affordable housing developments affect property values differentially, and many local governments require their own analyses to help inform community debates. To add to this knowledge base, we use Zillow’s assessor and real estate database to estimate the relationship between affordable housing developments in Alexandria, Virginia, and sales prices of nearby single-family homes, duplexes, cooperatives, and residential condominiums between 2000 and 2020 (Zillow 2021). We use a repeat sales model that estimates the change in sales prices before and after an affordable housing development is built near a home. The model compares those changes with changes in the sales prices of other residential units in Alexandria, thus isolating the relationship between the development and changes in property values.

We find that affordable units in the city of Alexandria are associated with a small but statistically significant *increase* in property values of 0.09 percent within 1/16 of a mile of a development, on average—a distance comparable to a typical urban block. These results are robust to other radii and comparison groups, such as comparing homes within a block with homes within a few blocks or comparing homes within a block with homes between half a mile and one mile away. When we remove set-asides—defined as affordable housing units within market-rate developments—the coefficient increases to 0.11 percent, confirming that set-asides are not driving these results. And when we split the effects by the baseline income of neighborhoods to see whether affordable housing construction in lower-income neighborhoods is driving the results, we find the opposite of prior research: in Alexandria, affordable housing in higher-income neighborhoods has a positive and highly significant effect on surrounding home values, as does affordable housing in lower-income neighborhoods. This calls into question prior findings that affordable housing in high-income areas necessarily causes nearby property values to decline.

The positive relationship between affordable units and nearby home sales in Alexandria may reflect strong local oversight and the close relationship between the city and affordable housing developers. Various municipal measures help ensure that new or preserved developments fulfill strict requirements for design, development, maintenance, and operation. Other cities have shared that they are unhappy with affordable housing in their jurisdictions, which they believe is because they have little local oversight over the developments.¹ Alexandria’s close partnerships with affordable housing developers and oversight of affordable housing may explain the positive effects found here.

These findings show that multifamily affordable housing developments in Alexandria do not cause a decline in nearby property values, as some fear, but are actually associated with a small but statistically

significant increase in nearby values. This should ease residents' concerns about their impact on neighborhoods and bolster support for increased development.

Background

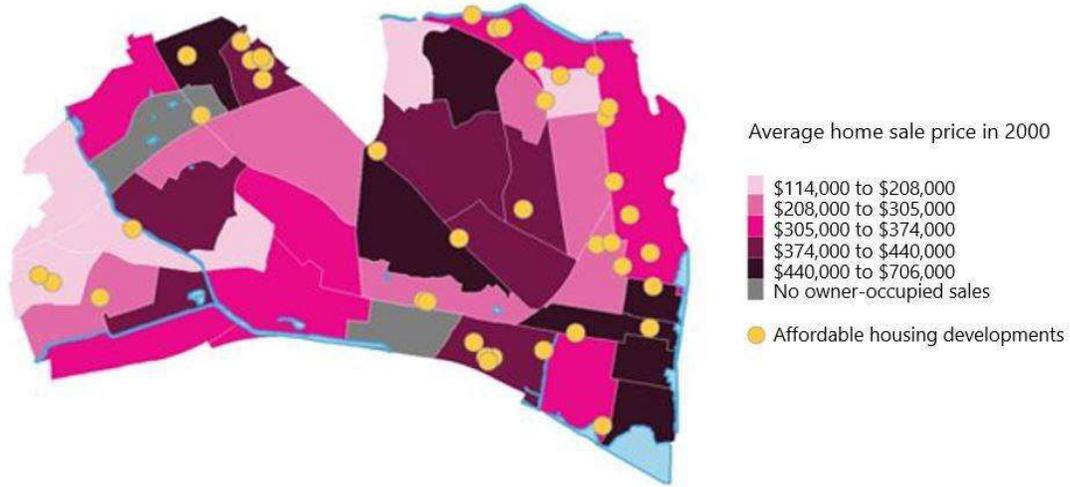
Alexandria, Virginia, a suburb of Washington, DC, had an estimated population of 159,200 in 2020. The city lost 78 percent of its market-rate affordable units—defined as nonsubsidized rental units affordable to households earning 60 percent of the area median income (AMI)—between 2000 and 2020.² 2019 estimates generated by the Urban Institute predict that the city will need an additional 13,600 housing units to accommodate household growth from 2015 to 2030 (Turner et al. 2019), and most of those units need to be affordable to middle- and low-income households.

However, producing and preserving affordable units can be a challenge as some residents oppose their development on the grounds that it will depress their property values.³ To explore whether this is true, we estimate the relationship between the development of 40 multifamily affordable housing developments that began providing subsidized rental units between 2000 and 2020 and nearby property values.

The developments included in our analysis are shown in figure 1 and table 1. This list includes 6 public housing developments, 18 market-rate developments that include affordable set-asides, and 16 developments that were built or preserved by affordable housing developers and include all affordable units. Some of the developments were new construction; others were converted to affordable housing or preserved through redevelopment in partnership with a market-rate developer.

Affordability levels in the developments range from units affordable to families whose incomes are between 0 and 30 percent of AMI to those affordable to families with incomes between 60 and 80 percent of AMI. The number of affordable units in each development ranges from 2 to 244 and accounts for 1 to 100 percent of the total units in the development. To account for this range, our model uses the number of affordable units as the treatment variable, rather than the number of developments.

FIGURE 1
Multifamily Affordable Housing Developments in Alexandria, Virginia, between 2000 and 2020, Overlaid with Average Home Sale Price in 2000



Source: Authors' calculations from city of Alexandria administrative data and Zillow ZTRAX home sales data (Zillow 2021). Home sale price is inflation-adjusted to 2020 dollars.

TABLE 1

Multifamily Affordable Housing Developments in Alexandria, Virginia, Where Assistance Began between 2000 and 2020

Project name	Year assistance began	Set-asides	Public housing	Origin	Level of affordability of affordable units (percent of AMI)	Committed affordable units	Total units in complex	Percent affordable
Potomac West Apartments	2001	No	No	Conversion to affordable housing	60–80	45	60	75%
Lynhaven Apartments	2002	No	No	Conversion to affordable housing	50–60	28	28	100%
Chatham Square	2004	No	Yes	Preservation through redevelopment	0–30	52	151	34%
Northampton Place	2005	Yes	No	New construction	60	12	275	4%
BWR/Reynolds	2005	No	Yes	New construction	0–30	18	18	100%
BWR/Whiting	2005	No	Yes	New construction	0–30	24	24	100%
Beverly Park Apartments	2005	No	No	Conversion to affordable housing	60	33	33	100%
Arbelo Apartments	2006	No	No	Conversion to affordable housing	60	34	34	100%
Lacy Court Apartments	2006	No	No	Conversion to affordable housing	40–60	44	44	100%
ParcView Apartments	2006	No	No	Conversion to affordable housing	60	120	149	81%
Carlyle Place	2007	Yes	No	New construction	60	13	326	4%
BWR/Braddock	2007	No	Yes	New construction	0–30	6	6	100%
Halstead Tower	2007	Yes	No	New construction	60	9	174	5%
Meridian at Eisenhower Station	2007	Yes	No	New construction	60	15	369	4%
The Alexander	2007	Yes	No	New construction	60	13	275	5%
Longview Terrace	2007	No	No	Conversion to affordable housing	60	41	41	100%
The Tuscany Apartments	2007	Yes	No	New construction	60	2	104	2%
The Station at Potomac Yard	2009	No	No	New construction	60–80	64	64	100%
Alexandria Crossing at Old Dominion	2009	No	Yes	New construction	0–30	36	54	67%

Project name	Year assistance began	Set-asides	Public housing	Origin	Level of affordability of affordable units (percent of AMI)	Committed affordable units	Total units in complex	Percent affordable
Alexandria Crossing at West Glebe	2009	No	Yes	New construction	0-30	48	48	100%
Del Ray Central	2010	Yes	No	New construction	60	9	141	6%
Beasley Square	2011	No	No	New construction	60	8	8	100%
Post Carlyle Square II	2012	Yes	No	New construction	60	6	344	2%
Old Town Commons	2013	No	Partial	Preservation through redevelopment	0-30	134	379	35%
Station 650 at Potomac Yard	2015	Yes	No	New construction	60	8	186	4%
The Bradley	2015	Yes	No	New construction	60	10	159	6%
Notch 8	2015	Yes	No	New construction	60	12	252	5%
Parc Meridian at Eisenhower Station	2016	Yes	No	New construction	60	33	505	7%
Jackson Crossing	2016	No	No	New construction	60	78	78	100%
Southern Towers	2016	Yes	No	Conversion to affordable housing	55-60	105	2,184	5%
The Thornton	2018	Yes	No	New construction	60	24	443	5%
St. James Plaza	2018	No	No	New construction	40-60	93	93	100%
Silverado Alexandria Memory Care	2018	Yes	No	New construction	0-80	2	66	3%
Gables Old Town North	2019	Yes	No	New construction	60	9	232	4%
Ellsworth Apartments	2019	No	No	Conversion to affordable housing	50-60	20	20	100%
The Nexus at West Alex	2019	No	No	New construction	40-60	74	74	100%
Parkstone	2020	No	No	Conversion to affordable housing	60-80	244	326	75%
The Foundry	2020	Yes	No	New construction	60-80	5	520	1%
Denizen Apartments at Eisenhower Square	2020	Yes	No	New construction	60	13	336	4%
The Bloom	2020	No	No	New construction	40-60	97	97	100%

Source: City of Alexandria administrative data.

TABLE 2

Descriptive Statistics of Census Tracts with and without Affordable Units in Alexandria, Virginia

	Never had affordable housing units between 2000 and 2020	Had affordable housing units between 2000 and 2020	Had affordable set-aside units between 2000 and 2020	Had affordable units that were not set-asides between 2000 and 2020
Population	2,978	4,408	3,078	4,705
Median household income	\$86,360	\$69,783	\$56,662	\$72,718
Unemployment	2.70%	3.43%	3.81%	3.34%
Percentage in poverty	7.22%	11.15%	10.01%	11.41%
Share of people of color	44.93%	53.63%	52.10%	53.86%

Sources: Authors' calculations from city of Alexandria administrative data and the 2000 Census.

Notes: Numbers reflect weighted averages, weighted by the total number of affordable units in the census tract between 2000 and 2020.

Methods

Our primary analysis uses an analytic sample that includes properties that were sold more than once between 2000 and 2020 within the city of Alexandria and properties that were sold more than once outside of the city that were also within 1 mile of an affordable housing development in our sample (i.e., properties just outside the city's borders located near affordable housing developments). We drop sales that were greater than \$10 million since they appear to be data errors rather than true sales.

The main model estimates the linear relationship between the natural log of sales prices within 1/16 of a mile of each affordable housing development, before and after the year the assistance began—compared with all other properties in the city that sold more than once—while controlling for housing characteristics by incorporating a fixed effect, or dummy variable, for each property. This “repeat sales” model strives to eliminate omitted variable bias by examining multiple sales of the same properties over time. This controls for attributes about each property that do not change over time. We also control for changes in the housing market at the city level to account for overall trends in the housing market.

The treatment variable in the regression is the number of affordable units in each development. This allows us to weight the development by size (or number of affordable units) and allows developments with more affordable units to count for more than ones with a small number of affordable units.

To examine the spatial impacts, we also estimate mutually exclusive treatment effects for each 1/16-mile ring around a project, up to 1 mile. This analysis allows us to observe the geographic relationship between affordable housing and nearby property values over space. If a property is within 1 mile of more than one development, our model counts the affordable units in both of those developments in the treatment variable.

Finally, we conduct a series of checks to ensure that our results are robust to alternative treatment and control radii. This includes increasing the size of each treatment variable and including a development window control two years before and after the development opened to account for anticipatory effects and to give residents time to move in.

Data

We use two main sources of data for this analysis: administrative data from the city of Alexandria about multifamily affordable housing developments that began assistance between 2000 and 2020 and sales data from the Zillow Transaction and Assessment Dataset (ZTRAX) (Zillow 2021). These data are available from 2000 to 2020 and contain multiple characteristics related to sales and building parcels, including the number of units, year the building was built, size of the parcel, sale amount, and sale type.

Results

We find that affordable housing units in Alexandria are associated with an increase in property values of 0.09 percent within 1/16 of a mile of a development, on average (table 3). This effect is statistically significant at the 1 percent level, roughly meaning that there is a 99 percent chance of a positive value.

TABLE 3

The Relationship between Affordable Housing and Property Values

Average treatment effects for affordable housing on property values within 1/16 of a mile of a development

	In sales price
Affordable housing units	0.09%*** (0.03%)
Number of observations	57,998
Adjusted R-squared	0.46

Source: Authors' calculations from ZTRAX (Zillow 2021) and city of Alexandria administrative data.

Notes: Impact estimates show the effect of affordable housing units and developments on nearby property values. We estimate changes in sales prices using a repeat sales model over all property sales within 1 mile of an affordable housing development. Dollars are adjusted to inflation for 2021. Standard errors (listed in parentheses) are heteroskedastic robust and are clustered at the property level. All regressions include property and quarter fixed effects.

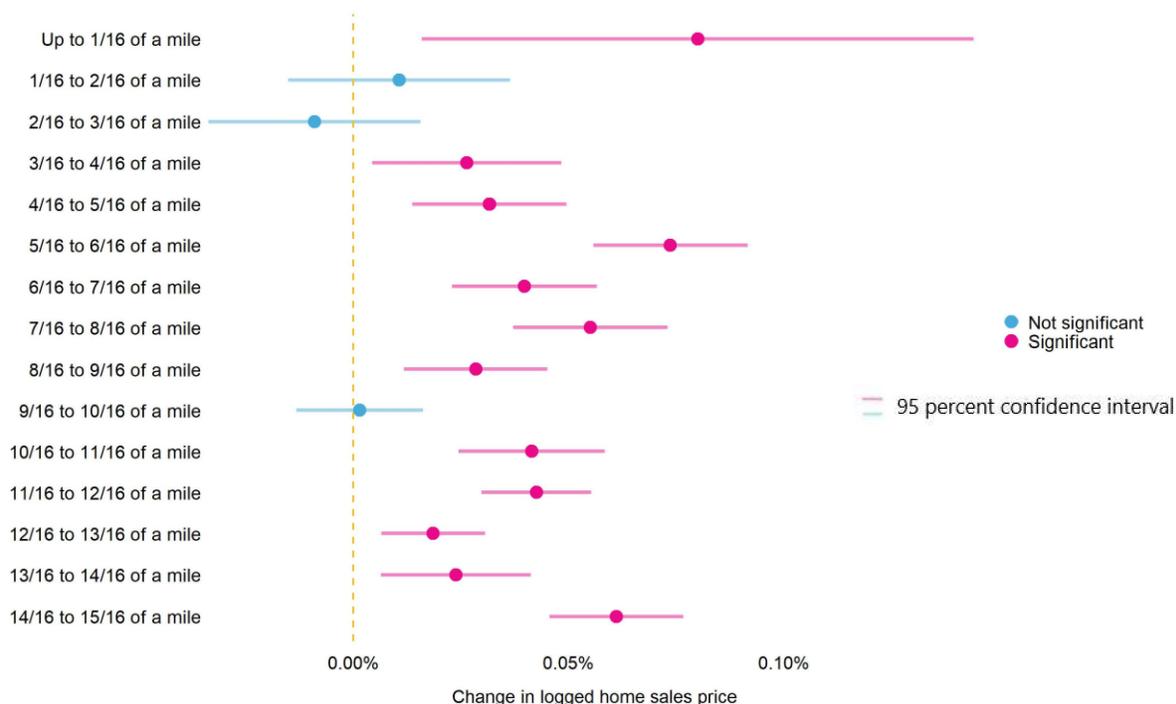
*** p < 0.01; ** p < 0.05; * p < 0.10

Over space, affordable housing units are associated with a positive and statistically significant effect on properties within 1/16 of a mile of a unit but have no effect on properties between 1/16 of a mile and 3/16 of a mile (figure 2). Affordable housing units are associated with an increase in property values for each 1/16-mile ring after that, but at a much lower level, suggesting that those coefficients reflect the placement of the units in growing neighborhoods rather than representing the true impact of an affordable unit.

FIGURE 2

The Relationship between Affordable Housing Units and Property Values over Space

Distance to affordable housing development



Source: Authors’ calculations from ZTRAX (Zillow 2021) and city of Alexandria administrative data.

Notes: Impact estimates show the effect of affordable housing units and developments on nearby property values. We estimate changes in sales prices using a repeat sales model over all property sales within 1 mile of an affordable housing development. Dollars are adjusted to inflation for 2021. Confidence intervals at the 95 percent level (shown as lines) are heteroskedastic robust and are clustered at the property level. All regressions include property and quarter fixed effects. Coefficients shown in red are statistically significant at the 5 percent level, and coefficients shown in blue are not significant.

Removing Set-Asides

Because affordable units in set-asides often account for a small portion of the overall number of units, the market-rate units in set-aside buildings may bias our results. To ensure that this is not the case, we re-run our analysis removing set-asides.

We find that the relationship between affordable units and nearby properties after removing set-asides is even larger than it is when we include them (table 4). Affordable units that are not set-asides are associated with an increase in property values of 0.11 percent within 1/16 of a mile of a development, on average. Again, this may be due to the close relationship between the city and affordable housing developers in Alexandria, which ensures that affordable housing developments excluding set-asides are amenities rather than disamenities to the neighborhood.

TABLE 4

The Relationship between Affordable Housing and Property Values, Removing Set-Asides*Average treatment effects for affordable housing on property values within 1/16 of a mile of a development*

	In sales price
Affordable housing units that were not set-asides	0.11%*** (0.03%)
Number of observations	57,998
Adjusted R-squared	0.460

Source: Authors' calculations from ZTRAX (Zillow 2021) and city of Alexandria administrative data.

Notes: Impact estimates show the effect of affordable housing units and developments on nearby property values. We estimate changes in sales prices using a repeat sales model over all property sales within 1 mile of an affordable housing development. Dollars are adjusted to inflation for 2021. Standard errors (listed in parentheses) are heteroskedastic robust and are clustered at the property level. All regressions include property and quarter fixed effects. ***p<0.01; **p<0.05; * p<0.10.

Variation by Census Tract Income Level

Previous literature has found that affordable housing in higher-income neighborhoods has a different effect on nearby property values than does affordable housing in low-income neighborhoods. To see whether this is true in Alexandria, we re-run our analysis with the treatment variable split by whether the affordable housing units were in census tracts that had household median incomes above or below the median income in Alexandria, as determined by the 2000 Census (table 5).

We find that affordable housing units in above-median-income census tracts are associated with a 0.06 percent increase in property values, and affordable housing units in below-median-income tracts are associated with a 0.17 percent increase in nearby property values. This is counter to prior findings in the literature that show that affordable housing in high-income neighborhoods reduces nearby property values. In Alexandria, affordable housing units in both higher-income and lower-income neighborhoods are associated with statistically significant increases in nearby property values.

TABLE 5

The Relationship between Affordable Housing and Property Values, Split by Household Median Income in Census Tract of Affordable Housing Development

	In sales price
Affordable housing units in census tracts with household median incomes below the median	0.17%* (0.101%)
Affordable housing units in census tracts with household median incomes above the median	0.06%*** (0.03%)
Number of observations	57,998
Adjusted R-squared	0.460

Source: Author calculations from ZTRAX (Zillow 2021), city of Alexandria administrative data, and the 2000 Census.

Other Robustness Checks

We run a number of additional regressions to ensure that our results are robust to various specifications and models. This includes using alternative treatment radii and alternative comparison group radii, as well as including a five-year development window for each opening date.

Specifically, we estimate the relationship between affordable housing developments and property values located within 1/16 of a mile of the development—our preferred specification, since effects are likely very localized—but also within 1/8 of a mile, 1/4 of a mile, and 1/2 of a mile. We also estimate the relationship between properties within 1/8 of a mile, controlling for those between 1/8 of a mile and 1/2 of a mile, in case there are spillover or displacement effects within that distance. In other words, we compare changes in property values within 1/8 of a mile with changes in property values farther than 1/2 a mile from the development.

Table 6 shows the results of these robustness checks. The findings are consistent throughout and follow theory (i.e., they are positive and significant and generally decline with distance), showing that our results are robust to these alternative specifications.

TABLE 6

Robustness Check Results for Varying Distances

In sales price, by varying distances from an affordable housing development

	1/16 of a mile (main model)	1/8 of a mile	1/4 of a mile	1/2 of a mile	1/8 of a mile, controlling for 1/8 to 1/2 of a mile
Affordable housing units	0.09%*** (0.03%)	0.03%** (0.01%)	0.01%** (0.007%)	0.03%*** (0.004%)	0.02%* (0.01%)
Observations	57,998	57,998	57,998	57,998	57,998
R-squared	0.460	0.460	0.460	0.461	0.461

Source: Authors' calculations from ZTRAX (Zillow 2021) and city of Alexandria administrative data.

Notes: Impact estimates show the effect of affordable housing units and developments on nearby property values. We estimate changes in sales prices using a repeat sales model over all property sales within 1 mile of an affordable housing development. Dollars are adjusted to inflation for 2021. Standard errors (listed in parentheses) are heteroskedastic robust and are clustered at the property level. All regressions include property and quarter fixed effects. ***p<0.01; **p<0.05; *p<0.10.

We also undertake robustness checks where we control for a five-year window around the opening of the affordable housing development to account for anticipatory effects and any construction effects that are likely to have a short-term impact on nearby properties (table 7). These results are again consistent and actually larger than our main results, suggesting that controlling for this predevelopment window and move-in period correlates affordable housing developments with even larger increases in nearby property values.

TABLE 7

Robustness Check Results, Varying Distances and Controlling for a Five-Year Development Window*In sales price, by varying distances from an affordable housing development*

	1/16 of a mile (main model)	1/8 of a mile	1/4 of a mile	1/2 of a mile	1/8 of a mile, controlling for 1/8 to 1/2 of a mile
Effects controlling for five-year development window	0.16%*** (0.044%)	0.03%* (0.018%)	0.02% (0.010%)	0.04%*** (0.005%)	0.03% (0.018%)
Five-year development window	0.20%*** (0.047%)	-0.01% (0.009%)	-0.01% (0.005%)	0.003% (0.003%)	-0.01% (.009%)
Observations	57,998	57,998	57,998	57,998	57,998
R-squared	0.460	0.460	0.460	0.461	0.461

Source: Authors' calculations from ZTRAX (Zillow 2021) and city of Alexandria administrative data.

Notes: Impact estimates show the effect of affordable housing units and developments on nearby property values. We estimate changes in sales prices using a repeat sales model over all property sales within 1 mile of an affordable housing development. Dollars are adjusted to inflation for 2021. Standard errors (listed in parentheses) are heteroskedastic robust and are clustered at the property level. All regressions include property and quarter fixed effects. ***p<0.01; **p<0.05; * p<0.10.

Conclusion

Although the impact of affordable housing on nearby property values is not the primary reason to build affordable housing, individuals often cite it as a reason to oppose such developments. This analysis adds to the current research on the topic, showing that affordable housing developments in the city of Alexandria, Virginia, not only do not reduce property values but also are associated with a small but statistically significant *increase* in values.

Alexandria's positive results overall could reflect a combination of strict requirements for design, development, maintenance, and operation of affordable housing, as well as a cadre of sophisticated local and regional developers including nonprofit housing developers working in the city's real estate market. They could also reflect ongoing oversight from local, state, federal, and private lenders and investors, as well as the city's commitment to diversity and inclusion, which helps incorporate new and preserved affordable housing developments into the fabric of Alexandria neighborhoods.

Given the known benefits of affordable housing on housing stability, access to opportunity, the economy as a whole, and the overall health of households with low incomes, these results support the development of additional affordable housing in the city of Alexandria.

Appendix A. Supplemental Tables and Figures

TABLE A.1

Number of Property Sales by Distance from an Affordable Housing Development
2000-2020

Distance to affordable housing development	Number of sales
0 to 1/16 of a mile	1,832
1/16 to 2/16 of a mile	7,513
2/16 to 3/16 of a mile	11,517
3/16 to 4/16 of a mile	14,637
4/16 to 5/16 of a mile	18,009
5/16 to 6/16 of a mile	20,370
6/16 to 7/16 of a mile	24,334
7/16 to 8/16 of a mile	25,100
8/16 to 9/16 of a mile	24,867
9/16 to 10/16 of a mile	29,251
10/16 to 11/16 of a mile	27,322
11/16 to 12/16 of a mile	28,173
12/16 to 13/16 of a mile	33,656
13/16 to 14/16 of a mile	34,964
14/16 to 15/16 of a mile	34,632
15/16 to 1 mile	36,050

Source: Authors' calculations from ZTRAX (Zillow 2021) and city of Alexandria administrative data. Sales above \$10 million are excluded from this analysis.

Notes: The number of sales includes homes located between the distances shown in the first column, not for all sales between the affordable housing development and the larger distance.

TABLE A.2

Descriptive Statistics of Property Sales by Distance
2000 and 2020

	Minimum	Mean	Median	Maximum	Count
Within 1 mile, 2000	\$2,040	\$337,126	\$297,320	\$4,784,986	2,944
Within 1 mile, 2020	\$1,268	\$605,314	\$527,043	\$5,035,610	4,525
Within 1/16 of a mile, 2000	\$70,598	\$276,443	\$289,139	\$502,031	45
Within 1/16 of a mile, 2020	\$59,071	\$672,892	\$641,845	\$3,913,686	68

Source: Authors' calculations from ZTRAX (Zillow 2021) and city of Alexandria administrative data. Sales above \$10 million are excluded from this analysis.

Notes

- ¹ Urban Institute presentation with a city council from a midsized Southern city.
- ² Office of Housing, City of Alexandria.
- ³ Authors' discussion with local leaders and developers.

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Errata

This brief was updated on April 22, 2022, to acknowledge data sourcing from Zillow.

About the Authors

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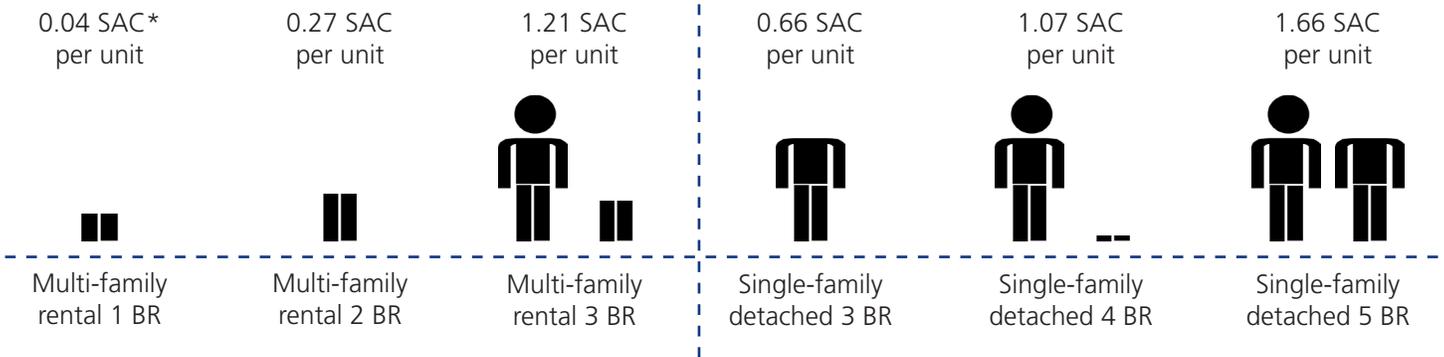


HOMECONNECTICUT
 For Our Economy, Our Families, Our Future
 a campaign of the Partnership for Strong Communities

The School Cost Myth: All Housing **Doesn't** Increase School Costs

Only larger homes bring many school-age children

Rutgers University's Center for Urban Policy Research analysis (June 2006) of Connecticut's number of school age children living in various housing types indicate the following averages:



* SAC = School-Age Children

Plus, school enrollments are falling

Report by the CT State Data Center (June 2008) projected significant declines in CT school enrollment:

From their peak in 2004-05, school enrollments are expected to drop by 17% by 2020. Even if new housing brings additional school children, it is likely that classroom vacancies will be able to absorb them without additional costs.

Most school budget increases are not related to enrollment, or to the number of children in housing

Findings of a University of Massachusetts Donohue Institute study (May 2007) on school cost impact of mixed-income housing:

Studying seven Massachusetts communities with mixed-income housing between 1994 and 2004, they found teaching staff levels and overall expenditures increased independently of changes in enrollment.

During that time period, school enrollments statewide were essentially flat, while employment of full time equivalent (FTE) teaching staff increased by eight percent, and total school expenditures grew by 28.6 percent.

Some school districts studied had costs rise significantly even while their enrollment declined. There are clear fiscal pressures on municipalities due to educational costs, but there is no evidence that student enrollment growth is the cause of the budgetary problems.



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For Our Economy, Our Families, Our Future

a campaign of the Partnership for Strong Communities

Municipal Officials Assess Mixed-Income Housing

South Commons, Kent

"I was a teacher in town when South Commons was being built. I, and many colleagues, were concerned about the residential element this new complex might bring. Within a year it became clear that **our fears were unjustified**. The new students were bright, made friends quickly and became an integral part of their classes. When Stuart Farms Apartments opened, it too filled quickly with a nice blend of locals and newcomers. **We are lucky to have these additions to Kent.**"

*Bruce K. Adams
First Selectman, Town of Kent*



"Students coming from South Commons are certainly not a burden on our school system. Families with children having trouble finding housing they can afford has been a significant factor in our declining school enrollment. **Our schools will thrive if students, teachers and staff can afford to live here."**

*Patricia Chamberlain
Superintendent, Region 1 Public School District*

Old Farms Crossing - Avon



"We have brand new housing developments in Avon selling for \$400,000 to \$600,000, I don't think anywhere near as attractive as this Old Farms Crossing. **There's a need for affordable housing, and this is filling part of that void.** We could use more."

*Richard Hines
Former Chair, Avon Town Council*

"In comparison to other areas within the town, the calls for service to the Old Farms Crossing complex are at or below average. Essentially, **Old Farms Crossing is similar to anywhere else in town.**"

*Lieutenant Christina Barrows
Patrol Division Commander, Avon Police Department*



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Clock Hill Condominiums - Darien



"Most people don't realize it's affordable housing. Its location is ideal - just a block away from the train station so people can easily get to work without driving, and it's within walking distance of restaurants, shops and other retail.

We all know housing in Fairfield County is expensive and **Clock Hill offers an opportunity for people who work in the area,** but may not have the income to support purchasing a market rate home in Darien, to live closer to their job and to transportation."

Evonne Klein
Former First Selectman, Town of Darien

"The presence of affordable housing in Darien has not impacted calls for police services."

Chief of Police Duane J. Lovello
Darien Police Dept.

Flagg Road, West Hartford

"The beauty of the Flagg Road development is that it blends in with the surrounding neighborhood. Town residents are almost uniformly surprised to learn it's 'affordable housing.' I've never heard of any decline in nearby property values. There's really no problem here, only benefits."

Scott Slifka
Mayor, Town of West Hartford

"We really haven't had a problem here."

James Strillacci
Chief of Police, West Hartford



Olde Oak Village, Wallingford



"I didn't see any measurable adverse impact on surrounding property values. And those nearby properties continue to appreciate."

Shelby Jackson
Assessor, Town of Wallingford

"Olde Oak Village has been great for Wallingford. **It allows us to house many of the middle-class workers that our local economy relies on,** even while housing costs in the region have been rising. These homes are attractive and well-maintained, and the people living there are great neighbors."

William W. Dickinson, Jr.
Mayor, Town of Wallingford

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Photos of Affordable Housing From Across the Country



**Business and Professional People
for the Public Interest**

What Affordable Housing Looks Like



Lincoln, Massachusetts

What Affordable Housing Looks Like



Boulder, Colorado

What Affordable Housing Looks Like



Wilmette, Illinois

What Affordable Housing Looks Like



St. Paul, Minnesota

What Affordable Housing Looks Like



Montgomery County, Maryland

What Affordable Housing Looks Like



Longmont, Colorado

What Affordable Housing Looks Like



Andover, Massachusetts

What Affordable Housing Looks Like



Montgomery County, Maryland

What Affordable Housing Looks Like



Chicago, Illinois

What Affordable Housing Looks Like



Fairfax County, Virginia

What Affordable Housing Looks Like



Denver, Colorado

What Affordable Housing Looks Like



Andover, Massachusetts

What Affordable Housing Looks Like



Denver, Colorado

What Affordable Housing Looks Like



Lincoln, Massachusetts

What Affordable Housing Looks Like



Highland Park, Illinois

What Affordable Housing Looks Like



Lincoln, Massachusetts

What Affordable Housing Looks Like



Boulder, Colorado

What Affordable Housing Looks Like



St. Paul, Minnesota

What Affordable Housing Looks Like



Denver, Colorado

What Affordable Housing Looks Like



Aurora, Illinois

What Affordable Housing Looks Like



Boulder, Colorado

What Affordable Housing Looks Like



Highland Park, Illinois

What Affordable Housing Looks Like



Chicago, Illinois

What Affordable Housing Looks Like



Newton, Massachusetts

What Affordable Housing Looks Like



Longmont, Colorado

What Affordable Housing Looks Like



St. Paul, Minnesota

What Affordable Housing Looks Like



Fairfax County, Virginia

What Affordable Housing Looks Like



Montgomery County, Maryland

What Affordable Housing Looks Like



Newton, Massachusetts

What Affordable Housing Looks Like



Montgomery County, Maryland

What Affordable Housing Looks Like



Weston, Massachusetts

What Affordable Housing Looks Like



Longmont, Colorado

What Affordable Housing Looks Like



Newton, Massachusetts

What Affordable Housing Looks Like



Glendale Heights, Illinois

What Affordable Housing Looks Like



Montgomery County, Maryland

What Affordable Housing Looks Like



Chapel Hill, North Carolina

What Affordable Housing Looks Like



Newton, Massachusetts

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'House Poor' American Homeowners Now Exceed 27%

Spending over 30 percent of income on housing expenses is an increasingly common reality.

By DEBRA KAMIN

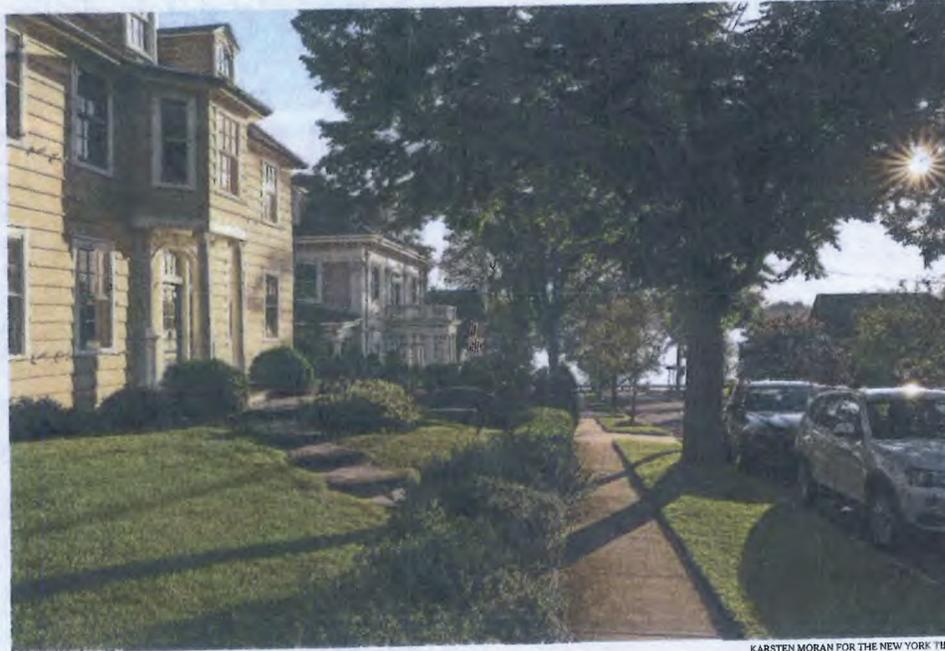
More than one quarter of homeowners in the United States are "house poor," spending more than 30 percent of their income on housing costs, according to a new study.

Chamber of Commerce, a product research company for real estate agents and entrepreneurs, used numbers from the U.S. Census Bureau to analyze monthly housing costs and median household income in the 170 most populated U.S. cities. The company found that 27.4 percent of all homeowners are "cost burdened" in its study.

Miami, Los Angeles and New York City have the highest number of "house poor" residents, with more than four in 10 homeowners in each city feeling stretched beyond their means by their housing bills. And with the exception of New York City, the top 10 cities in the United States for cost-burdened homeowners are all located in either California or Florida.

Mortgage interest rates, which dipped to historic lows at the beginning of the pandemic, climbed past 7 percent in 2022 — the highest numbers seen since 2002. And although rates slightly cooled in the early months of 2023, new homeowners today are still straddled with significantly higher monthly mortgage payments than neighbors who locked in a lower rate.

Add skyrocketing inflation and stagnating wages into the pot, and Americans owe trillions more than they did at the start of the pandemic. Higher housing costs means



KARSTEN MORAN FOR THE NEW YORK TIMES

less set aside for savings, spending and emergencies.

It's not just homeowners being squeezed, either: Rising housing costs push up rents, as well, meaning both renters and homeowners are feeling strapped.

Americans owe trillions more than they did at the start of the pandemic.

The "30 percent" rule is a longtime piece of personal finance gospel that advises keeping all housing expenses, including rent or mortgage payments, property taxes and utilities, from cutting into more than 30 percent of your monthly income.

U.S. homeowners were making headway on their debts until the pandemic, but now — with the highest mortgage interest rates since 2002 — over a quarter are spending more than they should on housing costs.

From 2015 to 2019, the percentage of U.S. homeowners who were considered financially strapped dropped each year, from 29.4 percent in 2015 to 26.5 percent in 2019. But the pandemic has already started to erase those gains.

Los Angeles and New York mirror that national trend: In Los Angeles, where nearly half of homeowners are currently house poor, the number of cash-strapped owners dropped four percentage points between 2015 and 2019 but is now climbing again. The same goes for New York City, where in 2021, more than 45 percent of homeowners were house poor, up from 41.3 percent in 2019.

Miami, however, bucked the trend: The percentage of house-poor homeowners there was 44.6 percent in 2021, down two and a half points from 2019.

The Federal Reserve, fighting an uphill battle against inflation, has increased interest rates every month since March 2022. And while the Fed does not set mortgage rates, many home loans are tethered to their actions.

America's central bank is now signaling that after nearly a year of consecutive rate increases, a break is on the horizon.

"That could signal some relief, at least for new homeowners," said Collin Czarnecki, a researcher at Chamber of Commerce.

L

HEADWAY

This Is Public Housing. Just Don't Call It That.

Montgomery County, Md., like many places, has an affordable housing crisis. So it started acting like a benevolent real estate investor.



By **Conor Dougherty**

Conor Dougherty has covered housing for more than a decade. He reported from Montgomery County, Md.

Aug. 25, 2023

The Laureate is one of those apartment buildings that developers love to build and anti-gentrification types love to hate. Marketed as “inspired living,” it sits outside Washington, D.C., across the street from a Starbucks and a short walk from the Metro’s red line. The boxy frame and clean lines mark it as a haven for young professionals, and it is part of an effort by Montgomery County, Md., to turn a former industrial area with a bus yard into a high-cost insta-neighborhood.

Technically speaking, the Laureate is also public housing.

When it opened in April, Kadiatou Sylla was the first resident. She wanted to live there because it was new and had a brochure that listed amenities like a courtyard pool, a room for washing pets and a gym where she speed-walks on a treadmill. Ms. Sylla was similarly excited to shave her 45-minute commute to 10.

For decades, Montgomery County has led the country in affordable housing innovations, including a landmark law that requires developers to set aside about 15 percent of the units in new projects for households making less than two-thirds of the area’s median income, which is now \$152,100 for a family of four. The Laureate goes further.

While for-profit developers built it, the controlling owner is a government agency, the Housing Opportunities Commission of Montgomery County. Because H.O.C. has a 70 percent stake, the Laureate sets aside 30 percent of its 268 units for affordable housing. Ms. Sylla, who makes \$48,000 a year as an administrator at a biotech company, pays \$1,700 for a one-bedroom apartment, compared with a market rent around \$2,200. Depending on their income, other residents pay as little as half the advertised rate.



Kadiatou Sylla, an administrator for a biotech company, was the first resident of the Laureate. The discounted rent made it possible for her to move out of her sister’s house. Justin J Wee for The New York Times

America's affordable housing problem is so bad and so broad it can be hard to figure out where the fix should start. Since a shortage of available units is the root cause, many policymakers have focused on relaxing zoning and building rules to speed up construction. The idea is that if supply catches up with demand, prices will eventually fall or at least moderate.

But since so much new development is aimed at high-end buyers and renters, another group has countered that only interventions like rent control, subsidies and a revival of public housing can truly reduce housing costs. Families that need relief can't wait decades for supply to meet demand, they argue.

The Laureate is an attempt to marry these ideas — supply and subsidies; public and private — in a single project. It's the first building financed with a new \$100 million fund that Montgomery County created to speed development by having H.O.C. invest directly in new projects, then using its ownership position to become a kind of benevolent investor that trades profits for lower rents.

Public housing, in other words — just not the way most people think of it.

“The private sector is focused on return on investment,” said Chelsea Andrews, H.O.C.'s executive director. “Our return is public good.”

Over the past half-century, the phrase “public housing” has become so stained by failure that the overwhelming impulse from lawmakers has been to run from it by creating programs that either demolish government-owned apartments or offload them to the private sector. Traditional public housing, financed by the Department of Housing and Urban Development and operated by one of the nation's roughly 3,300 public housing agencies, is locked in steady decline.

Today, instead of building taxpayer-owned buildings, much of the federal housing money flows through the private sector. Section 8 vouchers pay private landlords market rent for tenants who can't afford it. The Low-Income Housing Tax Credit gives corporations a break on taxes when they invest in subsidized buildings operated by nonprofit and for-profit developers. The underlying message of those programs is that the era of government-owned housing is over.

In Montgomery County, however, the stock of government-owned housing has steadily grown for decades while the definition of what it can be has expanded. The reason: In the Washington region, as in every other high-growth metropolitan area, the demand for affordable housing is way beyond what federal housing programs can provide. So the county tries to make up the gap.

It has gone only so far. Montgomery County still has a housing shortage and suffers from the same not-in-my-backyard politics that have exacerbated it. And some of the housing, like the Laureate, serves middle-class tenants, not someone earning, say, the minimum wage.

But H.O.C.'s ability to take a direct role in expanding the supply of housing is exactly the sort of approach that experts say is needed to slow the rise of rents — a key driver of inflation and the biggest bill in almost every tenant's budget.

When I met Ms. Sylla, she was sitting at a marble table in the clubhouse, near a pool table, a fireplace and the hot chocolate machine she visits on nights when she has trouble sleeping. Before moving into the Laureate, she had a basement apartment in a house where she lived with her sister, her sister's husband and their three children. She is 28 years old, and the new one-bedroom is her first official apartment, her first time living away from family, the first taste of the privacy and the independence of being able to shut her own door.



A common room in the Laureate, which has 268 apartments. Justin J Wee for The New York Times

“It was time for me to be my own person,” she said.

Nobody in Montgomery County calls the Laureate public housing, and few of the tenants seem to know who their real landlord is. This seems like a feature, not a bug, and is being watched by other places. Over the past few years, as the nation’s housing shortage has spread to more places and deepened the outright crisis on the coasts, a number of states including California, Massachusetts, Colorado, Hawaii and Rhode Island, along with cities like Seattle and Atlanta, have either passed or considered new public housing programs that avoid those words or rebrand themselves as “social housing.”

One way or the other, they all borrow ideas from the Montgomery County model.

“We have to get out of the view that certain things are dirty words: ‘Public housing’ is not a dirty word. ‘Developer’ is not a dirty word,” said Andrew Friedson, a member of the Montgomery County Council who championed the new housing fund. “The market on its own is not functioning the way we need it to, and that’s when we want the government to step up.”

A Wild Idea



Fifty years ago, Joyce Siegel and other residents pressed hard for Montgomery County to pass an innovative ordinance to increase affordable housing. Justin J Wee for The New York Times

On a drive north out of Washington, Montgomery County begins on the far side of a busy traffic circle and continues through miles of suburban affluence before the landscape thins into an urban-edge jumble of farms and fresh subdivisions. Like every suburb, it lives in relation to the economic engine next door, in this case the nation's kitty.

Seemingly every federal agency has an office somewhere in the county, and most of its one million residents live in households that either work for the government, make a living trying to influence it or have moved there to sell goods and services to people engaged in one of the first two. The story of how the county became America's housing innovator is tied up in its connection to the federal government's growth, beginning in the 1960s, when adjacent counties exploded with new homes and families.

In Montgomery County, many of these families consisted of a husband who worked for an agency like NASA or the Federal Communications Commission and a wife who raised the children. Educated and progressive, energized by the civil rights movement, a handful of these women became activists who took up fair and affordable housing as their cause.

Joyce Siegel was one of them. Raising three children while reading books like "The Feminine Mystique," Ms. Siegel started working with the League of Women Voters and others to push for a law to improve housing affordability.

"Anytime my name was in the paper, it was like 'young Bethesda housewife' was my last name: Joyce Siegel, young Bethesda housewife," she said.

Much as they are today, professionals were being priced out of the housing market, and low-income families had to double up.

"People's social consciousness was rising," Ms. Siegel said. "And housing is just so fundamental."

The ordinance they championed was called the Moderately Priced Dwelling Unit program. Its wonky title concealed an innovative idea: Developers of large projects would have to set aside a portion of the units for families making below the area's median income. The law also allowed the county to buy a portion of those units to operate as low-income rentals.

Many of those who pushed for what was described as fair housing (as opposed to affordable housing) explicitly framed it as a way to undo racial segregation. At times they even argued that the county's proximity to the nation's capital gave it a duty to be an example.

"They felt like everyone was watching," said Bianca Serbin, whose honors thesis at the University of Pennsylvania, which focused on the M.P.D.U. program, is the most comprehensive document I could find on its origin and the activists behind it. "They knew that if they passed the law, it could become a national model."

Developers argued that the idea amounted to the government's taking their property, and the measure sat on the County Council's agenda for over a year. But in the early '70s, Democrats took control of the Council, and volunteers packed the meetings. They were so fervent about its passage, and so disproportionately female, that their husbands started referring to Montgomery County as "a gynecocracy."

"They used to call the League of Women Voters 'the plague of women voters,'" Ms. Siegel said.

The law passed in 1974, and H.O.C. was created by state charter out of what was the public housing agency. It continues to administer programs like Section 8 vouchers and has a portfolio of some 9,300 units, most of them federally assisted apartments for extremely low-income households.



For decades, the Housing Opportunities Commission has bought up housing units, like this single-family townhouse in Rockville, Md. It now owns some 2,000 moderate-income units around the county. Justin J Wee for The New York Times

What makes H.O.C. unusually powerful is that, unlike most local housing organizations, it operates as both a public developer and a housing finance agency. The dual role allows the organization to sell bonds to finance its own projects. In essence, it can lend itself money to build buildings, while paying itself the interest.

Steadily, for four decades, H.O.C. has used that power and others to build and acquire some 2,000 moderate-income units that exist outside federal housing programs. The stock consists of basically every kind of housing, from single-family homes with colonial-style shutters to glass towers near the train.

And it blankets the entire county: You can find H.O.C. housing in wealthy enclaves like Chevy Chase, in downtown Silver Spring, in exurban subdivisions where publicly owned rowhouses sit across the street from homeowner neighbors with two-car garages.

When I met Ms. Siegel at her condominium in Bethesda on a recent morning, she told me that I had picked an auspicious day. It was her 90th birthday. She was nevertheless eager to talk housing. Ms Siegel, who served as an H.O.C. commissioner and later joined the staff, offered to take me on a tour of early projects whose addresses remain fresh in her memory.

Driving past garden apartment complexes and rows of townhomes, she pointed to hidden pockets of density. A three-story brick structure that looked nearly identical to nearby single-family residences contained two separate units. Other developments have quadplexes that are hard to distinguish from their single-family neighbors, until you notice the four mailboxes out front.

At one point, the developer of Avenel, an exclusive subdivision in the rolling hills of Potomac, tried to cut a deal to build lower-income units in a different city. The idea was voted down, and today a cluster of small brick homes sit in Avenel on Pleasant Gate Lane, across the road from columned estates, as the law intended.

“Potomac had to have its fair share,” Ms. Siegel said. “That was a big, big deal.”

In the decades since Montgomery County passed the housing ordinance, the idea that developers should provide affordable housing in every kind of building and neighborhood, once regarded as a wild notion pushed by volunteer activists, has spread around the country. It is known as “inclusionary zoning” and has become a staple of many cities’ housing policy.

A Cake-and-Eat-It Story?

One unseasonably warm day in February, a couple of months before tenants moved into the Laureate, I put on a hard hat and toured the building with McLean Quinn while construction workers painted and did detail work. Mr. Quinn is the chief executive of EYA, a Maryland-based builder that developed the Laureate and several other properties in the Shady Grove area with H.O.C. and Bozzuto, another builder based in Maryland.

Mr. Quinn was patient, willing to suffer a high volume of questions on the micro-details of finance and affordability. This is a useful skill if you are going to work closely with government agencies and build transit-centric projects with a lot of affordable units, as his company does.

Developers elsewhere have been pilloried for building affordable housing with lower-end finishings and separate entrances that are derisively called “the poor door.” The Laureate has neither, but there are some tweaks that indicate its dual mission. For instance, because affordable units attract families, the building has a higher share of three-bedroom apartments and a heavily padded playroom across the courtyard from the clubroom, where 20-somethings in headphones type on their laptops.

One side of the courtyard “is designed to be a little bit louder and kid friendly,” Mr. Quinn said. “One is a little more showy and reserved.”

Putting affordable and family-friendly housing inside luxury projects is the sort of cake-and-eat-it story that developers and politicians love to tell, and a big reason that inclusionary zoning programs are politically popular. By offloading the cost and responsibility for building affordable housing onto developers, politicians can say they are meeting an important need while not having to raise taxes or borrow money from infrastructure or schools.



Like the Laureate, the Lindley in Chevy Chase, Md., was built by private developers with H.O.C. funds and offers affordable apartments. Justin J Wee for The New York Times



Hina Khan had to close her shuttle bus business when it didn't bounce back after the pandemic. She now qualifies for reduced rent at the Laureate. Justin J Wee for The New York Times

But inclusionary zoning has plenty of detractors who argue the policy is well meaning but counterproductive. The problem, they say, is that it can discourage building by making apartments less lucrative, and encourages developers to focus on higher-end properties whose high market rents make up for the mandated subsidized units.

Montgomery County is trying to address this with a bit of creative finance that, in effect, lowers the cost of development. Here's how it works: When a developer builds a project, it typically teams up with a private equity firm that puts up about a third of the cost. (The rest comes from a bank loan.) They want a return, however, and the money isn't cheap. The going annual rate in private equity is in the mid- to high teens, Mr. Quinn said. A \$50 million investment, for example, is expected to return about \$90 million after four years — money that is made up for with rent.

So in 2021, the Montgomery County Council voted to create the \$100 million Housing Production Fund. The fund allows H.O.C. to replace private equity as developers' main source of investment, and charge a 5 percent return. The discount saves the developer tens of millions of dollars off the project's effective cost.

There are, of course, conditions. H.O.C. demands that projects built with the Housing Production Fund have a higher share of below-market-rate units and deeper affordability than what is currently being built. Most of the time, developers in Montgomery County set aside units for people earning 65 to 70 percent of the area's median income. Some of the units at the Laureate, however, are available to families that earn less than 50 percent.

EYA still makes money. It gets a fee for overseeing the project, and because H.O.C. projects are exempt from property taxes, and because it is willing to take a low rate of return, the building can profitably operate with double the normal number of affordable units.

This isn't going to wipe away the region's entire affordability problem: Creative financing can lower rents only so far, and in high-income areas like Montgomery County even "affordable" is expensive. Ms. Sylla has a steady professional job but is still paying half her income in rent, which housing researchers consider "severely rent burdened." But the fund is adding housing to a region that badly needs it, without federal subsidy, and doing it with better affordability than private actors can provide.

"There is this common conception that the public sector just regulates the market," said Paul Williams, executive director of the Center for Public Enterprise, a nonprofit in New York that encourages greater public investment in the economy. "But in Montgomery County they've realized they can play in the market, too, and bring more public benefit than the private sector is structurally capable of."

Building During a Bust



Her less expensive apartment at the Laureate allows Iryna Skidan to invest in her education and her daughters'. Justin J Wee for The New York Times

When the owner of the townhouse where Iryna Skidan lived with her two daughters told her that her lease was ending, Ms. Skidan started a spreadsheet of Montgomery County apartment buildings with affordable units. Several dozen properties ran down the columns, and notes included whether the building allowed her on the wait list, or told her to call back, or said it would call her back, then didn't.

"Pretty much all of them were occupied," she said.

This is what a housing shortage looks like, and inclusionary zoning on its own can't solve it. Requiring developers to include affordable units in their projects creates affordable housing only if developers are building in the first place. In the meantime, demand for low-cost units is so high that local governments, Montgomery County included, often have yearslong lists for both vouchers and affordable housing.

In 2021, the United States had a housing deficit of about four million units, according to Freddie Mac. It would take decades of above-average building to fill it, and there is no sign that it's coming. More than almost any other sector of the economy, housing is a boom-and-bust businesses that rises and falls with interest rates.



A street in Rockville. Housing owned by H.O.C. can be found in wealthy enclaves, downtown urban centers and exurban subdivisions where publicly owned rowhouses sit across the street from homes with two-car garages. Justin J Wee for The New York Times

Zachary Marks, H.O.C.'s chief real estate officer, drove home this point to me just before I toured the Laureate. Mr. Marks began his career in the private sector, so he is sympathetic with developers for wanting to turn a profit. And changing zoning and land use laws to make it possible to build faster and denser will be a crucial way to encourage the private sector to build more.

But clearing away bureaucracy and allowing more units on a parcel won't address the boom-and-bust pattern that prevents developers from ever catching up with the amount of housing needed.

"The whole private model is built on a shortage," Mr. Marks said.

The only way to really dent it is for public agencies to keep building when the private sector stops.

The Housing Production Fund was designed to address this. Today, despite an increasingly desperate housing shortage whose cost pressures are moving up the income ladder and pushing the lowest-income families nearer to homelessness, development has started to slow. Analysts predict more slowing. The reason? Interest rates are rising and rent and home prices are starting to decline, after surging during the pandemic.

"No one can start a building," said Mr. Quinn, the developer from EYA. "Multifamily development is screeching to a halt."

Just behind the Laureate sits a dirt mound covered in wood chips. EYA's plan is to replace it with a five-story complex containing 413 apartments. Mr. Quinn's original plan was to bring in a private equity investor, but rising rates and higher costs have prompted such investors to back out of deals or demand even higher returns. Mr. Quinn can't build what he can't finance.

So instead EYA is working with H.O.C., which means the project (for now just called Building B) will reserve 124 apartments for below-market-rate tenants.

The project is scheduled to break ground late next year. "If we had to wait for financing markets to return, it could be several years before we even started the design," Mr. Quinn said.

Building now means apartments will be available more quickly, and more people like Ms. Skidan, who need immediate help, can get it.

Through dogged research and a lot of following up, Ms. Skidan, a 37-year-old single mother, eventually landed a three-bedroom apartment in the Laureate for \$1,900 a month. (The market rate is over \$3,000.) It's about 15 minutes from her old place — a proximity that allowed her two daughters, 10 and 6, to stay in their school district.

Unlike the building's market-rate residents, Ms. Skidan has to produce a haul of pay stubs and tax statements every year to prove that her income is still below the \$64,050 cutoff for her unit. Aside from that private exchange, there is no way to tell her apartment from any other.

Before the pandemic, Ms. Skidan worked as a permanent makeup artist — tattoos, basically, which she applied to people who wanted to mask conditions like alopecia or chemotherapy hair loss. The pandemic crushed her business, and her income plunged by more than half, to about \$30,000 a year. The rent is about \$1,000 less than her old place, which means she can afford to enroll in trade courses in hopes of finding a higher-paying career as a user experience designer for apps and websites.

H.O.C.'s investment in the Laureate allows Ms. Skidan to invest in her financial future and offer her children stability. It allows Ms. Sylla to live independently and much closer to work. Hina Khan, another Laureate tenant, lost her business during the pandemic and was able to pay an affordable rent while she found a new career. Other H.O.C. tenants I talked with described getting their children their first bedrooms and moving to school districts with expanded programs for students with special needs.

Mr. Marks, who joined H.O.C. a decade ago, said that after 10 years in the government he had come to view the concept of return on investment in something other than dollar terms. When he was in the private sector, he saw lower rents as lower profits. Working for the public sector has taught him to see lower rents instead as less homelessness and happier families.

When you think about it like that, he said, your idea of success looks different.

M

OPINION

Timothy C. Dwyer,
President and Publisher
Susan E. Lamont,
Executive Editor



"The newspaper should be more than a business enterprise. It should also be the champion and protector of the public interest and defender of the people's rights."

An opinion by Theodore Babinowitz in his will establishing The Day Trust.

GUEST EDITORIALS

Rework regulations to ease housing shortage

By **NATHAN WEISS**
Special to The Day

Recent headlines highlight affordable housing shortages, skyrocketing rents and home prices, and demands for rent control, but no one is addressing the real cause of these issues, which is a near uniform blockade by municipalities. Each town has its own Planning & Zoning (P&Z) regulations. These regulations are written by planners who are hired by the volunteer members of local P&Z commissions. The commissions have chosen to set the bar high for new housing. Just 60 years ago, a home builder could walk into a town hall, apply for a building permit, pay a \$20-\$100 fee and be able to build a home. That same process now takes months and costs thousands of dollars. A developer looking to build a subdivision will pay tens of thousands of dollars for permits and plans. The hurdles vary from town to town, and in each town, the hurdles vary over time as the towns change planning directors. It is discouraging for anyone seeking to build housing.

The Connecticut Legislature took a stab at making affordable housing easier to build by passing a state regulation, C.G.S. §8-30(g), the affordable housing statute, which supersedes town regulations. Under the usual town P&Z regulations, if a builder meets the regulations in its subdivision propos-

al, the town must grant approval. The catch is that meeting the regulations can be a very subjective assessment by the local commission. Additionally, town P&Z regulations are frequently used to greatly limit the use of land. Some towns require a parcel to be at least four acres. Some towns require an acre of virtually flat land in each parcel. Section 8-30(g) sets aside town regulations and allows a developer to decrease parcel size, setback, slope and road size requirements, with the limitation that any development proposed must only meet the basic requirements of "health, safety and welfare" for the development and its abutters. Section 8-30(g) flips the "meet the regulations" requirement by placing the burden of proof on towns to show why a development does not meet the health, safety and welfare standard. The affordable housing statute requires that one-third of the development be affordable under the state's definition, which is well spelled out. Those buyers must have real income and good credit. It is not a subsidy program like Section 8.

Still, planning directors and P&Z commissions insist on fighting 8-30(g). It took me five years to start a subdivision in Lisbon while the town fought my 18-lot development by rejecting my application, my re-application and then fighting approval in Connecticut Superior, Appellate and Supreme Courts,

all at a substantial cost to Lisbon taxpayers. Because the development met all health, safety and welfare requirements, the town lost at every court level. That added approximately \$8,300 to the cost of each home, all of which are now occupied by a great group of mostly young families. Under town regulations, I would have been allowed only four lots on the same 12-acre parcel.

Increasing housing creation to meet demand will control home prices and rents. Only structural change in the approval process will accomplish that. P&Z regulations should be written uniformly by a state commission. P&Z approvals should be removed from local layperson control and transferred to professional staff hired by regional planning groups for vetting. Perhaps planning directors should have professional engineer licenses to hold the planning director position. Engineers tend to be more fact-driven and have the training to understand the task at hand more fully. More housing will quiet much of the housing anxiety in Connecticut, but the approval process must be changed.

Nathan Weiss is a Norwich native and a multi-state landlord and retired real estate developer.

N



A unique stand on affordable housing

Orange residents accept project because it was 'very tastefully done'

By Ed Stannard
Hartford Courant

Connecticut has an affordable housing problem.

Connecticut has a job vacancy problem.

The two problems, no surprise to many, go together, according to advocates for housing in the state. If people can't afford to live here, they can't take the jobs that are available, they say.

And yet, local residents, citing local control, fight against multi-unit developments coming into their towns.

That has changed in one small town, with what the state of Connecticut has called a "first-of-its-kind" development for the town.

On May 13, a 46-unit affordable development opened in Orange with much fanfare, including an appearance by Gov. Ned Lamont. Orange, a town comprising a farming past and mostly single-family homes, with its retail and business corridor purposely confined mostly to Route 1, previously had 1.31% affordable housing. The town has housing set aside for seniors and has changed dramatically in some places within the past 25 years, including with many apartments built near the border with West Haven. Not unlike other towns, there have been vocal objections to affordable housing in the past.

Orange First Selectman James Zeoli said the affordable project was accepted by residents because it was "very tastefully done."

A small Connecticut town accepted a 'first-of-its-kind' affordable housing project. It's a positive step in a state that needs 120,000 units.

"Sometimes when people hear this type of (affordable) title put

Turn to Housing, Page 2



A 46-unit affordable development has opened in Orange. COURTESY

Housing

from Page 1

onto a development, it draws sideways looks, sometimes inappropriate comments and stuff," he said. "So the developer, one of the principals, lives right near it. It provides a need for both people with disabilities, special needs and income needs. They're designed quite beautifully."

The project was developed by Gyroscope Development Group and the units were offered by Lascana Homes. The units are totally filled and even the waiting list is closed.

"One thing that's very important that people forget: Not every town can fit what I'll call appropriate affordable housing, because not everybody is able to drive or owns a car or has people nearby that can help them all the time," Zeoli said.

"This development is ... probably within 500-600 feet of Route 1," he said.

"It's nestled in a neighborhood and yet it offers the availability of transit with busing," he said. "It has sewer access ... It has gas and it has shopping and other needs that people might have, and so it makes it available, being that it's in that proximity and offers all those amenities."

The site of the development is about 5 acres and, according to zoning documents, was mostly unimproved and had consisted of wooded area, with single family homes in the area, and a "variety" of commercial uses to the southeast/east, including a fence company, health care center, a restaurant and a credit union. "A heavily wooded area with wetlands serves as a buffer between the site and the single-family homes to the northeast," the zoning document noted.

The project was done with support from the Connecticut Department of Housing

and the Connecticut Housing Finance Authority.

Zoning documents said the project was seven buildings and 92 parking spaces. A key is that connects to sanitary sewers in a residential town largely served by septic tanks. The quiet site, not far from the Post Road, is landscaped with new shrubbery but also surrounded by trees in an established neighborhood.

More work to do in Connecticut

While Orange, with its population of about 14,000 people, has made a positive step, the Open Communities Alliance would like to bring a Fair Share plan for planning and zoning to the entire state.

"We're missing about 120,000 units of affordable housing," said Erin Boggs, executive director of the Open Communities Alliance, which advocates for affordable housing.

"Rents have been skyrocketing for a long time; our homelessness numbers are way up; our housing production numbers are way down," she said. "We have between 90,000 and 100,000 jobs that are vacant, and a lot of those vacancies are tied to potential employees not having places to live in Connecticut, so it doesn't sound worth it for them to come here. It's both a social justice crisis but also an economic crisis."

There's simply a lack of housing inventory throughout the state in general, sometimes as low as a 1% vacancy rate in a given town, said Hugh Bailey, policy director for the alliance.

"There just aren't units available," Bailey said. "And those units that are available are subject to bidding wars. That price gets much higher than the initial asking price. And the jobs available might support someone paying in a place that has the asking price but, once it's gone on the market and it goes up, it no longer becomes viable."



A 46-unit affordable development has opened in Orange. COURTESY

The problem is statewide and particularly acute in places where there are jobs, such as Groton, where Electric Boat recently had \$1 billion restored in a draft spending bill for a second Virginia-class attack submarine.

"It's very clear right there that this mismatch is the case where they don't have the housing for the jobs that they need filled," Boggs said.

"You can also see acute need in more expensive places," she said. "In Fairfield County, the possibility of finding housing that's affordable outside of Bridgeport and in Norwalk (and Stamford, but even in those places it can be incredibly hard. It's basically impossible outside of those cities."

But the alliance has done analyses for each region of the state, and the problem is present everywhere, she said.

According to the alliance, there are 28 cities and towns that have at least 10% affordable housing, generally meaning rent is no more than 30% of monthly income.

Of the rest, many have minuscule percentages of affordable housing, less than 1%.

While a city like New Haven has been including affordable housing in a number of new developments, "we shouldn't be expecting New Haven to do it all by itself; they're not going to solve the housing crisis standing alone," Boggs said.

"And that is what we really focus on, which is what our whole region's doing. What are suburban

areas, even rural areas doing to play a role in addressing the crisis, and part of that comes through adjusting planning and zoning so that they are actually complying with existing state law that says they need to be playing a role in solving the regional housing of all different kinds to go in."

Part of the law that municipalities zoning boards must follow is the Zoning Enabling Act, Section 8-2 of the state code, which, among other things, requires them to "Promote housing choice and economic diversity in housing, including housing for both low and moderate income households."

It also calls for the "the development of housing opportunities, including opportunities for multifamily dwellings."

"These are existing obligations that towns have already agreed to," Boggs said. "For some people, there's just not an understanding that that's how it works."

Going along with Section 8-2 is Section 8-30g, the Affordable Housing Appeals Act, "which says for any town that has less than 10% affordable housing, if a developer comes along proposing a development with a meaningful percentage of affordability, and the town rejects that, the developer can take the town to court and basically get a leg up in court," Boggs said. "And the town can then be ordered to allow the affordable housing to be built."

Towns 'not held to account'

The problem is that 10%

affordable housing in a town is not nearly enough.

"If every town in Connecticut were to allow you to get to that 10% number ... we would have about 41,000 additional units of affordable housing, when we need something in the range of 120,000," Boggs said.

But even the laws on the books aren't being enforced, Bailey said.

"These laws exist and it's very plain language that says the towns have to do this, but they are not held to account, which is one of the things that's frustrating because it's a very clear law," he said.

"So when towns talk about local control, certainly local control is traditionally Connecticut, but state laws also exist," he said. "And they need to abide by those laws, and the fact that they aren't doesn't mean that the law doesn't exist. It just means it's not being enforced."

This year, a bill, Senate Bill 6, was introduced in the General Assembly that would have helped increase the affordable housing supply in the state, but it was never voted on.

Boggs said a Fair Share plan would basically assess "how much affordable housing we need in each region of the state, and then allocates that out to each town in a way that considers their resources and also what they've done in the past and then asks them to plan and zone for that over a period of time."

"So it could be 10 years, could be 20 years. But the bottom line is they have to change their zoning to try to reach their number and there are actual sticks that are imposed if the housing does not appear," she said.

First, Section 8-30g would be imposed.

"If they ultimately can't, (if) the housing doesn't come to fruition, then some basically default zoning goes into place, so very low scale," Boggs said. "On sewer (connections), you could

build 10 units. In places without sewer, you could build up to what the public health code would allow."

That might be a duplex, triplex or quadruplex, she said.

"And this is something, broadly speaking along these lines, that is in place and has been in place in New Jersey for a long time and it has been the most effective law in the nation in creating more affordable housing. It's working incredibly well there," Boggs said.

Bailey said enforcement mechanisms are necessary because incentives, such as tax breaks, don't seem to work.

"There are many in Connecticut that will look at those carrots and say, well, thanks for the offer, but we like things the way they are and, nothing," he said. "So in terms of the carrot-vs.-stick debate, carrots are great and incentives can be helpful, but you really need some sort of enforcement mechanism to ensure that something gets built."

Also, the towns don't need to build the housing themselves, they just need to allow developers to come in and build projects, Bailey said. "They would just have to stop saying no to everything," he said.

Ultimately, "the town really does need to be more of a partner in this. They need to change the underlying zoning, not just on a one-off basis," Boggs said. Capitulating on a Section 8-30g case isn't the way to go.

"Right now, the way towns plan in many cases for affordability is, how do we not have it?" Boggs said. "So it shifts the conversation from not will we have affordable housing or not, but we need to have it, where does it go? How are we going to do this in a way that works well with our vision?"

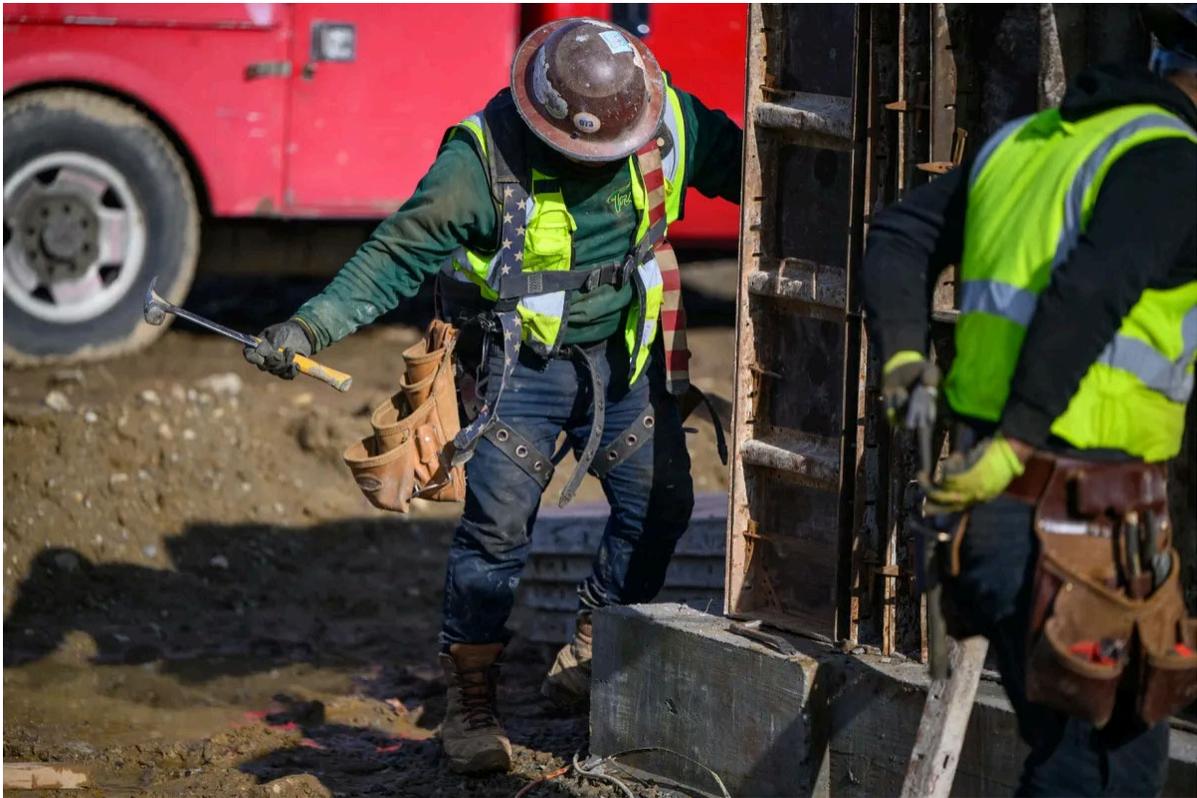
Ed Stannard can be reached at estannard@courant.com.

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PARTNER CONTENT

CT ranks worst state in the U.S. for renters, study finds

P by Abigail Brone | Connecticut Public
June 7, 2024 @ 8:00 am



A construction worker hammers away at the formwork for the foundation of a building that will be part of Oak Grove - an affordable housing complex in Norwalk, Connecticut. CREDIT: RYAN CARON KING / CONNECTICUT PUBLIC

In the midst of the housing crisis comes more troubling news for tenants: Connecticut is ranked as the worst place in the nation for renters.

The state's high unemployment rate and low apartment availability contributed to the low ranking in a study by consumer review company, Consumer Affairs. The

report was the result of an analysis of data from the U.S. Census Bureau, the U.S. Bureau of Economic Analysis and the Bureau of Labor.

At 4.7%, Connecticut's unemployment rate is above the national average of 3.9% as of April, and many renters are paying more than 30% of their monthly income on rent, according to the report.

North Dakota was ranked as the most renter-friendly state due to its high vacancy rate and low rent of less than \$850 per month for a two-bedroom apartment.

Connecticut was behind in every category assessed, according to Rebecca Sowell, one of the analysts behind the report.

“In all the different metrics that we looked at, there's no category where Connecticut excels,” Sowell said. “Whereas those more expensive places like New York, California, Hawaii, they're not great in terms of affordability, but they do excel and other metrics, whether that's unemployment rate or vacancy rate.”

One of the metrics weighed most heavily was the average percentage of income tenants spent on rent monthly, Sowell said. Nationwide, renters spent an average of 31% of their monthly income on rent. In Connecticut, the average is 32%, Sowell said.

However, nearly 55% of Connecticut renters pay up to about 35% of their monthly income on rent.

“We're playing the cards that were dealt, there's not really much I think, individual people can do about this,” Sowell said. “It's better to put more pressure on a state and national level, to have more options for affordable housing, increases in wages, to account for the rising housing costs.”

States were ranked based on several criteria including cost of living, median rent for a two-bedroom apartment and what percentage of apartments were constructed after the year 2000.

Fixing the state's housing crisis extends beyond creating more units, and includes updating aging apartments, Connecticut Tenants Union Vice President Luke

Melonakos-Harrison said.

“So often, the conversation is limited to building new housing, period,” Melonakos-Harrison said. “That’s going to solve everything. And that has got to shift, because that’s clearly not enough.”

Connecticut’s aging housing stock and a housing vacancy rate of 3.5% are exacerbating the state’s housing crisis, Melonakos-Harrison said.

“That is a perfect storm for a huge portion of tenants living in slum conditions at rents that they can barely afford or they can’t afford,” Melonakos-Harrison said.

Less than 15% of Connecticut’s renter-occupied apartments were constructed in the last quarter of a century, according to the study.

While the state doesn’t have the highest average rent costs for a two-bedroom apartment, the low vacancy rate makes it hard to find reasonably priced rentals.

It costs an average of about \$1,400 to rent a two-bedroom apartment in Connecticut, according to the report. Arkansas has the lowest rent cost at \$834.

States that ranked in the top 10 had low percentages of household incomes going toward rent, cheaper rent costs, more apartments built after 2000 and were more likely to have tenant-friendly eviction laws, according to the report.

This story was first published May 31, 2024 by Connecticut Public.

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Study: CT homeownership costs among highest in U.S. What to know.



The cost of owning a home in Connecticut is among the highest in nation. (Photo by Brandon Bell/Getty Images)



By **KENNETH R. GOSSELIN** | kgosselin@courant.com | Hartford Courant

PUBLISHED: June 10, 2024 at 2:04 p.m. | UPDATED: June 10, 2024 at 2:22 p.m.

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The cost of owning a home in Connecticut is among the highest in the nation, with property taxes the primary driver that pushed Connecticut close to the top of [a new state-by-state ranking released Monday](#).

Connecticut came in fifth highest in a study by [Bankrate.com](#) that found owners of a typical single-family house in Connecticut faced homeownership costs of \$23,515 annually compared with \$18,996 in 2020, just prior to the pandemic. The increase represents a 24% jump, or \$4,519 a year, according to Bankrate's "Hidden Costs of Homeownership Study."

Homebuyers in Connecticut are [already being squeezed by higher prices](#) pushed upward by strong demand and few properties on the market. The cost of maintaining a house and paying property taxes has emerged as another major consideration.

A typical single-family house was one that sold at the statewide in March at the median sale price of \$435,900, Bankrate said. . Median income in Greater Hartford in 2023 was \$79,579, and statewide that year was \$83,572, according to [DataHaven](#).

Connecticut overall costs — including property taxes, maintenance, cable and internet fees, annual energy bills and homeowners insurance — ranked only behind New Jersey, Massachusetts, California and Hawaii. Hawaii, which topped the ranking, had overall annual cost of \$29,011, according to the Bankrate study

Connecticut's overall homeownership cost was nearly 30% higher than nationally, at \$18,118. The costs do not include principal and interest payments.

In Connecticut, on average, homeowners will pay \$8,073 a year in property taxes in 2024, a 9% increase compared with \$7,395 in 2020, the study shows.



Getty Images/iStockphoto

Local property taxes are a major component of homeownership in Connecticut, a study by Bankrate.com, shows.

The average annual property tax bill in Connecticut was second only to New Jersey's \$10,025.

"The thing that really jumps out at me is the high property taxes that are the factor that's really pushing up the cost of homeownership in Connecticut," Jeff Ostrowski, a Bankrate analyst said.

The annual maintenance costs were calculated by taking 2% of the median sale price in March, or \$8,718, up nearly 50% from \$5,800 in 2020.

Ostrowski said the rise in cost reflects the dramatic increase in home sale prices in Connecticut in the last four years, after more than a decade of little price appreciation. Inflation in the aftermath of the pandemic also has led to higher material and construction costs, made worse by a disrupted supply chain.

"Home prices have shot up over the past four years," Ostrowski said. "The biggest part of our calculation is that we assumed that homeowners would spend 2% of the purchase price per year on just maintenance and repairs. And that obviously is not a perfect number — some people are going to spend more, some less — but the 2% is a

Other major costs to run a house in Connecticut included annual cable and internet averaging \$1,508 in 2024, up from \$1,410.96, or nearly 7% four years ago. Energy bills averaged \$3,367, soaring nearly 20%, from \$2,808 in 2020.

In addition, annual homeowner insurance premiums averaged \$1,850 in 2024, compared with \$1,582, or almost 17% higher than four years ago.

Homeowner insurance premiums in Connecticut remain relatively affordable. But a recent report by [Insurify](#), an online insurance marketplace, ranked Connecticut as ninth on a list of the top 10 states where rates are expected to increase the most by the end of 2024.

According to Insurify, 50% of insurers providing homeowner coverage in Connecticut are expected to boost rates in 2024.

Kenneth R. Gosselin can be reached at kgosselin@courant.com.

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MEMORANDUM

DATE: March 2, 2022

TO: Interested Parties

FROM: Tim Hollister and Andrea Gomes at Hinckley Allen, Hartford Office

RE: Approximately how many housing units has General Statutes § 8-30g produced since its enactment in 1990?

This week, the General Assembly will consider a bill to direct a study of § 8-30g. Meanwhile, towns are drafting affordable housing plans, due in June 2022, as directed by Public Act 21-29, and the Commission on Connecticut's Future and Development will be assessing those municipal plans and preparing guidance on how to draft them. In addition, the Department of Housing has issued a new § 8-30g Ten Percent List. Amid this confluence of events, a question has arisen on the Connecticut Chapter of the American Planning Association listerv about an updated count of housing production attributable to § 8-30g. We decided to take a stab at an updated count.

The caveat is that, 32 years after § 8-30g's enactment, it is only possible to estimate how many housing units are "attributable" to § 8-30g. Residential developments are approved and built for a multiplicity of reasons. Also, in 32 years, there have been 8-30g developments from the 1990's, when the affordability time period for "set aside" units was 20 or 25 years, whose restrictions have now expired, as well as building demolitions, and a few instances where unit count reporting to DOH by town was discovered to need an adjustment. Noting these obstacles, however, we offer the following analysis:

Our primary method has been to compare the 1992 Ten Percent List to the new 2021 List (both attached). The 1992 List was the second one issued, and was more complete and accurate than the first 1991 List. From these two Lists, we can glean the following:

The 2021 List shows, statewide, 5,406 "Deed Restricted Units," which means units with income and rent or sale price restrictions that comply with § 8-30g. It is reasonable to attribute almost all of these units to § 8-30g, because as a legal matter, § 8-30g units did not exist before the statute was enacted in 1990.

It should be noted that about 55 percent of these units are located in municipalities that are currently exempt from § 8-30g, but comparing the 1992 and 2022 Lists, it is evident that

many of the units created in these now-exempt towns are units that helped move previously non-exempt towns (Norwalk, Danbury, and West Haven, for example) to exempt status (and to make sure they preserve their exempt status). Put another way, in 1992, only 26 towns were exempt, while 31 are today, and 19 of the 31 now-exempt towns are between 10.0 and 15.9 percent, providing an incentive to maintain and improve current affordable unit levels. (Note: § 8-30g requires the denominator of the Ten Percent List to be based on the most recent federal census, so the next Ten Percent List will have a new set of denominators.)

If we add in the approximately 150-200 units in § 8-30g developments whose affordability restrictions have expired, then 5,550-5,600 is a reasonable estimate of "deed restricted" units since 1990.

The next observation is that most of these 5,550-5,600 affordable units are in 30 percent set-aside developments, because the other § 8-30g category, "assisted housing," is reported separately. If we consider 5,500 units as 30 percent of the total, that equates to more than 18,000 market rate units (and though not deed restricted, generally less expensive) approved as part of the § 8-30g process.

As noted, the other § 8-30g category is "assisted housing," meaning units built with some form of governmental assistance. Thus, this category includes units financed with federal Low Income Housing Tax Credits; state rental assistance programs; some form of financial help from DOH or CHFA; other federal programs; and municipal housing trust funds. The Ten Percent List counts "Government Assisted" and "Tenant Rental Assistance" as "assisted housing."

Noting that government housing programs have evolved over 32 years, the 1992 Ten Percent List shows 112,276 government assisted units, and the 2021 list shows 141,942 units, an increase of just under 30,000 units. It is not possible to calculate with precision how many of these 30,000 units were constructed due to § 8-30g, but based on our knowledge of § 8-30g approvals that have been government-assisted, ten percent is a conservative estimate. That would add 3,000 affordable units to the overall count.

(Note: We have omitted consideration of the Ten Percent List category of "single family" CHFA/USDA mortgages, because although these are counted on the Ten Percent List, the income and sale price qualification of these programs generally exceed § 8-30g limits. Also, these are merely financing programs.)

Therefore, in total, conservative and reasonable estimates are that § 8-30g has spurred the creation of about 8,500 units that are affordable in compliance with § 8-30g or an applicable government assistance program; and about 18,000 market-rate units in set aside developments constructed pursuant to § 8-30g. Again, these numbers are proposed as orders of magnitude, not exact counts.

We welcome comments and observations as to how the accuracy of these estimates might be improved. Meanwhile, we hope this analysis will help clarify this quantitative question about § 8-30g and assist in the discussions presently underway.

2021 Affordable Housing Appeals List - Exempt Municipalities

Town	2010 Census	2021 Gov Assisted	2021 Tenant Rental Assistance	2021 Single Family CHFA/USDA Mortgages	2021 Deed Restricted Units	2021 Total Assisted Units	2021 Percent Affordable
Ansonia	8,148	366	799	138	0	1,303	15.99%
Bloomfield	9,019	574	114	303	0	991	10.99%
Bridgeport	57,012	6,949	4351	815	19	12,134	21.28%
Bristol	27,011	2,006	950	1,031	0	3,987	14.76%
Danbury	31,154	1,652	1258	465	221	3,596	11.54%
Derby	5,849	275	314	102	0	691	11.81%
East Hartford	21,328	1,593	809	964	0	3,366	15.78%
East Windsor	5,045	559	37	102	0	698	13.84%
Enfield	17,558	1,360	221	592	7	2,180	12.42%
Groton	17,978	3,727	103	335	10	4,175	23.22%
Hartford	51,822	10,733	8,723	1,441	0	20,897	40.32%
Killingly	7,592	467	152	167	0	786	10.35%
Manchester	25,996	1,871	979	872	32	3,754	14.44%
Meriden	25,892	1,976	1,360	956	11	4,303	16.62%
Middletown	21,223	3,116	1,129	486	25	4,756	22.41%
New Britain	31,226	3,017	1,583	1,109	100	5,809	18.60%
New Haven	54,967	9,652	7,142	891	457	18,142	33.01%
New London	11,840	1,600	490	475	101	2,666	22.52%
North Canaan	1,587	148	0	14	0	162	10.21%
Norwalk	35,415	2,245	1,546	385	667	4,843	13.67%
Norwich	18,659	2,296	796	516	0	3,608	19.34%
Plainfield	6,229	377	196	191	4	768	12.33%
Putnam	4,299	413	63	70	0	546	12.70%
Stamford	50,573	4,219	2,073	383	1270	7,945	15.71%
Torrington	16,761	912	328	513	17	1,770	10.56%
Vernon	13,896	1,509	470	348	12	2,339	16.83%
Waterbury	47,991	5,385	3,156	1,597	48	10,186	21.22%
West Haven	22,446	1,024	2,119	395	0	3,538	15.76%
Winchester	5,613	350	170	84	0	604	10.76%
Windham	9,570	1,776	597	338	0	2,711	28.33%
Windsor Locks	5,429	297	154	224	0	675	12.43%

2021 Affordable Housing Appeals List - Non-Exempt Municipalities

Town	2010 Census	2021 Gov Assisted	2021 Tenant Rental Assistance	2021 Single Family CHFA/USDA Mortgages	2021 Deed Restricted Units	2021 Total Assisted Units	2020 Percent Affordable
Andover	1,317	24	1	29	0	54	4.10%
Ashford	1,903	32	0	32	0	64	3.36%
Avon	7,389	244	21	36	1	302	4.09%
Barkhamsted	1,589	0	5	21	0	26	1.64%
Beacon Falls	2,509	0	4	38	0	42	1.67%
Berlin	8,140	556	50	124	4	734	9.02%
Bethany	2,044	0	2	11	0	13	0.64%
Bethel	7,310	192	30	132	87	441	6.03%
Bethlehem	1,575	24	0	5	0	29	1.84%
Bolton	2,015	0	2	29	0	31	1.54%
Bozrah	1,059	0	3	27	0	30	2.83%
Branford	13,972	243	73	152	9	477	3.41%
Bridgewater	881	0	0	1	0	1	0.11%

Brookfield	6,562	155	22	97	77	351	5.35%
Brooklyn	3,235	232	10	63	0	305	9.43%
Burlington	3,389	27	0	44	0	71	2.10%
Canaan	779	1	3	4	1	9	1.16%
Canterbury	2,043	76	1	61	0	138	6.75%
Canton	4,339	251	31	48	32	362	8.34%
Chaplin	988	0	2	35	0	37	3.74%
Cheshire	10,424	258	23	88	17	386	3.70%
Chester	1,923	23	4	15	0	42	2.18%
Clinton	6,065	105	8	60	0	173	2.85%
Colchester	6,182	364	37	132	4	537	8.69%
Colebrook	722	0	1	6	1	8	1.11%
Columbia	2,308	24	2	57	0	83	3.60%
Cornwall	1,007	28	2	6	0	36	3.57%
Coventry	5,099	103	4	120	20	247	4.84%
Cromwell	6,001	212	9	173	0	394	6.57%
Darien	7,074	161	14	2	104	281	3.97%
Deep River	2,096	26	6	32	0	64	3.05%
Durham	2,694	36	1	26	0	63	2.34%
East Granby	2,152	72	2	42	0	116	5.39%
East Haddam	4,508	73	2	59	0	134	2.97%
East Hampton	5,485	64	7	83	25	179	3.26%
East Haven	12,533	542	167	274	0	983	7.84%
East Lyme	8,458	396	19	86	19	520	6.15%
Eastford	793	0	0	10	0	10	1.26%
Easton	2,715	0	0	3	15	18	0.66%
Ellington	6,665	260	5	104	0	369	5.54%
Essex	3,261	75	2	16	16	109	3.34%
Fairfield	21,648	231	139	56	182	608	2.81%
Farmington	11,106	470	115	128	155	868	7.82%
Franklin	771	27	2	19	0	48	6.23%
Glastonbury	13,656	604	49	108	2	763	5.59%
Goshen	1,664	1	1	4	0	6	0.36%
Granby	4,360	85	2	46	5	138	3.17%
Greenwich	25,631	879	458	13	38	1,388	5.42%
Griswold	5,118	222	57	144	0	423	8.26%
Guilford	9,596	186	10	32	0	228	2.38%
Haddam	3,504	22	1	27	0	50	1.43%
Hamden	25,114	1,048	818	473	4	2,343	9.33%
Hampton	793	0	1	11	0	12	1.51%
Hartland	856	2	0	6	0	8	0.93%
Harwinton	2,282	22	6	34	5	67	2.94%
Hebron	3,567	58	3	44	0	105	2.94%
Kent	1,665	58	4	4	0	66	3.96%
Killingworth	2,598	0	0	16	5	21	0.81%
Lebanon	3,125	26	3	76	0	105	3.36%
Ledyard	5,987	32	12	210	6	260	4.34%
Lisbon	1,730	2	0	58	0	60	3.47%
Litchfield	3,975	140	3	30	19	192	4.83%
Lyme	1,223	0	0	5	8	13	1.06%
Madison	8,049	90	3	9	33	135	1.68%
Mansfield	6,017	175	128	80	2	385	6.40%
Marlborough	2,389	24	0	24	0	48	2.01%
Middlebury	2,892	77	5	18	20	120	4.15%
Middlefield	1,863	30	3	18	1	52	2.79%
Milford	23,074	728	244	168	74	1,214	5.26%
Monroe	6,918	35	5	44	8	92	1.33%
Montville	7,407	81	54	247	0	382	5.16%
Morris	1,314	20	3	5	0	28	2.13%
Naugatuck	13,061	493	305	344	0	1,142	8.74%

New Canaan	7,551	175	19	5	21	220	2.91%
New Fairfield	5,593	0	2	53	17	72	1.29%
New Hartford	2,923	12	3	47	15	77	2.63%
New Milford	11,731	319	41	153	20	533	4.54%
Newington	13,011	531	128	437	36	1,132	8.70%
Newtown	10,061	134	7	80	32	253	2.51%
Norfolk	967	21	1	5	0	27	2.79%
North Branford	5,629	62	14	45	0	121	2.15%
North Haven	9,491	393	51	85	23	552	5.82%
North Stonington	2,306	0	1	21	6	28	1.21%
Old Lyme	5,021	64	2	14	3	83	1.65%
Old Saybrook	5,602	52	15	21	73	161	2.87%
Orange	5,345	46	10	10	6	72	1.35%
Oxford	4,746	36	3	26	0	65	1.37%
Plainville	8,063	205	46	282	22	555	6.88%
Plymouth	5,109	178	20	174	0	372	7.28%
Pomfret	1,684	32	2	13	0	47	2.79%
Portland	4,077	185	90	64	0	339	8.31%
Preston	2,019	40	5	38	0	83	4.11%
Prospect	3,474	0	4	43	45	92	2.65%
Redding	3,811	0	2	15	0	17	0.45%
Ridgefield	9,420	175	6	26	79	286	3.04%
Rocky Hill	8,843	235	62	157	0	454	5.13%
Roxbury	1,167	19	0	5	0	24	2.06%
Salem	1,635	0	4	30	0	34	2.08%
Salisbury	2,593	24	0	2	14	40	1.54%
Scotland	680	0	1	28	0	29	4.26%
Seymour	6,968	262	29	98	0	389	5.58%
Sharon	1,775	32	1	3	0	36	2.03%
Shelton	16,146	254	40	118	82	494	3.06%
Sherman	1,831	0	1	6	0	7	0.38%
Simsbury	9,123	289	63	86	0	438	4.80%
Somers	3,479	146	7	33	0	186	5.35%
South Windsor	10,243	443	57	186	12	698	6.81%
Southbury	9,091	90	7	31	0	128	1.41%
Southington	17,447	499	62	317	54	932	5.34%
Sprague	1,248	20	12	24	1	57	4.57%
Stafford	5,124	257	20	115	0	392	7.65%
Sterling	1,511	0	6	21	0	27	1.79%
Stonington	9,467	441	19	79	2	541	5.71%
Stratford	21,091	524	425	344	33	1,326	6.29%
Suffield	5,469	296	6	48	15	365	6.67%
Thomaston	3,276	104	5	97	0	206	6.29%
Thompson	4,171	151	13	42	0	206	4.94%
Tolland	5,451	127	12	95	3	237	4.35%
Trumbull	13,157	315	19	82	315	731	5.56%
Union	388	0	0	6	0	6	1.55%
Voluntown	1,127	20	1	22	0	43	3.82%
Wallingford	18,945	354	142	296	35	827	4.37%
Warren	811	0	0	1	0	1	0.12%
Washington	2,124	17	2	3	23	45	2.12%
Waterford	8,634	213	33	239	0	485	5.62%
Watertown	9,096	205	33	216	0	454	4.99%
West Hartford	26,396	643	852	320	250	2,065	7.82%
Westbrook	3,937	140	5	29	29	203	5.16%
Weston	3,674	0	2	6	0	8	0.22%
Westport	10,399	265	60	2	63	390	3.75%
Wethersfield	11,677	705	109	258	0	1,072	9.18%
Willington	2,637	160	6	35	0	201	7.62%

Wilton	6,475	158	9	14	51	232	3.58%
Windsor	11,767	154	288	420	26	888	7.55%
Wolcott	6,276	313	14	174	0	501	7.98%
Woodbridge	3,478	30	8	3	0	41	1.18%
Woodbury	4,564	60	4	27	0	91	1.99%
Woodstock	3,582	24	0	28	0	52	1.45%
	1,487,891	93,840	48,102	26,989	5,406	174,337	



STATE OF CONNECTICUT

DEPARTMENT OF HOUSING

LOWELL P. WEICKER, JR.
GOVERNORHENRY S. SCHERER, JR.
COMMISSIONER

TO: All Interested Parties

FROM: Sandy Bergin, Supervisor
Research Unit

DATE: March 13, 1993

SUBJECT: Affordable Housing Appeals Procedure
Percentages of Assisted Housing Units

The current list of percentages of assisted housing by municipalities is attached.

The units counted for the purpose of this list are (1) assisted housing units - housing which is receiving, or will receive, financial assistance under any governmental program for the construction or substantial rehabilitation of low and moderate income housing, and any housing occupied by persons receiving rental assistance under chapter 138a or Section 1427f of Title 42 of the United States Code; (2) Ownership Housing - currently financed by Connecticut Housing Finance Authority mortgages or (3) Deed Restricted Property - deeds containing covenants or restrictions which require that such dwelling units be sold or rented at, or below, prices which will preserve the units as affordable housing, as defined in section 8-39a, for persons and families whose income is less than or equal to eighty percent of the area median income.

Some municipalities may notice a change in the total number of assisted housing rental units. These changes were caused by a double counting of Rental Assistance program certificates particularly for elderly units. The error has been identified and corrected.

The 1992 Estimated Housing Units column has been updated using the 1990 Census and adding the number of building permits issued since the Census was taken. It should be noted that because not all permits issued become units, some municipalities may notice decreases in the total number of units.

If you should have any questions about the information, please call Gail Perotti at 566-1805. This information is also available in large print or on audio tape by contacting Christopher Cooper at 566-1715.

sb/gep
attachment

Affordable Appeals List: 1992

<u>Municipality</u>	<u>1992 Est Hsq Units</u>	<u>Assisted Family</u>	<u>Rental Elderly</u>	<u>Mortgages CHFA</u>	<u>Deed Restricted</u>	<u>Percentages</u>
Towns which are exempt under Section 1(f) of P.A. 89-311						
Ansonia	7,568	855	164	154		15.5%
Bloomfield	7,969	396	390	346		14.2%
Bridgeport	57,012	7,047	2,706	2,312	42	21.2%
Bristol	25,198	1,397	828	1,072	24	13.2%
Brooklyn	2,440	100	169	61		13.6%
East Hartford	21,342	1,659	778	783		15.1%
East Windsor	4,133	367	124	88		14.0%
Enfield	16,695	759	363	699	7	12.1%
Groton	16,732	2,751	491	460		22.1%
Hartford	56,223	12,951	2,268	1,971		30.6%
Manchester	21,921	1,633	356	702		12.3%
Meriden	24,887	2,091	801	1,010		15.7%
Middletown	18,291	2,137	814	469		18.7%
Naugatuck	12,078	530	298	466		10.7%
New Britain	32,313	3,278	1,201	1,239		17.7%
New Haven	54,205	8,473	3,651	1,973	60	26.1%
New London	11,969	1,157	577	256		16.6%
Norwich	16,510	1,568	765	628		17.9%
Plainfield	5,414	270	174	225		12.4%
Rutnam	3,824	239	225	79		14.0%
Stamford	44,567	3,954	1,425	432		13.0%
Torrington	15,345	715	509	607		11.9%
Vernon	12,777	1,246	570	356		17.0%
Waterbury	47,520	4,919	1,955	2,160		19.0%
Winchester	5,119	363	120	125		11.9%
Windham	8,757	1,376	400	195	13	22.7%

Towns which are not exempt under Section 1(f) of P.A. 89-311

Andover	1,017	0	24	47		7.0%
Ashford	1,605	5	0	49		3.4%
Avon	5,794	2	39	34		1.3%
Barkhamsted	1,360	17	0	26		3.2%
Beacon Falls	2,038	0	0	27		1.3%
Berlin	6,376	3	70	102		2.7%
Bethany	1,616	0	0	5		0.3%
Bethel	6,473	36	124	110		4.2%
Bethlehem	1,286	0	48	5		4.1%
Bolton	1,724	0	0	32		1.9%

Affordable Appeals List: 1992

<u>Municipality</u>	<u>1992 Est Hsg Units</u>	<u>Assisted Family</u>	<u>Rental Elderly</u>	<u>Mortgages CHFA</u>	<u>Deed Restricted</u>	<u>Percentages</u>
Bozrah	892	1	0	22		2.6%
Branford	13,253	151	172	120		3.3%
Bridgewater	748	0	0	1		0.1%
Brookfield	5,423	1	35	68		1.9%
Burlington	2,489	18	0	29		1.9%
Canaan	591	6	0	9		2.5%
Canterbury	1,596	52	0	46		6.1%
Canton	3,351	16	114	38		5.0%
Chaplin	798	0	0	16		2.0%
Cheshire	8,773	21	148	59		2.6%
Chester	1,428	0	23	17		2.8%
Gilnton	5,450	2	78	59		2.6%
Colchester	4,341	46	72	123		5.6%
Colebrook	627	0	0	13		2.1%
Columbia	1,808	1	24	48		4.0%
Cornwall	829	0	0	2		0.2%
Coventry	4,033	0	80	228		7.6%
Cromwell	5,125	0	147	123		5.3%
Danbury	26,147	1,036	963	485	24	9.6%
Darien	6,691	59	30	1		1.3%
Deep River	1,825	0	0	22		1.2%
Derby	5,295	247	106	51		7.6%
Durham	1,993	0	0	31		1.6%
East Granby	1,734	0	72	25		5.6%
East Haddam	3,426	1	36	65		3.0%
East Hampton	4,314	3	70	94		3.9%
East Haven	10,777	316	120	392		7.7%
East Lyme	6,990	55	94	112		3.7%
Eastford	627	0	0	3		0.5%
Easton	2,250	0	0	0		0.0%
Ellington	4,624	216	42	173		9.3%
Essex	2,754	2	36	21		2.1%
Fairfield	20,326	140	223	53		2.0%
Farmington	8,861	219	80	64	6	4.2%
Franklin	677	0	0	17		2.5%
Glastonbury	11,230	247	295	86		5.7%
Goshen	1,311	0	0	6		0.5%
Granby	3,536	12	81	26		3.4%
Greenwich	23,649	529	423	3	33	4.2%
Griswold	4,264	91	60	224		8.8%
Guilford	7,883	19	90	30		1.8%
Haddam	2,656	0	22	20		1.6%

Affordable Appeals List: 1992

<u>Municipality</u>	<u>1992 Est Hsq Units</u>	<u>Assisted Family</u>	<u>Rental Elderly</u>	<u>Mortgages CHFA</u>	<u>Deed Restricted</u>	<u>Percentages</u>
Hamden	22,352	704	561	291	2	7.0%
Hampton	618	0	0	9		1.5%
Hartland	704	12	0	9		3.0%
Harwinton	1,905	0	20	24		2.3%
Hebron	2,597	1	25	60		3.3%
Kent	1,437	0	24	4		1.8%
Killingly	6,624	258	163	93		7.8%
Killingworth	1,965	3	0	5		0.4%
Lebanon	2,499	1	24	66		3.6%
Ledyard	5,290	6	30	277		5.9%
Lisbon	1,425	0	0	75		5.3%
Litchfield	3,498	20	78	19		3.3%
Lyme	1,014	0	0	0		0.0%
Madison	6,676	0	72	8		1.2%
Mansfield	5,256	123	140	96		6.8%
Marlborough	1,939	0	0	31		1.6%
Middlebury	2,385	0	0	17		0.7%
Middletfield	1,607	0	30	19		3.0%
Milford	20,490	268	425	215		4.4%
Monroe	5,736	1	30	1		0.6%
Montville	6,477	12	80	338		6.6%
Morris	1,109	1	20	5		2.3%
New Canaan	6,958	94	0	0		1.4%
New Fairfield	5,151	0	0	61		1.2%
New Hartford	2,367	8	0	34		1.8%
New Milford	9,584	5	102	171		2.9%
Newington	11,689	151	181	175		4.3%
Newtown	7,427	0	96	47		1.9%
Norfolk	909	6	28	6		4.4%
North Branford	4,736	0	60	63		2.6%
North Canaan	1,439	69	40	11		8.3%
North Haven	8,357	0	130	52		2.2%
North Stonington	1,879	0	0	35		1.9%
Norwalk	32,365	1,799	603	526	39	9.2%
Old Lyme	4,400	0	24	29		1.2%
Old Saybrook	5,128	11	36	37		1.6%
Orange	4,620	0	0	1		0.0%
Oxford	3,020	1	34	11		1.5%
Plainville	7,473	140	144	326	4	8.2%
Plymouth	4,600	10	94	157		5.7%
Pomfret	1,298	0	0	11		0.8%
Portland	3,358	132	70	37		7.1%

Affordable Appeals List: 1992

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Preston	1,717	0	40	43		4.8%
Prospect	2,734	0	0	24		0.9%
Redding	3,014	0	0	0		0.0%
Ridgefield	8,137	45	94	8		1.8%
Rocky Hill	7,240	167	70	111		4.8%
Roxbury	893	0	0	0		0.0%
Salem	1,272	0	0	34		2.7%
Salisbury	2,489	28	0	3		1.2%
Scotland	470	0	0	8		1.7%
Seymour	5,965	81	120	74		4.6%
Sharon	1,611	22	0	7		1.8%
Shelton	13,254	8	260	102		2.8%
Sherman	1,478	0	0	9		0.6%
Simsbury	8,311	0	110	33		1.7%
Somers	2,785	0	54	30		3.0%
South Windsor	8,291	10	70	243		3.9%
Southbury	7,017	0	24	17		0.6%
Southington	14,500	451	329	309		7.5%
Sprague	1,127	1	20	24		4.0%
Stafford	4,383	110	110	169		8.9%
Sterling	939	5	0	37		4.5%
Stonington	8,004	71	140	108		4.0%
Stratford	20,281	905	310	359		7.8%
Suffield	4,432	0	110	63		3.7%
Thomaston	2,789	7	89	95		6.8%
Thompson	3,661	17	98	43		4.3%
Tolland	3,869	1	30	109		3.6%
Trumbull	11,200	1	222	22		2.2%
Union	295	0	0	4		1.4%
Voluntown	921	1	20	47		7.4%
Wallingford	16,219	318	185	345		5.2%
Warren	604	0	0	1		0.2%
Washington	1,866	4	0	5		0.5%
Waterford	7,435	0	40	265	2	4.1%
Watertown	7,668	26	161	195		5.0%
West Hartford	25,098	466	541	163		4.7%
West Haven	22,752	849	637	764		9.9%
Westbrook	3,259	47	60	28		4.1%
Weston	3,306	0	0	0		0.0%
Westport	8,860	82	50	3	44	1.8%
Wethersfield	10,846	140	514	7		6.1%
Willington	2,335	2	0	67		3.0%

Affordable Appeals List: 1992

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Wilton	5,884	0	85	1		1.5%
Windsor	10,400	98	152	297		6.3%
Windsor Locks	4,958	129	100	194		8.5%
Wolcott	4,988	0	108	149		5.2%
Woodbridge	2,878	1	0	3		0.1%
Woodbury	3,513	0	48	6		1.5%
Woodstock	2,678	0	24	27		1.9%
Connecticut	1,335,478	73,724	34,552	30,631	300	10.4%

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06880

Where Westport meets the world

122 Wilton Road: Affordable Apartments “Life-Changing” For Local Residents

Posted on [September 27, 2024](#) | [12 Comments](#)

Jonathan Steinberg was not a fan of 122 Wilton Road.

Like many Westporters, the state representative thought the new apartment building at the Kings Highway North corner was too big for the land, and too close to wetlands.

But when Steinberg learned who will be moving in, he changed his mind — dramatically.

He’s betting many other Westporters will too.

The 19 Homes with Hope apartments were distributed by lottery to “working poor” individuals, and their families.

Nearly all have ties to Westport, through jobs and/or families.

Some work in local supermarkets; others for landscape companies, and cleaning homes.

One apartment will be rented by a Ukrainian family. They’ve been underhoused, since arriving in Westport as refugees.



122 Wilton Road apartments.

According to Helen McAlinden, CEO of Homes with Hope, an individual must earn \$42.50 an hour to afford a studio apartment in Fairfield County.

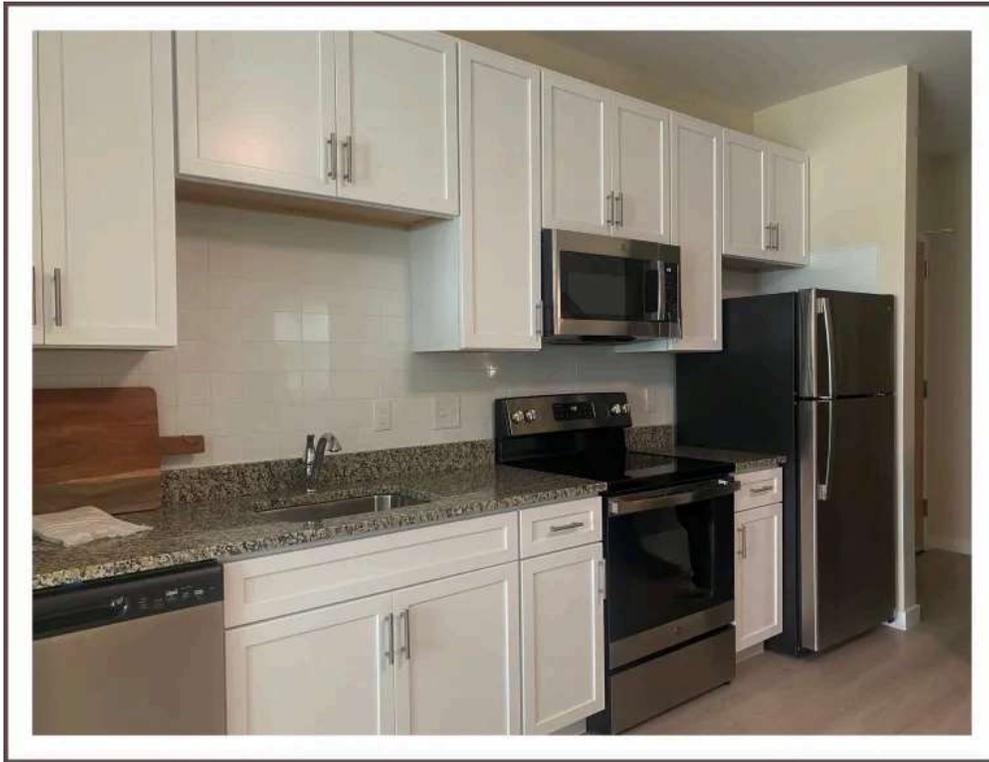
Someone making Connecticut's minimum wage of \$15.69 an hour — and working 2 jobs — cannot come close to that.

Nineteen of those workers — and, in some cases, their families — will now have secure housing. For some, it's the first time in their lives.

Every resident of 122 Wilton Road is “a productive member of society,” McAlinden says. They have at least one job. They work hard, serve employers and customers, pay taxes, and have hopes and dreams for the future.

“This building will allow these people an opportunity to live in this wonderful town,” where some already work, McAlinden says.

Their children “will reap the benefits of our brilliant school system. In many cases, they’ll be the first in their family to go to college.”



Kitchen, in a 3-bedroom apartment.

One of the many excited new tenants is a woman named Laura. She's the community closet coordinator for Open Doors Shelter in Norwalk.

She'll move in with her fiancé — who prints shirts in a warehouse for an e-commerce firm — and their 2 1/2-year-old daughter.

“Honestly, this is life-changing,” Laura says.

They've spent the past 5 years in one bedroom, at his grandparents' house.

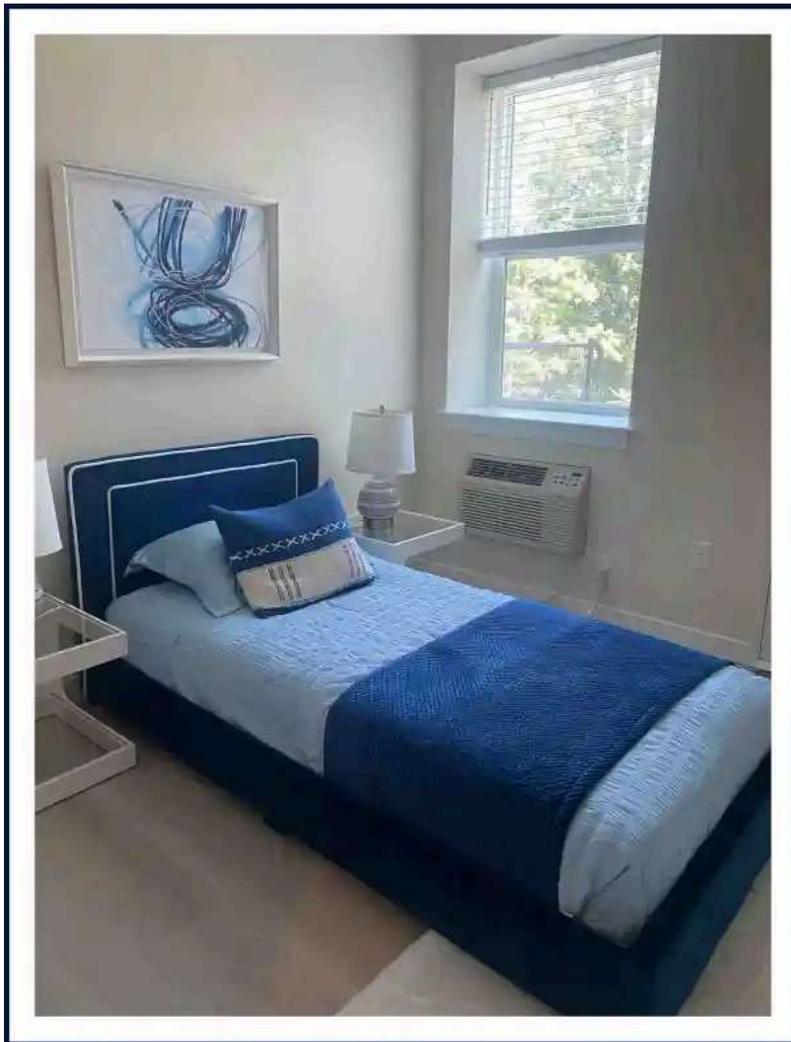
“It's a blessing to be with them,” Laura acknowledges. “But our daughter needs her own space. We need to not worry about her making too much noise, and to cook whenever we want.”

The hunt for affordable housing has been “discouraging,” Laura says.

“We've been on lists in Norwalk, but others were closed. We applied in Stamford and Fairfield, but never heard back.”

She learned about the Wilton Road apartments from another list she is on.

“We can't wait,” Laura says. “We're a little nervous, but we feel like this is our time.”



A bedroom in one of the 122 Wilton Road apartments.

Another new resident is an older, disabled Westporter who works around town. On a fixed income, he could not afford to be here any longer. He is thrilled to now remain in the community where he was raised, and has lived for so long.

122 Wilton Road is close to the Post Road bus route — an important consideration for those without a car.

And — crucially — those 19 units of affordable housing will go a huge way to help Westport meet the state’s 8-30g requirement, avoiding lawsuits and other, potentially much larger, construction due to a lack of such housing.

Because of the building’s size and location, Steinberg says, “I was frustrated for the community. None of us expected a good outcome.”

But, he says, when he learned that all the units would be deemed “affordable,” under Connecticut’s income formula, he realized its benefits.

“Westport is a model for the state,” as legislators contemplate changes to regulations, he says.

Because of this project, and other small clusters of affordable housing in town, “we will have a seat at the table in Hartford. We can help direct the best outcomes for Westport.”



The hallways are decorated with art and photographers by Westporters Miggs Burroughs, Tom Kretsch, Katharine Ross and Susan Fehlinger. All have local or New England themes. Burroughs paused earlier this month, while hanging the works.

The original plan was for 6 units of affordable housing, and 13 at market rate. Town officials denied the plan. But after 7 years of litigation, developer Richard Friedman prevailed, on 8-30g grounds.

McAlinden developed a good relationship with the builder. When he decided to sell the building, McAlinden realized it aligned with Homes with Hope’s mission: to end homelessness in the area, and provide resources for self-reliance.

The units include 4 one-bedroom apartments, 8 with two bedrooms, and 7 with three. Millenium Property Management will manage the building.

Homes with Hope will connect residents with essential resources, including job training, counseling and other support services.

“Essential workers like store associates and service industry professionals are the backbone of Westport,” Homes with Hope notes. “Yet many struggle to find affordable housing near their workplaces.”

Living close to work will reduce commuting times and costs. Increased disposable income can be reinvested in the local economy.

Affordable housing fosters economic diversity. “This inclusivity strengthens the cultural richness of Westport, creating a more vibrant and dynamic place to live,” Homes with Hope adds.

For months, Westporters have driven past 122 Wilton Road, and wondered who would want to live there.

Now they know: 19 hard-working, very appreciative families do.

This entry was posted in [Economy](#), [Real estate](#) and tagged [122 Wilton Road](#), [Helen McAlinden](#), [Homes With Hope](#), [Miggs Burroughs](#). Bookmark the [permalink](#).

12 RESPONSES TO “122 WILTON ROAD: AFFORDABLE APARTMENTS “LIFE-CHANGING” FOR LOCAL RESIDENTS”

Linda Hudson | [September 27, 2024 at 5:19 am](#) | [Reply](#)

Thanks, Dan, for this story. I'll now view the building with gratitude, and save my grumbling for the blue monstrosity.

Loading...

Fred Cantor | [September 27, 2024 at 5:26 am](#) | [Reply](#)

This is a terrific outcome. I had actually driven by it a couple of weeks ago and wondered what the status was. And, with the medical complex across the street, it did not look out of place as I originally thought it would.

Loading...

Lynn Flaster Paul | [September 27, 2024 at 5:55 am](#) | [Reply](#)

Thank you, Dan. This was very moving and I actually felt somewhat ashamed for having previously thought “Who would want to live in that eyesore?” Now we know and I am proud to be a Westporter.

Loading...

Ilise Gold, LPC | [September 27, 2024 at 5:56 am](#) | [Reply](#)

Thank you Dan for educating all of us. I too, have curiously driven by this building and wondered... does this truly fit? I now understand that it not only fits but it provides our community with an opportunity to give opportunity to families who are hard-working and also desire to provide the best they can for their children. As a native Westporter since 1960, this project puts a smile on my face. This project demonstrates that we are bringing part of the Old Westport into the New Westport that stands for excellence and beauty. Ilise Hold, LPC

Loading...

Mark Post | [September 27, 2024 at 6:13 am](#) | [Reply](#)

Nice story. Love how it could impact so many families in such a positive way. A shame so many get wound up about the look or “fit” while claiming inclusivity!!

Loading...

John D McCarthy | [September 27, 2024 at 6:27 am](#) | [Reply](#)

I hate 8-30g. But this is a great outcome. I might have missed this, but unclear if all 19 units are deed-restricted and help Westport in the 8-30g calculation. Can anyone clear that up or explain why I can't read. Thanks.

Loading...

Paul Lebowitz | [September 27, 2024 at 6:38 am](#) | [Reply](#)

Every once in a while we get an outcome that surprises us all. This is one of those. Thanks goes to Helen McAlinden @ Home With Hope for seeing the possibilities and not resting till the goal was achieved.

Loading...

Elizabeth McDonnell | [September 27, 2024 at 6:41 am](#) | [Reply](#)

I live nearby and have been one of those naysayers. Mostly because of how it is situated on the land and blocks the view of the tidal marsh (is that what it's called?) behind it. I still feel that way about the design but knowing how it is doing good in our town will give me a reason to smile every time I drive by now. Thank you, Dan, for your story.

Loading...

Marisa Passarelli Barnes | [September 27, 2024 at 7:46 am](#) | [Reply](#)

Thank you for clarifying what the building will be used for. It warms my heart to learn the town is making itself accessible to those who work in town. I am so appreciative for all those new neighbors who make Westport what it is ... a terrific town in beautiful CT.

Loading...

Rebecca Martin | [September 27, 2024 at 8:08 am](#) | [Reply](#)

I am so proud of Westport and Homes with Hope for providing these tenants the opportunities—and dignity—that come with having their own place to live in our community.

Loading...

Eric William Buchroeder SHS '70 | [September 27, 2024 at 8:12 am](#) | [Reply](#)

This is very cool. As are ALL Westporters past, present and future. I hope the Museum of History and Culture is taking notes. They could learn a few things from Westport.

Loading...

Janine Scotti | [September 27, 2024 at 8:31 am](#) | [Reply](#)

sounds like sidewalks will be needed and crosswalks, looking forward.

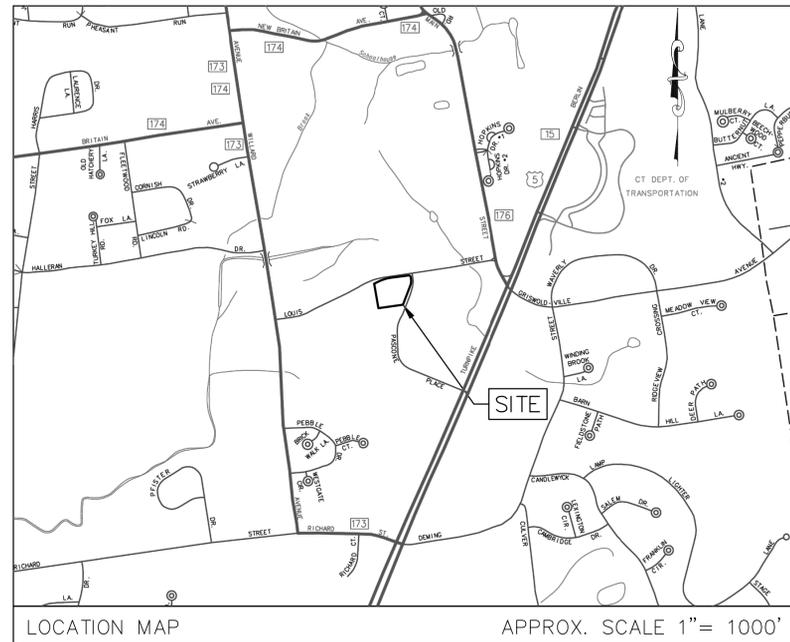
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RESIDENTIAL SITE DEVELOPMENT

103 LOUIS STREET
NEWINGTON, CT

PROJECT NUMBER
24122

DECEMBER 2025



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

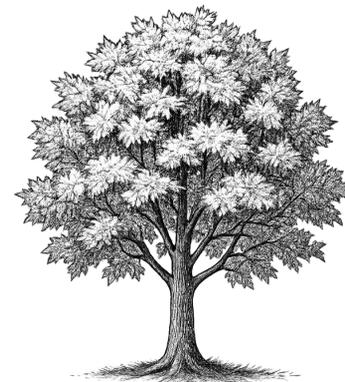
PREPARED BY
zuvic

40 Cold Spring Road, Suite 1
Rocky Hill, CT 06067
www.zuvic.com

LIST OF DRAWINGS

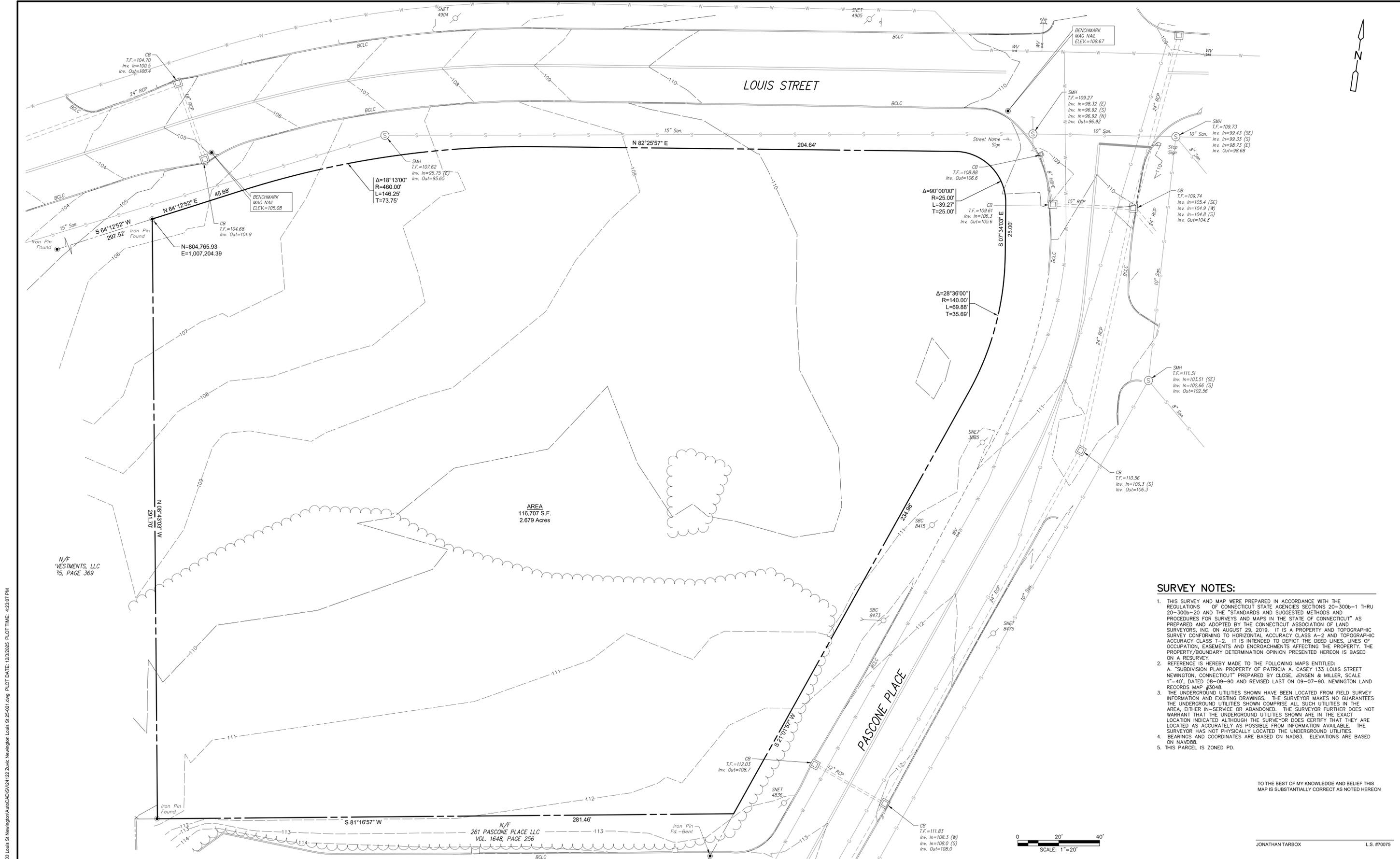
--	COVER SHEET
SV-1	PROPERTY AND TOPOGRAPHIC SURVEY
GN-1	GENERAL NOTES
ES-1	DEMOLITION, EROSION & SEDIMENTATION CONTROL PLAN
SP-1	SITE LAYOUT PLAN
GP-1	GRADING PLAN
UP-1	UTILITY PLAN
LP-1	SITE MATERIALS & LANDSCAPE PLAN
LP-2	SITE MATERIALS & LANDSCAPE PLAN NOTES
CD-1	CIVIL DETAILS
CD-2	CIVIL DETAILS
CD-3	CIVIL DETAILS
CD-4	CIVIL DETAILS
CD-5	CIVIL DETAILS
TURN-1	TURNING MOVEMENTS
--	ILLUMINATION PLAN

ISSUED FOR PERMIT ONLY
12/3/2025
NOT FOR CONSTRUCTION



PROJ #24122 - 103 LOUIS STREET

DANIEL VILL, P.E. #32077



- SURVEY NOTES:**
- THIS SURVEY AND MAP WERE PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THRU 20-300b-20 AND THE "STANDARDS AND SUGGESTED METHODS AND PROCEDURES FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON AUGUST 29, 2019. IT IS A PROPERTY AND TOPOGRAPHIC SURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY CLASS T-2. IT IS INTENDED TO DEPICT THE DEED LINES, LINES OF OCCUPATION, EASEMENTS AND ENCROACHMENTS AFFECTING THE PROPERTY. THE PROPERTY/BOUNDARY DETERMINATION OPINION PRESENTED HEREON IS BASED ON A RESURVEY.
 - REFERENCE IS HEREBY MADE TO THE FOLLOWING MAPS ENTITLED:
 - SUBDIVISION PLAN PROPERTY OF PATRICIA A. CASEY 133 LOUIS STREET NEWINGTON, CONNECTICUT PREPARED BY CLOSE, JENSEN & MILLER, SCALE T=40', DATED 08-09-90 AND REVISED LAST ON 09-07-90. NEWINGTON LAND RECORDS MAP #3048.
 - THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
 - BEARINGS AND COORDINATES ARE BASED ON NAD83. ELEVATIONS ARE BASED ON NAVD88.
 - THIS PARCEL IS ZONED PD.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON



JONATHAN TARBOX L.S. #70075

PROJECT NO.:	24122
DESIGNED BY:	X
DRAWN BY:	X
SHEET CHK'D BY:	JT
CROSS CHK'D BY:	X
APPROVED BY:	JT
DATE:	DECEMBER 2025

REV.	DATE	DRWN	CHKD	REMARKS

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, Suite 1, Rocky Hill, CT 06067
 (860)436-4901 WWW.ZUVIC.COM

RESIDENTIAL SITE DEVELOPMENT
 103 LOUIS STREET NEWINGTON, CT

PROPERTY AND TOPOGRAPHIC SURVEY
 LAND NOW OR FORMERLY OF
INNATE INVESTMENTS, LLC
 VOLUME 1887, PAGE 745

SHEET NO.
SV-1

FILE PATH: H:\Projects\24122 - P Snow 103 Louis St Newington\AutoCAD\SV\24122\Zuvic Newington Louis St 24122.dwg PLOT DATE: 12/3/2025 PLOT TIME: 4:23:07 PM

GENERAL NOTES

- ALL CONSTRUCTION ACTIVITIES SHALL BE COMPLETED AS INDICATED IN THE CONTRACT DOCUMENTS AND SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, AND THE REQUIREMENTS OF THE TOWN OF NEWINGTON.
- THE CONTRACTOR SHALL NOTIFY ALL LOCAL UTILITY COMPANIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES AND THE TOWN OF NEWINGTON FOR SERVICE INSTALLATIONS AND CONNECTIONS.
- THE STATE OF CONNECTICUT, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION, FORM 819 SHALL BE MADE PART OF THE CONTRACT AS MODIFIED BY THE PLANS AND NOTES CONTAINED HEREIN.
- THE CONTRACTOR SHALL MAINTAIN ONE SET OF CONTRACT DOCUMENTS ON THE PREMISES IN GOOD CONDITION AT ALL TIMES. THE SET SHALL INCLUDE ALL ADDENDA AND CHANGE ORDERS.
- THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE OWNER'S REPRESENTATIVE IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONTRACT DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN THE DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO BIDDING.
- STATED DIMENSIONS TAKE PRECEDENCE OVER GRAPHICS. DO NOT SCALE DRAWINGS TO DETERMINE LOCATION AND/OR DIMENSIONS.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE TOWN OF NEWINGTON, THE ENGINEER, AND THE APPROPRIATE REGULATORY AGENCIES IF APPLICABLE PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES, STRUCTURES AND OTHER SITE FEATURES NOT BEING REMOVED AND/OR ALTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH EXECUTION OF THE WORK.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL REQUIRED SUBMITTALS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 15 WORKING DAYS FOR REVIEW.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UTILITIES) TO THE OWNER AND ENGINEER AT THE END OF CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN MAINTENANCE OF TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC MEN AS REQUIRED OR ORDERED BY THE OWNER'S REPRESENTATIVE OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES. THE CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS APPROVED OTHERWISE IN WRITING BY THE GOVERNING JURISDICTION.
- INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. THE LOCATIONS ARE APPROXIMATED. ALL UTILITIES MAY NOT BE SHOWN. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY "CALL BEFORE YOU DIG" AT 1-800-922-4455.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF SUPPORT FOR PROTECTION OF PERSONNEL DURING ALL EXCAVATION AND BACKFILLING OPERATIONS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK AND SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY THE SUBCONTRACTORS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE CONSTRUCTION AREA UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY THE OWNER.
- SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPE OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER AND RESPECTIVE UTILITY COMPANY IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH THE WORK IN THIS AREA.
- DO NOT INTERRUPT EXISTING UTILITIES SERVICING ADJACENT PROPERTIES EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE TOWN.
- OSHA REGULATIONS MAKE IT UNLAWFUL TO OPERATE CRANES, BOOMS, HOISTS, ETC. WITHIN TEN (10) FEET OF ANY ELECTRIC LINE UNDER 50 KV. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS.
- NO DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL LOCAL AND STATE GOVERNING AND REGULATORY AGENCIES.
- ALL DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PREMISES AND SHALL BE PROPERLY DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL AREAS SHALL BE KEPT IN A NEAT AND ORDERLY MANNER AT ALL TIMES.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
- ALL DISTURBANCE INCURRED WITHIN THE TOWN OF NEWINGTON'S RIGHT-OF-WAY AND CTDOT'S RIGHT-OF-WAY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE PUBLIC WORKS REPRESENTATIVE.
- THE CONTRACTOR SHALL VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES PRIOR TO BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE IN THE EVENT OF ANY UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES SO THAT APPROPRIATE MODIFICATIONS MAY BE MADE.
- PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR WETLAND IN ACCORDANCE WITH THE REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION GUIDELINES FOR SOIL EROSION AND SEDIMENT POLLUTION CONTROL. IN ADDITION, THE CONTRACTOR SHALL STRICTLY ADHERE TO THE "EROSION CONTROL PLAN" CONTAINED HEREIN.
- ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHODS.
- RELOCATION OF UTILITY COMPANY FACILITIES SUCH AS POLES, SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY OWNER.
- THE CONTRACTOR SHALL COMPACT THE PIPE BACKFILL IN LIFTS ACCORDING TO THE PIPE BEDDING DETAILS. THE TRENCH BOTTOM SHALL BE STABLE IN HIGH GROUNDWATER AREAS.
- ALL UTILITIES AND PIPES SCHEDULED FOR DEMOLITION SHALL BE REMOVED UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL BE PREPARED AT ALL TIMES TO SWEEP THE SURROUNDING ROADWAYS AS REQUIRED BY THE TOWN AND/OR THE OWNER'S REPRESENTATIVE.
- ANY MODIFICATIONS OR DEVIATIONS TO THE PLANS APPROVED BY THE NEWINGTON PLANNING AND ZONING COMMISSION, WATER/SEWER DISTRICT OR WETLANDS COMMISSION ARE SUBJECT TO REVIEW AND APPROVAL BY THE COMMISSION OR THE DESIGN REVIEW COMMITTEE.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
- ANY WORK WITHIN THE CTDOT RIGHT OF WAY WILL REQUIRE AN ENCROACHMENT PERMIT FROM THE

- DISTRICT. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS, COORDINATION, SUBMITTALS AND TRAFFIC CONTROL DESIGN REQUIRED BY THE CTDOT.
- PERMISSIBLE WORK HOURS SHALL BE MONDAY TO FRIDAY FROM 7AM UNTIL 5PM EXCLUDING TOWN HOLIDAYS.
 - EXISTING TREES AND VEGETATION ARE NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL FAMILIARIZE THEMSELVES W/ EXISTING CONDITIONS AND INDICATE TO OWNER OR ENGINEER ANY VEGETATION THAT MAY IMPACT OPERATIONS PRIOR TO MOBILIZING TO THE SITE.

ABBREVIATIONS

(NOT ALL ABBREVIATIONS MAY BE USED)

APPROX.	APPROXIMATE	I.PIN	IRON PIN
BCLC	BITUMINOUS CONCRETE LIP CURB	INV.	INVERT
BOT.	BOTTOM	LP	LOW POINT
BIT.	BITUMINOUS	LSA	LANDSCAPED AREA
CL	CENTER LINE	MB	MALIBOX
CB	CATCH BASIN	MDPE	MEDIUM DENSITY POLYETHYLENE
C-CB	CURBED CATCH BASIN	MH	MANHOLE
CL-CB	CURBLESS CATCH BASIN	MON	MONUMENT
C.I.P.	CAST IRON PIPE	NTS	NOT TO SCALE
C.L.F.	CHAIN LINK FENCE	ON CENTER	ON CENTER
C.O.	CLEAN OUT	O.C.	OUTSIDE DIAMETER
CONC.	CONCRETE	OE	OVERHEAD ELECTRIC
COMM.	COMMUNICATIONS	PE	POLYETHYLENE
D.I.	DUCTILE IRON PIPE	PL	PLATE
D.I.P.	DUCTILE IRON PIPE	PVMT	PAVEMENT
DMH	DRAINAGE MANHOLE	PVC	POLYVINYL CHLORIDE
ELEC.	ELECTRICAL	R	RADIUS
EL.	ELEVATION	RCP	REINFORCED CONCRETE PIPE
EMH	ELECTRICAL MANHOLE	S	SANITARY
EOP	EDGE OF PAVEMENT	SAN	SANITARY
EX.	EXISTING	SMH	SANITARY MANHOLE
F.F.	FINISHED FLOOR	SSWR	SANITARY SEWER
FFE	FINISHED FLOOR ELEVATION	STM	STORM
F.L.	FLOW LINE	SW	SANITARY MANHOLE
G	GAS	TEMP.	TEMPORARY
GM	GAS METER	TEL.	TELEPHONE
GRAN.	GRANITE	T.F.	TOP OF FRAME
GTD	GRADE TO DRAIN	T.P.	TOP OF PIPE
GV	GAS VALVE	TP	TYPICAL
HH	HANDHOLE	UKWN	UNKNOWN
HDP	HIGH DENSITY POLYETHYLENE	WF	VERIFY IN FIELD
HP	HIGH POINT	W	WATER
HYD	HYDRANT	WMH	WATER MANHOLE
I.D.	INSIDE DIAMETER	WV	WATER VALVE
		YD	YARD DRAIN

LEGEND

(NOT ALL SYMBOLS MAY BE USED)

-----	PROPERTY LINE	△	CONTROL POINT
-----	EASEMENT LINE	□	MONUMENT
-----	CURB	○ IP	IRON PIPE
-----	EDGE OF PAVEMENT (EOP)	○ IPIN	IRON PIN
-----	STOCKADE FENCE	☐	TYPE 'C' CATCH BASIN
X	CHAIN LINK FENCE	☐	TYPE 'CL' CATCH BASIN
~~~~~	TREE/VEGETATION LINE	⊙	STORM DRAINAGE MANHOLE
-----	MAJOR CONTOUR	⊙	SANITARY SEWER MANHOLE
-----	MINOR CONTOUR	⊙	WATER MANHOLE
X(31.75)	SPOT ELEVATION	⊙	GAS VALVE
X(31.25) X(30.75)	TOP/BOTTOM OF CURB EL. PIPES ≥ 12" (SIZE, MATERIAL, AND FLOW DIRECTION)	⊙	WATER VALVE
-----	GAS	⊙	HYDRANT
-----	STORM DRAINAGE	⊙	ELECTRICAL BOX
-----	UNDERGROUND ELECTRIC	⊙	HANDHOLE
-----	OVERHEAD ELECTRIC	⊙	UTILITY POLE W/ GUY WIRE
-----	SANITARY SEWER	⊙	LUMINAIRE
-----	TELECOMMUNICATIONS	⊙	LUMINAIRE ON STANDARD
-----	WATER	⊙	SIGNS
-----	TEMPORARY SEDIMENTATION CONTROL	⊙	MONITORING WELL
-----	FLUSH CONDITION	⊙	BOLLARD
OP	POST	☀	TREES/SHRUBS

**SOIL EROSION AND SEDIMENT CONTROL NOTES**

**NARRATIVE**

THE SUBJECT SITE IS COMPRISED OF 2.7 ACRES OF LAND LOCATED AT THE INTERSECTION OF LOUIS STREET AND PASCOE PLACE IN NEWINGTON, CT. THE EXISTING SITE IS NOT DEVELOPED AND DOES NOT CONTAIN ANY BUILDINGS. SITE DEVELOPMENT INCLUDES EXTENDING THE SEWER SERVICE ACROSS LOUIS ST, EXTENSION OF A WATER SERVICE THROUGH THE SITE, CONSTRUCTION OF 41 RESIDENTIAL UNITS AND ASSOCIATED PAVED PARKING AND CIRCULATION DRIVES.

**CONSTRUCTION SCHEDULE**

ANTICIPATED CONSTRUCTION START DATE IS SPRING 2026 AND ANTICIPATED COMPLETION DATE IS WINTER 2026. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN ALL CONTROLS DURING CONSTRUCTION AND UNTIL THE SITE IS STABILIZED.

**RESPONSIBLE CONTACT**

THE RESPONSIBLE CONTACT PERSON FOR ASSURING THAT ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE PROPERLY INSTALLED AND MAINTAINED WILL BE THE SITE CONTRACTOR. FURTHER, THE TOWN OF NEWINGTON STAFF AND ENGINEER RESERVE THE RIGHT TO MODIFY THE E&S PLAN AND MEASURES AS NEEDED.

**GENERAL CONSTRUCTION SEQUENCE**

- ALL SEDIMENTATION AND EROSION CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO CONSTRUCTION ACCESS PAD, HAY BALES, AND SILT FENCE SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION ACTIVITIES UNTIL THE ENGINEER HAS INSPECTED AND APPROVED THE INSTALLATION OF ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- PERFORM EARTHWORK IN EXPEDITIOUS MANNER, AND STABILIZE. INSTALL ADDITIONAL EROSION CONTROLS AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND/OR THE TOWN OF BERLIN.
- INSTALL UTILITIES AS SHOWN ON PLANS.
- PLACE BITUMINOUS PAVEMENT TO FINISHED GRADE.
- PREPARE LANDSCAPE AREAS. PLACE 6" TOPSOIL. FERTILIZE, SEED AND MULCH WHERE SHOWN. INSTALL LANDSCAPE PLANTINGS.
- REMOVE ALL TEMPORARY EROSION CONTROL DEVICES ONLY AFTER ALL AREAS HAVE BEEN PAVED AND/OR GRASS HAS BEEN WELL ESTABLISHED AND THE SITE HAS BEEN INSPECTED AND APPROVED BY THE TOWN.
- CONTRACTOR SHALL BE PREPARED AT ALL TIMES TO SWEEP THE SURROUNDING ROADWAYS AS REQUIRED BY THE TOWN AND/OR THE OWNER'S REPRESENTATIVE

**EROSION AND SEDIMENT CONTROL PLAN**

- HAYBALES, SILT FENCE, AND GRAVEL CHECK DAMS SHALL BE INSTALLED DOWNGRADE OF WORK AREA AS SHOWN OR AS REQUIRED BY THE ENGINEER.
- SOIL EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2024 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL HANDBOOK.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE.
- ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD AS NECESSARY OR REQUIRED.
- SEDIMENT REMOVED FROM CONTROL STRUCTURES SHALL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THE PLAN.
- THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CONSTRUCTION SO AS NOT TO DISTURB SEDIMENTATION AND EROSION CONTROL STRUCTURES.
- ALL DISTURBED AREAS SHALL BE STABILIZED AS SOON AS PRACTICAL.

**INSTALLATION OF SEDIMENTATION AND EROSION CONTROL MEASURES**

**HAYBALES**

- BALES SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED THE WIDTH OF A BALE AND THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF FOUR INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE BARRIER.
- SIDES OF ADJACENT BALES SHALL TIGHTLY ABUT ONE ANOTHER.
- EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST TWO (2) STAKES.
- THE GAPS BETWEEN BALES SHALL BE WEDGED WITH STRAW TO PREVENT WATER LEAKAGE.

**SILT FENCE**

- SILT FENCE SHALL BE INSTALLED AT LOCATIONS SHOWN ON THIS PLAN AND AS DIRECTED BY THE ENGINEER.
- DIG A SIX INCH TRENCH ON THE UPHILL SIDE OF THE DESIGNATED FENCE LINE LOCATION.
- POSITION THE POST AT THE BACK OF THE TRENCH (DOWNHILL SIDE), AND INSTALL THE POST AT LEAST 1.5 FEET INTO THE GROUND.
- LAY THE BOTTOM SIX INCHES OF THE FABRIC INTO THE TRENCH TO PREVENT UNDERMINING BY STORM WATER RUN-OFF.
- BACKFILL THE TRENCH AND COMPACT.

**CONSTRUCTION ENTRANCE (VEHICLE TRACKING PAD)**

- CONSTRUCTION ENTRANCE PAD SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS IN ACCORDANCE WITH THE DESIGN DETAIL OR AS REQUIRED BY THE OWNER/ENGINEER.

**SEDIMENT CONTROL AT CATCH BASINS**

- PLACE SILT SACKS UNDER GRATE AT EACH CATCH BASINS AT LOCATIONS SHOWN ON DRAWINGS.

**OPERATION AND MAINTENANCE OF TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES**

- ALL EROSION CONTROL MEASURES SHALL BE INSPECTED FOLLOWING EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE PROMPTLY MADE AS NEEDED.
- DEPOSITS SHALL BE REMOVED AND/OR CLEANED-OUT WHEN ONE HALF OF THE ORIGINAL HEIGHT OF THE FEATURE BECOMES FILLED WITH SEDIMENT.
- ALL SILT FENCES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL. ALL DETERIORATED FABRIC AND DAMAGED POSTS SHALL BE REPLACED AND PROPERLY REPOSITIONED.
- SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY EXCEED A HEIGHT OF ONE FOOT OR 1/2 THE HEIGHT OF THE SILT FENCE BARRIER.
- CLEAN PAD OF ACCUMULATED SOIL MATERIALS AND ADD ADDITIONAL STONE AS REQUIRED.
- INSPECT SILT SACKS WEEKLY AND AFTER EACH RAINFALL.
- SILT SACKS SHALL BE EMPTIED WHEN THEY HAVE COLLECTED 6" TO 12" OF SEDIMENT.

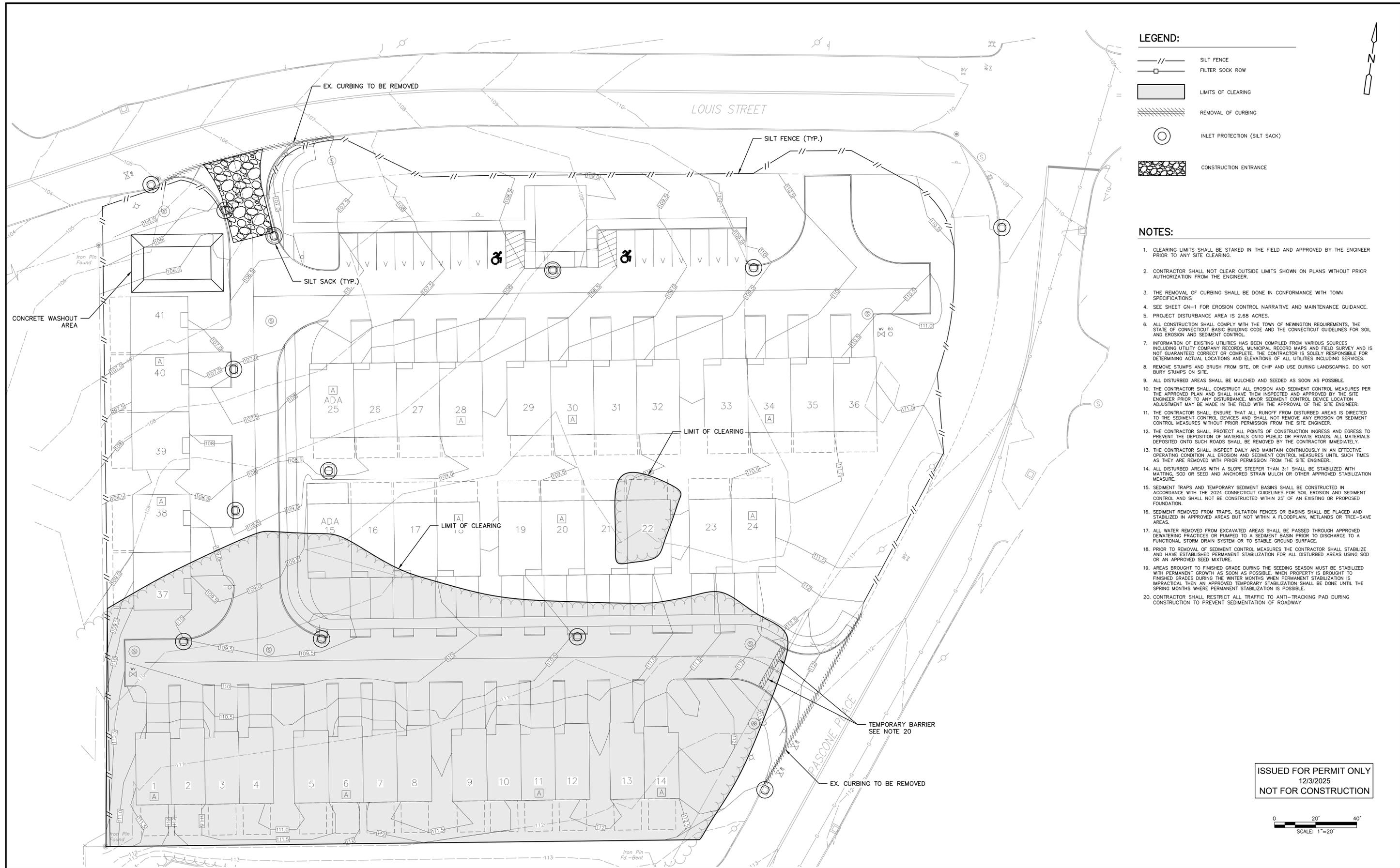
**CONTINGENCY EROSION PLAN**

SHOULD UNFORESEEN EROSION OR SEDIMENTATION PROBLEMS ARISE, THE DESIGN ENGINEER OF RECORD (ZUVIC, INC) AND LOCAL ENFORCEMENT AGENT SHALL BE NOTIFIED IMMEDIATELY. AN INSPECTION OF THE AFFECTED AREA(S) SHALL BE PROMPTLY PERFORMED. A REMEDIAL ACTION PLAN SHALL BE FORMULATED WITH THE LOCAL ENFORCEMENT AGENT'S APPROVAL. THE SITE CONTRACTOR SHALL THEN IMPLEMENT THE RECOMMENDED COURSE OF ACTION WHICH HAS BEEN DETERMINED BY BOTH THE ENGINEER AND LOCAL ENFORCEMENT AGENT.

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12/3/2025  
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PROJECT NO.: 24122	DESIGNED BY: DV	DRAWN BY: DG	SHEET CHK'D BY: DV	CROSS CHK'D BY: GS	APPROVED BY: DV	DATE: DECEMBER 2025	PREPARED FOR: <b>PREMIER REAL ESTATE SERVICES II, LLC</b> 110 COURT STREET, SUITE 1 CROMWELL, CT 06416	PREPARED BY: <b>zuvic</b> INFRASTRUCTURE SOLUTIONS 40 Cold Spring Road, Suite 1, Rocky Hill, CT 06067 (860)436-4901 WWW.ZUVIC.COM	<b>RESIDENTIAL SITE DEVELOPMENT</b>  103 LOUIS STREET NEWINGTON, CT	SHEET NO.  <b>GN-1</b>
REV. NO.	DATE	DRWN	CHKD	REMARKS						

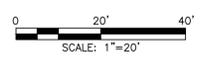


**LEGEND:**

- SILT FENCE
- FILTER SOCK ROW
- LIMITS OF CLEARING
- REMOVAL OF CURBING
- INLET PROTECTION (SILT SACK)
- CONSTRUCTION ENTRANCE

- NOTES:**
1. CLEARING LIMITS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO ANY SITE CLEARING.
  2. CONTRACTOR SHALL NOT CLEAR OUTSIDE LIMITS SHOWN ON PLANS WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
  3. THE REMOVAL OF CURBING SHALL BE DONE IN CONFORMANCE WITH TOWN SPECIFICATIONS.
  4. SEE SHEET GN-1 FOR EROSION CONTROL NARRATIVE AND MAINTENANCE GUIDANCE.
  5. PROJECT DISTURBANCE AREA IS 2.68 ACRES.
  6. ALL CONSTRUCTION SHALL COMPLY WITH THE TOWN OF NEWINGTON REQUIREMENTS, THE STATE OF CONNECTICUT BASIC BUILDING CODE AND THE CONNECTICUT GUIDELINES FOR SOIL AND EROSION AND SEDIMENT CONTROL.
  7. INFORMATION OF EXISTING UTILITIES HAS BEEN COMPILED FROM VARIOUS SOURCES INCLUDING UTILITY COMPANY RECORDS, MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES.
  8. REMOVE STUMPS AND BRUSH FROM SITE, OR CHIP AND USE DURING LANDSCAPING. DO NOT BURY STUMPS ON SITE.
  9. ALL DISTURBED AREAS SHALL BE MULCHED AND SEED AS SOON AS POSSIBLE.
  10. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND SHALL HAVE THEM INSPECTED AND APPROVED BY THE SITE ENGINEER PRIOR TO ANY DISTURBANCE. MINOR SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENT MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE SITE ENGINEER.
  11. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURES WITHOUT PRIOR PERMISSION FROM THE SITE ENGINEER.
  12. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC OR PRIVATE ROADS. ALL MATERIALS DEPOSITED ONTO SUCH ROADS SHALL BE REMOVED BY THE CONTRACTOR IMMEDIATELY.
  13. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM THE SITE ENGINEER.
  14. ALL DISTURBED AREAS WITH A SLOPE STEEPER THAN 3:1 SHALL BE STABILIZED WITH MATING, SOD OR SEED AND ANCHORED STRAW MULCH OR OTHER APPROVED STABILIZATION MEASURE.
  15. SEDIMENT TRAPS AND TEMPORARY SEDIMENT BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2024 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL AND SHALL NOT BE CONSTRUCTED WITHIN 25' OF AN EXISTING OR PROPOSED FOUNDATION.
  16. SEDIMENT REMOVED FROM TRAPS, SILTATION FENCES OR BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS BUT NOT WITHIN A FLOODPLAIN, WETLANDS OR TREE-SAVE AREAS.
  17. ALL WATER REMOVED FROM EXCAVATED AREAS SHALL BE PASSED THROUGH APPROVED DEWATERING PRACTICES OR PUMPED TO A SEDIMENT BASIN PRIOR TO DISCHARGE TO A FUNCTIONAL STORM DRAIN SYSTEM OR TO STABLE GROUND SURFACE.
  18. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES THE CONTRACTOR SHALL STABILIZE AND HAVE ESTABLISHED PERMANENT STABILIZATION FOR ALL DISTURBED AREAS USING SOD OR AN APPROVED SEED MIXTURE.
  19. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON MUST BE STABILIZED WITH PERMANENT GROWTH AS SOON AS POSSIBLE. WHEN PROPERTY IS BROUGHT TO FINISHED GRADES DURING THE WINTER MONTHS WHEN PERMANENT STABILIZATION IS IMPRACTICAL THEN AN APPROVED TEMPORARY STABILIZATION SHALL BE DONE UNTIL THE SPRING MONTHS WHERE PERMANENT STABILIZATION IS POSSIBLE.
  20. CONTRACTOR SHALL RESTRICT ALL TRAFFIC TO ANTI-TRACKING PAD DURING CONSTRUCTION TO PREVENT SEDIMENTATION OF ROADWAY.

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REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.:	24122
DESIGNED BY:	DV
DRAWN BY:	DG
SHEET CHK'D BY:	DV
CROSS CHK'D BY:	GS
APPROVED BY:	DV
DATE:	DECEMBER 2025

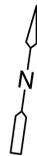
PREPARED FOR:  
**PREMIER REAL ESTATE SERVICES II, LLC**  
110 COURT STREET, SUITE 1  
CROMWELL, CT 06416

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

**RESIDENTIAL SITE DEVELOPMENT**  
103 LOUIS STREET NEWINGTON, CT

**DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN**

SHEET NO.  
**ES-1**



ZONE PD		STANDARD	REQUIREMENT
PERMITTED USES W. SPECIAL PERMITS (3.19)			RESIDENTIAL
MINIMUM LOT AREA (4.5 TABLE B)			5 Ac.
BUILDING SET BACKS (4.5 TABLE B)	FRONT YARD		35'
	SIDE YARD		25'
	REAR YARD		15'
PARKING SET BACK (RESIDENTIAL 3.19.2.B.8)			35'
MAXIMUM PRINCIPAL BUILDING HEIGHT (3.19.2.B.5)			4STRY
DENSITY (RESIDENTIAL)			N/A
PARKING (RESIDENTIAL 2BR) (6.1.1.B)			2 SP/UNIT
BUILDING COVERAGE (PERCENTAGE OF LOT AREA)			N/A

PROPOSED DEVELOPMENT		STANDARD	PROPOSED DEVELOPMENT
USE TYPE			RESIDENTIAL
LOT AREA			2.68 Ac.
BUILDING SET BACKS	FRONT YARD		6.3'
	SIDE YARD		15'
	REAR YARD		15'
PARKING SET BACK			21.5'
MAXIMUM PRINCIPAL BUILDING HEIGHT			3STRY
DENSITY (RESIDENTIAL)			15.3 UNITS/AC
PARKING SPACES			2.34 SP/UNIT
BUILDING COVERAGE (PERCENTAGE OF LOT AREA)			25.7%

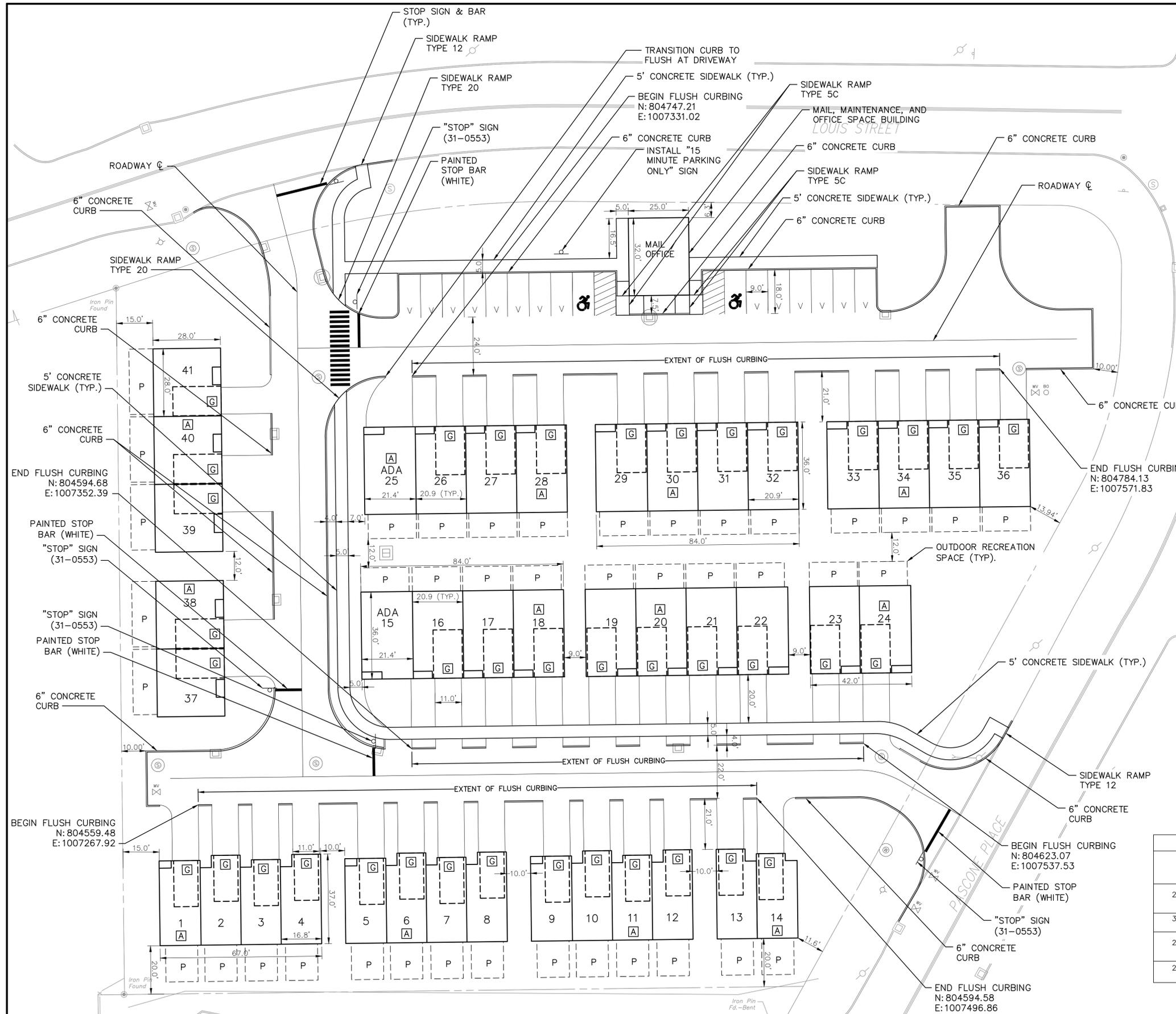
**LEGEND**

- G GARAGE
- A AFFORDABLE UNIT
- 34 UNIT NUMBER
- ADA ACCESSIBLE UNIT
- P PATIO

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DISTRIBUTION OF UNITS				
	FLOOR AREA (SF)	GARAGE	TOTAL	AFFORDABLE
2-BEDROOM 2-STORY	1125	1	20	6
3-BEDROOM ADA	-	0	2	1
2-BEDROOM 2-STORY	-	1	5	2
2-BEDROOM 3-STORY	1100	1	14	4
<b>TOTAL</b>			<b>41</b>	<b>13</b>



REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.:	24122
DESIGNED BY:	DV
DRAWN BY:	DG
SHEET CHK'D BY:	DV
CROSS CHK'D BY:	GS
APPROVED BY:	DV
DATE:	DECEMBER 2025

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

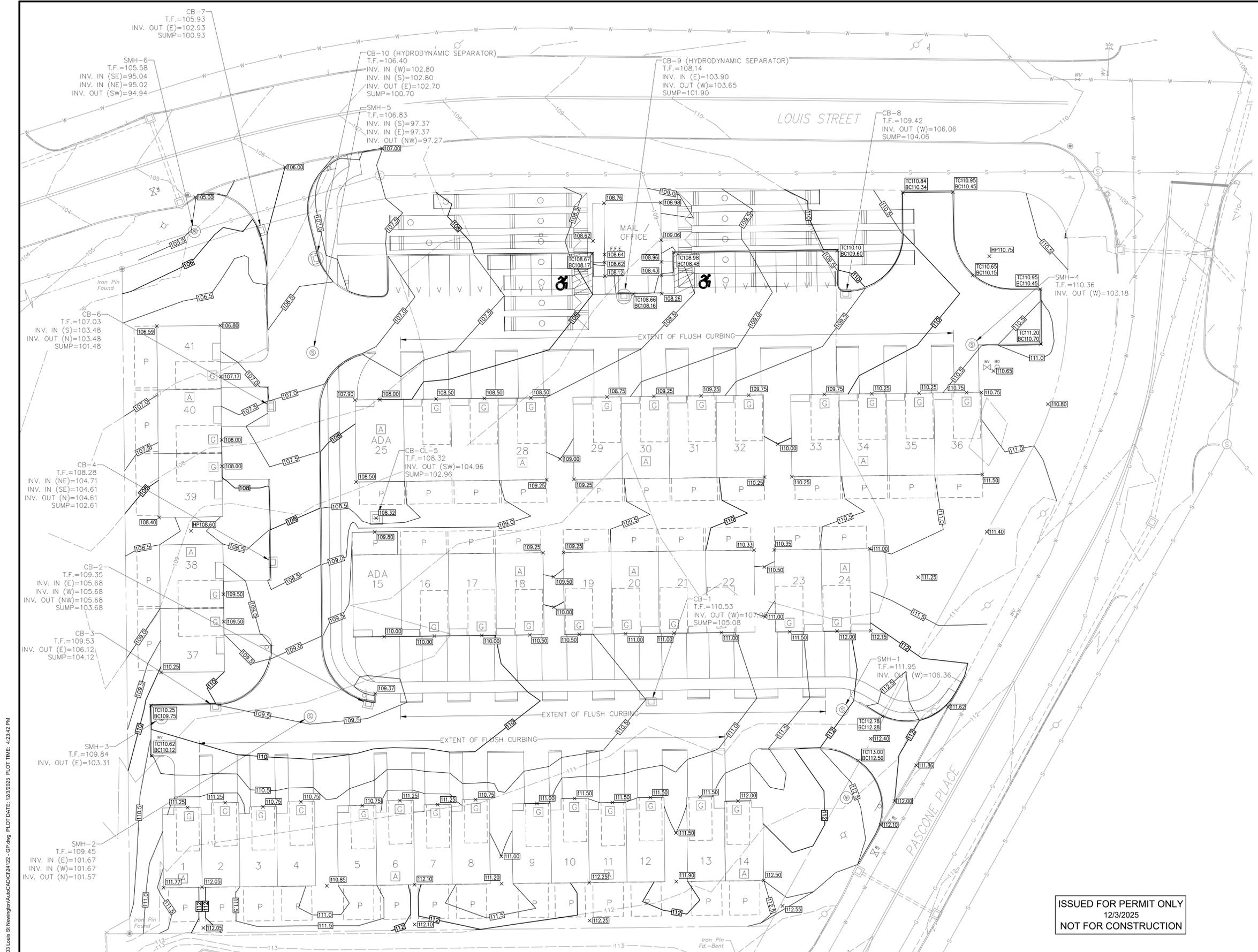
PREPARED BY:  
**zuvic**  
INFRASTRUCTURE SOLUTIONS  
40 Cold Spring Road, Suite 1, Rocky Hill, CT 06067  
■ (860) 436-4901 ■ WWW.ZUVIC.COM

**RESIDENTIAL SITE DEVELOPMENT**  
103 LOUIS STREET NEWINGTON, CT

**SITE LAYOUT PLAN**

SHEET NO.  
**SP-1**

FILE PATH: H:\Projects\24122 - P Snow 103 Louis St Newington\AutoCAD\24122 - SP.dwg PLOT DATE: 12/3/2025 PLOT TIME: 4:23:32 PM



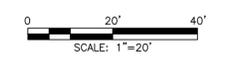
- LEGEND:**
- 105 — EXISTING MAJOR CONTOUR
  - 106 — EXISTING MINOR CONTOUR
  - 105 — PROPOSED MAJOR CONTOUR / LABEL
  - 106 — PROPOSED MINOR CONTOUR / LABEL
  - × 50.00 PROPOSED SPOT ELEVATION
  - × TC 50.00 BC 50.00 PROPOSED TOP/BOTTOM OF CURB EL.

- NOTES:**
1. ALL SPOT ELEVATIONS SHOWN ARE BOTTOM OF CURBS/TOP OF PAVEMENT UNLESS OTHERWISE INDICATED.
  2. GENERAL FILL SHALL BE FREE OF BRUSH RUBBISH, STUMPS AND BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATION SECTION 2.12. MATERIALS SHALL BE IN CONFORMANCE WITH THE STANDARD SPECIFICATION SECTION M.02.02 AND M.02.06. HYDRAULICALLY DROGGED MATERIAL SHALL NOT BE ALLOWED.
  3. GRADE AWAY FROM BUILDING WALLS AT 2% MINIMUM (TYPICAL).
  4. PROPOSED EARTH SLOPES SHALL BE NO STEEPER THAN 3:1 (HORIZ.:VERT.), UNLESS OTHERWISE DEPICTED ON SITE PLAN.
  5. GENERAL FILL SHALL BE FREE OF BRUSH RUBBISH, STUMPS. FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 12" IN THICKNESS. THE DRY DENSITY AFTER COMPACTION SHALL NOT BE LESS THAN 95% OF THE STANDARD PROCTOR TEST AND DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D698.
  6. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE SHALL BE LOOSENEED BY SCARIFYING TO A DEPTH OF AT LEAST 2" TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.
  7. FILL OR TOPSOIL SHALL NOT BE PLACED NOR COMPACTED WHILE IN A FROZEN OR MUDDY CONDITION OR WHILE SUBGRADE IS FROZEN.
  8. ALL EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE.

MATERIAL VOLUMES FOR ESTIMATING PURPOSES ONLY, NOT INCLUDING ANY ADJUSTMENT FACTOR FOR COMPACTION:  
 CUT: 1021 C.Y.  
 FILL: 553 C.Y.  
 NET MATERIAL EXPORT: 468 C.Y.

UNIT #	GARAGE ELEV.	F.F. ELEV.
1	111.25	112.00
2	111.25	112.00
3	110.75	111.50
4	110.75	111.25
5	110.75	111.50
6	111.25	112.00
7	111.25	112.00
8	110.75	111.50
9	111.00	111.75
10	111.50	112.00
11	111.50	112.25
12	111.50	112.25
13	111.50	112.25
14	112.00	112.50
15	-	110.10
16	110.00	111.50
17	110.00	110.50
18	110.50	111.00
19	110.50	111.00
20	111.00	111.50
21	111.00	111.50
22	111.00	111.50
23	111.50	112.25
24	112.00	112.75
25	-	108.50
26	108.50	109.00
27	108.50	109.00
28	108.50	109.25
29	108.75	109.25
30	109.25	109.75
31	109.25	109.75
32	109.75	110.25
33	109.75	110.25
34	110.25	111.00
35	110.25	111.00
36	110.75	111.50
37	109.50	110.00
38	109.50	110.00
39	108.00	108.50
40	108.00	108.50
41	107.17	107.67

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PROJECT NO.:	24122
DESIGNED BY:	DV
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SHEET CHK'D BY:	DV
CROSS CHK'D BY:	GS
APPROVED BY:	DV
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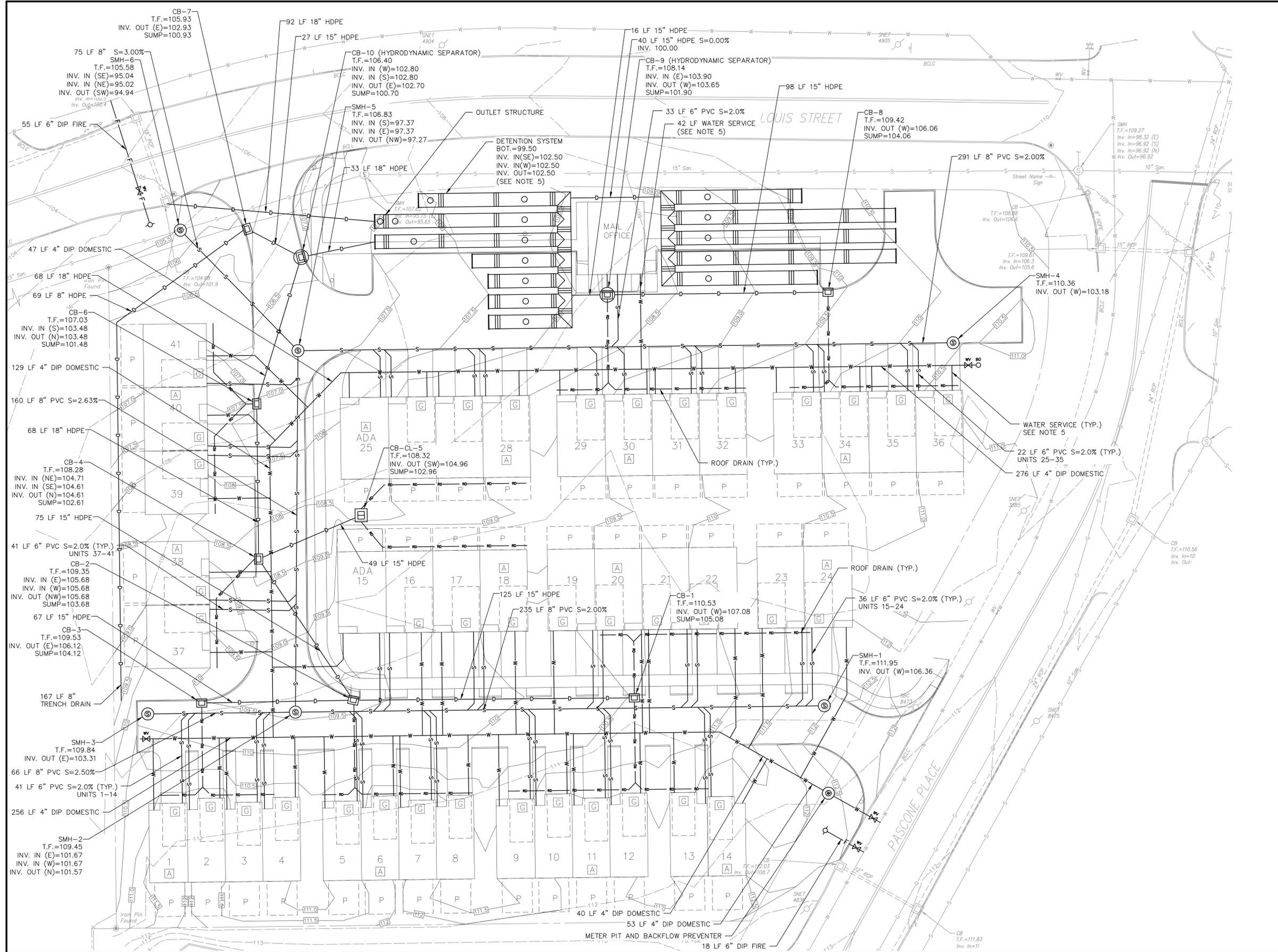
PREPARED FOR:  
**PREMIER REAL ESTATE SERVICES II, LLC**  
 110 COURT STREET, SUITE 1  
 CROMWELL, CT 06416

PREPARED BY:  
  
 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

**GRADING PLAN**

SHEET NO.  
**GP-1**



**LEGEND:**

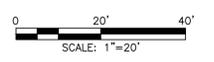
- WATER MAIN
- SANITARY SEWER PIPE
- STORM PIPE
- ROOF DRAIN
- SANITARY SEWER MANHOLE
- CATCHBASIN
- WATER VALVE
- BLOW OFF VALVE

**HYDRODYNAMIC SEPARATORS**

NAME	WATER QUALITY FLOW RATE	PEAK FLOW RATE	RETURN PERIOD OF PEAK FLOW
CB-9	1.78 CFS	12.50 CFS	25-YEAR
CB-10	0.13 CFS	3.24 CFS	25-YEAR

- NOTES:**
- ALL STORM DRAIN PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE INDICATED.
  - ALL GRAVITY SANITARY SEWER PIPE SHALL BE SDR-35 PVC UNLESS OTHERWISE INDICATED.
  - ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE TOWN OF NEWINGTON AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 819 AND ADDENDUMS.
  - ALL WATER AND FIRE LINES SHALL BE CLASS S2 DIP, DOUBLE CEMENT LINED. ALL JOINTS SHALL BE RESTRAINED WITH SERIES 1100 MEGALUG HARNESS/JOINT RESTRAINT OR APPROVED EQUAL.
  - WATER SERVICE TO BE 1/2" COPPER PIPE.
  - DETENTION STRUCTURE 1: 870 LF OF PERFORATED 72" CMP  
 1 SYSTEM ROW OF 61.5 LF  
 2 SYSTEM ROWS OF 81 LF  
 1 SYSTEM ROW OF 38 LF  
 2 SYSTEM ROWS OF 31 LF  
 1 SYSTEM ROW OF 37 LF  
 1 SYSTEM ROW OF 56.5 LF  
 3 SYSTEM ROWS OF 98 LF  
 1 SYSTEM ROW OF 63 LF  
 1 HEADER OF 54 LF  
 1 HEADER OF 42 LF  
 SYSTEM INV. = 99.50  
 WOV ELEV. = 100.80  
 MAX DETENTION ELEV. = 105.50
  - ANY ELECTRIC AND TELE/DATA INFORMATION SHOWN ON THIS DRAWING IS FOR CONCEPT DEVELOPMENT PURPOSES ONLY.
  - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BENDS, BOOT CONNECTIONS, AND FITTINGS NECESSARY TO CONNECT ROOF DRAINS TO UNDERGROUND DRAINAGE SYSTEM, SHOWN ON THIS PLAN AS A CONCEPT.
  - ALL CATCH BASINS SHALL HAVE A MINIMUM 2' SUMP.
  - PROPRIETARY DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. STRUCTURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS. LOCATION AND INSTALLATION OF INSPECTION MANHOLES SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

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REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.:	24122
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DRAWN BY:	xx
SHEET CHK'D BY:	x
CROSS CHK'D BY:	xx
APPROVED BY:	xx
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**RESIDENTIAL SITE DEVELOPMENT**  
103 LOUIS STREET NEWINGTON, CT

**UTILITY PLAN**

SHEET NO.  
**UP-1**

**LEGEND:**

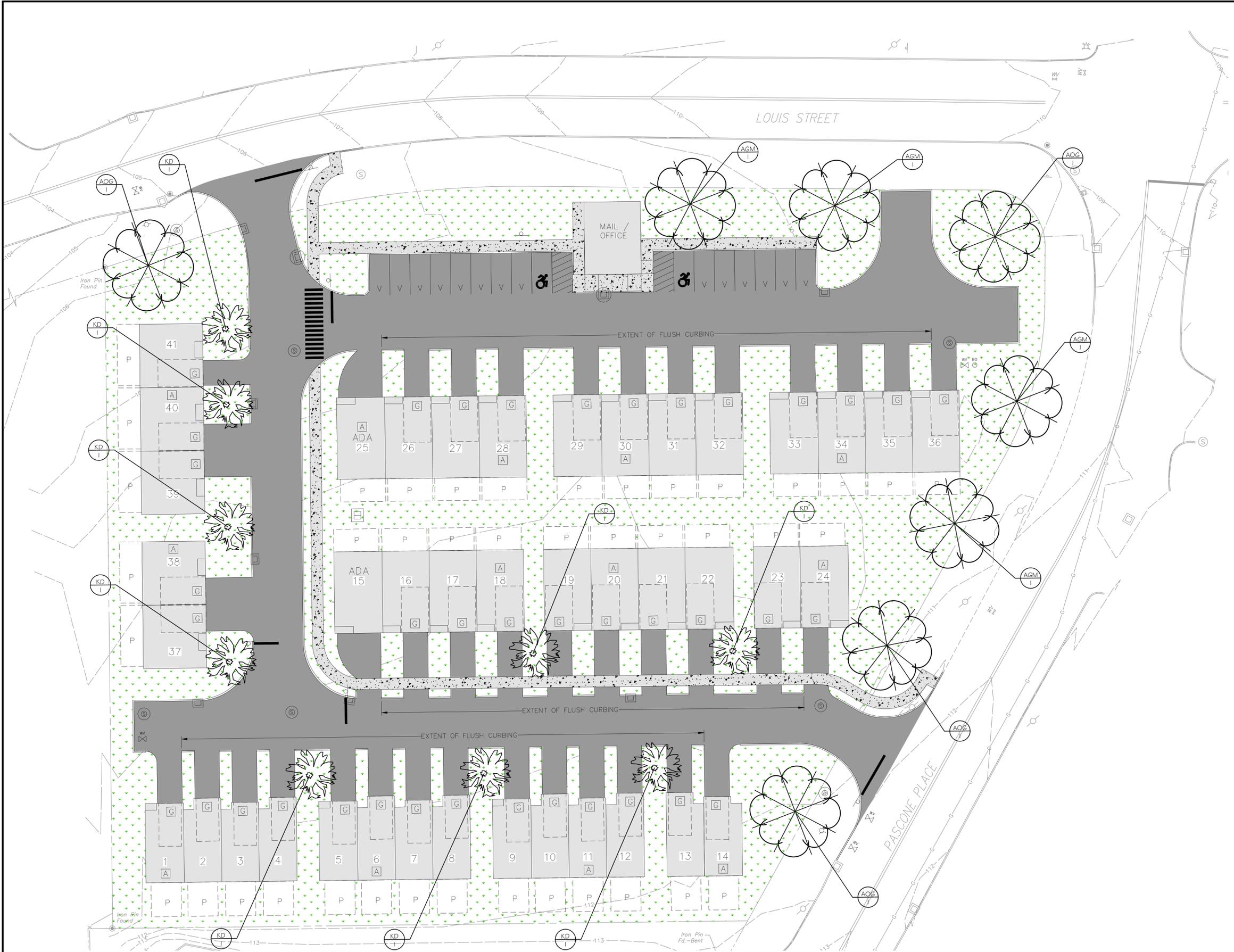
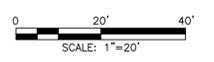
-  BIT. CONCRETE
-  CONCRETE
-  TOPSOIL AND SEED
-  BUILDING



**MAINTENANCE & MATERIAL NOTES:**

1. ALL CURBING SHALL BE 6" CONCRETE CURBING UNLESS OTHERWISE INDICATED.
2. ALL SLOPES 3:1 OR GREATER SHALL BE REINFORCED WITH EROSION CONTROL MATTING. EROSION CONTROL MATTING SHALL BE IN ACCORDANCE WITH THE CTDOT APPROVED QUALIFIED PRODUCT LIST, TYPE "D".
3. UNLESS OTHERWISE NOTED, ALL DISTURBED AREAS SHALL BE STABILIZED WITH 6" TOPSOIL AND SEED. SEE TURF ESTABLISHMENT DETAIL CD-1

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CROMWELL, CT 06416

PREPARED BY:



INFRASTRUCTURE SOLUTIONS  
40 Cold Spring Road, Suite 1, Rocky Hill, CT 06067  
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**RESIDENTIAL SITE DEVELOPMENT**  
103 LOUIS STREET NEWINGTON, CT

**SITE MATERIALS & LANDSCAPE PLAN**

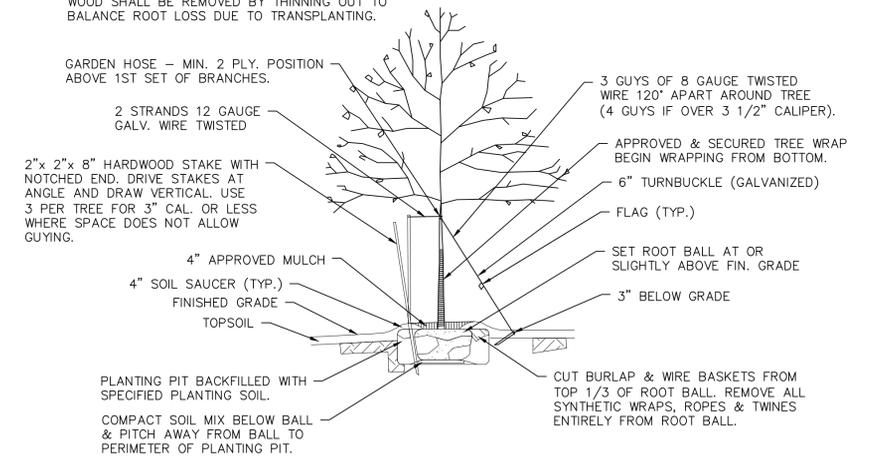
SHEET NO.  
**LP-1**

**GENERAL LANDSCAPE PLANTING NOTES:**

- ALL PRECAUTIONS SHALL BE TAKEN IN CARTING, STORING, AND PLANTING OF MATERIALS TO PROTECT ADJACENT PAVEMENT AND LANDSCAPE AREAS.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED, AND NURSERY-GROWN IN ACCORDING WITH GOOD HORTICULTURAL PRACTICES, UNLESS SPECIFICALLY NOTED. ALL PLANTS SHALL BE OF SPECIMEN QUALITY, NURSERY STOCK SHALL BE FREE OF DISEASE AND INSECTS, EGGS, OR LARVAE, AND SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS AND BE FREE OF CO-DOMINANT LEADERS. THE LANDSCAPE ARCHITECT AND/OR THE OWNER OR THEIR REPRESENTATIVE RESERVE THE RIGHT TO TAG, INSPECT, AND APPROVE ALL PLANT MATERIALS AND REJECT ANY PLANTS FOUND TO BE UNACCEPTABLE AT THE NURSERY, AT THE SITE UPON DELIVERY, OR UPON INSTALLATION. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIAL FROM THE SITE AND REPLACE WITH APPROVED EQUIVALENT BY THE LANDSCAPE ARCHITECT.
- ALL PLANTS SHALL BE LABELED BY PLANT NAME, LABELS SHALL BE ATTACHED SECURELY TO ALL PLANTS, BUNDLES, AND CONTAINERS WHEN DELIVERED.
- NO SUBSTITUTIONS OF PLANT MATERIAL WILL BE PERMITTED. IF THE SPECIFIED LANDSCAPE MATERIAL CANNOT BE OBTAINED, THE CONTRACTOR SHALL SUBMIT A WRITTEN PROPOSAL FOR USE OF AN ALTERNATIVE PLANT. SUBSTITUTIONS OF PLANT MATERIALS MUST BE AUTHORIZED IN WRITING BY THE PROJECT LANDSCAPE ARCHITECT, PROJECT WETLAND SCIENTIST, PROJECT OWNER OR THEIR REPRESENTATIVE.
- IF THERE IS A DISCREPANCY BETWEEN THE PLANT LIST AND THE PLANTING PLAN, THE PLAN PREVAILS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL CBYD AND HAVE ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES MARKER PRIOR TO THE START OF EXCAVATION ACTIVITIES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT LANDSCAPE ARCHITECT AND PROJECT OWNER IF THERE ARE CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
- BACKFILL MIXTURE AND SOIL MIXES ARE TO BE INSTALLED PER THE SPECIFICATIONS. IF PLANTING OCCURS IN A WETLAND OR UPLAND REVIEW AREA, THE USE OF FERTILIZERS AND SOIL AMENDMENTS ARE PROHIBITED.
- ALL FENCE AND HARDSCAPE INSTALLATIONS SHALL BE COMPLETED PRIOR TO THE COMMENCEMENT OF ANY LANDSCAPE PLANTING, SEEDING, OR LAWN INSTALLATION.
- THE PROJECT LANDSCAPE ARCHITECT, PROJECT WETLAND SCIENTIST, PROJECT OWNER OR THEIR REPRESENTATIVE MAY REVIEW PLANT MATERIALS AT THE SITE BEFORE INSTALLATION TO VERIFY COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY.
- REMOVE ALL TWINE, ROPE, WIRE, CONTAINERS, AND FLAGGING BEFORE COMPLETION. LABELS SHALL ONLY BE REMOVED AFTER LANDSCAPE MATERIAL COMPLIANCE HAS BEEN VERIFIED. DISPOSE OF ALL DEBRIS APPROPRIATELY AND SWEEP ALL SURROUNDING PAVEMENTS. LITTERING OF DEBRIS IS PROHIBITED.
- ALL TREES AND HEDGES ARE TO BE LEFT IN A NATURAL HABIT. DO NOT TRIM TO CREATE GEOMETRIC FORMS.
- STAKING OR GUYING OF TREES IS DISCOURAGED AND NOT REQUIRED UNLESS EXPRESSLY STATED.
- NO PLANT MATERIAL SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT.
- IF COMPACTION OCCURS DURING EARTHWORK PRIOR TO PLANT INSTALLATION, THE CONTRACTOR MUST HAVE THE SOIL SCARIFIED AND LOOSENE TO THE DEPTH OF COMPACTION OR 12" TO 18", WHICHEVER IS DEEPEST, WITH A BACKHOE OR EQUIVALENT WITHOUT TAMPING SOILS.
- ALL FINE GRADED AREAS SHALL BE HAND RAKED SMOOTH TO ELIMINATE ANY CLUMPS, ROCKS, STUMPS, TRASH AND/OR OTHER UNSIGHTLY DEBRIS PRIOR TO PLANTING OR MULCHING.
- SITE DRAINAGE MUST BE MAINTAINED DURING LANDSCAPE INSTALLATION.
- INSTALLED PLANTINGS SHALL BE IN PROPER HEALTH AND HAVE A 90% SURVIVAL RATE OVER THE FIRST TWO YEARS FOLLOWING ACCEPTANCE BY THE PROJECT OWNER. PLANT MATERIAL FOUND TO BE DEAD, DYING, OR IN POOR HEALTH SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE PROJECT OWNER.
- MULCHING:
  - AT THE TIME OF PLANTING, MULCH WITH NO MORE THAN 3" OF DOUBLE-SHREDDED HARDWOOD OR PINE BARK MULCH OF A NATURAL COLOR, FREE OF DYES. TAKE CARE NOT TO PILE MULCH AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR. A GAP OF APPROXIMATELY 2" SHOULD BE LEFT BETWEEN THE MULCH AND THE ROOT COLLAR TO AVOID MOUNDING ABOVE THE TRUNK FLARE.
  - ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE LIMITS OF CONSTRUCTION, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL DOUBLE-SHREDDED MULCH FREE OF DYES THAT WILL PREVENT SOIL EROSION AND CONTROL DUST.
  - AFTER INITIAL MULCH INSTALLATION, REPLENISH GARDEN BEDS (IF PROPOSED) WITH ADDITIONAL MULCH IN MID TO LATE SPRING, ONLY IN AREAS THAT ARE SHOWING BARE SOILS AND/OR COVERED IN WEEDS. REMOVE ALL UNWANTED PLANTS AND WEEDS BEFORE DRESSING BEDS WITH MULCH.
- CHOOSING PLANT SPECIES:
  - ALL TREES THAT ARE SPECIFIED FOR THE PROJECT SHALL CONFORM TO THE 10-20-30 GUIDELINE TO REDUCE THE RISK OF MASSIVE TREE LOSS DUE TO PESTS. THE PLANTING SCHEDULE SHALL SPECIFY NO MORE THAN 10% OF ANY ONE SPECIES, 20% OF ANY ONE GENUS, OR 30% OF ANY ONE FAMILY.
  - APPROVED ALTERNATIVE PLANTS MUST BE (FIRST) NATIVE TO THE STATE OF CONNECTICUT, (SECOND) NATIVE TO THE NORTHEAST REGION, OR (THIRD) A CULTIVAR OF A NATIVE IN THE AFOREMENTIONED REGIONS.
  - NO PLANTS CLASSIFIED AS INVASIVE BY THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION (DEEP), UNIVERSITY OF CONNECTICUT, OR CONNECTICUT INVASIVE PLANTS WORKING GROUP (CIPWG) SHALL BE PLANTED ANYWHERE ON SITE. IF INVASIVE SPECIES ARE PLANTED, THEY WILL BE REMOVED AND PROPERLY AND LAWFULLY DESTROYED AT THE CONTRACTOR'S EXPENSE.
- DELIVERY, HANDLING, AND STORAGE:
  - TREES AND SHRUBS SHALL NOT BE PRUNED PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY PROJECT LANDSCAPE ARCHITECT. DO NOT BEND OR BIND THE TREES IN A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY THE NATURAL SHAPE.
  - TAKE SPECIAL CARE TO NOT DROP BALL AND BURLAPPED STOCK DURING DELIVERY OR HANDLING.
  - PLASTIC, METAL WIRE BASKETS, BURLAP, AND OTHER ROOT COVERINGS, WRAPPING, AND BINDING MATERIAL SHALL BE REMOVED ENTIRELY FROM THE PLANT AT TIME OF INSTALLATION. IF ROOT BALL IS IN RISK OF CRUMBLING, ONLY BURLAP MAY REMAIN ON THE LOWER 1/3 OF THE ROOT BALL. DO NOT INHIBIT HORIZONTAL ROOT GROWTH.
  - IF INSTALLATION IS DELAYED MORE THAN 6 HOURS AFTER ARRIVAL, THE CONTRACTOR SHALL SET ALL PLANT MATERIAL IN SHADE, PROTECTED FROM WEATHER, MECHANICAL DAMAGE, THEFT, AND DETERIORATION. PLANT SOIL MUST BE KEPT MOIST USING A WATERING TANK, HOSE, OR OTHER SYSTEM UNTIL READY FOR PLANTING. ANY PACKAGED MATERIALS SUCH AS BOXED PERENNIALS MUST BE OPENED, UNWRAPPED, AND FREE AS TO NOT RESTRAIN AIR CIRCULATION AND WATERING WHILE WAITING TO BE INSTALLED.

PLANTING SCHEDULE						
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	SPACING	COND.
AGM	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	4"-4.5" CAL.	4	AS SHOWN	B4B
AOG	ACER RUBRUM	OCTOBER GLORY RED MAPLE	4"-4.5" CAL.	4	AS SHOWN	B4B
KD	CORNUS KOUSA	KOUSA DOGWOOD	3"-3.5" CAL.	9	AS SHOWN	B4B

PRUNING SHALL BE IN ACCORDANCE WITH APPROVED HORTICULTURAL STANDARDS IN ORDER TO PRESERVE THE NATURAL FORM OF THE SPECIFIC PLANT. IF APPLICABLE & APPROVED BY THE LANDSCAPE CONSULTANT, ONE FOURTH TO ONE THIRD OF THE WOOD SHALL BE REMOVED BY THINNING OUT TO BALANCE ROOT LOSS DUE TO TRANSPLANTING.



**NOTE:**

- WHERE PLANT PITS ARE DUG WITH AN AUGERING DEVICE GLAZED SIDES OR HARDENED SURFACES SHALL BE SCARIFIED PRIOR TO PLANTING.

**TREE PLANTING  
NOT TO SCALE**

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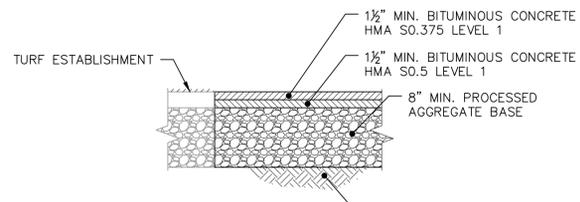
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RESIDENTIAL SITE DEVELOPMENT  
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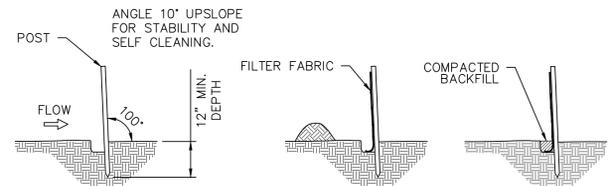
SITE MATERIALS AND  
LANDSCAPE PLAN NOTES

SHEET NO.  
**LP-2**



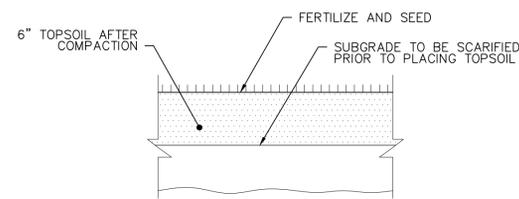
- NOTE:
1. BITUMINOUS CONCRETE SHALL COMPLY WITH THE STANDARD SPECIFICATIONS SECTIONS 4.06 AND M.04.
  2. PROCESSED AGGREGATE BASE MATERIAL SHALL COMPLY WITH THE STANDARD SPECIFICATIONS SECTIONS 3.04 AND M.05.01.

TYPICAL PAVEMENT SECTION  
NOT TO SCALE



1. SET POSTS AND EXCAVATE A 6"x6" TRENCH, SET POST DOWNSLOPE.
2. ATTACH FILTER FABRIC FENCING TO POST AND EXTEND IT TO THE TRENCH BOTTOM.
3. BACKFILL THE TRENCH AND COMPACT THE EXCAVATED SOIL.

SILT FENCE  
NOT TO SCALE



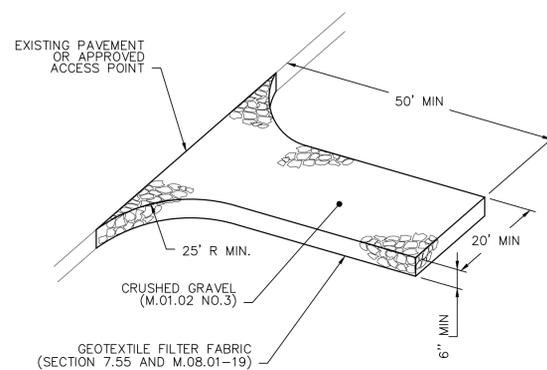
NOTES:

1. THE PERMANENT SEED MIX FOR TURF ESTABLISHMENT IS AS FOLLOWS:

NAME	MINIMUM PROPORTION BY WEIGHT
KENTUCKY BLUEGRASS	45%
CREeping RED FESCUE	10%
PERENNIAL RYE GRASS	45%

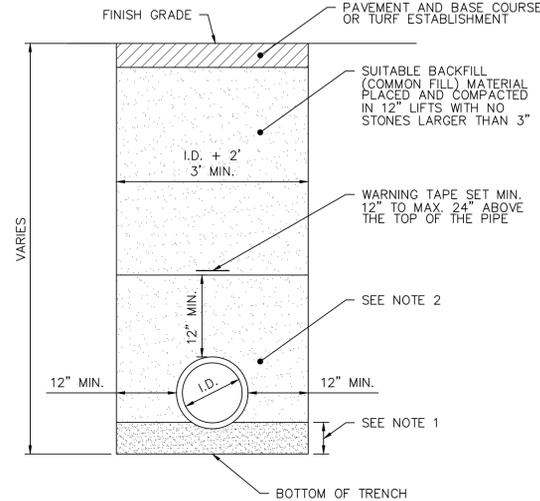
2. SEED SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET. THE SEEDING AREA SHALL BE MULCHED WITH A LAYER OF GRASS, HAY OR STRAW AT A RATE OF 10 POUNDS PER 100 SQUARE FEET. THE SEEDING AREAS SHALL BE THOROUGHLY WATERED UNTIL SATISFACTORY STAND OF GRASS HAS BEEN ESTABLISHED.
3. TURF ESTABLISHMENT SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS CT DOT FORM 818 SECTION 9.50.

TURF ESTABLISHMENT  
NOT TO SCALE



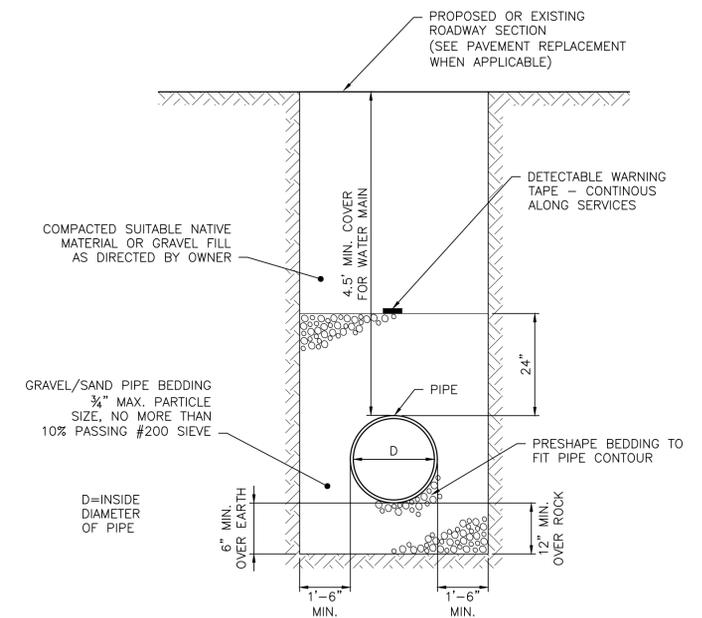
- NOTES:
1. INSPECT ANTI-TRACKING CONSTRUCTION ENTRANCE PAD ON A DAILY BASIS AND MAINTAIN IN GOOD CONDITION THROUGHOUT CONSTRUCTION PERIOD.
  2. ROADWAY SHALL BE SWEEPED DAILY TO REMOVE ANY MATERIAL THAT MAY BE TRACKED ONTO THE PAVEMENT.

CONSTRUCTION ENTRANCE  
NOT TO SCALE

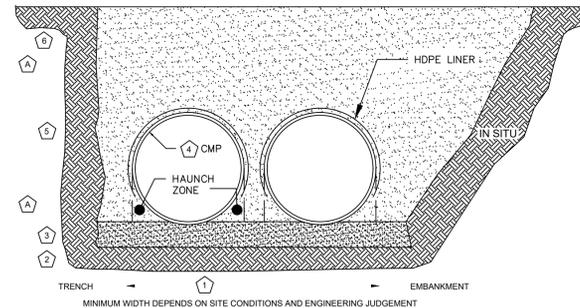


- NOTES:
1. FOR HDPE PIPE, INSTALL 6" SAND BEDDING MATERIAL OR 3" CRUSHED STONE WHEN IN ROCK OR UNSUITABLE MATERIAL. FOR CONCRETE PIPE, INSTALL 3" GRANULAR FILL.
  2. FOR HDPE PIPE, INSTALL 3" CRUSHED STONE. FOR CONCRETE PIPE, INSTALL GRANULAR FILL.

TYPICAL STORM TRENCH  
NOT TO SCALE



FIRE AND WATER SERVICE TRENCH  
NOT TO SCALE



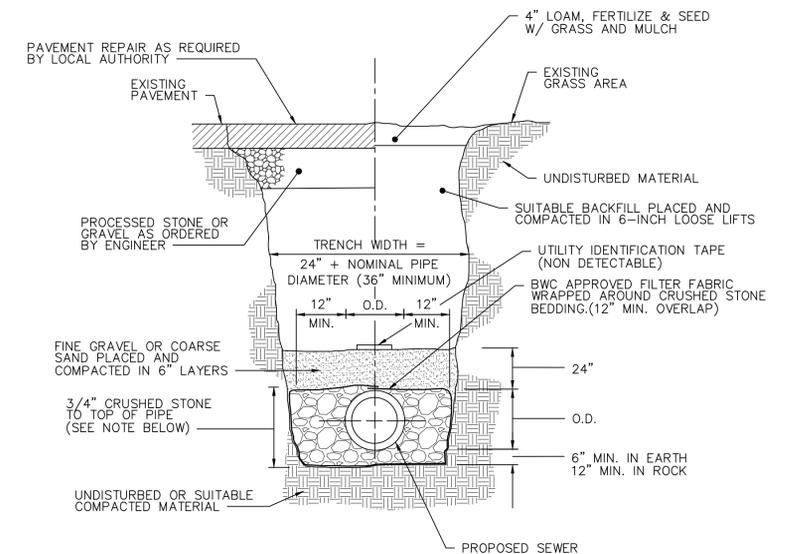
INSTALLATION NOTES:

1. WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES.
2. OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.
3. AN HDPE MEMBRANE LINER WILL BE PLACED ON THE CROWN OF EACH PIPE TO PROVIDE AN IMPERMEABLE BARRIER AGAINST ENVIRONMENTAL CHANGES THAT MAY ADVERSELY AFFECT THE SYSTEM OVER TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL TECHNICAL DETAILS.

TABLE 2:

CMP RETENTION STANDARD BACKFILL SPECIFICATIONS			
MATERIAL LOCATION	MATERIAL SPECIFICATION	DESCRIPTION	
1. FILL ENVELOPE WIDTH		MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE SUGGESTED MINIMUM TRENCH WIDTH: 1.5D + 12"	MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE: PIPE 24" - 14"; D + 40"
2. FOUNDATION	AASHTO 26.5.2	PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND FOUNDATION BROUGHT BACK TO GRADE WITH A FILL MATERIAL APPROVED BY THE ENGINEER OF RECORD.	
3. BEDDING	AASHTO M 43: 3, 357, 4, 467, 5, 56, 57	ENGINEER OF RECORD TO DETERMINE IF BEDDING IS REQUIRED. PIPE MAY BE PLACED ON THE TRENCH BOTTOM OF A RELATIVELY LOOSE, NATIVE SUITABLE WELL GRADED GRANULAR MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE. 2" MIN DEPTH. THE BEDDING MATERIAL MAY BE SUITABLE OPEN GRADED GRANULAR BEDDING CONFORMING TO AASHTO SOIL CLASSIFICATIONS A1, A2, OR A3 WITH MAXIMUM PARTICLE SIZE OF 3" PER AASHTO 26.3.8.1	
4. CORRUGATED METAL PIPE			
5. BACKFILL	FREE DRAINING, ANGULAR, NATURALLY OCCURRING WASHED STONE PER AASHTO M 43: 3, 357, 4, 467, 5, 56, 57 OR APPROVED EQUAL.	HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION WITHOUT SOFT SPOTS. BACKFILL SHALL BE PLACED IN 8" +/- LOOSE LIFTS AND COMPACTED TO 90% STANDARD PROCTOR PER AASHTO T 99. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (16") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHOULD BE ADVANCED ALONG THE LENGTH OF THE SYSTEM TO AVOID DIFFERENTIAL LOADING, WHERE CONVENTIONAL COMPACTION TESTING IS NOT PRACTICAL. THE MATERIAL SHALL BE MECHANICALLY COMPACTED UNTIL NO FURTHER YIELDING OF MATERIAL IS OBSERVED UNDER THE COMPACTOR. **IN AREAS WITH HIGH WATER TABLE FLUCTUATIONS THAT INTERACT WITH THE PIPE ZONE, CONSIDER INSTALLING A GEOTEXTILE SEPARATION LAYER TO PREVENT SOIL MIGRATION.	
6. COVER MATERIAL	UP TO MIN. COVER - AASHTO M 145: A-1, A-2, A-3	COVER MATERIAL MAY INCLUDE NON-BITUMINOUS, GRANULAR ROADBASE MATERIAL WITHIN MIN COVER LIMITS	
7. SIDE GEOTEXTILE	NONE	GEOTEXTILE LAYER ON SIDES OF EXCAVATION TO PREVENT SOIL MIGRATION.	

DETENTION SYSTEM DETAIL  
NOT TO SCALE



SEWER TRENCH DETAIL  
NOT TO SCALE

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PROJECT NO.:	24122
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APPROVED BY:	DV
DATE:	DECEMBER 2025

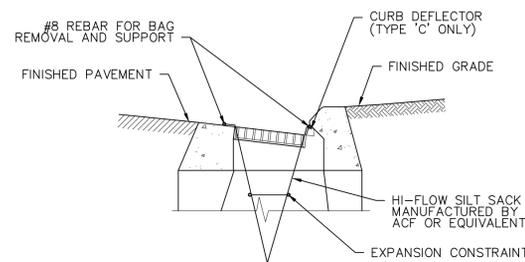
PREPARED FOR:  
**PREMIER REAL ESTATE SERVICES II, LLC**  
110 COURT STREET, SUITE 1  
CROMWELL, CT 06416

PREPARED BY:  
**zuvic**  
INFRASTRUCTURE SOLUTIONS  
40 Cold Spring Road, Suite 1, Rocky Hill, CT 06067  
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**RESIDENTIAL SITE DEVELOPMENT**  
103 LOUIS STREET NEWINGTON, CT

CIVIL DETAILS

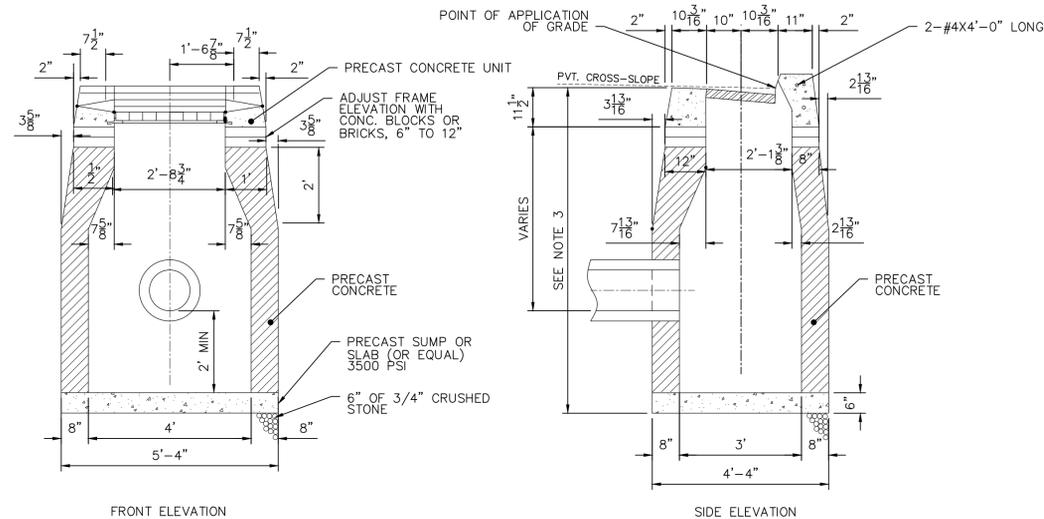
SHEET NO.  
**CD-1**



**NOTES:**

- SILT SACKS SHALL BE EMPTIED WHEN THEY HAVE COLLECTED 6" TO 12" OF SEDIMENT. INSPECT EVERY 1 TO 2 WEEKS AND AFTER EVERY MAJOR RAINFALL EVENT.
- SILT SACKS MAY BE USED IN OTHER TYPES OF STORM DRAINAGE INLETS. TYPE "C" CATCH BASIN SHOWN FOR CLARITY.

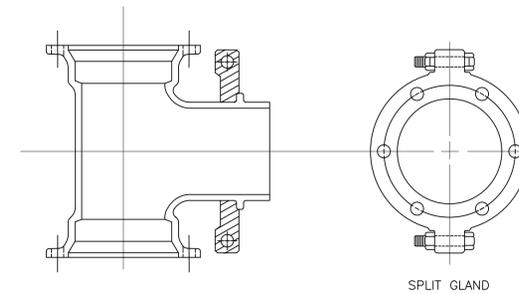
**SEDIMENT CONTROL AT CATCH BASIN IN PAVED AREAS  
NOT TO SCALE**



**NOTES:**

- MINIMUM COVER OVER TOP OF PIPE SHALL BE 2'-0".
- WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS-20 LOADING.
- WALL THICKNESS FOR STRUCTURES OVER 10' HIGH IS 12" FOR CONCRETE BLOCK UNITS. INSIDE DIMENSIONS REMAIN THE SAME.
- ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.
- ALL BRICKS SHALL BE CONCRETE.
- ALL PIPE PENETRATIONS SHALL BE PARGED SMOOTH TO PROVIDE A WATERTIGHT SEAL BOTH INSIDE AND OUTSIDE THE BASIN.
- INSIDE WALLS OF STRUCTURE TO BE SMOOTH. NO SHELVES ALLOWED.
- IF A 4' SUMP IS NOT POSSIBLE DUE TO UTILITY CONFLICTS OR SITE CONSTRAINTS, A 2' SUMP MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER.
- FRAME AND GRATE SHALL BE GALVANIZED.

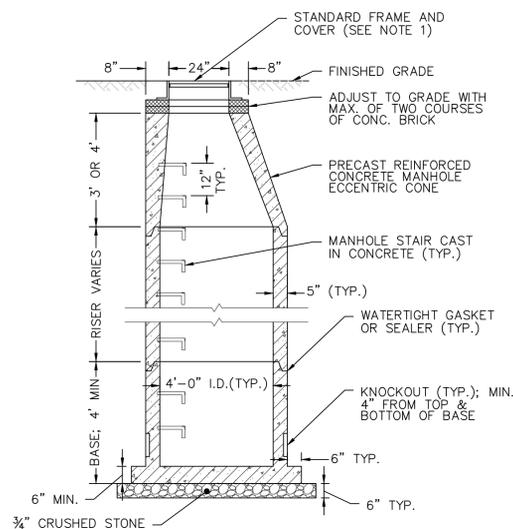
**TYPE "C" CATCH BASIN  
NOT TO SCALE**



**NOTE:**

THE SWIVEL HYDRANT TEE IS A COMPACT M.J. TEE EXCEPT THE BRANCH IS PLAIN END WITH AN INTEGRAL GLAND AND A ROTATABLE SPLIT GLAND. THE SPLIT GLAND ANCHORS THE PLAIN END TO ANY MECHANICAL JOINT BELL AND ELIMINATES THE NEED FOR THE RODS AND BLOCKING. THIS TEE CAN BE USED FOR HYDRANT LEADS AND FOR ANCHORING A VALVE TO THE TEE SHOULD A FUTURE BRANCH LINE BE ANTICIPATED.

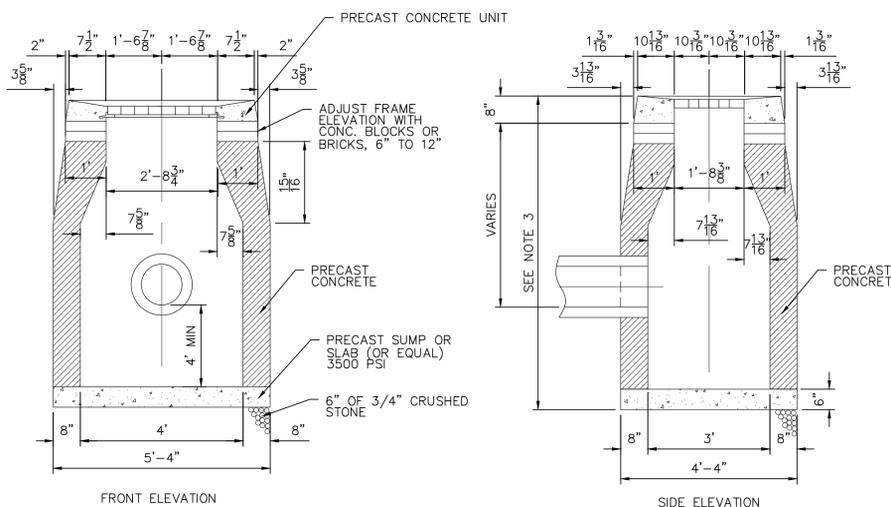
**SPECIAL SWIVEL M.J. HYDRANT TEE  
NOT TO SCALE**



**NOTES:**

- ALL MANHOLE FRAMES/COVERS TO BE SET FLUSH WITH BINDER COURSE. A MANHOLE RISER RING SHALL BE USED TO BRING MANHOLE COVER TO FINISHED GRADE PRIOR TO THE COMPLETION OF THE FINAL SURFACE COURSE.
- MINIMUM COVER OVER TOP OF PIPE SHALL BE 2'-0".
- WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS-20 LOADING.
- ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.

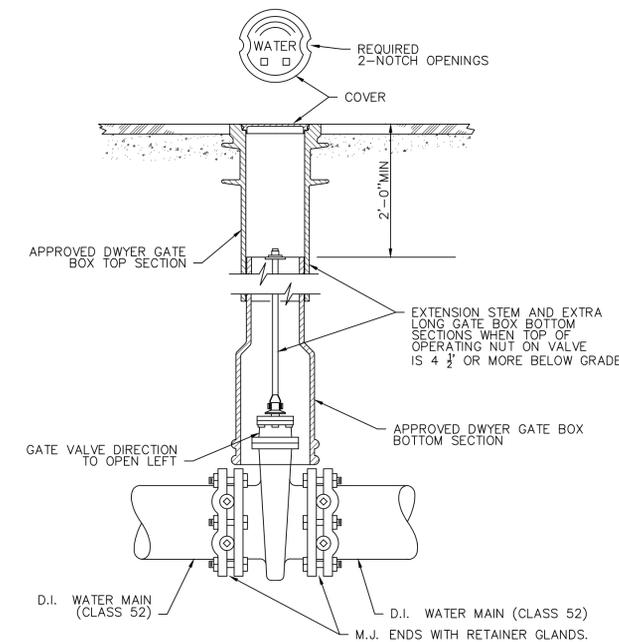
**TYP TYPE II PRECAST SANITARY MANHOLE  
NOT TO SCALE**



**NOTES:**

- MINIMUM COVER OVER TOP OF PIPE SHALL BE 2'-0".
- WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS-20 LOADING.
- WALL THICKNESS FOR STRUCTURES OVER 10' HIGH IS 12" FOR CONCRETE BLOCK UNITS. INSIDE DIMENSIONS REMAIN THE SAME.
- ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.
- ALL BRICKS SHALL BE CONCRETE.
- ALL PIPE PENETRATIONS SHALL BE PARGED SMOOTH TO PROVIDE A WATERTIGHT SEAL BOTH INSIDE AND OUTSIDE THE BASIN.
- INSIDE WALLS OF STRUCTURE TO BE SMOOTH. NO SHELVES ALLOWED.
- IF A 4' SUMP IS NOT POSSIBLE DUE TO UTILITY CONFLICTS OR SITE CONSTRAINTS, A 2' SUMP MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER.
- FRAME AND GRATE SHALL BE GALVANIZED.

**TYPE "C-L" CATCH BASIN  
NOT TO SCALE**



**TYPICAL GATE VALVE INSTALLATION 12" & SMALLER  
NOT TO SCALE**

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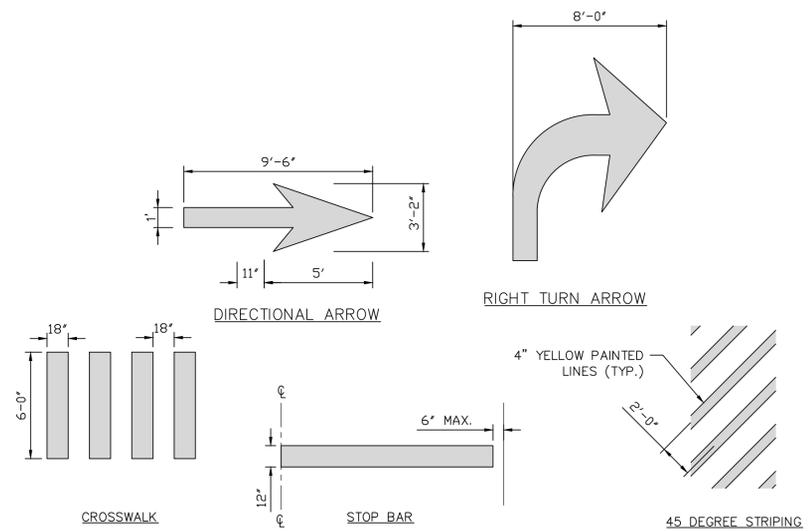
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DESIGNED BY:	DV
DRAWN BY:	DG
SHEET CHK'D BY:	DV
CROSS CHK'D BY:	GS
APPROVED BY:	DV
DATE:	DECEMBER 2025

PREPARED FOR:	PREMIER REAL ESTATE SERVICES II, LLC 110 COURT STREET, SUITE 1 CROMWELL, CT 06416
PREPARED BY:	<b>zuvic</b> INFRASTRUCTURE SOLUTIONS 40 Cold Spring Road, Suite 1, Rocky Hill, CT 06067 (860) 436-4901   WWW.ZUVIC.COM

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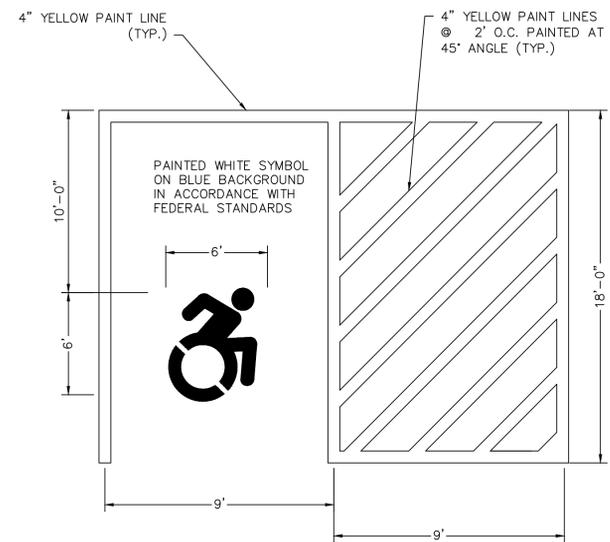
CIVIL DETAILS
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SHEET NO.	CD-2
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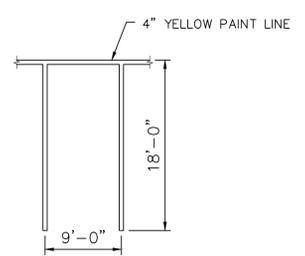
- NOTES:**
- PAVEMENT MARKINGS SHALL CONFORM TO THE STANDARD SPECIFICATIONS SECTION 12.09.
  - PROVIDE 2 COATS OF PAINT ON ALL SURFACES.

**TYPICAL PAVEMENT MARKINGS**  
NOT TO SCALE



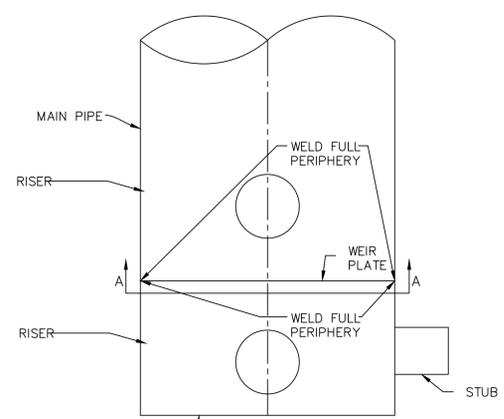
- NOTES:**
- SEE SITE LAYOUT PLAN FOR ACTUAL SPACE LOCATION AND DIMENSIONS.
  - PROVIDE 2 COATS OF PAINT ON ALL SURFACES.

**ACCESSIBLE PARKING SPACE**  
NOT TO SCALE



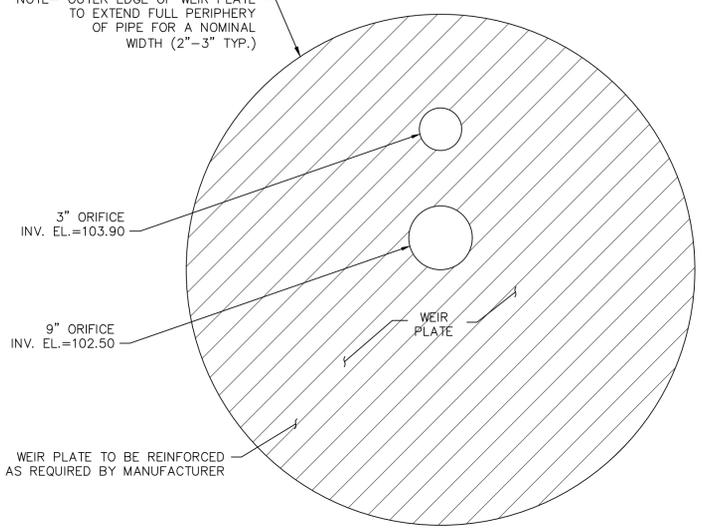
- NOTES:**
- SEE SITE LAYOUT PLAN FOR ACTUAL SPACE LOCATION AND DIMENSIONS.
  - PROVIDE TWO COATS OF PAINT ON ALL SURFACES.

**TYPICAL PARKING SPACE**  
NOT TO SCALE



**ASSEMBLY/PLAN VIEW**

NOTE- OUTER EDGE OF WEIR PLATE TO EXTEND FULL PERIPHERY OF PIPE FOR A NOMINAL WIDTH (2"-3" TYP.)



**OUTLET CONTROL STRUCTURE**  
 9" ORIFICE INV. EL. = 102.50  
 3" ORIFICE INV. EL. = 103.90  
 100-YR WATER SURF. EL. = 105.44

STRUCTURE DIAMETER = 6 FT  
 STRUCTURE SUMP/BOTTOM EL. = 99.50  
 INLET PIPE DIA. (SE) = 15"  
 INLET PIPE INV. = 102.50  
 INLET PIPE DIA. (W) = 18"  
 INLET PIPE INV. = 102.50  
 BOTTOM OF POND = 99.50  
 WQV WATER SURF. EL. = 100.80

**OVERFLOW CHAMBER**  
NOT TO SCALE



**ACCESSIBLE SIGN DETAIL**  
NOT TO SCALE



**VAN ACCESSIBLE PARKING SIGN DETAIL**  
NOT TO SCALE

NOTE: SIGN TO HAVE BLUE BACKGROUND WITH WHITE LETTERING

**INTERNATIONAL SYMBOL OF ACCESS PARKING SIGN**  
NOT TO SCALE

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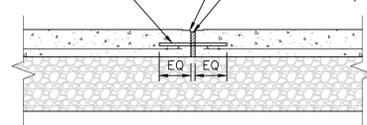
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**RESIDENTIAL SITE DEVELOPMENT**  
 103 LOUIS STREET NEWINGTON, CT

**CIVIL DETAILS**

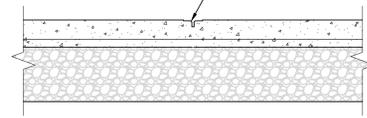
SHEET NO.  
**CD-3**

5/8" SMOOTH DOWEL, 18" LONG; DIPPED IN LIQUID ASPHALT OR ENGINEER APPROVED BOND BREAKER



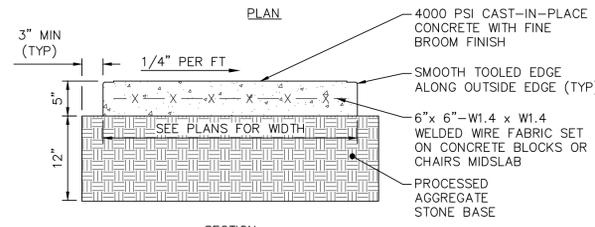
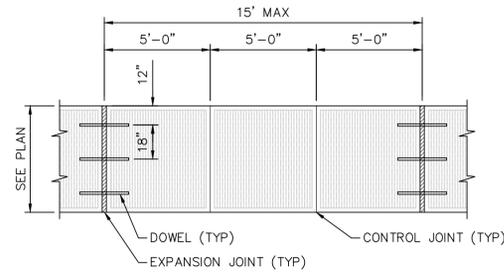
EXPANSION JOINT

1/4" WIDE TOOLED JOINT WITH 1/4" RADIUS FINISH (TYP); DEPTH EQUALS 1/4 DEPTH OF CONCRETE



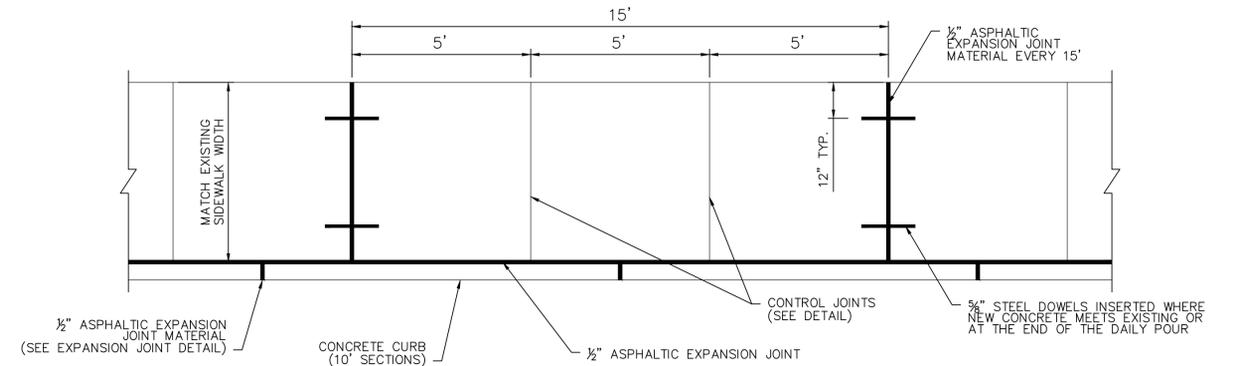
CONTROL JOINT

TYPICAL CONCRETE SIDEWALK JOINTS  
NOT TO SCALE

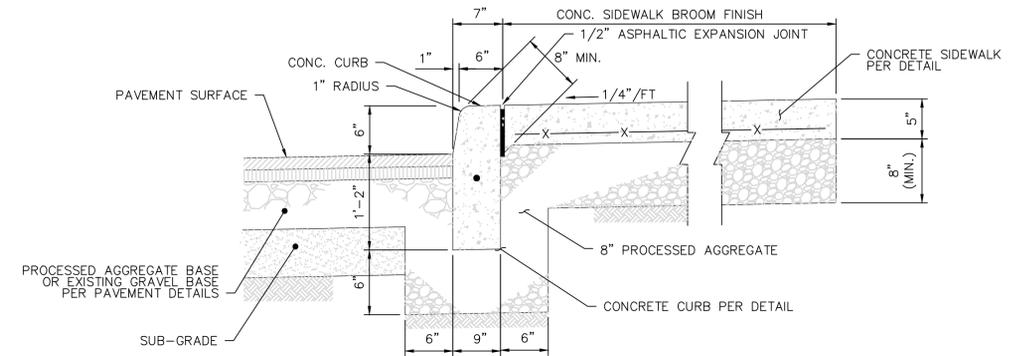


- NOTES:
1. INCREASE SLAB THICKNESS TO 8" FOR SIDEWALKS CROSSING DRIVEWAYS AND OTHER VEHICULAR TRAFFIC LOADED AREAS.
  2. REMOVE CONCRETE WALKS TO THE NEAREST EXPANSION JOINT AT THE LOCATIONS NOTED ON THE PLANS.
  3. MATCH WIDTH AND PROVIDE FLUSH TRANSITION BETWEEN NEW AND EXISTING CONCRETE SIDEWALK.

CONCRETE SIDEWALK  
NOT TO SCALE



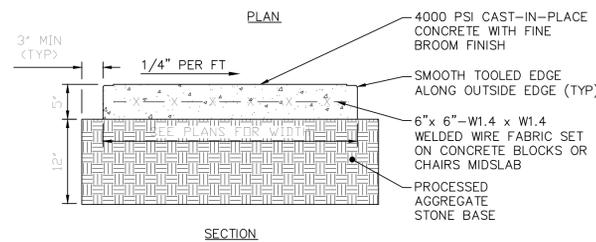
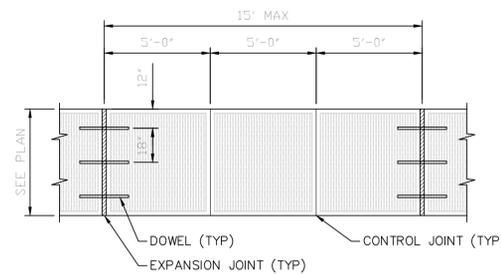
SIDEWALK PLAN VIEW



SIDEWALK SECTION

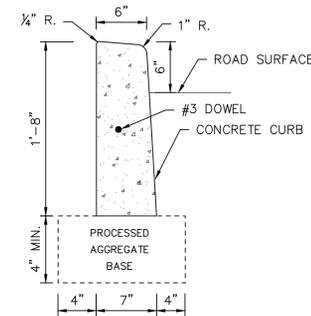
- NOTES:
1. REMOVE CONCRETE WALKS TO THE NEAREST EXPANSION JOINT AT THE LOCATIONS NOTED ON THE PLANS.
  2. AT LOCATIONS WHERE NEW CONCRETE WALKS ARE TO BE INSTALLED ADJACENT TO EXISTING CONCRETE WALKS, MATCH SIDEWALK WIDTH AND PROVIDE FLUSH TRANSITION BETWEEN EXISTING AND NEW WALK.

CONCRETE SIDEWALK AND CURB  
NOT TO SCALE



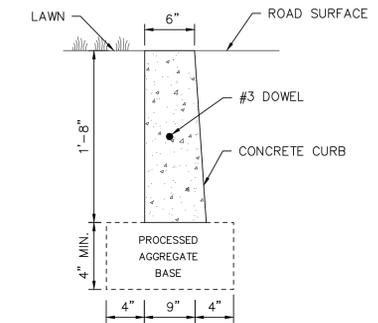
- NOTES:
1. INCREASE SLAB THICKNESS TO 8" FOR SIDEWALKS CROSSING DRIVEWAYS AND OTHER VEHICULAR TRAFFIC LOADED AREAS.
  2. REMOVE CONCRETE WALKS TO THE NEAREST EXPANSION JOINT AT THE LOCATIONS NOTED ON THE PLANS.
  3. MATCH WIDTH AND PROVIDE FLUSH TRANSITION BETWEEN NEW AND EXISTING CONCRETE SIDEWALK.

CONCRETE SIDEWALK  
NOT TO SCALE



CONCRETE CURB  
NOT TO SCALE

- NOTES:
1. ALL CONCRETE SHALL BE CONSTRUCTED IN STANDARD SPECIFICATION SECTION M.03.02.
  2. PRECAST CURBING SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION SECTION M.08.02-4.
  3. JOINT FILLER SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION SECTION M.03.08-2.
  4. BASE MATERIAL, IF REQUIRED, SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION SECTION M.02.01, M.02.02 OR M.05.01.



FLUSH CONCRETE CURB  
NOT TO SCALE

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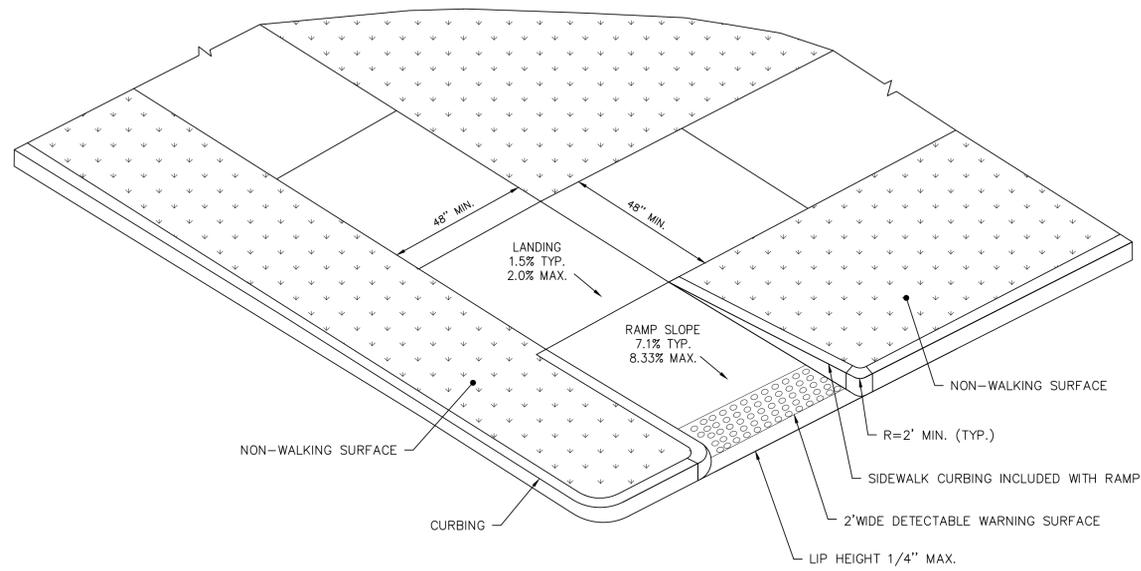
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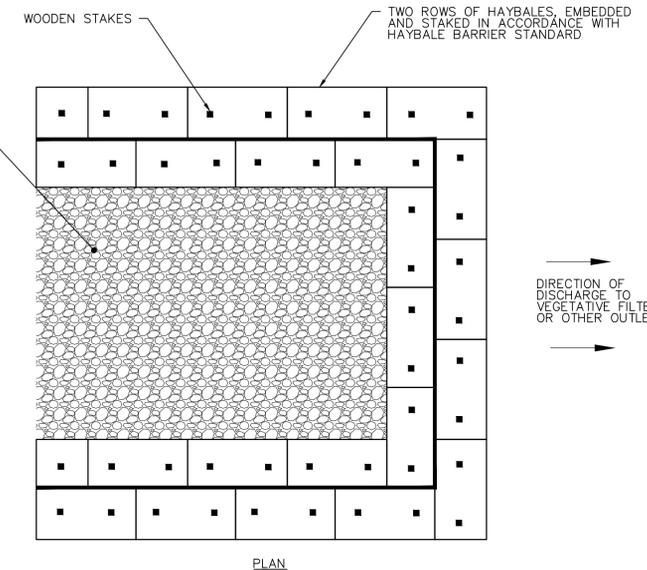
**CIVIL DETAILS**

SHEET NO.  
**CD-4**



**RESTRICTED PEDESTRIAN CROSSING SIDEWALK RAMP - TYPE 20**  
NOT TO SCALE

COVER ENTIRE INSIDE AREA WITH ONE LAYER OF FILTER FABRIC CONFORMING WITH STANDARD SPECIFICATION SECTION 7.55 AND M.08.01-19, CLASS B EROSION CONTROL FABRIC. FABRIC SHALL BE LAID UP THE HAY BALES IN BETWEEN THE TWO ROWS.

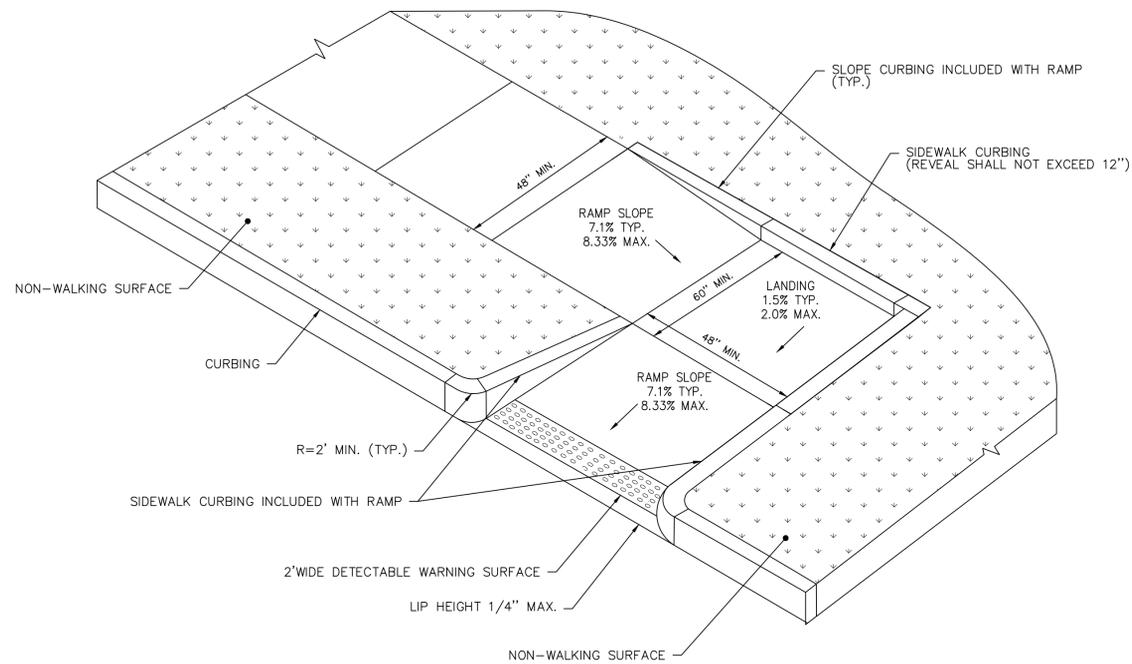


**PLAN**

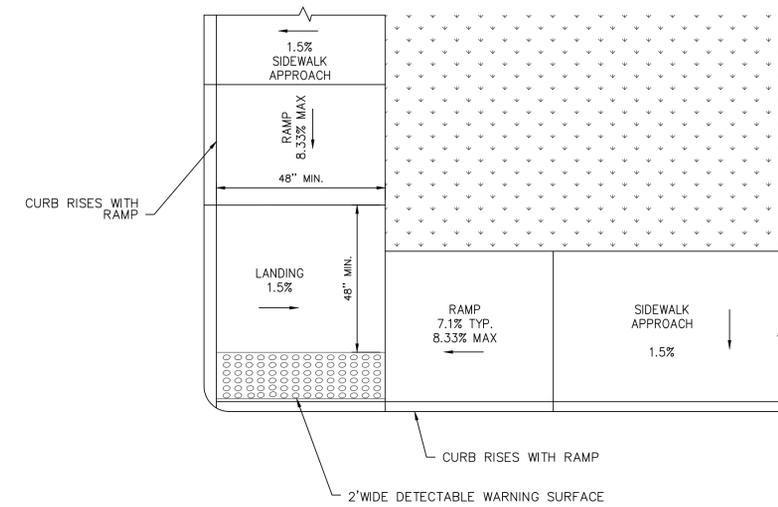
**NOTES:**

1. INSTALL HAYBALES ACCORDING TO HAYBALE BARRIER DETAIL.
2. SIZE OF BASIN SHALL BE DETERMINED BY THE FOLLOWING:  
STORAGE (CUBIC FEET) = TRUCK VOLUME X 3
3. REMOVE ACCUMULATED SEDIMENTS WHEN EQUAL TO ONE HALF OF THE REQUESTED STORAGE VOLUME.
4. OVERFLOW DISCHARGE FROM THE BASIN SHALL FOLLOW THE GENERAL DIRECTION OF EXISTING DRAINAGE PATTERNS AND SHALL ONLY FLOW OVER AREAS PERMANENTLY STABILIZED.
5. CONTRACTOR SHALL DISCHARGE WATER AND SEDIMENT REMOVED FROM THE CLEANING OPERATIONS OF THE STORM SEWER SYSTEMS INTO THE SETTLING BASIN. AT NO TIME SHALL WATER/SEDIMENT BE DISCHARGED DIRECTLY ONSITE OR INTO A SEWER.

**SETTLING BASIN**  
NOT TO SCALE



**PERPENDICULAR RAMP WITH SIDEWALK CURB - TYPE 12**  
NOT TO SCALE



**RESTRICTED CORNER PARALLEL SIDEWALK RAMP - TYPE 5C**  
NOT TO SCALE

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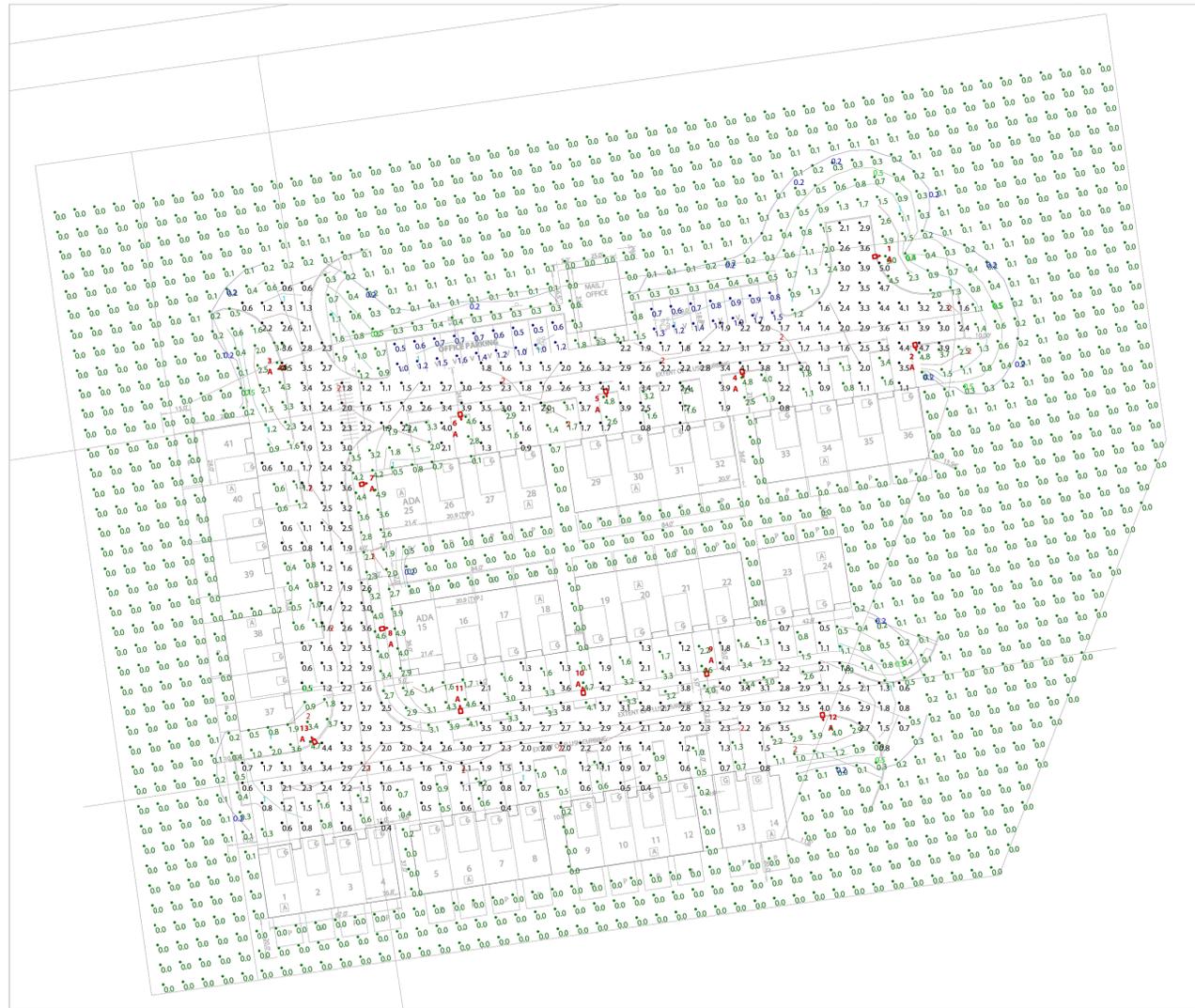
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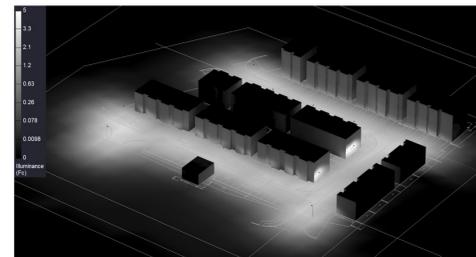
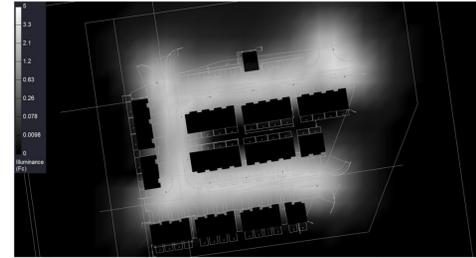
**CIVIL DETAILS**

SHEET NO.  
**CD-5**





Scale: 1 inch= 40 Ft.



NOTES:

- * The Light loss factor (LLF) is a product of many variables. RAB's standard is to use the initial 1.0 LLF in accordance with most municipal lighting ordinance light trespass requirements, unless otherwise noted.
- * Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.
- * The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.
- * Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.
- * RAB disclaims all responsibility for the suitability of existing or proposed poles and bases to support proposed fixtures. This is the owner's, installer's and/or end-user's responsibility based on the weight and effective projected area ("EPA") of the proposed fixtures and the owner's site and soil conditions, wind zone, and many other factors. A professional engineer licensed to practice in the state the site is located should be engaged to assist in this determination.
- * The landscape material shown hereon is conceptual and is not intended to be an accurate representation of any particular plant, shrub, bush, or tree, as these materials are living objects, and subject to constant change. The conceptual objects shown are for illustrative purposes only. The actual illumination values measured in the field will vary.
- * Photometric model elements such as buildings, rooms, furnishings or any architectural details which impact the dispersion of light must be detailed by the customer documents for inclusion in the RAB Lighting Design. The owner/contractor/customer/end-user must provide accurate and complete construction drawings that reflect what will be the final construction RAB is not responsible for any inaccuracies caused by incomplete, inaccurate, or outdated information provided by the owner/contractor/customer/end-user.
- * RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending may apply. Please see www.rablighting.com/ip.
- * The Lighting Analysis, E2Layout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") represents an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by RAB and therefore actual measured results may vary from the actual field conditions. RAB recommends that design parameters and other information be field verified to reduce variation.
- * RAB does not warranty, either implied or stated, actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design.
- * RAB does not warranty, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design as compliant with any applicable regulatory code requirements with the exception of those expressly stated on drawings created and submitted by RAB. The Lighting Design is issued, in whole or in part, as advisory documents for informational and convenience purposes only, is not intended for construction nor as a part of a project's construction documentation package and should not be relied upon for any purpose.
- * Immediately prior to any party ordering RAB products used in the Lighting Design, the ordering party must verify that the lumen output of the fixtures being ordered (as shown on RAB's website) match the lumen output shown in the Lighting Design. Occasionally, Lighting Designs previously provided use fixtures that are then updated prior to an order and such updates could change the lumen output of the fixture. This in turn, could impact the installed lighting performance that differs from the Lighting Design.

Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PTSplR	PTSplTb	Meter Type
Drives	Illuminance	Fc	2.23	5.0	0.4	5.58	12.50	readings taken 0'-0" afg	10	10	Horizontal
Office Parking	Illuminance	Fc	1.02	1.9	0.5	2.04	3.80	readings taken 0'-0" afg	10	10	Horizontal
Site	Illuminance	Fc	0.36	5.0	0.0	N.A.	N.A.	readings taken 0'-0" afg	10	10	Horizontal

Luminaire Schedule											
All quotes/orders generated from this layout must be forwarded to the Local Rep Agency											
SYM	Qty	Tag	Label	ARR	Lum. Lumens	LLF	Description	Lum. Watts	Total Watts	BUG Rating	Mounting Height
☐	13	A	ALEDM5T @ 90 W + HSS	Single	9780	1.000	Pole mounted (Type V) on 2' base + ALEDMH5	89.3	1160.9	B2-U0-G2	17

PROJECT # 321797  
 CASE # 01810828  
 Date: 12/11/2025  
 Filename: Louis Street Apartment Development 01810828A.ACI  
 Drawn By: K. Gonzales, LC

Job Name:  
 Louis Street Apartment Development  
 (Newington, CT)  
 Lighting Layout  
 Version A

Prepared For:  
 Holbrook Associated  
 35 Reservoir Park Drive  
 Rockland, MA 02370  
 Tel: 781-871-0011



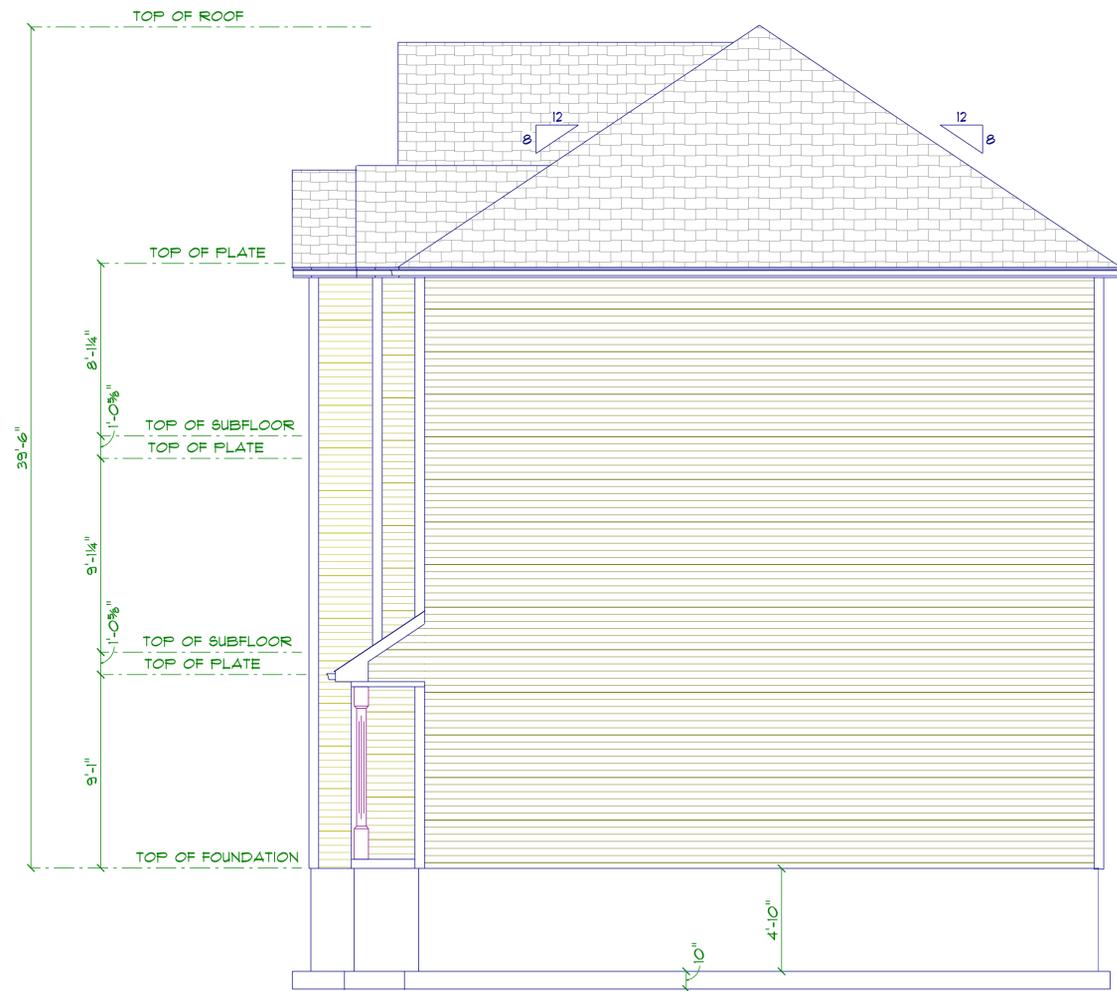
The Lighting Analysis, E2Layout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") represents an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by RAB and therefore actual measured results may vary from the actual field conditions. RAB recommends that design parameters and other information be field verified to reduce variation.  
 RAB does not warranty, either implied or stated, actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design.  
 RAB does not warranty, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design as compliant with any applicable regulatory code requirements with the exception of those expressly stated on drawings created and submitted by RAB. The Lighting Design is issued, in whole or in part, as advisory documents for informational and convenience purposes only, is not intended for construction nor as a part of a project's construction documentation package and should not be relied upon for any purpose.  
 Immediately prior to any party ordering RAB products used in the Lighting Design, the ordering party must verify that the lumen output of the fixtures being ordered (as shown on RAB's website) match the lumen output shown in the Lighting Design. Occasionally, Lighting Designs previously provided use fixtures that are then updated prior to an order and such updates could change the lumen output of the fixture. This in turn, could impact the installed lighting performance that differs from the Lighting Design.



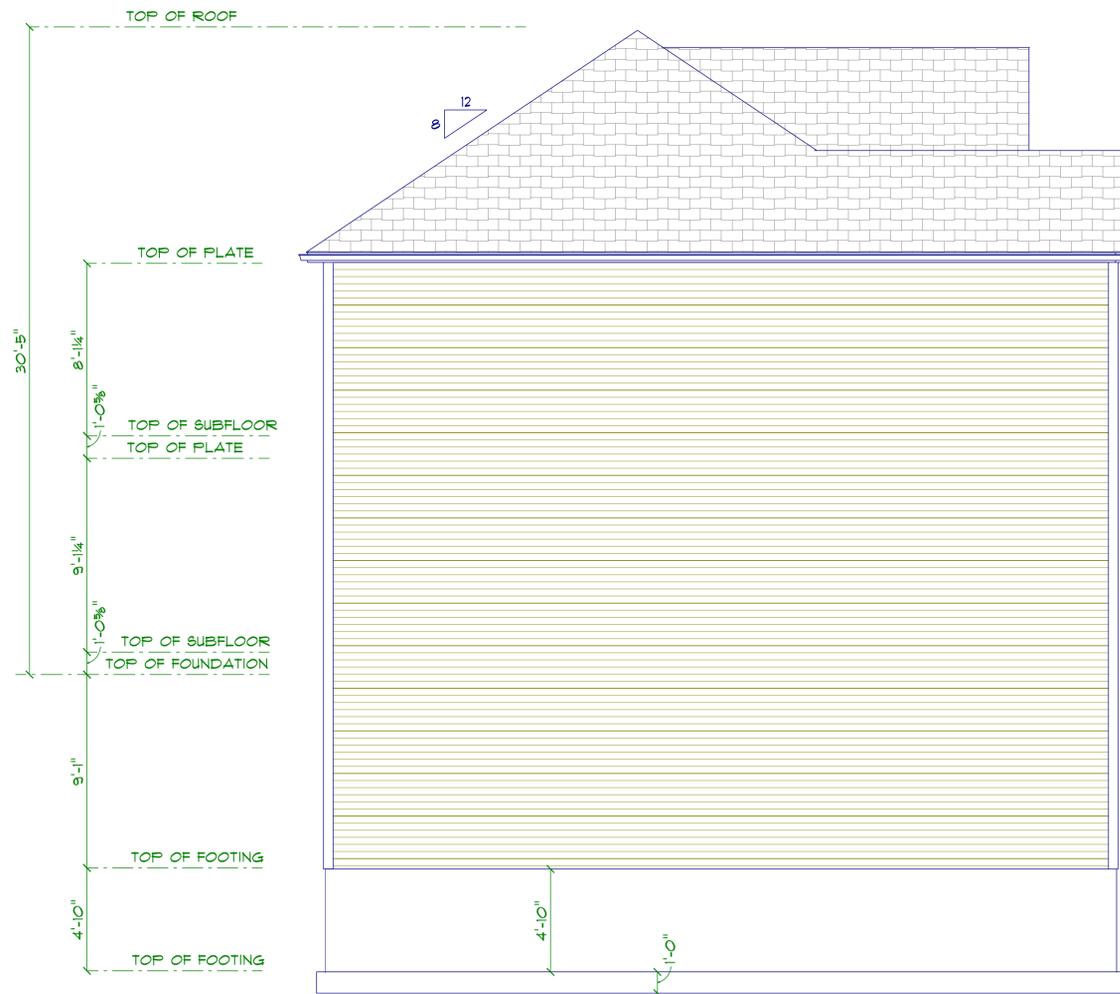
FRONT ELEVATION BLDG 1	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A1</span>
FOURPLEX UNITS 1-4			
TOTAL LIVABLE 1100 SQ.FT			
DATE: 10/4/2025			



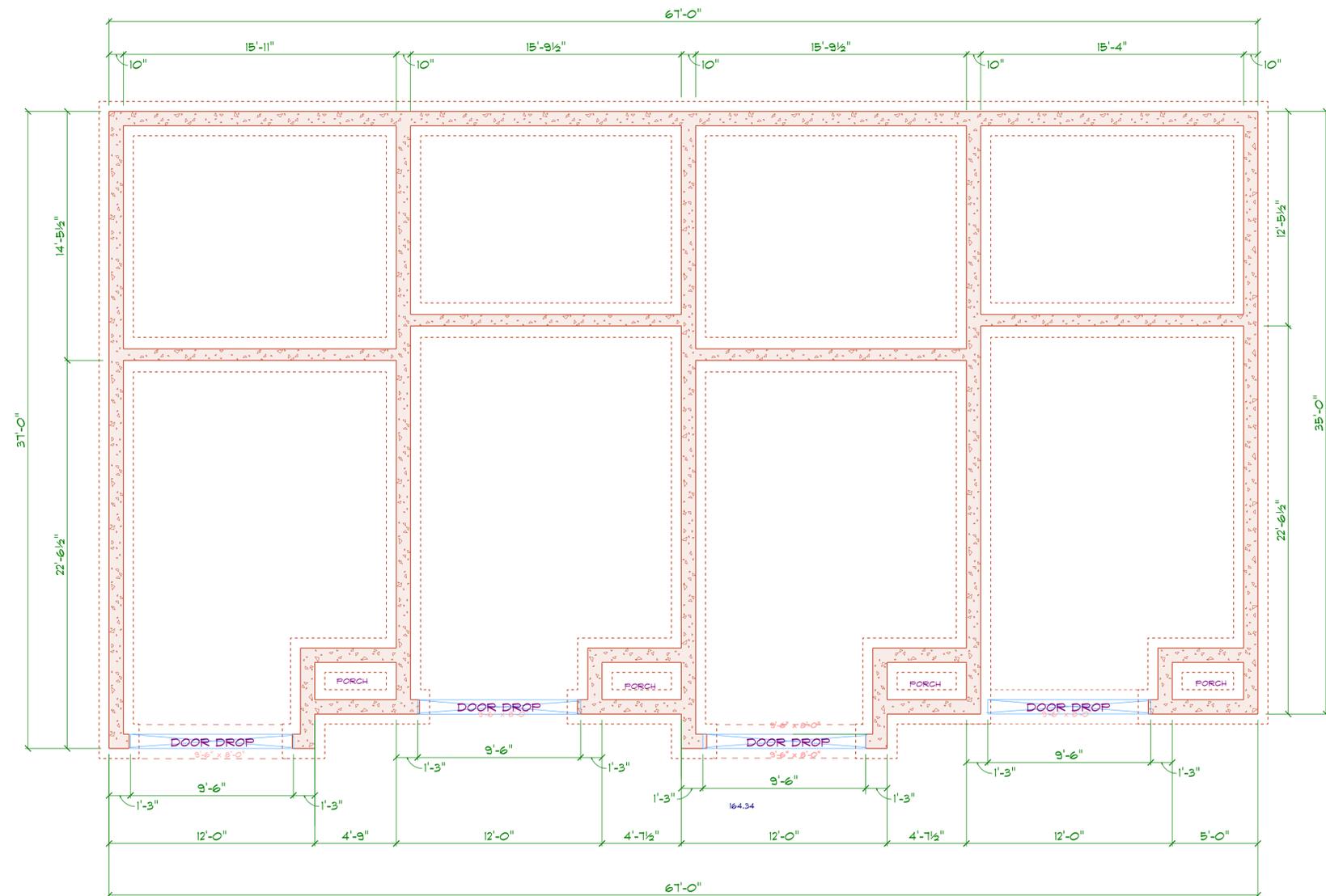
REAR ELEVATION BLDG 1	<i>Diamond Estates LLC</i> <i>110 Court Street Suite 1</i> <i>Cromwell CT. 06416</i> <i>860-632-7090 Fax 860-394-4001</i> <i>pat@buildingCT.com</i>	<i>Louis Street Apartments LLC</i> <i>103 Louis Street</i> <i>Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A2</span>
FOURPLEX UNITS 1-4			
DATE: 10/4/2025			



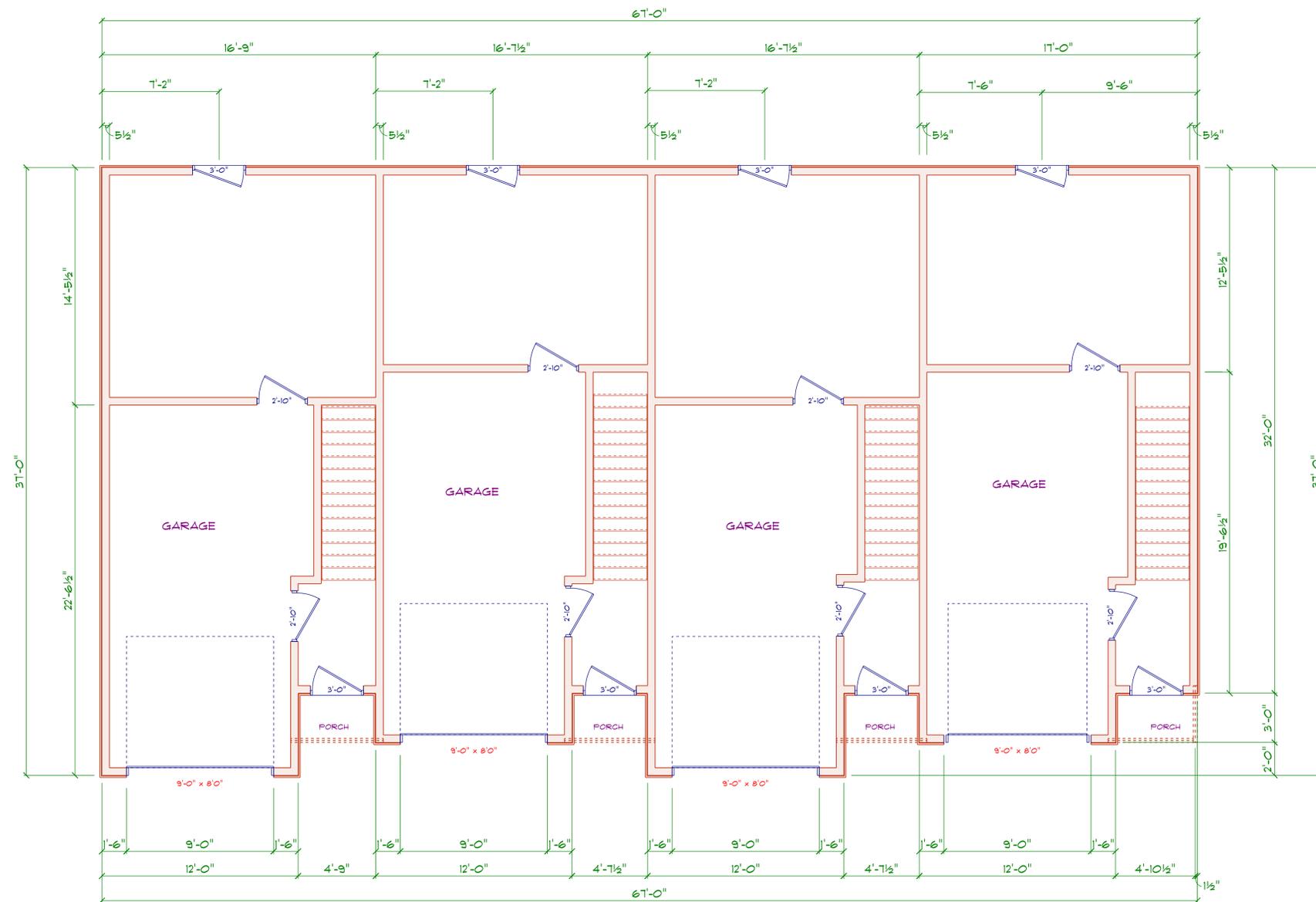
RIGHT ELEVATION BLDG 1	<i>Diamond Estates LLC</i>	<i>Louis Street Apartments LLC</i>	<b>A3</b>
FOURPLEX UNITS 1-4	<i>110 Court Street Suite 1</i>	<i>103 Louis Street</i>	
DATE: 10/4/2025	<i>Cromwell CT, 06416</i>	<i>Newington CT, 06111</i>	
	<i>860-632-7090 Fax 860-394-4001</i>		
	<i>pat@buildingCT.com</i>		



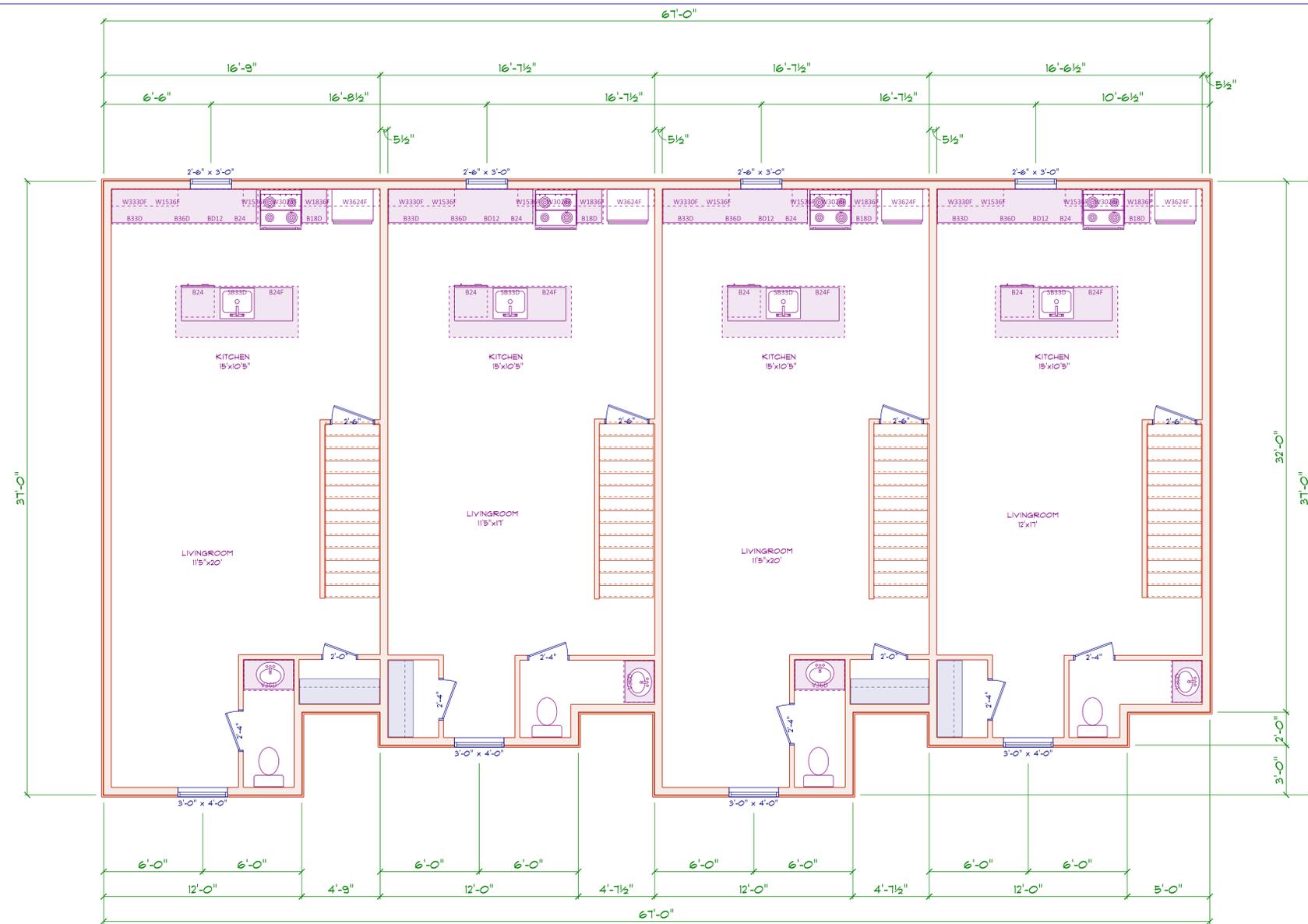
LEFT ELEVATION BLDG 1	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pata@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em;">A4</span>
FOURPLEX UNITS 1-4			
DATE: 10/4/2025			



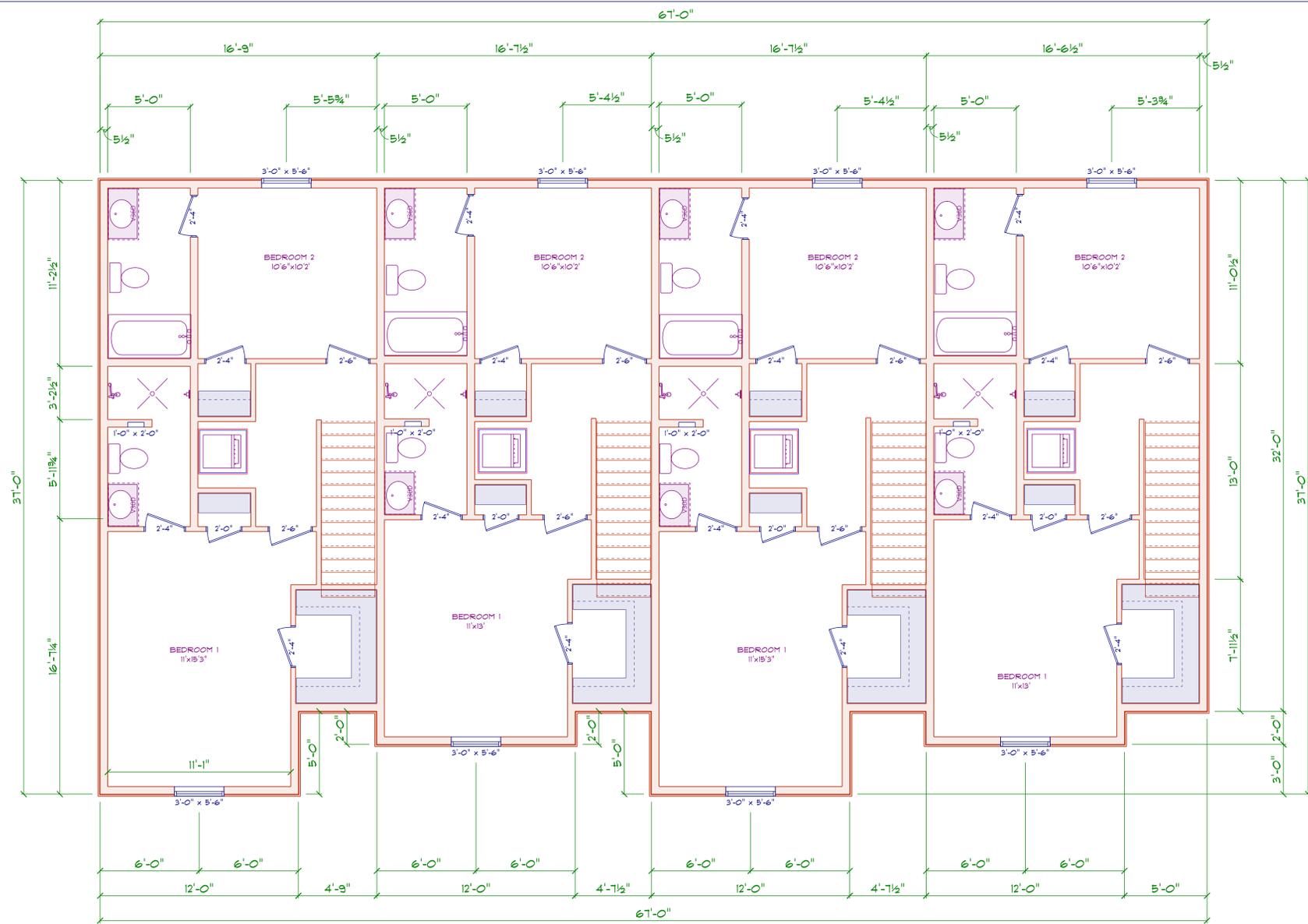
FOUNDATION BLDG 1	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<h1>A5</h1>
FOURPLEX UNITS 1-4			
DATE: 10/4/2025			



FIRST FLOOR BLDG 1	Diamond Estates LLC 110 Court Street Suite 1 Cromwell CT, 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	Louis Street Apartments LLC 103 Louis Street Newington CT, 06111	<h1>A6</h1>
FOURPLEX UNITS 1-4			
DATE: 10/4/2025			



SECOND FLOOR BLDG 1	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<h1>A8</h1>
FOURPLEX UNITS 1-4			
DATE: 10/4/2025			



THIRD FLOOR BLDG 1  
 FOURPLEX UNITS 1-4  
 DATE: 10/4/2025

*Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

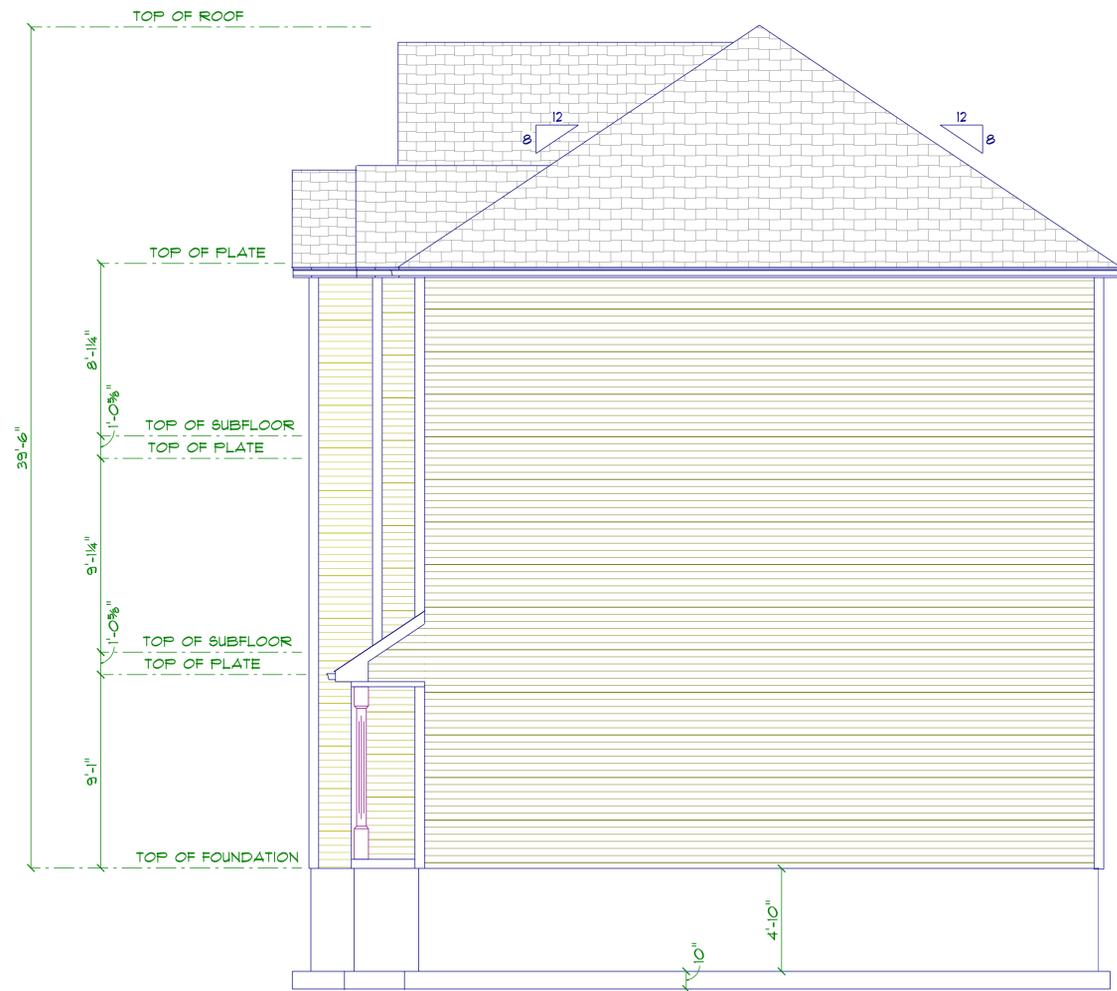
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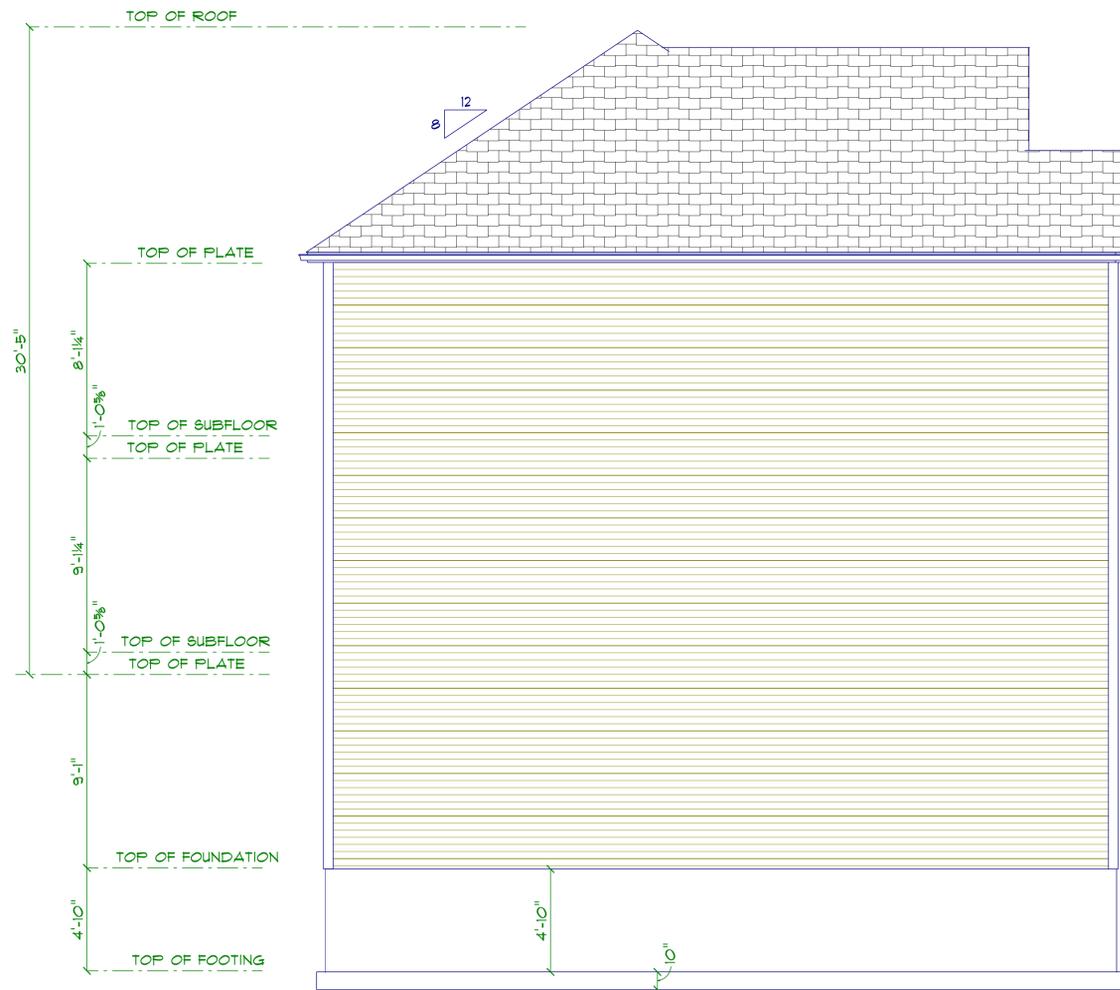
FRONT ELEVATION BLDG 2	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A1</span>
FOURPLEX UNITS 5-8			
TOTAL LIVABLE 1100 SQ.FT			
DATE: 10/4/2025			



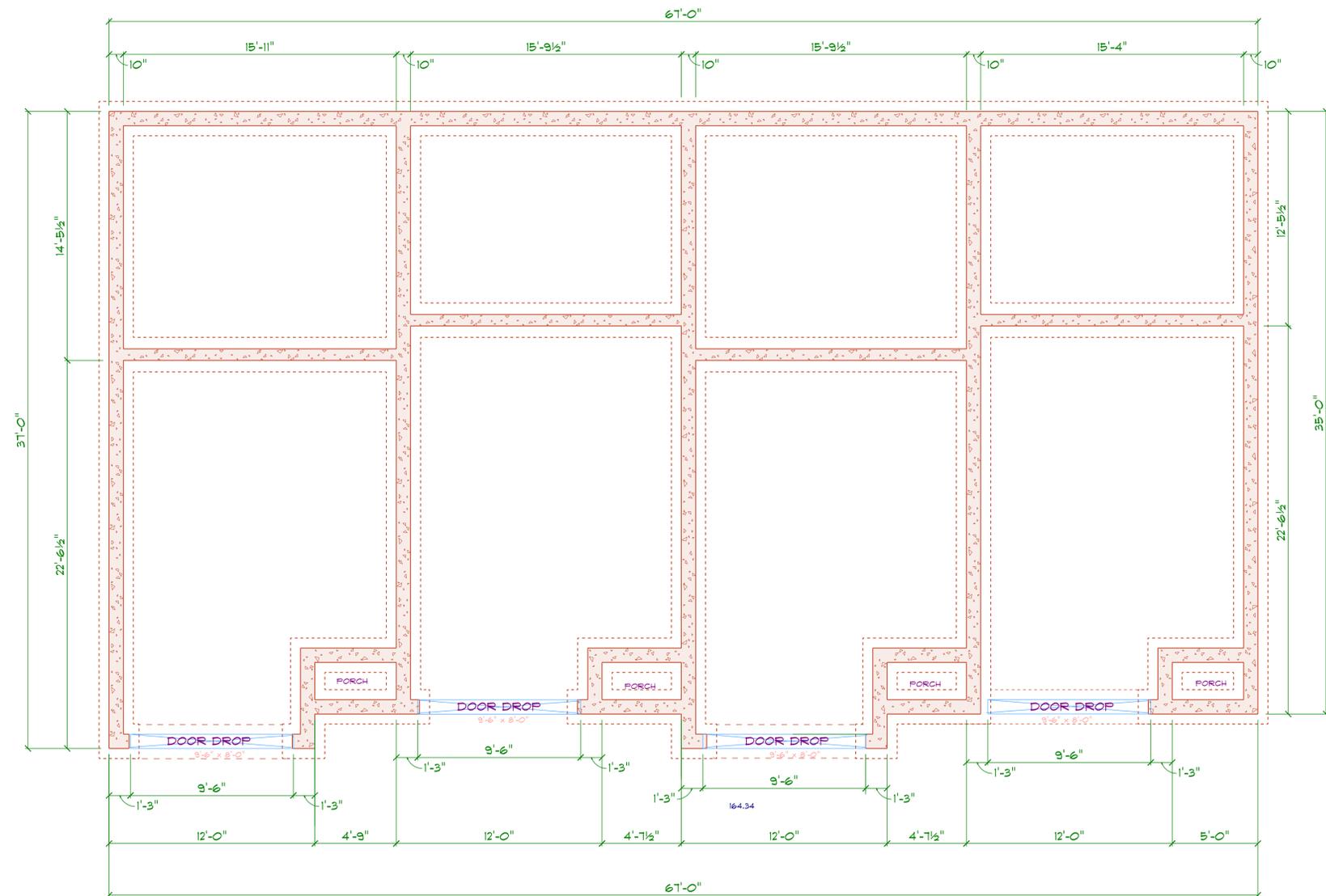
<p>REAR ELEVATION BLDG 2</p>	<p><i>Diamond Estates LLC</i>          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</p>	<p><i>Louis Street Apartments LLC</i>          103 Louis Street          Newington CT. 06111</p>	<p><b>A2</b></p>
<p>FOURPLEX UNITS 5-8</p>			
<p>DATE: 10/4/2025</p>			



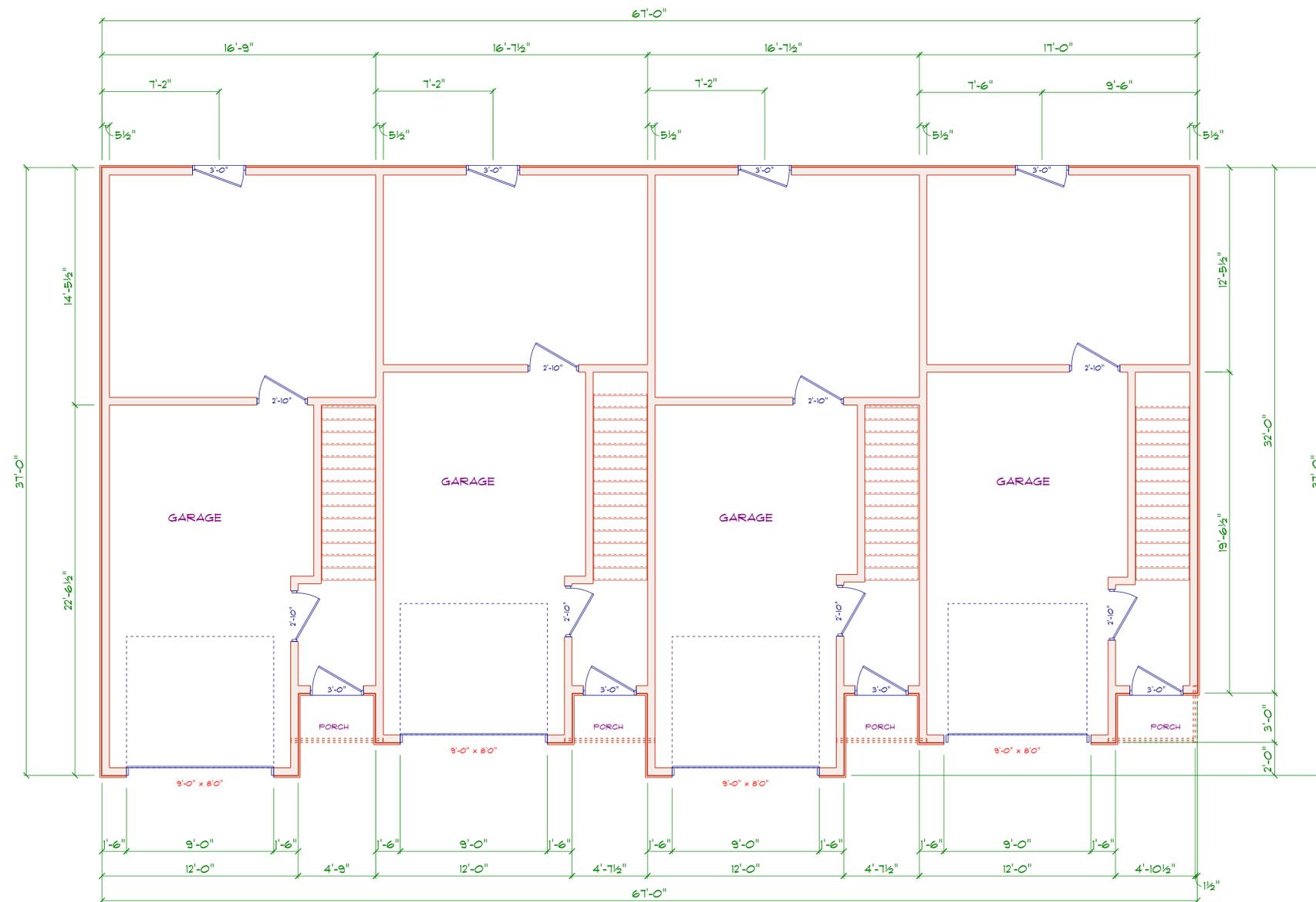
RIGHT ELEVATION BLDG 2	<i>Diamond Estates LLC</i>	<i>Louis Street Apartments LLC</i>	<b>A3</b>
FOURPLEX UNITS 5-8	<i>110 Court Street Suite 1</i>	<i>103 Louis Street</i>	
DATE: 10/4/2025	<i>Cromwell CT, 06416</i>	<i>Newington CT, 06111</i>	
	<i>860-632-7090 Fax 860-394-4001</i>		
	<i>pat@buildingCT.com</i>		



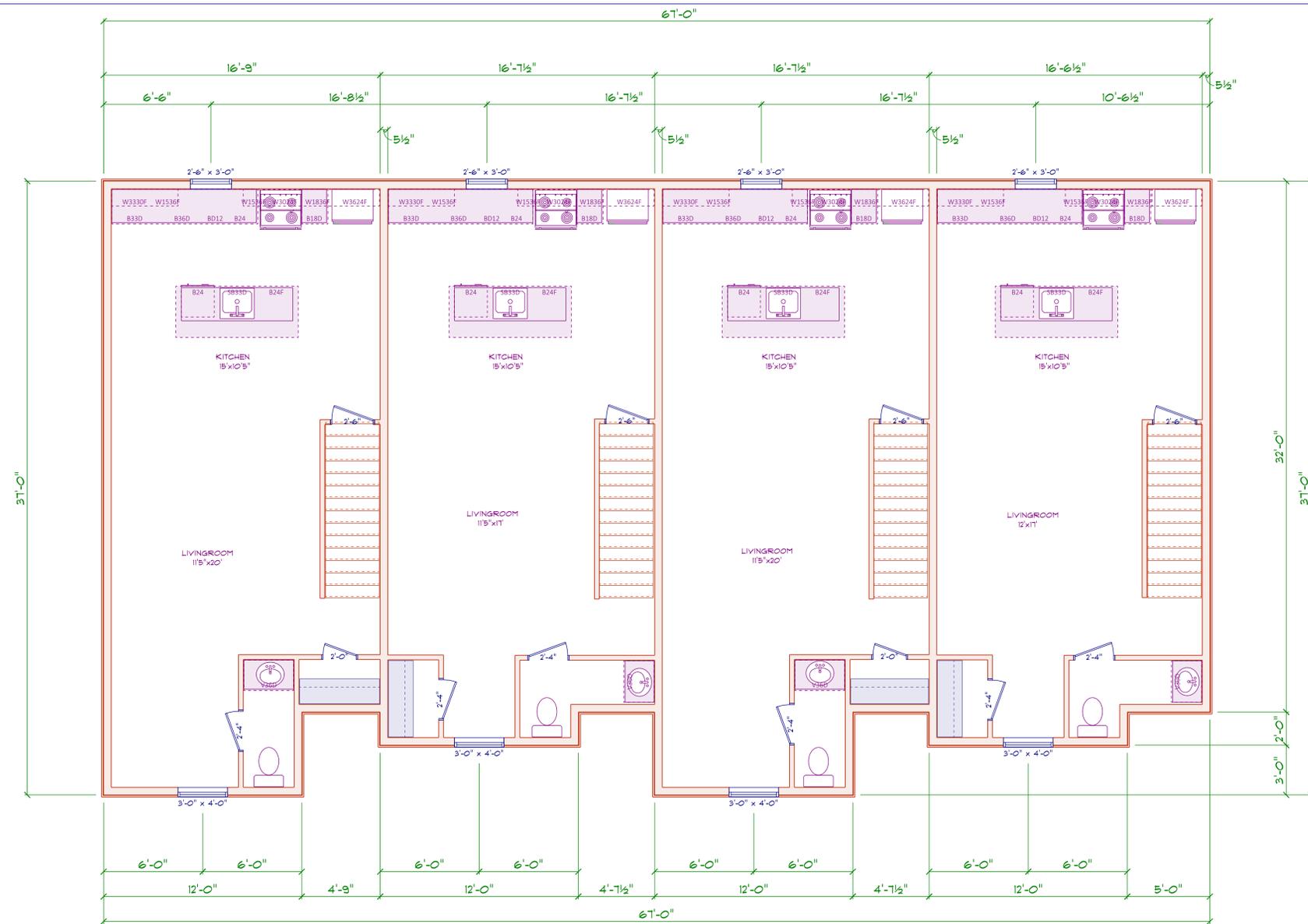
LEFT ELEVATION BLDG 2	<i>Diamond Estates LLC</i>	<i>Louis Street Apartments LLC</i>	<b>A4</b>
FOURPLEX UNITS 5-8	<i>110 Court Street Suite 1</i>	<i>103 Louis Street</i>	
DATE: 10/4/2025	<i>Cromwell CT. 06416</i>	<i>Newington CT. 06111</i>	
	<i>860-632-7090 Fax 860-394-4001</i>		
	<i>pata@buildingCT.com</i>		



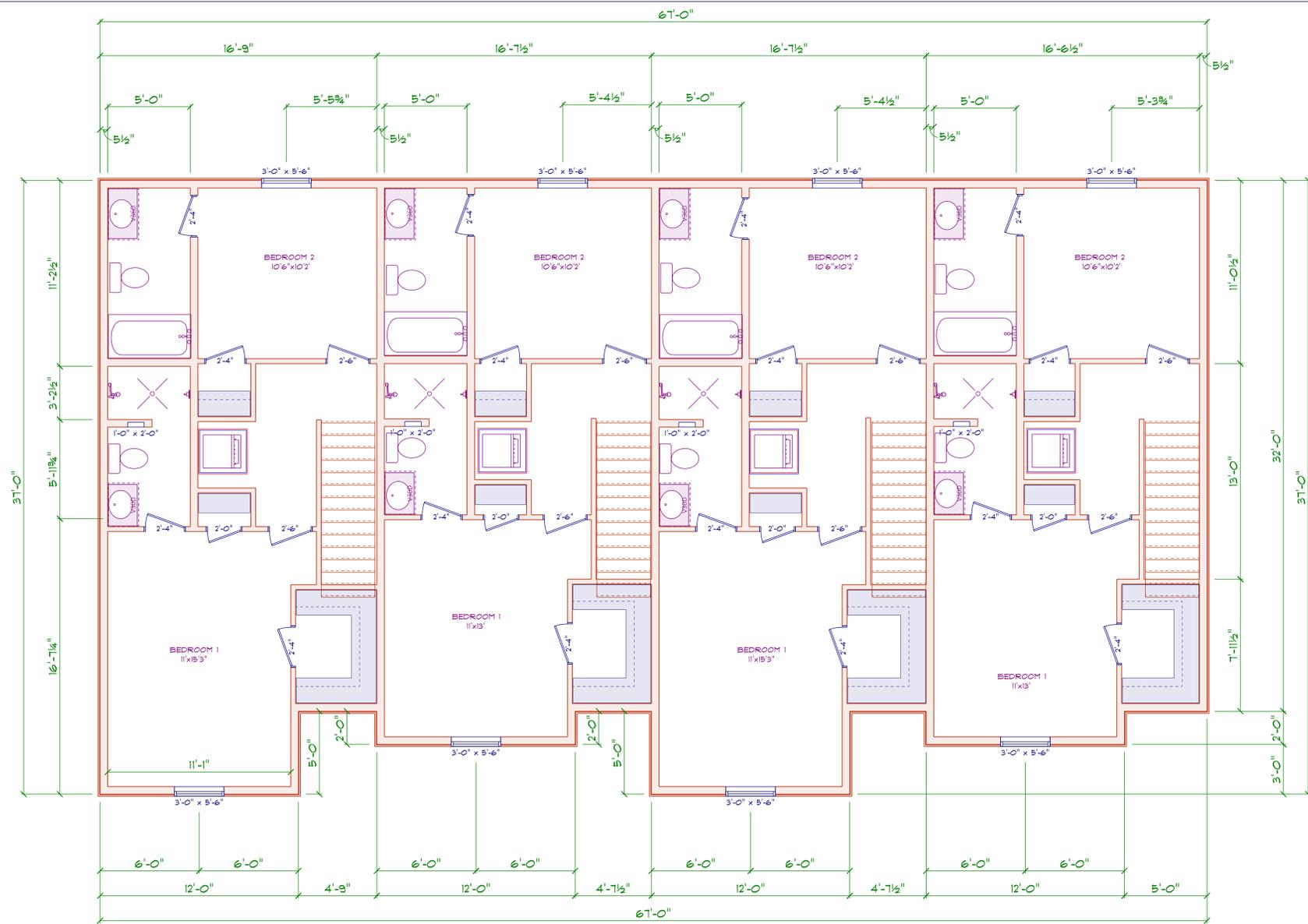
FOUNDATION BLDG 2	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<h1>A5</h1>
FOURPLEX UNITS 5-8			
DATE: 10/4/2025			



FIRST FLOOR BLDG 2	Diamond Estates LLC 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	Louis Street Apartments LLC 103 Louis Street Newington CT. 06111	<h1>A6</h1>
FOURPLEX UNITS 5-8			
DATE: 10/4/2025			



SECOND FLOOR BLDG 2	<i>Diamond Estates LLC</i> 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	<i>Louis Street Apartments LLC</i> 103 Louis Street Newington CT. 06111	<b>A8</b>
FOURPLEX UNITS 5-8			
DATE: 10/4/2025			



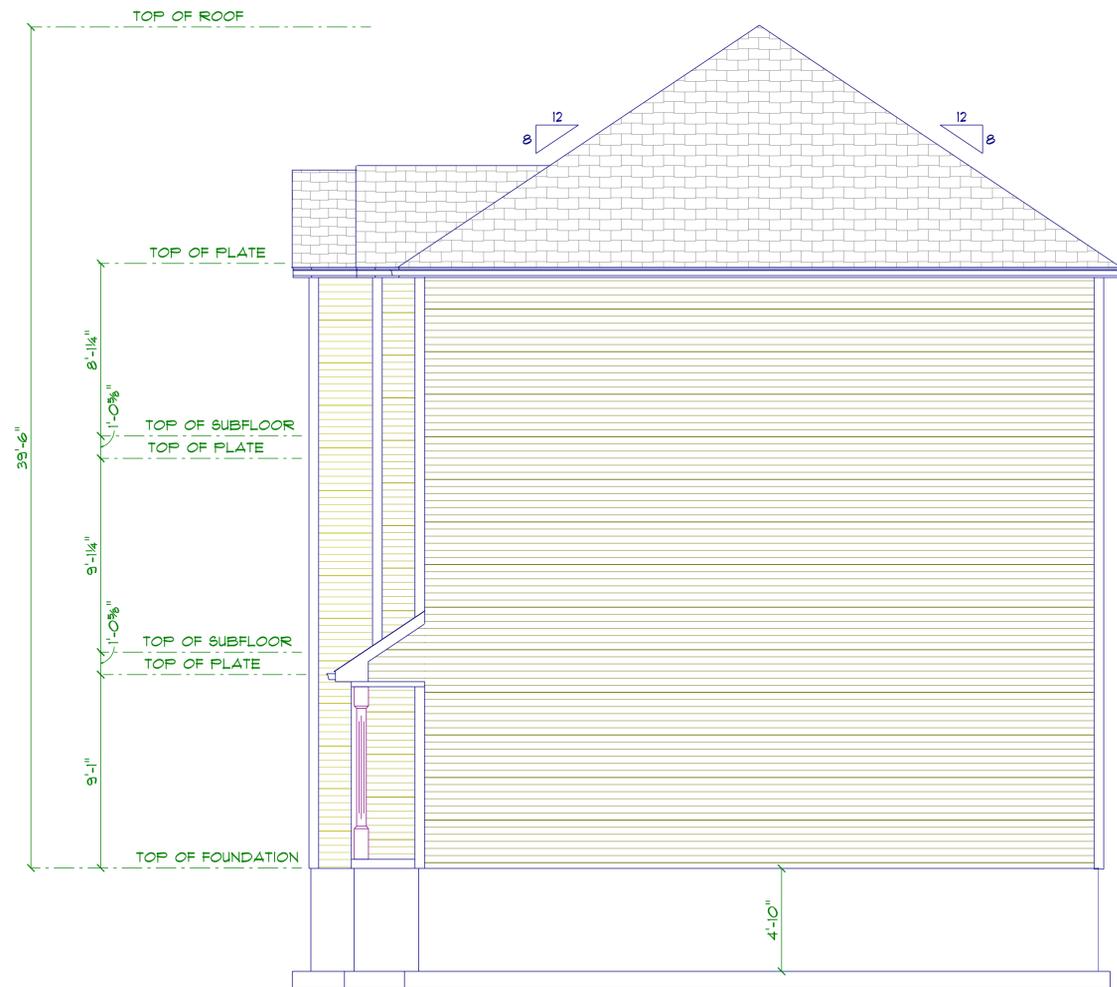
THIRD FLOOR BLDG 2	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<h1>A10</h1>
FOURPLEX UNITS 5-8			
DATE: 10/4/2025			



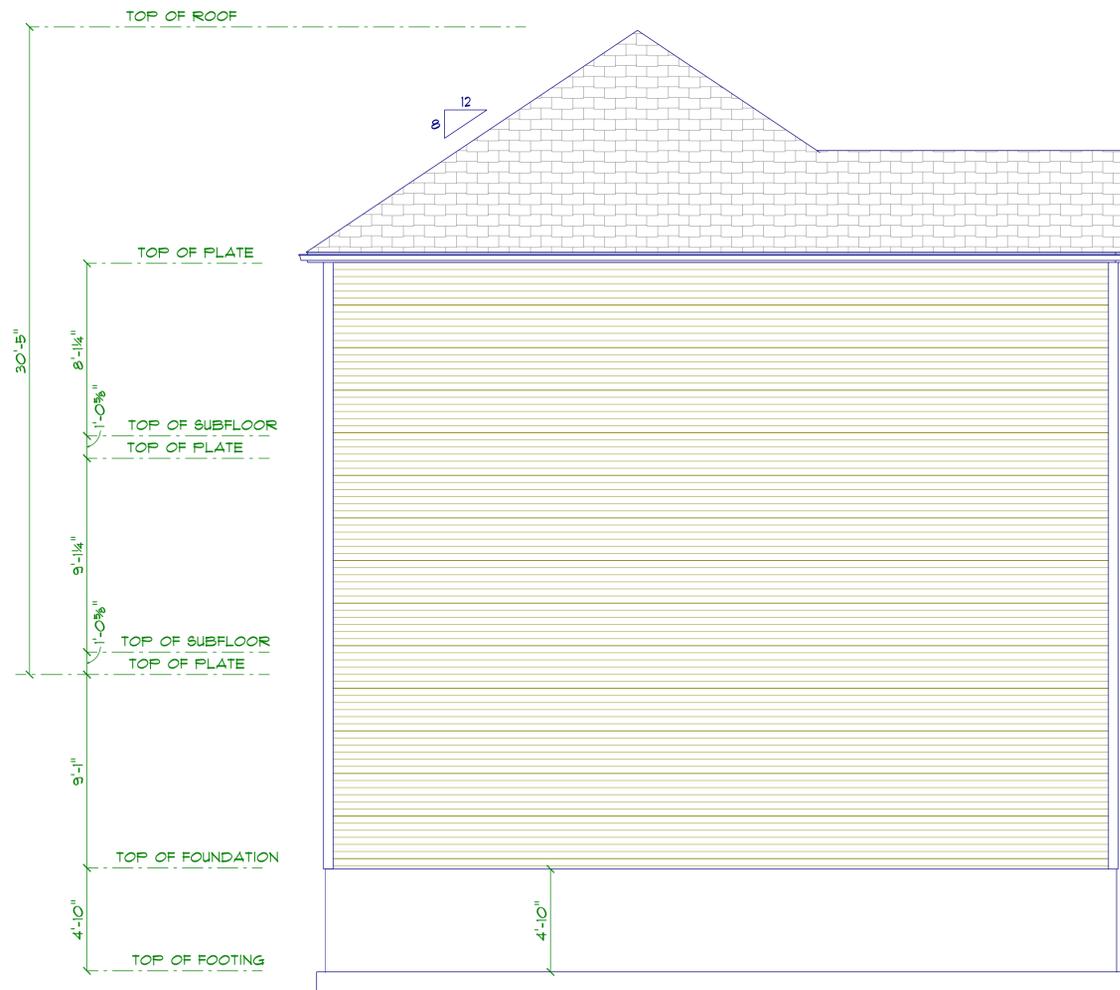
FRONT ELEVATION BLDG 3	<i>Diamond Estates LLC</i> <i>110 Court Street Suite 1</i> <i>Cromwell CT. 06416</i> <i>860-632-7090 Fax 860-394-4001</i> <i>pat@buildingCT.com</i>	<i>Louis Street Apartments LLC</i> <i>103 Louis Street</i> <i>Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A1</span>
FOURPLEX UNITS 9-12			
TOTAL LIVABLE 1100 SQ.FT			
DATE: 10/4/2025			



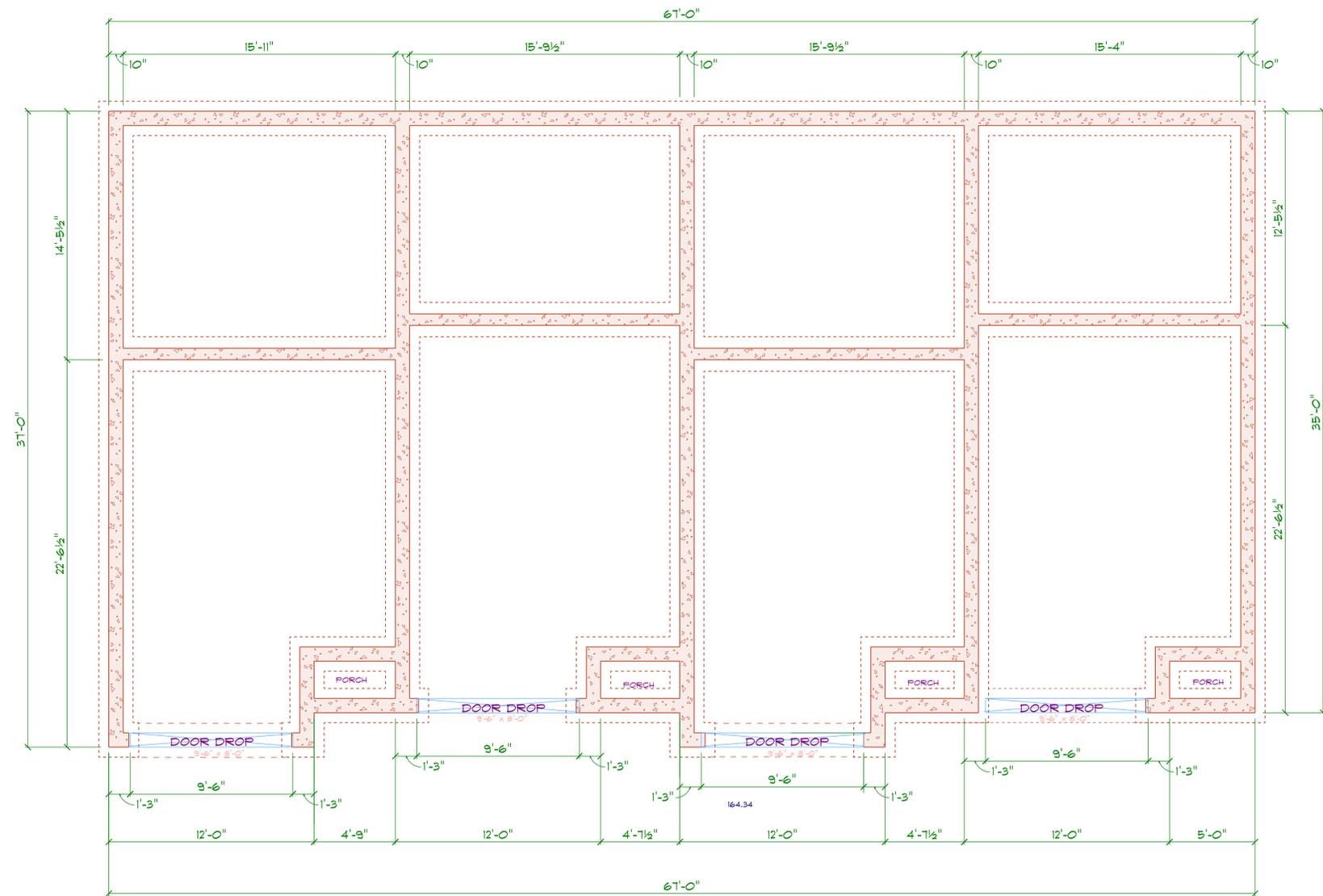
REAR ELEVATION BLDG 3	<i>Diamond Estates LLC</i> 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	<i>Louis Street Apartments LLC</i> 103 Louis Street Newington CT. 06111	<b>A2</b>
FOURPLEX UNITS 9-12			
DATE: 10/4/2025			



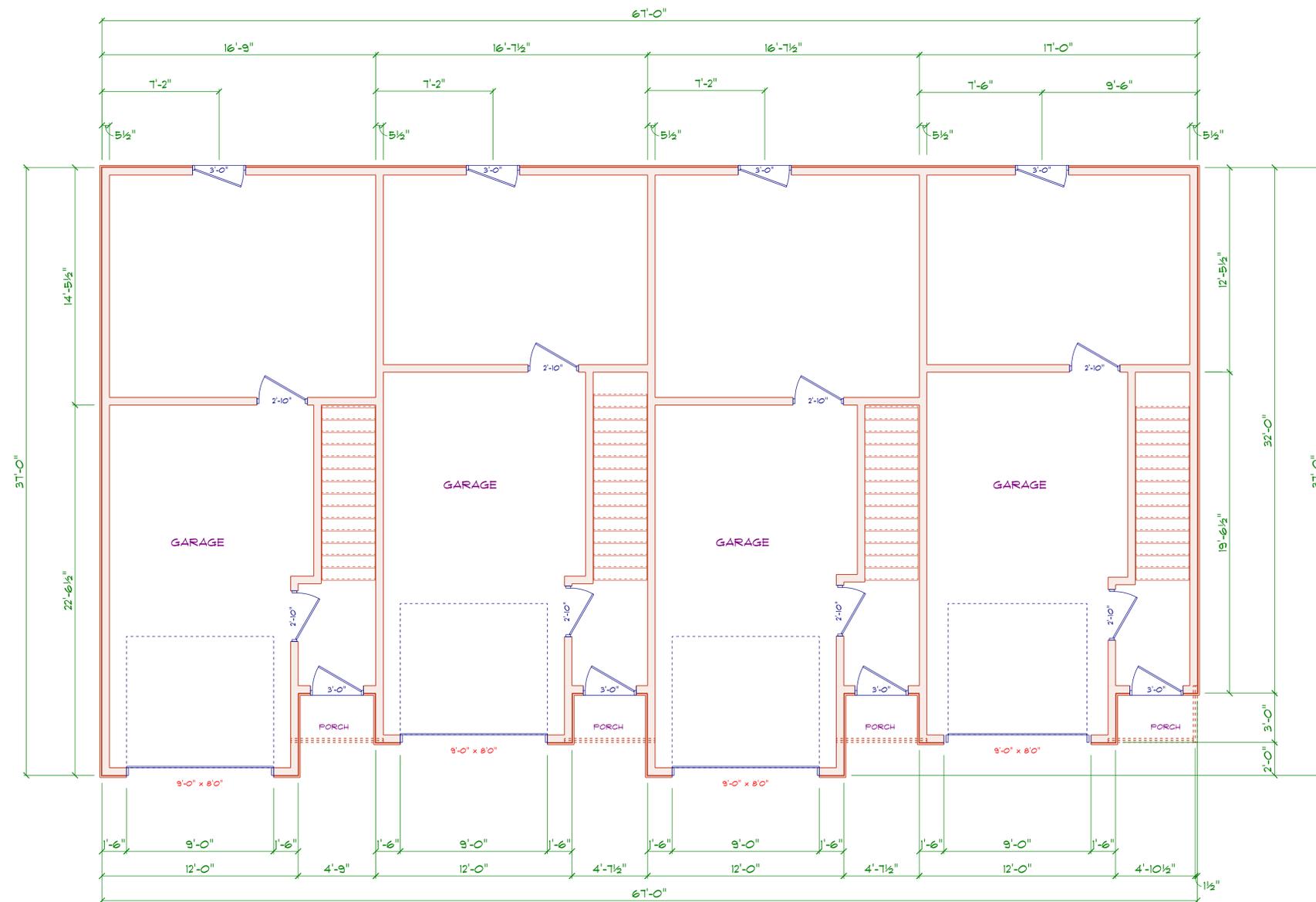
RIGHT ELEVATION BLDG 3	<i>Diamond Estates LLC</i> <i>110 Court Street Suite 1</i> <i>Cromwell CT, 06416</i> <i>860-632-7090 Fax 860-394-4001</i> <i>pat@buildingCT.com</i>	<i>Louis Street Apartments LLC</i> <i>103 Louis Street</i> <i>Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A3</span>
FOURPLEX UNITS 9-12			
DATE: 10/4/2025			



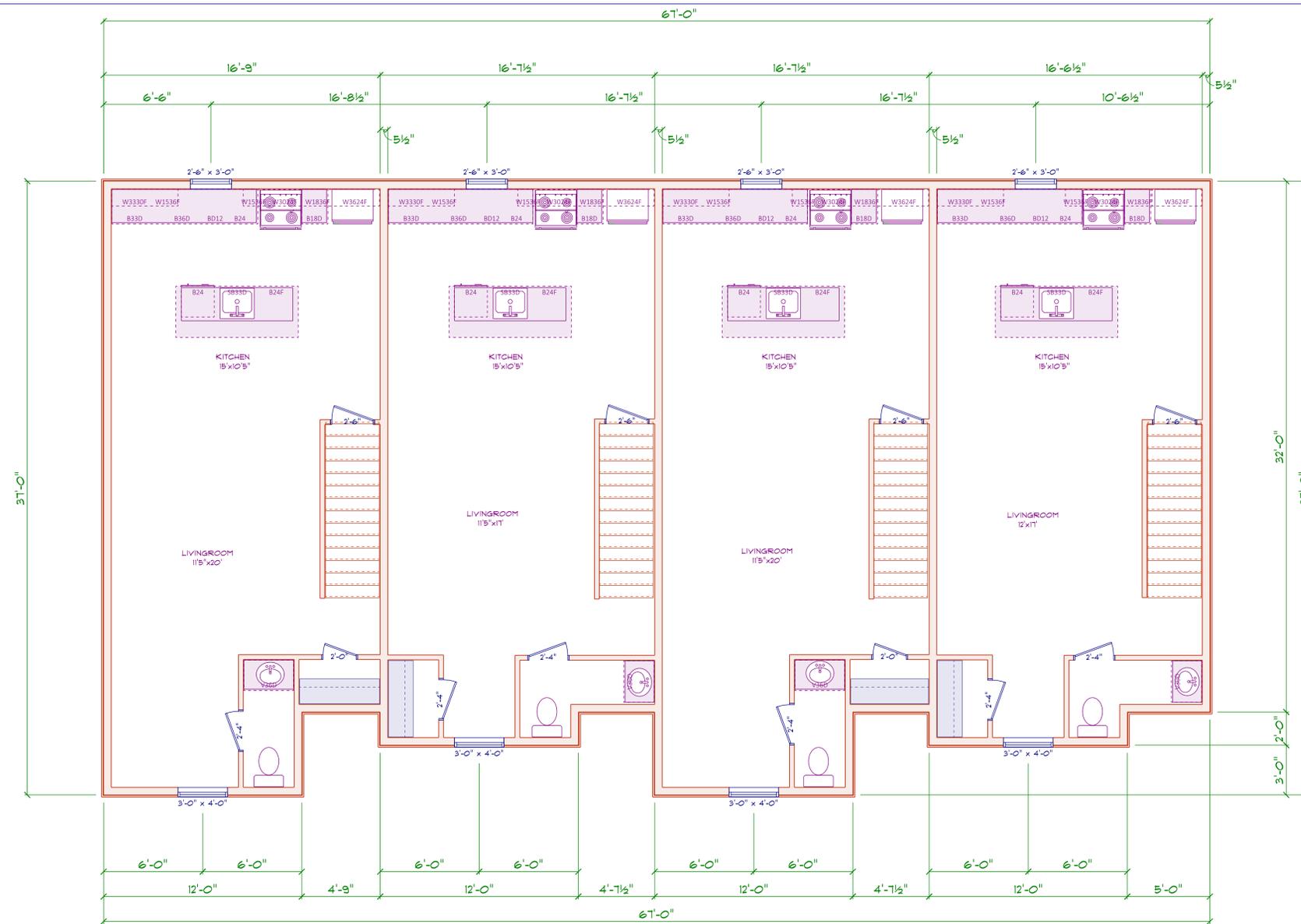
LEFT ELEVATION BLDG 3	<i>Diamond Estates LLC</i>	<i>Louis Street Apartments LLC</i>	<b>A4</b>
FOURPLEX UNITS 9-12	<i>110 Court Street Suite 1</i>	<i>103 Louis Street</i>	
DATE: 10/4/2025	<i>Cromwell CT, 06416</i> <i>860-632-7090 Fax 860-394-4001</i> <i>pata@buildingCT.com</i>	<i>Newington CT, 06111</i>	



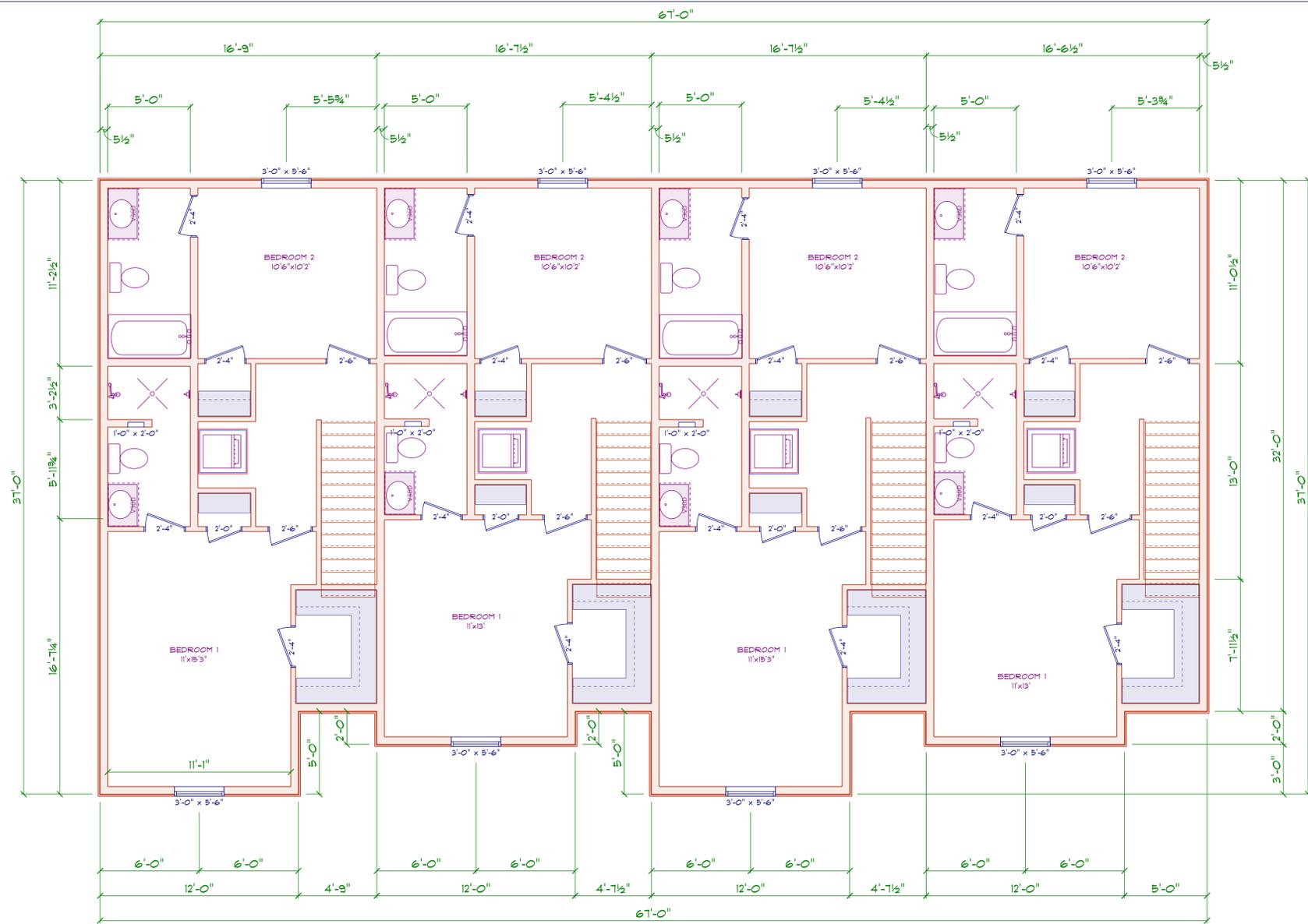
FOUNDATION BLDG 3	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<h1>A5</h1>
FOURPLEX UNITS 9-12			
DATE: 10/4/2025			



FIRST FLOOR BLDG 3	Diamond Estates LLC 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	Louis Street Apartments LLC 103 Louis Street Newington CT. 06111	<h1>A6</h1>
FOURPLEX UNITS 9-12			
DATE: 10/4/2025			



SECOND FLOOR BLDG 3	<i>Diamond Estates LLC</i> 110 Court Street Suite 1 Cromwell CT, 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	<i>Louis Street Apartments LLC</i> 103 Louis Street Newington CT, 06111	<b>A8</b>
FOURPLEX UNITS 9-12			
DATE: 10/4/2025			



THIRD FLOOR BLDG 3	Diamond Estates LLC 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	Louis Street Apartments LLC 103 Louis Street Newington CT. 06111	<h1>A10</h1>
FOURPLEX UNITS 9-12			
DATE: 10/4/2025			

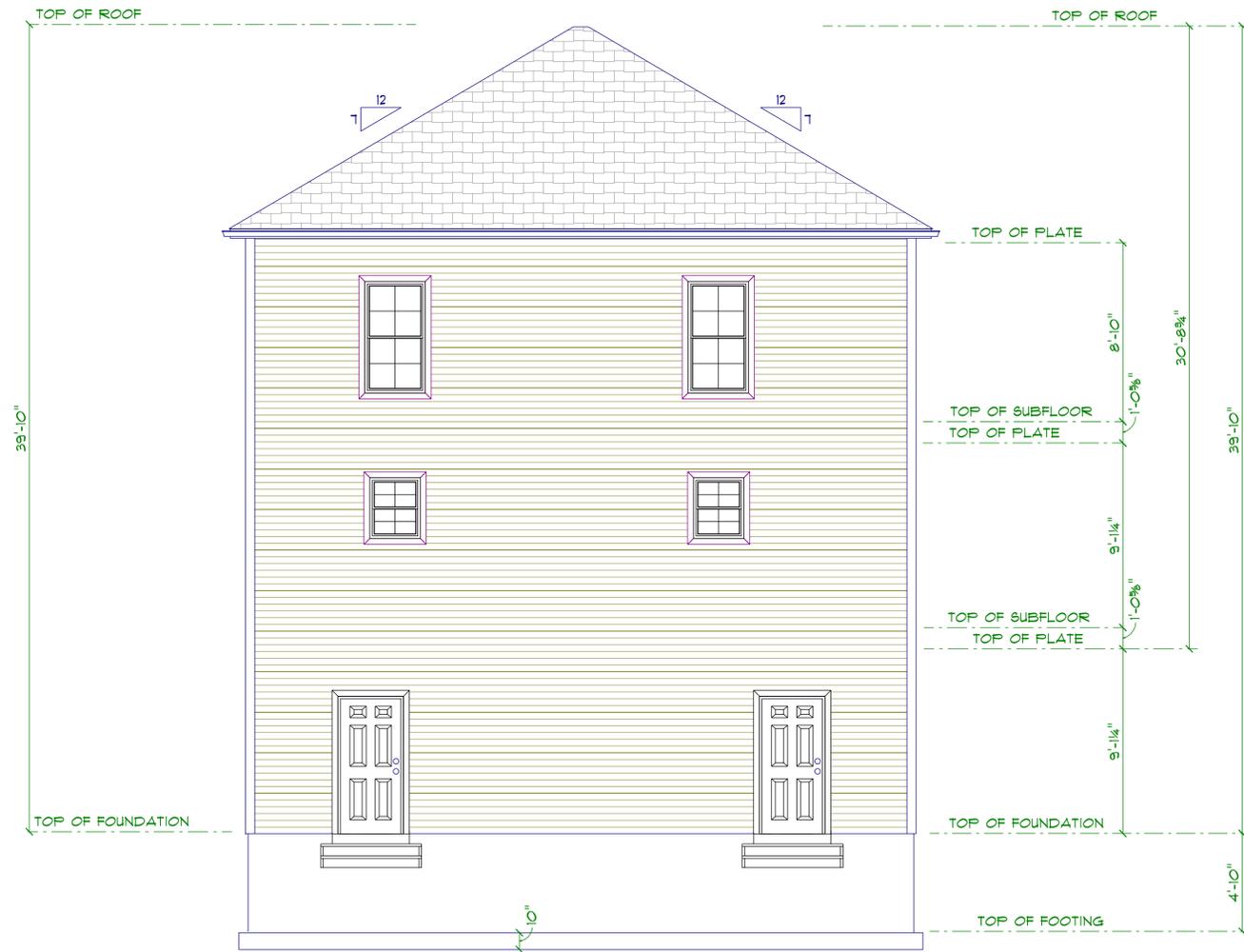


FRONT ELEVATION BLDG 4  
 DUPLEX UNITS 13-14  
 TOTAL LIVABLE AREA 1100 SQ.FT  
 DATE: 10/4/2025

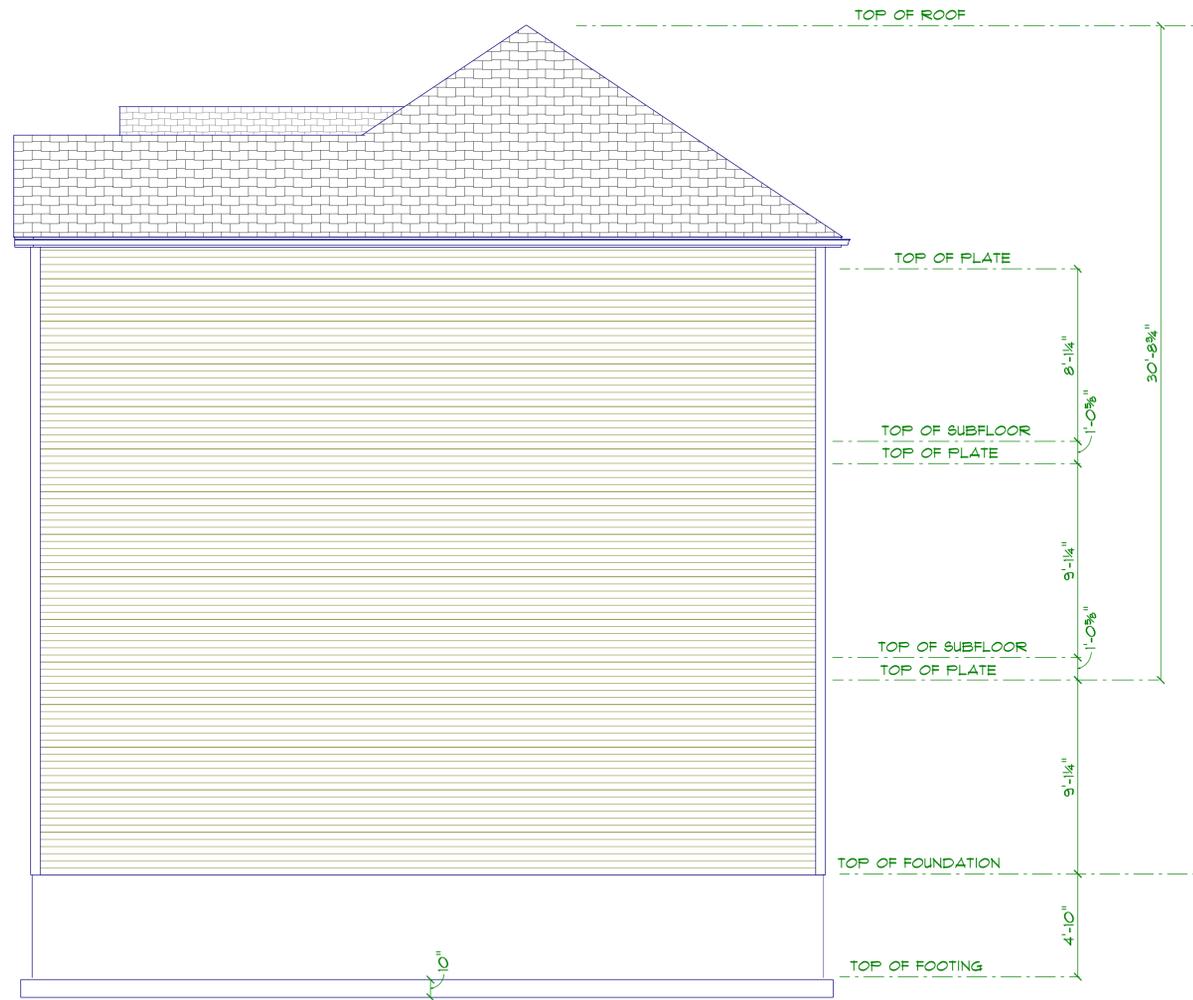
*Diamond Estates LLC*  
 110 Court Street Suite 1  
 Cromwell CT, 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com

*Louis Street Apartments LLC*  
 103 Louis Street  
 Newington CT, 06111

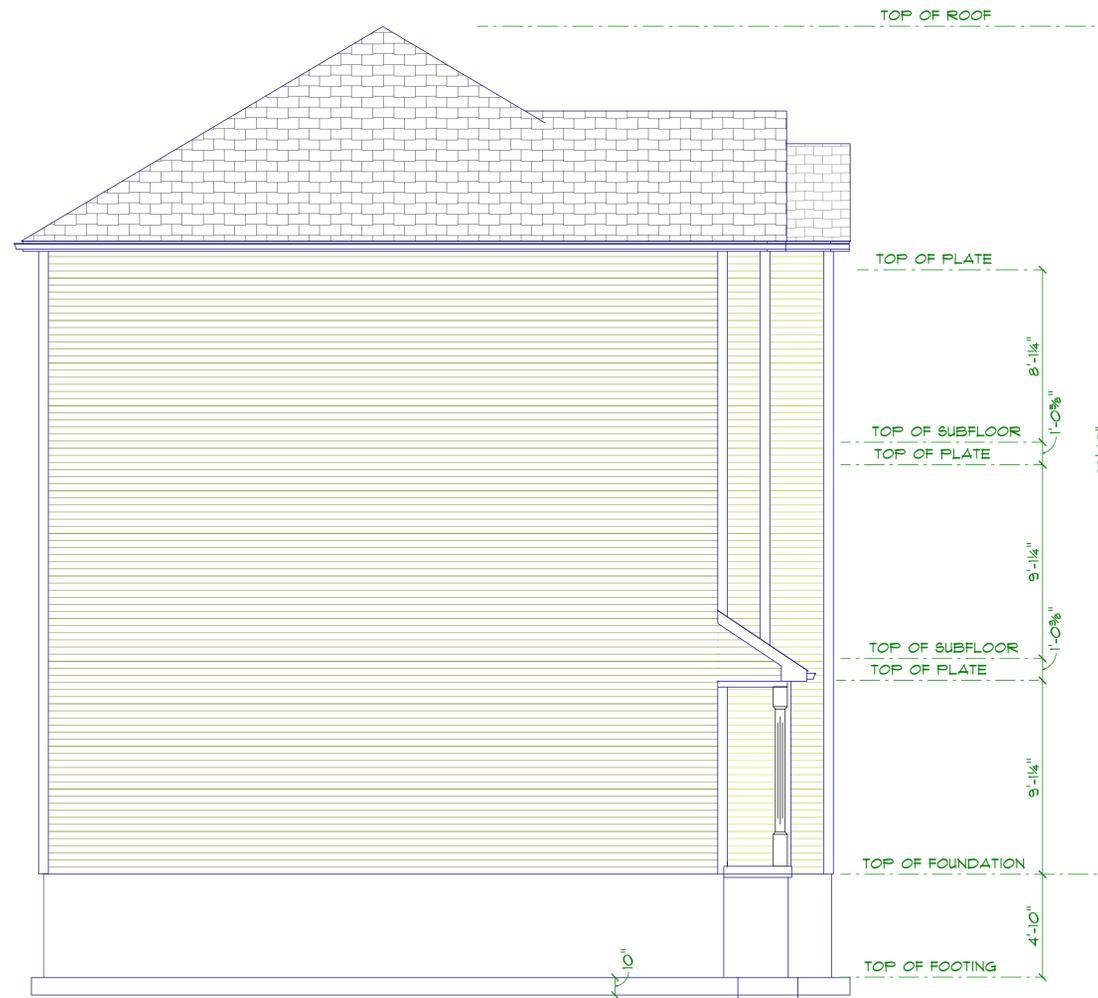
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REAR ELEVATION BLDG 4	<i>Diamond Estates LLC</i> 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	<i>Louis Street Apartments LLC</i> 103 Louis Street Newington CT. 06111	<h1>A2</h1>
DUPLEX UNITS 13-14			
DATE: 10/4/2025			

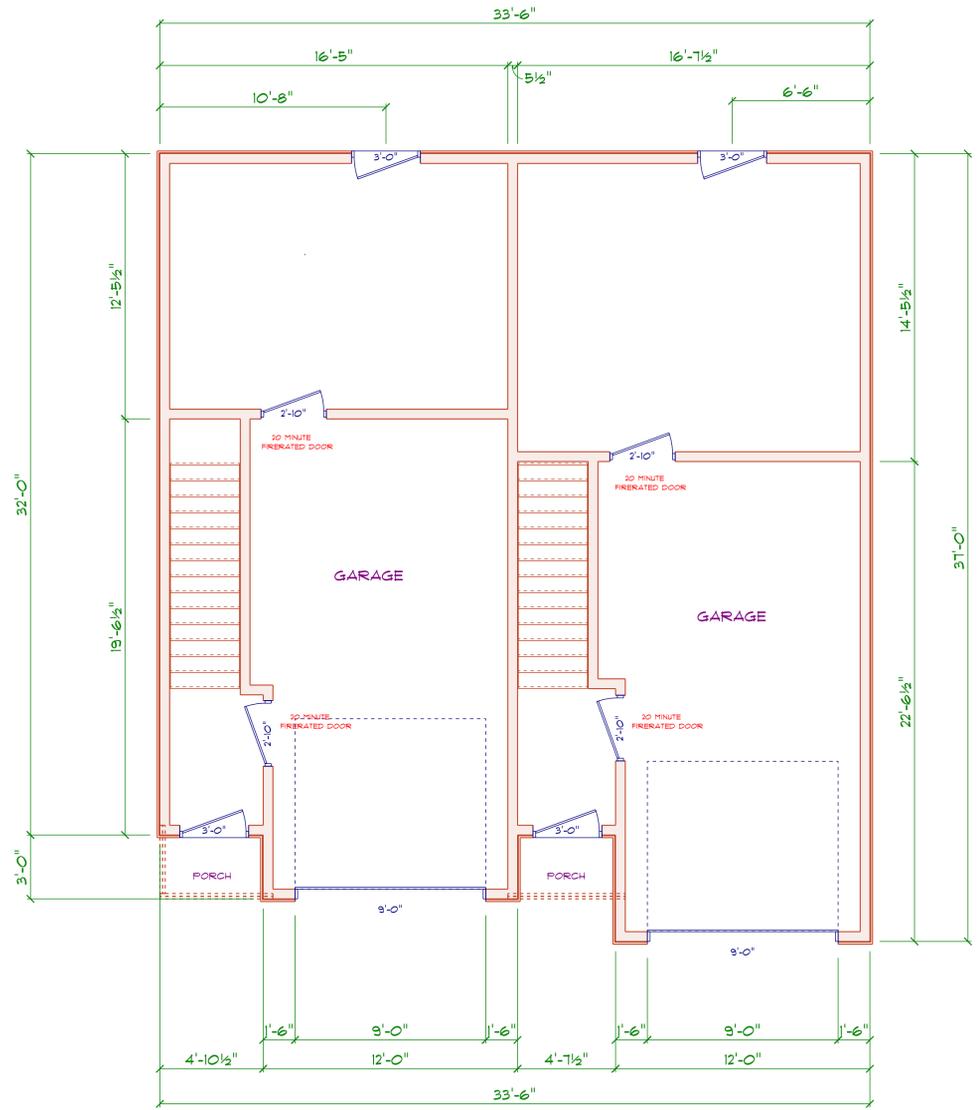


RIGHT ELEVATION BLDG 4	<i>Diamond Estates LLC</i> 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	<i>Louis Street Apartments LLC</i> 103 Louis Street Newington CT. 06111	<h1>A3</h1>
DUPLEX UNITS 13-14			
DATE: 10/4/2025			

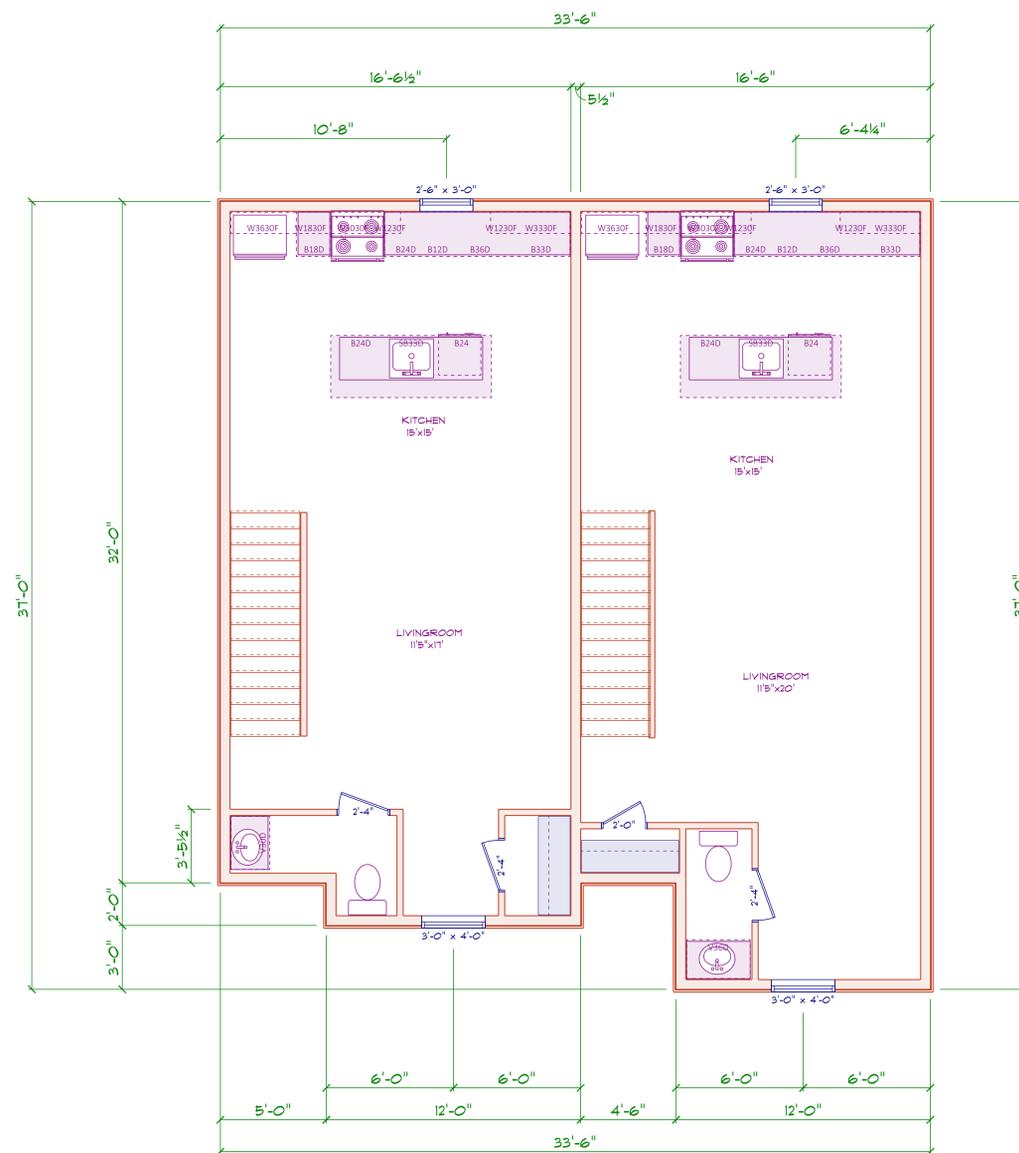


LEFT ELEVATION BLDG 4	<i>Diamond Estates LLC</i>	<i>Louis Street Apartments LLC</i>	<b>A4</b>
DUPLEX UNITS 13-14	<i>110 Court Street Suite 1</i>	<i>103 Louis Street</i>	
DATE: 10/4/2025	<i>Cromwell CT. 06416</i>	<i>Newington CT. 06111</i>	
	<i>860-632-7090 Fax 860-394-4001</i>		
	<i>pat@buildingCT.com</i>		

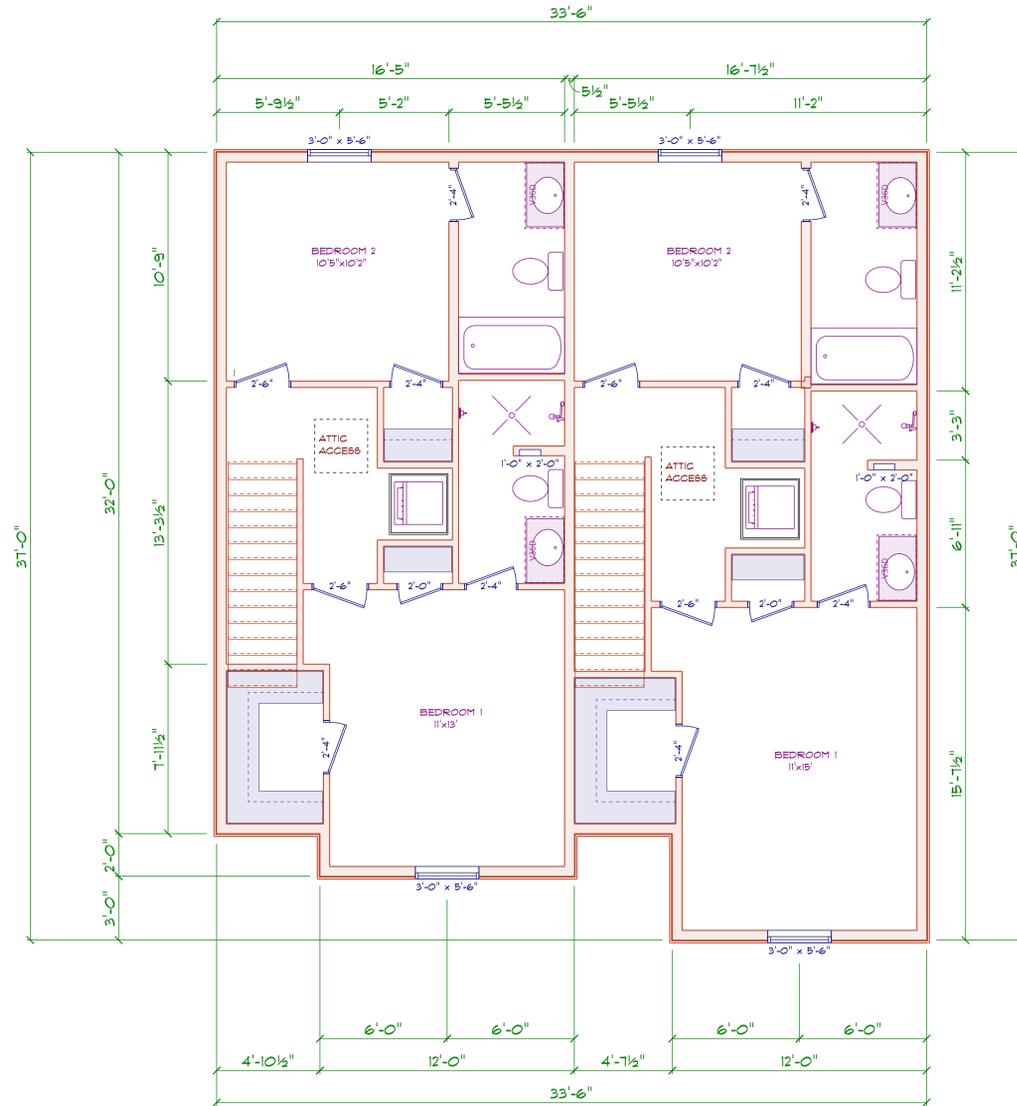




FIRST FLOOR BLDG 4	Diamond Estates LLC	Louis Street Apartments LLC	<b>A6</b>
DUPLEX UNITS 13-14	110 Court Street Suite 1	103 Louis Street	
	Cromwell CT. 06416	Newington CT. 06111	
DATE: 10/4/2025	860-632-7090 Fax 860-394-4001 pat@buildingCT.com		



SECOND FLOOR BLDG 4	<i>Diamond Estates LLC</i> 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com	<i>Louis Street Apartments LLC</i> 103 Louis Street Newington CT. 06111	<b>A8</b>
DUPLEX UNITS 13-14			
DATE: 10/4/2025			



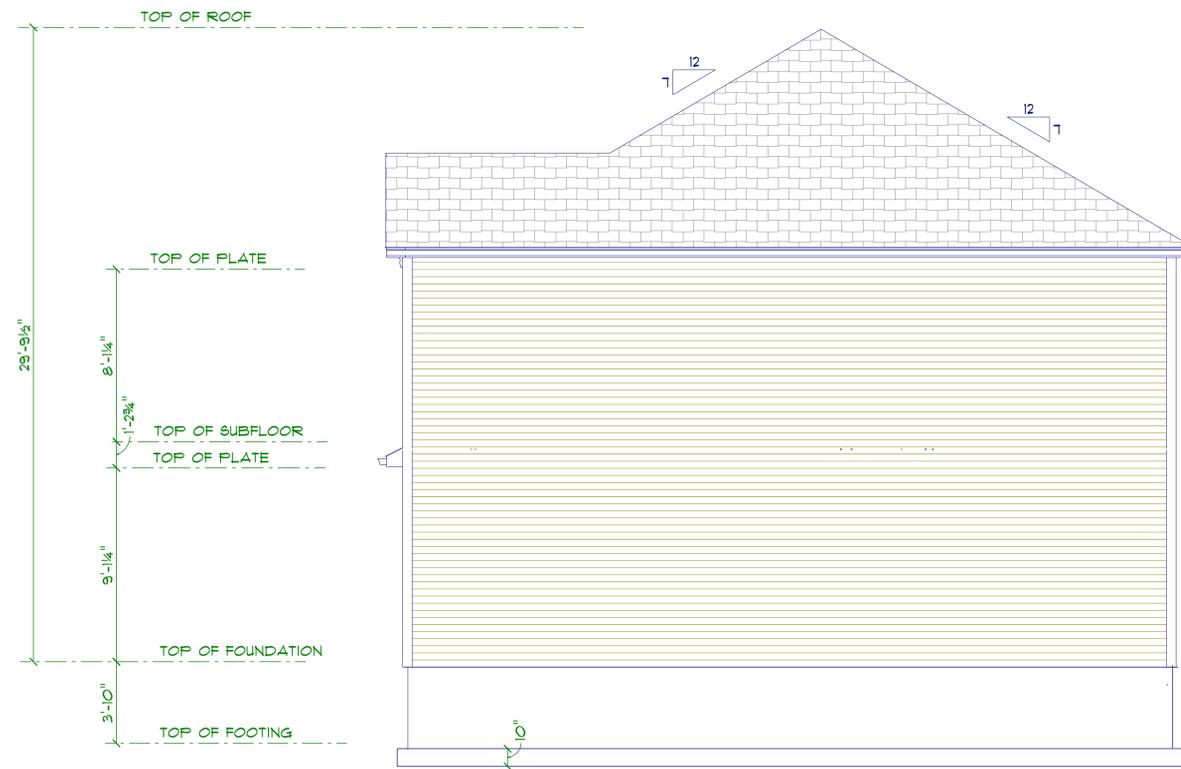
THIRD FLOOR BLDG 4	<i>Diamond Estates LLC</i>	<i>Louis Street Apartments LLC</i>	<b>A10</b>
DUPLEX UNITS 13-14	<i>110 Court Street Suite 1</i>	<i>103 Louis Street</i>	
DATE: 10/4/2025	<i>860-632-7090 Fax 860-394-4001</i> <i>pat@buildingCT.com</i>	<i>Newington CT, 06111</i>	



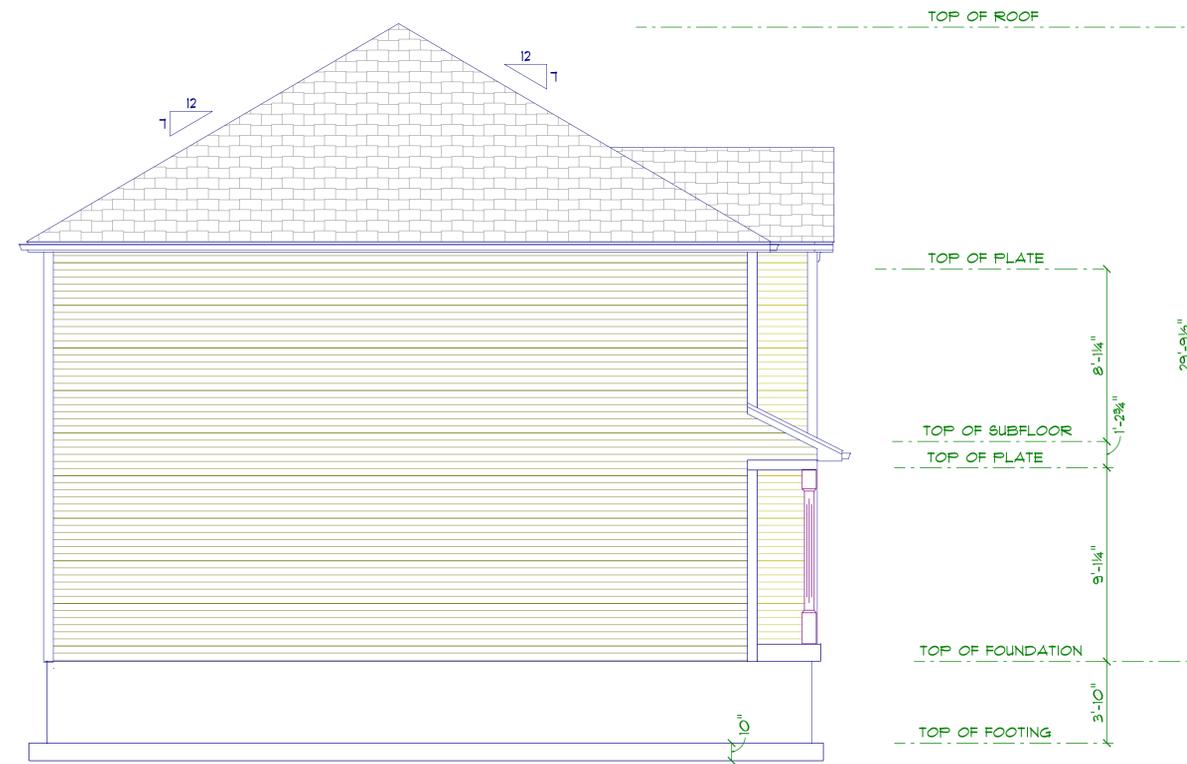
FRONT ELEVATION BLDG 5	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 86-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em;">A1</span>
FOURPLEX UNITS 15-18			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



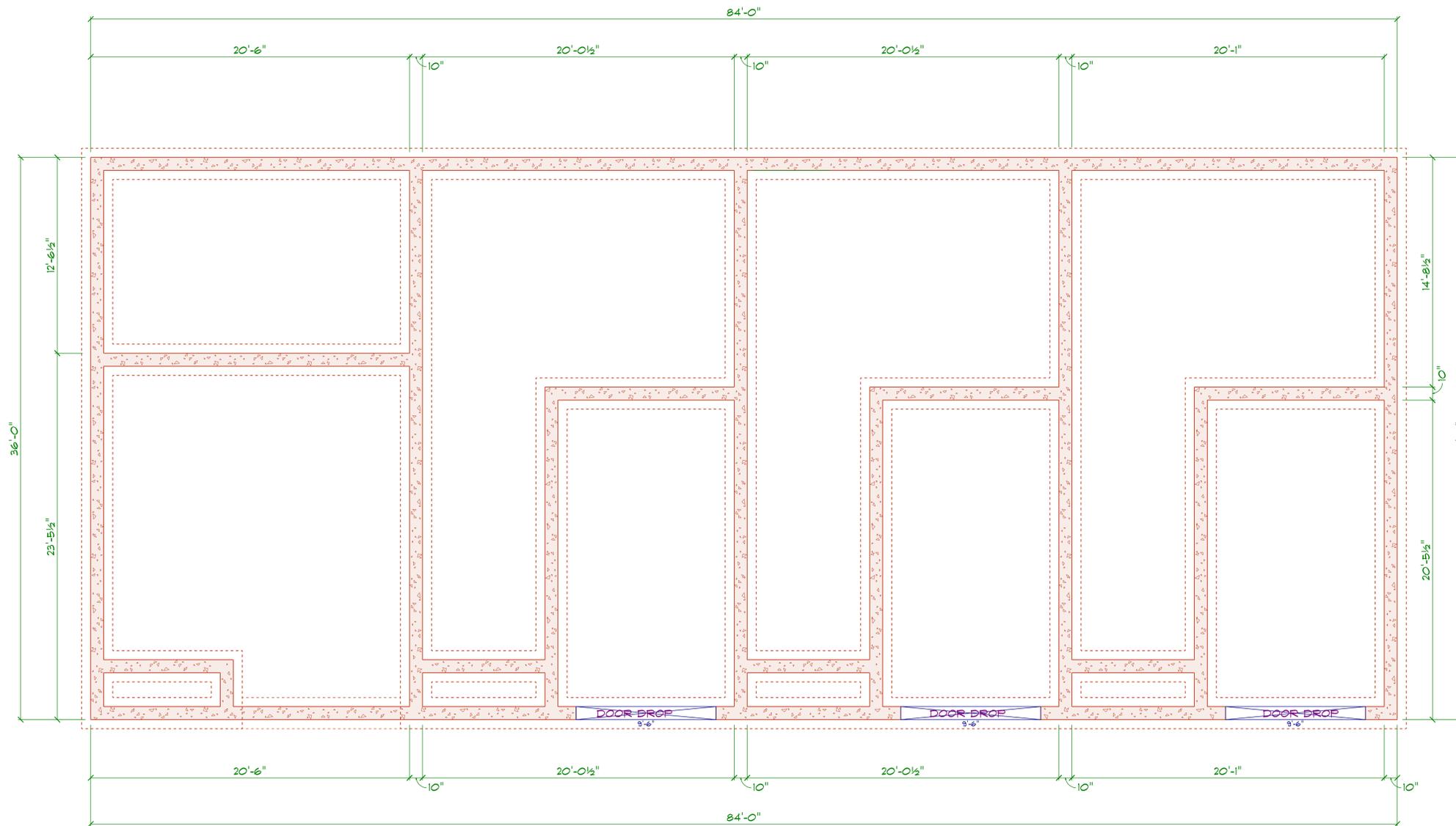
REAR ELEVATION BLDG 5	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<b>A2</b>
FOURPLEX UNITS 15-18			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



RIGHT ELEVATION BLDG 5	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<h1>A3</h1>
FOURPLEX UNITS 15-18			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



LEFT ELEVATION BLDG 5	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em;">A4</span>
FOURPLEX UNITS 15-18			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



FOUNDATION BLDG 5

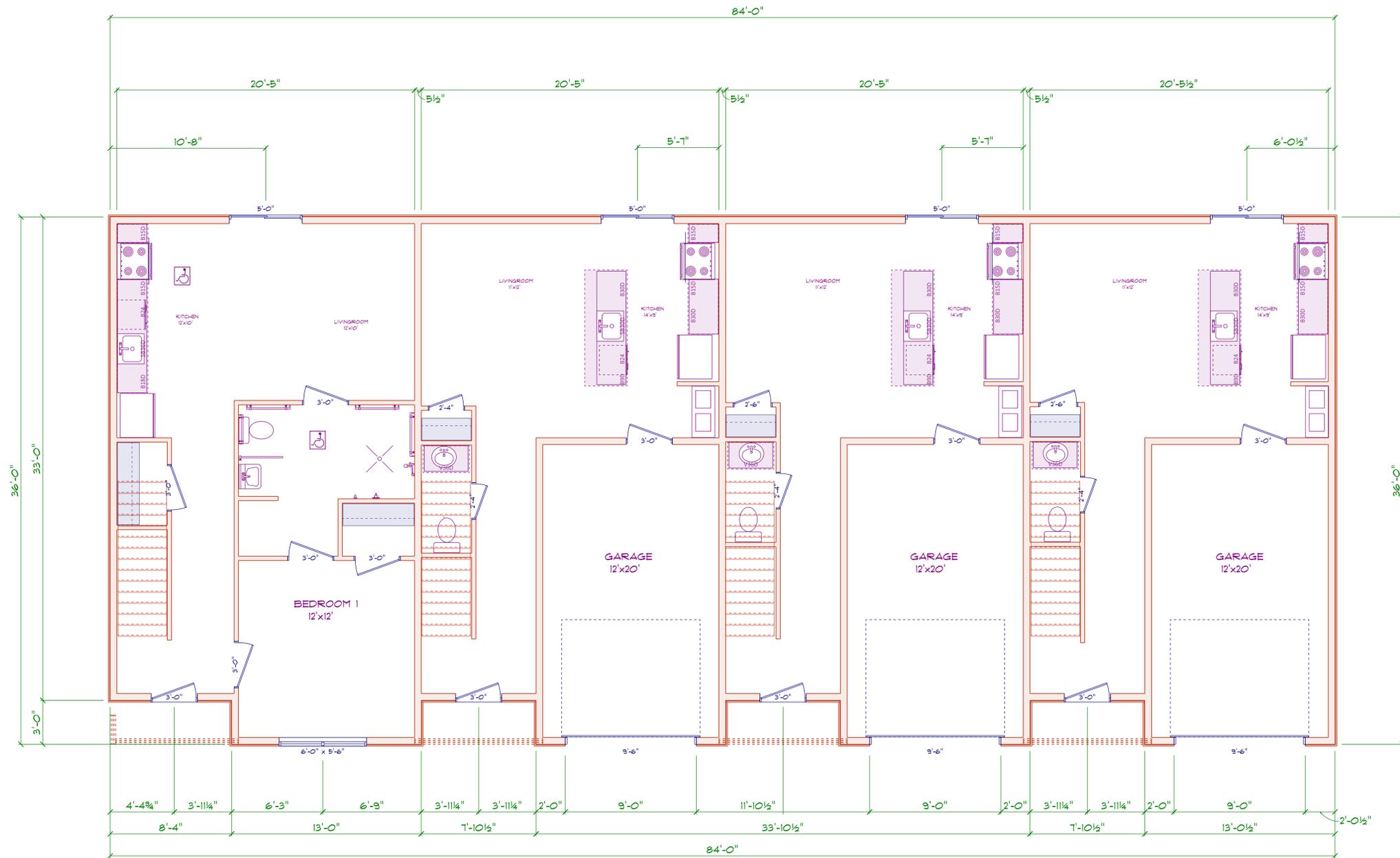
FOURPLEX UNITS 15-18

DATE: 10/4/2025

Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 80-394-4001  
 pat@buildingCT.com

Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111

A5

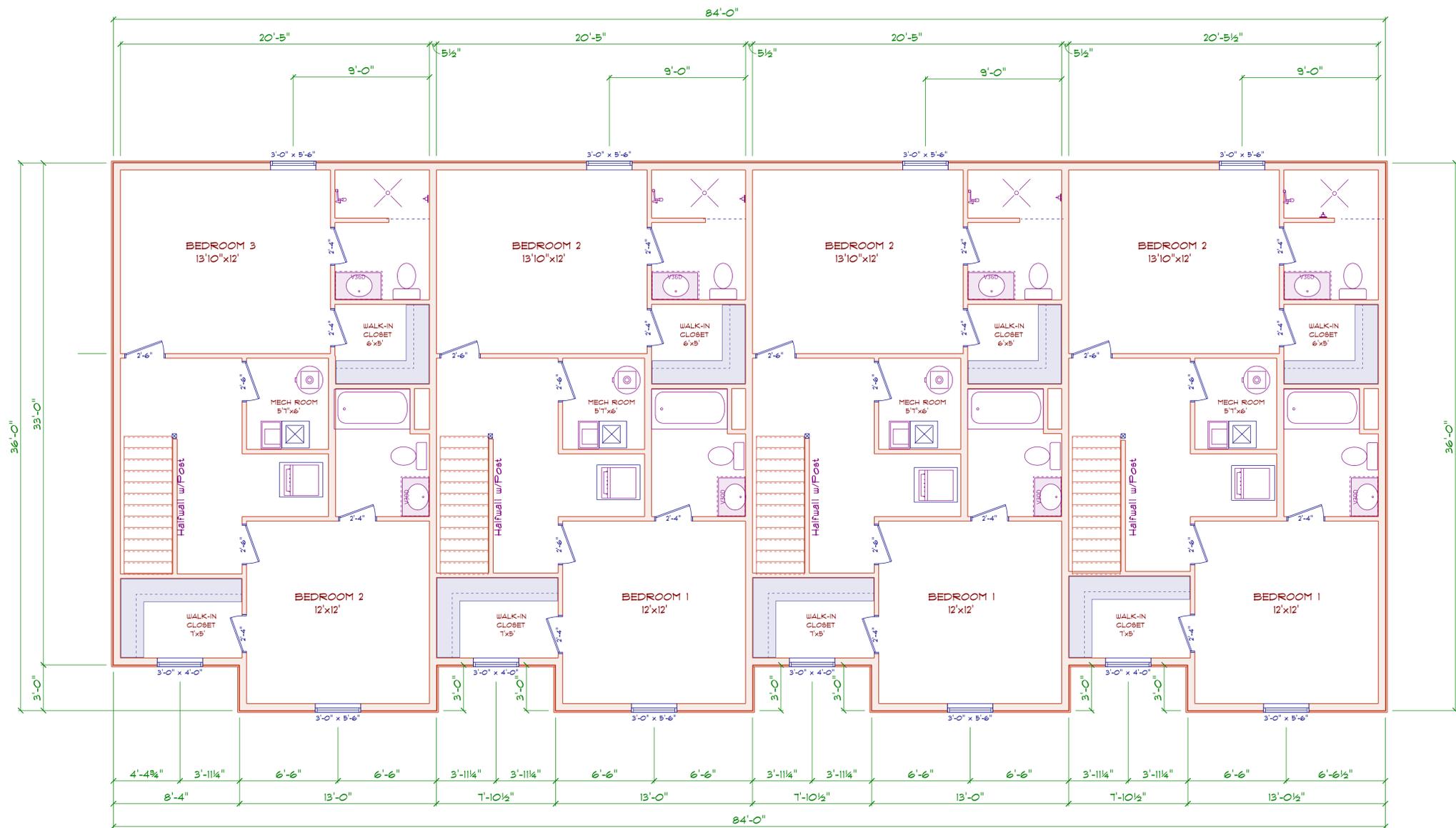


FIRST FLOOR BLDG 5
FOURPLEX UNITS 15-18
1125 TOTAL LIVABLE SQ.FT
DATE: 10/4/2025

*Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*





SECOND FLOOR BLDG 5

FOURPLEX UNITS 15-18

1125 TOTAL LIVABLE SQ.FT

DATE: 10/4/2025

Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com

Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111

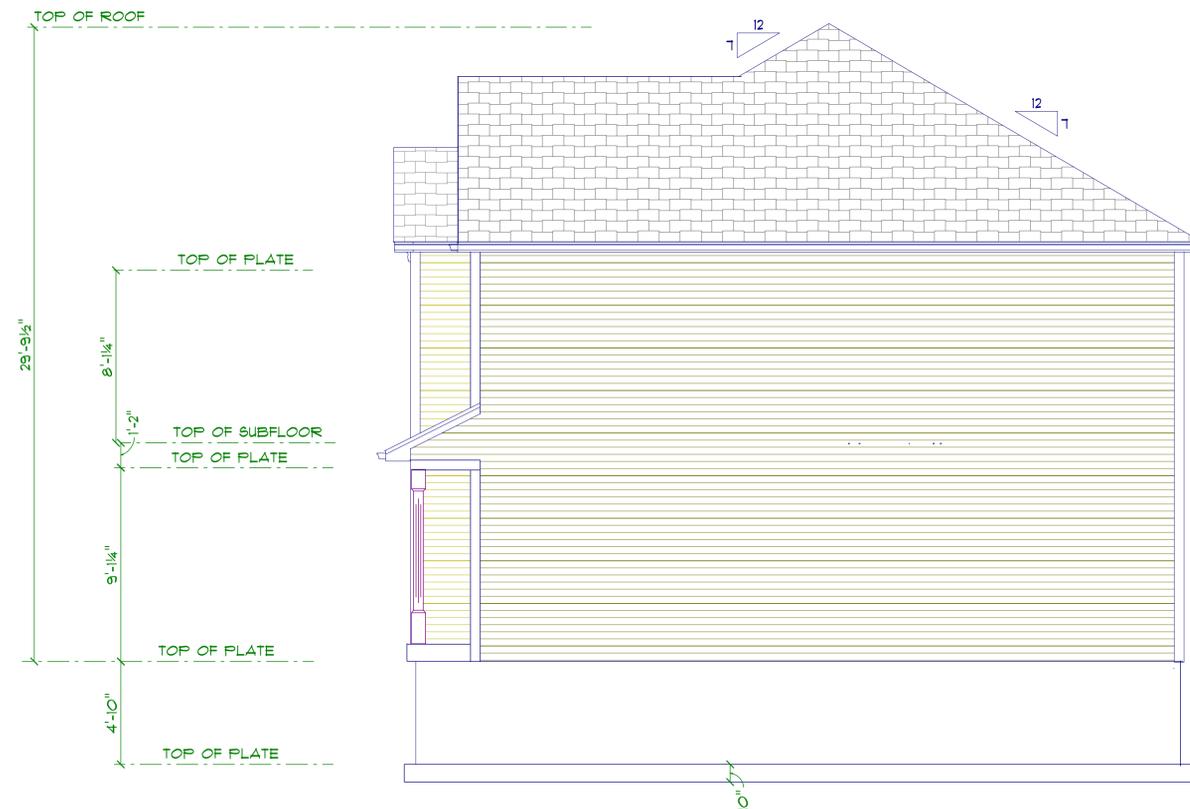
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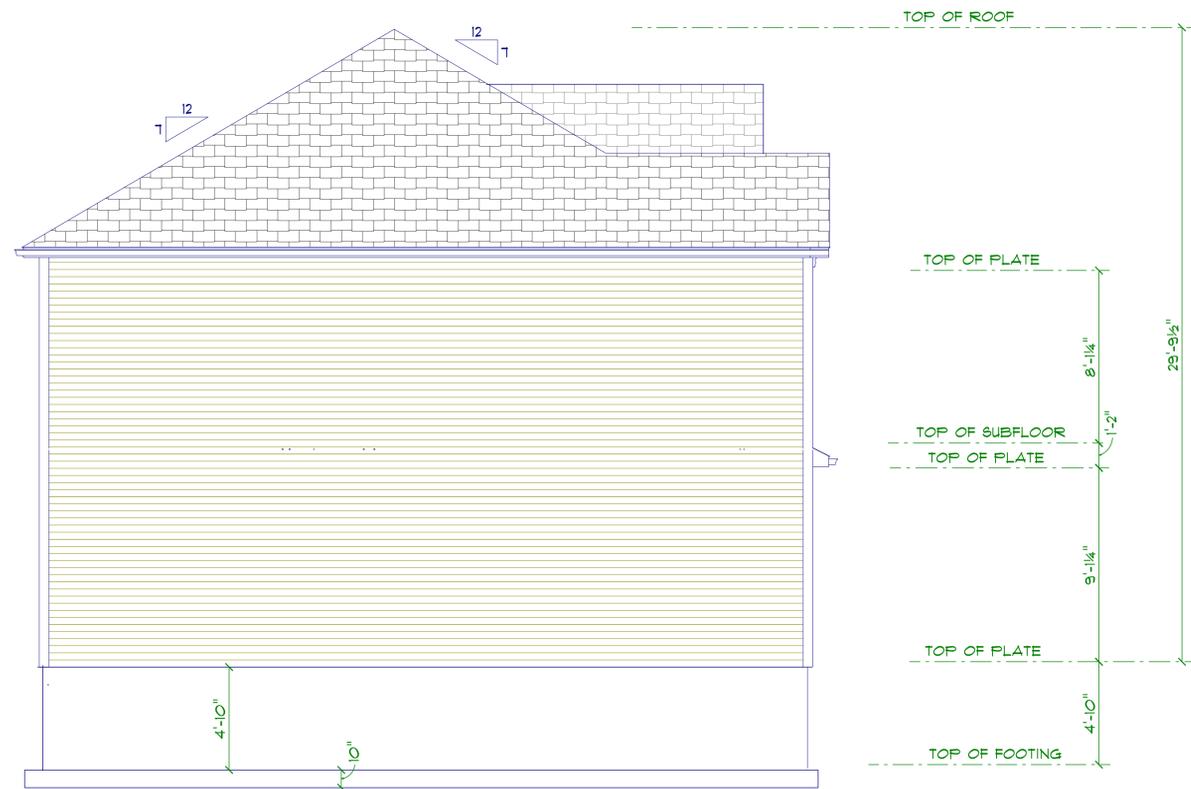
FRONT ELEVATION BLDG 6	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 86-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A1</span>
FOURPLEX UNITS 19-22			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



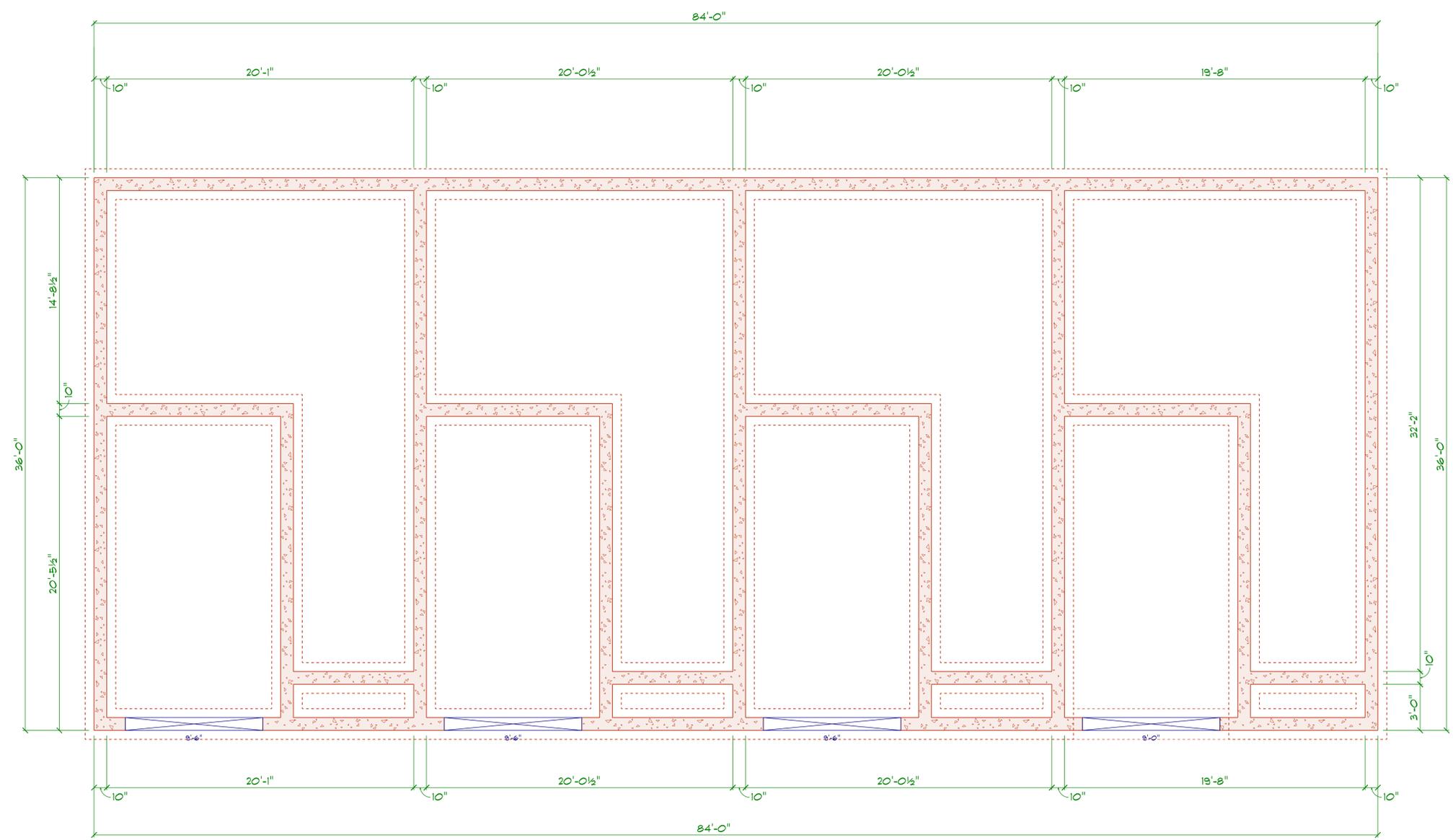
REAR ELEVATION BLDG 6	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A2</span>
FOURPLEX UNITS 19-22			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



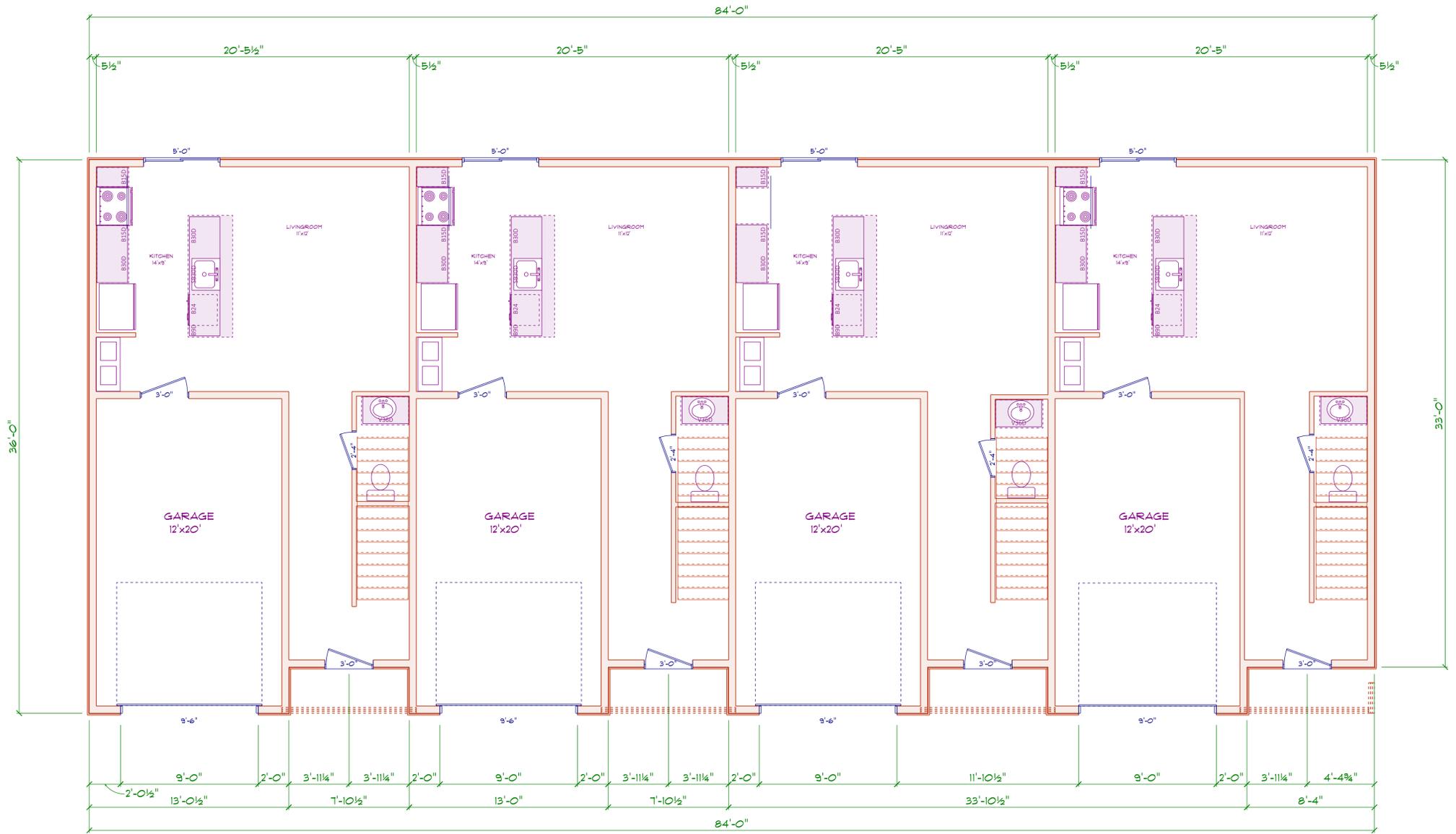
RIGHT ELEVATION BLDG 6	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A3</span>
FOURPLEX UNITS 19-22			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



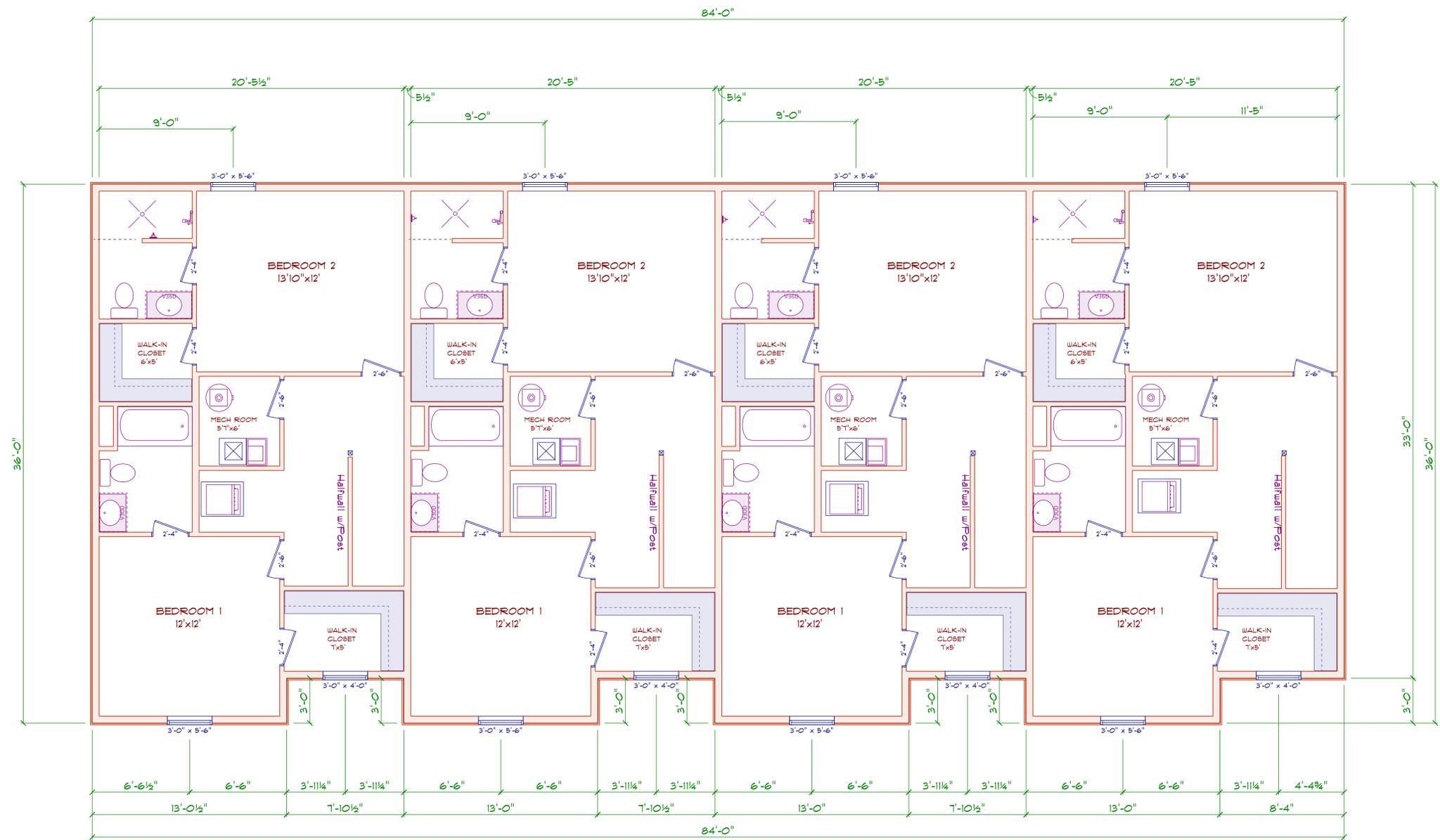
LEFT ELEVATION BLDG 6	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A4</span>
FOURPLEX UNITS 19-22			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



FOUNDATION BLDG 6	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 80-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<h1>A5</h1>
FOURPLEX UNITS 19-22			
DATE: 10/4/2025			



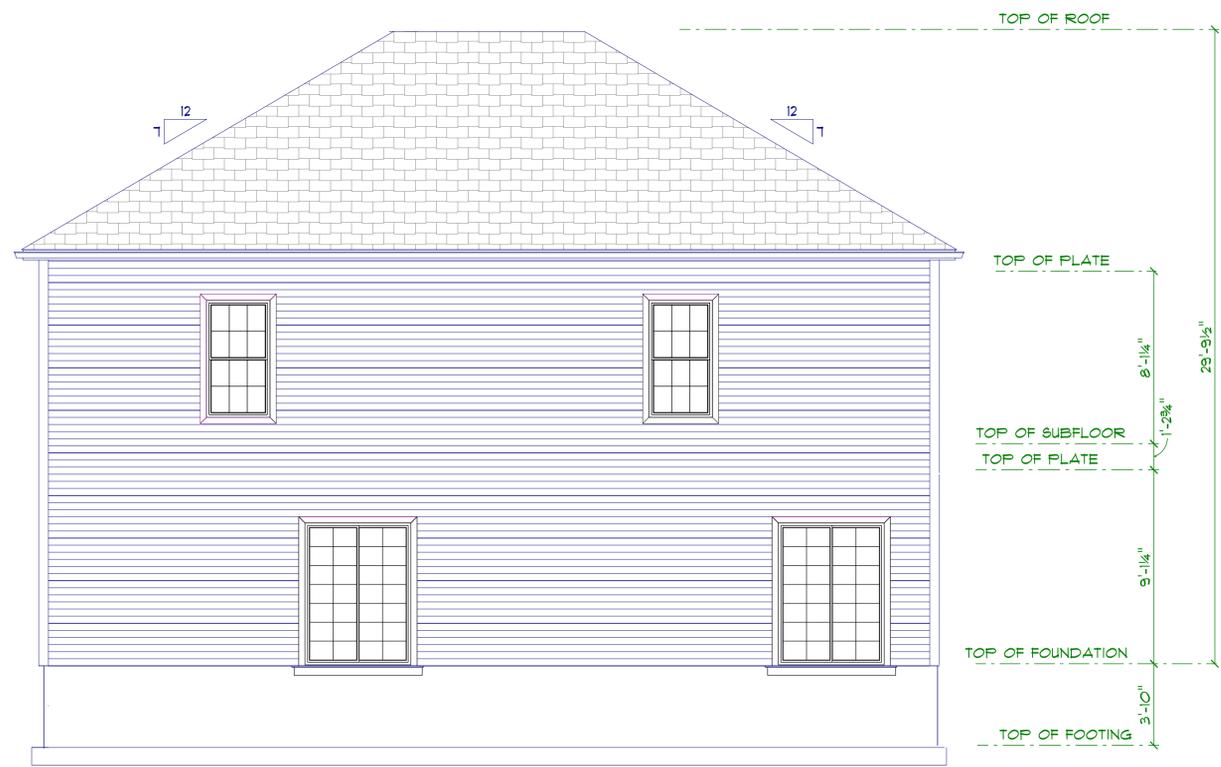
FIRST FLOOR BLDG 6	<p><i>Diamond Estates LLC</i>          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</p>	<p><i>Louis Street Apartments LLC</i>          103 Louis Street          Newington CT. 06111</p>	
FOURPLEX UNITS 19-22			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



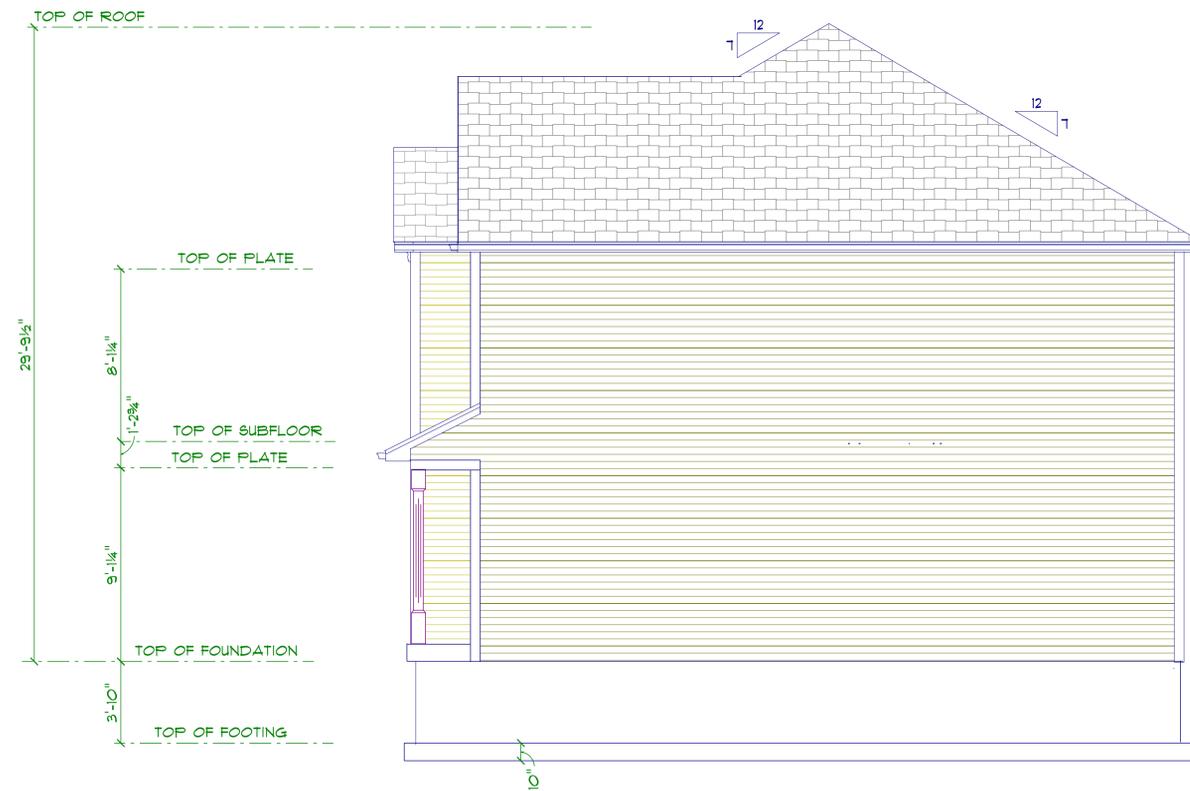
<p>SECOND FLOOR BLDG 6</p>	<p><i>Diamond Estates LLC 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 860-394-4001 pat@buildingCT.com</i></p>	<p><i>Louis Street Apartments LLC 103 Louis Street Newington CT. 06111</i></p>	<p><b>A9</b></p>
<p>FOURPLEX UNITS 19-22</p>			
<p>1125 TOTAL LIVABLE SQ.FT</p>			
<p>DATE: 10/4/2025</p>			



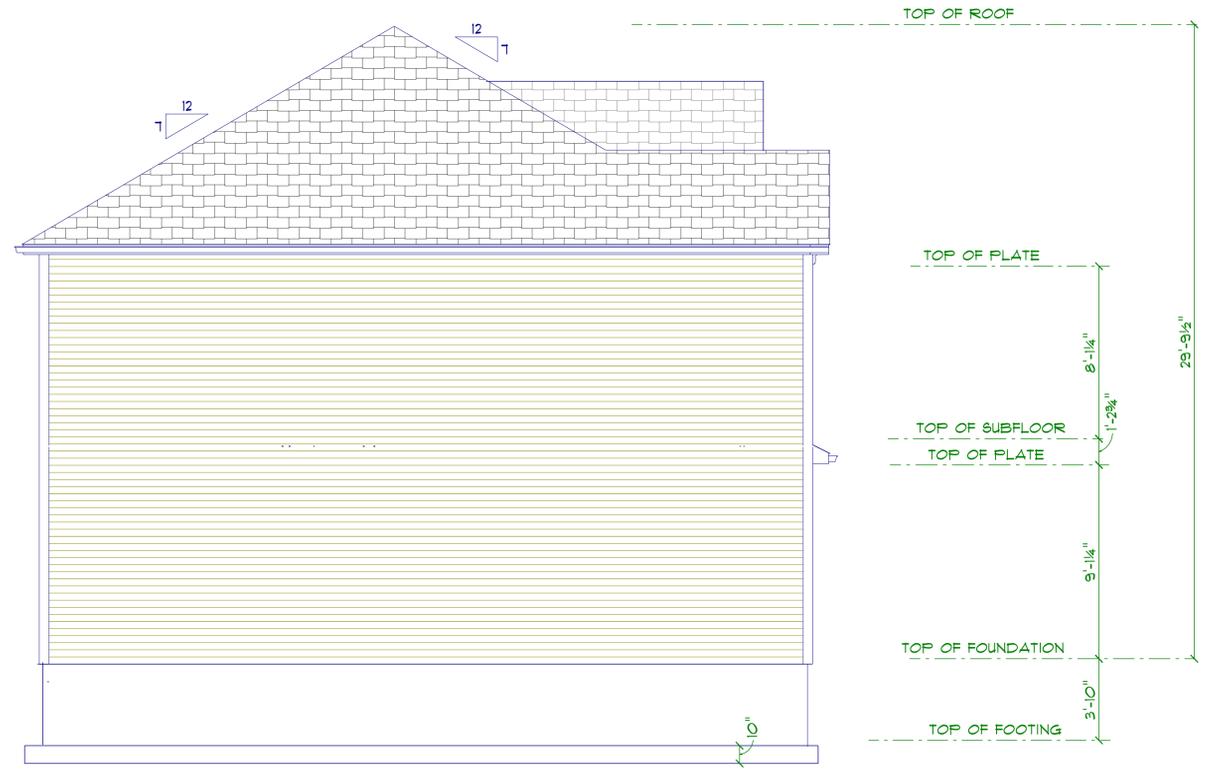
FRONT ELEVATION BLDG 7	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 86-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A1</span>
DUPLEX UNITS 23-24			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



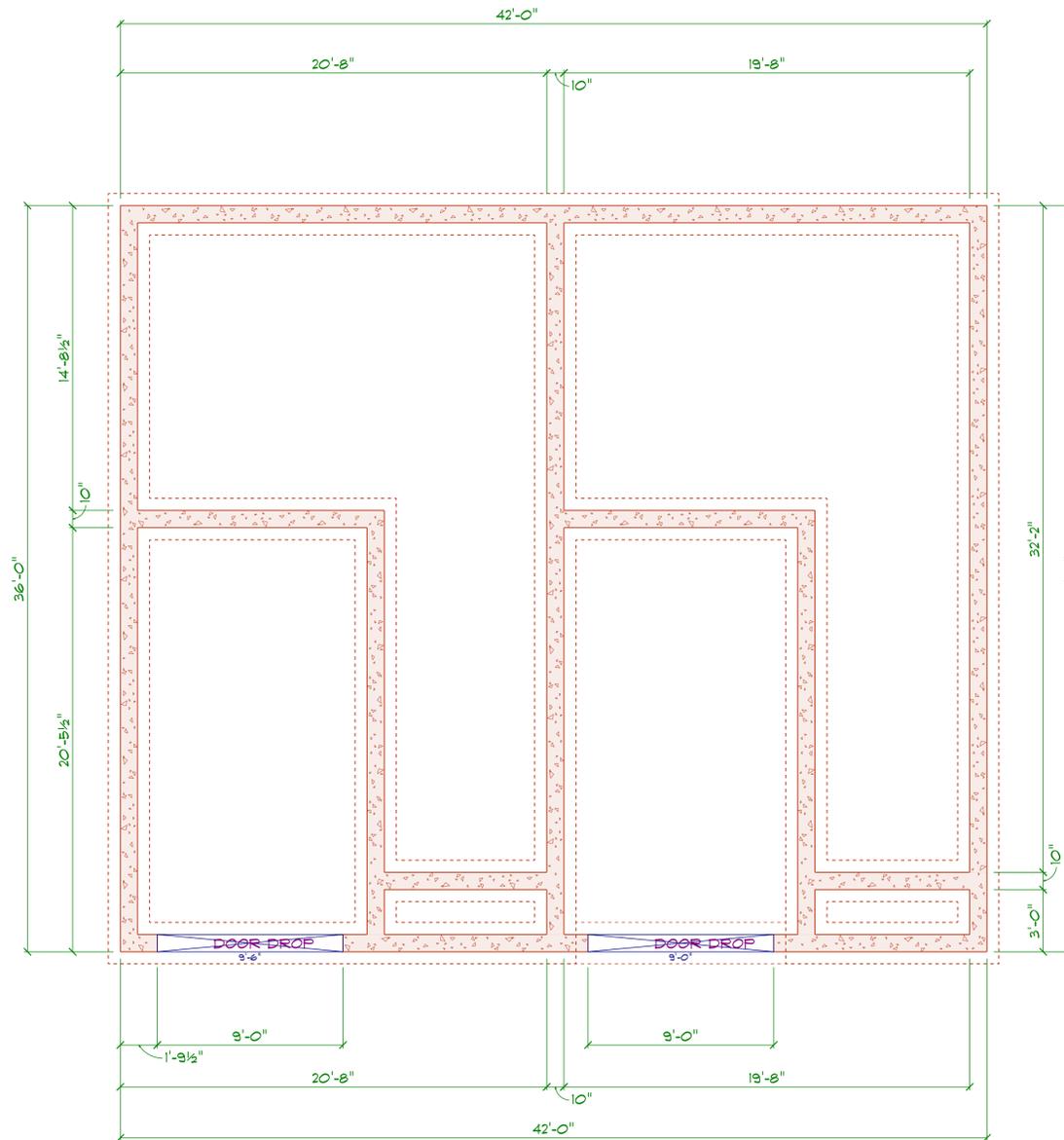
REAR ELEVATION BLDG 7	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<h1>A2</h1>
DUPLEX UNITS 23-24			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



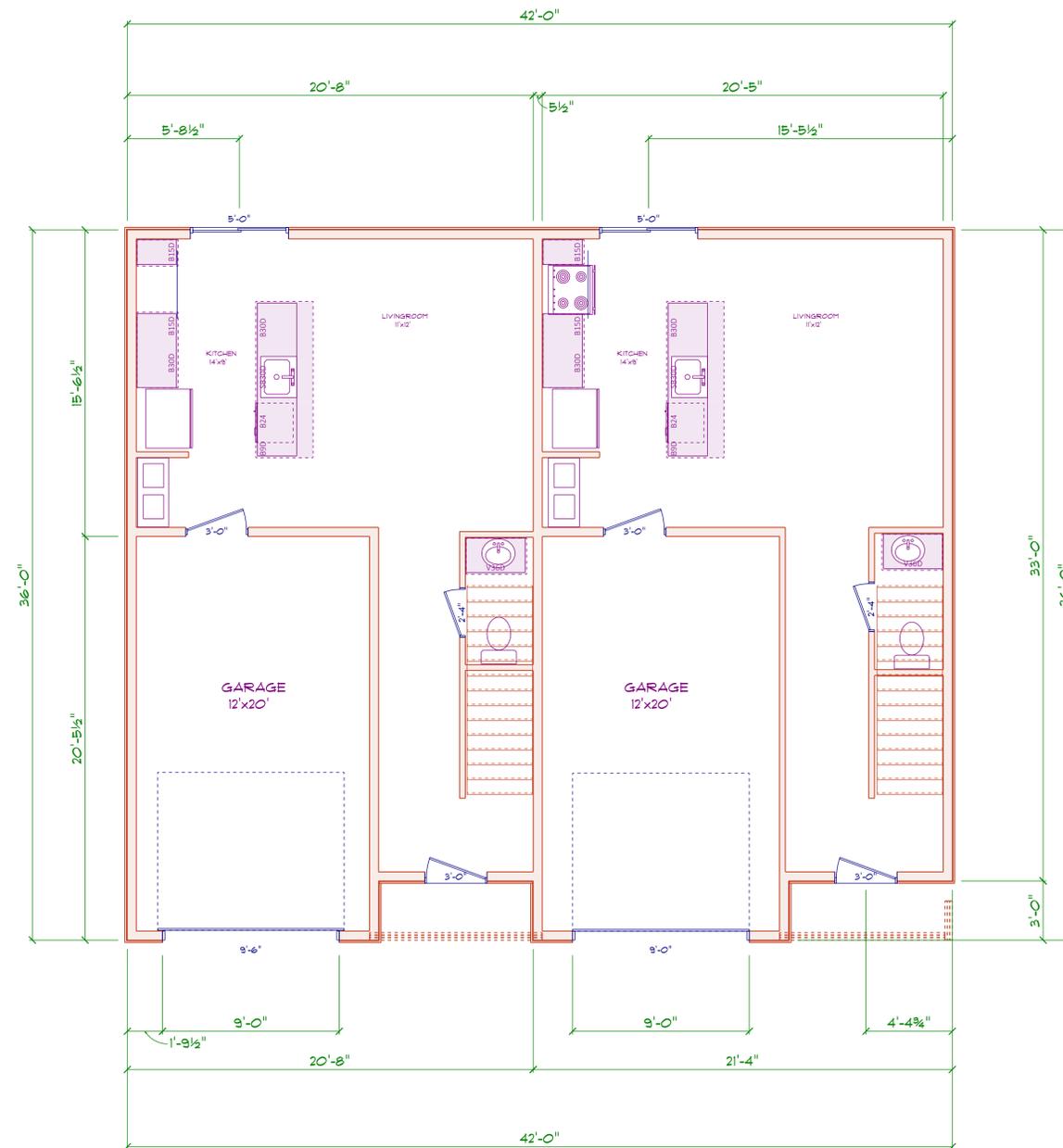
RIGHT ELEVATION BLDG 7	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<b>A3</b>
DUPLEX UNITS 23-24			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



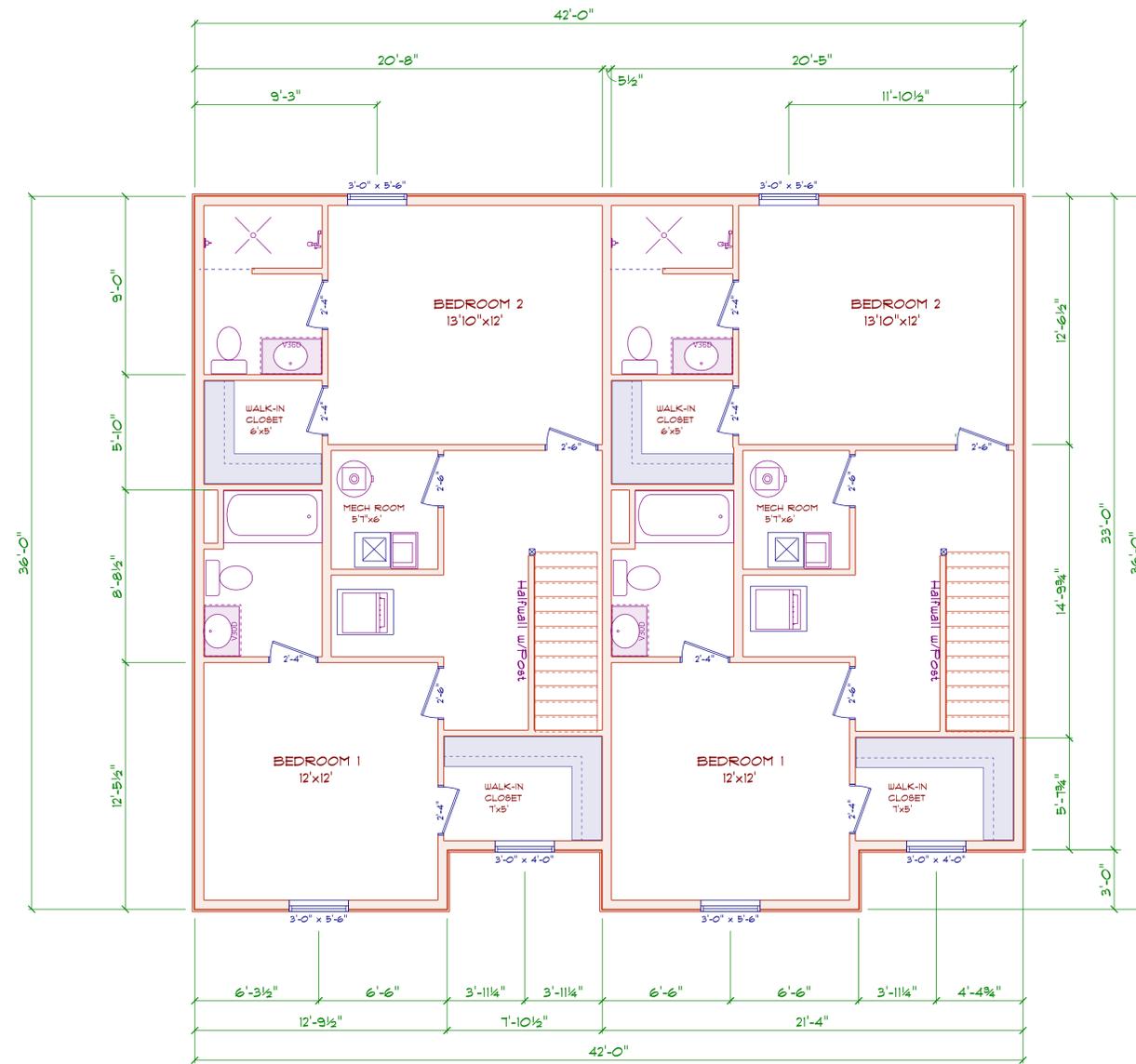
LEFT ELEVATION BLDG 7	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A4</span>
DUPLEX UNITS 23-24			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



FOUNDATION BLDG 7	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 80-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<h1>A5</h1>
DUPLEX UNITS 23-24			
DATE: 10/4/2025			



FIRST FLOOR BLDG 7	<p><i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i></p>	<p><i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i></p>	
DUPLEX UNITS 23-24			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



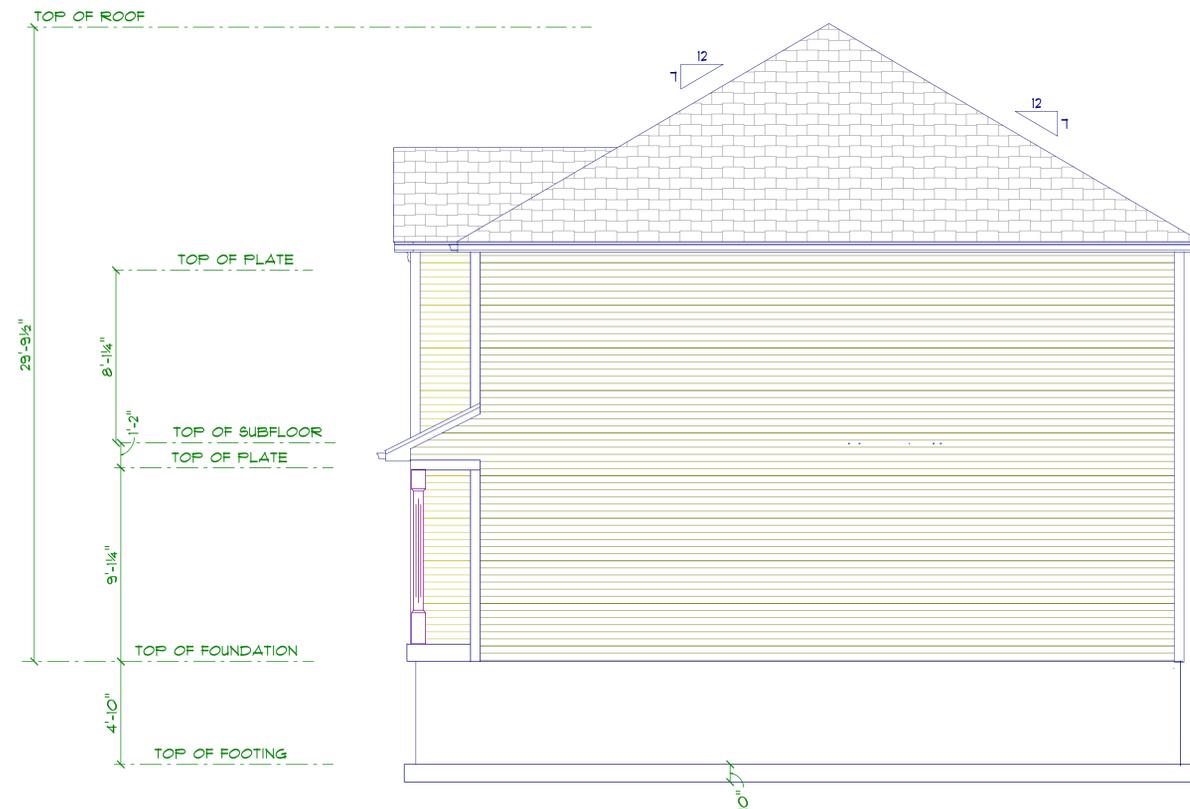
SECOND FLOOR BLDG 7	<p><i>Diamond Estates LLC  110 Court Street Suite 1  Cromwell CT. 06416  860-632-7090 Fax 860-394-4001  pat@buildingCT.com</i></p>	<p><i>Louis Street Apartments LLC  103 Louis Street  Newington CT. 06111</i></p>	<h1>A9</h1>
DUPLEX UNITS 23-24			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



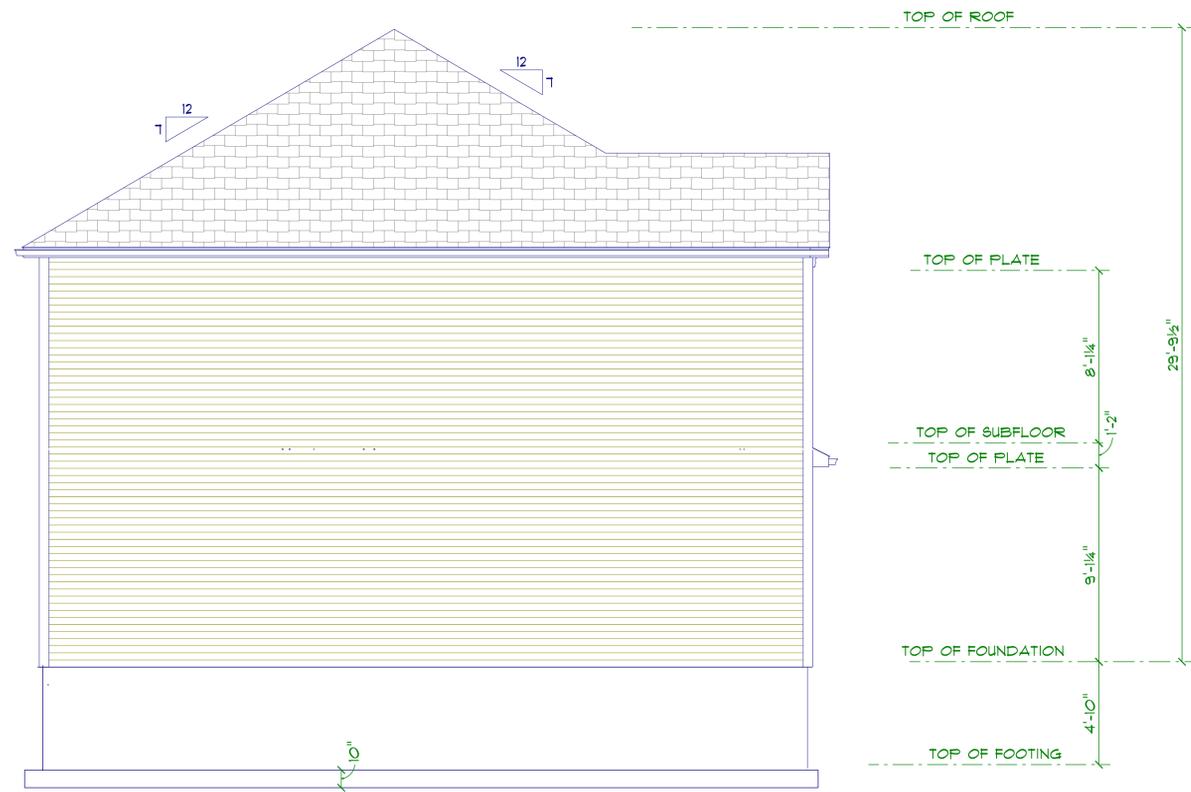
FRONT ELEVATION BLDG 8	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 86-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A1</span>
FOURPLEX UNITS 25-28			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



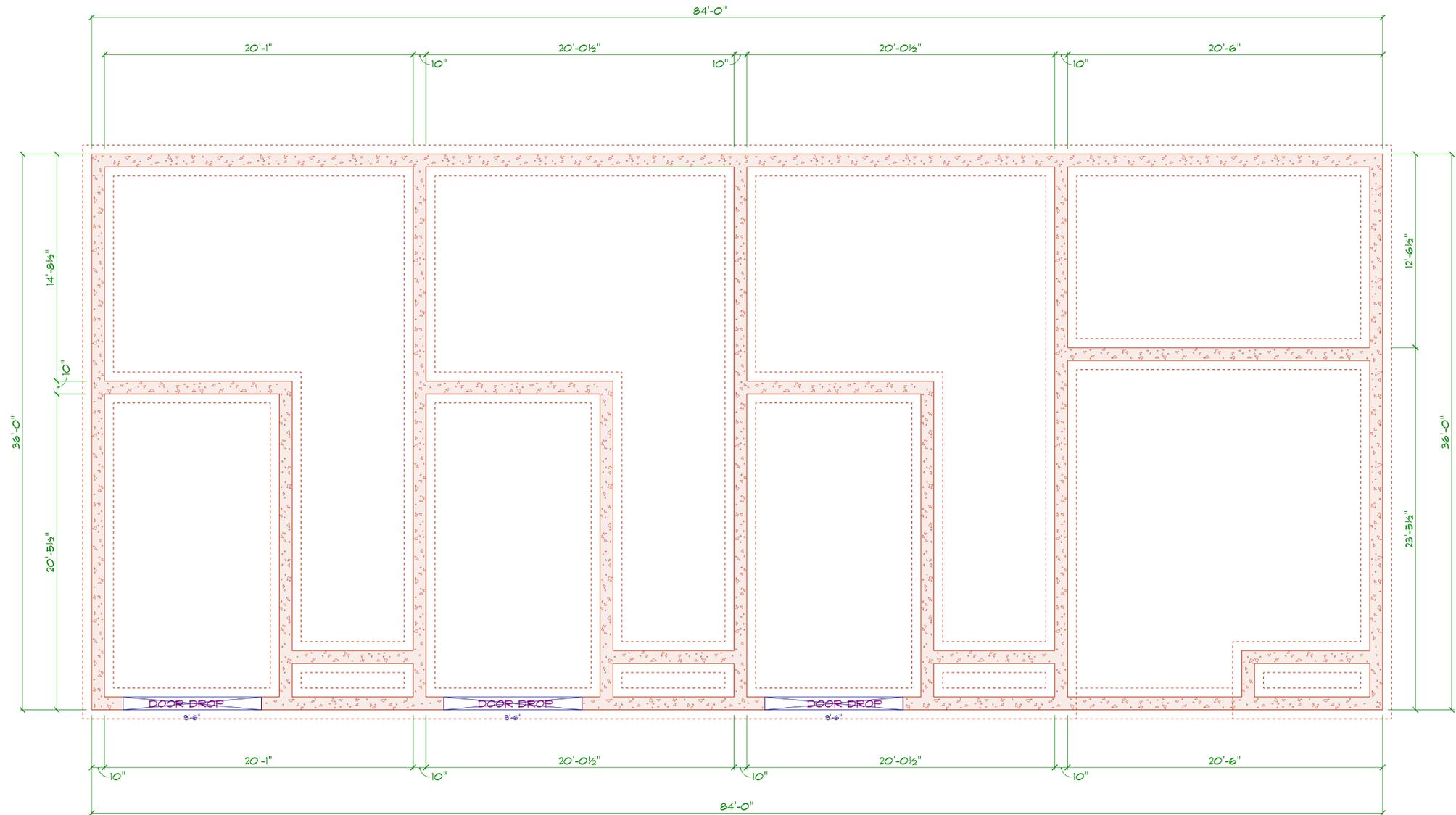
REAR ELEVATION BLDG 8	<i>Diamond Estates LLC</i> <i>110 Court Street Suite 1</i> <i>Cromwell CT, 06416</i> <i>860-632-7090 Fax 860-394-4001</i> <i>pat@buildingCT.com</i>	<i>Louis Street Apartments LLC</i> <i>103 Louis Street</i> <i>Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A2</span>
FOURPLEX UNITS 25-28			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



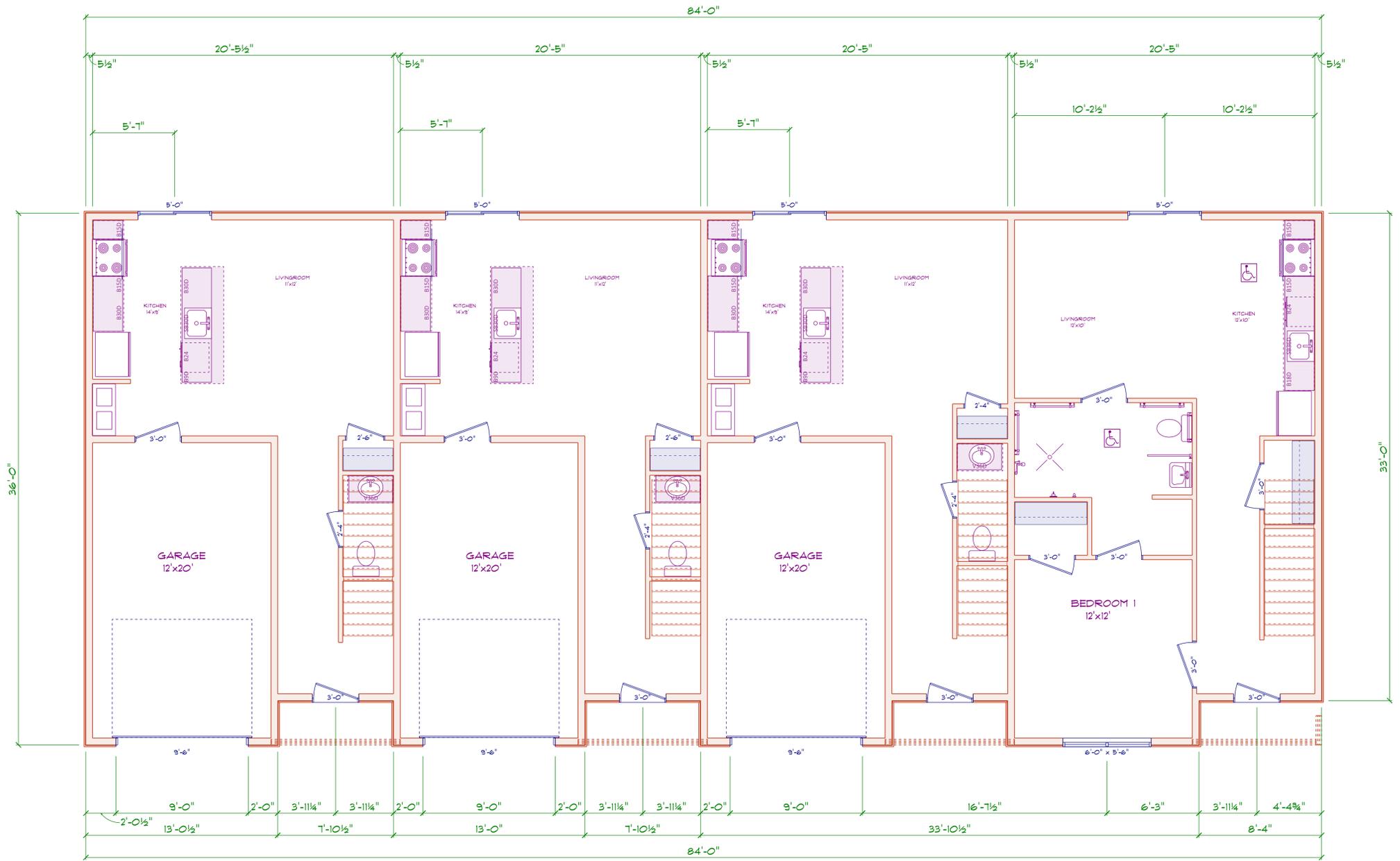
RIGHT ELEVATION BLDG 8	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A3</span>
FOURPLEX UNITS 25-28			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



LEFT ELEVATION BLDG 8	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em;">A4</span>
FOURPLEX UNITS 25-28			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



FOUNDATION BLDG 8	Diamond Estates LLC 110 Court Street Suite 1 Cromwell CT. 06416 860-632-7090 Fax 80-394-4001 pat@buildingCT.com	Louis Street Apartments LLC 103 Louis Street Newington CT. 06111	<h1>A5</h1>
FOURPLEX UNITS 25-28			
DATE: 10/4/2025			



FIRST FLOOR BLDG 8

FOURPLEX UNITS 25-28

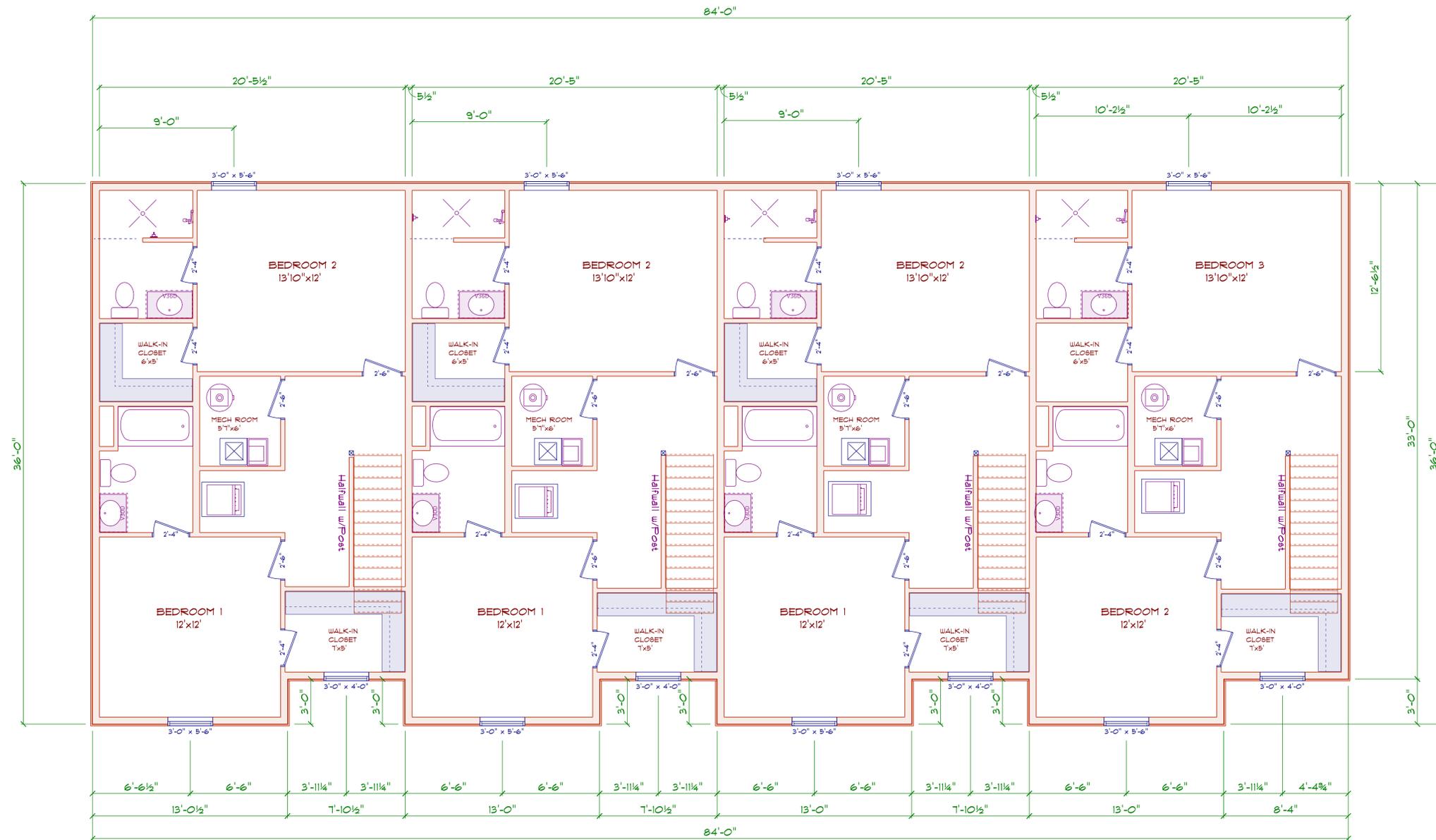
1125 TOTAL LIVABLE SQ.FT

DATE: 10/4/2025

*Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

**A7**



SECOND FLOOR BLDG 8  
 FOURPLEX UNITS 25-28  
 1125 TOTAL LIVABLE SQ.FT  
 DATE: 10/4/2025

*Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

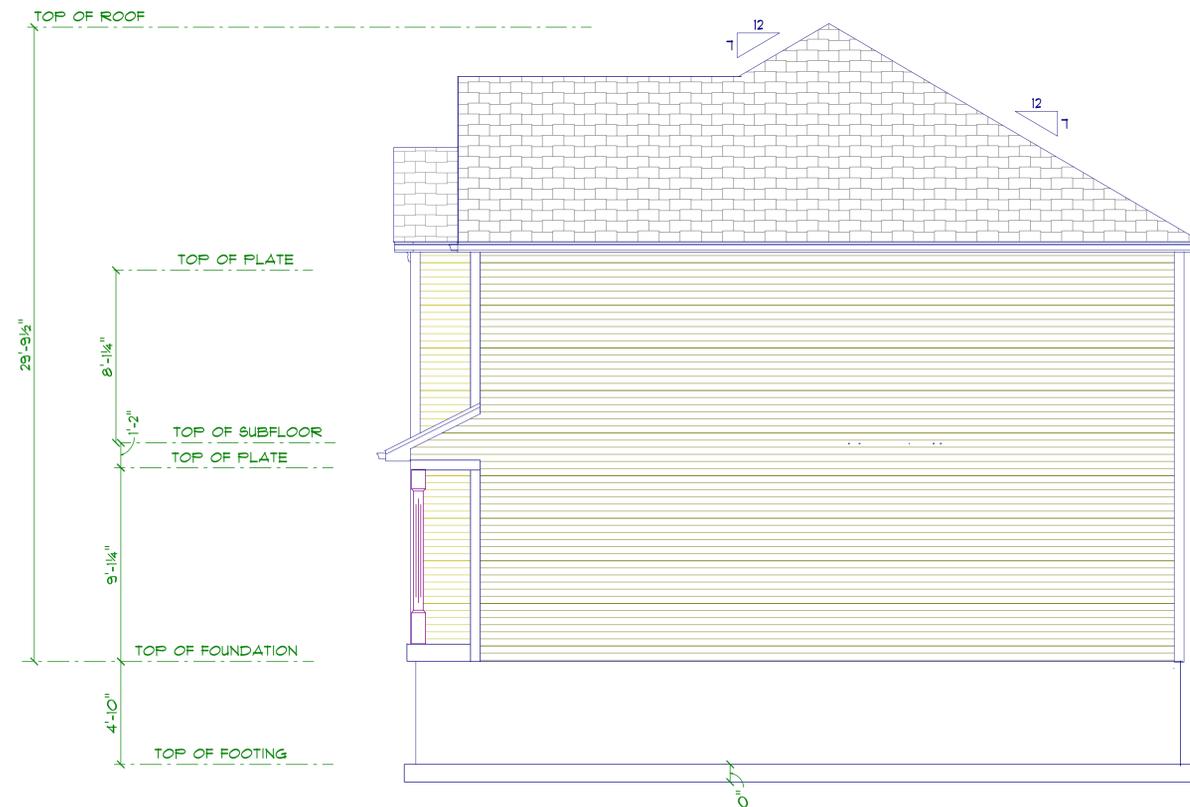
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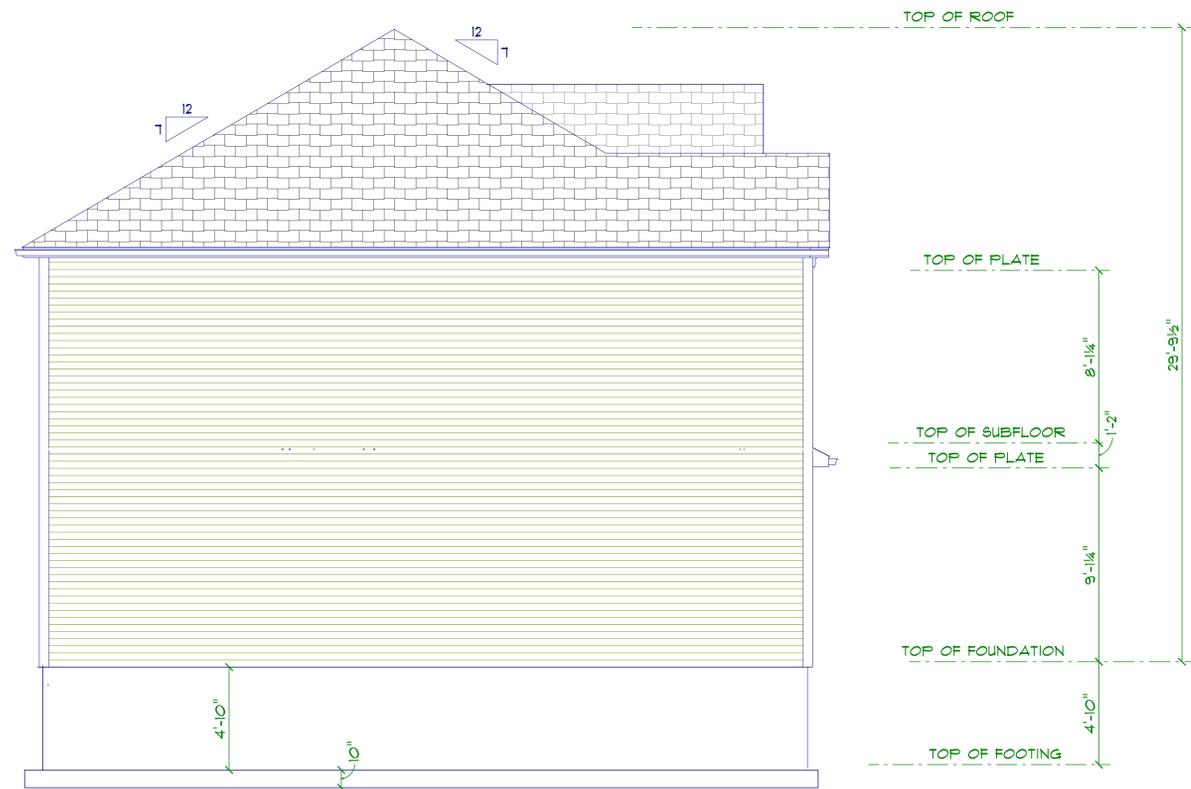
FRONT ELEVATION BLDG 9	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 86-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A1</span>
FOURPLEX UNITS 29-32			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



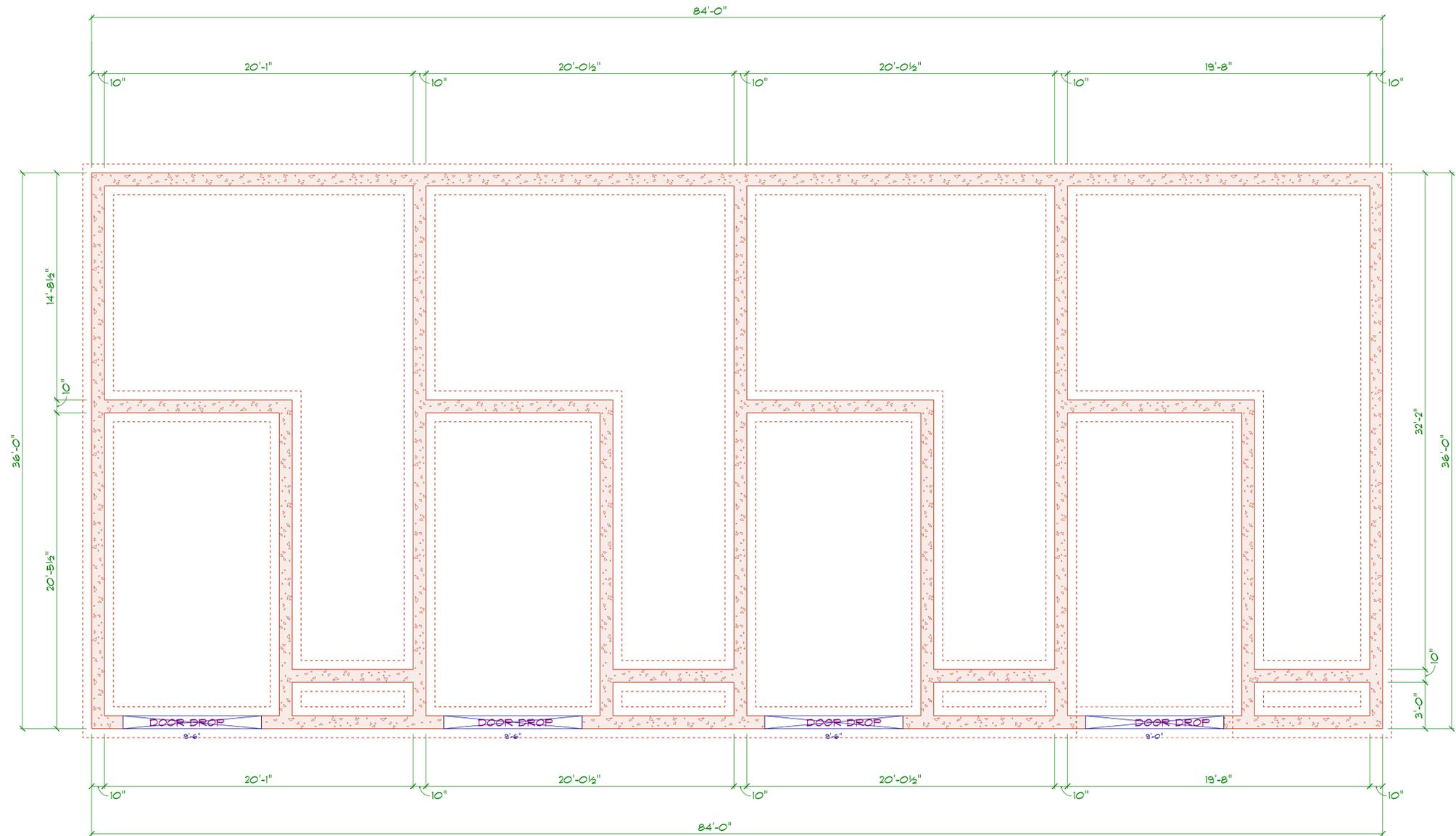
REAR ELEVATION BLDG 9	<i>Diamond Estates LLC</i> <i>110 Court Street Suite 1</i> <i>Cromwell CT, 06416</i> <i>860-632-7090 Fax 860-394-4001</i> <i>pat@buildingCT.com</i>	<i>Louis Street Apartments LLC</i> <i>103 Louis Street</i> <i>Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A2</span>
FOURPLEX UNITS 29-32			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



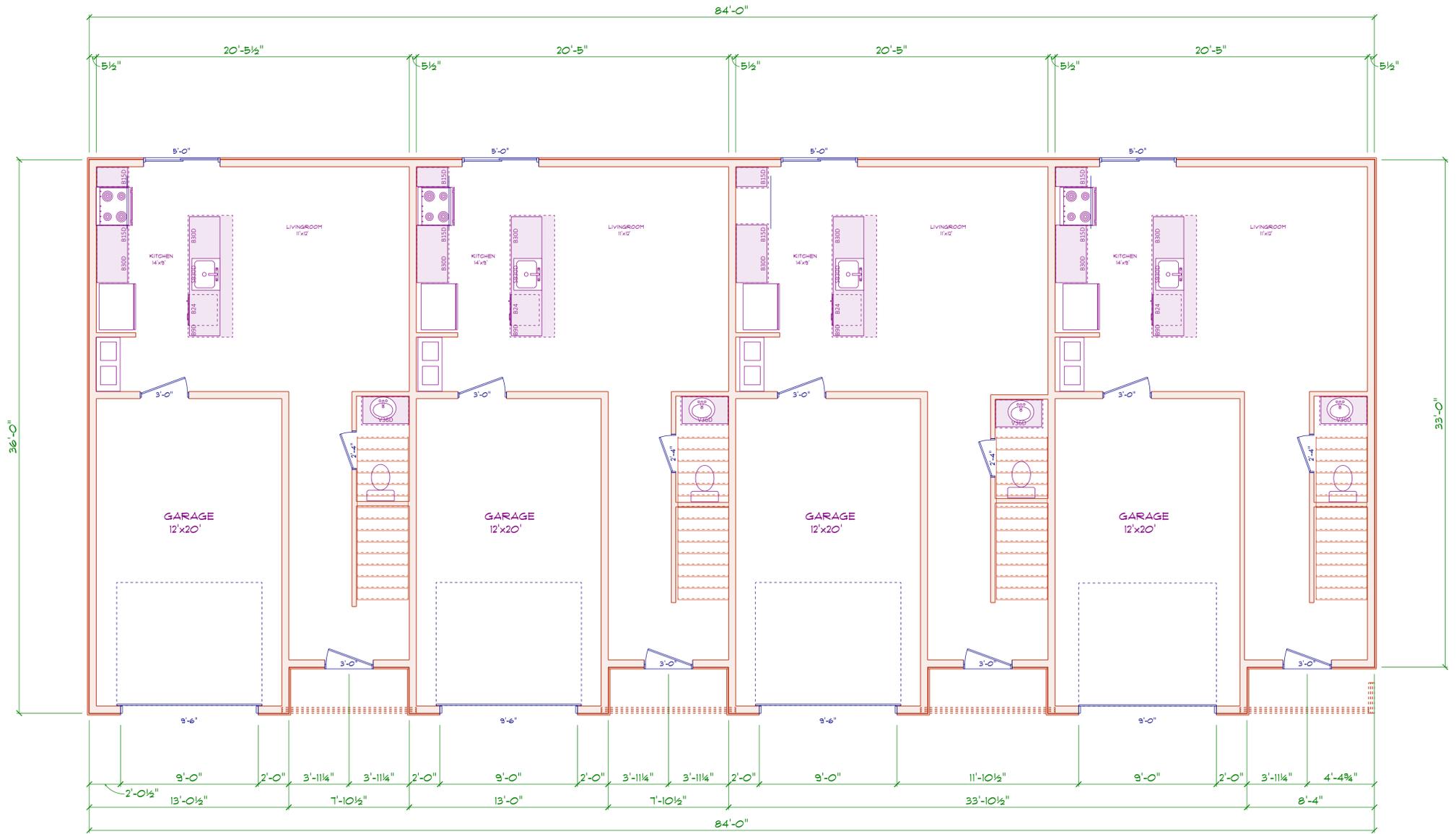
RIGHT ELEVATION BLDG 9	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<b>A3</b>
FOURPLEX UNITS 29-32			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



LEFT ELEVATION BLDG 9	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<span style="font-size: 2em;">A4</span>
FOURPLEX UNITS 29-32			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



FOUNDATION BLDG 9	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 80-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A5</span>
FOURPLEX UNITS 29-32			
DATE: 10/4/2025			



FIRST FLOOR BLDG 9

FOURPLEX UNITS 29-32

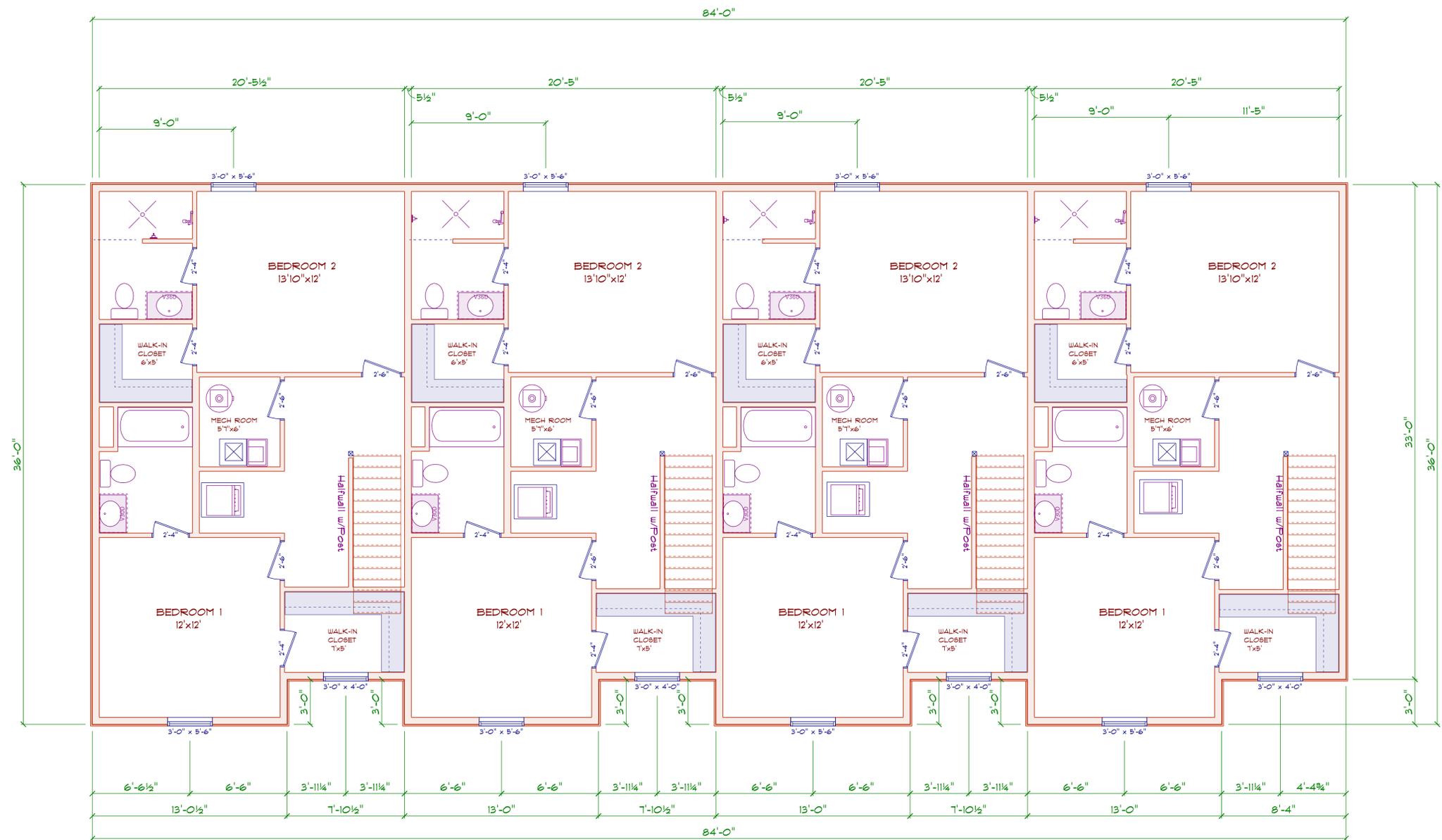
1125 TOTAL LIVABLE SQ.FT

DATE: 10/4/2025

*Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

**A7**



SECOND FLOOR BLDG 9  
 FOURPLEX UNITS 29-32  
 1125 TOTAL LIVABLE SQ.FT  
 DATE: 10/4/2025

*Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

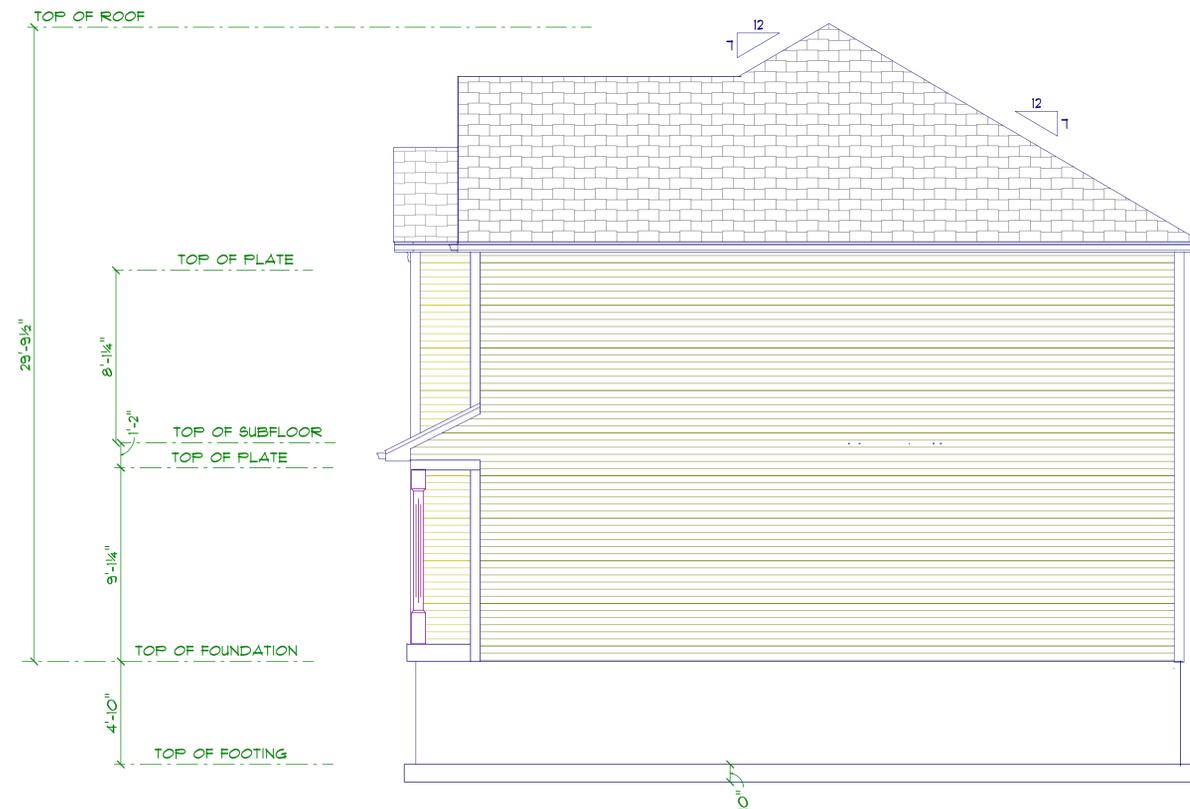
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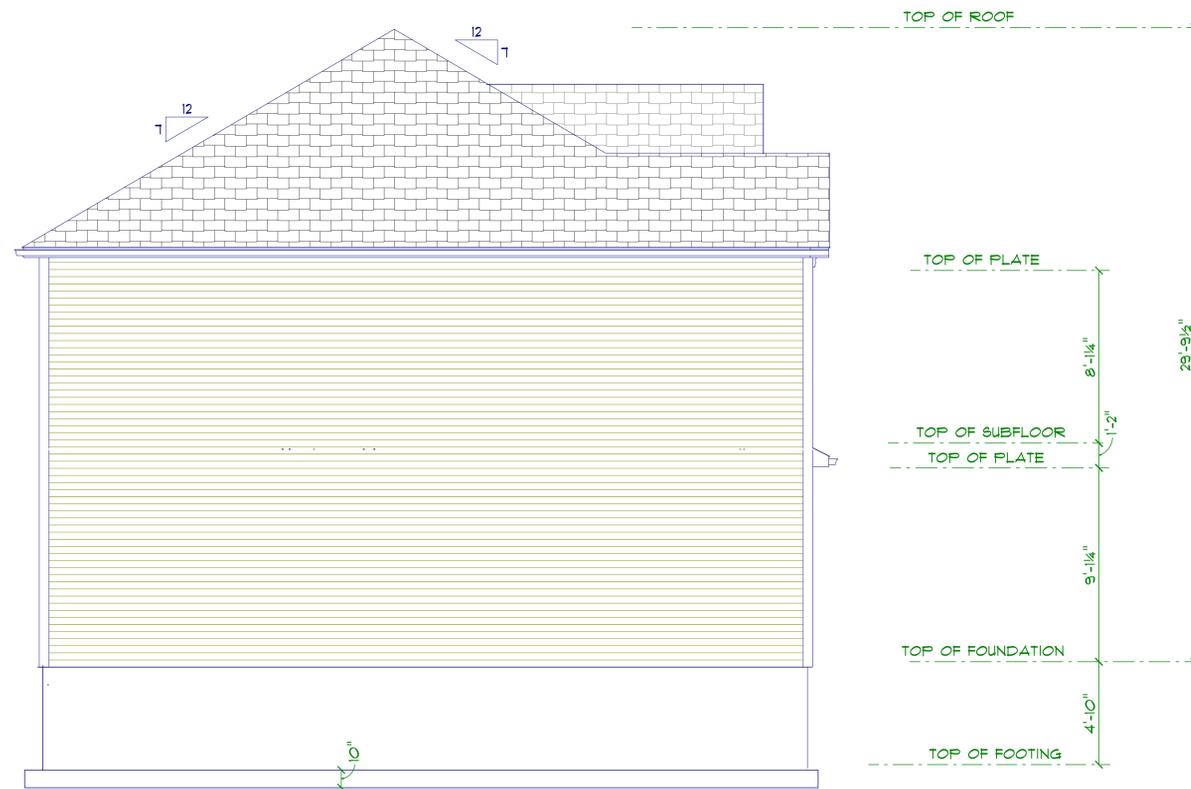
FRONT ELEVATION BLDG 10	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 86-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A1</span>
FOURPLEX UNITS 33-36			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



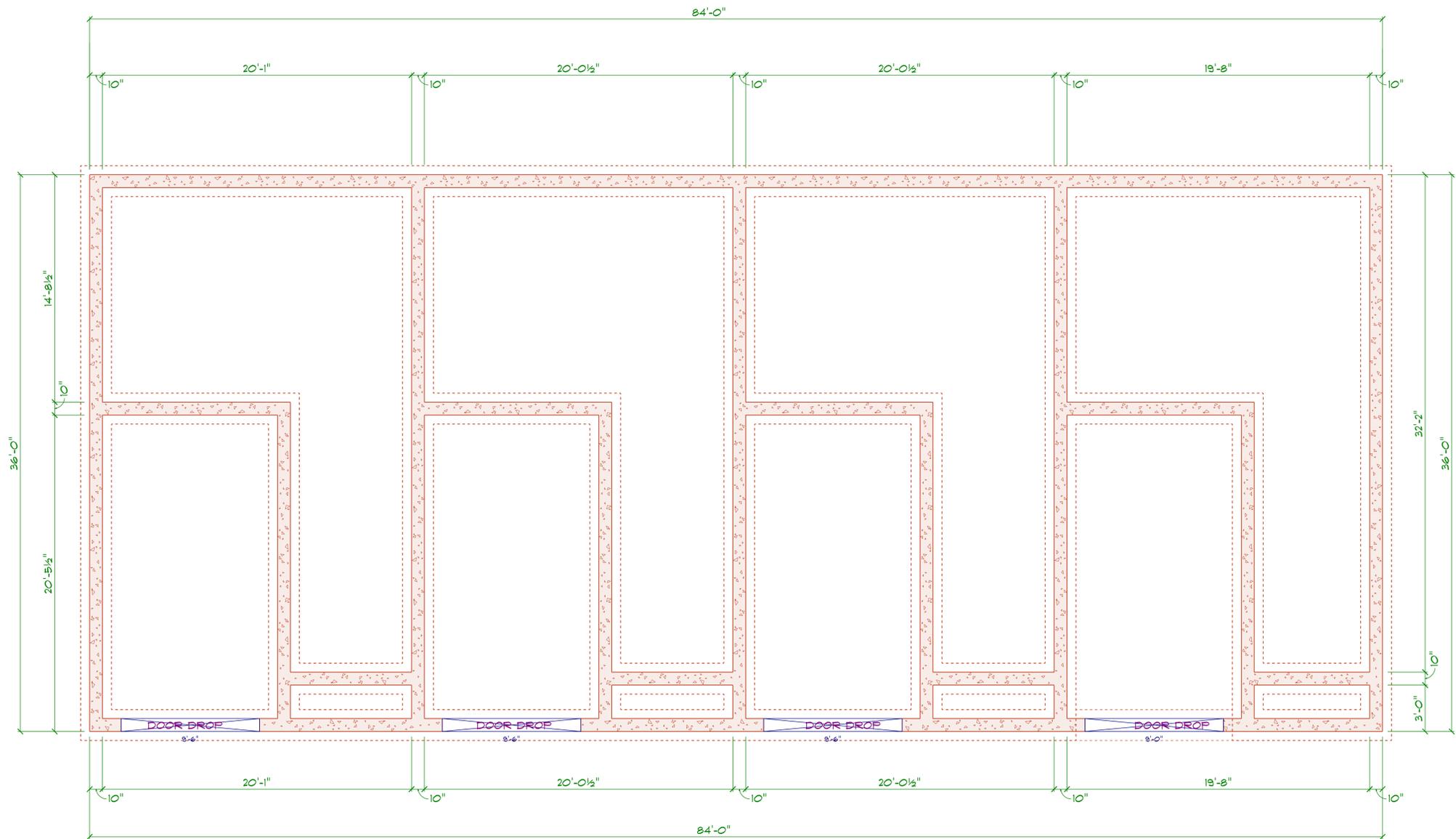
REAR ELEVATION BLDG 10	<i>Diamond Estates LLC</i> <i>110 Court Street Suite 1</i> <i>Cromwell CT, 06416</i> <i>860-632-7090 Fax 860-394-4001</i> <i>pat@buildingCT.com</i>	<i>Louis Street Apartments LLC</i> <i>103 Louis Street</i> <i>Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A2</span>
FOURPLEX UNITS 33-36			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



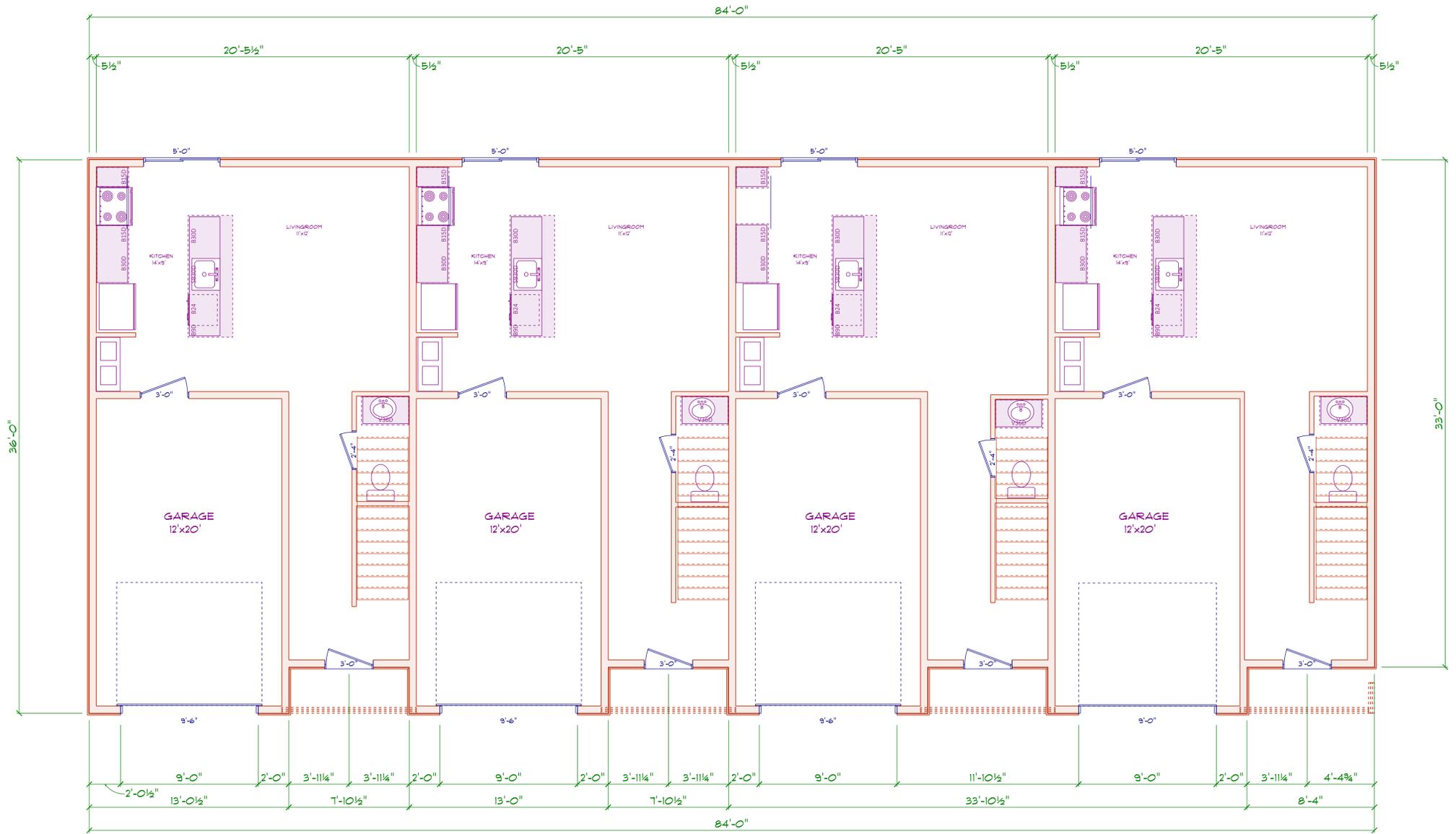
RIGHT ELEVATION BLDG 10	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A3</span>
FOURPLEX UNITS 33-36			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



LEFT ELEVATION BLDG 10	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT, 06416          860-632-7090 Fax 860-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT, 06111</i>	<span style="font-size: 2em; font-weight: bold;">A4</span>
FOURPLEX UNITS 33-36			
1125 TOTAL LIVABLE SQ.FT			
DATE: 10/4/2025			



FOUNDATION BLDG 10	<i>Diamond Estates LLC          110 Court Street Suite 1          Cromwell CT. 06416          860-632-7090 Fax 80-394-4001          pat@buildingCT.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<span style="font-size: 2em; font-weight: bold;">A5</span>
FOURPLEX UNITS 33-36			
DATE: 10/4/2025			



FIRST FLOOR BLDG 10

FOURPLEX UNITS 33-36

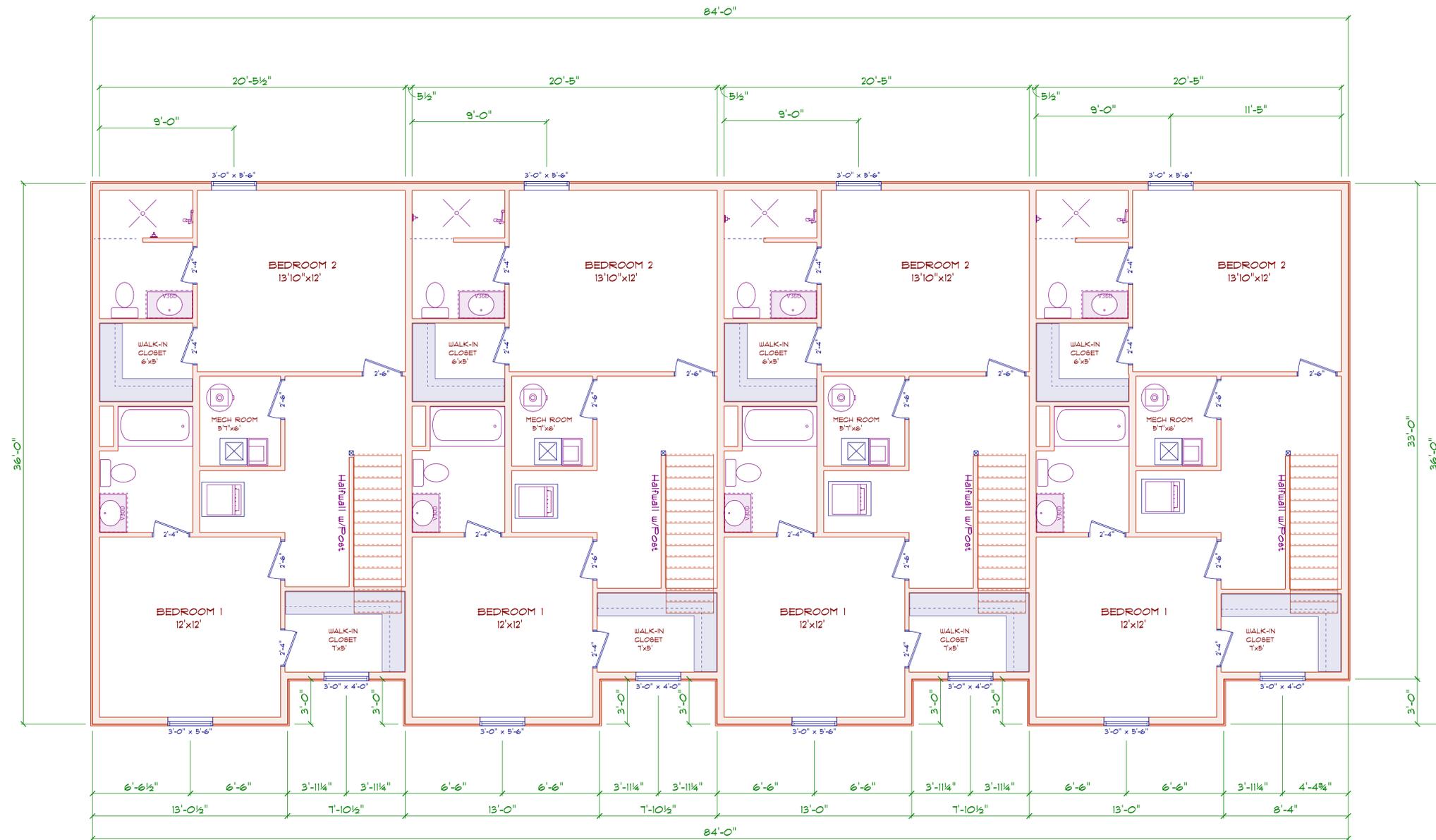
1125 TOTAL LIVABLE SQ.FT

DATE: 10/4/2025

*Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

**A7**



SECOND FLOOR BLDG 10

FOURPLEX UNITS 33-36

1125 TOTAL LIVABLE SQ.FT

DATE: 10/4/2025

*Diamond Estates LLC  
 110 Court Street Suite 1  
 Cromwell CT. 06416  
 860-632-7090 Fax 860-394-4001  
 pat@buildingCT.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

**A9**



FRONT ELEVATION BLDG 11  
 DUPLEX UNITS 37-38  
 DATE 10/4/2025

*Diamond Estates LLC*  
 110 Court st Suite one  
 Cromwell Ct. 06416

*Phone 860-632-7090 ext 3*  
*Fax 860-394-4001*  
*Email pat@buildingct.com*

*Louis Street Apartments LLC*  
 103 Louis Street  
 Newington CT, 06111

**A 1**



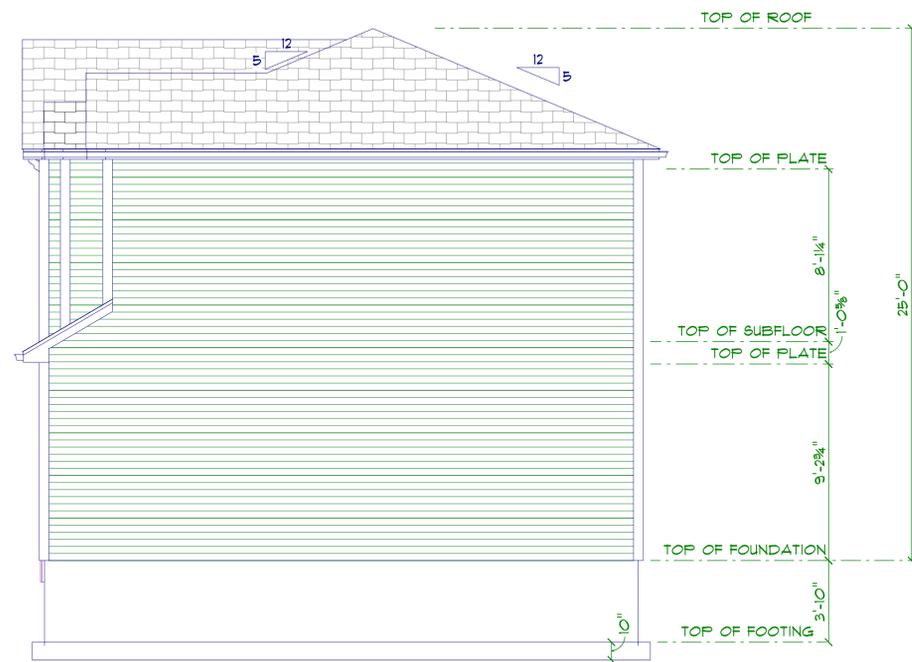
REAR ELEVATION BLDG 11  
 DUPLEX UNITS 37-38  
 DATE 10/4/2025

*Diamond Estates LLC*  
 110 Court st Suite one  
 Cromwell Ct. 06416

*Phone 860-632-7090 ext 3*  
*Fax 860-394-4001*  
*Email pat@buildingct.com*

*Louis Street Apartments LLC*  
 103 Louis Street  
 Newington CT, 06111

**A 2**



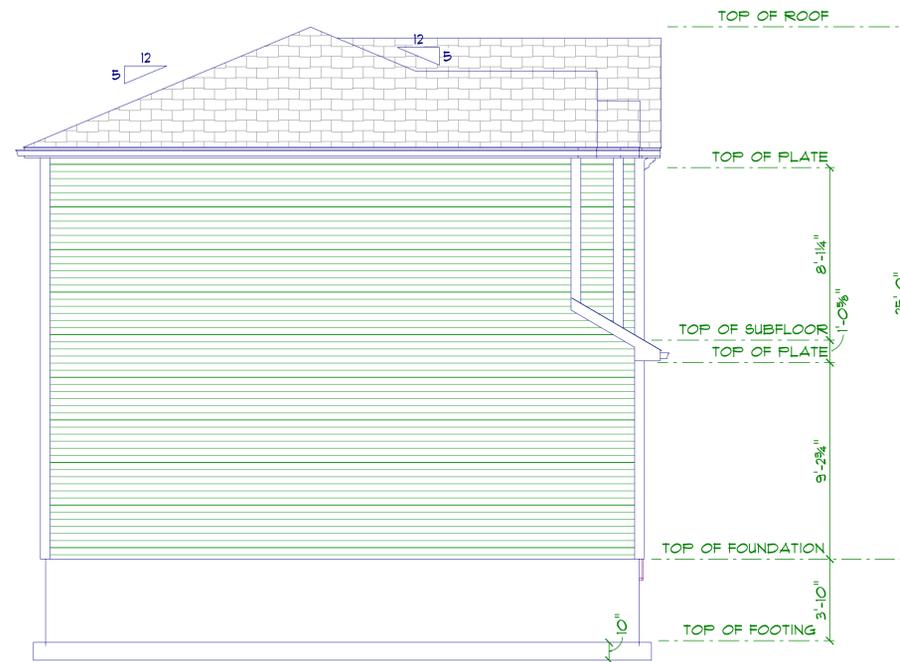
RIGHT ELEVATION BLDG 11  
 DUPLEX UNITS 37-38  
 DATE 10/4/2025

*Diamond Estates LLC  
 110 Court at Suite one  
 Cromwell Ct. 06416*

*Phone 860-632-7090 ext 3  
 Fax 860-394-4001  
 Email pat@buildingct.com*

*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

**A 3**



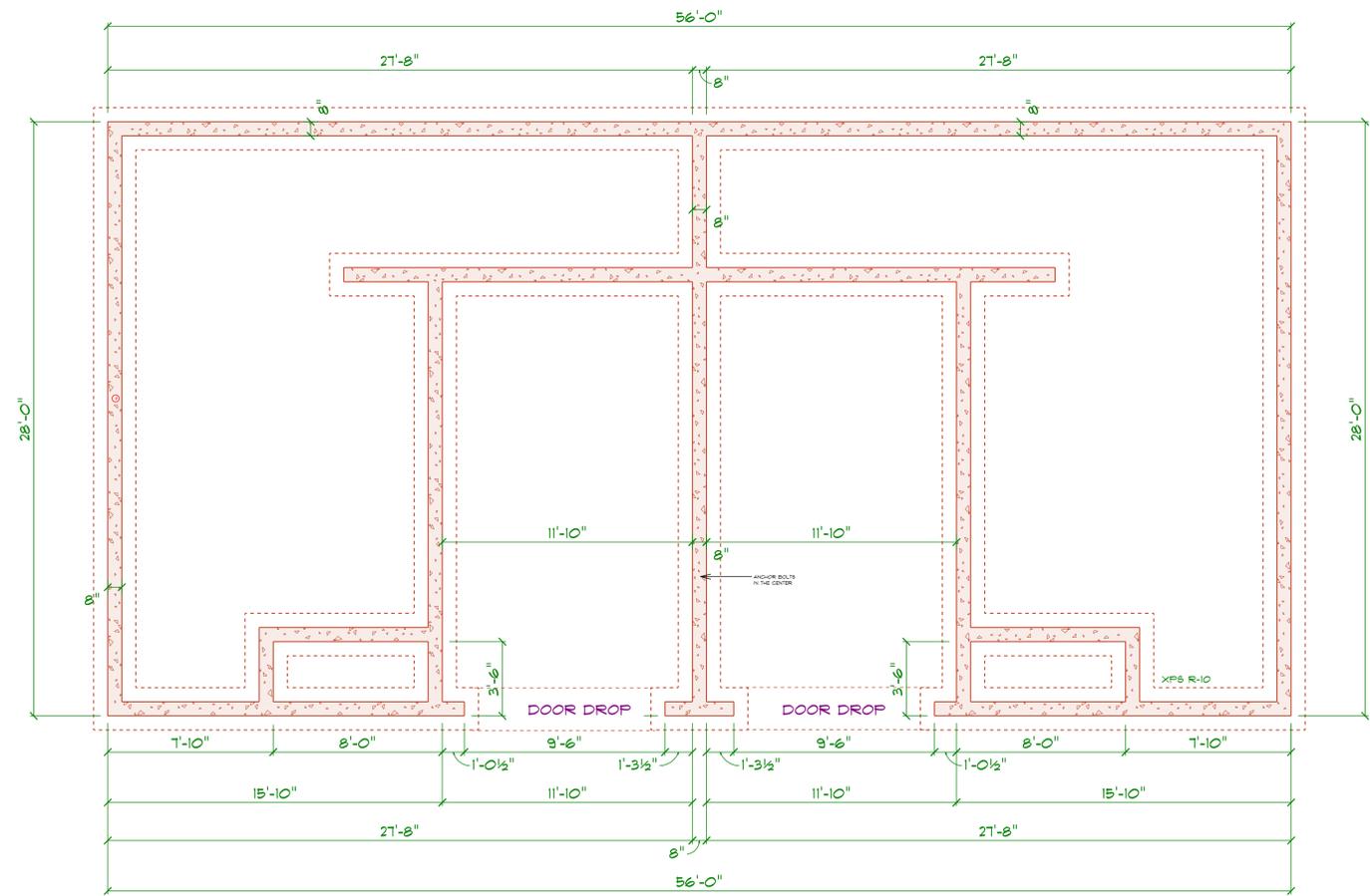
REAR ELEVATION BLDG II  
 DUPLEX UNITS 37-38  
 DATE 10/4/2025

*Diamond Estates LLC*  
 110 Court st Suite one  
 Cromwell Ct. 06416

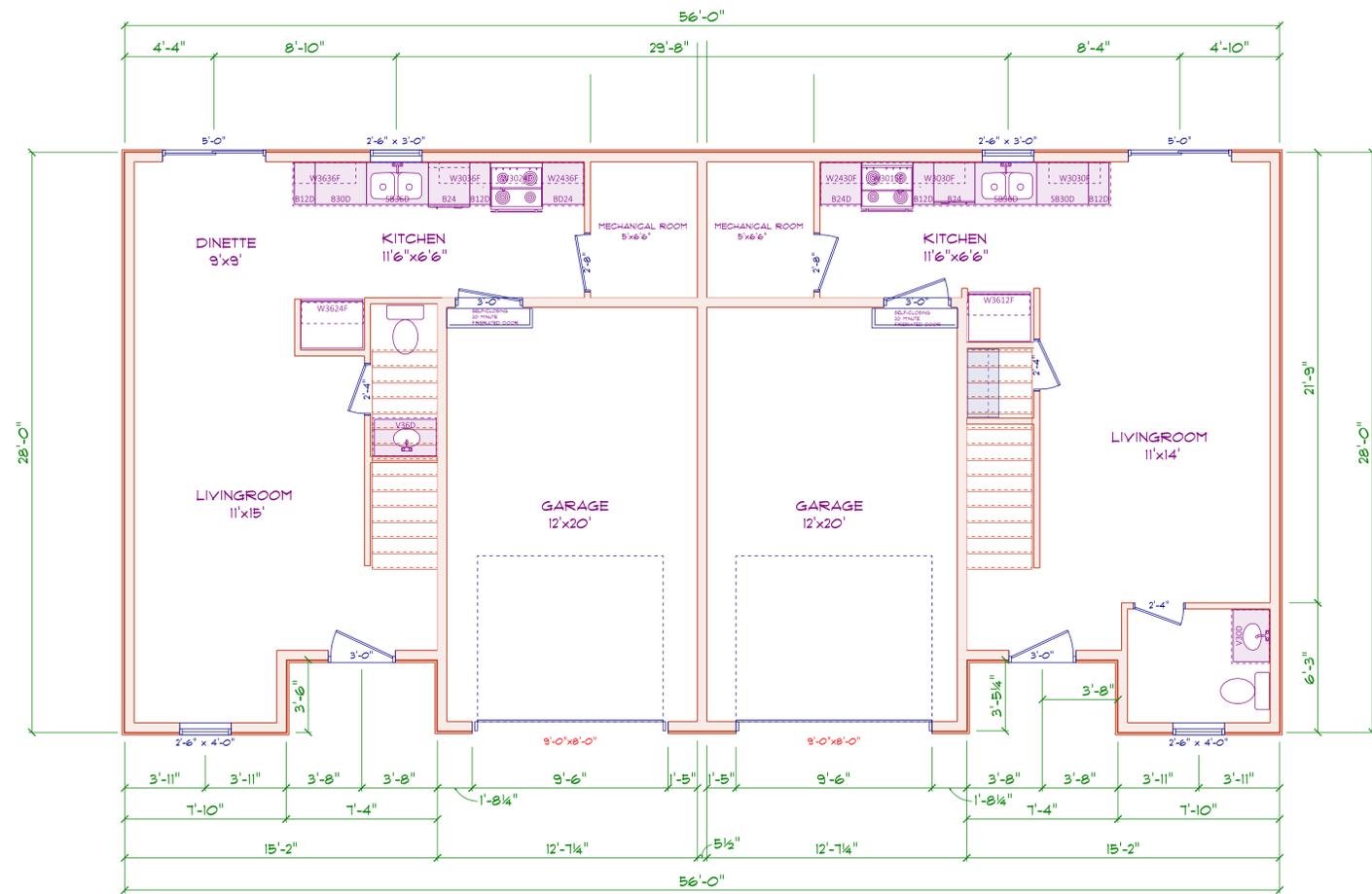
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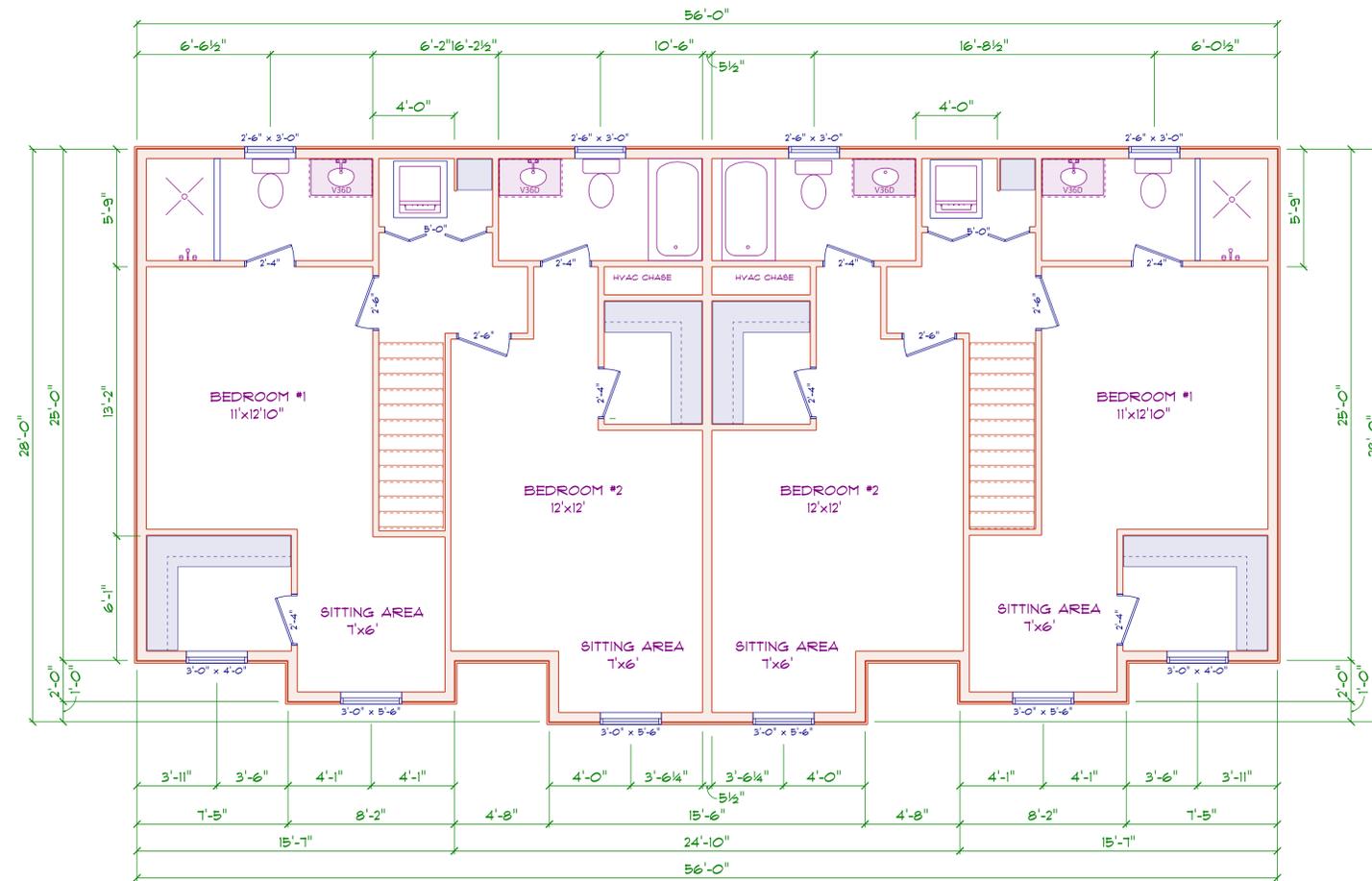
**A 4**



FOUNDATION PLAN BLDG II	<i>Diamond Estates LLC          110 Court st Suite one          Cromwell Ct. 06416          Phone 860-632-7090 ext 3          Fax 860-394-4001          Email pat@buildingct.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<b>A5</b>
DUPLEX UNITS 37-38			
DATE 10/4/2025			



MAIN FLOOR PLAN BLDG 11	Diamond Estates LLC 110 Court st Suite one Cromwell Ct. 06416 Phone 860-632-1090 ext 3 Fax 860-394-4001 Email pat@buildingct.com	Louis Street Apartments LLC 103 Louis Street Newington CT. 06111	A6
DUPLEX UNITS 37-38			
DATE 10/4/2025			



SECOND FLOOR BLDG 11	Diamond Estates LLC 110 Court st Suite one Cromwell Ct. 06416 Phone 860-632-7090 ext 3 Fax 860-394-4001 Email pat@buildingct.com	Louis Street Apartments LLC 103 Louis Street Newington CT. 06111	<b>A8</b>
DUPLEX UNITS 37-38			
DATE 10/4/2025			



FRONT ELEVATION BLDG 12  
 TRIPLEX UNITS 39-41  
 DATE 10/4/2025

Diamond Estates LLC  
 110 Court at Suite one  
 Cromwell Ct. 06416

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 Fax 860-394-4001  
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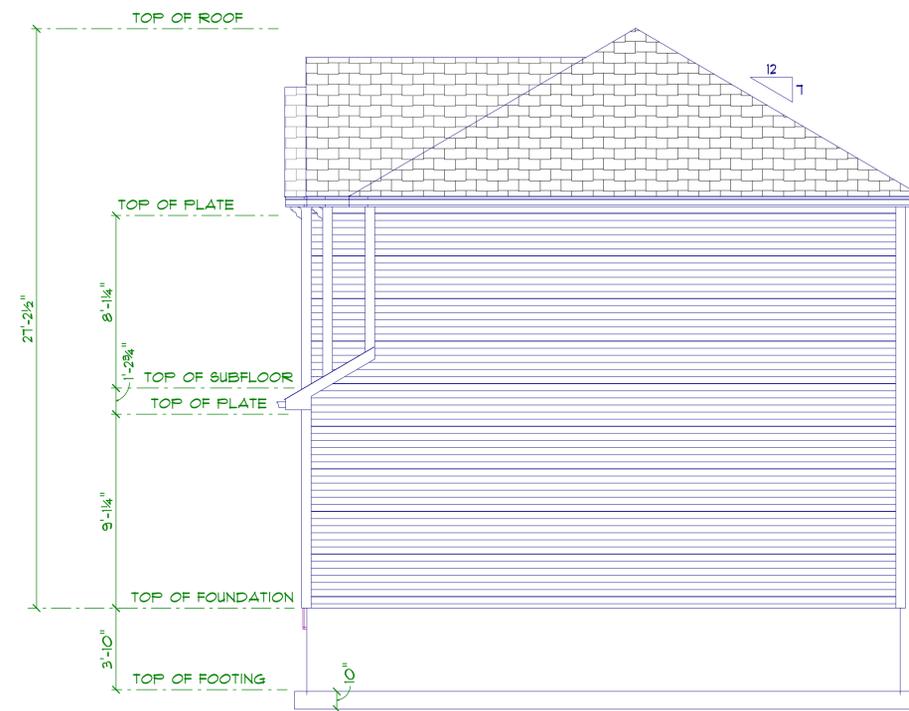
Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT, 06111

A1



REAR ELEVATION BLDG 12	<i>Diamond Estates LLC</i> 110 Court st Suite one Cromwell Ct. 06416	Phone 860-632-7090 ext 3 Fax 860-394-4001 Email pat@buildingct.com	<i>Louis Street Apartments LLC</i> 103 Louis Street Newington CT, 06111
TRIPLEX UNITS 39-41			
DATE 10/4/2025			

**A2**



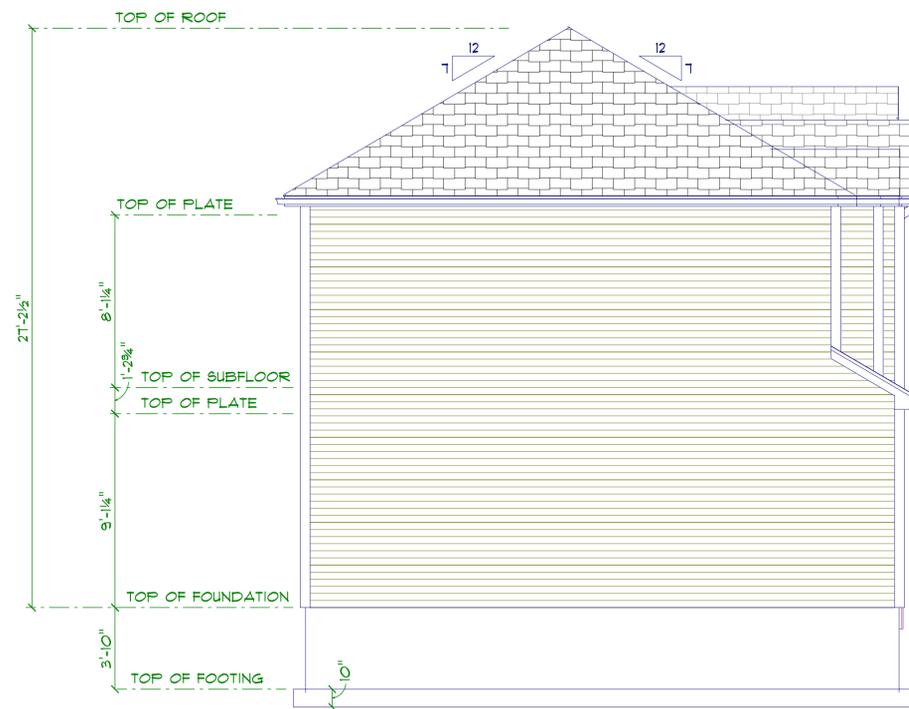
RIGHT ELEVATION BLDG 12  
 TRIPLEX UNITS 39-41  
 DATE 10/4/2025

Diamond Estates LLC  
 110 Court st Suite one  
 Cromwell Ct. 06416

Phone 860-632-7090 ext 3  
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Louis Street Apartments LLC  
 103 Louis Street  
 Newington Ct. 06111

A3



LEFT ELEVATION BLDG 12  
 TRIPLEX UNITS 39-41  
 DATE 10/4/2025

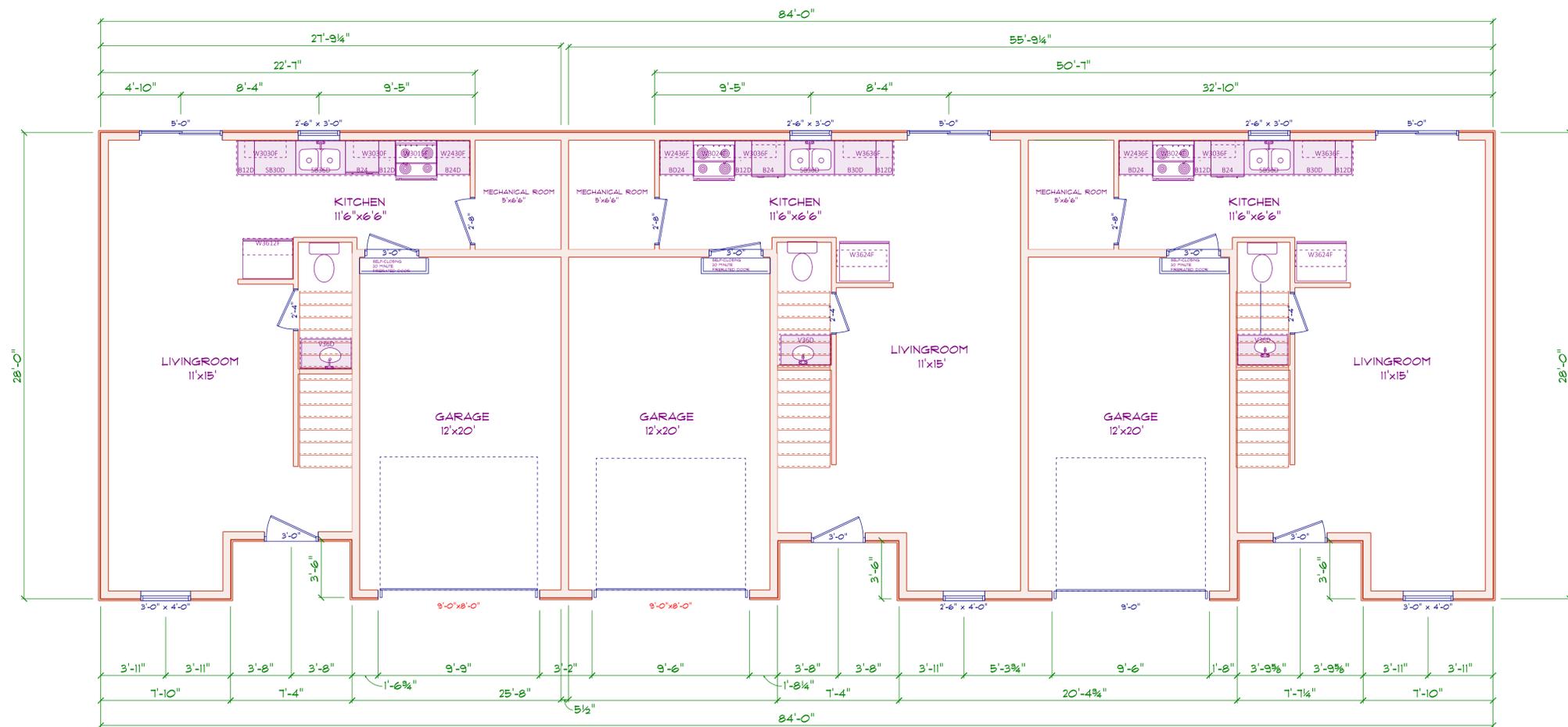
*Diamond Estates LLC  
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*Louis Street Apartments LLC  
 103 Louis Street  
 Newington CT. 06111*

**A4**





MAIN FLOOR PLAN BLDG 12

TRIPLEX UNITS 39-41

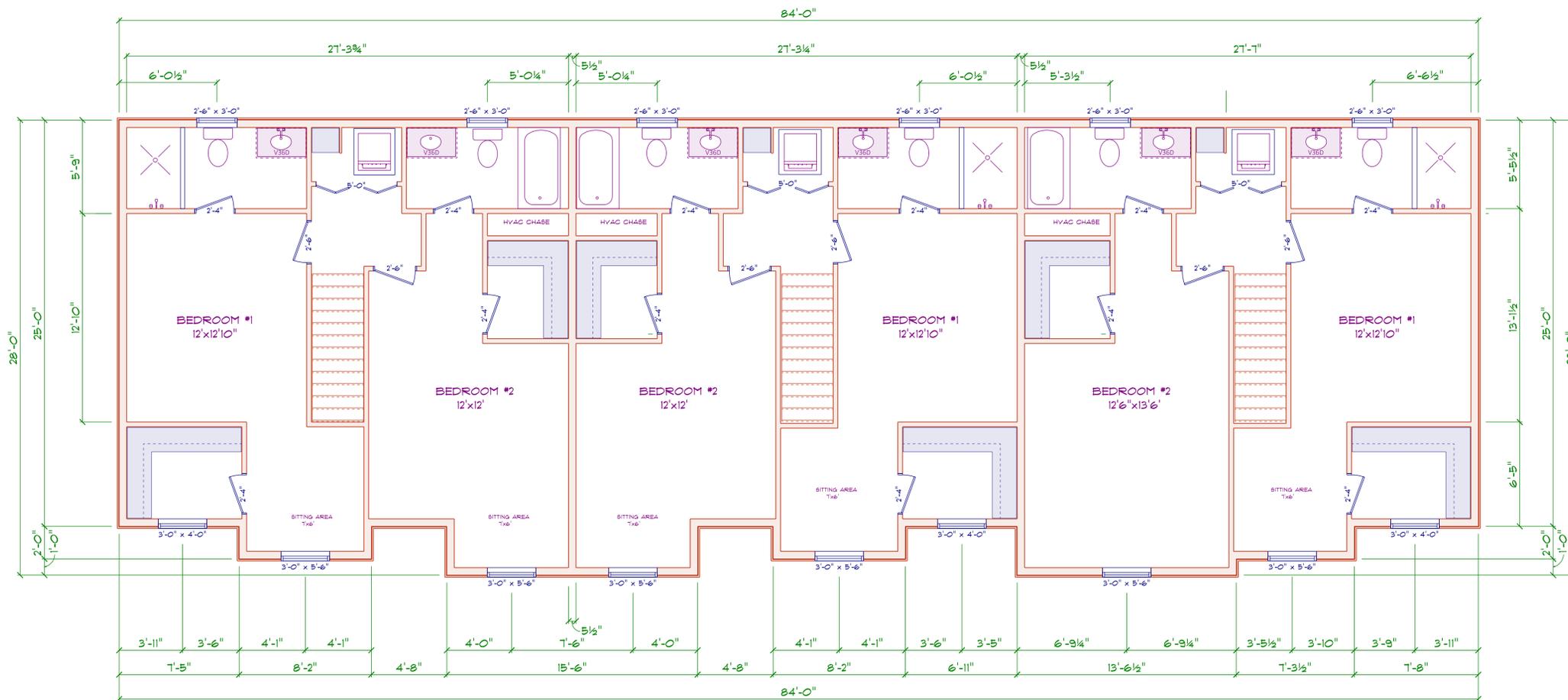
DATE 10/4/2025

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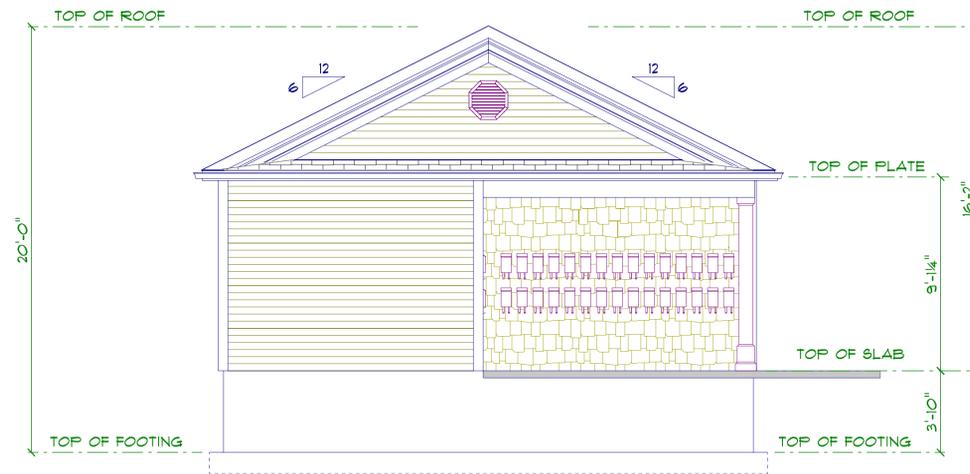
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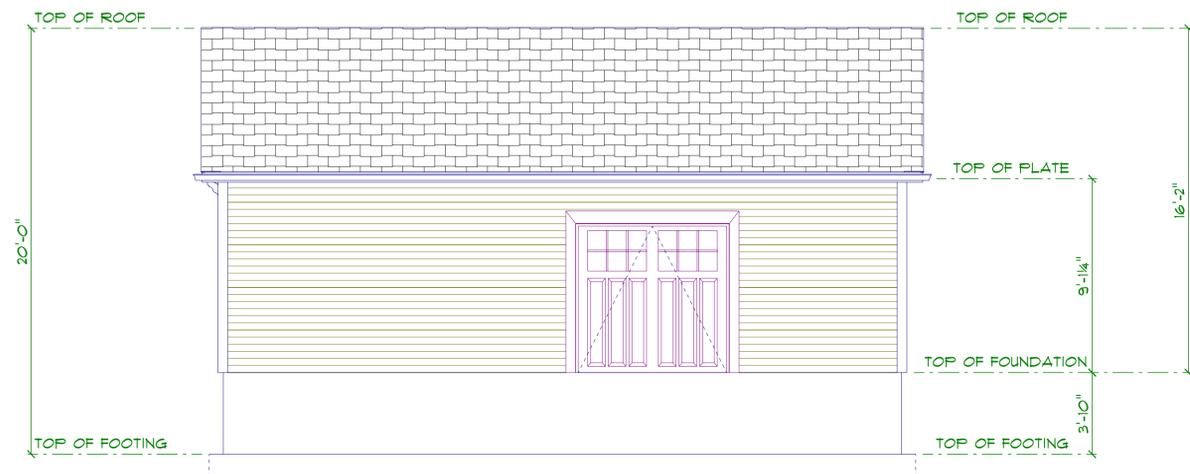
SECOND FLOOR BLDG 12 TRIPLEX UNITS 39-41	<i>Diamond Estates LLC</i> <i>110 Court at Suite one</i> <i>Cromwell Ct. 06416</i>  <i>Phone 860-632-7090 ext 3</i> <i>Fax 860-394-4001</i> <i>Email pat@buildingct.com</i>	<i>Louis Street Apartments LLC</i> <i>103 Louis Street</i> <i>Newington CT. 06111</i>	<b>A8</b>
DATE 10/4/2025			



FRONT ELEVATION	Diamond Estates LLC	Phone 860-632-7090 ext 3	Louis Street Apartments LLC	A1
OFFICE BUILDING	110 Court st Suite one	Fax 860-394-4001	103 Louis Street	
DATE 10/4/2025	Cromwell Ct. 06416	Email pat@buildingct.com	Newington CT. 06111	



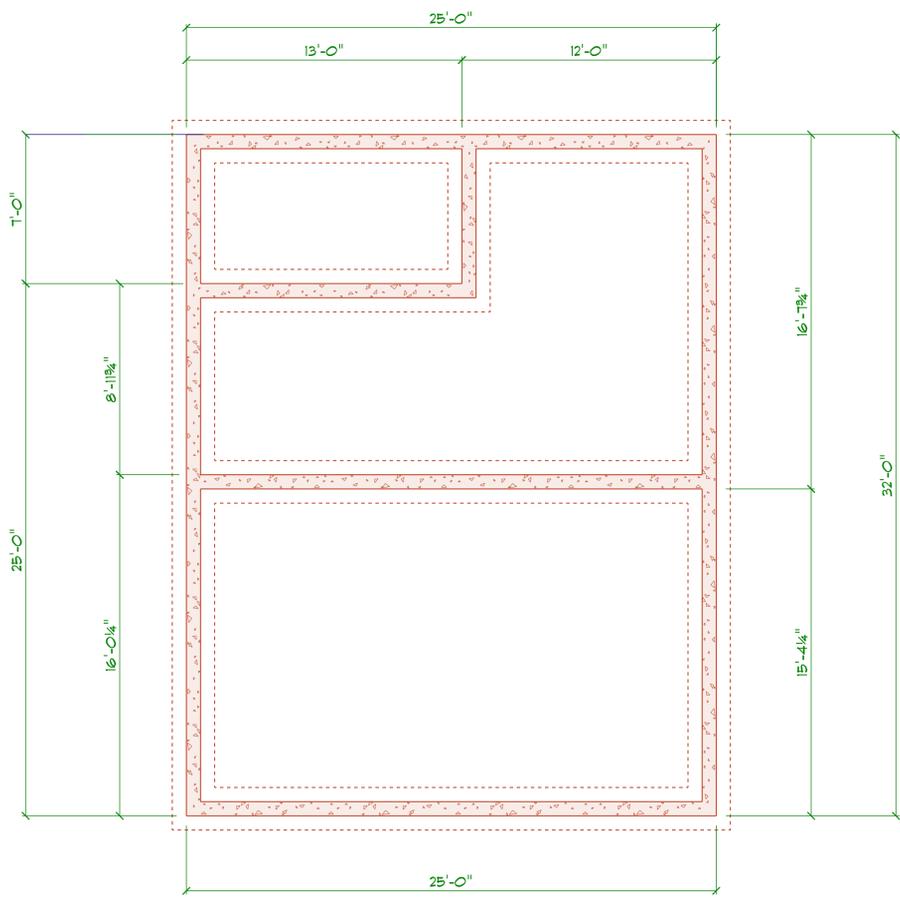
REAR ELEVATION	Diamond Estates LLC	Phone 860-632-7090 ext 3	Louis Street Apartments LLC	A2
OFFICE BUILDING	110 Court st Suite one	Fax 860-394-4001	103 Louis Street	
DATE 10/4/2025	Cromwell Ct. 06416	Email pat@buildingct.com	Newington CT. 06111	



RIGHT ELEVATION	Diamond Estates LLC	Phone 860-632-7090 ext 3	Louis Street Apartments LLC	<b>A3</b>
OFFICE BUILDING	110 Court st Suite one	Fax 860-394-4001	103 Louis Street	
DATE 10/4/2025	Cromwell Ct. 06416	Email pat@buildingct.com	Newington CT. 06111	



LEFT ELEVATION	Diamond Estates LLC	Phone 860-632-7090 ext 3	Louis Street Apartments LLC	<b>A4</b>
OFFICE BUILDING	110 Court st Suite one	Fax 860-394-4001	103 Louis Street	
DATE 10/4/2025	Cromwell Ct. 06416	Email pat@buildingct.com	Newington CT. 06111	



FOUNDATION PLAN	<i>Diamond Estates LLC          110 Court st Suite one          Cromwell Ct. 06416</i>	<i>Phone 860-632-7090 ext 3          Fax 860-394-4001          Email pat@buildingct.com</i>	<i>Louis Street Apartments LLC          103 Louis Street          Newington CT. 06111</i>	<b>A5</b>
OFFICE BUILDING				
DATE 10/4/2025				



NEWINGTON TOWN PLAN AND ZONING COMMISSION

Regular Meeting

January 14, 2026

Chairman Stanley Sobieski called the January 14, 2026 regular meeting of the Newington Town and Zoning Commission to order at 7:00 p.m.

- I. **PLEDGE OF ALLEGIANCE**
- II. **ROLL CALL AND SEATING OF ALTERNATES**

Commissioners Present

Commissioner Robert Cain  
Commissioner Michael Fox  
Commissioner Joseph Harpie  
Commissioner Craig Miner  
Chairman Stanley Sobieski  
Commissioner Peter Hoffman-A

Commissioners Absent

Commissioner Gia Pascarelli  
Commissioner Stephen Woods  
Commissioner Alexandra Rice-Davis-A

Commissioner Hoffman was seated for Commissioner Woods

- III. **APPROVAL OF AGENDA**

Paul Dickson: There is just a typographical error, it's supposed to be ATD Realty as the owner instead of ADT on Petition 25-27. Again, this is a regular site plan modification, minor modification, not subject to a public hearing, didn't have to have a publication, so if you are okay with that, again minor typo but all of the other information is correct.

- IV. **PUBLIC PARTICIPATION** (For items not listed on the agenda; speakers limited to three minutes.

None

*Thomas O. Harpie*  
Town Clerk

RECEIVED FOR RECORD  
IN NEWINGTON, CT  
2026 JAN 20 PM 2:12

**V. ZONING ENFORCEMENT OFFICER REPORT**

Commissioner Harpie: That unregistered vehicle was that located by the Police Department?

Erik Hinckley: The one on Chapman Street, the Police Department, if there are no plates on a car and there is no probable cause, they don't run the plate, they don't run the VIN. If I go to a property on a complaint of unregistered vehicle, if I see a plate number, all I can do is run it through the Connecticut DMV web site. Just tells me if it is registered or not. Doesn't tell me what car it goes with, so they could have a right plate on a wrong car so that is kind of what I deal with. If I can't see a plate in front, I assume it is not registered, send out a notice, and go through the process. Sometimes the car just goes away, or plates appear, they have to provide proof of registration if that is the case.

Chairman Sobieski: I think it is a state law that they have to have two plates on a car. Any other questions? Thank you Erik, great job as usual.

**VI. REMARKS BY COMMISSIONERS**

None

**VII. PUBLIC HEARING**

Paul Dickson: Actually if you just want to read the procedures as I bring that up.

Commissioner Cain: The procedures of proceeding at public hearing shall be as follows:

- A. Convening by the Chairperson.
- B. Reading of the notice by the Commission Secretary or a Commissioner designated by the Chairman to act in his stead.
- C. Presentation by applicant.
- D. Town Planner report on the application.
- E. Persons wishing to speak in favor of the application (limited to three minutes per person.)
- F. Persons wishing to speak in opposition to the application (also limited to three minutes per person)
- G. Rebuttal by the applicant ( limited to five minutes total)

During the public hearing it shall be within the discretion of the Chairperson whether the time limitations should be varied slightly provided the Commission consents to any such variance by a majority vote.

Paul Dickson: So the notice in the paper that ran in the Rare Reminder on January 1st and January 8th: Newington Town Plan and Zoning Commission Notice of Public Hearing January 14, 2026 at 7:00 p.m.

Notice is hereby given that the Newington Town Plan and Zoning Commission will hold a public hearing in the Council Chambers Room 103 at Town Hall, 200 Garfield Street, Newington CT on Wednesday January 14, 2026 to consider the following petitions.

Petition TPZ-25-25: Modification of special permit (30-98) to allow live entertainment within an existing restaurant use with alcoholic beverage sales permitted pursuant to N.Z.R. (Section 6.6) and alter the hours of operation at 217 Kelsey Street (ADA 30-48 Christian Lane) in the PD (Planned Development ) Zone. Applicant and Contact: Mariela Barreto Perdomo, Owner: Reno Properties, II.

Petition TPZ-25-25: Special Permit for a change of use from a convenience store to a Liquor Store pursuant to N.Z.R.. Section (6.6.2) at 1125 Willard Avenue with the B (Business) Zone. Applicant, Owner: Royal 1125 Willard Avenue LLC, contact: Nibesh Paudel and Madhu Aryal.

This public hearing will be a Zoom Webinar/Hybrid meeting. Information on how to attend will be posted on the town website at <https://www.newingtonct.gov/virtualmeetingschedule>.

These petitions and related material are available for public inspection at the town Planner's office Town Hall, Room 204 and through the published agenda at the Town Plan and Zoning Commission agenda center: <https://wwwnewingtonct.gov/AgendaCenterTownPlanning-Zoning-Commission-27>.

Persons who require an accommodation to participate in this public hearing should contact the Town Planner at 860-665-8578 or [townplanner@newingtonct.gov](mailto:townplanner@newingtonct.gov) not less than 24 hours before the public hearing.

Submitted, Paul Dickson Town Planner

- A. Petition TPZ-25-24: Modification of special permit (#30-98) to allow live entertainment within an existing restaurant use with alcoholic beverage sales permitted pursuant to N.Z.R. (Section 6.6) and alter the hours of operation at 217 Kelsey Street (AKA30-48 Christian Lane) in the PD (planned Development )Zone. Applicant and Contact: Mariela Barreto Perdomo, Owner: Reno Properties II. (Applicant Received 11/24/25 – 65 Days to open public hearing by 1/28/26.)

Maria Barreto Perdomo, 217 Kelsey St, Newington, Connecticut: The reason I am here is because I applied for the entertainment license so technically the license is for when I took over the business to have it, but when my license came, it came without it, so I am here to apply for my license for entertainment.

Erik Hinckley: This is the floor plan, you see the stage located here in the upper left hand corner. This is pretty straight forward, she needs the approval so that I can sign off on this for her liquor permit to allow live entertainment. It's only going to be two to four times a month and you can also see the types of entertainment. She is going to have a live band, a d.j. and karaoke and then the hours of operation are up there and do vary slightly from the original approval which Paul can review in his staff report.

Paul Dickson: So the original hours of approval per the original special permit were 6:00 a.m. to 11:00 p.m. seven days a week. Again, you don't always have hours as part of an approval condition, sometimes you do, sometimes you don't, and this varies primarily in the evening hours. If you are going to look at it that way because it is going to operate from 11:00 and they have been operating later. This is kind of to formalize that again. Tuesday through Thursday, 11:00 a.m. to 1:00 a.m., Friday and Saturday, 11:00 a.m. to 2:00 a.m. and Sunday 11:00 a.m. to 1:00 a.m. The location of Prime Burgers, there is no residential around it. It's pretty far away from the nearest residential, it's around offices, it's around industrial properties in New Britain, and there is a nursery across the street. We have not received any complaints about this property. I don't have concerns about the hours, these are typical hours for restaurants that have a bar and a little bit of night life and a place for people to go to. Again, staff does not have any issues with the application, it's the live entertainment aspect that kicks it back to you as well, originally with the hours that is something from the special permit that is good to modify but the live entertainment has always been something that is either part of the liquor permit when it comes in, or part of the restaurant when it comes in. This did not have it, kind of formalizing in a way how Prime Burgers has been operating for some years. So again, staff does not have any issues with the application and would recommend approval.

Chairman Sobieski: Any questions from the Commissioners?

Commissioner Harpie: Is any part of this building extending into New Britain?

Paul Dickson: No.

Commissioner Harpie: Reno Properties is certainly a good landlord and this should be a good tenant.

Commissioner Fox: Paul, do you have any problem with the parking requirements, do they remain the same?

Paul Dickson: Yes, there is no change in the parking requirements, it's just square footage of the restaurant, no changes, nothing happening there and there is a significant amount of parking actually on this parcel, with the adjoining parcels as well, especially with the office uses

Chairman Sobieski: I'll open it up to the public, anyone wishing to speak in favor of the petition?

Jacob Knowlton, 10 Hillside Street: I am speaking in favor of this because I think this is fantastic. These applications are great to see so I am sure that maybe there is no opposition but I just wanted to say that, especially for a region that struggles with (inaudible) retention, more activity, more night life is really important, so to have applications come through like this, I have been seeing a decent amount in other towns, it's really great to see, so this is fantastic for Newington. Thank you.

Chairman Sobieski: Anyone else wishing to speak in favor of the petition? Anyone wishing to speak against the petition?

Commissioner Cain moved to close Petition TPZ-25-24. The motion was seconded by Commissioner Harpie. The vote was unanimously in favor of the motion, with six voting YEA.

- B. Petition TPZ-25-25 Special Permit for a change of use from a convenience store to a liquor store pursuant to N.Z.R. Section 6.6.2) at 1125 Willard Avenue within the B-(Business) Zone. Applicant Owner: Royal 1125 Willard Avenue LLC. Contact Nibesh Paudel and Madhu Aryal, (Application received on 12/10/25 – 65 Days to Open Public hearing by 2/1/26.)

Chairman Sobieski: Please state your name and address for the record.

Madhu Aryal, 109 Brookside Road, Newington/Nibesh Paudel, 15 Chapman Road, West Hartford.

Madhu Aryal: Good evening, for the record I am an applicant for this petition, as well as a resident of the town. We are requesting approval of a special permit for the change of existing business from a convenience store to a liquor store at 1125 Willard Avenue, which is located in the business zone. The property has a long history of retail and operated with a beer and liquor sales. No physical changes are proposed at this time with the application. We have, the building meets all of the parking requirements, zoning separation requirements as well as the hours that are proposed that we have are consistent with the surrounding neighborhood. If there is anything that is recommended by staff we're willing to accept those and I respectfully request the approval. In addition, there are a couple of things that I would like to highlight here on the property. The property is zoned to permit the sale of liquor on the retail side. We have parking, fifteen existing parking spaces where thirteen are required for the size of the building, which is more than is required for the building. It meets all of the separation requirements, we haven't had any public complaints on the record, as well as with the change of ownership we are going to maintain the property to look better because it is in the middle of the Town.

Erik Hinckley: Do you want to explain to the Commission that you are transferring an existing store that you bought to that location?

Madhu Aryal: Yes, we have a business that is, or we bought a package store in the center of the town that isn't doing very well at all. I think moving that, our Newington is at its capacity which is why we are moving.

Paul Dickson: So staff did review on the site, the one interesting one is the restaurant that is there, actually it is a very small factor. It's a few chairs in the front and primarily pick-up oriented by the way it is set up. We did not find a special permit for that but that is not the subject of the application here for tonight, but we did run all of the numbers on the site. This site does meet all of the parking requirements including a restaurant and a retail use. There are eighteen parking spaces that were shown on the original approved site plan, sixteen are currently usable just because of the configuration of the back and a walk-in cooler that was kind of modified back there over time, but the parking requirement is thirteen spaces combined so they will have an excess of three spaces above what they are required to have. I haven't seen any parking issues or many issues with this small retail set-up and again, it is a B Zone, but it is an island of a B Zone. It is surrounded by residential but the nearest abutting residential is primarily undeveloped and wooded right next to it, so there is not as much of an immediate neighbor. Again, Newington has an allotment of liquor stores per the State Liquor Control and we are pretty much at the point if someone want to open a new one, they do have to transfer one, so that is the case here, but it meets the special permit requirements for a liquor store. It has proper separation distance, not near sensitive users like a college, church or hospital or within 15 hundred feet from another similar establishment. Again, we find that it does meet the special permit criteria. If there are any other questions that you may have for the applicant, I recommend that you ask them, and the only one that we did not include any conditions, but one thing that staff would note that probably should be done on site is re-striping of the parking lot. It has been a little while. In talking with the applicant I believe they plan on that anyway. They have been cleaning up the site, cleaning up the landscaping, so I think they will move forward in that direction.

Commissioner Harpie: Are you going to maintain these hours, 10:00 a.m. to 9:00 p.m. or will those change.

Madhu Aryal; Yes, those are the hours.

Commissioner Harpie: Then you made a, well I guess this is a quote from you, the applicant states that liquor retail traffic tends to consist of short visits, dispersed through the day resulting in no high intensity peak demands. Is that just an observation of yours, or.....

Nibesh Paudet: We do have other liquor stores around Connecticut, one in Plainfield and one in Windsor Locks and we do see that pattern that they don't tend to be in the store for a long time, it's quick, grab and go.

Commissioner Harpie: Paul, you are comfortable with traffic having an easy way out?

Paul Dickson: Yes, no changes to that site plan. It has existed for some time. There are occasionally at that light itself backups, but it is not necessarily related to this site. It's more just the road itself, so I haven't seen any issues....

Erik Hinckley: We are not aware of any complaints or issues.

Commissioner Cain: You currently sell beer at this location, is that correct?

Madhu Aryal: Yes.

Commissioner Cain: One of the criteria for a special permit is the location and type of display signs, lighting and landscaping and the impact of that on adjacent property. I think Paul mentioned something about the landscaping, I think there have been some issues with the upkeep of that in the past. Are you planning to hire someone to keep control of that, or what is the plan?

Madhu Aryal: There was a change of owners, not that long ago, and the property was owned and maintained by somebody out of state. We are local residents, we want to take pride in our property and we have been cleaning up to the extent possible given the time frame. We just went into fall, you will probably see a significant change, like the bushes around the property that were cleared. Over the springtime we will hire someone to clean up the surrounding, the back of the property so it is more visible to the public, and we can take pride in owning that property.

Commissioner Hoffman: I just want to follow up on that. It does appear that you have done a good job in cleaning up the front of the building, around the corner itself, still some work to do around back, and make sure that you keep on top of that because in the past it has gotten a little overwhelming.

Madhu Aryal: We knew in buying the property that it needed some work based on the landscaping, the lighting, and we're looking forward to doing that.

Commissioner Miner: As the applicant just referenced, one thing, I am familiar with that site and one concern that I do have is the site lighting for the site is totally inadequate and as long as they can bring that up to current standards with the efforts of the Planner, I have no objections.

Chairman Sobieski: Are you referring to the sight lighting on Willard Avenue or on Robbins?

Commissioner Miner: The site lighting for the entire site, they have one pole light that is mostly off and on under the previous ownership, just the site lighting for the entire site.

Commissioner Fox: Again, Commissioner Miner and whoever spoke before are worrying about the landscaping, but as that has been mentioned, I will hold my peace.

Chairman Sobieski: Anyone from the public wishing to speak in favor of the petition?

Gail Budrejko, 28 Isabele Terrace: This is actually not in favor or against, I'm not opposed to it at all, but I just wanted to, if you can, in addition to the lighting and the landscaping, but make sure that there are enough trash receptables because we, in town, have a very big problem with the little nip bottles and I assume that you will be selling those, and they just get thrown all over so just make sure there is enough receptables for consumers. Thank you.

Chairman Sobieski: Anyone wishing to speak against this petition?

Commissioner Harpie moved to close Petition TPZ-25-25, seconded by Commissioner Cain. The vote was unanimously in favor of the motion, with six voting YEA.

### **VIII. APPROVAL OF MINUTES**

Commissioner Harpie moved to approve the minutes of the December 10, 2025 meeting. The motion was seconded by Commissioner Fox. The vote was in favor of the motion with five voting Yea and one abstention (Cain.)

### **IX. NEW BUSINESS**

- A. Petition TPZ-25-24: Modification of special permit (#30-98) to allow live entertainment within an existing restaurant use with alcoholic beverage sales permitted pursuant to N.Z.R.(Section 6.6) and alter the hours of operation at 217 Kelsey Street (AKA 30-48 Christian Lane) in the PD (Planned Development) Zone. Applicant and Contact: Mariela Barreto Perdomo, Owner: Reno Properties II.

Commissioner Cain moved to approve the modification to Special Permit (#30-98) to allow live entertainment within the existing restaurant and alter the hours of operation

#### **Reason for Approval**

This modification meets the requirements of the Special Permit Criteria.

The motion was seconded by Commissioner Harpie. The vote was unanimously in favor of the motion, with six voting YEA.

- B. Petition TPZ-25-25. Special Permit for a change of use from a convenience store to a liquor store pursuant to N.Z.R. Section (6.6.2) at 1125 Willard Avenue within the B (Business) Zone. Applicant, Owner; Royal 1125 Willard Avenue LLC. Contact Nibesh Paudel and Madhu Aryal.

Commissioner Cain moved to approve Special Permit TPZ-25-25 for a change of use from a convenience store to a liquor store.

#### **Reason for Approval**

This modification meets the requirements of the Special Permit Criteria of our zoning regulations.

The motion was seconded by Commissioner Hoffman. The vote was unanimously in favor of the motion with six voting YEA.

- C. Petition-25-27 Site Plan Modification for two building additions of 3,483 sf (west side) and 2,912 sf (east side) and minor drainage improvements to an existing building at 40 Commerce Court in the I (Industrial) Zone. Applicant: PDS Engineering, Contact Steve Giudice, Owner; ATD Realty LLC.

Paul Dickson: This is a new business, they haven't given a presentation on it yet, so this would be a good opportunity and we do have the applicant here tonight and we also have the applicant's engineer on line as well. Just to remind the Commission, and the applicant can come up while I am going through this, that earlier last year, mid last year in May of 2025 they were issued a special permit for this automotive use at this site. It changed from the Progressive building which was an auto claims center that did examinations of vehicles but it changed into this owner's business. At that time they did mention that they were looking to close these in, in the future. Now they are in prime view for closing these in and the main reason why this is in front of you and not an administrative application is that it does exceed that ten percent threshold for when you increase the size of a building. It requires Commission approval rather than staff approval. And I will report that a second application to the Wetlands Commission, originally they had applied for one canopy and there was a little communication back and forth between the owner and the engineers that they added the second canopy. They have gotten approval for that, administrative approval from Wetlands so this is eligible to be acted upon as a whole tonight. So the applicant is in front of you and he can kind of run through what they are looking to do.

Bill Jonice, I'm PDF engineering and construction and my company is at 107 Old Windsor Road, Bloomfield, Ct.

Matt Concero, Riddle Hill, Farmington

Bill (inaudible) 39 Pinnacle Road, Farmington

Bill Jonica: PDF is the engineer of record for this project. We applied for and received a special use zoning permit last May and we received a wetlands approval December 16th and Attention to Detail performs computer analysis, calibration, adjustments, for safety systems. We don't do any auto body work, or brake repairs or oil changes or engine repairs or any mechanical work of any other kind.

I have Brian Pinnacle attending remotely because he is not feeling well, so we're happy to have him attending. We did review the site plans with you and show you that they do meet all Planning and Zoning requirements for your approval.

Brian Pinnacle: Good evening, sorry I couldn't be in attendance tonight but I think you all would appreciate it. So basically what we are proposing to do is enclose the two overhangs that exist on the building. As Paul said, the overhang to the west 3,483 sf, and to the east 2,912 sf of overhang. We are also proposing to add some additional pavement to the west of that other hang in order to make that more passible, more easily passible. To make up for the fact that we are increasing the impervious surface by doing that, we are proposing to remove four parking spaces which are in the northeast corner of the site. The site currently has well over one hundred parking spaces and only requires 78 or so. We have an abundance of parking and removing those spaces will not negatively affect this in any way. Again, the change of use, technically the change of ownership generally speaking, auto uses, Attention to Detail has a very good reputation and we don't foresee anything happening at this site that would cause any harm to any neighboring properties or anything like that. There are no proposed modifications for the existing utility connections in the street. Everything is happening on site and that more or less sums up what is going on, on the site. Thank you for bringing that up, these are the elevations, I believe there are both existing and proposed elevations shown as available so you can get a better sense of what the building looks like now and what they are going to propose to do and how it will look when those are enclosed. You can see the canopies in the lower picture, and then the façade being modified to enclose those as proposed.

The immediate desire is to enclose the canopy to the west but the applicant does and would like to, at some point in time in the near future do the same thing for the canopy to the east and so we determined, a little after the fact but we determined it would be better to come before you and ask for both of these things so that in the future when they are ready to do that they can submit their plans and get that done.

Paul Dickson: So again, staff has reviewed this, we did not find any issues with the application, and the one thing that I did include in the staff report, and the owner can give a little more information on it, but from the appearance of it, it looks like there are going to be pretty much matching the existing building and tying it together as much as possible. You can see the CMU split face that actually exists and some differentiation with materials so it is actually is good to see that it is not just planned to be one blank lifelessly, that they will kind of match it and I think the pride in the business and wanting to see the building, it's actually a good looking building as it is now, so I think this will kind of work together. The only real changes on site again, as I noted, the minor changes and this would not require a site plan itself, a little bit of pavement being added around this side, again they did need to get Wetlands approval, and they got wetlands administrative approval, so again, it is a small amount of pavement and then the removal of the four spaces in the back and that is the balance of the impervious coverage on the site, just to make sure that they are not increasing it. I think overall it works. Staff recommends approval of the application and we have not had any concerns about this site.

Commissioner Harpie: You are taking out a couple of windows too, aren't you? Did I read that?

Bill Jonice: We are going to replace a couple of the windows with garage doors, on the western side of the building.

Commissioner Harpie: And then you were going to apply a certain type of paint?

Bill Jonice: The paint will match the existing paint that is there on the side of the building. The front of the building, we are doing to do brick work to potentially tie the front towards the road, it will just be a continuation of what this will look like, a steel building tacked onto a beautiful building, so we are going to try to keep the aesthetics to flow.

Commissioner Harpie: You have enough parking spaces?

Bill Jonice: Removing spaces to balance the impervious, on the eastern side we are not modifying for the future, it's not used for parking. Progressive used it as a shelter from the weather when looking at cars, and that will remain.

Commissioner Harpie: For some of the new members here this evening, can you explain your operation, your basic operation?

Bill Jonice: We calibrate safety systems, all your cars have safety systems, auto braking, lane departure, and if any one of the cars gets into an accident they need to be recalibrated back to the (inaudible). We go into the wide open, climate controlled environment, sheet on the floor, even the walls are made as smooth as possible because we are calibrating radar as well as sonar. The inside of the building will be wide open, we need a controlled environment to run these programs.

Commissioner Harpie: And are you going to occupy the entire building?

Bill Jonice: Yes.

Chairman Sobieski: What is the Commission's pleasure?

Paul Dickson: We're already in New Business so you can just move to a motion to approve and if you have any more discussion please feel free.

Commissioner Cain moved to approve the site Plan Modification: TPZ-25-27.

Reason for Approval:

This modification meets the requirements of the Newington Zoning Regulations.

The motion was seconded by Commissioner Harpie. The vote was unanimously in favor of the motion, with six voting YEA.

**X. OLD BUSINESS**

- a. Petition TPZ-25-26 CGS 8-24 Referral- Disposition of a portion of the Griswoldville Avenue right of way abutting 125 Waverly Drive (± -2,208 sf)

Chairman Sobieski: Since we have a new member here, can you just give a brief overview of what when on, on Griswoldville Avenue?

Paul Dickson: At our last meeting we discussed, the application is TPZ-25-26 CGS 8-24 Referral for the disposition of a portion of the Griswoldville Avenue right of way abutting 125 Waverly Drive. It's about 2,208 square foot, 12 feet wide, piece of right of way that the owner has approached the Town, approached the Town Manager to discuss purchasing it. So again, this is an item that will be in front of Council. This item would require, the selling of any public land requires a hearing as well and this is open and we get a decision from Council at the end of the day. For those new members, the gist of the 8-24 referral it is really in conformance with the POCD, that is the number one question. So, is there anything in the POCD that would address this. Staff has reviewed it, this type of minor alteration, the POCD doesn't really get into that level and at the last meeting we had kind of discussed that this is not shown on any future sidewalk plans in the POCD, it's not shown on future bike lanes in the POCD and also there is a significant amount of right of way in this area. Since the last meeting, one of the items that was kind of hanging out there is that we didn't hear back from the MDC. We had heard back from the gas company, from telecom, and they did not have any future plans for this area, so the e-mail that we got from MDC and their response is: " We have looked into your inquire below regarding the sale of this strip of Town of Newington ROW to the property owner at 125 Griswoldville Rd. The District has no objection to this sale, as any future public sanitary sewer mains or public water mains would be installed within the roadway. According to our GIS, the existing Town ROW width in this area is approximately 95' wide. Given this, the reduction in width of 12' should not present an issue to any future needs." So, the Town Engineer has heard back from all of the utility companies, no potential projects have been identified in this area, and in speaking with the Town Engineer there would be enough room left over even after this 12', if it was sold and we could put in a sidewalk or we could put in other facilities there as well. This strip is on Griswoldville, so I read the quote directly, so that is kind of where we are at. Again, this is the Commission's decision. If you review and at the end of the day what you do is at the end of the day you either report a favorable or unfavorable review. If you do a favorable review, the Council can proceed with their actions, without a super majority. If you say unfavorable it just requires a two thirds majority at the Council to approve.

Erik Hinckley: There would still be a public hearing at the Council level.

Paul Dickson: What is interesting in Newington as well because we have our own policy on the disposition of parcels. It's been utilized for the right of way, it was actually utilized most recently on Budney. On Budney Road there was a stub between of a future road that was never developed and that was split between the two property owners next to it. So this is a little more unique, with one single property owner asking for twelve feet but his reasons that he had was talking about getting more room for his kids in the backyard, to be able to utilize the property. So he questioned the Council, the Council and the Town Manager sent this to you for review of the town policy and staff is a little uneasy with the twelve feet, but again I do not see any conflicts with any larger plans.

Commissioner Harpie: Can I ask a question? How tall is this fence?

Erik Hinckley: The fence is already installed. It's six feet and in the front of the corner it is four to provide adequate sight line.

Commissioner Harpie: Looks like we are rewarding the guy, but from a professional standpoint what we are intended to do, we do it.

Commissioner Cain moved to approve a favorable report for the disposition of a portion of the Griswoldville Avenue right of way abutting 125 Waverly Drive to the Town Council.

Reasons for the Favorable Report:

This referral does not conflict with the POCD

The motion was seconded by Commissioner Harpie. The vote was unanimously in favor of the motion, with six voting YEA.

C. Appointments to CRCOG Regional Planning Commission

Commissioner Sobieski: I have asked Commissioner Cain to accept the appointment as the representative to CRCOG.

Commissioner Harpie: Second the motion. The vote was in favor of the motion, with five voting Yea and one abstention (Cain.)

Commissioner Cain did accept the appointment.

## **XI. PETITIONS RECEIVED FOR SCHEDULING**

- A. Petition TPZ-25-28: Site plan for a 41 unit rental apartment home development under CGS § 8-30g (Affordable Housing application) at 103 Louis Street in the PD (Planned Development) Zone. Applicant: Premier Real Estate Services II, LLC  
Owner : Innate Investments, LLC. Contact: Andrew R. Morin, Esq (Application received 12/10/25 – 65 days to open public hearing)

Paul Dickson: We have advertised this to be at the next meeting, to open the public hearing. The Commission, I believe that you have all received copies of the plans. There is an application packet and I noted this during our last meeting but I'll also remind anyone listening along too, all of the materials are up on our current land use application page and have been for a little while. That is where we put these applications, so anyone if you are listening to this after the fact, and you want to take a look at what it is, you can go right on it. Currently these applications page and the Town Planner's page and you will be able to see the entire application and the plans.

We met with the applicant, working through staff comments and then there will be a presentation for you at the next meeting. Actually the first notice, public hearing notice should be in the paper tomorrow.

Chairman Sobieski: I have a question. Commissioner Fox will be in Florida for about a month, will those plans be up on our site also?

Paul Dickson: They are up on there now.

Chairman Sobieski: I just wanted to be sure.

Paul Dickson: So, Commissioner Fox if you have any difficulty accessing them please let me know.

Commissioner Fox: I certainly will.

## **XII. TOWN PLANNER REPORT**

Paul Dickson: So, one of the main items and we started talking about this briefly at the last meeting is moving forward with the Town Center Master Plan and kind of starting with the questions regarding zoning. Again, as it was said during the process, and everything, nothing has been changed. This is a concept, but for us to be able to set the stage and really make it clearly understood what the town is looking for, I think the plan does a good job at telegraphing and showing what the people in Newington are interested in.

Now we get into the nitty-gritty part of it in building the regulations to support that. So I want to start that process with you. Start at least you thinking about how you would like to go about this process. Is this something that you would want me to get some rough numbers, is this something where you want to create a sub-committee to look into it, this is something to think

about. I know my first plan is actually to come to you with some rough numbers. What does the plan represent? It was asked by Commissioner Woods at the last meeting, how much open space is represented in this type of configuration? What is the level of coverage? What's the level, what are we looking for and I think a lot of parts I think are going to be along access. Where are the primary points of access where we would like to say, yes, continue the street here, this should be pedestrian access, here are those points. Do we want to go as far in zoning? We don't want to get too crazy with the zoning, make it so it is a 20 page document in of itself, that would be a bit much.

Where does the Commission want to go with starting this process? I think keeping the momentum going is something that we need to do. So get that in your minds, think about it, if you have any comments now I'm happy to take them, if not, if you think about how you would like to see this progress again, I plan for, at the next meeting to start to work on those numbers and give you some ideas of what zoning could look like, based on the Master Plan and then to think about how we want to address the zoning. Do we want to set the zoning in place, do we want to create a floating zone, that can be enacted, we could have those options where yes, we could have a floating zone, it might need to be changed a little bit when it is enacted, no zoning code absolutely survives when you actually get to the realities of the development and where does this Commission actually see us going with this is my question for you.

Chairman Sobieski: Any questions?

Commissioner Harpie: I would want to keep it consistent with what the end game is, and maybe a sub-committee would be the way to go.

Commissioner Cain: You are potentially asking how do we want to act on the issue of re-zoning some of these parcels in the center that need to be likely re-zoned? So you are asking do we kind of want you to bring something to us or did we want to create a sub-committee where we originate and then bring them.....

Paul Dickson: I think a lot of it is going to be me starting it with you to say, here is where we are at, here's the plan, this is what we are looking at, and then starting to move it forward. Then you would have the decision, okay this is what we are looking for. Chances are whether we are looking for outside help, we do have that as part of the program that we built within the Town to say, okay we are looking at zoning regulations. We can bring in an external consultants as well to assist with this, but I think the key thing for us is to know what we want first, rather than hiring someone and saying, create something. I will come to you with some of the numbers but I think getting this going and showing that the town is seriously committed to seeing this plan to come to fruition, to see what people have looked for and the feedback that we got, that we take into account with the zoning code.

Erik Hinckley: It's not just re-zoning too, it's building heights, set backs, and other things like that.

Commissioner Cain: Okay

Chairman Sobieski: In my opinion, I think we should get a subcommittee number one, number two I don't know if I want to change the zones at that point, or put a floating zone in or put an overlay. I'm not sure, we do have a Willard Avenue overlay that I know of.

Erik Hinckley: There is a town center overlay as well.

Chairman Sobieski: Oh there is. I don't know if we would have to move some of that, or leave it there or modify it so I think a subcommittee would be good. I'll give you a call tomorrow Paul and figure out who wants to join the subcommittee here.

Commissioner Miner: I would be in favor of a subcommittee as well.

Chairman Sobieski: I would like to have numbers here volunteering, but I want to make this perfectly clear to everybody out there, there has been no zone change, and there will be no zone change until we know what we are doing here. I want to make sure that is clear. I worked on this when I was a member of the subcommittee, and I think it was a great products that we brought so far to this point. It's huge, as Commissioner Harpie said, it's a huge undertaking, and we're not just re-zoning a small section, you are re-zoning a good section of the center of town. I think that needs to be looked at a little more. I like the idea that Kimberly and her group brought up, and I think I want input from the residents, so I don't know the best way to do this. My original thought was to look at one area at a time, or do the whole thing. There are pros and cons to both. I do want to get this moving, we do need our parking facility feasibility study I think.

Paul Dickson: That is key for us in figuring a date and it demands a new development and how it also are reminded on our current spaces, what we have available and how much more can be absorbed because right now the other side of Market Square can't technically take credit for the parking lot. To know what your real demand is, what your projected future demand is, and part of the actual plan too was looking increasing the amount of green space, making it a little safer, so to lose those parking spaces around that center green area is a (inaudible) for the use of it, but then there are other options, looking at the area that was originally part of the original vision where it is all kind of private ownership now, we understand that is a big process in itself as a project, but that is part of the study too, to see how much you can get there, what you need and figure out again, I think it's going to be a combination of parking, but also at the same time I plan on working on wayfinding. That is going to be a big part of it for the parking and for the businesses and I do not that being a process that something just shows up at the TPZ ready to go. I would like to continue the process that we did, between the outreach through maybe

additional pop up events, or I show up some Saturday morning at the Community Café and use that back room and meet with people and say, I'm going to be there, I think that is another opportunity to do this, but my plan for this process is not just scripted from the town site, but to continue the public engagement.

Chairman Sobieski: I would probably join you in attending if that is okay/

Paul Dickson: Sure.

Chairman Sobieski: The thing I would like to do is make sure we publish this. I don't want to hear any one say, I didn't see it. Some people get the Hartford Courant, some don't. Some people are on Facebook, some aren't. Some people check the town's web site, some don't. I want to try to get as much exposure to this as possible. I would also like to have the Town Council designate one or two to the subcommittee. I think that is important. We need to have as much transparency as possible. I think it's a great plan, I do know that the steering committee as it was called was very positive about what was done and it was made up of people from the town government, town employees like the Town Manager, Paul, Erik and also from TPZ was myself, a couple of town councilors, Tim Manke, I think Gail was on it, and I can't remember who else.

Paul Dickson: Mitch was on it.

Chairman Sobieski: Right, I want to try to keep this open and transparent so I don't want anyone saying well, this was done behind, I want to make sure to try to do our utmost best to get the information out to the public. A lot of stuff is put on various web sites that is wrong. I need to see that, number one. Number two, I like the approach to kind of piecemeal this thing, so to speak especially in the center parking lot, Constitution Square, I'd like to look at that maybe there is some stuff we could do if we are comfortable with that, if the land owners and stuff, I don't know but I just want to make sure that everybody understands that this whole thing is transparent.

Commissioner Cain: I have seen other Planning and Zoning Commissions do, Rocky Hill worked with Professor Delaney at the UConn law school for a semester taking a list of topics that they were interested in. He had each of his students draft just a proposed change to the zoning regulations. They came and talked with the Commission at the end of the semester about the ideas, and then at the end they produced like draft proposals for zoning changes. I'm not suggesting that we have a law professor or law students re-write out zoning code but if we are short on man hours, it's January 14th, the semester starts Tuesday so there might be an opportunity, I know professors at the law school. I don't know if that is something that tweaks your interest in having some assistance with just generating ideas and introducing proposed draft regulations. We don't even have to vote on them, they could give them to us, but to look at

them, so that is something that I have seen Rocky Hill do and I could make a couple of calls to see if that is something that we wanted. Potentially just free ideas.

Paul Dickson: Yes, we have done the same. The Town Engineer and I have worked with students from multiple different schools, UConn, CCSU and most recently we worked with a group of students and I think they are finalizing it, recommendations for GSI, so they actually went through some areas in town, couple schools, town hall, they looked at the buildings around it, looked for areas where they could have disconnect with drainage, help us with our MS-4, so we have done this before and we will continue to do it, it helps us with the students and gives us additional ideas because the more people you have sometime someone comes up with something brilliant, so yes that would be something that I would be interested in.

Commissioner Cain: I can make some calls.

Chairman Sobieski: Personally I think that is a great idea.

Commissioner Cain: We might be a little late on the timing because classes start next week, but we, you know, there is still a chance.

Commissioner Harpie: There was a lot of time invested in this study and some landlords were pretty happy and others, if there is a zone change and a reason for them to do something, a capital investment is clearly, from that report, if zoning can make it more comfortable for them, and people are going to have early sit-downs with these landlords because they seem to be multiples, not one guy owns a big stretch they all own one little stretch, very difficult. I'm not saying they are not good landlords, they just know what they want to do. The Keeney Building personally, I mean it's got to go. It's got to be cleaned, it has a lot of potential. If you got the right broker to get the deal together. There is going to be a lot of capital investment over the next year, and if that happens these guys are going to have to have an investment somewhere. I think we could work some money into the project that way.

Paul Dickson: As part of the recommendation too is the need for round tables and that is a combination of staff working with the Chamber, working with EDC, working with what we have here in town to have these conversations and again, it's not my plan to have proposed regulations without another meeting, so one part of the regulations is actually the town center overlay district. I believe it is over 20 years old, that it was looked at. It had some information and I think the part that everyone looked at was signage.

They are touch regulations, they tend to cause some consternation one way or the other, but I think looking at that as part of the design for the district, really making sure everything is cohesive and give the level that is necessary, again, along Cedar Street. Cedar Street is interesting in the town center area because it's primarily residential looking, when you drive by it doesn't really invoke that town center feeling, it's kind of fractured. Again, residential on one

side, residential for the most part that has been turned over to businesses, and I think with a little bit of beautification, a little bit of façade work, you could elevate that a little bit and a lot I think is when you are driving by, like I say, before I worked here, driving by you don't necessarily realize how much is behind there. That is the issue that some of the business owners the issue that they have, yeah we have our signs, we have that, but everything seems to blend together on Cedar Street. It doesn't really evoke what is really behind, in the town center in Market Square, it's kind of a cut through. So again, these are all of the things to work on. It's a big project.

Chairman Sobieski: Does the town itself own the center parking lot?

Paul Dickson: The parking lot yes, a couple different accesses to it, the one we do not own is the access way coming off of Constance Leigh. That is owned by the apartment building. So we have, it's shared access on that one, but the actual front part of that driveway is actually owned by the apartment building.

Chairman Sobieski: That's not an existing access point right now.

Paul Dickson: It is, that is the primary. Again, that is the one that is near Dunkin.

Chairman Sobieski: I was referring to the other one on Market Square.

Paul Dickson: We own that access way, we have the access way that goes between the two buildings next to Hound and Home, and we have I believe two access ways off of Cedar Street as well.

Commissioner Harpie: There are multiple pieces deeded to the town.

Paul Dickson: Yes, you will find in the regulations too, if you gave land to the town, you got to use it.

Chairman Sobieski: What I'm concerned about, and that is why I suggested that we do this piecemeal, one section at a time. I don't know if that is going to work or not, it's something for you to look at, the subcommittee. Again, I have talked to you many times and I talked to the Town Manager about it, the problem that we have there is that there is no way some of those businesses have access or get any signage on Cedar Street and that is a big reason why some of these are failed. I think that is a big key of what you need to look at, and as far as I know, Keeney is the only odd ball piece in there, the rest is all public land I believe.

Paul Dickson: The rest is all Business Town Center.

Chairman Sobieski: So that needs to be looked at, need to find out what they want to do, I think the subcommittee is going to have more work than you can handle. I'm sure some of the members that are retired can help you.  
Any other questions Commissioners?

B. Current Lane Use Applications

Paul Dickson: Just to remind people, applications all get posted in there and for our future, next meeting the application is already up there for the 8-30g application.

**XIII. COMMUNICATIONS**

No Questions

**XIV. PUBLIC PARTICIPATION** (For items not listed on the agenda; Speakers limited to three minutes.)

None

**XV. REMARKS BY COMMISSIONERS**

None

**XVI. CLOSING REMARKS BY THE CHAIRMAN**

Chairman Sobieski: I just want to thank everyone for being here tonight, again, thank you for the public participation that we did have.

**XVII. ADJOURN**

Commissioner Harpie moved to adjourn the meeting. The motion was seconded by Commissioner Fox. The meeting was adjourned at 8:10 p.m.

Respectfully submitted,



Norine Addis,  
Recording Secretary