CITY OF DOVER

PLANNING TECHNICAL REVIEW COMMITTEE –AGENDA

Meeting Type: Regular Meeting
Meeting Location: Council Conference Room – City Hall, Dover NH
Meeting Date: **Thursday, October 13, 2022**
Meeting Time: **10:30 AM**

1. 10:30 AM – 11:15 AM: Site Review for Wooden Ruler Realty, LLC (Owner: Wong, John & Wong, Mo Y Trustees of the Mo Y Wong Living Revocable Trust of 2006), Assessor's Map 6, Lots 32 & 40, zoned CBD-G, located at 42-44 Third Street. (Proposal is to construct a 103,000 sf mixed-use building with commercial uses on the first floor, a below grade parking area, and 58 residential units). A CUP for the street tree and bench requirements of the CBD-G District adjacent to Third Street will also appear before the Planning Board. (P22-60) *[This item was previously heard on August 25,2022]*

City of Dover, New Hampshire
SITE REVIEW APPLICATION

[Revision Date: July 1, 2021]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Wooden Ruler Realty, LLC Telephone #603-742-5300

Address of Applicant: 35 Third Street, Dover, NH 03820

E-Mail Address: Billtgolds@aol.com

Wong, John & Wong, Mo Y Trustees of The Mo Y Wong Living Revocable Trust of 2006
Name of Property Owner (*if different from applicant*): _____ Telephone #_____

Address of Property Owner: 42 Third Street, Dover, NH 03820

PROPERTY INFORMATION

Address of Property: 42-44 Third Street

Assessor's Map # 6 Lot(s) # 32 & 40

Zoning District(s) CBD General Overlay District(s) None

Size of Parcel: 9,000 sq. ft. 0.21 ac. Property Deed: Book 4290 Page: 111

13,364 0.31

Existing Use of Property: Asia Rest. & Parking

SITE PLAN INFORMATION

Describe Proposed Use: 58 Unit Building with Commercial on the First Floor and a Parking Structure below

Area of Parcel to be Developed: 22,364 sq. ft.

If Multi-family Residential: Number of Units 58 & Buildings Proposed 1

If lodging: Number of Units _____ & number of Buildings _____

Number of Parking Spaces: Existing 23 Proposed 40 (see additional on 35 Third Street

Highway Access (check where applicable): X City Street ____ State Highway

Number of Employees Total: 10 In Maximum Shift: _____

Disposition of Parcel:

Building Footprint 18,930 sq. ft.

Total Building Area +/-103,000 sq. ft.

Paved Area 290 sq. ft.

Building Setbacks:

Front Yard Third Street Build-To = 0' ft.
Second Street Build-To = 6-16'

Rear Yard N/A ft.

Side Yard: Right 0-24' ft. Left 0-24' ft.

City Water? X Yes ___ No How far is city water from the property? _____

City Sewer? X Yes ___ No How far is city sewer from the property? _____

TRANSFER OF DEVELOPMENT RIGHTS INFORMATION

Type of TRANSFER OF DEVELOPMENT RIGHT REQUEST (Check All That Apply):

□ Residential □ Residential (reduced size) □ Industrial | □ Purchase □ Land Preservation

Relief sought (Check All That Apply):

□ Lot Size □ Frontage □ Setback □ 30' Buffer □ Increase by _____ units

Describe Proposed Use or Activity that requires TDR; describe any impacts and document mitigation:

_____

_____

_____

BUILDING INFORMATION

Type of Building to be Built: Parking Structure Below Grade on Third Street, First Floor Commercial on Third Street 4 Floors of Residential Space Above Commercial

Height of Building: Not Finalized Finished Floor Elevation: Varies

Number of Seats (where applicable) _____

Estimated value of construction: +/-8.0M Refuse removal: Public/Private (circle one)

Internal Refuse Collection in Larger Containers .

WAIVER REQUESTS

Site Review Regulations section(s) to be waived: 153-14(D)(6)(a) Aisle Width 153-14(A)(3))f)(2)(c) Site Specific Soils Map

Justification for waiver request(s) (*attach additional sheets as needed*):

See Waiver Narrative

SURVEYOR INFORMATION

Name of Surveyor and Company (Licensed in N.H.) Berry Surveying & Engineering
Kenneth A. Berry LLS 805
Christopher R. Berry Project Manager

Address 335 Second Crown Point Road
Barrington, NH 03820

Telephone #: 603-332-2863
603-781-3403 C

Professional License #: LLS 805

E-mail address: Crberry@metrocast.net
K.Berry@berrysurveying.com

ENGINEER INFORMATION

Name of Engineer and Company (Licensed in N.H.) Berry Surveying & Engineering
Kenneth A. Berry PE 14243
Christopher R. Berry Project Manager

Address 335 Second Crown Point Road
Barrington, NH 03820

Telephone #: 603-332-2863
603-781-3403 C

Professional License #: PE 14243

E-mail address: Crberry@metrocast.net
K.Berry@berrysurveying.com

ARCHITECT INFORMATION

Name of Architect and Company (Licensed in N.H.) Isaak Design, PLLC
Nick Isaak

Address 35 Oyster River Rd. Durham, NH 03824

Telephone #: 603-969-6711

Professional License #: _____

E-mail address: nick.isaak@gmail.com

LANDSCAPE ARCHITECT INFORMATION

Name of Landscape Architect and Company (Licensed in N.H.) Terrain Planning & Design LLC
Eric Buck

Address 311 Kast Hill Road, Hopkinton, NH 03229

Telephone #: 603-491-2322

Professional License #: 078

E-mail address: Eric@terrainplanning.com

SOIL SCIENTIST INFORMATION

Name of Soil Scientist and Company (Licensed in N.H.) Deidra L. Benjamin CWS

Address 100 Leavitt Road, Pittsfield, NH 03263

Telephone #: 603-496-3307

Professional License #: 295

E-mail address: deidra.benjamin1@gmail.com

CONSERVATION EASEMENT HOLDER

Name of Easement Holder: _____ Telephone #_____

Address Easement Holder: _____

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. Furthermore, I/we submit that the existing conditions sheet of the plan represents the lot in question, and that no alteration of the site shall take place during Planning Board review up to and including the pre-construction meeting. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 8-12-22

Signature of Applicant (*if different from owner*): _____ Date: _____

Signature of Agent: _____ Date: _____

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 8-12-22

AUTHORIZATION TO COMPLETE THE PROJECT ON SUBJECT PROPERTY

I, and my successors, hereby the City of Dover or its assigns to enter my property for the purpose of completing the site work as required by the approved plan should the letter or credit or other surety be called. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 8-12-22

Signature of Applicant (*if different from owner*): _____ Date: _____

CERTIFICATION OF FEES

I, and my successors, hereby certify that I understand that the City of Dover collects impact fees, utility investment fees and inspection fees for projects developed in Dover. Said fees must be paid before a Certificate of Occupancy can be obtained for a structure, unless a different payment schedule is agreed to by the applicant and the City prior to approvals being issued by the Dover Planning Board. Additionally, should the property be in "Current Use" it will be subject to the Land Use Change Tax.

Signature of Property Owner: _____ Date: 8-12-22

Signature of Applicant (*if different from owner*): _____ Date: _____

CITY OF DOVER SITE REVIEW
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

City of Dover, New Hampshire
SITE PLAN REVIEW SUBMISSION CHECKLIST

[Revision Date: June 4, 2019]

This site plan review checklist, as required by Chapter 153-6-B(2), should be completed by the applicant. It is intended to assist the applicant in the planning process of preparing a Site Plan Review application for Planning Board action. The size of the project will determine the types of information required for review, therefore, a **pre-application conference** with the Planning Department to determine the list of items that must be completed is strongly encouraged.

The first step would be to appear before the Technical Review Committee, to apply, eight (8) folded copies of the site plan with scale of not less than 1"=50' or 1" =100' for larger site plans, need to be provided, along with payment of plan review fees.

Two weeks prior to Planning Board, three (3) full size and twelve (12) half size (11x17), folded, copies of the plan set and materials, including response to TRC comments, will be due. Abutter/Notice Fees will be invoiced and need to be paid 28 hours prior to the Planning Board meeting.

The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan Review Regulations for full details.

APPLICANT: Wooden Ruler Realty LLC File Number: _____

PROJECT TITLE: Residences At 42-44 Third Street

PROPERTY LOCATION: 42-44 Third Street Tax Map: 6 Lot: 32 & 40

	Where/How Provided	Reviewed
1. Completed and signed Application form	X	
2. Plan Review Fees are provided	X	
3. Electronic copy of the engineered/surveyed plan layout	X	
4. Electronic copy of supplementary materials and application	X	
5. Traffic Impact Assessment and Analysis (Standard or Advanced)		
6. Waiver requests to the Site Plan Review Regulations, with written justification	X	
7. Conditional Use Permit applications	x	
8. A colored rendering of the streetscape that will be created along the existing public right-of-way		
9. A colored architectural plan showing all sides of buildings	X	
10. Folded copies of site plan w/scale of not less than 1"=50' or 1"=100' for larger site plans, for TRC. Plans shall contain the following items as appropriate:		
Location map at appropriate scale	X	
Proposed Project name and title and Planning File #	X	
Date, north arrow and scale	X	
Names of all abutting property owners	X	
Name and address of owners and/or applicants	X	
Signature & stamp of NH licensed land surveyor and/or engineer	X	
Zoning District boundaries, including any special or overlay districts	X	
Location of Conservation District areas	X N/A	
Location, names and widths of existing and proposed streets, including pavement widths, grades, curbs and crosswalks	X	
Location and widths of existing & proposed easements & right of ways	N/A	
Location and width of existing and proposed access/egress ways	X	

	Explain How Provided	Reviewed
Depict pedestrian walkways and accessible access	X	
Existing and proposed property lines with dimensions and bearings tied into Dover's Geographic Information System coordinate system	X	
Existing and proposed topographic information at two foot intervals	X	
Existing and proposed buildings and structure locations	X	
Minimum building setbacks or build to lines on all lots	X	
Location and size of existing and proposed electric, telephone, gas cable and other underground utilities	X	
Existing and proposed water lines and fire hydrants, including materials and capacity needed	X	
Location and materials of sanitary sewage facilities within project site and projected additional peak hour sewer load	X	
Existing and proposed stormwater lines and facilities	x	
Lighting plan depicting all existing and proposed exterior light fixtures and a lighting level analysis for parking lots	x	
Location of Flood Hazard Zone	X	
Location of all bodies of water and watercourses	N/A	
Location of wetlands and buffers	N/A	
Neighborhood plan with aerial underlay showing how project relates to abutting uses within the plan set	x	
Existing natural features and/or significant vegetation on property	x	
Depict existing contours up to 100 ft. beyond project limits	x	
Landscape plan depicting existing and proposed landscaping, prepared by a licensed Professional Landscape Architect		
Location of parking layout delineating spaces and arrangement; note addressing maximum required spaces	x	
Location, material and size of existing and proposed pavement area	x	
Location of proposed fire lanes	x	
Specify finished floor elevations of buildings	x	
Location of solid waste disposal facilities (dumpster, pad and screening, etc.), including required screening	x	
Depict all service, storage, loading bays and utility areas	x	
All applicable Dover Common Site Plan notes	x	
11. Additional Information if appropriate		
Stormwater Management Plan depicting the existing & proposed storm drainage system and engineered drainage analysis	x	
Stormwater Management System Operation and Maintenance Plan	x	
Letter to Serve from Public and Private Utilities	Applied for	
Erosion and Sedimentation Control Plan	x	
Landscape Operation and Maintenance Plan	x	
Proposed restrictive covenants or homeowners association documents		
Dates and permit numbers of all required state and federal permits		
If wetland buffer, indicate placards locations, as applicable	N/A	
Depict test boring locations, groundwater elevations and soil profiles and/or soils types call-outs		
Location of proposed drive-in facilities	N/A	
Provide additional exhibits/technical data determined appropriate by the Planning Board or its staff as required		

REVIEWED BY: _____ DATE_____ TRC DATE_____

BERRY SURVEYING & ENGINEERING
335 Second Crown Point Road
Barrington, NH 03825
Phone: (603) 332-2863
Fax: (603) 335-4623
www.BerrySurveying.Com

August 12, 2022/Rev: September 26, 2022

City of Dover Planning and Community Development
Attention: Donna Benton Director of Planning and Community Development
288 Central Ave.
Dover, NH 03820

RE: 42-44 Third Street TRC #2 Submission
Applicant: Wooden Ruler Realty LLC
Mixed Use Development
CBD-General Subdistrict

Mrs. Benton,

Berry Surveying & Engineering (BS&E) on behalf of the applicant Wooden Ruler Realty LLC and the owners John and Mo Y. Wong, Trustees of The Mo Y. Wong Living Revocable Trust of 2006, are submitting for a full TRC #1 for a project located at 42-44 Third Street. Prior to this submission, we have supplied the planning and engineering staff with site plans and schematic building designs at a site walk on the project site. Since the site walk a second meeting was held where revised site plans and building schematic plans were presented and discussed.

Existing Condition:

The project is located at 42-44 Third Street and is the location of the Asia Restaurant. What is not surfaced by a building is surfaced by a parking lot and travel aisle. The property is made of two parcels of land which front on both Third and Second Street. Tax Map 6, Lots 32 and 40. The property to the east is operated by Ross Furniture. The property to the west on Third Street is Cleary Cleaners, and to the west on Second Street is a residential duplex. The project site is directly across the street from the redeveloped municipal parking lot which included mixed use design and streetscape enhancements to Third Street.

BS&E has surveyed the project sites boundaries and topography. There are minor encroachments on and off the project site. Many of which will be removed during construction. The site, though visually flat, has 9 feet of topographic relief from Third Street to Second Street. There are no wetlands on site or within 50' of the project limits as determined by Deidra Benjamin, CWS. The site is currently serviced by water, sewer and gas, presumed to be provided from Third Street. These connections need further investigation. Power is provided to the northwest corner of the structure overhead from a pole across Third Street. The majority of the

project site's stormwater flows towards Second Street. Much of the building's roof runoff is collected with roof drains and sent out the back of the structure where it ties into a basin in Second Street.

Proposal:

The proposal is to construct a 58 Unit 5 Story structure with parking in the basement level. From the Third Street perspective, the structure will have commercial and retail space at the street elevation, and a subsurface parking structure below that level. Above the commercial and retail space will be 4 stories of residential space which will consist of 1-bedroom, 2-bedroom, and 3-bedroom rental apartments. Due to the elevation change the parking structure will be accessible from Second Street. The perspective from Second Street will be the garage level, the commercial level and three stories of residential use. The 4th story of residential which is visible from Third Street is only partially built out on the building footprint and is setback from Second Street to reduce the visible mass on Second Street. The area setback on the roof deck will be used for mechanical space, as well as green roof and passive recreation space.

Compliance with the CBD-Subdistrict:

Third Street Build-To:
30 Third Street: +/- 0.0'
18 Third Street: +/- 0.0'
52 Third Street: +/- 34.71'

The average within 250' is 11.57'. 4 Third Street is not included in the above calculations whereas it is technically not within 250', however it is clearly an influential building on the street that helps create the fundamental streetscape theme created by all the other buildings. The existing structure onsite contains a 0' setback. Additionally, 52 Third Street is an outlier for the area. After consultation with the Planning Director, it is determined that despite the calculated build-to setback, the general average and theme of the street is to provide structures that are adjacent to the sidewalk. The project design includes this in the placement of the proposed building.

Second Street Build-To:
35 Second Steet: +/-8.6'
29-31 Second Street: +/- 12'
23 Second Street: +/-9.2'
17-19 Second Street: +/-0.0'
11-13 Second Street: +/- 14.4

The average within 250' is 11.05'. The Build-To requirement is between 6'-16'. The bulk of the design provides 11.2', with a stair-case at 7.3' for approximately 10'. This provides 13.4' from the building face to the back of walk where street scape enhancements are proposed.

The CBD General Sub-District requires a sideline setback of 0-24'. All other boundaries on the parcel are considered sides. A 4-5' setback to the foundation wall is proposed for constructability of the site as well as separation from abutting buildings.

Third Street Streetscape:

At the site walk with city staff it was determined that pulling the proposed building to the front boundary line increased its conformance in the zone, however it limited the streetscape potential of the site. The current proposal is to reset the curb line in the existing location and re-construct the walk with brick. When considering sidewalk plowing and maintenance, this distance is not sufficient to provide street trees or typical furniture without interference. To accomplish this, the centerline of the street would need to be shifted to the north and the street reduced to 20' wide. If this were done the sidewalk could be enhanced another 2.4', which would allow for traditional streetscape enhancements. The issue recognized at the site walk centers around the fact that this re-development has a very small frontage footprint, and to shift the walk and centerline at the front of one site without the consideration for the remaining generates other operational issues for the City of Dover. If the City of Dover has projects in the masterplan or other planning mechanism that would complete the re-development / re-establishment of Third Street, then it would be best if this project conducted the additional re-location along the frontage now and add the streetscape enhancements. Additional shifting of the curb line will result in drainage structures to be re-located and other utility involvement. The current frontage provides for two parking spaces while the proposed project design affords five. Please find attached Third Street Schematic Plan and construction estimate to reconstruct Third Street and widen the sidewalk on the south side of the roadway.

As noted above the existing building is serviced by an overhead utility line across Third Street. In keeping with the City of Dover policy and in keeping with streetscape enhancements the project proposes to place the electrical service under Third Street to a proposed 3-Phase transformer in the north west corner of the building. This area was removed from the building design to place the transformer and required electrical meters. A masonry wall is proposed to carry across the front of the area in line with the structure, and contain a gate with black slats for access by the owner and utility company. An masonry wall is proposed to shield the transformer area. Architectural sconce lighting is proposed on the buildings face at the proposed entrances and in the area of the proposed transformer. The street is currently lit by a large cobra head lamp on the north side.

Second Street Streetscape:

Second Street has historically been more residential with some commercial uses / parking and loading areas fronting on the street. The project proposes to re-locate the driveway to the lower (western) side of the property, and re-set / stripe the three parking spaces along the roadway. It should be noted that the parking along Second Street is between 18' and 19' in length and is 8' wide. The proposed striping has been increased to 22' wide in the design. There is loss of one

existing space on Second Street due to parking setbacks from driveways. The existing sidewalk along Second Street is concrete and is proposed to be re-built along the project's frontage. A bench and barrel are proposed on a concrete pad, and situated on private property. A dedicated pedestrian walk is proposed from Second Street to the garage structure which will tie to an internal walk. Both internal and external walks are accessible. The remaining area is proposed to be planted with varying heights of vegetation. The project frontage along Second Street has historically contained the largest amount of vegetation on the street, though there are other frontages that contain mature overstory and understory. The landscaping design includes 4 street trees to meet the standard of 1 for every 25-30' of frontage. The area is planted with ornamental grasses, as well as larger Inkberry bushes to breakup the building face, and the remaining area. Flower beds are proposed with perennial flowers and wild blue Phlox is proposed as ground cover to fill remaining areas. Building sconces are proposed in three locations for low building lighting and 2 bollard lights are proposed at the driveway entrance. The lighting design is intended to provide adequate light however intends to keep the residential feel of the area. In general, the project proposes a large reduction in lighting onsite. The south side of the street contains a cobra head lamp on a utility pole that provides ample light for the area.

Parking and Garage Design:

The structure proposes a parking facility which will contain 39 spaces. 2 spaces are dedicated for ADA use and 2 spaces provide EV charging capabilities. The garage is designed with 21-22' aisles (see waiver request) and is proposed to operate in a one-way fashion. The garage provides space for 5 motorcycle / moped spaces and a bike rack for 7 bikes. An elevator and two stairwells are provided to the upper floors. A six foot wide accessible walk way is proposed from the accessible spaces to the elevator. Mail delivery will take place at the Third Street lobby, please find attached letter from the Post Master. Refuse is proposed in the south west corner of the garage and a riser room in the north east corner.

A parking garage is being proposed in-conjunction with this application to be located at 35 Third Street. The balance of the required parking is to be placed in that garage. This is to be filed as a separate application, however is fundamentally tied to the development of this site as well as others in the area.

Utilities:

As noted above underground utilities are to be provided from across Third Street to a proposed transformer. Water is proposed to be re-installed to the site from Third Street and brought into the sub-surface riser room. This room will be required to be conditioned space and is noted on the site plans. Natural gas is currently provided to the north east corner of the structure and is proposed to remain in that location. To obtain gravity sewer out of the floor of the structure, a sewer service is proposed on the Second Street side of the building and will require a new sewer manhole to be placed online. Due to the multiple cuts in Second and Third Street the project is proposing to mill and fill both roads and re-stripe as needed.

Stormwater:

The overall site contains less impervious surface in the proposed condition due to the implementation of the green roof and other reductions in the project foot print. Roof drains are proposed to tie into Second Street as they do in the existing condition through a series of conveyance structures onsite. Floor drains are proposed in the garage structure and are routed to a catch basin and drain manhole onsite to be equipped with a deep sump and hood to eliminate solids and floatable material prior to entrance into the MS4 system. With the reduction in impervious surface, the reduction of surface pavements and the implementation of pre-treatment devices the MS4 will see a benefit from improved flow. A 5,800 Sq. Ft. green roof (over 30% of building footprint) is proposed, further mitigating stormwater flows.

Waivers and Conditional Use Permits:

The project proposes a waiver to drive aisle widths and the need for a Site Specific Soils Map. Enclosed herewith are those waiver requests. In addition, the project is requesting Conditional Use Permits for street trees and benches on Third Street. See the above discussion.

We look forward to working with the staff and Planning Board to make this a successful project.

BERRY SURVEYING & ENGINEERING

Christopher R. Berry
Principal, President

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September 26, 2022

City of Dover Planning Department
Attn: Director of Department of Planning and
Community Development Mrs. Donna Benton
288 Central Ave.
Dover, NH 03820

Re: Site Plan Review
Parking Narrative
Berry Surveying & Engineering
Wooden Ruler Realty, LLC
42-44 Third Street (Tax Map 6, Lots 32&40)

In response to Technical Review Committee (TRC) comment requesting a narrative regarding justification of parking calculations provided, Berry Surveying & Engineering, (BS&E) provides the following response:

Parking requirement calculations have been performed using values shown in the Dover Site Review Regulations, Chapter 153-14(D)(1) for a 58 residential units as follows:

Residential (CBD-G) = 1.25 spaces per unit + 0.4 visitor space per unit
BS&E has proposed the parking calculations as follows:

Minimum parking required = 58 Units * 1.25 spaces/unit = 73 spaces
Maximum parking allowed = 58 Units * 1.65 spaces/unit = 96 spaces

BS&E justifies the seventy-three (73) parking spaces required for the residential parking using the same methodology applied in the Traffic Impact Analysis. Based on the Transportation Research Board's Transit Cooperative Research Program Report 128 entitled *Effects of TOD on Housing, Parking, and Travel,* which states that for a community with access to a small transit system, 72% of commuters are commuters by automobile. This project is located within 500' of the Dover Transportation Center and multiple Coast Bus/UNH Bus stops.

Applying this reduction to the maximum allowing parking spaces of 96, would result in the following parking calculation:

Reduced parking spaces = 96 Units & 72% of commuters who commute by automobile = 69 spaces

This number of sixty-nine (69) spaces is below the minimum required parking of seventy-three (73) spaces, based upon the calculations above. The applicant has provided seventy-three (73) spaces between the thirty-nine (39) located at 25-27 Second Street and the thirty-four (34) additional required spaces will be reserved at the 35 Third Street parking garage.

In the parking calculation, the 1.25 spaces per unit satisfies the parking for the renter of the unit, while the 0.4 spaces per unit is referring to visitor parking. The site is located adjacent to a public parking area where guests would have the ability to park.

Respectfully submitted,

BERRY SURVEYING & ENGINEERING

Christopher R. Berry
Principal, President

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(603) 332-2863 / (603) 335-4623 FAX
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City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Wooden Ruler Realty LLC Telephone # 603-742-5300

Address of Applicant: 35 Third Street, Dover, NH 03820

E-Mail Address: Billtgolds@aol.com

Name of Property Owner (if different from applicant): Wong, John & Wong, Mo Y Trustees of The Mo Y. Wong Living Revocable Trust of 2006 Telephone #

Address of Property Owner: 42 Third Street, Dover, NH 03820

PROPERTY INFORMATION

Assessor's Map # 6 Lot(s) # 32 and 40

Address of Property: 42-44 Third Street

Zoning District(s) CBD General Overlay District(s) None

Existing Use of Property: The Asia with 2 Apartments & Parking Lot

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☐ Wetland Protection District	☒ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Re-Develop the sidewalk at the front of the project site but not provide street trees or benches

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: None Required

Name of Professional That Prepared Plans: Kenneth A. Berry PE, LLS
Berry Surveying & Engineering
Christopher R. Berry Project Manager

Address 335 Second Crown Point Road
Barrington, NH 03825 Telephone #: 603-332-2863

Professional License #: 805 & 14243 E-mail address: Crberry@metrocast.net

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 8-12-22

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 8-12-22

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 8-12-22

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

BERRY SURVEYING & ENGINEERING
335 Second Crown Point Road
Barrington, NH 03825
Phone: (603) 332-2863
Fax: (603) 335-4623
www.BerrySurveying.Com

August 12, 2022

City of Dover Planning Board
Attention: Donna Benton, Director of Planning and Community Development
288 Central Ave
Dover, NH 03820

Re: Mixed Use Site Plan CBD-General District
Wooden Ruler Realty, LLC
42-44 Third Street
Tax Map 6, Lots 32 & 40

Chairperson & Members of the Dover Planning Board:

Pursuant to Zoning Regulations (Chapter 170-20 B,) Berry Surveying & Engineering (BS&E), on behalf of Wooden Ruler Realty, respectfully requests the City of Dover Planning Board approve the following Revised Conditional Use Permits:

- Streetscape Standards, removal of street trees and bench on Third Street.

Background:

Wooden Ruler Realty LLC, is proposing a mixed-use building in the CBD – General Subdistrict, which requires a street tree to be placed every 25-30' and a bench to be placed along the frontage.

1. Identification of Conditional Use Permits

A CUP requesting the reduction of the streetscape requirements on the Third Street side of the proposed project. As noted in the Project Narrative, the re-aligned sidewalk does not provide enough space for winter maintenance to provide street trees and a bench along the frontage of Third Street. To achieve this, a larger municipal project would be needed to aid in the re-alignment of the remainder of Third Street to the east.

Below we show the project's compliance with the standards required to grant a Conditional Use Permit, and we provide justification for its approval.

2. Compliance with the following standards

a) That both public and private buildings and landscaping shall contribute to the physical definition of rights of way as civic spaces.

- **The prosed building design is in keeping with the requirements of the CBD and creates the visual public space. The sidewalk is enhanced to a brick standard as is required to define the space at the front of the site.**

b) That development shall adequately accommodate automobiles, while respecting the pedestrian and the spatial form of public areas.
   - **The site is designed to increase the traffic safety of Third Street, increase parking and increase the pedestrian safety with the increased width of the walk. The project better defines the walk and civic space through the removal of a driveway and parking lot resulting in the creation of one consistent building façade.**

c) That the design of streets and buildings shall reinforce safe environments.
   - **The site is designed so that the front building is inline with the newly built buildings adjacent to the project site. The new building architecture and lighting design along with wider more inviting sidewalks increases the warmth and safety of the area which was previously lacking on this end of Third Street.**

d) That architecture and landscape design shall grow from local climate, topography, history, and building practice.
   - **The buildings are designed around the topographic constraints on the site while still considering the need for streetscape designs.**

e) That buildings shall provide their inhabitants with a clear sense of geography and climate through energy efficient methods.
   - **The building will have new modern architecture with central entrances for the residents and commercial spaces. Modern building codes along with urban window design provide for additional light not recognized in older buildings and design.**

f) That civic buildings and public gathering places shall be provided as locations that reinforce community identity and activity.
   - **The project accomplishes this through the widening of the walks on Third Street and the pocket park created on Second Street.**

g) That civic buildings shall be distinctive and appropriate to a role more important than the other buildings that constitute the fabric of the city.
   - **The redevelopment of this project site will re-establish the street to be in kind with the other buildings in the area. The existing structure, though brick, does not have the same appeal or invitation as the urbanized area around it. The proposal takes an antiquated site design and re-**

develops it in kind with the abutting sites on Third Street and Central Ave.

h) That the preservation and renewal of historic buildings shall be facilitated.
   - **The architectural features applied to the building were taken from abutting structures that pre-date the existing site.**

i) That the harmonious and orderly evolution of urban areas shall be secured through the adoption of these regulations.
   - **The harmonious and orderly evolution of the urban area is secured in the redevelopment of the project site in the manner in which it is presented. It creates urban enhancements along the corridor as well as internal to the project on a site that in its existing condition has more suburban attributes and is antiquated in its use, design and layout.**

3. Justification for approval of Conditional Use Permits

The existing site as it is used, is not the highest and best use of the property. It contains nearly none of the attributes the remaining CBD zone has or aims to create, with minor exceptions. The project design incorporates all of the required elements of urban design with the exception of the streetscape enhancements of street trees and benches. To achieve this goal, the center of the street would need to be relocated 2.4' north. The remainder of Third Street to the east would require the same treatment so as not create a disjointed traffic and parking pattern which would cause municipal issues within the corridor. It is also important to note that the southern side of the street does not contain any other street trees or bench placement. A re-alignment would be required from Central to at least the project site and possible beyond to Chestnut Street. The project currently proposes an increase in walk area to best comply with the requirements and vision of the zone.

Thank you for your time and attention to this matter, and we hope you look favorably upon the request.

Respectfully Submitted,

BERRY SURVEYING & ENGINEERING

Christopher R. Berry
Principal, President

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August 12, 2022/Rev: September 26, 2022

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Dover, NH 03820

Re: Mixed Use Site Plan CBD-General District
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Chairperson & Members of the Dover Planning Board:

In accordance with the Site Review Regulations, the following waiver is hereby requested:

1. **Identification of Waiver Request**: Submission of a Site Specific Soils Map as part of a site plan application. Chapter 153-14(A)(3)(f)(2)(C)

    - Site Plan application without a Site Specific Soils Map (SSSM).

2. **Explanation:**

The site is small and currently completely either developed or disturbed in some way. The use of the SSSM is for the purposes of analyzing peak rates of runoff from larger project sites. In this instance the Natural Resources Conservation Service (NRCS) soils were used. With the project size being small any potential variance would not appreciably change the results of the analysis.

3. Waiver Justification:
a. Granting the waiver will properly carry out the purpose and intent of the regulations.

The intent of this regulation is to ensure that proper data is collected in relation to soils so that the project drainage can be designed accordingly. Given the use of the NRCS Web Soil Survey, and the fact that the site is small, the variation from pre-development and post-development curve numbers is minor. This regulation is more relevant to

projects that will utilize septic systems or that contain existing natural areas larger in proportion to the project size. Additionally the project proposes a decrease in impervious surface which reduces the need for the underlying calculation.

b. Strict conformity to the regulations would pose an unnecessary hardship to the applicant.

Strict conformity to this regulation will require the applicant to involve a NH certified soils scientist, who will have to go on site and delineate the soils type on a site with uniform soils. Additionally, the site is mostly disturbed, so any soil survey conducted would be similar to the NRCS Soils Map.

2: Identification of Waiver Request: 153-14(D)(6)(a)

- Parking Aisle Width within a parking garage

3. Explanation:

The project proposes a one-way access aisle that is 21-22' in width in the parking garage structure. In two locations in the garage this aisle has head-in (90 degree) parking on both sides, this aisle is proposed to be 22'. In other locations with head-in parking on only one side of the aisle, the width is a minimum of 21'.

3. Waiver Justification:

a. Granting the waiver will properly carry out the purpose and intent of the regulations.

The intent of this regulation is to ensure that proper turning movements can take place without hazard to patrons or pedestrians. Drive aisles have been revised to 22' where there is 90 degree parking spots on both sides of the aisle. Drive aisles with 90 degree parking on one side of the isle are now a minimum of 21' wide. A 22' drive aisle is the standard for 90 degree parking, in non-parking garage conditions, per chapter 153. Looking to Chapter 153-14(D)(6)(b) below, this states "one-way accessways (internal aisle) shall be a minimum of 12 feet wide…". BS&E now provides this 22' minimum isle width that would be required in a non-parking garage, in addition to the circulation being one direction. This 21' and 22' widths are compliant for one-way access aisles/

b. Strict conformity to the regulations would pose an unnecessary hardship to the applicant.

Strict conformity would cause the removal of 3-4 parking spaces within the garage structure and create unused spaced. The areas of 22' wild aisle with 90 degree parking would be complaint with Dover regulations in an outdoor parking situation. The 21' aisle

with is in locations with 90 degree parking on only one side of the aisle. This circulation is also one direction, which would require a 12’ aisle in normal circumstances.

Thank you for your time and attention to this matter and we hope you look favorably upon the request.

BERRY SURVEYING & ENGINEERING

Christopher R. Berry
Principal, President

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Wooden Ruler Realty LLC Telephone # 603-742-5300

Address of Applicant: 35 Third Street, Dover, NH 03820

E-Mail Address: Billtgolds@aol.com

Name of Property Owner (if different from applicant): Wong, John & Wong, Mo Y Trustees of The Mo Y. Wong Living Revocable Trust of 2006 Telephone #

Address of Property Owner: 42 Third Street, Dover, NH 03820

PROPERTY INFORMATION

Assessor's Map # 6 Lot(s) # 32 and 40

Address of Property: 42-44 Third Street

Zoning District(s) CBD General Overlay District(s) None

Existing Use of Property: The Asia with 2 Apartments & Parking Lot

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☐ Wetland Protection District	☒ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Re-Develop the sidewalk at the front of the project site but not provide street trees or benches

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: None Required

Name of Professional That Prepared Plans: Kenneth A. Berry PE, LLS
Berry Surveying & Engineering
Christopher R. Berry Project Manager

Address 335 Second Crown Point Road
Barrington, NH 03825 Telephone #: 603-332-2863

Professional License #: 805 & 14243 E-mail address: Crberry@metrocast.net

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 8-12-22

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 8-12-22

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 8-12-22

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS

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September 26, 2022

City of Dover
288 Central Ave
Dover, NH 03820

Re: Site Plan Review
Berry Surveying & Engineering
Wooden Ruler Realty, LLC
42-44 Third Street (Tax Map 6, Lots 32&40)

Based on comments from the Technical Review Committee Minutes from August 25-2022, we respectfully submit the following comments and revisions. Our comments are in **bold**.

PLANNING COMMENTS

- Reminder: Impact fees, W&S investment fees.
  Applicant acknowledges comment and will pay when due.

- Voluntary lot merger will be required.
  Please find Lot merger Plan, sheet #4.

- Provide letters to serve for utilities.
  Please find letter to serve from Eversource and Unitil.

- The CO for the garage will be tied to the project's CO
  Applicant acknowledges comment.

- Provide narrative as to how parking will work. (Justifying 73 rather than 96) Are all 33 Off-site for this project or shared?
  Please find attaching parking narrative.

- Units to be leased
  Units will be leased for this project.

- Integrated Pest Management Plan to follow §153-10.G
  Dependable pest solutions has been hired to review and provide a report.

- Describe the storage use on the first floor. Is this for tenant use or public? Will require CUP.
  The storage use is no longer proposed. The area is now general commercial.

- Verify building to LEED energy efficient code
  Please find note G on Architectural Plan notes.

- Public art will be needed. Please work with AV and add to plan set.
  Public art will be proposed on the side wall of the transformer enclosure.

- Counter clockwise circulation in parking garage due to layout. Signage should alert drivers to pattern.
  The circulation has been reversed based upon other comments received. Find Site Plan, sheet #6.

- How do two spaces near striped corner work?
  The circulation within the garage has been reversed to assist with the use of these spaces. Please find revised garage layout on the Site Plan, sheet #6. One spot has been lost and converted to motorcycle spaces.

- How would wheel chair get from ADA spaces to elevator? Are speed bumps needed to keep speed low around corners?
  The accessible route from the spaces to the elevator door has been widened to 6' and is a 2% slope. See Site Plan, sheet #6 and Grading Plan, sheet #7.

- Provide approval from Post Master about mail.
  Please find approval from the Post Master and please find note #46 on the Site Plan, sheet #6.

- Revise Plan Set to add:
  - Owners signatures on final submission
    Applicant acknowledges and will add owner signature on final submission.

  - Professional Stamp and signatures on each submission
    Please find all required stamps on this submission.

  - Remove Saturday work from site construction hours note (up to PB)

Saturday site work hours have been removed from. Please find note #20 on the Site Plan, sheet #6.

- Show mechanical equipment location
  This is now shown on the roof plan (arch set).

- Add architectural plans to set
  Please find architectural package.

- Design for continuation of sidewalk/ROW improvements to Central.
  Please find attached schematic plan.

- No chain link in CBD, transformer gate on side or ornamental gate if required along Third St.
  The chain link fence has been removed and an ornamental gate is now proposed. See Site Plan, sheet #6.

- Remove "to the satisfaction of the Director…" and indicate actual screening
  This language has been removed. An 8' tall masonry wall along Third Street and down the sideline is proposed. See Site Plan, sheet #6.

- Have architect figure out fire rating and remove note
  Please find revised Elevation Plans. Annotation has been removed from Civil set.

- Match neighboring roof lines
  Please find architectural package

- Building façade:
  - Add more brick to align with Ross Furniture and Strand Theatre; and
    Please find architectural package

  - Incorporate window boxes, planers and other plant materials on Third Street
    Please find revised streetscape.

  - Match roof types with neighboring buildings.
    Please find architectural package.

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- Check labels on floor plans and mark streetscape accurate (with no plantings, etc.)
  Please find architectural package.

- Add materials to elevations
  Please find architectural package.

- Garage doors not permitted to be visible, how will it blend in or be dressed up?
  Please find architectural package.

- Indicate green roof percentage calc. on roof plan
  Please find note J on Architectural Plan notes.

- Indicate parking space width- why does it vary outside ADA?
  All passenger vehicle parking spaces are proposed to be 9' wide X 18' deep. The exception is the motorcycle spots which are a min of 4' wide X 11' deep. Please find Site Plan, sheet #6.

- Add EV readiness to utility plan
  EV readiness location is now shown on Utility Plan. See sheet #9.

- Add note lighting plan doesn't include internal garage lighting
  This has been added to the Lighting Plan as note #9. Please find Lighting Plan, sheet #11.

- Ensure light fixtures meet standards
  Please find Lighting Plan, sheet #11 and revised detail.

- Add security lighting on all 4 sides
  At this time security lighting has not been added to the building. Specifically for the sides of the buildings, any lighting added will go over the property lines. Ambient lighting in the area of the garage should overcome dark spots on the perimeter of building.

- Light spillover OK onto ROW
  Please find Lighting Plan, sheet #11.

ENGINEERING COMMENTS

- Sheet 3: There is an existing fire service line with gate valve that services the restaurant from Third Street. Add this to the plan and identify I this will be retained.
  This has been added to the Existing Conditions Plan and the Demolition Plan. Please find Existing Conditions Plan, sheet #3 and Demolition Plan, sheet #4.

- Sheet 3: Show City numbering of existing drainage structures on Second Street.
  BS&E has recently requested this information from the GIS department and will place on plan when information is received.

- Sheet 4: Rename plan to be Demolition Plan.
  This error has been corrected. See Demolition Plan, sheet #4.

- Sheet 4: Remove Note 11.
  This note has been removed. Please find Demolition Plan, sheet #4.

- Sheet 4: Contractor shall be responsible for relocation of hydrant and for capping existing service; Contractor shall coordinate with City prior to relocation.
  This has been added to the Demolition Plan as note #14.

- Sheet 5: Proposed sidewalk on Third Street shall be 5' min concrete sidewalk to match existing sidewalk adjacent to project.
  This sidewalk has been revised to a min of 5' brick per conversation with the Engineering Department. The existing curb line along Third Street will remain and the concrete sidewalk will be removed along the frontage to the building. Please find Site Plan, sheet #6. Also find separate narrative and street enhancement schematic.

- Sheet 5: New parking spaces on Third Street and on Second Street shall be 8' wide by 22' long.
  Parking spaces have been revised on Third Street and Second Street to the requested dimension. Please find Site Plan, sheet #6.

- Sheet 5: There shall be no parking within 20' east of the garage access on Second St.
  Parking along Second Street has been revised. Please find Site Plan, sheet #6.

- Sheet 5: Line striping within Third St shall be per MUTCD standards. (Median striping)
  Please find Third Street schematic Plan included in this submission.

- Sheet 5: Add a note to coordinate with Community Services prior to striping within public right-of-ways.
  This has been added to the as note #45 to the Site Plan, sheet #6.

- Sheet 5: Refuse bin room appears to be blocked by vehicular spaces; please clarify how containers will be accessed.
  The bins have been relocated to the southern side of the building. Please find Site Plan, sheet #6.

- Sheet 5: Add note that crosswalk across the driveway is to be maintained by the Applicant and not by the City.
  This has been added to the as note #44 to the Site Plan, sheet #6.

- Sheet 5: Recommend internal stop bar prior to taking left to the exit of the garage. In lieu of the stop bar, Applicant should consider reversing the direction of vehicle flow within the garage to remove cross-flow.
  The circulation direction has been changed. Please find Site Plan, sheet #6.

- Sheet 5: 20-foot minimum drive aisles for 90-degree parking is inadequate for proper vehicle movements. Recommend 24-foot minimum drive aisles.
  Drive isles have been revised to 22' where there is 90 degree parking spots on both sides of the isle. Drive isles with 90 degree parking on one side of the isle are now a minimum of 21' wide. A 22' drive isle is the standard for 90 degree parking in Chapter 153-14(D)(6)(a). Below is table, there is a footnote stating "When garages are erected for meeting a developer's parking requirements, aisle widths shall be increased to 24 feet." Looking to Chapter 153-14(D)(6)(b) below, this states "one-way accessways (internal aisle) shall be a minimum of 12 feet wide…". BS&E is requesting a waiver to the standard of Chapter 153-14(D)(6)(a) to be 21' and 22', as the traveled way is one direction. Please find attached waiver request.

- Sheet 5: Revise note to indicate that sidewalk reconstruction shall extend to the limits of the property line at a minimum.
  This has been added to the end of note #39. Please find Site plan, sheet #6.

- Sheet 6: Recommend adding catch basins with sumps for some treatment at each floor drain connection with the 8" HDPE pipe and removing the deep sump from the proposed manhole near the garage entrance.
  A deep sump catch basin has been added on line. After discussion, BS&E has proposed that the deep sump drain manhole remain. Both structures will be equipped with hoods to mitigate churning of sediment within the sump. Please find Grading Plan, sheet #7.

- Sheet 6: Prop Drain Manhole #3 does not appear to be a manhole. Indicate if this structure will be exposed in the 1:1 slope.
  This structure is a 12" nyloplast basin with a solid cover, and has been referred to as a DMH due to the solid top. This has been further clarified on the Grading plan. This structure will be exposed about 0.5' or so in the rip-rap lined slope. See Grading Plan, sheet #7.

- Sheet 6: Note 15 indicates treatment swales on site. Please remove note.
  This note has been removed. Please find Grading Plan, sheet #7.

- Sheet 6: Provide elevations for each proposed drain manhole.
  Elevations for all drainage structures are included within the structures table located in the top, center of the plan. Please find Grading plan, sheet #6.

- Sheet 6: Verify proposed grades; appears to be duplicated F65 in southern section of garage.
  This grade should have read "F64.50" and has been corrected. Please find Grading Plan, sheet #7.

- Sheet 8: There is a concern with the location of the proposed hydrant being in proximity to the driveway and potential vehicular impacts.
  This hydrant has been relocated along Third Street within a now proposed no parking area. Please find Utility Plan, sheet #9.

- Sheet 8: SDR35 PVC pipe shall not extend into the building. Sewer service shall meet the building code requirements going into the building. Provide detail indicating the transition from external to internal sewer.
  The plan has been updated to show a 10' length of schd 40. Please find Utility Plan, sheet #9. A detail has been added as detail U6, sheet U-101.

- Sheet 10: Provide cut-off on light B (southwest corner of building) to prevent light spill into abutting property.
  Please find Lighting Plan, sheet #11.

- Sheet 13: C7 – reveal shall be 7”
  This detail has been corrected. Please find detail C7, sheet C-101.

- Sheet 18: U13 – Tapping sleeve shall be stainless steel.
  This has been added to detail U14, note #5, sheet U-102.

- Sheet 18: U15 – Hydrant shall be Eddy Style 2641.
  This is shown in the detail. Please find detail U16, sheet U-102.

- Sheet 18: U9 – Typical Water Service Connection – Services from main to curb stop may only be type “K” copper tubing.
  This note has been revised to remove the SDR9 reference. Please find detail U10, sheet U-102.

- Provide plan detail of green roof.
  Please find detail in architectural set.

- Traffic Impact Analysis:
  - Page 21 of 44: Figures 10 and 11 – is there movement on Third Street to and from Project Site?
    It is assumed that turning movements shown for the 35 Third Street parking garage shown entering from Grove Street northbound and exiting to Grove Street southbound would be travelling from Third Street westbound or eastbound, respectively. This is because Third Street west of the garage terminates in approx. 250’ and Grove Street south of the garage terminates in approx. 250’ as well. This assumption has now been added to the report.

  - Page 26 - #5 – What does it mean when it is recommended that the existing and proposed infrastructure is sufficient to accommodate increased traffic?
    The intention of this note was to refer to the proposed round-about at the intersection of Second Street/Third Street and Third Street/Chestnut Street. If reviewer feels is necessary, the proposed infrastructure mention can be removed from the note.

Please find revised Traffic Impact Analysis based on the additional commercial spaces added.

- Stormwater Analysis:
  - A duplicate of the 25-year storm event (existing conditions) should be removed from the report.
    This duplicate has been removed from the report. Please find revised drainage binder.

  - Provide detail for green roof and any overflow connected to the stormwater system.
    Please find green roof detail on architectural plans. Overflow is now addressed as note #23 on the Grading plan, sheet #7.

  - Stormwater System Operation and Maintenance Plan:
    - Page 3 of 11: Review the Catch Basin and Drain Manhole section for applicability.

    This section of the Manual has been revised for applicability. Please find revised System Operation and Maintenance Plan and I&M plan added based upon new revisions.

POLICE DEPARTMENT COMMENTS

- On-street parallel spaces are 22'-24' in length not 18-19'. The exception is on the ends when a car use the buffer zone to pull in/back up into. The spaces on either side of the current driveway are shorter.

  - The current layout (area in front of the now removed Ross Furniture storage building) probably has the two closest spaces at 18-19 since they both have buffers on the end since it is only a two space bay. Moving the spaces to the east to allow a west end driveway to the Asia property would increase two spaces from 18-19' to the 22'-24' requirement. In addition, the setback for a multi-unit driveway is 20' instead of the standard 5' driveways and should be taken into account. The current one is probably not even 5'.
    Please find the revised street parking layouts on Third St and Second Street. Now there is 23' provided from the parking space to the eastern driveway edge.

- Are we to assume that off street parking is for residential use and commercial (customer and employee) will be absorbed into the public parking system?
  Yes, this assumption is correct.

- Not sure the drawing shows the current hydrant on Third Street and related parking cross outs unless it is being moved/removed.
  The current hydrant on Third Street is proposed to be relocated to the eastern corner of the subject parcel on Third Street to a striped area. Please find Site Plan, sheet #6 and Utility Plan, sheet #9.

- Will developer need to move parking meter on Third during demolition or construction? If so, meter to be remounted at builders expense (to include cement base, mounting bolts, mounting plate and other related costs) in a location determined by the Parking Manager.
  This has been added as note #47 to the Site Plan. Please find sheet #6.

- Any parking spaces removed from either street during demolition/construction for the project must be paid for to the Parking Bureau at current rate $27/space/day (subject to changes by City Council during the annual Fee Schedule adjustments). This would not include any spaces that are approved Planning Board to be removed upon completion of the project.
  Applicant acknowledges comment.

- Discuss public safety access to apartment units from Third Street lobby and Second Street garage. Are key codes planned? Will Third Street lobby exterior door be unlocked overnight?
  Please find note F on Architectural Plan notes.

- Confirm that no gate is proposed at garage entrance?
  Please find architectural package with gate/keycard required

- Site Review Application, Page 1: no employees included in calculation for commercial spaces.
  Please find revised Site Plan application based upon project revisions.

- Second Street streetscape image is not consistent with the project narrative for site plan (missing bench and barrels, street trees, bushes, etc.)
  Please find architectural package.

- Traffic Impact Assessment: it would be helpful to add a bullet on both Page 1 and Page 26 (Conclusions) that identifies the 102 total trips at 35 Third Street

garage, which makes the calculation of total build trip generation (386) clearer for reader
Please find this added to the revised Traffic Impact Analysis.

- Sheet 4: We are concerned with impact of construction fence on the street side of jersey barriers. Would prefer this fence be set along the top of the jersey barriers.
  The applicant proposes to move the construction fence inside the jersey barriers as opposed to mounting on top. Please find Demolition Plan, sheet #4.

- Sheet 5, Note 27: did you consider solar, and if so, why was it rejected?
  The applicant has selected the green roof. There is future space for solar provided if the applicant desires to install in the future. Please find roof plan from Architect.

- Sheet 5, Note 35: should there also be a FDC on the Second Street side of the building? (Given the risk of a car fire in the garage)
  A FDC has been added to the Second Street side of the Building. Please find Site Plan, sheet #6 and Utility Plan, sheet #9.

- Sheet 5, Note 39: amend note to reflect the impact on the Third Street sidewalk.
  This note has been revised. Please find note #39, sheet #6.

- Sheet 5, Note 40: any hydrant nearby on Second Street?
  There is a hydrant at the southwestern corner of Tax Map 6, Lot 34, which is approximately 100' from the southeastern corner of the subject parcel on Second Street. This existing hydrant has been added to the Existing Conditions Plan, sheet #3.

- Sheet 5: Existing driveway between this property and Ross Furniture serves no purpose and does not appear to be used. Can you reimagine this space? Potentially work with abutter to create a walkway connecting Third to Second Street?
  This area is deeded as a shared "Passageway". The proposed use does not encumber this area more than in the Existing Condition.

- How will refuse collection pickup from storage area be handled? Will it be public or private service?
  Refuse collection will occur via private service. The location of the refuse room has been relocated towards the entrance of the garage.

BERRY SURVEYING & ENGINEERING
335 Second Crown Pt. Rd., Barrington, NH 03825
(603) 332-2863 / (603) 335-4623 FAX
www.BerrySurveying.Com

FIRE /INSPECTION COMMENTS

- Trash room must be rated if there is a trash chute.
  A trash room is not proposed in this project.

- Indicate access control to parking garage.
  Please find note F on Architectural Plan notes.

- Provide a second FDC on Second Street side of structure
  A FDC has been added to the Second Street side of the Building. Please find Site Plan, sheet #6 and Utility Plan, sheet #9.

- Establish an average grade plane for determining number of stories of structure.
  Please find architectural package.

- Indicate if there is a proposed standby power source/generator for the structure.
  Please find note D on Architectural Plan notes.

- Indicate how the structure will be used in a normal power outage. If outage with no backup power, landlord must provide shelter after 1.5 hours and state so in tenant's lease.
  Please find note D on Architectural Plan notes.

- Sheet 5, Note 27 indicates solar-ready – Architectural plans to include solar area.
  Please find architectural package.

- Sheet 5 Clarify accessible route to elevator from accessible parking spaces.
  The accessible route has been widened to 6' and is now called out at the accessible parking. Please find Site Plan, sheet #6.

- Sheet 5 Architectural plans shall clarify the location and quantity of electric meters with working clearances provided at transformer pad.
  Please find architectural package.

- Indicate the type of construction for the proposed structure.
  Please find note A on Architectural Plan notes.

- Provide complete set of elevations plans with street scape from both Second and First Street.
  Please find architectural package.

- Provide floor plans for each floor level with dimensions.
  Please find architectural package.

- Provide size of roof deck area.
  Please find architectural package.

- Provide architectural plans for each floor level
  Please find architectural package.

- Indicate building projection measurements.
  Please find projections overlaid on the Site Plan, sheet #6.

- Overlay building with projections on site plan with distances from adjacent property lines.
  Please find architectural/streetscape package.

- Indicate the number of accessible and type A units proposed. More accessible may be warranted.
  Please find architectural package.

- Provide percentage of unprotected openings of exterior walls.
  Please find revised Elevation Plans.

- Provide square footage of roof deck area. Will roof deck have any amenities?
  Please find architectural package.

- Clarify pedestrian path on roof deck and show elevator entrance. Elevator must service roof deck.
  Please find architectural package.

- Indicate location of roof deck stairways.
  Please find architectural package.

BUILDING DEVELOPMENT COMMENTS

- Second Street side looks more in context than Third Street, with the flat(ter) roof. Consider a flat roof option on Third Street.
  Please find architectural package.

- Similarly, clapboard works on Second Street, but should be replaced with larger panels or brick on Third Street.

Please find architectural package.

- Storage is not an allowed use in the CBD, consider the following:
  - Maker space
  - Artist studios
  - Pop-up spaces/artisan marketplace/retail incubator spaces
  - Rentable commercial kitchen spaces (for small bakers)
  - Meeting space/conference space
  - Private event space
  - Shared work space/office space

  The storage use has been removed. General retail and commercial space is proposed for the application and will be flexible moving forward.

- In exchange for the CUP on streetscape, add some true balconies over Third Street to bring some activation to the streetscape. A license can be discussed regarding this option.
  Please find architectural package.

- Supports the CUP for build to line to keep the urban wall, which is in place today.
  The feedback is appreciated.

- Appreciate the masonry wall to hide the transformer.
  The feedback is appreciated.

- Is public art being proposed?
  Public art will be proposed on the side wall of the transformer enclosure.

- Where will construction staging area be located?
  The construction staging area is located on the southern end of the property by Second Street within the jersey barriers and between the proposed structure. See Demolition Plan, sheet #4. Additional spaced may be needed and additional detail provided/discussion with the City.

- Contribution to roundabout construction at Chestnut Street.
  Applicant acknowledges that a contribution will be required. Please also see Third Street improvement narrative.

PLANNING BOARD COMMENTS

- Plan and coordinate with roundabout and other projects on horizon.
  Applicant acknowledges that a contribution will be required.

- Would like brick sidewalk extended to Central Ave.
  Please find provided schematic plan.

- Security of parking garage should be considered.
  Please find architectural package now with garage door.

Respectfully submitted,

BERRY SURVEYING & ENGINEERING

Kevin R. Poulin, EIT
Design Engineer

Kenneth A. Berry, PE, LLS,
CPSWQ, CPESC, CESSWI
Principal, VP-Technical Operations

Christopher R. Berry, SIT
Principal, President

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From: crberry@metrocast.net
To: "Kevin Poulin"
Subject: FW: [EXTERNAL] 42-44 Third Street, Dover, NH New 58 Unit Residential building with Commercial Space
Date: Tuesday, September 27, 2022 1:23:07 PM
Attachments: image001.png
image002.png

Planning Office
SEP 29 2022
Dover, New Hampshire

From: crberry@metrocast.net <crberry@metrocast.net>
Sent: Wednesday, September 21, 2022 1:53 PM
To: 'Jeffrey, Vonyel C - Dover, NH' <Vonyel.C.Jeffrey@usps.gov>; 'Nick Isaak' <nick.isaak@gmail.com>
Cc: 'Bill Goldstein' <billtgolds@aol.com>; 'mheisnernhkab@yahoo.com' <mheisnernhkab@yahoo.com>
Subject: RE: [EXTERNAL] 42-44 Third Street, Dover, NH New 58 Unit Residential building with Commercial Space

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If there is an issue with any of the above please let me know.

Christopher R. Berry
Principal, President

From: Jeffrey, Vonyel C - Dover, NH <Vonyel.C.Jeffrey@usps.gov>
Sent: Thursday, September 8, 2022 5:21 AM
To: crberry@metrocast.net; 'Nick Isaak' <nick.isaak@gmail.com>
Cc: 'Bill Goldstein' <billtgolds@aol.com>; mheisnernhkab@yahoo.com
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I can give you the go ahead once the regular for this route returns tomorrow, for today is her off day.

Have an Amazing & Safe Day!

Thank you!

Vonyel C. Jeffrey
SCS-Supervisor Customer Service
Dover Post Office
133 Washington St
Dover, NH 03820
603-742-4040

"If you fail, never give up! Because F.A.I.L. means "First Attempt In Learning"; End is not the end , in fact E.N.D. means "Effort Never Dies"; If you get NO as an answer, Remember N.O. Means "Next Opportunity"!

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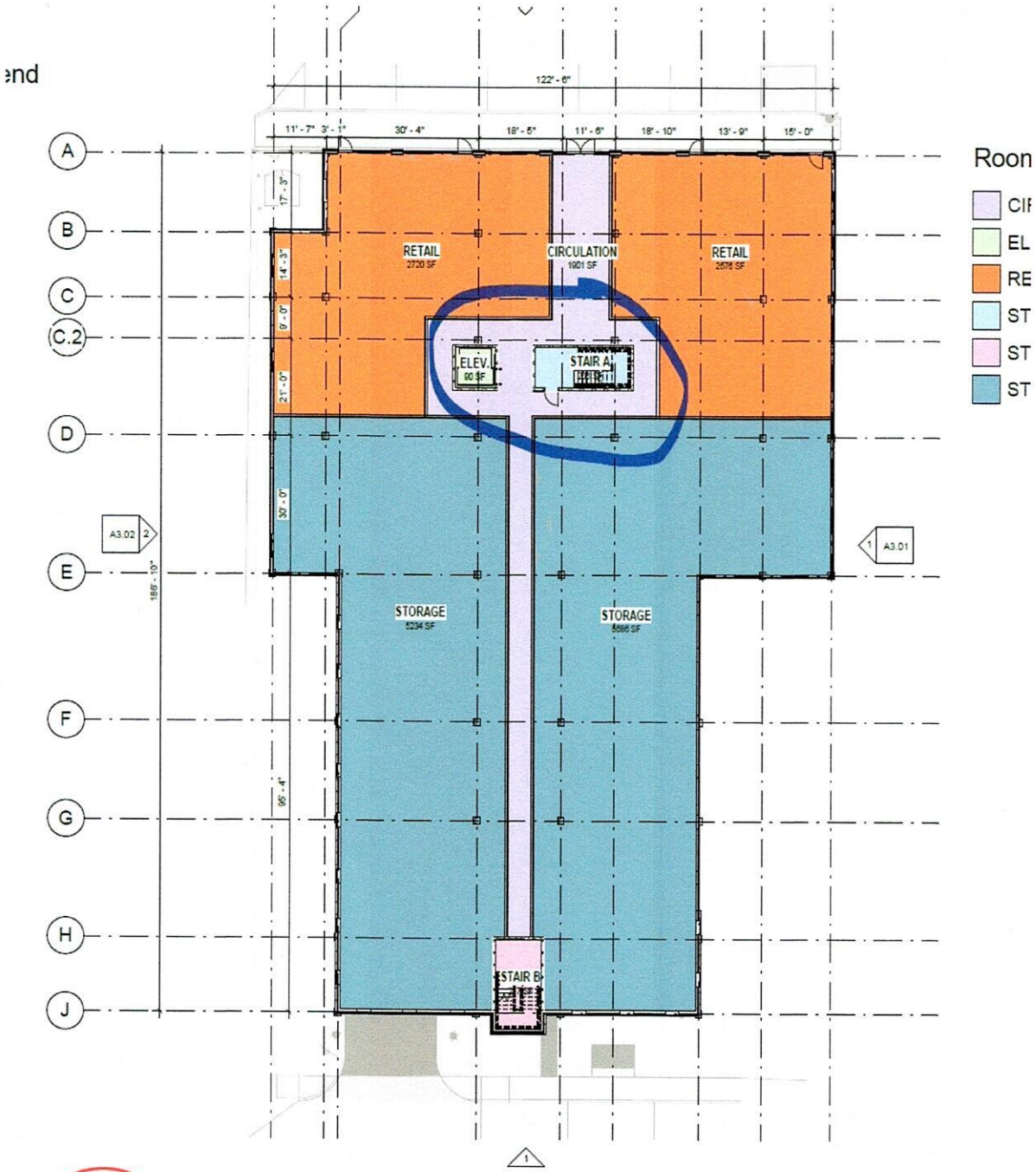
I have included the owner, his project manager and the architect on this.



BERRY SURVEYING & ENGINEERING

Christopher R. Berry, SIT
Principal, President
Berry Surveying & Engineering
335 Second Crown Point Road
Barrington, NH 03825
603-332-2863

EVERSOURCE ENERGY

1700 Lafayette Road
Portsmouth, NH 03801

Trevor S Emmons
603-332-7515
Trevor.emmons@eversource.com

8-10-22
Wooden Ruler Realty, LLC
William Goldstein Managing Member
35 Third Street
Dover NH 03820

Dear William Goldstein:

I am responding to your request to confirm the availability of electric service for the proposed Mix Use Dover project being constructed for/by Wooden Ruler Realty at 42-44 Third Street.

The proposed project consists of a 5-story building with 58 residential units approximately 19,000 s/f of retail/office space at the ground level and parking below grade. The proposed development will be constructed along Chestnut Street.

The developer will be responsible for the installation of all underground facilities and infrastructure required to service the new building. The service will be as shown on attached marked up Utility Plan known as "Utility Plan and Profile for Wooden Ruler Realty LLC, 42-44 Third Street, Dover, NH, Tax Map 6, Lot 32 & 40" by Berry Surveying & Engineering with an original plan date of July 12, 2022. The proposed building service will be fed from a utility pole 50/7 on Chestnut St (not shown on the plan) and loop with remaining customers on Third St in Dover. The developer will work with Eversource to obtain all necessary easements and licenses for the proposed underground facilities listed above.

This letter serves as confirmation that Eversource has sufficient capacity in the area to provide service to this proposed development. The cost of extending service to the aforementioned location and any associated infrastructure improvements necessary to provide service will be borne by the developer unless otherwise agreed upon.

The attached drawing titled "Utility Plan and Profile for Wooden Ruler Realty LLC, 42-44 Third Street, Dover, NH, Tax Map 6, Lot 32 & 40" by Berry Surveying & Engineering with an original plan date of July 12, 2022 shows transformer locations to service your proposed project.
Eversource approves the locations shown; assuming the final installed locations meet all clearances, physical protection, and access requirements as outlined in Eversource's "Information & Requirements For Electric Supply" (https://www.eversource.com/content/docs/default-source/pdfs/requirements-for-electric-service-connections.pdf?sfvrsn=2).

If you require additional information or I can be of further assistance please do not hesitate to contact me at our Rochester Office, 603-332-7515

Respectfully.

Trevor Emmons
Eastern Regional Engineer, Eversource

cc: Michael J. Busby, PE, Eastern Regional Engineering and Design Manager, Eversource
Thomas Boulter, Eastern Region Operations Manager, Eversource
Nickolai Kosko, Field Supervisor, Electric Design, Eversource

September 29, 2022

Wooden Ruler Realty LLC
35 Grove St
Dover NH 03820

RE: Natural Gas Availability to 42-44 Third St Dover NH Project

Dear Chris and Bill

Unitil's natural gas division has reviewed the requested site for natural gas service.

Unitil hereby confirms natural gas service will be available to the 42-44 Third St Dover NH Project, to serve a mixed use building.

Installation is pending an authorized installation agreement with Wooden Ruller Realty LLC and a street opening approval from the City of Dover DPW.

Let me know if you have any questions. You can email me at oliver@unitil.com. My phone number is 603-294-5174.

Sincerely,

Janet Oliver
Senior Business Development Representative

CUSTOMER ENERGY SOLUTIONS
325 West Road
Portsmouth, NH 03801

T 888.486.4845 www.unitil.com

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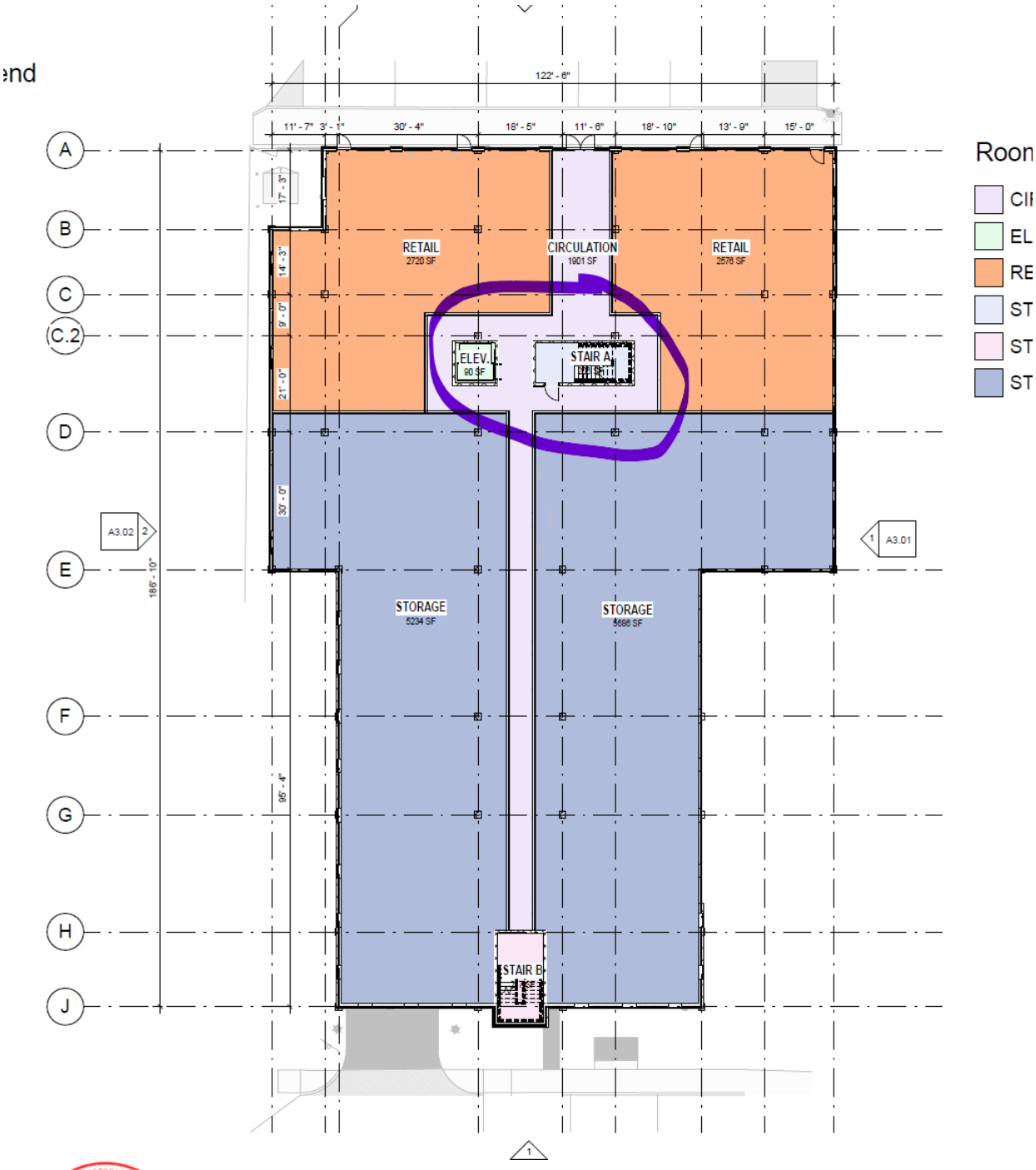

Christopher R. Berry, SIT
Principal, President
Berry Surveying & Engineering
335 Second Crown Point Road
Barrington, NH 03825
603-332-2863

Dependable Pest Solutions, Inc.

336 Portland Street, Unit #3
Rochester, NH 03867
(603) 948-2039 • (603) 436-1181

DATE 9-27-22 | TIME IN 1130 OUT _____

NAME KAB Realty Mgmt

ADDRESS 42-44 Third St

CITY, STATE, ZIP Dover NH

PHONE 742-5300

ACCOUNT NO | ROUTE NO

ACCOUNT TYPE
☐ 1-TIME ☐ COMMERCIAL ☐ RESIDENTIAL

FREQUENCY
☐ ANNUALLY ☐ SEMI-ANNUAL ☐ 3-MONTHS
☐ MONTHLY ☐ BI-MONTHLY ☐ TWICE MONTHLY

☐ INSPECTION ☐ TREATMENT ☐ _____ ☐ _____

TARGET PEST(S)	SITE TREATED	APPLICATION METHOD	APPLICATION RATE
general	int		

EPA NUMBER	CHEMICALS USED	AMOUNT	%
241-392	Phantom		
4321363	Tempo SC		11.8
499-370	Advance Granular Bait		.011
1021-1767	Bedlam		2.0
7969-210	Termidor SC		9.1
432-1373	Tempo Dust		1.0
432-1264	Maxforce Gel		
73079-MN-1	Intice Gel		3.0
499-362	Wasp Freeze		.249
655-798	Cross Check Plus		7.9
53883-118	Bifen		7.9
12455-79	Contrac Blox		.005
12455-89	Final		.005
12455-56	Ditrac Powder		.2

DESCRIPTION / REMARKS		AMOUNT
Rats and ~~mice~~ mice		
in basement / mice		
in kitchen area	TOTAL	175 00
	ACCOUNT BALANCE	
	AMOUNT PAID	
SERVICED BY Kathleen LICENSE NO.	☐ CASH CC # _____ ☐ CHECK # _____	
CUSTOMER SIGNATURE	BALANCE DUE	175 00

SERVICE ORDER / INVOICE

A late payment charge of 5% per month shall be assessed on all overdue amounts.

BERRY SURVEYING & ENGINEERING
335 Second Crown Point Road
Barrington, NH 03825
Phone: (603) 332-2863
Fax: (603) 335-4623
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September 26, 2022

City of Dover Planning Department
Attn: Director of Department of Planning and
Community Development Mrs. Donna Benton
288 Central Ave.
Dover, NH 03820

Re: Site Plan Review
Third Street Reconstruction Schematic Design
Berry Surveying & Engineering
Wooden Ruler Realty, LLC
42-44 Third Street (Tax Map 6, Lots 32&40)

On behalf of the Wooden Ruler Realty, LLC, (applicant), Berry Surveying & Engineering (BS&E) offers the following narrative and comment with respect to the project design in the context of the Third Street corridor and streetscape.

The project as previously presented requests and contemplates a Conditional Use Permit to the CBD General District regulations with respect to street trees and street furniture. During the preliminary site walk of the project, a discussion entertaining the idea of narrowing Third Street in favor of widening the southern sidewalk on Third Street ensued with city staff. However, given the applicants frontage length compared to the block length, this widening in a phased approach presents all season maintenance concerns and would create a disjointed space along the street.

During the TRC #1 process, the staff presented the idea of allowing the applicant to present a plan for the complete enhancement of Third Street, in light of the above ideals for the street and zone. Conceptually, the offsite fees per unit required for the round-about along with the application of certain impact fees would be used to construct the area per the plan along with a fair share contribution, based on the frontage percentage, be supplied by the applicant. Additional funding may be provided by the sidewalk funds, with further discussion and consideration. The applicant would undertake the work as part of the project to ensure the work is done cohesively.

Since TRC#1, BS&E has had a conversation with the City Engineer, reviewed Third Street on two occasions, and contemplated the design further. Enclosed is a schematic design of Third Street. The following are some thoughts and comments related to the design and work required:

Layout Considerations:

- Holding the curb line on the north side of Third Street, the street can be reconstructed to move the centerline north and narrow the travel way to 20'. (2, 10' lanes. No fog line / shoulder treatment is considered in the design, but should be discussed further with the Engineering Department prior to entering final design.
- Re-striping and placement of parallel spaces, 8' wide and 22' long could be re-established. Further discussion on a potential ADA space(s) is needed prior to entering final design.
- Resetting of vertical curb, truncated domes and sidewalk drops would be required.
- A brick sidewalk ranging between 12.5' and 13' could be established between the back of the re-set curb and the building facades. The current sidewalk is concrete and is approximately 7.5' in width.
- In speaking with Terrain Planning, the project teams Landscape Architect, they feel that properly chosen street trees styles could survive on the southern side of the street. Shading was a consideration in the discussion. The width needed for a proper root ball is a 5' radius, which places the required tree stem 3' off the back of curb conservatively. This would leave ample space for side walk plows and the creation of additional activated space along the street.
- This additional space would benefit the current businesses well and would encourage the enhancement of others.

Vertical Considerations:

- The northern lane on Third Street is generally flat in both the sectional plane and along the profile.
- The southern section contains multiple slopes. Generally flat in the lane, with a steeper section in the parking spaces.
- The sifting of the centerline and curb line requires that approximately 10 basins / drains be considered. Multiple along the southern walk would be re-set for this effort.
- The pipe size in Third Street is 12", and likely varies in style and would proposed to be increased to 15".

If the re-alignment effort is to take place, it is best done in conjunction with a larger project scope. Milling Third Street, re-shaping the gravels to ensure adequate slope and cross slope, re-setting required basins, installing adequate drain sizes and proper pre-treatment devices should be part of the overall scope. If not, there are likely unintended consequences of parceling out of the scope of work. By way of example, cross slopes of roads, walks and door thresholds of existing buildings need to be considered as one effort.

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The expectation of the municipal staff, which is supported by the zoning code, is to enhance the projects street frontage, with extensions beyond that as needed and within reason. For the purposes of re-submitting for TRC #2, the project shows the front of the project site to replace the existing concrete with a brick walk. Further discussion is needed to determine the extent of the applicant's involvement in the potential reconstruction. Publicly built with appropriate private contribution, vs privately built with public contributions. The solution likely revolves around timing and availability of funds.

Please note that the above analysis does not contemplate other potential utility needs.

Respectfully submitted,

BERRY SURVEYING & ENGINEERING

Christopher R. Berry
Principal, President

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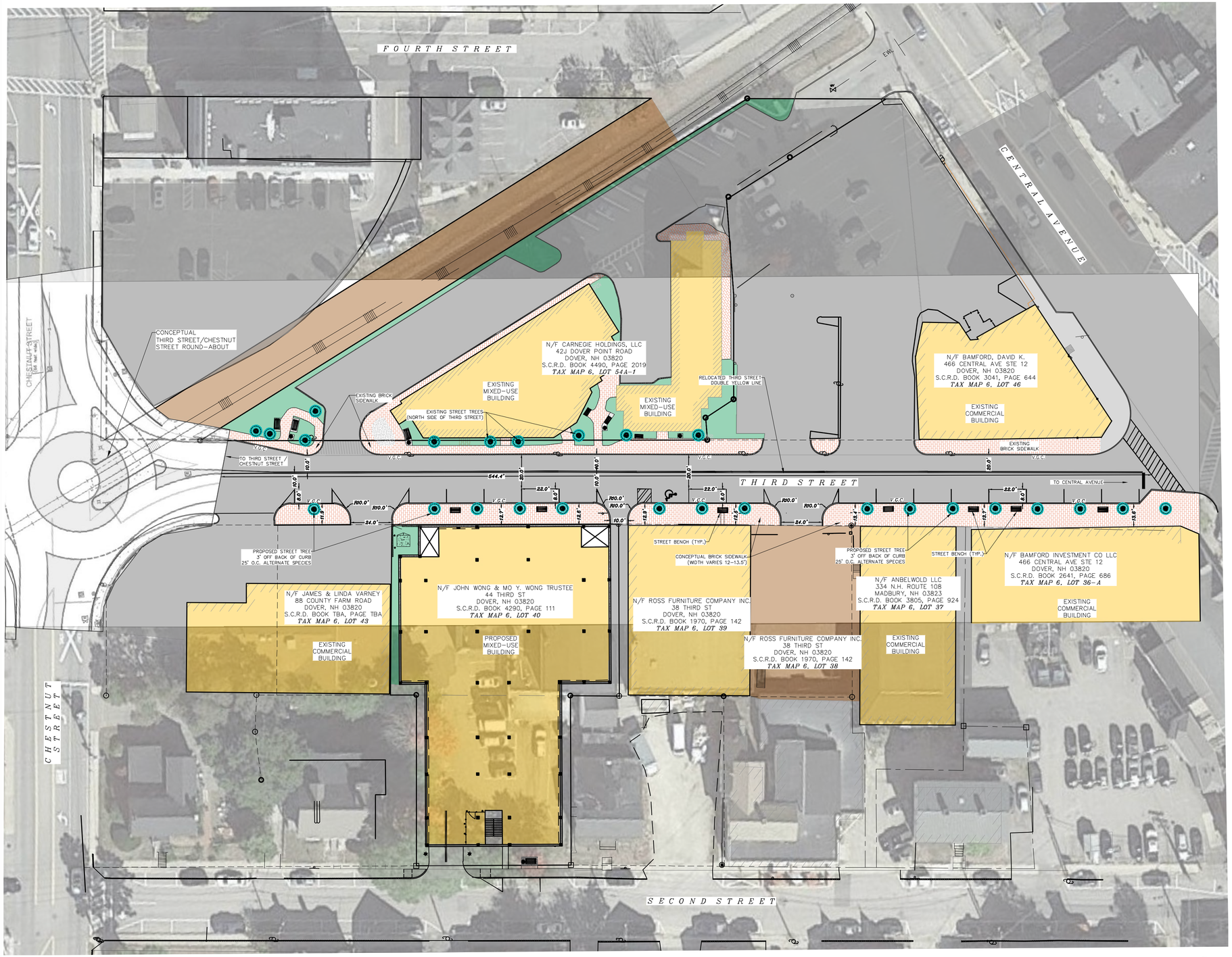
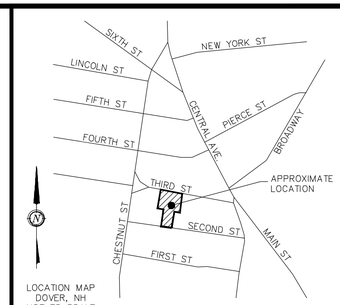




LOCATION MAP
DOVER, NH
NOT TO SCALE

NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.
B.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac. TOTAL: 22,364 Sq.Ft.

5.) ZONING: CBD – CENTRAL BUSINESS DISTRICT
(GENERAL SUB-DISTRICT)
SETBACKS
FRONT BUILD TO (SECOND ST) ~ 6-16'
FRONT BUILD TO (THIRD ST) ~ 5-10'
SIDE ~ 0'-24' MAX
REAR ~ 10'
MIN. LOT SIZE: N/A
MIN. FRONTAGE BUILD-OUT: 70%
MIN. LOT COVERAGE: 75%
MAX. BUILDING HEIGHT: 5 STORIES FROM EACH STREET.
MIN. BUILDING HEIGHT: 2 STORIES
*PERCENTAGES ARE A FACTOR OF THE LOT MERGER

6.) THE INTENT OF THIS PLAN IS TO SHOW THE CONCEPTUAL LEVEL SCHEMATIC PLAN FOR THE RECONSTRUCTION OF THIRD STREET, INCLUDING THE RELOCATION OF THE CENTERLINE AND PARKING SPACES/SIDEWALK ALONG THE SOUTHERN SIDE OF THIRD STREET.

7.) EXISTING PARKING SPACES ON THIRD STREET: 17
PROPOSED PARKING SPACES ON THIRD STREET: 17
NO SPACES ARE LOST FROM THIRD STREET IN THE EXISTING CONDITION.

LEGEND:

- BUILDING
- PAVEMENT
- BRICK SIDEWALK
- CONCRETE SIDEWALK
- GRAVEL
- GRASS OR NON-IMPERVIOUS SURFACE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

REVISION	DATE	DESCRIPTION
#1	9-26-22	REVISED PER DOVER TRC COMMENT

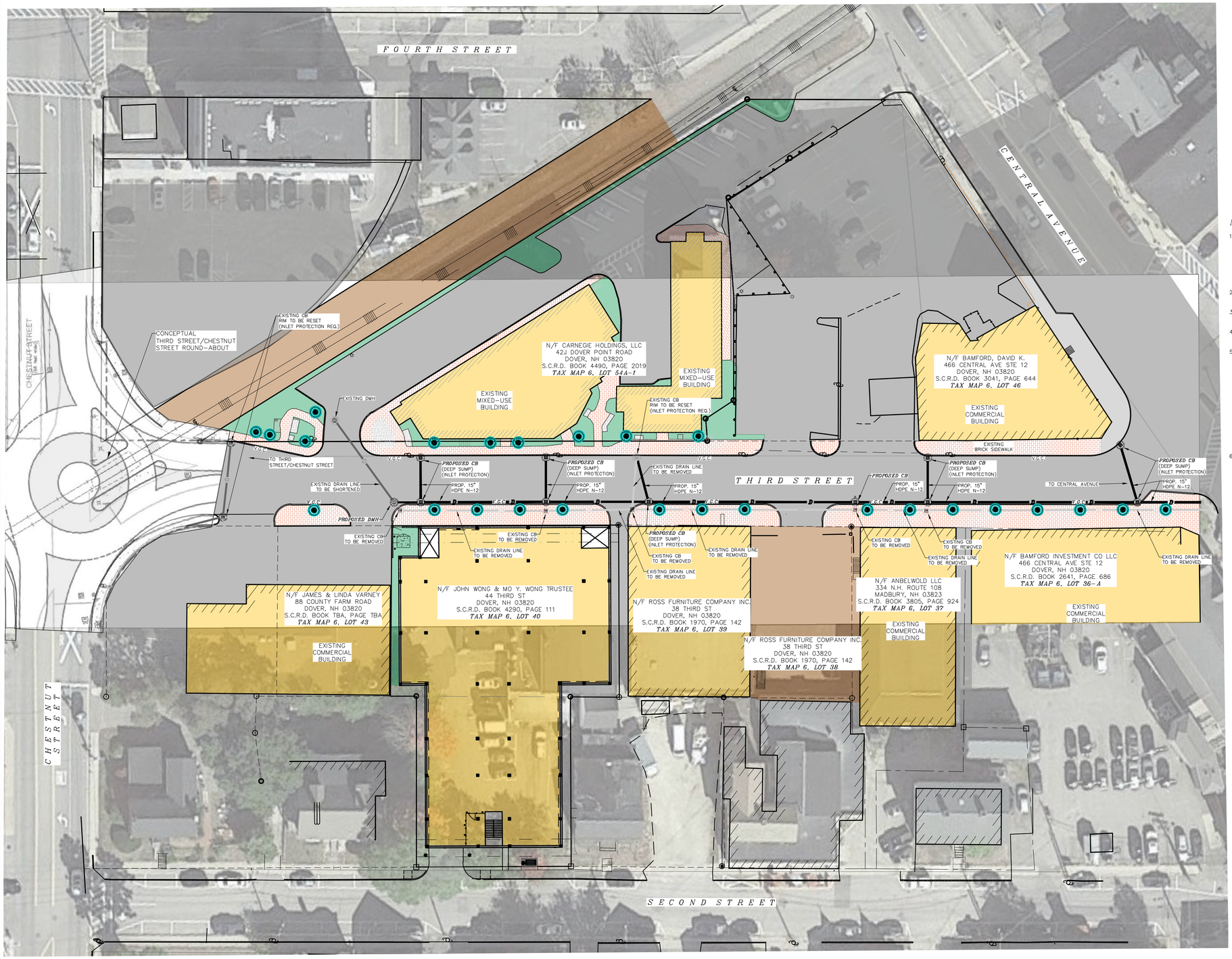
CONCEPTUAL THIRD STREET SCHEMATIC PLAN (SITE)
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

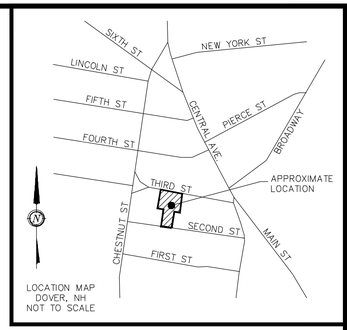
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

DRAFT

NOT FOR CONSTRUCTION





LOCATION MAP
DOVER, NH
NOT TO SCALE

NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

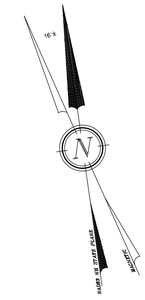
4.) A.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.
B.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac. TOTAL: 22,364 Sq.Ft,

5.) ZONING: CBD – CENTRAL BUSINESS DISTRICT (GENERAL SUB-DISTRICT)

	PROVIDED
SETBACKS	
FRONT BUILD TO (SECOND ST) ~ 6–16'	11.2'
FRONT BUILD TO (THIRD ST) ~ 5–10'	0.5' (SEE CUP)
SIDE ~ 0'–24' MAX	4.2' MIN, 7.3' MAX
REAR ~ 10'	N/A
MIN. LOT SIZE: N/A	
MIN. FRONTAGE BUILD-OUT: 70%	88.3% (SECOND ST.) 92.7% (THIRD ST.)
MIN. LOT COVERAGE: 75%	83.0%
MAX. BUILDING HEIGHT: 5 STORIES	5 STORIES VIEW FROM EACH STREET.
MIN. BUILDING HEIGHT: 2 STORIES	

*PERCENTAGES ARE A FACTOR OF THE LOT MERGER

6.) THE INTENT OF THIS PLAN IS TO SHOW THE CONCEPTUAL LEVEL SCHEMATIC PLAN FOR THE RECONSTRUCTION OF THIRD STREET, INCLUDING THE RELOCATION OF THE CENTERLINE AND DRAINAGE STRUCTURES ALONG THE SOUTHERN SIDE OF THIRD STREET.



LEGEND:

- BUILDING
- PAVEMENT
- BRICK SIDEWALK
- CONCRETE SIDEWALK
- GRAVEL
- GRASS OR NON-IMPERVIOUS SURFACE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

#	DATE	DESCRIPTION
#1	9-26-22	REVISED PER DOVER TRC COMMENT

CONCEPTUAL THIRD STREET SCHEMATIC PLAN (DRAINAGE)
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y. WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 30 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

DRAFT

NOT FOR CONSTRUCTION

DRAFT

PROJECT NAME & ADDRESS: Third Street Reconstruction - Dover, NH

DATE: 9-26-22

Description	Quantity	Unit	Unit Price	Total
Site Preparation				
Removal of Pipe Lines ≤ 24"	475	LF	$14.00	$6,650.00
Common Structure Excavation (Pavement & CC Walk Removal)	462	CY	$49.35	$22,799.70
Saw Cut Pavement	675	LF	$2.60	$1,755.00
REMOVAL OF CATCH BASINS, DROP INLETS, AND MANHOLES	5	EA	$526.96	$2,634.80
Roads				
Granular/Common Fill	0	CY	$18.00	$0.00
Gravel Backfil (304.2) Assumed Gravel Shim needed	355	CY	$39.00	$13,845.00
Crushed Stone - Fine Gradation (304.4)	205	CY	$58.00	$11,890.00
Hot Bituminous Pavement - Machine Method (Road)	446.7	TON	$105.00	$46,903.50
Hot Bituminous Pavement - Machine Method (Sidewalk)	93.5	TON	$105.00	$9,817.50
Brick (Sidewalk)	45	PER 1000	$600.00	$27,000.00
Straight Granite Curb	480	LF	$80.00	$38,400.00
Curved Granite Curb	105	LF	$50.00	$5,250.00
Curb Removal For Salvage	530	LF	$6.00	$3,180.00
Traffic Sign with Post	5	EA	$320.00	$1,600.00
Retroflective Paint Marking - 4" Line	1325	LF	$0.50	$662.50
Utilities				
Catch Basin with Frame, Grate & Hood	10	EA	$4,000.00	$40,000.00
MH - 4'	1	EA	$3,000.00	$3,000.00
DRAINAGE MANHOLE COVERS AND FRAMES	1	EA	$1,100.00	$1,100.00
Remove and Reset CB, DI Grate and Frame	5	EA	$500.00	$2,500.00
Reconstruct / Adjust Drainage Manholes	3	EA	$1,000.00	$3,000.00
15" Plastic Corrugated/Smooth Pipe	604	LF	$82.00	$49,528.00
Site Stabilization/Landscaping				
Intet Protection	13	EA	$110.00	$1,430.00
New Trees - Deciduous - General	16	EA	$450.00	$7,200.00
Quality Control				
Physical Testing Laboratory Services	0.52	AC	$2,800.00	$1,456.00
Flagger	40	HR	$75.00	$3,000.00
Signage	1	Ea	$5000.00	$5,000.00
Sign Relocation & Meter Re-Location (Budget)	1		$5000.00	$5,000.00
Project Documentation				
As-Built Drawing ($2,000 min total)	1	AC	$4,000.00	$4,000.00
Staking/Monumentation/Record Drawings Prep ($1,000 min total)	1	EA	$1000.00	$1,000.00
Site Maintenance				
Site Clean Up (Removal of Construction Materials/Debris)	0.52	AC	$6,100.00	$3,172.00
Clean out Catch Basins (Vac-Truck)	13	EA	$150.00	$1,950.00
Design Cost				
Design Fee	1	TOTAL	$25,000.00	$25,000.00
Public Outreach (Budget)	1		$5,000.00	$5,000.00
Mobilization/Demobilization		5% of total		$15,736.20
				$370,460.20
		10% Contingency		**$37,046.02**
		Engineers Estimate of Cost		**$407,506.22**

Notes:

1. This estimate may not be fully comprehensive and does not relieve the contractor or developer from obligations necessary to complete work as approved.

2. Unit cost of pipes inlcude cost of bedding materials

3. Prices related to ashphalt are volatile. Prices may need to be routinetly updated.

1.) Any opinions of probable project cost or probable construction cost provided by ENGINEER are made on the basis of information available to ENGINEER and on the basis of ENGINEER's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s') methods of determining prices, or over competitive bidding or market conditions, ENGINEER does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost ENGINEER prepares.

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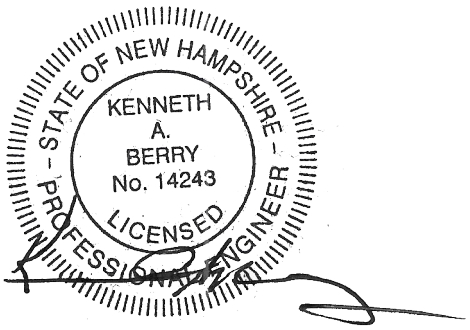
August 11, 2022/Rev: September 26, 2022

City of Dover Planning Department
Attn: Director of Department of Planning and Community Development Mrs. Donna Benton
288 Central Ave.
Dover, NH 03820

RE: Traffic Impact Analysis & Distribution
John Wong & Mo Y Wong, Trustee of the
Mo Y. Wong Living Revocable Trust of 2006
Wooden Ruler Realty, LLC
42-44 Third Street (Residences and Shops at 42-44 Third)
Dover, NH 03820



Mrs. Benton,

Pursuant to the City of Dover Site Review Regulations, Berry Surveying & Engineering (BS&E), on behalf of Wooden Ruler Realty, LLC, has prepared a Standard Traffic Impact Analysis for the development of a five-story mixed-use building with two commercial units, two retail units, and fifty-eight (58) residential units proposed at 42-44 Third Street. There are several points of analysis, including: Trips generated at 42-44 Third Street and surrounding area, trips generated at 25-27 Second Street, trips generated at a proposed parking garage located at 35 Third Street, and trips generated to a proposed round-about at the intersection of Chestnut and Third Street from these analysis points. This Traffic Impact Analysis has been modified due to the addition of Commercial uses on the first floor and Land Use Codes have been updated to the 11th Edition of the Trip Generation Manual from the 10th edition.

The following conclusions were reached from this Traffic Impact Analysis:

- A total build generation of 560 vehicle trips are predicted to occur on a weekday, 32 vehicle trips (17 enter/15 exit) at the AM peak hour and 49 vehicle trips (24 enter/25 exit) at the PM peak hour for the entire project.

- A total build generation of 370 vehicle trips are predicted to occur on a weekday, 17 vehicle trips (14 enter/3 exit) at the AM peak hour and 33 vehicle trips (14 enter/19 exit) at the PM peak hour to the surrounding area of 42-44 Third Street.

- A total build generation of 104 vehicle trips are predicted to occur on a weekday, 8 vehicle trips (2 enter/6 exit) at the AM peak hour and 9 vehicle trips (5 enter/4 exit) at the PM peak hour at 25-27 Second Street.

- A total build generation of 85 vehicle trips are predicted to occur on a weekday, 7 vehicle trips (2 enter/5 exit) at the AM peak hour and 7 vehicle trips (4 enter/3 exit) at the PM peak hour at 35 Third Street Parking Garage. This conclusion only considers trip generation from the Residences and Shops at 42-44, no other users for this garage.

- An additional 339 vehicle trips are predicted to occur on a weekday, 25 vehicle trips at the AM peak hour and 29 vehicle trips at the PM peak hour contributing to the proposed Round-About at the intersection of Chestnut and Third Street from no-build condition.

- This is a total project increase in trip generation of 332 weekday trips, 32 AM peak hour trips and an increase of 28 PM peak hour trips from the no-build condition. It is recommended that the existing and proposed infrastructure, will be sufficient to handle the projected increase in vehicle trips at the peak hour and all other hours.

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Proposed Development & Introduction

The proposal is to redevelop Tax Map 6, Lot 32 and Lot 40 to contain a five-story mixed-use building containing two retail units (2,656 Sq. Ft. & 2,717 Sq. Ft.), two commercial units (5,218 Sq. Ft. & 5,687 Sq. Ft.) and fifty-eight (58) residential units on the second-fifth floors. This building will be referred to as the Residences and Shops at 42-44 Third. The building is stepped one level lower from Third to Second Street so that it remains five stories from Second and Third Street. The proposed commercial/retail use will generate traffic to 42-44 Third Street/the surrounding area. The residential trip generation will be created at two locations. Approximately 55% of the residential parking required is serviced in basement level parking, accessed from 25-27 Second Street. The other approximately 45% of trips generated will occur off-site at a proposed parking garage located at 35 Third Street. Traffic impact analyses have been submitted separately for all proposed trips generated by the different residential uses for this proposed parking garage. This off-site parking garage located at 35 Third Street is approximately 1,000 feet from the proposed mixed-use building and will service other residential projects in the area. The Dover Transportation Center, providing rail and bus service, is located on the walk between the garage and proposed mixed-use building.

There are several points of analysis: Trips generated to 42-44 Third Street and the surrounding area, trips generated by 25-27 Second Street, trips generated by a proposed parking garage located at 35 Third Street (supplies partial residential parking for proposed apartments), and trips generated to a proposed round-about at the intersection of Chestnut and Third Street from these analysis points. The purpose of this analysis is to determine the maximum number of trips coming to and leaving these points of analysis during certain peak periods of the day. This information is then used in determining the impact on safety as it relates to the existing roadway infrastructure. This information is also used to determine the difference in trips generated to the proposed round-about from a no-build and build situation. The following components of the analysis are typical for a project of this size pursuant to the Institute of Traffic Engineers (ITE) manual.

Existing Conditions

Existing Site Description

The existing site for the proposed mixed-use building consists of two lots, Tax Map 6, Lots 32 and 40. These parcels contain 13,964 Sq. Ft. (0.31 Ac.) and 9,000 Sq. Ft. (0.21 Ac.) of land, respectively. Tax Map 6, Lot 32 has frontage on Third Street (42-44 Third Street) and is primarily occupied by the “Asia” Restaurant with two apartments above and parking spaces, all proposed to be removed. Tax Map 6, Lot 40 is almost entirely a paved parking lot, proposed to be removed. Tax Map 6, Lot 40 has frontage on Second Street (25-27 Second Street). Both lots are in the CBD General Sub-district and are surrounded by commercial and residential lots. The site is close to (300-400’) from Chestnut Street to the West and Central Avenue to the east.

The existing site for the proposed parking garage is, Tax Map 31, Lot 22, containing 14,233 Sq. Ft. (0.33 Ac.) of land. Tax Map 31, Lot 22 has frontage on Third Street (35 Third Street) and Grove Street (7-9 Grove Street) and is primarily occupied by a mixed-use structure with an office, apartments, and parking spaces, all proposed to be removed. This parking garage will partially support the residential parking needs for projects located at 42-44 Third Street and 1 Grove Street, and entirely for 5 Grove Street. Traffic Analyses for these locations are under separate Site Plan applications. This site is located at the intersection of Third Street and Grove Street.

Third Street, Second Street, Chestnut Street, and Central Avenue Descriptions

In the area of the project, Third Street is a two-way local road that runs east to west. The intersection of Third St and Chestnut St has two legs to the east for left/straight movements and right turn movements. Third Street to the east is marked as a single lane. A railroad line to the Dover Transportation Center traverses the center of this intersection and is active multiple times per day. Rail-road signals and crossing bars are present at all legs of this intersection. The intersection is stop controlled at both legs of Third Street with no control treatment besides railroad crossing treatment for Chestnut Street. This intersection is important in the analysis, as this intersection is proposed to be upgraded to a round-about as part of City of Dover improvements. An objective of this analysis is to determine the increase in trips generated to the intersection from the no-build situation. A schematic of this intersection is shown in Appendix C.

The intersection of Third Street and Central Ave is stop controlled at Third Street and is adjacent to the signalized intersection of Central Ave/Main Street/Broadway. Third Street is composed of a thirty-four foot wide paved surface with on street parking and a sidewalk with vertical granite curbing on the north and south sides of the road. There is centerline delineation provided. There is no posted speed limit, so the non-posted speed limit in residential areas is 30 miles per hour (MPH). The geometry of Third Street is relatively flat and straight in the project location. There are sidewalks, crosswalks, and pedestrian crossing signs around the project.

In the area of the project, Second Street is a one-way local road that runs west to east. Trips enter from Central Avenue and exit to Chestnut Street. The intersection of Second St/Chestnut St/Dover Transportation Center is stop controlled at Second Street with a right and left turn lane and stop controlled at the Dover Transportation Center with no control treatment for Chestnut Street. Vehicles at the intersection of Central Ave and Second Street can freely make turns onto Second Street, depending on the queue length of Central Ave.

Second Street is composed of a thirty-six foot wide paved surface with on street parking and a sidewalk with vertical granite curbing on the north and south side of the road. There is no centerline delineation or fog / edge lines provided. There is no posted speed limit, so the non-posted speed limit in residential areas is 30 miles per hour (MPH). The geometry of Second

Street is relatively flat and straight in the project location. There are sidewalks, crosswalks, and pedestrian crossing signs around the project.

Chestnut Street is a two-lane major collector road, according to the NHDOT MS2 Transportation Management System (NHDOT). At the intersection of Chestnut Street and Second Street, there is a left turn lane for both northbound traffic to the Dover Transportation Center in addition to north and southbound lanes. The intersection of Chestnut and Third Street is previously discussed. This road provides access to Sixth Street/Washington Street to the north and Washington Street/Central Ave. to the south. It has an Average Annual Daily Traffic (AADT) of approximately 12,647 (2021) divided between north and south, also as shown by the NHDOT. There are sidewalks, crosswalks, and pedestrian crossing signs around the project. Full traffic counts of the summarized volumes in the following section can be found online on the NHDOT MS2 system, location ID 82125029.

At the intersection of Third Street and Central Ave, Central Ave is a one-way minor arterial road, according to the NHDOT MS2 Transportation Management System. Central Avenue in the area of the project contains two lanes for southbound traffic. Central Ave provides access to NH Route 16 and Somersworth to the north and access to NH Route 16 and Durham to the south. It has an Average Annual Daily Traffic (AADT) of approximately 12,875 (2021) southbound, also as shown by the NHDOT. There are sidewalks, crosswalks, and pedestrian crossing signs around the project. Full traffic counts of the summarized volumes in the following section can be found online on the NHDOT MS2 system, location ID 82125066.

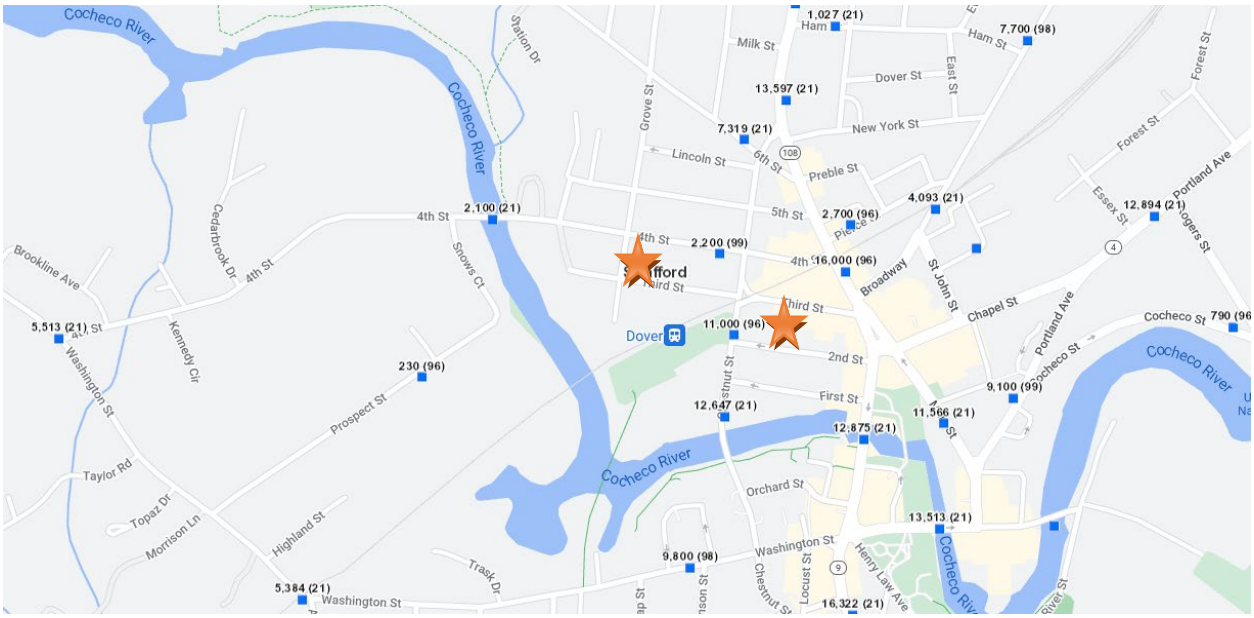

Figure 1: Third Street, Second Street, Chestnut Street, and Central Avenue and surrounding roadways showing public transportation (NHDOT) (35 Third St & 42-44 Third St highlighted)

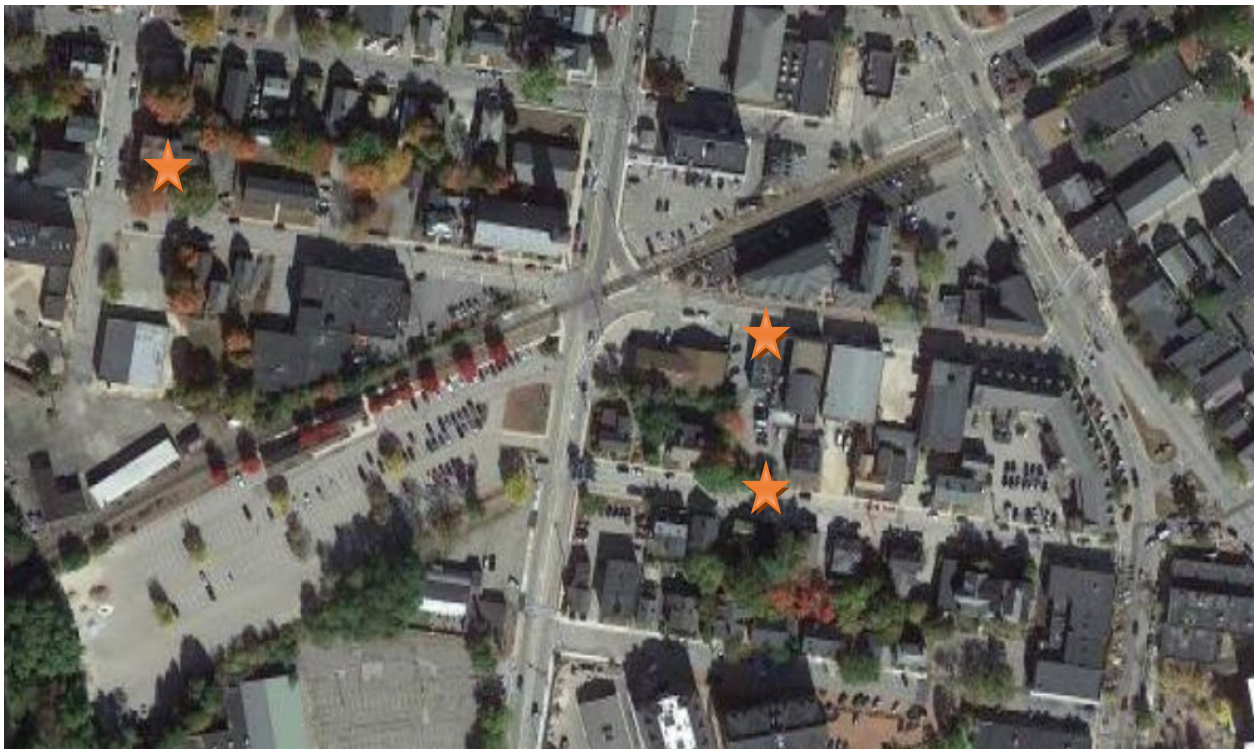

Figure 2: 42-44 Third Street (top right), 25-27 Second Street (bottom right), 35 Third Street (top left)

Existing Traffic Volumes

According to traffic counts recorded by the NHDOT for June 11 - October 13, 2019, the Chestnut Street AM and PM two-way peaks were 1,092 trips and 1,508 trips, respectively. It was found that Chestnut Street has an AADT of 12,647 vehicles (2021).

The highest peak hour traffic volume on this section of Chestnut Street northbound occurred from 8-9 AM with 563 vehicles and from 5-6 PM with 785 vehicles. Southbound highest peak hour traffic volume occurred from 7-8 AM with 578 vehicles and from 5-6 PM with 813 vehicles. Table #1 shows the traffic direction breakdown of Chestnut Street and Figures #3-5 are graphical representations of the traffic variations occurring throughout the day.

Traffic Distribution Chestnut Street						
Date	Northbound		Southbound		Two-Way	
Tuesday 6/11/2019	AM Peak	511	AM Peak	548	AM Peak	1025
	PM Peak	785	PM Peak	765	PM Peak	1477
Wednesday 6/12/2019	AM Peak	514	AM Peak	578	AM Peak	1092
	PM Peak	695	PM Peak	813	PM Peak	1508
Thursday 6/13/2019	AM Peak	563	AM Peak	536	AM Peak	1009
	PM Peak	672	PM Peak	683	PM Peak	1355
Average Peak Hour Traffic	AM Peak	529	AM Peak	554	AM Peak	1042
	PM Peak	717	PM Peak	754	PM Peak	1447
% Distribution	AM Peak	48.9	AM Peak	51.1		
	PM Peak	48.8	PM Peak	51.2		
	Weekday	50.9	Weekday	49.1		

Table 1: Directional breakdown of trips occurring on Chestnut Street

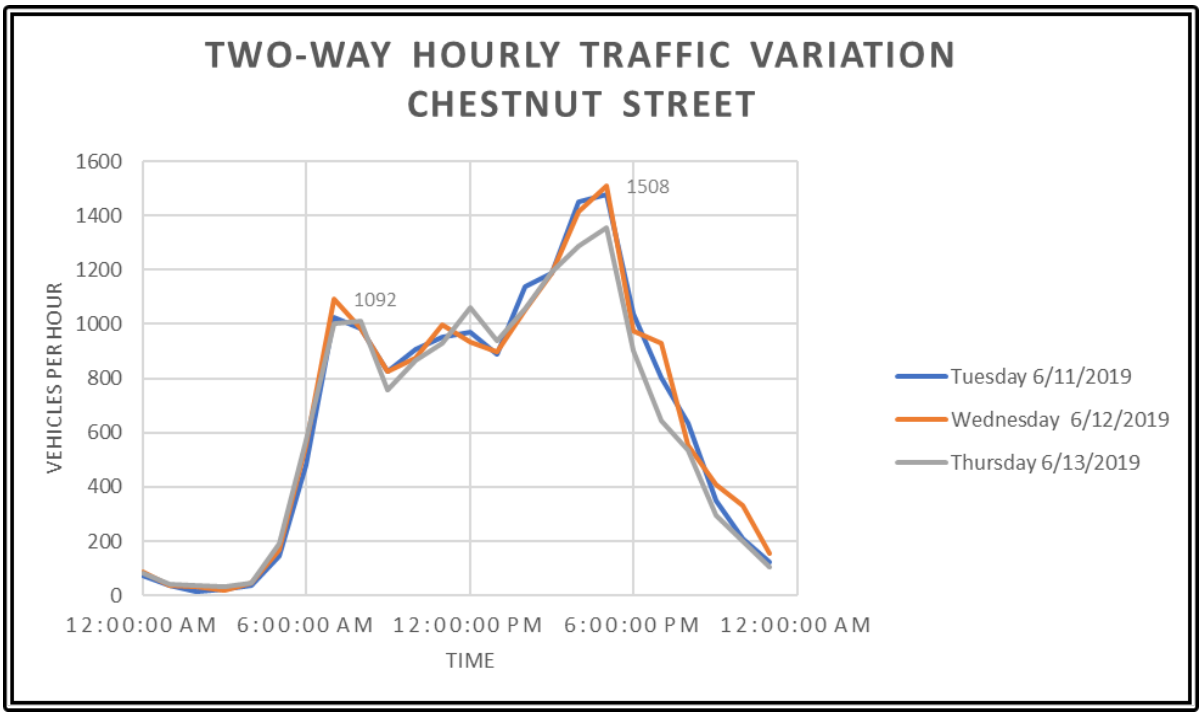

Figure 3: Graph of Chestnut Street two-way hourly variation with peak hour values

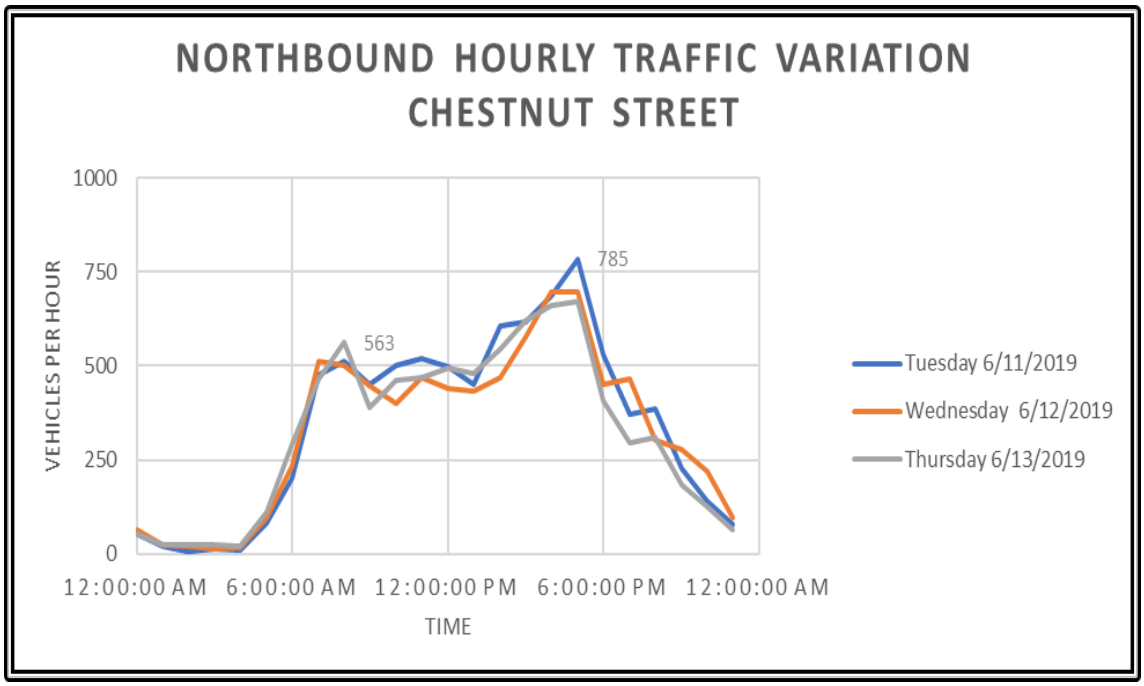

Figure 4: Graph of Chestnut Street northbound hourly variation with peak hour values

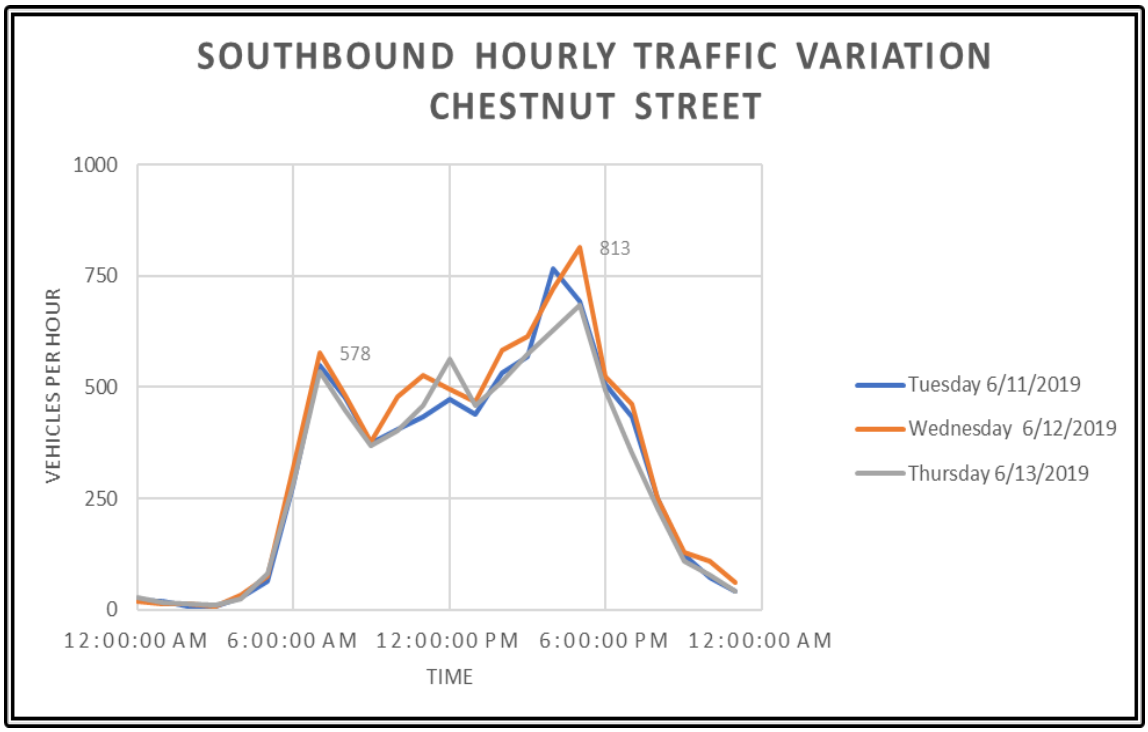

Figure 5: Graph of Chestnut Street southbound hourly variation with peak hour values

According to traffic counts recorded by the NHDOT for July 14 – July 16, 2020, the highest Central Avenue peak hour traffic volume occurred from 8-9 AM with 425 vehicles and from 5-6 PM with 985 vehicles. It was found that Central Avenue has an AADT of 12,777 vehicles. Table #2 shows the traffic direction breakdown of Central Avenue and Figure #6 is a graphical representation of the traffic variations occurring throughout the day.

Traffic Distribution Central Avenue		
Date	Southbound	
Tuesday	AM Peak	842
7/14/2020	PM Peak	934
Wednesday	AM Peak	804
7/15/2020	PM Peak	985
Thursday	AM Peak	809
7/16/2020	PM Peak	957
Average Peak	AM Peak	818
Hour Traffic	PM Peak	959

Table 2: Directional breakdown of trips occurring on Central Avenue

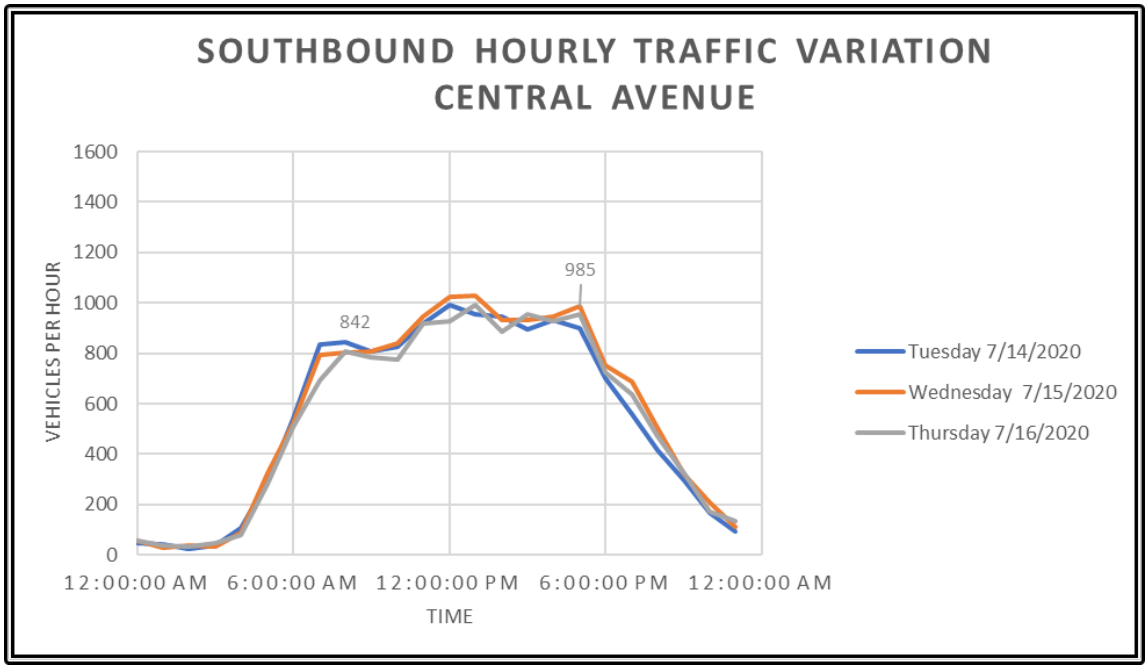

Figure 6: Graph of Central Avenue two-way hourly variation with peak hour values

By examining the traffic patterns of Chestnut Street and Central Avenue, it is seen that the roadways experience similar volumes of traffic, but occur at different times of the day. Chestnut Street appears to be subjected to proportionally larger peak hour increases in traffic volumes, while Central Avenue appears to have more consistent volumes of traffic throughout the day.

Both roads show an increase in traffic volumes from the AM peak hour to the PM peak hour. For Chestnut Street, volumes of traffic decrease by approximately 25% from the AM peak hour to the mid-day hours, before increasing by approximately 45% of the PM peak hour. For Central Avenue, the AM and PM peak hour traffic volumes are fairly close in relation. There is a steady increase in trip volume from the AM peak hour to the PM peak hour. Central Avenue does not experience the type of fluctuations in traffic volume that Chestnut experiences throughout the day. For the purposes of the directional distribution of Third Street traffic volumes the ratio of the total AADTs of Chestnut Street and Central Ave is used. The directional distribution utilized for Third Street is shown in the following table. Trips generated to 42-44 Third Street and the surrounding area from Central Ave and Chestnut Street will be nearly identical using this method.

Traffic Directional Distribution Third Street				
	Eastbound (To Central Ave)		Westbound (To Chestnut St)	
% Distribution	AM Peak	50.5	AM Peak	49.5
	PM Peak	50.5	PM Peak	49.5
AADT	Central Ave: 12,875		Chestnut Street: 12,647	

Figure 7: Directional Distribution Third Street

Existing Vehicle Speeds

As previously mentioned, Third Street, Second Street, Chestnut Street, and Central Ave are all governed by the city-wide speed limit of 30 MPH. It has been observed by Berry Surveying & Engineering that speeds in the area of the project site are not excessive. The exception is vehicle traffic heading southbound on Chestnut Street, while excessive speeds were rare, and most operators obeyed the posted speed limits within a deviation of 5 MPH. This is consistent with speeds found on urban roads. The 85th percentile for the purposes of this study it is assumed that the majority of operators obey the 30 MPH Dover speed limits for Third Street and Second Street.

Proximity to Public Transportation

The proposed build out presents an excellent opportunity for the utilization of public transportation for residents and guests alike. Approximately 400 feet to the west is the Dover Transportation Center. The Dover Transportation Center provides park and ride access as well as access to Coast busses, UNH busses, and rail access with Amtrak service. There are sidewalks and crosswalks that allow for safe access from the site. In addition, approximately 300 feet to the east at the corner of Third Street and Central Ave is a Coast bus stop, Route 2, Third Street/Central Ave. There are sidewalks and crosswalks that allow for safe bus stop access from the site as well. Utilization of these routes also presents an opportunity for a reduction of trips generated by the site and will be discussed later in the analysis. Figure 1, (page 7), shows the locations of bus stops surrounding the site. There is crosswalk and sidewalk access from 42-44 Third Street to the parking garage at 35 Third Street.

Existing Trip Generation

The 11th Edition ITE Trip Generation Manual was used to determine the existing volume of trips. Along with the percentage of entrance-to-exit traffic experienced during the AM & PM peak hours between 7 and 9 AM and 4 and 6 PM. Land Use Codes Multi-Family Housing (Low-Rise) (220) and Quality Restaurant (931) were used in deriving the trip generation for the existing site. Trip generations were then modified based on the Transportation Research Board's Transit Cooperative Research Program Report 128 entitled *Effects of TOD on Housing, Parking, and Travel,* which states that for a community with access to a small transit system, 72% of commuters are commuters by automobile. Therefore, 72% of the calculated ITE trip generation was used in each. Tables 3 and 4 provide average trip rate, total trips generated, enter to exit ratio, and the enter to exit distribution. Table 5 shows the total existing trip generation during the AM and PM peak hours. Tables 6 and 7 break down the trips by location. All trips enter the subject parcel from 42-44 Third Street (one way parking lot) and exit to 25-27 Second Street.

Multi-Family Housing (Low-Rise) No-build Trip Generation:

Time Method	Weekday Total Dwelling Units			Time Method	AM Peak Adj. Street Traffic Dwelling Units			Time Method	PM Peak Adj. Street Traffic Dwelling Units		
# Units	2			# Units	2			# Units	2		
Avg. Rate	6.74			Avg. Rate	0.40			Avg. Rate	0.51		
Total Trips	13.5			Total Trips	0.8			Total Trips	1.0		
Reduced Trips	9.7			Reduced Trips	0.6			Reduced Trips	0.7		
% Enter	50.0	Total Enter	4.9	% Enter	24.0	Total Enter	0.1	% Enter	63.0	Total Enter	0.5
% Exit	50.0	Total Exit	4.9	% Exit	76.0	Total Exit	0.4	% Exit	37.0	Total Exit	0.3

Table 3: (Apartments) No-Build trip generation

Quality Restaurant (Asia Restaurant) No-Build Trip Generation:

Time Method	Weekday Total 1,000 SF GFA			Time Method	AM Peak Adj. Street Traffic 1,000 SF GFA	Time Method	PM Peak Adj. Street Traffic 1,000 SF GFA		
GFA (Ft. Sq.)	3.6			GFA (Ft. Sq.)	No AM Peak Hour Generation Opens at 11:30 AM	GFA (Ft. Sq.)	3.6		
Avg. Rate	83.84			Avg. Rate		Avg. Rate	7.8		
Total Trips	301.8			Total Trips		Total Trips	28.1		
Reduced Trips	217.3			Reduced Trips		Reduced Trips	20.2		
% Enter	50.0	Total Enter	108.7	% Enter		% Enter	67.0	Total Enter	13.5
% Exit	50.0	Total Exit	108.7	% Exit		% Exit	33.0	Total Exit	6.7

Table 4: (Asia Restaurant) No-Build trip generation

No-Build Trip Generation:

Time	Weekday Total			Time	AM Peak Hour			Time	PM Peak Hour		
Total Trips	227.0			Total Trips	0.6			Total Trips	21.0		
% Enter	50.0	Total Enter	113.5	% Enter	24.0	Total Enter	0.1	% Enter	66.9	Total Enter	14.0
% Exit	50.0	Total Exit	113.5	% Exit	76.0	Total Exit	0.4	% Exit	33.1	Total Exit	6.9

Table 5: No-Build trip generation

No-Build Trip Generation by 42-44 Third Street:

No-Build Trips Generated at 42-44 Third Street												
Time	Weekday Total			Time	AM Peak Hour			Time	PM Peak Hour			
Total Trips	113.5			Total Trips	0.1			Total Trips	14.0			
% Enter	100.0	Total Enter	113.5	% Enter	100.0	Total Enter	0.1	% Enter	100.0	Total Enter	14.0	
% Exit	0.0	Total Exit	0.0	% Exit	0.0	Total Exit	0.0	% Exit	0.0	Total Exit	0.0	

Table 6: No-Build trip generation by 42-44 Third Street

No-Build Trip Generation by 25-27 Second Street:

No-Build Trips Generated at 25-27 Second Street												
Time	Weekday Total			Time	AM Peak Hour			Time	PM Peak Hour			
Total Trips	113.5			Total Trips	0.4			Total Trips	6.9			
% Enter	0.0	Total Enter	0.0	% Enter	0.0	Total Enter	0.0	% Enter	0.0	Total Enter	0.0	
% Exit	100.0	Total Exit	113.5	% Exit	100.0	Total Exit	0.4	% Exit	100.0	Total Exit	6.9	

Table 7: No-Build trip generation by 25-27 Second Street

Proposed Trip Generation

The 11th Edition ITE Trip Generation Manual was used to determine the proposed volume of trips, as well as the percentage of entrance-to-exit traffic experienced at the AM & PM peak hours between 7 and 9 AM and 4 and 6 PM. Land Use Codes Multi-Family Housing (Mid-Rise) (221), Small Office Building (721), and Apparel Store (876) were used in deriving the trip generation for the proposed site. The retail/commercial spaces are not determined at this time. For ease of review, each retail and commercial unit has been broken out as opposed to grouping all area together. As with the existing generation, 72% of the calculated trip generation was used on all uses.

The parking in the basement level of the Residences and Shops at 42-44 Third (located at 25-27 Second Street) supports approximately 55% of the residential parking required for the project. The remaining 45% is supported at the proposed parking garage at 35 Third Street. Trip generation is separated out for the residential uses by parking location. Further trips will be generated at 35 Third Street by parking requirements for other projects. This analysis focuses on trips generated at the 35 Third Street parking garage by the residential parking requirements of the Residences and Shops at 42-44 Third. This is for the purpose of determining the number of trips generated, and for the trips generated to the proposed round-about at the intersection of Third and Chestnut Street.

Commercial/retail trips are generated to the surrounding area of 42-44 Third Street as previously mentioned. Some on Street parking spots are available on Third Street, it is assumed that other locations such as the Dover Transportation Center and other street parking areas would handle to parking demands. Residential Trips are generated to the driveway at 25-27 Second Street. Tables

8-13 provide average trip rate, total trips generated, enter to exit ratio, and the enter to exit distribution. Table 14-17 shows the total proposed trip generation by each location. Table 18 shows the change in trip generation from no-build to build scenario.

Multi-Family Housing (Mid Rise) Trip Generation 25-27 Second Street:

Time Method	Weekday Total Dwelling Units			Time Method	AM Peak Adj. Street Traffic Dwelling Units			Time Method	PM Peak Adj. Street Traffic Dwelling Units		
# Units	32			# Units	32			# Units	32		
Avg. Rate	4.54			Avg. Rate	0.37			Avg. Rate	0.39		
Total Trips	144.8			Total Trips	11.8			Total Trips	12.4		
Reduced Trips	104.3			Reduced Trips	8.5			Reduced Trips	9.0		
% Enter	50.0	Total Enter	52.1	% Enter	23.0	Total Enter	2.0	% Enter	61.0	Total Enter	5.5
% Exit	50.0	Total Exit	52.1	% Exit	77.0	Total Exit	6.5	% Exit	39.0	Total Exit	3.5

Table 8: (Apartments) Build trip generation by 25-27 Second Street

Multi-Family Housing (Mid Rise) Trip Generation 35 Third Street:

Time Method	Weekday Total Dwelling Units			Time Method	AM Peak Adj. Street Traffic Dwelling Units			Time Method	PM Peak Adj. Street Traffic Dwelling Units		
# Units	26			# Units	26			# Units	26		
Avg. Rate	4.54			Avg. Rate	0.37			Avg. Rate	0.39		
Total Trips	118.5			Total Trips	9.7			Total Trips	10.2		
Reduced Trips	85.3			Reduced Trips	7.0			Reduced Trips	7.3		
% Enter	50.0	Total Enter	42.7	% Enter	23.0	Total Enter	1.6	% Enter	61.0	Total Enter	4.5
% Exit	50.0	Total Exit	42.7	% Exit	77.0	Total Exit	5.4	% Exit	39.0	Total Exit	2.9

Table 9: (Apartments) Build trip generation by 35 Third Street

Retail Trip Generation Area Surrounding 42-44 Third Street:

Time Method	Weekday Total 1000 Sq. Ft Gross Floor Area			Time Method	AM Peak Adj. Street Traffic 1000 Sq. Ft Gross Floor Area			Time Method	PM Peak Adj. Street Traffic 1000 Sq. Ft Gross Floor Area		
GFA (Ft. Sq.)	2.656			GFA (Ft. Sq.)	2.656			GFA (Ft. Sq.)	2.656		
Avg. Rate	66.4			Avg. Rate	1.00			Avg. Rate	4.12		
Total Trips	176.4			Total Trips	2.7			Total Trips	10.9		
Reduced Trips	127.0			Reduced Trips	1.9			Reduced Trips	7.9		
% Enter	50.0	Total Enter	63.5	% Enter	80.0	Total Enter	1.5	% Enter	51.0	Total Enter	4.0
% Exit	50.0	Total Exit	63.5	% Exit	20.0	Total Exit	0.4	% Exit	49.0	Total Exit	3.9

Table 10: (Retail Unit #1) Build trip generation to area surrounding 42-44 Third St

Retail Trip Generation Area Surrounding 42-44 Third Street:

Time Method	Weekday Total 1000 Sq. Ft Gross Floor Area			Time Method	AM Peak Adj. Street Traffic 1000 Sq. Ft Gross Floor Area			Time Method	PM Peak Adj. Street Traffic 1000 Sq. Ft Gross Floor Area		
GFA (Ft. Sq.)	2.717			GFA (Ft. Sq.)	2.717			GFA (Ft. Sq.)	2.717		
Avg. Rate	66.4			Avg. Rate	1.00			Avg. Rate	4.12		
Total Trips	180.4			Total Trips	2.7			Total Trips	11.2		
Reduced Trips	129.9			Reduced Trips	2.0			Reduced Trips	8.1		
% Enter	50.0	Total Enter	64.9	% Enter	80.0	Total Enter	1.6	% Enter	51.0	Total Enter	4.1
% Exit	50.0	Total Exit	64.9	% Exit	20.0	Total Exit	0.4	% Exit	49.0	Total Exit	3.9

Table 11: (Retail Unit #2) Build trip generation to surrounding area of 42-44 Third St

Commercial Trip Generation Area Surrounding 42-44 Third Street:

Time Method	Weekday Total 1000 Sq. Ft Gross Floor Area			Time Method	AM Peak Adj. Street Traffic 1000 Sq. Ft Gross Floor Area			Time Method	PM Peak Adj. Street Traffic 1000 Sq. Ft Gross Floor Area		
GFA (Ft. Sq.)	5.218			GFA (Ft. Sq.)	5.218			GFA (Ft. Sq.)	5.218		
Avg. Rate	14.39			Avg. Rate	1.67			Avg. Rate	2.16		
Total Trips	75.1			Total Trips	8.7			Total Trips	11.3		
Reduced Trips	54.1			Reduced Trips	6.3			Reduced Trips	8.1		
% Enter	50.0	Total Enter	27.0	% Enter	82.0	Total Enter	5.1	% Enter	34.0	Total Enter	2.8
% Exit	50.0	Total Exit	27.0	% Exit	18.0	Total Exit	1.1	% Exit	66.0	Total Exit	5.4

Table 12: (Commercial Unit #1) Build trip generation to surrounding area of 42-44 Third St

Commercial Trip Generation Area Surrounding 42-44 Third Street:

Time Method	Weekday Total 1000 Sq. Ft Gross Floor Area			Time Method	AM Peak Adj. Street Traffic 1000 Sq. Ft Gross Floor Area			Time Method	PM Peak Adj. Street Traffic 1000 Sq. Ft Gross Floor Area		
GFA (Ft. Sq.)	5.687			GFA (Ft. Sq.)	5.687			GFA (Ft. Sq.)	5.687		
Avg. Rate	14.4			Avg. Rate	1.67			Avg. Rate	2.16		
Total Trips	81.8			Total Trips	9.5			Total Trips	12.3		
Reduced Trips	58.9			Reduced Trips	6.8			Reduced Trips	8.8		
% Enter	50.0	Total Enter	29.5	% Enter	82.0	Total Enter	5.6	% Enter	34.0	Total Enter	3.0
% Exit	50.0	Total Exit	29.5	% Exit	18.0	Total Exit	1.2	% Exit	66.0	Total Exit	5.8

Table 13: (Commercial Unit #2) Build trip generation to surrounding area of 42-44 Third St

Total Build Trip Generation:

Total Generation Build Situation											
Time	Weekday Total			Time	AM Peak Hour			Time	PM Peak Hour		
Total Trips	559.4			Total Trips	32.4			Total Trips	49.2		
% Enter	50.0	Total Enter	279.7	% Enter	53.7	Total Enter	17.4	% Enter	48.4	Total Enter	23.8
% Exit	50.0	Total Exit	279.7	% Exit	46.3	Total Exit	15.0	% Exit	51.6	Total Exit	25.4

Table 14: Total build trip generation

Build Trip Generation by 25-27 Second Street:

Build Trips Generated by 25-27 Second Street (Residential)												
Time	Weekday Total			Time	AM Peak Hour			Time	PM Peak Hour			
Total Trips	104.3			Total Trips	8.5			Total Trips	9.0			
% Enter	50.0	Total Enter	52.1	% Enter	23.0	Total Enter	2.0	% Enter	61.0	Total Enter	5.5	
% Exit	50.0	Total Exit	52.1	% Exit	77.0	Total Exit	6.5	% Exit	39.0	Total Exit	3.5	

Table 15: Build trip generation by 25-27 Second Street

Build Trip Generation by 35 Third Street:

Build Trips Generated by Residential from 42-44 Third Street at 35 Street Parking Garage												
Time	Weekday Total			Time	AM Peak Hour			Time	PM Peak Hour			
Total Trips	85.3			Total Trips	7.0			Total Trips	7.3			
% Enter	50.0	Total Enter	42.7	% Enter	23.0	Total Enter	1.6	% Enter	61.0	Total Enter	4.5	
% Exit	50.0	Total Exit	42.7	% Exit	77.0	Total Exit	5.4	% Exit	39.0	Total Exit	2.9	

Table 16: Build trip generation by 35 Third Street

Build Trip Generation Area Surrounding 42-44 Third Street:

Build Trips Generated to the Area Surrounding 42-44 Third Street (Retail/Commercial)												
Time	Weekday Total			Time	AM Peak Hour			Time	PM Peak Hour			
Total Trips	369.9			Total Trips	17.0			Total Trips	32.9			
% Enter	50.0	Total Enter	184.9	% Enter	81.5	Total Enter	13.8	% Enter	42.2	Total Enter	13.9	
% Exit	50.0	Total Exit	184.9	% Exit	18.5	Total Exit	3.1	% Exit	57.8	Total Exit	19.0	

Table 17: Build trip generation by 42-44 Third Street

Changes in Trip Generation Entire Project	
Time	# Build Trip Change
Weekday Total	332.4
AM Peak	31.9
PM Peak	28.2

Table 18: Change in weekday total trip generation

No-Build Turning Movements

The directional breakdown of trips entering and exiting the site has taken into account the traffic volumes of Chestnut Street and Central Avenue. Chestnut Street and Central Ave both have AADTs of over 12,000 vehicles per day. In the no-build condition trips enter only from 42-44 Third Street and exit to 25-27 Second Street. The parking lot for the Asia Restaurant is one-way only. This means that trips are able to enter the site from Central Ave or Chestnut Street and exit the site only to Chestnut Street. This distribution is used to determine the direction of trips generated by the site in the no-build condition. Figures 8-9 provide a visualization of the potential turn movements on Central Ave and Chestnut Street in the no-build situation. In Tables

19-24, the total trips that are calculated to occur to and from the subject parcel lot are shown for the weekday total and AM and PM peak hours. These are further broken down to entrance and exit into the site as well as percentage of left and right turns for 42-44 Third Street and 25-27 Second Street.

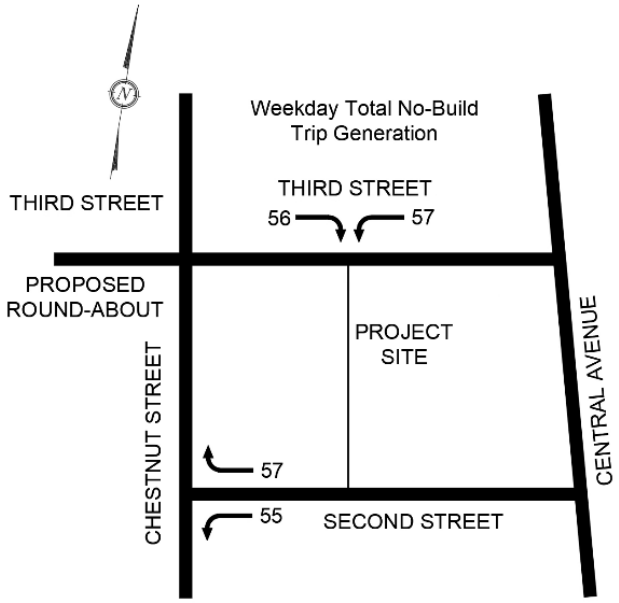

Figure 8: No-build traffic volumes and turning movements Weekday Total

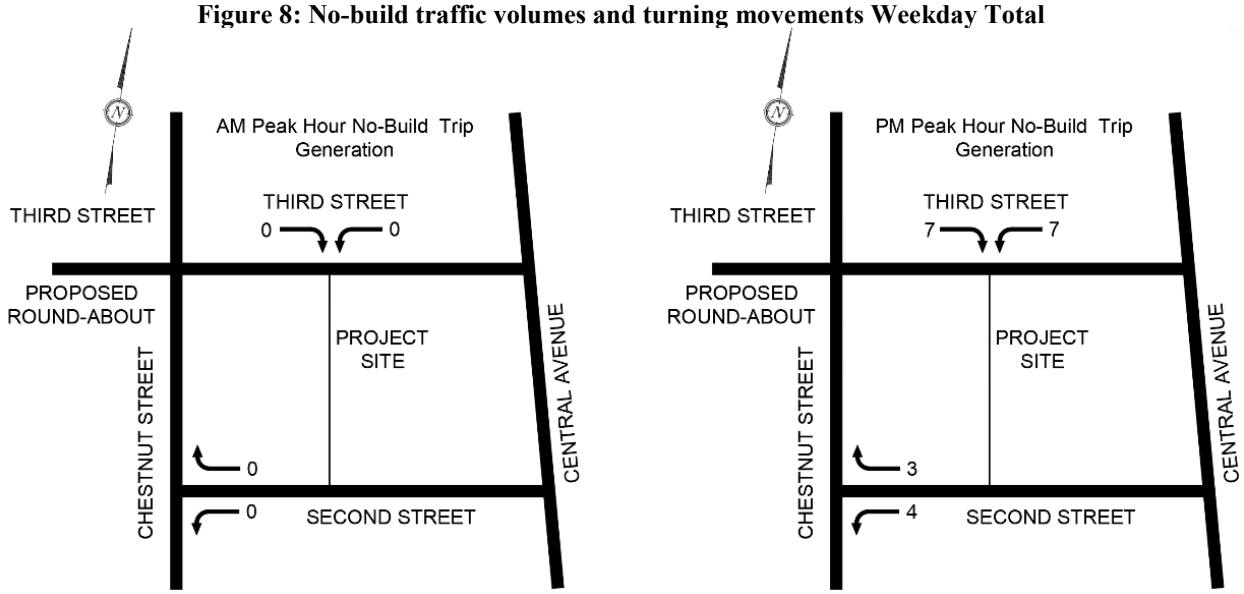

Figure 9: No-build traffic volumes and turning movements AM & PM Peak hour

Time	Weekday Total	# Trips	Turn Type	% Distribution
Total Trips	113.5			
Trips Enter from Third St Eastbound (From Chestnut St)		56.2	Right	49.5
Trips Enter from Third St Westbound (From Central Ave)		57.3	Left	50.5
Trips Exit to Third St Eastbound (To Central Ave)		0.0	Right	0.0
Trips Exit to Third St Westbound (To Chestnut St)		0.0	Left	0.0

Table 19: No-build Weekday total turn movements 42-44 Third Street

Time	AM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	0.1			
Trips Enter from Third St Eastbound (From Chestnut St)		0.0	Right	0.0
Trips Enter from Third St Westbound (From Central Ave)		0.0	Left	0.0
Trips Exit to Third St Eastbound (To Central Ave)		0.0	Right	0.0
Trips Exit to Third St Westbound (To Chestnut St)		0.0	Left	0.0

Table 20: No-build Weekday AM peak hour turn movements 42-44 Third Street

Time	PM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	14.0			
Trips Enter from Third St Eastbound (From Chestnut St)		6.9	Right	49.5
Trips Enter from Third St Westbound (From Central Ave)		7.1	Left	50.5
Trips Exit to Third St Eastbound (To Central Ave)		0.0	Right	0.0
Trips Exit to Third St Westbound (To Chestnut St)		0.0	Left	0.0

Table 21: No-build Weekday PM peak hour turn movements 42-44 Third Street

Time	Weekday Total	# Trips	Turn Type	% Distribution
Total Trips	113.5			
Trips Enter from Second St Westbound (From Central Ave)		0.0	Right	0.0
Trips Exit to Chestnut Street Northbound		57.8	Right	50.9
Trips Exit to Chestnut Street Southbound		55.7	Left	49.1

Table 22: No-build Weekday total turn movements 25-27 Second Street

Time	AM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	0.4			
Trips Enter from Second St Westbound (From Central Ave)		0.0	Right	0.0
Trips Exit to Chestnut Street Northbound		0.0	Right	0.0
Trips Exit to Chestnut Street Southbound		0.0	Left	0.0

Table 23: No-build Weekday AM peak hour turn movements 25-27 Second Street

Time	PM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	6.9			
Trips Enter from Second St Westbound (From Central Ave)		0.0	Right	0.0
Trips Exit to Chestnut Street Northbound		3.4	Right	48.8
Trips Exit to Chestnut Street Southbound		3.6	Left	51.2

Table 24: No-build Weekday PM peak hour turn movements 25-27 Second Street

Build Projection Turning Movements

In the build condition, only commercial/retail trips will be generated by 42-44 Third Street (on-street parking) and only residential trips generated by 25-27 Second Street basement level parking. Residential trips will be generated at 35 Third Street parking garage, which supports the parking requirement for the project. Commercial/retail trips to the surrounding area of 42-44 Third Street will enter from Chestnut Street or Central Ave and exit to either direction. Residential trips at 25-27 Second Street will enter from Central Ave and exit to either Chestnut Street northbound or southbound. Residential trips at 35 Third Street will enter from the Central Ave/Chestnut Street side or Washington/Sixth Street side.

In determining the directional distribution of trips from the 35 Third Street parking garage, a series of AADT ratios were used. The sum of Washington and Sixth Street (north and west) and the sum of Chestnut Street and Central Ave (south and east) are used to determine the distribution. The following table demonstrates this calculation.

Chestnut Street AADT (2021)
12,647
Central Avenue AADT (2021)
12,875
Washington Street AADT (2021)
5,513
Sixth Street AADT (2021)
7,319

Table 25: AADTs used in determining 35 Third Street distribution

	Traffic Distribution 35 Third Street Parking Garage			
	Northbound (Sixth/Washington St)		Southbound Chestnut St/Cental Ave)	
% Distribution	AM Peak	33.5	AM Peak	66.5
	PM Peak	33.5	PM Peak	66.5

Table 26: 35 Third Street directional distribution

Figures 10-11 provide a visualization of the potential turn movements on Central Ave and Chestnut Street in the build situation. In Tables 27-35, the total trips that are calculated to occur to and from the subject parcel lot are shown for the weekday total and AM and PM peak hours. These are further broken down to entrance and exit into the site as well as percentage of left and right turns for 42-44 Third Street, 25-27 Second Street, and 35 Third Street parking garage generation from 42-44 Third Street project. It is assumed that turning movements shown for the 35 Third Street parking garage shown entering from Grove Street northbound and exiting to Grove Street southbound would being travelling from Third Street westbound or eastbound, respectively. This is due to Third Street and Grove Street terminating approximately 250' from the proposed parking garage at 35 Third Street. As previously mentioned, it is assumed that the parking demand for the proposed commercial and retail uses will be absorbed into the City of Dover parking network. The following diagrams show the total trip generation for the retail and commercial uses at 42-44 Third Street and refers to the surrounding area. This method is used to show the total trip generation from the uses and will be discussed further in the "Proposed Round-About Trip Generation" section.

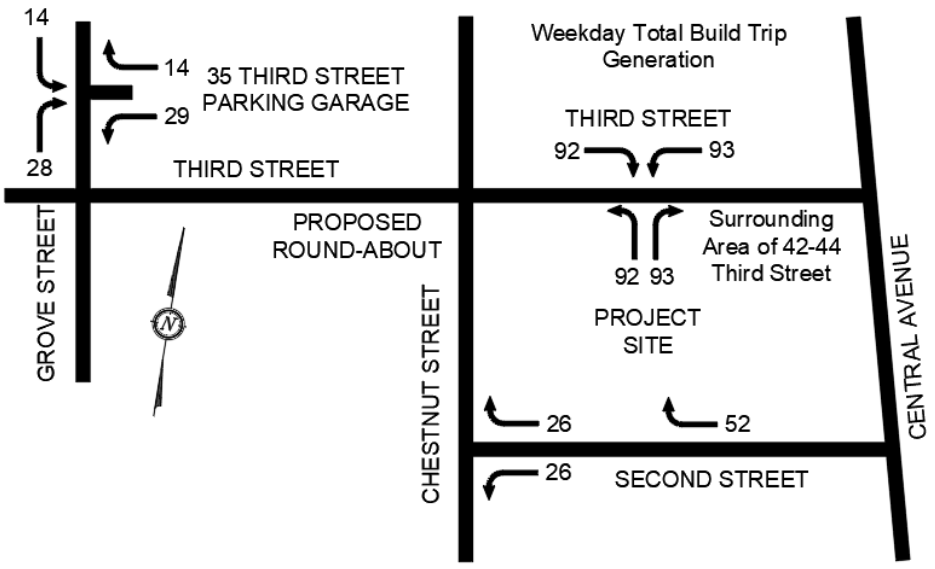

Figure 10: Build traffic volumes and turning movements Weekday Total

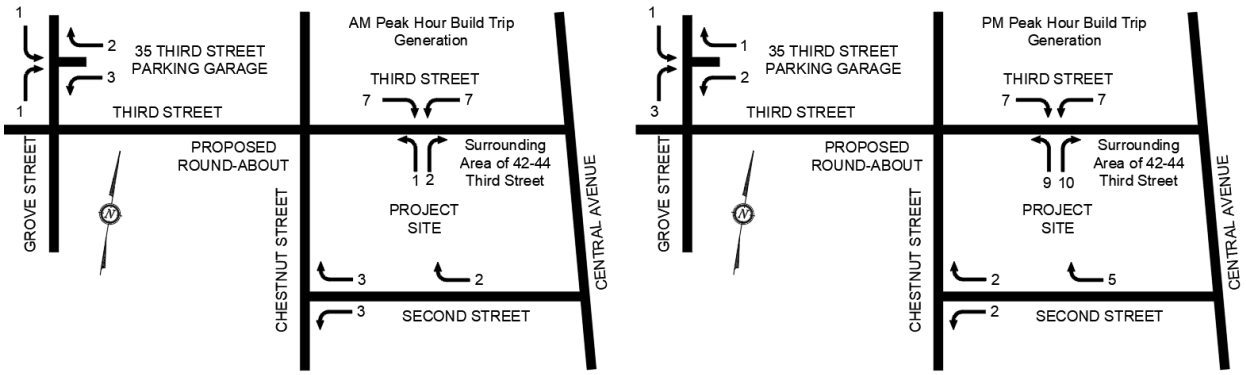

Figure 11: Build traffic volumes and turning movements AM & PM Peak hour

Time	Weekday Total	# Trips	Turn Type	% Distribution
Total Trips	369.9			
Trips Enter from Third St Eastbound (From Chestnut St)		91.5	Right	24.8
Trips Enter from Third St Westbound (From Central Ave)		93.4	Left	25.3
Trips Exit to Third St Eastbound (To Central Ave)		93.4	Right	25.3
Trips Exit to Third St Westbound (To Chestnut St)		91.5	Left	24.8

Table 27: Build Weekday total turn movements area surrounding 42-44 Third Street

Time	AM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	17.0			
Trips Enter from Third St Eastbound (From Chestnut St)		6.9	Right	40.4
Trips Enter from Third St Westbound (From Central Ave)		7.0	Left	41.2
Trips Exit to Third St Eastbound (To Central Ave)		1.6	Right	9.3
Trips Exit to Third St Westbound (To Chestnut St)		1.6	Left	9.1

Table 28: Build Weekday AM peak hour turn movements area surrounding 42-44 Third Street

Time	PM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	32.9			
Trips Enter from Third St Eastbound (From Chestnut St)		6.9	Right	20.9
Trips Enter from Third St Westbound (From Central Ave)		7.0	Left	21.3
Trips Exit to Third St Eastbound (To Central Ave)		9.6	Right	29.2
Trips Exit to Third St Westbound (To Chestnut St)		9.4	Left	28.6

Table 29: Build Weekday PM peak hour turn movements area surrounding 42-44 Third Street

Time	Weekday Total	# Trips	Turn Type	% Distribution
Total Trips	104.3			
Trips Enter from Second St Westbound (From Central Ave)		52.1	Right	50.0
Trips Exit to Chestnut Street Northbound		26.5	Right	25.4
Trips Exit to Chestnut Street Southbound		25.6	Left	24.6

Table 30: Build Weekday total turn movements 25-27 Second Street

Time	AM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	8.5			
Trips Enter from Second St Westbound (From Central Ave)		2.0	Right	23.0
Trips Exit to Chestnut Street Northbound		3.2	Right	37.6
Trips Exit to Chestnut Street Southbound		3.3	Left	39.4

Table 31: Build Weekday AM peak hour turn movements 25-27 Second Street

Time	PM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	9.0			
Trips Enter from Second St Westbound (From Central Ave)		5.5	Right	61.0
Trips Exit to Chestnut Street Northbound		1.7	Right	19.0
Trips Exit to Chestnut Street Southbound		1.8	Left	20.0

Table 32: Build Weekday PM peak hour turn movements 25-27 Second Street

Time	Weekday Total	# Trips	Turn Type	% Distribution
Total Trips	85.3			
Trips Enter from Grove Street Northbound (Third Street)		28.4	Right	33.3
Trips Enter from Grove Street Southbound		14.3	Left	16.7
Trips Exit to Grove Street Northbound (To Sixth Street)		14.3	Right	16.7
Trips Exit to Grove Street Southbound (To Third Street)		28.4	Left	33.3

Table 33: Build Weekday total turn movements 35 Third Street (partial)

Time	AM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	7.0			
Trips Enter from Grove Street Northbound (Third Street)		1.1	Right	15.3
Trips Enter from Grove Street Southbound		0.5	Left	7.7
Trips Exit to Grove Street Northbound (To Sixth Street)		1.8	Right	25.8
Trips Exit to Grove Street Southbound (To Third Street)		3.6	Left	51.2

Table 34: Build Weekday AM peak hour turn movements 35 Third Street (partial)

Time	PM Peak Hour	# Trips	Turn Type	% Distribution
Total Trips	7.3			
Trips Enter from Grove Street Northbound (Third Street)		3.0	Right	40.6
Trips Enter from Grove Street Southbound		1.5	Left	20.4
Trips Exit to Grove Street Northbound (To Sixth Street)		1.0	Right	13.0
Trips Exit to Grove Street Southbound (To Third Street)		1.9	Left	26.0

Table 35: Build Weekday PM peak hour turn movements 35 Third Street (partial)

Proposed Round-About Trip Generation

An objective of this analysis is to determine the number of no-build and build situation trips would be generated to the proposed round-about at the intersection of Chestnut and Third Street. In the no-build situation, trips generated by 42-44 Third Street would either enter from Central Ave or the round-about from Chestnut Street. Trips generated by 25-27 Second Street would exit and be distributed to either Chestnut Street southbound or northbound towards the round-about. The following tables show the total no-build trip-generation to the proposed round-about.

No-Build Round-About Trip Generation:

No-Build Trips Generated to Proposed Round-About					
Time	Weekday Total	Time	AM Peak Hour	Time	PM Peak Hour
Total Trips Generated	113.9	Total Trips Generated	0.0	Total Trips Generated	10.3
By 25-27 Second Street	56.2	By 25-27 Second Street	0.0	By 25-27 Second Street	3.4
By 42-44 Third Street	57.8	By 42-44 Third Street	0.0	By 42-44 Third Street	6.9

Table 36: No-Build trip generation to proposed round-about

In the build situation, commercial/retail trips at 42-44 Third Street will enter from Chestnut Street or Central Ave and exit to either direction. Residential trips at 25-27 Second Street will enter from Central Ave and exit to either Chestnut Street northbound or southbound. Residential trips at 35 Third Street will enter from the Central Ave/Chestnut Street side or Washington/Sixth Street side. The following tables show the total build trip-generation to the proposed round-about and the change in trips generated to this round-about by the build condition. It is important to note the previously mentioned assumption that the retail and commercial parking demand generated by retail and commercial uses at 42-44 Street will be absorbed into the City of Dover parking network/surrounding area. Due to this assumption, it is not possible to determine the number of vehicle trips generated by the uses at 42-44 Third Street that would go through this proposed round-about. Based on this, BS&E has made the conservation assumption that all vehicle trips generated by the retail and commercial uses at 42-44 would use the proposed round-about.

Build Round-About Trip Generation:

Build Trips Generated to Proposed Round-About					
Time	Weekday Total	Time	AM Peak Hour	Time	PM Peak Hour
Total Trips Generated	453.2	Total Trips Generated	24.8	Total Trips Generated	39.5
By 25-27 Second Street	26.5	By 25-27 Second Street	3.2	By 25-27 Second Street	1.7
By 42-44 Third Street	369.9	By 42-44 Third Street	17.0	By 42-44 Third Street	32.9
By 35 Third Street	56.8	By 35 Third Street	4.6	By 35 Third Street	4.9

Table 37: Build trip generation to proposed round-about

Change in Round-About Trip Generation:

Change in Trips Generated to Proposed Round-About					
Time	Weekday Total	Time	AM Peak Hour	Time	PM Peak Hour
Total Trips Generated	339.2	Total Trips Generated	24.8	Total Trips Generated	29.2

Table 38: Change in trip generation to proposed round-about

Sight Distance and Safety Analysis

Sight distance on Second Street to the east, as well as roadway alignment are the two determining factors of safety. Sight distance to the west is not required, as Second Street is one-way going towards Chestnut Street. Sight distance to the west is available beyond 250 feet (measured). Using Exhibit 3-1 (Stopping Sight Distance) (Figure 30) in the Geometric Design Manual, and a 30 MPH 85th percentile speed, requires a stopping sight distance of 200 feet. In this instance, the easterly sight distances meet the design required warrant. There are no improvements required to maintain this site distance.

With respect to general safety of Second Street in relation to the peak hour trip generation and AADT, it is our assessment that the cross section of pavement and shoulder widths are appropriate.

*AASHTO Geometric Design of Highways and Streets (2011)

Conclusions and Recommendations

1) A total build generation of 560 vehicle trips are predicted to occur on a weekday, 32 vehicle trips (17 enter/15 exit) at the AM peak hour and 49 vehicle trips (24 enter/25 exit) at the PM peak hour for the entire project.

2) A total build generation of 370 vehicle trips are predicted to occur on a weekday, 17 vehicle trips (14 enter/3 exit) at the AM peak hour and 33 vehicle trips (14 enter/19 exit) at the PM peak hour at the areas surrounding 42-44 Third Street.

3) A total build generation of 104 vehicle trips are predicted to occur on a weekday, 8 vehicle trips (2 enter/6 exit) at the AM peak hour and 9 vehicle trips (5 enter/4 exit) at the PM peak hour at 25-27 Second Street.

4) A total build generation of 85 vehicle trips are predicted to occur on a weekday, 7 vehicle trips (2 enter/5 exit) at the AM peak hour and 7 vehicle trips (4 enter/3 exit) at the PM peak hour at 35 Third Street Parking Garage. This conclusion only considers trip generation from the Residences and Shops at 42-44, no other users for this garage

5) An additional 339 vehicle trips are predicted to occur on a weekday, 25 vehicle trips at the AM peak hour and 29 vehicle trips at the PM peak hour contributing to the proposed Round-About at the intersection of Chestnut and Third Street from no-build condition.

6) This is a total project increase in trip generation of 332 weekday trips, 32 AM peak hour trips and an increase of 28 PM peak hour trips from the no-build condition. It is recommended that the existing and proposed infrastructure, will be sufficient to handle the projected increase in vehicle trips at the peak hour and all other hours.

7) There is a public bus stop and a train station within a quarter mile that present a further opportunity for reduction of trips generated.

Respectfully Submitted,
BERRY SURVEYING & ENGINEERING

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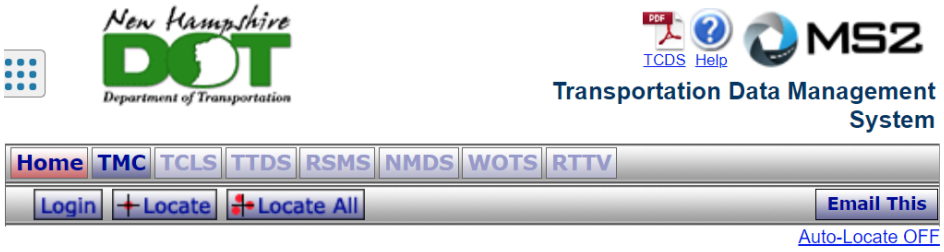
Appendix A

Traffic Counts



List View | All DIRs

Record 1 of 1 Goto Record go

Location ID	82125029	MPO ID	
Type	SPOT	HPMS ID	
On NHS	No	On HPMS	No
LRS ID	L1250208__	LRS Loc Pt.	
SF Group	04	Route Type	
AF Group	04	Route	
GF Group	E	Active	Yes
Class Dist Grp	Default	Category	3
Seas Clss Grp	Default		
WIM Group	Default		
QC Group	Default		
Fnct'l Class	Major Collector	Milepost	
Located On	Chestnut St		
Loc On Alias	CHESTNUT ST SOUTH OF FIRST ST (SB-NB) (81125120-81125121)		

More Detail

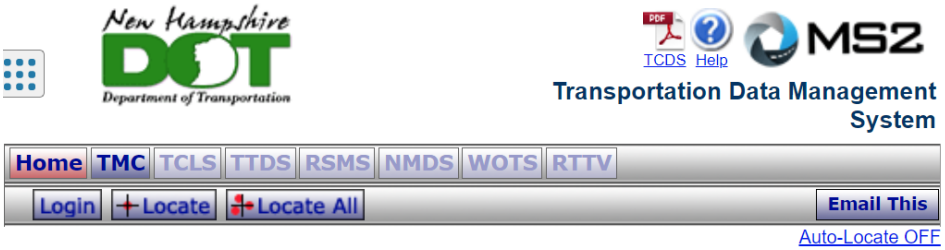
STATION DATA

Directions: 2-WAY NB SB

AADT

Year	AADT	DHV-30	K %	D %	PA	BC	Src
2021	12,647[3]		11	54	11,496 (91%)	1,151 (9%)	Grown from 2020
2020	11,404[3]		11	54	10,378 (91%)	1,026 (9%)	Grown from 2019
2019	13,512	1,508	11	54	12,377 (92%)	1,135 (8%)	
2018	12,560[3]		11	54	11,581 (92%)	979 (8%)	Grown from 2017
2017	12,314[3]		11	54	11,428 (93%)	886 (7%)	Grown from 2016

Figure 12: History of AADT values and classification for Chestnut Street



List View | All DIRs

Record 1 of 1 Goto Record go

Location ID	82125066	MPO ID	
Type	SPOT	HPMS ID	
On NHS	No	On HPMS	No
LRS ID	S0000009_W	LRS Loc Pt.	
SF Group	04	Route Type	
AF Group	04	Route	NH 9 WB
GF Group	E	Active	Yes
Class Dist Grp	Default	Category	3
Seas Clss Grp	Default		
WIM Group	Default		
QC Group	Default		
Fnct'l Class	Minor Arterial	Milepost	
Located On	Central Ave		
Loc On Alias	NH 9/NH 108 (CENTRAL AVE) SB AT COCHECO RIVER BRIDGE		

More Detail

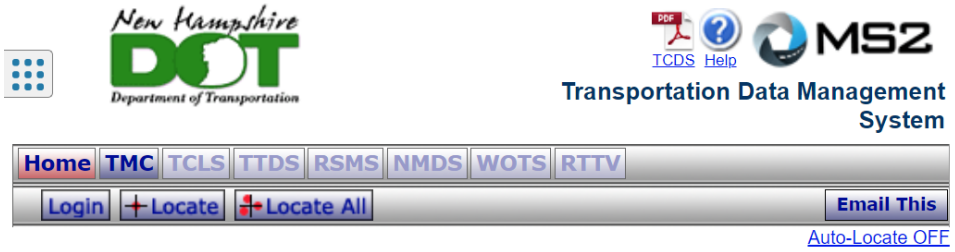
STATION DATA

Directions: 1-WAY

AADT

	Year	AADT	DHV-30	K %	D %	PA	BC	Src
	2021	12,875[3]		9		11,703 (91%)	1,172 (9%)	Grown from 2020
	2020	11,610	1,030	9		10,565 (91%)	1,045 (9%)	
	2019	12,762[3]		9		11,688 (92%)	1,074 (8%)	Grown from 2018
	2018	12,611[3]		9		11,627 (92%)	984 (8%)	Grown from 2017
	2017	12,364	1,056	9		11,474 (93%)	890 (7%)	

Figure 13: History of AADT values and classification for Central Avenue



List View | All DIRs

Record 1 of 1 Goto Record go

Location ID	82125085	MPO ID	
Type	SPOT	HPMS ID	
On NHS	No	On HPMS	Yes
LRS ID	L1251059__	LRS Loc Pt.	
SF Group	04	Route Type	
AF Group	04	Route	
GF Group	E	Active	Yes
Class Dist Grp	Default	Category	3
Seas Clss Grp	Default		
WIM Group	Default		
QC Group	Default		
Fnct'l Class	Major Collector	Milepost	
Located On	Washington St		
Loc On Alias	TOLEND RD WEST OF WASHINGTON ST		

More Detail

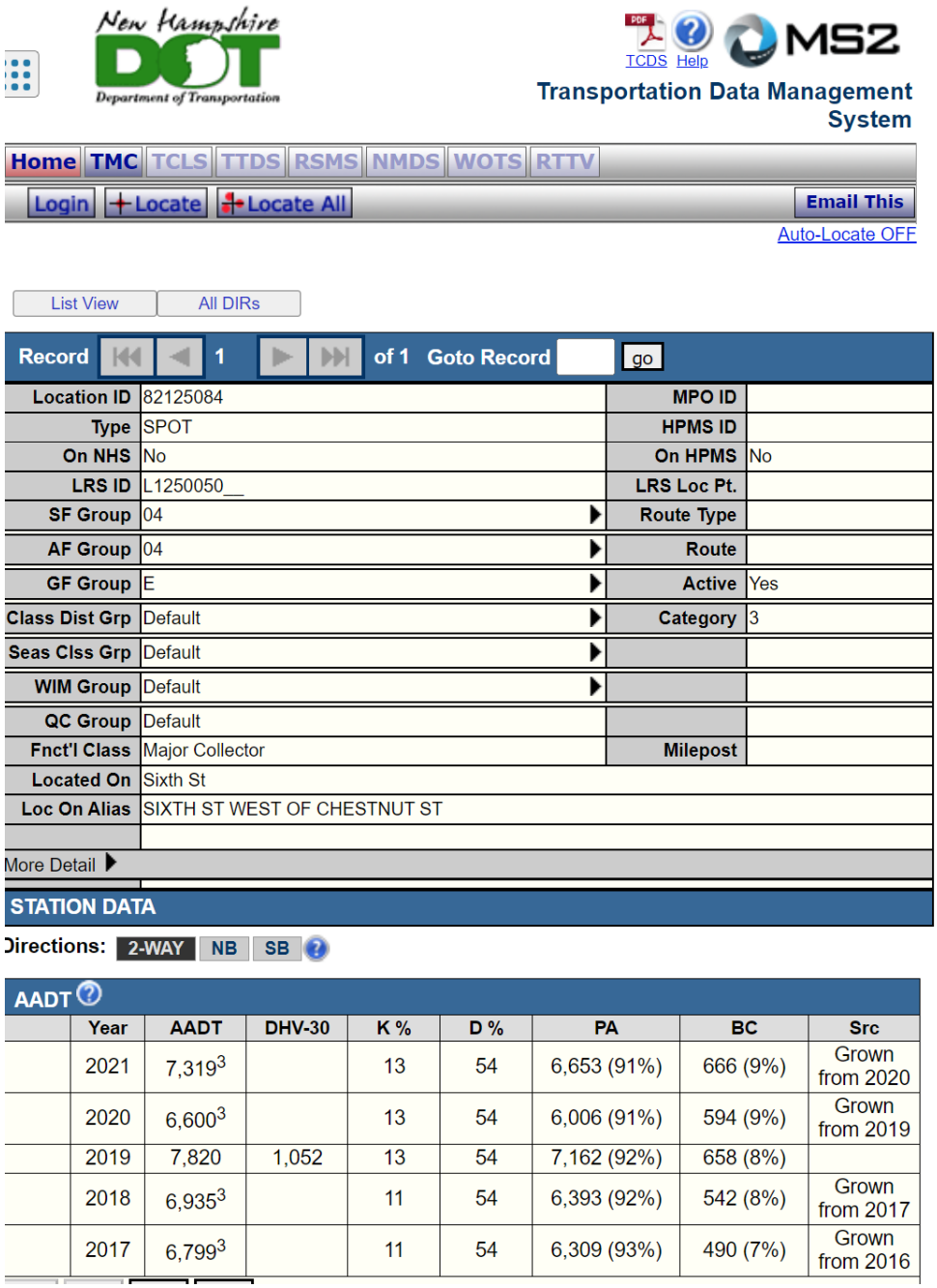
STATION DATA

Directions: 2-WAY EB WB

AADT

	Year	AADT	DHV-30	K %	D %	PA	BC	Src
	2021	5,513[3]		11	53	5,011 (91%)	502 (9%)	Grown from 2020
	2020	4,971	537	11	53	4,523 (91%)	448 (9%)	
	2019	4,490[3]		10	53	4,113 (92%)	377 (8%)	Grown from 2018
	2018	4,437[3]		10	53	4,091 (92%)	346 (8%)	Grown from 2017
	2017	4,350[2]	426	10	53	4,038 (93%)	312 (7%)	

Figure 14: History of AADT values and classification for Washington Street



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List View | All DIRs

Record 1 of 1 Goto Record go

Location ID	82125084	MPO ID	
Type	SPOT	HPMS ID	
On NHS	No	On HPMS	No
LRS ID	L1250050__	LRS Loc Pt.	
SF Group	04	Route Type	
AF Group	04	Route	
GF Group	E	Active	Yes
Class Dist Grp	Default	Category	3
Seas Clss Grp	Default		
WIM Group	Default		
QC Group	Default		
Fnct'l Class	Major Collector	Milepost	
Located On	Sixth St		
Loc On Alias	SIXTH ST WEST OF CHESTNUT ST		

More Detail

STATION DATA

Directions: 2-WAY | NB | SB

AADT

Year	AADT	DHV-30	K %	D %	PA	BC	Src
2021	7,319[3]		13	54	6,653 (91%)	666 (9%)	Grown from 2020
2020	6,600[3]		13	54	6,006 (91%)	594 (9%)	Grown from 2019
2019	7,820	1,052	13	54	7,162 (92%)	658 (8%)	
2018	6,935[3]		11	54	6,393 (92%)	542 (8%)	Grown from 2017
2017	6,799[3]		11	54	6,309 (93%)	490 (7%)	Grown from 2016

Figure 15: History of AADT values and classification for Sixth Street

Appendix B

Trip Generation Derivation

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation

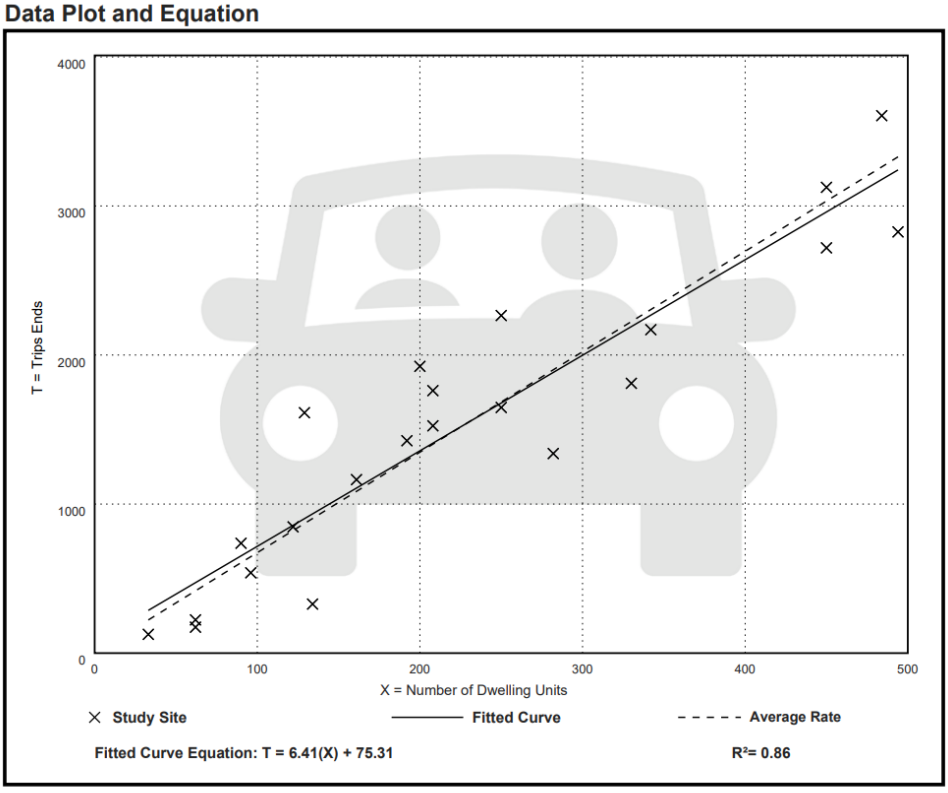

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Figure 16: ITE Trip Generation, 11th Edition

Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation

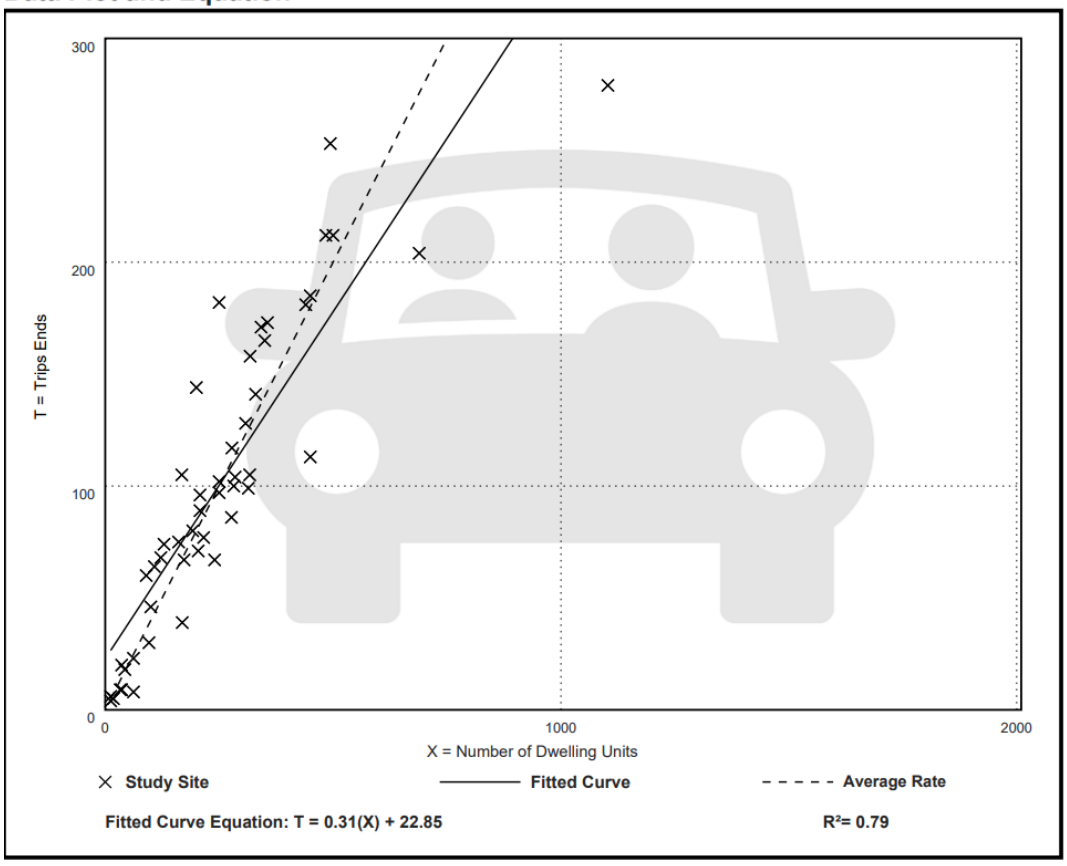

Figure 17: ITE Trip Generation, 11th Edition

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Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation

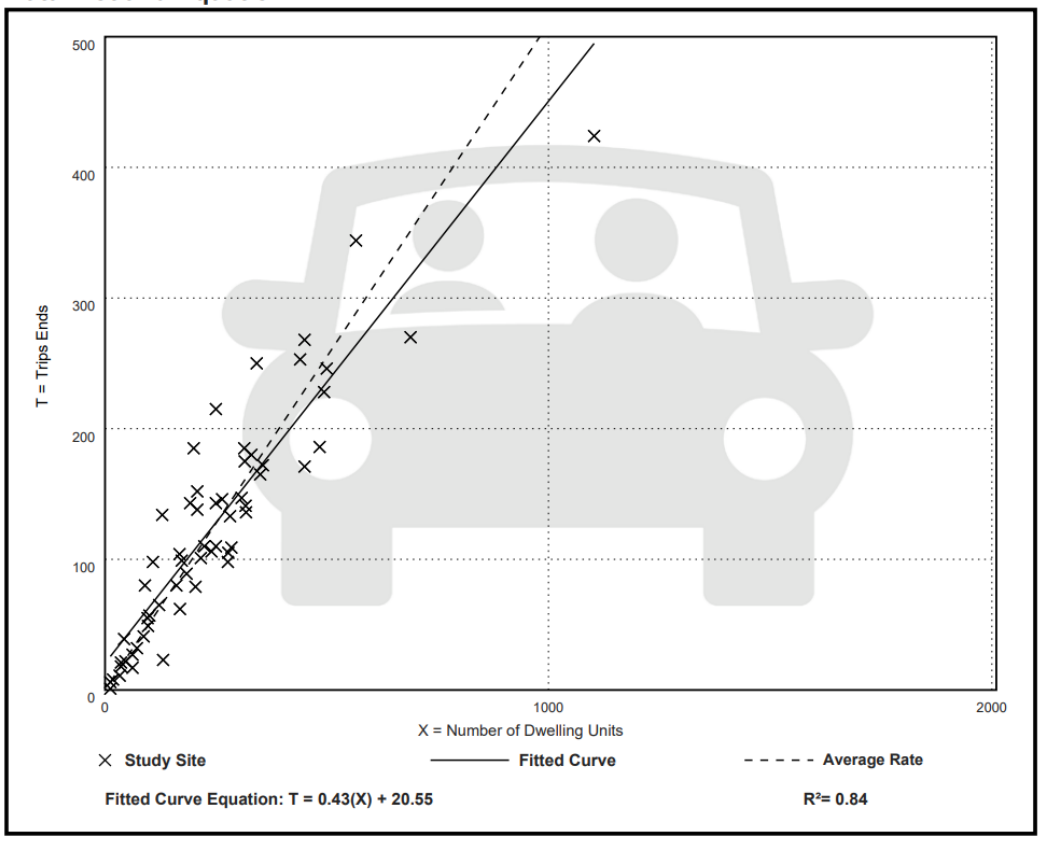

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Figure 18: ITE Trip Generation, 11th Edition

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation

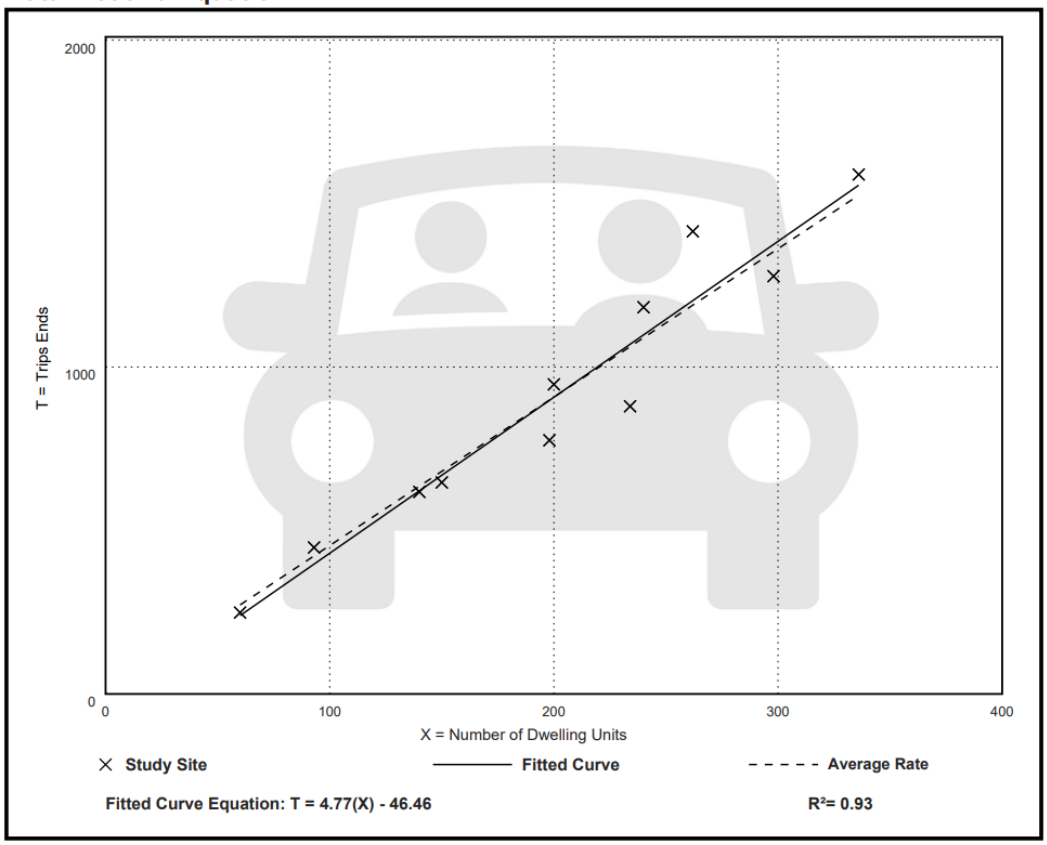

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Figure 19: ITE Trip Generation, 11th Edition

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation

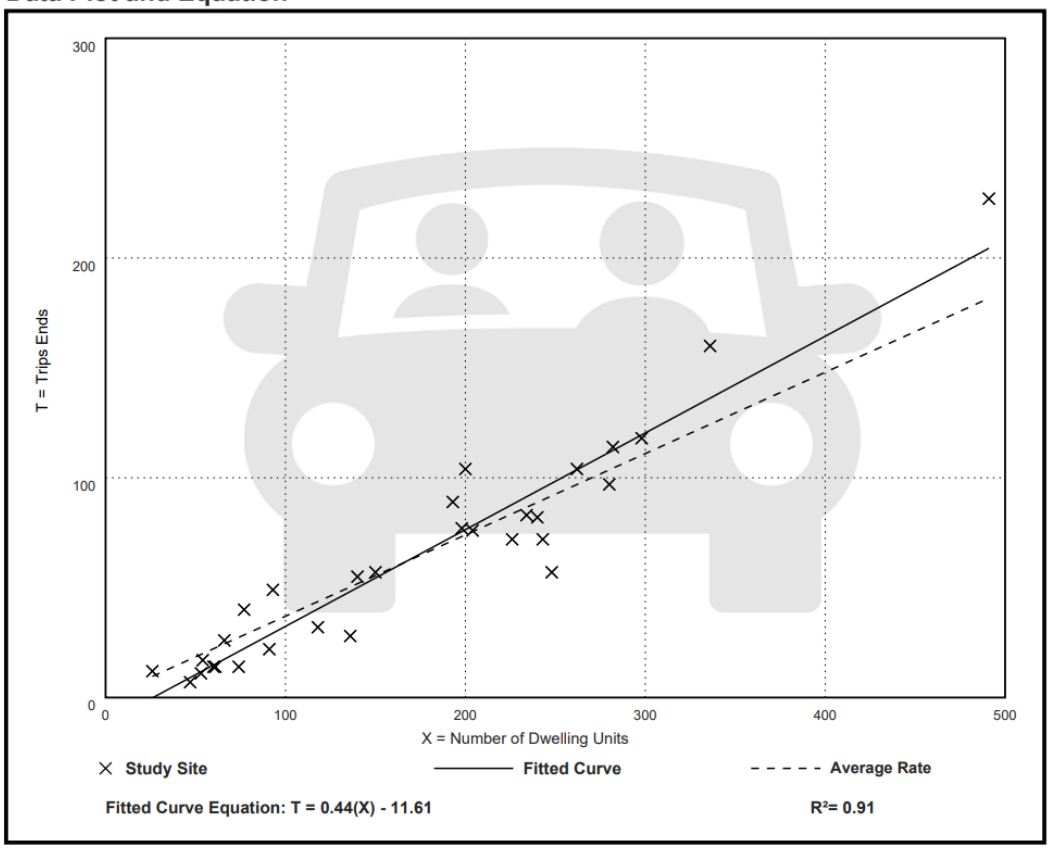

Figure 20: ITE Trip Generation, 11th Edition

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Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation

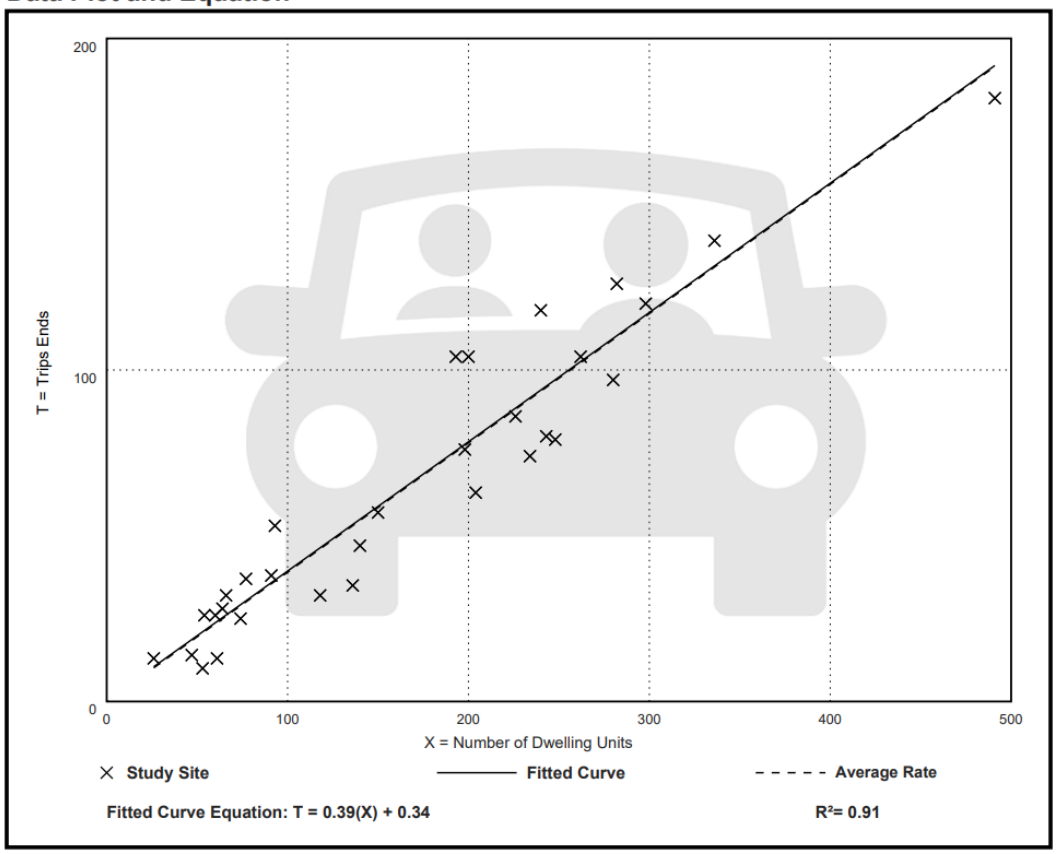

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Figure 21: ITE Trip Generation, 11th Edition

Small Office Building
(712)

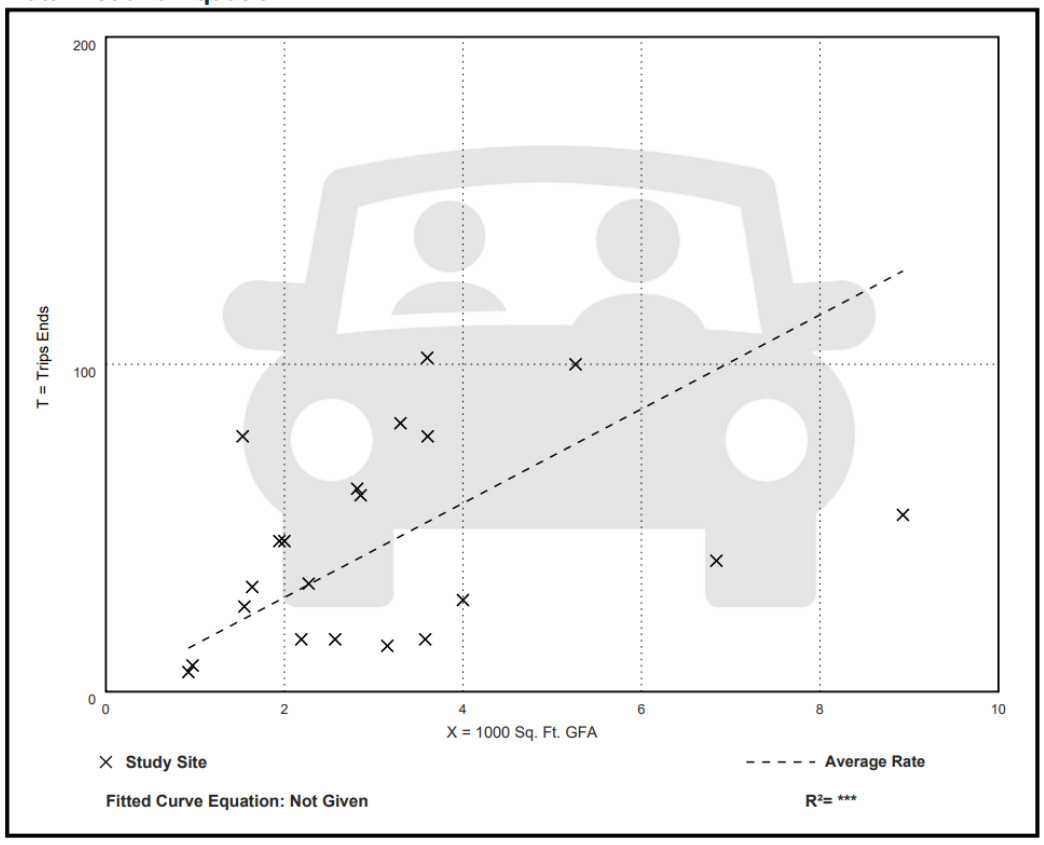
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
14.39	4.44 - 50.91	10.16

Data Plot and Equation



728 Trip Generation Manual 11th Edition • Volume 4

Figure 22: ITE Trip Generation, 11th Edition

Small Office Building
(712)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation

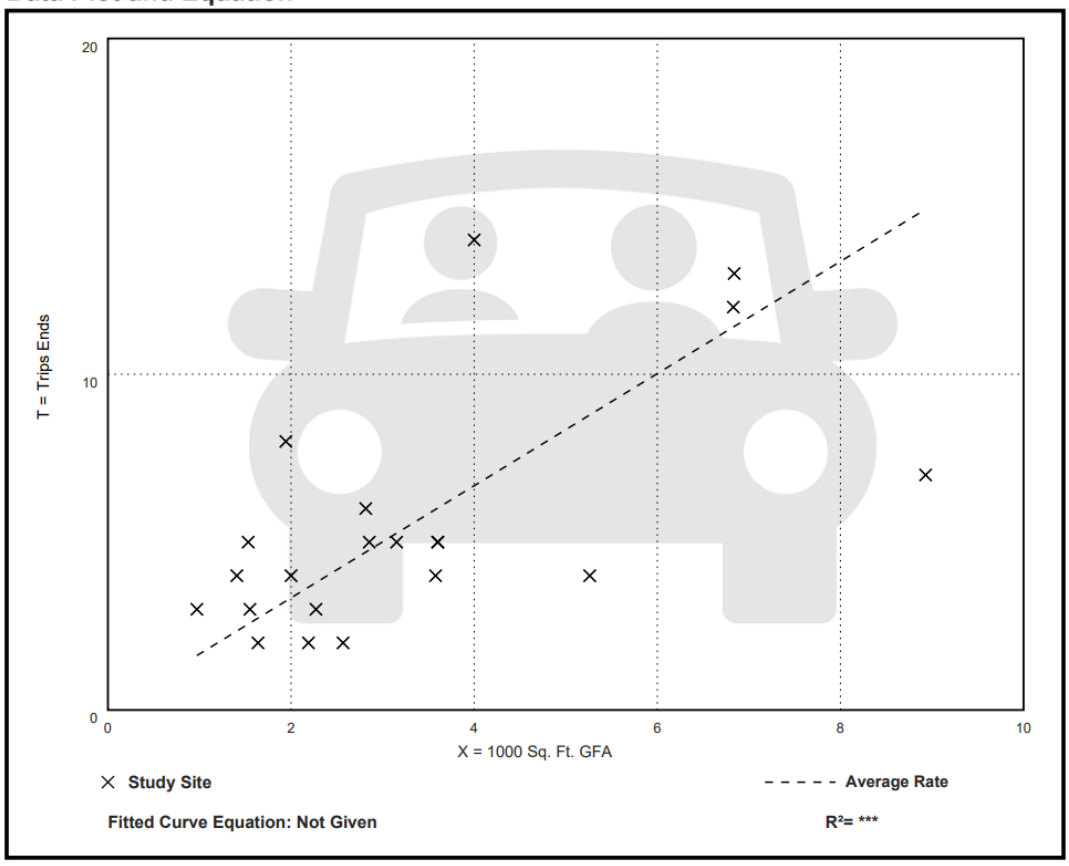


Figure 23: ITE Trip Generation, 11th Edition

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Small Office Building
(712)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation

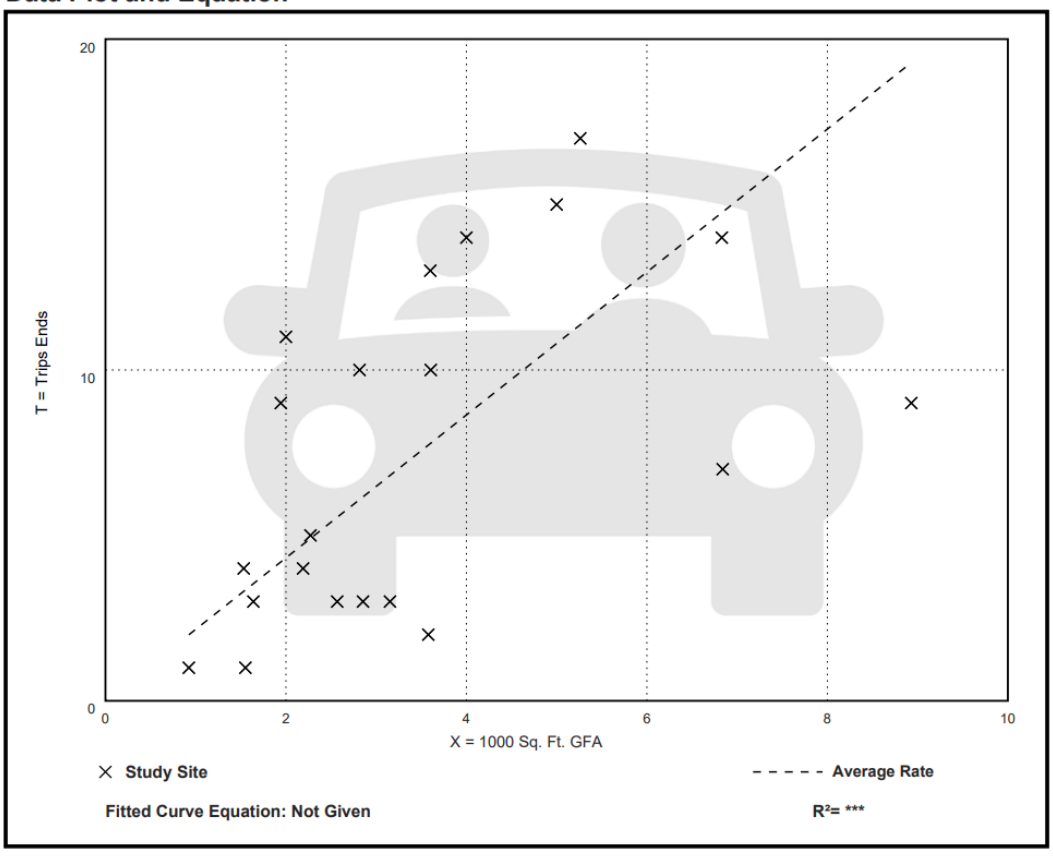

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Figure 24: ITE Trip Generation, 11th Edition

Apparel Store
(876)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
66.40	66.40 - 66.40	***

Data Plot and Equation

Caution – Small Sample Size

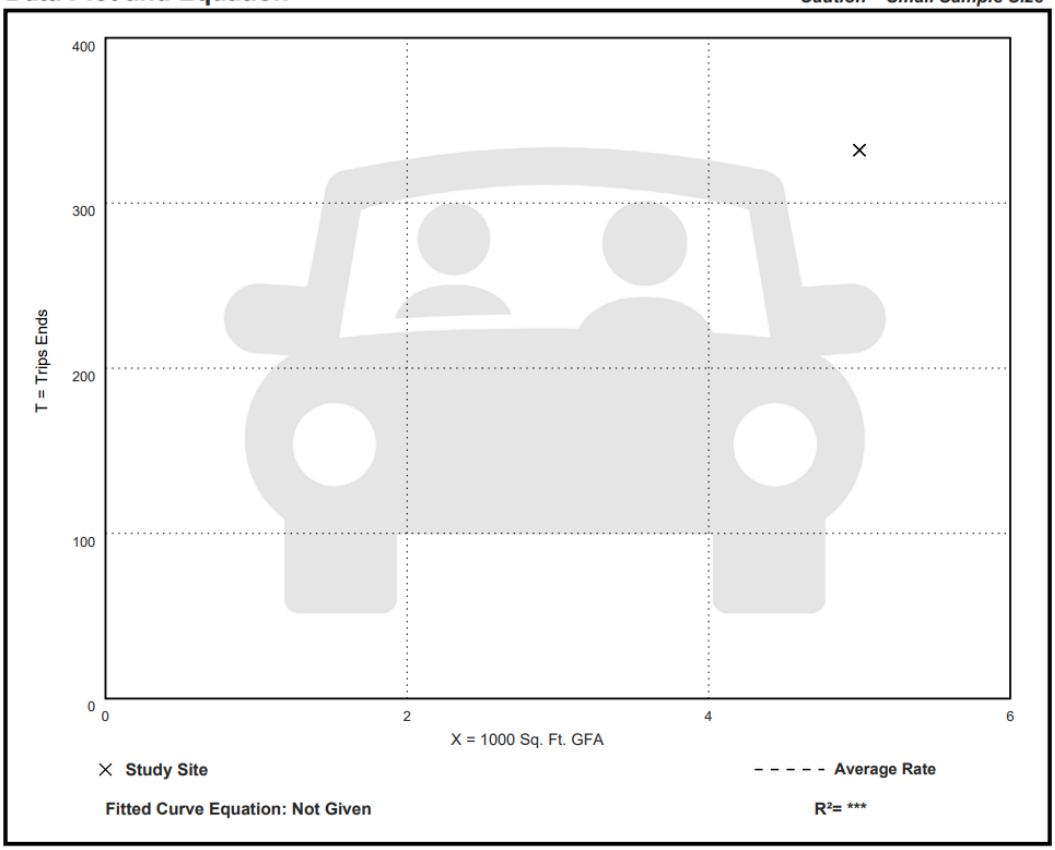

Figure 25: ITE Trip Generation, 11th Edition

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Apparel Store
(876)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 80% entering, 20% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.00	1.00 - 1.00	***

Data Plot and Equation

Caution – Small Sample Size

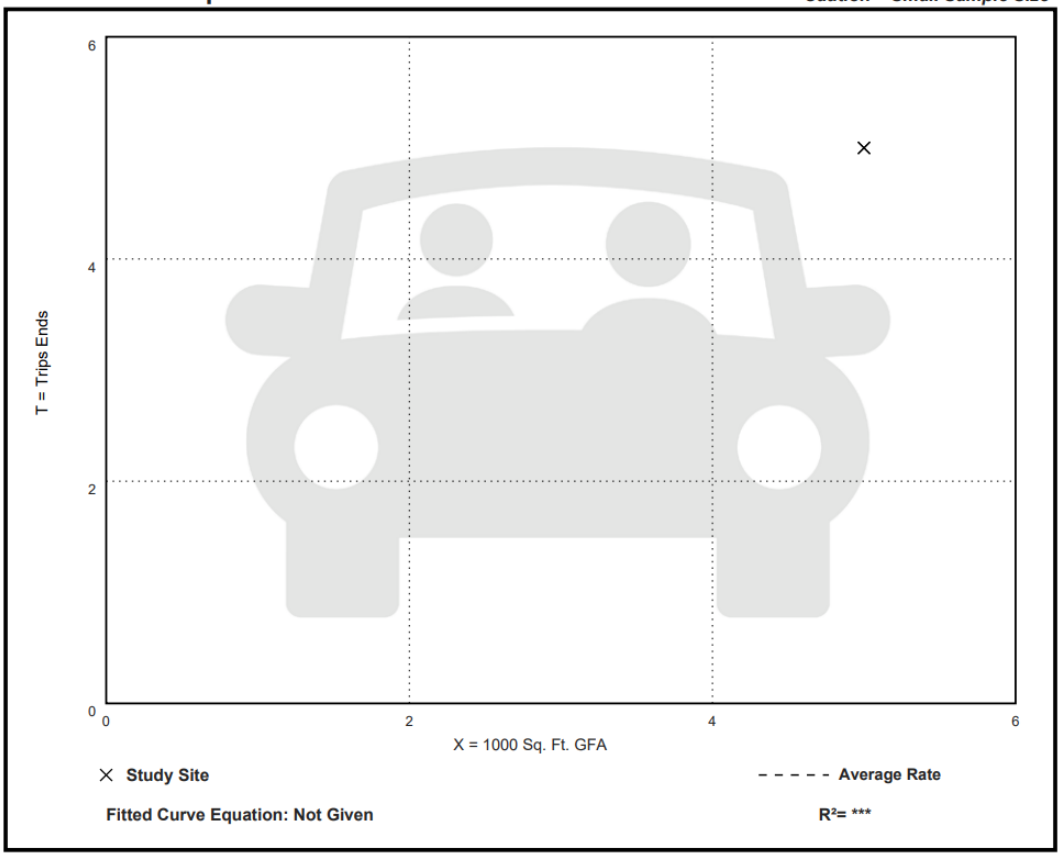

Figure 26: ITE Trip Generation, 11th Edition

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Apparel Store
(876)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 9
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.12	1.50 - 6.80	2.18

Data Plot and Equation

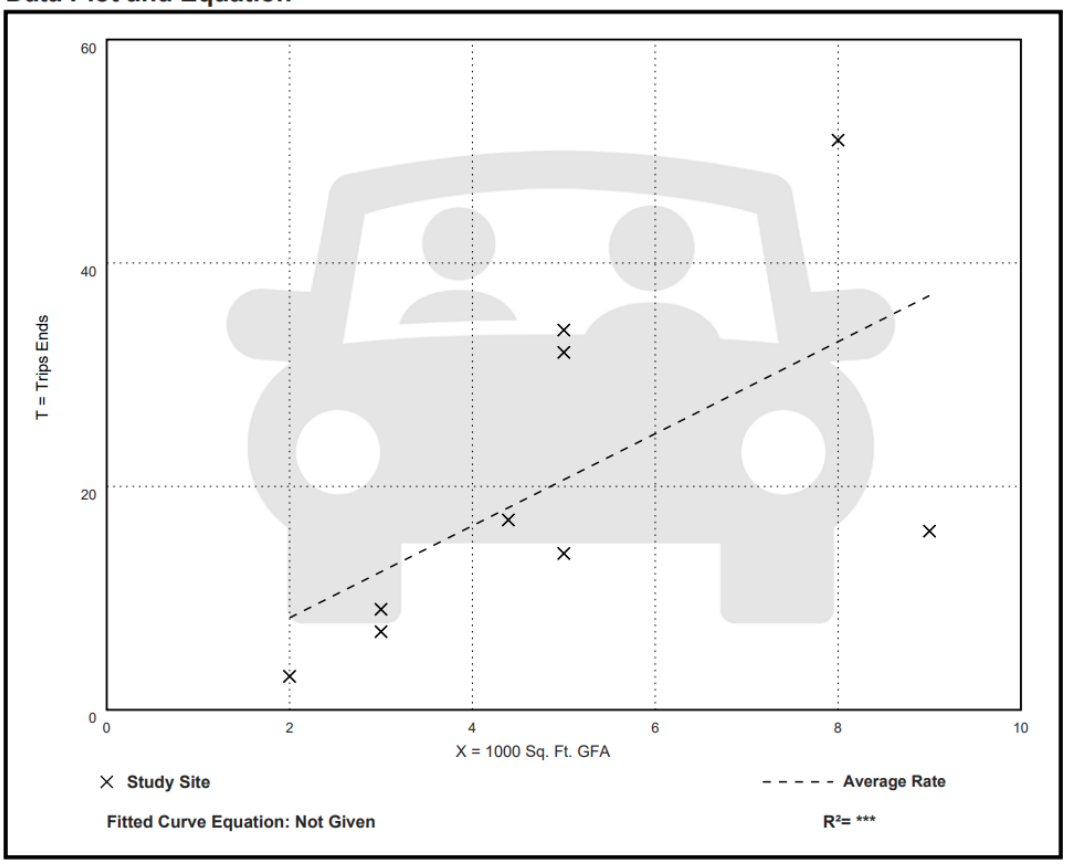

Figure 27: ITE Trip Generation, 11th Edition

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Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 10
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
83.84	33.45 - 139.93	40.01

Data Plot and Equation

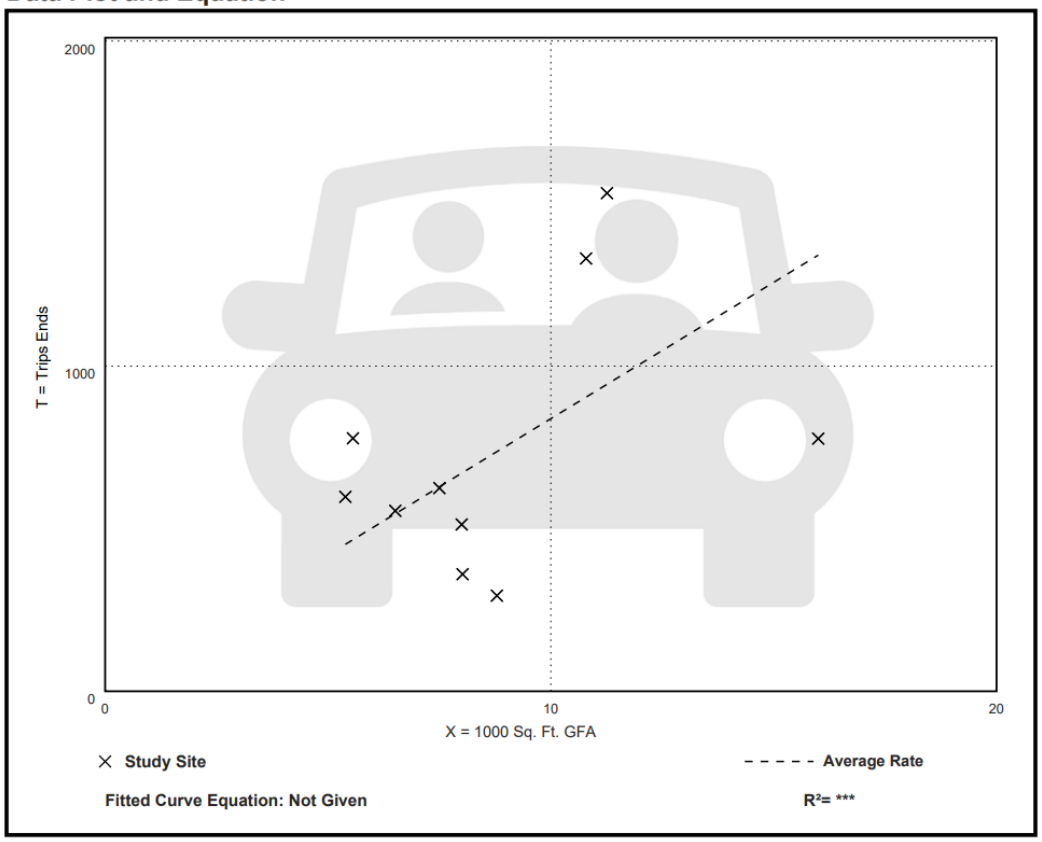

Figure 28: ITE Trip Generation, 11th Edition

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Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation

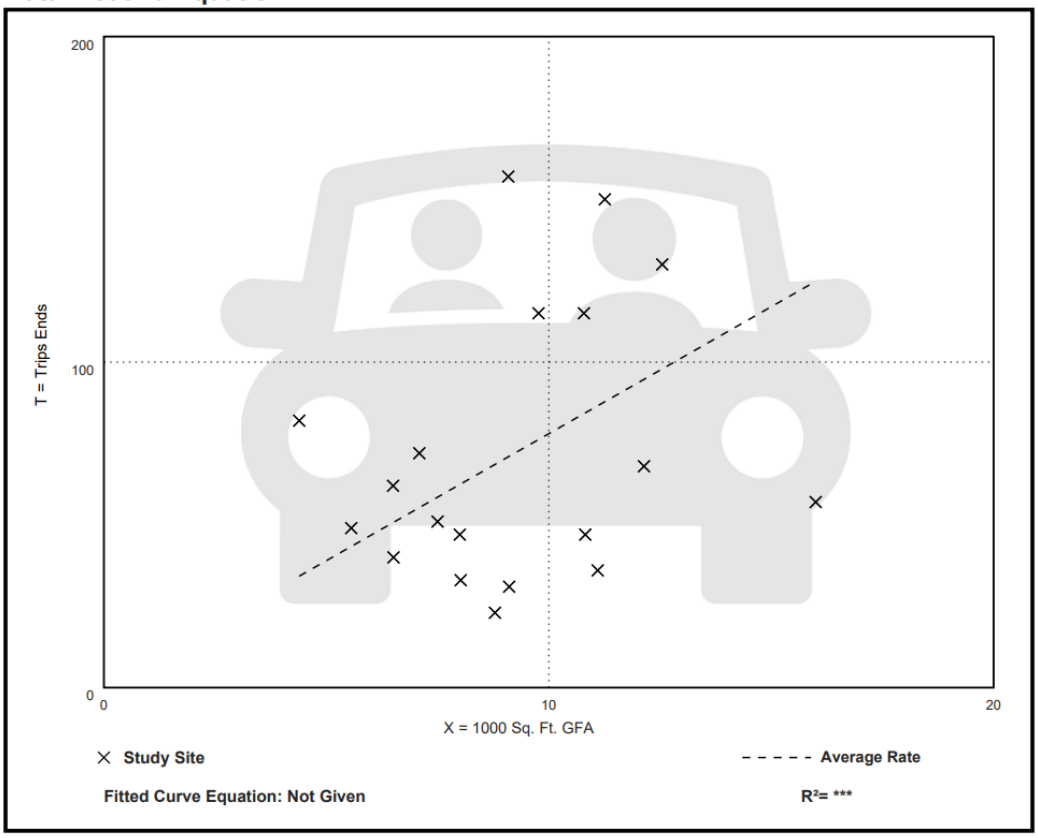

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Figure 29: ITE Trip Generation, 11th Edition

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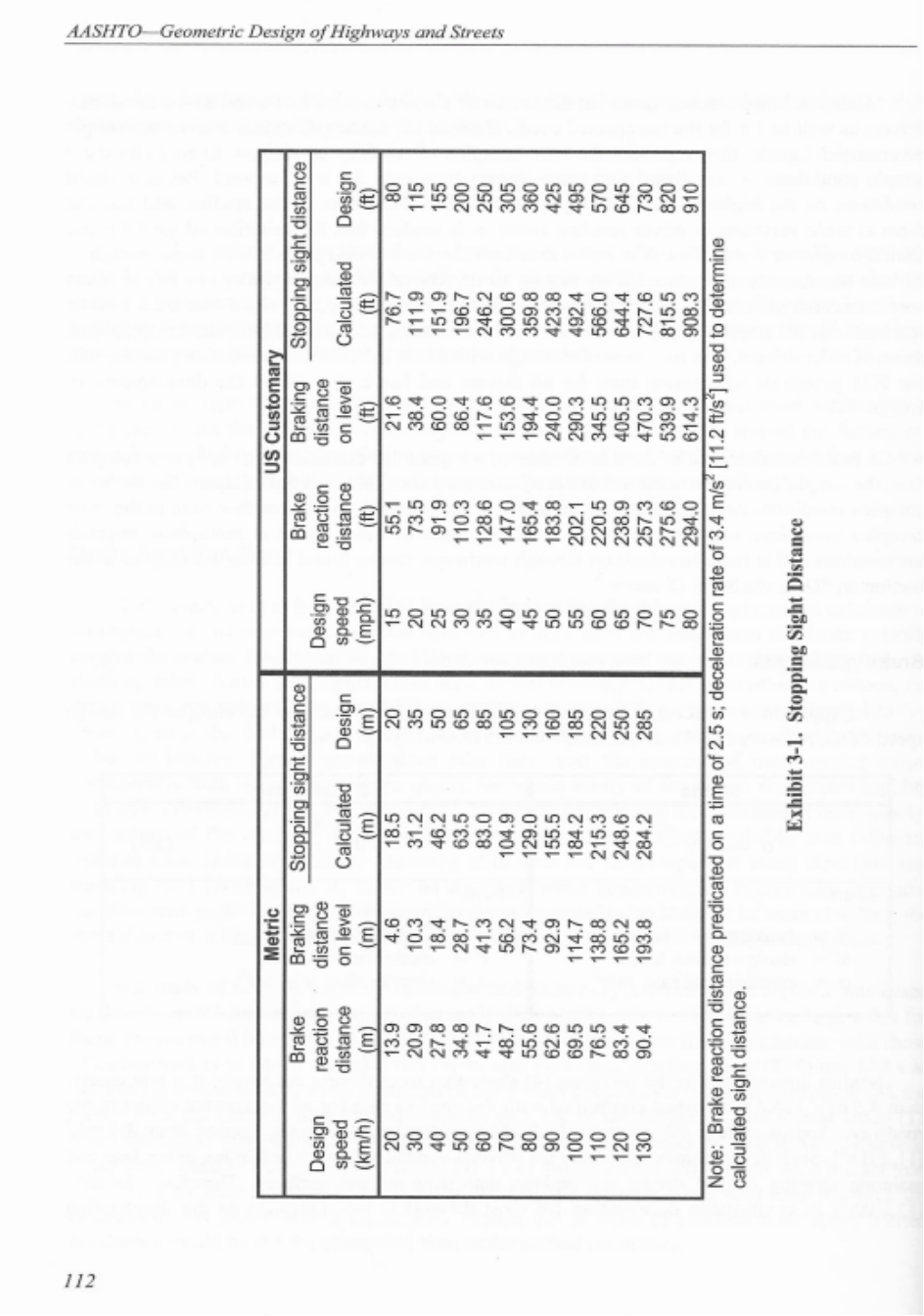
Appendix C

Miscellaneous



AASHTO—Geometric Design of Highways and Streets

Metric					US Customary				
			Stopping sight distance					Stopping sight distance	
Design speed (km/h)	Brake reaction distance (m)	Braking distance on level (m)	Calculated (m)	Design (m)	Design speed (mph)	Brake reaction distance (ft)	Braking distance on level (ft)	Calculated (ft)	Design (ft)
20	13.9	4.6	18.5	20	15	55.1	21.6	76.7	80
30	20.9	10.3	31.2	35	20	73.5	38.4	111.9	115
40	27.8	18.4	46.2	50	25	91.9	60.0	151.9	155
50	34.8	28.7	63.5	65	30	110.3	86.4	196.7	200
60	41.7	41.3	83.0	85	35	128.6	117.6	246.2	250
70	48.7	56.2	104.9	105	40	147.0	153.6	300.6	305
80	55.6	73.4	129.0	130	45	165.4	194.4	359.8	360
90	62.6	92.9	155.5	160	50	183.8	240.0	423.8	425
100	69.5	114.7	184.2	185	55	202.1	290.3	492.4	495
110	76.5	138.8	215.3	220	60	220.5	345.5	566.0	570
120	83.4	165.2	248.6	250	65	238.9	405.5	644.4	645
130	90.4	193.8	284.2	285	70	257.3	470.3	727.6	730
					75	275.6	539.9	815.5	820
					80	294.0	614.3	908.3	910

Note: Brake reaction distance predicated on a time of 2.5 s; deceleration rate of 3.4 m/s^2 [11.2 ft/s^2] used to determine calculated sight distance.

Exhibit 3-1. Stopping Sight Distance

112

Figure 30: Derivation of stopping sight distance requirements

Existing Property Record Card

Property Location: 44 Third St

Commercial Property Record Card - Dover, New Hampshire

Parcel ID: 06040-000000 **Map Block No.** 6-40-0-0 **Class:** C **Use:** 303 **Card 1 of 1**

Exterior/Interior Information

Sec	Levels	Size	Perimeter	Use Type	Height	Exterior Walls	Construction Type	Finish	Partitions	Heating	A/C	Plumbing	Physical Condition	Functional Utility	%Good Override	Unadjusted RCNLD
1	B1-B1	1x4200	284	Multi-Use Storage	8	Brick/Stucco	Fire Resist	100	Normal			Normal	Normal	Normal	0%	147,090
1	01-01	1x6680	300	Restaurant	12	Conc. Block	Fire Resist	100	Normal	Hot Air	Central	Normal	Normal	Normal	0%	593,830
1	01-01	1x687	130	Multi-Use Storage	10	Brick/Stucco	Fire Resist	100	Normal	Hot Air		Normal	Normal	Normal	0%	39,750
1	01-01	1x1500	113	Restaurant	12	Conc. Block	Fire Resist	100	Normal	Hot Air		Normal	Normal	Normal	0%	118,270
1	02-02	1x5250	284	Apartment	10	Brick/Stucco	Fire Resist	100	Normal	Hot Air	Unit	Normal	Normal	Normal	0%	281,080
1	03-03	1x5250	284	Apartment	10	Brick/Stucco	Fire Resist	100	Normal	Hot Air	Unit	Normal	Normal	Normal	0%	281,080
0	-	0x0	0		0			0							0%	0
0	-	0x0	0		0			0							0%	0

Building Information

Building No:	1
Year Built:	1920
No of Units:	1
Structure Type:	Mixed Res/Comm
Grade:	C+
Identical Units:	1
Efficiencies:	0
1 Bedroom Apts:	0
2 Bedroom Apts:	0
3 Bedroom Apts:	0
Covered Park:	0
Uncovered Park:	0
Notes:	19,367 Sf Gla + Bsmt Stg

Building Summary

Total Unadjusted RCN:	2,435,160
Average Percent Good:	.60
Total Unadj. RCNLD:	1,461,100
Grade Factor:	1.08
No of Identical Units:	1
Economic Cond Factor:	0.90
RCNLD:	1,420,200

Income Approach Summary

Net Rentable Area:	23,567

Out Building Information

StructureCode	+/-	Width	Lgth/ SqFt	Ident. Units	Gr	Physical Condition	Functional Utility	Percent Year	Percent Good	RCNLD
		0	0	0				0	0%	0
		0	0	0				0	0%	0
		0	0	0				0	0%	0
		0	0	0				0	0%	0
		0	0	0				0	0%	0
		0	0	0				0	0%	0

Other Improvements

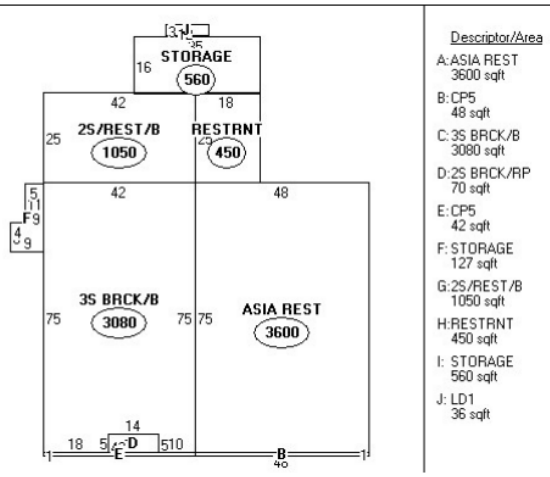
Description	+/-	RCNLD
		0

1,024,300

Building Other Information

Line	StructureCode	+/-	Measure 1	Measure 2	IdenticalUnits
2	Sprinkler - Wet		23567	1	1
2	Cooler Chiller		19	1	9
2	Cooler Freeze		10	1	9
2	Loading Dock - Steel/Conc		12	1	3
2	Canopy - Only		90	1	1
2	Porch - Open		14	1	5
0			0	0	0
0			0	0	0

Total Other Features 68,480



Descriptor/Area
A: ASIA REST 3600 sqft
B: CP5 48 sqft
C: 3S BRCK/B 3080 sqft
D: 2S BRCK/RP 70 sqft
E: CP5 42 sqft
F: STORAGE 127 sqft
G: 2S/REST/B 1050 sqft
H: RESTRNT 450 sqft
I: STORAGE 560 sqft
J: LD1 36 sqft

Figure 31: Existing property record card

Chestnut Street/Third Street Proposed Round-About

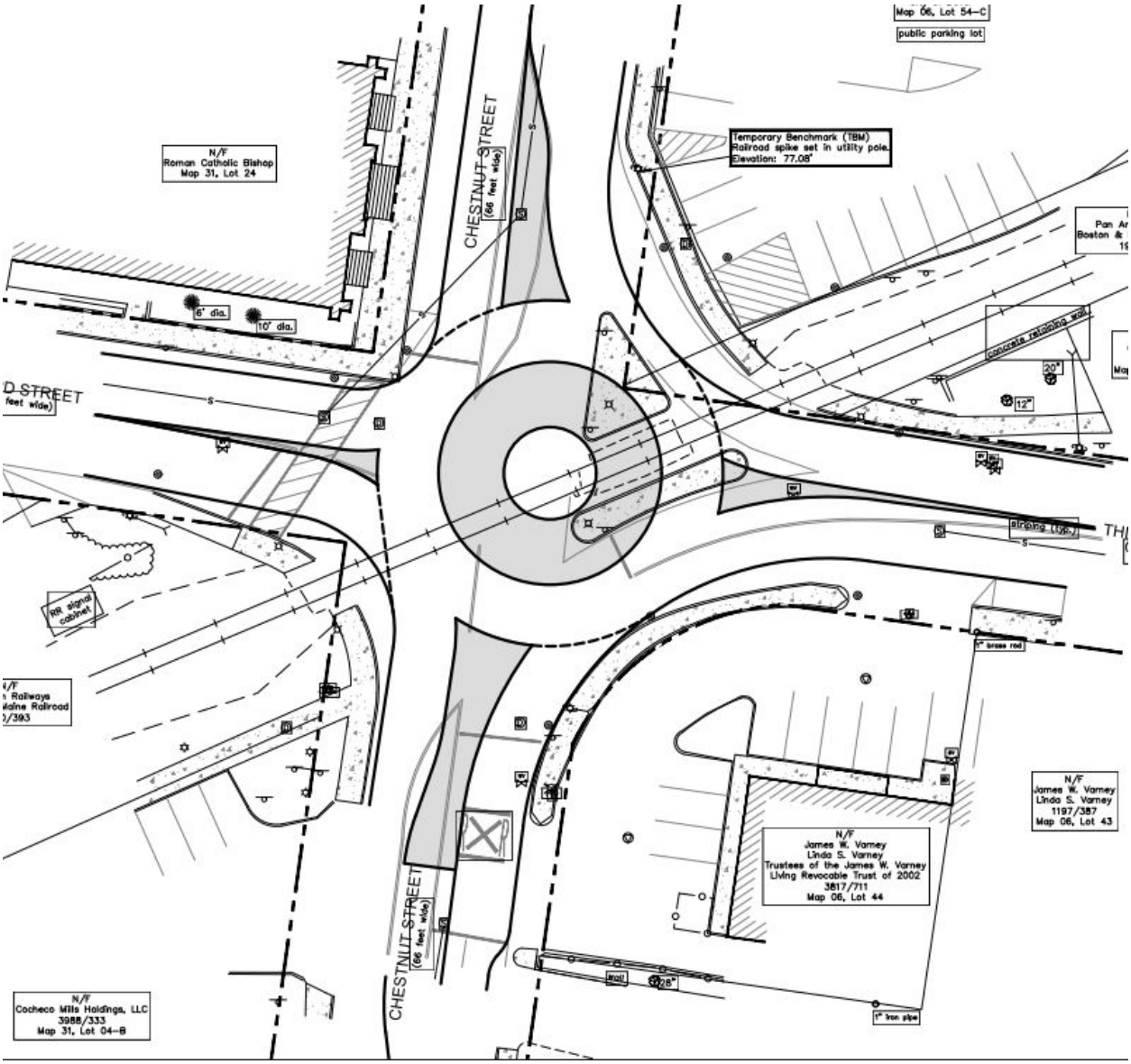


Figure 32: Proposed Round-About at the intersection of Chestnut and Third Street (north up)

DRAINAGE ANALYSIS
&
EROSION AND SEDIMENT CONTROL PLAN

Prepared for:

Wooden Ruler Realty, LLC
35 Third Street
DOVER, NH 03820

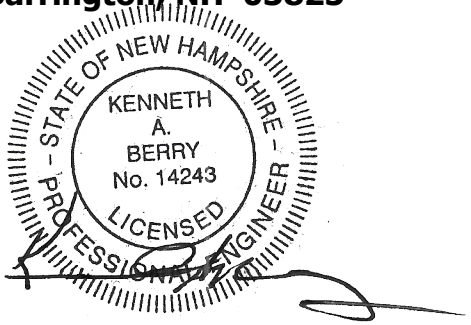
Land of

John Wong & Mo Y Wong, Trustee of
The Mo Y. Wong Living Revocable Trust of 2006
42 Third Street
DOVER, NH 03820

42 THIRD STREET, DOVER, NH
TAX MAP 6, LOT 32 & 40

Prepared by:

Berry Surveying & Engineering
335 Second Crown Point Road
Barrington, NH 03825



Project Number:
DB 2022-037

August 11, 2022
Revised: September 26, 2022

Table of Contents

USGS Quadrangle Location Map

Design Method Objectives Page 2

1.0 Existing Conditions Analysis Page 2

2.0 Proposed Subdivision Analysis Page 3

3.0 Full Comparative Analysis Page 5

4.0 Erosion & Sediment Control, BMP's Page 6

5.0 Conclusion Page 13

Appendix I - Existing Conditions Analysis

25 Yr-24 Hr. Full Summary
2 Yr- 24 Hr Node Listing
10 Yr -24 Hr. Node Listing
50 Yr-24 Hr. Node Listing

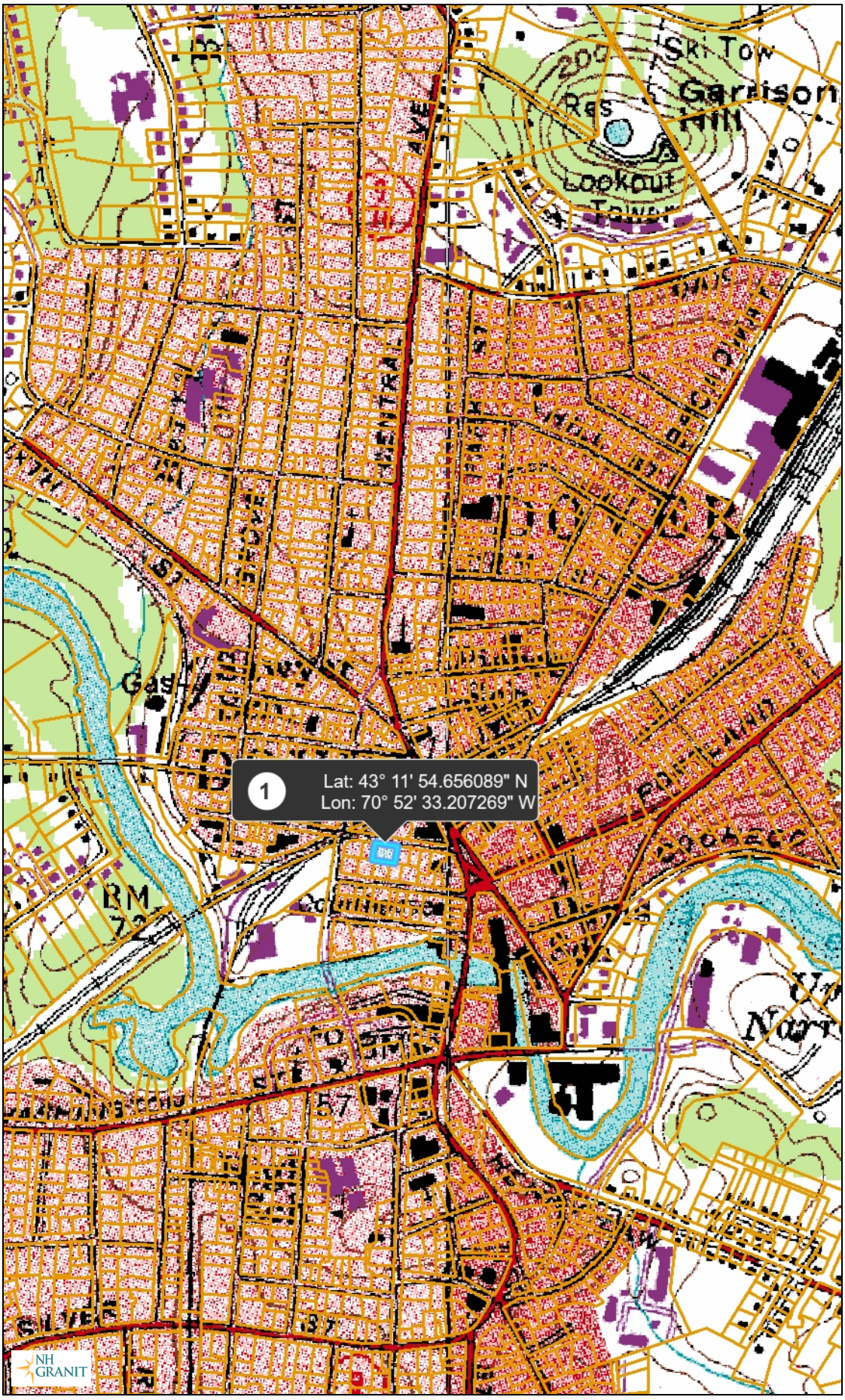
Appendix II - Proposed Conditions Analysis

25 Yr-24 Hr. Full Summary
2 Yr-24 Hr. Node Listing
10 Yr-24 Hr. Node Listing
50 Yr-24 Hr. Node Listing

Appendix III - Calculations, Charts, & Graphs
Extreme Precipitation Tables
NCRS USDA Web-soil Map
Stormwater System Operation:
Inspection and Maintenance Manual & Plan
Watershed Report Card and Impaired Waters
Filtrexx Silt Soxx Installation Specifications

Enclosed: W-1 Sheet Existing Conditions Watershed Plan Sheet 1
W-2 Sheet Post Construction Watershed Plan Sheet 2
Erosion & Sediment Control Plan and Details

Map by NH GRANIT



Legend

Parcels
- Parcel Polygons
- Attributes for Additional Lines

State

County

City/Town

Map Scale

1: 10,000

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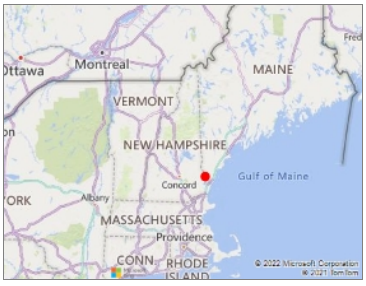
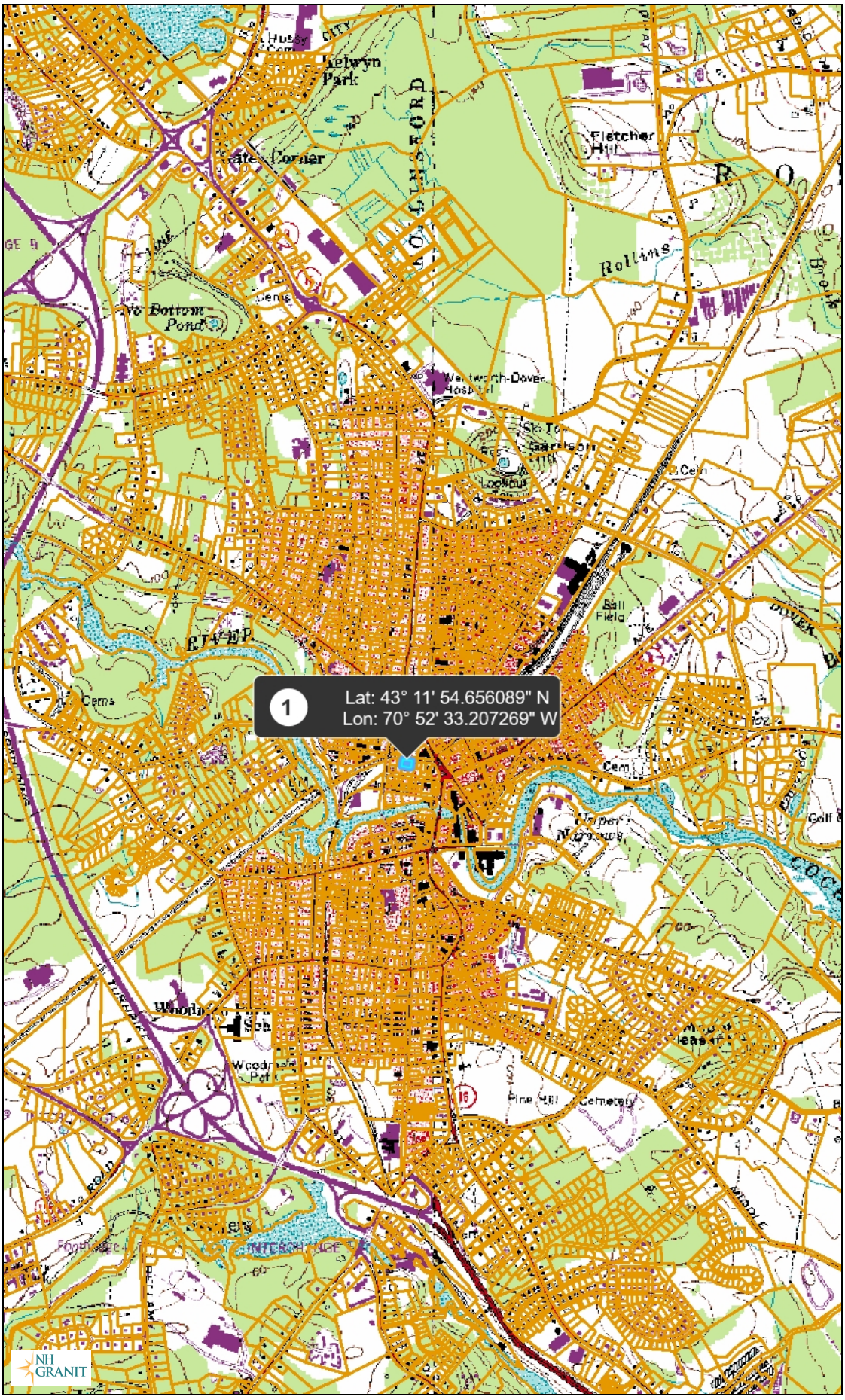
Map Generated: 5/11/2022

Notes



Map by NH GRANIT



Legend

Parcels
- Parcel Polygons
- Attributes for Additional Lines

State

County

City/Town

Map Scale

1: 24,000

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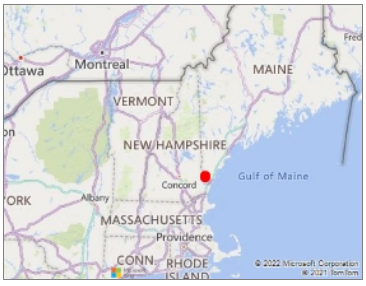
Notes



DESIGN METHOD OBJECTIVES

Wooded Ruler Realty, LLC is proposing to develop Mixed Use Building with Retail & Storage Commercial Space, Residential Units, and Parking at 42 Third Street (Tax Map 6, Lot 32 & 40.) The property is currently occupied by a Restaurant with Boarding Rooms on Lot 40 and paved parking on Lot 32.

An Existing and Proposed Conditions analysis was conducted for the purpose of estimating the peak rate of stormwater run-off from the property, on Third Street and Second Street and to subsequently design adequate mitigation of drainage. There are five existing drainage discharge points which were identified in the existing analysis and duplicated in the proposed conditions analysis. This is intended as a comparative analysis at these distinct points. Designing two watershed models we have compared the differences in these rates of peak run-off and surface water volume. Sheet W1, Existing Conditions Watershed Plan, outlines the characteristics of the site in its existing or pre-construction conditions. The second analysis displays the proposed (post-construction) conditions (See Sheet W2.) The analysis was conducted using data for; 2 Yr – 24 Hr (3.62”), 10 Yr – 24 Hr (5.46”), 25 Yr -24 Hr (6.91”), 50 Yr – 24 Hr (8.27”), and 100 YR-24 Hr (9.89”) storm events. Storm event analysis was accomplished using the USDA SCS TR-20 method within the HydroCAD Stormwater Modeling System environment and rainfall quantities are based on the Extreme Precipitation Table for this location from the Northeast Regional Climate Center / Cornell University (http://precip.eas.cornell.edu). As Dover is considered a Seacoast Community by NHDES the Extreme Precipitation quantities have been adjusted to be 115% of the documented rainfalls for the 24-hour events.

1.0 Existing Conditions Analysis:

Reference: Sheet W1 - Existing Conditions Watershed Plan (Enclosed)
Existing Conditions Plan

The existing property consists of 0.52 acres on currently two lots, Lot 32 and Lot 40, Tax Map 6. There is currently a restaurant with boarding rooms and paved parking on the two parcels. This analysis includes surface water runoff that enters the MS4 drainage system.

The receiving watershed is the Chocheco (Cocheco) River Central Avenue Dam, (NHIMP 600030608-04) which is Impaired by Mercury (TMDL 33883, NE Regional Mercury TMDL) and pH.

There were no wetlands identified on the site. The current use is supported by municipal water and sewer.

The soils are made up of SfC – Suffield Silt Loam, which is classified as Hydrologic Soil Group (HSG) C, based on the USDA, NRCS Websoil. The Existing conditions Analysis

is divided into Five Final Analysis Points or Reaches by the drainage and structures on Third Street and Second Street. Again, each point of analysis is being treated distinctly.

Final Reach #100:

Consisting of the majority of the existing site, Subcatchment #1 contributes runoff to an existing Catch Basin, subsequent Drain Man Hole, and to a point in the Dover MS4 system within Second Street.

Final Reach #200:

Subcatchment #2 consists of a portion of Second Street that drains to the west.

Final Reach #300:

Subcatchment #3 consists of land area adjacent to and including a portion of Third Street where surface water runoff is routed to an existing Catch Basin.

Final Reach #400:

Likewise, Subcatchment #4 consists of land area adjacent to and including a portion of Third Street where surface water runoff is routed to an existing Catch Basin.

Final Reach #500:

Likewise, Subcatchment #5 consists of land area adjacent to and including a portion of Third Street where surface water runoff is routed to an existing Catch Basin.

2.0 Proposed Conditions Analysis:

Reference: Sheet W2 - Proposed Conditions Watershed Plan (Enclosed)
Proposed Site Plan
Proposed Site Detail Plans

The proposed conditions analysis consists twelve subcatchment evaluated at the same five Final Analysis Points.

Final Reach #100:

Subcatchment #1 has been substantially reduced in size and contributes runoff to the existing Catch Basin. The roof drains from the proposed building, Subcatchments #11, #12, #13, #14 and the Green Roof #15 are all compiled in a drain manhole. There is also a Yard Drain, Subcatchment #6 & Pond C01 and a culvert Slot Drain, Subcatchment #7, discharging into the same Drain Manhole. The discharge of the Drain Manhole

discharges into a new Drain Manhole to be install in Second Street at the same Final Evaluation Point.

Final Reach #200:

Subcatchment #2 is very similar in size compared to the Existing Conditions Analysis and evaluated in the same location.

Final Reach #300:

The runoff from Subcatchment #3 is similar to the Existing Conditions Analysis except that the entire roof is captured and routed into Final Reach #100.

Final Reach #400:

The runoff from Subcatchment #4 is similar to the Existing Conditions Analysis except that the entire roof is captured and routed into Final Reach #100.

Final Reach #500:

The runoff from Subcatchment #5 is similar to the Existing Conditions Analysis except that the entire roof is captured and routed into Final Reach #100.

Summary

The impervious surface of the proposed development is reduced in the Proposed Conditions Analysis as compared to the Existing Conditions Analysis. Much of this reduction is accomplished by utilizing a Green Roof for a portion of the proposed structure. All of the runoff is pretreated by deep sumps.

3.0 FULL COMPARATIVE ANALYSIS

ANALYSIS COMPONENT: PEAK RATE DISCHARGE (Cubic Feet / Second)

		2 Yr	10 Yr	25 Yr	50 Yr	
Final Reach #100	Existing	1.62	2.47	3.14	3.76	
	Proposed	1.37	2.27	2.98	3.67	
Final Reach #200	Existing	0.20	0.31	0.40	0.49	
	Proposed	0.19	0.30	0.38	0.45	
Final Reach #300	Existing	0.18	0.27	0.35	0.42	
	Proposed	0.11	0.18	0.23	0.28	
Final Reach #400	Existing	0.17	0.26	0.33	0.39	
	Proposed	0.16	0.24	0.30	0.36	
Final Reach #500	Existing	0.06	0.10	0.12	0.14	
	Proposed	0.06	0.09	0.12	0.14	

ANALYSIS COMPONENT: VOLUME (Acre Feet)

		2 Yr	10 Yr	25 Yr	50 Yr	
Final Reach #100	Existing	0.130	0.203	0.260	0.313	
	Proposed	0.106	0.178	0.235	0.290	
Final Reach #200	Existing	0.015	0.024	0.032	0.039	
	Proposed	0.015	0.024	0.031	0.037	
Final Reach #300	Existing	0.014	0.022	0.029	0.035	
	Proposed	0.009	0.014	0.018	0.022	
Final Reach #400	Existing	0.014	0.022	0.028	0.033	
	Proposed	0.013	0.020	0.025	0.031	
Final Reach #500	Existing	0.005	0.008	0.010	0.012	
	Proposed	0.005	0.008	0.010	0.012	

4.0 EROSION & SEDIMENT CONTROL PLANS BEST MANAGEMENT PRACTICES (BMP's)

Reference: Proposed Site Plan and Grading Plan
Erosion & Sediment Control Plan
Erosion & Sediment Control Details

The proposed site development is protected from erosion and the abutting properties are protected from sediment by the use of Best Management Practices as outlined in the New Hampshire Stormwater Manual, Volume 2, Post-Construction Best Management Practices Selection & Design (December 2008, NHDES & US EPA); and City of Dover Chapter 149-14 A, Stormwater Management, Erosion Control, and Flood Hazards. **Any area disturbed by construction will be re-stabilized within 14 calendar days and abutting properties will not be adversely affected by this development. All disturbed soils within 100 feet of surface waters or wetlands will be temporarily or permanently stabilized within 7 calendar days. Erosion and sediment control measures shall be installed prior to any soil land disturbance and must be reviewed and approved by the City of Dover Community Services Department. All swales and drainage structures will be constructed and stabilized prior to having run-off directed to them.** Reference is also made to the Stormwater System Operation Inspection & Maintenance Manual which has been written specifically for this project and available to the owner.

As this proposed site redevelopment will disturb less than one acre of land, a Notice of Intent does not need to be submitted to the US EPA. This project will not be covered by the Construction General Permit. As this project proposes less than 100,000 square feet of impact it does not require an issued permit by NHDES AoT, however construction is governed by a General Permit by Rule under NH RSA 485-A:17. Either a Stormwater Pollution Prevention Plan (SWPPP) or a Stormwater Management Plan (SWMP) as required by the City of Dover will be required. In either case, the requirements of Chapter 149-14 A will be included in the plan.

Perimeter Control

The plan set demonstrates the location of perimeter control for sediment containment. The Erosion and Sediment Control Details, Sheet E-101, has the specifications for installation and maintenance of the Erosion Control Mix Berm, Silt Fence, and Silt Socks.

Vegetated Stabilization

All areas that are disturbed during construction will be stabilized with vegetated material within 30 days of breaking ground. Construction will be managed in such a manner that erosion is prevented and that no abutter's property will be subjected to any

siltation, unless otherwise permitted. All areas to be planted with grass for long-term cover will follow the specification and on Sheet E-102 using seeding mixture C, as follows:

Mixture	Pounds per Acre	Pounds per 1,000 Sq. Ft.
Tall Fescue	24	0.55
Creeping Red Fescue	24	0.55
Total	48	1.10

Conservation Mix

Mixture	Pounds per Acre	Pounds per 1,000 Sq. Ft.
Tall Fescue	15	0.35
Creeping Red Fescue	15	0.35
Annual Ryegrass	5	0.12
Perennial Ryegrass	5	0.12
Kentucky Bluegrass	15	0.35
White Clover	7	0.16
Total	**62**	**1.45**

Conservation Mix will be used to stabilize all 2:1 slopes and all land area disturbed within the wetland buffer. (If applicable)

Stabilized Construction Entrance

A temporary gravel construction entrance provides an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud and sediment transported onto paved municipal and state roads. The stone size for the pad should be between 1 and 2-inch coarse aggregate, and the pad itself constructed to a minimum length of 50' for the full width of the access road. The aggregate should be placed at least six inches thick. A plan view and profile are shown on Sheet E-102-Erosion and Sediment Control Detail Plan.

Environmental Dust Control

Dust will be controlled on the site by the use of multiple Best Management Practices. Mulching and temporary seeding will be the first line of protection to be utilized where problems occur. If dust problems are not solved by these applications, the use of water and calcium chloride can be applied. Calcium chloride will be applied at a rate that will keep the surface moist but not cause pollution.

Inlet Protection / Storm Drain Inlets

Storm drain inlet protection will be installed per the Erosion & Sediment Control Details as a sediment barrier installed around a storm drain inlet, catch basin, or curb inlet to reduce sediment intrusion into a system after it has been constructed and existing catch basins. These are to be constructed in accordance with the Erosion & Sediment Control Details, Sheet E-101 and maintained after every rain event.

At a minimum, you must comply with following (EPA CGP Part 2.1.2.9.b) "Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, you must remove the deposited sediment by the end of the same work day in which it is found or by the end of the following work day if removal by the same work day is not feasible."

It is vital in the construction of this site that the existing MS4 drainage system not be impacted by sediment. See also sediment track out below.

Sediment Track-Out / Stabilized Construction Entrance / Exit

A temporary gravel construction entrance provides an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud and sediment transported onto paved municipal and state roads. The stone size for the pad should be between 1 and 2-inch coarse aggregate, and the pad itself constructed to a minimum length of 50' for the full width of the access road. The aggregate should be placed at least six inches thick. A plan view and profile are shown on Construction Details Plan. The Construction Exit will be maintained in a condition that will prevent tracking of sediment onto the public highway. When the control pad becomes ineffective, the stone should be removed along with the collected soil material, regraded on site, and stabilized. A plan view and profile are shown on the Construction Details Plan in E-101 Erosion & Sediment Control Details.

Off-site Vehicle Tracking: A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept every other week or as necessary to remove any excess mud, dirt or rock tracked from the site. After the binder pavement has been placed, any construction activity that causes the tracking of sediments will also result in street sweeping. Pavement should be swept prior to surface pavement and periodically to remove materials. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

At a minimum, you must provide for maintenance that meets the following (EPA CGP Part 2.1.2.3.d) "Where sediment has been tracked-out from your site onto the surface of off-site streets, other paved areas, and sidewalks, you must remove the deposited sediment by the end of the same work day in which the track-out occurs or by the end of

the next work day if track-out occurs on a non-work day. You must remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked-out sediment into any stormwater conveyance (unless it is connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, or surface water."

Stockpiled Sediment or Soil

Stockpiled materials including topsoil, excavated materials, borrow materials imported onto the site, construction aggregates, and sediment removed from temporary sediment traps will be located in designated areas at least 50 feet away form concentrated flows. All stockpiles will have erosion protection in the form of silt fence and diversion swales will be applied to protect the material and surrounding areas. Inactive stockpiles will be seeded for temporary stabilization. Erosion control measures will be inspected in accordance with the schedule for all other activities on site.

At a minimum, you must comply with following (EPA CGP Part 2.1.2.4d) "Do no hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance (unless connected to a sediment basin, sediment trap, or similar effective control,) storm drain inlet, or surface water."

Dewatering Practices

Dewatering practices are not known to be required on this site. If during construction this becomes required, an addendum will be published specific for the requirements. As a general rule, ground water that needs to be removed from an excavation will be pumped to a sediment basin or a storm drain inlet prior to discharge from the site.

At a minimum, you must comply with following (EPA CGP Part 2.1.3.4) "With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications."

Regarding dewatering practices in the State of New Hampshire, specifically see Construction General Permit Section 9.1.2 NHR12000 State of New Hampshire and "Clarification of Section 9.1.2 … and other New Hampshire specific information for the U.S. EPA 2012 NPDES Construction General Permit (CGP), May 3, 2012"

Construction Sequence

1. Cut and remove trees in construction area only as required.

2. Construct and/or install temporary and permanent sediment erosion and detention control facilities as required.

3. Erosion, sediment and detention control facility shall be installed & stabilized prior to any earth moving operation & or directing runoff to them.

4. Clear, cut and dispose of debris in approved facility.

5. Construct temporary culverts as required, or directed.

6. Construct roadways for access to desired construction areas. All roads shall be stabilized immediately.

7. Install pipe and construction associated appurtenances as required or directed. Install rain gardens. All disturbed areas shall stabilized immediately after grading.

8. Begin permanent and temporary seeding and mulching. All cut and fill slopes and disturbed areas shall be seeded or mulched as required, or directed. No area is allowed to be disturbed for a length of time that exceeds 60 days before being stabilized. Daily, or as required. All roadways and parking areas shall be stabilized within 72 hours of achieving finished grades. All cut and fill slopes shall be stabilized within 72 hours of achieving finished grades.

9. Construct temporary berms, drains ditches, silt fences, sediment traps, etc. mulch and seed as required.

10. Inspect and maintain all erosion and sediment control measures during construction.

11. Complete permanent seeding and landscaping.

12. Remove temporary erosion control measures after seeding areas have established themselves and site improvements are complete.

13. Smooth and revegetate all disturbed areas.

14. Finish paving all roadways.

Temporary Erosion Control Measures

1. The smallest practical area of land shall be exposed at any one time.

2. Erosion, sediment control measures shall be installed as shown on the plans and at locations as required, or directed by the engineer.

3. All disturbed areas shall be returned to original grades and elevations. Disturbed areas shall be loamed with a minimum of 4" of loam and seeded with not less than 1.10 pound of seed per 1,000 square feet (48 pounds per acre) of area.

4. Silt fences and other barriers shall be inspected periodically and after every rainstorm during the life of the project. All damaged areas shall be repaired, sediment deposits shall periodically be removed and properly disposed of.

5. After all disturbed areas have been stabilized, the temporary erosion control measures are to be removed and the area disturbed by the removal smoothed and re-vegetated.

6. Areas must be seeded and mulched within 5 days of final grading, permanently stabilized within 3 days of final grading, or temporarily stabilized within 14 days of initial disturbance of soil.

Inspection and Maintenance Schedule

Sediment control measures will be inspected during and after storm events to ensure that the practice still has integrity and is not allowing sediment to pass. Depending on SWPPP criteria, all controls will be inspected either once every 7 days and after storm events. Inspection reports must be submitted to City of Dover, Community Services, Engineering Department. Sediment build-up in swales and level spreaders will be removed if it is deeper than six inches. See also Stormwater System Operation: Inspection & Maintenance Manual published separately also by Berry Surveying & Engineering. See also Storm Water Pollution Prevention Plan (SWPPP) and / or Stormwater Management Plan (SWMP) developed in accordance with EPA NPDES or City of Dover requirements.

Corrective Action measures will be made in accordance with Stormwater Management Plan (SWMP) / SWPPP requirements and records maintained on site by the Contractor.

5.0 CONCLUSION

Peak rates of runoff flow are reduced in the post-construction analysis / condition, as compared to the pre-construction peak rates of runoff flow at Final Reach #100 & #200. This reduction occurs during the 2 Yr, 10 Yr, 25 Yr, and 50 Yr, extreme storm events due to the reduction in the Impervious Area. Per Env-Wq 1507.05(b)(1)(a) the channel protection volume is satisfied by the 2-year, 24-hour post-development peak flow rate generated from the proposed disturbance being less than the 2-year, 24-hour pre-development peak flow rate and the 2 year, 24-hour post-development storm volume has not increased over the pre-development volume by more than 0.1 acre-feet.

A Site Specific, Terrain Alteration Permit (RSA 485: A-17) is not required for this site plan due to the area of disturbance being less than 100,000 SF and the site will operate as a General Permit by Rule under this rule. Because the site impact is less than one acre, a Notice of Intent with the EPA is not required but the site will operation in accordance with the City of Dover Chapter 153-14 A Stormwater Management, Erosion Control, and Flood Hazards and the approved Stormwater Management Plan.

Respectfully Submitted,
BERRY SURVEYING & ENGINEERING

Christopher R. Berry, SIT 567
Principal, President

Kenneth A. Berry PE, LLS,
CPSWQ, CPESC, CESSWI
Principal, VP - Technical Operations

Kevin R. Poulin, EIT
Project Engineer

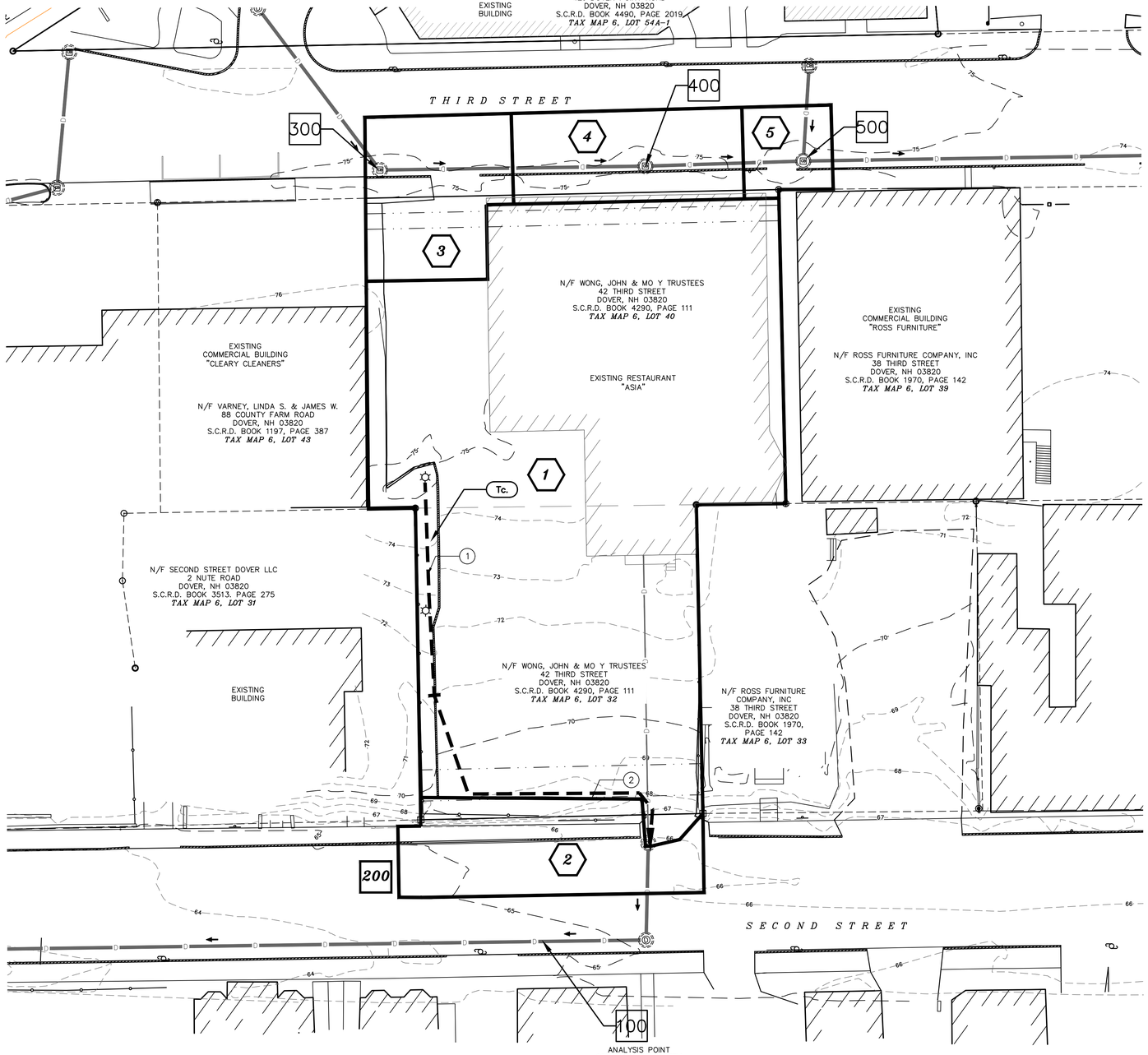
WETLAND NOTES:

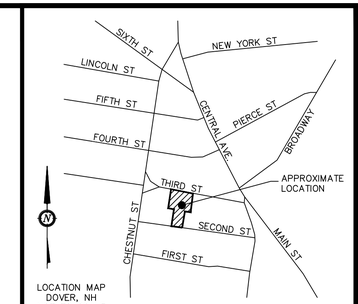
WETLANDS WERE DELINEATED BY DEIDRA BENJAMIN. IN JUNE 2022 UTILIZING THE FOLLOWING STANDARDS:

1. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.
2. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, VERSION 8.0. UNITED STATES DEPARTMENT OF AGRICULTURE (2016).
3. NATIONAL WETLAND PLANT LIST (CURRENT VERSION).
4. NO WETLANDS WERE FOUND ON SITE.

DEIDRA BENJAMIN, CWS #295

STATE OF NEW HAMPSHIRE
DEIDRA L. BENJAMIN
No. 295
CERTIFIED WETLAND SCIENTIST





NOTES:

1.) OWNER: WONG, JOHN & WONG, MO Y TRUSTEE
OF THE MO. Y. WONG LIVING REV. TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.
B.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.

5.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.

6.) THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING WATERSHED CONDITIONS OF TAX MAP 6, LOTS 32 & 40 LOCATED IN DOVER, N.H.

7.) NO WETLANDS WERE FOUND ON SITE. SEE EXISTING CONDITIONS PLAN. SEE SITE SPECIFIC SOIL SURVEY FOR SOILS MAP.

NRCS SOILS LEGEND

SYMBOL	SOIL TAXONOMIC NAME	HYDROLOGIC SOIL GROUP
SfC	SUFFIELD SILT LOAM	C

SLOPE: A = 0–3% B = 3–8% C = 8–15% D = 15–25% E = 25–50% F = 50%+

DENOMINATOR: /Rk = ROCKY /VPD = VERY POORLY DRAINED /PD = POORLY DRAINED /SWPD = SOMEWHAT POORLY DRAINED /MWD = MODERATELY WELL DRAINED

SEE WEBSOIL USDA–NRCS

LINE TYPE LEGEND:

- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- PROPERTY LINE
- NRCS SOIL LINE
- NRCS SOIL LABEL
- LIMIT OF WATERSHED
- TIME OF CONCENTRATION PATH
- S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS
- TYP. TYPICAL
- FND FOUND

SYMBOLS LEGEND:

- SUBCATCHMENT AREA SYMBOL
- FLOW REACH SYMBOL
- POND DEVICE SYMBOL
- TIME OF CONCENTRATION SEGMENT

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REVISION	DATE	DESCRIPTION

W-1 EXISTING WATERSHED PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y. WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

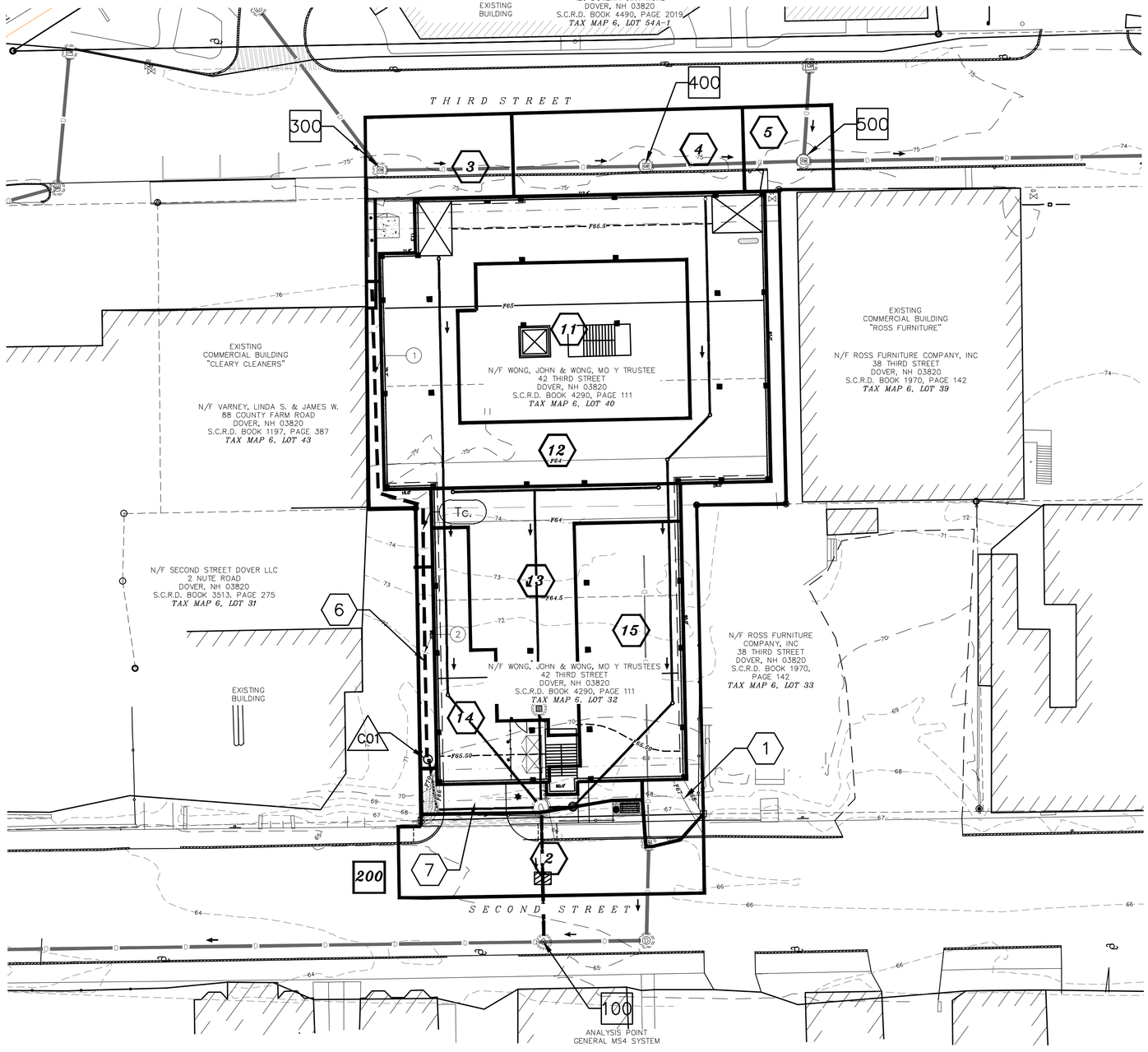
WETLAND NOTES:

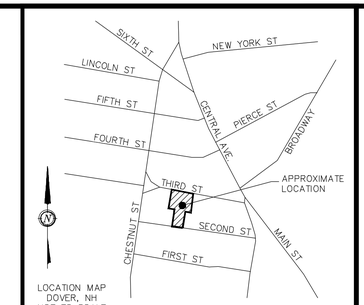
WETLANDS WERE DELINEATED BY DEIDRA BENJAMIN. IN JUNE 2022 UTILIZING THE FOLLOWING STANDARDS:

1. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.
2. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, VERSION 8.0. UNITED STATES DEPARTMENT OF AGRICULTURE (2016).
3. NATIONAL WETLAND PLANT LIST (CURRENT VERSION).
4. NO WETLANDS WERE FOUND ON SITE.

DEIDRA BENJAMIN, CWS #295

STATE OF NEW HAMPSHIRE
DEIDRA L. BENJAMIN
No. 295
CERTIFIED WETLAND SCIENTIST





LOCATION MAP
DOVER, NH
NOT TO SCALE

NOTES:

1.) OWNER: WONG, JOHN & WONG, MO Y TRUSTEE
OF THE MO. Y. WONG LIVING REV. TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.
B.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.

5.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.

6.) THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED WATERSHED CONDITIONS OF TAX MAP 6, LOTS 32 & 40 LOCATED IN DOVER, N.H.

7.) NO WETLANDS WERE FOUND ON SITE. SEE EXISTING CONDITIONS PLAN. SEE SITE SPECIFIC SOIL SURVEY FOR SOILS MAP.

NRCS SOILS LEGEND

SYMBOL	SOIL TAXONOMIC NAME	HYDROLOGIC SOIL GROUP
SfC	SUFFIELD SILT LOAM	C

SLOPE: A = 0–3% B = 3–8% C = 8–15% D = 15–25% E = 25–50% F = 50%+

DENOMINATOR: /Rk = ROCKY /VPD = VERY POORLY DRAINED /PD = POORLY DRAINED /SWPD = SOMEWHAT POORLY DRAINED /MWD = MODERATELY WELL DRAINED

SEE WEBSOIL USDA–NRCS

LINE TYPE LEGEND:

- 211 — EXISTING CONTOUR MINOR
- 210 — EXISTING CONTOUR MAJOR
- PROPERTY LINE
- NRCS SOIL LINE
- WdA — NRCS SOIL LABEL
- LIMIT OF WATERSHED
- TIME OF CONCENTRATION PATH
- S.C.R.D. — STRAFFORD COUNTY REGISTRY OF DEEDS
- TYP. — TYPICAL
- FND — FOUND

SYMBOLS LEGEND:

- # / # — SUBCATCHMENT AREA SYMBOL
- # / # — FLOW REACH SYMBOL
- # / # — POND DEVICE SYMBOL
- Tc. / # — TIME OF CONCENTRATION SEGMENT

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

#	DATE	REVISION
#1	9-26-22	REVISED PER DOVER TRC COMMENT

W-2 PROPOSED WATERSHED PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y. WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

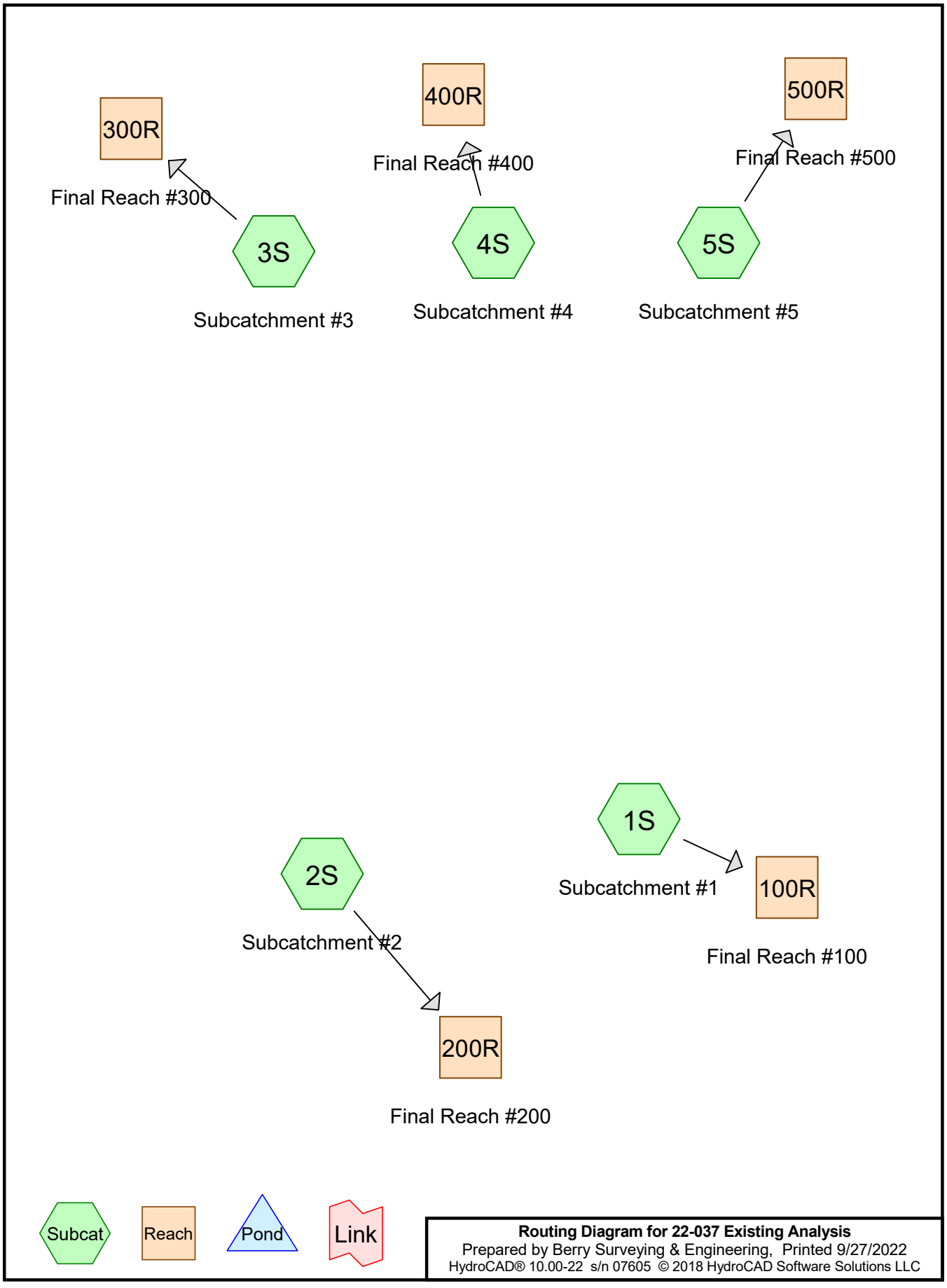
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14247
LICENSED PROFESSIONAL ENGINEER

SHEET 2 OF 2

NOT FOR CONSTRUCTION



Routing Diagram for 22-037 Existing Analysis
Prepared by Berry Surveying & Engineering, Printed 9/27/2022
HydroCAD® 10.00-22 s/n 07605 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.045	74	>75% Grass cover, Good, HSG C (1S, 2S, 3S)
0.413	98	Paved parking, HSG C (1S, 2S, 3S, 4S, 5S)
0.202	98	Roofs, HSG C (1S, 3S, 4S, 5S)
0.660	**96**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.660	HSG C	1S, 2S, 3S, 4S, 5S
0.000	HSG D	
0.000	Other	
0.660		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.045	0.000	0.000	0.045	>75% Grass cover, Good	1S, 2S, 3S
0.000	0.000	0.413	0.000	0.000	0.413	Paved parking	1S, 2S, 3S, 4S, 5S
0.000	0.000	0.202	0.000	0.000	0.202	Roofs	1S, 3S, 4S, 5S
0.000	**0.000**	**0.660**	**0.000**	**0.000**	**0.660**	**TOTAL AREA**	

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Subcatchment #1 Runoff Area=20,761 sf 94.11% Impervious Runoff Depth>6.54"
Flow Length=173' Tc=6.0 min CN=97 Runoff=3.14 cfs 0.260 af

Subcatchment 2S: Subcatchment #2 Runoff Area=2,745 sf 78.03% Impervious Runoff Depth>6.07"
Tc=6.0 min CN=93 Runoff=0.40 cfs 0.032 af

Subcatchment 3S: Subcatchment #3 Runoff Area=2,297 sf 93.99% Impervious Runoff Depth>6.54"
Tc=6.0 min CN=97 Runoff=0.35 cfs 0.029 af

Subcatchment 4S: Subcatchment #4 Runoff Area=2,167 sf 100.00% Impervious Runoff Depth>6.66"
Tc=6.0 min CN=98 Runoff=0.33 cfs 0.028 af

Subcatchment 5S: Subcatchment #5 Runoff Area=797 sf 100.00% Impervious Runoff Depth>6.66"
Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Reach 100R: Final Reach #100 Inflow=3.14 cfs 0.260 af
Outflow=3.14 cfs 0.260 af

Reach 200R: Final Reach #200 Inflow=0.40 cfs 0.032 af
Outflow=0.40 cfs 0.032 af

Reach 300R: Final Reach #300 Inflow=0.35 cfs 0.029 af
Outflow=0.35 cfs 0.029 af

Reach 400R: Final Reach #400 Inflow=0.33 cfs 0.028 af
Outflow=0.33 cfs 0.028 af

Reach 500R: Final Reach #500 Inflow=0.12 cfs 0.010 af
Outflow=0.12 cfs 0.010 af

Total Runoff Area = 0.660 ac Runoff Volume = 0.358 af Average Runoff Depth = 6.51"
6.82% Pervious = 0.045 ac 93.18% Impervious = 0.615 ac

Summary for Subcatchment 1S: Subcatchment #1

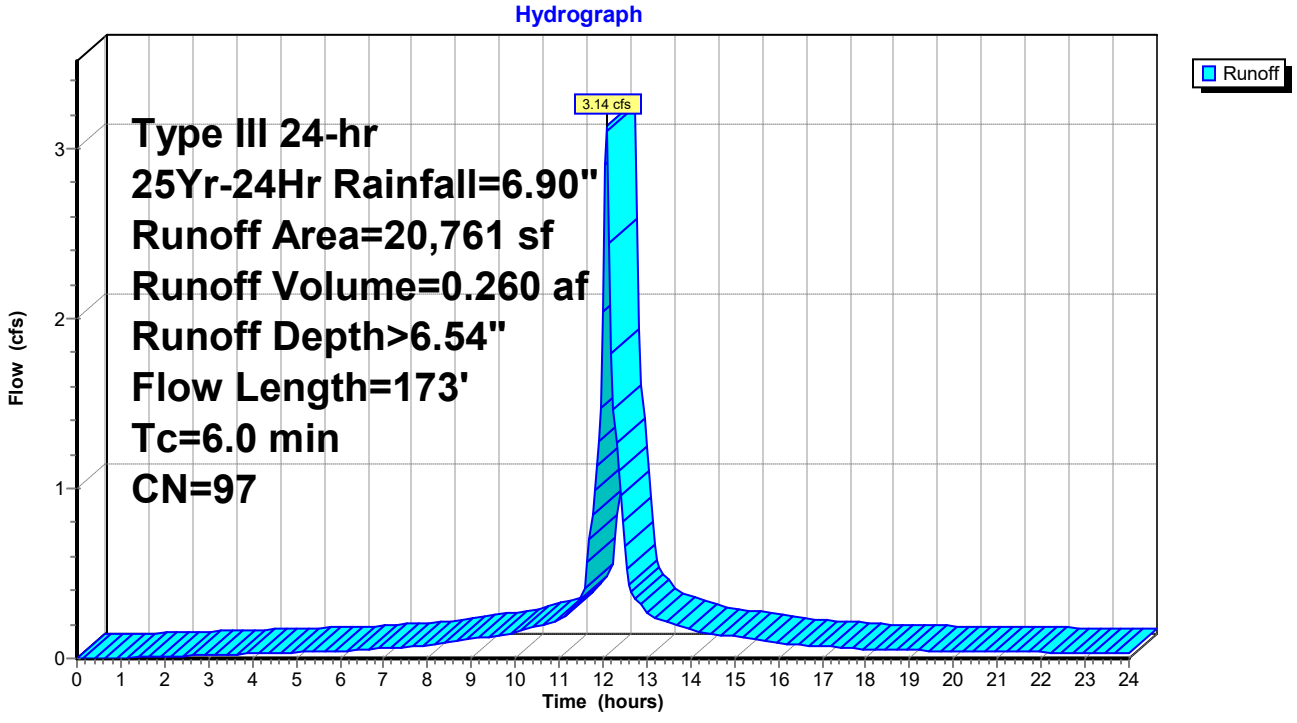
Runoff = 3.14 cfs @ 12.09 hrs, Volume= 0.260 af, Depth> 6.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
8,637	98	Roofs, HSG C
1,222	74	>75% Grass cover, Good, HSG C
10,902	98	Paved parking, HSG C
20,761	97	Weighted Average
1,222		5.89% Pervious Area
19,539		94.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	68	0.0623	0.26		**Sheet Flow, Segment #1** Grass: Short n= 0.150 P2= 3.62"
0.4	105	0.0476	4.43		**Shallow Concentrated Flow, Segment #2** Paved Kv= 20.3 fps
4.7	173	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1S: Subcatchment #1



Summary for Subcatchment 2S: Subcatchment #2

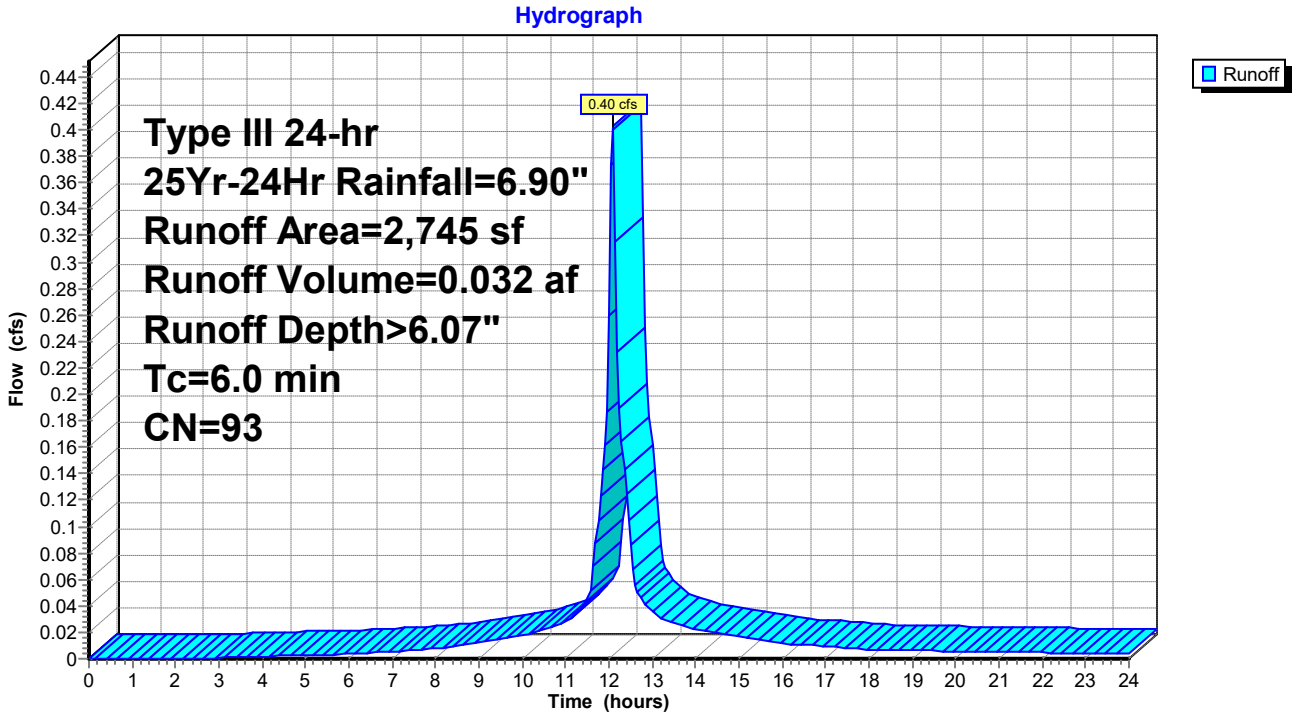
Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.032 af, Depth> 6.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
603	74	>75% Grass cover, Good, HSG C
2,142	98	Paved parking, HSG C
2,745	93	Weighted Average
603		21.97% Pervious Area
2,142		78.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 2S: Subcatchment #2



Summary for Subcatchment 3S: Subcatchment #3

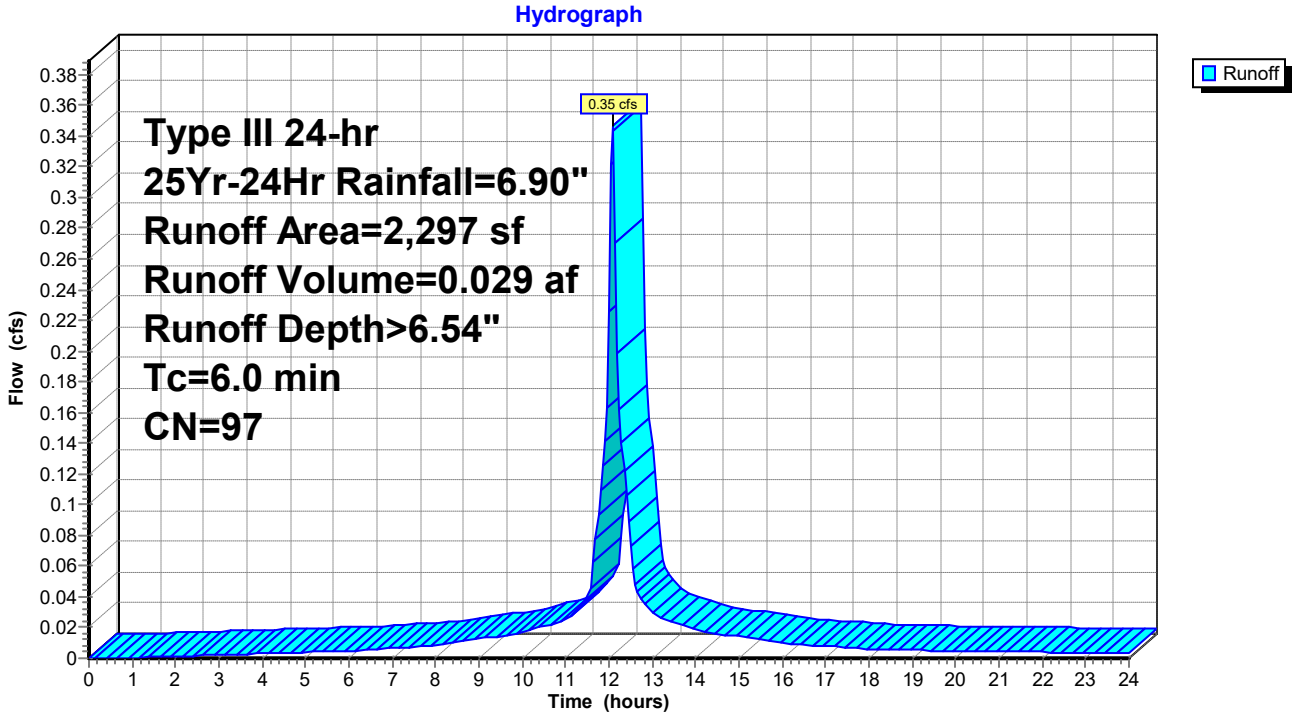
Runoff = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af, Depth> 6.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
19	98	Roofs, HSG C
138	74	>75% Grass cover, Good, HSG C
2,140	98	Paved parking, HSG C
2,297	97	Weighted Average
138		6.01% Pervious Area
2,159		93.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 3S: Subcatchment #3



Summary for Subcatchment 4S: Subcatchment #4

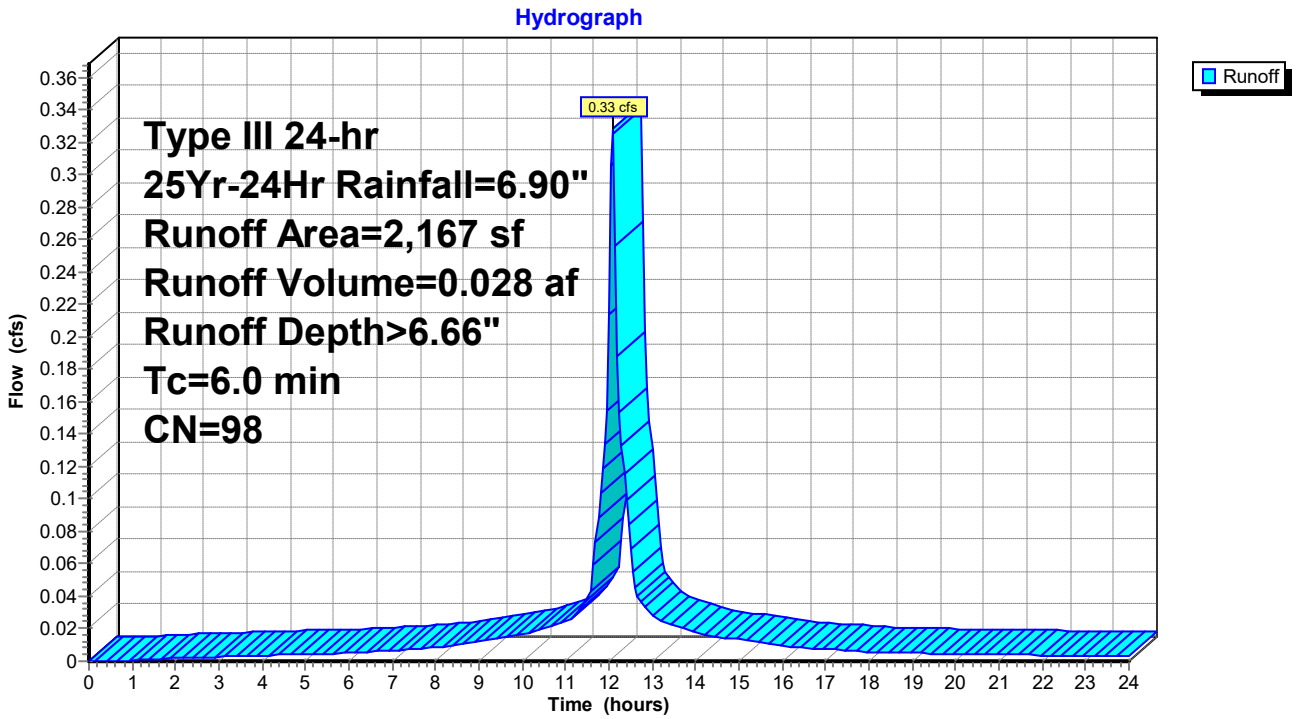
Runoff = 0.33 cfs @ 12.09 hrs, Volume= 0.028 af, Depth> 6.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
140	98	Roofs, HSG C
2,027	98	Paved parking, HSG C
2,167	98	Weighted Average
2,167		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 4S: Subcatchment #4



Summary for Subcatchment 5S: Subcatchment #5

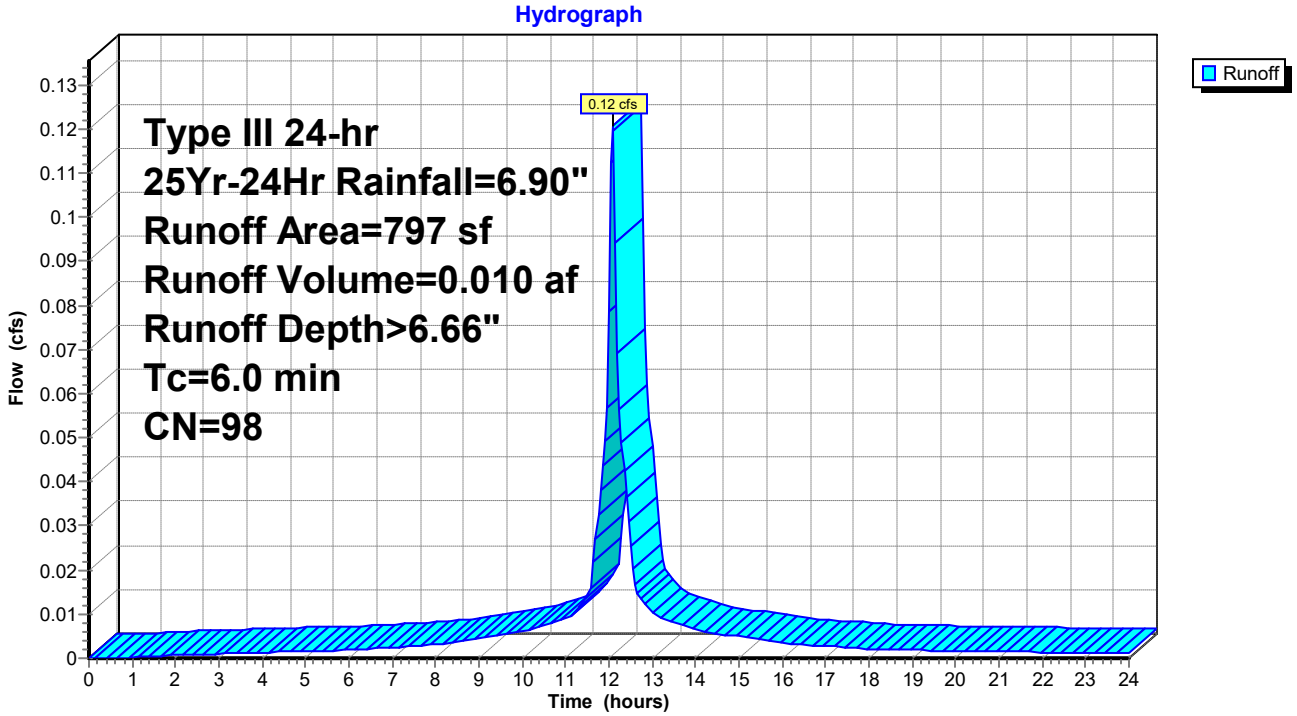
Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 6.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
12	98	Roofs, HSG C
785	98	Paved parking, HSG C
797	98	Weighted Average
797		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 5S: Subcatchment #5



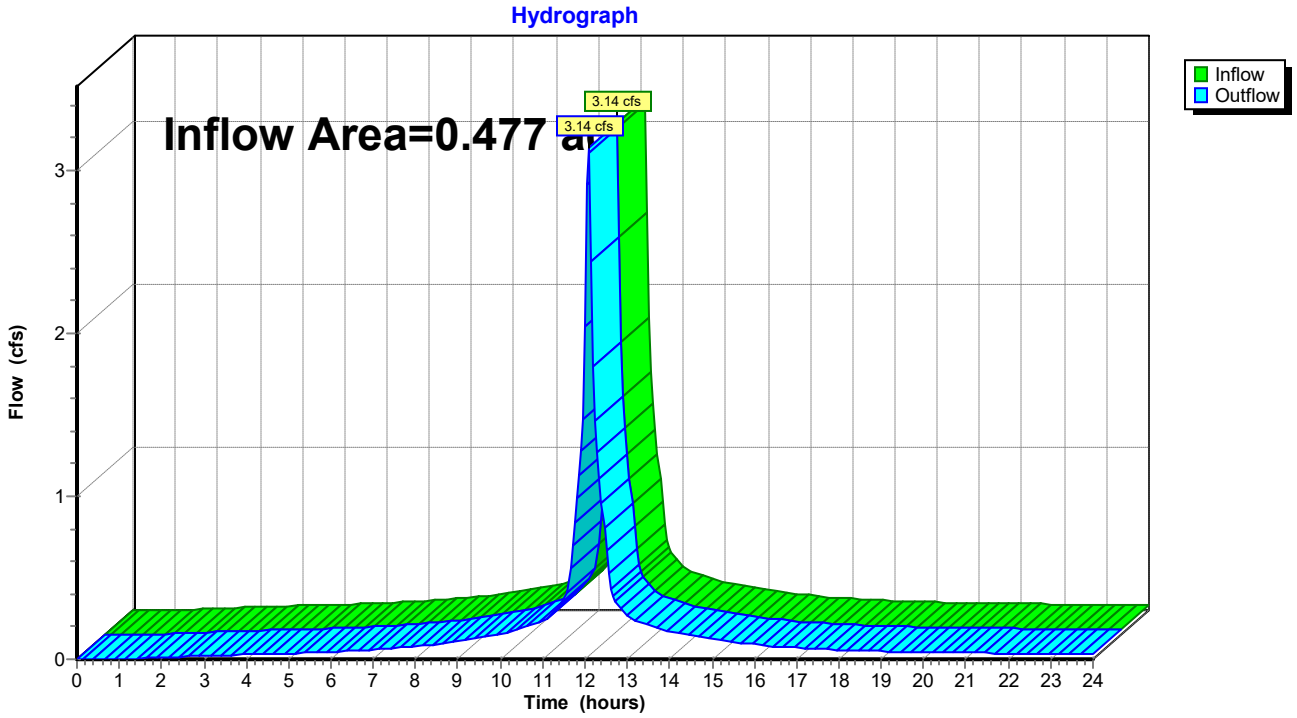
Summary for Reach 100R: Final Reach #100

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.477 ac, 94.11% Impervious, Inflow Depth > 6.54" for 25Yr-24Hr event
Inflow = 3.14 cfs @ 12.09 hrs, Volume= 0.260 af
Outflow = 3.14 cfs @ 12.09 hrs, Volume= 0.260 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 100R: Final Reach #100



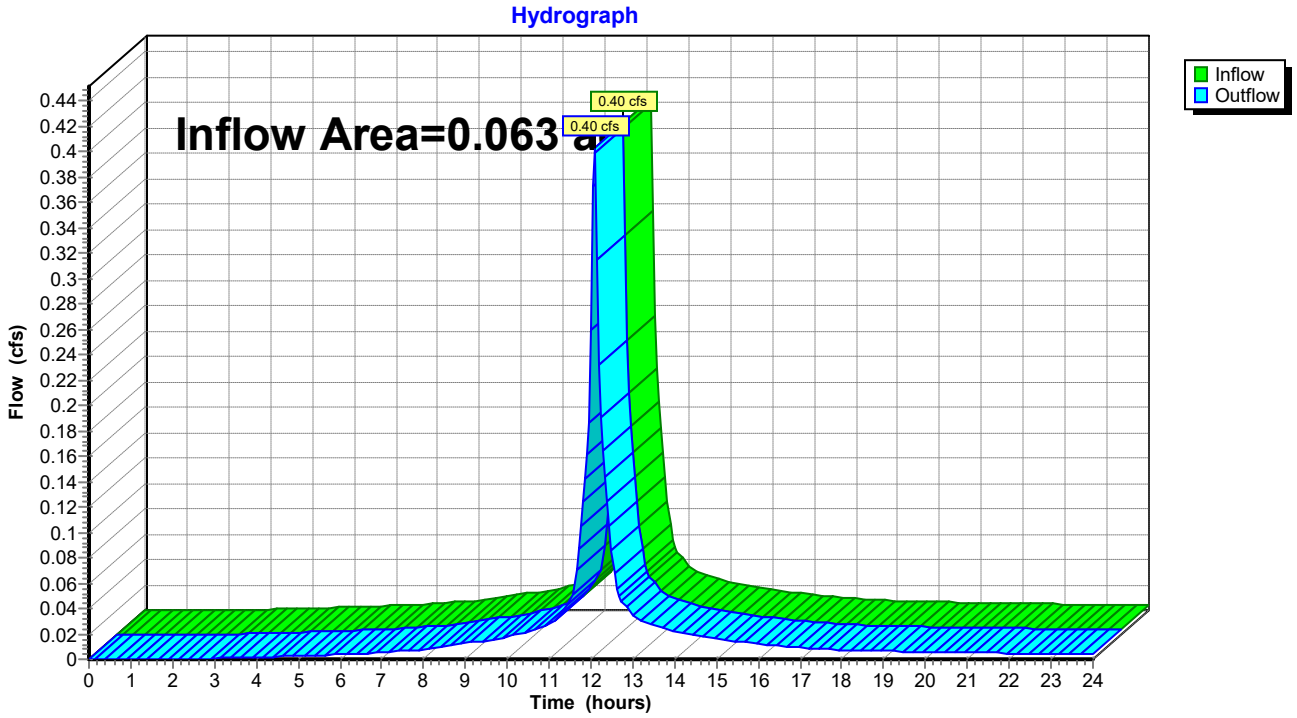
Summary for Reach 200R: Final Reach #200

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.063 ac, 78.03% Impervious, Inflow Depth > 6.07" for 25Yr-24Hr event
Inflow = 0.40 cfs @ 12.09 hrs, Volume= 0.032 af
Outflow = 0.40 cfs @ 12.09 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 200R: Final Reach #200



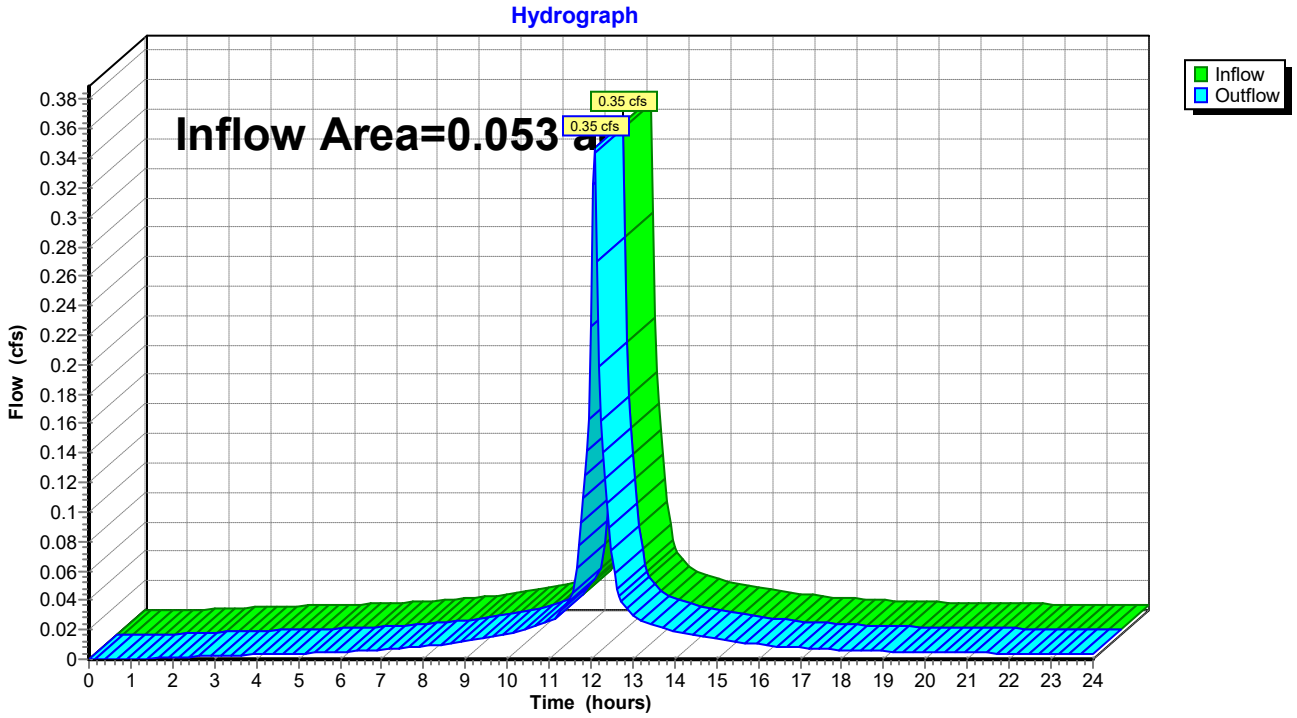
Summary for Reach 300R: Final Reach #300

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.053 ac, 93.99% Impervious, Inflow Depth > 6.54" for 25Yr-24Hr event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 300R: Final Reach #300



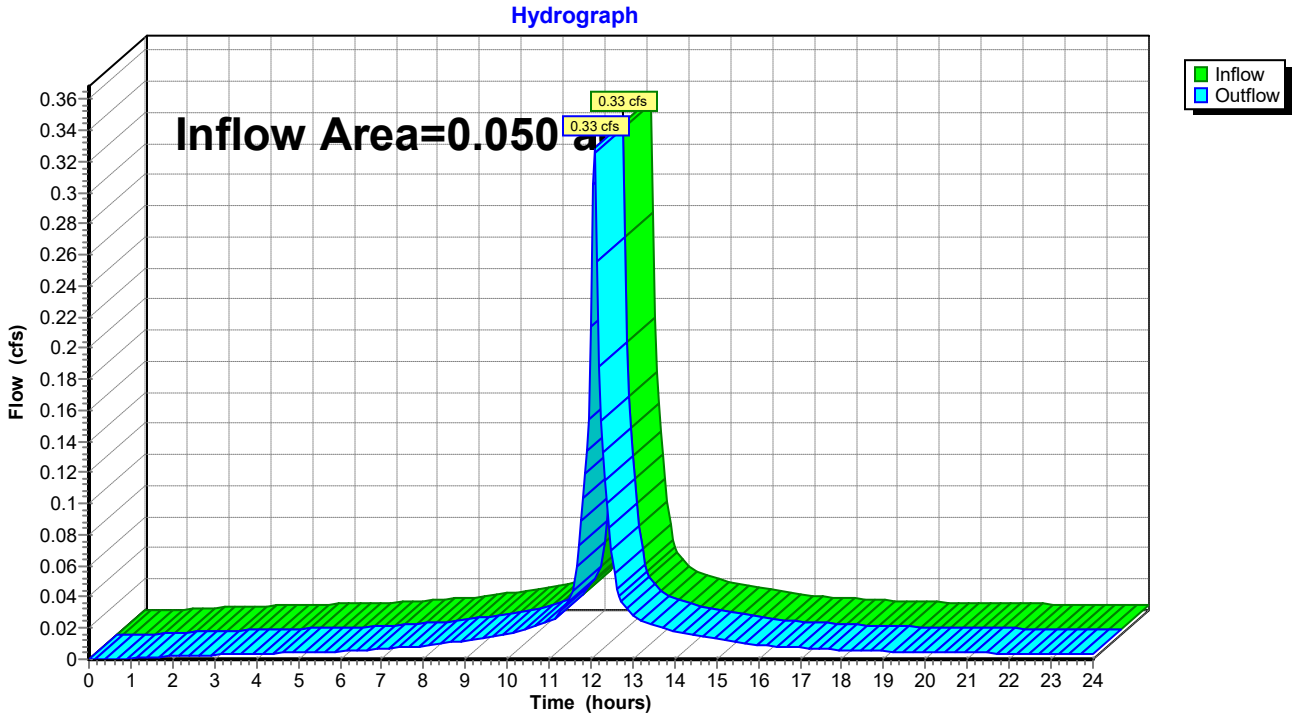
Summary for Reach 400R: Final Reach #400

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.050 ac,100.00% Impervious, Inflow Depth > 6.66" for 25Yr-24Hr event
Inflow = 0.33 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.33 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 400R: Final Reach #400



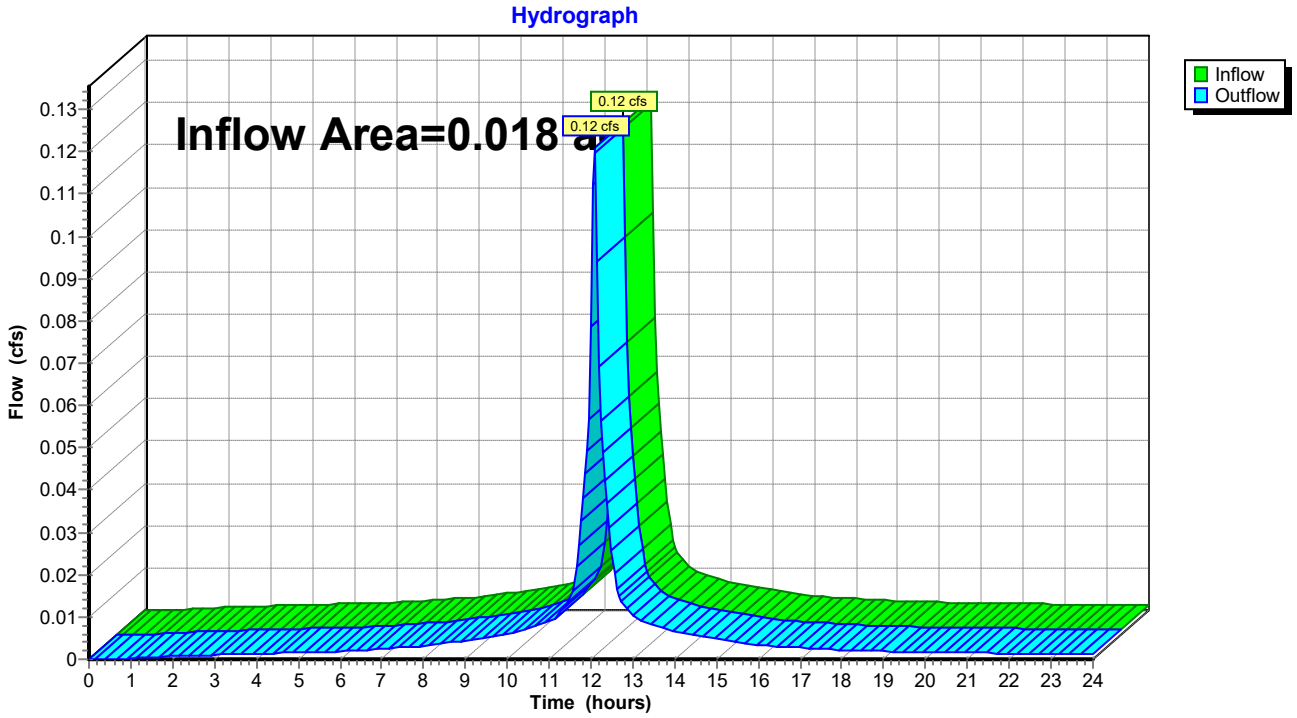
Summary for Reach 500R: Final Reach #500

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.018 ac,100.00% Impervious, Inflow Depth > 6.66" for 25Yr-24Hr event
Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af
Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 500R: Final Reach #500



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Subcatchment #1 Runoff Area=20,761 sf 94.11% Impervious Runoff Depth>3.27"
Flow Length=173' Tc=6.0 min CN=97 Runoff=1.62 cfs 0.130 af

Subcatchment 2S: Subcatchment #2 Runoff Area=2,745 sf 78.03% Impervious Runoff Depth>2.85"
Tc=6.0 min CN=93 Runoff=0.20 cfs 0.015 af

Subcatchment 3S: Subcatchment #3 Runoff Area=2,297 sf 93.99% Impervious Runoff Depth>3.27"
Tc=6.0 min CN=97 Runoff=0.18 cfs 0.014 af

Subcatchment 4S: Subcatchment #4 Runoff Area=2,167 sf 100.00% Impervious Runoff Depth>3.38"
Tc=6.0 min CN=98 Runoff=0.17 cfs 0.014 af

Subcatchment 5S: Subcatchment #5 Runoff Area=797 sf 100.00% Impervious Runoff Depth>3.38"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Reach 100R: Final Reach #100 Inflow=1.62 cfs 0.130 af
Outflow=1.62 cfs 0.130 af

Reach 200R: Final Reach #200 Inflow=0.20 cfs 0.015 af
Outflow=0.20 cfs 0.015 af

Reach 300R: Final Reach #300 Inflow=0.18 cfs 0.014 af
Outflow=0.18 cfs 0.014 af

Reach 400R: Final Reach #400 Inflow=0.17 cfs 0.014 af
Outflow=0.17 cfs 0.014 af

Reach 500R: Final Reach #500 Inflow=0.06 cfs 0.005 af
Outflow=0.06 cfs 0.005 af

Total Runoff Area = 0.660 ac Runoff Volume = 0.178 af Average Runoff Depth = 3.24"
6.82% Pervious = 0.045 ac 93.18% Impervious = 0.615 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Subcatchment #1 Runoff Area=20,761 sf 94.11% Impervious Runoff Depth>5.10"
Flow Length=173' Tc=6.0 min CN=97 Runoff=2.47 cfs 0.203 af

Subcatchment 2S: Subcatchment #2 Runoff Area=2,745 sf 78.03% Impervious Runoff Depth>4.65"
Tc=6.0 min CN=93 Runoff=0.31 cfs 0.024 af

Subcatchment 3S: Subcatchment #3 Runoff Area=2,297 sf 93.99% Impervious Runoff Depth>5.10"
Tc=6.0 min CN=97 Runoff=0.27 cfs 0.022 af

Subcatchment 4S: Subcatchment #4 Runoff Area=2,167 sf 100.00% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=98 Runoff=0.26 cfs 0.022 af

Subcatchment 5S: Subcatchment #5 Runoff Area=797 sf 100.00% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=98 Runoff=0.10 cfs 0.008 af

Reach 100R: Final Reach #100 Inflow=2.47 cfs 0.203 af
Outflow=2.47 cfs 0.203 af

Reach 200R: Final Reach #200 Inflow=0.31 cfs 0.024 af
Outflow=0.31 cfs 0.024 af

Reach 300R: Final Reach #300 Inflow=0.27 cfs 0.022 af
Outflow=0.27 cfs 0.022 af

Reach 400R: Final Reach #400 Inflow=0.26 cfs 0.022 af
Outflow=0.26 cfs 0.022 af

Reach 500R: Final Reach #500 Inflow=0.10 cfs 0.008 af
Outflow=0.10 cfs 0.008 af

Total Runoff Area = 0.660 ac Runoff Volume = 0.279 af Average Runoff Depth = 5.07"
6.82% Pervious = 0.045 ac 93.18% Impervious = 0.615 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Subcatchment #1 Runoff Area=20,761 sf 94.11% Impervious Runoff Depth>7.89"
Flow Length=173' Tc=6.0 min CN=97 Runoff=3.76 cfs 0.313 af

Subcatchment 2S: Subcatchment #2 Runoff Area=2,745 sf 78.03% Impervious Runoff Depth>7.41"
Tc=6.0 min CN=93 Runoff=0.49 cfs 0.039 af

Subcatchment 3S: Subcatchment #3 Runoff Area=2,297 sf 93.99% Impervious Runoff Depth>7.89"
Tc=6.0 min CN=97 Runoff=0.42 cfs 0.035 af

Subcatchment 4S: Subcatchment #4 Runoff Area=2,167 sf 100.00% Impervious Runoff Depth>8.01"
Tc=6.0 min CN=98 Runoff=0.39 cfs 0.033 af

Subcatchment 5S: Subcatchment #5 Runoff Area=797 sf 100.00% Impervious Runoff Depth>8.01"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.012 af

Reach 100R: Final Reach #100 Inflow=3.76 cfs 0.313 af
Outflow=3.76 cfs 0.313 af

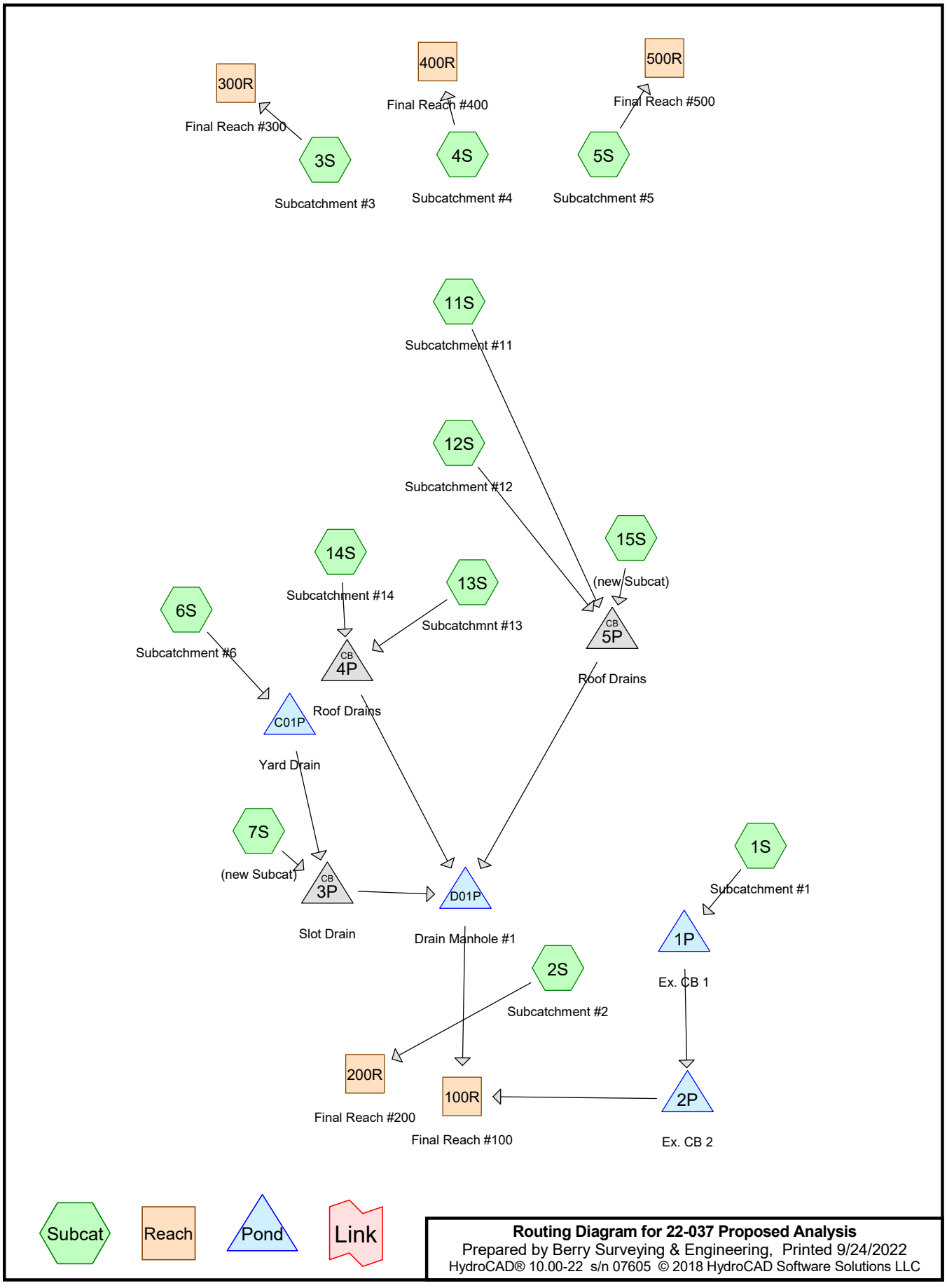
Reach 200R: Final Reach #200 Inflow=0.49 cfs 0.039 af
Outflow=0.49 cfs 0.039 af

Reach 300R: Final Reach #300 Inflow=0.42 cfs 0.035 af
Outflow=0.42 cfs 0.035 af

Reach 400R: Final Reach #400 Inflow=0.39 cfs 0.033 af
Outflow=0.39 cfs 0.033 af

Reach 500R: Final Reach #500 Inflow=0.14 cfs 0.012 af
Outflow=0.14 cfs 0.012 af

Total Runoff Area = 0.660 ac Runoff Volume = 0.432 af Average Runoff Depth = 7.85"
6.82% Pervious = 0.045 ac 93.18% Impervious = 0.615 ac


300R
Final Reach #300
3S
Subcatchment #3
400R
Final Reach #400
4S
Subcatchment #4
500R
Final Reach #500
5S
Subcatchment #5
11S
Subcatchment #11
12S
Subcatchment #12
15S
(new Subcat)
14S
Subcatchment #14
13S
Subcatchmnt #13
6S
Subcatchment #6
CB
4P
CB
5P
Roof Drains
C01P
Roof Drains
Yard Drain
7S
(new Subcat)
CB
3P
Slot Drain
D01P
Drain Manhole #1
1S
Subcatchment #1
1P
Ex. CB 1
2S
Subcatchment #2
200R
Final Reach #200
100R
Final Reach #100
2P
Ex. CB 2
Subcat
Reach
Pond
Link
Routing Diagram for 22-037 Proposed Analysis
Prepared by Berry Surveying & Engineering, Printed 9/24/2022
HydroCAD® 10.00-22 s/n 07605 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.039	74	>75% Grass cover, Good, HSG C (1S, 3S, 6S, 7S)
0.167	98	Paved parking, HSG C (1S, 2S, 3S, 4S, 5S, 7S)
0.302	98	Roofs, HSG C (11S, 12S, 13S, 14S, 15S)
0.151	72	Woods/grass comb., Good, HSG C (1S, 2S, 7S, 12S, 15S)
0.660	**91**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.660	HSG C	1S, 2S, 3S, 4S, 5S, 6S, 7S, 11S, 12S, 13S, 14S, 15S
0.000	HSG D	
0.000	Other	
0.660		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.039	0.000	0.000	0.039	>75% Grass cover, Good	1S, 3S, 6S, 7S
0.000	0.000	0.167	0.000	0.000	0.167	Paved parking	1S, 2S, 3S, 4S, 5S, 7S
0.000	0.000	0.302	0.000	0.000	0.302	Roofs	11S, 12S, 13S, 14S, 15S
0.000	0.000	0.151	0.000	0.000	0.151	Woods/grass comb., Good	1S, 2S, 7S, 12S, 15S
0.000	**0.000**	**0.660**	**0.000**	**0.000**	**0.660**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	62.13	61.77	27.1	0.0133	0.012	12.0	0.0	0.0
2	2P	61.73	61.32	28.9	0.0142	0.012	12.0	0.0	0.0
3	3P	64.05	62.73	8.7	0.1517	0.012	8.0	0.0	0.0
4	4P	61.83	61.78	10.0	0.0050	0.012	8.0	0.0	0.0
5	5P	61.93	61.78	30.0	0.0050	0.012	8.0	0.0	0.0
6	C01P	66.00	64.60	13.8	0.1014	0.012	8.0	0.0	0.0
7	D01P	61.45	61.25	40.0	0.0050	0.012	12.0	0.0	0.0

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Subcatchment #1 Runoff Area=1,491 sf 52.72% Impervious Runoff Depth>5.27"
Flow Length=173' Tc=6.0 min CN=86 Runoff=0.20 cfs 0.015 af

Subcatchment 2S: Subcatchment #2 Runoff Area=2,502 sf 92.37% Impervious Runoff Depth>6.42"
Tc=6.0 min CN=96 Runoff=0.38 cfs 0.031 af

Subcatchment 3S: Subcatchment #3 Runoff Area=1,567 sf 78.62% Impervious Runoff Depth>6.07"
Tc=6.0 min CN=93 Runoff=0.23 cfs 0.018 af

Subcatchment 4S: Subcatchment #4 Runoff Area=1,995 sf 100.00% Impervious Runoff Depth>6.66"
Tc=6.0 min CN=98 Runoff=0.30 cfs 0.025 af

Subcatchment 5S: Subcatchment #5 Runoff Area=772 sf 100.00% Impervious Runoff Depth>6.66"
Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment 6S: Subcatchment #6 Runoff Area=872 sf 0.00% Impervious Runoff Depth>3.95"
Flow Length=171' Tc=9.2 min CN=74 Runoff=0.08 cfs 0.007 af

Subcatchment 7S: (new Subcat) Runoff Area=588 sf 32.48% Impervious Runoff Depth>4.71"
Tc=6.0 min CN=81 Runoff=0.07 cfs 0.005 af

Subcatchment 11S: Subcatchment #11 Runoff Area=3,672 sf 100.00% Impervious Runoff Depth>6.66"
Tc=6.0 min CN=98 Runoff=0.56 cfs 0.047 af

Subcatchment 12S: Subcatchment #12 Runoff Area=7,659 sf 34.72% Impervious Runoff Depth>4.71"
Tc=6.0 min CN=81 Runoff=0.94 cfs 0.069 af

Subcatchment 13S: Subcatchmnt #13 Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>6.66"
Tc=6.0 min CN=98 Runoff=0.45 cfs 0.038 af

Subcatchment 14S: Subcatchment #14 Runoff Area=1,729 sf 100.00% Impervious Runoff Depth>6.66"
Tc=6.0 min CN=98 Runoff=0.26 cfs 0.022 af

Subcatchment 15S: (new Subcat) Runoff Area=2,919 sf 72.59% Impervious Runoff Depth>5.84"
Tc=6.0 min CN=91 Runoff=0.42 cfs 0.033 af

Reach 100R: Final Reach #100 Inflow=2.98 cfs 0.235 af
Outflow=2.98 cfs 0.235 af

Reach 200R: Final Reach #200 Inflow=0.38 cfs 0.031 af
Outflow=0.38 cfs 0.031 af

Reach 300R: Final Reach #300 Inflow=0.23 cfs 0.018 af
Outflow=0.23 cfs 0.018 af

Reach 400R: Final Reach #400 Inflow=0.30 cfs 0.025 af
Outflow=0.30 cfs 0.025 af

Reach 500R: Final Reach #500 Inflow=0.12 cfs 0.010 af
Outflow=0.12 cfs 0.010 af

Pond 1P: Ex. CB 1 Peak Elev=62.35' Storage=0.000 af Inflow=0.20 cfs 0.015 af
12.0" Round Culvert n=0.012 L=27.1' S=0.0133 '/' Outflow=0.20 cfs 0.015 af

Pond 2P: Ex. CB 2 Peak Elev=61.95' Storage=0.000 af Inflow=0.20 cfs 0.015 af
12.0" Round Culvert n=0.012 L=28.9' S=0.0142 '/' Outflow=0.20 cfs 0.015 af

Pond 3P: Slot Drain Peak Elev=64.26' Inflow=0.15 cfs 0.012 af
8.0" Round Culvert n=0.012 L=8.7' S=0.1517 '/' Outflow=0.15 cfs 0.012 af

Pond 4P: Roof Drains Peak Elev=62.46' Inflow=0.72 cfs 0.060 af
8.0" Round Culvert n=0.012 L=10.0' S=0.0050 '/' Outflow=0.72 cfs 0.060 af

Pond 5P: Roof Drains Peak Elev=63.79' Inflow=1.92 cfs 0.148 af
8.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=1.92 cfs 0.148 af

Pond C01P: Yard Drain Peak Elev=66.15' Storage=0 cf Inflow=0.08 cfs 0.007 af
8.0" Round Culvert n=0.012 L=13.8' S=0.1014 '/' Outflow=0.08 cfs 0.007 af

Pond D01P: Drain Manhole #1 Peak Elev=62.66' Storage=24 cf Inflow=2.78 cfs 0.220 af
12.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=2.78 cfs 0.220 af

Total Runoff Area = 0.660 ac Runoff Volume = 0.320 af Average Runoff Depth = 5.81"
28.86% Pervious = 0.191 ac 71.14% Impervious = 0.470 ac

Summary for Subcatchment 1S: Subcatchment #1

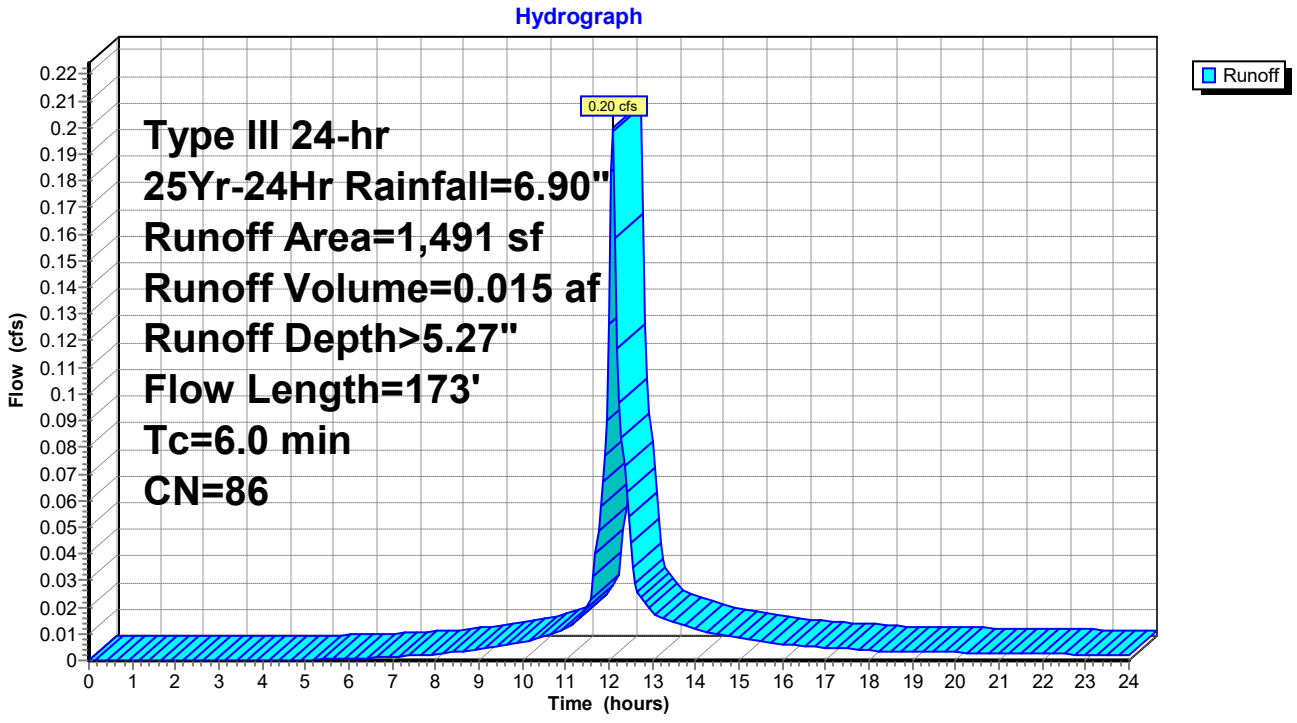
Runoff = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 5.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
451	74	>75% Grass cover, Good, HSG C
786	98	Paved parking, HSG C
254	72	Woods/grass comb., Good, HSG C
1,491	86	Weighted Average
705		47.28% Pervious Area
786		52.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	68	0.0623	0.26		**Sheet Flow, Segment #1** Grass: Short n= 0.150 P2= 3.62"
0.4	105	0.0476	4.43		**Shallow Concentrated Flow, Segment #2** Paved Kv= 20.3 fps
4.7	173	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1S: Subcatchment #1



Summary for Subcatchment 2S: Subcatchment #2

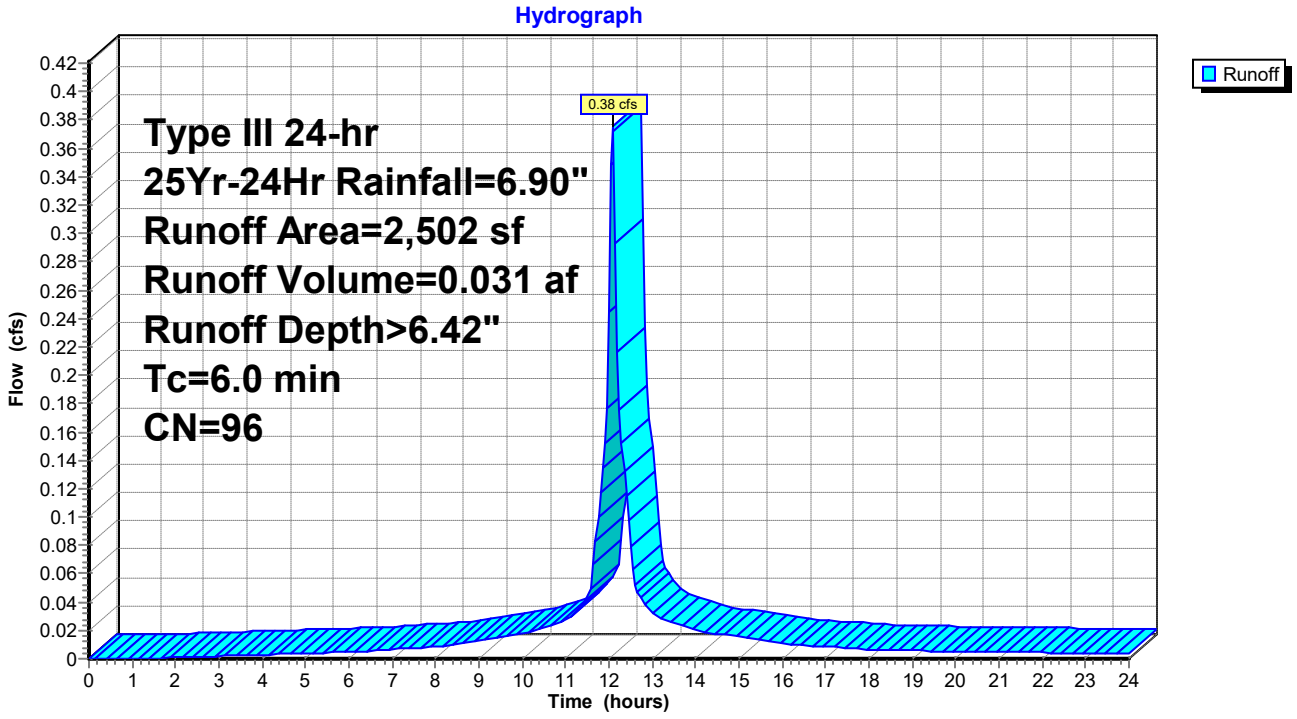
Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af, Depth> 6.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
2,311	98	Paved parking, HSG C
191	72	Woods/grass comb., Good, HSG C
2,502	96	Weighted Average
191		7.63% Pervious Area
2,311		92.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 2S: Subcatchment #2



Summary for Subcatchment 3S: Subcatchment #3

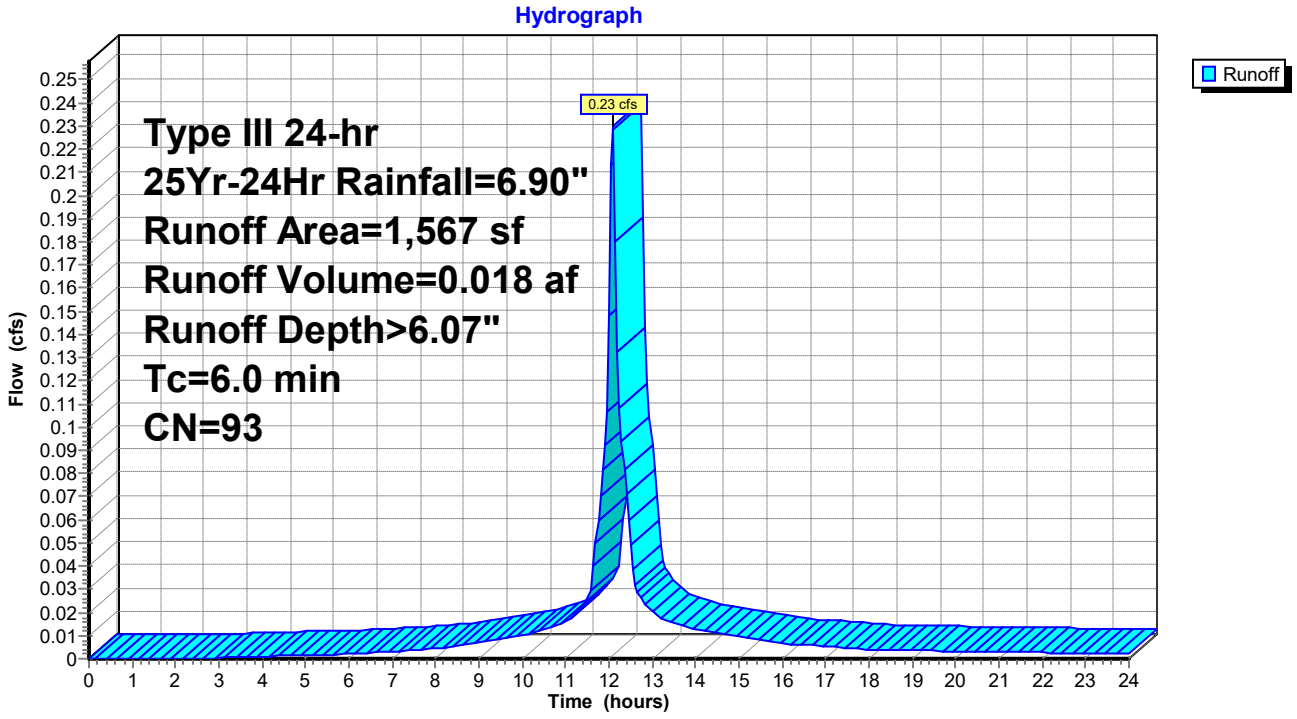
Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af, Depth> 6.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
335	74	>75% Grass cover, Good, HSG C
1,232	98	Paved parking, HSG C
1,567	93	Weighted Average
335		21.38% Pervious Area
1,232		78.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 3S: Subcatchment #3



Summary for Subcatchment 4S: Subcatchment #4

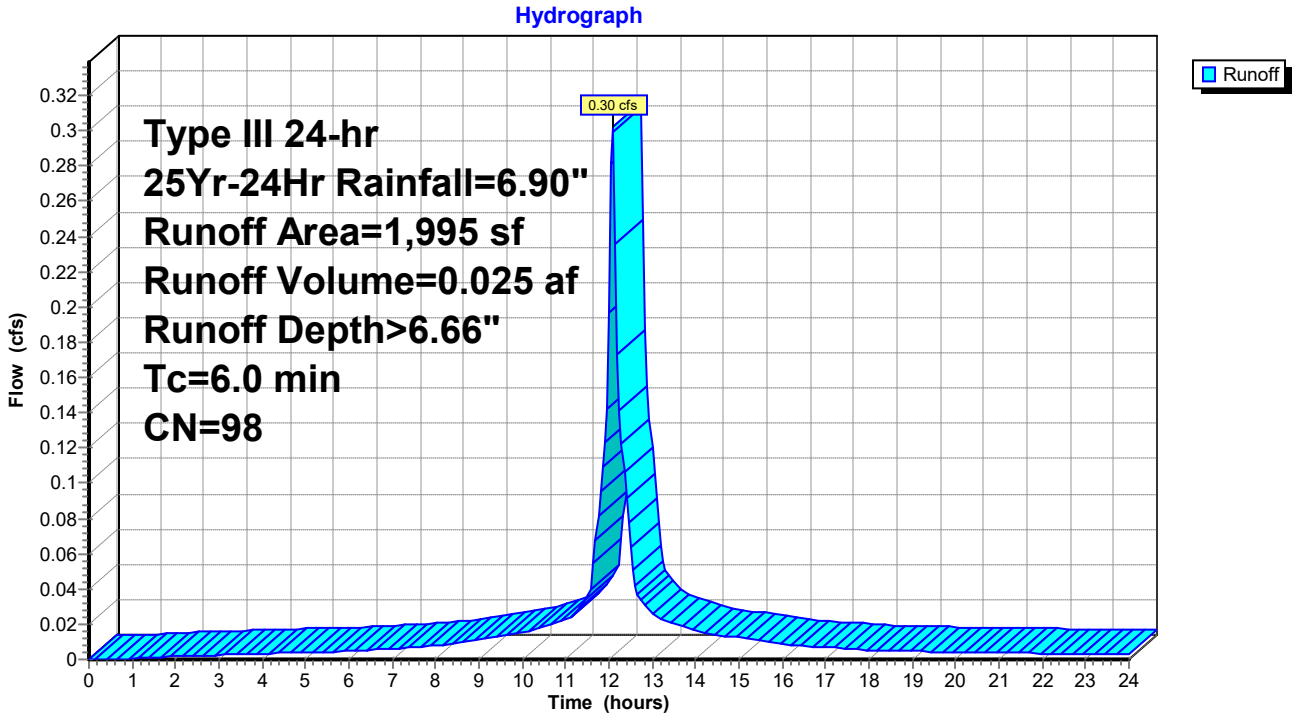
Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Depth> 6.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
1,995	98	Paved parking, HSG C
1,995		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 4S: Subcatchment #4



Summary for Subcatchment 5S: Subcatchment #5

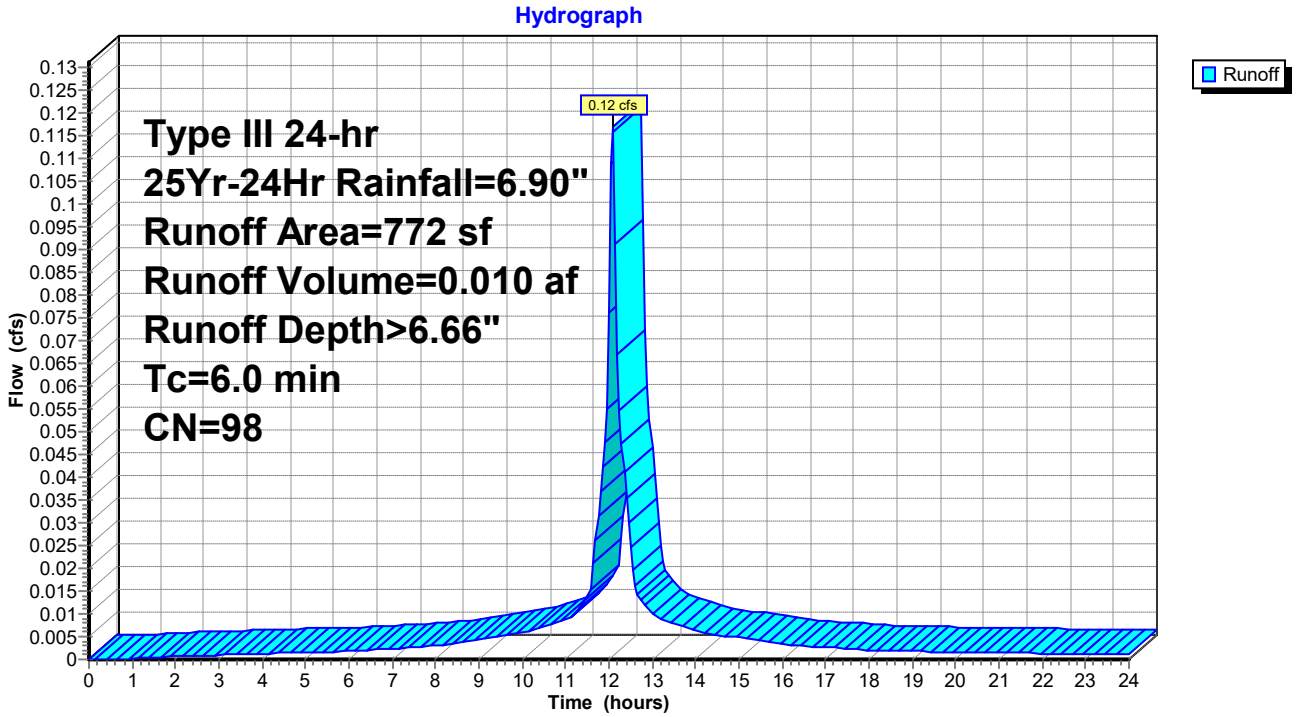
Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 6.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
772	98	Paved parking, HSG C
772		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 5S: Subcatchment #5



Summary for Subcatchment 6S: Subcatchment #6

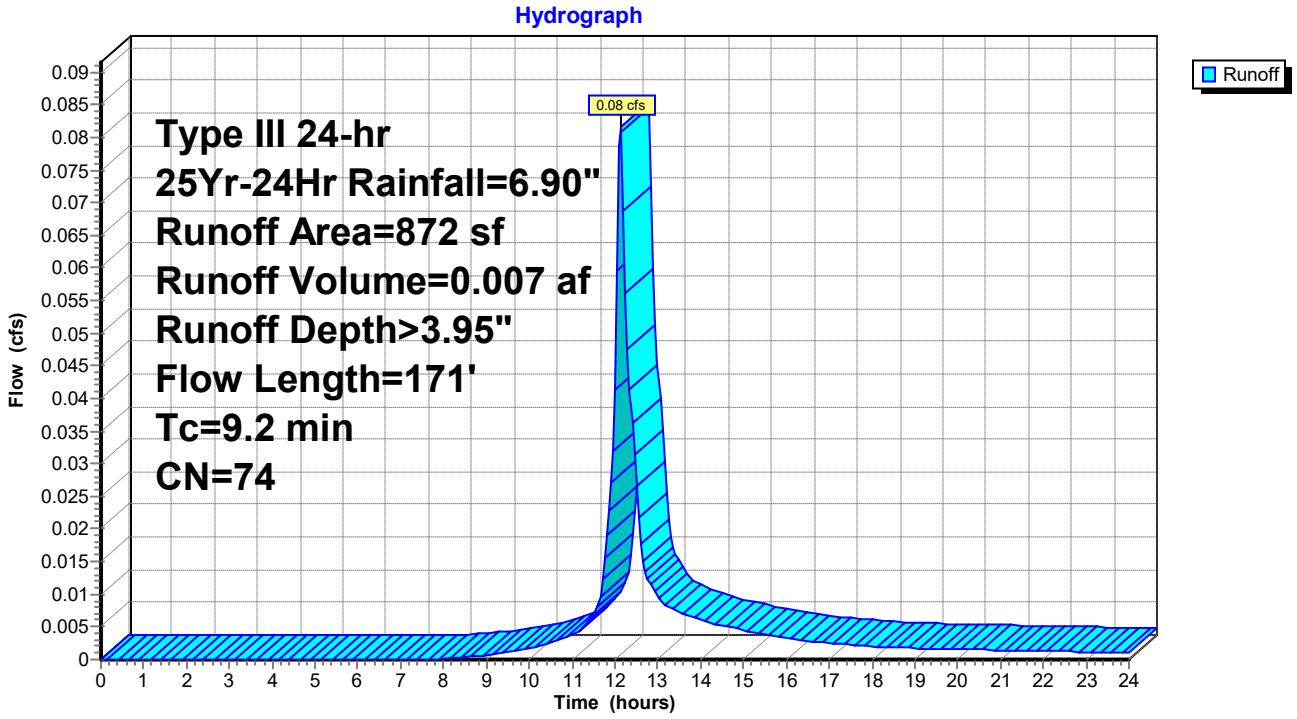
Runoff = 0.08 cfs @ 12.13 hrs, Volume= 0.007 af, Depth> 3.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
872	74	>75% Grass cover, Good, HSG C
872		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.0250	0.20		**Sheet Flow, Segment #1** Grass: Short n= 0.150 P2= 3.62"
0.8	71	0.0492	1.55		**Shallow Concentrated Flow, Segment #2** Short Grass Pasture Kv= 7.0 fps
9.2	171	Total			

Subcatchment 6S: Subcatchment #6



Summary for Subcatchment 7S: (new Subcat)

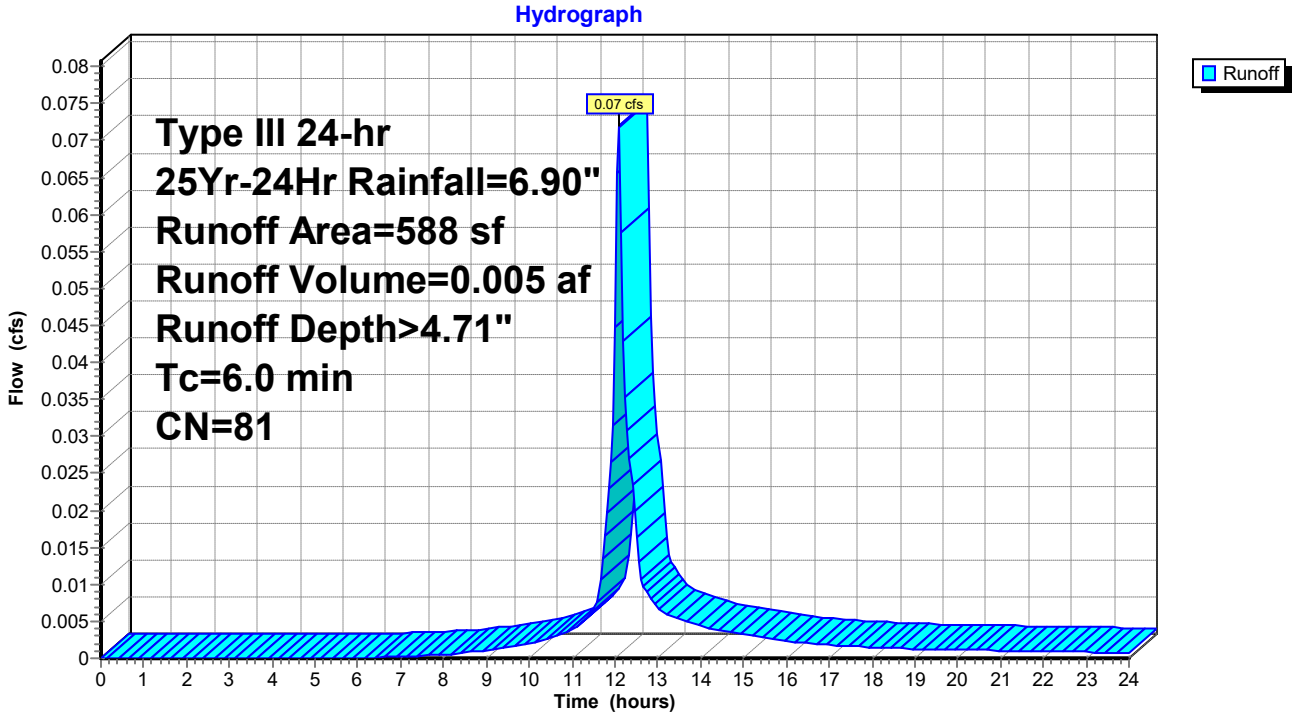
Runoff = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 4.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
48	74	>75% Grass cover, Good, HSG C
191	98	Paved parking, HSG C
349	72	Woods/grass comb., Good, HSG C
588	81	Weighted Average
397		67.52% Pervious Area
191		32.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 7S: (new Subcat)



Summary for Subcatchment 11S: Subcatchment #11

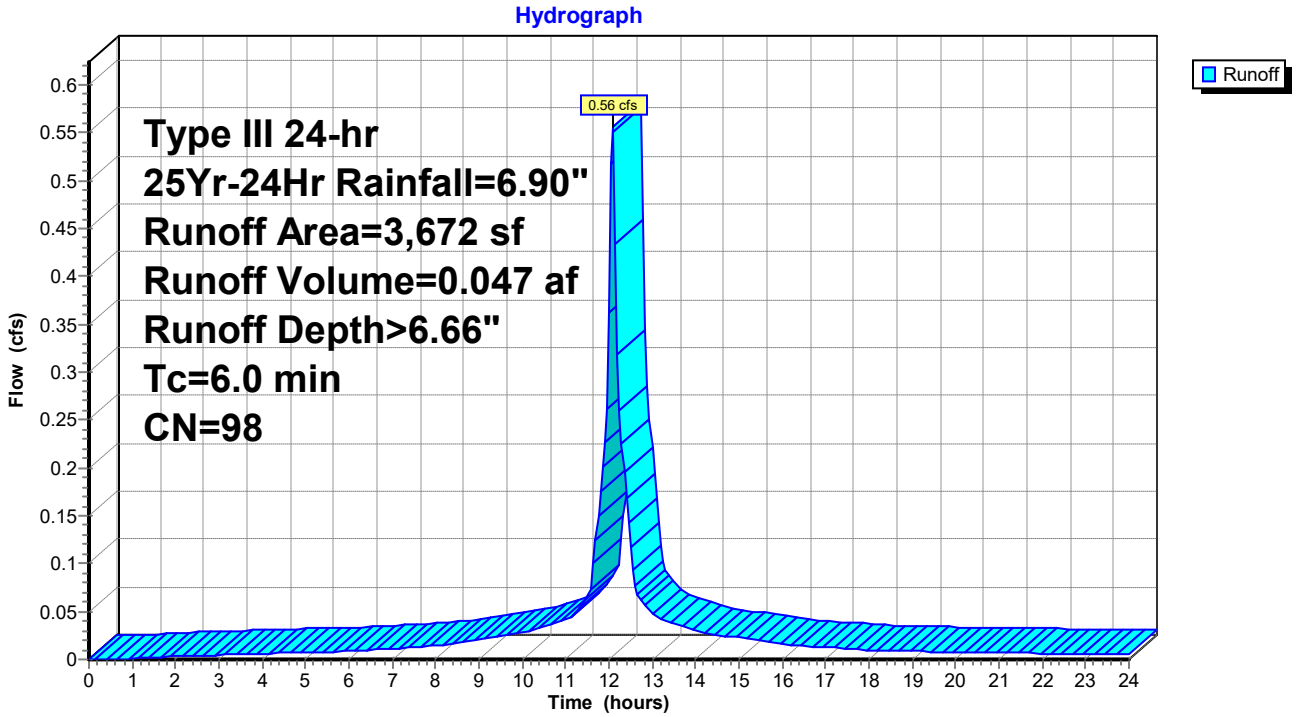
Runoff = 0.56 cfs @ 12.09 hrs, Volume= 0.047 af, Depth> 6.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
3,672	98	Roofs, HSG C
3,672		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 11S: Subcatchment #11



Summary for Subcatchment 12S: Subcatchment #12

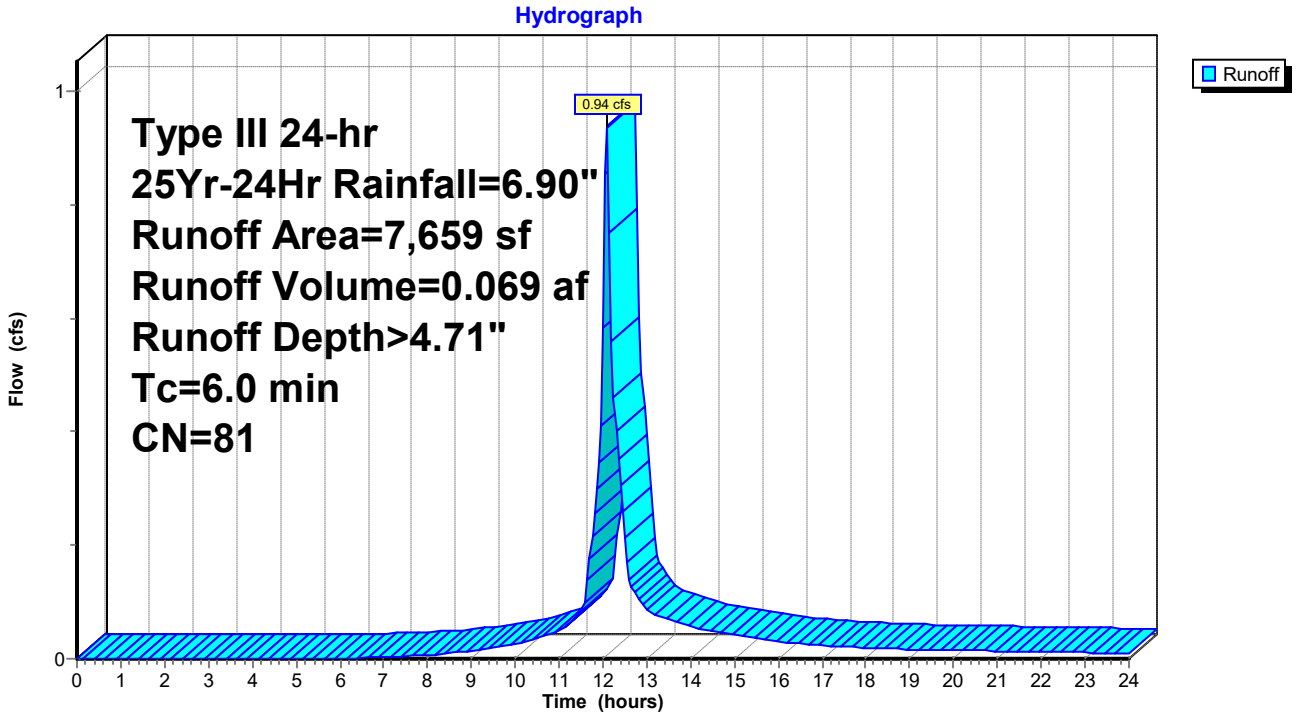
Runoff = 0.94 cfs @ 12.09 hrs, Volume= 0.069 af, Depth> 4.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
2,659	98	Roofs, HSG C
5,000	72	Woods/grass comb., Good, HSG C
7,659	81	Weighted Average
5,000		65.28% Pervious Area
2,659		34.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 12S: Subcatchment #12



Summary for Subcatchment 13S: Subcatchmnt #13

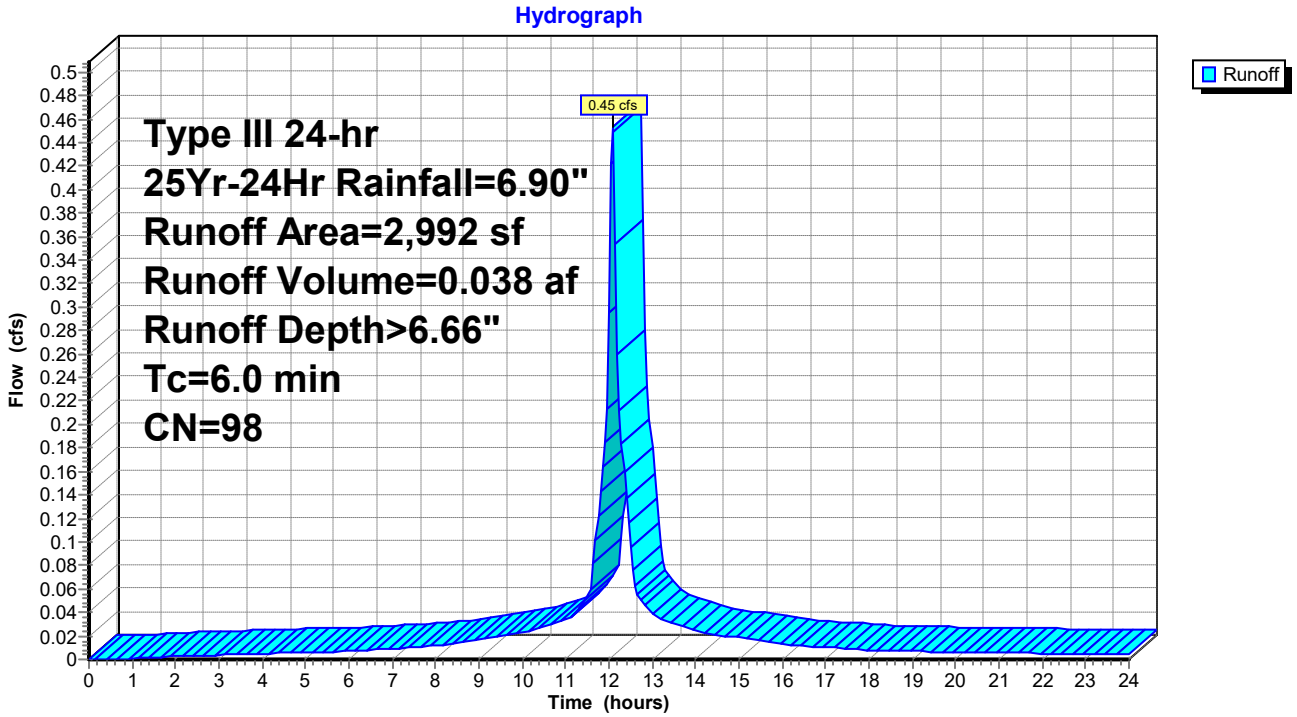
Runoff = 0.45 cfs @ 12.09 hrs, Volume= 0.038 af, Depth> 6.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
2,992	98	Roofs, HSG C
2,992		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 13S: Subcatchmnt #13



Summary for Subcatchment 14S: Subcatchment #14

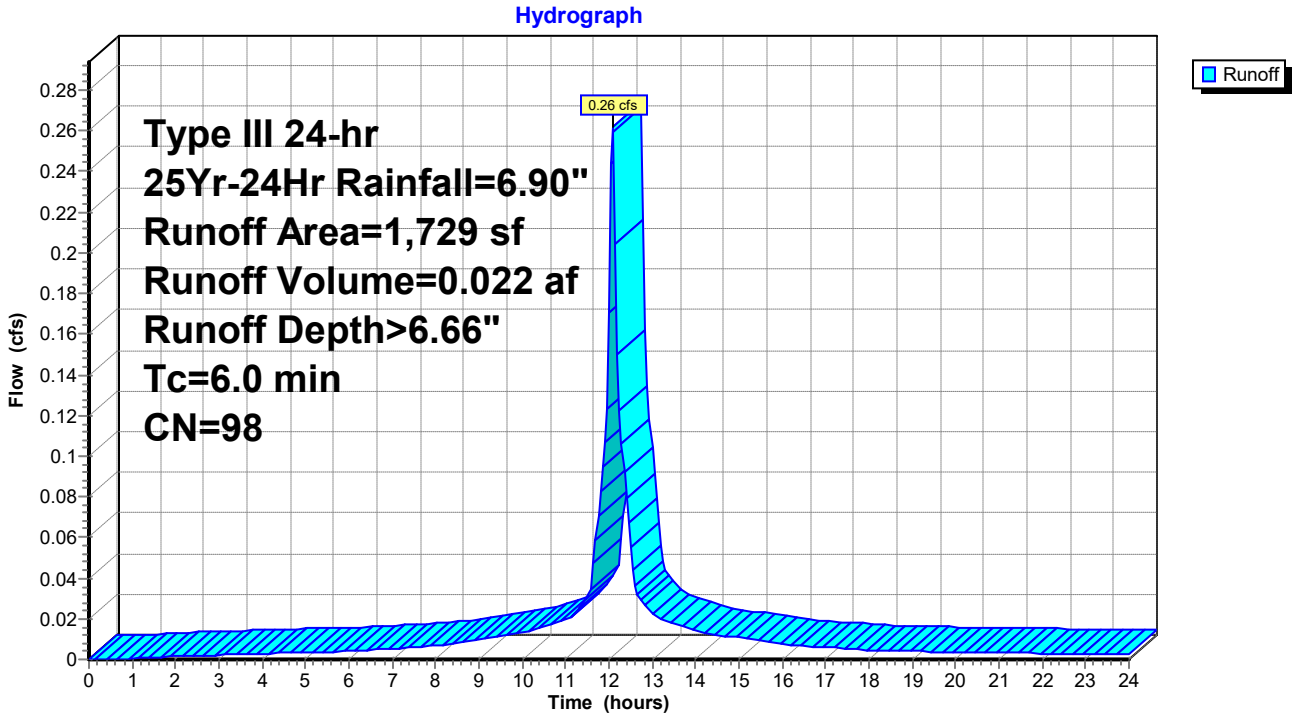
Runoff = 0.26 cfs @ 12.09 hrs, Volume= 0.022 af, Depth> 6.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
1,729	98	Roofs, HSG C
1,729		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 14S: Subcatchment #14



Summary for Subcatchment 15S: (new Subcat)

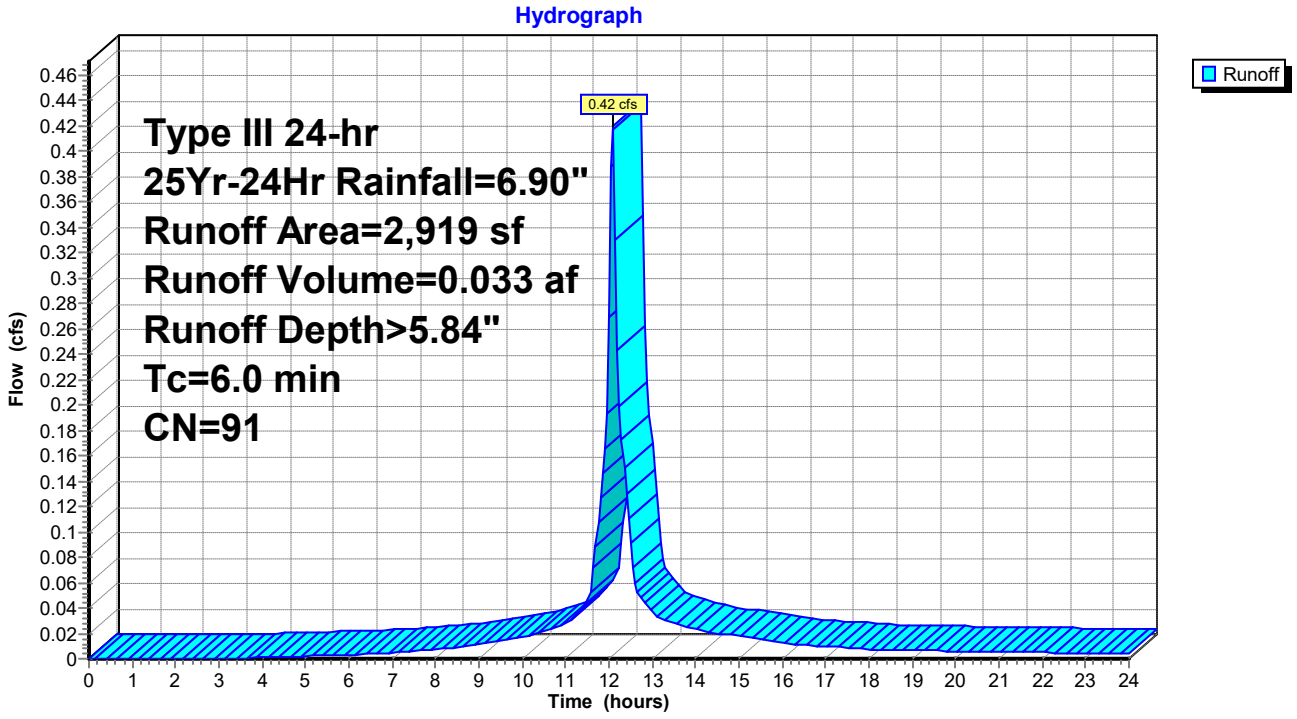
Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.033 af, Depth> 5.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25Yr-24Hr Rainfall=6.90"

Area (sf)	CN	Description
2,119	98	Roofs, HSG C
800	72	Woods/grass comb., Good, HSG C
2,919	91	Weighted Average
800		27.41% Pervious Area
2,119		72.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Direct Entry**

Subcatchment 15S: (new Subcat)



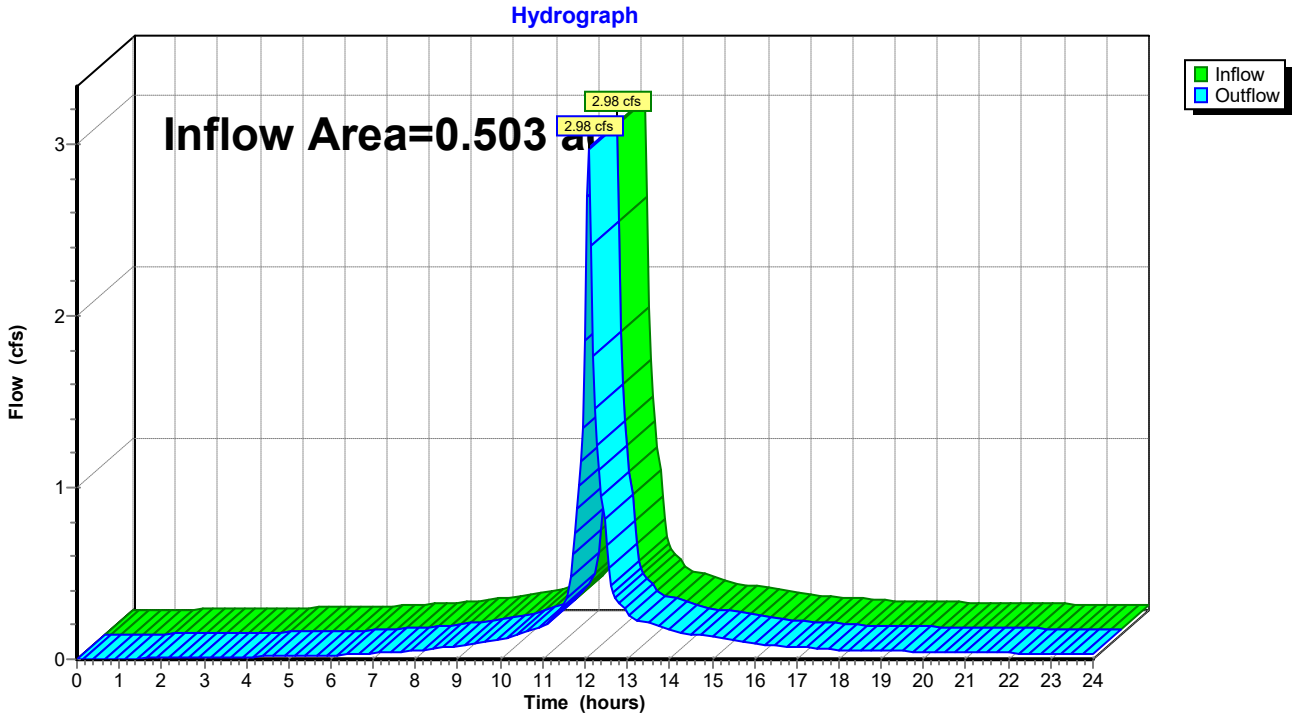
Summary for Reach 100R: Final Reach #100

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.503 ac, 64.54% Impervious, Inflow Depth > 5.61" for 25Yr-24Hr event
Inflow = 2.98 cfs @ 12.09 hrs, Volume= 0.235 af
Outflow = 2.98 cfs @ 12.09 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 100R: Final Reach #100



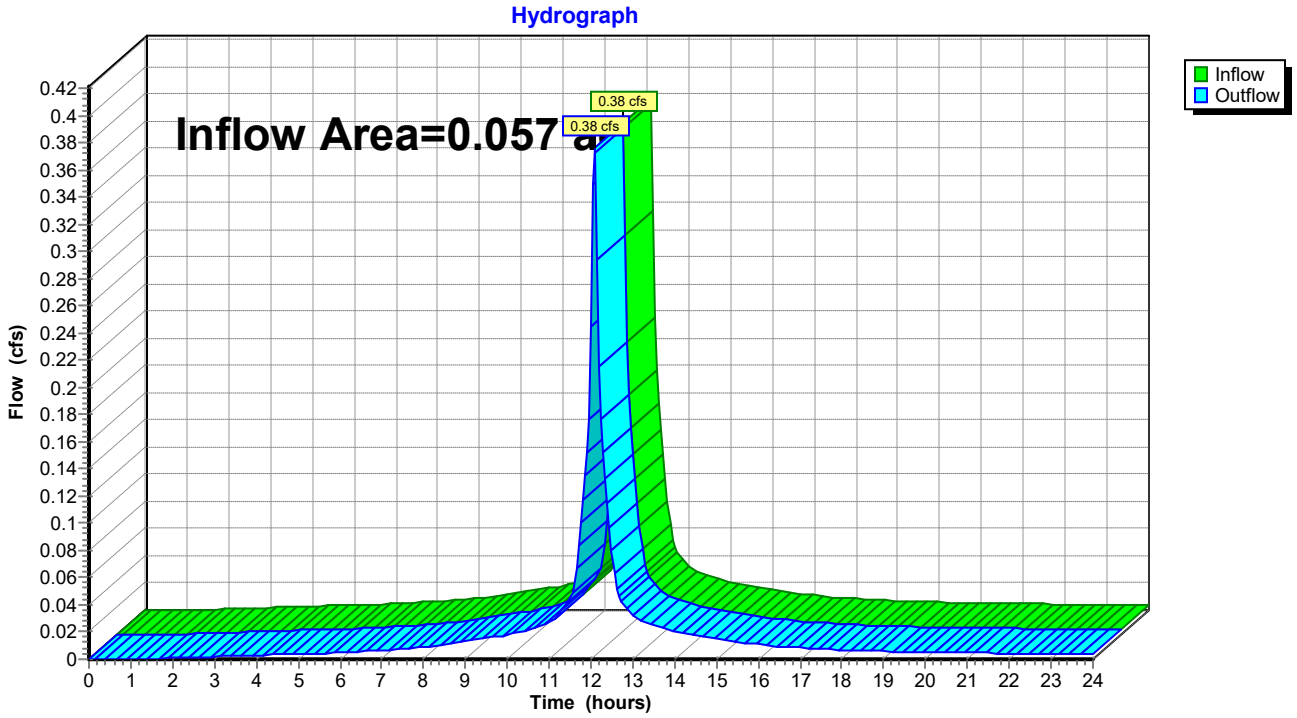
Summary for Reach 200R: Final Reach #200

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.057 ac, 92.37% Impervious, Inflow Depth > 6.42" for 25Yr-24Hr event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af
Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 200R: Final Reach #200



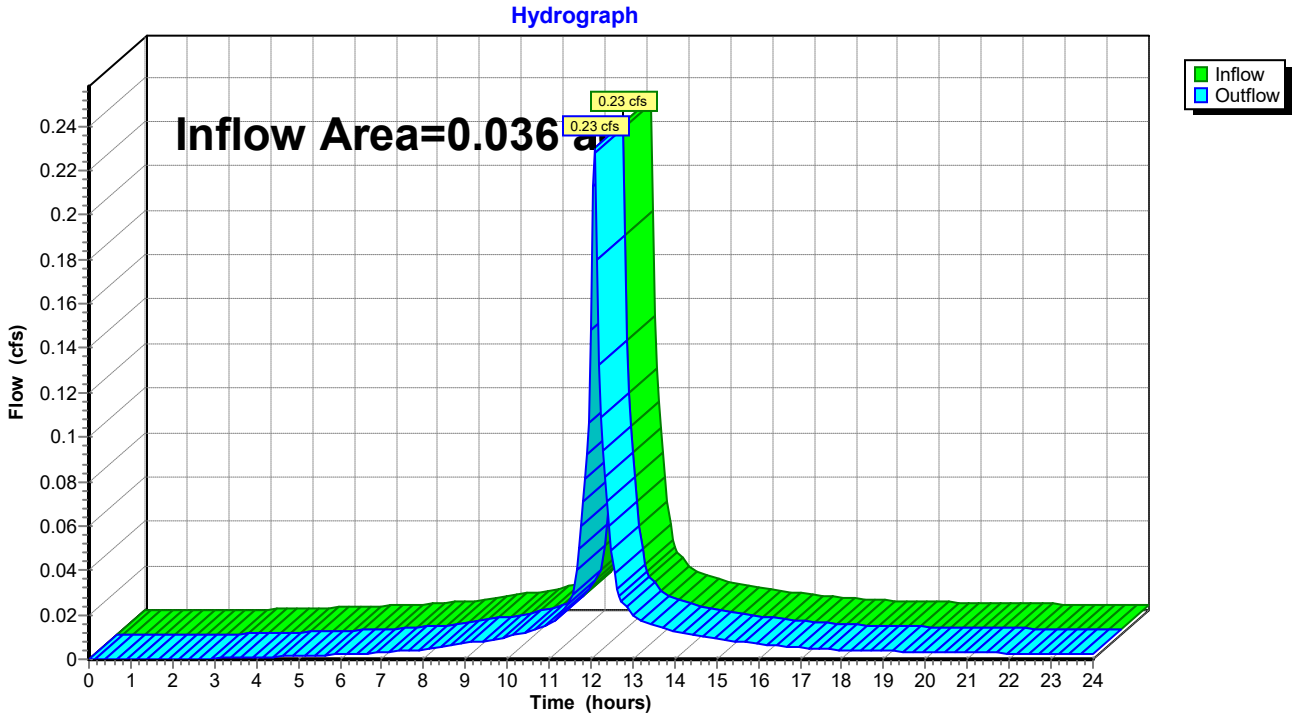
Summary for Reach 300R: Final Reach #300

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.036 ac, 78.62% Impervious, Inflow Depth > 6.07" for 25Yr-24Hr event
Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af
Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 300R: Final Reach #300



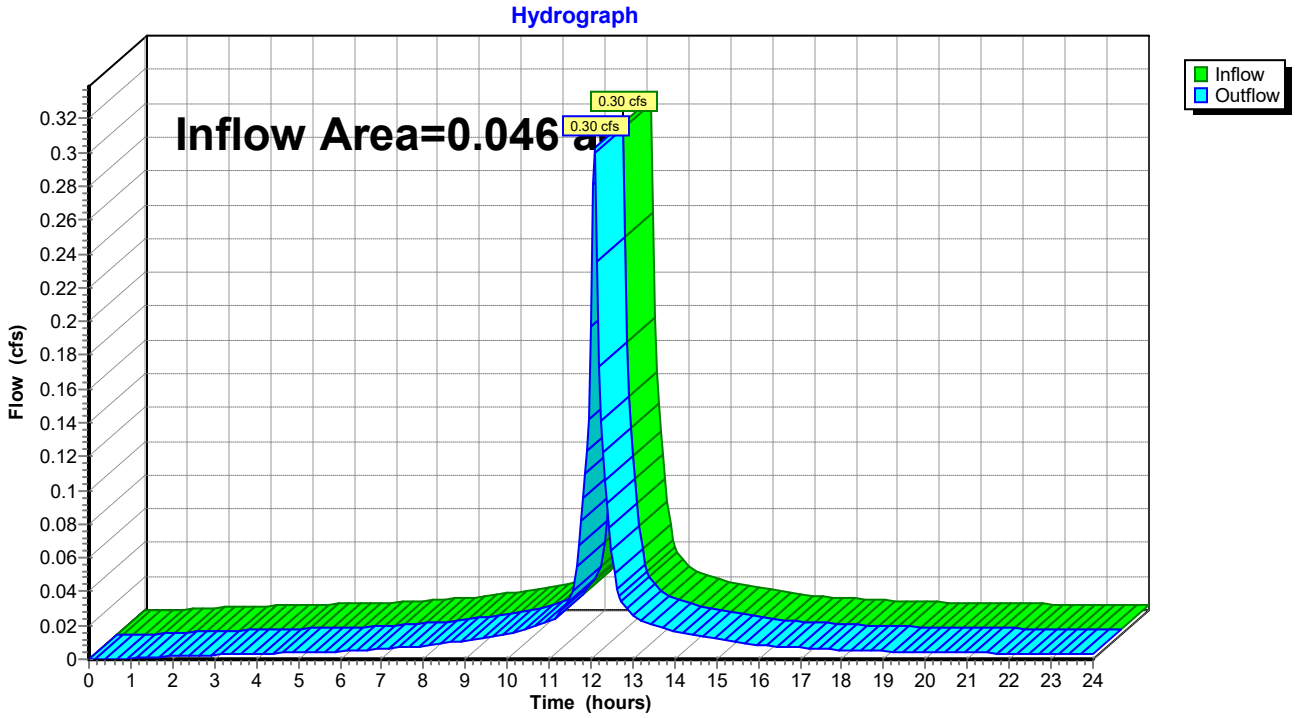
Summary for Reach 400R: Final Reach #400

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth > 6.66" for 25Yr-24Hr event
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af
Outflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 400R: Final Reach #400



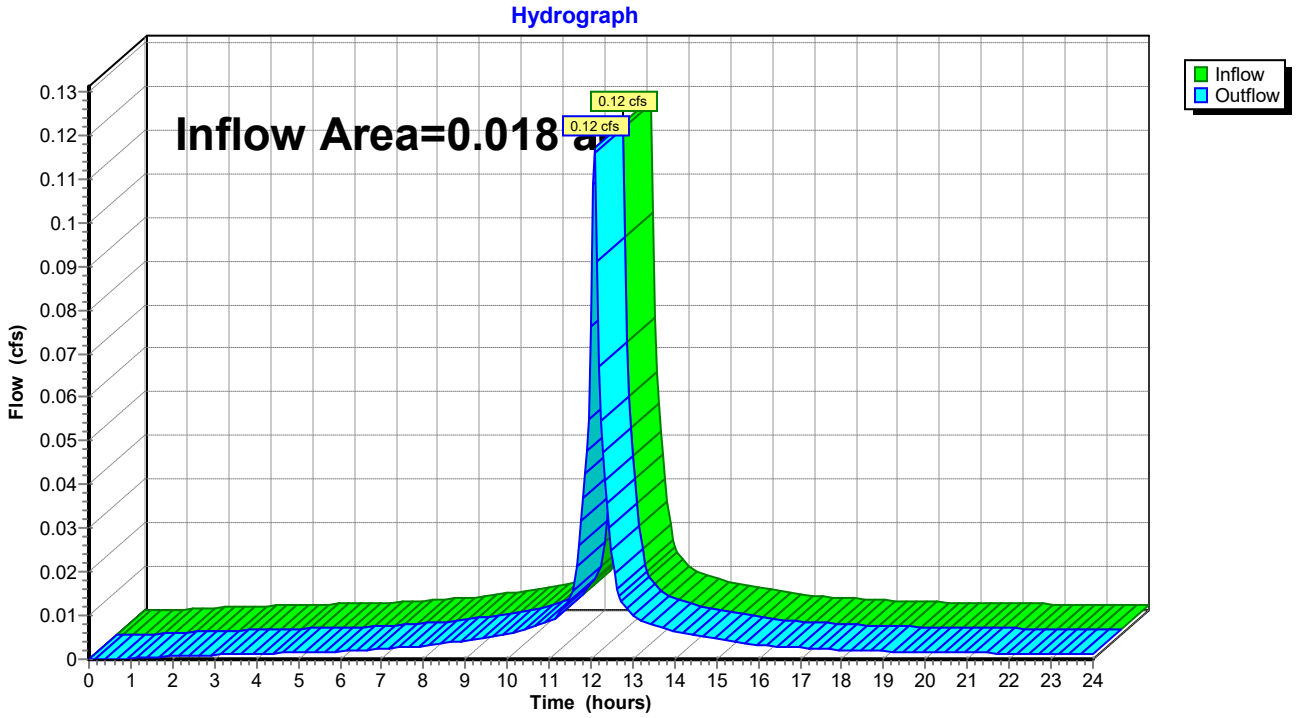
Summary for Reach 500R: Final Reach #500

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.018 ac,100.00% Impervious, Inflow Depth > 6.66" for 25Yr-24Hr event
Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af
Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 500R: Final Reach #500



Summary for Pond 1P: Ex. CB 1

Inflow Area = 0.034 ac, 52.72% Impervious, Inflow Depth > 5.27" for 25Yr-24Hr event
Inflow = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af
Outflow = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.2 min
Primary = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.35' @ 12.09 hrs Surf.Area= 0.000 ac Storage= 0.000 af

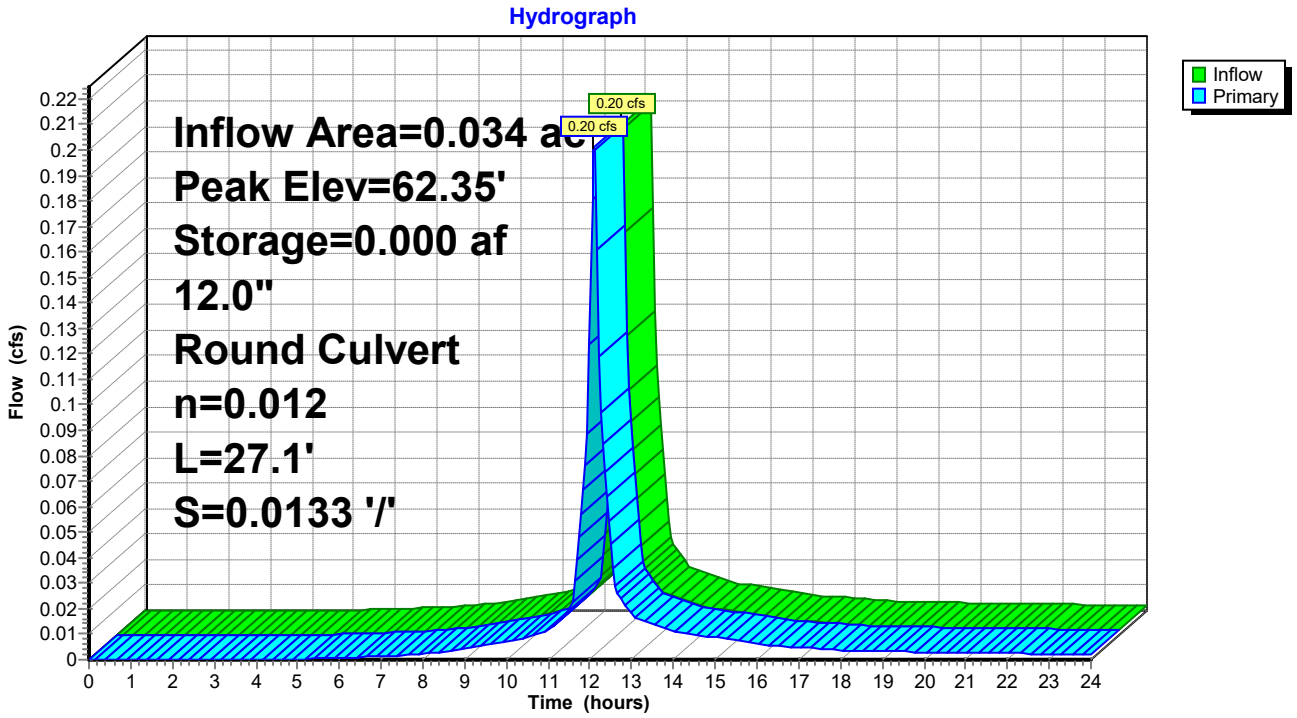
Plug-Flow detention time= 0.7 min calculated for 0.015 af (100% of inflow)
Center-of-Mass det. time= 0.6 min (792.9 - 792.3)

Volume	Invert	Avail.Storage	Storage Description
#1	62.13'	0.001 af	**4.00'D x 3.55'H 4" Structure**

Device	Routing	Invert	Outlet Devices
#1	Primary	62.13'	**12.0" Round 12" HDPE N-12** L= 27.1' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.13' / 61.77' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 12.09 hrs HW=62.35' (Free Discharge)
1=12" HDPE N-12 (Inlet Controls 0.20 cfs @ 1.58 fps)

Pond 1P: Ex. CB 1



Summary for Pond 2P: Ex. CB 2

[79] Warning: Submerged Pond 1P Primary device # 1 OUTLET by 0.18'

Inflow Area = 0.034 ac, 52.72% Impervious, Inflow Depth > 5.26" for 25Yr-24Hr event
Inflow = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af
Outflow = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.1 min
Primary = 0.20 cfs @ 12.09 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 61.95' @ 12.09 hrs Surf.Area= 0.000 ac Storage= 0.000 af

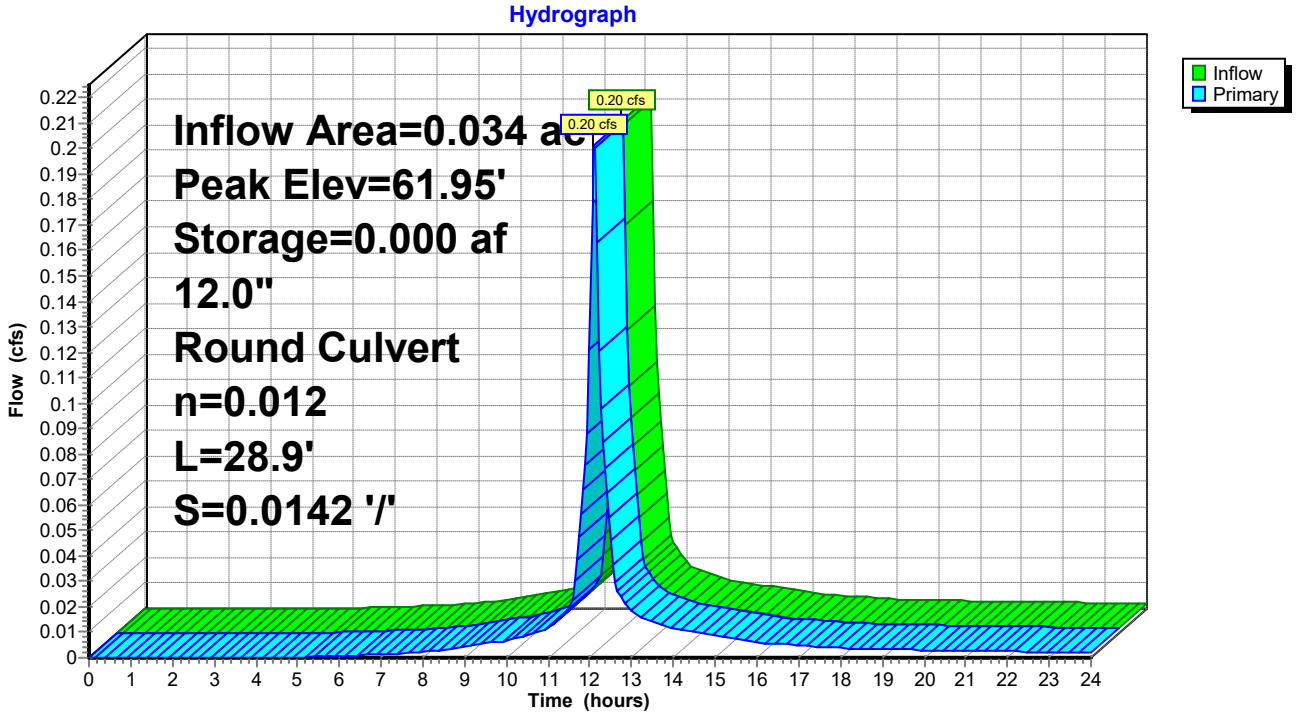
Plug-Flow detention time= 0.7 min calculated for 0.015 af (100% of inflow)
Center-of-Mass det. time= 0.6 min (793.4 - 792.9)

Volume	Invert	Avail.Storage	Storage Description
#1	61.73'	0.001 af	**4.00'D x 3.24'H 4" Structure**

Device	Routing	Invert	Outlet Devices
#1	Primary	61.73'	**12.0" Round 12" HDPE N-12** L= 28.9' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.73' / 61.32' S= 0.0142 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 12.09 hrs HW=61.95' (Free Discharge)
1=12" HDPE N-12 (Inlet Controls 0.20 cfs @ 1.58 fps)

Pond 2P: Ex. CB 2



Summary for Pond 3P: Slot Drain

[57] Hint: Peaked at 64.26' (Flood elevation advised)

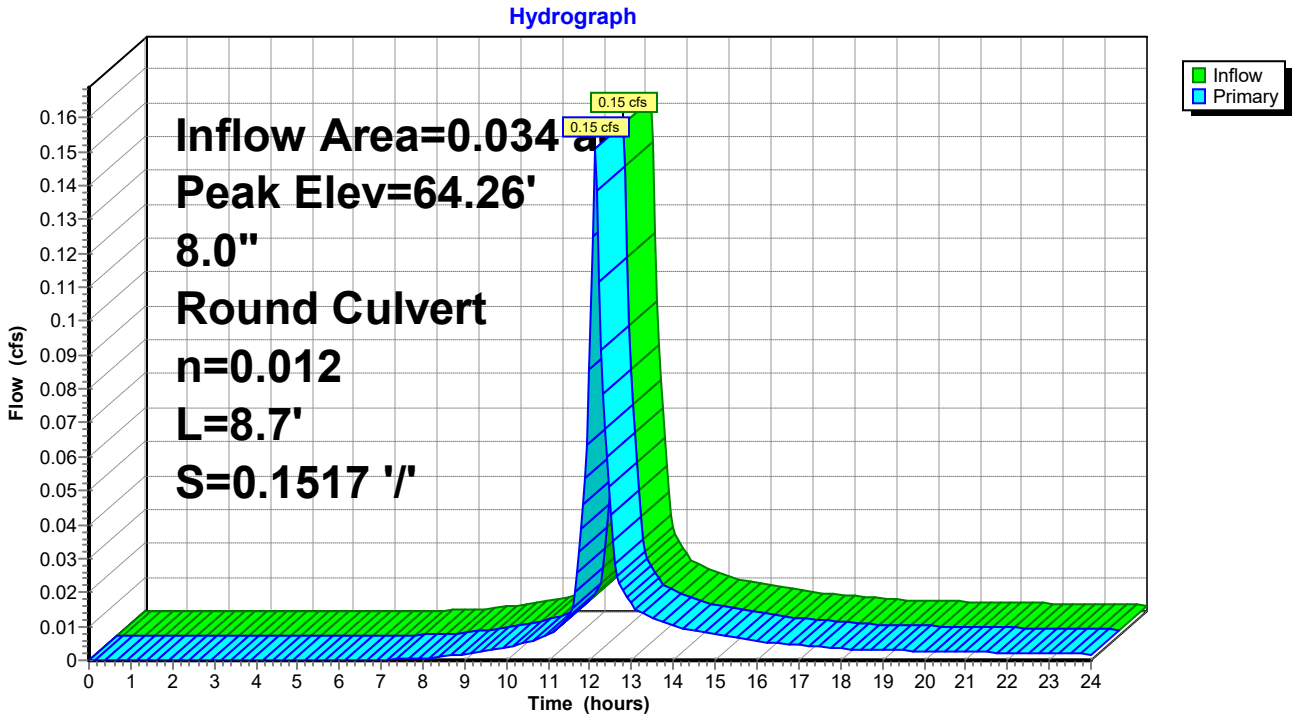
Inflow Area = 0.034 ac, 13.08% Impervious, Inflow Depth > 4.25" for 25Yr-24Hr event
Inflow = 0.15 cfs @ 12.11 hrs, Volume= 0.012 af
Outflow = 0.15 cfs @ 12.11 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min
Primary = 0.15 cfs @ 12.11 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.26' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	64.05'	**8.0" Round Culvert** L= 8.7' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 64.05' / 62.73' S= 0.1517 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=0.15 cfs @ 12.11 hrs HW=64.26' (Free Discharge)
1=Culvert (Inlet Controls 0.15 cfs @ 1.56 fps)

Pond 3P: Slot Drain



Summary for Pond 4P: Roof Drains

[57] Hint: Peaked at 62.46' (Flood elevation advised)

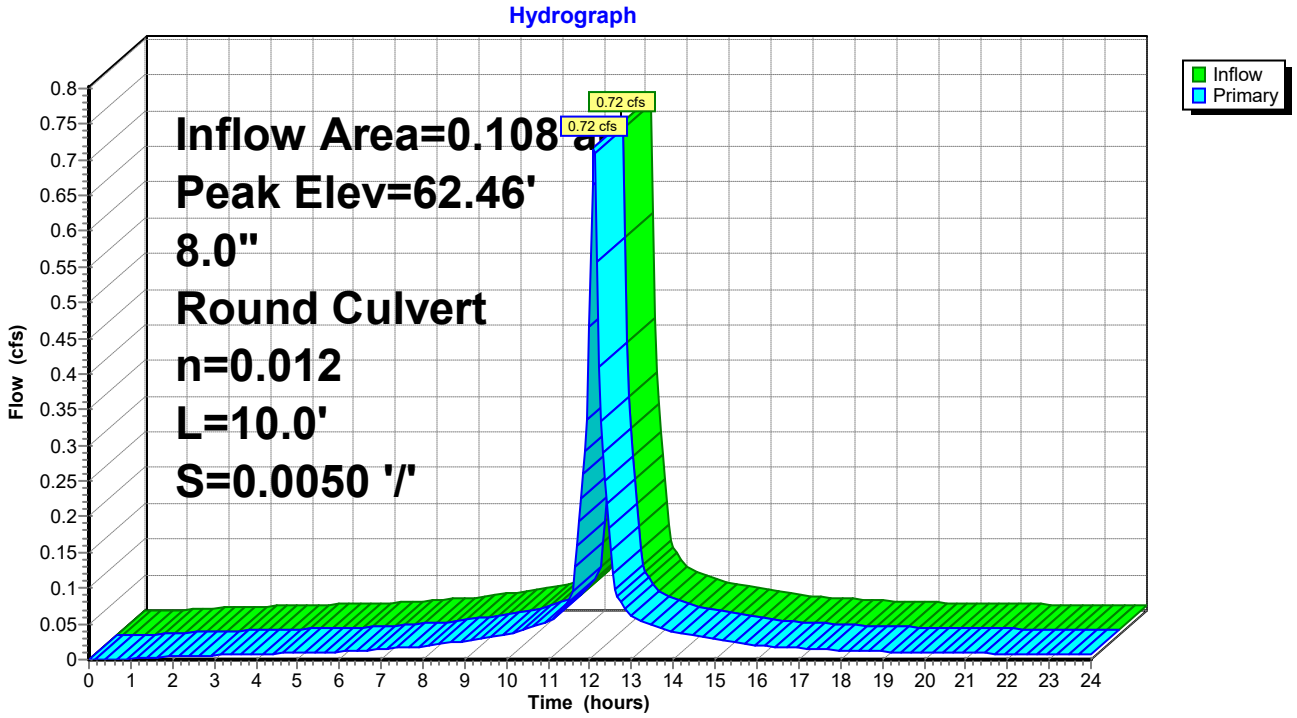
Inflow Area = 0.108 ac,100.00% Impervious, Inflow Depth > 6.66" for 25Yr-24Hr event
Inflow = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af
Outflow = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.0 min
Primary = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.46' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.83'	**8.0" Round 8" HDPE N-12** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.83' / 61.78' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=0.70 cfs @ 12.09 hrs HW=62.45' (Free Discharge)
1=8" HDPE N-12 (Barrel Controls 0.70 cfs @ 2.67 fps)

Pond 4P: Roof Drains



Summary for Pond 5P: Roof Drains

[57] Hint: Peaked at 63.79' (Flood elevation advised)

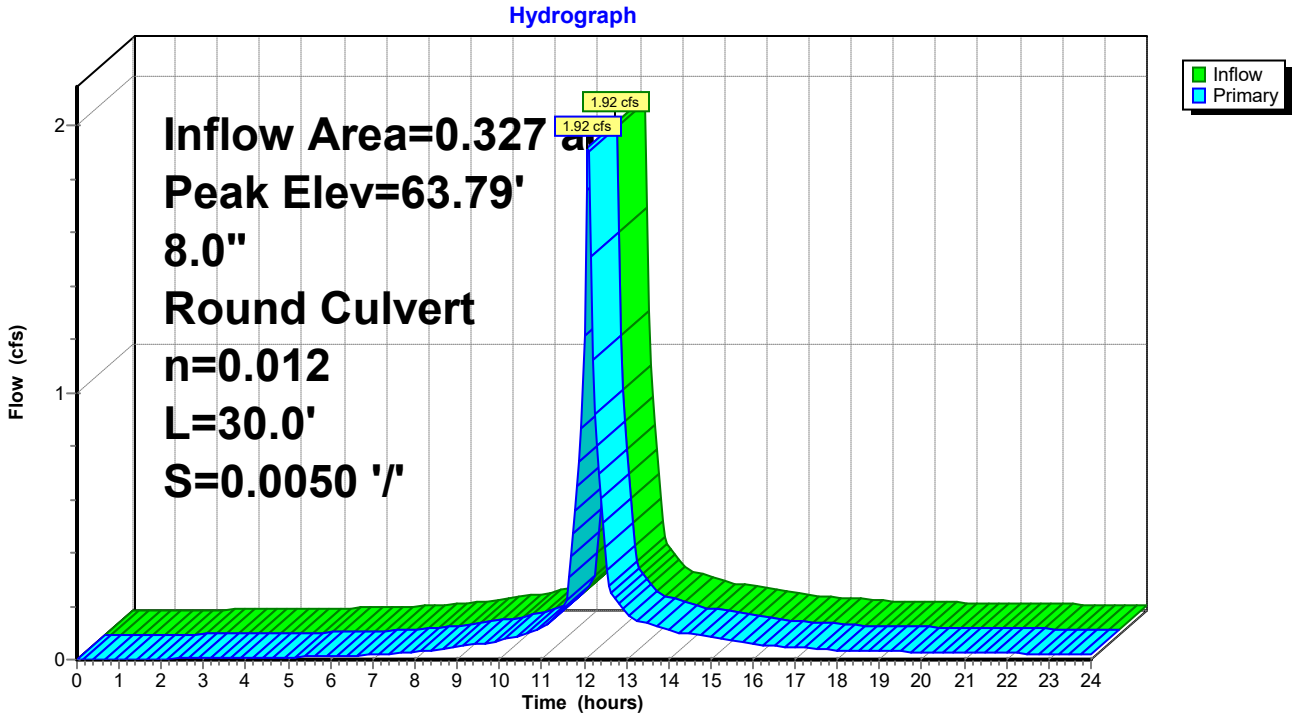
Inflow Area = 0.327 ac, 59.30% Impervious, Inflow Depth > 5.44" for 25Yr-24Hr event
Inflow = 1.92 cfs @ 12.09 hrs, Volume= 0.148 af
Outflow = 1.92 cfs @ 12.09 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min
Primary = 1.92 cfs @ 12.09 hrs, Volume= 0.148 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 63.79' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.93'	**8.0" Round 8" HDPE N-12** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.93' / 61.78' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=1.87 cfs @ 12.09 hrs HW=63.73' (Free Discharge)
1=8" HDPE N-12 (Barrel Controls 1.87 cfs @ 5.36 fps)

Pond 5P: Roof Drains



Summary for Pond C01P: Yard Drain

Inflow Area = 0.020 ac, 0.00% Impervious, Inflow Depth > 3.95" for 25Yr-24Hr event
Inflow = 0.08 cfs @ 12.13 hrs, Volume= 0.007 af
Outflow = 0.08 cfs @ 12.13 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min
Primary = 0.08 cfs @ 12.13 hrs, Volume= 0.007 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 66.15' @ 12.13 hrs Surf.Area= 2 sf Storage= 0 cf

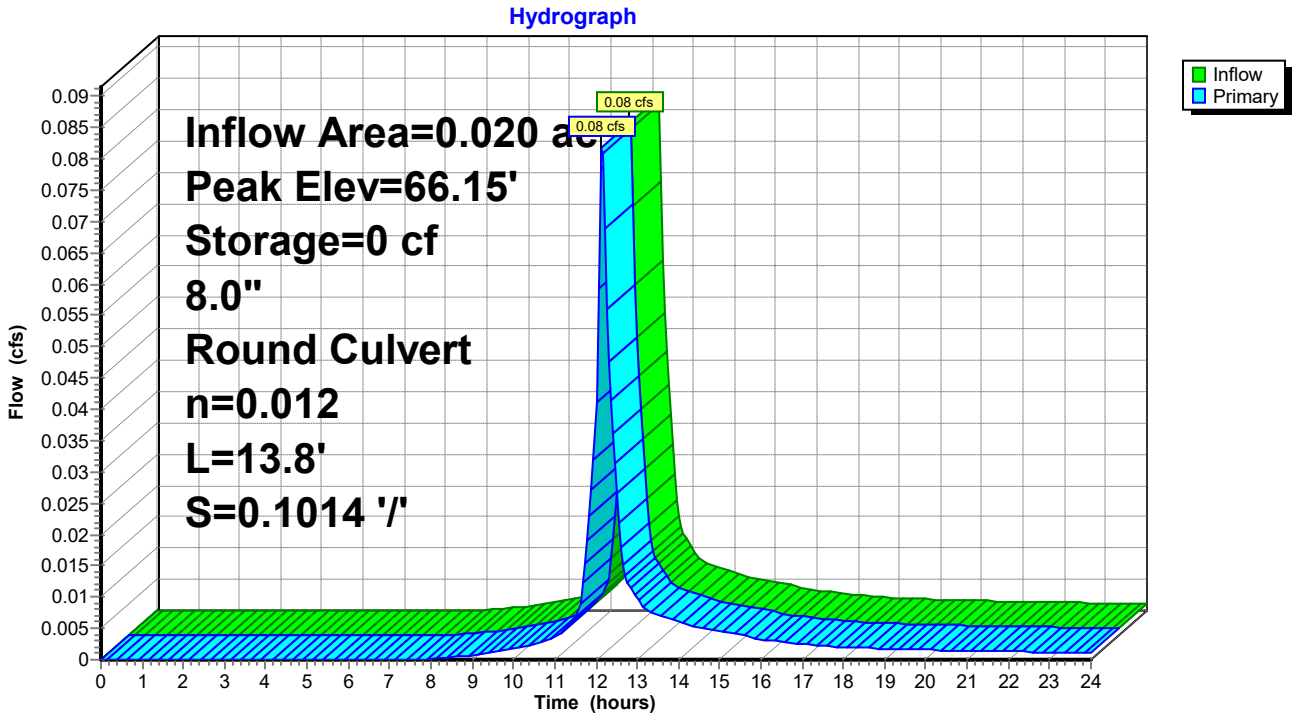
Plug-Flow detention time= 0.1 min calculated for 0.007 af (100% of inflow)
Center-of-Mass det. time= 0.1 min (824.7 - 824.6)

Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	7 cf	**1.50'D x 4.00'H 18" Structure**

Device	Routing	Invert	Outlet Devices
#1	Primary	66.00'	**8.0" Round 8" HDPE N-12** L= 13.8' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.00' / 64.60' S= 0.1014 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=0.08 cfs @ 12.13 hrs HW=66.15' (Free Discharge)
1=8" HDPE N-12 (Inlet Controls 0.08 cfs @ 1.33 fps)

Pond C01P: Yard Drain



Summary for Pond D01P: Drain Manhole #1

[81] Warning: Exceeded Pond 4P by 0.20' @ 12.10 hrs
[79] Warning: Submerged Pond 5P Primary device # 1 INLET by 0.73'

Inflow Area = 0.469 ac, 65.40% Impervious, Inflow Depth > 5.64" for 25Yr-24Hr event
Inflow = 2.78 cfs @ 12.09 hrs, Volume= 0.220 af
Outflow = 2.78 cfs @ 12.09 hrs, Volume= 0.220 af, Atten= 0%, Lag= 0.1 min
Primary = 2.78 cfs @ 12.09 hrs, Volume= 0.220 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 62.66' @ 12.09 hrs Surf.Area= 20 sf Storage= 24 cf

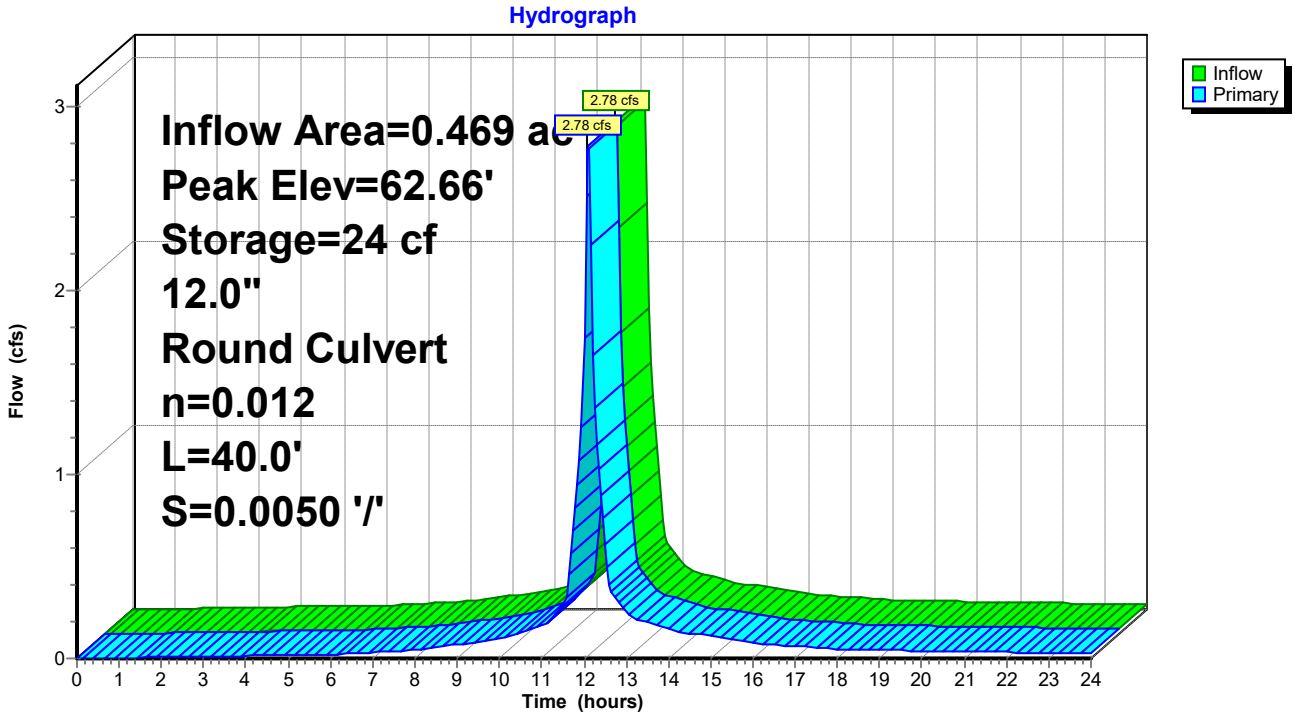
Plug-Flow detention time= 0.4 min calculated for 0.220 af (100% of inflow)
Center-of-Mass det. time= 0.3 min (771.7 - 771.3)

Volume	Invert	Avail.Storage	Storage Description
#1	61.45'	79 cf	**5.00'D x 4.00'H 5' Structure**

Device	Routing	Invert	Outlet Devices
#1	Primary	61.45'	**12.0" Round 12" HDPE N-12** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.45' / 61.25' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.73 cfs @ 12.09 hrs HW=62.64' (Free Discharge)
↑—**1=12" HDPE N-12** (Barrel Controls 2.73 cfs @ 3.70 fps)

Pond D01P: Drain Manhole #1



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Subcatchment #1 Runoff Area=1,491 sf 52.72% Impervious Runoff Depth>2.20"
Flow Length=173' Tc=6.0 min CN=86 Runoff=0.09 cfs 0.006 af

Subcatchment 2S: Subcatchment #2 Runoff Area=2,502 sf 92.37% Impervious Runoff Depth>3.16"
Tc=6.0 min CN=96 Runoff=0.19 cfs 0.015 af

Subcatchment 3S: Subcatchment #3 Runoff Area=1,567 sf 78.62% Impervious Runoff Depth>2.85"
Tc=6.0 min CN=93 Runoff=0.11 cfs 0.009 af

Subcatchment 4S: Subcatchment #4 Runoff Area=1,995 sf 100.00% Impervious Runoff Depth>3.38"
Tc=6.0 min CN=98 Runoff=0.16 cfs 0.013 af

Subcatchment 5S: Subcatchment #5 Runoff Area=772 sf 100.00% Impervious Runoff Depth>3.38"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 6S: Subcatchment #6 Runoff Area=872 sf 0.00% Impervious Runoff Depth>1.32"
Flow Length=171' Tc=9.2 min CN=74 Runoff=0.03 cfs 0.002 af

Subcatchment 7S: (new Subcat) Runoff Area=588 sf 32.48% Impervious Runoff Depth>1.80"
Tc=6.0 min CN=81 Runoff=0.03 cfs 0.002 af

Subcatchment 11S: Subcatchment #11 Runoff Area=3,672 sf 100.00% Impervious Runoff Depth>3.38"
Tc=6.0 min CN=98 Runoff=0.29 cfs 0.024 af

Subcatchment 12S: Subcatchment #12 Runoff Area=7,659 sf 34.72% Impervious Runoff Depth>1.80"
Tc=6.0 min CN=81 Runoff=0.36 cfs 0.026 af

Subcatchment 13S: Subcatchmnt #13 Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>3.38"
Tc=6.0 min CN=98 Runoff=0.24 cfs 0.019 af

Subcatchment 14S: Subcatchment #14 Runoff Area=1,729 sf 100.00% Impervious Runoff Depth>3.38"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 15S: (new Subcat) Runoff Area=2,919 sf 72.59% Impervious Runoff Depth>2.65"
Tc=6.0 min CN=91 Runoff=0.20 cfs 0.015 af

Reach 100R: Final Reach #100 Inflow=1.37 cfs 0.106 af
Outflow=1.37 cfs 0.106 af

Reach 200R: Final Reach #200 Inflow=0.19 cfs 0.015 af
Outflow=0.19 cfs 0.015 af

Reach 300R: Final Reach #300 Inflow=0.11 cfs 0.009 af
Outflow=0.11 cfs 0.009 af

Reach 400R: Final Reach #400 Inflow=0.16 cfs 0.013 af
Outflow=0.16 cfs 0.013 af

Reach 500R: Final Reach #500 Inflow=0.06 cfs 0.005 af
Outflow=0.06 cfs 0.005 af

Pond 1P: Ex. CB 1 Peak Elev=62.27' Storage=0.000 af Inflow=0.09 cfs 0.006 af
12.0" Round Culvert n=0.012 L=27.1' S=0.0133 '/' Outflow=0.09 cfs 0.006 af

Pond 2P: Ex. CB 2 Peak Elev=61.87' Storage=0.000 af Inflow=0.09 cfs 0.006 af
12.0" Round Culvert n=0.012 L=28.9' S=0.0142 '/' Outflow=0.09 cfs 0.006 af

Pond 3P: Slot Drain Peak Elev=64.17' Inflow=0.05 cfs 0.004 af
8.0" Round Culvert n=0.012 L=8.7' S=0.1517 '/' Outflow=0.05 cfs 0.004 af

Pond 4P: Roof Drains Peak Elev=62.26' Inflow=0.37 cfs 0.031 af
8.0" Round Culvert n=0.012 L=10.0' S=0.0050 '/' Outflow=0.37 cfs 0.031 af

Pond 5P: Roof Drains Peak Elev=62.64' Inflow=0.85 cfs 0.065 af
8.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=0.85 cfs 0.065 af

Pond C01P: Yard Drain Peak Elev=66.09' Storage=0 cf Inflow=0.03 cfs 0.002 af
8.0" Round Culvert n=0.012 L=13.8' S=0.1014 '/' Outflow=0.03 cfs 0.002 af

Pond D01P: Drain Manhole #1 Peak Elev=62.15' Storage=14 cf Inflow=1.28 cfs 0.100 af
12.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=1.28 cfs 0.100 af

Total Runoff Area = 0.660 ac Runoff Volume = 0.148 af Average Runoff Depth = 2.68"
28.86% Pervious = 0.191 ac 71.14% Impervious = 0.470 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Subcatchment #1 Runoff Area=1,491 sf 52.72% Impervious Runoff Depth>3.90"
Flow Length=173' Tc=6.0 min CN=86 Runoff=0.15 cfs 0.011 af

Subcatchment 2S: Subcatchment #2 Runoff Area=2,502 sf 92.37% Impervious Runoff Depth>4.99"
Tc=6.0 min CN=96 Runoff=0.30 cfs 0.024 af

Subcatchment 3S: Subcatchment #3 Runoff Area=1,567 sf 78.62% Impervious Runoff Depth>4.65"
Tc=6.0 min CN=93 Runoff=0.18 cfs 0.014 af

Subcatchment 4S: Subcatchment #4 Runoff Area=1,995 sf 100.00% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=98 Runoff=0.24 cfs 0.020 af

Subcatchment 5S: Subcatchment #5 Runoff Area=772 sf 100.00% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=98 Runoff=0.09 cfs 0.008 af

Subcatchment 6S: Subcatchment #6 Runoff Area=872 sf 0.00% Impervious Runoff Depth>2.73"
Flow Length=171' Tc=9.2 min CN=74 Runoff=0.06 cfs 0.005 af

Subcatchment 7S: (new Subcat) Runoff Area=588 sf 32.48% Impervious Runoff Depth>3.39"
Tc=6.0 min CN=81 Runoff=0.05 cfs 0.004 af

Subcatchment 11S: Subcatchment #11 Runoff Area=3,672 sf 100.00% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=98 Runoff=0.44 cfs 0.037 af

Subcatchment 12S: Subcatchment #12 Runoff Area=7,659 sf 34.72% Impervious Runoff Depth>3.39"
Tc=6.0 min CN=81 Runoff=0.68 cfs 0.050 af

Subcatchment 13S: Subcatchmnt #13 Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=98 Runoff=0.36 cfs 0.030 af

Subcatchment 14S: Subcatchment #14 Runoff Area=1,729 sf 100.00% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=98 Runoff=0.21 cfs 0.017 af

Subcatchment 15S: (new Subcat) Runoff Area=2,919 sf 72.59% Impervious Runoff Depth>4.43"
Tc=6.0 min CN=91 Runoff=0.32 cfs 0.025 af

Reach 100R: Final Reach #100 Inflow=2.27 cfs 0.178 af
Outflow=2.27 cfs 0.178 af

Reach 200R: Final Reach #200 Inflow=0.30 cfs 0.024 af
Outflow=0.30 cfs 0.024 af

Reach 300R: Final Reach #300 Inflow=0.18 cfs 0.014 af
Outflow=0.18 cfs 0.014 af

Reach 400R: Final Reach #400 Inflow=0.24 cfs 0.020 af
Outflow=0.24 cfs 0.020 af

Reach 500R: Final Reach #500 Inflow=0.09 cfs 0.008 af
Outflow=0.09 cfs 0.008 af

Pond 1P: Ex. CB 1 Peak Elev=62.32' Storage=0.000 af Inflow=0.15 cfs 0.011 af
12.0" Round Culvert n=0.012 L=27.1' S=0.0133 '/' Outflow=0.15 cfs 0.011 af

Pond 2P: Ex. CB 2 Peak Elev=61.92' Storage=0.000 af Inflow=0.15 cfs 0.011 af
12.0" Round Culvert n=0.012 L=28.9' S=0.0142 '/' Outflow=0.15 cfs 0.011 af

Pond 3P: Slot Drain Peak Elev=64.23' Inflow=0.11 cfs 0.008 af
8.0" Round Culvert n=0.012 L=8.7' S=0.1517 '/' Outflow=0.11 cfs 0.008 af

Pond 4P: Roof Drains Peak Elev=62.38' Inflow=0.57 cfs 0.047 af
8.0" Round Culvert n=0.012 L=10.0' S=0.0050 '/' Outflow=0.57 cfs 0.047 af

Pond 5P: Roof Drains Peak Elev=63.21' Inflow=1.45 cfs 0.111 af
8.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=1.45 cfs 0.111 af

Pond C01P: Yard Drain Peak Elev=66.13' Storage=0 cf Inflow=0.06 cfs 0.005 af
8.0" Round Culvert n=0.012 L=13.8' S=0.1014 '/' Outflow=0.06 cfs 0.005 af

Pond D01P: Drain Manhole #1 Peak Elev=62.41' Storage=19 cf Inflow=2.12 cfs 0.167 af
12.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=2.12 cfs 0.167 af

Total Runoff Area = 0.660 ac Runoff Volume = 0.243 af Average Runoff Depth = 4.42"
28.86% Pervious = 0.191 ac 71.14% Impervious = 0.470 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Subcatchment #1 Runoff Area=1,491 sf 52.72% Impervious Runoff Depth>6.57"
Flow Length=173' Tc=6.0 min CN=86 Runoff=0.25 cfs 0.019 af

Subcatchment 2S: Subcatchment #2 Runoff Area=2,502 sf 92.37% Impervious Runoff Depth>7.77"
Tc=6.0 min CN=96 Runoff=0.45 cfs 0.037 af

Subcatchment 3S: Subcatchment #3 Runoff Area=1,567 sf 78.62% Impervious Runoff Depth>7.41"
Tc=6.0 min CN=93 Runoff=0.28 cfs 0.022 af

Subcatchment 4S: Subcatchment #4 Runoff Area=1,995 sf 100.00% Impervious Runoff Depth>8.01"
Tc=6.0 min CN=98 Runoff=0.36 cfs 0.031 af

Subcatchment 5S: Subcatchment #5 Runoff Area=772 sf 100.00% Impervious Runoff Depth>8.01"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.012 af

Subcatchment 6S: Subcatchment #6 Runoff Area=872 sf 0.00% Impervious Runoff Depth>5.14"
Flow Length=171' Tc=9.2 min CN=74 Runoff=0.11 cfs 0.009 af

Subcatchment 7S: (new Subcat) Runoff Area=588 sf 32.48% Impervious Runoff Depth>5.97"
Tc=6.0 min CN=81 Runoff=0.09 cfs 0.007 af

Subcatchment 11S: Subcatchment #11 Runoff Area=3,672 sf 100.00% Impervious Runoff Depth>8.01"
Tc=6.0 min CN=98 Runoff=0.67 cfs 0.056 af

Subcatchment 12S: Subcatchment #12 Runoff Area=7,659 sf 34.72% Impervious Runoff Depth>5.97"
Tc=6.0 min CN=81 Runoff=1.18 cfs 0.088 af

Subcatchment 13S: Subcatchmnt #13 Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>8.01"
Tc=6.0 min CN=98 Runoff=0.54 cfs 0.046 af

Subcatchment 14S: Subcatchment #14 Runoff Area=1,729 sf 100.00% Impervious Runoff Depth>8.01"
Tc=6.0 min CN=98 Runoff=0.31 cfs 0.026 af

Subcatchment 15S: (new Subcat) Runoff Area=2,919 sf 72.59% Impervious Runoff Depth>7.17"
Tc=6.0 min CN=91 Runoff=0.51 cfs 0.040 af

Reach 100R: Final Reach #100 Inflow=3.67 cfs 0.290 af
Outflow=3.67 cfs 0.290 af

Reach 200R: Final Reach #200 Inflow=0.45 cfs 0.037 af
Outflow=0.45 cfs 0.037 af

Reach 300R: Final Reach #300 Inflow=0.28 cfs 0.022 af
Outflow=0.28 cfs 0.022 af

Reach 400R: Final Reach #400 Inflow=0.36 cfs 0.031 af
Outflow=0.36 cfs 0.031 af

Reach 500R: Final Reach #500 Inflow=0.14 cfs 0.012 af
Outflow=0.14 cfs 0.012 af

Pond 1P: Ex. CB 1 Peak Elev=62.37' Storage=0.000 af Inflow=0.25 cfs 0.019 af
12.0" Round Culvert n=0.012 L=27.1' S=0.0133 '/' Outflow=0.25 cfs 0.019 af

Pond 2P: Ex. CB 2 Peak Elev=61.97' Storage=0.000 af Inflow=0.25 cfs 0.019 af
12.0" Round Culvert n=0.012 L=28.9' S=0.0142 '/' Outflow=0.25 cfs 0.019 af

Pond 3P: Slot Drain Peak Elev=64.29' Inflow=0.19 cfs 0.015 af
8.0" Round Culvert n=0.012 L=8.7' S=0.1517 '/' Outflow=0.19 cfs 0.015 af

Pond 4P: Roof Drains Peak Elev=62.55' Inflow=0.86 cfs 0.072 af
8.0" Round Culvert n=0.012 L=10.0' S=0.0050 '/' Outflow=0.86 cfs 0.072 af

Pond 5P: Roof Drains Peak Elev=64.48' Inflow=2.36 cfs 0.184 af
8.0" Round Culvert n=0.012 L=30.0' S=0.0050 '/' Outflow=2.36 cfs 0.184 af

Pond C01P: Yard Drain Peak Elev=66.18' Storage=0 cf Inflow=0.11 cfs 0.009 af
8.0" Round Culvert n=0.012 L=13.8' S=0.1014 '/' Outflow=0.11 cfs 0.009 af

Pond D01P: Drain Manhole #1 Peak Elev=63.01' Storage=31 cf Inflow=3.40 cfs 0.271 af
12.0" Round Culvert n=0.012 L=40.0' S=0.0050 '/' Outflow=3.42 cfs 0.271 af

Total Runoff Area = 0.660 ac Runoff Volume = 0.392 af Average Runoff Depth = 7.12"
28.86% Pervious = 0.191 ac 71.14% Impervious = 0.470 ac

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New Hampshire
Location	
Longitude	70.879 degrees West
Latitude	43.199 degrees North
Elevation	0 feet
Date/Time	Mon, 11 Jul 2022 13:21:51 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.81	1.03	**1yr**	0.70	0.98	1.20	1.54	2.00	2.60	2.87	**1yr**	2.30	2.76	3.16	3.88	4.45	**1yr**
2yr	0.32	0.49	0.61	0.81	1.01	1.29	**2yr**	0.88	1.17	1.50	1.91	2.45	3.15	3.51	**2yr**	2.79	3.37	3.87	4.60	5.24	**2yr**
5yr	0.37	0.57	0.72	0.96	1.23	1.58	**5yr**	1.06	1.44	1.85	2.39	3.08	3.98	4.49	**5yr**	3.52	4.32	4.94	5.81	6.57	**5yr**
10yr	0.40	0.63	0.80	1.09	1.42	1.85	**10yr**	1.22	1.69	2.18	2.83	3.66	4.75	5.42	**10yr**	4.20	5.21	5.95	6.93	7.80	**10yr**
25yr	0.46	0.74	0.94	1.30	1.72	2.27	**25yr**	1.49	2.09	2.70	3.53	4.61	6.00	6.95	**25yr**	5.31	6.68	7.62	8.77	9.79	**25yr**
50yr	0.52	0.83	1.06	1.48	2.00	2.67	**50yr**	1.73	2.46	3.18	4.19	5.49	7.17	8.40	**50yr**	6.35	8.07	9.19	10.47	11.64	**50yr**
100yr	0.58	0.94	1.21	1.71	2.32	3.12	**100yr**	2.01	2.89	3.75	4.96	6.53	8.57	10.15	**100yr**	7.58	9.76	11.08	12.52	13.84	**100yr**
200yr	0.64	1.05	1.36	1.95	2.70	3.67	**200yr**	2.33	3.40	4.43	5.89	7.79	10.25	12.26	**200yr**	9.07	11.79	13.36	14.97	16.46	**200yr**
500yr	0.76	1.24	1.62	2.36	3.31	4.54	**500yr**	2.85	4.22	5.50	7.37	9.81	12.98	15.75	**500yr**	11.49	15.15	17.14	18.97	20.72	**500yr**

Lower Confidence Limits

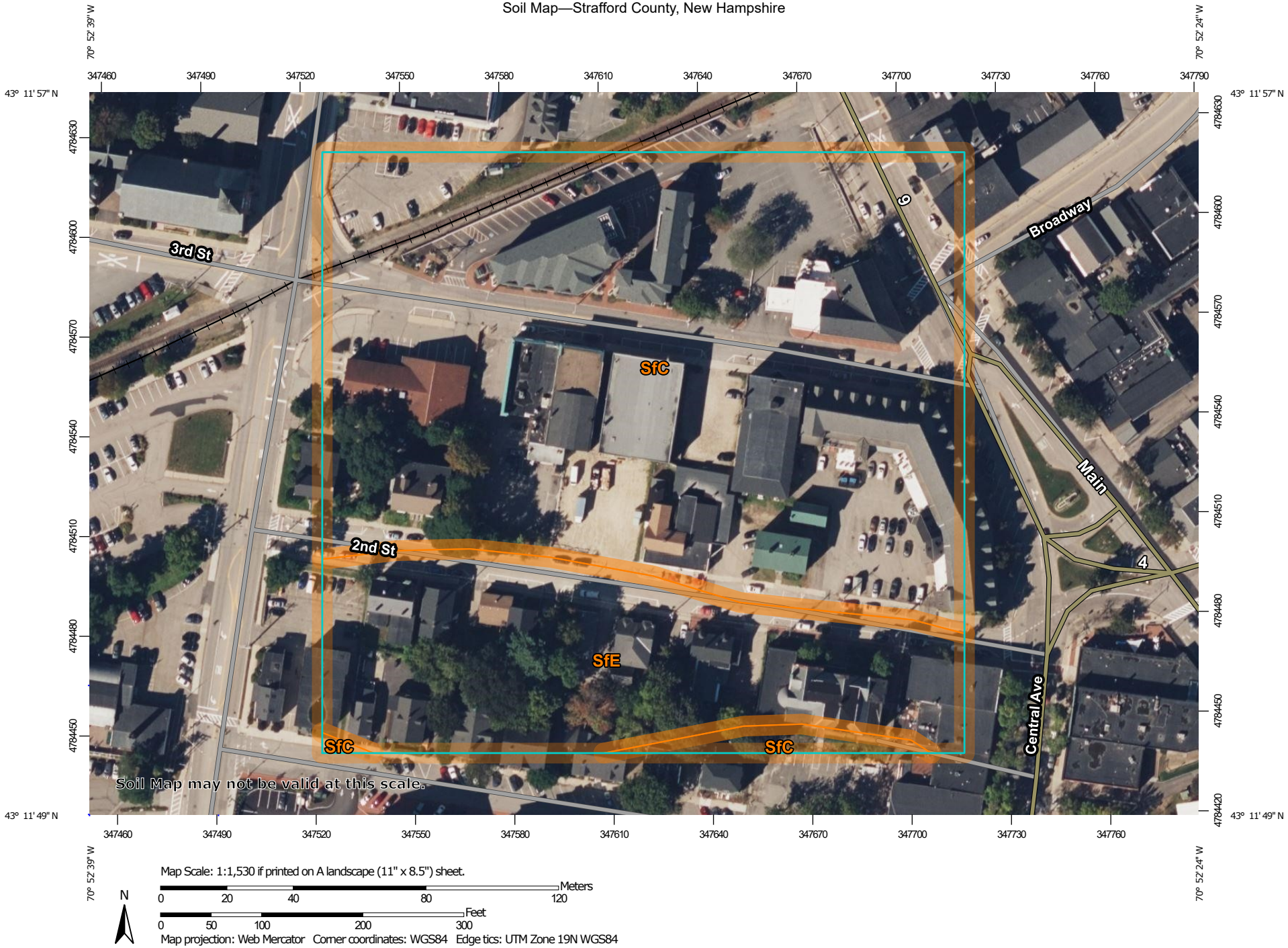
	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.24	0.37	0.45	0.60	0.74	0.90	**1yr**	0.64	0.88	0.92	1.25	1.57	2.13	2.46	**1yr**	1.88	2.36	2.89	3.36	4.04	**1yr**
2yr	0.31	0.49	0.60	0.81	1.00	1.18	**2yr**	0.86	1.16	1.36	1.83	2.36	3.04	3.40	**2yr**	2.69	3.27	3.75	4.47	5.06	**2yr**
5yr	0.35	0.54	0.67	0.91	1.16	1.40	**5yr**	1.00	1.37	1.61	2.15	2.78	3.71	4.12	**5yr**	3.28	3.97	4.61	5.41	6.11	**5yr**
10yr	0.38	0.59	0.73	1.02	1.32	1.60	**10yr**	1.14	1.56	1.81	2.44	3.13	4.27	4.78	**10yr**	3.78	4.60	5.32	6.24	7.01	**10yr**
25yr	0.44	0.66	0.83	1.18	1.55	1.91	**25yr**	1.34	1.87	2.11	2.84	3.65	4.95	5.78	**25yr**	4.38	5.56	6.48	7.54	8.41	**25yr**
50yr	0.48	0.73	0.91	1.31	1.76	2.19	**50yr**	1.52	2.14	2.35	3.19	4.10	5.65	6.67	**50yr**	5.00	6.41	7.53	8.70	9.64	**50yr**
100yr	0.54	0.81	1.02	1.47	2.01	2.51	**100yr**	1.74	2.45	2.63	3.57	4.57	6.44	7.68	**100yr**	5.70	7.39	8.74	10.03	11.03	**100yr**
200yr	0.59	0.90	1.13	1.64	2.29	2.87	**200yr**	1.98	2.81	2.93	3.99	5.10	7.33	8.85	**200yr**	6.48	8.51	10.13	11.57	12.65	**200yr**
500yr	0.69	1.03	1.33	1.93	2.74	3.46	**500yr**	2.37	3.38	3.40	4.62	5.92	8.67	10.65	**500yr**	7.67	10.24	12.31	14.00	15.11	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.43	0.53	0.71	0.87	1.08	**1yr**	0.75	1.05	1.23	1.74	2.21	2.87	3.09	**1yr**	2.54	2.97	3.43	4.22	4.81	**1yr**
2yr	0.33	0.51	0.62	0.85	1.04	1.25	**2yr**	0.90	1.22	1.48	1.95	2.51	3.29	3.63	**2yr**	2.91	3.49	4.00	4.75	5.45	**2yr**
5yr	0.39	0.61	0.75	1.03	1.31	1.58	**5yr**	1.13	1.55	1.86	2.50	3.20	4.24	4.86	**5yr**	3.75	4.67	5.28	6.23	7.00	**5yr**
10yr	0.46	0.70	0.87	1.22	1.57	1.92	**10yr**	1.36	1.88	2.23	3.04	3.86	5.21	6.07	**10yr**	4.61	5.83	6.67	7.65	8.54	**10yr**
25yr	0.56	0.85	1.05	1.50	1.97	2.48	**25yr**	1.70	2.42	2.88	3.96	4.96	7.05	8.15	**25yr**	6.24	7.84	8.93	10.08	11.12	**25yr**
50yr	0.64	0.98	1.22	1.75	2.35	2.99	**50yr**	2.03	2.93	3.49	4.83	6.02	8.71	10.22	**50yr**	7.70	9.82	11.17	12.39	13.60	**50yr**
100yr	0.75	1.13	1.42	2.04	2.80	3.62	**100yr**	2.42	3.54	4.24	5.90	7.32	10.75	12.80	**100yr**	9.52	12.31	13.95	15.27	16.64	**100yr**
200yr	0.87	1.30	1.65	2.39	3.34	4.39	**200yr**	2.88	4.29	5.15	7.22	8.89	13.32	16.07	**200yr**	11.79	15.45	17.44	18.80	20.38	**200yr**
500yr	1.06	1.58	2.03	2.95	4.20	5.63	**500yr**	3.62	5.51	6.66	9.45	11.52	17.70	21.69	**500yr**	15.66	20.86	23.46	24.79	26.67	**500yr**

Powered by ACIS Northeast Regional Climate Center

Soil Map—Strafford County, New Hampshire



Map Scale: 1:1,530 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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: Strafford County, New Hampshire
Survey Area Data: Version 22, Aug 31, 2021

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

Date(s) aerial images were photographed: Sep 19, 2021—Nov 1, 2021

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.

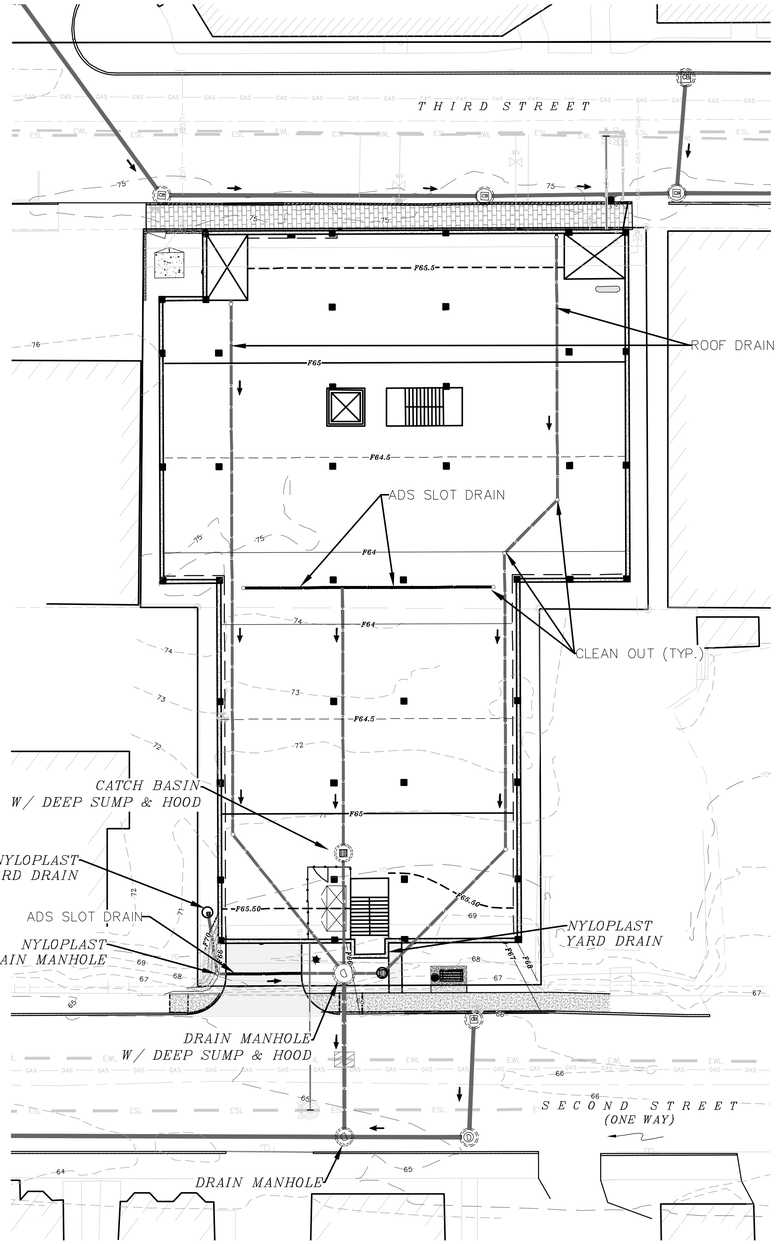
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
SfC	Suffield silt loam, 8 to 15 percent slopes	6.4	73.1%
SfE	Suffield silt loam, 15 to 35 percent slopes	2.3	26.9%
Totals for Area of Interest		**8.7**	**100.0%**

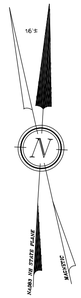
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



PLAN VIEW BASEMENT LEVEL PARKING



NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.
B.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.

5.) THE INTENT OF THIS PLAN IS TO DEMONSTRATE THE DRAINAGE INFRASTRUCTURE THAT REQUIRES PERIODIC INSPECTION AND MAINTENANCE. IT IS TO ACCOMPANY A DOCUMENT ENTITLED "STORMWATER SYSTEM MANAGEMENT: INSPECTION AND MAINTENANCE MANUAL" PUBLISHED BY BERRY SURVEYING & ENGINEERING ON THE SAME DATE.

6.) 11x17" PLANS ARE TWICE THE PUBLISHED SCALE.

REVISION	DATE	DESCRIPTION
#1	9-26-22	REVISED PER DOVER TRC COMMENT

DRAINAGE INSPECTION & MAINTENANCE PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14244
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

BERRY SURVEYING & ENGINEERING
335 Second Crown Point Road
Barrington, NH 03825
Phone: (603) 332-2863
Fax: (603) 335-4623
www.BerrySurveying.Com

Stormwater System Operation:

Inspection and Maintenance Manual

Prepared for:

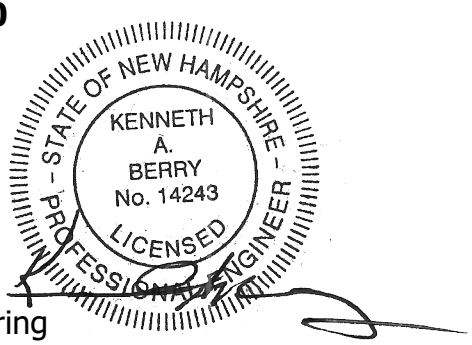
Wooden Ruler Realty, LLC
35 Third Street
DOVER, NH 03820

Land of

John Wong & Mo Y Wong, Trustee of
The Mo Y. Wong Living Revocable Trust of 2006
42 Third Street
DOVER, NH 03820

42 THIRD STREET, DOVER, NH
TAX MAP 6, LOT 32 & 40

Prepared By



Berry Surveying & Engineering
335 Second Crown Point Road
Barrington, NH 03825
603-332-2863

August 11, 2022
Rev: September 26, 2022

File Number
2022-037

Stormwater System Operation:
Inspection and Maintenance Manual

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Site Plans

NHDES Invasive Species

NHDES Green SnoPro Utilization Chart

This Operation and Maintenance Plan & Inspection and Maintenance Manual was prepared for the Stormwater System to be constructed at Tax Map 6, Lot 32 & 40. It has been prepared in accordance with RSA 485-A:17 and Administrative Rules Env-Wq 1507.08 administered by the NHDES Alteration of Terrain and City of Dover Site Plan Review Regulations.

Introduction

The Best Management Practices (BMP) described in this manual are specified in more detail within the plan set giving design details and specifications. The New Hampshire Stormwater Manual, Volume 2, Post-Construction Best Management Practices Selection & Design (December 2008, NHDES & US EPA) is included by reference to this manual. Additional details, construction specifications, and example drawings are provided within this reference. (http://des.nh.gov/organization/divisions/water/stormwater/)

The BMP's are covered below in the general order in which the storm water flows. Each BMP has a description and maintenance consideration listed. A checklist table is provided after the narrative to summarize the maintenance responsibilities and schedule. A Log Form is also provided for the owners use.

For details regarding the design of the Storm Water System see also Drainage Analysis and Sediment and Erosion Control Plan also published by Berry Surveying & Engineering originally dated August 11, 2022 as revised. See also plan set completed for Knox Wooden Ruler Realty, LLC originally dated August 11, 2022, as revised.

Wooden Ruler Realty, LLC, William T. Goldstein, Managing Member, land developer for Tax Map 6, Lot 32 & 40, Third Street, Dover, NH is responsible for the Stormwater System Operation and Maintenance on the drainage infrastructure on the property. A significant step in this responsibility is the Inspection and Maintenance of each component of the system. Ongoing, semi-annual, and annual inspection and maintenance requirements are documented below and must be taken seriously. Failure of any component of the system can result in surface water run-off ponding and/or freezing in the roadway, leaving the developed site untreated, and/or causing violations to issued permits. The owner must maintain, and have available, plans of the Stormwater System in order properly inspect and maintain the system. (Reduced copies attached.) The owner is responsible to ensure that any subsequent owner, owners association, or subcontractor has copies of the Log Form and Annual Report records and fully understands the responsibilities of this plan. The grantor owner will ensure this document is provided to the grantee owner by duplicating the Ownership Responsibility Sheet which is found toward the back of this document, which will be maintained with the Inspection & Maintenance Logs, provided to the City of Dover Community Services Department with the Annual Report and available to NHDES upon request.

Green Roof

Description: The intent of the Green Roof is to provide recreation space for residents but also reduce the urbanized weighted curve number of this projects and projects in general. The roof is equipped with a membrane and collection pan so that as runoff infiltrates the green roof section it is collected at a reduced rate and discharged through the conventional roof drainage system.

Though this is not a conventional treatment system, the capacity of the roofs ability to collect water at a reduced rate is integral to the stormwater analysis prepared for the project.

Maintenance Considerations:
Green Roof should be inspected at least twice annually and following any rainfall event exceeding 0.25 inches in a twenty-four hour period. Maintenance rehabilitation will be conducted as warranted by each inspection. Trash and debris will be removed at each inspection from the inlet catch basin grates. Assurance of grass growth and proper loam depth is required to be inspected twice annually. Loam compaction is the largest concern for Green Roof design. If compaction is taking place, please use conventional means to plug the material or till it to allow for future proper growth and infiltration. The area should be mowed to ensure growth is a manageable usable elevation and does not become overgrown.

Catch Basins and Drain Manholes (Concrete Structures & Nyloplast Basins)

Description: Catch Basins/yard drains are used throughout the site to capture and, along with culvert pipes and manhole, route roof runoff to and capture water and debris from vehicle traffic to the proposed drain manhole into the Dover MS4 system.
The practice of sweeping the garage on a bi-annual basis will help reduce maintenance of these catch basins and culvert pipes.

Maintenance Considerations: Sediment must be removed from Catch Basins and Manholes on a regular basis, at least twice a year and more often if post-winter maintenance and street sweeping is not conducted. Inspections should be conducted periodically. At a minimum they should be cleaned after snow-melt and after leaf-drop. Disposal of all material, sediment, and debris must be done in accordance with state and federal regulations. Culvert pipes will be inspected to ensure that surface water runoff is capable of leaving the structures.

Snow Storage Areas & Winter Maintenance

Description: The effective use of salt and sand for winter maintenance is both a cost and an environmental consideration. In accordance with City of Dover Chapter 149-14 A, Snow and ice removal shall be performed by a contractor certified by the "Green SnoPro" program, or approved equivalent, following the Best Management Practices for the application of deicing materials. De-icing logs will be maintained for the development.

Maintenance Considerations: Snow will be stockpiled in designated area during the course of the winter and any excess snow will be taken off-site and disposed of in an appropriate area. As the snow is melting in the spring, sand will be swept and removed from the site. The catch basin sumps will be scheduled for one of the two annual cleanings in the early spring.

Reference is made to the NHDES Green SnoPro program and Minnesota Pollution Control Agency document "Winter Parking Lot and Sidewalk Maintenance Manual"

Control of Invasive Plants

During maintenance activities, check for the presence of invasive plants and remove in a safe manner as described on the following pages. They should be controlled as described on the following pages.

Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, seeds, packing materials, or fresh produce. Some exotic plants become invasive and cause harm by:

- becoming weedy and overgrown;
- killing established shade trees;
- obstructing pipes and drainage systems;
- forming dense beds in water;
- lowering water levels in lakes, streams, and wetlands;
- destroying natural communities;
- promoting erosion on stream banks and hillsides; and
- resisting control except by hazardous chemical.

Annual Report

Description: The owner is responsible to keep an **I & M Activity Log** that documents inspection, maintenance and repairs to the storm water management system, and a **Deicing Log** to track the amount and type of deicing material applied to the site. The original owner is responsible to ensure that any subsequent owner(s) have copies of the Stormwater System Operation: Inspection and Maintenance Manual, copies of past logs and checklists. This includes any owner association for potential condominium conversion of the property. The Annual Report will be prepared and submitted to the City of Dover Community Services Department (Engineering) with copies of both logs and check lists no later than December 15th of each year and made available to NHDES upon request. Upon an ownership change, the Annual Report will include the Transfer of Ownership Responsibility Forms duplicated from the form found below.

BERRY SURVEYING & ENGINEERING

Kevin R. Poulin, EIT
Project Engineer

Kenneth A. Berry, PE, LLS
CPSWQ, CPESC, CESSWI
Principal, VP – Technical Operations

STORMWATER SYSTEM OPERATION AND MAINTENANCE PLAN

Inspection & Maintenance Manual Checklist

Wooden Ruler Realty, LLC
42 Third Street
Dover, NH 03820

☑	Date	BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance / Cleanout Threshold
		Pavement Sweeping	Three Times Per Year	N/A	N/A
		Litter/Trash Removal	Routinely	Inspect dumpsters, outdoor waste receptacles area, and yard areas.	Parcel will be free of litter/trash.
		Deicing Agents	N/A	N/A	Use salt as the primary agent for roadway safety during winter.
		Closed Drainage System:			
		Drainage Pipes	1 time per 2 years	Check for sediment accumulation & clogging.	Less than 2" sediment depth
		Catch Basins	2 times per year	Check for sediment accumulation & clogging.	Sediment accumulated to a depth of 2 feet.

☑	Date	BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance / Cleanout Threshold
		Green Roof	Annually	Vegetation evaluation.	Take corrective measures of grass if required. .
		Winter Maintenance	Ongoing	Remove snow as directed.	Ongoing
		Post Winter Maintenance	Annually	Remove excess sand, gross solids, and repair vegetation and plantings	Parcel will be free of excess sand, litter/trash. Vegetation per approved plans.
		Annual Report	1 time per year	Submit Annual Report to Dover Building Inspector and kept on file by the owner.	Report to be submitted on or before December 15th each year. Make copies available to NHDES upon request.

Inspection Notes:

STORMWATER SYSTEM OPERATION AND MAINTENANCE PLAN

Inspection & Maintenance Manual Log Form

Wooden Ruler Realty, LLC
42 Third Street
Dover, NH 03820

BMP / System	Date Inspected	Inspector	Cleaning/Repair (List Items & Comments)	Repair Date	Performed By:

STORMWATER SYSTEM OPERATION AND MAINTENANCE PLAN

Deicing Log Form

Wooden Ruler Realty, LLC
42 Third Street
Dover, NH 03820

Date	Amount Applied	Performed By:	Date	Amount Applied	Performed By:

STORMWATER SYSTEM OPERATION & MAINTENANCE PLAN CERTIFICATION

Owner	Responsibility
Name: Wooden Ruler Realty, LLC William T. Goldstein, Managing Member Address: 35 Third Street Dover, NH 03820 Telephone: 1-603-531-8258	The owner is responsible for the conduct of all construction activities, and ultimate compliance with all the provisions of the Stormwater System Operation & Maintenance Plan and the implementation of the Inspection and Maintenance Manual.

OWNER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: _____ Date: _____

Printed Name:

Representing:

Control of Invasive Plants

New Hampshire
Department of Agriculture,
Markets & Food
Douglas Cygan
603-271-3488
doug.cygan@agr.nh.gov

This guide lists garden plants and weeds which are already causing significant changes to natural areas in the Mid-Atlantic. **Measures for controlling each species are indicated by number, e.g., (3), in the text with a full explanation at the end of this article.** Click on the word Control: to jump to that section. Then click your "back" button to return to the text. Following each section suggested alternative plants are given. These alternatives are native plants, well adapted and needing little care, attractive to birds and butterflies, and an important part of the food web for our indigenous species.

INVASIVE TREES

NORWAY MAPLE (*Acer platanoides*) has large leaves similar to sugar maple. To easily confirm that the plant is Norway maple, break off a leaf and if it's truly Norway maple it will exude milky white sap. Fall foliage is yellow. (Exception: cultivars such as 'Crimson King,' which have red leaves in spring or summer, may have red autumn leaves.) The leaves turn color late, usually in late October after native trees have dropped their foliage. This tree suppresses growth of grass, garden plants, and forest understory beneath it, at least as far as the drip-line. Its wind-borne seeds can germinate and grow in deep shade. The presence of young Norway maples in our woodlands is increasing.

Control: (1); (7), (8), (9), or (10); (11) in mid-October to early November, before the leaves turn color.

TREE OF HEAVEN (*Ailanthus altissima*), is incredibly tough and can grow in the poorest conditions. It produces huge quantities of wind-borne seeds, grows rapidly, and secretes a toxin that kills other plants. Its long compound leaves, with 11-25 lance-shaped leaflets, smell like peanut butter or burnt coffee when crushed. Once established, this tree cannot be removed by mechanical means alone.

Control: (1) - seedlings only. Herbicide - use Garlon 3a (9) with no more than a 1" gap between cuts, or (10); plus (11) on re-growth. Or paint bottom 12" of bark with Garlon 4 Ultra (in February or March to protect surrounding plants). USE MAXIMUM STRENGTH SPECIFIED ON LABEL for all herbicide applications on Ailanthus. Glyphosate is not effective against Ailanthus.

INVASIVE SHRUBS

AUTUMN OLIVE (*Eleagnus umbellata*): Formerly recommended for erosion control and wildlife value, these have proved highly invasive and diminish the overall quality of wildlife habitat.

Control: (1) - up to 4" diameter trunks; (7) or (10) or bury stump. Do not mow.

MULTIFLORA ROSE (*Rosa multiflora*), formerly recommended for erosion control, hedges, and wildlife habitat, becomes a huge shrub that chokes out all other vegetation and is too dense for many species of birds to nest in, though a few favor it. In shade, it grows up trees like a vine. It is covered with white flowers in June. (Our native roses have fewer flowers, mostly pink.) Distinguish multiflora by its size, and by the presence of very hard, curved thorns, and a fringed edge to the leaf stalk.

Control: (1) - pull seedlings, dig out larger plants at least 6" from the crown and 6" down; (4) on extensive infestations; (10) or (11). It may remain green in winter, so herbicide may *applied when other plants are dormant. For foliar application, mix Rodeo with extra sticker-spreader, or use Roundup Sure Shot Foam on small plants.*

BUSH HONEYSUCKLES (*Lonicera spp.*), including Belle, Amur, Morrow's, and Tatarian honeysuckle. (In our region, assume that any honeysuckle is exotic unless it is a scarlet-flowered vine). Bush honeysuckles create denser shade than native shrubs, reducing plant diversity and eliminating nest sites for many forest interior species.
Control: (2) on ornamentals; (1); on shady sites only, brush cut in early spring and again in early fall (3); (4) during the growing season; (7); or (10) late in the growing season.

BLUNT-LEAVED PRIVET (*Ligustrum* obtusifolium). *Control:* (1); (7) or (10); or trim off all flowers. Do not cut back or mow.

BURNING BUSH, WINGED EUONYMUS (*Euonymus alatus*), identified by wide, corky wings on the branches.
Control: (1); (7) or (10); or trim off all flowers.

JAPANESE BARBERRY (*Berberis thunbergii*), and all cultivars and varieties.
Control: (1); (7) or (10); or trim off all flowers.

INVASIVE WOODY VINES

All of these vines shade out the shrubs and young trees of the forest understory, eventually killing them, and changing the open structure of the forest into a dense tangle. DO NOT PLANT NEXT TO OPEN SPACE.

JAPANESE HONEYSUCKLE (*Lonicera japonica*), including Hall's honeysuckle, has gold-and-white flowers with a heavenly scent and sweet nectar in June. This is probably the familiar honeysuckle of your childhood. It is a rampant grower that spirals around trees, often strangling them.
Control: (1); (3); (10); (11) in fall or early spring when native vegetation is dormant. Plan to re-treat repeatedly.

ORIENTAL BITTERSWEET (*Celastrus orbiculatus*) has almost completely displaced American bittersweet (*C. scandens*). The Asian plant has its flowers and bright orange seed capsules in clusters all along the stem, while the native species bears them only at the branch tips.
Control: (1); keep ornamental plants cut back, remove all fruits as soon as they open, and bag or burn fruits; to eradicate use Garlon 3a (10).

JAPANESE KNOTWEED, MEXICAN BAMBOO (*Polygonum cuspidatum*) can grow in shade. The stems have knotty joints, reminiscent of bamboo. It grows 6-10' tall and has large pointed oval or triangular leaves.
Control: Cut at least 3 times each growing season and/or treat with Rodeo (10) or (11). In gardens, heavy mulch or dense shade may kill it.

INVASIVE HERBACEOUS PLANTS

GARLIC MUSTARD (*Alliaria petiolata*, *A. officinalis*), a white-flowered biennial with rough, scalloped leaves (kidney-, heart- or arrow-shaped), recognizable by the smell of garlic and taste of mustard when its leaves are crushed. (The odor fades by fall.)
Control: Pull before it flowers in spring (1), removing crown and roots. Tamp down soil afterwards. Once it has flowered, cut (2), being careful not to scatter seed, then bag and burn or send to the landfill. (11) may be appropriate in some settings.

JAPANESE STILT GRASS (*Microstegium vimineum*) can be identified by its lime-green color and a line of silvery hairs down the middle of the 2-3" long blade. It tolerates sun or dense shade and quickly invades areas left bare or disturbed by tilling or flooding. An annual grass, it builds up a large seed bank in the soil.

Control: Easily pulled in early to mid-summer (1) - be sure to pull before it goes to seed. If seeds have formed, bag and burn or send to landfill. Mowing weekly or when it has just begun to flower may prevent it from setting seed (3). Use glyphosate (11) or herbicidal soap (less effective) on large infestations. Follow up with (5) in spring.

MILE-A-MINUTE VINE, DEVIL'S TAIL TEARTHUMB (*Polygonum perfoliatum*), a rapidly growing annual vine with triangular leaves, barbed stems, and turquoise berries in August which are spread by birds. It quickly covers and shades out herbaceous plants.
Control: same as for stilt grass.

SPOTTED KNAPWEED (*Centaurea maculosa*), a biennial with thistle-like flowers.
Control: Do NOT pull (1) unless the plant is young and the ground is very soft - the tap root will break off and produce several new plants. Wear sturdy gloves. (2); (6); (10) or (11).

CONTROL MEASURES

(1) PULL seedlings and small or shallow-rooted plants when soil is moist. Dig out larger plants, including the root systems. Use a forked spade or weed wrench for trees or shrubs.
(2) DEADHEAD to prevent spread of seeds of invasive plants. Cut off seeds or fruits before they ripen. Bag, and burn or send to a landfill.
(3) MOW or CUTTING at least 4 times a season to deplete plants' store of nutrients and carbohydrates, reduce seed formation, and kill or minimize spread of plants. If necessary, repeat each year.
(4) CONTROLLED BURNING during the spring, repeated over several years, allows native vegetation to compete more effectively with the invasive species. This requires a permit. Spot treatment with glyphosate in late fall can be used to make this method more effective.
(5) Use a CORN-BASED PRE-EMERGENCE HERBICIDE on annual weeds. This product is also an organic fertilizer, i.e., it can stimulate growth of existing plants, including weeds, so it is appropriate for lawns and gardens but may not be appropriate in woodlands.
(6) In lawns, SPOT TREAT with BROAD-LEAF WEEDKILLER. Good lawn-care practices (test soil; use lime and fertilizer only when soil test shows a need; mow high and frequently; leave clippings on lawn) reduce weed infestations.
(7) CUT DOWN the tree. Grind out the stump, or clip off re-growth.
(8) GIRDLE tree: cut through the bark and growing layer (cambium) all around the trunk, about 6" above the ground. Girdling is most effective in spring when the sap is rising, and from middle to late summer when the tree is sending down food to the roots. Clip off sucker sprouts.
(9) FRILL: Using a machete, hatchet or similar device, hack scars (several holes in larger trees) downward into the cambium layer, and squirt in glyphosate (or triclopyr if recommended in text above). Follow label directions for Injection and Frill Applications. This is most effective from middle to late summer. Clip off any sucker sprouts or treat with glyphosate.
(10) CUT STEM / CUT STUMP WITH GLYPHOSATE (or triclopyr if specified above). Follow label directions for Cut Stump Application. Clip off sucker sprouts or paint with glyphosate. See Note on Herbicides.
(11) FOLIAR SPRAY WITH GLYPHOSATE herbicide (see Note on Herbicides). Use a backpack or garden sprayer or mist blower, following label directions. Avoid overspray and/or dripping onto non-target plants, because glyphosate kills most plants except moss. If it rolls off waxy or grass-like foliage, use additional sticker-spreader. Deciduous trees, shrubs, and perennials move nutrients down to the roots in late summer. Glyphosate is particularly effective at this time and when plants have just gone out of flowering. Several invasive species retain their foliage after native plants have lost theirs, and resume growth earlier in spring than most natives. This allows you to treat them without harming the natives. However, the plant must be actively growing for the herbicide to work. Retreatments may be necessary the following year if suckering occurs or the plant hasn't been entirely killed.

NOTE ON HERBICIDES: It is highly recommended that small populations try to be controlled using non-chemical methods wherever feasible. However, for large infestations, and for a few plants specified above, herbicide use is essential. Apply herbicides carefully to avoid non-target plants, glyphosate is the least environmentally damaging herbicide in most cases. Add food coloring for visibility, and a soap-based sticker such as Cide-Kick. Glyphosate is ineffective on some

plants; for these, triclopyr (Garlon) may be indicated. When using herbicides, read the entire label and observe all precautions listed, including proper disposal. If in doubt, call your local Cooperative Extension Service.

Pavement Temp. (°F) and Trend (↑ ↓)	Weather Condition	Maintenance Actions	Application Rate (lbs/per 1000 sq.ft.)			
			Salt Prewetted/Pretreated with salt brine	Salt Prewetted/Pretreated with other blends	Dry salt	Winter sand
>30 ↑	Snow	Plow, treat intersections only				Not recommended
	Frz. Rain	Apply chemical				Not recommended
30 ↓	Snow	Plow and apply chemical				Not recommended
	Frz. Rain	Apply chemical				Not recommended
25 - 30 ↑	Snow	Plow and apply chemical				Not recommended
	Frz. Rain	Apply chemical				Not recommended
25 - 30 ↓	Snow	Plow and apply chemical				Not recommended
	Frz. Rain	Apply chemical				3.25
20 - 25 ↑	Snow or frz. Rain	Plow and Apply chemical				3.25 for frz. Rain
20 - 25 ↓	Snow	Plow and apply chemical				Not recommended
	Frz. Rain	Apply chemical				3.25
15 - 20 ↑	Snow	Plow and apply chemical				Not recommended
	Frz. Rain	Apply chemical				3.25
15 - 20 ↓	Snow or Frz. Rain	Plow and apply chemical				3.25 for frz. Rain
0 to 15 ↑↓	Snow	Plow, treat with blends, sand hazardous areas	Not recommended		Not recommended	5.0 and spot-treat as needed
< 0	Snow	Plow, treat with blends, sand hazardous areas	Not recommended		Not recommended	5.0 and spot-treat as needed

Table 19. Application Rates for Deicing

These rates & table format are based on road application guidelines (Mn Snow & Ice Control Field Handbook, Manual 2005-1). Develop your own application rates by adjusting your current rates incrementally downward toward these guidelines. Where temperature categories overlap, select the rate most applicable to your situation.

Welcome to New Hampshire's Watershed Report Cards built from the 2020/2022, 305(b)/303(d)

Each Watershed Report Card covers a single 12-digit Hydrologic Unit Code (HUC12), on average a 34 square mile area. Each Watershed Report Card has three components;

1. REPORT CARD - A one page card that summarizes the overall use support for Aquatic Life Integrity, Primary Contact (i.e. Swimming), and Secondary Contact (i.e. Boating) Designated Uses on every Assessment Unit ID (AUID) within the HUC12.
2. HUC 12 MAP - A map of the watershed with abbreviated labels for each AUID within the HUC12.
3. ASSESSMENT DETAILS - Anywhere from one to forty pages with the detailed assessment information for each and every AUID in the Report Card and Map.

How are the Surface Water Quality Assessment determinations made?

All readily available data with reliable Quality Assurance/Quality Control is used in the biennial surface water quality assessments. For a full understanding of how the Surface Water Quality Standards (Env-Wq 1700) are translated into surface water quality assessments we urge the reader to review the 2020/2022 Consolidated Assessment and Listing Methodology (CALM).

Where can I find more advanced mapping resources?

GIS files are available by assessment cycle at the NHDES FTP site.

I'd like to see the more raw water quality data?

The web mapping tool allows you to download the data used in the assessment of the primary contact and aquatic life designated uses by clicking on the "Data Access Waterbody Data (Aquatic Life and Swimming Uses)" link for any assessment unit.

How are assessments coded in the report card?

Assessment outcomes are displayed on a color scale as well as an alpha numeric scale that provides additional distinctions for the designated use and parameter level assessments as outlined in the table below.

		Severe Not Supporting, Severe	**Poor** Not Supporting, Marginal	**Likely Bad** Insufficient Information – Potentially Not Supporting	**No Data** No Data	**Likely Good** Insufficient Information – Potentially Full Supporting	**Marginal** Full Support, Marginal	**Good** Full Support, Good
CATEGORY	**Description**							
Category 2	Meets standards						2-M or 2-OBS	2-G
Category 3	Insufficient Information			3-PNS	3-ND	3-PAS		
Category 4	Does not Meet Standards;							
4A	TMDL* Completed	4A-P	4A-M or 4A-T					
4B	Other enforceable measure will correct the issue.	4B-P	4B-M or 4B-T					
4C	Non-pollutant (i.e. exotic weeds)	4C-P	4C-M					
Category 5	TMDL* Needed	5-P	5-M or 5-T					

* TMDL stands for Total Maximum Daily Load studies

Watershed 305(b) Assessment Summary Report:

Assessment Cycle: 2020/2022

HUC 12: 010600030608

HUC 12 Name: Lower Cocheco River

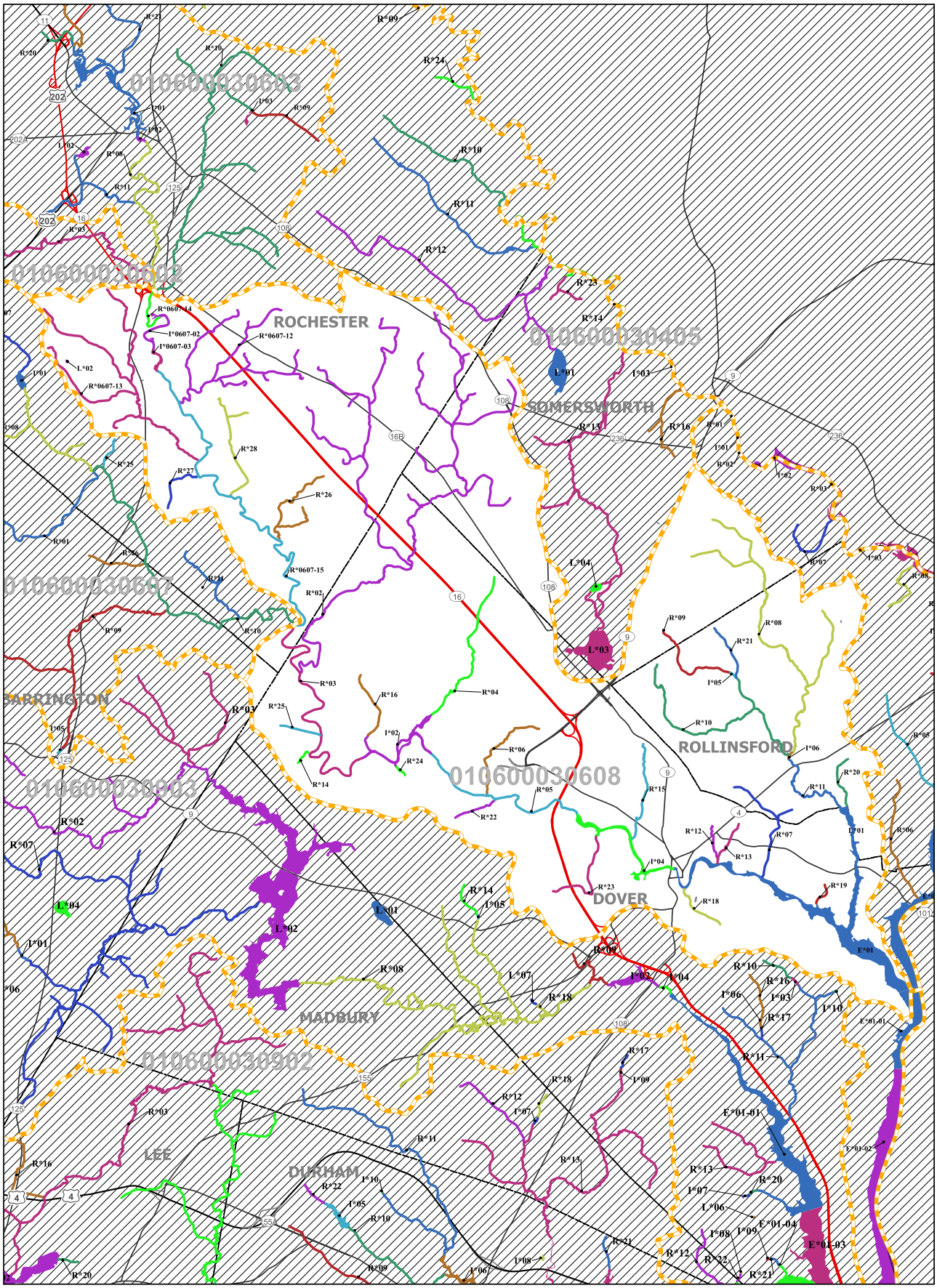
(Locator map on next page only applies to this HUC12)

Good	Meets water quality standards/thresholds by a relatively large margin.
Marginal	Meets water quality standards/thresholds but only marginally.
Likely Good	Limited data available, however, the data that is available suggests that the parameter is Potentially Attaining Standards (PAS).
No Current Data	Insufficient information to make an assessment decision.
Likely Bad	Limited data available, however, the data that is available suggests that the parameter is Potentially Not Supporting (PNS) water quality standards.
Poor	Not meeting water quality standards/thresholds. The impairment is marginal.
Severe	Not meeting water quality standards/thresholds. The impairment is more severe and causes poor water quality.

Assessment Unit ID	Map Label	Assessment Unit Name	Aquatic Life	Fish Consump.	Swimming	Boating
NHEST600030608-01	E*01	Cocheco River		5-M	5-P	4A-M
NHIMP600030607-02	I*0607-02	Cocheco River - Gonic Dam Pond	5-M	4A-M	4A-P	2-G
NHIMP600030607-03	I*0607-03	Cocheco River - Mill Pond Dam	3-PNS	4A-M	3-ND	3-ND
NHIMP600030608-02	I*02	Cocheco River - Watson Waldron Dam	5-M	4A-M	3-PAS	3-ND
NHIMP600030608-04	I*04	Cocheco River - Central Ave Dam	5-M	4A-M	3-PAS	3-ND
NHIMP600030608-05	I*05	Conservation Pond Dam	3-ND	4A-M	3-ND	3-ND
NHIMP600030608-06	I*06	Fresh Creek - Farm Pond	3-ND	4A-M	3-ND	3-ND
NHLAK600030608-01	L*01	Fresh Creek Pond	5-M	4A-M	4A-P	3-ND
NHLAK600030608-02	L*02	Unnamed Pond	3-ND	4A-M	3-PAS	3-PAS
NHRIV600030607-12	R*0607-12	Unnamed Tributary - To Cocheco River	3-ND	4A-M	3-ND	3-ND
NHRIV600030607-13	R*0607-13	Unnamed Brook - To Cocheco River	3-ND	4A-M	3-ND	3-ND

NHRIV600030607-14	R*0607-14	Cocheco River	3-ND	4A-M	3-ND	3-ND
NHRIV600030607-15	R*0607-15	Cocheco River	5-M	4A-M	2-G	2-G
NHRIV600030608-02	R*02	Blackwater Brook-Clark Brook	3-ND	4A-M	4A-P	3-ND
NHRIV600030608-03	R*03	Cocheco River - Unnamed Brook	5-M	4A-M	4A-M	3-ND
NHRIV600030608-04	R*04	Reyners Brook	3-ND	4A-M	4A-P	3-ND
NHRIV600030608-05	R*05	Cocheco River	5-M	4A-M	4A-M	3-ND
NHRIV600030608-06	R*06	Indian Brook	5-P	4A-M	4A-P	3-ND
NHRIV600030608-07	R*07	Emerson Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-08	R*08	Fresh Creek - Twombly Brook	5-P	4A-M	4A-M	3-ND
NHRIV600030608-09	R*09	Unnamed Brook - Rollins Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-10	R*10	Rollins Brook	5-P	4A-M	4A-P	3-ND
NHRIV600030608-11	R*11	Fresh Creek	3-PNS	4A-M	4A-P	4A-M
NHRIV600030608-12	R*12	Unnamed Tributary - To Cocheco River (Dover (Downstream Of Portland Ave))	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-13	R*13	Unnamed Tributary - To Cocheco River - (Dover (Upstream Of Atlantic Ave))	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-14	R*14	Unnamed Trib. To Cocheco River, Dover (From Landfill)	5-M	4A-M	3-ND	3-ND
NHRIV600030608-15	R*15	Berry Brook	5-M	4A-M	4A-P	2-G
NHRIV600030608-16	R*16	Jackson Brook	3-ND	4A-M	4A-P	3-ND
NHRIV600030608-18	R*18	Unnamed Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-19	R*19	Unnamed Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-20	R*20	Unnamed Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-21	R*21	Unnamed Brook - To Rollins Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-22	R*22	Horn Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-23	R*23	Unnamed Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-24	R*24	Unnamed Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-25	R*25	Unnamed Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-26	R*26	Unnamed Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-27	R*27	Unnamed Brook	3-ND	4A-M	3-ND	3-ND
NHRIV600030608-28	R*28	Unnamed Brook	3-ND	4A-M	3-ND	3-ND

AUIDs For HUC12: 010600030608 - Lower Cocheco River



HUC12 Boundaries
Town Boundaries
Major Roads
Interstate Highway
US Highway
State Highway

Assessment Unit Coloring
AUs Ending with:
0 =
1 =
2 =
3 =
4 =
5 =
6 =
7 =
8 =
9 =

N
W E
S

Abbrv. Label	HUC 12
L* 03	010 700060201

AUID = NH LAK700060201- 03

Assessment Unit IDs are derived from the HUC12 they reside within. The labels have been shortened on this map for presentation purposes.
Example: the Label "L*03" in HUC12 = 010700060201 represents AUID = "NHLAK700060201-03"
In rare cases where an AUID extends beyond the boundary of a single HUC12, additional portions of the end of the HUC 12 number have also been replaced.

0 0.6 1.2 1.8 2.4 Miles

Scale:1:59,820

S:\WD-Watershed\WQ_Planning\305b_303d\2020\Report_Cards\HUC12_maps

Assessment Unit ID: NHIMP600030608-04
Assessment Unit Name: Cocheco River - Central Ave Dam
Town(s) Primary Town is Listed First: Dover

Size: 20 ACRES
Assessment Unit Category: 5-M
Beach: N

2020/2022, 305(b)/303(d) - All Reviewed Parameters by Assessment Unit

Designated Use Description	Desig. Use Category	Parameter Name	Parameter Threatened (Y/N)	Last Sample	Last Exceed	Parameter Category	TMDL Priority
Aquatic Life Integrity	5-M	ALKALINITY, CARBONATE AS CACO3	N	1999	1999	3-ND	
		ALUMINUM	N	2007	1999	3-ND	
		AMMONIA (TOTAL)	N	2018	N/A	2-G	
		ARSENIC	N	2004	N/A	3-ND	
		CADMIUM	N	1999	1999	3-ND	
		CHLORIDE	N	2018	N/A	3-PAS	
		COPPER	N	1999	1998	3-ND	
		Chlorophyll-a	N	2019	NLV	No Stnd	
		DISSOLVED OXYGEN SATURATION	N	2018	2016	3-PNS	
		IRON	N	2004	N/A	3-ND	
		LEAD	N	1999	1999	3-ND	
		OXYGEN, DISSOLVED	N	2018	2016	3-PNS	
		PH	N	2018	2016	5-M	LOW
		TURBIDITY	N	2014	2004	3-ND	
		ZINC	N	1999	N/A	3-ND	
Fish Consumption	4A-M	ARSENIC	N	2004	2004	3-ND	

Good	Marginal	Likely Good	No Current Data	Likely Bad	Poor	Severe
Meets water quality standards/thresholds by a relatively large margin.	Meets water quality standards/thresholds but only marginally.	Limited data available. The data that is available suggests that the parameter is Potentially Attaining Standards (PAS)	Insufficient information to make an assessment decision.	Limited data available The data that is available suggests that the parameter is Potentially Not Supporting (PNS) water quality standards.	Not meeting water quality standards/thresholds. The impairment is marginal.	Not meeting water quality standards/thresholds The impairment is more severe and causes poor water quality.

Fish Consumption	4A-M	COPPER	N	1999	N/A	3-ND	
		MERCURY - FISH CONSUMPTION ADVISORY	N			4A-M	
		ZINC	N	1999	N/A	3-ND	
Potential Drinking Water Supply	2-G	ARSENIC	N	2004	2004	3-ND	
		COPPER	N	1999	N/A	3-ND	
		ESCHERICHIA COLI	N	2013	2013	3-ND	
		FECAL COLIFORM	N	1993	1993	3-ND	
		IRON	N	2004	2004	3-ND	
		ZINC	N	1999	N/A	3-ND	
Primary Contact Recreation	3-PAS	CHLOROPHYLL-A	N	2019	2002	3-PAS	
		ESCHERICHIA COLI	N	2013	2011	3-ND	
Secondary Contact Recreation	3-ND	ESCHERICHIA COLI	N	2013	N/A	3-ND	
Wildlife	3-ND						

Good	**Marginal**	**Likely Good**	**No Current Data**	**Likely Bad**	**Poor**	**Severe**
Meets water quality standards/thresholds by a relatively large margin.	Meets water quality standards/thresholds but only marginally.	Limited data available. The data that is available suggests that the parameter is Potentially Attaining Standards (PAS)	Insufficient information to make an assessment decision.	Limited data available The data that is available suggests that the parameter is Potentially Not Supporting (PNS) water quality standards.	Not meeting water quality standards/thresholds. The impairment is marginal.	Not meeting water quality standards/thresholds The impairment is more severe and causes poor water quality.

SWPPP Cut Sheet:

Filtrexx® Inlet Protection

Sediment & Perimeter Control Technology

PURPOSE & DESCRIPTION

Filtrexx® Inlet protection is a three-dimensional tubular sediment control and storm water runoff filtration device typically used for storm drain **inlet protection** of sediment and soluble pollutants (such as phosphorus and petroleum hydrocarbons) on and around construction activities.

APPLICATION

Drain inlets are located in areas that receive runoff from surrounding lands, often exposed and disturbed soils, and are located at a low point, or in a sump. Inlet protection used around drain inlets (or *Drain* Inlet protection) should completely enclose the circumference of the drain and where possible should not be placed on a grade or slope. Inlet protection used around drain inlets should never be the only form of site sediment control and should be accompanied by erosion control/slope stabilization practices, such as Slope protection or rolled erosion control blankets (RECB). Inlet protection should never be placed where they divert runoff flow from the drain inlet, or on top of the inlet, which can cause flooding. Under high runoff and sediment loading conditions placement of 1-2 in (25-50 mm) diameter rock (AASHTO #2) may be placed around the outer circumference of the Inlet protection up to ½ the height of the Inlet protection. This will slow runoff velocity as it contacts the Inlet protection and will reduce sediment build-up and clogging of the Inlet protection.

Curb inlets are generally located on paved surfaces and are designed to rapidly drain storm runoff from roadways to prevent flooding that poses a hazard to vehicular traffic. Inlet protection devices should be placed in a manner which intercepts runoff prior to entering the inlet, but does not block or divert runoff from the inlet. To prevent diversion of runoff, Inlet protection used around curbs (or *Curb* Inlet protection) should be used in low points, or sumps, and minor slopes or grades. Inlet protection should never be placed in or on the curb inlet drain, or placed in a manner than obstructs vehicular traffic. Inlet protection height should be at least 1 in (25 mm) lower than top of curb inlet to allow for overflow into the drain and not over the curb. Maximum sediment removal efficiency occurs when minor ponding exists behind Inlet protection but should never lead to flooding.

Curb sediment containment systems are used to reduce the sediment and pollutant load flowing to a curb inlet. They are generally placed on paved surfaces perpendicular to runoff flow and should be lower than the height of the curb. Curb sediment containment systems should never cause flooding or placed where they are a hazard to vehicular traffic. Inlet protection used for curb sediment containment (or *Curb Sediment Containment* Inlet protection) can be placed on a grade but should never be placed directly upslope from curb inlet where it may inadvertently divert runoff from entering curb inlet.

INSTALLATION

1. Inlet protection used for inlet protection to reduce sediment and soluble pollutants entering storm drains shall meet Filtrexx® FilterSoxx™ Material Specifications and use Certified Filtrexx® FilterMedia™.
2. Contractor is required to be a Filtrexx® Certified™ Installer as determined by Filtrexx® International, LLC (440-926-2607 or visit web site at Filtrexx.com). Certification shall be considered current if appropriate identification is shown during time of bid or at time of application (current list of installers can be found at www.filtrexx.com). Look for the Filtrexx® Certified™ Installer Seal.

3. Filtrexx® Inlet protection shall be placed at locations indicated on plans as directed by the Engineer. Inlet protection should be installed in a pattern that allows complete protection of the inlet area.
4. Installation of curb Inlet protection will ensure a minimal overlap of at least 1 ft (300mm) on either side of the opening being protected. The Inlet protection will be anchored to the soil behind the curb using staples, stakes or other devices capable of holding the Inlet protection in place.
5. Standard Inlet protection for curb inlet protection and curb sediment containment will use 8 in (200mm) diameter Inlet protection, and drain inlets on soil will use 12 in (300mm) or 18 in (450mm) diameter Inlet protection. In severe flow situations, larger Inlet protection may be specified by the Engineer. During curb installation, Inlet protection shall be compacted to be slightly shorter than curb height.
6. If Inlet protection becomes clogged with debris and sediment, they shall be maintained so as to assure proper drainage and water flow into the storm drain. In severe storm events, overflow of the Inlet protection may be acceptable in order to keep the area from flooding.
7. Curb and drain Inlet protection shall be positioned so as to provide a permeable physical barrier to the drain itself, allowing sediment to collect on the outside of the Inlet protection.
8. For drains and inlets that have only curb cuts, without street grates, a spacer is required in order to keep the Inlet protection away from the drain opening. This spacer should be a hog wire screen bent to overlap the grate opening and keep the sock from falling into the opening. Use at least one spacer for every 4 ft (1.2m) of curb drain opening. The wire grid also prevents other floatable waste from passing over the Inlet protection.
9. Stakes shall be installed through the middle of the drain Inlet protection on 5 ft (1.5m) centers, using 2 in (50mm) x 2 in (50mm) x 3 ft (1m) wood stakes.
10. Staking depth for sand and silt loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.

INSPECTION AND MAINTENANCE

Routine inspection should be conducted within 24 hrs of a runoff event or as designated by the regulating authority. Inlet protection should be regularly inspected to make sure they maintain their shape and are producing adequate hydraulic flow-through. If ponding becomes excessive, additional Inlet protection may be required or sediment removal may be necessary. Inlet protection shall be inspected until contributing drainage area has been permanently stabilized and construction activity has ceased

1. The Contractor shall maintain the Inlet protection in a functional condition at all times and it shall be routinely inspected.
2. If the Inlet protection has been damaged, it shall be repaired, or replaced if beyond repair.
3. The Contractor shall remove sediment at the base of the upslope side of the Inlet protection when accumulation has reached 1/2 of the effective height of the Inlet protection, or as directed by the Engineer. Alternatively, for drain Inlet protection a new Soxx™ may be placed on top of the original increasing the sediment storage capacity without soil disturbance.
4. Inlet protection shall be maintained until disturbed area above or around the device has been permanently stabilized and construction activity has ceased.
5. Regular maintenance includes lifting the Inlet protection and cleaning around and under them as sediment collects.
6. The FilterMedia™ will be removed from paved areas or dispersed on site soil or behind curb once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the Engineer.

Table 2.4 Spacing for Curb Sediment Containment Systems.

Grade (%)	Spacing (ft)	Spacing (mm)
0.5	100	30
1.0	50	15
2.0	25	8
3.0	16	5
4.0	13	4
5.0	10	3

Source: Fifield, 2001.

Figure 2.1. Engineering Design Drawing for Curb and Drain Inlet Protection

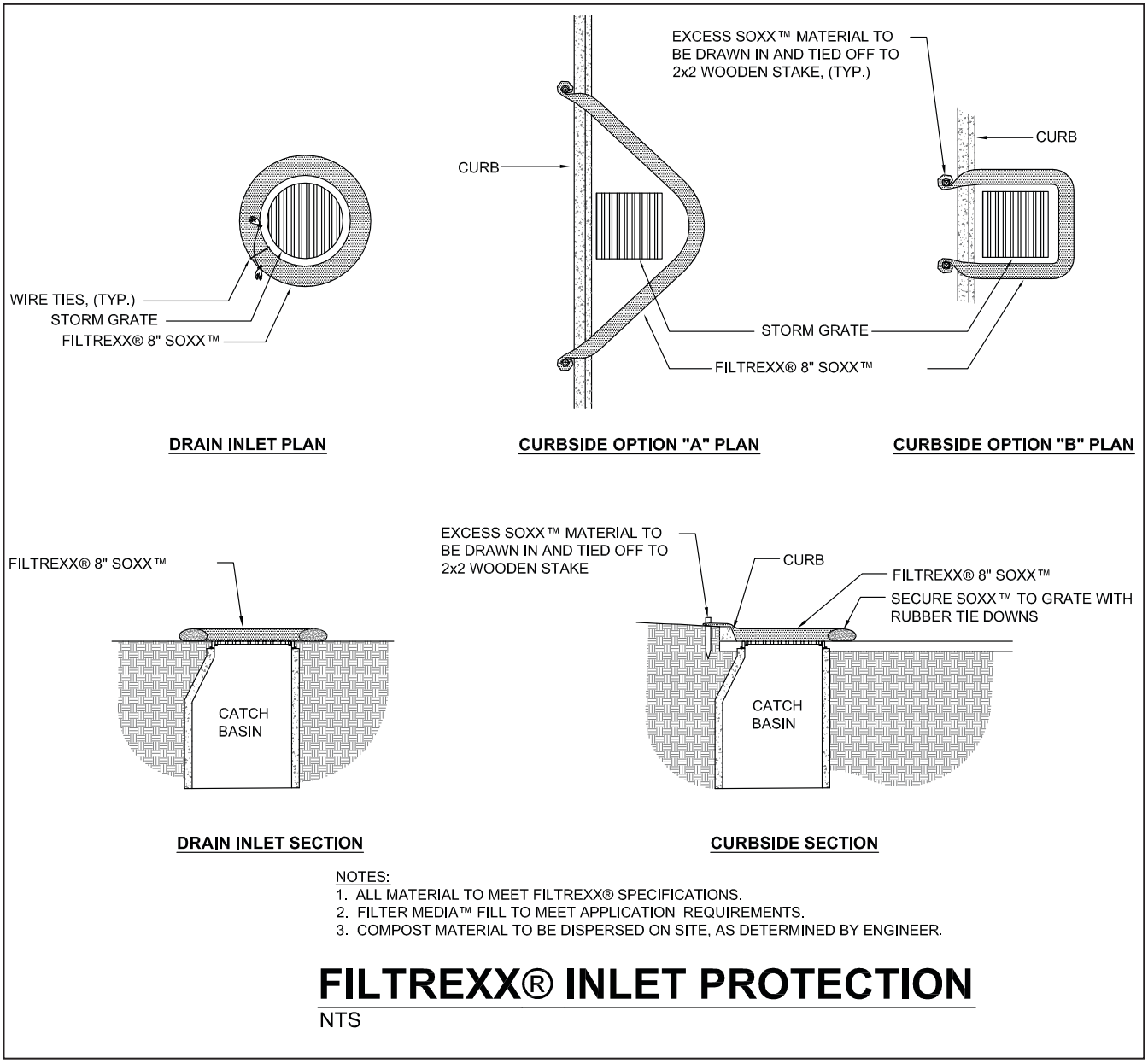
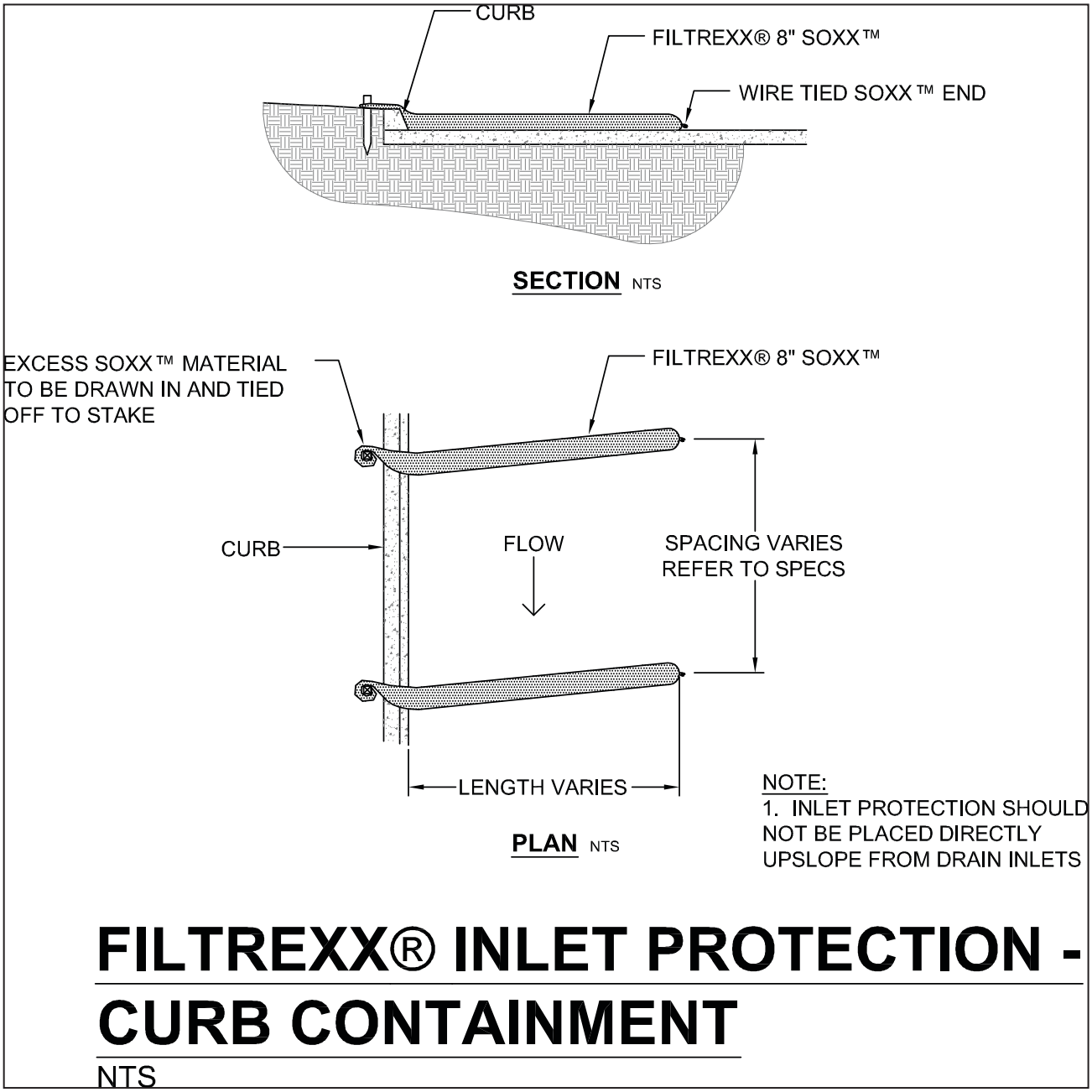


Figure 2.2. Engineering Design Drawing for Curb Sediment Containment Inlet Protection



SWPPP Cut Sheet:

Filtrexx® Sediment Control

Sediment & Perimeter Control Technology

PURPOSE & DESCRIPTION

Filtrexx® Sediment control is a three-dimensional tubular sediment control and storm water runoff filtration device typically used for **perimeter control** of sediment and other soluble pollutants (such as phosphorus and petroleum hydrocarbons), on and around construction activities.

APPLICATION

Filtrexx® Sediment control is to be installed down slope of any disturbed area requiring erosion and sediment control and filtration of soluble pollutants from runoff. Sediment control is effective when installed perpendicular to sheet or low concentrated flow. Acceptable applications include:

- Site perimeters
- Above and below disturbed areas subject to sheet runoff, interrill and rill erosion
- Above and below exposed and erodable slopes
- Around area drains or inlets located in a 'sump'
- On compacted soils where trenching of silt fence is difficult or impossible
- Around sensitive trees where trenching of silt fence is not beneficial for tree survival or may unnecessarily disturb established vegetation.
- On frozen ground where trenching of silt fence is impossible.
- On paved surfaces where trenching of silt fence is impossible.

INSTALLATION

1. Sediment control used for perimeter control of sediment and soluble pollutants in storm runoff shall meet Filtrexx® Soxx™ Material Specifications and use Certified Filtrexx® FilterMedia™.
2. Contractor is required to be Filtrexx® Certified™, or use pre-filled Filtrexx® Sediment control products manufactured by a Filtrexx® Certified Manufacturer™ as determined by Filtrexx® International, LLC (440-926-2607 or visit www.filtrexx.com). Certification shall be considered current if appropriate identification is shown during time of bid or at time of application. Look for the Filtrexx® Certified™ Seal.
3. Sediment control will be placed at locations indicated on plans as directed by the Engineer.
4. Sediment control should be installed parallel to the base of the slope or other disturbed area. In extreme conditions (i.e., 2:1 slopes), a second Sediment control shall be constructed at the top of the slope.
5. Effective Soxx™ height in the field should be as follows: 8" Diameter Sediment control = 6.5" high, 12" Diameter Sediment control = 9.5" high, 18" Diameter SiltSoxx™ = 14.5" high, 24" Diameter Sediment control = 19" high.
6. Stakes shall be installed through the middle of the Sediment control on 10 ft (3m) centers, using 2 in (50mm) by 2 in (50mm) by 3 ft (1m) hard wood stakes. In the event staking is not possible, i.e., when Sediment control is used on pavement, heavy concrete blocks shall be used behind the Sediment control to help stabilize during rainfall/runoff events.
7. Staking depth for sand and silt loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.
8. Loose compost may be backfilled along the upslope side of the Sediment control, filling the seam between the soil surface and the device, improving filtration and sediment retention.
9. If the Sediment control is to be left as a permanent filter or part of the natural landscape, it may be seeded at time of installation for

establishment of permanent vegetation. The Engineer will specify seed requirements.

10. Filtrexx® Sediment control is not to be used in perennial, ephemeral, or intermittent streams.

See design drawing schematic for correct Filtrexx® Sediment control installation (Figure 1.1).

INSPECTION AND MAINTENANCE

Routine inspection should be conducted within 24 hrs of a runoff event or as designated by the regulating authority. Sediment control should be regularly inspected to make sure they maintain their shape and are producing adequate hydraulic flow-through. If ponding becomes excessive, additional Sediment control may be required to reduce effective slope length or sediment removal may be necessary. Sediment control shall be inspected until area above has been permanently stabilized and construction activity has ceased

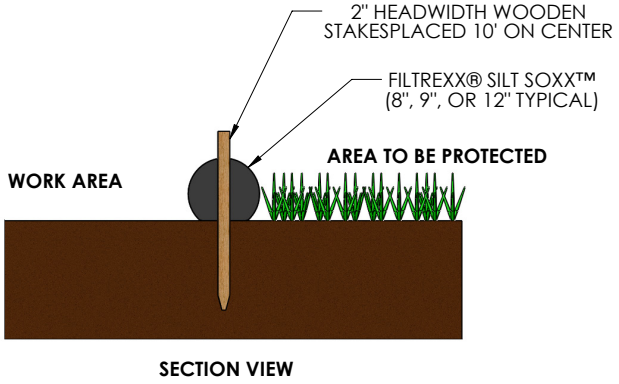
1. The Contractor shall maintain the Sediment control in a functional condition at all times and it shall be routinely inspected.
2. If the Sediment control has been damaged, it shall be repaired, or replaced if beyond repair.
3. The Contractor shall remove sediment at the base of the upslope side of the Sediment control when accumulation has reached 1/2 of the effective height of the Sediment control, or as directed by the Engineer. Alternatively, a new Sediment control can be placed on top of and slightly behind the original one creating more sediment storage capacity without soil disturbance.
4. Sediment control shall be maintained until disturbed area above the device has been permanently stabilized and construction activity has ceased.
5. The FilterMedia™ will be dispersed on site once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the Engineer.
6. For long-term sediment and pollution control applications, Sediment control can be seeded at the time of installation to create a vegetative filtering system for prolonged and increased filtration of sediment and soluble pollutants (contained vegetative filter strip). The appropriate seed mix shall be determined by the Engineer.

Slope Percent	Maximum Slope Length Above Sediment Control in Feet (meters)*				
	8 in (200 mm) Sediment control	12 in (300 mm) Sediment control	18 in (450 mm) Sediment control	24 in (600mm) Sediment control	32 in (800mm) Sediment control
	6.5 in (160 mm)**	9.5 in (240 mm) **	14.5 in (360 mm) **	19 in (480 mm) **	26 in (650 mm) **
2 (or less)	600 (180)	750 (225)	1000 (300)	1300 (400)	1650 (500)
5	400 (120)	500 (150)	550 (165)	650 (200)	750 (225)
10	200 (60)	250 (75)	300 (90)	400 (120)	500 (150)
15	140 (40)	170 (50)	200 (60)	325 (100)	450 (140)
20	100 (30)	125 (38)	140 (42)	260 (80)	400 (120)
25	80 (24)	100 (30)	110 (33)	200 (60)	275 (85)
30	60 (18)	75 (23)	90 (27)	130 (40)	200 (60)
35	60 (18)	75 (23)	80 (24)	115 (35)	150 (45)
40	60 (18)	75 (23)	80 (24)	100 (30)	125 (38)
45	40 (12)	50 (15)	60 (18)	80 (24)	100 (30)
50	40 (12)	50 (15)	55 (17)	65 (20)	75 (23)

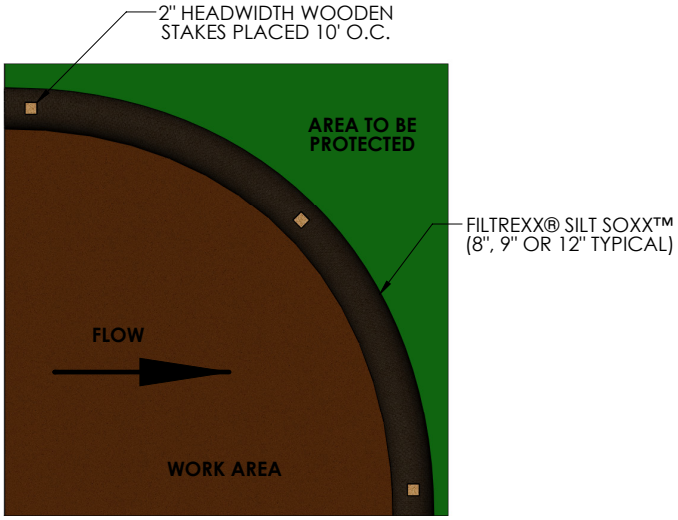
* Based on a failure point of 36 in (0.9 m) super silt fence (wire reinforced) at 1000 ft (303 m) of slope, watershed width equivalent to receiving length of sediment control device, 1 in/ 24 hr (25 mm/24 hr) rain event.

** Effective height of Sediment control after installation and with constant head from runoff as determined by Ohio State University.

FILTREXX® SILT SOXX™

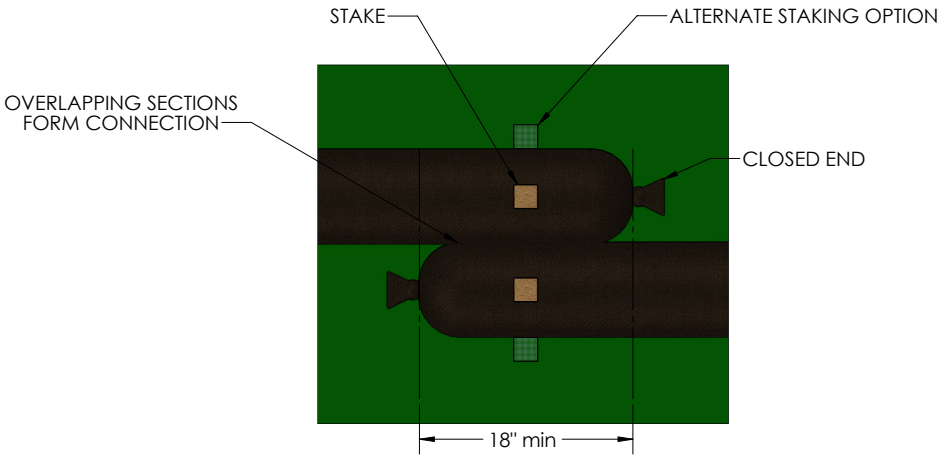


SECTION VIEW

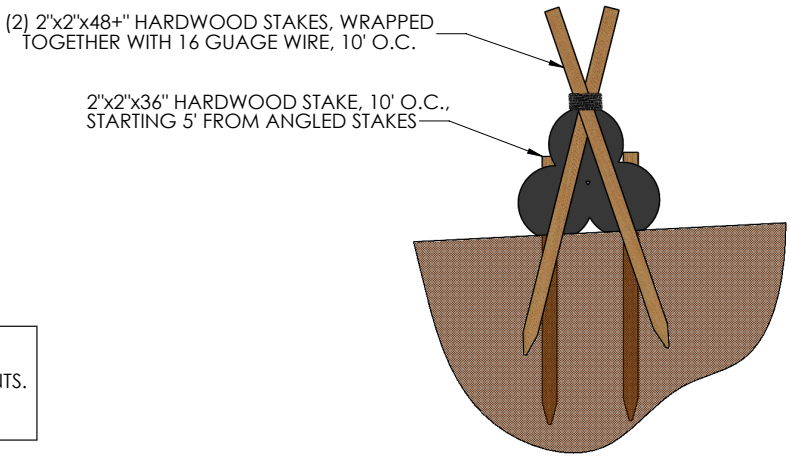


TOP VIEW

COMPOST SOCK CONNECTION/ATTACHMENT DETAIL



FILTREXX® PYRAMID STAKING DETAIL



NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. SILT SOXX™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

TABLE OF CONTENTS:

SHEET 1 ~ NEIGHBORHOOD PLAN
SHEET 2 ~ BOUNDARY PLAN*
SHEET 3 ~ EXISTING CONDITIONS PLAN
SHEET 4 ~ LOT MERGER PLAN*
SHEET 5 ~ DEMOLITION PLAN
SHEET 6 ~ SITE PLAN
SHEET 7 ~ GRADING PLAN & PROFILE
SHEET 8 ~ EROSION & SEDIMENT CONTROL PLAN
SHEET 9 ~ UTILITY PLAN & PROFILE
SHEET 10 ~ LANDSCAPING PLAN
SHEET 11 ~ LIGHTING PLAN
SHEET 12 ~ SIGHT DISTANCE SECOND STREET
SHEET 13 ~ E101–EROSION & SEDIMENT CONTROL DETAILS
SHEET 14 ~ C101–CONSTRUCTION DETAILS
SHEET 15 ~ C102–CONSTRUCTION DETAILS
SHEET 16 ~ D101–DRAINAGE DETAILS
SHEET 17 ~ D102–DRAINAGE DETAILS
SHEET 18 ~ D103–DRAINAGE DETAILS
SHEET 19 ~ U101–UTILITY DETAILS
SHEET 20 ~ U102–UTILITY DETAILS
SHEET 21 ~ L101–LANDSCAPING DETAILS

* INDICATES A PLAN IS TO BE RECORDED

MAJOR SITE PLAN
FOR
WOODEN RULER REALTY, LLC
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOT 32 & 40

OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

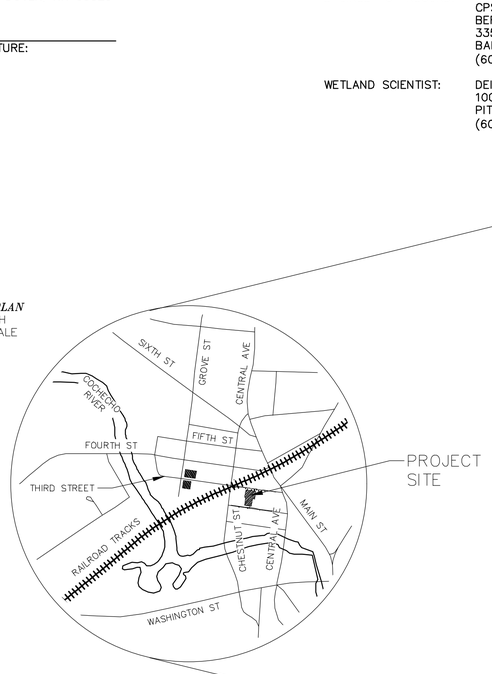
OWNER SIGNATURE: _____

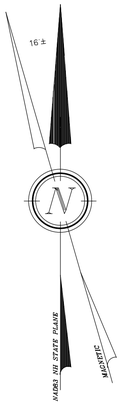
SURVEYOR OF RECORD: KENNETH A. BERRY, PE, LLS
CPSWQ, CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332–2863

ENGINEER OF RECORD: KENNETH A. BERRY, PE, LLS
CPSWQ, CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332–2863

WETLAND SCIENTIST: DEIDRA BENJAMIN, CWS
100 LEAVITT ROAD
PITTSFIELD, NH 03263
(603)–496–3307

LOCATION PLAN
DOVER, NH
NOT TO SCALE





VICINITY SKETCH
DOVER, NH
SCALE: 1" = 100' ±

REQUIRED PERMITS & APPROVALS:

1.) CITY OF DOVER PLANNING BOARD APPROVAL: PENDING

2.) EVERSOURCE WORK ORDER NUMBER: 10032810

3.) NHDES SEWER DISCHARGE PERMIT: PENDING

WHETHER OR NOT OTHERWISE EXPRESSLY RECITED ON THIS SITE PLAN, THE SITE PLAN APPROVAL GRANTED IS CONDITIONED ON FAITHFUL AND DILIGENT ADHERENCE BY THE OWNER/SUBDIVIDER/DEVELOPER OF ALL TERMS, CONDITIONS, PROVISIONS AND SPECIFICATIONS OF THE CITY OF DOVER LAND SITE PLAN REGULATIONS AS AMENDED OR AS MAY LATER BE AMENDED, IN EFFECT ON THE DATE OF APPROVAL, UNLESS OR EXCEPT INSOFAR AS EXPRESSLY WAIVED, IN ANY PARTICULAR, BELOW. NON – ADHERENCE MAY RESULT IN A REVOCATION OF APPROVAL. ANY VARIATION FROM THE APPROVED PLAN WILL REQUIRE A RESUBMISSION FOR SITE PLAN APPROVAL.

GENERAL PLAN SET NOTES:

1.) 11x17" PLANS ARE TWICE THE PUBLISHED SCALE.

2.) ALL PLANS ARE CONSIDERED TO BE NOT FOR CONSTRUCTION UNLESS THEY CONTAIN THE APPROVAL STAMP OF THE CITY OF DOVER.

APPROVED DOVER

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 809 KENNETH A. BERRY SIGNATURE

REVISION	DATE	DESCRIPTION
#1	9–26–22	REVISED PER DOVER TRC COMMENT

SITE PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : AS SHOWN
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

STATE OF NEW HAMPSHIRE KENNETH A. BERRY No. 10741 LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

ABBREVIATION LEGEND:

E.O.P.	EDGE OF PAVEMENT
V.G.C.	VERTICAL GRANITE CURB
BITUM.	BITUMINOUS
E.S.H.W.T	ESTIMATE SEASONAL HIGH WATER TABLE
TYP.	TYPICAL
U.G.E	UNDER GROUND ELECTRIC / UTILITY
CLDI	CONCRETE LINED DUCTILE IRON
DI	DUCTILE IRON
F.P.	FIRE PROTECTION
U.D.	UNDER DRAIN
C.O.	CLEAN OUT
CI	CAST IRON
INV.	INVERT
ELEV.	ELEVATION
HDPE	HIGH DENSITY POLYETHYLENE
RCP	REINFORCED CONCRETE PIPE
RECB	ROLLED EROSION CONTROL BLANKET
F.G.	FINISHED GRADE
E.G.	EXISTING GRADE
E.T.W.	EDGE OF TRAVELED WAY
T.B.R.	TO BE REMOVED
PL	PROPERTY LINE
EL	EASEMENT LINE
CL	CENTER LINE
CF	CUBIC FEET
P.C.	POINT OF CURVATURE
P.T.	POINT OF TANGENCY
P.V.C.	POINT OF VERTICAL CURVE
P.V.I.	POINT OF VERTICAL INTERSECTION
P.V.T.	POINT OF VERTICAL TANGENCY
EX.	EXISTING
PROP.	PROPOSED
STA.	STATION
BMP	BEST MANAGEMENT PRACTICE
'/,	FEET / FEET
TP	TEST PIT

{ } SSL ( ) ~ {SIZE} SINGLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
{ } DSL ( ) ~ {SIZE} DOUBLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
{ } SSB ( ) ~ {SIZE} SINGLE SOLID W/ BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
{ } SBL ( ) ~ {SIZE} SINGLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
{ } DBL ( ) ~ {SIZE} DOUBLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)

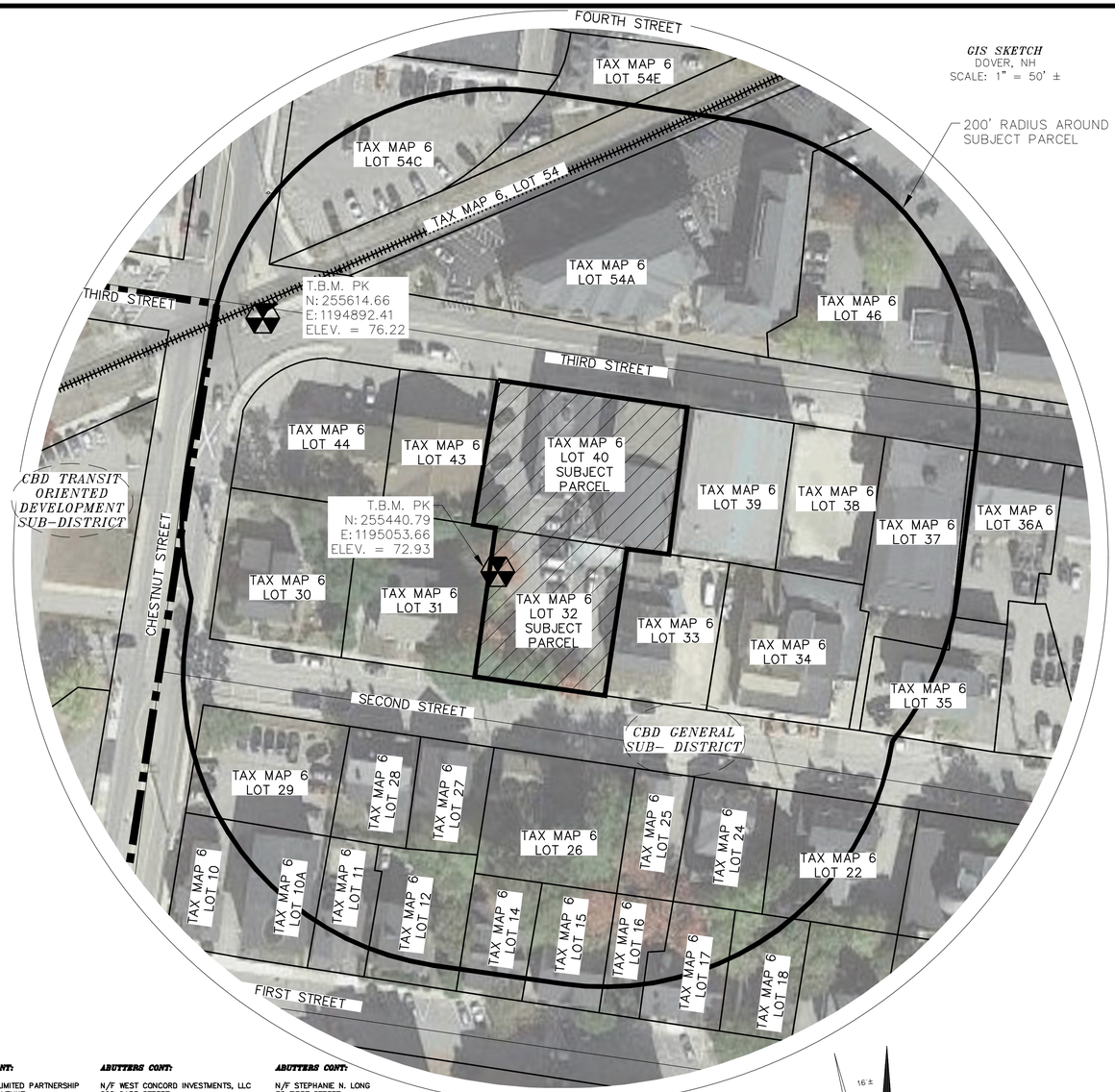
EXISTING LEGEND:

IRON PIPE ~FND~
IRON BOUND ~FND~
UTILITY POLE
SIGNAGE
DRAINAGE CULVERT
DRAIN MANHOLE W/ STRUCTURE
SEWER MANHOLE W/ STRUCTURE
CATCH BASIN W/ STRUCTURE
WATER GATE VALVE
WATER SHUT OFF
FIRE HYDRANT
GAS VALVE
SEWER LINE
WATER LINE
OVERHEAD UTILITIES
UNDERGROUND UTILITIES
GAS LINE
BUILDING SETBACK LINE
CONTOUR LINE, MINOR
CONTOUR LINE, MAJOR
ZONING DISTRICT LINE
EXISTING SPOT GRADE

PROPOSED LEGEND:

3/4" REBAR W/ ID CAP ~TBS~
LIGHT TYPE "A" MOUNTED ON BUILDING
LIGHT TYPE "B" 3' TALL BOLLARD LAMP
LIGHT TYPE "C" MOUNTED ON BUILDING
SEWER MANHOLE W/ STRUCTURE
DRAIN MANHOLE W/ STRUCTURE
CATCH BASIN W/ STRUCTURE
SIGNAGE
TEMPORARY BENCHMARK (T.B.M.)
DETAIL SHEET / DETAIL
MATCH POINT
MATCH LINE
CONTOUR MINOR, PROPOSED
CONTOUR MAJOR, PROPOSED
DRAIN CULVERT
SHOULDER
CENTER LINE
BUILDING SETBACK LINE
TRANSFORMER / J.BOX
UNDERGROUND UTILITY
SILT FENCE / EROSION MIX BERM
FILTREXX 8" – 12" SILT SOXX AS SPECIFIED
ORANGE CONSTRUCTION PERIMETER FENCE
PERIMETER CONTROL
NRCS SOIL DELINEATION
SOIL TYPE
GATE VALVE
CURB STOP
FIRE HYDRANT
THRUST BLOCKS
PROPOSED SPOT ELEVATION
PROPOSED WATER LINE
PROPOSED SEWER LINE
PROPOSED GAS LINE
PAVEMENT INLAY/SAWCUT

GIS SKETCH
DOVER, NH
SCALE: 1" = 50' ±



SIGN ID NUMBER	SIGN SIZE (WIDTH x HEIGHT)	SIGN	TEXT DIMENSIONS	NO. OF SIGNS	BACKGROUND	LEGEND	BORDER	POST SIZE & QUANTITY
R1–1	30"x30"	STOP	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	1	RED	WHITE	WHITE	SQUARE (1)
R7–8	12"x18"	RESERVED PARKING	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	2	WHITE	GREEN W/ WHITE SYMBOL ON BLUE	RED	SQUARE (2)
R7–8a	12"x6"	VAN ACCESSIBLE	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	1	WHITE	GREEN	GREEN	SQUARE (0)
R6–1R	36"x12"	ONE WAY	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	3	BLACK W/ WHITE ARROW	BLACK	WHITE	SQUARE (2)
D9–11b	24"x24"		SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	2	BLUE	WHITE	WHITE	U–CHANNEL (2)
	8"x12"	PAY AT METER FROM CAR OR VEHICLE	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	1	WHITE	GREEN	GREEN	SQUARE (1)

OWNERS & ABUTTERS:

N/F BAMFORD INVESTMENT CO., LLC
466 CENTRAL AVENUE, SUITE 12
DOVER, NH 03820
S.C.R.D. BOOK 2641, PAGE 686
TAX MAP 6, LOT 36A

N/F ANBELWOLD, LLC
101 MILL ROAD
DURHAM, NH 03824–2910
S.C.R.D. BOOK 3805, PAGE 924
TAX MAP 6, LOT 37

N/F ROSS FURNITURE COMPANY, LLC
38 THIRD STREET
DOVER, NH 03820
S.C.R.D. BOOK 1970, PAGE 142
TAX MAP 6, LOT 38

N/F ROSS FURNITURE COMPANY, LLC
38 THIRD STREET
DOVER, NH 03820
S.C.R.D. BOOK 1970, PAGE 142
TAX MAP 6, LOT 39

N/F WONG, JOHN & MO Y TRUSTEES
42 THIRD STREET
DOVER, NH 03820
S.C.R.D. BOOK 4290, PAGE 111
TAX MAP 6, LOT 40

N/F VARNEY, LINDA S. & JAMES W.
88 COUNTY FARM ROAD
DOVER, NH 03820
S.C.R.D. BOOK 1197, PAGE 387
TAX MAP 6, LOT 43

N/F VARNEY, LINDA S. & JAMES W.
88 COUNTY FARM ROAD
DOVER, NH 03820
S.C.R.D. BOOK 1197, PAGE 387
TAX MAP 6, LOT 44

ABUTTERS CONT:

N/F HOLGATE LIMITED PARTNERSHIP
130 CENTRAL AVENUE
DOVER, NH 03820
S.C.R.D. BOOK 1689, PAGE 031
TAX MAP 6, LOT 29

N/F SCOTT MICHAEL BROCKELBANK JR.
49 MUDDY POND ROAD
KENSINGTON, NH 03833
S.C.R.C. BOOK 4906, PAGE 490
TAX MAP 6, LOT 30

N/F SECOND STREET DOVER LLC
2 NUTE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 3513, PAGE 275
TAX MAP 6, LOT 31

N/F WONG, JOHN & MO Y TRUSTEES
42 THIRD STREET
DOVER, NH 03820
S.C.R.D. BOOK 4290, PAGE 111
TAX MAP 6, LOT 32

N/F ROSS FURNITURE COMPANY, LLC
38 THIRD STREET
DOVER, NH 03820
S.C.R.D. BOOK 1970, PAGE 142
TAX MAP 6, LOT 33

N/F 17–19 SECOND STREET LLC
43 NELSON STREET
DOVER, NH 03820
S.C.R.D. BOOK 4959, PAGE 415
TAX MAP 6, LOT 34

N/F SOUDAKIM LLC
750 LAFEYETTE ROAD, SUITE 201
PORTSMOUTH, NH 03801
S.C.R.D. BOOK 4482, PAGE 207
TAX MAP 6, LOT 35

ABUTTERS CONT:

N/F WEST CONCORD INVESTMENTS, LLC
222 CASS STREET
PORTSMOUTH, NH 03801–4945
S.C.R.D. BOOK 3593, PAGE 516
TAX MAP 6, LOT 22

N/F DAVID R. & STACEY LEE CAMIRE
281 WASHINGTON STREET
DOVER, NH 03820
S.C.R.D. BOOK 4917, PAGE 446
TAX MAP 6, LOT 24

N/F DAVID R. & STACEY LEE CAMIRE
281 WASHINGTON STREET
DOVER, NH 03820
S.C.R.D. BOOK 4917, PAGE 446
TAX MAP 6, LOT 25

N/F FREEBOARD PROPERTIES, LLC
PO BOX 1818
DOVER, NH 03820–1818
S.C.R.D. BOOK 4692, PAGE 699
TAX MAP 6, LOT 26

N/F REDDY INFOSYS INC
ATTN: OFFICE BERLIN PROPERTIES
295 PRINCETON HEIGHTS TWN #11354
PRINCETON, NJ 08550
S.C.R.D. BOOK 4274, PAGE 787
TAX MAP 6, LOT 27

N/F KMTM CAPITAL, LLC
43 NELSON STREET
DOVER, NH 03820
S.C.R.D. BOOK 4656, PAGE 742
TAX MAP 6, LOT 28

N/F HOLGATE LIMITED PARTNERSHIP
130 CENTRAL AVENUE
DOVER, NH 03820
S.C.R.D. BOOK 1689, PAGE 031
TAX MAP 6, LOT 10 & 10A

ABUTTERS CONT:

N/F STEPHANIE N. LONG
35 FIRST STREET
DOVER, NH 03820
S.C.R.D. BOOK 3683, PAGE 177
TAX MAP 6, LOT 11

N/F BRIAN J. MURPHY
496 WALLIS ROAD
RYE, NH 03870
S.C.R.D. BOOK 3541, PAGE 547
TAX MAP 6, LOT 12

N/F 29 FIRST STREET, LLC
43 NELSON STREET
DOVER, NH 03820
S.C.R.D. BOOK 4587, PAGE 499
TAX MAP 6, LOT 14

N/F KAB REALTY MANAGEMENT, LLC
35 THIRD STREET
DOVER, NH 03820
S.C.R.D. BOOK 2125, PAGE 125
TAX MAP 6, LOT 15

N/F KIMBERLEY E. ANDERSON, TRUSTEE
FIRST DOVER REALTY TRUST
84 SHORE DRIVE
NORTHWOOD, NH 03261
S.C.R.D. BOOK 4871, PAGE 733
TAX MAP 6, LOT 16

N/F HOLGATE LIMITED PARTNERSHIP
130 CENTRAL AVENUE
DOVER, NH 03820
S.C.R.D. BOOK 1689, PAGE 032
TAX MAP 6, LOT 17

N/F SOUDAKIM LLC
750 LAFEYETTE ROAD, SUITE 201
PORTSMOUTH, NH 03801
S.C.R.D. BOOK 4411, PAGE 485
TAX MAP 6, LOT 18

ABUTTERS CONT:

N/F BAMFORD, DAVID K. & DEBORAH
CO–TSTEES, THE DAVID K. BAMFORD REV. TST.
466 CENTRAL AVENUE, SUITE 12
DOVER, NH 03820
S.C.R.D. BOOK 5002, PAGE 503
TAX MAP 6, LOT 46

N/F BOSTON & MAINE RR
IRON HORSE PARK
HIGH STREET
BILLERICA, MA 01862
TAX MAP 6, LOT 54

N/F CARNEGIE HOLDINGS, LLC
42J DOVER POINT ROAD
DOVER, NH 03820
S.C.R.D. BOOK 4480, PAGE 2019
TAX MAP 6, LOT 54A–1

N/F CITY OF DOVER
288 CENTRAL AVENUE
DOVER, NH 03820
S.C.R.D. BOOK 4711, PAGE 947
TAX MAP 6, LOT 64A

N/F IRENE R CARRIER, TRUSTEE
IRENE R. CARRIER REV TRUST OF 1998
50 FW HARTFORD DRIVE
PORTSMOUTH, NH 03801
S.C.R.D. BOOK 3508, PAGE 024
TAX MAP 6, LOT 64E

16' ±
N
MAGNETIC
MAINE NH STATE PLANE

STATE OF NEW HAMPSHIRE
No. 805
KENNETH A. BERRY
LICENSED LAND SURVEYOR
SIGNATURE

#	REVISION	DATE	DESCRIPTION
#1		9–26–22	REVISED PER DOVER TRC COMMENT

NEIGHBORHOOD PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : AS SHOWN
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

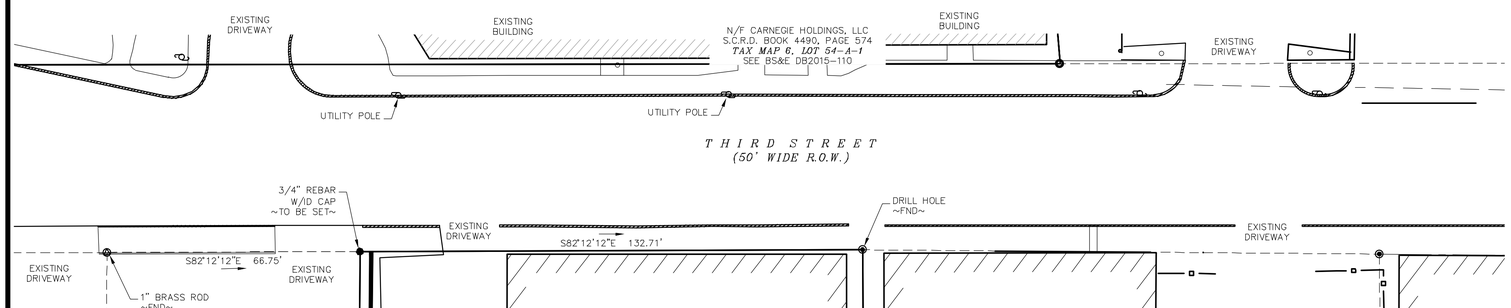
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 14245
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

ROAD NOTES:

1.) SECOND STREET RIGHT OF WAY IS 50' WIDE PER CITY OF DOVER ROAD RECORDS NUMBER 0127.

2.) THIRD STREET RIGHT OF WAY IS 50' WIDE PER CITY OF DOVER ROAD RECORDS NUMBER 0381.



PLAN REFERENCES:

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BY: G.L. DAVIS
DATED: JUNE 1963
S.C.R.D. POCKET #4, FOLDER #5, PLAN #16

2.) "PLAN OF HEMON PROPERTY, THIRD STREET DOVER N.H."
BY: G.L. DAVIS
DATED: SEPTEMBER, 1955
S.C.R.D. POCKET #1, FOLDER #5, PLAN #10

3.) "PLAN OF LAND OF ANNIE D MORRILL ESTATE ETALS,
E.D. WALLACE TRUESTEE"
BY: HERSHEY AND SPAULDING INC.
DATED: APRIL 30, 1952
S.C.R.D. POCKET #7, FOLDER #3, PLAN #5

4.) "NEW ENGLAND THEATRES INC., STRAND AMUSEMENT CO. DOVER N.H."
BY: G.L. DAVIS
DATED: JANUARY, 1950
S.C.R.D. POCKET #1, FOLDER #2, PLAN #7

5.) "PLAN OF LOT, YVONNE M. BUTTERFIELD, DOVER, N.H.""
BY: G.L. DAVIS
DATED: OCTOBER, 1949
S.C.R.D. POCKET #1, FOLDER #2, PLAN #20

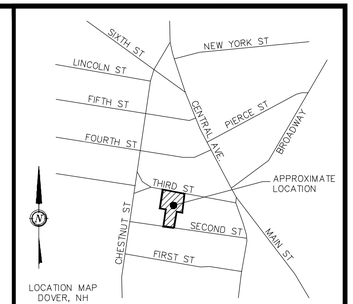
6.) "PLAN SHOWING LAND OWNED BY ALCIDE TURGEON,
SECOND STREET, DOVER, N.H."
BY: HAROLD G. HERSEY
RECORDED: AUGUST, 1949
S.C.R.D. POCKET #3, FOLDER #1, PLAN #22

7.) "ANDERTON LOT, SECOND STREET DOVER"
BY W.M. AMES
DATED: DECEMBER 1945
S.C.R.D. POCKET #1, FOLDER #2, PLAN #26

8.) "LARGE PLAN"
BY: ALEX WADSWORTH
DATED: MARCH 19, 1842
A PORTION FOUND IN S.C.R.D. BOOK 191, PAGE 88

9.) "PLAN OF LAND PREPARED FOR SECOND STREET DOVER, LLC,
LOCATED AT 29-31 SECOND STREET, DOVER, NH"
BY: ATLANTIC SURVEY CO, LLC
DATED: JUNE 2007
NOT RECORDED

10.) "BOUNDARY SURVEY PLAN, LAND OF ROSS FURNITURE CO. INC."
BY: BERRY SURVEYING & ENGINEERING
DATED: JUNE 28, 2018
NOT RECORDED
BS&E DB2018-036



NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.
B.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.

5.) THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES OF TAX MAP 6, LOTS 32 & 40 IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT AND ORIGINAL LEGAL DESCRIPTIONS, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.

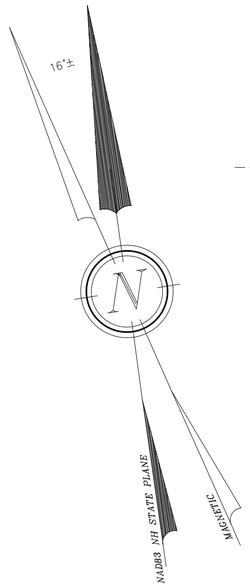
6.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE, COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.

7.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN SPRING 2018 WITH AN ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000.

LEGEND:

- ● 3/4" REBAR W/ID CAP (TO BE SET)
- ○ IRON BOUND/IRON ROD (FND)
- ○ IRON PIPE (FND)
- □ STONE BOUND (FND)
- ◉ DRILL HOLE (FND)
- ⊕ PK NAIL (FND)
- ⊙ BRASS ROD (FND)
- ●-○ UTILITY POLE / GUY WIRE

APPROX. ABUTTING PROPERTY LINE
FND FOUND
TYP TYPICAL
S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REVISION	DATE	DESCRIPTION
#1	9-26-22	REVISED PER DOVER TRC COMMENT

BOUNDARY PLAN
LAND OF
WONG, JOHN & WONG, MO T TRUSTEE
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

KENNETH A. BERRY LLS. 805 DATE

STATE OF NEW HAMPSHIRE NO. 805 LICENSED LAND SURVEYOR KENNETH A. BERRY SIGNATURE

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT RD.
BARRINGTON, N.H. (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JULY 12, 2022
FILE NO. : DB 2022 - 037

NOT FOR CONSTRUCTION

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR NOR THE ENGINEER MAKES NO GUARANTEES THAT 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 HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.

ROAD NOTES:

1.) SECOND STREET RIGHT OF WAY IS 50' WIDE PER CITY OF DOVER ROAD RECORDS NUMBER 0127.

2.) THIRD STREET RIGHT OF WAY IS 50' WIDE PER CITY OF DOVER ROAD RECORDS NUMBER 0381.

SOILS:

SfC – SUFFIELD SILT LOAM, 8 TO 15 PERCENT SLOPES

SEE WEBSOIL USDA–NRCS

WETLAND NOTES:

WETLANDS WERE DELINEATED BY DEIDRA BENJAMIN. IN JUNE 2022 UTILIZING THE FOLLOWING STANDARDS:

1. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.
2. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, VERSION 8.0. UNITED STATES DEPARTMENT OF AGRICULTURE (2016).
3. NATIONAL WETLAND PLANT LIST (CURRENT VERSION).
4. NO WETLANDS WERE FOUND ON SITE.

DEIDRA BENJAMIN, CWS #295

STATE OF NEW HAMPSHIRE · DEIDRA L. BENJAMIN · No. 295 · CERTIFIED WETLAND SCIENTIST

PLAN REFERENCES:

1.) "PLAN OF LAND FOR FISCHER BLOCK, DOVER NEW HAMPSHIRE" BY: G.L. DAVIS DATED: JUNE 1963 S.C.R.D. POCKET #4, FOLDER #5, PLAN #16

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6.) "PLAN SHOWING LAND OWNED BY ALCIDE TURGEON, SECOND STREET, DOVER, N.H." BY: HAROLD G. HERSEY RECORDED: AUGUST, 1949 S.C.R.D. POCKET #3, FOLDER #1, PLAN #22

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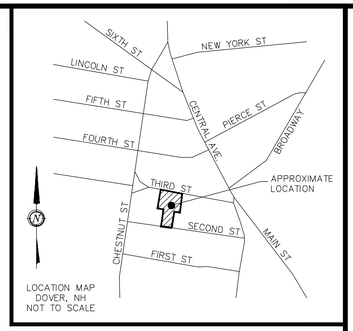
8.) "LARGE PLAN" BY: ALEX WADSWORTH DATED: MARCH 19, 1842 A PORTION FOUND IN S.C.R.D. BOOK 191, PAGE 88

9.) "PLAN OF LAND PREPARED FOR SECOND STREET DOVER, LLC, LOCATED AT 29–31 SECOND STREET, DOVER, NH" BY: ATLANTIC SURVEY CO, LLC DATED: JUNE 2007 NOT RECORDED

10.) "BOUNDARY SURVEY PLAN" BY: BERRY SURVEYING & ENGINEERING DATED: JUNE 28, 2018 NOT RECORDED



LOCATION MAP
DOVER, NH
NOT TO SCALE

NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.
B.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.

5.) ZONING: CBD – CENTRAL BUSINESS DISTRICT
(GENERAL SUB–DISTRICT)
SETBACKS
FRONT BUILD TO (SECOND ST) ~ 6–16'
FRONT BUILD TO (THIRD ST) ~ 5–10'
SIDE ~ 0'–24' MAX
REAR ~ 10'
MIN. LOT SIZE: N/A
MIN. FRONTAGE BUILD–OUT: 70%
MIN. LOT COVERAGE: 75%
MAX. BUILDING HEIGHT: 5 STORIES
MIN. BUILDING HEIGHT: 2 STORIES

6.) THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING BOUNDARIES AND CONDITIONS OF TAX MAP 6, LOTS 32 & 40 LOCATED IN DOVER, N.H., AS OF THE FIELD SURVEY IN SPRING OF 2018 AND JUNE OF 2022.

7.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS PROPERTY DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF: FEMA COMMUNITY #330145, MAP 33017C0310E, DATED: SEPTEMBER 30, 2015.

8.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.

9.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN SPRING 2018 WITH AN ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000.

10.) TOPOGRAPHY PROVIDED IS DEMARCATED AT 1' INTERVALS, AND IS THE RESULT OF A FIELD SURVEY PERFORMED IN JUNE 2022.

11.) THIS SITE IS SERVICED BY MUNICIPAL SEWER AND WATER.

12.) WETLANDS WERE DELINEATED BY DEIDRA BENJAMIN, CWS, CERTIFIED WETLANDS SCIENTIST, IN ACCORDANCE WITH CHAPTER 170–27.1 OF THE ZONING ORDINANCE, IN JUNE OF 2022. NO WETLANDS WERE FOUND ON SITE.

13.) EXISTING LOT COVERAGE:
A.) LOT 32: 609 Sq. Ft. (6.8%)
B.) LOT 40: 8,245 Sq. Ft. (61.7%)

14.) EXISTING IMPERVIOUS COVERAGE:
A.) LOT 32: 7,325 Sq. Ft. (88.2%)
B.) LOT 40: 12,524 Sq. Ft. (93.7%)

EXISTING LEGEND:

- IRON BOUND/IRON ROD (FND)
- IRON PIPE (FND)
- STONE BOUND (FND)
- DRILL HOLE (FND)
- PK NAIL (FND)
- BRASS ROD (FND)
- UTILITY POLE / GUY WIRE
- SINGLE POST SIGN
- TEMPORARY BENCHMARK
- CURB STOP
- GATE VALVE
- FIRE HYDRANT
- GAS VALVE
- CATCH BASIN W/ STRUCTURE
- DRAIN MANHOLE W/ STRUCTURE
- SEWER MANHOLE W/ STRUCTURE
- ABUTTING PROPERTY LINE
- COMMON PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING DRAIN LINE
- OVERHEAD UTILITIES
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR

FND FOUND
TYP TYPICAL
S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

#	DATE	REVISION
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EXISTING CONDITIONS PLAN
FOR: WOODEN RULER REALTY, LLC
JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
LAND OF: JOHN WONG & MO Y WONG
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

STATE OF NEW HAMPSHIRE · No. 805 · LICENSED LAND SURVEYOR · KENNETH A. BERRY · SIGNATURE

SHEET 3 OF 21

NOT FOR CONSTRUCTION

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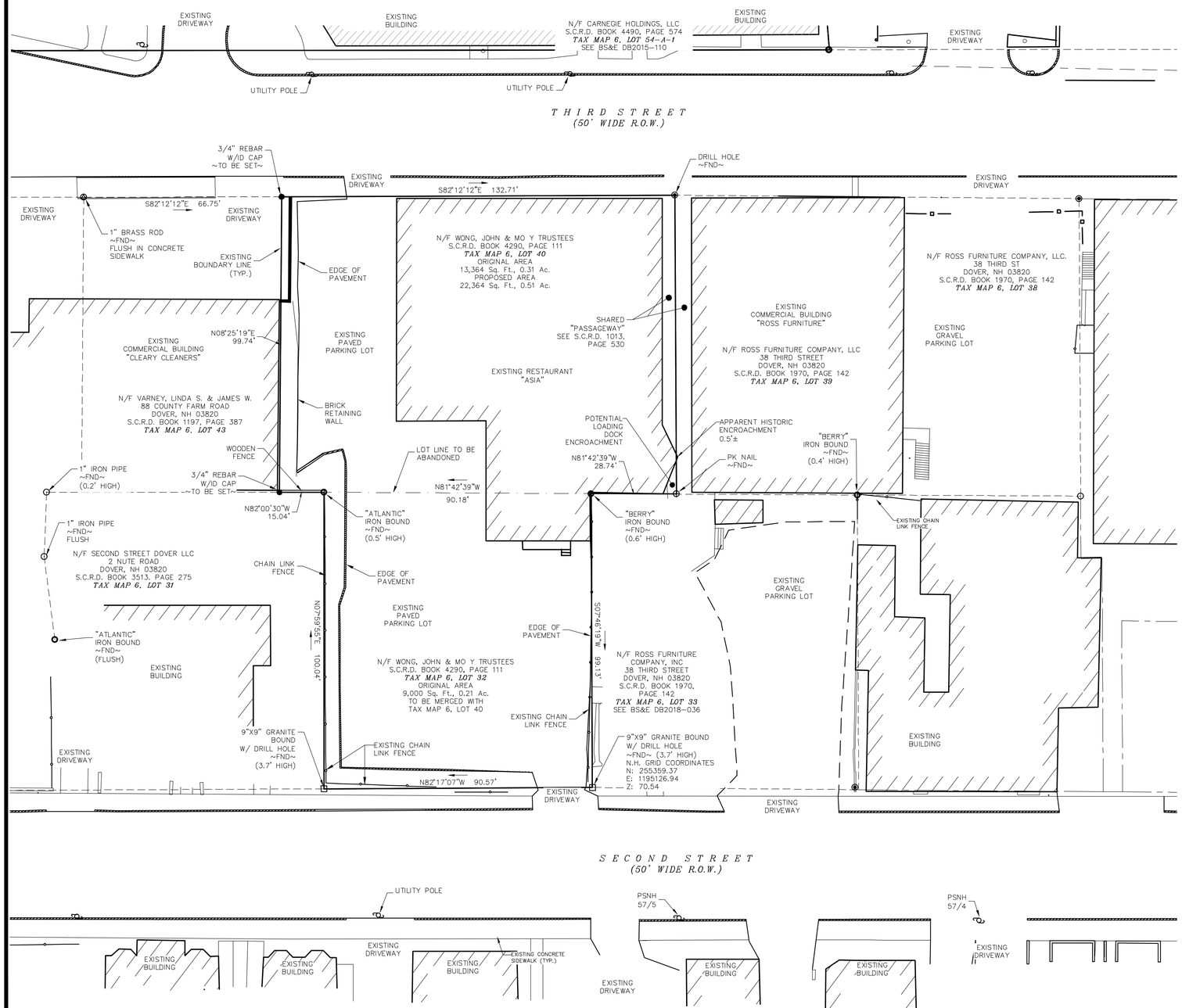

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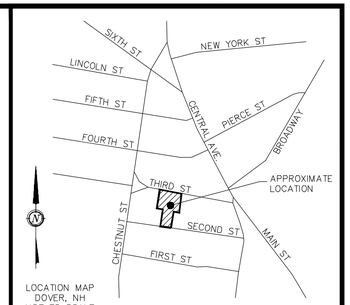

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B.) TAX MAP 6, LOT 40

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B.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.

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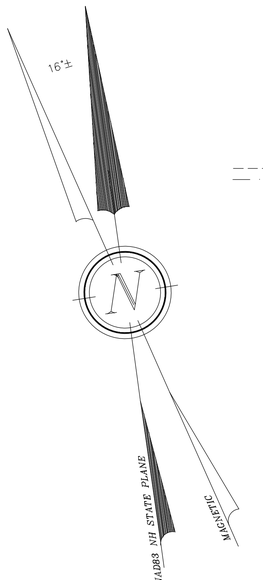

LEGEND:

- ● 3/4" REBAR W/ID CAP (TO BE SET)
- ○ IRON BOUND/IRON ROD (FND)
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- ◉ DRILL HOLE (FND)
- ⊕ PK NAIL (FND)
- ⊙ BRASS ROD (FND)
- UTILITY POLE / GUY WIRE

APPROX. ABUTTING PROPERTY LINE
PROPERTY LINE TO BE ABANDONED
FND FOUND
TYP TYPICAL
S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REVISION	DATE	DESCRIPTION
#1	9-26-22	REVISED PER DOVER TRC COMMENT

LOT MERGER PLAN
LAND OF
WONG, JOHN & WONG, MO T TRUSTEE
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR NO. 805 KENNETH A. BERRY SIGNATURE

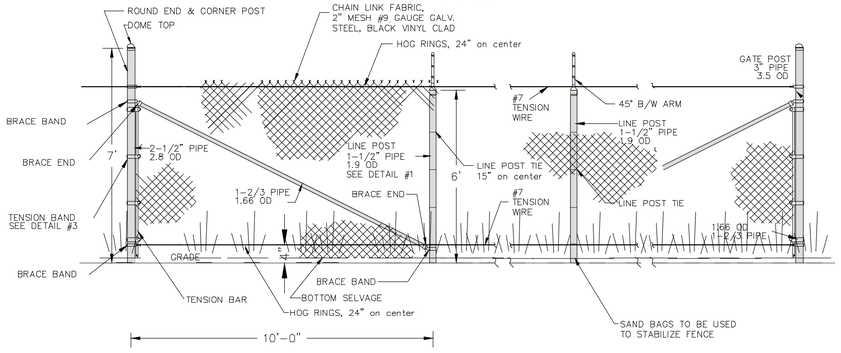
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT RD.
BARRINGTON, N.H. (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JULY 12, 2022
FILE NO. : DB 2022 - 037

NOT FOR CONSTRUCTION

TYPICAL 6' HIGH MOVABLE SAFETY CHAIN LINK FENCE

NOT TO SCALE

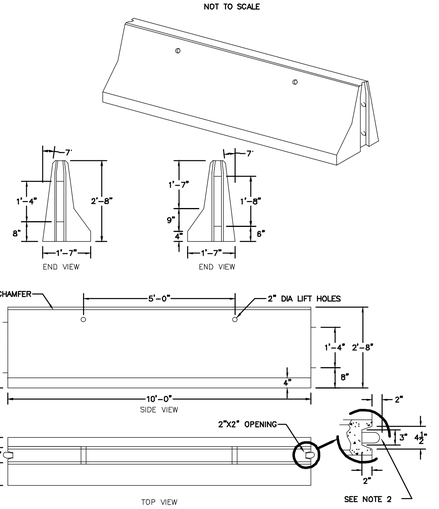


NOTES

1. FENCE LINE SHALL A MAXIMUM 4" REVEAL BETWEEN GROUND SURFACE AND BOTTOM OF FENCE TENSION WIRE.
2. IF THE PROJECT TIME LINE IS OF SHORT DURATION TEMPORARY BASES CAN BE USED

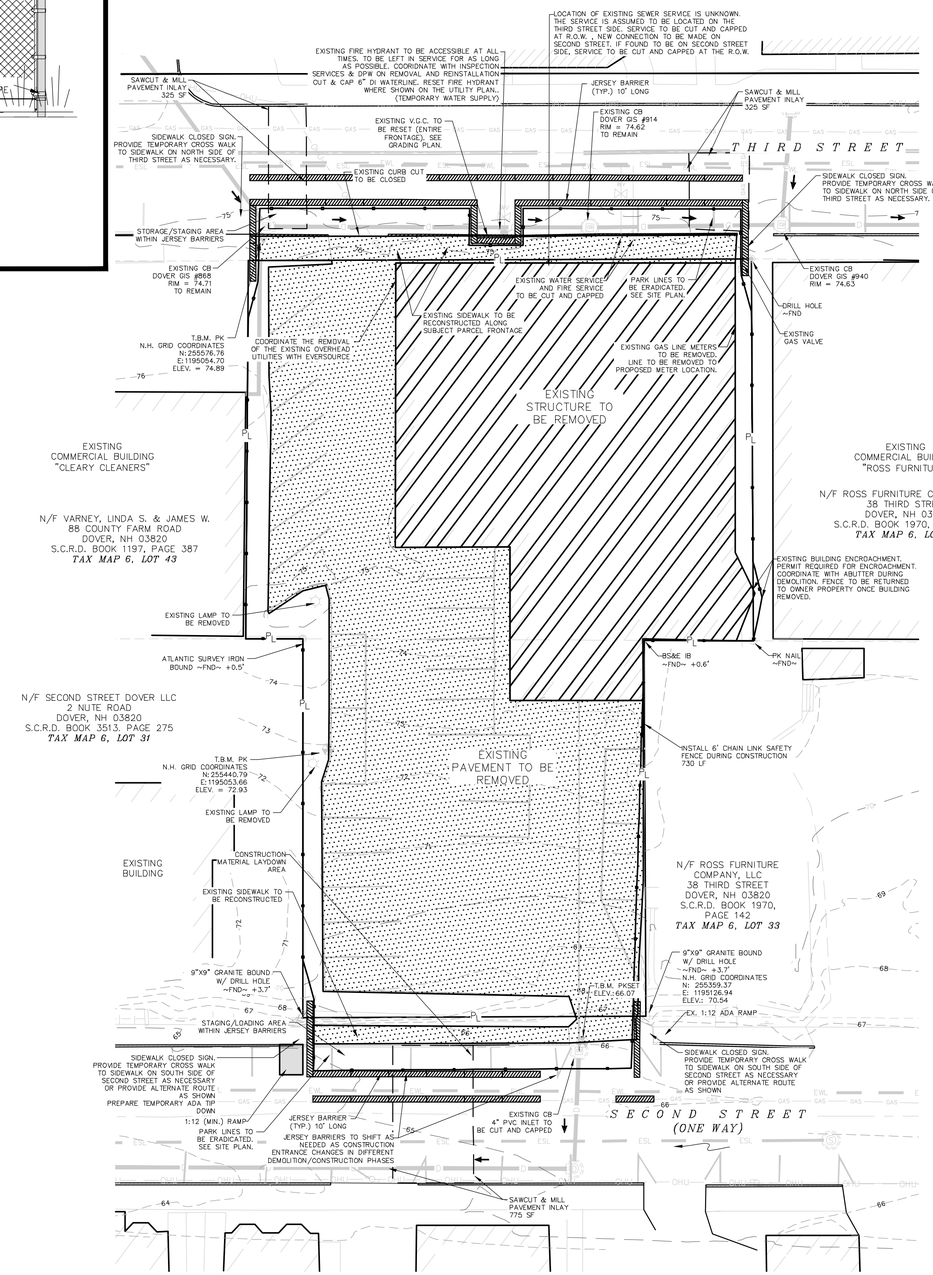
TYPICAL CONCRETE JERSEY BARRIER

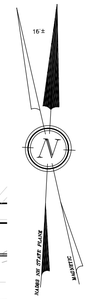
NOT TO SCALE



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. #5 REBAR BENT TO RECEIVE 1" DIA CONNECTING ROD.
3. LIFTING HOLE ACCEPTS 1 3/4" DIA H.T. ROD.
4. BARRIER RENTAL AVAILABLE.





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APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

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B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.
B.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.

5.) THE INTENT OF THIS PLAN IS TO SHOW THE ITEMS TO BE DEMOLISHED ON TAX MAP 6, LOTS 32 & 40.

6.) GRADE STAKES ARE TO BE PLACED AROUND ALL BOUNDARIES & CONTROL POINTS TO BE PROTECTED DURING CONSTRUCTION.

7.) 6' DEMO FENCE IS REQUIRED.

8.) CALL PROFESSIONAL EXTERMINATOR A MINIMUM OF THREE WEEKS AHEAD OF GROUND BREAKING AND PEST CONTROL DEVICES ARE TO BE SET A MINIMUM OF TWO WEEKS BEFORE GROUND BREAKING. PLEASE FIND PEST CONTROL PLAN BY DEPENDABLE PEST SOLUTIONS.

9.) ALL DISTURBED MONUMENTS TO BE RE-SET BY BS&E UPON COMPLETION OF PROJECT.

10.) COORDINATE WITH INSPECTION SERVICES ON DEMOLITION PERMIT.

11.) ANY "METERED PARKING" SIGNS ARE TO BE DELIVERED TO DPW OR COORDINATED WITH THE PARKING MANAGER.

12.) EXISTING WATER AND SEWER SERVICES TO BE CUT & CAPPED..

13.) CALL DIG SAFE PRIOR TO BEGINNING WORK (1-888-344-7233).

14.) CONTRACTOR IS RESPONSIBLE FOR THE RELOCATION OF HYDRANT AND FOR CAPPING EXISTING SERVICE. CONTRACTOR SHALL COORDINATE WITH CITY PRIOR TO RELOCATION.

REVISION	DATE	DESCRIPTION
#1	9-26-22	REVISED PER DOVER TRC COMMENT

DEMOLITION PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

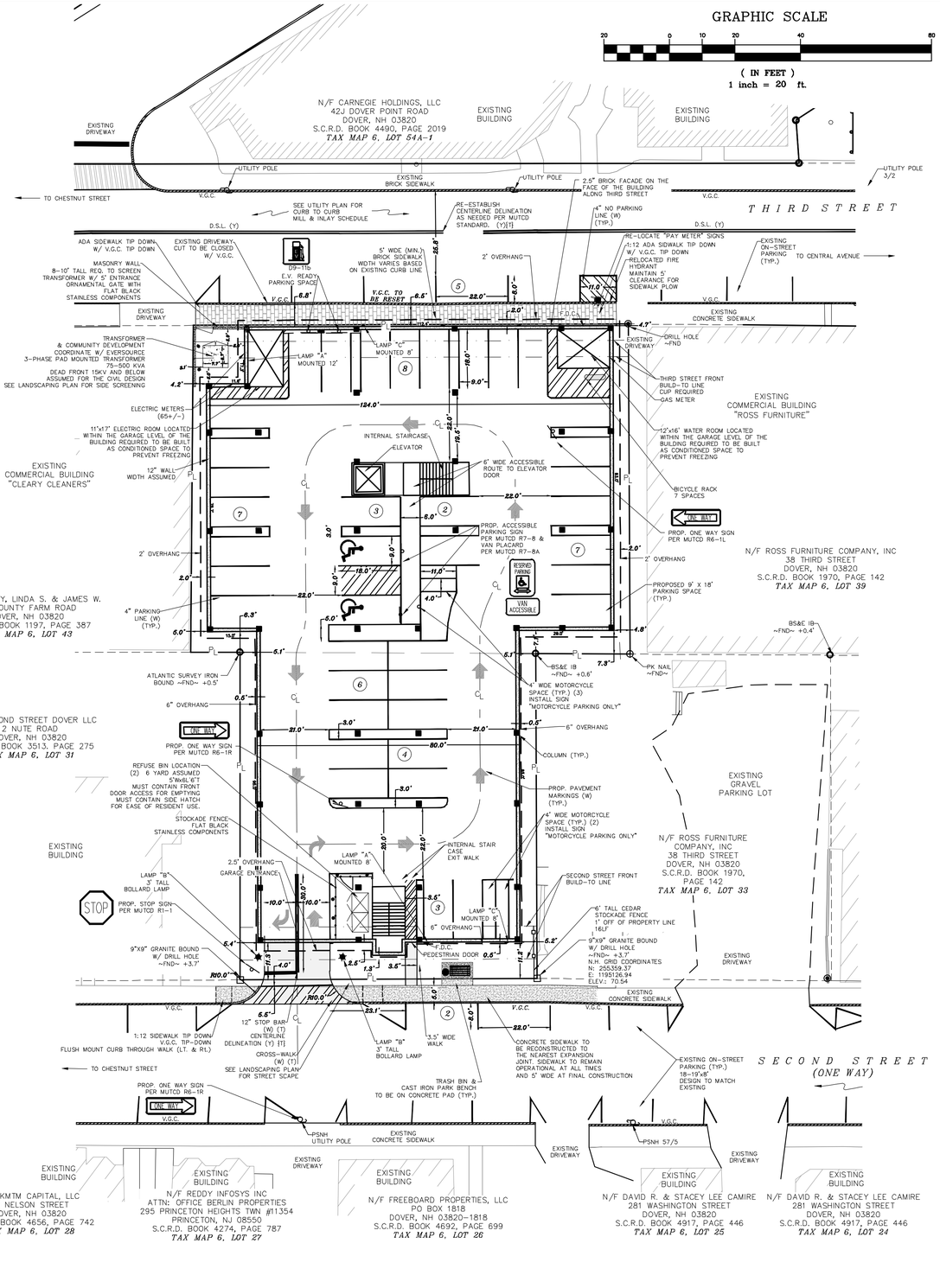
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 13246
LICENSED PROFESSIONAL ENGINEER

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NOT FOR CONSTRUCTION



NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.
B.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac. TOTAL: 22,364 Sq.Ft.

5.) ZONING: CBD – CENTRAL BUSINESS DISTRICT (GENERAL SUB-DISTRICT)

	PROVIDED
SETBACKS	
FRONT BUILD TO (SECOND ST) ~ 6-16'	7.3'
FRONT BUILD TO (THIRD ST) ~ 5-10'	0.5' (SEE CUP)
SIDE ~ 0'-24' MAX	4.2' MIN, 7.3' MAX
REAR ~ 10'	N/A
MIN. LOT SIZE: N/A	
MIN. FRONTAGE BUILD-OUT: 70%	88.3% (SECOND ST.)
	92.7% (THIRD ST.)
MIN. LOT COVERAGE: 75%	84.8%
MAX. BUILDING HEIGHT: 5 STORIES FROM EACH STREET.	5 STORIES VIEW
MIN. BUILDING HEIGHT: 2 STORIES	

*PERCENTAGES ARE A FACTOR OF THE LOT MERGER

6.) THE INTENT OF THIS PLAN IS TO SHOW THE SITE PLAN FOR THE PROPOSED DEVELOPMENT. PARKING IN BASEMENT LEVEL, COMMERCIAL UNITS AND AND RETAIL UNITS ON LEVEL 1 AND SIXTEEN RESIDENTIAL UNITS PER FLOOR ON LEVELS 2-4 AND TEN ON LEVEL 5 FOR A TOTAL OF FIFTY-EIGHT (58) RESIDENTIAL UNITS.

7.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS PROPERTY DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF: FEMA COMMUNITY #330145, MAP 33017C0310E, DATED: SEPTEMBER 30, 2015.

8.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.

9.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN SPRING OF 2018 WITH AN ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000.

10.) LIST ANY VARIANCES OR SPECIAL EXCEPTIONS GRANTED BY THE ZONING BOARD OF ADJUSTMENT OR CONDITIONAL USE PERMITS GRANTED BY THE PLANNING BOARD FOR THE PROPOSED USE OR STRUCTURE:
NONE

11.) WETLANDS WERE DELINEATED BY DEIDRA BENJAMIN, CERTIFIED WETLANDS SCIENTIST, IN ACCORDANCE WITH CHAPTER 170-27.1 OF THE ZONING ORDINANCE, IN JUNE OF 2022. NO WETLANDS WERE FOUND ON SITE.

12.) AS-BUILT PLANS OF THE SITE PLAN SHALL BE SUBMITTED ON PAPER AND IN DIGITAL FORMAT AUTOCAD DWG, AUTOCAD DXF OR ESRI FORMAT TO THE CITY OF DOVER ENGINEER'S OFFICE UPON COMPLETION OF PROJECT. AS-BUILTS ARE REQUIRED REGARDLESS OF OWNERSHIP OF ROAD. AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E. DIGITAL FILES SHALL BE GEO-REFERENCED TO NEW HAMPSHIRE STATE PLANE COORDINATES NAD83 AND SHALL BE EXPRESSED IN FEET.

13.) THE INSTALLATION OF ELECTRIC POWER, CABLE TELEVISION AND TELEPHONE LINES SHALL BE UNDERGROUND THROUGHOUT THE SITE FOR WHICH DEVELOPMENT IS PROPOSED.

14.) THE SUBJECT PARCEL IS SERVED BY MUNICIPAL WATER AND SEWER.

15.) ALL CONSTRUCTION SHALL CONFORM WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" DATED 2016, AND WITH THE CITY OF DOVER COMMUNITY SERVICES REGULATIONS AND STANDARD SPECIFICATION FOR CONSTRUCTION. THE MORE STRINGENT SPECIFICATION SHALL APPLY.

16.) ALL EROSION CONTROL NOTES SHALL INCLUDE PROVISIONS FOR CONSTRUCTION SEQUENCING, TEMPORARY EROSION CONTROL MEASURES, AND PERMANENT STANDARDS SUCH AS LOAM SPREAD RATE FOR DISTURBED AREAS, RATES OF LIME, TYPE AND RATES FOR FERTILIZER, AND SEED AND MULCH MIXTURE WITH RATES OF APPLICATION.

17.) ALL TREATMENT SWALES TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS. (COMMON NOTE NOT APPLICABLE TO THIS PROJECT.)

18.) A LETTER OF CREDIT FOR THE COST OF RE-VEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED, AND THE APPROVED CONSTRUCTION SIGN INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS. THE PROPOSED PROJECT WILL CONSIST OF ONE PHASE AND WILL DISTURB 22,364 Sq.Ft. 0.51 Ac.

19.) A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND THE CITY ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.

20.) SITE WORK CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY-FRIDAY 7 AM-6 PM, NO SATURDAY, SUNDAY HOURS OR FEDERAL HOLIDAYS. HOURS OF CONSTRUCTION MUST BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT INFORMATION FOR THE GENERAL CONTRACTOR. SAID SIGNAGE MUST BE LOCATED AND APPROVED BY THE CITY ENGINEER OR ASSISTANT CITY MANAGER.

21.) BUILDING ADDRESSES SHALL BE ASSIGNED BY THE BUILDING OFFICIAL AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.

22.) THE FOLLOWING FEDERAL AND STATE PERMITS OR UTILITY ORDERS HAVE BEEN ISSUED FOR THE SUBJECT PROPERTY:

NHDES SEWER DISCHARGE PERMIT	PENDING
EVERSOURCE WORK ORDER NUMBER	10032810

23.) COMMERCIAL VEHICLE ROUTE DURING CONSTRUCTION SHALL CONFORM TO DOVER CITY CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR. IN ADDITION, A SPECIFIC PRE-CONSTRUCTION MEETING IS TO BE HELD WITH THE DEVELOPER, SITE CONTRACTOR AND MUNICIPAL DEPARTMENT HEADS TO DETERMINE STAGING AREA REQUIREMENTS. A REVIEW OF APPROVED LOCATIONS AND WRITTEN AGREEMENTS ARE NEEDED TO ENSURE THE PROJECT WILL NOT HAVE A DETRIMENTAL IMPACT ON THIRD STREET BUSINESSES OR SECOND STREET RESIDENTS.

24.) ANY RETAINING WALL TALLER THAN FOUR FEET (4') REQUIRES ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.

25.) ANY FENCE TALLER THAN SEVEN FEET (7') REQUIRES THE ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.

26.) APPLICANT SHALL COMPLETE LAND USE DEVELOPMENT TRACKING FORM, MOST RECENTLY REVISED VERSION, UTILIZING THE ONLINE POLLUTION TRACKING AND ACCOUNTING PILOT PROJECT (PTAPP) PORTAL.
HTTPS: //WWW.UNH.EDU /UNHSC/PTAPP

27.) THE BUILDING IS REQUIRED TO BE SOLAR READY. THE TOTAL FOOT PRINT OF THE BUILDING IS 18,970 Sq.Ft. 30% OF THE ROOF (5,691 Sq.Ft.) IS REQUIRED TO BE CONSTRUCTED AS A GREEN ROOF OR CONTAIN SOLAR PANELS. THE APPLICANT IS PROPOSING A GREEN ROOF WITH A TOTAL OF 5,800 Sq.Ft..

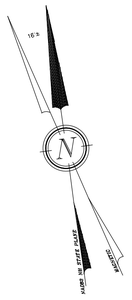
28.) THE OWNER OF RECORD SHALL RECORD AT THE REGISTRY OF DEEDS DOCUMENTATION SUFFICIENT TO PROVIDE NOTICE TO ALL PERSONS/ENTITIES THAT MAY ACQUIRE ANY PROPERTY SUBJECT TO THE REQUIREMENTS AND RESPONSIBILITIES DESCRIBED IN THE APPROVED STORMWATER MANAGEMENT PLAN. THE NOTICE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS FOR RECORDING CONTAINED IN RSA 477 AND 478. THE NOTICE NEED NOT SET FORTH THE REQUIREMENTS AT LENGTH, SO LONG AS IT IS SUFFICIENT TO PROVIDE NOTICE TO PROSPECTIVE PURCHASERS TO THE REQUIREMENTS FOR MAINTENANCE AND REPORTING. (COMMON NOTE NOT APPLICABLE FOR THIS PROJECT).

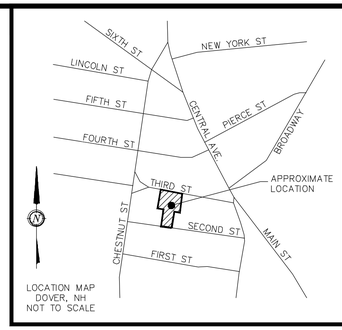
29.) FIRE DEPARTMENT ACCESS SHALL BE INSTALLED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS IN ALL WEATHER CONDITIONS AT ALL TIMES.

30.) EXTERIOR LIGHTING SHALL BE CUT-OFF TYPE FIXTURES PER CHAPTER 153-14-E AND SHALL PROVIDE LIGHTING DIRECTED ON-SITE ONLY.

31.) A SECURITY SYSTEM SHALL BE INSTALLED AS REQUIRED BY CHAPTER 45, ARTICLE I, SECTION 45-2 OF THE CODE OF THE CITY OF DOVER.

32.) APPROVED BACKFLOW PREVENTERS SHALL BE PROVIDED FOR BOTH FIRE AND DOMESTIC WATER LINES.





NOTES CONTINUED:

33.) THE PROPOSED STRUCTURE SHALL BE SERVED BY A SPRINKLER SYSTEM AS REQUIRED BY CHAPTER 81- 30 OF THE CODE OF THE CITY OF DOVER AND THE ADOPTED STATE OF NH BUILDING AND FIRE CODES.

34.) SPRINKLER CONNECTIONS MUST BE FLUSHED IN ACCORDANCE WITH NFPA 24 AND A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM MUST BE COMPLETED AND APPROVED BY INSPECTION SERVICES PRIOR TO CONNECTION OF THE BACKFLOW DEVICE.

35.) FIRE DEPARTMENT CONNECTION(S) SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDING PER NFPA 13. ACCESS TO THE FDC SHALL MAINTAIN A CLEAR AND UNOBSTRUCTED PATH AT ALL TIMES.

36.) THE SITE LAYOUT IS DESIGNED IN COMPLIANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS. THE PROPOSED STRUCTURE WILL BE ALSO BE DESIGNED IN ACCORDANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS. (I.E. IBC, ANSI-117.1) AND NH RSA 155-A: 5.

37.) EXISTING BUILDING AREA: 8,854 Sq. Ft. (39.6%)
EXISTING PAVED IMPERVIOUS AREA: 10,995 Sq. Ft. (49.1%)
TOTAL EXISTING IMPERVIOUS COVER IS 19,849 Sq. Ft. (88.8%)
PROPOSED BUILDING AREA: 18,970 Sq. Ft. (84.8%)
PROPOSED PAVED IMPERVIOUS AREA: 290 Sq. Ft. (1.3%)
TOTAL PROPOSED IMPERVIOUS COVER IS 13,460 Sq. Ft. (60.1%)
TOTAL IMPERVIOUS CONSIDERS GREEN ROOF (5,800 Sq. Ft.)
VALUES ARE A FUNCTION OF THE LOT MERGER

38.) PRIVATE TRASH PICKUP WILL BE USED THROUGH THE USE OF BINS COLLECTED AND STORED AT THE PARKING LEVEL WITHIN AN ENCLOSURE.

39.) MUNICIPAL SIDEWALK TO REMAIN OPERATIONAL AT ALL TIMES. SIDEWALK RECONSTRUCTION SHALL EXTEND TO THE LIMITS OF THE PROPERTY LINE AT A MINIMUM. SEE PROPOSED SCHEMATIC DESIGN FOR REMAINDER OF THIRD STREET.

40.) THE CLOSEST FIRE HYDRANT IS ON THE SIDEWALK ADJACENT TO THE SUBJECT PARCEL ON THE THIRD STREET SIDE.

41.) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND TO PRESERVE ANY AND ALL UNDERGROUND UTILITIES CALL "DIG-SAFE" 1-888-DIGSAFE (344-7233) AT LEAST 72 HOURS BEFORE COMMENCING CONSTRUCTION.

42.) AS PART OF THE CONSIDERATION OF THE PROPOSED SITE PLAN THE PLANNING BOARD IS APPROVING THE MERGER OF THESE TWO LOTS. PLEASE FIND LOT MERGER PLAN, SHEET #4.

43.) MECHANICAL SYSTEMS ARE PROPOSED TO BE ON THE ROOF AND SHIELDED BY THE PEREPET.

44.) CROSSWALK ACROSS THE DRIVEWAY IS TO BE MAINTAINED BY APPLICANT, NOT CITY.

45.) COORDINATE WITH COMMUNITY SERVICES PRIOR TO STRIPING WITHIN PUBLIC RIGHT OF WAYS.

46.) MAIL KIOSK IS TO BE LOCATED ON THE SECOND FLOOR (ENTRANCE FROM THIRD STREET).

47.) PARKING METERS ARE TO BE REMOUNTED AT THE BUILDERS EXPENSE (TO INCLUDE ALL RELATED COSTS) IN A LOCATION DETERMINED BY THE PARKING MANAGER.

CONDITIONAL USE PERMITS:

1 BENCH FOR EVERY 75' OF FRONTAGE: NO BENCH IS PROPOSED ON THIRD STREET DUE TO SIDEWALK CONSTRAINTS.
STREET TREES REQUIRED EVERY 25-30': NO STREET TREES ARE PROPOSED ON THIRD STREET DUE TO SIDEWALK CONSTRAINTS.

RECREATION SPACE REQUIREMENTS:

PROPOSED NUMBER OF BEDROOMS: 83
OPEN SPACE REQUIREMENT (100 SF PER BEDROOM): 8,300 SF
½ RECREATION SPACE FOR PASSIVE USE: 4,150 SF (SATISFIED ON SITE GREEN ROOF)
½ RECREATION SPACE FOR ACTIVE USE: 4,150 SF (SATISFIED OFF SITE)
ACTIVE RECREATION FEE REQUIRED

WAIVER REQUEST:

PARKING GARAGE ISLE WIDTH: 153-14(D)(6)(a)
SITE SPECIFIC SOILS MAP: 153-14(A)(3)(f)(2)(C)

PARKING REQUIREMENTS:

CHAPTER 153-14D PARKING TABLE
- RESIDENTIAL (CBD-G)
  - 1.25 SPACES PER UNIT + 0.4 VISITOR SPACE PER UNIT
  - MIN. CALCULATION: 58 UNITS x 1.25 SPACES = 73 SPACES
  - MAX. CALCULATION: 58 UNITS x 1.65 SPACES = 96 SPACES

TOTAL PROPOSED PARKING SPACES = 39 SPACES
34 ADDITIONAL PARKING SPACES WILL BE PROVIDED OFF SITE AT 35 THIRD STREET

MIN. REQUIRED PARKING SPACES: 73 SPACES
MAX. ALLOWED PARKING SPACES: 96 SPACES
PROPOSED PARKING SPACES: 73 SPACES
5% BICYCLE RACK STORAGE = 4 SPACES REQ. 7 SPACES PROVIDED
5% EV SPACE REQ. = 2 SPACES REQ. 2 SPACES PROVIDED
THE PROJECT LOSES 1 SPACE FROM SECOND STREET (DUE TO REQUIRED RESTRIPING) AND ADDS 3 SPACES ON THIRD STREET.

#	REVISION	DATE	DESCRIPTION
#1		9-26-22	REVISED PER DOVER TRC COMMENT

SITE PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y. WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

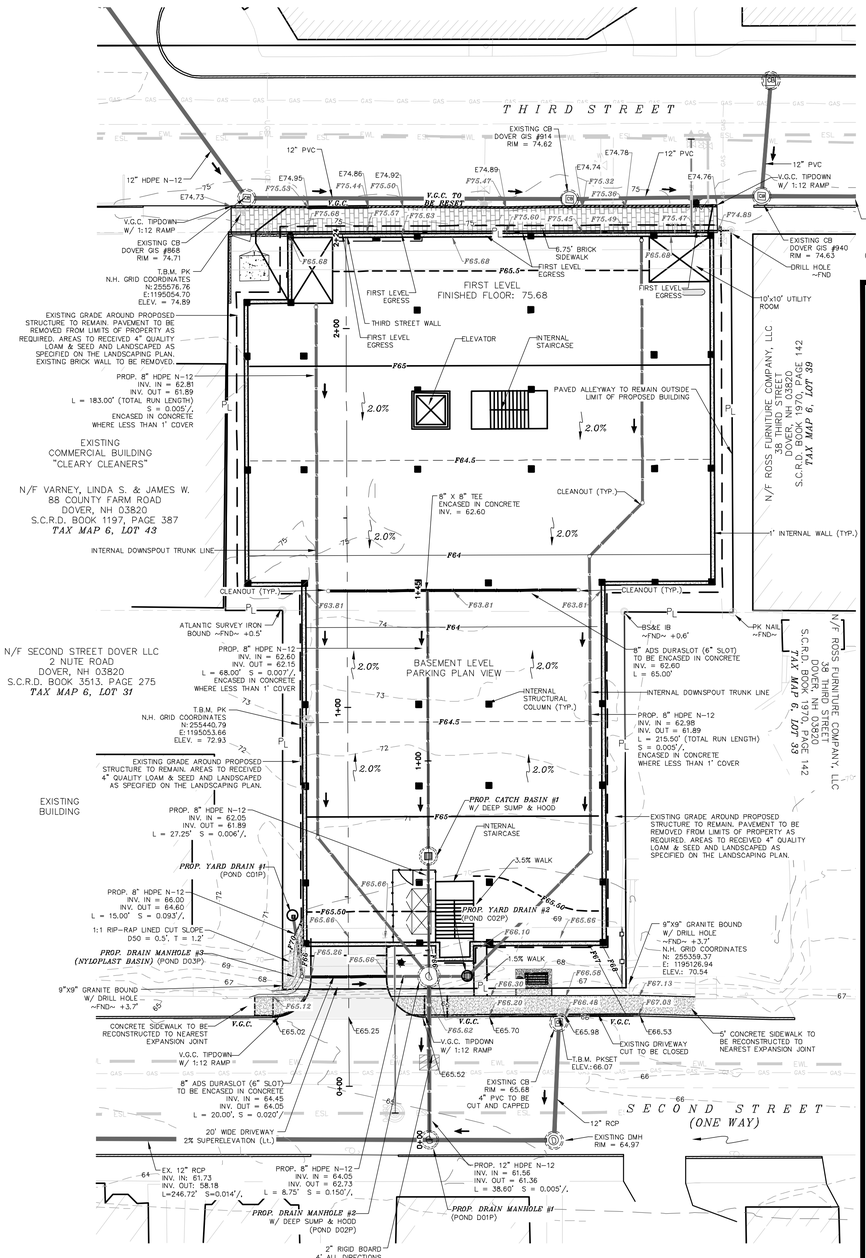
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14240
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



PLAN VIEW BASEMENT LEVEL PARKING

STRUCTURES TABLE:

PROP. DRAIN MANHOLE #1 (POND D01P)
4'ø STRUCTURE W/ LIFTNATE R-1743-LM RIM
RIM = 64.76
INV. IN = 61.35 (PROP. 12" HDPE N-12)
INV. IN = 61.32 (EX. 12" RCP)
INV. OUT = 61.26 (EX. 12" RCP)

PROP. DRAIN MANHOLE #2 (POND D02P)
5'ø STRUCTURE W/ LIFTNATE R-1743-LM RIM
RIM = 66.31
INV. IN = 62.73 (8" HDPE N-12)
INV. IN = 61.89 (8" HDPE N-12)
INV. IN = 61.89 (8" HDPE N-12)
INV. IN = 61.66 (12" HDPE N-12)
INV. OUT = 61.56 (12" HDPE N-12)
W/ 4' SUMP & HOOD

PROP. DRAIN MANHOLE #3 (POND D03P)
12"ø NYLOPLAST BASIN W/ SOLID COVER
RIM = 67.00 (FLUSH)
INV. IN = 64.60 (8" HDPE N-12)
INV. OUT = 64.50 (8" HDPE N-12)

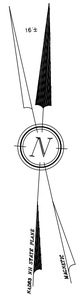
PROP. YARD DRAIN #1 (POND C01P)
12"ø NYLOPLAST BASIN W/ DOMED GRATE
RIM = 70.00 (FLUSH)
INV. OUT = 66.00 (8" HDPE N-12)

PROP. YARD DRAIN #2 (POND C02P)
12"ø NYLOPLAST BASIN W/ DOMED GRATE
RIM = 65.75 (FLUSH)
INV. IN = 61.95 (8" HDPE N-12)
INV. OUT = 61.95 (8" HDPE N-12)

PROP. CATCH BASIN #1
4'ø STRUCTURE W/ TYPE "B" GRATE
RIM = 65.20 (FLUSH)
INV. IN = 62.15 (8" HDPE N-12)
INV. OUT = 62.05 (8" HDPE N-12)
W/ 4' SUMP & HOOD

LEGEND:

- PROPOSED DRAIN MANHOLE W/ STRUCTURE
- PROPOSED CATCH BASIN W/ STRUCTURE
- TEMPORARY BENCHMARK (T.B.M.)
- E101 / E6 — DETAIL SHEET / DETAIL
- 76 / 75 / P76 / F75 — CONTOUR MINOR, EXISTING / CONTOUR MAJOR, EXISTING / CONTOUR MINOR, PROPOSED / CONTOUR MAJOR, PROPOSED
- CENTER LINE
- EWL / ESL / GAS / OHU — EXISTING WATER MAIN / EXISTING SEWER LINE / EXISTING DRAINAGE LINE / EXISTING GAS LINE / EXISTING OVERHEAD UTILITY
- W / S / D / GAS / UGE — PROPOSED WATER MAIN / PROPOSED SEWER LINE / PROPOSED DRAINAGE LINE / PROPOSED GAS LINE / UNDERGROUND UTILITY
- E109.31 — EXISTING SPOT GRADE
- F109.31 — PROPOSED SPOT GRADE
- FLOW ARROW



NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.
B.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.

5.) THE INTENT OF THIS PLAN IS TO PROVIDE GRADING & ENGINEERING OF THE PROPOSED BUILDING AND TAX MAP 6, LOTS 32 & 40.

6.) SEE EROSION & SEDIMENT CONTROL PLANS FOR DETAILS ON PERIMETER CONTROL (MULCH BERM / FENCE / SILT SOXX).

7.) BS&E IS TO PROVIDE ADDITIONAL BENCHMARKS PRIOR TO CONSTRUCTION.

8.) EXISTING AND PROPOSED CONTOURS ARE PROVIDED AT 1' INTERVALS WITH DRAINAGE FEATURES AT MORE PRECISE INTERVALS.

GRADING NOTES:

1.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2016. CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

2.) CONTRACTOR SHALL TAKE SPECIAL CARE IN NOT DISTURBING EXISTING MONUMENTS BOUNDS, AND OR BENCHMARKS WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION

3.) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND TO PRESERVE ANY AND ALL UNDERGROUND UTILITIES CALL "DIG-SAFE" 1-888-DIGSAFE (344-7233) AT LEAST 72 HOURS BEFORE COMMENCING CONSTRUCTION

4.) WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.

5.) THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.

6.) AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. LIMIT OF GRADING SHOULD NOT BE EXPANDED WITHOUT CONSULTING THE DESIGN ENGINEER. SEE ALSO E&SC PLAN.

7.) THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS, OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE & RESET" (R & R).

8.) ALL SYMBOLS, WORDS, TRANSVERSE MARKINGS (STOP BARS, CROSSWALK LINES, AND RAILROAD SYMBOLS), LANE LINES, AND ALL OTHER MARKINGS NOTED WITH [T] SHALL BE THERMOPLASTIC.

9.) ALL DISTURBED AREAS NOT DESIGNATED TO BE PAVED SHALL HAVE LOAM PLACED AND SEEDED. THE LOAM SHALL HAVE A MINIMUM DEPTH OF 4 INCHES AND SHALL BE PLACED FLUSH WITH THE TOP OF THE ADJACENT CURB, EDGING, BERM OR PAVEMENT SURFACE.

10.) ALL ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY. TEMPORARY BENCHMARKS (T.B.M.) ARE TO BE PROVIDED BY THE DESIGN ENGINEER.

11.) NOTE THAT THE PROJECT IS NOT SUBJECT TO THE EPA NPDES PHASE II.

12.) UPON FINAL COMPLETION AND 85% STABILIZATION THE DRAINAGE SYSTEM IS TO BE CLEANED OF ALL DEBRIS TO INCLUDE THE PUMPING OF THE BASINS. SEE SHEET E102, DETAIL E18 FOR DEFINITION OF STABLE.

13.) ALL DRAINAGE PIPE IS TO BE HDPE N-12. INDIVIDUAL PIPE SIZES ARE SPECIFIED, RECYCLED PIPE IS APPROVED FOR PROJECT SITE. RECYCLED HDPE PIPE "GREEN PIPE" IS ACCEPTABLE FOR THIS PROJECT SITE.

14.) ALL BASINS AND DRAINS ARE TO HAVE BOOTS INSTALLED ON ALL INLETS AND OUTLETS.

15.) A LETTER OF CREDIT FOR THE COST OF RE-VEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS, AS MAY BE APPLICABLE.

16.) A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND DOVER CITY STAFF SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.

17.) BUILDING ADDRESSES SHALL BE DETERMINED BY THE BUILDING OFFICIAL.

18.) THE PROPOSED PROJECT WILL CONSIST OF ONE PHASE AND WILL DISTURB 22,364 Sq.Ft. 0.51 Ac.

19.) WRITTEN DIMENSION ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS TO CONFIRM ALL ELEVATIONS. CONFLICTS WILL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.

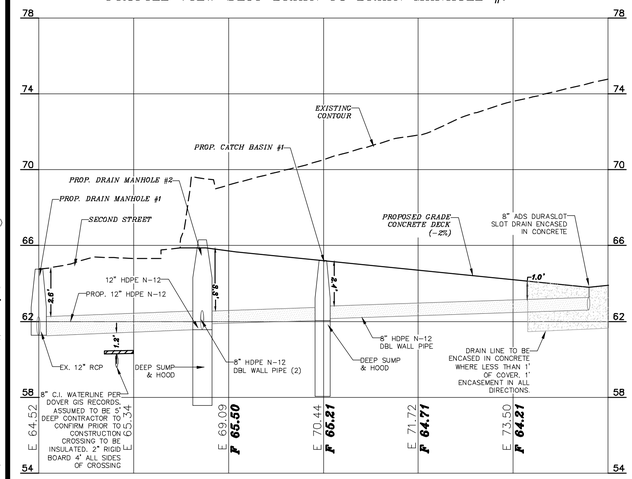
20.) COMMERCIAL VEHICLE ROUTE DURING CONSTRUCTION SHALL CONFORM WITH CITY OF DOVER CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR.

21.) SEE DETAILS CONCERNING SITE LAYOUT, DRAINAGE, UTILITY, AND SEDIMENT AND EROSION CONTROLS.

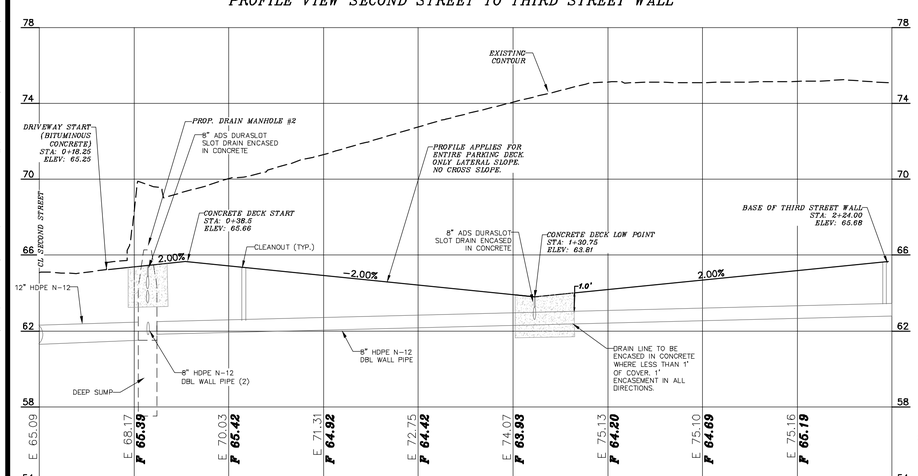
22.) THE TOTAL FOOT PRINT OF THE BUILDING IS 18,970 Sq.Ft. 30% OF THE ROOF (5,691 Sq.Ft.) IS REQUIRED TO BE CONSTRUCTED AS A GREEN ROOF OR CONTAIN SOLAR PANELS. THE APPLICANT IS PROPOSING A GREEN ROOF WITH A TOTAL OF 5,800 Sq.Ft.

23.) GREEN ROOF TO DRAIN TO INTERNAL DOWNSPOUT SYSTEM TO BE DETERMINED IN ARCHITECTURAL DESIGN.

PROFILE VIEW SLOT DRAIN TO DRAIN MANHOLE #1



PROFILE VIEW SECOND STREET TO THIRD STREET WALL



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 4'

#	REVISION	DATE	DESCRIPTION
1		9-26-22	REVISED PER DOVER TRC COMMENT

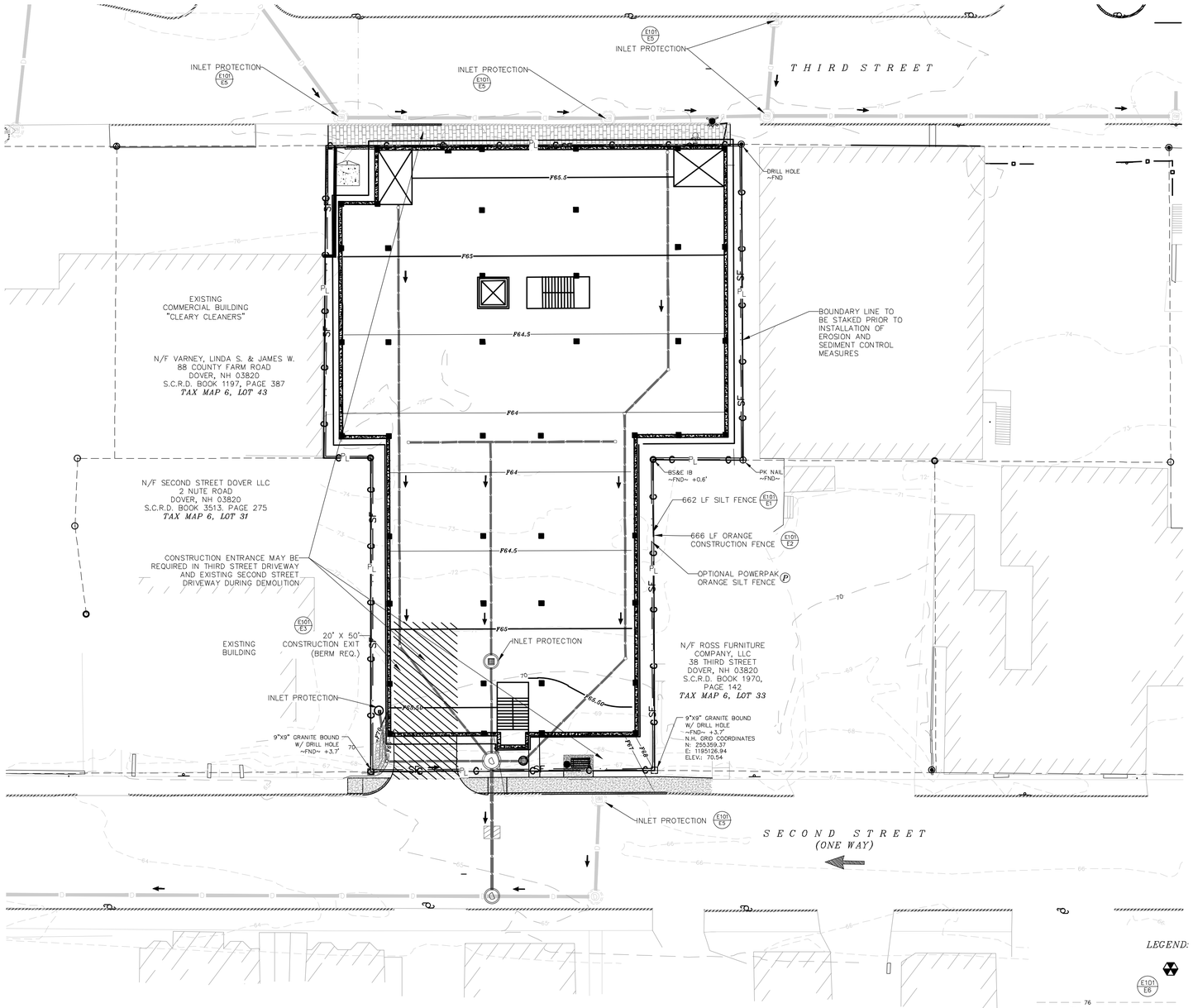
GRADING & DRAINAGE PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 13240 LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION



NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE Of THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.
B.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.

5.) THE INTENT OF THIS PLAN IS SHOW THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES.

6.) CONTRACTOR IS TO INSTALL A CONSTRUCTION ENTRANCE PRIOR TO EARTH DISTURBING ACTIVITIES.

7.) CONTRACTOR IS RESPONSIBLE FOR SWEEPING THE PARKING LOT, SIDEWALKS AND ANYTHING DISTURBED, TO ENSURE THAT NO SEDIMENT IS BEING TRACKED ONTO THIRD STREET, SECOND STREET, OR THE EXISTING DRIVEWAYS.

8.) CONTRACTOR IS RESPONSIBLE FOR CLEANING AND MAINTAINING THE INLET PROTECTION ONCE INSTALLED.

9.) FUGITIVE DUST IS TO BE CONTROLLED THROUGHOUT THE CONSTRUCTION PROCESS IN ACCORDANCE WITH ENV–A 1000.

10.) CONTRACTOR IT TO MEET THE REQUIREMENTS SPECIFIED IN RSA 430:51–57 AND AGR 3800, RELATING TO INVASIVE SPECIES.

11.) CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE WATER QUALITY FROM ANY RUN OFF DURING THE CONSTRUCTION PROCESS, IN ACCORDANCE WITH ENV–WQ 1507, IN ORDER TO PREVENT VIOLATIONS OF THE STORM WATER QUALITY STANDARDS.

12.) CONTRACTOR MAY USE SILT FENCE OR SILT SOXX FOR PERIMETER CONTROL (MULCH BERM WOULD NOT BE APPROPRIATE IN THIS LOCATION. SPECIFIC PRACTICES MAY BE SPECIFIED, SEE PLAN.

13.) EROSION AND SEDIMENT CONTROL INSPECTIONS TO BE CONDUCTED ONCE PER EVERY SEVEN DAYS AND AT AN INCREASED FREQUENCY INCLUDING WITHIN 24–HOURS OF A 0.25 INCH RAIN EVENT. INSPECTIONS TO BE CONDUCTED BY A "QUALIFIED PERSON" AS DEFINED BY EPA CGP 4.1.1 AND INSPECTION REPORTS SUBMITTED TO THE CITY OF DOVER, NH, ENGINEERING DEPARTMENT WITHIN 24 HOURS IN ACCORDANCE WITH CGP 4.1.7 AND MAINTAINED BY THE OWNER FOR A PERIOD OF THREE YEARS AFTER THE PROJECT IS COMPLETED. SEE ALSO CITY OF DOVER ADDITIONAL INSPECTION REQUIREMENTS BELOW.

14.) PER EPA CGP 2.1.2.2 (INSTALL PERIMETER CONTROL), "YOU MUST INSTALL SEDIMENT CONTROLS ALONG THOSE PERIMETER AREAS OF YOUR SITE THAT WILL RECEIVE STORMWATER FROM EARTH DISTURBING ACTIVITIES." AS A RESULT OF SWPPP INSPECTIONS, THE CONTRACTOR MAY HAVE TO EXPAND PERIMETER CONTROLS TO MEET THIS REQUIREMENT. THE E&SC PLAN IS INITIAL GUIDANCE AS TO THE ANTICIPATED REQUIREMENTS AND IT THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT STORMWATER VIOLATION DO NOT OCCUR. (CGP – CONSTRUCTION GENERAL PERMIT)

15.) CITY OF DOVER: IN ACCORDANCE WITH SITE PLAN REVIEW REGULATIONS (153–14) THE FOLLOWING STORMWATER MEASURES ARE REQUIRED.

A.) ALL PROPOSED BMPs WILL CONFORM TO THE NH STORMWATER MANUAL VOLUME 3.
B.) EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL LAND DISTURBANCE AND MUST BE REVIEWED AND APPROVED BY COMMUNITY SERVICE.
C.) TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN CALENDAR DAYS FOR EXPOSED SOILS AREAS THAT ARE WITHIN ONE HUNDRED FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOIL AREAS.
D.) ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL STABILIZATION IS ACCOMPLISHED.
E.) COMMUNITY SERVICES DEPARTMENT OR THEIR DESIGNATED AGENT SHALL HAVE ACCESS TO THE SITE TO COMPLETE ROUTINE INSPECTIONS AND SHALL BE NOTIFIED 24–HOURS PRIOR TO INSTALLATION OF A STORMWATER BMP IN ORDER TO SCHEDULE AN INSPECTION, DURING NORMAL WORKING HOURS.
F.) THE PLANNING BOARD OR COMMUNITY SERVICES MAY REQUIRE THE DESIGN ENGINEER AND/OR AN INDEPENDENT, THIRD–PARTY INSPECTION AND OVERSIGHT OF THE CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES AND EROSION AND SEDIMENT CONTROL AT THEIR DISCRETION. THE OWNER / APPLICANT IS RESPONSIBLE FOR ALL FEES ASSOCIATED WITH INSPECTIONS.
G.) ALL SWPPP INSPECTIONS MUST BE CONDUCTED BY A QUALIFIED PROFESSIONAL SUCH AS A PROFESSIONAL ENGINEER (PE), A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORMWATER INSPECTOR (CESSWI), OR A CERTIFIED PROFESSIONAL IN STORMWATER QUALITY (CPSWQ). INSPECTION REPORTS WILL BE SUBMITTED TO THE COMMUNITY SERVICES DEPARTMENT. U.S. EPA, CGP 2022 REQUIRES A QUALIFIED AND CERTIFIED INSPECTOR (SEE SWPPP).

STABILIZATION NOTE:
SEE NOTE #12, SHEET E–101, DETAIL E–11
SIDE SLOPES ARE TO BE STABILIZED WITHIN THREE WORKING DAY UPON COMPLETION OF FINAL GRADE.

LEGEND:

- TEMPORARY BENCHMARK (T.B.M.)
- E101 E6 — DETAIL SHEET / DETAIL
- 76 / 75 / F76 / F75 — CONTOUR MINOR, EXISTING; CONTOUR MAJOR, EXISTING; CONTOUR MINOR, PROPOSED; CONTOUR MAJOR, PROPOSED
- CENTER LINE
- (P) STORMWATER BMP PROTECTION
- (P) PERIMETER CONTROL
- (C) RESIDENTIAL/ROADWAY CONSTRUCTION
- UTILITY POLE
- SF — SILT FENCE
- SS — FILTREXX SILTSOXX PERIMETER CONTROL
- P/C — CONSTRUCTION FENCE
- C — CONSTRUCTION ENTRANCE/EXIT

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

SOILS & DEWATERING:

SfC SUFFIELD SILT LOAM K = 0.49

SEE SITE SPECIFIC SOILS MAP (SSSM)
SEE WEBSOIL USDA–NRCS
ERODIBILITY FACTOR ~ K, CPESC MANUAL, ENVIROCERT INTERNATIONAL INC. &
ROCKINGHAM COUNTTY SOIL SURVEY, ROCKWEB SOIL ATTRIBUTES.

CONTRACTOR TO BE AWARE OF THE SOIL PROFILES AND ENSURE THAT PROPER EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE TAKEN AT ALL TIMES. ANY DEWATERING REQUIREMENTS IN NEW HAMPSHIRE REQUIRE SPECIAL PROVISIONS IN ACCORDANCE WITH THE "CLARIFICATION OF SECTION 9.1.2 (STATE OF NEW HAMPSHIRE CONDITIONS) AND OTHER NH SPECIFIC INFORMATION FOR THE U.S. EPA 2012 NPDES CONSTRUCTION GENERAL PERMIT (CGP)" DATED MAY 3, 2012 INCLUDED IN THE SWPPP.

COVER MANAGEMENT DURING CONSTRUCTION FOR EXPOSED SOIL WILL INCLUDE HAY / STRAW APPLIED AT A RATE OF 2.0 TONS PER ACRE, TEMPORARY SEEDING OF ANNUAL RYE GRASS, AND PERMANENT SEEDING AT THE EARLIES OPPORTUNITY. SEE ADDITIONAL REQUIREMENT FOR STABILIZATION ON THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS, E–101 AND E–102.

THE CONSTRUCTION SCHEDULE WILL BE MANAGED SO THAT ALL STORMWATER STRUCTURES WILL BE BUILT AND STABILIZED PRIOR TO RECEIVING SURFACE WATER RUNOFF. CONTRACTOR TO BE RESPONSIBLE FOR ALL DIVERSIONS DURING CONSTRUCTION AND FOR INTERIM SEDIMENT AND EROSION CONTROL MEASURES.

REVISION	DATE	DESCRIPTION
#1	9–26–22	REVISED PER DOVER TRC COMMENT

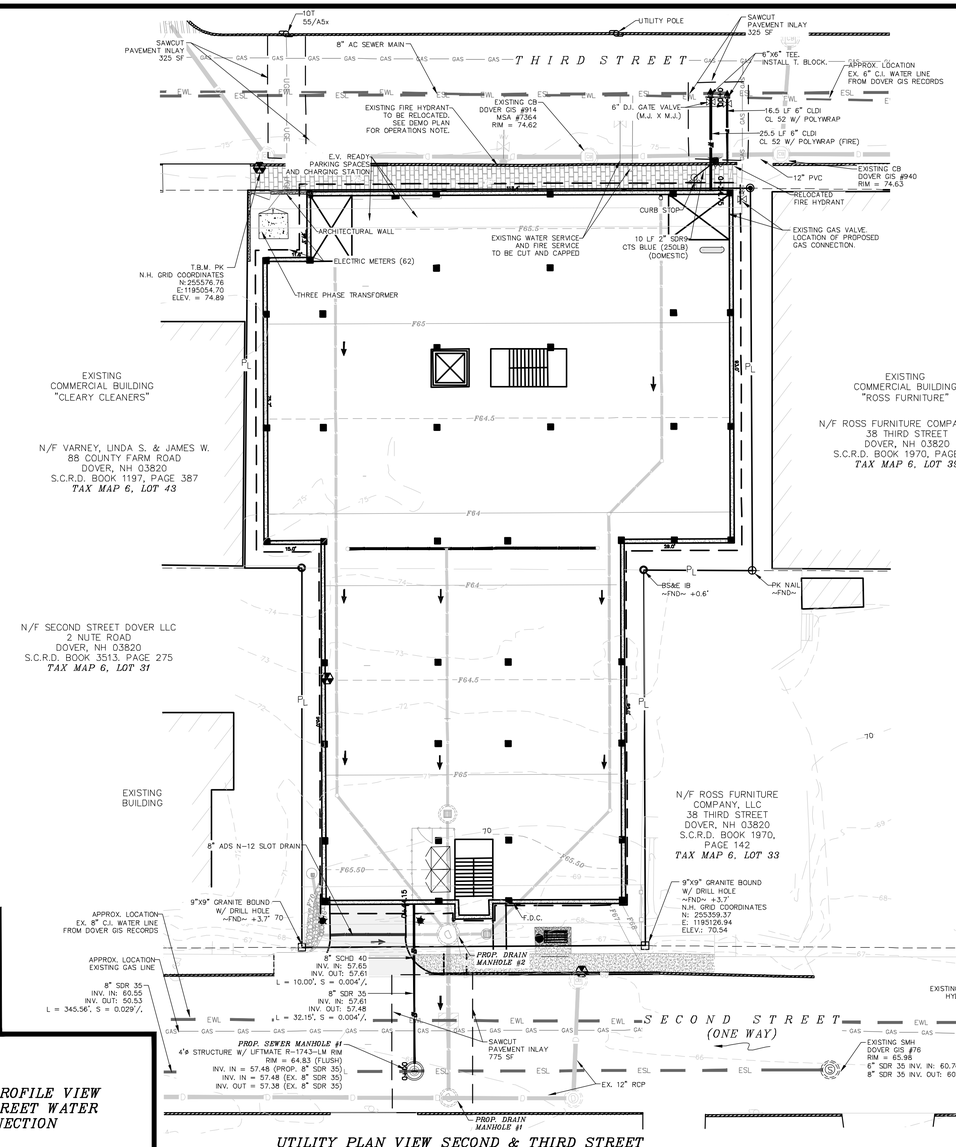
EROSION AND SEDIMENT CONTROL PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 11245
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION



UTILITY PLAN VIEW SECOND & THIRD STREET

LEGEND:

- LIGHT TYPE "A" MOUNTED ON STRUCTURE
- LIGHT TYPE "B" MOUNTED ON POLE
- LIGHT TYPE "C" MOUNTED ON STRUCTURE
- PROPOSED SEWER MANHOLE W/ STRUCTURE
- TEMPORARY BENCHMARK (T.B.M.)
- E101 / E6 — DETAIL SHEET / DETAIL
- CONTOUR MINOR, EXISTING
- CONTOUR MAJOR, EXISTING
- CONTOUR MINOR, PROPOSED
- CONTOUR MAJOR, PROPOSED
- EXISTING WATER MAIN
- EXISTING SEWER LINE
- EXISTING DRAINAGE LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD UTILITY
- PROPOSED WATER MAIN
- PROPOSED SEWER LINE
- PROPOSED DRAINAGE LINE
- PROPOSED GAS LINE
- UNDER GROUND UTILITY
- TRANSFORMER / J.BOX
- GATE VALVE
- CURB STOP
- FIRE HYDRANT
- THRUST BLOCKS
- GAS VALVE

PROJECT NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.
B.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac.

5.) THE INTENT OF THIS PLAN IS TO PROVIDE UTILITY & ENGINEERING OF THE PROPOSED BUILDING AND TAX MAP 6, LOTS 32 & 40.

6.) SEE EROSION & SEDIMENT CONTROL PLANS FOR DETAILS ON PERIMETER CONTROL (MULCH BERM / FENCE / SILT SOXX).

7.) BS&E IS TO PROVIDE ADDITIONAL BENCHMARKS PRIOR TO CONSTRUCTION.

8.) EXISTING AND PROPOSED CONTOURS ARE PROVIDED AT 1' INTERVALS WITH DRAINAGE FEATURES AT MORE PRECISE INTERVALS.

UTILITY NOTES:

1.) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE AND BELOW GROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY UTILITY CONFLICTS SHOULD BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.

2.) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

3.) PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES, TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOOF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAGFIC IN SENSITIVE AREAS, AND MAINTAINING AN EGFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL MEETING THE ENGINEERS SPECIFIC RECOMMENDED CRITERIA.

4.) IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER (NOT ALLOWED IN CITY R.O.W.), EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATION. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.

5.) PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION. VOIDS BETWEEN STONES AND CLUMPS OF MATERIAL SHALL BE FILLED WITH FINE MATERIALS.

6.) FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES AND THE DOVER DPW.

7.) CONTRACTOR TO CONTACT DOVER DPW A MINIMUM OF TWO WEEKS PRIOR TO ANY CONSTRUCTION TO COORDINATE ALL WORK CONCERNING INSTALLATION OF ANY PROPOSED WATER LINE IMPROVEMENTS.

8.) ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL CONFORM TO CITY OF DOVER STANDARDS. ALL HIGHWAY CONSTRUCTION WILL MEET THE CITY OF DOVER STANDARDS.

9.) CONTRACTOR SHALL COORDINATE ALL ELECTRICAL INSTALLATIONS WITH EVERSOURCE AT (800) 662-7764. ALL ELECTRIC CONDUIT INSTALLATION SHALL BE INSPECTED BY EVERSOURCE PRIOR TO BACKFILL. A 48-HOUR MINIMUM NOTICE IS REQUIRED.

10.) CONTRACTOR SHALL COORDINATE ALL TELECOMMUNICATIONS INSTALLATIONS WITH FAIRPOINT COMMUNICATIONS AT (603) 427-5525.

11.) CONTRACTOR SHALL COORDINATE ALL CABLE INSTALLATIONS WITH COMCAST.

12.) ALL SEWER MANHOLE RIMS & COVERS ARE TO BE LIFTMATE R-1743-LM.

13.) ALL WATER SERVICES ARE TO BE WITNESSED WITH A 2"X4" PAINTED BLUE. ALL SEWER SERVICES ARE TO BE WITNESSED WITH A 2"X4" PAINTED YELLOW, IS STUBBED PRIOR TO BUILDING CONSTRUCTION. DETECTABLE METALLIC UNDERGROUND TAPE SHALL BE LABELED APPROPRIATELY.

14.) CURB BOXES SHOULD BE PLACED IN THE LAWN AREA, OR IF PLACED IN PAVEMENT, A ROAD BOX IS REQUIRED.

15.) SEE EXISTING CONDITIONS PLAN FOR DATUM. VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS.

16.) MINIMUM SLOPE FOR ALL SEWER SERVICE CONNECTIONS IS TO BE NO LESS THAN 0.02 FT/FT.

17.) ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & DOVER DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV-WQ 704.05 (c)-(e) FOR SDR 35 GRAVITY SEWER PIPE, CONFORM WITH ENV-WQ 704.08 FOR SDR 21 / 11 / 9 FORCE MAIN PRESSURE PIPE, AND CONFORM WITH ASTM D3034. PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121. THE FORCE MAIN SHALL BE TESTED IN ACCORDANCE WITH ENV-WQ 704.09.

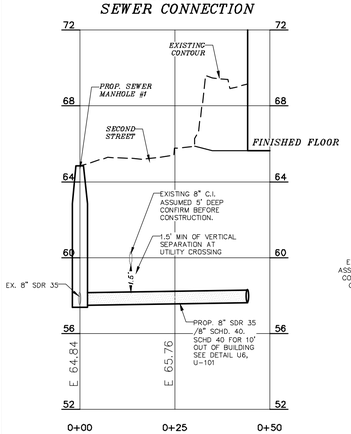
18.) CONTRACTOR TO TRANSFER TEMPORARY BENCHMARK TO A SUITABLE BENCHMARK TO CONTROL CONSTRUCTION. ANY ELEVATION DISCREPANCIES ARE TO BE REPORTED TO THE THE DESIGN ENGINEER IMMEDIATELY.

19.) ALL SEWER AND WATER CROSSINGS ARE TO MAINTAIN A 1.5' OF SEPARATION.

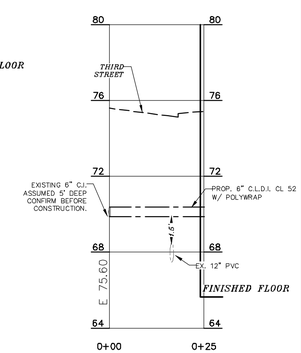
GRAPHIC SCALE

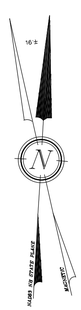
(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 4'

UTILITY PROFILE VIEW
SECOND STREET
SEWER CONNECTION



UTILITY PROFILE VIEW
THIRD STREET WATER
CONNECTION





GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

#	REVISION	DATE	DESCRIPTION
#1		9-26-22	REVISED PER DOVER TRC COMMENT

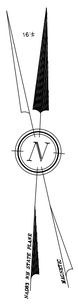
UTILITY PLAN & PROFILE
FOR: WOODEN RULER REALTY, LLC
MO Y. WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
LAND OF: JOHN WONG & MO Y WONG
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14246
LICENSED PROFESSIONAL ENGINEER

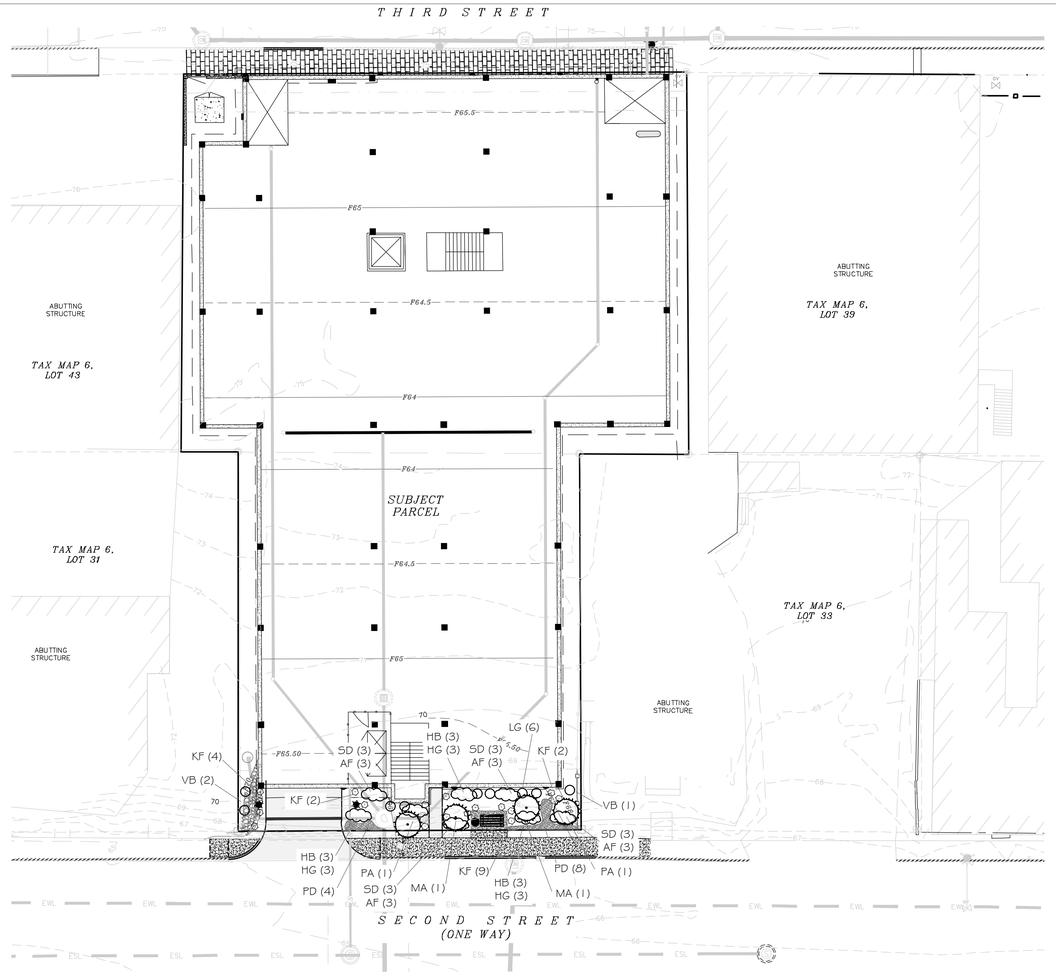
NOT FOR CONSTRUCTION



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



NOTES:

1. CALL DIG SAFE PRIOR TO BEGINNING WORK. (1-888-344-7233). THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF THE SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBING, ETC DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER OR GENERAL CONTRACTOR.
2. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
3. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS. VARIATIONS IN QUANTITIES ARE TO BE APPROVED BY THE DESIGN ENGINEER.
4. PROVIDED SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
5. ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN
6. ALL PLANT MATERIALS SHALL BE FREE FROM INSECTS AND DISEASE.
7. ALL PLANTINGS SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM OWNER.
8. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
9. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY PLANTED TREES AND SHRUBS DURING THE CONSTRUCTION PROCESS. WHERE REQUIRED, THE CONTRACTOR SHALL INSTALL TEMPORARY FENCING (SNOW OR EQUAL) AROUND EXISTING TREES AND SHRUBS THAT COULD BE IMPACTED BY THE CONSTRUCTION PROCESS. STORAGE OF CONSTRUCTION EQUIPMENT, CONSTRUCTION MATERIALS, SNOW STORAGE AND OR VEHICLE PARKING SHALL NOT BE PERMITTED WITHIN THE DRIP LINE OF TREES OR TWENTY FEET WHICH EVER IS GREATER.
10. NEW PLANTINGS SHALL BE INSTALLED PER PROJECT DRAWINGS AND SPECIFICATION THAT INCLUDE FERTILIZATION AND MULCHING AS REQUIRED.
11. ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH
12. WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.
13. MAINTENANCE OF NEW PLANTINGS AND LAWNS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND OR LANDSCAPE SUBCONTRACTOR UNTIL ACCEPTANCE BY THE OWNER. RESPONSIBILITIES SHALL INCLUDE WATERING WEEDING AND MOWING AS NECESSARY. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE, REPLACEMENT MATERIAL SHALL BE GUARANTEED FOR AND ADDITIONAL YEAR FROM TIME OF INSTALLATION.
14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY EROSION CONTROL MEASURES DURING THE CONSTRUCTION PHASE AND UNTIL ALL AREAS HAVE BEEN STABILIZED AND ACCEPTED BY THE OWNER. THE GENERAL CONTRACTOR SHALL PROVIDE WEEKLY INSPECTIONS OF EROSION MEASURE AND IMMEDIATELY AFTER STORM EVENTS AND REPAIR AS NECESSARY.
15. THE GENERAL CONTRACTOR AND OR THE LANDSCAPE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL THREE GUYING MATERIAL ONCE PLANT MATERIAL HAS BEEN ESTABLISHED. (MINIMUM OF ONE GROWING SEASON). ALL TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVED ONCE STABILIZATION OF DISTURBANCE HAS BEEN ACCEPTED BY OWNER.
16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM OF TWO MOWINGS FOR ALL TURF AREAS OR UNTIL ACCEPTANCE BY THE OWNER. A MINIMUM UNIFORM 75% CATCH OF TURF IS REQUIRED FOR ACCEPTANCE.
17. ALL PLANTINGS SHALL BE WATERED REGULARLY DURING THEIR FIRST YEAR AND MAINTAINED PERMANENTLY IN GOOD GROWING CONDITION AS AN EFFECTIVE VISUAL SCREEN.
18. SHRUBS OR TREES WHICH DIE SHALL BE REPLACED WITHIN ONE GROWING SEASON WITH NEW SHRUBS OR TREES TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE LANDSCAPING REQUIREMENTS.
19. ALL REQUIRED LANDSCAPING SHALL BE INSTALLED BEFORE OCCUPANCY, OR WITHIN SIX MONTHS IF OCCUPANCY OCCURS DURING WINTER CONDITIONS.
20. TREES ARE TO BE 6' TALL AT PLANTING.
21. ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 – NURSERY STOCK, LATEST EDITIONS (AMERICAN ASSOCIATION OF NURSERYMEN, INC.)
22. 4" AGED PINEBARK MULCH AND A WEED BARRIER (TY-PAR FABRIC OR APPROVED EQUAL) SHALL BE APPLIED TO ALL SHRUB AND GROUND COVER BEDS. INSTALL WEED BARRIER AS PER MANUFACTURERS RECOMMENDATIONS.
23. PLANT-PIT BACK-FILL SHALL BE MIXED AT A RATE OF 7 PARTS OF TOPSOIL TO 2 PARTS OF DEHYDRATED COW MANURE. SLOW RELEASE FERTILIZER SHALL BE APPLIED AS PER MANUFACTURERS RECOMMENDATIONS. USE EXISTING ON-SITE TOPSOIL AS PART OF BACK FILL WHEN AVAILABLE.
24. ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH SEED OR SOD AS INDICATED ON PLANS.
25. TOPSOIL WILL BE TESTED FOR FERTILIZATION REQUIREMENTS, AND SLOW RELEASE ENVIRONMENTALLY FRIENDLY FERTILIZER WILL BE APPLIED AT THE RECOMMENDED RATES.
26. ALL DISTURBED WETLAND BUFFER AREAS, EXCEPT FOR AREAS THAT ARE PART OF THE DRAINAGE SYSTEM, ARE TO BE RESEEDED WITH A CONSERVATION SEED MIX AND ONLY MOWED TWICE PER YEAR.
27. ALL PLANT SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
28. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ONGOING TO CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
29. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
30. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR NO LESS THAN ONE FULL YEAR FROM THE TIME OF INSTALLATION. DURING THIS TIME, THE OWNER SHALL MAINTAIN ALL PLANT MATERIALS IN THE ABOVE MANNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE PLANTS TO ENSURE PROPER CARE. IF THE CONTRACTOR IS DISSATISFIED WITH THE CARE GIVEN, HE SHALL IMMEDIATELY, AND IN SUFFICIENT TIME TO PERMIT THE CONDITION TO BE RECTIFIED, NOTIFY THE OWNER IN WRITING OR OTHERWISE FORFEIT HIS CLAIM.
31. BY THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAS DIED, THAT HAS LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESS PRUNING OR INADEQUATE OR IMPROPER CARE, OR IS, IN THE OPINION OF THE OWNER, IN UNHEALTHY OR UNSIGHTLY CONDITION.
32. THE CONTRACTOR IS TO USE TEMPORARY MEASURES FOR WATERING PLANTS DURING THE ESTABLISHMENT PERIOD. INCLUDING CONNECTING TEMPORARY HOSES TO THE STRUCTURE WATER SUPPLY LINE AND UTILIZING SPRINKLERS UNTIL 85% GROWTH OCCURS.

PLANTING NOTES

1. CONTRACTOR SHALL OBTAIN APPROVAL FROM L.A. PRIOR TO PURCHASING &/OR INSTALLING SUBSTITUTE PLANT MATERIAL PRIOR TO PURCHASE OF ANY SUBSTITUTE MATERIALS.
2. CONSTRUCTION ACCESS WILL BE AS DIRECTED BY L.A. CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ACCESS ROUTE AND ALL AREAS DISTURBED BY PLANTING OPERATIONS UPON COMPLETION OF CONSTRUCTION OPERATIONS, AT NO ADDITIONAL COST TO THE OWNER.
3. LAYOUT OF ALL PLANTING BEDS AND LOCATION OF PLANTS TO BE APPROVED BY L.A. ON SITE PRIOR TO CONSTRUCTION AND INSTALLATION.
4. CONTRACTOR TO REMOVE ALL DEBRIS GENERATED BY PLANT INSTALLATION. DEBRIS TO BE DISPOSED OF IN A LEGAL MANNER.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN GOOD, HEALTHY & FLOURISHING CONDITION FOR ONE YEAR FROM THE DATE OF FINAL INSTALLATION APPROVAL BY L.A. CONTRACTOR SHALL REPLACE, WITHOUT COST TO OWNER, AND AS SOON AS WEATHER CONDITIONS PERMIT, ALL DEAD AND NON-FLOURISHING PLANTS AS DETERMINED BY THE L.A. REPLACEMENT PLANTS SHALL BE GUARANTEED IDENTICALLY TO ORIGINAL PLANTS, TIME PERIOD COMMENCING FROM DATE OF REPLACEMENT PLANTING APPROVAL BY L.A.
6. ALL BEDS TO BE MULCHED WITH 3" DEPTH SHREDDED BARK MULCH UNLESS NOTED OTHERWISE.
7. CONTRACTOR TO PROVIDE NECESSARY TEMPORARY IRRIGATION IF NEEDED BASED ON TIME OF YEAR THE PROJECT IS IMPLEMENTED.
8. ALL PLANT MATERIAL TO COMPLY WITH THE CITY OF DOVER'S SITE REVIEW REGULATIONS, 149-14(G), SUCH THAT THERE SHALL BE DECIDUOUS SHADE TREES PLANTED 40 FEET O.C. ALONG THE PERIMTERE OF THE PARKING LOTS AND SHRUBS PLANTED 5 FEET O.C. WITHIN THE PERIMETER BUFFER. SEE PLANT LIST FOR SPECIES AND SIZE OF PLANTS.

TEMPORARY WATERING NOTES

1. CONTRACTOR IS RESPONSIBLE FOR MAKING SURE ALL PLANT MATERIAL HAS ADEQUATE WATER DURING THE ESTABLISHMENT PERIOD.
2. THE USE OF GATOR BAGS, SOAKER HOSE, HAND WATERING AND OTHER TECHNIQUES SHOULD BE USED TO ASSURE PROPER HYDRATION OF THE PLANTINGS IS MAINTAINED.
3. TEMPORARY IRRIGATION SYSTEMS CAN BE SET UP TO ASSIST IN WATERING ACTIVITIES.

PLANTING SCHEDULE
42-44 Third Street
Botanical Name/ Common Name

	Size	Qty	Label
Trees			
Plantanus acerifolia/London Planetree	3" Cal.	2	PA
Maackia amurensis 'Starburst' / Starburst Amur Maackia	3" Cal.	2	MA
Shrubs			
Ilex glabra / Inkberry	3 Gal.	6	LG
Viburnum / Viburnum	3 Gal.	3	VB
Perennials			
Hemerocallis 'Happy Returns' / Happy Returns Daylily	#1	12	SD
Astilbe x arendsii 'Bridal Veil' / Bridal Veil Astilbe	#1	12	AF
Hosta 'Big Daddy' / Big Daddy Plantain Lily	#1	9	HB
Hosta 'Guacamole' / Guacamole Plantain Lily	#1	9	HG
Phlox divaricata' / Wild blue phlox	#1	12	PD
Grasses			
Calamagrostis acutifolia 'Karl Foerster' / Feather Reed Grass	#2	17	KF

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General Plant Maintenance Guide

General Plant Bed Maintenance:

- All plant maintenance should be performed by a qualified horticulturalist or licensed arborist. Cleaning the dead material out of the planting bed in the fall helps keep litter from building up around the plants and in some cases killing the plants. Watering the first year during dry periods will help get the plants established. Mulching every year is not necessary. Raking the old mulch and turning it over is all that is needed. When necessary only install one inch of mulch and do not place the mulch closer than 3" to the trunks or stems of woody plants.

Trees

- The first year watering during dry periods will be necessary.
- 3" inches of mulch maybe used. The mulch should be kept 3 inches from the trunk.
- Fertilizing is not necessary for the first year. Fertilizing in subsequent years only when and if the foliage is looking weak.
- Fertilization should occur prior to Mat 31st or after trees have dropped their leaves for the year.
- Prune dead wood once a year.
- Depending on the amount of compaction the bed area receives, deep root aeration may be needed over time

Woody Shrubs

- The first year watering during dry periods will be necessary.
- 3" inches of mulch maybe used. The mulch should be kept 3 inches from the stems.
- Fertilizing is not necessary for the first year. Fertilizing in subsequent years only when and if the foliage is looking weak.
- Fertilization should occur prior to Mat 31st or after shrubs have dropped their leaves or gone dormant for the year.
- Prune dead wood once a year.

Grasses

- Grasses only need to be clipped back at the end of the growing season and all the clippings removed from the area.
- Do not over mulch. Too much mulch will prohibit the grass from developing into a strong clump.

Perennials

- All perennials need to be pruned back after the first or second hard frost. A two-step method; first dead head all the flower heads and let drop to the ground for re-seeding. Second cut the stems back to 3" above the ground and remove the stem and leaf litter and place in compost. Do not over mulch. Too much mulch will prohibit the growth and development
- Fertilizing perennials once in the spring with a low phosphate fertilizer will help the plants to get started in the spring.

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311 kast hill road
hopkinton, nh 03229
603. 491. 2322
terrainplanning.com

42 & 44 THIRD STREET

Site Location:
42 & 44 Third Street
Dover, NH
Tax Map: 6
Lots: 32 & 40

Prepared For:
Berry Surveying & Engineering
335 Second Crown Point Rd
Barrington, NH 03825

LANDSCAPE PLAN

DATE:

SCALE: 1" = 20'

PROJECT #: 1802

Drawn By: ID

Checked By: ERB

REVISIONS: DATE:
Issued for Client Review

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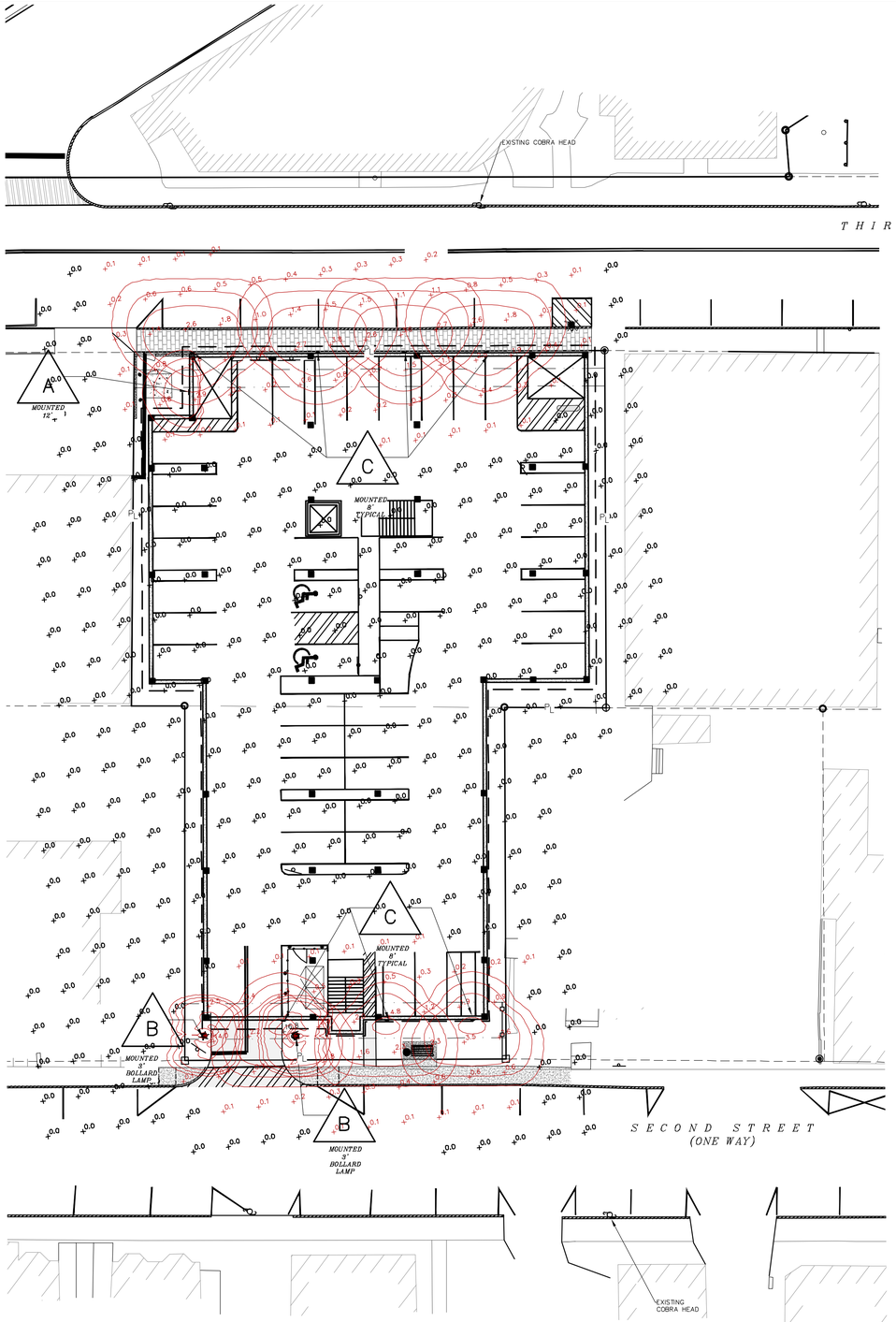
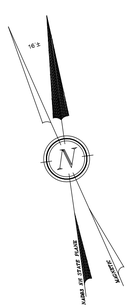
L - 01

LICENSED LANDSCAPE ARCHITECT ERIC R BUCK 078 STATE OF NEW HAMPSHIRE

NOT FOR CONSTRUCTION





NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF
THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) A.) TAX MAP 6, LOT 32
B.) TAX MAP 6, LOT 40

3.) A.) S.C.R.D. BOOK 4290, PAGE 111
B.) S.C.R.D. BOOK 4290, PAGE 111

4.) A.) LOT AREA: 13,364 Sq. Ft., 0.31 Ac.
B.) LOT AREA: 9,000 Sq. Ft., 0.21 Ac. TOTAL: 22,364 Sq.Ft.

5.) THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED LIGHTING PLAN FOR THE PROPOSED DEVELOPMENT.

6.) LAMP "A" WILL BE MOUNTED AT 12'. LAMP "B" IS A 3' TALL BOLLARD LAMP. LAMP "C" IS A WALLPACK MOUNTED AT 8'.

7.) SEE CONSTRUCTION DETAILS FOR LIGHT CUT SHEETS.

8.) EXTERIOR LIGHTING SHALL BE CUT-OFF TYPE FIXTURES PER CHAPTER 153-14-E AND SHALL PROVIDE LIGHTING DIRECTED ON-SITE ONLY.

9.) THIS LIGHTING PLAN DOES NOT INCLUDE INTERNAL GARAGE LIGHTING.

A
B
C

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
-	A	1	Lithonia Lighting	OLSR	OUTDOOR LED ROUND STEP LIGHT WITH 4000K LEDS AND POLYCARBONATE LENS	1	358	1	9.15
✱	B	2	Lithonia Lighting	KBR8 LED 12C 350 30KKBR8 WITH 3 LIGHT BOARDS (12 LEDs), 350mA DRIVER, 3000K COLOR TEMP, AND ASYMMETRIC OPTIC ASY MVOLT		1	1127	1	16
-	C	7	Lithonia Lighting	WPX1 LED P1 30K MvoltWPX1 LED wallpack 1500lm 3000K color temperature 120-277 Volts		1	1537	1	11.49

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

#	REVISION	DATE	DESCRIPTION
#1		9-26-22	REVISED PER DOVER TRC COMMENT

LIGHTING PLAN
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y. WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 13240
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

NOTES:

1.) OWNER: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 THIRD STREET
DOVER, NH 03820

APPLICANT: WOODEN RULER REALTY, LLC
35 THIRD STREET
DOVER, NH 03820

2.) TAX MAP 6, LOT 32
TAX MAP 6, LOT 40

3.) LOT AREA: 9,000 Sq. Ft., 0.21 ACRES
LOT AREA: 13,364 Sq. Ft., 0.31 ACRES

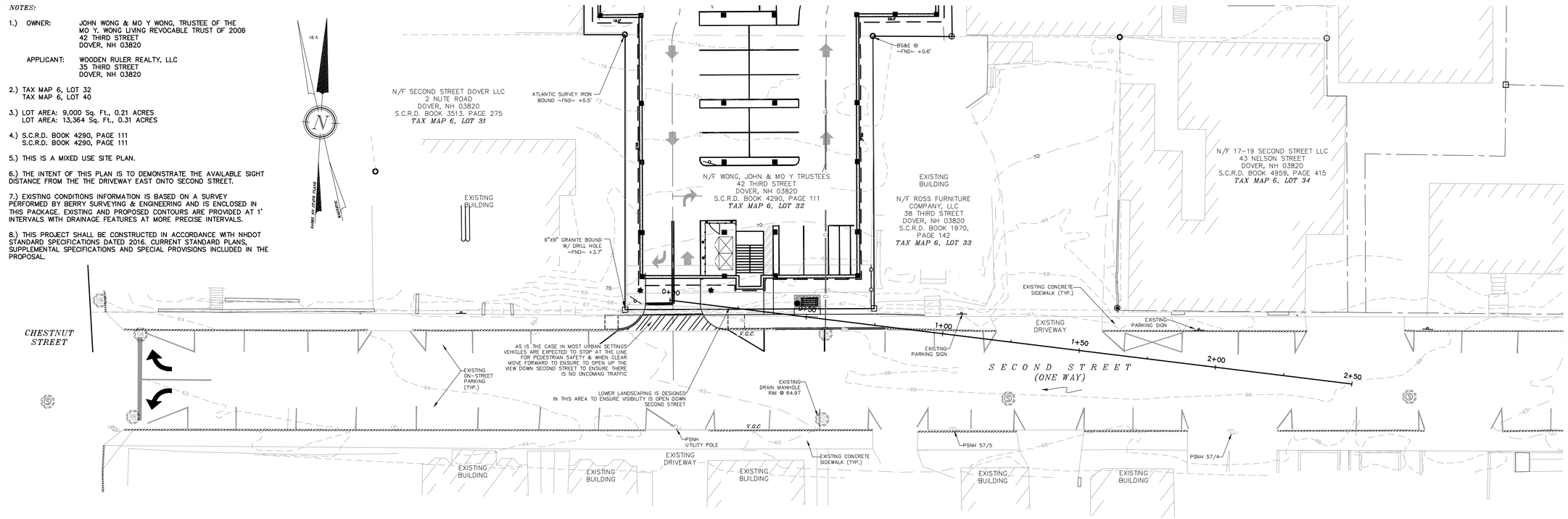
4.) S.C.R.D. BOOK 4290, PAGE 111
S.C.R.D. BOOK 4290, PAGE 111

5.) THIS IS A MIXED USE SITE PLAN.

6.) THE INTENT OF THIS PLAN IS TO DEMONSTRATE THE AVAILABLE SIGHT DISTANCE FROM THE THE DRIVEWAY EAST ONTO SECOND STREET.

7.) EXISTING CONDITIONS INFORMATION IS BASED ON A SURVEY PERFORMED BY BERRY SURVEYING & ENGINEERING AND IS ENCLOSED IN THIS PACKAGE. EXISTING AND PROPOSED CONTOURS ARE PROVIDED AT 1' INTERVALS WITH DRAINAGE FEATURES AT MORE PRECISE INTERVALS.

8.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2016. CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.



PLAN VIEW SECOND STREET

GRAPHIC SCALE

20 0 10 20 40 80

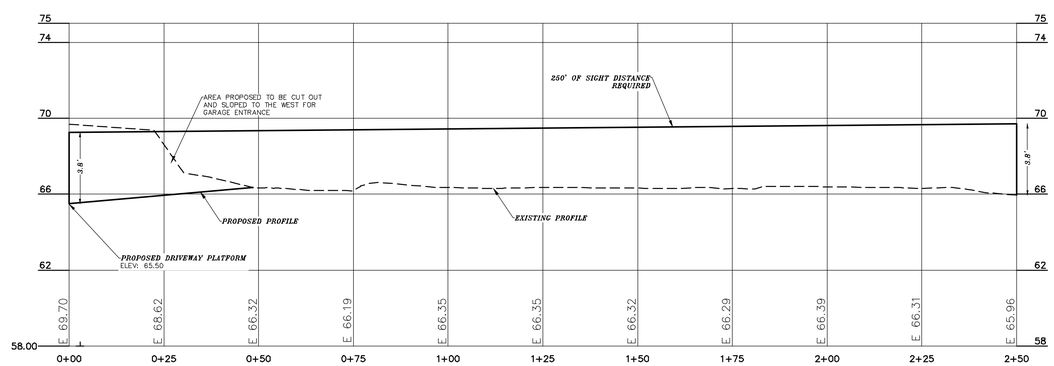
(IN FEET)
1 inch = 20 ft.

PROFILE VIEW SIGHT LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 4'



HWY-1

#	DATE	REVISION
1	9-26-22	REVISED PER DOVER TRC COMMENT

SIGHT DISTANCE PLAN DRIVEWAY WESTBOUND
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

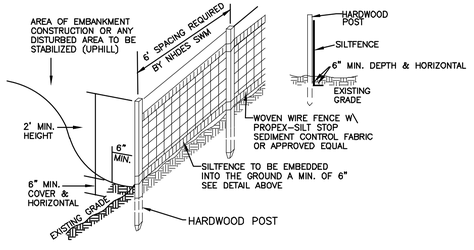
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14246
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

E1



SILT FENCE CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES AND FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP MID AND BOTTOM SECTIONS AND BE EMBEDDED INTO GROUND A MINIMUM OF 8" THE FENCE POSTS SHALL BE A MINIMUM 48" LONG, SPACED A MAXIMUM 6' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND PROPERLY DISPOSED OF. SEE MAINTENANCE NOTE BELOW.
4. REMOVAL OF SEDIMENT REQUIRED AT A DEPTH OF 6-INCHES.
5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
6. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER.
7. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND RE-VEGETATED.
8. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, SILT FENCE, PAGE 90.

SILT FENCE MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH SIX-INCHES IN DEPTH.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

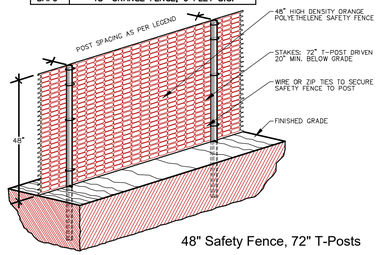
SILT FENCE DETAIL
NOT TO SCALE

E2

CONSTRUCTION SAFETY FENCE
NOT TO SCALE

LEGEND

SAF12	48" ORANGE FENCE, 12 FEET O.C.
SAF11	48" ORANGE FENCE, 11 FEET O.C.
SAF10	48" ORANGE FENCE, 10 FEET O.C.
SAF9	48" ORANGE FENCE, 9 FEET O.C.
SAF8	48" ORANGE FENCE, 8 FEET O.C.
SAF7	48" ORANGE FENCE, 7 FEET O.C.
SAF6	48" ORANGE FENCE, 6 FEET O.C.

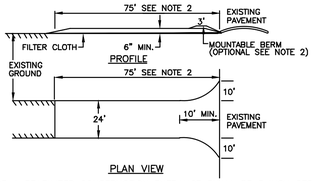


48" Safety Fence, 72" T-Posts

1. ALL SENSITIVE AREAS SHALL BE PROTECTED AS PER PLAN.
2. ALL TREES IN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED AND PROTECTED WITH HIGH VISIBILITY FENCE, AS PER PLAN.
3. WHEN PRACTICABLE, INSTALL HIGH VISIBILITY 3 FEET OUTSIDE OF THE DRIP LINE OF THE TREE.
4. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.
5. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION; ANY CHANGE OF THE PROTECTIVE FENCING MUST BE APPROVED.

E3

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

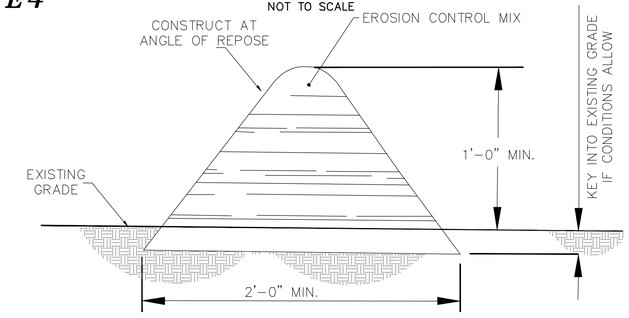


PLAN VIEW

1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
8. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY CONSTRUCTION EXIT, PAGE 124.

E4

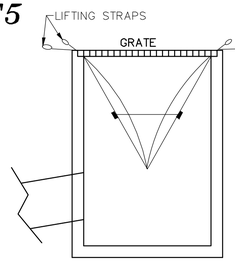
EROSION CONTROL MIX BERM
NOT TO SCALE



EROSION CONTROL MIX BERMS SHALL BE USED ONLY AS FOLLOWS:

1. BERMS SHALL BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE BERM.
2. THE BERMS SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSLY AS POSSIBLE.
3. THE BERMS SHALL BE INSTALLED ON SLOPES LESS THAN 5%.
4. SUBJECT TO (E), BELOW, THE MIX SHALL HAVE AN ORGANIC PORTION BETWEEN 80 AND 100%, DRY WEIGHT BASIS, AND BE FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS.
5. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS SHALL NOT BE USED AS ORGANIC MATERIAL.
6. THE MIX SHALL NOT CONTAIN SILTS, CLAY, OR FINE SANDS.
7. THE MIX SHALL HAVE A PARTICLE SIZE BY WEIGHT OF 70 TO 85% PASSING A 6-INCH SCREEN AND A MAXIMUM OF 85% PASSING THE 0.75-INCH SCREEN.
8. THE MIX PH SHALL BE BETWEEN 5.0 AND 8.0.
9. THE BERM SHALL BE AT LEAST 12 INCHES HIGH AND AT LEAST 2 FEET WIDE.
10. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, EROSION CONTROL MIX BERMS, PAGE 106.

E5



RECOMMENDED MAINTENANCE SCHEDULE
-EACH SILTSACK SHOULD BE INSPECTED AFTER EVERY MAJOR RAIN EVENT, AND MUST BE MAINTAINED.

-IF THERE HAVE BEEN NO MAJOR EVENTS, SILTSACK SHOULD BE INSPECTED EVERY 2-3 WEEKS.

-THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF CORD IS COVERED WITH SEDIMENT, THE SILTSACK SHOULD BE EMPTIED.

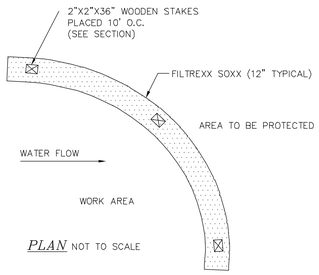
-TO BE USED IN ALL AREAS WHERE THERE WILL BE TRAFFIC.

- ARE SUBJECT TO DAMAGE BY SNOW PLOWS, AND MUST BE INSPECTED AFTER ANY SNOW EVENT AND REPLACED AS REQUIRED.

TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY STORM DRAIN INLET PROTECTION, PAGE 118.

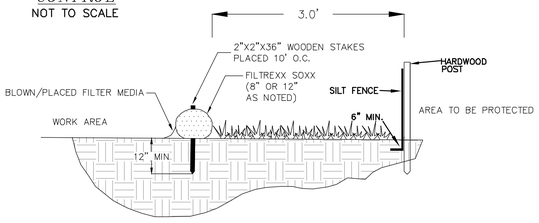
SILTSACK DETAIL
NOT TO SCALE

E6



PLAN NOT TO SCALE

FILTREXX SEDIMENT CONTROL
NOT TO SCALE



NOTES

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILTER MEDIA FILL TO MEET APPLICATION REQUIRMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.
4. SILTSOXX MAY BE USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
5. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIRMENTS OF THE SPECIFIC APPLICATION.
6. FILTREXX SOXX IS A REGISTERED TRADEMARK OF FILTREXXIN TERNATIONAL, LLC.
7. SILT FENCE IS NOT A SUBSTITUTION FOR SILT SOXX AND ANY EQUAL SUBSTITUTION TO BE APPROVED.
8. TO BE CONSTRUCTED IAW FILTREXX, SECTION 1:EROSION & SEDIMENT CONTROL (PAGE 323) - CONSTRUCTION ACTIVITIES, SWPPP CUT SHEET: FILTREXX SEDIMENT CONTROL

Filtrexx International, LLC
35481 Grafton Eastern Rd | Grafton, Oh 44044
440-926-2607 | fax: 440-926-4021
WWW.FILTREXX.COM
OR APPROVED EQUAL

NOTE: FOR AREAS REQUIRING DOUBLE PERIMETER CONTROL WITHIN 50' OF JURISDICTIONAL WETLANDS AND NOT FOR ALL SILT SOXX APPLICATIONS. THIS DUPLICATION MAY BE SPECIFIED AS 12" SILT SOXX OR ORANGE CONSTRUCTION FENCE AS NOTED.

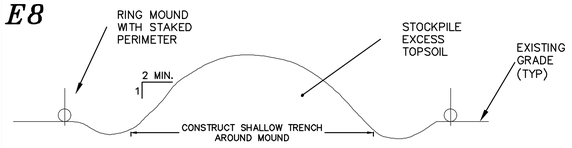
SECTION NOT TO SCALE

E7

TEMPORARY EROSION CONTROL MEASURES

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
3. ALL DISTURBED AREAS SHALL BE RETURNED TO ORIGINAL GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 4" OF LOAM AND SEEDED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA. (SEE SEED SPECIFICATIONS THIS SHEET)
4. ALL DISTURBED AREAS WILL BE RESTABILIZED WITHIN 45 DAYS. AT ANY ONE TIME, NO MORE THAN 5 ACRES, (217,800 Sq. Ft.) WILL BE DISTURBED.
5. SILT FENCES AND PERIMETER BARRIERS SHALL BE INSPECTED PERIODICALLY AND AFTER EVERY RAIN DURING THE LIFE OF THE PROJECT. ALL DAMAGED AREAS SHALL BE REPAIRED, SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
6. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
7. PER THE EPA CGP REQUIREMENTS THERE WILL BE REPORTS OF THE EROSION CONTROL INSPECTIONS IAW SWPPP PREPARED BY BS&E. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OR GREATER RAIN EVENT.
8. DITCHES, SWALES, AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
9. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
10. ROADWAYS, DRIVEWAYS AND CUT AND FILL SLOPES MUST BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINAL GRADE.
11. STABILIZATION MEANS:
    - 11.1. A MINIMUM OF 85% OF VEGETATIVE COVER HAS BEEN ESTABLISHED.
    - 11.2. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED, OR
    - 11.3. EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
12. THIS PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
13. THE NHDES STORMWATER MANUAL, IN THREE VOLUMES, DATED DECEMBER 2008, IS A PART OF THIS PLAN SET AND THE MORE RESTRICTIVE WILL GOVERN. (NH SWM)

E8



TO BE CONSTRUCTED IAW NH SWM #3 4-1 EROSION CONTROL PRACTICES, SOIL STOCKPILE PRACTICES, PAGE 46.

TOPSOIL STOCKPILE MOUND
NOT TO SCALE

E9

CONSTRUCTION SEQUENCE:

1.) CUT AND REMOVE TREES IN CONSTRUCTION AREA ONLY AS REQUIRED, RELOCATE ANY PROJECT T.B.M.

2.) CONSTRUCT AND/OR INSTALL TEMPORARY AND PERMANENT SEDIMENT EROSION AND DETENTION CONTROL FACILITIES AS SPECIFIED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL LAND DISTURBANCE AND MUST BE REVIEWED AND APPROVED BY THE COMMUNITY SERVICES DEPARTMENT.

3.) EROSION, SEDIMENT AND DETENTION CONTROL FACILITY SHALL BE INSTALLED & STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.TEMPORARY DIVERSIONS MAY BE REQUIRED. POST CONSTRUCTION STORM WATER MANAGEMENT PRACTICES MUST BE INITIATED AND STABILIZED EARLY IN THE PROCESS. RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMPs ARE STABILIZED.

4.) CLEAR, CUT AND DISPOSE OF DEBRIS IN APPROVED FACILITY

5.) CONSTRUCT TEMPORARY CULVERTS AS REQUIRED, OR DIRECTED

6.) CONSTRUCT ROADWAYS FOR ACCESS TO DESIRED CONSTRUCTION AREAS. ALL ROADS SHALL BE STABILIZED IMMEDIATELY. SEE BEST MANAGEMENT PRACTICES FOR BLASTING ON SHEET C-102.

7.) START BUILDING CONSTRUCTION.

8.) INSTALL PIPE AND CONSTRUCTION ASSOCIATED APPURTENANCES AS REQUIRED OR DIRECTED. INSTALL RAIN GARDENS. ALLDISTURBED AREAS SHALL STABILIZED IMMEDIATELY AFTER GRADING.

9.) BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES AND DISTURBED AREAS SHALL BE SEEDED OR MULCHED AS REQUIRED, OR DIRECTED. NO AREA IS ALLOWED TO BE DISTURBED FOR A LENGTH OF TIME THAT EXCEEDS 45 DAYS BEFORE BEING STABILIZED. DAILY, OR AS REQUIRED. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES. ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES. LIMIT THE LENGTH OF EXPOSURE OF UNSTABILIZED SOIL TO 45 DAYS OR LESS.

10.) CONSTRUCT TEMPORARY BERMS, DRAINS DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.

11.) INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. ALL SWPPP INSPECTIONS MUST BE CONDUCTED BY A QUALIFIED PROFESSIONAL SUCH AS A PROFESSIONAL ENGINEER (PE), A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORM WATER INSPECTOR (CESSW), OR A CERTIFIED PROFESSIONAL IN STORM WATER QUALITY (CPSWQ). INSPECTION REPORTS SHALL BE SUBMITTED TO THE COMMUNITY SERVICES DEPARTMENT. EROSION AND SEDITMENT CONTROL PRACTICES ARE TO BE INSPECTED WEEKLY AND AFTER 0.5" OF RAINFALL.

12.) COMPLETE PERMANENT SEEDING AND LANDSCAPING.

13.) REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES AND SITE IMPROVEMENTS ARE COMPLETE.

14.) SMOOTH AND REVEGETATE ALL DISTURBED AREAS.

15.) FINISH PAVING ALL ROADWAYS.

16.) LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

E10

WINTER STABILIZATION NOTES

1. ALL DISTURBED AREAS THAT DO NOT HAVE AT LEAST 85% VEGETATIVE COVERAGE PRIOR TO OCTOBER 15TH SHALL BE STABILIZED BY APPLYING MULCH AT A RATE OF 3-4 TONS PER ACRE. ALL SIDE SLOPES, STEEPER THAN 4:1, THAT ARE NOT DIRECTED TO SWALES OR DETENTION BASINS, SHALL BE LINED WITH BIODEGRADABLE/PHOTODEGRADABLE "JUTE MATTING" (EXCELSIOR'S CURLEX II OR EQUAL). ALL OTHER SLOPES SHALL BE MULCHED AND TACKED AT A RATE OF 3-4 TONS PER ACRE. THE APPLICATION OF MULCH AND/OR JUTE MATTING SHALL NOT OCCUR OVER EXISTING SNOW COVER. IF THE SITE IS ACTIVE AFTER OCTOBER 15TH, ANY SNOW THAT ACCUMULATES ON DISTURBED AREAS SHALL BE REMOVED. PRIOR TO SPRING THAW ALL AREAS WILL BE STABILIZED, AS DIRECTED ABOVE.

2. ALL SWALES THAT DO NOT HAVE FULLY ESTABLISHED VEGETATION SHALL BE EITHER LINED WITH TEMPORARY JUTE MATTING OR TEMPORARY STONE CHECK DAMS (APPROPRIATELY SPACED). STONE CHECK DAMS WILL BE MAINTAINED THROUGHOUT THE WINTER MONTHS. IF THE SWALES ARE TO BE MATTED WITH PERMANENT LINERS OR RIPRAP WITH ENGINEERING FABRIC, THIS SHALL BE COMPLETED PRIOR TO WINTER SHUTDOWN OR AS SOON AS THEY ARE PROPERLY GRADED AND SHAPED.

3. PRIOR TO OCT. 15TH ALL ROADWAY AND PARKING AREAS SHALL BE BROUGHT UP TO AND THROUGH THE BANK RUN GRAVEL APPLICATION. IF THESE AREAS' ELEVATIONS ARE PROPOSED TO REMAIN BELOW THE PROPOSED SUBGRADE ELEVATION, THE SUBGRADE MATERIAL SHALL BE ROUGHLY CROWNED AND A 3" LAYER OF CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED. THIS WILL ALLOW THE SUBGRADE TO SHED RUNOFF AND WILL REDUCE ROADWAY EROSION. THIS CRUSHED GRAVEL DOES NOT HAVE TO CONFORM TO NH DOT 304.3, BUT SHALL HAVE BETWEEN 15-25% PASSING THE #200 SIEVE AND THE LARGEST STONE SIZE SHALL BE 2". IF THE SITE IS ACTIVE AFTER OCTOBER 15TH, ANY ACCUMULATED SNOW SHALL BE REMOVED FROM ALL ROADWAY AND PARKING AREAS.

4. AFTER OCTOBER 15TH, THE END OF NEW HAMPSHIRE'S AVERAGE GROWING SEASON, NO ADDITIONAL LOAM SHALL BE SPREAD ON SIDE SLOPES AND SWALES. THE STOCKPILES THAT WILL BE LEFT UNDISTURBED UNTIL SPRING SHALL BE SEEDED BY THIS DATE. AFTER OCTOBER 15TH, ANY NEW OR DISTURBED PILES SHALL BE MULCHED AT A RATE OF 3-4 TONS PER ACRE. ALL STOCKPILES THAT WILL REMAIN THROUGHOUT THE WINTER SHALL BE SURROUNDED WITH SILT FENCING.

5. ENV-WQ 1505.06 COLD WEATHER SITE STABILIZATION (B)(1) LIMITS AREA OF EXPOSURE TO ONE ACRE OF UNSTABILIZED SOIL WITHOUT OBTAINING A WAIVER AND WINTER CONSTRUCTION PLAN.

E11

DEFINITION OF STABLE:

PER ENV-WQ 1500 ALTERATION OF TERRAIN

1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
2. A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED..
3. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED.
4. OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

ADDITION STABILIZATION NOTES:

5. HAY MULCH OR OTHER APPROVED METHODS SHALL BE USED TO CONTROL EROSION OF NEWLY GRADED AREAS. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS AFTER THEIR CONSTRUCTION.
6. DISTURBED SOIL AREAS SHALL BE EITHER TEMPORARILY OR PERMANENTLY STABILIZED. IN AREAS WHERE FINAL GRADING HAS NOT OCCURRED, TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN (7) CALENDAR DAYS FOR EXPOSED SOIL AREAS THAT ARE WITHIN ONE HUNDRED (100) FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE (3) CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOIL AREAS.

#	REVISION	DATE	DESCRIPTION
1		9-26-22	REVISED PER DOVER TRC COMMENT

EROSION & SEDIMENT CONTROL DETAILS
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y. WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

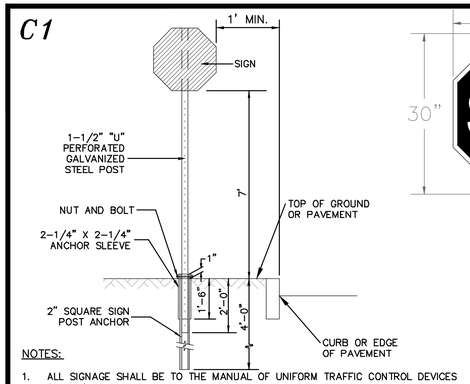
AS NOTED
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

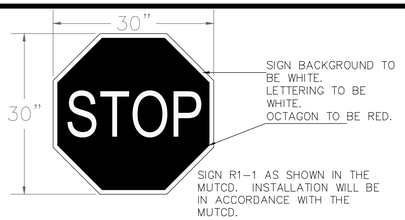
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14245
LICENSED PROFESSIONAL ENGINEER

E-101

NOT FOR CONSTRUCTION

C1





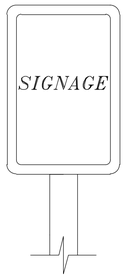
SIGN BACKGROUND TO BE WHITE. LETTERING TO BE WHITE. OCTAGON TO BE RED.

SIGN R1-1 AS SHOWN IN THE MUTCD. INSTALLATION WILL BE IN ACCORDANCE WITH THE MUTCD.

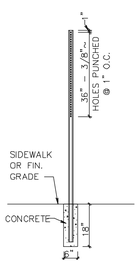
NOTES:

1. ALL SIGNAGE SHALL BE TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND NHDOT STANDARDS.
2. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS/CATALOG CUTS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ERECTING SIGNS.
3. THE LOCATION OF THE SIGNS SHALL BE AS INDICATED ON THE DRAWINGS AND/OR AS DIRECTED BY THE CITY OF DOVER DEPARTMENT OF PUBLIC WORKS.
4. SIGNS AND POSTS LOCATED WITHIN THE BELLAMY ROAD RIGHT OF WAY (2 PROPOSED) WILL HAVE SQUARE POSTS AS REQUIRED BY THE CITY OF DOVER.

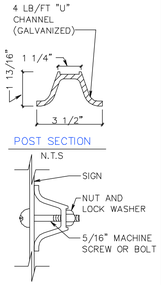
TYPICAL SIGN POST
(NOT TO SCALE)



PARTIAL ELEVATION
N.T.S.



POST
N.T.S.

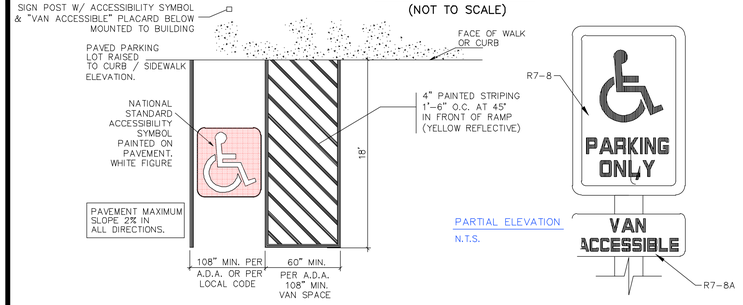


POST SECTION
N.T.S

MOUNTING
N.T.S.

C2

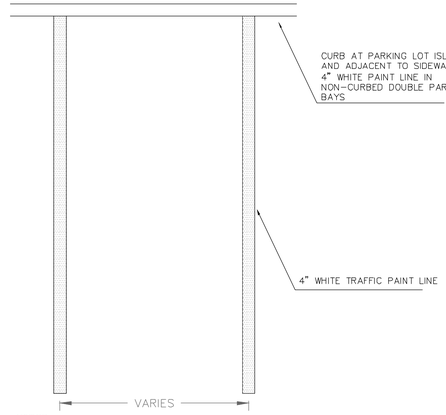
ACCESSIBLE PARKING STALL SIGNAGE
(NOT TO SCALE)



PARTIAL ELEVATION
N.T.S.

C3

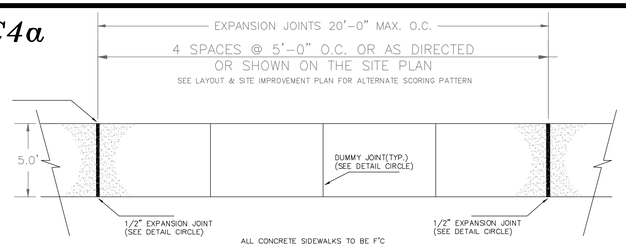
PARKING SPACE DETAIL
NOT TO SCALE

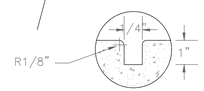


NOTES:

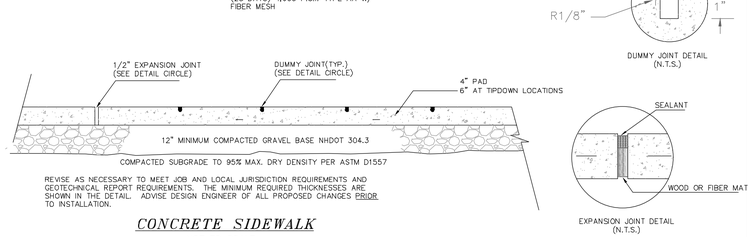
1.) PROVIDE TWO COATS OF PAINT ON ALL PARKING LINES.
2.) SEE PROPOSED SITE PLANS FOR LOCATION OF PARKING SPACES.
3.) PAINTED SPACES ONLY WHERE MARKED ON SITE PLAN

C4a





DUMMY JOINT DETAIL
(N.T.S.)



EXPANSION JOINT DETAIL
(N.T.S.)

CONCRETE SIDEWALK
NOT TO SCALE

NOTES:

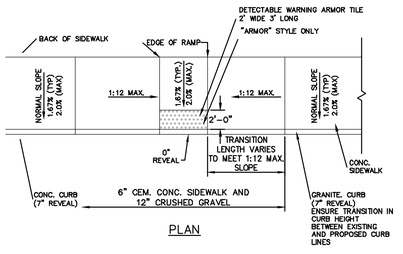
1.) PROVIDE EXPANSION JOINT MATERIAL WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER PLUS SEALANT FLUSH WITH ADJACENT CONCRETE SURFACE.

2.) SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.

3.) PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING FLARED SIDE RAMPS.

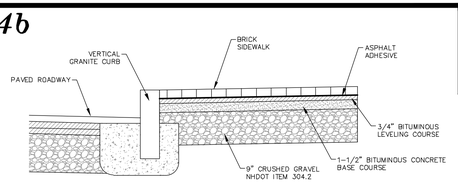
4.) CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK PITCH.

5.) WHENEVER POSSIBLE, CONSTRUCT THE TRANSITION SLOPE FROM THE CURB RAMP AND FLARE SIDES TO ADJOINING SURFACES WITH A GRADUAL CURVE RATHER THAN AN ABRUPT ANGLE.



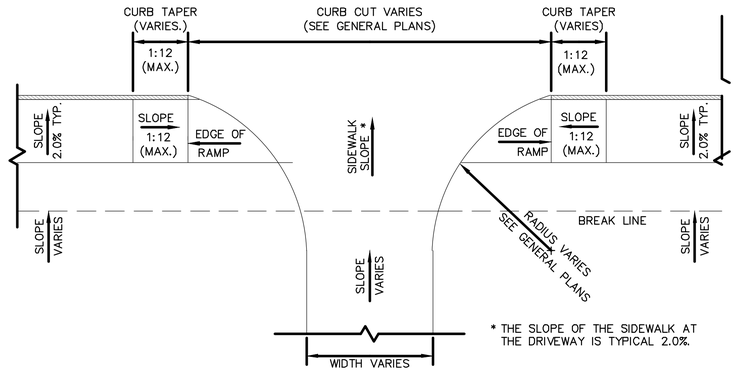
PLAN

C4b



BRICK SIDEWALK
NOT TO SCALE

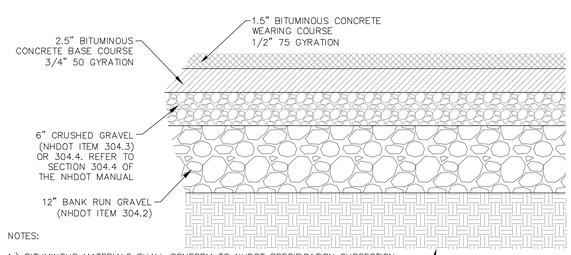
C5



* THE SLOPE OF THE SIDEWALK AT THE DRIVEWAY IS TYPICAL 2.0%.

PLAN VIEW (DRIVEWAY & SIDEWALK)
NOT TO SCALE

C6



NOTES:

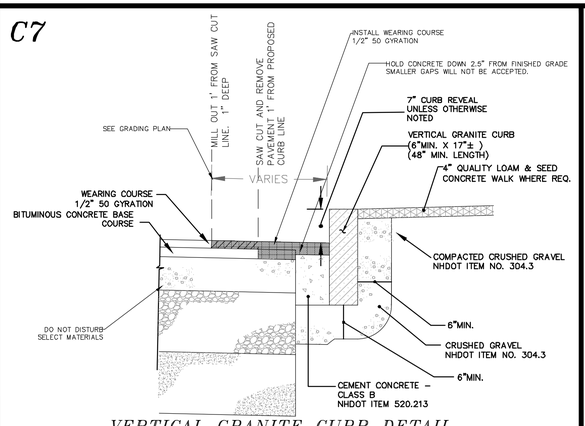
1.) BITUMINOUS MATERIALS SHALL CONFORM TO NHDOT SPECIFICATION SUBSECTION 401.3.6.

2.) PAVEMENT BASE COURSE AGGEGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.3 AND COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.

3.) PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOFROLLED AND COMPABED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY. FOR NEW CONSTRUCTION AREAS ONLY. IN EXISTING PAVEMENT AREAS THE CONTRACTOR IS TO ENSURE THE BASE MATERIAL IS SUITABLE TO THE OWNER FOR RE-PAVING

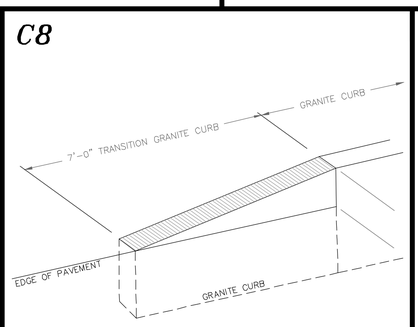
BITUMINOUS CONCRETE PAVEMENT SECTION
NOT TO SCALE

C7



VERTICAL GRANITE CURB DETAIL
NOT TO SCALE

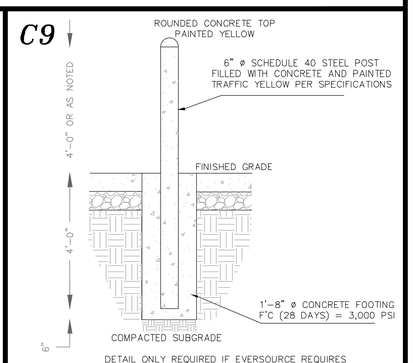
C8



CURB TRANSITION DETAIL
NOT TO SCALE

TO BE USED FOR TRANSITION FROM GRANITE CURB TO EDGE OF PAVEMENT

C9



DETAIL ONLY REQUIRED IF EVERSOURCE REQUIRES BOLLARDS AROUND TRANSFORMERS

BOLLARD DETAIL
NOT TO SCALE

C-101

REVISION	DATE	DESCRIPTION
#1	9-26-22	REVISED PER DOVER TRC COMMENT

CONSTRUCTION DETAILS
FOR: JOHN WONG & MO Y WONG, TRUSTEE OF THE WONG LIVING REVOCABLE TRUST OF 2006
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

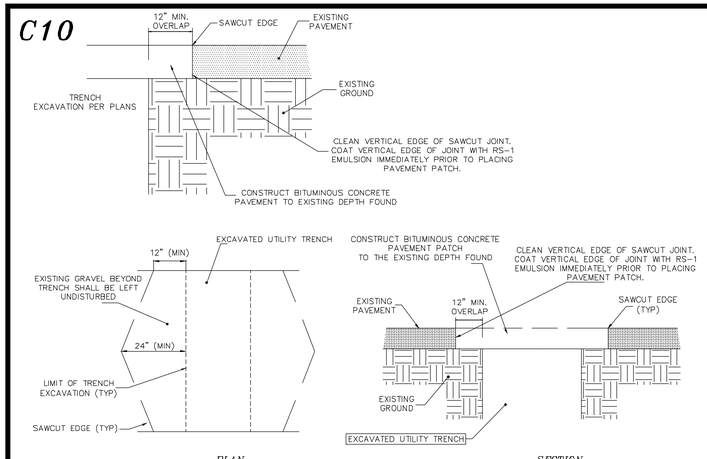
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 12045
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

C10



PLAN *SECTION*

NOTES
1. MACHINE CUT EXISTING PAVEMENT.
2. ALL TEMPORARY, DAMAGED, OR DEFECTIVE PAVEMENT SHALL BE REMOVED PRIOR TO PLACEMENT OF PERMANENT TRENCH REPAIRS.
3. DIAMOND PATCHES, SHALL BE REQUIRED FOR ALL TRENCHES CROSSING ROADWAY. DIAMOND PATCHES SHALL MEET NHDOT REQUIREMENTS.

TYPICAL TRENCH PATCH

NOT TO SCALE

C11

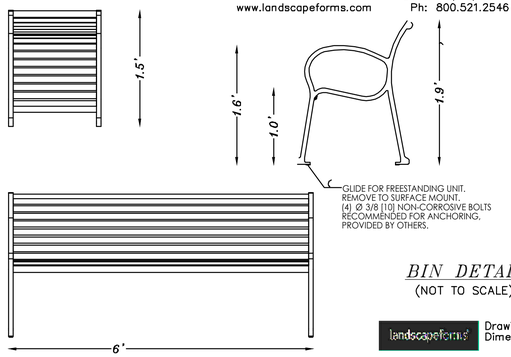
BENCH DETAIL

(NOT TO SCALE)

Scarborough™ Bench, 24" Backed, with Horizontal Strap Seat
Product Drawing

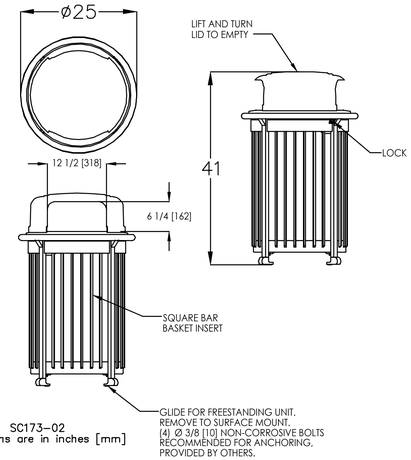
Scarborough™ Bench, 24" Backed, with Horizontal Strap Seat

Date: 5/19/2010
www.landscapeforms.com Ph: 800.521.2546



BIN DETAIL

(NOT TO SCALE)



landscapeforms Drawing: SC173-02
Dimensions are in inches [mm]

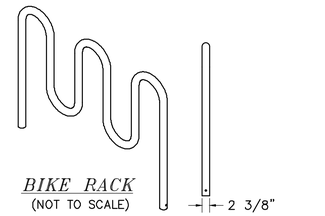
NOTES:
1. DUCTILE IRON CASTINGS COME WITH A TEN YEAR WARRANTY AGAINST BREAKAGE.
2. DRAWING NOT TO SCALE. DO NOT SCALE DRAWINGS.
3. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE HOT TO FILL CREVICES AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH COAT AVERAGES 8-10 MILS (200-250 MICRONS).
4. IT IS NOT RECOMMENDED TO LOCATE ANCHOR BOLTS UNTIL BENCH IS IN PLACE. THIS LANDSCAPE FORMS, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
5. ANCHOR BOLTS NOT PROVIDED BY VICTOR STANLEY, INC.
7. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.
8. THIS PRODUCT IS SHIPPED FULLY ASSEMBLED.

OR APPROVED EQUAL AS APPROVED BY THE DESIGN ENGINEER AND THE DIRECTOR OF PLANNING

INTERMEDIATE & CENTER ARMRESTS
4', 6' & 8' AVAILABLE WITH OPTIONAL ARMRESTS

C12

MATERIALS LIST
(1) TUBING – ø 2 3/8" x .154" Wall Steel Tubing

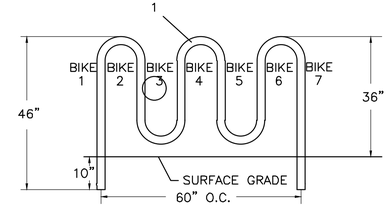


BIKE RACK

(NOT TO SCALE)

RIGHT SIDE VIEW

TOP VIEW



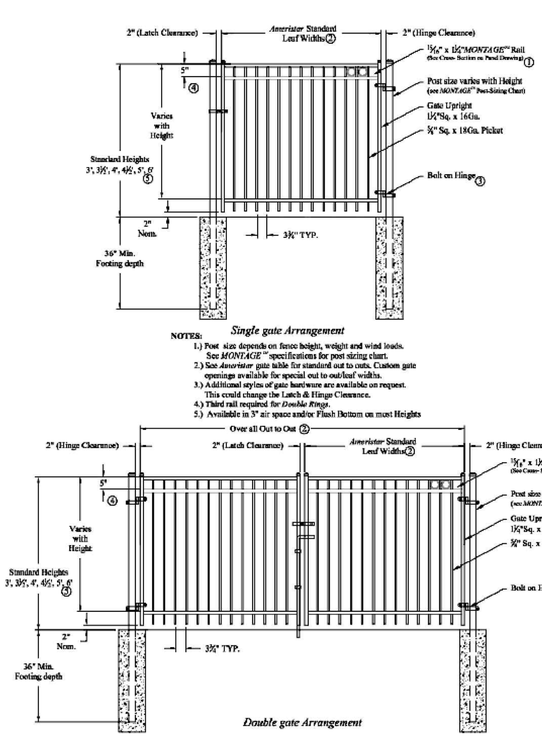
FRONT VIEW

C14

ORNAMENTAL GATE SAMPLE

NOT TO SCALE

NOTES:
1. TO BE AMERISTAR OR APPROVED EQUAL

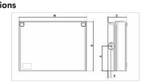


NOTES:
1.) Post size depends on fence height, weight and wind loads. See *MONTAGE*™ specifications for post sizing chart.
2.) See *Ameristar* gate table for standard out to outs. Custom gate openings available for special out to outleaf widths.
3.) Additional styles of gate hardware are available on request. This could change the Latch & Hinge Clearance.
4.) Third rail required for *Double Rings*.
5.) Available in 3" air space and/or Flush Bottom on most Heights

C13

WPX LED
Wall Packs

Specifications



Luminaire	Height (H)	Width (W)	Depth (D)	Side Conduit Location		Weight
				A	B	
WPX1	8.1" (20.6 cm)	11.1" (28.3 cm)	3.3" (8.1 cm)	4.8" (10.5 cm)	0.6" (1.6 cm)	6.1 lbs (2.8kg)
WPX2	9.7" (25.1 cm)	13.3" (33.1 cm)	4.1" (10.5 cm)	4.7" (11.1 cm)	0.7" (1.7 cm)	8.2 lbs (3.7kg)
WPX3	9.7" (24.1 cm)	13.8" (35.0 cm)	5.3" (13.7 cm)	4.7" (12.0 cm)	0.7" (1.7 cm)	11.8 lbs (5.4kg)

Introduction

The WPX LED wall packs are energy-efficient, cost-effective, and aesthetically appealing solutions for both HID wall pack replacement and new construction opportunities. Available in three sizes, the WPX family delivers 1,550 to 9,200 lumens with a wide, uniform distribution.

The WPX full cut-off solutions fully cover the footprint of the HID glass wall packs that they replace, providing a neat installation and an upgraded appearance. Reliable IP66 construction and excellent LED lumen maintenance ensure a long service life. Photocell and emergency egress battery options make WPX ideal for every wall mounted lighting application.

Ordering Information — EXAMPLE: WPX2 LED 40K MVOLT DDBXD

Series	Color Temperature	Voltage	Options	Finish
WPX1 LED P1 1,550 Lumens, 11W[1]	30K 3000K	MVOLT 120V - 277V	(blank) None	DDBXD Dark bronze
WPX1 LED P2 2,900 Lumens, 24W	40K 4000K	347 347V[1]	E4WH Emergency battery backup, CEC compliant (4W, 0°C only)[2]	DWHXD White
WPX2 LED 6,000 Lumens, 41W	50K 5000K		E14WC Emergency battery backup, CEC compliant (14W, -20°C only)[2]	DBLXD Black
WPX3 LED 9,200 Lumens, 69W			PE Photocell[3]	Note: For other options, consult factory.

Note: The lumen output and input power shown in the ordering tree are average representations of all configuration options. Specific values are available on request.

NOTES
1. All WPX wall packs come with 6kV surge protection standard, except WPX1 LED P1 package which comes with 2.5kV surge protection standard. Add SPD6KV option to get WPX1 LED P1 with 6kV surge protection. Note: Not available on WPX1 LED P1 40K MVOLT SPD6KV DDBXD
2. Battery pack options only available on WPX1 and WPX2.
3. Battery pack options not available with 347V and PE options.

FEATURES & SPECIFICATIONS

INTENDED USE
The WPX LED wall packs are designed to provide a cost-effective, energy-efficient solution for the one-for-one replacement of existing HID wall packs. The WPX1, WPX2 and WPX3 are ideal for replacing up to 150W, 250W, and 400W HID luminaires respectively. WPX luminaires deliver a uniform, wide distribution.

CONSTRUCTION
WPX features a die-cast aluminum main body with optimal thermal management that both enhances LED efficacy and extends component life. The luminaires are IP66 rated, and sealed against moisture or environmental contaminants.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs and LED lumen maintenance of 70% (L70) at 60,000 hours. Color temperature (CCT) options of 3000K, 4000K and 5000K with minimum CRI of 70. Electronic drivers ensure system power factor >90% and THD <20%. All luminaires have 6kV surge protection (None: WPX1 LED P1 package comes with a standard surge protection rating of 2.5kV. It can be ordered with an optional 6kV surge protection).
All photocell (PE) operate on MVOLT (120V - 277V) input.

Note: The standard WPX LED wall pack luminaires come with field-adjustable drive current feature. This feature allows tuning the output current of the LED driven to adjust the lumen output (to dim the luminaire).

INSTALLATION
WPX can be mounted directly over a standard electrical junction box. Three 1/2 inch conduit ports on three sides allow for surface conduit routing. A port on the back surface allows pole-through conduit wiring on surfaces that don't have an electrical junction box. Wiring can be made in the generous wiring compartment in all cases. WPX is only recommended for installations with LEDs facing downwards.

LISTINGS
CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. IP66 Rated. Designed Lighting Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC DesignRated Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

LITHONIA LIGHTING
COMMERCIAL OUTDOOR
One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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WPX LED
Rev. 09/29/20

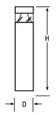
LAMP "A" MOUNTED 12'

KBR8 LED
LED Specification Bollard

Buy American

Specifications

8" Round (20.3 cm)
Height: 40" (101.6 cm)
Weight (max): 27 lbs (12.28 kg)



Introduction

The KBR8 Bollard is a stylish, fully integrated LED solution for walkways. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 70% in energy savings over comparable 100W metal halide luminaires, the KBR8 Bollard is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information — EXAMPLE: KBR8 LED 16C 700 40K SYM MVOLT DDBXD

KBR8 LED							
Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Control options	Other options	Finish (required)
KBR8 LED	Asymmetric 12C 12 LEDs[1]	350 350 mA 450 450 mA[1,2] 530 530 mA	30K 3000 K 40K 4000 K 50K 5000 K	ASY Asymmetric[1] SYM Symmetric[2]	MVOLT[3,4] 120[3] 208[3] 240[3] 277[3] 347[4]	Shipped installed PE Photoelectric cell, button type DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ELCW Emergency battery backup, CA Title 20 Noncompliant[5]	Shipped installed SF Single fuse (120, 277, 347V)[6,7] DF Double fuse (208, 240V)[6,7] H24 24" overall height H30 30" overall height H36 36" overall height PG Ground-flush fixture outlet[8] LJ8 Without anchor bolts (3 bolt base) LJ84 4 bolt retrofit base without anchor bolts[8]	DWHXD White DNAXD Natural aluminum DDBXD Dark bronze DBLXD Black DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Accessories
Ordered and shipped separately.
MRA8 U Anchor bolts for KBR8 LED[8]

NOTES
1 Only available in the 12C, 45V version.
2 Only available in the 16C, 70W version.
3 Only available with 480 AMBIENT version.
4 Only available in 16C.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
6 Fusing available with 347V. Not available with fusing. Not available with 450 AMBIENT.
7 Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
8 MRA8 U not available with LJA84 option.

LITHONIA LIGHTING
One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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LAMP "B" MOUNTED 3'

LITHONIA LIGHTING

Catalog Number
Notes
Type

FEATURES & SPECIFICATIONS

INTENDED USE
Provides years of maintenance-free illumination for outdoor use in residential & commercial applications. Ideal for applications such as lighting walkways and stairways.

CONSTRUCTION
Cast-aluminum housing with corrosion-resistant paint in white finish.
ADA compliant.

OPTICS
4000K CCT LEDs.
Polycarbonate lens protects the LED from moisture, dirt and other contaminants.
LUMEN MAINTENANCE: The LSR will deliver 70% of its initial lumens at 50,000 hour average LED life. See The OLSR has 370 lumens and the OLSS has 350 lumens.

ELECTRICAL
MVOLT driver operates on any line voltage from 120-277V.
Operating temperature -30°C to 40°C.
10kV surge protection standard.

INSTALLATION
Surface mount to universal junction box (provided by others).

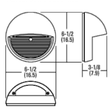
LISTINGS
UL Listed to U.S. and Canadian safety standards for wet locations.
Tested in accordance with IESNA LM-79 and LM-80 standards.

WARRANTY 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Outdoor General Purpose
OLSR
LED STEP LIGHT

Specifications
All dimensions are inches (centimeters)



ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. Example: OLSR WH

Series	Color temperature (CCT)	Voltage	Finish
OLSR Step light round	(blank) 4000K	(blank) MVOLT (120V-277V)	WH White

DECORATIVE INDOOR & OUTDOOR
OLSR

LAMP "C" MOUNTED 8'

CONSTRUCTION DETAILS
FOR: WOODEN RULER REALTY, LLC
JOHN WONG & MO Y. WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

#	REVISION	DATE	DESCRIPTION
#1		9-26-22	REVISED PER DOVER TRC COMMENT

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 7045
LICENSED PROFESSIONAL ENGINEER

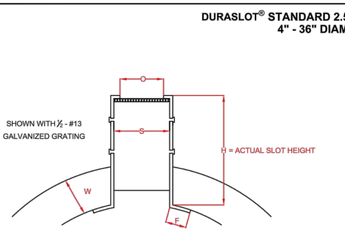
C-102

SHEET 15 OF 21

NOT FOR CONSTRUCTION

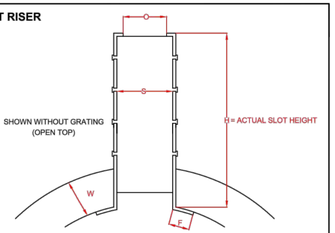
D1

DURASLOT® STANDARD 2.5" & 6" SLOT RISER
4" - 36" DIAMETER



4" - 12" PIPE WITH 2.5" SLOT RISER

PIPE DIAM.	H	W	F	O	S	PRODUCT # (GRATED)	PRODUCT # (OPEN TOP)
4" (100mm)	2.75" (70mm)	0.34" (9mm)	0.5" (13mm)	1.25" (32mm)	1.75" (44mm)	0420DS	0420DSOT
6" (150mm)	3.0" (76mm)	0.5" (13mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	0620DS	0620DSOT
8" (200mm)	3.0" (76mm)	0.625" (16mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	0820DS	0820DSOT
10" (250mm)	3.0" (76mm)	0.75" (19mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	1020DS	1020DSOT
12" (300mm)	3.5" (89mm)	1.125" (29mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	1220DS	1220DSOT



4" - 36" PIPE WITH 6" SLOT RISER

PIPE DIAM.	H	W	F	O	S	PRODUCT # (GRATED)	PRODUCT # (OPEN TOP)
4" (100mm)	6.25"	0.34"	0.5"	1.25"	1.75"	0460DS	0460DSOT
6" (150mm)	6.5" (165mm)	0.5" (13mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	0660DS	0660DSOT
8" (200mm)	6.5" (165mm)	0.625" (16mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	0860DS	0860DSOT
10" (250mm)	6.5" (165mm)	0.75" (19mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	1060DS	1060DSOT
12" (300mm)	7.0" (178mm)	1.125" (29mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	1260DS	1260DSOT
15" (375mm)	7.0" (178mm)	1.25" (32mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	1560DS	1560DSOT
18" (450mm)	7.0" (178mm)	1.5" 38mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	1860DS	1860DSOT
24" (600mm)	7.25" (184mm)	1.875" (48mm)	1.0" (25mm)	1.75" (44mm)	2.25" (57mm)	2460DS	2460DSOT
30" (750mm)	8.25" (210mm)	2.55" (65mm)	1" (25mm)	1.75" (45mm)	2.25" (57mm)	3060DS	3060DSOT
36" (900mm)	8.25" (210mm)	2.85" (72mm)	1" (25mm)	1.75" (45mm)	2.25" (57mm)	3660DS	3660DSOT

NOTE: DIMENSION FROM GRADE TO PIPE INVERT:
H (ACTUAL SLOT HEIGHT) + PIPE DIAMETER + RECESS (¼"-½")

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ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

DRAWING NUMBER:

ADS ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

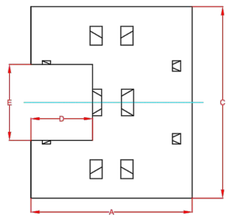
NTS

1 OF 1

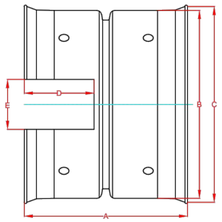
D2

DURASLOT® ADAPTERS
4" - 36" DIAMETER

(ST CLEATED INTERNAL ADAPTER FOR 4" PIPE DIAMETER)



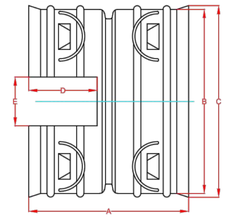
(BELL-BELL ADAPTER FOR 6-10" PIPE DIAMETER)



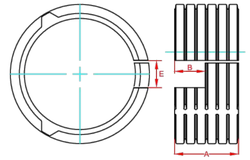
2.5", 6" & VARIABLE SLOT RISER ADAPTER DIMENSIONS

PIPE DIAM.	A	B	C	D	E	PRODUCT #
4" (100mm)	4" (100mm)	NA	4.75" (120mm)	1.25" (32mm)	2" (50mm)	0462DS
6" (150mm)	7.25" (184mm)	6.95" (177mm)	7.63" (194mm)	3" (76mm)	2.5" (64mm)	0662DS
8" (200mm)	8.25" (210mm)	9.17" (233mm)	10.13" (257mm)	3.5" (89mm)	2.5" (64mm)	0862DS
10" (250mm)	9.25 (235mm)	11.56" (294mm)	12.13" (308mm)	4" (100mm)	2.5" (64mm)	1062DS
12" (300mm)	14" (356mm)	14.6" (371mm)	15.4" (391mm)	5.5" (140mm)	2.5" (64mm)	1262DS
15" (375mm)	16" (406mm)	17.75 (449mm)	18.6" (472mm)	6.5" (165mm)	2.5" (64mm)	1562DS
18" (450mm)	18" (457mm)	21.4" (544mm)	22.4" (569mm)	7.5" (191mm)	2.5" (64mm)	1862DS
24" (600mm)	14.8" (374mm)	28.2" (716mm)	29.25" (743mm)	6" (152mm)	2.5" (64mm)	2462DS
30" (750mm)	16.5" (419mm)	8" (203mm)	NA	NA	2.5" (64mm)	3062DS
36" (900mm)	20.8" (528mm)	10" (254mm)	NA	NA	2.5" (64mm)	3662DS

(ST CLEATED EXTERNAL ADAPTER FOR 12" PIPE DIAMETER)
NOTE: ACCEPTABLE ALTERNATE FOR THIS PART



(SPLIT COUPLER ADAPTER FOR 30 & 36" PIPE DIAMETER)



NOTE: ALL DIMENSIONS ARE FOR REFERENCE ONLY

ADS ADVANCED DRAINAGE SYSTEMS, INC.

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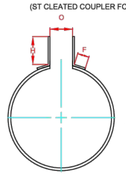
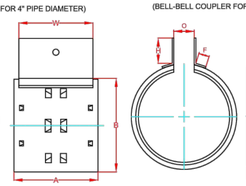
DRAWN BY:	
APPROVED BY:	
REVISIONS:	
SCALE:	NTS

D3

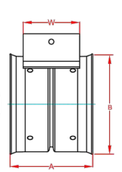
DURASLOT® STANDARD COUPLERS
4" - 36" DIAMETER

(ST CLEATED COUPLER FOR 4" PIPE DIAMETER)

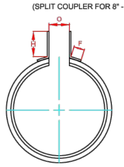


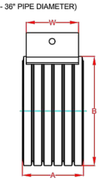


(BELL-BELL COUPLER FOR 6" PIPE DIAMETER)



(SPLIT COUPLER FOR 8" - 36" PIPE DIAMETER)





NOTE: ALL FITTINGS DIMENSIONS ARE FOR REFERENCE ONLY

2.5" SLOT RISER COUPLER BAND DIMENSIONS

PIPE DIAM.	H	O	F	W	A	B	PRODUCT #
4" (100mm)	2" (50mm)	1.875" (48mm)	0.75" (19mm)	3.75" (95mm)	4" (100mm)	4.75" (120mm)	0421DS
6" (150mm)	2" (50mm)	2.375" (60mm)	1" (25mm)	5" (127mm)	7.25" (184mm)	7.625" (194mm)	0621DS
8" (200mm)	2" (50mm)	2.375" (60mm)	1" (25mm)	5" (127mm)	6" (152mm)	10" (254mm)	0821DS
10" (250mm)	2" (50mm)	2.375" (60mm)	1" (25mm)	5" (127mm)	5.5" (140mm)	12.5" (318mm)	1021DS
12" (300mm)	2" (50mm)	2.375" (60mm)	1" (25mm)	8" (203mm)	7.75" (197mm)	******	1221DS

6" SLOT RISER COUPLER BAND DIMENSIONS

PIPE DIAM.	H	O	F	W	A	B	PRODUCT #
4" (100mm)	5.5" (50mm)	1.875" (48mm)	0.75" (19mm)	3.75" (95mm)	4" (100mm)	4.75" (120mm)	0426DS
6" (150mm)	5.5" (50mm)	2.375" (60mm)	1" (25mm)	5" (127mm)	7.25" (184mm)	7.625" (194mm)	0626DS
8" (200mm)	5.5" (50mm)	2.375" (60mm)	1" (25mm)	5" (127mm)	6" (152mm)	10" (254mm)	0826DS
10" (250mm)	5.5" (50mm)	2.375" (60mm)	1" (25mm)	5" (127mm)	5.5" (140mm)	12.5" (318mm)	1026DS
12" (300mm)	5.5" (50mm)	2.375" (60mm)	1" (25mm)	8" (203mm)	7.75" (197mm)	******	1226DS
15" (375mm)	5.5" (50mm)	2.375" (60mm)	1" (25mm)	9" (229mm)	10.5 (267mm)	******	1526DS
18" (450mm)	5" (127mm)	2.375" (60mm)	1" (25mm)	9" (229mm)	10.5 (267mm)	******	1826DS
24" (600mm)	5" (127mm)	2.375" (60mm)	1" (25mm)	10" (254mm)	12.63" (321mm)	******	2426DS
30" (750mm)	5" (127mm)	2.375" (60mm)	1" (25mm)	10" (254mm)	16.5" (419mm)	******	3026DS
36" (900mm)	5" (127mm)	2.375" (60mm)	1" (25mm)	10" (254mm)	20.8" (528mm)	******	3626DS

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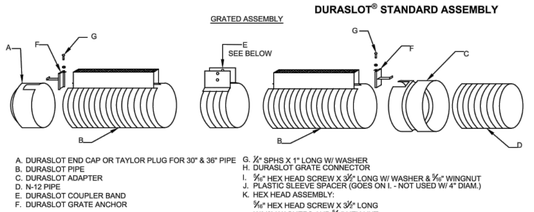
D4

DURASLOT® STANDARD ASSEMBLY

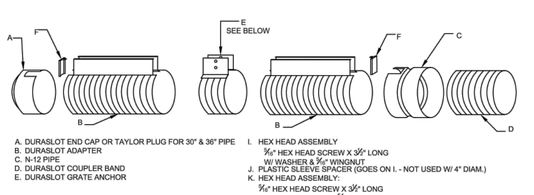
GRATED ASSEMBLY



A. DURASLOT END CAP OR TAYLOR PLUG FOR 30" & 36" PIPE
B. DURASLOT PIPE
C. DURASLOT ADAPTER
D. N-12 PIPE
E. DURASLOT COUPLER BAND
F. DURASLOT GRATE ANCHOR
G. ⅜" SPHS X 1" LONG W/ WASHER
H. DURASLOT GRATE CONNECTOR
I. ⅜" HEX HEAD SCREW X 3½" LONG W/ WASHER & ⅜" WINGNUT
J. PLASTIC SLEEVE SPACER (GOES ON I. - NOT USED W/ 4" DIAM.)
K. HEX HEAD ASSEMBLY:
⅜" HEX HEAD SCREW X 3½" LONG
W/ (2) WASHERS AND ⅜" HEX NUT

NOTE: - EACH CAP (A) & ADAPTER (C) COMES WITH AN ANCHOR (F)
EACH COUPLER BAND (E) COMES WITH HARDWARE - I,J,K, & L
- (K) NOT USED W/ 4" DIAM. W/ 2.5" SLOT RISER

OPEN TOP ASSEMBLY



A. DURASLOT END CAP OR TAYLOR PLUG FOR 30" & 36" PIPE
B. DURASLOT ADAPTER
C. N-12 PIPE
D. DURASLOT COUPLER BAND
E. DURASLOT GRATE ANCHOR
I. HEX HEAD ASSEMBLY
⅜" HEX HEAD SCREW X 3½" LONG
W/ WASHER & ⅜" WINGNUT
J. PLASTIC SLEEVE SPACER (GOES ON I. - NOT USED W/ 4" DIAM.)
K. HEX HEAD ASSEMBLY:
⅜" HEX HEAD SCREW X 3½" LONG
W/ (2) WASHERS AND ⅜" HEX NUT
L. DURASLOT BAND FLANGES

NOTE: EACH CAP (A) & ADAPTER (C) COMES WITH A CAP (F)
EACH COUPLER BAND (E) COMES WITH HARDWARE
(I,J,K, & L)

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ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

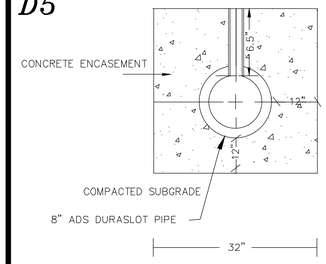
DRAWING NUMBER:

ADS ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026

NTS

1 OF 1

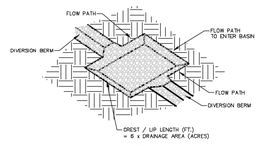
D5



ADS DURASLOT ENCASEMENT DETAIL
NOT TO SCALE

NOTE:
1. CONCRETE ENCASEMENT TO BE 1" AROUND SIDE & BOTTOM

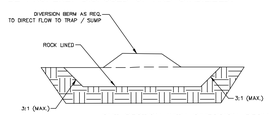
D6



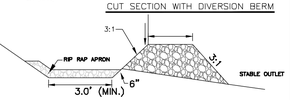
ISOMETRIC VIEW

STONE LINED SEDIMENT TRAP
NOT TO SCALE

1. TRAP TO BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
6. THE TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.



CUT SECTION WITH DIVERSION BERM



CROSS SECTION

WIDTH AND LENGTH DEPENDANT ON CONTRIBUTING AREA. EXCAVATION SECTION IS PERFFERED OVER A BERMED SECTION

SIEVE DESIGNATION	SIZE OF STONE (INCHES)
100%	12
84–100%	6
68–83%	3
42–55%	1
8–12%	NO. 4

REFERENCE IS MADE TO A LONG TERM MAINTENANCE MANUAL PREPARED BY BERRY SURVEYING & ENGINEERING, WHICH IS ON FILE AT THE CITY OF DOVER PLANNING DEPARTMENT, AND CAN BE FOUND AT THE OFFICE OF BERRY SURVEYING & ENGINEERING. (603) 332–2863

D–101

#	REVISION	DATE	DESCRIPTION
1		9–26–22	REVISED PER DOVER TRC COMMENT

DRAINAGE CONSTRUCTION DETAILS
FOR: WOODEN RULER REALTY, TRUSTEE OF THE
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y: WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

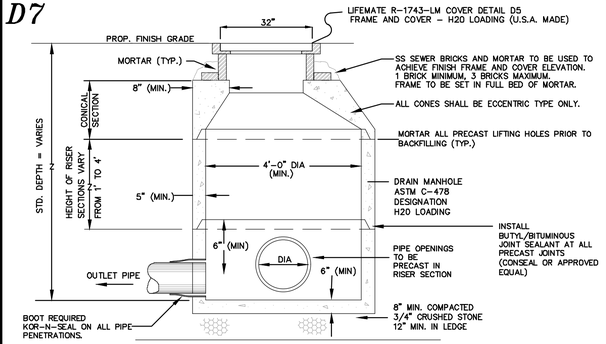
AS NOTED

DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 10043
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

D7

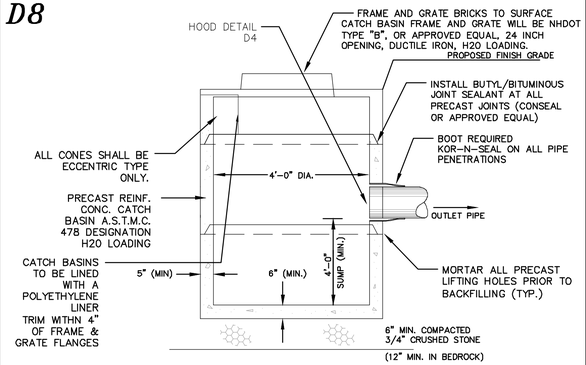


PRECAST DRAIN MANHOLE DETAIL

NOT TO SCALE

4' SUMP REQUIRED IN DRAIN MANHOLE #2

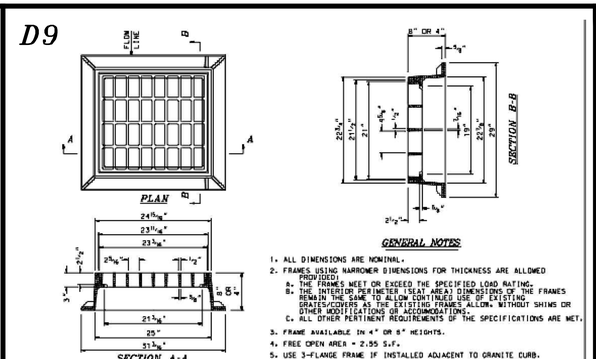
D8



CATCH BASIN DETAIL

NOT TO SCALE

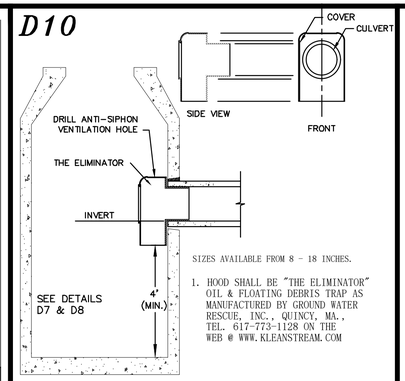
D9



CATCH BASIN GRATE

NOT TO SCALE

D10



CB/DMH HOOD DETAIL

NOT TO SCALE

D11

R-1743-LM

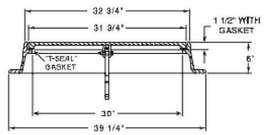
LiftMate Frame, Solid Gasketed Lid

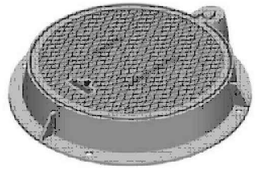
Heavy Duty

Furnished with four 1" anchor holes on 36-7/8" diameter bolt circle.

Hinge plug available for self-seal application.

See p. 13 for LiftMate information.



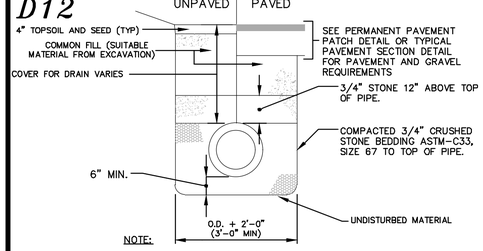


DRAIN MANHOLE FRAME AND GRATE WILL BE LIFTMATE R-1743-LM, OR APPROVED EQUAL, 32 INCH OPENING, CAST IRON, H20 LOADING.

DRAIN MANHOLE COVER DETAIL

NOT TO SCALE

D12



NOTE:

PLASTIC DRAIN PIPE (HDPE) SHALL BE ADS N-12 (CORRUGATED EXTERIOR/SMOOTH INTERIOR) OR EQUAL MEETING AASHTO M-252 AND H-20 LOADING.

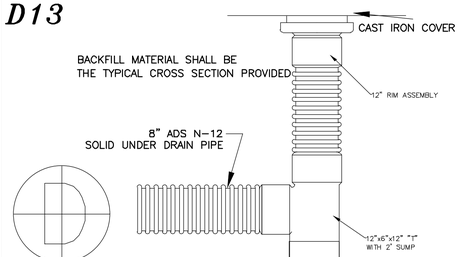
DI DRAIN PIPE SHALL BE CL. 50.

RC DRAIN PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.

TYPICAL DRAIN PIPE TRENCH

NOT TO SCALE

D13



12" CAST IRON COVER

NOT TO SCALE

CASTINGS ARE RATED FOR H20 WHEEL LOAD TRAFFIC

PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT

ADS N-12 INLINE DRAIN

NOT TO SCALE USED FOR CLEANOUTS

D14

NOTE: THIS PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

NOTE: Temporary seed mix for stabilization of turf shall be winter rye or oats at a rate of 2.5 lbs. per 1000 s.f. and shall be placed prior to OCT. 15, if permanent seeding not yet complete.

SEEDING GUIDE

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	GOOD	GOOD	EXCELLENT
	E	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	FAIR	GOOD	GOOD	EXCELLENT
PLAY AREAS AND athletic FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	F	FAIR	EXCELLENT	EXCELLENT	2/
	G	FAIR	EXCELLENT	EXCELLENT	2/

RECOMMENDED *

GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE 7-36.

2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

SEEDING RATES

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR		
FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	24	0.55
CREEPING RED FESCUE	20	0.50
BIRDS FOOT TREFOIL	REMOVED 48	REMOVED 1.10
TOTAL		
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	100	1.15
TOTAL	150	2.30
F. TALL FESCUE 1	150	3.60

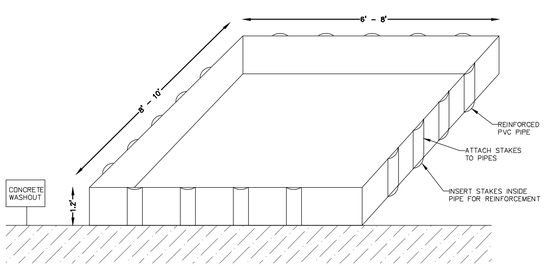
CONSERVATION MIX	POUNDS PER ACRE	POUNDS PER 1,000 S.F.
TALL FESCUE (35%)	15	0.35
CREEPING RED FESCUE (25%)	15	0.35
ANNUAL RYEGRASS (12%)	5	0.12
PERENNIAL RYEGRASS (10%)	5	0.12
KENTUCKY BLUEGRASS (10%)	15	0.35
WHITE CLOVER (3%)	7	0.16

SEEDING SPECIFICATIONS

1. GRADING AND SHAPING
   A. SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED.
   WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
   A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
   B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEED BED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
3. ESTABLISHING A STAND
   A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING
   AND INCORPORATED INTO THE SOIL KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE,
   THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
   AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100LBS. PER 1,000 SQ.FT.
   NITROGEN(N), 50LBS. PER ACRE OR 1.1LBS. PER 1,000 SQ.FT.
   PHOSPHATE(P2O5), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
   POTASH(K2O), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
   (NOTE: THIS IS THE EQUIVALENT OF 500LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000LBS. PER ACRE OF 5-10-10.)
   B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
   C. REFER TO TABLE(G-E1 THIS SHEET) FOR APPROPRIATE SEED MIXTURES AND TABLE(H-E1 THIS SHEET) FOR RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT TREFOIL, AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT.
   D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.
4. MULCH
   A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
   B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90LBS PER 1000 S.F.
5. MAINTENANCE TO ESTABLISH A STAND
   A. PLANTED AREA SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
   B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIAL STAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
   C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.
6. TO BE CONSTRUCTED IAW NH SWM #3 4-1 EROSION CONTROL PRACTICES, PERMANENT VEGETATION, PAGE 60.
7. SEE RAIN GARDEN AND INFILTRATION DETAIL SHEETS FOR SPECIFIC PLANTING INSTRUCTIONS AND SEEDING.

D15

D16



NOTES:

1.) CONCRETE WASHOUT SHALL BE INSTALLED PRIOR TO ANY CONCRETE POURS.

2.) SIGNS SHALL BE INSTILLED TO CLEARLY INDICATE WHERE THE LOCATION OF THE WASHOUT AREA IS.

3.) CONTRACTOR IS IRRESPONSIBLE TO MAINTAIN AND REPLACE WASHOUT AREA AS NEEDED.

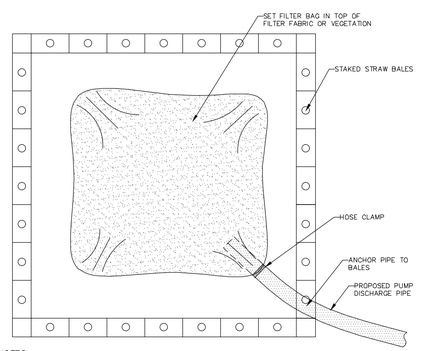
4.) RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

5.) DO NOT WASH CONCRETE TRUCKS OUT INTO DRAINAGE AREAS, SWALES, STREETS OR UNDISTURBED AREAS.

6.) WASHOUT AREA SHALL BE PLACED AWAY FROM DRAINAGE FEATURES AND OUTSIDE AND WETLAND BUFFERS.

CONCRETE WASHOUT

NOT TO SCALE



NOTES:

1.) ENSURE DISCHARGE POINT IS STABILIZED WITH VEGETATION OR PROPER EROSION AND SEDIMENT CONTROL PRACTICES.

2.) USE DIFFUSER NOZZLE OR LOW DISCHARGE RATE TO PREVENT SCOURING.

3.) TO BE PLACED AT AN UPLAND LOCATION THAT WILL ALLOW WATER TO DRAIN INTO THE GROUND.

4.) SIZE OF DE-WATERING AREA TO BE 10' X 10', ADJUST SIZE DEPENDING ON VOLUME AND USE.

5.) ADDITIONAL BALES MAY BE USED TO INCREASE RETENTION AND FILTERING.

DE-WATERING BASIN

NOT TO SCALE

D-102

#	REVISION	DATE	DESCRIPTION
1		9-26-22	REVISED PER DOVER TRC COMMENT

DRAINAGE DETAILS
FOR: WOODEN RULER REALTY, LLC
JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

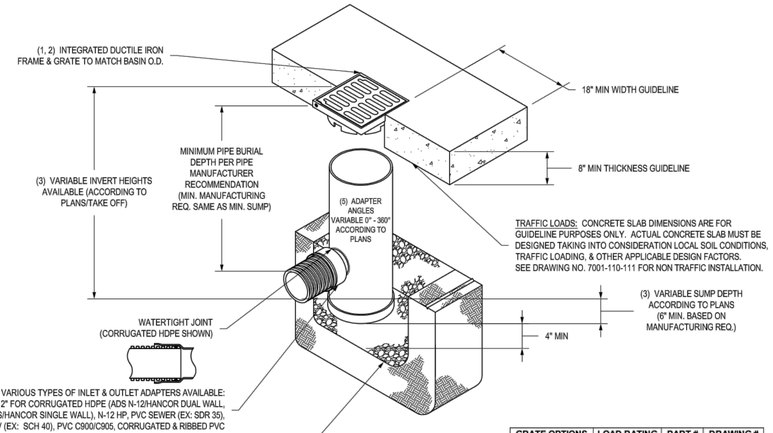
AS NOTED
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 10613
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

D17

NYLOPLAST 12" DRAIN BASIN: 2812AG _ _ X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1299CGP	7001-110-202
STANDARD	MEETS H-20	1299CGS	7001-110-203
SOLID COVER	MEETS H-20	1299CGC	7001-110-204
PEDESTRIAN BRONZE	N/A	1299CGPB	7001-110-205
DOME	N/A	1299CGD	7001-110-206
DROP IN GRATE	LIGHT DUTY	120ID	7001-110-021

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DRAWN BY	EBC	MATERIAL	
DATE	03-29-06		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-11-16		
DWG SIZE	A	SCALE 1:20	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

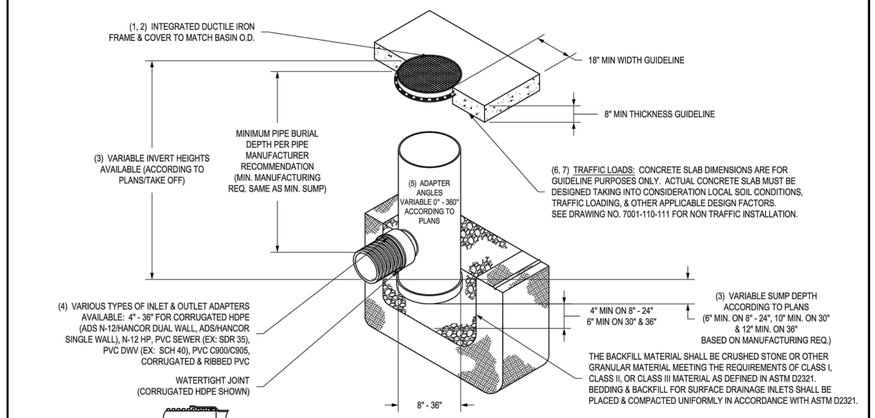
TITLE: 12 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-189 REV E

12" NYLOPLAST DRAIN BASIN
NOT TO SCALE

D18

NYLOPLAST DRAIN BASIN WITH SOLID COVER



1 - 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

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DRAWN BY	EBC	MATERIAL	
DATE	09-14-07		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	06-12-18		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

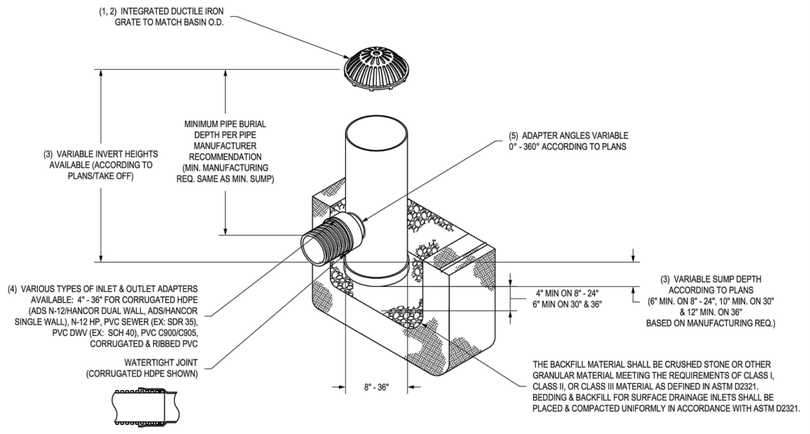
TITLE: DRAIN BASIN WITH SOLID COVER QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-298 REV E

NYLOPLAST SOLID COVER
NOT TO SCALE

D19

NYLOPLAST DRAIN BASIN WITH DOME GRATE



1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

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DRAWN BY	EBC	MATERIAL	
DATE	03-25-10		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	06-12-18		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

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PHN (770) 932-2443
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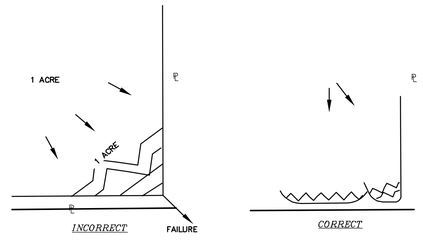
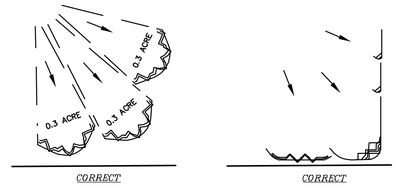
TITLE: DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-397 REV E

NYLOPLAST DOME GRATE
NOT TO SCALE

D20





PERIMETER CONTROL
NOT TO SCALE

DESIGN CONSITERATIONS:

1. THE MAXIMUM LENGTH OF SLOPE ABOVE PERIMETER CONTROL IS 100 FEET.
2. THE MAXIMUM GRADIENT BEHIND CONTROL WILL NOT EXCEED 5%.
3. THE MAXIMUM CONTRIBUTING DRAINAGE AREA OF ONE-QUARTER ACRE PER 100-FEET OF PRACTICE LENGTH.
4. PERIMETER CONTROL IS TO BE INSTALLED PRIOR TO EARTH MOVING ACTIVITEIS, INCLUDING GRUBBING AND CLEARING.

NOTES

1. DO NOT LAYOUT PERIMETER CONTROL ALONG SLOPING PROPERTY PERIMETER WITHOUT INSTALLING "J HOOKS" AT HIGH CONCENTRATION AREAS. RUNOFF WILL CONCENTRATE AND CAUSE FAILURES ALONG THE PERIMETER.
2. "J HOOKS" CAN BE USED TO HELP LIMIT THE CONCENTRATION OF RUNOFF AND PROVIDE MORE STABILITY TO THE PERIMETER.
3. SILT FENCE AND EROSION CONTROL MULCH BERM MAY BE USED INTERCHANGEABLY. IN SPECIFIED AREA, SILT FENCE MAY NOT BE SUBSTITUTED FOR FILTREXX SILT SOXX OR APPROVED ALTERNATIVE.
4. SEE HAMPSHIRE STORM WATER MANUAL: VOLUME 3, PAGE 99 FOR FURTHER DETAILS AND SPECIFICATIONS

D-103

#1	9-26-22	REVISED PER DOVER TRC COMMENT
REVISION	DATE	DESCRIPTION

DRAINAGE DETAILS
FOR: WOODEN RULER REALTY, LLC
JOHN WONG & MO Y WONG, TRUSTEE OF THE
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : AS NOTED
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 7965
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

NOTES ON MANHOLE AND SEWER CONSTRUCTION:

1) IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT AND ADEQUATE JOINTING. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND HS-20-44 LOADING, INCLUDING THE COVER. ALL SMH CONSTRUCTION AND MATERIALS WILL BE IAW ENV.-WQ 704.13 ADOPTED OCTOBER 15, 2014

2) BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE. (IAW ENV.-WQ 704.12 (d))

3) SEWER MANHOLE DIAMETER SHALL BE AS INDICATED ON THE PLANS.

4) PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478.

5) GRAVITY SEWER PIPE TESTING WILL BE IN ACCORDANCE WITH ENV.-WQ 704.06 AND MAN HOLE TESTING IAW ENV.-WQ 704.17 DATED OCTOBER 15, 2014.

6) INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW. INVERT BRICKS SHALL BE LAID ON EDGE AND THE BASE SECTION SHALL BE FULL. AT CHANGES IN DIRECTIONS, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. CARE SHALL BE TAKEN TO ENSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. (IAW ENV.-WQ 704.13 (a) (9)), MORTAR SHALL CONFORM WITH REQUIREMENTS OF IAW ENV.-WQ 704.13 (c).

FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. 3-INCH (MINIMUM HEIGHT) LETTERS WITH THE WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH MANHOLE COVER. (IAW ENV.-WQ 704.13 (a) (4-6)) SEWER MAN HOLE COVERS ARE TO BE LIFTMATE R-1743-LM.

7) SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.

8) HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE DOVER DPW, WHICH TYPE SHALL, IN GENERAL, DEPEND FOR WATERTIGHTNESS UPON A DOUBLE ROW OF AN OVERLAPPING TYPE ELASTOMERIC OR MASTIC-LIKE GASKET. APPROVED ELASTOMERIC SEALANTS ARE: RAM-NEK, KENT SEAL NO. 2, EZ, OR EQUAL.

9) IN CROSS COUNTRY AREAS OUTSIDE OF THE PAVED ROADWAY SURFACE, THE MANHOLE FRAME ELEVATION SHALL BE A MINIMUM OF 6" ABOVE FINISHED GRADE. GRADE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE MANHOLE. SEE TYPICAL TRENCH DETAIL ON SHEET D-102.

11.) ALL FRAMES AND GRATES ARE TO BE U.S.A. MADE. MANHOLE STEPS ARE REQUIRED IN THIS MUNICIPALITY AND MUST CONFORM TO THE REQUIREMENTS OF ENV-WQ 704.14.

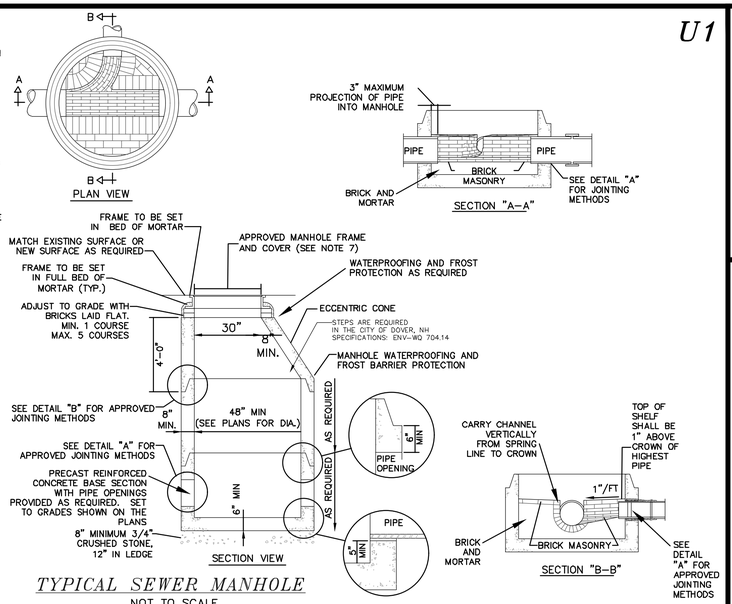
12.) THE CONTRACTOR TO WORK WITH CITY OF DOVER REVIEW ENGINEER AND SEWER DEPARTMENT ON THE MEANS AND METHODS USED TO INSTALL ALL SEWER STRUCTURES.

13.) ANY WORK INVOLVING THE CUTTING INTO THE EXISTING A.C. PIPE SHALL MEET THE REQUIREMENTS OF ENV-A 1800.

14.) THE "CITY OF DOVER, NEW HAMPSHIRE, DEPARTMENT OF COMMUNITY SERVICES, CONSTRUCTION GUIDELINES, PERMITS, RULES, AND REGULATIONS" (DATED MARCH 13, 2018) ARE A PART OF THE CONSTRUCTION DETAILS AND TO BE FOLLOWED.

15.) MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STANDARD AND ENV-WQ 704.17.

U1



TYPICAL SEWER MANHOLE
NOT TO SCALE

U2

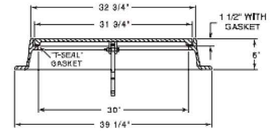
R-1743-LM
LiftMate Frame, Solid Gasketed Lid

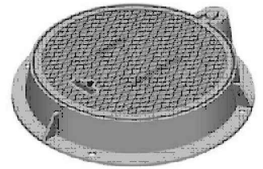
Heavy Duty

Furnished with four 1" anchor holes on 36-7/8" diameter bolt circle.

Hinge plug available for self-seal application.

See p. 13 for LiftMate information.

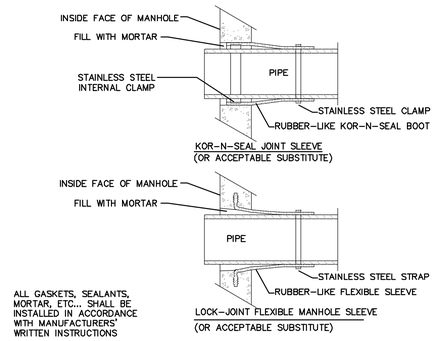




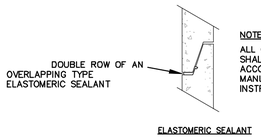
SEWER MANHOLE FRAME AND GRATE WILL BE LIFTMATE R-1743-LM, OR APPROVED EQUAL, 32 INCH OPENING, CAST IRON, H20 LOADING.

SEWER MANHOLE COVER DETAIL
NOT TO SCALE

U3



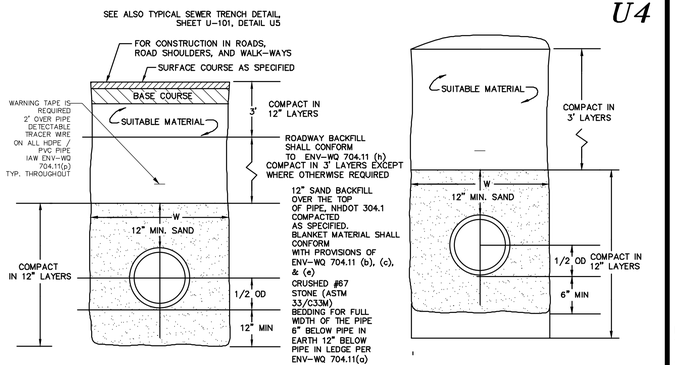
DETAIL "A" - PIPE TO MANHOLE JOINTS
NOT TO SCALE



NOTE:
ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

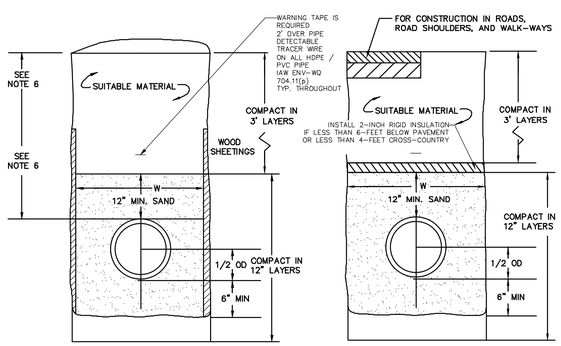
DETAIL "B" HORIZONTAL JOINTS
NOT TO SCALE

U4

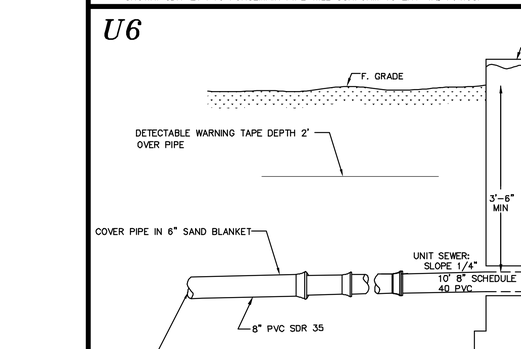


LEDGE CONSTRUCTION
NOT TO SCALE

EARTH CONSTRUCTION
NOT TO SCALE

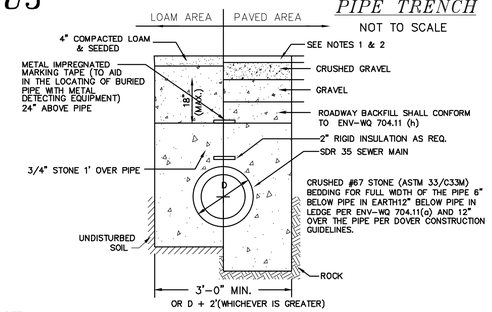


EARTH CONSTRUCTION WITH SHEETING
NOT TO SCALE



TRENCH INSULATION
NOT TO SCALE

U5



TYPICAL SEWER PIPE TRENCH
NOT TO SCALE

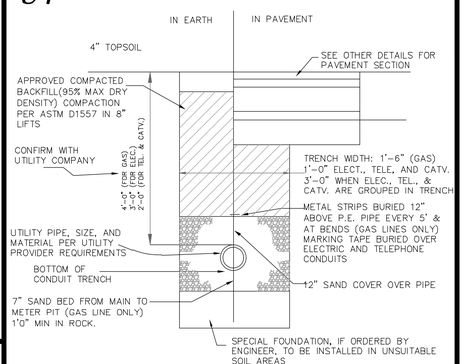
NOTE:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S.
3. ANTI-SEEP COLLARS OR CLAY CHECK DAMS ON STEEP RUNS IN WET CONDITIONS.
4. ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & MUNICIPAL DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV-WQ 704.05 (c)-(e) AND CONFORM WITH ASTM D3034. PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121. SDR-21 PVC FORCE MAIN PIPE MATERIAL IS REQUIRED IN LOCATIONS AS SHOWN. SDR-21 PVC FORCEMAIN PIPE WILL CONFORM TO ENV-WQ 704.08.

U6

1.) SEE DETAILS FOR SERVICE CONNECTION REQUIREMENTS
2.) SERVICE CONNECTION SHALL BE INSTALLED BELOW WATER MAIN WHERE POSSIBLE.
3.) CLEANOUTS SHALL BE INSTALLED INSIDE EACH BUILDING EXIT POINT

DETAIL OF UNIT SEWER SERVICE
NOT TO SCALE

U7

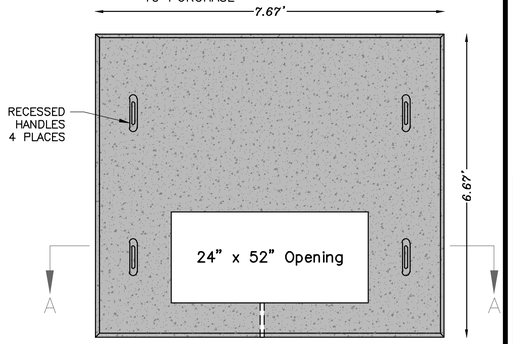


ELECTRICAL, TELEPHONE, AND GAS TRENCH
NOT TO SCALE

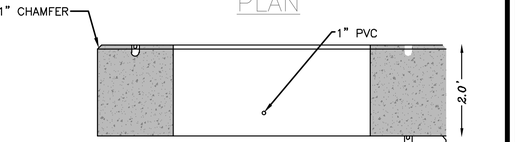
U8

TRANSFORMER AND PAD DETAIL
NOT TO SCALE

EVERSOURCE- NH 53-111 3 PHASE
TRANSFORMER PAD 75-500 KVA
COORDINATE WITH EVERSOURCE PRIOR TO PURCHASE



PLAN



SECTION A-A

NOTES:
1. CONCRETE: 4,000 PSI MIN. AFTER 28 DAYS
2. REINFORCEMENT STEEL CONFORMS TO ASTM A615 GRADE 60 #6 REBAR.
3. PAD MEETS OR EXCEEDS EVERSOURCE SPECIFICATIONS
4. TRANSFORMER MUST BE SHEA CONCRETE PRODUCT OR EQUAL.

#	REVISION	DATE	DESCRIPTION
#1		9-26-22	REVISED PER DOVER TRC COMMENT

UTILITY DETAILS
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

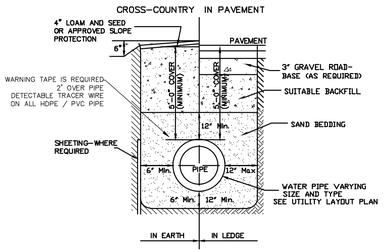
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037
AS NOTED

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 10143
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

U9

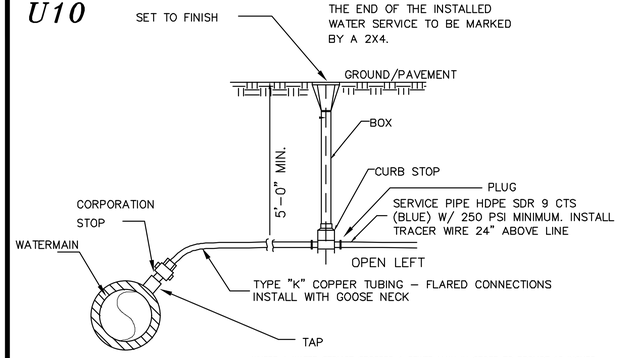


1.) PER THE CITY OF DOVER STANDARDS OF INFRASTRUCTURE DESIGN I-5 ALL UTILITIES WITHIN THE PROPOSED MUNICIPAL RIGHT OF WAY WILL BE INSPECTED BY THE CITY OF DOVER ENGINEERING DEPARTMENT.

TYPICAL TRENCH DETAIL FOR WATER SYSTEM

NOT TO SCALE

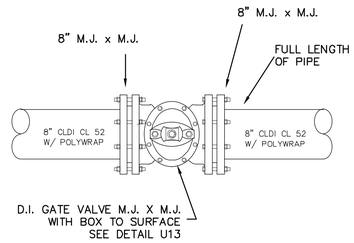
U10



TYPICAL WATER SERVICE CONNECTION

NOT TO SCALE

U11



SHUTOFF VALVE DETAIL

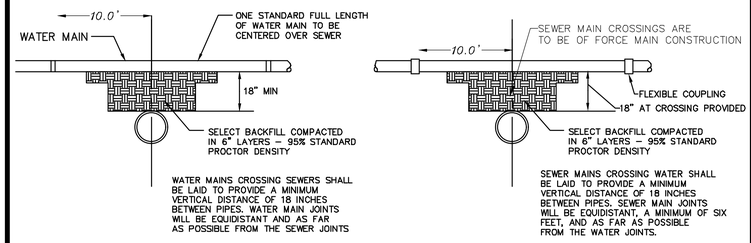
NOT TO SCALE

1.) ALL VALVES ARE TO OPEN LEFT
2.) SEE CITY OF DOVER STANDARDS OF INFRASTRUCTURE DESIGN FOR POTABLE WATER DETAILS

U12

SEPERATION NOTES:

1. WATER MAIN SHALL BE IN ACCORDANCE WITH THE "RECOMMENDED STANDARDS FOR WATER WORKS" SO-CALLED TEN STATE STANDARDS AND NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL DESIGN STANDARDS, ENV-WQ 700 ADOPTED OCTOBER 14, 2014.
2. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWERS. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF THIS DISTANCE CANNOT BE OBTAINED, THEN THE PIPES SHALL BE INSTALLED IN A SEPARATE TRENCH AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
3. VERTICAL SEPARATION REQUIREMENTS APPLY TO WATER AND SEWER MAINS AND SERVICE LINES. WHERE SEWER CROSSES WATER MAIN AND WATER SERVICE CROSSES SEWER MAIN, 18 INCH VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER OVER SEWER.



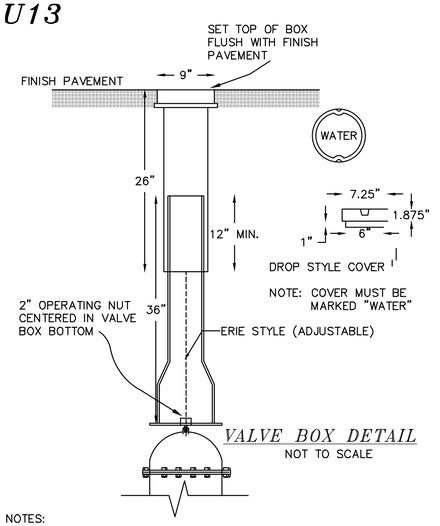
WATER MAIN ABOVE SEWER

WATER MAIN BELOW SEWER

TYPICAL WATER/SEWER SEPERATION DETAILS

NOT TO SCALE

U13



VALVE BOX DETAIL

NOT TO SCALE

NOTES:

1.) ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL WATER WORKS TECHNICAL SPECIFICATIONS.

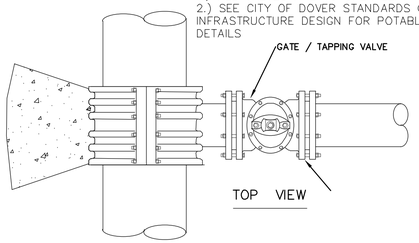
2.) ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

3.) ALL VALVES ARE TO OPEN LEFT

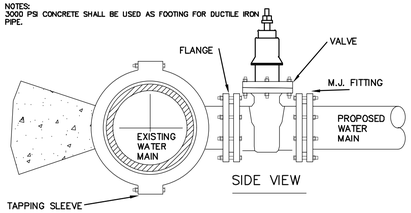
4.) SEE CITY OF DOVER STANDARDS OF INFRASTRUCTURE DESIGN FOR POTABLE WATER DETAILS

U14

1.) ALL VALVES ARE TO OPEN LEFT
2.) SEE CITY OF DOVER STANDARDS OF INFRASTRUCTURE DESIGN FOR POTABLE WATER DETAILS



NOTES:
3000 PSI CONCRETE SHALL BE USED AS FOOTING FOR DUCTILE IRON PIPE.



NOTES:
1. ALL LIVE-TAPPING WILL BE COMPLETED IN ACCORDANCE WITH CITY OF DOVER WATER DEPARTMENT REGULATIONS.
2. ALL INSTALLATION AND TAPPING OF EXISTING WATER MAINS WILL BE COMPLETED BY AN INDIVIDUAL OR FIRM THAT IS APPROVED BY THE CITY OF DOVER ENGINEERING
3. CONCRETE SHALL NOT CONTACT BOLTS OR END OF MECHANICAL JOINT FITTINGS.
4. SEE THRUST BLOCK TABLES FOR AREA OF CONCRETE REQUIREMENTS.
5. TAPPING SLEEVE SHALL BE STAINLESS STEEL

DETAIL FOR STANDARD TAPPING SLEEVE AND VALVE ASSEMBLY

NOT TO SCALE

U15

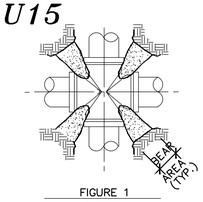


FIGURE 1
CROSS
(ONLY REQ'D IF ANY LEG IS LESS THAN 60 FT. LONG)

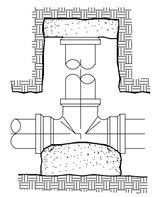


FIGURE 2
TEE, PLUG OR CAP

TYPICAL THRUST BLOCKS

NOT TO SCALE

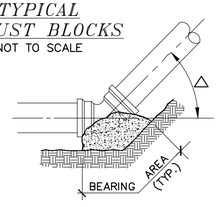


FIGURE 3
HORIZONTAL OR UPWARD VERTICAL BEND

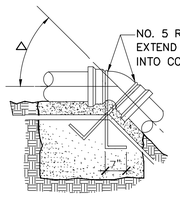


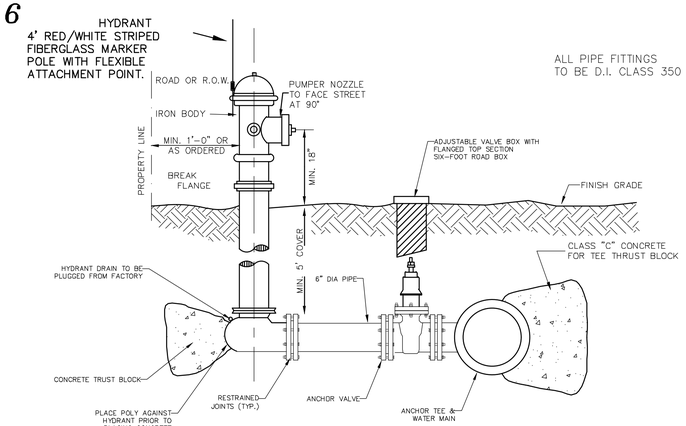
FIGURE 4
DOWNWARD VERTICAL BEND

PIPE I.D.	BEARING AREA, SQUARE FEET						VOLUME OF CONC. CU.YD		
	FIGURE 1	FIGURE 2	FIGURE 3, △				FIGURE 4, △		
			90°	45°	22-1/2°	11-1/4°	45°	22-1/2°	11-1/4°
4"	2	2	2	1		1	1.0	.5	.5
6"	2	3	3	2	1	1	1.5	1.0	.5
8"	2	5	6	3	2	1	2.0	1.0	.5
10"	3	7	10	5	3	1	4.0	2.0	1.0
12"	3	10	14	8	4	2			
14"	4	14	20	10	5	3			
16"	4	20	24	12	7	4			
18"	5	24	30	16	10	5			
20"	5	28	40	20	12	6			

GENERAL NOTES:

1. ALL FITTINGS & EXPOSED REBAR TO BE RAPPED W/ TWO LAYERS OF 6 MIL. POLYETHYLENE WHERE COVERED WITH CONCRETE.
2. ALL CONCRETE SHALL BE CLASS C 3000 P.S.I. MINIMUM 28 DAYS COMPRESSIVE STRENGTH.
3. PLACE CONCRETE AGAINST UNDISTURBED EARTH.
4. TABLE DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN FOR EACH INSTALLATION IS REQUIRED IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 P.S.F.
5. VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.
6. KEEP CONCRETE AWAY FROM FLANGE BOLTS AND FITTINGS.
7. MECHANICAL JOINTS AT ALL FITTINGS IE: BENDS,
8. TEES, CROSSES, AND VALVES SHALL BE THRUST RESTRAINT. (MEGA-LUG OR APPROVED EQUAL.
9. SEE CITY OF DOVER CHAPTER I-17

U16



1.) THE FIRE HYDRANT IS TO BE PAINTED CITY OF DOVER STANDARD COLORS AND BE EQUIPPED WITH A HYDRANT LOCATOR.

2.) THE FIRE HYDRANT SHALL BE THE EDDY 2641 TYPE.

3.) GATE VALVES OPEN LEFT.

HYDRANT INSTALLATION DETAIL

NOT TO SCALE

U-102

#	REVISION	DATE	DESCRIPTION
#1		9-26-22	REVISED PER DOVER TRC COMMENT

UTILITY DETAILS
LAND OF: JOHN WONG & MO Y WONG, TRUSTEE OF THE
FOR: WOODEN RULER REALTY, LLC
MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

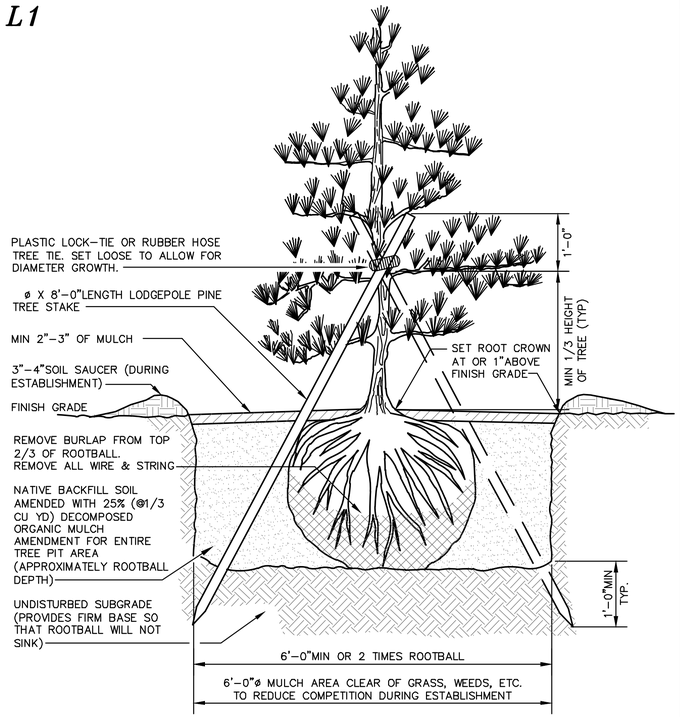
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 - 037

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 10343
LICENSED PROFESSIONAL ENGINEER

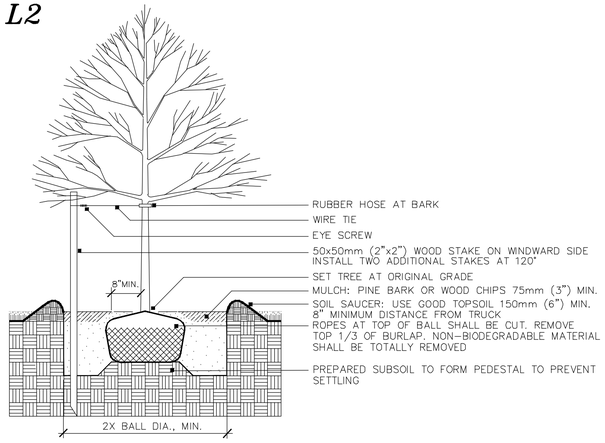
NOT FOR CONSTRUCTION

L1



CONIFEROUS TREE PLANTING

L2



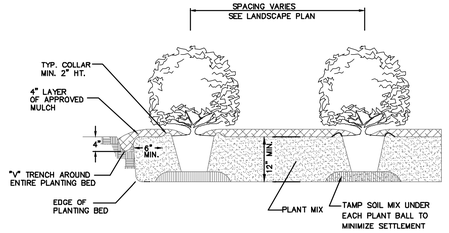
DECIDUOUS TREE PLANTING

NOTE: STAKING TO BE USED IN PARKING ISLANDS AND OTHER CONFINED AREAS AS NECESSARY TO AVOID CONFLICTS WITH PEDESTRIANS

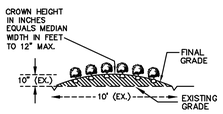
L3

NOTES:

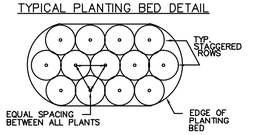
1. SCARIFY ROOT MASS OF CONTAINERIZED PLANT MATERIAL.
2. INSTALL CONTAINERIZED PLANTS AT FINSHED GRADE
3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED AROUND EACH PLANT BALL.
4. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
5. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.



TYPICAL PLANTING BED DETAIL



TYPICAL BED CROWNING

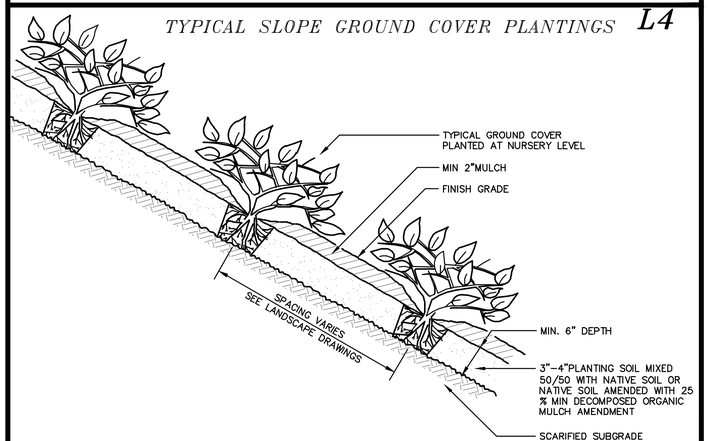


TYPICAL PLANTING BED PLAN

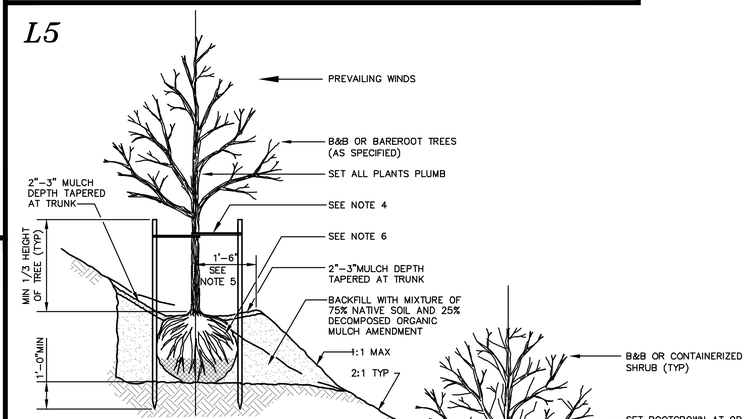
SHRUB & HEDGE PLANTING

L4

TYPICAL SLOPE GROUND COVER PLANTINGS



L5



NOTES:
1. STAKE TREES PER STD PLAN NO 100a
2. ONE STAKE PER TREE ON WINDWARD SIDE; SECOND STAKE ON LEEWARD SIDE
3. SLOPES STEEPER THAN 2:1 MAY REQUIRE AN APPROVED EMBANKMENT STABILIZATION SYSTEM TO CREATE A LEVEL TREE PIT SUCH AS:
   –ROCK FACING
   –PRECAST CONCRETE WALL UNITS
   –TIMBER WALL
   –MANUFACTURED SLOPE RETENTION UNITS
4. CHAINLOCK TREE TIE. LOOP EACH TIE AROUND TREE LOOSELY TO PROVIDE 1" SLACK FOR DIAMETER GROWTH.
5. SHAPE SOIL TO PROVIDE 3' DIAMETER OR ROOTBALL DIAMETER, WHICHEVER IS GREATER, WATERING RING.
6. REMOVE ALL WIRE AND STRING. REMOVE TOP 2/3 OF BURLAP.

TREE PLANTING ON SLOPES

L6

NOTES:

1.) CALL DIG SAFE PRIOR TO BEGINNING WORK. (1–888–344–7233). THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF THE SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBING, ETC DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER OR GENERAL CONTRACTOR.

2.) CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.

3.) PROVIDED SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.

4.) ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

5.) ALL PLANT MATERIALS SHALL BE FREE FROM INSECTS AND DISEASE.

6.) ALL PLANTINGS SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM OWNER.

7.) ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.

8.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY PLANTED TREES AND SHRUBS DURING THE CONSTRUCTION PROCESS. WHERE REQUIRED, THE CONTRACTOR SHALL INSTALL TEMPORARY FENCING (SNOW OR EQUAL) AROUND EXISTING TREES AND SHRUBS THAT COULD BE IMPACTED BY THE CONSTRUCTION PROCESS. STORAGE OF CONSTRUCTION EQUIPMENT, CONSTRUCTION MATERIALS, SNOW STORAGE AND OR VEHICLE PARKING SHALL NOT BE PERMITTED WITHIN THE DRIP LINE OF TREES OR TWENTY FEET WHICH EVER IS GREATER.

9.) NEW PLANTINGS SHALL BE INSTALLED PER PROJECT DRAWINGS AND SPECIFICATION THAT INCLUDE FERTILIZATION AND MULCHING AS REQUIRED.

10.) ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH.

11.) WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL–ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.

12.) MAINTENANCE OF NEW PLANTINGS AND LAWNS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND OR LANDSCAPE SUBCONTRACTOR UNTIL ACCEPTANCE BY THE OWNER. RESPONSIBILITIES SHALL INCLUDE WATERING WEEDING AND MOWING AS NECESSARY. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE, REPLACEMENT MATERIAL SHALL BE GUARANTEED FOR AND ADDITIONAL YEAR FROM TIME OF INSTALLATION.

13.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY EROSION CONTROL MEASURES DURING THE CONSTRUCTION PHASE AND UNTIL ALL AREAS HAVE BEEN STABILIZED AND ACCEPTED BY THE OWNER. THE GENERAL CONTRACTOR SHALL PROVIDE WEEKLY INSPECTIONS OF EROSION MEASURE AND IMMEDIATELY AFTER STORM EVENTS AND REPAIR AS NECESSARY.

14.) THE GENERAL CONTRACTOR AND OR THE LANDSCAPE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL THREE GUYING MATERIAL ONCE PLANT MATERIAL HAS BEEN ESTABLISHED. (MINIMUM OF ONE GROWNG SEASON). ALL TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVED ONCE STABILIZATION OF DISTURBANCE HAS BEEN ACCEPTED BY OWNER.

15.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM OF TWO MOWINGS FOR ALL TURF AREAS OR UNTIL ACCEPTANCE BY THE OWNER. A MINIMUM UNIFORM 75% CATCH OF TURF IS REQUIRED FOR ACCEPTANCE.

16.) ALL PLANTINGS SHALL BE WATERED REGULARLY DURING THEIR FIRST YEAR AND MAINTAINED PERMANENTLY IN GOOD GROWING CONDITION AS AN EFFECTIVE VISUAL SCREEN.

17.) SHRUBS OR TREES WHICH DIE SHALL BE REPLACED WITHIN ONE GROWING SEASON WITH NEW SHRUBS OR TREES TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE LANDSCAPING REQUIREMENTS.

18.) ALL REQUIRED LANDSCAPING SHALL BE INSTALLED BEFORE OCCUPANCY, OR WITHIN SIX MONTHS IF OCCUPANCY OCCURS DURING WINTER CONDITIONS.

19.) TREES ARE TO BE 2–2.5" CALIPER 6" OFF THE ROOT BALL.

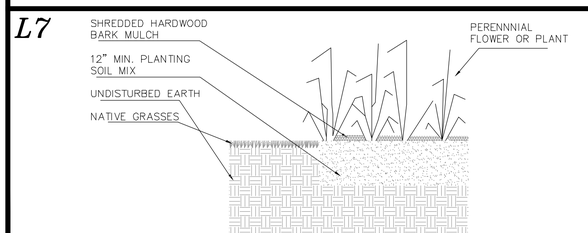
20.) ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 – NURSERY STOCK, LATEST EDITIONS (AMERICAN ASSOCIATION OF NURSERYMEN, INC.)

21.) 4" AGED PINEBARK MULCH AND A WEED BARRIER (TY–PAR FABRIC OR APPROVED EQUAL) SHALL BE APPLIED TO ALL SHRUB AND GROUND COVER BEDS. INSTALL WEED BARRIER AS PER MANUFACTURERS RECOMMENDATIONS.

22.) PLANT–PIT BACK–FILL SHALL BE MIXED AT A RATE OF 7 PARTS OF TOPSOIL TO 2 PARTS OF DEHYDRATED COW MANURE. SLOW RELEASE FERTILIZER SHALL BE APPLIED AS PER MANUFACTURERS RECOMMENDATIONS. USE EXISTING ON–SITE TOPSOIL AS PART OF BACK FILL WHEN AVAILABLE.

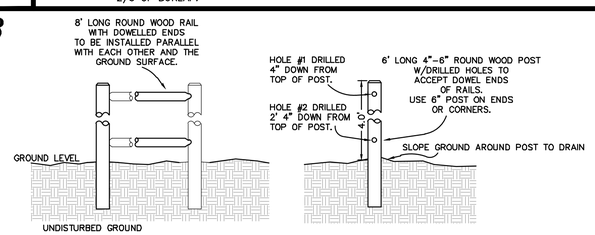
23.) ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH SEED OR SOD AS INDICATED ON PLANS.

L7



PERENNIAL PLANTING DETAIL

L8



TYPICAL POST & RAIL FENCE DETAIL

NOT TO SCALE

REVISION	DATE	DESCRIPTION
#1	9–26–22	REVISED PER DOVER TRC COMMENT

LANDSCAPING DETAILS
FOR: WOODEN RULER REALTY, LLC
LAND OF: JOHN WONG & MO Y. WONG, TRUSTEE OF THE MO Y. WONG LIVING REVOCABLE TRUST OF 2006
42 & 44 THIRD STREET
DOVER, N.H.
TAX MAP 6, LOTS 32 & 40

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

AS NOTED
DATE : AUGUST 11, 2022
FILE NO. : DB 2022 – 037

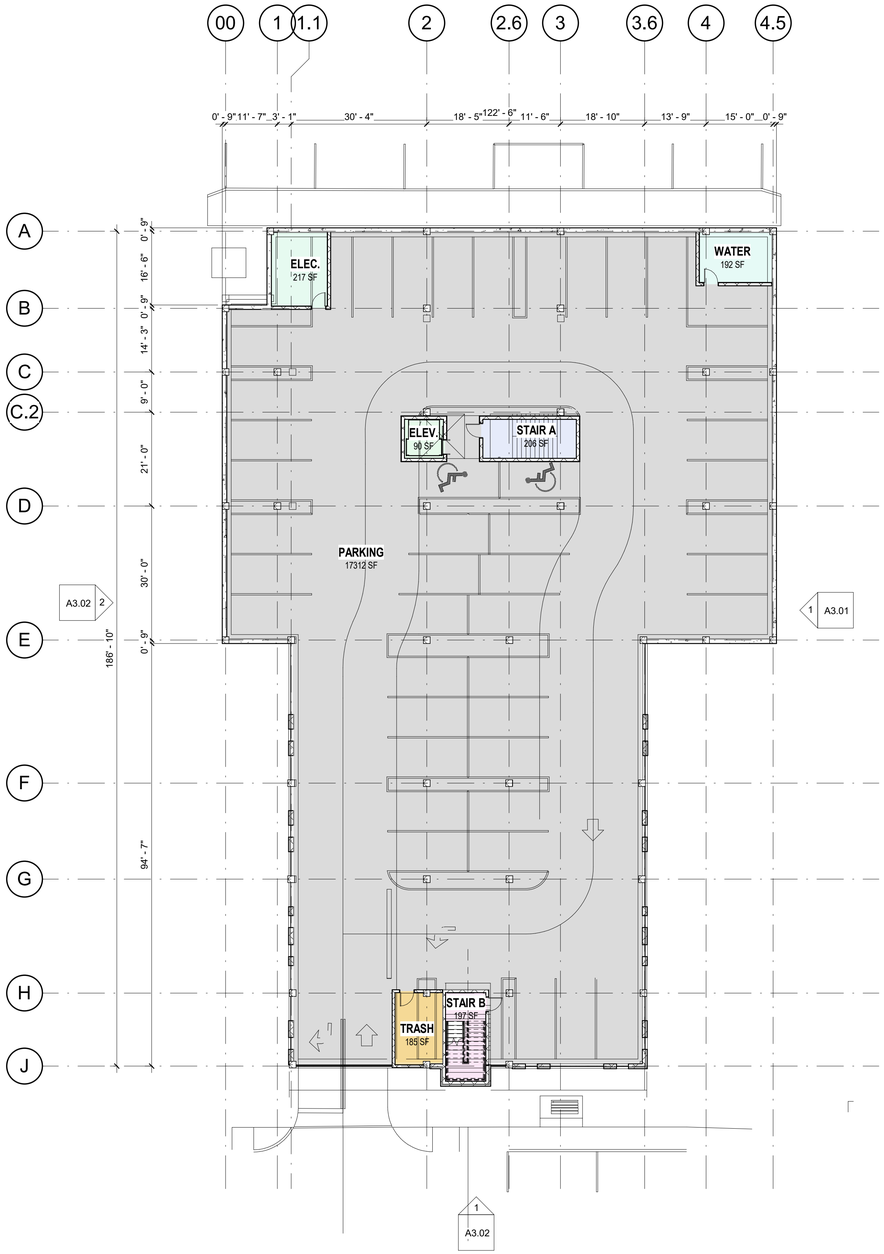
STATE OF NEW HAMPSHIRE – KENNETH A. BERRY No. 18143 – LICENSED PROFESSIONAL ENGINEER

L–101

NOT FOR CONSTRUCTION

A. CONSTRUCTION TYPE IS TYPE 1A AT 1ST AND 2ND FLOOR PODIUM AND TYPE 5 A ON FLOORS 3-5.
B. FULLY SPRINKLERED NFPA-13
C. 2 HR RATED STAIR, ELEVATOR SHAFTS, AND LOBBY FOR EGRESS
D. 2-WAY COMMUNICATION PROPOSED AT EACH ELEVATOR STOP WITH BATTERY STAND BY POWER (NO GENERATOR) TENANT LEASE WILL REFLECT LANDLORD WILL PROVIDE SHELTER AFTER 1.5 HOURS
E. SECURITY GATE IS PROPOSED AT GARAGE ENTRANCE (DESIGN TBD)
F. CARD KEY ACCES AT LOBBY, GARAGE, ROOF DECK FOR TENANTS
G. DESIGNED TO MEET 2018 ENERGY CODES (NO LEED)
H. 1' DEEP BALCONIES ON STREET FACADES FOR PLANTERS
I. WALL SCREENING TRANSFORMER WILL BE DESIGNED AS ART PIECE
J. GREEN ROOF SHOWN EXCEEDS THE 30% REQUIREMENT. THIS AREA CAN ALSO BE USED FOR SOLAR PANELS IN THE FUTURE.

3 PROJECT NOTES

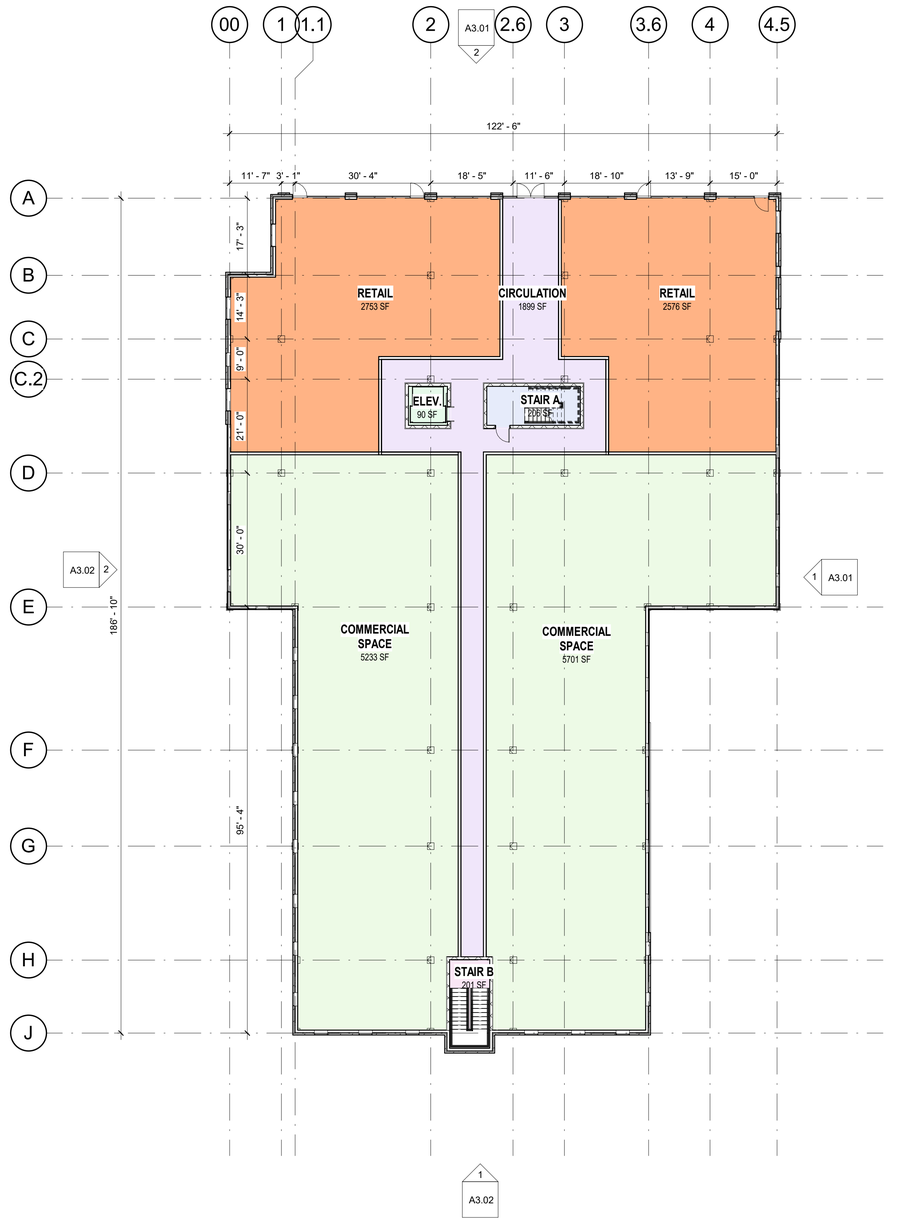


Room Legend

- ELEC.
- ELEV.
- PARKING
- STAIR A
- STAIR B
- TRASH
- WATER

1 PARKING

SCALE: 1/16" = 1'-0" REF SHEET: 1 / A3.01



Room Legend

- CIRCULATION
- COMMERCIAL SPACE
- ELEV.
- RETAIL
- STAIR A
- STAIR B

2 LEVEL 1

SCALE: 1/16" = 1'-0" REF SHEET: 1 / A3.01

NOT FOR CONSTRUCTION

ISAAK DESIGN, PLLC
ARCHITECTURE & URBAN DESIGN
(603) 969-6711
NICK@ISAAKDESIGN.COM

www.isaakdesign.com

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No.	Description	Date

42-42 Third St.
Dover, NH

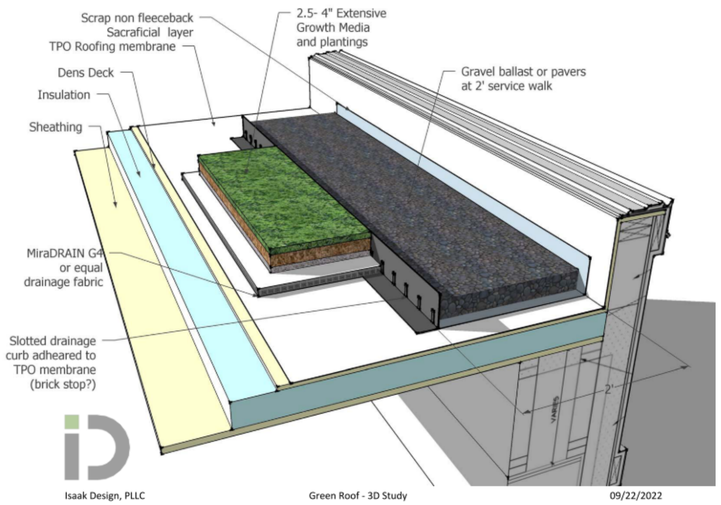
BASEMENT & 1ST FLOOR PLANS

Project number	2131
Date	22 SEP 2022
Drawn by	NI
Checked by	Checker

A1.01

Scale As indicated

9/27/2022 11:41:21 AM



Isaak Design, PLLC | Green Roof - 3D Study | 09/22/2022

Room Legend

- 1 Bed + Study
- 1 Bed + Study (ACC)
- 2 Bedroom
- 2 Bedroom + Study (ACC)
- 3 Bedroom
- Corr.
- Storage

NOTE: "ACC" DENOTES ACCESSIBLE UNIT
2 ACCESSIBLE UNITS ARE REQUIRED IN THIS PROJECT

2 LEVEL 2,3 & 4
SCALE: 1/16" = 1'-0" REF SHEET: 1 / A3.01

NOT FOR CONSTRUCTION

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No.	Description	Date

42-42 Third St.
Dover, NH

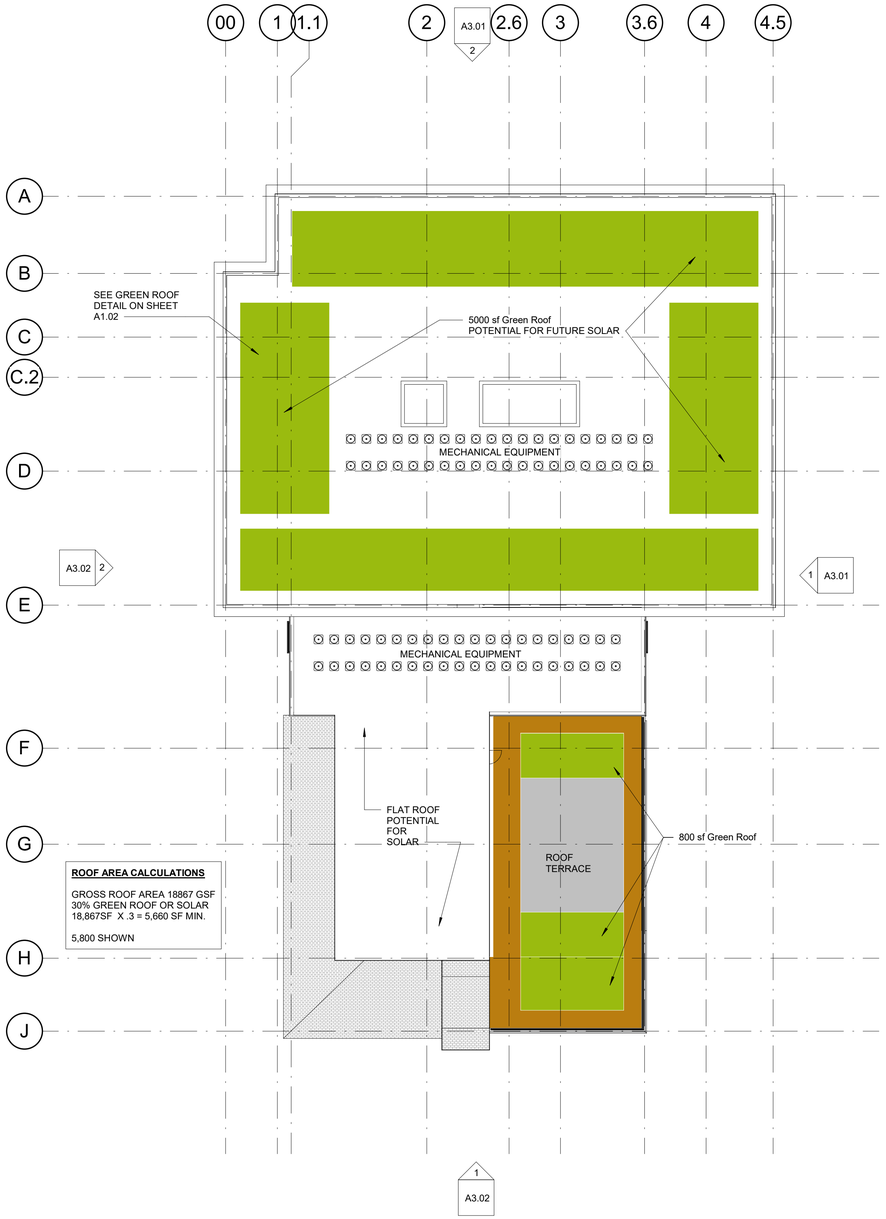
2ND, 3RD & 4TH FLOOR PLANS

Project number	2131
Date	22 SEP 2022
Drawn by	NI
Checked by	Checker

A1.02

Scale 1/16" = 1'-0"

9/27/2022 11:41:21 AM



2 ROOF PLAN

SCALE: 1/16" = 1'-0" REF SHEET: 1 / A3.01

Room Legend

- 1 Bed + Study
- 2 Bedroom
- 3 Bedroom
- Elec.
- Fitness
- Storage
- Toilet

1 LEVEL 5

SCALE: 1/16" = 1'-0" REF SHEET: 1 / A3.01

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No.	Description	Date

42-42 Third St.
Dover, NH

5TH AND ROOF PLANS

Project number	2131
Date	22 SEP 2022
Drawn by	Author
Checked by	Checker

A1.03

Scale 1/16" = 1'-0"

9/27/2022 11:41:22 AM

1 East Elevation

SCALE: 1/8" = 1'-0" REF SHEET: 1 / A1.01

2 North Elevation - 3rd Street

SCALE: 1/8" = 1'-0" REF SHEET: 2 / A1.01

EXTERIOR OPENINGS ARE LESS THAN 15%

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No.	Description	Date

42-42 Third St.
Dover, NH

EXTERIOR ELEVATIONS

Project number	2131
Date	22 SEP 2022
Drawn by	NI
Checked by	Checker

A3.01

Scale 1/8" = 1'-0"

9/27/2022 11:41:25 AM

2 West Elevation

SCALE: 1/8" = 1'-0" REF SHEET: 1 / A1.01

EXTERIOR OPENINGS ARE LESS THAN 15%

1 South Elevation - 2nd Street

SCALE: 1/8" = 1'-0" REF SHEET: 1 / A1.01

NOT FOR CONSTRUCTION

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No.	Description	Date

42-42 Third St.
Dover, NH

EXTERIOR ELEVATIONS

Project number	2131
Date	22 SEP 2022
Drawn by	Author
Checked by	Checker
Scale	1/8" = 1'-0"

A3.02

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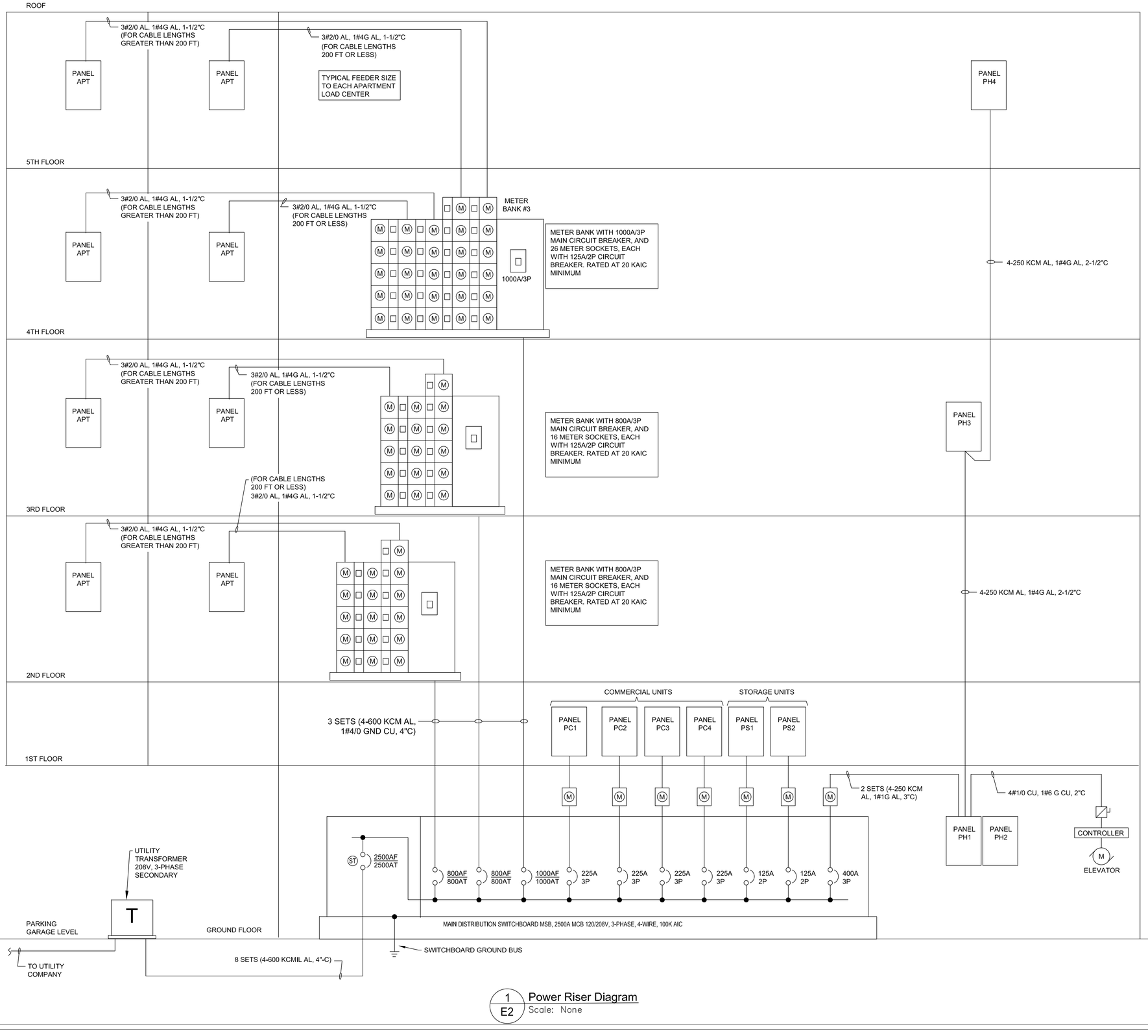
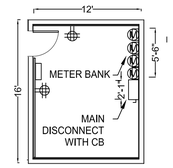
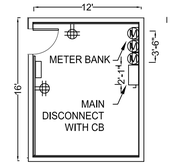


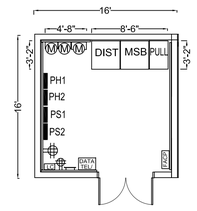
1 / E2 Power Riser Diagram
Scale: None



4 / E2 4th Level - Electric Room
Scale: 1/8" = 1'



3 / E2 2nd & 3rd Level - Electric Room
Scale: 1/8" = 1'



2 / E2 Parking Level - Electric Room
Scale: 1/8" = 1'

Riser Diagram/Electric Room Layouts - 09/26/2022

SCE Seacoast Consulting Engineers, LLC
261 Jennie Lane
Eliot, Maine 03903
207-370-7230
www.SeacoastEngineers.com

Designed By: LDC
Drawn By: VP
Checked By: LDC
Date: 09-10-2022
SCALE: As Noted
Project No. 2022-140

New Apartment Bldg
42 - 44 Third Street
Dover, NH

Power Riser Diagram

E2

SILENCE
HUMILITY
PRAYER
FURNITURE

Drycleaners
Laundromat

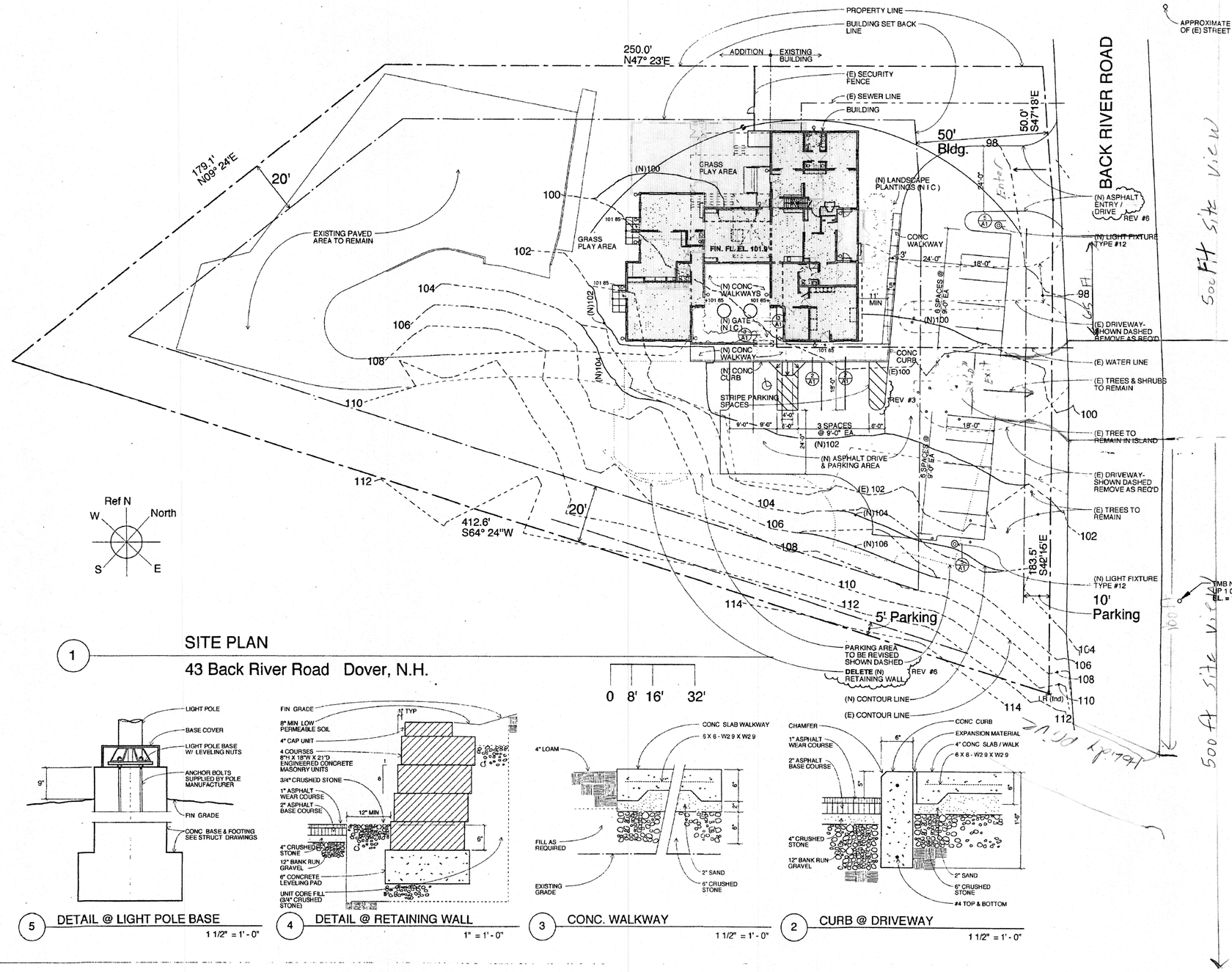
City of Dover,

Kids Culture Childcare would like to add a second driveway. This will provide safety for the pickup and drop off of all our children. And would also provide temporary relief for traffic on back river Road during before and after school hours.
The School bus would be able to pull in and drop off Children. This will provide safety for the children and limit backup on Back River Road. Chapter 157-50 section c paragraph 1 unless there is an all season sight distance of 400 feet in both directions along a street can be obtained,the Community services director shall not
permit more then one access to a single parcel of land. 43 Back river road has 500 feet of sight distance both ways on proposed Driveway.So I ask if a driveway meets all the requirements outlined in Chapter 157-50 can a driveway be denied?In closing the reson for this driveway is for safety of the children. We where also asked to look into getting a curb cut onto Holiday drive. This is would be a huge expense and not possible option.

Thank You

John Kniphfer

RECEIVED
Planning Office
OCT 07 2022
Dover, New Hampshire



1 SITE PLAN

43 Back River Road Dover, N.H.

0 8' 16' 32'

5 DETAIL @ LIGHT POLE BASE

1 1/2" = 1' - 0"

4 DETAIL @ RETAINING WALL

1" = 1' - 0"

3 CONC. WALKWAY

1 1/2" = 1' - 0"

2 CURB @ DRIVEWAY

1 1/2" = 1' - 0"

DOVER DAYCARE & LEARNING CENTEF

Renovation & Addition

Dover, NH

NOTES

1 SITE PLAN IS BASED ON BOUNDARY SURVEY BY McENEANEY SURVEY ASSOC DATED 4-28-98' & REVISED 5-8-98', AND CONTOURS DATED 6-14-99'

2 ALL EXTERIOR SITE WORK IS TO BE INCLUDED IN PHASE 2 ONLY

LEGEND

- 2 / A9.1 — Detail / Section / Elevation No, Sheet No
- 100 — EXISTING CONTOUR LINE
- 100 — NEW CONTOUR LINE
- 100.75 + — NEW SPOT ELEVATION
- (E) — EXISTING
- (N) — NEW
- EXTERIOR WALL MOUNTED LIGHT FIXTURE
- EXTERIOR POLE MOUNTED LIGHT FIXTURE (SHIELDED)

A R Q Architects
17C Nappanee Road
Kittery Point, Maine 03905
207 • 439 • 5200

REVISIONS

REV #2 - 10 27 99'
Revise Entry/ Exit Drive and Parking

REV #3 - 1 19 00'
Revise Conc Curb @ Parking

REV #6 - 6 1 00'
Revise Entry / Exit Drive and Parking

SITE PLAN

A 1

Date AUGUST 1999
Scale 1/16" = 1'-0"
Project # 9804

BID ISSUE 1-24-00