

AGENDA

Wednesday

March 18, 2015

**TOWN OF EASTHAM
BOARD OF SELECTMEN
WORK SESSION AGENDA
Wednesday, March 18, 2015
2:30 PM**

Location: Timothy Smith Room

2:30PM	Proposed Regulations and Fees for Boat Storage at Ponds and Landings – Shana Brogan, Conservation Agent, Mark Powers, Recreation and Beach Services Director, and Neil Andres, DPW Superintendent	
2:45PM	Proposed Changes to Mooring Regulations and Policies - Shana Brogan, Conservation Agent and Neil Andres, DPW Superintendent	
3:00PM	Review Request for LIP Status for Affordable/Market Housing Subdivision Proposed on Land at 2780 Nauset Road, Map 5 Parcel 24 & 36, District G	
Minutes:	March 2, 2015	Regular Meeting
	March 2, 2015	Board of Water Commissioners Meeting
	March 4, 2015	Work Meeting

Upcoming Meetings

<i>Monday, April 6, 2015</i>	<i>5:00PM</i>	<i>Regular Meeting</i>
<i>Wednesday, April 8, 2015</i>	<i>2:30PM</i>	<i>Work Session</i>
<i>Wednesday, April 15, 2015</i>	<i>5:00PM</i>	<i>Public Hearings:</i> <i>Capital Improvement Plan,</i> <i>Annual Town Meeting Warrant</i> <i>By-law Changes Proposed in Warrant</i>

**Per the Attorney General's Office: The Board of Selectmen may hold an open session for topics not reasonably anticipated by the Chair 48 hours in advance of the meeting.*

**If you are deaf or hard of hearing or are a person with a disability who requires an accommodation, contact Laurie Gillespie-Lee, 5900 x207*

Eastham Natural Resources

555 Old Orchard Road
Eastham, MA 02642



508-240-5972
Fax 508-240-6687

MEMO

To: Sheila Vanderhoef, Town Administrator

From: Shana Brogan, Conservation Agent
Michael O'Connor, Harbormaster

SB
WTO

Date: March 11, 2015

Re: Proposed Fee Implementation for Vessel Storage

The Natural Resources Department proposes to implement a fee of \$50.00 for storage of vessels (dinghies, canoes, kayaks, windsurfers) on Town property. Since 2012, the department has issued free permits for vessel storage in designated areas. The demand for such storage has far exceeded the available space. This fee is in an effort to reduce the amount of stored vessels and interest those who will utilize the convenience of vessel storage most. The fee is not proposed to apply to mooring holders with valid commercial shellfish permits who wish to use the storage area for a tender to their mooring. The proposed fee is the same cost as mooring a boat under 16' in length or mooring a swim float. The fee will also off-set additional dedicated time by resource officers issuing permits, monitoring storage areas, enforcement of vessel storage regulations and salvage and retrieval of abandoned and adrift vessels.

Eastham Natural Resources

555 Old Orchard Road
Eastham, MA 02642



508-240-5972
Fax 508-240-6687

MEMO

To: Sheila Vanderhoef, Town Administrator

From: Shana Brogan, Conservation Agent *SB*
Michael O'Connor, Harbormaster

Date: March 11, 2015

Re: Proposed Vessel Storage Regulation Revisions

The Natural Resources Department proposes to revise the existing vessel storage regulations (dinghies, canoes, kayaks, windsurfers) on Town property. The revisions reflect the proposed implementation of a fee to off-set the limited space availability. Additional revisions include a storage permit for one location and removal of Collin's Landing as an option for storage given the traffic difficulties and lack of space in the summer months. The last revision limits storage of vessels to two per household so as to provide storage opportunities to as many applicants as possible.

Town of Eastham Policy Guidelines Vessel Storage Regulations and Policies

1.0 Authority

The Board of Selectmen, through the authority derived from MGL Chapter 91 (Waterways) hereby adopts a set of guidelines for Eastham's vessel storage.

2.0 Purpose:

The Town of Eastham vessel storage regulations have been established in order to provide effective utilization of the Town's coastal and inland water venues. This shall be done by controlling the placement of all vessels, establishing delineated spaces and annual removal. This will ensure that the environment and the locales be protected for all to benefit from in the future.

3.0 Definition of a Vessel

"Vessel" A vessel is every description of watercraft used or capable of being used as a means of transportation on the water.

Vessels permitted to be stored under these regulations shall be no longer than twelve (12) feet in length except for canoes, kayaks, wind surfers, or paddle boards.

4.0 General Regulations:

- 4.1 Unless a vessel owner secures written permission from the Harbormaster or his/her designees for a proven need and that the vessel be actively used, no vessel shall be stored or placed on the Town's property between November 15th and April 15th of the following year. Any vessel placed or remaining between those dates shall be considered abandoned property under this regulation, and will be scrapped or otherwise disposed of by the Town. The Town of Eastham shall not be responsible for damage to or theft of any vessel on Town property or for loss of property considered abandoned under this regulation.
- 4.2 **A permit is required annually before any vessel shall be placed on Town of Eastham property listed below in Section 5.** All permits can be obtained at the Natural Resources/Harbor Master's office located at 555 Old Orchard Road, Eastham, MA, 02642. Office phone number is 508-240-5972
- 4.3 At no time shall vessels be placed outside of designated areas of any of the Town of Eastham parcels.
- 4.4 No vessel shall be placed as to cause damage to any Town of Eastham property.

- 4.5 Other than as may temporarily be required during launching, vessels shall not be placed on the launch ramp.
- 4.6 Trailer storage is prohibited over night on the Town of Eastham's property unless a vessel owner secures permission from the Harbormaster or his/her designees.
- 4.7 No vessels (boat, kayak, canoe, paddleboard, etc.) may be stored on Town beaches M.G.L. Chapter 88, Section 19 and Eastham Beach Rules and Regulations. All vessel storage shall be at designated areas as specifically described in Section 5.
- 4.8 A fee may be imposed for a vessel storage permit. The amount shall be determined annually by the Board of Selectmen.
- 4.9 Vessels shall be placed at only one location approved in Section 5.0. Each vessel is a separate permit. Change of location without approval from the Harbormaster and his/her designees shall result in removal of the vessel, fines and revocation of vessel permit for the year.

4.9.1 Only two vessels may be stored per household.

5.0 Town of Eastham Property List

The following is the list of the Town owned property where vessels may be stored between April 16th and November 14th (of the same calendar year). Vessels may be stored only in areas within these parcels as designated by the Harbormaster.

- 1) Map 019 / Parcel 015A: (Known as Boat Meadow)
- 2) Map 015 / Parcel 118: (Known as Hemenway Landing)
- 3) Map 012 / Parcel 319: (Known as Salt Pond Landing)
- 4) Map 014 / Parcel 097: (Known as Great Pond Landing)
- 5) Map 001 / Parcel 097: (Known as South Sunken Meadow)

Deleted: <#>Map 020 / Parcel 113:
(Known as Collin's Landing)¶

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6.0 Section D. Violations and Penalties

Pursuant to Massachusetts General Laws: Chapter 40 – (Powers and Duties of Cities and Towns), Section 21D – (Non-criminal disposition of ordinance, by-law, rule or regulation violations) the following regulations do apply:

- 6.1 Any person who violates any provision of these rules, regulations or law shall be punishable by a fine of two hundred dollars (\$200) for each offense, except where a violation takes place in an area further restricted by statute, where the penalty

shall be set by that statute. Each day's continued violation shall constitute a separate offense.

- 6.2 The foregoing regulations shall be enforced by, the Harbormaster and his/her designees and any Police Officer of the Town of Eastham.

This policy adopted by the Board of Selectmen at a public meeting held on Monday,
September 6, 2011. [Revised:](#)

Town of Eastham Mooring Regulations and Policies

1.0 Authority

The Board of Selectmen, through the authority derived from MGL, Chapter 102, (Shipping and Seamen, Harbors and Harbor Masters), Section 21, (Powers of Harbor Masters), hereby adopts a set of guidelines for Eastham's Mooring Regulations and Policies.

2.0 Purpose

The Town of Eastham mooring regulations have been established in order to provide efficient utilization of the waters of the Town, to improve the safety of moored vessels, and to provide adequate space for the enjoyment of all users of those waters. This shall be done by controlling the placement of moorings, establishing standards for mooring tackle, and with annual inspections of all mooring placed within the Town's waters.

3.0 General Regulations:

- 3.1 All motorized vessels moored in the waters of the Town of Eastham shall have properly displayed registration numbers and a valid registration certificate as assigned in the state wherein the vessel is registered; or in the case of documented vessels, the documented name of the vessel and homeport shall be displayed.
- 3.2 All moorings shall be the responsibility of the owner of the vessel and shall be maintained and installed by the owner.
- 3.3 New mooring permits shall be sold annually at the Natural Resources Department (Harbormaster's office) starting on May 1st. Renewals of mooring permits shall be done from April 1st to April 30th. Moorings not renewed by April 30th may be subject to loss of location to new applicants.
- 3.4 A mooring permit **must be obtained BEFORE** any vessel shall be moored in the Town of Eastham waters.
- 3.5 No mooring permit shall be issued to any boat owner for which there is delinquent Excise Tax demand.
- 3.6 Applications for mooring permits shall be available at the office of the Natural Resources Department, 555 Old Orchard Road, Eastham, MA, 02642; or online at:

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www.eastham-ma.gov/Public_Documents/EasthamMA_Resources/Harbor

- 3.7 Two (2) mooring tags shall be issued for each mooring. One shall be attached to the mooring buoy and the other to the chain.
- 3.8 Moorings without valid identification or incorrectly installed may be removed by the Natural Resources Department and or it's designees from the waters of the Town at the expense of the owner.
- 3.9 A mooring sticker shall be issued with the mooring tags and shall be placed on the port side of the hull, one (1) inch aft of the state registration sticker. On non-engine propelled boats and floats it shall be placed on the port side and above the water line.
- 3.10 All recreational vessels with installed toilet facilities shall have an operable Coast Guard certified Marine Sanitation Device (MSD) classified as either Type I, II, or III. Coast Guard certified devices are so labeled.
- 3.11 Mooring permits shall be issued by the Natural Resources Department for a specific owner. No mooring permit (i.e., tags or stickers) may be transferable to another person.
- 3.12 After obtaining a valid mooring permit an applicant may obtain a vessel storage permit for a vessel tender that same year.
- 3.13 Any float measuring greater than eight by six (8 ft. X 6 ft.), shall require additional permitting and approval from the Conservation Commission.
- 3.14 A Eastham Commercial Shellfish permit holder with a valid mooring permit may obtain a vessel storage permit for one vessel at no cost.

4.0 Mooring Fees

<u>Length of Vessel</u>	<u>Fee Amount</u>	<u>Fee Amount for Eastham Commercial Shellfish Permit Holder</u>
Less than Sixteen (16) feet	Fifty Dollars (\$50)	Twenty-five Dollars (\$25)
Sixteen (16) feet to Twenty-five (25) feet	Seventy-five Dollars (\$75)	Fifty Dollars (\$50)
Greater than Twenty-five (25) feet	One Hundred Dollars (\$100)	Seventy-five Dollars (\$75)

5.0 Mooring Specifications:

- 5.1 All moorings are required to be of the mushroom anchor design unless otherwise authorized by the Natural Resources Department.

ALL MUSHROOMS MUST BE BURIED. CONCRETE OR CINDER BLOCKS ARE NOT PERMITTED AS MOORING MATERIAL.

- 5.2 The minimum tackle specifications shall be as follows:

Length of Vessel (feet)	Mushroom weight: Protected Area (Nauset Marsh & Great Pond)	Mushroom weight: Non-Protected Area (Cape Cod Bay)	Chain/Shackle (inches)	Line Diameter (inches)
Under 16	50 lbs.	75 lbs	3/ 8	1/ 2
16 to 18	75 lbs.	100 lbs.	3/ 8	1/ 2
19 to 25	100 lbs.	150 lbs.	3/ 8	1/ 2
26 to 30	150 lbs.	200 lbs	1/ 2	5/ 8

- 5.3 Mooring buoys shall be of white Styrofoam, rubber, or plastic material and shall have a blue horizontal stripe. The mooring buoy shall bear the last name of the moorings owner.
- 5.4 Use of a wooden or steel winter buoy is permitted on moorings only from November 1st to April 1st.
- 5.5 The total length of the mooring – chain and pennant – shall be equal to at least three (3) times the depth of water at Mean High Water where the mooring is located. The total length of the mooring – chain and pennant - shall not exceed seventy-five (75) feet.
- 5.6 Double Anchoring (anchoring bow and stern) and trot lines are PROHIBITED without the express permission of the Harbormaster.

6.0 Mooring Areas and Placement:

- 6.1 Before placement of any mooring the Natural Resources Department and their designees shall approve the location, type and adequacy of the mooring if they deem necessary.
- 6.2 *In the waters of Cape Cod Bay the following regulations apply:*
- 6.2(a) No vessel shall be moored within the extension of the Town of Eastham's property boundaries of public bathing areas or so to interfere with swimming in said areas.
 - 6.2(b) No mooring shall be placed within a distance of one hundred twenty-five (125) feet of another mooring.
 - 6.2(c) No mooring shall be located such that the vessel when aground at low tide is a minimum of twenty-five (25) feet from all aquatic vegetation including but not limited to sedge (*Spartina*) or eelgrass (*Zostera*).
 - 6.2(d) No vessel shall be moored in a channel upstream of the point where of the width of the channel is less than one hundred fifty (150) feet at high tide as determined by the Natural Resources Department.
 - 6.2(e) No vessel shall be moored inshore of a line drawn across the mouth of Rock Harbor, Bee's River, or Hatches Creek.
 - 6.2(f) The area of Boat Meadow Creek north of a line defined by coordinates N41°48'26.4", W70°00'08.1" to N41°48'27.8", W70°00'09.5" shall be limited to mooring vessels which are twenty-one (21) feet in length or less and whose draft is less than two (2) feet.
- 6.3 *In the waters of Nauset Marsh and Town Cove the following regulations apply:*
- 6.3(a) No vessel shall be moored so as to interfere with the operation of a Town Landing.
 - 6.3(b) No vessel shall be moored so as to interfere with navigation in what is deemed the "main channel" as defined by the Natural Resources Department.
 - 6.3(c) No mooring shall be placed within a distance of fifty (50) feet of another mooring.

6.4 *In the waters of Great Pond the following regulations shall apply:*

6.4(a) No vessel shall be moored within the extension of the property boundaries of public bathing areas or so to interfere with swimming in said areas.

6.4(b) No mooring shall be placed within a distance of twenty-five (25) feet of another mooring.

7.0 Violations and Penalties:

Pursuant to Massachusetts General Laws: Chapter 40 – (Powers and Duties of Cities and Towns), Section 21D – (Non-criminal disposition of ordinance, by-law, rule or regulation violations) the following regulation does apply:

7.1 Violations of any provision of Sections 1-6 shall be punishable by a fine of two hundred dollars (\$200) and/or the loss of mooring permit, with each violation constituting a separate offense.

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This policy adopted by the Board of Selectmen at a public meeting held on Monday, September 6, 2011. Revised:



WYNN & WYNN^{PC}
ATTORNEYS

Dianna M. Gallagher
Jeni A. Landers
Jeffrey L. Madison
James M. McCarthy
Kevin P. McRoy**
Robert F. Mills
Charles D. Mulcahy
John J. O'Day, Jr.
Kevin J. O'Malley
Anthony T. Panebianco***
Raymond C. Pelote*
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Michael J. Princi
Ryan E. Prophett
Rebecca C. Richardson
Janice E. Robbins
William Rosa*
Dina M. Swanson
Andrew A. Toldo
Paul F. Wynn
Thomas J. Wynn

Of Counsel

Hon. Robert L. Steadman (Ret.)
Hon. James F. McGillen, II (Ret.)
Keough & Sweeney
William E. O'Keefe
Edward F. O'Brien, Jr.

Admitted:

*Massachusetts and Rhode Island
**Massachusetts and New Hampshire
***Massachusetts and New York



October 29, 2014

Sheila Vanderhoef, Town Administrator
Town of Eastham
2500 New State Highway
Eastham, MA 02642

RE: Gendron Construction LLC
Proposed 40B Development

Dear Ms. Vanderhoef:

Thank the Eastham's agents and you for your time and input on September 26, 2014. Following the meeting, Mr. Gendron's team reviewed and reassessed the three major areas of concern:

1. Drinking water;
2. Waste Water treatment and disposal
3. Access

While you have some reservations about this site, I believe it is an ideal site for the Town to partner with Mr. Gendron on a LIP. The NIMBY issues are minimal, and the success of the site in large part depends on our joint cooperation. Given that Eastham now has the lowest percentage of affordable housing among all of the Cape towns, a LIP would be a win/win for Eastham and Mr. Gendron and demonstrate Eastham's commitment to affordable housing.

With respect to the three key issues, I offer the following:

1. **Drinking Water**

The site is entirely within the Zone II areas of both the District G well and the Nauset Regional High School well. The two wells are approved for maximum pumping rates of 0.883 and 0.995 million gallons per day respectively so the Zone II areas are quite large.

Eastham's Ground Water Withdrawal Permit Application indicates that there is ample capacity. Estimated actual pumping rates at build out show that the current capacity and usage is only 55% of the maximum approved pumping rate for the Nauset well and 25% of the District G well. From a common sense ground water pumping perspective, Eastham and Mr. Gendron should jointly pursue approvals to

bring the Town water to the Site. We request that you reconsider your current position and work with us to provide Town water.

Mr. Gendron is prepared to install 84 individual wells on the cluster lots (7,000 to 8,000 square feet) . While this solves the water issue, Town water makes more sense.

Mr. Gendron will comply with all Board of Health regulations for installation of private wells, “all wells shall be located on the same lot as the building they serve” BOH Section II.A.1 and the set-backs set forth in BOH Section II.C.5.a (10' from the property line set-back, 50' from a septic, and 25' from subsurface drains).

Mr. Gendron will conduct water quality analysis throughout the site to demonstrate that total coliform bacteria, nitrate-nitrogen, pH conductivity, sodium, iron, and volatile organic compounds are within BOH Section 11.C.6.e. The water samples must also pass Massachusetts DEP and EPA Maximum Containment Level (MCL Standards) for these parameters.

Finally, the well pump test must demonstrate that the ground water will yield a minimum of 5 gallons per minute (BOH Section II.C.12.).

We are optimistic that water will not be an issue.

2. **Waste Water Treatment and Disposal**

Mr. Gendron will permit and construct a Waste Water Treatment System under a DEP permit greater than 10,000 gallons per day for the cluster development. Waste Water Treatment and Disposal are primarily regulated by DEP Groundwater Discharge Permit (“GDP”), although Eastham’s Board of Health has additional regulations and requirements for small Waste Water Treatment Facilities (not defined) and nitrogen loading. Our assessments is that the BOH Regulations are redundant and not as stringent as the DEP permitting requirements.

If required by Eastham, Mr. Gendron will size the system to include additional flow to meet Town needs on the adjacent site. This would be part of the LIP.

The proposed site is located within the mapped Zone II as indicated above. Zone II is defined as an area of the aquifer that contributes water to a well under the most severe pumping and recharge conditions that can realistically be anticipated (by definition 180 days of pumping at the approved yield with no recharge from precipitation).

In this case, the Waste Water Facility is proposed down gradient of all of the

wells within Zone II. The GDP requires the following:

- a. Preparation of a site specific hydrological report (that would include potential impacts to and affects of pumping the proposed on site and near by wells).
- b. Design of the treatment facility according to the DEP manual entitled "Guidelines for the Design, Construction, Operation, and Maintenance of Small Waste Water Treatment Facilities with Land Disposal."
- c. Meeting the affluent limitations calculated in accordance with DEP policy entitled "Nutrient Loading Approach to Waste Water Permitting and Disposal," which is a site specific approach, relying on the hydro geologic study that will likely require an affluent limit less than 5 mg/L nitrate-nitrogen.
- d. Several specific pollutant affluent limits apply because of the Zone 2 restrictions. The most significant is the total organic carbon ("DOC") less than 3 mg/L.
- e. If the discharge is located within a Zone II and the two year ground water travel time to the source (to be determined by hydro geologic study), more stringent limits apply, to wit, TOC less than 1 mg/L, biochemical organ demand ("BOD") less than 10 mg/L, total nitrogen and nitrate-nitrogen less than 5mg/L and disinfection that would guaranty zero fecal coliform bacteria per hundred milliliters and a 5 logs virus inactivation (i.e. 99.999% virus kill).

Mr. Gendron's team is compiling information regarding the site and will move forward with the DEP process. Again, we feel confident of designing and permitting GDP to serve the site. Waster water should not be an issue.

3. Access

We have provided you with a copy of the Court Judgment decreeing the 26' wide access to the site. We share with the Fire Department and Police Department some concerns about the turning radius and will continue to work with Eastham to lay out and construct an appropriate and safe access to the site off of the public road. We have informed you that we will work with the State to secure a secondary easement over the bike path similar to the easement granted to the Town for emergency access vehicles. Mr. Gendron feels confident that we can secure this easement for secondary and emergency access. As you are aware, the site design shows an emergency road accessing the infrastructure roads from the bike path. We feel confident the State will grant the easement and will need Eastham to accept the access and emergency access for the LIP.

All of the other issues raised at the meeting are manageable and will be taken

into account in any comprehensive permit application and LIP.

At this time, it is important for Mr. Gendron to know if the Town is willing to cooperate and continue to work with him on the project. We recognize that any LIP would be subject to obtaining the necessary GDP and approved access. The water issue will be solved with the installation of 84 wells; however, the best solution is to tie into town water.

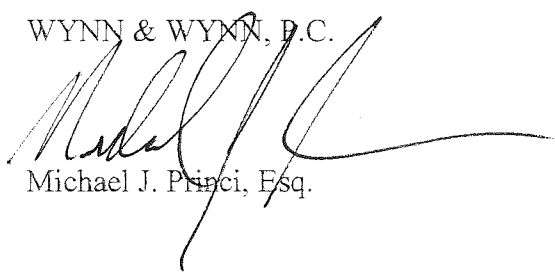
Mr. Gendron has a sincere interest in working with Eastham to bring an additional 22-23 affordable units on line within the next 3-5 years. From a market perspective, we believe that the affordable units will be sold easily. The market units will have a large number of pre-sales. Recently, several small residential units were placed on the market in Truro with strong buyer interest. Many of the market units will be sold to seasonal owners, who will not be taxing town services. We are exploring ways in which we can give an over 55 preference to the market units and town employees. The affordable units must be marketed in accordance with Massachusetts laws and regulations; however, we will take your advice as to allowable preferences.

We have pursued a cooperative process and would like the opportunity to make a final presentation to the Board of Selectman to secure a commitment for a LIP and cooperative comprehensive permit development.

I look forward to hearing from you.

Very truly yours,

WYNN & WYNN, P.C.


Michael J. Princi, Esq.

MJP:alu



TOWN OF EASTHAM

2500 State Highway, Eastham, MA 02642-2544
All departments 508-240-5900 • Fax 508-240-1291
www.eastham-ma.gov

Mike Prince
508-775-3665
x235
Called to F/U on
email
left message 11/26

TO: Eastham Board of Selectmen
FROM: Development Review Staff
DATE: November 24, 2014
SUBJ: Gendron Local Initiative Program

APPLICATION TYPE: LIP
LOCATION: 2780 Nauset Road, Map 5, Parcels 24 and 26
ZONING: District G

PLANS ON FILE:

Conceptual Site Plan, Survey of subject property, one-page summary of project prepared by applicant, Land Court decree concerning the access right-of-way.

SITE DESCRIPTION:

The subject property is an active sand mining operation, which is currently presumed to pre-date the current Zoning By-Law. It contains approximately 20.34 acres of land in two parcels. The land is remotely located at the end of a winding and narrow right-of-way (R.O.W.), said by the applicant to be 26 feet in width. The R.O.W. begins at Nauset Road at the former asphalt batching plant and terminates at the subject property. The ROW had been the subject of litigation in the Land Court, which resulted in the Court's decreeing the ROW to be valid to a width of 26 feet.

The land itself is a deep pit with very steep side slopes. A site inspection on 11/13/2014 indicated a variety of materials are currently stored on the property, including broken and painted concrete, a stockpile of unknown material, and a large stockpile of stumps and cut trees. Several businesses appeared to be using the pit in some manner.

PROJECT DESCRIPTION:

This application is for consideration by the Eastham Board of Selectmen to join with applicant Gendron to participate in the Local Initiative Program, a program of the Massachusetts Housing Partnership to encourage the creation of affordable housing.

The concept presented by the applicant is to construct the following:

1. 85 detached single-family homes
2. An access roadway on the subject property
3. An advanced wastewater treatment facility

ZONING BY-LAW PROVISIONS:

District G is intended to accommodate water resource protection uses and very low density residential use. The proposed density is substantially not conforming to these objectives. The applicant has indicated that the quality of the discharge water will be superior overall to the aggregate water quality from a collection of individual standard Title V systems. No engineering documentation has yet been presented to verify this claim.

STAFF COMMENTS:

Municipal staff from the departments of Building, Fire, Health, Planning, Police, and Public Works have collectively reviewed the conceptual plans and offer the following comments:

ACCESS AND SAFETY

1. The site is remotely located and poorly suited for 85 homes. The 1,500-foot access road is only 26 feet in width and falls significantly short of the 40 feet of width required of all land developers for residential construction, per the Town's subdivision regulations. It also substantially exceeds the length of dead-end road limit of 600 feet in the Town's subdivision regulations. The purpose of the 40' width is to accommodate two twelve-foot travel lanes and the water, electric, cable, and gas utilities (when available), which must be installed on both sides of the roadway and not beneath the pavement. A study of the curve radii has not been done but the road may also fall short of the regulations in this regard. While no indication of an intention to pave the road has been stated by the applicant, staff believes it imperative that the access road be paved.
2. The one-way-in and one-way-out arrangement is highly undesirable as it puts at risk not only the residents who would live there but also the various municipal personnel and equipment that would service this development. At the minimum, the remoteness of this site will cause police, fire and rescue personnel and equipment to be encumbered and less available for other calls while in transit over the approximately 1,500' length of roadway, plus the applicable length of on-site roadway.
3. The applicant has represented that an emergency access route over the Rail Trail Bike Path has been arranged with the Department of Environmental Management, which owns and manages the Bike Path. This has not been documented. More importantly, this is not an adequate route for a loaded fire engine, due to insufficient width, surface construction, and the presence of pedestrians and cyclists. The narrowness of the proposed access road greatly increases the importance of the adequacy of an alternative access route.
4. The site is highly vulnerable to wildfire threats, due to its remoteness and adjacency to abundant fuel for a forest fire. The location is also in a high velocity wind zone (Zone 4), which could accelerate a fire very quickly and engulf dwellings, despite a separation from the forest. The applicant should address the means to be deployed for reducing this threat. Absent a realistic plan for mitigating the threat from wildfires, it makes little sense to increase the residential density in this location.
5. It is unclear if the site can be served by the future municipal water supply system. The first phase of the system does not provide for service to this area. Thus, the flow needed to contain fires from any source is limited to what can be trucked in. In the absence of municipal water, on-site water storage tanks for fire suppression should be provided.
6. The above comments indicate that the proposed site is inappropriate for increased residential density, due to the public safety risks, which clearly

outweigh the public benefit of the proposed affordable housing, in our collective opinion.

ENVIRONMENTAL QUALITY

7. The applicant has represented an intention to install and operate an advanced wastewater treatment system to service the proposed residential development. The system is said to be capable of reducing nitrate-nitrogen concentrations in the effluent to below 3 mg/l, whereas a typical Title V system has an output of roughly 30 mg/l (19 mg/l per Eastham Board of Health regulations). A complete wastewater design and management analysis by a qualified engineer is needed to further evaluate this aspect of the project. Given the location so close to the Town's limited water supply, it is essential that an adequate back-up treatment system also be provided, to minimize the threat of degradation of the drinking water resources upon which the public welfare will depend.
8. The site currently contains material not suitable for on-site fill, which will have to be excavated and disposed of properly. No indication of this intention has been described in the project materials.

MISCELLANEOUS COMMENTS

9. There are extraordinary costs associated with this proposed development. These include:
 - a. Excavation and proper disposal of the materials now stored on the site.
 - b. Stabilization of the steep side slopes.
 - c. Preparation of the site for home sites.
 - d. Design and construction of the on-site roadway and improvements to the 1000' feet of access roadway.
 - e. Design, construction, and long-term operation of an advanced wastewater treatment system, plus an adequate back-up system.

These costs must be recovered by the sale of the dwellings, which suggests that the proposed density may increase at some point to enable project completion.

10. The concept plan shows home sites directly beneath the existing NSTAR power lines. This arrangement is unlikely, based on the historic exclusion of most land uses, especially dwellings, from the Company's rights-of-way. Any revised plan should depict the location of the power line R.O.W. and not plan for home sites within it.



*Bourne Green Development Company
Proposed 40b Development
2780 Nauset Road
Eastham, MA*

No. of Units: 85+/-

No. of Affordable: 22+/-

Description of size (e.g. no. of 2 and 3 bedroom units): 2-3 Bedroom Units (~1000-1400 SF)

Amenities: Green Space, Bike Path Access, Walking Trails Access, Proximity to Route 6

Length of Roadway into complex: 1500 LF +/-

Length of Roadways within complex: 2500 – 3000 LF

% of open space: 80% +/-

Sq. Ft' open space: 650,000 +/-

% impervious lot coverage (including pavement): 20% +/-

Sq. Ft. impervious lot coverage: 180,000 +/-

Price Range Affordable: TBD

Price Range Market: TBD

Funding Sources: Private

Brief description of the proposed WWTF – capacity, cost, location, nitrogen loading:

- 20,000 to 30,000 gpd +/- capacity*
- Located at depression within subdivision, exact location TBD, likely in a secluded area.*
- Nitrogen discharge can be 3 mg/l (ppm) or lower at a higher cost plant, most package plants can achieve 10 mg/l nitrogen discharge as compared to a septic tank that discharges 30 to 50 mg/l.*
- There is an approximate 1:8 ratio comparing nitrogen discharge limits to a single family home on a package plant vs. title 5, or an 85 unit development tied to a 5 ppm package plant is equivalent to roughly 9 similar homes with title 5 systems when looking at nitrogen discharge.*



PROPOSED SITE PLAN

scale 1" = 100'

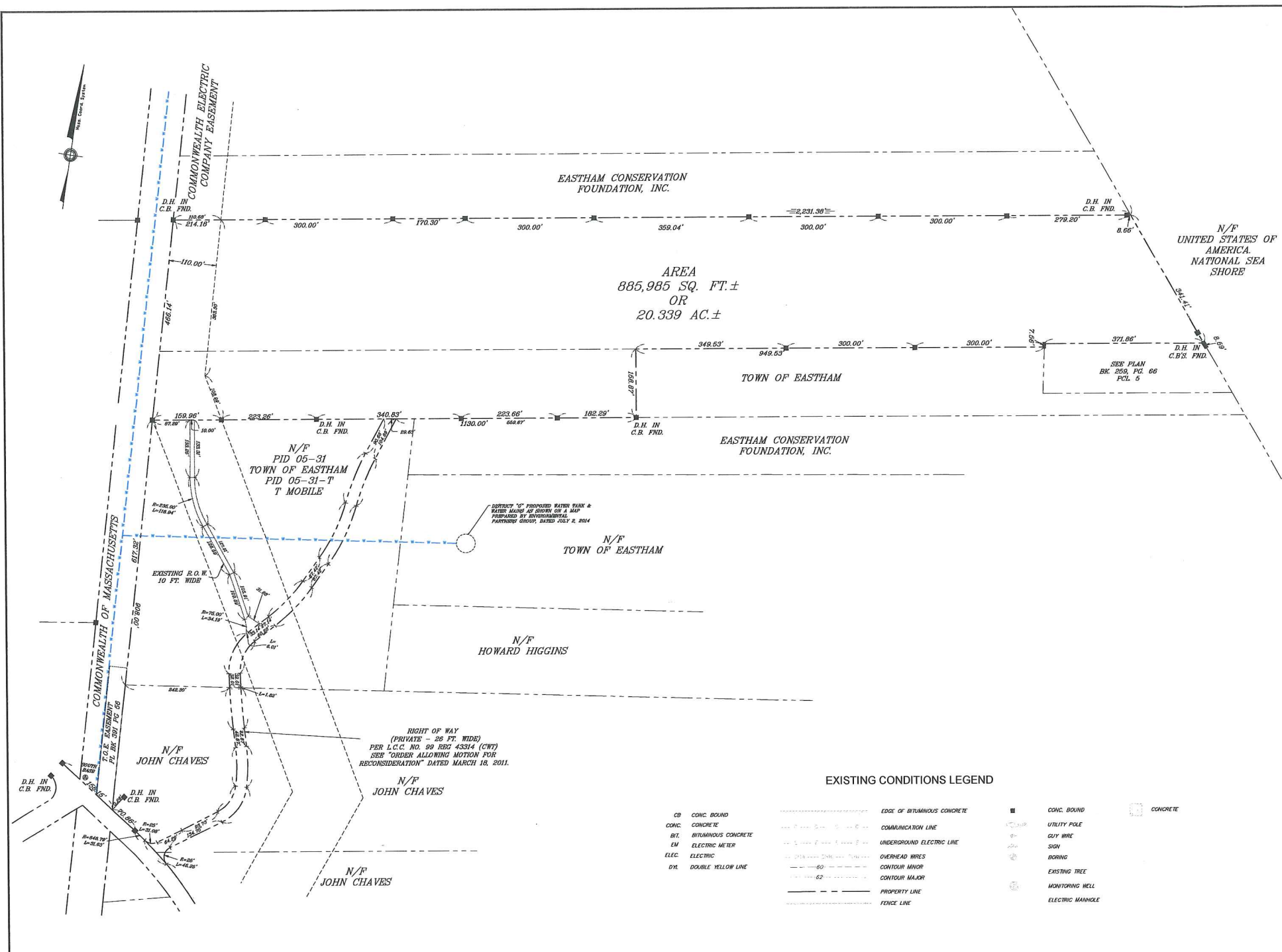
PROPOSED EASTHAM HOUSING DEVELOPMENT

2780 NAUSET ROAD EASTHAM, MA

date 8/20/14

BOURNE GREEN DEVELOPMENT COMPANY





AREA
885,985 SQ. FT.±
OR
20.339 AC.±

EXISTING CONDITIONS LEGEND

- | | | |
|--------------------------|-----------------------------|------------------|
| CB CONC. BOUND | EDGE OF BITUMINOUS CONCRETE | CONC. BOUND |
| CONC. CONCRETE | COMMUNICATION LINE | UTILITY POLE |
| BIT. BITUMINOUS CONCRETE | UNDERGROUND ELECTRIC LINE | GUY WIRE |
| EM ELECTRIC METER | OVERHEAD WIRES | SIGN |
| ELEC. ELECTRIC | CONTOUR MINOR | BORING |
| DYL DOUBLE YELLOW LINE | CONTOUR MAJOR | EXISTING TREE |
| | PROPERTY LINE | MONITORING WELL |
| | FENCE LINE | ELECTRIC MANHOLE |

LOCUS N.T.S.

Green Seal Environmental, Inc.
114 State Road, Building B
Sagamore Beach, MA 02562
Tel: (508) 888-6534
Fax: (508) 888-1506
www.gseenv.com

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REVISIONS

NO.	DATE	COMMENT
1	8/15/14	ECP

PURPOSE:

EXISTING CONDITIONS PLAN

LOCUS:

MAP: 5 PARCELS: 24 & 26
2780 NAUSET ROAD
EASTHAM MASSACHUSETTS

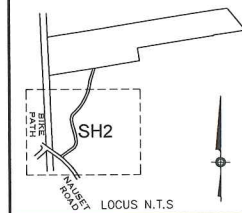
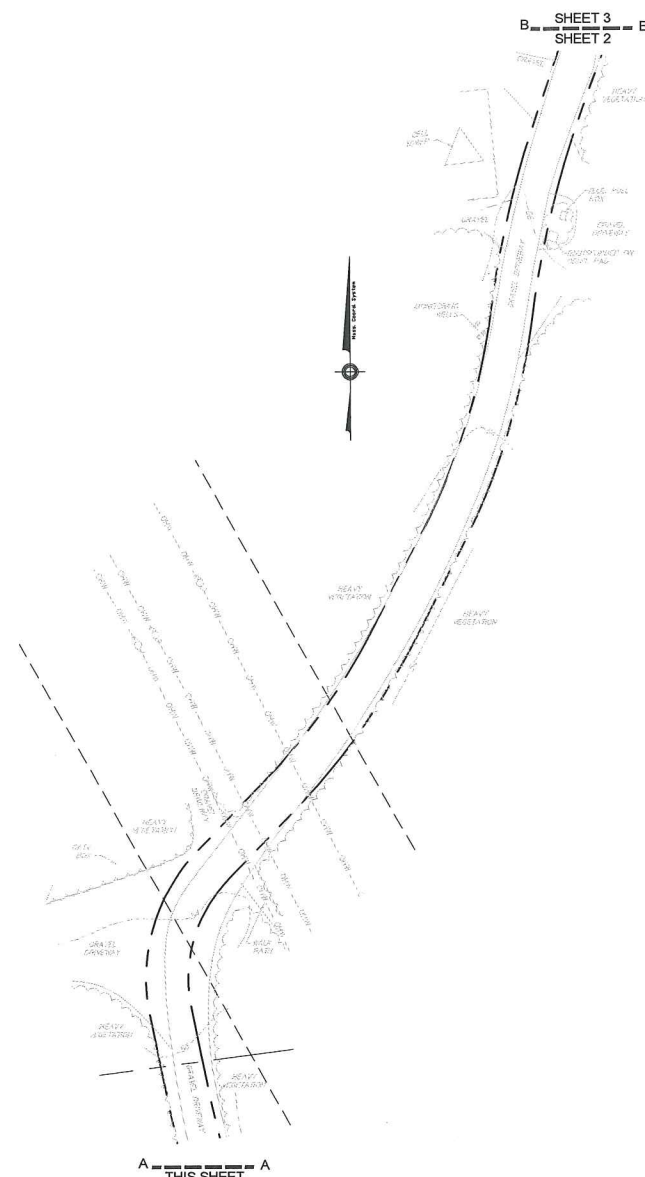
PREPARED FOR:

BOURNE GREEN
DEVELOPMENT, LLC

DRAWING TITLE:

PARCEL PLAN

CAD TECH:	CHECKED BY:
JDP	RHK
ENGINEER:	DATE:
GDJ	8/15/2014
	SCALE:
	1" = 100'
	SHEET:
	1 OF 4



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REVISIONS		
NO.	DATE	COMMENT
1	8/5/14	ECP

LOCUS:

MAP: 5 PARCELS: 24 & 26
2780 NAUSET ROAD
EASTHAM MASSACHUSETTS

PREPARED FOR:

BOURNE GREEN DEVELOPMENT, LLC

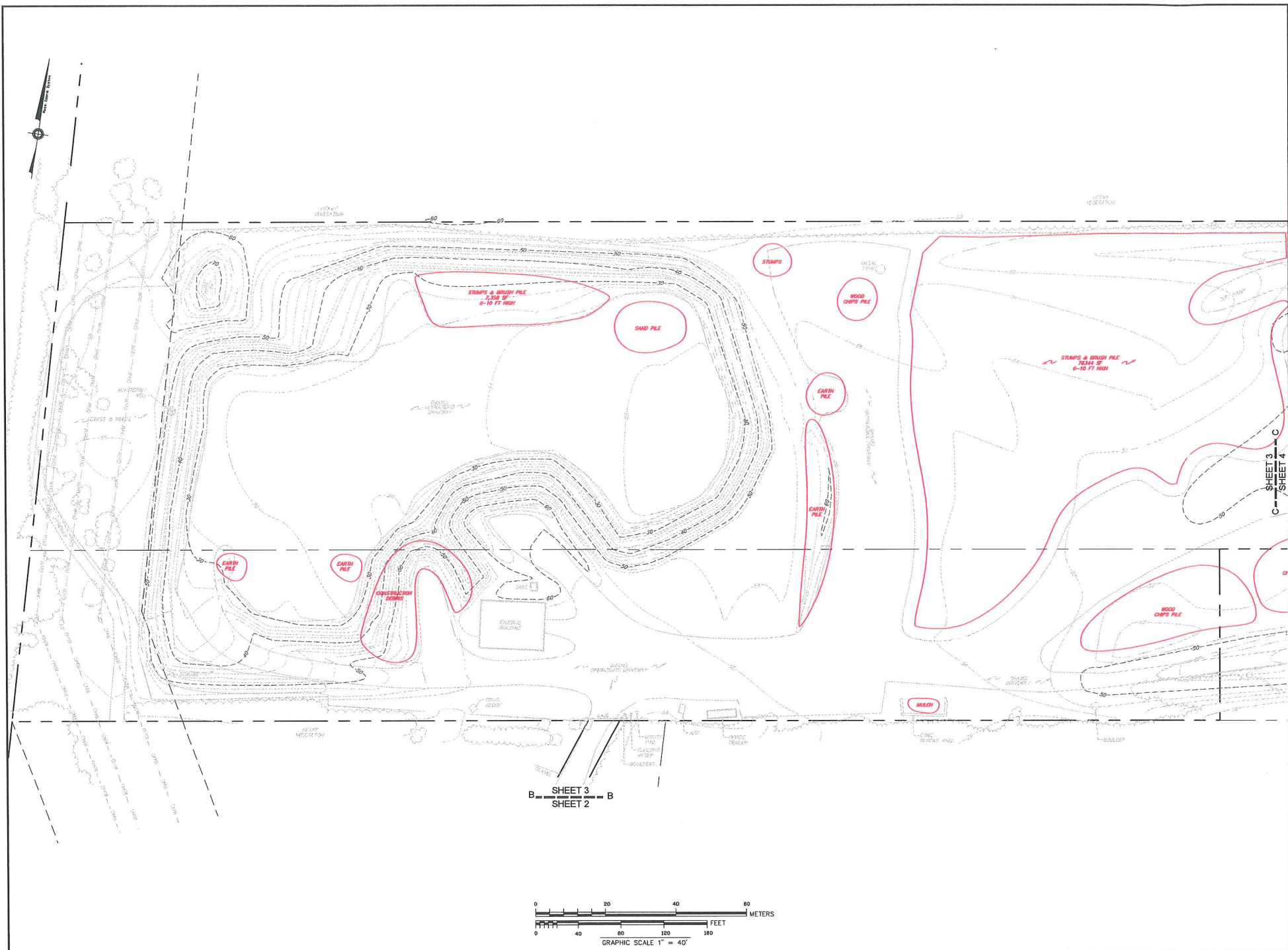
DRAWING TITLE:


EXISTING CONDITIONS PLAN

CAD TECH:	CHECKED BY:
JDP	RHK

ENGINEER:	DATE:
GDJ	8/15/2014

SCALE:
SHEET:
2 OF 4





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REVISIONS	
NO.	DATE
1	8/5/14 ECP

LOCUS:

MAP: 5 PARCELS: 24 & 26
2780 NAUSET ROAD
EASTHAM MASSACHUSETTS

PREPARED FOR:

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DEVELOPMENT, LLC

DRAWING TITLE:

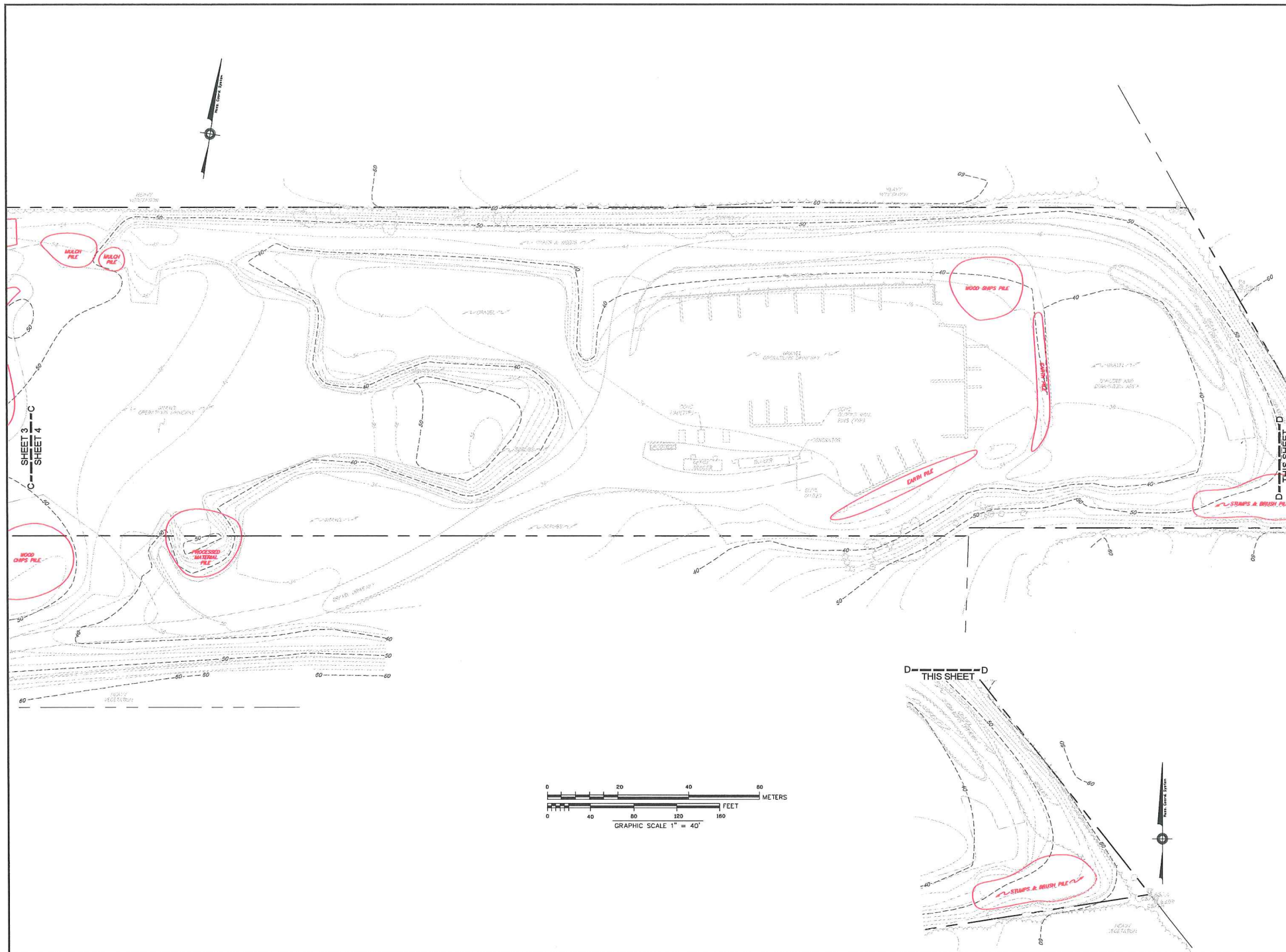
EXISTING CONDITIONS PLAN


CAD TECH:	CHECKED BY:
JDP	RHK

ENGINEER:	DATE:
GDJ	8/15/2014

SCALE:
1" = 40'

SHEET:
3 OF 4





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REVISIONS		
NO.	DATE	COMMENT
1	8/5/14	ECP

LOCUS:

MAP: 5 PARCELS: 24 & 26
2780 NAUSET ROAD
EASTHAM MASSACHUSETTS

PREPARED FOR:

BOURNE GREEN
DEVELOPMENT, LLC

DRAWING TITLE:

EXISTING CONDITIONS PLAN

CAD TECH:	CHECKED BY:
JDP	RHK
ENGINEER:	DATE:
GDJ	8/15/2014
SCALE:	
1" = 40'	
SHEET:	
4 OF 4	