



January 17, 2023

Town of Lakeville Zoning Board of Appeals
c/o Marc Resnick, Town Planner
Town of Lakeville
346 Bedford Street
Lakeville, Massachusetts 02347

Via: Email to mresnick@lakevillema.org

Reference: Chapter 40B Comprehensive Permit Modification
The Residences at LeBaron Hills - Phase 5 Modification
LeBaron Boulevard
Lakeville, Massachusetts
B+T Project No. M3420.00

Dear Mr. Resnick and Members of the Zoning Board of Appeals:

Beals and Thomas, Inc. (B+T) is pleased to assist the Town of Lakeville Zoning Board of Appeals (the Board) with the peer review of the proposed modification of the Chapter 40B Comprehensive Permit for Phase 5 of The Residences at LeBaron Hills. We understand that The Residences at LeBaron Hills LLC (the Applicant) proposes to develop four (4) condominium buildings consisting of 35 total units (the Project) on the vacant land between the previously approved Phases 2 and 5 on LeBaron Boulevard (the Site). The Project consists of associated site improvements including driveways, parking, landscaping, utility connections, and a stormwater management system (the Project).

We received the following documentation, which served as the basis of our review:

- *"The Estates at LeBaron Hills" Phase V Modification, A Residential Subdivision in Lakeville, Mass.*, dated December 12, 2022, prepared by Outback Engineering Incorporated (10 sheets)
- *Drainage Report, The Residences at LeBaron Hills, Phase 5 Modification in Lakeville, Massachusetts*, December 12, 2022, prepared by Outback Engineering Incorporated (94 pages)

We have reviewed the documentation submitted by the Applicant with respect to the requirements of the Town of Lakeville Zoning By-law (the By-law); the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Regulations and Handbook (the Handbook); and, generally accepted engineering practice.

Civil Engineering ▪ Land Surveying ▪ Landscape Architecture ▪ Land Use Permitting ▪ Environmental Planning ▪ Wetland Science

Corporate Office
144 Turnpike Road
Southborough, MA 01772

T 508.366.0560 | www.bealsandthomas.com | F 508.366.4391

Regional Office
32 Court Street
Plymouth, MA 02360

Project Summary

The Site is zoned as part of the Residential Zoning District and is identified as Assessor’s Parcel ID #026-003-010. The Site is approximately ±4-acres in area, with frontage on LeBaron Boulevard. The Site is currently undeveloped and wooded with an extensive wetland resource system to the west associated with Thompson Brook. The Site is surrounded by abutting residential uses. The Site topography is fairly flat, radiating out in each direction from a central highpoint at approximate elevation 88-ft.

The Applicant proposes to construct four (4) condominium buildings consisting of 35 total units; three (3) buildings of ten (10) units and one (1) building of five (5) units) with associated site improvements. The Project proposes 82 external parking spaces. The Project is proposed to be served by municipal water (supplied by Taunton). Wastewater management is proposed via an existing on-site wastewater treatment system. The Project proposes a stormwater management system comprised of multiple subsurface drainage units and a surface stormwater infiltration basin.



Google Earth aerial image of site and surroundings.

Site Visit:

We conducted a reconnaissance visit on January 11, 2023 to familiarize ourselves with the Site and adjacent area, and to evaluate the existing conditions relative to the proposed development. Photographs are included herein to illustrate conditions at the Site and to provide context for our comments.



Proposed southern driveway location at LeBaron Boulevard viewed to the southwest



LeBaron Boulevard at proposed driveway location viewed to the southeast



Proposed northern driveway location at LeBaron Boulevard viewed to the southwest



LeBaron Boulevard at proposed driveway location viewed to the southwest



Characterization of on-site wetland resource areas to the west and Thompson Brook



Characterization of existing on-site vegetation

General Comments

1. The Applicant has not submitted any formal waiver requests. Relative to the Residential Zoning District, the intensity regulations (one principal structure per lot) and front yard setbacks for the Project, as prescribed by Section 5.0 of the By-law, do not appear to be met as designed. We request that the Applicant confirm that no waivers from the local regulations are being sought.

2. Standing water channelization and typical wetland plants (Cattails (typha sp.) and common reed(Phragmites australis)) were observed in the vicinity of proposed Building #1. A current existing conditions plan has not been provided by the Applicant that would better define this area. We acknowledge the Order of Resource Area Delineation (ORAD) referenced that established the limits of the resource area for Thompson Brook; however, this area in question does not appear to be mapped. During, if not before, we recommend that this area be addressed in the Notice of Intent (NOI) submission with the Conservation Commission under the Wetland Projection Act regulations that are outside the Comprehensive Permit review process currently before the Board.



Observed on-site conditions in the vicinity of Building #1

3. In relation to the modification of the Comprehensive Permit being sought, the Applicant has not provided any indication of the percentage or quantity of units that will be deemed affordable for this Project relative to the inventory at The Residence at LeBaron Hills and the Town of Lakeville overall. We request that the Applicant quantify the number of affordable units being proposed for the benefit of the Board.
4. Documentation relative to the potential traffic impacts of the Project has not been provided. This modification of Phase 5, relative to the total number of units, appears to mimic the unit count for the entirety of Phase 3. We request that the Applicant document the traffic implications of the Project as proposed.
5. The Project does not appear to include any provisions for pedestrian circulation. Internal paths, walks, or gathering areas have not been provided. A crosswalk to the existing sidewalk on the east side of LeBaron Boulevard has not been provided. We request that the Applicant evaluate the potential of pedestrian circulation within the Project scope.

6. The Applicant has not provided a turning movement swept path analysis for emergency response vehicles, particularly a fire engine. We request that the Applicant provide a turning movement swept path analysis and defer ultimate review of the adequacy of the access provided to Lakeville Fire Department personnel.
7. The layout and alignment of the southern access drive appears to conflict with the existing parking layout for the northernmost Phase 5 condo building. We request that the Applicant clarify the design intent for this area and if existing parking spaces will be removed or relocated.
8. The design intent for the curbing is unclear. Materials and limits for the curbs, both internal to the Project and externally on LeBaron Boulevard, are not clearly defined. We request that the Applicant clarify the design intent for the proposed curbing.
9. Section 6.5.3.3 of the By-law prescribes parking requirements. The Applicant is providing 82 parking spaces (exceeds the 70 required at 2 parking spaces per unit); however, the Project does not appear to meet the requirement for accessible parking. Proposed Building #3 does not have an accessible parking space within 50-ft of the building. We request that the Applicant clarify the design intent and revise the parking layout as necessary.
10. The Residences at LeBaron Hills is currently served by municipal water service from the City of Taunton. The Applicant has not provided any analysis on adequacy of the supply and capacity for the existing distribution network to provide the proposed Project with the required domestic and fire demands. We request that the Applicant clarify if adequate water supply is available.
11. Water supply is proposed around the perimeter of the Project primarily behind the buildings and off paved areas. Fire hydrants are not depicted. We request that the Applicant clarify the water system design intent relative to providing for firefighting requirements.
12. The Residence at LeBaron Hills is currently served by an on-site wastewater treatment system and an existing MassDEP Groundwater Discharge Permit. The Applicant has not provided any analysis on the adequacy and capacity for this system to serve the proposed Project. We request that the Applicant clarify if adequate sewer capacity is available under the existing MassDEP approvals.

13. Sewer manholes SHM2 and SHM3 are designed with a 4-ft internal diameter with multiple acute angles for the lateral connections. We request that the Applicant clarify the structural design of each of these structures and determine if the diameters need to be up-sized to accommodate the layout proposed. Additionally, the sewer lateral connections from Building #4 do not appear to intercept the trunk line. We presume this is a drafting error; however, request that the Applicant clarify the sewer design intent.
14. The Applicant has not depicted a corridor or layout for private electrical and telecommunication services. Understanding these services will need to be coordinated with the specific utility providers, we request that the Applicant provide and depict a proposed corridor for the reference utilities.
15. The Applicant has not provided architectural plans to document the character of the proposed buildings relative to the surrounding uses. Without elevations, building heights cannot be confirmed. We request that architectural plans be provided for the Administrative Record. The Applicant should also provide the design intent with regard to the Massachusetts Architectural Access Board (MAAB) regulations (521 CMR) and whether the buildings are considered "Multiple Dwelling" buildings with respect to the required number of accessible units and accessible entrances.
16. The Applicant has not provided a lighting design or a photometric analysis. We request that the Applicant clarify the design intent for site lighting.
17. The Applicant has not delineated snow storage areas. We request that the Applicant delineate adequate snow storage areas or provide protocols for removing and disposing snow from the Project as may be necessary.
18. The Applicant has not provided provisions for solid waste collection. A dumpster pad has not been provided. We request that the Applicant clarify the proposed protocols for solid waste collection.
19. Outside of the Comprehensive Permit review process, the Project will be subject to Conservation Commission review and will need to submit an NOI. Wetland flags were not observed on-site. We recommend that the wetland line be reestablished in the field for the NOI review process.
20. The Applicant should review the grading design as it appears that there are some proposed contours missing or are mislabeled.

Stormwater Management Comments

21. Standard 8 of the Handbook stipulates requirements for construction period controls and the submission of a Stormwater Pollution Prevention Plan (SWPPP). We note that a SWPPP or draft SWPPP has not been provided by the Applicant. We recommend that the submission of a SWPPP prior to construction be considered as a potential condition of approval.
22. Test pit information, specifically in the areas of the proposed stormwater management system components, has not been provided. This information is critical to determine the in-situ soil characteristics in the location of each system and to establish the seasonal high groundwater elevation. The Handbook requires a 2-ft vertical separation between the seasonal high groundwater elevation and the bottom of infiltrative Best Management Practices (BMPs). Those systems designed to attenuate the 10-year design storm and above also need to demonstrate a 4-ft vertical separation to groundwater or a mounding analysis is required. We request that the Applicant document and establish the seasonal high groundwater elevation for each of the infiltrative BMPs.
23. We acknowledge the stormwater basin design and the outlet control structure proposed. However, the basin design does not include an emergency spillway if the outlet control structure becomes clogged or comprised. If the basin were to overtop, we recommend a spillway for this to happen in a controlled manner in a single area to limit erosion. We request that the Applicant clarify the stormwater basin design.
24. The modeling of the leaching pits is unclear. The elevations used do not appear to correlate to the model. The modeling assumes 1-ft of stone below these structures where the detail does not. We request that the Applicant clarify the design intent for the referenced infrastructure.
25. The modeling of the leaching pits LP-1 and LP-4 is unclear. The elevations noted on the plans do not appear to correlate to those used in the model. We request that the Applicant clarify the design intent for the referenced infrastructure.
26. Roof drainage is proposed to be discharged to subsurface leaching structures. These systems do not appear to be designed with emergency overflows. We request that the Applicant clarify the roof drainage system designs.

Town of Lakeville Zoning Board of Appeals
c/o Marc Resnick, Town Planner
January 17, 2023
Page 10

Landscape Comments

27. The landscape plan provided does not provide for vegetative screening between the proposed Project and the existing residential uses to the north or south. We request that the Applicant reevaluate the need for screening between the Project and the existing on-site developments.

B+T will be available to attend the next Board public hearing, upon request, to present the results of our review and be available for discussion regarding the comments listed herein.

We thank you for the opportunity to assist the Town of Lakeville with the review of this Project. Should you have any questions, please do not hesitate to contact our office.

Very truly yours,

BEALS AND THOMAS, INC.



Matthew Cote, PE, SITES AP, ENV SP
Senior Civil Engineer

A handwritten signature in blue ink that reads "David J. LaPointe".

David J. LaPointe, RLA, LEED AP, CPSI
Principal

MC/djl/aak/342000LT001



Lakeville Conservation Commission
241 Main Street
Lakeville, MA 02347

February 24, 2023

Re: Response to Project Review Comments
Estates at LeBaron Hills - LeBaron Boulevard - (DEP File #192-0885)
Lakeville, Massachusetts

Dear Lakeville Conservation Commission,

Goddard Consulting, LLC (Goddard) is pleased to submit this letter on behalf of the Applicant, Muhammed M. Itani, to respond to comments made by DEP-SERO and Beal and Thomas in their reviews of the proposed project at LeBaron Boulevard (DEP File # 192-0885). Comments are re-stated (*italicized*) and responses follow in **bold text**.

We received the following documentation, which served as a basis of our review:

- Beals and Thomas Review Letter (excerpt page 6 comment #2)
- “The Estates at LeBaron Hills” Phase V Modification, A Residential Subdivision in Lakeville, Mass., dated December 12, 2022, prepared by Outback Engineering Incorporated

Response to DEP Comment

DEP-SERO issued the following comment during their review of the proposed project:

... The MassDEP Wetland Change database indicates there are Wetland Change (WC) areas either on or near the project site – WC-146-23 and WC-146-24. Please investigate the status of these WCs and whether they were authorized by a local Order of Conditions. The Wetland Change areas are shown on Mass Mapper at <https://maps.massgis.digital.mass.gov/MassMapper/MassMapper.html> found within the Physical Resources folder under Hydrography Water Features under DEP Wetlands, titled “DEP Wetlands Change”.

The following is a brief overview of the aerial imagery history related to the Wetland Change (WC) areas on/near the project site. Aerial imagery is provided for the following years; 1961, 1971, 1990s (black and white), 2001, 2005, 2008/2009, 2011-2012, 2013-2014, 2019, and 2021. The MassDEP Wetland Change database indicates Wetland Change (WC) areas on and near the project site labeled WC-146-23 and WC-146-24. The wetland changes indicated on all the aeriels were detected between 2001-2003. The oldest aerial imagery from 1990 shows a linear feature, what appears to be a channel, in the same area as WC-146-24. This same photo shows a dark spot, what may have been a wet area, near WC-146-23 (see exhibit C). The subsequent aerial imagery in 2001 shows an active gravel pit with no channel and no wet area (see exhibit D). The 2005 aerial imagery has poor quality; however, the area looks like a functional gravel pit with no wet area. Vegetation appears near the ditch next to the gravel pit. The 2008/2009 aerial imagery shows an increase in nearby vegetation and no wet area near WC-146-23 and WC-146-24. The 2011/2012 aerial imagery shows new vegetation growth in the same area mentioned before, with no wet areas. The 2019 and 2021 aerial imagery shows vegetation over the entire area and no wet areas near the mapped WCs. In summary, the Wetland Change areas mentioned above were detected between 2001-2003. This change is shown between the 1990 and 2001 aerial imagery. It is important to note that historic aerial imageries show the gravel pit activity began sometime between 1961 and 1971, before the Wetlands Protection Act was enacted in 1972 (see exhibit A and B).



Lakeville Conservation Commission
241 Main Street
Lakeville, MA 02347

February 24, 2023

Re: Response to Project Review Comments
Estates at LeBaron Hills - LeBaron Boulevard - (DEP File #192-0885)
Lakeville, Massachusetts

Dear Lakeville Conservation Commission,

Goddard Consulting, LLC (Goddard) is pleased to submit this letter on behalf of the Applicant, Muhammed M. Itani, to respond to comments made by DEP-SERO and Beal and Thomas in their reviews of the proposed project at LeBaron Boulevard (DEP File # 192-0885). Comments are re-stated (*italicized*) and responses follow in **bold text**.

We received the following documentation, which served as a basis of our review:

- Beals and Thomas Review Letter (excerpt page 6 comment #2)
- “The Estates at LeBaron Hills” Phase V Modification, A Residential Subdivision in Lakeville, Mass., dated December 12, 2022, prepared by Outback Engineering Incorporated

Response to DEP Comment

DEP-SERO issued the following comment during their review of the proposed project:

... The MassDEP Wetland Change database indicates there are Wetland Change (WC) areas either on or near the project site – WC-146-23 and WC-146-24. Please investigate the status of these WCs and whether they were authorized by a local Order of Conditions. The Wetland Change areas are shown on Mass Mapper at <https://maps.massgis.digital.mass.gov/MassMapper/MassMapper.html> found within the Physical Resources folder under Hydrography Water Features under DEP Wetlands, titled “DEP Wetlands Change”.

The following is a brief overview of the aerial imagery history related to the Wetland Change (WC) areas on/near the project site. Aerial imagery is provided for the following years; 1961, 1971, 1990s (black and white), 2001, 2005, 2008/2009, 2011-2012, 2013-2014, 2019, and 2021. The MassDEP Wetland Change database indicates Wetland Change (WC) areas on and near the project site labeled WC-146-23 and WC-146-24. The wetland changes indicated on all the aerials were detected between 2001-2003. The oldest aerial imagery from 1990 shows a linear feature, what appears to be a channel, in the same area as WC-146-24. This same photo shows a dark spot, what may have been a wet area, near WC-146-23 (see exhibit C). The subsequent aerial imagery in 2001 shows an active gravel pit with no channel and no wet area (see exhibit D). The 2005 aerial imagery has poor quality; however, the area looks like a functional gravel pit with no wet area. Vegetation appears near the ditch next to the gravel pit. The 2008/2009 aerial imagery shows an increase in nearby vegetation and no wet area near WC-146-23 and WC-146-24. The 2011/2012 aerial imagery shows new vegetation growth in the same area mentioned before, with no wet areas. The 2019 and 2021 aerial imagery shows vegetation over the entire area and no wet areas near the mapped WCs. In summary, the Wetland Change areas mentioned above were detected between 2001-2003. This change is shown between the 1990 and 2001 aerial imagery. It is important to note that historic aerial imageries show the gravel pit activity began sometime between 1961 and 1971, before the Wetlands Protection Act was enacted in 1972 (see exhibit A and B).

Exhibit A



This historic aerial from 1961 is the last available imagery that shows the locus site when it was natural and undisturbed (before gravel pit activity).

Exhibit B



This historic aerial from 1971 is the first available imagery that shows the beginning of disturbance on the locus site (gravel pit activity).

Exhibit C



- > Cultural Resources
- > Environmental Monitoring (testing/monitoring site)
- > Images
- > Index (grids/tiling schemes for certain layers)
- > Infrastructure
- > Physical Resources
- > Political / Administrative Boundaries
- > Regulated Areas
- > Status / Availability (maps showing where data is available or date of data)
- > Tiled Layers

- DEP Wetlands Change**
 - Change detected 2001-2003
 - Change detected 2005
 - Change detected 2008-2009
 - Change detected 2011-2012
- Property Tax Parcels**
- 1990s Black and White Aerial Imagery**
- 2021 Aerial Imagery**
- 2019 Aerial Imagery**
- 2005 Aerial Imagery**
- 2001 Aerial Imagery**
- 2008/2009 Aerial Imagery**

This MassMapper aerial imagery from the 1990s shows Wetland Changes (WC) detected between 2001-2003 with WC numbers 146-23 and 146-24. Note the linear feature, what appears to be a channel, in the same area as WC-146-24. Note the dark spot, what may have been a wet area, near WC-146-23.

Exhibit D



- > Cultural Resources
- > Environmental Monitoring (testing/monitoring sites)
- > Images
- > Index (grids/tiling schemes for certain layers)
- > Infrastructure
- > Physical Resources
- > Political / Administrative Boundaries
- > Regulated Areas
- > Status / Availability (maps showing where data is available or date of data)
- > Tiled Layers

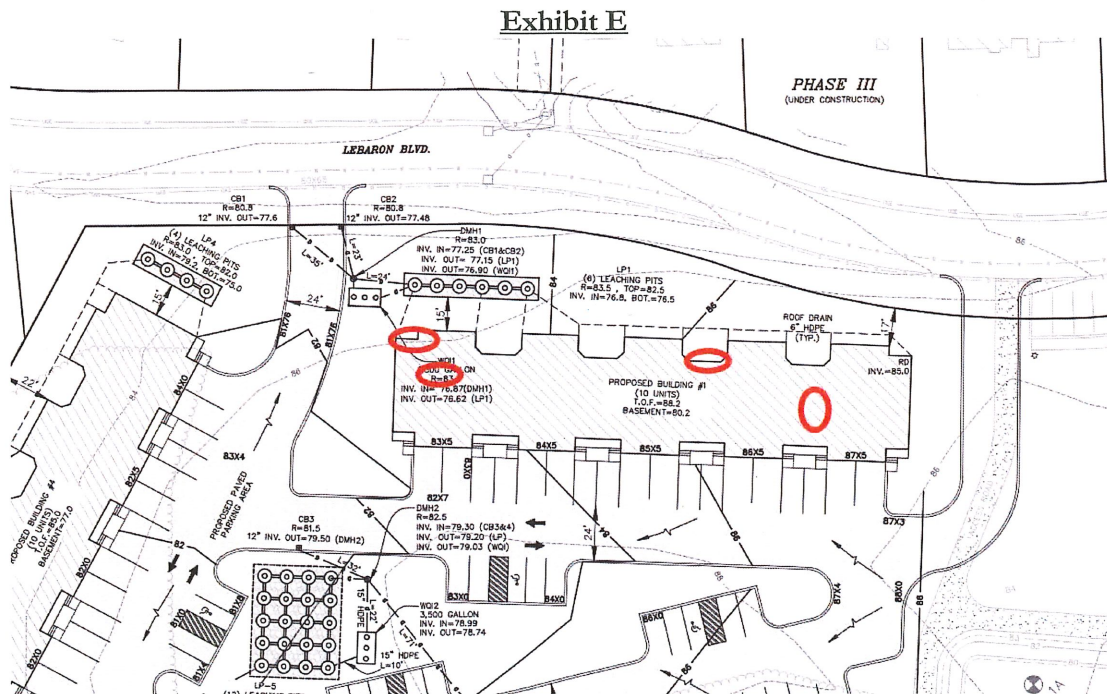
- DEP Wetlands Change**
 - Change detected 2001-2003
 - Change detected 2005
 - Change detected 2008-2009
 - Change detected 2011-2012
- Property Tax Parcels**
- 1990s Black and White Aerial Imagery**
- 2021 Aerial Imagery**
- 2019 Aerial Imagery**
- 2005 Aerial Imagery**
- 2001 Aerial Imagery**
- 2008/2009 Aerial Imagery**

This MassMapper aerial imagery from 2001 shows Wetland Changes (WC) that occurred since the 1990s. Note the linear feature and dark spot are no longer present in the WC areas.

Response to Beals and Thomas (Comment #2)

*Standing water channelization and typical wetland plants (Cattails (*typha sp.*) and common reed (*Phragmites australis*)) were observed in the vicinity of proposed Building #1. A current existing conditions plan has not been provided by the Applicant that would better define this area. We acknowledge the Order of Resource Area Delineation (ORAD) referenced that established the limits of the resource area for Thompson Brook; however, this area in question does not appear to be mapped. During, if not before, we recommend that this area be addressed in the Notice of Intent (NOI) submission with the Conservation Commission under the Wetland Projection Act regulations that are outside the Comprehensive Permit review process currently before the Board.*

The area in question referenced in the Beals and Thomas review letter (comment #2) was inspected by Goddard on Monday, February 13th, 2023. The area is located next to LeBaron Boulevard in the vicinity of proposed Building #1 shown on the plan titled, "The Estates at LeBaron Hills" Phase V Modification, A Residential Subdivision in Lakeville, Mass., dated December 12, 2022, prepared by Outback Engineering Incorporated (see attached). Goddard observed standing water and phragmites in small, isolated areas in the vicinity of Building # 1. These areas were isolated and not hydrologically connected to any other resource area (see exhibit E). The Beals and Thomas review letter also mentions cattails were found on site however, no cattails were observed during Goddard's inspection, only the invasive phragmites. It is important to note that these small, isolated areas of standing water are within a previously disturbed area and were likely created due to tire ruts from heavy equipment. These areas were not flagged as isolated vegetated wetlands and were not included in the ORAD due to the fact that isolated vegetated wetlands are not jurisdictional areas under the Massachusetts Wetlands Protection Act (310 CMR 10.00).



This photo shows approximate locations of the small isolated phragmites growth (circled in red) observed on site in the vicinity of proposed building #1.

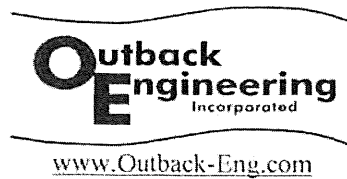


Conclusion

Wetland vegetation, hydric soils, and standing water in small, isolated areas were observed during our site visit as mentioned by Beals and Thomas. There was no hydraulic connectivity to the standing water observed on site and no hydraulic connection is shown on the DEP Wetlands Linear Features on MassMapper. The MA Wetlands Protection Act and Lakeville's Conservation Commission do not take jurisdiction over Isolated Vegetated Wetlands (IVWs). We did not flag the potential IVWs since they are non-jurisdictional resource areas. It is important to note that these small, isolated areas of standing water are within a previously disturbed area and were likely created due to tire ruts from heavy equipment.

Sincerely,

Goddard Consulting, LLC
Zoe Krouner
Wetland Scientist



March 10, 2023

Town of Lakeville Zoning Board of Appeals
c/o Marc Resnick, Town Planner
Town of Lakeville
346 Bedford Street
Lakeville, Massachusetts 02347

“The Estates at LeBaron Hills, Phase 5 Modification” Definitive Subdivision Review Response

Dear Mr. Resnick and Board Members,

On behalf of the applicant, The Residences at LeBaron Hills, LLC, we are submitting revised plans and calculations for the definitive Site Plan located at LeBaron Hills. The following revisions have been made in response to a review letter from Beals & Thomas dated January 17, 2023:

General Comments

1. The Applicant has not submitted any formal waiver requests. Relative to the Residential Zoning District, the intensity regulations (one principal structure per lot) and front yard setbacks for the Project, as prescribed by Section 5.0 of the By-law, do not appear to be met as designed. We request that the Applicant confirm that no waivers from the local regulations are being sought.

Response: A waiver request will be submitted to the Board by the Applicants attorney.

2. Standing water channelization and typical wetland plants (Cattails (typha sp.) and common reed(Phragmites australis)) were observed in the vicinity of proposed Building #1. A current existing conditions plan has not been provided by the Applicant that would better define this area. We acknowledge the Order of Resource Area Delineation (ORAD) referenced that established the limits of the resource area for Thompson Brook; however, this area in question does not appear to be mapped. During, if not before, we recommend that this area be addressed in the Notice of Intent (NOI) submission with the Conservation Commission under the Wetland Projection Act regulations that are outside the Comprehensive Permit review process currently before the Board.

Response: See attached response from Goddard Consulting.

3. In relation to the modification of the Comprehensive Permit being sought, the Applicant has not provided any indication of the percentage or quantity of units that will be deemed affordable for this Project relative to the inventory at The Residence at LeBaron Hills and the Town of Lakeville overall. We request that the Applicant quantify the number of affordable units being proposed for the benefit of the Board.

Response: The Applicants attorney will be providing the Board with the list of affordable units.

4. Documentation relative to the potential traffic impacts of the Project has not been provided. This modification of Phase 5, relative to the total number of units, appears to mimic the unit count for the entirety of Phase 3. We request that the Applicant document the traffic implications of the Project as proposed.

Response: An updated Traffic Impact and Access Study was completed on 11/1/22 which analyzed a full buildout for the LeBaron Hills project under current traffic conditions. The development was found to have minimal impact on traffic in the area. The traffic study has been attached.

5. The Project does not appear to include any provisions for pedestrian circulation. Internal paths, walks, or gathering areas have not been provided. A crosswalk to the existing sidewalk on the east side of LeBaron Boulevard has not been provided. We request that the Applicant evaluate the potential of pedestrian circulation within the Project scope.

Response: Internal sidewalks have been added to the plan as well as two crosswalks across LeBaron Blvd to access the existing sidewalk on the north side of LeBaron Blvd.

6. The Applicant has not provided a turning movement swept path analysis for emergency response vehicles, particularly a fire engine. We request that the Applicant provide a turning movement swept path analysis and defer ultimate review of the adequacy of the access provided to Lakeville Fire Department personnel.

Response: Emergency vehicle turning movement diagrams have been attached.

7. The layout and alignment of the southern access drive appears to conflict with the existing parking layout for the northernmost Phase 5 condo building. We request that the Applicant clarify the design intent for this area and if existing parking spaces will be removed or relocated.

Response: The southern entrance location has been adjusted to not interfere with the Phase 5 condo parking area as well as the Phase 5 condo mailbox center which has been added to the plan.

8. The design intent for the curbing is unclear. Materials and limits for the curbs, both internal to the Project and externally on LeBaron Boulevard, are not clearly defined. We request that the Applicant clarify the design intent for the proposed curbing.

Response: Curbing for the site is proposed as cape cod berm. Labels have been added to the plan to clearly distinguish as such and a detail for the curbing is located on Detail Sheets.

9. Section 6.5.3.3 of the By-law prescribes parking requirements. The Applicant is providing 82 parking spaces (exceeds the 70 required at 2 parking spaces per unit); however, the Project does not appear to meet the requirement for accessible parking. Proposed Building #3 does not have an accessible parking space within 50-ft of the building. We request that the Applicant clarify the design intent and revise the parking layout as necessary.

Response: Each unit has its own parking spaces (garage space and space in front of garage) which provides each unit with its own accessible space as needed. Accessible spaces provided in the island parking spaces are just additional spaces and are not needed to meet required amount.

10. The Residences at LeBaron Hills is currently served by municipal water service from the City of Taunton. The Applicant has not provided any analysis on adequacy of the supply and capacity for the existing distribution network to provide the proposed Project with the required domestic and fire demands. We request that the Applicant clarify if adequate water supply is available.

Response: Previous hydrant flow tests were conducted at LeBaron Blvd and Precinct Street and adequate pressure and flows were found. The results of those tests have been attached.

11. Water supply is proposed around the perimeter of the Project primarily behind the buildings and off paved areas. Fire hydrants are not depicted. We request that the Applicant clarify the water system design intent relative to providing for firefighting requirements.

Response: The buildings will be equipped with fire connections which have been shown on the plan. In addition, a hydrant has been added to the site and the location of the existing hydrants at Phase 2 and 5 have been shown on the revised plans.

12. The Residence at LeBaron Hills is currently served by an on-site wastewater treatment system and an existing MassDEP Groundwater Discharge Permit. The Applicant has not provided any analysis on the adequacy and capacity for this system to serve the proposed Project. We request that the Applicant clarify if adequate sewer capacity is available under the existing MassDEP approvals.

Response: The existing wastewater treatment plan has a current usage of approximately 16,000 gpd well below the system design capacity of 66,000 gpd.

13. Sewer manholes SHM2 and SHM3 are designed with a 4-ft internal diameter with multiple acute angles for the lateral connections. We request that the Applicant clarify the structural design of each of these structures and determine if the diameters need to be up-sized to accommodate the layout proposed. Additionally, the sewer lateral connections from Building #4 do not appear to intercept the trunk line. We presume this is a drafting error; however, request that the Applicant clarify the sewer design intent.

Response: The sewer manholes have increased in size to accommodate the pipe connections. In addition, the drafting error with the sewer lateral pipe connections has been corrected.

14. The Applicant has not depicted a corridor or layout for private electrical and telecommunication services. Understanding these services will need to be coordinated with the specific utility providers, we request that the Applicant provide and depict a proposed corridor for the reference utilities.

Response: The layout for the electrical and telecommunications has been added to the plans.

15. The Applicant has not provided architectural plans to document the character of the proposed buildings relative to the surrounding uses. Without elevations, building heights cannot be confirmed. We request that architectural plans be provided for the Administrative Record. The Applicant should also provide the design intent with regard to the Massachusetts Architectural Access Board (MAAB)

regulations (521 CMR) and whether the buildings are considered "Multiple Dwelling" buildings with respect to the required number of accessible units and accessible entrances.

Response: Architectural plans will be provided to the Board by the applicant.

16. The Applicant has not provided a lighting design or a photometric analysis. We request that the Applicant clarify the design intent for site lighting.

Response: Parking lot lighting has been added to the plans. In addition, lights will be located on the building at each entrance.

17. The Applicant has not delineated snow storage areas. We request that the Applicant delineate adequate snow storage areas or provide protocols for removing and disposing snow from the Project as may be necessary.

Response: Snow storage areas have been added to the Landscape Plans and snow removal guidelines are included in the Long Term Pollution Prevention Plan.

18. The Applicant has not provided provisions for solid waste collection. A dumpster pad has not been provided. We request that the Applicant clarify the proposed protocols for solid waste collection.

Response: A dumpster pad location has been added to the plans.

19. Outside of the Comprehensive Permit review process, the Project will be subject to Conservation Commission review and will need to submit an NOI. Wetland flags were not observed on-site. We recommend that the wetland line be reestablished in the field for the NOI review process.

Response: The wetland line has been reflagged by Goddard Consulting and the new flag locations shown on the revised plans.

20. The Applicant should review the grading design as it appears that there are some proposed contours missing or are mislabeled.

Response: The grading for the site has been revised.

Stormwater Management Comments

21. Standard 8 of the Handbook stipulates requirements for construction period controls and the submission of a Stormwater Pollution Prevention Plan (SWPPP). We note that a SWPPP or draft SWPPP has not been provided by the Applicant. We recommend that the submission of a SWPPP prior to construction be considered as a potential condition of approval.

Response: A NPDES permit will be filed with the US EPA once the plan revisions have been completed. The SWPPP will be completed as part of the NPDES filing.

22. Test pit information, specifically in the areas of the proposed stormwater management system components, has not been provided. This information is critical to determine the in-situ soil

characteristics in the location of each system and to establish the seasonal high groundwater elevation. The Handbook requires a 2-ft vertical separation between the seasonal high groundwater elevation and the bottom of infiltrative Best Management Practices (BMPs). Those systems designed to attenuate the 10-year design storm and above also need to demonstrate a 4-ft vertical separation to groundwater or a mounding analysis

is required. We request that the Applicant document and establish the seasonal high groundwater elevation for each of the infiltrative BMPs.

Response: Soil Observation Holes have been dug at the proposed drainage areas to confirm soil conditions and ground water table. Test pit logs as well as locations have been added to the plan.

23. We acknowledge the stormwater basin design and the outlet control structure proposed. However, the basin design does not include an emergency spillway if the outlet control structure becomes clogged or comprised. If the basin were to overtop, we recommend a spillway for this to happen in a controlled manner in a single area to limit erosion. We request that the Applicant clarify the stormwater basin design.

Response: Due to the grading changes the infiltration basin has been revised to leaching pits with an outlet pipe. Outlet pipe to be constructed with a flared end and rip rap protection.

24. The modeling of the leaching pits is unclear. The elevations used do not appear to correlate to the model. The modeling assumes 1-ft of stone below these structures where the detail does not. We request that the Applicant clarify the design intent for the referenced infrastructure.

Response: The leaching pit detail has been revised to correlate with the HydroCad modeling.

25. The modeling of the leaching pits LP-1 and LP-4 is unclear. The elevations noted on the plans do not appear to correlate to those used in the model. We request that the Applicant clarify the design intent for the referenced infrastructure.

Response: The HydroCad modeling of the leaching pits has been revised and the plans updated to correlate with the modeling.

26. Roof drainage is proposed to be discharged to subsurface leaching structures. These systems do not appear to be designed with emergency overflows. We request that the Applicant clarify the roof drainage system designs.

Response: The roof drain detail has been revised to include an overflow located at the buildings.

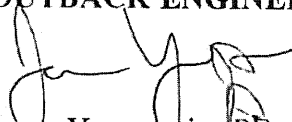
Landscape Comments

27. The landscape plan provided does not provide for vegetative screening between the proposed Project and the existing residential uses to the north or south. We request that the Applicant reevaluate the need for screening between the Project and the existing on-site developments.

Response: Additional plantings have been added to the Landscape Plans to provide screening to Phase 2 and Phase 5.

If you have any further comments or if you need any additional information please contact me at (508) 946-9231 ext. 207.

Sincerely,
OUTBACK ENGINEERING, INC.



Jason Youngquist, PE

ROBERT J. MATHER, ESQ.
ATTORNEY AT LAW

One Lakeville Business Park
Suite 1A
Lakeville, MA 02347

Tel (508) 946-0066
Fax (508) 946-4474
E-Mail: rjmather@rjmatherlaw.com

March 16, 2023

Zoning Board of Appeals
Town of Lakeville
Town Hall
346 Bedford Street
Lakeville, MA 02347

Re: LeBaron Residential, LLC

Dear Chairman Olivieri:

On behalf of LeBaron Residential, LLC, I am responding to two of the comments made by the Town's peer review engineering company, Beals and Thomas, in their review letter dated January 17, 2023.

Comment #1 was as follows:

"The Applicant has not submitted any formal waiver requests. Relative to the Residential Zoning District, the intensity regulations (one principal structure per lot) and front yard setbacks for the Project, as prescribed by Section 5.0 of the Bylaw, do not appear to be met as designed. We request that the Applicant confirm that no waivers from the local regulations are being sought."

My response:

Waivers of certain provisions of the Lakeville General Bylaws, Zoning Bylaws and the Subdivision are necessary. Attached as Exhibit "A", is a list of requested waivers.

Comment #3 was as follows:

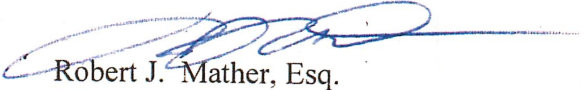
"In relation to the modification of the Comprehensive Permit being sought, the Applicant has not provided any indication of the percentage or quantity of units that will be deemed affordable for this project relative to the inventory at The Residents at LeBaron Hills in the Town of Lakeville overall. We request that the Applicant quantify the number of affordable units being proposed for the benefit of the Board."

My response:

Attached as Exhibit "B" is a Project Recap as of March 17, 2023, which shows the number of units in each of the five phases of the condominium and the number of "affordable" units. Please note that in the Phase 5 Modification request to add thirty five (35) units to the phase, it is proposed that nine (9) of the units will be affordable. The second page of Exhibit "B" shows the location of the units which will be affordable. Please note that the affordable units are evenly distributed throughout the four new buildings. Prior to the Phase 5 requested modification, there are a total of 279 units, 70 of which are affordable, for a 25.09 percentage of affordable units. With the addition of 35 units, 9 of which are proposed to be affordable, there will be 314 units, 79 of which are affordable, for a 25.12 percentage of affordable units.

If you have any questions, or require any additional information please do not hesitate to contact me.

Very truly yours,



Robert J. Mather, Esq.
RJM/slf

cc: Muhamad Itani
cc: Rami Itani
cc: Jason Youngquist
cc: Ari Sky
cc: Marc Resnick

Exhibit "A"

memo

To: Lakeville ZBA
From: Jason Youngquist
Date: 3/15/23
Re: LeBaron Hills Phase 5B – Waiver List from Lakeville local regulations.

Waivers Requested from:	Section(s) of Rule, Regulation or Bylaw	Decision of the Board of Appeals
Lakeville General Bylaws	<u>Chapter 5 (page 32)</u> ; waive requirements on street numbering for multi-unit buildings in Phase 5B.	

Waivers Requested from:	Section(s) of Rule, Regulation or Bylaw	Decision of the Board of Appeals
Lakeville Zoning Bylaw	<u>Section 4.0</u> ; to allow multifamily attached dwellings	
	<u>Section 5.1</u> ; waive minimum lot dimension of 70,000 s.f., lot frontage of 175', front yard setback of 40', side yard setback of 20', rear yard setback of 20', and 25% maximum percentage of land covered by structures.	
	<u>Section 5.1.2</u> ; waive requirement of a 160' diameter upland circle.	
	<u>Section 6.7</u> ; waive requirements for	

	site plan review.	
--	-------------------	--

Waivers Requested from:	Section(s) of Rule, Regulation or Bylaw	Decision of the Board of Appeals
Subdivision Rules and Regulations	<u>Section IV.3.C;</u> waive requirements for definitive plan submittal	
	<u>Section IV.B.2.b.;</u> waive requirement for 150' minimum horizontal centerline radius for a minor street.	
	<u>Section IV.B.2.e;</u> waive requirement that streets shall be laid out to intersect in intervals in a range of 600' to 1,200'.	
	<u>Section IV.B.3.a;</u> waive requirement for a minimum of 50' street right of way.	
	<u>Section IV.B.7.a</u> waive requirement of 6" high berm on the sidewalk side of the street and 18" wide berm. A 12" cape cod berm has been proposed throughout.	
	<u>Section IV.B.7.b.;</u> waive requirement for driveway curb cut to be 65' minimum from roadway intersection centerline.	
	<u>Section IV.D.5.;</u> waive requirement for planning board agent to inspect pipes prior to backfilling.	
	<u>Section IV.G;</u> waive requirements on monuments.	
	<u>Section IV.I;</u> waive requirements on street lights.	
	<u>Section IV.H.2;</u> waive requirement of Planning Board approval of street names.	
	<u>Section IV.K;</u> waive requirements on street trees.	
	<u>Section 5.C.1;</u> waive requirement for planning board written permission prior to erecting any building.	
	<u>Section 5.D;</u> waive requirements on inspection notices.	

The Applicant reserves the right to amend this request until such time as the comprehensive permit is issued. Should there be any conflict between the List of Requested Waivers and the Plans submitted the Plans will control."

EXHIBIT "B"

PROJECT RECAP

Original Comp Permit – March 16, 2023

1. 386 age-restricted units
 - a. 160 condo units in 80 duplex "cottages"
 - b. 181 condo units in 2 independent living" apartment bldgs.
 - c. 45 rental units in an "assisted living" apartment bldg.

Status as of March 16, 2023

- a. Phase 1 - 62 units in 36 duplex buildings (age restricted) – 6 affordable
- b. Phase 2 - 56 unit apartment building – (age restricted) 100% affordable
- c. Phase 3 – 77 single family homes – (no age restrictions) all market rate
- d. Phase 4 – 32 units in 16 duplex buildings (age restricted) 0 affordable
- e. Phase 5 - 52 units in 4 townhouse style buildings (no age restrictions) (14,14,12,&12)
- 8 affordable

279 units - 70 affordable 25.09%

Phase 5 Modification – to add 35 units

Total units with Phase 5 Modification – 314

Required Affordable Units after Phase 5 Modification – 79

Additional Affordable Units Proposed in Phase 5 Modification – 9

314 units – 79 affordable – 25.12%



FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE: _____

PROFESSIONAL LAND SURVEYOR: _____

APPROVED AND ENGINEER UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____

LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK - TOWN OF LAKEVILLE

OWNER & APPLICANT
 THE RESIDENCES AT LEBARON HILLS, LLC
 32 NORFOLK AVENUE
 SOUTH EASTON, MA 02375
 ASSESSORS MAP 28 BLOCK 3 LOT 10
 ASSESSORS MAP 18 BLOCK 3 LOTS 1 & 2

REVISIONS		
NO.	DATE	DESCRIPTION

AFFORDABLE DISTRIBUTION PLAN
"THE ESTATES AT LEBARON HILLS"
 PHASE 5B
 A
 RESIDENTIAL SUBDIVISION
 IN
 LAKEVILLE
 MASSACHUSETTS

Outback Engineering
 Incorporated

165 EAST GROVE STREET
 MIDDLEBOROUGH, MA 02346
 TEL: (508)-946-9231

DRAWN BY: W.A.B. | CHECKED BY: J.A.T.
 DATE: 3-14-21 | PROJECT No: 1865E
 1865E MASTER DWG | SHEET 1 OF 11

0' 20' 40' 60'
 SCALE: 1" = 20'



March 23, 2023

Town of Lakeville Zoning Board of Appeals
c/o Marc Resnick, Town Planner
Town of Lakeville
346 Bedford Street
Lakeville, Massachusetts 02347

Via: Email to mresnick@lakevillema.org

Reference: Supplemental Peer Review of
Chapter 40B Comprehensive Permit Modification
The Residences at LeBaron Hills – Phase 5 Modification
LeBaron Boulevard
Lakeville, Massachusetts
B+T Project No. 3420.00

Dear Mr. Resnick and Members of the Zoning Board of Appeals:

Beals and Thomas, Inc. (B+T) is pleased to assist the Town of Lakeville Zoning Board of Appeals (the Board) with the supplemental peer review of the proposed modification of the Chapter 40B Comprehensive Permit for Phase 5 of The Residences at LeBaron Hills. We understand that The Residences at LeBaron Hills LLC (the Applicant) proposes to develop four (4) condominium buildings consisting of 35 total units (the Project) on the vacant land between the previously approved Phases 2 and 5 on LeBaron Boulevard (the Site). The Project consists of associated site improvements including driveways, parking, landscaping, utility connections, and a stormwater management system (the Project).

B+T issued a letter to the Board dated January 17, 2023, which presented the results of our site visit and our initial review of the original documentation submitted by the Applicant. As a result of our initial comments the Applicant has submitted the following supplemental documentation as listed herein, which served as the basis of our current review:

- *“The Estates at LeBaron Hills, Phase 5 Modification” Definitive Subdivision Review Response*, dated March 10, 2023, prepared by Outback Engineering Incorporated (6 pages)
- *“The Estates at LeBaron Hills” Phase 5B, A Residential Subdivision in Lakeville, Mass.*, dated December 12, 2022, revised through March 10, 2023, prepared by Outback Engineering Incorporated (10 sheets)

Civil Engineering ▪ Land Surveying ▪ Landscape Architecture ▪ Land Use Permitting ▪ Environmental Planning ▪ Wetland Science

Corporate Office
144 Turnpike Road
Southborough, MA 01772

T 508.366.0560 | www.bealsandthomas.com | F 508.366.4391

Regional Office
32 Court Street
Plymouth, MA 02360

Town of Lakeville Zoning Board of Appeals
c/o Marc Resnick, Town Planner
Town of Lakeville
March 23, 2023
Page 2

- Drainage Report, The Residences at LeBaron Hills, Phase 5B in Lakeville, Massachusetts, December 12, 2022, revised through March 10, 2023, prepared by Outback Engineering Incorporated (84 pages)
- *Response to Project Review Comments, Estates at LeBaron Hills – LeBaron Boulevard – (DEP File #192-0885), Lakeville, Massachusetts, dated February 24, 2023, prepared by Goddard Consulting (6 pages)*
- *Affordable Distribution Plan, “The Estates at LeBaron Hills” Phase 5B, dated March 14, 2023, prepared by Outback Engineering Incorporated (1 sheet)*
- *Emergency Vehicle Turning, “The Estates at LeBaron Hills” Phase 5B, dated December 12, 2022, prepared by Outback Engineering Incorporated (1 sheet)*
- *Traffic Impact and Access Study, Residences at LeBaron Hills Expansion, 1 LeBaron Boulevard, Lakeville, Massachusetts, dated November 1, 2022, prepared by Chappell Engineering Associates, LLC (215 pages)*
- *LeBaron Residential, LLC, dated March 16, 2023, prepared by Robert J. Mather, ESQ. (7 pages)*

We have reviewed the documentation submitted by the Applicant with respect to the requirements of the Town of Lakeville General By-Laws and Zoning By-Laws; the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Regulations and Handbook (the Handbook); and, particularly with respect to our original comments dated January 17, 2023.

Review Format

In an effort to establish clarity for the Administrative Record, we have included the comments from our initial review letter dated January 17, 2023, followed by a summary of the Applicant’s responses in *italicized* font, followed by our current comments in **bold** font to document the status of our original comment.

General Comments

1. The Applicant has not submitted any formal waiver requests. Relative to the Residential Zoning District, the intensity regulations (one principal structure per lot) and front yard setbacks for the Project, as prescribed by Section 5.0 of the By-law, do not appear to be met as designed. We request that the Applicant confirm that no waivers from the local regulations are being sought.

Outback Engineering Response: A waiver request will be submitted to the Board by the Applicants attorney.

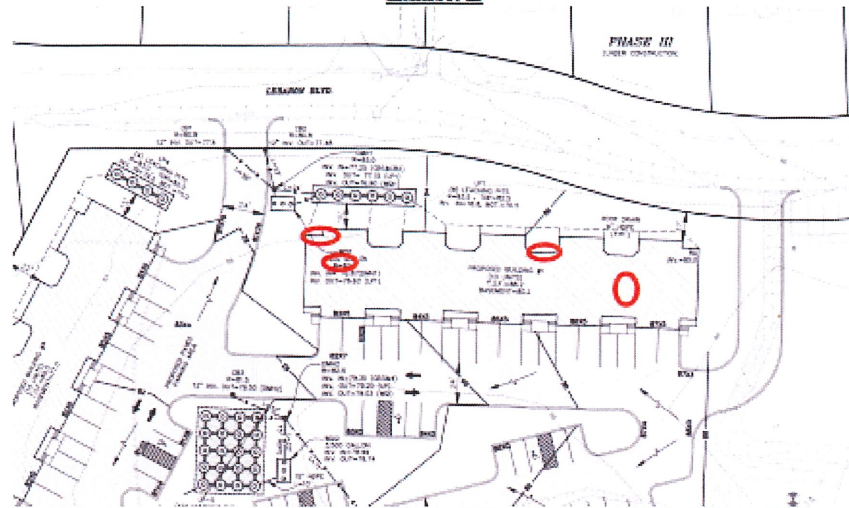
B+T Response: We acknowledge the waiver request provided by the Applicant. Accordingly, we defer to the Board on the appropriateness of the waiver being requested.

2. Standing water channelization and typical wetland plants (Cattails (*typha* sp.) and common reed (*Phragmites australis*)) were observed in the vicinity of proposed Building #1. A current existing conditions plan has not been provided by the Applicant that would better define this area. We acknowledge the Order of Resource Area Delineation (ORAD) referenced that established the limits of the resource area for Thompson Brook; however, this area in question does not appear to be mapped. During, if not before, we recommend that this area be addressed in the Notice of Intent (NOI) submission with the Conservation Commission under the Wetland Projection Act regulations that are outside the Comprehensive Permit review process currently before the Board.

Outback Engineering Response: See attached response from Goddard Consulting.

Goddard Consulting Response: The area in question referenced in the Beals and Thomas review letter (comment #2) was inspected by Goddard on Monday, February 13th, 2023. The area is located next to LeBaron Boulevard in the vicinity of proposed Building #1 shown on the plan titled, "The Estates at LeBaron Hills" Phase V Modification, A Residential Subdivision in Lakeville, Mass., dated December 12, 2022, prepared by Outback Engineering Incorporated (see attached). Goddard observed standing water and phragmites in small, isolated areas in the vicinity of Building # 1. These areas were isolated and not hydrologically connected to any other resource area (see exhibit E). The Beals and Thomas review letter also mentions cattails were found on site however, no cattails were observed during Goddard's inspection, only the invasive phragmites. It is important to note that these small, isolated areas of standing water are within a previously disturbed area and were likely created due to tire ruts from heavy equipment. These areas were not flagged as isolated vegetated wetlands and were not included in the ORAD due to the fact that isolated vegetated wetlands are not jurisdictional areas under the Massachusetts Wetlands Protection Act (310 CMR 10.00).

Exhibit E



This photo shows approximate locations of the small isolated phragmites growth (circled in red) observed on site in the vicinity of proposed building #1.

B+T Response: We acknowledge the response from Goddard Consulting and recognize that although common reed (*Phragmites australis*) is a wetland-rated species, it is considered invasive and often populates low-lying areas with some hydrologic influence. We consider this comment addressed; however, we defer the jurisdictional status of this landscape feature to the Lakeville Conservation Commission. A site visit would be required to formally assess the presence or absence of a wetland feature in this area.

3. In relation to the modification of the Comprehensive Permit being sought, the Applicant has not provided any indication of the percentage or quantity of units that will be deemed affordable for this Project relative to the inventory at The Residence at LeBaron Hills and the Town of Lakeville overall. We request that the Applicant quantify the number of affordable units being proposed for the benefit of the Board.

Outback Engineering Response: The Applicants attorney will be providing the Board with the list of affordable units.

B+T Response: We acknowledge the "Affordable Distribution Plan" provided by the Applicant as referenced herein and the depiction of 9 affordable units. With 35 total proposed units, this represents 25% of the units being deemed affordable.

Providing 25% affordable units complies with the original decision dating back to 2004 and, based on the unit reporting provided by the Project Attorney, the Project overall continues to include at least 25% affordable units. We consider this comment to have been adequately addressed by the Applicant.

4. Documentation relative to the potential traffic impacts of the Project has not been provided. This modification of Phase 5, relative to the total number of units, appears to mimic the unit count for the entirety of Phase 3. We request that the Applicant document the traffic implications of the Project as proposed.

Outback Engineering Response: An updated Traffic Impact and Access Study was completed on 11/1/22 which analyzed a full buildout for the LeBaron Hills project under current traffic conditions. The development was found to have minimal impact on traffic in the area. The traffic study has been attached.

B+T Response: We acknowledge the Traffic Impact Access Study provided by the Applicant as referenced herein. Though not specifically in B+T's scope to review, we concur with the Applicant that the potential impacts appear to be minimal. We defer to the Board if a more formal review of the referenced documentation is required.

5. The Project does not appear to include any provisions for pedestrian circulation. Internal paths, walks, or gathering areas have not been provided. A crosswalk to the existing sidewalk on the east side of LeBaron Boulevard has not been provided. We request that the Applicant evaluate the potential of pedestrian circulation within the Project scope.

Outback Engineering Response: Internal sidewalks have been added to the plan as well as two crosswalks across LeBaron Blvd to access the existing sidewalk on the north side of LeBaron Blvd.

B+T Response: We acknowledge the inclusion of the referenced infrastructure; however, accommodations and details to provide for MAAB/ADA accessibility do not appear to have been provided. As a potential condition of approval, we recommend that the Applicant document full MAAB/ADA compliance during the building permit review process.

6. The Applicant has not provided a turning movement swept path analysis for emergency response vehicles, particularly a fire engine. We request that the Applicant provide a turning movement swept path analysis and defer ultimate review of the adequacy of the access provided to Lakeville Fire Department personnel.

Outback Engineering Response: Emergency vehicle turning movement diagrams have been attached.

B+T Response: We acknowledge the turning movement analysis provided by the Applicant. In multiple instances the truck tires and overhanging bumpers appear to intercept the proposed curb lines. As noted previously, we continue to defer review and approval of the adequacy of the emergency access provided to Lakeville Fire Department personnel.

7. The layout and alignment of the southern access drive appears to conflict with the existing parking layout for the northernmost Phase 5 condo building. We request that the Applicant clarify the design intent for this area and if existing parking spaces will be removed or relocated.

Outback Engineering Response: The southern entrance location has been adjusted to not interfere with the Phase 5 condo parking area as well as the Phase 5 condo mailbox center which has been added to the plan.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

8. The design intent for the curbing is unclear. Materials and limits for the curbs, both internal to the Project and externally on LeBaron Boulevard, are not clearly defined. We request that the Applicant clarify the design intent for the proposed curbing.

Outback Engineering Response: Curbing for the site is proposed as cape cod berm. Labels have been added to the plan to clearly distinguish as such and a detail for the curbing is located on Detail Sheets.

B+T Response: We acknowledge the clarification provided by the Applicant relative to the design intent for the curbing; however, as noted in the response to Comment #5 herein, accommodations and details to provide for MAAB/ADA accessibility do not appear to have been provided. As a potential condition of approval, we recommend that the Applicant document full MAAB/ADA compliance during the building permit review process.

9. Section 6.5.3.3 of the By-law prescribes parking requirements. The Applicant is providing 82 parking spaces (exceeds the 70 required at 2 parking spaces per unit); however, the Project does not appear to meet the requirement for accessible parking. Proposed Building #3 does not have an accessible parking space within 50-ft of the building. We request that the Applicant clarify the design intent and revise the parking layout as necessary.

Outback Engineering Response: Each unit has its own parking spaces (garage space and space in front of garage) which provides each unit with its own accessible space as needed. Accessible spaces provided in the island parking spaces are just additional spaces and are not needed to meet required amount.

B+T Response: We request that the Applicant clarify the design intent related to the parking proposed by providing a parking summary table along with additional labels, notes and dimensions on the plan related to the proposed parking. Additionally, consistent with Comment #15 below, we request that the Applicant provide the design intent with regard to the Massachusetts Architectural Access Board (MAAB) regulations (521 CMR) and whether the buildings are considered “Multiple Dwelling” buildings with respect to the required number of accessible units, accessible entrances and accessible parking spaces.

10. The Residences at LeBaron Hills is currently served by municipal water service from the City of Taunton. The Applicant has not provided any analysis on adequacy of the supply and capacity for the existing distribution network to provide the proposed Project with the required domestic and fire demands. We request that the Applicant clarify if adequate water supply is available.

Outback Engineering Response: Previous hydrant flow tests were conducted at LeBaron Blvd and Precinct Street and adequate pressure and flows were found. The results of those tests have been attached.

B+T Response: The referenced testing results have not been provided to B+T as indicated. Accordingly, we reiterate the intent of our previous comment pending the submission of the referenced testing results. As a potential condition of approval, we recommend that the Applicant document and confirm adequate capacity is available in the water distribution network during the building permit review process.

11. Water supply is proposed around the perimeter of the Project primarily behind the buildings and off paved areas. Fire hydrants are not depicted. We request that the Applicant clarify the water system design intent relative to providing for firefighting requirements.

Outback Engineering Response: The buildings will be equipped with fire connections which have been shown on the plan. In addition, a hydrant has been added to the site and the location of the existing hydrants at Phase 2 and 5 have been shown on the revised plans.

B+T Response: We acknowledge the incorporation of the referenced infrastructure to the site plans. We defer to Lakeville Fire Department personnel relative to the adequacy of the firefighting provisions provided.

12. The Residence at LeBaron Hills is currently served by an on-site wastewater treatment system and an existing MassDEP Groundwater Discharge Permit. The Applicant has not provided any analysis on the adequacy and capacity for this system to serve the proposed Project. We request that the Applicant clarify if adequate sewer capacity is available under the existing MassDEP approvals.

Outback Engineering Response: The existing waste water treatment plan has a current usage of approximately 16,000 gpd well below the system design capacity of 66,000 gpd.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

13. Sewer manholes SHM2 and SHM3 are designed with a 4-ft internal diameter with multiple acute angles for the lateral connections. We request that the Applicant clarify the structural design of each of these structures and determine if the diameters need to be up-sized to accommodate the layout proposed. Additionally, the sewer lateral connections from Building #4 do not appear to intercept the trunk line. We presume this is a drafting error; however, request that the Applicant clarify the sewer design intent.

Outback Engineering Response: The sewer manholes have increased in size to accommodate the pipe connections. In addition, the drafting error with the sewer lateral pipe connections has been corrected.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

14. The Applicant has not depicted a corridor or layout for private electrical and telecommunication services. Understanding these services will need to be coordinated with the specific utility providers, we request that the Applicant provide and depict a proposed corridor for the reference utilities.

Outback Engineering Response: The layout for the electrical and telecommunications has been added to the plans.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

15. The Applicant has not provided architectural plans to document the character of the proposed buildings relative to the surrounding uses. Without elevations, building heights cannot be confirmed. We request that architectural plans be provided for the Administrative Record. The Applicant should also provide the design intent with regard to the Massachusetts Architectural Access Board (MAAB) regulations (521 CMR) and whether the buildings are considered "Multiple Dwelling" buildings with respect to the required number of accessible units and accessible entrances.

Outback Engineering Response: Architectural plans will be provided to the Board by the applicant.

B+T Response: We reiterate the intent of our previous comment pending the submission of the referenced documentation.

16. The Applicant has not provided a lighting design or a photometric analysis. We request that the Applicant clarify the design intent for site lighting.

Outback Engineering Response: Parking lot lighting has been added to the plans. In addition, lights will be located on the building at each entrance.

B+T Response: We acknowledge the light poles incorporated by the Applicant; however, a photometric analysis to document the lighting coverage has not been provided. We defer to the Board if the reference analysis should be provided, particularly in the areas where accessible parking is proposed.

17. The Applicant has not delineated snow storage areas. We request that the Applicant delineate adequate snow storage areas or provide protocols for removing and disposing snow from the Project as may be necessary.

Outback Engineering Response: Snow storage areas have been added to the Landscape Plans and snow removal guidelines are included in the Long Term Pollution Prevention Plan.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

18. The Applicant has not provided provisions for solid waste collection. A dumpster pad has not been provided. We request that the Applicant clarify the proposed protocols for solid waste collection.

Outback Engineering Response: A dumpster pad location has been added to the plans.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

19. Outside of the Comprehensive Permit review process, the Project will be subject to Conservation Commission review and will need to submit an NOI. Wetland flags were not observed on-site. We recommend that the wetland line be reestablished in the field for the NOI review process.

Outback Engineering Response: The wetland line has been reflagged by Goddard Consulting and the new flag locations shown on the revised plans.

B+T Response: Acknowledged. We note for the record that the reflagged wetland line has changed in certain locations in comparison to the original submittal, and we further understand that the Lakeville Conservation Commission may reserve the right to have the wetland line reviewed given that this is a new delineation and that the preceding Order of Resource Area Delineation (ORAD) has expired.

20. The Applicant should review the grading design as it appears that there are some proposed contours missing or are mislabeled.

Outback Engineering Response: The grading for the site has been revised.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

Stormwater Management Comments

21. Standard 8 of the Handbook stipulates requirements for construction period controls and the submission of a Stormwater Pollution Prevention Plan (SWPPP). We note that a SWPPP or draft SWPPP has not been provided by the Applicant. We recommend that the submission of a SWPPP prior to construction be considered as a potential condition of approval.

Outback Engineering Response: A NPDES permit will be filed with the US EPA once the plan revisions have been completed. The SWPPP will be completed as part of the NPDES filing.

B+T Response: We reiterate the intent of our previous comment and continue to recommend that a SWPPP be provided prior to construction be considered as a potential condition of approval.

22. Test pit information, specifically in the areas of the proposed stormwater management system components, has not been provided. This information is critical to determine the in-situ soil characteristics in the location of each system and to establish the seasonal high groundwater elevation. The Handbook requires a 2-ft vertical separation between the seasonal high groundwater elevation and the bottom of infiltrative Best Management Practices (BMPs). Those systems designed to attenuate the 10-year design storm and above also need to demonstrate a 4-ft vertical separation to groundwater or a mounding analysis is required. We request that the Applicant document and establish the seasonal high groundwater elevation for each of the infiltrative BMPs.

Outback Engineering Response: Soil Observation Holes have been dug at the proposed drainage areas to confirm soil conditions and ground water table. Test pit logs as well as locations have been added to the plan.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

23. We acknowledge the stormwater basin design and the outlet control structure proposed. However, the basin design does not include an emergency spillway if the outlet control structure becomes clogged or comprised. If the basin were to overtop, we recommend a spillway for this to happen in a controlled manner in a single area to limit erosion. We request that the Applicant clarify the stormwater basin design.

Outback Engineering Response: Due to the grading changes the infiltration basin has been revised to leaching pits with an outlet pipe. Outlet pipe to be constructed with a flared end and rip rap protection.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

24. The modeling of the leaching pits is unclear. The elevations used do not appear to correlate to the model. The modeling assumes 1-ft of stone below these structures where the detail does not. We request that the Applicant clarify the design intent for the referenced infrastructure.

Outback Engineering Response: The leaching pit detail has been revised to correlate with the Hydro Cad modeling.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

25. The modeling of the leaching pits LP-1 and LP-4 is unclear. The elevations noted on the plans do not appear to correlate to those used in the model. We request that the Applicant clarify the design intent for the referenced infrastructure.

Outback Engineering Response: The Hydro Cad modeling of the leaching pits has been revised and the plans updated to correlate with the modeling.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

Town of Lakeville Zoning Board of Appeals
c/o Marc Resnick, Town Planner
Town of Lakeville
March 23, 2023
Page 13

26. Roof drainage is proposed to be discharged to subsurface leaching structures. These systems do not appear to be designed with emergency overflows. We request that the Applicant clarify the roof drainage system designs.

Outback Engineering Response: The roof drain detail has been revised to include an overflow located at the buildings.

B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

Landscape Comments

27. The landscape plan provided does not provide for vegetative screening between the proposed Project and the existing residential uses to the north or south. We request that the Applicant reevaluate the need for screening between the Project and the existing on-site developments.

Outback Engineering Response: Additional plantings have been added to the Landscape Plans to provide screening to Phase 2 and Phase 5.

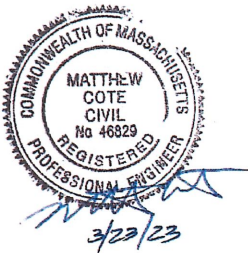
B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

Town of Lakeville Zoning Board of Appeals
c/o Marc Resnick, Town Planner
Town of Lakeville
March 23, 2023
Page 14

We thank you for the opportunity to assist the Town of Lakeville with the review of this Project.
Should you have any questions, please do not hesitate to contact our office.

Sincerely,

BEALS AND THOMAS, INC.



Matthew Cote, PS, SITES AP, ENV SP
Senior Civil Engineer

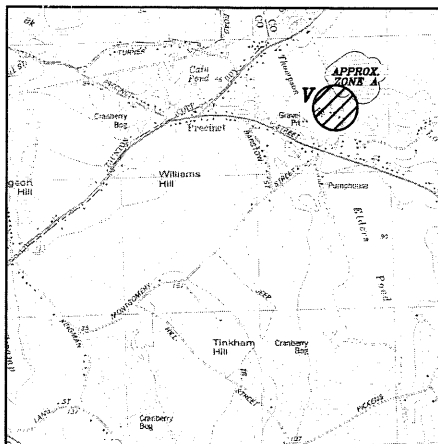
David J. LaPointe, RLA, LEED AP, CPSI
Principal

MC/djl/aak/cmv/342000LT002

"THE ESTATES AT LEBARON HILLS"

PHASE 5B

A RESIDENTIAL SUBDIVISION IN LAKEVILLE, MASS.



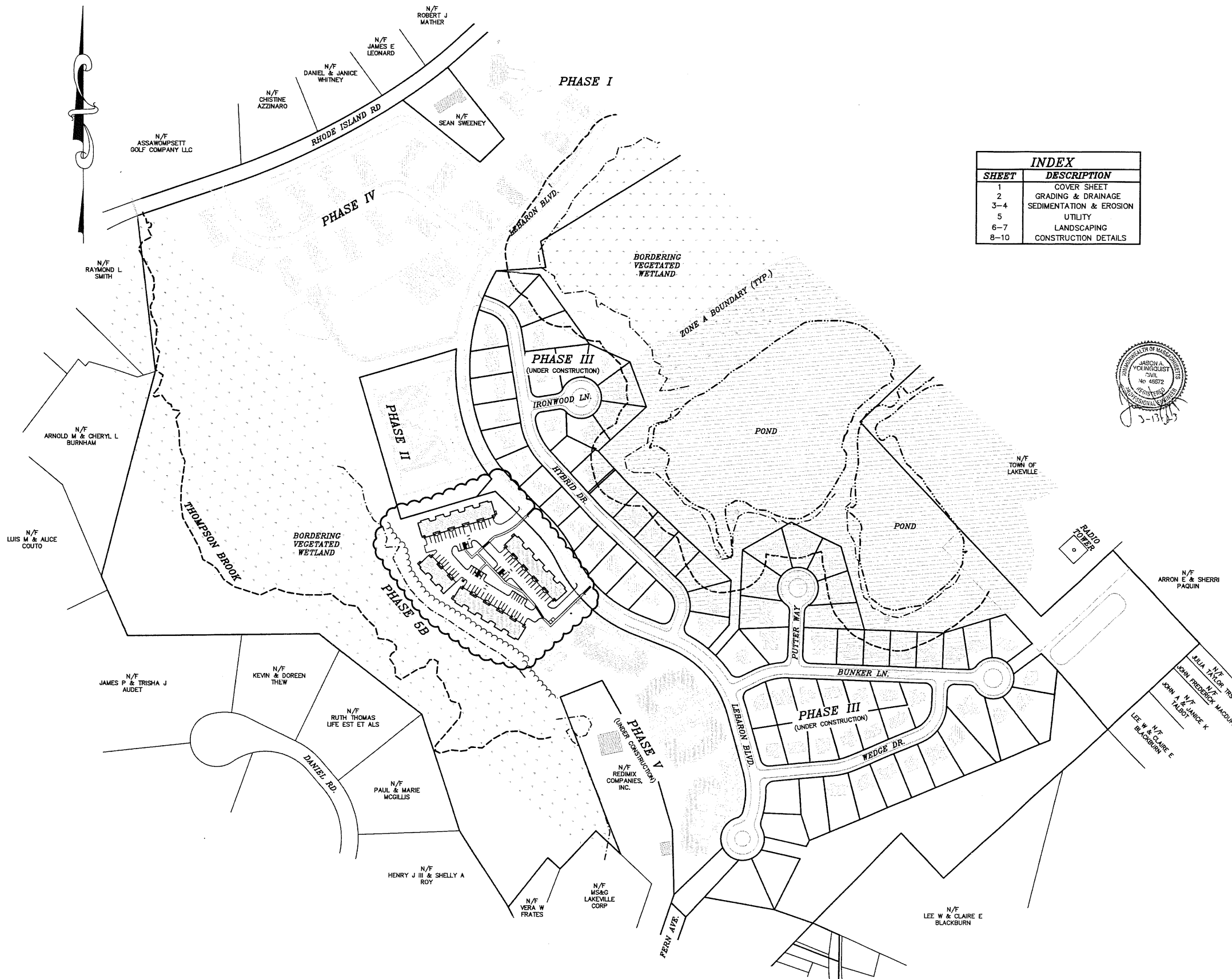
LOCUS MAP N.T.S.

GENERAL NOTES

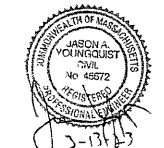
- THIS PLAN IS A MODIFICATION OF THE COMPREHENSIVE PERMIT ISSUED BY THE LAKEVILLE ZONING BOARD DATED JUNE 18TH, 2004.
- THE TOPOGRAPHICAL DATA, PROPERTY LINE INFORMATION, AND EXISTING SITE FEATURES WERE OBTAINED FROM SURVEYS PERFORMED BY OUTBACK ENGINEERING INC.
- FLOOD PLAIN INFORMATION WAS OBTAINED FROM THE FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 2502300426, EFFECTIVE ON 07/17/2012. THE SITE IS ENTIRELY IN ZONE X.
- WETLAND APPROVAL
 - EASTERLY WETLAND LINE APPROVED BY THE LAKEVILLE CONSERVATION COMMISSION IN AN ORDER OF RESOURCE AREA DELINEATION ISSUED ON 8-24-16.
 - WESTERLY WETLAND LINE AND THOMPSON BROOK LOCATION APPROVED BY THE LAKEVILLE CONSERVATION COMMISSION IN A MEETING CLOSED ON 8-24-21. LINE REFLAGGED BY GOODARD CONSULTING IN FEBRUARY 2022.
- CONTRACTORS SHALL NOTIFY DIGSAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO THE ONSET OF CONSTRUCTION TO HAVE ALL EXISTING UTILITIES ALONG LEBARON BOULEVARD CLEARLY LOCATED AND MARKED.
- THE PROPERTY IS NOT LOCATED WITHIN AN ESTIMATED HABITAT OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS AS SHOWN ON THE LATEST MASSACHUSETTS NATURAL HERITAGE MAPS AVAILABLE ONLINE.
- ALL WATER CONNECTIONS ARE SUBJECT TO THE APPROVAL OF, AND GRANTING OF PERMITS BY, THE CITY OF TAUNTON. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO SEE THAT ALL PERMITS AND APPROVALS ARE OBTAINED BEFORE STARTING CONSTRUCTION.
- THE PROPERTY IS PROPOSED TO BE SERVICED BY UNDERGROUND ELECTRIC, TELEPHONE, CABLE, SEWER LINES, AND MUNICIPAL WATER.
- THE SEPTIC SYSTEM SHOWN AS WELL AS THE PROPOSED WASTEWATER TREATMENT PLANT ARE DESIGNED BY OTHERS.
- ALL DISTURBED AREAS TO BE LOAM AND SEEDED.
- ALL ELEVATIONS REFER TO NGVD 29 DATUM.
- GAS, TELEPHONE, AND ELECTRIC SERVICES ARE TO BE DESIGNED BY EACH UTILITY COMPANY IN COORDINATION WITH MECHANICAL, ELECTRIC, AND PLUMBING CONSULTANTS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES AND DESIGN OF NEW UTILITIES WITH APPROPRIATE UTILITY DEPARTMENT.
- INSTALL WATER LINES WITH A MINIMUM OF FIVE FEET OF COVER AND A MAXIMUM OF SEVEN FEET.
- MAINTAIN 10 FEET HORIZONTAL SEPARATION BETWEEN SEWER AND WATER LINES. WHEREVER THERE IS LESS THAN 18" OF VERTICAL SEPARATION BETWEEN A PROPOSED OR EXISTING SEWER LINE AND A PROPOSED OR EXISTING WATER LINE, BOTH UTILITIES SHALL BE SLEEVED OR ENCASED IN CONCRETE. WHEREVER THERE IS LESS THAN 10 FEET OF HORIZONTAL SEPARATION BETWEEN A PROPOSED OR EXISTING SEWER LINE AND A PROPOSED OR EXISTING WATER LINE, BOTH UTILITIES SHALL BE PLACED IN SEPARATE TRENCHES AND BOTH UTILITIES SHALL BE SLEEVED OR ENCASED IN CONCRETE.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
80	80	MAJOR CONTOUR
82	82	MINOR CONTOUR
82X0	82X0	SPOT ELEVATION
-----	-----	BORDERING VEGETATED WETLANDS
-----	-----	100' BUFFER FROM WETLANDS
-----	-----	CHAIN-LINK FENCE
-----	-----	EASEMENT
-----	-----	BUILDING SETBACK LINE
-----	-----	WATER MAIN
-----	-----	WATER SERVICE
-----	-----	WATER SERVICE SHUTOFF
-----	-----	WATER GATE
-----	-----	FIRE HYDRANT
-----	-----	UNDERGROUND ELEC, TELE, & CABLE
-----	-----	OVERHEAD WIRES
-----	-----	UTILITY POLE
-----	-----	DRAINAGE
-----	-----	CATCH BASIN
-----	-----	DRAIN MANHOLE
-----	-----	DRILL HOLE
-----	-----	IRON PIPE
-----	-----	BOUND
-----	-----	TEST PIT
-----	-----	TREELINE
-----	-----	WETLAND FLAG
-----	-----	FLOW LINE



INDEX	
SHEET	DESCRIPTION
1	COVER SHEET
2	GRADING & DRAINAGE
3-4	SEDIMENTATION & EROSION
5	UTILITY
6-7	LANDSCAPING
8-10	CONSTRUCTION DETAILS



FOR REGISTRY USE ONLY
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____
LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK-TOWN OF LAKEVILLE

OWNER & APPLICANT
THE RESIDENCES AT LEBARON HILLS, LLC
32 NORFOLK AVENUE
SOUTH EASTON, MA 02375
ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS		
NO.	DATE	DESCRIPTION
1.	3/10/23	PER REVIEW COMMENTS

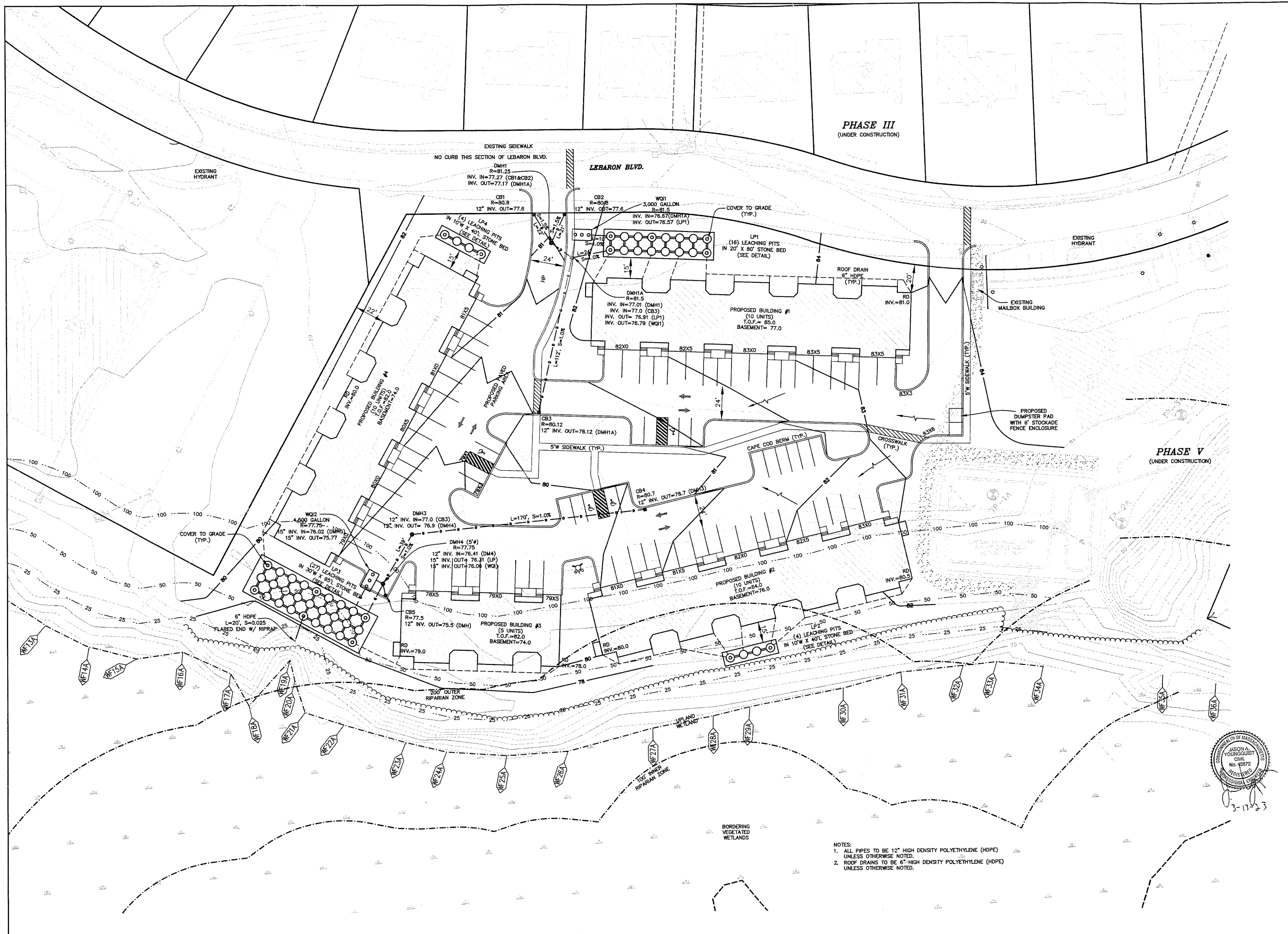
COVER SHEET
"THE ESTATES AT LEBARON HILLS"
PHASE 5B
A
RESIDENTIAL SUBDIVISION
IN
LAKEVILLE
MASSACHUSETTS

Outback Engineering
Incorporated

165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231

DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
DATE: 12-12-22 PROJECT No. 1865E
1865E MASTER.dwg SHEET 1 OF 10

0' 150' 300' 450'
SCALE: 1"=150'



PHASE III
(UNDER CONSTRUCTION)

PHASE V
(UNDER CONSTRUCTION)

FOR REGISTRY USE ONLY
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



3-13-23
DATE PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____

LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK—TOWN OF LAKEVILLE

OWNER & APPLICANT
THE RESIDENCES AT LEBARON HILLS, LLC
32 NORFOLK AVENUE
SOUTH EASTON, MA 02375
ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS

NO.	DATE	DESCRIPTION
1.	3/10/23	PER REVIEW COMMENTS

GRADING & DRAINAGE
"THE ESTATES AT LEBARON HILLS"
PHASE 5B
A
RESIDENTIAL SUBDIVISION
IN LAKEVILLE MASSACHUSETTS



3-13-23

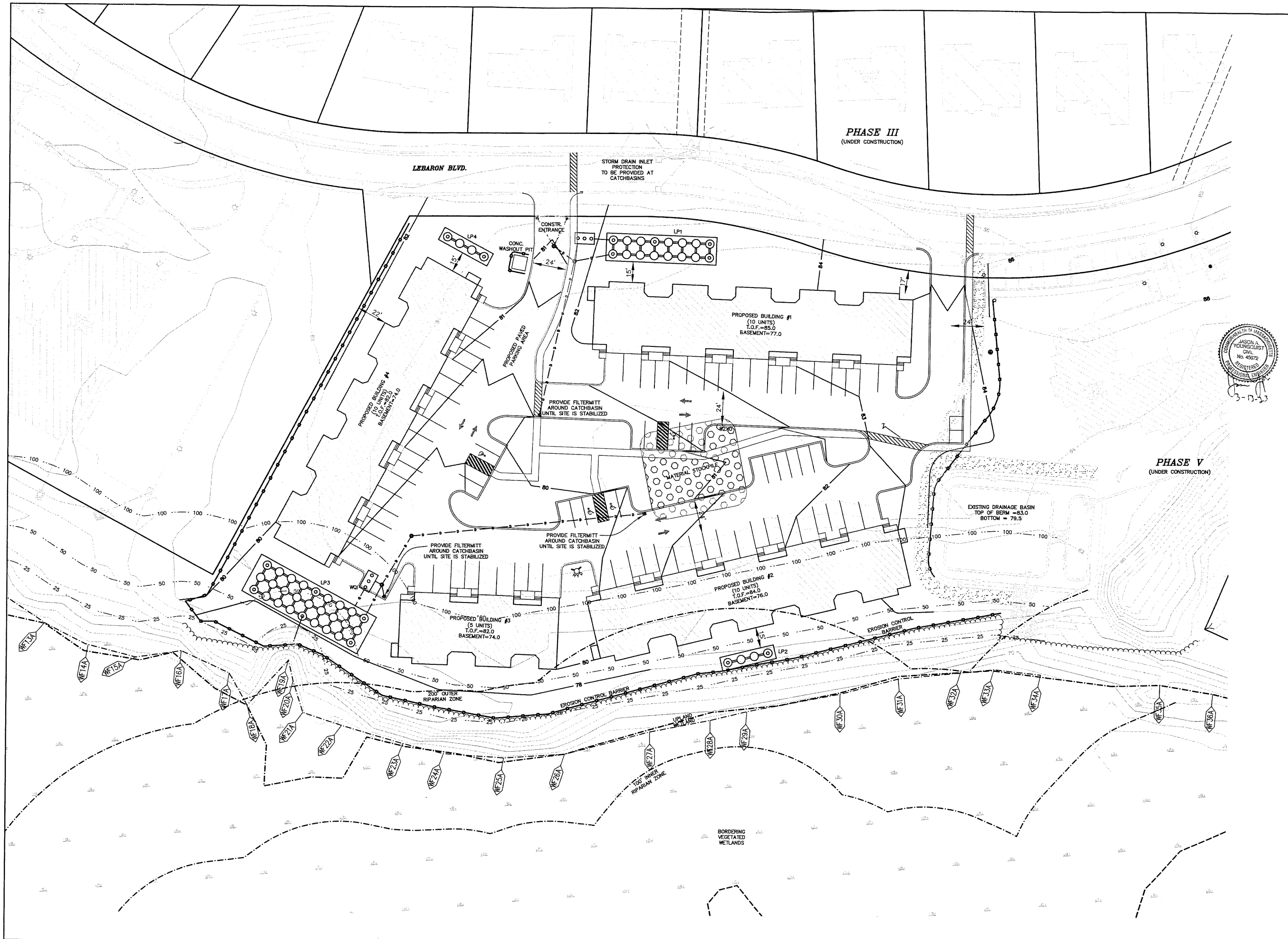
- NOTES:
1. ALL PIPES TO BE 12" HIGH DENSITY POLYETHYLENE (HDPE) UNLESS OTHERWISE NOTED.
2. ROOF DRAINS TO BE 6" HIGH DENSITY POLYETHYLENE (HDPE) UNLESS OTHERWISE NOTED.

Outback Engineering
Incorporated

165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231

DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
DATE: 12-12-22 PROJECT No. 1865E
1865E MASTER.dwg SHEET 2 OF 10

0' 30' 60' 90'
SCALE: 1" = 30'



FOR REGISTRY USE ONLY
 I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

PAUL J. BAENEAD
 No. 45915
 REGISTERED PROFESSIONAL LAND SURVEYOR
 5-17-23
 DATE PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____

 LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK-TOWN OF LAKEVILLE

OWNER & APPLICANT
 THE RESIDENCES AT LEBARON HILLS, LLC
 32 NORFOLK AVENUE
 SOUTH EASTON, MA 02375
 ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
 ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS

NO.	DATE	DESCRIPTION
1.	3/10/23	PER REVIEW COMMENTS

SEDIMENTATION & EROSION CONTROL
"THE ESTATES AT LEBARON HILLS"
PHASE 5B
 A
RESIDENTIAL SUBDIVISION
 IN
LAKEVILLE MASSACHUSETTS

Outback Engineering
 Incorporated

165 EAST GROVE STREET
 MIDDLEBOROUGH, MA 02346
 TEL: (508)-946-9231

DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
 DATE: 12-12-22 PROJECT No. 1865E
 1865E MASTER.dwg SHEET 3 OF 10

0' 30' 60' 90'
 SCALE: 1" = 30'

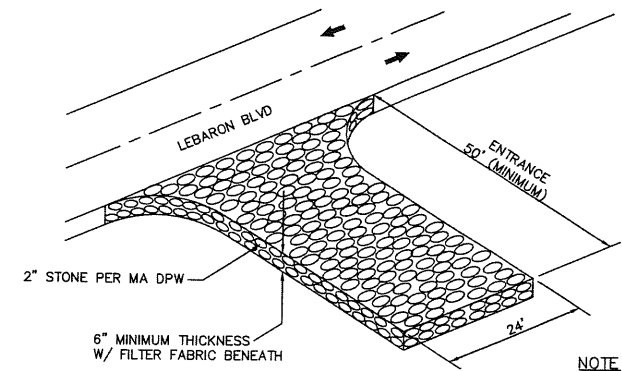
Operation and Maintenance Schedule

A) Construction Operation and Maintenance Schedule

- The Operation and Maintenance (O&M) Schedule during the construction period is the responsibility of the Developer/Contractor. The outline below shall be followed as closely as possible to ensure the proper construction and function of the drainage facility.
1. Minimum clearing should occur during the construction process. The limit of clearing is shown on the Definitive Plan and should be adhered to as closely as possible, with the only tree removal in areas necessary for site design and safety. It shall be the contractor's responsibility to determine level of safety regarding standing trees.
 2. In conjunction with roadway construction, the infiltration basins shall be constructed and side slopes stabilized as soon as possible (i.e. loam and seed, hydroseed, etc.). Once upslope areas are stabilized and it is determined that no sediment is entering the basins, they shall be cleaned free of fine sediment.
 3. Haybales and/or silt fence shall be placed at the bottom of the interior slope of the infiltration basins until they are stabilized. Upon stabilization of upslope areas, the haybales and/or silt fence and accumulated sediment shall be removed to prevent sediment from clogging the basins.
 4. Silt socks to be placed in catch basins. Fabric shall be inspected weekly and replaced when clogged. Filter Fabric to remain until disturbed areas are stabilized to the satisfaction of the design engineer.
 5. Catch basins and water quality tanks shall be inspected weekly during construction. If there is sediment buildup observed in any structure, the structure shall be cleaned immediately.
 6. The infiltration basins shall be inspected weekly and after large storms. If there is evidence of erosion, the eroded area shall be re-stabilized and measures shall be taken to prevent a similar occurrence. Any sediment build-up shall be removed. Trash racks with outlets shall be cleaned of debris.
 7. During individual lot construction, measures should be taken to reduce the amount of sediment entering the roadway. This may include placing silt fence or simply constructing a temporary berm along the lot line.
 8. This schedule must be adhered to by the contractor/owner until the roadway is completed.

B) Post-development Operation and Maintenance Schedule

- Once construction is completed, the following shall be carried out by the contractor/owner, the Homeowners Association once the roadway is constructed, or once the Home Association assumes responsibility for maintenance. The outline below shall be carried out as closely as possible to ensure proper operation of the drainage facility.
1. Sweep streets two times annually. Sweeping shall be done during the beginning to middle of the spring season after all snow has melted and road sand or de-icer can be easily swept. As with any sweeping, collected debris shall be disposed of in accordance with local, state, and federal guidelines and regulations.
 2. Inspect catch basins and water quality tanks once monthly and clean at least once annually. All sediment and hydrocarbons should be properly handled and disposed of in accordance with local, state, and federal guidelines and regulations.
 3. Inspect subsurface leaching pits once monthly after construction and after every major storm. Once it is determined that the site is properly stabilized, the subsurface leaching pits shall be inspected at least twice annually. At least one of the routine inspections shall be in the spring to inspect for accumulation of sediment and litter. Perform sediment and/or litter removal as required.
 4. The stormwater system to be inspected by a professional engineer yearly for the first five years of operation.



TEMPORARY SITE CONSTRUCTION ENTRANCE PAD
N.T.S.

NOTE: STONE TO BE INSPECTED WEEKLY DURING CONSTRUCTION AND REPLACED WHEN CLOGGED WITH SILT

FOR REGISTRY USE ONLY
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



DATE: 3-13-23
PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____
LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

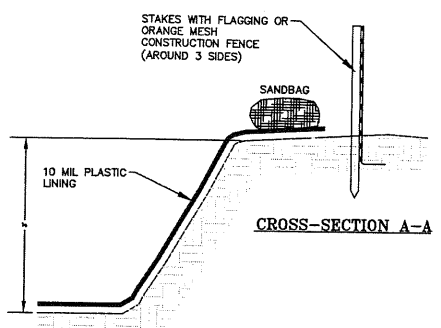
TOWN CLERK—TOWN OF LAKEVILLE

OWNER & APPLICANT
THE RESIDENCES AT LEBARON HILLS, LLC
32 NORFOLK AVENUE
SOUTH EASTON, MA 02375
ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

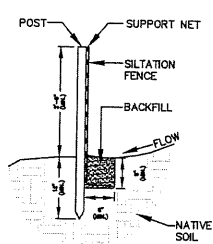
REVISIONS		
NO.	DATE	DESCRIPTION
1.	3/10/23	PER REVIEW COMMENTS

SEDIMENTATION & EROSION CONTROL DETAILS
"THE ESTATES AT LEBARON HILLS" PHASE 5B
A
RESIDENTIAL SUBDIVISION
IN
LAKEVILLE
MASSACHUSETTS

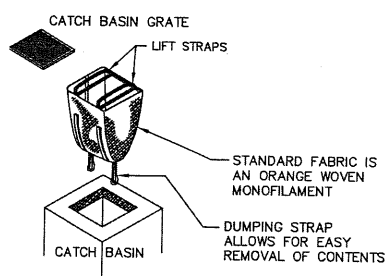
Outback Engineering
Incorporated
165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
DATE: 12-12-22 PROJECT No. 1865E
1865E MASTER.dwg SHEET 4 OF 10



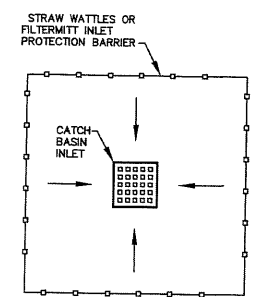
CROSS-SECTION A-A



SILTATION FENCE DETAIL
NOT TO SCALE

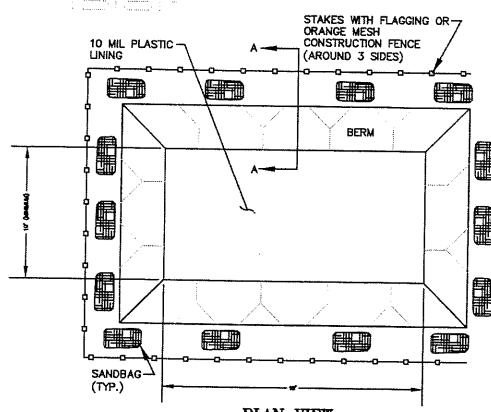


DANDY SACK® SILT SACK
BY MIRAFI
NOT TO SCALE
NOTE: SILT SACKS TO BE INSTALLED AT CATCH BASINS ONLY AFTER ROAD IS CONSTRUCTED TO BASE COURSE PAVEMENT



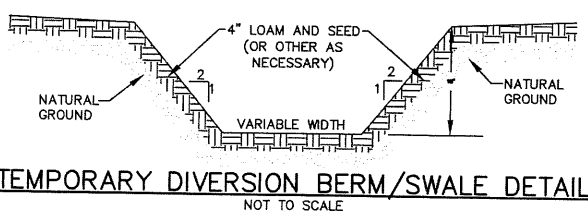
STORM DRAIN INLET PROTECTION
NOT TO SCALE

- NOTES:
1) FILTERMITT SHALL BE CONSTRUCTED LONG ENOUGH TO EXTEND ACROSS THE EXPECTED FLOW PATH.
2) FILTERMITT OR OTHER TO BE INSTALLED PER DETAIL SPECIFICATIONS.
3) TO BE INSTALLED AT ALL CATCHBASINS UNTIL SITE IS FULLY STABILIZED.



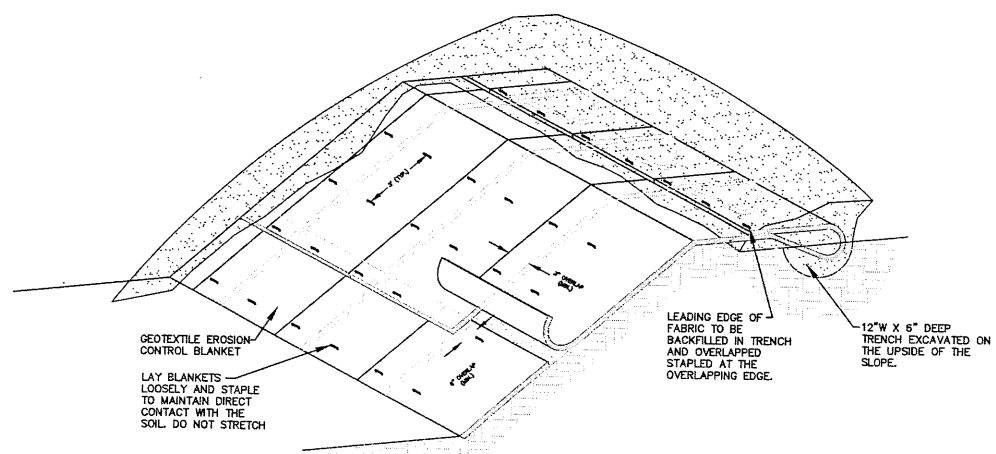
BELOW GRADE CONCRETE WASHOUT PIT
NOT TO SCALE

ALTERNATIVE: UTILIZE 10 MIL LINER ABOVE GRADE W/ RAISED EDGES USING FILLED BERM AND SAND BAGS

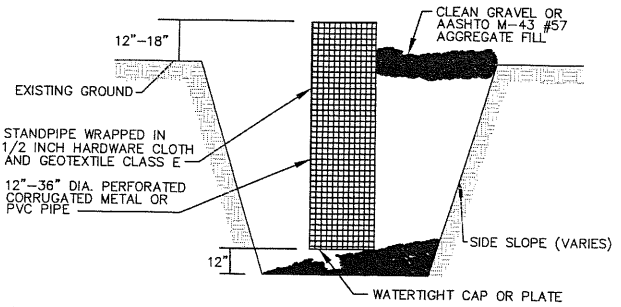


TEMPORARY DIVERSION BERM/SWALE DETAIL
NOT TO SCALE

CONTRACTOR SHALL STABILIZE AS NECESSARY USING RIP RAP, CRUSHED STONE, EROSION CONTROL BLANKETS, AND/OR LOAM & SEED

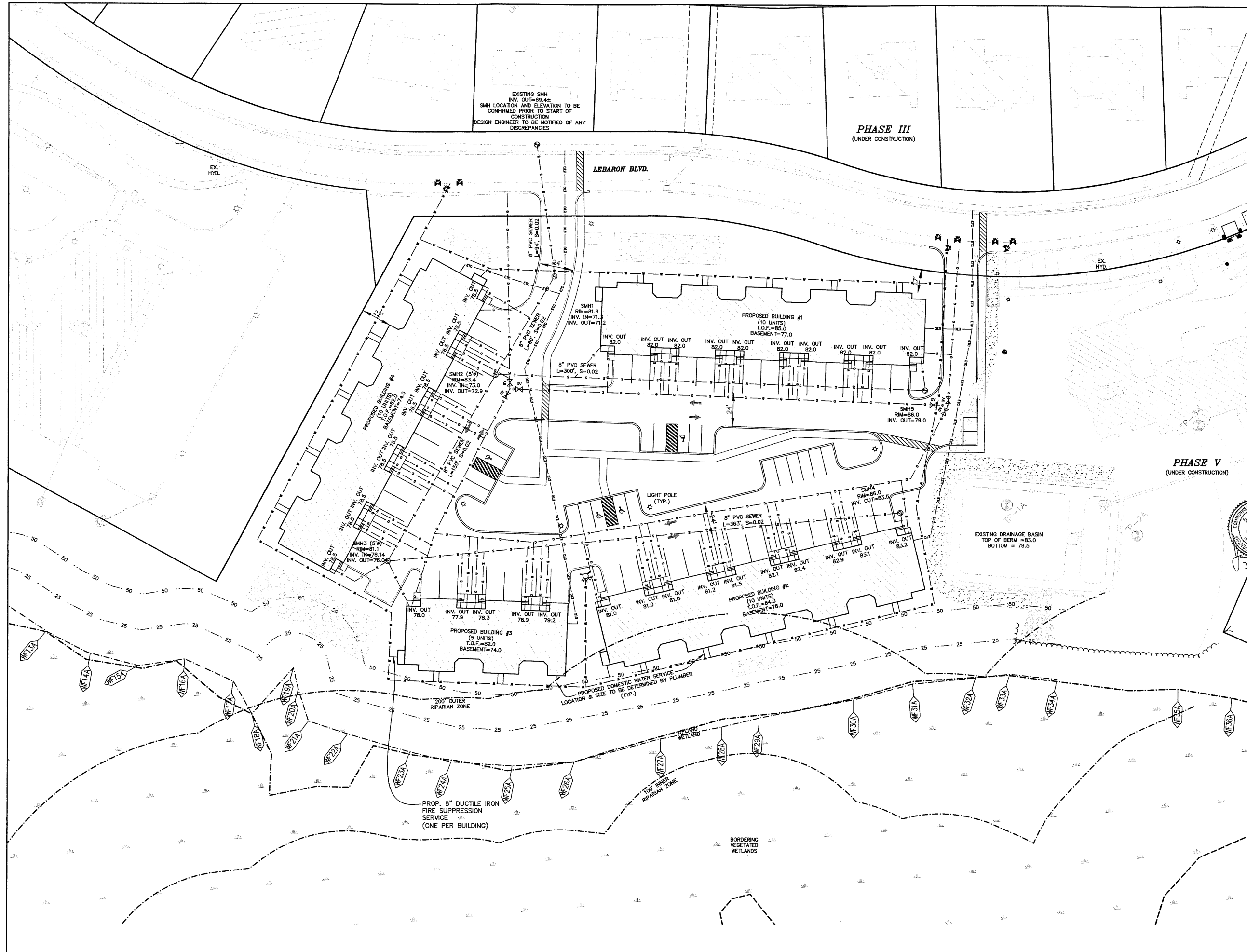


GEOTEXTILE EROSION CONTROL BLANKET
NOT TO SCALE



CONSTRUCTION DEWATERING SUMP PIT DETAIL
NOT TO SCALE

NOTE: IN LOCATIONS WHERE DEWATERING IS REQUIRED, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING SUMP PIT IN ACCORDANCE WITH THE DETAIL PROVIDED. TO PREVENT THE MIGRATION OF SILT AND SEDIMENT, THE CONTRACTOR SHALL FIT THE DISCHARGE END OF THE PUMP HOSE WITH A COMPOSITE SOCK AND ALL FLOW SHALL BE DISCHARGED INTO A SEDIMENT CONTROL TRAP PRIOR TO CONVEYANCE INTO THE STORM DRAIN SYSTEM. THE SEDIMENT CONTROL TRAP SHALL BE CONSTRUCTED UTILIZING AN ENCLOSED AREA OF SILT FENCE AND/OR FILTERMITT IN ACCORDANCE WITH THE DETAIL SHOWN. SEDIMENT TRAPS SHALL BE PLACED IN UPLAND AREAS ONLY AWAY FROM WETLANDS.

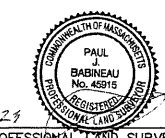


EXISTING SMH
INV. OUT=89.45
SMH LOCATION AND ELEVATION TO BE
CONFIRMED PRIOR TO START OF
CONSTRUCTION
DESIGN ENGINEER TO BE NOTIFIED OF ANY
DISCREPANCIES

PHASE III
(UNDER CONSTRUCTION)

PHASE V
(UNDER CONSTRUCTION)

FOR REGISTRY USE ONLY
I CERTIFY THAT THIS PLAN HAS
BEEN PREPARED IN CONFORMANCE
WITH THE RULES AND REGULATIONS
OF THE REGISTERS OF DEEDS.



7-13-23
DATE PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L.
C. 40B BY THE LAKEVILLE ZONING BOARD
OF APPEALS.

DATE: _____

LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE
ELAPSED SINCE PLANNING BOARD
APPROVAL, AND THAT NO APPEAL
HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK—TOWN OF LAKEVILLE

**OWNER &
APPLICANT**

THE RESIDENCES AT LEBARON HILLS, LLC
32 NORFOLK AVENUE
SOUTH EASTON, MA 02375
ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS

NO.	DATE	DESCRIPTION
1.	3/10/23	PER REVIEW COMMENTS

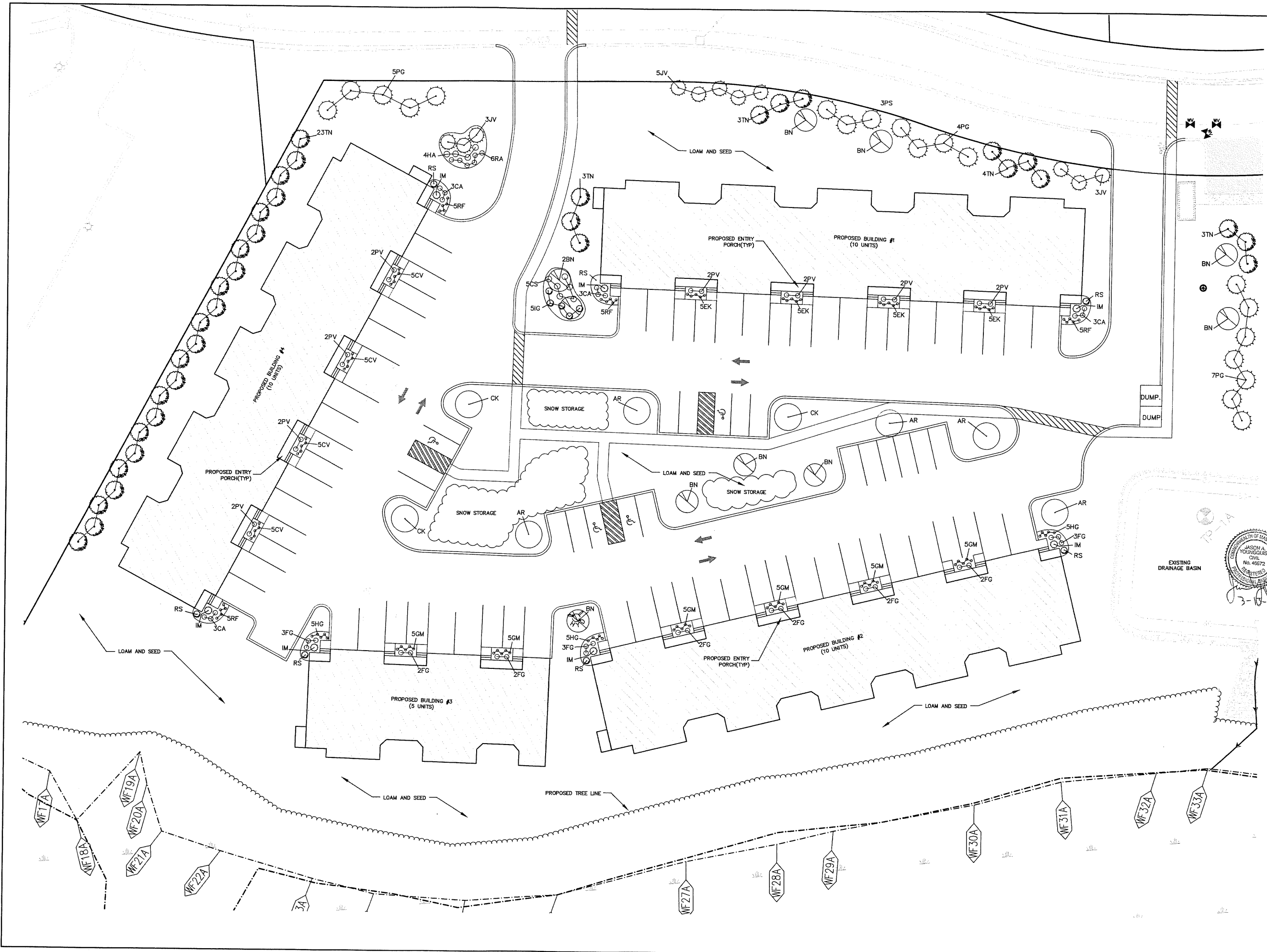
UTILITY PLAN
"THE ESTATES AT
LEBARON HILLS"
PHASE 5B
A
RESIDENTIAL SUBDIVISION
IN
LAKEVILLE
MASSACHUSETTS



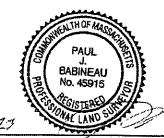
165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508) 946-9231

DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
DATE: 12-12-22 PROJECT No. 1865E
1865E MASTER.dwg SHEET 5 OF 10

0' 30' 60' 90'
SCALE: 1"=30'



FOR REGISTRY USE ONLY
 I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



DATE: 7-18-23
 PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____

 LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK—TOWN OF LAKEVILLE

OWNER & APPLICANT

THE RESIDENCES AT LEBARON HILLS, LLC
 32 NORFOLK AVENUE
 SOUTH EASTON, MA 02375
 ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
 ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS

NO.	DATE	DESCRIPTION
1.	3/10/23	PER REVIEW COMMENTS

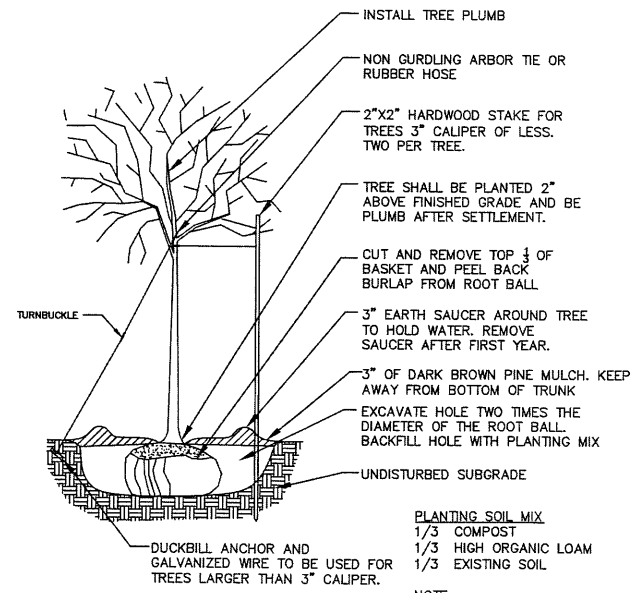
**LANDSCAPE PLAN
 "THE ESTATES AT LEBARON HILLS"
 PHASE 5B
 A
 RESIDENTIAL SUBDIVISION
 IN
 LAKEVILLE
 MASSACHUSETTS**



165 EAST GROVE STREET
 MIDDLEBOROUGH, MA 02346
 TEL: (508)-946-9231

DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
 DATE: 12-12-22 PROJECT No. 1865E
 1865E MASTER.dwg PROJECT No. 1865E
 SHEET 6 OF 10

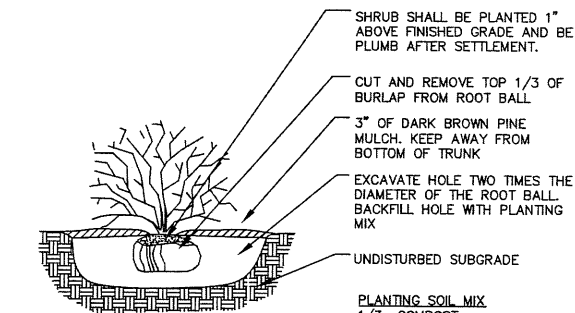
0' 20' 40' 60'
 SCALE: 1" = 20'



TREE PLANTING DETAIL
NOT TO SCALE

PLANTING SOIL MIX
1/3 COMPOST
1/3 HIGH ORGANIC LOAM
1/3 EXISTING SOIL

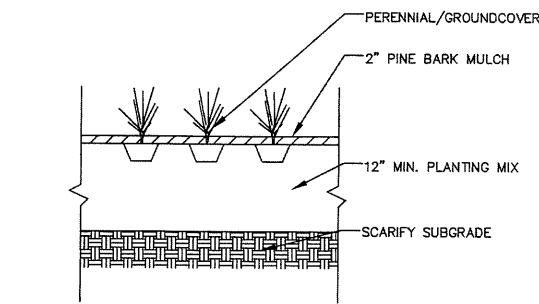
NOTE:
ALL TREES SHOULD BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING



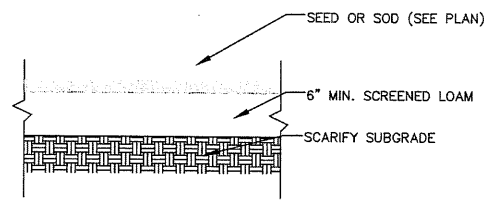
SHRUB PLANTING DETAIL
NOT TO SCALE

PLANTING SOIL MIX
1/3 COMPOST
1/3 HIGH ORGANIC LOAM
1/3 EXISTING SOIL

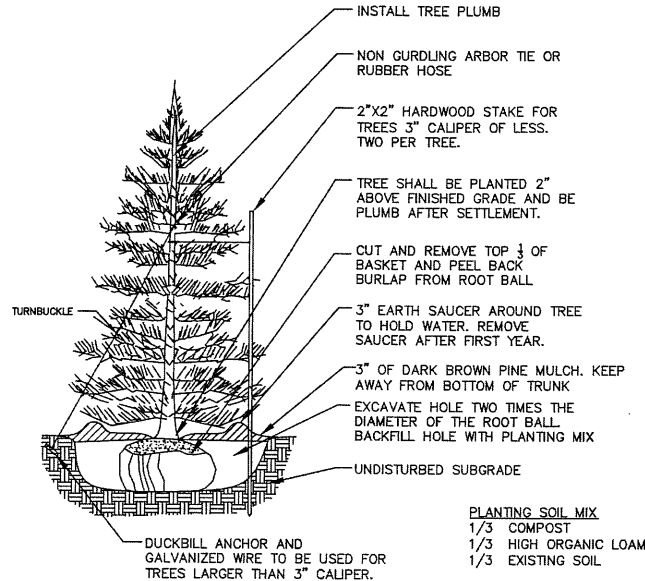
NOTE:
CONTINUOUS SHRUB BEDS SHOULD HAVE A MINIMUM OF 12\"/>



PERENNIALS/GROUNDCOVERS
NOT TO SCALE



SEED/SOD
NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

PLANTING SOIL MIX
1/3 COMPOST
1/3 HIGH ORGANIC LOAM
1/3 EXISTING SOIL

NOTE:
ALL TREES SHOULD BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING

PLANT SCHEDULE

TREES				
SYM.	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
AR	ACER RUBRUM	RED MAPLE	2-2.5\"/>	

SHRUBS				
SYM.	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
CA	CLETHRA ALNIFOLIA HUMMINGBIRD	SUMMERSWEET	5 GAL.	CONT.

PERENNIALS AND GRASSES				
SYM.	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
EK	ECHINACEA PURPUREA	CONEFLOWER	1 GAL.	CONT.

LANDSCAPE NOTES

- A COMPLETE LIST OF PLANTS INCLUDING A SCHEDULE OF SIZES, TYPES AND NAMES HAVE BEEN INCLUDED IN THIS PLAN SET. IN THE EVENT OF DISCREPANCIES BETWEEN THE PLANTS ON THE PLANT LIST VERSUS THE PLAN THE PLAN SHALL GOVERN. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IF THERE ARE ANY DISCREPANCIES.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE A CERTIFIED SOIL NUTRIENT TEST PRIOR TO INSTALLATION TO DETERMINE WHAT SOIL AMENDMENTS ARE NEEDED TO PROVIDE OPTIMUM GROWING CONDITIONS FOR SEEDING AND PLANTING. CONTRACTOR SHALL USE THE UNIVERSITY OF MASSACHUSETTS SOIL TESTING LAB OR AN APPROVED EQUAL.
- NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT OR THE OWNER.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL AND LANDSCAPE IMPROVEMENTS FOR A PERIOD OF ONE YEAR AFTER FINAL APPROVAL.
- MAINTENANCE OF PLANT MATERIAL SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE UNTIL FINAL APPROVAL. PLANTS ARE TO BE KEPT IN HEALTHY, GROWING CONDITION BY WATERING, PRUNING, SPRAYING, WEEDING AND ANY OTHER NECESSARY MAINTENANCE OPERATIONS.
- PLANT BEDS ARE TO BE MULCHED WITH DOUBLE SHREDDED PINE BARK. TREES AND SHRUBS ARE TO RECEIVE AN EVEN 3\"/>



FOR REGISTRY USE ONLY
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTRARS OF DEEDS.
PAUL J. BABINEAU
No. 45915
REGISTERED PROFESSIONAL LAND SURVEYOR
7-17-23
DATE PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.
DATE: _____
LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK-TOWN OF LAKEVILLE

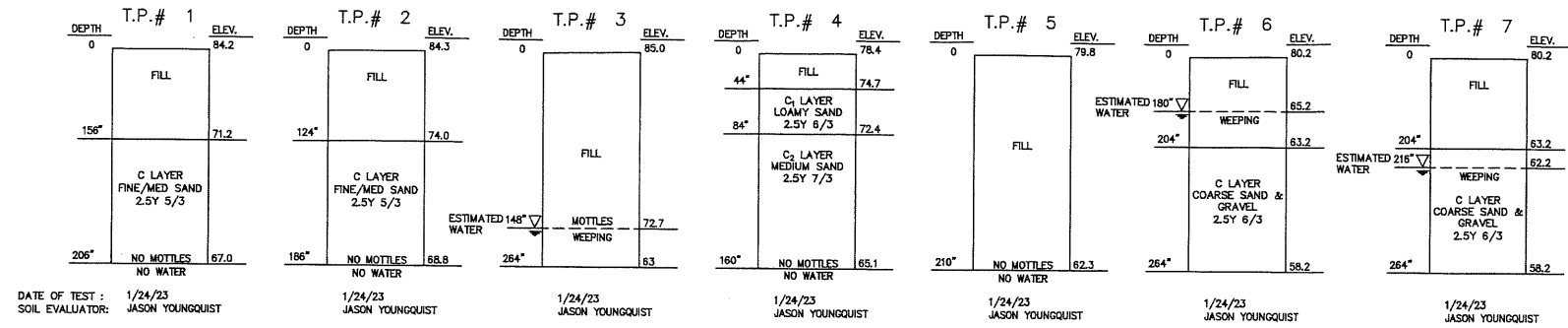
OWNER & APPLICANT
THE RESIDENCES AT LEBARON HILLS, LLC
32 NORFOLK AVENUE
SOUTH EASTON, MA 02375
ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS

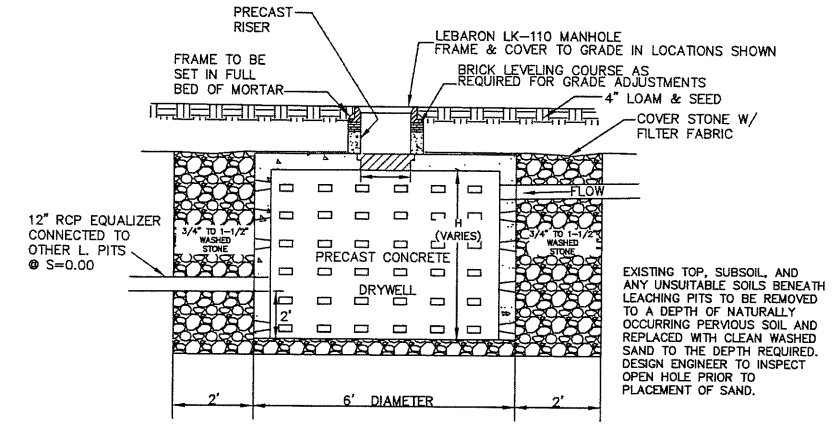
NO.	DATE	DESCRIPTION
1.	3/10/23	PER REVIEW COMMENTS

LANDSCAPING DETAILS
"THE ESTATES AT LEBARON HILLS"
PHASE 5B
A
RESIDENTIAL SUBDIVISION
IN
LAKEVILLE
MASSACHUSETTS

Outback Engineering
Incorporated
165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
DATE: 12-12-22 PROJECT No. 1865E
1865E MASTER.dwg SHEET 7 OF 10



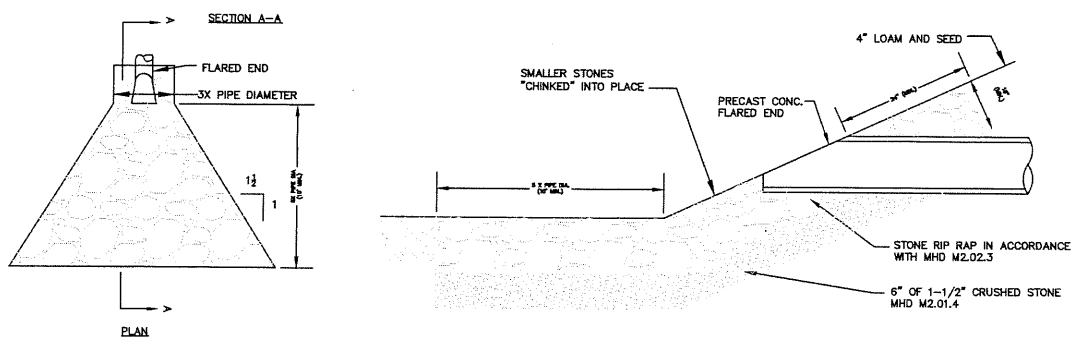
SOIL STRATA LOGS
NOT TO SCALE



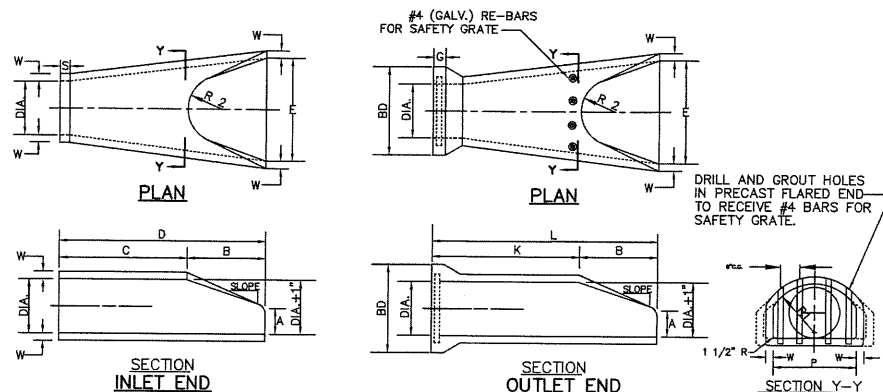
LEACHING PIT DETAIL
NOT TO SCALE

- NOTES:**
- L. PITS SHALL BE LOCATED 10' O.C. MINIMUM.
 - MANHOLES AT FINAL GRADE AT LOCATIONS SHOWN ON PLAN TO BE PROVIDED FOR INSPECTION AND MAINTENANCE.
 - FILTER FABRIC OR CRUSHED STONE SHALL BE PLACED UNDER FIRST ROW OF PITS AT INLET TO PREVENT SOIL SCOUR.
 - SEE PLAN FOR LOCATION AND SIZE OF INDIVIDUAL L. PITS

LEACHING PITS				
	LP1	LP2	LP3	LP4
FG	83.0	78.8	78.2	80.5
TOP STONE	82.5	77.0	77.0	79.0
TOP PIT	82.5	76.5	76.5	78.5
INV. IN	76.5	76.0	75.6	78.0
BOT. PIT	74.5	70.5	69.5	72.5
BOT. STONE	73.5	70.0	69.0	72.0
GW	68.8 (TP-2)	65.1 (TP-4)	65.2 (TP-6)	67.0 (TP-1)

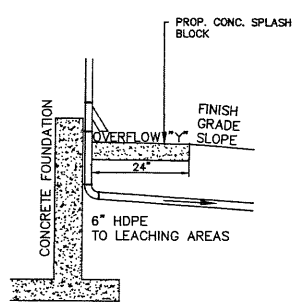


FLARED END W/RIP-RAP DETAIL
NOT TO SCALE

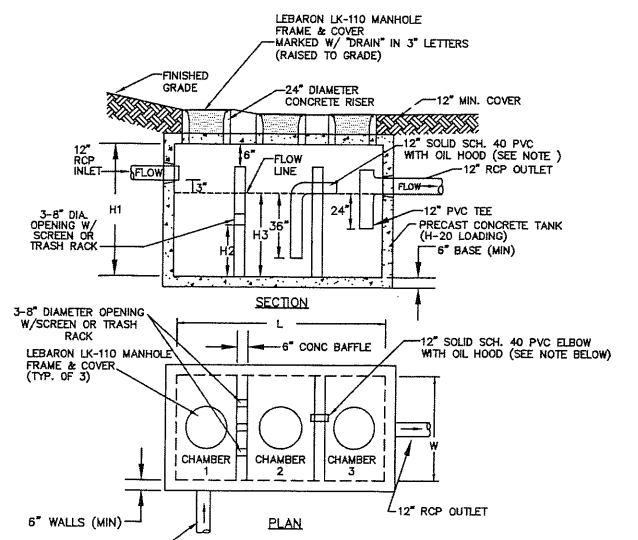


DIA.	W	A	B	C	D	E	BD	K	L	P	DIA. ₁	R1	R2	S	G	SLOPE
12"	2"	4"	2'-0"	4'-0 7/8"	6'-1 3/8"	2'-0"	20"	4'-8 1/8"	6'-8 1/8"	19 15/16"	13"	10 1/8"	9"	4"	2 1/2"	3:1
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	28"	4'-3 7/8"	6'-6 7/8"	29"	19"	15 1/2"	12"	4"	2 3/4"	3:1
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1"	4'-0"	36"	3'-0 1/2"	6'-8"	33 3/16"	25"	16 13/16"	14"	4"	3"	3:1

REINFORCED CONCRETE PIPE FLARED ENDS
FOR BELL AND SPIGOT PIPE
NOT TO SCALE



DOWNSPOUT OVERFLOW
NOT TO SCALE



WATER QUALITY INLET (H-20 LOADING)
NOT TO SCALE

WQI	CHAMBER 1	CHAMBERS 2&3	TANK SIZE (MIN.)	H1	H2	H3	L	W
1	2,000 GAL.	500 GAL.	3,000 GAL.	80"	36"	62"	13'	7'
2	3,500 GAL.	500 GAL.	4,500 GAL.	90"	36"	72"	16.5'	7'

FOR REGISTRY USE ONLY
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



DATE: 3-13-23
PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____
LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK-TOWN OF LAKEVILLE

OWNER & APPLICANT

THE RESIDENCES AT LEBARON HILLS, LLC
32 NORFOLK AVENUE
SOUTH EASTON, MA 02375
ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS

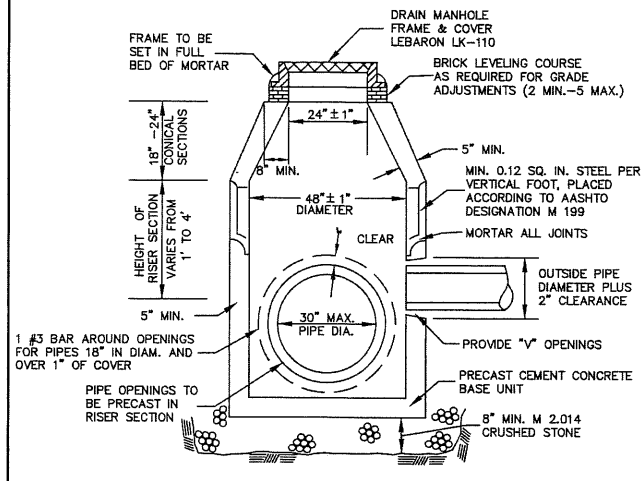
NO.	DATE	DESCRIPTION
1.	3/10/23	PER REVIEW COMMENTS

CONSTRUCTION DETAILS
"THE ESTATES AT LEBARON HILLS"
PHASE 5B
A
RESIDENTIAL SUBDIVISION
IN LAKEVILLE MASSACHUSETTS



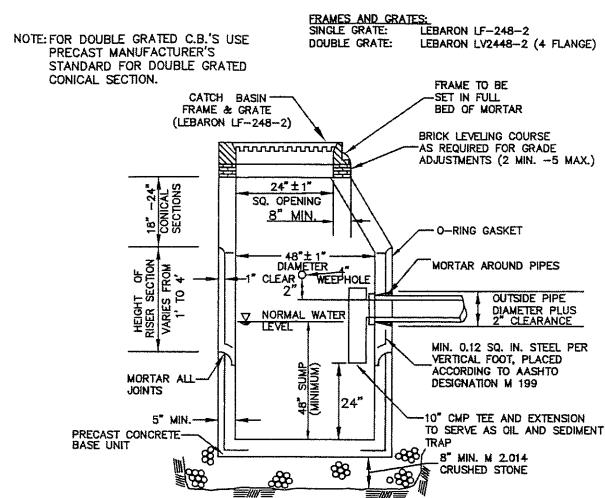
165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231

DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
DATE: 12-12-22 PROJECT No. 1865E
1865E MASTER.dwg SHEET 8 OF 10



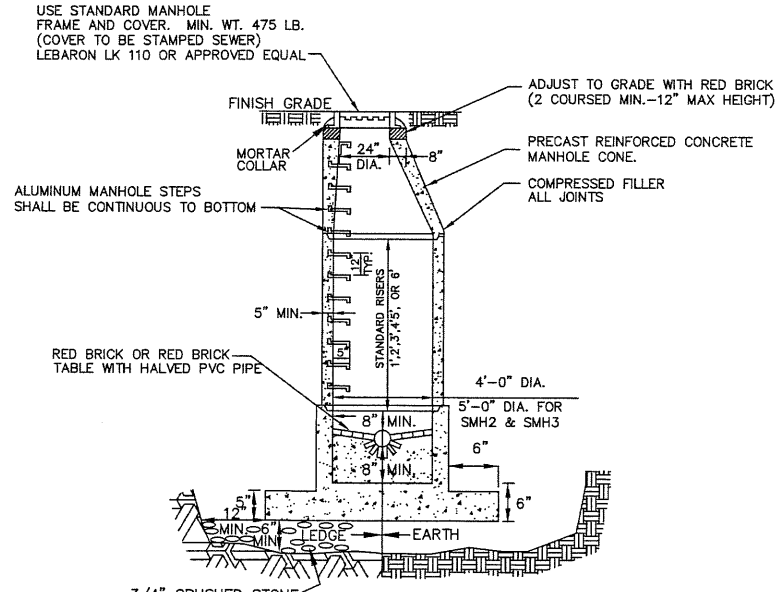
PRECAST CONCRETE DRAIN MANHOLE

NOT TO SCALE



PRECAST CONCRETE CATCH BASIN

NOT TO SCALE

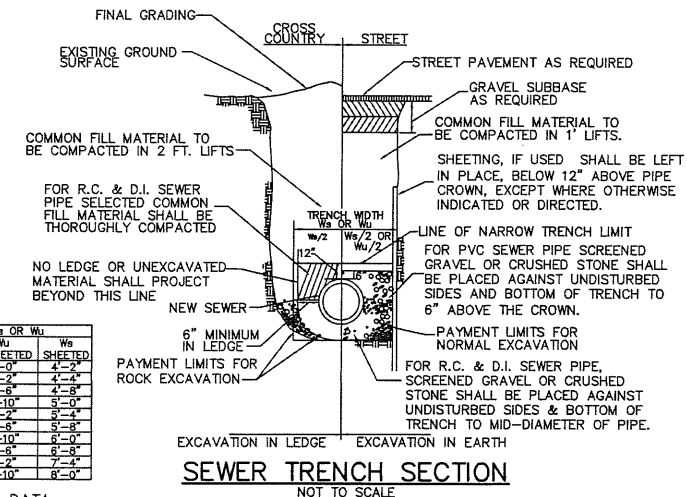


TYPICAL PRECAST CONCRETE SEWER MANHOLE

NOT TO SCALE

DIAMETER OF PIPE	TRENCH WIDTH W _u OR W _s	
	UNSHEETED	SHEETED
12" AND SMALLER	3'-0"	4'-2"
15"	3'-2"	4'-4"
18"	3'-6"	4'-8"
21"	3'-10"	5'-0"
24"	4'-2"	5'-4"
27"	4'-6"	5'-8"
30"	4'-10"	6'-0"
36"	5'-2"	6'-4"
42"	6'-2"	7'-4"
48"	6'-10"	8'-0"

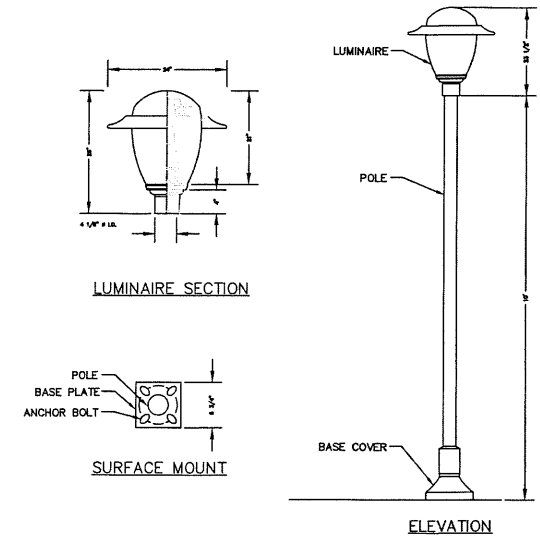
TRENCH WIDTH DATA



SEWER TRENCH SECTION

NOT TO SCALE

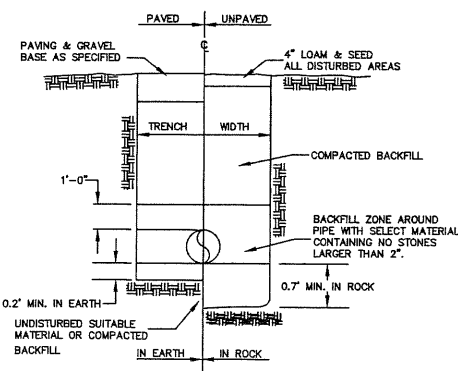
NOTE: TRENCHES LOCATED ON THE ROAD SHOULDER SHALL BE TREATED THE SAME AS STREET EXCEPT FOR PAVING



STREET LIGHT DETAIL

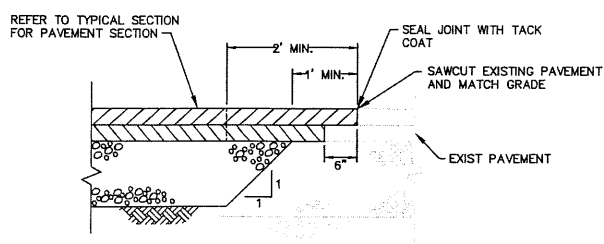
NOT TO SCALE

(APPROVED EQUAL MAY BE USED)



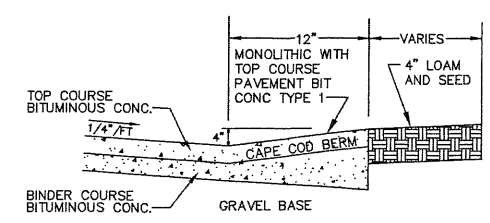
UTILITY TRENCH

NOT TO SCALE



PAVEMENT MATCHING DETAIL

NOT TO SCALE



CAPE COD BERM

NOT TO SCALE

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE: 3-17-21
PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____
LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK-TOWN OF LAKEVILLE

OWNER & APPLICANT
THE RESIDENCES AT LEBARON HILLS, LLC
32 NORFOLK AVENUE
SOUTH EASTON, MA 02375
ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS		
NO.	DATE	DESCRIPTION

CONSTRUCTION DETAILS
"THE ESTATES AT LEBARON HILLS"
PHASE V MODIFICATION
A
RESIDENTIAL SUBDIVISION
IN
LAKEVILLE
MASSACHUSETTS



165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
DATE: 12-12-22 PROJECT No. 1865E
1865E MASTER.dwg SHEET 9 OF 10

INSPECTION AND ACCEPTANCE

ALL MATERIALS AND CONSTRUCTION ARE TO BE SUBJECT TO THE APPROVAL OF THE TAUNTON WATER DEPARTMENT AND/OR ITS DESIGNATED INSPECTOR. THE CONTRACTOR SHALL NOT COVER ANY WORK PRIOR TO SAID APPROVAL. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTING ALL DEFICIENCIES TO THE SATISFACTION OF THE WATER DEPARTMENT AND/OR DESIGNATED INSPECTOR. APPROVAL SHALL IN NO WAY AFFECT THE OBLIGATION OF THE CONTRACTOR TO REPAIR OR RENEW SUBSEQUENT DEFICIENCIES. THE WATER DEPARTMENT MUST BE NOTIFIED 2 DAYS PRIOR FOR INSPECTIONS. THE CONTRACTOR SHALL BE INVOICED FOR INSPECTIONS AT THE COMPLETION OF CONSTRUCTION.

TESTING AND DISINFECTION

TESTING: NEW WATER MAINS SHALL BE FILLED AND FLUSHED UNDER THE DIRECT SUPERVISION OF THE WATER DEPARTMENT. ALL AIR SHALL BE EXPULSED FROM THE LINE PRIOR TO TESTING. TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER AND A REPRESENTATIVE OF THE TAUNTON WATER DEPARTMENT. TESTING SHALL BE IN ACCORDANCE WITH AWWA C-600. THE TEST PRESSURE SHALL BE 150 LBS. OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER. ALLOWABLE LEAKAGE SHALL BE BASED UPON SECTION 4.1 OF AWWA C-600. DISINFECTION: AFTER AN ACCEPTABLE PRESSURE TEST, THE NEW WATER MAIN SHALL BE CHLORINATED IN ACCORDANCE WITH AWWA C-651. CHLORINE SHALL BE INTRODUCED THROUGH A TAP AT ONE END OF THE PIPELINE WHILE WATER IS WITHDRAWN FROM THE OPPOSITE END. CHLORINE DOSAGE MUST BE SUFFICIENT TO PRODUCE A MINIMUM OF 50 MG/L IN THE PIPELINE. FOLLOWING A 24 HR CONTACT PERIOD, THE TREATED WATER SHALL BE FLUSHED FROM THE MAINS AND SAMPLES TAKEN FOR COLIFORM AND BACKGROUND BACTERIA. MAINS WILL NOT BE ACCEPTED OR APPROVED FOR SERVICE CONNECTIONS UNTIL SAMPLES SHOW ZERO BACTERIA COUNTS. THE CONTRACTOR SHALL REDISPECT AND RESAMPLE UNTIL MAINS ARE ACCEPTABLE.

PIPE

WATER MAINS SHALL BE DUCTILE IRON CLASS 52 WATER PIPE. PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI A21.50, A21.51 AND AWWA C-150 & C-151. ALL PIPE SHALL BE PROVIDED WITH PUSH-ON JOINTS.

FITTINGS

FITTINGS SHALL BE CEMENT-LINED DUCTILE IRON WITH BITUMEN COATING INSIDE AND OUT. FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ANSI A21.53 AND AWWA C-153. FITTINGS SHALL BE MECHANICAL JOINT CONFORMING TO ANSI A21.11 AND AWWA C-111. ALL FITTINGS SHALL BE BACKED BY CONCRETE TRUST BLOCKS AND HAVE MEGALUG RESTRAINTS AT ALL MECHANICAL JOINT ENDS.

VALVES

GATE VALVES SHALL BE IRON BODY, BRONZE MOUNTED, DOUBLE DISC, SIDE WEDGE TYPE, NON-RISING STEM WITH "O-RING SEALS". VALVES SHALL BE NEW YORK PATTERN, METROPOLITAN TYPE CONFORMING TO THE REQUIREMENTS OF AWWA C-500. RESILIENT-SEALED GATE VALVES CONFORMING TO THE REQUIREMENTS OF AWWA C-509 ARE REQUIRED. ALL VALVES SHALL HAVE 250 PSI MECHANICAL JOINT ENDS AND SHALL OPEN LEFT OR COUNTER CLOCKWISE. VALVES SHALL BE MANUFACTURED BY AVK OR MUELLER OR APPROVED EQUAL. ALL GATE VALVES SHALL BE ACCOMPANIED BY A HEAVY CAST IRON, ADJUSTABLE SLIDE TYPE BOX HAVING A MINIMUM 5-INCH DIAMETER BARREL AND A CAST IRON COVER WITH THE WORD "WATER" CAST IN THE TOP. BOXES SHALL BE DESIGNED AND INSTALLED SUCH THAT NO PRESSURE SHALL BE EXERTED BY THE VALVE BOX ON THE WATER MAIN OR VALVE.

HYDRANTS

HYDRANTS SHALL BE MH DRESSER STYLE 129 MUELLER SUPER CENTURION 200 OR CLOW MEDALLION CONFORMING 5-1/4 INCH BREAK FLANGE CONSTRUCTION W/ONE 4 1/2" PUMPER NOZZLE TO AWWA C-502, HAVE A MINIMUM BARREL AND 2 2 1/2" HOSE NOZZLES. THEY SHALL OPEN LEFT OR COUNTER CLOCKWISE AND A 5 FOOT DEPTH OF BURY IS RECOMMENDED.

SERVICES

CORPORATION STOPS, CURB STOPS AND FITTINGS SHALL BE BRASS CONFORMING TO AWWA C-800. COPPER SERVICE PIPE SHALL CONFORM TO AWWA C-800 AND ASTM B88. CORPORATION STOP: 1" MUELLER H-15008 WITH COMPRESSION CONNECTION OUTLET. CURB STOP: 1" MUELLER MARK II ORISEAL H-15219 WITH COMPRESSION CONNECTIONS. METER: PER WATER DEPARTMENT STANDARDS. BALL VALVES: 1-INCH, 125 LB., BRONZE BODY AS MANUFACTURED BY FORD. TUBING: 1" 200 PSI RATED COPPER TUBING SIZE PVC PIPE. CURB BOXES: CAST IRON, ADJUSTABLE SLIDE TYPE, MINIMUM DIAMETER 2-1/2 INCHES WITH CAST IRON TWO PIECE TELESCOPING TYPE.

GRANULAR FILL MATERIALS

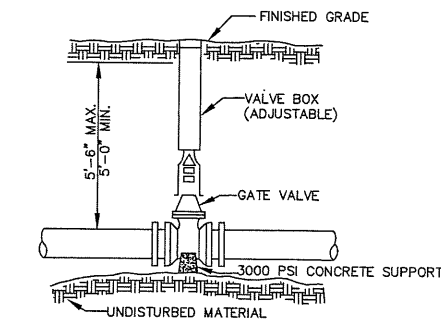
MATERIALS SHALL CONFORM TO THE COMMONWEALTH OF MASSACHUSETTS "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES", LATEST EDITION, FOR SCREENED AND BANK RUN GRAVEL.

CONCRETE

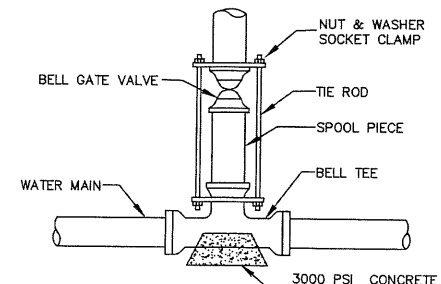
MATERIALS SHALL CONFORM TO THE COMMONWEALTH OF MASSACHUSETTS "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES", LATEST EDITION, FOR TYPE II CEMENT AND 3000 PSI CONCRETE.

CONSTRUCTION

TRENCHES SHALL BE EXCAVATED TO THE DEPTH AS INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER AND IN WIDTHS SUFFICIENT FOR LAYING OF THE NEW MAINS AND APPURTENANCES. ALL PIPES SHALL HAVE A MINIMUM OF 5" AND MAXIMUM OF 5'-6" COVER. SERVICE CONNECTIONS TO BE BURIED A MAXIMUM OF 5' DEEP WITHIN A SEPARATE TRENCH FROM OTHER UTILITIES. IF USED, WOOD SHEETING SHALL NOT BE WITHDRAWN IF DRIVEN BELOW THE MIDPOINT OF THE PIPE. SHEETING SHALL BE CUT OFF NO LOWER THAN 1 FOOT ABOVE THE TOP OF THE PIPE. BLASTING IF REQUIRED SHALL BE CONDUCTED IN FULL COMPLIANCE WITH ALL LAWS OF THE STATE AND LOCAL ORDINANCES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND ENSURING PUBLIC SAFETY. ALL VALVES AND HYDRANTS SHALL BE SET PLUMB IN TRUE VERTICAL ALIGNMENT. VALVE BOXES SHALL BE INSTALLED VERTICALLY, CENTERED OVER THE OPERATING NUT AND THE ELEVATION OF THE TOP SHALL BE SET TO FINISHED GRADE.



TYPICAL GATE VALVE
NOT TO SCALE



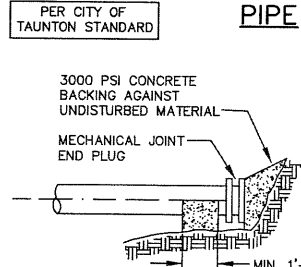
TYPICAL VALVE CONNECTION
NOT TO SCALE

TABLE OF BEARING AREAS IN S.F. FOR WATER MAIN FITTINGS VS. UNDISTURBED MATERIAL				
SIZE OF MAIN	45° BEND	TEES & PLUGS	22 1/2" BEND	DEAD END
8" & LESS	8	10	8	6
10" & 12"	22	16	13	12

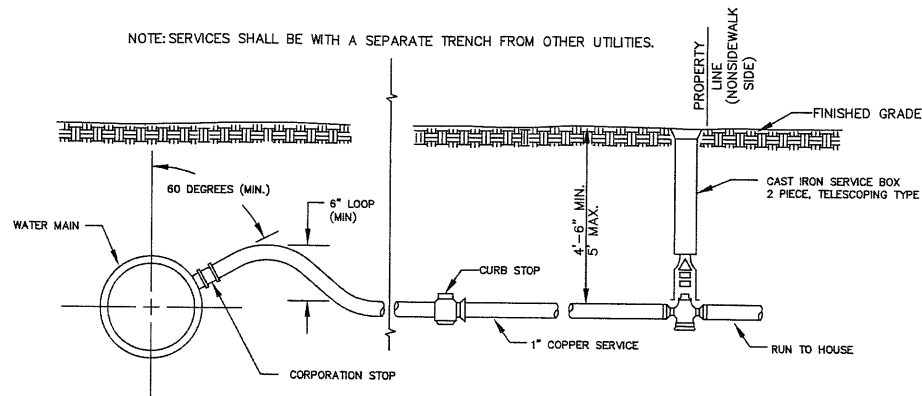
NOTES:

1. BEARING AREAS BASED ON HORIZONTAL PASSIVE SOIL PRESSURE OF 2000 PSF AND A MINIMUM INTERNAL WATER PRESSURE OF 175 PSIG. JOINTS SHALL NOT BE ENCASED IN CONCRETE. BEARING AREAS MAY BE DISREGARDED FOR TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE IS AT OR ABOVE THE CROWN OF THE PIPE. HOWEVER, CONCRETE BACKING SHALL BE PLACED BETWEEN PIPE AND ROCK FACE.

THRUST BLOCK BEARING AREAS FOR PIPE

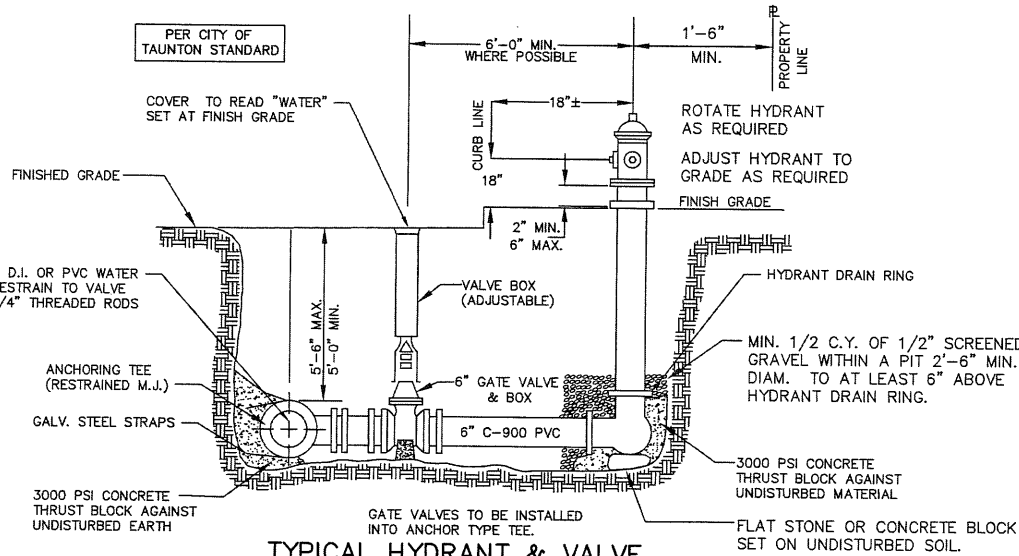


TYPICAL PLUG
NOT TO SCALE

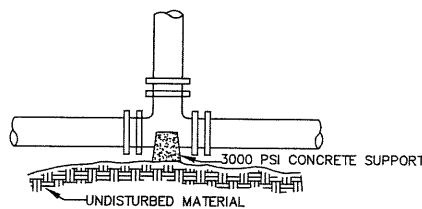


NOTE: SADDLES ARE REQUIRED FOR TAPS LARGER THAN 1 INCH.

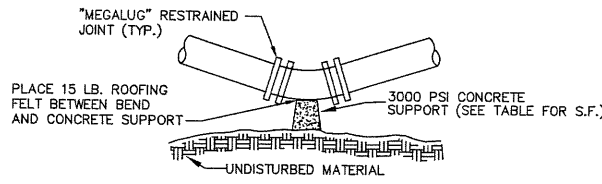
TYPICAL PERMANENT SERVICE CONNECTION
NOT TO SCALE



TYPICAL HYDRANT & VALVE
NOT TO SCALE



TYPICAL TEE
NOT TO SCALE

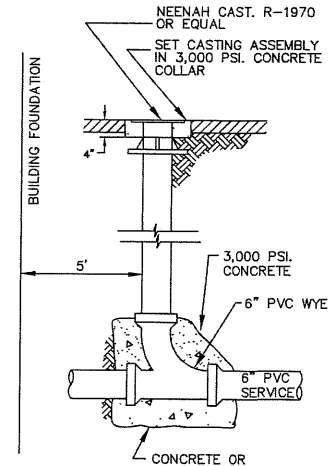
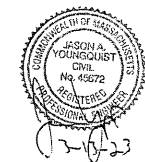


PER CITY OF TAUNTON STANDARD

TYPICAL BEND
NOT TO SCALE

SEWER NOTES

- THE MAXIMUM ALLOWABLE AMOUNT OF INFILTRATION INTO GRAVITY SEWERS INCLUDING MANHOLES AND PRECAST TANKS, OR EXFILTRATION FROM THE SEWERS AS DETERMINED RESPECTIVELY BY TESTS, SHALL BE NO GREATER THAN 75 GALLONS PER INCH OF PIPE DIAMETER, PER MILE OF PIPE, PER 24 HOURS AND THERE SHALL BE NO GUSHING OR SPURTING STREAMS OF WATER INTO OR FROM THE SEWERS OR MANHOLES. AN INDEPENDENT QUALIFIED CONTRACTOR APPROVED BY THE ENGINEER SHALL DO ALL TESTING.
- LOW-PRESSURE AIR TESTS SHALL BE USED TO TEST ALL GRAVITY SEWER LINES AND SERVICE CONNECTIONS, IN ACCORDANCE WITH ASTM C828 FOR PVC PIPE. FOR MAKING LOW-PRESSURE AIR TESTS, THE CONTRACTOR SHALL USE EQUIPMENT SPECIFICALLY DESIGNED AND MANUFACTURED FOR THE PURPOSE OF TESTING SEWER PIPELINES USING LOW-PRESSURE AIR. THE EQUIPMENT SHALL BE PROVIDED WITH AN AIR REGULATOR VALVE OR AIR SAFETY VALVE SO SET THAT THE INTERNAL AIR PRESSURE IN THE PIPELINE CANNOT EXCEED 8 PSIG. THE LEAKAGE TEST SHALL BE MADE ON EACH MANHOLE-TO-MANHOLE SECTION OF PIPELINE AFTER PLACEMENT OF THE BACKFILL. LOW-PRESSURE AIR SHALL BE INTRODUCED THROUGH A SINGLE CONTROL PANEL INTO THE SEALED LINE UNTIL THE INTERNAL AIR PRESSURE REACHES 4 PSIG GREATER THAN THE MAXIMUM PRESSURE EXERTED BY THE GROUNDWATER THAT MAY BE ABOVE THE INVERT OF THE PIPE AT THE TIME OF THE TEST. HOWEVER, THE INTERNAL AIR PRESSURE IN THE SEALED LINE SHALL NOT BE ALLOWED TO EXCEED 8 PSIG. WHEN THE MAXIMUM PRESSURE EXERTED BY THE GROUNDWATER IS GREATER THAN 8 PSIG, THE CONTRACTOR SHALL CONDUCT ONLY AN INFILTRATION TEST. AT LEAST TWO MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE IN THE SECTION UNDER TEST. AFTER THE STABILIZATION PERIOD, THE LOW-PRESSURE AIR SUPPLY HOSE SHALL BE QUICKLY DISCONNECTED FROM THE CONTROL PANEL. THE TIME REQUIRED IN MINUTES FOR THE PRESSURE IN THE SECTION UNDER TEST TO DECREASE FROM 3.5 TO 2.5 PSIG (GREATER THAN THE MAXIMUM PRESSURE EXERTED BY GROUNDWATER THAT MAY BE ABOVE THE INVERT OF THE PIPE) SHALL NOT BE LESS THAN 5 MINUTES FOR 6-INCH AND 8-INCH PVC PIPE.
- ALL SEWER LINES BELOW THE WATER TABLE SHALL BE CHECKED FOR INFILTRATION. IF, AT ANY TIME INFILTRATION EXCEEDS 100 GALLONS PER INCH OF NORMAL DIAMETER PER MILE OF SEWER PER DAY, THE CONTRACTOR SHALL LOCATE THE LEAKS AND MAKE REPAIRS AS NECESSARY TO CONTROL AND ELIMINATE THE INFILTRATION.
- A VACUUM TEST TO BE PERFORMED ON ALL SEWER MANHOLES.



IN LINE CLEANOUT
SANITARY SEWER CLEANOUTS
NOT TO SCALE

REQUIRED AT EACH BUILDING SERVICE CONNECTION

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE 7-17-23
PAUL BABINEAU
PROFESSIONAL LAND SURVEYOR

APPROVED AND ENDORSED UNDER M.G.L. C. 40B BY THE LAKEVILLE ZONING BOARD OF APPEALS.

DATE: _____
LAKEVILLE ZONING BOARD OF APPEALS

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE PLANNING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK-TOWN OF LAKEVILLE

OWNER & APPLICANT
THE RESIDENCES AT LEBARON HILLS, LLC
32 NORFOLK AVENUE
SOUTH EASTON, MA 02375
ASSESSORS MAP: 26 BLOCK: 3 LOT: 10
ASSESSORS MAP: 18 BLOCK: 3 LOTS: 1 & 2

REVISIONS		
NO.	DATE	DESCRIPTION

CONSTRUCTION DETAILS
"THE ESTATES AT LEBARON HILLS"
PHASE V MODIFICATION
A
RESIDENTIAL SUBDIVISION
IN
LAKEVILLE
MASSACHUSETTS



165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231

DRAWN BY: K.A.D. CHECKED BY: J.A.Y.
DATE: 12-12-22 PROJECT No. 1865E
1865E MASTER.dwg SHEET 10 OF 10