



**City of Biddeford
Planning Board**

July 2, 2025 at 6:00 PM
City Hall Council Chambers & Zoom

[Join Zoom Meeting Online](#)

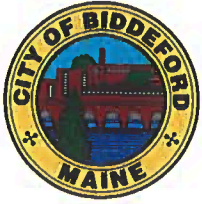
Or call in by phone: +1 312 626 6799

Meeting ID: 979 5989 1587

Passcode: 079544

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
3. Adjustment(s) to Agenda
4. Planner's Business
5. Consent Agenda
 - 5.a Approval of Meeting Minutes from June 18, 2025
6. Unfinished Business
7. New Business
 - 7.a 2025.25 Review of a Greatest Practical Extent application (Shoreland Zoning) for Matthew & Mary Lopresti to reconstruct the home at 100-Mile Stretch Road (Tax Map 61, Lot 3) in the Coastal Residential (CR) Zone and Shoreland Overlay.
 - 7.b 2024.32 The Biddeford Planning Board will hold a Public Meeting and take comments to review a Final Plan Subdivision Application for Coastal Oaks, LLC. The property is located at 512 Pool Street (Tax Map 9, Lot 31) in the RF & SR-1 Zones. The applicants propose to construct a subdivision containing 8 single-family homes.
8. Other Business
9. Adjourn

The Board reserves the right to halt official business at 9:30 p.m. Items not heard at tonight's meeting shall be rescheduled to the next meeting of the Board. All materials pertaining to items on the agenda are available for public review at the Biddeford Planning Department, second floor, Biddeford City Hall during normal business hours.



CITY OF BIDDEFORD

Planning and Development Department

205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115

Planning Board Meeting Meeting Minutes **DRAFT**

Date: June 18, 2025
Time: 6:00 PM
Location: Council Chambers & Zoom

1. Pledge of Allegiance 6:00 PM
2. Declaration of Quorum/Voting Members
Quorum Present: Alexa Plotkin, Chair, Larry Patoine, Sue Deschambault, Roch Angers, Matt Dubois, & Kayla Lewis (Alternate Member)
Board Members Absent: Steve Beaudette (Excused)
Staff Present: David Galbraith, Nan Whitten & Harry Center, City Attorney
3. Adjustments to the Agenda-Item 7D will appear after 7B
4. Planner's Business
 - 4.a Westbrook Development Corporation-change to housing ratio
 - Galbraith spoke to the Board about the reason for the change in the housing ratio.
 - The applicant is still well within the range for LMI housing.
 - The staff recommends approval
 - The reason this went back to the Board is the Chair asked for it to come back due to high parking costs
 - The Board felt positive about Galbraith approving this amendment
5. Consent Agenda
 - 5.A. Approval of Meeting Minutes from May 21, 2025 & June 9, 2025

MOTIONS: 6:20 PM
Motion- Dupuis -Motion to approve Consent Agenda
Second- Deschambault
Vote-Unanimous
6. Unfinished Business-N/A
7. New Business
 - 7.a 2025.11 The Biddeford Planning Board will review an amended Sketch Plan Request for Bedard Homes LLC. The proposal is to create 36 single-family home lots at 268 Pool Street (Tax Map 8, Lot 52-1) in the SR1 Zone.
ITEM TABLED DUE TO APPLICANT'S REQUEST
 - 7.b. 2025.09 The Biddeford Planning Board will continue to review the request from Bateman Partners for Preliminary approval for the Subdivision & Site Plan at 641 Main Street/1 Park View Court (Tax Map 32, Lot 1) in the R-3 Zone. This proposal is

- He also talked and explained the 4 waivers UNE will request.

Public Comments:

John Schafer-24 Sky Harbor Drive
 Matt Haas-36 Meetinghouse Road
 Tim Black-30 St. Martins Lane
 Phil Shapiro-68 Sky Hawk Drive
 Will Katitsky-10 Gertrude Avenue
 Kyle Noble-56 Hills Beach Road
 Walter Alexander-31 Bridge Road
 Tricia Thibodeau-UNE Employee
 Erin Anderson-5 Lester B Orcutt Boulevard
 Shawn Tibbetts-Mooring #126
 Skip Irving-9 Stone Cliff Road
 Joe Emmons-23 Sokokis Road
 Ed McLasky-120 Whitten Hill Road, Kennebunkport Mooring #72
 Mike Gerstner-524 Pool Street
 Chris Stone-272 Hills Beach Road
 Ken Beuchs-10 Seal Lane
 Carole Alexander-31 Bridge Road
 Richard Rhames-10 West Loop Road
 Mike Ramunno-2 Fieldcrest Drive
 Tom Hatch-76 South Street
 Kathy Russell-75 Fortunes Rocks Road
 Norm Labbe-8 Eagle Rock Point
 **** Attached are Meeting Minutes from Saco River Corridor Commission submitted by a member of the public.

MOTIONS:

Motion-Patoine-Motion to table the project until another site walk can be completed
 Second-Angers
 Vote-Motion passed unanimously

7.d 2025.23 The Biddeford Planning Board will review an after-the-fact subdivision request for Richard Potvin at 17 Wadlin Road (Tax Map 1, Lots 137-5 & 6).

- Galbraith explained that this is an after the fact subdivision, The City of Biddeford does not consider this a subdivision but there is an attorney that does consider it an illegal subdivision. Due to this attorney's belief, closing is being held up.
- Dubois asked if this would set a precedent
- Attorney Center explained that there is no binding precedent being set.
- Patoine said he has no problem approving this as it seems to be a difference of opinion between lawyers

MOTIONS 6:51 PM

Motion-Deschambault- I motion to APPROVE Case # 2025.23 After The Fact Approval Subdivision Review for Rochard P. Potvin, II, within the alleged Subdivision on Waldin Road at 17 Waldin Road and 8 Grateful Way (Tax Map 1,

SACO RIVER CORRIDOR COMMISSION

COMMISSION MEETING MINUTES - JUNE 27, 2001

The 317th meeting of the Saco River Corridor Commission was called to order by Mike Towns, Chairperson at 7:30 p.m. at the Porter Town Hall in Porter, Maine. Commissioners present with the right to vote included Caryl Everett, Biddeford; Kenneth Mains, Buxton; Doreen Thirkell, Hiram; Marc Boucher, Hollis; Toni Carros, Alternate from Limerick; Sherwood Libby, Limington; Rob Heard, Porter; Mark Johnston, Saco; and Madge Baker, Shapleigh. Also present was Elizabeth Bull, Alternate from Porter; Mike Towns, Chairperson and Alternate from Waterboro; and Commission Staff Dennis Finn, Executive Director and Lynn Parker, Administrative Assistant. A quorum was declared with ten towns represented.

The Commission considered the minutes of the May 30, 2001 Commission Meeting. Ms. Thirkell made a motion to approve the minutes as presented. The motion was seconded by Mr. Heard. The minutes were approved with a unanimous how of hands.

The Commission then considered the following eleven unanimous consent applications:

- a) Warren Rathbun - #14-179, the applicant seeks the first time extension amendment on the deadline to complete the construction of a 24 x 32 foot single family residence with an attached 22 x 24 foot garage 86 feet from the normal high water line located on Lot #178 (Map #42), Lake Arrowhead Estates Lot #98, Lake Shore Drive, Limerick, Maine. There have been no changes to the Act that would preclude granting the request.
- b) Peter Harriman - #14-163, the applicant seeks the second time extension amendment on the deadline to complete the construction of a 32 x 48 foot single family residence with a 28 x 28 foot detached garage 110 feet from the normal high water line on Lots #97, 98, 99, 100, and 101 (Map #44), Lake Arrowhead Estates Lots #1044, 1045, 1046, 1047, and 1048, Harbor View Road, Limerick, Maine. There have been no changes to the Act that would preclude granting the request.
- c) Eric and Kathy Kirmes - #16-049, the applicants are proposing to construct a 16 x 16 foot detached shed 320 feet from the normal high water line and 430 feet from the road on Lot #8-1 (Map #4), 293 River Road, Buxton, Maine. The lot has 400 feet of frontage on the Saco River. The application meets all applicable standards and regulations in the Act.
- d) Robert Moore - #11-053, the applicant seeks the second time extension amendment on the deadline to complete the construction of a 38 x 46 foot single family residence with deck, a 22 x 25 foot detached garage, and above ground wooden walkway and stairs leading to a dock on Lot #18 (Map #13), Fox Road, The Ridge, Acton, Maine. There have been no changes to the Act that would preclude granting the request.
- e) Alex Pismenny - #14-196, the applicant is proposing to construct a 52 x 40 foot single family residence including two decks and a garage underneath 200 feet from the normal high water line and 30 feet from the road on Lots #160 and 161 (Map #46), Lake Arrowhead Estates Lots #1890 and 1891, Old Portland Road, Limerick, Maine. The lot has no water frontage but has 354 feet of frontage on the side of the lot closest to and most nearly parallel to the Little Ossipee Flowage. The application meets all applicable standards and regulations in the Act.
- f) Donald Beaupre - #15-339, the applicant is seeking the first time extension amendment on the deadline

Mr. Finn stated that the proposal meets all applicable standards within the Act. Mr. Heard made a motion to approve the application with Standard Conditions of Approval with the additional condition that staff measure the distance between the proposed house and the structure on the abutter's lot. The motion was seconded by Mr. Johnston. The Commission vote was 9 yes and 0 no which approved the application.

The next application that the Commission considered was submitted by Paul and Susan Chern for Permit #14-197. The applicants propose to construct a 12 x 20 foot enclosed porch/deck addition to the existing residence 80 feet from the normal high water line and 25 feet from the road on Lot #130 (Map #46), Waycross Way, Lake Arrowhead Estates Lots #1954, Limerick, Maine. The lot has 157 feet of frontage on the Little Ossipee Flowage.

Mr. Finn explained that the structure received a hardship variance in 1975 to locate the house 80 feet from the normal high water line. The additions are designed to go no closer to the water and they also meet the 30% expansion standard.

Mr. Heard made a motion to approve the application with Standard Conditions of Approval. The motion was seconded by Mr. Johnston. The Commission vote was 9 yes and 0 no which approved the application.

The discussion then moved to an application submitted by Linda Irons for Permit #14-198. The applicant is proposing to construct a 20 x 22 foot garage attached by a 10 x 10 foot mudroom 130 feet from the normal high water line and 115 feet from the road on Lot #174 (Map #42), Leisure Lane, Lake Arrowhead Estates Lot #102, Limerick, Maine. The lot has 115 feet of frontage on the Little Ossipee Flowage.

Mr. Finn explained that the lot is non-conforming and the applicant is in compliance with the standards for non-conforming structures including the 30% expansion standard.

Ms. Thirkell made a motion to approve the application with Standard Conditions of Approval. The motion was seconded by Mr. Heard. The Commission vote was 9 yes and 0 no which approved the application.

The Commission then considered an application submitted by Alan Painchaud for Permit #13-163. The applicant is seeking an after-the-fact permit to repair a 10 x 20 foot lake side deck that was damaged from snow weight, 10 feet from the normal high water line on Lot #41 (Map #62), Green Bay Drive, West Newfield, Maine. The lot has 113 feet of frontage on Balch Lake.

Mr. Finn explained that while on a site inspection, it was determined that the closest point to the water of the deck was a set of existing stairs leading down from the deck which stood at five feet from the normal high water line. In performing the reconstruction after the snow damage, the deck was slightly increased in size by approximately 20 square feet, however, it goes no closer to the water than the original structure. Mr. Finn further explained that the proposal adheres to standards regarding the expansion of non-conforming structures included the 30% expansion standard.

Mr. Heard made a motion to approve the application with Standard Conditions of Approval. The motion was seconded by Mr. Libby. The Commission vote was 9 yes and 0 no which approved the application.

The next item on the agenda is a public hearing regarding a petition filed from the City of Biddeford to redistrict Lot #4 (Map #52), Hills Beach Road in Biddeford, Maine currently owned by the University of New England, from Limited Residential District to General Development District. The public hearing commenced at 8:10 p.m. and concluded three hours later at 11:10 p.m.

stated that based on the testimony this evening, he feels it is the construction of the two dormitories that is driving the request for the district change. He further stated that this type of situation has a spot zoning feel to him.

Mr. Boucher stated that he feels the Commission needs to focus on the petitioner and not the owner of the property. Mr. Towns stated that he does not feel you can completely separate the university from this petition to redistrict. Mr. Towns further pointed out that almost all of the presenters during the public hearing, including the presenters representing the City of Biddeford, tied their statements to the University of New England's ability to survive with the two dormitories.

Ms. Baker stated that she felt this property is suitable for General Development District. Mr. Heard asked Ms. Baker if she was uncomfortable with the spot zoning issue. Ms. Baker responded that she has studied spot zoning for a long time and in her opinion, especially in Maine, spot zoning is not the appropriate term. She further stated that you will not find any place in Maine where there is a concern regarding spot zoning. She further offered that she believes this is because a lot of Maine zoning is performance based rather than use based.

Ms. Thirkell voiced her concern over the fact that the City of Biddeford is going to create a new "Institutional Zone" for this area. The Commission does not have the ability to create a new zone and must deal with the three available to them - Resource Protection, Limited Residential, and General Development. Ms. Thirkell stated that her concern is that if the General Development zone is approved, it would allow much more development than the City of Biddeford's Institutional Zone. Ms. Thirkell's future concern is regarding the possibility that the University of New England were to go out of business or sell a piece of property, are all of the uses allowed with the General Development District suitable for this area? Her additional concern is that the Institutional Zone implemented by the City of Biddeford could always be changed in the future.

Ms. Carros asked if the Commission could grant a conditional districting change. Mr. Finn responded that the Commission could not impose conditional zoning, however, the petitioner could voluntarily wave their rights.

Mr. Heard pointed out the role of the Commission which is to protect the rural, scenic, and open space character of the corridor. Changing this district will give the University of New England the right to request a restaurant, warehouse, or some other highly commercial development allowed within the General Development District. He also had a concern that the aggregate does not apply within the General Development District.

Ms. Everett stated that in her opinion, she does not foresee a proposal for a Wal-Mart type development on this property. She further stated that she is comforted with knowing that the Standards to Address the Environmental Standards still apply within the General Development District.

Mr. Libby stated that he felt he would like to wait on making a decision to see if the University of New England would be willing to commit to some sort of 250 foot no-build easement along their property to offer additional protection to the area.

Mr. Towns stated that he felt there are a couple of questions still unanswered regarding available services across the street and the feasibility of using the land across Hills Beach Road. Mr. Towns also stated that although it is the City of Biddeford is requesting this district change, if the change were to occur, the Commission would have to consider any future requests for development allowed within the General Development District regardless of who is making the request.

**SACO RIVER CORRIDOR COMMISSION
COMMISSION MEETING MINUTES
JUNE 28, 2017**

The 491st meeting of the Saco River Corridor Commission was called to order by Michael Robinson, Chairperson, on June 28, 2017 at 7:30 p.m., at the Dayton Town Hall, 33 Clarks Mills Road, Dayton, Maine. Commissioners present with the right to vote were as follows:

Laurie Downey, Baldwin
Sean Tarpey, Biddeford
Michael Robinson, Buxton - Chairperson
Sharon Martel, Dayton
Daniel Hester, Hiram

Donna Hanson, Hollis
Toni Carros, Limerick
Ron Phinney, Limington
Elizabeth Jakofsky, Porter
Richard LaRue, Saco
David Robinson, Standish

Also present were Priscilla Howard, Hiram; Dennis J. Finn, Executive Director; and Joy Chasse, Administrative Assistant. A quorum was declared with 11 towns represented.

The minutes for the May 24, 2017 Commission Meeting were considered. Mr. Robinson noted that there was a change on the last page of the voting record. Someone voted no but Ms. Chasse wasn't sure who, she will check her notes from last month's meeting and correct this. Mr. Hester made motion to approve the May 24, 2017 minutes with the above-mentioned correction, seconded by Mr. LaRue. The Commission vote was 11 – yes and 0 – no to approve the minutes.

The Commission noted the arrival of Judy Ingram.

Mr. Finn then said there were four unanimous consent items. First was an application from **Matthew Vaughn - #20-266**, who is seeking an after the fact permit to replace a 24 x 16 foot rotting deck on an existing 50 x 24 foot duplex to be located 214 feet from the Saco River at Lot #231, (Map #38), 86 Lincoln Street, #2, Saco. The lot has 60 feet of frontage on the Saco River. This property is located within the General Development District. Since this is in the General Development District the only requirement is that a structure be located 100 feet from the mean high water line. This structure meets that requirement. The Commission received a letter from an abutter (copy attached), who was against this project.

The second unanimous consent application is from **Homevest, LLC - #14-294**. The applicant is seeking a permit to construct a 54 x 46 foot single family residence with garage to be located 105 feet from the normal high water line in Limerick (LAC) at Lot #____ Dixon Lot, (Map #47), Island Road, Limerick, Maine. The lot has 600 feet of frontage on the Little Ossipee Flowage. This property is located within the Limited Residential District. The Subsurface Wastewater Disposal Plan indicates that the property is suitable for a 1000 gallon regular concrete tank with an 800 square foot medium size stone bed disposal field as designed and submitted by Mark Truman, per his HHE-200 dated June 1, 2017. The proposed use will not unreasonably involve any of the factors enumerated in section 959-A.1.A. through K of the Act. This is a conforming lot and the applicants are meeting all relevant setbacks under the Act. Staff supports the approval of this application with standard conditions.

Although the SRCC does not have separate standards, we do have regulations regarding the degradation to ground water quality in the A-K standards. Mr. Finn added that he has spoken to the Plumbing Inspector for the State of Maine, Brent Lawson, who said this application was approved in 2016, with a variance.

Mr. Hester said that at the last meeting the Soil Air (the brand of replacement system) was not brought up. He compared that to the HHE-200 and it is mentioned. It adds air to the soil and helps it to work in a confined space. He added that Brent Lawson thinks it is satisfactory and would do the job. Mr. Finn added that he would personally be concerned if his well was 37 feet from a newly replaced septic system, although Mr. Lawson said it was fine.

Ms. Carros said she couldn't find much information on the Soil Air. How long has it been around? She added that if this was her drinking water she would be concerned. She added that she couldn't find any results or any proven record. Any system like this requires blower maintenance. There are a lot of red flags being this close to a drinking water source. She said she's not convinced this is the best thing to do. The current system hasn't failed, what is this issue.

Mr. Allen Shepard (Ms. McBride's attorney) said that Ms. McBride has inherited the property and would like to put it up for sale. She couldn't find the location of the existing system and tried to track it with a camera but couldn't get a camera in there. She had Al Frick design a new septic system and this is the only location it can be placed. He said that he understands the SRCC's concerns, but as he understands it, the SRCC is concerned with the watershed, Balch Pond and the river because you don't have standards on septic systems. You follow the Maine State Plumbing Code. In addition, Mr. Lawson was clear that he thought this system was fine. This is a problem between the landowners, not really the SRCC. Ms. McBride was going to attend but she feels terrible after reading last month's minutes, but this is the best solution under the circumstances. The local plumbing inspector has also approved this. It has been approved on the State and local levels.

Ms. Jakofsly asked if there was evidence that the current system was failing and Mr. Shepard said no, there has been no problem, or a report of a problem and it is being used. The problem is that there are no clear records of the existing system.

Ms. Downey asked for a brief description on how this system differs from a regular system and Mr. Finn said it looks similar except that it is higher and used for smaller spaces. It does seem there isn't a lot of difference. In our A-K standards it does talk about degradation of groundwater supplies.

Mr. Shepard said that the SRCC is involved because of the neighbors and Mr. Finn said we have standards on groundwater, noise, etc. There has been more than one instances where the septic system wasn't in an appropriate location.

Mr. Shepard said that is the only place to put it. Mr. Finn says that the Commission does have authority over this and more.

Mr. Hester said on page 2 of the HHE-200, if they correctly designated where the existing system is, it is no closer to the existing well.

Ms. Jakofsky said we talked about the soils in the area that are sandy and that allows draining. Mr. Finn said that it allows the percolation of the water quickly. Ms. Jakofsky added that that combined with the fact that there is no evidence of failure makes it seem best to leave well enough alone.

Ms. Hanson asked if the well points were moved, how far from the lake would the septic system be and Mr. Finn said 112 feet.

Mr. Pressey said he had a call from the President of the Association who has fears about the location with respect to the beach.

Mr. Hester said that nothing of this system has been built, at this time they are using the existing system.

Ms. Carros asked for clarification of the 112 feet. Mr. Finn said he didn't measure, he took Mr. Libby's measurement.

Ms. Martel asked if there was a reason Ms. McBride doesn't want a closed system and Mr. Shepard said they haven't talked about that. They were going with what has been designed. He added that he believed that would be a last resort. There weren't any questions or concerns raised, then Mr. Shepard and Mr. Lawson became involved. He added that he understands the Commission's concerns, but this system has been approved under the Maine State Plumbing Code.

Mr. Hester said he understands Ms. Carros' and the abutter's concerns but we are not in a position to take the place of a licensed plumbing inspector or the Maine Plumbing Inspector's approval. He added that he has to believe the system in place is designed to work. He said that he, himself, has to go along with the application.

Ms. Martel said that since the current system is not failing, the neighbors are concerned about their drinking water and there are other alternatives, it seems we should not approve the application at this point.

Mr. Tarpey asked if we had the latitude with a failed system, but where this has not failed he is thinking to deny the application.

Ms. Hanson said that new technology is better, but we just don't know about the existing system. This doesn't look like a better option for the neighborhood.

Mr. Hester made a motion to grant the application by installing the septic system (using the Soil Air system) that has been described in the HHE-200, seconded by Mr. LaRue.

Mr. Tarpey said he wished we had the assurance that the system has a proven track record.

Ms. Downey said that this was a tough one. She said that she has sympathy for the abutters. Given it is not a crisis, could the parties do some research and talk about this? Maybe they could come up with a resolution.

Mr. Shepard asked what they were to do and Mr. Finn said that originally Mr. Lawson had a concern about the system. We would like to see a proposal for something further from the wells.

Mr. Shepard asked what they should come back with. This is confusing.

Next, **Jeffrey Bulette - #20-266**, is seeking a permit to demolish and remove an existing 27 x 27 foot single family residence and replace it with a 36 x 36 foot single family residence (33 feet in height) to be located 306 feet from the Saco River at Lot #13, (Map #53), 15 Red Oak Lane, Biddeford. The lot has 153.39 feet on the side of the lot closest to and most nearly parallel with the Saco River. This property is located within the Limited Residential District. The Subsurface Wastewater Disposal Plan indicates that the property is suitable for a 1000 gallon regular concrete tank with a 1008 square foot medium-large proprietary device (21 Eljen GSF Units) disposal field as designed and submitted by Brady Frick, per his HHE-200 dated November 16, 2016. The combined frontage and setback is 459 feet and does not meet the aggregate. While this is a nonconforming lot, the structure will be located more than 250 feet from the normal high water line. The applicant is, therefore, not limited to a 30% expansion standard.

Mr. Bulette showed pictures of the property, the house to be removed and where the abutters live.

Mr. Hester asked how tall the existing structure was and how tall the new house would be. Mr. Bulette said the existing house is 19 feet in height and the new structure will be 33 feet high.

Mr. Hester asked if all the objections to this project were because the house will block the views and Mr. Bulette said yes.

Ms. Ingram asked if it was true that the City doesn't have the plans and Mr. Bulette said the City told him to come to the SRCC before he applied to City.

Ms. Jakofsky asked if it was true that this house will be out of character with the neighborhood and Mr. Finn said it was new and larger than the existing house, but there are some other large houses in the neighborhood.

Ms. Ingram asked that because they are out of the corridor they don't have to stay on the footprint and Mr. Finn said the lot is nonconforming and they can't meet the setback.

Mr. Bulette's attorney said that as far as the character of the neighborhood, he would like to focus on the SRCC Act that says "unreasonable". In surrounding properties including the opposing abutter's properties, they are two story. Mr. Bulette's existing residence is one story and he wants a two story. His property is not waterfront. If the addition of a 2nd story, this is a design where the bottom of the roof is at the top of the first level and the second floor is behind the knee walls. He passed photos around to the Commission showing opposing residents structures and views. Ms. Memorous, an abutter, asked to see the photos as well.

Ms. Ingram asked what the yellow highlighted properties were on the map and Mr. Bulette's attorney said the people in opposition to the project.

Mr. Hester asked if the house pictured on the screen will be removed and Mr. Finn said it would.

Mr. Hester said that on this map, lot 18 is there, what is on that? Mr. Fence said Lot #18 was purchased by the owners of lot #19. He was told that it was an unbuildable lot. This proposed residence is 1600 square feet. The residence next door is 1400 square feet. Other people in the neighborhood have larger homes than this.

Ms. Ingram asked if the Memourous' have been before us before and Mr. Finn said they have.

Mr. Hester said if this was a vacant lot existing prior to 1973, they could build a house on this lot as they were grandfathered under the Act.

Ms. Carros said it was a lot of record, when the house is torn down, is the proposed house meeting the aggregate as best as possible and Mr. Finn said that it was, they can't move it back any more.

Ms. Hanson said that a couple of feet in either direction change the abutter views and Mr. Finn said he didn't know.

Heather Gallagher (an abutter) said that she has been there two years. A prior owner's roof deck had been added to the house. She also said that when the roof is raised, what does that do with viewing wildlife. These are small cottages. Why demolish them and can we use the existing foundation to make this work? There are a lot of unknowns. She added that she is worried about a new foundation.

Mr. Fence said that he would like to explain the choice of a location. In choosing the location of the house, Mr. Bulette minimized encroachment on the 100 foot setback to the wetland. His client is going to retire here and originally wanted a larger home. He went back to the drawing board, reduced the size of the structure and moved it back. He also reduced the coverage of the house and driveway, with porous material. The only place he can move it would be toward the water. Moving will affect the view on each side, although that will not make a big difference.

Ms. Gallagher said the telephone pole, trees, and shifting it to the right will shift the view and not really help her that much.

The Commission vote was 11 – yes and 1 – no to approve the Bulette application.

The University of New England - #20-267, is seeking a permit to create green space as follows: 1) The Common Green; 2) The Waterfront Green; 3) The Woodland Green; 4) the Perch; 5) The Kiosk; and 6) Waterside Promenade, to be located on the UNE campus as described below, along the Saco River at Lot #4, (Map #52), 11 Hills Beach Road, Biddeford. The lot has 3,500 feet of water frontage on the Saco River. This property is located within the General Development District.

Mr. Thibeault, from UNE gave a presentation on what the project consisted of.

The Common Green is directly linked to the UNE Commons building. This open space will be used for sitting, studying, informal recreation, sunbathing, games, meetings, etc. This green area will provide views toward the Saco River and will enhance the connections/circulations patterns through this area. Benches and low vegetation will be installed.

There is ample vegetation being planted along and in conjunction with the project's location. It is indicated in the application that the vegetation will be native to the area. A list of this vegetation should be provided to the Commission as a condition to the permit should it be approved.

Mr. Hester made a motion to approve the UNE application with standard conditions, seconded by Ms. Ingram.

Ms. Carros said that in front of the waterfront area there are ½ dozen trees that are being removed. According to our standards, you can't do that, except for declining trees. Some trees should be replanted there. The visual impact isn't good or bad. According to our standard conditions of approval, there should be three trees in 20 x 20 square foot area. She would like to see a vegetative plan that includes trees in that area. Also, with regard to lawn care, best management practices using resilient grasses and a turf management plan should be included.

Mr. Thibeault said the only areas on the campus where we practice lawn care is on the baseball fields with fertilizer and lime. UNE doesn't fertilize anywhere else, only mow. We used pesticides once for bugs but now we have so many birds eating mosquitos we no longer have to spray for mosquitos.

Mr. LaRue said at the wastewater treatment plant, a few trees in front of that would be better.

Mr. Thibeault said there were only about 10 trees, but there are invasive species.

Ms. Jakofsky said that when the Commission approved the dorms there was a 250 foot buffer where nothing was allowed. What do we do about that? Mr. Finn said that the Commission is basically approving projects within that buffer area. Mr. Thibeault added that they were using native vegetation.

Mr. Finn asked if the trees that were there now could be left and Mr. Thibeault said if we leave those, he could come up with a plan. He added that the buffer that exists is not being impacted by this and UNE is enhancing the area. Mr. Finn acknowledged that they are removing pavement.

Ms. Ingram asked if trees will grow near brackish water and Mr. Thibeault said they don't know, it is actually salt water.

Ms. Carros said she would like to see a plan for the vegetation and tree planting approved by staff and Mr. Hester and Ms. Ingram agreed to that addition to the motion.

The Commission vote was 11 – yes and 1 – abstain to approve the UNE application.

David J. Pepin Gravel - #11-083, was removed from the table. They are seeking a permit to have a mineral extraction/gravel pit within the corridor on the Little Ossipee River at Lot #5, (Map #207), H Road, Acton. The lot has 5197 feet of water frontage on the Little Ossipee River. This property is located within the Limited Residential Districts. This parcel is 351 acres.

Mr. Finn explained that we had tabled this application pending Mr. Pepin's dealing with the Town of Acton. Mr. Pepin asked to return with an update on their progress.

this is complicated, but for a project such as this, 2 years really isn't long enough as this is an ongoing process. He can come back to the Commission every year to report the progress that is being made, if the Commission would like.

Mr. Robinson said the Commission will be concerned on how it goes throughout the entire process.

Ms. Martel asked if the pit would be in operation on Sunday and Mr. Pepin said they would not be open on Sundays.

Mr. Pepin said some pits are approved to bring in materials, but they are not approved to do that. He added that he can work with the Commission on making sure they don't encroach on the 250 foot buffer.

Mr. Pepin also said he would propose to have a pickup with a 100 gallon fuel tank, so no large fuel trucks will be in the excavation area. The area will be locked and a water truck will control the dust. DEP is going to provide a training program for the employees.

Mr. Hester asked if this would be used as a shooting range and Mr. Pepin said he can guarantee that it won't.

Ms. Ingram asked what Mr. Pepin's hope was for the meeting tonight. Was he seeking approval today? Mr. Finn said this was for information. He added that the Commission has received some information through a drop box and would ask that the Commissioner's review it before the next meeting.

Ms. Ingram added that Mr. Pepin seems to have addressed a lot of our concerns.

Ms. Carros said that the area that Pepin is permitted for is about 90 acres, 8 of which is in the corridor. Mr. Pepin said less than that, probably 6 acres in the corridor. Ms. Carros confirmed that there would be a 250 foot buffer from the river and Mr. Pepin said yes, and a 250 foot buffer from the floodplain.

Mr. LaRue asked if the two year reviews could be covered by staff and Mr. Finn said it could be, or Mr. Finn could present it to the Commission. Mr. Pepin said he has to submit status reports to the Town and can submit it to the SRCC. He would like to be present for the presentation to the Commission.

Mr. Michael Robinson asked if we can set something up if they don't comply that they stop work and Mr. Finn said we could. Acton is also keeping up with this.

Mr. Hester pointed out that what Mr. Pepin wants is an extended permit. We might give him a 20 year permit and review it every two years.

Mr. Pepin said he would draft a memo for the Commission and would like to come back next month. He'd like to keep the ball rolling. He would also like to submit to the Three Rivers Land Trust and be in full operation by next year.

Mr. Hester added that if we look at our A-K standards for conditional use in the Limited Residential District, we can't have that. He added that we should table the application and have Mike back to the next meeting.

Ms. Jakofsly asked if there is a political component to this and can the area be rezoned.

Ms. Carros said the Act is strong, especially with A – K standards and because of lead bullets in the water. This just doesn't seem like a good spot for this project.

Ms. Downey asked that this is not a commercial use, it is private, but he still needs a permit? Mr. Finn said he did, there will be a lot of excavating done here. One lane of the range is 400 yards long with 20 foot berms on each end.

Ms. Downey asked if it was in the Corridor and Mr. Finn said that it was.

Ms. Ingram said she is concerned about a lot of unauthorized and irresponsible people using it, not so much that Mr. Humphrey is using it.

Ms. Carros made a motion to deny the application, seconded by Ms. Martel. Mr. Finn said that she would have to list a reason why. Ms. Carros said because it is not an appropriate use in the Limited Residential area and it does not meeting A-K standards, i.e., excessive noise.

Mr. Finn added that the character of the neighborhood comes in to play.

Mr. LaRue said that his concern is that it is private, not public. It only takes one mistake. He added that he thinks it is a poor site for this type of activity. He also said he thinks the Town should deny it.

Mr. David Robinson asked if the applicant knows we are voting on this tonight and Mr. Finn said his concern was the timber harvest violation. Mr. David Robinson said that he should be here. Mr. Finn said that he should know that we need a noise study.

Ms. Carros said a noise study is irrelevant, it isn't an appropriate use in the Limited Residential District.

Mr. Hester said that he didn't think if you looked at the Limited Residential description, A-K conditional use, we can't have that. He added that he thought we should table the application and send it back to Mr. Humphrey.

Ms. Jakofsky said if there is a political opposition to this, could Cornish rezone?

Ms. Carros pointed out that the Act isn't very strong on this issue, especially A-K.

Mr. Hester said that A-K doesn't hit this very well, under the preamble it speaks of "Omitted Uses" and adjacent landowners. This does cause a problem with the landowners.

Ms. Carros asked what would be best in this situation. Mr. Finn suggested tabling the application so that Mr. Humphrey can be present.

Mr. Finn said that the platforms and campers must be removed after 200 days. Ms. Jakofsky asked what the platforms were used for and Mr. Finn said for screen rooms and chairs. He added that they want a stairway to the water, possibly removable.

Ms. Jakofsky asked where everything will go when they are removed and Mr. Finn said the back of the property.

Ms. Jakofsky made a motion to approve the application with standard conditions for all of the projects except the stairway, seconded by Mr. Hester. She also asked that they come back to us with a plan for the stairway.

Ms. Hanson asked who the requested granite stairway would be installed. She added that it would be difficult without using an excavator.

The Commission vote was 11 – yes and 1 – not to approve the application (but not the granite stairway).

Daniel Woodsome - #14-295. The applicant is seeking an after-the-fact permit to replace a failing septic system to be located 250 feet from the Little Ossipee River at Lot #68, (Map #45), 10 Beaver Brook Road, Limerick. The lot has 300 feet of water frontage on the side of the lot closest to and most nearly parallel with the Little Ossipee River. This property is located within the Limited Residential District. The Subsurface Wastewater Disposal Plan indicates that the property has an existing concrete tank and the replacement disposal field is a 700 square foot stone bed medium size field as designed and submitted by Kenneth Gardner dated April 25, 2017.

The Limerick CEO contacted the SRCC office to say he made a mistake by issuing a permit for this replacement system without letting the property owners know they need to come to the SRCC. He said the septic system was installed because the old septic system was failing. As soon as the applicant knew that he failed to come to us he filled out an after-the-fact application.

Ms. Hanson asked why he didn't know and Mr. Finn said he is the new CEO in Limerick.

Ms. Hanson asked if a fine would be appropriate and Mr. Finn said that if the septic was failing we would have told him to fix it before he had a permit and he didn't feel that the applicant was trying to do this behind the Commission's back.

Ms. Carros made a motion to approve the after-the-fact application with standard conditions, seconded by Ms. Hanson. The Commission vote 12 – yes and 0 – no to approve the after-the-fact application of David Woodsome.

Finally, the Commission had a copy of the proposed budget. Mr. Finn said that the Commission was doing pretty well and new builds were up. He added that he moves things around a bit if necessary but we try to stick as best as we can to the total budget.

Ms. Martel asked what LD1155 is and Mr. Finn said it is a water use fee. Maine Water charges 1% tax of the sale of the water and that comes to the SRCC. When they raise the rates, the SRCC gets additional money.

SACO RIVER CORRIDOR COMMISSION
VOTING RECORD

	UNANIMOUS CONSENT	MCBRIDE #13-271
BALDWIN/DOWNEY	Y	N
BIDDEFORD/TARPEY	Y	N
BUXTON/ROBINSON	Y	N
DAYTON/MARTEL	Y	N
HIRAM/HESTER	Y	Y
HOLLIS/HANSON	Y	N
LIMERICK/CARROS	Y	N
LIMINGTON/PHINNEY	Y	Y
PARSONSFIELD/INGRAM	Y	N
PORTER/JAKOFSKY	Y	N
SACO/LARUE	Y	Y
STANDISH/ROBINSON	Y	Y
TOTALS	12Y 0N	4Y 8N

	BULETTE #20-266	UNE #20-367
BALDWIN/DOWNEY	Y	Y
BIDDEFORD/TARPEY	Y	Y
BUXTON/ROBINSON	Y	Y
DAYTON/MARTEL	Y	Y
HIRAM/HESTER	Y	Y
HOLLIS/HANSON	Y	Y
LIMERICK/CARROS	Y	Y
LIMINGTON/PHINNEY	Y	Y
PARSONSFIELD/INGRAM	Y	Y
PORTER/JAKOFSKY	Y	Y
SACO/LARUE	Y	AB
STANDISH/ROBINSON	Y	Y
TOTALS	12Y 0N	11Y 1AB

	FOSS #04-106	HOMEVEST #15-520
BALDWIN/DOWNEY	Y	Y
BIDDEFORD/TARPEY	Y	Y
BUXTON/ROBINSON	Y	Y
DAYTON/MARTEL	Y	N
HIRAM/HESTER	Y	Y
HOLLIS/HANSON	Y	N
LIMERICK/CARROS	N	Y
LIMINGTON/PHINNEY	Y	Y
PARSONSFIELD/INGRAM	Y	Y
PORTER/JAKOFSKY	Y	Y
SACO/LARUE	Y	Y
STANDISH/ROBINSON	Y	Y
TOTALS	11Y 1N	10Y 2N

	BUDGET 2017-18
BALDWIN/DOWNEY	Y
BIDDEFORD/TARPEY	Y
BUXTON/ROBINSON	Y
DAYTON/MARTEL	Y
HIRAM/HESTER	Y
HOLLIS/HANSON	Y
LIMERICK/CARROS	Y
LIMINGTON/PHINNEY	Y
PARSONSFIELD/INGRAM	Y
PORTER/JAKOFSKY	Y
SACO/LARUE	Y
STANDISH/ROBINSON	Y
TOTALS	12Y 0N

SACO RIVER CORRIDOR COMMISSION

COMMISSION MEETING MINUTES - JULY 11, 2001

The 318th meeting of the Saco River Corridor Commission was called to order by Mike Towns, Chairperson at 7:35 p.m. at the Porter Town Hall in Porter, Maine. Commissioners present with the right to vote included Caryl Everett, Biddeford; Cullen Carpenter, Brownfield; Doreen Thirkell, Hiram; Marc Boucher, Hollis; Jane Bryant, Limerick; Sherwood Libby, Limington; John Moriarty, Alternate from Newfield; Rob Heard, Porter, Mark Johnston, Saco; and George McNeil, Standish. Also present was Toni Carros, Alternate from Limerick; Mike Towns, Chairperson and Alternate representing Waterboro; and Commission Staff Dennis Finn, Executive Director, and Lynn Parker, Administrative Assistant. A quorum was declared with eleven towns represented.

The first item on the agenda was the consideration of an amendment request submitted by the University of New England to Permit #20-209. On April 25, 2001 the applicant received an approval from the Commission to construct two dormitories at a height of 35 feet. The first building, known as The East Wing, will be 54 x 314 feet and the second building, known as The West Wing, will be 54 x 224 feet. Both buildings will be located 255 feet from the mean high water line. The original proposal by the applicant was for a hardship variance from the Commission's 35 foot height limitation standards to construct the buildings at a height of 50 feet. After considering the testimony offered during a two and one half hour public hearing, it was determined by the Commission that the applicant did not adequately prove their hardship case. The proposed 50 foot height was subsequently denied, however the Commission did approve the dormitories with a conditional 35 foot height restriction and the other aspects of the applicant's proposal including a cafeteria expansion, relocation of existing propane tanks, and the construction of a service road to provide access for the approval dormitories.

At the June 27, 2001 Commission Meeting, after a three hour public hearing, the Commission granted a redistricting request submitted by the City of Biddeford to change Lot #4 (Map #52), Hills Beach Road, in Biddeford, Maine from Limited Residential District to General Development District. This parcel of land is owned and utilized by the University of New England.

Buildings within the General Development District are not subject to a 35 foot height restriction. However, all proposals submitted to the Commission within all three districts are subject to the Commission's Environmental Standards. This fact was of great concern to the Commission when considering the applicant's hardship variance request in April, Mr. Finn explained. The Commission's Environmental Standards should also be closely looked at for this amendment even though the district has been changed and the 35 foot height limitation is not in effect. With the new district designation in place, the applicants are now seeking to construct the dormitories at a height of 50 feet. The lot in question has 3,500 feet of frontage along the Saco River.

Mr. Towns asked the Commission if they minded if the applicant made an audio recording of the meeting. The Commission did not object to such recording.

Ms. Sandra Featherman, President of the University of New England, was present at the meeting and made a brief speech regarding the importance of this project to the university. She stressed the importance of this project and that the university is a tuition dependent school.

Mr. Tom Saucier, of SYTDesign Consultants, was present at the meeting and provided the Commission with

together with the City of Biddeford to discuss the University of New England's Master Plan.

Ms. Butler also offered her insight into the Commission's Environmental Standards regarding visual impact. Her opinion was that it was never the intent of the law to impose the full environmental standards to all areas of the corridor. Ms. Butler pointed out a sentence in the environmental standards which reads "To show no unreasonable despoliation of the scenic, rural, and open space character of the corridor,...", in her opinion if you are not in a rural area, than this standard no longer applies. She added that the university is not in a rural area but a General Development District.

Mr. Libby voiced her concerns over the protection of the 250 foot buffer between the river and the developed portions of the university campus. Ms. Featherman offered her concern over why, in her opinion, the Commission has made an automatic assumption that the university has an "evil" purpose. She further stated that the university is trying very hard to do good things for the community and the Saco River.

Mr. Libby again pointed out that all through past conversations regarding this project, the university has stated again and again that the 250 foot buffer will never be touched. Mr. Libby stated that he is only asking the applicant to prove that statement to be true.

Mr. Towns pointed out that he feels the university is missing the point that they are using the 250 buffer as the justification that they have met the visual impact requirement within the Act. Mr. Towns further stated if the university is sincere about retaining that buffer for visual impact purposes, than the applicant should have no problem placing that land under protection from future development.

Ms. Butler responded that the Commission found that the residence halls built at a height of 35 feet, within the Limited Residential District, would not have any unreasonable despoliation of the scenic, rural and open space character of the corridor. She further stated that the applicant is asking for the Commission to have a parallel finding that a 50 foot building, within the General Development District, would also not have the same unreasonable despoliation of the scenic, rural and open space character of the corridor.

Mr. McNeil expressed his concern that Ms. Butler would state that the Commission's decision to approve the 35 foot tall residence buildings had nothing to do with the maintained buffer. Mr. McNeil stated that the buffer had everything to do with the Commission granting the approval for the residence halls at a height of 35 feet.

Ms. Featherman stated that the University of New England has absolutely no plans to build within 250 feet of the river, and that the city as well as the university believe this buffer to be very sensitive and necessary for the protection of the river.

The discussion continued regarding the visual impact requirements of the Act and how it pertains to the proposal within the General Development District.

Mr. Boucher asked if there was still an ongoing litigation between the Commission and the University of New England. The applicant responded that all litigation has been withdrawn by the university.

The Commission then provided an opportunity for concerned citizens of the area to voice their opinions regarding this project. Citizens who spoke included Gary Archibald and Patricia Boston who are both residents of Hills Beach. Also providing comments was Durward Parkinson, an attorney representing Hills Beach Association. Mr. Parkinson discussed burden of proof regarding this situation and also discussed the level of development within the area in relation to Commission districting and the effects on the corridor.

Bob Boilard was one greatest stewards of the Saco River. He was so passionate that he would use every minute at this podium to beat into us her importance. Bobs passion is one of the main reason the Saco River achieved the numerous heritage and preservation designations, including the Saco River corridor commission.

Bob was as passionate and they come, and he was also right. The river is critical to all of us.

But tonight, we need to remove the passion from the conversation and focus on the technical and legal aspects of this proposal.

And based on these alone I would argue that you cannot approve this project.

15 part C The facility shall be no larger in dimension than necessary to carry on the activity and be consistent with the surrounding character and uses of the area

The site walk was helpful to appreciate the size and scale of this project. Speaking of scale, this site walk confirmed that the numerous regulatory requirements make this so massive it is no longer meet Sec 15c

SUBJECTIVE STANDARD: COMPARE 5 PRIVATE FACILITIES
I implore the University provide a scaled 3D computer rendering to demonstrate this. ~~And stop suggesting we can paddle under it. That's not safe.~~ This will severely restrict movement in and around this area forever.

A 3D rendering will affirm if this is approved, this will be Biddeford's new MERC.

Sec 15 sec 10a When necessary, the removal of trees and other vegetation to allow for construction equipment access to the stabilization site via land must be limited to no more than 12 feet in width. When the stabilization project is complete, the construction equipment accessway must be restored.

The entrance will be a 20' road (not `12 per the law), combined with the turn around and the building as a backdrop will rip open the vegetation to a massive scale. Fire department requirements conflict with an ordinance, the ordinance-the law- still stands.

*SEEKING VARIANCE FROM ZONING BOARD
SITE PLAN*
I also believe it's a violation of original the conditions of approval for the Marine Science Center.

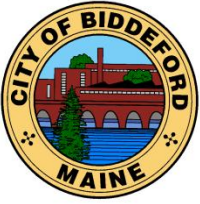
“the University has absolutely no intention to build within the 250 of the river, and that the city as well as the University believe the buffer to be very sensitive and necessary for the protection of the river.”

The intent of UNE accepting this condition was clear. The SRCC reason was crystal clear as the minutes indicated. No more building in the 250 buffer zone period. No exceptions.

This project does not meet the purpose or intent of the shoreland zone and is in direct conflict with the SRCC and UNEs previously stated in intentions, and previous conditions of approval.

To the planning board, you are not responsible for the city administrations failure to guide UNE. Its not your Fault UNE overreached. Under article 10, section 1.b.3 It's your job only to review and approve, approve with conditions or disapprove. Based on the ordinance, based on the law, you must disapprove.

I submit these comments and the minutes from the SRCC from 2001 and 2017 for the record.



CITY OF BIDDEFORD

Planning and Development Department

Adi Iriqat
Assistant City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
adi.iriqat@biddefordmaine.org

PLANNING BOARD STAFF REPORT

TO: Chair Plotkin and Members of the Biddeford Planning Board

FROM: Adi Iriqat, Assistant City Planner

DATE: July 17, 2025

RE: 2025.25 Greatest Practical Extent Determination for Mike Morse of Archipelago LLC on behalf of Matthew & Mary Lopresti, to reconstruct a two-story non-conforming structure. The property is 100 Mile Stretch Road (Tax Map 61, Lot 3) in the Coastal Residential Zone.

MEETING DATE: July 02, 2025, at 6:00 PM

1) INTRODUCTION

Constructed in 1965, the subject property features a two-story single-family residence with a total of eight bedrooms. The parcel also includes attached concrete patios and walkways, an in-ground pool, a detached garage, a brick patio, a concrete retaining wall, a driveway, and customary lawn and landscaped areas. The property was purchased in September 2021 by the current owners, Matthew F. Lopresti, Trustee of the Matthew F. Lopresti 2017 Declaration of Trust, and Mary L. Lopresti, Trustee of the Mary L. Lopresti 2017 Declaration of Trust.

The Board originally approved this application on January 25, 2023. However, due to a prolonged DEP permitting process, which has only recently concluded, construction was not initiated within the required one-year timeframe. No changes have been made to the proposed relocation since it was originally approved.

Please note that the enclosed application and supporting materials are identical to those previously submitted for the Board's review.

2025.25 Greatest Practical Extent Determination for Mike Morse of Archipelago LLC on behalf of Matthew & Mary Lopresti, to reconstruct a two-story non-conforming structure. The property is 100 Mile Stretch Road (Tax Map 61, Lot 3) in the Coastal Residential Zone.



Figure 1 An Aerial View of The Property.

2) PROJECT DATA/INFORMATION

1.	Applicant:	Matthew F. & Mary L. Lopresti, LLC 2 Old Western Rd, Wayland, MA 01778
2.	Owner of Property:	Same as Applicant
3.	Agent:	Mike Morse / Archipelago 1 Dana Street, 4 th Fl, Portland, ME 04101
4.	Engineer:	Don Coburn/ Coburn Fine Homes. 58 Old Cape Rd Kennebunkport, Me 04046
5.	Project Location:	100 Mile Stretch Rd
6.	Project Tax Map & Lot:	Tax Map 61, Lot 3
7.	Lot Size:	33,554 Sq.ft
8.	Base Zoning:	CR
9.	Overlay Zoning:	LR
10.	Existing Use:	Residential Dwellings and Improvements
11.	Proposed Use:	Reconstruct a two-story non-conforming structure
12.	Approvals Required:	Greatest Practical Extent

2025.25 Greatest Practical Extent Determination for Mike Morse of Archipelago LLC on behalf of Matthew & Mary Lopresti, to reconstruct a two-story non-conforming structure. The property is 100 Mile Stretch Road (Tax Map 61, Lot 3) in the Coastal Residential Zone.

13.	Uses in the Vicinity:	Single Family Residential
14.	Number of Lots in Subdivision:	N/A
15.	Minimum Lot Size Required: Provided: Proposed:	20,000 sf 6468 sf ± N/A
16.	Frontage Required: Existing: Proposed:	150' 81' 81'
17.	Front Setback Required: Existing: Proposed:	40' 191.45' ± N/A
18.	Side Setback Required: Existing: Proposed:	25' 12,6', 10.3', 14.3' ± 19.53, 20.40'
19.	Rear Setback Required: Existing: Proposed:	25' 40.21' ± 82.16' ±
20.	Height Requirements: Provided: Proposed:	35 feet or three stories
21.	Water Supply:	Public Water
22.	Sewage Disposal:	Private Sewer
23.	Solid Waste Disposal:	Public Trash
24.	Fire Protection:	City of Biddeford
25.	Floodplain Status:	N/A
26.	Wetland/Surface Water Impacts:	N/A
27.	Soil Study Provided:	N/A
28.	Parking Spaces Required:	N/A
29.	Parking Spaces Provided (total):	N/A
30.	Ownership of Road:	Mile Stretch Road is a Public Road
31.	Impervious Surface Area:	N/A
32.	Total Disturbed Area:	N/A
33.	Waivers Needed:	N/A
34.	Waivers Granted:	N/A
35.	Variances Needed for Approval:	None
36.	Other Permits Obtained:	N/A
37.	Other Non-City Permits Required:	DEP
38.	Fees Paid:	Yes
39.	Planning Board Review History:	July 2, 2025

3) Existing Conditions

The project proposes to remove the existing non-conforming structure and reconstruct it in a more conforming location. The residential structure is partially situated within the 100-foot shoreline setback. At its nearest point, the structure is 40.21 feet from the Highest Annual Tide Line, making it non-conforming under the City Code. The applicant now proposes to remove the existing residential dwelling and associated improvements. These activities are permitted under Article XIV, Section 12(C)(4) of the City Code, which governs the reconstruction or replacement of non-conforming structures.

4) Proposed Project

Scope of Work Summary: 100 Mile Stretch Road

Demolition and Site Preparation

- Demolition of the existing dwelling and associated features as necessary.
- Protection of existing structures to remain, including detached garage.
- Minimal removal of vegetation; disturbed areas to be replanted with grass.

Structure Relocation

- Reconstruct the dwelling on a revised footprint, relocated in a northeasterly direction.
- Ensure improved side yard and shoreline setbacks while maintaining reasonable water views.

Infrastructure Adjustments

- Remove and replace the existing septic system (installed in 1985).
- Maintain access via existing driveway; minor grading/backfill as necessary for lawn and patio areas.

Shoreland Zone Compliance

- Comply with Biddeford's Shoreland Zoning requirements and Planning Board standards.

Planning Board Criteria Considerations

- Address six statutory relocation criteria:
 - Lot size and configuration:
 - There is limited size for relocation due to the lot's size and various setback restrictions. The abutting properties further restrict the relocation area, which the applicant had to move the structure back to 82.16' from the NHWL.
 - Slope conditions
 - The slope of the land is conducive to both construction and relocation as proposed
 - Soil stability
 - The proposed relocation will not create a risk of soil erosion
 - Nearby structures
 - No other structures on the property that would affect the proposed location
 - Septic system location
 - The septic system will be replaced in the area between the relocated structure and the detached garage
 - Vegetation impact:
 - The removed vegetation will not impede the structure footprint relocation

2025.25 Greatest Practical Extent Determination for Mike Morse of Archipelago LLC on behalf of Matthew & Mary Lopresti, to reconstruct a two-story non-conforming structure. The property is 100 Mile Stretch Road (Tax Map 61, Lot 3) in the Coastal Residential Zone.

Regulatory Context:

- The structure is non-conforming due to being within the 100-foot shoreline setback (40.21 ft from the NHL).
- Reconstruction allowed per **Article XIV, Section 12(C)(4)** of the City Code.
- The application seeks Planning Board approval for a footprint relocation determination to the **greatest practical extent**.

Conclusion:

- The applicant believes that the proposed relocation of the non-conforming structure's footprint establishes the minimum shoreline setback to the greatest practical extent as discussed above: 1) relatively small lot size, 2) narrow lot width, 3) minimum setback requirements established in the Code, and 4) septic system requirements.
- Accordingly, the applicant respectfully requests the Planning Board's concurrence that the structure's footprint, at its greatest practical extent, can be relocated on the lot to 82.16 feet from the NHL.

STAFF REVIEW

Waivers: N/A

Staff Recommendation

If the applicant has addressed the outstanding items to the satisfaction of the Planning Board and the Planning Board approves the project, Staff recommends doing so with the following Conditions of Approval:

1. The razed building shall not be relocated closer to any of the existing property lines as noted on the approved plan
2. The Code Enforcement Officer shall review and approve conformance to Section 15 of the Shoreland Zoning Ordinance
3. Obtain all required permits from the Maine Department of Environmental Protection and the Biddeford Code Enforcement Office
4. This approval shall expire one year from the date below if a substantial start is not made in construction. **If a substantial start (30% of project completion, i.e., framing and foundation)** is made within one year of the date below, the applicant shall have one additional year to complete the project thereafter; this approval shall expire 7-2-26.

SAMPLE MOTIONS

- A. **Motion to Approve** Case #2025.25 Greatest Practical Extent Determination for Archipelago LLC on behalf of Matthew & Mary Lopresti (Tax Map 61, Lot 3) in the Coastal Residential Zoning District with the above-listed Conditions of Approval.

2025.25 Greatest Practical Extent Determination for Mike Morse of Archipelago LLC on behalf of Matthew & Mary Lopresti, to reconstruct a two-story non-conforming structure. The property is 100 Mile Stretch Road (Tax Map 61, Lot 3) in the Coastal Residential Zone.

- B. Motion to Table** Case #2025.25 Greatest Practical Extent Determination for **Archipelago LLC on behalf of Matthew & Mary Lopresti** (Tax Map 61, Lot 3), in the Coastal Residential Zoning District, for the following reasons:
- 1) _____
 - 2) _____
 - 3) _____

- C. Motion to Deny** Case #2025.25 Greatest Practical Extent Determination for **Archipelago LLC on behalf of Matthew & Mary Lopresti, LLC** (Tax Map 61, Lot 3), in the Coastal Residential Zoning District, for the following reasons:
- 1) _____
 - 2) _____
 - 3) _____



Michael Morse
Senior Environmental Consultant
MMorse@ArchipelagoNA.com

1 Dana Street
Portland, Maine 04101
(207) 558-0102

June 10, 2025

Planning Board
City of Biddeford
P.O. Box 586
Biddeford, ME 04005

Re: Matthew & Mary Lopresti, 100 Mile Stretch Road: Non-Conforming Structure
Relocation

Dear Members of the Biddeford Planning Board:

On behalf of my clients Matthew & Mary Lopresti, please find enclosed a resubmission of our application for the Board's relocation determination of a non-conforming structure located at 100 Mile Stretch Road. This application was previously approved by the Board on January 25, 2023; however, due to a lengthy DEP application process that just recently resulted in a permit, construction was not initiated within one year of the original Board approval. Accordingly, we respectfully request that this updated application be placed on the Planning Board's July 2nd agenda for its full reconsideration of the matter.

No aspect of the relocation proposal has changed since the 2023 approval and the enclosed application and attachments include the same information provided to the Board during its original review.

Thank you in advance for your consideration of this matter.

Sincerely,

Mike Morse

**City of Biddeford – Planning Department****Planning Board Application**

P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

☒ Shoreland Zoning Permit ☐ Site Plan Review (Please include checklist) ☐ Extraction
☐ Conditional Use Permit ☐ Subdivision ☐ Private Way
☐ Other: _____

Applicant Information:

Matthew F. Lopresti, Trustee of the Matthew F. Lopresti 2017 Declaration of Trust
 Name: Mary L. Lopresti, Trustee of the Mary L. Lopresti 2017 Declaration of Trust

Mailing Address: 2 Old Western Road, Wayland, MA 01778

Telephone: _____

Email: _____

What is your legal interest in the property?

☒ Owner ☐ Potential Buyer with Contract ☐ Lease/Rental Agreement

Owner's Information:

Name: same as above

Mailing Address: _____

Telephone: _____

Email: _____

Agent's Information:

Name: Mike Morse / Archipelago

Mailing Address: 1 Dana Street, Portland, ME 04101

Telephone: (207) 558-0102

Email: mmorse@archipelagoNA.com

Engineer/Surveyor's Information:

Name: Don Coburn / Coburn Fine Homes

Mailing Address: 58 Old Cape Road, Kennebunkport, ME 04046

Telephone: (207) 604-2001

Email: don@coburnfinehome.com

Project Location and Lot Information:

Street Address: 100 Mile Stretch Road Drainage Watershed: Saco Bay

Tax Map: 61 Lot: 3

Current Zoning: Coastal Residential Shoreland Zoning: Limited Residential

Size of Lot: 33,554 () acres (☒s.f. Lot Frontage: 82 ft

Existing Use of Property: Residential dwelling and improvements

Property currently serviced by:

☒ City Road ☐ Public Sewer ☒ Public Water ☒ Public Trash
☐ Private Road ☒ Septic System ☐ Private Well ☐ Private Hauler

Slope Conditions in Area of Construction (if applicable):

☐ Flat (0-3% slope) ☒ Rolling (3-8% slope) ☐ Hilly (8-15% slope) ☐ Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? ☐ (Yes) ☒ (No) if yes attach information

Is the project within the 100-year floodplain? ☐ (Yes) ☒ (No) if yes attach information

Do you plan to bring fill onto the lot? ☒ (Yes) ☐ (No) If yes attach information

(incidental fill for house construction
only - e.g. backfill, loam for lawn)

Project/Proposed Use:

The project proposes to remove and reconstruct an existing non-conforming structure. City Code requires Planning Board review to determine whether the structure footprint can be relocated to meet the shoreline setback to the greatest practical extent. This review is the sole request for this application.

Property to be Serviced by:

☒ City Road ☐ Public Sewer ☒ Public Water ☒ Public Trash
☐ Private Road ☒ Septic System ☐ Private Well ☐ Private Hauler

Limits of Disturbance: n/a ()acres ()s.f.

Net change in impervious cover: n/a () acres (X)s.f.

Is this project part of a larger project? ☐ (Yes) ☒ (No)

Is the project proposing a new Private or Public Road? ☐ (Yes, Private) ☐ (Yes, Public) ☒ (No)

Is this project within the Urbanized Area/MS4 (see [City Drainage Map](#)) (Yes) ☒ (No) ☐

Is the project proposing any Stormwater facilities/BMPs? (Yes) ☒ (No)

Will a Traffic Movement Permit (TMP) be required?: (Yes) ☒ (No) ☐

✕ If in a Shoreland Zone:

Percent of residential lot coverage (Max 20%): Existing: 41.57% Proposed: 41.57%

Percent of structure expansion (Max 30%): to be determined

If Subdivision Review, number of lots proposed:

If a Private Way is proposed, number of lots served:

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure:

Total new square feet paving/parking:

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

- A. Letters of Approval
- ☐ Fire Department – Contact Chief or Deputy Chief – 282-9986
 - ☐ Ability to Serve for Water Service – Maine Water – 282-1543
 - ☐ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
 - ☐ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
 - ☐ Ability to Serve for Electrical Service-CMP-1-866-225-4200
 - ☐ Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.
- B. Photographs of Site.
- C. Architectural renderings/drawings of proposed buildings, as required.
- D. Engineering Plans, as required.
- E. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- \$75 Nonrefundable Administration Fee is required for every application.
- Refer to “Attachment A Fees and Charges” of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance? __ (Yes) __ (No)

- If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.

Signature of Applicant: 

Date 10/10/2025

Signature of Property Owner: _____

Date _____

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

- A) PDF OF SIGNED APPLICATION
- B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

- A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

- A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)
 - Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVIDUAL DRAWING NAME.pdf'
- B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.
- C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)
 - All drawings & CAD reference files must be to-scale and within the following coordinate systems:
 - MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

- A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIDUAL DRAWINGS REQUIRING BOARD SIGNATURE
- B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION



Archipelago

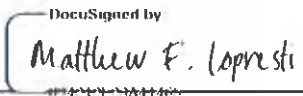
Law • Science • Policy

Michael Morse
Senior Environmental Consultant
MMorse@ArchipelagoNA.com

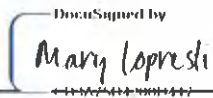
1 Dana Street
Portland, Maine 04101
(207) 558-0102

To whom it may concern:

Matthew F. Lopresti, Trustee of the Matthew F. Lopresti 2017 Declaration of Trust and Mary L. Lopresti, Trustee of the Mary L. Lopresti 2017 Declaration of Trust, owners of property located at 100 Mile Stretch Road, Biddeford, Maine, hereby authorize Mike Morse and Archipelago, to submit permit applications on their behalf to the State of Maine Department of Environmental Protection and the City of Biddeford. Such permit applications are intended for the proposed removal, relocation, and reconstruction of a residential structure located at 100 Mile Stretch Road, Biddeford.

Signature: 
Matthew F. Lopresti, Trustee of the
Matthew F. Lopresti 2017 Declaration
of Trust

Date: 12/10/2022

Signature: 
Mary L. Lopresti, Trustee of the
Mary L. Lopresti 2017 Declaration
of Trust

Date: 12/10/2022

Location Map
100 Mile Stretch Road
Biddeford, Maine



Online Tax Map

600ft

Michael Morse
Senior Environmental Consultant
MMorse@ArchipelagoNA.com

1 Dana Street
Portland, Maine 04101
(207) 558-0102

Matthew Lopresti and Mary Lopresti
Non-conforming Structure Relocation Review
100 Mile Stretch Road, Biddeford

Project Description

The applicants purchased the subject property in September 2021. The parcel is developed with a residential dwelling, with attached concrete patios, walkways, and in-ground pool, a detached garage, brick patio, a concrete retaining wall, customary lawn and landscaped areas, and a driveway. The dwelling structure is located 40.21 feet from the NHWL as delineated by Livingston-Hughes on February 20, 2020, and therefore is considered to be a non-conforming structure under the Code. According to City Assessor records, the structure was constructed in 1965.

The project proposes to remove the existing non-conforming structure and reconstruct it in a more conforming location. Such projects are allowed, subject to City Code, Article XIV, Section 12(C)(4), Reconstruction or Replacement. Specifically, the Code allows the removal and reconstruction of a non-conforming structure within the shoreland zone provided that the structure's footprint is relocated to be in conformity with the shoreline setback to the greatest practical extent, as determined by the Planning Board. Greatest practical extent relocation determination by the Planning Board is the exclusive purpose of this application.

Pursuant to the City's Code, when relocating a non-conforming structure in compliance with the shoreline setback to the greatest practical extent, the Planning Board shall consider 6 specific criteria (see Article XIV, Section 12 (C)(3)). These criteria include, and are limited to the following:

- 1) Size of the lot
- 2) Slope of the land
- 3) Potential for soil erosion
- 4) Location of other structures on the property and on adjacent properties
- 5) Location of the septic system and other on-site soils suitable for septic systems
- 6) The type and amount of vegetation to be removed to accomplish the relocation

Discussion

The subject lot is 33,554 square feet and approximately 80 feet wide. The existing and proposed structure locations are affected by the minimum shoreline setback requirements and the minimum lot line setback requirements.

With respect to the 6 relocation criteria outlined in the Code, we provide the following:

- 1) Size of the lot: Considering the modest lot size and multiple minimum setback restrictions, there is a limited location for the structure footprint to be relocated. In the attached site plan prepared by Livingston-Hughes dated December 5, 2022, we propose to relocate the structure in a northeasterly direction. This improves conformity with the 15-foot side lot line setback on both sides of the structure compared to the existing condition and moves the structure further back from the NHWL. Due to the location of the houses on the abutting properties, the structure footprint has been relocated back to 82.16 feet from the NHWL. Moving the footprint any further back will result in the obstruction of views by the abutting structures.
- 2) Slope of the land: The slope of the land in the area of the lot that is subject to this proposal is not prohibitive to construction and does not interfere with the structure relocation as proposed. The structure is currently constructed on the highest point of the land, with the slope receding both fore and aft of the structure- toward the ocean and toward the road. Relocating the structure further away from the shoreline lowers the height of the structure, which also reduces the view of the water from the structure. The proposed location for reconstruction substantially improves the shoreline setback while preserving a water view.
- 3) Potential for soil erosion: There are no unique soil conditions or other soil features such that the relocation of the structure footprint would create risk of soil erosion from the lot.
- 4) Location of other structures on the property and on adjacent properties: The location of the existing detached garage limits how far back toward the road the structure can be relocated. There are no other structures that are located on the property that would affect the proposed relocation. There are structures located on the adjacent properties to the east and west of the subject lot, and those abutting structures do impact the footprint relocation on the subject lot. Relocating the existing footprint any further back than the proposed relocation will significantly impact the water views of the relocated structure.
- 5) Location of the septic system and other on-site soils suitable for septic systems: The property is currently served by a subsurface wastewater disposal system. The existing system was installed in 1985 and is located approximately 28' from the northerly end

(road end) of the structure. The septic system is proposed to be replaced as part of this project. The area of the lot that is between the proposed relocated structure location and the detached garage must be reserved to accommodate the replacement septic system.

- 6) The type and amount of vegetation to be removed to accomplish the relocation:
Vegetation removal does not impede structure footprint relocation under the City Code. The existing location from where the structure will be relocated will be replanted with grass vegetation as specified in the Code.

Relocation Summary

Due to the relatively small lot size, narrow lot width, minimum setback requirements established in the Code, septic system requirements, and otherwise discussed above, it is our opinion that the proposed footprint relocation of the non-conforming structure establishes the minimum shoreline setback to the greatest practical extent. Accordingly, the applicant respectfully requests the Planning Board's concurrence that the structure footprint's greatest practical extent relocation on the lot is 82.16 feet from the NHWL.

Photos

View of house from Mile Stretch Road



View of house from back yard



View of garage from house



View of house from garage



View of easterly side of the house



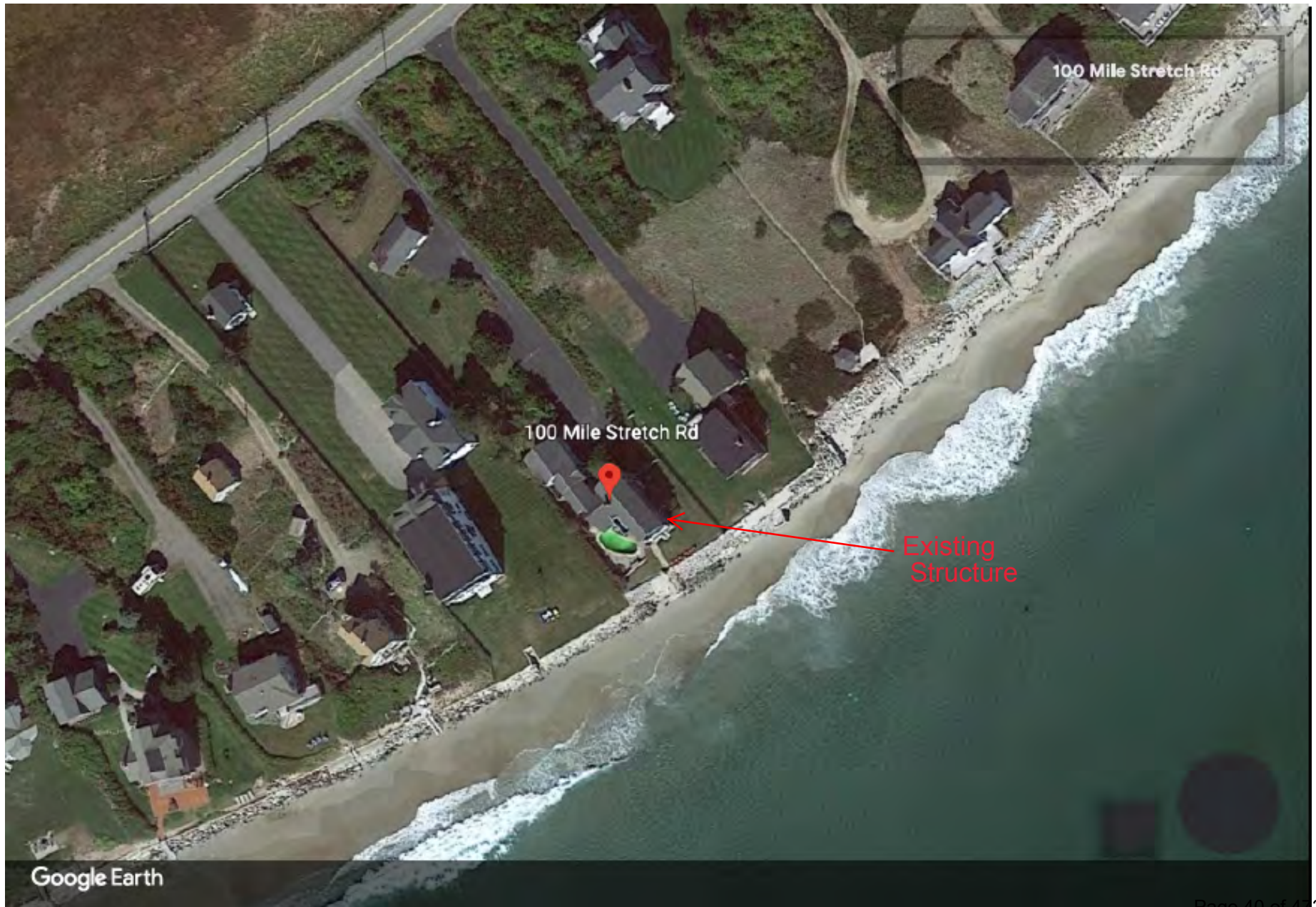
View of back and easterly side of house



View of westerly side of the house



Aerial Photo / Google Earth
100 Mile Stretch Road



SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 289-3826

PROPERTY ADDRESS

Town Or Plantation: BIDDEFORD

Street: 100 MILE STRETCH ROAD

Subdivision Lot #: _____

PROPERTY OWNERS NAME

Last: FLYNN First: BARRY

Applicant Name: BARRY FLYNN

Mailing Address of Owner/Applicant (if different): 100 MILE STRETCH ROAD BIDDEFORD POOL, ME 04006

BIDDEFORD PERMIT # 300 STATE COPY

Date Permit Issued: 3/13/85 \$ 140.00 FEE ☐ Double Fee Charged

51 C. Chambl L.P.I. # 17112

Local Plumbing Inspector Signature

Owner/Applicant Statement

I certify that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Local Plumbing Inspector to deny a permit.

Barry Flynn Signature of Owner/Applicant 3/13/85 Date

Caution: Inspection Required

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules.

C. Chambl Local Plumbing Inspector Signature 3-26-85 Date Approved

PERMIT INFORMATION

THIS APPLICATION IS FOR:

- ☐ NEW SYSTEM
- ☒ REPLACEMENT SYSTEM
- ☐ EXPANDED SYSTEM
- ☐ SEASONAL CONVERSION
- ☐ EXPERIMENTAL SYSTEM

IF REPLACEMENT SYSTEM:

YEAR FAILING SYSTEM INSTALLED 1965[±]

THE FAILING SYSTEM IS:

- ☐ BED
- ☐ CHAMBER
- ☒ TRENCH AS WIRING
- ☐ OTHER _____

SIZE OF PROPERTY 0.9[±] ACRES **ZONING** SHORELAND

THIS APPLICATION REQUIRES:

- ☒ NO RULE VARIANCE REQUIRED SPECIAL SYSTEM
- ☐ NEW SYSTEM VARIANCE Attach New System Variance Form
- ☐ REPLACEMENT SYSTEM VARIANCE Attach Replacement System Variance Form
- ☐ Requires only Local Plumbing Inspector Approval
- ☐ Requires both State and Local Plumbing Inspector Approval

DISPOSAL SYSTEM TO SERVE:

- ☒ SINGLE FAMILY DWELLING
- ☐ MODULAR OR MOBILE HOME
- ☐ MULTIPLE FAMILY DWELLING
- ☐ OTHER _____ SPECIFY _____

INSTALLATION IS COMPLETE SYSTEM

- ☒ NON-ENGINEERED SYSTEM
- ☐ PRIMITIVE SYSTEM (Includes Alternative Toilet)
- ☐ ENGINEERED (+ 2000 gpd)

INDIVIDUALLY INSTALLED COMPONENTS:

- ☐ TREATMENT TANK (ONLY)
- ☐ HOLDING TANK
- ☐ ALTERNATIVE TOILET (ONLY)
- ☐ NON-ENGINEERED DISPOSAL AREA (ONLY)
- ☐ ENGINEERED DISPOSAL AREA (ONLY)
- ☐ SEPARATED LAUNDRY SYSTEM

TYPE OF WATER SUPPLY PUBLIC - KENNEBUNK
KENNEBUNKPORT AND TOWNS WATER DISTRICT

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK

- ☒ SEPTIC ☒ Regular ☐ Low Profile
- ☐ AEROBIC

SIZE 1250 GALS

WATER CONSERVATION

- ☒ NONE
- ☐ LOW VOLUME TOILET
- ☐ SEPARATED LAUNDRY SYSTEM
- ☐ ALTERNATIVE TOILET

SPECIFY _____

PUMPING

- ☐ NOT REQUIRED
- ☒ MAY BE REQUIRED (DEPENDENT ON TREATMENT TANK LOCATION AND ELEVATION)
- ☐ REQUIRED

DOSE _____ GALS

CRITERIA USED FOR DESIGN FLOW (BEDROOMS, SEATING, EMPLOYEES, WATER RECORDS, ETC.)

WATER USE RECORDS 1983-1984
SEE ATTACHED TABLE
(5 BEDROOM HOME)

SOIL CONDITIONS USED FOR DESIGN PURPOSES

PROFILE 11 CONDITION C
DEPTH TO LIMITING FACTOR 42 SEE ATTACHED LETTER

SIZE RATINGS USED FOR DESIGN PURPOSES

- ☐ SMALL
- ☐ MEDIUM
- ☒ MEDIUM-LARGE
- ☐ LARGE
- ☐ EXTRA LARGE

DISPOSAL AREA TYPE/SIZE

- ☒ BED 1600 Sq. Ft.
- ☐ CHAMBER _____ Sq. Ft.
- ☐ TRENCH _____ Linear Ft.
- ☐ OTHER _____

DESIGN FLOW 485 (GALLONS/DAY)

SITE EVALUATOR STATEMENT

On 2 MARCH 1985 (date) I conducted a site evaluation for this project and certify that the data reported is accurate. The system proposed is in accordance with the Subsurface Wastewater Disposal Rules.

Stephen J. Kelley Site Evaluator or Professional Engineer's Signature

#107 SE # PE #

9 MARCH 1985 Date

() SITE EVALUATION WAIVED BY LOCAL OPTION

Page 1 of 3

BIDDEFORD

100 MILE STREET ROAD

BARRY FLYNN

SITE PLAN

Scale 1" = 50 Ft.

SITE LOCATION PLAN (Attach Map from Maine Atlas for New System Variance)

MILE STREET ROAD (BIDDEFORD POOL ROAD)

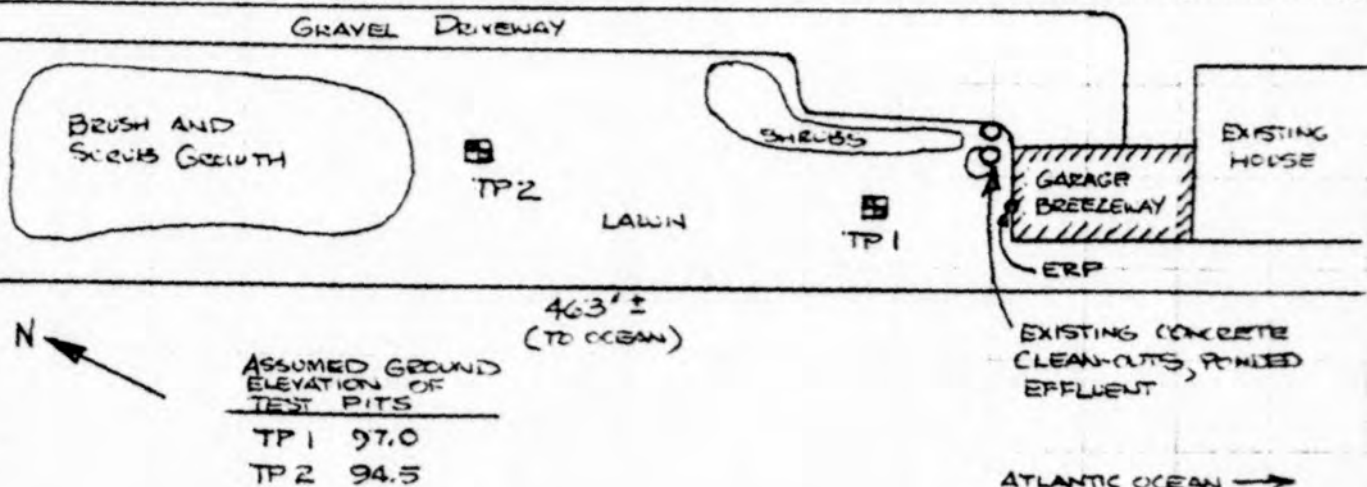
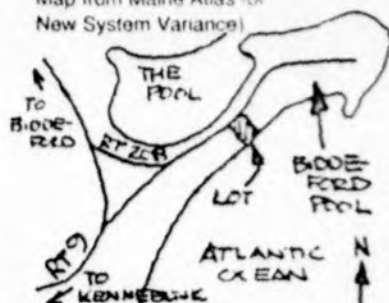
NOTE ① WATER SUPPLY LINE LOCATED BENEATH GRAVEL DRIVEWAY.

② LOCATION OF EXISTING LEACH FIELD (IF ANY) IS UNKNOWN.

③ ALL ABUTTERS ARE SERVED BY PUBLIC WATER - KENNEBUNK, KENNEBUNKPORT AND WELLS WATER DISTRICT.

④ ERP LOCATED ON TOP OF WESTERLY SIDE OF GARAGE WINDOW STOOL (WESTERNMOST WINDOW) - ASSUMED 100.0 ELEVATION AT PENCIL MARK.

⑤ GARAGE SET ON CONCRETE SLAB



SOIL DESCRIPTION AND CLASSIFICATION

(Location of Observation Holes Shown Above)

Observation Hole TP 1 ☒ Test Pit ☐ Boring

1/2

Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
FINE SANDY LOAM	FRIABLE	BROWN	NONE
FINE SAND	LOOSE	PALE BROWN	NONE
BOTTOM OF TEST PIT 62"			

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Soil	Classification	Slope	Limiting Factor	Ground Water
II	B	0%	NE	Restrictive Layer

Observation Hole TP ☒ Test Pit ☐ Boring

1/2

Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
FINE SANDY LOAM	FRIABLE	DARK BROWN	NONE
FINE SAND	LOOSE	PALE BROWN	NONE
SOIL BECOMES WET AT 42" WATER FLOWING AT 48" BOTTOM OF TEST PIT 72"			

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Soil	Classification	Slope	Limiting Factor	Ground Water
II	C	0%	42 ±	Restrictive Layer

Stephen J. Kelley
Site Evaluator or Professional Engineer's Signature

#107

9 MARCH 1985

Date

Page 2 of 3

HME PG. 10-15-85 473

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Town, City, Plantation

BIDDEFORD

Street, Road, Subdivision

100 MILE STRETCH ROAD

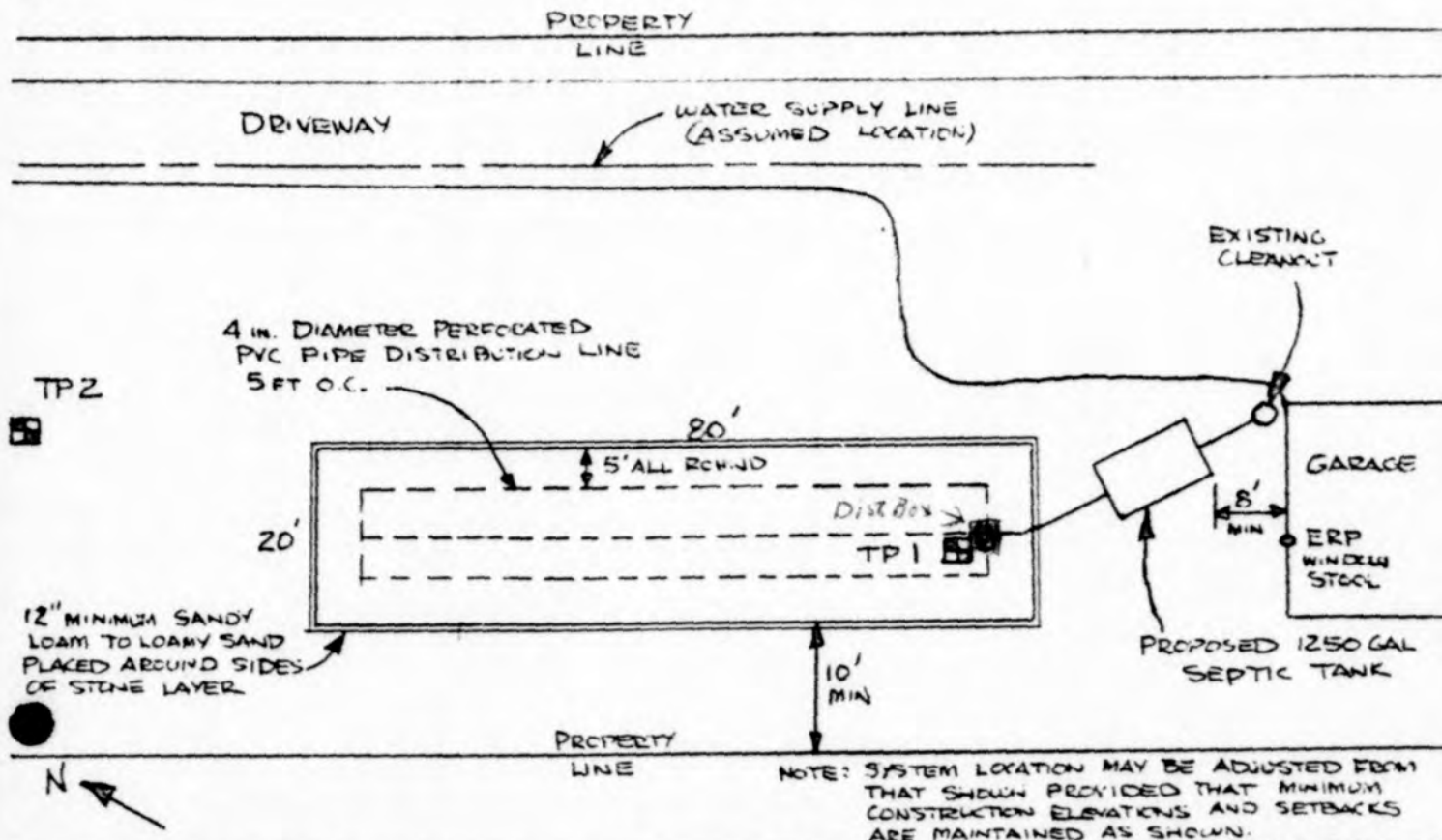
SUBSURFACE WASTEWATER DISPOSAL PLAN

Minimum of 100 feet from property line

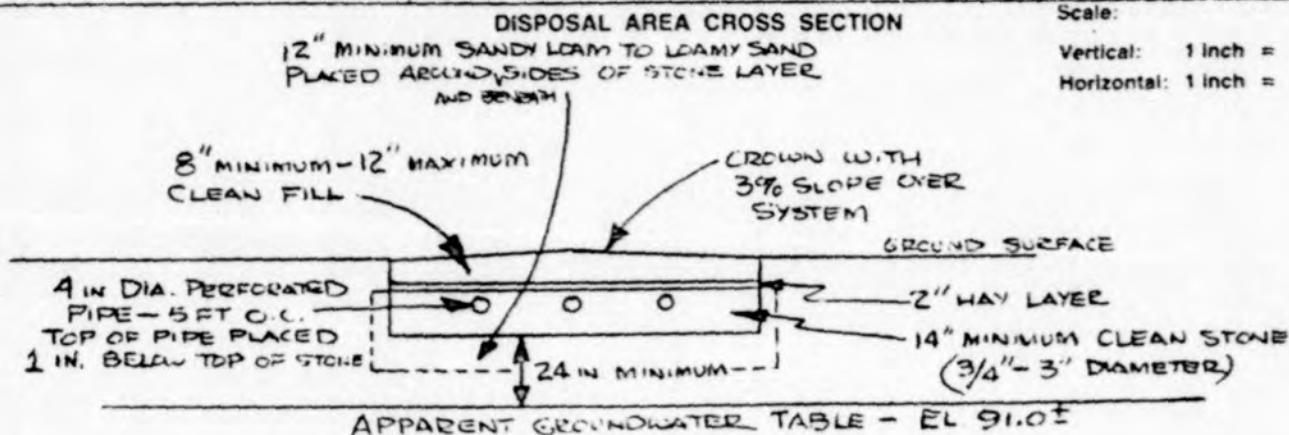
Owner's Name

BARRY FLYNN

Scale 1" = 20' Ft.



FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT LOCATION & DESCRIPTION	
Depth of Fill (Upslope)	0"	Reference Elevation is	ASSUMED 100.0'	PENCIL MARK ON WESTERLY SIDE OF GARAGE WINDOW STOOL WESTERNMOST WINDOW (SEE PLAN)	
Depth of Fill (Downslope)	0"	Bottom of Disposal Area	MINIMUM (STONE) 93.0'		
		Top of Distribution Lines or Chambers	MIN. 94.1'		



NOTES:

- ① BOTTOM OF BED LEVEL WITH MAXIMUM GRADE TOLERANCE OF 1 IN. PER 100 FT.
- ② STABILIZE ENTIRE DISTURBED AREA WITH SEED AND MULCH AS SOON AS POSSIBLE AFTER CONSTRUCTION TO PREVENT EROSION.

- ③ MINIMUM ELEVATION OF DISPOSAL BED BOTTOM IS 93.0'. BOTTOM SHOULD BE RAISED ABOVE THIS LEVEL IF GRAVITY FLOW CAN BE MAINTAINED. LANDSCAPING MAY BE REQUIRED SO THAT ONLY THE MAXIMUM DEPTH OF FILL IS PLACED ABOVE THE DISTRIBUTION LINES.

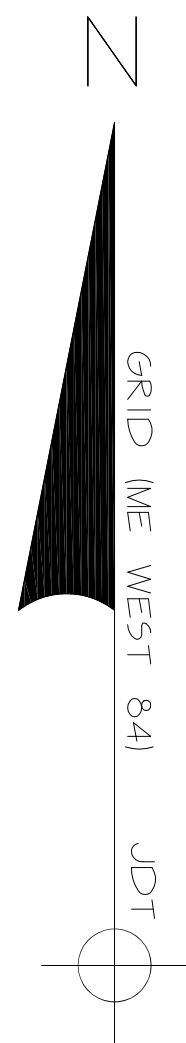
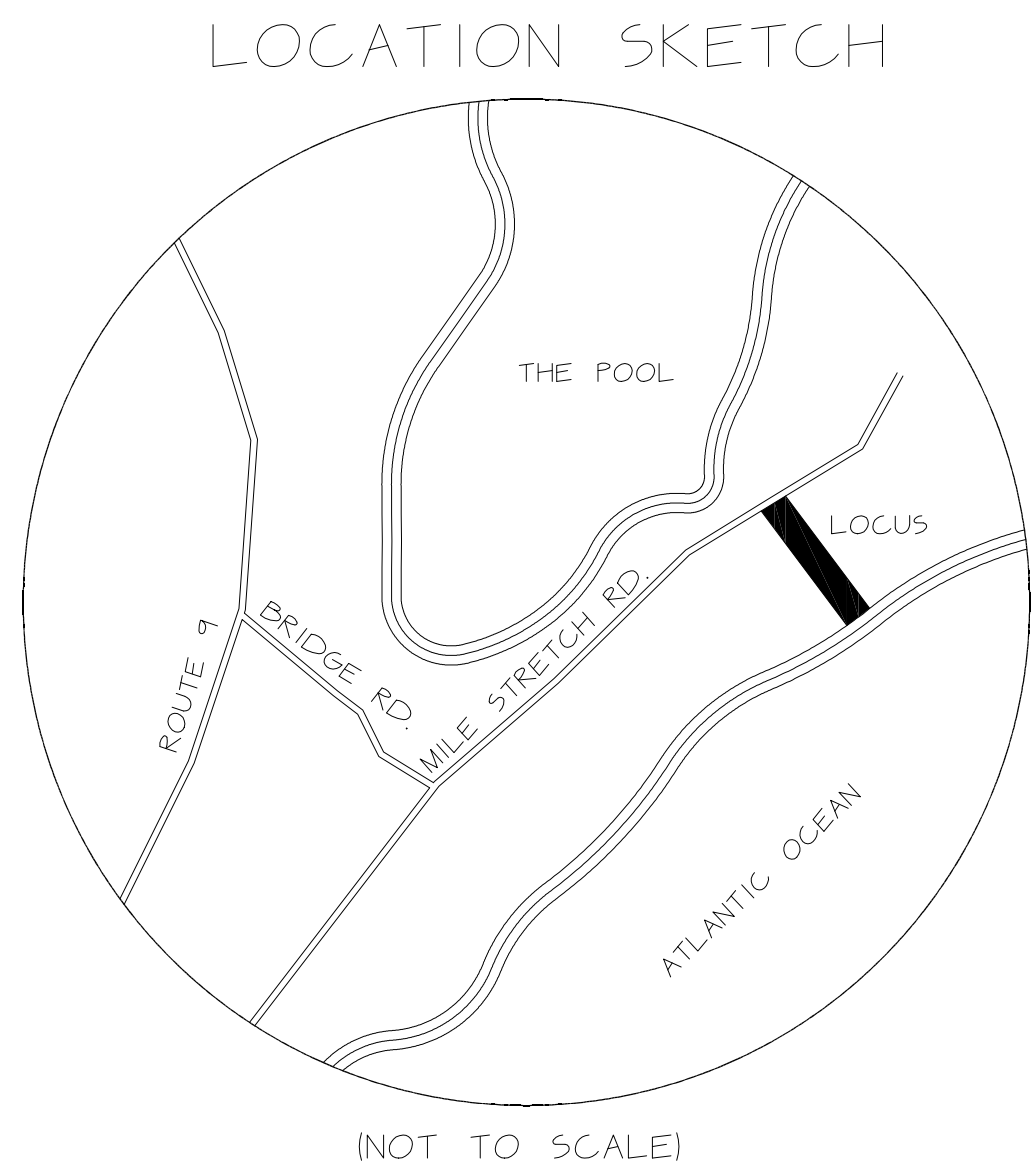
Stephen J. Kelley
Site Evaluator or Professional Engineer's Signature

#107
SE #1 PE #

9 MARCH 1985
Date

Page 3 of 3
HHE 200 Rev 4/83
Page 43 of 473

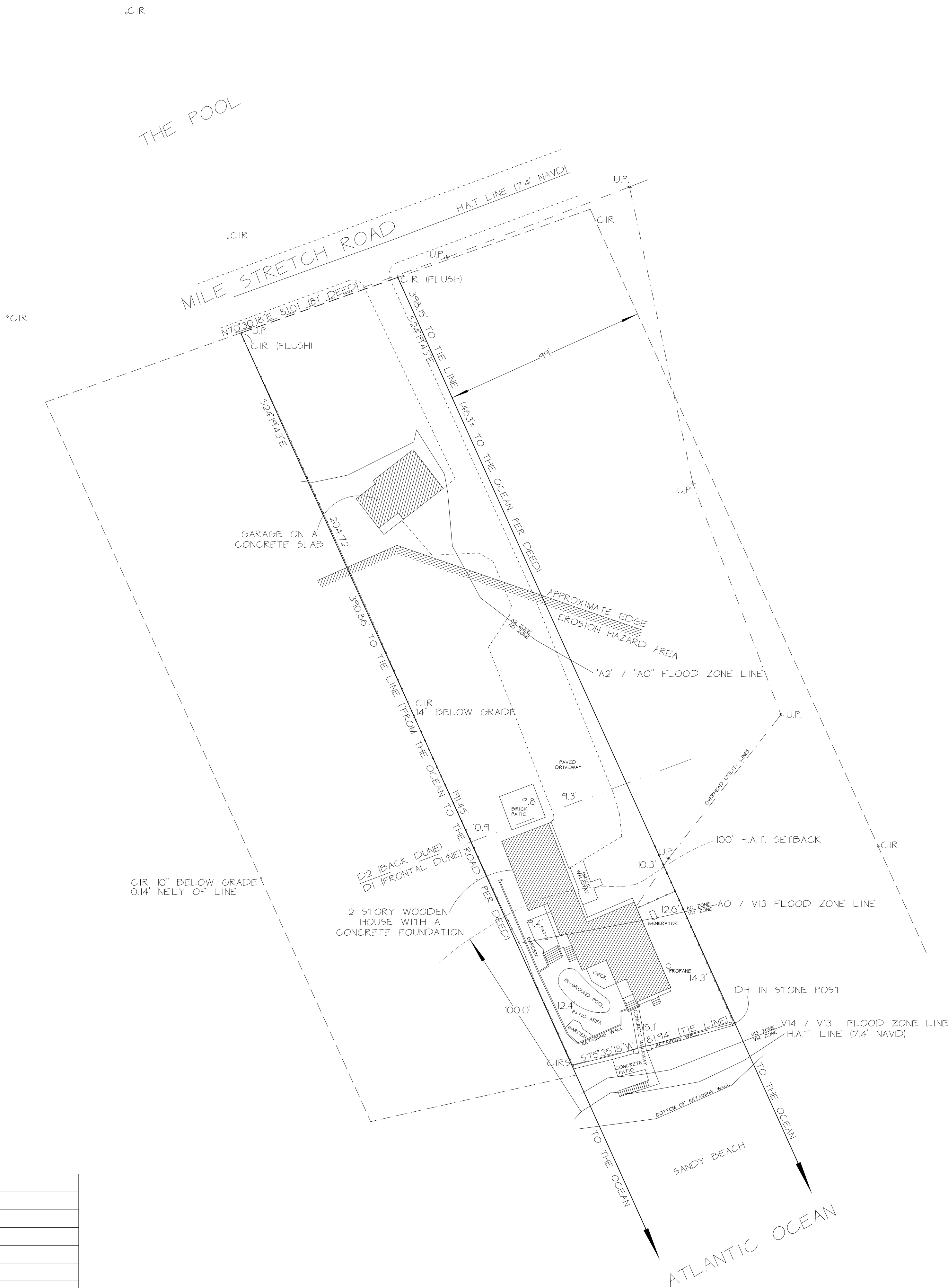
Existing Conditions Plan



COVERAGE CHART

DRIVEWAY	6587	SQ.FT.
HOUSE	3043	SQ.FT.
CONCRETE/SEAWALL	1793	SQ.FT.
POOL/REAR PATIO AREA	1204	SQ.FT.
DETACHED GARAGE	867	SQ.FT.
BRICK PATIO	302	SQ.FT.
BRICK WALKWAY	139	SQ.FT.
MISC.	15	SQ.FT.
TOTAL	13950	SQ.FT.
LOT AREA	33554	SQ.FT.
COVERAGE	4157%	

REVISION NO.	DATE	REVISION PURPOSE
1	04-10-20	SET PINS, MOVE TIE LINE
2	01-21-22	ADD 100' SETBACK



LOCUS DEED REFERENCE

YORK COUNTY REGISTRY OF DEEDS (YCRD)
BOOK: 18107 PAGE: 65

PLAN REFERENCES

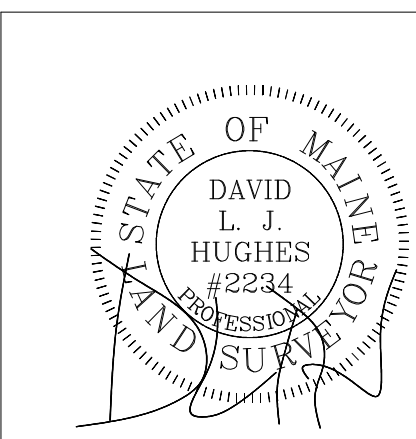
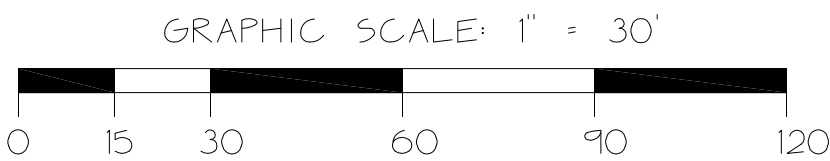
1. PLAN OF LAND, KEVIN TOURANGEAU, MAP 61, LOT 4, LONG STRETCH ROAD, BIDDEFORD POOL, MAINE, FOR DOROTHY ALLEN, 98 LONG STRETCH ROAD, BIDDEFORD POOL, MAINE, PREPARED BY ROARING BROOK CONSULTANTS, DATED 9/27/1994 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 219, PAGE 43.
2. PLAN OF LAND OF KEVIN W. TOURANGEAU AT 98 MILE STRETCH ROAD, BIDDEFORD, MAINE, PREPARED BY LIVINGSTON-HUGHES LAND SURVEYORS, DATED FEBRUARY 10, 1998.

NOTES

1. STRUCTURE ELEVATIONS (NAVD88)
18.29' - 2ND FLOOR HOUSE
9.78' - BOTTOM FLOOR HOUSE
9.48' - ATTACHED GARAGE SLAB
8.85' - DETACHED GARAGE SLAB
2. THE LOT AREA WAS CALCULATED TO THE HIGHEST ANNUAL TIDE LINE, PER BIDDEFORD CEO.

LEGEND

- N/F - NOW OR FORMERLY
TM - TAX MAP
CIR - CAPPED IRON ROD
DH - DRILL HOLE
UP - UTILITY POLE
YCRD - YORK COUNTY REGISTRY OF DEEDS
- FENCING
14.3' - SPOT ELEVATION
CIRS - CAPPED IRON ROD SET



BOUNDARY SURVEY OF LAND AT
100 MILE STRETCH ROAD
BIDDEFORD, MAINE

PREPARED FOR

DON COBURN, COBURN FINE HOMES

OWNER OF RECORD
MATTHEW AND MARY LOPRESTI
MAILING ADDRESS: 2 OLD WESTON ROAD, WAYLAND, MA 01778

BY
LIVINGSTON-HUGHES
PROFESSIONAL LAND SURVEYING CORPORATION
88 GUINEA ROAD, KENNEBUNKPORT, MAINE 04046

REVISION NO.	DAVID L.J. HUGHES	FL54 2234	DATE: 02-10-2020	DRAWN: JDT	CHECK: DLH	FIELD BOOK: 1052-48	PROJECT: 20-001
2							

Proposed Relocation Plan

(NOT TO SCALE)

(NOT TO SCALE)

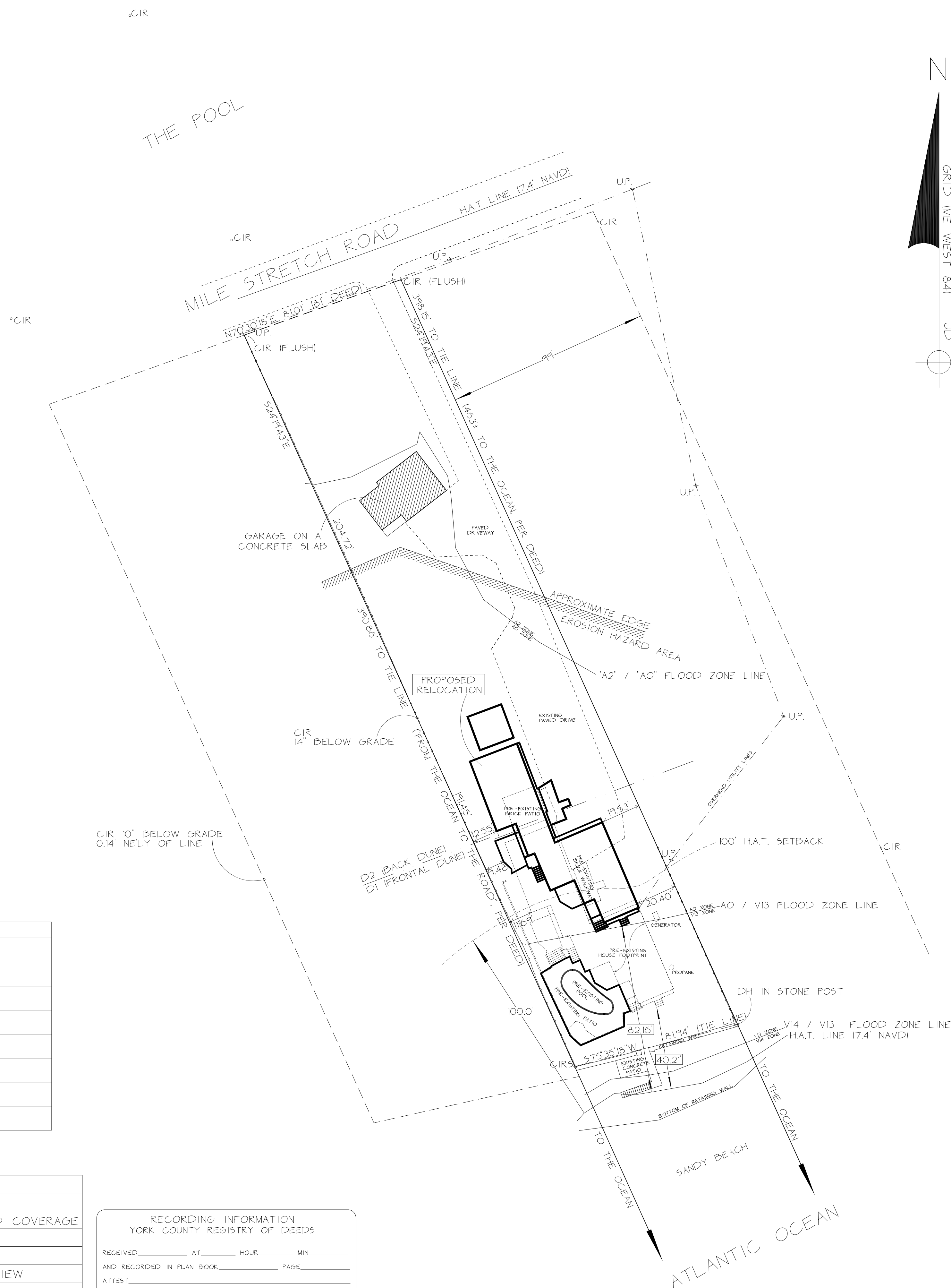
DRIVEWAY	6587	SQ.FT.
HOUSE	3043	SQ.FT.
CONCRETE/SEAWALL	1793	SQ.FT.
POOL/REAR PATIO AREA	1204	SQ.FT.
DETACHED GARAGE	867	SQ.FT.
BRICK PATIO	302	SQ.FT.
BRICK WALKWAY	139	SQ.FT.
MISC.	15	SQ.FT.
TOTAL	13,950	SQ.FT.
LOT AREA	33,554	SQ.FT.
COVERAGE	41577	

APPROVED BY	DATE
CITY OF BIDDEFORD	

REVISION NO.	DATE	REVISION PURPOSE
1	04-10-20	SET PINS, MOVE TIE LINE
2	01-21-22	ADD 100' SETBACK
3	10-25-22	SHOW NEW HOUSE LOCATION / PROPOSED COVERAGE
4	11-30-22	CHANGES PER ARCHIPELAGO
5	12-05-22	CHANGES PER ARCHIPELAGO
6	12-07-22	PREPARE PLAN FOR PLANNING BOARD REVIEW

RECORDING INFORMATION
YORK COUNTY REGISTRY OF DEEDS

RECEIVED _____ AT _____ HOUR _____ MIN _____
AND RECORDED IN PLAN BOOK _____ PAGE _____
ATTEST _____
REGISTRAR



YORK COUNTY REGISTRY OF DEEDS (YCRD)
BOOK: 18107 PAGE: 65

1. PLAN OF LAND, KEVIN TOURANGEAU, MAP 61, LOT 4, LONG STRETCH ROAD, BIDDEFORD POOL, MAINE, FOR DOROTHY ALLEN, 98 LONG STRETCH ROAD, BIDDEFORD POOL, MAINE, PREPARED BY ROARING BROOK CONSULTANTS, DATED 9/27/1994 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 219, PAGE 43.
2. PLAN OF LAND OF KEVIN W. TOURANGEAU AT 98 MILE STRETCH ROAD, BIDDEFORD, MAINE, PREPARED BY LIVINGSTON-HUGHES LAND SURVEYORS, DATED FEBRUARY 10, 1998.

1. PRE - EXISTING STRUCTURE ELEVATIONS (NAVD88)
18.29' - 2ND FLOOR HOUSE
9.78' - BOTTOM FLOOR HOUSE
9.48' - ATTACHED GARAGE SLAB
8.85' - DETACHED GARAGE SLAB
2. THE LOT AREA WAS CALCULATED TO THE HIGHEST ANNUAL TIDE LINE, PER BIDDEFORD CEO.

N/F - NOW OR FORMERLY
TM - TAX MAP
CIR - CAPPED IRON ROD
DH - DRILL HOLE
UP - UTILITY POLE
YCRD - YORK COUNTY REGISTRY OF DEEDS

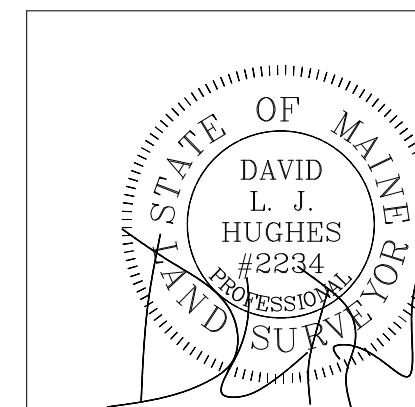
----- - FENCING

14.3' - SPOT ELEVATION (TYP.)
CIRS - CAPPED IRON ROD SET

GRAPHIC SCALE: 1" = 30'



A horizontal scale bar with alternating black and white segments. The segments are labeled 0, 15, 30, 60, 90, and 120, representing feet.



BOUNDARY SURVEY OF LAND AT
100 MILE STRETCH ROAD
BIDDEFORD, MAINE

PREPARED FOR

DON COBURN, COBURN FINE HOMES

OWNER OF RECORD
MATTHEW AND MARY LOPRESTI
MAILING ADDRESS: 2 OLD WESTON ROAD, WAYLAND, MA 01778

BY
LIVINGSTON-HUGHES
PROFESSIONAL LAND SURVEYING CORPORATION
88 GUINEA ROAD, KENNEBUNKPORT, MAINE 04046

REVISION NO.		88 GUINEA ROAD, KENNEBUNKPORT, MAINE 04046					
6	DAVID L.J. HUGHES	PL# 2234	DATE: 02-10-2020	DRAWN: JDT	CHECK: DLJH	FIELD BOOK: 1052-48	PROJECT: 20-001

Deed

DLN: 1002140176658

For Recorder's Use:

Recording Fee: \$26.00

Return to:

Devine, Millimet & Branch

Attn: amw/(TV)

111 Amherst Street

Manchester, NH 03101

QUITCLAIM DEED

MATTHEW F. LOPRESTI, also known as Matthew Lopresti, having an address of 2 Old Weston Road, Wayland, Massachusetts 01778 (the "Grantor"), for consideration paid grants to **MATTHEW F. LOPRESTI, TRUSTEE OF THE MATTHEW F. LOPRESTI 2017 DECLARATION OF TRUST under trust agreement dated May 19, 2017**, having an address of 2 Old Weston Road, Wayland, Massachusetts 01778, with QUITCLAIM COVENANTS:

All of my right, title and interest, being an undivided one-half (1/2) interest, in and to a certain lot or parcel of land with all the buildings and improvements thereon situated in the City of Biddeford, in the County of York and State of Maine, and lying Southerly of Mile Stretch Road, at 100 Mile Stretch Road in the present numbering of said Road, described as follows:

A certain lot or parcel of land, with the buildings thereon, situated in said Biddeford near the Pool at the Fletcher's Neck, so-called, bounded and described as follows:

BEGINNING at a stone bound located on the southerly sideline of the Pool Road Extension leading to Biddeford Pool (Neck) said stone bound marking the northwesterly corner of land now or formerly of George A. Emery; thence running S 19° 20' E along land of Emery a distance of four hundred sixty-three (463) feet, more or less, to the Ocean; thence turning and running approximately S 76° W by and along the ocean to a point sixty-six (66) feet, more or less, from the first course, measured at right angles thereto; thence turning and running N 19° 20' W along property now or formerly of one Allen a distance of four hundred sixty (460) feet, more or less, to an iron marking the northwest corner of lot herein conveyed; thence turning N 76° 22' 30" E and running along the southerly side line of Pool Road Extension a distance of sixty-six (66) feet to a stone bound and point of beginning.

ALSO, another certain lot and parcel of land situated in said Biddeford, bounded and described as follows:

BEGINNING on the road leading across Fletcher's Neck to the Pool, at the northwesterly corner of land of the Grantors herein; thence Southeasterly by land of the Grantors herein to the Atlantic Ocean; thence Southwesterly by the Atlantic Ocean fifteen (15) feet; thence Northwesterly, maintaining a distance of fifteen (15) feet from the first described line to said road; thence Northeasterly fifteen (15) feet by said road to a point of beginning.

See also the plan entitled "Boundary Survey of Land at 100 Mile Stretch Road, Biddeford, Maine, Prepared for Don Coburn, Coburn Fine Homes, Owner of Record Matthew and Mary Lopresti" dated February 10, 2020, prepared by David L.J. Hughes, Professional Land Surveyor, Livingston-Hughes Professional Land Surveying Corporation, bearing Project: 20-001 and Field Book 1052-48, more fully bounded and described as follows:

Beginning at a point on the southerly sideline of 100 Mile Stretch Road at a capped iron rod, which point is the northwesterly corner of the within-described premises; thence turning and running South $24^{\circ} 19' 43''$ East, in part by a fence, a distance of 204.72 feet (390.86' to the tie line ("from the Ocean to the Road" per deed)) to a capped iron rod set at the southwesterly corner of the within-described premises; thence turning and running North $75^{\circ} 35' 18''$ East a distance of 81.94 feet (tie line), in part by and through a retaining wall, to a drill hole in stone post and a fence, which point is the southeasterly corner of the within-described premises; thence turning and running North $24^{\circ} 19' 43''$ West, in part by and along a fence, a distance of 398.15 feet to tie line ("463+/- to the Ocean, per Deed") to a capped iron rod located on the southerly sideline of said 100 Mile Stretch Road, which point is the northeasterly corner of the within-described premises; thence turning and running South $70^{\circ} 30' 18''$ West a distance of 81.01' feet (81' Deed) to the point and place of beginning.

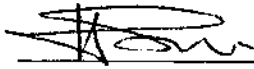
This further description of the premises being conveyed is for locational and descriptive purposes only and is in no way intended to diminish or reduce the size of the Grantor's property. Included in this conveyance is all of Grantor's right, title and interest in and to the land lying between the southerly boundary line of the above-described premises and the highwater mark of the Atlantic Ocean as more fully described in the Deeds to Matthew Lopresti and Mary Lopresti hereinafter described.

The hereinabove described property is hereby conveyed: (1) SUBJECT TO such utility service and other easements on, over, under or across said property as may now have any legal existence; (2) WITH THE BENEFIT OF all appurtenant utility service easements and all appurtenant rights of way; (3) SUBJECT TO such rights, titles and interests as the State of Maine, the City of Biddeford, or any person as a member of the public may have in and to the hereinabove described beach area and the area below the mean high water mark of the Atlantic Ocean; and (4) SUBJECT TO AND WITH THE BENEFIT OF applicable municipal, state and federal zoning, land use and conservation ordinances, regulations and statutes.

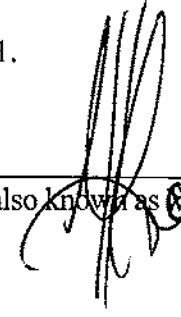
Meaning and intending to describe the same premises conveyed to Matthew Lopresti and Mary Lopresti by (a) Warranty Deed from Gerald N. Christopher dated November 19, 2019, and recorded at Book 18107, Page 65 of the York County Registry of Deeds; and (b) Deed of Sale by Personal Representative from Gerald N. Christopher, Personal Representative of the Estate of Muriel D. Christopher, also dated November 19, 2019, and recorded with said Registry of Deeds at Book 18107, Page 68 (the "Deeds").

SUBJECT TO the Mortgage granted by Mary L. Lopresti and Mathew F. Lopresti to Finance of America Mortgage, LLC dated November 19, 2019, and recorded at Book 18107, Page 71, said Registry of Deeds.

Witness my hand and seal this 17th day of September, 2021.

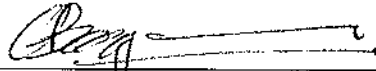


Witness


Matthew F. Lopresti, also known as Matthew Lopresti

State of Massachusetts
County of Middlesex

Then personally appeared before me this 17th day of September, 2021, the above-named **Matthew F. Lopresti** and acknowledged the foregoing instrument to be his free act and deed.

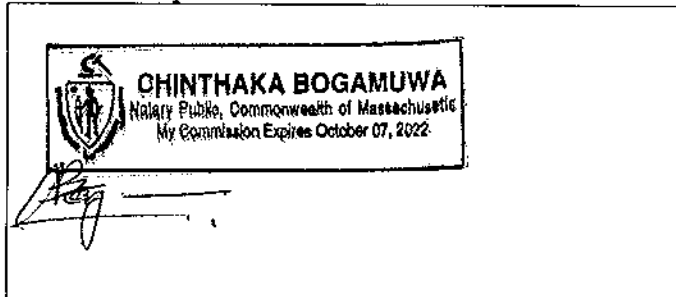


Notary Public

My commission expires 10/07/2022

Seal or Stamp:

Affix Seal/
Stamp within
box



DLN: 1002140176660

For Recorder's Use:

Recording Fee: \$26.00

Return to:

Devine, Millimet & Branch

Attn: amw/(TV)

111 Amherst Street

Manchester, NH 03101

QUITCLAIM DEED

MARY L. LOPRESTI, also known as Mary Lopresti, having an address of 2 Old Weston Road, Wayland, Massachusetts 01778 (the "Grantor"), for consideration paid grants to **MARY L. LOPRESTI, TRUSTEE OF THE MARY L. LOPRESTI 2017 DECLARATION OF TRUST under trust agreement dated May 19, 2017**, having an address of 2 Old Weston Road, Wayland, Massachusetts 01778, with QUITCLAIM COVENANTS:

All of my right, title and interest, being an undivided one-half (1/2) interest, in and to a certain lot or parcel of land with all the buildings and improvements thereon situated in the City of Biddeford, in the County of York and State of Maine, and lying Southerly of Mile Stretch Road, at 100 Mile Stretch Road in the present numbering of said Road, described as follows:

A certain lot or parcel of land, with the buildings thereon, situated in said Biddeford near the Pool at the Fletcher's Neck, so-called, bounded and described as follows:

BEGINNING at a stone bound located on the southerly sideline of the Pool Road Extension leading to Biddeford Pool (Neck) said stone bound marking the northwesterly corner of land now or formerly of George A. Emery; thence running S 19° 20' E along land of Emery a distance of four hundred sixty-three (463) feet, more or less, to the Ocean; thence turning and running approximately S 76° W by and along the ocean to a point sixty-six (66) feet, more or less, from the first course, measured at right angles thereto; thence turning and running N 19° 20' W along property now or formerly of one Allen a distance of four hundred sixty (460) feet, more or less, to an iron marking the northwest corner of lot herein conveyed; thence turning N 76° 22' 30" E and running along the southerly side line of Pool Road Extension a distance of sixty-six (66) feet to a stone bound and point of beginning.

ALSO, another certain lot and parcel of land situated in said Biddeford, bounded and described as follows:

BEGINNING on the road leading across Fletcher's Neck to the Pool, at the northwesterly corner of land of the Grantors herein; thence Southeasterly by land of the Grantors herein to the Atlantic Ocean; thence Southwesterly by the Atlantic Ocean fifteen (15) feet; thence Northwesterly, maintaining a distance of fifteen (15) feet from the first described line to said road; thence Northeasterly fifteen (15) feet by said road to a point of beginning.

No Transfer Tax

See also the plan entitled "Boundary Survey of Land at 100 Mile Stretch Road, Biddeford, Maine, Prepared for Don Coburn, Coburn Fine Homes, Owner of Record Matthew and Mary Lopresti" dated February 10, 2020, prepared by David L.J. Hughes, Professional Land Surveyor, Livingston-Hughes Professional Land Surveying Corporation, bearing Project: 20-001 and Field Book 1052-48, more fully bounded and described as follows:

Beginning at a point on the southerly sideline of 100 Mile Stretch Road at a capped iron rod, which point is the northwesterly corner of the within-described premises; thence turning and running South 24° 19' 43" East, in part by a fence, a distance of 204.72 feet (390.86' to the tie line ("from the Ocean to the Road" per deed)) to a capped iron rod set at the southwesterly corner of the within-described premises; thence turning and running North 75° 35' 18" East a distance of 81.94 feet (tie line), in part by and through a retaining wall, to a drill hole in stone post and a fence, which point is the southeasterly corner of the within-described premises; thence turning and running North 24° 19' 43" West, in part by and along a fence, a distance of 398.15 feet to tie line ("463+/- to the Ocean, per Deed") to a capped iron rod located on the southerly sideline of said 100 Mile Stretch Road, which point is the northeasterly corner of the within-described premises; thence turning and running South 70° 30' 18" West a distance of 81.01' feet (81' Deed) to the point and place of beginning.

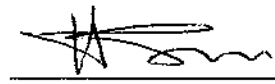
This further description of the premises being conveyed is for locational and descriptive purposes only and is in no way intended to diminish or reduce the size of the Grantor's property. Included in this conveyance is all of Grantor's right, title and interest in and to the land lying between the southerly boundary line of the above-described premises and the highwater mark of the Atlantic Ocean as more fully described in the Deeds to Matthew Lopresti and Mary Lopresti hereinafter described.

The hereinabove described property is hereby conveyed: (1) SUBJECT TO such utility service and other easements on, over, under or across said property as may now have any legal existence; (2) WITH THE BENEFIT OF all appurtenant utility service easements and all appurtenant rights of way; (3) SUBJECT TO such rights, titles and interests as the State of Maine, the City of Biddeford, or any person as a member of the public may have in and to the hereinabove described beach area and the area below the mean high water mark of the Atlantic Ocean; and (4) SUBJECT TO AND WITH THE BENEFIT OF applicable municipal, state and federal zoning, land use and conservation ordinances, regulations and statutes.

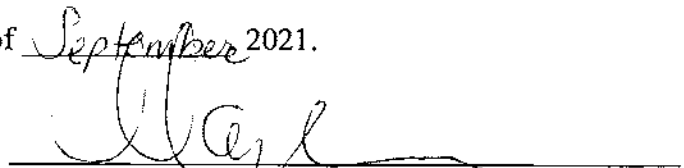
Meaning and intending to describe the same premises conveyed to Matthew Lopresti and Mary Lopresti by (a) Warranty Deed from Gerald N. Christopher dated November 19, 2019, and recorded at Book 18107, Page 65 of the York County Registry of Deeds; and (b) Deed of Sale by Personal Representative from Gerald N. Christopher, Personal Representative of the Estate of Muriel D. Christopher, also dated November 19, 2019, and recorded with said Registry of Deeds at Book 18107, Page 68 (the "Deeds").

SUBJECT TO the Mortgage granted by Mary L. Lopresti and Mathew F. Lopresti to Finance of America Mortgage, LLC dated November 19, 2019, and recorded at Book 18107, Page 71, said Registry of Deeds.

Witness my hand and seal this 17 day of September 2021.



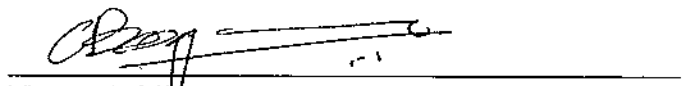
Witness



Mary L. Lopresti, also known as Mary Lopresti

State of Massachusetts
County of Middlesex

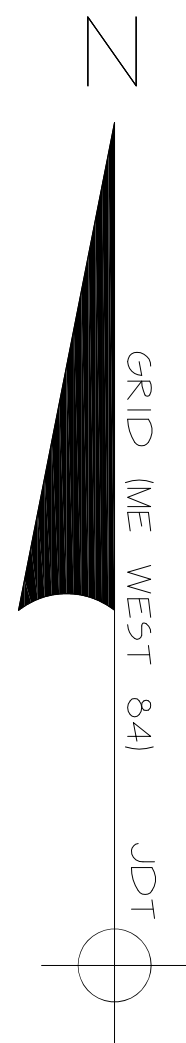
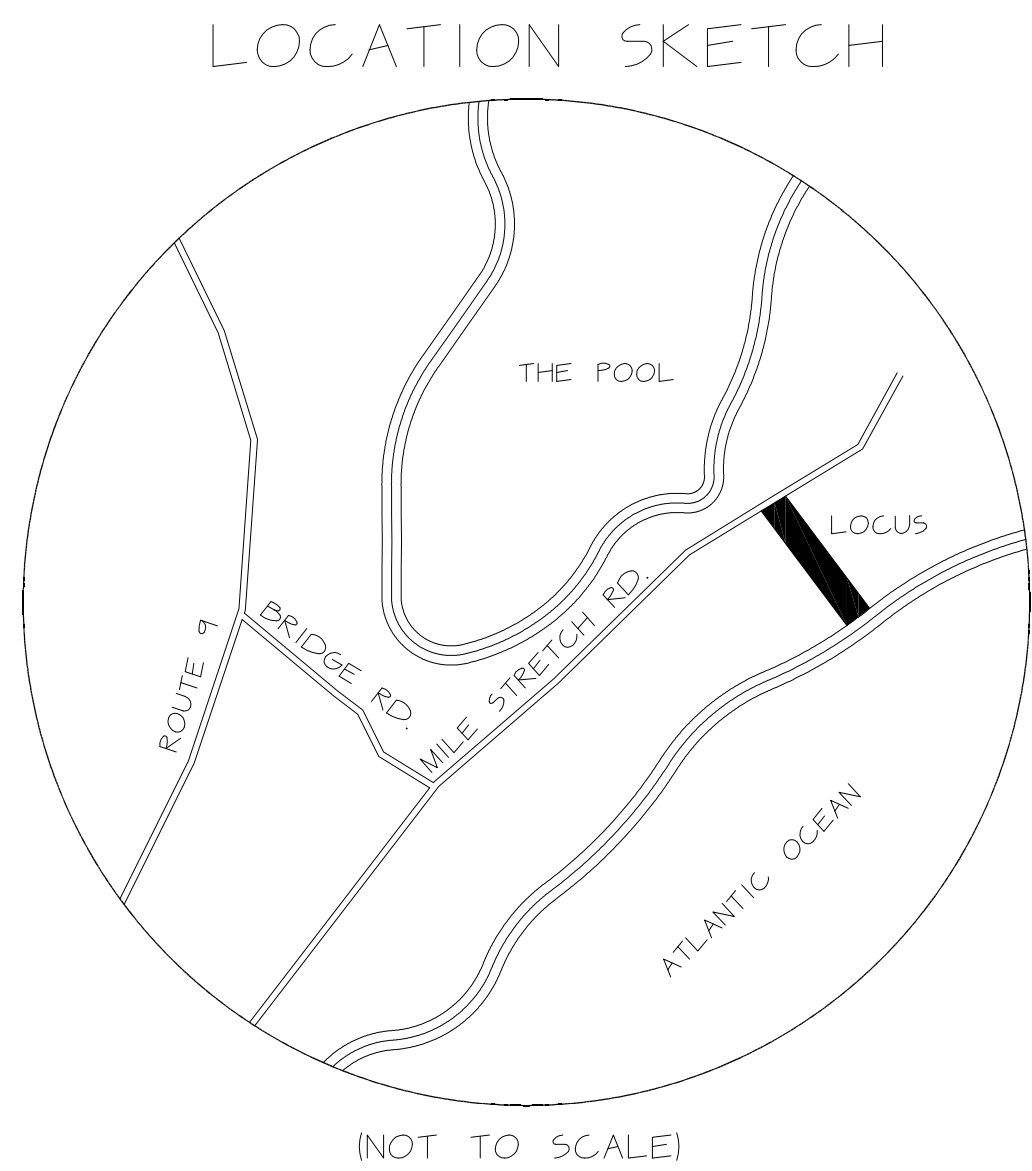
Then personally appeared before me this 17th day of September, 2021, the above-named **Mary L. Lopresti** and acknowledged the foregoing instrument to be her free act and deed.



Notary Public
My commission expires 10/07/2022
Seal or Stamp:

Affix Seal/
Stamp within
box

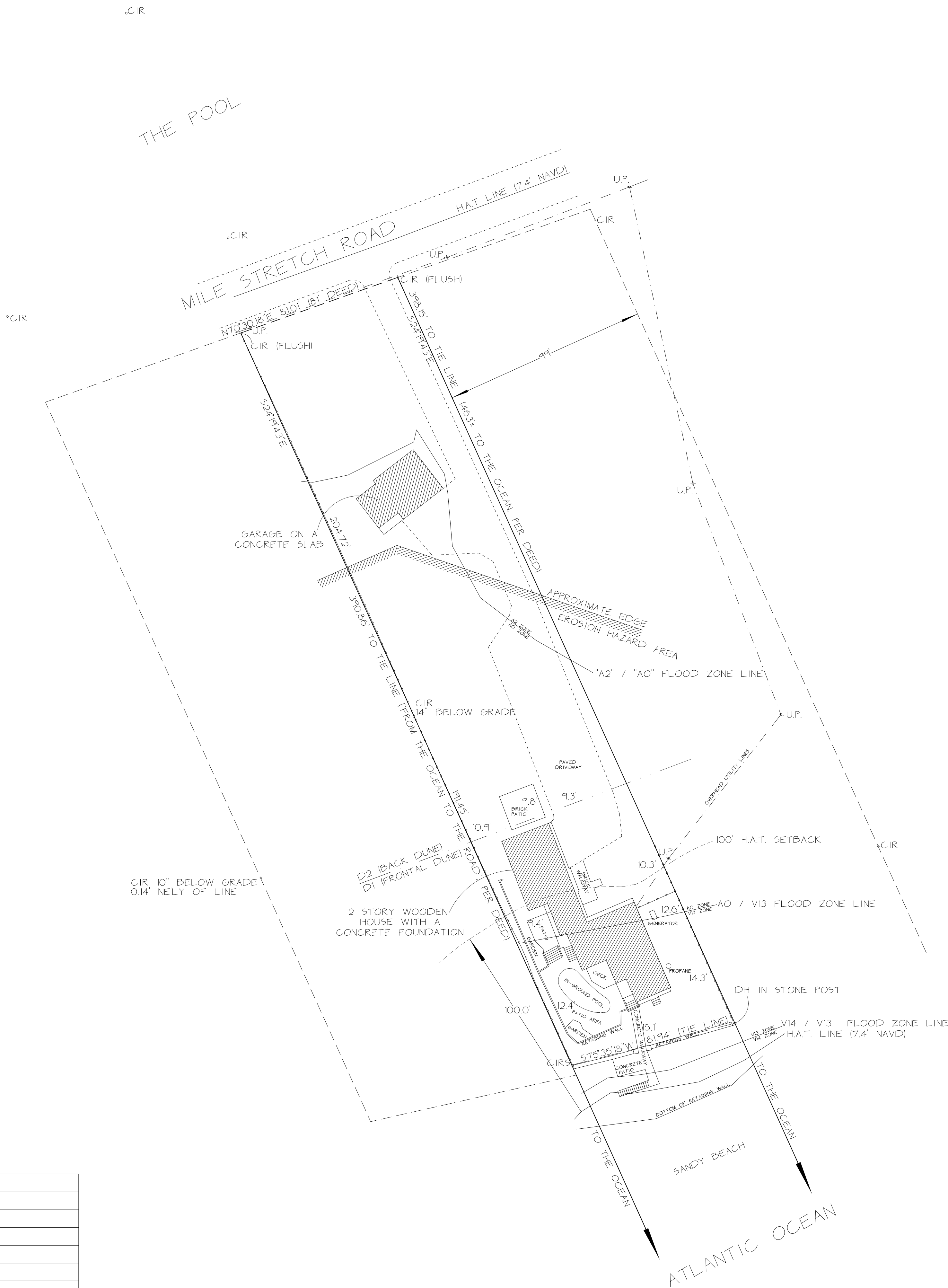




COVERAGE CHART

DRIVEWAY	6587	SQ.FT.
HOUSE	3043	SQ.FT.
CONCRETE/SEAWALL	1793	SQ.FT.
POOL/REAR PATIO AREA	1204	SQ.FT.
DETACHED GARAGE	867	SQ.FT.
BRICK PATIO	302	SQ.FT.
BRICK WALKWAY	139	SQ.FT.
MISC.	15	SQ.FT.
TOTAL	13950	SQ.FT.
LOT AREA	33554	SQ.FT.
COVERAGE	4157%	

REVISION NO.	DATE	REVISION PURPOSE
1	04-10-20	SET PINS, MOVE TIE LINE
2	01-21-22	ADD 100' SETBACK



LOCUS DEED REFERENCE

YORK COUNTY REGISTRY OF DEEDS (YCRD)
BOOK: 18107 PAGE: 65

PLAN REFERENCES

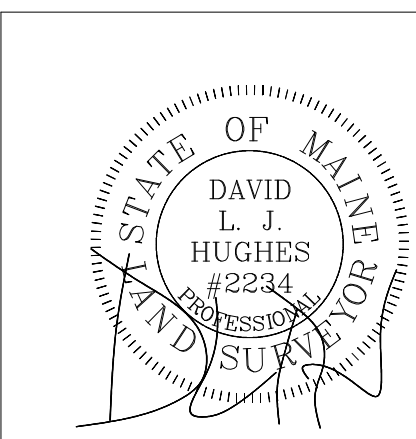
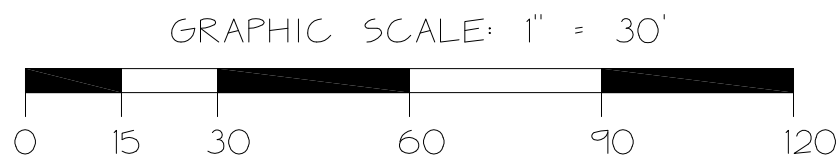
1. PLAN OF LAND, KEVIN TOURANGEAU, MAP 61, LOT 4, LONG STRETCH ROAD, BIDDEFORD POOL, MAINE, FOR DOROTHY ALLEN, 98 LONG STRETCH ROAD, BIDDEFORD POOL, MAINE, PREPARED BY ROARING BROOK CONSULTANTS, DATED 9/27/1994 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 219, PAGE 43.
2. PLAN OF LAND OF KEVIN W. TOURANGEAU AT 98 MILE STRETCH ROAD, BIDDEFORD, MAINE, PREPARED BY LIVINGSTON-HUGHES LAND SURVEYORS, DATED FEBRUARY 10, 1998.

NOTES

1. STRUCTURE ELEVATIONS (NAVD88)
18.29' - 2ND FLOOR HOUSE
9.78' - BOTTOM FLOOR HOUSE
9.48' - ATTACHED GARAGE SLAB
8.85' - DETACHED GARAGE SLAB
2. THE LOT AREA WAS CALCULATED TO THE HIGHEST ANNUAL TIDE LINE, PER BIDDEFORD CEO.

LEGEND

- N/F - NOW OR FORMERLY
TM - TAX MAP
CIR - CAPPED IRON ROD
DH - DRILL HOLE
UP - UTILITY POLE
YCRD - YORK COUNTY REGISTRY OF DEEDS
FENCING - FENCING
14.3' - SPOT ELEVATION
CIRS - CAPPED IRON ROD SET



BOUNDARY SURVEY OF LAND AT
100 MILE STRETCH ROAD
BIDDEFORD, MAINE

PREPARED FOR

DON COBURN, COBURN FINE HOMES

OWNER OF RECORD
MATTHEW AND MARY LOPRESTI
MAILING ADDRESS: 2 OLD WESTON ROAD, WAYLAND, MA 01778

BY
LIVINGSTON-HUGHES
PROFESSIONAL LAND SURVEYING CORPORATION
88 GUINEA ROAD, KENNEBUNKPORT, MAINE 04046

REVISION NO.	DAVID L.J. HUGHES	FL54 2234	DATE: 02-10-2020	DRAWN: JDT	CHECK: DLJH	FIELD BOOK: 1052-48	PROJECT: 20-001
2							

(NOT TO SCALE)

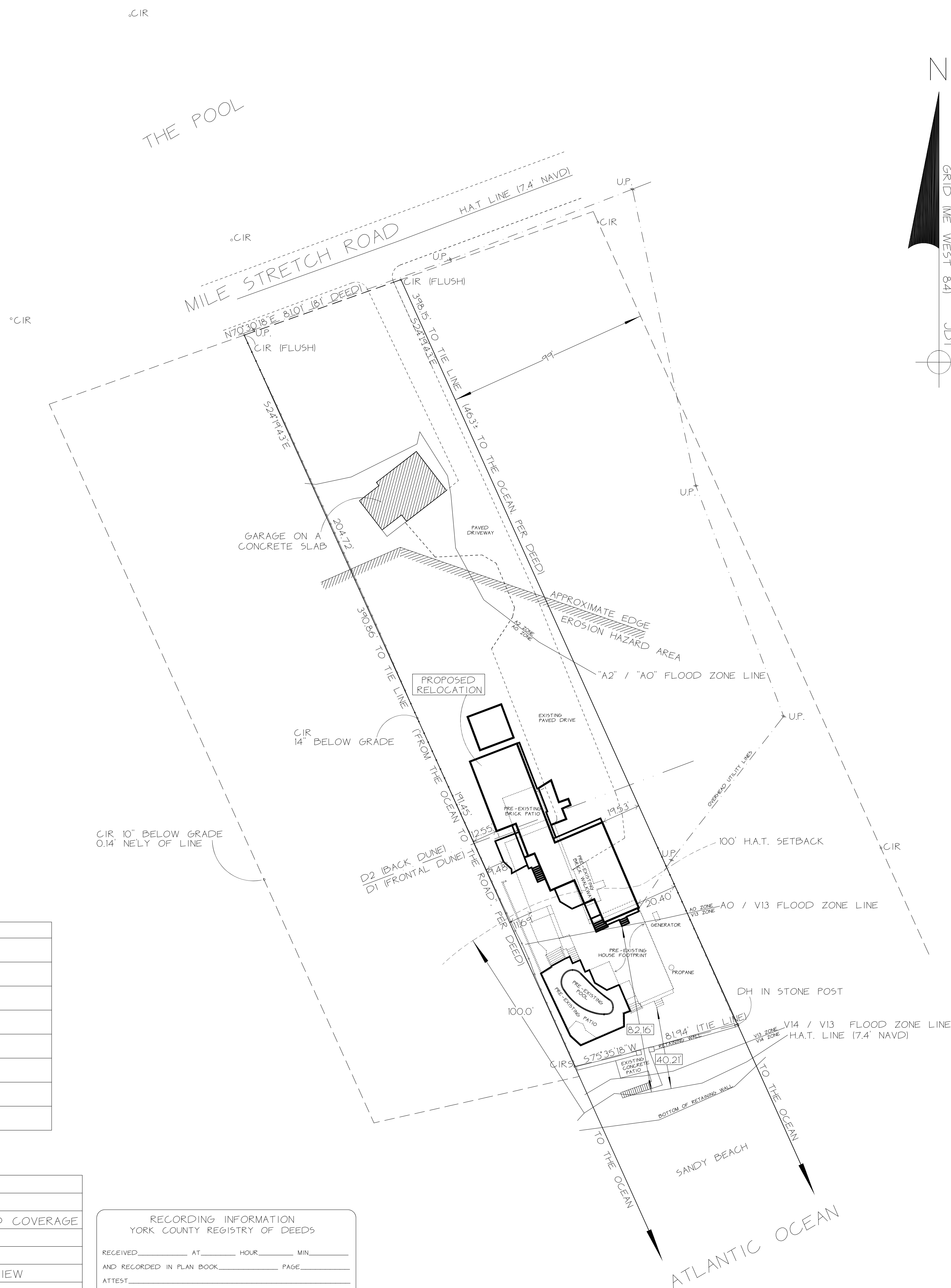
(NOT TO SCALE)

DRIVEWAY	6587	50.FT.
HOUSE	3043	50.FT.
CONCRETE/SEAWALL	1793	50.FT.
POOL/REAR PATIO AREA	1204	50.FT.
DETACHED GARAGE	867	50.FT.
BRICK PATIO	302	50.FT.
BRICK WALKWAY	139	50.FT.
MISC.	15	50.FT.
TOTAL	13,950	50.FT.
LOT AREA	33,554	50.FT.
COVERAGE	41577	

APPROVED BY	DATE
CITY OF BIDDEFORD	

REVISION NO.	DATE	REVISION PURPOSE
1	04-10-20	SET PINS, MOVE TIE LINE
2	01-21-22	ADD 100' SETBACK
3	10-25-22	SHOW NEW HOUSE LOCATION / PROPOSED COVERAGE
4	11-30-22	CHANGES PER ARCHIPELAGO
5	12-05-22	CHANGES PER ARCHIPELAGO
6	12-07-22	PREPARE PLAN FOR PLANNING BOARD REVIEW

RECORDING INFORMATION	
YORK COUNTY REGISTRY OF DEEDS	
RECEIVED _____	AT _____ HOUR _____ MIN _____
AND RECORDED IN PLAN BOOK _____ PAGE _____	
ATTEST _____	
REGISTRAR	



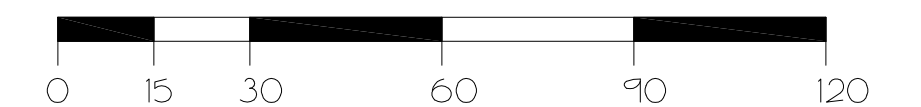
YORK COUNTY REGISTRY OF DEEDS (YCRD)
BOOK: 18107 PAGE: 65

1. PLAN OF LAND, KEVIN TOURANGEAU, MAP 61, LOT 4, LONG STRETCH ROAD, BIDDEFORD POOL, MAINE, FOR DOROTHY ALLEN, 98 LONG STRETCH ROAD, BIDDEFORD POOL, MAINE, PREPARED BY ROARING BROOK CONSULTANTS, DATED 9/27/1994 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 219, PAGE 43.
2. PLAN OF LAND OF KEVIN W. TOURANGEAU AT 98 MILE STRETCH ROAD, BIDDEFORD, MAINE, PREPARED BY LIVINGSTON-HUGHES LAND SURVEYORS, DATED FEBRUARY 10, 1998.

1. PRE - EXISTING STRUCTURE ELEVATIONS (NAVD88)
18.29' - 2ND FLOOR HOUSE
9.78' - BOTTOM FLOOR HOUSE
9.48' - ATTACHED GARAGE SLAB
8.85' - DETACHED GARAGE SLAB
2. THE LOT AREA WAS CALCULATED TO THE HIGHEST ANNUAL TIDE LINE, PER BIDDEFORD CEO.

N/F - NOW OR FORMERLY
TM - TAX MAP
CIR - CAPPED IRON ROD
DH - DRILL HOLE
UP - UTILITY POLE
YCRD - YORK COUNTY REGISTRY OF DEEDS
 - FENCING
14.3' - SPOT ELEVATION (TYP.)
CIRS - CAPPED IRON ROD SET

GRAPHIC SCALE: 1" = 30'



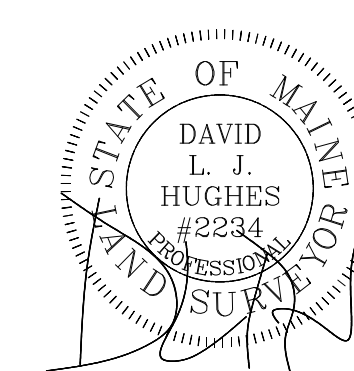
BOUNDARY SURVEY OF LAND AT
100 MILE STRETCH ROAD
BIDDEFORD, MAINE

PREPARED FOR

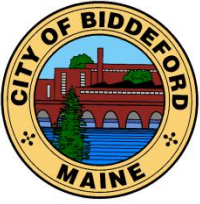
DON COBURN, COBURN FINE HOMES

OWNER OF RECORD
MATTHEW AND MARY LOPRESTI
MAILING ADDRESS: 2 OLD WESTON ROAD, WAYLAND, MA 01778

BY
LIVINGSTON-HUGHES
PROFESSIONAL LAND SURVEYING CORPORATION
88 GUINEA ROAD, KENNEBUNKPORT, MAINE 04046



REVISION NO.			88 GUINEA ROAD, KENNEBUNKPORT, MAINE 04046					
6	DAVID L.J. HUGHES	PL5# 2234	DATE: 02-10-2020	DRAWN JDT	CHECK: DLJH	FIELD BOOK: 1052-48	PROJECT: 20-001	



CITY OF BIDDEFORD

Planning and Development Department

Adi Iriqat
Assistant City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
adi.iriqat@biddefordmaine.org

PLANNING BOARD STAFF REPORT

TO: Chair Plotkin and Members of the Biddeford Planning Board

FROM: Adi Iriqat, Assistant City Planner

DATE: July 17, 2025

RE: 2024.32 Final Plan Review for Belle Woods Subdivision (formerly Coastal Oaks Subdivision - Proposed Single-family Residential Subdivision consisting of 9-lot subdivision (8 residential & 1 open space) to be located at 512 Pool Road (Tax ID# Lot 9 Lot 31) located within the Rural Farm (RF) and Suburban Residential 1 (SR-1) zoning Districts

MEETING DATE: July 02, 2025, at 6:00 PM

1) INTRODUCTION

This application was last before the Planning Board on June 26, 2024. This application is being presented by Drew Olehowski of Haley Ward, Inc., on behalf of Ethan Scott (doing business as Coastal Oaks LLC), jointly referred to as "Applicants or Applicant". The application is for a nine (9) lot subdivision, consisting of eight (8) single-family residential lots and one lot proposed as open space. The subject property is approximately 17.45 acres in size and is located in both the Rural Farm (RF) and Suburban Residential 1 (SR-1) zones. The proposed development lots would be served by private septic systems and would connect to public water via a proposed public water extension to the site via Sokokis Road.



Figure 1 A vertical view of the lot shows the intensity of vegetation.

2) PROJECT DATA/INFORMATION

1.	Applicant:	Coastal Oaks, LLC (Ethan Scott) 198 Saco Avenue Old Orchard Beach, ME 04064
2.	Owner of Property:	Same as Applicant
3.	Agent – Sketch	Paul Weinstein-Weinstein Lovell & Ordway, PA 431 Main Street Saco, ME 04072
	Agent – Preliminary & Final	Haley Ward, Inc (Drew Olehowski) 120 Main Street, 132 Saco, ME 04072
4.	Engineer/Surveyor:	Same As Preliminary & Final Agent
5.	Project Location:	512 Pool Street
6.	Project Tax Map & Lot:	Tax Map 9, Lot 31
7.	Lot Size:	17.45 Acres
8.	Base Zoning:	RF/SR1
9.	Overlay Zoning:	N/A
10.	Existing Use:	Vacant Land with one single-family home
11.	Proposed Use:	8 Single Family Homes
12.	Approvals Required:	Subdivision/ Site Plan
13.	Uses in the Vicinity:	Single Family Residential
14.	Number of Lots in Subdivision:	N/A
15.	Water Supply:	Private Water
16.	Sewage Disposal:	Private Sewer
17.	Solid Waste Disposal:	Public Trash
18.	Fire Protection:	City of Biddeford
19.	Waivers Needed:	None
20.	Waivers Granted:	None
21.	Variances Needed for Approval:	None
22.	Other Permits Obtained:	N/A
23.	Fees Paid:	Yes
24.	Planning Board Review History:	Sketch Plan-June 26, 2024; Preliminary Plan March 19, 2025; Final Plan: July 2 nd 2025

3) Existing Conditions

The proposed development is located at 512 Pool Street (site) and is identified as Biddeford Tax Map 9, Lot 31. The subject parcel is approximately 17.45 acres and is undeveloped, wooded, except for a single-family home constructed in 2024. The proposed subdivision area was also selectively harvested of existing woody vegetation, in accordance with a State-approved forestry plan.



Figure 2 The lot shows the existing property of 458 Pool St

4) Proposed Project

The Applicant is proposing a nine (9) lot single-family residential subdivision. Lot 1 is currently developed with a single-family house, which presently is addressed and has vehicle access on Pool Road. The proposed subdivision will relocate the existing driveway, allowing the property to be accessed via the proposed private street. The property will also need to be readdressed as part of this proposed development.

Lots 2 through 7 are each approximately 0.50 acres in area, and Lot 8 is approximately 1.5 acres; these lots will also have a single-family home constructed upon them. Lot 9 is 12 acres in area and, as proposed, “will be dedicated to either a conservation / open space or will be dedicated to potential future development – the owner will retain this lot”.

As proposed, the lots within the subdivision will be accessed via an 850-foot-long, 20-foot-wide private residential roadway with 2-foot-wide gravel shoulders. A hammerhead turnaround, meeting the Fire Department's standards, has been provided at the end of the proposed roadway. The roadway is proposed to be a private way serving the lots, which will be owned and maintained by the Homeowners Association. The Association will be responsible for ownership, maintenance (including snow removal, sanding, and other related tasks), and repairs.

The proposed street entrance on Pool Street has a site distance of 450'+ in both directions. The lots will be served by private septic systems and public water, which will be supplied to the site via a proposed 8-inch water

2024.32 Final Plan Review for Belle Woods Subdivision (formerly Coastal Oaks Subdivision - Proposed Single-family Residential Subdivision consisting of 9-lot subdivision (8 residential & 1 open space) to be located at 512 Pool Road (Tax ID# Lot 9 Lot 31) located within the Rural Farm (RF) and Suburban Residential 1 (SR-1) zoning Districts
main extension from an existing 8-inch water main along Sokokis Road. The water line extension will be brought up from Sokokis Road (northwest) along Pool Street and into the Belle Woods Subdivision. The waterline shall cross Pool Street via directional boring as requested by the Public Works Director.

STAFF REVIEW

Waivers: N/A

Staff Review Comments:

A. Planning Department Comments:

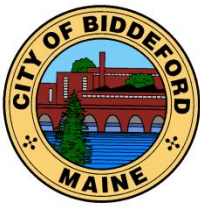
- 1) ~~Timber Harvesting:~~ The property had a state-approved forestry plan that was granted to Beaulieu Logging (Harvest # 2301688). Due to the previously identified wetlands, and the amount of clearing that was done on the property, City Staff previously requested written confirmation, from the State, that the clearing that occurred on the property did not exceed the issued Harvest Permit and that no wetlands were filled/impacted beyond what the State may have approved. The requested documentation has not been received. Staff recommend requiring the confirmation letter prior to scheduling the project for Final Subdivision Review.
- 2) ~~Driveway Relocation:~~ The driveway to the recently constructed house should be relocated so that the lot gains vehicle access from the proposed roadway, rather than from Pool Street.
- 3) ~~Submittal Requirement – Lot Area:~~ The preliminary application shall include the entire parcel, including the 12 acres of Lot # 9, which is proposed to “be dedicated to either a conservation / open space or will be dedicated to potential future development – the owner will retain this lot”.
- 4) Street Name: The proposed private roadway shall be named as indicated on the final application plans, Belle Woods Drive. The City’s E-911 Addressing Officer shall review and approve the proposed roadway name to verify that the name will not conflict with any existing street names or developments.

Staff Recommendation

Staff are supportive of the proposed subdivision and recommend that the Planning Board approve the Final Subdivision Plans as outlined within the application, Staff report, and supporting documentation.

SAMPLE MOTIONS

- A. **Motion to Approve** I motion to APPROVE Case # 2024.32 Final Plan Review for Belle Woods Subdivision (formerly Coastal Oaks Subdivision) a proposed single-family residential subdivision consisting of 9-lot subdivision (8 residential & 1 open space) to be located at 512 Pool Road (Tax ID# Lot 9 Lot 31) located within the Rural Farm (RF) and Suburban Residential 1 (SR-1) zoning Districts.
- B. **Motion to Table** I motion to DENY Case # 2024.32 Final Plan Review for Belle Woods Subdivision (formerly Coastal Oaks Subdivision) a proposed single-family residential subdivision consisting of 9-lot subdivision (8 residential & 1 open space) to be located at 512 Pool Road (Tax ID# Lot 9 Lot 31) located within the Rural Farm (RF) and Suburban Residential 1 (SR-1) zoning Districts, for the following reasons:
- 1) _____
 - 2) _____
 - 3) _____
- C. **Motion to Deny** I motion to TABLE Case # 2024.32 Final Plan Review for Belle Woods Subdivision (formerly Coastal Oaks Subdivision) a proposed single-family residential subdivision consisting of 9-lot subdivision (8 residential & 1 open space) to be located at 512 Pool Road (Tax ID# Lot 9 Lot 31) located within the Rural Farm (RF) and Suburban Residential 1 (SR-1) zoning Districts, for the following reasons:
- 1) _____
 - 2) _____
 - 3) _____



CITY OF BIDDEFORD

Planning and Development Department

Adi Iriqat
Assistant City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115

adi.iriqat@biddefordmaine.org

Findings of Fact & Conclusion of Law

Coastal Oaks, LLC
Final Site Plan Review
512 Pool Street (Tax Map 9, Lot 3)
July 02, 2025

RE: 2024.32 Final Plan Review for Belle Woods Subdivision (formerly Coastal Oaks Subdivision - Proposed Single-family Residential Subdivision consisting of 9-lot subdivision (8 residential & 1 open space) to be located at 512 Pool Road (Tax ID# Lot 9 Lot 31) located within the Rural Farm (RF) and Suburban Residential 1 (SR-1) zoning Districts

Under the provisions of the City of Biddeford Code of Ordinances Land Development Regulations, Article XI (Site Plan Review), and Article VI (Performance Standards), the Biddeford Planning Board has considered the application of Based on its review, including supportive data, public hearing testimony and related materials contained in the record, the Planning Board makes the following Findings of Fact and Conclusions of Law:

1.	Applicant:	Coastal Oaks, LLC (Ethan Scott) 198 Saco Avenue Old Orchard Beach, ME 04064
2.	Owner of Property:	Same as Applicant
3.	Agent – Sketch	Paul Weinstein-Weinstein Lovell & Ordway, PA 431 Main Street Saco, ME 04072
	Agent – Preliminary & Final	Haley Ward, Inc (Drew Olehowski) 120 Main Street, 132 Saco, ME 04072
4.	Engineer/Surveyor:	Same As Preliminary & Final Agent
5.	Project Location:	512 Pool Street
6.	Project Tax Map & Lot:	Tax Map 9, Lot 31
7.	Lot Size:	17.45 Acres
8.	Base Zoning:	RF/SR1
9.	Overlay Zoning:	N/A
10.	Existing Use:	Vacant Land with one single-family home
11.	Proposed Use:	8 Single Family Homes
12.	Approvals Required:	Subdivision/ Site Plan

13.	Uses in the Vicinity:	Single Family Residential
14.	Number of Lots in Subdivision:	N/A
15.	Water Supply:	Private Water
16.	Sewage Disposal:	Private Sewer
17.	Solid Waste Disposal:	Public Trash
18.	Fire Protection:	City of Biddeford
19.	Waivers Needed:	None
20.	Waivers Granted:	None
21.	Variances Needed for Approval:	None
22.	Other Permits Obtained:	N/A
23.	Fees Paid:	Yes
24.	Planning Board Review History:	Sketch Plan-June 26, 2024; Preliminary Plan March 19, 2025; Final Plan: July 2 nd 2025

CONCLUSIONS OF LAW:

1. The proposed use meets the specific requirements outlined in this ordinance and complies with applicable state and federal laws.
2. The proposed use would not create fire safety hazards by providing adequate access to the site, or to the buildings on the site, for emergency vehicles, and would not develop hazards through the storage of chemicals and waste.
3. The proposed exterior lighting, where permitted, would not pose hazards to motorists traveling on adjacent public streets, would not compromise the safety of occupants or users of the site, and would not damage the value or diminish the usability of adjoining properties.
4. The provisions for buffers and on-site landscaping provide adequate protection to neighboring properties from detrimental or unsightly features of the development;
5. The proposed use would not have a significant, detrimental effect on the use and peaceful enjoyment of abutting property as the result of noise, vibrations, fumes, odors, dust, glare, hours of operation, or other causes;
6. The provisions for vehicle loading and unloading, parking, and vehicular and pedestrian circulation on the site and onto adjacent public streets would not create hazards to public safety or traffic congestion;
7. The proposed use would generate a volume of traffic that the existing road network can reasonably accommodate, or would not create unreasonable traffic hazards or exacerbate an existing traffic hazard, or would not create unreasonable traffic congestion;

8. The proposed use would not have a significant, detrimental effect on the value of adjacent properties, which could be avoided by reasonable modification of the proposal;
9. The proposed use would not hurt the privacy of the residents of the immediate area (within 500 feet), which could be avoided by reasonable modification of the proposal;
10. The proposed use would comply with Biddeford's Comprehensive Plan;
11. The proposed use would not hurt the immediate neighborhood or the community relative to architectural design, scale, bulk, and building height, identity, and historical character, or visual integrity, which could be avoided by reasonable modification of the proposal;
12. The design of the site would not result in significant flood hazards or flood damage, or would be in conformance with applicable flood hazard protection requirements;
13. Adequate provision has been made for the disposal of wastewater or solid waste or the prevention of ground or surface water contamination;
14. Adequate provision has been made to control erosion or sedimentation;
15. Adequate provision has been made to handle stormwater runoff or other drainage problems on the site, and the proposed development will not unduly burden off-site surface water systems.
16. The proposed water supply would meet the demands of the proposed use for fire protection purposes;
17. Adequate provision has been made for the transportation, storage, and disposal of hazardous substances and materials as defined by state law;
18. The proposed use would not hurt scenic vistas or significant wildlife habitat or wetland areas and water bodies, which could be avoided by reasonable modification of the proposal;
19. When located in the Shoreland Zone, the proposed use would meet the purposes of Shoreland Zoning as identified in Article XIV, Section 1 (Purposes) of this ordinance.

APPROVAL GRANTED:

Based on the available evidence and the conclusions above, the Biddeford Planning Board approves the proposed project as summarized in the attached Staff report. Under the provisions of the City of Biddeford Code of Ordinances Land Development Regulations, Article XI (Site Plan Review), and Article VI (Performance Standards), the Biddeford Planning Board has approved the application # 2024.32 for Final Site Plan Review Belle Woods Subdivision (formerly Coastal Oaks Subdivision) a proposed single-family residential subdivision consisting of 9-lot subdivision (8 residential & 1 open space) to be located at 512 Pool Road (Tax ID# Lot 9 Lot 31) located within the Rural Farm (RF) and Suburban Residential 1 (SR-1) zoning Districts with the recommended Findings of Fact (FOF) with the following Conditions of Approval (COA):

1. The material provided for the proposed project has been reviewed only for general conformance to the City's technical requirements. The applicant(s) and/or their technical consultant shall be responsible for the actual design details and completeness of their work. It is incumbent upon the applicant(s) to ensure that the project is in conformance and complies with all City Codes, ordinances, and regulations as well as with all state regulations, including, but not limited to, space and bulk standards, performance standards, use standards, and other zoning-type requirements.
2. Standard Conditions of Approval apply.
3. Modifications to Approved Development Plans: The project shall be constructed according to the approved development plans. No deviations to the approved development plans shall be made without prior written authorization by the City Planner. Should the Applicants desire a modification from approved plans, they shall be required to submit a formal letter requesting a "minor modification" to the approved development plans. The narrative shall be submitted outlining the request, the reasoning for the request (justification), and shall include plans illustrating the approved plans and proposed modifications. Changes beyond the authority of the City Planner shall be reviewed and approved by the Planning Board. It should be noted that review fees for any proposed changes may be assessed to the applicant for the time spent by staff or peer reviewers evaluating the request.
4. A Letter of Credit or other surety acceptable to the City of Biddeford shall be submitted before the issuance of permits or site work being initiated. The financial guarantee shall be established for 150% of the cost of the following improvements:
 - a. Landscaping
 - b. Paving
 - c. Work within ROW (existing or proposed)
 - d. Stormwater Drainage
 - e. Loam & seed
 - f. Sediment & erosion control
 - g. As-Built Plans

h. Property Monuments

5. Before any ground disturbance, a pre-construction meeting must be held with the owner/applicant, contractor, and City. Contact the Engineering Department to schedule this meeting.
6. Contact the Department of Public Works to obtain driveway location permits, curb cut permits, and/or street opening permits prior to the start of construction.
7. An as-built plan must be provided to the City of Biddeford Engineering Office at the end of the project electronically, which can be read by the City of Biddeford's Geographic Information System software. **Note: Any modifications to the Planning Board-approved development plans shall be reviewed and approved by the City Planner before being made, including any "field changes".**
8. The applicant shall incorporate appropriate erosion control measures into this project to mitigate the effects of erosion resulting from the work. All disturbed areas must be re-vegetated and/or otherwise stabilized at the proper stage of work, as per Maine DEP standards outlined in the Best Management Practice (BMP) manual.
9. That the Article VI Performance Standards requirements regarding Dust, Fumes, Vapors & Gases (sect 25), Explosive Materials (sect 28), Glare (sect 37), Noise (sect 48) be followed.
10. The applicant shall obtain all other pertinent local, state, and federal permits, licenses, and insurance, such as those for blasting, building, electrical, and plumbing, before commencing business.
11. After the project is completed, the owner/applicant shall request a final inspection. This request shall be directed to the Engineering Department. Performance guarantees and remaining escrow accounts shall not be released until the Planning Office certifies that the project has been completed and is in compliance with the approval and all applicable City Ordinances.
12. The applicant shall submit approved plans for the signature of the City's Planning Board, which shall be recorded in the York County Registry of Deeds. An electronic copy of the recorded plan shall be sent to the Planning Office within 30 days of approval.
14. Curb-Opening Permit Fee: Before the issuance of a Building Permit, the Applicant shall pay the associated driveway / curb-opening fee.
18. The Applicant shall provide the City with a copy of the approved Maine DEP Stormwater Amendment for the project upon receipt.

Alexa Plotkin, Planning Board Chair



HALEY WARD®

FINAL SUBDIVISION REVIEW

**TO THE CITY OF BIDDEFORD
FOR 512 POOL STREET SUBDIVISION**
Tax Map 9, Lot 31 | Biddeford, ME

APPLICANT:

Coastal Oaks, LLC

198 Saco Avenue | Old Orchard Beach, ME 04064



JUNE 9, 2025
JN: 13871.019

PREPARED BY:

Haley Ward, Inc.

120 Main Street, Suite 132 | Saco, ME 04072

June 9, 2025

City of Biddeford
Mr. David Galbraith, City Planner
205 Main Street
Biddeford, ME 04005

Re: 512 Pool Street | Final Subdivision Review

Dear Mr. Galbraith:

On behalf of **Coastal Oaks, LLC**, Haley Ward, Inc. (Haley Ward) is pleased to submit this Final Subdivision Review Application for the 512 Pool Street Subdivision for Staff and Planning Board review and discussion. On March 19, 2025, the Planning Board granted preliminary approval for the proposed nine (9) lot subdivision consisting of eight (8) single-family residential lots and one lot proposed as open space. This lot will be retained by the Owner.

This final application primarily addresses review comments that were provided by Wright Pierce on March 13, 2025. For ease of review, we have provided the comments in italics, with responses bolded for each comment.

Staff Review Committee Comments (SRC) Comments/City Coordination Items

1. *Coordination items for the City are indicated within the Review Comments in red font.*
No response necessary.
2. *We reviewed the Staff Review Comments within the Sketch Plan Staff Report, dated April 9, 2023, and have the following comments:*
 - a. *Planning Department Comment 1: During the pre-application meeting it was mentioned that the project proposed to extend public water to the site via Sokokis Road. Preliminary application plans shall include the water connection as being proposed, and the method of installation (directional bored preferred over trench cut).*
WP Comment: The proposed water connection has been added to the Plans. Correspondence provided between the Applicant and Maine Water confirms directional boring will not be feasible due to close proximity to ledge. Trench excavation and ledge removal will be required
The development proposed to utilize the public water supply system is currently located on Sokokis Road. The existing water main will be extended along the eastern side of Pool Street to the project site via trenching. A final approval letter for this work from the Portland Water District has been provided in Appendix H.



- b. Planning Department Comment 2: Timber Harvesting: The property had a State approved forestry plan for the property that was granted to Beaulieu Logging (Harvest # 2301688). Due to the previously identified wetlands, and the amount of clearing that was done on the property, City Staff would like written confirmation, from the State, that the clearing that occurred on the property did not exceed the issued Harvest Permit and that no wetlands were filled / impacted beyond what the State may have approved.

WP Comment: The Applicant should submit this requested confirmation from the State.

Correspondence with the Main Forest Service indicating that the property was cleared in accordance with the approved harvest permit has been provided in Appendix L.

- c. Planning Board Comment 3: The submitted Topography and Boundary Survey illustrates two (2) vernal pools and their respective 250' setback. Lots # 5, 6, 7 & 8 are within the required setback. Are these vernal pools classified as "significant"? If so, it would appear that lots 6, 7 & 8 would be unbuildable. Please confirm.

WP Comment: According to the Vernal Pool Survey Memo by Mainely Soils, LLC included in the application package, the vernal pools are considered non-significant. Maine Department of Inland Fisheries and Wildlife (MDIFW) concurrence is not included on the Vernal Pool Assessment Forms.

Maine Department of Inland Fisheries and Wildlife (MDIFW) Vernal Pool concurrence correspondence has been provided in Appendix E. Please note that the Vernal Pool Assessment forms were provided to MDIFW on May 28, 2025. At the time of this application's submission, a formal response has not been received. This response will be provided to the City upon receipt.

- d. Planning Board Comment 5: The preliminary application shall include the entire parcel and the disposition of the "remaining land" shall be specified (remain with the Homeowners Association or gifted to a land trust?).

WP Comment: According to the application package, Lot 9 is approximately 12-acres in size and will be dedicated to either conservation/open space or will be dedicated to potential future development – this lot will be retained by the Owner. The Applicant should confirm and specify the disposition of the "remaining land" on the Subdivision Plan.

The drawings have been updated to identify Lot 9 as land to be retained by the owner.

- e. Planning Board Comment 12: The proposed entranceway off Pool Street shall be illustrated and shall also show the turning templates for all fire apparatus movements at Pool Street and at the on-site hammerhead turn-around.

WP Comment: The Pool Street entrance has been illustrated. Turning movements have not been provided for the Pool Street Entrance or turn-around.

The drawings have been updated to include turning movements for emergency vehicles.



- f. Planning Board Comment 15: The proposed street is to remain private and will not be accepted by the City of Biddeford as a public street. As such homeowner's association documents shall be submitted including roadway ownership, maintenance including snow removal. The HOA shall also include any common drainage areas and their annual maintenance. A note of this nature shall be included on the recorded plan set.

WP Comment: The application package states HOA documents will be provided for final approval. A note has also been added to the subdivision plan.

Homeowners Association (HOA) documents have been provided in Appendix M.

Checklist

See comments on attached Site Plan & Subdivision Application Drawing Checklist. Comments in the checklist have not been included in the review comments below.

A revised copy of the Site Plan and Subdivision Application Drawing Checklist has been provided.

Chapter 34 – Environment, Article VI Post-Construction Stormwater Discharge

1. Confirm applicability under the Post-Construction Stormwater Discharge Ordinance, and submit a post-construction stormwater management plan meeting the requirements of Chapter 34, Article VI as applicable.

The project will disturb greater than one acre of land; therefore, a Post-Construction Stormwater Management Plan is required, and has been provided in Appendix I.

Chapter 62 – Steets, Sidewalks, and Other Public Places, Construction Standards

1. Section 62-126, Table A states that surface asphalt should be MDOT C Mix. Although this is an old MDOT classification method, MDOT C Mix is most similar to 12.5 mm mix. The Typical Roadway Buildup Detail notes 9.5 MM surface pavement. This mix should be called out as MDOT C Mix (12.5 MM) on the Plans Typical Roadway Buildup Detail, not 9.5 MM.

The proposed road typical detail has been updated to reflect this comment.

Chapter 66 – Subdivisions

66-70 – Prerequisites to Approval of Subdivision

1. Subsection (b)(2)a. states that in no case will the post-development off-site drainage rate exceed the predevelopment rate, unless reviewed by the City Engineering Department and specifically approved by the Planning Board upon the Department's recommendation. Based on the provided stormwater report, the post-development off-site drainage rate exceeds pre-development at Summation Point 3 for a 25-Year storm event. Post-development rates also exceed pre-development at Summation Points 1-3 for 2- and 10-Year storm events. The Applicant states that because of their conservative modeling and that the increases seen are less than 1 cubic foot per second (cfs), the increases are considered insignificant. We believe that this is fair reasoning by the Applicant.

No response is necessary.



2. Subsection (3)b. states that where septic systems are proposed, a complete HHE-200 Form for each lot shall be provided to include a certification by the City's Plumbing Inspector. However, houses are not proposed to be constructed at this time. HHE-200 forms should be submitted prior to construction.

HHE-200 documentation has been provided for each proposed lot within Appendix G. Please note that no development is proposed on Lot 9 at this time; therefore, a septic design has not been provided for this lot. Similarly, the Lot 1 system is constructed, in use, and not proposed to be altered; therefore, a proposed design has not been provided.

66-71 – Status of Land Susceptible to Flooding or Not Suitable for Development

1. Subsection (c) states land fitting this criteria shall include areas indicated as being in the one-hundred-year flood zone; wetland soils as defined in Article II, Definitions, of the Biddeford Zoning Ordinance. Lots 6, 7, and 8 are approximately 50%, or more, covered in wetlands. There are building envelopes proposed partially over wetland features and the building on Lot 7 is near a vernal pool that has standing water in it in the application package pictures. Building within wetlands can lead to structural issues. We recommend ensuring all building foundations are outside of wetlands. There is also a portion of a septic field proposed on Lot 6 over a wetland feature which could be an environmental concern and likely would not drain well.

Proposed development envelopes and proposed septic fields have been modified to avoid wetlands and ledge.

Land Development Regulations, Article VI Performance Standard

Section 44 Net Density Calculations

1. Subsection A.5. lists prime agricultural and unique soils in the rural farm zone that the soil conservation service considers of statewide significance. Soil Lyman fine sandy loam (LnB) is present on the site according to the Soil Report in the application package and is designated as prime if irrigated. As stated in the LDR, if such soils are likely to be present, the Planning Board shall require a high-intensity soils survey, or a report by a registered soils scientist or a registered professional engineer experienced in geotechnics, in order to determine the location and extent of said soils. To the greatest extent possible, buildings shall not be sited on these soils. A high intensity soils survey was included on Drawing V102, which shows Lyman-Turnbridge and Brayton soils; however, no soil report was included in the application package. We recommend referring to this section of the LDR and consulting with the Natural Resources Conservation Service and/or a soil scientist to determine if the Lyman series soils would be considered prime.

A High Intensity Soils Survey was performed on the site in the spring of 2025. While the delineated soil boundaries were shown on the drawings submitted for Preliminary Review, the associated report was inadvertently omitted. A copy of this report has been provided in Appendix C.

Per this report, no Lyman soils were specifically mapped. While Lyman-Tunbridge soil series were identified, this is because the size of either Lyman soils map unit or the Tunbridge soil map unit is not sufficiently large enough to separate out. Lyman soils have



bedrock within 18 inches of the soil surface. Based upon the amount of exposed ledge mapped on the parcel, the Lyman-Tunbridge soil series mapped would not meet the definition of prime agricultural soils.

Section 50 – Preservation of Landscape/Natural Vegetation

1. Subsection A. states that plans presented to the Board shall have a detailed landscaping plan, indicating the type and number of trees, shrubs or other plantings that will be placed on the property. The plan shall clearly show the location of each type of planting (this does not necessarily require specific siting of each single planting). The landscaping plan shall bear the seal of a landscape architect licensed in the State of Maine. The property is shown to remain mostly vegetated. *City to determine if this requirement is applicable.*
No formal landscaping plan has been prepared. Landscaping on lots will be provided by individual future owners. The subdivision plan includes explicit development envelopes for which clearing is allowed, ensuring robust wooded buffers remain along the site perimeter.

Section 51 – Private Ways and Roads

1. Subsection D.2.a. states that adequate light shall be provided on all streets. The number and location of all streetlights shall be installed according to the following guideline: In non-urban areas lights shall be located at all intersections and to service three homes. A note on the plan shall state, "The City of Biddeford shall not be responsible of the cost of materials, installation, maintenance, or power for the streetlighting. The homeowner's association shall assume all costs associated with the lighting system." A lighting plan has not been provided
Proposed street lighting has been provided on the design drawings, as well as a note that the City is not responsible for these lighting fixtures.

Section 61 – Stormwater Management

1. See comment 1 under Section 66-70 above.
No response is necessary.

Section 70 – Wildlife Preservation

1. Subsection A. states that any project involving parcels of land of greater than five acres, or any portion of a larger parcel greater than five acres, shall be required to conduct a wildlife study by a certified wildlife biologist. This provision may be waived, if a letter from the MDIFW indicates there are no significant habitat areas involved in the project area or abutting adjacent land. The submitted letter from MDIFW indicates, "at this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of Significant Vernal Pools (SVPs) in the project area." It should be confirmed that the Maine State Vernal Pool Assessment Forms included in the Wetland Delineation Memorandum were provided to the MDIFW for review and concurrence that the significant pools are considered not significant. Copies of the Vernal Pool Assessment Forms indicating MDIFW review should be provided to the City.



MDIFW Vernal Pool concurrence correspondence has been provided in Appendix E. Please note that the Vernal Pool Assessment forms were provided to MDIFW on May 28, 2025. At the time of this application's submission, a formal response has not been received. This response will be provided to the City upon receipt.

Additional Comments

1. Drainage

- a. Clarify how the outlet controls for Detention Pond A are intended to operate. A 6" HDPE outlet pipe set at the bottom of Detention Pond A is shown. How will detention be provided if the outlet is on the bottom of the pond? A 6" pipe at the bottom of the detention area will also be prone to clogging. We recommend an outlet control structure.

The provided 6" outlet for Detention Pond A has been sized to provide a controlled discharge as necessary to reduce peak stormwater runoff rates. We understand the concerns regarding this inlet becoming buried or clogged; the drawings have been updated to include an outlet control structure for this pond.

- b. There should be riprap at the outlet end of the 15" cross culvert discharging to Detention Pond A.

The drawings have been updated per this comment.

- c. Update inverts on the Stormwater Control Structure Detail to coincide with the Plans.

The drawings have been updated per this comment.

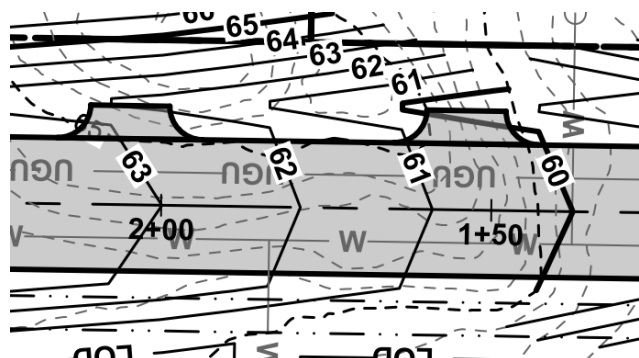
- d. We recommend the emergency spillway detail also include a side profile view and show riprap on both the inside and outside of the pond berm, instead of just the outside.

The drawings have been updated per this comment.

- e. Provide details for riprap inlet and outlet protection.

The drawings have been updated per this comment.

- f. Driveway aprons are shown extended into the middle of the ditch on the northwesterly side of the road. They should be extended to the edge of the right of way with culverts to convey stormwater across them.

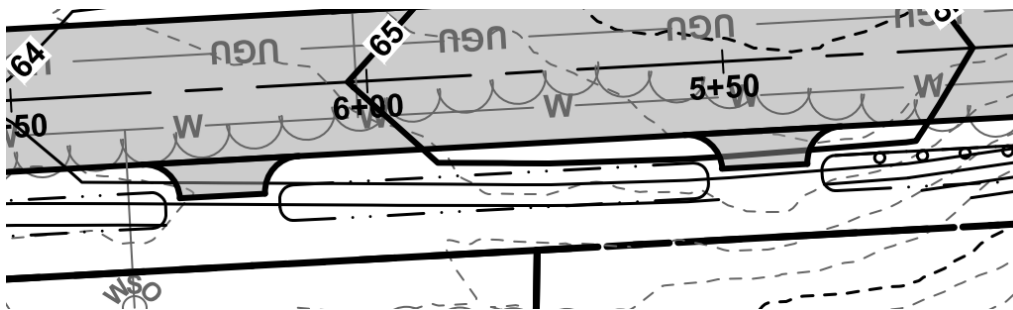


The drawings have been updated per this comment.

- g. Clarify the intent of Outlet Control Structure 1 and why there is not a simple open cross culvert at this location. It appears the Stormwater Control Structure Detail is intended to represent this but the inverts are different than those noted on the grading plan. Invert, rim, and all other elevations should match on plan, detail, and model. We recommend clarifying the detail name, so it is clear it is for OCS 1 as well.

Outlet Control Structure 1 is required because this area is intended to act as a detention feature. The installation of the Private Way will result in a contained low point on the south side of its intersection with Pool Street. This design takes advantage of this area by proposing an Outlet Control Structure that will assist in mitigating post-development peak flow rates to pre-development levels in accordance with the City's stormwater regulations.

2. Steep grade changes are shown at the driveway apron locations on the southeasterly side of the road. Revise grading to be appropriate for a driveway entrance. Refer to MaineDOT driveway design guidelines.



The drawings have been updated per this comment.

3. While it is understood that Maine Department of Environmental Protection (DEP) Natural Resources Protection Act (NRPA) permitting is not required because the applicant is proposing wetland disturbances under the 4,300 square foot threshold, there are still notification/approval requirements through the US Army Corps of Engineers for direct wetland impacts. Is the intent for this to occur prior to final subdivision approval or by individual lot owners in the future prior to building?

A Self-Verification form will be filed with the Army Corps of Engineers. This form is not required to be submitted until two weeks prior to commencement of work. It will be confirmed at a pre-construction meeting that this form has been submitted and approved. A copy of the draft form has been provided in Appendix F.

4. Where does the existing house get its water service from? Only a proposed water service is shown.

The existing home at 512 Pool Street utilizes a private well as its water supply. As a result of this development, that well will be abandoned in accordance with Maine Department of Environmental Protection (MDEP) standards, and the home will be connected to the proposed water supply system within the private way.



5. *Show the private road right of way on the Typical Roadway Cross Section.*
The drawings have been updated per this comment.

END OF RESPONSE TO COMMENTS

Please see below for original narratives provided during Preliminary Review that have been revised to reflect our comment responses above.

EXISTING CONDITIONS

The proposed development is located at 512 Pool Street (site) and is identified as Biddeford Tax Map 9, Lot 31. The subject parcel is approximately 17.45 acres and is undeveloped and wooded except for one single-family home that was constructed in 2024. The proposed subdivision area was also selectively harvested of existing woody vegetation, in accordance with a State-approved forestry plan (Harvest #2301688). Please refer to the "Existing Conditions" plan provided within the drawing set for a current representation of the tree line. The following materials have been provided to assist with the analysis of the existing parcel:

Deed – Appendix A

Location Map – Appendix B

USDA Soils Map – Appendix C – The site is generally dominated by Lyman loam and Lyman-Rock outcrop complexes. Several areas of exposed ledge are present within the development area. These areas are shown on the Existing Conditions Plan.

A High Intensity Soils Survey was performed on this parcel in January 2025. The results of this report generally align with those seen in the USDA report. A copy of this survey has been provided within the drawing set, and the associated report is also included in the **Appendix C**.

FEMA Flood Hazard Map – Appendix D – This site is not located within a mapped FEMA Flood Hazard Zone.

Natural Resources Report – Appendix E – A Natural Resources survey was prepared by Mainely Soils in 2023. This survey identified several wetlands and two non-significant vernal pools within the project area. The limits of the delineated natural resources are shown on the attached plans and there are no required setbacks from these areas based on the results of the study.

Sensitive Historic/Natural Areas – Appendix F – Correspondence with MDIFW, the Maine Historic Preservation Commission (MHPC), and the Maine Natural Areas Program (MNAP) have been notified of the proposed development. MHPC and MNAP have no concerns with this development. MDIFW has noted several potential endangered species habitats, along with recommended buffers from these areas. These habitats are typically found in wetland



and stream habitats. By placing our development along a ridge in the middle of the parcel, we have successfully avoided significant impacts to these resources to the extent that we feel is necessary to prevent impacts to potential endangered species.

Harvest Permit Letter of Correspondence – Appendix L

PROPOSED DEVELOPMENT

The Applicant is proposing a nine-lot subdivision. Lot 1 is currently developed as a single-family house lot, is approximately one-acre in size, and was sold to an individual lot owner in 2024. Lots 2 through 8 will be developed as single-family house lots. Lots 2 through 7 are approximately 0.5 acres in size, while Lot 8 is approximately 1.5 acres in size, totaling approximately 5.2 acres of area to be subdivided. Lot 9 is approximately 12 acres in size and will be dedicated to either conservation/open space or will be dedicated to potential future development. This lot will be retained by the Owner.

An 850-foot long, 20-foot wide, paved roadway with two-foot-wide gravel shoulders is proposed to provide access to the proposed lots. The proposed roadway is classified as a minor residential street; it will include a dead end hammerhead turnaround and has been designed per Chapter 62 of the City's Land Use Ordinance. The roadway will remain private and will be owned and maintained by a homeowner's association. The Applicant will finalize a road name with City Staff as part of the Subdivision Review process. Homeowner Association documents have been provided in **Appendix M**.

Each lot will be served by an individual subsurface wastewater disposal system. Soil test pits indicating the suitability of the soil to support these systems on each lot are shown on the Subdivision Plan. Test pit logs have been provided in **Appendix G** along with an HHE-200 septic design for lots 2 through 8.

The lots will be served by public water. This will be accomplished by extending the public water main from the intersection of Pool Street and Sokokis Road to the site. Power and communications infrastructure will be provided from Central Maine Power's existing network on Pool Street.

Correspondence with various City Staff and utility authorities have been provided in **Appendix H**. Responses not received at the time of this submission will be provided to the City upon receipt.

The Applicant is proposing to develop both the road and the individual lots.

ZONING

Per Biddeford's Official Zoning Map, the project site is located within both the Rural Farm, RF and Suburban Residential, SR1 zones. According to the City's Zoning Ordinance, single-family homes are a permitted use within both zones. The zoning limits and related setbacks are shown on the Subdivision Plan.



Below is a table identifying the dimensional requirements outlined within Table B of the City's Land Use Ordinance. The lots will be served by public water and private sewer. The proposed lots will adhere to the following dimensions:

ZONING DISTRICT	MINIMUM LOT SIZE	FRONTAGE	MINIMUM SETBACK	MAXIMUM HEIGHTS
SR1	20,000 SF	100 feet	Major ROW: 40 feet Side: 10 feet Rear: 10 feet	35 feet
RF, Single Family	20,000 SF	120 Feet	Major ROW: 40 feet Side: 25 feet Rear: 25 feet	35 feet

CONDITIONS AND WAIVERS

No waivers are requested for the proposed development at this time. It is unclear if the City requires a Landscaping Plan for this development. If so, a waiver is requested. Justification for this waiver is provided in the Response to Comments Section above, and in the Landscaping narrative, below.

SITE ACCESS

As described above, the proposed subdivision will be accessed by a new road built to the standards of the City's Land Use Ordinance, Chapter 62. The road is intended to remain private. The required notations for this have been included on the drawing set.

TRAFFIC

A preliminary assessment of traffic was performed through the use of ITE's Trip Generation Manual. For a development classified by Land Use Code 210-Single Family Housing, for a development with eight units, the expected peak hour trip generation is 10 trips. This is well below the MaineDOT's 100 trip threshold for requiring a Traffic Movement Permit. This development is not expected to create any significant, negative, traffic-related impacts to Pool Street or the surrounding areas.

LANDSCAPING

No landscaping is proposed for this development. Existing vegetation will be maintained to the greatest extent possible to provide a visual buffer between the development and Pool Street and abutting properties. Landscaping will be provided for the individual lots by future owners.



STORMWATER

The proposed development has been designed to adhere to the stormwater standards listed within The City's Site Plan Review Ordinance, per instruction from the City Engineer. Because the Applicant is proposing to develop both the access road and the lots, efforts have been made to keep the total proposed impervious area quantity below one acre, removing the need for an MDEP Stormwater Permit. The drawings include restrictions on the impervious area allowed per lot to ensure this limitation will be adhered to. Please refer to **Appendix I** for the Stormwater Management Report prepared for this development.

EROSION AND SEDIMENT CONTROL

The proposed development has been designed to adhere to the erosion control standards listed within The City's Site Plan Review Ordinance. Please refer to **Appendix J** for the Erosion and Sedimentation Control Plan prepared for this development.

LIGHTING

The proposed private way will include adequate exterior lighting to provide safe means of travels for residents of the subdivision. Specifications for the proposed lighting fixtures can be found in **Appendix K**. Lighting is limited to the proposed roadway. Lighting of individual lots will be the responsibility of the individual lot owner.

UTILITIES

As described above, each lot will be served by an individual subsurface wastewater disposal system. Septic designs and soils data indicating the suitability of these systems has been provided in **Appendix G**. The lots will be served by public water. This will be accomplished by extending the public water main from the intersection of Pool Street and Sokokis Road to the site. Power and communications infrastructure will be provided from Central Maine Power's existing network on Pool Street. Correspondence with the local water authority has been provided in **Appendix H**.

SOLID WASTE

Recyclable and solid waste will be handled by a contracted waste service vendor retained by the Applicant. Each lot will utilize individual barrels. There will be no dumpsters/centralized waste collection areas. Due to the proposed single-family house lot use, the development is not expected to generate any hazardous waste.

STATE AGENCY REVIEW

State agency project review request letters have been sent to the MHPC, MNAP, and the MDIFW to confirm that the site will not impact any historical or archeological resources, significant natural areas, or significant wildlife habitats. A copy of the letters can be found in **Appendix F**, and the responses will be forwarded to the City upon receipt.



OTHER PERMITS

The proposed development will disturb greater than one acre of land area but will create less than one acre of impervious area; therefore, only a Stormwater Permit by Rule (PBR) is required to be obtained from MDEP. This PBR will be filed prior to construction.

The project proposes to impact less than 4,300 square feet of wetland area; therefore, a Natural Resources Protection Act permit from MDEP is not required. A Self-Verification Notification will be submitted to the Army Corps of Engineers prior to construction.

As described above, the development will not generate 100 or more peak hour vehicular trips; therefore, a Traffic Movement Permit from MaineDOT is not required.

CONCLUSION

This is a general overview of the elements we intend to cover with the Planning Board, and we look forward to reviewing the content in more detail with you and the Planning Board. With the submission of this application packet, we respectfully request inclusion on the next available Planning Board agenda, at which time the Planning Board might consider taking a preliminary approval action for the project.

Please find the following items included with this submission:

APPENDIX	SECTION
A	Deed
B	Location Map
C	USDA Soils Map
D	FEMA Flood Hazard Map
E	Natural Resources Report
F	Sensitive Historic/Natural Areas
G	Septic Designs
H	Correspondence with Utility Authorities
I	Stormwater Management Report
J	Erosion and Sedimentation Control Plan
K	Proposed Lighting Fixtures
L	Harvest Permit Correspondence
M	Homeowner's Association Documents



If you have any questions regarding the information being submitted, please contact our office.

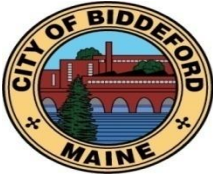
Sincerely,
Haley Ward, Inc.

Drew J. Olehowski, P.E.
Project Manager

DJO/jok



APPLICATION, AGENT AUTHORIZATION, AND CHECKLIST

**City of Biddeford – Planning Department****Planning Board Application**

P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

☐ Shoreland Zoning Permit ☐ Site Plan Review ☐ Extraction
☐ Conditional Use Permit ☒ Subdivision ☐ Private Way
☐ Other: _____

Applicant Information:

Name: **COASTAL OAKS, LLC, ATTN: ETHAN SCOTT**
 Mailing Address: **198 SACO AVENUE, OLD ORCHARD BEACH, ME 04064**
 Telephone: **207-710-7570**
 Email: **ETHANSCOTTDEVELOPMENT@GMAIL.COM**

What is your legal interest in the property?

☒ Owner ☐ Potential Buyer with Contract ☐ Lease/Rental Agreement

Owner's Information:

Name: **SAME AS APPLICANT**
 Mailing Address: _____
 Telephone: _____
 Email: _____

Agent's Information:

Name: **HALEY WARD, INC., ATTN: DREW OLEHOWSKI, PE**
 Mailing Address: **120 MAIN STREET, #132, SACO, ME 04072**
 Telephone: **207-989-4824**
 Email: **DOLEHOWSKI@HALEYWARD.COM**

Engineer/Surveyor's Information:

Name: **SAME AS AGENT**
 Mailing Address: _____
 Telephone: _____
 Email: _____

Project Location and Lot Information:

Street Address: **512 POOL STREET** Drainage Watershed: **SACO RIVER**
 Tax Map: **9** Lot: **31**
 Current Zoning: **RF/SR1** Shoreland Zoning: **NO**
 Size of Lot: **17.45** (X) acres () s.f. Lot Frontage: **~420'**
 Existing Use of Property: **VACANT AND UNDEVELOPED (WOODED), EXCEPT FOR ONE SINGLE-FAMILY HOME CONSTRUCTED IN 2024**

Property currently serviced by:

☒ City Road ☐ Public Sewer ☐ Public Water ☐ Public Trash
☐ Private Road ☒ Septic System ☒ Private Well ☐ Private Hauler

Slope Conditions in Area of Construction (if applicable):

☐ Flat (0-3% slope) ☒ Rolling (3-8% slope) ☐ Hilly (8-15% slope) ☐ Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? ☒ (Yes) ☐ (No) if yes attach information

Is the project within the 100-year floodplain? ☐ (Yes) ☒ (No) if yes attach information

Do you plan to bring fill onto the lot? ☒ (Yes) ☐ (No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

9 LOT SUBDIVISION - 8 LOTS TO INCLUDE (1) SINGLE-FAMILY HOME, LOT 9 TO BE DEDICATED TO EITHER OPEN SPACE/CONSERVATION OR FUTURE DEVELOPMENT (LOT WILL BE RETAINED BY OWNER). PRIVATE ROAD. UTILITIES INCLUDE PRIVATE SEPTIC, AND PUBLIC WATER EXTENDED FROM SOKOKIS ROAD.

Property to be Serviced by:

☐ City Road ☐ Public Sewer ☒ Public Water ☐ Public Trash
☒ Private Road ☒ Septic System ☐ Private Well ☒ Private Hauler

Limits of Disturbance: 2.94 (X)acres ()s.f.

Net change in impervious cover: 0.9 (X)acres ()s.f.

Is this project part of a larger project? ☐ (Yes) ☒ (No)

Is the project proposing a new Private or Public Road? ☒ (Yes, Private) ☐ (Yes, Public) ☐ (No)

Is this project within the Urbanized Area/MS4 (see [City Drainage Map](#)) ☐ (Yes) ☒ (No)

Is the project proposing any Stormwater facilities/BMPs? ☒ (Yes) ☐ (No)

Will a Traffic Movement Permit (TMP) be required?: ☐ (Yes) ☒ (No)

☐ If in a Shoreland Zone:

Percent of residential lot coverage (Max 20%): _____

Percent of structure expansion (Max 30%): _____

☒ If Subdivision Review, number of lots proposed: 9

☒ If a Private Way is proposed, number of lots served: 9

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: _____

Total new square feet paving/parking: _____

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

- ☒ A. Letters of Approval
 - ☐ Fire Department – Contact Chief or Deputy Chief – 282-9986
 - ☐ Ability to Serve for Water Service – Maine Water – 282-1543
 - ☐ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
 - ☐ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
- ☒ B. Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.
- ☒ C. Photographs of Site.
- n/a D. Architectural renderings/drawings of proposed buildings, as required.
- ☒ E. Engineering Plans, as required.
- ☒ F. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- ☒ • \$75 Nonrefundable Administration Fee is required for every application.
- ☒ • Refer to “Attachment A Fees and Charges” of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance?: X(Yes) (No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: 

Date 06/09/2025

Signature of Property Owner: _____

Date _____

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- *Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVIDUAL DRAWING NAME.pdf'*

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- *All drawings & CAD reference files must be to-scale and within the following coordinate systems:*

- *MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)*

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIDUAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION



HALEY WARD®
ENGINEERING | ENVIRONMENTAL | SURVEYING

November 11, 2024

To Whom It May Concern:

Please be advised that Haley Ward, Inc. is hereby authorized to act on behalf of Coastal Oaks, LLC for local and state permitting for the proposed residential development located at 512 Pool Street in Biddeford, Maine.

Ethan Scott
Printed Name and Title

[Signature]
Signature

11/11/24
Date

SUBDIVISIONS

66 Attachment 2

City of Biddeford

Appendix B Required Information Checklist [Ord. of 6-20-1995]

In order for any application to be considered complete the following information must be provided at least two weeks prior to the Planning Board meeting. All plans for subdivisions shall contain the following information:

	Yes	No	N/A	Remarks
(1) Name of subdivision, owner and engineer or surveyor	X			
(2) Graphic scale, date, drawn, North point and its date, and whether it is true or magnetic	X			
(3) Boundaries of the tract	X			
(4) Existing zoning	X			
(5) Ownership and location of abutting properties	X			
(6) Name, location, width, profile, cross-section, radius of curves, angles of change in direction and center line length of all angles of change in direction and center line length of all proposed streets; other public ways, building lines and easements in the subdivision; intersection of existing streets	X			
(7) Type, location, profile and cross-section of all existing and/or proposed surface water drainage	X			
(8) Location of all existing and/or proposed utilities	X			
(9) Location of all existing and/or proposed sanitary sewers showing size, profile, and cross-section, or description, plan, location of other means of sewage disposal with evidence of successful soil evaluation	X			
(10) Topography at two-foot contour intervals, unless otherwise prescribed by the Board. In addition the location of existing natural or man-made features influencing the layout of the proposed subdivision shall be shown.	X			

BIDDEFORD CODE

	Yes	No	N/A	Remarks
(11) Lot lines and approximate dimensions	X			
(12) Proposed uses of property	X			
(13) Proposed public areas, if any	X			
(14) Copy of deed, or option for purchase, for land being subdivided	X			
(15) Reserved fire lane areas			X	
(16) Location of soil evaluation test pits for each lot on plan	X			
(17) Location of well or water supply for each lot	X			
(18) Aesthetics; trees, berms, shrubs, green strips, parks, etc.	X			
(19) Location and details for sedimentation and erosion control measures	X			
The preliminary of a subdivision shall be drawn at a scale no smaller than 100 feet (1 cm = 12 m) to the inch	X			
A preliminary plan shall include a location map insert, showing the relationship of the proposed subdivision to adjacent properties and public access, and drawn at no smaller scale than 2,000 feet (1 cm = 240 m) to the inch. It is suggested that reduced sections of City maps be used for this purpose.	X			

In addition to the above plat information, the Subdivider shall provide the following documents:

	Yes	No	N/A	Remarks
Valid deed or option indicating an interest held by the subdivider in the parcel of land	X			
Completed application form	X			
Narrative of the proposed project briefly describing the general nature of the project i.e., type of project; residential or commercial; number of lots intended to create	X			
Draft covenants and deeds for each lot proposed	X			
Easement documents for proposed rights-of-way for utilities, drainage ways, roadways and other	X			

SUBDIVISIONS

	Yes	No	N/A	Remarks
travelways or public amenities	X			
Statement of financial capability of subdivider to undertake the proposed project	X			
Statement identifying principals involved in the project	X			
Statement demonstrating that the subdividers have the technical capability to complete the proposed project as presented	X			
Copies of such covenants or deed restrictions as are intended to all or part of the tracts	X			
Review by water company, power company and City Engineering, Police and Fire Departments	X			

SUBDIVISIONS

66 Attachment 3

City of Biddeford

Appendix C Subdivision Review Criteria [Ord. of 6-20-1995]

The Board shall base its decision on the plans meeting the conditions and requirements outlined in this chapter; and that the plan meets in a positive fashion, the following:

	Yes	No	N/A	Remarks
1. The project will not result in undue water or air pollution. In making this determination the Board shall consider:	X			
(a) The elevation land, and its relation to the floodplains;	X			
(b) The nature of the soils and the subsoils;	X			
(c) The ability to adequately support waste disposal;	X			
(d) The slope of the land and its affects on effluents;	X			
(e) The availability of streams for the disposal of effluents; and	X			
(f) The applicable state and local health and water resources regulations	X			
2. The project has sufficient water available for the reasonably foreseeable needs of the subdivision	X			
3. The project will not cause an unreasonable burden on an existing water supply, if one is utilized	X			
4. The project will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result	X			
5. The project will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highways or public roads existing or proposed	X			
6. The project will provide for adequate sewage/waste disposal	X			

BIDDEFORD CODE

	Yes	No	N/A	Remarks
7. The project will not cause unreasonable burden on the ability of the municipality to dispose of solid waste and sewage if municipal services are to be utilized	X			
8. The project will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, or rare and irreplaceable natural areas or public rights for physical or visual access to the shoreline	X			
9. The project is in conformance with a duly adopted subdivision regulation or ordinance, Comprehensive Plan, development plan, or land use plan. In making this determination the Board is authorized to interpret these ordinances and plans.	X			
10. The subdivider has adequate financial and technical capacity to meet the above-stated standards	X			
11. Whenever situated, in whole or in part, within 250 feet of any lake, pond, river, or tidal waters, the project will not adversely affect the quality of that body of water, or unreasonably affect the shoreline of that body of water; as indicated on the City of Biddeford's Official Zoning Map and referenced in the City's Comprehensive Plan	X			
12. The project will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater	X			
13. The subdivider will provide information, based on FEMA flood boundary, floodway, and flood insurance maps, whether or not the project is in a flood-prone area	X			
14. The project will not unreasonably obstruct abutting properties or structures access to direct sunlight	X			

CHECKLIST DIRECTIONS:

1. The following checklist must be completely filled out by the applicant and included on all preliminary and final Site Plan & Subdivision submittals. No checklist is required for sketch submittals.
2. Applicant to confirm all of the items listed are included within the submittal. Any missing items must have adequate reasoning to justify their absence.
3. City to review applicant's submittal and checklist responses. Projects missing substantial submittal information with non-acceptable reasoning will be rejected and required to resubmit.
4. Items in **BLACK** are required for 'Preliminary' approval & 'Final' approval.
5. Items in **BLUE** are only required for 'Final' approval.

SUBMITTAL INFORMATION - TO BE FILLED OUT BY APPLICANT	
Project Name:	512 Pool Street
Planning Board # (if available):	
Applicant Name/Info:	Coastal Oaks, LLC
Submittal #/Type (Prelim/Final):	Final
Submittal Date:	6/9/2025

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
1	GENERAL PLAN REQUIREMENTS					
A	Drawing specific legends (linetypes, hatches, etc.)	YES	C001		YES	
B	Individual drawing layer control should be utilized: freeze/thawing, changing lineweights, and screening (i.e. screen existing layers on a proposed plan, freeze topography and underground utilities on a proposed site plan)	YES			YES	
C	North arrows, standard engineering scale viewports, scale bars, dated revision blocks	YES			YES	
D	All drawings and surveys must be in the following coordinate systems: NAD83 Maine State Plane West (Horizontal) and NAVD88 (Vertical)	YES			YES	
E	Drawings need to be designed, signed & sealed by a Maine licensed professional engineer (PE); all boundary survey data needs to be performed by a licensed professional land surveyor (PLS)	YES			YES	
2	COVER SHEET					
A	Project Name & Property Address	YES	C000		YES	
B	Project Team Contact Information (Owner, Engineer, Contractor, etc.)	YES	C000		YES	
C	Site Location Map	YES	C000		YES	
D	Sheet Set List of Drawings	YES	C000		NO	Missing C-502 in index. ADDRESSED IN 6/9/25 REVISION
E	Tax Map and Lot ID	YES	C101		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
F	Zoning & Shoreland Zone Information	YES	C101		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
G	Existing Use Description	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
H	Proposed Use Description	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
I	Required Waiver/Variations (Yes/No); if yes, plan must clearly list waivers/variances requesting	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
J	Name of Drainage Watershed	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
K	Within the MS4 Urbanized Area (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
L	Natural resources (streams, wetlands, etc.) located on-site or adjacent to the property (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
M	Within the 100-year Flood Zone (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
N	Public Road Proposed (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
O	Private Road Proposed (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
P	Public Sewer Connection (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
Q	Public Storm Drain Connection (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
R	Limits of Disturbance in square feet and acres	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
S	Pervious Land Cover square footage, existing and proposed	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
T	Impervious Land Cover square footage (Pavement/Gravel), existing and proposed	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
U	Building Roof square footage, existing and proposed	YES	SEE APPLICATION		NO	Buildings not proposed at this time - indicate as such on cover sheet ADDRESSED IN 6/9/25 REVISION
V	Assigned Planning Board Number	YES	COVER SHEET			
W	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)	YES	COVER SHEET			
3	EXISTING CONDITIONS PLAN					
A	Horizontal & Vertical Datums annotated (NAD83 & NAVD88)	YES	1/V102		YES	
B	Property & Right-of-Way Lines	YES	1/V102		YES	
C	Boundary line information (bearings, distances, etc.)	YES	1/V102		YES	
D	Property pin and monumentation locations	YES	1/V102		YES	
E	Existing easements with proper ownership identified	YES	1/V102		YES	
F	Road Names & Individual Lot Labels (Map, Lot, Owner, Acreage)	YES	1/V102		YES	
G	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	1/V102		YES	
H	100-year Flood Zone Limits & Elevation	NO		NOT APPLICABLE	YES	
I	Existing contours with adequate contour labelling; minimum 1’ contour interval	YES	1/V102		YES	
J	Existing building FFEs annotated	NO		NOT APPLICABLE - NO SIGNIFICANT CHANGES TO EXISTING BUILDING	YES	
K	Spot elevations for all tie-in locations (curb cuts, property line)	YES	C103		YES	
L	Existing buildings & structures	YES	V102		YES	
M	Existing pavement areas & number of parking spaces	YES	V102		YES	
N	Existing ADA ramp geometry, detectable warning plates, and ADA parking spaces	NO		NOT APPLICABLE - NO ADA FEATURE CURRENTLY ON SITE	YES	
O	Existing site features (sidewalks, retaining walls, curbing, lightpoles, guide rails, dumpsters, fencing)	YES	1/V102		YES	
P	Existing signage and striping	YES	1/V102		YES	
Q	Existing underground utility locations (storm, sewer, force main, water, gas, elec, tele)	YES	1/V102		YES	
R	Existing above-ground utility locations (manholes, catch basins, utility poles, hydrants, transformers, riprap)	YES	1/V102		YES	
S	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	YES	1/V102		YES	
T	Existing tree lines, street trees, free-standing trees (12” or larger diameter at breast height), and vegetation	YES	1/V102		YES	
U	Location of any borings, drinking wells, and monitoring wells	YES	1/V102		YES	
4	SITE DEMOLITION & EROSION CONTROL (E&SC) PLAN					
A	Limits-of-disturbance outlined and acreage annotated	YES	C100		NO	LOD is outlined but acreage is not noted ADDRESSED IN 6/9/25 REVISION
B	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C100		NO	Resources are present on this plan but buffers are not added ADDRESSED IN 6/9/25 REVISION
C	100-year Flood Zone Limits	YES	C100		YES	Previously stated as not on site
D	Callout existing site features to be demolished/removed/replaced	YES	C100		YES	
E	Callout existing utilities to be demolished/removed/abandoned-in-place	YES	C100		YES	
F	Hatch existing buildings and pavement to be removed	YES	C100		NO	Demo work within roadway limits not hatched ADDRESSED IN 6/9/25 REVISION
G	Construction Entrance location(s)	YES	C100		YES	

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
H	Perimeter E&SC control location(s) (i.e. silt fence, erosion berm mix)	YES	C100		NO	Review limits of silt fence and make sure it completely lines the construction site wherever runoff off-site could occur. SILT FENCE ADDED IN COMPLIANCE WITH STANDARD EROSION CONTROL PRACTICES
I	Stockpile and staging area(s) identified (with proper perimeter control)	YES	C100		NO	Proper perimeter control not outlined around designated stockpile area ADDRESSED IN 6/9/25 REVISION
J	Inlet protection location(s)	YES	C100		YES	
K	Note requiring contractor to implement dust control measures throughout construction	YES	C100		YES	
L	Note requiring contractor to pave utility trenches within right-of-way within 3 days of excavation or prior to any rain event	YES	C100		YES	
M	If groundwater expected, show dewatering/silt bag location(s); show temporary pumping routing	NO	N/A	GW NOT EXPECTED.		
N	If large development is proposed with an extensive underground stormwater conveyance network, identify how SWM infrastructure and BMPs will be protected during construction and if sediment traps/basins are needed	NO	N/A	UNDERGROUND STORMWATER CONVEYANCE NETWORK NOT PROPOSED		
5	SITE PLAN/SUBDIVISION PLAN					
A	Partial Site Plans needed for any viewport scale greater than 1"=20'	NO	N/A	40 SCALE PROVIDED		
B	Existing property and right-of-way lines	YES	C101		YES	
C	Proposed subdivision lot lines and labels	YES	C101		YES	
D	Required Zoning Setbacks shown with dimensions and annotation	YES	C101		YES	
E	Bulk requirement summary table (zoning/parking calculations)	YES	C101		YES	
F	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C101		YES	
G	100-year Flood Zone Limits	YES	C101		YES	
H	Proposed building outlines, door entrances and loading docks	YES	C101	TOTAL ALLOWABLE BUILDING ENVELOPE SHOWN - BUILDING DESIGN TO COME AT A LATER DATE	YES	Just total allowable building enevelopes shown
I	Proposed building labels	YES	C101	TOTAL ALLOWABLE BUILDING ENVELOPE SHOWN - BUILDING DESIGN TO COME AT A LATER DATE	YES	Just total allowable building enevelopes shown
J	Proposed road & sidewalk extents; provide clear annotation if roads will be public or private	YES	C101		YES	
K	Proposed parking and accessible parking locations; annotate parking space counts	NO		NO PARKING PROPOSED - TO BE PROVIDED BY PRIVATE DRIVEWAYS AND/OR GARAGES	YES	
L	Proposed signage, parking striping, and traffic striping	YES	C101		YES	C102
M	Detailed ADA ramp geometry, detectable warning surfaces, and ADA parking striping/signage; existing & proposed	NO		NO ADA FEATURES EXISTING OR PROPOSED	YES	
N	Proposed site features (i.e. curbing, walls, fencing, guiderail, fire hydrant, transformers, light pole locations)	YES	C101		YES	
O	Proposed landscaping; detailed landscaping design should be shown	YES	C101		YES	No detailed landscaping plans with this submission DEEMED NOT REQUIRED BY
P	Designated snow storage areas	YES	C101		YES	C102
Q	Proposed dumpster locations and trash removal access	YES	C101	TRASH REMOVAL TO BE PROVIDED BY INDIVIDUAL BINS.	YES	
R	Linear dimensions of all drive aisles, sidewalk widths, parking spaces, loading docks	YES	C102		YES	
S	Radial dimensions for all curbs, landscaped islands, sidewalks	YES	C102		YES	
T	Public/private road centerline stationing shown, labelled every 0+50' with curve data	YES	C102		YES	
U	If Private Road is proposed, final recorded plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	YES	C101		YES	

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
V	If Private Road is proposed, final recorded plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	YES	C101		YES	
W	Planning Board signature block for final recording	YES	C101		YES	
6	GRADING PLAN					
A	Partial Grading Plans needed for any viewport greater than 1”=20’	NO	N/A	40 SCALE PROVIDED		
B	Limits-of-disturbance outlined and acreage annotated	YES	C103		NO	LOD is outlined but acreage is not noted ADDRESSED IN 6/9/25 REVISION
C	Proposed Building Labels with Individual Finished Floor Elevations (FFE’s)	NO		TOTAL ALLOWABLE BUILDING ENVELOPE SHOWN - BUILDING DESIGN TO COME AT A LATER DATE	YES	
D	Existing contours with adequate contour labelling, screened;	YES	C103		YES	
E	Proposed contours with adequate contour labelling; minimum 1’ contour interval	YES	C103		YES	
F	Detailed grading for all ditches, swales, outfalls, and riprap	YES	C103		YES	
G	All proposed contours tie-into existing contours at limits-of-disturbance outline	YES	C103		YES	
H	Existing spot elevations for all asphalt, curb, and SWM BMP tie-in locations	YES	C103		YES	
I	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C103		NO	Resources are present on this plan but buffers are not shown ADDRESSED IN 6/9/25 REVISION
J	100-year Flood Zone Limits	YES	C103		YES	Noted not on project site
K	Proposed spot elevations for all important roadway geometric points (including but not limited to: parking/drive aisles, building corners/entrances, retaining walls, loading docks, EOP/curbblines)	YES	C103	GRADING PROFILE PROVIDED. NO ADA, BUILDING, SIDEWALKS, OR OTHER INTRICATE SITE FEATURES THAT REQUIRE ADDITIONAL SPOT GRADES		
L	Proposed spot elevations for all ADA ramp/landing/parking stall geometry points	NO	N/A			
M	Proposed % slope arrows for all ADA parking spaces and sidewalks	NO	N/A			
N	Proposed longitudinal % slope arrows for drainage ditch centerlines	YES	C103	SLOPES SHOWN ON ROAD PROFILE		
O	Proposed % slope arrows for roads, parking areas, and landscape tie-in areas	YES	C103	SLOPES SHOWN ON ROAD PROFILE		
P	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)	YES	COVER SHEET			
7	ROAD PROFILES (if public/private road proposed)					
A	Existing surface; dashed and screened	YES	C103		YES	
B	Proposed surface; continuous and bold	YES	C103		YES	
C	Road design speed must be clearly identified	YES	C103		NO	Does not specify design speed on plans. However plans state road is designed to meet minor residential roadway standards as defined in the City of Biddeford Code of Ordinances, Article VI. Section 51. ADDRESSED IN 6/18/25 REVISION, SEE NOTE 3/C103
D	Corresponding centerline stationing and curve data annotation	YES	C103		YES	
E	All vertical curves must identify the proposed ‘K’ values and confirm they meet the minimum design speed thresholds listed in AASHTO’s Green Book Tables 3-35 & 3-37	YES	C103			
F	Clear annotation if proposed road will be public or private	YES	C103		YES	
G	If Private Road is proposed, plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	YES	C103		YES	

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
	H If Private Road is proposed, plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	YES	C103		YES	
8	UTILITY PLAN					
A	Existing underground utility locations; screened (storm, sewer, force main, water, gas, electric, telecom)	YES	C102		YES	
B	Existing above-ground utility locations; screened (manholes, catch basins, utility poles, hydrants, riprap)	YES	C102		YES	
C	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	YES	C102		YES	
D	Proposed underground utility locations; bold (storm, sewer, force main, water, gas, electric, telecom, lighting)	YES	C102		YES	
E	Proposed above-ground utility locations; bold (manholes, catch basins, utility poles, hydrants, transformers, riprap)	YES	C102		YES	
F	Proposed storm culverts, outfalls, and riprap locations and sizes	YES	C102		YES	
G	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	YES	C102		YES	
H	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	YES	C102		NO	Add slope to pipe label ADDRESSED IN 6/18/25 REVISION
I	Flow directional arrows for storm & sewer pipes	YES	C102		NO	Add flow directional arrows ADDRESSED IN 6/18/25 REVISION
J	Proposed & existing site features shown that could conflict with proposed utilities (trees, signs, lightpoles, bollards, foundations, guiderails)	YES	C102		YES	
K	All storm drains must be sized to convey the 25-year storm	YES	SEE APPLICATION			
L	Sewer force main sizes and invert elevations	NO	N/A			
M	Sewer pump station locations, model, rim, inverts, pipe sizes, cardinal directions (N,E,S,W); additional details and hydraulic calculations required for any Public pump station proposed.	NO	N/A			
N	Locations, sizes, and elevations of any: grease traps, oil-water separators, septic systems, drinking wells	YES	C102 AND THE 200 DESIGNS IN APPLICATION			
O	Proposed water sizes labelled	YES	C102			
9	UTILITY PROFILES					
A	Utility profiles required for <u>all</u> gravity storm drain and sewer pipes proposed: within the right-of-way, within private or public roads, for non-driveway culverts, and for any public infrastructure tie-ins	YES	C103			
B	Existing surface; dashed and screened	YES	C103			
C	Proposed surface; continuous and bold	YES	C103			
D	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	YES	C103			
E	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	YES	C103			
F	Existing and proposed gravity pipe crossings shown; sizes labelled and depths/clearance annotated	YES	C103			
G	Existing and proposed electric/water/telecom/gas crossings shown at approximate depths; sizes labelled and depths/clearance annotated	YES	C103			
10	DETAILS					

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
A	Road section detail, including pavement/gravel depths & cross slopes	YES	C501		YES	
B	Sidewalk, paver, crosswalk, and any other pavement section details	YES	C501		YES	
C	Pavement sawcut & shiplap details	YES	C501		YES	
D	Utility trench/backfill detail	YES	C501/C502		YES	
E	All site feature details; curbing, retaining walls, fencing, guiderails, dumpsters, etc.	YES	C501/C502		YES	
F	Signage, striping, and ADA details	YES	C501		YES	
G	E&S notes and details	YES	C001	PROVIDED ON NOTES SHEET	YES	
H	Utility structure details (manholes, cleanouts, fittings, handholes, transformer pads, hydrants)	YES	C501/C502		YES	
I	Storm outfall & riprap details	YES	C100	PROVIDED ON EROSION CONTROL PLAN	YES	
J	Drainage ditch cross section identifying minimum depth, minimum bed width, and maximum side slopes	YES	C501		YES	
K	Pump station, grease trap, oil-water separator, septic, drinking well details	YES	SE APPLICATION	HHE 200 DESIGNS PROVIDED		
L	Conduit section details	YES	C502			
11	LANDSCAPING, LIGHTING & PHOTOMETRIC PLANS					
A	As required by ordinance; at a minimum: locations, counts, lighting models, and landscaping species must be identified	YES	C102	LIGHTING INFORMATION ONLY - LANDSCAPING NOT REQUIRED	No	See review memo for comments on lightitng. ADDRESSED IN 6/9/25 REVISION
B	Landscaping & lighting details	YES	C102 AND C502	LIGHTING INFORMATION ONLY - LANDSCAPING NOT REQUIRED	No	See review memo for comments on lighting and landscaping. ADDRESSED IN 6/9/25 REVISION
12	DOCUMENTS/REPORTS/CALCULATIONS					
A	On initial preliminary submittal applications, applicant must submit a development review and inspection fee. Applicant to coordinate fee amount with City Planner prior to submittal. This fee will be drawn against to cover the following type of services throughout the project life cycle (and may require replenishing): i. 3rd Party City Peer-Review ii. Site Inspections during the permitting process iii. Erosion & Sediment Control Inspections during construction iv. Right-of-Way Inspections during construction v. Site Punchlist/As-Built Inspections post-construction	YES			City to Verify	

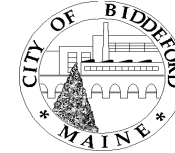
SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
B	Stormwater Management Report, including: 1. Predevelopment & Post-development Drainage Area Maps, including: a. Subdrainage areas delineated and labeled b. Points of Interest/Analysis shown and labeled c. Hatching for different land cover areas (impervious, pervious, gravel) within each applicable USDA soil boundary d. Time of concentration (Tc) paths & durations e. Four City-standardized stormwater summary tables 2. If any SWM water quality BMP or detention facility is proposed, hydrologic model exports/hydrographs must be submitted for the for the 2, 10, 25, & 100-year storm frequencies 3. Sizing calculations for any SWM water quality BMP or detention facility 4. A stormwater maintenance manual for any proposed SWM water quality BMP or detention facility, including: a. Annual maintenance requirements b. Annual inspection requirements by a licensed PE; noting that all inspection reports/logs need to be submitted to the Engineering Department by March 1st each following year, identifying what on-going maintenance has occurred and what remedial repairs are needed	YES			NO	Drainage Area Maps are provided in the plan set but should be added to the Stormwater Management Report. DRAINAGE MAPS ADDED TO SW REPORT Didn't provide 100-year storm event in model runs. 100 YEAR STORM RESULT PROVIDED Did not provide all four City-standardized storwmater summary tables. TABLES PROVIDED Did not note in SWMP that all inspection reports/logs need to be submitted to the Engineering Department by March 1st each following year. NOTE ADDED Did not provide Signed Property Owner Agreement: including the current property owner's contact information and signature; or that it must be noted that all stormwater BMP maintenance requirements are linked to the property for perpetuity and transfer to any new ownership. AGREEMENT ADDED
C	An approved 'Sewer Ability-to-Serve Letter' from the Engineering Department: i. Applicant to submit proposed sewer flow calculations per Maine's Subsurface Wastewater Disposal Rules, Chapter 241, Section 4 (Tables 4A & 4C)	NO		REQUEST SENT, APPROVAL NOT YET RECEIVED.	NO	Submit approval letter for final submission. CITY STAFF CONFIRMED ABILITY TO SERVE LETTER NOT REUIRED FOR PRIVATE ON SITE SEWER
D	A Performance Guarantee Cost Estimate utilizing Planning's template	NO		TO BE PROVIDED FOR FINAL APPROVAL	NO	Submit for final submission. Provided
E	For any Site Location of Development (SLODA) project, the applicant's submittal must mimic a formal submittal to DEP. Submit must abide to DEP's SLODA application and include DEP's SLODA Submittal Checklist (Form D)	NO		SLODA NOT APPLICABLE	YES	N/A
F	25-year hydraulic calculations for all storm conveyance infrastructure (pipes, culverts, drainage ditches); starting tailwater	YES	SW REPORT			
K	Public sewer pump station sizing calculations and maintenance plan	NO	N/A			
M	Grease trap sizing calculations	NO	N/A			
N	Homeowner Association (HOA) agreement for any private road	YES	SEE APPLICATION			
O	Summary list & copy of any required DOT/DEP/USACE permits & approvals	YES	COVER SHEET			

OWNER/APPLICANT: COASTAL OAKS LLC

PB #: 2024-32

PROJECT NAME: 512 POOL STREET - BELLE WOODS

DATE: JUNE 9 2025



	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Clearing and Grubbing	Acre	1.04	\$4,000.00	\$4,160.00
2	Erosion/Sediment Control	Lump Sum	1	\$5,000.00	\$5,000.00
3	Site Stabilization	Lump Sum	1	\$2,500.00	\$2,500.00
4	Ledge Removal	Cubic Yard	100	\$250.00	\$25,000.00
5	Sanitary Sewer				
	Manholes	Each	0	\$0.00	\$0.00
	Main	Linear Foot	0	\$0.00	\$0.00
	House Services	Linear Foot	0	\$0.00	\$0.00
6	Water Main				
	Main	Linear Foot	1254	\$180.00	\$225,720.00
	House Services	Linear Foot	328	\$180.00	\$59,040.00
	Hydrants	Each	1	\$7,500.00	\$7,500.00
7	Electric				
	Underground Utility Trench	Linear Foot	858	\$20.00	\$17,160.00
	Conduit/Wiring	Linear Foot	858	\$0.00	\$0.00
	Transformer Bases	Each	2	\$7,500.00	\$15,000.00
8	Storm Drainage				
	Pipe/Culvert	Linear Foot	363	\$120.00	\$43,560.00
	Catch Basin	Each	0	\$0.00	\$0.00
	Other Treatment Devices	Each	0	\$0.00	\$0.00
9	Stormwater Management				
	Outlet Control Structure	Each	2	\$6,000.00	\$12,000.00
	Stormwater Management Facilities	Each	2	\$10,000.00	\$20,000.00
10	Excavate and Grade Subgrade	Cubic Yard	956	\$10.00	\$9,560.00
11	Roadways				
	Subbase Gravel	Cubic Yard	1039	\$50.00	\$51,950.00
	Base/Finish Gravel	Cubic Yard	230	\$55.00	\$12,650.00
	Base Paving	Ton	218	\$40.00	\$8,720.00
	Finish Paving	Ton	136	\$45.00	\$6,120.00
	Geotextile Fabric	SY	2150	\$3.00	\$6,450.00
12	Sidewalks				
	Subbase Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base/Finish Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base Paving	Ton	0	\$0.00	\$0.00
	Finish Paving	Ton	0	\$0.00	\$0.00
13	Parking Lots/Other Areas				
	Subbase Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base/Finish Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base Paving	Ton	0	\$0.00	\$0.00
	Finish Paving	Ton	0	\$0.00	\$0.00

*CUT

	<i>ITEM</i>	<i>UNIT</i>	<i>QUANTITY</i>	<i>UNIT COST</i>	<i>TOTAL</i>
14	Curbing – Bituminous	Linear Foot	0	\$0.00	\$0.00
15	Curbing - Concrete		0	\$0.00	\$0.00
15	Curbing – Granite	Linear Foot	0	\$0.00	\$0.00
16	Pavement Striping	Linear Foot	21	\$2,500.00	\$52,500.00
17	Guardrail	Linear Foot	264	\$10.00	\$2,640.00
18	Fencing	Linear Foot	0	\$0.00	\$0.00
19	Loam and Seed	1,000 Square Feet	30.7	\$100.00	\$3,070.00
20	Riprap	Cubic Yard	23	\$100.00	\$2,300.00
21	Landscaping	Lump Sum	1	\$2,500.00	\$2,500.00
22	Street Lights	Each	3	\$1,000.00	\$3,000.00
23	Site Lighting	Each	0	\$0.00	\$0.00
24	Monuments/Iron Pipes	Lump Sum	29	\$500.00	\$14,500.00
25	Clean Up	Lump Sum	1	\$2,500.00	\$2,500.00
26	As Builts	Lump Sum	1	\$2,500.00	\$2,500.00
27	Other				\$0.00
28	Other				\$0.00
29	Other				\$0.00
30	Other				\$0.00
31	Other				\$0.00

COST ESTIMATE TOTAL:

\$617,600.00

150% of TOTAL:

\$926,400.00

FOR OFFICE USE ONLY

EROSION CONTROL/SITE STABILIZATION BOND (IF APPLICABLE):

PERFORMANCE GUARANTEE REQUIRED:

Name:

Signature:

Date:



APPENDIX A

DEED

DLN: 1002340240520

**WARRANTY DEED
(Maine Short Form)**

KNOW ALL PERSONS BY THESE PRESENTS, That I, **HARRY B. CENTER, II** of Yarmouth, County of Cumberland and State of Maine, owner of an undivided one-third interest; I, **TERESA M. BARTON** of Alameda, County of Alameda, State of California, owner of an undivided one-third interest; and we, **ANTHONY C. SERPICO** of Scarborough, County of Cumberland and State of Maine and **MARGARET T. SERPICO** formerly known as Margaret C. Serpico Pull, of 14 Goodale Avenue, Saco, County of York, State of Maine, for consideration paid, grant to **COASTAL OAKS, LLC**, a Maine Limited Liability Company with a mailing address of 198 Saco Avenue, Old Orchard Beach, Maine, with Warranty Covenants, a certain lot or parcel of land situated in the City of Biddeford, County of York and State of Maine, bounded and described as follows:

SEE EXHIBIT A ATTACHED HERETO AND INCORPORATED HEREIN.

IN WITNESS WHEREOF, Harry B. Center, II, Teresa M. Barton, Anthony C. Serpico and Margaret T. Serpico have set their hands and seals this 5th day of July, 2023.

Witness to all

Harry B. Center, II

Witness

Teresa M. Barton
by Harry B. Center, II her Attorney in Fact

Witness

Anthony C. Serpico

Witness

Margaret T. Serpico
By Anthony C. Serpico her Attorney in Fact

Maine R.E. Transfer Tax Paid

STATE OF MAINE
YORK, ss.

July 5, 2023

Then personally appeared the above named Harry B. Center, II and acknowledged the foregoing instrument to be his free act and deed.

Before me,



Notary Public/Maine Attorney at Law

Ba# 5295

Paul D. Weinstein
(Print Name)

STATE OF MAINE
COUNTY OF YORK

July 5, 2023

Then personally appeared the above named Harry B. Center, II, in his capacity as Attorney in Fact for Teresa M. Barton and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of Teresa M. Barton

Before me,



Notary Public/Maine Attorney at Law

Ba# 5295

Paul D. Weinstein
(Print Name)

STATE OF MAINE
York, ss.

July 5, 2023

Then personally appeared the above named Anthony C. Serpico, individually and in his capacity as Attorney in Fact for **Margaret T. Serpico**, and acknowledged the foregoing instrument to be his free act in deed, the free act in deed in his capacity as Attorney in Fact for Margaret T. Serpico, and the free act and deed of Margaret T. Serpico.

Before me,



Notary Public/Maine Attorney at Law

Ba# 5295

Paul D. Weinstein
(Print Name)

EXHIBIT A

A certain lot or parcel of land situated in Biddeford, bounded and described as follows:

BEGINNING at an iron pipe driven into the ground on the southwesterly side of the Pool Road as relocated by the State Highway Commission in 1957, said iron pipe being the easterly corner of land now or formerly of one Emerson;

THENCE southwesterly by said land of Emerson as follows: S 53° 55' W by the remains of a stone wall eighty-eight and 18/100 (88.18) feet to an iron pipe driven into the ground;

THENCE S 48° 40' W by said stone wall one hundred eighty and 45/100 (180.45) feet to a drill hole;

THENCE S 49° 55' W by said stone wall two hundred Fifty-two and 34/100 (252.34) feet to a drill hole;

THENCE S 51° 10' W by the remains of a stone wall four hundred thirty and 95/100 (430.95) feet to an iron pipe driven into the ground;

THENCE S 47° 10' W by said stone wall one hundred three and 8/10 (103.8) feet to a drill hole;

THENCE S 49° 15' W by said stone wall one hundred eighty-three and 3/10 (183.3) feet to a drill hole;

THENCE S 53° 05' W by said stone wall one hundred eighty-three and 11/100 (183.11) feet to a drill hole;

THENCE S 47° 35' W by said stone wall one hundred forty-eight 8/10 (148.8) feet to a drill hole;

THENCE S 48° 50' W by said stone wall one hundred seventeen and 6/10 (117.6) feet to a drill hole;

THENCE S 53° 20' W by said stone wall two hundred forty-six and 55/100 (246.55) feet to a drill hole;

THENCE S 51° 20' W by said stone wall one hundred six and 45/100 (106.45) feet to a drill hole;

THENCE S 62° 25' W by said stone wall fifty-two and 55/100 (52.55) feet to a drill hole at the corner of said stone wall and land formerly of Goldthwaite and Hill;

THENCE southeasterly by said land formerly of Goldthwaite and Hill as follows: S 44° 55' E by a row of stone heaps two hundred thirty-six and 61/100 (236.61) feet to an iron pipe in a stone heap;

THENCE S 49° 50' E sixty-eight and 47/100 (68.47) feet to a drill hole in a stone heap;

THENCE S 44° 10' E through a stone heap forty-five (45) feet to an iron pipe driven into the ground and land of owners unknown;

THENCE northeasterly by said land of owners unknown and/or partly by land formerly of Ward and partly by land formerly of Goldthwaite as follows: N 51° 25' E six hundred forty-five and 02/100 (645.02) feet to a drill hole at the end of a stone wall;

THENCE N 51° 25' E six hundred forty-five and 02/100 (645.02) feet to a drill hole at the end of a stone wall;

THENCE N 51° E ninety-one and 2/10 (91.2) feet to a point;

THENCE N 51° 35' E by said stone wall one hundred ninety-seven and 63/100 (197.63) feet to a point;

THENCE N 52° E by said stone wall two hundred one (201) feet to a point;

THENCE N 50° E by said wall and by the remains of an old fence three hundred nine and 5/10 (309.5) feet to a stone heap;

THENCE N 42° 55' E by the remains of an old fence forty-nine and 23/100 (49.23) feet to a point;

THENCE N 58° 10' E by an old wire fence six hundred one (601) feet to an iron pipe driven into the ground on the southwesterly side of the Pool Road;

THENCE N 39° 03' W by said southwesterly side of the Pool Road fifteen and 87/100 (15.87) feet to a State Highway Commission granite stone set in the ground;

THENCE N 39° 02' W and by said southwesterly side of the Pool Road four hundred twenty and 67/100 (420.67) feet to the point of beginning.

The above bearings refer to the 1962 Magnetic Meridian.

Reference for title is made to the following: 1) corrective deed from Harry B. Center, II, Personal Representative of the Estate of Joseph Carmine Serpico, to Samuel Serpico and Florence Serpico, Mary A. Barton and Paul J. Barton, and Philomene A. Center and Harry B. Center, II, dated March 15, 1999, and recorded in the York County Registry of Deeds in Book 9362, Page 182; 2) quitclaim deed from Samuel Serpico and Florence Serpico to Anthony C. Serpico and Margaret C. Serpico Pull dated September 18, 2000, and recorded in the York County Registry of Deeds in Book 10224, Page 197; 3) and quitclaim deed from Paul J. Barton to Teresa M. Barton and Paul J. Barton dated December 31, 2009, and recorded in said Registry in Book 15821, Page 456. The said Philomene A. Center died on June 7, 2012, with her interest passing to Harry B. Center, II, as surviving joint tenant, by operation of law. The said Paul J. Barton died on September 12, 2020, with his interest passing to Teresa M. Barton, as surviving joint tenant, by operation of law.



APPENDIX B

LOCATION MAP



Terrain Navigator. © Maptech 800-627-7236

SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
BIDDEFORD
@ 1:24,000



HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

**512 POOL STREET
BIDDEFORD, MAINE
LOCATION MAP**

2024.10.10
13871.019



APPENDIX C

USDA SOILS MAP



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

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

Custom Soil Resource Report for York County, Maine



Preface

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

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

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

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

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

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

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
York County, Maine.....	13
Bm—Biddeford mucky peat, 0 to 3 percent slopes.....	13
LnB—Lyman loam, 3 to 8 percent slopes, rocky.....	14
LyB—Lyman-Rock outcrop complex, 3 to 8 percent slopes.....	16
LyC—Lyman-Rock outcrop complex, 8 to 15 percent slopes.....	18
References	22

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

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

Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: York County, Maine
Survey Area Data: Version 23, Aug 26, 2024

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

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bm	Biddeford mucky peat, 0 to 3 percent slopes	0.7	6.3%
LnB	Lyman loam, 3 to 8 percent slopes, rocky	5.2	45.2%
LyB	Lyman-Rock outcrop complex, 3 to 8 percent slopes	0.0	0.0%
LyC	Lyman-Rock outcrop complex, 8 to 15 percent slopes	5.6	48.5%
Totals for Area of Interest		11.5	100.0%

Map Unit Descriptions

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

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

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

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

York County, Maine

Bm—Biddeford mucky peat, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2t0jn
Elevation: 10 to 1,200 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Biddeford and similar soils: 82 percent
Minor components: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Biddeford

Setting

Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave, linear
Parent material: Organic material over glaciomarine deposits

Typical profile

Oe - 0 to 12 inches: mucky peat
Eg - 12 to 16 inches: silt loam
Bg - 16 to 45 inches: silty clay
Cg - 45 to 65 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: High (about 11.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Ecological site: F144BY002ME - Marine Terrace Depression, F144BY304ME - Wet Clay Flat
Hydric soil rating: Yes

Minor Components

Scantic

Percent of map unit: 9 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F144BY001ME - Marine Terrace Flat
Hydric soil rating: Yes

Wonsqueak

Percent of map unit: 6 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Swanville

Percent of map unit: 2 percent
Landform: Lake plains, marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Lamoine

Percent of map unit: 1 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

LnB—Lyman loam, 3 to 8 percent slopes, rocky

Map Unit Setting

National map unit symbol: 2trq7
Elevation: 0 to 520 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 60 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Lyman, rocky, and similar soils: 86 percent

Custom Soil Resource Report

Minor components: 14 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman, Rocky

Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Tunbridge, rocky

Percent of map unit: 6 percent

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Skerry, rocky

Percent of map unit: 5 percent

Landform: Hills, mountains

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Microfeatures of landform position: Closed depressions, closed depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: No

Hermon, rocky

Percent of map unit: 2 percent

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Brayton, rocky

Percent of map unit: 1 percent

Landform: Hills, mountains

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Microfeatures of landform position: Closed depressions, closed depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

LyB—Lyman-Rock outcrop complex, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2trqh

Elevation: 0 to 560 feet

Mean annual precipitation: 36 to 65 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 60 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Lyman, very stony, and similar soils: 65 percent

Rock outcrop: 20 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman, Very Stony

Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Custom Soil Resource Report

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Igneous and metamorphic rock

Typical profile

R - 0 to 10 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Very low to very high (0.00 to 14.17 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

Minor Components

Skerry, very stony

Percent of map unit: 5 percent

Landform: Mountains, hills

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Microfeatures of landform position: Closed depressions, closed depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: No

Brayton, very stony

Percent of map unit: 4 percent

Landform: Hills, mountains

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Microfeatures of landform position: Closed depressions, closed depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Hermon, very stony

Percent of map unit: 3 percent

Landform: Mountains, hills

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Tunbridge, very stony

Percent of map unit: 3 percent

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

LyC—Lyman-Rock outcrop complex, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2trqj

Custom Soil Resource Report

Elevation: 0 to 790 feet

Mean annual precipitation: 36 to 65 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 60 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Lyman, very stony, and similar soils: 62 percent

Rock outcrop: 25 percent

Minor components: 13 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman, Very Stony

Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Ecological site: F144BY701ME - Shallow Till

Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Hills, mountains

Custom Soil Resource Report

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Igneous and metamorphic rock

Typical profile

R - 0 to 10 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Very low to very high (0.00 to 14.17 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Ecological site: F144BY801ME - Rockland (reserved)

Hydric soil rating: Unranked

Minor Components

Skerry, very stony

Percent of map unit: 4 percent

Landform: Hills, mountains

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Microfeatures of landform position: Closed depressions, closed depressions, open depressions, open depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: No

Hermon, very stony

Percent of map unit: 4 percent

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Tunbridge, very stony

Percent of map unit: 3 percent

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Brayton, very stony

Percent of map unit: 2 percent

Custom Soil Resource Report

Landform: Hills, mountains

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Microfeatures of landform position: Closed depressions, closed depressions, open depressions, open depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

**ASSOCIATED SOILS SURVEY MAP IS
INCLUDED IN DRAWING SET**

Legend for Soil Maps

1. Drainage Class

Excessively Well Drained	EWD
Well Drained	WD
Moderately Well Drained	MWD
Somewhat Poorly Drained	SPD
Poorly Drained	PD
Very Poorly Drained	VPD

2. Slope Designation

0-3%	A
3-8%	B
8-15%	C
15-25%	D
>25%	E

3. Note: High Intensity Soil Survey has been prepared by Mark Hampton Associates, Inc. in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, and the Maine Board of Certification of Geologists and Soil Scientists.



MARK HAMPTON ASSOCIATES, INC.

LAND SURVEYING • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

7553

512 Pool Street
Biddeford, ME
Haley Ward

Soil Narrative Report

DATE: Soil Profiles observed on October 15, 2024

BASE MAP: Base plan prepared by Haley Ward.
Scale 1-inch equals 40 feet and one foot contours.

GROUND CONTROL: Soil survey boundaries located by Mark Hampton Associates, Inc. for Class A Soil Survey

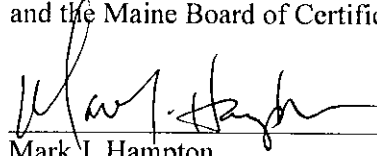
Class A-High Intensity Soil Survey (Minimum Standards)

Mapping units of 1/8 acre or larger.
Scale of 1" = 100 feet or larger.
Up to 25% inclusions in mapping units of which no more than 15% may be dissimilar soils.
Ground Control – test pits located under direction of professional land surveyor or professional engineer.
Base Map – 2-foot contour intervals

Provided:

Mapping units of 1/8 acre or larger
Base map scale of 1" = 40 feet.
Up to 25 percent inclusions in mapping units of which no more than 15 percent is dissimilar soils.
Baseline information and test pits located by pacing and taping from known survey control points.
Ground topographic survey with one-foot contours and ground control provided.

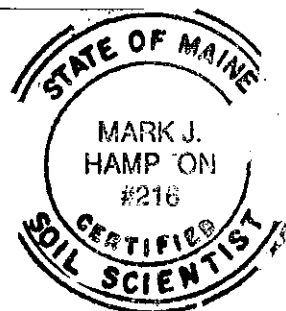
The accompanying soil profile descriptions, soil map, and this soil narrative report were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, and the Maine Board of Certification of Geologists and Soil Scientists.


Mark J. Hampton

C.S.S. 216, L.S.E. #263

10/15/25

Date





MARK HAMPTON ASSOCIATES, INC.

FIELD EVALUATION • AET, AND Delineations • SOIL SURVEYS • AET AND PERMITTING

7553

512 Pool Street
Biddeford, ME
Haley Ward

LYMAN-TUNBRIDGE COMPLEX

SETTING

PARENT MATERIAL: Loamy glacial till
LANDFORM: Glaciated uplands
POSITION IN LANDSCAPE: Uppermost locations, sideslopes, shoulders and crests
SLOPE GRADIENT RANGES: (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Excessively well drained Lyman (10-20 inches to bedrock) and Tunbridge (20-40 inches to bedrock)
These soils occur in a nonrepeating pattern with exposed bedrock outcrops and cannot be separated.

TYPICAL PROFILE:

<u>Surface Layer:</u>	Reddish brown fine sandy loam, 0-4 inches
<u>Subsurface Layer:</u>	Red brown fine sandy loam 4-12"
<u>Subsoil Layer:</u>	Dark red fine sandy loam 12-18"
<u>Substratum:</u>	Brown fine sandy loam 18-36"

HYDROLOGIC GROUP: Group C/D
PERMEABILITY: Slow to rapid, depending on slope and bedrock outcrops.
DEPTH TO BEDROCK: Shallow (Lyman 10-20 inches) to moderately deep (Tunbridge 20-40 inches).
HAZARD TO FLOODING: None

INCLUSIONS (Within Mapping Unit)

CONTRASTING: Brayton



USE AND MANAGEMENT

Development: The limiting factor for building site development is depth to bedrock which ranges from 0 to 40 inches within this complex. Tunbridge and Lyman (deeper than 11 inches) soils may be suitable for subsurface wastewater disposal.



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • DETAILING OF ELEVATIONS • SOIL SURVEYS • WETLAND PERMITTING

7553

512 Pool Street
Biddeford, ME
Haley Ward

Brayton
(Aeric Epiaquepts)

SETTING

PARENT MATERIAL:	Derived from dense glacial till
LANDFORM:	Toeslopes and depressions in glaciated uplands
POSITION IN LANDSCAPE:	Lower positions on landform
SLOPE GRADIENT RANGES:	(A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

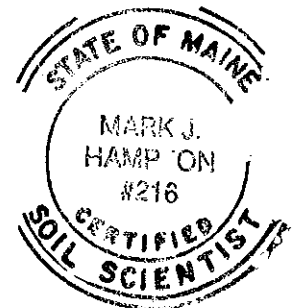
DRAINAGE CLASS:	Poorly drained with a perched watertable from 0.0 to 1.0 feet below the surface at some time from October to May or during periods of heavy precipitation.
TYPICAL PROFILE:	<u>Surface Layer:</u> Dk gray, fine sandy loam 0-5", <u>Subsurface Layer:</u> Gray fine sandy loam, 5-15", <u>Subsoil Layer:</u> Grayish brown fine sandy loam, 15-24" <u>Substratum:</u> Olive fine sandy loam, 24-65",
HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Moderate and moderately slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS
(Within Mapping Unit)

CONTRASTING: Lyman-Tunbridge

USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of an extremely high watertable for a portion of the year. This soil is not suitable for development without alteration, which may require additional permitting.



SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION
OF SOIL CONDITIONS AT PROJECT SITESProject Name:
512 Pool StreetApplicant Name:
Coastal Oaks LLCProject Location (municipality):
Biddeford

7553

Exploration Symbol # SS-1 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox	
0	O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable	
10	Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	None Noted
20	R		LEDGE			
30						
40						
50						
60						

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 10 ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Depth _____
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 12 Percent Hydric Soil ☒ No ☐ Yes Hydrologic Soil Group _____

Exploration Symbol # SS-2 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox	
0	O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable	
10	Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable	None Noted
20	R		LEDGE			
30						
40						
50						
60						

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 15 ☒ Groundwater ☐ Restrictive Layer ☐ Bedrock
 Depth _____
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 2 Percent Hydric Soil ☒ No ☐ Yes Hydrologic Soil Group _____

Exploration Symbol # SS-3 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox	
0	O/E	Dark Brown	F. Sandy Loam	Fine Grandul	Friable	None Noted
10	Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable	None Noted
20	R		LEDGE			
30						
40						
50						
60						

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 9 ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Depth _____
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 10 Percent Hydric Soil ☒ No ☐ Yes Hydrologic Soil Group _____

Exploration Symbol # SS-4 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☐ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox	
0	O/E	Dark Brown	Sandy Loam	Grand	Friable	
10	Bhs	Brown	Sandy Loam	Fine Grandul	Friable	None Noted
20	R		LEDGE			
30						
40						
50						
60						

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 14 ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Depth _____
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 2 Percent Hydric Soil ☒ No ☐ Yes Hydrologic Soil Group _____

SOIL SCIENTIST INFORMATION AND SIGNATURE

Mark J. Hampton
 Signature
 Mark J. Hampton
 Name Printed

10/15/2025

Date

216

SS License No.



SOIL PROFILE / CLASSIFICATION INFORMATION**SOIL SCIENTIST DESCRIPTION
OF SOIL CONDITIONS AT PROJECT SITES**Project Name:
512 Pool StreetApplicant Name:
Coastal Oaks LLCProject Location (municipality):
Biddeford

Exploration Symbol # SS-5 ☐ Test Pit ☒ Boring ☐ Probe
 ____ " Organic horizon thickness Ground surface elev. ____
 ____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/E	Dark Brown	F. Sandy Loam	Grand	Very Friable
10	Bhs	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable
20	R		LEDGE		
30					
40					
50					
60					

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 15 ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Depth ____
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 4 ☒ No ☐ Yes Hydric Soil Hydrologic Soil Group

Exploration Symbol # SS-6 ☐ Test Pit ☒ Boring ☐ Probe
 ____ " Organic horizon thickness Ground surface elev. ____
 ____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable
10	Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable
20	R		LEDGE		
30					
40					
50					
60					

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 14 ☒ Groundwater ☐ Restrictive Layer ☐ Bedrock
 Depth ____
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 6 ☒ No ☐ Yes Hydric Soil Hydrologic Soil Group

Exploration Symbol # SS-7 ☐ Test Pit ☒ Boring ☐ Probe
 ____ " Organic horizon thickness Ground surface elev. ____
 ____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/A	Black	F. Sandy Loam	Fine Grandul	Friable
10	Eg	Gray	Sandy Loam	Weak Sub Ang Blocky	Friable
20	Bg	Gray Brown	Sandy Loam	Fine Sub Ang Blocky	Friable
30	Cd	Olive	Sandy Loam	Massive	Firm
40					
50					
60					

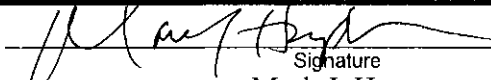
Soil Series/Phase Name: Brayton Limiting Factor 6 ☒ Groundwater ☐ Restrictive Layer ☐ Bedrock
 Depth ____
 Drainage Class ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD Slope 0 ☒ No ☐ Yes Hydric Soil Hydrologic Soil Group

Exploration Symbol # SS-8 ☐ Test Pit ☒ Boring ☐ Probe
 ____ " Organic horizon thickness Ground surface elev. ____
 ____ " Depth: ☐ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/E	Dark Brown	Sandy Loam	Grand	Friable
10	Bg	Brown	Sandy Loam	Fine Grandul	Friable
20	R		LEDGE		
30					
40					
50					
60					

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 14 ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Depth ____
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 2 ☒ No ☐ Yes Hydric Soil Hydrologic Soil Group

SOIL SCIENTIST INFORMATION AND SIGNATURE

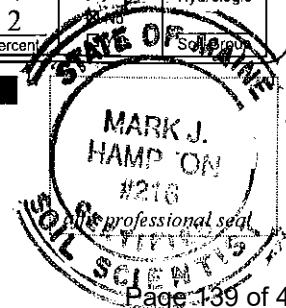

 Signature
 Mark J. Hampton
 Name Printed

10/15/2025

Date

216

SS License No.



SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:
512 Pool Street

Applicant Name:
Coastal Oaks LLC

Project Location (municipality):
Biddeford

Exploration Symbol # SS-9 ☐ Test Pit ☒ Boring ☐ Probe
 ____ " Organic horizon thickness Ground surface elev. ____
 ____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/A	Black	F. Sandy Loam	Grand	Very Friable
10	Bhs	Gray	Sandy Loam	Weak Sub Ang Blocky	Common and Distinct
20	Bg	Gray Brown	Sandy Loam	Sub Ang Blocky	Friable
30	Cd	Olive	Sandy Loam	Massive	Firm
40					
50					
60					

Soil Series/Phase Name: Brayton Limiting Factor 6 " ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock
 Depth
 Drainage Class ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD Slope 0 Percent Hydric Soil ☐ No ☒ Yes Hydrologic Soil Group

Exploration Symbol # SS-10 ☐ Test Pit ☒ Boring ☐ Probe
 ____ " Organic horizon thickness Ground surface elev. ____
 ____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable
10	Bhs	Brown	Sandy Loam	Sub Ang Blocky	None Noted
20	R		LEDGE		
30					
40					
50					
60					

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 10 " ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Depth
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 12 Percent Hydric Soil ☒ No ☐ Yes Hydrologic Soil Group

Exploration Symbol # SS-11 ☐ Test Pit ☒ Boring ☐ Probe
 ____ " Organic horizon thickness Ground surface elev. ____
 ____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/A	Dark Brown	F. Sandy Loam	Fine Grandul	Friable
10	Bg	Brown	Sandy Loam	Weak Sub Ang Blocky	None Noted
20	R		LEDGE		
30					
40					
50					
60					

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 16 " ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Depth
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 2 Percent Hydric Soil ☒ No ☐ Yes Hydrologic Soil Group

Exploration Symbol # SS-12 ☐ Test Pit ☒ Boring ☐ Probe
 ____ " Organic horizon thickness Ground surface elev. ____
 ____ " Depth: ☐ of exploration, or ☐ to refusal

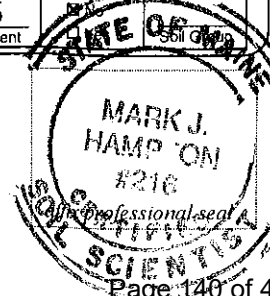
Horizon	Color	Texture	Structure	Consistence	Redox
0	O/E	Dark Brown	Sandy Loam	Grand	Friable
10	Bhs	Brown	Sandy Loam	Fine Grandul	None Noted
20	R		LEDGE		
30					
40					
50					
60					

Soil Series/Phase Name: Lyman-Tunbridge Limiting Factor 12 " ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Depth
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 6 Percent Hydric Soil ☒ No ☐ Yes Hydrologic Soil Group

SOIL SCIENTIST INFORMATION AND SIGNATURE

Mark J. Hampton
 Signature
 Mark J. Hampton
 Name Printed

10/15/2025
 Date
216
 SS License No.



SOIL PROFILE / CLASSIFICATION INFORMATION**SOIL SCIENTIST DESCRIPTION
OF SOIL CONDITIONS AT PROJECT SITES**Project Name:
512 Pool StreetApplicant Name:
Coastal Oaks LLCProject Location (municipality):
Biddeford

Exploration Symbol # SS-13 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/A	Black	F. Sandy Loam	Grand	Very Friable
10	Bhs	Gray	Sandy Loam	Weak Sub Ang Blocky	Friable
20	Bg	Gray Brown	Sandy Loam	Sub Ang Blocky	Friable
30	Cd	Olive	Sandy Loam	Massive	Firm
40					
50					
60					

Soil Series/Phase Name: **Brayton** Limiting Factor ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock
 Drainage Class ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD Slope 0 Percent Hydric Soil ☐ No ☒ Yes Hydrologic Soil Group

Exploration Symbol # SS-14 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/E	Dark Brown	Sandy Loam	Weak Angular	Very Friable
10	Bhs	Brown	Sandy Loam	Sub Ang Blocky	Friable
20	R		LEDGE		
30					
40					
50					
60					

Soil Series/Phase Name: **Lyman-Tunbridge** Limiting Factor ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 10 Percent Hydric Soil ☒ No ☐ Yes Hydrologic Soil Group

Exploration Symbol # SS-15 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/A	Dark Brown	F. Sandy Loam	Fine Grandul	Friable
10	Bg	Brown	Sandy Loam	Weak Sub Ang Blocky	Friable
20	R		LEDGE		
30					
40					
50					
60					

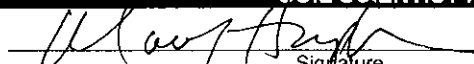
Soil Series/Phase Name: **Lyman-Tunbridge** Limiting Factor ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 2 Percent Hydric Soil ☐ No ☒ Yes Hydrologic Soil Group

Exploration Symbol # SS-16 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☐ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/E	Dark Brown	Sandy Loam	Grand	Friable
10	Bhs	Brown	Sandy Loam	Fine Grandul	Friable
20	R		LEDGE		
30					
40					
50					
60					

Soil Series/Phase Name: **Lyman-Tunbridge** Limiting Factor ☐ Groundwater ☐ Restrictive Layer ☒ Bedrock
 Drainage Class ☐ ED ☐ SED ☒ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope 6 Percent Hydric Soil ☐ No ☒ Yes Hydrologic Soil Group

SOIL SCIENTIST INFORMATION AND SIGNATURE

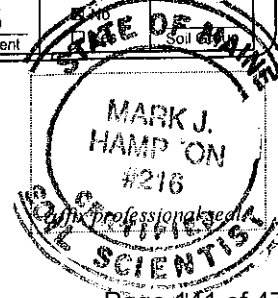

 Signature
Mark J. Hampton
 Name Printed

10/15/2025

Date

216

SS License No.



SOIL PROFILE / CLASSIFICATION INFORMATION

SOIL SCIENTIST DESCRIPTION OF SOIL CONDITIONS AT PROJECT SITES

Project Name:
512 Pool Street

Applicant Name:
Coastal Oaks LLC

Project Location (municipality):
Biddeford

Exploration Symbol # SS-17 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/A	Black	Sandy Loam	Grand	Very Friable
10	Eg	Gray	Sandy Loam	Weak Sub Ang Blocky	Common and Distinct
20	Bg	Gray Brown	Sandy Loam	Sub Ang Blocky	Friable
30	Cd	Olive	Sandy Loam	Massive	Firm
40					
50					
60					

Soil Series/Phase Name: Brayton Limiting Factor 6 ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock
 Depth _____
 Drainage Class ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD Slope 0 Percent ☐ No ☒ Yes Hydric Soil Hydrologic Soil Group

Exploration Symbol # SS-18 ☐ Test Pit ☒ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☒ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0	O/A	Black	Sandy Loam	Weak Angular	Very Friable
10	Eg	Gray	Sandy Loam	Sub Ang Blocky	Common and Distinct
20	Bg	Gray Brown	Sandy Loam	Sub Ang Blocky	Friable
30	Cd	Olive	Sandy Loam	Massive	Firm
40					
50					
60					

Soil Series/Phase Name: Brayton Limiting Factor 6 ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock
 Depth _____
 Drainage Class ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☒ PD ☐ VPD Slope 2 Percent ☐ No ☒ Yes Hydric Soil Hydrologic Soil Group

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☐ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0					
10					
20					
30					
40					
50					
60					

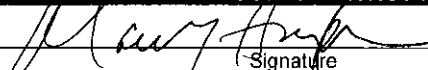
Soil Series/Phase Name: _____ Limiting Factor _____ ☐ Groundwater ☐ Restrictive Layer ☐ Bedrock
 Depth _____
 Drainage Class ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope _____ Percent ☐ No ☐ Yes Hydric Soil Hydrologic Soil Group

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth: ☐ of exploration, or ☐ to refusal

Horizon	Color	Texture	Structure	Consistence	Redox
0					
10					
20					
30					
40					
50					
60					

Soil Series/Phase Name: _____ Limiting Factor _____ ☐ Groundwater ☐ Restrictive Layer ☐ Bedrock
 Depth _____
 Drainage Class ☐ ED ☐ SED ☐ WD ☐ MWD ☐ SPD ☐ PD ☐ VPD Slope _____ Percent ☐ No ☐ Yes Hydric Soil Hydrologic Soil Group

SOIL SCIENTIST INFORMATION AND SIGNATURE


 Signature
 Mark J. Hampton
 Name Printed

10/15/2025
 Date

216
 SS License No.





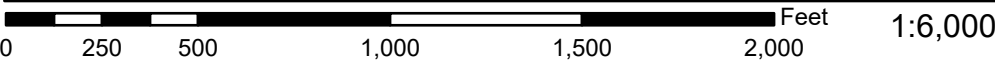
APPENDIX D

FEMA FLOOD HAZARD MAP

National Flood Hazard Layer FIRMMette



70°24'29"W 43°28'6"N



Basemap Imagery Source: USGS National Map 2023

70°23'52"W 43°27'40"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **10/10/2024 at 9:23 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



APPENDIX E

NATURAL RESOURCES REPORT



To: Josh Eon, PLS (ME)
Colliers Engineering & Design
41 Church Street
Brunswick, Maine 04011

Date: May 16, 2023

From: Alexander A. Finamore, CWS,
LSE
Mainely Soils, LLC

Re: Vernal Pool Survey
512 Pool Street – Biddeford, Maine

Project Description

At the request of Colliers Engineering & Design (the “Client”), Mainely Soils conducted on-site a vernal pool survey at an approximately 18.5 acre parcel located at 512 Pool Street in Biddeford, Maine. Mainely Soils conducted these field investigations to provide baseline environmental data to inform the proposed use of the site. The natural resources assessments described in this report were completed on April 17 and 30 of 2023. In addition to describing the identified resources this report describes the existing conditions within the study area, and the methodologies employed for the assessments.

The project site is located within a zone of residential development along the Pool Street corridor in the Town of Biddeford. The proposed site consists of 18.5 acres of vacant forested land. Surrounding land use of the site is residential. The parcel is identified by the Town of Biddeford as Tax Map 9, Lot 31. The proposed use of the site is a residential subdivision. Wetlands were previously delineated by Mainely Soils in January of 2023.

Study Methodology

Vernal pools are small (usually less than one acre), seasonal wetlands that lack perennial inlet or outlet streams and have no permanent fish populations (Calhoun and deMaynadier 2004). Vernal pools are valuable wetland wildlife habitat because of their potentially high biological productivity and use as breeding habitat by specialized animal communities. The characteristics of vernal pools including size, duration of flooding, substrate type and vegetative community are directly affected by a variety of factors such as landscape setting, surficial geology, soil type, and surrounding vegetation (Maine Audubon Society 1999).

Chapter 335 of DEP Rules – Significant Wildlife Habitat defines a vernal pool as follows:

“A vernal pool, also referred to as a seasonal forest pool, is a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus* sp.), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition.”

“Optimal times for counting egg masses of pool-breeding amphibians vary according to geographic location and weather. For instance, during cold springs, breeding can begin as much as 2 weeks later than it does in warm, wet springs. The optimal time to count masses is just past the peak breeding period. For wood frogs, this occurs approximately 2 weeks after they start full choruses. Wood frog egg masses hatch very quickly and are difficult to count much past peak breeding. Salamanders have a more extended breeding period and their eggs do not hatch as quickly as those of wood frogs. Therefore, surveys to count salamander egg masses should be conducted slightly later in the breeding season, generally 2–3 weeks following wood frog egg mass counts. The following are rough guidelines for optimal times for counting egg masses:”

Geographic Region	Wood Frogs	Spotted & Blue Spotted Salamanders
Northern Maine	May 5- May 20	June 5
Central Maine	April 5 – May 10	May 5 – May 25
Southern Maine	April 10 – April 25	April 20 – May 10

Vernal pool surveys were conducted at the subject site on April 17th and 30th of 2023. Mainely Soils identified pooled areas containing water and exhibiting other physical characteristics typically associated with vernal pools. Specifically, Mainely Soils evaluated the contour of the pool bottom and sides, the current depth of water in the pool, the substrate of the pool bottom, and the presence of an inlet or outlet in the form of a perennial stream. When a vernal pool depression is found, a standard field survey data form was completed to document the location and general surroundings and the pool was photographed. In addition, survey points were taken using a global positioning system (GPS) unit (Trimble GeoXT) to delineate the pool boundary.

Mainely Soils relied on two primary criteria: (1) direct evidence of amphibian breeding activity; and (2) evidence of seasonal flooding and drying within a topographic depression not connected to a river, stream or brook. Direct evidence of amphibian breeding activity included the observation of breeding adults, egg masses, and larvae of the following amphibian species: wood frog, spotted salamander, blue-spotted salamander, and four-toed salamander. Other evidence of vernal pool habitat may include the presence of fairy shrimp in the water column. Evidence of seasonal flooding and drying included the observation of water marks on trees, shrubs and boulders, water stained leaves with silt deposits, and buttressed tree trunks and exposed roots.

Confirmation of amphibian breeding included the presence of individual adults in the pool taking part in courtship activities, egg masses, wood frog tadpoles, or Ambystomid salamander larvae. Once it would be determined that an area was functioning as a vernal pool, further assessment was conducted to determine if it was significant (per state regulations). Criteria for identifying an SVP include:

- Species abundance (number of egg masses);
- Blue spotted salamanders – Presence of 10 or more egg masses
- Spotted salamanders – Presence of 20 or more egg masses
- Wood frogs – Presence of 40 or more egg masses
- Presence of fairy shrimp (presence in any life stage); or
- Use of the pool by one or more state-listed endangered or threatened species that commonly require a vernal pool to complete a critical life stage.

If any one of these criteria were met, the pool was considered significant.

Overall, vernal pools were classified into one of four categories: (1) MDEP SVPs, as discussed above; (2) U.S. Army Corps of Engineers (ACOE) significant (manmade) vernal pools, including man made or other manipulated features that met the state criteria for amphibian egg mass counts; (3) ACOE non-significant (natural or manmade) vernal pools, including both natural and manmade features that did not meet the state criteria for amphibian egg mass counts; and (4) non-jurisdictional features which includes all other areas where amphibian breeding was documented but did not meet the state criteria for egg mass counts or the state and federal definitions of a vernal pool.

Two features within the study area contained evidence of vernal pool indicator species. Some other areas of standing water were observed within the wetland areas present, but did not contain vernal pool indicator species.

Study Results

Overall, vernal pools are classified into one of four categories: (1) MDEP SVPs, as discussed above; (2) U.S. Army Corps of Engineers (ACOE) significant (manmade) vernal pools, including man-made or other manipulated features that met the state criteria for amphibian egg mass counts; (3) ACOE non-significant (natural or manmade) vernal pools, including both natural and manmade features that did not meet the state criteria for amphibian egg mass counts; and (4) non-jurisdictional features which includes all other areas where amphibian breeding was documented but did not meet the state criteria for egg mass counts or the state and federal definitions of a vernal pool.

Two features have been identified within the study area (See Attachment 2 – Maine State Vernal Pool Assessment Form) . Vernal Pools one and two were located within a long narrow depression within a narrow wetland complex. The pools were approximately 1–4 feet deep and 30 to 40 feet wide. There was a presence of wood frog and spotted salamander egg masses, although it did not contain the abundance of egg masses to meet the threshold to be considered significant by the MDEP; and therefore not considered significant. Therefore, Vernal Pools one and two found onsite would be considered an ACOE non-significant vernal pools. See attached photo log (Attachment 1) for representative views of the pool and vernal pool indicator species onsite.

Summary

The information contained in this memorandum was collected in order to provide detailed, on-site information regarding vernal pool resources. This information is intended to be used for project planning purposes and to support permitting needs. Two vernal pools were identified onsite and were characterized as an ACOE non-significant vernal pool. Please feel free to reach out to Mainely Soils for any questions regarding the information presented above.

References:

Calhoun, A.J.K., and P.G. deMaynadier. 2004. Forestry habitat management guidelines for vernal pool wildlife. MCA Technical Paper No. 6, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York.

Attachments:

Attachment 1 – Photo Log

Attachment 2 – Maine State Vernal Pool Assessment Forms

512 Pool Street – Biddeford, Maine – Vernal Pool Memorandum
Page 4 of 5
May 16 2023

Attachment 1 Representative Site Photographs

512 Pool Street – Biddeford, Maine – Vernal Pool Memorandum
Page 5 of 5
May 16 2023

Attachment 2

Maine State Vernal Pool Assessment Forms

Natural Resource Photographs – 1/19/2023
512 Pool Street, Biddeford, Maine



Photo 1: View looking southerly at Wetland 1 from flag 1



Photo 2: View looking southerly at Wetland 1 and PVP 1 from flag 22

Natural Resource Photographs – 1/19/2023
512 Pool Street, Biddeford, Maine



Photo 3: View looking southerly at Wetland 2 from flag 1



Photo 4: View looking westerly at Wetland C from flag 1

Natural Resource Photographs – 1/19/2023
512 Pool Street, Biddeford, Maine



Photo 5: View looking westerly at Wetland D from flag 11



Photo 6: View looking westerly at Wetland E from flag 1

Vernal Pool Photographs – 4/17/2023 & 4/30/2023
512 Pool Street – Biddeford, Maine



Photo 1: View looking southwest at Vernal Pool 1



Photo 2: View looking northeast at Vernal Pool 1

Vernal Pool Photographs – 4/17/2023 & 4/30/2023
512 Pool Street – Biddeford, Maine



Photo 3: Spotted salamander egg mass within Vernal Pool 1



Photo 4: Hatching wood frog egg mass in Vernal Pool 1

Vernal Pool Photographs – 4/17/2023 & 4/30/2023
512 Pool Street – Biddeford, Maine



Photo 5: View looking southwest at Vernal Pool 2



Photo 6: View looking northeast at Vernal Pool 2



Photo 6: Spotted salamander egg mass in Vernal Pool 2



Maine State Vernal Pool Assessment Form



INSTRUCTIONS:

- Complete all 3 pages of form thoroughly. Most fields are required for pool registration.
- Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.

Observer's Pool ID:

MDIFW Pool ID:

1. PRIMARY OBSERVER INFORMATION

a. Observer name:

b. Contact and credentials previously provided? ☐ No (submit Addendum 1) ☒ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ☒ same as observer ☐ other

b. Contact and credentials previously provided? ☐ No (submit Addendum 1) ☒ Yes

c. Project Name:

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ☐ Yes ☒ No If no, was landowner permission obtained for survey? ☒ Yes ☐ No

b. Landowner's contact information (required)

Name:

Phone:

Street Address:

City:

State:

Zip:

c. ☐ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township:

Brief site directions to the pool (using mapped landmarks):

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting:

Latitude/Northing:

Coordinate system:

Check one: ☐ GIS shapefile

- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

☒ The pool perimeter is delineated by multiple GPS points. (Excellent)

- Include map or spreadsheet with coordinates.

☐ The above GPS point is at the center of the pool. (Good)

☐ The center of the pool is approximately m ☐ ft ☐ in the compass direction of degrees from the above GPS point. (Acceptable)



Maine State Vernal Pool Assessment Form



5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ☐ Isolated depression
 ☒ Pool associated with larger wetland complex
☐ Floodplain depression
 ☐ Other: _____

■ Check all wetland types that best apply to this pool:

- | | | | |
|---|---|--|--|
| ☐ Forested swamp | ☐ Wet meadow | ☐ Slow stream | ☒ Dug pond or borrow pit |
| ☒ Shrub swamp | ☐ Lake or pond cove | ☐ Floodplain | |
| ☐ Peatland (fen or bog) | ☐ Abandoned beaver flowage | ☐ Mostly unvegetated pool | ☐ Roadside ditch |
| ☐ Emergent marsh | ☐ Active beaver flowage | ☐ ATV or skidder rut | ☐ Other: _____ |

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ☒ Natural ☐ Natural-Modified ☐ Unnatural ☐ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ☐ Permanent
 ☒ Semi-permanent (drying partially in all years and completely in drought years)
 ☐ Ephemeral (drying out completely in most years)
 ☐ Unknown

Explain:

Deep sphagnum moss without leaf litter in deepest portions of the wetland

■ Maximum depth at survey: ☐ 0-12" (0-1 ft.) ☒ 12-36" (1-3 ft.) ☐ 36-60" (3-5 ft.) ☐ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 40 ☐ m ☒ ft Length: 250 ☐ m ☒ ft

■ Predominate substrate in order of increasing hydroperiod:

- ☐ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
 ☒ Organic matter (peat/muck) shallow or restricted to deepest portion
☐ Mineral soil (sphagnum moss present)
 ☐ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- | | |
|--|---|
| ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.) | ☒ Wet site ferns (e.g. royal fern, marsh fern) |
| ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern) | ☒ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly) |
| ☒ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern) | ☒ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes) |
| ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle) | ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead) |
| ☒ Sphagnum moss (anchored or suspended) | ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort) |
| | ☐ No vegetation in pool |

■ Faunal indicators (check all that apply):

- ☐ Fish
 ☐ Bullfrog or Green Frog tadpoles
 ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ☒ No inlet or outlet
 ☐ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
☐ Intermittent inlet or outlet
 ☐ Other or Unknown (explain): _____



Maine State Vernal Pool Assessment Form



6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 4/17/2020, 4/30/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ☐ Yes ☒ No
- Was the entire pool surveyed for egg masses? ☒ Yes ☐ No; what % of entire pool surveyed?
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae ⁴					
	Visit #1	Visit #2	Visit #3	Confidence Level ¹			Egg Mass Maturity ²			Observed			Confidence Level ¹		
Wood Frog	22	18		3	3		A	H		200			3		
Spotted Salamander	3	12		3	3		F	M							
Blue-spotted Salamander	0	0		3	3										
Fairy Shrimp ³	0	0		3	3										

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☒ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Pool associated with narrow wetland complex in depression between bedrock outcrop and old road bed

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only

Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ Significant ☐ Potentially Significant but lacking critical data ☐ Not Significant due to: ☐ does not meet biological criteria. ☐ does not meet MDEP vernal pool criteria.

Comments:



Maine State Vernal Pool Assessment Form



INSTRUCTIONS:

- Complete all 3 pages of form thoroughly. Most fields are required for pool registration.
- Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.

Observer's Pool ID: VP-2

MDIFW Pool ID: _____

1. PRIMARY OBSERVER INFORMATION

- a. Observer name: Alexander Finamore
- b. Contact and credentials previously provided? ☐ No (submit Addendum 1) ☒ Yes

2. PROJECT CONTACT INFORMATION

- a. Contact name: ☒ same as observer ☐ other _____
- b. Contact and credentials previously provided? ☐ No (submit Addendum 1) ☒ Yes
- c. Project Name: Biddeford Pool Lot

3. LANDOWNER CONTACT INFORMATION

- a. Are you the landowner? ☐ Yes ☒ No If no, was landowner permission obtained for survey? ☒ Yes ☐ No
- b. Landowner's contact information (required)
- Name: SERPICO, ANTHONY & MARGARET &, BART Phone: _____
- Street Address: 16 Goodale Avenue City: Saco State: ME Zip: 04072
- c. ☐ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

- a. Location Township: Biddeford

Brief site directions to the pool (using mapped landmarks):

Head southeast on Pool Street from downtown Biddford. Site is on the right before Angel Lane private drive.

b. Mapping Requirements

- i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -70 24'15.74" Latitude/Northing: 43 27'48.94"

Coordinate system: NAD83

- Check one: ☐ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)
 - ☒ The pool perimeter is delineated by multiple GPS points. (Excellent)
 - Include map or spreadsheet with coordinates.
 - ☐ The above GPS point is at the center of the pool. (Good)
 - ☐ The center of the pool is approximately _____ m ☐ ft ☐ in the compass direction of _____ degrees from the above GPS point. (Acceptable)



Maine State Vernal Pool Assessment Form



5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ☐ Isolated depression
 ☒ Pool associated with larger wetland complex
☐ Floodplain depression
 ☐ Other: _____

■ Check all wetland types that best apply to this pool:

- | | | | |
|--|---|--|---|
| ☒ Forested swamp | ☐ Wet meadow | ☐ Slow stream | ☐ Dug pond or borrow pit |
| ☒ Shrub swamp | ☐ Lake or pond cove | ☐ Floodplain | |
| ☐ Peatland (fen or bog) | ☐ Abandoned beaver flowage | ☐ Mostly unvegetated pool | ☐ Roadside ditch |
| ☐ Emergent marsh | ☐ Active beaver flowage | ☐ ATV or skidder rut | ☐ Other: _____ |

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ☒ Natural ☐ Natural-Modified ☐ Unnatural ☐ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ☐ Permanent
 ☐ Semi-permanent (drying partially in all years and completely in drought years)
 ☒ Ephemeral (drying out completely in most years)
 ☐ Unknown

Explain:

Deep sphagnum moss with leaf litter in deepest portions of the wetland

■ Maximum depth at survey: ☐ 0-12" (0-1 ft.) ☒ 12-36" (1-3 ft.) ☐ 36-60" (3-5 ft.) ☐ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 35 ☐ m ☒ ft Length: 150 ☐ m ☒ ft

■ Predominate substrate in order of increasing hydroperiod:

- | | |
|---|---|
| ☐ Mineral soil (bare, leaf-litter bottom, or upland mosses present) | ☐ Organic matter (peat/muck) shallow or restricted to deepest portion |
| ☒ Mineral soil (sphagnum moss present) | ☐ Organic matter (peat/muck) deep and widespread |

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- | | |
|--|---|
| ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.) | ☒ Wet site ferns (e.g. royal fern, marsh fern) |
| ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern) | ☒ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly) |
| ☒ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern) | ☒ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes) |
| ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle) | ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead) |
| ☒ Sphagnum moss (anchored or suspended) | ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort) |
| | ☐ No vegetation in pool |

■ Faunal indicators (check all that apply):

- ☐ Fish
 ☐ Bullfrog or Green Frog tadpoles
 ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ☒ No inlet or outlet
 ☐ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
☐ Intermittent inlet or outlet
 ☐ Other or Unknown (explain): _____



Maine State Vernal Pool Assessment Form



6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 4/17/2020, 4/30/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ☐ Yes ☒ No
- Was the entire pool surveyed for egg masses? ☒ Yes ☐ No; what % of entire pool surveyed?
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)						Tadpoles/Larvae ⁴					
	Visit #1	Visit #2	Visit #3	Confidence Level ¹		Egg Mass Maturity ²		Observed		Confidence Level ¹		
Wood Frog	0	0		3	3							
Spotted Salamander	5	5		3	3	F	M					
Blue-spotted Salamander	0	0		3	3							
Fairy Shrimp ³	0	0		3	3							

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☒ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Pool associated with narrow wetland complex in depression between bedrock outcrop and old road bed

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only

Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ Significant ☐ Potentially Significant but lacking critical data ☐ Not Significant due to: ☐ does not meet biological criteria. ☐ does not meet MDEP vernal pool criteria.

Comments:

Drew Olehowski

From: Drew Olehowski
Sent: Wednesday, May 28, 2025 9:00 AM
To: 'VernalPool.MDIFW@maine.gov'
Cc: 'Ethan Scott'; KING WEINSTEIN
Subject: 512 Pool Street, Biddeford, Maine
Attachments: svpa_form vp1.pdf; svpa_form vp2.pdf; Photo Log (2).pdf; Vernal pool memo (2).pdf; Photo Log.docx (1).pdf; Wetland Memo (1).pdf

Good morning,

Please see attached materials for the vernal pool survey performed at 512 Pool Street in Biddeford, Maine. Apologies if these materials had been sent to you previously; this parcel has changed hands a few times so it is unclear where things were left off.

Please let me know if you have any questions.

Thank you,



Drew Olehowski, PE
Project Manager
t: 207.283.9151 d: 207.404.5893 m: 207.576.6488
a: 120 Main Street, Suite 132, Saco, ME 04072



2024 Best Places
To Work For
Zweig Group Award



This e-mail may be confidential and is intended solely for the use of the individual to whom it is addressed. Any views or opinions expressed are solely those of the author and do not necessarily represent those of Haley Ward, Inc. If you are not the intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone this message (or any part of its contents) or take any action in reliance on it. In such case, you should delete this message, and notify us immediately at 207 989 4824 or by email bangor@haleyward.com.



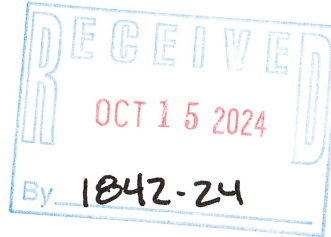
APPENDIX F

SENSITIVE HISTORIC/NATURAL AREAS



October 14, 2024

Maine Historic Preservation Commission
Attn: Ms. Megan Rideout
55 Capitol Street
65 State House Station
Augusta, Maine 04333-0065
megan.m.rideout@maine.gov



Re: 512 Pool Street, Biddeford, Maine | Subdivision Review

Dear Ms. Rideout:

Haley Ward Inc. is currently assisting Coastal Oaks, LLC with the preparation of a Preliminary Subdivision Review application for the construction of a nine-lot subdivision at 512 Pool Street in Biddeford, Maine. Currently, the property is mostly undeveloped and wooded, except for one single family home that was constructed in 2024.

Per permitting requirements, we are submitting this request to your office to determine if any historical sites of concern are located within the project area. Because the project is located in a residential zone and will be residential in use, we do not expect any nearby structures to be negatively impacted by this development. Additional homes in this subdivision will be aesthetically similar to the subdivision's first home, which can be seen on Google street view.

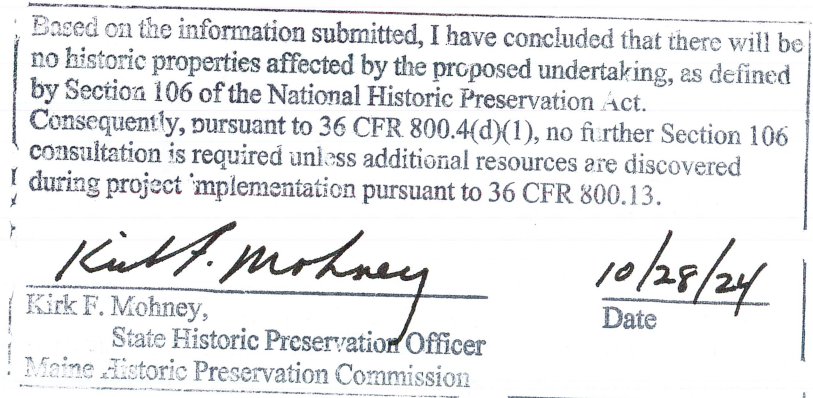
With this inquiry, we have submitted a location map, and a preliminary project layout. Any response can be forwarded to our office located at One Merchants Plaza, Suite 701, Bangor, Maine 04401 or by email at dolehowski@haleyward.com.

Thank you for your assistance in this matter.

Sincerely,
Haley Ward, Inc.

Drew Olehowski, P.E.
Civil Engineer

DJO/jok
Enc.



Maine Historic Preservation Commission | 10.14.2024 | 13871.019



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

October 28, 2024

Drew Olehowski
Haley Ward
One Merchants Plaza, Suite 701
Bangor, ME 04401

Via email: dolehowski@haleyward.com

Re: Rare and exemplary botanical features in proximity to: #13871.019, Residential Subdivision, Map 9 Lot 31,
512 Pool Street, Biddeford, Maine

Dear Drew Olehowski:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received October 14, 2024 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Biddeford, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

**Rare and Exemplary Botanical Features within 4 miles of
Project: #13871.019, Residential Subdivision, Map 9 Lot 31, 512 Pool Street, Biddeford, Maine**

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
American Sea-blite						
	T	S2	G5	2010-08-04	14	Tidal wetland (non-forested, wetland)
Beach Plum						
	E	S1	G4	2006-07-17	3	Rocky coastal (non-forested, upland)
	E	S1	G4	1933-06-21	9	Rocky coastal (non-forested, upland)
	E	S1	G4	1932-09	12	Rocky coastal (non-forested, upland)
	E	S1	G4	2017-06-07	22	Rocky coastal (non-forested, upland)
Beach Wormwood						
	SC	S1S2	G5T5	2011-10-28	6	
	SC	S1S2	G5T5	2011-11-02	7	
Brackish Tidal Marsh						
		S3	GNR	2009-07-29	1	
Button Sedge						
	SC	S2	G5	1880-09-06	2	
	SC	S2	G5	2000-08-15	3	
Clothed Sedge						
	E	S1	G5	2006-06-16	8	Dry barrens (partly forested, upland)
Coastal Dune-marsh Ecosystem						
		S3	GNR	2009	1	
Creeping Spike-moss						
	E	S2	G5	1989-08-14	2	Open wetland, not coastal nor rivershore (non-forested,
	E	S2	G5	1920-07-30	6	Open wetland, not coastal nor rivershore (non-forested,
Dwarf Glasswort						
	T	S1	G5	1981-09-16	2	Tidal wetland (non-forested, wetland)
	T	S1	G5	2010-08-04	8	Tidal wetland (non-forested, wetland)

Estuary Bur-marigold						
SC	S3	G4	2009-07-30	35	Tidal wetland (non-forested, wetland)	
Freshwater Tidal Marsh						
	S2	G4?	2009-07-30	1		
Hollow Joe-pye Weed						
SC	S2	G5	1989-08-21	1	Open wetland, not coastal nor rivershore (non-forested,	
SC	S2	G5	1989-08-14	2	Open wetland, not coastal nor rivershore (non-forested,	
SC	S2	G5	1989-08-22	3	Open wetland, not coastal nor rivershore (non-forested,	
SC	S2	G5	2006-08-07	5	Open wetland, not coastal nor rivershore (non-forested,	
SC	S2	G5	1994-06-06	6	Open wetland, not coastal nor rivershore (non-forested,	
Horned Pondweed						
SC	S2	G5	1907-08-18	10	Tidal wetland (non-forested, wetland)	
SC	S2	G5	2000-08-28	15	Tidal wetland (non-forested, wetland)	
SC	S2	G5	2007-07-05	19	Tidal wetland (non-forested, wetland)	
Lilaeopsis						
SC	S2	G5	2012-10-21	10	Tidal wetland (non-forested, wetland)	
SC	S2	G5	2007-07-05	11	Tidal wetland (non-forested, wetland)	
SC	S2	G5	2007-08-14	12	Tidal wetland (non-forested, wetland)	
Long-spined Sandbur						
PE	SH	G5	1984	1	Rocky coastal (non-forested, upland)	
Mudwort						
SC	S3	G5	2009-07-30	35	Tidal wetland (non-forested, wetland)	
Oak - Hickory Forest						
	S1	G4G5	2012-10-11	3		
Pale Green Orchis						
SC	S2	G4?T4Q	1991	36	Non-tidal rivershore (non-forested, seasonally wet),Open	
Parker's Pipewort						
SC	S3	G3	2017-08-31	33	Tidal wetland (non-forested, wetland)	
Pitch Pine Bog						

Pitch Pine Bog						
	S2	G3G5	2015-09-29	20		
Pitch Pine Dune Woodland						
	S1	G2	2014-05-08	8		
Pitch Pine Woodland						
	S3	G2	2016-08-09	30		
Pocket Swamp						
	S2	G5	2014-05-08	4		
	S2	G5	2020-06-12	18		
	S2	G5	2020-06-12	33		
Pygmyweed						
SC	S2S3	G5	2009-07-29	25	Open water (non-forested, wetland)	
SC	S2S3	G5	2007-07-05	28	Open water (non-forested, wetland)	
Salt-hay Saltmarsh						
	S3	G5	2010-10-14	12		
	S3	G5	2020-09-22	13		
	S3	G5	2020-09-22	15		
	S3	G5	2016-07-12	23		
	S3	G5	2009	27		
Saltmarsh False-foxglove						
SC	S3	G5	2010-08-04	6	Tidal wetland (non-forested, wetland)	
SC	S3	G5	1982	9	Tidal wetland (non-forested, wetland)	
SC	S3	G5	1982	12	Tidal wetland (non-forested, wetland)	
SC	S3	G5	2006-07-17	18	Tidal wetland (non-forested, wetland)	
SC	S3	G5	2010-08-04	34	Tidal wetland (non-forested, wetland)	
SC	S3	G5	2020-09-22	43	Tidal wetland (non-forested, wetland)	
Sassafras						
SC	S2	G5	2006-07-17	16	Hardwood to mixed forest (forest, upland),Old field/	
Schreber's Wood-aster						
PE	SX	G4	1894-09	1	Rocky coastal (non-forested, upland)	

Slender Blue Flag						
	T	S2	G4G5	1995-07-18	18	Tidal wetland (non-forested, wetland)
Small Reed Grass						
	SC	S3	G5	2000-08-15	12	Old field/roadside (non-forested, wetland or upland)
	SC	S3	G5	2006-08-08	14	Old field/roadside (non-forested, wetland or upland)
	SC	S3	G5	2010-09-07	15	Old field/roadside (non-forested, wetland or upland)
Smooth Winterberry Holly						
	SC	S3	G5	1979	13	Forested wetland
	SC	S3	G5	2011-10-28	30	Forested wetland
	SC	S3	G5	2004	36	Forested wetland
	SC	S3	G5	2020-6-12	39	Forested wetland
	SC	S3	G5	2012-10	44	Forested wetland
Southern Slender Ladies'-tresses						
	PE	SH	G5T4T5	1918-08-27	1	Dry barrens (partly forested, upland)
Spongy-leaved Arrowhead						
	SC	S3	G5T4	2012-10-21	42	Tidal wetland (non-forested, wetland)
Stiff Arrowhead						
	SC	S2	G5	2006-06-16	15	Tidal wetland (non-forested, wetland)
Sweet Pepper-bush						
	SC	S2	G5	1989-08-01	8	Hardwood to mixed forest (forest, upland),Forested
	SC	S2	G5	1917-09	9	Hardwood to mixed forest (forest, upland),Forested
Tidal Marsh Estuary Ecosystem						
		S3	GNR	2010-10-14	4	
Water Pimpernel						
	SC	S3	G5	2012-10-21	26	Tidal wetland (non-forested, wetland)

Date Exported: 2024-10-28 08:06

Conservation Status Ranks

State and Global Ranks: This ranking system facilitates a quick assessment of a species' or habitat type's rarity and is the primary tool used to develop conservation, protection, and restoration priorities for individual species and natural habitat types. Each species or habitat is assigned both a state (S) and global (G) rank on a scale of critically imperiled (1) to secure (5). Factors such as range extent, the number of occurrences, intensity of threats, etc., contribute to the assignment of state and global ranks. The definitions for state and global ranks are comparable but applied at different geographic scales; something that is state imperiled may be globally secure.

The information supporting these ranks is developed and maintained by the Maine Natural Areas Program (state ranks) and NatureServe (global ranks).

Rank	Definition
S1 G1	Critically Imperiled – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
S2 G2	Imperiled – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S3 G3	Vulnerable – At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
S4 G4	Apparently Secure – At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S5 G5	Secure – At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
SX GX	Presumed Extinct – Not located despite intensive searches and virtually no likelihood of rediscovery.
SH GH	Possibly Extinct – Known from only historical occurrences but still some hope of rediscovery.
S#S# G#G#	Range Rank – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem.
SU GU	Unrankable – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
GNR SNR	Unranked – Global or subnational conservation status not yet assessed.
SNA GNA	Not Applicable – A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities (e.g., non-native species or ecosystems).
Qualifier	Definition
S#? G#?	Inexact Numeric Rank – Denotes inexact numeric rank.
Q	Questionable taxonomy that may reduce conservation priority – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable. The “Q” modifier is only used at a global level.
T#	Intraspecific Taxon (trinomial) – The status of intraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.

State Status: Endangered and Threatened are legal status designations authorized by statute. Please refer to MRSA Title 12, §544 and §544-B.

Status	Definition
E	Endangered – Any native plant species in danger of extinction throughout all or a significant portion of its range within the State or Federally listed as Endangered.
T	Threatened – Any native plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range in the State or Federally listed as Threatened.
SC	Special Concern – A native plant species that is rare in the State, but not rare enough to be considered Threatened or Endangered.
PE	Potentially Extirpated – A native plant species that has not been documented in the State in over 20 years, or loss of the last known occurrence.

Element Occurrence (EO) Ranks: Quality assessments that designate viability of a population or integrity of habitat. These ranks are based on size, condition, and landscape context. Range ranks (e.g., AB, BC) and uncertainty ranks (e.g., B?) are allowed. The Maine Natural Areas Program tracks all occurrences of rare plants and natural communities/ecosystems (S1-S3) as well as exemplary common natural community types (S4-S5 with EO ranks A/B).

Rank	Definition
A	Excellent – Excellent estimated viability/ecological integrity.
B	Good – Good estimated viability/ecological integrity.
C	Fair – Fair estimated viability/ecological integrity.
D	Poor – Poor estimated viability/ecological integrity.
E	Extant – Verified extant, but viability/ecological integrity not assessed.
H	Historical – Lack of field information within past 20 years verifying continued existence of the occurrence, but not enough to document extirpation.
X	Extirpated – Documented loss of population/destruction of habitat.
U	Unrankable – Occurrence unable to be ranked due to lack of sufficient information (e.g., possible mistaken identification).
NR	Not Ranked – An occurrence rank has not been assigned.

Visit the Maine Natural Areas Program website for more information
<http://www.maine.gov/dacf/mnap>





STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
353 WATER STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041



January 27, 2025

Drew Olehowski
Haley Ward
120 Main Street, Suite 132
Saco, ME 04072

RE: Information Request - 512 Pool Street, Subdivision, Biddeford Project ID 8580

Dear Drew:

Per your request, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information sources for known locations of Endangered, Threatened, and Special Concern (Rare) species; designated Essential and Significant Wildlife Habitats; inland fisheries and aquatic habitats; and other protected natural resource concerns within the vicinity of the **512 Pool Street, Subdivision, Biddeford** project, pursuant to MDIFW's authority. Please note that as project details are lacking, our comments should be considered preliminary. For the purposes of this review, we assume that tree clearing is proposed.

Our Department has not mapped any Essential Habitats that would be affected by this project.

ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES

Bat Species

Of the eight species of bats that occur in Maine, four species are afforded protection under Maines Endangered Species Act (MESA, 12 M.R.S 12801 et. seq.): little brown bat (State Endangered), northern long-eared bat (State Endangered), eastern small-footed bat (State Threatened), and tri-colored bat (State Threatened). The four remaining bat species are designated as Species of Special Concern: big brown bat, red bat, hoary bat, and silver-haired bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during spring/fall migration, the summer breeding season, and/or for overwintering. However, our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

Blanding's Turtle

Blanding's turtles, a State Endangered species, have been documented within the proposed project area. In Maine, Blanding's turtles are found most frequently in vernal pools, acidic wetlands and larger marsh complexes, within blocks of forested habitat. They also use small streams, shrub swamps, wet meadows, bogs, and forested swamps. Development activity that compromises riparian integrity or migration permeability among seasonally critical wetlands can lead to degradation of habitat quality and potential loss of local populations. Additionally, development projects that lead to significant increases in local traffic volume will likely lead to increased roadkill and possible extirpation of the local population. If these habitats are present in

the project area, we recommend that they be avoided and buffered by 250 feet of undisturbed, natural vegetation with no new no development or permanent habitat conversion within this zone.

Spotted Turtle

Spotted turtles, a State Threatened species, have been documented in the proposed project area. Spotted turtles are most frequently found in southern and coastal Maine in forested settings with complexes of small acidic wetlands and vernal pools. They also use small streams, shrub swamps, wet meadows, bogs, and forested swamps. Development activity that compromises riparian integrity or migration permeability among seasonally critical wetlands can lead to degradation of habitat quality and potential loss of local populations. Additionally, development projects that lead to significant increases in local traffic volume can lead to increased roadkill and possible extirpation of the local population. If these habitats are present, we recommend they be avoided and buffered with 250-foot intact vegetated buffers.

Rare Dragonfly Species

Both the Arrowhead Spiketail and Southern Pygmy Clubtail have been documented in the stream adjacent to the proposed project. These are two of the state's rarest dragonflies, both listed as Species of Special Concern due to low population numbers and sensitivity to aquatic and riparian habitat degradation. To conserve important habitat functions for these rare dragonfly populations, and other aquatic fish and wildlife values, MDIFW recommend the protection of a permanent 250-foot forested, riparian corridor along the stream in this location. Please contact Beth Swartz (Beth.Swartz@maine.gov) with our Wildlife Diversity Section should any work be planned within this buffer or if you have any further questions about the rare dragonflies and our riparian management recommendations.

SIGNIFICANT WILDLIFE HABITAT

Significant Vernal Pools

At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of Significant Vernal Pools (SVPs) in the project search area. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. SVPs are not included on MDIFW maps until project areas have been surveyed using approved methods and the survey results confirmed. Therefore, their absence from resource maps is not necessarily indicative of an absence on the ground. We recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Agency for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

AQUATIC RESOURCES

Fish Habitat

We recommend that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e., natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fisheries and aquatic habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance, we recommend additional consultation with the municipality, and other state resource and regulatory agencies including the Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance. For information on federally listed species, contact the U.S. Fish and Wildlife Service's Maine Field Office (207-469-7300, mainefieldoffice@fws.gov).

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,



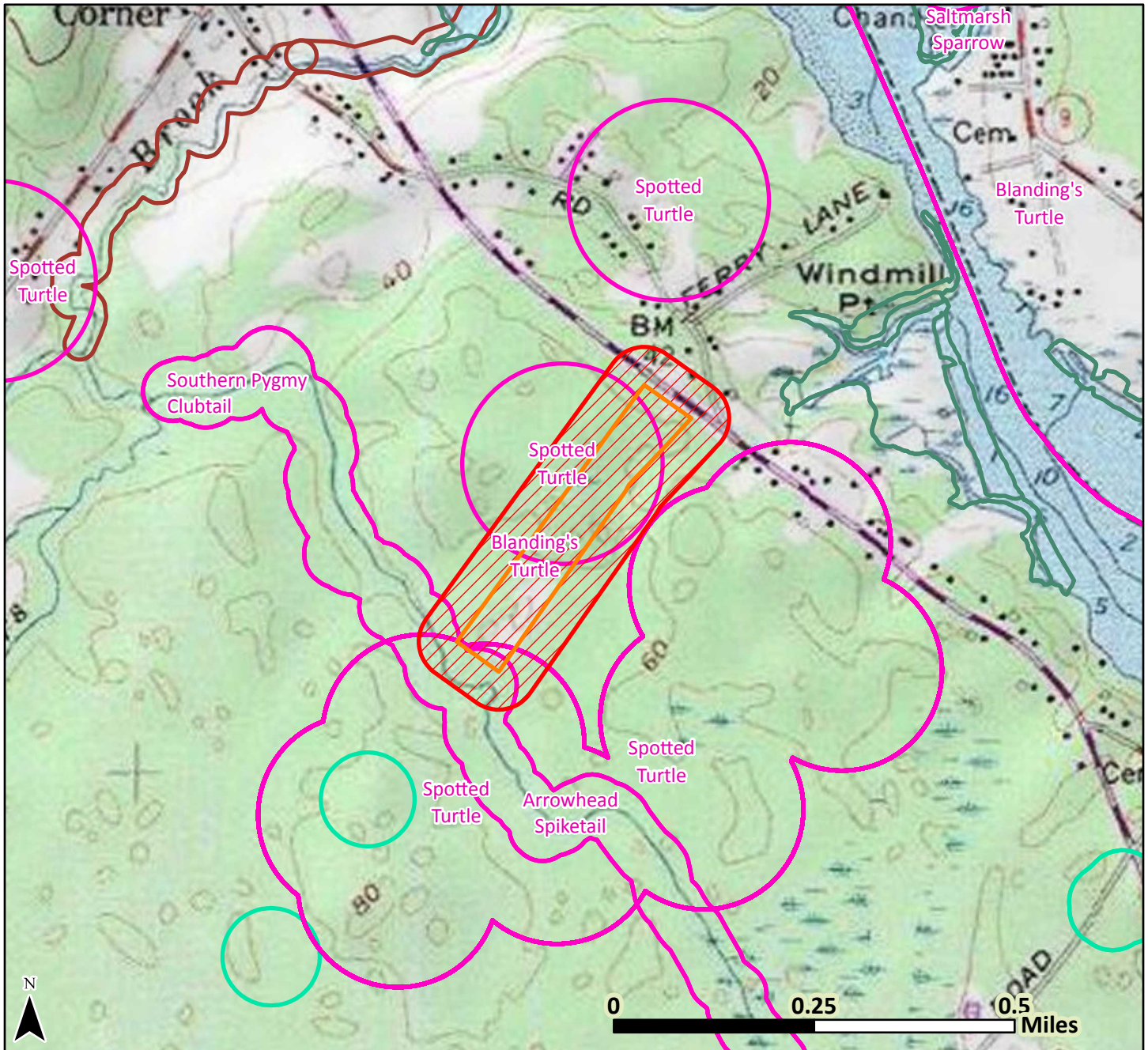
Ciara Wentworth
Natural Resource Biologist



Maine Department of Inland Fisheries and Wildlife
Project Area Review of Fish and Wildlife Observations and Priority Habitats

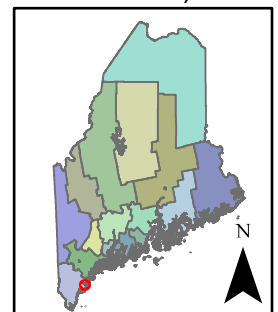
512 Pool Street, Subdivision, Biddeford

Project ID 8580_9923



- | | |
|-------------------|-----------------------------|
| County Boundary | E, T, & SC Species |
| Township Boundary | Significant Vernal Pool |
| Project Footprint | Special Concern Fish |
| Search Area | Tidal Waterfowl/Wading Bird |

Date: 10/23/2024
Projection:
UTM Zone 19N, NAD83



Legend only lists resources visible in the map; see response letter for all resources that were evaluated.



Section VI: Self-Verification Notification Form
(for all tidal and non-tidal projects in Maine subject to Corps jurisdiction)

**US Army Corps
of Engineers®**
New England District

At least two weeks before work commences, complete all fields (write “none” if applicable) below or use the fillable form found at www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/ The two-week lead time is not required for emergency situations. **Send this form, an Official Species List, and project plans to the following email address: cenae-r-me@usace.army.mil**

Maine Project Office
U.S. Army Corps of Engineers
442 Civic Center Drive, Suite 350
Augusta, Maine 04330

State Permit #: _____
Date of State Permit: _____
State Project Manager: _____

Permittee: COASTAL OAKS, LLC

Address, City, State, Zip: 198 SACO AVE, OLD ORCHARD BEACH, ME 04064

Email, Phone: escott@windsorconstructionllc.com

Agent: HALEY WARD, INC. ATTN: DREW OLEHOWSKI, PE

Address, City, State, Zip: 120 MAIN STREET, UNIT 132, SACO, ME 04072

Email, Phone: DOLEHOWSKI@HALEYWARD.COM, 207-989-4824

Contractor: TBD

Address, City, State, Zip: _____

Email, Phone: _____

Project Name: BELLE WOODS SUBDIVISION

Address, City, State, Zip: 512 POOL STREET, BIDDEFORD, ME 04005

Lat °N, Long °W: _____ Tax Map/Lot: 9/31

Waterway Name: UNNAMED WETLANDS

Description of Work: 9 LOT SUBDIVISION

Proposed Starting Date: SPRING 2026

Proposed Finish Date: FALL 2026

Area of wetland impact (SF): Permanent: 3919 Temporary: _____
Area of waterway impact (SF): Permanent: _____ Temporary: _____

Work will be done under the following Section V General Permits (circle all that apply):

I. Inland Waters and wetlands:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----

II. Navigable Waters:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Have MHPC and all five federally-recognized tribes in Maine been notified of the proposed work? _____ Yes _____ No

Your signature below, as permittee, indicates that you accept and agree to comply with the terms, eligibility criteria, and general conditions for Self-Verification under the Maine General Permit.

Permittee Signature: _____ Date: _____



APPENDIX G

SEPTIC DESIGNS

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit #
Street or Road	Belle Woods Drive Lot 2	Date Permit Issued	Fee: \$ Double Fee Charged []
Subdivision, Lot #			L.P.I. #
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$	state min fee \$ Locally adopted fee
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	Copy: [] Owner [] Town [] State	
Daytime Tel. #	934-7622	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION 1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	THIS APPLICATION REQUIRES 1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	DISPOSAL SYSTEM COMPONENTS 1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 20599 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit, No. of Bedrooms: 4 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round Undeveloped	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes No	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: 1000 GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: 1248 sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW 360 gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION 2 / AIII at Observation Hole # TP1 Depth 15" of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd 2. Medium---Large 3.3 sq. ft. / gpd 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	3. Section 4G (meter readings) ATTACH WATER METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. 43 d 27 m 55 s Lon. 70 d 24 m 13 s if g.p.s, state margin of error: 15
SITE EVALUATOR STATEMENT			
I certify that on 04/11/2025 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
Site Evaluator Signature Mark Hampton		263 SE # 207-756-2900	04/11/2025 Date
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the _____ n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation
Old Orchard Beach

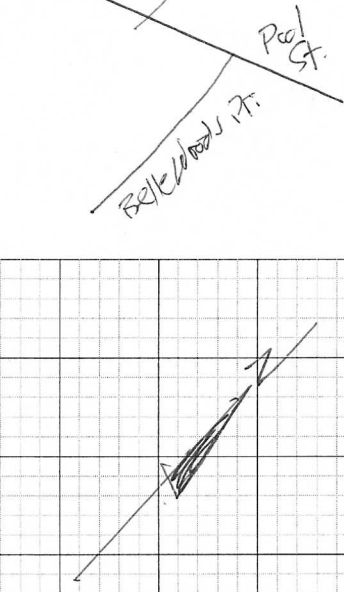
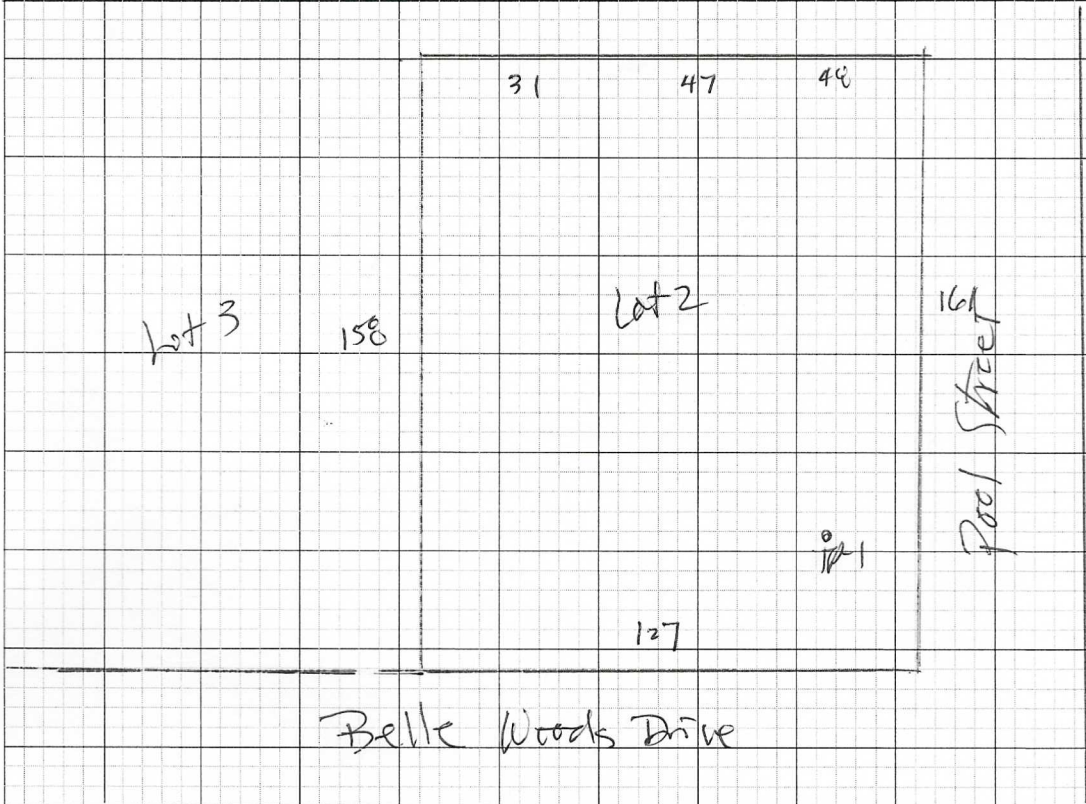
Street, Road, Subdivision
Belle Woods Drive Lot 2

Owner's Name
Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP1 ☒ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

	Texture	Consistency	Color	Mottling
0	Sandy Loam	Friable	Dark Brown	
10	Sandy Loam	Friable	Brown	None Noted
20		LEDGE		
30				
40				
50				

	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	☐ Ground Water
<u>2</u> <u>AIII</u>	<u>6</u> %	<u>15</u> "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

Site Evaluator Signature

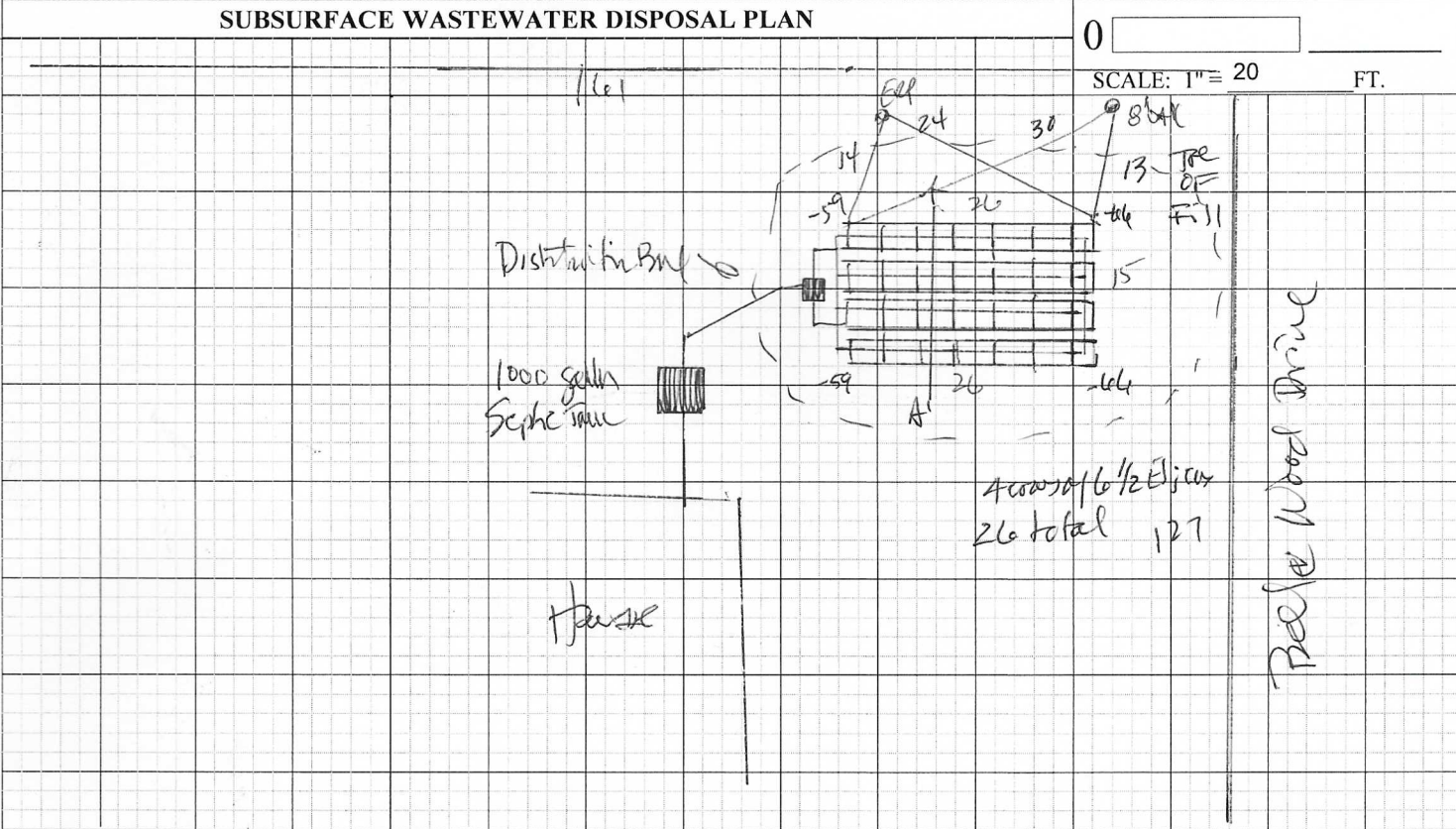
263

SE #

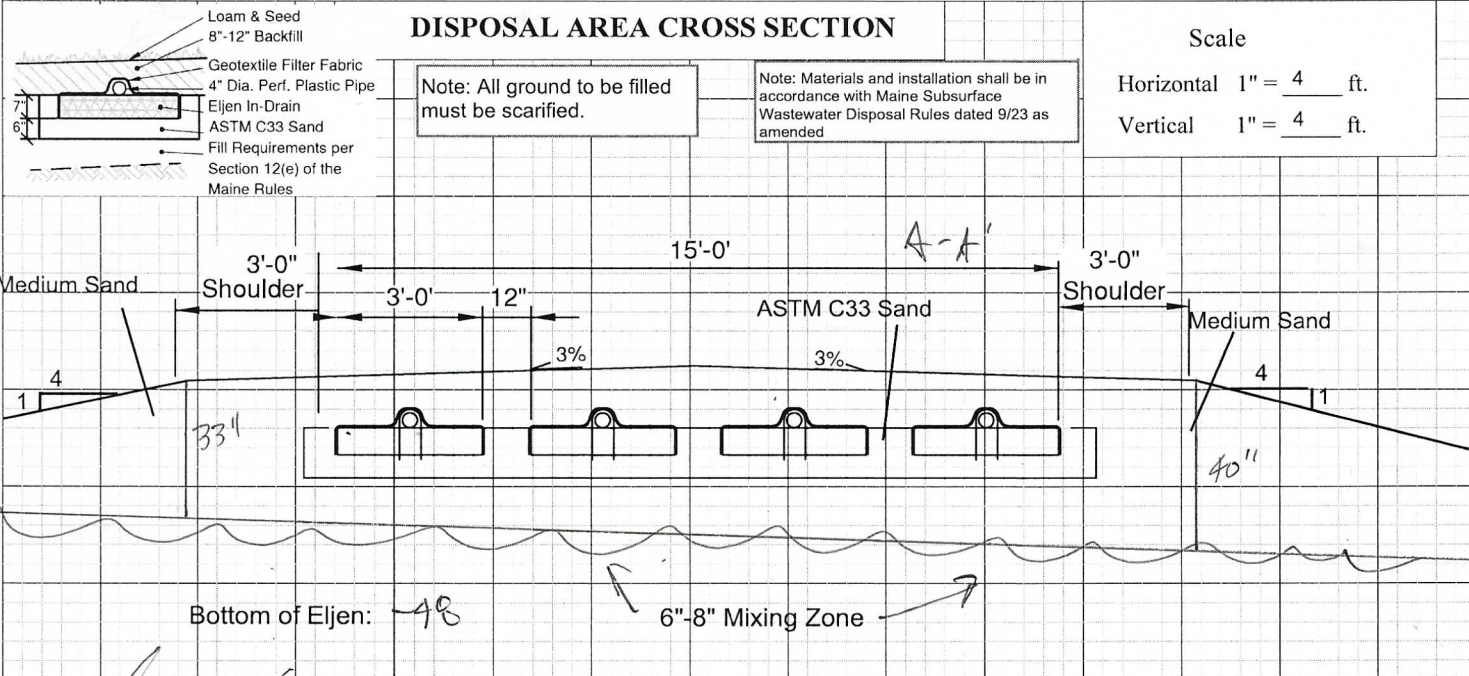
04/11/2025

Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION		Department of Health & Human Services Division of Environmental Health (207) 287-5672 Fax: (207) 287-3165
Town, City, Plantation Old Orchard Beach	Street, Road, Subdivision Belle Woods Drive Lot 2	Owner's Name Coastal Oaks LLC



FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT	
Depth of Fill (Upslope)	33	Finished Grade Elevation	-26	Location & Description:	Nail 49 inches up 10 inch diameter white pine
Depth of Fill (Downslope)	40	Top of Distribution Pipe or Proprietary Device	-37	Reference Elevation:	0
		Bottom of Disposal Area	-48		



Site Evaluator Signature 	SE # 263	Date 04/11/2025	Page 3 of 3 HHE-200 Rev. 02/11
------------------------------	-------------	--------------------	-----------------------------------



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhampto1@maine.rr.com

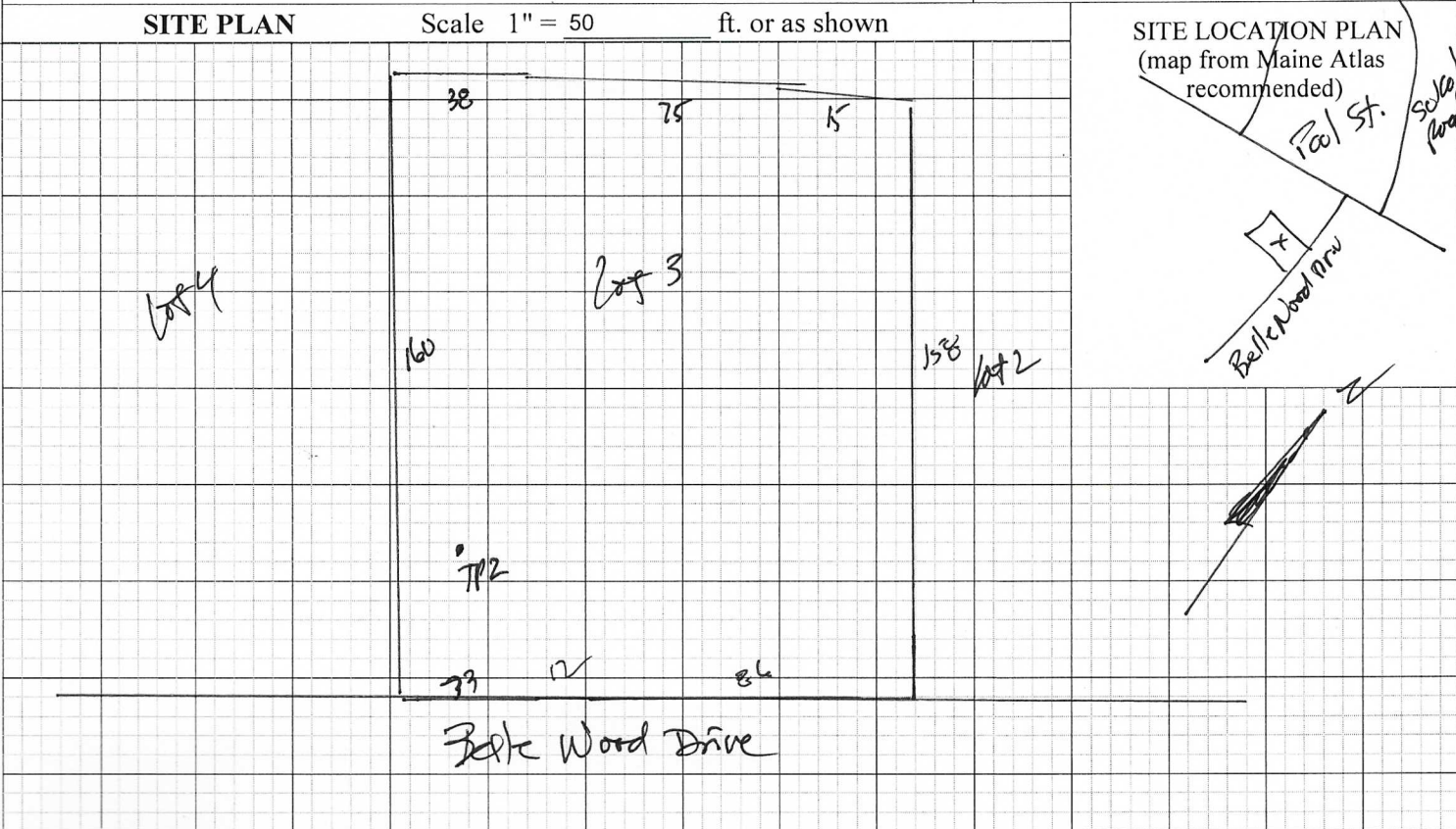
Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit #
Street or Road	Belle Woods Drive Lot 3	Date Permit Issued	Fee: \$ Double Fee Charged []
Subdivision, Lot #			L.P.I. #
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$	state min fee \$ Locally adopted fee
	Owner ☒ Applicant ☐	Copy: [] Owner [] Town [] State	
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622	Municipal Tax Map # Lot #	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION 1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	THIS APPLICATION REQUIRES 1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	DISPOSAL SYSTEM COMPONENTS 1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 20396 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit, No. of Bedrooms: 4 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round Undeveloped	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes No			
DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)			
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: 1000 GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: 1248 sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW 360 gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION 2 / All at Observation Hole # TP2 Depth 15" of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd 2. Medium---Large 3.3 sq. ft. / gpd 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	3. Section 4G (meter readings) ATTACH WATER METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. 43 d 27 m 54 s Lon. 70 d 24 m 13 s if g.p.s, state margin of error: 15
SITE EVALUATOR STATEMENT			
I certify that on 04/11/2025 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
Site Evaluator Signature Mark Hampton		SE # 207-756-2900	Date 04/11/2025
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION		Department of Health & Human Services Division of Environmental Health (207) 287-5672 Fax: (207) 287-3165
Town, City, Plantation Old Orchard Beach	Street, Road, Subdivision Belle Woods Drive Lot 3	Owner's Name Coastal Oaks LLC



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)			
Observation Hole <u>TP2</u> ☒ Test Pit ☐ Boring ☐ " Depth of Organic Horizon Above Mineral Soil _____			
Texture	Consistency	Color	Mottling
0 Sandy Loam	Friable	Dark Brown	
10 Sandy Loam	Friable	Brown	None Noted
20	LEDGE		
30			
40			
50			
Soil Classification <u>2</u> <u>AIII</u> Profile Condition	Slope <u>6</u> %	Limiting Factor <u>15</u> "	☐ Ground Water ☐ Restrictive Layer ☒ Bedrock ☐ Pit Depth

Observation Hole _____ ☐ Test Pit ☐ Boring ☐ " Depth of Organic Horizon Above Mineral Soil _____			
Texture	Consistency	Color	Mottling
0			
10			
20			
30			
40			
50			
Soil Classification _____ Profile Condition	Slope _____%	Limiting Factor _____"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation
Old Orchard Beach

Street, Road, Subdivision

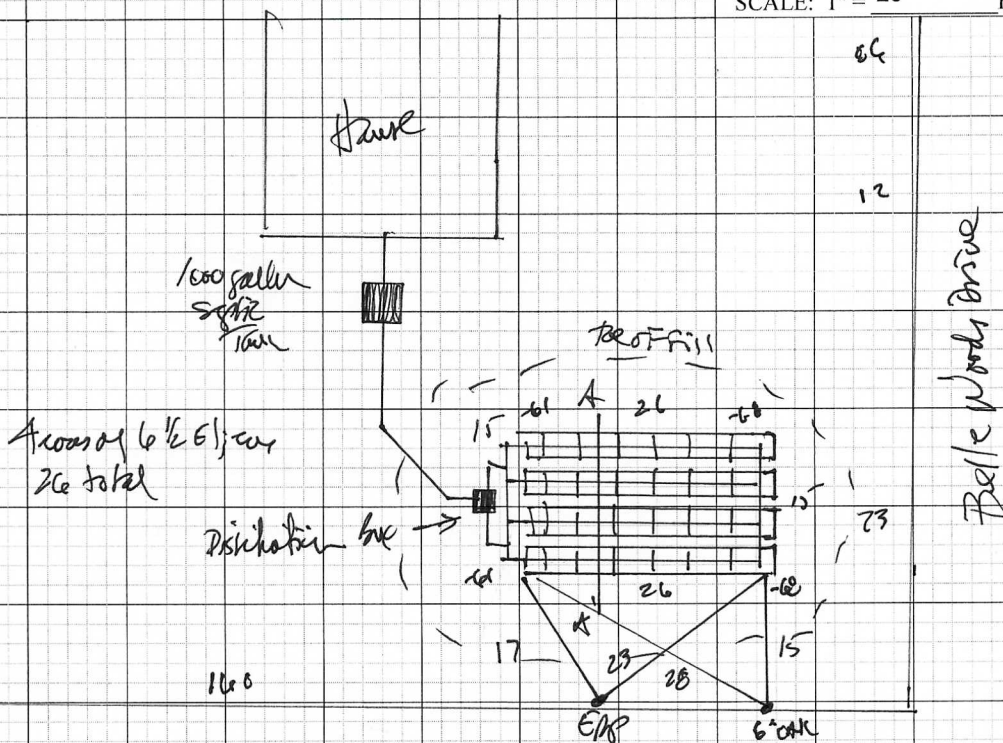
Belle Woods Drive Lot 3

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0

SCALE: 1" = 20 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope) 33

Depth of Fill (Downslope) 40

CONSTRUCTION ELEVATIONS

Finished Grade Elevation

Top of Distribution Pipe or Proprietary Device

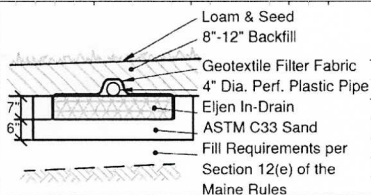
Bottom of Disposal Area

ELEVATION REFERENCE POINT

Location & Description: Nail 51 inches up 8 inch diameter white pine

Reference Elevation: 0

DISPOSAL AREA CROSS SECTION



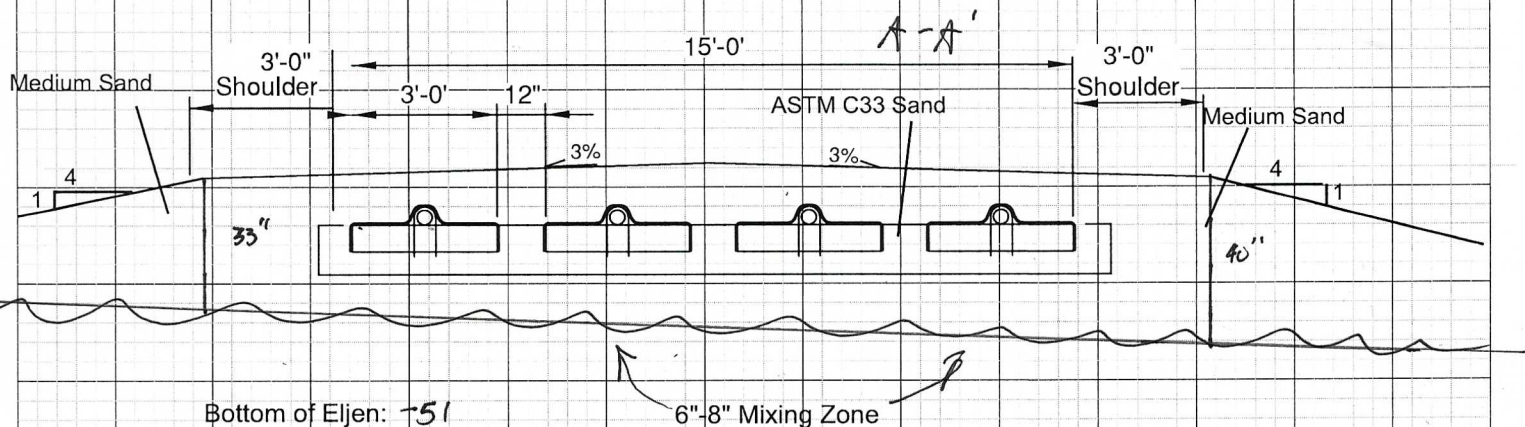
Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal 1" = 4 ft.

Vertical 1" = 4 ft.



Bottom of Eljen: -51

6"-8" Mixing Zone

Site Evaluator Signature

263

SE #

04/11/2025

Date _____

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp1@maine.rr.com

Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City _____	Permit # _____
Street or Road	Belle Woods Drive Lot 4	Date Permit Issued: ___/___/___	Fee: \$ _____ Double Fee Charged []
Subdivision, Lot #		L.P.I. # _____	
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature _____	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$ _____ state min fee \$ _____	Locally adopted fee _____
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	Copy: [] Owner [] Town [] State	
Daytime Tel. #	934-7622	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION	THIS APPLICATION REQUIRES	DISPOSAL SYSTEM COMPONENTS	
1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 20524 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit No. of Bedrooms: <u>4</u> 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) _____ Current Use Seasonal Year Round <u>Undeveloped</u>	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private <u>4. Public</u> 8. Other _____	
SHORELAND ZONING Yes <u>No</u>	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: <u>1000</u> GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: <u>1248</u> sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW _____ 360 _____ gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION <u>2 / AIII</u> at Observation Hole # <u>TP3</u> Depth <u>16</u> " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd <u>2. Medium---Large 3.3 sq. ft. / gpd</u> 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP <u>1. Not Required</u> 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	LATITUDE AND LONGITUDE at center of disposal area Lat. <u>43</u> d <u>27</u> m <u>53</u> s Lon. <u>70</u> d <u>24</u> m <u>12</u> s if g.p.s, state margin of error: <u>15</u>
SITE EVALUATOR STATEMENT			
I certify that on <u>04/11/2025</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
Site Evaluator Signature <u>Mark Hampton</u>		SE # <u>263</u>	Date <u>04/11/2025</u>
Site Evaluator Name Printed		Telephone Number <u>207-756-2900</u>	E-mail Address
Note : Changes to or deviations from the _____ n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Old Orchard Beach

Belle Woods Drive Lot 4

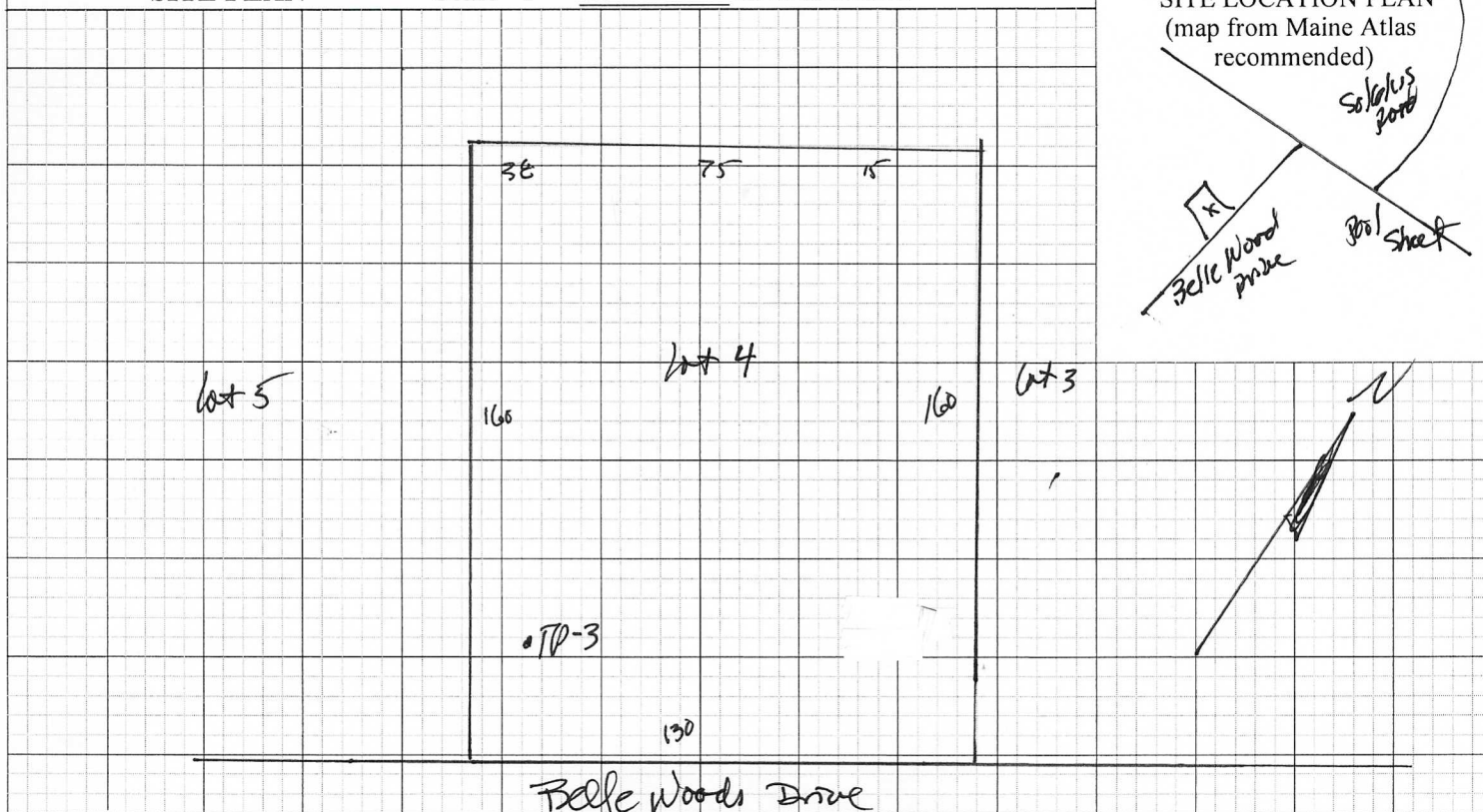
Owner's Name

Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas
recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP3 ☒ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
0 Sandy Loam	Friable	Dark Brown	
10 Sandy Loam	Friable	Brown	None Noted
20	LEDGE		
30			
40			
50			

Texture	Consistency	Color	Mottling
0			
10			
20			
30			
40			
50			

Soil Classification <u>2</u> <u>AIII</u> Profile Condition	Slope <u>6</u> %	Limiting Factor <u>16</u> "	☐ Ground Water ☐ Restrictive Layer ☒ Bedrock ☐ Pit Depth
--	---------------------	--------------------------------	--

Soil Classification _____ Profile Condition	Slope ____ %	Limiting Factor ____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
---	-----------------	---------------------------	---

W. J. Taylor
Site Evaluator Signature

263

SE #

04/11/2025

Date

Page 2 of 3
HHE-200 Rev. 02/11

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

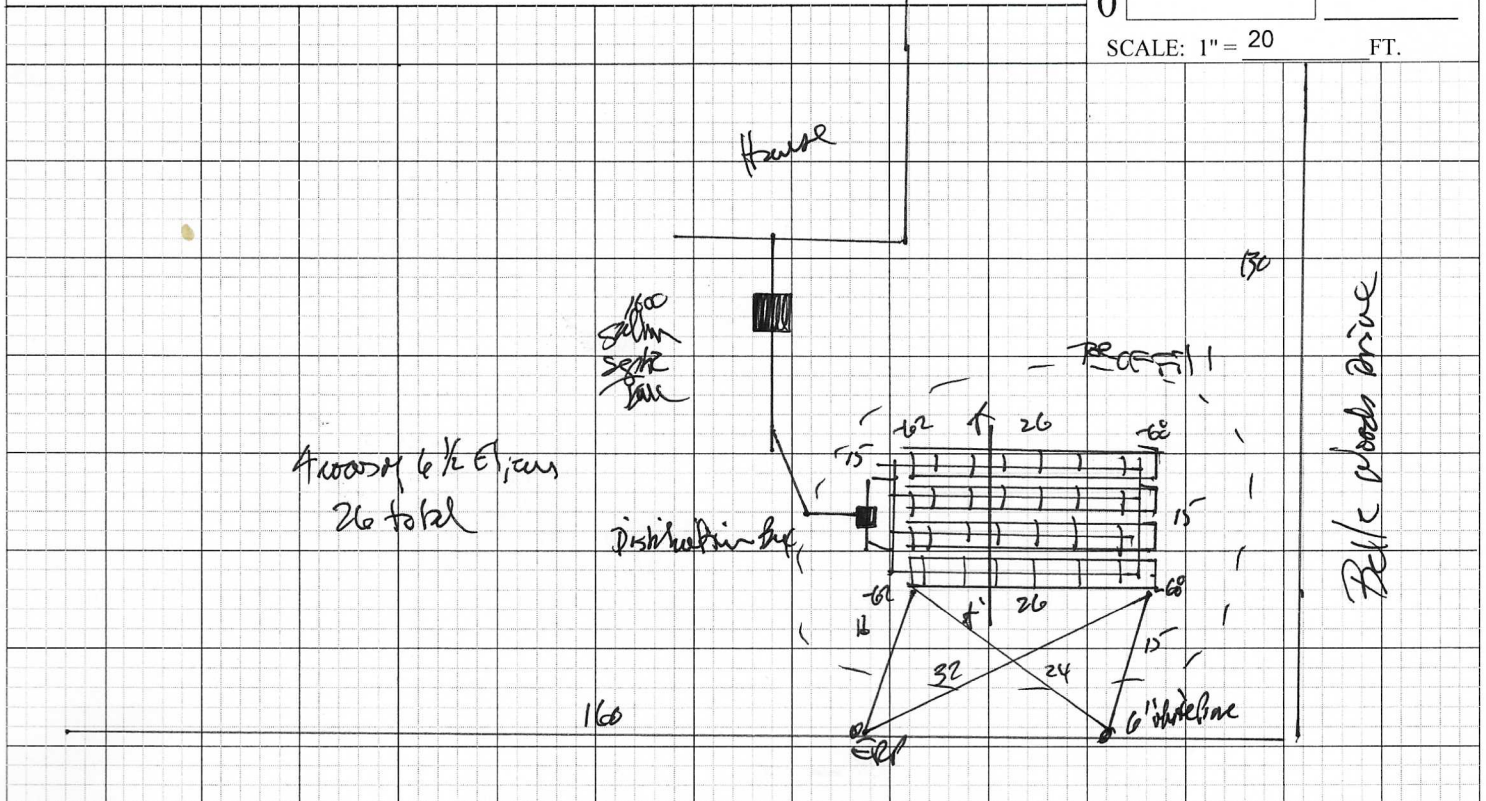
Town, City, Plantation
Old Orchard Beach

Street, Road, Subdivision
Belle Woods Drive Lot 4

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0
SCALE: 1" = 20 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope) 32
Depth of Fill (Downslope) 38

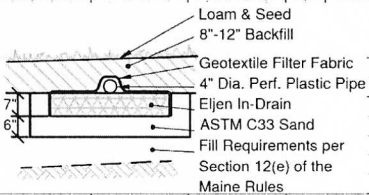
CONSTRUCTION ELEVATIONS

Finished Grade Elevation -30
Top of Distribution Pipe or Proprietary Device -42
Bottom of Disposal Area -53

ELEVATION REFERENCE POINT

Location & Description: Nail 48 inches up 6 inch diameter oak
Reference Elevation: 0

DISPOSAL AREA CROSS SECTION

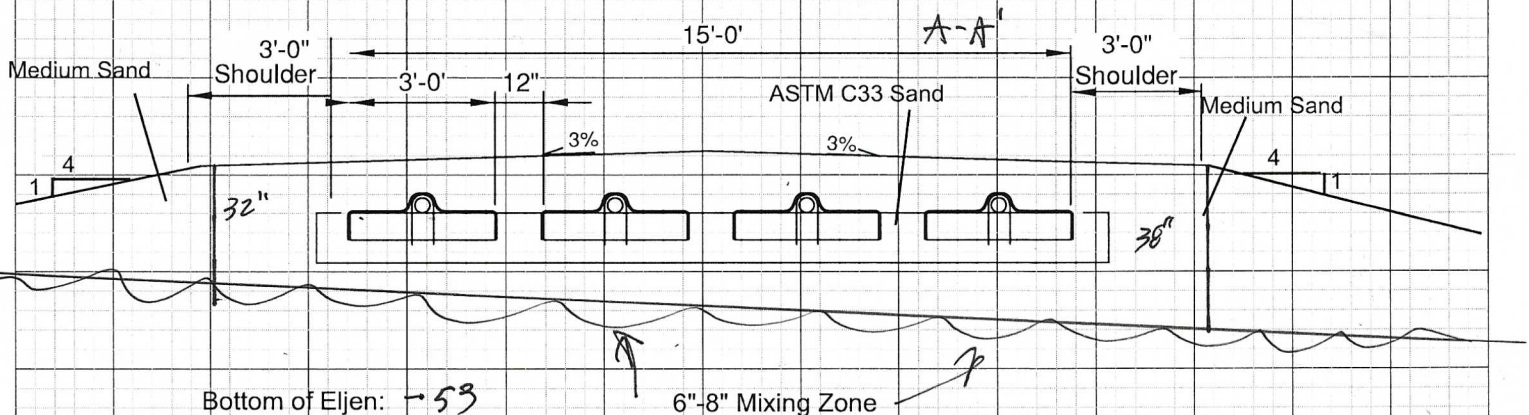


Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal 1" = 4 ft.
Vertical 1" = 4 ft.



[Signature]
Site Evaluator Signature

263

SE #

04/11/2025

Date

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

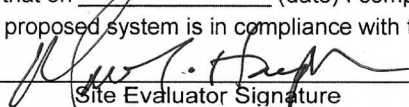
No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp1@maine.rr.com

Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit #
Street or Road	Belle Woods Drive Lot 5	Date Permit Issued	Fee: \$ Double Fee Charged []
Subdivision, Lot #			L.P.I. #
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$ state min fee \$ Locally adopted fee	Copy: [] Owner [] Town [] State
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622	Municipal Tax Map #	Lot #
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION 1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	THIS APPLICATION REQUIRES 1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	DISPOSAL SYSTEM COMPONENTS 1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 20324 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit No. of Bedrooms: <u>4</u> 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round <u>Undeveloped</u>	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes <u>No</u>	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: <u>1000</u> GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: <u>1248</u> sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW <u>360</u> gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION <u>2 / AIII</u> at Observation Hole # <u>TP4</u> Depth <u>16</u> " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd 2. Medium---Large 3.3 sq. ft. / gpd 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	3. Section 4G (meter readings) ATTACH WATER METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. <u>43</u> d <u>27</u> m <u>53</u> s Lon. <u>70</u> d <u>24</u> m <u>12</u> s if g.p.s, state margin of error: <u>15</u>
SITE EVALUATOR STATEMENT			
I certify that on <u>04/11/2025</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
 Site Evaluator Signature Mark Hampton		263 SE # 207-756-2900	<u>04/11/2025</u> Date
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the _____ n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Old Orchard Beach

Belle Woods Drive Lot 5

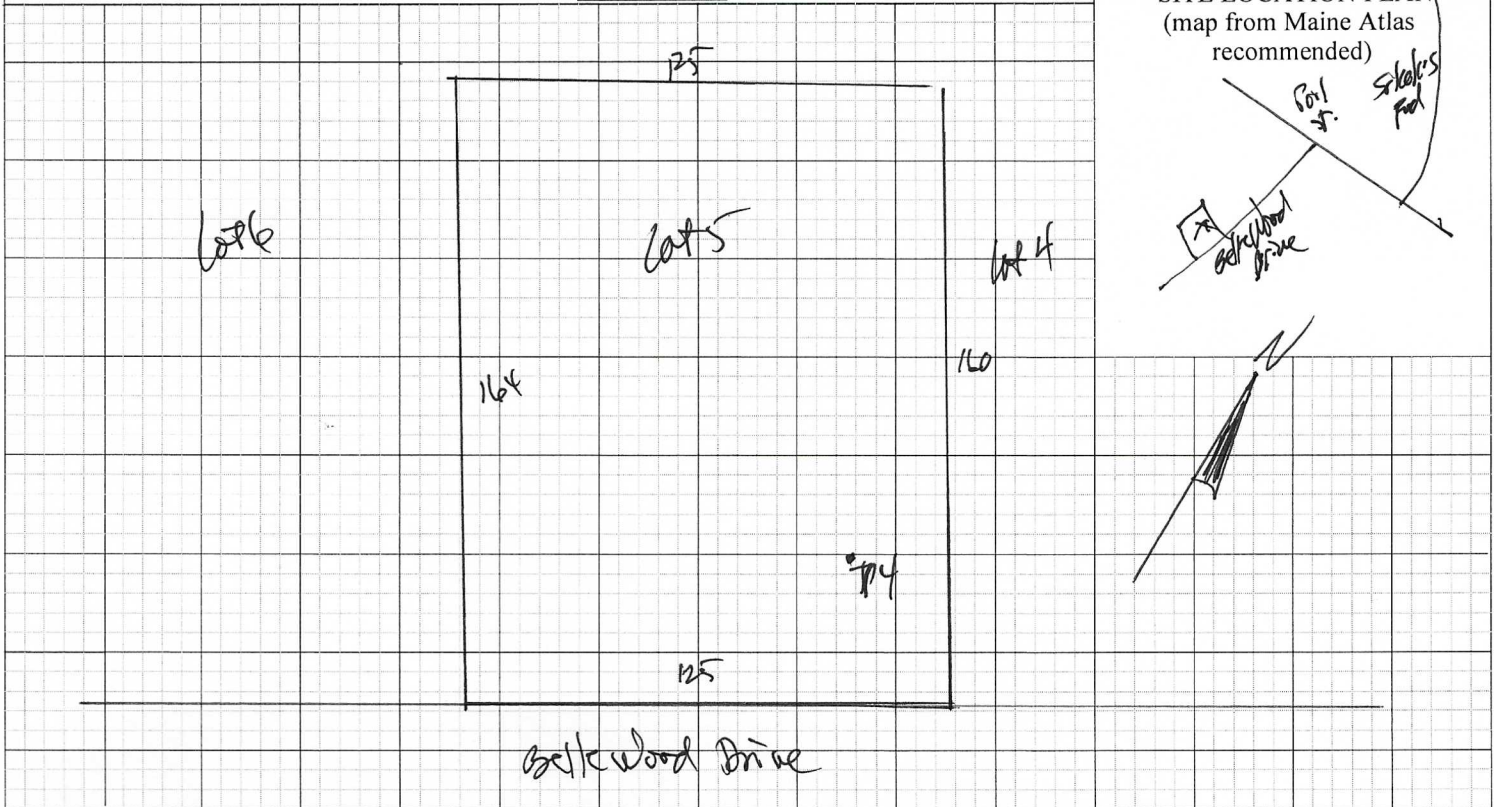
Owner's Name

Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas
recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP4 ☒ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
0 Sandy Loam	Friable	Dark Brown	
10 Sandy Loam	Friable	Brown	None Noted
20	LEDGE		
30			
40			
50			

Texture	Consistency	Color	Mottling
0			
10			
20			
30			
40			
50			

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 AIII	6 %	16 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

[Signature]
Site Evaluator Signature

263

SE #

04/11/2025

Date

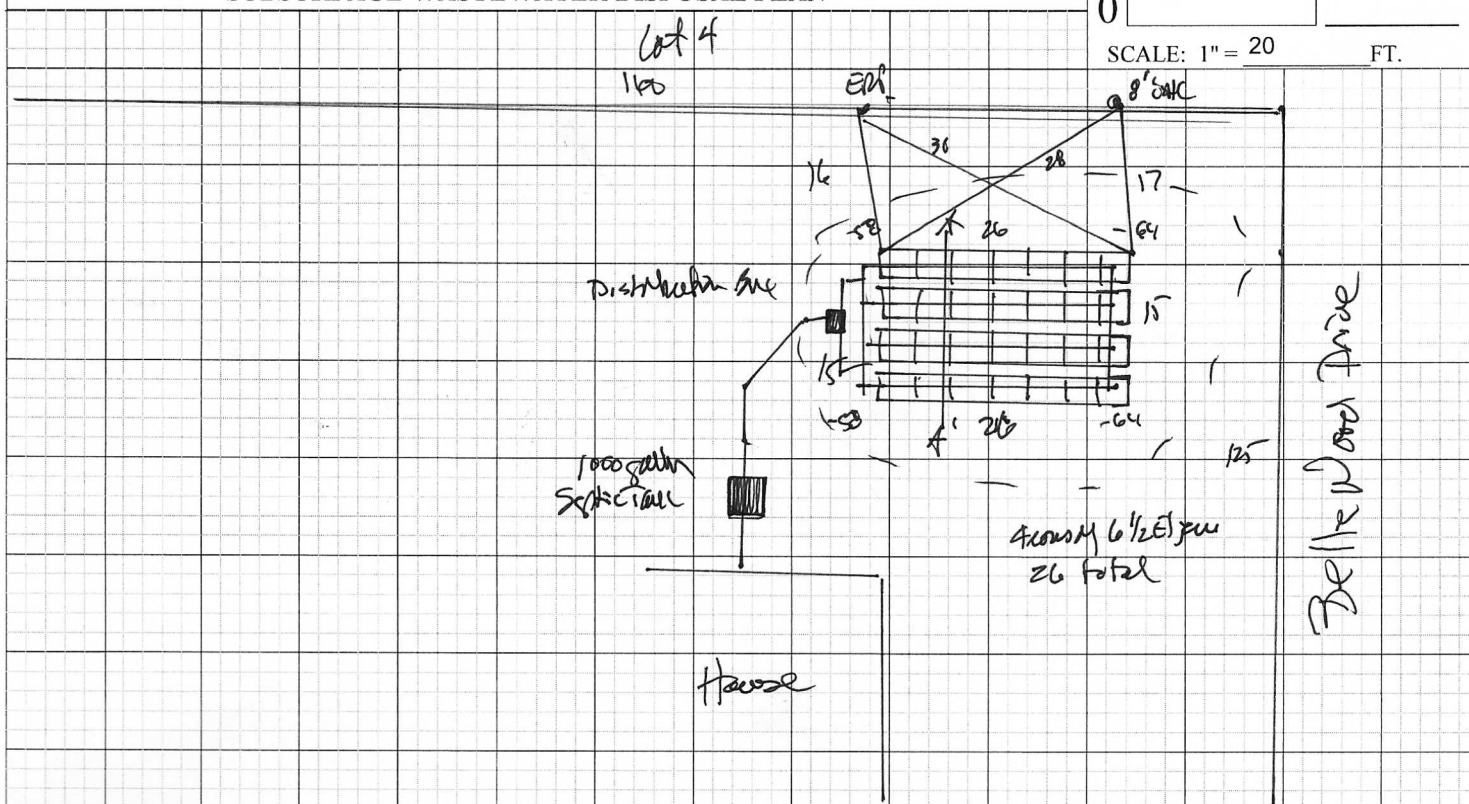
Page 2 of 3
HHE-200 Rev. 02/11

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Street, Road, Subdivision
Belle Woods Drive Lot 5

Owner's Name
Coastal Oaks LLC

0 _____
SCALE: 1" = 20 FT.



Location & Description: Nail 46 inches up 8 inch diameter oak

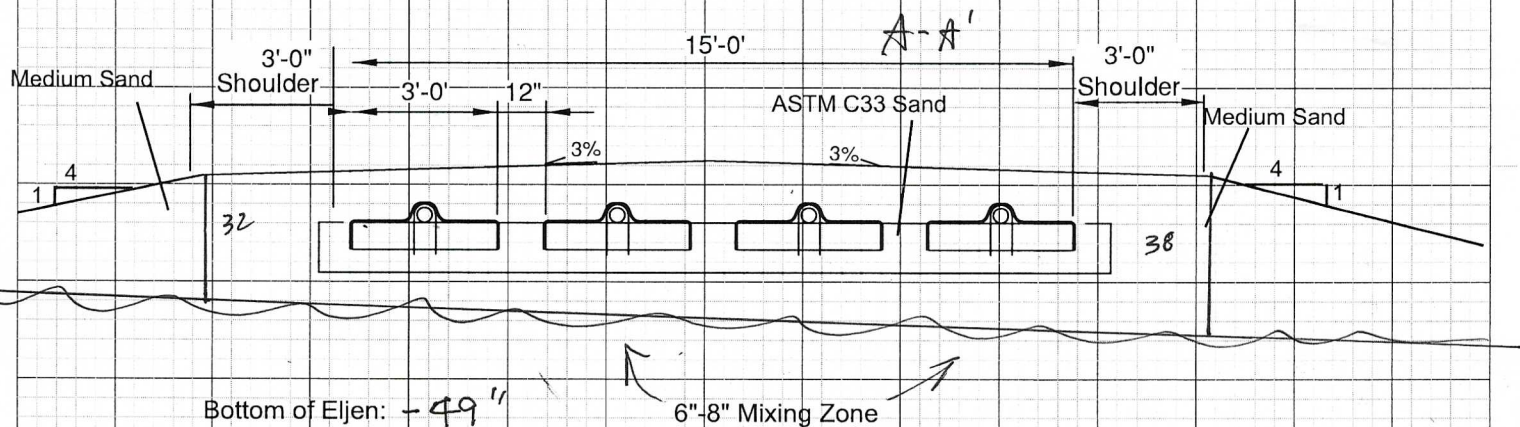
Reference Elevation: 0

Loam & Seed
8"-12" Backfill
Geotextile Filter Fabric
4" Dia. Perf. Plastic Pipe
Eljen In-Drain
ASTM C33 Sand
Fill Requirements per
Section 12(e) of the
Maine Rules

7'
6'

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Horizontal $1" = \frac{4}{\quad}$ ft.
Vertical $1" = \frac{4}{\quad}$ ft.



Site Evaluator Signature

SE #

Date _____

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

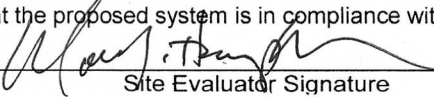
No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp101@maine.rr.com

Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City _____	Permit # _____
Street or Road	Belle Woods Drive Lot 6	Date Permit Issued: ____/____/____	Fee: \$ _____ Double Fee Charged []
Subdivision, Lot #		L.P.I. # _____	
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature _____	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$ _____ state min fee \$ _____	Locally adopted fee _____
	Owner ☒ Applicant ☐	Copy: [] Owner [] Town [] State	
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622		
		Municipal Tax Map # _____ Lot # _____	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		(1st) date approved _____	
		Local Plumbing Inspector Signature _____ (2nd) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION	THIS APPLICATION REQUIRES	DISPOSAL SYSTEM COMPONENTS	
1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY	DISPOSAL SYSTEM TO SERVE	TYPE OF WATER SUPPLY	
40974 SQ. FT. ACRES	1. Single Family Dwelling Unit, No. of Bedrooms: <u>4</u> 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round Undeveloped	1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
Yes No	TREATMENT TANK	DISPOSAL FIELD TYPE & SIZE	GARBAGE DISPOSAL UNIT
	1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: <u>1000</u> GAL.	1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: <u>1248</u> sq. ft. lin. ft.	1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet
SOIL DATA & DESIGN CLASS	DISPOSAL FIELD SIZING	EFFLUENT/EJECTOR PUMP	DESIGN FLOW
PROFILE CONDITION <u>2</u> / AIII at Observation Hole # <u>TP5</u> Depth <u>15</u> " of Most Limiting Soil Factor	1. Medium---2.6 sq. ft. / gpd 2. Medium---Large 3.3 sq. ft. / gpd 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	<u>360</u> gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities 3. Section 4G (meter readings) ATTACH WATER METER DATA
LATITUDE AND LONGITUDE			
at center of disposal area Lat. <u>43</u> d <u>27</u> m <u>52</u> s Lon. <u>70</u> d <u>24</u> m <u>10</u> s if g.p.s, state margin of error: <u>15</u>			
SITE EVALUATOR STATEMENT			
I certify that on <u>04/11/2025</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
 Site Evaluator Signature Mark Hampton		263 SE # 207-756-2900	04/11/2025 Date
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the _____ n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Owner's Name

Old Orchard Beach

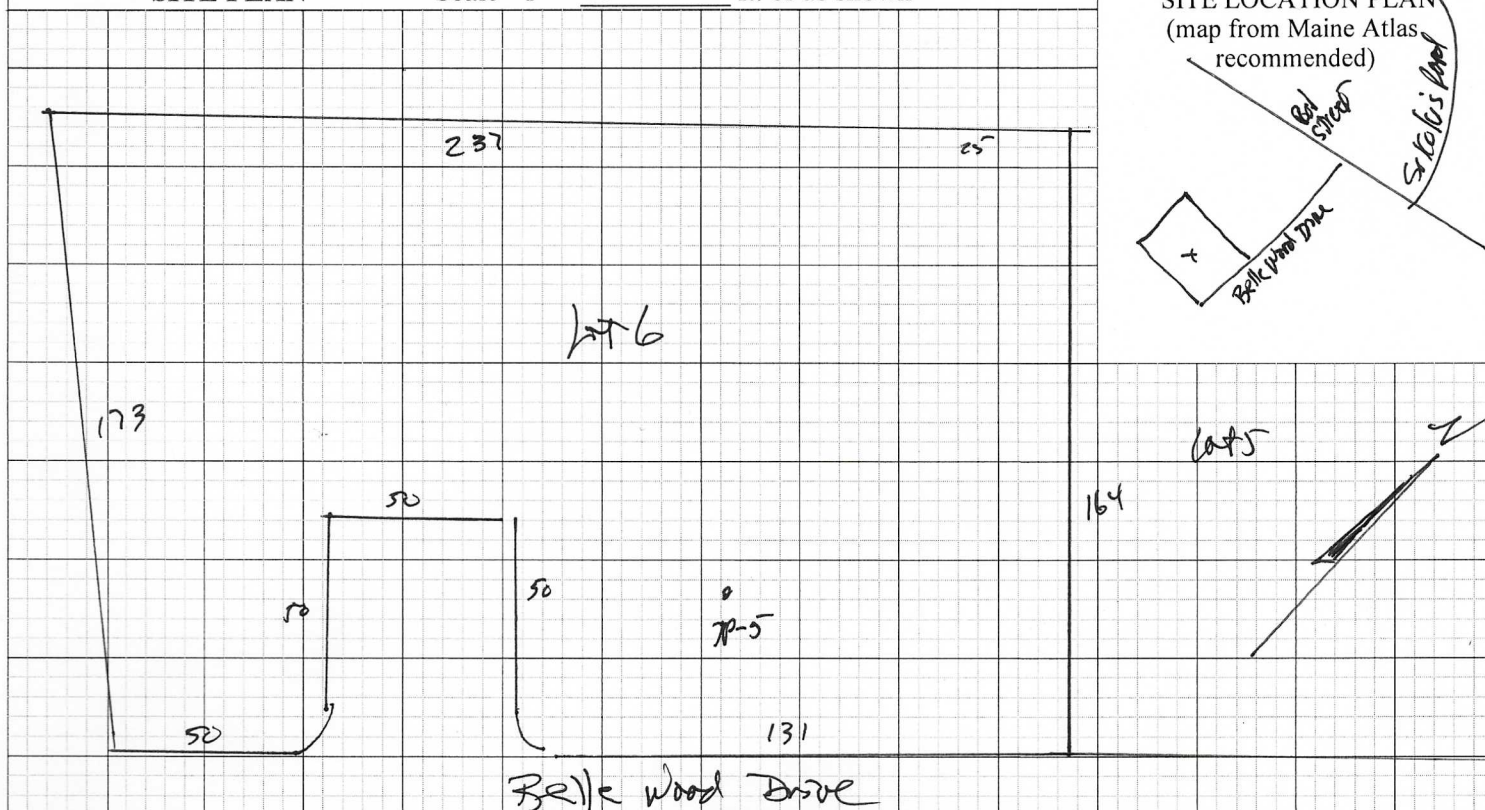
Belle Woods Drive Lot 6

Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas
recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP5 ☒ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
0 Sandy Loam	Friable	Dark Brown	
10 Sandy Loam	Friable	Brown	None Noted
20	LEDGE		
30			
40			
50			

Texture	Consistency	Color	Mottling
0			
10			
20			
30			
40			
50			

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 All	6 %	15 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

Mary C. Hughes
Site Evaluator Signature

263

SE #

04/11/2025

Date

Page 2 of 3
HHE-200 Rev. 02/11

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation
Old Orchard Beach

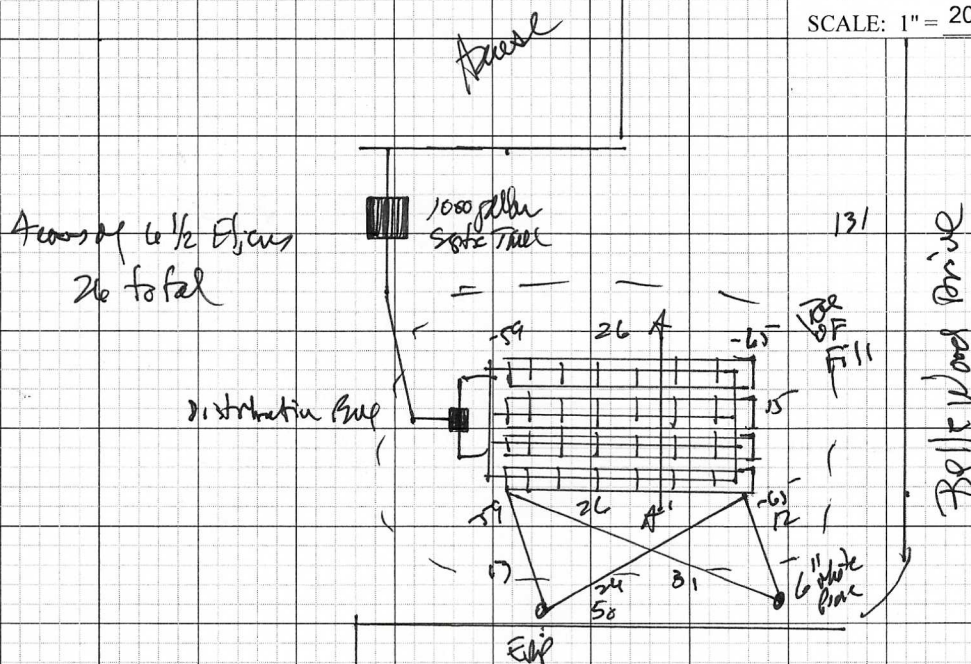
Street, Road, Subdivision

Belle Woods Drive Lot 6

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0 _____
SCALE: 1" = 20 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope)	<u>32</u>
Depth of Fill (Downslope)	38

CONSTRUCTION ELEVATIONS

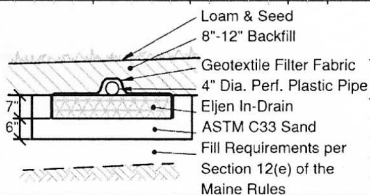
Finished Grade Elevation
Top of Distribution Pipe or Proprietary Device
Bottom of Disposal Area

ELEVATION REFERENCE POINT

Location & Description: Nail 49 inches up 6 inch diameter white pine

Reference Elevation: 0

DISPOSAL AREA CROSS SECTION

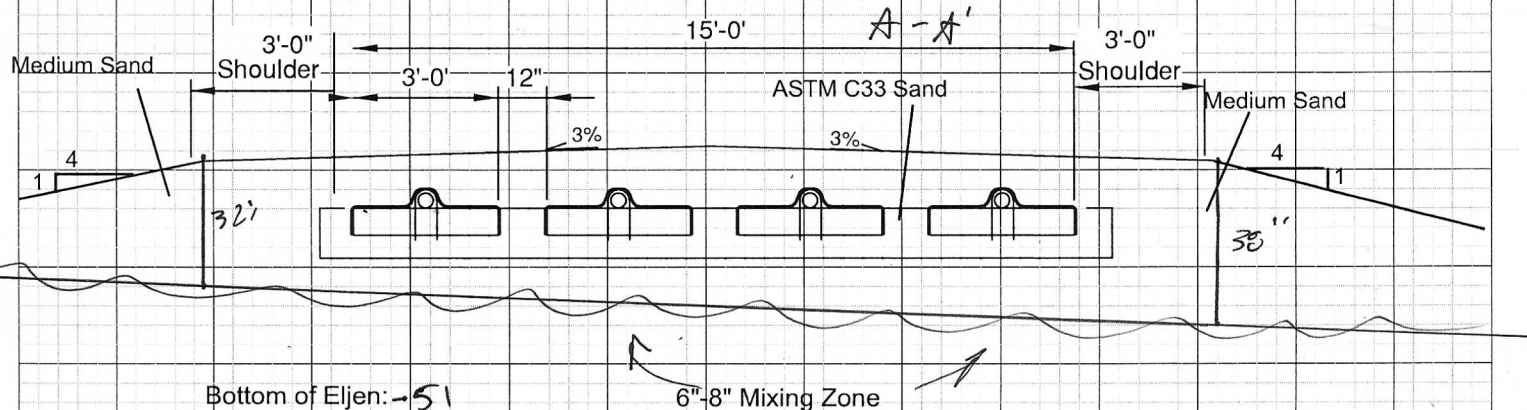


Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal $1" = \underline{4}$ ft.
Vertical $1" = \underline{4}$ ft.



Bottom of Eljen: -51

6"-8" Mixing Zone

Site Evaluator Signature

263

SE #

04/11/2025

Date _____

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp101@maine.rr.com

Quality services that meet your deadline

7553

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City _____	Permit # _____
Street or Road	Belle Woods Drive Lot 7	Date Permit Issued: ____/____/____	Fee: \$ _____ Double Fee Charged []
Subdivision, Lot #		L.P.I. # _____	
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$ _____ state min fee \$ _____	Locally adopted fee _____
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	Copy: [] Owner [] Town [] State	
Daytime Tel. #	934-7622	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION	THIS APPLICATION REQUIRES	DISPOSAL SYSTEM COMPONENTS	
1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 32547 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit, No. of Bedrooms: 4 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) _____ Current Use Seasonal Year Round Undeveloped	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes No	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: 1000 GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: 1248 sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW 360 gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION 2 / AIII at Observation Hole # TP6 Depth 15 " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium--2.6 sq. ft. / gpd 2. Medium--Large 3.3 sq. ft. / gpd 3. Large--4.1 sq. ft. / gpd 4. Extra Large--5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	LATITUDE AND LONGITUDE at center of disposal area Lat. 43 d 27 m 52 s Lon. 70 d 24 m 10 s if g.p.s, state margin of error: 15
SITE EVALUATOR STATEMENT			
I certify that on 04/11/2025 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
Site Evaluator Signature Mark Hampton		263 SE # 207-756-2900	04/11/2025 Date
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Old Orchard Beach

Belle Woods Drive Lot 7

Owner's Name

Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas recommended)

Belle Wood Drive

238

TP-6

Lot 7

135

111

49

72

Lot 8

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP6 ☒ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

	Texture	Consistency	Color	Mottling
0	Sandy Loam	Friable	Dark Brown	
10	Sandy Loam	Friable	Brown	None Noted
20		LEDGE		
30				
40				
50				

	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 AIII	6 %	15 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
			☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

[Signature]
Site Evaluator Signature

263

SE #

04/11/2025

Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation
Old Orchard Beach

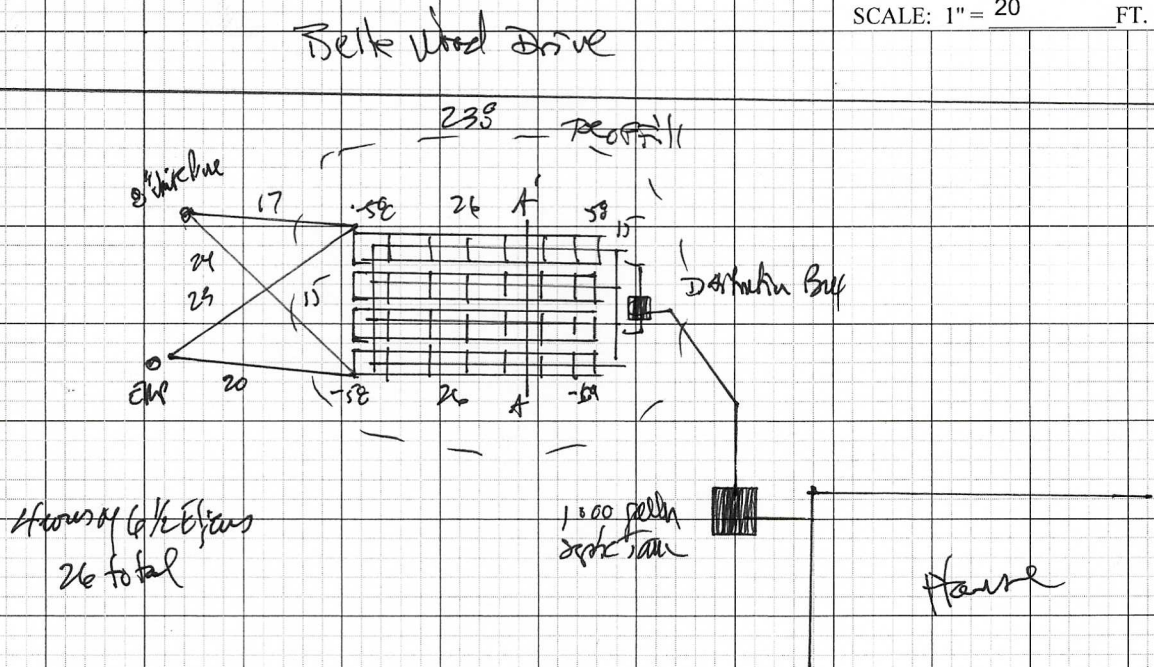
Street, Road, Subdivision
Belle Woods Drive Lot 7

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0 _____

SCALE: 1" = 20 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope) 32Depth of Fill (Downslope) 38

CONSTRUCTION ELEVATIONS

Finished Grade Elevation

Top of Distribution Pipe or Proprietary Device

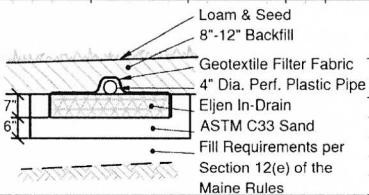
Bottom of Disposal Area

ELEVATION REFERENCE POINT

Location & Description: Nail 50 inches up 10 inch diameter white pine

Reference Elevation: 0

DISPOSAL AREA CROSS SECTION



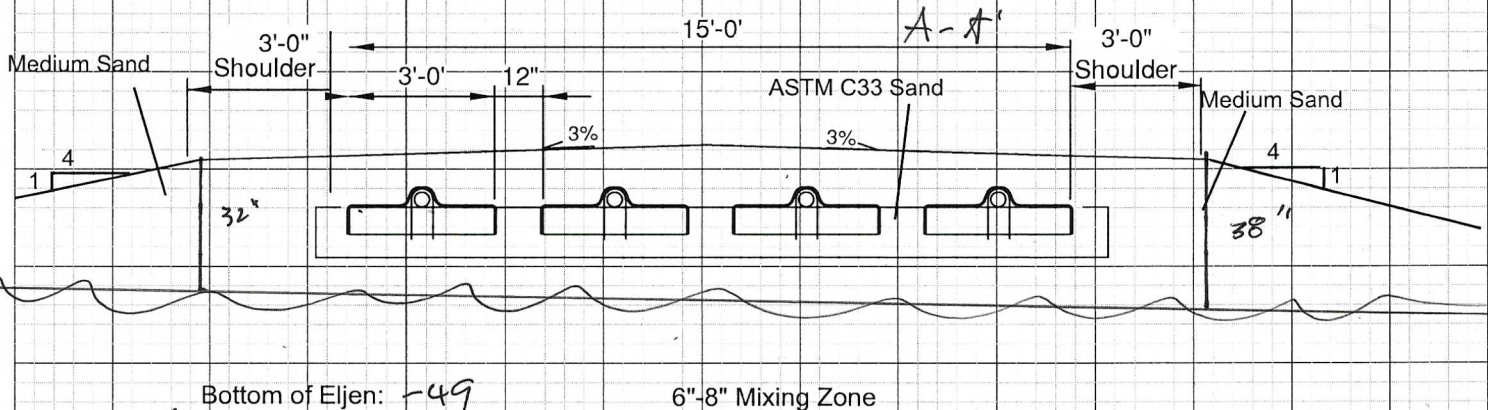
Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal 1" = 4 ft.

Vertical 1" = 4 ft.



Bottom of Eljen: -49

6"-8" Mixing Zone

Site Evaluator Signature _____

263

SE #

04/11/2025

Date _____

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

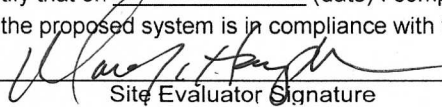
Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit # _____
Street or Road	Belle Woods Drive Lot 8	Date Permit Issued: ____/____/____	Fee: \$ _____ Double Fee Charged []
Subdivision, Lot #			L.P.I. # _____
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature _____	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$ _____ state min fee \$ _____	Locally adopted fee _____
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	Copy: [] Owner [] Town [] State	
Daytime Tel. #	934-7622	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION	THIS APPLICATION REQUIRES	DISPOSAL SYSTEM COMPONENTS	
1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 56288 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit, No. of Bedrooms: <u>4</u> 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) _____ Current Use Seasonal Year Round <u>Undeveloped</u>	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private <u>4. Public</u> 8. Other _____	
SHORELAND ZONING Yes <u>No</u>	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: <u>1000</u> GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: <u>1248</u> sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW _____ 360 gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION <u>2 / AIII</u> at Observation Hole # <u>TP7</u> Depth <u>15</u> " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium--2.6 sq. ft. / gpd <u>2. Medium--Large 3.3 sq. ft. / gpd</u> 3. Large--4.1 sq. ft. / gpd 4. Extra Large--5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP <u>1. Not Required</u> 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	LATITUDE AND LONGITUDE at center of disposal area Lat. <u>43</u> d <u>27</u> m <u>52</u> s Lon. <u>70</u> d <u>24</u> m <u>10</u> s if g.p.s, state margin of error: <u>15</u>
SITE EVALUATOR STATEMENT			
I certify that on <u>04/11/2025</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
 Site Evaluator Signature Mark Hampton Site Evaluator Name Printed		<u>263</u> SE # 207-756-2900 Telephone Number	<u>04/11/2025</u> Date _____ E-mail Address
Note : Changes to or deviations from the _____ n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Owner's Name

Old Orchard Beach

Belle Woods Drive Lot 8

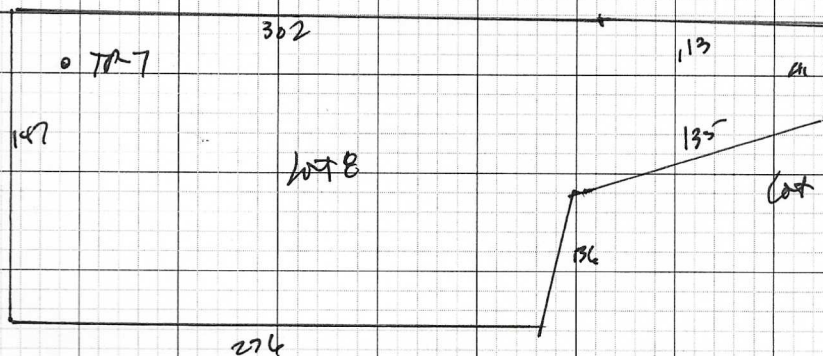
Coastal Oaks LLC

SITE PLAN

Scale 1" = 100 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas
recommended)

Belle Wood Drive



(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP7 ☒ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
0 Sandy Loam	Friable	Dark Brown	
10 Sandy Loam	Friable	Brown	None Noted
20	LEDGE		
30			
40			
50			

Texture	Consistency	Color	Mottling
0			
10			
20			
30			
40			
50			

Soil Classification
2 AIII
Profile Condition

Slope
6 %

Limiting Factor
15 "
☐ Ground Water
☐ Restrictive Layer
☒ Bedrock
☐ Pit Depth

Soil Classification
Profile Condition

Slope
%

Limiting Factor
"
☐ Ground Water
☐ Restrictive Layer
☐ Bedrock
☐ Pit Depth

[Signature]
Site Evaluator Signature

263

SE #

04/11/2025

Date

Page 2 of 3
HHE-200 Rev. 02/11

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

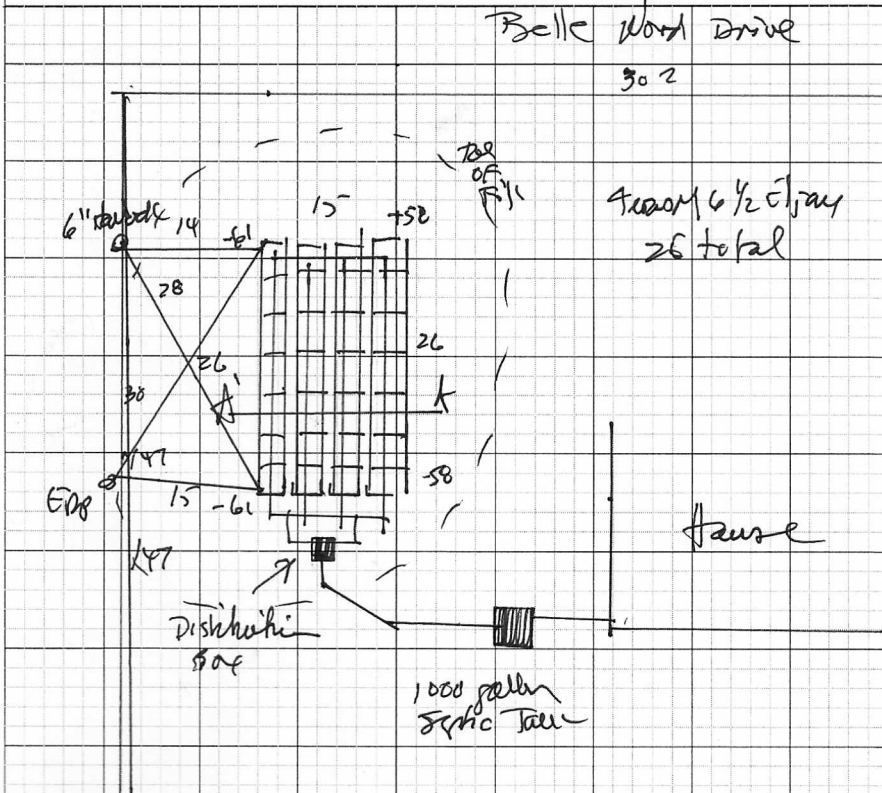
Town, City, Plantation
Old Orchard Beach

Street, Road, Subdivision
Belle Woods Drive Lot 8

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0
SCALE: 1" = 20 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope) 33
Depth of Fill (Downslope) 36

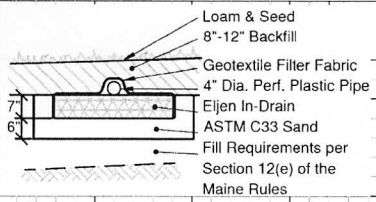
CONSTRUCTION ELEVATIONS

Finished Grade Elevation -25
Top of Distribution Pipe or Proprietary Device -37
Bottom of Disposal Area -48

ELEVATION REFERENCE POINT

Location & Description: Nail 50 inches up 8 inch diameter red maple
Reference Elevation: 0

DISPOSAL AREA CROSS SECTION

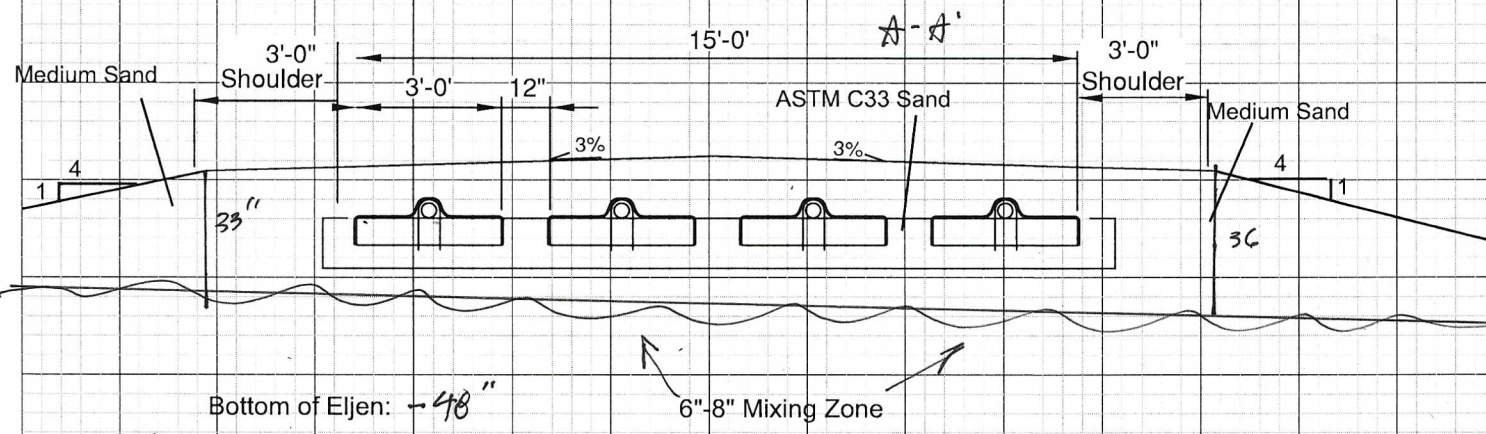


Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal 1" = 4 ft.
Vertical 1" = 4 ft.



Site Evaluator Signature

263

SE #

04/11/2025

Date



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp101@maine.rr.com

Quality services that meet your deadline



APPENDIX H

CORRESPONDENCE WITH UTILITY AUTHORITIES

Drew Olehowski

From: Patrick Gere <Patrick.Gere@MaineWater.com>
Sent: Thursday, May 15, 2025 7:39 AM
To: Drew Olehowski
Cc: KING WEINSTEIN KING REAL ESTATE; Peter Merrill; Ethan Scott; MWC - Mailbox - Engineering Department
Subject: RE: 512 Pool St - Biddeford

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Drew,

The plans look good and address all our comments. Do you need anything from us to support permitting? Do you have an anticipated construction timeline for the project you can share?

Thanks,
Patrick

Patrick Gere, PE
Project Engineer



Cell: 207-468-8808

From: Drew Olehowski <dolehowski@haleyward.com>
Sent: Thursday, May 15, 2025 6:59 AM
To: Patrick Gere <Patrick.Gere@MaineWater.com>
Cc: KING WEINSTEIN KING REAL ESTATE <king198@icloud.com>; Peter Merrill <pmerrill@haleyward.com>; Ethan Scott <ethanscottdevelopment@gmail.com>; MWC - Mailbox - Engineering Department <MWCEngineering@MaineWater.com>
Subject: RE: 512 Pool St - Biddeford

 **WARNING:** This email originated from outside the organization. Be extra cautious with attachments and links in this email. 

Patrick,

This set addresses your remaining comments. Could you please review and let me know if there is anything else?

Thank you,

Drew Olehowski, PE
Project Manager
t: 207.283.9151 d: 207.404.5893 m: 207.576.6488

This e-mail may be confidential and is intended solely for the use of the individual to whom it is addressed. Any views or opinions expressed are solely those of the author or HaleyWard, Inc. If you are not the intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone this action in reliance on it. In such case, you should delete this message, and notify us immediately at 207 989 4824 or by email bangor@haleyward.com.

From: Patrick Gere <Patrick.Gere@MaineWater.com>

Sent: Friday, May 2, 2025 3:29 PM

To: Drew Olehowski <dolehowski@haleyward.com>

Cc: KING WEINSTEIN KING REAL ESTATE <king198@icloud.com>; Peter Merrill <pmerrill@haleyward.com>; Ethan Scott <ethanscottdevelopment@gmail.com>; MWC - Mailbox - Engineering Department <MWCEngineering@MaineWater.com>

Subject: RE: 512 Pool St - Biddeford

Hi Drew,

See attached plan review comments. We would like the hydrant on the other side of the private road so it is not behind a guardrail. We also want to see the entrance culvert shown on the profile to confirm vertical separation.

Thanks,
Patrick

Patrick Gere, PE
Project Engineer



Cell: 207-468-8808

From: Drew Olehowski <dolehowski@haleyward.com>

Sent: Monday, April 21, 2025 3:07 PM

To: Patrick Gere <Patrick.Gere@MaineWater.com>; Ethan Scott <ethanscottdevelopment@gmail.com>

Cc: KING WEINSTEIN KING REAL ESTATE <king198@icloud.com>; Peter Merrill <pmerrill@haleyward.com>

Subject: RE: 512 Pool St - Biddeford

⚠ WARNING: This email originated from outside the organization. Be extra cautious with attachments and links in this email. **⚠**

Patrick,

Attached is the current design plan for 512 Pool Street. Per your request we have removed the directional drilling designation on Pool Street and have added a hydrant within the site. Could you please let me know if this addresses your outstanding concerns?

Thank you,

Drew Olehowski, PE
Project Manager
t: 207.283.9151 d: 207.404.5893 m: 207.576.6488

This e-mail may be confidential and is intended solely for the use of the individual to whom it is addressed. Any views or opinions expressed are solely those of the author or HaleyWard, Inc. If you are not the intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone this action in reliance on it. In such case, you should delete this message, and notify us immediately at 207 989 4824 or by email bangor@haleyward.com.

From: Patrick Gere <Patrick.Gere@MaineWater.com>

Sent: Friday, December 20, 2024 8:45 AM

To: Ethan Scott <ethanscottdevelopment@gmail.com>; Drew Olehowski <dolehowski@haleyward.com>

Cc: KING WEINSTEIN KING REAL ESTATE <king198@icloud.com>

Subject: RE: 512 Pool St - Biddeford

Hi Folks,

Based on the test pits provided that indicate depth to ledge between 1.25 feet and 2.16 feet below ground surface, directional drilling is not feasible. Plan to install the waterworks infrastructure via open trench with extensive ledge removal.

We will need to see the location of the hydrant on the plans. The main will be 8-inch diameter to the hydrant and can reduce after the hydrant lateral. How many potential units are feasible in the rear lot? We want to ensure any future development will be appropriately served from the proposed main.

Thanks,
Patrick

Patrick Gere, PE
Project Engineer



Cell: 207-468-8808

From: Ethan Scott <ethanscottdevelopment@gmail.com>

Sent: Thursday, December 19, 2024 4:32 PM

To: Drew Olehowski <dolehowski@haleyward.com>

Cc: Patrick Gere <Patrick.Gere@MaineWater.com>; KING WEINSTEIN KING REAL ESTATE <king198@icloud.com>

Subject: Re: 512 Pool St - Biddeford

CAUTION: This email originated outside the SJWG organization.

Yes, see below for depths and attached corresponding plans. We want to leave the rear lot under our ownership, with potential future expansion. But no plans for that at the moment.

On Thu, Dec 19, 2024 at 3:33 PM Drew Olehowski <dolehowski@haleyward.com> wrote:

Thanks, Patrick.

- I'll let Ethan weigh in, but there are no plans for additional lots at this time.
- We just confirmed with the fire department that a hydrant will be required.
- It's my understanding that test pits may have already been done on Pool Street. Ethan can you confirm?

Drew Olehowski, PE
Project Manager
t: 207.283.9151 m: 207.576.6488

This e-mail may be confidential and is intended solely for the use of the individual to whom it is addressed. Any views or opinions expressed are solely those of the author or HaleyWard, Inc. If you are not the intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone the information contained in this message. If you have received this message in error, please notify the sender immediately by email at bangor@haleyward.com.

From: Patrick Gere <Patrick.Gere@MaineWater.com>
Sent: Tuesday, December 17, 2024 2:31 PM
To: Drew Olehowski <dolehowski@haleyward.com>
Cc: Ethan Scott <ethanscottdevelopment@gmail.com>
Subject: RE: 512 Pool St - Biddeford

Hi Drew,

See attached plan markups and questions below.

- Are there plans for future expansion / additional units in Lot 9 remaining land?
- Are hydrants required?
- We will need to review test pits to confirm depth to ledge / ability to directional drill under Pool Street.
- Extend the proposed main through the Sokokis Rd intersection.

Thank you,

Patrick

Patrick Gere, PE

Project Engineer



Cell: 207-468-8808

From: Drew Olehowski <dolehowski@haleyward.com>
Sent: Tuesday, December 3, 2024 8:05 AM
To: Patrick Gere <Patrick.Gere@MaineWater.com>
Cc: Ethan Scott <ethanscottdevelopment@gmail.com>
Subject: RE: 512 Pool St - Biddeford

CAUTION: This email originated outside the SJWG organization.

Hi Patrick,

For this Preliminary Subdivision review, the City doesn't explicitly ask for the Ability to Serve determination, but they do require "Review by the water company." I'll need to check with the fire department on if a new hydrant is required.

I have attached our current plan set. Lot 1 already contains a serviced single-family home. Each of the other 7 lots will have a single-family home; the expected floor plan for these homes is attached.

As you'll see, our water infrastructure is still fairly schematic at this point. I am trying to get a hold of the City to see if they need more detail for this preliminary submission. Regarding additional info, are items such as sizes/materials/valves/blow off locations something you'd like us to show for your review, or is that something your department will request as needed?

Thank you,

Drew Olehowski, PE
Project Manager
t: 207.283.9151 m: 207.576.6488

This e-mail may be confidential and is intended solely for the use of the individual to whom it is addressed. Any views or opinions expressed are solely those of the author or HaleyWard, Inc. If you are not the intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone the information contained herein, and you should delete this message, and notify us immediately at 207 989 4824 or by email bangor@haleyward.com.

From: Patrick Gere <Patrick.Gere@MaineWater.com>
Sent: Monday, December 2, 2024 11:44 AM
To: Drew Olehowski <dolehowski@haleyward.com>
Subject: RE: 512 Pool St - Biddeford

You don't often get email from patrick.gere@mainewater.com. [Learn why this is important](#)

Hi Drew,

You can send the plans to me for review. Do you need an Ability to Serve determination to support project permitting? If so, please provide us with either a fixture count or complete and return the IAPMO Water Demand Calculator to support the domestic service size determination.

<https://www.iapmo.org/we-stand/water-demand-calculator/>

Also include the fire service demand if required and currently known. Are you proposing hydrants within the subdivision?

Thank you,

Patrick

Patrick Gere, PE

Project Engineer



Cell: 207-468-8808

From: mintzh@mintz-hoke.com <mintzh@mintz-hoke.com>
Sent: Wednesday, November 27, 2024 8:59 AM
To: MWC - Mailbox - Customer Service <CustomerService@MaineWater.com>
Subject: The Form 'Contact Us Form' was submitted

CAUTION: This email originated outside the SJWG organization.



Contact Us Submission

Submission Details

Full Name

Drew J Olehowski

Company

Haley Ward

Street Address

512 Pool Street

City

Biddeford

State

Maine

Zip Code

04005

Phone

2075766488

Email Address

dolehowski@haleyward.com

Request for Copies

Other

Other

Hello, I am currently working on a proposed subdivision application for a 9-lot subdivision at 512 Pool Street in Biddeford. As part of

municipal review, we are required to have our plans reviewed by the local water authority. Please let me know who I can share these plans with. Thank you,

Your Message or Question

▪

Drew Olehowski

From: Drew Olehowski
Sent: Tuesday, December 3, 2024 8:12 AM
To: Milligan, Tom; Chekan, Craig; edward.dexter@biddefordmaine.org; steven.gorton@biddefordmaine.org; Fecteau, Roby
Cc: Galbraith, David; Ethan Scott
Subject: 512 Pool Street preliminary subdivision
Attachments: 13871.019-SET.pdf

Good morning,

Attached is the current plan set for the proposed 512 Pool street subdivision. Per the City's Subdivision Required Information checklist, we are required to have this plan reviewed by City Engineering, Police, and Fire Departments. I am not sure if these reviews are supposed to happen before or after a formal submission; I have cc'd David for further instruction.

David,

Would it be possible for us to submit 1 copy of this application for a "completeness review," prior to the production of the additional copies?

Roby,

Ethan let me know you were looking for a plan set depicting existing and future wetland impacts. As shown on Sheet C101, the only impacts will be 1,500 SF directly adjacent to Pool Street. Building development areas will be restricted on each lot to avoid further impacts.

Thank you,



Drew Olehowski, PE
Project Manager
t: 207.283.9151 m: 207.576.6488
a: 120 Main Street, Suite 132, Saco, ME 04072



2024 Best Places
To Work For
Zweig Group Award



This e-mail may be confidential and is intended solely for the use of the individual to whom it is addressed. Any views or opinions expressed are solely those of the author and do not necessarily represent those of Haley Ward, Inc. If you are not the intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone this message (or any part of its contents) or take any action in reliance on it. In such case, you should delete this message, and notify us immediately at 207 989 4824 or by email bangor@haleyward.com.



APPENDIX I

STORMWATER MANAGEMENT REPORT



STORMWATER MANAGEMENT

NARRATIVE

The intent of this Stormwater Management Plan is to comply with the requirements of the Maine Department of Environmental Protection (MDEP) Chapter 500 regulations and The City of Biddeford's Land Use Ordinance. This project involves the development of a 9-lot subdivision at 512 Pool Street in Biddeford, Maine.

The subject parcel is approximately 17.45 acres and is undeveloped and wooded except for one single-family home that was constructed in 2024. The proposed subdivision area was also selectively harvested of existing woody vegetation, in accordance with a State-approved forestry plan (Harvest #2301688).

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.

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION – CHAPTER 500 STANDARDS.

The proposed development has been designed to adhere to the stormwater standards listed within The City's Land Use Ordinance. Because the applicant is proposing to develop both the access road and the lots, efforts have been made to keep the total proposed impervious area quantity below one acre, removing the need for an MDEP stormwater permit. The drawings include restrictions on the impervious area allowed per lot to ensure this limitation will be adhered to. Because the project will disturb greater than one acre of land area, a Stormwater Permit by Rule will be filed with the MDEP.

CITY OF BIDDEFORD STANDARDS

The following sections of the Biddeford Land Use Code dictate the stormwater management requirements for this project. The ordinance language has been provided in bold italics, followed by a demonstration of how the applicable criteria have been met.

Article IV, Section 61 – Stormwater Management

- 1. All new construction and development, whether or not served by a stormwater collection and transportation system, shall be designed to reflect or resemble, as nearly as possible, natural runoff conditions in terms of volume, velocity and location of runoff.***
- 2. If runoff, after development, would exceed predevelopment runoff conditions, the offsite impact must be evaluated in terms of potential soil erosion and sedimentation, drainage capacity, and the land use/land cover characteristics. Appropriate methods of reducing off-site impact shall be employed.***



3. Stormwater management evaluations and designs shall be based on a twenty-four-hour, twenty-five-year occurrence interval storm.

4. The Planning Board may, when it deems it appropriate, require calculations that are based on a fifty-year storm.

To meet this standard, HydroCAD calculations were performed to compare pre-development and post-development conditions. Curve numbers and peak runoff flows were calculated using HydroCAD.

The pre-development site is undeveloped woodland. Soils on the site per the USDA web soil survey are classified as loams and rock outcrops (hydrologic group D). Slopes on-site vary, with some flat areas (0-2%) and many steep areas (15%+).

The pre-development drainage analysis area was broken into three sub-watersheds with three summation points. The northeastern portion of the site drains to the northeast with runoff collected alongside Pool Street and conveyed to the eastern side of the road via an existing cross culvert (Summation Point 1). The center of the site drains to the southeast to a large wetland area (Summation Point 2). The western corner of the site drains to the northwest to another large wetland area (Summation Point 3). The southern corner of the site drains to the south (Summation Point 4).

The post-development site was broken into seven subareas encompassing the same footprint as the pre-development analysis area. Summation Points were chosen in similar areas between pre-development and post-development to compare peak flow runoff for the 2-year, 10-year, and 25-year storm events.

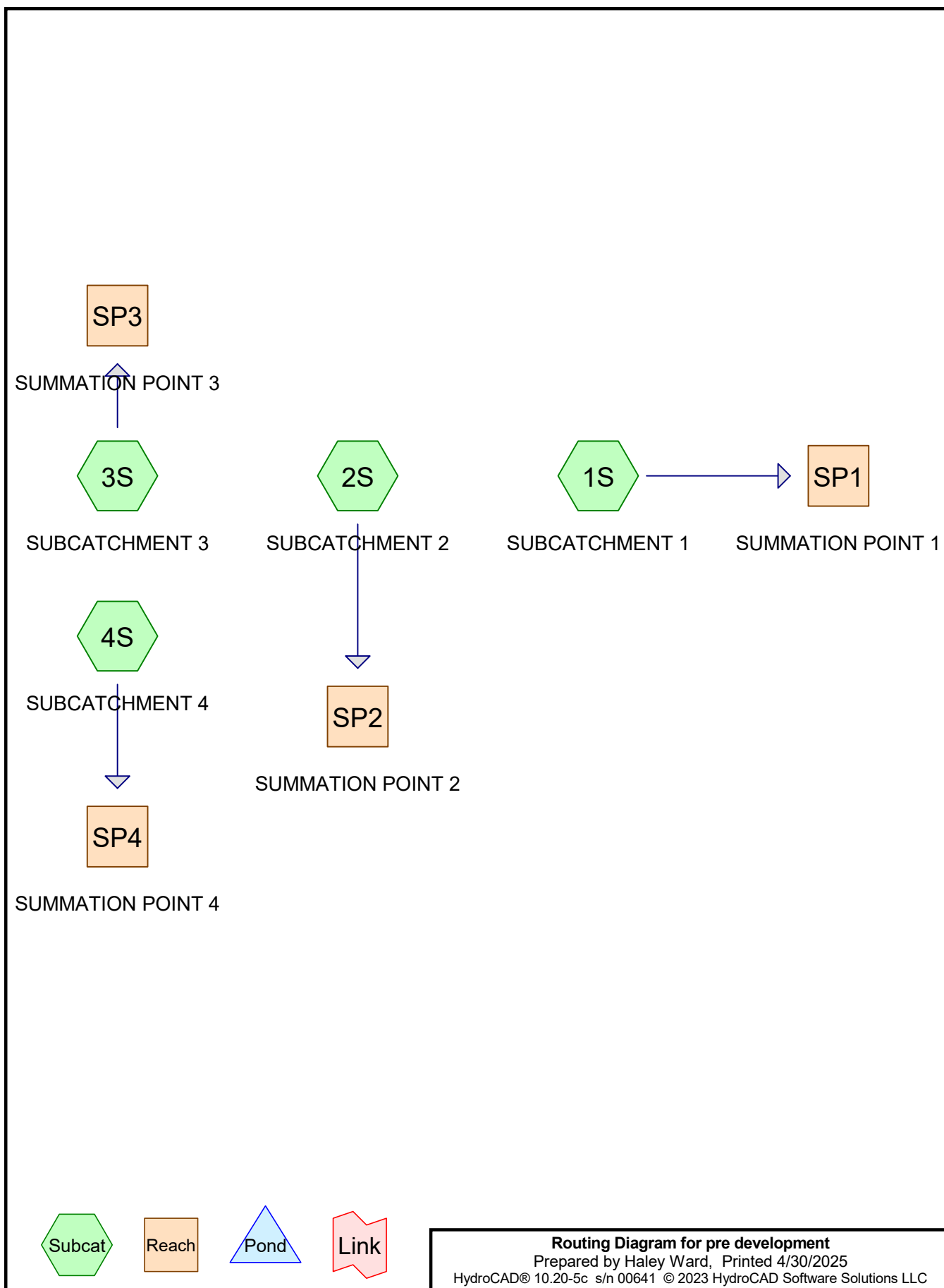
Based on results of the HydroCAD, it is expected that stormwater runoff from the site will be similar or lessened in post-development conditions as in pre-development conditions. Overall, it is expected that runoff from the site will be similar to post-development conditions and a similar stormwater runoff will be realized. A comparison of each of the watershed areas in both Pre- and Post-Development is organized in the table below.

		2 Year (cfs)	10 Year (cfs)	25 Year (cfs)	100 Year (cfs)	25 Year Net Change (cfs)
Summation Point 1	Pre	2.28	4.54	6.48	10.33	-0.16
	Post	2.89	4.80	6.32	9.18	
Summation Point 2	Pre	3.32	6.73	9.71	15.62	-0.24
	Post	4.02	7.02	9.47	16.37	
Summation Point 3	Pre	1.81	3.67	5.28	8.48	+0.36
	Post	2.14	4.04	5.64	8.79	
Summation Point 4	Pre	0.28	0.58	0.83	1.33	0
	Post	0.28	0.58	0.83	1.33	



As can be seen in the table above, all summation points will see similar post-development flow rates. This was accomplished through the use of two stormwater detention areas with outlet controls. While there are minor increases observed, they are based on conservative modeling and can be considered insignificant (<1 cfs increase). Within the HydroCAD model, each of the subdivision parcels were given the "1-acre/2-acre lot" cover type designation, implying that the entire lot would be developed. This is conservative, as each lot has been given an allowed development area envelope (shown on the subdivision plan) which is only a fraction of the parcel size.

An inspection of the stormwater management facilities shall take place on an annual basis. A copy of the City of Biddeford Annual Stormwater Management Facilities Certification has been attached to this plan. Following the inspection, this form shall be submitted to the City of Biddeford's Engineering Department by March 1st each year.



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Printed 4/30/2025

Page 2

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2 YEAR	Type III 24-hr		Default	24.00	1	3.30	2
2	10 YEAR	Type III 24-hr		Default	24.00	1	4.90	2
3	25 YEAR	Type III 24-hr		Default	24.00	1	6.20	2
4	100 YEAR	Type III 24-hr		Default	24.00	1	8.70	2

pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.30"

Printed 4/30/2025

Page 3

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: SUBCATCHMENT 1 Runoff Area=88,998 sf 6.84% Impervious Runoff Depth>1.24"
Flow Length=410' Tc=16.7 min CN=78 Runoff=2.28 cfs 0.210 af

Subcatchment 2S: SUBCATCHMENT 2 Runoff Area=201,036 sf 0.00% Impervious Runoff Depth>1.16"
Flow Length=730' Tc=40.2 min CN=77 Runoff=3.32 cfs 0.447 af

Subcatchment 3S: SUBCATCHMENT 3 Runoff Area=68,129 sf 0.00% Impervious Runoff Depth>1.18"
Flow Length=260' Tc=13.1 min CN=77 Runoff=1.81 cfs 0.153 af

Subcatchment 4S: SUBCATCHMENT 4 Runoff Area=9,999 sf 0.00% Impervious Runoff Depth>1.18"
Flow Length=180' Tc=10.8 min CN=77 Runoff=0.28 cfs 0.023 af

Reach SP1: SUMMATION POINT 1 Inflow=2.28 cfs 0.210 af
Outflow=2.28 cfs 0.210 af

Reach SP2: SUMMATION POINT 2 Inflow=3.32 cfs 0.447 af
Outflow=3.32 cfs 0.447 af

Reach SP3: SUMMATION POINT 3 Inflow=1.81 cfs 0.153 af
Outflow=1.81 cfs 0.153 af

Reach SP4: SUMMATION POINT 4 Inflow=0.28 cfs 0.023 af
Outflow=0.28 cfs 0.023 af

Total Runoff Area = 8.452 ac Runoff Volume = 0.833 af Average Runoff Depth = 1.18"
98.35% Pervious = 8.312 ac 1.65% Impervious = 0.140 ac

pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.30"

Printed 4/30/2025

Page 4

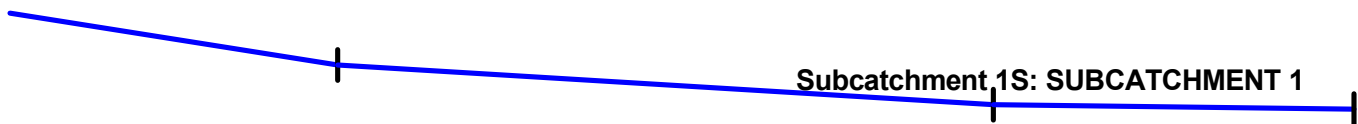
Summary for Subcatchment 1S: SUBCATCHMENT 1

Runoff = 2.28 cfs @ 12.24 hrs, Volume= 0.210 af, Depth> 1.24"
 Routed to Reach SP1 : SUMMATION POINT 1

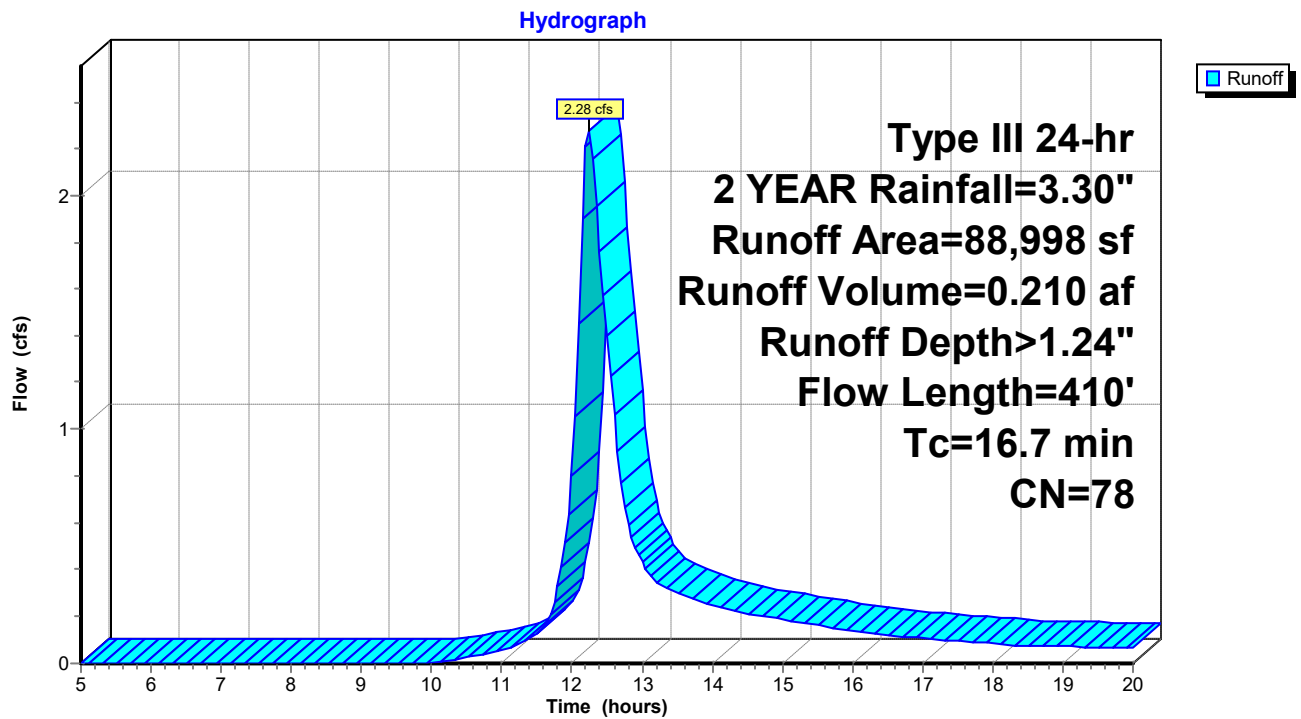
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 YEAR Rainfall=3.30"

Area (sf)	CN	Description
82,911	77	Woods, Good, HSG D
* 6,087	98	IMPERVIOUS
88,998	78	Weighted Average
82,911		93.16% Pervious Area
6,087		6.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1300	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
3.0	200	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.7	110	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.7	410	Total			



Subcatchment 1S: SUBCATCHMENT 1



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.30"

Printed 4/30/2025

Page 6

Summary for Subcatchment 2S: SUBCATCHMENT 2

Runoff = 3.32 cfs @ 12.58 hrs, Volume= 0.447 af, Depth> 1.16"
Routed to Reach SP2 : SUMMATION POINT 2

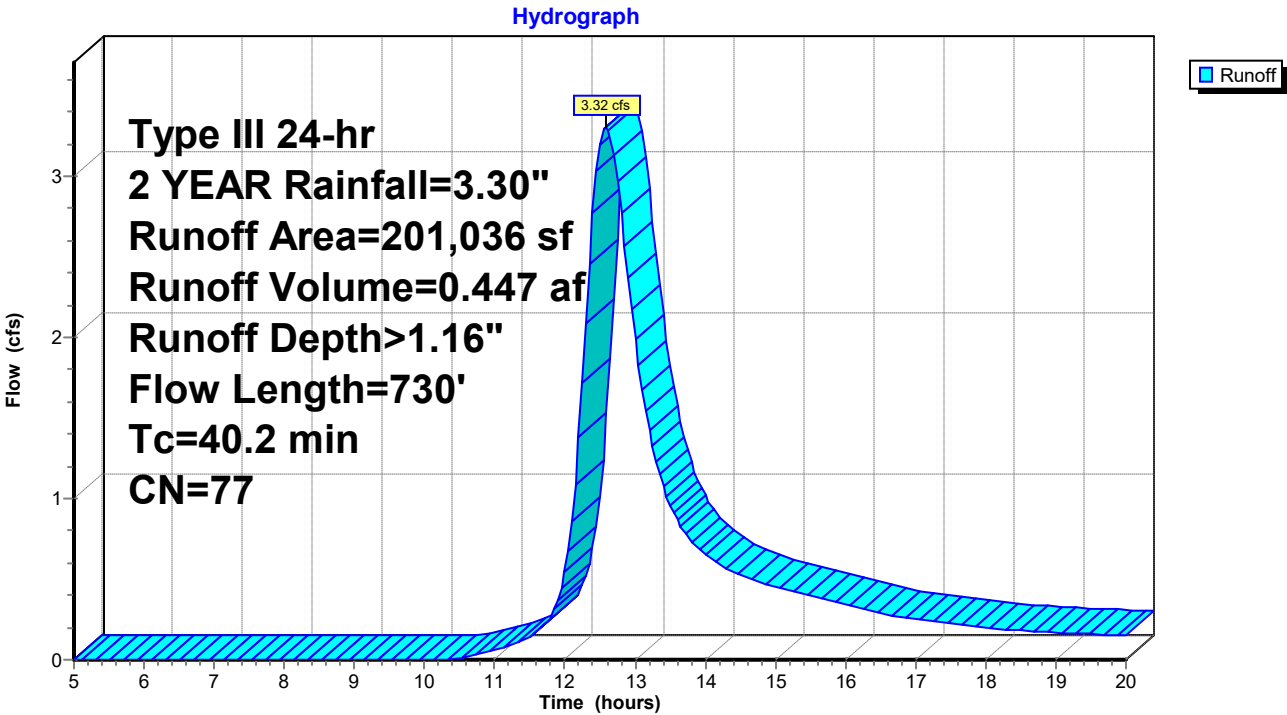
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.30"

Area (sf)	CN	Description
201,036	77	Woods, Good, HSG D
201,036		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.2600	0.19		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
35.8	680	0.0040	0.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
40.2	730	Total			



Subcatchment 2S: SUBCATCHMENT 2



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.30"

Printed 4/30/2025

Page 7

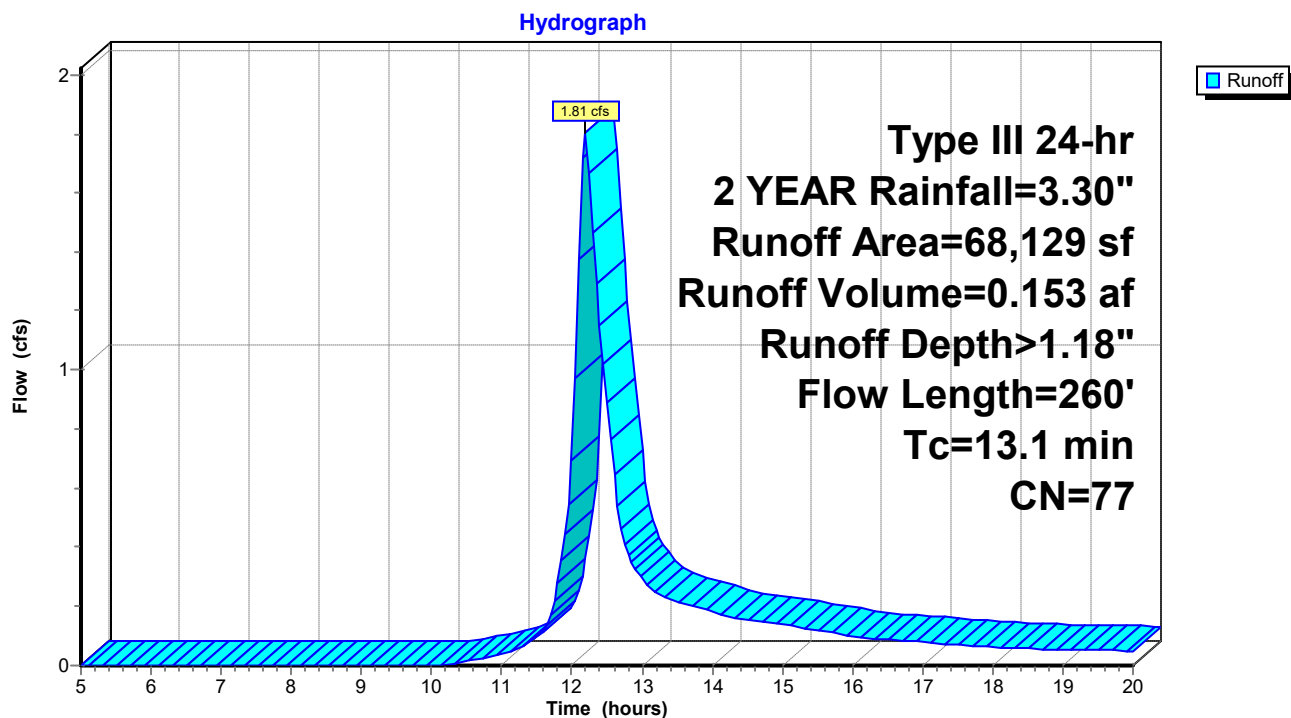
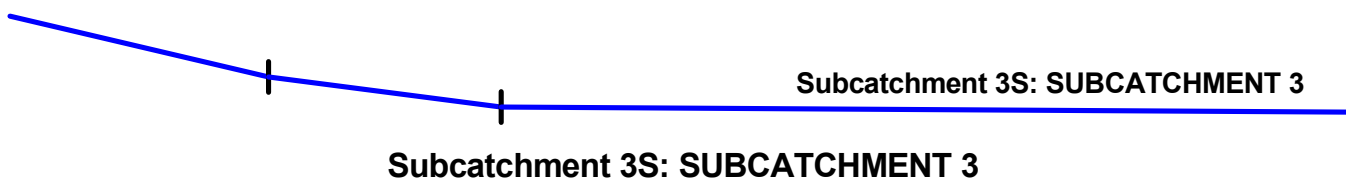
Summary for Subcatchment 3S: SUBCATCHMENT 3

Runoff = 1.81 cfs @ 12.19 hrs, Volume= 0.153 af, Depth> 1.18"
Routed to Reach SP3 : SUMMATION POINT 3

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 2 YEAR Rainfall=3.30"

Area (sf)	CN	Description
68,129	77	Woods, Good, HSG D
68,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.5	45	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
7.8	165	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
13.1	260	Total			



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.30"

Printed 4/30/2025

Page 8

Summary for Subcatchment 4S: SUBCATCHMENT 4

Runoff = 0.28 cfs @ 12.16 hrs, Volume= 0.023 af, Depth> 1.18"
Routed to Reach SP4 : SUMMATION POINT 4

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 2 YEAR Rainfall=3.30"

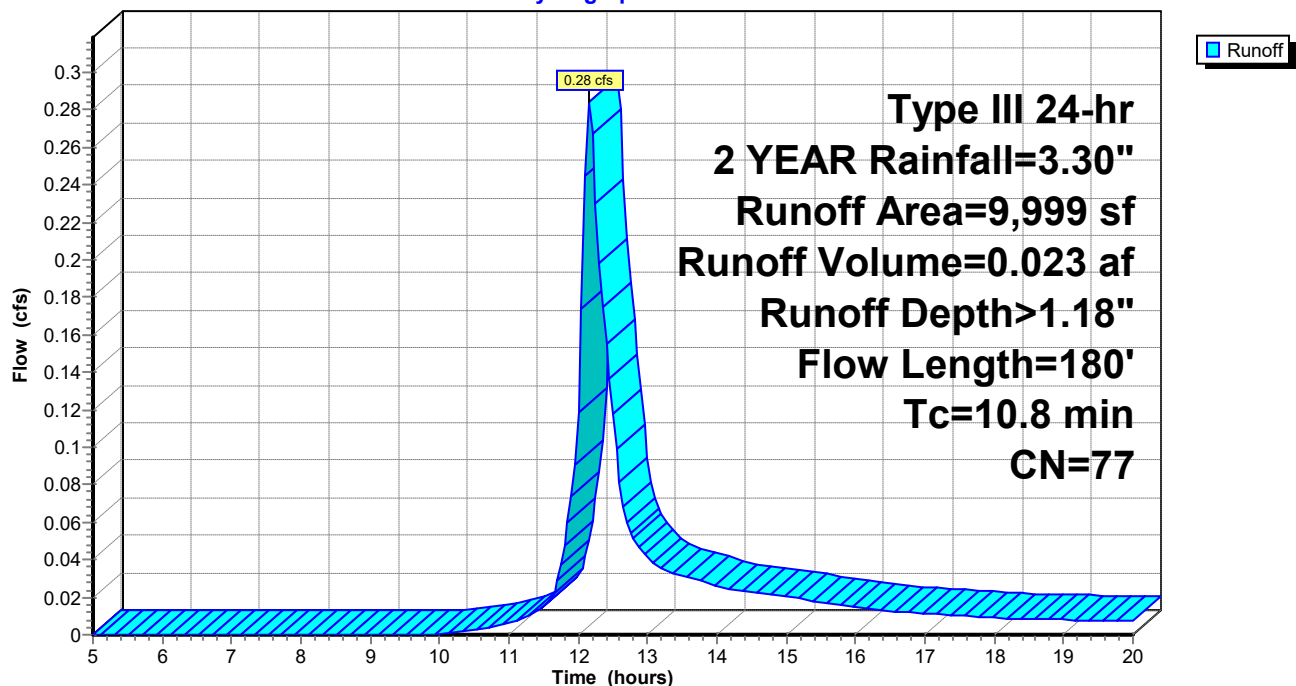
Area (sf)	CN	Description
9,999	77	Woods, Good, HSG D
9,999		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	80	0.1300	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.8	180	Total			



Subcatchment 4S: SUBCATCHMENT 4

Hydrograph



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.30"

Printed 4/30/2025

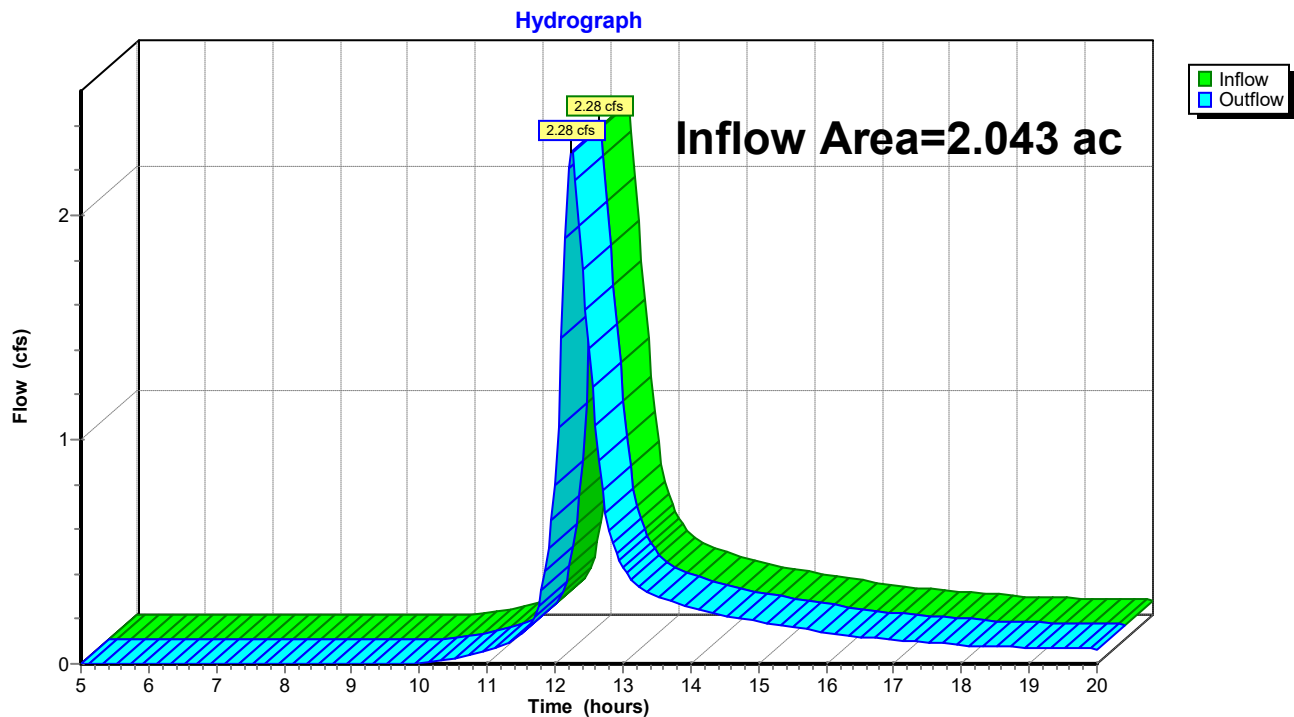
Page 9

Summary for Reach SP1: SUMMATION POINT 1

Inflow Area = 2.043 ac, 6.84% Impervious, Inflow Depth > 1.24" for 2 YEAR event
Inflow = 2.28 cfs @ 12.24 hrs, Volume= 0.210 af
Outflow = 2.28 cfs @ 12.24 hrs, Volume= 0.210 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 SP1: SUMMATION POINT 1



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.30"

Printed 4/30/2025

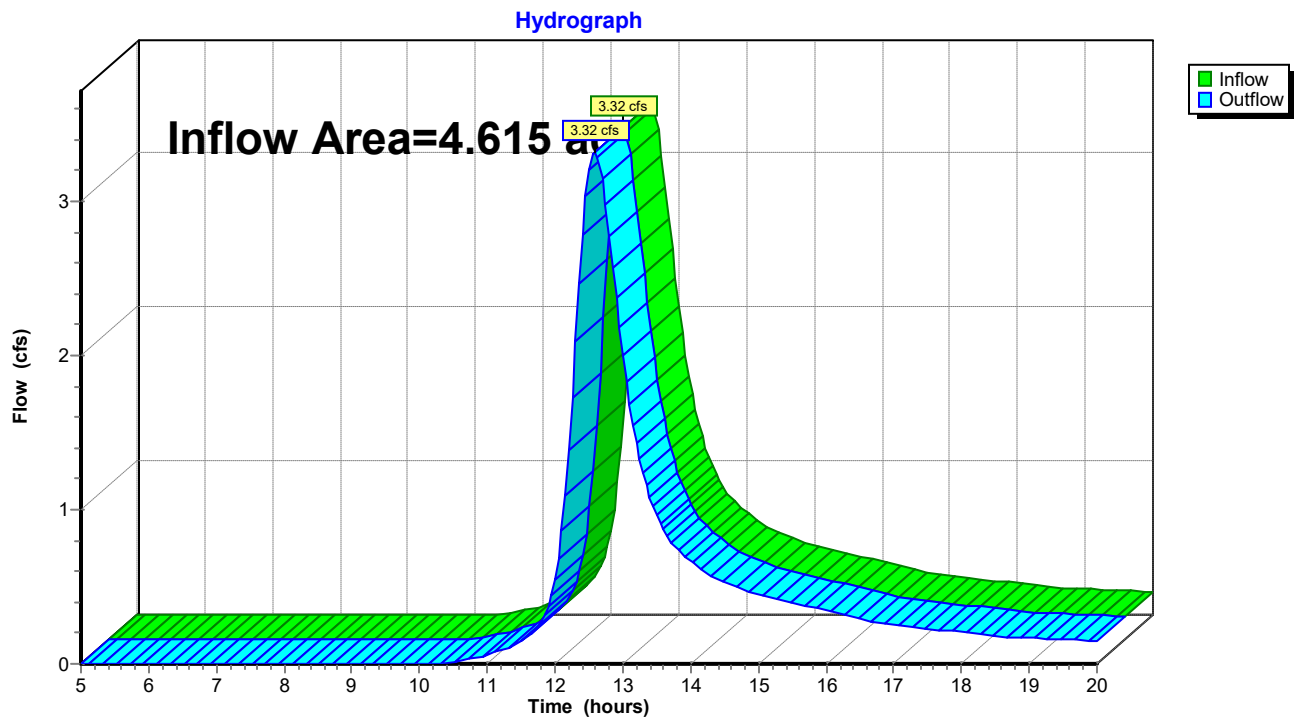
Page 10

Summary for Reach SP2: SUMMATION POINT 2

Inflow Area = 4.615 ac, 0.00% Impervious, Inflow Depth > 1.16" for 2 YEAR event
Inflow = 3.32 cfs @ 12.58 hrs, Volume= 0.447 af
Outflow = 3.32 cfs @ 12.58 hrs, Volume= 0.447 af, Atten= 0%, Lag= 0.0 min

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

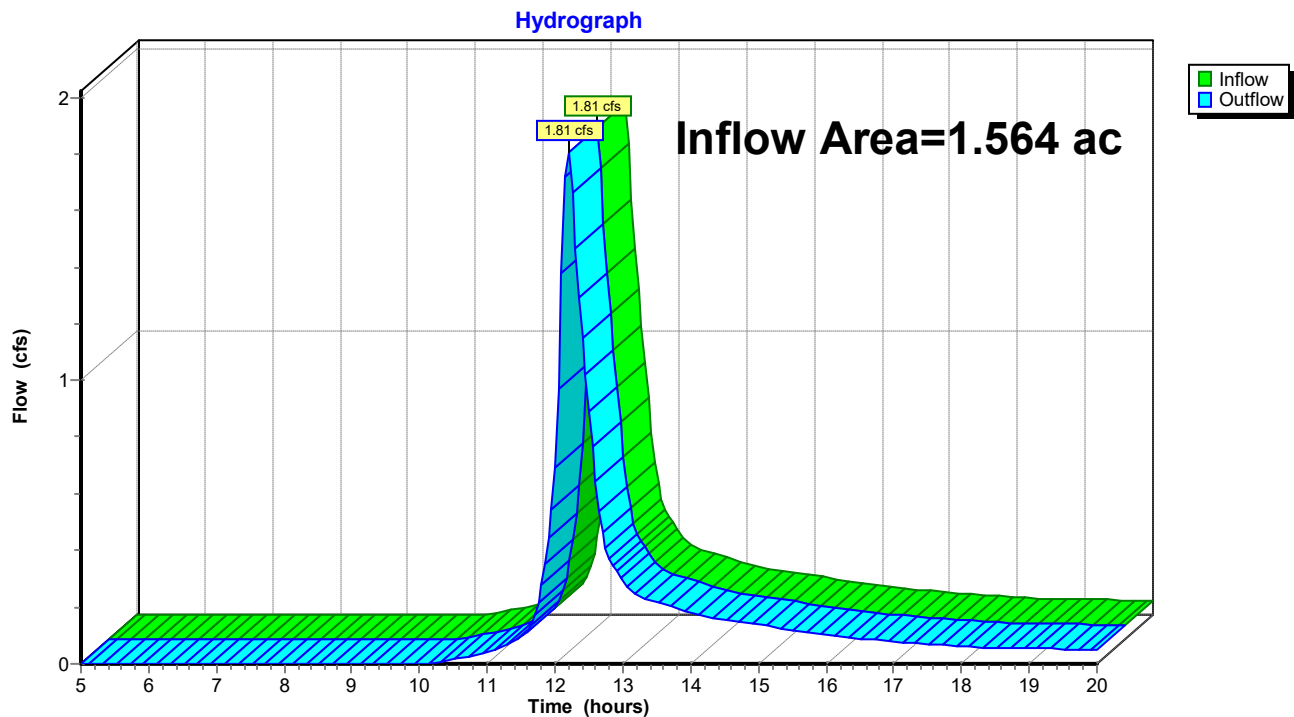
Reach SP2: SUMMATION POINT 2



Summary for Reach SP3: SUMMATION POINT 3

Inflow Area = 1.564 ac, 0.00% Impervious, Inflow Depth > 1.18" for 2 YEAR event
Inflow = 1.81 cfs @ 12.19 hrs, Volume= 0.153 af
Outflow = 1.81 cfs @ 12.19 hrs, Volume= 0.153 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 SP3: SUMMATION POINT 3

pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.30"

Printed 4/30/2025

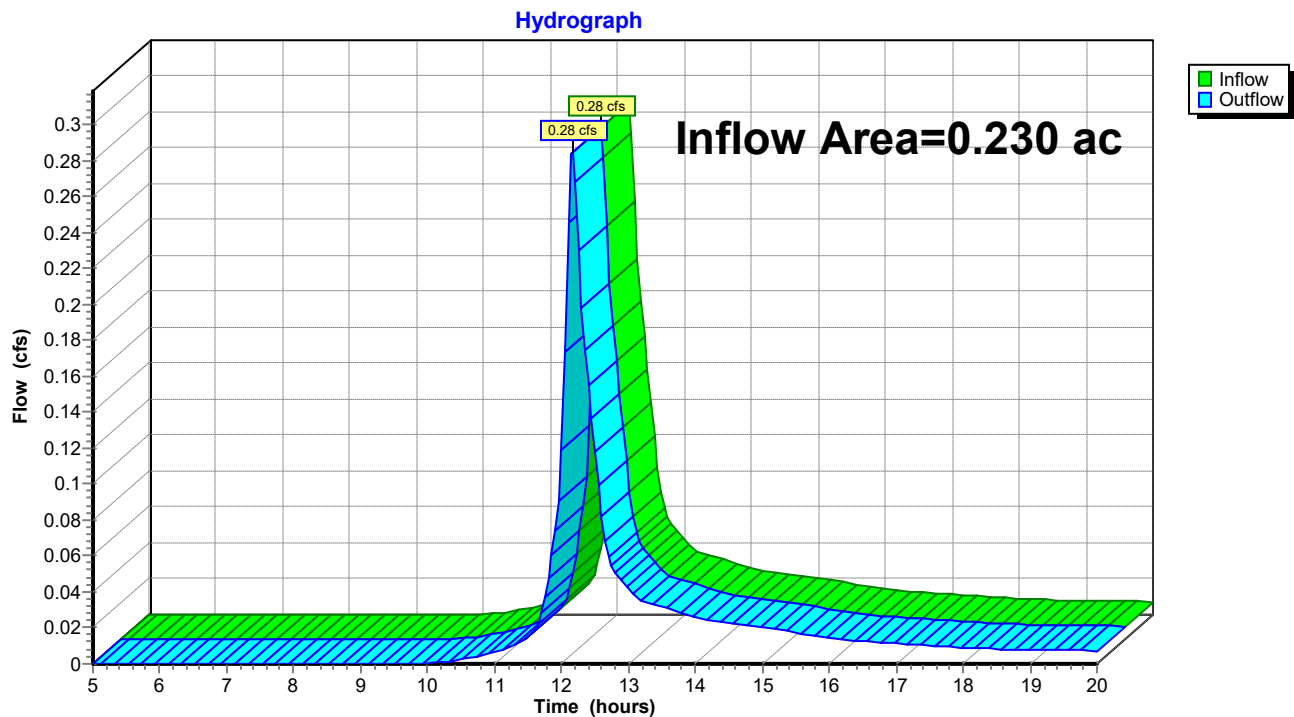
Page 12

Summary for Reach SP4: SUMMATION POINT 4

Inflow Area = 0.230 ac, 0.00% Impervious, Inflow Depth > 1.18" for 2 YEAR event
Inflow = 0.28 cfs @ 12.16 hrs, Volume= 0.023 af
Outflow = 0.28 cfs @ 12.16 hrs, Volume= 0.023 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 SP4: SUMMATION POINT 4



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

Page 13

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: SUBCATCHMENT 1	Runoff Area=88,998 sf 6.84% Impervious Runoff Depth>2.44" Flow Length=410' Tc=16.7 min CN=78 Runoff=4.54 cfs 0.415 af
Subcatchment 2S: SUBCATCHMENT 2	Runoff Area=201,036 sf 0.00% Impervious Runoff Depth>2.33" Flow Length=730' Tc=40.2 min CN=77 Runoff=6.73 cfs 0.897 af
Subcatchment 3S: SUBCATCHMENT 3	Runoff Area=68,129 sf 0.00% Impervious Runoff Depth>2.36" Flow Length=260' Tc=13.1 min CN=77 Runoff=3.67 cfs 0.307 af
Subcatchment 4S: SUBCATCHMENT 4	Runoff Area=9,999 sf 0.00% Impervious Runoff Depth>2.36" Flow Length=180' Tc=10.8 min CN=77 Runoff=0.58 cfs 0.045 af
Reach SP1: SUMMATION POINT 1	Inflow=4.54 cfs 0.415 af Outflow=4.54 cfs 0.415 af
Reach SP2: SUMMATION POINT 2	Inflow=6.73 cfs 0.897 af Outflow=6.73 cfs 0.897 af
Reach SP3: SUMMATION POINT 3	Inflow=3.67 cfs 0.307 af Outflow=3.67 cfs 0.307 af
Reach SP4: SUMMATION POINT 4	Inflow=0.58 cfs 0.045 af Outflow=0.58 cfs 0.045 af

Total Runoff Area = 8.452 ac Runoff Volume = 1.664 af Average Runoff Depth = 2.36"
98.35% Pervious = 8.312 ac 1.65% Impervious = 0.140 ac

pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

Page 14

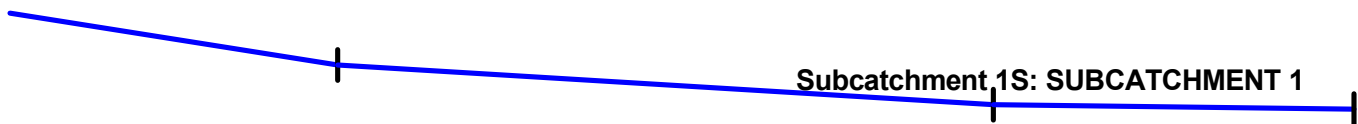
Summary for Subcatchment 1S: SUBCATCHMENT 1

Runoff = 4.54 cfs @ 12.23 hrs, Volume= 0.415 af, Depth> 2.44"
 Routed to Reach SP1 : SUMMATION POINT 1

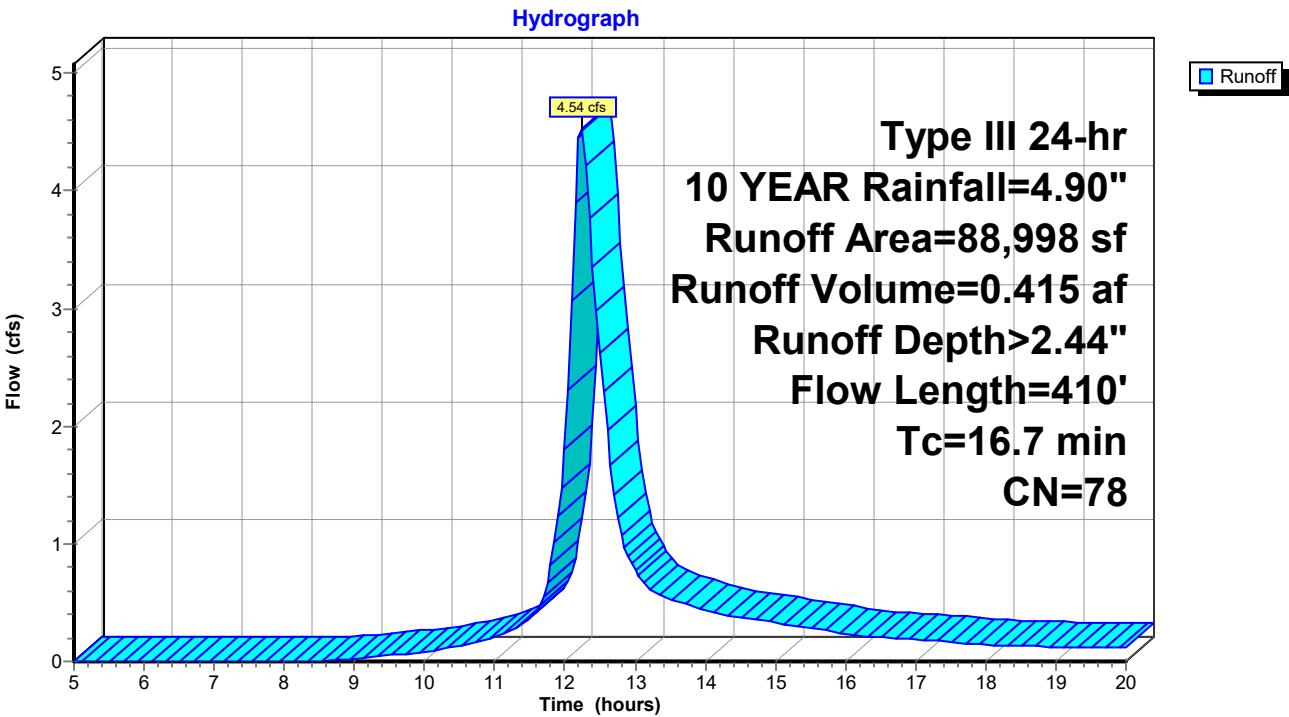
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 YEAR Rainfall=4.90"

Area (sf)	CN	Description
82,911	77	Woods, Good, HSG D
* 6,087	98	IMPERVIOUS
88,998	78	Weighted Average
82,911		93.16% Pervious Area
6,087		6.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1300	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
3.0	200	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.7	110	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.7	410	Total			



Subcatchment 1S: SUBCATCHMENT 1



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

Page 16

Summary for Subcatchment 2S: SUBCATCHMENT 2

Runoff = 6.73 cfs @ 12.56 hrs, Volume= 0.897 af, Depth> 2.33"
Routed to Reach SP2 : SUMMATION POINT 2

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 10 YEAR Rainfall=4.90"

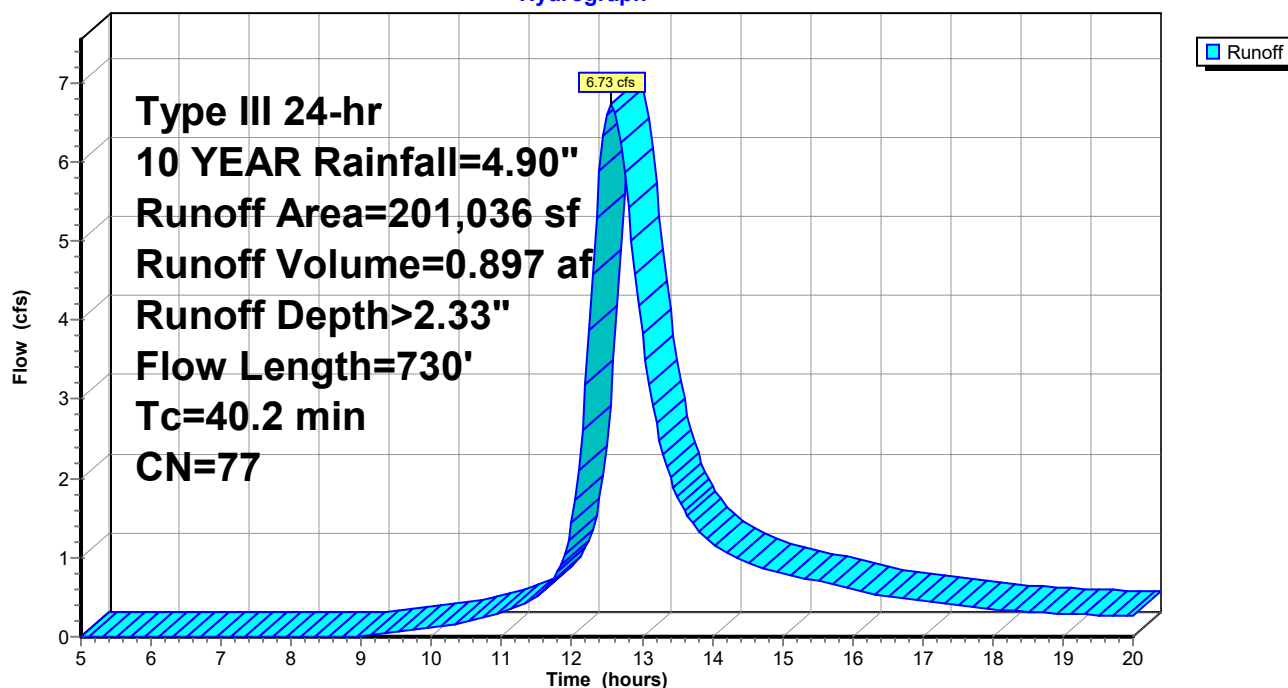
Area (sf)	CN	Description
201,036	77	Woods, Good, HSG D
201,036		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.2600	0.19		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
35.8	680	0.0040	0.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
40.2	730	Total			



Subcatchment 2S: SUBCATCHMENT 2

Hydrograph



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

Page 17

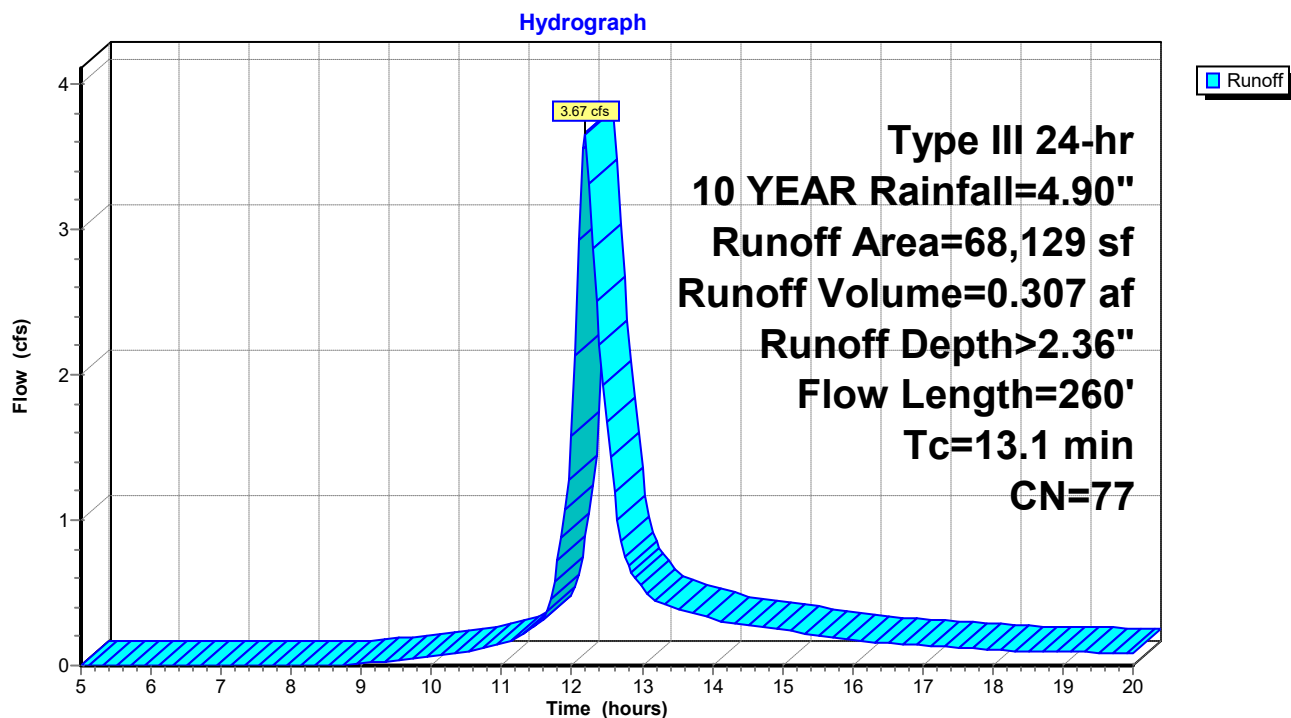
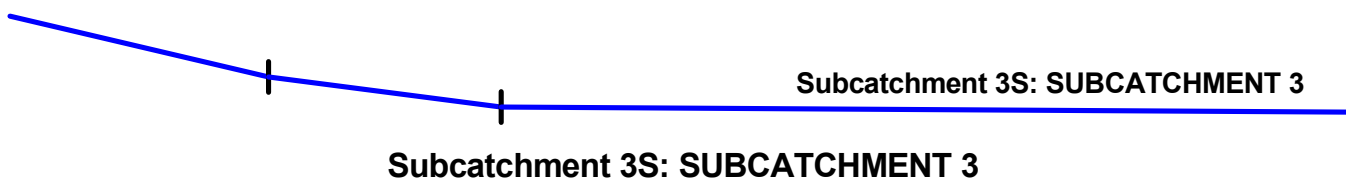
Summary for Subcatchment 3S: SUBCATCHMENT 3

Runoff = 3.67 cfs @ 12.19 hrs, Volume= 0.307 af, Depth> 2.36"
Routed to Reach SP3 : SUMMATION POINT 3

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 10 YEAR Rainfall=4.90"

Area (sf)	CN	Description
68,129	77	Woods, Good, HSG D
68,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.5	45	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
7.8	165	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
13.1	260	Total			



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

Page 18

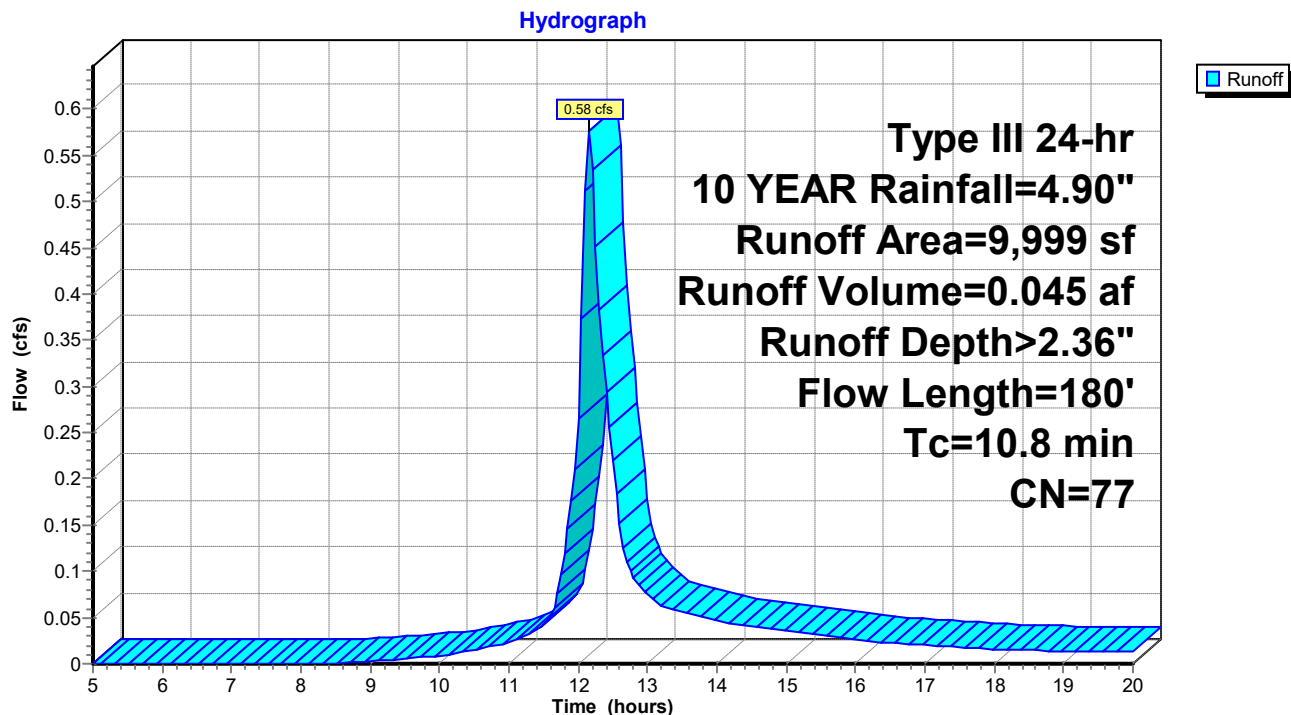
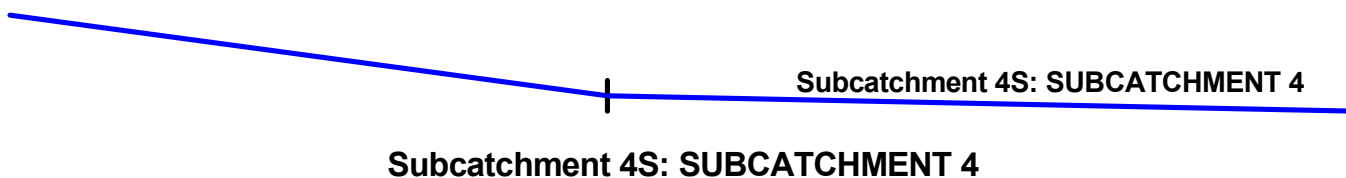
Summary for Subcatchment 4S: SUBCATCHMENT 4

Runoff = 0.58 cfs @ 12.16 hrs, Volume= 0.045 af, Depth> 2.36"
Routed to Reach SP4 : SUMMATION POINT 4

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 10 YEAR Rainfall=4.90"

Area (sf)	CN	Description
9,999	77	Woods, Good, HSG D
9,999		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	80	0.1300	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.8	180	Total			



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

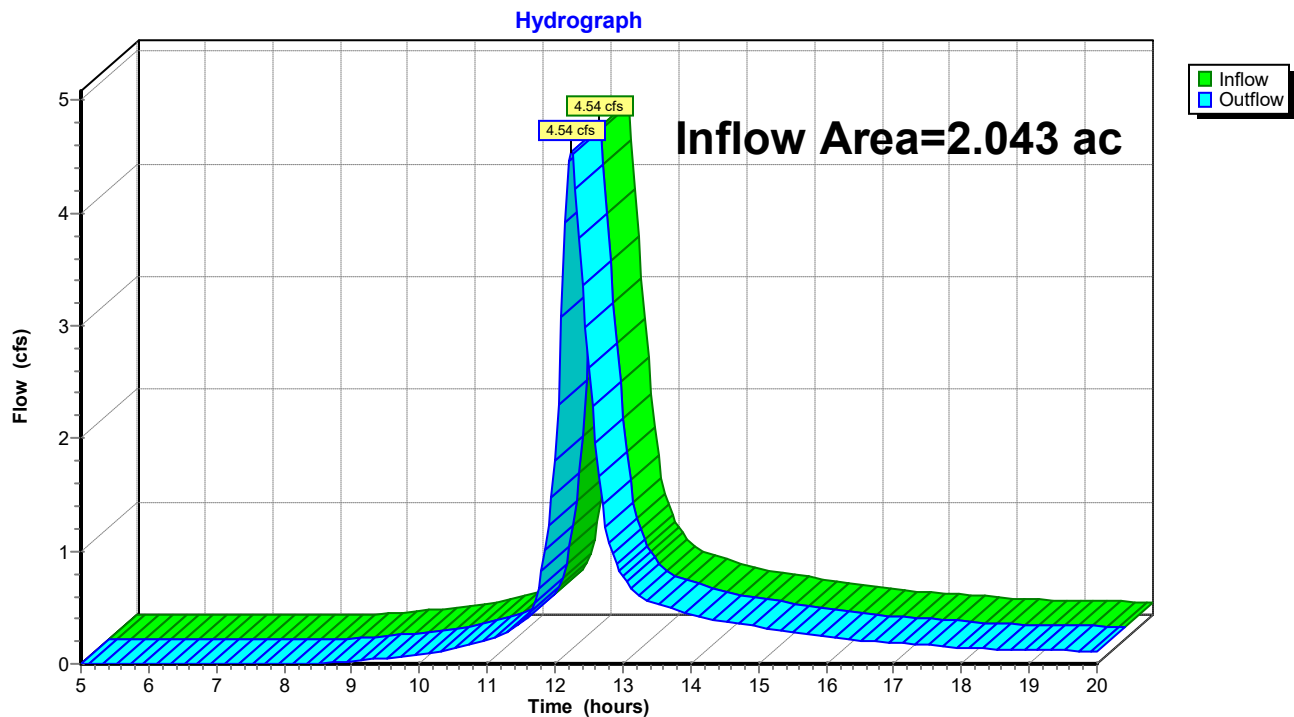
Page 19

Summary for Reach SP1: SUMMATION POINT 1

Inflow Area = 2.043 ac, 6.84% Impervious, Inflow Depth > 2.44" for 10 YEAR event
Inflow = 4.54 cfs @ 12.23 hrs, Volume= 0.415 af
Outflow = 4.54 cfs @ 12.23 hrs, Volume= 0.415 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 SP1: SUMMATION POINT 1



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

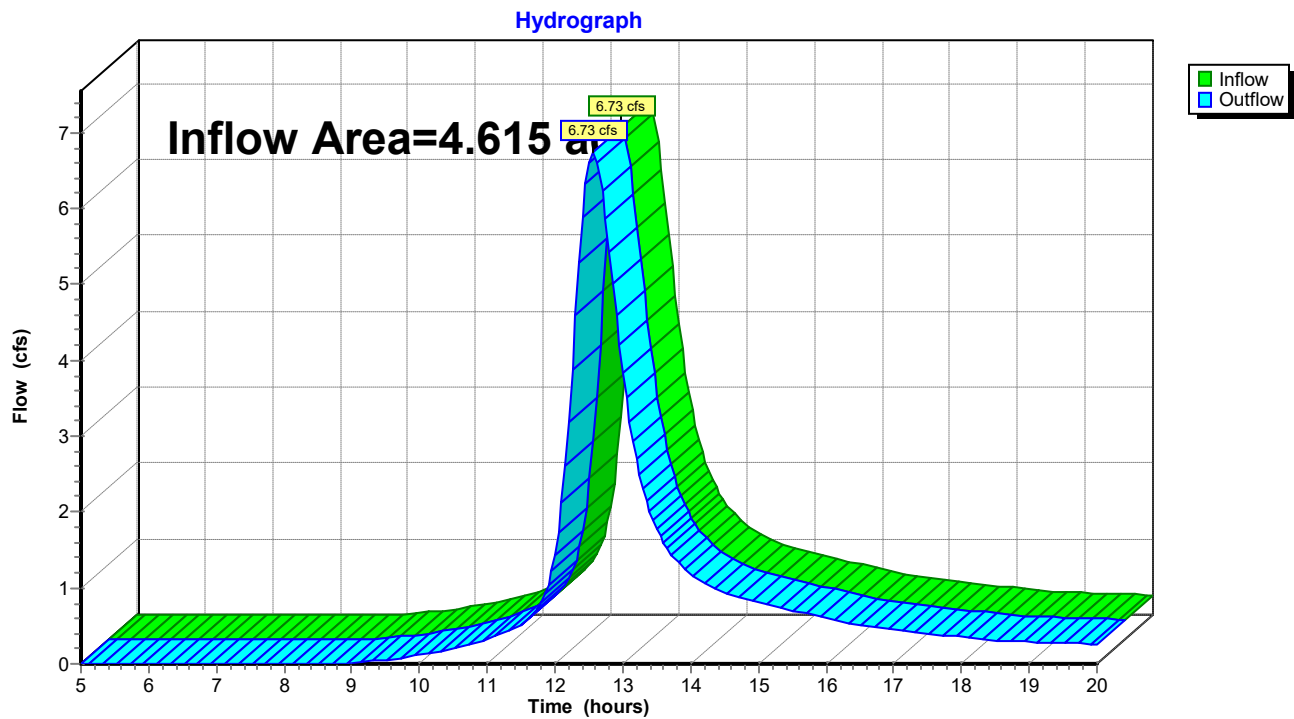
Page 20

Summary for Reach SP2: SUMMATION POINT 2

Inflow Area = 4.615 ac, 0.00% Impervious, Inflow Depth > 2.33" for 10 YEAR event
Inflow = 6.73 cfs @ 12.56 hrs, Volume= 0.897 af
Outflow = 6.73 cfs @ 12.56 hrs, Volume= 0.897 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 SP2: SUMMATION POINT 2



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

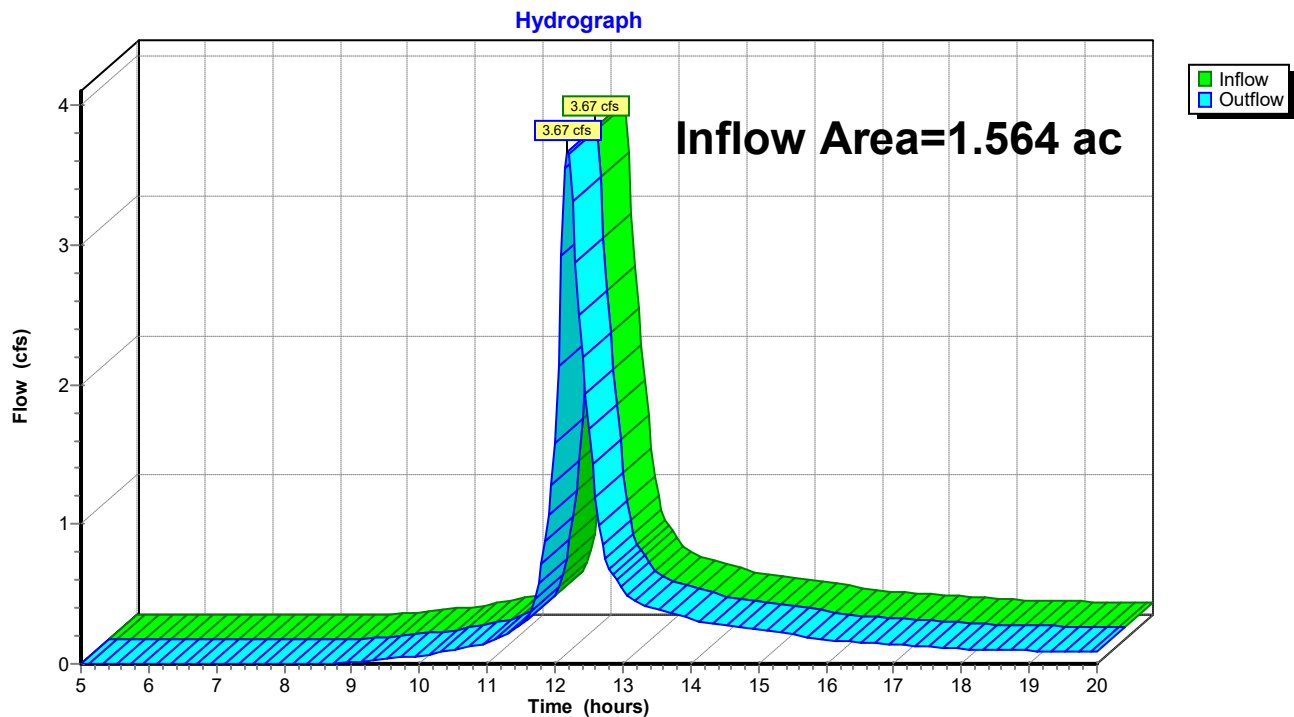
Page 21

Summary for Reach SP3: SUMMATION POINT 3

Inflow Area = 1.564 ac, 0.00% Impervious, Inflow Depth > 2.36" for 10 YEAR event
Inflow = 3.67 cfs @ 12.19 hrs, Volume= 0.307 af
Outflow = 3.67 cfs @ 12.19 hrs, Volume= 0.307 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 SP3: SUMMATION POINT 3



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10 YEAR Rainfall=4.90"

Printed 4/30/2025

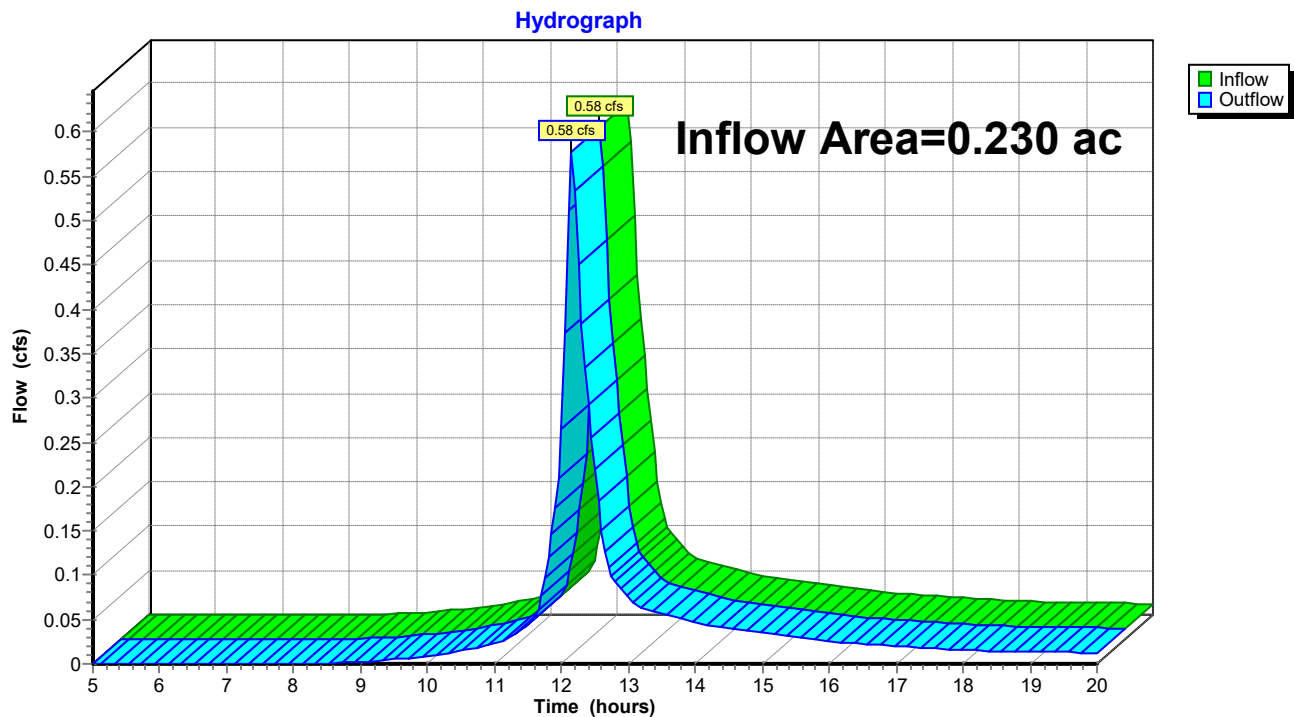
Page 22

Summary for Reach SP4: SUMMATION POINT 4

Inflow Area = 0.230 ac, 0.00% Impervious, Inflow Depth > 2.36" for 10 YEAR event
Inflow = 0.58 cfs @ 12.16 hrs, Volume= 0.045 af
Outflow = 0.58 cfs @ 12.16 hrs, Volume= 0.045 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 SP4: SUMMATION POINT 4



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

Page 23

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: SUBCATCHMENT 1 Runoff Area=88,998 sf 6.84% Impervious Runoff Depth>3.50"
Flow Length=410' Tc=16.7 min CN=78 Runoff=6.48 cfs 0.596 af

Subcatchment 2S: SUBCATCHMENT 2 Runoff Area=201,036 sf 0.00% Impervious Runoff Depth>3.38"
Flow Length=730' Tc=40.2 min CN=77 Runoff=9.71 cfs 1.299 af

Subcatchment 3S: SUBCATCHMENT 3 Runoff Area=68,129 sf 0.00% Impervious Runoff Depth>3.41"
Flow Length=260' Tc=13.1 min CN=77 Runoff=5.28 cfs 0.444 af

Subcatchment 4S: SUBCATCHMENT 4 Runoff Area=9,999 sf 0.00% Impervious Runoff Depth>3.41"
Flow Length=180' Tc=10.8 min CN=77 Runoff=0.83 cfs 0.065 af

Reach SP1: SUMMATION POINT 1 Inflow=6.48 cfs 0.596 af
Outflow=6.48 cfs 0.596 af

Reach SP2: SUMMATION POINT 2 Inflow=9.71 cfs 1.299 af
Outflow=9.71 cfs 1.299 af

Reach SP3: SUMMATION POINT 3 Inflow=5.28 cfs 0.444 af
Outflow=5.28 cfs 0.444 af

Reach SP4: SUMMATION POINT 4 Inflow=0.83 cfs 0.065 af
Outflow=0.83 cfs 0.065 af

Total Runoff Area = 8.452 ac Runoff Volume = 2.405 af Average Runoff Depth = 3.41"
98.35% Pervious = 8.312 ac 1.65% Impervious = 0.140 ac

pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

Page 24

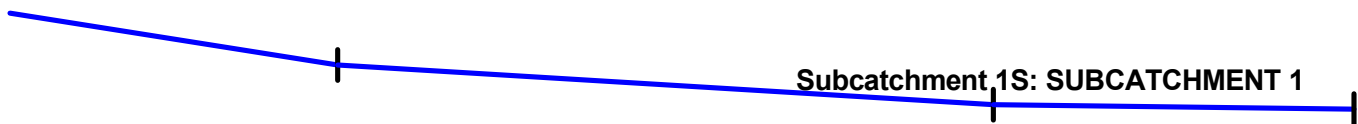
Summary for Subcatchment 1S: SUBCATCHMENT 1

Runoff = 6.48 cfs @ 12.23 hrs, Volume= 0.596 af, Depth> 3.50"
 Routed to Reach SP1 : SUMMATION POINT 1

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
82,911	77	Woods, Good, HSG D
* 6,087	98	IMPERVIOUS
88,998	78	Weighted Average
82,911		93.16% Pervious Area
6,087		6.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1300	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
3.0	200	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.7	110	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.7	410	Total			



pre development

Prepared by Haley Ward

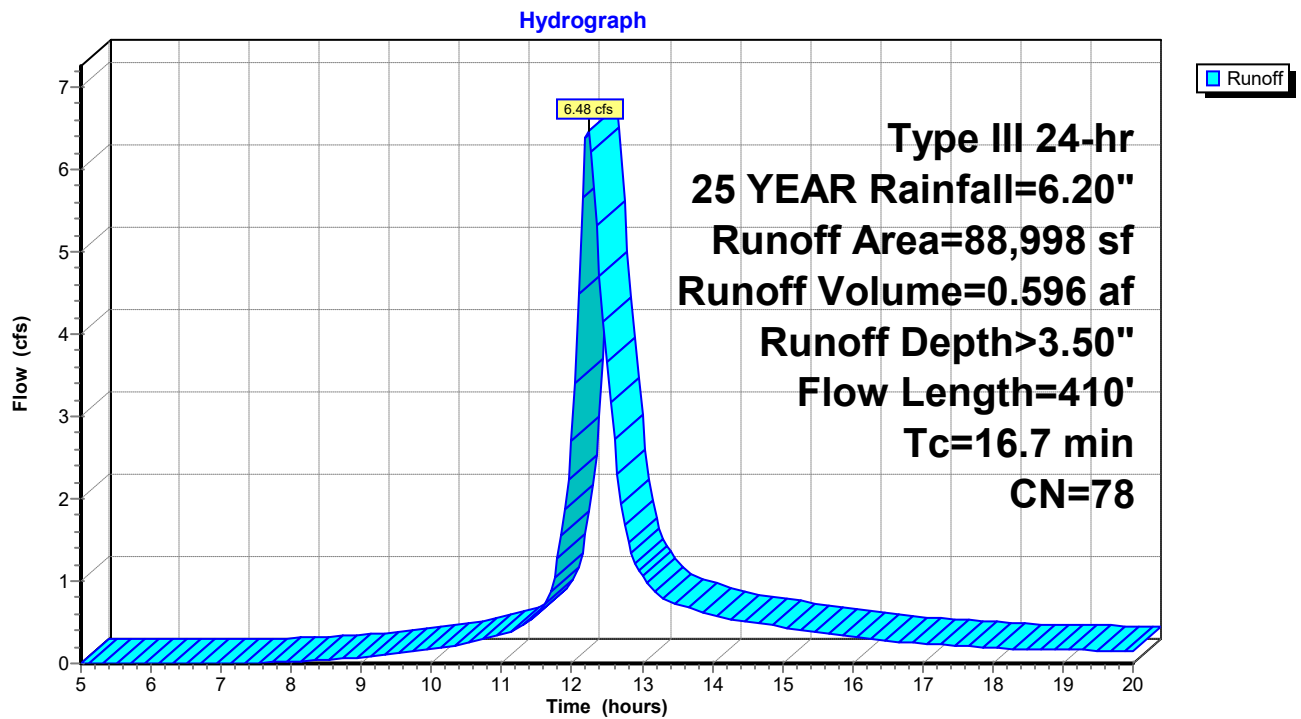
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

Page 25

Subcatchment 1S: SUBCATCHMENT 1



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

Page 26

Summary for Subcatchment 2S: SUBCATCHMENT 2

Runoff = 9.71 cfs @ 12.55 hrs, Volume= 1.299 af, Depth> 3.38"
Routed to Reach SP2 : SUMMATION POINT 2

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"

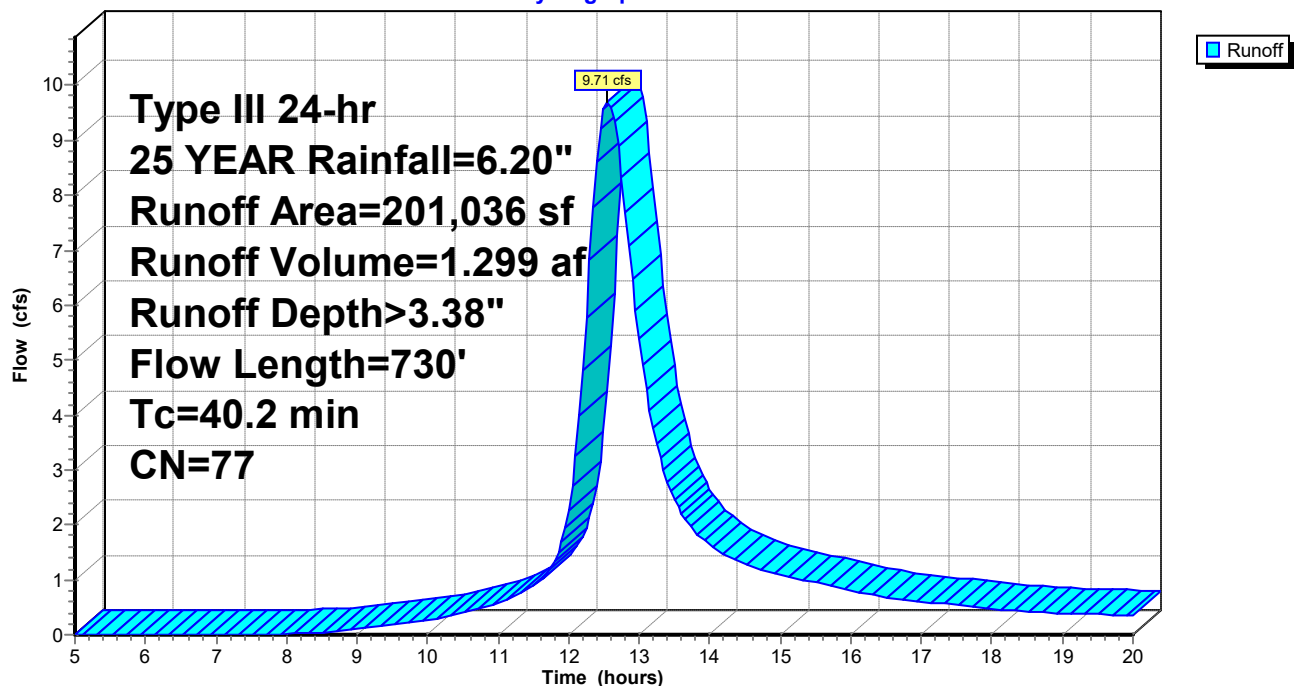
Area (sf)	CN	Description
201,036	77	Woods, Good, HSG D
201,036		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.2600	0.19		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
35.8	680	0.0040	0.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
40.2	730	Total			



Subcatchment 2S: SUBCATCHMENT 2

Hydrograph



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

Page 27

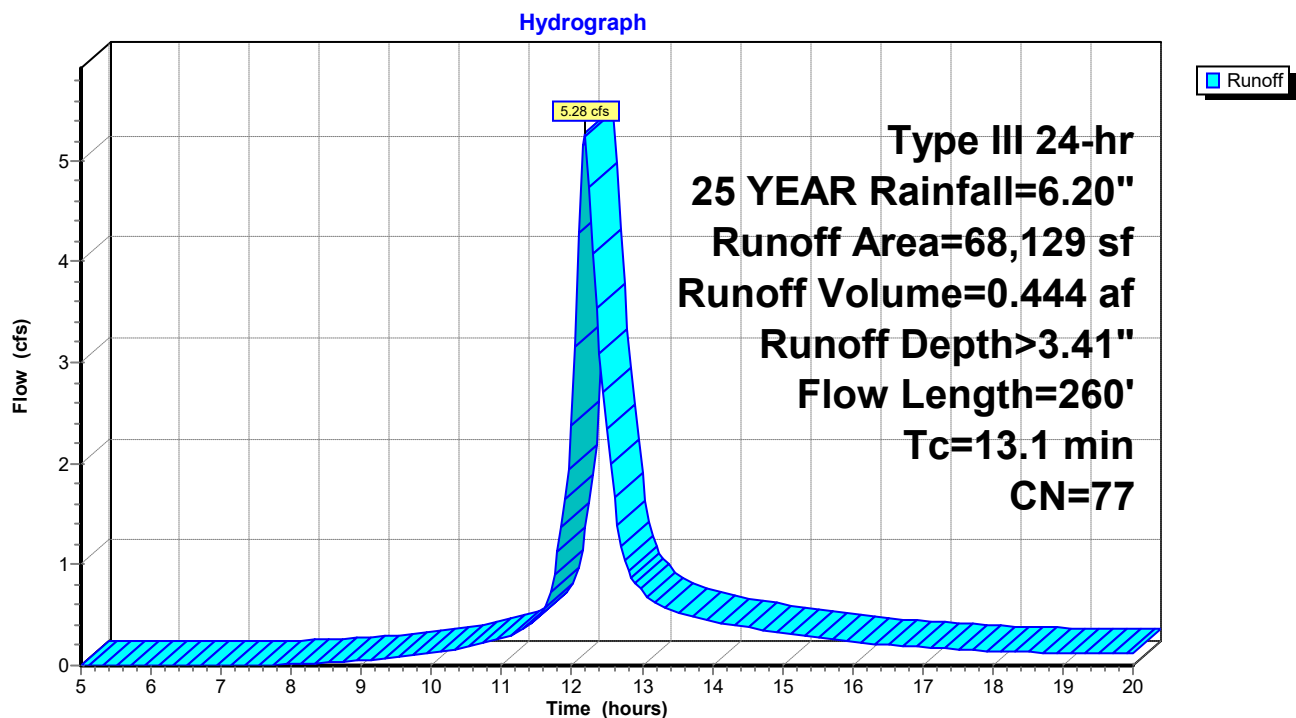
Summary for Subcatchment 3S: SUBCATCHMENT 3

Runoff = 5.28 cfs @ 12.18 hrs, Volume= 0.444 af, Depth> 3.41"
Routed to Reach SP3 : SUMMATION POINT 3

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
68,129	77	Woods, Good, HSG D
68,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.5	45	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
7.8	165	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
13.1	260	Total			



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

Page 28

Summary for Subcatchment 4S: SUBCATCHMENT 4

Runoff = 0.83 cfs @ 12.15 hrs, Volume= 0.065 af, Depth> 3.41"
Routed to Reach SP4 : SUMMATION POINT 4

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"

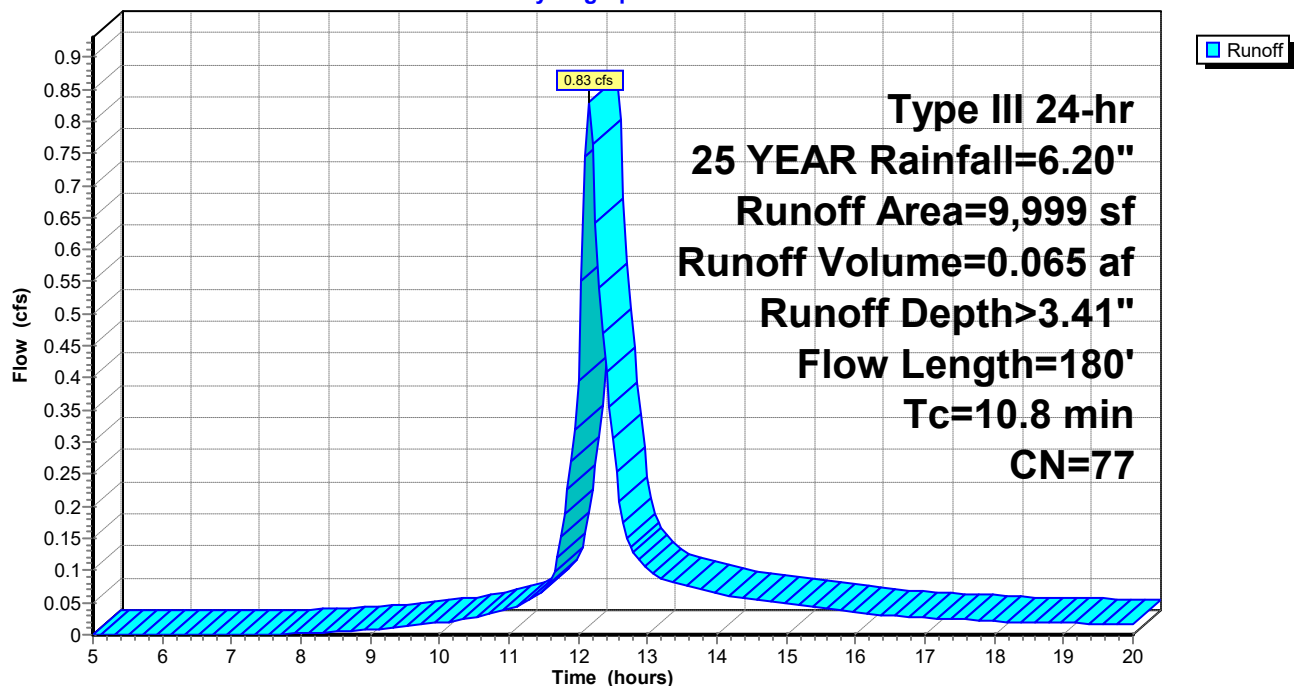
Area (sf)	CN	Description
9,999	77	Woods, Good, HSG D
9,999		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	80	0.1300	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.8	180	Total			



Subcatchment 4S: SUBCATCHMENT 4

Hydrograph



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

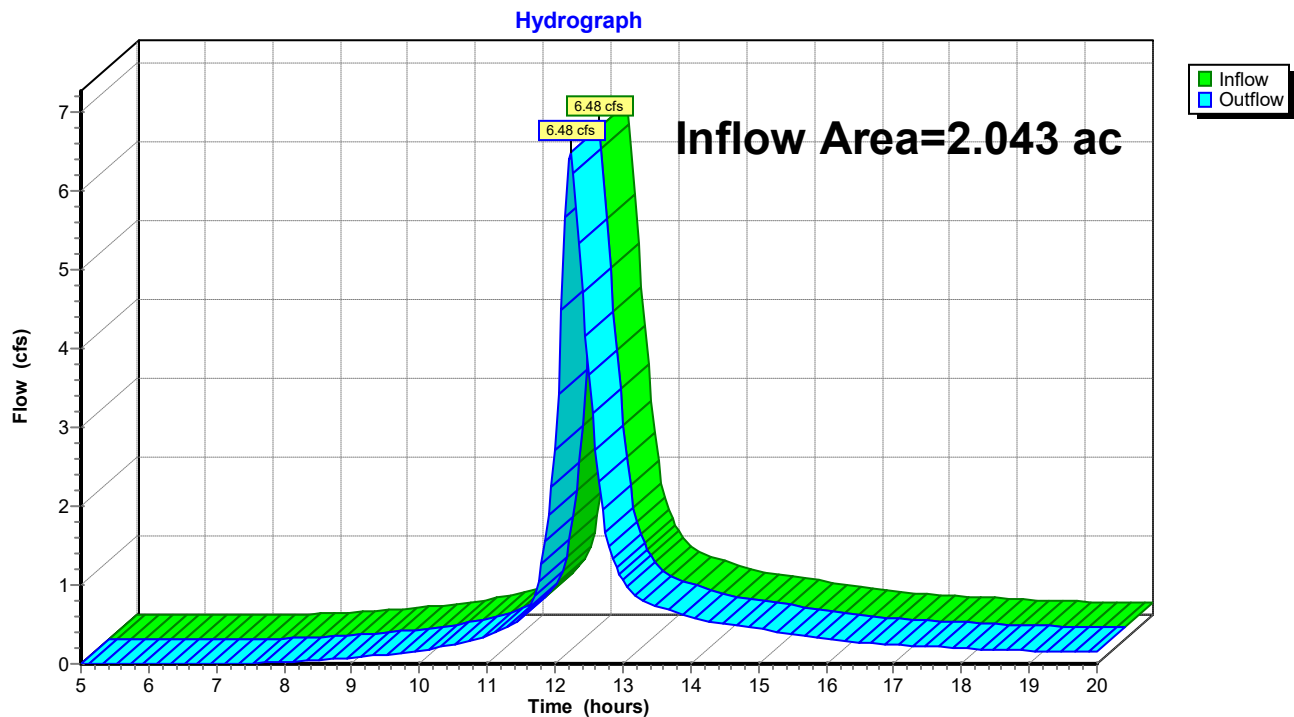
Page 29

Summary for Reach SP1: SUMMATION POINT 1

Inflow Area = 2.043 ac, 6.84% Impervious, Inflow Depth > 3.50" for 25 YEAR event
Inflow = 6.48 cfs @ 12.23 hrs, Volume= 0.596 af
Outflow = 6.48 cfs @ 12.23 hrs, Volume= 0.596 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 SP1: SUMMATION POINT 1



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

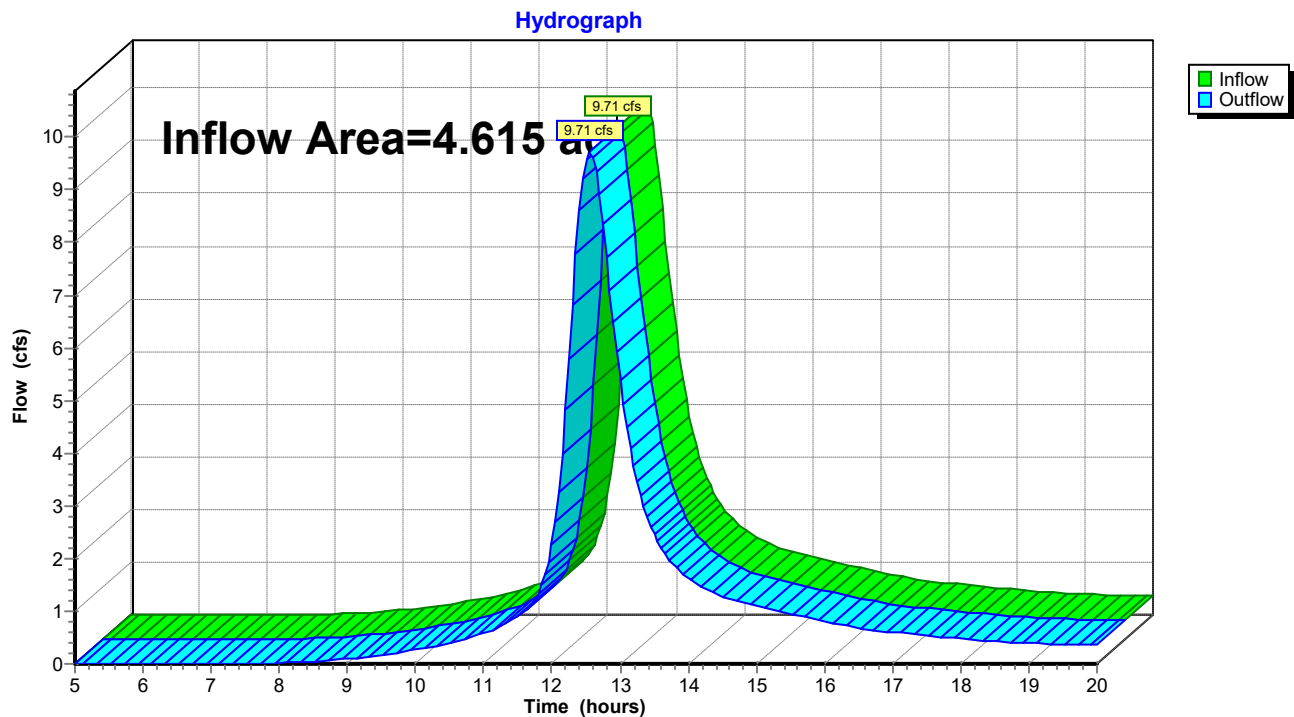
Page 30

Summary for Reach SP2: SUMMATION POINT 2

Inflow Area = 4.615 ac, 0.00% Impervious, Inflow Depth > 3.38" for 25 YEAR event
Inflow = 9.71 cfs @ 12.55 hrs, Volume= 1.299 af
Outflow = 9.71 cfs @ 12.55 hrs, Volume= 1.299 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 SP2: SUMMATION POINT 2



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

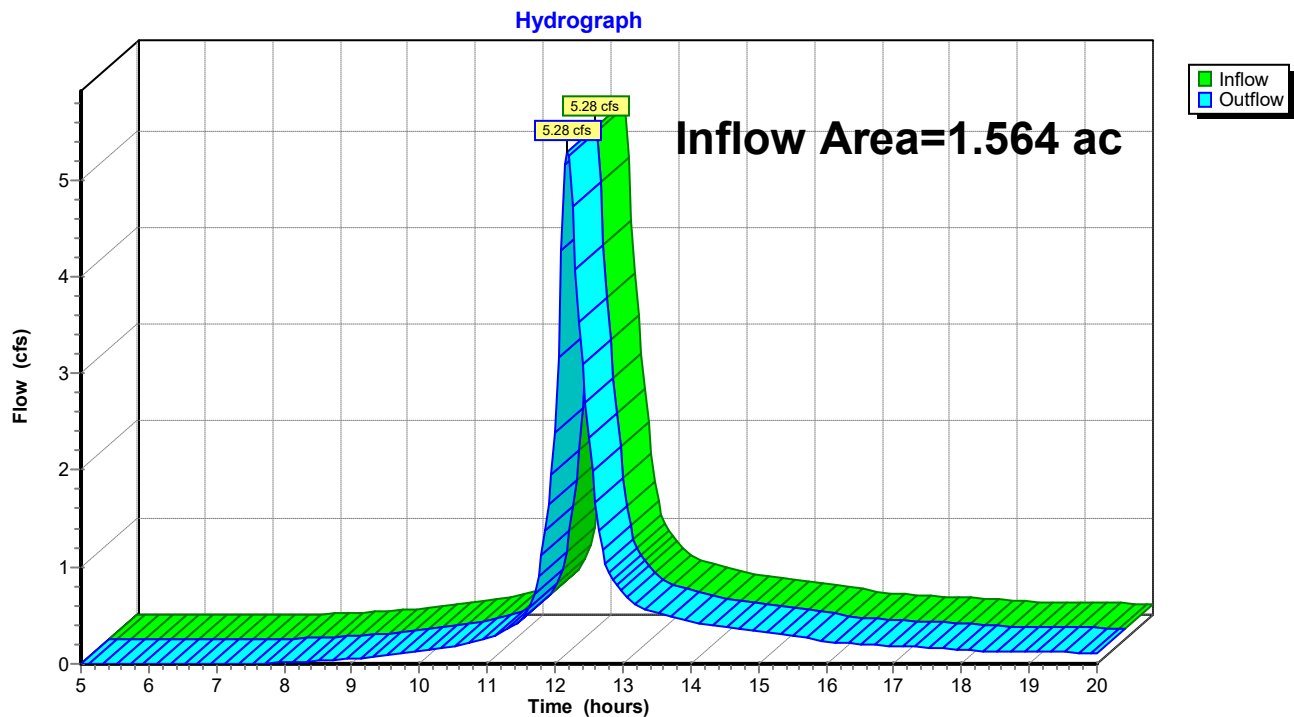
Page 31

Summary for Reach SP3: SUMMATION POINT 3

Inflow Area = 1.564 ac, 0.00% Impervious, Inflow Depth > 3.41" for 25 YEAR event
Inflow = 5.28 cfs @ 12.18 hrs, Volume= 0.444 af
Outflow = 5.28 cfs @ 12.18 hrs, Volume= 0.444 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 SP3: SUMMATION POINT 3



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25 YEAR Rainfall=6.20"

Printed 4/30/2025

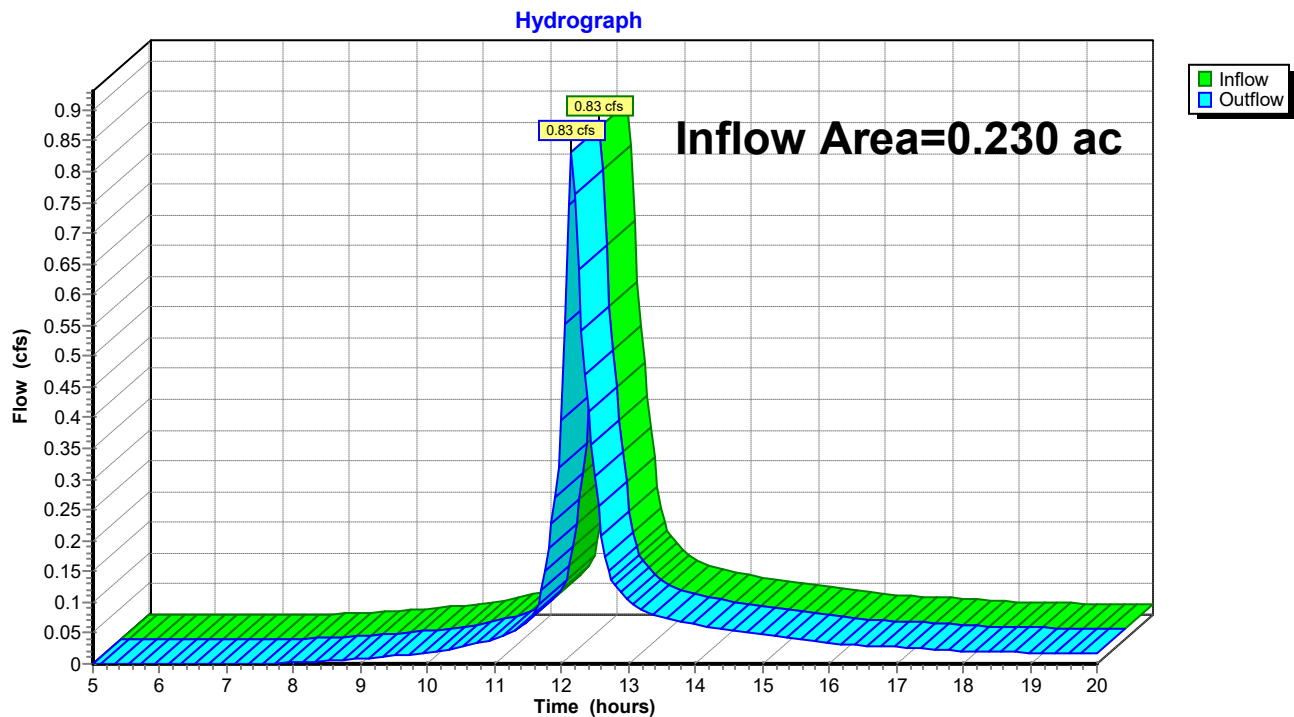
Page 32

Summary for Reach SP4: SUMMATION POINT 4

Inflow Area = 0.230 ac, 0.00% Impervious, Inflow Depth > 3.41" for 25 YEAR event
Inflow = 0.83 cfs @ 12.15 hrs, Volume= 0.065 af
Outflow = 0.83 cfs @ 12.15 hrs, Volume= 0.065 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 SP4: SUMMATION POINT 4



pre development*Type III 24-hr 100 YEAR Rainfall=8.70"*

Prepared by Haley Ward

Printed 4/30/2025

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Page 33

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: SUBCATCHMENT 1 Runoff Area=88,998 sf 6.84% Impervious Runoff Depth>5.67"
Flow Length=410' Tc=16.7 min CN=78 Runoff=10.33 cfs 0.965 af

Subcatchment 2S: SUBCATCHMENT 2 Runoff Area=201,036 sf 0.00% Impervious Runoff Depth>5.51"
Flow Length=730' Tc=40.2 min CN=77 Runoff=15.62 cfs 2.119 af

Subcatchment 3S: SUBCATCHMENT 3 Runoff Area=68,129 sf 0.00% Impervious Runoff Depth>5.56"
Flow Length=260' Tc=13.1 min CN=77 Runoff=8.48 cfs 0.724 af

Subcatchment 4S: SUBCATCHMENT 4 Runoff Area=9,999 sf 0.00% Impervious Runoff Depth>5.56"
Flow Length=180' Tc=10.8 min CN=77 Runoff=1.33 cfs 0.106 af

Reach SP1: SUMMATION POINT 1 Inflow=10.33 cfs 0.965 af
Outflow=10.33 cfs 0.965 af

Reach SP2: SUMMATION POINT 2 Inflow=15.62 cfs 2.119 af
Outflow=15.62 cfs 2.119 af

Reach SP3: SUMMATION POINT 3 Inflow=8.48 cfs 0.724 af
Outflow=8.48 cfs 0.724 af

Reach SP4: SUMMATION POINT 4 Inflow=1.33 cfs 0.106 af
Outflow=1.33 cfs 0.106 af

Total Runoff Area = 8.452 ac Runoff Volume = 3.914 af Average Runoff Depth = 5.56"
98.35% Pervious = 8.312 ac 1.65% Impervious = 0.140 ac

pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100 YEAR Rainfall=8.70"

Printed 4/30/2025

Page 34

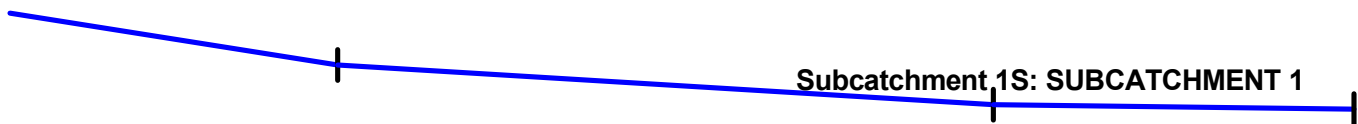
Summary for Subcatchment 1S: SUBCATCHMENT 1

Runoff = 10.33 cfs @ 12.23 hrs, Volume= 0.965 af, Depth> 5.67"
 Routed to Reach SP1 : SUMMATION POINT 1

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 100 YEAR Rainfall=8.70"

Area (sf)	CN	Description
82,911	77	Woods, Good, HSG D
* 6,087	98	IMPERVIOUS
88,998	78	Weighted Average
82,911		93.16% Pervious Area
6,087		6.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1300	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
3.0	200	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.7	110	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.7	410	Total			



pre development

Prepared by Haley Ward

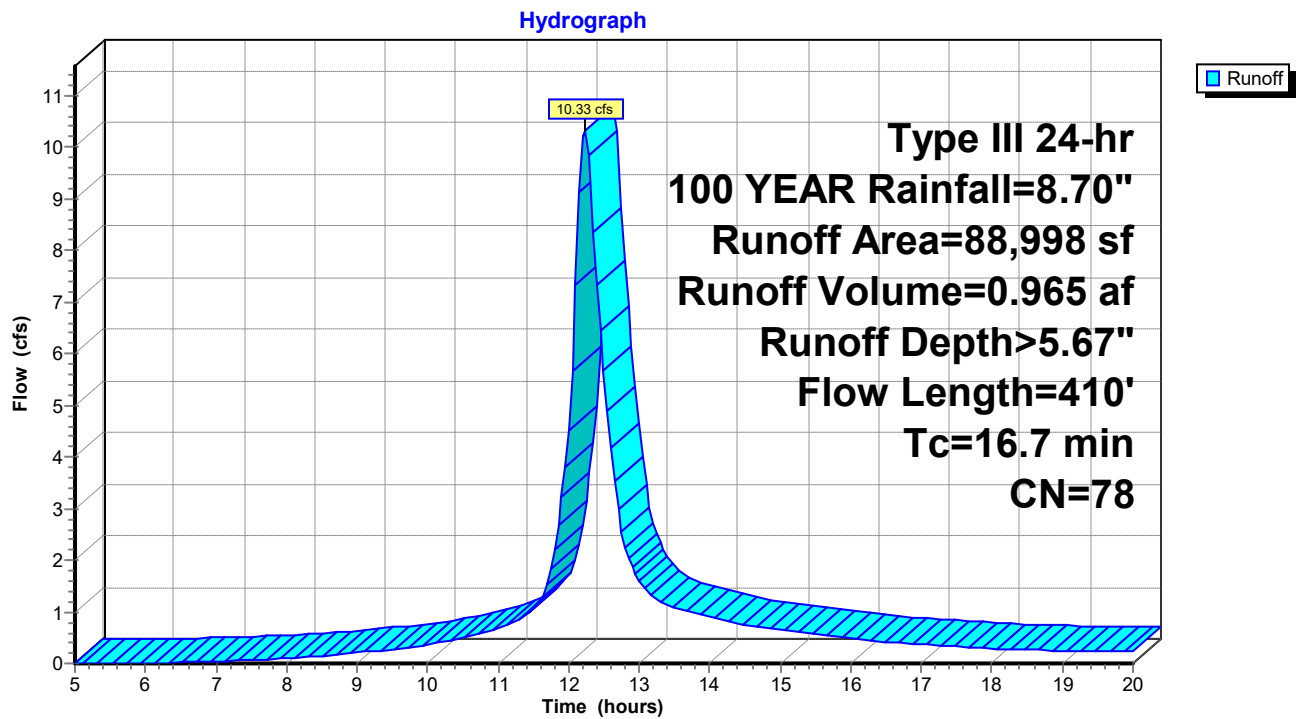
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100 YEAR Rainfall=8.70"

Printed 4/30/2025

Page 35

Subcatchment 1S: SUBCATCHMENT 1



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100 YEAR Rainfall=8.70"

Printed 4/30/2025

Page 36

Summary for Subcatchment 2S: SUBCATCHMENT 2

Runoff = 15.62 cfs @ 12.55 hrs, Volume= 2.119 af, Depth> 5.51"
Routed to Reach SP2 : SUMMATION POINT 2

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 100 YEAR Rainfall=8.70"

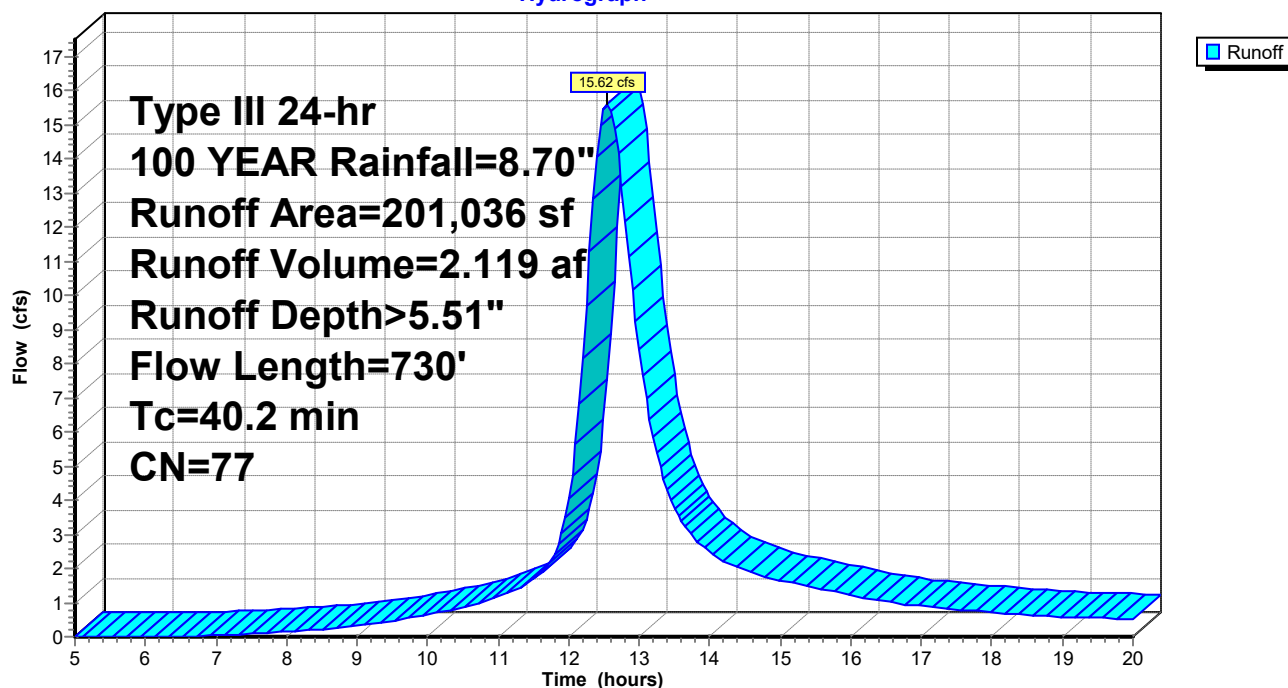
Area (sf)	CN	Description
201,036	77	Woods, Good, HSG D
201,036		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.2600	0.19		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
35.8	680	0.0040	0.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
40.2	730	Total			

Subcatchment 2S: SUBCATCHMENT 2

Subcatchment 2S: SUBCATCHMENT 2

Hydrograph



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100 YEAR Rainfall=8.70"

Printed 4/30/2025

Page 37

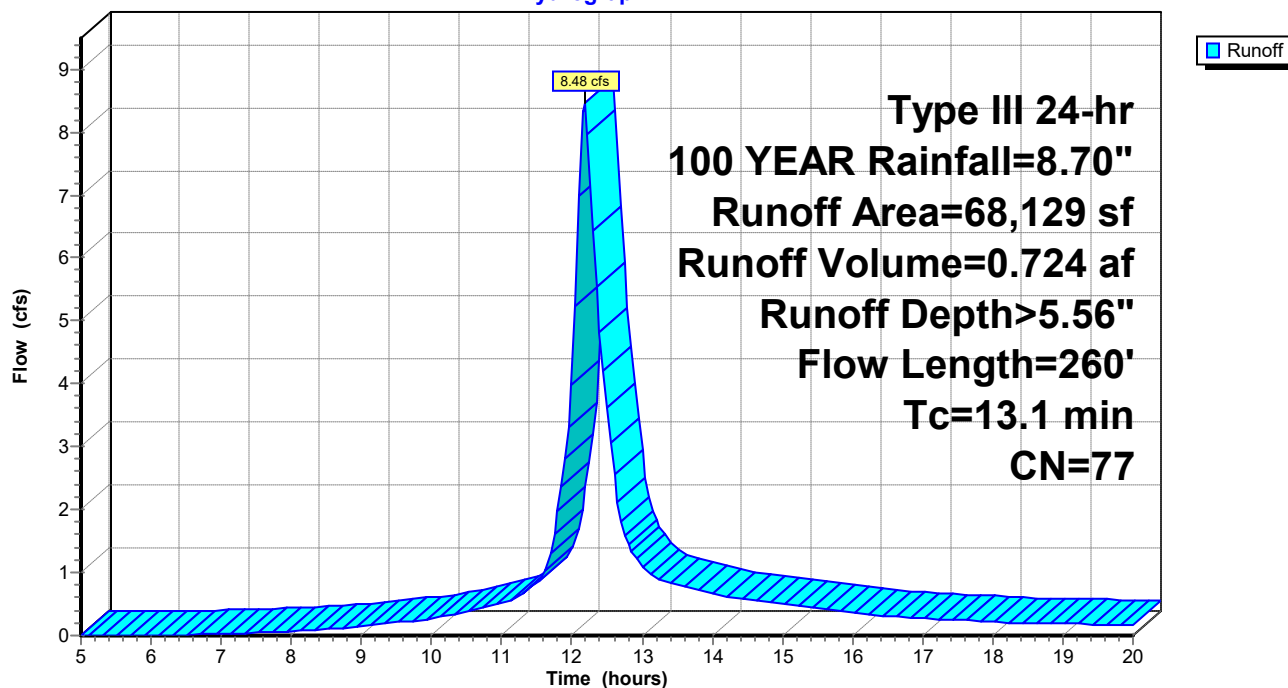
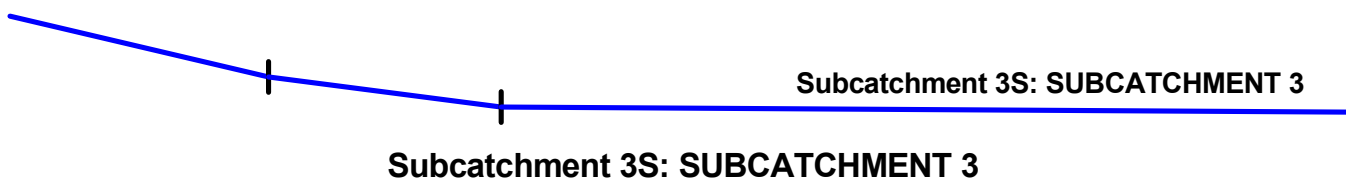
Summary for Subcatchment 3S: SUBCATCHMENT 3

Runoff = 8.48 cfs @ 12.18 hrs, Volume= 0.724 af, Depth> 5.56"
Routed to Reach SP3 : SUMMATION POINT 3

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 100 YEAR Rainfall=8.70"

Area (sf)	CN	Description
68,129	77	Woods, Good, HSG D
68,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.5	45	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
7.8	165	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
13.1	260	Total			



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100 YEAR Rainfall=8.70"

Printed 4/30/2025

Page 38

Summary for Subcatchment 4S: SUBCATCHMENT 4

Runoff = 1.33 cfs @ 12.15 hrs, Volume= 0.106 af, Depth> 5.56"
Routed to Reach SP4 : SUMMATION POINT 4

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 100 YEAR Rainfall=8.70"

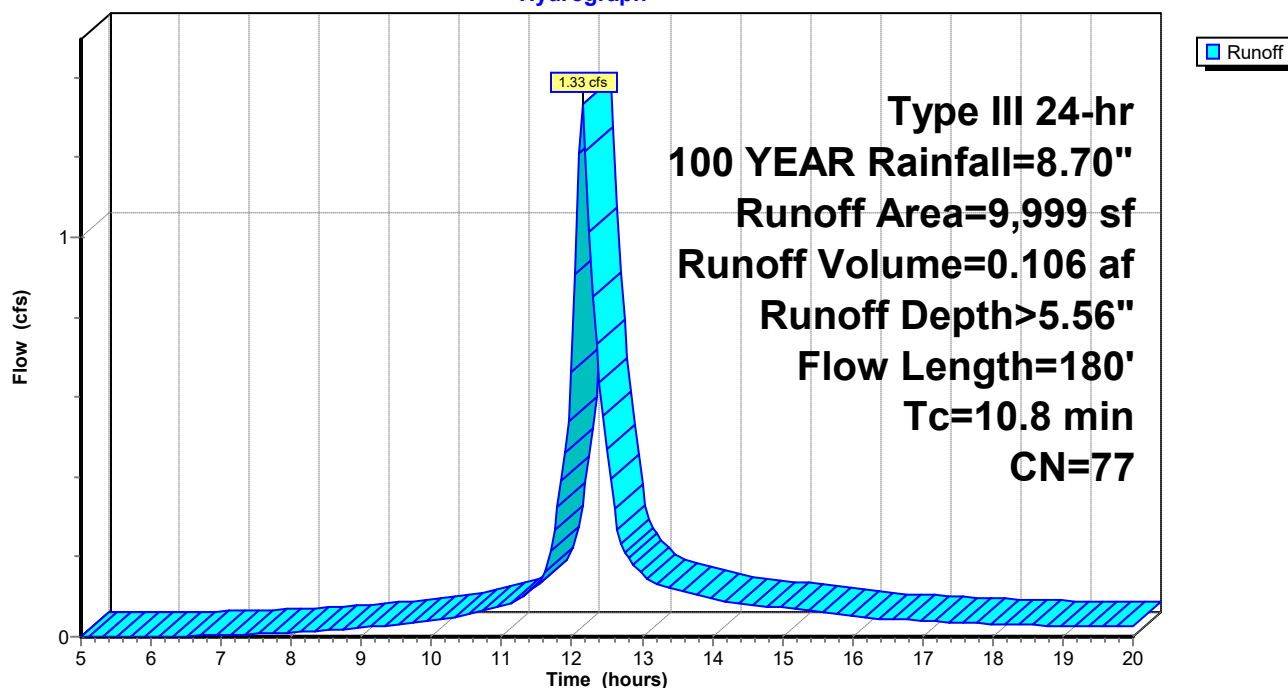
Area (sf)	CN	Description
9,999	77	Woods, Good, HSG D
9,999		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	80	0.1300	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.8	180	Total			



Subcatchment 4S: SUBCATCHMENT 4

Hydrograph



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100 YEAR Rainfall=8.70"

Printed 4/30/2025

Page 39

Summary for Reach SP1: SUMMATION POINT 1

Inflow Area = 2.043 ac, 6.84% Impervious, Inflow Depth > 5.67" for 100 YEAR event

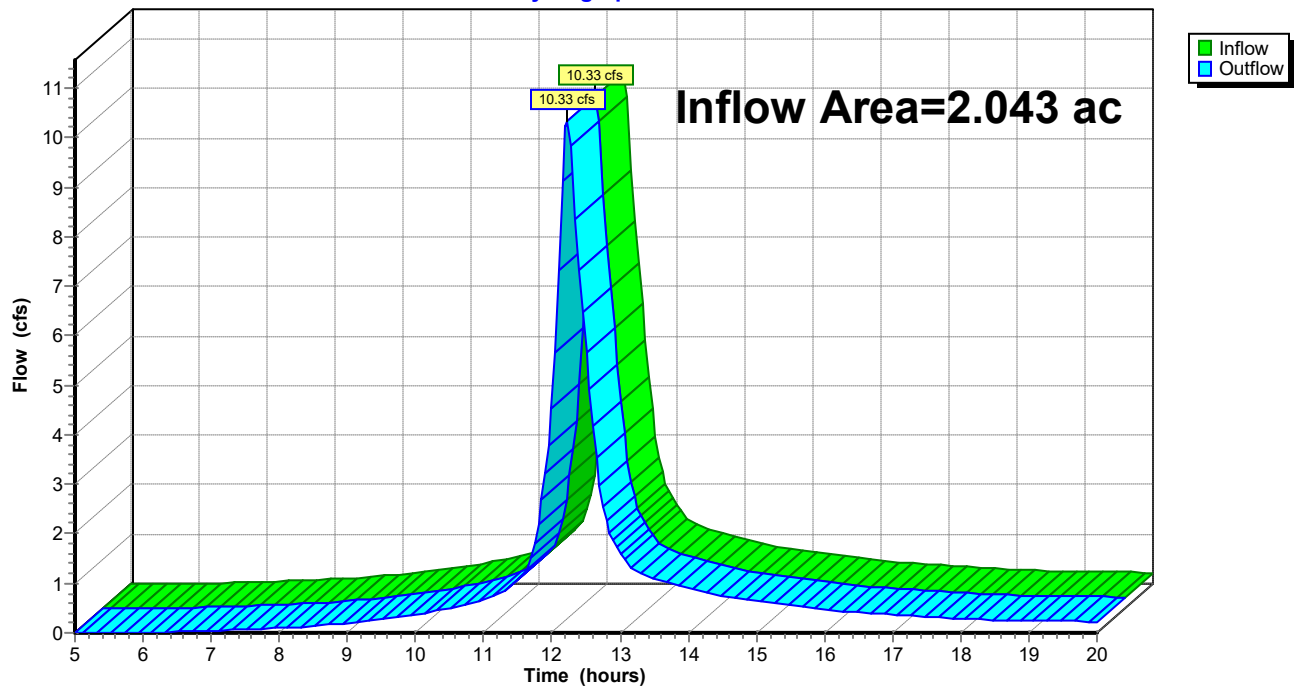
Inflow = 10.33 cfs @ 12.23 hrs, Volume= 0.965 af

Outflow = 10.33 cfs @ 12.23 hrs, Volume= 0.965 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 SP1: SUMMATION POINT 1

Hydrograph



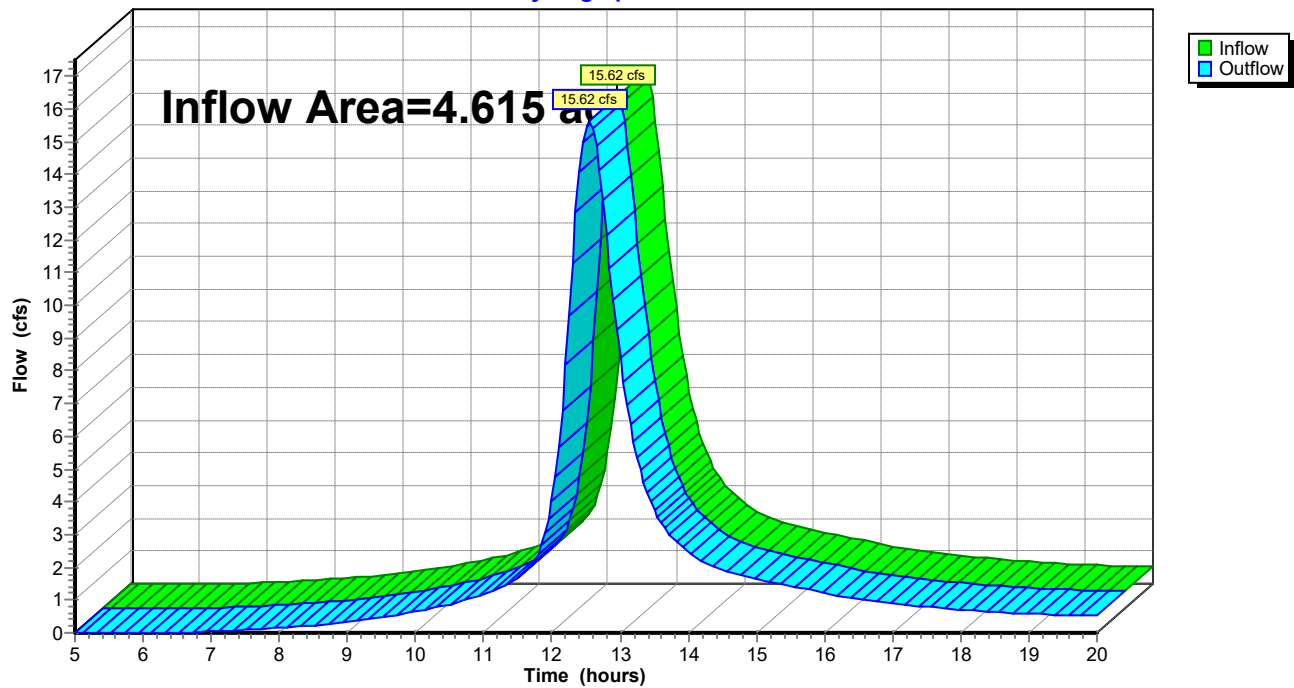
Summary for Reach SP2: SUMMATION POINT 2

Inflow Area = 4.615 ac, 0.00% Impervious, Inflow Depth > 5.51" for 100 YEAR event
Inflow = 15.62 cfs @ 12.55 hrs, Volume= 2.119 af
Outflow = 15.62 cfs @ 12.55 hrs, Volume= 2.119 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 SP2: SUMMATION POINT 2

Hydrograph



pre development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100 YEAR Rainfall=8.70"

Printed 4/30/2025

Page 41

Summary for Reach SP3: SUMMATION POINT 3

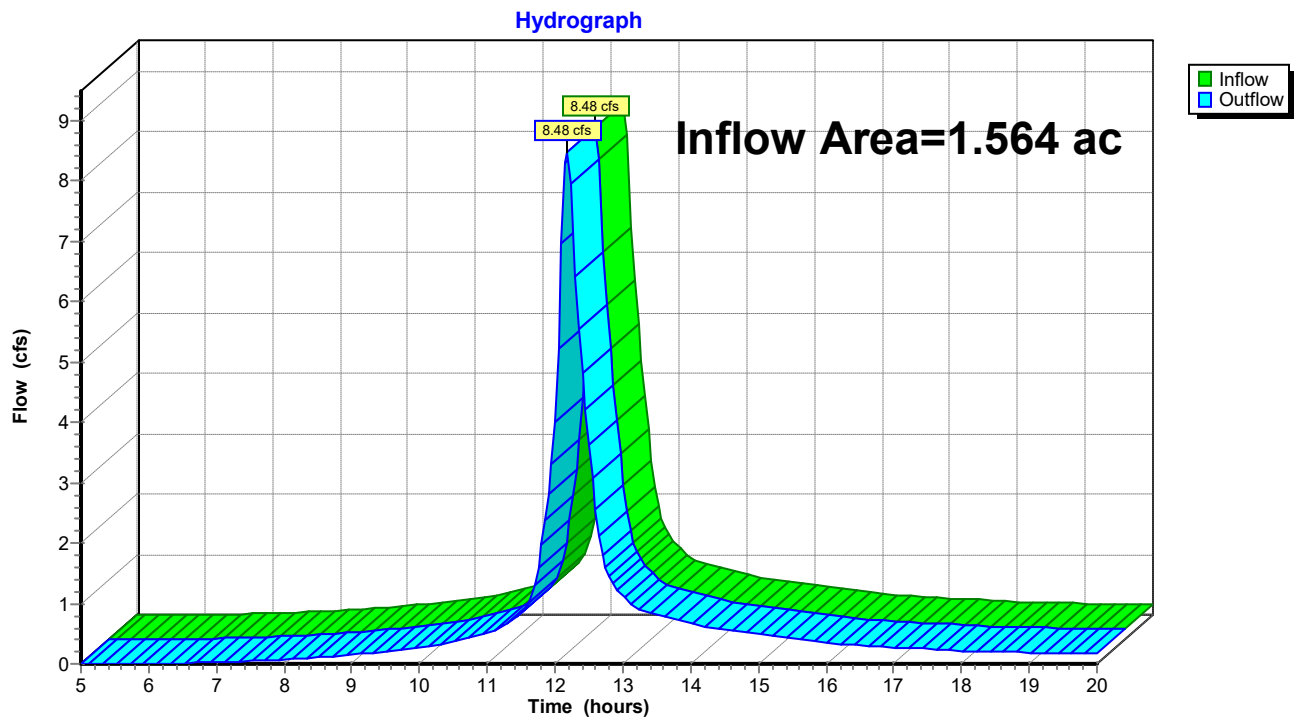
Inflow Area = 1.564 ac, 0.00% Impervious, Inflow Depth > 5.56" for 100 YEAR event

Inflow = 8.48 cfs @ 12.18 hrs, Volume= 0.724 af

Outflow = 8.48 cfs @ 12.18 hrs, Volume= 0.724 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 SP3: SUMMATION POINT 3



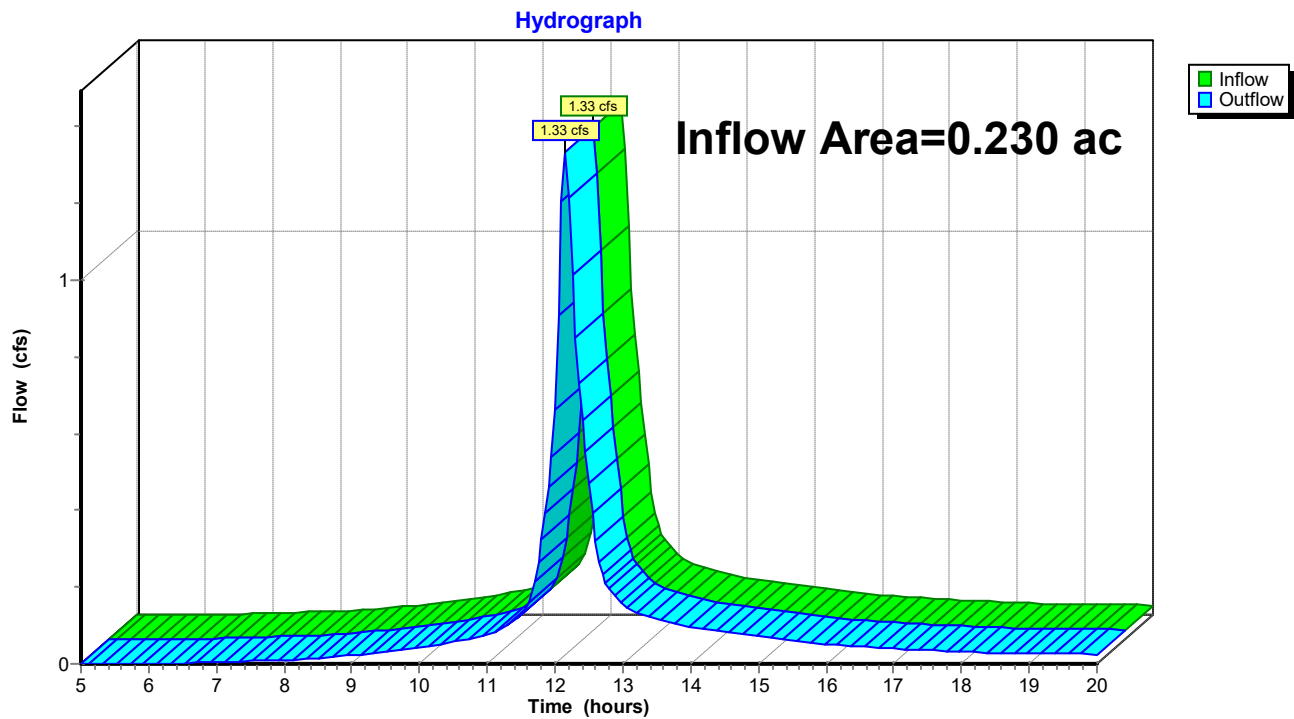
Summary for Reach SP4: SUMMATION POINT 4

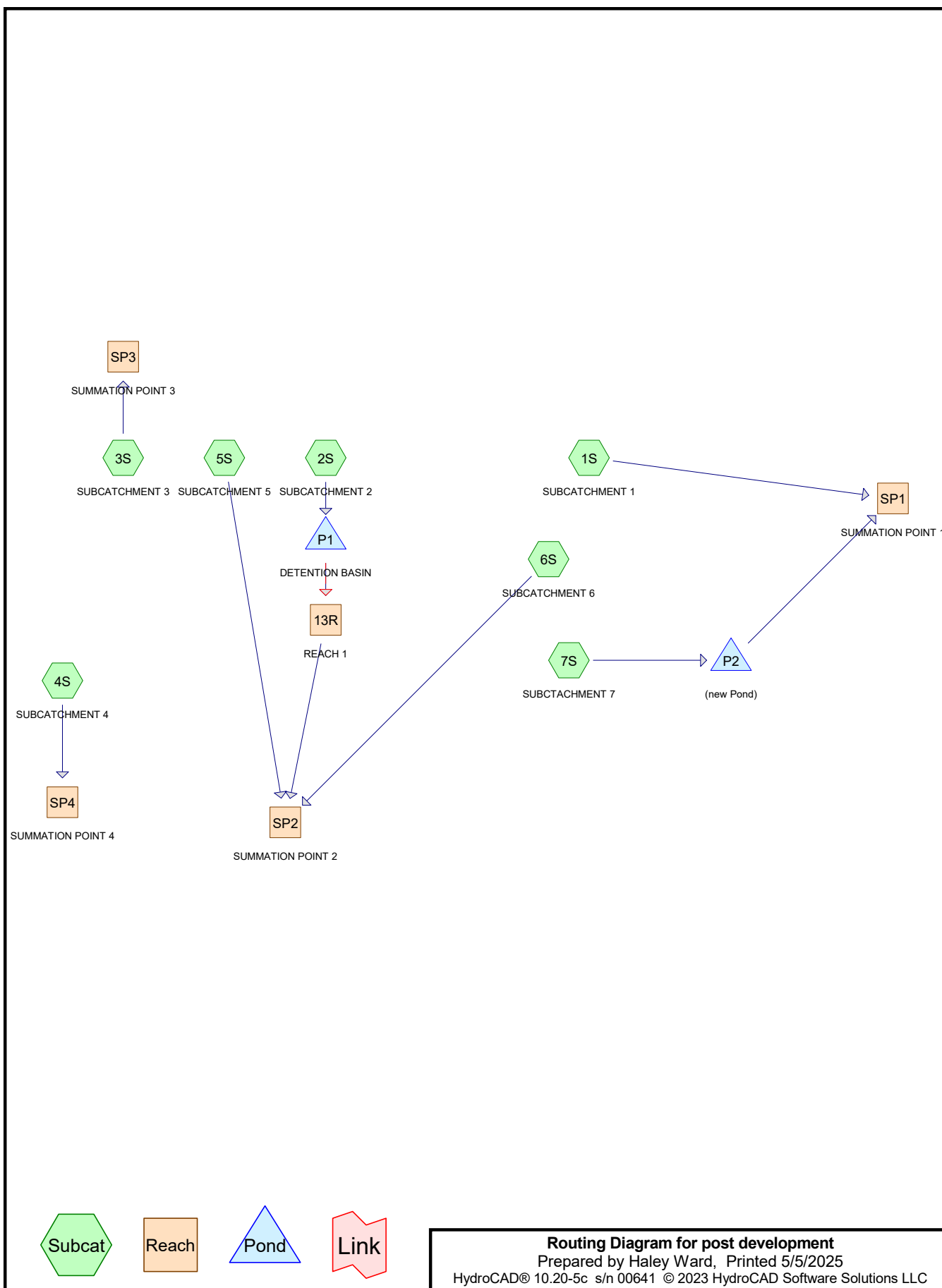
Inflow Area = 0.230 ac, 0.00% Impervious, Inflow Depth > 5.56" for 100 YEAR event

Inflow = 1.33 cfs @ 12.15 hrs, Volume= 0.106 af

Outflow = 1.33 cfs @ 12.15 hrs, Volume= 0.106 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 SP4: SUMMATION POINT 4



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Printed 5/5/2025

Page 2

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	Type III 24-hr		Default	24.00	1	3.30	2
2	10-Year	Type III 24-hr		Default	24.00	1	4.90	2
3	25-Year	Type III 24-hr		Default	24.00	1	6.20	2
4	100-Year	Type III 24-hr		Default	24.00	1	8.70	2

post development

Prepared by Haley Ward

Printed 5/5/2025

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Page 3

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	P1	57.98	57.88	21.0	0.0048	0.013	0.0	6.0	0.0	
2	P2	52.80	52.70	40.0	0.0025	0.013	0.0	18.0	0.0	

post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

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

Subcatchment 1S: SUBCATCHMENT 1 Runoff Area=59,711 sf 28.77% Impervious Runoff Depth>1.71"
Flow Length=410' Tc=16.7 min CN=85 Runoff=2.14 cfs 0.196 af

Subcatchment 2S: SUBCATCHMENT 2 Runoff Area=43,473 sf 28.04% Impervious Runoff Depth>1.71"
Flow Length=206' Slope=0.0600 ' ' Tc=14.6 min CN=85 Runoff=1.64 cfs 0.143 af

Subcatchment 3S: SUBCATCHMENT 3 Runoff Area=65,439 sf 12.31% Impervious Runoff Depth>1.43"
Flow Length=260' Tc=12.9 min CN=81 Runoff=2.14 cfs 0.179 af

Subcatchment 4S: SUBCATCHMENT 4 Runoff Area=9,999 sf 0.00% Impervious Runoff Depth>1.18"
Flow Length=180' Tc=10.8 min CN=77 Runoff=0.28 cfs 0.023 af

Subcatchment 5S: SUBCATCHMENT 5 Runoff Area=10,683 sf 42.72% Impervious Runoff Depth>1.88"
Tc=5.0 min CN=87 Runoff=0.57 cfs 0.038 af

Subcatchment 6S: SUBCATCHMENT 6 Runoff Area=146,086 sf 17.30% Impervious Runoff Depth>1.55"
Flow Length=730' Tc=40.2 min CN=83 Runoff=3.26 cfs 0.434 af

Subcatchment 7S: SUBCATCHMENT 7 Runoff Area=32,744 sf 29.08% Impervious Runoff Depth>1.72"
Flow Length=215' Tc=8.2 min CN=85 Runoff=1.49 cfs 0.108 af

Reach 13R: REACH 1 Avg. Flow Depth=0.05' Max Vel=0.95 fps Inflow=0.67 cfs 0.138 af
n=0.035 L=130.0' S=0.0300 ' ' Capacity=118.23 cfs Outflow=0.67 cfs 0.138 af

Reach SP1: SUMMATION POINT 1 Inflow=2.89 cfs 0.303 af
Outflow=2.89 cfs 0.303 af

Reach SP2: SUMMATION POINT 2 Inflow=4.02 cfs 0.610 af
Outflow=4.02 cfs 0.610 af

Reach SP3: SUMMATION POINT 3 Inflow=2.14 cfs 0.179 af
Outflow=2.14 cfs 0.179 af

Reach SP4: SUMMATION POINT 4 Inflow=0.28 cfs 0.023 af
Outflow=0.28 cfs 0.023 af

Pond P1: DETENTION BASIN Peak Elev=59.04' Storage=1,916 cf Inflow=1.64 cfs 0.143 af
Primary=0.67 cfs 0.138 af Secondary=0.00 cfs 0.000 af Outflow=0.67 cfs 0.138 af

Pond P2: (new Pond) Peak Elev=53.47' Storage=811 cf Inflow=1.49 cfs 0.108 af
Outflow=0.76 cfs 0.107 af

Total Runoff Area = 8.451 ac Runoff Volume = 1.120 af Average Runoff Depth = 1.59"
79.14% Pervious = 6.688 ac 20.86% Impervious = 1.763 ac

post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 5

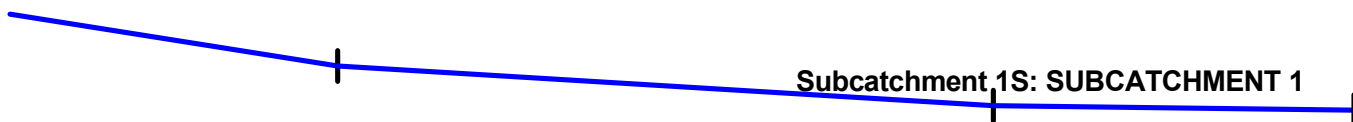
Summary for Subcatchment 1S: SUBCATCHMENT 1

Runoff = 2.14 cfs @ 12.23 hrs, Volume= 0.196 af, Depth> 1.71"
 Routed to Reach SP1 : SUMMATION POINT 1

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
8,027	77	Woods, Good, HSG D
* 6,604	98	IMPERVIOUS
2,772	80	>75% Grass cover, Good, HSG D
42,308	85	1/2 acre lots, 25% imp, HSG D
59,711	85	Weighted Average
42,530		71.23% Pervious Area
17,181		28.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1300	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
3.0	200	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.7	110	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.7	410	Total			



post development

Prepared by Haley Ward

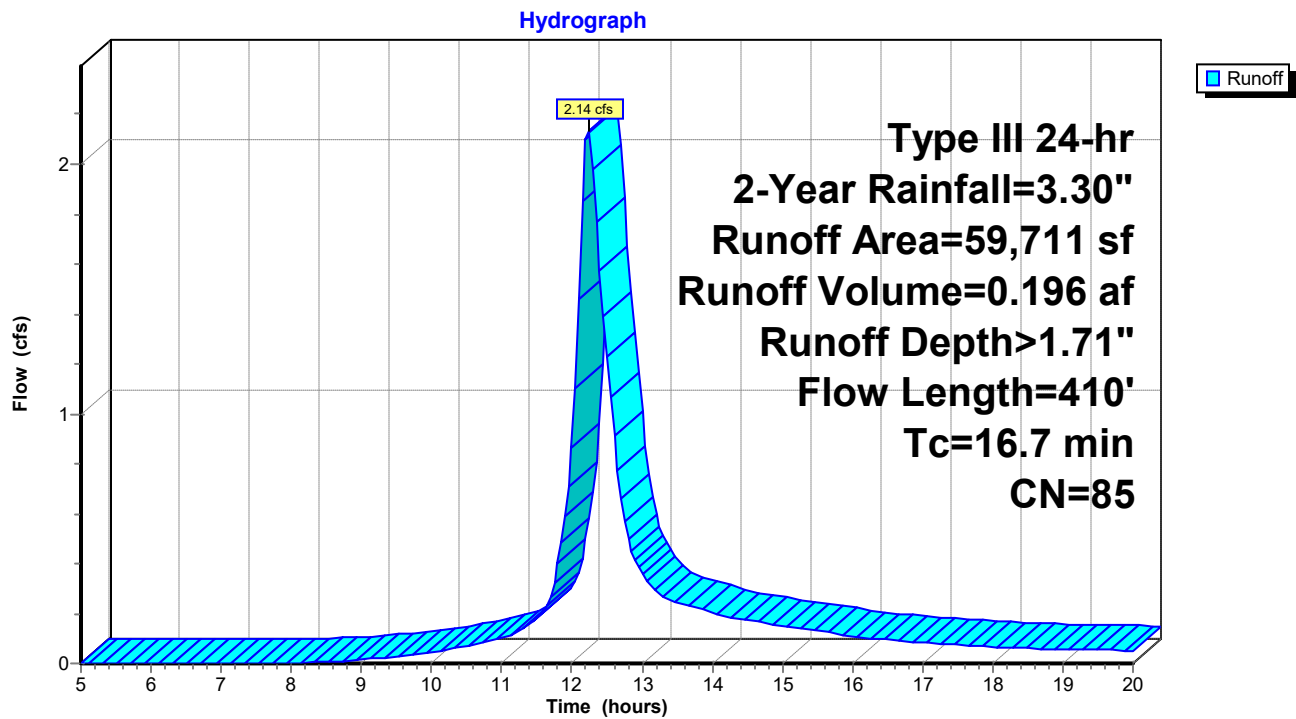
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 6

Subcatchment 1S: SUBCATCHMENT 1



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 7

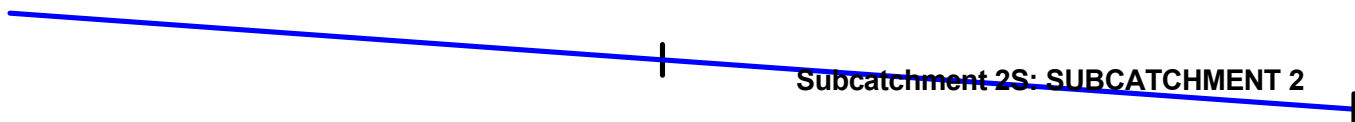
Summary for Subcatchment 2S: SUBCATCHMENT 2

Runoff = 1.64 cfs @ 12.20 hrs, Volume= 0.143 af, Depth> 1.71"
 Routed to Pond P1 : DETENTION BASIN

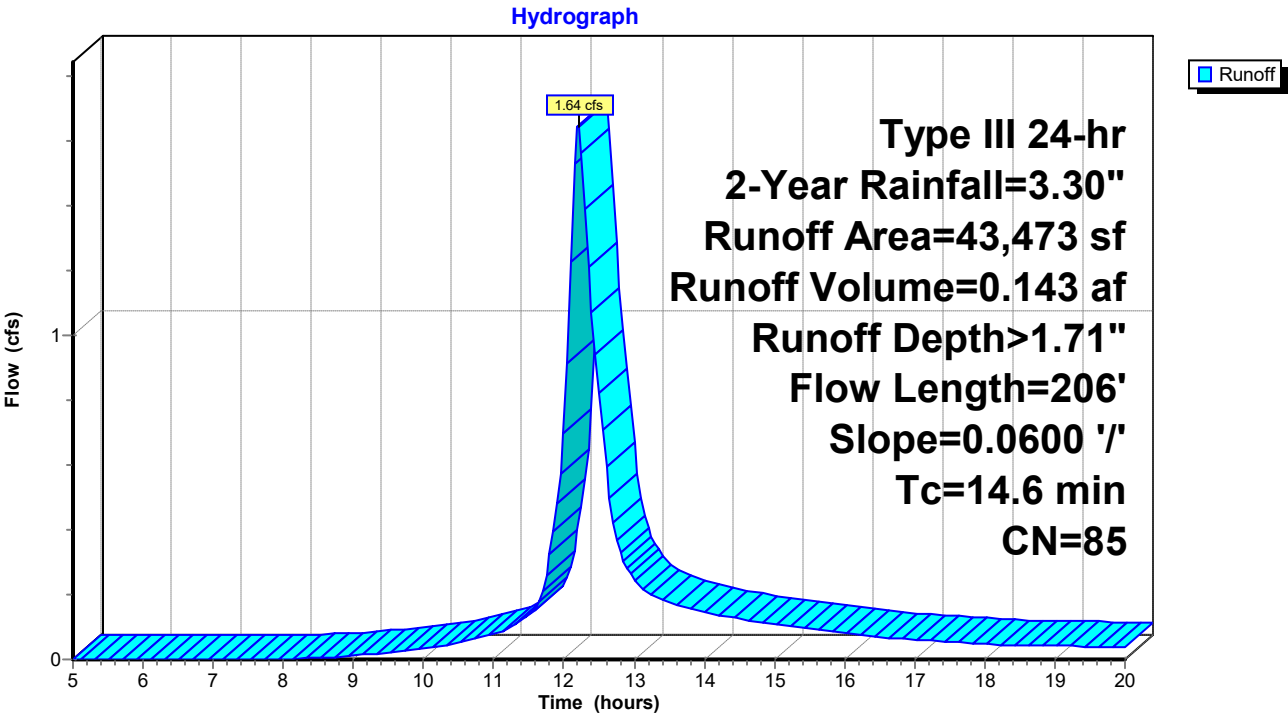
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
761	77	Woods, Good, HSG D
* 4,834	98	IMPERVIOUS
8,459	80	>75% Grass cover, Good, HSG D
29,419	85	1/2 acre lots, 25% imp, HSG D
43,473	85	Weighted Average
31,284		71.96% Pervious Area
12,189		28.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	100	0.0600	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.0	106	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.6	206	Total			



Subcatchment 2S: SUBCATCHMENT 2



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 9

Summary for Subcatchment 3S: SUBCATCHMENT 3

Runoff = 2.14 cfs @ 12.19 hrs, Volume= 0.179 af, Depth> 1.43"
 Routed to Reach SP3 : SUMMATION POINT 3

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
33,227	77	Woods, Good, HSG D
32,212	85	1/2 acre lots, 25% imp, HSG D
65,439	81	Weighted Average
57,386		87.69% Pervious Area
8,053		12.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.3	45	0.1100	2.32		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.8	165	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.9	260	Total			



post development

Prepared by Haley Ward

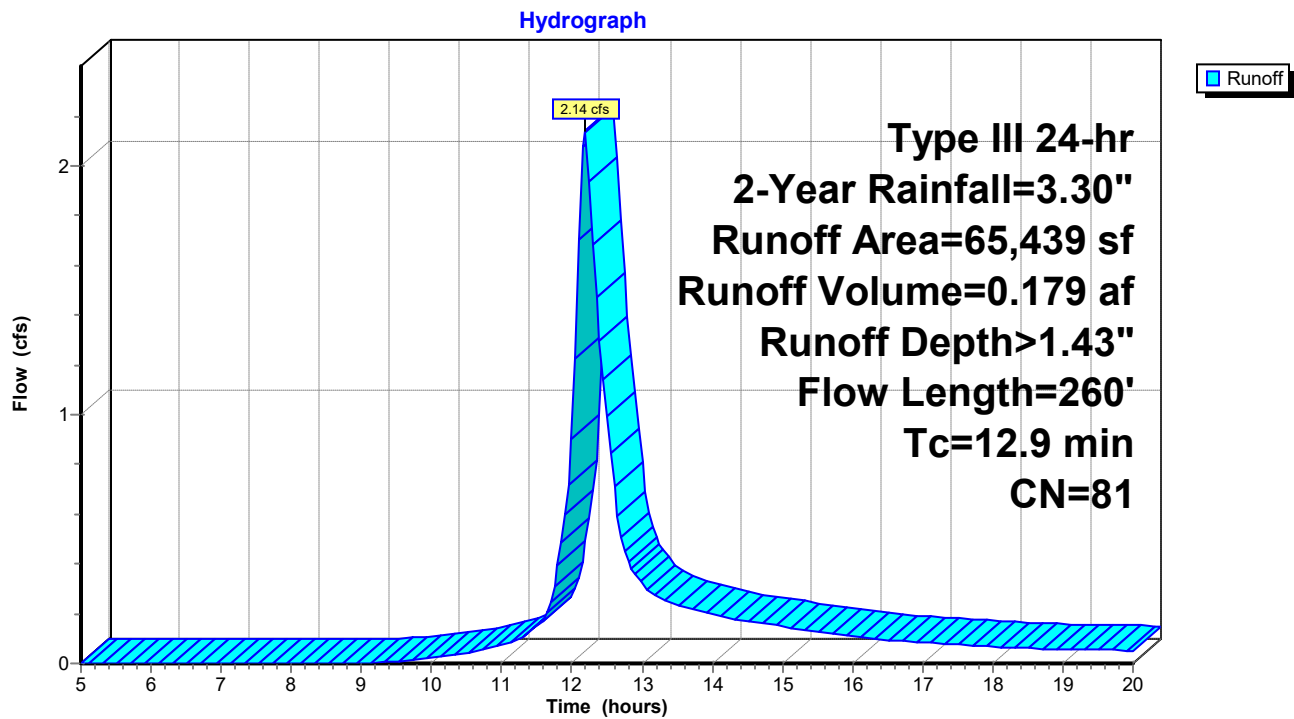
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 10

Subcatchment 3S: SUBCATCHMENT 3



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 11

Summary for Subcatchment 4S: SUBCATCHMENT 4

Runoff = 0.28 cfs @ 12.16 hrs, Volume= 0.023 af, Depth> 1.18"
Routed to Reach SP4 : SUMMATION POINT 4

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 2-Year Rainfall=3.30"

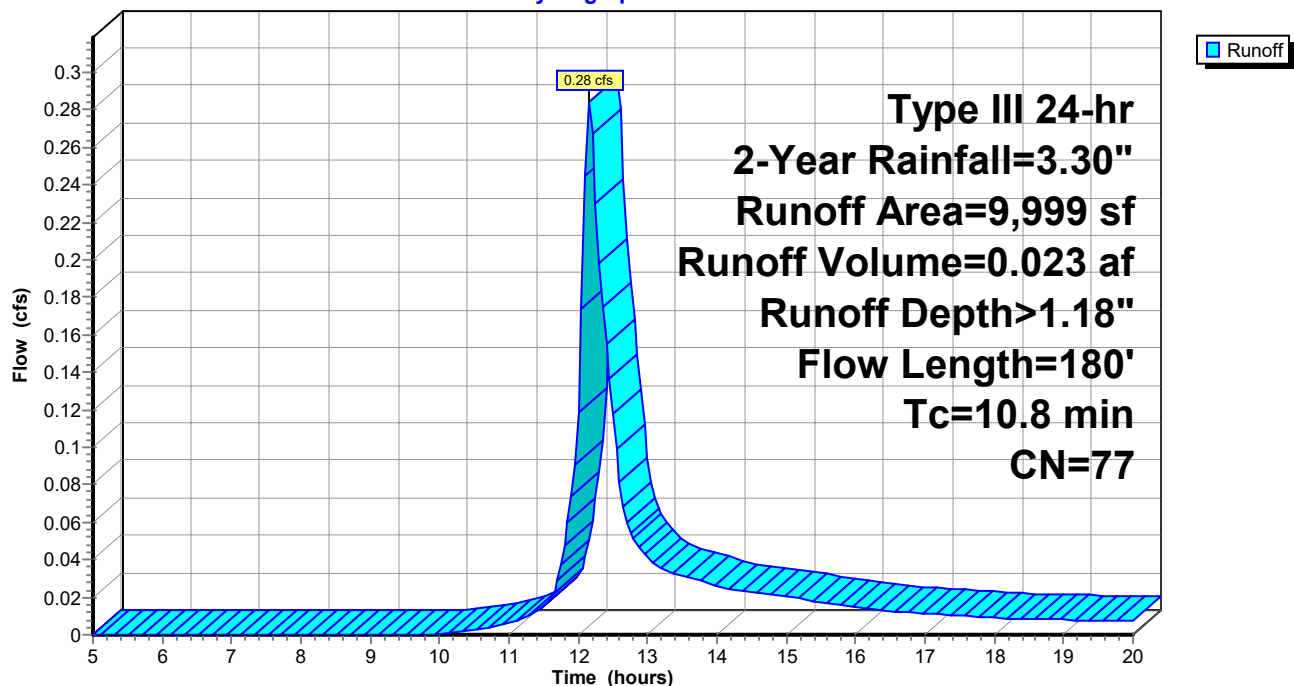
Area (sf)	CN	Description
9,999	77	Woods, Good, HSG D
9,999		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	80	0.1300	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.8	180	Total			



Subcatchment 4S: SUBCATCHMENT 4

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 12

Summary for Subcatchment 5S: SUBCATCHMENT 5

Runoff = 0.57 cfs @ 12.08 hrs, Volume= 0.038 af, Depth> 1.88"
Routed to Reach SP2 : SUMMATION POINT 2

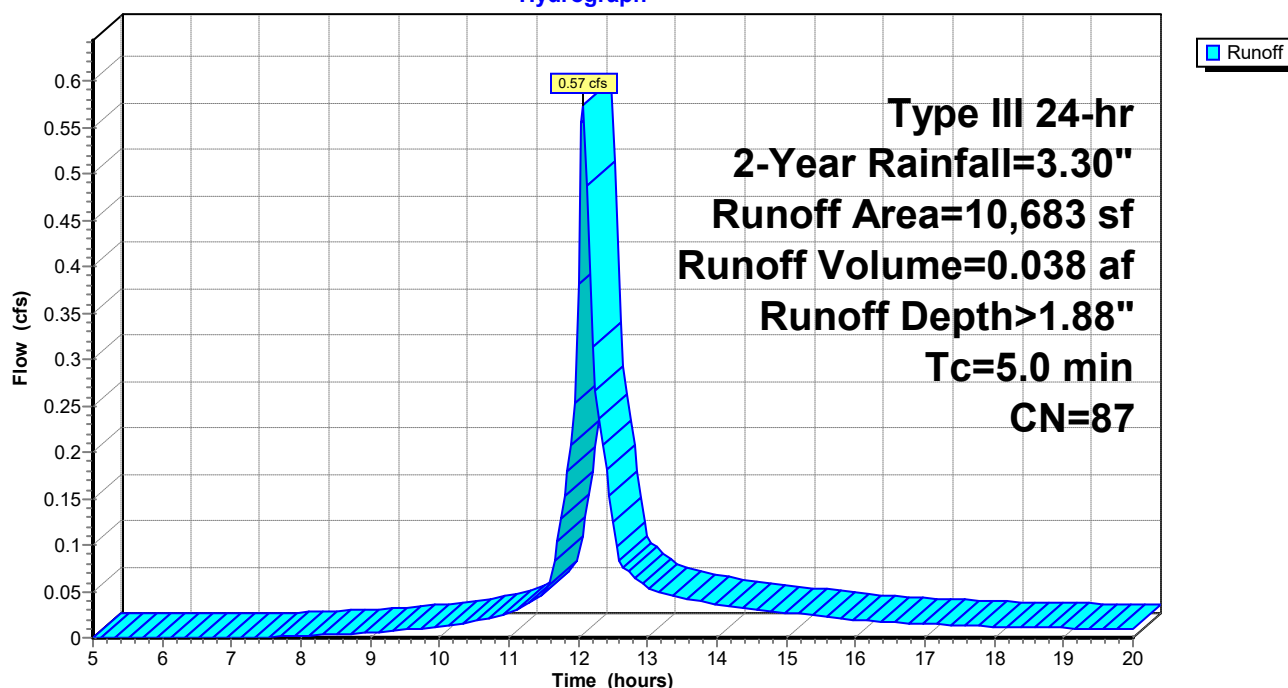
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
767	77	Woods, Good, HSG D
* 4,473	98	IMPERVIOUS
5,078	80	>75% Grass cover, Good, HSG D
365	85	1/2 acre lots, 25% imp, HSG D
10,683	87	Weighted Average
6,119		57.28% Pervious Area
4,564		42.72% Impervious Area

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

Subcatchment 5S: SUBCATCHMENT 5

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 13

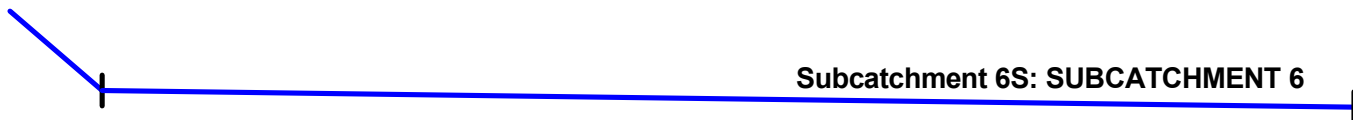
Summary for Subcatchment 6S: SUBCATCHMENT 6

Runoff = 3.26 cfs @ 12.56 hrs, Volume= 0.434 af, Depth> 1.55"
 Routed to Reach SP2 : SUMMATION POINT 2

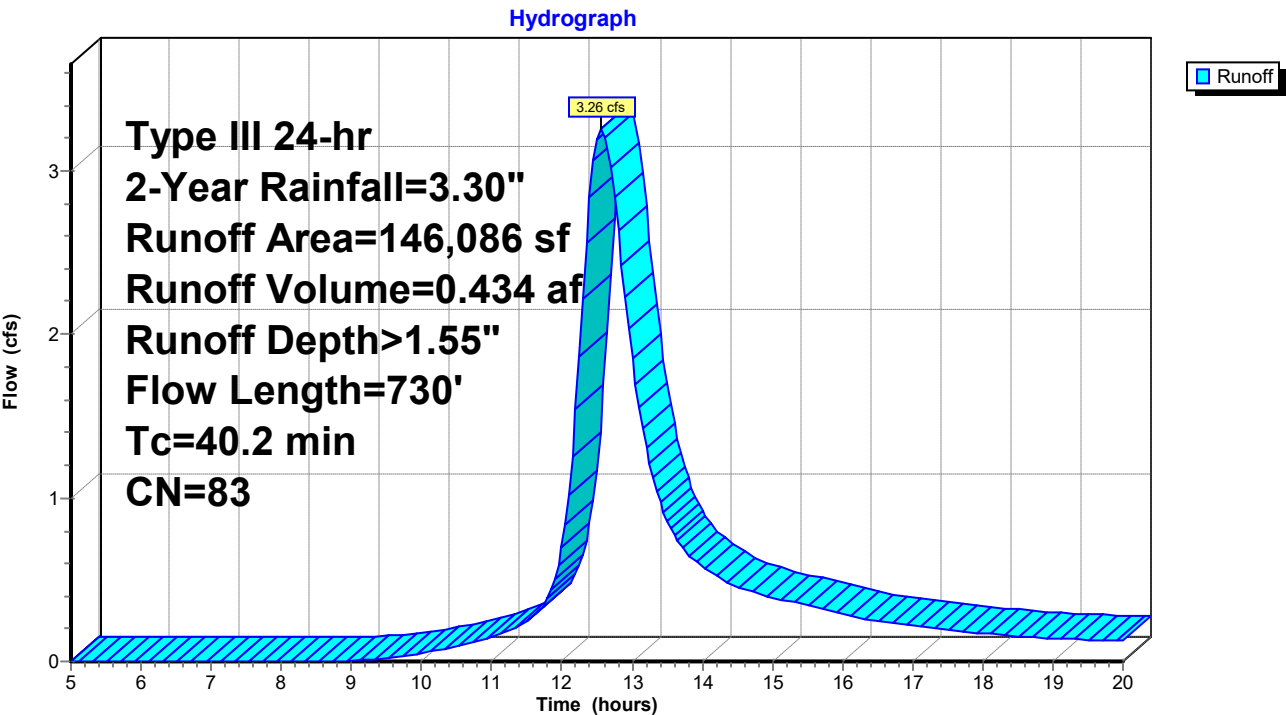
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
40,697	77	Woods, Good, HSG D
* 6,376	98	IMPERVIOUS
4,512	80	>75% Grass cover, Good, HSG D
94,501	84	1 acre lots, 20% imp, HSG D
146,086	83	Weighted Average
120,810		82.70% Pervious Area
25,276		17.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.2600	0.19		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
35.8	680	0.0040	0.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
40.2	730	Total			



Subcatchment 6S: SUBCATCHMENT 6



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 15

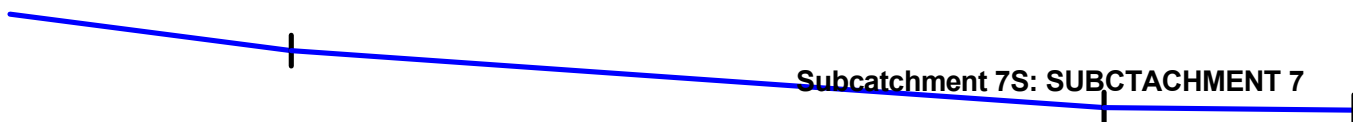
Summary for Subcatchment 7S: SUBCATCHMENT 7

Runoff = 1.49 cfs @ 12.12 hrs, Volume= 0.108 af, Depth> 1.72"
 Routed to Pond P2 : (new Pond)

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
2,462	77	Woods, Good, HSG D
* 4,964	98	IMPERVIOUS
2,525	80	>75% Grass cover, Good, HSG D
22,793	84	1 acre lots, 20% imp, HSG D
32,744	85	Weighted Average
23,221		70.92% Pervious Area
9,523		29.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	45	0.1300	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.6	130	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.3	40	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
8.2	215	Total			



post development

Prepared by Haley Ward

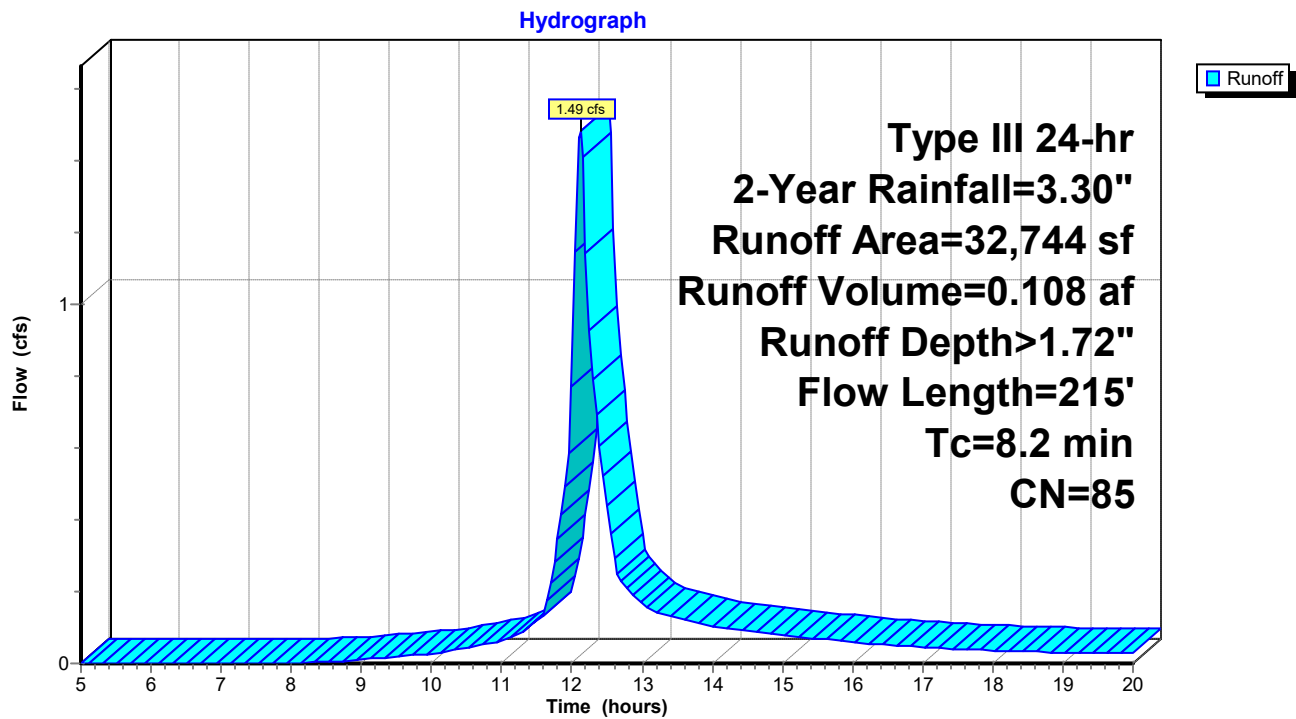
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 16

Subcatchment 7S: SUBCTACHMENT 7



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 17

Summary for Reach 13R: REACH 1

Inflow Area = 0.998 ac, 28.04% Impervious, Inflow Depth > 1.66" for 2-Year event
Inflow = 0.67 cfs @ 12.57 hrs, Volume= 0.138 af
Outflow = 0.67 cfs @ 12.63 hrs, Volume= 0.138 af, Atten= 0%, Lag= 3.7 min
Routed to Reach SP2 : SUMMATION POINT 2

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

Max. Velocity= 0.95 fps, Min. Travel Time= 2.3 min

Avg. Velocity= 0.48 fps, Avg. Travel Time= 4.5 min

Peak Storage= 92 cf @ 12.59 hrs

Average Depth at Peak Storage= 0.05', Surface Width= 15.28'

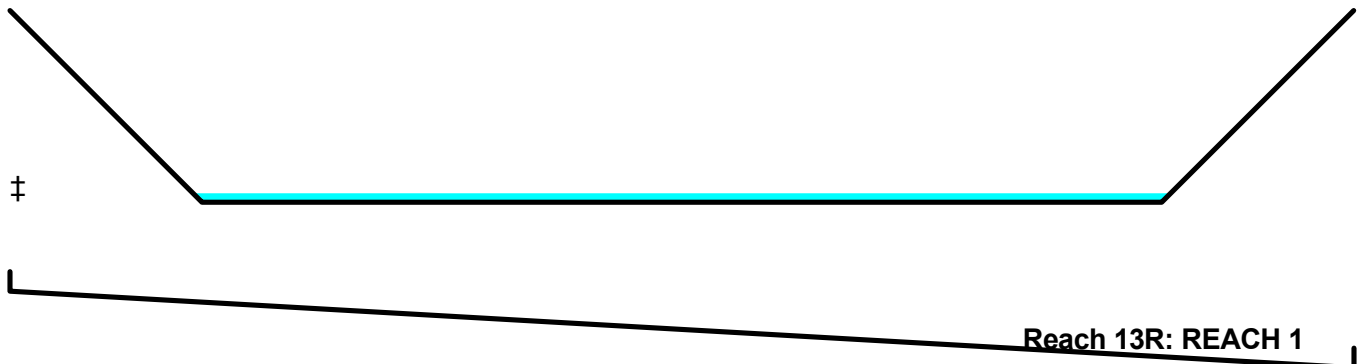
Bank-Full Depth= 1.00' Flow Area= 18.0 sf, Capacity= 118.23 cfs

15.00' x 1.00' deep channel, n= 0.035 Earth, dense weeds

Side Slope Z-value= 3.0 '/' Top Width= 21.00'

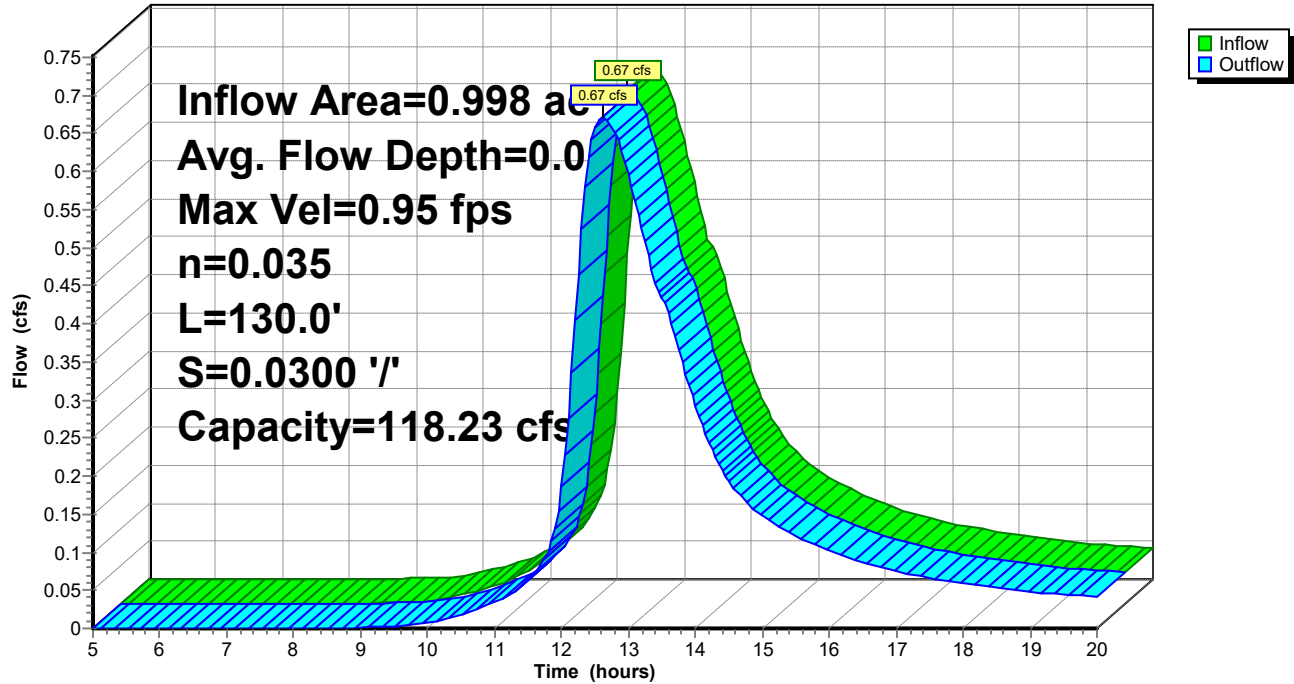
Length= 130.0' Slope= 0.0300 '/'

Inlet Invert= 0.00', Outlet Invert= -3.90'



Reach 13R: REACH 1

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

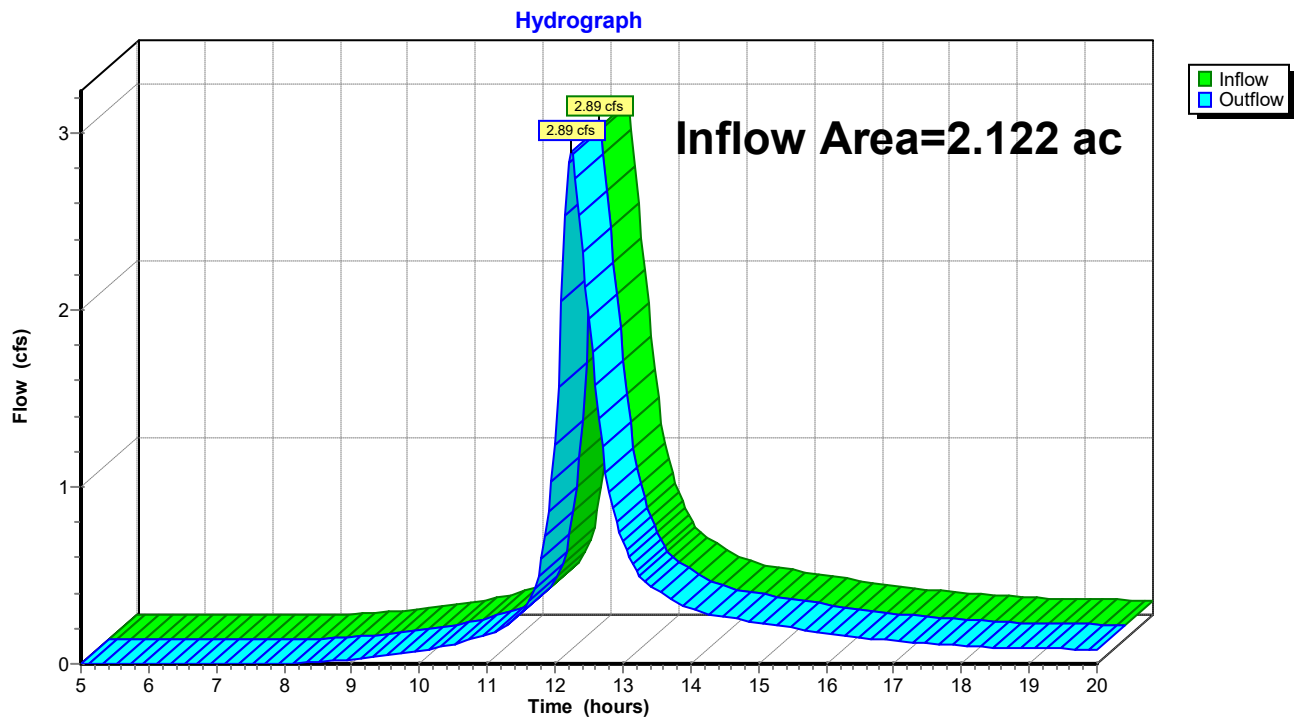
Page 19

Summary for Reach SP1: SUMMATION POINT 1

Inflow Area = 2.122 ac, 28.88% Impervious, Inflow Depth > 1.71" for 2-Year event
Inflow = 2.89 cfs @ 12.24 hrs, Volume= 0.303 af
Outflow = 2.89 cfs @ 12.24 hrs, Volume= 0.303 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 SP1: SUMMATION POINT 1



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

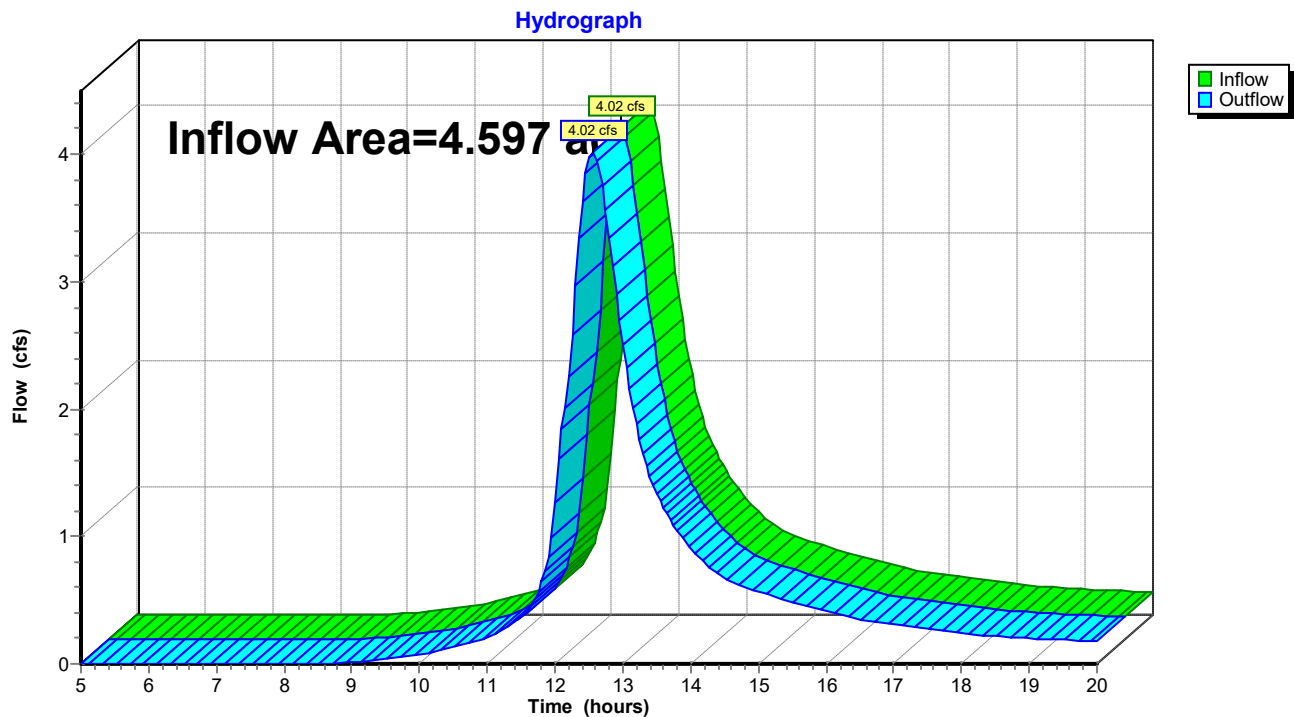
Page 20

Summary for Reach SP2: SUMMATION POINT 2

Inflow Area = 4.597 ac, 20.99% Impervious, Inflow Depth > 1.59" for 2-Year event
Inflow = 4.02 cfs @ 12.55 hrs, Volume= 0.610 af
Outflow = 4.02 cfs @ 12.55 hrs, Volume= 0.610 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 SP2: SUMMATION POINT 2



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

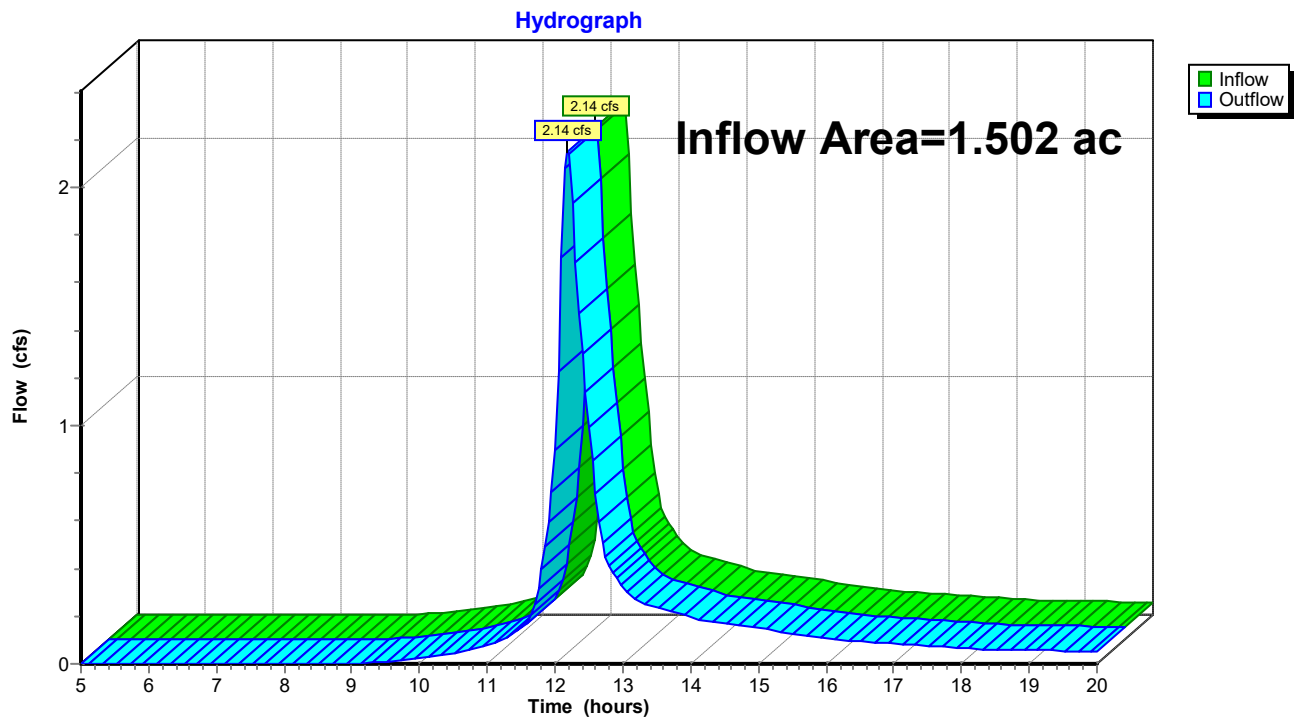
Page 21

Summary for Reach SP3: SUMMATION POINT 3

Inflow Area = 1.502 ac, 12.31% Impervious, Inflow Depth > 1.43" for 2-Year event
Inflow = 2.14 cfs @ 12.19 hrs, Volume= 0.179 af
Outflow = 2.14 cfs @ 12.19 hrs, Volume= 0.179 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 SP3: SUMMATION POINT 3



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

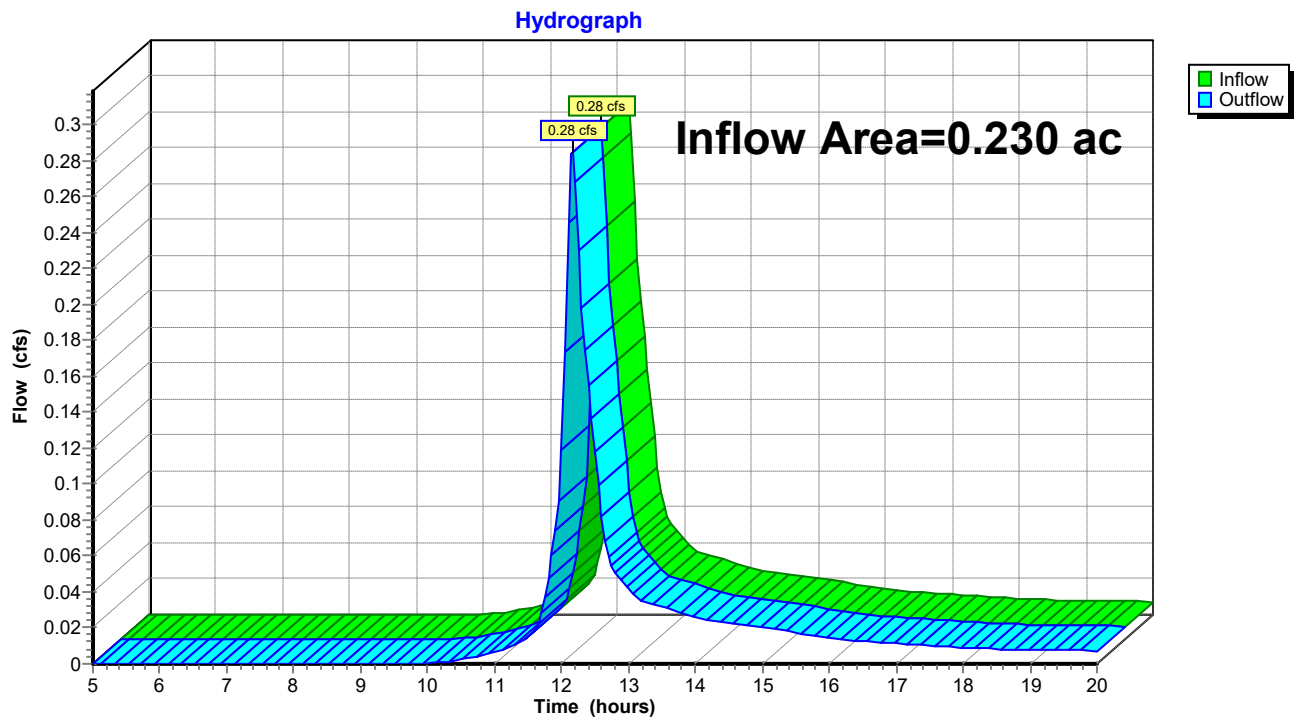
Page 22

Summary for Reach SP4: SUMMATION POINT 4

Inflow Area = 0.230 ac, 0.00% Impervious, Inflow Depth > 1.18" for 2-Year event
Inflow = 0.28 cfs @ 12.16 hrs, Volume= 0.023 af
Outflow = 0.28 cfs @ 12.16 hrs, Volume= 0.023 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 SP4: SUMMATION POINT 4



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 23

Summary for Pond P1: DETENTION BASIN

Inflow Area = 0.998 ac, 28.04% Impervious, Inflow Depth > 1.71" for 2-Year event
 Inflow = 1.64 cfs @ 12.20 hrs, Volume= 0.143 af
 Outflow = 0.67 cfs @ 12.57 hrs, Volume= 0.138 af, Atten= 59%, Lag= 21.7 min
 Primary = 0.67 cfs @ 12.57 hrs, Volume= 0.138 af
 Routed to Reach 13R : REACH 1
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Reach 13R : REACH 1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 59.04' @ 12.57 hrs Surf.Area= 2,203 sf Storage= 1,916 cf

Plug-Flow detention time= 48.4 min calculated for 0.138 af (96% of inflow)
 Center-of-Mass det. time= 36.6 min (832.8 - 796.2)

Volume	Invert	Avail.Storage	Storage Description
#1	58.00'	9,478 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.00	1,481	0	0
59.00	2,175	1,828	1,828
61.50	3,945	7,650	9,478

Device	Routing	Invert	Outlet Devices
#1	Primary	57.98'	6.0" Round Culvert L= 21.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.98' / 57.88' S= 0.0048 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	58.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	60.50'	10.0' long x 5.0' 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 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

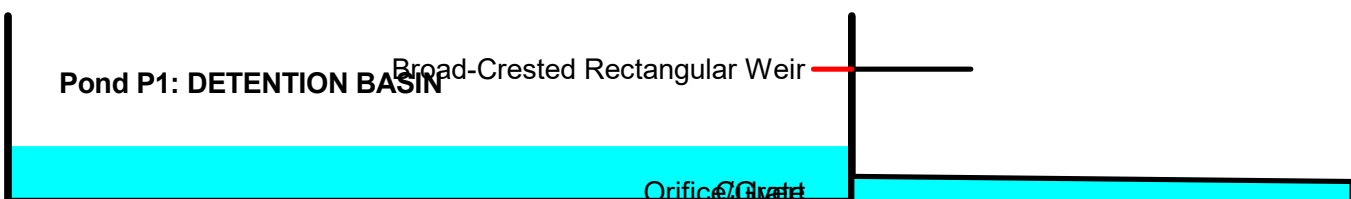
Primary OutFlow Max=0.67 cfs @ 12.57 hrs HW=59.04' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 0.67 cfs @ 3.42 fps)

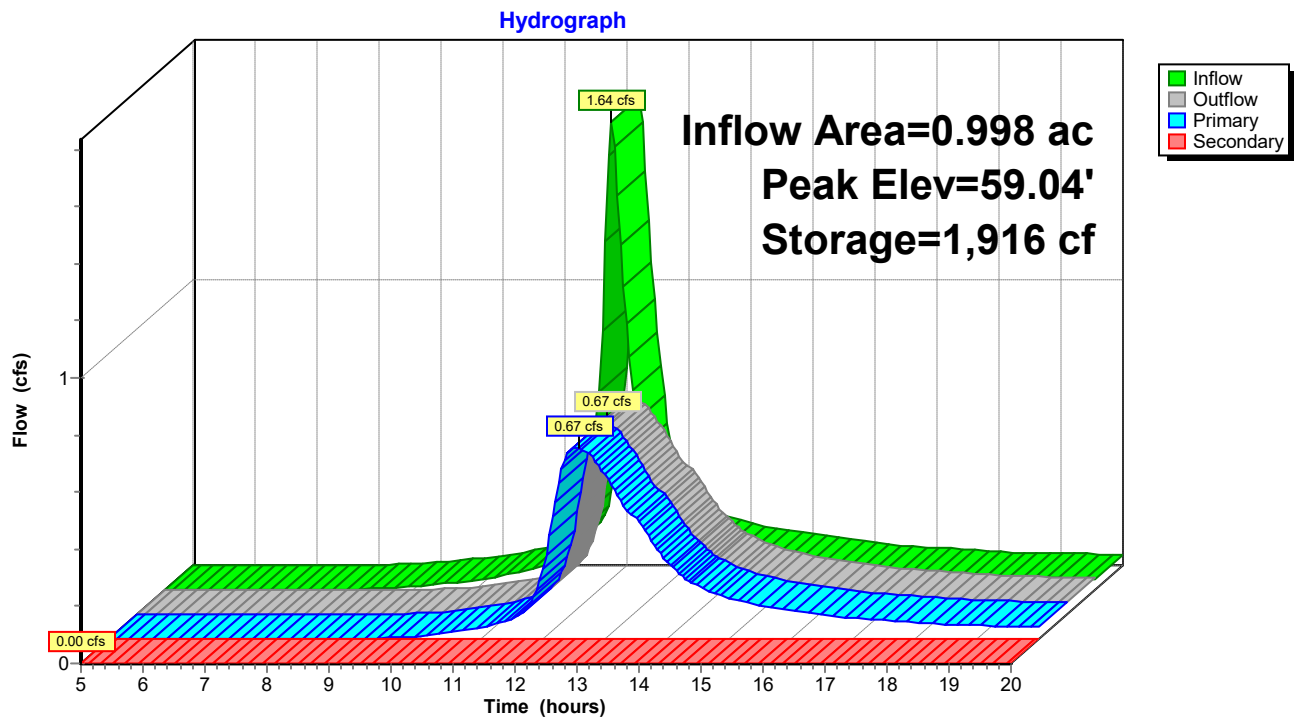
↑ **2=Orifice/Grate** (Passes 0.67 cfs of 0.84 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=58.00' (Free Discharge)

↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)



Pond P1: DETENTION BASIN



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 25

Summary for Pond P2: (new Pond)

Inflow Area = 0.752 ac, 29.08% Impervious, Inflow Depth > 1.72" for 2-Year event
 Inflow = 1.49 cfs @ 12.12 hrs, Volume= 0.108 af
 Outflow = 0.76 cfs @ 12.32 hrs, Volume= 0.107 af, Atten= 49%, Lag= 11.9 min
 Primary = 0.76 cfs @ 12.32 hrs, Volume= 0.107 af
 Routed to Reach SP1 : SUMMATION POINT 1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 53.47' @ 12.32 hrs Surf.Area= 2,220 sf Storage= 811 cf

Plug-Flow detention time= 9.7 min calculated for 0.107 af (100% of inflow)
 Center-of-Mass det. time= 9.1 min (800.3 - 791.1)

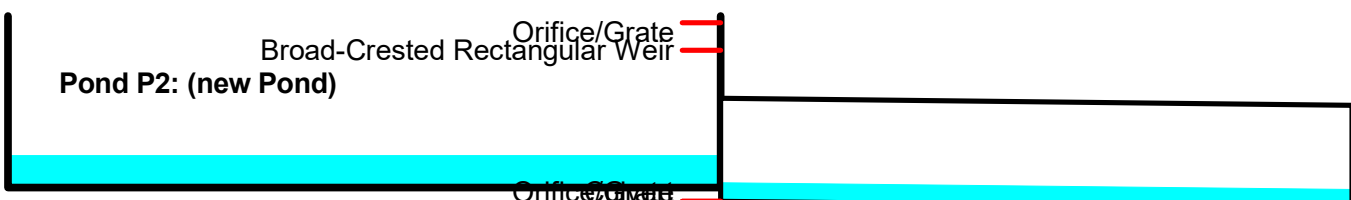
Volume	Invert	Avail.Storage	Storage Description
#1	53.00'	9,380 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.00	1,256	0	0
54.00	3,321	2,289	2,289
55.00	5,109	4,215	6,504
55.50	6,398	2,877	9,380

Device	Routing	Invert	Outlet Devices
#1	Primary	52.80'	18.0" Round Culvert L= 40.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.70' S= 0.0025 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	1.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Device 1	52.80'	6.0" W x 6.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	55.40'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.76 cfs @ 12.32 hrs HW=53.47' (Free Discharge)

1=Culvert (Passes 0.76 cfs of 1.23 cfs potential flow)
 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
 3=Orifice/Grate (Orifice Controls 0.76 cfs @ 3.05 fps)
 4=Orifice/Grate (Controls 0.00 cfs)



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

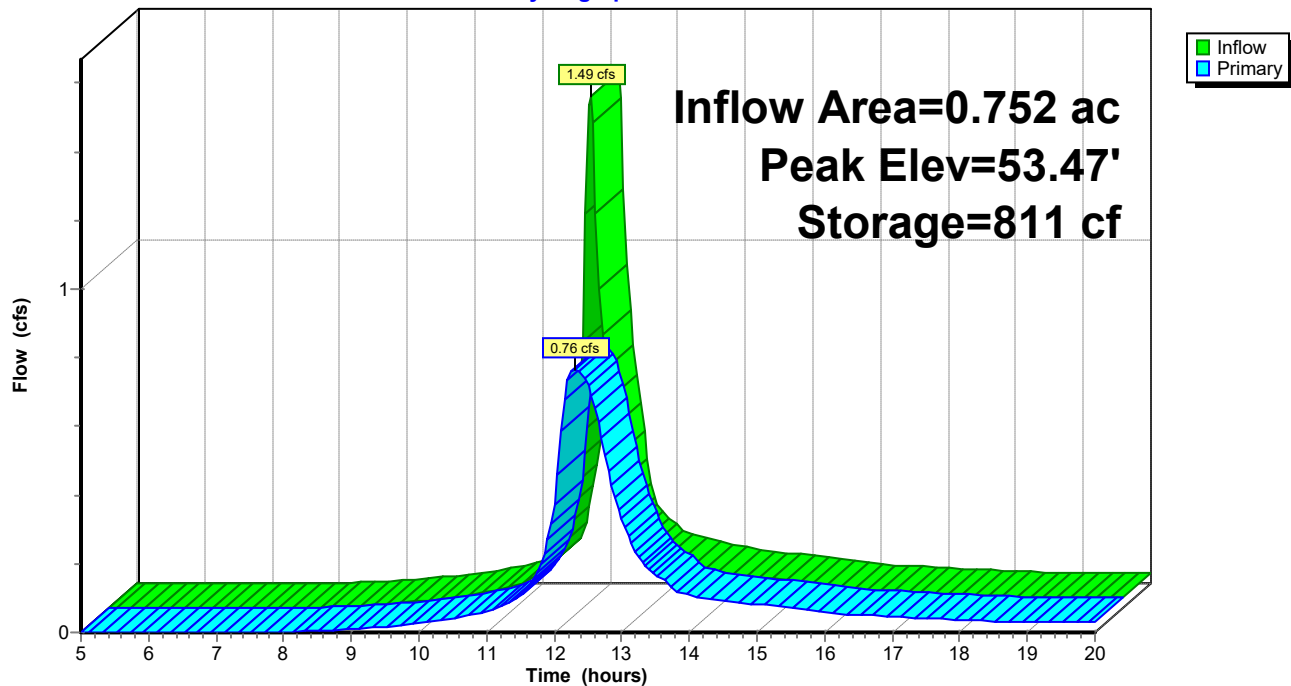
Type III 24-hr 2-Year Rainfall=3.30"

Printed 5/5/2025

Page 26

Pond P2: (new Pond)

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 27

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: SUBCATCHMENT 1 Runoff Area=59,711 sf 28.77% Impervious Runoff Depth>3.07"
Flow Length=410' Tc=16.7 min CN=85 Runoff=3.77 cfs 0.350 af

Subcatchment 2S: SUBCATCHMENT 2 Runoff Area=43,473 sf 28.04% Impervious Runoff Depth>3.07"
Flow Length=206' Slope=0.0600 '/' Tc=14.6 min CN=85 Runoff=2.90 cfs 0.255 af

Subcatchment 3S: SUBCATCHMENT 3 Runoff Area=65,439 sf 12.31% Impervious Runoff Depth>2.70"
Flow Length=260' Tc=12.9 min CN=81 Runoff=4.04 cfs 0.338 af

Subcatchment 4S: SUBCATCHMENT 4 Runoff Area=9,999 sf 0.00% Impervious Runoff Depth>2.36"
Flow Length=180' Tc=10.8 min CN=77 Runoff=0.58 cfs 0.045 af

Subcatchment 5S: SUBCATCHMENT 5 Runoff Area=10,683 sf 42.72% Impervious Runoff Depth>3.27"
Tc=5.0 min CN=87 Runoff=0.99 cfs 0.067 af

Subcatchment 6S: SUBCATCHMENT 6 Runoff Area=146,086 sf 17.30% Impervious Runoff Depth>2.86"
Flow Length=730' Tc=40.2 min CN=83 Runoff=5.94 cfs 0.799 af

Subcatchment 7S: SUBCATCHMENT 7 Runoff Area=32,744 sf 29.08% Impervious Runoff Depth>3.08"
Flow Length=215' Tc=8.2 min CN=85 Runoff=2.62 cfs 0.193 af

Reach 13R: REACH 1 Avg. Flow Depth=0.06' Max Vel=1.08 fps Inflow=0.93 cfs 0.249 af
n=0.035 L=130.0' S=0.0300 '/' Capacity=118.23 cfs Outflow=0.93 cfs 0.249 af

Reach SP1: SUMMATION POINT 1 Inflow=4.80 cfs 0.543 af
Outflow=4.80 cfs 0.543 af

Reach SP2: SUMMATION POINT 2 Inflow=7.02 cfs 1.115 af
Outflow=7.02 cfs 1.115 af

Reach SP3: SUMMATION POINT 3 Inflow=4.04 cfs 0.338 af
Outflow=4.04 cfs 0.338 af

Reach SP4: SUMMATION POINT 4 Inflow=0.58 cfs 0.045 af
Outflow=0.58 cfs 0.045 af

Pond P1: DETENTION BASIN Peak Elev=59.78' Storage=3,735 cf Inflow=2.90 cfs 0.255 af
Primary=0.93 cfs 0.249 af Secondary=0.00 cfs 0.000 af Outflow=0.93 cfs 0.249 af

Pond P2: (new Pond) Peak Elev=53.85' Storage=1,809 cf Inflow=2.62 cfs 0.193 af
Outflow=1.07 cfs 0.192 af

Total Runoff Area = 8.451 ac Runoff Volume = 2.048 af Average Runoff Depth = 2.91"
79.14% Pervious = 6.688 ac 20.86% Impervious = 1.763 ac

post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 28

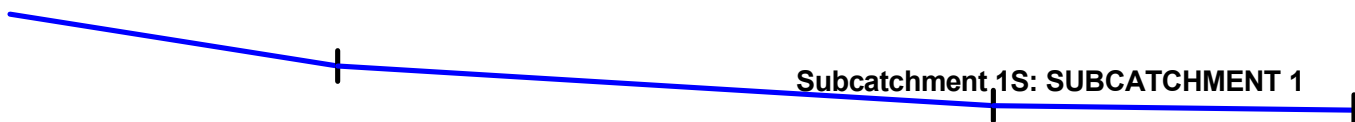
Summary for Subcatchment 1S: SUBCATCHMENT 1

Runoff = 3.77 cfs @ 12.23 hrs, Volume= 0.350 af, Depth> 3.07"
 Routed to Reach SP1 : SUMMATION POINT 1

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 10-Year Rainfall=4.90"

Area (sf)	CN	Description
8,027	77	Woods, Good, HSG D
* 6,604	98	IMPERVIOUS
2,772	80	>75% Grass cover, Good, HSG D
42,308	85	1/2 acre lots, 25% imp, HSG D
59,711	85	Weighted Average
42,530		71.23% Pervious Area
17,181		28.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1300	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
3.0	200	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.7	110	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.7	410	Total			



post development

Prepared by Haley Ward

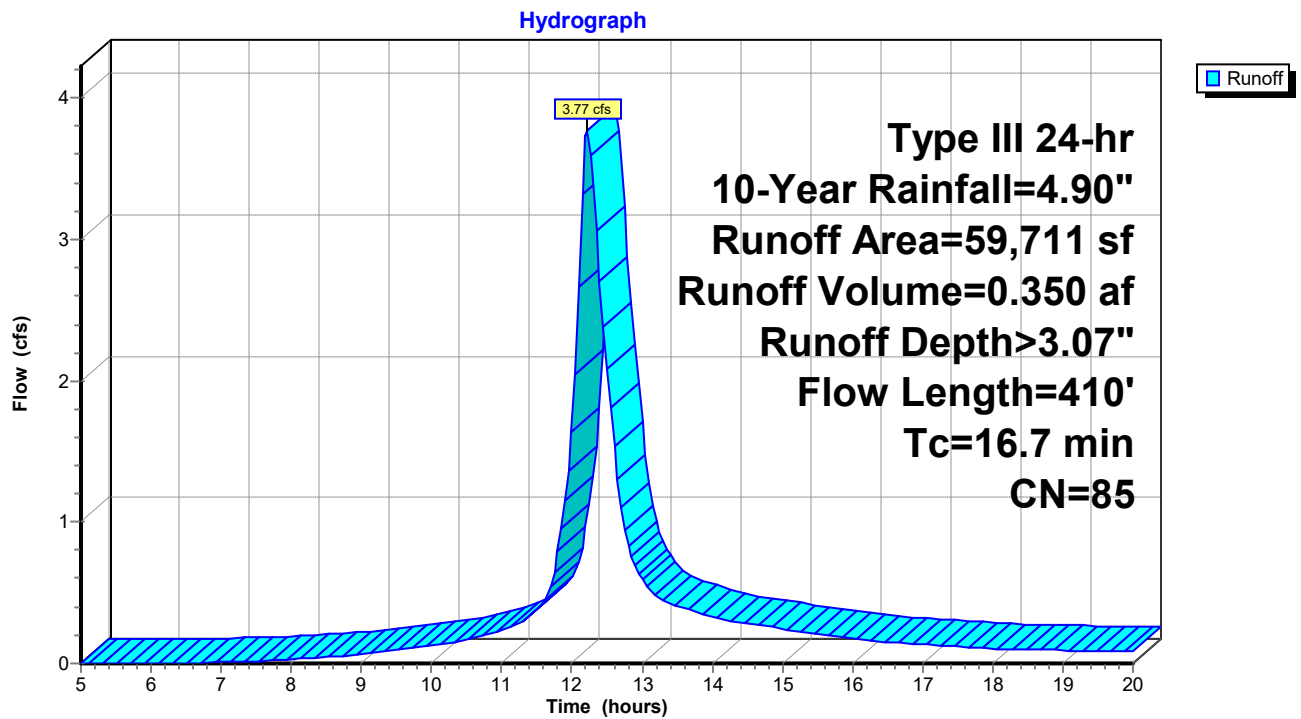
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 29

Subcatchment 1S: SUBCATCHMENT 1



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 30

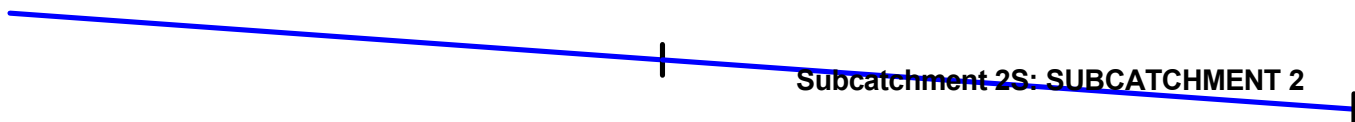
Summary for Subcatchment 2S: SUBCATCHMENT 2

Runoff = 2.90 cfs @ 12.20 hrs, Volume= 0.255 af, Depth> 3.07"
 Routed to Pond P1 : DETENTION BASIN

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 10-Year Rainfall=4.90"

Area (sf)	CN	Description
761	77	Woods, Good, HSG D
* 4,834	98	IMPERVIOUS
8,459	80	>75% Grass cover, Good, HSG D
29,419	85	1/2 acre lots, 25% imp, HSG D
43,473	85	Weighted Average
31,284		71.96% Pervious Area
12,189		28.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	100	0.0600	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.0	106	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.6	206	Total			



post development

Prepared by Haley Ward

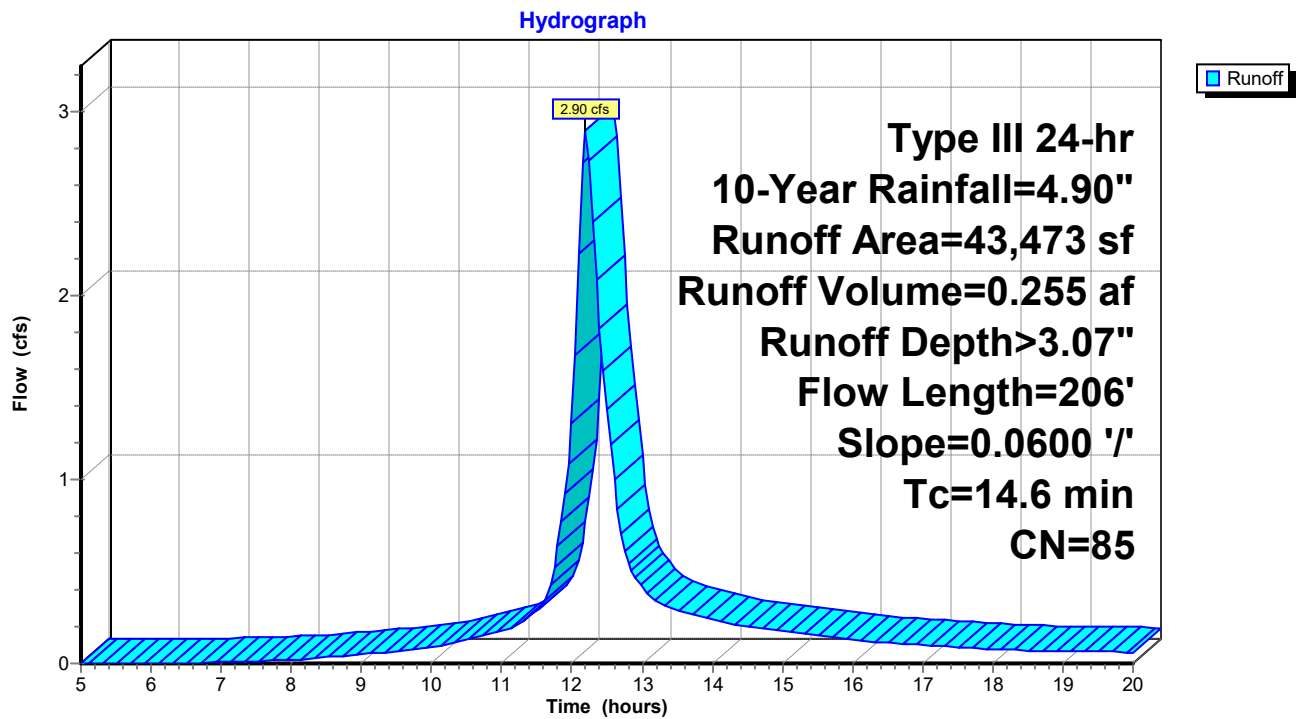
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 31

Subcatchment 2S: SUBCATCHMENT 2



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 32

Summary for Subcatchment 3S: SUBCATCHMENT 3

Runoff = 4.04 cfs @ 12.18 hrs, Volume= 0.338 af, Depth> 2.70"
 Routed to Reach SP3 : SUMMATION POINT 3

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 10-Year Rainfall=4.90"

Area (sf)	CN	Description
33,227	77	Woods, Good, HSG D
32,212	85	1/2 acre lots, 25% imp, HSG D
65,439	81	Weighted Average
57,386		87.69% Pervious Area
8,053		12.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.3	45	0.1100	2.32		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.8	165	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.9	260	Total			



post development

Prepared by Haley Ward

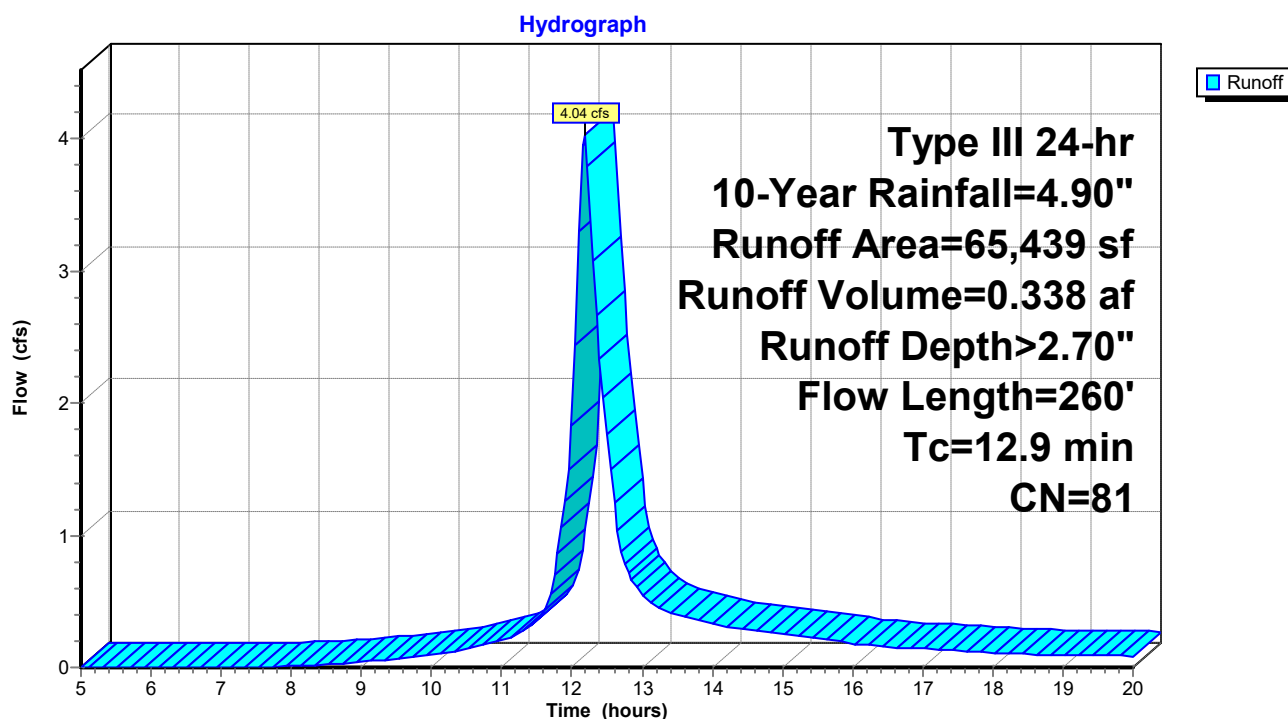
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 33

Subcatchment 3S: SUBCATCHMENT 3



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 34

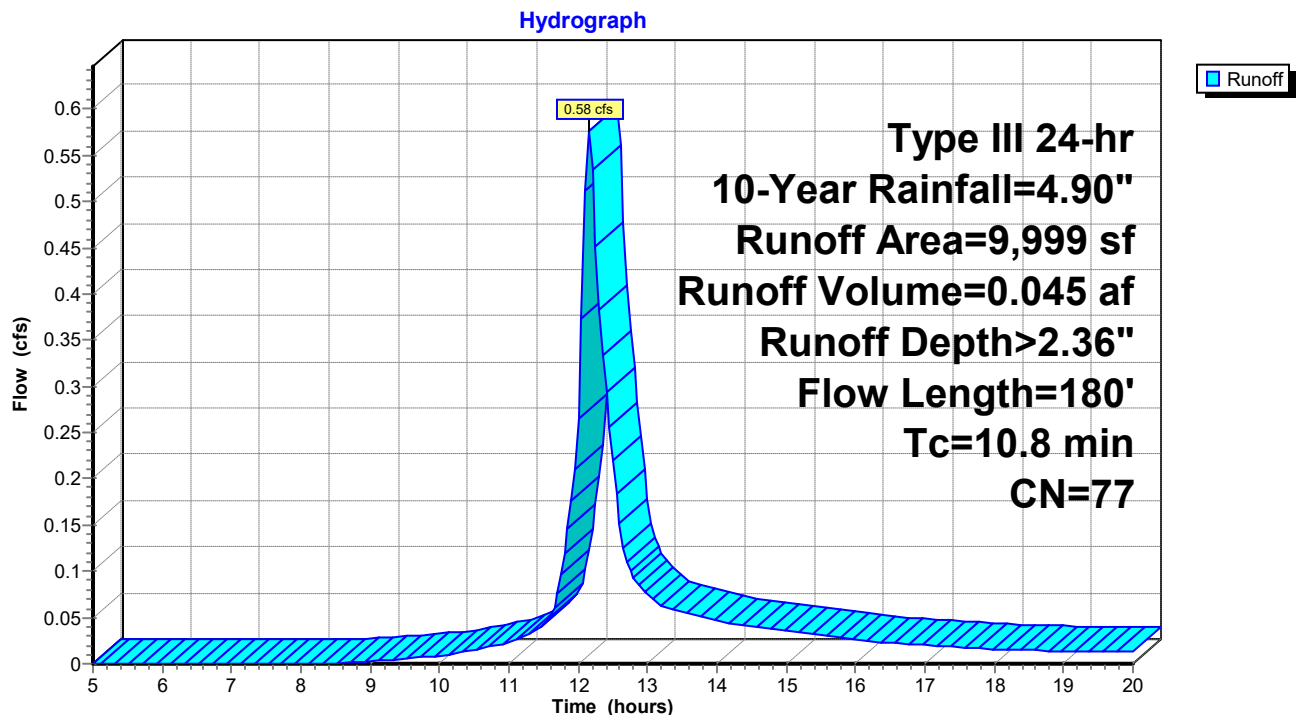
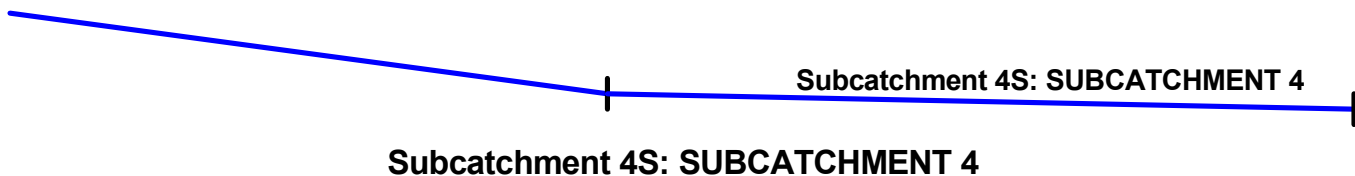
Summary for Subcatchment 4S: SUBCATCHMENT 4

Runoff = 0.58 cfs @ 12.16 hrs, Volume= 0.045 af, Depth> 2.36"
Routed to Reach SP4 : SUMMATION POINT 4

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 10-Year Rainfall=4.90"

Area (sf)	CN	Description
9,999	77	Woods, Good, HSG D
9,999		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	80	0.1300	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.8	180	Total			



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 35

Summary for Subcatchment 5S: SUBCATCHMENT 5

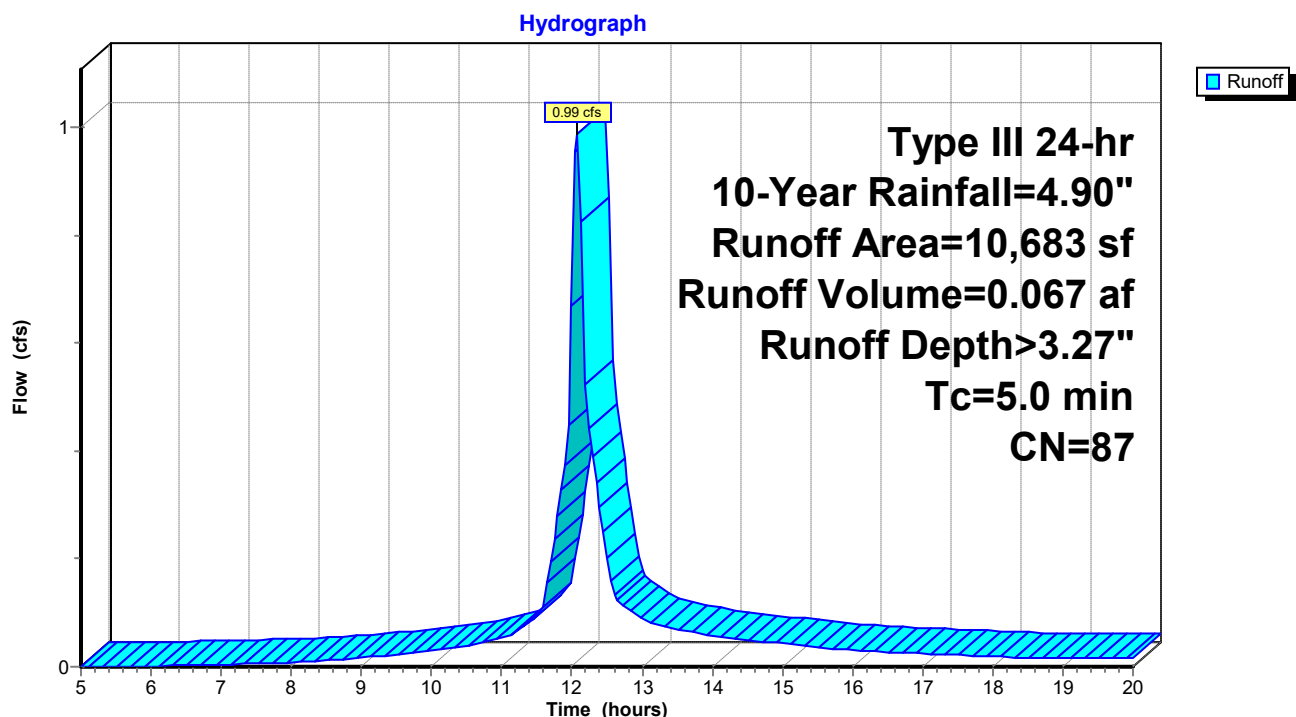
Runoff = 0.99 cfs @ 12.07 hrs, Volume= 0.067 af, Depth> 3.27"
Routed to Reach SP2 : SUMMATION POINT 2

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 10-Year Rainfall=4.90"

Area (sf)	CN	Description
767	77	Woods, Good, HSG D
* 4,473	98	IMPERVIOUS
5,078	80	>75% Grass cover, Good, HSG D
365	85	1/2 acre lots, 25% imp, HSG D
10,683	87	Weighted Average
6,119		57.28% Pervious Area
4,564		42.72% Impervious Area

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

Subcatchment 5S: SUBCATCHMENT 5



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 36

Summary for Subcatchment 6S: SUBCATCHMENT 6

Runoff = 5.94 cfs @ 12.55 hrs, Volume= 0.799 af, Depth> 2.86"
 Routed to Reach SP2 : SUMMATION POINT 2

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 10-Year Rainfall=4.90"

Area (sf)	CN	Description
40,697	77	Woods, Good, HSG D
* 6,376	98	IMPERVIOUS
4,512	80	>75% Grass cover, Good, HSG D
94,501	84	1 acre lots, 20% imp, HSG D
146,086	83	Weighted Average
120,810		82.70% Pervious Area
25,276		17.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.2600	0.19		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
35.8	680	0.0040	0.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
40.2	730	Total			



post development

Prepared by Haley Ward

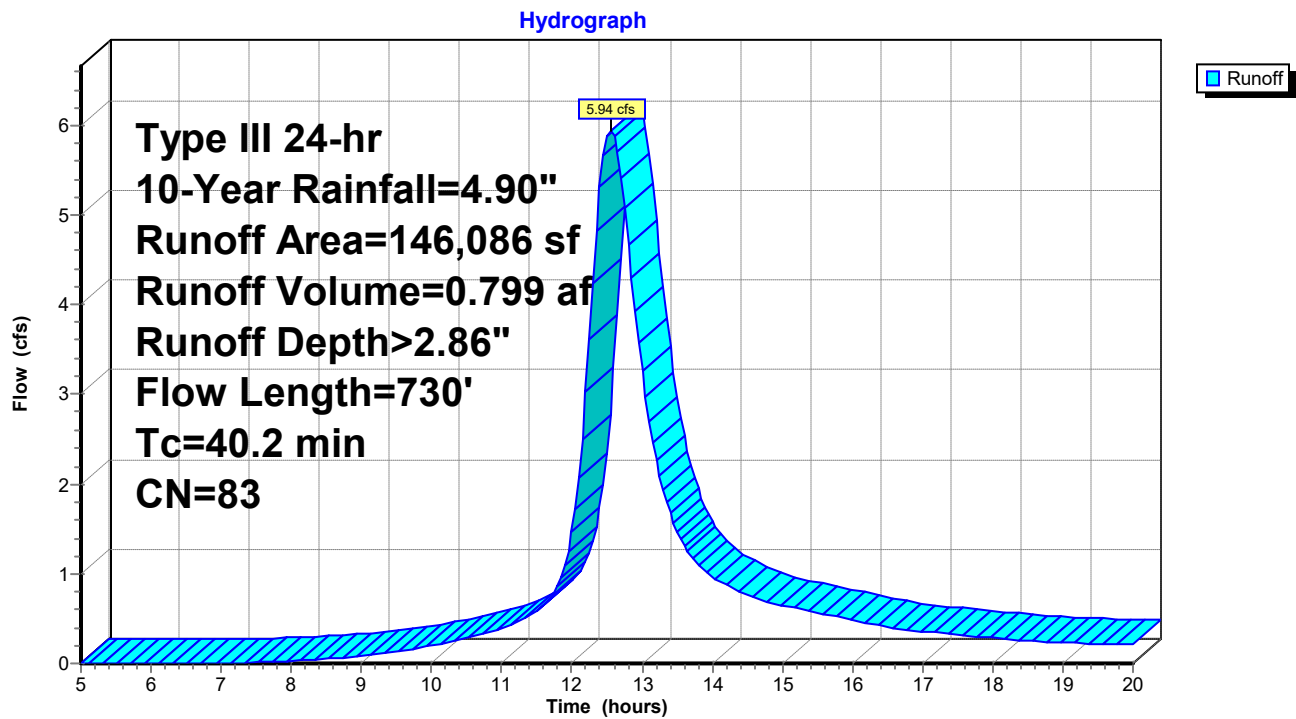
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 37

Subcatchment 6S: SUBCATCHMENT 6



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 38

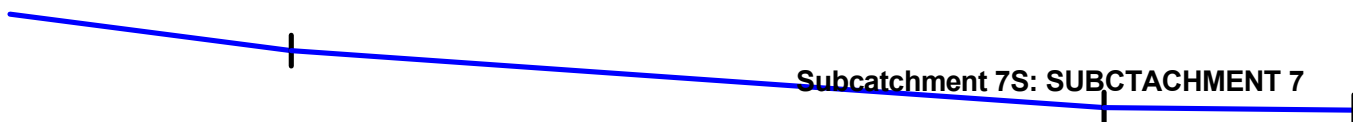
Summary for Subcatchment 7S: SUBCATCHMENT 7

Runoff = 2.62 cfs @ 12.12 hrs, Volume= 0.193 af, Depth> 3.08"
 Routed to Pond P2 : (new Pond)

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 10-Year Rainfall=4.90"

Area (sf)	CN	Description
2,462	77	Woods, Good, HSG D
* 4,964	98	IMPERVIOUS
2,525	80	>75% Grass cover, Good, HSG D
22,793	84	1 acre lots, 20% imp, HSG D
32,744	85	Weighted Average
23,221		70.92% Pervious Area
9,523		29.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	45	0.1300	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.6	130	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.3	40	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
8.2	215	Total			



post development

Prepared by Haley Ward

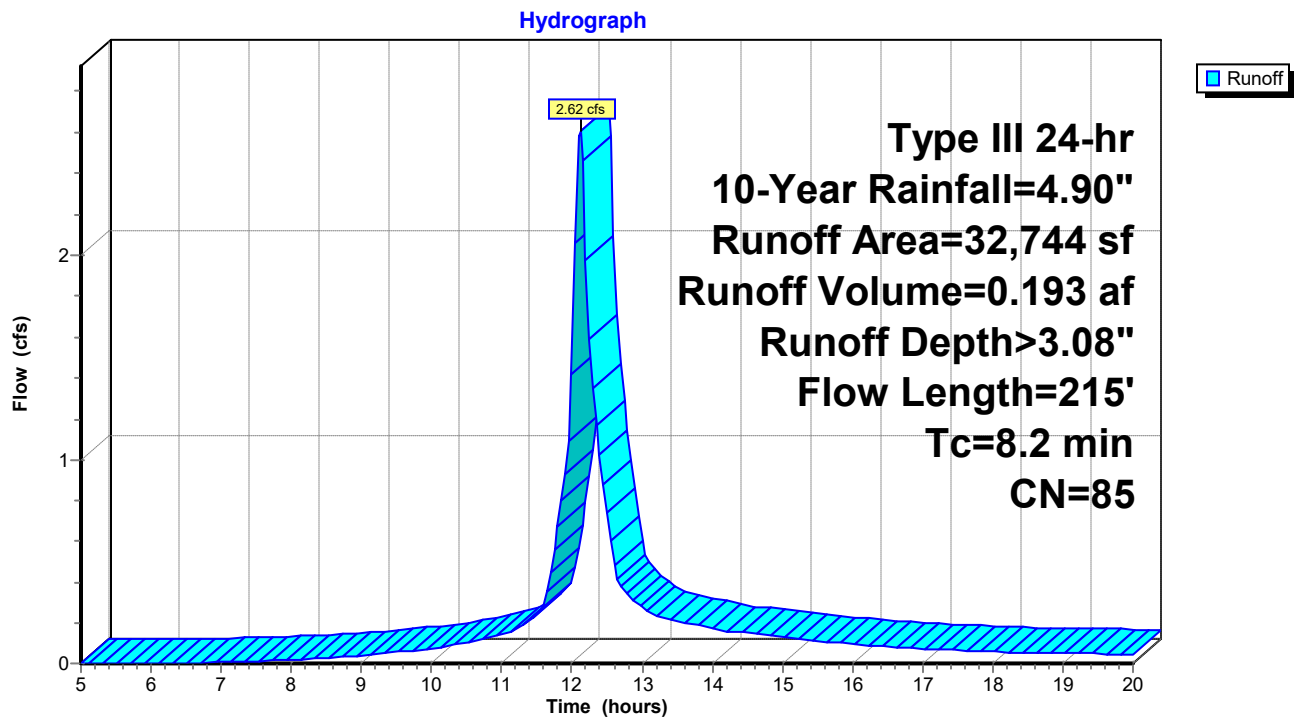
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 39

Subcatchment 7S: SUBCTACHMENT 7



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 40

Summary for Reach 13R: REACH 1

Inflow Area = 0.998 ac, 28.04% Impervious, Inflow Depth > 3.00" for 10-Year event
Inflow = 0.93 cfs @ 12.62 hrs, Volume= 0.249 af
Outflow = 0.93 cfs @ 12.68 hrs, Volume= 0.249 af, Atten= 0%, Lag= 3.4 min
Routed to Reach SP2 : SUMMATION POINT 2

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

Max. Velocity= 1.08 fps, Min. Travel Time= 2.0 min

Avg. Velocity= 0.55 fps, Avg. Travel Time= 3.9 min

Peak Storage= 112 cf @ 12.64 hrs

Average Depth at Peak Storage= 0.06' , Surface Width= 15.34'

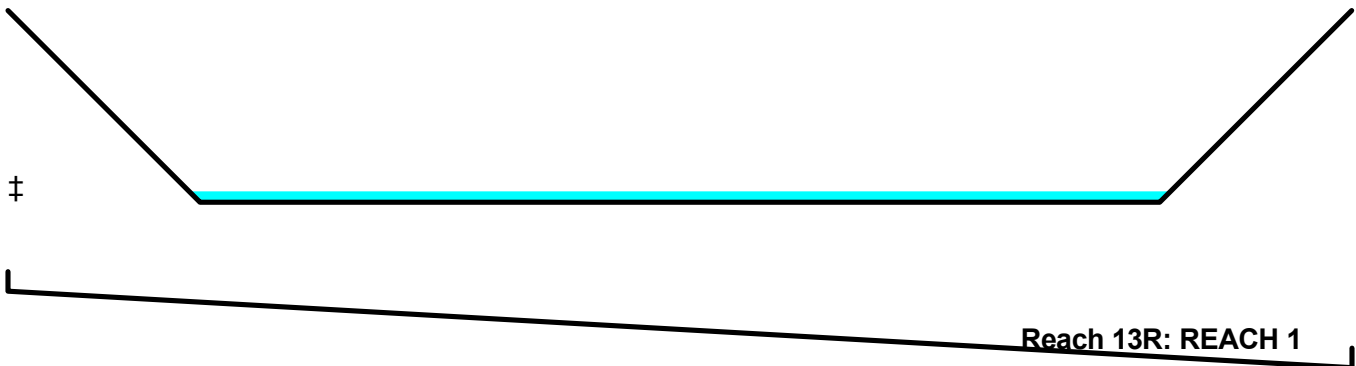
Bank-Full Depth= 1.00' Flow Area= 18.0 sf, Capacity= 118.23 cfs

15.00' x 1.00' deep channel, n= 0.035 Earth, dense weeds

Side Slope Z-value= 3.0 '/' Top Width= 21.00'

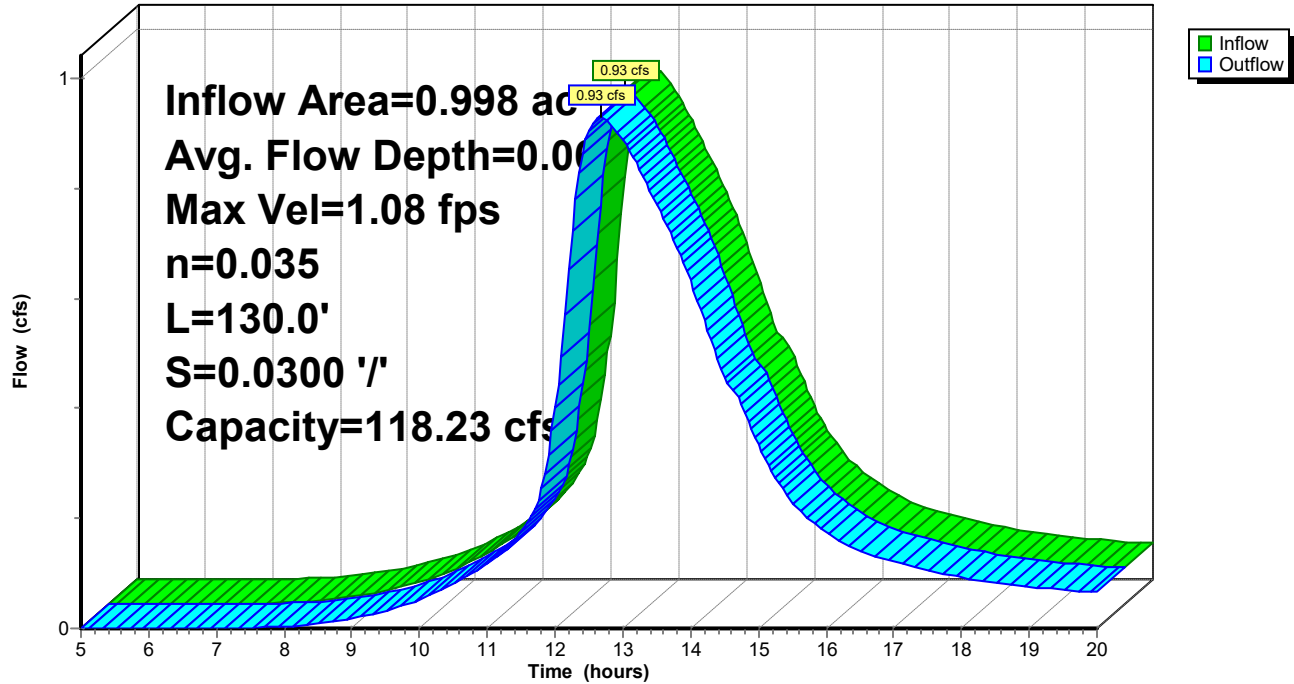
Length= 130.0' Slope= 0.0300 '/'

Inlet Invert= 0.00', Outlet Invert= -3.90'



Reach 13R: REACH 1

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

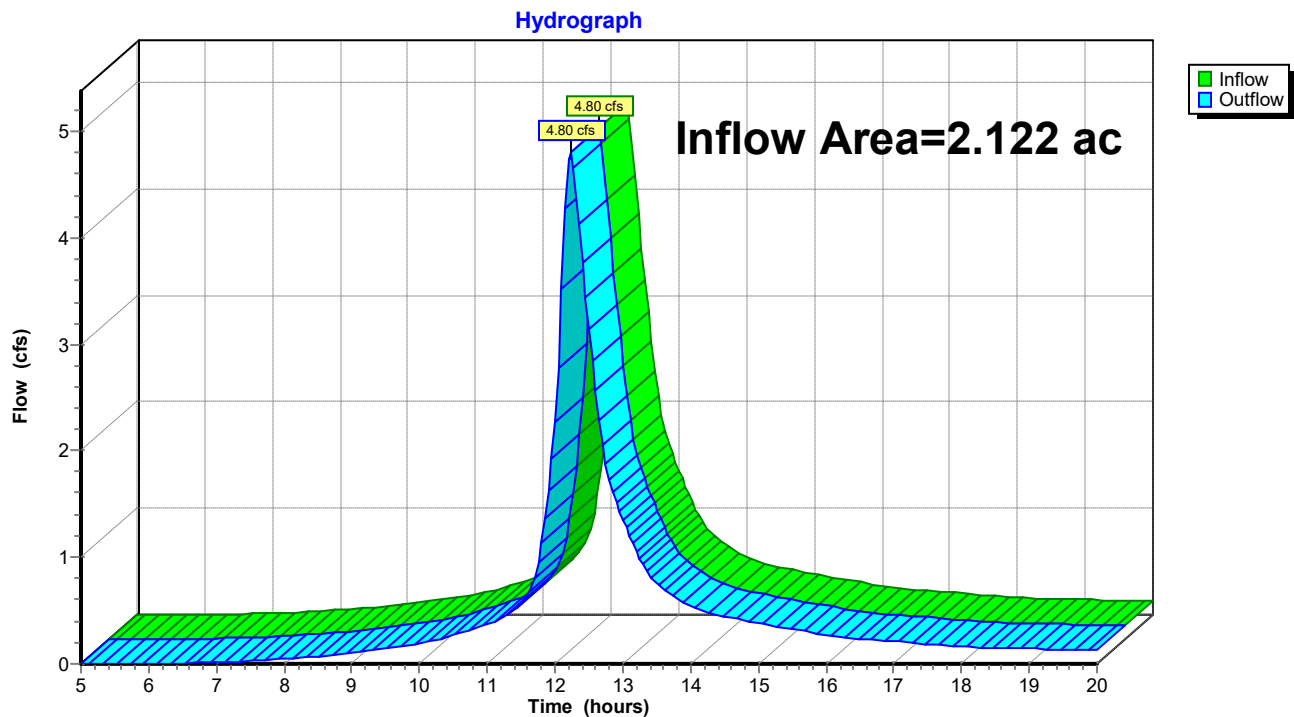
Page 42

Summary for Reach SP1: SUMMATION POINT 1

Inflow Area = 2.122 ac, 28.88% Impervious, Inflow Depth > 3.07" for 10-Year event
Inflow = 4.80 cfs @ 12.23 hrs, Volume= 0.543 af
Outflow = 4.80 cfs @ 12.23 hrs, Volume= 0.543 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 SP1: SUMMATION POINT 1



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

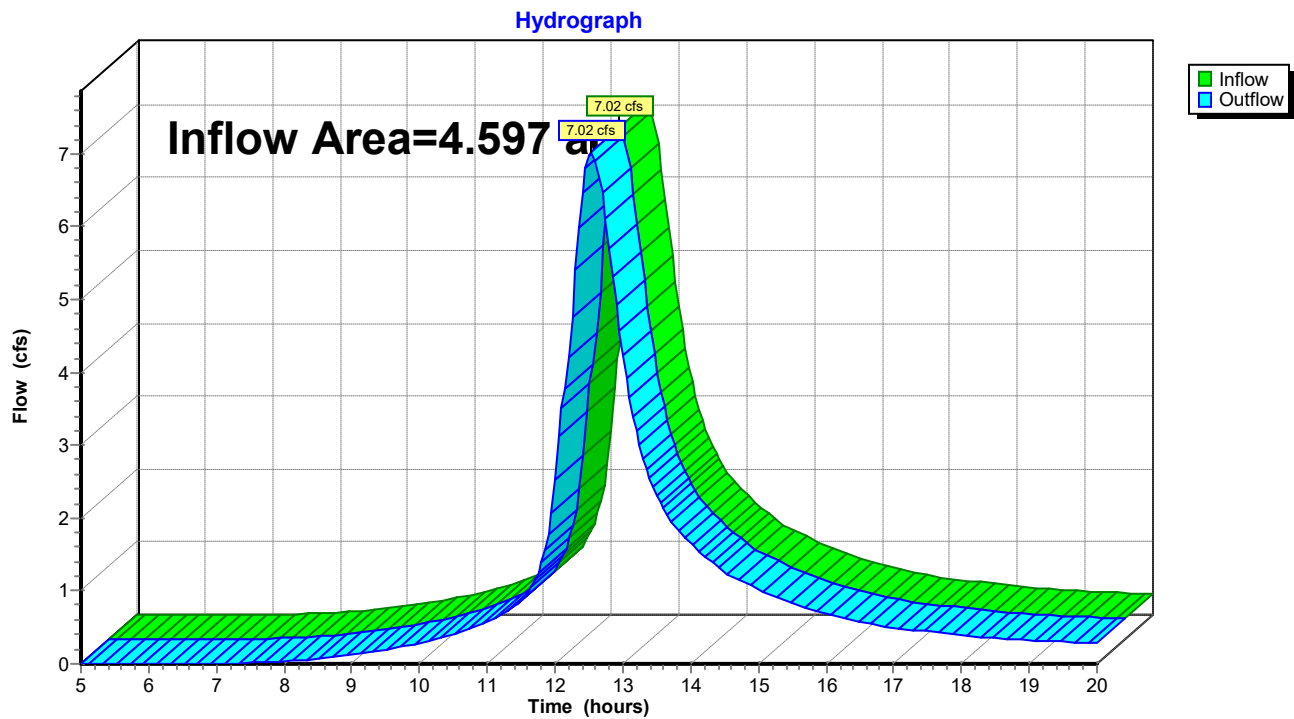
Page 43

Summary for Reach SP2: SUMMATION POINT 2

Inflow Area = 4.597 ac, 20.99% Impervious, Inflow Depth > 2.91" for 10-Year event
Inflow = 7.02 cfs @ 12.54 hrs, Volume= 1.115 af
Outflow = 7.02 cfs @ 12.54 hrs, Volume= 1.115 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 SP2: SUMMATION POINT 2



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

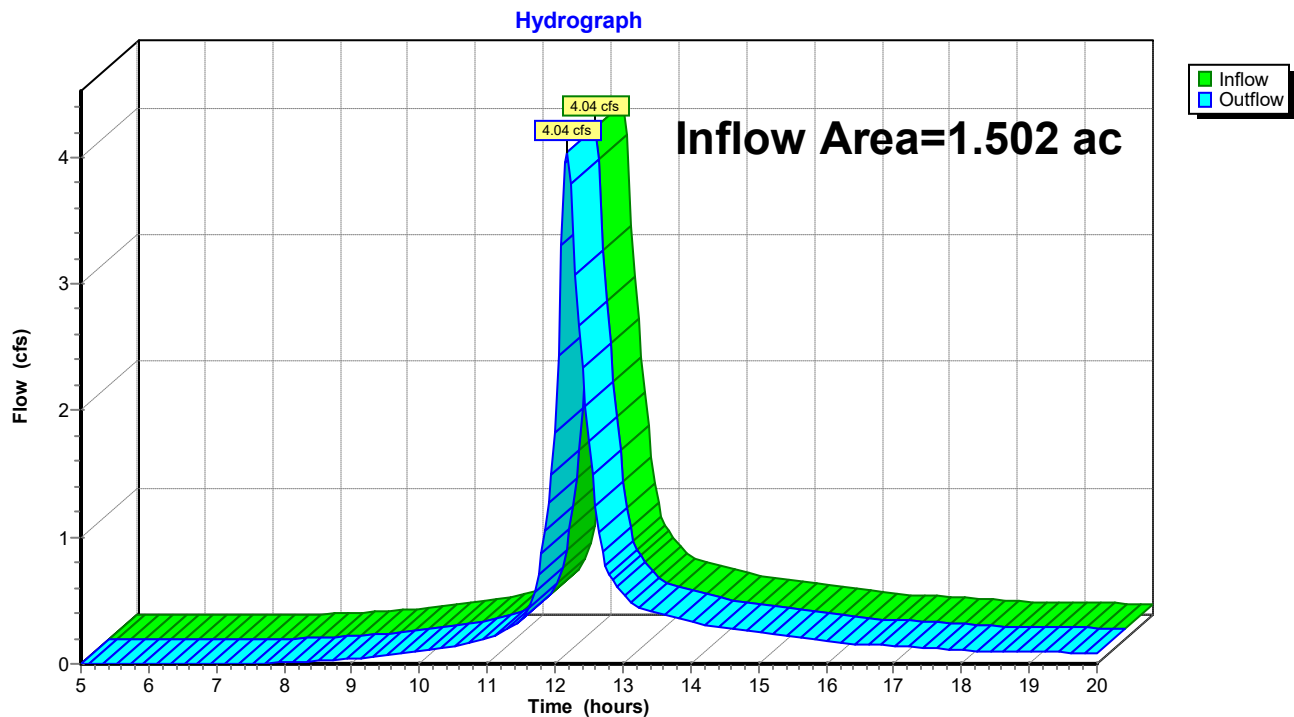
Page 44

Summary for Reach SP3: SUMMATION POINT 3

Inflow Area = 1.502 ac, 12.31% Impervious, Inflow Depth > 2.70" for 10-Year event
Inflow = 4.04 cfs @ 12.18 hrs, Volume= 0.338 af
Outflow = 4.04 cfs @ 12.18 hrs, Volume= 0.338 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 SP3: SUMMATION POINT 3



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

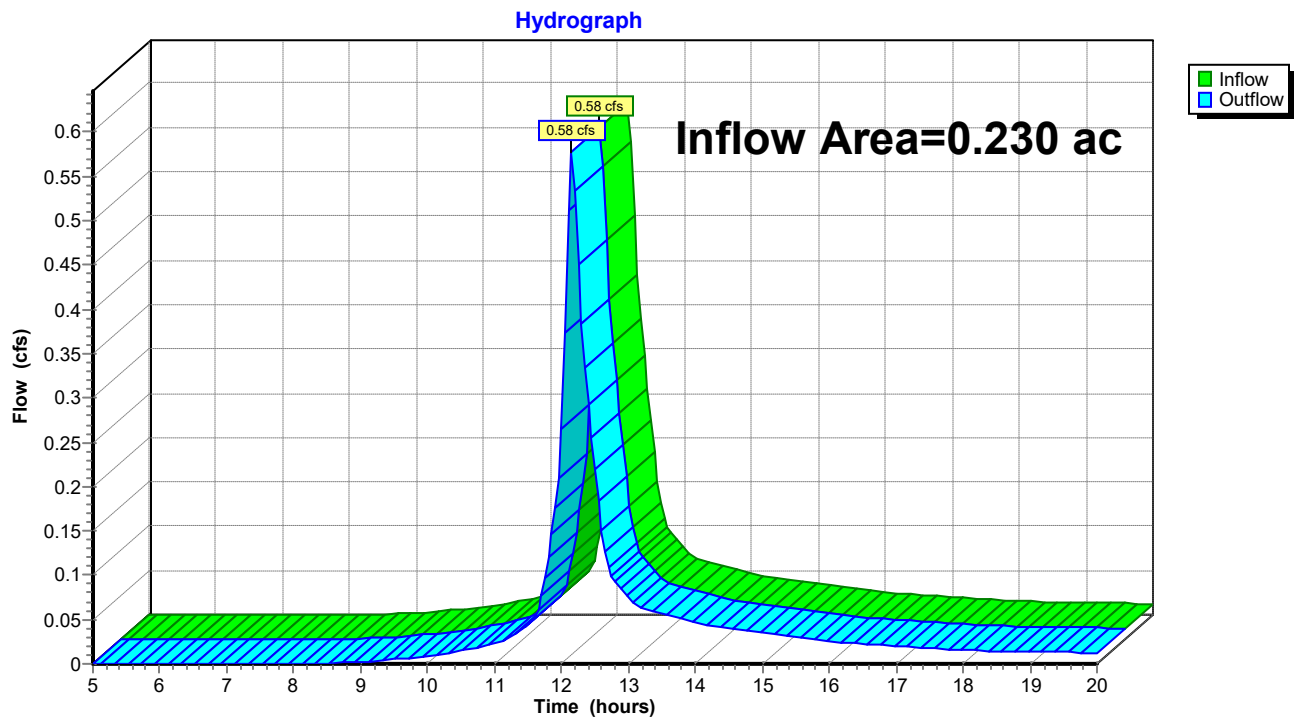
Page 45

Summary for Reach SP4: SUMMATION POINT 4

Inflow Area = 0.230 ac, 0.00% Impervious, Inflow Depth > 2.36" for 10-Year event
Inflow = 0.58 cfs @ 12.16 hrs, Volume= 0.045 af
Outflow = 0.58 cfs @ 12.16 hrs, Volume= 0.045 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 SP4: SUMMATION POINT 4



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 46

Summary for Pond P1: DETENTION BASIN

Inflow Area = 0.998 ac, 28.04% Impervious, Inflow Depth > 3.07" for 10-Year event
 Inflow = 2.90 cfs @ 12.20 hrs, Volume= 0.255 af
 Outflow = 0.93 cfs @ 12.62 hrs, Volume= 0.249 af, Atten= 68%, Lag= 25.3 min
 Primary = 0.93 cfs @ 12.62 hrs, Volume= 0.249 af
 Routed to Reach 13R : REACH 1
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Reach 13R : REACH 1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 59.78' @ 12.62 hrs Surf.Area= 2,726 sf Storage= 3,735 cf

Plug-Flow detention time= 52.9 min calculated for 0.249 af (98% of inflow)
 Center-of-Mass det. time= 43.7 min (826.4 - 782.7)

Volume	Invert	Avail.Storage	Storage Description
#1	58.00'	9,478 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.00	1,481	0	0
59.00	2,175	1,828	1,828
61.50	3,945	7,650	9,478

Device	Routing	Invert	Outlet Devices
#1	Primary	57.98'	6.0" Round Culvert L= 21.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.98' / 57.88' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	58.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	60.50'	10.0' long x 5.0' 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 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

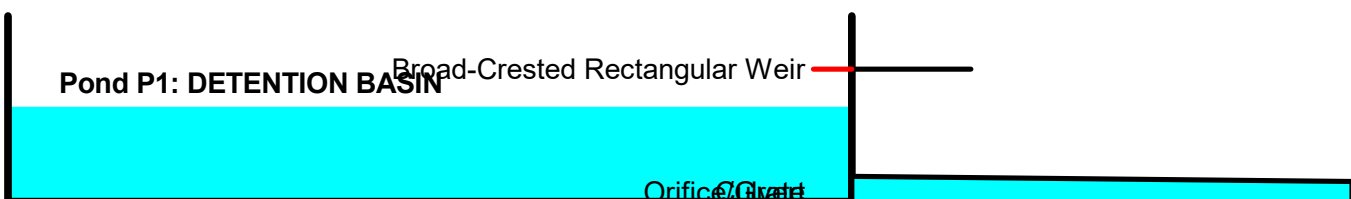
Primary OutFlow Max=0.93 cfs @ 12.62 hrs HW=59.78' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 0.93 cfs @ 4.73 fps)

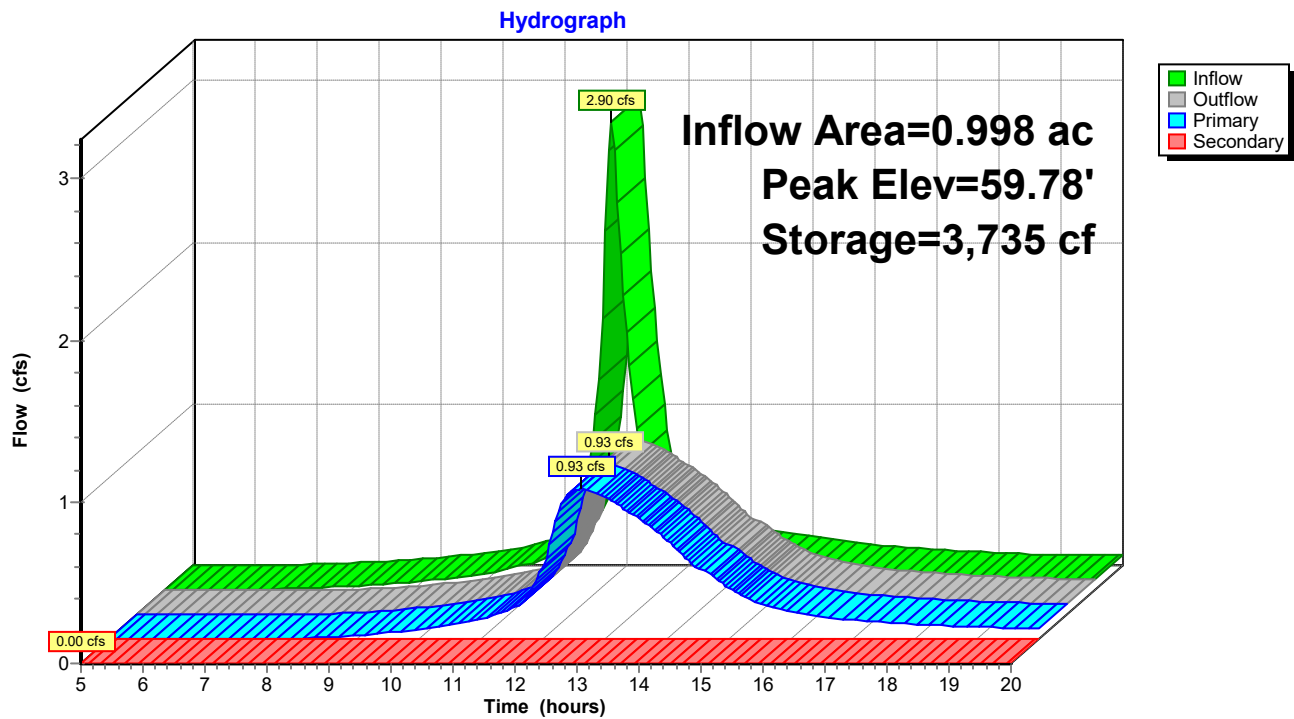
↑ **2=Orifice/Grate** (Passes 0.93 cfs of 1.17 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=58.00' (Free Discharge)

↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)



Pond P1: DETENTION BASIN



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 5/5/2025

Page 48

Summary for Pond P2: (new Pond)

Inflow Area = 0.752 ac, 29.08% Impervious, Inflow Depth > 3.08" for 10-Year event
 Inflow = 2.62 cfs @ 12.12 hrs, Volume= 0.193 af
 Outflow = 1.07 cfs @ 12.38 hrs, Volume= 0.192 af, Atten= 59%, Lag= 16.1 min
 Primary = 1.07 cfs @ 12.38 hrs, Volume= 0.192 af
 Routed to Reach SP1 : SUMMATION POINT 1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 53.85' @ 12.38 hrs Surf.Area= 3,008 sf Storage= 1,809 cf

Plug-Flow detention time= 14.3 min calculated for 0.192 af (100% of inflow)
 Center-of-Mass det. time= 13.8 min (791.3 - 777.5)

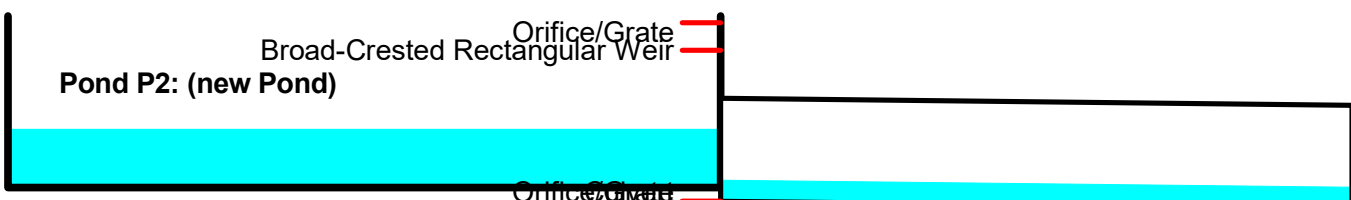
Volume	Invert	Avail.Storage	Storage Description
#1	53.00'	9,380 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.00	1,256	0	0
54.00	3,321	2,289	2,289
55.00	5,109	4,215	6,504
55.50	6,398	2,877	9,380

Device	Routing	Invert	Outlet Devices
#1	Primary	52.80'	18.0" Round Culvert L= 40.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.70' S= 0.0025 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	1.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Device 1	52.80'	6.0" W x 6.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	55.40'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

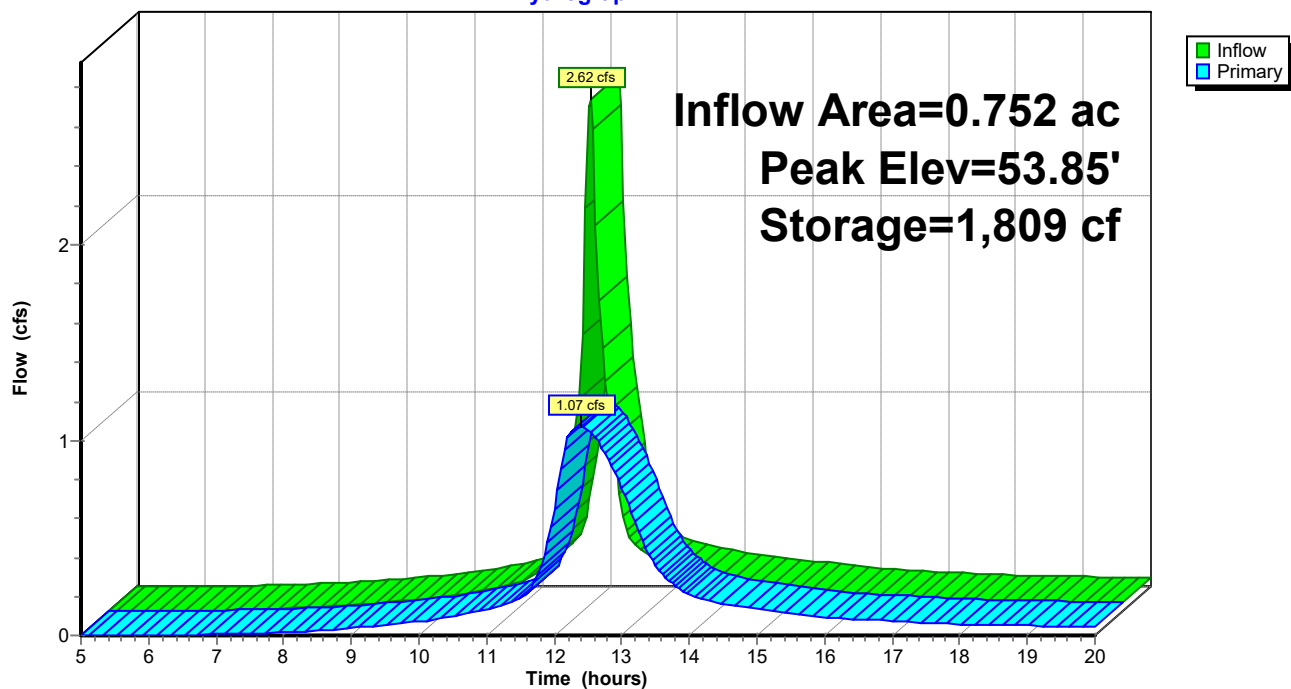
Primary OutFlow Max=1.07 cfs @ 12.38 hrs HW=53.85' (Free Discharge)

1=Culvert (Passes 1.07 cfs of 2.80 cfs potential flow)
 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
 3=Orifice/Grate (Orifice Controls 1.07 cfs @ 4.28 fps)
 4=Orifice/Grate (Controls 0.00 cfs)



Pond P2: (new Pond)

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 50

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: SUBCATCHMENT 1 Runoff Area=59,711 sf 28.77% Impervious Runoff Depth>4.22"
Flow Length=410' Tc=16.7 min CN=85 Runoff=5.14 cfs 0.482 af

Subcatchment 2S: SUBCATCHMENT 2 Runoff Area=43,473 sf 28.04% Impervious Runoff Depth>4.22"
Flow Length=206' Slope=0.0600 ' ' Tc=14.6 min CN=85 Runoff=3.93 cfs 0.351 af

Subcatchment 3S: SUBCATCHMENT 3 Runoff Area=65,439 sf 12.31% Impervious Runoff Depth>3.81"
Flow Length=260' Tc=12.9 min CN=81 Runoff=5.64 cfs 0.477 af

Subcatchment 4S: SUBCATCHMENT 4 Runoff Area=9,999 sf 0.00% Impervious Runoff Depth>3.41"
Flow Length=180' Tc=10.8 min CN=77 Runoff=0.83 cfs 0.065 af

Subcatchment 5S: SUBCATCHMENT 5 Runoff Area=10,683 sf 42.72% Impervious Runoff Depth>4.45"
Tc=5.0 min CN=87 Runoff=1.32 cfs 0.091 af

Subcatchment 6S: SUBCATCHMENT 6 Runoff Area=146,086 sf 17.30% Impervious Runoff Depth>3.98"
Flow Length=730' Tc=40.2 min CN=83 Runoff=8.19 cfs 1.113 af

Subcatchment 7S: SUBCATCHMENT 7 Runoff Area=32,744 sf 29.08% Impervious Runoff Depth>4.23"
Flow Length=215' Tc=8.2 min CN=85 Runoff=3.55 cfs 0.265 af

Reach 13R: REACH 1 Avg. Flow Depth=0.06' Max Vel=1.15 fps Inflow=1.09 cfs 0.344 af
n=0.035 L=130.0' S=0.0300 ' ' Capacity=118.23 cfs Outflow=1.09 cfs 0.343 af

Reach SP1: SUMMATION POINT 1 Inflow=6.32 cfs 0.747 af
Outflow=6.32 cfs 0.747 af

Reach SP2: SUMMATION POINT 2 Inflow=9.47 cfs 1.548 af
Outflow=9.47 cfs 1.548 af

Reach SP3: SUMMATION POINT 3 Inflow=5.64 cfs 0.477 af
Outflow=5.64 cfs 0.477 af

Reach SP4: SUMMATION POINT 4 Inflow=0.83 cfs 0.065 af
Outflow=0.83 cfs 0.065 af

Pond P1: DETENTION BASIN Peak Elev=60.35' Storage=5,406 cf Inflow=3.93 cfs 0.351 af
Primary=1.09 cfs 0.344 af Secondary=0.00 cfs 0.000 af Outflow=1.09 cfs 0.344 af

Pond P2: (new Pond) Peak Elev=54.15' Storage=2,791 cf Inflow=3.55 cfs 0.265 af
Outflow=1.26 cfs 0.265 af

Total Runoff Area = 8.451 ac Runoff Volume = 2.845 af Average Runoff Depth = 4.04"
79.14% Pervious = 6.688 ac 20.86% Impervious = 1.763 ac

post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 51

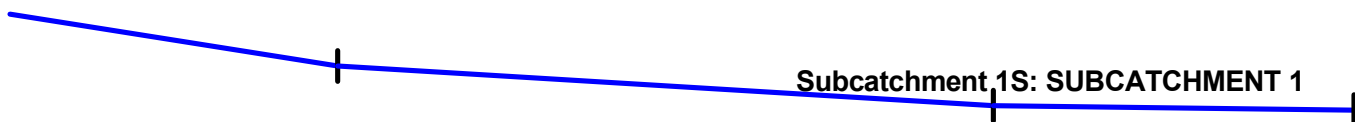
Summary for Subcatchment 1S: SUBCATCHMENT 1

Runoff = 5.14 cfs @ 12.22 hrs, Volume= 0.482 af, Depth> 4.22"
 Routed to Reach SP1 : SUMMATION POINT 1

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
8,027	77	Woods, Good, HSG D
* 6,604	98	IMPERVIOUS
2,772	80	>75% Grass cover, Good, HSG D
42,308	85	1/2 acre lots, 25% imp, HSG D
59,711	85	Weighted Average
42,530		71.23% Pervious Area
17,181		28.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1300	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
3.0	200	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.7	110	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.7	410	Total			



post development

Prepared by Haley Ward

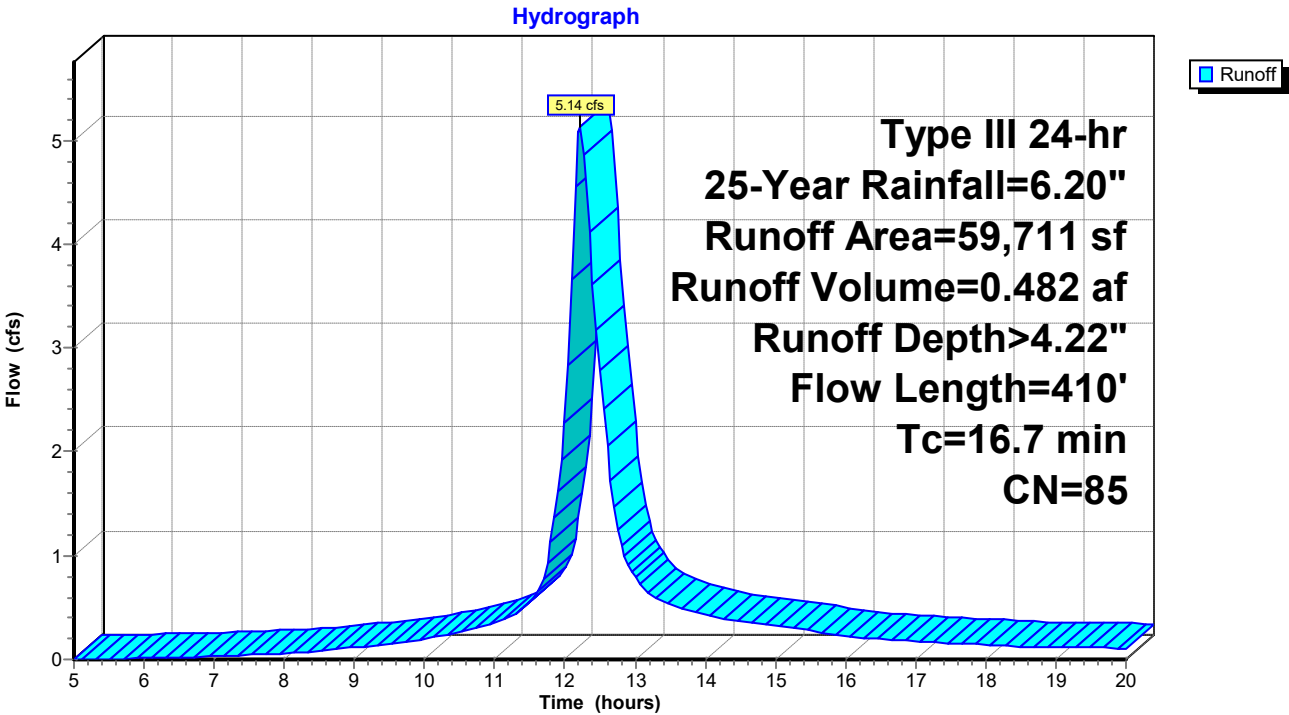
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 52

Subcatchment 1S: SUBCATCHMENT 1



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 53

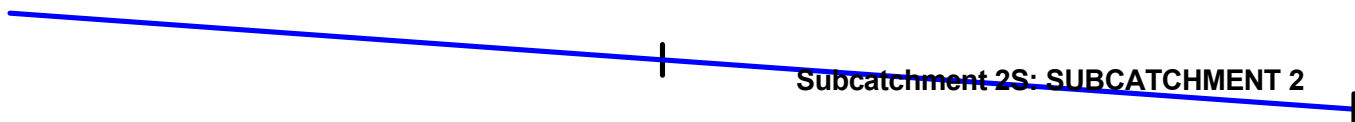
Summary for Subcatchment 2S: SUBCATCHMENT 2

Runoff = 3.93 cfs @ 12.20 hrs, Volume= 0.351 af, Depth> 4.22"
 Routed to Pond P1 : DETENTION BASIN

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
761	77	Woods, Good, HSG D
* 4,834	98	IMPERVIOUS
8,459	80	>75% Grass cover, Good, HSG D
29,419	85	1/2 acre lots, 25% imp, HSG D
43,473	85	Weighted Average
31,284		71.96% Pervious Area
12,189		28.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	100	0.0600	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.0	106	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.6	206	Total			



post development

Prepared by Haley Ward

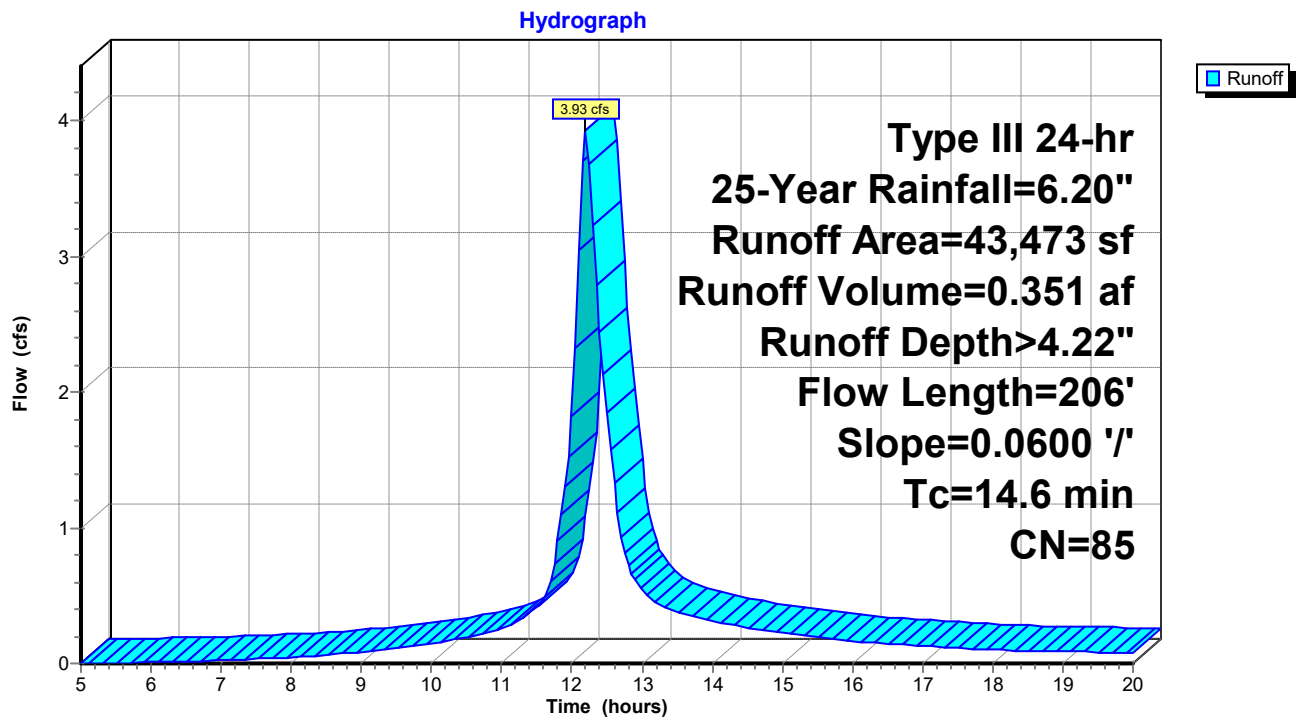
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 54

Subcatchment 2S: SUBCATCHMENT 2



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 55

Summary for Subcatchment 3S: SUBCATCHMENT 3

Runoff = 5.64 cfs @ 12.18 hrs, Volume= 0.477 af, Depth> 3.81"
 Routed to Reach SP3 : SUMMATION POINT 3

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
33,227	77	Woods, Good, HSG D
32,212	85	1/2 acre lots, 25% imp, HSG D
65,439	81	Weighted Average
57,386		87.69% Pervious Area
8,053		12.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.3	45	0.1100	2.32		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.8	165	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.9	260	Total			



post development

Prepared by Haley Ward

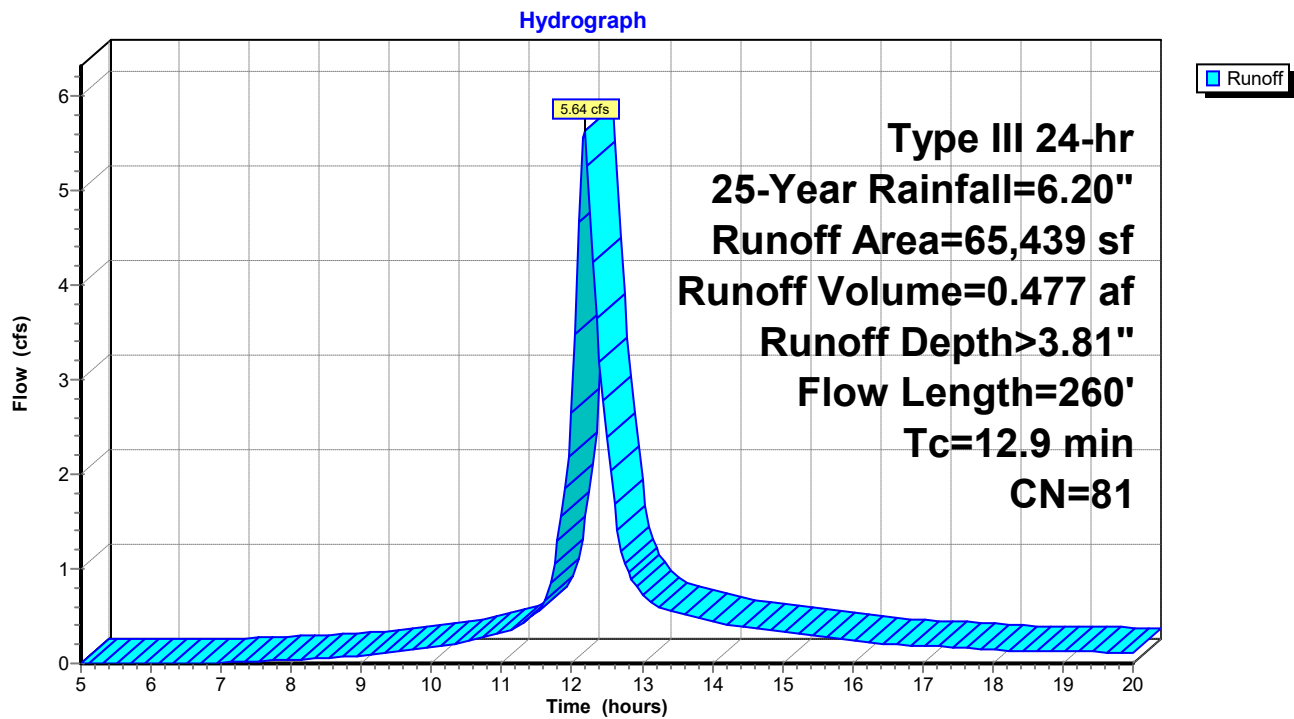
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 56

Subcatchment 3S: SUBCATCHMENT 3



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 57

Summary for Subcatchment 4S: SUBCATCHMENT 4

Runoff = 0.83 cfs @ 12.15 hrs, Volume= 0.065 af, Depth> 3.41"
Routed to Reach SP4 : SUMMATION POINT 4

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"

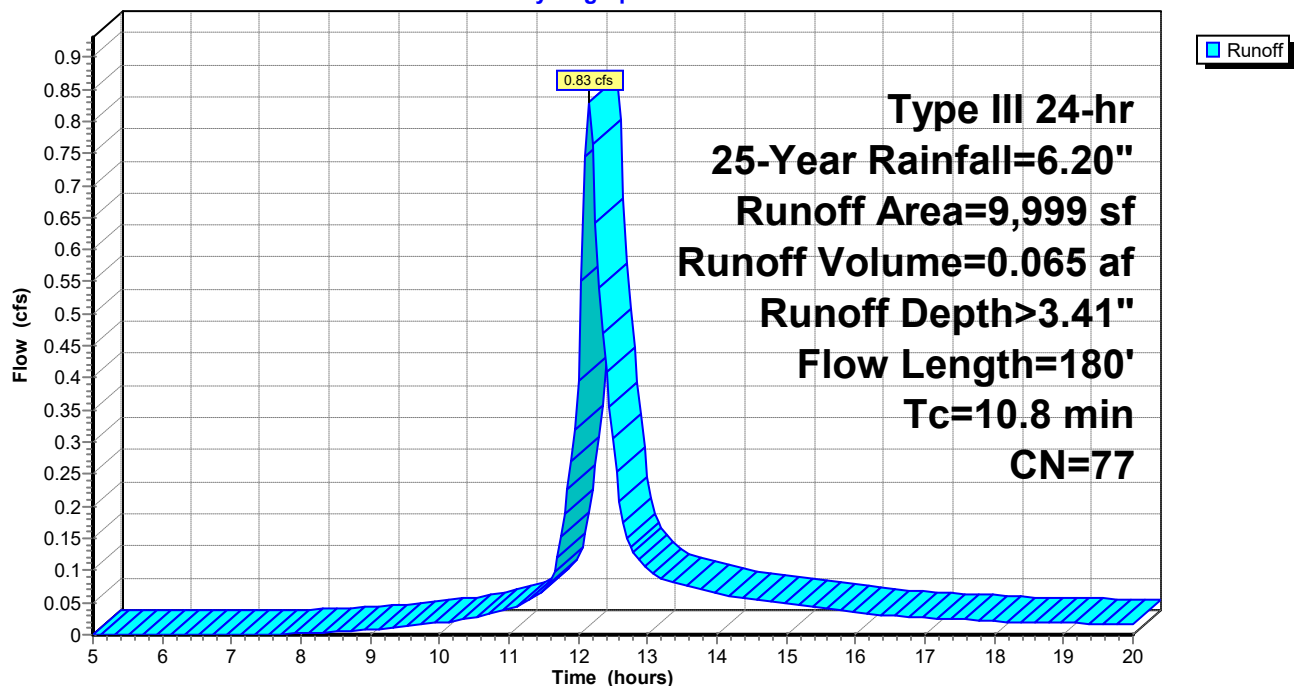
Area (sf)	CN	Description
9,999	77	Woods, Good, HSG D
9,999		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	80	0.1300	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.8	180	Total			



Subcatchment 4S: SUBCATCHMENT 4

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 58

Summary for Subcatchment 5S: SUBCATCHMENT 5

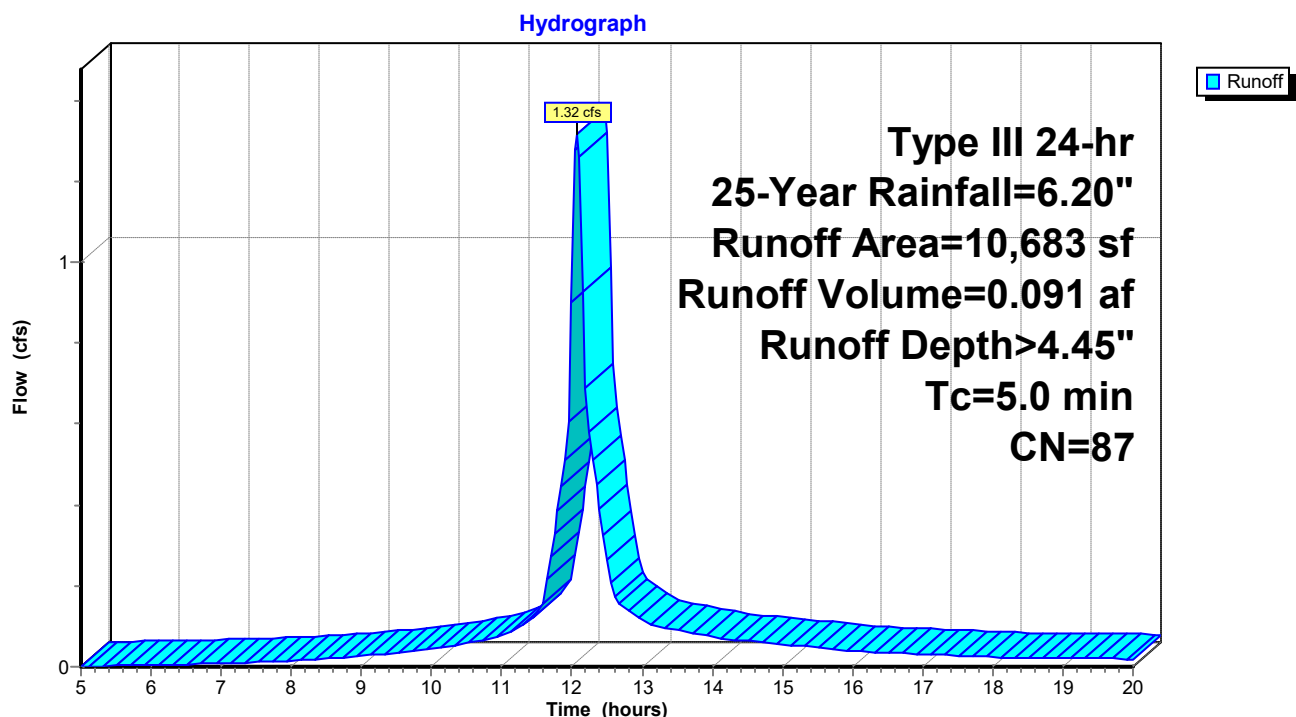
Runoff = 1.32 cfs @ 12.07 hrs, Volume= 0.091 af, Depth> 4.45"
Routed to Reach SP2 : SUMMATION POINT 2

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
767	77	Woods, Good, HSG D
* 4,473	98	IMPERVIOUS
5,078	80	>75% Grass cover, Good, HSG D
365	85	1/2 acre lots, 25% imp, HSG D
10,683	87	Weighted Average
6,119		57.28% Pervious Area
4,564		42.72% Impervious Area

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

Subcatchment 5S: SUBCATCHMENT 5



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 59

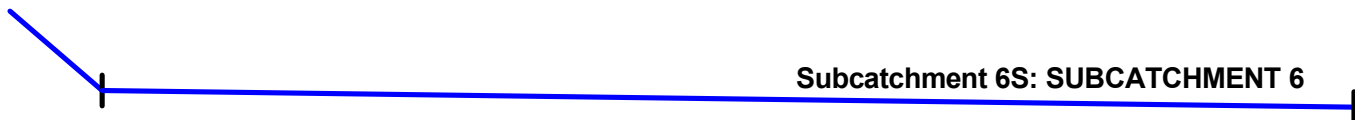
Summary for Subcatchment 6S: SUBCATCHMENT 6

Runoff = 8.19 cfs @ 12.54 hrs, Volume= 1.113 af, Depth> 3.98"
 Routed to Reach SP2 : SUMMATION POINT 2

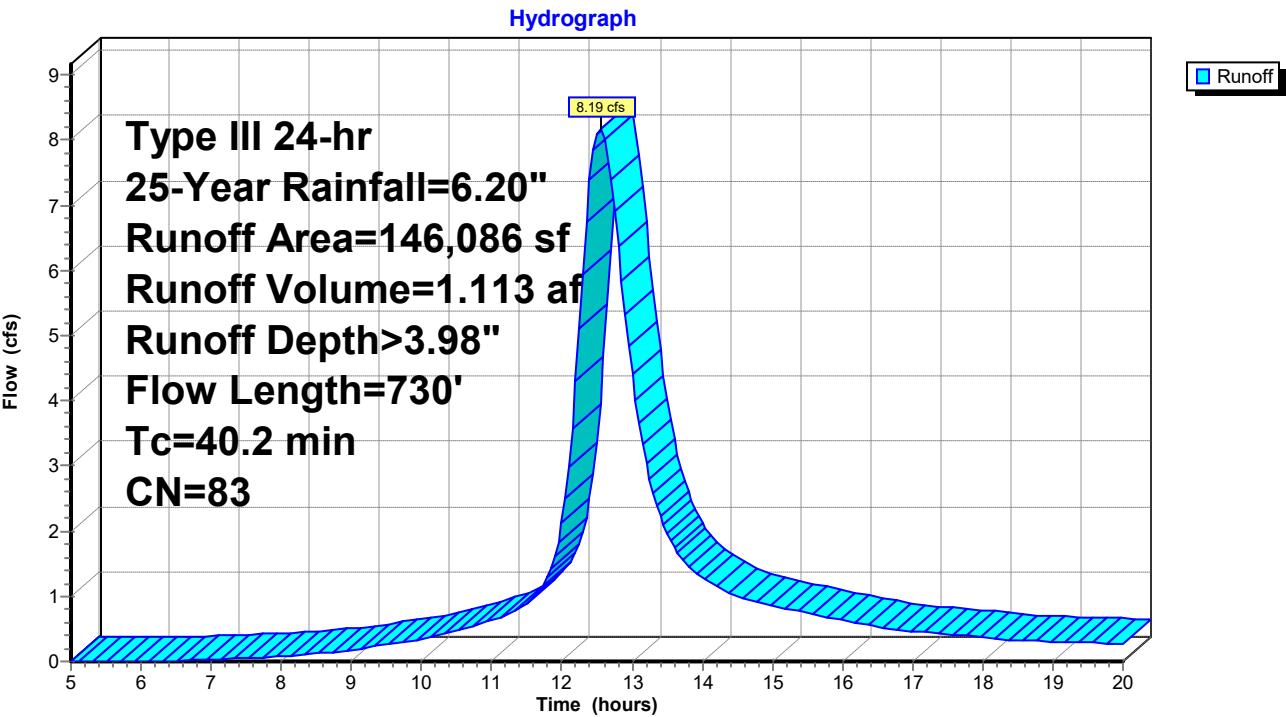
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25-Year Rainfall=6.20"

Area (sf)	CN	Description
40,697	77	Woods, Good, HSG D
* 6,376	98	IMPERVIOUS
4,512	80	>75% Grass cover, Good, HSG D
94,501	84	1 acre lots, 20% imp, HSG D
146,086	83	Weighted Average
120,810		82.70% Pervious Area
25,276		17.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.2600	0.19		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
35.8	680	0.0040	0.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
40.2	730	Total			



Subcatchment 6S: SUBCATCHMENT 6



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 61

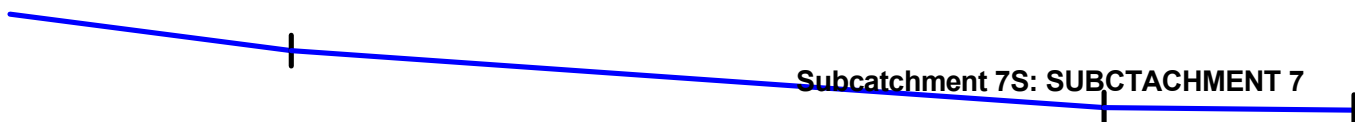
Summary for Subcatchment 7S: SUBCATCHMENT 7

Runoff = 3.55 cfs @ 12.11 hrs, Volume= 0.265 af, Depth> 4.23"
 Routed to Pond P2 : (new Pond)

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
2,462	77	Woods, Good, HSG D
* 4,964	98	IMPERVIOUS
2,525	80	>75% Grass cover, Good, HSG D
22,793	84	1 acre lots, 20% imp, HSG D
32,744	85	Weighted Average
23,221		70.92% Pervious Area
9,523		29.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	45	0.1300	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.6	130	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.3	40	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
8.2	215	Total			



post development

Prepared by Haley Ward

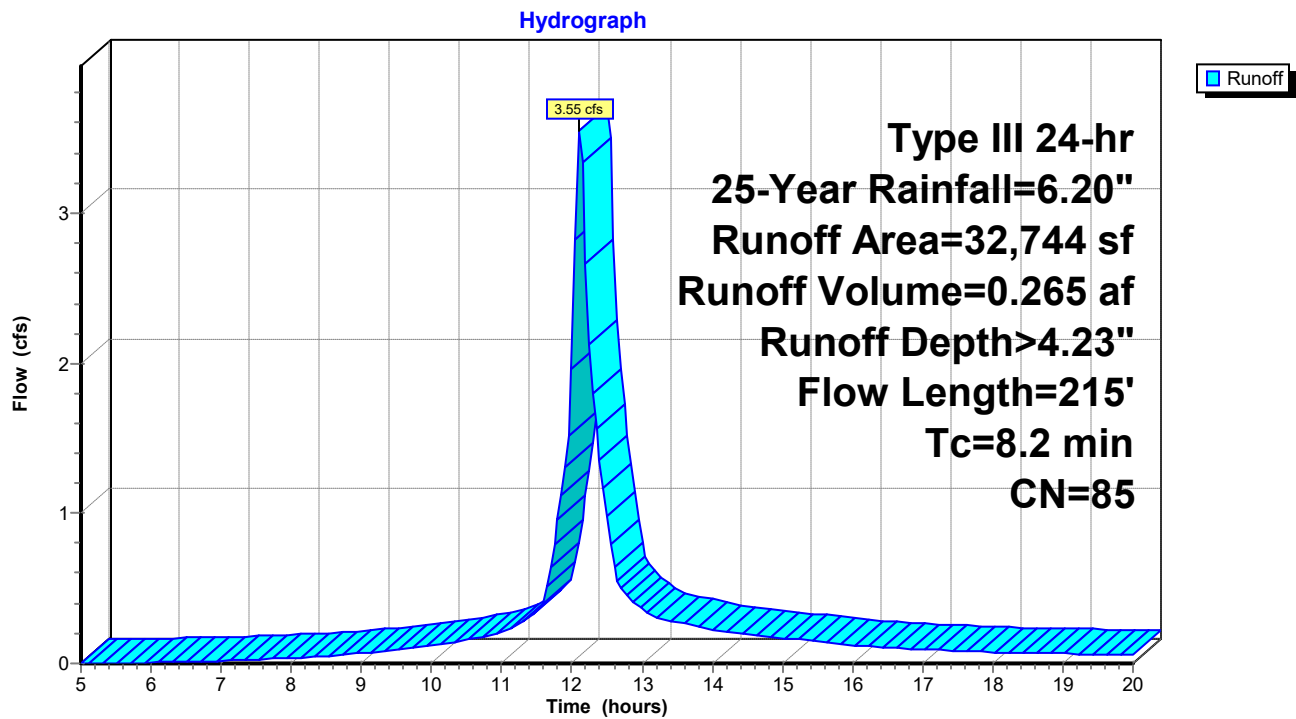
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 62

Subcatchment 7S: SUBCTACHMENT 7



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 63

Summary for Reach 13R: REACH 1

Inflow Area = 0.998 ac, 28.04% Impervious, Inflow Depth > 4.14" for 25-Year event
Inflow = 1.09 cfs @ 12.66 hrs, Volume= 0.344 af
Outflow = 1.09 cfs @ 12.71 hrs, Volume= 0.343 af, Atten= 0%, Lag= 3.1 min
Routed to Reach SP2 : SUMMATION POINT 2

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

Max. Velocity= 1.15 fps, Min. Travel Time= 1.9 min

Avg. Velocity= 0.60 fps, Avg. Travel Time= 3.6 min

Peak Storage= 123 cf @ 12.68 hrs

Average Depth at Peak Storage= 0.06' , Surface Width= 15.37'

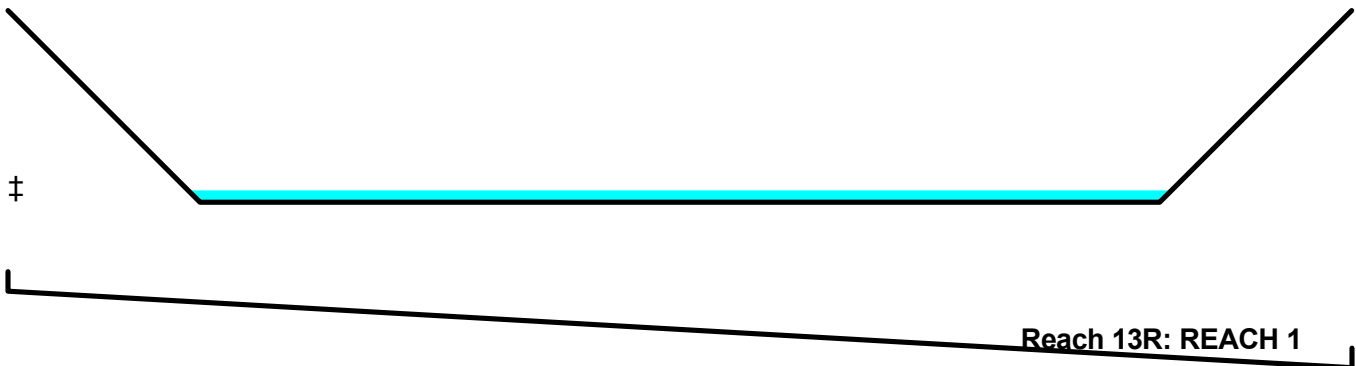
Bank-Full Depth= 1.00' Flow Area= 18.0 sf, Capacity= 118.23 cfs

15.00' x 1.00' deep channel, n= 0.035 Earth, dense weeds

Side Slope Z-value= 3.0 '/' Top Width= 21.00'

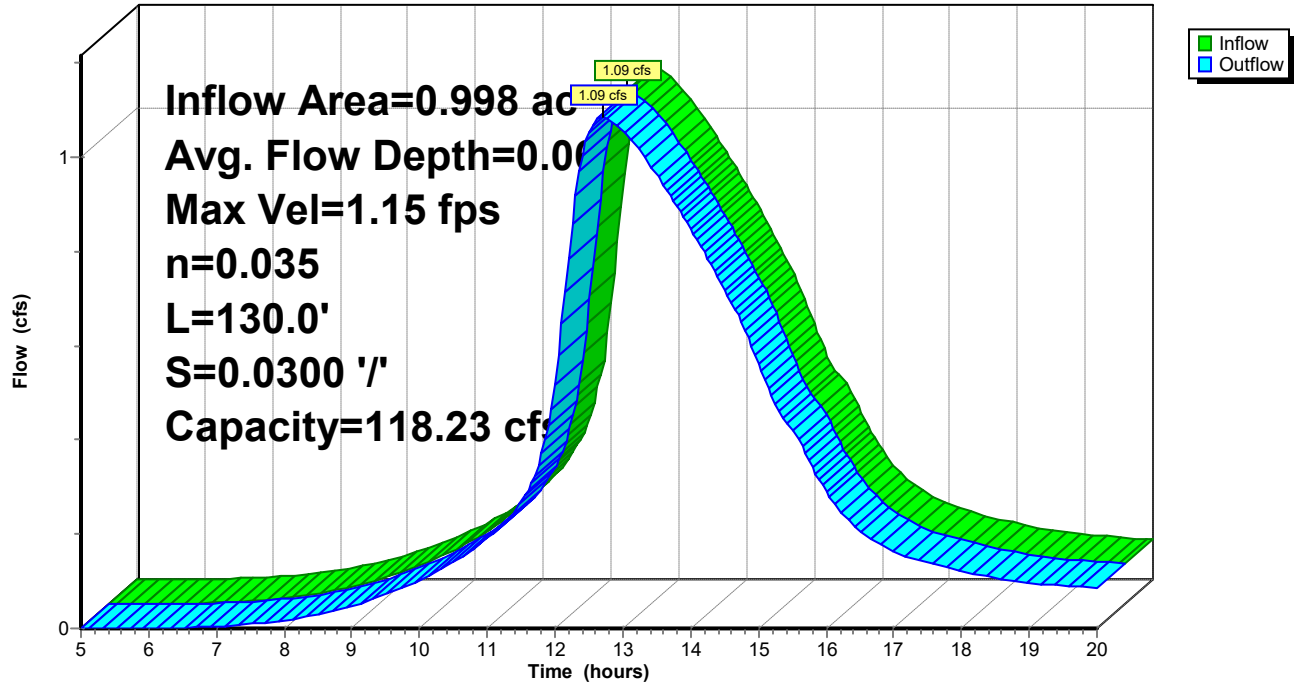
Length= 130.0' Slope= 0.0300 '/'

Inlet Invert= 0.00', Outlet Invert= -3.90'



Reach 13R: REACH 1

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

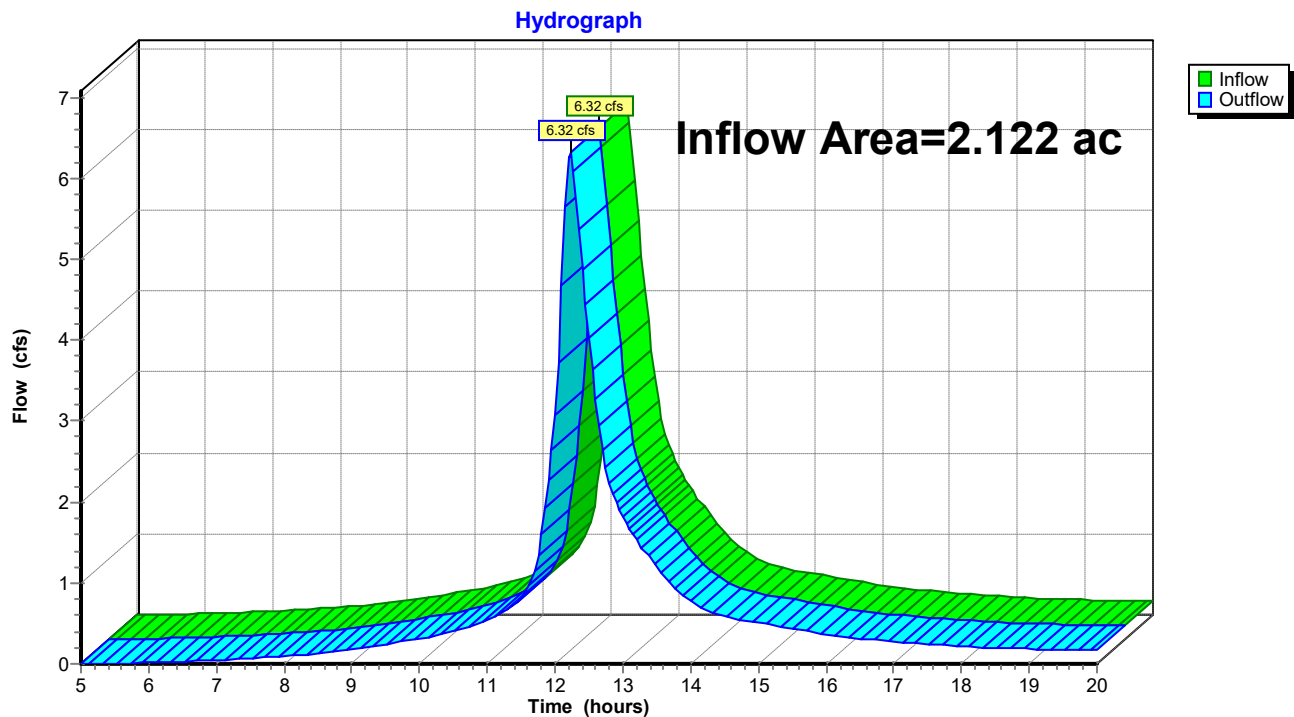
Page 65

Summary for Reach SP1: SUMMATION POINT 1

Inflow Area = 2.122 ac, 28.88% Impervious, Inflow Depth > 4.22" for 25-Year event
Inflow = 6.32 cfs @ 12.23 hrs, Volume= 0.747 af
Outflow = 6.32 cfs @ 12.23 hrs, Volume= 0.747 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 SP1: SUMMATION POINT 1



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

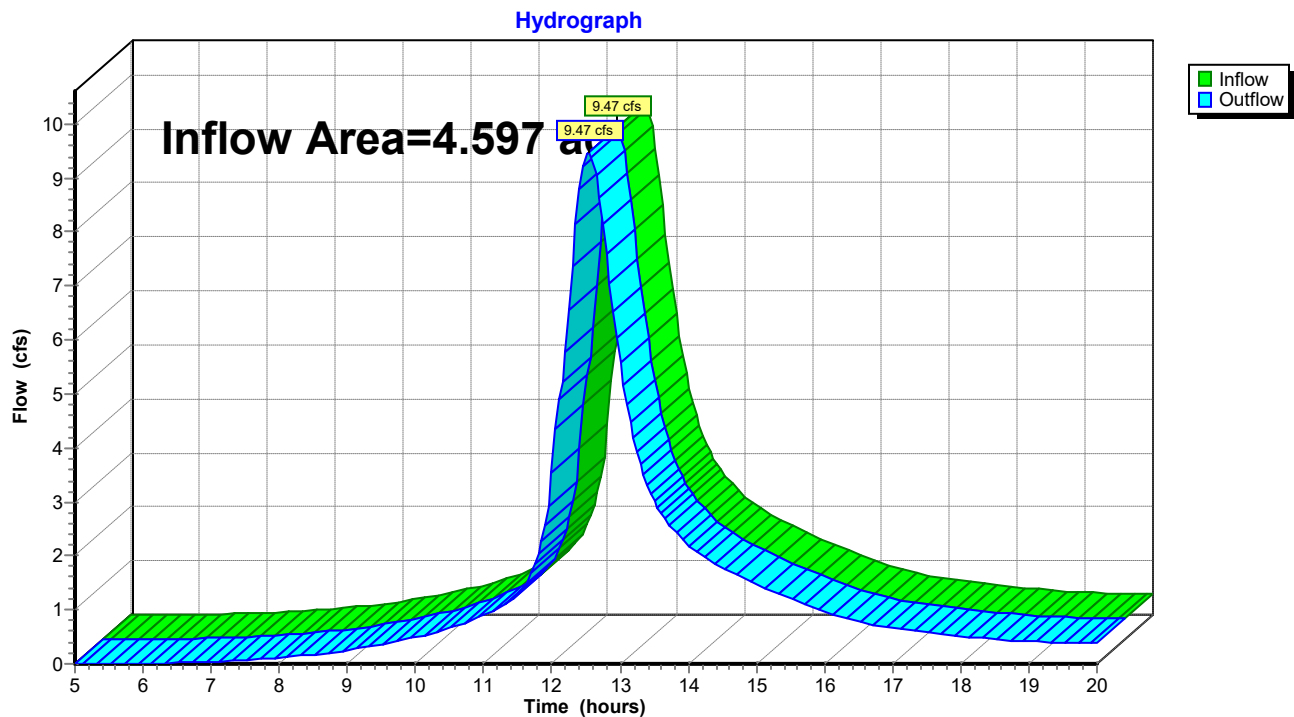
Page 66

Summary for Reach SP2: SUMMATION POINT 2

Inflow Area = 4.597 ac, 20.99% Impervious, Inflow Depth > 4.04" for 25-Year event
Inflow = 9.47 cfs @ 12.54 hrs, Volume= 1.548 af
Outflow = 9.47 cfs @ 12.54 hrs, Volume= 1.548 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 SP2: SUMMATION POINT 2



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

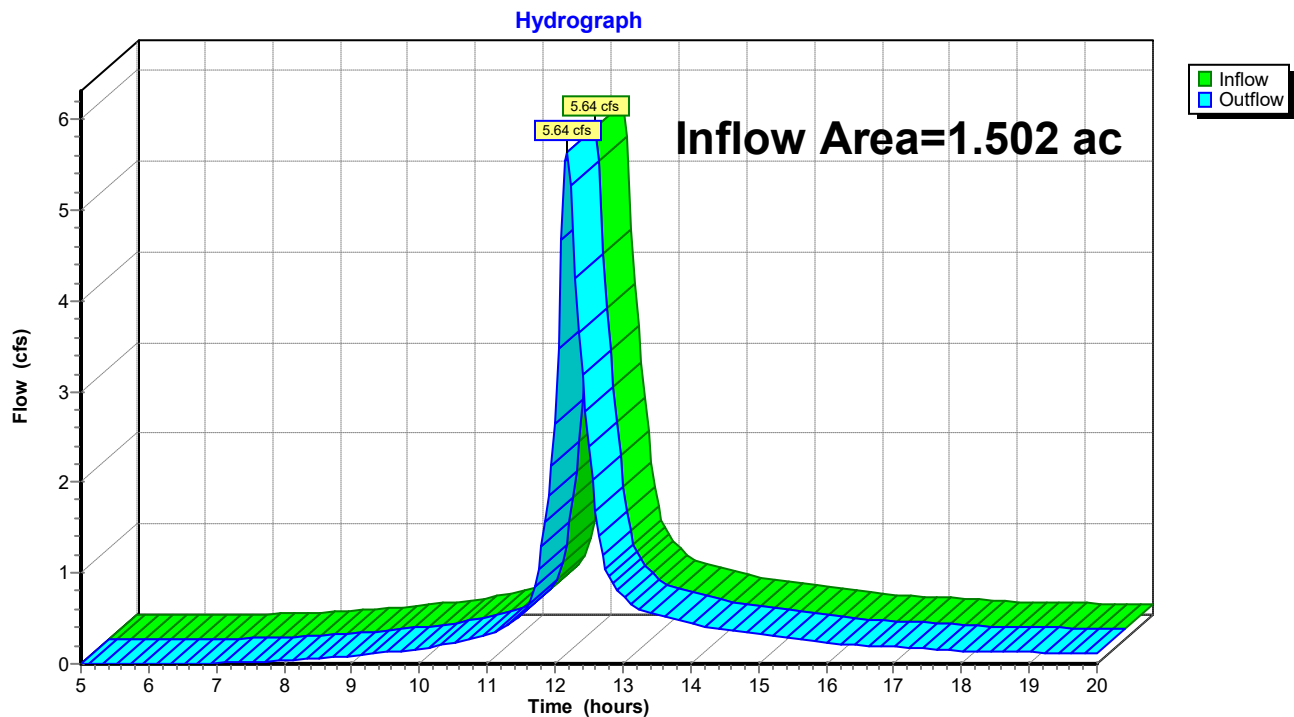
Page 67

Summary for Reach SP3: SUMMATION POINT 3

Inflow Area = 1.502 ac, 12.31% Impervious, Inflow Depth > 3.81" for 25-Year event
Inflow = 5.64 cfs @ 12.18 hrs, Volume= 0.477 af
Outflow = 5.64 cfs @ 12.18 hrs, Volume= 0.477 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 SP3: SUMMATION POINT 3



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

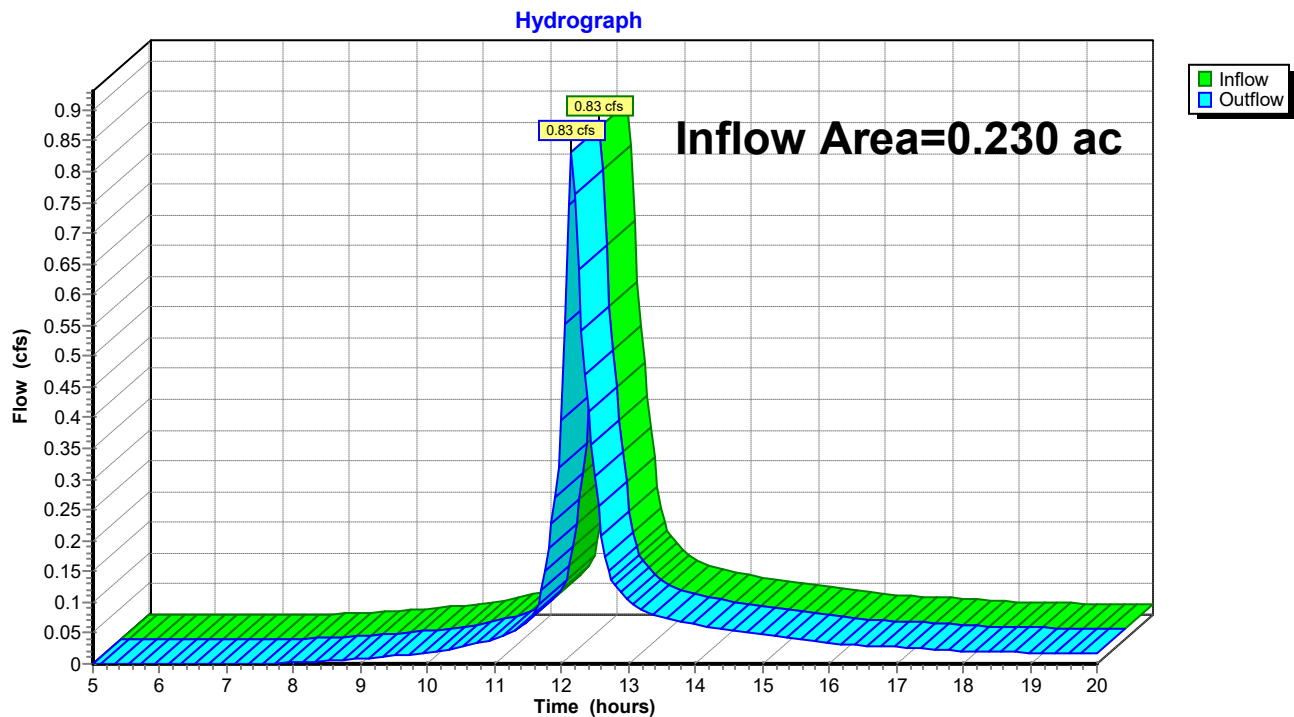
Page 68

Summary for Reach SP4: SUMMATION POINT 4

Inflow Area = 0.230 ac, 0.00% Impervious, Inflow Depth > 3.41" for 25-Year event
Inflow = 0.83 cfs @ 12.15 hrs, Volume= 0.065 af
Outflow = 0.83 cfs @ 12.15 hrs, Volume= 0.065 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 SP4: SUMMATION POINT 4



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 69

Summary for Pond P1: DETENTION BASIN

Inflow Area = 0.998 ac, 28.04% Impervious, Inflow Depth > 4.22" for 25-Year event
 Inflow = 3.93 cfs @ 12.20 hrs, Volume= 0.351 af
 Outflow = 1.09 cfs @ 12.66 hrs, Volume= 0.344 af, Atten= 72%, Lag= 27.6 min
 Primary = 1.09 cfs @ 12.66 hrs, Volume= 0.344 af
 Routed to Reach 13R : REACH 1
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Reach 13R : REACH 1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 60.35' @ 12.66 hrs Surf.Area= 3,130 sf Storage= 5,406 cf

Plug-Flow detention time= 59.1 min calculated for 0.343 af (98% of inflow)
 Center-of-Mass det. time= 51.1 min (826.2 - 775.1)

Volume	Invert	Avail.Storage	Storage Description
#1	58.00'	9,478 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.00	1,481	0	0
59.00	2,175	1,828	1,828
61.50	3,945	7,650	9,478

Device	Routing	Invert	Outlet Devices
#1	Primary	57.98'	6.0" Round Culvert L= 21.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.98' / 57.88' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	58.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	60.50'	10.0' long x 5.0' 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 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

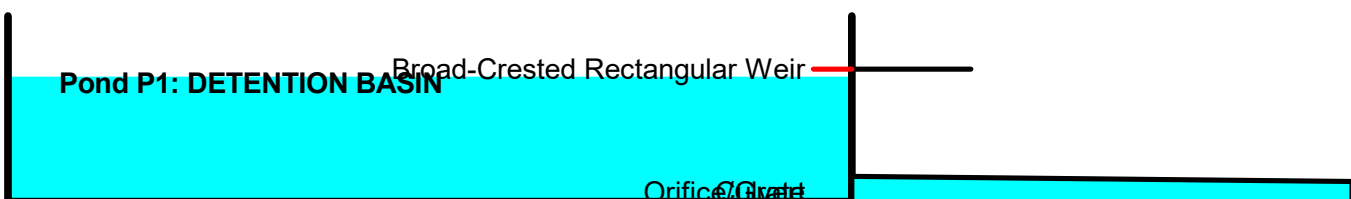
Primary OutFlow Max=1.09 cfs @ 12.66 hrs HW=60.35' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 1.09 cfs @ 5.53 fps)

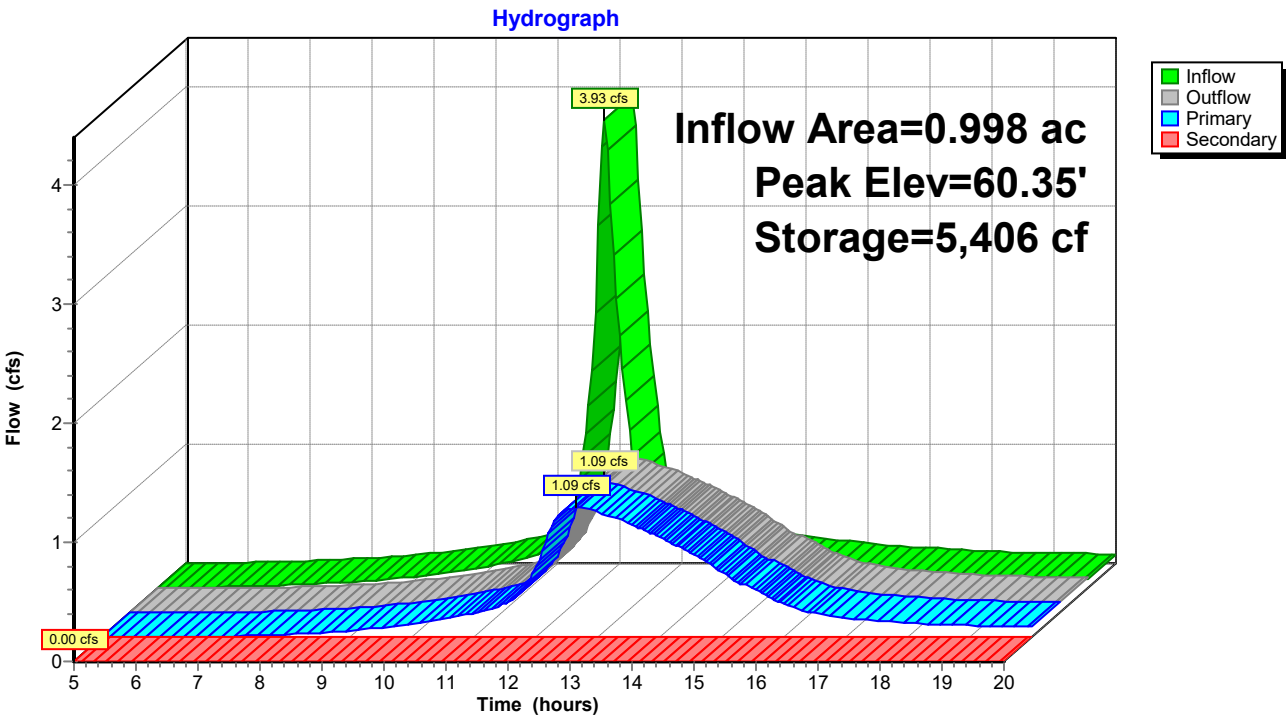
↑ **2=Orifice/Grate** (Passes 1.09 cfs of 1.37 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=58.00' (Free Discharge)

↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)



Pond P1: DETENTION BASIN



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 5/5/2025

Page 71

Summary for Pond P2: (new Pond)

Inflow Area = 0.752 ac, 29.08% Impervious, Inflow Depth > 4.23" for 25-Year event
 Inflow = 3.55 cfs @ 12.11 hrs, Volume= 0.265 af
 Outflow = 1.26 cfs @ 12.43 hrs, Volume= 0.265 af, Atten= 65%, Lag= 18.7 min
 Primary = 1.26 cfs @ 12.43 hrs, Volume= 0.265 af
 Routed to Reach SP1 : SUMMATION POINT 1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 54.15' @ 12.43 hrs Surf.Area= 3,581 sf Storage= 2,791 cf

Plug-Flow detention time= 18.3 min calculated for 0.265 af (100% of inflow)
 Center-of-Mass det. time= 17.8 min (787.8 - 769.9)

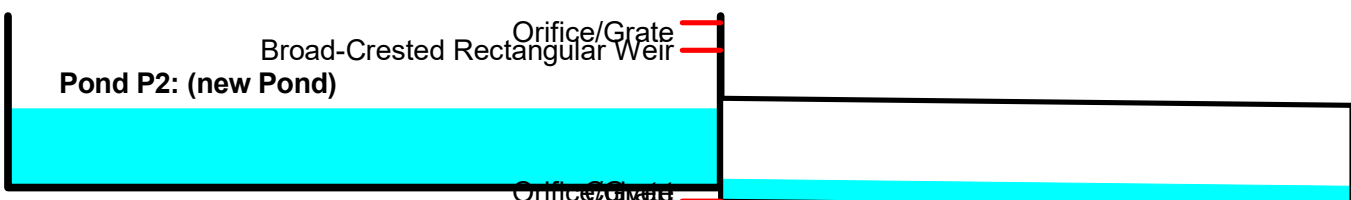
Volume	Invert	Avail.Storage	Storage Description
#1	53.00'	9,380 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.00	1,256	0	0
54.00	3,321	2,289	2,289
55.00	5,109	4,215	6,504
55.50	6,398	2,877	9,380

Device	Routing	Invert	Outlet Devices
#1	Primary	52.80'	18.0" Round Culvert L= 40.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.70' S= 0.0025 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	1.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Device 1	52.80'	6.0" W x 6.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	55.40'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

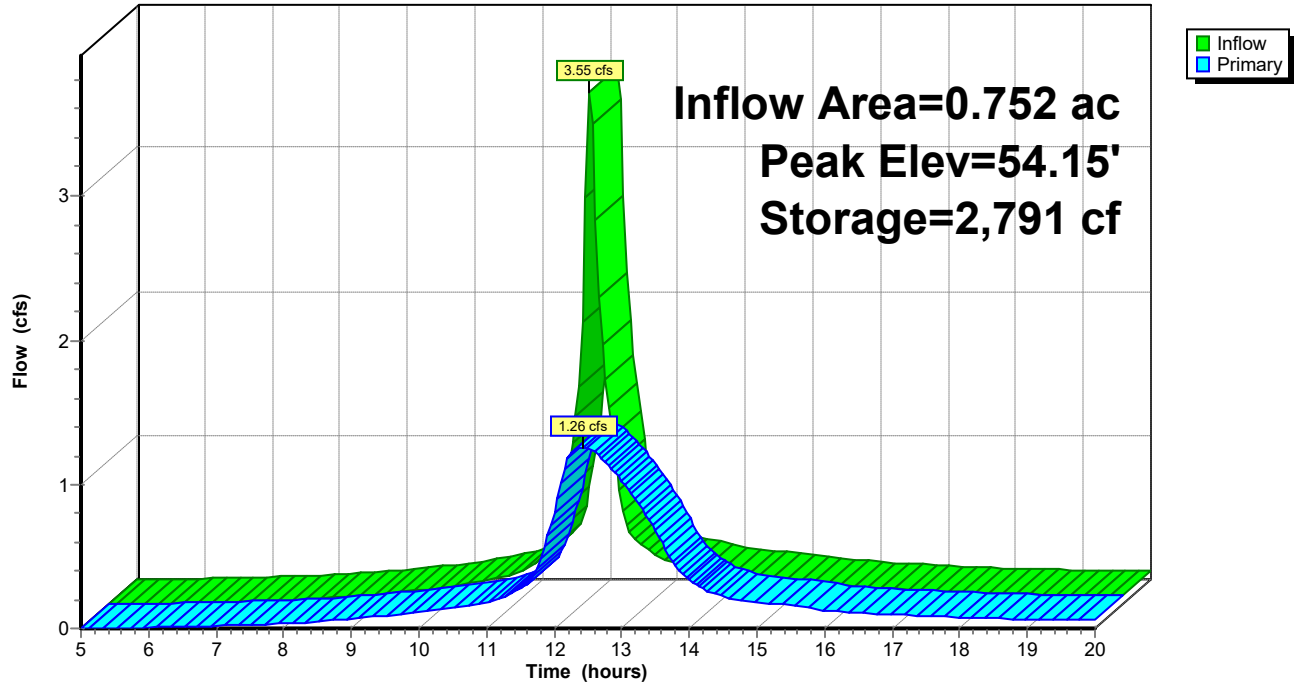
Primary OutFlow Max=1.26 cfs @ 12.43 hrs HW=54.14' (Free Discharge)

1=Culvert (Passes 1.26 cfs of 4.24 cfs potential flow)
 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
 3=Orifice/Grate (Orifice Controls 1.26 cfs @ 5.03 fps)
 4=Orifice/Grate (Controls 0.00 cfs)



Pond P2: (new Pond)

Hydrograph



post development

Type III 24-hr 100-Year Rainfall=8.70"

Prepared by Haley Ward

Printed 5/5/2025

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Page 73

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: SUBCATCHMENT 1 Runoff Area=59,711 sf 28.77% Impervious Runoff Depth>6.50"
Flow Length=410' Tc=16.7 min CN=85 Runoff=7.73 cfs 0.742 af

Subcatchment 2S: SUBCATCHMENT 2 Runoff Area=43,473 sf 28.04% Impervious Runoff Depth>6.50"
Flow Length=206' Slope=0.0600 ' ' Tc=14.6 min CN=85 Runoff=5.91 cfs 0.541 af

Subcatchment 3S: SUBCATCHMENT 3 Runoff Area=65,439 sf 12.31% Impervious Runoff Depth>6.03"
Flow Length=260' Tc=12.9 min CN=81 Runoff=8.79 cfs 0.755 af

Subcatchment 4S: SUBCATCHMENT 4 Runoff Area=9,999 sf 0.00% Impervious Runoff Depth>5.56"
Flow Length=180' Tc=10.8 min CN=77 Runoff=1.33 cfs 0.106 af

Subcatchment 5S: SUBCATCHMENT 5 Runoff Area=10,683 sf 42.72% Impervious Runoff Depth>6.74"
Tc=5.0 min CN=87 Runoff=1.96 cfs 0.138 af

Subcatchment 6S: SUBCATCHMENT 6 Runoff Area=146,086 sf 17.30% Impervious Runoff Depth>6.22"
Flow Length=730' Tc=40.2 min CN=83 Runoff=12.53 cfs 1.739 af

Subcatchment 7S: SUBCATCHMENT 7 Runoff Area=32,744 sf 29.08% Impervious Runoff Depth>6.51"
Flow Length=215' Tc=8.2 min CN=85 Runoff=5.34 cfs 0.408 af

Reach 13R: REACH 1 Avg. Flow Depth=0.14' Max Vel=1.90 fps Inflow=4.06 cfs 0.532 af
n=0.035 L=130.0' S=0.0300 ' ' Capacity=118.23 cfs Outflow=3.97 cfs 0.531 af

Reach SP1: SUMMATION POINT 1 Inflow=9.18 cfs 1.149 af
Outflow=9.18 cfs 1.149 af

Reach SP2: SUMMATION POINT 2 Inflow=16.37 cfs 2.407 af
Outflow=16.37 cfs 2.407 af

Reach SP3: SUMMATION POINT 3 Inflow=8.79 cfs 0.755 af
Outflow=8.79 cfs 0.755 af

Reach SP4: SUMMATION POINT 4 Inflow=1.33 cfs 0.106 af
Outflow=1.33 cfs 0.106 af

Pond P1: DETENTION BASIN Peak Elev=60.74' Storage=6,701 cf Inflow=5.91 cfs 0.541 af
Primary=1.18 cfs 0.460 af Secondary=2.87 cfs 0.072 af Outflow=4.06 cfs 0.532 af

Pond P2: (new Pond) Peak Elev=54.68' Storage=4,940 cf Inflow=5.34 cfs 0.408 af
Outflow=1.53 cfs 0.407 af

Total Runoff Area = 8.451 ac Runoff Volume = 4.428 af Average Runoff Depth = 6.29"
79.14% Pervious = 6.688 ac 20.86% Impervious = 1.763 ac

post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 74

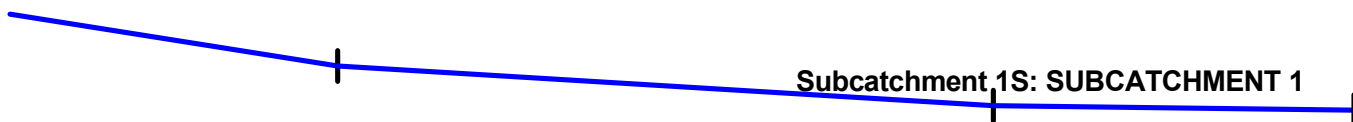
Summary for Subcatchment 1S: SUBCATCHMENT 1

Runoff = 7.73 cfs @ 12.22 hrs, Volume= 0.742 af, Depth> 6.50"
 Routed to Reach SP1 : SUMMATION POINT 1

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 100-Year Rainfall=8.70"

Area (sf)	CN	Description
8,027	77	Woods, Good, HSG D
* 6,604	98	IMPERVIOUS
2,772	80	>75% Grass cover, Good, HSG D
42,308	85	1/2 acre lots, 25% imp, HSG D
59,711	85	Weighted Average
42,530		71.23% Pervious Area
17,181		28.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1300	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
3.0	200	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.7	110	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.7	410	Total			



post development

Prepared by Haley Ward

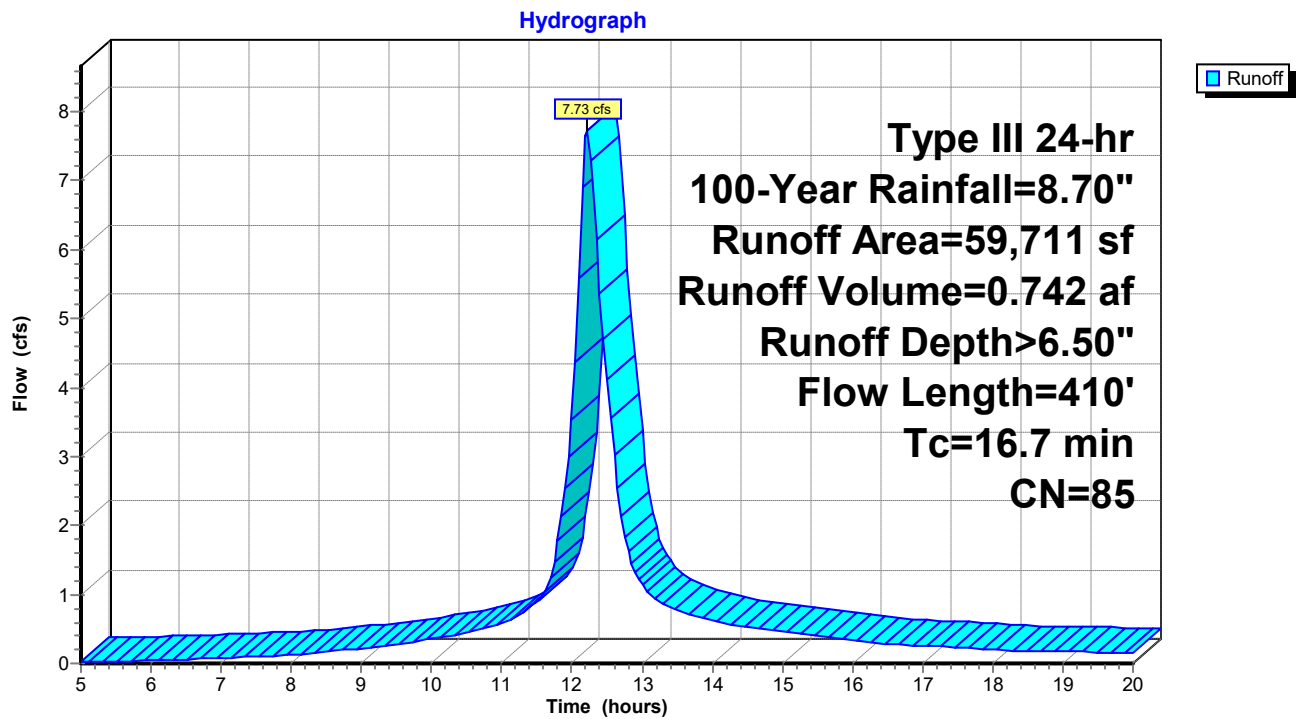
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 75

Subcatchment 1S: SUBCATCHMENT 1



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 76

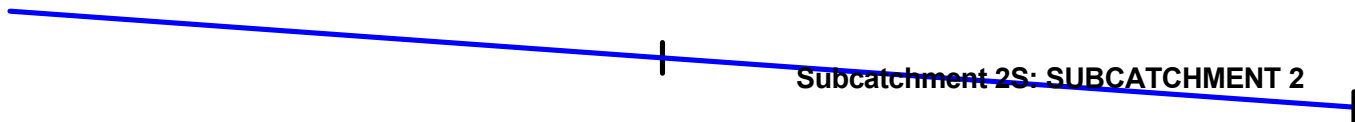
Summary for Subcatchment 2S: SUBCATCHMENT 2

Runoff = 5.91 cfs @ 12.20 hrs, Volume= 0.541 af, Depth> 6.50"
 Routed to Pond P1 : DETENTION BASIN

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 100-Year Rainfall=8.70"

Area (sf)	CN	Description
761	77	Woods, Good, HSG D
* 4,834	98	IMPERVIOUS
8,459	80	>75% Grass cover, Good, HSG D
29,419	85	1/2 acre lots, 25% imp, HSG D
43,473	85	Weighted Average
31,284		71.96% Pervious Area
12,189		28.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	100	0.0600	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.0	106	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.6	206	Total			



post development

Prepared by Haley Ward

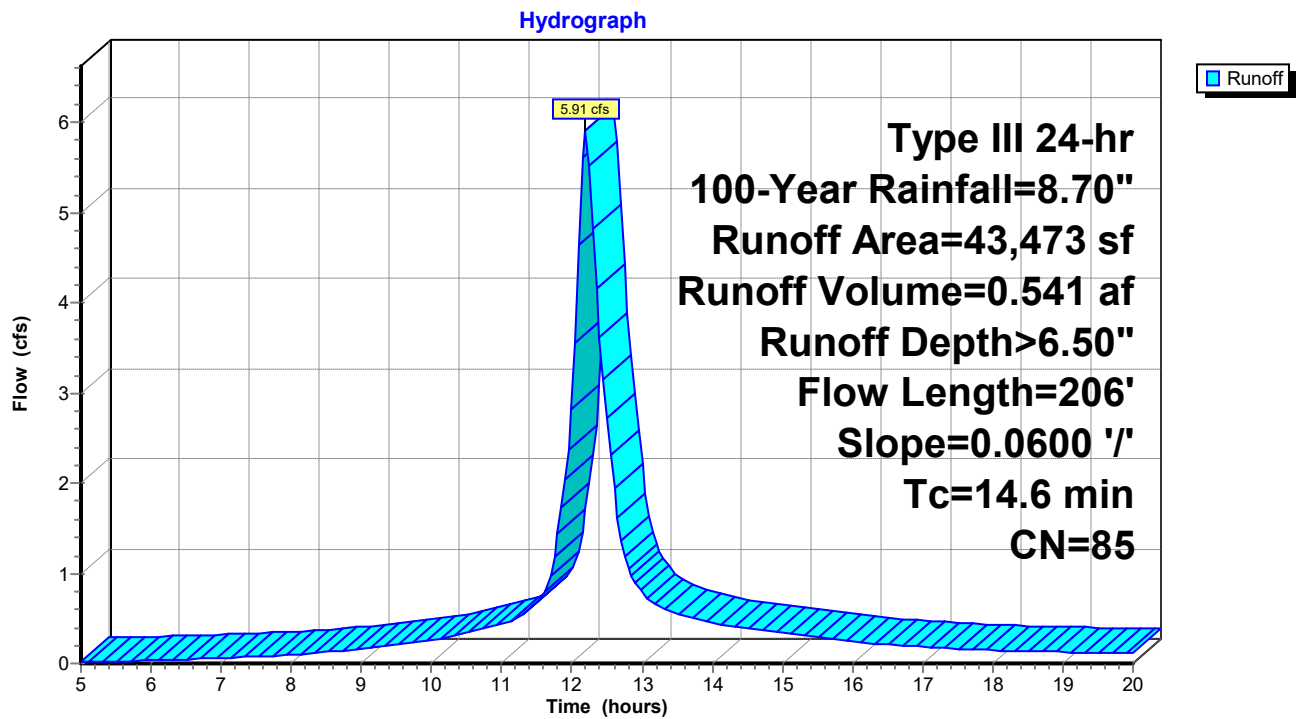
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 77

Subcatchment 2S: SUBCATCHMENT 2



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 78

Summary for Subcatchment 3S: SUBCATCHMENT 3

Runoff = 8.79 cfs @ 12.17 hrs, Volume= 0.755 af, Depth> 6.03"
 Routed to Reach SP3 : SUMMATION POINT 3

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 100-Year Rainfall=8.70"

Area (sf)	CN	Description
33,227	77	Woods, Good, HSG D
32,212	85	1/2 acre lots, 25% imp, HSG D
65,439	81	Weighted Average
57,386		87.69% Pervious Area
8,053		12.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.3	45	0.1100	2.32		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.8	165	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.9	260	Total			



post development

Prepared by Haley Ward

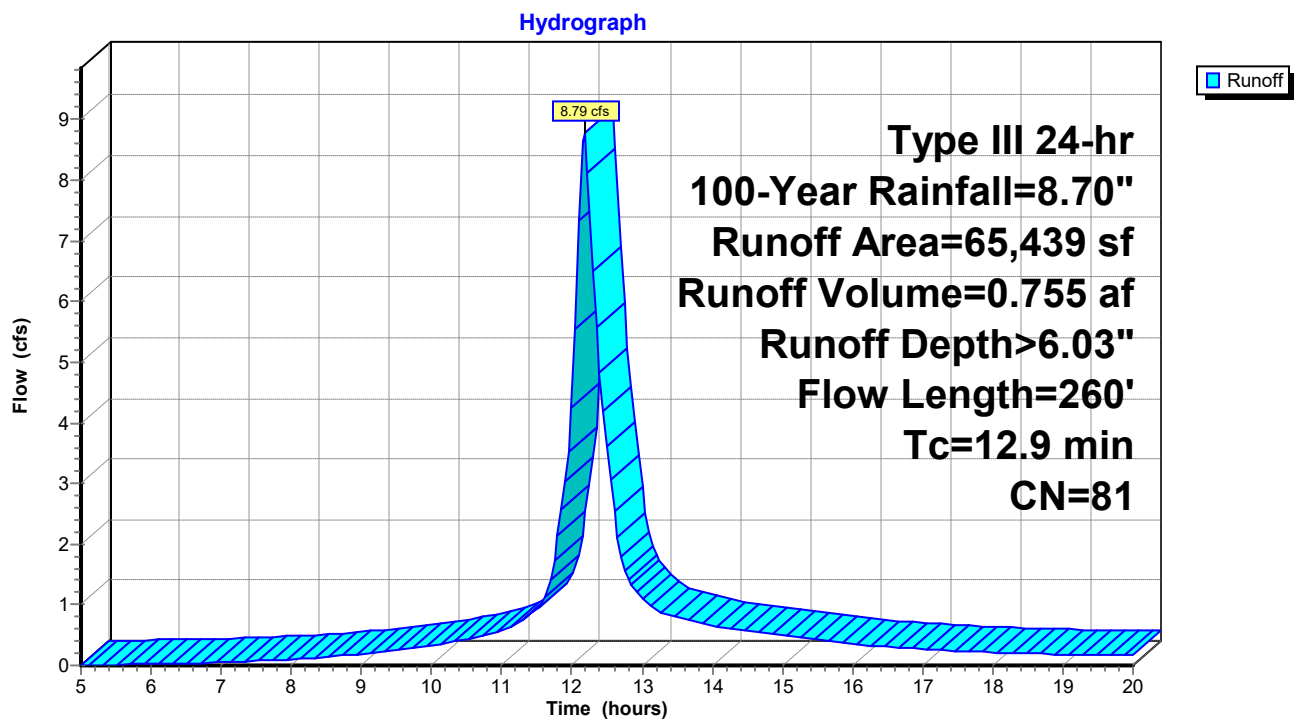
HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 79

Subcatchment 3S: SUBCATCHMENT 3



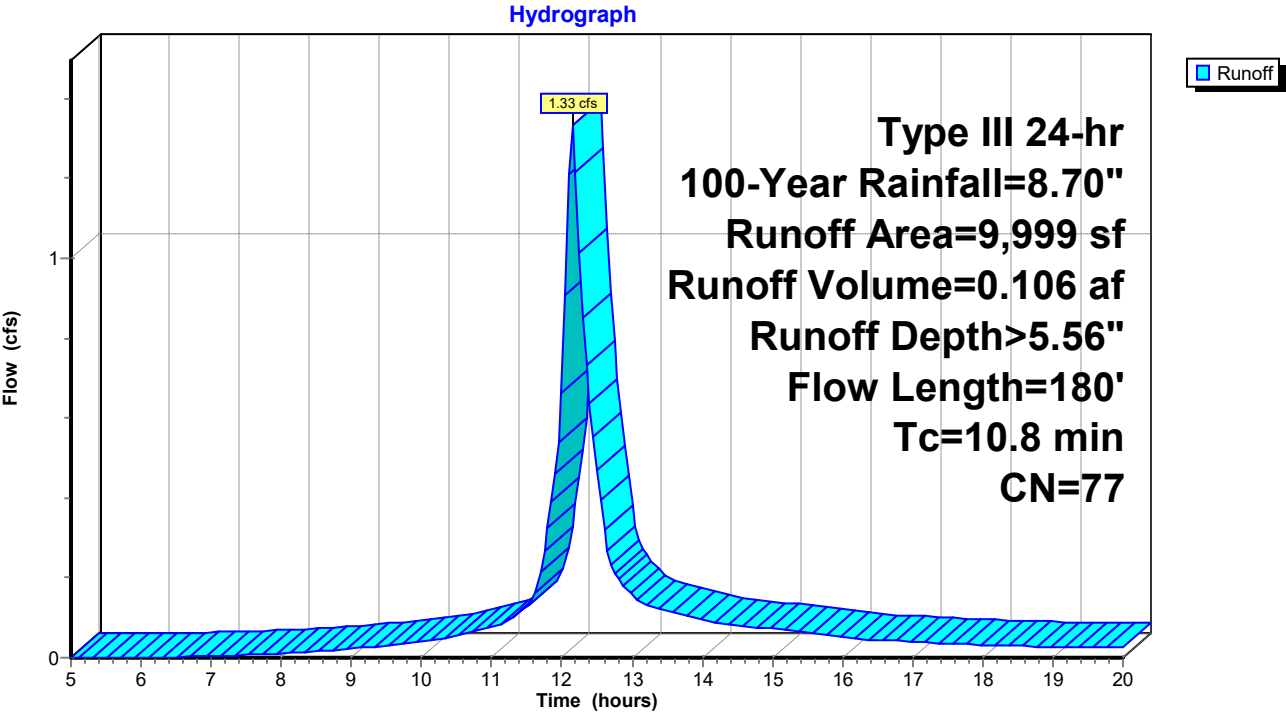
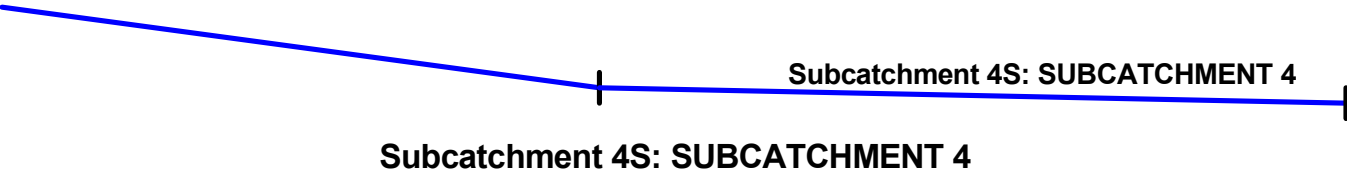
Summary for Subcatchment 4S: SUBCATCHMENT 4

Runoff = 1.33 cfs @ 12.15 hrs, Volume= 0.106 af, Depth> 5.56"
Routed to Reach SP4 : SUMMATION POINT 4

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 100-Year Rainfall=8.70"

Area (sf)	CN	Description
9,999	77	Woods, Good, HSG D
9,999		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	80	0.1300	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30" Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.4	100	0.0200	0.71		
10.8	180	Total			



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 81

Summary for Subcatchment 5S: SUBCATCHMENT 5

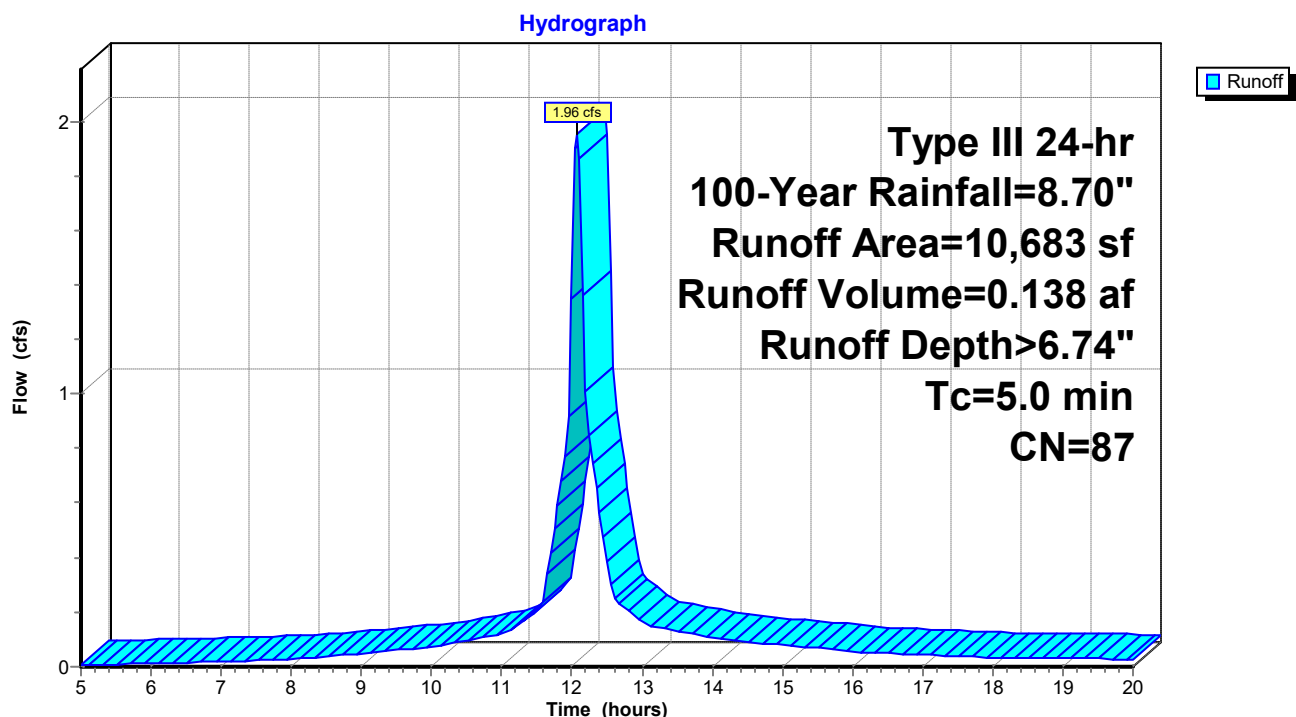
Runoff = 1.96 cfs @ 12.07 hrs, Volume= 0.138 af, Depth> 6.74"
Routed to Reach SP2 : SUMMATION POINT 2

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 100-Year Rainfall=8.70"

Area (sf)	CN	Description
767	77	Woods, Good, HSG D
* 4,473	98	IMPERVIOUS
5,078	80	>75% Grass cover, Good, HSG D
365	85	1/2 acre lots, 25% imp, HSG D
10,683	87	Weighted Average
6,119		57.28% Pervious Area
4,564		42.72% Impervious Area

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

Subcatchment 5S: SUBCATCHMENT 5



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 82

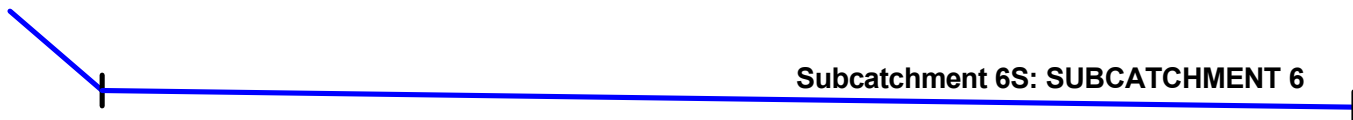
Summary for Subcatchment 6S: SUBCATCHMENT 6

Runoff = 12.53 cfs @ 12.54 hrs, Volume= 1.739 af, Depth> 6.22"
 Routed to Reach SP2 : SUMMATION POINT 2

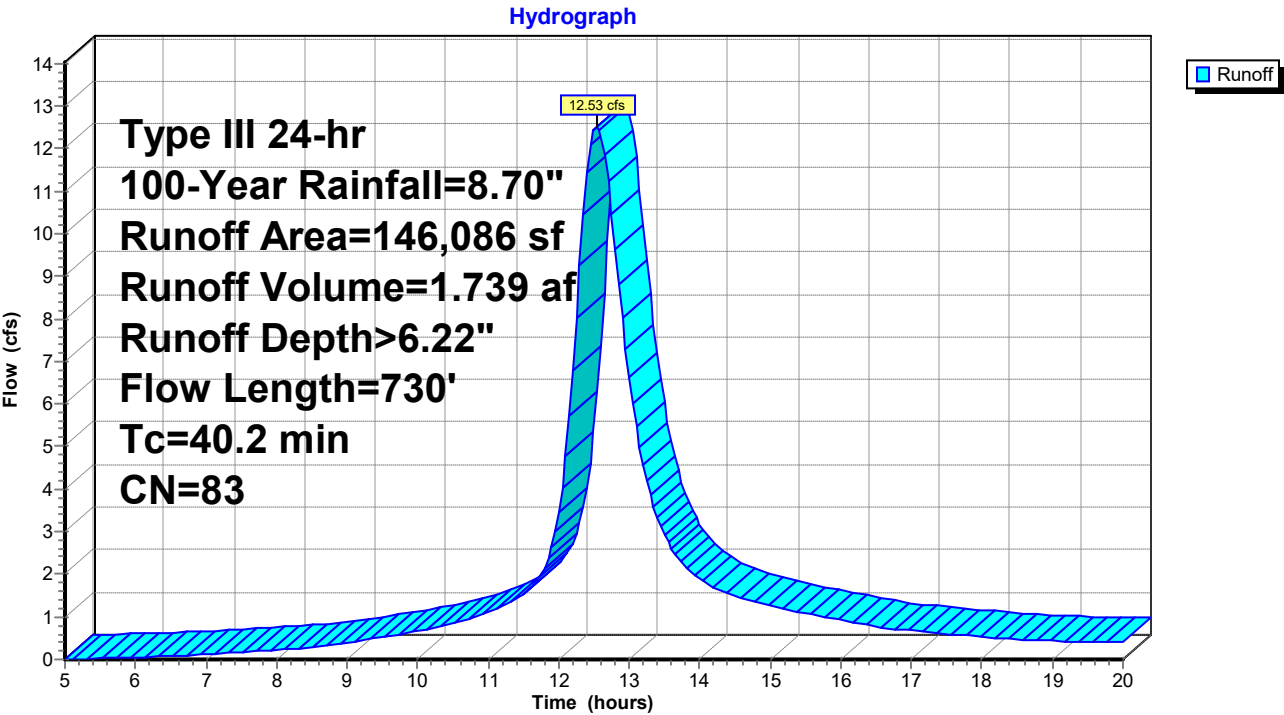
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (sf)	CN	Description
40,697	77	Woods, Good, HSG D
* 6,376	98	IMPERVIOUS
4,512	80	>75% Grass cover, Good, HSG D
94,501	84	1 acre lots, 20% imp, HSG D
146,086	83	Weighted Average
120,810		82.70% Pervious Area
25,276		17.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	50	0.2600	0.19		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
35.8	680	0.0040	0.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
40.2	730	Total			



Subcatchment 6S: SUBCATCHMENT 6



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 84

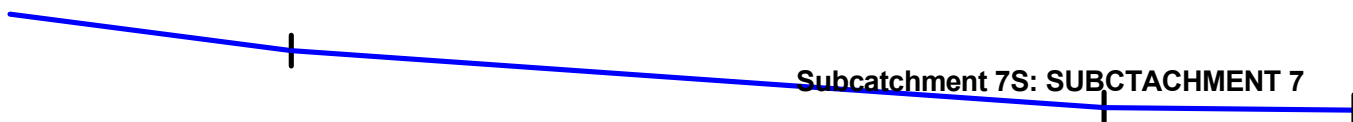
Summary for Subcatchment 7S: SUBCATCHMENT 7

Runoff = 5.34 cfs @ 12.11 hrs, Volume= 0.408 af, Depth> 6.51"
 Routed to Pond P2 : (new Pond)

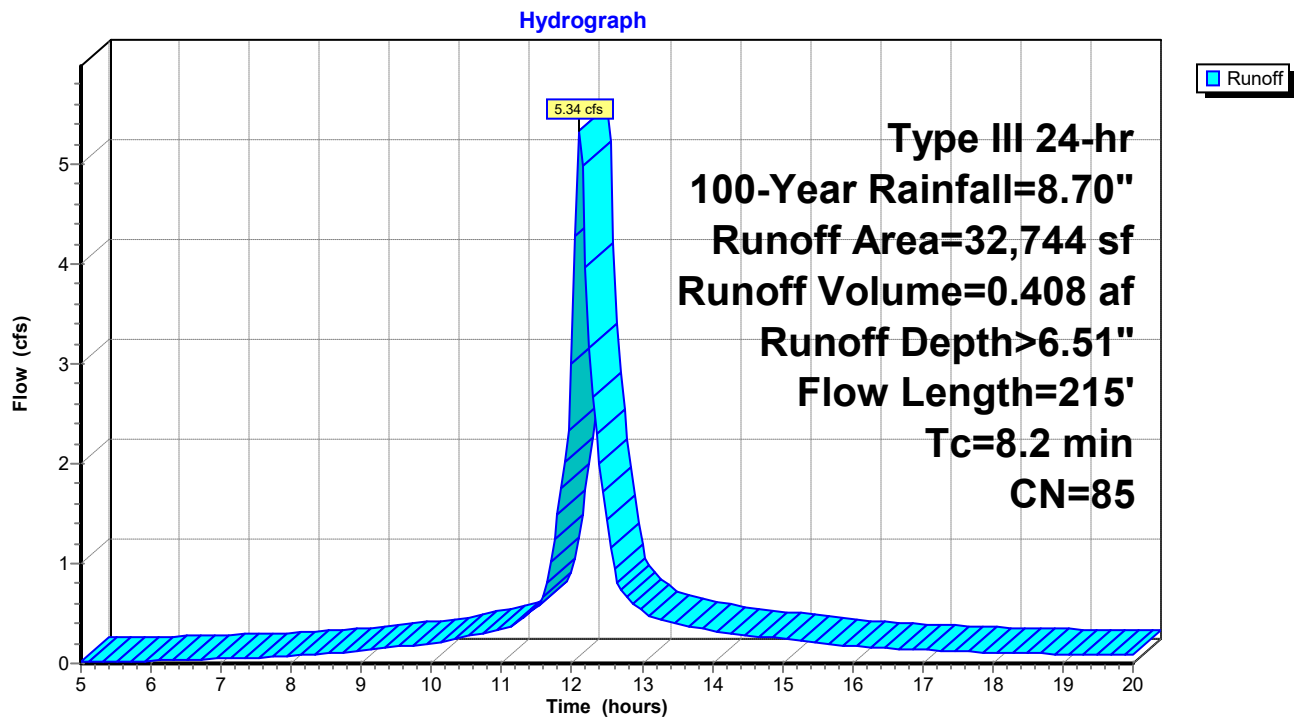
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (sf)	CN	Description
2,462	77	Woods, Good, HSG D
* 4,964	98	IMPERVIOUS
2,525	80	>75% Grass cover, Good, HSG D
22,793	84	1 acre lots, 20% imp, HSG D
32,744	85	Weighted Average
23,221		70.92% Pervious Area
9,523		29.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	45	0.1300	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.6	130	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.3	40	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
8.2	215	Total			



Subcatchment 7S: SUBCTACHMENT 7



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 86

Summary for Reach 13R: REACH 1

Inflow Area = 0.998 ac, 28.04% Impervious, Inflow Depth > 6.39" for 100-Year event
Inflow = 4.06 cfs @ 12.37 hrs, Volume= 0.532 af
Outflow = 3.97 cfs @ 12.41 hrs, Volume= 0.531 af, Atten= 2%, Lag= 2.6 min
Routed to Reach SP2 : SUMMATION POINT 2

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

Max. Velocity= 1.90 fps, Min. Travel Time= 1.1 min

Avg. Velocity= 0.69 fps, Avg. Travel Time= 3.1 min

Peak Storage= 271 cf @ 12.38 hrs

Average Depth at Peak Storage= 0.14', Surface Width= 15.81'

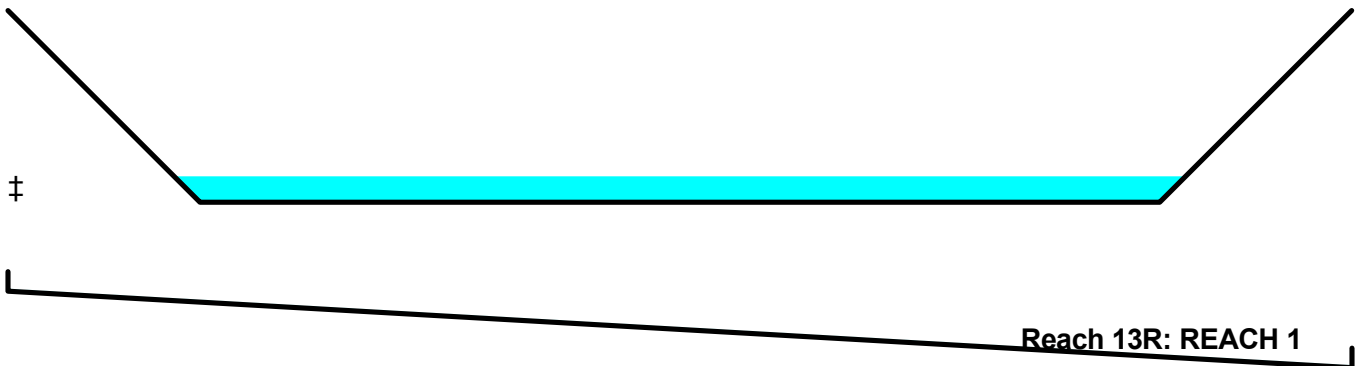
Bank-Full Depth= 1.00' Flow Area= 18.0 sf, Capacity= 118.23 cfs

15.00' x 1.00' deep channel, n= 0.035 Earth, dense weeds

Side Slope Z-value= 3.0 '/' Top Width= 21.00'

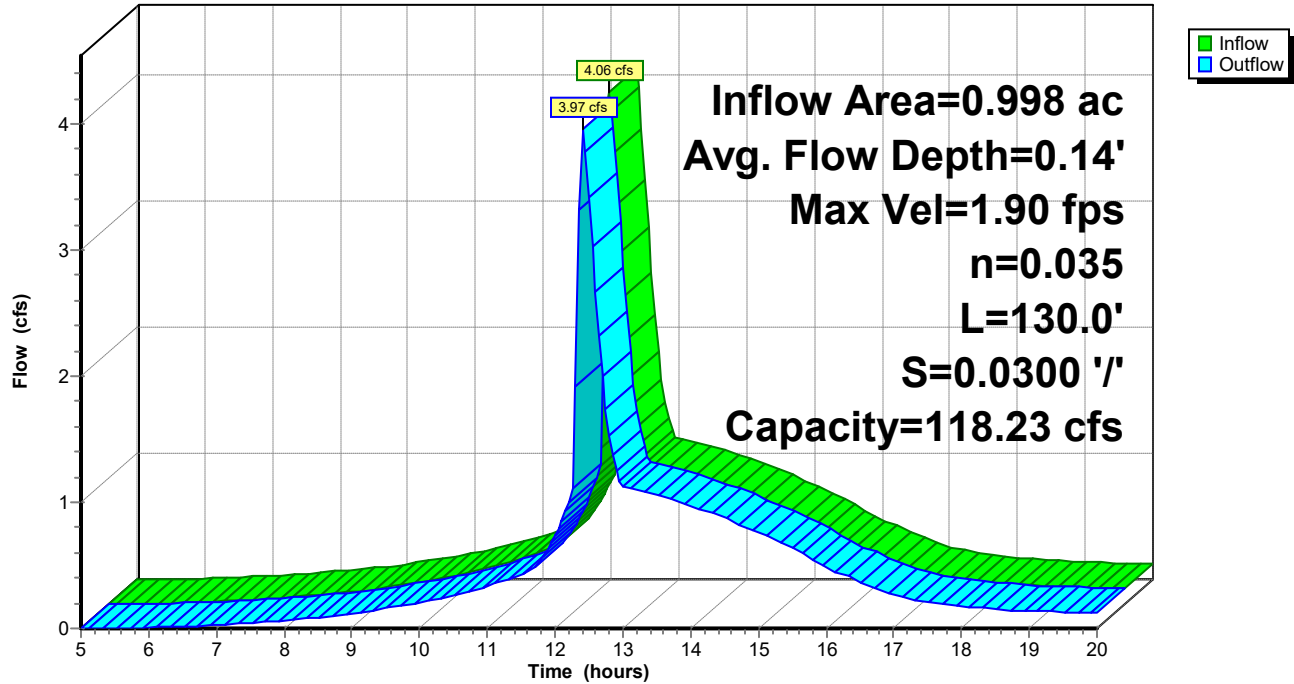
Length= 130.0' Slope= 0.0300 '/'

Inlet Invert= 0.00', Outlet Invert= -3.90'



Reach 13R: REACH 1

Hydrograph



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

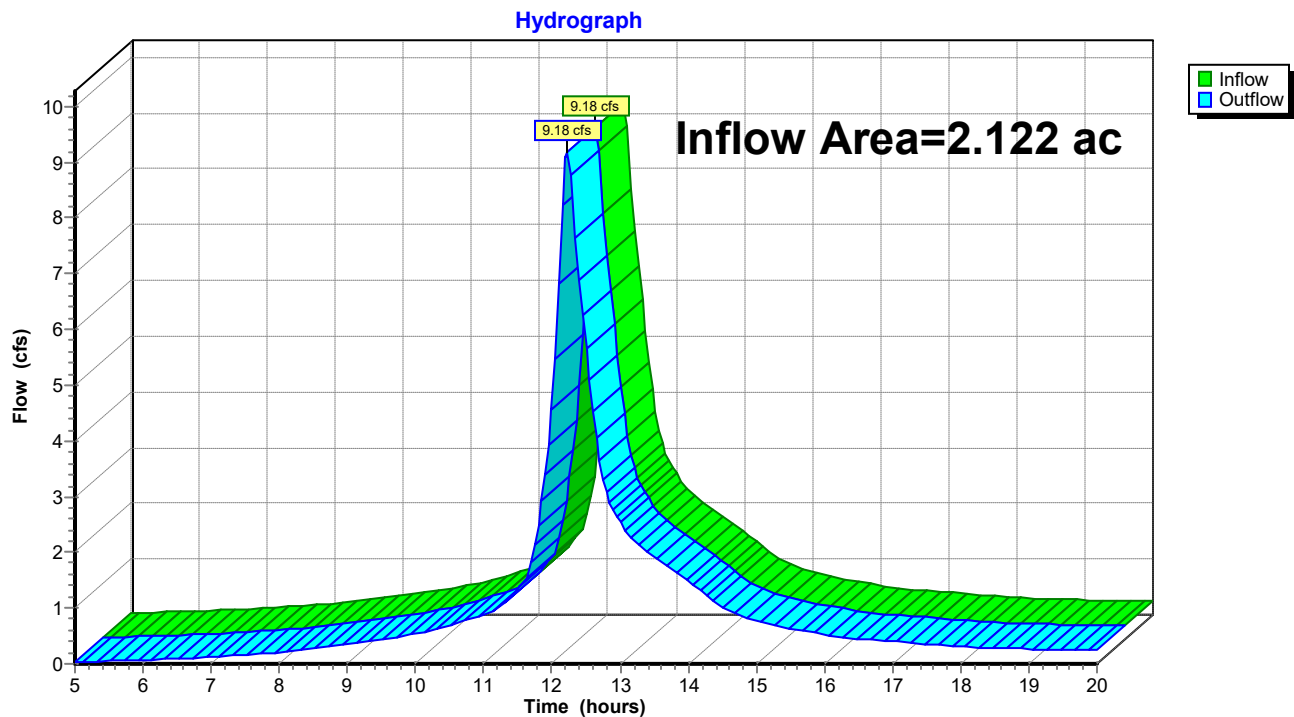
Page 88

Summary for Reach SP1: SUMMATION POINT 1

Inflow Area = 2.122 ac, 28.88% Impervious, Inflow Depth > 6.50" for 100-Year event
Inflow = 9.18 cfs @ 12.22 hrs, Volume= 1.149 af
Outflow = 9.18 cfs @ 12.22 hrs, Volume= 1.149 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 SP1: SUMMATION POINT 1



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

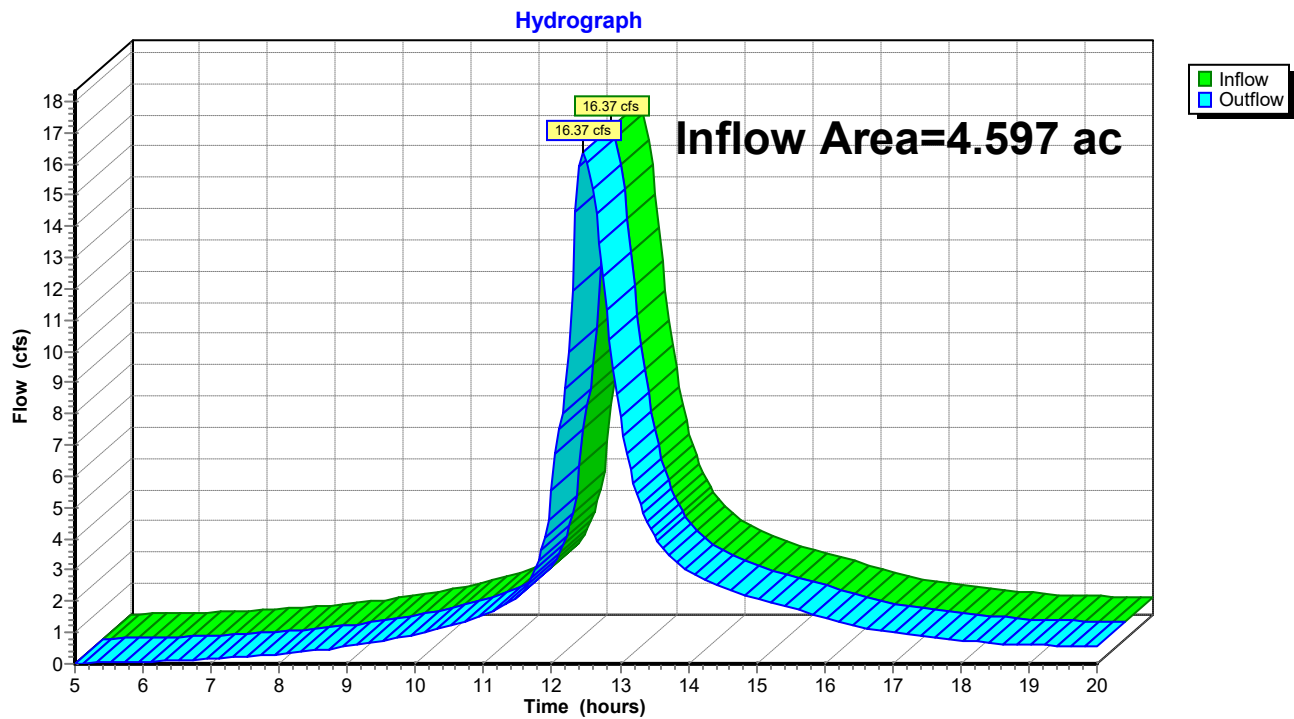
Page 89

Summary for Reach SP2: SUMMATION POINT 2

Inflow Area = 4.597 ac, 20.99% Impervious, Inflow Depth > 6.28" for 100-Year event
Inflow = 16.37 cfs @ 12.47 hrs, Volume= 2.407 af
Outflow = 16.37 cfs @ 12.47 hrs, Volume= 2.407 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 SP2: SUMMATION POINT 2



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

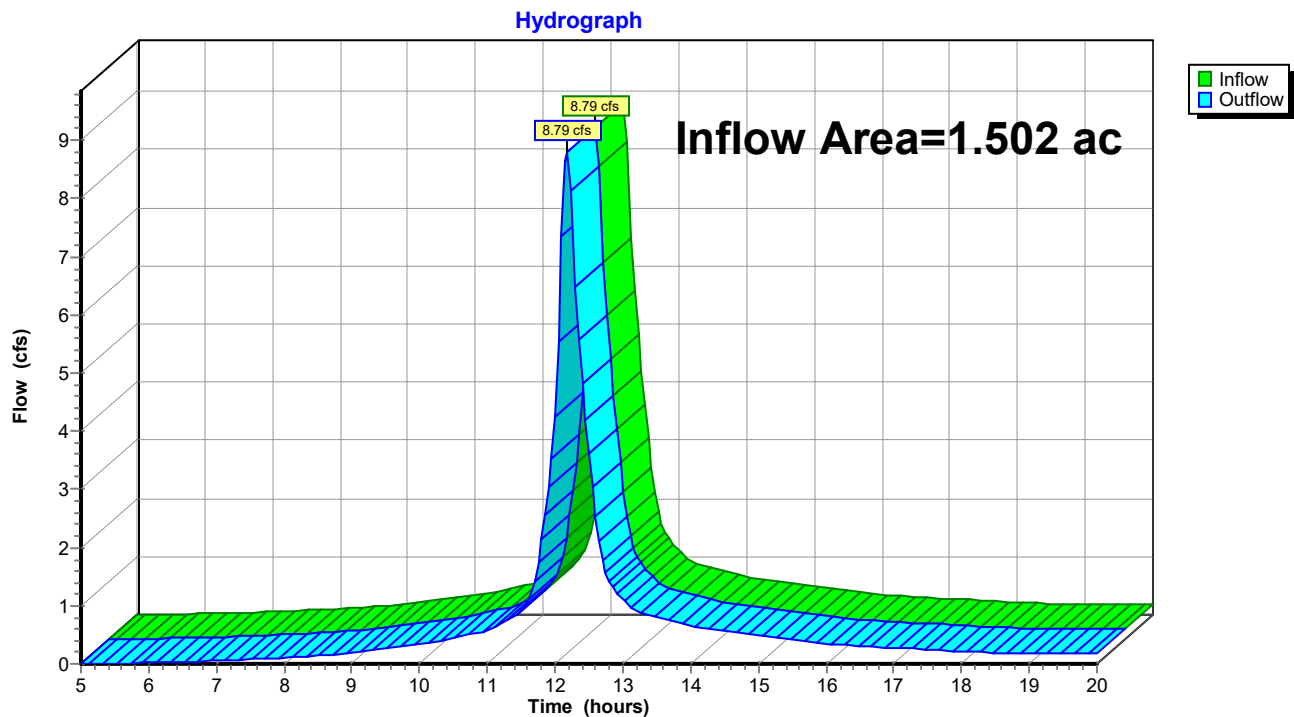
Page 90

Summary for Reach SP3: SUMMATION POINT 3

Inflow Area = 1.502 ac, 12.31% Impervious, Inflow Depth > 6.03" for 100-Year event
Inflow = 8.79 cfs @ 12.17 hrs, Volume= 0.755 af
Outflow = 8.79 cfs @ 12.17 hrs, Volume= 0.755 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 SP3: SUMMATION POINT 3



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

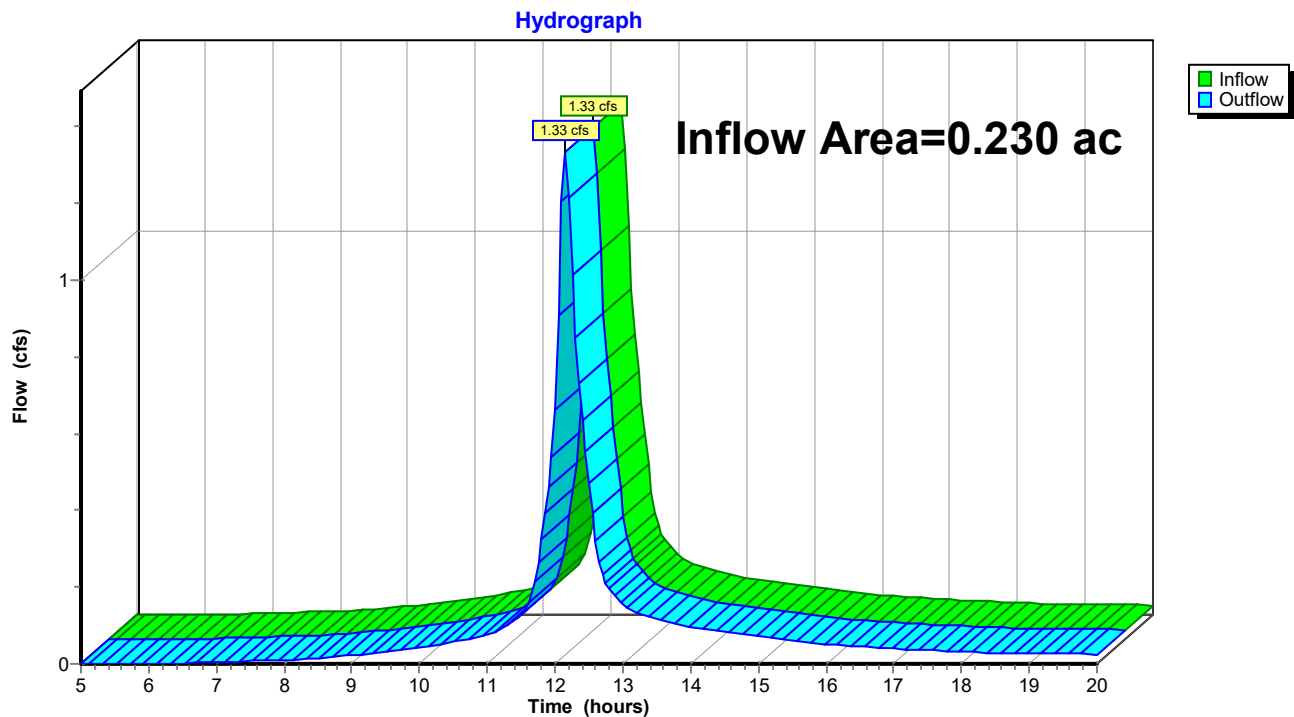
Page 91

Summary for Reach SP4: SUMMATION POINT 4

Inflow Area = 0.230 ac, 0.00% Impervious, Inflow Depth > 5.56" for 100-Year event
Inflow = 1.33 cfs @ 12.15 hrs, Volume= 0.106 af
Outflow = 1.33 cfs @ 12.15 hrs, Volume= 0.106 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 SP4: SUMMATION POINT 4



post development

Prepared by Haley Ward

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=8.70"

Printed 5/5/2025

Page 92

Summary for Pond P1: DETENTION BASIN

Inflow Area = 0.998 ac, 28.04% Impervious, Inflow Depth > 6.50" for 100-Year event
 Inflow = 5.91 cfs @ 12.20 hrs, Volume= 0.541 af
 Outflow = 4.06 cfs @ 12.37 hrs, Volume= 0.532 af, Atten= 31%, Lag= 10.5 min
 Primary = 1.18 cfs @ 12.37 hrs, Volume= 0.460 af
 Routed to Reach 13R : REACH 1
 Secondary = 2.87 cfs @ 12.37 hrs, Volume= 0.072 af
 Routed to Reach 13R : REACH 1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 60.74' @ 12.37 hrs Surf.Area= 3,410 sf Storage= 6,701 cf

Plug-Flow detention time= 54.0 min calculated for 0.530 af (98% of inflow)
 Center-of-Mass det. time= 47.2 min (812.4 - 765.2)

Volume	Invert	Avail.Storage	Storage Description
#1	58.00'	9,478 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.00	1,481	0	0
59.00	2,175	1,828	1,828
61.50	3,945	7,650	9,478

Device	Routing	Invert	Outlet Devices
#1	Primary	57.98'	6.0" Round Culvert L= 21.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.98' / 57.88' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Device 1	58.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	60.50'	10.0' long x 5.0' 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 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

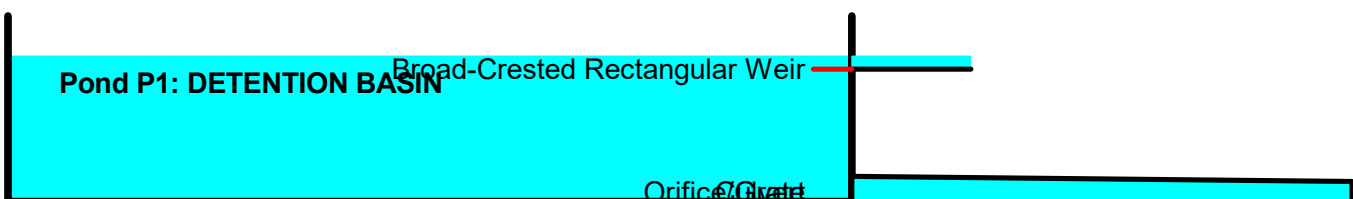
Primary OutFlow Max=1.18 cfs @ 12.37 hrs HW=60.74' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 1.18 cfs @ 6.02 fps)

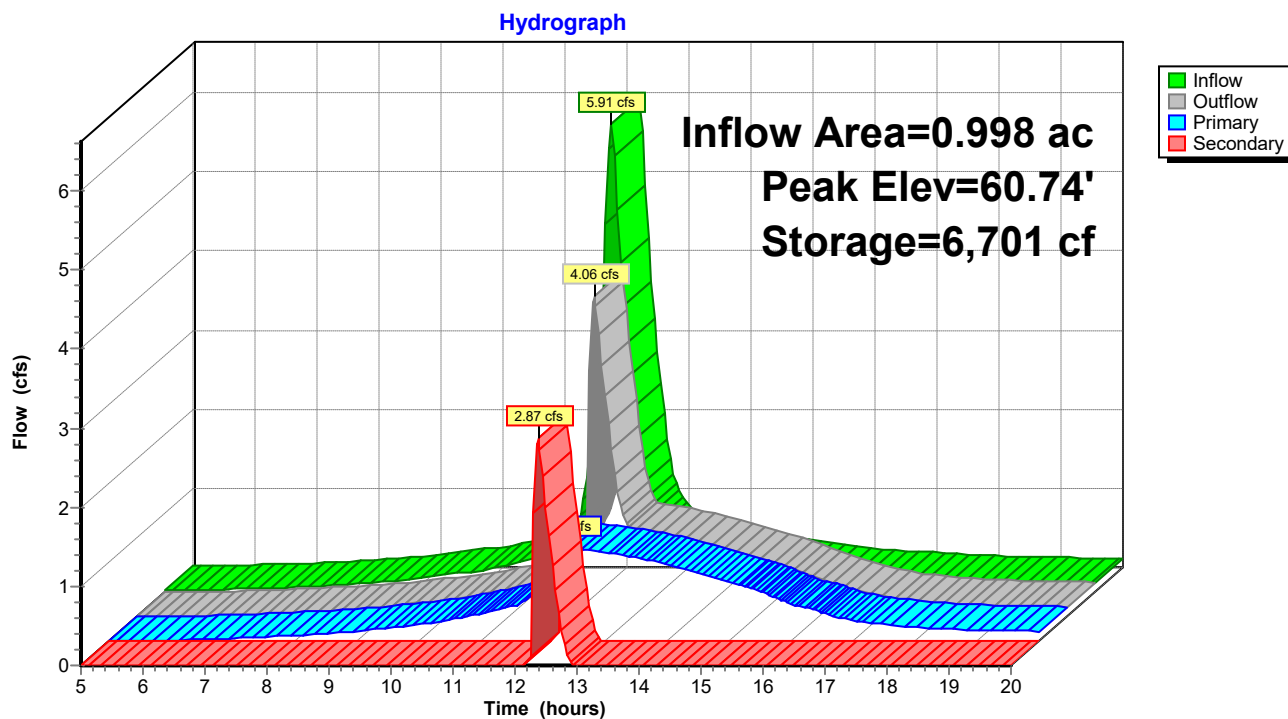
↑ **2=Orifice/Grate** (Passes 1.18 cfs of 1.49 cfs potential flow)

Secondary OutFlow Max=2.75 cfs @ 12.37 hrs HW=60.74' (Free Discharge)

↑ **3=Broad-Crested Rectangular Weir** (Weir Controls 2.75 cfs @ 1.16 fps)



Pond P1: DETENTION BASIN



post development

Type III 24-hr 100-Year Rainfall=8.70"

Prepared by Haley Ward

Printed 5/5/2025

HydroCAD® 10.20-5c s/n 00641 © 2023 HydroCAD Software Solutions LLC

Page 94

Summary for Pond P2: (new Pond)

Inflow Area = 0.752 ac, 29.08% Impervious, Inflow Depth > 6.51" for 100-Year event
 Inflow = 5.34 cfs @ 12.11 hrs, Volume= 0.408 af
 Outflow = 1.53 cfs @ 12.48 hrs, Volume= 0.407 af, Atten= 71%, Lag= 22.1 min
 Primary = 1.53 cfs @ 12.48 hrs, Volume= 0.407 af
 Routed to Reach SP1 : SUMMATION POINT 1

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 54.68' @ 12.48 hrs Surf.Area= 4,529 sf Storage= 4,940 cf

Plug-Flow detention time= 26.3 min calculated for 0.407 af (100% of inflow)
 Center-of-Mass det. time= 25.8 min (785.9 - 760.1)

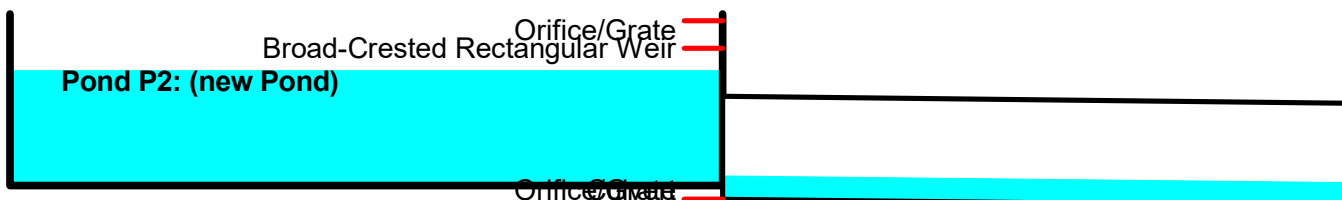
Volume	Invert	Avail.Storage	Storage Description
#1	53.00'	9,380 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.00	1,256	0	0
54.00	3,321	2,289	2,289
55.00	5,109	4,215	6,504
55.50	6,398	2,877	9,380

Device	Routing	Invert	Outlet Devices
#1	Primary	52.80'	18.0" Round Culvert L= 40.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.70' S= 0.0025 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	1.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Device 1	52.80'	6.0" W x 6.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	55.40'	24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

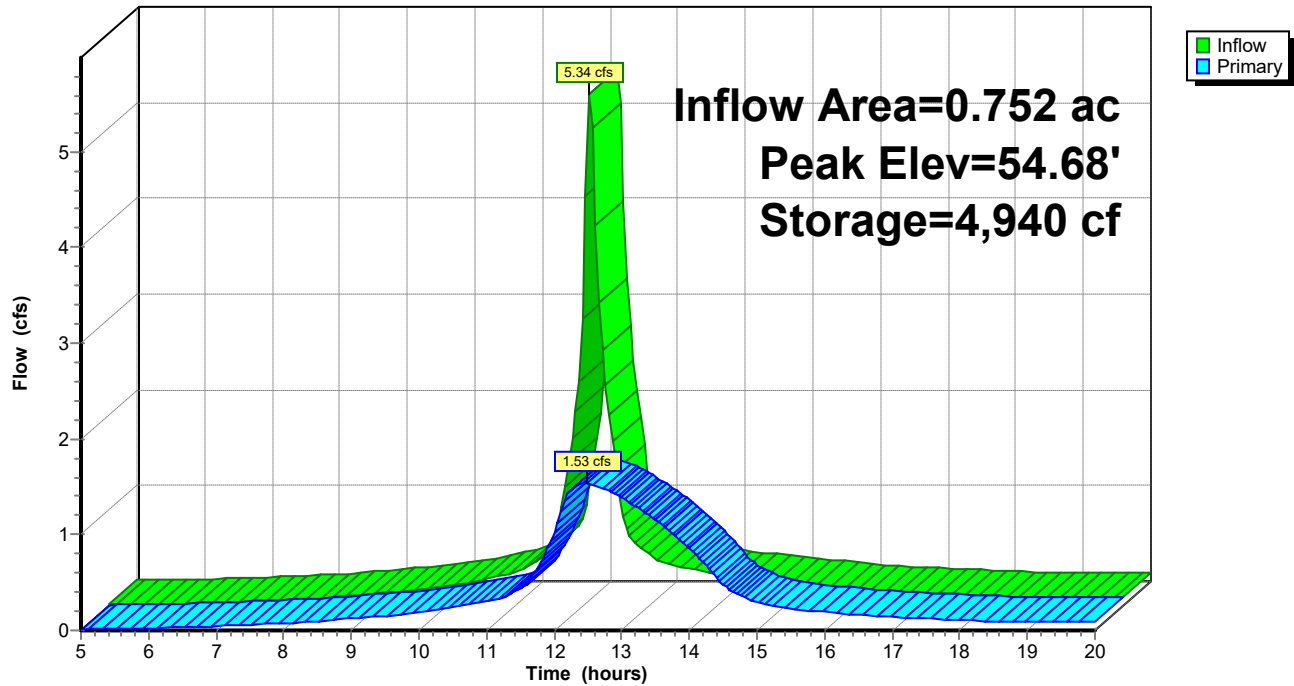
Primary OutFlow Max=1.53 cfs @ 12.48 hrs HW=54.67' (Free Discharge)

1=Culvert (Passes 1.53 cfs of 6.59 cfs potential flow)
 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
 3=Orifice/Grate (Orifice Controls 1.53 cfs @ 6.13 fps)
 4=Orifice/Grate (Controls 0.00 cfs)



Pond P2: (new Pond)

Hydrograph



ENVIRONMENT

34 Attachment 2

City of Biddeford

Appendix 1

**Annual Stormwater Management Facilities Certification (to be sent to City's
Enforcement Authority)
[Amended 6-20-2023 by Ord. No. 2023.61¹]**

- I, _____ (print or type name), certify the following:
1. I am making this Annual Stormwater Management Facilities Certification for the following property:
_____ (print or type name of subdivision, condominium or other
development) located at _____ (print or type address), (the
"Property");
 2. The owner, operator, tenant, lessee or homeowners' association of the Property is: _____
(name(s) of owner, operator, tenant, lessee, homeowners' association or other party having control
over the Property);
 3. I am (check one)
 - a. _____ the owner, operator, tenant, lessee or president of the homeowners' association and have
hired a Qualified Post Construction Stormwater Inspector; or
 - b. _____ am a Qualified Post-Construction Stormwater Inspector hired by the person identified in
item two of this form;
 4. I have knowledge of erosion and stormwater control and have reviewed the approved Post-
Construction Stormwater Management Plan for the Property;
 5. On _____, 20 _____, I inspected or had inspected by a Qualified Post-Construction
Stormwater Inspector, the Stormwater Management Facilities, including but not limited to parking
areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures required
by the approved Post-Construction Stormwater Management Plan for the Property;
 6. I have attached a copy of the Annual Inspection Report. At the time of the inspection (check one and
complete any required information):
 - a. The Stormwater Management Facilities were adequately maintained and functioning as
intended; or
 - b. The Stormwater Management Facilities required maintenance, which was completed within the
required sixty-day time period, and were functioning as intended after maintenance was
completed; or
 - c. The Stormwater Management Facilities required maintenance which was not completed within
the required sixty-day time period. (Attach additional sheets as necessary to describe the
maintenance required, proposed schedule for completion, and an appropriate contact person.
The City will contact them to confirm or adjust the schedule to complete the maintenance and
any needed further course of action. You will be required to show proof of final maintenance.)

¹ Editor's Note: This ordinance also repealed former Appendix 1, Maintenance Agreement for
Stormwater Management Facilities, and redesignated former Appendix 2 as Appendix 1.

BIDDEFORD CODE

Date: _____, 20.

By: _____

Signature

Print Name

Mail this certification to the City's Enforcement Authority at the following address [to be completed by the municipality]: _____

512 POOL STREET SUBDIVISION - PREDEVELOPMENT LAND COVER SUMMARY							
Subdrainage Land Cover Areas							
Drainage Area	Area (SF)	Area (AC)	Impervious Area (SF)	Gravel Area HSG 'X' (SF)	Pervious Area - Woods HSG 'D' (SF)	Composite CN	Tc (hours)
			CN: 98	CN: #	CN: 77		
1	88,998	2.04	6,087	-	82,911	78.0	0.28
2	201,036	4.62	0	-	201,036	77.0	0.67
3	68,129	1.56	0	-	68,129	77.0	0.22
4	9,999	0.23	0	-	9,999	77.0	0.18
TOTAL	368,162	8	6,087	-	362,075	-	-

*If a drainage area contains multiple soil types with differing HSG classifications (i.e. 'C' vs 'D'), additional columns should be added for each pervious & gravel hydrologic soil group types (HSG).

512 POOL STREET SUBDIVISION - POSTDEVELOPMENT LAND COVER SUMMARY									
Subdrainage Land Cover Areas									
Drainage Area	Area (SF)	Area (AC)	Impervious Area (SF)	Gravel Area HSG 'X' (SF)	Pervious Area - Grass cover - HSG 'D'	1/2 Acre lots, 25% Impervious, HSG 'D'	Pervious Area - Woods HSG 'D' (SF)	Composite CN	Tc (hours)
			CN: 98	CN: #	CN: 80	CN: 85	CN: 77		
1	59,711	1.37	6,604	-	2,772	42,308	8,027	85.0	0.28
2	43,473	1.00	4,834	-	8,459	29,419	761	85.0	0.24
3	65,439	1.50	-	-	-	32,212	33,227	81.0	0.22
4	9,999	0.23	-	-	-	-	9,999	77.0	0.18
5	10,683	0.25	4,473	-	5,078	365	767	87.0	0.08
TOTAL	189,305	4	15,911	0	16,309	104,304	52,781	-	-

*If a drainage area contains multiple soil types with differing HSG classifications (i.e. 'C' vs 'D'), additional columns should be added for each pervious & gravel hydrologic soil group types (HSG).

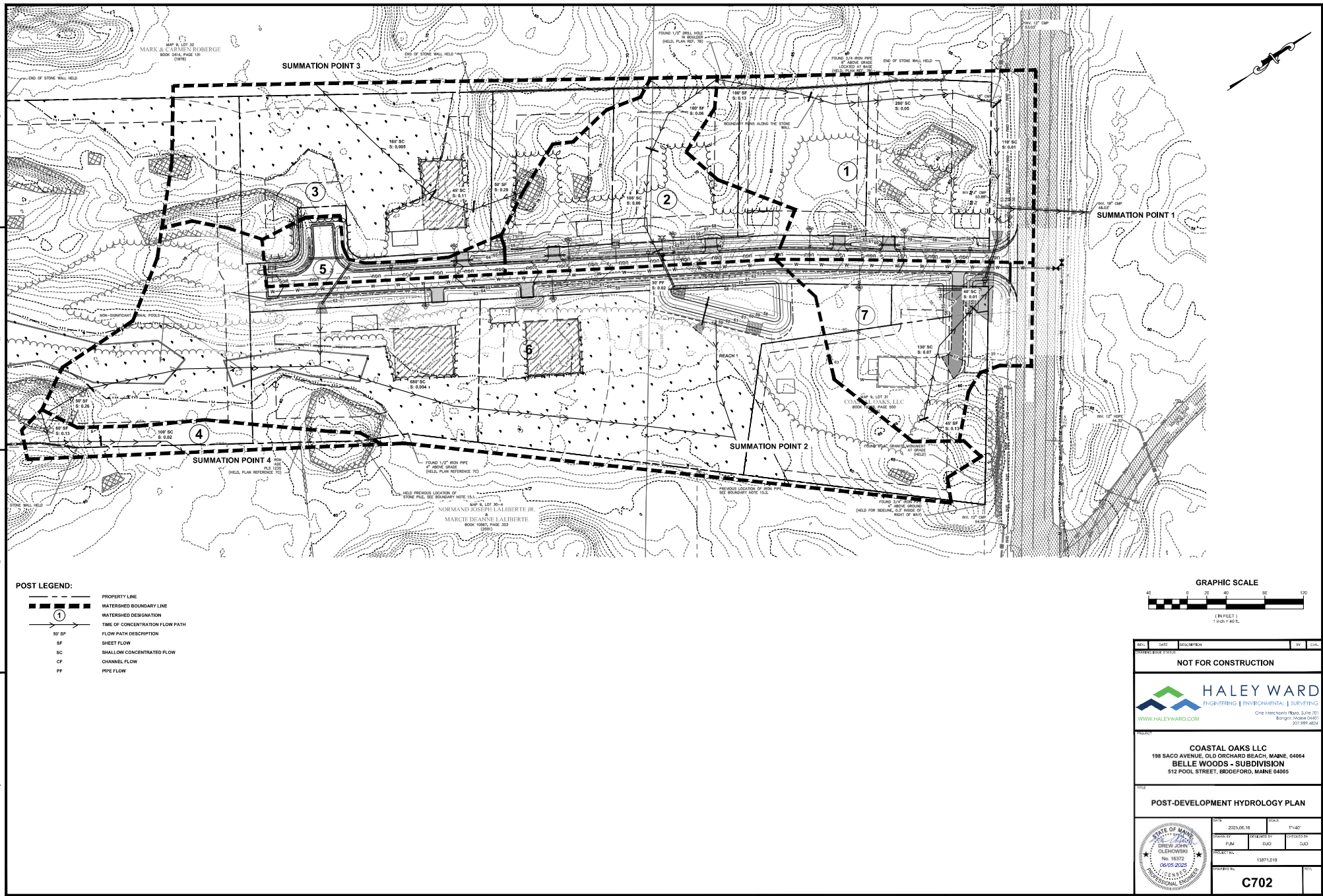
512 POOL STREET SUBDIVISION - LAND COVER CURVE NUMBER SUMMARY TABLE				
USDA-NRCS SOIL CLASSIFICATION	HYDROLOGIC SOIL GROUP (HSG)	LAND COVER TYPES - CURVE NUMBERS		
		Impervious	Gravel	Pervious, Good
Bm	D	98	96	80
LyC	D	98	96	80
LnB	D	98	96	80
LyB	D	98	96	80

Source: Urban Hydrology for Small Watersheds - TR-55

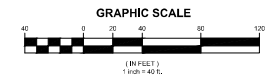
BIDDEFORD - 24 HR RAINFALL DEPTHS	
2-YR	3.3 in
10-YR	4.9 in
25-YR	6.2 in
100-YR	8.7 in

*Per Appendix H of DEP's Chapter 500; Type III Storm

512 POOL STREET SUBDIVISION - STORMWATER RUNOFF DISCHARGE SUMMARY				
	STORM FREQUENCY	EXISTING DISCHARGE (CFS)	PROPOSED DISCHARGE (CFS)	NOTES
SP-1	Q ₂	2.28 CFS	2.89 CFS	
	Q ₁₀	4.54 CFS	4.80 CFS	
	Q ₂₅	6.48 CFS	6.32 CFS	
	Q ₁₀₀	10.33 CFS	9.18 CFS	
SP-2	Q ₂	3.32 CFS	4.02 CFS	
	Q ₁₀	6.73 CFS	7.02 CFS	
	Q ₂₅	9.71 CFS	9.47 CFS	
	Q ₁₀₀	15.62 CFS	16.37 CFS	
SP-3	Q ₂	1.81 CFS	2.14 CFS	
	Q ₁₀	3.67 CFS	4.04 CFS	
	Q ₂₅	5.28 CFS	5.64 CFS	
	Q ₁₀₀	8.48 CFS	8.79 CFS	
SP-4	Q ₂	.28 CFS	.28 CFS	
	Q ₁₀	.58 CFS	.58 CFS	
	Q ₂₅	.83 CFS	.83 CFS	
	Q ₁₀₀	1.33 CFS	1.33 CFS	
TOTAL	Q ₂	7.69 CFS	9.33 CFS	
	Q ₁₀	15.52 CFS	16.44 CFS	
	Q ₂₅	22.30 CFS	22.26 CFS	
	Q ₁₀₀	35.76 CFS	35.67 CFS	



- POST LEGEND:**
- PROPERTY LINE
 - WATERSHED BOUNDARY LINE
 - WATERSHED DESIGNATION
 - TIME OF CONCENTRATION FLOW PATH
 - FLOW PATH DESCRIPTION
 - SHEET FLOW
 - SHALLOW CONCENTRATED FLOW
 - CHANNEL FLOW
 - PIPE FLOW



NOT FOR CONSTRUCTION	
HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING One Veechons Road, Suite 101 Bangor, Maine 04401 207-995-4504 WWW.HALEYWARD.COM	
COASTAL OAKS LLC 198 SACO AVENUE, OLD ORCHARD BEACH, MAINE, 04954 BELLE WOODS - SUBDIVISION 512 POOL STREET, BIDDEFORD, MAINE 04405	
POST-DEVELOPMENT HYDROLOGY PLAN	
DATE: 2025.06.18	SCALE: 1"=40'
DRAWN BY: PUM	DESIGNED BY: DJM
CHECKED BY: DJM	DATE: 06/05/2025
PROJECT NO: 1387LU19	
C702	



APPENDIX J

EROSION AND SEDIMENTATION CONTROL PLAN



EROSION AND SEDIMENTATION CONTROL PLAN

- A. Narrative. The proposed construction will require the implementation of temporary and permanent erosion control measures. These measures will be implemented in accordance with the Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual, prior to removal of any on-site vegetation or disturbance of any on-site soil. The general erosion and sediment control specifications and details, as provided within this section, are intended to describe measures to be used by contractors working on the site to maintain compliance with the standards established in the BMPs. These standards include information on temporary and permanent erosion control measures, rates of seeding and applied mulch, slope and soil stabilization, effect of construction schedule, and other details.

The proposed location and use of erosion control measures on-site are shown on the site plan. There are no known existing erosion control concerns with the site. Implementation of proper erosion control measures will be required by site contractors to confine sediment and debris within the limit of soil disturbance. Proper use and maintenance of erosion control measures will provide protection against off-site transport of sediment and discharge of sediment to undisturbed areas of the development.

- B. Completion Date. Fall 2026
- C. Site Features. For site features please refer to the enclosed plan.
- D. Temporary and Permanent Erosion Control Measures. For temporary and permanent erosion control measures please refer to the enclosed plan.
- E. Limits of Disturbed Areas. Areas of disturbance will be limited to the proposed work shown on the enclosed plan. All areas disturbed areas not made impervious will be seeded and mulched to establish vegetated growth.
- F. Design Drawings and Specifications. For design drawings please refer to the enclosed plan. The following specifications will be utilized by the site contractor during construction of the project.



EROSION CONTROL PLAN SPECIFICATIONS

A. General

1. All work and measures will be as per the Maine Erosion and Sediment Control BMPs manual.
2. The following specifications will be employed.

B. Prior to Construction

1. Prior to beginning construction, erosion and sedimentation controls shall be in place.

C. During Construction

1. Exposed soil surfaces will be treated immediately if they are to remain ungraded more than 30 days, or if they are at final grades.
2. Drainage ways, either designed or incidental, will have filter barriers installed.
3. All work and materials necessary to minimize sediment loss from the site will be provided.
4. All erosion control measures will be inspected and repaired after every rainfall greater than ½-inch and at least daily during rain events lasting longer than 24 hours.

D. Post Construction

1. Erosion control measures will be maintained until permanent soil stabilization has been achieved with a growth of vegetation greater than 90%.



SOIL PROTECTION AND EROSION CONTROL

PART 1 - GENERAL

1.01 Description of Work

- A. Provide and maintain devices to control erosion, siltation, sedimentation, and dust that occur during construction operations. Undertake every reasonable precaution and do whatever is necessary to avoid erosion of soil and to prevent silting of wetland areas and drainage ditches.
- B. Provide measures to control dust caused whether on or off the project site.
- C. Deficiencies in erosion control measures indicated by failures or erosion will be corrected as soon as reasonably possible by providing additional measures or different techniques to correct the situation and prevent subsequent erosion.
- D. Exposure of soils on embankments, excavations, and graded areas will be kept as short as possible. Initiate seeding and other erosion control practices as soon as reasonably possible.

1.02 Quality Assurance

- A. Conform to all requirements of applicable Federal, State and local permits and conform to the recommendations of the Maine Erosion and Sediment Control BMPs whether the measures are specifically noted herein, or not.
- B. Standards: Maine Erosion and Sediment Control BMPs Manual, hereinafter called Erosion Control Handbook.

PART 2 - PRODUCTS

2.01 **Materials:** Use the following materials to implement and construct erosion control measures.

- A. Hay Bale: Rectangular shaped bales of hay or straw weighting at least 40 pounds per bale; free from noxious weed seeds and rough or woody materials.
- B. Mulch: Type and use as specified by the Erosion Control Handbook
 - 1. Long fibered hay or straw in dry condition and which are relatively free of weeds and foreign matter detrimental to plant life.
 - 2. Mulch netting: Plastic or nylon mesh netting with approximate openings of 1/4-inch to 1-inch.



- C. Permanent Seeding: Cut and fill slopes and disturbed areas will be stabilized as follows:
1. Four inches of loam will be spread over disturbed areas and smoothed to a uniform surface.
 2. In lieu of tests, agricultural limestone will be spread at the rate of three tons per acre. 10-20-20 fertilizer will follow at the rate of 800 lbs. per acre. These two soil additives will be incorporated into the soil prior to seeding.
 3. Following seed bed preparation, back slopes will be seeded to a mixture of 83% creeping red fescue, and 17% rye grass. Seeding rate is 3 lbs. per 1,000 square feet. Lawn quality sod may be substituted for seed.
 4. Hay mulch at the rate of 90 lbs. per 1,000 square feet of a hydro-application of asphalt, wood, or paper fiber will be applied following seeding. A suitable binder such as curason or terrtack will be used on hay mulch for wind control.
 5. If final seeding of the disturbed areas is not completed by September 15th of the year of the construction, then on that date these areas will be graded and a cover crop of rye at the rate of 112 lbs/acre or 3 lbs/1,000 sq. ft. will be applied. The rye seeding will be preceded by an application of 3 tons of lime and 800 lbs. of 10-20-20 fertilizer or its equivalent and covered by a layer of jute mat to aide in stabilization.

PART 3 - EXECUTION

3.01 Construction

A. Hay Bales:

1. Install as directed by Erosion Control Handbook, and stake with required stakes.

B. Mulch:

1. Undertake after each area has been properly prepared.
2. When seed for erosion control is sown prior to placing the mulch, place mulch on the seeded areas within 48 hours after seeding.
3. Blowing chopped mulch will be permitted.
4. Hay mulch should cover the ground enough to shade it, but the mulch should not be so thick that a person standing cannot see the ground through the mulch.
5. Remove matted mulch or bunches.

C. Temporary Erosion Control Matting (where necessary):

1. Surface Preparation:
 - a. Conform to grades for slopes and ditches shown of the drawings.
 - b. Finish to a smooth and even condition with all debris, roots, stones, and lumps raked out and removed.
 - c. Loosen soil surface to permit bedding of the matting.
 - d. Unless otherwise directed, apply seed prior to placement.



2. Installation:

- a. Place strips lengthwise in the direction of the flow of water.
- b. Where strips are laid parallel or meet as in a tee, overlap at least four inches.
- c. Overlap ends at least six inches in a shingle fashion.
- d. The up-slope end of each strip of the matting will be turned down and buried to a depth of not less than six inches with the soil firmly tamped against it.
- e. Build check slots at right angles to the direction of the flow of water. Space so that one check slot or one end occurs within each 50 feet of slope length. Construct by placing a tight fold of the matting at least six inches vertically into the ground, and tamp the same as up-slope ends.
- f. Bury edges of matting around the edges of the catch basins and other structures.
- g. Where determined by the Engineers, additional seed will be spread over matting, particularly at those locations disturbed by building the slots. Matting will then be pressed onto the ground with a light lawn roller or by other satisfactory means.
- h. Drive staples vertically into the ground flush with the surface.
- i. On slopes flatter than 4:1, space staples not more than three feet and one row, alternately spaced, down the center.
- j. On grades 4:1 or steeper, place in the same three rows, but spaced two feet apart.
- k. On all overlapping or butting edges, double the number of staples, with the spacing halved; all ends of the matting and all required check slots will likewise have staples spaced every foot.

D. Permanent Seeding:

1. Seed with appropriate seeds and application rates as noted in Section 2.01D.
2. Mulch areas where seeding has been applied. Do not mulch seeded areas where matting will be immediately installed.

E. Topsoil Storage:

1. Topsoil which is stockpiled on the site for use in loam applications will be placed out of natural drainages, in piles that have side slopes of 2:1 to 1.5:1.
2. A trench (depth as required) will be constructed around the base of the pile to prevent eroding soil from washing into drainages.

F. Dust Control: Utilize the application of sprinkled water to reduce the emission of airborne soil particulates from the Project site.

G. Temporary Berms: Construct temporary barriers along the toe of embankments using side drains as necessary.

H. Temporary Basins: Construct temporary sedimentation basins adequate to avoid siltation of surface water bodies.



- I. Other Temporary Measures:
 - 1. Type and use will be as specified in the Erosion Control Handbook.
- J. Winter Stabilization Notes
 - 1. At this time it is not expected that significant soil disturbance will occur during winter months or periods of heavy icing. If construction is performed during these times, the following construction practices will be followed.
 - a. All disturbed areas not stabilized with stone or other measures will have approved erosion control matting installed and be dormant seeded.
 - b. No frozen soil material or material containing significant snow or ice will be used for fill material.
 - c. All material stockpiles will have silt fence and/or hay bales installed downgradient of piles.
 - d. Follow general erosion control notes described previously wherever possible and as conditions permit.

3.02 Maintenance

- A. Inspect erosion control practices immediately after each rainfall greater than ½-inch and at least daily during rainfall lasting longer than 24 hours or snowmelt for damage. Provide maintenance and make appropriate repairs or replacement.
- B. Remove silt from around hay bales when it has reached one foot above grade or prior to expected heavy runoff or siltation.
- C. Repair matting if any staples become loosened or raised, or if any matting becomes loose, torn, or undermined, make satisfactory repairs immediately.

3.03 Removal of Temporary Erosion Control

- A. Remove temporary materials and devices when permanent soil stabilization has been substantially achieved. For vegetated areas, substantially complete means 95% vegetated cover has been established.
- B. Level and grade to the extent required to present a sightly appearance and to prevent any obstruction of the flow of water or any other interference with the operation of or access to the permanent works.
- C. Remove unsuitable materials from site and dispose of in a lawful manner.



INSPECTION AND MAINTENANCE

The following Maintenance Plan will be employed for this facility. Coastal Oaks, LLC will be responsible for all inspection and maintenance during construction. The Homeowner's Association will be responsible post construction. Erosion control measures for this site were designed by:

Drew Olehowski, P.E.
Haley Ward, Inc.
120 Main Street, #132
Saco, Maine 04072
207-989-4824
dolehowski@haleyward.com

A Pre- and Post-Construction Maintenance Plan for the stormwater management system and erosion control measures are included in this section.



MAINTENANCE PLAN

The MDEP's Stormwater Management for Maine: Best Management Practices (2006), and the MDEP's Chapter 500: Stormwater Management were used as guidelines in the development of this Maintenance Plan. General maintenance requirements are listed below.

A. DURING CONSTRUCTION

The general contractor will be responsible for the inspection and maintenance of all stormwater management system components during construction.

Inspection: Inspection of disturbed and impervious areas, erosion control measures, materials' storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site will be performed at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. Inspections shall be conducted by a person with knowledge of erosion and stormwater control, including the standards and conditions in the permit.

Maintenance: All erosion control measures will be kept in effective operating condition until areas are permanently stabilized. If BMPs need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation will be completed within 7 calendar days and prior to any rainfall event.

Documentation: A log shall be kept summarizing the inspections and any corrective action taken. A copy of the log is provided at the end of this section, and is titled, Construction Inspection Log.

B. POST-CONSTRUCTION

The Owner or their assigns will be responsible for the inspection and maintenance of all stormwater management system components.

Inspection and Corrective Action

1. Vegetated Areas: Inspections and maintenance of vegetated areas will be performed early in the growing season or after significant rainfall to identify any erosion problems. Areas where erosion is evident will be covered with an appropriate lining, or erosive flows will be diverted to an area able to handle the flows. Any bare areas or areas with sparse growth will be replanted.
2. Detention areas:
 - Detention areas should be inspected semi-annually and following major storm events. Debris and sediment buildup should be removed from the basin and outlet structures as needed.



3. Inspection: shall be performed by an individual with experience and/or training on the maintenance and functions of these devices. An Annual Stormwater Management Facilities Certification shall be sent to the City's Code Enforcement Office in the Spring of each year. A copy of this inspection form has been provided in the Stormwater section of this application.



HOUSEKEEPING

1. Spill Prevention - During construction, controls will be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
2. Groundwater Protection - During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater will not be stored or handled in areas of the site draining to an infiltration area. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
3. Fugitive Sediment and Dust - Actions will be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil will not be used for dust control. Water will be used for dust control during construction.

Operations during wet months that cause mud to be tracked off the site onto public roads will provide sweeping of the road areas at least once per week and prior to significant storm events.

4. Debris and Other Materials - Litter, construction debris, and chemicals exposed to stormwater will be prevented from becoming a pollutant source. The nature of this development will not cause problems related to debris and other materials.
5. Trench or Foundation De-Watering - If de-watering is necessary, the collected water will be removed from the ponded area and spread through natural wooded buffers or discharged into a construction sedimentation basin. The water will not be allowed to flow over disturbed areas to the site.



COASTAL OAKS, LLC
CONSTRUCTION INSPECTION LOG

INSPECTION DATE	INSPECTOR (NAME AND QUALIFICATIONS)	MAJOR OBSERVATIONS	WORK PERFORMED

Notes

- 1) Major Observations include the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicle access points to the parcel. Major Observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.
- 2) Work Performed will include a description of the corrective action taken, the date the corrective action was taken, and the name and qualifications of the person taking the corrective actions
- 3) The log must be made accessible to MDEP staff and a copy must be provided upon request.
- 4) The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.



COASTAL OAKS, LLC
BMP INSPECTION LOG

DATE	INSPECTOR (NAME AND QUALIFICATIONS)	ID NUMBER	BMP STRUCTURE	WORK PERFORMED	COMMENTS

Notes

- 1) If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal.
- 2) BMP structures shall be numbered sequentially and located on attached site map.
- 3) The log must be made accessible to MDEP staff and a copy must be provided upon request.
- 4) The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization.



**INSPECTION AND MAINTENANCE PLAN
FOR STORMWATER MANAGEMENT STRUCTURES (BMPS)**

	INSPECTION SCHEDULE	CORRECTIVE ACTIONS
VEGETATED AREAS	Annually early spring and after heavy rains	Inspect all slopes and embankments and replant areas of bare soil or with sparse growth
		Armor rill erosion areas with riprap or divert the runoff to a stable area
		Inspect and repair down-slope of all spreaders and turn-outs for erosion
		Mow vegetation as specified for the area
DITCHES, SWALES AND OPEN STORMWATER CHANNELS	Annually spring and late fall and after heavy rains	Remove obstructions, sediments or debris from ditches, swales and other open channels
		Repair any erosion of the ditch lining
		Mow vegetated ditches
		Remove woody vegetation growing through riprap
		Repair any slumping side slopes
CULVERTS	Spring and late fall and after heavy rains	Repair riprap where underlying filter fabric or gravel is showing or if stones have dislodge
		Remove accumulated sediments and debris at the inlet, outlet, or within the conduit
		Remove any obstruction to flow
CATCHBASINS	Annually in the spring	Repair any erosion damage at the culvert's inlet and outlet
		Remove sediments and debris from the bottom of the basin and inlet grates
ROADWAYS AND PARKING AREAS	Annually in the spring or as needed	Remove floating debris and oils (using oil absorptive pads) from any trap
		Clear and remove accumulated winter sand in parking lots and along roadways
		Sweep pavement to remove sediment
		Grade road shoulders and remove accumulated winter sand
		Grade gravel roads and gravel shoulders
RESOURCE AND TREATMENT BUFFERS	Annually in the spring	Clean-out the sediment within water bars or open-top culverts
		Ensure that stormwater runoff is not impeded by false ditches of sediment in the shoulder
		Inspect buffers for evidence of erosion, concentrated flow, or encroachment by development
		Manage the buffer's vegetation with the requirements in any deed restrictions
		Repair any sign of erosion within a buffer
		Inspect and repair down-slope of all spreaders and turn-outs for erosion
WETPONDS AND DETENTION BASINS	Annually in fall and after heavy rains	Install more level spreaders, or ditch turn-outs if needed for a better distribution of flow
		Clean-out any accumulation of sediment within the spreader bays or turnout pools
		Mow non-wooded buffers no shorter than six inches and less than three times per year
		Inspect the embankments for settlement, slope erosion, piping, and slumping
		Mow the embankment to control woody vegetation
		Inspect the outlet structure for broken seals, obstructed orifices, and plugged trash racks
FILTRATION AND INFILTRATION BASINS	Annually in the spring and late fall	Remove and dispose of sediments and debris within the control structure
		Repair any damage to trash racks or debris guards
		Replace any dislodged stone in riprap spillways
		Remove and dispose of accumulated sediments within the impoundment and forebay
		Clean the basin of debris, sediment and hydrocarbons
PROPRIETARY DEVICES	As specified by manufacturer	Provide for the removal and disposal of accumulated sediments within the basin
		Renew the basin media if it fails to drain within 72 hours after a one inch rainfall event
		Till, seed and mulch the basin if vegetation is sparse
OTHER PRACTICES	As specified for devices	Repair riprap where underlying filter fabric or gravel is showing or where stones have dislodged
		Contract with a third-party for inspection and maintenance
		Follow the manufacturer's plan for cleaning of devices
		Contact the department for appropriate inspection and maintenance requirements for other drainage control and runoff treatment measures.



APPENDIX K

PROPOSED LIGHTING FIXTURES

VIPER Area/Site

VIPER LUMINAIRE

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Lighting Controls™, LightGRID+ and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped



CONTROL TECHNOLOGY



SERVICE PROGRAMS



SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
- External hardware is corrosion resistant

OPTICS

- Micro Strike Optics (160, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 2
- Strike Optics (36, 72, 108, or 162 LED counts) provide best in class distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Mounting patterns for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASQU) or accessory for square and round poles
- All mounting hardware included
- Knuckle arm fitter option available for 2-3/8" OD tenon
- For products with EPA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended

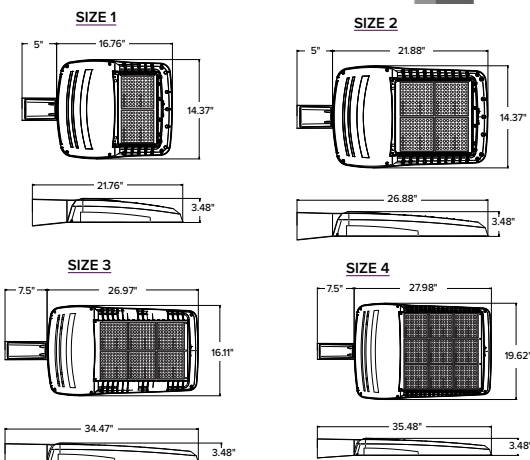
ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40°C to 40°C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/ IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options cannot be combined

CONTROLS

- Photo control, occupancy sensor programmable controls, and Zigbee wireless controls available for complete on/off and dimming control
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- 0-10V Dimming Drivers are standard. Select CD option to have dimming leads extended outside the luminaire. Must specify if wiring leads are to be greater than the 6" standard.
- NX Lighting Controls™ available with in fixture wireless control module, features dimming and occupancy sensor
- LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

MICROSTRIKE | STRIKE OPTICS



	EPA				Config
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations listed in this document are DLC® qualified. Refer to <http://www.designlights.org> for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- 1.5 G rated for ANSI C136.31 high vibration applications
- Fixture is IP65 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to <https://www.currentlighting.com/resources/america-solutions>).
- FCC CFR Title 47 Part 15, Class A

WARRANTY

- 5 year warranty

VIPER Area/Site

VIPER LUMINAIRE

MICROSTRIKE OPTICS – ORDERING GUIDE

Gray Shading = Service Program
Limit of 15 luminaires

QS10

Example: VP-2-320L-145-3K7-2-R-UNV-A3-BLT

CATALOG #

VP							
Series	Optic Platform	Size	Light Engine	CCT/CRI	Distribution	Optic Rotation	Voltage
VP Viper	Micro Strike	1 Size 1	160L-35 ⁶ 5500 lumens 160L-50 ⁶ 7500 lumens 160L-75 10000 lumens 160L-100 12500 lumens 160L-115 15000 lumens 160L-135 18000 lumens 160L-160 21000 lumens 320L-145 21000 lumens 320L-170 24000 lumens 320L-185 27000 lumens 320L-210 30000 lumens 320L-235 33000 lumens 320L-255 36000 lumens 320L-315 ⁶ 40000 lumens 480L-285 40000 lumens 480L-320 44000 lumens 480L-340 48000 lumens 480L-390 52000 lumens 480L-425 55000 lumens 480L-470 60000 lumens 720L-435 60000 lumens 720L-475 65000 lumens 720L-515 70000 lumens 720L-565 ⁶ 75000 lumens 720L-600 ⁶ 80000 lumens CLO Custom Lumen Output ¹	AP AP-Amber Phosphor Converted 27K8 2700K, 80 CRI 3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 35K8 3500K, 80 CRI 3K9 3000K, 90 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 4K9 4000K, 90 CRI 5K7 5000K, 70 CRI 5K8 5000K, 80 CRI	2 Type 2 3 Type 3 4F Type 4 Forward 4W Type 4 Wide 5QW Type 5 Square Wide	BLANK No Rotation L Optic rotation left R Optic rotation right	UNV 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V
		2 Size 2					
		3 Size 3					
		4 Size 4					

Mounting	Color	Options	Network Control Options
A Arm mount for square pole/flat surface (B3 Drill Pattern) (Does not include round pole adapter)	BLT Black Matte Textured	F Fusing	NXWS16F NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
A_ Arm mount for round pole ²	BLS Black Gloss Smooth	2PF Dual Power Feed	NXWS40F NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4}
ASQU Universal arm mount for square pole. Can be used with B3 or S2 Drill Pattern	DBT Dark Bronze Matte Textured	2DR Dual Driver	NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{3,4}
A_U Universal arm mount for round pole ²	DBS Dark Bronze Gloss Smooth	TE Tooless Entry	WIR LightGRID+ In-Fixture Module ^{3,4}
AAU Adjustable arm for pole mounting (universal drill pattern)	GTT Graphite Matte Textured	BC Backlight Control ⁸	WIRSC LightGRID+ Module and Occupancy Sensor ^{3,4}
AA_U Adjustable arm mount for round pole ²	LGS Light Grey Gloss Smooth	TB Terminal Block	Stand Alone Sensors
ADU Decorative upswept Arm (universal drill pattern)	LGT Light Grey Gloss Textured	CD Customer Dimming	BTS-14F Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
AD_U Decorative upswept arm mount for round pole ²	PSS Platinum Silver Smooth		BTS-40F Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
MAF Mast arm fitter for 2-3/8" OD horizontal arm	WHT White Matte Textured		BTSO-12F Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens
K Knuckle	WHS White Gloss Smooth		7PR 7-Pin Receptacle ⁴
T Trunnion	VGT Verde Green Textured		7PR-SC 7-Pin Receptacle with shorting cap ⁴
WB Wall Bracket, horizontal tenon with MAF	Color Option		7PR-TL 7-Pin PCR with photocontrol
WM Wall mount bracket with decorative upswept arm	CC Custom Color		3PR 3-Pin twist lock ⁴
WA Wall mount bracket with adjustable arm			3PR-SC 3-Pin receptacle with shorting cap ⁴
			3PR-TL 3-Pin PCR with photocontrol ⁴
			Programmed Controls
			SCP_F Sensor Control Programmable, 8F or 40F ⁹
			ADD AutoDim Timer Based Dimming ¹⁰
			ADT AutoDim Time of Day Dimming ¹⁰
			Photocontrols
			PC Button Photocontrol ^{4,7}

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information

2 – Replace “_” with “3” for 3.5”-4.13” OD pole, “4” for 4.18”-5.25” OD pole, “5” for 5.5”-6.5” OD pole

3 – Networked Controls cannot be combined with other control options

4 – Not available with 2PF option

5 – Not available with Dual Driver option

6 – Some voltage restrictions may apply when combined with controls

7 – Not available with 480V

8 – BC not available on 4F and type 5 distributions

9 – At least one SCPREMOTE required to program SCP motion sensor. Must select 8ft or 40ft.

10 – Please refer to page 8 for AutoDim ordering guide

STRIKE OPTIC – ORDERING GUIDE

Example: VP-ST-1-36L-39-3K7-2-UNV-A-BLT

CATALOG #

VP							
Series	Optic Platform	Size	Light Engine	CCT/CRI	Distribution	Optic Rotation	Voltage
VP Viper	ST Strike	1 Size 1	36L-39 ⁸ 5500 lumens 36L-55 ⁸ 7500 lumens 36L-85 10000 lumens 36L-105 12500 lumens 36L-120 14000 lumens	27K8 2700K, 80 CRI 3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 3K9 3000K, 90 CRI 35K8 3500K, 80 CRI	FR Auto Front Row 2 Type 2 3 Type 3 4F Type 4 Forward 4W Type 4 Wide 5QN Type 5 Square Narrow 5QW Type 5 Square Wide 5QM Type 5 Square Medium 5W Type 5 Wide (Round) 5RW Type 5 Rectangular C Corner Optic TC Tennis Court Optic	BLANK No Rotation L Optic rotation left R Optic rotation right	UNV 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V
		2 Size 2	72L-115 15000 lumens 72L-145 18000 lumens 72L-180 21000 lumens 72L-210 24000 lumens 72L-240 27000 lumens	4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 4K9 4000K, 90 CRI 5K7 5000K, 70 CRI 5K8 5000K, 80 CRI			
		3 Size 3	108L-215 ⁸ 27000 lumens 108L-250 30000 lumens 108L-280 33000 lumens 108L-325 36000 lumens 108L-365 40000 lumens				
		4 Size 4	162L-320 40000 lumens 162L-365 ¹⁰ 44000 lumens 162L-405 48000 lumens 162L-445 52000 lumens 162L-485 55000 lumens 162L-545 ⁸ 60000 lumens CLO Custom Lumen Output ¹				

Mounting	Color	Options	Network Control Options
A Arm mount for square pole/flat surface A_ Arm mount for round pole ³ ASQU Universal arm mount for square pole A_U Universal arm mount for round pole ³ AAU Adjustable arm for pole mounting (universal drill pattern) AA_U Adjustable arm mount for round pole ³ ADU Decorative upswept Arm (universal drill pattern) AD_U Decorative upswept arm mount for round pole ³ MAF Mast arm fitter for 2-3/8" OD horizontal arm K Knuckle T Trunnion WB Wall Bracket, horizontal tenon with MAF WM Wall mount bracket with decorative upswept arm WA Wall mount bracket with adjustable arm	BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte Textured DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGS Light Grey Gloss Smooth LGT Light Grey Gloss Textured PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VGT Verde Green Textured Color Option CC Custom Color	F Fusing E Battery Backup ^{1,2,7,8,9} 2PF Dual Power Feed 2DR Dual Driver TE Tooless Entry BC Backlight Control TB Terminal Block CD Customer Dimming	NXWS16F NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,4,5} NXWS40F NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,4,5} NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{4,5} WIR LightGRID+ In-Fixture Module ^{4,5} WIRSC LightGRID+ Module and Occupancy Sensor ^{4,5} Stand Alone Sensors BTS-14F Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens BTS-40F Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming® Photocell and 360° Lens BTSO-12F Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens 7PR 7-Pin Receptacle ⁴ 7PR-SC 7-Pin Receptacle with shorting cap ⁴ 7PR-TL 7-Pin PCR with photocontrol 3PR 3-Pin twist lock ⁴ 3PR-SC 3-Pin receptacle with shorting cap ⁴ 3PR-TL 3-Pin PCR with photocontrol ⁴ Programmed Controls SCP-_F Sensor Control Programmable, 8F or 40F ¹¹ ADD AutoDim Timer Based Dimming ¹² ADT AutoDim Time of Day Dimming ¹² Photocontrols PC Button Photocontrol ^{4,7}

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information

2 – Battery temperature rating -20C to 55C

3 – Replace “_” with “3” for 3.5”-4.13” OD pole, “4” for 4.18”-5.25” OD pole, “5” for 5.5”-6.5” OD pole

4 – Networked Controls cannot be combined with other control options

5 – Not available with 2PF option

6 – Not available with 480V

7 – Not available with 347 or 480V

8 – Not available with Dual Driver option

9 – Only available in Size 1 housing, up to 105 Watts

10 – Some voltage restrictions may apply when combined with controls

11 – At least one SCPREMOTE required to program SCP motion sensor. Must select 8ft or 40ft.

12 – Please refer to page 8 for AutoDim ordering guide



DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

CATALOG #

Accessory Type		Size	Option
SHD	Shield	1 Size 1	HSS-90-B House Side Shield 90° Back
		2 Size 2	HSS-90-F House Side Shield 90° Front
		3 Size 3	HSS-90-S House Side Shield 90° Side
		4 Size 4	HSS-270-BSS House Side Shield 270° Back/Side/Side HSS-270-FSS House Side Shield 270° Front/Side/Side HSS-270-FSB House Side Shield 270° Front/Side/Back HSS-360 House Side Shield 360°
MTG	Mounting	BC	Back Light Control
		A	Arm Mount for square pole/flat surface
		ASQU	Universal Arm Mount for square pole
		AAU	Adjustable Arm for pole mounting
		ADU	Decorative upswept Arm
		RPA	Round Pole Adapter
		MAF	Mast Arm Fitter for 2-3/8" OD horizontal arm
		K	Knuckle
		T	Trunnion
		WB	Wall Bracket (compatible with universal arm mounts)
Accessory Type			Option
MSC	Miscellaneous		BIRD SPK Bird Spike

Color	
BLS	Black Gloss Smooth
BLT	Black Matte Textured
DBS	Dark Bronze Gloss Smooth
DBT	Dark Bronze Matte Textured
GTT	Graphite Matte Textured
LGS	Light Gray Gloss Smooth
PSS	Platinum Silver Smooth
WHS	White Gloss Smooth
WHT	White Matte Textured
VGt	Green Landscape Decorative
LEG	Legacy Colors
Color Option	
CC	Custom Color

Current Control Solutions — Accessories (Sold Separately)

NX Lighting Controls

☐ **NXOFM-1R1D-UNV** On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with NX Radio and Bluetooth® Radio, 120–480VAC

LightGRID+ Lighting Control

☐ **WIR-RME-L** On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with LightGRID+ Radio, 110–480VAC

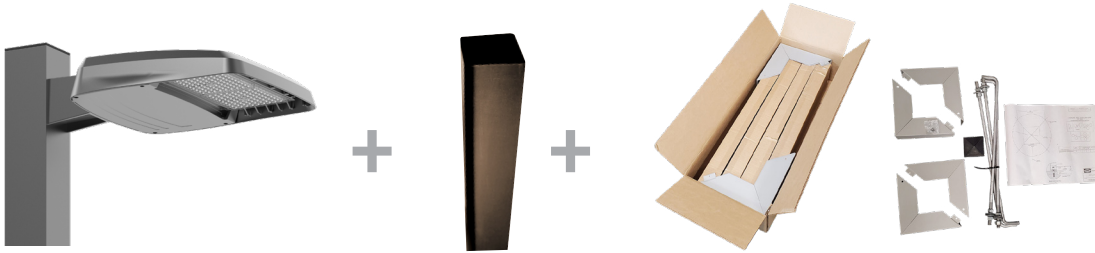
☐ **SCP-REMOTE** Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor

For additional information related to these accessories please visit currentlighting.com/beacon. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

VIPER Area/Site

VIPER LUMINAIRE

VIPER POLE EXPRESS COMBO – ORDERING GUIDE



Catalog Number	Pole	Single or Double Head	Fixture	Lumens*	Wattage	Distribution	CCT/CRI	Mounting	Finish
VP-1-160-4K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-3-LS	19584	158W	Type 3	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-4K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-4K-4F-LS	19426	158W	Type 4F	4000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20	20' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S20-2X	20' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-3-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-3-LS	19499	158W	Type 3	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25	25' Square Straight Steel	Single	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured
VP-1-160-5K-4F-LS-S25-2X	25' Square Straight Steel	Double	VP-1-160-5K-4F-LS	19186	158W	Type 4F	5000K/70CRI	Universal Arm	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – STOCK LUMINAIRE SKUS

Catalog Number	Lumens	LPW	Distribution	Wattage	CCT/CRI	Voltage	Mounting	Finish
VP-1-160-4K-3-LS	19584	123.9	3	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-4K-4F-LS	19426	122.9	4F	158W	4000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-3-LS	19499	123.4	3	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured
VP-1-160-5K-4F-LS	19186	121.4	4F	158W	5000K/70CRI	120-277V	Universal Arm with RPA (A3U)	Dark Bronze Textured

VIPER POLE EXPRESS COMBO – ACCESSORIES

Catalog Number	Description
VM14DB	Vibration Dampener, mounts to top of pole for reduced vibration



VIPER Area/Site

VIPER LUMINAIRE

OUTDOOR LIGHTING CONTROLS OPTIONS

CONTROLS FUNCTIONALITY

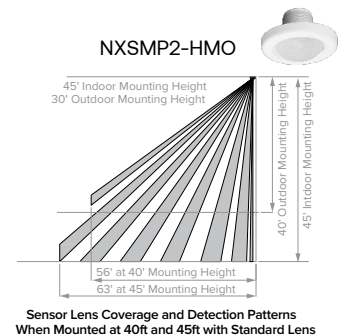
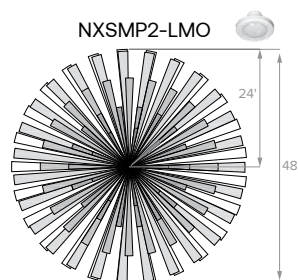
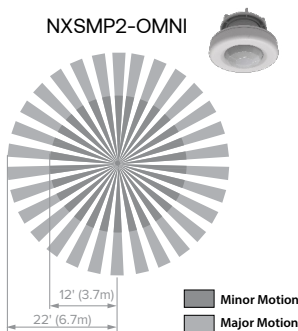
	Control Option Ordering Logic & Description	Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
NX Wireless	NXOFMIRID-UV	✓	✓	✓	Paired with external control	✓	✓	✓	✓	-	 NXOFM-1R1D-UV
	NXW	✓	✓	✓	-	-	✓	✓	✓	-	 NXRM2-H
	NXWS12F	✓	✓	✓	✓	✓	✓	✓	✓	12ft	 NXSMP2-OMNI-O
	NXWS16F	✓	✓	✓	✓	✓	✓	✓	✓	16ft	 NXSMP2-LMO
	NXWS40F	✓	✓	✓	✓	✓	✓	✓	✓	40ft	 NXSMP2-HMO
LightGRID+	WIR	✓	-	✓	-	-	✓	✓	Gateway	-	 WIR
	WIR-RME-L	✓	-	✓	-	-	✓	✓	Gateway	-	 WIR-RME-L
	WIRSC	✓	✓	✓	✓	✓	✓	✓	Gateway	14ft - 40ft	BTMSP
Independent	BTSO-12F	-	-	-	✓	✓	✓	✓	✓	12ft	 BTSMP-OMNI-O
	BTS-14F	-	-	-	✓	✓	✓	✓	✓	14ft	 BTSMP-LMO
	BTS-40F	-	-	-	✓	✓	✓	✓	✓	40ft	 BTSMP-HMO

DEFAULT SETTINGS

NX Wireless	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	15 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	0%
	Daylight Sensor	Disabled
	Bluetooth	Enabled
	2.4GHz Wireless Mesh	On
	"Passcode Factory Passcode: HubbN3T!"	Enabled

Stand Alone	Occupancy Sensor	Enabled
	Occupancy Sensor Sensitivity	7
	Occupancy Sensor Timeout	8 Minutes
	Occupied Dim Level	100%
	Unoccupied Dim Level	50%
	Daylight Sensor	Disabled

NX WIRELESS COVERAGE PATTERNS



NX LIGHTING CONTROLS FREE APP

CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)



The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminaires and program NX system settings.

Apple App: <https://apps.apple.com/us/app/nx-lighting-controls/id962112904>

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&q=US



Apple App



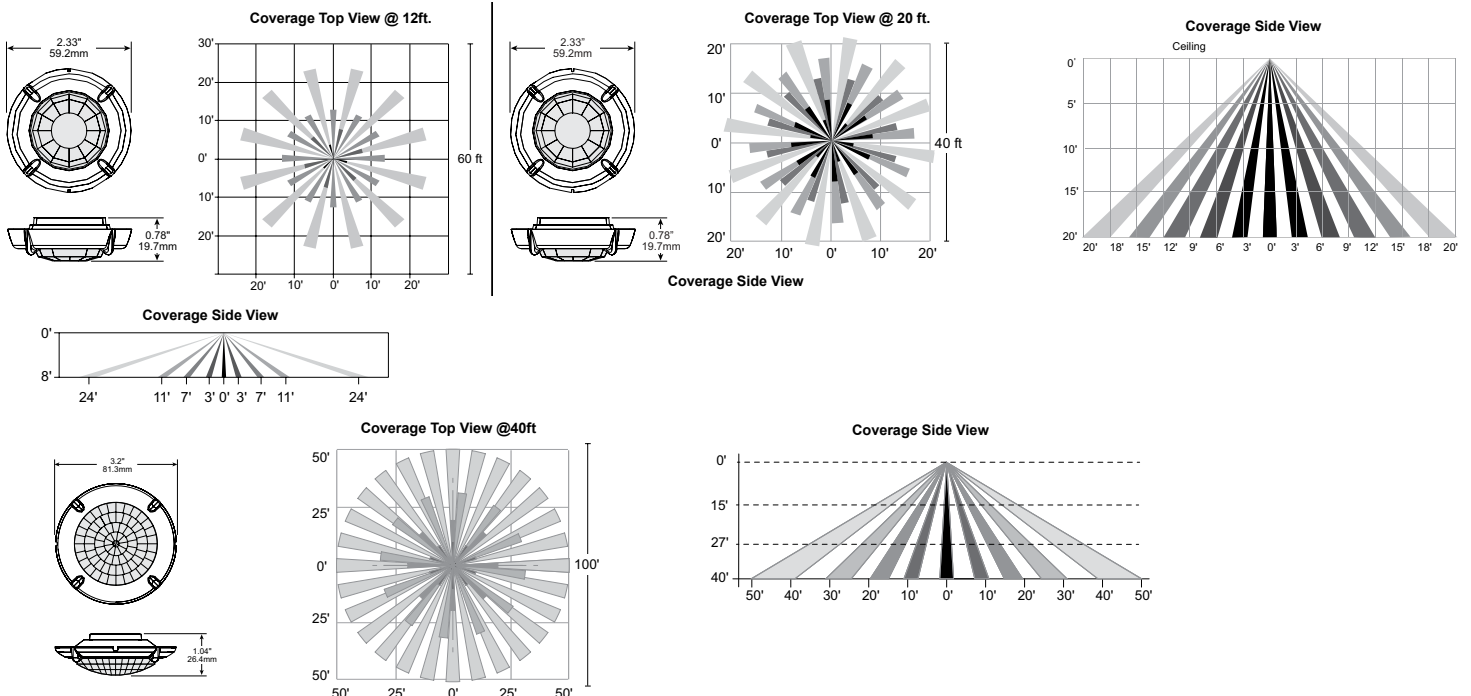
Google Play

OUTDOOR LIGHTING CONTROLS OPTIONS

CONTROLS FUNCTIONALITY

	Control Option Ordering Logic & Description	Control Option Functionality									Control Option Components
		Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
Independent	SCP_F Sensor Control Programmable, 8F or 40F	-	-	-	✓	✓	✓	✓	-	8ft or 40ft	SCP_F
	ADD AutoDIM Timer Based Dimming	-	-	✓	-	-	-	✓	-	-	ADD
	ADT AutoDIM Time of Day Dimming	-	-	✓	-	-	-	✓	-	-	ADT
	7PR 7-Pin Receptacle	-	-	Paired with external control	-	Paired with external control	-	Paired with external control	-	-	7PR
	7PR-SC 7-Pin Receptacle with shorting cap	-	-	-	-	-	-	-	-	-	 7PR-SC
	3PR 3-Pin twist lock	-	-	-	-	-	-	Paired with external control	-	-	3PR
	3PR-SC 3-Pin Receptacle with shorting cap	-	-	-	-	-	-	-	-	-	 3PR-SC
	3PR-TL 3-Pin with photocontrol	-	-	-	-	✓	-	✓	-	-	 3PR-TL

COVERAGE PATTERNS FOR SCP_F



VIPER Area/Site

VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

ORDERING GUIDE

Auto Dim Code	Timer Base (ADD) Auto-Dim Options		Auto Dim Cod	Time of Day (ADT) Auto-Dim Options	Code	Auto-Dim Brightness	Code	Auto-Dim Return Options	Code	Auto-Dim Brightness
D1	Delay 1 hour	OR	T0	Delay Midnight	0	100% Brightness	R1	Delay 1 hour or 1 AM	0	100% Brightness
D2	Delay 2 hours		T1	Delay 1 AM	1	10% Brightness	R2	Delay 2 hours or 2 AM	1	10% Brightness
D3	Delay 3 hours		T2	Delay 2 AM	2	20% Brightness	R3	Delay 3 hours or 3 AM	2	20% Brightness
D4	Delay 4 hours		T3	Delay 3 AM	3	30% Brightness	R4	Delay 4 hours or 4 AM	3	30% Brightness
D5	Delay 5 hours		T4	Delay 10 PM	4	40% Brightness	R5	Delay 5 hours or 5 AM	4	40% Brightness
D6	Delay 6 hours		T5	Delay 11 PM	5	50% Brightness	R6	Delay 6 hours or 6 AM	5	50% Brightness
D7	Delay 7 hours		T6	Delay 6 PM	6	60% Brightness	R7	Delay 7 hours or 7 AM	6	60% Brightness
D8	Delay 8 hours		T7	Delay 7 PM	7	70% Brightness	R8	Delay 8 hours or 8 AM	7	70% Brightness
D9	Delay 9 hours		T8	Delay 8 PM	8	80% Brightness	R9	Delay 9 hours or 9 AM	8	80% Brightness
D0	Delay 0 hours		T9	Delay 9 PM	9	90% Brightness	R0	Delay 0 hours or 12 AM	9	90% Brightness

DELIVERED LUMENS

For delivered lumens, please see Lumens Data PDF on www.Currentlighting.com

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L ₇₀ (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier	Micro Strike Lumen Multiplier				Strike Lumen Multiplier			
			CCT	70 CRI	80 CRI	90 CRI	CCT	70 CRI	80 CRI	90 CRI
0°C	32°F	1.03	2700K	—	0.841	—	2700K	0.9	0.81	0.62
10°C	50°F	1.01	3000K	0.977	0.861	0.647	3000K	0.933	0.853	0.659
20°C	68°F	1.00	3500K	—	0.900	—	3500K	0.959	0.894	0.711
25°C	77°F	1.00	4000K	1	0.926	0.699	4000K	1	0.9	0.732
30°C	86°F	0.99	5000K	1	0.937	0.791	5000K	1	0.9	0.732
40°C	104°F	0.98	AP-Amber Phosphor Converted Multiplier				Monochromatic Amber Multiplier			
			Amber	0.710			Amber	See Amber Spec Sheet		

VIPER Area/Site

VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ELECTRICAL DATA: MICRO STRIKE

# OF LEDS	160						
NOMINAL WATTAGE	35	50	75	100	115	135	160
SYSTEM POWER (W)	34.9	50.5	72.1	97.2	111.9	132.2	157.8
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	0.29	0.42	0.63	0.83	0.96	1.13	1.33
208	0.17	0.24	0.36	0.48	0.55	0.65	0.77
240	0.15	0.21	0.31	0.42	0.48	0.56	0.67
277	0.13	0.18	0.27	0.36	0.42	0.49	0.58
347	0.10	0.14	0.22	0.29	0.33	0.39	0.46
480	0.07	0.10	0.16	0.21	0.24	0.28	0.33

# OF LEDS	320						
NOMINAL WATTAGE	145	170	185	210	235	255	315
SYSTEM POWER (W)	150	166.8	185.7	216.2	240.9	261.5	312
INPUT VOLTAGE (V)	CURRENT (Amps)						
120	1.21	1.42	1.54	1.75	1.96	2.13	2.63
208	0.70	0.82	0.89	1.01	1.13	1.23	1.51
240	0.60	0.71	0.77	0.88	0.98	1.06	1.31
277	0.52	0.61	0.67	0.76	0.85	0.92	1.14
347	0.42	0.49	0.53	0.61	0.68	0.73	0.91
480	0.30	0.35	0.39	0.44	0.49	0.53	0.66

# OF LEDS	480					
NOMINAL WATTAGE	285	320	340	390	425	470
SYSTEM POWER (W)	286.2	316.7	338.4	392.2	423.2	468
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.38	2.67	2.83	3.25	3.54	3.92
208	1.37	1.54	1.63	1.88	2.04	2.26
240	1.19	1.33	1.42	1.63	1.77	1.96
277	1.03	1.16	1.23	1.41	1.53	1.70
347	0.82	0.92	0.98	1.12	1.22	1.35
480	0.59	0.67	0.71	0.81	0.89	0.98

# OF LEDS	720				
NOMINAL WATTAGE	435	475	515	565	600
SYSTEM POWER (W)	429.3	475	519.1	565.2	599.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	3.63	3.96	4.29	4.71	5.00
208	2.09	2.28	2.48	2.72	2.88
240	1.81	1.98	2.15	2.35	2.50
277	1.57	1.71	1.86	2.04	2.17
347	1.25	1.37	1.48	1.63	1.73
480	0.91	0.99	1.07	1.18	1.25

VIPER Area/Site

VIPER LUMINAIRE

ELECTRICAL DATA: STRIKE

# OF LEDS	36				
NOMINAL WATTAGE	39	55	85	105	120
SYSTEM POWER (W)	39.6	56.8	83.6	108.2	120.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	0.33	0.46	0.71	0.88	0.96
208	0.19	0.26	0.41	0.50	0.55
240	0.16	0.23	0.35	0.44	0.48
277	0.14	0.20	0.31	0.38	0.42
347	0.11	0.16	0.24	0.30	0.33
480	0.08	0.11	0.18	0.22	0.24

# OF LEDS	72				
NOMINAL WATTAGE	115	145	180	210	240
SYSTEM POWER (W)	113.7	143.2	179.4	210.2	241.7
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	1.00	1.21	1.50	1.75	1.79
208	0.58	0.70	0.87	1.01	1.03
240	0.50	0.60	0.75	0.88	0.90
277	0.43	0.52	0.65	0.76	0.78
347	0.35	0.42	0.52	0.61	0.62
480	0.25	0.30	0.38	0.44	0.45

# OF LEDS	108				
NOMINAL WATTAGE	215	250	280	325	365
SYSTEM POWER (W)	214.8	250.8	278.3	324.7	362.6
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	2.00	2.08	2.33	3.04	2.67
208	1.15	1.20	1.35	1.75	1.54
240	1.00	1.04	1.17	1.52	1.33
277	0.87	0.90	1.01	1.32	1.16
347	0.69	0.72	0.81	1.05	0.92
480	0.50	0.52	0.58	0.76	0.67

# OF LEDS	162					
NOMINAL WATTAGE	320	365	405	445	485	545
SYSTEM POWER (W)	322.1	362.6	403.6	445.1	487.1	543.9
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.71	2.67	3.38	3.71	4.04	4.54
208	1.56	1.54	1.95	2.14	2.33	2.62
240	1.35	1.33	1.69	1.85	2.02	2.27
277	1.17	1.16	1.46	1.61	1.75	1.97
347	0.94	0.92	1.17	1.28	1.40	1.57
480	0.68	0.67	0.84	0.93	1.01	1.14

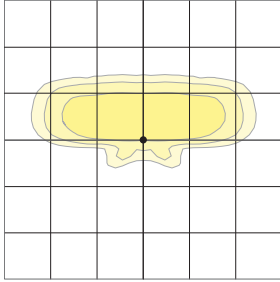
VIPER Area/Site

VIPER LUMINAIRE

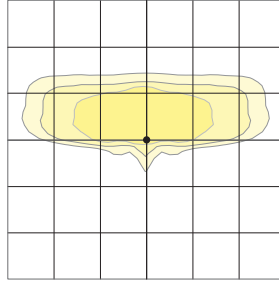
MICRO STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

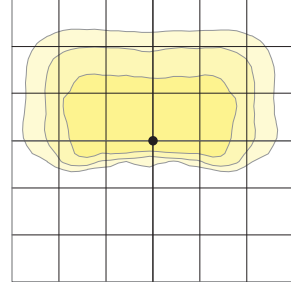
Type 2



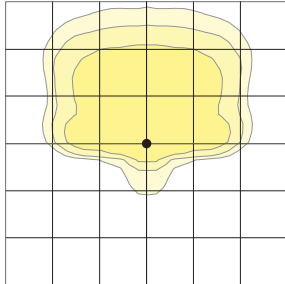
Type 3



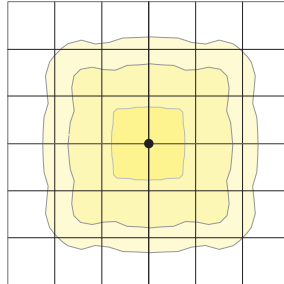
Type 4 Wide



Type 4F



Type 5QW



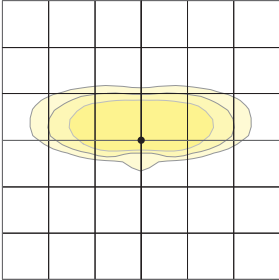
VIPER Area/Site

VIPER LUMINAIRE

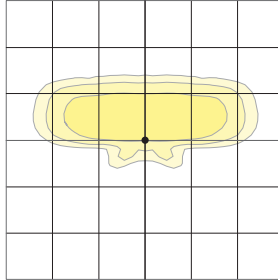
OPTIC STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

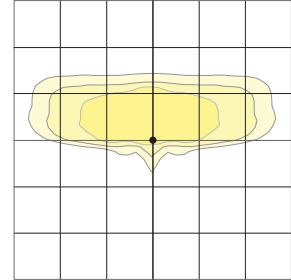
Type FR – Front Row/Auto Optic



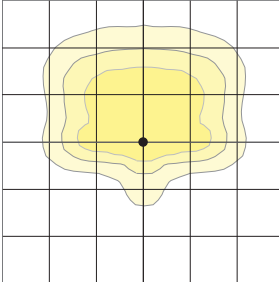
Type 2



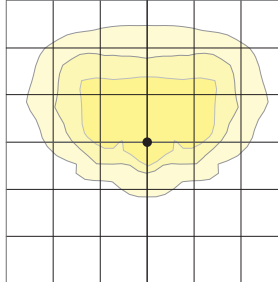
Type 3



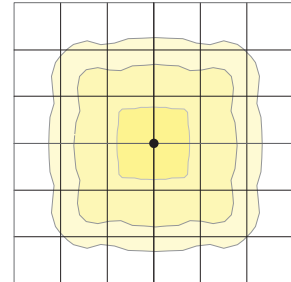
Type 4 Forward



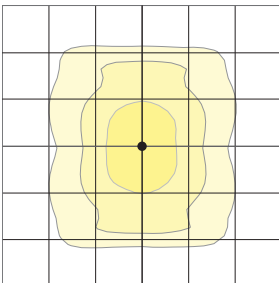
Type 4 Wide



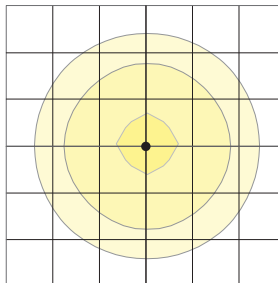
Type 5QM



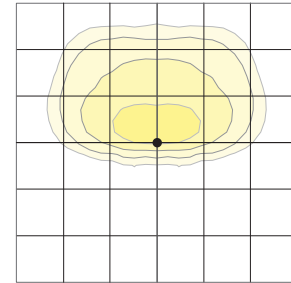
Type 5RW (rectangular)



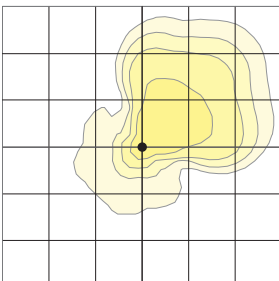
Type 5W (round wide)



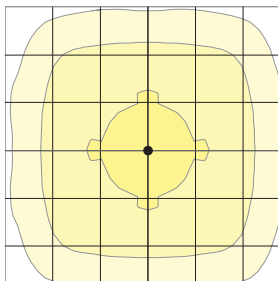
Type TC



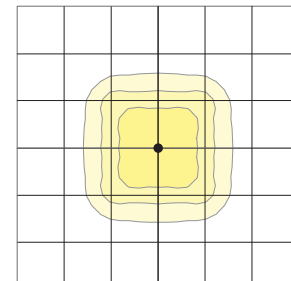
Type Corner



Type 5QW



Type 5QN



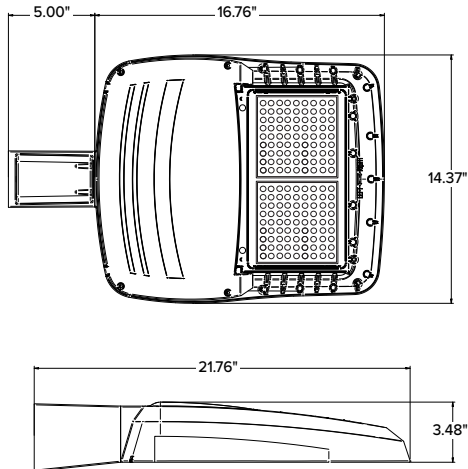
VIPER Area/Site

VIPER LUMINAIRE

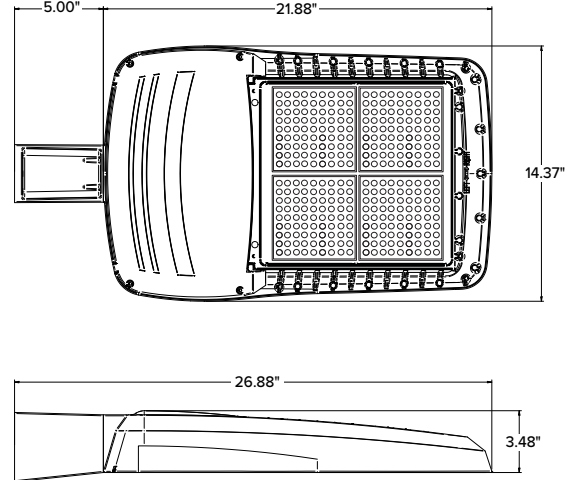
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DIMENSIONS

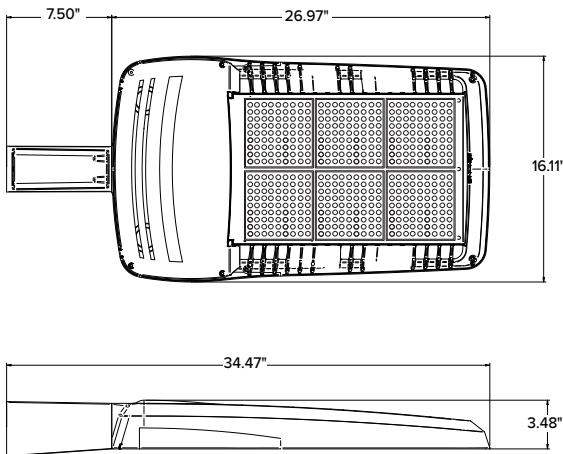
SIZE 1



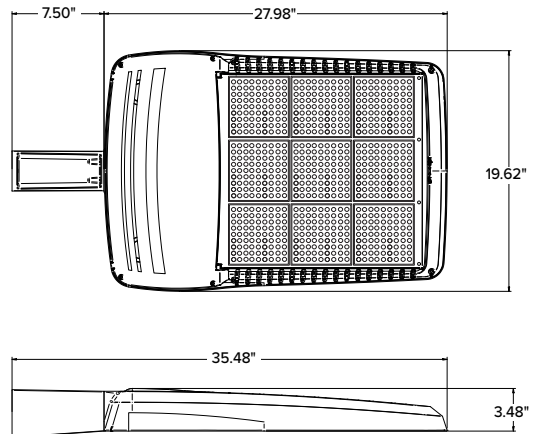
SIZE 2



SIZE 3



SIZE 4



	EPA				Config.
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

	Weight	
	lbs	kgs
VP1 (Size 1)	13.7	6.2
VP2 (Size 2)	16.0	7.26
VP3 (Size 3)	25.9	11.7
VP4 (Size 4)	30.8	13.9

VIPER Area/Site

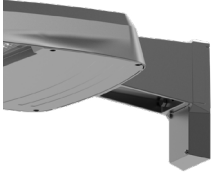
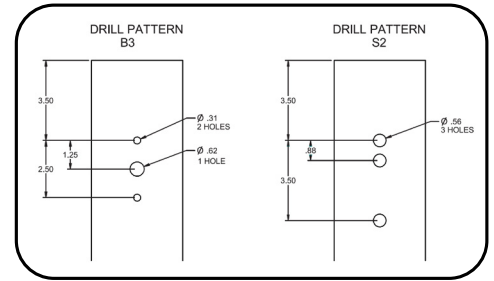
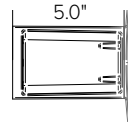
VIPER LUMINAIRE

MOUNTING



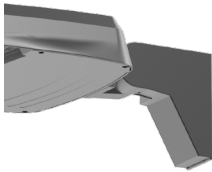
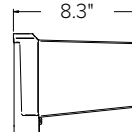
A-STRAIGHT ARM MOUNT

Fixture ships with integral arm for ease of installation. Compatible with Current Outdoor B3 drill pattern for ease of installation on square poles. For round poles add applicable suffix (2/3/4/5)



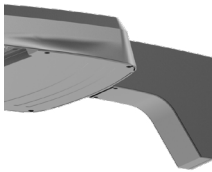
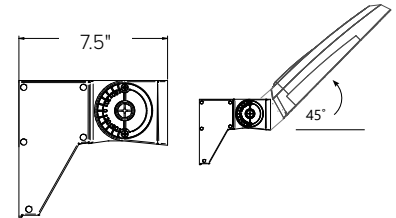
ASQU-UNIVERSAL ARM MOUNT

Universal mounting block for ease of installation. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5)



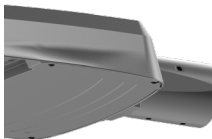
AAU-ADJUSTABLE ARM FOR POLE MOUNTING

Rotatable arm mounts directly to pole. Compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2 and B3. For round poles add applicable suffix (2/3/4/5). Rotatable in 5° aiming angle increments. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



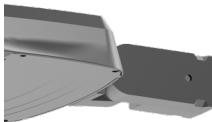
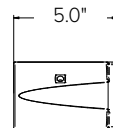
ADU-DECORATIVE UPSWEPT ARM

Upswept Arm compatible with drill patterns from 1.5" to 5.25" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5).



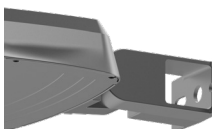
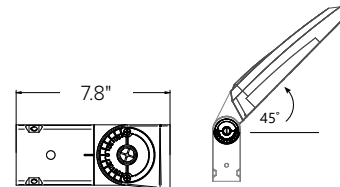
MAF-MAST ARM FITTER

Fits 2-3/8" OD horizontal tenons.



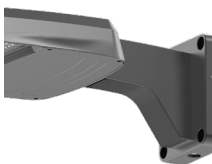
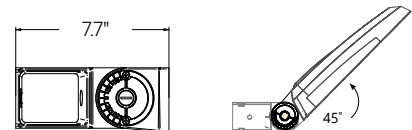
K-KNUCKLE

Rotatable in 5-degree aiming angle increments, fits 2-3/8" tenons or pipes. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



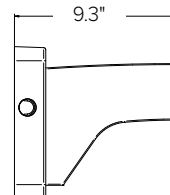
T-TRUNNION

Trunnion for surface and crossarm mounting using (1) 3/4" or (2) 1/2" size through bolts. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



WM-WALL MOUNT

Compatible with universal arm mount, adjustable arm mount, and decorative arm mount. The WA option uses the same wall bracket but replaces the decorative arm with an adjustable arm.



VIPER Area/Site

VIPER LUMINAIRE

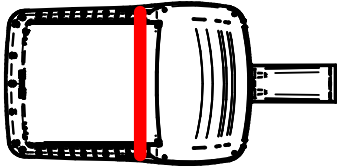
ADDITIONAL INFORMATION (CONTINUED)

HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES

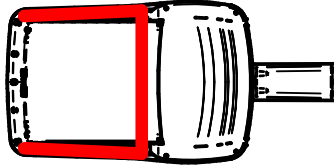
HSS has a depth of 5" for all Viper sizes

Not to be used with Occupancy Sensors as the shield may block the light to the sensor.

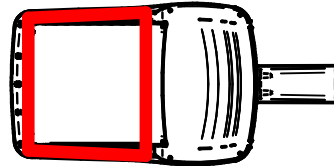
VPR2x HSS-90-B-xx



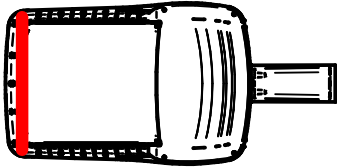
VPR2x HSS-270-BSS-xx



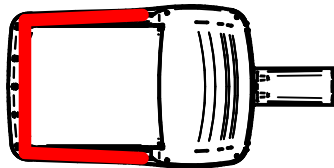
VPR2x HSS-360-xx



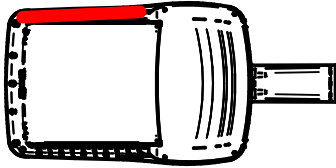
VPR2x HSS-90-F-xx



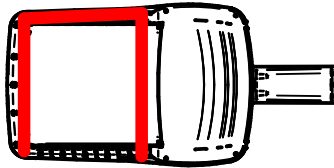
VPR2x HSS-270-FSS-xx



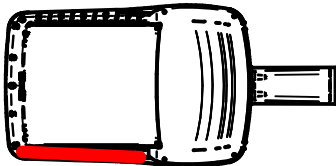
VPR2x HSS-90-S-xx



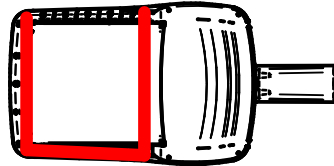
VPR2x HSS-270-FSB-xx



VPR2x HSS-90-S-xx



VPR2x HSS-270-FSB-xx





APPENDIX L

HARVEST PERMIT CORRESPONDENCE

Drew Olehowski

From: Ethan Scott <ethanscottdevelopment@gmail.com>
Sent: Wednesday, April 9, 2025 1:17 PM
To: Drew Olehowski; king
Subject: Fwd: 512 Pool Street Inquiry
Attachments: image001.jpg

FYI

----- Forwarded message -----

From: Cates, Adam E <Adam.E.Cates@maine.gov>
Date: Wed, Apr 9, 2025 at 1:00 PM
Subject: 512 Pool Street Inquiry
To: David.Galbraith@biddefordmaine.org <David.Galbraith@biddefordmaine.org>
Cc: Markewicz, Oliver C <Oliver.C.Markewicz@maine.gov>, ethanscottdevelopment@gmail.com <ethanscottdevelopment@gmail.com>

David,

Thank you for your time to discuss the 512 Pool Street subdivision application and your concerns regarding the timber harvest on the property. I wanted to follow up our conversation with an email explaining the harvest notification process.

Landowners must file a forest harvest notification (FON) with the Maine Forest Service (MFS) before starting a timber harvest. This is a statutory requirement found in [Title 12, Ch. 805, §8883-B](#). The statute lists the items that must be included in the notification, when it must be filed, exemptions, confidentiality, etc. In addition, [MFS Chapter 26](#) rule, further clarifies the requirements. We have an online system where notifications are filed which includes an interactive mapping feature. We require that the harvest site is identified on an interactive map when filing the notification.

These notifications are often confused as permits or approvals. MFS does not approve or deny notifications and they are not a permit. We have separate permit processes that are followed when timber harvesting and related activities intersect areas that require a full permit. MFS typically sees 4,000 +/- harvest notifications each year.

The landowner for the Pool Street harvest properly followed the notification requirements and we received a completed notification in early August 2023. A full permit was not required for this harvest.

MFS would not have received detailed information during the notification process regarding small wetlands on the property or vernal pools.

Our online notification system does have a feature that automatically sends an email alerting municipal officials that a notification was filed in their town. The account holder can then log in and view the notification information. If you would like someone within the Biddeford administration to have this ability, please let me know and I can connect you with someone who can help set it up. Since January of 2022, there have been 10 notifications filed in Biddeford.

Please feel free to reach out to me if you have further questions or need clarification.

Thanks,

Adam Cates



ADAM CATES, FIELD TEAM LEADER

MAINE FOREST SERVICE, FOREST POLICY & MANAGEMENT DIVISION

2870 NORTH BELFAST AVE. | AUGUSTA, ME 04330

(207) 441-4139 (CELL)

ADAM.E.CATES@MAINE.GOV | [MFS WEBSITE](#)



APPENDIX M

HOMEOWNER'S ASSOCIATION CORRESPONDENCE

**AMENDED AND RESTATED
DECLARATION OF COVENANTS AND RESTRICTIONS
BELLE WOODS SUBDIVISION
BIDDEFORD, MAINE**

COASTAL OAKS, LLC, Grantor under Declaration of Covenants and Restrictions, Belle Woods Subdivision, dated July 22, 2024, and recorded in the York County Registry of Deeds in Book 19476, Page 51 (the "Declaration"), does hereby amend and restate the Declaration in its entirety as follows:

WHEREAS, Coastal Oaks, LLC, a Maine limited liability company with a place of business in Old Orchard Beach, Maine (hereinafter called "Grantor"), is the owner of certain real estate located on Pool Street, Biddeford, Maine more particularly described in deed of Harry B. Center, II, Teresa M. Barton, Anthony C. Serpico, and Margaret T. Serpico, dated July 5, 2023 and recorded in the York County Registry of Deeds in Book 19268, Page 500 (the "Property");

WHEREAS, Grantor desires to subdivide the Property into nine (9) or more lots as shown as Parcels 1 through 9 on a subdivision plan of Belle Woods, dated February 2, 2025, and recorded in the York County Registry of Deeds in Plan Book ____, Page ____.

WHEREAS, Grantor proposes to establish Belle Woods Homeowners' Association, a Maine non-profit corporation (the "Association") the members of which will consist of the owners of the lots created upon the Property (the "Lots");

WHEREAS, Grantor desires to bind the purchasers of Lots and their successors and assigns to properly maintain and operate the common amenities consisting of private storm water systems and other facilities useful or essential to the use and enjoyment of the Property; and

WHEREAS, Grantor desires to assist its Grantees in providing the necessary means to enable them and their Grantees to accomplish these purposes;

NOW THEREFORE, in consideration of the premises, the Grantor for itself and its successors and assigns, hereby subject the Property including all the Lots created therein, and any adjoining land which Grantor may from time to time elect to subject to this Declaration by written instrument duly recorded (collectively the "Property") to the following restrictions, covenants, agreements and liens as covenants running with the land which shall be binding upon and enforceable by the Grantor, its successors and assigns, the Association, its successors and assigns, or by the then owners of any parcels or Lots subject to this Declaration.

I. Residence. The Property shall be used for single family residences or such other uses as permitted by the then current zoning ordinance of the City of Biddeford.

A. Lots. The Lots shall be occupied by a single family residential unit and such other uses as permitted by applicable zoning. A single family residential unit shall include no buildings or structures of any nature other than the following, viz:

- (i) a detached residential dwelling;
- (ii) one garage for private use constructed either as an integral part of the dwelling or as a detached building and adapted for the storage of not more than three automobiles; and
- (iii) suitable garden structures ordinarily appurtenant to single-family dwelling houses.

B. No business or trade of any kind shall be operated on the Property, provided, nonetheless, that (i) a residence may be used for personal or professional office work by a resident but may be used neither for meeting clients or patients nor held out as an office to such persons or the public, and (ii) a Lot may be used for the construction of any structures permitted hereunder. Grantor may maintain sales, leasing and management office(s), may use unsold Lots for display and marketing purposes, and a Lot owner may use the Property for the construction of buildings and improvements as provided in this Declaration.

C. The Grantor shall retain fee title to the streets and roads as shown on any subdivision plan, which may be offered to the City as public streets, and if not offered or acquired by the City, the Association shall accept title to and maintain the streets and roadways. Any Open Space areas as shown on the Plan shall be conveyed to the Association prior to or at the time of conveyance of the streets and roads to the City of Biddeford, or Association, as the case may be.

So long as Grantor (or Grantor's designated successor pursuant to this Declaration) owns any portion of the Property, it shall have the sole power to administer, enforce, interpret and waive this Section 1, after which the Board of Directors of the Association or its designee shall succeed to such authority. The Grantor and Association may adopt reasonable rules and regulations implementing and interpreting this Section.

The Grantor and the Association may upon request and upon the payment of a reasonable fee issue a certificate indicating whether any apparent violation(s) of this Section or known violation(s) of this Declaration exist, which shall be conclusive and binding with respect to the matters stated therein. Neither the Grantor, the Association nor any officer, director, employee or agent of the foregoing shall be liable to any person for any action in connection with the administration, enforcement or nonenforcement of this Section, including without limitation, mistakes in judgment, negligence or misfeasance.

2. Design Review. All plans and specifications for buildings, improvements, driveways and parking lots, lighting, signs, above-ground structures and disturbed areas to be located on any Lot shall be submitted to and approved by the Grantor prior to commencement of construction, provided that the Grantor may suspend, waive and delegate such requirements in whole or part in its discretion. All plans submitted for approval shall include the following:

- a. A site plan and rendering of the proposed improvements;
- b. A landscape program setting forth the proposed improvement and maintenance of open space, roads, paths and service and parking area. All land areas not covered by structures, parking areas, or circulation facilities shall be landscaped and maintained provided that existing natural vegetation may be used when determined by the Grantor to be in keeping with the overall scheme of the Properties;
- c. A drainage system for surface water run-off;
- d. A driveway location plan setting forth proposed ingress and egress controls, parking areas, traffic circulation and traffic interface. All parking areas shall be paved;
- e. Information as to the proposed use of all utility lines within the Property. The cost of all improvements or modifications to common utilities shall be borne by the occupant of the Lot serviced by said improvements or modifications.

The design, appearance and construction of all buildings, structures, landscaping and site improvements constructed and maintained on the Lots shall be subject to the prior written approval of the Grantor in its discretion and all such items shall be constructed and maintained only in accordance with plans and specifications approved in writing by Grantor, provided however that the Grantor in its discretion from time to time may modify or waive the application of this Section, in whole or part by a recorded instrument.

So long as Grantor (or Grantor's designated successor pursuant to this Declaration) owns any portion of the Property, it shall have the sole power to administer, enforce, interpret and waive this Section, after which the Board of Directors of the Association or its designee shall succeed to such

authority with all authority of the Grantor. The Grantor and Association may adopt reasonable rules and regulations implementing and interpreting this Section.

3. Pets and Animals. Nothing shall be done which may be or become an annoyance or nuisance: the keeping of poultry, swine, or livestock other than personal household pets normally housed in a residence shall not be permitted. No boarding or breeding kennels shall be kept or maintained on the property.

The Association shall have the power to regulate the keeping of pets under the bylaws or rules and regulations of the Association as promulgated or amended from time to time.

In any event, all animals shall be restrained so as not to become noisome or offensive to the occupants of any Lot. Pets shall not be permitted off the owner's Lot except on a leash attended by a responsible person.

4. Motor Vehicles. Outside parking areas, roads and driveways may be used for the parking of private passenger motor vehicles only. The Lots shall not be used for outside parking of camping trailers, trucks or recreational vehicles rated for a gross vehicle weight of over 6,000 pounds or unlicensed or inoperable vehicles except with the prior written approval of the Association's Board of Directors or if kept within a fully enclosed garage or screened so as not be visible from any direction outside of a Lot. The Board of Directors of the Association shall have the power to adopt such reasonable rules and regulations as it deems appropriate regulating the use of motor vehicles on the Property. This section shall not apply to Parcel 9.

Snowmobiles, all-terrain vehicles, trail bikes and any similar motorized vehicles shall not be operated on the Property.

5. Signs. Lot owners shall have the right to install a sign of not more than two (2) square feet showing the name of the owner or occupant and the name or number of the premises. All signs shall be compatible with the environment, and under no circumstances shall projecting signs, neon or brightly lighted or internally lighted signs be permitted on any parcel.

6. Completion of Construction. Within twelve (12) months from the start of any construction (or upon the partial or complete destruction of any residence), a Lot owner shall erect, build and have the exterior of the building completely finished and completed in a manner consistent with the conditions set forth herein including the revegetation of all disturbed areas. A paved or stone driveway must be completed within six (6) months of occupancy.

7. Maintenance of Common Areas and Facilities. The Association and its Board of Directors and their designees shall also have and are hereby granted the right and obligation to maintain, repair, replace, add to and alter the common lands, open space and the stormwater detention system including the outlet controls, ponds, storm water culverts, and other drainage common facilities, together with the streets and ways if conveyed to the Association, and make excavations for said purposes. No owner shall do any of the foregoing without the prior permission of said Board of Directors in each instance. The Association shall inspect and maintain the drainage and storm water facilities systems and the fencing and other visual buffers installed to visually shield abutters at least annually or more frequently if required as follows:

- (a) Maintenance and repair of common fencing, landscaping and visual buffers protecting abutters;
- (b) Removal of debris that may collect in the grass swales, culverts and dam(s);
- (c) Removal of any accumulated silt or debris from culverts and ponds, and annual mowing as required;
- (d) Inspection of the rip-rap at the outlet end of the culverts and reset any dislocated stones;
- (e) Other maintenance as it becomes necessary to enable the sewage disposal and storm drain systems to function as designed.

The expense thereof shall be charged as a common expense, provided however that the Association may charge the responsible owners for the replacement and repair of damage to systems and common

areas due to the negligence or misuse of such facilities.

The Association shall also establish a separate reserve account for the replacement and repair of the fencing, drainage and storm water facilities together with the streets and ways if conveyed to the Association, based on a regular assessments determined by calculating the estimated life expectancy of each such amenity.

Each Lot owner shall avoid interfering with the natural course of surface water across a neighbor's parcel or any land abutting the Property or altering its intended flow to the storm drainage, streams and ponds.

8. Membership. For the purpose of maintaining improvements, roads, utility and other easements, maintaining the common storm water drainage system, general planting and landscaping, and all common services of every kind and nature required or desired within or adjoining the Property, for the general use and benefit of all owners, each and every owner, in accepting a deed or contract for any Lot on the Property, agrees to and shall automatically become a member of and be subject to and comply with this Declaration, the Bylaws and rules of the Association, as amended from time to time.

The members shall consist of all the owners of Lots on the Property. The membership of each such lot owner shall terminate upon the sale, transfer or other disposition of his ownership interest in the lot, whereupon membership shall automatically transfer to and be vested in the successor in ownership. The mortgage of a Lot shall not operate to transfer membership until foreclosure of the mortgage.

Until the sale of 75% of all lots created by virtue of any recorded subdivision plan of the Property, there shall be three (3) directors of the Association, and only the Grantor, as the initial member shall be entitled to vote for the election of directors; provided however, that Grantor may assign such rights to any successive developer of the Lots, may waive such rights in whole or in part or may exercise its rights under the articles of incorporation or bylaws of the Association.

9. Assessments. Commencing with (i) the sale of a residence on a Lot to a purchaser (other than a successor Grantor) and (ii) the substantial completion of a residence on a Lot and the issuance of a certificate of occupancy or the commencement of residential occupancy, each owner shall pay to the Association or its authorized representative, monthly or as otherwise required by the Association, his share of the expenses of and reserves of the Association in carrying out its function, all as determined by the Association's Board of Directors allocated equally among all Lots. Such obligation (including such interest as may be established by the Association and costs of collection and reasonable attorney's fees) shall be the personal responsibility of the owner of each owner of a Lot and shall constitute a lien on a Lot, SUBJECT HOWEVER, to any mortgage held by an institutional lender, to which mortgage the lien shall be subordinate. The recording of this Declaration constitutes record notice of the lien, which may be foreclosed in the same manner as a mortgage on real estate or by any other method now or hereafter permitted by law. Notwithstanding the foregoing, the owners of Parcel 1 shall have no obligation to pay any Association fees or assessments with respect to the road until such time as Parcel 1's driveway is relocated and accessed from Belle Woods Drive.

Until the later of two (2) years from the sale of the first Lot or until the owners of Lots subject to this Declaration have assumed self-government of the Association, the Grantor may charge owners for their proportionate share of the assessments and may pay the expenses of the Association directly.

A. The Association shall notify the owners at the addresses maintained by the Association within thirty (30) days after said assessment has been fixed and levied, notifying such owners of the amount of the charge or assessment for such year, when the same shall be due and payable, and the amount due on each lot, or parcel of land owned by each such owner, and the interest rate on past due assessments provided that failure to send such notice shall not relieve the Owner of his Obligation hereunder. Unless otherwise provided by the directors of the Association, the interest rate on all past due assessments shall be Eighteen percent (18%) per annum. It shall be the duty of each owner to list his address with the Association, failing which the Association may send such notices to such address as reasonably appears to be a permanent address of such owner. Failure of the Association to levy the assessment or charge for any one year or send such notice or to charge interest shall not affect the right of said Association to do so for any subsequent year or for such prior year(s) in arrears.

A written or printed notice thereof deposited in the United State mails, with postage prepaid, and addressed to the respective owners as aforesaid shall be deemed to be sufficient and proper notice for this purpose or for any other purpose of this Declaration, wherever notice may be required.

B. The Association shall have all legally permissible powers of enforcement of this Declaration and collection of assessments made on said real estate, including, without limitation, those powers set forth in Maine Revised Statutes Annotated, Title 13, Chapter 91 and shall generally have all powers established under Title 13-B M.R.S.A. All costs and expenses of enforcement and collection including reasonable attorney's fees and interest on such costs and expenses at the same rate as applied to past due assessments shall constitute a lien on a Lot SUBJECT HOWEVER, to any mortgage held by an institutional lender, to which mortgage the lien shall be subordinate. The recording of this Declaration constitutes record notice of the lien, which may be foreclosed in the same manner as a mortgage or real estate or by any other method now or hereafter permitted by law.

C. Such charges and assessments shall be applied by said Association in its discretion toward payment of the following costs:

- 1) To enforce, either in its own name or in the name of the owners of the property above described any or all covenants which may have been heretofore, or may hereinafter be, imposed upon any of the Property, either in the form as originally placed thereon or as subsequently modified; provided, however, that this right of enforcement shall not serve to prevent the right of any owner or owners of any Lot, to enforce said restrictive covenants in the event they or any one of them elects to do so. The expenses and costs of any such proceedings instituted by the Association shall be paid out of the general fund of the Association.
- 2) To preserve the natural beauty of the Property and pick up and remove therefrom trash and rubbish of all kinds; and to do any and all other things necessary and desirable in the judgment of the officers of said Association to keep the Property clean and in good order.
- 3) To provide for the maintenance, snowplowing, sanding, repair and replacement of all common areas, roads and ways within or adjoining the Property, including the roads leading through the Property and for the creation of reserves for the foregoing purposes until such time (if ever) as the streets area accepted by the City, and by vote of its Board or Directors, to adopt rules and regulations governing all such areas.
- 4) To provide for the maintenance, repair, and replacement of the common storm water systems, recreational and all other facilities and for the creation of reserves for the foregoing purposes.
- 5) To pay real estate, income and other taxes, to establish reserves, to administer the Association and enforce this Declaration.
- 6) To administer, observe and perform the Bylaws and exercise the powers of the Association thereunder.
- 7) Such other items as the Board of Directors of the Association may determine in their discretion.

D. To provide any other neighborhood services not provided by local governmental authorities

E. To carry hazard, and general liability insurance coverage on any premises owned, maintained or repaired by the Association to provide directors and officers insurance and to indemnify the Association's officers and directors.

10. Association Administration.

A. The Association shall notify by mail all such owners as the address of such owners as are listed with the Association, of the official address of the Association, the time and place of regular or special meetings of the Association. Such notices shall be mailed at least ten (10) days in advance of such meetings.

B. By written consent of four fifths (4/5) of all the lots, the Association may be given additional powers and this Declaration may otherwise be amended or modified, provided however that any amendments affecting the maintenance and repair of the common shall, at all times, observe all the laws of the State of Maine and the United States of America, and if at any time any of the provisions of this Declaration shall be in conflict therewith, then such parts of this Declaration as are in conflict with such laws shall become null and void, but no other part of this Declaration shall be affected thereby. So long

as Grantor owns any portion of the Property, any amendment or modification of this Declaration shall require the written approval of Grantor duly recorded.

C. The Association shall, at all times, observe all the laws of the State of Maine and the United States of America, and if at any time any of the provisions of this Declaration shall be in conflict therewith, then such parts of this Declaration as are in conflict with such laws shall become null and void, but no other part of this Declaration shall be affected thereby.

D. The Association shall have the right to make such reasonable rules and regulations and provide such means and employ such agents as will enable it adequately and properly to carry out the purposes and provisions of this Declaration, subject to the limitations hereinabove and hereinabove set forth; provided that so long as Grantor owns any portion of the Property, the adoption of such rules and regulations or any amendments thereof shall require the written approval of the Grantor duly recorded.

E. This Declaration may be terminated and all the land now or hereafter affected may be released from all of the terms and provisions thereof by the owners of four-fifths (4/5) of the members subject thereto at the time it is proposed to terminate this said Declaration.

11. Compliance with Laws. All maintenance of the storm water drainage system shall be in accordance with all applicable local and state approvals, laws, codes, ordinances and regulations.

12. Nuisance. Noxious, dangerous, offensive or unduly noisy activities of any nature shall not be carried on or upon any Lot.

13. Exterior Appearances; Maintenance.

- a. Trash, garbage and other waste shall be kept in sanitary containers within the residential structures where they are not visible from any road or from any other Lot. No hazardous or toxic materials shall be deposited on any of the Property.
- b. No clotheslines shall be permitted and no satellite television antennas or similar receiving devices shall be permitted unless eighteen (18) inches in diameter or less and shall be located at the rear of the building in a location specifically approved by the Association.
- c. All exterior holiday decorations and lighting should be considered temporary and may not be installed more than twenty-one (21) days prior to the particular holiday or celebration and must be removed within seven (7) days of the holiday, except that Christmas and other holiday decorations and lighting may be displayed from Thanksgiving Day through January 15. Holiday decorations may not include any audio that can be heard beyond the limits of the lot, nor any temporary structures or statutes exceeding five (5) feet.
- d. Lawns shall be maintained in a neat and orderly manner, free from excessive weeds and overgrown grass. Lawns shall be mowed at a frequency sufficient to maintain a grass height of no more than 4 inches.

14. Subdivision. The Lots as shown on any recorded subdivision plan may not be further subdivided, except with the consent of the Association and with the approval of the City of Biddeford if required.

15. Access To Amenities. The Association or its authorized representatives shall have the irrevocable right, to be exercised by its executive board or other designate, to have access to each Lot from time to time during reasonable hours, as may be necessary for the maintenance, repair or replacement of any of the common areas and facilities therein or accessible therefrom, including pedestrian, utility, storm water, and drainage easements, to prevent damage to the common areas and facilities, or to any other parcel(s).

16. Enforcement. The provisions of Declaration have been adopted for the benefit of the owners of the Property and shall run with the Land. Therefore, the violation or attempted violations of any covenant or restriction in this Declaration is hereby declared a nuisance which may be remedied by any appropriate legal proceeding. If any owner shall attempt, violate or permit any violation of any of the covenants, restrictions or reservations described in this Declaration or in the Bylaws and the rules and regulations of the Association, the Grantor, the Association or any Lot owner may commence proceedings at law or in equity to recover damages or other awards for such attempts, violations or permitting of the same, or

to enjoin the furtherance or continuation of such attempts or violations, or both.

The violator shall pay all reasonable costs, including attorney's fees, incurred in the enforcement of this Declaration the Bylaws and the rules and regulations of the Association which shall constitute a lien on the Lot in the same manner and extent as Association assessments as provided hereinabove. Proceedings may be maintained irrespective of the waiver of any prior violation or attempt by the same or other owners, and the failure to enforce any one (1) occasion shall in no event be deemed to be a waiver of the right to do so thereafter as to the original breach or a breach subsequent thereto.

17. Parcel 9. Notwithstanding any other provision herein, Grantor reserves the right to further subdivide Parcel 9, and to construct any number of buildings or structures upon Parcel 9 as may be permitted by the City of Biddeford's zoning ordinances. Parcel 9 may be used for residential or non-residential purposes, provided such use is permitted by the City's zoning ordinance. Grantor, its successors and assigns, reserves the right to extend Belle Woods Drive into Parcel 9 for the purposes of providing access to any future lots or parcels created therein.

18. Easements and Reservations. The following easements are hereby created:

(a) The Grantor reserves the right to maintain on the Property such advertising signs as may comply with the applicable governmental regulations, which signs may be placed in any location on the property and may be relocated or removed, all at the sole discretion of the Grantor. This easement shall continue until the Grantor has conveyed all lots to owners other than the Grantor.

(b) The Property shall be, and hereby is, made subject to easements in favor of the Grantor, appropriate utility and service companies, cable television companies and governmental agencies or authorities for such utility and service lines and equipment as may be necessary or desirable to serve any portion of the Property. The easements created by this Article shall include, without limitation, rights of the Grantor, or the providing utility or service company, or governmental agency or authority, to install, lay, maintain, repair, remove and replace gas lines, pipes and conduits, water mains and pipes, sewer and drain lines, drainage ditches, pump stations and leach fields, telephone wires and equipment, television equipment and facilities (cable or otherwise), electrical wires, conduits and equipment and ducts and vents over, under, through, along and on the Property. Notwithstanding the foregoing provisions of this Article, any such easement through a lot shall be located either in substantially the same location as such facilities or similar facilities that existed at the time of first conveyance of the lot by Grantor or occupancy of the lot by its occupants.

(c) The lots shall be and are hereby made subject to an easement in favor of the Grantor, and the agents, employees and independent contractors thereof, for the purpose of the inspection, upkeep, maintenance, repair and replacement, if applicable, of the lots and any improvements and fixtures located thereon, pursuant to its rights to enforce the provisions of this Declaration.

(d) All easements, rights and restrictions described and mentioned in this Article are easements appurtenant, running with the land and the property, and (except as may be otherwise expressly provided herein or in the instrument creating the same) shall continue in full force and effect until the termination of this Declaration.

(e) For so long as the Grantor has title to any lot or any other portion of the Property, the Grantor reserves the right to grant to any third party any license or easement in, on, over or through the Property, in addition to and not in limitation of those set forth above, which license or easement is determined by the Grantor, in its reasonable judgment, to be necessary or desirable for the development or improvement of the Property. Any such license or easement granted hereunder shall be located so as not to materially interfere with the use or occupancy of the lots

by their occupants, and may be recorded by the Grantor at its sole cost and expense.

19. Amendment by Grantor. Grantor may amend this Declaration at any time, as long as the Grantor still owns a Lot within the Property.

20. Termination of Restrictions. At a meeting duly held not earlier than January 1, 2049, the then current Members of the Association may terminate the provisions set forth in this Declaration by an 80% vote, which amendment or termination shall become effective upon the recording thereof. If no such amendment or termination is recorded by January 1, 2049, this Declaration shall automatically renew for another 25-year period, and in like manner for each 25-year period thereafter.

21. Successors of Grantor. All references in the Declaration to the Grantor shall mean and include the Grantor's successors and assigns. The Grantor shall have the power to assign its rights under this Declaration to any successor Grantor by instrument duly recorded which has been executed by Grantor and Grantor's successor.

22. Severability. If any provisions of this Declaration, or its application to any persons or circumstances, is invalid or unenforceable, then the remainder of this Declaration, or the application of such provisions to other persons or circumstances, shall not be affected thereby.

IN WITNESS WHEREOF, Grantor has set its hand and seal on this ____ day of April 2025.

Witness:

COASTAL OAKS, LLC

By:
King H. Weinstein, Manager

STATE OF MAINE
COUNTY OF YORK

April __, 2025

Personally appeared before me, King H. Weinstein, in his capacity as Manager of Coastal Oaks, LLC, and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of Coastal Oaks, LLC

Notary Public / Attorney at Law
Print name:

DECLARATION OF COVENANTS AND RESTRICTIONS

BELLE WOODS SUBDIVISION

BIDDEFORD, MAINE

KNOW ALL PERSONS BY THESE PRESENTS, that COASTAL OAKS, LLC, a Maine limited liability company with a place of business in Old Orchard Beach, Maine (hereinafter called "Grantor"), is the owner of certain real estate located on Pool Street, Biddeford, Maine more particularly described in deed of Harry B. Center, II, Teresa M. Barton, Anthony C. Serpico, and Margaret T. Serpico, dated July 5, 2023 and recorded in the York County Registry of Deeds in Book 19268, Page 500 (the "Property");

WHEREAS, as of the date hereof Grantor is conveying to Sarah A. Marden and Timothy J. Ross a portion of the Property, consisting of approximately 40,494 square feet, more or less, more particularly described in deed of near or even date herewith, recorded or to be recorded in the York County Registry of Deeds (hereinafter the "Outparcel Lot");

WHEREAS, Grantor desires to subdivide the remaining portion of the Property into two or more house lots and common areas as shall be shown on a subdivision plan to be recorded;

WHEREAS, Grantor desires to create and maintain a residential area consisting of house lots and common areas, preserving the natural and residential features of the Property;

WHEREAS, Grantor proposes to establish Belle Woods Homeowners' Association, a Maine non-profit corporation (the "Association") the members of which will consist of the owners of the lots created upon the Property (the "Lots");

WHEREAS, Grantor desires to ensure the use and enjoyment of the Property as a residential community;

WHEREAS, Grantor desires to bind the purchasers of Lots and their successors and assigns to properly maintain and operate the common amenities consisting of private storm water systems and other facilities useful or essential to the residential use and enjoyment of the Property; and

WHEREAS, Grantor desires to assist its Grantees in providing the necessary means to enable them and their Grantees to accomplish these purposes;

NOW THEREFORE, in consideration of the premises, the Grantor for itself and its successors and assigns, hereby subject the Property including all the Lots created therein, and any adjoining land which Grantor may from time to time elect to subject to this Declaration by written instrument duly recorded (collectively the "Property") to the following restrictions, covenants, agreements and liens as covenants running with the land which shall be binding upon and enforceable by the Grantor, its successors and assigns, the Association, its successors and assigns, or by the then owners of any parcels or Lots subject to this Declaration.

I. Residence. The Property shall be used for single family residences or such other uses as permitted by the then current zoning ordinance of the City of Biddeford.

A. Lots. The Lots shall be occupied by, including but not limited to, a single family residential unit, multi-family dwellings, and such other uses as permitted by applicable zoning. A single family residential unit shall include no buildings or structures of any nature other than the following, viz:

- (i) a detached residential dwelling;

DECLARATION OF COVENANTS AND RESTRICTIONS

BELLE WOODS SUBDIVISION

BIDDEFORD, MAINE

KNOW ALL PERSONS BY THESE PRESENTS, that COASTAL OAKS, LLC, a Maine limited liability company with a place of business in Old Orchard Beach, Maine (hereinafter called "Grantor"), is the owner of certain real estate located on Pool Street, Biddeford, Maine more particularly described in deed of Harry B. Center, II, Teresa M. Barton, Anthony C. Serpico, and Margaret T. Serpico, dated July 5, 2023 and recorded in the York County Registry of Deeds in Book 19268, Page 500 (the "Property");

WHEREAS, as of the date hereof Grantor is conveying to Sarah A. Marden and Timothy J. Ross a portion of the Property, consisting of approximately 40,494 square feet, more or less, more particularly described in deed of near or even date herewith, recorded or to be recorded in the York County Registry of Deeds (hereinafter the "Outparcel Lot");

WHEREAS, Grantor desires to subdivide the remaining portion of the Property into two or more house lots and common areas as shall be shown on a subdivision plan to be recorded;

WHEREAS, Grantor desires to create and maintain a residential area consisting of house lots and common areas, preserving the natural and residential features of the Property;

WHEREAS, Grantor proposes to establish Belle Woods Homeowners' Association, a Maine non-profit corporation (the "Association") the members of which will consist of the owners of the lots created upon the Property (the "Lots");

WHEREAS, Grantor desires to ensure the use and enjoyment of the Property as a residential community;

WHEREAS, Grantor desires to bind the purchasers of Lots and their successors and assigns to properly maintain and operate the common amenities consisting of private storm water systems and other facilities useful or essential to the residential use and enjoyment of the Property; and

WHEREAS, Grantor desires to assist its Grantees in providing the necessary means to enable them and their Grantees to accomplish these purposes;

NOW THEREFORE, in consideration of the premises, the Grantor for itself and its successors and assigns, hereby subject the Property including all the Lots created therein, and any adjoining land which Grantor may from time to time elect to subject to this Declaration by written instrument duly recorded (collectively the "Property") to the following restrictions, covenants, agreements and liens as covenants running with the land which shall be binding upon and enforceable by the Grantor, its successors and assigns, the Association, its successors and assigns. or by the then owners of any parcels or Lots subject to this Declaration.

I. Residence. The Property shall be used for single family residences or such other uses as permitted by the then current zoning ordinance of the City of Biddeford.

A. Lots. The Lots shall be occupied by, including but not limited to, a single family residential unit, multi-family dwellings, and such other uses as permitted by applicable zoning. A single family residential unit shall include no buildings or structures of any nature other than the following, viz:

- (i) a detached residential dwelling;

- (ii) one garage for private use constructed either as an integral part of the dwelling or as a detached building and adapted for the storage of not more than three automobiles; and.
- (iii) suitable garden structures ordinarily appurtenant to single-family dwelling houses.

B. No business or trade of any kind shall be operated on the Property, provided, nonetheless, that (i) a residence may be used for personal or professional office work by a resident but may be used neither for meeting clients or patients nor held out as an office to such persons or the public, and (ii) a Lot may be used for the construction of any structures permitted hereunder. Grantor may maintain sales, leasing and management office(s), may use unsold Lots for display and marketing purposes, and a Lot owner may use the Property for the construction of buildings and improvements as provided in this Declaration.

C. The Grantor shall retain fee title to the streets and roads as shown on any subdivision plan, which may be offered to the City as public streets, and if not offered or acquired by the City, the Association shall accept title to and maintain the streets and roadways. Any Open Space areas as shown on the Plan shall be conveyed to the Association prior to or at the time of conveyance of the streets and roads to the City of Biddeford, or Association, as the case may be.

So long as Grantor (or Grantor's designated successor pursuant to this Declaration) owns any portion of the Property, it shall have the sole power to administer, enforce, interpret and waive this Section 1, after which the Board of Directors of the Association or its designee shall succeed to such authority. The Grantor and Association may adopt reasonable rules and regulations implementing and interpreting this Section.

The Grantor and the Association may upon request and upon the payment of a reasonable fee issue a certificate indicating whether any apparent violation(s) of this Section or known violation(s) of this Declaration exist, which shall be conclusive and binding with respect to the matters stated therein. Neither the Grantor, the Association nor any officer, director, employee or agent of the foregoing shall be liable to any person for any action in connection with the administration, enforcement or nonenforcement of this Section, including without limitation, mistakes in judgment, negligence or misfeasance.

2. Design Review. All plans and specifications for buildings, improvements, driveways and parking lots, lighting, signs, above-ground structures and disturbed areas to be located on any Lot shall be submitted to and approved by the Grantor prior to commencement of construction, provided that the Grantor may suspend, waive and delegate such requirements in whole or part in its discretion. All plans submitted for approval shall include the following:

- a. A site plan and rendering of the proposed improvements;
- b. A landscape program setting forth the proposed improvement and maintenance of open space, roads, paths and service and parking area. All land areas not covered by structures, parking areas, or circulation facilities shall be landscaped and maintained provided that existing natural vegetation may be used when determined by the Grantor to be in keeping with the overall scheme of the Properties;
- c. A drainage system for surface water run-off;
- d. A driveway location plan setting forth proposed ingress and egress controls, parking areas, traffic circulation and traffic interface. All parking areas shall be paved;
- e. Information as to the proposed use of all utility lines within the Property. The cost of all improvements or modifications to common utilities shall be borne by the occupant of the Lot serviced by said improvements or modifications.

The design, appearance and construction of all buildings, structures, landscaping and site improvements constructed and maintained on the Lots shall be subject to the prior written approval of the Grantor in its discretion and all such items shall be constructed and maintained only in accordance with plans and specifications approved in writing by Grantor, provided however that the Grantor in its discretion from time to time may modify or waive the application of this Section, in whole or part by a recorded instrument.

So long as Grantor (or Grantor's designated successor pursuant to this Declaration) owns any portion of the Property, it shall have the sole power to administer, enforce, interpret and waive this Section, after which the Board of Directors of the Association or its designee shall succeed to such authority with all authority of the Grantor. The Grantor and Association may adopt reasonable rules and regulations implementing and interpreting this Section.

3. Pets and Animals. Nothing shall be done which may be or become an annoyance or nuisance: the keeping of poultry, swine, or livestock other than personal household pets normally housed in a residence shall not be permitted. No boarding or breeding kennels shall be kept or maintained on the property.

The Association shall have the power to regulate the keeping of pets under the bylaws or rules and regulations of the Association as promulgated or amended from time to time.

In any event, all animals shall be restrained so as not to become noisome or offensive to the occupants of any Lot. Pets shall not be permitted off the owner's Lot except on a leash attended by a responsible person.

4. Motor Vehicles. Outside parking areas, roads and driveways may be used for the parking of private passenger motor vehicles only. The Lots shall not be used for outside parking of camping trailers, trucks or recreational vehicles rated for a gross vehicle weight of over 6,000 pounds or unlicensed or inoperable vehicles except with the prior written approval of the Association's Board of Directors or if kept within a fully enclosed garage or screened so as not be visible from any direction outside of a Lot. The Board of Directors of the Association shall have the power to adopt such reasonable rules and regulations as it deems appropriate regulating the use of motor vehicles on the Property.

Snowmobiles, all-terrain vehicles, trail bikes and any similar vehicles shall not be operated on the Property.

5. Natural Tree Growth. The natural growth of any Open Spaces shown on any subdivision plan of the Property shall be preserved, except as may be necessary for the construction and maintenance of the recreational facilities, roads, structures, utilities, storm water systems, paths, trails and as may be necessary to facilitate views and to provide for good woodland management, all as determined by the Board of the Association.

6. Signs. Lot owners shall have the right to install a sign of not more than two (2) square feet showing the name of the owner or occupant and the name or number of the premises. All signs shall be compatible with the environment, and under no circumstances shall projecting signs, neon or brightly lighted or internally lighted signs be permitted on any parcel.

7. Completion of Construction. Within twelve (12) months from the start of any construction (or upon the partial or complete destruction of any residence), a Lot owner shall erect, build and have the exterior of the building completely finished and completed in a manner consistent with the conditions set forth herein including the revegetation of all disturbed areas. A paved or stone driveway must be completed within six (6) months of occupancy.

8. Maintenance of Common Areas and Facilities. The Association and its Board of Directors and their designees shall also have and are hereby granted the right and obligation to maintain, repair, replace, add to and alter the common lands, open space and the stormwater detention system including the outlet controls, ponds, storm water culverts, and other drainage common facilities, together with the streets and ways if conveyed to the Association, and make excavations for said purposes. No owner shall do any of the foregoing without the prior permission of said Board of Directors in each instance. The Association shall inspect and maintain the drainage and storm water facilities systems and the fencing and other visual

buffers installed to visually shield abutters at least annually or more frequently if required as follows:

- (a) Maintenance and repair of common fencing, landscaping and visual buffers protecting abutters;
- (b) Removal of debris that may collect in the grass swales, culverts and dam(s);
- (c) Removal of any accumulated silt or debris from culverts and ponds, and annual mowing as required;
- (d) Inspection of the rip-rap at the outlet end of the culverts and reset any dislocated stones;
- (e) Other maintenance as it becomes necessary to enable the sewage disposal and storm drain systems to function as designed.

The expense thereof shall be charged as a common expense, provided however that the Association may charge the responsible owners for the replacement and repair of damage to systems and common areas due to the negligence or misuse of such facilities.

The Association shall also establish a separate reserve account for the replacement and repair of the fencing, drainage and storm water facilities together with the streets and ways if conveyed to the Association, based on a regular assessments determined by calculating the estimated life expectancy of each such amenity.

Each Lot owner shall avoid interfering with the natural course of surface water across a neighbor's parcel or any land abutting the Property or altering its intended flow to the storm drainage, streams and ponds.

9. Membership. For the purpose of maintaining improvements, roads, utility and other easements, maintaining the common storm water drainage system, general planting and landscaping, and all common services of every kind and nature required or desired within or adjoining the Property, for the general use and benefit of all owners, each and every owner, in accepting a deed or contract for any Lot on the Property, agrees to and shall automatically become a member of and be subject to and comply with this Declaration, the Bylaws and rules of the Association, as amended from time to time.

The members shall consist of all the owners of Lots on the Property. The membership of each such lot owner shall terminate upon the sale, transfer or other disposition of his ownership interest in the lot, whereupon membership shall automatically transfer to and be vested in the successor in ownership. The mortgage of a Lot shall not operate to transfer membership until foreclosure of the mortgage.

Until the sale of 75% of all lots created by virtue of any recorded subdivision plan of the Property, there shall be three (3) directors of the Association, and only the Grantor, as the initial member shall be entitled to vote for the election of directors; provided however, that Grantor may assign such rights to any successive developer of the Lots, may waive such rights in whole or in part or may exercise its rights under the articles of incorporation or bylaws of the Association.

10. Assessments. Commencing with (i) the sale of a residence on a Lot to a purchaser (other than a successor Grantor) and (ii) the substantial completion of a residence on a Lot and the issuance of a certificate of occupancy or the commencement of residential occupancy, each owner shall pay to the Association or its authorized representative, monthly or as otherwise required by the Association, his share of the expenses of and reserves of the Association in carrying out its function, all as determined by the Association's Board of Directors allocated equally among all Lots. Such obligation (including such interest as may be established by the Association and costs of collection and reasonable attorney's fees) shall be the personal responsibility of the owner of each owner of a Lot and shall constitute a lien on a Lot, SUBJECT HOWEVER, to any mortgage held by an institutional lender, to which mortgage the lien shall be subordinate. The recording of this Declaration constitutes record notice of the lien, which may be foreclosed in the same manner as a mortgage on real estate or by any other method now or hereafter permitted by law.

Until the later of two (2) years from the sale of the first Lot or until the owners of Lots subject to this Declaration have assumed self-government of the Association, the Grantor may charge owners for their proportionate share of the assessments and may pay the expenses of the Association directly.

A. The Association shall notify the owners at the addresses maintained by the Association within thirty (30) days after said assessment has been fixed and levied, notifying such owners of the amount of the charge

or assessment for such year, when the same shall be due and payable, and the amount due on each lot, or parcel of land owned by each such owner, and the interest rate on past due assessments provided that failure to send such notice shall not relieve the Owner of his Obligation hereunder. Unless otherwise provided by the directors of the Association, the interest rate on all past due assessments shall be Eighteen percent (18%) per annum. It shall be the duty of each owner to list his address with the Association, failing which the Association may send such notices to such address as reasonably appears to be a permanent address of such owner. Failure of the Association to levy the assessment or charge for any one year or send such notice or to charge interest shall not affect the right of said Association to do so for any subsequent year or for such prior year(s) in arrears.

A written or printed notice thereof deposited in the United State mails, with postage prepaid, and addressed to the respective owners as aforesaid shall be deemed to be sufficient and proper notice for this purpose or for any other purpose of this Declaration, wherever notice may be required.

B. The Association shall have all legally permissible powers of enforcement of this Declaration and collection of assessments made on said real estate, including, without limitation, those powers set forth in Maine Revised Statutes Annotated, Title 13, Chapter 91 and shall generally have all powers established under Title 13-B M.R.S.A. All costs and expenses of enforcement and collection including reasonable attorney's fees and interest on such costs and expenses at the same rate as applied to past due assessments shall constitute a lien on a Lot SUBJECT HOWEVER, to any mortgage held by an institutional lender, to which mortgage the lien shall be subordinate. The recording of this Declaration constitutes record notice of the lien, which may be foreclosed in the same manner as a mortgage or real estate or by any other method now or hereafter permitted by law.

C. Such charges and assessments shall be applied by said Association in its discretion toward payment of the following costs:

- 1) To enforce, either in its own name or in the name of the owners of the property above described any or all covenants which may have been heretofore, or may hereinafter be, imposed upon any of the Property, either in the form as originally placed thereon or as subsequently modified; provided, however, that this right of enforcement shall not serve to prevent the right of any owner or owners of any Lot, to enforce said restrictive covenants in the event they or any one of them elects to do so. The expenses and costs of any such proceedings instituted by the Association shall be paid out of the general fund of the Association.
- 2) To preserve the natural beauty of the Property and pick up and remove therefrom trash and rubbish of all kinds; and to do any and all other things necessary and desirable in the judgment of the officers of said Association to keep the Property clean and in good order.
- 3) To provide for the maintenance, snowplowing, sanding, repair and replacement of all common areas, roads and ways within or adjoining the Property, including the roads leading through the Property and for the creation of reserves for the foregoing purposes until such time as the streets area accepted by the Town, and by vote of its Board or Directors, to adopt rules and regulations governing all such areas.
- 4) To provide for the maintenance, repair, and replacement of the common storm water systems, recreational and all other facilities and for the creation of reserves for the foregoing purposes.
- 5) To pay real estate, income and other taxes, to establish reserves, to administer the Association and enforce this Declaration.
- 6) To administer, observe and perform the Bylaws and exercise the powers of the Association thereunder.
- 7) Such other items as the Board of Directors of the Association may determine in their discretion.

D. To provide any other neighborhood services not provided by local governmental authorities

E. To carry hazard, and general liability insurance coverage on any premises owned, maintained or repaired by the Association to provide directors and officers insurance and to indemnify the Association's officers and directors.

10. Association Administration.

A. The Association shall notify by mail all such owners as the address of such owners as are listed with the Association, of the official address of the Association, the time and place of regular or special meetings of the Association. Such notices shall be mailed at least ten (10) days in advance of such meetings.

B. By written consent of four fifths (4/5) of all the lots, the Association may be given additional powers and this Declaration may otherwise be amended or modified, provided however that any amendments affecting the maintenance and repair of the common shall, at all times, observe all the laws of the State of Maine and the United States of America, and if at any time any of the provisions of this Declaration shall be in conflict therewith, then such parts of this Declaration as are in conflict with such laws shall become null and void, but no other part of this Declaration shall be affected thereby. So long as Grantor owns any portion of the Property, any amendment or modification of this Declaration shall require the written approval of Grantor duly recorded.

C. The Association shall, at all times, observe all the laws of the State of Maine and the United States of America, and if at any time any of the provisions of this Declaration shall be in conflict therewith, then such parts of this Declaration as are in conflict with such laws shall become null and void, but no other part of this Declaration shall be affected thereby.

D. The Association shall have the right to make such reasonable rules and regulations and provide such means and employ such agents as will enable it adequately and properly to carry out the purposes and provisions of this Declaration, subject to the limitations hereinabove and hereinabove set forth; provided that so long as Grantor owns any portion of the Property, the adoption of such rules and regulations or any amendments thereof shall require the written approval of the Grantor duly recorded.

E. This Declaration may be terminated and all the land now or hereafter affected may be released from all of the terms and provisions thereof by the owners of four-fifths (4/5) of the members subject thereto at the time it is proposed to terminate this said Declaration.

11. Compliance with Laws. All maintenance of the storm water drainage system shall be in accordance with all applicable local and state approvals, laws, codes, ordinances and regulations.

12. Nuisance. Noxious, dangerous, offensive or unduly noisy activities of any nature shall not be carried on or upon any Lot.

13. Refuse Disposal. Trash, garbage and other waste shall be kept in sanitary containers within the residential structures where they are not visible from any road or from any other Lot. No hazardous or toxic materials shall be deposited on any of the Property/

14. Subdivision. The Lots as shown on any recorded subdivision plan may not be further subdivided, except with the consent of the Association and with the approval of the City of Biddeford if required.

15. Access To Amenities. The Association or its authorized representatives shall have the irrevocable right, to be exercised by its Manager or other designate, to have access to each Lot from time to time during reasonable hours, as may be necessary for the maintenance, repair or replacement of any of the common areas and facilities therein or accessible therefrom, including pedestrian, utility, storm water, and drainage easements, to prevent damage to the common areas and facilities, or to any other parcel(s).

16. Enforcement. The provisions of Declaration have been adopted for the benefit of the owners of the Property and shall run with the Land. Therefore, the violation or attempted violations of any covenant or restriction in this Declaration is hereby declared a nuisance which may be remedied by any appropriate legal proceeding. If any owner shall attempt, violate or permit any violation of any of the covenants, restrictions or reservations described in this Declaration or in the Bylaws and the rules and regulations of the Association, the Grantor, the Association or any Lot owner may commence proceedings at law or in equity to recover damages or other awards for such attempts, violations or permitting of the same, or to enjoin the furtherance or continuation of such attempts or violations, or both.

The violator shall pay all reasonable costs, including attorney's fees, incurred in the enforcement of this Declaration the Bylaws and the rules and regulations of the Association which shall constitute a lien on the Lot in the same manner and extent as Association assessments as provided hereinabove. Proceedings may be maintained irrespective of the waiver of any prior violation or attempt by the same or other owners, and the failure to enforce any one (1) occasion shall in no event be deemed to be a waiver of the right to do so thereafter as to the original breach or a breach subsequent thereto.

17. Outparcel Lot. The owners of the Outparcel Lot, their successors and assigns, shall be members of the Association and bound by the terms, conditions, easements, covenants and restrictions set forth herein; provided however, until such time, if ever, that access to the Outparcel Lot is provided by means of a road constructed upon the Property, the Outparcel Lot shall have no obligation to contribute to any assessments related to the repair or maintenance of such roadways. Notwithstanding any other provision of this Declaration, Grantor shall have the right to release the Outparcel Lot from any and all terms, conditions, restrictions, covenants, or easements contained herein, or otherwise terminate this Declaration without consent of the owners of the Outparcel Lot, upon such release or termination, the owners of the Outparcel Lot, their successors and assigns, shall have no further rights to enforce any provision contained herein against Grantor or any other Lot.

18. Amendment by Grantor. Grantor may amend this Declaration at any time, as long as the Grantor still owns a Lot within the Property.

19. Termination of Restrictions. At a meeting duly held not earlier than January 1, 2049, the then current Members of the Association may terminate the provisions set forth in this Declaration by an 80% vote, which amendment or termination shall become effective upon the recording thereof. If no such amendment or termination is recorded by January 1, 2049, this Declaration shall automatically renew for another 25-year period, and in like manner for each 25-year period thereafter.

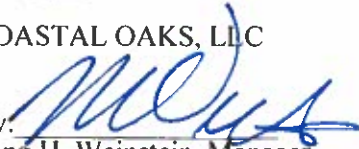
20. Successors of Grantor. All references in the Declaration to the Grantor shall mean and include the Grantor's successors and assigns. The Grantor shall have the power to assign its rights under this Declaration to any successor Grantor by instrument duly recorded which has been executed by Grantor and Grantor's successor.

21. Severability. If any provisions of this Declaration, or its application to any persons or circumstances, is invalid or unenforceable, then the remainder of this Declaration, or the application of such provisions to other persons or circumstances, shall not be affected thereby.

IN WITNESS WHEREOF, Grantor has set its hand and seal on this 22 day of July, 2024.

Witness:

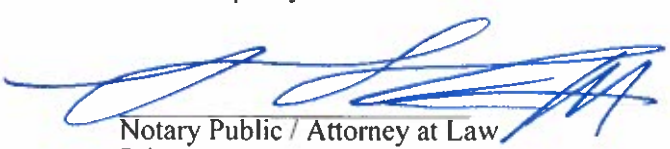
COASTAL OAKS, LLC

By: 
King H. Weinstein, Manager


STATE OF MAINE
COUNTY OF YORK Camden

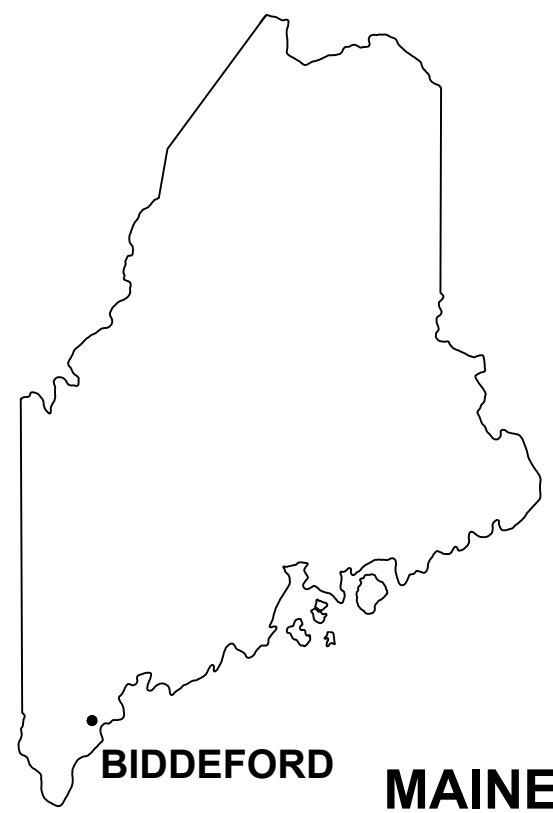
July 22, 2024

Personally appeared before me, King H. Weinstein, in his capacity as Manager of Coastal Oaks, LLC, and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of Coastal Oaks, LLC


Notary Public / Attorney at Law
Print name

BELLE WOODS FINAL SUBDIVISION REVIEW

512 POOL STREET, BIDDEFORD, MAINE



PROJECT INFORMATION

CIVIL ENGINEER HALEY WARD, INC. ATTN: DREW OLEHOWSKI, PE 120 MAIN STREET, SUITE 132 SACO, MAINE 04072 T: 207.283.9151	OWNER/APPLICANT COASTAL OAKS, LLC ATTN: ETHAN SCOTT 198 SACO AVENUE OLD ORCHARD BEACH, MAINE T: 207.710.7570
SURVEYOR COLLIERS ENGINEERING & DESIGN ATTN: JOSHUA EON, PLS 234 MAIN STREET, 1st & 2nd FLOOR BIDDEFORD, MAINE 04005 T: 207.481.7080	ENVIRONMENTAL CONSULTANT MAINELY SOILS LLC. ATTN: ALEX FINAMORE, ME-LSE 440 SWAMP ROAD DURHAM, MAINE 04222 T: 207.650.4313

UTILITY PROVIDERS		
WATER MAINE WATER COMPANY 93 INDUSTRIAL PARK ROAD SACO, MAINE 04072 T: 800.287.1643	SEWER CITY OF BIDDEFORD WASTEWATER DIVISION 63 WATER STREET BIDDEFORD, MAINE 04005 T: 207.282.1350	ELECTRIC CENTRAL MAINE POWER 83 EDISON DRIVE AUGUSTA, MAINE 04330 T: 800.750.4000

- PERMITS AND APPROVALS:**
- CITY OF BIDDEFORD SITE PLAN REVIEW - UNDER REVIEW
 - CITY OF BIDDEFORD SUBDIVISION APPLICATION - UNDER REVIEW
 - ARMY CORPS OF ENGINEERS SELF-VERIFICATION FORM - TO BE OBTAINED PRIOR TO CONSTRUCTION
 - MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION - STORMWATER PERMIT BY RULE - TO BE OBTAINED PRIOR TO CONSTRUCTION



LOCATION MAP

NOT FOR CONSTRUCTION
JUNE 9, 2025



HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
www.haleyward.com

INDEX OF DRAWINGS

C000	COVER SHEET
C001	GENERAL NOTES, ABBREVIATIONS, & LEGEND
1	TOPOGRAPHIC & BOUNDARY SURVEY
V102	EXISTING CONDITIONS & HIGH INTENSITY SOIL SURVEY
C100	SITE DEMOLITION AND EROSION CONTROL PLAN
C101	FINAL SUBDIVISION PLAN
C102	SITE LAYOUT & UTILITY PLAN
C103	OVERALL GRADING & UTILITY PLAN
C501	SITE DETAILS
C502	SITE DETAILS
C701	PRE-DEVELOPMENT HYDROLOGY PLAN
C702	POST-DEVELOPMENT HYDROLOGY PLAN

TAX MAP/LOT:	MAP 9, LOT 31
ZONE OR DISTRICT:	RF/SR1
EXISTING USE:	SINGLE FAMILY RESIDENTIAL/VACANT
PROPOSED USE:	RESIDENTIAL SUBDIVISION
REQUESTED WAIVERS/VARIANCES:	N/A
DRAINAGE WATERSHED:	SACO RIVER
WITHIN MS4 URBANIZED AREA?	NO
NATURAL RESOURCES LOCATED:	YES
FLOOD ZONE:	N/A
ROAD(S) PROPOSED:	PRIVATE
PUBLIC SEWER CONNECTION:	NO
PUBLIC STORM CONNECTION:	NO
LIMITS OF DISTURBANCE:	109,760 SF / 2.51 AC±
EXISTING IMPERVIOUS (TO BE REMOVED):	2,251 SF
EXISTING IMPERVIOUS (TO REMAIN):	1,302 SF
PROPOSED IMPERVIOUS:	16,185 SF
TOTAL IMPERVIOUS:	17,487 SF
EXISTING PERVIOUS:	362,064 SF
PROPOSED PERVIOUS:	346,987 SF
EXISTING BUILDING FOOTPRINT:	1,302 SF
PROPOSED BUILDING FOOTPRINT:	NO BUILDINGS PROPOSED, MAX. 3000 SF/LOT
ASSIGNED PLANNING BOARD NUMBER:	2024.32
PROPOSED CUT/FILL VOLUME:	CALCULATED TOTAL CUT/FILL: 463 CY FILL ROADWAY MATERIALS: 1,442 CY RIPRAP: 23 CY NET CUT/FILL: 463 - 1442 - 23 = 956 CY CUT

FILE LOCATION: P:\MET1887\LAND_WESTERN\BID\19-112 POOL ST. DUDON.CAD, JLESCVAL11871118-CR-DWG, 2025.08.09, 12:15 PM

EROSION CONTROL NOTES

- ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL BMPS, PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION.
- SILT FENCE WILL BE INSPECTED, REPLACED AND/OR REPAIRED IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR LOSS OF SERVICEABILITY DUE TO SEDIMENT ACCUMULATION. AT A MINIMUM, ALL EROSION CONTROL DEVICES WILL BE OBSERVED WEEKLY.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO CONSTRUCTION SITE.
- SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY A SUITABLE GROWTH OF GRASS. ONCE A SUITABLE GROWTH OF GRASS HAS BEEN OBTAINED, ALL TEMPORARY EROSION CONTROL ITEMS SHALL BE REMOVED BY THE CONTRACTOR. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THEY ARE REMOVED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, SEED,ED, AND MULCHED IMMEDIATELY.
- ALL DISTURBED AREAS WILL BE SEED,ED WITH 2.5 LBS. RED FESCUE AND 0.5 LBS. RYE GRASS PER 1,000 SQUARE FEET AND MULCH,ED AT A RATE OF 90 LBS. PER 1,000 SQUARE FEET OR EQUIVALENT APPLICATION OF SEED AND MULCH.
- A SUITABLE BINDER SUCH AS CURASOL OR TERRTACK WILL BE USED ON THE HAY MULCH FOR WIND CONTROL.
- IF FINAL SEEDING OF DISTURBED AREAS IS NOT COMPLETED BY SEPTEMBER 15th OF THE YEAR OF CONSTRUCTION, THEN ON THAT DATE THESE AREAS WILL BE GRADED AND SEED,ED WITH WINTER RYE AT THE RATE OF 112 POUNDS PER ACRE OR 3 POUNDS PER 1000 SQUARE FEET. THE RYE SEEDINGS WILL BE PRECEDED BY AN APPLICATION OF 3 TONS OF LIME AND 800 LBS. OF 10-20-20 FERTILIZER OR ITS EQUIVALENT. MULCH WILL BE APPLIED AT A RATE OF 90 POUNDS PER 1000 SQUARE FEET.
- IF THE RYE SEEDING CANNOT BE COMPLETED BY OCTOBER 1st OR IF THE RYE DOES NOT MAKE ADEQUATE GROWTH BY DECEMBER 1st, THEN ON THOSE DATES, HAY MULCH WILL BE APPLIED AT 150 POUNDS PER 1000 SQUARE FEET.
- ALL CATCH BASINS ARE TO BE PROTECTED BY STRAW BALE OR SILTFENCE IN ACCORDANCE WITH SECTION B-3. STORM DRAIN INLET PROTECTION OF THE MAINE BMP HANDBOOK. SURROUNDING AREAS CAN BE EXCAVATED OR LEFT LOW AS A SEDIMENT TRAP. CURB INLETS SHALL BE PROTECTED BY GUTTERGATORS, OR APPROVED EQUIVALENT.
- INTERIOR SILT FENCES ALONG CONTOUR DIVIDING FLAT AND STEEP SLOPES, AREAS WITH DIFFERENT DISTURBANCE SCHEDULES, AROUND TEMPORARY STOCKPILES OR IN OTHER UNSPECIFIED POSSIBLE CIRCUMSTANCES SHOULD BE CONSIDERED BY THE CONTRACTOR. THE INTENT OF SUCH INTERIOR SILT FENCES IS TO LIMIT SEDIMENT TRANSPORT WITHIN THE SITE TOWARD THE PROTECTED CATCH BASIN INLETS TO MINIMIZE SEDIMENT REMOVAL REQUIRED BY THE EROSION CONTROL NOTE 9 PROTECTIONS AND EXTEND LIFE OF SUCH DEVICES.
- THE CONTRACTOR SHALL PROVIDE A SEDIMENT BASIN FOR ALL WATER PUMPED FROM EXCAVATIONS. BASIN SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES". THE CONTRACTOR SHALL SUBMIT FOR REVIEW/APPROVAL PRIOR TO BEGINNING ANY PROJECT WORK.
- CONSTRUCTION OVERSIGHT:
THE CONTRACTOR WILL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO INSPECT THE CONSTRUCTION AND STABILIZATION OF ALL STORMWATER MANAGEMENT STRUCTURES. IF NECESSARY, THE INSPECTING ENGINEER WILL INTERPRET THE POND'S CONSTRUCTION PLAN FOR THE CONTRACTOR. ONCE ALL STORMWATER MANAGEMENT STRUCTURES ARE CONSTRUCTED AND STABILIZED, THE INSPECTING ENGINEER WILL NOTIFY THE DEPARTMENT IN WRITING WITHIN 30 DAYS TO STATE THAT THE POND HAS BEEN COMPLETED. ACCOMPANYING THE ENGINEER'S NOTIFICATION MUST BE A LOG OF THE ENGINEER'S INSPECTIONS GIVING THE DATE OF EACH INSPECTION, THE TIME OF EACH INSPECTION, AND THE ITEMS INSPECTED ON EACH VISIT, AND INCLUDE ANY TESTING DATA OR SIEVE ANALYSIS DATA OF EVERY MINERAL SOIL AND SOIL MEDIA SPECIFIED IN THE PLANS AND USED ON SITE.
- LOT GRADING AND DRIVEWAY LOCATION
INSPECTIONS BY A PROFESSIONAL ENGINEER WILL CONSIST OF A VISIT TO THE SITE PRIOR TO CONSTRUCTION TO CONSULT WITH THE EARTHWORK CONTRACTOR AND A POST CONSTRUCTION MEETING TO CONFIRM GRADING ON LOTS AND FOR ALL DRIVEWAYS TO ENSURE RUNOFF IS DIRECTED ACCORDING TO PLANS AND TO OVERSEE THE RE-STABILIZATION OF THE LOT INTO A VEGETATED COVER.
- DEWATERING
A DEWATERING PLAN IS NEEDED TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADE IN EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE. PLEASE FOLLOW THE DETAILS OF SUCH A PLAN.
- BASIC STANDARDS - EROSION CONTROL MEASURES:
MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE.

CONTRACTOR WILL BE RESPONSIBLE FOR FOLLOWING PROCEDURES FOUND IN THE "MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS" (PUBLISHED MARCH 2015). THE PUBLICATION CAN BE FOUND AT: [HTTP://WWW.MAINE.GOV/DEP/LAND/EROSION/BMPS/INDEX.HTML](http://www.maine.gov/dep/land/erosion/bmps/index.html)

GENERAL CONSTRUCTION NOTES

- CONTRACTOR TO PROVIDE OWNER AND ENGINEER WITH A WORK PLAN OUTLINING THE WORK SCHEDULE, TRAFFIC CONTROL PLAN, AND WORK AREA BARRICADING PLAN TO BE APPROVED BY THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION WITH THE CITY OF BIDDEFORD, UTILITY COMPANIES, DIG SAFE, AND EMERGENCY SERVICES, WHERE APPLICABLE. CONTRACTOR SHALL NOTIFY ALL UTILITIES PRIOR TO COMMENCING WORK TO ALLOW SUFFICIENT TIME TO LOCATE AND MARK THE LOCATION OF ALL BURIED UTILITIES. CONTRACTOR SHALL ALSO CONTACT "DIG SAFE", TELEPHONE NO 811 OR 888-DIG-SAFE. REPAIR OF ANY DAMAGED UTILITY WILL BE INCIDENTAL TO THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER IN WRITING OF ANY CONDITION OR OCCURRENCE THAT REPRESENTS A CHANGE IN PROJECT SCOPE. VERBAL NOTIFICATION IS REQUIRED PRIOR TO PROCEEDING WITH THE WORK OF THE PROJECT AND WRITTEN NOTIFICATION MUST BE PROVIDED. REQUESTS FOR FEE ADJUSTMENTS WILL NOT BE CONSIDERED UNLESS PROPER NOTICE IS GIVEN.
- THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS AS REQUIRED TO PERFORM THE WORK AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL CODES.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS. PERMIT APPLICATIONS SHALL BE SUBMITTED WITH ADEQUATE TIME SO AS NOT TO DELAY CONSTRUCTION.
- THE CONTRACTOR SHALL SUPERVISE AND INSPECT THE WORK OF THIS PROJECT IN AN EFFICIENT AND COMPETENT MANNER. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES USED TO COMPLETE THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE WORK IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. A REPRESENTATIVE OF THE GENERAL CONTRACTOR SHALL BE PRESENT DURING ALL PHASES OF THE WORK.
- SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. PERFORM ALL WORK IN ACCORDANCE WITH SAFETY STANDARDS OF APPLICABLE LAWS, BUILDING AND CONSTRUCTION CODES, THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" PUBLISHED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND THE REQUIREMENTS OF TITLE 9 OF THE CODE OF FEDERAL REGULATIONS, PART 1926, "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION".
- THE LOCATIONS OF ALL PROPERTY LINES AND RIGHT OF WAYS ARE APPROXIMATE (SHOWN FOR REFERENCE ONLY). UNLESS NOTED OTHERWISE, PROPERTY LINES AND RIGHT OF WAYS SHOWN ARE NOT INTENDED TO REPRESENT LEGAL BOUNDARIES.
- THE LOCATION, TYPE AND SIZE OF EXISTING PIPES, DUCTS, CONDUITS AND OTHER UNDERGROUND STRUCTURES SHOWN ON THE DRAWINGS ARE NOT WARRANTED TO BE EXACT NOR IS IT WARRANTED THAT ALL UNDERGROUND STRUCTURES ARE SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. DEPTH OF SERVICES ARE UNKNOWN AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR. EXCAVATING TEST PITS AS NECESSARY TO VERIFY UTILITY LOCATIONS AND DEPTHS SHALL BE INCIDENTAL TO THIS PROJECT.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING TOPOGRAPHY AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING PIPE SIZES, INVERTS, AND LOCATIONS, AND SHALL INCLUDE IN SUBMITTAL PRIOR TO ORDERING.
- LAYOUT OF THE PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GRADE AND LAYOUT CONTROL. LAYOUT SHOULD BE PERFORMED WITH SURVEY EQUIPMENT AND OVERSEEN BY A LICENSED SURVEYOR. A CAD FILE WILL BE AVAILABLE TO THE CONTRACTOR.
- THE WORK SHALL INCORPORATE EROSION CONTROL MEASURES WHICH ARE COMPLIANT WITH THE LATEST VERSION OF "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES".
- CONTRACTOR SHALL BE REQUIRED TO PROVIDE DUST CONTROL FOR PROJECT WHICH CAN INCLUDE, BUT IS NOT LIMITED TO, WATER AND CALCIUM CHLORIDE. COST IS INCIDENTAL TO THE PROJECT.
- RESTRICT ACCESS TO SITE THROUGH THE USE OF APPROPRIATE SIGNAGE, GATES, BARRIERS, FENCES, ETC. SITE SHALL BE LEFT SAFE WITH APPROPRIATE SAFETY MEASURES IN PLACE DURING NON-WORKING HOURS. NO TRENCH SHALL BE LEFT OPEN DURING NON-WORKING HOURS. SITE SAFETY IS THE RESPONSIBILITY OF CONTRACTOR, DURING BOTH WORKING AND NON-WORKING HOURS.
- HOURS FOR THE PROJECT WILL BE MONDAY THROUGH FRIDAY, FROM 7:00 AM TO 7:00 PM, UNLESS OTHERWISE AUTHORIZED BY THE OWNER.
- CONTRACTOR SHALL PERFORM ALL CONSTRUCTION ACTIVITIES RELATED TO THE PROJECT WITHIN THE CONFINES OF THE RIGHT OF WAY OF THE STREETS AND UTILITY EASEMENTS. ANY ACTIVITY, MATERIAL STORAGE ETC., TAKING PLACE ON PRIVATE PROPERTY SHALL BE WITH THE EXPRESS WRITTEN PERMISSION OF THE OWNER AND PROPERTY OWNER AND COORDINATED WITH THE OWNER. WORK OUTSIDE OF THESE LIMITS MAY BE REQUIRED. THE OWNER WILL COORDINATE SECURING EASEMENTS FOR THIS WORK.
- DO NOT PARK, IMPEDE ACCESS TO, OR STORE EQUIPMENT ON ADJACENT TOWN OR PRIVATELY OWNED LOTS, UNLESS PERMISSION HAS BEEN GRANTED IN WRITING BY TOWN AND/OR LAND OWNER.

- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT EQUIPMENT FLUIDS FROM REACHING ANY WATER COURSE. ANY INADVERTENT FLUID DISCHARGES SHALL BE IMMEDIATELY CLEANED FROM THE WATERS USING WHATEVER MEANS NECESSARY, AS DETERMINED BY THE ENGINEER.
- ALL WATER MAINS AND SERVICES WILL HAVE A MINIMUM 6.0 FEET OF COVER UNLESS NOTED OTHERWISE OR APPROVED BY THE ENGINEER.
- DECHLORINATION OF DISINFECTION WATER WILL BE A REQUIREMENT DURING THE PIPE DISINFECTION PROCESS.
- THE CONTRACTOR SHALL PROVIDE THRUST BLOCKS AT ALL TEES AND BENDS IN THE NEW WATER MAIN PIPING UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL BACKFILL TRENCH FOLLOWING EACH DAY'S CONSTRUCTION. NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT UNLESS APPROVED BY ENGINEER AND PROPERLY BARRICADED (IE. SNOW FENCING, CHAIN LINK FENCING, JERSEY BARRIER OR APPROVED EQUAL. CAUTION RIBBON AND EQUIPMENT PLACEMENT WILL NOT BE APPROVED AS BARRICADING. CONTRACTOR IS RESPONSIBLE TO MAINTAIN TRENCH AS DIRECTED BY THE ENGINEER
- ALL FINISH SURFACES SHALL BE INSTALLED TO PROMOTE POSITIVE DRAINAGE. IN NO WAY SHALL THE NEW FINISH SURFACES CREATE DRAINAGE PROBLEMS THAT DID NOT EXIST PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL CONTACT UTILITY POLE OWNERS ADJACENT TO AREAS OF EXCAVATION TO ARRANGE POLE SUPPORT DURING EXCAVATION. BRACING OF UTILITY POLES WHERE REQUIRED SHALL BE INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT SHALL BE MADE UNLESS OTHERWISE NOTED.
- ALL SIGNING, SIGNAL, AND STRIPING MATERIALS AND PLACEMENT SHALL CONFORM TO THE MDOT STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- RESTORE ALL AREAS DISTURBED BY CONTRACTORS OPERATION TO ORIGINAL CONDITIONS (GRAVEL, PAVEMENT, GRASS, CURB, ETC.) UNLESS NOTED OTHERWISE ON THE PLANS. RESTORATION OF ROADS, CURBS, PARKING SURFACES AND LAWNS DAMAGED BY THE CONTRACTOR SHALL BE INCIDENTAL TO THE PROJECT.
- EXISTING FACILITIES, PLANTINGS AND IMPROVEMENTS (I.E. TREES, LIGHT POLES, SIGNS, CONCRETE SIDEWALK, ETC.) SHALL BE REMOVED AND REPLACED OR PROTECTED AS REQUIRED DURING CONSTRUCTION. THE ASSOCIATED COSTS ARE INCIDENTAL TO THE PROJECT.
- ALL MATERIALS SCHEDULED FOR REMOVAL SHALL BE DISPOSED OF IN A LEGAL MANNER BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE OWNER HAS THE FIRST RIGHT AND REFUSAL FOR ANY DEMOLITION MATERIALS.
- DISPOSAL OF SURPLUS SOIL MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SURPLUS MATERIAL SHALL NOT BE DISPOSED OF ON THE PROJECT SITE. DISPOSAL SHALL BE MADE ONLY AT WASTE AREAS WHICH ARE LICENSED TO ACCEPT SUCH MATERIALS. UNLESS THE MATERIAL IS ACCEPTABLE FOR USE AS FILL IN OTHER AREAS OF THE PROJECT. THE OWNER HAS THE FIRST RIGHT AND REFUSAL FOR ANY SURPLUS SOIL MATERIALS.
- ALL PROPOSED WATER MAIN PIPING SHALL BE CLASS 52 DUCTILE IRON AND ALL PROPOSED STORM DRAIN PIPING SHALL BE HDPE SMOOTH INTERIOR/CORRUGATED EXTERIOR.
- ALL PROPOSED WATER SERVICE PIPING SHALL BE 1" TYPE K COPPER UNLESS OTHERWISE NOTED.
- INSTALL FOUR BRONZE WEDGES AT ALL DUCTILE IRON BELL & SPIGOT JOINTS IN WATER MAIN, COST INCIDENTAL TO WATER MAIN INSTALLATION.
- ALL MATERIALS, COMPONENTS, PRODUCTS, SYSTEMS AND COATINGS THAT COME INTO CONTACT WITH DRINKING WATER MUST BE CERTIFIED TO MEET NSF/ANSI STANDARD 61.
- JOINTS SHALL BE RUBBER GASKETED PUSH-ON OR MECHANICAL JOINT TYPE. GASKETS SHALL BE MADE OF SBR RUBBER. FOR WATER MAIN LOCATED WITHIN PETROLEUM HYDROCARBON AND/OR CHLORINATED SOLVENT CONTAMINATED SOILS, GASKETS SHALL BE MADE OF OIL RESISTANT BUNA-N NITRILE RUBBER. WHEN CONTAMINATED SOIL IS ENCOUNTERED UNEXPECTEDLY IN THE FIELD, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. ALL JOINTS SHALL BE IN CONFORMANCE WITH REQUIREMENTS OF ANSI/AWWA C111/A21.11.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING TEMPORARY WATER SERVICE TO THE RESIDENCES, AS NEEDED, TO MAINTAIN WATER SERVICE DURING THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL MAINTAIN TEMPORARY WATER THROUGHOUT CONSTRUCTION OF THE PROJECT. A PAY ITEM HAS BEEN PROVIDED FOR THIS WORK. THE CONTRACTOR SHALL PROVIDE A TEMPORARY WATER SERVICE PLAN TO THE OWNER AND ENGINEER FOR APPROVAL PRIOR TO INSTALLATION SYSTEM. COST TO PROVIDE PLAN SHALL BE INCIDENTAL TO ITEM. TEMPORARY WATER SERVICE PLAN SHALL INCLUDE PIPE MATERIAL, PIPE ROUTING, BURIAL DEPTHS WHERE NEEDED, DISINFECTION PROCESS AND ANY OTHER INFORMATION THAT MAY BE REQUIRED FOR APPROVAL.
- AT THE END OF EACH DAY'S WORK, THE CONTRACTOR SHALL SPRAY THE INSIDE OF THE END OF WATER PIPE WITH SODIUM HYPOCHLORITE AND BLOCK PIPE OVERNIGHT WITH SANITARY WATERTIGHT PLUG TO PREVENT ANIMALS FROM ENTERING PIPE.
- PROPOSED SERVICES SHALL BE PROVIDED FROM THE NEW MAIN TO THE RIGHT-OF-WAY, OR AS INDICATED ON THE PLANS.
- CONTRACTOR SHALL INSTALL A WATER SERVICE TO EACH LOT.
- COORDINATE DISRUPTION OF PRIVATE UTILITY SERVICES WITH LANDOWNERS AT LEAST TWO DAYS (48 HOURS) PRIOR TO DISRUPTION. ALL UTILITY COORDINATION IS RESPONSIBILITY OF CONTRACTOR.
- WATER SERVICES SHALL NOT BE DISCONTINUED AT ANY HOUSE PRIOR TO 10:00 AM WITHOUT WRITTEN NOTIFICATION TO THE PROPERTY OWNER.
- ALL EXISTING WATER MAINS, STORM DRAINS AND SEWER MAINS ABANDONED SHALL BE CAPPED AND FILLED WITH FLOWABLE FILL, COST SHALL BE INCIDENTAL TO PROJECT.
- UNLESS OTHERWISE NOTED, RIM ELEVATIONS FOR PROPOSED MANHOLE AND CATCH BASIN STRUCTURES SHALL BE FIELD ADJUSTED TO FINISHED GRADES IN ACCORDANCE WITH DETAILS.
- ALL TEST PITS NECESSARY TO LOCATE SERVICES SHALL BE INCIDENTAL TO THE PROJECT.
- CONTRACTOR SHALL MAINTAIN TRAFFIC IN A SAFE MANNER AT ALL TIMES DURING CONSTRUCTION. MDOT TRAFFIC CONTROL AND SIGNAGE REQUIREMENTS SHALL APPLY ON THE TOWN OF MILFORD STREETS. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN CONTINUOUS TRAFFIC FLOW DURING CONSTRUCTION. THE ROADS SHALL NOT BE CLOSED TO TRAFFIC WITHOUT PERMISSION FROM THE TOWN OF MILFORD.
- DRIVEWAY APRONS SHALL BE PAVED TO MATCH PROPOSED ROADWAY. APRON DIMENSIONS SHALL BE APPROVED BEFORE PAVING. APRON AREAS SHOWN ON THE PLANS ARE APPROXIMATE.
- PROPERLY PROTECT AND DO NOT DISTURB PROPERTY IRONS AND MONUMENTS. IF DISTURBED, THE PROPERTY MONUMENT WILL BE RESET AT THE CONTRACTOR'S EXPENSE, BY A REGISTERED LAND SURVEYOR APPROVED BY THE ENGINEER.

ABBREVIATIONS

@	AT	MAX.	MAXIMUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MDOT	MAINE DEPT. OF TRANSPORTATION
APPROX.±	APPROXIMATELY	MH MIN	MANHOLE MINIMUM
BLDG	BUILDING	N	NORTHING
CL	CENTERLINE	NE	NORTHEAST
CB	CATCH BASIN	N.T.S.	NOT TO SCALE
CLR	CLEAR	NWT	NON WOVEN GEOTEXTILE
CMP	CORRUGATED METAL PIPE	OD	OUTSIDE DIAMETER
CO	CLEANOUT	O.C.	ON CENTER
CPE	CORRUGATED POLYETHYLENE	OH	OVERHEAD
		OZ	OUNCES
		PERF	PERFORATED
DI	DUCTILE IRON		
DIA.	DIAMETER	PSF	POUNDS PER SQUARE FOOT
		PSI	POUNDS PER SQUARE INCH
E	EASTING	PVC	POLYVINYL CHLORIDE
EL	ELEVATION	PL	PROPERTY LINE
EFM	EXISTING FORCE MAIN	POH	PROPOSED OVERHEAD ELECTRIC
EPS	EXTRUDED POLYSTYRENE	FUGE	PROPOSED UNDERGROUND ELECTRIC
FM	FORCEMAIN	R	RADIUS
GAL	GALLON	S	SLOPE
GALV	GALVANIZED	SCL	STORMWATER COLLECTION LINE
		SCS	STORMWATER COLLECTION SYSTEM
GPH	GALLONS PER HOUR	SDR	STANDARD DIMENSION RATIO
GP	GALLONS PER MINUTE	SE	SOUTHEAST
		SHT	SHEET
HDPE	HIGH DENSITY POLYETHYLENE	SO	SQUARE
HP	HORSEPOWER	SS	STAINLESS STEEL
		SY	SQUARE YARD
ID	INSIDE DIAMETER		
IN.	INCHES	TBM	TEMPORARY BENCH MARK
INT.	INTERSECTION	TOC	TOP OF CONCRETE
INV.	INVERT	TYP	TYPICAL

LEGEND:

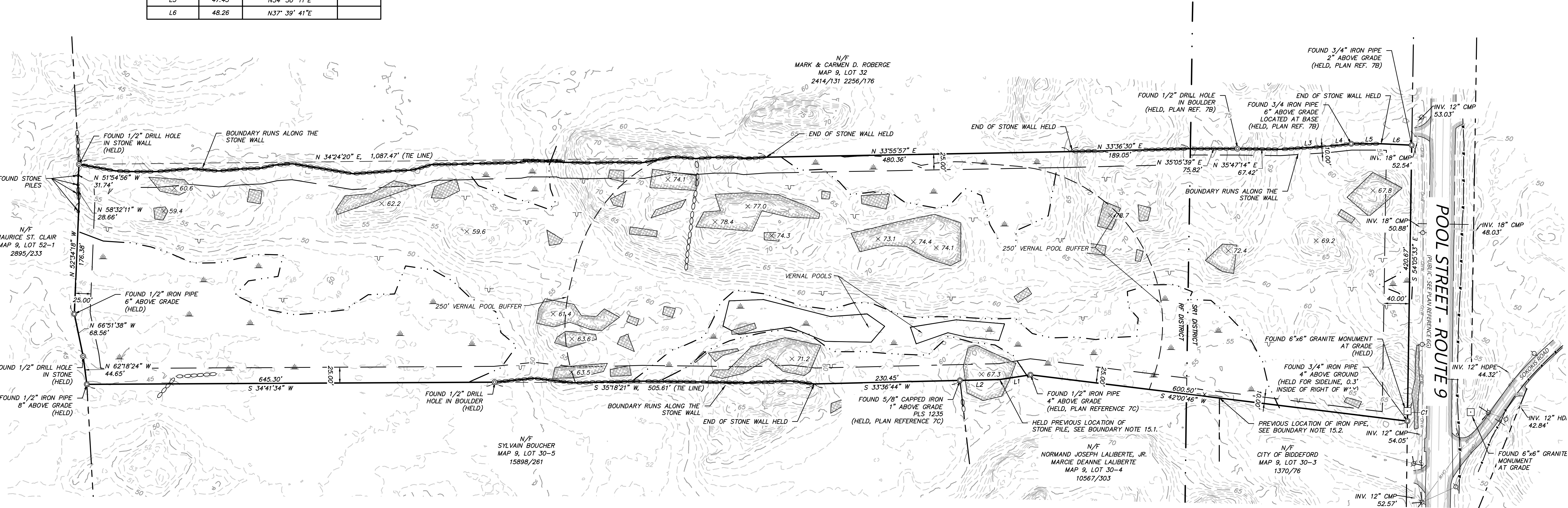
ITEMS SHOWN MAY NOT APPEAR ON PLANS

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
BENCHMARK		
SURVEY STATION		
IRON PIN		
DRILL HOLE		
BOUND		
TEST PIT		
SEWER MANHOLE		
GAS VALVE		
UTILITY POLE		
GUY ANCHOR		
ELECTRICAL MANHOLE		
TRANSFORMER		
PULLBOX		
WELL		
WATER VALVE		
WATER SHUTOFF		
HYDRANT		
AIR RELIEF VALVE		
DRAINAGE MANHOLE		
CATCH BASIN		
CURB INLET		
PARKING LIGHT		
FLOOD LIGHT		
SITE LIGHT		
SIGN		
TRASH CAN		
FLAGPOLE		
MONITORING WELL		
EDGE OF GRAVEL		
EDGE OF PAVEMENT		
CURBING		
MAJOR FOOT CONTOUR	----- 100 -----	100
MINOR FOOT CONTOUR	----- 98 -----	98
WATERLINE	— W —	W
STORM DRAIN	— SD —	SD
UNDER DRAIN		UD
SANITARY SEWER	— SS —	SS
FORCE MAIN		FM
OVERHEAD UTILITIES	— OHU —	OHU
UNDERGROUND UTILITIES	— UGU —	UGU
GAS LINE	— GAS —	GAS
CHAIN LINK FENCE	— X —	X
GUARDRAIL	— A —	A
SILT FENCE		SF
TREE LINE		
GRAVEL SURFACE		
PAVED SURFACE		
CONCRETE SURFACE		
BUILDING FOOTPRINT		
WETLANDS		
RIPRAP		
LEDGE OUTCROPPING		
LIMITED LOT DEVELOPMENT AREA		

REV.	DATE	DESCRIPTION	BY	CHK.
DRAWING ISSUE STATUS				
NOT FOR CONSTRUCTION				
 HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING WWW.HALEYWARD.COM One Merchants Plaza, Suite 701 Bangor, Maine 04401 207.989.4824				
PROJECT				
COASTAL OAKS LLC 198 SACO AVENUE, OLD ORCHARD BEACH, MAINE, 04064 BELLE WOODS - SUBDIVISION 512 POOL STREET, BIDDEFORD, MAINE 04005				
TITLE				
GENERAL NOTES, ABBREVIATIONS & LEGEND				
DATE 2025.06.09		SCALE NTS		
DRAWN BY PJM	DESIGNED BY —	CHECKED BY DJO		
PROJECT No. 13871.019		REV.		
DRAWING No.		C001		



PARCEL LINE AND CURVE SEGMENTS			
SEGMENT	LENGTH	BEARING / DELTA	RADIUS
C1	15.82	0°02'22"	22918.33
L1	49.51	S26° 17' 50"W	
L2	62.70	S33° 46' 05"W	
L3	75.82	N31° 25' 40"E	
L4	37.16	N28° 47' 23"E	
L5	47.43	N34° 50' 11"E	
L6	48.26	N37° 39' 41"E	



LEGEND	
	PROPERTY LINE
	EDGE OF PAVEMENT
	WETLAND LINE
	TREELINE
	OVERHEAD WIRE
	UNDER GROUND WATER MAIN
	STORM PIPE
	LEDGE
	MAJOR CONTOUR
	MINOR CONTOUR
	SPOT ELEVATION
	ABUTTER LINE
	MUNICIPAL ZONE BOUNDARY
	WATER SERVICE BOX
	HYDRANT
	REBAR
	MONUMENT FND
	SIGN
	MAILBOX
	UTILITY POLE
	GUY WIRE
	STONE PILE
	LEDGE
	GPS POINT

GENERAL NOTES:

1. THE RECORD OWNERS OF THE LOCUS PARCEL IS AS FOLLOWS:

PAUL J. BARTON & TERESA M. BARTON BY DEED DATED DECEMBER 31, 2009 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS (YCRD) IN BOOK 15821, PAGE 456.

2. THE PROPERTY IS SHOWN AS LOT 31 ON THE CITY OF BIDDEFORD, MAINE TAX MAP 9, AND IS LOCATED IN BOTH THE RURAL FARM (RF) DISTRICT & SUBURBAN RESIDENTIAL (SR1) DISTRICT.

3. SPACE AND BULK CRITERIA FOR THE SR1 & RF DISTRICTS ARE AS FOLLOWS:

	RF DISTRICT 20,000 S.F.*	SR1 DISTRICT 20,000 S.F.*
MINIMUM LOT SIZE:	120 FEET*	100 FEET*
MINIMUM STREET FRONTAGE:	25 FEET*	40 FEET*
MINIMUM FRONT YARD:	25 FEET	10 FEET
MINIMUM SIDE YARD:	25 FEET	10 FEET
MINIMUM REAR YARD:	25 FEET	10 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET	35 FEET

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

4. TOTAL AREA OF PARCEL IS APPROXIMATELY 17.45 ACRES.

5. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY COLLIERS ENGINEERING & DESIGN INC. IN APRIL OF 2023.

6. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY COLLIERS ENGINEERING & DESIGN INC. IN APRIL OF 2023. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH SUAS BASED LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION. ALL DATA REMOTELY COLLECTED HAS BEEN TESTED TO MEET AND/OR EXCEED THE NATIONAL MAPPING STANDARDS FOR 1 FOOT CONTOUR INTERVALS SET FORTH BY THE AMERICAN SOCIETY FOR PHOTOGRAMMETRY & REMOTE SENSING (ASPRS).

7. PLAN REFERENCES:

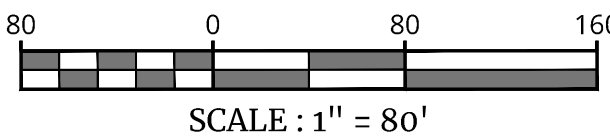
- "MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP - STATE AID HIGHWAY NO. 2 - FEDERAL AID SECONDARY PROJECT 5 0112 (4) - S.H.C. FILE NO. 16-116 - SHEET 5 OF 5, DATED JANUARY, 1957 AND RECORDED IN PLAN BOOK 31, PAGE 7.
- "PLAN OF LAND OF CARMEN & MARK ROBERGE ON THE NEW POOL ROAD - BIDDEFORD, ME" PREPARED BY ASSOCIATED PLANNING, DATED SEPTEMBER 15, 1979 AND RECORDED IN PLAN BOOK 101, PAGE 39.
- "PLAN SHOWING A STANDARD BOUNDARY SURVEY OF PROPERTY OF JAMES F. CHRETIEN" PREPARED BY WILLIAM PIERCE, P.L.S. #1235, DATED DECEMBER 13, 2000 AND RECORDED IN PLAN BOOK 261, PAGE 33.

- BOOK AND PAGE REFERENCES SHOWN HEREON ARE IN REFERENCE TO THE YORK COUNTY REGISTRY OF DEEDS (Y.C.R.D.).
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NADE83. ELEVATIONS DEPICTED HEREON ARE NAVD83, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
- LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR BIDDEFORD, MAINE, YORK COUNTY, COMMUNITY-PANEL NUMBER 2301450005B HAVING AN EFFECTIVE DATE OF MAY 15, 1994. THE ENTIRETY OF THE PARCEL FALLS WITHIN AN AREA IDENTIFIED AS ZONE C, AREAS OF MINIMAL FLOODING.
- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN JANUARY OF 2023 BY ALEX FINAMORE, LICENSED SOIL SCIENTIST OF MAINELY SOILS LLC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. ALL WETLAND FLAGS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF SUB-METER ACCURACY.
- A VERNAL POOL SURVEY WAS PERFORMED DURING APRIL AND MAY OF 2023 BY ALEX FINAMORE, LICENSED SOIL SCIENTIST OF MAINELY SOILS LLC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9, OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- DEED REFERENCES:**
 - JOSEPH CARMINE SERPICO (ESTATE) TO MARY A. & PAUL J. BARTON, DATED OCTOBER 19, 1998, RECORDED IN DEED BOOK 9095, PAGE 336.
- BOUNDARY NOTES:**
 - THE STONE HEAP AS CALLED FOR IN DEED REFERENCE 14.1 AND SHOWN ON PLAN REFERENCE 7C WAS NOT RECOVERED IN THE FIELD. THE BEARINGS SHOWN ON PLAN REFERENCE 7C AND MONUMENTS FOUND IN THE FIELD WERE USED TO REESTABLISH ITS LOCATION.
 - THE IRON PIPE SHOWN ON PLAN REFERENCE 7C WAS NOT RECOVERED. THE PREVIOUS LOCATION WAS DETERMINED UTILIZING PLAN REFERENCE 7C AS WELL AS HOLDING A DISTANCE OF 300.9' NORTH EASTERLY FROM THE FOUND IRON PIPE TO THE SOUTH WEST.
- THE BOUNDARY BETWEEN THE RF ZONE & THE SR1 ZONE WAS DETERMINED UTILIZING THE ONLINE GIS SERVICES PROVIDED BY THE CITY OF BIDDEFORD. 350 FEET FROM THE SOUTHERLY SIDE OF THE POOL STREET RIGHT OF WAY WAS HELD AS MEASURED.

SURVEYORS CERTIFICATION:

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF. IT WAS PERFORMED IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

JOSHUA R. EGAN, MAINE, PLS 2558
DATE: 6/30/2023



Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

Colliers

Engineering
& Design

www.colliersengineering.com

Copyright © 2023, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the service was contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

Doing Business as

MASER CONSULTING

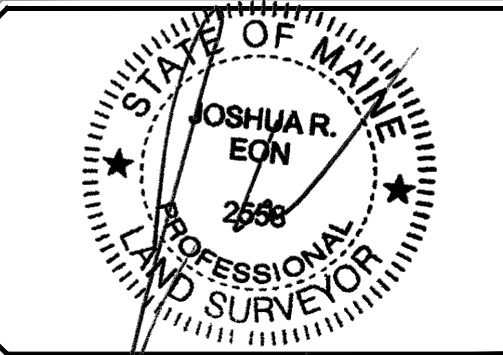
811

Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR ANY PERSON
PREPARING TO DISTURB THE EARTH'S
SURFACE ANYWHERE IN ANY STATE

REV	DATE	DRAWN BY	DESCRIPTION
1	6/30/23	JRE	ISSUED TO CLIENT
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			



TOPOGRAPHIC & BOUNDARY
SURVEY

FOR
COASTAL OAKS LLC

512 POOL ST
YORK COUNTY
BIDDEFORD, MAINE
TAX MAP 9 LOT 31

RECORD OWNER
ANTHONY & MARGARET
SERPICO
16 GOODALE AVE
SACO, ME

Colliers
Engineering
& Design
#

Scale: AS SHOWN 05/17/2023
Project Number: 23002285A
Drawing Name: 23002285A_POOLRD_BIDDEFORD

BOUNDARY AND
TOPOGRAPHIC SURVEY

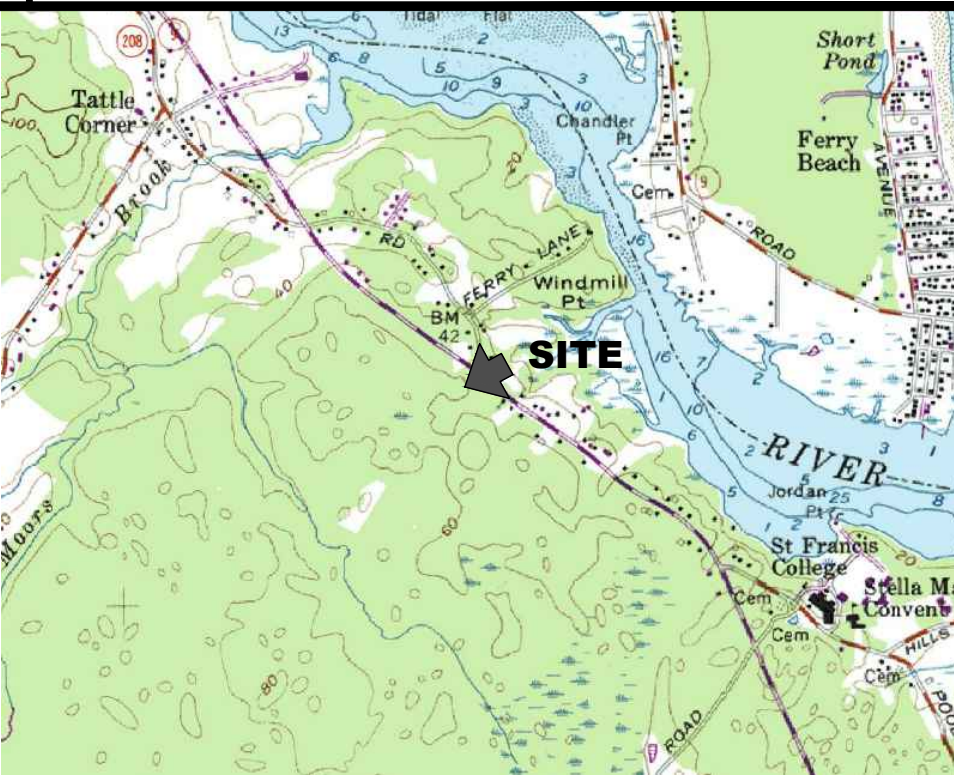
1 of 1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

FILE LOCATION: P:\MET13871\HNG_WEINS\ENGIN\512 POOL ST. DUDGE.CAD, FILESCHEM\REF\513871 01\BASE.DWG, 2023.06.09, 12:15 PM

PLAN REFERENCE:

- HIGH INTENSITY SOIL SURVEY HAS BEEN PREPARED BY MARK HAMPTON ASSOCIATES, INC. IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS, AND THE MAINE BOARD OF CERTIFICATION OF GEOLOGISTS AND SOIL SCIENTISTS.
- LOCUS PROPERTY BOUNDARY AND EXISTING TOPOGRAPHY ARE BASED ON THE PLAN ENTITLED, "BOUNDARY AND TOPOGRAPHIC SURVEY PLAN", PREPARED BY COLLIER'S ENGINEERING & DESIGN AND DATED MAY 17, 2023. OTHER EXISTING CONDITIONS HAVE BEEN ADDED BASED ON AS-BUILT PLANS PROVIDED BY CLIENT AND AERIAL IMAGERY.

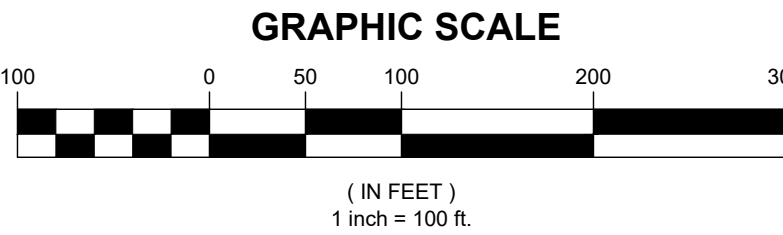


LEGEND:

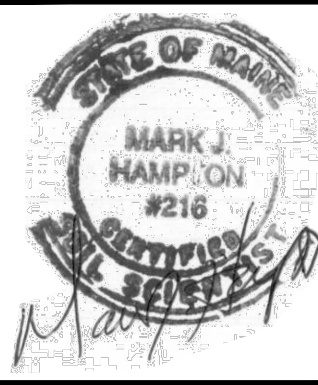
DESCRIPTION	EXISTING
DEED AND LAID OUT	D&L
BENCHMARK	
SURVEY STATION	
MONUMENT	
PIN FOUND	
PIPE FOUND	
SET 5/8" REBAR WITH SURVEYOR'S CAP (PLS #2324)	
SEWER MANHOLE	
UTILITY POLE	
CATCH BASIN	
HYDRANT	
WELL	
TREES	
PROPERTY LINE	
APPROXIMATE EXTERIOR PROPERTY LINE	
OVERHEAD UTILITY LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
CENTERLINE	
TIE / REFERENCE LINE	
STONE WALL	
FENCE	
HIGH WATER MARK (SEE NOTE 4)	
TREELINE	
MINOR FOOT CONTOUR	
MAJOR FOOT CONTOUR	

LEGEND FOR SOIL MAPS:

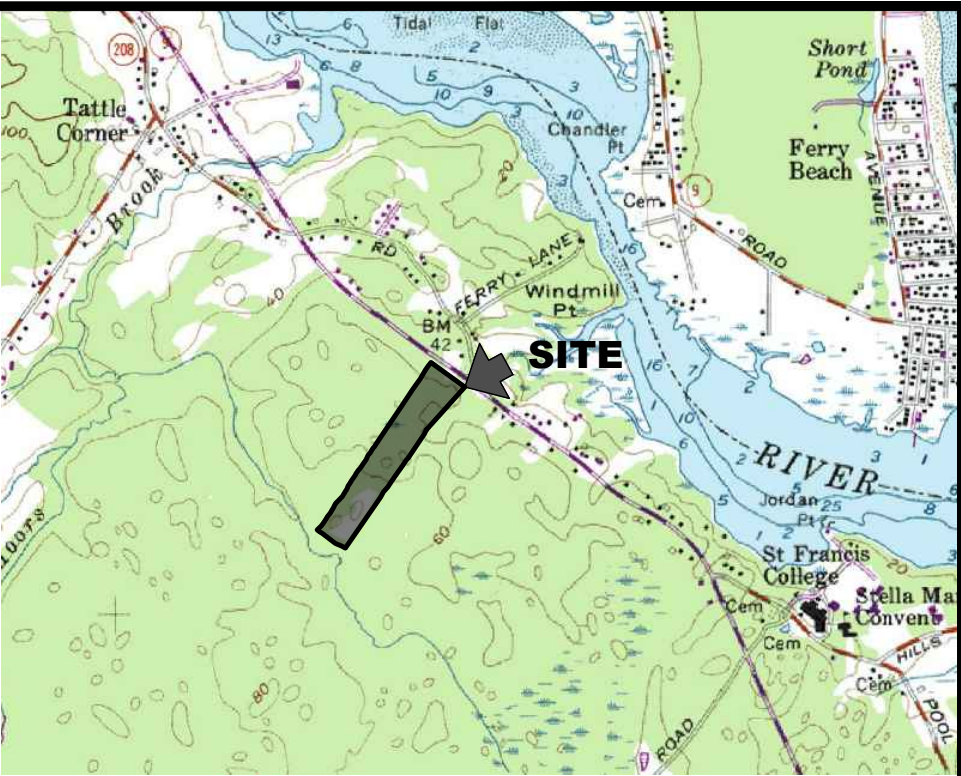
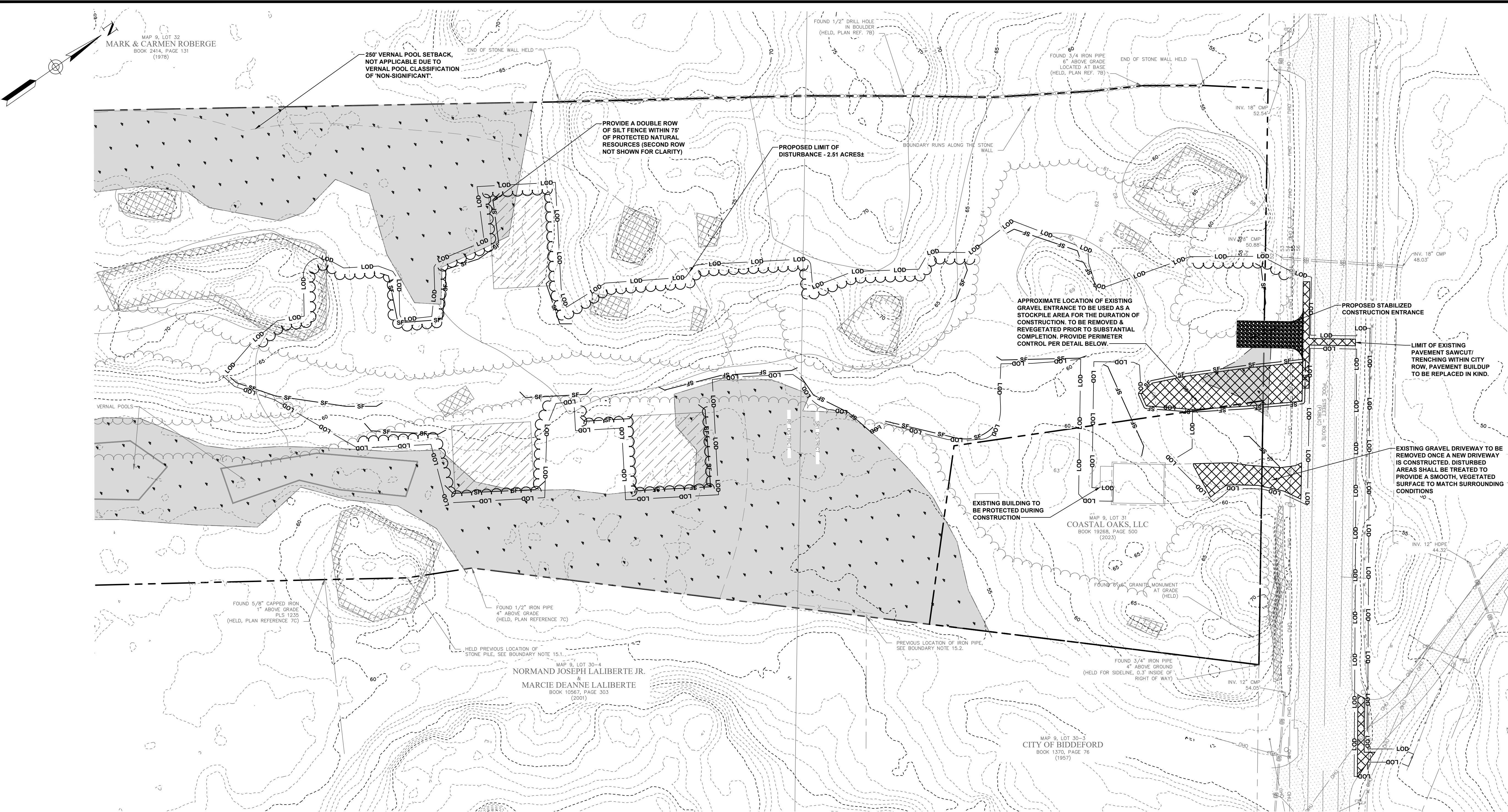
DRAINAGE CLASS	
• EXCESSIVELY WELL DRAINED	EWD
• WELL DRAINED	WD
• MODERATELY WELL DRAINED	MWD
• SOMEWHAT POORLY DRAINED	SPD
• POORLY DRAINED	PD
• VERY POORLY DRAINED	VPD
SLOPE DESIGNATION	
• 0-3%	A
• 3-8%	B
• 8-15%	C
• 15-25%	D
• >25%	E



REV	DATE	DESCRIPTION	BY	CHK
DRAWING ISSUE STATUS				
NOT FOR CONSTRUCTION				
 HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING One Merchants Plaza, Suite 701 Bangor, Maine 04401 207.989.4824				
PROJECT				
512 POOL STREET BIDDEFORD, MAINE, 04005				
TITLE				
EXISTING CONDITIONS & HIGH INTENSITY SOILS SURVEY				
DATE		2024.06.09		SCALE
DRAWN BY		DESIGNED BY		CHECKED BY
PJM		---		DJO
PROJECT No.		13871.019		
DRAWING No.		V102		



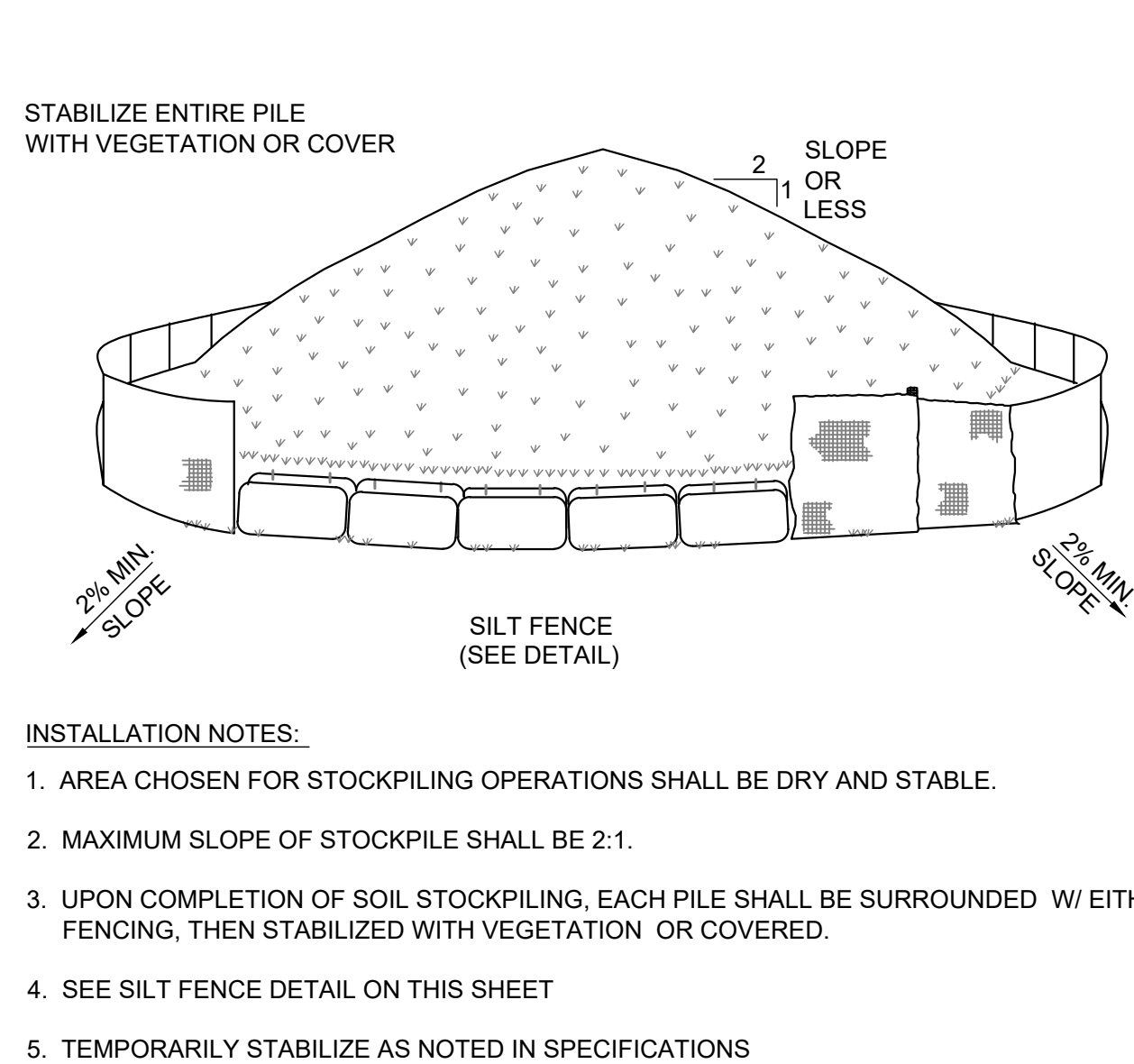
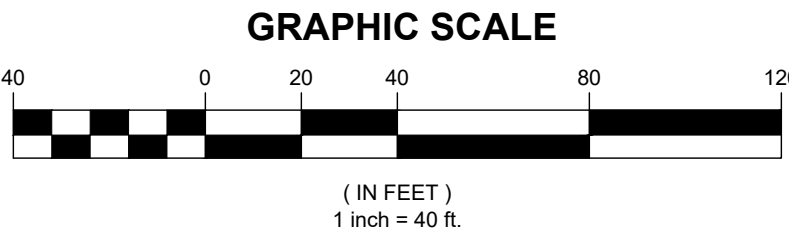
FILE LOCATION: P:\MET\1887\LAND\WEINS\TENNIS\19-112 POOL ST. DUDGE.CAD, FILESCAL\1887\1018-C-SP.DWG, 2025.06.09, 12:15 PM



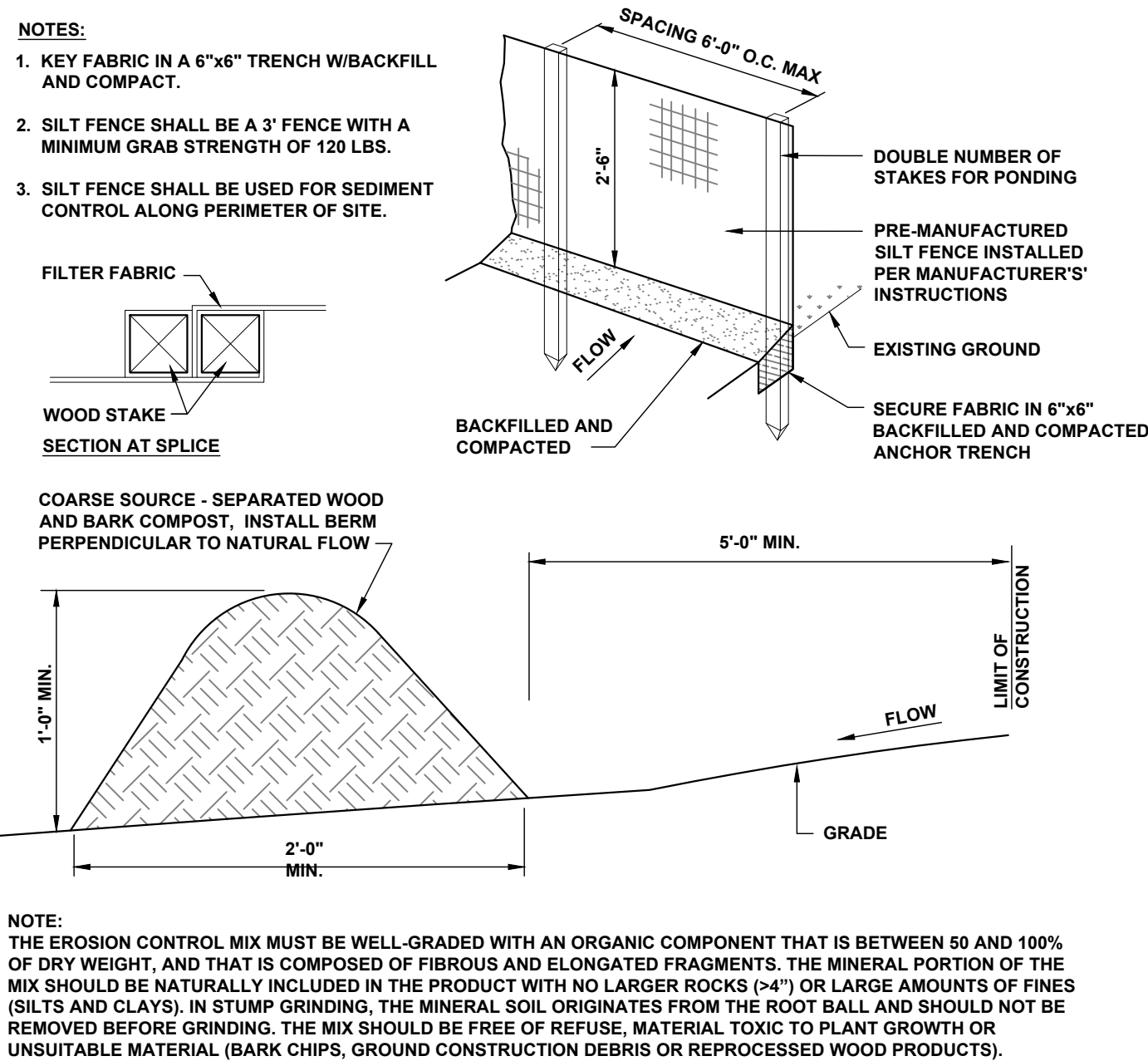
LOCATION MAP: USGS QUADRANGLE: BIDDEFORD
SCALE: 1"=2000'
MAPTECH® USGS TOPOGRAPHIC SERIES™
©MAPTECH®, INC. 978-933-3000
WWW.MAPTECH.COM/TOPO

- NOTES:**
1. CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES THROUGHOUT CONSTRUCTION.
 2. UTILITY TRENCHES WITHIN RIGHT-OF-WAY SHALL BE PAVED WITHIN 3 DAYS OF EXCAVATION OR PRIOR TO ANY RAIN EVENT.

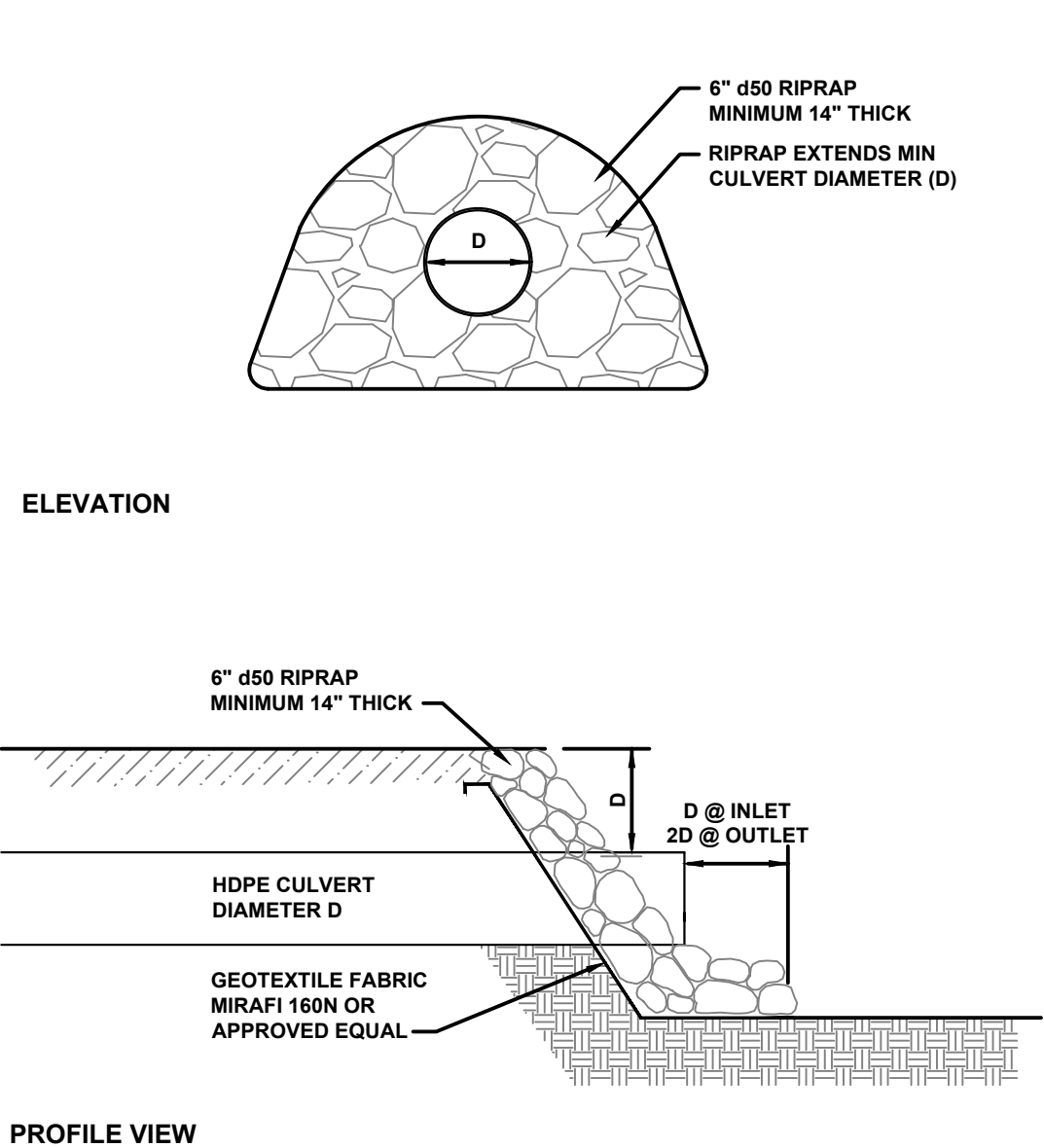
PLAN REFERENCE:
1. REFERENCE IS MADE TO A MADE ENTITLED "TOPOGRAPHIC & BOUNDARY SURVEY" PREPARED BY COLLERS ENGINEERING & DESIGN & DATED MAY 17, 2023.



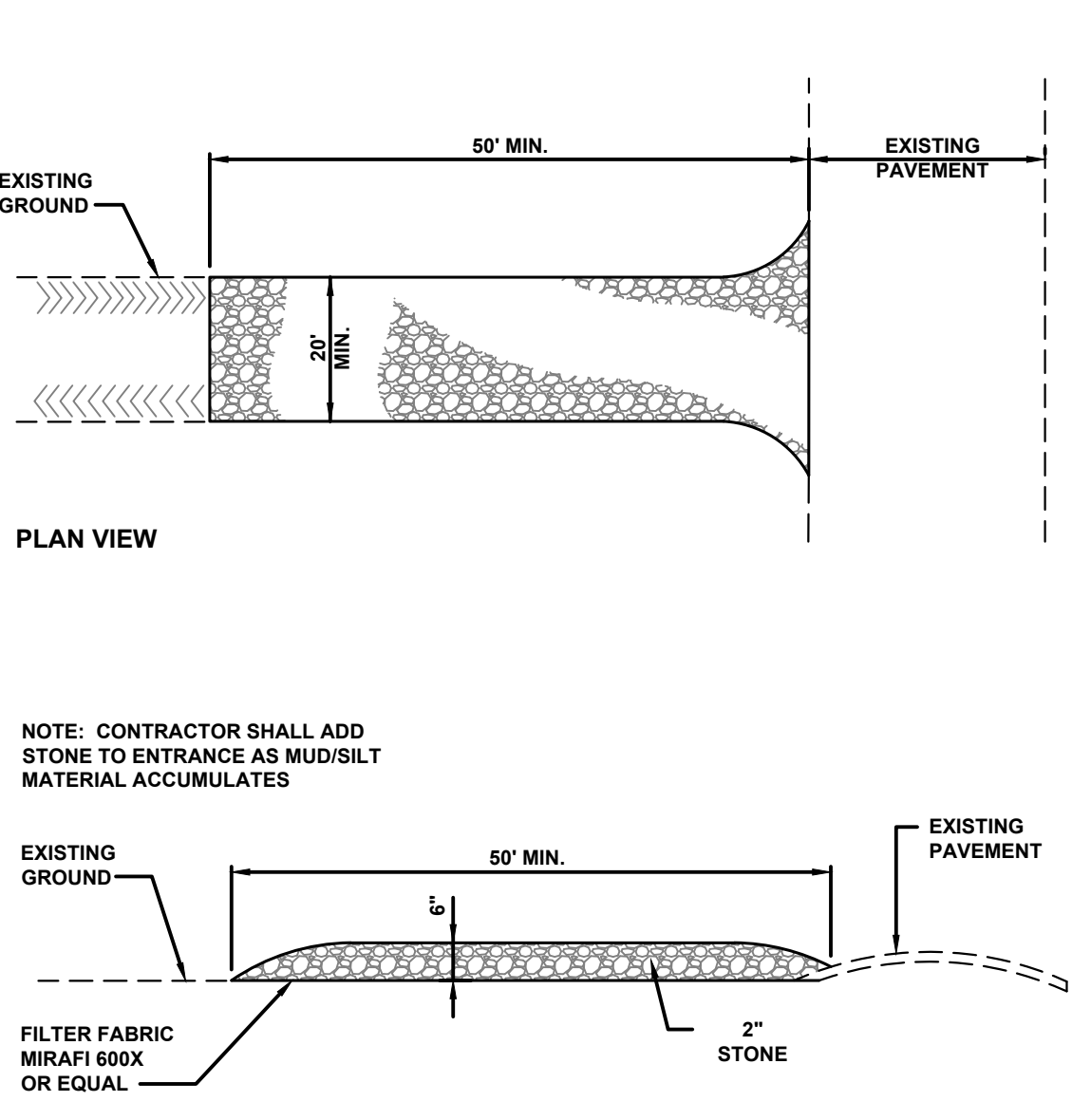
TEMPORARY STOCKPILE AREA
N.T.S.



SILT FENCE AND EROSION CONTROL MIX BERM DETAILS
NTS
ECM BERM MAY BE USED FOR INTERIOR SILT CONTROL ONLY

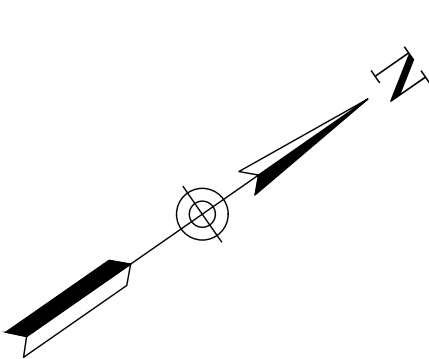


TYPICAL CULVERT INLET/OUTLET PROTECTION DETAIL
NTS



STABILIZED CONSTRUCTION ENTRANCE DETAIL
NTS

REV.	DATE	DESCRIPTION	BY	CHK.
DRAWING ISSUE STATUS				
NOT FOR CONSTRUCTION				
HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING One Merchants Plaza, Suite 701 Bangor, Maine 04401 207.989.4824 COASTAL OAKS LLC 198 SACO AVENUE, OLD ORCHARD BEACH, MAINE, 04064 BELLE WOODS - SUBDIVISION 512 POOL STREET, BIDDEFORD, MAINE 04005				
PROJECT				
TITLE				
SITE DEMOLITION & EROSION CONTROL PLAN				
		DATE	SCALE	
		2025.06.09	1"=40'	
		DRAWN BY	DESIGNED BY	CHECKED BY
		PJM	PJM	DJO
PROJECT No.		13871.019		
DRAWING No.		REV.		
C100				



NOTES:

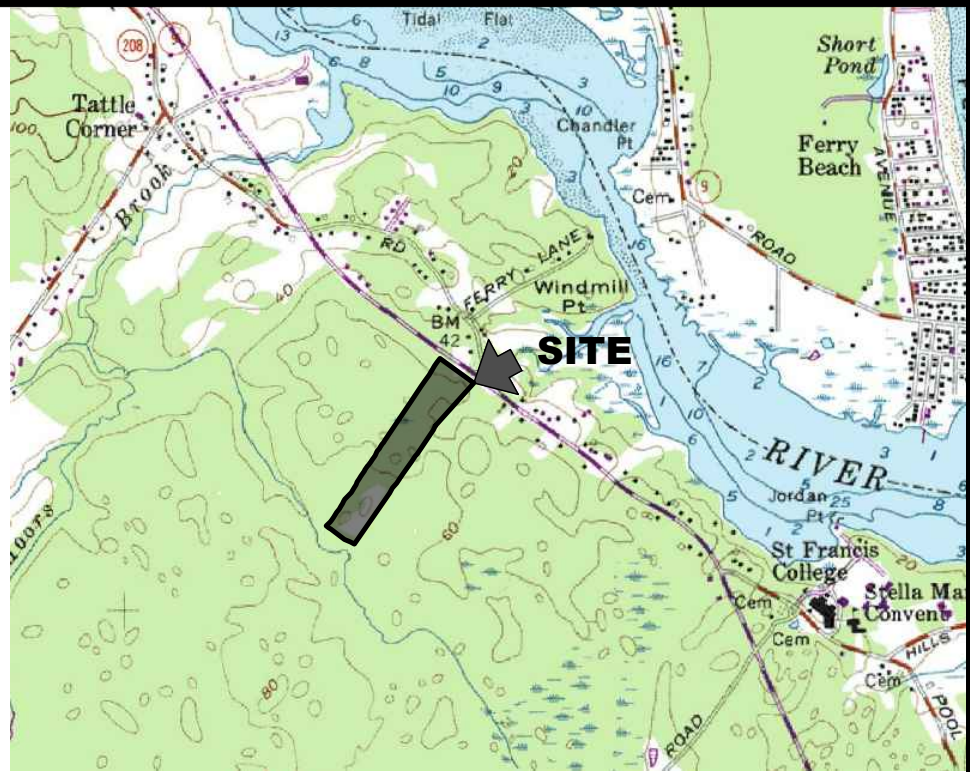
- BELLE WOODS IS PROPOSED AS A PRIVATE ROAD, PROPOSED PRIVATE ROADS SHALL NOT BE SUBMITTED FOR FUTURE PUBLIC ROAD ACCEPTANCE.
- PRIVATE ROADWAY SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION. THE CITY OF BIDDEFORD SHALL NOT BE RESPONSIBLE FOR ANY MAINTENANCE, REPAIR, PLOWING, OR TRASH REMOVAL OF PROPOSED PRIVATE ROADS.
- ROAD IS DESIGNED TO MEET MINOR RESIDENTIAL ROAD WAY STANDARDS AS DEFINED IN THE CITY OF BIDDEFORD, ME CODE OF ORDINANCES, ARTICLE VI, SECTION 51. DESIGN SPEED IS 25 MPH.
- THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION WITH THE CITY OF BIDDEFORD, UTILITY COMPANIES, DIG SAFE, AND EMERGENCY SERVICES WHERE APPLICABLE. CONTRACTOR SHALL NOTIFY ALL UTILITIES PRIOR TO COMMENCING WORK TO ALLOW SUFFICIENT TIME TO LOCATE AND MARK THE LOCATION OF ALL BURIED UTILITIES. CONTRACTOR SHALL ALSO CONTACT "DIG SAFE", TELEPHONE NO 811 OR 888-DIG-SAFE. REPAIR OF ANY DAMAGED UTILITY WILL BE INCIDENTAL TO THIS PROJECT.
- WETLAND IMPACTS ARE CUMULATIVE FOR ALL LOTS, ANY WETLAND IMPACTS THAT ARE NOT DEPICTED ON THIS PLAN BY INDIVIDUAL LOT OWNER SHALL REQUIRE PERMITTING THROUGH MDEP.
- REFER TO PARCEL 2 FOR TYPICAL SR1 DISTRICT SETBACKS, REFER TO PARCEL 6 FOR TYPICAL RF DISTRICT SETBACKS.
- TRASH STORAGE & REMOVAL TO BE PROVIDED BY INDIVIDUAL BINS, PICKED UP & MANAGED BY PRIVATE COMPANY, NO DUMPSTER IS PROPOSED.
- LOT 9 TO BE RETAINED BY OWNER TO BE DEDICATED TO EITHER CONSERVATION / OPEN SPACE OR DEDICATED TO POTENTIAL FUTURE DEVELOPMENT.
- THE CITY OF BIDDEFORD SHALL NOT BE RESPONSIBLE FOR THE COST OF MATERIALS, INSTALLATION, MAINTENANCE, OR POWER FOR THE STREETLIGHTING. THE HOMEOWNER'S ASSOCIATION SHALL ASSUME ALL COSTS ASSOCIATED WITH THE LIGHTING SYSTEM.

PLAN REFERENCES:

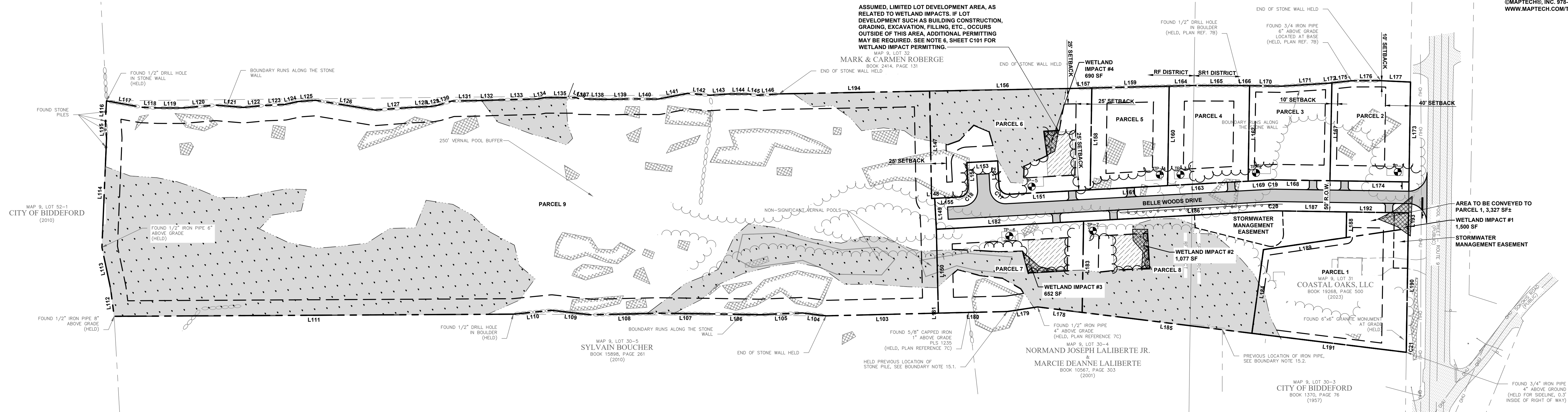
- REFERENCE IS MADE TO A PLAN ENTITLED "TOPOGRAPHIC & BOUNDARY SURVEY" PREPARED BY COLLERS ENGINEERING & DESIGN, INC., DATED MAY 17, 2023.
- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN JANUARY OF 2023 BY ALEX FINAMORE, LICENSED SOIL SCIENTIST OF MAINLY SOILS LLC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. ALL WETLAND FLAGS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF SUB-METER ACCURACY.
- A VERNAL POOL SURVEY WAS PERFORMED DURING APRIL AND MAY OF 2023 BY ALEX FINAMORE, LICENSED SOIL SCIENTIST OF MAINLY SOILS LLC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9, OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- VERNAL POOLS DELINEATED ON THIS PLAN ARE CONSIDERED NON-SIGNIFICANT, REFER TO NATURAL RESOURCE SURVEY & REPORT.

NATURAL RESOURCE NOTES:

- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN JANUARY OF 2023 BY ALEX FINAMORE, LICENSED SOIL SCIENTIST OF MAINLY SOILS LLC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. ALL WETLAND FLAGS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF SUB-METER ACCURACY.
- A VERNAL POOL SURVEY WAS PERFORMED DURING APRIL AND MAY OF 2023 BY ALEX FINAMORE, LICENSED SOIL SCIENTIST OF MAINLY SOILS LLC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9, OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- VERNAL POOLS DELINEATED ON THIS PLAN ARE CONSIDERED NON-SIGNIFICANT, REFER TO NATURAL RESOURCE SURVEY & REPORT.



LOCATION MAP: USGS QUADRANGLE: BIDDEFORD
MAPTECH® USGS TOPOGRAPHIC SERIES™
©MAPTECH®, INC. 978-933-3000
WWW.MAPTECH.COM/TOPO
SCALE: 1"=2000'



PARCEL INFORMATION

MAP / LOT:	MAP 9, LOT 31	
LOT AREA (ACRES):	17.45	
ZONE OR DISTRICT:	RF/SR1	
EXISTING USE:	SINGLE FAMILY RESIDENTIAL	
FLOOD ZONE:	N/A	
WATER:	N/A, PRIVATE WELL FOR LOT 1	
SEWER:	PRIVATE SEPTIC	
RECORD OWNER/APPLICANT:	COASTAL OAKS, LLC	

SITE DEVELOPMENT DATA

	SF	AC
EXISTING IMPERVIOUS (TO BE REMOVED):	2251	0.05
EXISTING IMPERVIOUS (TO REMAIN):	1302	0.03
NEW PAVEMENT	16185	0.37
TOTAL IMPERVIOUS (ROAD & EX. LOT):	17487	0.40

DESIGN STANDARDS

	REQ'D	PROVIDED
MINIMUM ROAD FRONTAGE (FT)	120 RF / 100 SR1	125 (MIN.)
MINIMUM SETBACK, FRONT YARD (FT)	25 RF / 40 SR1	25 RF / 40 SR1
MINIMUM SETBACK, OTHER YARDS (FT)	25 RF / 10 SR1	25 RF / 10 SR1
MINIMUM LOT SIZE	20,000 SF	20,188 SF (MIN.)
MAXIMUM BUILDING HEIGHT (FT)	35 FT	<35 FT

PROJECT INFORMATION

APPLICANT:	COASTAL OAKS LLC
	ATTN: ETHAN SCOTT
	198 SACO AVENUE
	OLD ORCHARD BEACH, MAINE 04064
ENGINEER:	HALEY WARD, INC.
	ATTN: DREW OLEHOWSKI, P.E.
	120 MAIN STREET
	SUITE 132
	SACO, MAINE 04072

Line #	Length	Direction
L103	181.655	S33° 36' 43.72"W
L104	38.409	S41° 58' 20.48"W
L105	69.756	S32° 41' 22.12"W
L106	74.329	S36° 00' 35.70"W
L107	89.473	S35° 42' 13.79"W
L108	108.844	S33° 39' 01.81"W
L109	63.465	S41° 32' 14.19"W
L110	62.442	S29° 16' 48.64"W
L111	645.301	S34° 41' 34.18"W
L112	44.646	N62° 18' 23.58"W
L113	68.565	N66° 51' 37.98"W
L114	176.379	N52° 34' 17.60"W
L115	28.657	N58° 32' 10.73"W
L116	31.735	N61° 54' 56.46"W
L117	58.434	N45° 08' 59.14"E
L118	25.633	N37° 23' 10.48"E
L119	38.948	N35° 07' 35.02"E
L120	54.724	N30° 07' 44.93"E
L121	44.705	N39° 41' 53.11"E
L122	35.451	N29° 45' 25.60"E

Line #	Length	Direction
L123	30.978	N32° 37' 57.95"E
L124	22.921	N22° 34' 07.38"E
L125	28.215	N30° 54' 13.88"E
L126	97.598	N44° 19' 40.50"E
L127	61.021	N30° 47' 11.27"E
L128	27.924	N32° 39' 07.24"E
L129	11.822	N25° 37' 51.13"E
L130	24.421	N18° 20' 21.27"E
L131	42.142	N34° 02' 13.15"E
L132	29.608	N33° 10' 11.92"E
L133	67.040	N33° 35' 10.48"E
L134	10.662	N23° 31' 15.83"E
L135	52.133	N35° 01' 29.90"E
L136	6.372	N53° 40' 23.43"E
L137	9.835	N34° 56' 32.59"E
L138	37.389	N36° 02' 44.66"E
L139	36.408	N33° 36' 57.12"E
L140	42.496	N35° 34' 55.88"E
L141	48.829	N23° 54' 52.54"E
L142	36.192	N39° 59' 55.47"E

Line #	Length	Direction
L143	29.704	N30° 58' 10.96"E
L144	33.367	N35° 08' 30.62"E
L145	13.963	N43° 49' 18.70"E
L146	35.185	N31° 14' 46.97"E
L147	173.488	S56° 04' 03.28"E
L148	5.000	N31° 52' 21.63"W
L149	50.000	S58° 07' 38.37"E
L150	135.480	S56° 23' 16.28"E
L151	96.500	S31° 52' 21.63"W
L152	39.849	N58° 07' 38.37"W
L153	50.000	S31° 52' 21.63"W
L154	39.849	S58° 07' 38.37"E
L155	40.000	S31° 52' 21.63"W
L156	237.117	N33° 55' 56.72"E
L157	25.191	N33° 36' 29.51"E
L158	164.493	S54° 07' 18.00"E
L159	125.098	N33° 36' 29.51"E
L160	160.695	S54° 07' 18.00"E
L161	4.634	N31° 52' 21.63"W
L162	154.189	S54° 07' 18.00"E

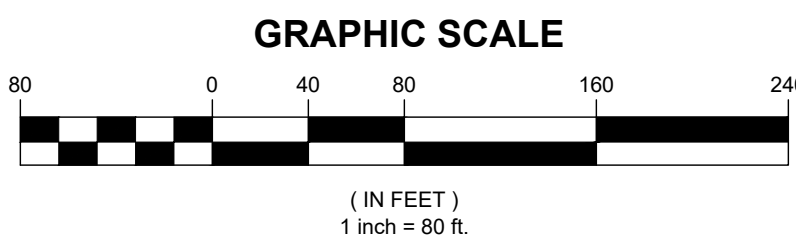
Line #	Length	Direction
L163	96.587	S31° 52' 21.63"W
L164	38.763	N33° 36' 29.51"E
L165	75.821	N35° 05' 39.23"E
L166	15.454	N35° 47' 13.67"E
L167	158.043	S53° 50' 39.13"E
L168	53.040	S35° 52' 42.00"W
L169	33.839	S31° 52' 21.63"W
L170	51.965	N35° 47' 13.67"E
L171	75.818	N31° 25' 39.86"E
L172	5.487	N28° 47' 22.73"E
L173	161.310	S54° 05' 32.64"E
L174	98.018	S35° 52' 42.00"W
L175	31.669	N28° 47' 22.73"E
L176	47.432	N34° 50' 10.53"E
L177	48.256	N37° 39' 41.04"E
L178	72.614	S42° 00' 46.19"W
L179	49.506	S26° 17' 49.91"W
L180	111.489	S33° 38' 44.54"W
L181	0.105	N56° 23' 16.27"W
L182	188.698	N31° 52' 21.63"E

Line #	Length	Direction
L183	147.306	S54° 07' 18.00"E
L184	136.410	S47° 08' 09.00"E
L185	276.458	S42° 00' 46.19"W
L186	248.144	N31° 52' 21.63"E
L187	113.993	N35° 52' 42.00"E
L188	41.352	S54° 05' 32.64"E
L189	135.220	S26° 41' 56.00"W
L190	184.174	S54° 05' 32.64"E
L191	251.430	S42° 00' 46.19"W
L192	62.478	N35° 52' 42.00"E
L193	25.191	S54° 05' 32.64"E
L194	243.247	N33° 55' 56.72"E

Curve #	Length	Radius	Delta
C17	23.562	15,000	90.0000
C18	23.562	15,000	90.0000
C21	15.824	22918.330	0.0396
C19	12.235	175,000	4.0057
C20	8.739	125,000	4.0057

NET DENSITY CALCULATIONS

GROSS PARCEL AREA	760,178 SF
UNSUITABLE LAND:	
1. PORTIONS OF LOT WITHIN 100-YEAR FLOODPLAIN	0 SF
2. UNSUITABLE LAND (STEEP SLOPES, DRAINAGE OR SUBSOIL CONDITIONS) *SEE NOTE A	60,590 SF
3. SUBJECT TO EASEMENTS/ROW	0 SF
4. COVERED BY SURFACE WATERS (PONDS, WETLAND, ETC.)	224,874 SF
5. SOILS OF STATEWIDE SIGNIFIGANCE WITHIN RF ZONE	0 SF
6. LAND WITHIN RESOURCE PROTECTION ZONE	0 SF
6. LAND IN RF ZONE WITHIN SHORELAND ZONE SETBACK	0 SF
7. UNRECLAIMED EXTRACTIVE INDUSTRY OPERATIONS	0 SF
NOTES:	
A. POORLY DRAINED SOILS IDENTIFIED BY HIGH INTENSITY SOIL SURVEY ARE CONFINED TO WETLAND AREAS AND ARE INCLUDED UNDER SECTION 4. COVERED BY SURFACE WATERS.	
SUBTOTAL	285,464 SF
TOTAL NET RESIDENTIAL AREA	474,714 SF
MIN. LOT AREA	20,000 SF
PERMITTED NET DENSITY (NET RESIDENTIAL AREA/MIN. LOT AREA)	24 UNITS



REV.	DATE	DESCRIPTION	BY	CHK.
DRAWING ISSUE STATUS				
NOT FOR CONSTRUCTION				
 HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING One Merchants Plaza, Suite 701 Bangor, Maine 04401 207.989.4824				
PROJECT				
COASTAL OAKS LLC 198 SACO AVENUE, OLD ORCHARD BEACH, MAINE, 04064 BELLE WOODS - SUBDIVISION 512 POOL STREET, BIDDEFORD, MAINE 04005				
TITLE				
FINAL SUBDIVISION PLAN				
DATE	2025.06.09	SCALE	1"=80'	
DRAWN BY	PJM	DESIGNED BY	PJM	CHECKED BY
PROJECT No.	13871.019			
DRAWING No.	C101			
				

STATE OF MAINE
YORK, SS.
REGISTRY OF DEEDS
RECEIVED AND FILED

20

h m M.

Plan Book: _____ Page: _____

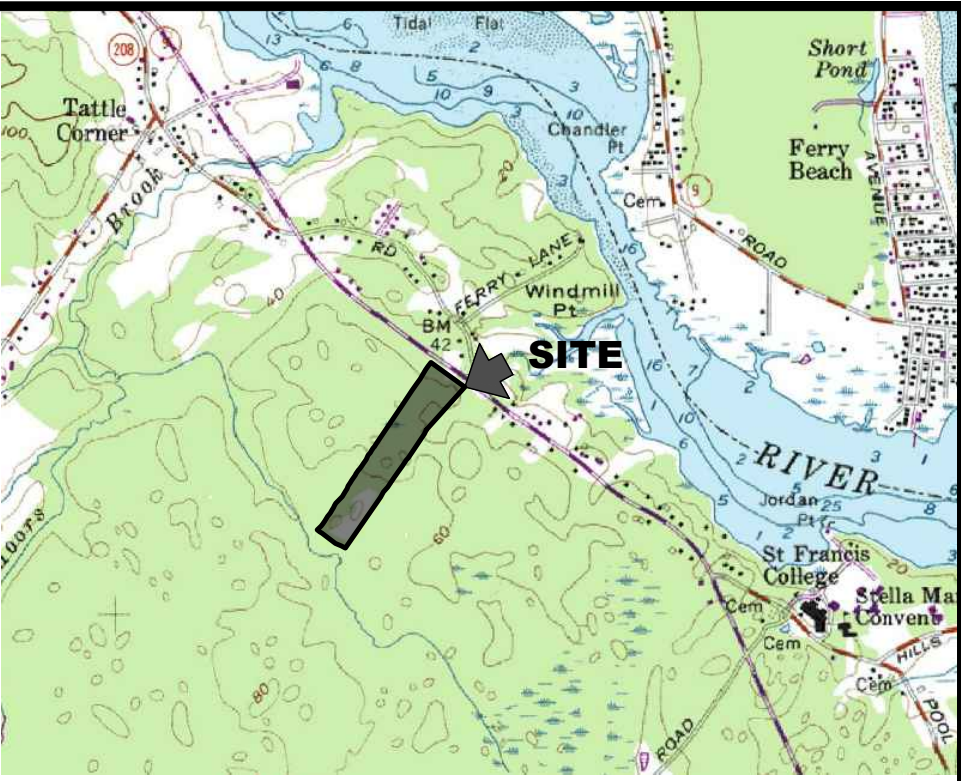
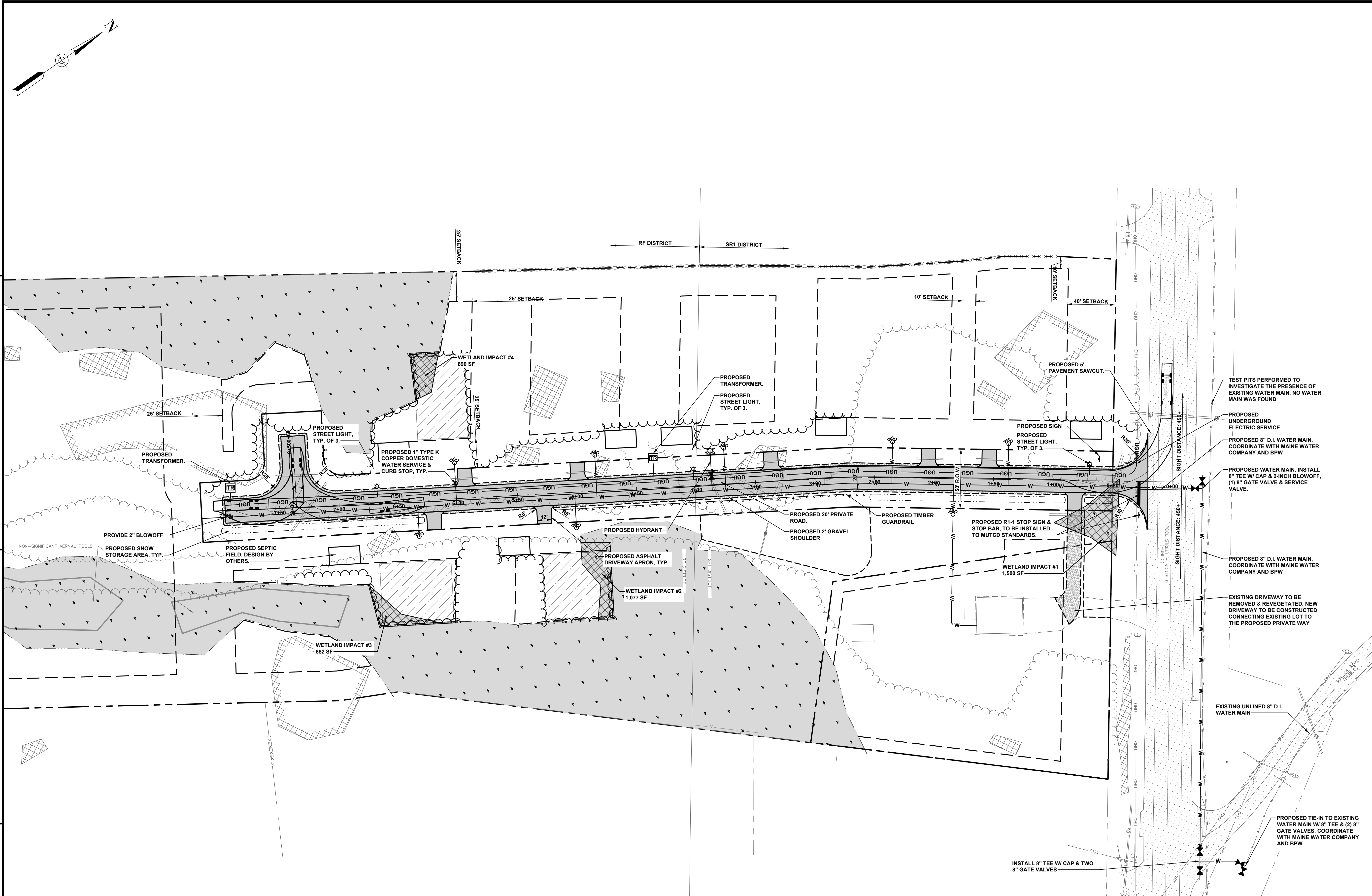
Attested: _____ Register

THIS IS TO CERTIFY THAT AFTER REVIEWING THE SITE PLAN SUBMISSION INFORMATION FOR THE PROJECT SHOWN ON THIS PLAN AND CONSIDERING EACH OF THE CRITERIA SET FORTH IN THE LAND USE CODE OF THE CITY OF BIDDEFORD, MAINE AND IN ACCORDANCE WITH THE SITE PLAN APPLICATION REQUIREMENTS, THE UNDERSIGNED HAVE MADE FINDINGS OF FACT ESTABLISHING THAT THIS PLAN ALONG WITH ITS ADDITIONAL SUBMISSION INFORMATION HAS MET ALL THE CRITERIA SET FORTH AND THEREFORE THE SITE PLAN IS APPROVED.

APPROVED BY THE CITY OF BIDDEFORD PLANNING BOARD ON: _____

PLANNING BOARD SIGNED ON: _____

FILE LOCATION: P:\MET1887\HNDL\WEINS\TENN919\12 POOL ST\030925.CAD; FILESCHEMA\1887\1018AC-SP.DWG; 2025.06.09, 12:15 PM

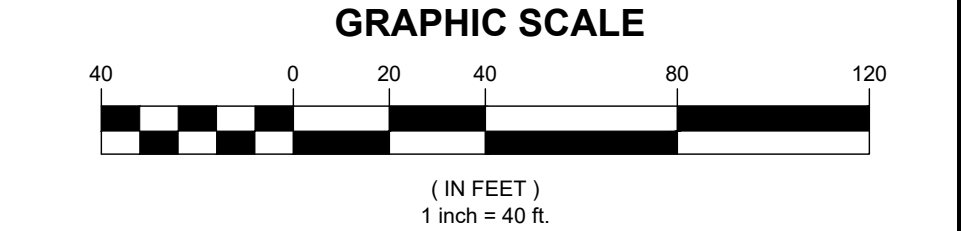


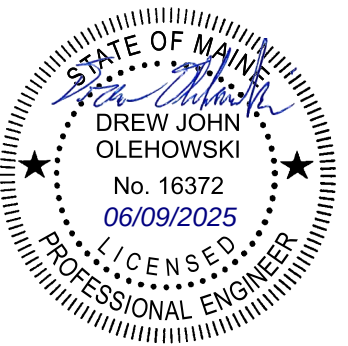
LOCATION MAP: USGS QUADRANGLE: BIDDEFORD
MAPTECH® USGS TOPOGRAPHIC SERIES™
©MAPTECH®, INC. 978-933-3000
WWW.MAPTECH.COM/TOPO

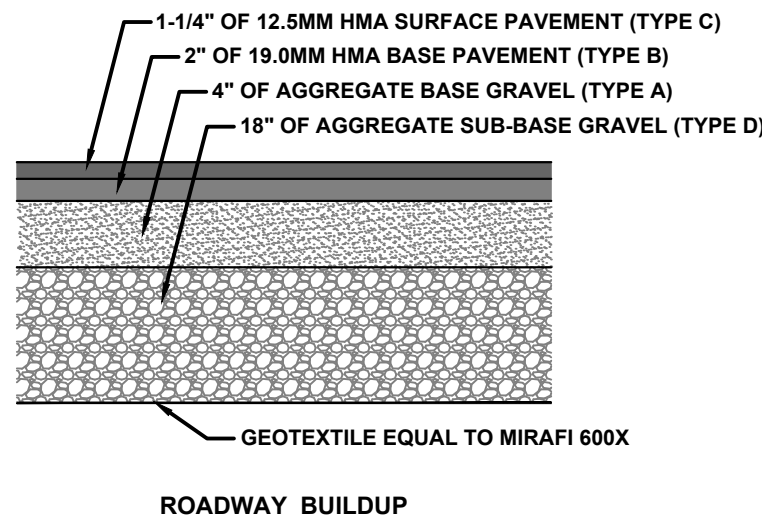
- WATER UTILITY NOTES:**
1. ALL NEW WATER INFRASTRUCTURE MUST MAINTAIN 5' OF COVER WITH NO MORE THAN 5.5'.
 2. ALL NEW WATER INFRASTRUCTURE MUST MAINTAIN 10' SEPARATION FORM OTHER UTILITIES, UNLESS MUTUALLY AGREED UPON BY ALL.
 3. ALL NEW WATER INFRASTRUCTURE MUST MAINTAIN 3' SEPARATION FROM EXISTING MAINE WATER INFRASTRUCTURE, UNLESS CONNECTING TO EXISTING INFRASTRUCTURE.
 4. ALL NEW WATER INFRASTRUCTURE MUST MAINTAIN 5' SEPARATION FROM PROPERTY LINES.
 5. ALL NEW NON-METALLIC WATER LINES MUST BE RUN WITH TRACER WIRE.
 6. ANY MATERIALS SPECIFIED AS HDPE WILL BE PE4710 CC3. ALL LINES 4" OR GREATER WILL BE DR9 DIPS.
 7. ALL WATER INFRASTRUCTURE WILL COMPLY WITH MAINE WATER SPECIFICATIONS.
 8. ANY DIMENSIONS SHOWN ON THESE PLANS ARE BASED ON EXISTING RECORDS AND MAY NOT REFLECT ACTUAL REQUIRED LENGTHS.

- ELECTRICAL UTILITY NOTES:**
1. FINAL ELECTRICAL INFRASTRUCTURE LAYOUT TO BE COORDINATED WITH CMP.

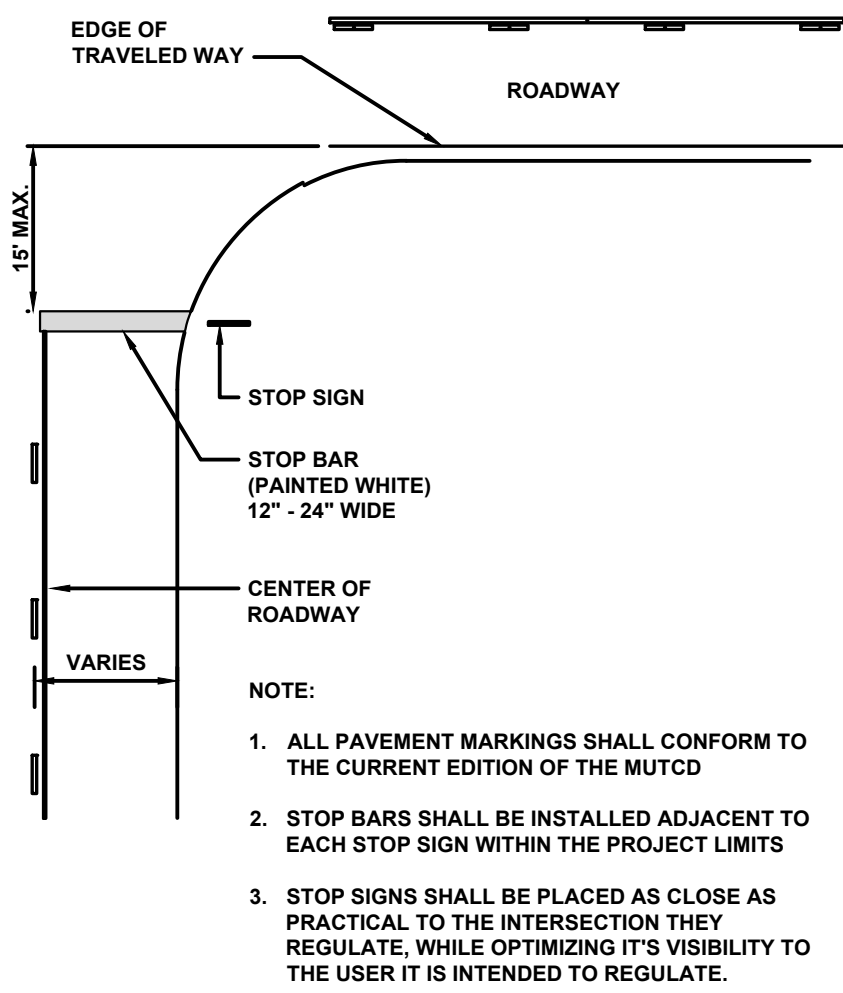
PLAN REFERENCE:
1. REFERENCE IS MADE TO A MADE ENTITLED "TOPOGRAPHIC & BOUNDARY SURVEY" PREPARED BY COLLERS ENGINEERING & DESIGN & DATED MAY 17, 2023.



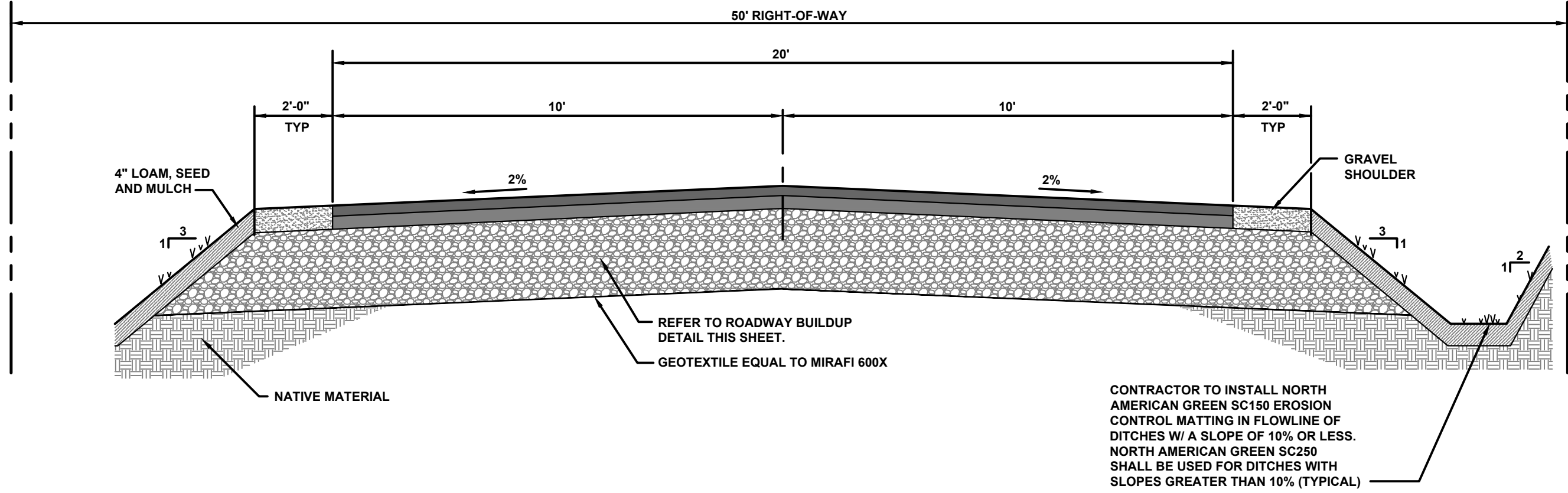
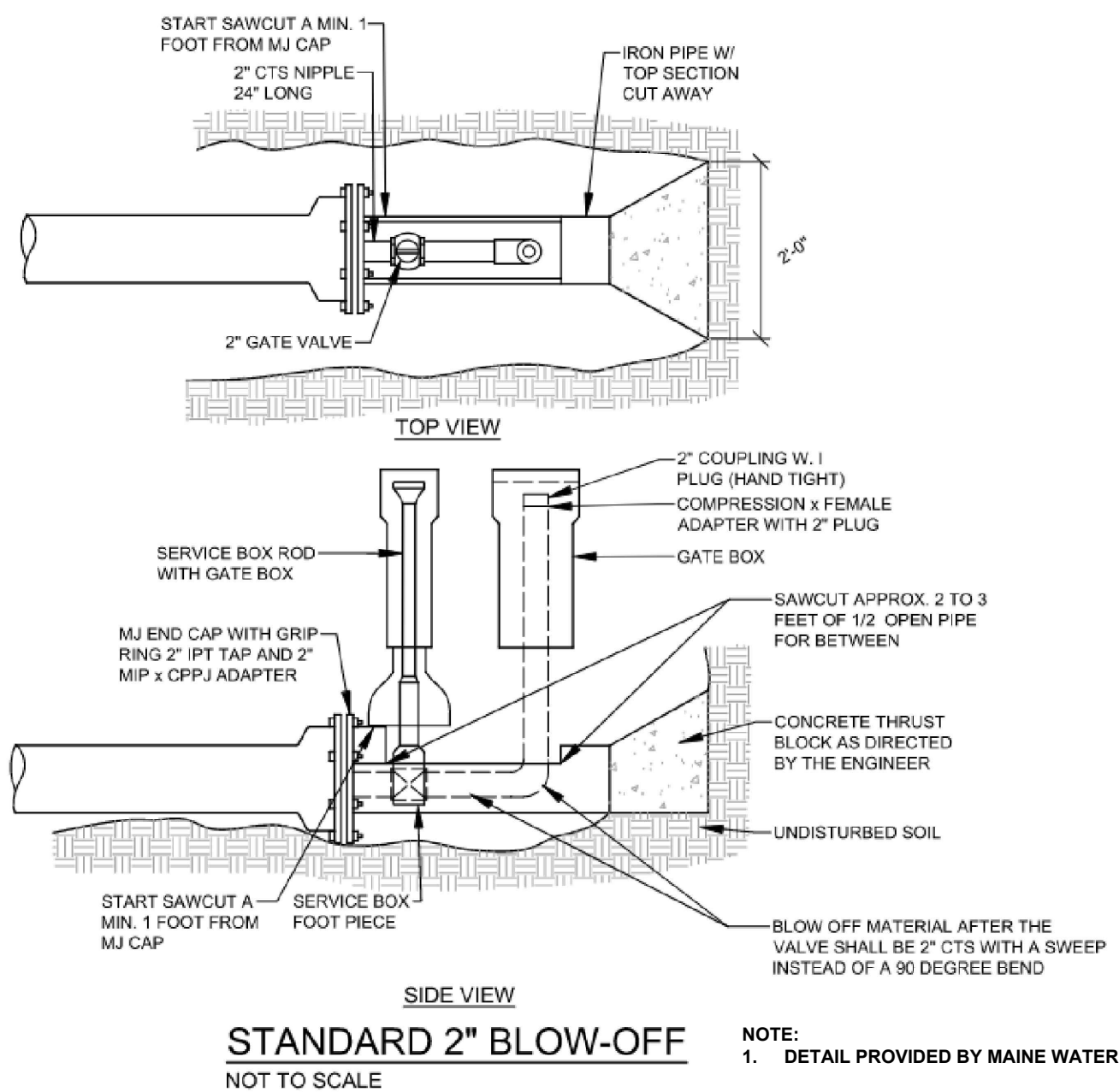
REV.	DATE	DESCRIPTION	BY	CHK.
DRAWING ISSUE STATUS				
NOT FOR CONSTRUCTION				
 ENGINEERING ENVIRONMENTAL SURVEYING One Merchants Plaza, Suite 701 Bangor, Maine 04401 207.989.4824 WWW.HALEYWARD.COM				
PROJECT				
COASTAL OAKS LLC 198 SACO AVENUE, OLD ORCHARD BEACH, MAINE, 04064 BELLE WOODS - SUBDIVISION 512 POOL STREET, BIDDEFORD, MAINE 04005				
TITLE				
SITE LAYOUT & UTILITY PLAN				
DATE		SCALE		
2025.06.09		1"=40'		
DRAWN BY	DESIGNED BY	CHECKED BY		
PJM	PJM	DJO		
PROJECT No.		13871.019		
DRAWING No.		C102		
				



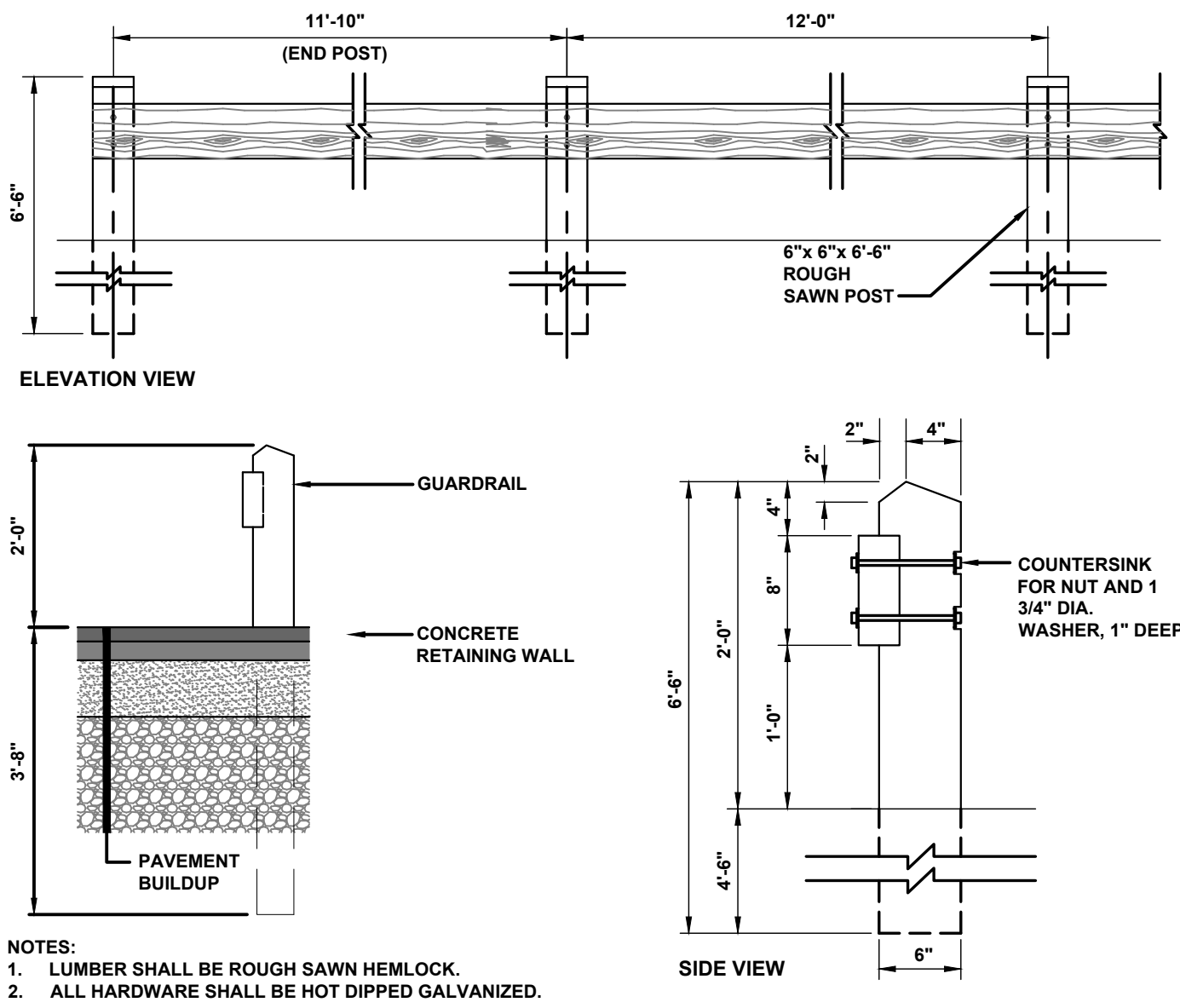
TYPICAL ROADWAY BUILDUP DETAIL
NTS



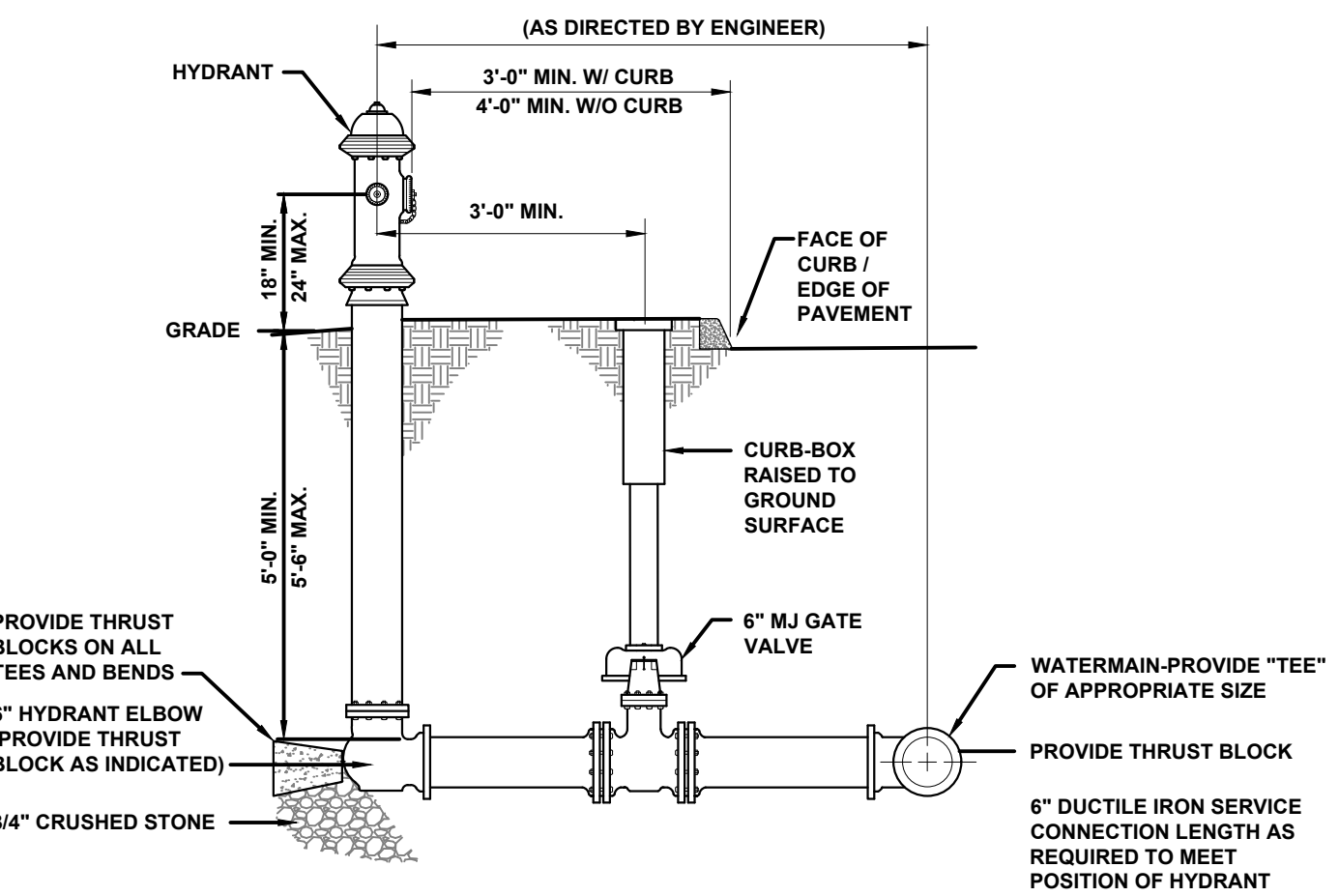
TYPICAL STOP BAR DETAIL
NTS



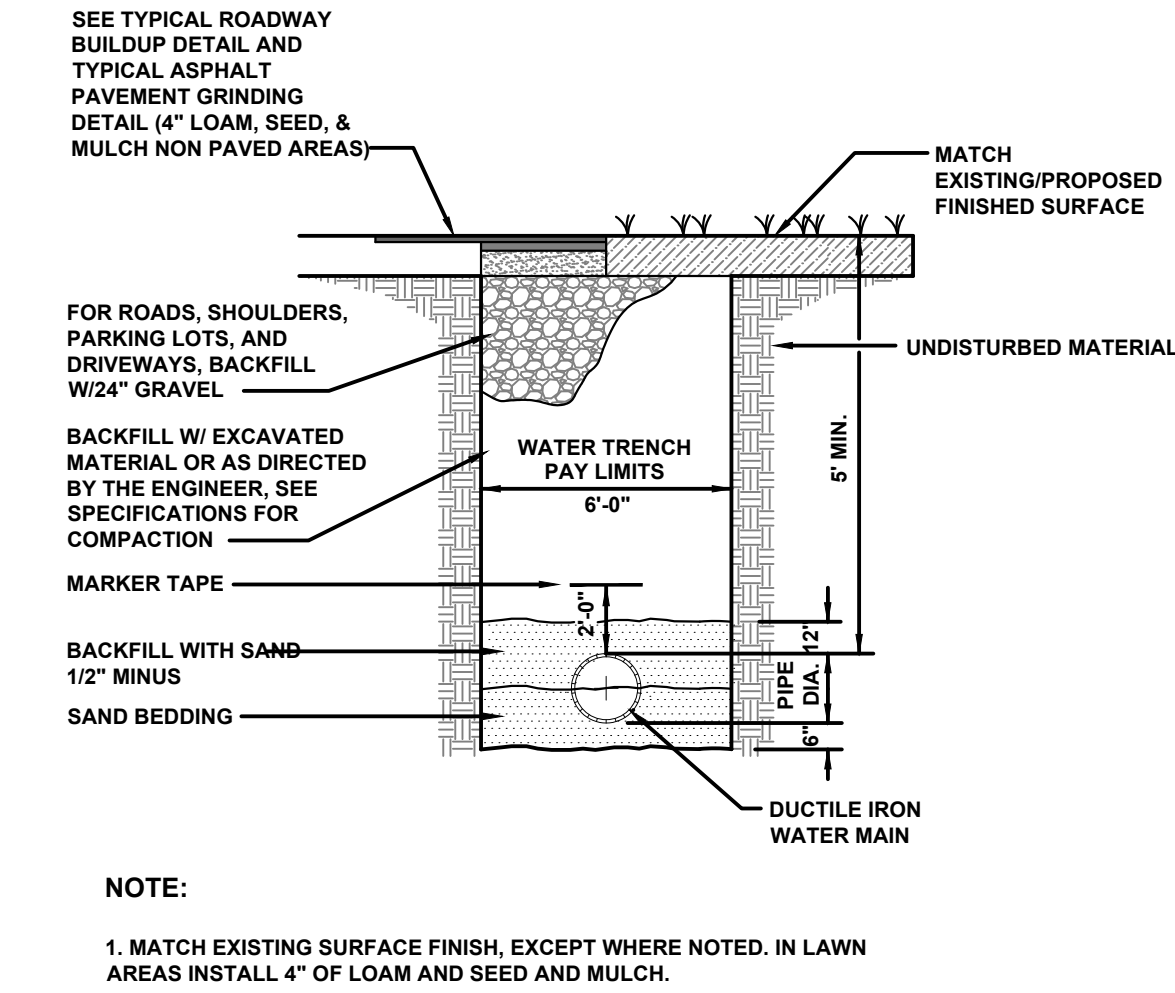
TYPICAL ROADWAY CROSS SECTION
NTS



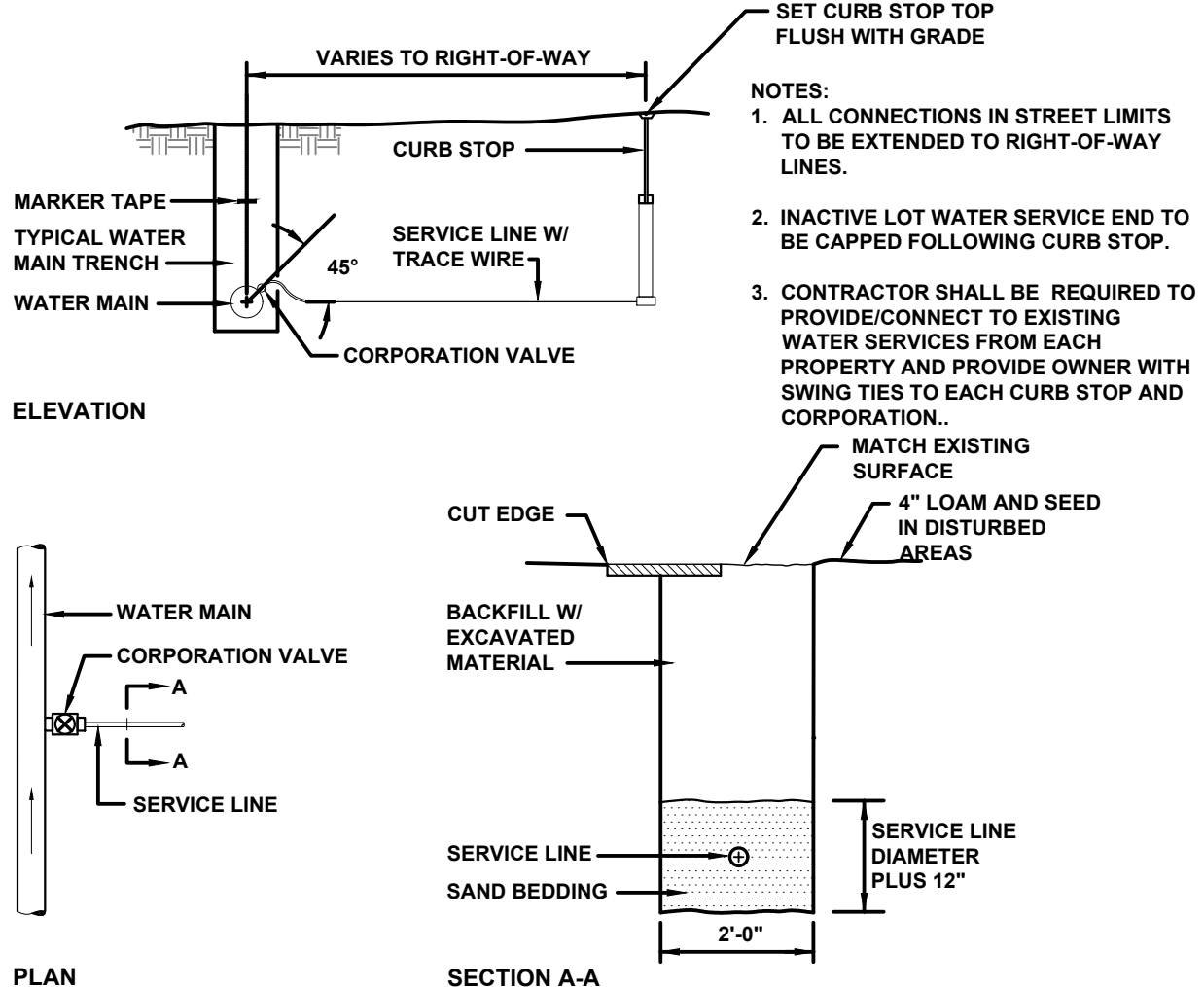
TYPICAL TIMBER GUARDRAIL DETAIL
NTS



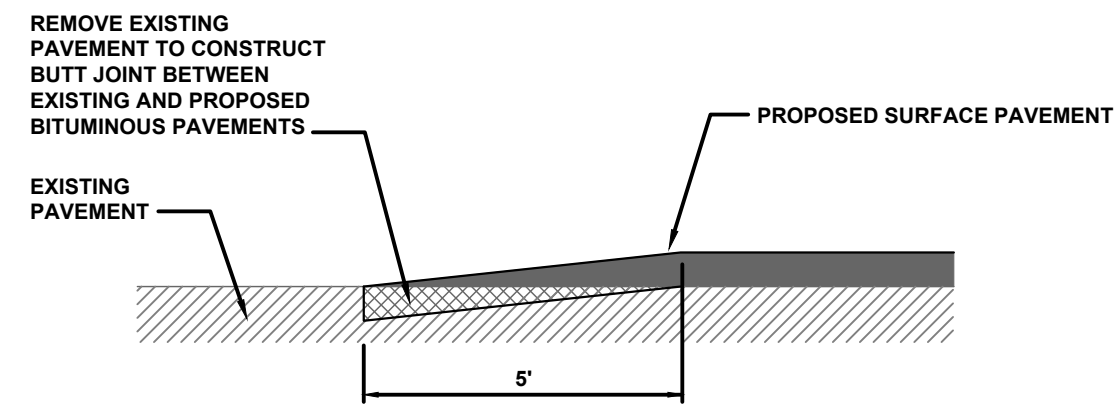
TYPICAL HYDRANT ASSEMBLY DETAIL
NTS



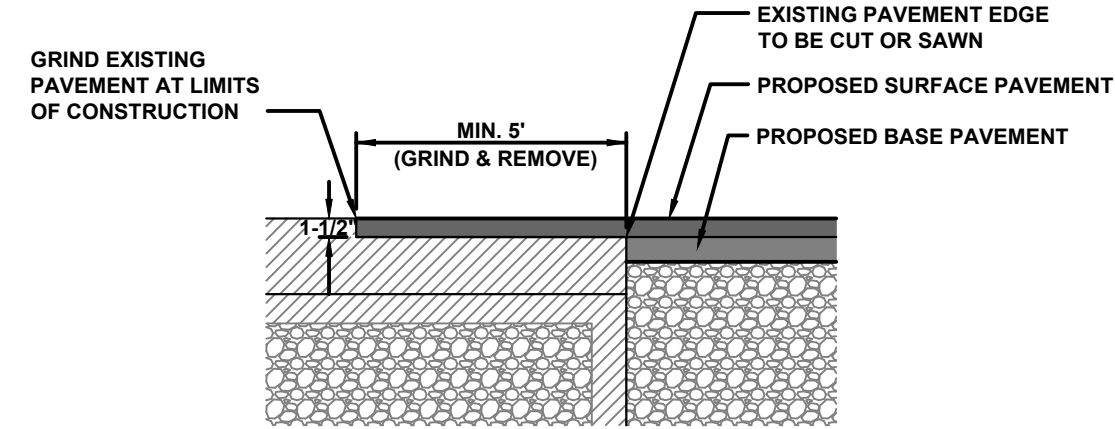
TYPICAL TRENCH DETAIL - DUCTILE IRON WATER MAIN
NTS



TYPICAL WATER SERVICE DETAIL
NTS

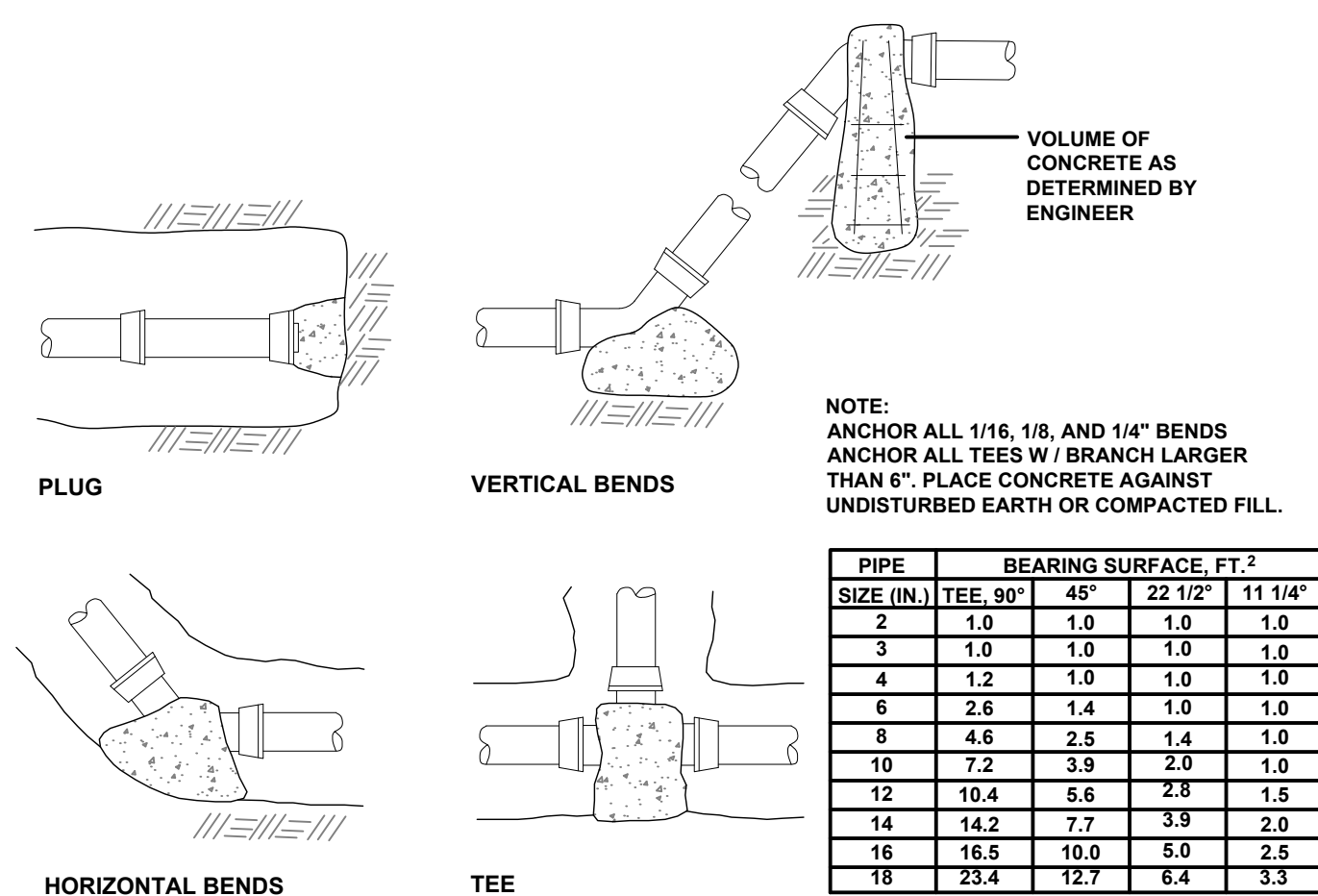


TYPICAL ASPHALT PAVEMENT BUTT JOINT DETAIL
NTS.

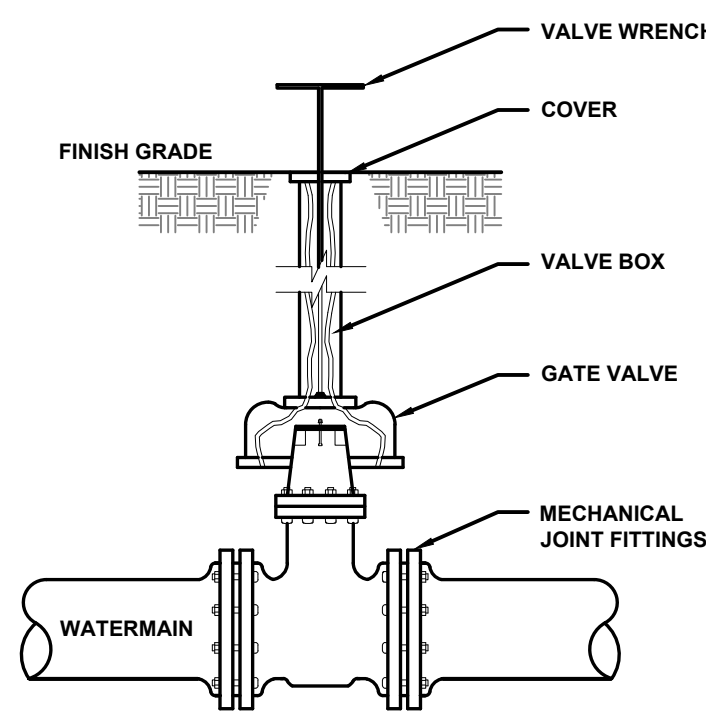


- NOTES:
1. EXTEND NEW SURFACE PAVEMENT ACROSS BUTT JOINT IN BASE COURSE.
 2. PROVIDE TACK COAT ON ALL SURFACES OF EXISTING PAVEMENT TO BE COVERED.

TYPICAL ASPHALT PAVEMENT GRINDING DETAIL
NTS



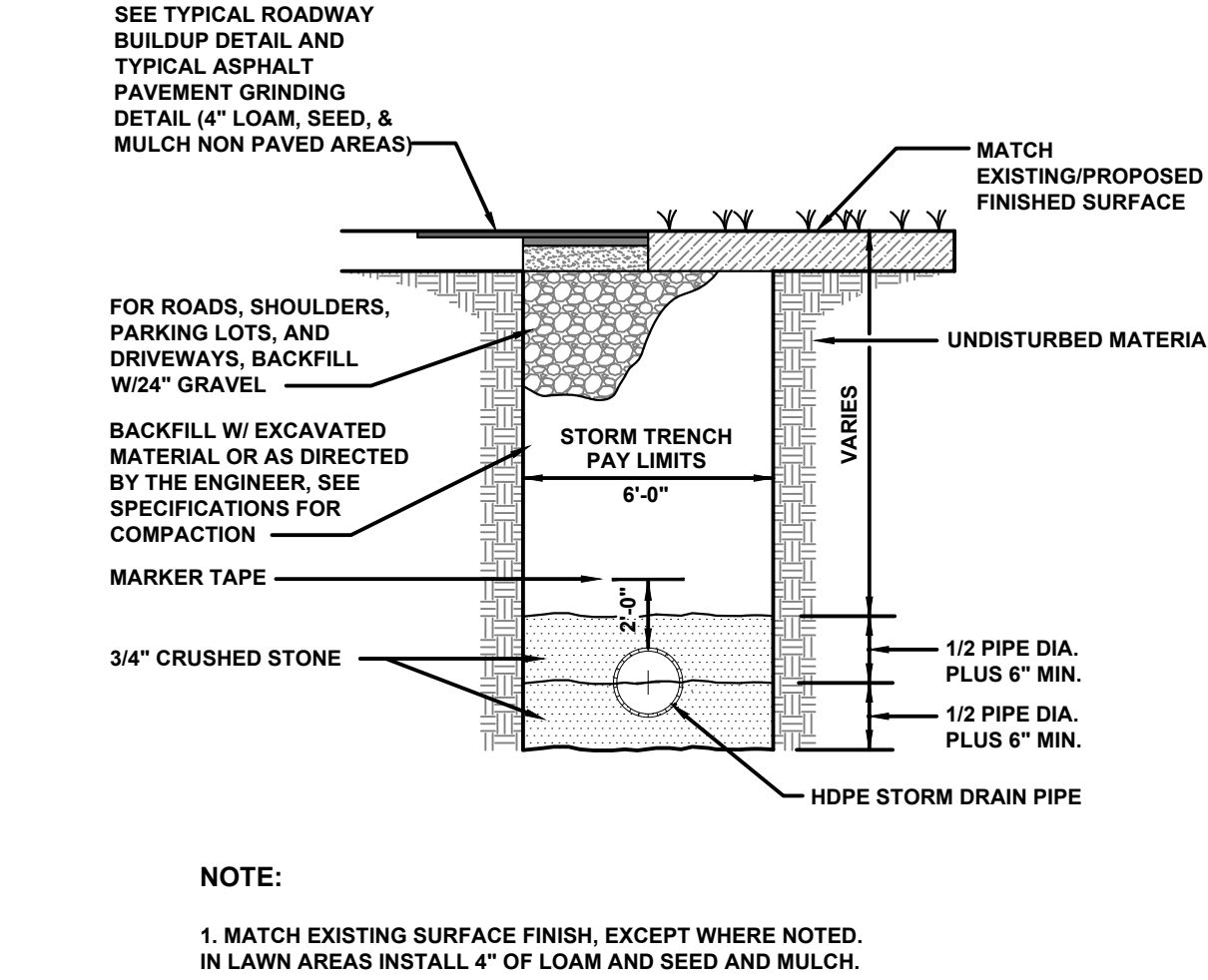
ANCHORAGE DETAILS
NTS



TYPICAL GATE VALVE DETAIL
NTS

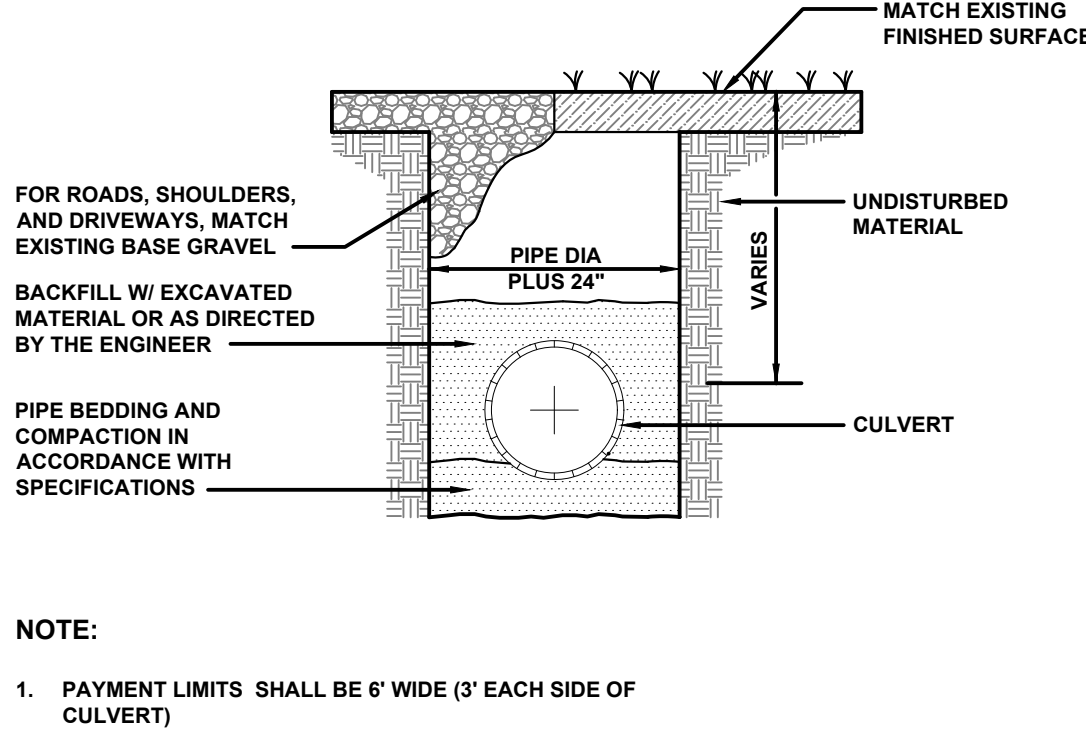
REV	DATE	DESCRIPTION	BY	CHK
DRAWING ISSUE STATUS				
NOT FOR CONSTRUCTION				
 One Merchants Plaza, Suite 701 Bangor, Maine 04401 207.989.4824				
PROJECT COASTAL OAKS LLC 198 SACO AVENUE, OLD ORCHARD BEACH, MAINE, 04064 BELLE WOODS - SUBDIVISION 512 POOL STREET, BIDDEFORD, MAINE 04005				
TITLE SITE DETAILS				
DATE 2025.06.09		SCALE NTS		
DRAWN BY PJM	DESIGNED BY PJM	CHECKED BY DJO		
PROJECT No. 13871.019		REV.		
 DREW JOHN OLEHOWSKI No. 16372 06/09/2025 PROFESSIONAL ENGINEER		C501		

FILE LOCATION: P:\MET\1887-1882\LAND\WENSTEN\19-512 POOL ST\03052.CAD; FILESCHEMA\1887-1882\03052.DWG; 2025.06.09, 12:15 PM



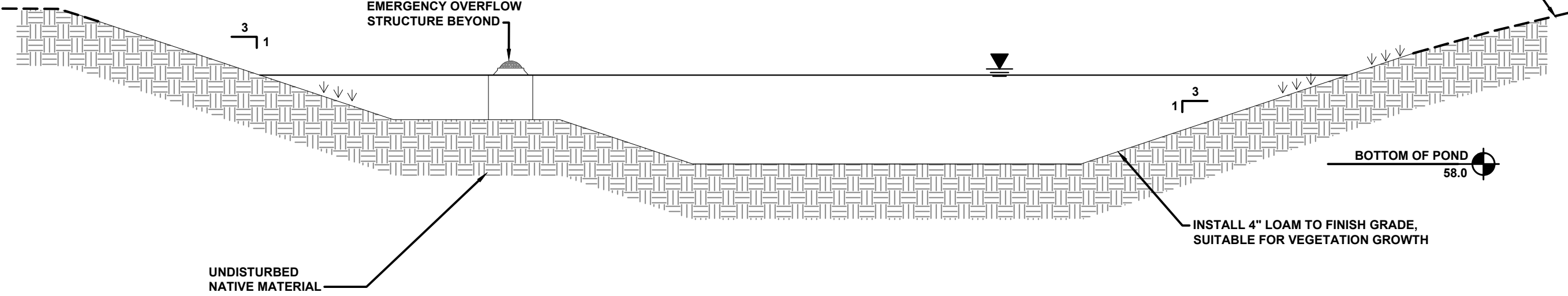
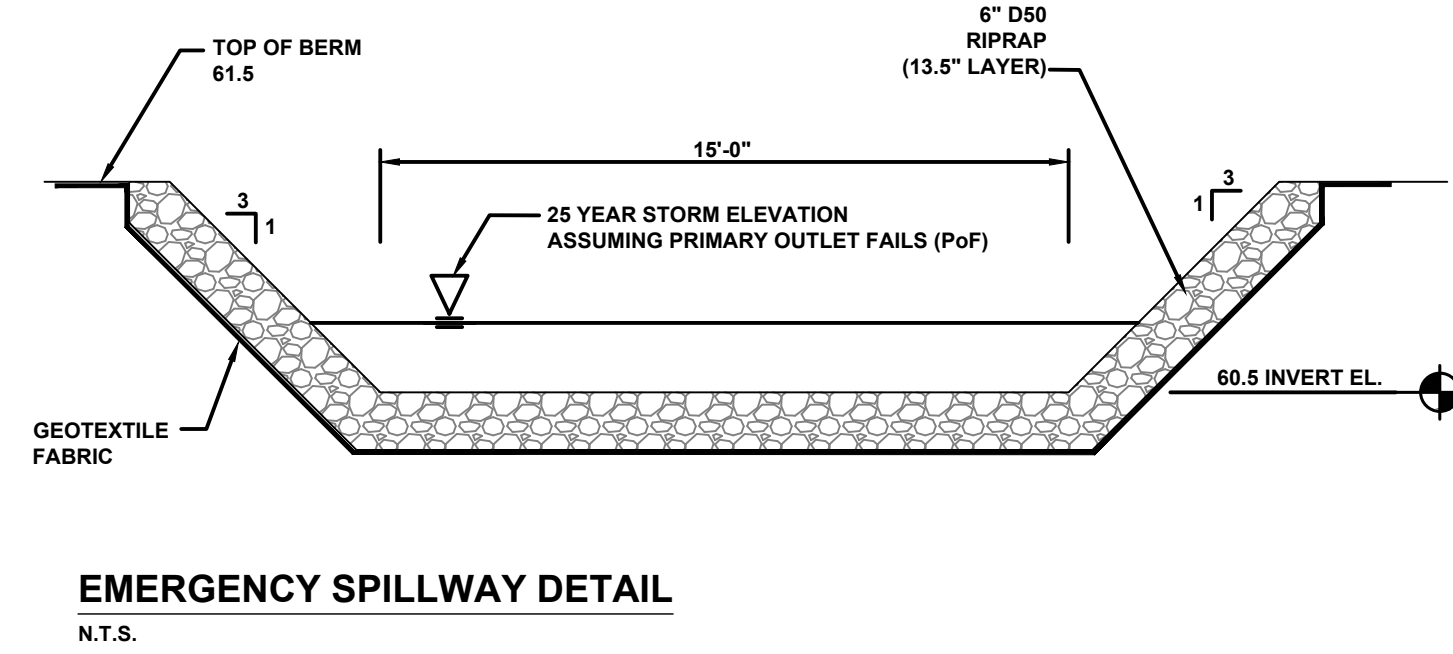
TYPICAL STORM DRAIN TRENCH DETAIL

NTS



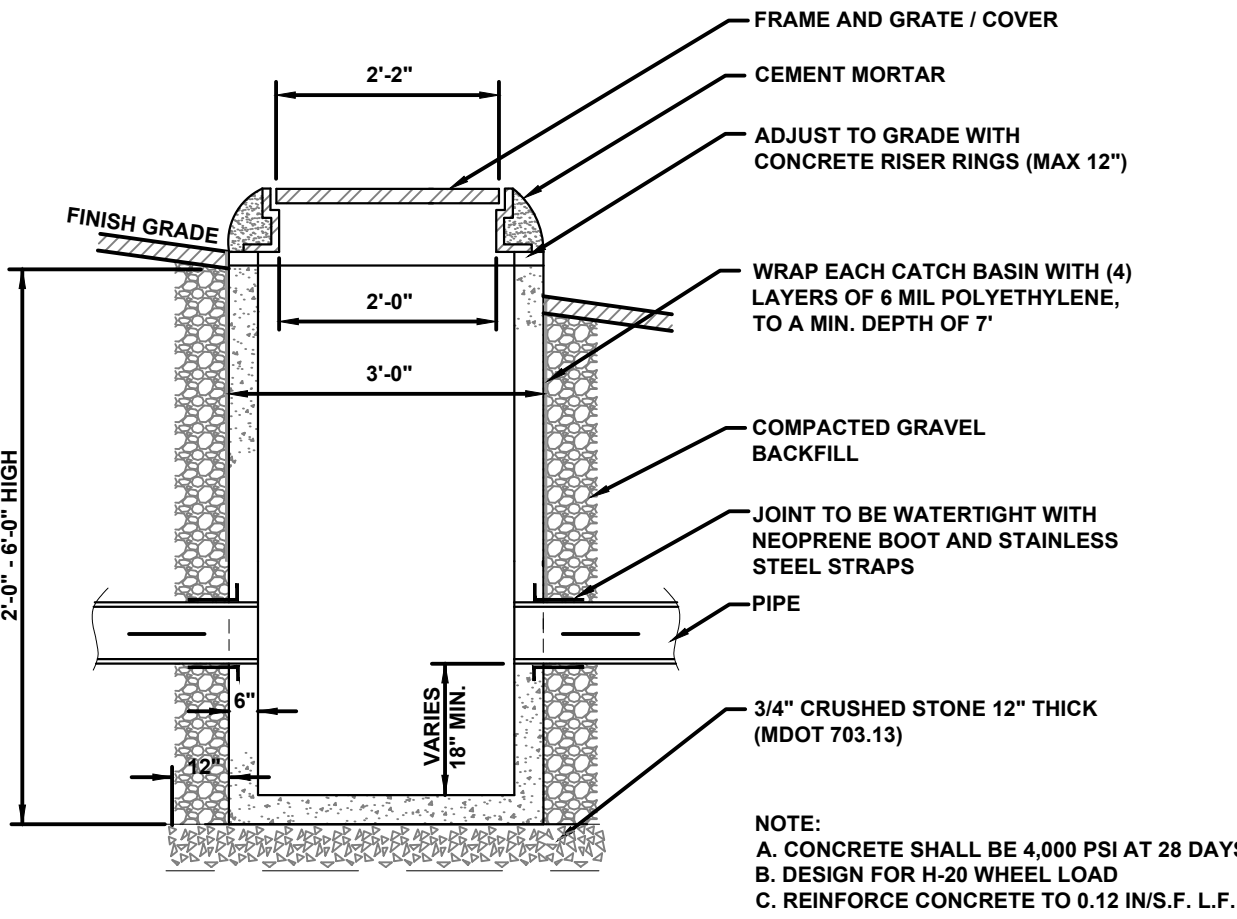
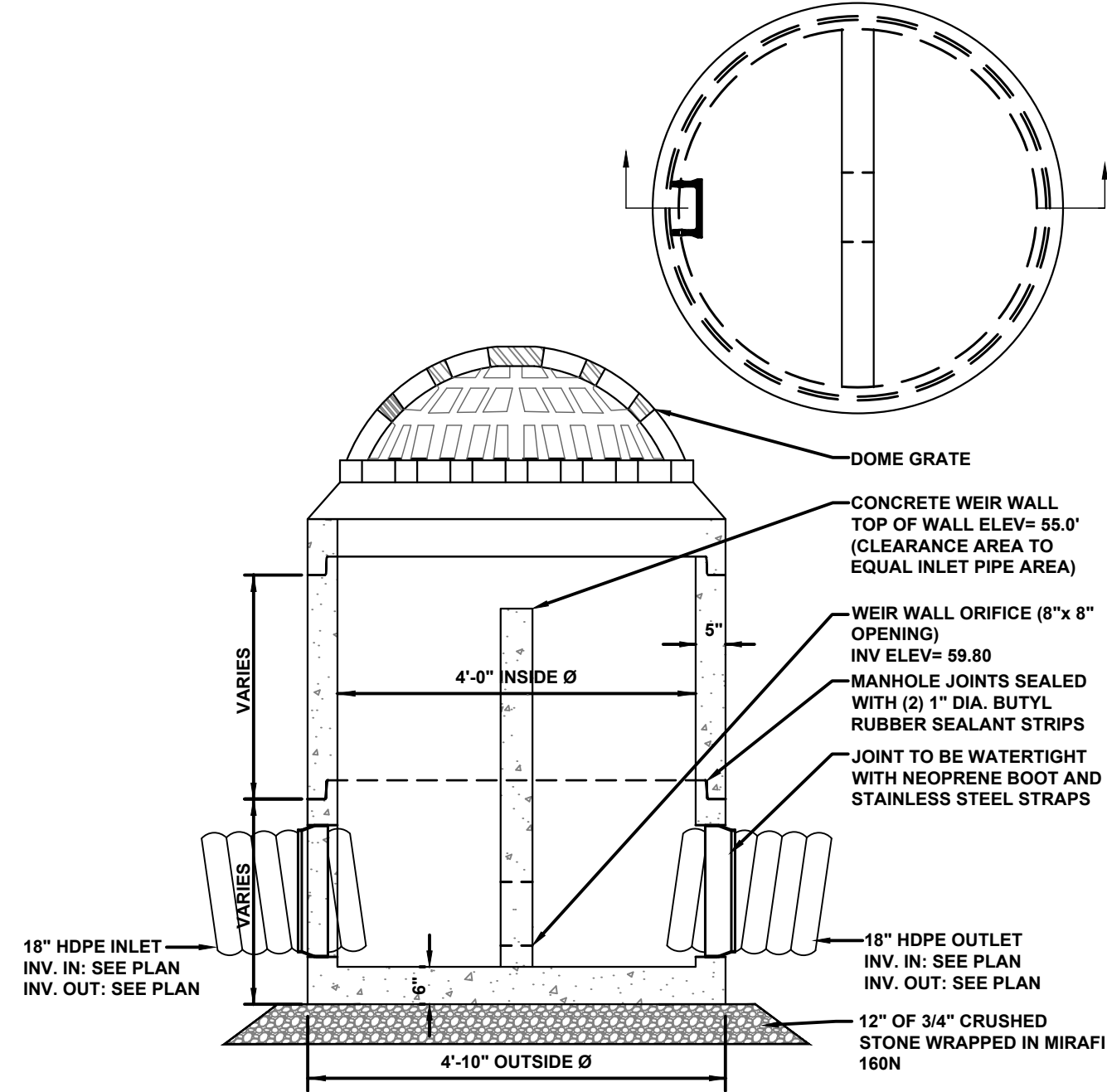
TYPICAL CULVERT TRENCH DETAIL

NTS



DETENTION POND A - SECTION

N.T.S.

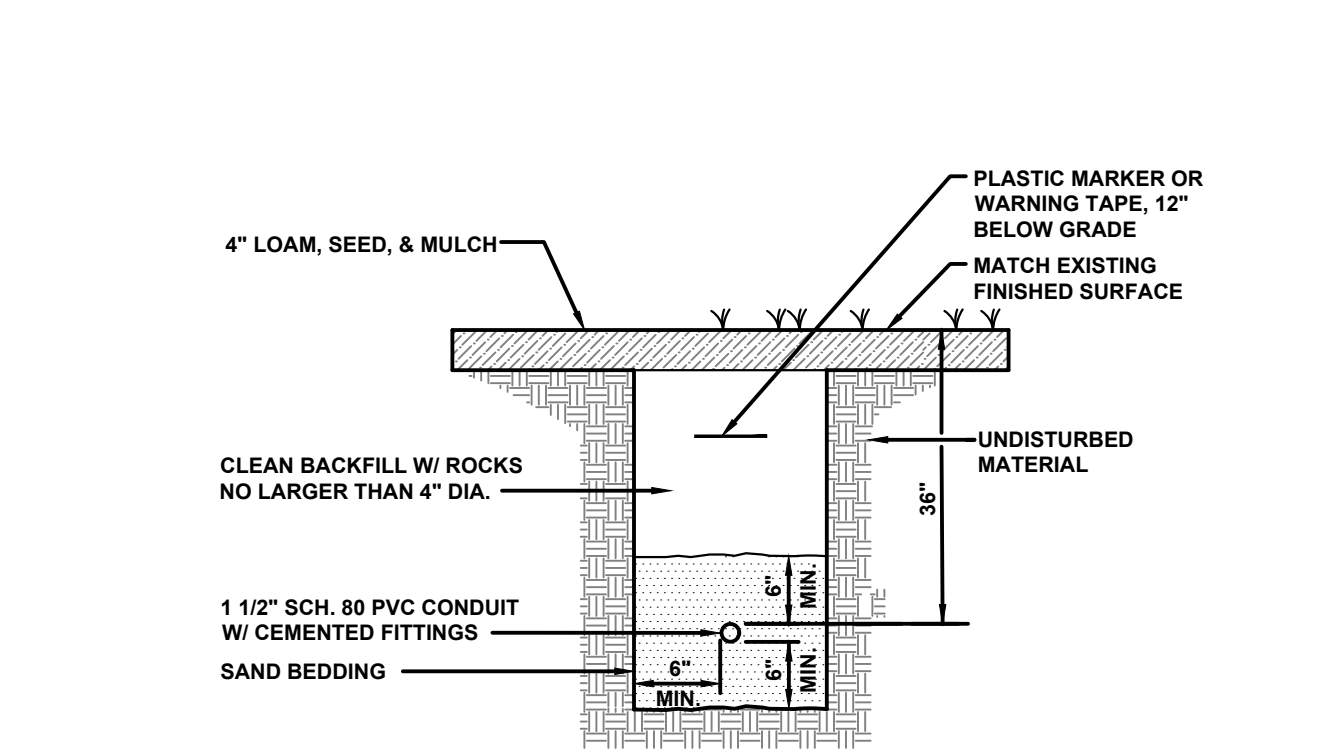


OUTLET CONTROL STRUCTURE #2 DETAIL

NTS

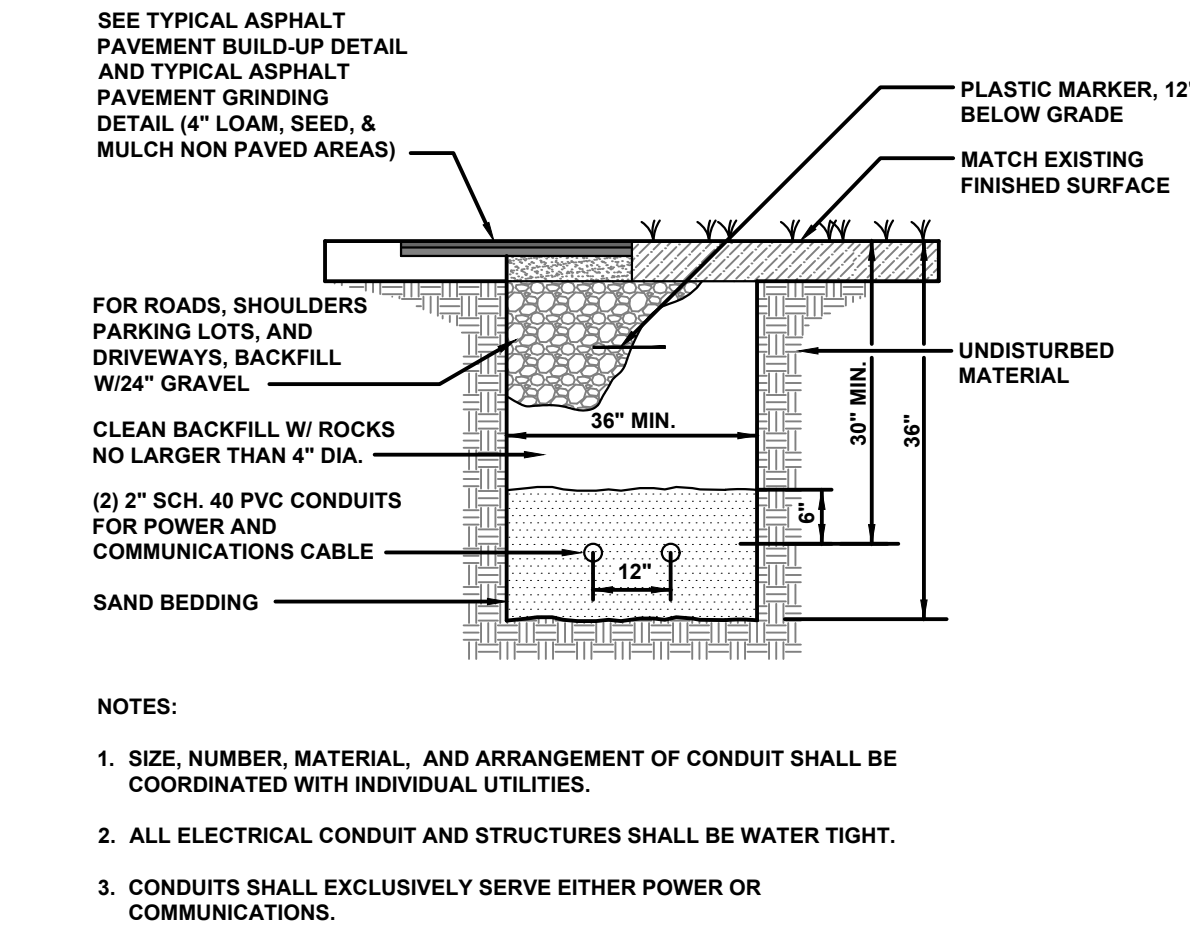
OUTLET CONTROL STRUCTURE #1 DETAIL

N.T.S.



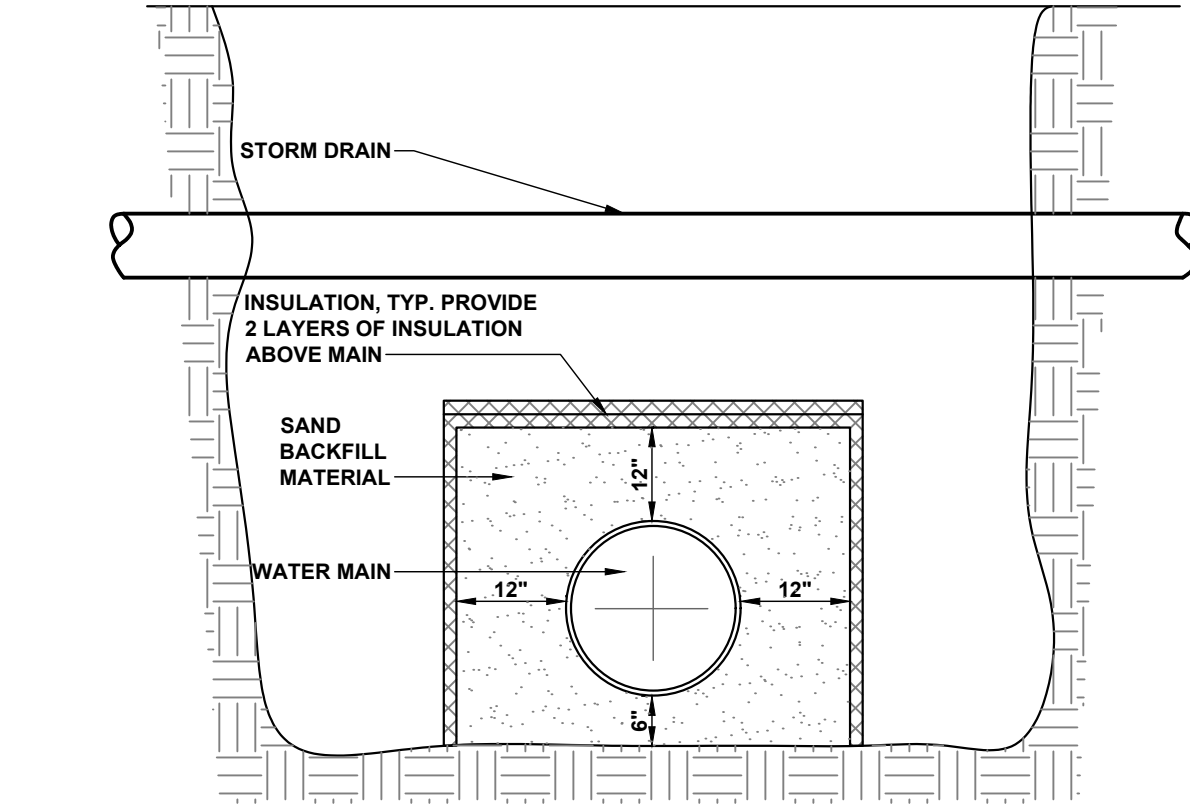
TYPICAL LIGHTING TRENCH DETAIL

NTS



TYPICAL UNDERGROUND UTILITY TRENCH DETAIL

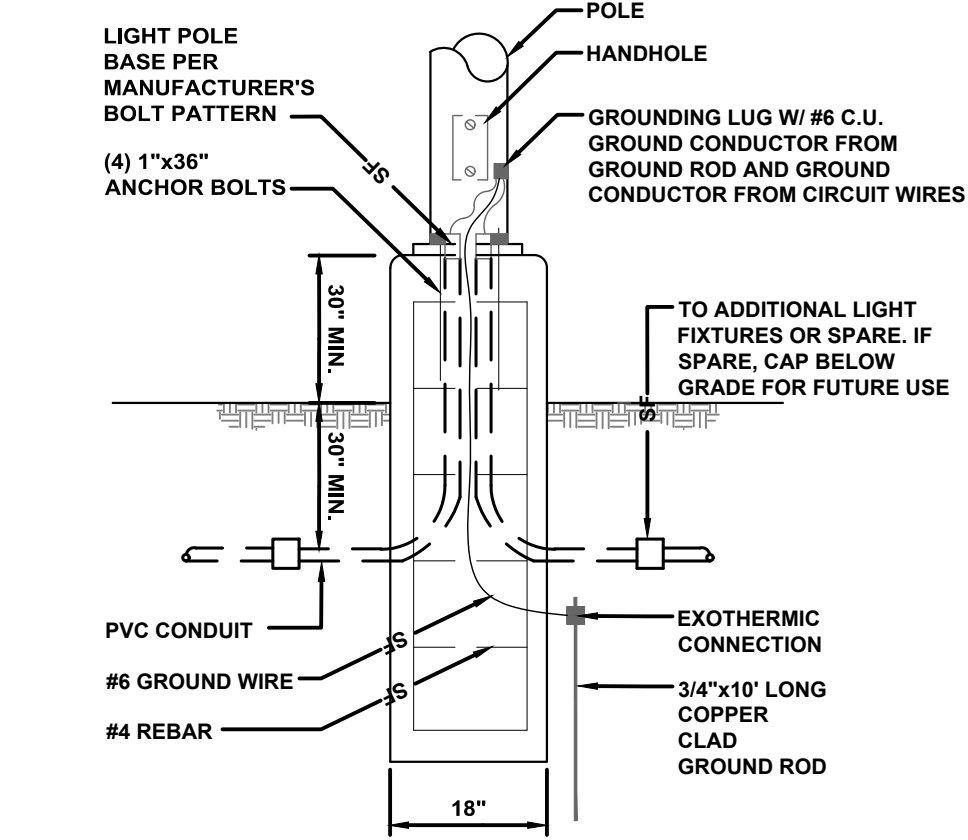
NTS



- 2" RIGID INSULATION BLUE BOARD BY DOW CO. SM. EXTRUDED POLYSTYRENE, (OR APPROVED EQUAL) TO BE USED IF EARTHEN COVER IS LESS THAN 1'-6" AT WATER AND STORM SEWER CROSSINGS.
- REFER TO WATER MAIN TRENCH DETAIL FOR COVER & BACKFILL REQUIREMENTS, MAINTAIN A MINIMUM OF 6" SAND BELOW WATER MAIN.
- INSULATION SHALL BE 8' LONG AND CENTERED ON DRAIN CENTERLINE.

TYPICAL PIPE CROSSING INSULATION DETAIL

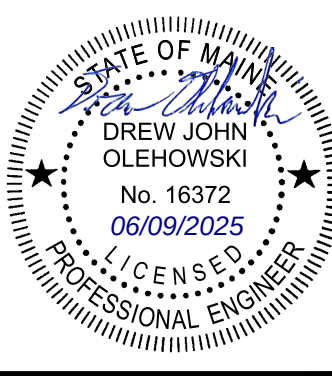
NTS



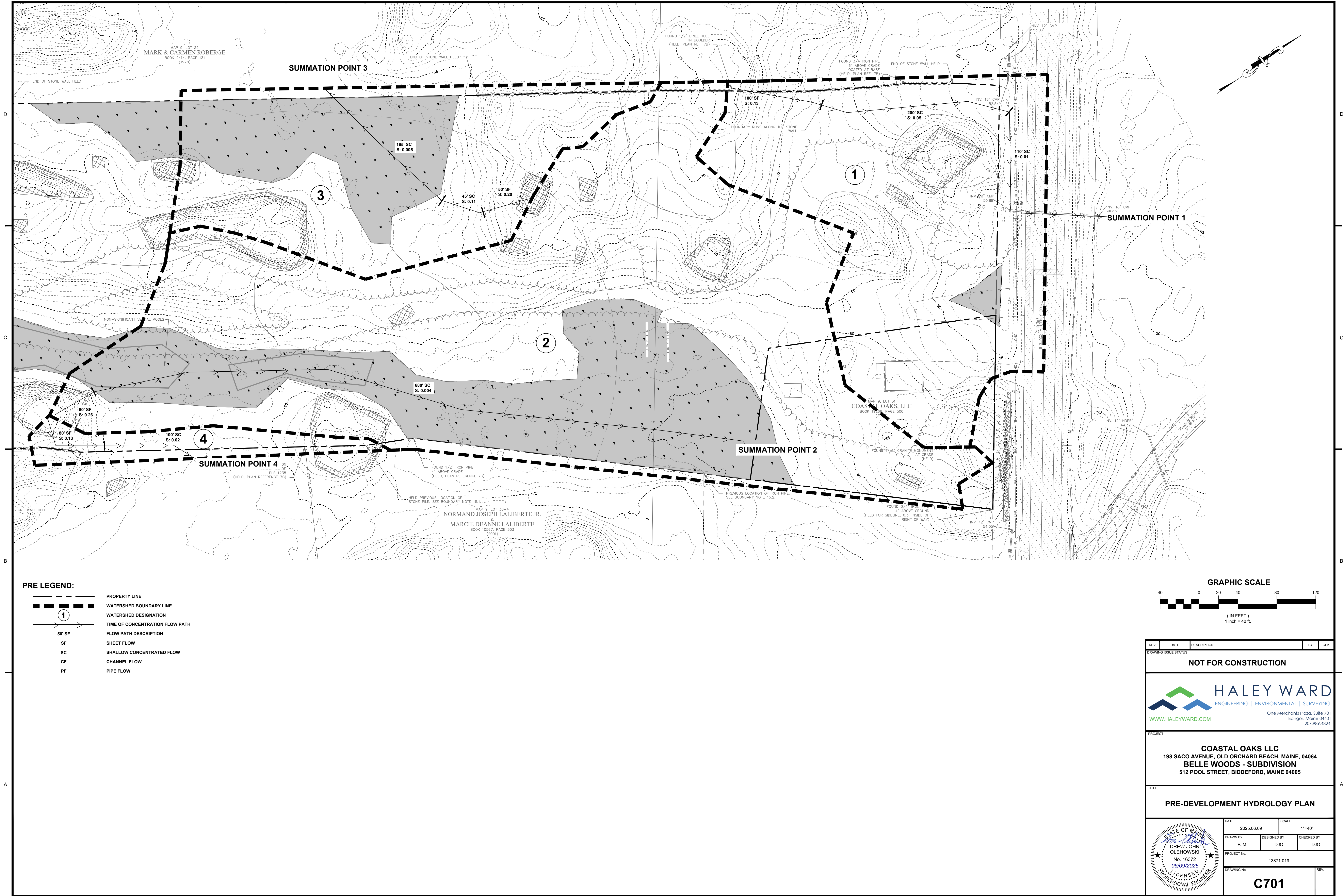
TYPICAL LIGHT POLE BASE DETAIL

NTS

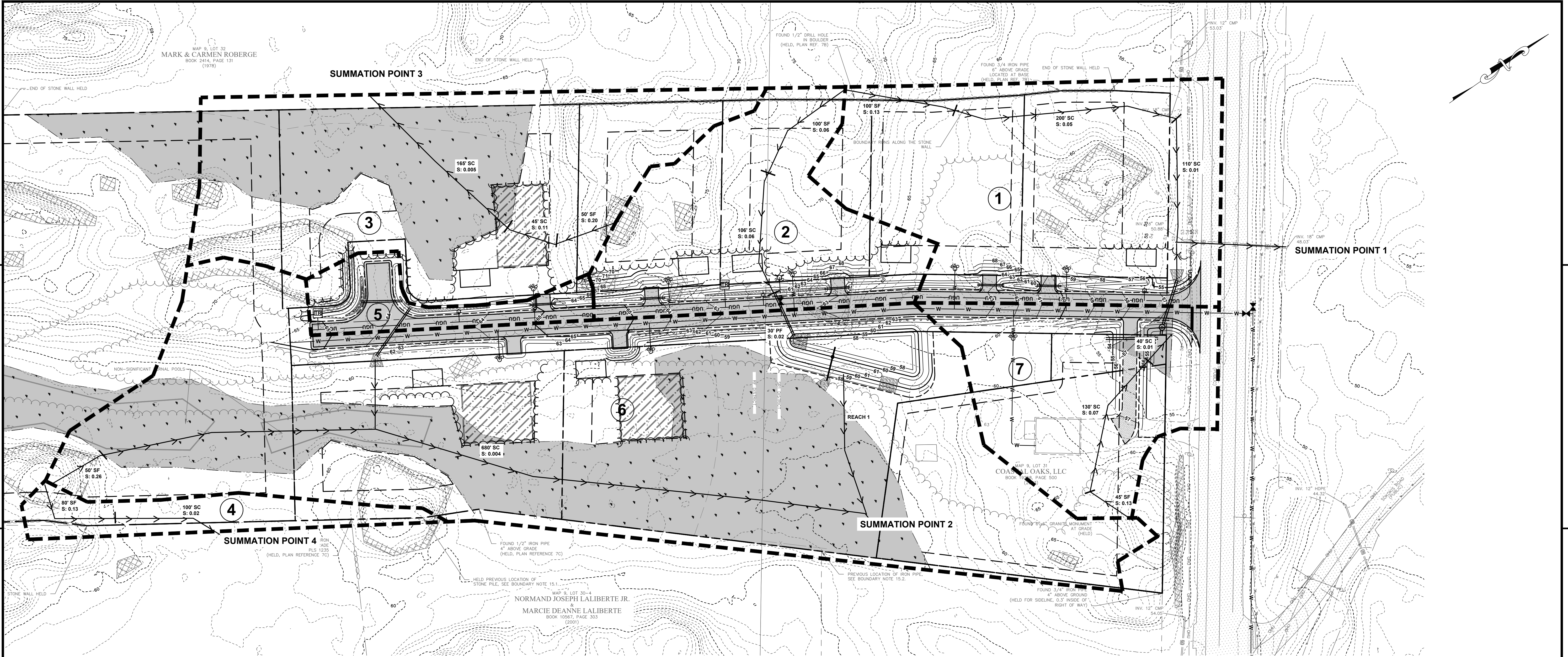
REV.	DATE	DESCRIPTION	BY	CHK
DRAWING ISSUE STATUS				
NOT FOR CONSTRUCTION				
 HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING www.haleyward.com One Merchants Plaza, Suite 701 Bangor, Maine 04401 207.989.4824				
PROJECT				
COASTAL OAKS LLC 198 SACO AVENUE, OLD ORCHARD BEACH, MAINE, 04064 BELLE WOODS - SUBDIVISION 512 POOL STREET, BIDDEFORD, MAINE 04005				
TITLE				
SITE DETAILS				
DATE		2025.06.09	SCALE	NTS
DRAWN BY	DESIGNED BY	CHECKED BY		
PJM	PJM	DJO		
PROJECT No.		13871.019		
DRAWING No.		C502		REV.



FILE LOCATION: P:\MET1887\HNDL WEINS TEN\919-512 POOL ST -04005.CAD, FILESCAD\11887\018\CH\HYDRO 2025.06.09, 12:16 PM

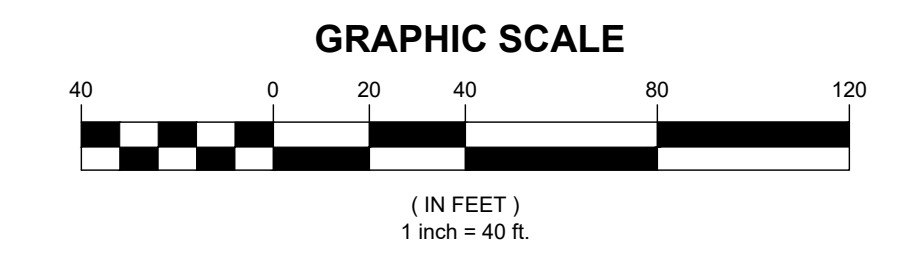


FILE LOCATION: P:\MET1887\HNDL\WEINS\TENG\19-512 POOL ST. 04095.CAD, FILESCAL\1887\1018\CH\HY.DWG, 2025.06.09, 12:16 PM



POST LEGEND:

	PROPERTY LINE
	WATERSHED BOUNDARY LINE
	WATERSHED DESIGNATION
	TIME OF CONCENTRATION FLOW PATH
	FLOW PATH DESCRIPTION
	SHEET FLOW
	SHALLOW CONCENTRATED FLOW
	CHANNEL FLOW
	PIPE FLOW



REV.	DATE	DESCRIPTION	BY	CHK.
DRAWING ISSUE STATUS				
NOT FOR CONSTRUCTION				
HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING One Merchants Plaza, Suite 701 Bangor, Maine 04401 207.989.4824 WWW.HALEYWARD.COM				
PROJECT				
COASTAL OAKS LLC 198 SACO AVENUE, OLD ORCHARD BEACH, MAINE, 04064 BELLE WOODS - SUBDIVISION 512 POOL STREET, BIDDEFORD, MAINE 04005				
TITLE				
POST-DEVELOPMENT HYDROLOGY PLAN				
DATE		SCALE		
2025.06.09		1"=40'		
DRAWN BY	DESIGNED BY	CHECKED BY		
PJM	DJO	DJO		
PROJECT No.		13871.019		
DRAWING No.		REV.		
C702				

CHECKLIST DIRECTIONS:

1. The following checklist must be completely filled out by the applicant and included on all preliminary and final Site Plan & Subdivision submittals. No checklist is required for sketch submittals.
2. Applicant to confirm all of the items listed are included within the submittal. Any missing items must have adequate reasoning to justify their absence.
3. City to review applicant's submittal and checklist responses. Projects missing substantial submittal information with non-acceptable reasoning will be rejected and required to resubmit.
4. Items in **BLACK** are required for 'Preliminary' approval & 'Final' approval.
5. Items in **BLUE** are only required for 'Final' approval.

SUBMITTAL INFORMATION - TO BE FILLED OUT BY APPLICANT	
Project Name:	512 Pool Street
Planning Board # (if available):	
Applicant Name/Info:	Coastal Oaks, LLC
Submittal #/Type (Prelim/Final):	Final
Submittal Date:	6/9/2025

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
1	GENERAL PLAN REQUIREMENTS					
A	Drawing specific legends (linetypes, hatches, etc.)	YES	C001		YES	
B	Individual drawing layer control should be utilized: freeze/thawing, changing lineweights, and screening (i.e. screen existing layers on a proposed plan, freeze topography and underground utilities on a proposed site plan)	YES			YES	
C	North arrows, standard engineering scale viewports, scale bars, dated revision blocks	YES			YES	
D	All drawings and surveys must be in the following coordinate systems: NAD83 Maine State Plane West (Horizontal) and NAVD88 (Vertical)	YES			YES	
E	Drawings need to be designed, signed & sealed by a Maine licensed professional engineer (PE); all boundary survey data needs to be performed by a licensed professional land surveyor (PLS)	YES			YES	
2	COVER SHEET					
A	Project Name & Property Address	YES	C000		YES	
B	Project Team Contact Information (Owner, Engineer, Contractor, etc.)	YES	C000		YES	
C	Site Location Map	YES	C000		YES	
D	Sheet Set List of Drawings	YES	C000		NO	Missing C-502 in index. ADDRESSED IN 6/9/25 REVISION
E	Tax Map and Lot ID	YES	C101		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
F	Zoning & Shoreland Zone Information	YES	C101		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
G	Existing Use Description	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/255 REVISION
H	Proposed Use Description	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
I	Required Waiver/Variances (Yes/No); if yes, plan must clearly list waivers/variiances requesting	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
J	Name of Drainage Watershed	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
K	Within the MS4 Urbanized Area (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
L	Natural resources (streams, wetlands, etc.) located on-site or adjacent to the property (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
M	Within the 100-year Flood Zone (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
N	Public Road Proposed (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
O	Private Road Proposed (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
P	Public Sewer Connection (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
Q	Public Storm Drain Connection (Yes/No)	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
R	Limits of Disturbance in square feet and acres	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
S	Pervious Land Cover square footage, existing and proposed	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/255 REVISION
T	Impervious Land Cover square footage (Pavement/Gravel), existing and proposed	YES	SEE APPLICATION		NO	Should be included on the cover sheet. ADDRESSED IN 6/9/25 REVISION
U	Building Roof square footage, existing and proposed	YES	SEE APPLICATION		NO	Buildings not proposed at this time - indicate as such on cover sheet ADDRESSED IN 6/9/25 REVISION
V	Assigned Planning Board Number	YES	COVER SHEET			

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
W	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)	YES	COVER SHEET			
3	EXISTING CONDITIONS PLAN					
A	Horizontal & Vertical Datums annotated (NAD83 & NAVD88)	YES	1/V102		YES	
B	Property & Right-of-Way Lines	YES	1/V102		YES	
C	Boundary line information (bearings, distances, etc.)	YES	1/V102		YES	
D	Property pin and monumentation locations	YES	1/V102		YES	
E	Existing easements with proper ownership identified	YES	1/V102		YES	
F	Road Names & Individual Lot Labels (Map, Lot, Owner, Acreage)	YES	1/V102		YES	
G	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	1/V102		YES	
H	100-year Flood Zone Limits & Elevation	NO		NOT APPLICABLE	YES	
I	Existing contours with adequate contour labelling; minimum 1' contour interval	YES	1/V102		YES	
J	Existing building FFEs annotated	NO		NOT APPLICABLE - NO SIGNIFICANT CHANGES TO EXISTING BUILDING	YES	
K	Spot elevations for all tie-in locations (curb cuts, property line)	YES	C103		YES	
L	Existing buildings & structures	YES	V102		YES	
M	Existing pavement areas & number of parking spaces	YES	V102		YES	
N	Existing ADA ramp geometry, detectable warning plates, and ADA parking spaces	NO		NOT APPLICABLE - NO ADA FEATURE CURRENTLY ON SITE	YES	
O	Existing site features (sidewalks, retaining walls, curbing, lightpoles, guide rails, dumpsters, fencing)	YES	1/V102		YES	
P	Existing signage and striping	YES	1/V102		YES	
Q	Existing underground utility locations (storm, sewer, force main, water, gas, elec, tele)	YES	1/V102		YES	
R	Existing above-ground utility locations (manholes, catch basins, utility poles, hydrants, transformers, riprap)	YES	1/V102		YES	
S	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	YES	1/V102		YES	
T	Existing tree lines, street trees, free-standing trees (12" or larger diameter at breast height), and vegetation	YES	1/V102		YES	
U	Location of any borings, drinking wells, and monitoring wells	YES	1/V102		YES	
4	SITE DEMOLITION & EROSION CONTROL (E&SC) PLAN					
A	Limits-of-disturbance outlined and acreage annotated	YES	C100		NO	LOD is outlined but acreage is not noted ADDRESSED IN 6/9/25 REVISION
B	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C100		NO	Resources are present on this plan but buffers are not added ADDRESSED IN 6/9/25 REVISION
C	100-year Flood Zone Limits	YES	C100		YES	Previously stated as not on site
D	Callout existing site features to be demolished/removed/replaced	YES	C100		YES	
E	Callout existing utilities to be demolished/removed/abandoned-in-place	YES	C100		YES	
F	Hatch existing buildings and pavement to be removed	YES	C100		NO	Demo work within roadway limits not hatched ADDRESSED IN 6/9/25 REVISION
G	Construction Entrance location(s)	YES	C100		YES	
H	Perimeter E&SC control location(s) (i.e. silt fence, erosion berm mix)	YES	C100		NO	Review limits of silt fence and make sure it completely lines the construction site wherever runoff off-site could occur. SILT FENCE ADDED IN COMPLIANCE WITH STANDARD EROSION CONTROL PRACTICES
I	Stockpile and staging area(s) identified (with proper perimeter control)	YES	C100		NO	Proper perimeter control not outlined around designated stockpile area ADDRESSED IN 6/9/25 REVISION
J	Inlet protection location(s)	YES	C100		YES	

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
K	Note requiring contractor to implement dust control measures throughout construction	YES	C100		YES	
L	Note requiring contractor to pave utility trenches within right-of-way within 3 days of excavation or prior to any rain event	YES	C100		YES	
M	If groundwater expected, show dewatering/silt bag location(s); show temporary pumping routing	NO	N/A	GW NOT EXPECTED.		
N	If large development is proposed with an extensive underground stormwater conveyance network, identify how SWM infrastructure and BMPs will be protected during construction and if sediment traps/basins are needed	NO	N/A	UNDERGROUND STORMWATER CONVEYANCE NETWORK NOT PROPOSED		
5	SITE PLAN/SUBDIVISION PLAN					
A	Partial Site Plans needed for any viewport scale greater than 1"=20'	NO	N/A	40 SCALE PROVIDED		
B	Existing property and right-of-way lines	YES	C101		YES	
C	Proposed subdivision lot lines and labels	YES	C101		YES	
D	Required Zoning Setbacks shown with dimensions and annotation	YES	C101		YES	
E	Bulk requirement summary table (zoning/parking calculations)	YES	C101		YES	
F	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C101		YES	
G	100-year Flood Zone Limits	YES	C101		YES	
H	Proposed building outlines, door entrances and loading docks	YES	C101	TOTAL ALLOWABLE BUILDING ENVELOPE SHOWN - BUILDING DESIGN TO COME AT A LATER DATE	YES	Just total allowable building enevelopes shown
I	Proposed building labels	YES	C101	TOTAL ALLOWABLE BUILDING ENVELOPE SHOWN - BUILDING DESIGN TO COME AT A LATER DATE	YES	Just total allowable building enevelopes shown
J	Proposed road & sidewalk extents; provide clear annotation if roads will be public or private	YES	C101		YES	
K	Proposed parking and accessible parking locations; annotate parking space counts	NO		NO PARKING PROPOSED - TO BE PROVIDED BY PRIVATE DRIVEWAYS AND/OR GARAGES	YES	
L	Proposed signage, parking striping, and traffic striping	YES	C101		YES	C102
M	Detailed ADA ramp geometry, detectable warning surfaces, and ADA parking striping/signage; existing & proposed	NO		NO ADA FEATURES EXISTING OR PROPOSED	YES	
N	Proposed site features (i.e. curbing, walls, fencing, guiderail, fire hydrant, transformers, light pole locations)	YES	C101		YES	
O	Proposed landscaping; detailed landscaping design should be shown	YES	C101		YES	No detailed landscaping plans with this submission DEEMED NOT REQUIRED BY
P	Designated snow storage areas	YES	C101		YES	C102
Q	Proposed dumpster locations and trash removal access	YES	C101	TRASH REMOVAL TO BE PROVIDED BY INDIVIDUAL BINS.	YES	
R	Linear dimensions of all drive aisles, sidewalk widths, parking spaces, loading docks	YES	C102		YES	
S	Radial dimensions for all curbs, landscaped islands, sidewalks	YES	C102		YES	
T	Public/private road centerline stationing shown, labelled every 0+50' with curve data	YES	C102		YES	
U	If Private Road is proposed, final recorded plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	YES	C101		YES	
V	If Private Road is proposed, final recorded plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	YES	C101		YES	
W	Planning Board signature block for final recording	YES	C101		YES	
6	GRADING PLAN					
A	Partial Grading Plans needed for any viewport greater than 1"=20'	NO	N/A	40 SCALE PROVIDED		
B	Limits-of-disturbance outlined and acreage annotated	YES	C103		NO	LOD is outlined but acreage is not noted ADDRESSED IN 6/9/25 REVISION

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
C	Proposed Building Labels with Individual Finished Floor Elevations (FFE's)	NO		TOTAL ALLOWABLE BUILDING ENVELOPE SHOWN - BUILDING DESIGN TO COME AT A LATER DATE	YES	
D	Existing contours with adequate contour labelling, screened;	YES	C103		YES	
E	Proposed contours with adequate contour labelling; minimum 1' contour interval	YES	C103		YES	
F	Detailed grading for all ditches, swales, outfalls, and riprap	YES	C103		YES	
G	All proposed contours tie-into existing contours at limits-of-disturbance outline	YES	C103		YES	
H	Existing spot elevations for all asphalt, curb, and SWM BMP tie-in locations	YES	C103		YES	
I	Location of any Natural Resources and their respective buffers (wetlands, streams, etc.)	YES	C103		NO	Resources are present on this plan but buffers are not shown ADDRESSED IN 6/9/25 REVISION
J	100-year Flood Zone Limits	YES	C103		YES	Noted not on project site
K	Proposed spot elevations for all important roadway geometric points (including but not limited to: parking/drive aisles, building corners/entrances, retaining walls, loading docks, EOP/curblines)	YES	C103	GRADING PROFILE PROVIDED. NO ADA, BUILDING, SIDEWALKS, OR OTHER INTRICATE SITE FEATURES THAT REQUIRE ADDITIONAL SPOT GRADES		
L	Proposed spot elevations for all ADA ramp/landing/parking stall geometry points	NO	N/A			
M	Proposed % slope arrows for all ADA parking spaces and sidewalks	NO	N/A			
N	Proposed longitudinal % slope arrows for drainage ditch centerlines	YES	C103	SLOPES SHOWN ON ROAD PROFILE		
O	Proposed % slope arrows for roads, parking areas, and landscape tie-in areas	YES	C103	SLOPES SHOWN ON ROAD PROFILE		
P	Estimated cut/fill earthwork volumes. If disturbing within the Flood Zone, a separate set of earthwork volumes required (overall site vs. within flood zone)	YES	COVER SHEET			
7	ROAD PROFILES (if public/private road proposed)					
A	Existing surface; dashed and screened	YES	C103		YES	
B	Proposed surface; continuous and bold	YES	C103		YES	
C	Road design speed must be clearly identified	YES	C103		NO	Does not specify design speed on plans. However plans state road is designed to meet minor residential roadway standards as defined in the City of Biddeford Code of Ordinances, Article VI. Section 51. ADDRESSED IN 6/18/25 REVISION, SEE NOTE 3/C103
D	Corresponding centerline stationing and curve data annotation	YES	C103		YES	
E	All vertical curves must identify the proposed 'k' values and confirm they meet the minimum design speed thresholds listed in AASHTO's Green Book Tables 3-35 & 3-37	YES	C103			
F	Clear annotation if proposed road will be public or private	YES	C103		YES	
G	If Private Road is proposed, plans must clearly note that proposed private roads will not be submitted in the future for public acceptance	YES	C103		YES	
H	If Private Road is proposed, plans must clearly note that the City is not responsible for any maintenance, repair, plowing, or trash removal of proposed private roads	YES	C103		YES	
8	UTILITY PLAN					
A	Existing underground utility locations; screened (storm, sewer, force main, water, gas, electric, telecom)	YES	C102		YES	
B	Existing above-ground utility locations; screened (manholes, catch basins, utility poles, hydrants, riprap)	YES	C102		YES	
C	Rim, invert in, invert out, pipe size, cardinal direction (N, E, S, W) information for any existing utility infrastructure being tied into (upstream/downstream/outfalls)	YES	C102		YES	

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
D	Proposed underground utility locations; bold (storm, sewer, force main, water, gas, electric, telecom, lighting)	YES	C102		YES	
E	Proposed above-ground utility locations; bold (manholes, catch basins, utility poles, hydrants, transformers, riprap)	YES	C102		YES	
F	Proposed storm culverts, outfalls, and riprap locations and sizes	YES	C102		YES	
G	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	YES	C102		YES	
H	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	YES	C102		NO	Add slope to pipe label ADDRESSED IN 6/18/25 REVISION
I	Flow directional arrows for storm & sewer pipes	YES	C102		NO	Add flow directional arrows ADDRESSED IN 6/18/25 REVISION
J	Proposed & existing site features shown that could conflict with proposed utilities (trees, signs, lightpoles, bollards, foundations, guiderails)	YES	C102		YES	
K	All storm drains must be sized to convey the 25-year storm	YES	SEE APPLICATION			
L	Sewer force main sizes and invert elevations	NO	N/A			
M	Sewer pump station locations, model, rim, inverts, pipe sizes, cardinal directions (N,E,S,W); additional details and hydraulic calculations required for any Public pump station proposed.	NO	N/A			
N	Locations, sizes, and elevations of any: grease traps, oil-water separators, septic systems, drinking wells	YES	C102 AND THE 200 DESIGNS IN APPLICATION			
O	Proposed water sizes labelled	YES	C102			
9	UTILITY PROFILES					
A	Utility profiles required for all gravity storm drain and sewer pipes proposed: within the right-of-way, within private or public roads, for non-driveway culverts, and for any public infrastructure tie-ins	YES	C103			
B	Existing surface; dashed and screened	YES	C103			
C	Proposed surface; continuous and bold	YES	C103			
D	Storm/sewer structure labels must include: rim, inverts in, inverts out, pipe sizes, cardinal directions (N, E, S, W)	YES	C103			
E	Storm/sewer pipe labels must include: linear footage, pipe size, material, slope	YES	C103			
F	Existing and proposed gravity pipe crossings shown; sizes labelled and depths/clearance annotated	YES	C103			
G	Existing and proposed electric/water/telecom/gas crossings shown at approximate depths; sizes labelled and depths/clearance annotated	YES	C103			
10	DETAILS					
A	Road section detail, including pavement/gravel depths & cross slopes	YES	C501		YES	
B	Sidewalk, paver, crosswalk, and any other pavement section details	YES	C501		YES	
C	Pavement sawcut & shiplap details	YES	C501		YES	
D	Utility trench/backfill detail	YES	C501/C502		YES	
E	All site feature details; curbing, retaining walls, fencing, guiderails, dumpsters, etc.	YES	C501/C502		YES	
F	Signage, striping, and ADA details	YES	C501		YES	
G	E&S notes and details	YES	C001	PROVIDED ON NOTES SHEET	YES	
H	Utility structure details (manholes, cleanouts, fittings, handholes, transformer pads, hydrants)	YES	C501/C502		YES	
I	Storm outfall & riprap details	YES	C100	PROVIDED ON EROSION CONTROL PLAN	YES	
J	Drainage ditch cross section identifying minimum depth, minimum bed width, and maximum side slopes	YES	C501		YES	

SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
	K Pump station, grease trap, oil-water separator, septic, drinking well details	YES	SE APPLICATION	HHE 200 DESIGNS PROVIDED		
	L Conduit section details	YES	C502			
11	LANDSCAPING, LIGHTING & PHOTOMETRIC PLANS					
	A As required by ordinance; at a minimum: locations, counts, lighting models, and landscaping species must be identified	YES	C102	LIGHTING INFORMATION ONLY - LANDSCAPING NOT REQUIRED	No	See review memo for comments on lightng. ADDRESSED IN 6/9/25 REVISION
	B Landscaping & lighting details	YES	C102 AND C502	LIGHTING INFORMATION ONLY - LANDSCAPING NOT REQUIRED	No	See review memo for comments on lighting and landscaping. ADDRESSED IN 6/9/25 REVISION
12	DOCUMENTS/REPORTS/CALCULATIONS					
	A On initial preliminary submittal applications, applicant must submit a development review and inspection fee. Applicant to coordinate fee amount with City Planner prior to submittal. This fee will be drawn against to cover the following type of services throughout the project life cycle (and may require replenishing): i. 3rd Party City Peer-Review ii. Site Inspections during the permitting process iii. Erosion & Sediment Control Inspections during construction iv. Right-of-Way Inspections during construction v. Site Punchlist/As-Built Inspections post-construction	YES			City to Verify	
	B Stormwater Management Report, including: 1. Predevelopment & Post-development Drainage Area Maps, including: a. Subdrainage areas delineated and labeled b. Points of Interest/Analysis shown and labeled c. Hatching for different land cover areas (impervious, pervious, gravel) within each applicable USDA soil boundary d. Time of concentration (Tc) paths & durations e. Four City-standardized stormwater summary tables 2. If any SWM water quality BMP or detention facility is proposed, hydrologic model exports/hydrographs must be submitted for the for the 2, 10, 25, & 100-year storm frequencies 3. Sizing calculations for any SWM water quality BMP or detention facility 4. A stormwater maintenance manual for any proposed SWM water quality BMP or detention facility, including: a. Annual maintenance requirements b. Annual inspection requirements by a licensed PE; noting that all inspection reports/logs need to be submitted to the Engineering Department by March 1st each following year, identifying what on-going maintenance has occurred and what remedial repairs are needed	YES			NO	Drainage Area Maps are provided in the plan set but should be added to the Stormwater Management Report. DRAINAGE MAPS ADDED TO SW REPORT Didn't provide 100-year storm event in model runs. 100 YEAR STORM RESULT PROVIDED Did not provide all four City-standardized storwmater summary tables. TABLES PROVIDED Did not note in SWMP that all inspection reports/logs need to be submitted to the Engineering Department by March 1st each following year. NOTE ADDED Did not provide Signed Property Owner Agreement: including the current property owner's contact information and signature; or that it must be noted that all stormwater BMP maintenance requirements are linked to the property for perpetuity and transfer to any new ownership. AGREEMENT ADDED
	C An approved 'Sewer Ability-to-Serve Letter' from the Engineering Department: i. Applicant to submit proposed sewer flow calculations per Maine's Subsurface Wastewater Disposal Rules, Chapter 241, Section 4 (Tables 4A & 4C)	NO		REQUEST SENT, APPROVAL NOT YET RECEIVED.	NO	Submit approval letter for final submission. CITY STAFF CONFIRMED ABILITY TO SERVE LETTER NOT REUIRED FOR PRIVATE ON SITE SEWER
	D A Performance Guarantee Cost Estimate utilizing Planning's template	NO		TO BE PROVIDED FOR FINAL APPROVAL	NO	Submit for final submission. Provided
	E For any Site Location of Development (SLODA) project, the applicant's submittal must mimic a formal submittal to DEP. Submit must abide to DEP's SLODA application and include DEP's SLODA Submittal Checklist (Form D)	NO		SLODA NOT APPLOCABLE	YES	N/A

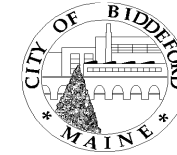
SUBMITTAL REQUIREMENT		APPLICANT RESPONSE			WP REVIEW RESPONSE	
ITEM NUMBER	DESCRIPTION	INFORMATION PROVIDED (YES/NO)	LIST DRAWING SHEET NUMBER WHERE INFORMATION IS PROVIDED	REASON NOT PROVIDED/COMMENT	ACCEPTABLE (YES/NO-REVISE & RESUBMIT)	3/13/2025 COMMENT
F	25-year hydraulic calculations for all storm conveyance infrastructure (pipes, culverts, drainage ditches); starting tailwater	YES	SW REPORT			
K	Public sewer pump station sizing calculations and maintenance plan	NO	N/A			
M	Grease trap sizing calculations	NO	N/A			
N	Homeowner Association (HOA) agreement for any private road	YES	SEE APPLICATION			
O	Summary list & copy of any required DOT/DEP/USACE permits & approvals	YES	COVER SHEET			

OWNER/APPLICANT: COASTAL OAKS LLC

PB #: 2024-32

PROJECT NAME: 512 POOL STREET - BELLE WOODS

DATE: JUNE 9 2025



	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Clearing and Grubbing	Acre	1.04	\$4,000.00	\$4,160.00
2	Erosion/Sediment Control	Lump Sum	1	\$5,000.00	\$5,000.00
3	Site Stabilization	Lump Sum	1	\$2,500.00	\$2,500.00
4	Ledge Removal	Cubic Yard	100	\$250.00	\$25,000.00
5	Sanitary Sewer				
	Manholes	Each	0	\$0.00	\$0.00
	Main	Linear Foot	0	\$0.00	\$0.00
	House Services	Linear Foot	0	\$0.00	\$0.00
6	Water Main				
	Main	Linear Foot	1254	\$180.00	\$225,720.00
	House Services	Linear Foot	328	\$180.00	\$59,040.00
	Hydrants	Each	1	\$7,500.00	\$7,500.00
7	Electric				
	Underground Utility Trench	Linear Foot	858	\$20.00	\$17,160.00
	Conduit/Wiring	Linear Foot	858	\$0.00	\$0.00
	Transformer Bases	Each	2	\$7,500.00	\$15,000.00
8	Storm Drainage				
	Pipe/Culvert	Linear Foot	363	\$120.00	\$43,560.00
	Catch Basin	Each	0	\$0.00	\$0.00
	Other Treatment Devices	Each	0	\$0.00	\$0.00
9	Stormwater Management				
	Outlet Control Structure	Each	2	\$6,000.00	\$12,000.00
	Stormwater Management Facilities	Each	2	\$10,000.00	\$20,000.00
10	Excavate and Grade Subgrade	Cubic Yard	956	\$10.00	\$9,560.00
11	Roadways				
	Subbase Gravel	Cubic Yard	1039	\$50.00	\$51,950.00
	Base/Finish Gravel	Cubic Yard	230	\$55.00	\$12,650.00
	Base Paving	Ton	218	\$40.00	\$8,720.00
	Finish Paving	Ton	136	\$45.00	\$6,120.00
	Geotextile Fabric	SY	2150	\$3.00	\$6,450.00
12	Sidewalks				
	Subbase Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base/Finish Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base Paving	Ton	0	\$0.00	\$0.00
	Finish Paving	Ton	0	\$0.00	\$0.00
13	Parking Lots/Other Areas				
	Subbase Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base/Finish Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base Paving	Ton	0	\$0.00	\$0.00
	Finish Paving	Ton	0	\$0.00	\$0.00

*CUT

	<i>ITEM</i>	<i>UNIT</i>	<i>QUANTITY</i>	<i>UNIT COST</i>	<i>TOTAL</i>
14	Curbing – Bituminous	Linear Foot	0	\$0.00	\$0.00
15	Curbing - Concrete		0	\$0.00	\$0.00
15	Curbing – Granite	Linear Foot	0	\$0.00	\$0.00
16	Pavement Striping	Linear Foot	21	\$2,500.00	\$52,500.00
17	Guardrail	Linear Foot	264	\$10.00	\$2,640.00
18	Fencing	Linear Foot	0	\$0.00	\$0.00
19	Loam and Seed	1,000 Square Feet	30.7	\$100.00	\$3,070.00
20	Riprap	Cubic Yard	23	\$100.00	\$2,300.00
21	Landscaping	Lump Sum	1	\$2,500.00	\$2,500.00
22	Street Lights	Each	3	\$1,000.00	\$3,000.00
23	Site Lighting	Each	0	\$0.00	\$0.00
24	Monuments/Iron Pipes	Lump Sum	29	\$500.00	\$14,500.00
25	Clean Up	Lump Sum	1	\$2,500.00	\$2,500.00
26	As Builts	Lump Sum	1	\$2,500.00	\$2,500.00
27	Other				\$0.00
28	Other				\$0.00
29	Other				\$0.00
30	Other				\$0.00
31	Other				\$0.00

COST ESTIMATE TOTAL:

\$617,600.00

150% of TOTAL:

\$926,400.00

FOR OFFICE USE ONLY

EROSION CONTROL/SITE STABILIZATION BOND (IF APPLICABLE):

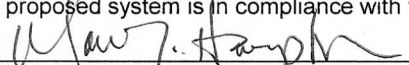
PERFORMANCE GUARANTEE REQUIRED:

Name:

Signature:

Date:

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit # _____
Street or Road	Belle Woods Drive Lot 2	Date Permit Issued: ____/____/____	Fee: \$ _____ Double Fee Charged ☐
Subdivision, Lot #			L.P.I. # _____
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature _____	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$ _____ state min fee \$ _____ Locally adopted fee	Copy: ☐ Owner ☐ Town ☐ State
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622	Municipal Tax Map # _____ Lot # _____	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION	THIS APPLICATION REQUIRES	DISPOSAL SYSTEM COMPONENTS	
1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 20599 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit, No. of Bedrooms: <u>4</u> 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round <u>Undeveloped</u>	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private <u>4. Public</u> 5. Other _____	
SHORELAND ZONING Yes ☐ No ☒	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: <u>1000</u> GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array <u>c. Linear</u> <u>b. regular load</u> d. H-20 load 4. Other: _____ SIZE: <u>1248</u> sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW 360 gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION <u>2 / AIII</u> at Observation Hole # <u>TP1</u> Depth <u>15</u> " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd <u>2. Medium---Large 3.3 sq. ft. / gpd</u> 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP <u>1. Not Required</u> 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	LATITUDE AND LONGITUDE at center of disposal area Lat. <u>43</u> d <u>27</u> m <u>55</u> s Lon. <u>70</u> d <u>24</u> m <u>13</u> s if g.p.s, state margin of error: <u>15</u>
SITE EVALUATOR STATEMENT			
I certify that on <u>04/11/2025</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
 Site Evaluator Signature Mark Hampton Site Evaluator Name Printed		<u>263</u> SE # 207-756-2900 Telephone Number	<u>04/11/2025</u> Date E-mail Address
Note : Changes to or deviations from the _____ n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

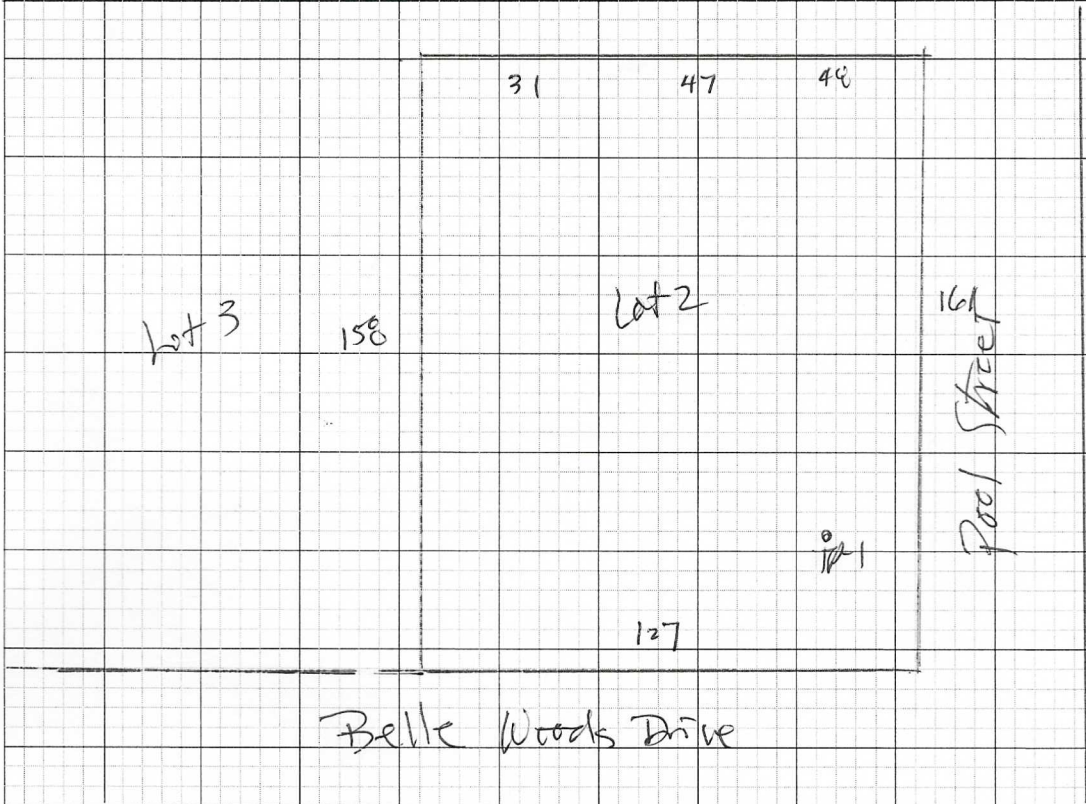
Town, City, Plantation
Old Orchard Beach

Street, Road, Subdivision
Belle Woods Drive Lot 2

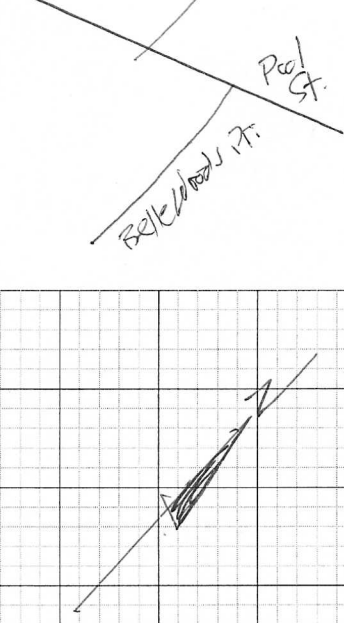
Owner's Name
Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown



SITE LOCATION PLAN
(map from Maine Atlas recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP1 ☒ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

	Texture	Consistency	Color	Mottling
0	Sandy Loam	Friable	Dark Brown	
10	Sandy Loam	Friable	Brown	None Noted
20		LEDGE		
30				
40				
50				

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 AIII	6 %	15 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Observation Hole _____ ☐ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

Site Evaluator Signature

263

SE #

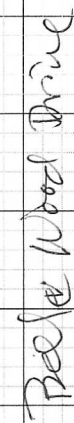
04/11/2025

Date

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Owner's Name
Coastal Oaks LLC

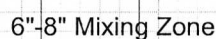
0 _____
SCALE: 1" = 20 FT.



Location & Description: Nail 49 inches up 10 inch diameter white pine

Reference Elevation: 0

Horizontal 1" = 4 ft.
Vertical 1" = 4 ft.

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhampto1@maine.rr.com

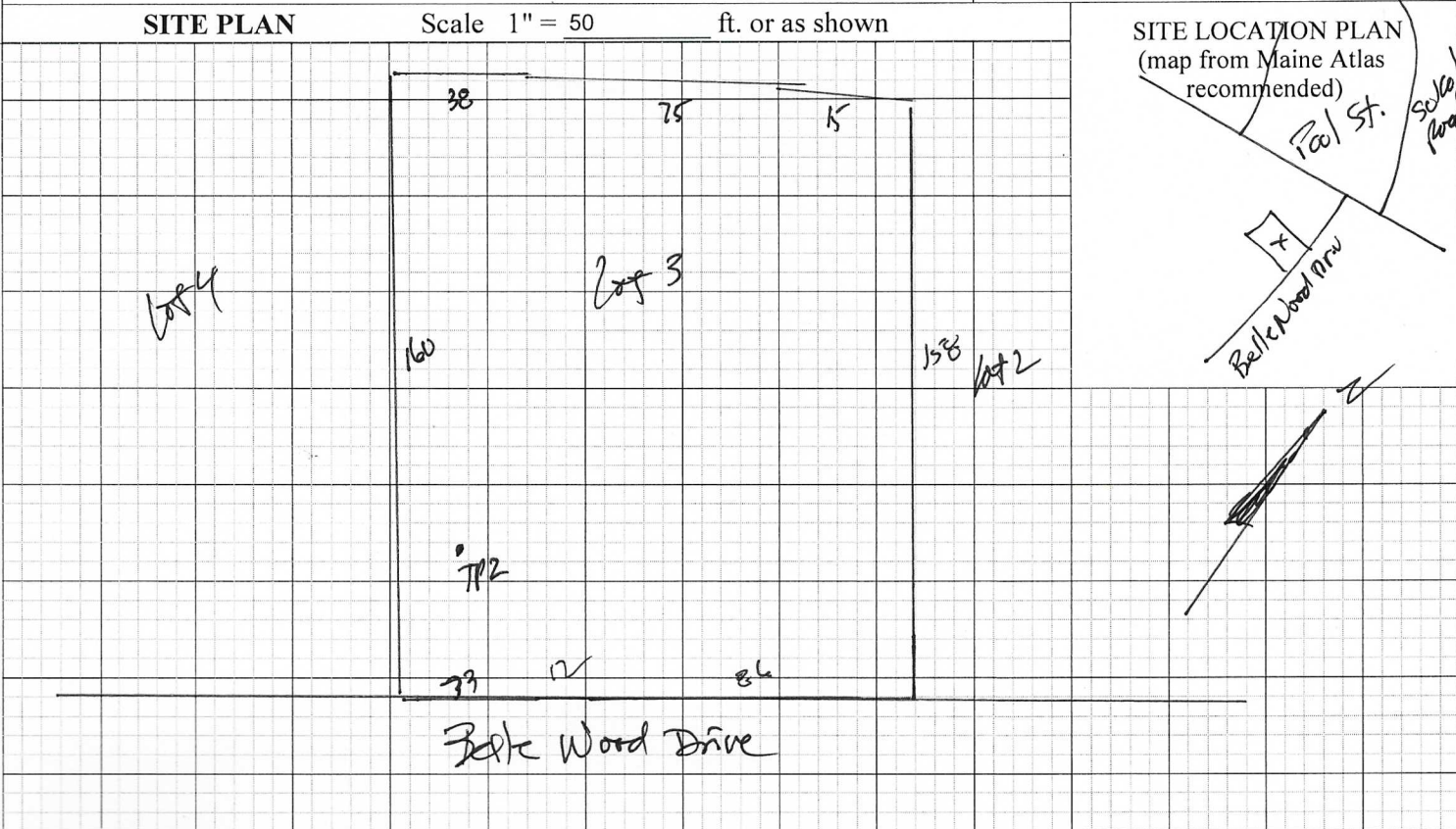
Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit #
Street or Road	Belle Woods Drive Lot 3	Date Permit Issued	Fee: \$ Double Fee Charged []
Subdivision, Lot #			L.P.I. #
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$	state min fee \$ Locally adopted fee
	Owner ☒ Applicant ☐	Copy: [] Owner [] Town [] State	
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622	Municipal Tax Map #	Lot #
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION 1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	THIS APPLICATION REQUIRES 1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	DISPOSAL SYSTEM COMPONENTS 1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 20396 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit, No. of Bedrooms: 4 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round Undeveloped	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes No	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: 1000 GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: 1248 sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW 360 gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION 2 / All at Observation Hole # TP2 Depth 15 " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd 2. Medium---Large 3.3 sq. ft. / gpd 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	3. Section 4G (meter readings) ATTACH WATER METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. 43 d 27 m 54 s Lon. 70 d 24 m 13 s if g.p.s, state margin of error: 15
SITE EVALUATOR STATEMENT			
I certify that on 04/11/2025 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
Site Evaluator Signature Mark Hampton		SE # 207-756-2900	Date 04/11/2025
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION		Department of Health & Human Services Division of Environmental Health (207) 287-5672 Fax: (207) 287-3165
Town, City, Plantation Old Orchard Beach	Street, Road, Subdivision Belle Woods Drive Lot 3	Owner's Name Coastal Oaks LLC



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)			
Observation Hole <u>TP2</u> ☒ Test Pit ☐ Boring ☐ " Depth of Organic Horizon Above Mineral Soil _____			
Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color
	0 Sandy Loam	Friable	Dark Brown
	10 Sandy Loam	Friable	Brown
	20	LEDGE	
	30		
	40		
	50		
	Mottling		
	None Noted		
	Soil Classification: 2 AIII		
Slope: 6 %			
Limiting Factor: 15 "			
[] Ground Water			
[] Restrictive Layer			
[] Bedrock			
[] Pit Depth			

Observation Hole _____ ☐ Test Pit ☐ Boring ☐ " Depth of Organic Horizon Above Mineral Soil _____			
Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color
	0		
	10		
	20		
	30		
	40		
	50		
	Mottling		
	Soil Classification		
Slope			
Limiting Factor			
[] Ground Water			
[] Restrictive Layer			
[] Bedrock			
[] Pit Depth			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

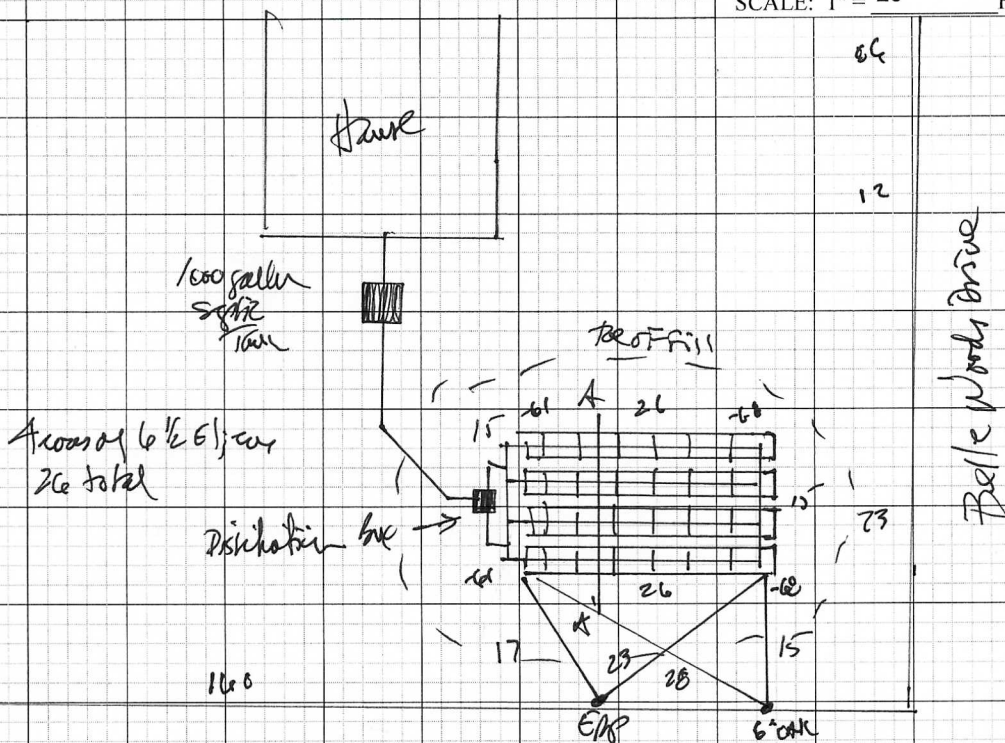
Town, City, Plantation
Old Orchard Beach

Street, Road, Subdivision
Belle Woods Drive Lot 3

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0
SCALE: 1" = 20 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope) 33
Depth of Fill (Downslope) 40

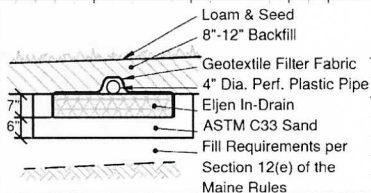
CONSTRUCTION ELEVATIONS

Finished Grade Elevation -28
Top of Distribution Pipe or Proprietary Device -40
Bottom of Disposal Area -51

ELEVATION REFERENCE POINT

Location & Description: Nail 51 inches up 8 inch diameter white pine
Reference Elevation: 0

DISPOSAL AREA CROSS SECTION

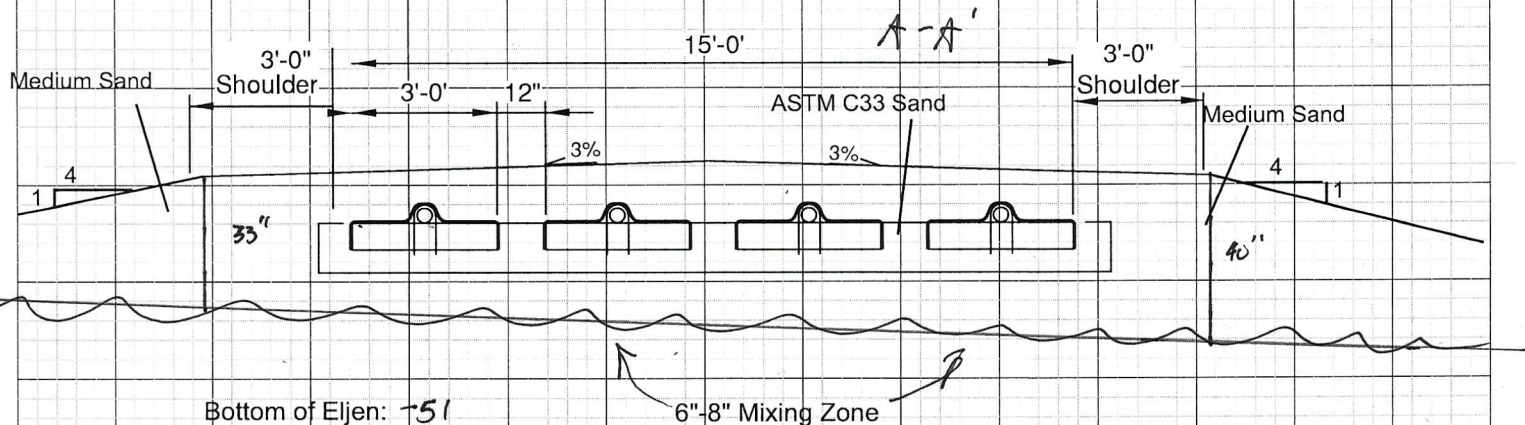


Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal 1" = 4 ft.
Vertical 1" = 4 ft.



Man 7. Hough
Site Evaluator Signature

263

SE #

04/11/2025

Date

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

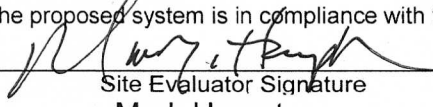
No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp1@maine.rr.com

Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit #
Street or Road	Belle Woods Drive Lot 4	Date Permit Issued	Fee: \$ Double Fee Charged []
Subdivision, Lot #			L.P.I. #
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$	state min fee \$ Locally adopted fee
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	Copy: [] Owner [] Town [] State	
Daytime Tel. #	934-7622	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION 1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	THIS APPLICATION REQUIRES 1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	DISPOSAL SYSTEM COMPONENTS 1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 20524 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit No. of Bedrooms: <u>4</u> 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round <u>Undeveloped</u>	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes <u>No</u>	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: <u>1000</u> GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: <u>1248</u> sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW <u>360</u> gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION <u>2 / AIII</u> at Observation Hole # <u>TP3</u> Depth <u>16</u> " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd 2. Medium---Large 3.3 sq. ft. / gpd 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	3. Section 4G (meter readings) ATTACH WATER METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. <u>43</u> d <u>27</u> m <u>53</u> s Lon. <u>70</u> d <u>24</u> m <u>12</u> s if g.p.s, state margin of error: <u>15</u>
SITE EVALUATOR STATEMENT			
I certify that on <u>04/11/2025</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
 Site Evaluator Signature Mark Hampton		263 SE # 207-756-2900	04/11/2025 Date
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Old Orchard Beach

Belle Woods Drive Lot 4

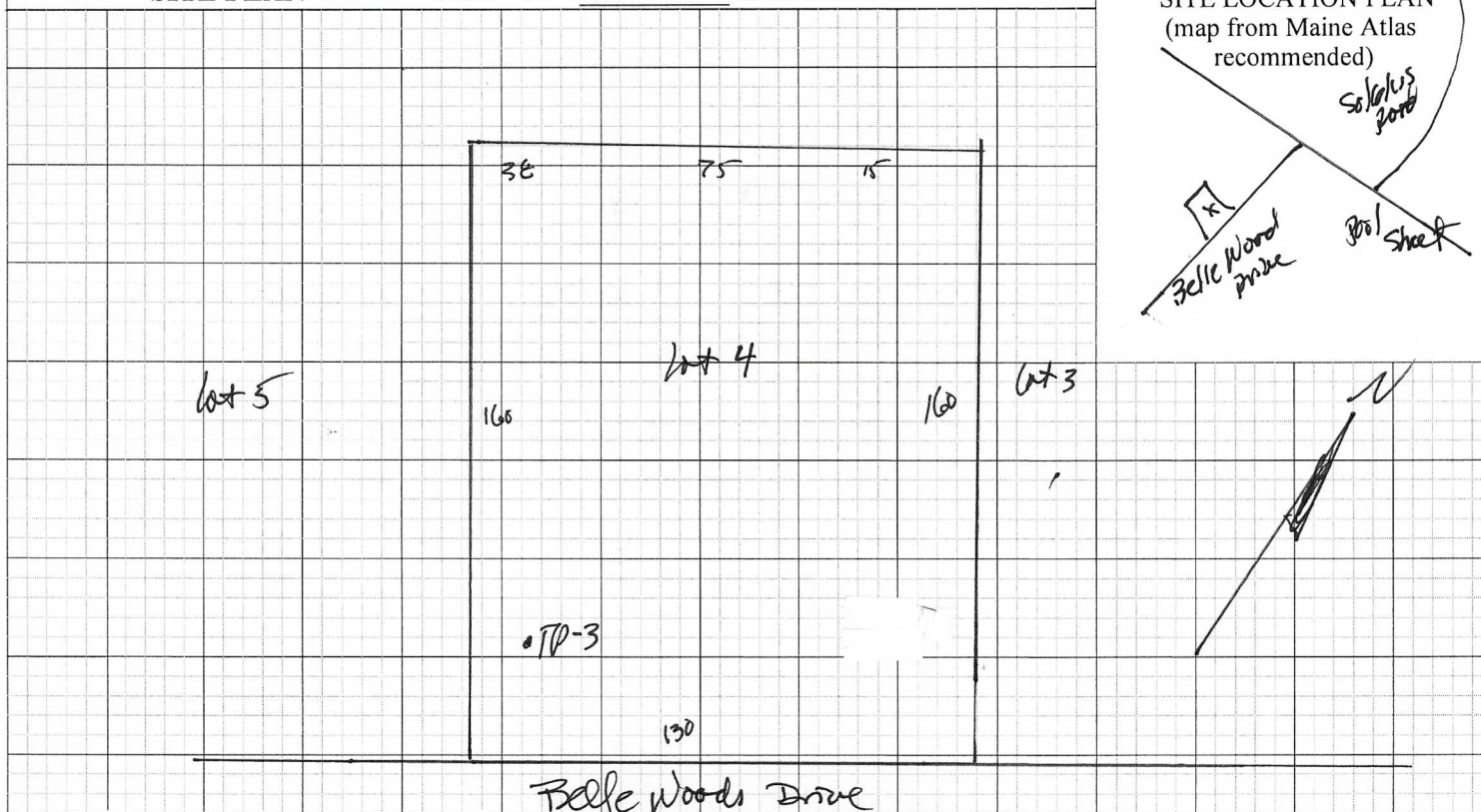
Owner's Name

Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas
recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP3 ☒ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

	Texture	Consistency	Color	Mottling
0	Sandy Loam	Friable	Dark Brown	
10	Sandy Loam	Friable	Brown	None Noted
20		LEDGE		
30				
40				
50				

	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 AIII	6 %	16 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

W. J. Taylor
Site Evaluator Signature

263

SE #

04/11/2025

Date

Page 2 of 3
HHE-200 Rev. 02/11

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

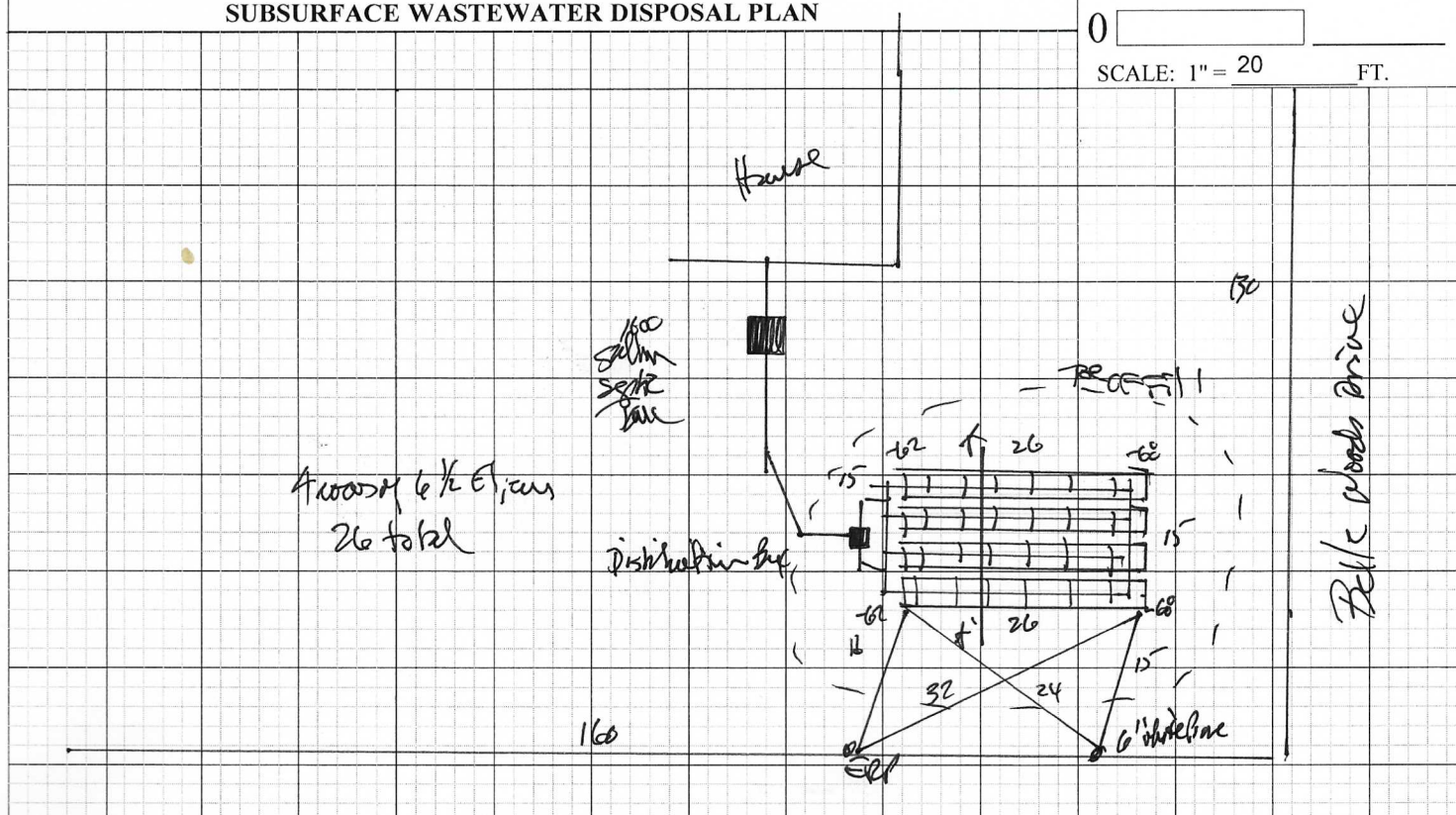
Town, City, Plantation
Old Orchard Beach

Street, Road, Subdivision
Belle Woods Drive Lot 4

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0 _____
SCALE: 1" = 20 FT



FILL REQUIREMENTS

Depth of Fill (Upslope)	<u>32</u>
Depth of Fill (Downslope)	38

CONSTRUCTION ELEVATIONS

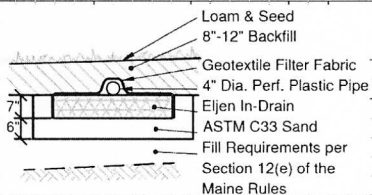
Finished Grade Elevation	
Top of Distribution Pipe or Proprietary Device	
Bottom of Disposal Area	

ELEVATION REFERENCE POINT

Location & Description: Nail 48 inches up 6 inch diameter oak

Reference Elevation: 0

DISPOSAL AREA CROSS SECTION

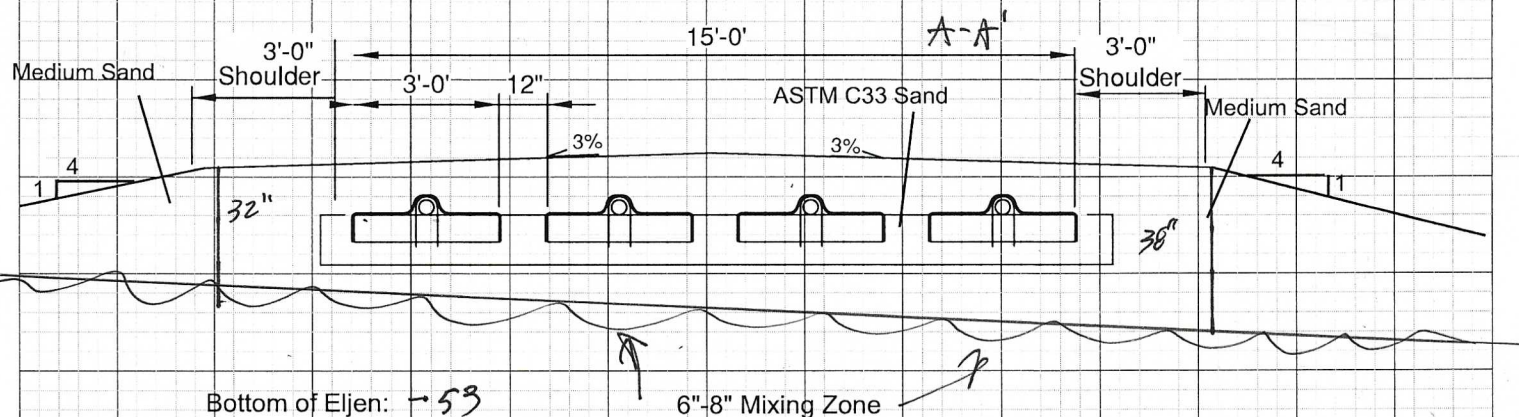


Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal $1'' = \frac{4}{\quad}$ ft.
Vertical $1'' = \frac{4}{\quad}$ ft.



Site Evaluator Signature

263

SE #

04/11/2025

Date _____

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp1@maine.rr.com

Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit #
Street or Road	Belle Woods Drive Lot 5	Date Permit Issued	Fee: \$ Double Fee Charged []
Subdivision, Lot #			L.P.I. #
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$ state min fee \$ Locally adopted fee	Copy: [] Owner [] Town [] State
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622	Municipal Tax Map #	Lot #
OWNER OR APPLICANT STATEMENT I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		CAUTION: INSPECTION REQUIRED I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION 1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	THIS APPLICATION REQUIRES 1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	DISPOSAL SYSTEM COMPONENTS 1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 20324 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit No. of Bedrooms: 4 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round Undeveloped	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes No	DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)		
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: 1000 GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: 1248 sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW 360 gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION 2 / AIII at Observation Hole # TP4 Depth 16" of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd 2. Medium---Large 3.3 sq. ft. / gpd 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	3. Section 4G (meter readings) ATTACH WATER METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. 43 d 27 m 53 s Lon. 70 d 24 m 12 s if g.p.s, state margin of error: 15
SITE EVALUATOR STATEMENT			
I certify that on 04/11/2025 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
Site Evaluator Signature Mark Hampton		263 SE # 207-756-2900	04/11/2025 Date
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Old Orchard Beach

Belle Woods Drive Lot 5

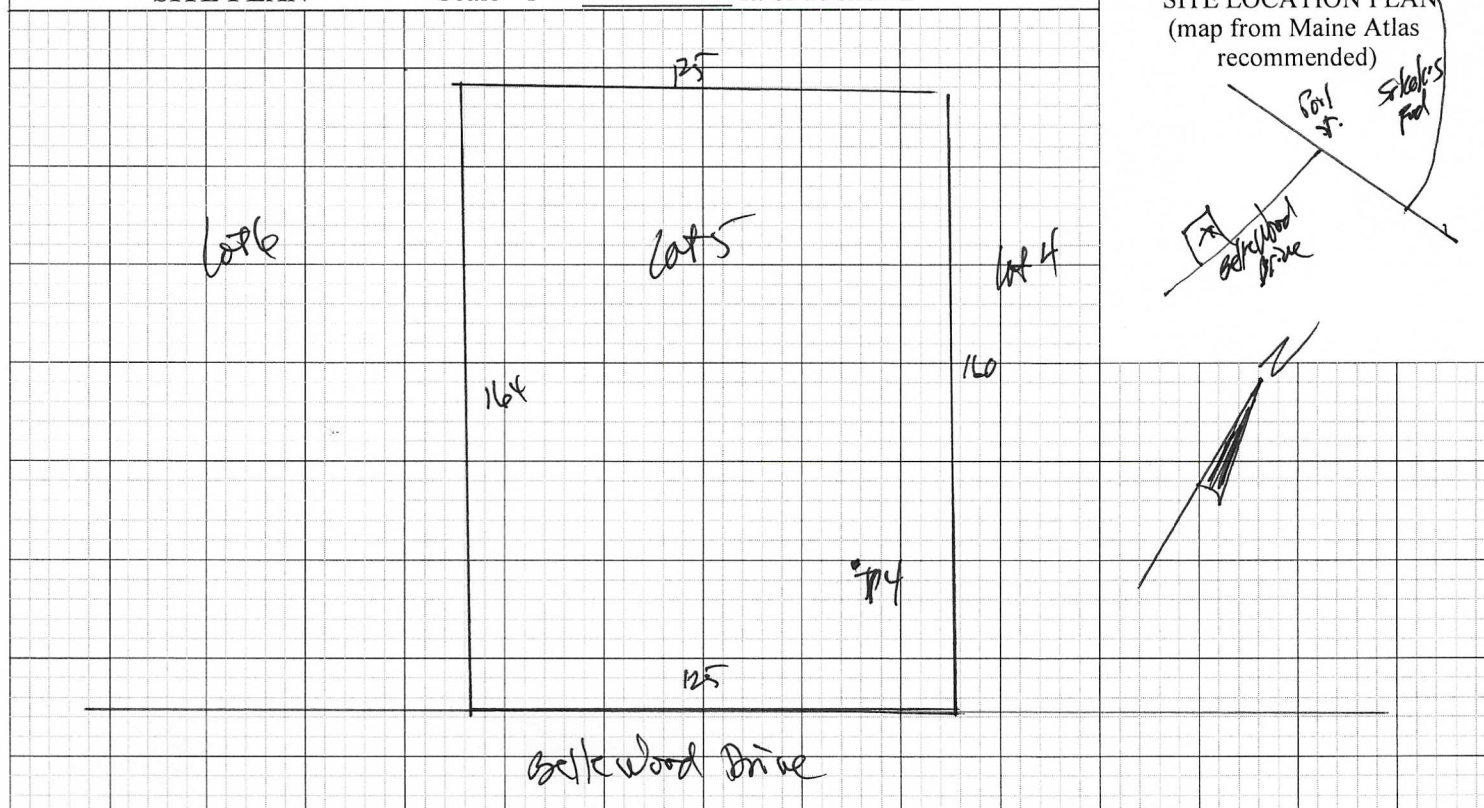
Owner's Name

Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas
recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP4 ☒ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

	Texture	Consistency	Color	Mottling
0	Sandy Loam	Friable	Dark Brown	
10	Sandy Loam	Friable	Brown	None Noted
20		LEDGE		
30				
40				
50				

	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 AIII	6 %	16 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

[Signature]
Site Evaluator Signature

263

SE #

04/11/2025

Date

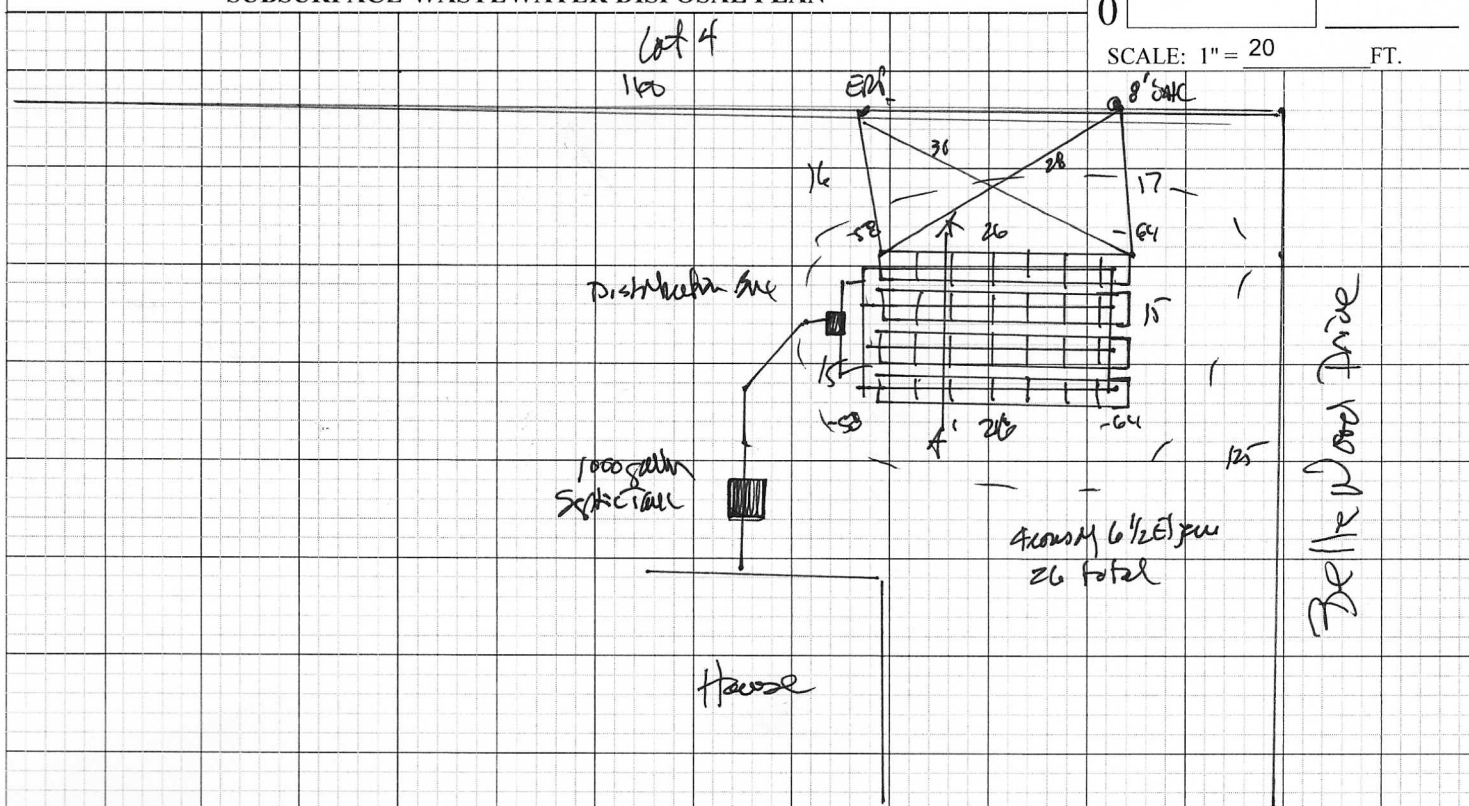
Page 2 of 3
HHE-200 Rev. 02/11

Town, City, Plantation
Old Orchard Beach

Street, Road, Subdivision
Belle Woods Drive Lot 5

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN



FILL REQUIREMENTS

Depth of Fill (Upslope)	<u>32</u>
Depth of Fill (Downslope)	<u>38</u>

CONSTRUCTION ELEVATIONS

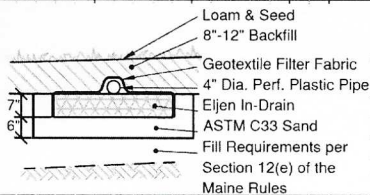
Finished Grade Elevation	-26
Top of Distribution Pipe or Proprietary Device	-38
Bottom of Disposal Area	-49

ELEVATION REFERENCE POINT

Location & Description: Nail 46 inches up 8 inch diameter oak

Reference Elevation: 0

DISPOSAL AREA CROSS SECTION



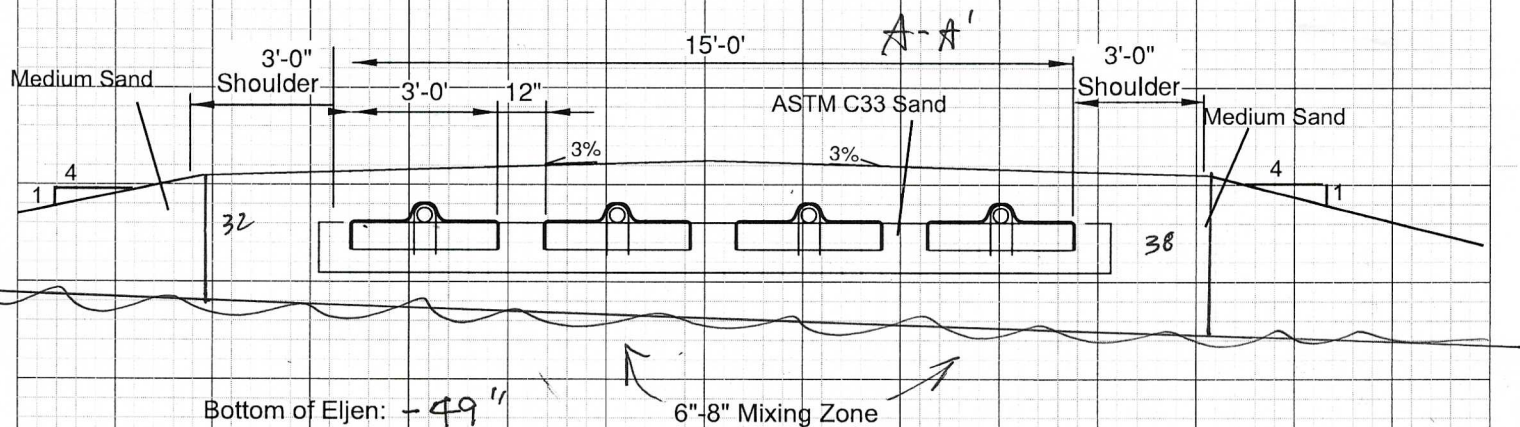
Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal 1" = 4 ft.

Vertical 1" = 4 ft.



Site Evaluator Signature

263

SE #

04/11/2025

Date _____

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

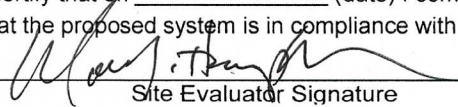
No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp1@maine.rr.com

Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City _____	Permit # _____
Street or Road	Belle Woods Drive Lot 6	Date Permit Issued: ____/____/____	Fee: \$ _____ Double Fee Charged ☐
Subdivision, Lot #		L.P.I. # _____	
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature _____	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$ _____ state min fee \$ _____	Locally adopted fee _____
	Owner ☒ Applicant ☐	Copy: ☐ Owner ☐ Town ☐ State	
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622		
		Municipal Tax Map # _____ Lot # _____	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		(1st) date approved _____	
		Local Plumbing Inspector Signature _____ (2nd) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION 1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	THIS APPLICATION REQUIRES 1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	DISPOSAL SYSTEM COMPONENTS 1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 40974 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling, No. of Bedrooms: <u>4</u> 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round Undeveloped	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes No			
DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)			
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: <u>1000</u> GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: <u>1248</u> sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW <u>360</u> gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION <u>2</u> / AIII at Observation Hole # <u>TP5</u> Depth <u>15</u> " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium---2.6 sq. ft. / gpd 2. Medium---Large 3.3 sq. ft. / gpd 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	3. Section 4G (meter readings) ATTACH WATER METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. <u>43</u> d <u>27</u> m <u>52</u> s Lon. <u>70</u> d <u>24</u> m <u>10</u> s if g.p.s, state margin of error: <u>15</u>
SITE EVALUATOR STATEMENT			
I certify that on <u>04/11/2025</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
 Site Evaluator Signature Mark Hampton		263 SE # 207-756-2900	04/11/2025 Date
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the _____ n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Owner's Name

Old Orchard Beach

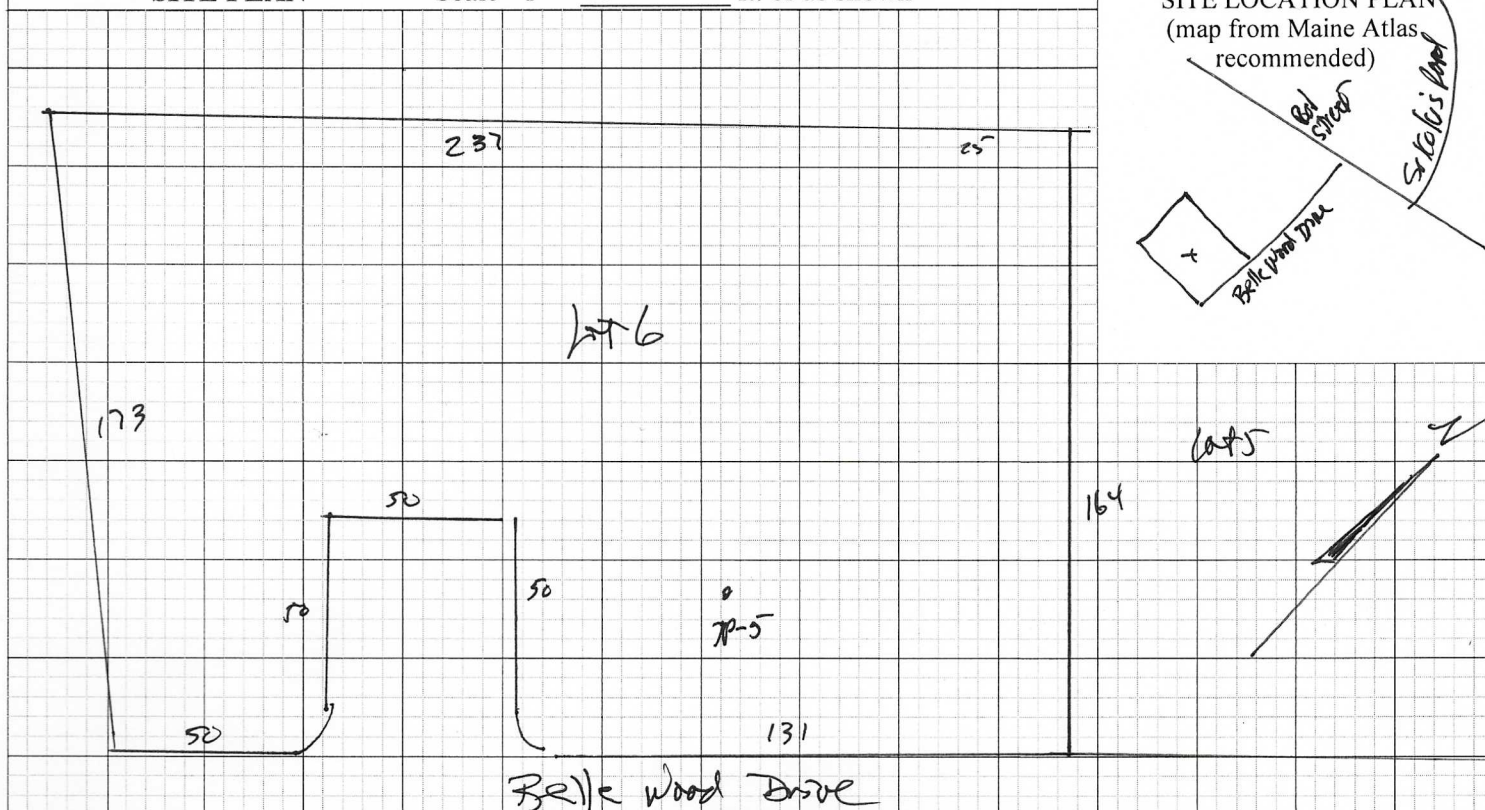
Belle Woods Drive Lot 6

Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas
recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP5 ☒ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
0 Sandy Loam	Friable	Dark Brown	
10 Sandy Loam	Friable	Brown	None Noted
20	LEDGE		
30			
40			
50			

Texture	Consistency	Color	Mottling
0			
10			
20			
30			
40			
50			

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 All	6 %	15 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

Mary C. Hughes
Site Evaluator Signature

263

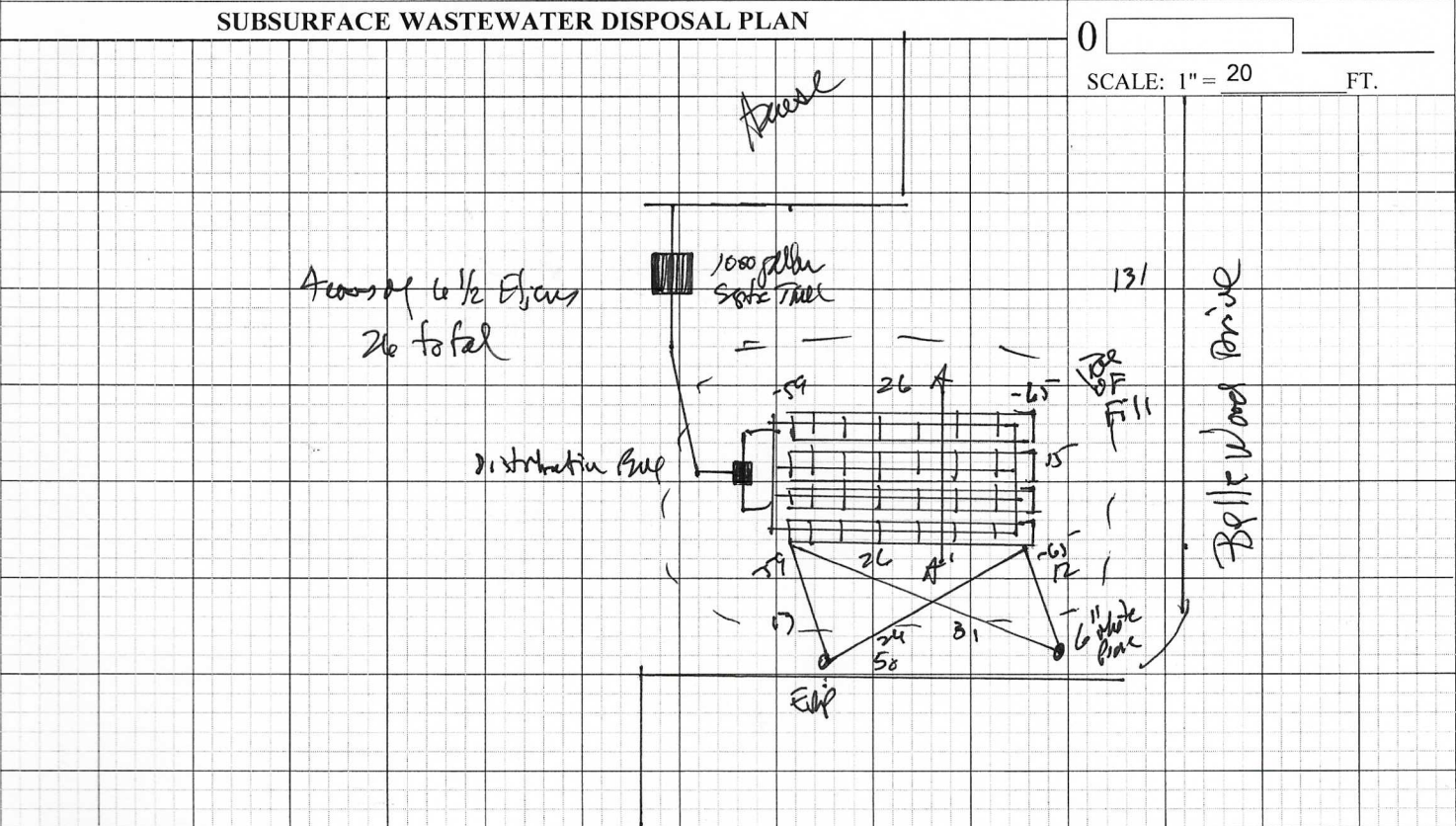
SE #

04/11/2025

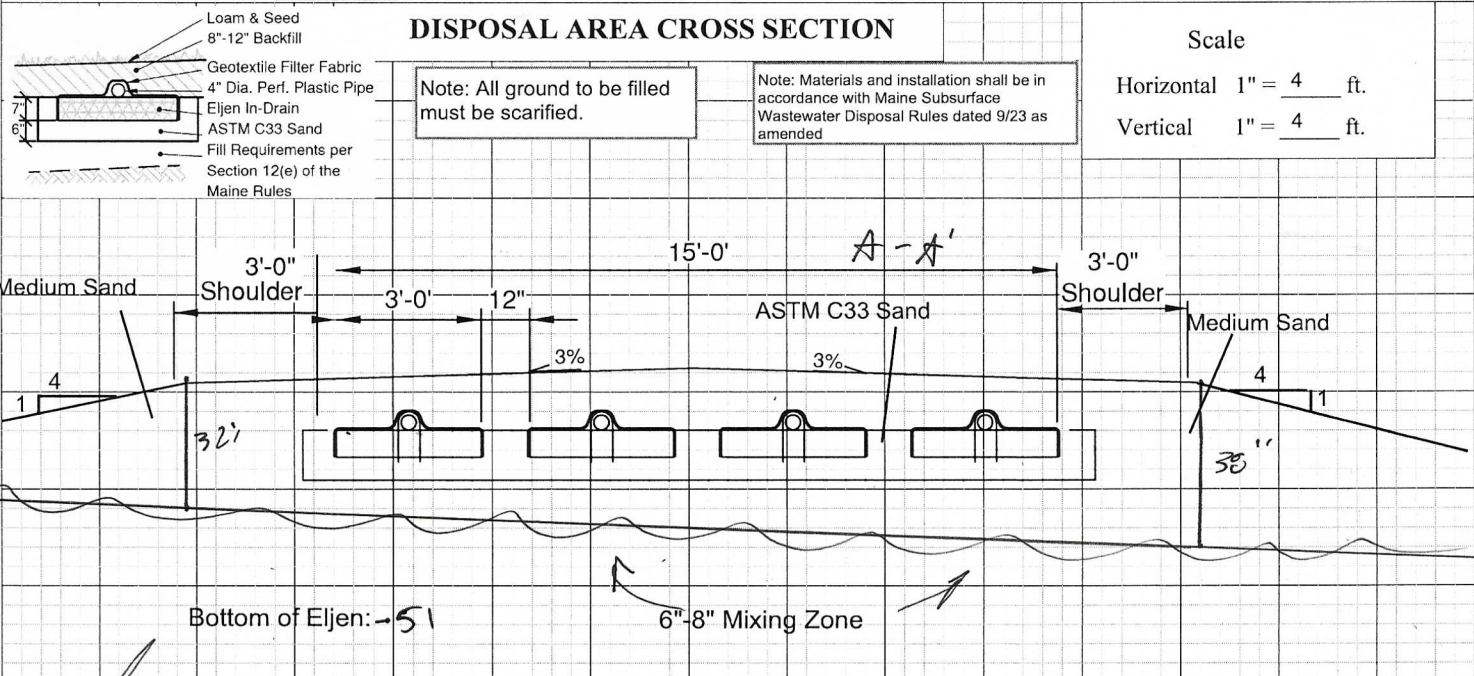
Date

Page 2 of 3
HHE-200 Rev. 02/11

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION		Department of Health & Human Services Division of Environmental Health (207) 287-5672 Fax: (207) 287-3165
Town, City, Plantation Old Orchard Beach	Street, Road, Subdivision Belle Woods Drive Lot 6	Owner's Name Coastal Oaks LLC



FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT	
Depth of Fill (Upslope)	32	Finished Grade Elevation	-27	Location & Description:	Nail 49 inches up 6 inch diameter white pine
Depth of Fill (Downslope)	38	Top of Distribution Pipe or Proprietary Device	-39	Reference Elevation:	0
		Bottom of Disposal Area	-51		



	263	04/11/2025	Page 3 of 3 HHE-200 Rev. 02/11
Site Evaluator Signature	SE #	Date	



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp101@maine.rr.com

Quality services that meet your deadline

7553

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit #
Street or Road	Belle Woods Drive Lot 7	Date Permit Issued	Fee: \$ Double Fee Charged []
Subdivision, Lot #			L.P.I. #
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$	state min fee \$ Locally adopted fee
	Owner ☒ Applicant ☐	Copy: [] Owner [] Town [] State	
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622	Municipal Tax Map # Lot #	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	
PERMIT INFORMATION			
TYPE OF APPLICATION 1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. ≥25% Expansion 4. Experimental System 5. Seasonal Conversion	THIS APPLICATION REQUIRES 1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	DISPOSAL SYSTEM COMPONENTS 1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components	
SIZE OF PROPERTY 32547 SQ. FT. ACRES	DISPOSAL SYSTEM TO SERVE 1. Single Family Dwelling Unit, No. of Bedrooms: 4 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) Current Use Seasonal Year Round Undeveloped	TYPE OF WATER SUPPLY 1. Drilled Well 2. Dug Well 3. Private 4. Public 8. Other	
SHORELAND ZONING Yes No			
DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)			
TREATMENT TANK 1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: 1000 GAL.	DISPOSAL FIELD TYPE & SIZE 1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array c. Linear b. regular load d. H-20 load 4. Other: _____ SIZE: 1248 sq. ft. lin. ft.	GARBAGE DISPOSAL UNIT 1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. _____ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	DESIGN FLOW 360 gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION 2 / AIII at Observation Hole # TP6 Depth 15" of Most Limiting Soil Factor	DISPOSAL FIELD SIZING 1. Medium--2.6 sq. ft. / gpd 2. Medium--Large 3.3 sq. ft. / gpd 3. Large--4.1 sq. ft. / gpd 4. Extra Large--5.0 sq. ft. / gpd	EFFLUENT/EJECTOR PUMP 1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	3. Section 4G (meter readings) ATTACH WATER METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. 43 d 27 m 52 s Lon. 70 d 24 m 10 s if g.p.s, state margin of error: 15
SITE EVALUATOR STATEMENT			
I certify that on 04/11/2025 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
Site Evaluator Signature Mark Hampton		263 SE # 207-756-2900	04/11/2025 Date
Site Evaluator Name Printed		Telephone Number	E-mail Address
Note : Changes to or deviations from the n should be confirmed with the Site Evaluator.			

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Old Orchard Beach

Belle Woods Drive Lot 7

Owner's Name

Coastal Oaks LLC

SITE PLAN

Scale 1" = 50 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas recommended)

Belle Wood Drive

238

TP-6

Lot 7

135

111

49

72



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP6 ☒ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Observation Hole ☐ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

	Texture	Consistency	Color	Mottling
0	Sandy Loam	Friable	Dark Brown	
10	Sandy Loam	Friable	Brown	None Noted
20		LEDGE		
30				
40				
50				

	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 AIII	6 %	15 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

[Signature]
Site Evaluator Signature

263

SE #

04/11/2025

Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation
Old Orchard Beach

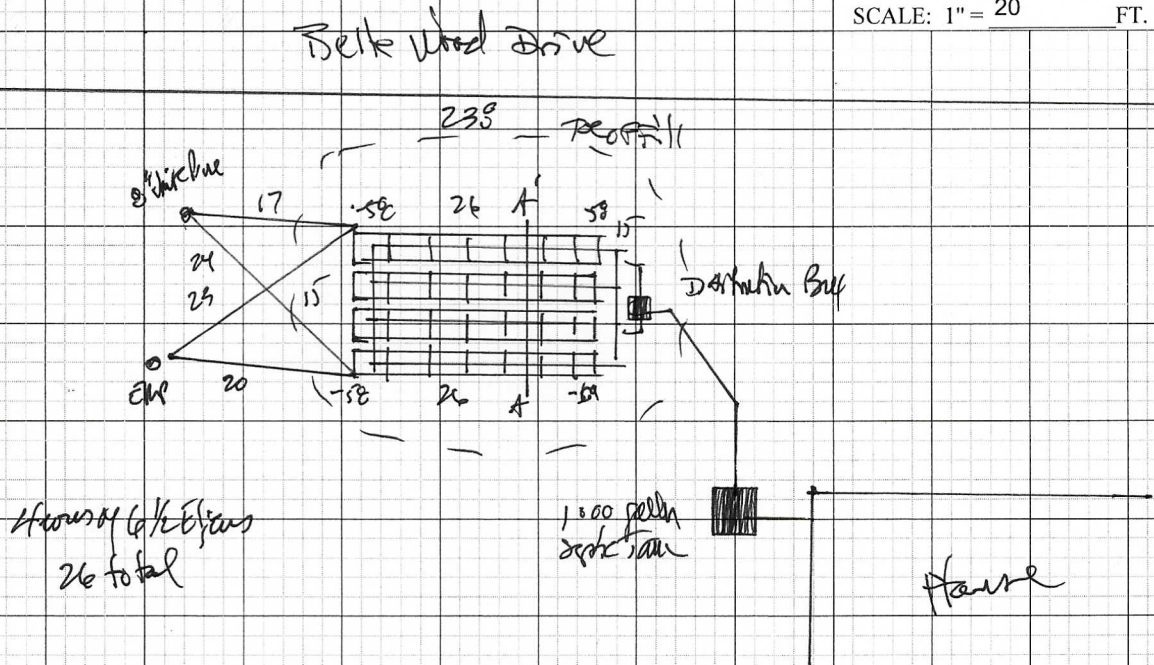
Street, Road, Subdivision
Belle Woods Drive Lot 7

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0 _____

SCALE: 1" = 20 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope)	<u>32</u>
Depth of Fill (Downslope)	<u>38</u>

CONSTRUCTION ELEVATIONS

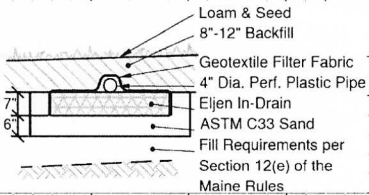
Finished Grade Elevation
Top of Distribution Pipe or Proprietary Device
Bottom of Disposal Area

ELEVATION REFERENCE POINT

Location & Description: Nail 50 inches up 10 inch diameter white pine

Reference Elevation: 0

DISPOSAL AREA CROSS SECTION



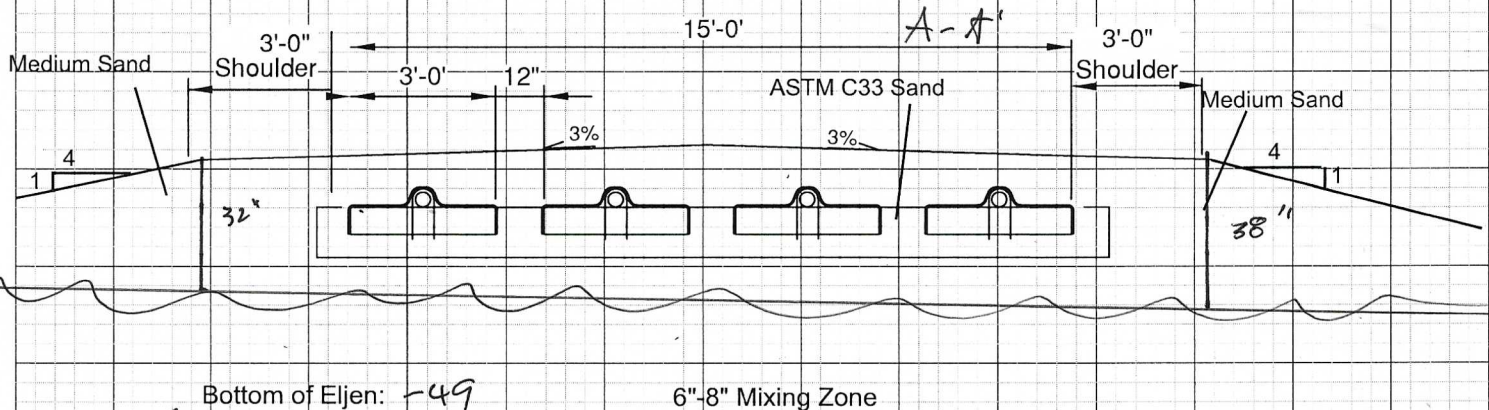
Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale

Horizontal 1" = 4 ft.

Vertical 1" = 4 ft.



Bottom of Eljen: -49

6"-8" Mixing Zone

Site Evaluator Signature _____

263

SE #

04/11/2025

Date _____

Page 3 of 3
HHE-200 Rev. 02/11



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp101@maine.rr.com

Quality services that meet your deadline

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Old Orchard Beach	Town/City	Permit #
Street or Road	Belle Woods Drive Lot 8	Date Permit Issued	Fee: \$ Double Fee Charged []
Subdivision, Lot #			L.P.I. #
OWNER/APPLICANT INFORMATION		Local Plumbing Inspector Signature	
Name (last, first, MI)	Coastal Oaks LLC	Fee: \$	state min fee \$ Locally adopted fee
	Owner ☒ Applicant ☐	Copy: [] Owner [] Town [] State	
Mailing Address of Owner/Applicant	198 Saco Avenue Old Orchard Beach 04064	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	934-7622	Municipal Tax Map # Lot #	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant Date		(1st) date approved	
		Local Plumbing Inspector Signature (2nd) date approved	
PERMIT INFORMATION			
TYPE OF APPLICATION	THIS APPLICATION REQUIRES	DISPOSAL SYSTEM COMPONENTS	
1. First Time System	1. No Rule Variance	1. Complete Non-engineered System	
2. Replacement System	2. First Time System Variance	2. Primitive System (graywater & alt. toilet)	
Type replaced:	a. Local Plumbing Inspector Approval	3. Alternative Toilet, specify:	
Year installed:	b. State & Local Plumbing Inspector Approval	4. Non-engineered Treatment Tank (only)	
3. Expanded System	3. Replacement System Variance	5. Holding Tank, gallons	
a. <25% Expansion	a. Local Plumbing Inspector Approval	6. Non-engineered Disposal Field (only)	
b. ≥25% Expansion	b. State & Local Plumbing Inspector Approval	7. Separated Laundry System	
4. Experimental System	4. Minimum Lot Size Variance	8. Complete Engineered System (2000 gpd or more)	
5. Seasonal Conversion	5. Seasonal Conversion Permit	9. Engineered Treatment Tank (only)	
		10. Engineered Disposal Field (only)	
		11. Pre-treatment, specify:	
		12. Miscellaneous Components	
SIZE OF PROPERTY	DISPOSAL SYSTEM TO SERVE	TYPE OF WATER SUPPLY	
56288 SQ. FT. ACRES	1. Single Family Dwelling Unit No. of Bedrooms: 4	1. Drilled Well 2. Dug Well 3. Private	
SHORELAND ZONING	2. Multiple Family Dwelling, No. of Units:	4. Public 8. Other	
Yes No	3. Other: (specify)		
	Current Use Seasonal Year Round Undeveloped		
DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)			
TREATMENT TANK	DISPOSAL FIELD TYPE & SIZE	GARBAGE DISPOSAL UNIT	DESIGN FLOW
1. Concrete	1. Stone Bed 2. Stone Trench	1. No 2. Yes 3. Maybe	360 gallons per day
a. Regular	3. Proprietary Device	If Yes or Maybe, specify one below:	BASED ON:
b. Low Profile	a. cluster array c. Linear	a. multi-compartment tank	1. Table 4A (dwelling unit(s))
2. Plastic	b. regular load d. H-20 load	b. tanks in series	2. Table 4C (other facilities)
3. Other:	4. Other:	c. increase in tank capacity	SHOW CALCULATIONS for other facilities
CAPACITY: 1000 GAL.	SIZE: 1248 sq. ft. lin. ft.	d. Filter on Tank Outlet	
SOIL DATA & DESIGN CLASS	DISPOSAL FIELD SIZING	EFFLUENT/EJECTOR PUMP	3. Section 4G (meter readings)
PROFILE CONDITION	1. Medium--2.6 sq. ft. / gpd	1. Not Required	ATTACH WATER METER DATA
2 / AIII	2. Medium--Large 3.3 sq. ft. / gpd	2. May Be Required	
at Observation Hole # TP7	3. Large--4.1 sq. ft. / gpd	3. Required	
Depth 15 "	4. Extra Large--5.0 sq. ft. / gpd	Specify only for engineered systems:	
of Most Limiting Soil Factor		DOSE: gallons	
SITE EVALUATOR STATEMENT			
I certify that on 04/11/2025 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).			
Site Evaluator Signature		263	04/11/2025
Mark Hampton		SE #	Date
Site Evaluator Name Printed		207-756-2900	
		Telephone Number	E-mail Address

Note : Changes to or deviations from the n should be confirmed with the Site Evaluator.

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Owner's Name

Old Orchard Beach

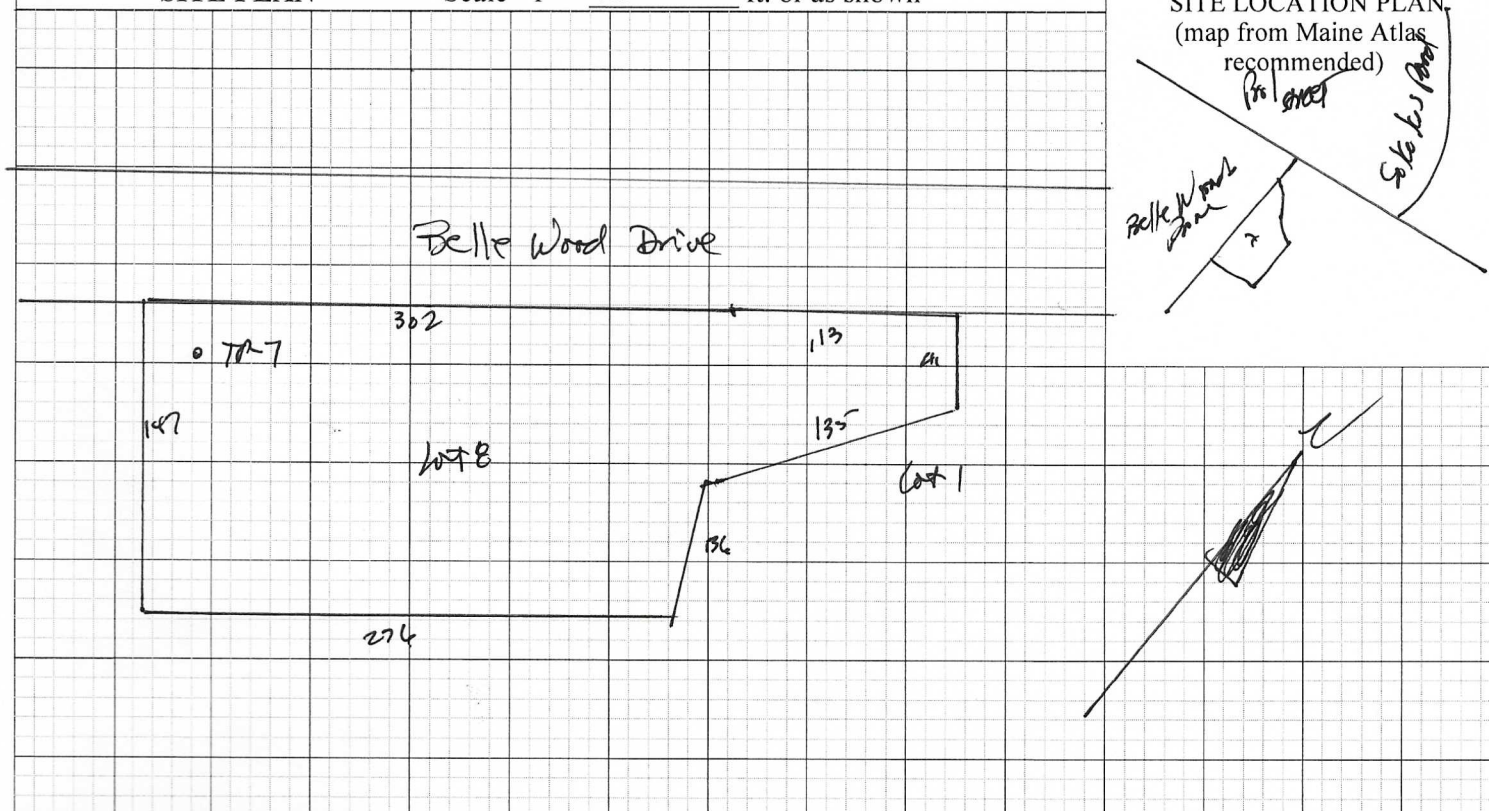
Belle Woods Drive Lot 8

Coastal Oaks LLC

SITE PLAN

Scale 1" = 100 ft. or as shown

SITE LOCATION PLAN
(map from Maine Atlas
recommended)



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP7 ☒ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
0 Sandy Loam	Friable	Dark Brown	
10 Sandy Loam	Friable	Brown	None Noted
20	LEDGE		
30			
40			
50			

Observation Hole ☐ Test Pit ☐ Boring ☐
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
0			
10			
20			
30			
40			
50			

Soil Classification	Slope	Limiting Factor	☐ Ground Water
2 AIII	6 %	15 "	☐ Restrictive Layer
Profile Condition			☒ Bedrock
			☐ Pit Depth

Soil Classification	Slope	Limiting Factor	☐ Ground Water
Profile Condition	%	"	☐ Restrictive Layer
			☐ Bedrock
			☐ Pit Depth

[Signature]
Site Evaluator Signature

263

SE #

04/11/2025

Date

Page 2 of 3
HHE-200 Rev. 02/11

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

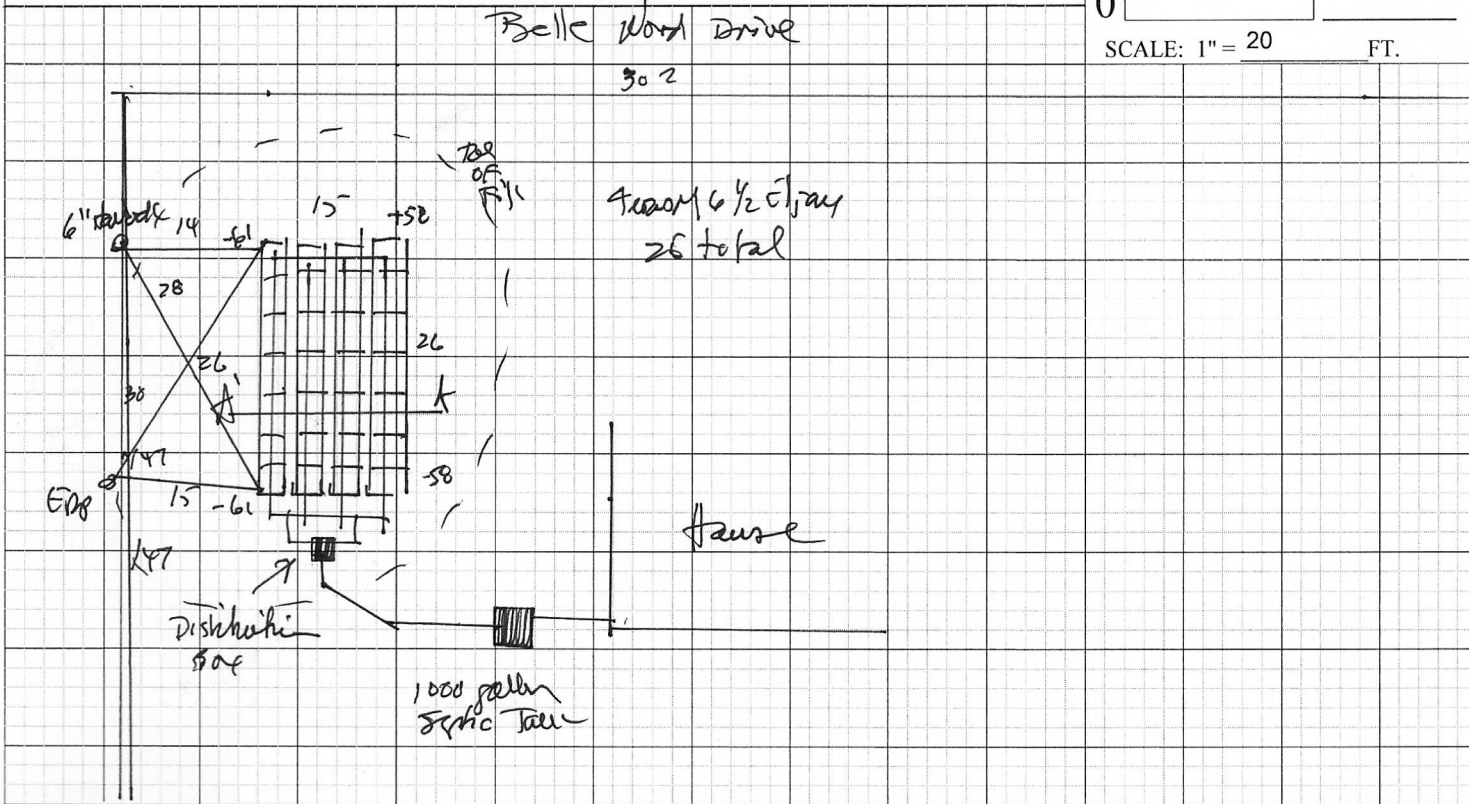
Town, City, Plantation
Old Orchard Beach

Street, Road, Subdivision
Belle Woods Drive Lot 8

Owner's Name
Coastal Oaks LLC

SUBSURFACE WASTEWATER DISPOSAL PLAN

0
SCALE: 1" = 20 FT.



FILL REQUIREMENTS

CONSTRUCTION ELEVATIONS

ELEVATION REFERENCE POINT

Depth of Fill (Upslope)	33	Finished Grade Elevation	-25	Location & Description:	Nail 50 inches up 8 inch diameter red maple
		Top of Distribution Pipe or Proprietary Device	-37	Reference Elevation:	0
Depth of Fill (Downslope)	36	Bottom of Disposal Area	-48		

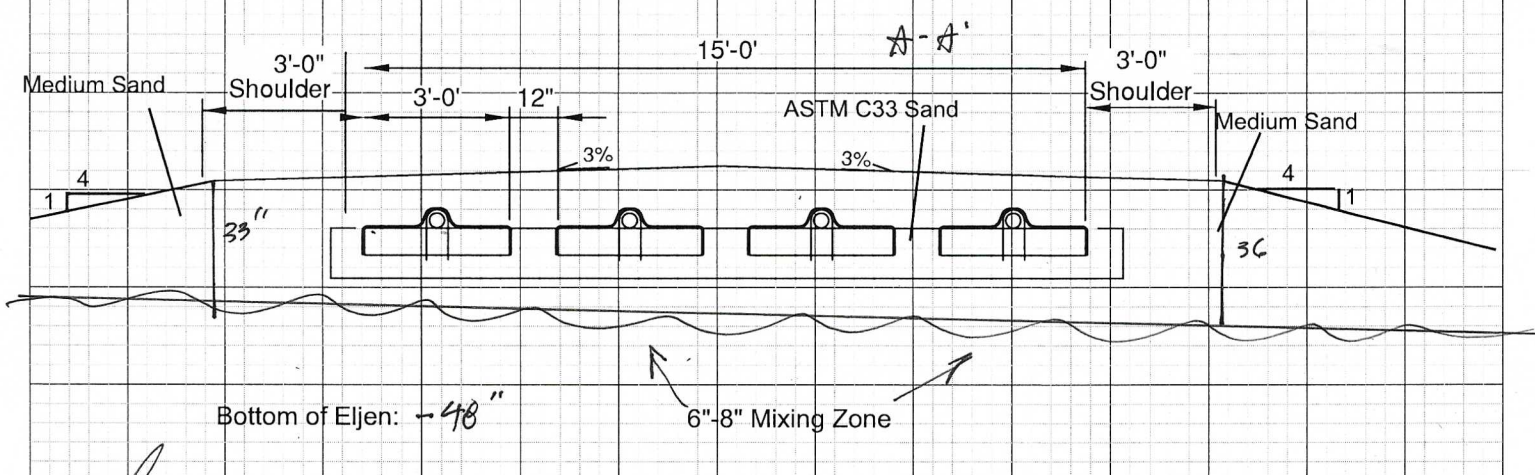
DISPOSAL AREA CROSS SECTION

- Loam & Seed
- 8"-12" Backfill
- Geotextile Filter Fabric
- 4" Dia. Perf. Plastic Pipe
- Eljen In-Drain
- ASTM C33 Sand
- Fill Requirements per Section 12(e) of the Maine Rules

Note: All ground to be filled must be scarified.

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 9/23 as amended

Scale
Horizontal 1" = 4 ft.
Vertical 1" = 4 ft.



Site Evaluator Signature

263

SE #

04/11/2025

Date



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

HHE-200 Notes

(All work should be in accordance with the Maine Subsurface Wastewater Rules dated 9/23, as amended.)

Construction:

Construction of the disposal area should be done in dry conditions at temperatures above 32 degrees.

The ERP and ties points are not to be altered by anyone except the site evaluator.

Minimum distances:

- Septic tank to foundation or post (8 ft), well (50 ft), property line (10 ft)
- Disposal bed to foundation (20 feet), slab/post (15 feet), well (100 feet), property line (10 feet)

All septic tanks, pump stations, and pretreatment units must have a minimum of one watertight riser to grade, min. 18" wide.

All pump stations and pipes to be insulated with 2" of rigid polystyrene if to be installed above the frost line.

All distribution boxes to be set on a firm base, perfectly level, and backfilled appropriately to avoid any shifting. For Eljen In-drain designs, unless specified otherwise, two pipes must exit the side outlets of the distribution box into a manifold pipe which is connected to the distribution pipes that lay on top of the Eljen units.

Backfill on top of disposal beds must be graded to a minimum of 3% slope to avoid any ponding of surface water over the bed.

All ground to be filled must be scarified. All organic material to be removed, but the original soils must be maintained as much as possible. The top 6"-8" of soils to be broken up and loosened with backhoe teeth, etc. and minimum 4" of backfill material is to be mixed into the soil to create a mixing zone.

Any disposal bed installed partially or fully above original grade must have a minimum of a 3' shoulder before sloping at a 4:1 (or less).

Backfill material must be gravelly coarse sand as specified in Table 12A of Chap. 241, except for Eljen designs which require ASTM C33 sand (referred to as medium sand on design).

Disposal areas to be covered with a minimum of 4" of loam and seeded.

Use:

Septic tanks should be pumped on a regular basis, generally every 3 years, or when sludge and scum comprise approximately 1/3 of the tank capacity.

Garbage disposals are not recommended. This design has not incorporated the use of a garbage disposal or water treatment system unless specified.

No vehicular traffic should occur over any septic system component unless specified in the design.

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhamp101@maine.rr.com

Quality services that meet your deadline