

APPLICATION FOR BUILDING PERMIT

Town of Machias, Maine

Building Permit request for:
 New Construction () Expansion / Alteration
 Moving of Building () Reconstruction / Replacement
 Conversion to another or different use

Date application received at Town Office: 11/21/2023

Fee Paid \$ _____

Recipients Initials: JCF

Name of Applicant: County of Washington, Haley Ward

(or Agent) 85 Court St

Address of Applicant: Machias, ME 04654 Telephone: 207-255-3127

Address of Building(s): 82 Court St

Map 11 Lot 149/150

Proposed Use: (Describe briefly use of structure such as nature of business or residence, single or multi-family)

Public Safety building
2 story

Indicate what other structures are located on the same lot and the uses:

N/A

(Refer to Town of Machias Building Permit Ordinance 01/26/1989 in answering all applicable sections below.)

1. () Yes No A waiver or variance is requested. (Attach separate sheet stating the request and reasons why you believe they should be allowed.)
2. Yes () No A copy of the applicable town tax map showing lot location is attached.
3. Yes () No The property is connected to the Machias Water Co. supply or can be connected. If the property is not, or cannot be connected to the Machias Water Co. supply, water will be provided by:
 () Well () Spring () Other _____
4. Yes () No The property is connected to Town of Machias sewer system or can be connected. Attach a copy of the Sewer Entrance Permit and include the location of the connection on the site plan if the project is to be connected to the Town of Machias sewer system.
5. () Yes No A soil test has been conducted for installation of a septic system for sewage disposal.
 (Attach a copy of test document and diagram of the recommended septic location.)
6. Yes () No A site plan showing all items listed in section 4A(3) of Machias Building Permit Ordinance is attached. The site plan should reflect the dimensions of the lot on which construction is to be undertaken specifically to include the road frontage measurement. The plan should also include setback distances for the proposed construction from each boundary and from the public road or private access road.
7. Yes () No A copy of the deed, lease, purchase and sales agreement, or other evidence of ownership or control of the real estate is attached.
8. () Yes No Will surface water drainage adversely affect any neighboring properties?
9. () Yes No Will lighting reflect beyond lot lines or cause annoyance to neighboring properties?
10. Yes () No Lot has a minimum of at least 100 feet of frontage on a town road or deeded private way.
11. Yes () No The building lot is at least 15,000 square feet in size or larger.
12. () Yes No The building setback will be at least 35 feet from the front of the lot.
13. Yes () No Side and rear distances from the lot lines are at least 15 feet to proposed building.
14. Yes () No The proposed structure will be no more than 50 feet above ground level, including chimneys, stacks or other protrusions that are part of the structure.
15. Yes () No There will be safe vehicular entrance and exit to public or private roads that border the lot. (Indicate vehicle driveway on site plan.)
16. Yes No Will the proposed activity involve the installation or change of use of a driveway providing access to a state highway? If so, an entrance permit from the Department of Transportation must be obtained prior to any issuance of permits and attached to this application.
17. There will be 35 off street parking spaces as shown in site plan.

18. Commercial, industrial, and residential structures are required to comply with certain federal and/or state minimum standards and regulations. By initialing the items set forth below, the applicant is acknowledging awareness of, and compliance with, any applicable federal and state regulations and has attached copies of all approved permits that may be required. Indicate below which items apply to this building permit application and certify compliance by initialing the appropriate below:

Water Supply	<u>AG</u>	Water Pollution	<u>AG</u>	Flood Hazard Development Permit	<u>N/A</u>
Air Pollution	<u>AG</u>	Soil Erosion	<u>AG</u>	Maine DOT Entrance Permit	<u>N/A</u>
Shoreland Zoning	<u>AG NA</u>	Surface Drainage	<u>AG</u>	Sewer Connection Permit	<u>AG</u>
Sewage Pollution	<u>AG</u>	Noise Level	<u>AG</u>	Natural Resources Protection Act Permit	<u>N/A</u>
Other	_____				

19. Estimated cost of proposed building or structure(s): \$ \$5.2 million

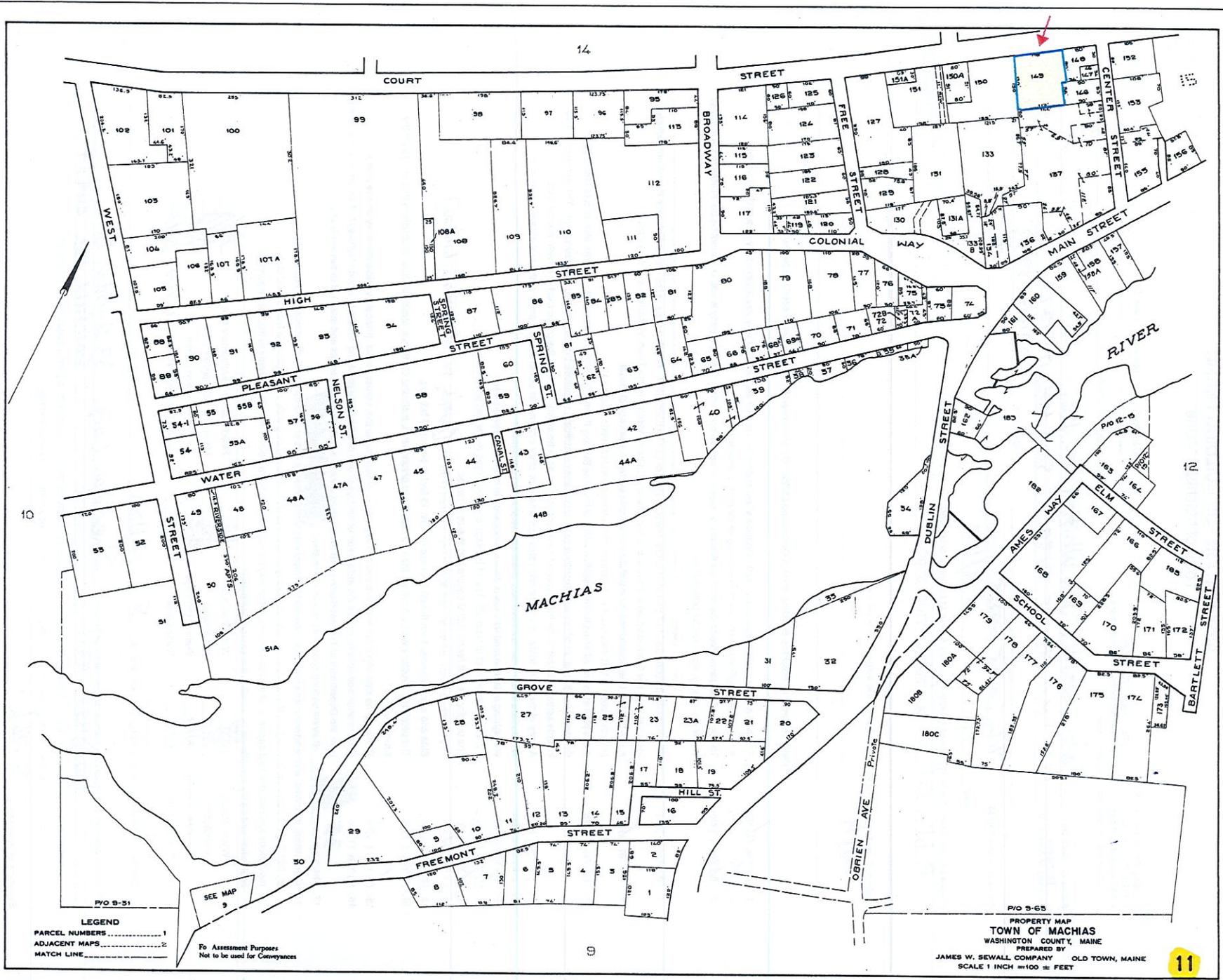
20. Name, address and telephone number of contractor or builder: Shendan Corp 33 Shendan Dr
207-453-9311 Fairfield, ME 04937

21. I have read and understand the Town of Machias Building Permit Ordinance and hereby make application for a permit based on the information contained above and request the Planning Board to act on this application at its next scheduled monthly meeting.

Signature of Applicant: Renee Day, County Manager

NOTE: Although not required, it is recommended that the applicant, or a duly appointed representative attend the meeting at which the application for a Building Permit is to be considered.

For Planning Board use:
 Building Permit: () Approved () Denied By the Planning Board on (Date): _____
 Authorized Planning Board Signature: _____



14

10

LEGEND
 PARCEL NUMBERS 1
 ADJACENT MAPS 2
 MATCH LINE

For Assessment Purposes
 Not to be used for Conveyances

SEE MAP 9

P/O 8-31

P/O 9-65

PROPERTY MAP
TOWN OF MACHIAS
 WASHINGTON COUNTY, MAINE
 PREPARED BY
 JAMES W. SEWALL COMPANY OLD TOWN, MAINE
 SCALE 1 INCH = 100 ± FEET

11

Lot 149

WARRANTY DEED

KNOW ALL PEOPLE BY THESE PRESENTS, that the Trustees of the Centre Street Congregational Church, United Church of Christ, a Maine religious corporation with an office at 9 Center Street, Machias, Maine and whose mailing address is P. O. Box 265, Machias, Maine, 04654, for consideration paid, grant to the County of Washington, a body politic, with an office at 85 Court Street, Machias, Maine, and a mailing address of P. O. Box 297, Machias, Maine, 04654, with WARRANTY COVENANTS, the land in Machias, County of Washington, State of Maine, all interest of the Grantor herein in and to the homestead lot of the late Deacon William Inglee, the following described real estate:

A certain lot or parcel of land situated in Machias, County of Washington, and State of Maine, with all buildings, thereon standing, located on the southerly side of Court Street being more particularly bounded and described as follows:

Northerly by Court Street; Easterly by the homestead of Michael and Mary Leonard; Southerly by land of Machias Savings Bank; and Westerly by the homestead formerly of Ellis Parlin and now or formerly of Frederick and Norma Reynolds.

TRANSFER TAX PAID

For title, reference may be had to deed from Roxana P. Inglee to the Deacons of the Centre Street Congregational Church dated June 23, 1888 and recorded in the Washington County Registry of Deeds Book 184, Page 26 and to deed from the Maine Conference of the United Church of Christ to the Centre Street Congregational Church, United Church of Christ, dated January 13, 1997 and recorded in said Registry of Deeds Book 2138, Page 113.

This conveyance is made pursuant to a quorum vote of the congregation members of the Centre Street Congregational Church, United Church of Christ, on July 16, 2006, a further quorum vote dated October 21, 2007, and the vote of the Board of Trustees at a special meeting on October 5, 2008.

IN WITNESS WHEREOF, the said Centre Street Congregational Church, United Church of Christ has caused this instrument to be signed and sealed in its corporate name by David M. Whitney, Chair of the Board of Trustees, thereunto duly authorized, this 6th day of November, 2008.

WITNESS:

CENTRE STREET CONGREGATIONAL CHURCH,
UNITED CHURCH OF CHRIST

R. A. Haines

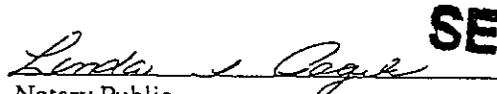
By: David M. Whitney
David M. Whitney,
Chair, Board of Trustees

STATE OF MAINE
WASHINGTON, ss

November 6, 2008

Then personally appeared the above named David M. Whitney, Chair of the Board of Trustees of the Centre Street Congregational Church, United Church of Christ, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Centre Street Congregational Church, United Church of Christ.

Before me,


Notary Public **SEAL**

LINDA S. PAGELS
Notary Public, Maine
~~My Commission Expires April 30, 2013~~
Typed or printed name of Notary

Received
Recorded Register of Deeds
Nov 12, 2008 03:26:41P
Washington County
Sharon D. Strout

QUITCLAIM DEED WITH COVENANT

Jeffrey W. Davidson and Candace G. Davidson, whose mailing address is: 103 High Head Road, East Machias, ME 04630,

for consideration paid,

grant to The County of Washington, a body politic, whose address is: 85 Court Street, Machias, ME 04654 and whose mailing address is: PO Box 297, Machias, ME 04654,

with quitclaim covenant,

A certain lot or parcel of land, with any buildings and improvements thereon, situated on the Southerly side of Court Street in Machias, Washington County, State of Maine, and bounded Northerly by Court Street, Easterly by the Congregational Parsonage lot, Southerly by land heretofore of the heirs of Obadiah Hill and by land formerly of William H. Hemenway, and Westerly by the Porter Memorial Library lot. Being the premises formerly known as the William Longfellow homestead lot.

Meaning to convey and hereby conveying all and the same premises as described in a Warranty Deed from Norma P. Reynolds to Frederic A. Reynolds and Norma P. Reynolds as joint tenants dated October 28, 1982, and recorded in Book 1200, Page 73 of the Washington County Registry of Deeds (an undivided, two-thirds interest) and a Warranty Deed from Barbara P. Sawyer to Frederic A. Reynolds and Norma P. Reynolds as joint tenants dated January 12, 1988, and recorded in Book 1490, Page 264 of said registry (an undivided one-third interest). The Norma P. Reynolds named as Grantee in those deeds is one and the same person as Norma Jean Parlin Reynolds. The interest of Norma P. Reynolds (Norma Jean Parlin Reynolds) in and to the above described real estate was as surviving joint tenant on the death of Frederic A. Reynolds on October 10, 2005.

Included within the boundaries of the above described real estate is the property described in a Warranty Deed from Frederic A. Reynolds and Norma P. Reynolds to Barbara P. Sawyer dated January 12, 1988, and recorded in Book 1490, Page 265 of the Washington County Registry of Deeds as reconveyed by Barbara P. Sawyer and Ann M. Sawyer to the said Frederic A. Reynolds and Norma P. Reynolds as joint tenants by Warranty Deed dated December 29, 1989, and recorded in Book 1615, Page 57 of said Registry.

Meaning and hereby conveying the same property described in a deed from Donald E. Reynolds and Alan D. Reynolds, Co-Personal Representatives of the Estate of Norma Jean Parlin Reynolds, to the Grantors herein, to be recorded in the Washington County Registry of Deeds.

Granting also to the Grantee herein, its successors and assigns, all rights, privileges, appurtenances and easements belonging to the granted estate as intended by M.R.S.A., Title 33, Section 773.

Excepting and reserving however to the Grantors herein, their heirs and assigns, the following described parcel of land:

TRANSFER TAX PAID

A certain lot or parcel of land, together with any improvements thereon, located on the southerly side of Court Street, said lot or parcel of land situated in the Town of Machias, County of Washington, State of Maine and being more particularly described as follows:

BEGINNING at a 5/8" rebar with surveyor's identification cap (C.E.S., Inc. - P.L.S. #2324) to be set on the southerly sideline of Court Street, said rebar to be located N 82°41'25" E, a distance of eighty and twenty-nine hundredths (80.29') feet, from a 1/2" rebar found on or near the easterly line of land now or formerly of the Porter Memorial Library Association, as described in a deed dated November 28, 1891 and recorded in Book 201, Page 123 of the Washington County Registry of Deeds, said rebar to be further located N 45° 17' E, a distance of twenty-three and four tenths (23.4±) feet, more or less, from the northeasterly corner of the house currently (2009) located on land now or formerly of Donald E. Reynolds and Alan D. Reynolds, Co-Personal Representatives of the Estate of Norma Jean Parlin Reynolds, as set out in a Certificate and Abstract dated December 1, 2008 and recorded in Book 3475, Page 195 of the Washington County Registry of Deeds;

THENCE, S 12°09'37" E, crossing said land of Reynolds, a distance of ninety-one (91.00') feet, to a second 5/8" rebar with surveyor's identification cap (C.E.S., Inc. P.L.S. #2324) to be set, said rebar to be located N 57°55'02" W, a distance of ninety-six and thirty-six hundredths (96.36') feet, from a 1" bolt found at or near the southeasterly corner of said land of Reynolds and on or near the northerly line of land now or formerly of MSB Leasing, Inc., as described in a deed dated November 28, 1984 and recorded in Book 1304, Page 234 of the Washington County Registry of Deeds, said rebar to be further located N 28°08'05" E, a distance of eighty and eighty-three hundredths (80.83') feet, from a second 1" bolt found at or near the northwesterly corner of said land of MSB Leasing, Inc.;

THENCE, S 77°50'23" W, crossing said land of Reynolds, a distance of eighty (80±) feet, more or less, to the easterly line of said land of the Porter Memorial Library Association;

THENCE, N 12°09'37" W, along the easterly line of said land of the Porter Memorial Library Association, a distance of ninety-one (91.00') feet, to a point on the southerly sideline of Court Street, said point being located S 12°09'37" E, a distance of six and seventy-nine hundredths (6.79') feet, from said 1/2" rebar found;

THENCE, N 77°50'23" E, along the southerly sideline of Court Street, a distance of eighty (80') feet, more or less, to the **POINT OF BEGINNING**.

ALSO CONVEYING any right, title and interest the Grantors may have to lands lying between the above described sidelines and the centerline of said Court Street, in accordance with the Laws of the State of Maine.

Bearings refer to the Magnetic Meridian as observed by CES, Inc. in December of 2009.

The above described parcel, containing 0.17 acres (7,280 sq. ft.), more or less, is a portion of the property of Donald E. Reynolds and Alan D. Reynolds as Co-Personal Representatives of the Estate of Norma Jean Parlin Reynolds being set out in a Certificate and Abstract dated December 1, 2008 and recorded in Book 3475, Page 195 of the Washington County Registry of Deeds. Said parcel is furthermore a portion of the former property conveyed by Barbara P. Sawyer to

Frederic A. Reynolds and Norma P. Reynolds in a deed dated January 12, 1988 and recorded in Book 1490, Page 264 of the Washington County Registry of Deeds.

Also excepting and reserving, however, to the Grantors herein, their heirs and assigns, from the above conveyed property, an easement of sufficient width and length to park two vehicles near the easterly or southerly boundary lines of the above excepted property, once a parking lot is built on the above conveyed property by the County of Washington and a right of way to access said parking spaces.

Also reserving, however, to the Grantors, Jeffrey W. Davidson and Candace G. Davidson, a right of first refusal to purchase the above described premises under the following terms and conditions:

1. The Grantee, its successors and assigns (hereinafter called the selling party), shall not sell, offer to sell, transfer or convey the above described property or any portion thereof, unless the selling party shall have first offered to sell, transfer or convey said property to the Grantors herein (hereinafter called the option holders), upon the same terms and conditions available to the third party. If selling party shall decide or desire to sell, transfer or convey said property, selling party shall first give written notice to option holders of such decision or desire and the terms and conditions upon which the selling party proposes to sell, transfer or convey said property. For the purposes hereof, the terms and conditions of any proposed sale, transfer or conveyance shall include but shall not be limited to the purchase price, terms of any seller financing and the proposed closing date, which shall not be less than 45 days following the date of said notice to option holders. The notice shall constitute an offer by selling party to sell, transfer or convey the property to option holders on the terms and conditions set forth in the notice. Option holders shall have 10 business days after the receipt of the notice to send written notice to selling party of option holders' acceptance of the offer, which notice shall be effective as of the date of mailing. If option holders accept the offer, a binding agreement to purchase the property shall be created as of the date of said notice of acceptance to selling party on the same terms and conditions as those contained in the offer. The closing on said purchase shall take place no later than 30 days from the date of acceptance by option holders.
2. In the event that option holders do not accept said offer within the 10 business day acceptance period, the right of first refusal shall be waived with respect to that particular third party offer and selling party may then sell, transfer or convey the property to that particular third party upon the same terms and conditions set forth in the notice to option holders. Option holders shall continue to have a right of first refusal with respect to a sale, transfer or conveyance to that particular third party on terms more advantageous to that party than those set forth in the notice to option holders.
3. Any notice hereunder shall be delivered in person or sent by certified United States Mail, postage prepaid, return receipt requested, to the addresses of selling party and/or option holders as last set forth upon the records of the Washington County Registry of Deeds, or to such address as option holders shall maintain on file with the Washington County Commissioners.

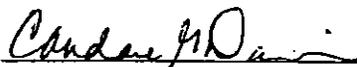
4. If selling party should enter into any conveyance, option or agreement in conflict with this right of first refusal, option holders may seek to have a Court of competent jurisdiction declare that agreement breached in order that such conveyance, option or agreement be set aside.
5. This right of first refusal shall not apply to a conveyance made by conveyance to any other entity for the beneficial ownership of the original Grantee provided that this right of first refusal shall remain in effect and be binding on the transferee on any such conveyance. If said right of first refusal is not earlier terminated by the procedures as set forth herein, said right shall finally expire upon the death of the survivor of the Grantors herein, Jeffrey W. Davidson and Candace G. Davidson.
6. This right of first refusal shall not restrict the selling party's right to mortgage or encumber the premises, to grant easements or to grant leases without option to purchase. A transfer of any portion of the land pursuant to foreclosure of a bona fide Mortgage to a financial institution shall free the interest so transferred from the operation of this right of first refusal provided that such foreclosure be conducted by civil action and the option holders be included in the action as parties in interest. If the selling party shall offer a deed in lieu of foreclosure of a bona fide mortgage to the mortgagee, selling party shall provide notice to option holders pursuant to Paragraph 1 herein, with the option price being the then total indebtedness secured by said mortgage.
7. With respect to any portion of the land subject to this agreement, the right of first refusal shall terminate upon consummation of a sale and the recording of a Deed transferring such land to a third party after full compliance with the terms of this right of first refusal but termination of this right of first refusal with respect to any portion of the land shall not affect the right of first refusal with respect to the remaining land subject to this agreement. An Affidavit by the selling party duly recorded in the Washington County Registry of Deeds reciting selling party's full compliance with the terms of the right of first refusal; the option holders' failure to exercise the option to purchase following due notice; an offer and a third party's purchase of the property under the terms and conditions of the original offer shall be conclusive evidence of compliance with the provisions hereof with respect to such conveyance in favor of the selling party and all persons claiming by, through or under the selling party.

Witness our hands and seals this 7th day of January, 2010.


Witness


Jeffrey W. Davidson


Witness


Candace G. Davidson

STATE OF MAINE

Washington, ss.

Dated: 1-7-2010

Then personally appeared the above named Jeffrey W. Davidson / Candace G. Davidson and acknowledged the foregoing instrument to be his/her free act and deed.

Before me,

Mary Jane Good
Typed or printed name of Notary Public

Mary Jane Good
Notary Public

my commission expires
June 28, 2014

SEAL

Received
Recorded Register of Deeds
Jan 08, 2010 10:11:44A
Washington County
Sharon D. Strout

**TOWN OF MACHIAS
RESIDENTIAL OR COMMERCIAL BUILDING SEWER APPLICATION**

To the Town of Machias:

The undersigned, being the Agent of the property
(Owner, Owner's, Agent)

located at 82 Court, does hereby request a
(Number) (Street)

permit to install, connect, or reconnect a building sewer to serve the

Public Safety Building at said location. 11 149
(Residence, Commercial Building, etc.) (Map) (Lot)

1. The following indicated fixtures will be connected to the proposed building sewer:

<u>Number</u>	<u>Fixtures</u>	<u>Number</u>	<u>Fixtures</u>
<u>2</u>	Kitchen Sinks	<u>6</u>	Water Closets
<u>6</u>	Lavatories	<u>-</u>	Bath Tubs
<u>2</u>	Laundry Tubs	<u>2</u>	Showers
<u>2</u>	Urinals	<u>-</u>	Garbage Disposal

Specify other fixtures: none

2. The maximum number of persons who will use the above fixtures are: 150
3. The name, address, and phone number of the person or firm who will perform the propose work:
Sheridan Corp, 33 Sheridan Drive, Fairfield, ME, 04937

FIRMS PERMIT EXPIRATION DATE: _____

4. Plans and specifications for the proposed building sewer are attached hereunto as Exhibit "A".

In consideration of the granting of this permit, the undersigned agrees to:

1. Accept and abide by all provisions of the Sewer Ordinance of the Town of Machias, and all other pertinent ordinances or regulations that may be adopted in the future. (All sewer laterals are to be connected at the main line with a properly sized saddle or wye connector.)
2. Maintain the building sewer at no expense to the Town of Machias.
3. Notify the Superintendent 24 hours in advance of when the building sewer is ready for inspection and connection to the public sewer, but before any of the work is covered. (207) 255-3295

Signature: 
(Applicant)

Date: 11/21/2023

120 Main Street #132, Saco, Maine 04072

(Address of Applicant)

RATES

Residential Sewer Line Reconnection Fee:	\$10.00 Per Unit
Commercial Sewer Line Reconnection Fee:	\$50.00 Per Unit
Residential New Sewer Line Connection Fee:	\$50.00 Per Unit
Commercial New Sewer Line Connection Fee:	\$300.00 Per Unit
R.V. Dumping Fee:	\$10.00 Per R.V.
Resident Dumping Fee:	\$ 50.00 Per Thousand Gallons
Non-Resident Dumping Fee:	\$ 50.00 Per Thousand Gallons



PROJECT NARRATIVE / STORMWATER MANAGEMENT MEMO

The intent of this Stormwater Management Memo is to comply with the requirements of the town of Machias Building Permit Ordinance. This project involves the development of a public safety building and an associated parking area at 82 Court Street in Machias, Maine.

The project property is currently occupied by a building housing the Washington County District Attorney with a 17 space parking lot on the western portion of the lot. The existing building is proposed be demolished and replaced with a two-story building and the parking lot will be expanded to create a total of 35 new spaces. This project includes the creation of approximately 0.15 acres (6,510 square feet) of new impervious surface.

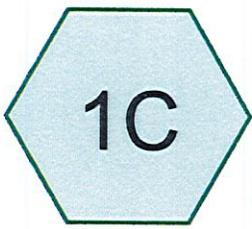
The project is not subject to Maine Department of Environmental Protection permitting. The Surface Drainage portion of the Machias Building Permit Ordinance, Section 4.B.2(a) states, "adequate provision must be made for surface drainage so that removal of surface water will not adversely affect any other properties." To meet this standard, HydroCAD calculations were performed to compare pre-development and post-development conditions. Curve numbers and peak flow rates were calculated using HydroCAD. A detention basin at the rear of the parking lot has been incorporated into the project design to mitigate any expected increase to the peak flow rates leaving the site from the proposed development. The run-off from the majority of the new parking lot will drain to this basin, please see the attached pre- and post-development maps for reference.

As shown in the peak flow rate comparison table below, the proposed stormwater management basin reduces the overall peak flow rates of runoff in the post-development condition. Given these results, it is expected that the proposed design meets Section 4.B.2(a), as discussed above. Please also see the provided hydrological analysis for the 25-year storm.

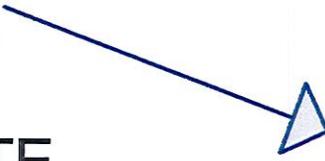
		2 Year (cfs)	10 Year (cfs)	25 Year (cfs)
Whole Property	Pre	0.31	0.99	1.65
	Post	0.15	0.67	1.16

Erosion control measures will be in place prior to the start of any construction. Temporary and permanent measures will be installed in accordance with the Erosion and Sedimentation Control Plan provided with this application. Upon completion of the construction and stabilization of all disturbed areas, the temporary erosion control measures will be removed.

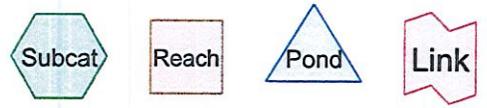
Category	Value	Unit
Subcat	100	ft ²
Reach	100	ft
Pond	100	ft ²
Link	100	ft
TOTAL	100	ft ²



WHOLE SITE



POI 1



Routing Diagram for PRE
 Prepared by {enter your company name here}, Printed 11/21/2023
 HydroCAD® 10.00-26 s/n 00641 © 2020 HydroCAD Software Solutions LLC

PRE

Prepared by {enter your company name here}
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Printed 11/21/2023

Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.372	39	>75% Grass cover, Good, HSG A (1C)
0.039	98	Building (1C)
0.068	98	Gravel Drive (1C)
0.144	98	Parking (1C)
0.623	63	TOTAL AREA

PRE

Prepared by {enter your company name here}

Printed 11/21/2023

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Page 3

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.372	0.000	0.000	0.000	0.000	0.372	>75% Grass cover, Good	1C
0.000	0.000	0.000	0.000	0.039	0.039	Building	1C
0.000	0.000	0.000	0.000	0.068	0.068	Gravel Drive	1C
0.000	0.000	0.000	0.000	0.144	0.144	Parking	1C
0.372	0.000	0.000	0.000	0.251	0.623	TOTAL AREA	

PRE

Type III 24-hr 25 year Rainfall=6.20"

Prepared by {enter your company name here}

Printed 11/21/2023

HydroCAD® 10.00-26 s/n 00641 © 2020 HydroCAD Software Solutions LLC

Page 4

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

Subcatchment1C: WHOLE SITE

Runoff Area=27,136 sf 40.28% Impervious Runoff Depth>2.13"
Tc=5.0 min CN=63 Runoff=1.65 cfs 0.110 af

Reach 1: POI 1

Inflow=1.65 cfs 0.110 af
Outflow=1.65 cfs 0.110 af

Total Runoff Area = 0.623 ac Runoff Volume = 0.110 af Average Runoff Depth = 2.13"
59.72% Pervious = 0.372 ac 40.28% Impervious = 0.251 ac

PRE

Type III 24-hr 25 year Rainfall=6.20"

Prepared by {enter your company name here}

Printed 11/21/2023

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Summary for Subcatchment 1C: WHOLE SITE

Runoff = 1.65 cfs @ 12.08 hrs, Volume= 0.110 af, Depth> 2.13"

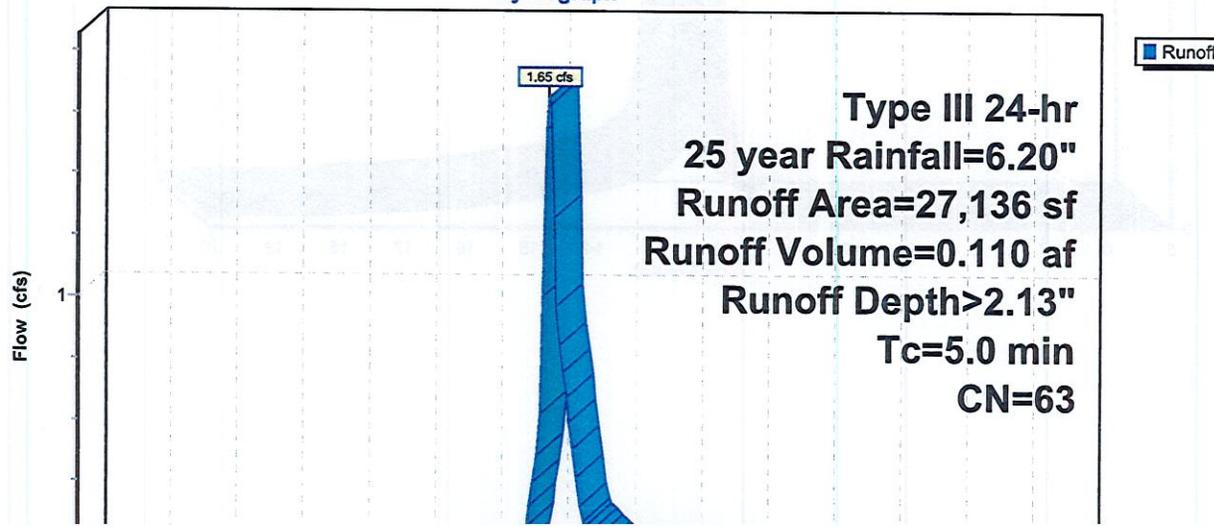
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.20"

	Area (sf)	CN	Description
*	1,700	98	Building
*	6,271	98	Parking
	16,205	39	>75% Grass cover, Good, HSG A
*	2,960	98	Gravel Drive
	27,136	63	Weighted Average
	16,205		59.72% Pervious Area
	10,931		40.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 5

Subcatchment 1C: WHOLE SITE

Hydrograph



PRE

Type III 24-hr 25 year Rainfall=6.20"

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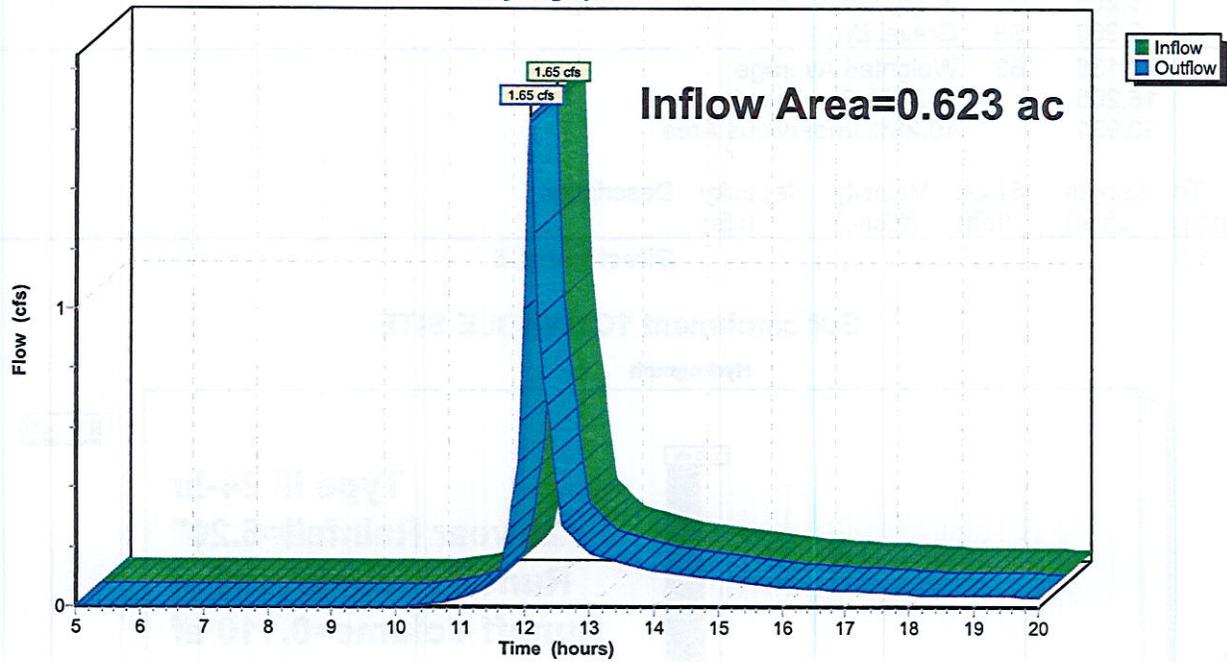
Summary for Reach 1: POI 1

Inflow Area = 0.623 ac, 40.28% Impervious, Inflow Depth > 2.13" for 25 year event
Inflow = 1.65 cfs @ 12.08 hrs, Volume= 0.110 af
Outflow = 1.65 cfs @ 12.08 hrs, Volume= 0.110 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 1: POI 1

Hydrograph





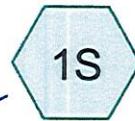
Parking Lot to Detention Pond



Detention Pond



POI 1



Rest of the Site



Routing Diagram for POST

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.253	39	>75% Grass cover, Good, HSG A (1S, 2S)
0.083	98	Building (1S)
0.052	98	Parking (1S)
0.236	98	Parking Lots (2S)
0.623	74	TOTAL AREA

POST

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.253	0.000	0.000	0.000	0.000	0.253	>75% Grass cover, Good	1S, 2S
0.000	0.000	0.000	0.000	0.083	0.083	Building	1S
0.000	0.000	0.000	0.000	0.052	0.052	Parking	1S
0.000	0.000	0.000	0.000	0.236	0.236	Parking Lots	2S
0.253	0.000	0.000	0.000	0.371	0.623	TOTAL AREA	

POST

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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

Subcatchment1S: Rest of the Site Runoff Area=14,838 sf 39.61% Impervious Runoff Depth>2.04"
Tc=5.0 min CN=62 Runoff=0.86 cfs 0.058 af

Subcatchment2S: Parking Lot to Runoff Area=12,307 sf 83.42% Impervious Runoff Depth>4.55"
Tc=5.0 min CN=88 Runoff=1.55 cfs 0.107 af

Reach 1: POI 1 Inflow=1.16 cfs 0.115 af
Outflow=1.16 cfs 0.115 af

Pond 1P: Detention Pond Peak Elev=58.18' Storage=1,788 cf Inflow=1.55 cfs 0.107 af
Primary=0.30 cfs 0.057 af Secondary=1.19 cfs 0.020 af Outflow=1.49 cfs 0.078 af

Total Runoff Area = 0.623 ac Runoff Volume = 0.165 af Average Runoff Depth = 3.18"
40.53% Pervious = 0.253 ac 59.47% Impervious = 0.371 ac

POST

Type III 24-hr 25 year Rainfall=6.20"

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Summary for Subcatchment 1S: Rest of the Site

Runoff = 0.86 cfs @ 12.09 hrs, Volume= 0.058 af, Depth> 2.04"

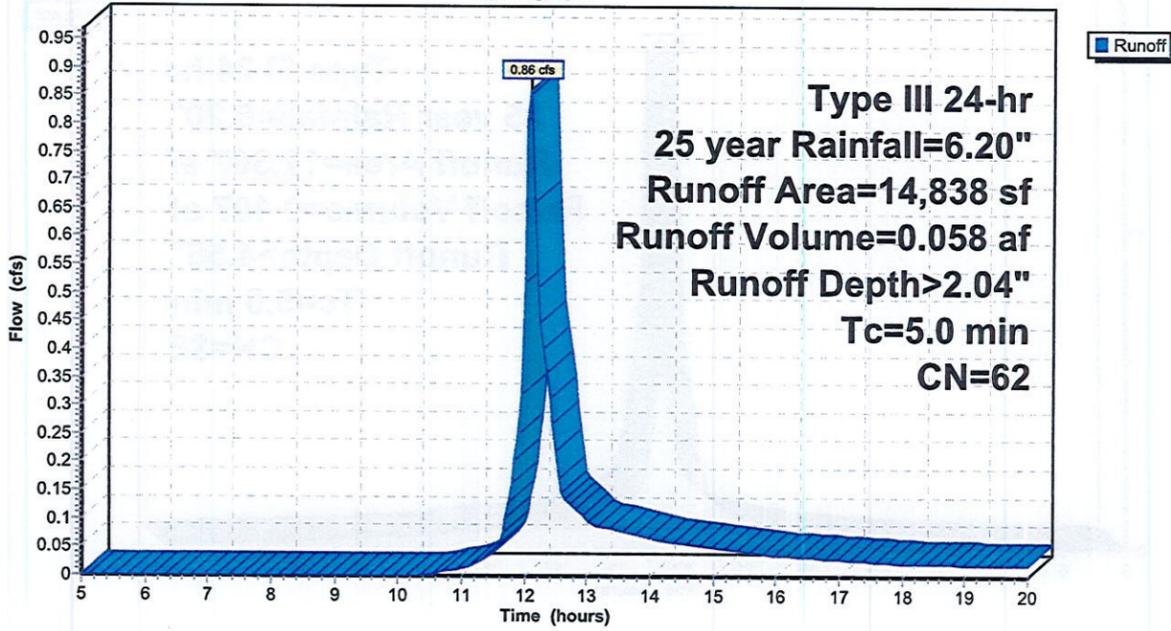
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.20"

Area (sf)	CN	Description
* 3,600	98	Building
* 2,278	98	Parking
8,960	39	>75% Grass cover, Good, HSG A
14,838	62	Weighted Average
8,960		60.39% Pervious Area
5,878		39.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 5

Subcatchment 1S: Rest of the Site

Hydrograph



POST

Type III 24-hr 25 year Rainfall=6.20"

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Summary for Subcatchment 2S: Parking Lot to Detention Pond

Runoff = 1.55 cfs @ 12.07 hrs, Volume= 0.107 af, Depth> 4.55"

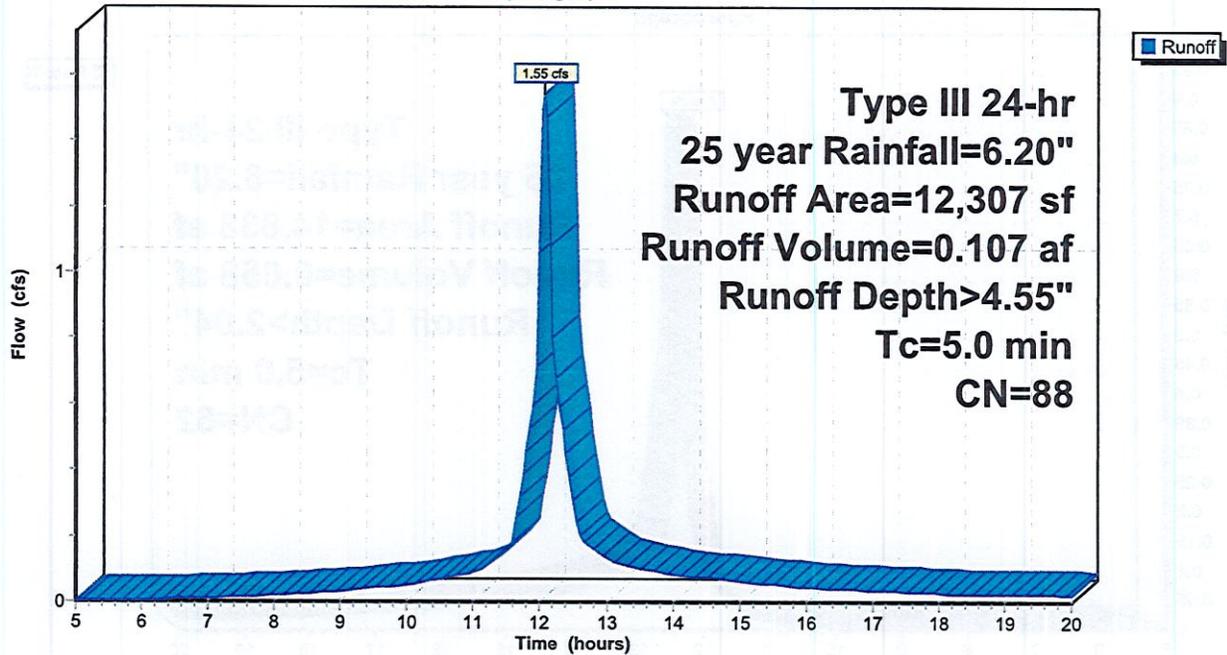
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.20"

	Area (sf)	CN	Description
*	10,266	98	Parking Lots
	2,041	39	>75% Grass cover, Good, HSG A
	12,307	88	Weighted Average
	2,041		16.58% Pervious Area
	10,266		83.42% Impervious Area

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

Subcatchment 2S: Parking Lot to Detention Pond

Hydrograph



POST

Type III 24-hr 25 year Rainfall=6.20"

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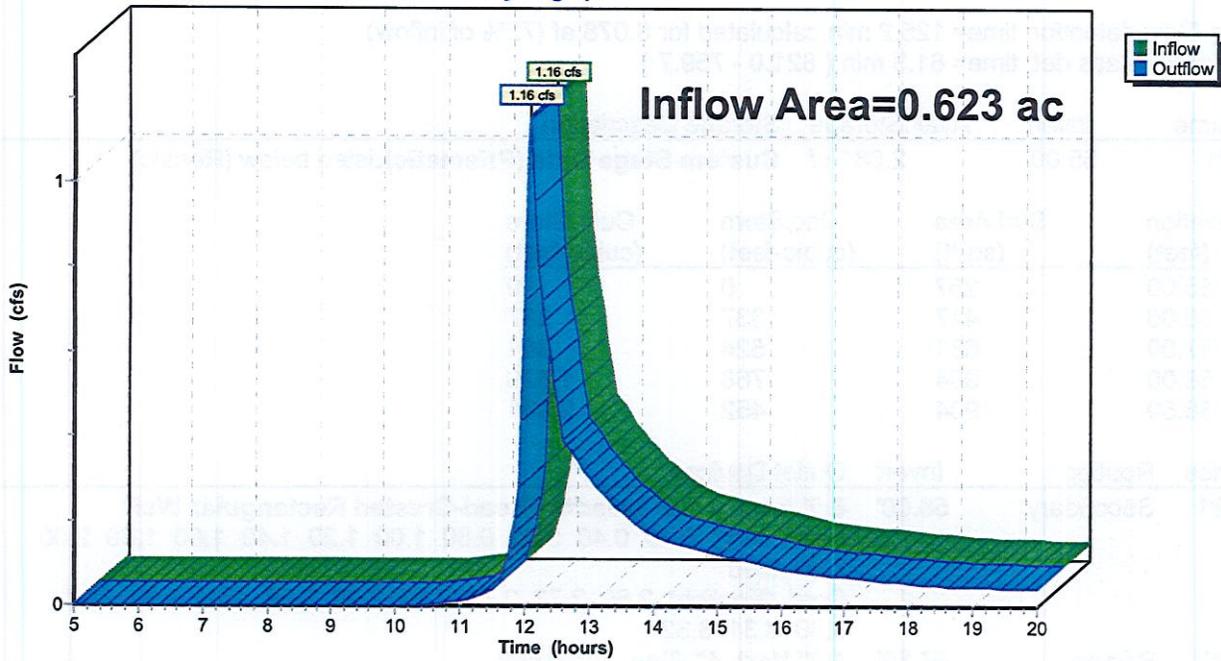
Summary for Reach 1: POI 1

Inflow Area = 0.623 ac, 59.47% Impervious, Inflow Depth > 2.22" for 25 year event
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.115 af
Outflow = 1.16 cfs @ 12.09 hrs, Volume= 0.115 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 1: POI 1

Hydrograph



POST

Type III 24-hr 25 year Rainfall=6.20"

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Summary for Pond 1P: Detention Pond

Inflow Area = 0.283 ac, 83.42% Impervious, Inflow Depth > 4.55" for 25 year event
 Inflow = 1.55 cfs @ 12.07 hrs, Volume= 0.107 af
 Outflow = 1.49 cfs @ 12.12 hrs, Volume= 0.078 af, Atten= 4%, Lag= 2.7 min
 Primary = 0.30 cfs @ 12.12 hrs, Volume= 0.057 af
 Secondary = 1.19 cfs @ 12.12 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 58.18' @ 12.12 hrs Surf.Area= 904 sf Storage= 1,788 cf

Plug-Flow detention time= 125.2 min calculated for 0.078 af (72% of inflow)
 Center-of-Mass det. time= 61.3 min (821.0 - 759.7)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	2,081 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.00	257	0	0
56.00	417	337	337
57.00	631	524	861
58.00	904	768	1,629
58.50	904	452	2,081

Device	Routing	Invert	Outlet Devices
#1	Secondary	58.00'	6.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Primary	57.50'	4.0" Vert. 4" Pipe C= 0.600

Primary OutFlow Max=0.30 cfs @ 12.12 hrs HW=58.16' (Free Discharge)
 ↳2=4" Pipe (Orifice Controls 0.30 cfs @ 3.40 fps)

Secondary OutFlow Max=1.08 cfs @ 12.12 hrs HW=58.16' (Free Discharge)
 ↳1=Broad-Crested Rectangular Weir(Weir Controls 1.08 cfs @ 1.09 fps)

POST

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Pond 1P: Detention Pond

Hydrograph

