



PLANNING DEPARTMENT

Town of Durham

8 Newmarket Road

Durham, NH 03824-2898

Phone (603) 868-8064

www.ci.durham.nh.us

CONDITIONAL USE APPLICATION

Date: 3/5/19

Property information

Property address/location: 11 Cedar Point Road

Tax map #: 12; lot #'s: 1-25; Zoning District: RC

Property owner

Name (include name of individual): Christopher J. and Anita C. Mihok

Mailing address: 11 Cedar Point Road Durham, NH 03824

Telephone #: (201) 841-2855 Email: empennage@live.com

Engineer, Surveyor, or Other Professional

Name (include name of individual): Mission Wetland & Ecological Services, LLC – Sergio Bonilla, PWS, CWS

Mailing address: PO Box 4028 Portsmouth, NH 03802

Telephone #: (603) 361-3204 Email address: missionwetland@gmail.com

Proposed project

What is the proposed project? Covered Porch/Deck extensions

Which provision in the zoning ordinance calls for this conditional use? 175-23, 175-61, and 175-72

Justification for granting the conditional use: Please refer to the attached narrative.

Have you completed the conditional use checklist? Yes

Have you addressed the eight conditional use criteria? Yes, (please refer to attached narrative)

(over)

Other Information

Please note the following:

- Coordinate with Michael Behrendt, the Durham Town Planner, at 868-8064 or mbehrendt@ci.durham.nh.us about the process and any additional information that may be needed.
- Coordinate with the Karen Edwards, the Planning Department Administrative Assistant, at 868-8064 or kedwards@ci.durham.nh about preparing the list of abutters. All property owners within 300 feet of the site will be notified of the application and public hearing.
- Please be sure to attend all meetings of the Planning Board and the Conservation Commission, if the latter will be making a recommendation.
- The Planning Board may schedule a site walk after the first meeting.
- A public hearing will be held on the application. A sign must be placed on the property at least 10 days prior to the hearing.
- The applicant will need to address the eight general conditional use criteria. For conditional uses within the Wetland or Shoreland Overlay Districts additional criteria must be addressed by the applicant.
- For conditional uses within the Wetland or Shoreland Overlay Districts, the application will be presented to the Conservation Commission for a recommendation.
- See Article VII in the Durham Zoning Ordinance for additional information about conditional uses.

Submission of application

This application must be signed by the property owner(s) *and/or* the agent.

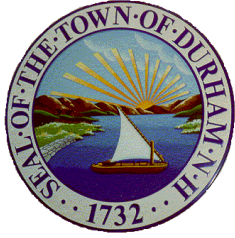
I(we) attest to the best of my(our) knowledge that all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As agent, I attest that I am duly authorized to act in this capacity.

Signature of property owner: _____ (refer to authorization form)

Date: 3/5/19

Signature of agent:  _____

Date: 3/5/19



TOWN OF DURHAM
8 NEWMARKET RD
DURHAM, NH 03824-2898
603/868-8064
www.ci.durham.nh.us

CONDITIONAL USE PERMIT APPLICATION CHECKLIST

Date: 3/5/19

Name of Applicant: Christopher J. and Anita C. Mihok

Location of Property: 11 Cedar Point Road, Durham, NH 03824

Tax Map and Lot Number: Tax Map 12, Lot 1-25

Name of Plan:

- a Conditional Use Permit application
- a letter of intent detailing the proposal
- a letter of authorization (if applicable)
- all applicable fees \$451.00
- a list of the names and addresses of all the abutters within 300' feet of the subject property, as shown in town records not more than five (5) days before the day of filing; and a listing of all holders of conservation, preservation, or agricultural preservation restrictions on the subject property
- Copies of the current deed, purchase and sale agreement, and copies of all easements, deed restrictions, rights-of-ways, or other encumbrances currently affecting the property.
- five copies, 24" x 36" and ten additional copies at 11" x 17" of the plat.

The Plan shall show (only if applicant is not submitting a Site Plan Review or Subdivision Application):

- Title Block with title, owner's name and address, date, scale and name, address and seal of the preparer of the plan
- names of owners of abutting properties
- North Arrow and bar scale
- locus plan sat a minimum scale of one (1) inch equals one thousand (1,000) feet showing required information
- Surveyed property lines of the parcel showing their bearings;
- Location and layout of existing and proposed structures and buildings;

- X Existing and proposed contours at two (2) foot intervals for the entire site. Where a change in grade is proposed, existing contours shall be dotted lines and finished elevations solid;
- X Area of entire parcel in acres and square feet;
- X Zoning and special district boundaries;
- X Deed reference and tax map number;
- X Location width, curbing and paving of access ways, egress ways and streets within the site;
- X Location and layout of all on-site parking and loading facilities;
- X Location and size of all municipal and non-municipal utilities and appurtenances including: water, sewer, electric, telephone, gas lines and fire alarm connections, indicating whether overhead or underground, and the location of wells and septic systems;
- NA Type and location of solid waste disposal facilities;
- X Location, elevation and layout of catch basin and other surface drainage features;
- X Location of all physical/natural features including: water bodies, watercourses, wetlands, vegetation/foilage lines, soil types, railroads, rock outcroppings and stone walls;
- NA Dimensions and area of all property to be dedicated for public use of common ownership;
- X Location of 100 year flood hazard boundaries;
- _____ Date and permit numbers of all required state and federal permits.
- X Location of all buildings, wells and leach fields within one hundred and fifty (150) feet of the parcel;
- X Dimensions, area and minimum setback requirements on all existing and proposed lots;
- X Proposed landscaping plan including size and type of plant material;
- NA Pedestrian walks providing circulation through the site;
- NA Location and size of proposed and existing signs, walls and fences;
- NA Location and type of lighting for outdoor activities; and
- X Location, widths and purposes of any easements or rights-of-way.
- NA Total on-site square footage of impervious surfaces.

 X Letter to Planning Board detailing how application meets the criteria for approval set out in Section 175-23(C)

 X Applicant has met with neighbors to discuss project and concerns.

Written waivers from these requirements may be requested with specific justification to the requirements of Section 12.02 of the Site Plan Review Regulations for the Town of Durham.

The applicant is reminded that they need to place a sign on the property measuring 2'x3' at least ten (10) calendar days prior to the time of the public hearing by the Planning Board. The sign shall remain on the property until the conclusion of the public hearing. The sign shall be visible from the most heavily traveled street right-of-way adjacent to the property. The sign shall state the date of the public hearing, the time, the location and the action to be considered.



March 5, 2019

Paul Rasmussen, Chair
Town of Durham Planning Board
8 Newmarket Road
Durham, NH 03824

**Re: Conditional Use Permit Application
11 Cedar Point Road
Tax Map 12, Lot 1-25
Durham, NH**

Dear Mr. Rasmussen:

Mission Wetland and Ecological Services, LLC (Mission) is hereby submitting the following Conditional Use Permit application and documentation in support of a proposed covered porch, deck additions, and a front walkway associated with the existing single-family residence at the above-referenced location. This includes work to pour footings for the covered porch and deck additions, a stone foundation drip strip to infiltrate clean roof runoff, as well as buffer enhancement plantings to offset the minor increase in impervious area and encroachment within the Wetland Conservation Overlay District (WCOD) and Shoreland Protection Overlay District (SPOD). Please refer to Sheets 1 and 2 of the attached "Shoreland/Wetland Plan," prepared by Millennium Engineering, Inc., dated March 5, 2019 (herein referred to as the "site plans").

The existing parcel, located on the landward side of Cedar Point Road, is 0.79 acres, or 34,412 square feet (sf) and contains an existing primary structure (house) on a foundation, an accessory tool shed, associated impervious walkways, deck area, as well as paved and gravel driveways. It is landscaped with lawn grass around an ornamental evergreen prostrate groundcover which previous owners planted as lawn area, with bark mulch, trees, and a forested wetland in the rear of the residence. The applicant reports that this ornamental evergreen prostrate groundcover is an eyesore and inconducive to the enjoyment of their front yard by guests, children, and pets.

The new impervious area proposed within the WCOD, including the majority of the SPOD is an approximately 2% increase (15.1% to 17.2%). This includes 4,479 square feet sf of total impact, where 1,072 sf is permanent (some of which is proposed Techo-bloc® pervious pavers), and 3,407 sf is temporary disturbance within the WCOD. Temporary disturbance within the SPOD and WCOD is limited to the construction area to install footings for the porch and deck additions, the stone drip strip, construct the porch, deck additions, and to remove the ornamental evergreen prostrate groundcover. The area of the ornamental evergreen prostrate groundcover to be removed will be stabilized with weed-free loam and grass to blend in with the finished porch and balance of lawn following construction. Similar impacts proposed to the SPOD include 3,929 sf. of impact, where 1,023 sf is permanent (similar pervious pavers) and 2,906 sf of similar temporary impacts.

In order to ensure collaboration, the applicant (homeowner) and project team have met and corresponded with Town of Durham and New Hampshire Department of Environmental Services (NHDES) staff throughout the conceptual phases of the project to review the proposal and solicit feedback.

The following narrative demonstrates fulfillment of the criterion for consideration of a Conditional Use Permit under section 175-23 (C) of the Town of Durham Zoning Ordinance:

(1) Site suitability: The site is suitable for the proposed use:

The proposal does not include any change to vehicular and pedestrian access to the existing residence. The proposal does not include any change to existing public services. The proposal does not include any change to existing topographical features and does not include alterations to the existing AE Flood Zone Designation (elevation 6') as depicted on the site plans. Additional impervious area resulting from the proposed covered porch will be offset with the installation of a stone drip strip to capture and infiltrate clean roof runoff. In addition, to offset the encroachment to the wetland and shoreland resources, an 85 sq. ft. buffer vegetation enhancement area will be planted in accordance with table 1 described below relative to Section 175-61(B) and 175-72(B). The lot and residence are currently served by electric and communication utilities and contains a private well and subsurface sewage disposal system. The proposal does not include any change in use or living space. As such, it does not propose changes to existing water, sewage disposal, stormwater disposal, electricity, and other similar utilities. The existing residence and lot are grandfathered within the Shoreland Protection Overlay District (SPOD) and Wetland Conservation Overlay District (WCOD) of the Town of Durham. A petition requesting a variance from building and wetland setbacks has been prepared and is being submitted to the Town of Durham Zoning Board of Appeals (ZBA). Based on initial discussions with Audrey Cline of the Town of Durham, it is anticipated that the required variances will be granted by the ZBA. In addition, Town of Durham Planner, Michael Behrendt, provided useful feedback during the initial conceptual phases of this project.

(2) External Impacts:

The subject lot is grandfathered; however, the proposed porch and deck additions reflect normal and customary use of a typical residential property in this location of Durham. The proposed project will pose no impacts greater than any adjacent project of similar substance. Abutters will experience a similar sense of privacy and screening as is currently experienced. The proposed covered porch will increase the aesthetic nature of the residence from the perspective of the street.

(3) Character of the site development:

The layout of the proposed porch, rear deck additions, and front walkway are compatible with the surrounding residential neighborhood.

(4) Character of the buildings and structures:

The design of the proposed covered porch, deck additions, and front walkway are compatible with the surrounding residential neighborhood. The addition of a well-proportioned covered porch will improve the homeowner viewscape and viewing opportunities of the neighborhood and Little Bay waterfront and will result in a more appealing view of the residence from the street. In addition, the proposed porch in the front of the home will alleviate intense solar radiation that has melted portions of glue and framing associated with windows on the front door. The proposal is in character with the abutting properties.

(5) Preservation of natural, cultural, historic, and scenic resources:

At the request of the State of New Hampshire Wetlands Bureau, on behalf of the applicant, Mission conducted a pro-active consultation with the New Hampshire Division of Historical Resources (NHDHR) and a determination of “no historical properties affected” was issued by the NHDHR. In addition, Mission conducted a consultation with the New Hampshire Natural Heritage Bureau (NHNHB) relative to potential impact to any mapped rare natural resources and a determination of “no impact by proposed project” was issued by NHNHB. To offset proposed permanent and temporary impacts within the WCOD and SPOD, the applicant proposes to plant an 85 sq. ft. Buffer Vegetation Enhancement Area (BVEA). This area is described below in greater detail relative to the WCOD and SPOD.

(6) Impact on property values:

The proposed project will have no negative impact on surrounding property values. However, will improve the aesthetic of the neighborhood in this area of Durham.

(7) Availability of Public Services & Facilities:

The proposed project will not result in an increased demand on public utilities, as there is no change in use proposed.

(8) Fiscal Impacts:

The proposed project will pose no fiscal impacts to the Town of Durham.

The Planning Board shall approve a Conditional Use Permit for a use in the WCOD only if it finds, with the advice of the Conservation Commission, that all of the following standards have been met in addition to the general standards for conditional uses and any performance standards for the particular use (Section 175-61[B]):

(1) There is no alternative location on the parcel that is outside of the WCOD that is reasonably practical for the proposed use:

There are no alternative locations for the proposed project. The garage and access driveway of the grandfathered lot and structure are currently located on the other side of the residence and which is also located in the WCOD.

(2) The amount of soil disturbance will be the minimum necessary for the construction and operation of the facilities as determined by the Planning Board:

The amount of permanent disturbance to accommodate the proposed covered porch, and deck additions have been reduced to the minimum necessary to achieve to goals of the applicants' project. There is no grading proposed; however, minor excavation to pour footings for the porch and deck additions and install the stone drip strip to specification is required. The temporary disturbance area depicted by the straw wattle is limited to that required to facilitate construction and remove the ornamental evergreen prostrate groundcover then loam and seed with lawn grass. All temporarily disturbed areas will be stabilized with lawn grass.

(3) The location, design, construction, and maintenance of the facilities will minimize any detrimental impact on the wetland, and mitigation activities will be undertaken to counterbalance any adverse impacts:

The proposed project will not adversely impact the WCOD. However, to offset the minor increase in impervious area within the WCOD, the applicant proposes to plant an 85 sq. ft. BVEA in accordance with Table 1 below. The planting schedule consists of native vegetation which will increase aesthetics with flowering shrubs, improve wildlife habitat use in the form of cover and provision of food resources of fruiting shrubs, and increase nutrient uptake and metabolism by woody vegetation in an otherwise sparsely vegetated area of the WCOD. These plantings will be completed using a planting bar with very little soil agitation with the intent of avoiding any potential for sedimentation/siltation into the adjacent wetlands. This, combined with the installation of a stone drip strip to capture and infiltrate clean roof runoff into the groundwater table, should offset the minor increase in permanent impervious area.

Table 1. Buffer Vegetation Enhancement Area Planting Schedule

Wetland Shrub	Spacing Specifications	Wildlife Function & Value
Serviceberry (<i>Amelanchier canadensis</i>)	Two (2) three to four-foot specimens, planted 5-feet on center	Excellent summer food and cover for bluebird, cardinal, cedar waxwing, catbird, red squirrel, scarlet tanager, veery, and deer.
Highbush Blueberry (<i>Vaccinium corymbosum</i>)	Two (2) three to four-foot specimens, planted 5-feet on center	Fruits, twigs, and buds are excellent food for ruffed grouse, scarlet tanager, bluebird, catbird, rufous-sided towhee, thrushes, chipmunk, white-footed mouse, deer, and rabbit.

*plant stock can be obtained from the State nursery in Boscowen, NH or sourced from other local nurseries

(4) Restoration activities will leave the site, as nearly as possible, in its existing condition and grade at the time of application for the Conditional Use Permit:

The activities have been limited to those required to achieve the objectives of the project proposed by the applicant. All temporarily disturbed areas required to achieve those objectives will be stabilized with lawn grass.

The Planning Board shall approve a Conditional Use Permit for a use in the SPOD only if it finds, with the advice of the Conservation Commission, that all of the following standards have been met in addition to the general standards for conditional uses and any performance standards for the particular use (Section 175-72[B]):

(1) There is no alternative location on the parcel that is outside of the SPOD that is reasonably practical for the proposed use:

There are no alternative locations for the proposed project. The garage and access driveway of the grandfathered lot and structure are currently located on the other side of the residence, some of which is located adjacent to the SPOD (and within the WCOD).

(2) The amount of soil disturbance will be the minimum necessary for the construction and operation of the facilities as determined by the Planning Board:

The amount of permanent disturbance to accommodate the proposed covered porch, and deck additions have been reduced to the minimum necessary to achieve to goals of the applicants' project. There is no grading proposed; however, minor excavations to pour footings for the porch and deck additions and install the stone drip strip to specification is required. The limit of temporary disturbance is depicted by the straw wattle is limited to that required to facilitate construction and remove the ornamental evergreen prostrate groundcover, then loam and seed with lawn grass. All temporarily disturbed areas will be stabilized with lawn grass.

(3) The location, design, construction, and maintenance of the facilities will minimize any detrimental impact on the adjacent shoreland and waterbody as well as downstream waterbodies, and mitigation activities will be undertaken to counterbalance any adverse impact:

The proposed project will not adversely impact the SPOD. However, to offset the minor increase in impervious area within the SPOD, the applicant proposes to plant an 85 sq. ft. BVEA in accordance with Table 1 above. The planting schedule consists of native vegetation which will increase aesthetics with flowering shrubs, improve wildlife habitat use in the form of cover and provision of food resources of fruiting shrubs, and increase nutrient uptake and metabolism by woody vegetation in an otherwise sparsely vegetated area of the SPOD. These plantings will be completed using a planting bar with very little soil agitation with the intent of avoiding any potential for sedimentation/siltation into the adjacent wetlands. This, combined with the installation of a stone drip strip to capture and infiltrate clean roof runoff into the groundwater table, should offset the minor increase in permanent impervious area.

(4) Restoration activities will leave the site, as nearly as possible, in its existing condition and grade at the time of application for the Conditional Use Permit:

The activities have been limited to those required to achieve the objectives of the project proposed by the applicant. All temporarily disturbed areas required to achieve those objectives will be stabilized with lawn grass.

The project proposal located within WCOD and SPOD is within the spirit and intent of the Town of Durham Zoning Ordinance. As such, the applicant requests that the Durham Planning Board issue a CUP for the proposed project. Please feel free to contact the undersigned if you require any additional information.

Respectfully Submitted,
Mission Wetland & Ecological Services, LLC.



Sergio Bonilla, PWS, CWS, CESSWI
Principal Wetland Ecologist

Cc: Anita Mihok

Arilda Densch, Arilda Design, electronic, via e-mail
Henry Boyd, Millennium Engineering, electronic, via e-mail
Don Nary, Nary, Norris and Associates, electronic, via e-mail
Bart McDonough, Durham Conservation Commission

Applicants Letter of Authorization

I, Anita C. Mihok, owner of the residence located at 11 Cedar Point Drive in Durham, New Hampshire, hereby authorize Mission Wetland & Ecological Services, LLC (Mission) to be my agent in all matters concerning wetland permitting for the proposed project. This includes the proposed covered porch and associated deck extension located at Tax Map 12, Lot 1-25 as identified on the Town of Durham tax map. This shall include all required signatures.

Anita C. Mihok
Signature

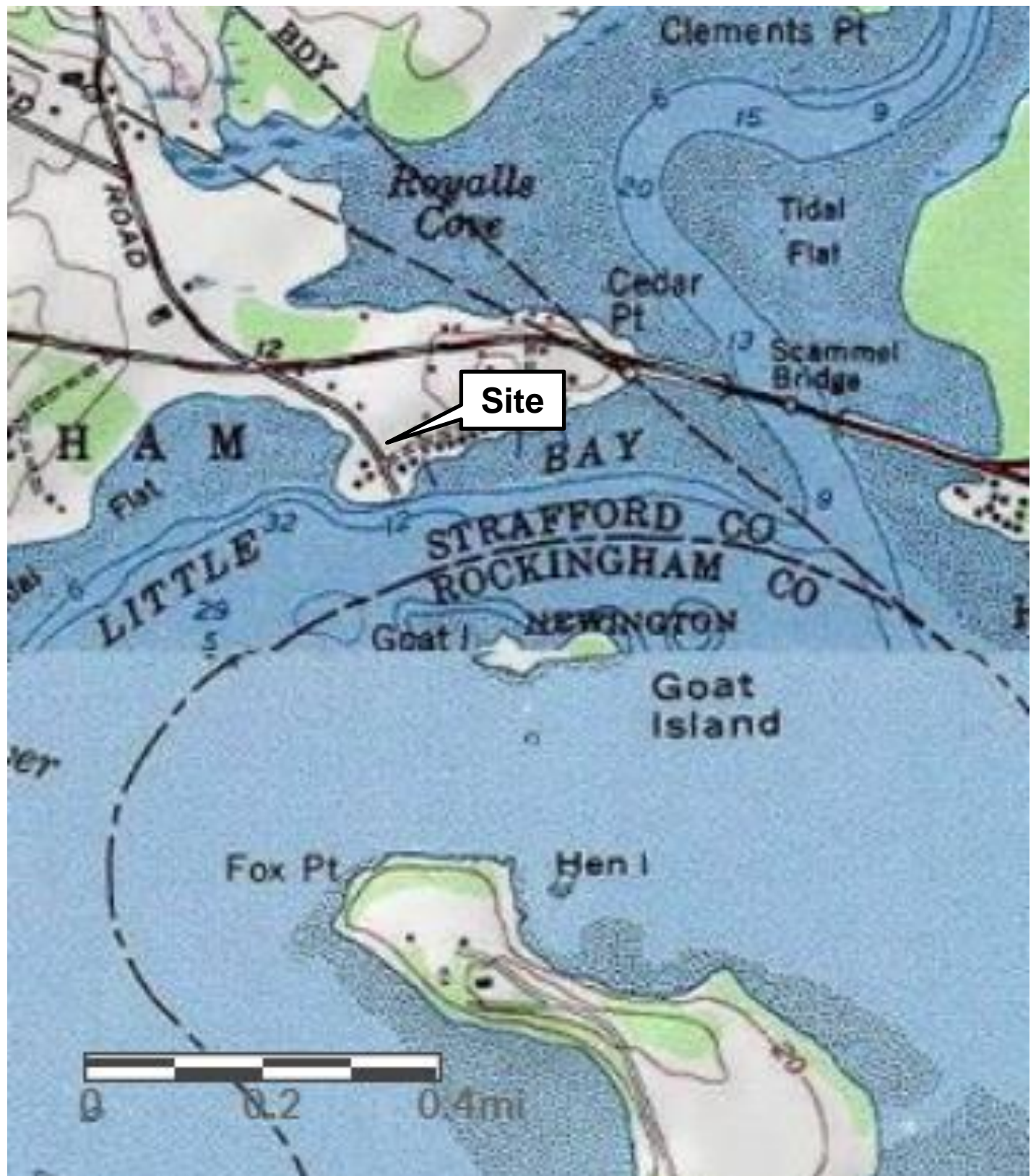
Anita C. Mihok
Print Name

2/15/19
Date

[Signature]
Witness

Chris Mihok
Print Name

2/15/19
Date



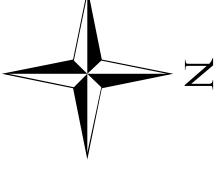
SITE LOCUS MAP

11 CEDAR POINT ROAD
DURHAM NH




FIGURE 1

Map 12A



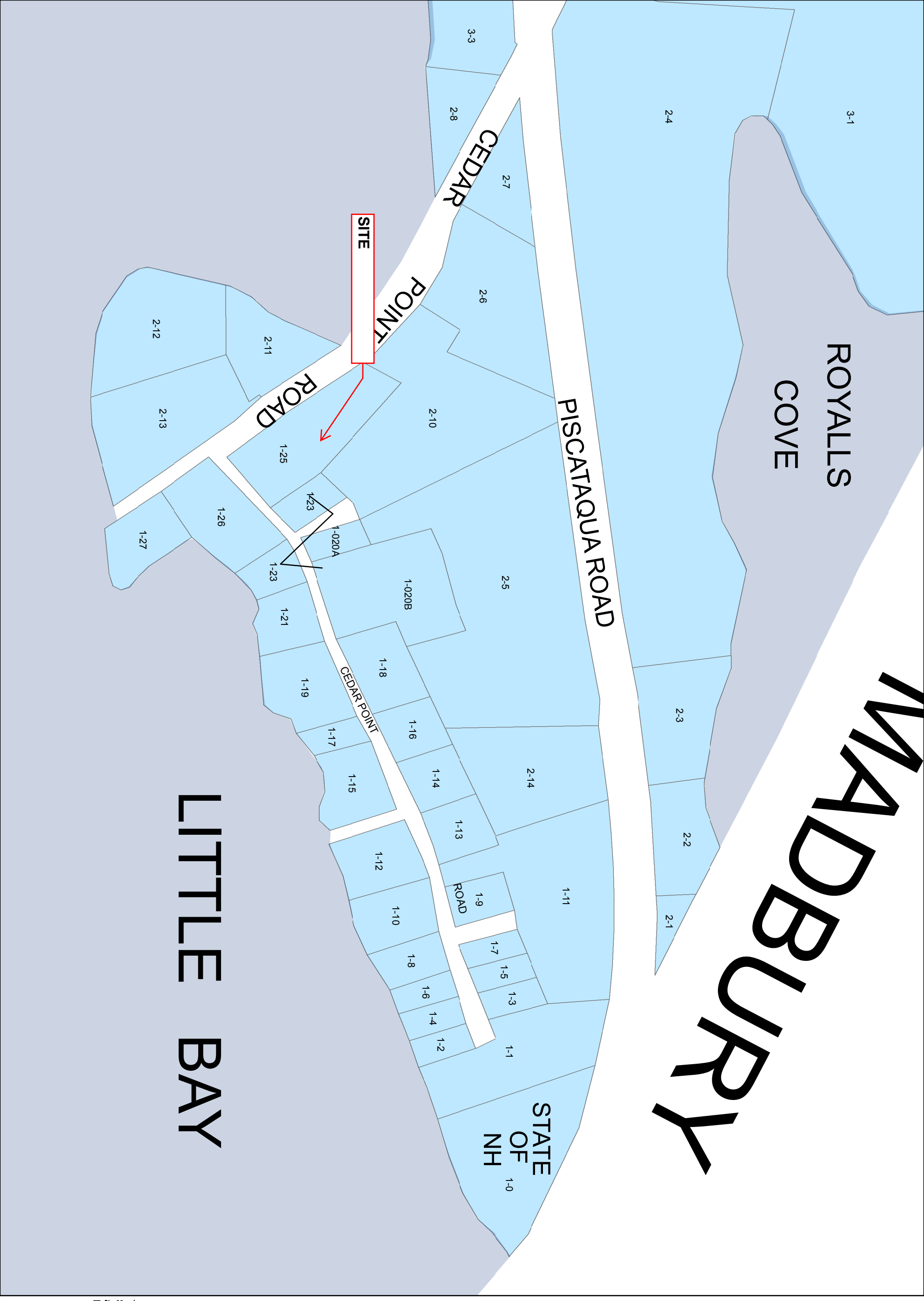
PROPERTY MAP
DURHAM
NEW HAMPSHIRE

- Legend**
-  Adjacent Map Sheets
 -  Current Map Sheet

1 inch = 165 feet

This map was updated by
Strafford Regional Planning
and the Town of Durham
February 2018.

**THIS MAP IS FOR
ASSESSMENT PURPOSES.
IT IS NOT INTENDED
FOR LEGAL DESCRIPTION
OR CONVEYANCE.**



Return to:
Anita C. Mihok and Christopher J. Mihok
11 Cedar Point Road
Durham, NH 03824

CERTIFIED ORIGINAL COPY

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That I, **KATHRYN H. SIMONDS, SUCCESSOR TRUSTEE OF THE KATHLEEN O. HEILIG REVOCABLE TRUST OF 2000**, u/t/d dated March 15, 2000, of 11 Cedar Point Road, Town of Durham, County of Strafford and State of New Hampshire 03824,

For consideration paid grant(s) to **ANITA C. MIHOK AND CHRISTOPHER J. MIHOK**, Wife and Husband, of 227 Pleasant Grove Road, Long Valley, Morris County, NJ 07853, as joint tenants with rights of survivorship, with **WARRANTY COVENANTS**:

Two certain tracts or parcels of land, with the buildings thereon, situate in Durham, County of Strafford, State of New Hampshire, more particularly described as follows:

TRACT I:

A certain tract or parcel of land, with the buildings thereon, situate in Durham, County of Strafford, State of New Hampshire on the easterly side of Cedar Point Road, bounded and described as follows:

Beginning at the intersection of Cedar Point Road and a right of way running easterly from said Cedar Point Road, and thence running easterly by said right of way a distance of one hundred twenty-five (125) feet, more or less, to land formerly of Parker and now or formerly of one Bourque; thence turning and running northerly by said Bourque land and land now or formerly of Ackroyd to land hereinafter referred to as Tract II; thence turning and running westerly and bounded northerly by said Tract II to the Cedar Point Road; thence turning and running in a southerly direction by said road a distance of one hundred fifty-six (156) feet, more or less, to the point of beginning.

TRACT II:

A certain tract or parcel of land, with the buildings thereon, situate in Durham, County of Strafford and State of New Hampshire on the easterly side of Cedar Point Road, bounded and described as follows:


Beginning on the easterly side of said Cedar Point Road at the northwesterly corner of the lot herein conveyed and land now or formerly believed to be of Delude; thence running southerly by said Road a distance of one hundred (100) feet, more or less, to an iron pipe driven in the ground at Tract I herein; thence turning and running easterly by said Tract I a distance of one hundred twenty-five (125) feet, more or less, to an iron pipe driven in the ground at land now or formerly of Ackroyd; thence turning and running northerly by said Ackroyd land a distance of one hundred (100) feet, more or less, to an iron pipe in the ground at a drain and land formerly of said Ackroyd now believed to be of Delude; thence turning and running westerly by said drain and said Delude land to an iron pipe in the ground at a culvert on-the easterly side of said Cedar Point Road and the point of beginning.

SUBJECT TO all easements, covenants and restrictions of record, if any.

Meaning and intending to describe and convey the same premises as conveyed to Kathleen O. Heilig, Trustee of the Kathleen O. Heilig Revocable Trust of 2000 dated April 28, 2000 and recorded in Book 2203, Page 0419 of the Strafford County Registry of Deeds.

The property is not the residence of the grantor or the grantor's spouse and is not subject to homestead rights.

Executed this 28 day of May, 2013.




Kathryn H. Simonds, Successor Trustee of the
Kathleen O. Heilig Revocable Trust of 2000

State of New Hampshire
County of Rockingham

May 28, 2013

Then personally appeared before me on this 28 day of May, 2013, the said Kathryn H. Simonds, Successor Trustee of the Kathleen O. Heilig Revocable Trust of 2000 and acknowledged the foregoing to be his/her/their voluntary act and deed.



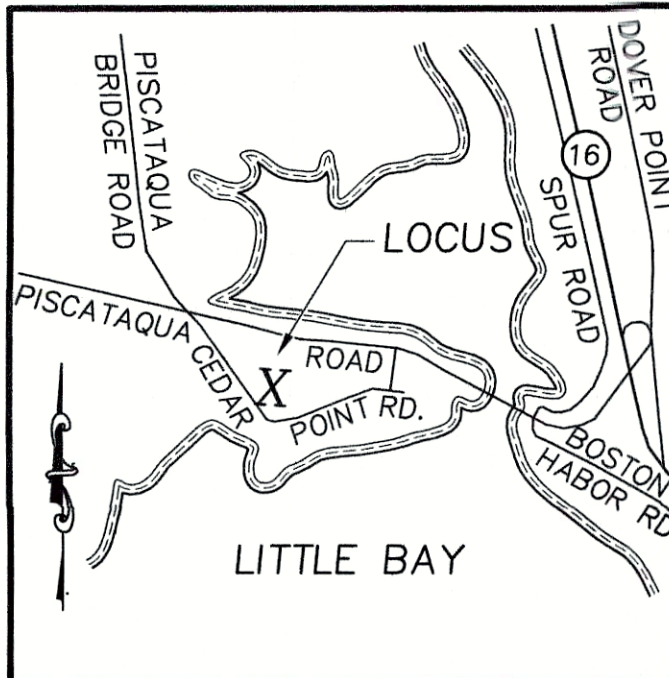
Notary Public/Justice of the Peace
Commission expiration:

Ellen J. Wood
Commissioner of Deeds, State of New Hampshire
My Commission Expires October 06, 2015



ABUTTERS LIST

Client Name: Mihok Residence		Site Location: 11 Cedar Point Road Durham, New Hampshire		Project No. 17-019	
<u>OWNER</u>		<u>MAILING ADDRESS</u>		<u>SCRD</u>	
TAX MAP 12, Lot 1-18	J.U.FAMILY TRUST	23 CEDAR POINT ROAD	DURHAM NH	03824	BK 4356 PG 880
TAX MAP 12, Lot 1-19	OLIVER, DOROTHY W. REVOCABLE TRUST	22 CEDAR POINT ROAD	DURHAM NH	03824	BK 1870 PG 83
TAX MAP 12, Lot 1-20A	WEGLARZ, MARY T. REVOCABLE FAMILY TRUST	17 CEDAR POINT ROAD	DURHAM NH	03824	BK 2729 PG 257
TAX MAP 12, Lot 1-20B	WEGLARZ, MARY T. REVOCABLE FAMILY TRUST	19 CEDAR POINT ROAD	DURHAM NH	03824	BK 3293 PG 65
TAX MAP 12, Lot 1-21	LEHRMAN, MICHAEL D.	20 CEDAR POINT ROAD	DURHAM NH	03824	BK 4399 PG 744
TAX MAP 12, Lot 1-23	RUSSEL REALTY, LLC.	14 CEDAR POINT ROAD	DURHAM NH	03824	BK 4513 PG 512
TAX MAP 12, Lot 1-26	HART, CHARLES M. REVOCABLE TRUST	14 CEDAR POINT ROAD	DURHAM NH	03824	BK 3603 PG 16
TAX MAP 12, Lot 1-27	HART, CHARLES M. REVOCABLE TRUST	14 CEDAR POINT ROAD	DURHAM NH	03824	BK 3603 PG 16
TAX MAP 12, Lot 2-5	LARIS, KIMBERLY	P.O. BOX 849	PORTSMOUTH NH	03802	BK 4494 PG 723
TAX MAP 12, Lot 2-6	SIMONDS, JOHN	5 CEDAR POINT ROAD	DURHAM NH	03824	BK 3863 PG 116
TAX MAP 12, Lot 2-10	DELUDE FAMILY REVOCABLE TRUST	9 CEDAR POINT ROAD	DURHAM NH	03824	BK 3505 PG 489
TAX MAP 12, Lot 2-11	HERNON, ERIC D.	6 CEDAR POINT ROAD	DURHAM NH	03824	BK 3648 PG 213
TAX MAP 12, Lot 2-12	CEDAR POINT ROAD TRUST	8 CEDAR POINT ROAD	DURHAM NH	03824	BK 4095 PG 287
TAX MAP 12, Lot 2-13	BATES, BRUCE H. REVOCABLE TRUST	P.O. BOX 686	DURHAM NH	03824	BK 4283 PG 747



NOTES:

- 1) THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT VISIBLE USES OF THE LAND; HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
- 2) THIS PARCEL LIES WITHIN AN AE (ELEVATION 6) FLOOD ZONE, SEE F.I.R.M. COMMUNITY PANEL 330146 0340 E MAP REVISED DATE SEPTEMBER 30, 2015.
- 3) ELEVATIONS SHOWN HEREON ARE BASED ON THE N.G.V.D. 1929.

PISCATAQUA RIVER COVE
"LITTLE BAY"

WETLANDS DELINEATION BY
SERGIO BONILLA
CERTIFIED WETLAND
SCIENTIST (CWS) #261
ON 12-13-2017

IN ACCORDANCE WITH THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH-CENTRAL AND NORTHEAST REGION (VERSION 2-TR-12-1, JANUARY 2012, AND THE TOWN OF DURHAM ZONING ORDINANCE, ARTICLES XIII AND XIV.



SEALED SURFACE CALCULATIONS

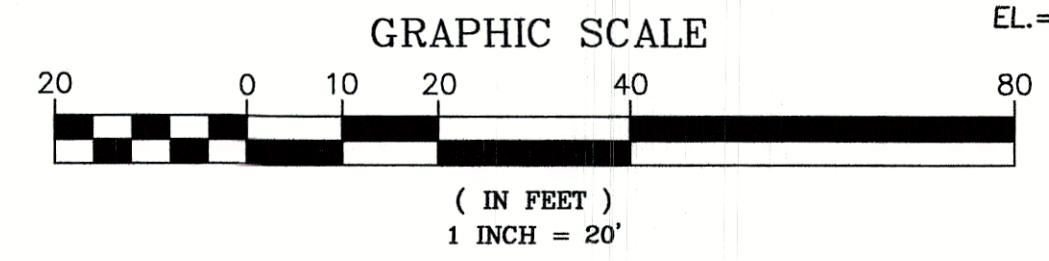
33,263 S.F. OF THIS LOT LIES WITHIN 250' OF NHDES SHORELAND JURISDICTION

	EXISTING	PROPOSED	POST CONSTRUCTION
SHED	126 S.F.	N/A	126 S.F.
DWELLING	1,957 S.F.	768 S.F.	2,725 S.F.
PAVEMENT	1,897 S.F.	N/A	1,897 S.F.
STONE DRIVEWAY	874 S.F.	N/A	874 S.F.
WALLS	18 S.F.	N/A	18 S.F.
WALKWAY/STEPS	152 S.F.	- 71 S.F.	** 81 S.F.
TOTAL AREA	5,024 S.F./15.1%	854 S.F.	5,736 S.F./17.2%

** A PORTION OF THE EXISTING WALKWAY IS TO BE REMOVED

LEGEND

- I.P. IRON PIPE
- I ROD IRON ROD
- FND. FOUND
- ASSESSORS MAP AND PARCEL
- UTILITY POLE
- OHW --- OVER HEAD WIRE
- W WETLAND
- W H3 WETLAND FLAG
- 13--- EXISTING CONTOUR ELEVATION
- W EXISTING TREE LINE (INTERPOLATED FROM 2018 GOOGLE EARTH AERIAL)
- EXISTING EDGE OF GROUND COVER (INTERPOLATED FROM 2018 GOOGLE EARTH AERIAL)



NATURAL WOODLAND BUFFER AREA

AREA BETWEEN 50' AND 150' OF THE REFERENCE LINE

VEGETATION	4,430 S.F.
LOT	15,667 S.F.
EXISTING %	28.3%

RECORD OWNERS

12-25
CHRISTOPHER J. & ANITA C. MIHOK
11 CEDAR POINT ROAD
DURHAM, NH 03824
BK. 4132 PG. 956

34,923± S.F.
0.80± ACRES

ZONING DISTRICT

RC

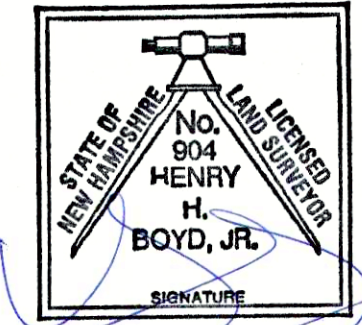
MINIMUM REQUIREMENTS

AREA	150,000 S.F.
MIN. LOT AREA/DWELLING UNIT	150,000 S.F.
MAX. AREA SEALED SURFACE	20%
MAX. HEIGHT	30'
FRONTAGE	300'

BUILDING SETBACKS

FRONT	30'
SIDE	50'
REAR	50'
TIDAL/NON-TIDAL WETLANDS	100'

I CERTIFY:
THAT THIS ACTUAL SURVEY WAS MADE ON THE GROUND IN JANUARY OF 2018.
THAT THIS SURVEY CONFORMS TO THE REQUIREMENTS FOR ACCURACY FOR N.H. URBAN SURVEY.



LICENSED LAND SURVEYOR DATE 03-05-2019

EXISTING CONDITIONS

SHORELAND/WETLAND PLAN

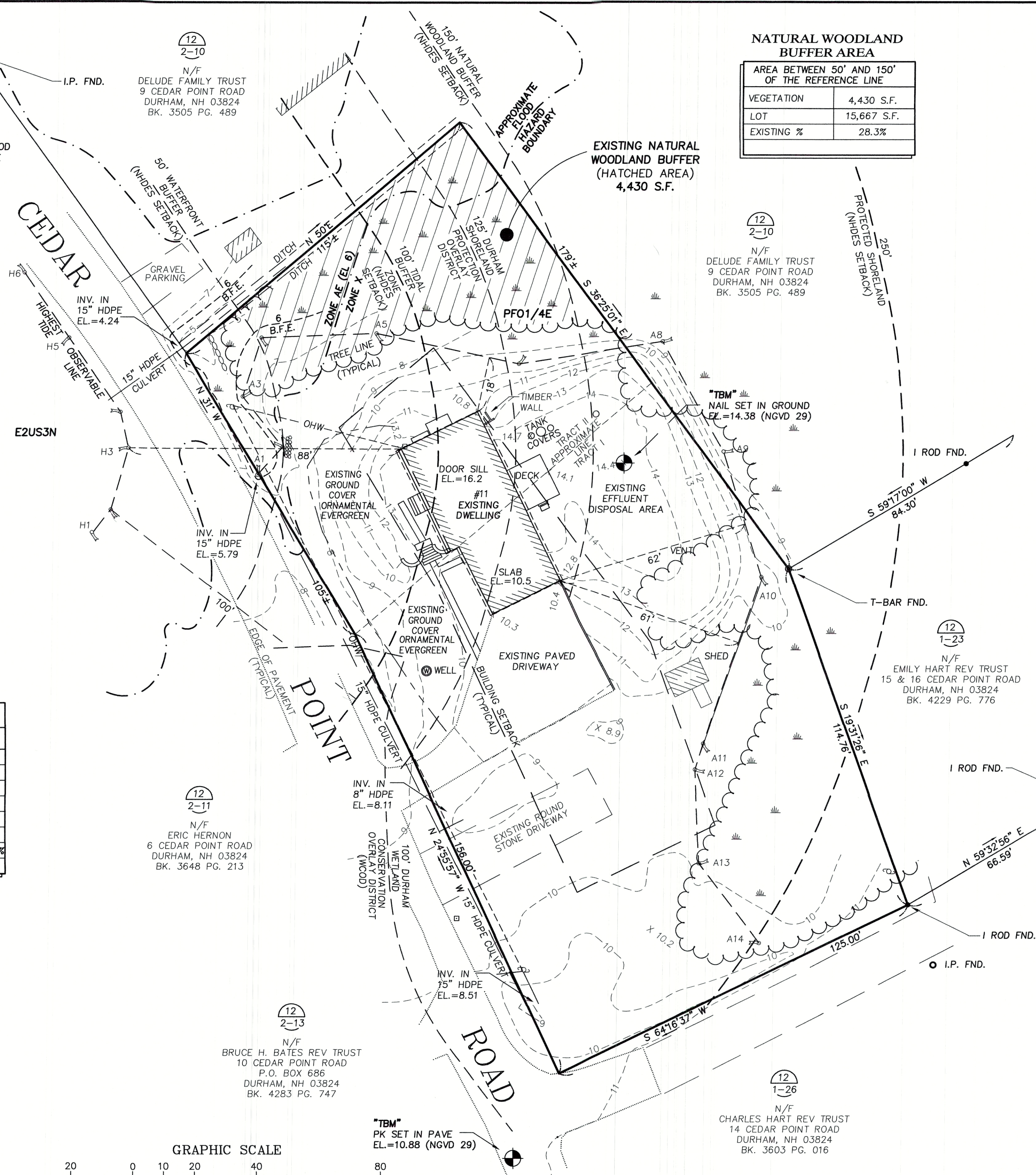
IN
DURHAM, NH

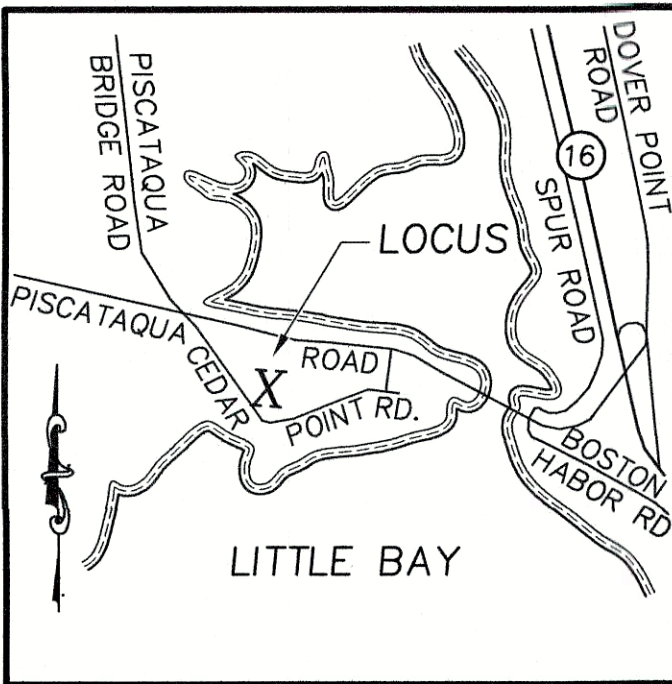
SHOWING
A PROPOSED ADDITION
AT 11 CEDAR ROAD
(ASSESSORS MAP 12 LOT 1-25)

RECORD OWNERS
CHRISTOPHER J. & ANITA C. MIHOK
11 CEDAR POINT ROAD DURHAM, NH 03824

MILLENNIUM ENGINEERING INC.
ENGINEERS AND LAND SURVEYORS
P.O. BOX 745 13 HAMPTON ROAD EXETER, NH 03833
PHONE:(603)778-0528 FAX:(603)772-0689 WWW.MEI-NH.COM

SCALE: 1"=20'	DRWN. BY: H.H.B.	SHEET: 1 OF 2
DATE: MAR. 05, 2019	CHKD. BY: R.S.G.	PROJECT: E172085





NOTES:

- 1) THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT VISIBLE USES OF THE LAND; HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
- 2) THIS PARCEL LIES WITHIN AN AE (ELEVATION 6) FLOOD ZONE, SEE F.I.R.M. COMMUNITY PANEL 330146 0340 E MAP REVISED DATE SEPTEMBER 30, 2015.
- 3) ELEVATIONS SHOWN HEREON ARE BASED ON THE N.G.V.D. 1929.

SEALED SURFACE CALCULATIONS

33,263 S.F. OF THIS LOT LIES WITHIN 250' OF NHDES SHORELAND JURISDICTION

	EXISTING	PROPOSED	POST CONSTRUCTION
SHED	126 S.F.	N/A	126 S.F.
DWELLING	1,957 S.F.	768 S.F.	2,725 S.F.
PAVEMENT	1,897 S.F.	N/A	1,897 S.F.
STONE DRIVEWAY	874 S.F.	N/A	874 S.F.
WALLS	18 S.F.	N/A	18 S.F.
WALKWAY/STEPS	152 S.F.	-71 S.F.	** 81 S.F.
TOTAL AREA	5,024 S.F./15.1%	854 S.F.	5,736 S.F./17.2%

** A PORTION OF THE EXISTING WALKWAY IS TO BE REMOVED

WETLANDS DELINEATION BY
 SERGIO BONILLA
 CERTIFIED WETLAND
 SCIENTIST (CWS) #261
 P.O. BOX 4028
 PORTSMOUTH, NH 03802
 ON 12-13-2017



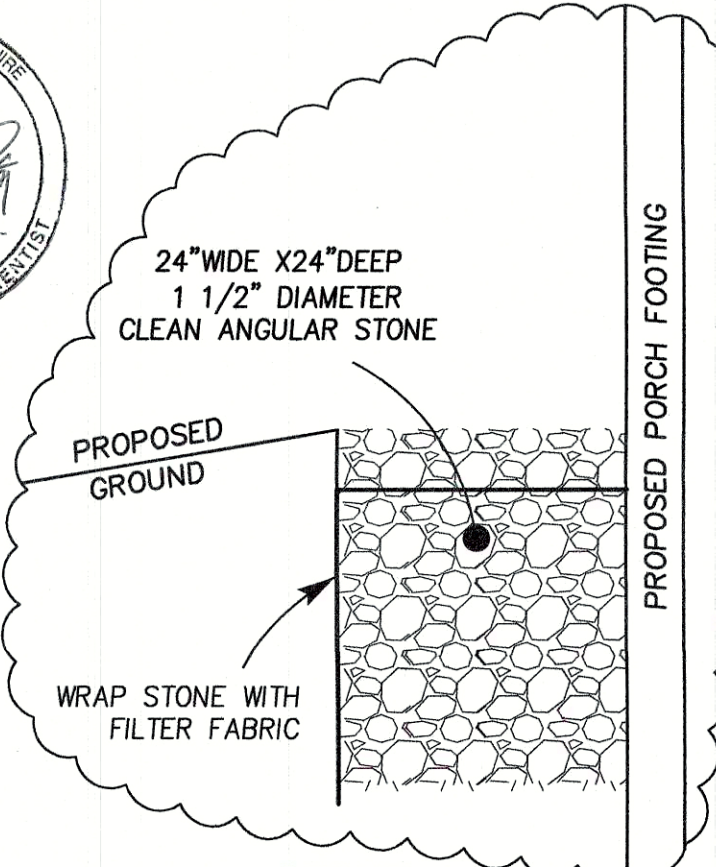
IN ACCORDANCE WITH THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (VERSION 2-1R-12-1, JANUARY 2012), AND THE TOWN OF DURHAM ZONING ORDINANCE, ARTICLES XIII AND XIV.

LEGEND

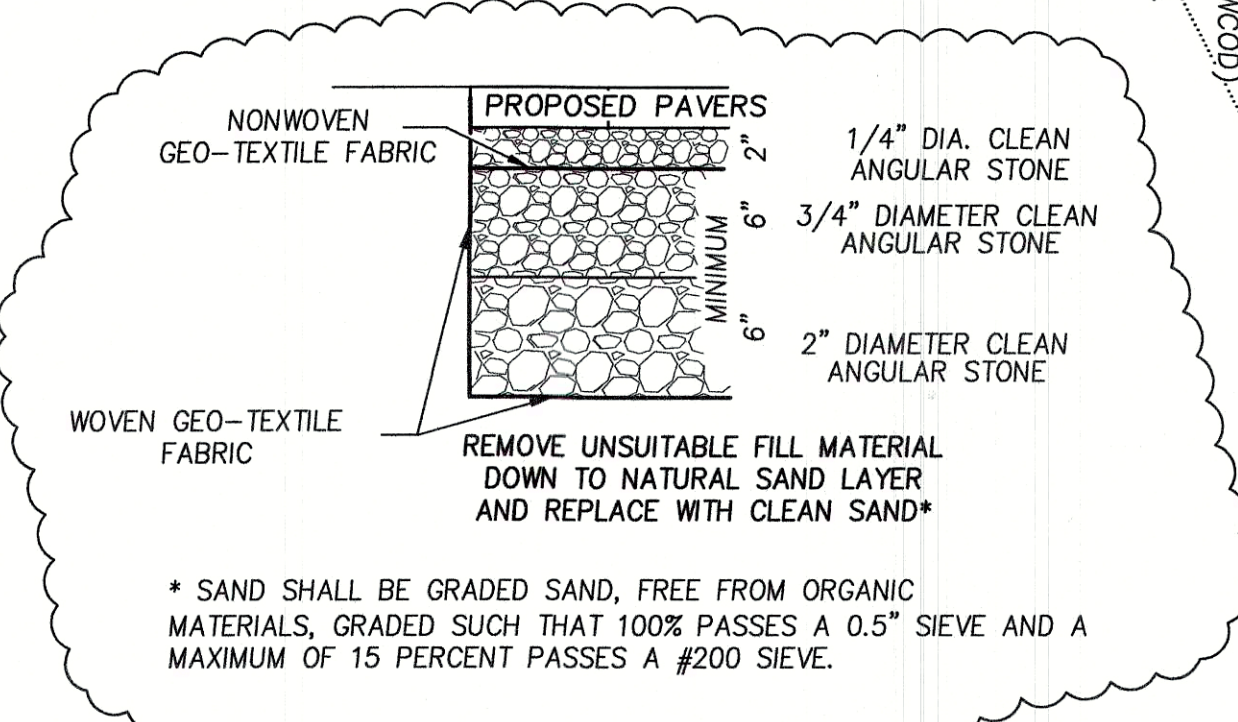
- I.P. IRON PIPE
- I ROD IRON ROD
- FND. FOUND
- ASSESSORS MAP AND PARCEL
- UTILITY POLE
- OHW OVER HEAD WIRE
- WETLAND
- WETLAND FLAG
- H3 EXISTING CONTOUR ELEVATION
- 13 EXISTING TREE LINE (INTERPOLATED FROM 2018 GOOGLE EARTH AERIAL)
- EXISTING EDGE OF GROUND COVER (INTERPOLATED FROM 2018 GOOGLE EARTH AERIAL)
- TEMPORARY IMPACT AREA
- BUFFER VEGETATION ENHANCEMENT AREA
- P1 PHOTO

PAVER MAINTENANCE NOTE

REGULAR CLEANING WILL HELP MAINTAIN A HIGH ENOUGH SURFACE INFILTRATION RATE TO SOAK THROUGH THE JOINTS. AT LEAST ONE INSPECTION AND CLEANING SHOULD BE PERFORMED DURING THE FIRST YEAR OF SERVICE AND THEREAFTER AS REQUIRED. CLEANING IS RECOMMENDED WHEN THE SURFACE INFILTRATION RATE IS LESS THAN 9.8"/HR OR 99%. CLEANING CAN BE DONE WITH A VACUUM ADJUSTED TO MINIMIZE THE REMOVAL OF JOINT MATERIAL. IN WINTER, SNOW REMOVAL CAN BE DONE AS FOR ANY OTHER TYPE OF PAVING, BUT IT IS STILL RECOMMENDED THAT SNOW REMOVAL BLADES BE COVERED WITH A PROTECTIVE COATING AND RAISED 1". SEGMENTAL PERMEABLE PAVEMENT REQUIRE LESS DE-ICING MATERIAL THAN CONVENTIONAL PAVEMENT. SINCE MELTED WATER DOES NOT ACCUMULATE. IT WILL NOT RE-FREEZE ON THE SURFACE. IT IS NOT RECOMMENDED TO SPREAD SAND FOR TRACTION, AS THIS MAY CLOG THE JOINTS. INSTEAD, SPREAD THE SAME AGGREGATE USED FOR FILLING JOINTS.



STONE DRIP STRIP DETAIL
 NOT TO SCALE



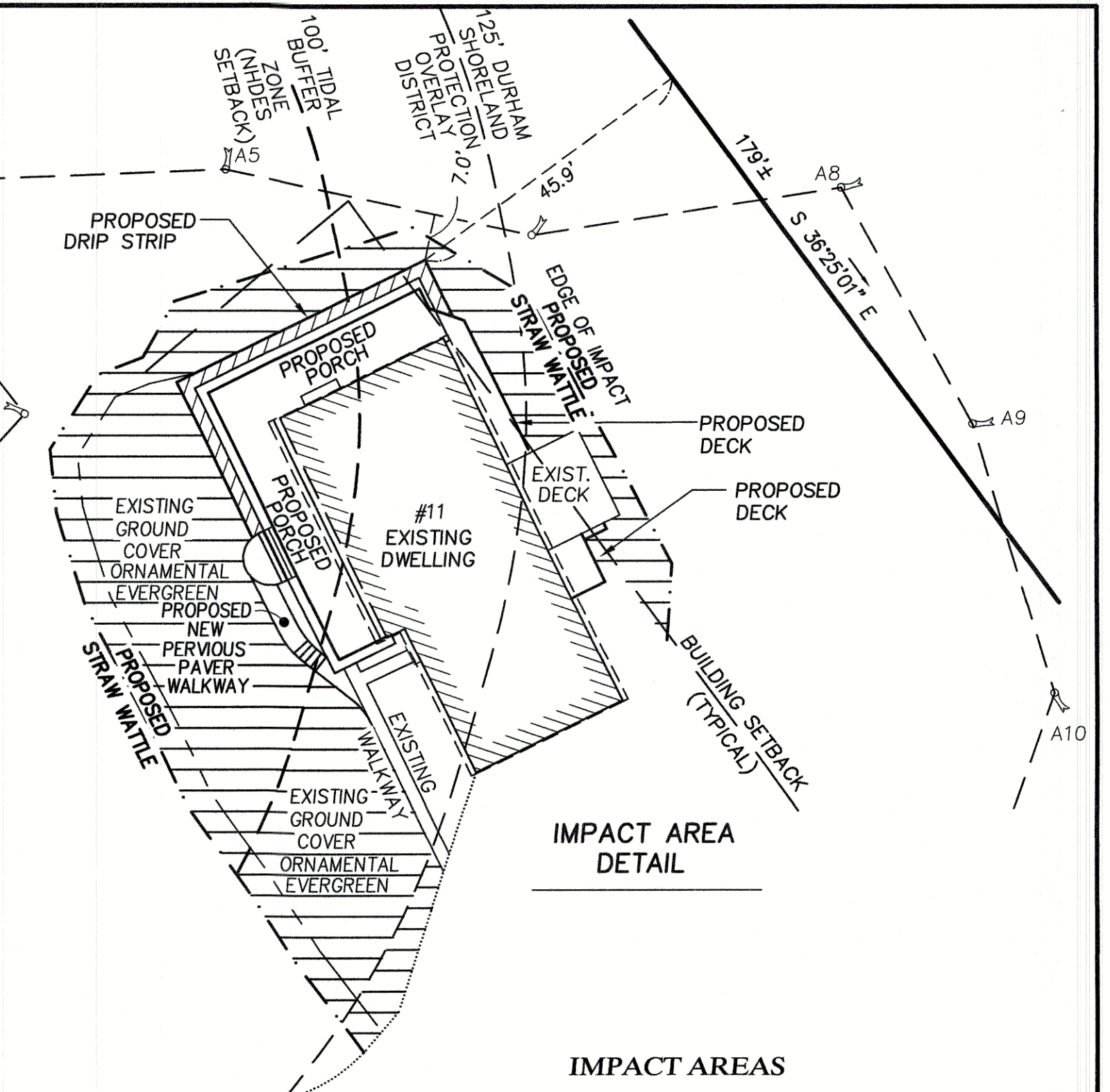
"TECHO-BLOC" PERVIOUS PAVER DETAIL
 NOT TO SCALE

* "TECHO-BLOC" PAVERS. REFER TO MANUFACTURERS SPECIFICATIONS AND INSTALLATION GUIDELINES PROVIDED HEREWITH.

PROPOSED DWELLING INFILTRATION NOTE

STONE INFILTRATION DRIP STRIPS ARE TO BE PLACED AT NEW PROPOSED PORCH WHERE APPROPRIATE TO RECEIVE ROOF RUNOFF, SEE DETAIL ABOVE. THESE DRIP STRIPS ARE TO BE INSPECTED TWICE PER YEAR (SPRING & FALL) AND MAINTAINED BY REMOVING ANY DEBRIS AND VACUUMING.

SEE BUILDING PLANS FOR DIMENSIONS AND DETAILS



IMPACT AREA DETAIL

IMPACT AREAS

AREA WITHIN 100' TIDAL BUFFER ZONE		AREA WITHIN 100' FRESH WATER BUFFER	
TEMPORARY (HATCHED)	1,864 S.F.	TEMPORARY (HATCHED)	3,407 S.F.
NEW PERMANENT	768 S.F.	NEW PERMANENT	1,072 S.F.
TOTAL IMPACT	2,632 S.F.	TOTAL IMPACT	4,479 S.F.

INCLUDES TIDAL BUFFER AREA AND PROTECTION OVERLAY DISTRICT

AREA WITHIN 125' PROTECTION OVERLAY DISTRICT		AREA OF SHORELAND IMPACT BEYOND 100' TIDAL BUFFER	
TEMPORARY (HATCHED)	2,906 S.F.	TEMPORARY (HATCHED)	1,494 S.F.
NEW PERMANENT	1,023 S.F.	NEW PERMANENT	304 S.F.
TOTAL IMPACT	3,929 S.F.	TOTAL IMPACT	1,798 S.F.

INCLUDES TIDAL BUFFER ZONE

NATURAL WOODLAND BUFFER AREA

AREA BETWEEN 50' AND 150' OF THE REFERENCE LINE	
VEGETATION	4,430 S.F.
LOT	15,667 S.F.
EXISTING %	28.3%

PROPOSED CONDITIONS

SHORELAND/WETLAND PLAN

IN DURHAM, NH

SHOWING
 A PROPOSED ADDITION
 AT 11 CEDAR POINT ROAD
 (ASSESSORS MAP 12 LOT 1-25)

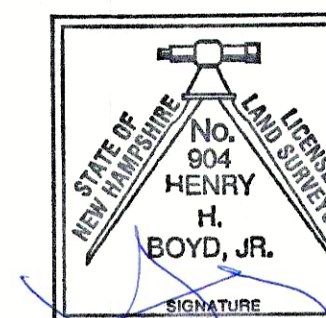
RECORD OWNERS
 CHRISTOPHER J. & ANITA C. MIHOK
 11 CEDAR POINT ROAD DURHAM, NH 03824

MILLENNIUM ENGINEERING INC.

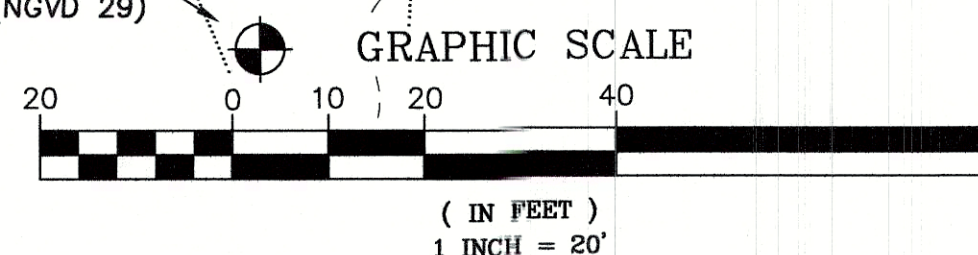
ENGINEERS AND LAND SURVEYORS
 P.O. BOX 745 13 HAMPTON ROAD EXETER, NH 03833
 PHONE: (603) 778-0528 FAX: (603) 772-0689 WWW.MEI-NH.COM

SCALE: 1"=20' DRWN. BY: P.D.B. SHEET: 2 OF 2
 DATE: MAR. 05, 2019 CHKD. BY: H.H.B. PROJECT: E172085

I CERTIFY:
 THAT THIS ACTUAL SURVEY WAS MADE ON THE GROUND IN JANUARY OF 2018.
 THAT THIS SURVEY CONFORMS TO THE REQUIREMENTS FOR ACCURACY FOR N.H. URBAN SURVEY.



DATE: 03-05-2019



NO.	DATE	DESCRIPTION	BY

MISSION



WETLAND & ECOLOGICAL SERVICES, LLC

PHOTOGRAPHIC LOG

Client Name:
Mihok Residence

Site Location:
11 Cedar Point Road
Durham, New Hampshire

Project No.
17-019

Photo No.
1

Date:
10/26/18

Description:

Facing northwest along the front yard of the subject residence.



Photo No.
2

Date:
10/26/18

Description:

Facing northeast at side yard of the subject residence and freshwater wetland to the left.



MISSION



WETLAND & ECOLOGICAL SERVICES, LLC

PHOTOGRAPHIC LOG

Client Name:
Mihok Residence

Site Location:
11 Cedar Point Road
Durham, New Hampshire

Project No.
17-019

Photo No.
3

Date:
10/26/18

Description:

Facing northeast at the subject residence from Cedar Point Road.



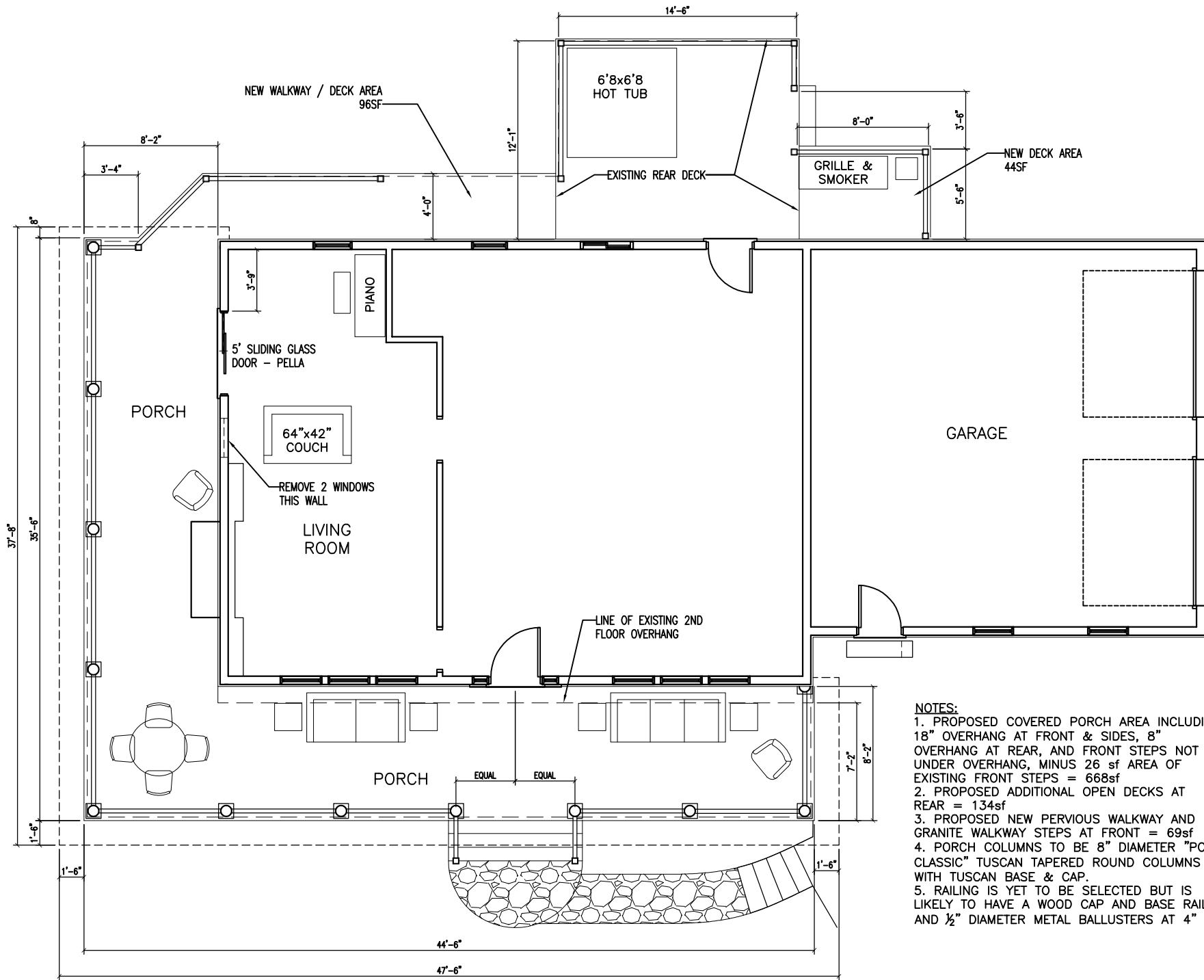
Photo No.
4

Date:
10/26/18

Description:

Looking northwest at the subject residence and backyard. A pre-fab lawn shed is to the right.





- NOTES:**
1. PROPOSED COVERED PORCH AREA INCLUDING 18" OVERHANG AT FRONT & SIDES, 8" OVERHANG AT REAR, AND FRONT STEPS NOT UNDER OVERHANG, MINUS 26 sf AREA OF EXISTING FRONT STEPS = 668sf
 2. PROPOSED ADDITIONAL OPEN DECKS AT REAR = 134sf
 3. PROPOSED NEW PERVIOUS WALKWAY AND GRANITE WALKWAY STEPS AT FRONT = 69sf
 4. PORCH COLUMNS TO BE 8" DIAMETER "POLY CLASSIC" TUSCAN TAPERED ROUND COLUMNS WITH TUSCAN BASE & CAP.
 5. RAILING IS YET TO BE SELECTED BUT IS LIKELY TO HAVE A WOOD CAP AND BASE RAIL AND 1/2" DIAMETER METAL BALLUSTERS AT 4" oc

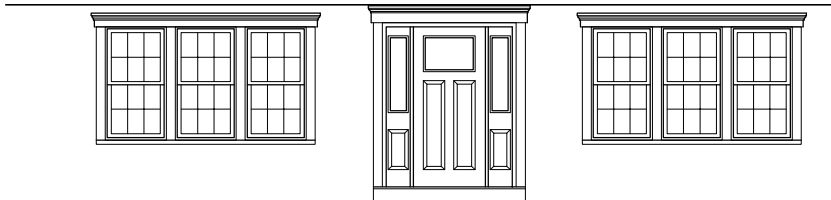
CHRIS & ANITA MIHOK
 11 CEDAR POINT ROAD
 DURHAM, NH 03824

ARILDA DESIGN
 www.arilda.com
 9 ADAMS LANE, UNIT 2
 KITTERY, MAINE 03904
 207-604-6848

**Proposed
 1st Floor Plan**

date: Aug 3, 2018

scale: 1/8" = 1'-0"



NOTES: 6-7-2018

- ALL NEW EXTERIOR TRIM TO BE BY AZEK.
- CORNERBOARDS TO BE 1"x5½"x5½"
- SKIRTBOARD TO BE 1"x 7¼"
- WINDOW AND DOOR TRIM AS NOTED ON FOLLOWING DETAIL SHEET
- VERTICAL LATTICE UNDER PORCH
- PORCH CEILING TO BE AZEK BEADBOARD ½"x5½"
- PORCH COLUMNS TO BE 8" DIAMETER "POLY CLASSIC" TUSCAN TAPERED ROUND COLUMNS WITH TUSCAN BASE & CAP
- PORCH ROOF TO BE ASPHALT SHINGLE TO MATCH EXISTING
- NEW SIDING TO BE HARDIE PRODUCTS, CLAPBOARD AND SHINGLE MIX

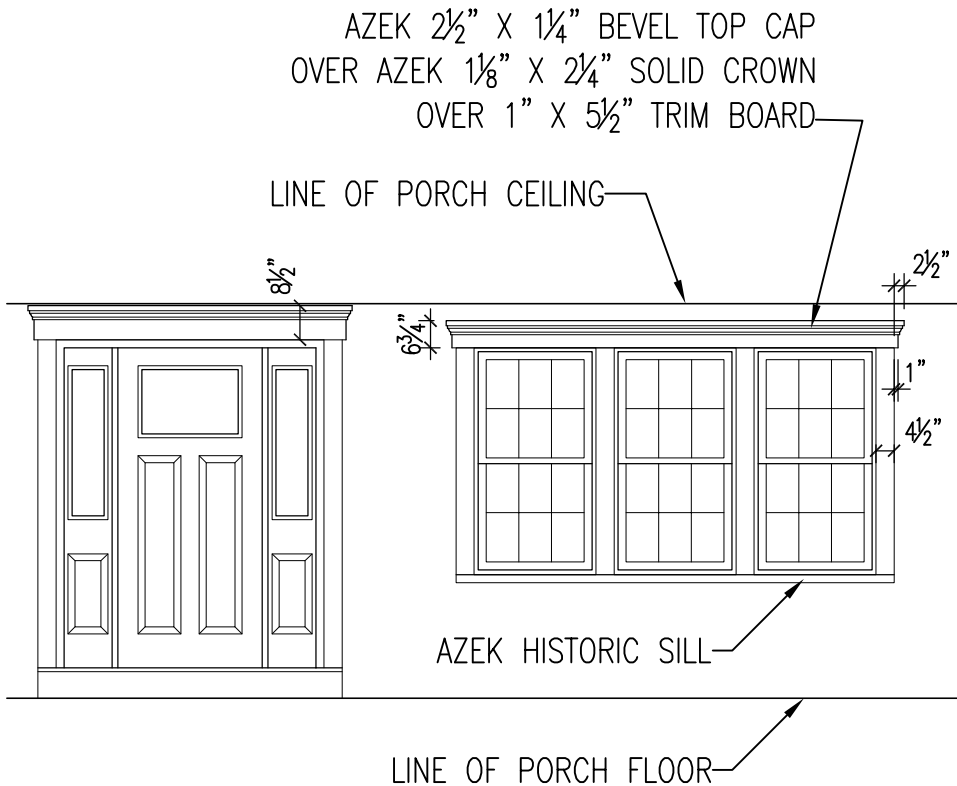
CHRIS & ANITA MIHOK
 11 CEDAR POINT ROAD
 DURHAM, NH 03824

ARILDA DESIGN
 www.arilda.com
 9 ADAMS LANE, UNIT 2
 KITTERY, MAINE 03904
 207-604-6848

Proposed
Front Elevation

date: Aug 3, 2018

scale: 1/8" = 1'-0"



PORCH WINDOW & DOOR TRIM DETAIL

SCALE: 1/4" = 1'-0"



PORCH DETAIL

SCALE: 1/4" = 1'-0"

NOTES: 6-7-2018

- ALL NEW EXTERIOR TRIM TO BE BY AZEK.
- CORNERBOARDS TO BE 1"x5 1/2"x5 1/2"
- SKIRTBOARD TO BE 1"x 7 1/4"
- WINDOW AND DOOR TRIM AS NOTED ON FOLLOWING DETAIL SHEET
- VERTICAL LATTICE UNDER PORCH
- PORCH CEILING TO BE AZEK BEADBOARD 1/2"x5 1/2"
- PORCH COLUMNS TO BE 8" DIAMETER "POLY CLASSIC"
- TUSCAN TAPERED ROUND COLUMNS WITH TUSCAN BASE & CAP
- PORCH ROOF TO BE ASPHALT SHINGLE TO MATCH EXISTING
- NEW SIDING TO BE HARDIE PRODUCTS, CLAPBOARD AND SHINGLES MIX

CHRIS & ANITA MIHOK

11 CEDAR POINT ROAD
DURHAM, NH 03824

ARILDA DESIGN

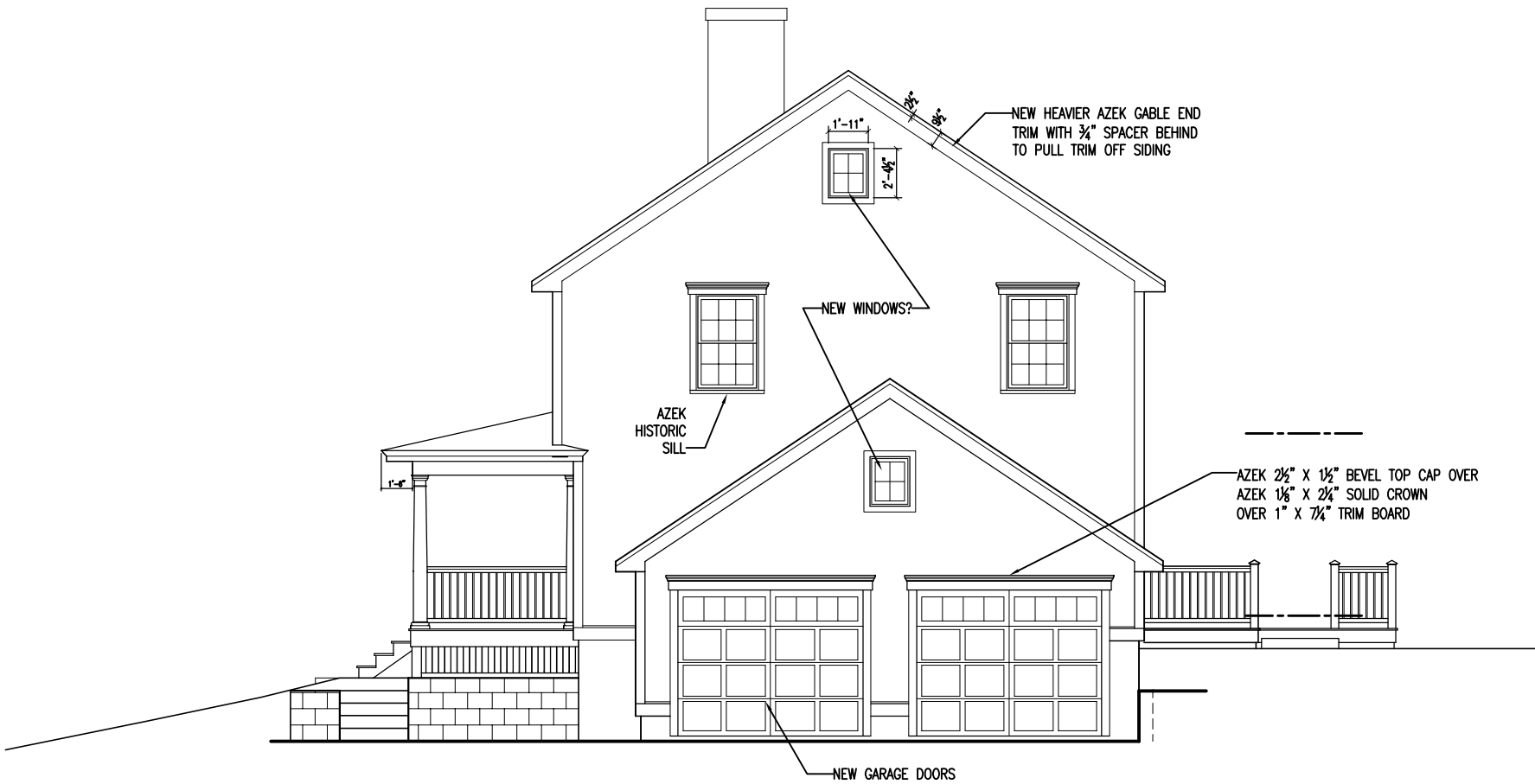
www.arilda.com

9 ADAMS LANE, UNIT 2
KITTERY, MAINE 03904
207-604-6848

**Proposed
Column & Trim Details**

date: Aug 3, 2018

scale: 1/4" = 1'-0"



CHRIS & ANITA MIHOK
 11 CEDAR POINT ROAD
 DURHAM, NH 03824

ARILDA DESIGN
www.arilda.com
 9 ADAMS LANE, UNIT 2
 KITTERY, MAINE 03904
 207-604-6848

**Proposed
 Right Side Elevation**

date: Aug 3, 2018
 scale: 1/8" = 1'-0"



**Proposed
Rear Elevation**

date: Aug 3, 2018

scale: 1/8" = 1'-0"

ARILDA DESIGN

www.arilda.com

9 ADAMS LANE, UNIT 2

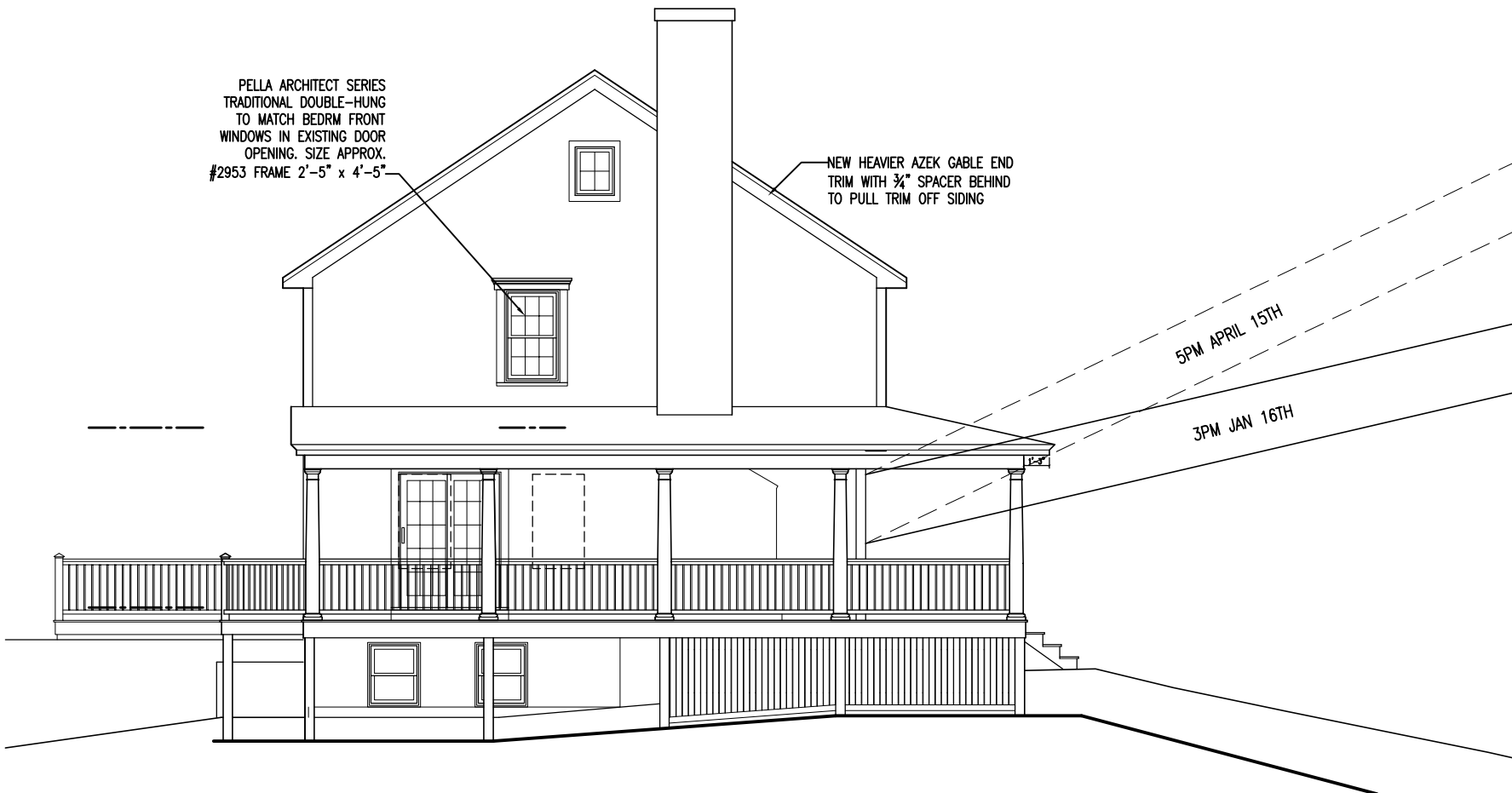
KITTERY, MAINE 03904

207-604-6848

CHRIS & ANITA MIHOK

11 CEDAR POINT ROAD

DURHAM, NH 03824



PELLA ARCHITECT SERIES
 TRADITIONAL DOUBLE-HUNG
 TO MATCH BEDRM FRONT
 WINDOWS IN EXISTING DOOR
 OPENING. SIZE APPROX.
 #2953 FRAME 2'-5" x 4'-5"

NEW HEAVIER AZEK GABLE END
 TRIM WITH 3/4" SPACER BEHIND
 TO PULL TRIM OFF SIDING

5PM APRIL 15TH

3PM JAN 16TH

CHRIS & ANITA MIHOK

11 CEDAR POINT ROAD
 DURHAM, NH 03824

ARILDA DESIGN

www.arilda.com

9 ADAMS LANE, UNIT 2
 KITTERY, MAINE 03904
 207-604-6848

**Proposed
 Left Side Elevation**

date: Aug 3, 2018

scale: 1/8" = 1'-0"

Please mail the completed form and required material to

RECEIVED

JAN 08 2019

New Hampshire Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
19 Pillsbury Street, Concord, NH 03301-3570

DHR Use Only	
R&C #	10351
Log In Date	1/8/19
Response Date	1/9/19
Sent Date	1/10/19

Request for Project Review by the New Hampshire Division of Historical Resources

- This is a new submittal
- This is additional information relating to DHR Review & Compliance (R&C) #:

GENERAL PROJECT INFORMATION			
Project Title	Proposed Covered Porch and Deck		
Project Location	11 Cedar Point Road		
City/Town	Durham	Tax Map	12
		Lot #	1-25
NH State Plane - Feet Geographic Coordinates: (See RPR Instructions and R&C FAQs for guidance)	Easting	-7887888.73	Northing 5331576.13
			<i>Default Coordinates</i>
Lead Federal Agency and Contact (if applicable) (Agency providing funds, licenses, or permits)		1200083	230097
Permit Type and Permit or Job Reference #			
State Agency and Contact (if applicable)	New Hampshire Department of Environmental Services - Wetlands Bureau - Mr. David Price		
Permit Type and Permit or Job Reference #			
APPLICANT INFORMATION			
Applicant Name	Anita and Christopher Mihok		
Mailing Address	11 Cedar Point Road	Phone Number	(201) 841-2855
City	Durham	State	NH
	Zip	03824	Email
			empennage@live.com
CONTACT PERSON TO RECEIVE RESPONSE			
Name/Company	Mission Wetland & Ecological Services, LLC - Sergio Bonilla, PWS, CWS		
Mailing Address	P.O. Box 4028	Phone Number	(603) 361-3204
City	Portsmouth	State	NH
	Zip	03802	Email
			missionwetland@gmail.com

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at christina.st.louis@nh.gov or 603.271.3558.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

10351

Project Boundaries and Description

- Attach the relevant portion of a 7.5' USGS Map (photocopied or computer-generated) **indicating the defined project boundary.** (See RPR Instructions and R&C FAQs for guidance.)
- Attach a detailed narrative description of the proposed project.
- Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.)
- A DHR file review must be conducted to identify properties within or adjacent to the project area. Provide file review results in **Table 1** or within project narrative description. (Blank table forms are available on the DHR website.)
File review conducted on 1 / 4 / 19.

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? Yes No
If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s): 1995

- Photographs of **each** resource or streetscape located within the project area, with captions, along with a photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

Archaeology

Does the proposed undertaking involve ground-disturbing activity? Yes No
If yes, submit all of the following information:

- Description of current and previous land use and disturbances.
- Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

DHR Comment/Finding Recommendation *This Space for Division of Historical Resources Use Only*

Insufficient information to initiate review. Additional information is needed in order to complete review.

No Potential to cause Effects No Historic Properties Affected No Adverse Effect Adverse Effect

Comments: Future Submissions must provide NH State Plane - Feet Geographic Coordinates as specified on this form and in the instructions.

If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature: Nick Miller, DSHRO Date: 1/9/19



NEW HAMPSHIRE NATURAL HERITAGE BUREAU
NHB DATACHECK RESULTS LETTER

To: Sergio Bonilla, Mission Wetland & Ecological Services, LLC
P.O. Box 4028
Portsmouth, NH 03802

From: NH Natural Heritage Bureau

Date: 12/19/2018 (valid for one year from this date)

Re: Review by NH Natural Heritage Bureau of request submitted 12/12/2018

NHB File ID: NHB18-3804

Applicant: Christopher J. and Anita C.
Mihok

Location: Durham
Tax Maps: Map 12, Lot 1-25

Project Description: Construction of covered porch with modifications to existing deck on rear of residence. Perimeter drain and rain garden installation to offset new impervious.

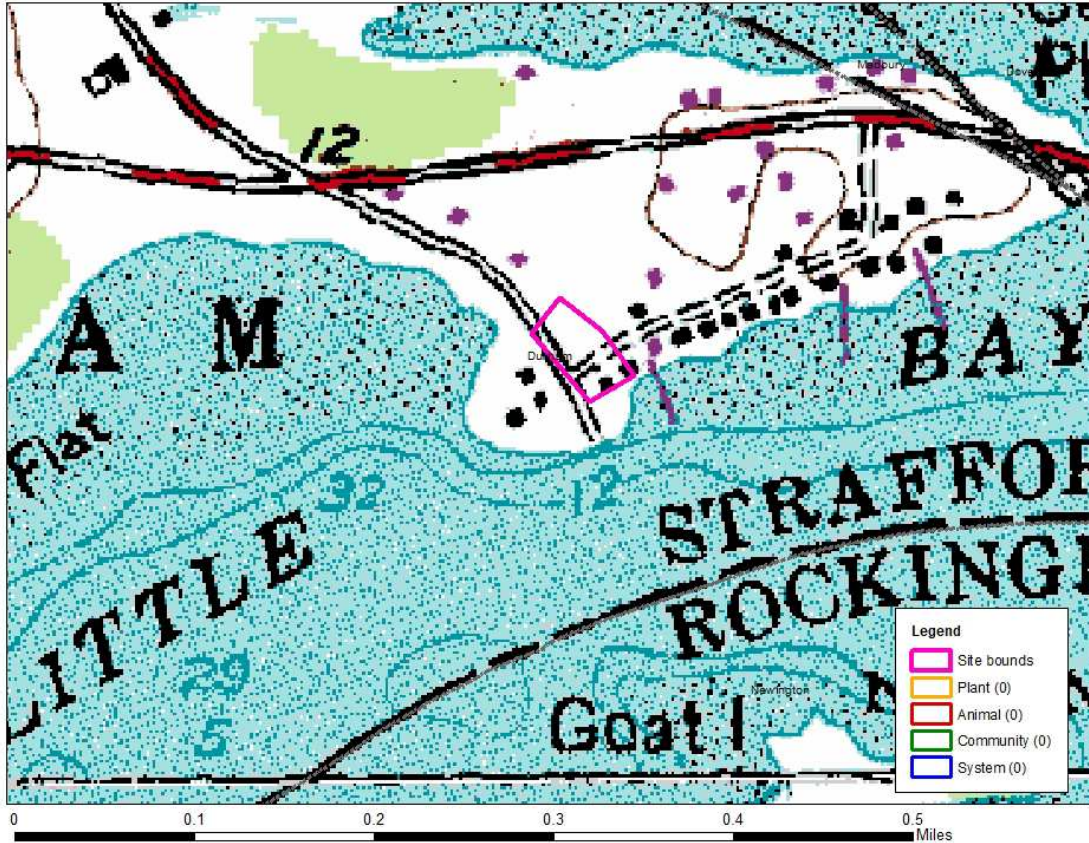
The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 12/12/2018, and cannot be used for any other project.



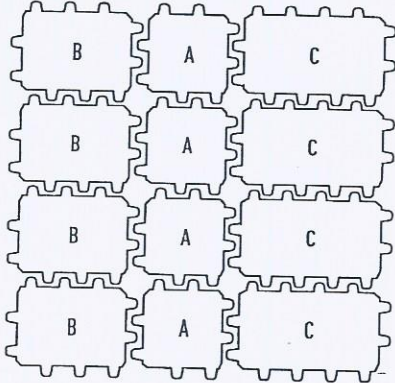
MAP OF PROJECT BOUNDARIES FOR: NHB18-3804

NHB18-3804





Pallet Overview



Specifications per pallet

	Imperial	Metric
Cubing	72 ft ²	(6.70 m ²)
Weight	2,470 lb	(1,120 kg)
Number of rows = 8	9 ft ² /row	(0.84 m ²)/row



Unit dimensions

	Thickness	Width	Length	in	(mm)	Units / pallet
	3.15	8.97	8.97	(80)	(228)	32 units
	3.15	8.97	12	(80)	(305)	32 units
	3.15	8.97	14.96	(80)	(380)	32 units

Applications

Pedestrian or light vehicular traffic, residential driveways, patios and swimming pool decks.

Product description

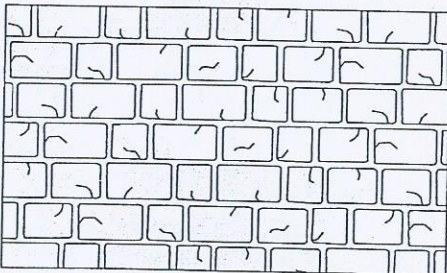
The use of permeable pavement systems throughout the world has proven effective in reducing storm water runoff, while increasing infiltration rates as it returns the water to nature.

Notes

See page 84 for the Permea Paver Installation Guide.

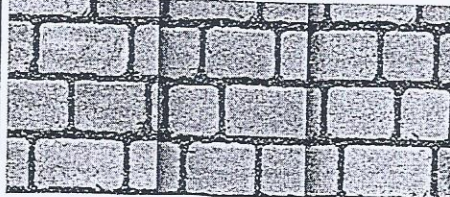
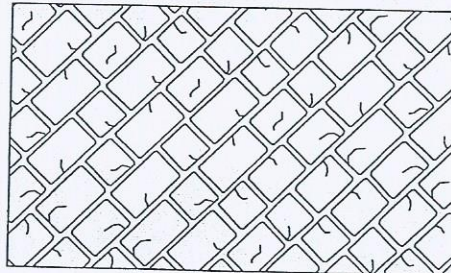


Linear pattern

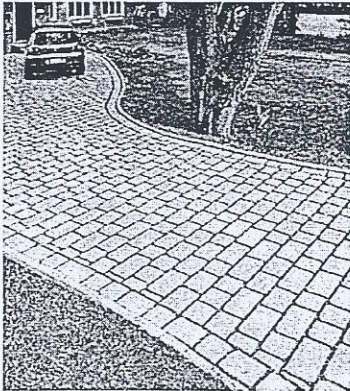


It is preferable to lay the paving stones in a linear configuration.

Linear pattern at 45°



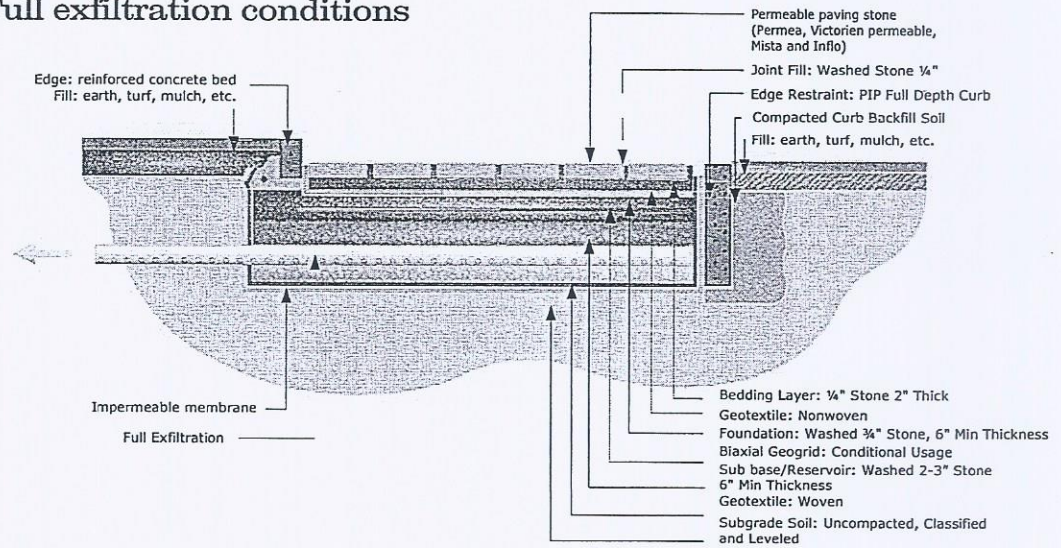
Permeable Installation guide



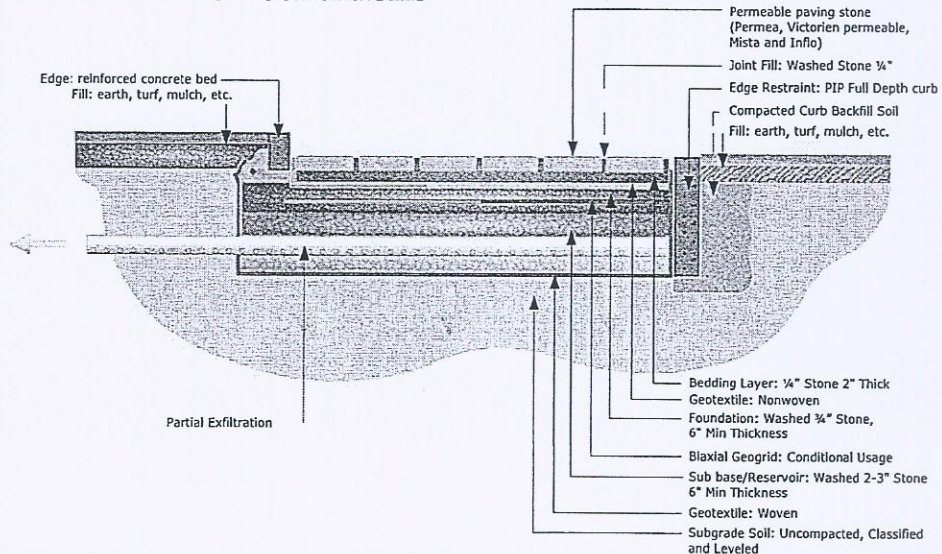
THE USE OF PERMEABLE PAVEMENT SYSTEMS THROUGHOUT THE WORLD HAS PROVEN EFFECTIVE IN REDUCING STORM WATER RUNOFF, WHILE INCREASING INFILTRATION RATES AS IT RETURNS THE WATER TO NATURE. OF COURSE IT ALSO PROVIDES OTHER ECONOMIC, ENVIRONMENTAL, AND CULTURAL BENEFITS.

BECAUSE OF THE IMPORTANCE OF THESE SYSTEMS, TECO-BLOC RECOMMENDS THAT A CIVIL ENGINEER OR LANDSCAPE ARCHITECT WHO UNDERSTANDS THE SYSTEM AT HAND BE CONSULTED TO ENSURE ALL THE BENEFITS INHERENT IN PERMEABLE PAVEMENT ARE SECURED. HE OR SHE SHOULD BE CAPABLE OF UNDERSTANDING AND MANAGING STORM WATER MANAGEMENT, RUNOFF AND INFILTRATION, SOILS CLASSIFICATION, BEARING CAPACITY, ETC. SPECIAL ATTENTION SHOULD BE PAID TO PERMEABLE PAVEMENT SYSTEMS LOCATED ADJACENT TO FOUNDATIONS, OTHER SUBTERRANEAN STRUCTURES, SUCH AS WELLS AND SEPTIC TANKS, AND LAND TOPOGRAPHY.

PERMEABLE PAVING SYSTEM Full exfiltration conditions

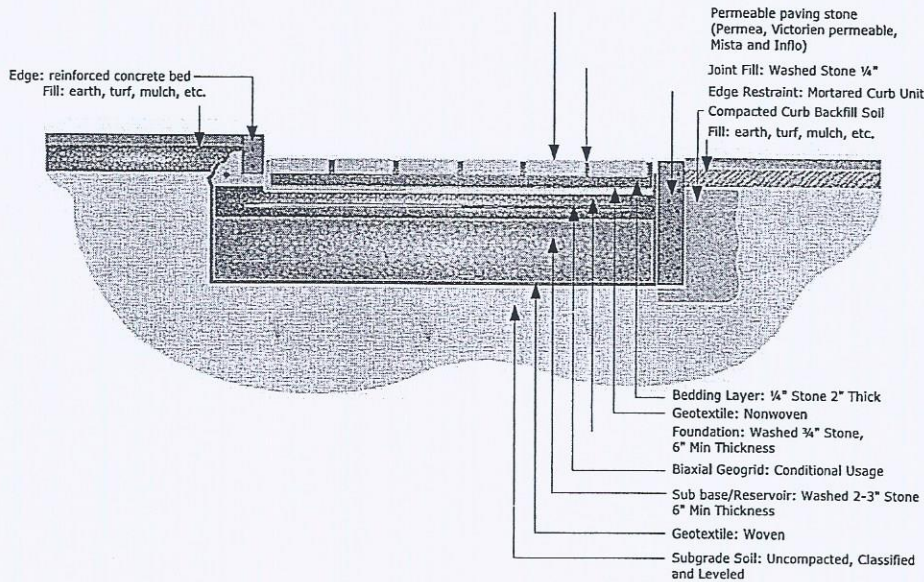


PERMEABLE PAVING SYSTEM Partial exfiltration conditions



PERMEABLE PAVING SYSTEM

Full infiltration conditions



INSTALLATION OUTLINE

01 DATA COLLECTION

- Determine size, shape, and intended use of finished areas (i.e., residential driveways, commercial or secondary parking, etc.).
- Classify sub-grade soils.
- Document all existing conditions (i.e., fixed points, existing grades, site contours, etc).
- Document type, location, and elevation of below-grade and overhead utilities, both public and private.
- Identify public services beforehand, based on their utility classifications.



02 PROJECT DESIGN

- Using a sample cut, determine the application type and material and membrane structure to be used for construction.
- Determine the final aggregate grade elevations.
- Establish the type, location, and elevation of relief structures if required (i.e., overflow pipe discharging to rain garden, etc.).
- Minimum 2% grade on swales for emergency run-off.
- Determine curb or edge type, elevation, and location.
- Choose the configuration: pattern can be running bond, herringbone or random, laid at a 45-degree angle.

03 EXCAVATION

- Notify Utility companies likely to have buried lines two weeks in advance of digging (electric, gas, aqueduct, etc.).
- Establish Erosion & Sedimentation (E&S) Control measures.
- Stake out work site using offsets.
- Remove soils to sub-grade per design recommendations.
- Excavated footprint should include the area for curbing and edge restraint (typically 1 to 1.5 times beyond).
- Care should be taken to not "over traffic or over work" sub-grade soils, as this could cause compaction and poor infiltration, especially with the use of rubber tired equipment on cohesive soils such as clays.

04 GEOTEXTILE ⁽¹⁾

- Use woven geotextile that meets design criteria (Mirafi HP 370 minimum or approved equivalent).
- Use right sized (width) rolls for project.
- Install geotextile over uncompacted sub-grade soil and return up the sides of the excavated area.
- Subsequent passes should be overlapped 24" to 36" (60 cm to 1 meter). Overlapping should be "shingle" style with respect to any slope direction and base stone distribution direction.
- Keep properly tensioned, eliminate wrinkles, avoid damaging fabric (no spikes).
- Keep equipment from direct contact during base placement.

05 EDGE RESTRAINT (CURB TYPE)

- Curbs can be flush with top of finished permeable pavements or raised.
- Curbs can be poured in place (PIP) concrete. We also recommend the use of Belgik, Pietra, Avignon and Tundra.
- Installed according to specifications.
- When placing pre-cast units, redi-mix concrete is required to maintain alignment and integrity.
- For applications such as driveways, we recommend that the edge restraints be installed in a redi-mix concrete and reinforced with reinforcing steel.

06 BASE

- The base shall be made of ¾" (20 mm) washed stone and could be extracted from a 2-3" (50-80 mm) fabric or stone.
- Prevent contamination from fines and debris.
- Base depth is relative to soil type, water (rain) volume and desired infiltration rate (of sub-grade), and desired holding capacity. Minimum thickness of 6" (15 cm); if over 12" (30 cm) consult an engineer.
- Install without distorting or damaging geotextile fabric.
- Install in 4" to 6" (10 to 15 cm) lifts and compact with a 10 ton static roller (do not vibrate) using a minimum of 4 passes.
- Bearing capacity of base can be increased with internal layering of Mirafi HP 370 fabric or equivalent (consult your engineer for more details).
- Maintain uniform thickness in lift placements with an allowable maximum tolerance of +¾" to ½" (1 to 2 cm) deviation from the intended elevation.
- Top of base elevation should not deviate from intended design plan by more than ⅜" (1 cm)

07 GEOTEXTILE ⁽²⁾ – CHECK STEP #4

- Install geotextile fabric on top of base prior to setting bed installation. Use same type as specified between sub-grade and base.
- Prevents migration of setting bed material into the open graded base stone.
- Keep fabric tensioned and prevent damage and distortion (no holes from spikes).



08 SETTING BED

- 1/4" (7 mm) clean stone.
- Prevent contamination from fine aggregates and debris.
- Install to a 2" (5 cm) stone thickness, which will serve as setting bed.
- Compact using the 10 ton static roller (no vibration); minimum 4 passes.

09 PAVING

- Lay units to designated laying patterns. Permea, Mista and Victorien Permeable units have lugs on each side to maintain consistent joint width.
- In sloped applications, start laying from bottom in uphill direction.
- If level, start where maximum production can be achieved.
- In vehicular applications, pattern strength will increase if laying pattern is at 45 degrees to traffic flow (minimize use of horizontal joints as much as possible).
- When using cut pieces, maintain joint.
- Avoid using pieces less than 3/4" (2 cm) wide.

09.1 BORDER

- Use of concrete paving stone products such as Olympia, Villagio Grande, Blu 80 mm, Victorien 80 mm should be in accordance with the rules of good workmanship.

Permeable Installation guide

10 EDGE RESTRAINT

- Pour concrete curb to bottom of excavation or top of base, compacted as per specifications.
- Place Belgik, Pietra, Avignon and Tundra to desired grade on redi-mix concrete.
- Reinforce redi-mix behind curb to a minimum 6" (15 cm) taper.
- For applications such as driveways, we recommend that the edge restraints be seated in a redi-mix concrete and reinforced with reinforcing steel.

11 JOINT FILL

- 1/4" (7 mm) clean stone.
- Prevent contamination from fine aggregates and debris.
- Sweep stone to fill joints.
- Vibrate with a 5000 lb. (2268 kg) centrifugal force rated machine to ensure jointing stone consolidation.
- Sweep and vibrate again as needed to establish completely filled joints.
- Use "Putty Knife" test to ensure joints are full.
- Avoid damage to permeable paving units from compactor by use of rubber roller kits plate pads, etc.

12 POST INSTALLATION PROTECTION

- Prevent contamination of your porous (permeable) pavement system from fine aggregates and debris by maintaining Erosion & Sedimentation (E&S) measures at the perimeter.
- Remove clogged joints and replace (when necessary).



6. Design criteria

The design of a permeable paving system is based on site conditions, including, without limitation, rainfall data, topography, soil characteristics, the height of the water table and bedrock surface, tributary runoff surface and proximity to water supply wells.

The main factors to be considered are:

- Soil infiltration rate should be at least 0.49 in./hr (12.5 mm/hr) where the system is designed for complete infiltration.
- The underside of the system must be at least 2' (0.6 m) above the water table and bedrock.
- The permeable pavement system should be located at a distance of at least 98' (30 m) from water supply wells.
- The paved surface must have a grade of at least 1% and most preferably not more than 5%. The slope of tributary runoff area should not be greater than 20%.
- The ratio between the tributary runoff area and the permeable pavement area should not exceed 5 to 1.
- The void space of the clean stone composing the base and subbase should be no less than 32%, but preferably 40%.
- The percolation rate measured in situ should be understated by at least 2 to account for the long-term reduction of the soil's absorption capacity.
- A maximum drain time of 48 hours is recommended. In situations where rainfall is greater than the design flow rate, an overflow system directs runoff to the drainage network.

7. LEED credits

The U.S. Green Building Council (USGBC) is a non-profit organization promoting the implementation of sustainable projects through the Leadership in Energy and Environmental Design (LEED®) certification program. TECHO-BLOC permeable pavement solutions can directly contribute to obtaining LEED credits in the following categories:

SUSTAINABLE SITES			
CREDIT 6.1	STORMWATER MANAGEMENT	Quantity Control	1 POINT
CREDIT 6.2	STORMWATER MANAGEMENT	Quantity Control	1 POINT
CREDIT 7.1	HEAT ISLAND EFFECT	Non-roof	1 POINT
MATERIALS AND RESOURCES			
CREDIT 5.1	REGIONAL MATERIALS	10% Extracted, Processed and Manufactured Regionally	1 POINT
CREDIT 5.2	REGIONAL MATERIALS	20% Extracted, Processed and Manufactured Regionally	1 POINT (in addition to Credit 5.1)

TECHO-BLOC permeable pavements can contribute to obtaining up to 3 points in the Sustainable Sites category and up to 2 points in the Materials & Resources category.

8. FAQ

1. For what type of traffic can segmental permeable pavement be used?

In general, segmental permeable pavements are suitable for use in low speed areas not exposed to heavy vehicles, such as parking areas, driveways, bike paths, walking paths, patios and playgrounds. However, TECHO-BLOC's Inflo system is designed for applications in larger areas with higher traffic, such as residential streets, parking lanes, storage areas and sidewalks.

2. How much water can be absorbed by a permeable pavement system?

The absorption capacity of the system is based on the infiltration rate of the soil on the site and the clean stone materials (joints, bedding, base and subbase). The soil infiltration rate is an indicator of potential water infiltration directly into the soil and determines the type of system design (complete or partial infiltration). The materials used in the construction of permeable pavements have higher infiltration rates than natural soil. The initial surface infiltration rate of the segmental permeable pavements is very high. The system allows the infiltration of precipitation with intensity lower than the surface infiltration rate or until the water storage capacity in the clean stone reservoir is reached. In a well-designed system, water storage capacity is rarely reached.

3. Can the segmental permeable pavement system perform well in a winter climate?

Yes, in order to ensure their performance in winter weather, TECHO-BLOC permeable pavement products are manufactured to meet, in addition to ASTM C936, CSA A231.2-06 requirements for withstanding freezing and thawing with de-icing salt. Experience with segmental permeable pavements in cold climates has demonstrated the absence of heaving. A maximum drain time of 48 hours is recommended and the water that may have accumulated in the clean stone reservoir should be evacuated within this time frame. The insulating factor of the air found in the system greatly reduces the frequency of freezing. However, in the event that water freezes before it is evacuated, the space between reservoir aggregates allows sufficient room to accommodate the expansion caused by freezing water and the risk of heaving is thereby minimized. Ultimately, the segmental permeable pavement system is flexible enough to tolerate minor movements.

4. What kind of maintenance is recommended for the segmental permeable pavement?

Regular cleaning will help maintain a high enough surface infiltration rate to allow rainwater to soak through the joints. At least one inspection and cleaning should be performed during the first year of service and thereafter as required. Cleaning is recommended when the surface infiltration rate is less than 9.8 in./hr (250 mm/hr), or 99%. Cleaning can be done with a vacuum adjusted to minimize the removal of joint filling material. In winter, snow removal can be done as for any other type of paving, but it is still recommended that snow removal blades be covered with a protective coating and raised 1" (25 mm). Segmental permeable pavements require less de-icing material than conventional pavement. Since melted water does not accumulate, it will not re-freeze on the surface. It is not recommended to spread sand for traction, as this may clog the joints; instead, spread the same aggregate used for filling joints.

LEGEND

 TECHO-BLOC WARRANTY	 STONEDGE WARRANTY	 DE-ICING SALT RESISTANT	 PERMEABLE	 HIGH DEFINITION & DENSITY TECHNOLOGY
 RESIDENTIAL PEDESTRIAN	 RESIDENTIAL LIGHT TRAFFIC	 ICI PEDESTRIAN	 ICI LIGHT TRAFFIC	 ICI ROAD TRAFFIC