

HUGHES ENVIRONMENTAL CONSULTING

44 MERRIMAC STREET, NEWBURYPORT, MA 01950
PHONE 978.465.5400 • FAX 978.465.8100
EMAIL HUGHESENV@VERIZON.NET

18 MAIN STREET, CONCORD, MA 01742
PHONE/FAX 978.369.2100

NARRATIVE ADDENDUM

to Accompany a

NOTICE OF INTENT

For

Fafard Real Estate and Development Corp.

Summit Avenue & Route 150

Amesbury, MA

January 14, 2013

Overview

As a result of input gained from the Conservation Commission, primarily through its peer reviewer, the Planning Board, and feedback during the MEPA process, the applicant, Fafard Real Estate and Development Corporation, has revised the plans for the Village at Bailey's Pond to address comments and concerns, some of which have arisen due to beaver activity that has altered the resource area boundaries. The updated boundaries have pushed the riverfront area boundary further into the site, especially on the southern end.

This addendum describes additional mitigation proposed including:

- Invasive species removal
- Soil Profile restoration
- Native Plantings
- Isolated Wetland Creation/Restoration

Current site conditions

The Project Area is located on a +/-24.5 acre site located adjacent to Bailey's Pond, with access from Beacon Street, Summit Avenue, and Route 150. The site is an abandoned gravel pit that has been used as a dumping ground with tires and miscellaneous trash located throughout the site. There is a stream that flows through a culvert under the I495 on and off ramps and Summit Avenue that discharges in the middle of the site, effectively bisecting the site. The jurisdictional resource areas on site include riverfront associated with the stream, land under water associated with Bailey's Pond, bank associated with the pond, and Bordering Vegetated Wetlands associated with the pond and the stream. Jurisdictional areas within the site account for approximately 7.25 acres of the 24.5 acre site.

Bailey's Pond, located adjacent to the site, covers approximately 12.5 acres and its water elevation is controlled by a weir structure at the south end, adjacent to an existing parking area on the north side of Merrimack Street. Overflow from the pond outletted by this structure, is piped underground, south across Merrimack Street through the former Merrimack Hat Factory building, and discharged to the Merrimack River.

In addition to the stream there are four drainage outlets which contribute offsite drainage to the project area and the pond. These outlets consist of 12- to 18-inch culverts projecting from the side slopes of the site and do not provide any stormwater detention or treatment. High stormwater flows through these culverts have caused some significant erosion at these outfalls. This erosion was observed to have undermined some of the culvert headwalls and eroded deep rills through the sandy site, depositing sediment into the pond.

The project area has been significantly altered over the years. It appears mining operations removed a significant amount of native material. As a result of these operations, the site slopes steeply down from Route 150 and Summit Avenue with a 30- to 40-foot change in elevation, and then flattens at the base, with a more moderate slope across the site. Adjacent to the pond, the slope again drops steeply 6 to 8 feet to the pond elevation. Existing ground cover consists predominantly of a weedy brush and exposed earth in most areas of the former gravel pit. Some tree stands providing forest cover existing primarily around the perimeter of the site, the pond, and stream.

The site was originally delineated by LEC in 2004. This delineation was approved under an ORAD that was included in the original submission. The ORAD had expired, and HEC re-delineated the site for the 2010 submission in the spring of 2010. The HEC delineation was reviewed on site by John Lopez on April 5, 2010. The HEC delineation was consistent with the previously approved ORAD delineation. The original hearings acknowledged the accuracy of the line as observed by Mr. Lopez. The peer review authorized by the Commission in 2010 did not begin until 2012 due to delays in drafting the reviews scope, by which time beavers had constructed three dams across the stream, leaving many of the originally delineated flags underwater. As a result of the changes, Tom Hughes of HEC met with Gillian Davies of BSC (the peer reviewer for the Amesbury Conservation Commission) and they agreed to multiple flag changes to reflect current conditions. The plan revisions show this updated resource boundary.

One important note with regard to the delineated resource areas is that the original delineation was done while an old filing was still pending under the Amesbury Wetland Bylaw that was superseded by the Wetlands Ordinance, and so an isolated wetland was flagged (the D series wetland). This isolated wetland has clearly formed as a result of tires of off road vehicles spinning out in a puddle that formed in an area where gravel had been removed down to a somewhat more restrictive material. The 4 wheeler activity caused a deeper and wider puddle. As the puddle evolved to become more or less year round, vehicles began driving around the puddle, making it bigger. The man-made nature of this wetland is documented in the HEC delineation report. The old bylaw had no provisions for ruling out isolated wetlands such as this one, but the new ordinance contains a provision that was included to allow such areas to be excluded. HEC believes that under the provisions of the new ordinance and its regulations that allow exclusions of man-made isolated pockets such as this that the wetland is not jurisdictional.

A review of the site indicates that other than a portion of the inner riparian area associated with the stream that was relatively undisturbed during gravel mining operations, topsoil has been removed from the entire site. A review of aerial photographs, and test pits conducted at the site confirms the absence of an A layer throughout most of the site. This was confirmed through numerous site visits and random augering with a hand auger. Topsoil exists within a few small areas, primarily within the inner riparian zone and in a stockpile shown on the plans about 100 feet to the south of the stream. The result has been the colonization of large portions of the site with pioneering invasive species, such as Autumn Olive. Other areas with some native species include significant populations of invasive species such as Oriental Bittersweet,

honeysuckle, and buckthorn, among others. The presence of these species is readily apparent in any site visit, and even from Summit Avenue where you can observe large sections of the canopies of trees completely overrun with Oriental Bittersweet.

Previously Developed and Degraded Riverfront

As noted in the original delineation report much of the topsoil at the site has been removed from the site, including large portions of the riverfront area, as part of its original development as a gravel pit. The Wetland Regulations, 310 CMR 10.58(5) states that “...*previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds.*” There is ample evidence that topsoil was removed from most of the 24.5 acres, including large portions of the riverfront area well before 1996, and that these areas have never been restored with topsoil. As noted above, aerial photographs document this removal of topsoil, which is confirmed by a review of available information and augering conducted by HEC during wetlands delineation and in a follow up review in November 2012, during which HEC found augured samples of surface sediments contained fine-to-medium sand in areas that had been mined as part of the gravel pit operations and an absence of an A layer. In addition, the site, including portions of the Riverfront area, has been used as dumping grounds for tires, automobile parts, and random solid waste. Recent waste such as tires and computer monitors are present, as well as older items, including partially buried tires and rims and miscellaneous partially buried trash are visible within the riverfront area.

HEC worked with Oak Consulting Group to map the areas of previously developed and degraded riverfront. Using an aerial photograph taken when the gravel pit was still active in 1966, HEC and OCG field verified that the areas shown on the aerial photograph and the areas that lacked topsoil were consistent. In addition, HEC reviewed vegetative conditions in these areas and found the biodiversity significantly compromised due to ongoing use by off road vehicles, and the impacts of invasive species to the native plant population. Adjacent native plants were also threatened by the spread of these invasives. Areas that still contain debris are included within the degraded area map attached, whether or not there was topsoil present. Aside from a small area on the north side of the stream towards Summit Avenue, the entire outer riparian area is degraded. Portions of the inner riparian area to the north are also degraded due to the lack of topsoil. To the south, most of the outer riparian zone is degraded, with the exception being an area where loam was stockpiled during gravel mining operations. Portions of the inner riparian zone are also degraded. Plans showing the degraded riverfront, Sheet C-013 and C-013A, is attached.

The combination of ongoing site dumping and the removal of topsoil have severely limited the ability of much of the Riverfront Area to function. Invasive species are limiting the ability of a diverse native stand of vegetation to take hold. Autumn Olive and Glossy Buckthorn are both known to have allelopathic leachates that both slow and reduce germination of herbaceous plants. Studies also indicate that honeysuckle has allelopathic chemicals that leach from decaying leaves. Nearly all invasive plants leaf

out earlier in the season and maintain leaves later into the fall, shading out native competition. Oriental bittersweet kills other plants by using them as a trellis upon which to grow. There are numerous studies that indicate the effect of invasive plants on biodiversity, with particular effect on limiting the herbaceous layer. The herbaceous layer in a forested setting generally makes up 80% of plant species biodiversity, contributing significantly to the uptake of nutrients and pollutants. Over time, species such as those invasive plants present on site create monocultures in the tree, shrub, and herbaceous layers by outcompeting native plants. The effect of invasive plants combined with the dumping and lack of topsoil effectively limits the ability of the riverfront area to attenuate pollutants and provide wildlife value.

Proposed Project

The notice of intent has been filed to obtain approval for alterations within jurisdictional areas associated with the overall project, which consists of the construction of 34 buildings on the ±24.5-acre site along with new roads, driveways and drainage system. Of the 34 buildings, 8 are located partially within the buffer zones along with portions of the driveways and associated grading. There are no buildings within the 50 foot buffer. There are no roadways within the 100 foot buffer. One building and a portion of the roadways are located within the outer riparian zone. Of the 17.8 acre area of work, approximately 3 acres is within jurisdictional areas, with half of those impacts temporary. There is a total of approximately 7.25 acres of jurisdictional area on site. The project has been designed to comply with the Amesbury Wetland Ordinance and Regulations, and the Wetlands Protection Act and Regulations.

Of the 3 acres of disturbance in jurisdictional areas, over half of that is temporary in nature necessary for grading or otherwise temporarily disturbed. Aside from 5,592 square feet of improvements to an existing trail and 2,858 square feet of temporary disturbance from underground utilities, there is no work proposed within the 50 foot buffer zone. Erosion controls will be placed on the resource side of the footpath. As mitigation, the proposal includes removing all invasive plants on site within the limit of work as established by the erosion controls and restoration of a significant portion of the Riverfront Area by re-establishing the soil profile and planting a diverse mix of native plants.

Foot Path

The foot path will be constructed largely within the footprint of existing dirt roadways and pathways. These existing paths average between 6 and 8 feet wide. The new walking path is proposed to be 4 feet wide. The limit of work is shown on the plans on the resource area side of the proposed path. We are now proposing to remove all invasive plants within this limit of work in addition to the riverfront restoration plans discussed below.

Utilities

In order to connect utilities within the development, it is necessary to install utility lines under the stream. Other options such as going over the culverted portion of the stream are not possible due to the steep slope and the depth of the culvert and headwall. Going

through the street is not feasible given site topography. The stream crossing will occur in a portion of the stream that has been used on an ongoing basis by off-road vehicles to drive across the stream. In this area, the stream bank has been compromised and the work can be done without causing short or long term harm to the stream or its bank. After installation of the utility lines, the stream and banks will be restored to match conditions up and down stream, effectively restoring this area to a more natural condition.

The work for the utility crossing the stream is expected to be conducted in the following manner. The stream utility crossing will be constructed during the late summer in a time of low flow and when rain is not expected. The crossing will be constructed by creating a small coffer dam around the crossing to allow excavation of the utility trench in dry conditions and prevent sedimentation from the excavation from entering the stream. Any flow from the culvert will be bypassed around the excavation area with the use of pumps. After construction is complete, the stream bed will be restored to its original depth and configuration and the coffer dams will be removed. Following removal of the coffer dams, the stream bank will be restored by placing 1 foot diameter rocks in line with the upstream and downstream bank areas with a geotextile fabric behind the rocks. The area would then be backfilled with clean loam and planted with native shrubs and a native seed mix.

Buildings

As noted above, all buildings are located outside the 50 foot buffer zone from Bailey's Pond and outside the 100 foot inner riparian zone. The locations have been determined in order to comply with the no-build requirements of the Amesbury Ordinance that require any building on a solid foundation be at least 50 feet from the resource area. Eight of the 34 buildings are located partially within the outer buffer. One of the 34 buildings is located within the outer riparian zone. The remaining 26 buildings are outside Commission Jurisdiction.

Access Road

The access road to the north clips through the outer riparian zone and is otherwise out of jurisdictional areas. There are no other options without massive amounts of fill, given the slopes from Summit Avenue. The access road on the North side of the site takes advantage of an area that was apparently used as roadway when the site was mined for gravel. To the South, the Roadway runs through the outer edge of the outer riparian zone. The majority of the roadways on site are located outside jurisdictional areas.

Grading

Grading from the Roadways extends slightly into the Outer Riparian zone, and in some areas, the project includes retaining walls to limit the area of grading. Grading from the buildings and driveways also extends into the buffer zone. In addition some grading associated with stormwater structures occurs within the outer riparian zone and the outer buffer zone. There is no grading proposed within the 25 foot implied no disturb zone set by the Amesbury Regulations. In all cases measures have been proposed for sediment

barriers and to stabilize disturbed slopes to ensure that grading does not create any alterations of resource areas.

Mitigation

Invasive Species Management

We are now proposing to remove invasive woody species from the entire Riverfront Area and all other jurisdictional areas within the limit of work as defined by the erosion controls. In areas of individual plants such as within the non-degraded portions of the riverfront, these will be removed by hand when possible, or cut and dabbed with an appropriate herbicide. In areas degraded by lack of topsoil, where the invasive plants so dominate the vegetation that any natives present are compromised, the plants will be removed by excavation or grading equipment.

Native Plantings and Topsoil Restoration

Areas devoid of topsoil, including those where invasives will be removed and those areas in the riverfront, will be cleared of all vegetation, except for healthy native trees greater than 6" dbh in size. The stockpile of loam that remains from gravel mining operations will be used and mixed with a minimum of 25% organic compost to re-establish 8 inches of topsoil and these areas will be replanted with native plants.

Outside the Riverfront Area, shrubs and small saplings from a native plant list to be provided prior to the next hearing will be planted at a minimum density of 8 feet on center, with a native herbaceous seed mix. This approach will be used in Riverfront and in the buffer zone areas that are outside the proposed landscape areas and within the limit of work.

Within the Riverfront Areas degraded due to lack of topsoil, these areas will be planted with a mix of saplings, shrubs, and herbaceous seed mixes and herbaceous plugs. The purpose of re-establishing topsoil and planting with a diverse mix of native plants is to restore the riverfront area so that it supports a healthy and diverse population of native plants that will significantly improve the functioning of the Riverfront Area. The plants and the topsoil will provide pollutant removal that is not currently occurring effectively throughout large areas of the site and the riverfront. These areas are shown on the attached mitigation area plan, sheet C-013B.

Wetland Restoration

As additional mitigation and Riverfront Restoration, the isolated wetland that is the result of tire ruts, will be turned into a functioning high value isolated wetland. The exception in the Amesbury Wetland Ordinance and the fact that the isolated wetland is not jurisdictional under the Wetlands Protection Act provides an opportunity to take a situation where there is hydrology due to the tire rutting and the restrictive soil layer, but little vegetation and value due to the lack of organic soil and significant vegetation and buffer, and create an isolated wetland within the riverfront area that performs valuable water quality and wildlife functions. The intent is to remove 6 to 8 inches of material, replace that with a rich organic soil (a blend of loam and compost) that can better provide

pollutant attenuation and supports a diverse blend of herbaceous plants. The value would be enhanced further by planting the surrounding area with small native saplings and shrubs to create an upland buffer.

Stormwater

The details of the stormwater management system are provided separately in the Stormwater Report and response to peer review comments prepared by Oak Consulting Group. It is important to note that the project design not only meets or exceeds the minimum regulatory requirement of managing stormwater generated on site. The design includes management of stormwater from off site that has been discharged to this site without treatment for decades. The end result will be an improvement in water quality, a reduction in sedimentation of Bailey's Pond, and a reduction in the rate and volume of this off site stormwater flowing directly in to Bailey's Pond.

Wetlands Protection Act

310 CMR 10.54: Bank (Naturally Occurring Banks and Beaches)

10.58(4) General Performance Standard.

(a) Where the presumption set forth in 310 CMR 10.54(3) is not overcome, any proposed work on a Bank shall not impair the following:

- the physical stability of the Bank;*
- the water carrying capacity of the existing channel within the Bank;*
- ground water and surface water quality;*
- the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;*
- the capacity of the Bank to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 50 feet (whichever is less) of the length of the bank found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.*

The project will temporarily alter an area of bank that has been altered by vehicular crossing of the stream. In this area, the bank alteration is limited, temporary, and will result in restoration of the Bank. The area of alteration is less than 10% and less than 50 feet.

310 CMR 10.55: Bordering Vegetated Wetlands (Wet Meadows, Marshes, Swamps and Bogs)

310 CMR 10.58(4) General Performance Standards.

(a) Where the presumption set forth in 310 CMR 10.55(3) is not overcome, any proposed work in a Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of said area.

(b) Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5000 square feet of Bordering Vegetated Wetland when said area is replaced in accordance with the following general conditions and any additional, specific conditions the issuing authority deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost:

- the surface of the replacement area to be created ("the replacement area") shall be equal to that of the area that will be lost ("the lost area");*
- the ground water and surface elevation of the replacement area shall be approximately equal to that of the lost area;*
- The overall horizontal configuration and location of the replacement area with respect to the bank shall be similar to that of the lost area;*
- the replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area;*
- the replacement area shall be located within the same general area of the water body or reach of the waterway as the lost area;*
- at least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons, and prior to said vegetative reestablishment any exposed soil in the replacement area shall be temporarily stabilized to prevent erosion in accordance with standard U.S. Soil Conservation Service methods; and*
- the replacement area shall be provided in a manner which is consistent with all other General Performance Standards for each resource area in Part III of 310 CMR 10.00. In the exercise of this discretion, the issuing authority shall consider the magnitude of the alteration and the significance of the project site to the interests identified in M.G.L. c. 131, § 40, the extent to which adverse impacts can be avoided, the extent to which adverse impacts are minimized, and the extent to which mitigation measures, including replication or restoration, are provided to contribute to the protection of the interests identified in M.G.L. c. 131, § 40.*

(c) Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of a portion of Bordering Vegetated Wetland when;

- said portion has a surface area less than 500 square feet;*
- said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands; and*
- in the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.*

The area of alteration of BVW is in the area where Bank is being restored. It is simply an area where the stream widened slightly giving hydrology to an area where the bank was damaged. The loss of BVW will be offset by the addition of a healthy and intact Bank.

10.56: Land Under Water Bodies and Waterways (Under any Creek, River, Stream, Pond or Lake)

(4) General Performance Standards.

(a) Where the presumption set forth in 310 CMR 10.56(3) is not overcome, any proposed work within Land Under Water Bodies and Waterways shall not impair the following:

— The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks;

— Ground and surface water quality;

— The capacity of said land to provide breeding habitat, escape cover and food for fisheries; and

— The capacity of said land to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures established under 310 CMR 10.60.

— (b) Notwithstanding the provisions of 310 CMR 10.56(4)(a), the issuing authority may issue an Order in accordance with M.G.L. c. 131, § 40 to maintain or improve boat channels within Land Under Water Bodies and Waterways when said work is designed and carried out using the best practical measures so as to minimize adverse effects such as the suspension or transport of pollutants, increases in turbidity, the smothering of bottom organisms, the accumulation of pollutants by organisms or the destruction of fisheries habitat or nutrient source areas.

— (c) Notwithstanding the provisions of 310 CMR 10.56(4)(a) or (b), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.

The impacts to Land Under Water will be temporary, and the area will be restored to pre-existing conditions.

310 CMR 10.58 Riverfront

Since the project is located within the Riverfront Area, it must meet the requirements of 310 CMR 10.58. Since the area being altered is considered degraded, the project is approvable under 310 CMR 10.58(5), which requires the project meet only those portions of the general performance standards under 310 CMR 10.58(4) spelled out under sub paragraphs (a) and (b). The remaining performance standards are included in 310 CMR 10.58 (5)

The entire site is located within the Riverfront Area associated with the stream that daylight from a culvert under the I495 access roads and Summit Avenue. The riverfront area contains significant areas of previously developed and degraded areas. In addition,

the regulations provide exemptions from the riverfront standards for portions of the project, including the path and the utilities. The stormwater structures are not considered alterations under the Riverfront Regulations, and the remaining development alteration takes advantage of the redevelopment provision of the regulations and provides significant mitigation above and beyond the minimum requirements.

Stormwater Structures

Under the Riverfront Regulations, alteration does not include structural stormwater measures provided there is no practical alternative to siting those structures within the Riverfront area. The proposed project results in an increase in impervious area on the site of approximately 5.5 acres. To mitigate the potential increase in runoff from the site to Bailey's Pond from this increase, as well as to mitigate the stormwater coming from off-site, the project proposes the use of twelve stormwater basins to detain and infiltrate stormwater. These have been sited outside the Riverfront Area as much as possible.

Due to the former use as a gravel pit, the site slopes steeply from the higher elevations along the existing roads abutting the site to flatter elevations closer to the pond and the stream bisecting the site. Proposed stormwater basins have been designed throughout the site into the grading required to bridge the gap between the higher elevations and the flatter land to the greatest extent practical, however because of the nature of stormwater flow from higher elevations to lower elevations, two of the twelve stormwater basins are required at low points of the project work area to ensure as much stormwater is captured as possible. Because these low points are proximate to the stream, portions of these two basins are required to be within the Riverfront. The total area of the drainage basins within the Riverfront Area is 14,112 square feet, with 11,065 of this area within previously developed and degraded riverfront area.

Pedestrian Path

Pedestrian paths are exempt under the Wetlands Protection Act for consideration under the Riverfront Regulations as a minor activity under 310 CMR 10.58 (6)(b). There is 9,250 square feet of unpaved trail within the Riverfront Area. It is important to note that to create the trail, the existing dirt road will be narrowed, so creation of the trail allows the restoration of additional Riverfront Area.

Utilities

The utility work is exempt from consideration under the riverfront regulations under 310 CMR 10.58 (6)(h). The utility line trench will temporarily disturb 9,553 square feet of Riverfront that will be restored after installation.

310 CMR 10.58(4) General Performance Standard

Where the presumption set forth in 310 CMR 10.58(3) is not overcome, the applicant shall prove by a preponderance of the evidence that there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse effects on the interests identified in M.G.L. c.131 § 40 and that the work, including proposed mitigation, will have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. In the event that

the presumption is partially overcome, the issuing authority shall make a written determination setting forth its grounds in the Order of Conditions and the partial rebuttal shall be taken into account in the application of 310 CMR 10.58 (4)(d)1.a. and c.; the issuing authority shall impose conditions in the Order that contribute to the protection of interests for which the riverfront area is significant.

The applicant is not challenging the presumption in 310 CMR 10.58 (3). The applicant concurs that the protection of the Riverfront Area associated with the stream is important to the health of the stream itself and downstream water bodies. However, it is important to note that the Riverfront area is previously developed and degraded, and in an area of intense beaver activity. The proposal includes measures to restore riverfront functions to large areas previously developed and degraded from past gravel mining. The project additionally includes removal of invasive plants from the remaining portions of the Riverfront Area that are not previously developed or degraded. The project as proposed will result in an improvement of the functioning of the Riverfront area.

310 CMR 10.58(4)(a) Protection of Other Resource Areas.

The work shall meet the performance standards for all other resource areas within the riverfront area, as identified in 310 CMR 10.30 (coastal bank), 10.32 (salt marsh), 10.55 (Bordering Vegetated Wetland), and 10.57 (Land Subject to Flooding). When work in the riverfront area is also within the buffer zone to another resource area, the performance standards for the riverfront area shall contribute to the protection of the interests of M.G.L. c. 131, § 40 in lieu of any additional requirements that might otherwise be imposed on work in the buffer zone within the riverfront area.

Erosion controls are shown on the plans to prevent any short term impacts from siltation. Additionally, best management practices will be followed during the installation of the utility crossing to prevent any impacts. The use of extensive stormwater management on site, both within and outside the Riverfront Area will result in more tempered flows, which will contribute to a lessening of the frequency of flash flooding in Bailey's Pond. However it is important to note that the watershed for the pond is so large that there is nothing feasible that could be done on site to completely abate the flooding that has historically occurred in Bailey's Pond that overwhelms the outlet pipe. Equally important is the outlet pipe maintenance, for which the applicant has no control.

310 CMR 10.58(4)(b) Protection of Rare Species.

No project may be permitted within the riverfront area which will have any adverse effect on specified habitat sites of rare wetland or upland, vertebrate or invertebrate species, as identified by the procedures established under 310 CMR 10.59 or 10.37, or which will have any adverse effect on vernal pool habitat certified prior to the filing of the Notice of Intent.

The project area is outside the NHESP mapped habitat areas and located within an existing developed and degraded riverfront area and an abandoned gravel pit that has been used as a dumping ground and is largely vegetated with invasive species. The project as proposed, including the proposed mitigation, will actually improve wildlife value at the site.

310 CMR10.58(5) Redevelopment Within Previously Developed Riverfront Areas; Restoration and Mitigation.

Notwithstanding the provisions of 310 CMR 10.58(4)(c) and (d), the issuing authority may allow work to redevelop a previously developed riverfront area, provided the proposed work improves existing conditions. Redevelopment means replacement, rehabilitation or expansion of existing structures, improvement of existing roads, or reuse of degraded or previously developed areas. A previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds...

The area of work is within an area previously developed and degraded, with no topsoil, and areas of dumping of waste. The riverfront area on site totals 171,442 square feet, of which 113,320 square feet is degraded. The development of the site includes 21,006 square feet of grading, buildings, roads, and driveways located entirely within these degraded areas. In addition, the project includes restoration of 72,695 square feet of degraded riverfront through the removal of invasive species, restoration of a soil profile including a rich organic topsoil, establishment of native species, and cleaning up of trash and debris. A portion of that area also includes restoration/creation of an isolated wetland in the area of the D series flagging. The project also includes removal of invasive species from the remaining Riverfront Area and a large portion of the buffer zone to the pond.

Work to redevelop previously developed riverfront areas shall conform to the following criteria:

(a) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. When a lot is previously developed but no portion of the riverfront area is degraded, the requirements of 310 CMR 10.58(4) shall be met.

The work proposed will result in the establishment of stormwater controls on the site and serve to abate ongoing erosion of sand and silt into Bailey's Pond. The project will also result in restoration of all portions of the degraded riverfront outside the footprint of the development. The end result will improve existing conditions dramatically.

(b) Stormwater management is provided according to standards established by the Department.

The stormwater has been designed to meet the stormwater management regulations for stormwater generated by the development and additionally serves to mitigate off site runoff.

(c) Within 200 foot riverfront areas, proposed work shall not be located closer to the river than existing conditions or 100 feet, whichever is less, or not closer than existing conditions within 25 foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).

All work, with the exception of the exempt trail and utility work, will be located further from the riverfront than existing degraded conditions. The buildings and driveways, parking, and roadways will all be located outside 100 feet from the stream.

(d) Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).

The work will comply with these sections by remaining within the existing degraded footprint as much as possible and by providing mitigation in accordance with these sections.

(e) The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).

The total area of development proposed in the riverfront area is a fraction of the degraded area and will not exceed the amount of degraded area.

(f) When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Restoration shall include:

- 1. removal of all debris, but retaining any trees or other mature vegetation;***
- 2. grading to a topography which reduces runoff and increases infiltration;***
- 3. coverage by topsoil at a depth consistent with natural conditions at the site;***
- and***
- 4. seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site;***

No alteration beyond the existing degraded area is proposed and the project is self-mitigating, however, mitigation is still being proposed to restore degraded riverfront at a ration of over 3:1.

(g) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), or (e) at a ratio in square feet of at least 2:1 of mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Mitigation may include off-site restoration of riverfront areas, conservation restrictions under M.G.L. c. 184, §§ 31 to 33 to preserve undisturbed riverfront areas that could be otherwise altered under 310 CMR 10.00, the purchase of development rights within the riverfront area, the restoration of bordering vegetated wetland, projects to remedy an existing adverse impact on the interests identified in M.G.L. c. 131, § 40 for which the applicant is not legally responsible, or similar activities undertaken voluntarily by the applicant which will support a determination by the issuing authority of no significant adverse impact. Preference shall be given to potential mitigation projects, if any, identified in a River Basin Plan approved by the Secretary of the Executive Office of Environmental Affairs.

The project meets the standards for mitigation above, however a significant area of invasives on site in the buffer zone of the pond will be restored through removal of invasives and planting native vegetation. This further demonstrates that the project meets the provisions of 310 CMR 10.58(5).

(h) The issuing authority shall include a continuing condition in the Certificate of Compliance for projects under 310 CMR 10.58(5)(f) or (g) prohibiting further alteration within the restoration or mitigation area, except as may be required to

maintain the area in its restored or mitigated condition. Prior to requesting the issuance of the Certificate of Compliance, the applicant shall demonstrate the restoration or mitigation has been successfully completed for at least two growing seasons.

Since this project is self-mitigating, within the footprint of previously developed and degraded riverfront, no such condition is necessary, however it would be appropriate to monitor the mitigation area for a few growing seasons to prevent repopulation from invasive species and to attempt to protect plantings from damage caused by beavers.

Amesbury Wetlands Ordinance and Regulations

Amesbury Wetlands Ordinance, Section III. 5. Exemptions and Exceptions

Work within an isolated vegetated wetland resource area or its buffer zone if the isolated vegetated wetland was created by the negligent acts of Amesbury or third parties other than the owner(s) of the real property on which the isolated vegetated wetland exists.

The isolated wetland, flagged with the D series flags, exists due to the City of Amesbury failing to stop off road vehicles from accessing the site, and from those off road vehicles expanding a puddle within a pathway. The ORAD approved isolated wetland was half the size of the resource area that exists now due to the continued off-roading that goes through and around the fringes, further rutting the area and causing the collection of stormwater in an area where gravel mining had excavated to a more restrictive layer within the soil profile. The result is really a puddle that while it is wet most of the year and has some wetland vegetation around the fringes, provides no real value in terms of wetland function. As a result, the work within the buffer zone to this wetland area and within the wetland area itself is exempt under the Amesbury Wetlands Ordinance.



Isolated wetland. Tire ruts clearly visible.

As overall mitigation, and part of the riverfront mitigation proposed for the site, we are now proposing to restore this area by removing 6 – 12 inches of soil from this flagged area and replace it with a rich organic soil and seed the area with a wetland seed mix to create a more valuable isolated wetland area surrounding a small central ponded area. In the upland area immediately adjacent to this area, a buffer of native shrubs and trees will be planted with a restored topsoil layer to establish a functioning upland buffer. The result will be an isolated wetland system that functions in a manner consistent with a natural wetland area. A list of proposed species for plantings and spacing will be provided.

Amesbury Wetland Regulations, PART II. PERFORMANCE STANDARDS FOR RESOURCE AREAS

17.0. LAND UNDER WATER BODIES

Land under water bodies on site includes land under Bailey's Pond and Land under the perennial stream. No work is proposed within land under Bailey's Pond. Temporary work in the form of installing utilities is proposed in land under the stream. The impact area is 280 square feet and the area will be restored following installation of the utilities.

The work for the utility crossing the stream is expected to be conducted in the following manner. The stream utility crossing will be constructed during the late summer in a time

of low flow and when rain is not expected. The crossing will be constructed by creating a small coffer dam around the crossing to allow excavation of the utility trench in dry conditions and prevent sedimentation from the excavation from entering the stream. Any flow from the culvert will be bypassed around the excavation area with the use of pumps. After construction is complete, the stream bed will be restored to its original depth and configuration and the coffer dams will be removed.

17.1. Land Under Inland Water Bodies and Waterways - Rivers, Creeks, Streams, Ponds, Lakes, Ditches or Flats

a) Preamble...

This section simply lays out the reasons Land Under Water is protected and does not prescribe any performance standards.

b) Wetland Values and Presumption of Significance. Whenever a proposed project involves removing, filling, dredging, altering or building upon water bodies or the land beneath them or land within a minimum distance of 100 feet from such land, the Commission shall presume that the water bodies and the land beneath them are significant to the protection of the following wetland values: protection of public or private water supply; protection of groundwater; flood control; erosion and sedimentation control; storm damage prevention, including coastal storm flowage; prevention of water pollution; protection of fisheries; protection of shellfish; protection of wildlife and wildlife habitat; protection of rare species habitat, including rare plant and animal species; protection of recreation; protection of aquaculture; and protection of aesthetics

These presumptions may be overcome only upon a clear showing that the water body or the land beneath it does not play a role in protecting one or more of the wetland values given above.

While a large area of the riverfront area associated with the stream is degraded, the stream still provides significant functions and the applicant is not challenging this. The area of crossing is an existing wet road crossing frequently used by off road vehicles. The temporary disturbance to install the underground utilities will be minimal and the area will be restored to previously existing conditions. In addition, the banks of the stream in this area that are currently devoid of vegetation due to vehicle impacts will be restored.

c) Definition – Same as 310 CMR 10.56(2) with the following addition:

The term "pond" shall include any open body of fresh water with a surface area observed or recorded within the last ten years of at least 5,000 square feet. Ponds shall contain standing water except for periods of extended drought.

Bailey's Pond meets this definition, but no alteration is proposed. Buffer impacts are addressed below.

d) Performance Standards. When Land Under an Inland Water Body or land within a minimum distance of 100 feet of Land Under an Inland Water Body is determined to be significant to a wetland value, the following regulations shall apply:

(1) Proposed work shall not cause a significant adverse effect or cumulative adverse effect upon the wetland values of Land Under an Inland Water Body.

The proposed work will incorporate best management practices to prevent any short or long term effects from the temporary disturbance involved in installing the utility lines.

(2) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.

As noted in the initial filing materials, this area is outside mapped priority and estimated habitat areas.

(3) Performance standards for proposed work or activities within the buffer zone to Land Under an Inland Water Body are specified in AWR 20.0.

These standards are addressed below.

(4) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Ordinance.

The project as proposed protects and improves wetland values; however, the applicant is open to reasonable conditions as necessary.

18.2. Inland Banks

a) Preamble.

b) Wetland Values and Presumption of Significance. Whenever a proposed project involves removing, filling, dredging, altering or building upon an inland bank or beach or within a minimum distance of 100 feet of an inland bank or beach, the Commission shall presume that the bank or beach is significant to the protection of the following wetland values: protection of public or private water supply; protection of groundwater; flood control; erosion and sedimentation control; storm damage prevention, including coastal storm flowage; prevention of water pollution; protection of fisheries, protection of wildlife and wildlife habitat; protection of rare species habitat, including rare plant and animal species; protection of recreation; and protection of aesthetics. These presumptions may be overcome only upon a clear showing that the inland bank or beach does not play a role in protecting one or more of the wetland values given above.

In general, the banks to the stream are intact and functioning well. Gravel pit mining approached the stream, but did not get as far as the stream. The area of temporary alteration, approximately 10 feet on each side of the stream, is an area where it appears gravel mining equipment had an in-stream crossing. The area has been continually used by off-road vehicles to cross in stream since. The result is that the bank is essentially a dirt road on each side. After work installing the utilities is completed, the bank will be restored to better perform the values expressed in this section.

c) Definition – Same as 310 CMR 10.54 (2) (a), (b) and (c).

d) Performance Standards. When an Inland Bank or Beach or land within a minimum

distance of 100 feet of an Inland Bank and Beach is determined to be significant to a wetland value, the following regulations shall apply:

(1) A proposed project shall not cause any adverse effect or cumulative adverse effect upon the wetland values of Inland Bank or Inland Beach.

The proposed project will not result in any adverse effects on the inland bank. Restoring a more stable bank and preventing off road vehicles from driving through the stream on a regular basis by developing the property will result in an improvement to the wetland values.

(2) A proposed project shall be permitted only if there is no adverse effect on bank stability, bank height, ground water and surface water quality, the water carrying capacity of an existing channel within a bank, and the capacity of the bank to provide habitat for fisheries and/or wildlife.

The project will have no effect, other than improving these characteristics.

(3) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.59.

As noted previously this project is located outside mapped habitat.

(4) Performance standards for activities or work proposed in the buffer zone to an Inland Bank or Inland Beach are specified in AWR 20.0.

These are addressed below.

(5) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Ordinance.

The project as proposed protects and improves wetland values; however, the applicant is open to reasonable conditions as necessary.

18.3. Bordering and Isolated Vegetated Wetlands (Wet Meadows, Marshes, Swamps, and Bogs)

While the NOI shows 120 square feet of wetland impacts, this number is somewhat fictitious. Wetland flags A58 to A59 and E41 to E42 frame the area of impact. These flags are placed to capture an area where the bank has been damaged due to vehicular traffic. This is clearly visible in the photo below. These areas are best restored to bank, rather than trying to artificially create wetlands that should not be there. The area in question is clearly visible on the following photograph:



Stream from headwall. Existing stream crossing shows in middle of picture where banks are altered.

a) Preamble.

b) Wetland Values and Presumption of Significance. Whenever a proposed project involves removing, filling, dredging, altering or building upon a vegetated wetland or within a minimum distance of 100 feet of a vegetated wetland, the Commission shall presume that the vegetated wetland is significant to the protection of the following wetland values: protection of public or private water supply; protection of groundwater; flood control; erosion and sedimentation control; storm damage prevention, including coastal storm flowage; prevention of water pollution; protection of fisheries; protection of shellfish; protection of wildlife and wildlife habitat; protection of rare species habitat, including rare plant and animal species; protection of recreation; and protection of aesthetics. These presumptions may be overcome only upon a clear showing that the vegetated wetland does not play a role in protecting one or more of the wetland values given above.

While this area performs some wetland functions, such as flood storage, it is not vegetated and is more appropriately restored to bank.

c) Definition.

d) Performance Standards. When a Vegetated Wetland, whether Bordering or Isolated, or land within a minimum distance of 100 feet of a Vegetated Wetland is determined to be significant to a wetland value, the following regulations shall apply:

(1) A proposed project shall not cause any adverse effect or cumulative adverse effect upon the wetland values of a Vegetated Wetland.

The area is not vegetated, but has hydrology due to the erosion of the stream bank from vehicle traffic. The area will be restored to bank, resulting in an

improvement in wetland values that are common between vegetated wetlands and bank.

(2) Where an Isolated Vegetated Wetland meets the criteria for a vernal pool, whether or not it has been certified, as described in AWR 18.1, a proposed project shall not cause any adverse effect or cumulate adverse effect upon the wetland values of vernal pool habitat. The Commission may require more than the minimum protective undisturbed buffer strip (i.e., a buffer strip setback greater than the 50' minimum, up to the limit specified by the Ordinance) in order to protect the values.

The isolated wetland is discussed above. While it holds water much of the year, the water has always been observed in a turbid state, likely due to ongoing disturbance from off road vehicles and the fine clay/silt particles in the soil that are easily suspended. The area does not meet the criteria for a vernal pool and is exempt under the Ordinance. The proposal includes creating a more valuable wetland.

(3) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.59.

As noted previously, the project is outside mapped habitat.

(4) Performance standards for activities or work proposed in the buffer zone to a Vegetated Wetland are specified in AWR 20.0.

These standards are addressed below.

(5) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Ordinance.

The project as proposed protects and improves wetland values; however, the applicant is open to reasonable conditions as necessary.

19.0. RIVERS

19.1. Riverfront Area

a) Preamble.

b) Wetland Values and Presumption of Significance. Whenever a proposed project involves removing, filling, dredging, altering or building upon a Riverfront Area, the Commission shall presume that the land is significant to the protection of the following wetland values: protection of public or private water supply; protection of groundwater; flood control; erosion and sedimentation control; storm damage prevention, including coastal storm flowage; prevention of water pollution; protection of fisheries; protection of shellfish; protection of wildlife and wildlife habitat; protection of rare species habitat, including rare plant and animal species; protection of recreation; and protection of aesthetics. These presumptions may be overcome only upon a clear showing that the Riverfront Area does not play a role in protecting one or more of the wetland values given above.

Some areas within the riverfront do not perform these functions due to their degraded state, while others (those areas within an intact soil profile and vegetated with native vegetation) are performing these functions well. If invasive species are not controlled, and the riverfront restored to conditions that foster the growth of native plants, the value

of the riverfront area will continue to diminish. The project includes significant restoration of the Riverfront Area by removing invasive species, establishing a rich organic topsoil, and establishing a significant stand of native trees, shrubs, and herbaceous plants.

c) Definition – Same as 310 CMR 10.58 (2). The Inner Riparian Zone is the area from 0 – 100 feet from the river’s mean annual high water line; and the Outer Riparian Zone is the area from 100 – 200 feet from the river’s mean annual high water line, stream or creek.

d) Performance Standards. When a Riverfront Area is determined to be significant to a protected value, the following regulations shall apply:

(1) Except as stated below, the Commission hereby incorporates 310 CMR 10.58 in its regulations for all matters related to Ordinance jurisdiction in lands within 200 feet of rivers and streams.

This section defers to the Wetland Protection Act Regulations section on Riverfront Areas. This section is addressed above under the Wetland Protection Act performance standards.

(2) through (4) detail nuances in determining the boundaries of Riverfront and how applicants challenge the perennial nature of a stream.

(5) Notwithstanding any provisions of 310 CMR 10.58, the alternatives analysis shall include only lots adjacent to the lot(s) being proposed for development, or located in the near vicinity.

Since the Riverfront Area contains areas previously developed and degraded due to the past use as a gravel pit and the ongoing dumping at the site, an alternatives analysis is not required. Our original submission included an alternatives analysis due to the area of alteration being extremely small and the effort to delineate the degraded areas did not seem worth it. However, the recent beaver activity that altered the boundary from which riverfront is measured significantly necessitated defining this area and meeting the performance standards under 310 CMR 10.58(5) which eliminates the need to meet the standards of 310 CMR 10.58(4)(c) and (d).

(6) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.59.

As noted above, the area is outside mapped habitat areas. The restoration of riverfront discussed above in the discussion of 310 CMR 10.58 (5) will improve the areas value for wildlife.

(7) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Ordinance.

The project as proposed protects and improves wetland values; however, the applicant is open to reasonable conditions as necessary.

20.0. BUFFER ZONE

a) Preamble.

b) Wetland Values and Presumptions of Significance. The buffer zone is significant to

the wetland values of the Resource Area which it borders. In addition, where rare species or vernal pools occur in the buffer zone, the buffer zone itself is significant for protection of rare species, rare species habitat, vernal pool organisms, and vernal pool habitat, respectively. Where a project involves removing, building upon, degrading, or otherwise altering a Resource Area buffer adjacent to a Resource Area specified in AWR 2.00 (1-5), the Commission shall presume that such area is significant to, or will have a cumulative effect upon, the following wetland values: protection of public or private water supply; protection of groundwater; flood control; erosion and sedimentation control; storm damage prevention, including coastal storm flowage; prevention of water pollution; protection of fisheries, protection of wildlife and wildlife habitat; protection of rare species habitat, including rare plant and animal species; protection of recreation; and protection of aesthetics. This presumption may be overcome upon a clear showing that said land does not play a role in protecting one or more wetland values given above.

If the Resource Area buffer is not present (i.e., has already been altered and/or encroached upon), the Commission shall presume that there already exists a significant adverse effect or cumulative adverse effect upon the wetland values of the Resource Area. This presumption may be overcome upon a clear showing that there is no significant or cumulative effect the protection of said wetland values.

The site has significant buffer zones that are not functioning to their potential due to the lack of topsoil and the presence of invasives. Some areas of the buffer zone are nearly impassable due to Oriental bittersweet infestations. The lack of topsoil in some portions of the buffer have contributed to ongoing erosion of sediment into Bailey's Pond. In one area, erosion has created a sediment delta into the pond. The proposed project will restore much of the buffer area between the limit of work and the edge of the development by removing invasives, adding topsoil, and planting native plants. The stormwater management proposed will also increase the ability of the buffer zone to function by tempering flows that come from off site runoff.

c) Definition. The buffer zone is the area within a minimum distance of 100 horizontal feet of any Resource Area specified in AWR 2.0 (1-5), excluding the buffer zone itself, Land Subject to Coastal Storm Flowage, and the Riverfront Area. The buffer width shall be measured horizontally in a landward direction from the Resource Area boundary as surveyed in the field.

25, 50, and 100 foot offsets are shown on the plan.

d) Performance Standards.

(1) The intent of the Conservation Commission is to move all structures and activities as far away as possible from any Resource Area, in order to protect the wetland values of Resource Areas.

Eight of the structures are located in the outer buffer zone. The remaining buildings are located outside the buffer zone. The work within the inner buffer zone that includes narrowing and improving the existing pathway and removal of invasive plants will help to improve the wetland values.

(2) Except as otherwise specified, Resource Area buffers shall be retained and maintained in a naturally vegetated condition. Where buffer disturbance has

occurred during construction, revegetation with native vegetation may be required.

The proposal includes replanting native plants in the area where invasive plants are removed around the path and between the path and the development.

(3) The Commission may require that already-altered buffer zone be restored in order to protect or improve Resource Area values. Restoration means planting native vegetation, grading, correcting site drainage, removing debris, or other measures which will improve, restore and protect the wetland values of the Resource Area.

The proposal includes significant site restoration in the form of riverfront and buffer restoration, corrections to site drainage, and removal of debris that will restore and protect wetland values of the resource areas on site.

(4) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established pursuant to 310 CMR 10.59.

As noted previously, the project site is located well outside mapped habitat areas.

(5) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Ordinance.

The project as proposed protects and improves wetland values; however, the applicant is open to reasonable conditions as necessary.

21.0. PROJECT-SPECIFIC PERFORMANCE STANDARDS

21.3. Landscaping

No lawns or driveways may be constructed within 25 feet of any Resource Area, as defined in AWR 2.00 (1-4), (specifically, (1) Any freshwater or coastal wetland, isolated wetland, beach, dune, flat, marsh, wet meadow, bog, swamp, vernal pool, creek, river, stream, pond or lake; 2) Any bank bordering on a freshwater or coastal wetland or water body; 3) Land under water bodies, including but not limited to, land under ponds, lakes, rivers, streams, creeks, or any fresh water wetland; or 4) Land subject to flooding or inundation by groundwater or surface water, including but not limited to, fresh water wetlands, isolated wetlands, wet meadows, marsh, swamps, bogs, vernal pools, streams, rivers, ponds, lakes, or reservoirs).

There are no lawns or driveways proposed within 25 feet of any resource area.

21.6. Filling

(1) No fill shall be placed in any Resource Area or any buffer zone so as to alter the flow of surface water in a way that the Conservation Commission feels will adversely affect the wetland values of the Resource Area(s).

There is no fill proposed to be placed in any resource area, with the exception of that necessary to restore the bank on the stream at the utility crossing. The purpose of this fill will be to improve wetland values. Other fill being placed in the riverfront area will be used to restore the soil profile and improve the functioning of the system. Any other fill used to grade out the edge of the project will be stabilized in a manner with walls or vegetation in a manner that will improve on the current erosion prone site.

(2) No filling or excavation or other alteration of salt marshes shall be permitted.

No such filling is proposed.

(3) The Commission at its discretion may allow the filling of up to 2,500 square feet of Vegetated Wetland for a limited project, if satisfied that mitigation required in the Order of Conditions is sufficient to protect the Resource Area. If filling is allowed, the Commission may require replication of the wetland at a ratio of at least 2:1, in an area that is hydrologically suitable for supporting wetland functions, hydrologically connected to the altered wetland and must be accomplished by using wetland soils and by using native wetland plant species removed from the area to be filled. The replicated wetland must be established prior to commencing the upland activity. The replicated wetland must be monitored for at least two growing seasons and must be maintained as a functional wetland with wetland values at least equaling those of the filled wetland for at least five years following the completion of the main project.

No such loss is proposed. Restoration of the stream bank will result in a slight loss of flagged unvegetated wetland that formed in the damaged bank area. The project also proposes the restoration of a wetland in the area of the isolated wetland that qualifies for the exception/exemption from review under the Ordinance.

(4) A bridge covering a Resource Area is considered fill.

No such bridge is proposed, although the makeshift bridges used for paintball activities in the riverfront will be removed.

(5) Compatible fill shall be used for beach and dune nourishment projects.

Compatible fill means clean sediment of a grain size that is approximately the same as the area being nourished (e.g., if the area being nourished consists of gravel, sand, silt or clay, then the fill brought in for nourishment should be gravel, sand, silt or clay).

Clean means the sediment does not contain contaminants and is free of debris.

No such beach or dune nourishment is proposed.

(6) Dumping of lawn wastes, brush or leaves or other materials or debris is not permitted in any Resource Area.

Piles of such materials that have been historically dumped on site by others will be removed. No such dumping is proposed, and a residential development will prevent much of the public's treatment of this site as a place to dump unwanted items and yard waste.

(7) The Commission is authorized to deny any filling of any Resource Area in order to protect the wetland values of the Resource Area.

This is understood.

21.7. Structures

(1) The intent of the Conservation Commission is to move all structures and activities as far away as possible from any Resource Area.

On the north side, the applicant was able to keep all structures outside the buffer zone. On the south side, 8 of the structures are located in the outer buffer zone, and one structure is located in the outer riparian zone. These structures all comply with the setbacks as described in this section.

(2) The Commission may at its discretion allow a proposed structure on a wall-type foundation within 100 to 50 feet of the Resource Area, as defined in AWR 2.0 (1-5), if satisfied that mitigation required in the Order of Conditions is sufficient to protect the Resource Area.

All structures are set back at least 50 feet from the resource areas.

(3) No mitigation is sufficient to allow a structure on a wall-type foundation less than 50 feet to a Resource Area, as defined in AWR 2.0 (1-5).

No such structure is proposed.

(4) The Commission may at its discretion allow a structure on an open pile foundation within 100 to 35 feet of a Resource Area, as defined in AWR 2.0 (1-5).

No such structure is proposed.

(5) No mitigation is sufficient to allow a structure on an open pile foundation less than 35 feet to a Resource Area, as defined in AWR 2.0 (1-5).

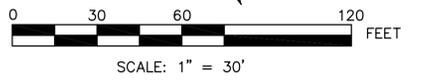
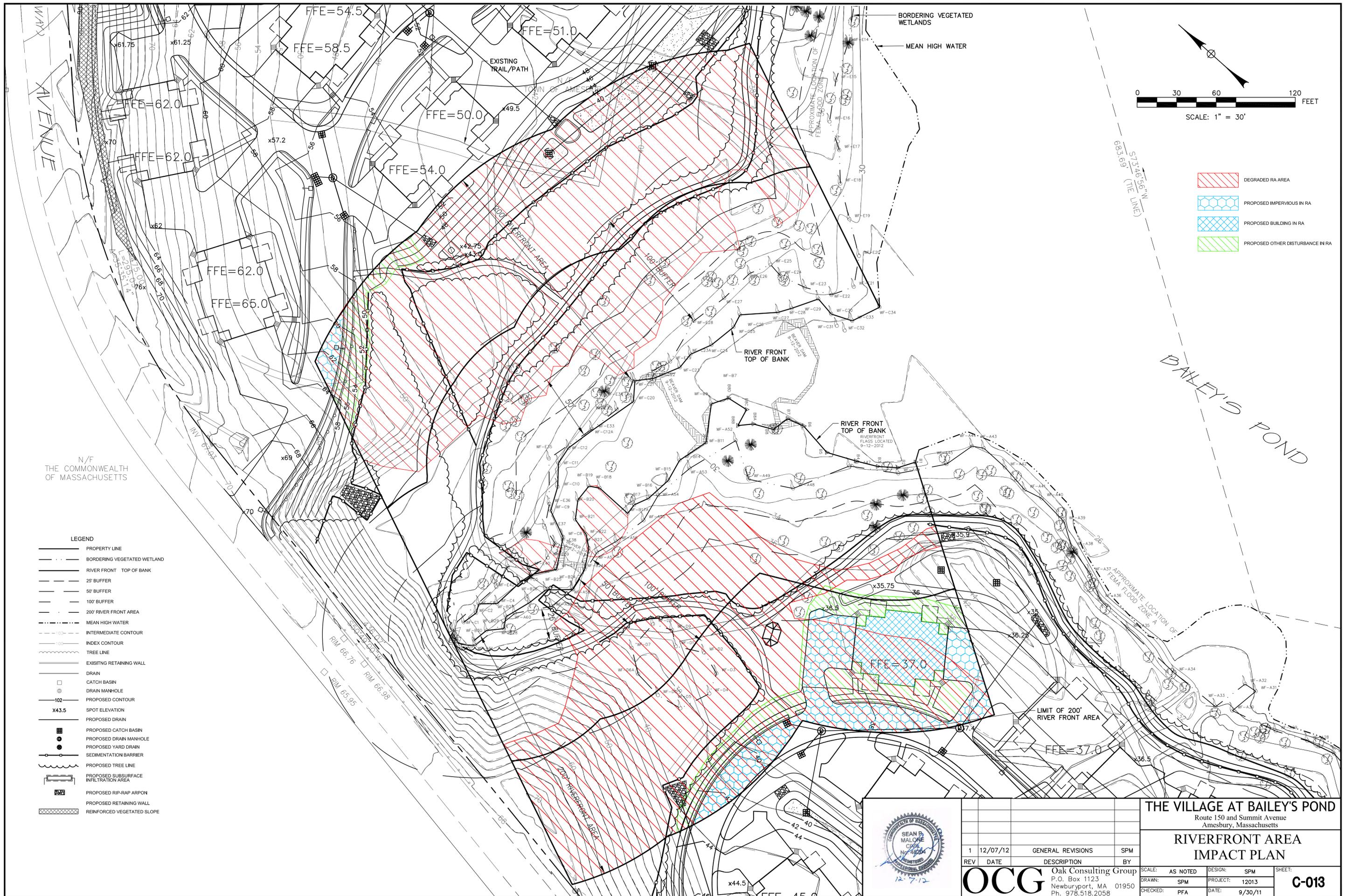
No such structure is proposed, however substantial mitigation has been proposed.

(6) New structures and substantially renovated or reconstructed structures on any barrier beach are required to be constructed on an open pile-type foundation.

Until global warming drastically alters the coastline, Amesbury has no barrier beaches.

Conclusion

While on first look, the development related to this Notice of Intent may look large, the development proposal is paired back substantially from original designs, including layouts proposed by a subsidiary of BSC for the City of Amesbury prior to the purchase and sale agreement. Only a third of the area proposed for development is within jurisdictional areas subject to review by the Commission. The project meets all regulatory setbacks and performance standards, and provides substantially more mitigation than required under the regulations. The end result of this project will be improvements including but not limited to those in stormwater management, water quality, wildlife habitat, and site stability. The restoration of more than 2 acres of riverfront through the removal of invasives, trash and debris removal, restoration/creation of an isolated wetland, and native plantings over most of the riverfront will result in a dramatic change in the functioning of the resource areas on site and their buffer zones. We ask the Commission to approve the project as proposed.



-  DEGRADED RA AREA
-  PROPOSED IMPERVIOUS IN RA
-  PROPOSED BUILDING IN RA
-  PROPOSED OTHER DISTURBANCE IN RA

N/F
THE COMMONWEALTH
OF MASSACHUSETTS

- LEGEND**
-  PROPERTY LINE
 -  BORDERING VEGETATED WETLAND
 -  RIVER FRONT TOP OF BANK
 -  25' BUFFER
 -  50' BUFFER
 -  100' BUFFER
 -  200' RIVER FRONT AREA
 -  MEAN HIGH WATER
 -  INTERMEDIATE CONTOUR
 -  INDEX CONTOUR
 -  TREE LINE
 -  EXISTING RETAINING WALL
 -  DRAIN
 -  CATCH BASIN
 -  DRAIN MANHOLE
 -  PROPOSED CONTOUR
 -  SPOT ELEVATION
 -  PROPOSED DRAIN
 -  PROPOSED CATCH BASIN
 -  PROPOSED DRAIN MANHOLE
 -  PROPOSED YARD DRAIN
 -  SEDIMENTATION BARRIER
 -  PROPOSED TREE LINE
 -  PROPOSED SUBSURFACE INFILTRATION AREA
 -  PROPOSED RIP-RAP ARPON
 -  PROPOSED RETAINING WALL
 -  REINFORCED VEGETATED SLOPE



THE VILLAGE AT BAILEY'S POND
Route 150 and Summit Avenue
Amesbury, Massachusetts

**RIVERFRONT AREA
IMPACT PLAN**

REV	DATE	DESCRIPTION	BY
1	12/07/12	GENERAL REVISIONS	SPM

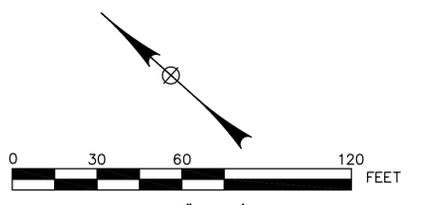
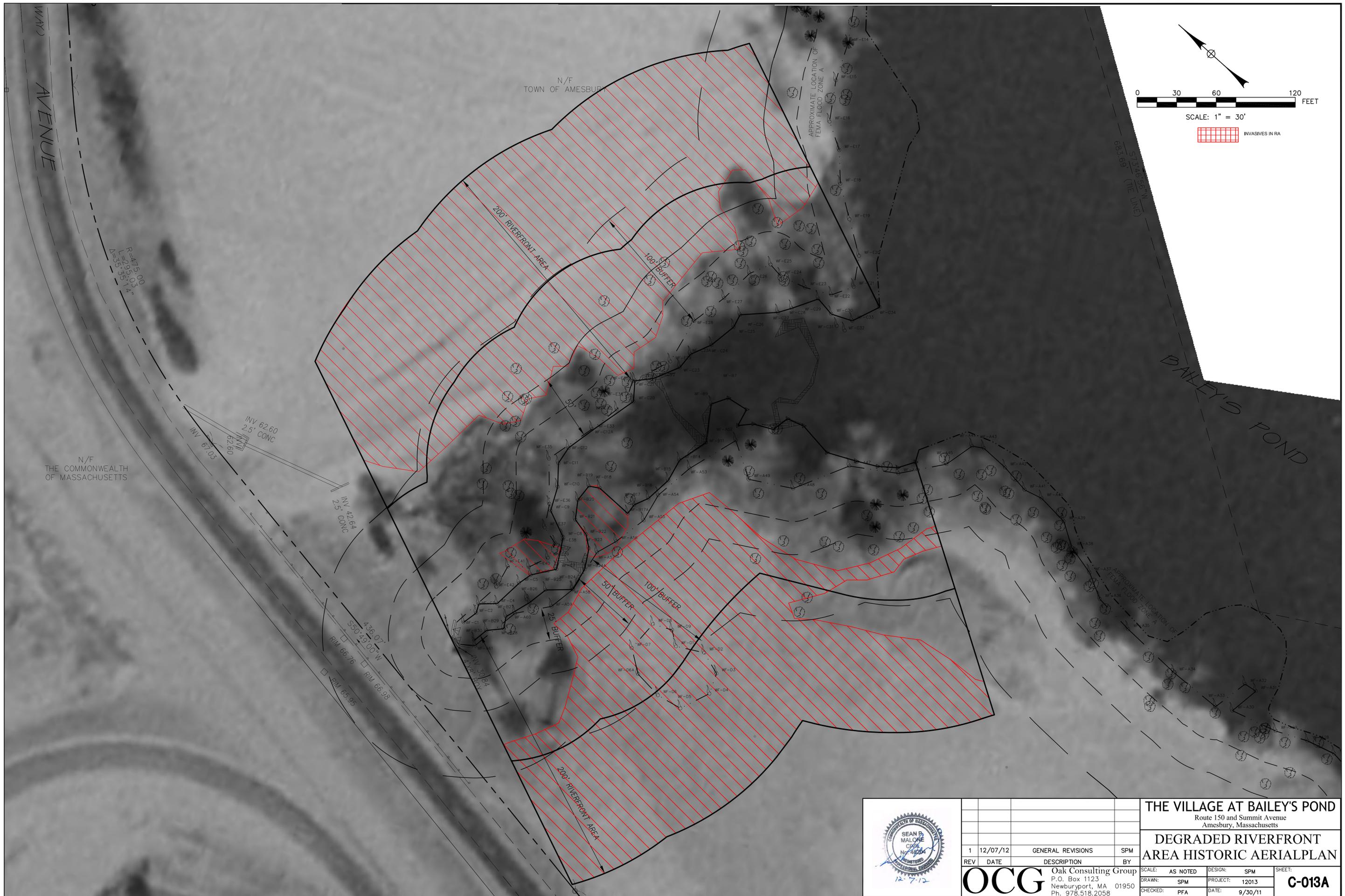
OCG

Oak Consulting Group
P.O. Box 1123
Newburyport, MA 01950
Ph. 978.518.2058

SCALE: AS NOTED DESIGN: SPM SHEET: C-013

DRAWN: SPM PROJECT: 12013

CHECKED: PFA DATE: 9/30/11



SCALE: 1" = 30'

 INVASIVES IN RA

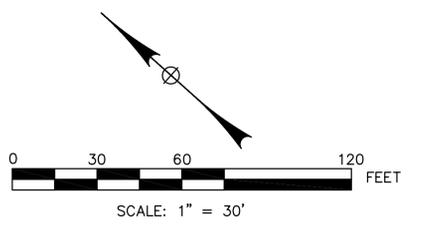
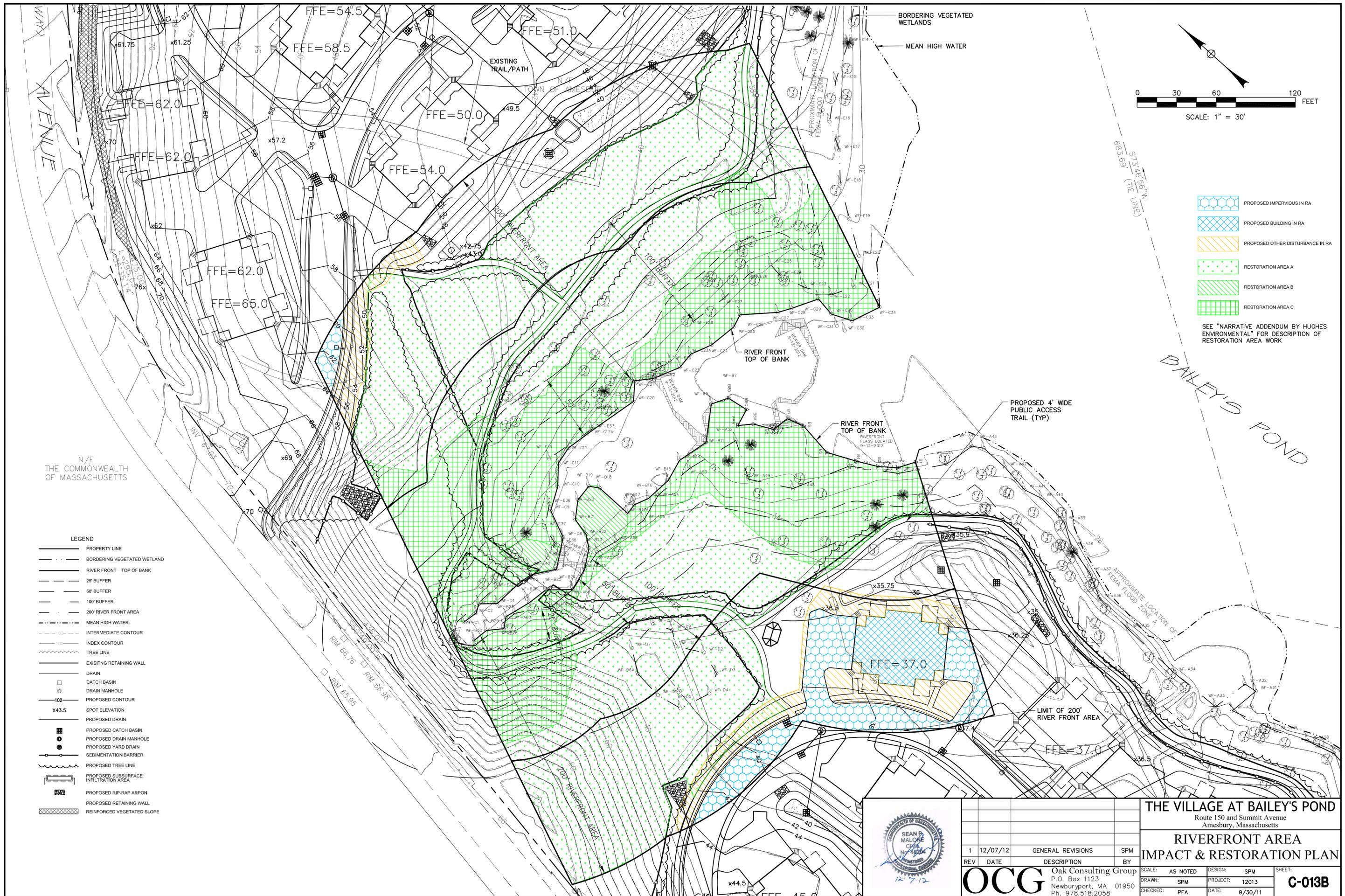
N/F THE COMMONWEALTH OF MASSACHUSETTS

N/F TOWN OF AMESBURY

BAILEY'S POND



THE VILLAGE AT BAILEY'S POND Route 150 and Summit Avenue Amesbury, Massachusetts			
DEGRADED RIVERFRONT AREA HISTORIC AERIAL PLAN			
1	12/07/12	GENERAL REVISIONS	SPM
REV	DATE	DESCRIPTION	BY
OCG		Oak Consulting Group P.O. Box 1123 Newburyport, MA 01950 Ph. 978.518.2058	SCALE: AS NOTED DRAWN: SPM CHECKED: PFA
		DESIGN: SPM PROJECT: 12013 DATE: 9/30/11	SHEET: C-013A



-  PROPOSED IMPERVIOUS IN RA
-  PROPOSED BUILDING IN RA
-  PROPOSED OTHER DISTURBANCE IN RA
-  RESTORATION AREA A
-  RESTORATION AREA B
-  RESTORATION AREA C

SEE "NARRATIVE ADDENDUM BY HUGHES ENVIRONMENTAL" FOR DESCRIPTION OF RESTORATION AREA WORK

N/F
THE COMMONWEALTH
OF MASSACHUSETTS

- LEGEND**
-  PROPERTY LINE
 -  BORDERING VEGETATED WETLAND
 -  RIVER FRONT TOP OF BANK
 -  25' BUFFER
 -  50' BUFFER
 -  100' BUFFER
 -  200' RIVER FRONT AREA
 -  MEAN HIGH WATER
 -  INTERMEDIATE CONTOUR
 -  INDEX CONTOUR
 -  TREE LINE
 -  EXISTING RETAINING WALL
 -  DRAIN
 -  CATCH BASIN
 -  DRAIN MANHOLE
 -  PROPOSED CONTOUR
 -  SPOT ELEVATION
 -  PROPOSED DRAIN
 -  PROPOSED CATCH BASIN
 -  PROPOSED DRAIN MANHOLE
 -  PROPOSED YARD DRAIN
 -  SEDIMENTATION BARRIER
 -  PROPOSED TREE LINE
 -  PROPOSED SUBSURFACE INFILTRATION AREA
 -  PROPOSED RIP-RAP ARPON
 -  PROPOSED RETAINING WALL
 -  REINFORCED VEGETATED SLOPE



THE VILLAGE AT BAILEY'S POND			
Route 150 and Summit Avenue Amesbury, Massachusetts			
RIVERFRONT AREA IMPACT & RESTORATION PLAN			
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REV	DATE	DESCRIPTION	BY
OCG		Oak Consulting Group P.O. Box 1123 Newburyport, MA Ph. 978.518.2058	01950
SCALE:	AS NOTED	DESIGN:	SPM
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