The Schlotterbeck Block
117 Preble Street

Level III Site Plan & Subdivision Application

October 5, 2015

APPLICANT:
Schlotterbeck Block, LLC
John Anton, Manager
77 Spruce Street
Portland, Maine 04101

AGENT:
MITCHELL & ASSOCIATES
Landscape Architects and Land Planners
70 Center Street
Portland, Maine 04101

Mitchell & Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

October 5, 2015

Ms. Barbara Barhydt, Development Review Manager
and Planning Board Members
City of Portland
389 Congress Street
Portland, Maine 04101

RE: The Schlotterbeck Block
117 Preble Street
Site Plan Review & Subdivision

Dear Barbara and Board Members:

On behalf of Schlotterbeck Block LLC., we are pleased to submit the following Site Plan Application & Subdivision Application for the proposed redevelopment of the Schlotterbeck & Foss building located at 117 Preble Street in Portland. This submission has been prepared in compliance with requirements of the City of Portland Zoning and Site Plan Ordinance. The project is intended to increase residential living opportunities within the Bayside community.

The Site

The Schlotterbeck & Foss building is located at 117 Preble Street and is in the B-7 zone. The historic building was designed by John Calvin Stevens in 1925 and was the home of the Schlotterbeck & Foss Company until 2015. The site is comprised of two lots (Tax Map 33, Block E, Lots 1 and 5) totaling an area 40,702 square feet. The site currently contains the 6,800 s.f. existing building, a gravel parking lot (20 +/- spaces) and a paved parking lot (30 +/- spaces.) The soils are characterized as urban conditions. Test borings performed by Ransom Consulting Engineers in 2008 revealed granular fill soils consisting of fine to coarse-graded sand with varying amounts of gravel, silt, bricks, coal, ash, shells, wood and glass debris.

Project Description

Schlotterbeck Block LLC is intending to purchase the historic Schlotterblock and Foss building at 117 Preble Street. The applicant plans to transform the building and the site into a 55-unit apartment community with approximately 1,750 sf of office space.

The building has been occupied by the Schlotterbeck & Foss Company since it was built in 1927. Schlotterbeck & Foss sold the building to JB Brown and Sons in 2008 with the knowledge that they would eventually leave the building and move to a facility more suited to contemporary manufacturing. Schlotterbeck & Foss's lease expires at the end of 2015 at which point the sale to Schlotterbeck Block LLC will go through and the redevelopment of the building will begin.

The main entrance on Preble Street will continue to serve the office space while the existing entrance on the south side of the building will be expanded to act as an entrance to serve the residential portion of the building. Site improvements include new brick sidewalks and streetlights along Preble, Elm and Kennebec Streets. Street tree plantings are proposed along Preble and Elm Street, as well as preservation of existing trees on Preble and Kennebec Streets. New lighting will be provided throughout the site.

The applicant is proposing the continued use of the existing parking lot along Kennebec Street. The continued use of the parking lot will meet the requirements of the proposed text amendment (14-295(a)(26)) to the B-7 Zone, which was recommended by the Planning Board to the City Council on September 29, 2015. Compliance is contingent on City Council approval of the text amendment.

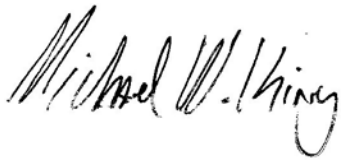
Submission

This submission includes the following information:

1. Cover letter, dated October 5, 2015;
2. Site Plan and Subdivision Application & Checklist;
3. Application Fee: $3,375;
4. Written Submission Documentation;
5. One set of plans (24" x 36");
6. One set of plans (11"x17"); and
7. One set of digital files.

We trust that the Planning Board will consider this a complete application for a workshop meeting. If you desire any additional information, please do not hesitate to contact us. We look forward to our meeting with the Board at its earliest convenience.

Sincerely,
Mitchell & Associates



Michael W. King
Maine Licensed Landscape Architect

Enclosures

cc: John Anton
Richard Goduti

TABLE OF CONTENTS

PROJECT NAME: The Schlotterbeck Block

PROPOSED DEVELOPMENT ADDRESS:

117 Preble Street

PROJECT DESCRIPTION:

Adaptive Reuse of the historic Schlotterbeck and Foss Building into 55 apartments and +/- 1,750 sf of office space.

CHART/BLOCK/LOT: 033 E001001
033 E005001

PRELIMINARY PLAN _____ (date)
FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: John Anton Business Name, if applicable: Schlotterbeck Block, LLC Address: 77 Spruce St City/State : Portland, ME 04102 Zip Code:	**Applicant Contact Information** Work # Home# Cell # 207 650-8979 Fax# e-mail: antonatlarge@gmail.com
Owner – (if different from Applicant) Name: same Address: City/State : Zip Code:	**Owner Contact Information** Work # same Home# Cell # Fax# e-mail:
Agent/ Representative Name: Michael King Mitchell & Associates Address: 70 Center Street City/State : Portland, ME 04101 Zip Code:	**Agent/Representative Contact information** Work # (207) 774-4427 Cell # e-mail: mking@mitchellassociates.biz
Billing Information Name: John Anton Schlotterbeck Block, LLC Address: 77 Spruce St Portland, ME 04102 City/State : Zip Code:	**Billing Information** Work # Cell # 207 650-8979 Fax# e-mail: antonatlarge@gmail.com

Engineer Name: Ransom Consulting Steve Bradstreet, P.E. Address: 400 Commercial Street City/State Portland, ME Zip Code: 04101	**Engineer Contact Information** Work # (207) 772-2891 Cell # Fax# e-mail: steven.bradstreet@ransomenv.com
Surveyor Name: Owen Haskell, Inc. Address: 390 US Route 1, Unit 10 City/State : Zip Code: Falmouth, ME 04105	**Surveyor Contact Information** Work # (207) 774-0424 Cell # Fax# e-mail:
Architect Rick Goduti Name: Goduti Thomas Architects Address: 44 Oak Street City/State : Zip Code: Portland, ME 04101	**Architect Contact Information** Work # (207) 775-3184 Cell # Fax# e-mail: gtarick@gmail.com
Attorney Cito Selinger Name: Curtis Thaxter Address: One Canal Plaza, #1000 City/State : Zip Code: Portland, ME 04101	**Attorney Contact Information** Work # (207) 774-9000 Cell # Fax# e-mail: mselinger@curtisthaxter.com

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews) __X Less than 50,000 sq. ft. ($500.00) ___ 50,000 - 100,000 sq. ft. ($1,000) ___ 100,000 – 200,000 sq. ft. ($2,000) ___ 200,000 – 300,000 sq. ft. ($3,000) ___ over $300,00 sq. ft. ($5,000) __X Parking lots over 11 spaces ($1,000) ___ After-the-fact Review ($1,000.00 plus applicable application fee) **Plan Amendments (check applicable reviews)** ___ Planning Staff Review ($250) ___ Planning Board Review ($500) _____ The City invoices separately for the following: • Notices ($.75 each) • Legal Ad (% of total Ad) • Planning Review ($40.00 hour) • Legal Review ($75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	**Other Reviews (check applicable reviews)** ___ Traffic Movement ($1,000) __X Stormwater Quality ($250) __X Subdivisions ($500 + $25/lot) # of Lots 55 x $25/lot = $1,375 ___ Site Location ($3,000, except for residential projects which shall be $200/lot) # of Lots ___ x $200/lot = _____ ___ Other _____ __X Change of Use ___ Flood Plain ___ Shoreland ___ Design Review ___ Housing Replacement ___ Historic Preservation

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal

2. **In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.**

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

1. **One (1) full size site plans** that must be **folded.**
2. One (1) copy of all written materials or as follows, unless otherwise noted:
   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level III Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	**Date:** 9/22/15

PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	40,720 sq. ft.
Proposed Total Disturbed Area of the Site	26,500 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.	
Impervious Surface Area	`
Impervious Area (Total Existing)	30,070 sq. ft.
Impervious Area (Total Proposed)	27,300 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	6,800 sq. ft.
Building Footprint (Total Proposed)	6,800 sq. ft.
Building Floor Area (Total Existing)	37,345 sq. ft.
Building Floor Area (Total Proposed)	37,345 sq. ft.
Zoning	
Existing	B-7
Proposed, if applicable	
Land Use	
Existing	Industrial
Proposed	Residential
Residential, If applicable	
# of Residential Units (Total Existing)	N/A
# of Residential Units (Total Proposed)	55
# of Lots (Total Proposed)	2
# of Affordable Housing Units (Total Proposed)	N/A
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	15
# of One-Bedroom Units (Total Proposed)	40
# of Two-Bedroom Units (Total Proposed)	0
# of Three-Bedroom Units (Total Proposed)	0
Parking Spaces	
# of Parking Spaces (Total Existing)	50 +/-
# of Parking Spaces (Total Proposed)	50
# of Handicapped Spaces (Total Proposed)	2
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	23
Estimated Cost of Project	$5,000,000

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
X		1	* Completed Application form
X		1	* Application fees
X		1	* Written description of project
X		1	* Evidence of right, title and interest
X		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
X		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
X		1	* Evidence of financial and technical capacity
X		1	Construction Management Plan
X		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
X		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
X		1	Stormwater management plan and stormwater calculations
X		1	Written summary of project's consistency with related city master plans
X		1	Evidence of utility capacity to serve
X		1	Written summary of solid waste generation and proposed management of solid waste
X		1	A code summary referencing NFPA 1 and all Fire Department technical standards
X		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
X		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST** **(* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
X		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
		1	**Final Site Plans including the following:**
X		Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);	
X		Existing and proposed structures on parcels abutting site;	
X		All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;	
X		Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;	
X		Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;	
N/A		Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;	
N/A		Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;	
X		Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;	
X		Location of all snow storage areas and/or a snow removal plan;	
N/A		A traffic control plan as detailed in Section 1 of the Technical Manual;	
X		Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);	
N/A		Location and proposed alteration to any watercourse;	
N/A		A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;	
N/A		Proposed buffers and preservation measures for wetlands;	
X		Existing soil conditions and location of test pits and test borings;	
X		Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;	
X		A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;	
X		Grading plan;	
N/A		Ground water protection measures;	
X		Existing and proposed sewer mains and connections;	

- Continued on next page -

X		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
X		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
X		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
X		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
X		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
N/A		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
X		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
X		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
*		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
X		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
X		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

* To be submitted

EXHIBIT 2

RIGHT, TITLE OR INTEREST

Please see attached warranty deeds for Map 33, Block E, Lots 1 and 5 and the purchase and sale agreement for 117 Preble Street.

SHORT FORM QUITCLAIM DEED
WITH COVENANT

MAINE REAL ESTATE TAX PAID

THE FOSS COMPANY, (formerly known as Schlotterbeck & Foss Company, Inc.), a Maine corporation, with a mailing address of P.O. Box 843, Yarmouth, Maine 04086, for consideration paid, grants to **J.B. BROWN & SONS**, a Maine corporation of Portland, Maine, whose mailing address is 482 Congress Street, P. O. Box 207, Portland, Maine, 04112, its successors and assigns forever, with Quitclaim Covenant, the land and buildings located in the City of Portland, County of Cumberland and State of Maine, as described on **Exhibit A** attached hereto and made a part hereof.

IN WITNESS WHEREOF, **THE FOSS COMPANY** has caused this deed to be executed by Peter T. Foss, President, thereunto authorized, this 24th day of September, 2008.

THE FOSS COMPANY

By: _____
Peter T. Foss
Its President

STATE OF MAINE
CUMBERLAND, SS. September 24, 2008

Then personally appeared the above-named Peter T. Foss, President of The Foss Company, and acknowledged the foregoing instrument to be his free act and deed in his capacity and the free act and deed of The Foss Company.

Before me,

_____
~~Notary Public~~/Maine Attorney at Law

Printed Name Thomas G. Leahy

EXHIBIT A

A certain lot or parcel of land with the buildings thereon, situated on the easterly side of Preble Street and the westerly side of Elm Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning on the easterly side line of Preble Street at a point twenty-eight (28) feet northerly, measured on said line from the northerly side line of Lancaster Street, said point being the southerly corner of land conveyed by Francis Fessenden to the Portland and Rochester Railroad by deed dated June 26, 1891 and recorded in the Cumberland County Registry of Deeds in Book 582, Page 23; thence easterly on a line parallel with said Lancaster Street along the southerly line of said land conveyed by said Fessenden, one hundred two and ninety-five hundredths (102.95) feet more or less, to land conveyed by Karl N. Murch to Cushman Banking Company by deed dated December 20, 1921 and recorded in said registry in Book 1091, Page 336; thence northerly along the westerly line of said last mentioned land four and ninety-seven hundredths (4.97) feet, more or less, to the southerly line of land conveyed by Mary J.E. Clapp to the Portland and Rochester Railroad by deed dated June 29, 1891 and recorded in said registry in Book 580, Page 338; thence easterly on a line parallel with said Lancaster Street, along the southerly line of said last mentioned land ninety-five and one tenth (95.1) feet, more or less, to the westerly side line of Elm Street at a point thirty-three (33) feet northerly measured along said line of Elm Street from the northerly side line of Lancaster Street, thence northerly along said line of Elm Street one hundred twenty-one and fifty-five hundredths (121.55) feet; thence westerly on a straight line two hundred seven and fifty-eight hundredths (207.58) feet to a point on the easterly side line of Preble Street one hundred eighty-nine (189) feet northerly from point of beginning; thence southerly on said line of Preble Street to the point of beginning. Containing thirty thousand four hundred eighty-eight (30,488) square feet, more or less.

FOR SOURCE OF TITLE reference may be had to Quit Claim Deed from the Portland Terminal Company to Schlotterbeck & Foss Co. dated December 17, 1925, recorded in the Cumberland County Registry of Deeds in Book 1224, Page 397.

Received
Recorded Register of Deeds
Sep 24,2008 02:47:22P
Cumberland County
Pamela E. Lovley

SHORT FORM QUITCLAIM DEED
WITH COVENANT

MAINE REAL ESTATE TAX PAID

THE FOSS COMPANY, (formerly known as Schlotterbeck & Foss Company, Inc.), a Maine corporation, with a mailing address of P.O. Box 843, Yarmouth, Maine 04086, for consideration paid, grants to **J.B. BROWN & SONS**, a Maine corporation of Portland, Maine, whose mailing address is 482 Congress Street, P. O. Box 207, Portland, Maine, 04112, its successors and assigns forever, with Quitclaim Covenant, the land located in the City of Portland, County of Cumberland and State of Maine, as described on **Exhibit A** attached hereto and made a part hereof.

IN WITNESS WHEREOF, **THE FOSS COMPANY** has caused this deed to be executed by Peter T. Foss, President, thereunto authorized, this 24th day of September, 2008.

THE FOSS COMPANY

By: _____
Peter T. Foss
Its President

STATE OF MAINE
CUMBERLAND, SS.

September 24, 2008

Then personally appeared the above-named Peter T. Foss, President of The Foss Company, and acknowledged the foregoing instrument to be his free act and deed in his capacity and the free act and deed of The Foss Company.

Before me,

_____
~~Notary Public~~/Maine Attorney at Law

Printed Name Thomas G. Leahy

EXHIBIT A

A certain lot or parcel of land situated in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at an iron pipe in the northeasterly sideline of Preble Street, said pipe being at the westerly corner of a parcel of land conveyed by Portland Terminal Company to Schlotterbeck & Foss Co. by deed dated December 17, 1925 and recorded in the Cumberland County Registry of Deeds in Book 1224, Page 397; thence northeasterly in the northwesterly sideline of said land of Schlotterbeck & Foss Co. a distance of two hundred seven and fifty-eight hundredths (207.58) feet, more or less, to an iron pipe in the southwesterly sideline of Elm Street, said pipe being at the northerly corner of said land of Schlotterbeck & Foss Co.; thence northwesterly in a southwesterly sideline of Elm Street a distance of fifty-three (53) feet, more or less, to its intersection with the southeasterly sideline of Kennebec Street a distance of two hundred five (205) feet, more or less, to its intersection with the northeasterly sideline of Preble Street; thence southeasterly in said northeasterly sideline of said Preble Street a distance of fifty-four (54) feet, more or less, to the point of beginning. Meaning and intending to convey all the land of the Portland Terminal Company lying between Preble and Elm Streets and between the northwesterly sideline of land of Schlotterbeck & Foss Company, Inc. and Kennebec Street.

FOR SOURCE OF TITLE reference may be made to Quit Claim Deed from Portland Terminal Company to Schlotterbeck & Foss Company, Inc. dated May 15, 1984 and recorded in the Cumberland County Registry of Deeds in Book 6449, Page 348.

Received
Recorded Register of Deeds
Sep 24,2008 02:47:22P
Cumberland County
Pamela E. Lovley

ASSIGNMENT OF PURCHASE AND SALE AGREEMENT

ASSIGNMENT made this 22nd day of September, 2015, by and between JOHN ANTON, of Portland, Maine ("Assignor"), and SCHLOTTERBECK BLOCK LLC, a Maine limited liability company ("Assignee")

W I T N E S S E T H:

WHEREAS, Assignor entered into a Purchase and Sale Agreement dated as of May 6, 2015, as amended by Amendment A thereto dated July 21, 2015 (as it may be further amended from time to time, the "Agreement"), by and between Assignor, as Buyer, and J.B. Brown & Sons, a Maine corporation, as Seller; and

WHEREAS, Assignor desires to assign all of its right, title and interest in and to the Agreement to Assignee, and the Assignee desires to accept such assignment and assume the rights and obligations of the Assignor accruing under the Agreement, in each case with effect from and after the date hereof;

NOW, THEREFORE, in consideration of the respective undertakings and agreements hereinafter set forth, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Assignor hereby assigns, transfers and conveys to Assignee all of the Assignor's right, title and interest in and to the Agreement, with effect as of and from the date hereof.

2. Assignee hereby accepts the assignment of Assignor's right, title and interest in and to the Agreement, and (a) assumes performance of all of the obligations of the Assignor under the Agreement, and (b) further agrees to comply with and abide by all of the terms, conditions, provisions, and covenants on the part of the Assignor under the Agreement.

IN WITNESS WHEREOF, the parties have executed this Assignment on the day and year first above written.

SCHLOTTERBECK BLOCK LLC, Assignee

BY: Schlotterbeck Manager LLC, its Managing Member

By: _____
John Anton, authorized member

_____
John Anton, Assignor

C:\OneDrive\Documents\O_MAS\01945 Anton\Title\Assignment of P & S Agreement.docx

ACKNOWLEDGMENT OF SELLER

J.B. BROWN & SONS, a Maine corporation, Seller under the above-referenced Agreement, hereby acknowledges the assignment of the Agreement by John Anton to Schlotterbeck Block LLC.

Dated at Portland, Maine, this 22 day of September, 2015.

J.B. BROWN & SONS, Seller

By: _____
Vincent Veroneau, its President

C:\OneDrive\Documents\O_MAS\01945 Anton\Title\Assignment of P & S Agreement.docx

PURCHASE AND SALE AGREEMENT

This Agreement made effective as of the 6th day of May, 2015 (the "Effective Date") by and between J.B. BROWN & SONS, a Maine corporation, of Portland, Maine, whose mailing address is P.O. Box 207, Portland, Maine 04112 ("Seller"), and JOHN ANTON, an individual, whose mailing address is 77 Spruce Street, Portland, ME 04102, or assigns ("Buyer").

1. PREMISES: The Seller agrees to sell and the Buyer agrees to buy certain lots or parcels of land, with the improvements thereon, located at or near (i) 117-119 Preble Street, and (ii) 195 Lancaster Street, each located in Portland, Maine, together with all improvements and fixtures thereon and all rights, privileges, easements and appurtenances thereto, including without limitation, all air rights, water rights, rights-of-way or other interests in, on, under or to any land, highway, alley, street or rights-of-way abutting or adjoining said parcels, and any and all real property and rights described in or associated with the property as set forth in certain deeds recorded in the Cumberland County Registry of Deeds in Book 26354, Page 312, and 314 and in Book 29387, Page 027, and being more particularly bounded and described in Exhibit A attached hereto (the "Premises"), and all as subject to the leases and other encumbrances set forth in the attached Exhibit B (the "Permitted Exceptions"). The Premises shall also be conveyed together with all screens, blinds, lighting, appliances, heating, cooling and all other equipment and all other items of personal property owned by Seller and located thereon as of the Effective Date and any other items agreed to be transferred to Buyer (the "Personal Property"). The Personal Property shall be conveyed free from all liens and encumbrances at the time of Closing by bill of sale, and Seller's interest in the leases described on Exhibit B, and all tenant security deposits associated therewith and held by Seller, shall be transferred by written assignment.

2. Purchase Price. Subject to any adjustments and prorations contained herein, Buyer agrees to pay to Seller for the Premises the sum of [redacted] in lawful currency of the United States of America (the "Purchase Price"), payable as follows:

(a) [redacted] within three (3) business days after the Effective Date (the "Initial Deposit"), to be held by CBRE/The Boulos Group ("Escrow Agent") in a non-interest bearing account which Initial Deposit shall be credited towards the Purchase Price at the Closing;

(b) [redacted] within one (1) business day after the expiration of the Inspection Period (as defined herein), also to be held by the Escrow Agent (the "Additional Deposit") and credited towards the Purchase Price at the Closing. The Initial Deposit and the Additional Deposit shall sometimes hereinafter be referred to collectively as the "Deposit".

(c) The balance of [redacted] plus or minus the pro-rations and any other

payments referenced in this Agreement, shall be delivered to the Escrow Agent performing the closing by wire transfer or other immediately available funds and disbursed pursuant to the terms of this Agreement at Closing.

Notwithstanding any other provision of this Agreement, Escrow Agent shall have the right to require written releases from both parties prior to releasing the Deposit to either party. If a dispute arises between Buyer and Seller as to the existence of a default hereunder and/or the release of the Deposit and said dispute is not resolved by the parties within (30) days, Escrow Agent may elect to file an action in interpleader and deliver the Deposit to the court to resolve said dispute, or otherwise disburse the Deposit pursuant to Maine Real Estate Commission regulations. Buyer and Seller, jointly and severally, shall indemnify Escrow Agent for all costs, losses, expenses, and damages, including reasonable attorneys' fees, incurred by Escrow Agent in connection with said action and/or in connection with any dispute relating to this Agreement and/or the Deposit.

3. CLOSING: Unless otherwise agreed in writing, the Closing shall occur on the Closing Date in the offices of the Buyer's lender, however, Closing may be accomplished by mail and need not be "face to face," but through delivery of documents to the purchase money lender's counsel with proper escrow instructions. The "Closing" means consummation of the purchase of the Premises by Buyer from Seller in accordance with the terms and conditions hereof. The "Closing Date" means the date on which Closing will be held, except that notwithstanding any other provisions of this Agreement, the Closing Date shall occur no later than the forty fifth (45th) day after expiration of the Inspection Period, as same may be extended pursuant to the terms herein; provided, however, Seller shall have the unilateral right to extend the Closing Date for up to forty-five (45) days in order to complete a transaction intended to qualify in whole or in part as a tax deferred exchange pursuant to Section 1031 of the Internal Revenue Code of 1986, as amended. Seller must notify the Buyer not less than ten (10) days prior to the scheduled Closing Date if Seller wishes to extend the Closing Date. Both the Buyer and Seller agree to deliver or cause to be delivered any and all documents necessary to consummate this transaction.

If the Closing does not occur on or before the forty fifth (45th) day after expiration of the Inspection Period as a result of Buyer's failure to perform, the Buyer, subject to not less than three (3) business days notice to Seller, shall have the option of purchasing extension periods for Closing as hereinafter described, which extension payments shall be credited toward the Purchase Price but are otherwise non refundable except in the event of Seller's default. Each extension of Closing shall be for thirty (30) days and may be purchased by written notice to the Seller for [redacted] each (collectively, the "Extension Fees", singularly an "Extension Fee"). The Extension Fees shall be paid to the Seller directly and shall be fully earned upon payment. If Buyer closes on the Premises in accordance with the terms of this Agreement, each Extension Fee shall be credited to the Purchase Price.

4. DEED, TITLE: Seller agrees to convey to Buyer good and marketable title to the Premises, by Quitclaim Deed With Covenant delivered at Closing, free and clear of

encumbrances except (i) as set forth in Exhibits A and B, (ii) easements for utilities servicing the Premises, (iii) zoning and building laws or ordinances, and (iv) real estate and personal property taxes assessed but not due and payable. Promptly following the execution of this Agreement, Buyer shall (at Buyer's sole expense) obtain a commitment for Title Insurance (the "Title Commitment"); and upon request Buyer shall promptly furnish Seller with true accurate and complete copy thereof (including, at Seller's request, true, accurate and complete copies of all underlying title exception documents referenced therein). Not later than ten (10) days prior to the Closing, Buyer shall give Seller written notice ("Buyer's Title Notice") of any title exceptions which are contained in the Title Commitment and which are not Permitted Exceptions. Failure by Buyer to give Buyer's Title Notice (or to object to any matter referenced in the Title Commitment) to Seller on or before said date shall constitute Buyer's final and irrevocable approval of the condition of title (and to any such unobjected to matter) in and to the Premises, except for new items that appear after the effective date of the Title Commitment.

If Buyer's Title Notice shall be timely given Seller shall have a period of thirty (30) days following Seller's receipt of Buyer's Title Notice, to remove, correct, cure or satisfy any title exceptions that were identified in Buyer's Title Notice as not being Permitted Exceptions, it being nevertheless agreed that Seller shall have no obligation to undertake any action or to incur any expense in order to effectuate any such removal, correction, cure or satisfaction (except that notwithstanding the foregoing Seller shall be required to remove or discharge any mortgages as well as any other liens in an ascertainable dollar amount created by Seller); and it also being agreed that any attempt by Seller to cure shall not be construed as an admission by Seller that such objection is one that would give Buyer the right to cancel this Agreement. In the event that Seller elects not to attempt to remove, correct, cure or satisfy the matters raised in Buyer's Title Notice, or if having elected to do so, does not within said thirty (30) day period effectuate any such removal, correction, cure or satisfaction as aforesaid (hereinafter called "title correction"), Buyer shall have the right at its sole option either (a) to terminate this Agreement, in which event the Deposit shall be returned to Buyer and neither party shall thereafter have any further liability hereunder, except for those provisions that are expressly set forth in the Agreement to survive termination, or (b) to accept such title as is disclosed by the Title Commitment without title correction and without any reduction to the Purchase Price, thereby waiving any rights against Seller with respect thereto. Said election shall be made by Buyer within three (3) business days following Buyer's receipt of written notification by Seller that Seller has not effectuated (or has elected not to effectuate) title correction.

In the event that Seller (even though under no duty to do so) shall undertake title correction as aforesaid, and shall be successful, this Agreement shall continue in full force and effect and Buyer shall close the transaction contemplated hereby in accordance with the terms hereof. In the event that Seller shall only be partially successful in obtaining title correction, Buyer shall have the same alternative rights as Buyer would have in the event Seller had declined to seek title correction (as set forth above). Buyer shall make its election within three (3) business days after Buyer's receipt of written notice from Seller to Buyer of the extent to which title has been corrected.

5. COLLATERAL DOCUMENTS: The parties further agree to execute and deliver to each other at the Closing such title insurance affidavits, assignments of leases, rents and security deposits (held by Seller), evidences of organizational authority (including authority opinions of counsel) and further documents as are reasonably necessary to effect the conveyance of Premises.

6. ADJUSTMENTS AT CLOSING: Taxes shall be prorated as of the Closing Date. Rent under the leases shall be prorated as of 11:59 p.m. on the day immediately preceding the Closing Date. All tenant security deposits held by Seller shall be transferred to Buyer at closing. Each party is responsible for paying the legal fees of its counsel in negotiating, preparing, and closing the transaction contemplated by this Agreement. Each party shall pay one half of the Maine transfer tax required in connection with the deed in accordance with 36 M.R.S.A. § 4641-A. Buyer shall pay all recording fees for the deed. Buyer is solely responsible for (i) the cost of the Survey; (ii) the cost of the premium of the Title Policy and any endorsements therefor. All other closing expenses shall be allocated between Buyer and Seller in the customary manner for sales of real property similar to the project in the City of Portland. Seller and Buyer agree to execute any real estate transfer declarations required by the state, county, or municipality in which the Premises is located.

7. INSPECTIONS: The Premises are to be conveyed "as is" and Seller has made no representation or warranty other than as specifically provided in this Agreement. Upon reasonable written notice to Seller and subject always to the rights of the tenants, Seller hereby grants Buyer and its agents the right to enter upon or in any part of the Premises at all reasonable times and from time to time during the Inspection Period in order to inspect the Premises, conduct surveys, soil tests, engineering and environmental testing and studies and to do such things as are reasonably necessary with respect to its due diligence, acquisition, financing and development of the Premises. Buyer shall indemnify and hold Seller harmless from any claims or loss resulting from such entry, including, without limitation, attorneys' fees. Buyer's satisfaction in its sole discretion with its investigation, reviews, and inspections including without limitation, its satisfaction of the form, content and terms of the leases and other information provided by Seller pursuant to this Agreement, is a condition to Buyer's obligation to close hereunder and in the event that any of the Buyer's investigations, reviews or inspections reveals defects or conditions which are unacceptable to Buyer, in Buyer's sole discretion, then Buyer may terminate this Agreement by written termination notice to Seller prior to the end of the Inspection Period, and upon such notice this Agreement shall terminate, the Deposit shall be returned to the Buyer, and neither party shall have any further obligations hereunder. "Inspection Period" means the period commencing on the Effective Date and expiring at 6:00 p.m. Portland, Maine local time on the date which is seventy-five (75) days thereafter.

8. RISK OF LOSS: Until the delivery of the deed from Seller to Buyer, the risk of loss or damage to the Premises by fire or condemnation shall be on Seller. Seller shall maintain insurance on the Premises in an amount and form satisfactory to Buyer. If, prior to the Closing, the improvements on the Premises shall have been damaged or destroyed by fire or other casualty, or if any portion of the Premises shall have been taken by the exercise of the power of

eminent domain, then, pursuant to Buyer's election, either (a) Seller shall pay over and assign to Buyer at Closing all amounts recovered or recoverable on account of any insurance or all awards recovered or recoverable on account of such taking, or (b) this Agreement shall terminate, whereupon the Deposit shall be returned to Buyer, and neither party shall have any further obligations hereunder.

9. SELLER DOCUMENTS: Seller shall provide to Buyer for Buyer's review and inspection within five (5) days of the Effective Date copies of all of the following documents relating to the Premises in Seller's possession or under Seller's control: (a) title insurance policies; (b) surveys; (c) building plans; (d) environmental studies or reports; (e) rent roll; (f) Property Agreements; (g) year-end profit loss statement for 2014 and year to date for 2015; (h) copies of all utility bills; and (i) tenant leases. "Property Agreements" means all of Seller's right, title and interest in and to all maintenance and service contracts, including any deposits associated therewith, and any easements, licenses or similar agreements. Each of the Closing Date referenced in Section 3 hereof and Inspection Period referenced in Section 7 hereof shall be extended one (1) day for every day of delay beyond said five (5) day period that Seller takes to deliver the aforesaid documents to Buyer.

10. BUYER'S CONTINGENCIES: Buyer's obligations under this Agreement are contingent upon satisfaction of the following within the specified time periods:

(a) Buyer's review and approval according to Buyer's sole discretion of engineering, survey or environmental inspections and reports regarding the Premises performed at Buyer's expense.

(b) Buyer's review and approval according to Buyer's sole discretion of all leases, licenses and permits affecting the Premises.

(c) Buyer's review of satisfactory evidence that the Buyer's intended use of the Premises is permitted under the City of Portland Zoning Ordinance.

(d) Seller shall have performed in all material respects all of the agreements, covenants and obligations contained in this Agreement to be performed or complied with by Seller on or prior to the Closing Date;

If Buyer fails to exercise any of the above contingencies by notice to Seller on or before the last day of the Inspection Period, all such contingencies shall be deemed waived by Buyer. If Buyer timely exercises any such contingency, this Agreement shall terminate, the Deposit shall be returned to Buyer, with copies of all surveys and engineering or environmental reports obtained by Buyer provided to the Seller, and neither party shall have any further obligations hereunder.

11. POSSESSION: Full possession of the Premises free of all tenants other than as set forth as Exhibit B shall be delivered to Buyer at the Closing, with the improvements on the Premises to be in the same condition as they are now, reasonable use and wear excepted.

12. DEFAULT: Upon Buyer's default under this Agreement, the Deposit, together with any Extension Fees paid to Seller shall be forfeited to Seller as liquidated damages, and the receipt and retention of the foregoing shall be the Seller's sole and exclusive remedy. All references to Deposit in this Section 12 shall include any Extension Fees paid and received by Seller. It is agreed that the Deposit then being held is a reasonable forecast of just compensation for the harm that would be caused by such default, which the parties agree is one that is incapable or very difficult of accurate estimation, and that payment of the Deposit upon such default shall constitute full satisfaction of Buyer's obligations hereunder, except as expressly set forth herein.

If Seller fails or refuses to consummate the sale of the Premises to Buyer pursuant to this Agreement at Closing other than Buyer's failure to perform Buyer's obligations under this Agreement, then such event(s) shall constitute a default by Seller hereunder and Buyer shall have the right, as its sole and exclusive remedy, to either: (i) enforce specific performance of Seller's obligations under this Agreement if the nature of Seller's default has not rendered specific performance unavailable, or (ii) if the nature of Seller's default or has rendered specific performance unavailable or ineffective as a remedy, Buyer shall receive a return of the entire Deposit and Buyer may seek damages; or (iii) terminate this Agreement, whereupon neither party hereto shall have any further rights or obligations hereunder (except as expressly set forth herein as surviving termination), and the title company or Seller, as applicable, shall deliver the entire Deposit to Buyer.

13. REPRESENTATIONS AND WARRANTEES OF SELLER: Seller represents and warrants to Buyer that the following are true as of the Effective Date and will be true as of the Closing:

(a) Except for charges to be prorated or otherwise provided for herein, any outstanding charges which are payable on account of the Premises shall be paid prior to, or at, the Closing.

(b) Subject to any environmental reports delivered to Buyer in accordance with Section 9 hereof or recorded against title to the Premises in the Cumberland County Registry of Deeds, and except as discovered by Buyer's agents in its due diligence inspections of the Premises, Seller has not released, disposed of or knowingly permitted the release or disposal of any hazardous substance or other environmental contaminant on Premises and Seller, after due inquiry, has no knowledge of any environmental contaminant on or near the Premises.

(c) There are no outstanding pending, or to the best of Seller's knowledge, threatened liens, claims, options, rights of first refusal, boundary

disputes, or encumbrances against or encroachments by, any portion of the Premises.

(d) This Agreement is, and all documents to be executed and delivered by Seller at the Closing will be, duly authorized and not in violation of any agreement or judicial order to which Seller is subject.

(e) Neither Seller nor, to Seller's knowledge, any direct or indirect owner of Seller is (a) identified on the OFAC List (as hereinafter defined) or (b) a person with whom a citizen of the United States is prohibited to engage in transactions by any trade embargo, economic sanction, or other prohibition of United States law, rule, regulation or Executive Order of the President of the United States. The term "OFAC List" shall mean the list of specially designated nationals and blocked persons subject to financial sanctions that is maintained by the U.S. Treasury Department, Office of Foreign Assets Control and any other similar list maintained by the U.S. Treasury Department, Office of Foreign Assets Control pursuant to any law, rule, regulation or Executive Order of the President of the United States, including, without limitation, trade embargo, economic sanctions, or other prohibitions imposed by Executive Order of the President of the United States.

(f) All requisite action necessary to authorize Seller to enter into this Agreement and to carry out Seller's obligations hereunder has been taken, or on the Closing Date will have been taken. Seller has the right, power and authority to (a) sell the Property to Buyer in accordance with the terms and conditions hereof, (b) execute and deliver this Agreement and all other documents to be executed and delivered, either simultaneously herewith or at Closing, in connection with the transaction contemplated herein, and (c) perform all obligations of Seller that arise under this Agreement or under such documents.

14. COVENANTS AND AGREEMENTS OF SELLER: Seller covenants and agrees with Buyer as follows:

(a) Proceedings. From the Effective Date until the Closing Date, Seller shall promptly notify Buyer in writing of any litigation, arbitration or administrative hearing before any court or governmental agency concerning or affecting the Premises which is instituted after the Effective Date.

(b) Operation. From the Effective Date until physical possession of the Premises has been delivered to Buyer, Seller will keep and maintain all of the Premises in good order and condition, will not permit any waste with respect thereto and shall operate the Premises in accordance with its current good faith business practices.

(c) Leases. From the Effective Date until the Closing Date Seller shall not enter into any leases except those previously approved by Buyer. From the Effective Date until the three (3) business Days' prior to the expiration of the Inspection Period, Seller shall give

notice to Buyer prior to the application of any tenant security deposit, and thereafter, until the Closing, Seller shall not, without the prior written consent of Buyer, apply any deposit, whether or not a default of a tenant has occurred under the tenant's lease. Notwithstanding anything herein to the contrary, in the event that the lease is terminated or the tenant under the lease is in default, Seller shall immediately notify Buyer and Buyer shall have the right to terminate this Agreement within seven (7) days of receipt of written notice thereof from Seller

(d) Property Agreements. From the Effective Date until the Closing Date, Seller shall not enter into any additional Property Agreements whose terms do not provide for a thirty (30) day cancellation provision without penalty.

(e) Unpaid Work. Seller covenants and agrees that Seller shall pay (or make arrangements to pay) any unpaid bills or claims in connection with any construction or repair of the Premises occurring or contracted for by Seller prior to Closing (unless expressly assumed by Buyer).

(f) Property Management Agreement. At or prior to Closing, Seller shall terminate any existing property management agreement with respect to the Premises.

(g) Encumbrances. Between the Effective Date and the Closing Date, Seller shall not grant or permit any new encumbrances on or about the Premises without the prior written consent of Buyer.

(h) Estoppel. At least three (3) days prior to the expiration of the Inspection Period, Seller shall deliver to Buyer tenant estoppels. In addition, Seller shall cooperate in obtaining written subordination, nondisturbance and attornment agreements as may be requested by Buyer's lenders.

15. REAL ESTATE BROKER: Seller and Buyer each represent and warrant to the other that it has not dealt with any agents, brokers or finders in connection with the transaction covered by this Agreement, other than CBRE/The Boulos Group. Seller shall pay at Closing a [redacted] commission for payment in full of the Purchase Price pursuant to its agreement with CBRE/The Boulos Group in connection with the transaction covered by this Agreement. Each of the parties hereto agrees to indemnify and hold the other harmless from and against any claims, actions, liabilities, costs and expenses (including, without limitation, reasonable attorneys' fees) with respect to any breach of the foregoing representation and warranty. Seller and Buyer hereby acknowledge that the foregoing representation and warranty shall survive the closing.

16. NOTICES: Notices and other communications required by this Agreement shall be in writing and (i) delivered by hand with receipt; (ii) sent by recognized overnight delivery service; (iii) sent by certified or registered mail, postage prepaid, with return receipt requested or (iv) by electronic mail or facsimile transmission during normal business hours with a

confirmation copy delivered by another method permitted under this Section. All notices shall be addressed as follows:

To Buyer:	John Anton 77 Spruce Street Portland, ME 04102 Email: antonatlarge@gmail.com
With a copy to:	Cito Selinger Curtis Thaxter LLC One Canal Plaza, #1000 Portland, ME 04101 Email: mselinger@curtisthaxter.com
To Seller:	J.B. Brown & Sons Attn: Vincent P. Veroneau, President 36 Danforth Street P.O. Box 207 Portland, Maine 04112-0207 E-Mail: veroneau@jbbrown.com
With a copy to:	David L. Galgay, Jr., Esq. Verrill Dana, LLP One Portland Square Portland, Maine 04112-0586 E-Mail: dgalgay@verrilldana.com

All such communication shall be deemed made upon the earlier of (3) business days following deposit with the U.S. Mail or the date of receipt as disclosed on the return receipt (if sent by registered or certified mail), or upon delivery (if hand delivered), or upon delivery as indicated on the proof of delivery (if sent via FedEx or similar overnight express mail service), or upon time of confirmed receipt (if sent via Fax or E-mail). With respect to any of the above-referenced methods of delivery, rejection or other refusal to accept or the inability to deliver because of a change of address of which no notice was given shall be deemed to be receipt of the notice sent. Either party may change its address or its Fax number or its e-mail address for purposes of this subparagraph by giving the other party notice of the new address or Fax number in the manner described herein.

17. MERGER: This Agreement represents the entire contract between Buyer and Seller and shall not be amended except by a writing executed by both the parties.

18. SURVIVAL: The representations, warranties and indemnifications set forth in Paragraphs 13 and 14 shall survive the Closing or other termination of this Agreement.

19. MISCELLANEOUS: Whenever in this Agreement consent or approval of any party is required, such consent or approval shall not be unreasonably withheld or delayed unless specifically provided otherwise. The Seller hereby agrees to provide the Buyer evidence of Seller's good standing and due authorization of the execution and delivery of the deed and associated documents, and such other items as the Buyer and/or its title insurer may reasonably request regarding such Closing documents. This Agreement shall be governed by Maine law, and shall be binding upon and inure to the benefit of the parties and their respective successors and assigns.

20. LIKE-KIND EXCHANGE. Buyer and Seller agree to cooperate with each other so that Seller may dispose of the Premises and/or Buyer may acquire the Premises in a transaction intended to qualify in whole or in part as a tax deferred exchange pursuant to Section 1031 of the Internal Revenue Code of 1986, as amended. In order to implement such exchange, Seller, may upon written notice to Buyer assign its rights, but not its obligations, under this Agreement to a third party designated by Seller to act as a qualified intermediary (as such phrase is defined in applicable Internal Revenue Service regulations), and Buyer agrees to make all payments due hereunder to or as may be directed by such intermediary and to execute such instruments as Seller may reasonably request in connection therewith; provided, however, that Buyer shall not be required to incur any additional expense (unless Seller agrees to reimburse Buyer for same at the Closing) or liability (other than to de minimis extent) as a result of such cooperation, exchange or assignment.

21. COUNTERPARTS/FACSIMILE SIGNATURES. This Agreement may be executed in separate counterparts, none of which need contain the signatures of all parties, each of which shall be deemed to be an original, and all of which taken together constitute one and the same instrument. It shall not be necessary in making proof of this Agreement to produce or account for more than the number of counterparts containing the respective signatures of, or on behalf of, all of the parties hereto. The execution of this Agreement and delivery thereof by either facsimile or e-mail shall be sufficient for all purposes and shall be binding upon the party who so executes.

22. TIME IS OF THE ESSENCE. Time is of the essence and a material provision with respect to performance of all obligations under this Agreement.

IN WITNESS WHEREOF, SELLER and BUYER have executed this Agreement as of the Effective Date.

WITNESS:

SELLER:

J.B. BROWN & SONS

By: _____
Vincent P. Veroneau
Its President

BUYER:

_____
John Anton

Escrow Agent signs to confirm its agreement with the provisions of Section 2 hereof:

ESCROW AGENT:

CBRE/The Boulos Group

By: _____
Name: Andrew Sigfridson
Title: Managing Director
Date of Execution: 5/6/15

EXHIBIT A

A certain lot or parcel of land with the buildings thereon, situated on the easterly side of Preble Street and the westerly side of Elm Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

> Beginning on the easterly side line of Preble Street at a point twenty-eight (28) feet northerly, measured on said line from the northerly side line of Lancaster Street, said point being the southerly corner of land conveyed by Francis Fessenden to the Portland and Rochester Railroad by deed dated June 26, 1891 and recorded in the Cumberland County Registry of Deeds in Book 582, Page 23; thence easterly on a line parallel with said Lancaster Street along the southerly line of said land conveyed by said Fessenden, one hundred two and ninety-five hundredths (102.95) feet more or less, to land conveyed by Karl N. Murch to Cushman Baking Company by deed dated December 20, 1921 and recorded in said registry in Book 1091, Page 336; thence northerly along the westerly line of said last mentioned land four and ninety-seven hundredths (4.97) feet, more or less, to the southerly line of land conveyed by Mary J.E. Clapp to the Portland and Rochester Railroad by deed dated June 29, 1891 and recorded in said registry in Book 580, Page 338; thence easterly on a line parallel with said Lancaster Street, along the southerly line of said last mentioned land ninety-five and one tenth (95.1) feet, more or less, to the westerly side line of Elm Street at a point thirty-three (33) feet northerly measured along said line of Elm Street from the northerly side line of Lancaster Street, thence northerly along said line of Elm Street one hundred twenty-one and fifty-five hundredths (121.55) feet; thence westerly on a straight line two hundred seven and fifty-eight hundredths (207.58) feet to a point on the easterly side line of Preble Street one hundred eighty-nine (189) feet northerly from point of beginning; thence southerly on said line of Preble Street to the point of beginning.

For source of title, reference is made to a Quitclaim Deed With Covenant from The Foss Company to J.B. Brown & Sons dated September 24, 2008 and recorded in the Cumberland County Registry of Deeds in Book 26354, Page 312.

Also a certain lot or parcel of land situated in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

> Beginning at an iron pipe in the northeasterly sideline of Preble Street, said pipe being at the westerly corner of a parcel of land conveyed by Portland Terminal Company to Schlotterbeck & Foss Co. by deed dated December 17, 1925 and recorded in the Cumberland County Registry of Deeds in Book 1224, Page 397; thence northeasterly in the northwesterly sideline of said land of Schlotterbeck & Foss Co. a distance of two hundred seven and fifty-eight hundredths (207.58) feet, more or less, to an iron pipe in the southwesterly sideline of Elm Street, said pipe being at the northerly

corner of said land of Schlotterbeck & Foss Co.; thence northwesterly in a southwesterly sideline of Elm Street a distance of fifty-three (53) feet, more or less, to its intersection with the southeasterly sideline of Kennebec Street a distance of two hundred five (205) feet, more or less, to its intersection with the northeasterly sideline of Preble Street; thence southeasterly in said northeasterly sideline of said Preble Street a distance of fifty-four (54) feet, more or less, to the point of beginning. Meaning and intending to convey all the land of the Portland Terminal Company lying between Preble and Elm Streets and between the northwesterly sideline of land of Schlotterbeck & Foss Company, Inc. and Kennebec Street.

For source of title, reference is made to a Quitclaim Deed With Covenant from The Foss Company to J.B. Brown & Sons dated September 24, 2008 and recorded in the Cumberland County Registry of Deeds in Book 26354, Page 314.

Also a certain parcel of land, with the improvements thereon, situated on the northwesterly side of Lancaster Street, the southwesterly side of Elm Street and the northeasterly side of Preble Street in the City of Portland, County of Cumberland and State of Maine and shown as Parcel 3 on ALTA/ACSM Land Title Survey on Preble Street, Lancaster Street East, Elm Street and Oxford Street, Portland, Maine made for Bayside I, LLC by Owen Haskell, Inc., dated January 26, 2000 and recorded in Cumberland County Registry of Deeds in Plan Book 200, Page 40, bounded and described as follows:

Beginning at the point of intersection of the northeasterly sideline of Preble Street and the northwesterly sideline of Lancaster Street;

Thence, N 42°34'18" W by Preble Street 28.00 feet to the land now or formerly of Schlotterbeck & Foss Co. as described in the deed recorded in said Registry of Deeds in Book 1224, Page 397;

Thence, the following courses by Schlotterbeck & Foss:

N 49° 39' 27" E a distance of 102.97 feet to a 6" by 6" concrete monument found;
N 43° 46' 33" W a distance of 4.97 feet to a 6" by 6" concrete monument found;
N 49° 39' 27" E a distance of 94.88 feet to Elm Street;

Thence, S 43°46' 33" E by Elm Street 33.00 feet to Lancaster Street;

Thence, S 49°39' 27" W by Lancaster Street 198.44 feet to the point of beginning.

For source of title, reference is made to a Quitclaim Deed With Covenant from Bayside I, LLC to J.B. Brown & Sons dated March 1, 2012 and recorded in the Cumberland County Registry of Deeds in Book 29387, Page 27.

EXHIBIT B
(List of Leases or Other Encumbrances)

117-119 Preble Street

1. Terms and conditions of a certain Lease dated June 10, 2011 between The Foss Company and J.B. Brown & Sons, a Memorandum of which is recorded in the Cumberland County Registry of Deeds in Book 28756, Page 327, the term of which Lease shall expire on December 31, 2015.

2. Commissioner's Certification of Completion of Remedial Actions Under a Voluntary Response Action Plan recorded in the Cumberland County Registry of Deeds in Book 26383, Page 323.

3. Declaration of Environmental Covenant recorded in Book 26409, Page 214 of the Cumberland County Registry of Deeds.

195 Lancaster Street

1. Unrecorded Lease dated July 10, 1986 by and between Arrow Realty, as Landlord, and GRS, Inc. as Tenant; as amended by Addendum No. 1 dated May 27, 1987; as further amended by addendum No. 2 dated June 2, 1988, as further amended by Addendum No. 3 dated July 26, 1989; as further amended by Addendum No. 4 dated August 22, 1990; as further amended by Addendum No. 5 dated August 10, 1993, as renewed through August 31, 2015.

2. Such state of facts as shown on a "ALTA/ACSM Land Title Survey on Preble Street, Lancaster Street East, Elm Street and Oxford Street, Portland, Maine" made for Bayside I, LLC, by Owen Haskell, Inc., dated January 26, 2000 and recorded in the Cumberland County Registry of Deeds in Plan Book 200, Page 40.

3. Unrecorded Lease dated July 19, 2000 by and between Bayside I, LLC, as Landlord, and Big Brothers/Big Sisters, Inc., as Tenant, as amended by First Amendment and Renewal of Lease dated September 9, 2003; as further amended by Second Amendment and Renewal of Lease dated April 26, 2004; as further amended by Third Amendment and Renewal of Lease dated March 9, 2006; as further amended by Fourth Amendment and Renewal of Lease dated March 27, 2009; as further amended by Fifth Amendment and Renewal of Lease dated March 1, 2012; and as further amended by Sixth Amendment and Renewal of Lease dated January 22, 2013.

EXHIBIT 3

PROJECT DATA

Owner - Applicant	Schlotterbeck Block L.L.C. John Anton, Principal 77 Spruce Street Portland, Maine 04101
Existing Zone	B7 –Urban Commercial Zone/ Mixed Development Zone
Tax Map & Lot Number	Map 33, Block E, Lots 1 and 5
Land Area	40,720 SF, or 0.93Acre
Existing Land Use	five-story building, gravel lot & paved parking lot
Proposed Land Use	55 one-bedroom residential apartment and 1,750 s.f. commercial office
Water	Existing 2-inch and 6-inch lines from Preble Street connect to existing building
Sanitary Sewer	Existing 6-inch line from existing building to 15-inch combined sewer on Elm Street
Natural Gas	Existing 2-inch line from Elm Street connects to existing building
Storm Drainage	15-inch combined storm & sewer drain in Elm Street
Electric	New underground service from Elm Street
Telephone & Cable TV	New underground service from Elm Street

EXHIBIT 3

PROJECT DESCRIPTION

Schlotterbeck Block LLC is intending to purchase the historic Schlotterblock and Foss building at 117 Preble. Schlotterbeck Block LLC plans to transform the building and the site (Tax Map 33, Block E, Lots 1 and 5) into a 55-unit apartment community with +/- 1,750 sf of office space.

The building has been occupied by the Schlotterbeck and Foss Company since it was built in 1927. Schlotterbeck and Foss sold the building to JB Brown and Sons in 2008 with the knowledge that they would eventually leave the building and move to a facility more suited to contemporary manufacturing. Schlotterbeck and Foss's lease expires at the end of 2015 at which point the sale will go through and the redevelopment of the building will begin.

Schlotterbeck Block LLC has received "Part I" approval for the building from the National Park Service. Part I approval means that the NPS has determined that the property appears to meet the National Register Criteria for Evaluation and will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer. Part I approval clears the way for Schlotterbeck Block LLC to apply for "Part II" approval of the proposed renovations and eligibility for state and federal historic rehabilitation tax credits.

The building is five and a half stories above ground with six floors of living area. The building's interior features +/- 11' ceilings, abundant natural light from large windows, and prominent historic features most notably the flared mushroom columns frequently found in industrial buildings from the first half of the twentieth century.

The building will be fully renovated including masonry restoration, full window replacement and the installation of new systems. The building will use high efficiency heat pumps with a portion of the power for the system coming from a photovoltaic array on the roof. The building will have excellent air quality resulting from the use of Energy Recovery Ventilation (ERVs) throughout.

The apartments will have a loft design and will emphasize the feeling of space created by the high ceilings and big windows. Apartments will have high-quality modern finishes and appliances, in-unit laundry and abundant built-in storage.

A major selling point of the apartments will be the location. The site is within walking distance of three national supermarkets and both the Wednesday and Saturday Farmers' Markets. The Bayside Trail and its connections to Portland's extensive trail network is only steps away while Monument Square and the rest of downtown are two blocks to the South. The site is arguably the best in Portland for car-free living. Walkscore.com gives the site a 94 Walk Score and a 95 Bike Score. Additionally, the METRO Pulse (the terminus of all bus lines in the region) is 1,500 feet from the site.

The +/- 1,7500 square feet of office space on the first floor preserves the original finishes of the management suite of the Schlotterbeck and Foss Company. This iconic space will be transformed into a co-working space serving both building residents and the broader community.

The main entrance on Preble Street will continue to serve the office space while the existing entrance on the south side of the building will be expanded to act as an entrance to serve the residential portion of the building. Site improvements include new brick sidewalks and streetlights along Preble, Elm and Kennebec Streets, street tree plantings along Preble and Elm Street, preservation of existing trees on Preble and Kennebec Street and significant site landscaping. New lighting will be provided throughout the site.

Parking for the building will be provided on site by reorganizing the parking spaces and maneuvering aisles of the existing parking lots to the north and south of the building. Interior bicycle parking (12 spaces) and exterior bicycle parking (12 spaces) will be provided.

The redeveloped Schlotterbeck & Foss building will provide an on-site car-share program. This program will provide a car on-site for use by residents of the building. The car will be maintained by the building Owner or manager and available on a fee basis.

Stormwater Management

The current site is 74-percent impervious. The existing gravel parking lot sheet flows to both Kennebec Street and Elm Street. Existing catch basins capture the stormwater from the existing paved parking lots on the east side of the site. The catch basin pipe the storm water to the existing 15-inch combined sewer on Elm Street. Stormwater from the existing roof is piped to the Elm Street combined sewer as well.

The proposed site improvements will be 67-percent impervious by removing 2,770 s.f. of impervious area. The proposed stormwater management is based upon discussions with city staff, particularly how the system is coordinated with the future Elm Street stormwater improvements.

The west parking lot is designed to sheet flow toward a filter strip, which has an underdrain connected to a proposed catchbasin. The catchbasin will connect to an existing Kennebec Street catch basin. The east parking lot will utilize catchbasins and storm pipes to collect stormwater. Roof runoff from the existing building will be collected internally and directed toward the east parking lot system. This enclosed system will connect to the Kennebec Street catch basin. These proposed stormwater improvements will allow the stormwater to connect to the future Elm Street stormwater improvements. More detail on the stormwater system can be found in the included stormwater management plan.

EXHIBIT 4

TAX MAP

Please see attached Assessor's Plan noting the project site, Chart 33, Block E, Lots 1 and 5.

April 1 2012 fy 2013 Tax Map Index; http://www.portlandassessors.com/taxmaps.htm

Index Number - F9NW

EXHIBIT 5

EXISTING SOIL CONDITIONS

Soils on the site are representative of the urban environment.

Test borings were performed by Ransom Consulting Engineers in June, 2008, as part of a Phase II Limited Subsurface Investigation (LSI). The borings showed granular fill soils consisting of fine to coarse-graded sand with varying amounts of gravel, silt, bricks, coal, ash, shells, wood and glass debris. These urban soils were encountered at depths of 0 to 12 feet.

EXHIBIT 6

PUBLIC UTILITIES

The existing Schlotterbeck & Foss building is served by all needed utilities. The owner plans to extend all services internally to serve the addition.

Water

The existing building is presently served by a 2-inch domestic and a 6-inch sprinkler service from a water main in Preble Street. We have requested an ability to service letter from Portland Water District.

The applicant will be upgrading the 2-inch domestic water service to a 4-inch domestic water service as part of this project.

Sanitary Sewer

An existing 6-inch sanitary sewer line connects the existing building to the 15-inch combined sewer in Elm Street. We have submitted a Wastewater Capacity Application to David Margolis-Pineo, Deputy Chief Engineer. We anticipate sanitary flows to be less than half of the sanitary flows recorded in 2014, when the building was still being used by the Schlotterbeck & Foss company.

Natural Gas

Natural gas serves the building from an existing service line in Elm Street. See the attached ability to serve letter from Unitil.

Electric

Electric service presently is served by overhead from Elm Street. The applicant proposes to install underground electrical service as part of this project. See the attached email from CMP stating their ability to service this proposed project.

Telephone and Cable TV

Telephone and cable TV presently is served by overhead from Elm Street. The applicant proposes to install underground telephone and CATV service as part of this project.

Mitchell
& Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

September 3, 2015

Ms. Glissen Havu, Design Engineer
Portland Water District
225 Douglas Street
Portland, Maine 04104-3553

RE: Schlotterbeck & Foss Building Re-development
117 Preble Street
Portland, Maine

Dear Glissen:

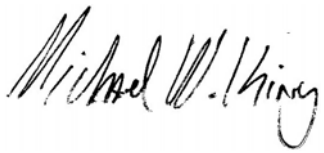
On behalf of Schlotterbeck Block LLC, we are requesting a letter indicating the Portland Water District's ability to provide water service to 117 Preble Street in Portland, Maine.

The subject property is a 30,492 square foot parcel located at 117 Preble Street. There is an existing 5-story building located on the lot. Up until May 2015, the 6,800 s.f. building was occupied by Schlotterbeck & Foss, Inc.; the company manufactured food products in this building since 1925. The new owner proposes to convert the building into 60 one-bedroom apartments.

Enclosed please find a reduced copy of the Site Plan.

We would appreciate your attention to this matter at your earliest convenience. Should you have any questions, please do not hesitate to call.

Sincerely,
Mitchell & Associates



Michael W. King
Maine Licensed Landscape Architect

Unitil
ME GAS OPERATIONS

September 23, 2015

Re: Schlotterbeck & Foss Building Re-development
117 Preble Street
Portland, Maine

Dear Mr. King:

Thank you for your interest in using natural gas for the above referenced project.

Unitil has natural gas in the vicinity of this project to provide service. The evaluation to complete the design, costs as well as determining if any customer contribution can be completed once your proposed natural gas load is received. Unitil welcomes the opportunity for further discussions regarding this project.

If you have any further questions or require additional information, please contact me directly at (207) 541-2536 or at Harmon@unitil.com.

Sincerely,

Bridget L. Harmon
Business Development Representative

ME GAS OPERATIONS
376 Riverside Industrial Parkway
Portland, ME 04103-3586

T 866.933.3821 www.unitil.com

Michael King

From: Cough, Jamie [Jamie.Cough@cmpco.com]
Sent: Friday, September 04, 2015 6:42 AM
To: Michael King
Subject: CMP Ability To Serve Letter for 117 Preble Street Redevelopment
Attachments: Standard Easement Sample.pdf; Easement_Information_Worksheet.doc; EDET July 2014.xls

Michael W. King, PLA, LEED AP
Maine Licensed Landscape Architect
Mitchell & Associates
70 Center Street, Portland, ME 04101

Sent via email to: mking@mitchellassociates.biz

RE: Redevelopment of 117 Preble Street, Portland- Request for Ability to Serve Letter

Dear Mr. King:

CMP has the ability to serve the proposed project located at 117 Preble Street, Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

CMP Handbook of Standard Requirements
(http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf)

If you have any questions, please contact me.

Regards,

Jamie

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

EXHIBIT 7

TECHNICAL CAPABILITY

The following firms and individuals have provided technical information contained in this application:

Mitchell & Associates — Landscape Architects and Site Planners
70 Center Street
Portland, Maine 04101
Telephone: (207) 774-4427
Contact: Michael King, RLA, Maine #3919

Goduti-Thomas Architects — Architects
44 Oak Street, No.2
Portland, Maine 04101
Telephone: (207) 775-3184
Contact: Richard Goduti, NCARB

Ransom Consulting Engineers — Civil Engineers
400 Commercial Street
Portland, Maine 04101
Telephone: (207) 772-2891
Contacts: Stephen Bradstreet, PE

Owen Haskell, Inc. — Land Surveyors
390 U.S. Route 1 - Unit 10
Falmouth, ME 04105
Telephone: (207) 774-0424
Contact: Ellen Brewer, PLS

Gorrill Palmer Consulting Engineers — Traffic Engineer
15 Shaker Road
Gray, Maine 04039
Telephone: (207) 657-6910
Contact: Randy Dunton, PE

Schlotterbeck Block LLC
77 Spruce Street
Portland, ME 04101

Letter of Authorization

September 18, 2015

Mr. Rick Knowland
City of Portland Planning
389 Congress Street
Portland, ME 04101

Please be advised that this letter authorizes Mitchell & Associates to act as agents on behalf of Schlotterbeck Block LLC in submissions to the City of Portland and Maine DEP in regards to any and all application materials and public meetings that relate to our proposed development at 117 Preble Street.

Sincerely,

John Anton
Schlotterbeck Block LLC

September 22, 2015

Rick Knowland
Senior Planner
City of Portland, Planning Division
389 Congress Street, 4th Floor
Portland, ME 04101

RE: Schlotterbeck Block LLC - 117 Preble Street

Dear Mr. Knowland:

John Anton and his affiliates are well known to NBT Bank. NBT Bank has a lending relationship with several members of the group tied to the subject project. In addition NBT's Maine team has worked with the group in numerous capacities over the past several years. NBT is interested in entertaining financing for 117 Preble Street and believes the group has the financial capacity to successfully complete the proposed project. We are looking forward to more substantive conversations as this project materializes.

Please feel free to contact me should you need any additional information. I can be reached at (207) 808-4486.

Sincerely,

Joe Delano
Vice President
NBT Bank Maine

EXHIBIT 8

COMPLIANCE WITH B-7 ZONING REQUIREMENTS

14-295 - 14-297 Use: The proposed uses are 55 units of apartments along with +/- 1,750 sf of office space. Multifamily residential and professional, general and business offices are permitted uses in the zone.

A total of 50 parking spaces are proposed. 30 of the spaces will be created by reorganizing the parking spaces and maneuvering aisles of the site's existing surface parking on the 117 Preble Street lot (CBL 033 E001001). This surface parking existed as of March 9, 2005 and has been in continuous existence since then.

20 of the spaces will be created on what is now the gravel parking lot along Kennebec Street (CBL 033 E001005). These spaces meet the requirements of the proposed text amendment (14-295(a)(26)) to the B-7 which was recommended by the Planning Board to the City Council on September 29, 2015. Compliance is contingent on City Council approval of the text amendment.

14-298 Dimensional Requirements:

Because the proposed use for the Schlotterbeck and Foss building is a change in use, the new use must conform to current zoning, including dimensional requirements. The dimensional requirements of the B-7 appear to contemplate exemptions for additions to and relocations of, but not adaptive reuse of, historic structures. Below the current building is analyzed against the dimensional requirements of the B-7:

(a) *Minimum lot size:* N/A

(b) *Minimum frontage:* N/A

(c) *Yard dimensions:*

1. Minimum yards: N/A – Re-development of existing building/

2. Maximum Street Setbacks: N/A --Re-development of existing building.

(d) *Minimum length of building wall:* N/A --Re-development of existing building.

(e) *Maximum building lot coverage:* N/A

(f) *Maximum residential density:* N/A

(g) *Maximum building height:* The building is approximately 65 feet above grade, below the maximum height of 105' in the Intermediate Urban Height District of the Bayside Height Overlay Map.

(h) *Minimum building height:* The building is 5 and ½ floors above grade, above the minimum height of 3 floors in the Intermediate Urban Height District of the Bayside Height Overlay Map.

14-299. Performance standards:

The proposed development complies with the performance standards enumerated in 14-299.

B-7 Bayside Design Standards

PRINCIPLE A Urban Design

Site and sidewalk improvements will the pedestrian experience on Preble, Kennebec and Elm Streets. New brick sidewalks and street tree plantings are proposed while existing on-site trees are being preserved. Multiple curb cuts are being reduced to a single curb cut.

PRINCIPLE B Access and Circulation

The adaptive reuse of the Schlotterbeck and Foss building will contribute a small part to a larger vision of connectivity. The project will improve sidewalk access, enhance the pedestrian experience through landscaping and improved sense of place.

PRINCIPLE C Parking, Loading and Service Areas

Surface parking is screened from the street with a mixture of plantings, fences and grade changes. Parking areas will screened along Kennebec Street and Elm Street by the plantings of understory shrub plantings. The existing mature crabapple trees along Preble Street will remain and will also function as a screen of the parking areas.

Bike racks are located close to the rear entry of the building for maximum tenant convenience.

The building's utility and mechanical infrastructure are located in low visibility locations. Mechanical equipment, HVAC and other utilities are located primarily on the rooftop and are fully screened from street level and all view corridors by parapets, roof screens or equipment wells. An electrical transformer is located in the rear setback between Elm Street and the boiler room addition to the building. The transformer will be screened with shrubs and perennial plantings.

A trash collection area will be tucked adjacent to the surface parking lot and will be enclosed with a solid fence. Additionally a 5' metal fence separates the sidewalk from the portion of the surface lot where the trash enclosure lives.

PRINCIPLE D Open Space and the Public Realm

Preserving and improving the landscaping at the site is intended to contribute to improving the overall pedestrian experience of Bayside. The prospective distinctive trees will be preserved while other existing plantings that have grown leggy and obscure the property's iconic architecture will be removed. Additional street trees and plantings along Elm and Preble Streets will add color, texture and seasonal interest along the sidewalks. Native plantings are proposed for their unique character and hardiness to the local climate.

PRINCIPLE E Architectural Design

The building is an existing structure eligible for the National Register.

EXHIBIT 9

WAIVER REQUESTS

The following waiver request are sought:

1. **Street Tree Requirement (Sec. 14-526 2.b. iii. a & Technical Design Manual 4.6)** The proposed 55 unit multi-family residential development expansion requires the planting of 55 trees (1 tree/unit). Due to the size of property and available street frontage, planting this quantity of trees is not feasible. The applicant requests a waiver for 44 trees and shall contribute to the street tree fund in an amount proportionate to the cost of the required trees.

2. **Parking Lot and Parking Space Design (Technical Design Manual 1.14)** The applicant is requesting a waiver in order to increase to amount of compact parking spaces. The Technical Design Manual state "parking lots with greater than 10 spaces may be comprised of up to 20%." The applicant proposes 38 compact (8' x 15') parking spaces, which would comprise 76% of the total parking spaces. All the proposed residential rental units are either efficiency units or one-bedroom units. Renters of such units generally utilize smaller cars. We believe the proposed high percentage of compact parking spaces will be compatible with the user's of the building.

3. **Travel Aisle Width** The applicant is requesting to reduce the width of the parking lot travel aisle from 24 feet to 20 feet. We are requesting the four foot reduction in order to minimize disturbance to the existing mature trees along Kennebec Street. The drive aisle will serve the single-loaded parking lot (18 compact parking spaces) along Kennebec Street.

Temporary Waiver Request

The applicant requests the following temporary waivers:

1. Lighting Photometric Plan. The applicant has selected the proposed light fixtures and cut sheets are submitted as part of this application. We are preparing a point-by-point lighting photometrics plan and we request the ability to provide this plan at a later time.

2. Manufacturers' Verification of Mechanical Systems, HVAC, Emergency Generators, etc.: Emergency generator, HVAC equipment will be mounted on the roof. Sizing and selection of equipment is currently being developed. Appropriate documentation will be submitted for staff review. We request the ability to provide at a later date.

EXHIBIT 10

CONSISTENCY WITH CITY'S COMPREHENSIVE PLAN

The Project is consistent with the City's Comprehensive Plan and, more specifically, A New Vision for Bayside (2000).

A New Vision for Bayside lays out 11 development principles to achieve the City's goals for encouraging development in the Bayside. This project supports many of the principles proposed.

1. Urban Gateway: Extending Downtown and inviting visitors

Converting the Schlotterbeck and Foss building to a 55-unit apartment building increases the number of Bayside residents who will connect with Downtown. The Schlotterbeck and Foss Building is an iconic structure that is highly visible to visitors entering Downtown through Bayside. The building will be fully restored, enhancing its role in welcoming visitors to Downtown.

2. Economic and employment opportunities

The +/- 1,750 sf of co-working space on the building's first floor provides affordable office space for local businesspeople. Additionally, the creation of new apartments within walking distance of Downtown supports employers looking to attract employees who want the benefits of being able to walk to work.

3. A walkable district

The Schlotterbeck Block project will involve the reconstruction of 3 blocks of sidewalk (including the critical Preble and Elm Street arteries) to current city standards. This represents a significant contribution to the pedestrian infrastructure of the neighborhood.

4. Critical Mass of Dwellings

The creation of the 55 apartments in the Schlotterbeck Block is a significant contribution to the residential density of Bayside.

5. Transit Oriented Development

A key selling point to prospective residents of the Schlotterbeck Block apartments is the opportunity for car-free living. Walkscore.com gives the site a 94 Walk Score and a 95 Bike Score. Additionally, the METRO Pulse is 1,500 feet from the site. The project's TDM plan is intended to support residents in their efforts to minimize reliance on private automobiles.

6. Multi-Level Parking Structures (N/A)

7. A Neighborhood Center (N/A)

8. Recreation and Open Spaces

The building is located a short distance from the Bayside Trail. Proximity to the City's trail network is a key marketing advantage for the apartments. The Schlotterbeck Block will add regular users to the Bayside Trail which will contribute to activating this important recreational space in the City.

9. Social Service Resource Network (N/A)

10. Environmental Remediation

In 2008, the building owners entered into a Voluntary Response Action Plan (VRAP) with the state Department of Environmental Protection. At that time, approximately 759 tons of petroleum-contaminated soil were removed from the site. The VRAP ensures that all soil moved during the redevelopment of the Schotterbeck Block will be tested for contamination and disposed of properly while also allowing for adaptive reuse of the building.

11. Scrapyard Redevelopment (N/A)

EXHIBIT 11

FIRE DEPARTMENT CHECKLIST

1. Name, address, telephone number of applicant

   Schlotterbeck Block LLC
   John Anton, Manager
   77 Spruce Street
   Portland, Maine 04101
   Phone: 207.650.8979

2. Name, address, telephone number of architect

   Goduti/ Thomas Architects
   20 Middle Road
   Falmouth, Maine 04105
   Contact: Richard Goduti
   Phone: 207.775.3181

3. Proposed uses of any structures [NFPA and IBC classification]

   Residential R-2 (six floors)
   Business B (part of first floor)

4. Square footage of all structures [total and per story]

Basement	6,224 SF
First Floor:	6,224 SF
Second Floor:	6,224 SF
Third Floor:	6,224 SF
Forth Floor	6,224 SF
Fifth Floor:	6,224 SF
Total:	37,345 SF

5. Elevation of all structures

   Building Height is 65 feet as measured by IBC definitions.

Proposed fire protection of all structures

Fully Supervised NFPA 13 system throughout. Standpipes at both stairs.

6. Hydrant locations:

- corner of Kennebec Street and Elm Street 95' from the building
- corner of Kennebec Street and Preble Street 108' from the building

7. An existing exterior connection (s) to the sprinkler system exists at the front (Preble Street) side of the building.

A 12 inch water main is located within Preble Street. An existing 6 inch water service (for sprinkler system) connects the Preble Street water main to the building.

8. Access to all structures [min. 2 sides]:

The existing structure is accessible from four (4) sidew.

9. A code summary including referencing NFPA 1 and all fire department Technical standards:

A. NFPA, IBC Use: residential R-2 (6 floors), business B (partial 1st floor)

B. NFPA, IBC classification: Type 1B- all structural components min. 2 hr. rated
- existing exterior masonry: solid 16" masonry
- interior structural columns: reinforced concrete
- interior structural floors: poured in place reinforced concrete
- roof deck: poured in place reinforced concrete

C. NFPA, IBC allowable Height and Area: IBC table 503 type 1B construction:
- R-2: 11 story height max (exist. 6 floors), 24,000 s.f. per floor max allowed (exist. 6,224 s.f.)

D. All non combustible construction materials.

E. Two interior exist exit stairs 2 hr rated min. walls, concrete stair runs, self supporting leading directly to the exterior. Min. tread width. 7 ½" risers, 10 ½" treads.

F. Design loads: all existing design loads min. 100lbs per s.f.

G. Monitered NFPA 13 sprinkler system and addressable fire alarm system.

A complete review of all building and life safety codes will be completed as part of the building permit process.

EXHIBIT 12

TRAFFIC ASSESSMENT, PARKING DEMANDS & TRANSPORTATION DEMAND MANAGEMENT (TDM) PLAN

The following are included:

- "Traffic Assessment, Schlotterbeck & Foss Building, Portland, Maine," prepared by Gorrill Palmer, October 2015.

- "Parking Demands, Schlotterbeck & Foss Building, Portland, Maine," prepared by Gorrill Palmer, October 2015.

- "Transportation Demand Management (TDM) Plan, Schlotterbeck & Foss Building, Portland, Maine," prepared by Gorrill Palmer, October 2015.

GORRILL PALMER

PO Box 1237, 15 Shaker Road
Gray, Maine 04039
207.657.6910

Traffic Assessment
Schlotterbeck & Foss Building
Portland, Maine
October 2015

JN 3027

I. Introduction

This study examines the impact of the renovation of the Schlotterbeck & Foss Building site in the block defined by Elm Street, Lancaster Street, Preble Street, and Kennebec Street in Portland, Maine. The existing site has a five story building, with a total of 37,345 square feet, which was previously used for food processing and production. The redevelopment of the existing building will include 1,750 square feet of office space and 55 market rate residential units. Access to the site is via the existing site driveway onto Elm Street.

II. Existing Traffic Volumes / Traffic Patterns

Traffic counts are typically completed for intersections within the study area to assess the impact of the project. Since the forecast trip generation is approximately equal to the existing trip generation (see Section III) of the previous use, the surrounding intersections should not operate any differently than they do today. In addition, the currently scheduled Somerset Street Extension (see Section IV) project is anticipated to change traffic flows in the immediate area, which would make any traffic counts and associated analysis of those intersections irrelevant.

III. Trip Generation

The proposed redevelopment includes 1,750 sf of office space and 55 market rate apartments. MaineDOT allows credit to be given for any on-site use within the last ten years, so trips generated by the food production and processing building are subtracted from the forecasted future trip generation. The Institute of Transportation Engineers' publication *Trip Generation*, Seventh Edition; Land Use Code (LUC) 710 – General Office Building; LUC 220 – Apartment; and LUC 140 – Manufacturing were used to calculate the trips generated. The trip generation is summarized as follows:

Trip Generation Summary

	AM Peak Hour Adjacent Street	PM Peak Hour Adjacent Street
Proposed Development		
Office Space	3	3
Residential Units	28	34
Credit		
Manufacturing	(-27)	(-28)
Net Trip Generation	**4**	**9**

As the results in the Trip Generation Summary table show, the proposed use uses are not expected to significantly increase the trip generation for the site.

IV. Somerset Street Extension Project

The Somerset Street Extension project is currently underway in Portland, Maine. Somerset Street is located northeast of the Schlotterbeck & Foss Building and it is a short, dead end road. The project involves extending Somerset Street east to connect it to Elm Street and extending it west to connect with Hanover Street. The connection with Hanover Street includes modifying the Kennebec and Preble Street intersection to include Alder Street.

V. Capacity Analysis

Typically GP would perform a capacity analysis for the site driveway and immediate roadway network using Synchro / SimTraffic computer analysis software. However, since the net increase in trip generation is so low, and the area traffic patterns are expected to change as a result of the Somerset Street extension project, capacity analysis is not anticipated to be an issue. Jeremiah Bartlett, the City of Portland's Traffic Systems Engineer, concurred with this assumption.

VI. Queue Analysis

In addition to completing a capacity analysis, GP would typically also complete a queue analysis for the site driveway to compare the 95% queue lengths reported by the software. However, since the net increase in trip generation is so low, queue lengths are not anticipated to be effected by the proposed project.

VII. Sight Line Evaluation

Both the City of Portland and Maine Department of Transportation have guidelines for sight distances. The City's sight distance criteria is the same as MaineDOT. The basic sight line standards are as follows:

Sight Distance Criteria

Posted Speed (mph)	MaineDOT (ft)	City of Portland (ft)
25	200	200
30	250	250
35	305	305
40	360	360
45	425	425

The MaineDOT and City measure sight distance using the same methodology. GP has evaluated the available sight lines at the site driveway onto Elm Street in accordance with MaineDOT / City standards.

The evaluation method is as follows:

Driveway observation point:	10 feet off edge of traveled way
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above ground

All speed limits in the immediate area are posted 25 mph. Elm Street is a one-way in a northwesterly direction so sight distance exiting the site is only applicable looking to the right. The following table summarizes the measured sight distances.

Sight Distance Summary

Approach	Sight Distance			
	Looking Left (ft)	Looking Right (ft)	MaineDOT Required (ft)	Portland Required (ft)
Exiting driveway onto Elm Street*	N/A	350+	200	200

*Elm Street is one-way

As summarized in the table, the available sight distance exceeds both MaineDOT and City requirements. GP recommends any signage, landscaping, fences etc. be located such that they do not decrease available sight distance.

VIII. Crash Summary Data

GP obtained the crash data from MaineDOT for the period of 2012-2014, the most recent period available at the time this study was prepared (attached).

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average) **and**:

2. A minimum of eight crashes over the same three-year period.

Based on the crash data provided by MaineDOT there are two high crash locations in the area of study. The intersection of Kennebec Street with Preble Street has a CRF of 4.57 and a total of 12 crashes. The intersection of Elm Street with Lancaster Street has a CRF of 4.57 and 10 total crashes. GP obtained the police reports for both HCLs. The first report showed that most of the accidents that occurred at the intersection of Kennebec Street with Preble Street were due to vehicles approaching the intersection failing to see the vehicles that had the right-of-way. Kennebec Street is a two-way street that has stop signs at both approaches of its intersection with Preble Street, which is a one-way street and does not have to stop at Kennebec Street. Eight out of twelve crashes that occurred were caused by vehicles on Kennebec Street failing to see the vehicles on Preble Street before entering the intersection. This crash pattern may be remedied after the completion of the Somerset Street Extension project changes the configuration of the existing intersection.

At the intersection of Elm Street with Lancaster Street the police reports show that two of the ten collisions involved bicyclists and three of the ten collisions occurred due to vehicles approaching the intersection failing to see vehicles that had the right-of-way. Both Elm and Lancaster Streets are one-way. Elm Street is controlled by stop signs at the intersection and Lancaster Street is free flowing.

IX. Conclusions / Recommendations

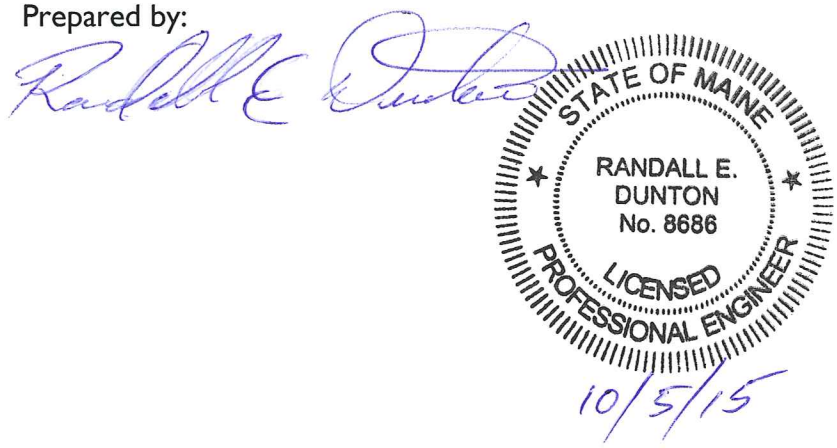
The following is a summary of the Conclusions / Recommendations:

1. The proposed development is forecast to generate 4 trip ends and 9 trip ends during the weekday AM and PM peak hours respectively. This level of trip generation does not require a MaineDOT traffic movement permit. Since the proposed net trip generation is forecast to be low, and the Somerset Street Expansion project will change traffic patterns on the adjacent roadway network, capacity and queuing analysis were not necessary.

2. The sight distance exiting the site exceeds both MaineDOT and City requirements.

3. The MaineDOT crash data indicates that there are two high crash locations in the vicinity of the site; the intersection of Elm Street with Lancaster Street and the intersection of Kennebec Street with Preble Street. The Somerset Street Extension project will modify the intersection of Kennebec Street and Preble Street.

Prepared by:



Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ **Crash Summary I** ☐ **Section Detail** ☑ **Crash Summary II** ☐ **1320 Public** ☐ **1320 Private** ☐ **1320 Summary**

REPORT DESCRIPTION

Preble St area

REPORT PARAMETERS

Year 2012, Start Month 1 through Year 2014 End Month: 12

Route: **0560414**	Start Node: **19011**	Start Offset: **0**	☐ **Exclude First Node**
	End Node: **19010**	End Offset: **0**	☐ **Exclude Last Node**
Route: **0560597**	Start Node: **19010**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **19016**	End Offset: **0**	☐ **Exclude Last Node**
Route: **0560426**	Start Node: **19015**	Start Offset: **0**	☐ **Exclude First Node**
	End Node: **19016**	End Offset: **0**	☑ **Exclude Last Node**
Route: **0560252**	Start Node: **19015**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **19011**	End Offset: **0**	☑ **Exclude Last Node**

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
19011	0560414 - 0.21	Int of ELM ST KENNEBEC ST	2	3	0	0	0	0	3	0.0	1.837	0.54	0.46	1.18
												Statewide Crash Rate:	0.14	
19010	0560414 - 0.26	Int of KENNEBEC ST PREBLE ST	2	12	0	1	0	2	9	25.0	1.924	2.08	0.45	4.57
												Statewide Crash Rate:	0.14	
19016	0560597 - 0.19	Int of LANCASTER ST PREBLE ST	2	1	0	0	0	0	1	0.0	1.485	0.22	0.48	0.00
												Statewide Crash Rate:	0.14	
19015	0560426 - 0.20	Int of ELM ST LANCASTER ST	2	10	0	1	2	2	5	50.0	1.512	2.20	0.48	4.57
												Statewide Crash Rate:	0.14	
Study Years:	3.00	**NODE TOTALS:**		26	0	2	2	4	18	30.8	6.758	1.28	0.33	3.89

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
19010	19011	194704	0 - 0.05	0560414 - 0.21	0.05	2	0	0	0	0	0	0	0.0	0.00015	0.00	1551.00	0.00
Int of KENNEBEC ST		PREBLE ST		RD INV 05 60414											Statewide Crash Rate: 359.92		
19010	19016	3106835	0 - 0.06	0560597 - 0.13	0.06	2	1	0	0	0	0	1	0.0	0.00084	395.14	699.00	0.00
Int of KENNEBEC ST		PREBLE ST		RD INV 05 60597											Statewide Crash Rate: 190.26		
19015	19016	194714	0 - 0.04	0560426 - 0.20	0.04	2	1	0	0	0	0	1	0.0	0.00003	9840.97	287.49	34.23
Int of ELM ST		LANCASTER ST		RD INV 05 60426											Statewide Crash Rate: 359.92		
19011	19015	3119283	0 - 0.05	0560252 - 0.24	0.05	2	0	0	0	0	0	0	0.0	0.00084	0.00	699.48	0.00
Int of ELM ST		KENNEBEC ST		RD INV 05 60252											Statewide Crash Rate: 190.26		
Study Years: 3.00				**Section Totals:**	0.20		2	0	0	0	0	2	0.0	0.00187	355.87	613.20	0.58
				Grand Totals:	0.20		28	0	2	2	4	20	28.6	0.00187	4982.13	822.44	6.06

GORRILL PALMER

PO Box 1237, 15 Shaker Road
Gray, Maine 04039
207.657.6910

Parking Demands
Schlotterbeck & Foss Building
Portland, Maine
October 6, 2015
JN 3027

Introduction:

Gorrill Palmer (GP) has evaluated the potential parking demand for the proposed redevelopment of the Schlotterbeck & Foss Building. The site is located in the B-7 Mixed Development District Zone. The proposed building will have 1,750 square feet of office space and 55 market rate residential units with unbundled parking. The parking evaluation is based on the City of Portland Ordinance for these two uses.

Vehicular Parking:

The following is a summary of the vehicular parking demand based on the two uses and the City Ordinance:

Vehicular Parking Requirement Summary

	Parking Variable	Ordinance Requirement	Required Parking per Ordinance	Car-Share Reduction	Off Set Parking Peaks (5%)	Reduced Parking Demand
Proposed Uses						
Office Space	1,750 sf	1 / 400 sf	5 spaces	0 spaces	0 spaces	5 spaces
Residential Units	55 units	1 / unit	55 spaces	7 spaces	3 spaces	45 spaces
Total Parking Requirement			**60 spaces**	**7 spaces**	**3 spaces**	**50 spaces**

Additional Residential Units Discussion:

There are several sections within the ordinance which discuss residential units and that may apply. Those sections are described as follows:

Residential Units – The City's standard requirement for residential units is 2 spaces per unit (Sec. 14-332 (a)). Under Sec. 14-332.2 (c): "Site plans over 50,000 square feet and projects in the B-6, B-7, and USM Overlay Zones: Where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer." The site is located in Zone B-7; however, the existing building has less than 50,000 sf of total floor area and therefore this reduction in required parking spaces cannot be taken.

The ordinance also has Section 14-332.1(i) that states "B-7, Mixed Development District Zone: Off-street parking for all projects regardless of size, shall be governed by 14-332.2(c) of this article." This referenced section is the one described above reducing the requirement from 2 spaces per unit to 1 space per unit. Therefore, we have based the parking requirement for the residential units on 1 space per unit.

Section 14-332.1 (k) 2 of the ordinance states the following for residential development on the peninsula and in the R-6 and R-6A Zones: "The required parking for multi-unit residential buildings may be partially met through provision of shared-use vehicles, which are vehicles owned and maintained by the owner/manager of the building and available for use on a fee basis to the residents of the building. One shared use vehicle shall be deemed to satisfy eight (8) required car spaces, but in no case shall more than 50% of the parking requirement be satisfied by shared vehicle use." Although this site is not in the R-6 or R-6A Zone, it is a residential development, so the reduction of eight spaces may be taken if approved by the City. It should be noted that the table has only taken a deduction of 7 spaces. This is because the car share vehicle itself will occupy one space.

Although not discussed in the City Ordinance, parking is typically reduced when the peak parking demand for uses are not expected to occur concurrently. For example, the peak parking demand for the residential units would be expected to occur in the early morning and late at night when everyone is home. This is completely opposite of the peak parking demand for the office space, which would be expected during the normal business day. To show how much of a parking reduction this would be, we have shown the revised parking in the previous table. As can be seen from the table, this would result in a reduction of 3 parking spaces.

Bicycle Parking:

Per City Ordinance, non-residential structures are required to provide bicycle accommodations in proportion to the vehicular parking. For residential structures 2 bicycle parking spaces are required for every 5 dwelling units and for non-residential structures 2 bicycle parking spaces are required for every 10 vehicle parking spaces. Based on the ordinance this project would require 22 residential and 2 non-residential bicycle parking spaces for a total of 24 bicycle parking spaces.

Conclusions:

This project is forecast, in our opinion, to require approximately 50 vehicular parking spaces and 24 bicycle parking spaces. However, this methodology needs to be reviewed and approved by the City.

GORRILL PALMER

PO Box 1237, 15 Shaker Road
Gray, Maine 04039
207.657.6910

Transportation Demand Management Plan
Schlotterbeck & Foss Building
City of Portland, Maine
October 6, 2015

Introduction

Schlotterbeck & Foss provides this Transportation Demand Management (TDM) Plan in support of the City's transportation and environmental sustainability goals by encouraging and promoting bicycling, walking, and use of transit. The site currently consists of a five story building which was previously used for food processing and production. The proposed redevelopment of the existing building includes the following uses:

- 1,750 square feet of office space
- 55 market rate residential units

The site is well located near I-295 northbound and southbound ramps; has several bus stops surrounding the site, including one directly across the street from the site driveway; and is surrounded by a network of sidewalks. To reduce the impact of traffic during the peak hours of the adjacent street, the following is a description of the elements of the TDM Plan.

TDM Coordinator

The Schlotterbeck & Foss building will have a designated TDM coordinator to administer the TDM Plan. The TDM coordinator will be responsible for posting changes and updates to the METRO schedule, local UHaulCarShare information and care share information in the lobby, providing maps of alternate parking locations in the area, monitoring bike rack use, as well as providing other information relevant to promoting and encouraging the greater use of bicycling, walking, and bus-based transit.

Employee and Resident Survey

The TDM Coordinator will be expected to promote interaction with the employees and with the residents living in the building. In addition, the employees and residents can be surveyed to gain information on how the TDM Plan is working and suggestions to improve the Plan.

METRO

The site is closely situated to METRO Route 8, the Peninsula Loop, as well as being a short distance from Oxford Street where Routes 2, 4, and 5 run. The bus schedules will be provided in the front lobby.

Bicycle Use

The Schlotterbeck & Foss Building will provide on-site bicycle racks for 24 bicycles. The TDM coordinator will monitor the bicycle rack use to identify if additional bike racks are warranted.

UHaulCarShare

Maine is one of 22 states served by UHaulCarShare in the United States. In Portland the service provides a total of seven cars. There are three UHaulCarShare vehicles located close to the site, two of which are at 26 Elm Street adjacent to the library, and another at 115 Congress Street. These vehicles are available on an hourly or daily basis.

On-Site Car-Share Program

The Schlotterbeck & Foss Building will provide an on-site car-share program. This program would provide a car on-site for use by the residents of the building. The car would be maintained by the building owner or manager and available on a fee basis.

Sidewalk Facilities

One of the many benefits of being located in the downtown area is that sidewalks surround the proposed project encouraging walking to and from the site. The building will be accessed by a door directly onto Preble Street and the adjacent sidewalk network.

Education

The Schlotterbeck & Foss Building plans to provide informational flyers in the front lobby and/or on their website which includes; promotion of the on-site bicycle racks, METRO stop schedules and stop locations within the area, contact information for local taxi services, available information for local UHaulCarShare accommodations in the area, as well as on-site car share information, and contact information for the TDM coordinator.

EXHIBIT 13

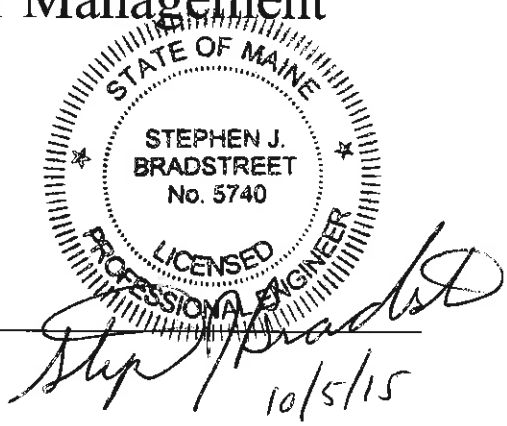
STORM WATER MANAGEMENT

See attached “Schlotterneck and Foss Stormwater Management Narrative”, prepared by Stephen Bradstreet, P.E. of Ransom Consulting Engineers, Inc., dated October 5, 2015.

RANSOM
Consulting, Inc.

Consulting
Engineers
and Scientists

Schlotterbeck and Foss Stormwater Management Narrative



Date:	October 5, 2015
To:	City of Portland
From:	Stephen J. Bradstreet, P.E.
Peer Review:	Maureen P. McGlone, P.E.
Location:	117 Preble Street, Portland, Maine

List of Appendices:

Appendix A: Post Construction Stormwater Management Plan
Appendix B: Stormwater BMP Inspection and Maintenance Requirements
Appendix C: Pre Development Hydro CAD Calculations
Appendix D: Post Development Hydro CAD Calculations

Existing Conditions:

The site is a 40,720 SF (0.94 acres) parcel that is bordered by Preble Street, Kennebec Street, Elm Street and the rear of properties on Lancaster Street. The site consists of the existing Schlotterbeck and Foss building (6,800 SF), lawn (10,650 SF) and gravel/paved areas (23,270 SF). The site's topography is generally flat and slopes to on-site catch basins or directly sheds out to the streets where the stormwater is intercepted by the City's stormdrain system.

Stormwater runoff from the site flows offsite into four catch basins 1) Preble Street, 2) corner of Preble and Kennebec Streets, 3) corner of Elm and Kennebec Streets and 4 Elm Street. The paved parking area and building flow out to the Elm Street catch basin (Sub-catchment Area 1, 2 &3). The gravel parking area flows to the two catch basins at the corners of Kennebec and Preble or Elm Streets (Sub-Catchments 4 & 5). The remaining small area flows to a catch basin on Preble Street (Sub-Catchment 6). All catch basins are part of the City's combined sewer system in this area of Bayside.

Proposed Development:

The applicant, Schlotterbeck Block, LLC, proposes to convert the existing commercial building into 55 units of residential housing by converting the interior of the building into 1 bedroom apartments. The site will include a parking lot with access from Elm Street and provide 50 parking spaces. The width of the existing entrance on Elm Street will be reduced from 56 feet to 24 feet. The existing entrance on Preble

Street will be closed. The proposed development will decrease the site's impervious area from 30,070 SF to approximately 27,300 SF. The remaining area will be a combination of landscaped planting areas or lawn.

Stormwater Management – Basic Standards:

Erosion and sedimentation control measures are detailed within the design plans. Good housekeeping practices will be in accordance with Maine DEP Best Management Practices. A post construction stormwater management plan is provided in *Appendix A*. Stormwater BMP inspection and maintenance requirements are provided in *Appendix B*.

Stormwater Management - Quality:

The existing site is currently gravel, pavement and building and is basically 75% impervious. The existing gravel parking lot sheet flows primarily to the catch basins at the corners of Kennebec Street, which flow into a combined system.. The building and paved area of the site flow into the catch basin on Elm Street and into a combined system. The small remaining landscaped area flows to a catch basin in Preble Street and into a combined system.

The site's impervious area has been reduced by 2,770 SF which is a 9% reduction. With the removal of the gravel parking lot, the stormwater quality will improve greatly. However, an underdrained vegetated swale is proposed in the grass area adjacent to Kennebec Street. This will further improve the water quality exiting the site. Furthermore, most of the remaining area of the site's stormwater will now exit to the catch basin at the corner of Kennebec and Elm Street. Based on discussion with the City it is more favorable to connect at this location since it is closer to the future separated sewer extending up from Somerset Street.

Stormwater Management - Quantity:

With the reduction in impervious area and the introduction of landscaped areas with an underdrained vegetated swale, there are no detention measures proposed. The stormwater runoff has been reduced by 7% to 21% depending on the storm event. The 1" storm event is obviously the most frequent and has been reduced by 21%. Based on the proposed site conditions and the reduction in stormwater flows, we believe that detention is not required.

Hydraulic Analysis:

Stormwater runoff calculations for quantity were made using the HydroCAD 10.0 computer program, which is based on the Soil Conservation Service's TR-20 methodology. Runoff hydrographs are generated based on a standard Type III 24 hour storm.

Six storm events were modeled as follows:

1. 1" storm: The 1" storm event was analyzed to simulate a heavy weather event that would typically happen multiple times over a given year and may impact the CSO frequency and volume.

2. 1.6" storm: The 1.6" storm event was analyzed to evaluate the ability to reduce future Stormwater Fees.

3. 2-year frequency flood event: 3" rainfall

4. 10-year frequency flood event: 4.7" rainfall

5. 25-year frequency flood event: 5.5" rainfall

6. 100-year frequency flood event: 6.7" rainfall

Runoff Curve numbers were determined based on land coverage and soil type based on available Medium Intensity Soils Surveys. Times of concentration were developed based on runoff flow paths for each subarea and shown on the Pre and Post-Development plans. A minimum Tc of 6 minutes was set in the HydroCAD model.

Peak runoff flow rates and runoff volumes are provided for the following four analysis points, which are identified on the Pre and Post-Development plans.

1. Analysis Point A (CB at Elm Street)-This catch basin currently receives stormwater runoff from the existing paved parking lot and building. In this area the catch basin is in a combined stormwater system.

2. Analysis Point B (CB at Kennebec/Elm Street)-This catch basin currently receives stormwater runoff from half the gravel parking lot. In this area the catch basin is in a combined sewer system.

3. Analysis Point C (CB at Kennebec/Preble Street)-This catch basin currently receives stormwater runoff from half the gravel parking lot. In this area the catch basin is in a combined sewer system.

4. Analysis Point D (CB at Preble Street)-This catch basin currently receives stormwater runoff from a small lawn area. In this area the catch basin is in a combined sewer system.

Analysis Point A shows a decrease in runoff rates and volume since all site flow is removed from this basin and redirected to the catch basin at the corner of Kennebec/Elm Streets.

Analysis Point B shows an increase in runoff rates and volume; however reduction in flows going to Analysis Point A and the overall reduction in flows and volumes off-site benefit the combined sewer system downstream of the site.

Analysis Point C shows a decrease in runoff rates and volume and the overall reduction in flows and volumes off-site benefits the combined sewer system downstream of the site.

Analysis Point D shows an increase in runoff rates and volume; however the overall reduction in flows and volumes off-site benefits the combined sewer system downstream of the site.

Peak runoff rates and runoff volumes for the above analysis points and storm events are tabulated in the following tables. HydroCAD calculations can be found in *Appendices C & D*. Pre- and Post-Development plans (SW-1 and SW-2) can be found in the plan set.

Storm Event	PRE-Development Peak Runoff RATES cubic feet per second (CFS)				
	Analysis Point A CB in Elm St	Analysis Point B CB at Elm/Kennebec	Analysis Point C CB at Preble/Kennebec	Analysis Point D CB in Preble St	Total A + B + C +D
	Areas 1, 2 & 3	Area 4	Area 5	Area 6	
1" Storm	.43	.05	.05	0	.53
1.6" Storm	.8	.12	.12	.02	1.06
2 Year Frequency	1.70	.28	.29	.11	2.38
10 Year Frequency	2.78	.49	.49	.23	3.99
25 Year Frequency	3.29	.58	.58	.29	4.74
100 Year Frequency	4.05	.72	.72	.39	5.88

Storm Event	POST-Development Peak Runoff RATES cubic feet per second (CFS)				
	Analysis Point A CB in Elm St	Analysis Point B CB at Elm/Kennebec	Analysis Point C CB at Preble/Kennebec	Analysis Point D CB in Preble St	Total A + B + C +D
		Areas 1-8	Area 9	Area 10	
1" Storm	0	.4	.01	.01	.42
1.6" Storm	0	.81	.04	.05	.90
2 Year Frequency	0	1.83	.12	.19	2.14
10 Year Frequency	0	3.07	.22	.37	3.66
25 Year Frequency	0	3.66	.27	.47	4.40
100 Year Frequency	0	4.53	.34	.60	5.47

Storm Event	PRE-Development Runoff VOLUMES acre feet (AF) volume of water 1' deep over one acre				
	Analysis Point A CB in Elm St	Analysis Point B CB at Elm/Kennebec	Analysis Point C CB at Preble/Kennebec	Analysis Point D CB in Preble St	Total A+ B+ C+D
	Areas 1, 2 & 3	Area 4	Area 5	Area 6	
1" Storm	.031	.004	.004	0	.039
1.6" Storm	.058	.008	.008	.002	.076
2 Year Frequency	.125	.020	.020	.007	.172
10 Year Frequency	.208	.035	.035	.016	.294
25 Year Frequency	.248	.042	.042	.020	.352
100 Year Frequency	.307	.053	.053	.027	.440

Storm Event	POST-Development Runoff VOLUMES acre feet (AF) volume of water 1' deep over one acre				
	Analysis Point A CB in Elm St	Analysis Point B CB at Elm/Kennebec	Analysis Point C CB at Preble/Kennebec	Analysis Point D CB in Preble St	Total A + B + C +D
		Areas 1-8	Area 9	Area 10	
1" Storm	0	.030	.001	.001	.032
1.6" Storm	0	.061	.002	.003	.066
2 Year Frequency	0	.141	.007	.011	.159
10 Year Frequency	0	.243	.013	.022	.278
25 Year Frequency	0	.291	.016	.027	.334
100 Year Frequency	0	.364	.020	.036	.420

APPENDIX A

Post Construction Stormwater Compliance Requirements

City of Portland
117 Preble Street
Portland, Maine

Ransom Consulting, Inc.
Project 151.06068

117 Preble StreetPost-Construction Stormwater Compliance Requirements

The Applicant shall maintain the BMPs in accordance with the approved plan and shall demonstrate compliance with the plan as follows:

(a) *Inspections.* The owner or operator of a BMP shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMPs, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post- construction stormwater management plan.

(b) *Maintenance and repair.* If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the department of public services ("DPS") in the annual report.

(c) *Annual report.* The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to DPS in a form provided by DPS, certifying that the person has inspected the BMP(s) and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective action(s) taken.

(d) *Filing fee.* Any persons required to file and annual certification under this section shall include with the annual certification a filing fee established by DPS to pay the administrative and technical costs of review of the annual certification.

(e) *Right of entry.* In order to determine compliance with this article and with the post-construction stormwater management plan, DPS may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the BMPs.

APPENDIX B

Stormwater BMP Inspection and Maintenance Log

City of Portland
117 Preble Street
Portland, Maine

117 Preble Street: Stormwater BMP Inspection Log

The City of Portland, ME requires ongoing annual inspections to ensure the proper maintenance and operation of stormwater management facilities. Inspections must be conducted by third parties qualified by the City.

A. General Information

Use only one Cover Sheet per site with as many specific structural BMP Inspection Report attachments as needed. Attach required color digital photos of site, structures and devices as applicable with captions.

Project Name:	**117 Preble Street**	**Inspection Date:**	
Parcel Map, Block and Lot:		**Current Weather:**	
BMP Owner:	**Schlotterbeck Block, LLC**	**Date / Amount Last Precip:**	
Owner Mailing Address:	**77 Spruce Street** **Portland, Maine 04101**	**3PI Mailing Address:**	
Owner Phone #:			
Owner Email:		**Inspector Name:**	
		Inspector Phone #:	
		Inspector Email:	

B. Inspection Report Attachments

Please document the number of each structural BMP type found at this site in the blank spaces provided below. Use additional Attachments if / as needed and submit all Attachments together with the Cover Sheet as a single report.

BMP Type	Number BMPs at site
Vegetated Underdrained Swale	1
Stormdrain Structures: Catch Basin	6

Other (describe

C. Inspection Results

FAIL** ☐

** If any one item on an Inspection Report attachment is coded as "Work Needed" then entire BMP fails inspection.

** If a site has multiple BMPs and one fails inspection, mark as "Fail" until all BMPs pass inspection.

Note: Applicable BMP Inspection Reports and confirmatory color digital photos summarizing required repairs must be submitted to the City following completion of the preliminary inspection. A re-inspection and certification must be completed within 60 days of the failed preliminary report. It is recommended that the inspector be part of the repair / maintenance process to ensure that repairs are performed properly.

PASS ☐

Note: a qualified professional (as determined by the City) must sign below and include all applicable Inspection Report attachments and confirmatory digital color photos with captions.

D. Professional Certification (as qualified by City of Portland Stormwater Program Coordinator)

To be completed only when all BMPs at this site are functioning as designed with no outstanding maintenance issues.

I, _____, as a duly qualified third party inspector attest that a thorough inspection has been completed for ALL applicable BMPs that are associated with this particular site. All inspected structural BMPs are performing as designed and intended and are in compliance with the provisions of the City Portland's Standards

Signature: _____

Date: _____

Owner: Avesta Housing	**Operator:**
Location & Parcel Id:	**Inspector:**
	Date:

General Information	**Observations**
Inspection duration (hours)	
Days since last precipitation	
Quantity of last precipitation (in)	
Type of inspection	
Storm event	
Current weather	
Photos taken	☐ Yes ☐ No ☐ NA
Nearby natural resources	☐ Yes ☐ No ☐ NA
Copy of ESC plan	☐ Yes ☐ No ☐ NA
MEDEP Permit # (*if applicable*)	
General info notes	

Vegetated Areas	**Observations**
Condition of slopes and embankment is good	☐ Yes ☐ No ☐ NA
No bare areas (< 90% covered) with sparse growth	☐ Yes ☐ No ☐ NA
Armored areas have no rill erosion or the flow diverted to onsite areas can withstand concentrated flows	☐ Yes ☐ No ☐ NA
Vegetated area notes	

Stormdrain outlets	**Observations**
Accumulated sediments and debris at the outlet and within the conduit have been removed.	☐ Yes ☐ No ☐ NA
Erosion damage at the outlet have been repaired	☐ Yes ☐ No ☐ NA
Outlet notes	

Stormdrain Structures (Require inspection TWICE per year)	**Observations**
Accumulated sediments from inflow channels, pipes and sumps between basins have been removed and legally disposed of.	☐ Yes ☐ No ☐ NA
Floating debris and floating oils have been removed.	☐ Yes ☐ No ☐ NA
Debris and Sediment Removed From Outlet Control Structure	☐ Yes ☐ No ☐ NA

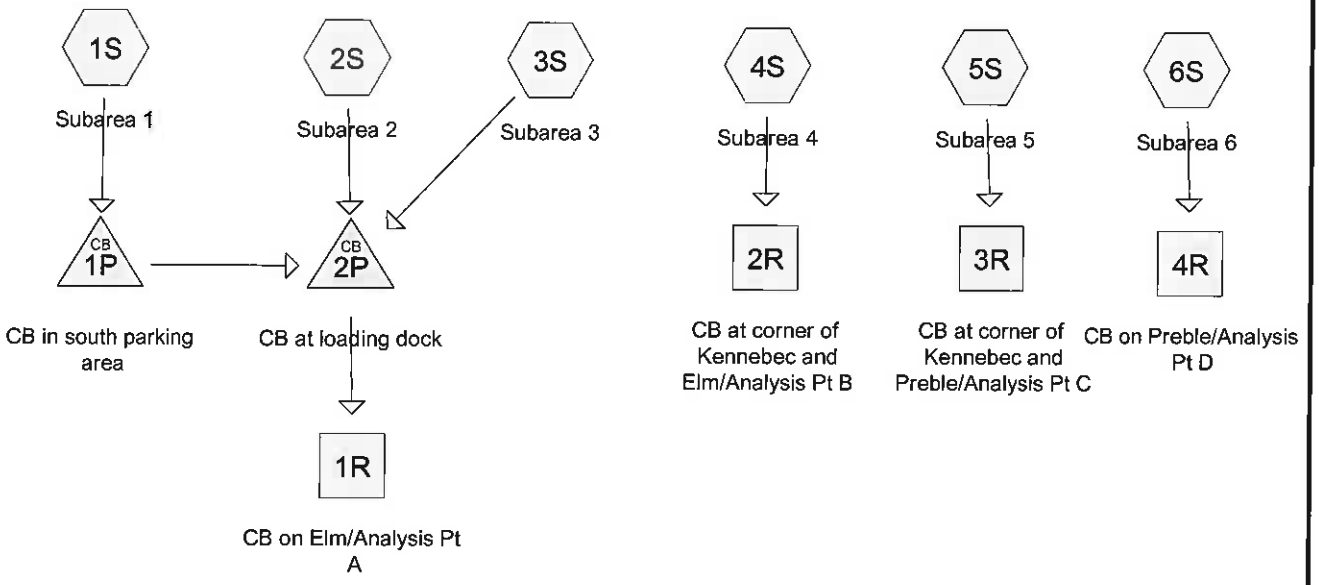
Other Comments	**Observations**
Corrective action needed	☐ Yes ☐ No ☐ NA
If corrective action in needed, please explain detail	
Verbal notification provided to responsible party	☐ Yes ☐ No
Verbal notification contact	
Follow up required	☐ Yes ☐ No
Final comment notes	

Photos (*use additional pages as needed*)
Review Notes
Date Reviewed: Reviewed by: Date entered: Date edited: Edited by:

APPENDIX C

Pre-Development Stormwater Calculations

City of Portland
117 Preble Street
Portland, Maine



Subcat Reach Pond Link

Routing Diagram for Schlotterbeck & Foss Pre
Prepared by Ransom Consulting, Printed 10/5/2015

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.246 ac 54.88% Impervious Runoff Depth>0.29"
Tc=6.0 min CN=90 Runoff=0.09 cfs 0.006 af

Subcatchment 2S: Subarea 2 Runoff Area=0.237 ac 100.00% Impervious Runoff Depth>0.75"
Tc=6.0 min CN=98 Runoff=0.21 cfs 0.015 af

Subcatchment 3S: Subarea 3 Runoff Area=0.165 ac 100.00% Impervious Runoff Depth>0.75"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.010 af

Subcatchment 4S: Subarea 4 Runoff Area=0.117 ac 0.00% Impervious Runoff Depth>0.37"
Tc=6.0 min CN=92 Runoff=0.05 cfs 0.004 af

Subcatchment 5S: Subarea 5 Runoff Area=0.118 ac 0.00% Impervious Runoff Depth>0.37"
Tc=6.0 min CN=92 Runoff=0.05 cfs 0.004 af

Subcatchment 6S: Subarea 6 Runoff Area=0.077 ac 2.60% Impervious Runoff Depth>0.07"
Tc=6.0 min CN=80 Runoff=0.00 cfs 0.000 af

Reach 1R: CB on Elm/Analysis Pt A Inflow=0.43 cfs 0.031 af
Outflow=0.43 cfs 0.031 af

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=0.05 cfs 0.004 af
Outflow=0.05 cfs 0.004 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.05 cfs 0.004 af
Outflow=0.05 cfs 0.004 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond 1P: CB in south parking area Peak Elev=8.47' Inflow=0.09 cfs 0.006 af
Outflow=0.09 cfs 0.006 af

Pond 2P: CB at loading dock Peak Elev=8.58' Inflow=0.43 cfs 0.031 af
Outflow=0.43 cfs 0.031 af

Total Runoff Area = 0.960 ac Runoff Volume = 0.039 af Average Runoff Depth = 0.48"
43.85% Pervious = 0.421 ac 56.15% Impervious = 0.539 ac

Summary for Subcatchment 1S: Subarea 1

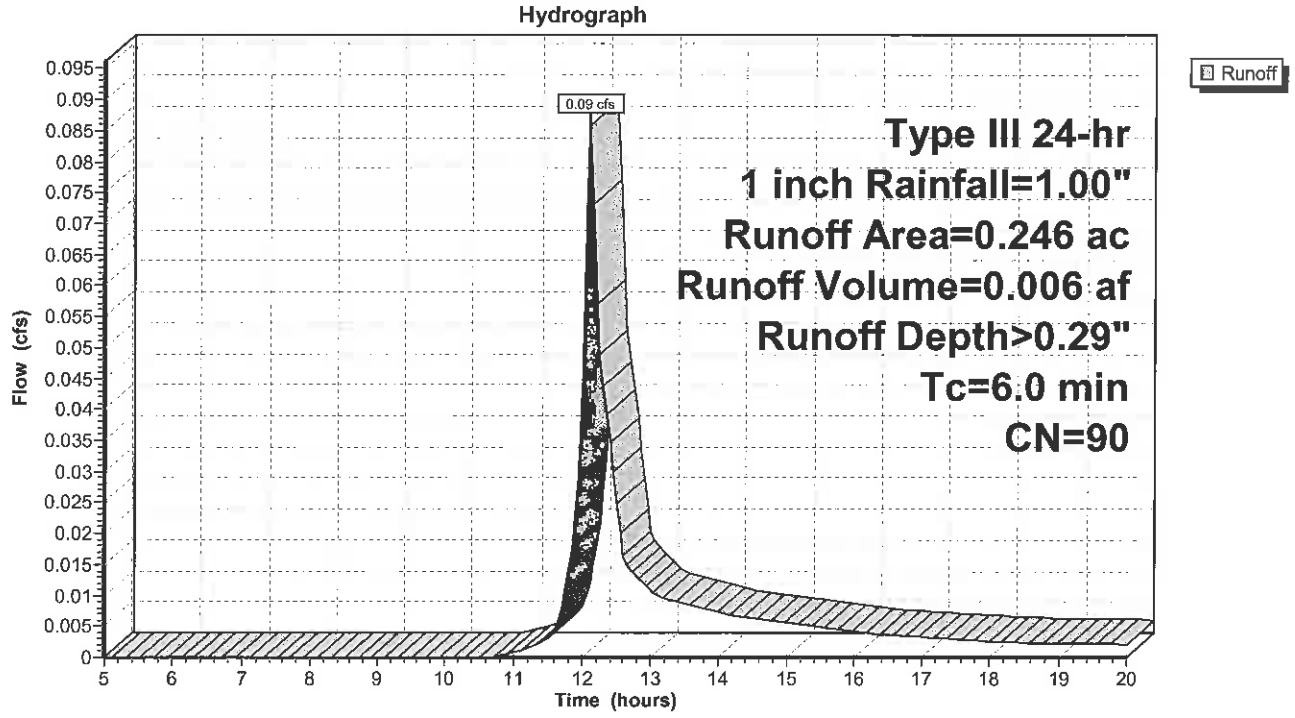
Runoff = 0.09 cfs @ 12.10 hrs, Volume= 0.006 af, Depth> 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.135	98	Paved parking, HSG D
0.111	80	>75% Grass cover, Good, HSG D
0.246	90	Weighted Average
0.111		45.12% Pervious Area
0.135		54.88% Impervious Area

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

Subcatchment 1S: Subarea 1



Summary for Subcatchment 2S: Subarea 2

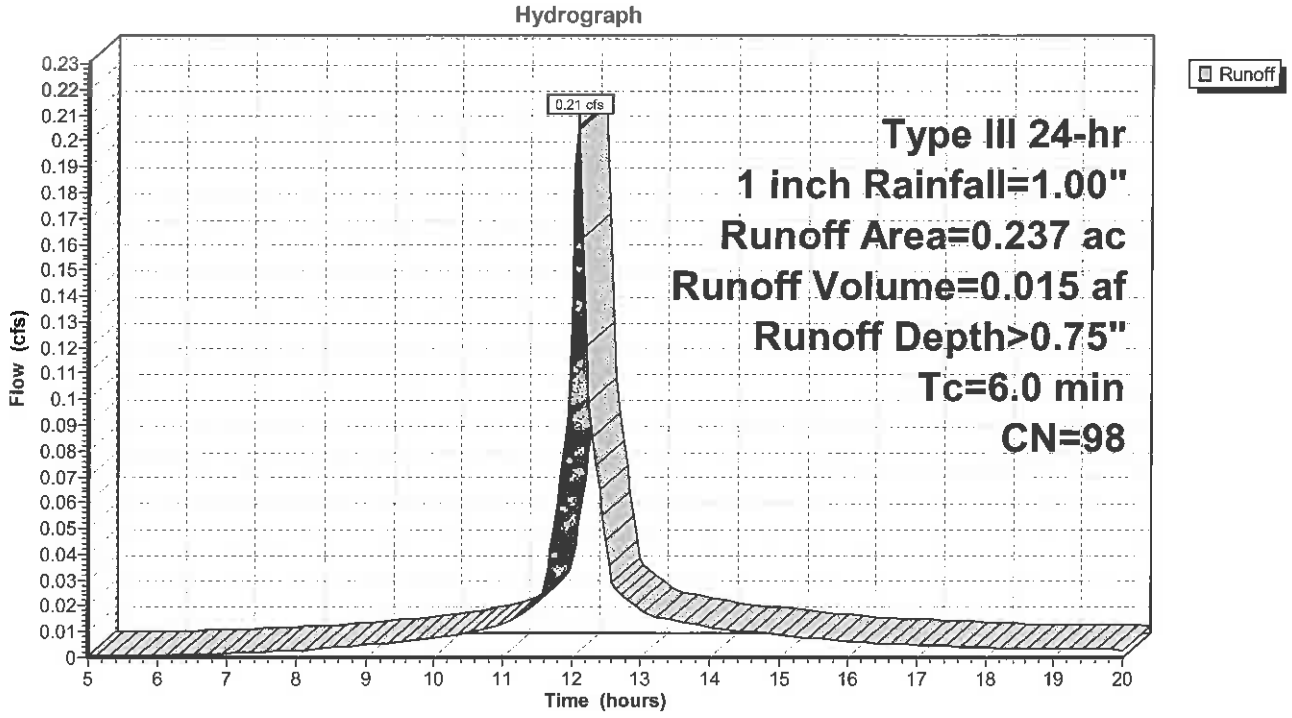
Runoff = 0.21 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.237	98	Paved parking, HSG D
0.237		100.00% Impervious Area

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

Subcatchment 2S: Subarea 2



Summary for Subcatchment 3S: Subarea 3

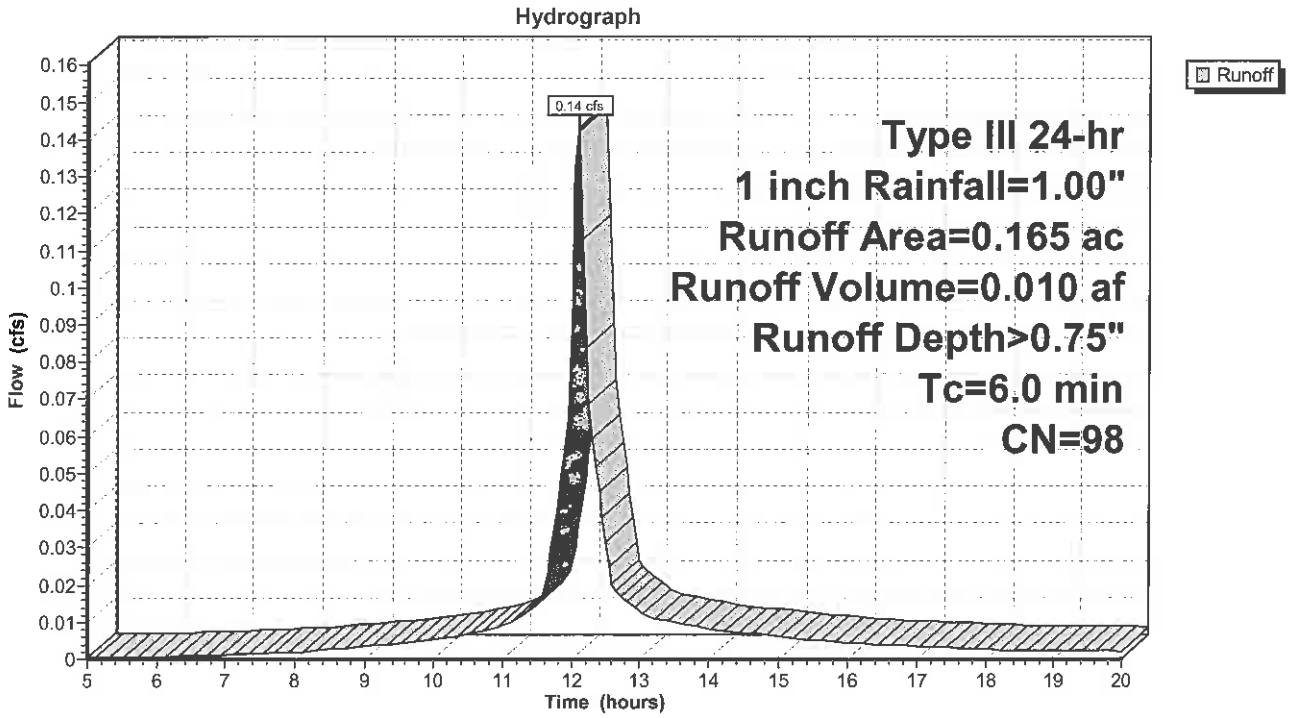
Runoff = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.165	98	Roofs, HSG D
0.165		100.00% Impervious Area

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

Subcatchment 3S: Subarea 3



Summary for Subcatchment 4S: Subarea 4

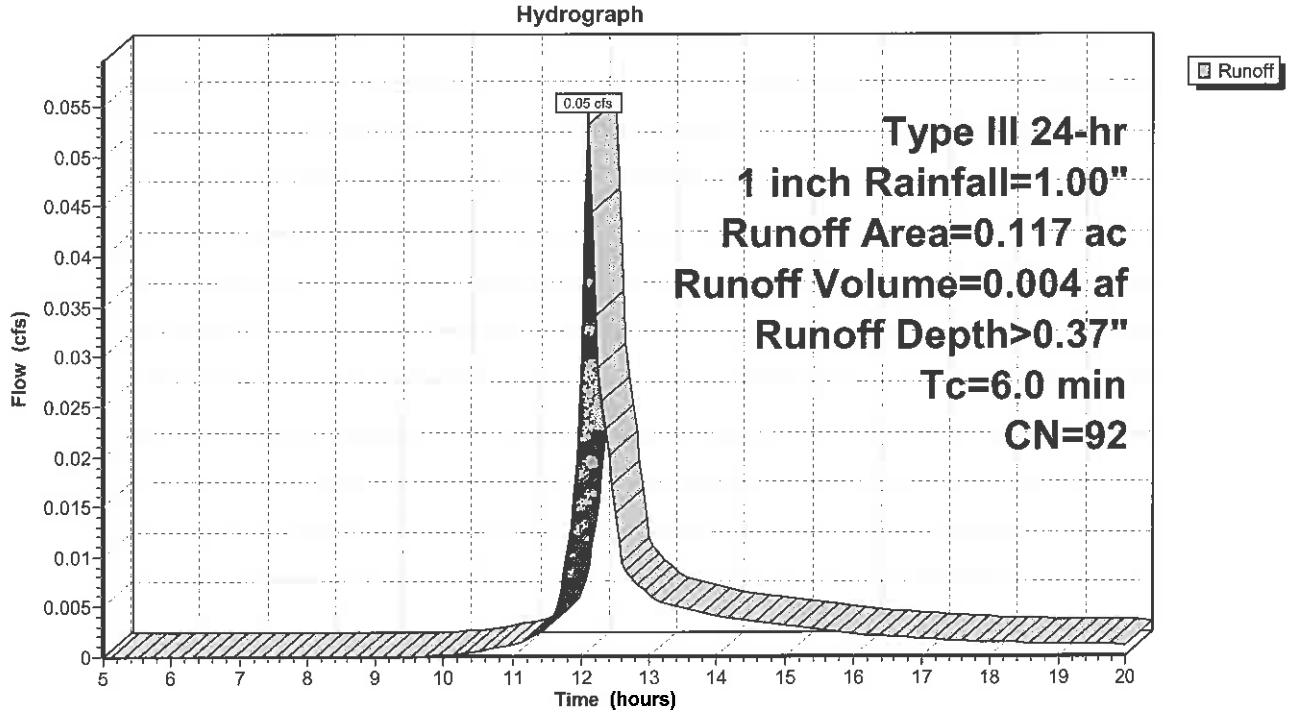
Runoff = 0.05 cfs @ 12.10 hrs, Volume= 0.004 af, Depth> 0.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.088	96	Gravel surface, HSG D
0.029	80	>75% Grass cover, Good, HSG D
0.117	92	Weighted Average
0.117		100.00% Pervious Area

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

Subcatchment 4S: Subarea 4



Summary for Subcatchment 5S: Subarea 5

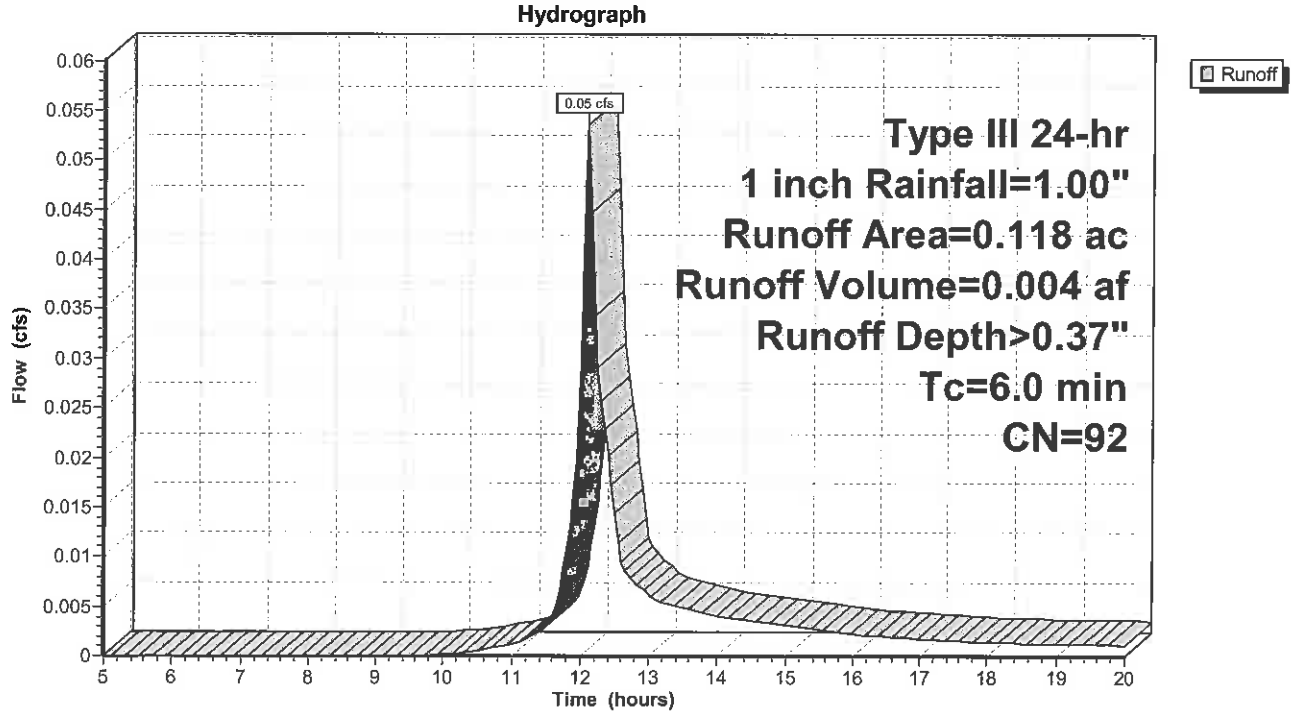
Runoff = 0.05 cfs @ 12.10 hrs, Volume= 0.004 af, Depth> 0.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.090	96	Gravel surface, HSG D
0.028	80	>75% Grass cover, Good, HSG D
0.118	92	Weighted Average
0.118		100.00% Pervious Area

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

Subcatchment 5S: Subarea 5



Summary for Subcatchment 6S: Subarea 6

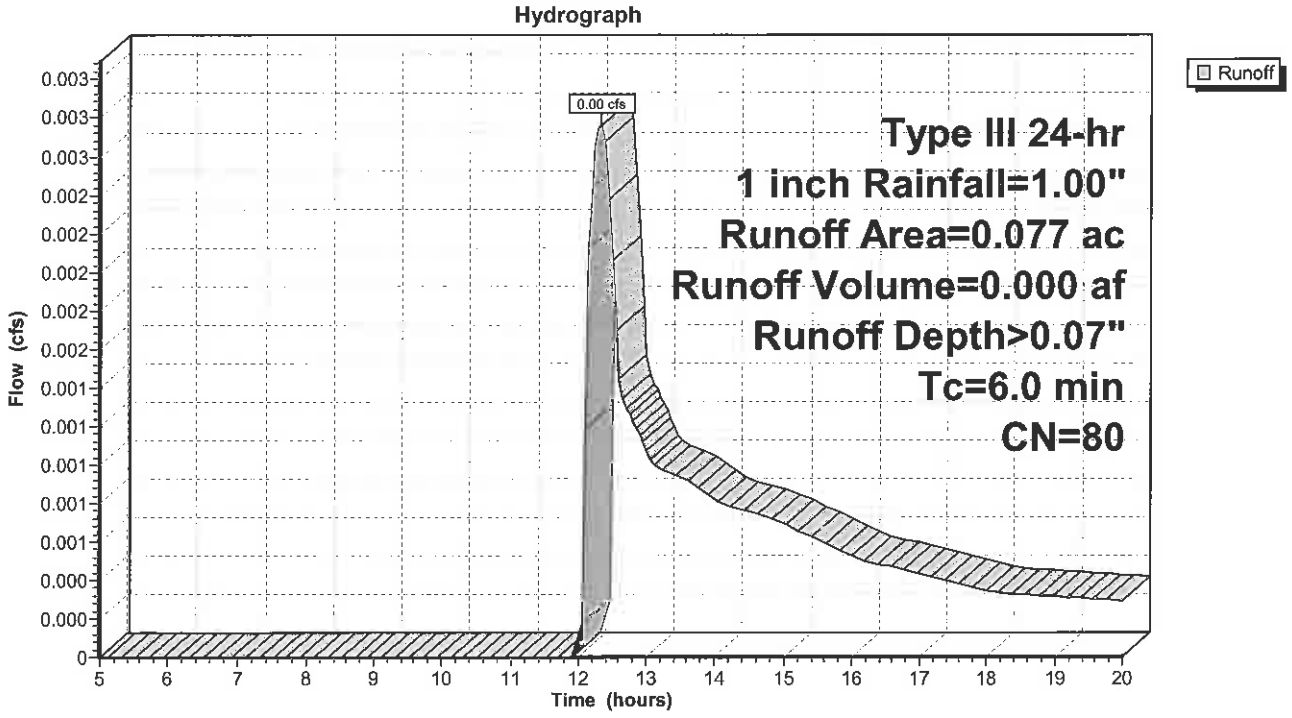
Runoff = 0.00 cfs @ 12.32 hrs, Volume= 0.000 af, Depth> 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.075	80	>75% Grass cover, Good, HSG D
0.002	98	Paved parking, HSG D
0.077	80	Weighted Average
0.075		97.40% Pervious Area
0.002		2.60% Impervious Area

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

Subcatchment 6S: Subarea 6



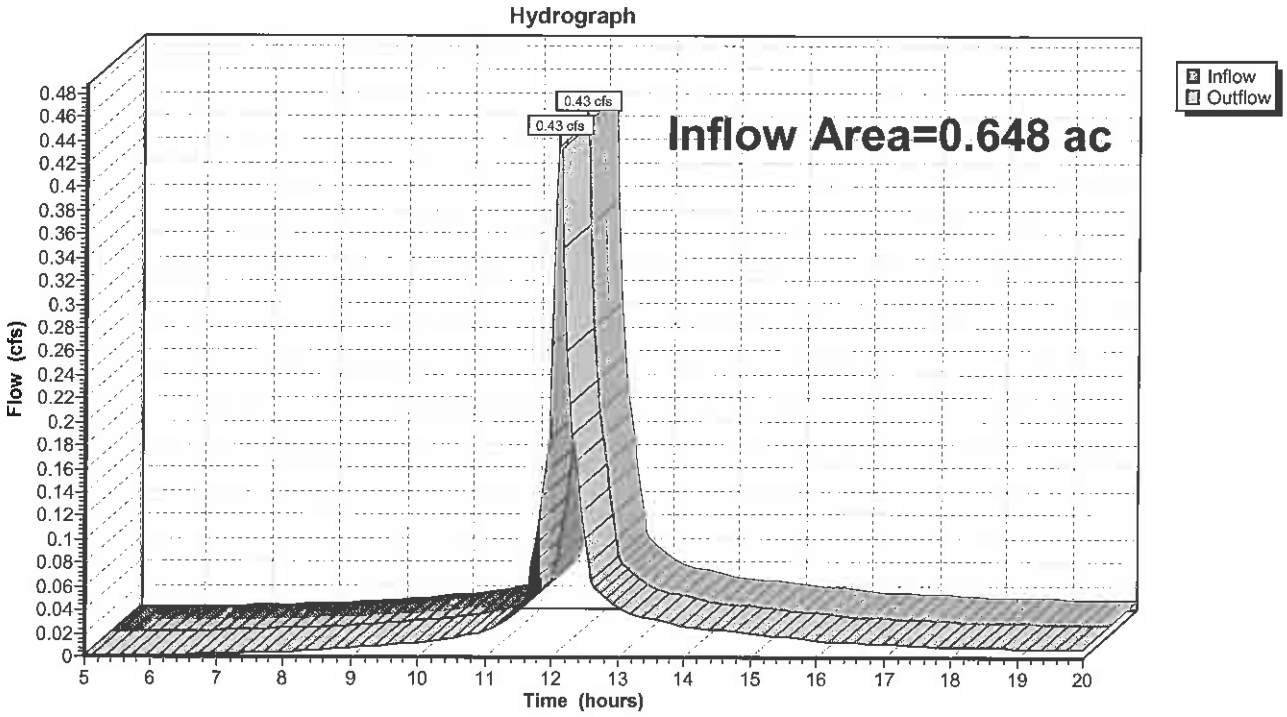
Summary for Reach 1R: CB on Elm/Analysis Pt A

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

Inflow Area = 0.648 ac, 82.87% Impervious, Inflow Depth > 0.57" for 1 inch event
Inflow = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af
Outflow = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 1R: CB on Elm/Analysis Pt A



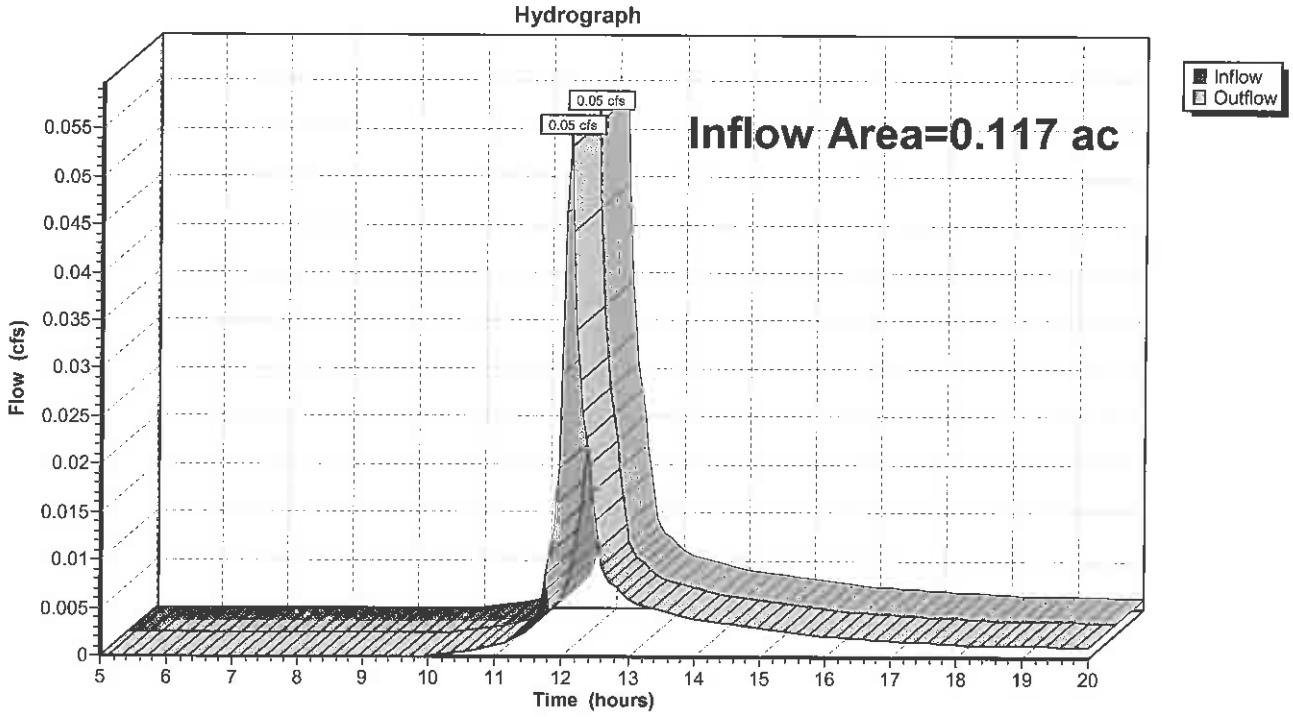
Summary for Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B

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

Inflow Area = 0.117 ac, 0.00% Impervious, Inflow Depth > 0.37" for 1 inch event
Inflow = 0.05 cfs @ 12.10 hrs, Volume= 0.004 af
Outflow = 0.05 cfs @ 12.10 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B



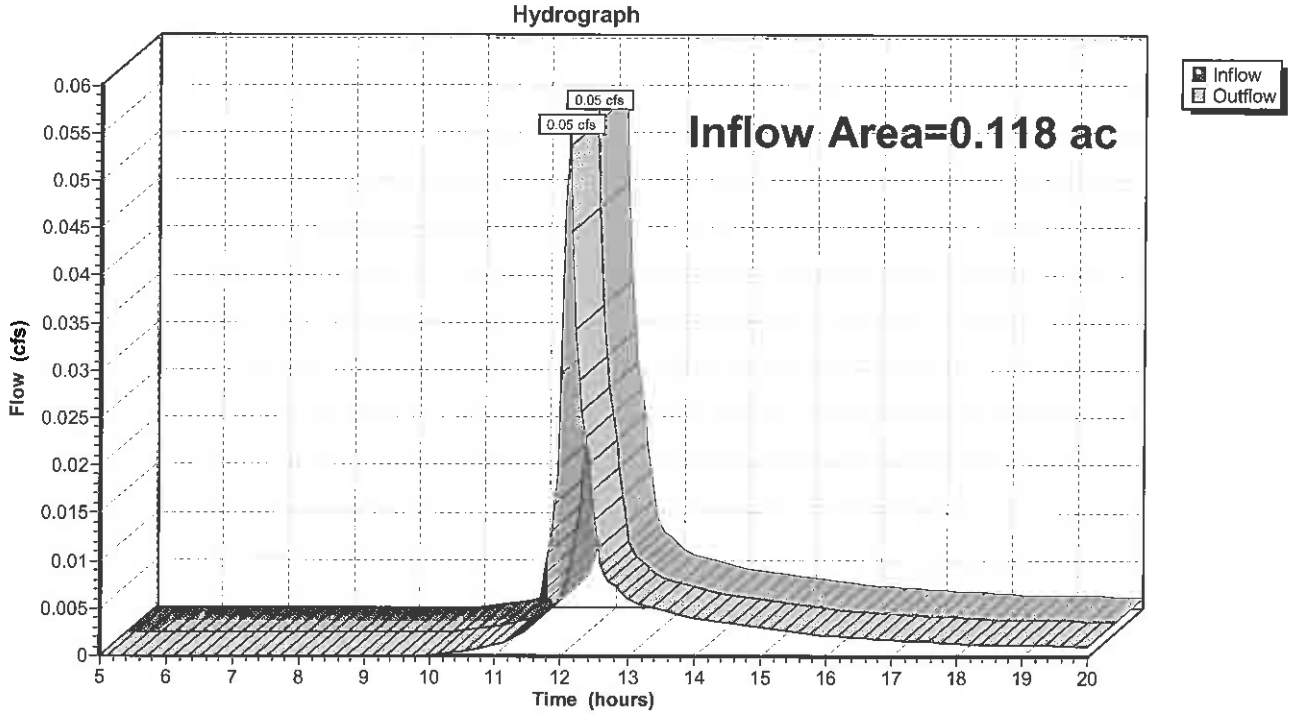
Summary for Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C

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

Inflow Area = 0.118 ac, 0.00% Impervious, Inflow Depth > 0.37" for 1 inch event
Inflow = 0.05 cfs @ 12.10 hrs, Volume= 0.004 af
Outflow = 0.05 cfs @ 12.10 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C



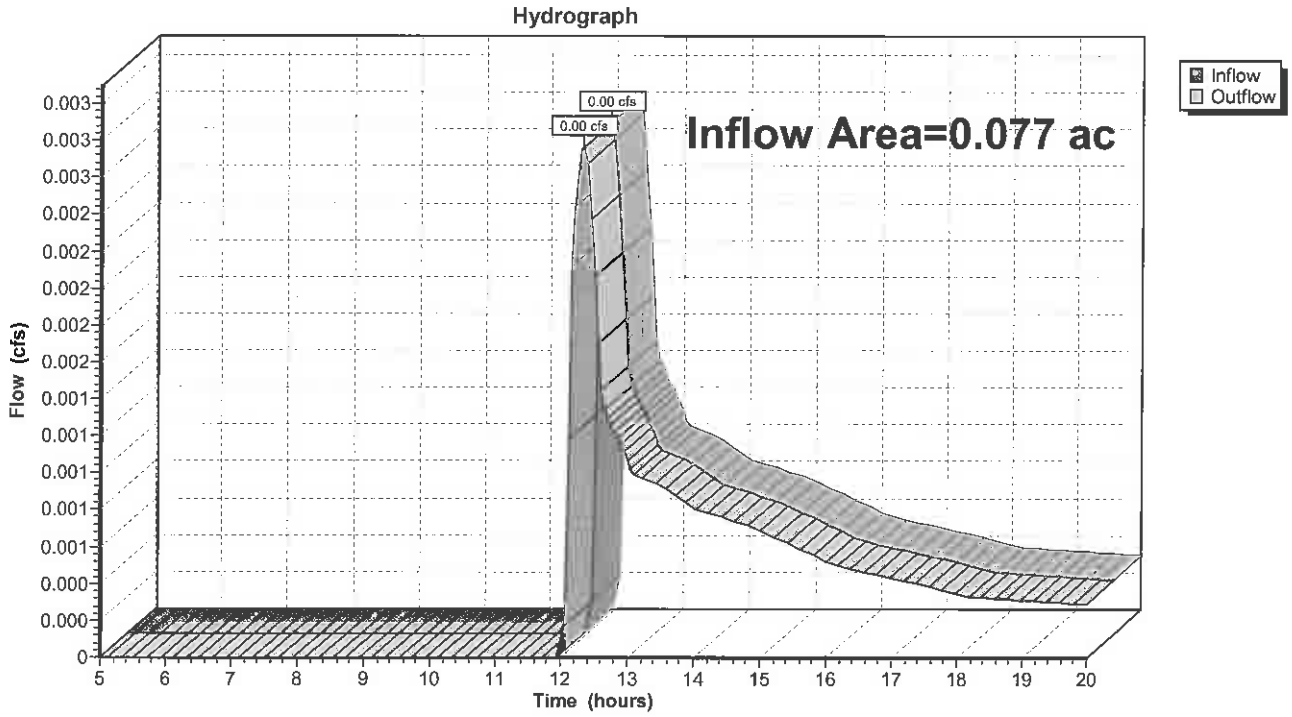
Summary for Reach 4R: CB on Preble/Analysis Pt D

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

Inflow Area = 0.077 ac, 2.60% Impervious, Inflow Depth > 0.07" for 1 inch event
Inflow = 0.00 cfs @ 12.32 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 12.32 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 4R: CB on Preble/Analysis Pt D



Summary for Pond 1P: CB in south parking area

[57] Hint: Peaked at 8.47' (Flood elevation advised)

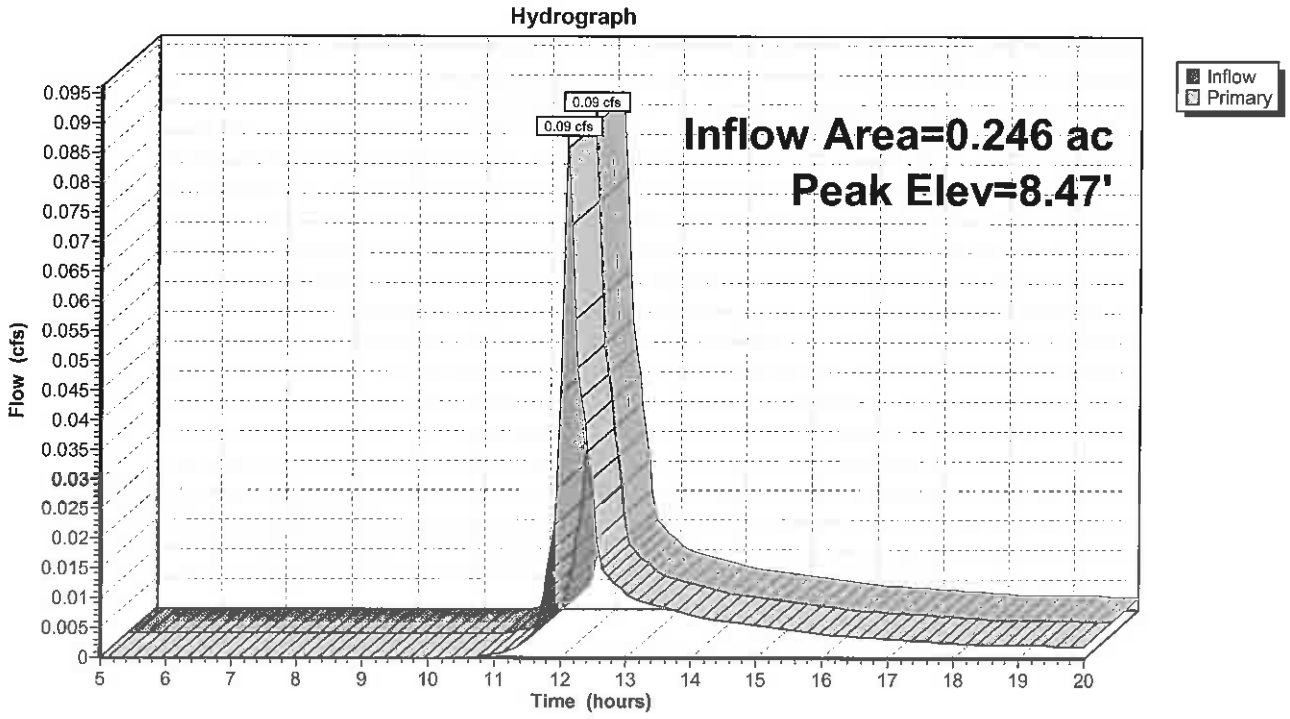
Inflow Area = 0.246 ac, 54.88% Impervious, Inflow Depth > 0.29" for 1 inch event
Inflow = 0.09 cfs @ 12.10 hrs, Volume= 0.006 af
Outflow = 0.09 cfs @ 12.10 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min
Primary = 0.09 cfs @ 12.10 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 8.47' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	8.31'	**8.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.09 cfs @ 12.10 hrs HW=8.47' (Free Discharge)
↳**1=Orifice/Grate** (Orifice Controls 0.09 cfs @ 1.35 fps)

Pond 1P: CB in south parking area



Summary for Pond 2P: CB at loading dock

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 8.58' (Flood elevation advised)
[81] Warning: Exceeded Pond 1P by 0.11' @ 12.10 hrs

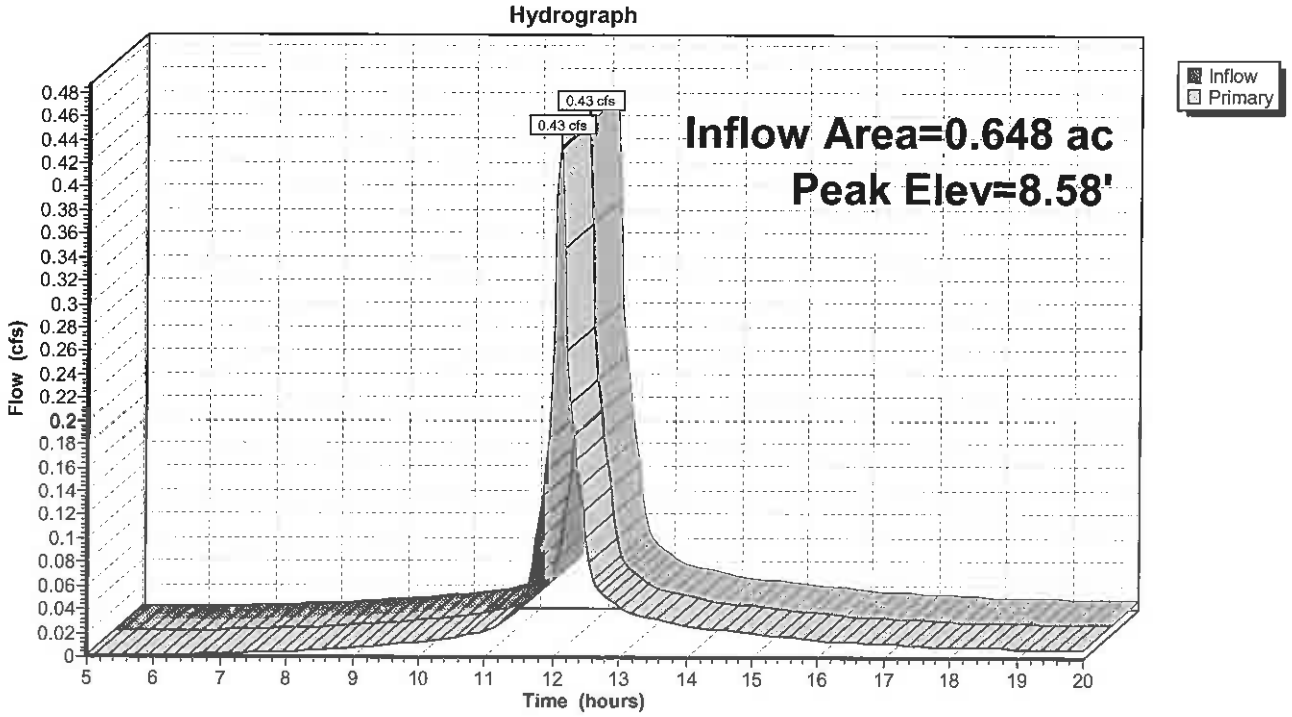
Inflow Area =	0.648 ac, 82.87% Impervious, Inflow Depth > 0.57" for 1 inch event			
Inflow =	0.43 cfs @ 12.09 hrs, Volume=	0.031 af		
Outflow =	0.43 cfs @ 12.09 hrs, Volume=	0.031 af, Atten= 0%, Lag= 0.0 min		
Primary =	0.43 cfs @ 12.09 hrs, Volume=	0.031 af		

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 8.58' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	8.20'	**8.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.43 cfs @ 12.09 hrs HW=8.58' (Free Discharge)
↑**1=Orifice/Grate** (Orifice Controls 0.43 cfs @ 2.09 fps)

Pond 2P: CB at loading dock



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.246 ac 54.88% Impervious Runoff Depth>0.71"
Tc=6.0 min CN=90 Runoff=0.21 cfs 0.014 af

Subcatchment 2S: Subarea 2 Runoff Area=0.237 ac 100.00% Impervious Runoff Depth>1.30"
Tc=6.0 min CN=98 Runoff=0.35 cfs 0.026 af

Subcatchment 3S: Subarea 3 Runoff Area=0.165 ac 100.00% Impervious Runoff Depth>1.30"
Tc=6.0 min CN=98 Runoff=0.24 cfs 0.018 af

Subcatchment 4S: Subarea 4 Runoff Area=0.117 ac 0.00% Impervious Runoff Depth>0.83"
Tc=6.0 min CN=92 Runoff=0.12 cfs 0.008 af

Subcatchment 5S: Subarea 5 Runoff Area=0.118 ac 0.00% Impervious Runoff Depth>0.83"
Tc=6.0 min CN=92 Runoff=0.12 cfs 0.008 af

Subcatchment 6S: Subarea 6 Runoff Area=0.077 ac 2.60% Impervious Runoff Depth>0.30"
Tc=6.0 min CN=80 Runoff=0.02 cfs 0.002 af

Reach 1R: CB on Elm/Analysis Pt A Inflow=0.80 cfs 0.058 af
Outflow=0.80 cfs 0.058 af

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=0.12 cfs 0.008 af
Outflow=0.12 cfs 0.008 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.12 cfs 0.008 af
Outflow=0.12 cfs 0.008 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.02 cfs 0.002 af
Outflow=0.02 cfs 0.002 af

Pond 1P: CB in south parking area Peak Elev=8.57' Inflow=0.21 cfs 0.014 af
Outflow=0.21 cfs 0.014 af

Pond 2P: CB at loading dock Peak Elev=8.76' Inflow=0.80 cfs 0.058 af
Outflow=0.80 cfs 0.058 af

Total Runoff Area = 0.960 ac Runoff Volume = 0.076 af Average Runoff Depth = 0.95"
43.85% Pervious = 0.421 ac 56.15% Impervious = 0.539 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.246 ac 54.88% Impervious Runoff Depth>1.86"
Tc=6.0 min CN=90 Runoff=0.56 cfs 0.038 af

Subcatchment 2S: Subarea 2 Runoff Area=0.237 ac 100.00% Impervious Runoff Depth>2.59"
Tc=6.0 min CN=98 Runoff=0.67 cfs 0.051 af

Subcatchment 3S: Subarea 3 Runoff Area=0.165 ac 100.00% Impervious Runoff Depth>2.59"
Tc=6.0 min CN=98 Runoff=0.47 cfs 0.036 af

Subcatchment 4S: Subarea 4 Runoff Area=0.117 ac 0.00% Impervious Runoff Depth>2.04"
Tc=6.0 min CN=92 Runoff=0.28 cfs 0.020 af

Subcatchment 5S: Subarea 5 Runoff Area=0.118 ac 0.00% Impervious Runoff Depth>2.04"
Tc=6.0 min CN=92 Runoff=0.29 cfs 0.020 af

Subcatchment 6S: Subarea 6 Runoff Area=0.077 ac 2.60% Impervious Runoff Depth>1.15"
Tc=6.0 min CN=80 Runoff=0.11 cfs 0.007 af

Reach 1R: CB on Elm/Analysis Pt A Inflow=1.70 cfs 0.125 af
Outflow=1.70 cfs 0.125 af

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=0.28 cfs 0.020 af
Outflow=0.28 cfs 0.020 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.29 cfs 0.020 af
Outflow=0.29 cfs 0.020 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.11 cfs 0.007 af
Outflow=0.11 cfs 0.007 af

Pond 1P: CB in south parking area Peak Elev=8.75' Inflow=0.56 cfs 0.038 af
Outflow=0.56 cfs 0.038 af

Pond 2P: CB at loading dock Peak Elev=9.55' Inflow=1.70 cfs 0.125 af
Outflow=1.70 cfs 0.125 af

Total Runoff Area = 0.960 ac Runoff Volume = 0.172 af Average Runoff Depth = 2.15"
43.85% Pervious = 0.421 ac 56.15% Impervious = 0.539 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.246 ac 54.88% Impervious Runoff Depth>3.39"
Tc=6.0 min CN=90 Runoff=0.98 cfs 0.069 af

Subcatchment 2S: Subarea 2 Runoff Area=0.237 ac 100.00% Impervious Runoff Depth>4.15"
Tc=6.0 min CN=98 Runoff=1.06 cfs 0.082 af

Subcatchment 3S: Subarea 3 Runoff Area=0.165 ac 100.00% Impervious Runoff Depth>4.15"
Tc=6.0 min CN=98 Runoff=0.74 cfs 0.057 af

Subcatchment 4S: Subarea 4 Runoff Area=0.117 ac 0.00% Impervious Runoff Depth>3.59"
Tc=6.0 min CN=92 Runoff=0.49 cfs 0.035 af

Subcatchment 5S: Subarea 5 Runoff Area=0.118 ac 0.00% Impervious Runoff Depth>3.59"
Tc=6.0 min CN=92 Runoff=0.49 cfs 0.035 af

Subcatchment 6S: Subarea 6 Runoff Area=0.077 ac 2.60% Impervious Runoff Depth>2.46"
Tc=6.0 min CN=80 Runoff=0.23 cfs 0.016 af

Reach 1R: CB on Elm/Analysis Pt A Inflow=2.78 cfs 0.208 af
Outflow=2.78 cfs 0.208 af

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=0.49 cfs 0.035 af
Outflow=0.49 cfs 0.035 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.49 cfs 0.035 af
Outflow=0.49 cfs 0.035 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.23 cfs 0.016 af
Outflow=0.23 cfs 0.016 af

Pond 1P: CB in south parking area Peak Elev=8.98' Inflow=0.98 cfs 0.069 af
Outflow=0.98 cfs 0.069 af

Pond 2P: CB at loading dock Peak Elev=11.27' Inflow=2.78 cfs 0.208 af
Outflow=2.78 cfs 0.208 af

Total Runoff Area = 0.960 ac Runoff Volume = 0.294 af Average Runoff Depth = 3.68"
43.85% Pervious = 0.421 ac 56.15% Impervious = 0.539 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.246 ac 54.88% Impervious Runoff Depth>4.12"
Tc=6.0 min CN=90 Runoff=1.18 cfs 0.084 af

Subcatchment 2S: Subarea 2 Runoff Area=0.237 ac 100.00% Impervious Runoff Depth>4.87"
Tc=6.0 min CN=98 Runoff=1.25 cfs 0.096 af

Subcatchment 3S: Subarea 3 Runoff Area=0.165 ac 100.00% Impervious Runoff Depth>4.87"
Tc=6.0 min CN=98 Runoff=0.87 cfs 0.067 af

Subcatchment 4S: Subarea 4 Runoff Area=0.117 ac 0.00% Impervious Runoff Depth>4.33"
Tc=6.0 min CN=92 Runoff=0.58 cfs 0.042 af

Subcatchment 5S: Subarea 5 Runoff Area=0.118 ac 0.00% Impervious Runoff Depth>4.33"
Tc=6.0 min CN=92 Runoff=0.58 cfs 0.043 af

Subcatchment 6S: Subarea 6 Runoff Area=0.077 ac 2.60% Impervious Runoff Depth>3.12"
Tc=6.0 min CN=80 Runoff=0.29 cfs 0.020 af

Reach 1R: CB on Elm/Analysis Pt A Inflow=3.29 cfs 0.248 af
Outflow=3.29 cfs 0.248 af

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=0.58 cfs 0.042 af
Outflow=0.58 cfs 0.042 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.58 cfs 0.043 af
Outflow=0.58 cfs 0.043 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.29 cfs 0.020 af
Outflow=0.29 cfs 0.020 af

Pond 1P: CB in south parking area Peak Elev=9.13' Inflow=1.18 cfs 0.084 af
Outflow=1.18 cfs 0.084 af

Pond 2P: CB at loading dock Peak Elev=12.36' Inflow=3.29 cfs 0.248 af
Outflow=3.29 cfs 0.248 af

Total Runoff Area = 0.960 ac Runoff Volume = 0.352 af Average Runoff Depth = 4.41"
43.85% Pervious = 0.421 ac 56.15% Impervious = 0.539 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.246 ac 54.88% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=90 Runoff=1.47 cfs 0.107 af

Subcatchment 2S: Subarea 2 Runoff Area=0.237 ac 100.00% Impervious Runoff Depth>5.97"
Tc=6.0 min CN=98 Runoff=1.52 cfs 0.118 af

Subcatchment 3S: Subarea 3 Runoff Area=0.165 ac 100.00% Impervious Runoff Depth>5.97"
Tc=6.0 min CN=98 Runoff=1.06 cfs 0.082 af

Subcatchment 4S: Subarea 4 Runoff Area=0.117 ac 0.00% Impervious Runoff Depth>5.43"
Tc=6.0 min CN=92 Runoff=0.72 cfs 0.053 af

Subcatchment 5S: Subarea 5 Runoff Area=0.118 ac 0.00% Impervious Runoff Depth>5.43"
Tc=6.0 min CN=92 Runoff=0.72 cfs 0.053 af

Subcatchment 6S: Subarea 6 Runoff Area=0.077 ac 2.60% Impervious Runoff Depth>4.15"
Tc=6.0 min CN=80 Runoff=0.39 cfs 0.027 af

Reach 1R: CB on Elm/Analysis Pt A Inflow=4.05 cfs 0.307 af
Outflow=4.05 cfs 0.307 af

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=0.72 cfs 0.053 af
Outflow=0.72 cfs 0.053 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.72 cfs 0.053 af
Outflow=0.72 cfs 0.053 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.39 cfs 0.027 af
Outflow=0.39 cfs 0.027 af

Pond 1P: CB in south parking area Peak Elev=9.41' Inflow=1.47 cfs 0.107 af
Outflow=1.47 cfs 0.107 af

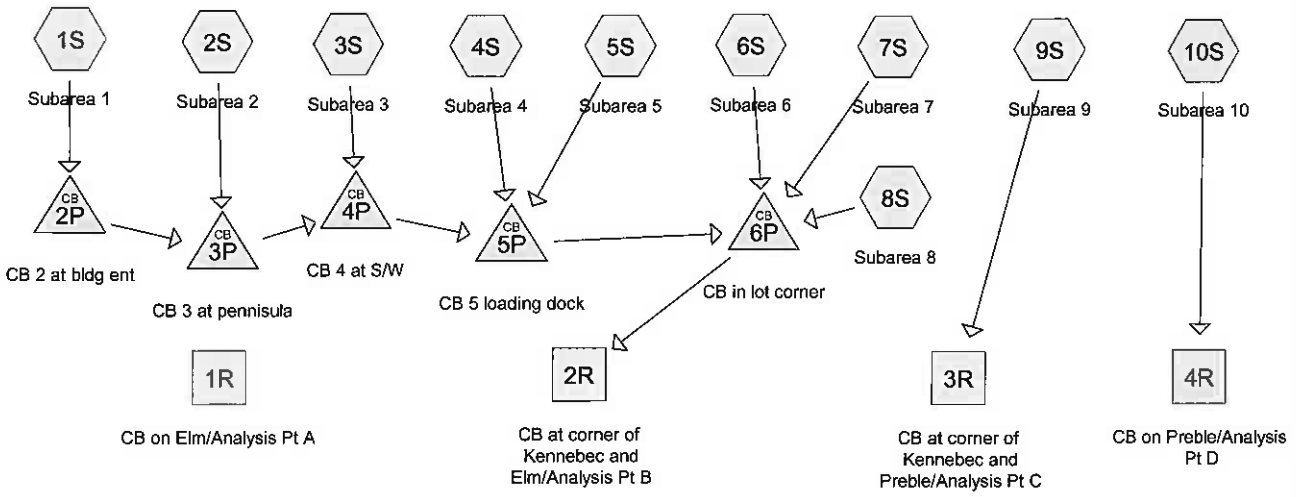
Pond 2P: CB at loading dock Peak Elev=14.33' Inflow=4.05 cfs 0.307 af
Outflow=4.05 cfs 0.307 af

Total Runoff Area = 0.960 ac Runoff Volume = 0.440 af Average Runoff Depth = 5.50"
43.85% Pervious = 0.421 ac 56.15% Impervious = 0.539 ac

APPENDIX D

Post-Development Stormwater Calculations

City of Portland
117 Preble Street
Portland, Maine



Subcat Reach Pond Link

Routing Diagram for Schlotterbeck & Foss Post
Prepared by Ransom Consulting, Printed 10/5/2015

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.127 ac 79.53% Impervious Runoff Depth>0.47"
Tc=6.0 min CN=94 Runoff=0.07 cfs 0.005 af

Subcatchment 2S: Subarea 2 Runoff Area=0.117 ac 80.34% Impervious Runoff Depth>0.47"
Tc=6.0 min CN=94 Runoff=0.07 cfs 0.005 af

Subcatchment 3S: Subarea 3 Runoff Area=0.046 ac 50.00% Impervious Runoff Depth>0.26"
Tc=6.0 min CN=89 Runoff=0.01 cfs 0.001 af

Subcatchment 4S: Subarea 4 Runoff Area=0.144 ac 0.00% Impervious Runoff Depth>0.23"
Tc=6.0 min CN=88 Runoff=0.04 cfs 0.003 af

Subcatchment 5S: Subarea 5 Runoff Area=0.144 ac 100.00% Impervious Runoff Depth>0.75"
Tc=6.0 min CN=98 Runoff=0.13 cfs 0.009 af

Subcatchment 6S: Subarea 6 Runoff Area=0.047 ac 48.94% Impervious Runoff Depth>0.26"
Tc=6.0 min CN=89 Runoff=0.01 cfs 0.001 af

Subcatchment 7S: Subarea 7 Runoff Area=0.091 ac 80.22% Impervious Runoff Depth>0.47"
Tc=0.0 min CN=94 Runoff=0.06 cfs 0.004 af

Subcatchment 8S: Subarea 8 Runoff Area=0.073 ac 82.19% Impervious Runoff Depth>0.53"
Tc=0.0 min CN=95 Runoff=0.06 cfs 0.003 af

Subcatchment 9S: Subarea 9 Runoff Area=0.050 ac 40.00% Impervious Runoff Depth>0.20"
Tc=0.0 min CN=87 Runoff=0.01 cfs 0.001 af

Subcatchment 10S: Subarea 10 Runoff Area=0.096 ac 14.58% Impervious Runoff Depth>0.12"
Tc=0.0 min CN=83 Runoff=0.01 cfs 0.001 af

Reach 1R: CB on Elm/Analysis Pt A

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=0.40 cfs 0.030 af
Outflow=0.40 cfs 0.030 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.01 cfs 0.001 af
Outflow=0.01 cfs 0.001 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.01 cfs 0.001 af
Outflow=0.01 cfs 0.001 af

Pond 2P: CB 2 at bldg ent Peak Elev=7.97' Inflow=0.07 cfs 0.005 af
Outflow=0.07 cfs 0.005 af

Pond 3P: CB 3 at pennisula Peak Elev=7.62' Inflow=0.14 cfs 0.010 af
Outflow=0.14 cfs 0.010 af

Pond 4P: CB 4 at S/W Peak Elev=7.35' Inflow=0.16 cfs 0.011 af
Outflow=0.16 cfs 0.011 af

Pond 5P: CB 5 loading dock Peak Elev=7.12' Inflow=0.32 cfs 0.022 af
Outflow=0.32 cfs 0.022 af

Pond 6P: CB in lot corner Peak Elev=6.70' Inflow=0.40 cfs 0.030 af
Outflow=0.40 cfs 0.030 af

Total Runoff Area = 0.935 ac Runoff Volume = 0.032 af Average Runoff Depth = 0.41"
40.96% Pervious = 0.383 ac 59.04% Impervious = 0.552 ac

Summary for Subcatchment 1S: Subarea 1

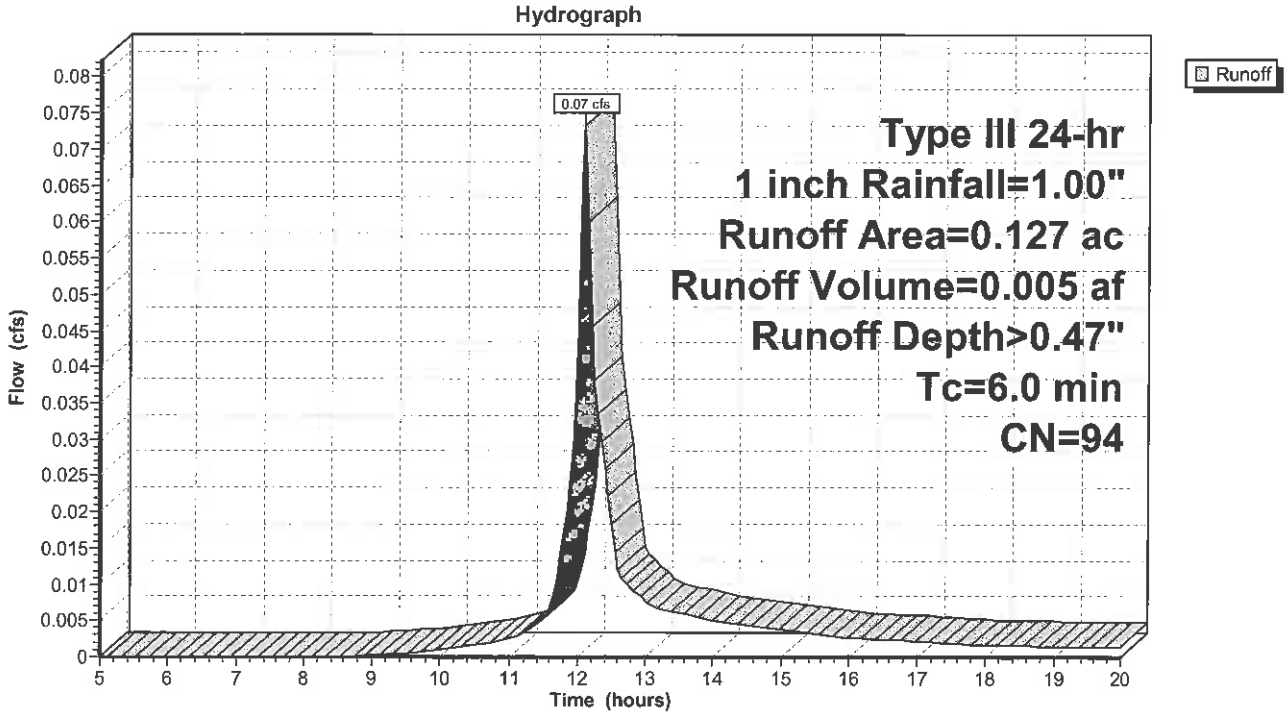
Runoff = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.101	98	Paved parking, HSG D
0.026	80	>75% Grass cover, Good, HSG D
0.127	94	Weighted Average
0.026		20.47% Pervious Area
0.101		79.53% Impervious Area

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

Subcatchment 1S: Subarea 1



Summary for Subcatchment 2S: Subarea 2

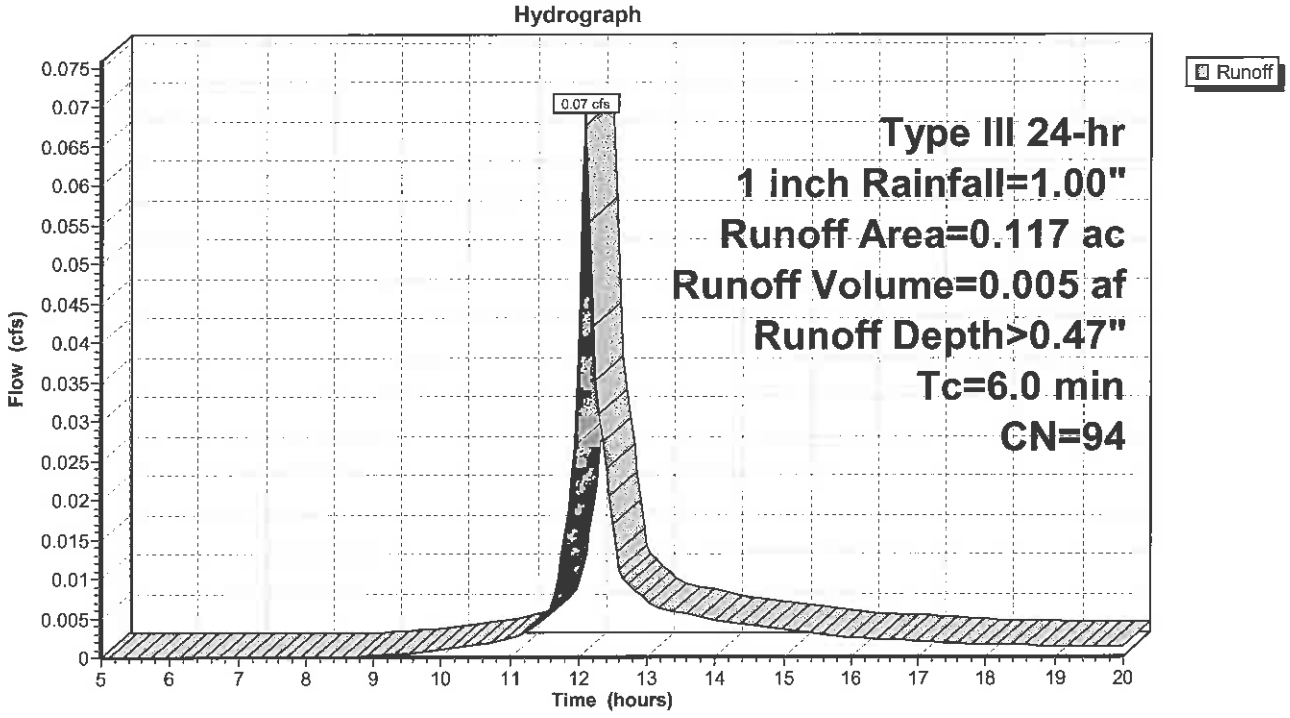
Runoff = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.094	98	Paved parking, HSG D
0.023	80	>75% Grass cover, Good, HSG D
0.117	94	Weighted Average
0.023		19.66% Pervious Area
0.094		80.34% Impervious Area

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

Subcatchment 2S: Subarea 2



Summary for Subcatchment 3S: Subarea 3

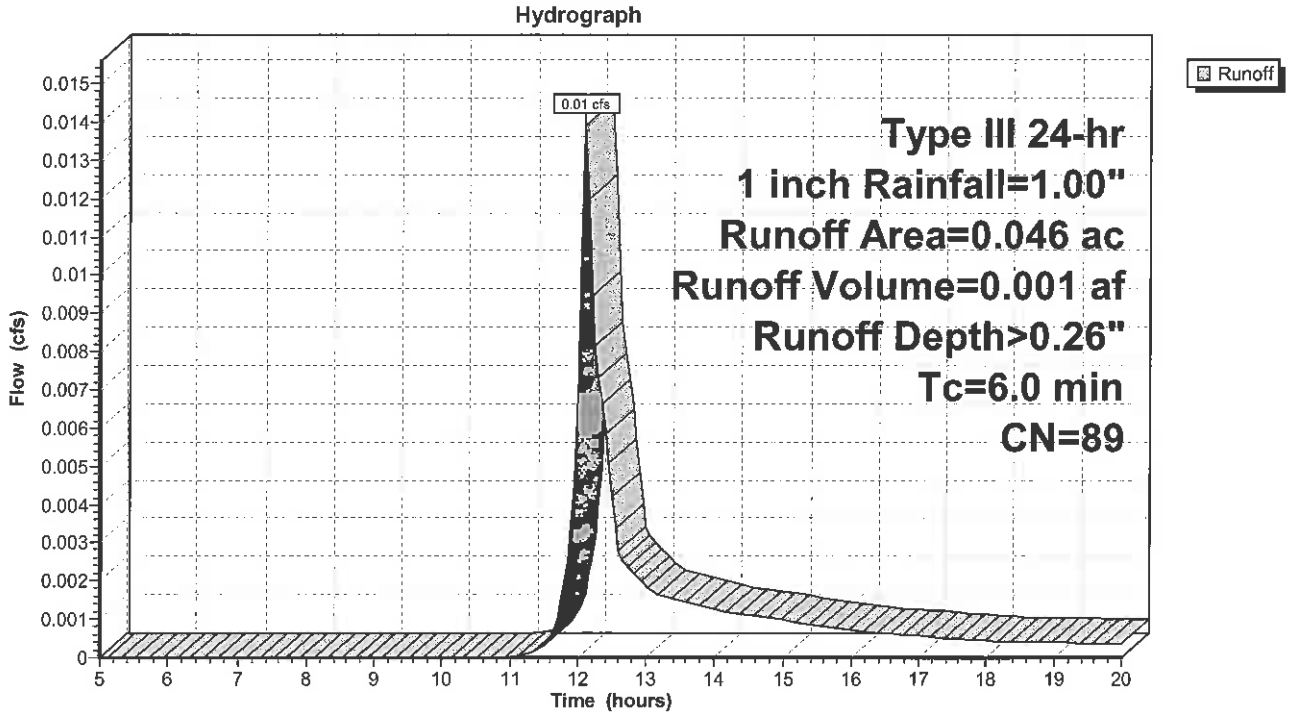
Runoff = 0.01 cfs @ 12.10 hrs, Volume= 0.001 af, Depth> 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.023	98	Roofs, HSG D
0.023	80	>75% Grass cover, Good, HSG D
0.046	89	Weighted Average
0.023		50.00% Pervious Area
0.023		50.00% Impervious Area

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

Subcatchment 3S: Subarea 3



Summary for Subcatchment 4S: Subarea 4

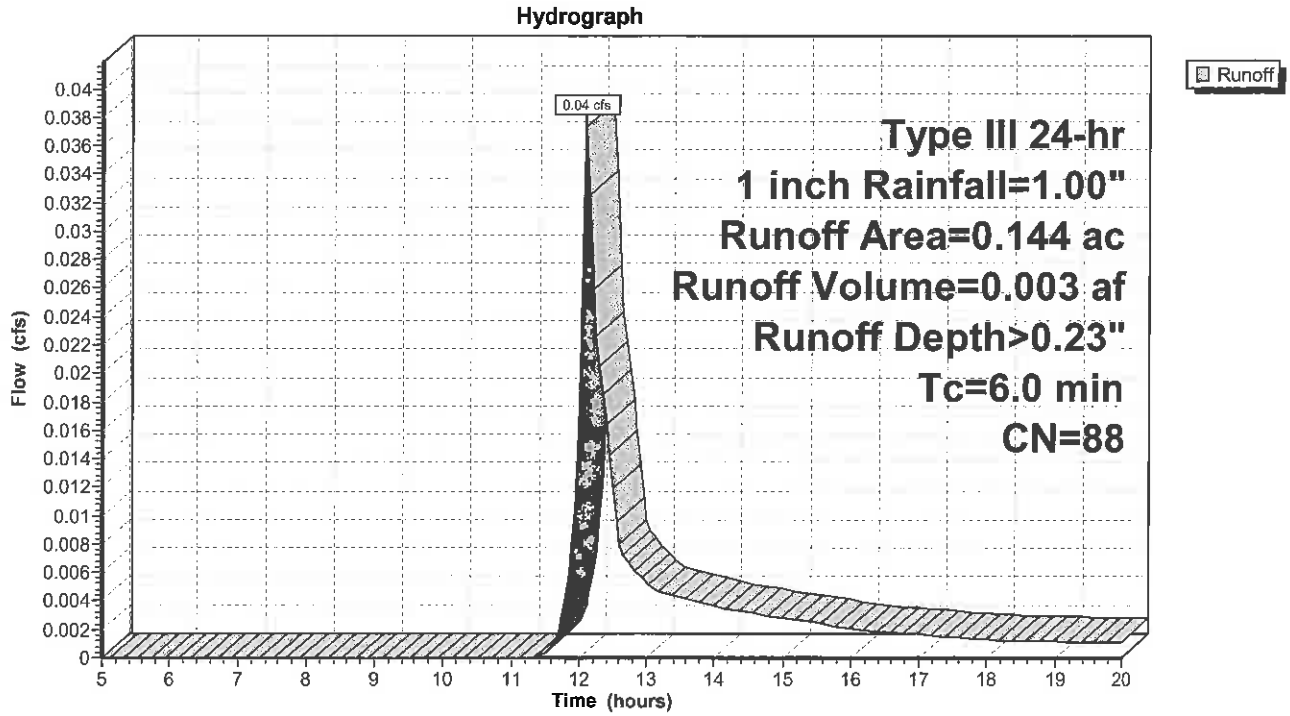
Runoff = 0.04 cfs @ 12.10 hrs, Volume= 0.003 af, Depth> 0.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.075	96	Gravel surface, HSG D
0.069	80	>75% Grass cover, Good, HSG D
0.144	88	Weighted Average
0.144		100.00% Pervious Area

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

Subcatchment 4S: Subarea 4



Summary for Subcatchment 5S: Subarea 5

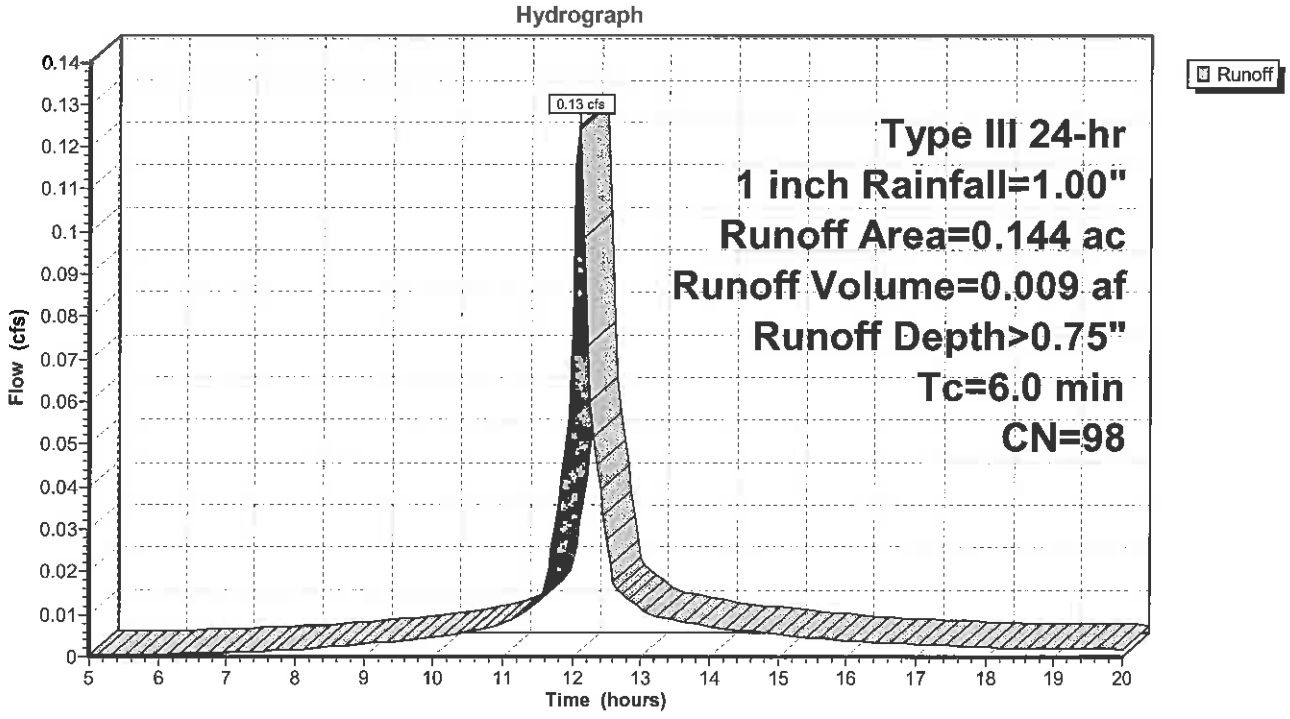
Runoff = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af, Depth> 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.144	98	Unconnected roofs, HSG D
0.144		100.00% Impervious Area
0.144		100.00% Unconnected

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

Subcatchment 5S: Subarea 5



Summary for Subcatchment 6S: Subarea 6

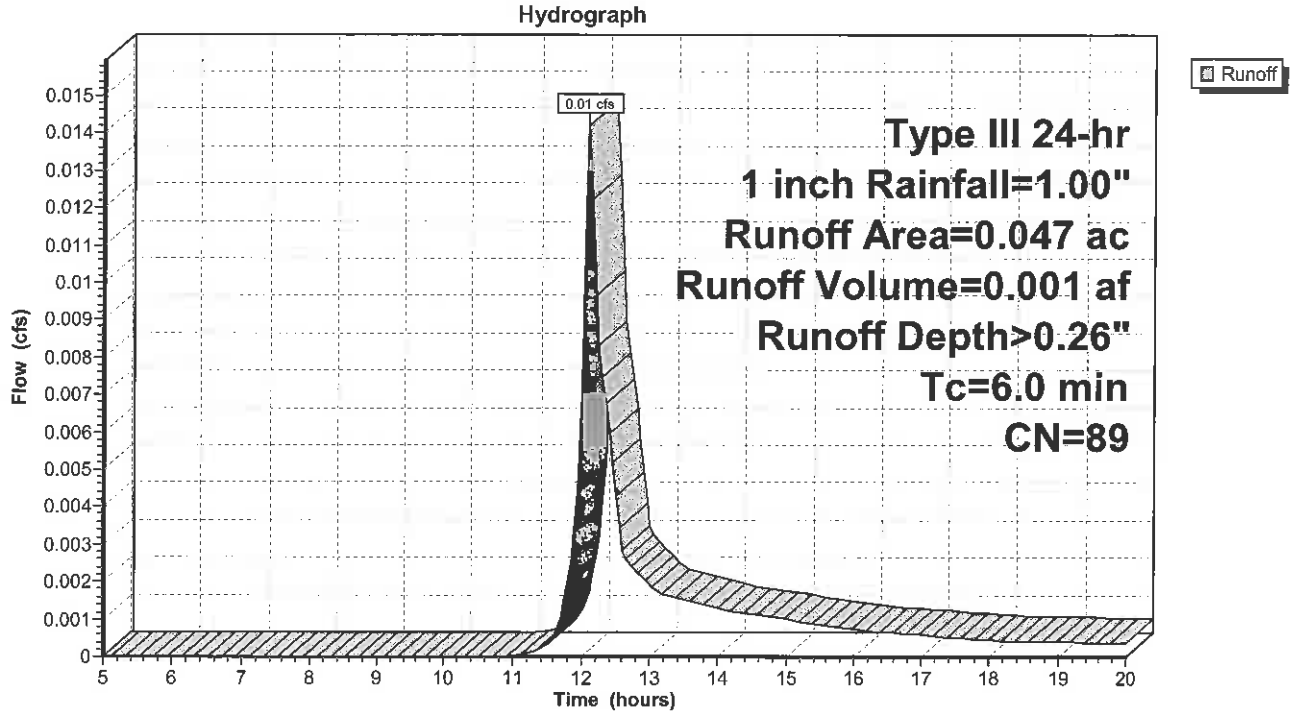
Runoff = 0.01 cfs @ 12.10 hrs, Volume= 0.001 af, Depth> 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.024	80	>75% Grass cover, Good, HSG D
0.023	98	Paved parking, HSG D
0.047	89	Weighted Average
0.024		51.06% Pervious Area
0.023		48.94% Impervious Area

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

Subcatchment 6S: Subarea 6



Summary for Subcatchment 7S: Subarea 7

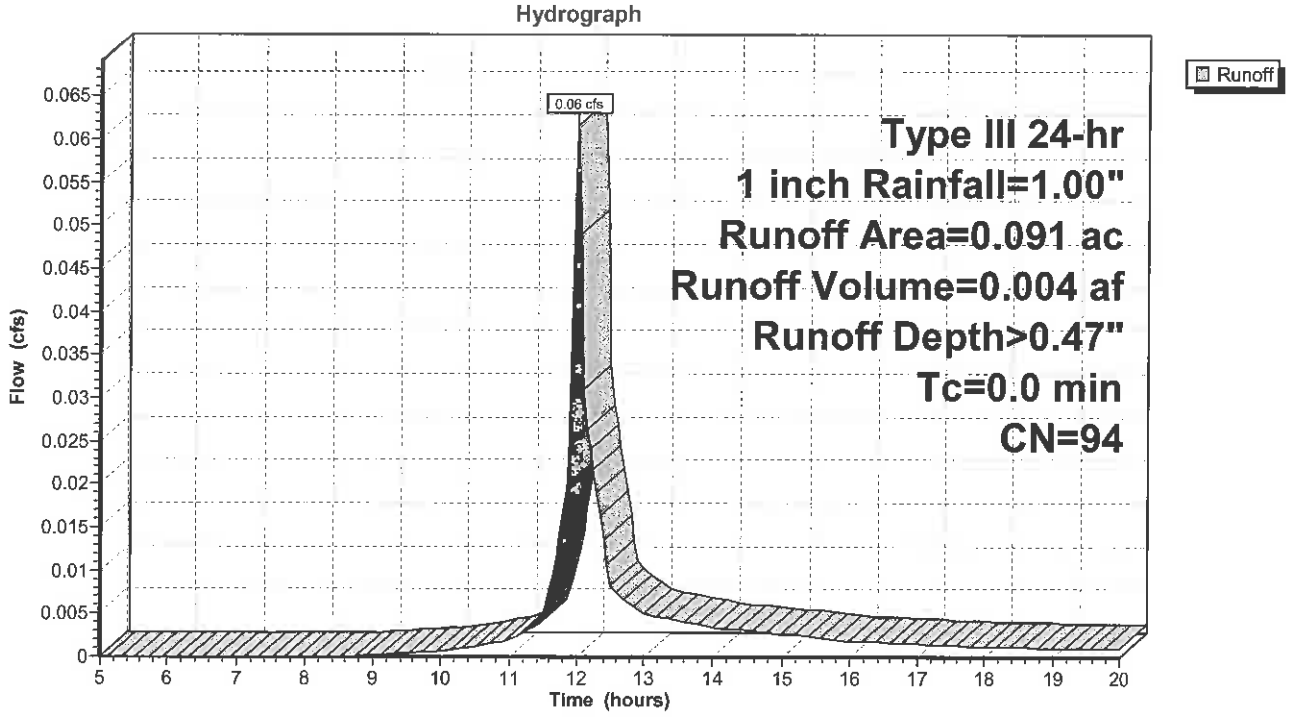
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.06 cfs @ 12.00 hrs, Volume= 0.004 af, Depth> 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.073	98	Paved parking, HSG D
0.018	80	>75% Grass cover, Good, HSG D
0.091	94	Weighted Average
0.018		19.78% Pervious Area
0.073		80.22% Impervious Area

Subcatchment 7S: Subarea 7



Summary for Subcatchment 8S: Subarea 8

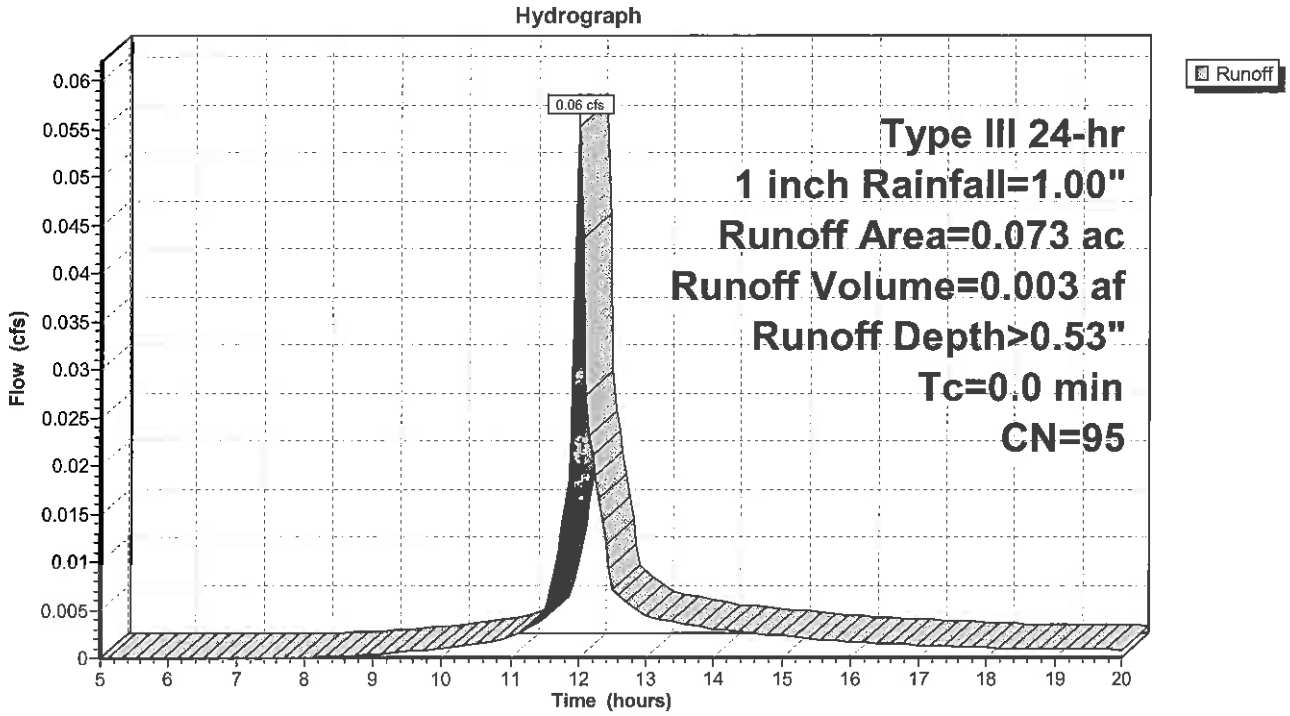
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.06 cfs @ 12.00 hrs, Volume= 0.003 af, Depth> 0.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.060	98	Paved parking, HSG D
0.013	80	>75% Grass cover, Good, HSG D
0.073	95	Weighted Average
0.013		17.81% Pervious Area
0.060		82.19% Impervious Area

Subcatchment 8S: Subarea 8



Summary for Subcatchment 9S: Subarea 9

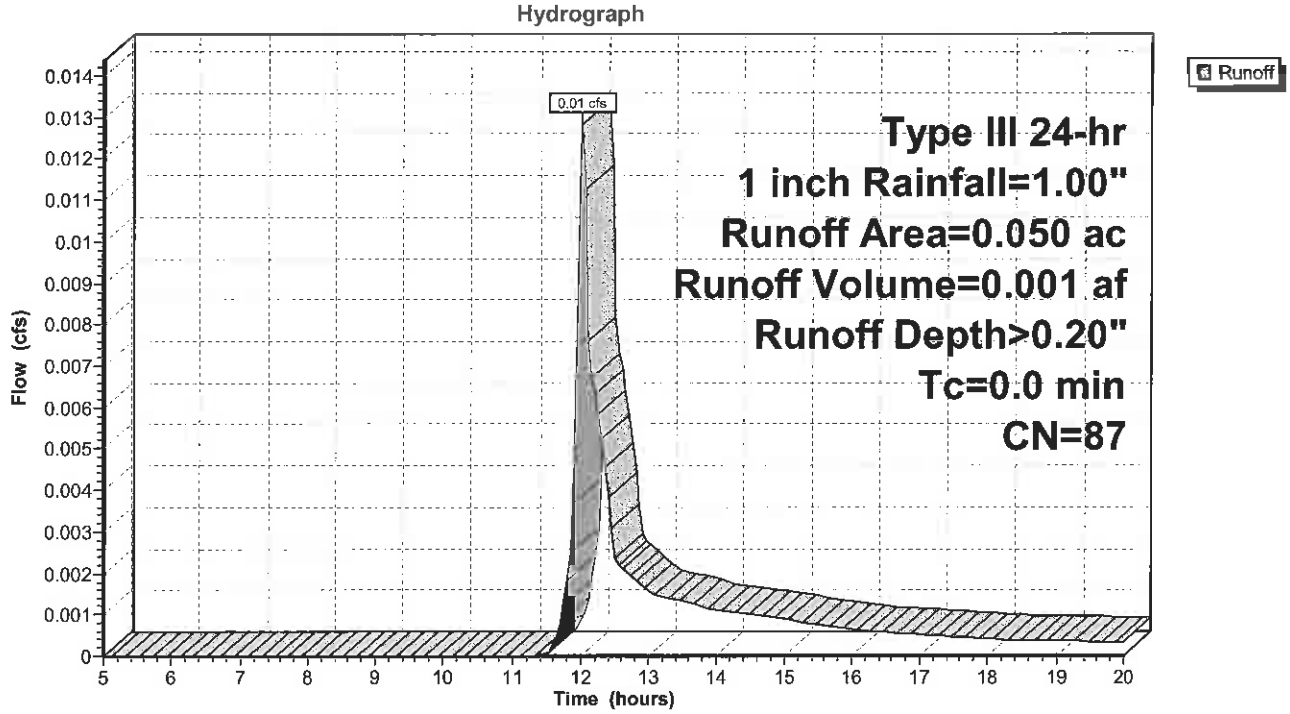
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.01 cfs @ 12.01 hrs, Volume= 0.001 af, Depth> 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.020	98	Paved parking, HSG D
0.030	80	>75% Grass cover, Good, HSG D
0.050	87	Weighted Average
0.030		60.00% Pervious Area
0.020		40.00% Impervious Area

Subcatchment 9S: Subarea 9



Summary for Subcatchment 10S: Subarea 10

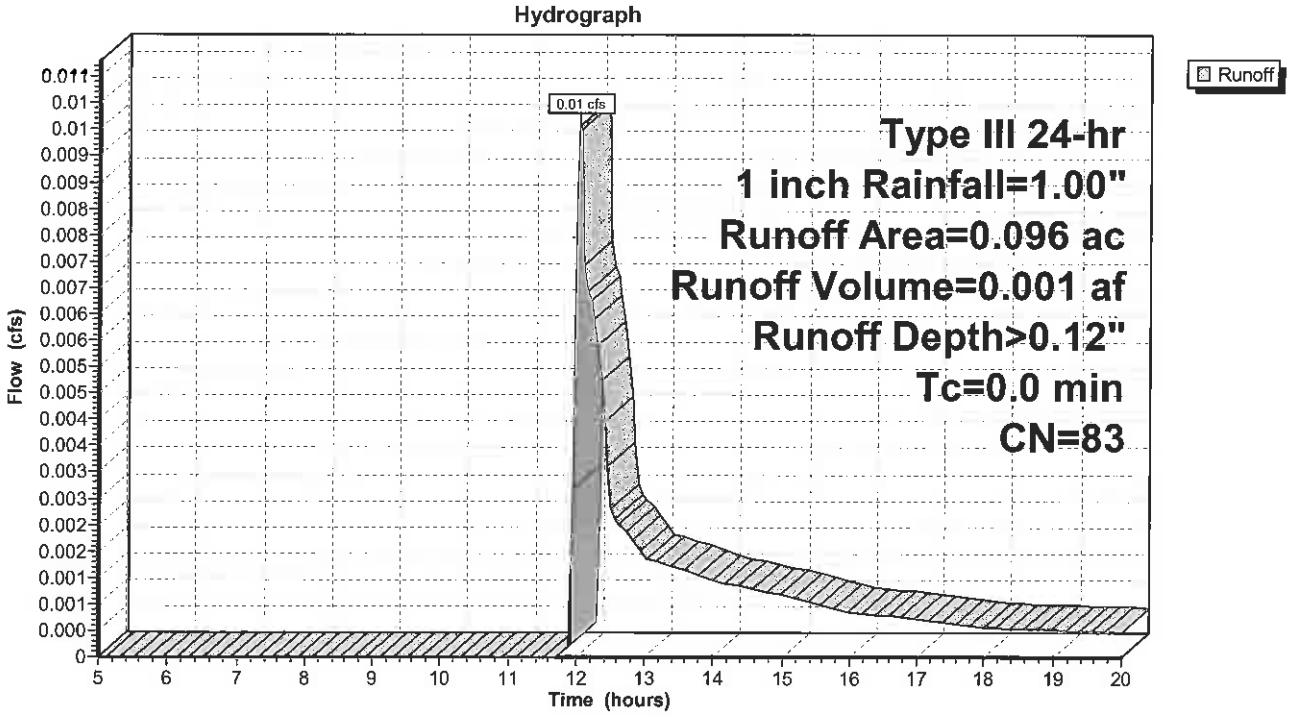
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.01 cfs @ 12.04 hrs, Volume= 0.001 af, Depth> 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 inch Rainfall=1.00"

Area (ac)	CN	Description
0.014	98	Paved parking, HSG D
0.082	80	>75% Grass cover, Good, HSG D
0.096	83	Weighted Average
0.082		85.42% Pervious Area
0.014		14.58% Impervious Area

Subcatchment 10S: Subarea 10



Summary for Reach 1R: CB on Elm/Analysis Pt A

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

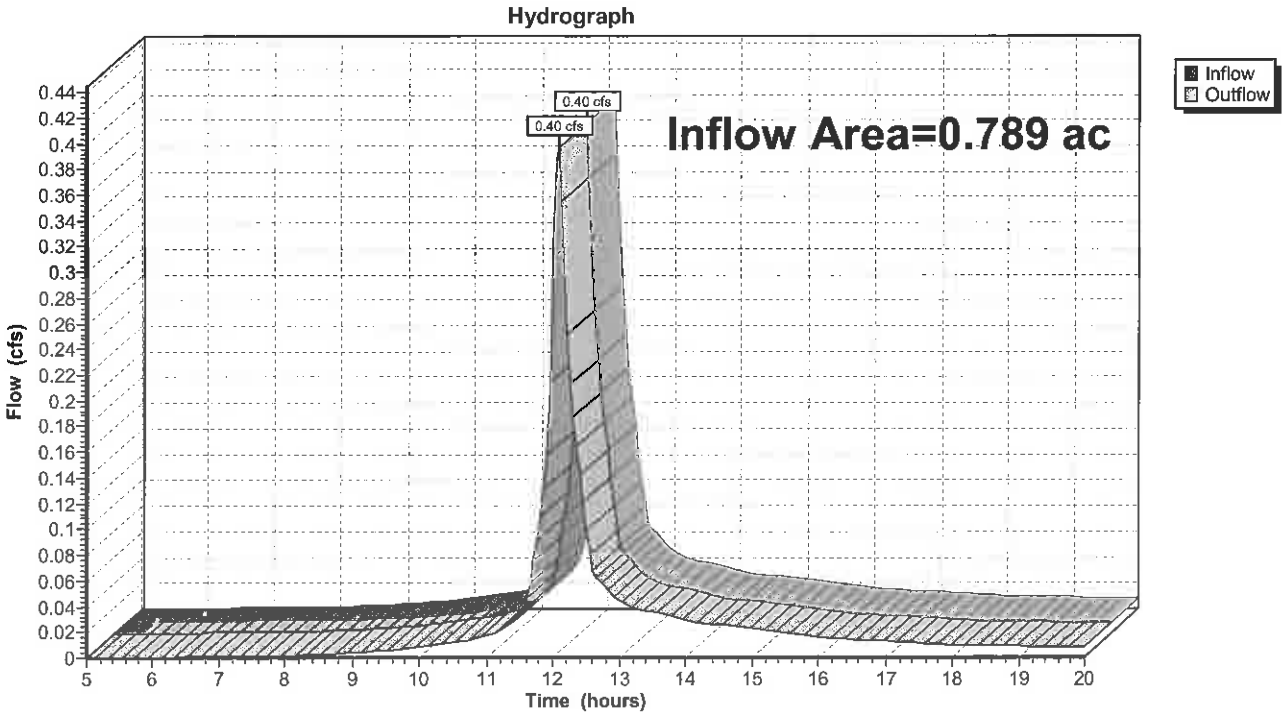
Summary for Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B

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

Inflow Area = 0.789 ac, 65.65% Impervious, Inflow Depth > 0.46" for 1 inch event
Inflow = 0.40 cfs @ 12.08 hrs, Volume= 0.030 af
Outflow = 0.40 cfs @ 12.08 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B



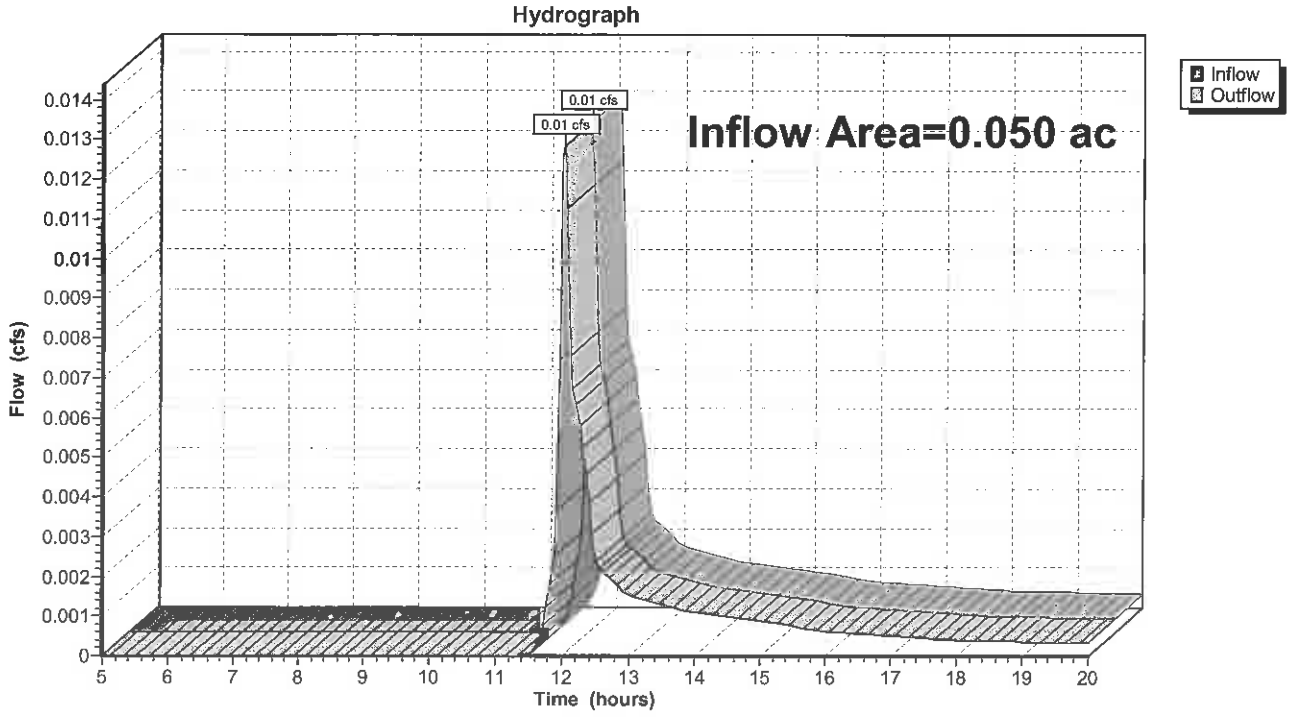
Summary for Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C

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

Inflow Area = 0.050 ac, 40.00% Impervious, Inflow Depth > 0.20" for 1 inch event
Inflow = 0.01 cfs @ 12.01 hrs, Volume= 0.001 af
Outflow = 0.01 cfs @ 12.01 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C



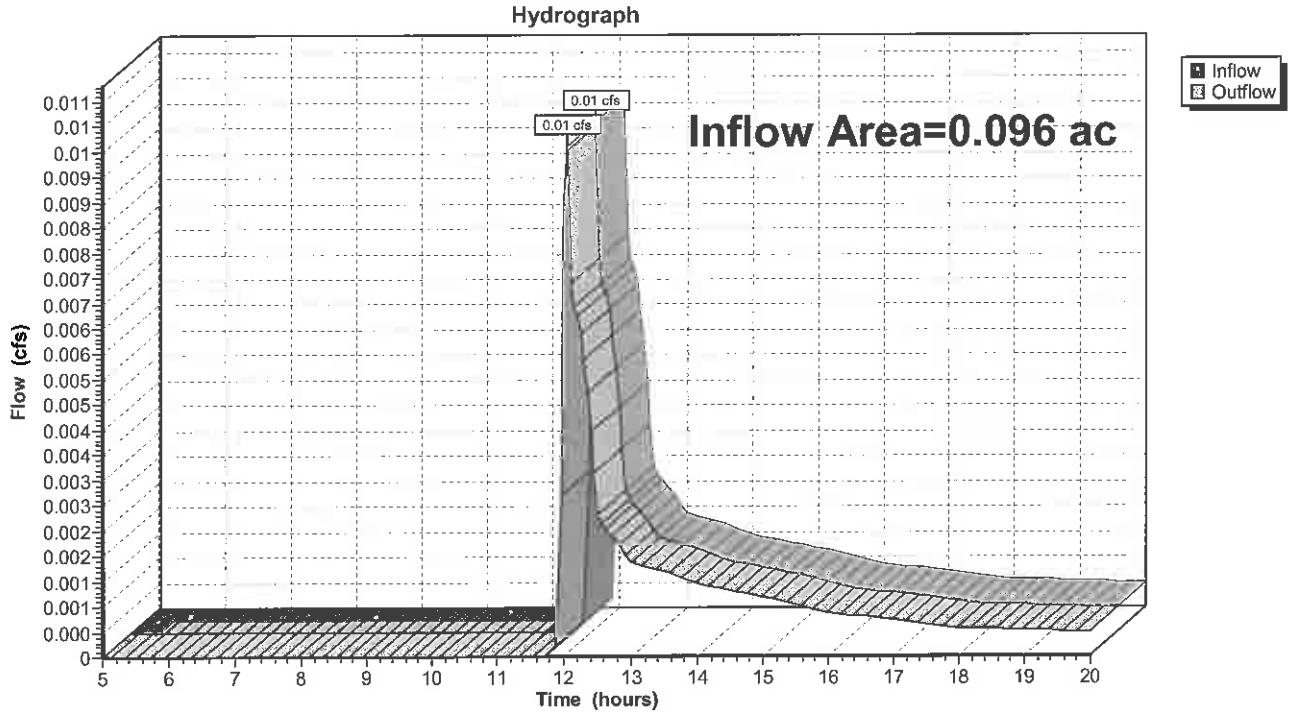
Summary for Reach 4R: CB on Preble/Analysis Pt D

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

Inflow Area = 0.096 ac, 14.58% Impervious, Inflow Depth > 0.12" for 1 inch event
Inflow = 0.01 cfs @ 12.04 hrs, Volume= 0.001 af
Outflow = 0.01 cfs @ 12.04 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 4R: CB on Preble/Analysis Pt D



Summary for Pond 2P: CB 2 at bldg ent

[57] Hint: Peaked at 7.97' (Flood elevation advised)

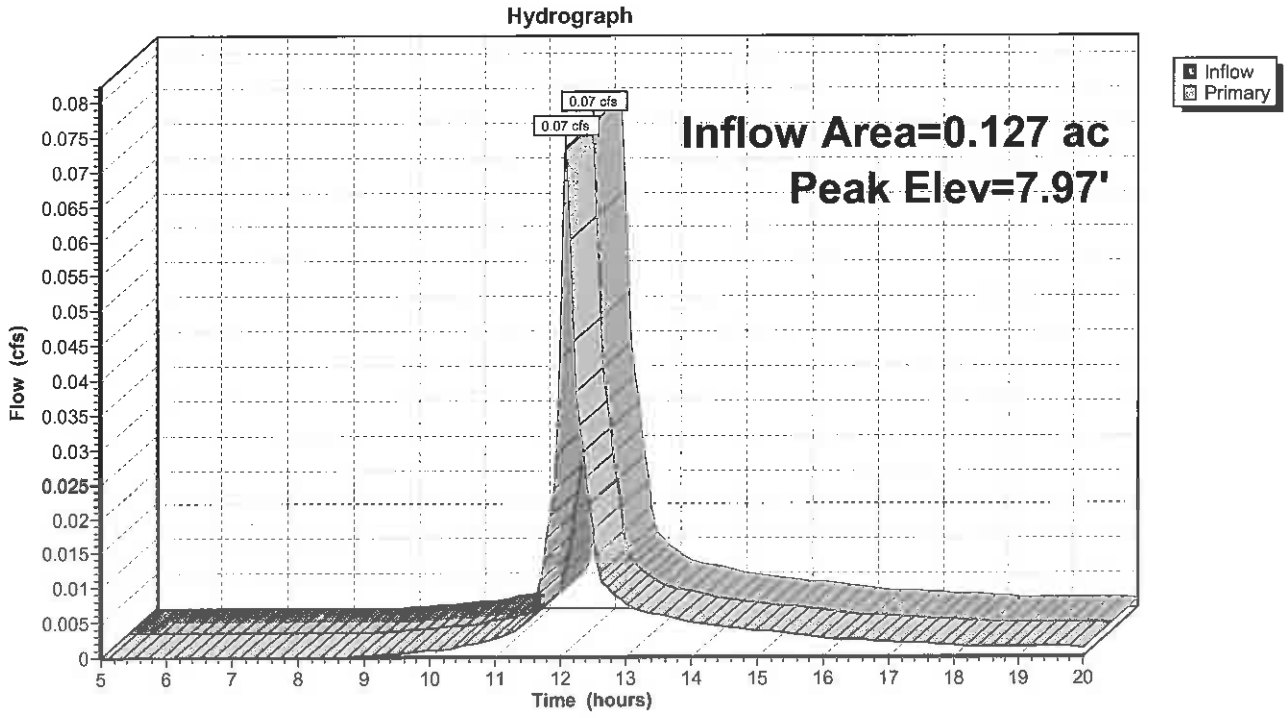
Inflow Area =	0.127 ac, 79.53% Impervious, Inflow Depth >	0.47"	for 1 inch event	
Inflow =	0.07 cfs @	12.09 hrs, Volume=	0.005 af	
Outflow =	0.07 cfs @	12.09 hrs, Volume=	0.005 af, Atten= 0%, Lag= 0.0 min	
Primary =	0.07 cfs @	12.09 hrs, Volume=	0.005 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 7.97' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.84'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.07 cfs @ 12.09 hrs HW=7.97' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.07 cfs @ 1.22 fps)

Pond 2P: CB 2 at bldg ent



Summary for Pond 3P: CB 3 at pennisula

[57] Hint: Peaked at 7.62' (Flood elevation advised)

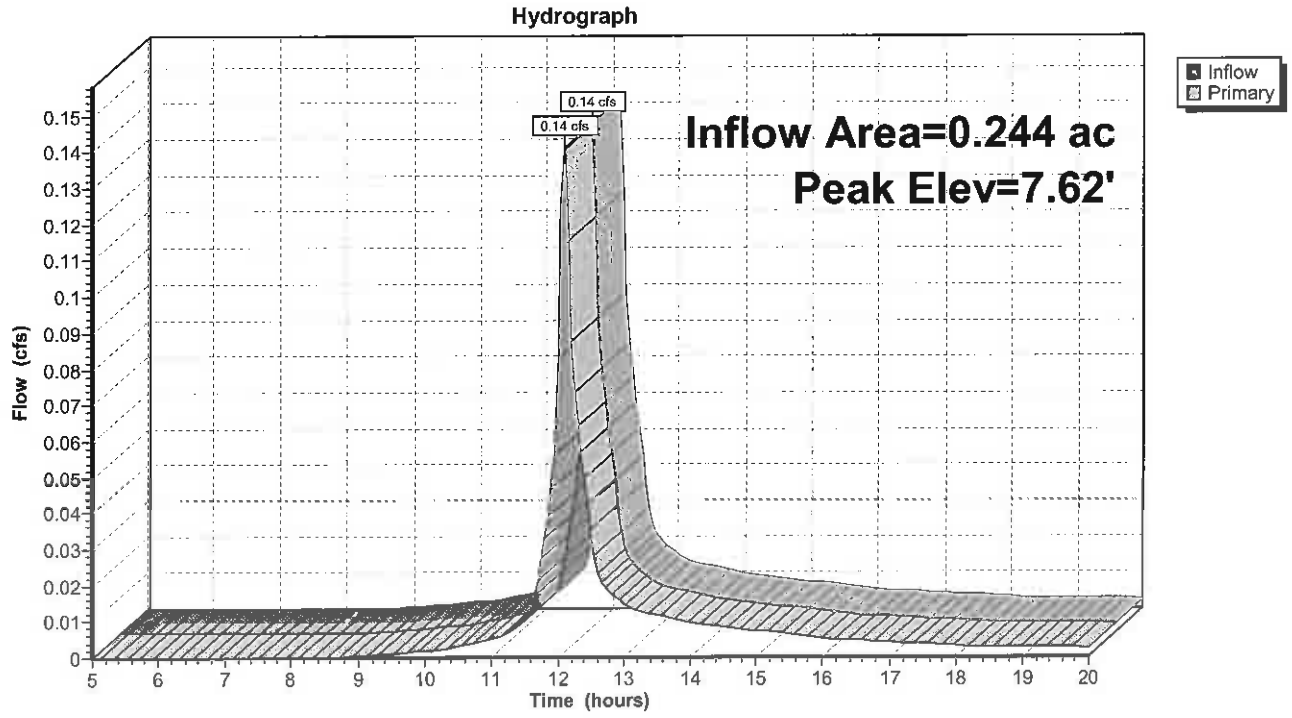
Inflow Area =	0.244 ac, 79.92% Impervious, Inflow Depth >	0.47"	for 1 inch event	
Inflow =	0.14 cfs @	12.09 hrs, Volume=	0.010 af	
Outflow =	0.14 cfs @	12.09 hrs, Volume=	0.010 af, Atten= 0%, Lag= 0.0 min	
Primary =	0.14 cfs @	12.09 hrs, Volume=	0.010 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 7.62' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.44'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.14 cfs @ 12.09 hrs HW=7.62' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.14 cfs @ 1.44 fps)

Pond 3P: CB 3 at pennisula



Summary for Pond 4P: CB 4 at S/W

[57] Hint: Peaked at 7.35' (Flood elevation advised)

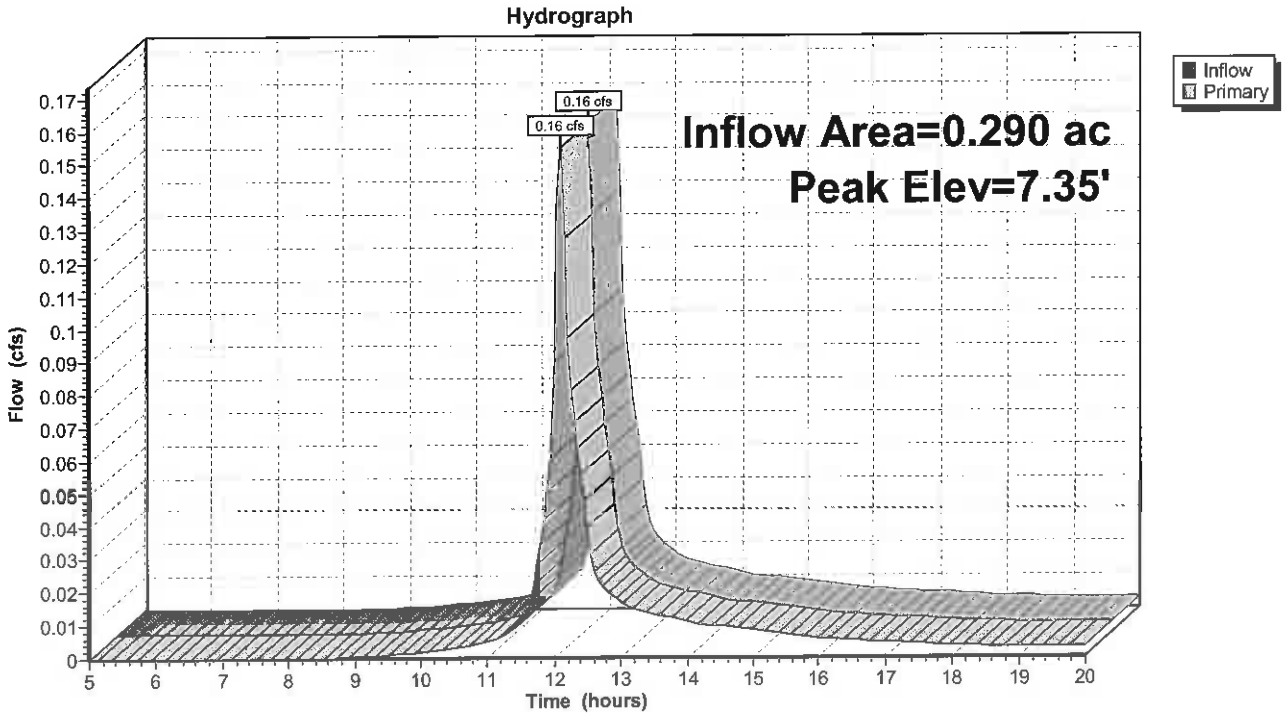
Inflow Area =	0.290 ac, 75.17% Impervious, Inflow Depth >	0.43"	for 1 inch event	
Inflow =	0.16 cfs @	12.09 hrs, Volume=	0.011 af	
Outflow =	0.16 cfs @	12.09 hrs, Volume=	0.011 af, Atten= 0%, Lag= 0.0 min	
Primary =	0.16 cfs @	12.09 hrs, Volume=	0.011 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 7.35' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.16'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.15 cfs @ 12.09 hrs HW=7.35' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.15 cfs @ 1.48 fps)

Pond 4P: CB 4 at S/W



Summary for Pond 5P: CB 5 loading dock

[57] Hint: Peaked at 7.12' (Flood elevation advised)

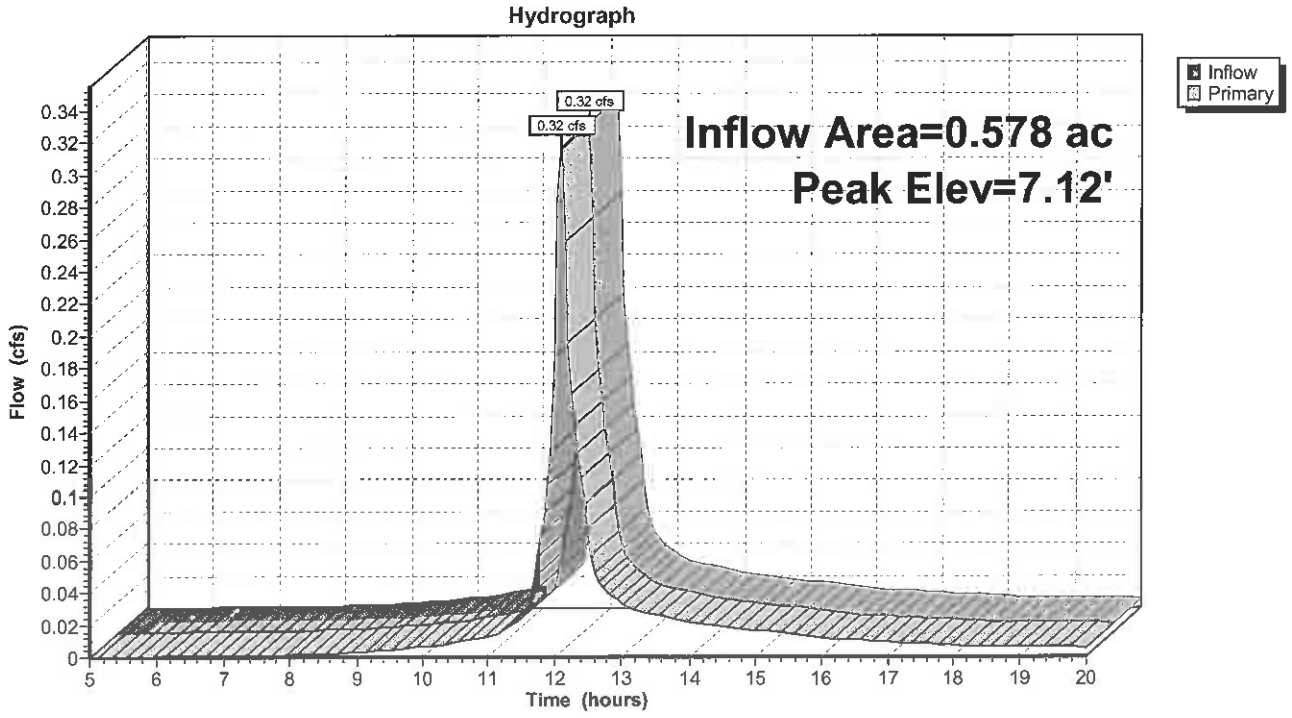
Inflow Area =	0.578 ac, 62.63% Impervious, Inflow Depth >	0.46"	for	1 inch event
Inflow =	0.32 cfs @ 12.09 hrs, Volume=	0.022 af		
Outflow =	0.32 cfs @ 12.09 hrs, Volume=	0.022 af, Atten= 0%, Lag= 0.0 min		
Primary =	0.32 cfs @ 12.09 hrs, Volume=	0.022 af		

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 7.12' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.84'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.31 cfs @ 12.09 hrs HW=7.11' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.31 cfs @ 1.78 fps)

Pond 5P: CB 5 loading dock



Summary for Pond 6P: CB in lot corner

[57] Hint: Peaked at 6.70' (Flood elevation advised)

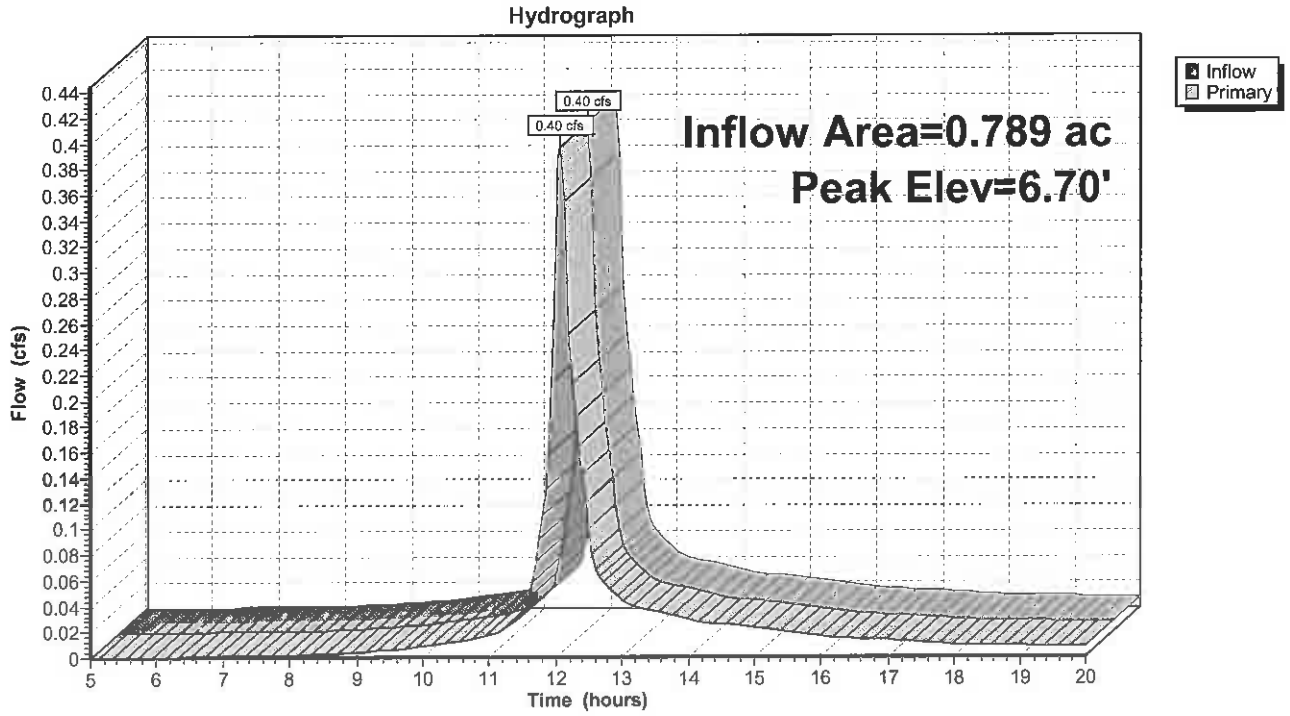
Inflow Area =	0.789 ac, 65.65% Impervious, Inflow Depth >	0.46"	for 1 inch event	
Inflow =	0.40 cfs @	12.08 hrs, Volume=	0.030 af	
Outflow =	0.40 cfs @	12.08 hrs, Volume=	0.030 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.40 cfs @	12.08 hrs, Volume=	0.030 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 6.70' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.39'	**12.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.39 cfs @ 12.08 hrs HW=6.70' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.39 cfs @ 1.89 fps)

Pond 6P: CB in lot corner



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.127 ac 79.53% Impervious Runoff Depth>0.96"
Tc=6.0 min CN=94 Runoff=0.15 cfs 0.010 af

Subcatchment 2S: Subarea 2 Runoff Area=0.117 ac 80.34% Impervious Runoff Depth>0.96"
Tc=6.0 min CN=94 Runoff=0.14 cfs 0.009 af

Subcatchment 3S: Subarea 3 Runoff Area=0.046 ac 50.00% Impervious Runoff Depth>0.65"
Tc=6.0 min CN=89 Runoff=0.04 cfs 0.003 af

Subcatchment 4S: Subarea 4 Runoff Area=0.144 ac 0.00% Impervious Runoff Depth>0.60"
Tc=6.0 min CN=88 Runoff=0.11 cfs 0.007 af

Subcatchment 5S: Subarea 5 Runoff Area=0.144 ac 100.00% Impervious Runoff Depth>1.30"
Tc=6.0 min CN=98 Runoff=0.21 cfs 0.016 af

Subcatchment 6S: Subarea 6 Runoff Area=0.047 ac 48.94% Impervious Runoff Depth>0.65"
Tc=6.0 min CN=89 Runoff=0.04 cfs 0.003 af

Subcatchment 7S: Subarea 7 Runoff Area=0.091 ac 80.22% Impervious Runoff Depth>0.97"
Tc=0.0 min CN=94 Runoff=0.13 cfs 0.007 af

Subcatchment 8S: Subarea 8 Runoff Area=0.073 ac 82.19% Impervious Runoff Depth>1.04"
Tc=0.0 min CN=95 Runoff=0.11 cfs 0.006 af

Subcatchment 9S: Subarea 9 Runoff Area=0.050 ac 40.00% Impervious Runoff Depth>0.56"
Tc=0.0 min CN=87 Runoff=0.04 cfs 0.002 af

Subcatchment 10S: Subarea 10 Runoff Area=0.096 ac 14.58% Impervious Runoff Depth>0.40"
Tc=0.0 min CN=83 Runoff=0.05 cfs 0.003 af

Reach 1R: CB on Elm/Analysis Pt A

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=0.81 cfs 0.061 af
Outflow=0.81 cfs 0.061 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.04 cfs 0.002 af
Outflow=0.04 cfs 0.002 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.05 cfs 0.003 af
Outflow=0.05 cfs 0.003 af

Pond 2P: CB 2 at bldg ent Peak Elev=8.03' Inflow=0.15 cfs 0.010 af
Outflow=0.15 cfs 0.010 af

Pond 3P: CB 3 at pennisula Peak Elev=7.70' Inflow=0.29 cfs 0.020 af
Outflow=0.29 cfs 0.020 af

Pond 4P: CB 4 at S/W

Peak Elev=7.44' Inflow=0.32 cfs 0.022 af
Outflow=0.32 cfs 0.022 af

Pond 5P: CB 5 loading dock

Peak Elev=7.24' Inflow=0.64 cfs 0.045 af
Outflow=0.64 cfs 0.045 af

Pond 6P: CB in lot corner

Peak Elev=6.85' Inflow=0.81 cfs 0.061 af
Outflow=0.81 cfs 0.061 af

Total Runoff Area = 0.935 ac Runoff Volume = 0.067 af Average Runoff Depth = 0.86"
40.96% Pervious = 0.383 ac 59.04% Impervious = 0.552 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.127 ac 79.53% Impervious Runoff Depth>2.22"
Tc=6.0 min CN=94 Runoff=0.33 cfs 0.024 af

Subcatchment 2S: Subarea 2 Runoff Area=0.117 ac 80.34% Impervious Runoff Depth>2.22"
Tc=6.0 min CN=94 Runoff=0.30 cfs 0.022 af

Subcatchment 3S: Subarea 3 Runoff Area=0.046 ac 50.00% Impervious Runoff Depth>1.78"
Tc=6.0 min CN=89 Runoff=0.10 cfs 0.007 af

Subcatchment 4S: Subarea 4 Runoff Area=0.144 ac 0.00% Impervious Runoff Depth>1.70"
Tc=6.0 min CN=88 Runoff=0.30 cfs 0.020 af

Subcatchment 5S: Subarea 5 Runoff Area=0.144 ac 100.00% Impervious Runoff Depth>2.59"
Tc=6.0 min CN=98 Runoff=0.41 cfs 0.031 af

Subcatchment 6S: Subarea 6 Runoff Area=0.047 ac 48.94% Impervious Runoff Depth>1.78"
Tc=6.0 min CN=89 Runoff=0.10 cfs 0.007 af

Subcatchment 7S: Subarea 7 Runoff Area=0.091 ac 80.22% Impervious Runoff Depth>2.22"
Tc=0.0 min CN=94 Runoff=0.28 cfs 0.017 af

Subcatchment 8S: Subarea 8 Runoff Area=0.073 ac 82.19% Impervious Runoff Depth>2.32"
Tc=0.0 min CN=95 Runoff=0.23 cfs 0.014 af

Subcatchment 9S: Subarea 9 Runoff Area=0.050 ac 40.00% Impervious Runoff Depth>1.63"
Tc=0.0 min CN=87 Runoff=0.12 cfs 0.007 af

Subcatchment 10S: Subarea 10 Runoff Area=0.096 ac 14.58% Impervious Runoff Depth>1.34"
Tc=0.0 min CN=83 Runoff=0.19 cfs 0.011 af

Reach 1R: CB on Elm/Analysis Pt A

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=1.83 cfs 0.141 af
Outflow=1.83 cfs 0.141 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.12 cfs 0.007 af
Outflow=0.12 cfs 0.007 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.19 cfs 0.011 af
Outflow=0.19 cfs 0.011 af

Pond 2P: CB 2 at bldg ent Peak Elev=8.12' Inflow=0.33 cfs 0.024 af
Outflow=0.33 cfs 0.024 af

Pond 3P: CB 3 at pennisula Peak Elev=7.84' Inflow=0.63 cfs 0.045 af
Outflow=0.63 cfs 0.045 af

Pond 4P: CB 4 at S/W

Peak Elev=7.59' Inflow=0.73 cfs 0.052 af
Outflow=0.73 cfs 0.052 af

Pond 5P: CB 5 loading dock

Peak Elev=7.48' Inflow=1.44 cfs 0.103 af
Outflow=1.44 cfs 0.103 af

Pond 6P: CB in lot corner

Peak Elev=7.13' Inflow=1.83 cfs 0.141 af
Outflow=1.83 cfs 0.141 af

Total Runoff Area = 0.935 ac Runoff Volume = 0.159 af Average Runoff Depth = 2.04"
40.96% Pervious = 0.383 ac 59.04% Impervious = 0.552 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.127 ac 79.53% Impervious Runoff Depth>3.79"
Tc=6.0 min CN=94 Runoff=0.54 cfs 0.040 af

Subcatchment 2S: Subarea 2 Runoff Area=0.117 ac 80.34% Impervious Runoff Depth>3.79"
Tc=6.0 min CN=94 Runoff=0.50 cfs 0.037 af

Subcatchment 3S: Subarea 3 Runoff Area=0.046 ac 50.00% Impervious Runoff Depth>3.29"
Tc=6.0 min CN=89 Runoff=0.18 cfs 0.013 af

Subcatchment 4S: Subarea 4 Runoff Area=0.144 ac 0.00% Impervious Runoff Depth>3.19"
Tc=6.0 min CN=88 Runoff=0.55 cfs 0.038 af

Subcatchment 5S: Subarea 5 Runoff Area=0.144 ac 100.00% Impervious Runoff Depth>4.15"
Tc=6.0 min CN=98 Runoff=0.65 cfs 0.050 af

Subcatchment 6S: Subarea 6 Runoff Area=0.047 ac 48.94% Impervious Runoff Depth>3.29"
Tc=6.0 min CN=89 Runoff=0.18 cfs 0.013 af

Subcatchment 7S: Subarea 7 Runoff Area=0.091 ac 80.22% Impervious Runoff Depth>3.79"
Tc=0.0 min CN=94 Runoff=0.46 cfs 0.029 af

Subcatchment 8S: Subarea 8 Runoff Area=0.073 ac 82.19% Impervious Runoff Depth>3.89"
Tc=0.0 min CN=95 Runoff=0.37 cfs 0.024 af

Subcatchment 9S: Subarea 9 Runoff Area=0.050 ac 40.00% Impervious Runoff Depth>3.10"
Tc=0.0 min CN=87 Runoff=0.22 cfs 0.013 af

Subcatchment 10S: Subarea 10 Runoff Area=0.096 ac 14.58% Impervious Runoff Depth>2.73"
Tc=0.0 min CN=83 Runoff=0.37 cfs 0.022 af

Reach 1R: CB on Elm/Analysis Pt A

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=3.07 cfs 0.243 af
Outflow=3.07 cfs 0.243 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.22 cfs 0.013 af
Outflow=0.22 cfs 0.013 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.37 cfs 0.022 af
Outflow=0.37 cfs 0.022 af

Pond 2P: CB 2 at bldg ent Peak Elev=8.21' Inflow=0.54 cfs 0.040 af
Outflow=0.54 cfs 0.040 af

Pond 3P: CB 3 at pennisula Peak Elev=7.97' Inflow=1.05 cfs 0.077 af
Outflow=1.05 cfs 0.077 af

Pond 4P: CB 4 at S/W Peak Elev=7.74' Inflow=1.23 cfs 0.090 af
Outflow=1.23 cfs 0.090 af

Pond 5P: CB 5 loading dock Peak Elev=7.74' Inflow=2.42 cfs 0.178 af
Outflow=2.42 cfs 0.178 af

Pond 6P: CB in lot corner Peak Elev=7.55' Inflow=3.07 cfs 0.243 af
Outflow=3.07 cfs 0.243 af

Total Runoff Area = 0.935 ac Runoff Volume = 0.278 af Average Runoff Depth = 3.56"
40.96% Pervious = 0.383 ac 59.04% Impervious = 0.552 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.127 ac 79.53% Impervious Runoff Depth>4.53"
Tc=6.0 min CN=94 Runoff=0.65 cfs 0.048 af

Subcatchment 2S: Subarea 2 Runoff Area=0.117 ac 80.34% Impervious Runoff Depth>4.53"
Tc=6.0 min CN=94 Runoff=0.59 cfs 0.044 af

Subcatchment 3S: Subarea 3 Runoff Area=0.046 ac 50.00% Impervious Runoff Depth>4.02"
Tc=6.0 min CN=89 Runoff=0.22 cfs 0.015 af

Subcatchment 4S: Subarea 4 Runoff Area=0.144 ac 0.00% Impervious Runoff Depth>3.91"
Tc=6.0 min CN=88 Runoff=0.66 cfs 0.047 af

Subcatchment 5S: Subarea 5 Runoff Area=0.144 ac 100.00% Impervious Runoff Depth>4.87"
Tc=6.0 min CN=98 Runoff=0.76 cfs 0.058 af

Subcatchment 6S: Subarea 6 Runoff Area=0.047 ac 48.94% Impervious Runoff Depth>4.02"
Tc=6.0 min CN=89 Runoff=0.22 cfs 0.016 af

Subcatchment 7S: Subarea 7 Runoff Area=0.091 ac 80.22% Impervious Runoff Depth>4.53"
Tc=0.0 min CN=94 Runoff=0.54 cfs 0.034 af

Subcatchment 8S: Subarea 8 Runoff Area=0.073 ac 82.19% Impervious Runoff Depth>4.63"
Tc=0.0 min CN=95 Runoff=0.44 cfs 0.028 af

Subcatchment 9S: Subarea 9 Runoff Area=0.050 ac 40.00% Impervious Runoff Depth>3.82"
Tc=0.0 min CN=87 Runoff=0.27 cfs 0.016 af

Subcatchment 10S: Subarea 10 Runoff Area=0.096 ac 14.58% Impervious Runoff Depth>3.42"
Tc=0.0 min CN=83 Runoff=0.47 cfs 0.027 af

Reach 1R: CB on Elm/Analysis Pt A

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=3.66 cfs 0.291 af
Outflow=3.66 cfs 0.291 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.27 cfs 0.016 af
Outflow=0.27 cfs 0.016 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.47 cfs 0.027 af
Outflow=0.47 cfs 0.027 af

Pond 2P: CB 2 at bldg ent Peak Elev=8.24' Inflow=0.65 cfs 0.048 af
Outflow=0.65 cfs 0.048 af

Pond 3P: CB 3 at pennisula Peak Elev=8.02' Inflow=1.24 cfs 0.092 af
Outflow=1.24 cfs 0.092 af

Pond 4P: CB 4 at S/W Peak Elev=7.80' Inflow=1.46 cfs 0.107 af
Outflow=1.46 cfs 0.107 af

Pond 5P: CB 5 loading dock Peak Elev=7.92' Inflow=2.88 cfs 0.213 af
Outflow=2.88 cfs 0.213 af

Pond 6P: CB in lot corner Peak Elev=7.82' Inflow=3.66 cfs 0.291 af
Outflow=3.66 cfs 0.291 af

Total Runoff Area = 0.935 ac Runoff Volume = 0.334 af Average Runoff Depth = 4.29"
40.96% Pervious = 0.383 ac 59.04% Impervious = 0.552 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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: Subarea 1 Runoff Area=0.127 ac 79.53% Impervious Runoff Depth>5.63"
Tc=6.0 min CN=94 Runoff=0.80 cfs 0.060 af

Subcatchment 2S: Subarea 2 Runoff Area=0.117 ac 80.34% Impervious Runoff Depth>5.63"
Tc=6.0 min CN=94 Runoff=0.73 cfs 0.055 af

Subcatchment 3S: Subarea 3 Runoff Area=0.046 ac 50.00% Impervious Runoff Depth>5.12"
Tc=6.0 min CN=89 Runoff=0.27 cfs 0.020 af

Subcatchment 4S: Subarea 4 Runoff Area=0.144 ac 0.00% Impervious Runoff Depth>5.01"
Tc=6.0 min CN=88 Runoff=0.84 cfs 0.060 af

Subcatchment 5S: Subarea 5 Runoff Area=0.144 ac 100.00% Impervious Runoff Depth>5.97"
Tc=6.0 min CN=98 Runoff=0.92 cfs 0.072 af

Subcatchment 6S: Subarea 6 Runoff Area=0.047 ac 48.94% Impervious Runoff Depth>5.12"
Tc=6.0 min CN=89 Runoff=0.28 cfs 0.020 af

Subcatchment 7S: Subarea 7 Runoff Area=0.091 ac 80.22% Impervious Runoff Depth>5.64"
Tc=0.0 min CN=94 Runoff=0.67 cfs 0.043 af

Subcatchment 8S: Subarea 8 Runoff Area=0.073 ac 82.19% Impervious Runoff Depth>5.73"
Tc=0.0 min CN=95 Runoff=0.54 cfs 0.035 af

Subcatchment 9S: Subarea 9 Runoff Area=0.050 ac 40.00% Impervious Runoff Depth>4.91"
Tc=0.0 min CN=87 Runoff=0.34 cfs 0.020 af

Subcatchment 10S: Subarea 10 Runoff Area=0.096 ac 14.58% Impervious Runoff Depth>4.48"
Tc=0.0 min CN=83 Runoff=0.60 cfs 0.036 af

Reach 1R: CB on Elm/Analysis Pt A

Reach 2R: CB at corner of Kennebec and Elm/Analysis Pt B Inflow=4.53 cfs 0.364 af
Outflow=4.53 cfs 0.364 af

Reach 3R: CB at corner of Kennebec and Preble/Analysis Pt C Inflow=0.34 cfs 0.020 af
Outflow=0.34 cfs 0.020 af

Reach 4R: CB on Preble/Analysis Pt D Inflow=0.60 cfs 0.036 af
Outflow=0.60 cfs 0.036 af

Pond 2P: CB 2 at bldg ent Peak Elev=8.29' Inflow=0.80 cfs 0.060 af
Outflow=0.80 cfs 0.060 af

Pond 3P: CB 3 at pennisula Peak Elev=8.10' Inflow=1.53 cfs 0.115 af
Outflow=1.53 cfs 0.115 af

Pond 4P: CB 4 at S/W Peak Elev=7.89' Inflow=1.80 cfs 0.134 af
Outflow=1.80 cfs 0.134 af

Pond 5P: CB 5 loading dock Peak Elev=8.22' Inflow=3.56 cfs 0.266 af
Outflow=3.56 cfs 0.266 af

Pond 6P: CB in lot corner Peak Elev=8.32' Inflow=4.53 cfs 0.364 af
Outflow=4.53 cfs 0.364 af

Total Runoff Area = 0.935 ac Runoff Volume = 0.420 af Average Runoff Depth = 5.39"
40.96% Pervious = 0.383 ac 59.04% Impervious = 0.552 ac

EXHIBIT 14

SOLID WASTE DISPOSAL

The Schlotterbeck Block plans to contact a private hauler for removal of solid waste generated within the building. A fenced exterior dumpster area for recycling and solid waste disposal will be located in the parking lot on the east side of the lot. Pickup will occur twice each week.

SNOW REMOVAL

Snow is currently stored on site and removed as necessary. Upon completion of the re-development, snow will still be able to be stored on the edges of the parking areas as shown on Sheet L2.0.

EXHIBIT 15

LIGHT FIXTURES

Site lighting will consist of new pole mounted fixtures (5) in the parking light and bollards along the walkway. See attached cut sheets of proposed light fixtures. Medium "Bayside" light fixtures will be installed along Preble Street (three fixtures), Kennebec Street (two fixtures) and Elm Street (two fixtures). The applicant will finalize the location of the "Bayside" fixtures with Kevin Thomas, City of Portland Public Works.

Building lighting will consist of wall mounted fixtures at the three building entrances, canopy lights (two), and uplighting at the building corners (eight light fixtures—two per side).

KIM LIGHTING

RA17

17″ Era® PicoEmitter™ LED

revision 9/10/14 • kl_ra17eled_spec.pdf

Type:
Job:
Catalog number:

/	/	/	/	/
Mtg Fixture	Electrical Module	Finish	Options	
	See page 2		See page 3-4	Pole & Arm*

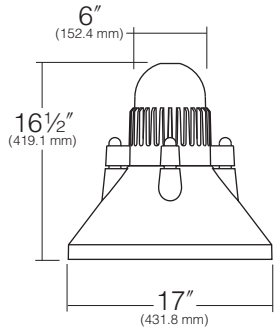
***Select pole and arm from Kim **Arms and Poles Selection Guide**. If pole is provided by others, indicate O.D. for arm fitting. Arm Options are also shown on page 5.

Approvals:

Date:
Page: 1 of 6

Specifications

17″ Diameter
60 Light Emitting Diodes
Total System Watts = 68W



Housing: The Ballast Housing is a one-piece die-cast, low copper (<0.6% Cu) aluminum alloy component with integral cooling fins. The Reflector Housing is one-piece die-cast, low copper (<0.6% Cu) aluminum alloy . The Ballast Housing attaches to the Reflector Housing with stainless steel fasteners and is sealed with a silicone gasket.

Lens Frame: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy. Stainless steel hinges provided for attachment to the Reflector Housing. Stainless steel threaded fasteners provide easy access, concealed from normal view. The 3⁄16″ thick clear flat lens seals against the reflector flange by a one-piece extruded silicone gasket with fused seam, to produce a fully sealed optical chamber.

Mounting: Stainless steel bolts are provided to attach the luminaire to the crook arm or swept arm mounting.

Electronic Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Module includes a driver, LifeShield® temperature control device and surge protector. Electrical module attaches to housing with key hole slots, accessible by opening the lens frame and removing optical module. Driver is rated for -40°F starting and has a 0-10V dimming interface for multi-level illumination options.

Optical Module: Precision, replaceable PicoEmitters are positioned to achieve directional control toward desired task. The entire EmitterDeck® mounting assembly fastens to the housing as a one-piece module.

Finish/Color: TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness. Standard colors are Black, Dark Bronze, Light Gray, Stealth Gray, Platinum Silver, or White. Custom colors are available.

Listed To: UL 1598 Standard for Luminaires - UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products and CSA C22.2#250.0 Luminaires.

Warranty: Kim Lighting warrants Era LED products (“Product(s)”) sold by Kim Lighting to be free from defects in material and workmanship for (i) a period of five (5) years for metal parts, (ii) a period of ten (10) years for exterior housing paint finish(s), (iii) a period of six (6) years for LED Light Engines (PicoEmitter®) and, (iv) a period of five (5) years for LED power components (LED Driver, LifeShield temperature control device, surge protector), from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each product.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious injury.

HUBBELL LIGHTING, INC.

U.S. Patent D430,687

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

Standard Features

Mounting

Plan View: 

EPA 17 :	0.8	1.6	2.4	2.8	n/a
Cat. No.:	☐ **1A**	☐ **2B**	☐ **3Y**	☐ **4C**	☐ **1W**

NOTE: 1A, 2B, 3Y and **4C** mounting arms are part of the Pole Assembly. **1W** Wall Mount arm is **not** included and must be ordered separately. See page **4** for styles and ordering information.

Fixture

Cat. No. designates fixture and optic

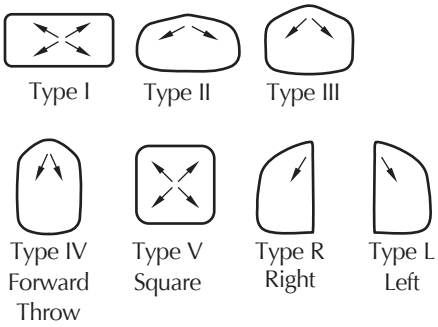
RA17 — x — E35

Housing Size: 17″

Distribution:
- ☐ 1 = Type I Full Cutoff
- ☐ 2 = Type II Full Cutoff
- ☐ 3 = Type III Full Cutoff
- ☐ 4 = Type IV Full Cutoff
- ☐ 5 = Type V Square Full Cutoff
- ☐ L = Type L Left Full Cutoff
- ☐ R = Type R Right Full Cutoff

E35 = 350mA

Light Distribution:



Electrical Module

Cat. Nos. for Electrical Modules available:

60L — xK — x

Source: 60L = 60 LED's

Color Temperature:
- ☐ 3K = 3000K
- ☐ 4K = 4200K
- ☐ 5K = 5100K
- ☐ 2K = 580nm - Amber

Voltage:
- ☐ 120 = 120V
- ☐ 208 = 208V
- ☐ 240 = 240V
- ☐ 277 = 277V
- ☐ 347 = 347V[1]
- ☐ 480 = 480V[1]

[1]Due to current unavailability of 347V and 480V drivers, specification of these voltages may feature an integral step-down transformer.

Finish

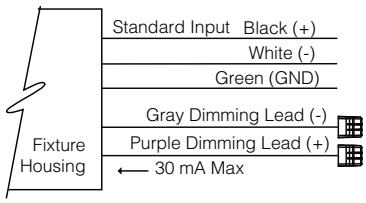
TGIC powder coat

Color:	Black	Dark Bronze	Light Gray	Stealth Gray	Platinum Silver	White	Custom Color[2]
Cat. No.:	☐ **BL**	☐ **DB**	☐ **LG**	☐ **SG**	☐ **PS**	☐ **WH**	☐ **CC**

[2]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description:_____

0-10V Dimming Interface

Driver has a 0-10V dimming interface with a dimming range of 10-100%. Is compatible with most control systems including Hubbell Building Automation wiHUBB™. Approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV. Note: Not compatible with current sourcing dimmers. Controls compatible via Gray and Purple dimming lead.



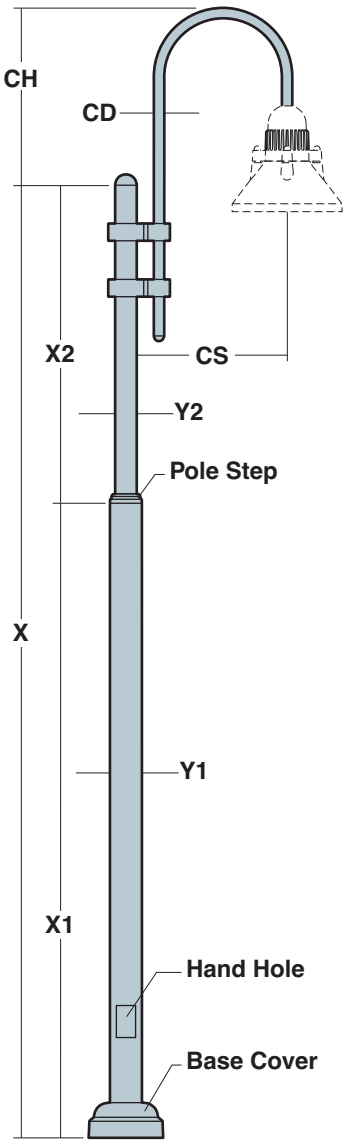
Pole Ordering Information and Specifications

HSAS Stepped Aluminum Pole & Side Mount Crook Arm(s)

Ordering Example:
For Standard HA02S / HA02L Pole

Pole Cat. No. and Mounting		Finish		Option
HSAS10-534188B	**/**	**DB**	**/**	**DR**
1-2		**3**		**4**

1 Pole Catalog Numbers:



For RA17 Luminaires only — **ALLOWABLE POLE EPA***

Pole Catalog Number	X	X1	X2	Y1	Y2	Wall Thickness	Bolt Circle Dia.	CH / Crook Height	CS / Crook Spacing	CD / Crook Dia.	Anchor Bolt Projection	Anchor Bolts	Base Cover Dia.	Conduit Opening Dia.	90	100	110	120	130	140	150
HSAS10-534188	10′	6.5′	3.5′	5″	3.4″	.188″	8½″	26″	25″	1⅝″	3.2″	¾″x15″+3″	12″	3″	25.7	23.5	19.1	15.8	13.2	11.2	9.5
HSAS12-534188	12′	8′	4′	5″	3.4″	.188″	8½″	26″	25″	1⅝″	3.2″	¾″x15″+3″	12″	3″	20.6	18.8	15.2	12.5	10.3	8.7	7.3
HSAS14-534188	14′	9.3′	4.7′	5″	3.4″	.188″	8½″	26″	25″	1⅝″	3.2″	¾″x15″+3″	12″	3″	16.9	15.3	12.3	10.0	8.2	6.8	5.7
HSAS16-534188	16′	10.5′	5.5′	5″	3.4″	.188″	8½″	26″	25″	1⅝″	3.2″	¾″x30″+4″	12″	3″	14.1	12.7	10.0	8.1	6.5	5.3	4.4
HSAS20-534188	19.5′	13′	6.4′	5″	3.4″	.188″	8½″	26″	25″	1⅝″	3.2″	¾″x30″+4″	12″	3″	9.6	8.6	6.6	5.1	4.0	3.1	2.4

For RA25 Luminaires only — **ALLOWABLE POLE EPA***

Pole Catalog Number	X	X1	X2	Y1	Y2	Wall Thickness	Bolt Circle Dia.	CH / Crook Height	CS / Crook Spacing	CD / Crook Dia.	Anchor Bolt Projection	Anchor Bolts	Base Cover Dia.	Conduit Opening Dia.	90	100	110	120	130	140	150
HSAS20-64188	19.5′	13′	6.4′	6″	4″	.188″	10½″	37″	36″	2⅜″	3.2″	¾″x30″+4″	14″	5″	15.2	13.9	11.0	8.7	7.1	5.9	4.9
HSAS25-64188	25′	16.7′	8.3′	6″	4″	.188″	10½″	37″	36″	2⅜″	3.2″	¾″x30″+4″	14″	5″	9.5	8.6	6.5	4.9	3.7	2.9	2.3
HSAS25-64250	25′	16.7′	8.3′	6″	4″	.250″[1]	10½″	37″	36″	2⅜″	3.2″	¾″x30″+4″	14″	5″	13.9	12.7	9.8	7.6	6.1	5.0	4.1
HSAS30-64250	30′	20′	10′	6″	4″	.250″[1]	10½″	37″	36″	2⅜″	3.2″	¾″x30″+4″	14″	5″	9.3	8.4	6.2	4.5	3.4	2.6	2.0
HSAS30-64400	30′	20′	10′	6″	4″	.400″[2]	10½″	37″	36″	2⅜″	3.2″	¾″x30″+4″	14″	5″	14.7	13.3	10.1	7.9	6.2	5.0	4.1

NOTE: All allowable pole and fixture EPAs (Effective Projected Area, which is Fixture Area x Drag Factor) are derived from the AASHTO standard (American Association of State Highway and Transportation Officials). Responsibility lies with the specifier for correct pole selection based on local codes and standards for the job location (See page **28**).

[1] Thickness at **Y1** section, **Y2** section is .188″.

[2] Pole reinforced, to 40″ above base, to .400″, remaining **Y1** section is .250″, **Y2** section is .188″.

Arm assemblies are included.

2 Mounting Arrangements:

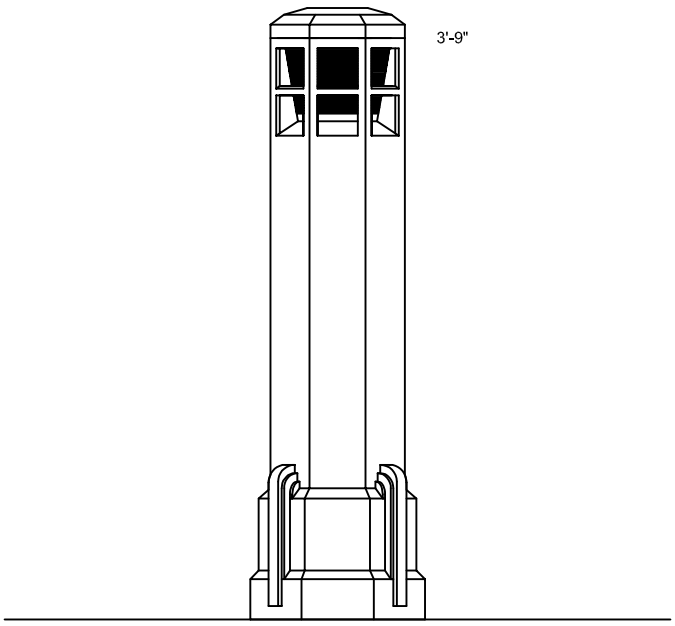
Plan View:

Mounting Cat. No.:		A	B	Y	C
EPA:	RA17	0.8	1.6	2.4	2.8
	RA25	1.5	3.0	4.5	5.2

***NOTE: ALLOWABLE POLE EPA** for jobsite wind conditions must be equal to or greater than fixture mount EPA.

Freeport Series

Cast Iron Lighted Bollard



BOL/FP45/13/L-CI

Specifications

DESCRIPTION The bollard shall be cast iron construction with a classic octagonal design. The bollard shall be provided with an optical assembly including a glass refractor, and an octagonal top.

MATERIALS The bollard shall be ASTM-A48 Class 30 cast iron. The castings shall be formed true to the pattern with complete detail. The refractor shall be borosilicate glass. All exposed hardware shall be tamper resistant stainless steel. Anchor bolts to be completely hot dip galvanized.

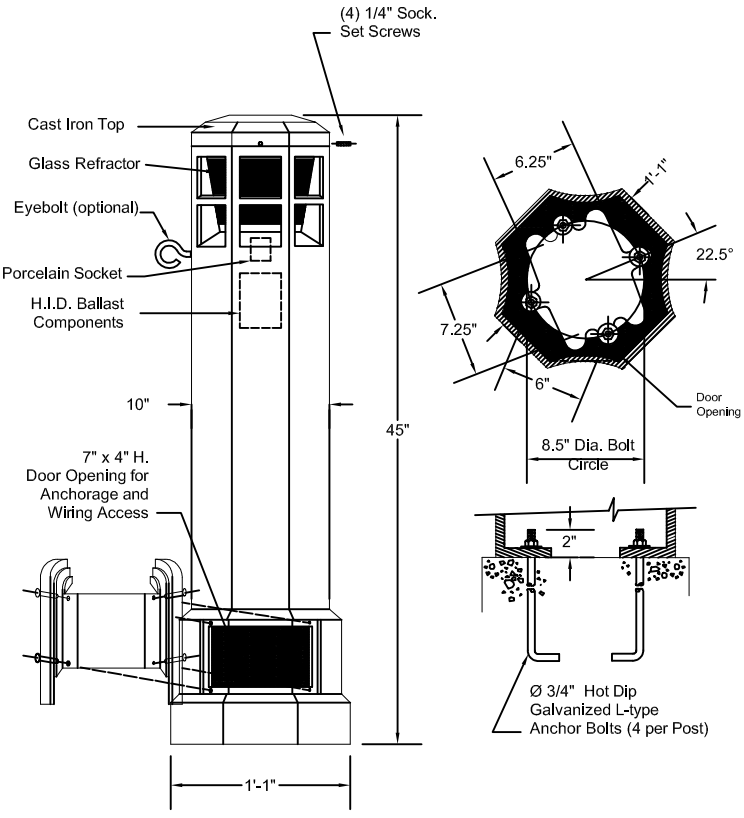
CONSTRUCTION The bollard shall be made from a one-piece casting. The top shall be attached to the bollard with four tamper resistant set screws.

DIMENSIONS The bollard shall be 3'- 9" in height with a 13" octaflute base, and a 10" octagonal top.

INSTALLATION The bollard shall be provided with four 3/4" diameter, hot dip galvanized, L-type anchor bolts to be installed on a 8.5" diameter bolt circle. An access door shall be provided in the base for anchorage and wiring access. The top shall be removable for access to the optical assembly.

LIGHT SOURCE The lighted bollard shall be furnished with an H.I.D. ballast and socket assembly. Sockets shall be glazed porcelain, mogul or medium base, with a copper alloy nickel plated screw shell and center contact. The ballast shall be a core and coil, high
power factor, regulating type.

For finish specifications and color options, see " **Finish"** section in catalog.



ORDERING GUIDE

sample catalog number

BOL / FP45 / 13 / L-CI / BK-

Bollard (check appropriate boxes)

☐ **BOL/FP45/13/L**

Material/Finish

Catalog Suffix	*Description*
☐ **-CI/BK**	Cast Iron/Black (std.)
☐ **-CI/DG**	Cast Iron/Dark Green
☐ **-CI/DB**	Cast Iron/Dark Bronze
☐ **-CI/PP**	Cast Iron/Prime Painted
☐ **-CI/CC**	Cast Iron/Custom Color

(for complete finish and color options, see " **Finish**" section in catalog)

Light Source

H.I.D ballast & socket

☐ **-H50**	50	watt Mercury Vapor
☐ **-H75**	75	watt Mercury Vapor
☐ **-H100**	100	watt Mercury Vapor
☐ **-M50**	50	watt Metal Halide
☐ **-M70**	70	watt Metal Halide
☐ **-M100**	100	watt Metal Halide
☐ **-S35**	35	watt High Pressure Sodium
☐ **-S50**	50	watt High Pressure Sodium
☐ **-S70**	70	watt High Pressure Sodium
☐ **-S100**	100	watt High Pressure Sodium

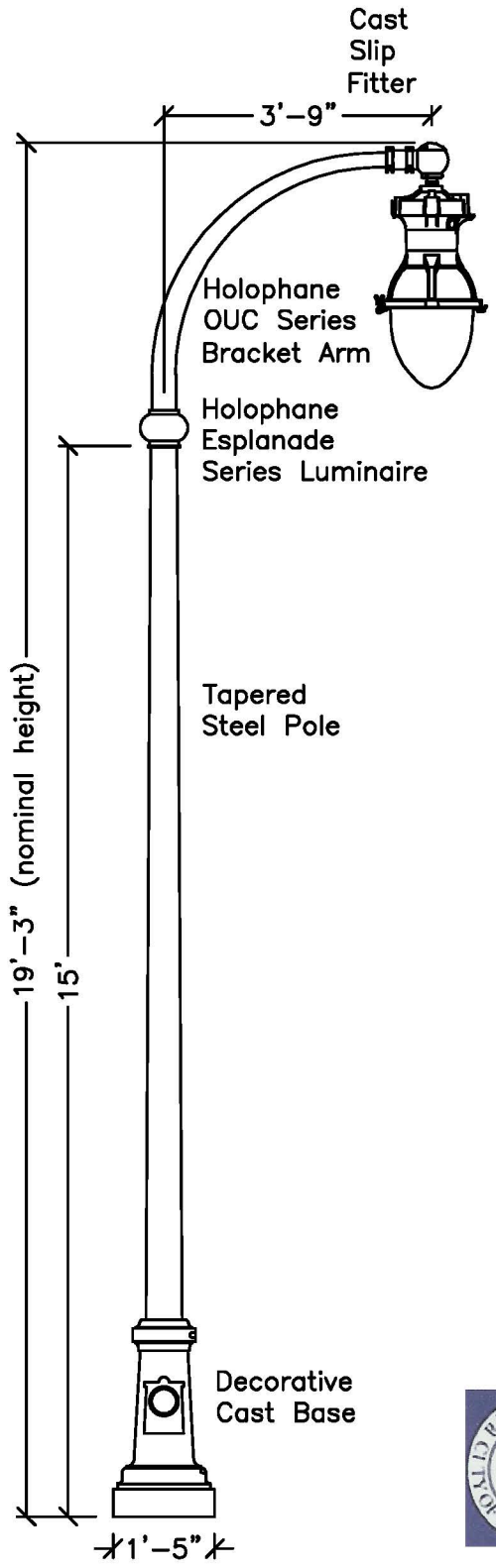
Voltage

☐ **/12** ☐ **/20** ☐ **/24** ☐ **/27**
☐ **/34** ☐ **/48** ☐ **/MT**

Optional Equipment

☐ **-EB**	Eyebolt mounted on bollard for use with chain by others
☐ **-2**	Weatherproof duplex Receptacle mounted inside base
☐ **-DBB**	Direct Burial Base for mounting without a concrete footing
☐ **-CLD**	Custom Logos cast into access door
☐ **-V**	Borosilicate Glass Refractor with an I.E.S Type 5 Distribution
☐ **-II**	Borosilicate Glass Refractor with an I.E.S Type 2 Distribution
☐ **-III**	Borosilicate Glass Refractor with an I.E.S Type 3 Distribution
☐ **-HSS**	House Side Shield
☐ **-PEC**	Photo Electric Control (120 volt)
☐ **-PEC2**	Photo Electric Control (240 volt)

HOLOPHANE® An Acuity BrandsCompany
LEADER IN LIGHTING SOLUTIONS 214 OAKWOOD AVENUE - NEWARK, OHIO 43055



LUMINAIRE

Holophane Lighting model ESU 175PM MA CMC 45-64319
Cast aluminum housing with stainless steel hardware. Dropped refractor shall be thermal resistant borosilicate glass. Internal reflector and prismatic diffuser shall provide an IES Type IV distribution pattern. Luminaire shall include an integral ballast with modular wiring connectors and multi-voltage taps. Provide an internal receptacle type photocell control. Luminaire shall be custom color Cardinal Industries finish T357-GR105 polyester TGIC powder coat Metallic Silver with T009-CL05 clear top coat.

LAMP

Sylvania model MS175/PS/BU-ONLY
Vertical mounted, 175 watt mogul base clear metal halide lamp.

BRACKET ARM

Holophane Lighting model OUC 6063-T6
Aluminum crossarm with a post-top fitting for a 3-1/2" by 8" tenon. Bracket arm shall be custom color Cardinal Industries finish T357-GR105 polyester TGIC powder coat Metallic Silver with T009-CL05 clear top coat.

SLIP FITTER

Holophane Lighting model BHLF200-SCA/AS
(Boston Harbor Series)2-3/8" O.D. with swivel cast fitter. Slip fitter shall be custom color Cardinal Industries finish T357-GR105 polyester TGIC powder coat Metallic Silver with T009-CL05 clear top coat.

LIGHTING POLE

Tapered steel pole shaft rated for a 90mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be custom color Cardinal Industries finish T357-GR105 polyester TGIC powder coat Metallic Silver with T009-CL05 clear top coat.

DECORATIVE POLE BASE

Holophane Lighting model Cambridge Series
Decorative clamshell cast aluminum base. Hardware shall be stainless steel. Decorative pole base shall be custom color Cardinal Industries finish T357-GR105 polyester TGIC powder coat Metallic Silver with T009-CL05 clear top coat.

SERVICE CONNECTION

New street/sidewalk lighting shall be connected to a metered electrical service from The Central Maine Power Company unless the City directs otherwise.

APPLICATION

Street/Sidewalk lighting for two-way streets with parking on one side or one-way streets.
Suggested layout:
80-100 ft on center (one side only)
150-200 ft on center (staggered pattern both sides)

City of Portland, Maine

Street & Sidewalk Lighting
BAYSIDE COMMERCIAL DISTRICT
Medium Scale Lighting Pole

03/05/10

KIM LIGHTING

SW3

Site Wallforms

revision 6/17/11 • kl_sw3_spec.pdf

Type:
Job:
Catalog number:

Approvals:

SW3	/	/	/
Fixture	Electrical Module	Finish	Option

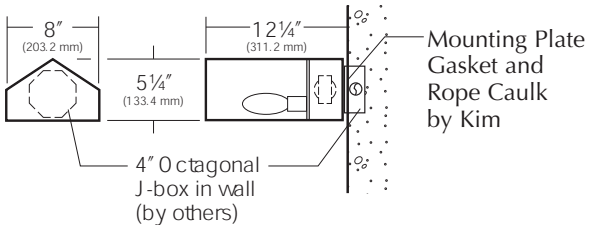
See page 2

Date:
Page: 1 of 2

Specifications

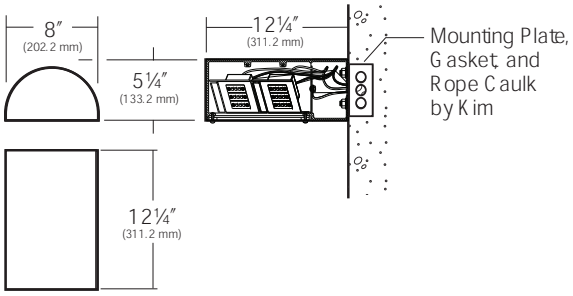
SW3 Model

50 watt HID
Medium Base Lamps
60 watt Incandescent
42 watt Compact Fluorescent



SW3 LED Model

18 and 36 LEDs



Head: One-piece cast, low-copper (<0.6 Cu) aluminum alloy, 3⁄16″ wall thickness with external reveal. Attachment to wall is by two bolts concealed within the head.

Reflector and Socket: Formed specular Alzak® reflector panel secured to a harness which holds a porcelain medium base 4KV socket (HID and Incandescent), GX24q - Universal Socket (42W Fluorescent), or two single ended twin tube sockets (13W Fluorescent). Entire assembly is removable in one piece for access to mounting screws and is factory wired with a disconnect plug. No reflector provided for LED.

Lens: Clear flat 1⁄8″ thick tempered glass retained by two stainless steel brackets, and four stainless steel, hex socket cap screws, fully gasketed.

Electrial Module: Factory mounted to removable harness within fixture head. Wire leads supplied with disconnect plugs. **HID:** High power factor with starting temperatures of -20°F. for PMH and -40°F. for HPS lamp modes. **13W Fluorescent:** 120V 32°F. starting; 277V 0°F. starting. **26W, 32W, 42W Fluorescent:** High power factor with starting temperature of 0°F. **LED:** A total of 9 LED emitters configured in a rectangular array comprised together as a module. Two (2) modules for 18 LED version and four (4) modules for 36 LED version. Available in 3500K and 5100K.

LED Driver: Rated for 18 or 36 LED. Universal voltage from 120 to 277V with a ±10% tolerance. -40ºF starting temperature. All drivers are Underwriters Laboratories recognized.

NOTE: The 120V driver can be dimmed with an off-the-shelf phase control line dimmer (SCR/TRIAC style).

Mounting Plate: Zinc plated steel for attachment to standard 4″ octagonal junction box. Gasket provided between mounting plate and fixture plus rope caulk between fixture and wall.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a titanated zirconium conversion coating; 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Stealth Gray™, Platinum Silver, or White. Custom colors are available.

CAUTION: Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

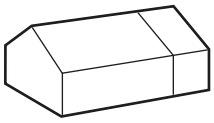
Listings and Ratings		
ETL[1] to UL Standards 1598 & 8750	CE	25C Ambient
IP66 Rated	Full Cutoff[2]	

[1]Suitable for wet locations
[2]Dark Sky Legislation Compliant

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICEE

HUBBELL LIGHTING, INC.

 • P.O. BOX 60080, CITY OF INDUSTRY, CA 91716-0080 • TEL: 626/968-5666 • FAX: 626/369-2695



Standard Features

Fixture

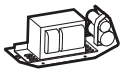
Cat. No. **SW3** Site Wallforms

Electrical Module

PMH = Pulse Start Metal Halide
HPS = High Pressure Sodium
PL = Compact Fluorescent
INC = Incandescent
LED = Light-emitting diode

Lamp Watts	Lamp Type	Line Volts
50	**PMH**	**277**

For PMH, HPS and PL.
See footnote 3 below for LED



NOTE: For lamp/ballast information outside of the U.S.A. and Canada, please consult your local Kim representative.

Cat. Nos. for Electrical Modules available:

	Pulse Start Metal Halide	High Pressure Sodium	Compact Fluorescent		Incandescent
	☐ **50PMH120** ☐ **50PMH277**	☐ **50HPS120**	☐ **13PL120**[1] ☐ **13PL277**[1]	☐ **42PL**[2]	☐ **60INC120**
Lamp	ED-17,	ED-17,	(2) Twin	(1) Triple	T-10
	Coated	Coated	Tubes	Tube	Inside Frost
Socket	Medium Base	Medium Base	GX23-2	GX24q-4	—
ANSI Ballast	M-98	S-68			

	LED	
	☐ **18L3KUV**[3] ☐ **18L5KUV**[3]	☐ **36L3KUV**[3] ☐ **36L5KUV**[3]
Lamp	LED	LED
Socket	N/A	N/A

[1]Two lamps required per fixture.

[2]**42PL** operates one 26, 32, or 42 watt lamp at 120 thru 277 volts (50-60 Hz).

NOTE: Coated lamps are recommended.

[3]For LED, 18L = 18 LED Emitters; 36L = 36 LED Emitters; 3K = 3500K color temperature; 5K = 5100K color temperature; UV = Universal Voltage from 120 to 277V with a ± 10% tolerance.

Finish

Super TGIC powder coat paint over a titanated zirconium conversion coating on fixture and shaft.

Color:	Black	Dark Bronze	Light Gray	Stealth Gray™	Platinum Silver	White	Custom Colors[4]
Cat. No.:	☐ **BL**	☐ **DB**	☐ **LG**	☐ **SG**	☐ **PS**	☐ **WH**	☐ **CC**

[4]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____

Optional Feature

Textured Glass Lens

Cat. No. ☐ **TG**
☐ **No Option**

Unique textured glass reduces LED glare and improves visual comfort.

 • P.O. BOX 60080, CITY OF INDUSTRY, CA 91716-0080 • TEL: 626/968-5666 • FAX: 626/369-2695

KIM LIGHTING

PGL7 LED

LED Parking Garage Luminaire

revision 6/19/15 • kl_pgl7led_spec.pdf

Type:
Job:

Approvals:

Fixture Catalog number:

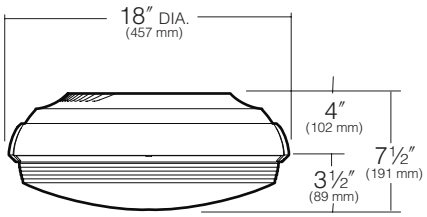
Fixture	/ Current	/ Electrical Module (See page 2)	/ Optional Features (See page 3-4)

Date:
Page: 1 of 5

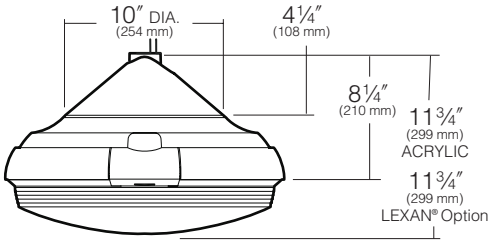
Specifications

PGL7-LED

60 Light Emitting Diodes
65 System Watts for 350mA
84 System Watts for 450mA
Maximum Weight = 19 lbs



Fixture with Standard Acrylic Refractor



Fixture with Optional Balanced Pendant J-Box and Bird Shroud (PB2)

Speed Mount: Electro-zinc plated steel for mounting to standard 4″ junction box or mud-box. Fixture hangs from hooks to free both hands to make field wire connections. Allows tool-free fixture mounting to junction box, with integral anti-theft lock.

Electrical Housing: Die-cast, low copper (<0.6% Cu) aluminum alloy for direct mounting to the Kim Speed Mount. Wire entries are sealed by a silicone grommet.

Refractor: Standard refractor is one-piece injection molded acrylic, .125″ minimum wall thickness. The prisms around the perimeter refract the spill light off each PicoEmitter™ upward to eliminate the cave effect. Refractor attaches to electrical housing with (2) load bearing retainers. Perimeter is fully sealed with a one-piece extruded silicone gasket, with the ends fused together to form a continuous piece, sealing the refractor to the electrical housing, and providing an IP66 fixture rating.

EmitterDeck® : Precision injection molded optics are positioned to achieve directional control toward desired task. The entire assembly fastens to the housing as a one-piece module.

Electronic Module: All electrical components are UL recognized and mounted directly to the electrical housing for maximum heat dissipation. Module includes a driver, thermal control device and surge protector. Driver is rated for -40°C operation. A step-down transformer within the housing may be used for 347V and 480V systems. All luminaires include an internal fuse.

Finish: Standard finish on fixture electrical housing, optional PB2 and TB2, is (**PS**) Platinum Silver. Platinum Silver is Powdura® TGIC powder coat paint.

Listed to: UL 1598 Standard for Luminaires - UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products and CSA C22.2#250.0 Luminaires.

Warranty: Kim Lighting warrants PGL7 LED products (“Product(s)”) sold by Kim Lighting to be free from defects in material and workmanship for (i) a period of five (5) years for metal parts, (ii) a period of ten (10) years for exterior housing paint finish(s), (iii) a period of six (6) years for LED Light Engines (PicoEmitters) and, (iv) a period of five (5) years for LED power components (LED Driver, LifeShield® device, Surge Protector), from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each product.

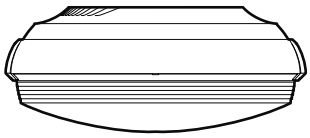
CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

HUBBELL LIGHTING, INC.

Patent Pending

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

 • 16555 EAST GALE AVENUE, CITY OF INDUSTRY, CA 91745-1788 • TEL: 626/968-5666 • FAX: 626/968-5716



Standard Features

Fixture

Cat. No. designates **PGL** fixture with Wide or Narrow optical distribution

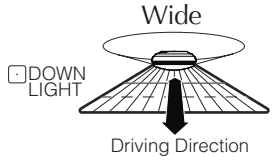
Wide = 70° Peak Intensity Angle

Narrow = 57.5° Peak Intensity Angle

Cat. Nos. for optical distributions

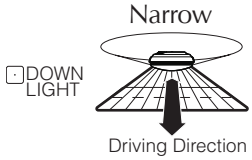
PGL71
Type V
Square

Wide



☐ **PGL71W**

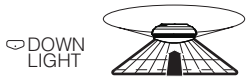
Narrow



☐ **PGL71N**

PGL74
Type III

☐ **PGL74W**



☐ **PGL74N**

Electrical Module

Light Emitting Diodes

Current	Lamp Type	Line Volts
Exx	**60LxK**	**xxx**

Cat. Nos. for Electrical Modules available:

Exx

Current:
- ☐ E35 = 350mA
- ☐ E45 = 450mA

60L xK

Source:
60L=60 LEDs

Color Temperature:
- ☐ 2K = 580nm Amber
- ☐ 3K = 3000K
- ☐ 4K = 4200K
- ☐ 5K = 5100K

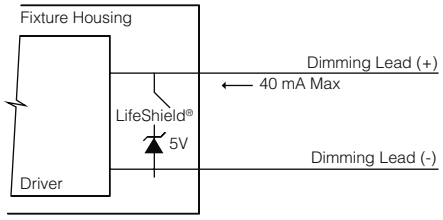
xxx

Voltage:
- ☐ 120 = 120V
- ☐ 208 = 208V
- ☐ 240 = 240V
- ☐ 277 = 277V
- ☐ 347 = 347V[1]
- ☐ 480 = 480V[1]

[1] Due to current unavailability of 347V and 480V drivers, specification of these voltages may feature an integral step-down transformer.

0-10V Dimming Interface

Driver has a 0-10V dimming interface with a dimming range of 10-100%. Approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV. Note: Not compatible with current sourcing dimmers.



Fixture Equivalent Circuit

KIM LIGHTING

WD14

14″ Wall Director®, PicoEmitter™ LED

revision 10/20/14 • kim_wd14eled_spec.pdf

Type:
Job:
Catalog number:

_____ / _____ / ____ / ____

Fixture | Electrical Module | Finish | Options

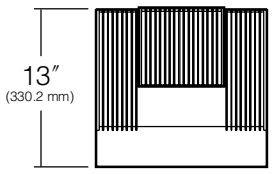
See page 2 | See pages 3-4

Approvals:

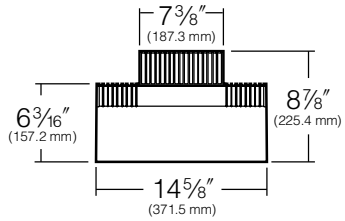
Date:

Specifications

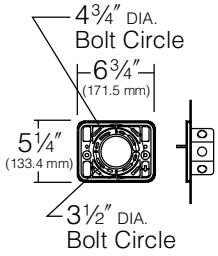
WD14-LED
60 Light Emitting Diodes
Total Max System Watts = 65W
Maximum Weight = 26 lbs.



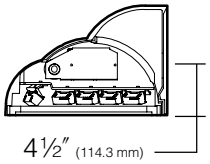
TOP



FRONT



Mounting Plate
Attaches directly to any standard 4″ J-box (by others)



To J-box center

SIDE

Optical Housing: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral cooling fins. Rotates against gear housing to provide 10° of adjustment with degree markers cast into the housing. At 0° adjustment, lens is totally concealed from view above horizontal with fixture aimed downward.

Gear Housing: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral cooling fins. Fastens to mounting plate with keyhole slots freeing both hands for securing and wiring. One stainless steel socket-head screw on each side of housing frees the optical housing to rotate for aiming. Tightening the screws locks the two housings together with sealing provided by a silicone gasket. For visual aiming, adjustment may be accomplished with the fixture on.

Lens Frame: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral hinges and stainless steel pins. Toolless access to optical housing with sealing provided by a one-piece extruded and vulcanized silicone gasket. Lens is clear flat ³⁄₁₆″ thick tempered glass sealed to lens frame with a silicone gasket and retainer clips. For UP models, lens is mounted flush with frame for water run off, and is silicone sealed.

Electronic Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Module includes a driver, thermal control device and surge protector.Electrical module attaches to housing with no-tool hinges and latches, accessible by opening the lens frame only. Driver is rated for -40°F starting and has a 0-10V dimming interface for multi-level illumination options.

Optical Module: Each precision, replaceable PicoEmitter is positioned to achieve directional control toward desired task. The entire EmitterDeck® fastens to the housing as a one-piece module.

Mounting Plate: Mounting plate attaches directly to any standard 4″ junction box. All mounting plates are die-cast aluminum with reinforced ribs. Two studs are provided in each plate with flange nuts to allow fixture mounting by keyhole slots. Sealant must be applied (by others) between mounting plate and mounting surface to insure a dry junction box.

Finish: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish. Standard colors include (BL) Black, (DB) Dark Bronze, (WH) White, (PS) Platinum Silver, (SG) Stealth Gray, (LG) Light Gray, and (CC) Custom Color (Include RAL#).

Listed To: UL 1598 Standard for Luminaires - UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products and CSA C22.2#250.0 Luminaires.

Warranty: Kim Lighting warrants Wall Director LED products ("Product(s)") sold by Kim Lighting to be free from defects in material and workmanship for (i) a period of five (5) years for metal parts, (ii) a period of ten (10) years for exterior housing paint finish(s), (iii) a period of six (6) years for LED Light Engines and, (iv) a period of five (5) years for LED power components (driver, surge protector and LifeShield™ device), from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each product.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

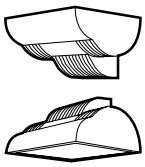
Listings and Ratings	
UL1598, UL 8750	IP66 Rated[1]

[1]Suitable for wet locations.

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

HUBBELL LIGHTING, INC.

 • 16555 EAST GALE AVENUE, CITY OF INDUSTRY, CA 91745-1788 • TEL: 626/968-5666 • FAX: 626/968-5716



Standard Features

Fixture
Cat. No. designates **WD14** fixture, Up (U) or Down (D) configuration, and light distribution (2, 3 or 4).

WD14 | x | x | E35

Housing Size:
WD14

Distribution:
☐ U = Up
☐ D = Down

Type:
☐ 2 = Type II
☐ 3 = Type III
☐ 4 = Type IV

E35 = 350mA

Light Distribution:


Type II


Type III


Type IV

Electrical Module

Cat. Nos. for Electrical Modules available:

60L | xK | x

Source:
60L = 60 LED's

Color Temperature:
☐ 3K = 3000K
☐ 4K = 4200K
☐ 5K = 5100K
☐ 2K = 580nm - Amber

Voltage:
☐ 120 = 120V
☐ 208 = 208V
☐ 240 = 240V
☐ 277 = 277V
☐ 347 = 347V[1]
☐ 480 = 480V[1]

[1]Due to current unavailability of 347V and 480V drivers, specification of these voltages may feature an integral step-down transformer.

Finish
TGIC powder coat paint over a titanated zirconium conversion coating.

Color:	Black	Dark Bronze	Light Gray	Stealth Gray	Platinum Silver	White	Custom Color[1]
Cat. No.:	☐ **BL**	☐ **DB**	☐ **LG**	☐ **SG**	☐ **PS**	☐ **WH**	☐ **CC**

[1]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____

0-10V Dimming Interface

Driver has a 0-10V dimming interface with a dimming range of 10-100%. Is compatible with most control systems including Hubbell Building Automation wiHUBB™. Approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV. Note: Not compatible with current sourcing dimmers. Controls compatible via Gray and Purple dimming lead.

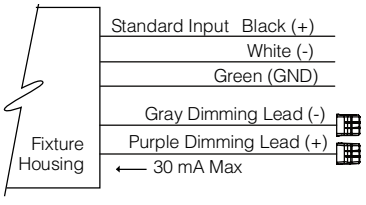


EXHIBIT 16

CONSTRUCTION MANAGEMENT PLAN

A Construction Management Plan is included in the submission drawings; see sheet L1.1. The Plan identifies the location of temporary construction fencing, construction gates and areas of trash dumpster and recycling dumpsters. The plan also identifies a contractor parking area and a material storage area.

EXHIBIT 17

EASEMENTS

Owen Haskell Inc. prepared the Standard Boundary Survey for this project (see attached drawing.) Research performed as part the Standard Boundary Survey showed the property is not burdened with easements.