



Community & Economic Development Division
Conservation/Zoning Board of Appeals

Municipal Office Building
66 Central Square
Bridgewater, MA 02324
508-697-0907

November 14, 2018

Ms. Marilee Hunt, Town Clerk
Bridgewater Town Hall
64 Central Square
Bridgewater, MA 02324

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:21

RE: Duxburrow Estates, LLC, 32 Norfolk Avenue, So. Easton, MA 02375
Attn: Mr. Muhammad M. Itani, Manager
Comprehensive Permit under G. L. c. 40B, ss. 20 23 – Curve St, Assessor's Map 77, Lot 18; Map 78, Lots 1,2,3,4, & Portions of 5; Map 91 Lots 1,2,3 & Portions of Map 91 Lots 3 & 6

Name of Record Owner of Title to Subject Property:

Wisam R. Omran, 24 Forest Edge Road, South Easton, Massachusetts 02375

Dear Ms. Hunt:

Record, Decision and Comprehensive Permit
Duxburrow Estates, LLC

I. BACKGROUND

A. The Application and the Proposed Project

Duxburrow Estates, LLC (the "Applicant"), is a Massachusetts Limited Liability Company which agrees to and intends to enter into a Regulatory Agreement with MassHousing under the Housing Starts Program or the New England Fund Program of the Federal Home Loan Bank of Boston. The Applicant filed an application on October 24, 2016 for a Comprehensive Permit under M.G.L. Chapter 40B, §§ 20-23 proposing to construct one hundred and fifty (150) single-family homes on separate fee simple lots. The application initially proposed that thirty-eight (38) single-family homes (25.33% of the total number of units) be "low and moderate-income units" under Chapter 40B and be reserved for sale to and occupancy by households earning at or below eighty (80%) percent of the annual Area Median Income, adjusted for household size, and also satisfying all other applicable Chapter 40B eligibility requirements

During the course of the public hearing and based upon comments expressed by the Zoning Board of Appeals (the “Board”), town officials, and neighbors during the public hearing, the Applicant submitted a revised site plan reducing the number of proposed homes on fee simple lots from one hundred and fifty (150) to one hundred and forty-eight (148) homes. The revised plans dated March 15, 2016 with the most recent revision date of August 12, 2018 now include thirty-seven (37) affordable single-family homes on fee simple lots (25.17%) (the “Affordable Homes”). The plans also addressed other design, engineering, and public safety issues raised by the board; public officials; neighbors; the Board’s engineering consultant, Stantec Consulting Services, Inc.; and the Board’s 40B advisor, Edward Marchant.

B. The Site

The subject property consists of approximately 88.5 acres (the “Site”). It is addressed as 0 Curve Street, Bridgewater and is shown on the following Assessors maps: Map 77, Lot 18; Map 78, Lots 1, 2, 3, 4, and portions of 5; Map 91, Lots 1, 2, 3 and portions of Map 91, Lots 3 and 6. The site has approximately 70.5 areas of buildable land and approximately 18 acres of non-buildable wetlands. The Site is located in a Residential A/B zoning district (1-acre minimum lot size and 150-foot minimum frontage). Surrounding land uses are primarily single-family homes.

C. Procedural Background and Hearings

A Comprehensive Permit application (the “Application”) was filed on October 24, 2016. Abutters were duly notified in writing and legal notice was duly published pursuant to G.L. c. 40B. The following legal notice was published in the Enterprise on December 28, 2016 and January 4, 2017.

The Zoning Board of Appeals will hold a Public Hearing on January 11, 2017 at 7:30pm in the auditorium of the Bridgewater-Raynham Regional High School located at 415 Center Street, Bridgewater, MA to review an application filed by Delphic Associates LLC on behalf of its client Duxburrow Estates LLC 32 Norfolk Avenue, South Easton, MA 02375 for a proposed 40B Comprehensive Permit filed under MGL Chapter 40B § 20-23 for property located at 143 Curve Street, Map 77, Lot 18; Map 78, Lot 1, 2, 3, 4 and 5; and Map 91, Lots 3 and 6. The applicant proposes to construct 150 single family homes on approximately 88.5 acres. The subject lots are in an area zoned Residential A/B. Andre Bissonnette, Chairman, ZONING BOARD OF APPEALS.

Notices published in the Enterprise on December 28, 2016 and January 4, 2017

The Board Members sitting and acting on this hearing were: Andre` Bissonnette, Chairman; Anthony Aveni, Member; and Brian Heath, Member.

The Board opened the public hearing on the Application on January 11, 2017 and continued the hearing for further testimony on February 22, 2017, May 24, 2017, and July 26, 2017.

On September 13, 2017 Duxburrow Estates, LLC agreed to assent to the discontinuance of the public hearing on Duxburrow Estates comprehensive permit application dated as of October 24, 2016 without final action being taking on the pending Application. Duxburrow Estates, LLC further assented to the opening of a new public hearing on the Application on September 27, 2017. The reason for re-advertising and opening a new public hearing was that the number of Board members eligible to vote on the initial comprehensive permit application submitted on October 24, 2016 had been reduced to only two Board members.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA
JAN 11 2017

Abutters were duly notified in writing and legal notices duly published pursuant to G.L. c. 40B. The legal notices were published in the Enterprise on September 13, 2017 and September 20, 2017.

The Board Members sitting on the new public hearing were Anthony Aveni Jr., Chairman; Brian Heath, Member; and Gerald Chipman, Member.

The Board opened the new public hearing on September 27, 2017 and continued the hearing for further testimony on November 8, 2017, January 10, 2018, February 28, 2018, April 25, 2018, May 23, 2018, June 27, 2018, July 11, 2018, September 12, 2018, October 10, 2018, and November 14, 2018.

The Board voted to close the public hearing on November 14, 2018. The Board voted to approve the Application on November 14, 2018 subject to the conditions as hereinafter stated.

E. The Record

The Record of the Board's decision on the Application consists of the documents/correspondence listed in Exhibit "A" attached hereto and incorporated by reference herein.

II. JURISDICTIONAL REQUIREMENTS AND JURISDICTIONAL FINDINGS

Pursuant to Chapter 40B regulations, an Applicant must satisfy three jurisdictional requirements: (1) the Applicant must be a public agency, a non-profit organization, or a limited dividend organization; (2) the Project must be fundable by a subsidizing agency under a low and moderate-income housing subsidy program; and (3) the Applicant must control the Site; see 760 CMR 56.04(1).

1. Applicant's Status – As stated above, the Applicant is a Massachusetts Limited Liability Company which agrees and intends to enter into a Regulatory Agreement with MassHousing under the Housing Starts Program or the New England Fund Program of the Federal Home Loan Bank of Boston. Therefore, the Applicant is an eligible Applicant pursuant to 760 CMR 56.04(1)(a).
2. Fundable Project – The Applicant has submitted a Project Eligibility Letter from MassHousing dated August 11, 2016. Therefore, the Applicant fulfills the requirement of 760 CMR 56.04(1)(b).
3. Site Control by Applicant – The Applicant controls the site as required by 760 CMR 56.04(1)(c) pursuant to agreements. The Applicant submitted a Purchase and Sale Agreement dated March 11, 2016 by and between Wisam R. Omran, current owner of the property and Duxburrow Estates LLC, the Applicant.

III. FINDINGS

1. The Site consists of 88.5 acres of which 70.5 acres are buildable uplands. The subject property fronts on Curve Street.
2. The Site is located in a Residential A/B zoning district.
3. Existing adjacent land uses are primarily single-family homes.
4. The Applicant, based upon its revised site plan, sought to develop the Site into one hundred and forty-eight (148) single-family dwelling units on fee simple lots. Thirty-Seven (37) of the total number of single-family homes (25.17%) shall be designated as "Affordable Homes." The Applicant filed development plans for review by the Board and its engineering Peer Review consultant, Stantec Consulting Services Inc. ("Stantec").

5. With 148 lots on 70.5 buildable acres, the density for the Project equals approximately 2.10 units per buildable acre. By comparison, four other 40B projects in Bridgewater have higher densities based on gross acreage: 1) Old Cedar Village on Elm Street has 36 condominium units on 4.89 acres which equals 7.36 units per acre; 2) The Groves on Bedford Street has 24 units (12 duplexes) on 3.86 acres which equals 6.22 units per acre; 3) Cassidy Place on Pleasant Street has 20 condominium units on 2.36 acres which equals 8.47 units per acre; and 4) Scotland Meadows on Jasmine Way has 24 units on separate fee simple lots on a 6.71 acre site which equals 3.57 units per acre.
6. According to the Commonwealth of Massachusetts Department of Housing & Community Development (DHCD) Subsidized Housing Inventory, ("SHI") as of September 14, 2017, only 6.6% or 546 units of the Town of Bridgewater's housing stock (8,288 Year-Round Housing Units based upon the 2010 U.S. Census) is comprised of low and moderate-income housing units qualified for listing on the SHI.

At the time that the Duxburrow Comprehensive Permit was submitted to the Board, the Town had not achieved any Safe Harbor protection and the Board made no such claim.

Subsequent to the submission of the subject Comprehensive Permit application to the Board, an additional 358 units of SHI-qualified units have been added to the Town's Subsidized Housing Inventory. The addition of these 358 units increases the number of SHI-qualified units to 904 units, thereby increasing the percentage of SHI-qualified units to 10.91%. However, because these units were added to the SHI subsequent to the submission of the Duxburrow Estates Comprehensive Permit application, such an addition does not create any Safe Harbor for the Town in regard to Duxburrow Estates or any other Comprehensive Permit application submitted prior to the Board's approval of these 300 units. Thirty-seven (37) of the units in Duxburrow Estates will be eligible for listing on the SHI. This increase of 37 units will further increase the percentage of SHI-qualified units in Bridgewater to 11.35%.

7. Stantec was retained by the Board to complete a peer review of the Site and Engineering Plans and the Traffic Report submitted by the Applicant. This peer review was completed by Mark S. Bartlett, P.E., Senior Associate; Wayne C. Perry, P.E., LSP, Senior Civil Engineer; and other Stantec professionals.

In response to the comments by Stantec, the Applicant made numerous revisions to the Site and Engineering Plans. A final peer review was completed, and the Project was found to be in compliance with applicable state laws and regulations and good engineering practices. In addition, Mr. Bartlett informed the Board that he was comfortable with certain waivers to the otherwise applicable local bylaws. The Peer Review letters submitted to the Board by Stantec are listed in Exhibit "A".

The Applicant shall comply with all requirements included in the Stantec Peer Review letters entitled "Peer Review – 7th letter" and "Peer Review – 8th letter" both of which are dated September 7, 2018 and "Peer Review – 9th letter" dated October 9, 2018 all of which are included herewith as Exhibit E.

Edward Marchant was retained by the Town and Board as their 40B Advisor and the Applicant has agreed to provide 53g funding to the Town for his services to the Town and Board.

8. The Site is not located within the Commonwealth's mapped area of Estimated Habitats of Rare Wildlife or Priority Habitats of Rare Species.
9. The site is not within a flood zone.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
NOV 19 10 22 AM

10. The north westerly portion of the site (approximately 15,110 square feet or 0.4% of the site) is in a public water supply (Zone II) as illustrated on plan EX 0.4 prepared by Silva Engineering Associates, P.C.
11. A “Declaration of Trust Establishing the Duxburrow Estates Homeowners Association Trust (HOA)” dated Revised October 29, 2018 has been submitted by the Applicant for review and approval by the Board and/or Town Counsel. The documents state that the HOA shall be responsible for the maintenance and repair of the private roadway, sidewalks, and storm water management infrastructure and also for snow removal and trash collections. The Applicant has also submitted a “Declaration of Covenants, Restrictions and Easements for Duxburrow Estates, Bridgewater, Massachusetts for review and approval by the Board and/or Town Counsel. The Applicant has also submitted a proposed HOA Budget for the Duxburrow Estates Homeowners Association Trust for review and approval by the Board or its designated representative. The submittal of these documents is identified in Exhibit “A”.

The Zoning Board of Appeals strongly recommends that the roadway, sidewalks, water mains, sewer (including ejector pumps), and storm water management infrastructure remain private.

12. The Development will tie into the municipal sewer system and municipal water system, as shown on the approved plans. The Applicant shall pay all applicable tie-in/connection fees associated with these improvements, except those that have been specifically waived in this decision.
13. The Bridgewater Conservation Commission, after a public hearing, issued an Order of Resource Area Delineation (ORAD) June 26, 2018 which depicts the approved wetland line as shown on the approved site drawings. The ORAD is recorded in the Plymouth Registry of Deed Book 47582, Page 128.
14. A Storm Water Prevention Pollution Plan (SWPPP) was submitted to the Board for review.
15. The Project has been reviewed by both the Bridgewater Fire Department and Police Department.
16. The Subsidizing Agency for the project is MassHousing (the “Subsidizing Agency”) under the Housing Starts Program or the New England Fund Program of the Federal Home Loan Bank of Boston.
17. The Applicant shall enter into a standard Regulatory Agreement and an Affordable Housing Restriction (the “Deed Rider”) with MassHousing that will be recorded with the Plymouth County Registry of Deeds prior to the start of the construction of the buildings. The Zoning Board of Appeals will sign the acknowledgement of the Regulatory Agreement.
18. The Applicant shall enter into a standard Affordability Monitoring Services Agreement with a Monitoring Agent approved by MassHousing.
19. The Applicant shall enter into a standard Limited Dividend Monitoring Services Agreement with MassHousing.
20. The approval of this Project, with the waivers and conditions hereinafter stated and as attached hereto, is consistent with local needs under Chapter 40B.

IV. CONDITIONS OF APPROVAL

1. The project shall consist of no more than one hundred forty-eight (148) single-family homes on individual fee simple lots, including 25.17% of the total number of homes (thirty-seven homes) designated as Affordable Homes. The total number of bedrooms shall not exceed four hundred forty-four (444).

2. All site improvements, residential buildings and landscaping shall be constructed as shown on the following engineering, architectural, and landscaping drawings and all residential buildings shall be constructed in conformance with the architectural plans as submitted by the Applicant as listed below and referenced herein. Collectively these engineering, architectural and landscaping documents shall be referred to as the “Comprehensive Permit Plans”.

A. Engineered Plans, dated March 15, 2016 revised thru August 12, 2018 prepared by and stamped by Lawrence P. Silva, P.E., Silva Engineering Associates, P.C., 1615 Bedford Street, Bridgewater, MA 02334 entitled “Comprehensive Permit Duxborrow Estates”, Assessor’s Map 77, Lot 18; Assessors Map 78, Lots 1, 2, 3, 4 and portions of 5; Map 91, Lots 1, 2 and portions of Map 91, lots 3 & 6; Curve Street Bridgewater, Massachusetts. Includes the following:

- | | |
|---------------------------------|----------------|
| • Cover Sheet | CV0.1 - CV0.2 |
| • Existing Conditions | EX0.3 - EX0.5 |
| • Affordable Distribution Index | LL1.0 |
| • Lot Layout Sheets | LL1.1 – LL1.7 |
| • Plan and Profile Index | PP2.0 |
| • Plan and Profile Sheets | PP2.1 – PP2.13 |
| • Topographic Sheets | GR3.1 – GR3.7 |
| • Utility Sheets | UT4.1 – UT4.2 |
| • Construction Details Sheets | CD5.1 – CD 5.3 |
| • Drainage Evaluation | DR6.1 – DR 6.6 |

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2016 NOV 19 A 10:21

B. Engineered Plans dated March 15, 2016 revised thru August 12, 2018 prepared by and stamped by Lawrence P. Silva, P.E., Silva Engineering Associates, P.C., 1615 Bedford Street, Bridgewater, MA 02334 entitled, “Duxborrow Estates Offsite Improvement Plan” from Laurel Street to Auburn Street; Auburn Street to Curve Street; Solar Way to Duxborrow Pump Station, Bridgewater Massachusetts. Includes the following:

- Sheets 1-10 entitled, “Cover Sheet”, “Plan and Profile Sheets 2-3”, “Protection of Demolition Curve Street ‘West’”, “Plan and Profile Curve Street to Duxborrow Way”, “Plan and Profile Solar Way”, “Plan and Profile Solar Way to Pump Station”, “Plan and Profile Solar Way Drainage”, as well as “Construction Details”. Stamped by Lawrence P. Silva, P.E., Silva Engineering Associates, P.C., 1615 Bedford Street, Bridgewater, MA 02324

C. Engineered Plans, dated May 23, 2018 prepared by and stamped by Lawrence P. Silva, P.E., Silva Engineering Associates, P.C., 1615 Bedford Street, Bridgewater, MA 02334 entitled “Auburn Street and Curve Street ‘West’”. Assessors Map 77, Lot 18; Map 78, Lots 1-4; Map 91, Lots 1-2; and Portions of Map 78, Lot 5 and Map 91, Lots 3&6.

D. Landscape Plans, as prepared by Grady Consulting, LLC, 71 Evergreen Street, Suite 1, Kingston, MA, 02374 and entitled Landscape Plan, Duxborrow Estates, Curve Street, Bridgewater, Massachusetts dated January 8, 2018 with a revised date of June 19, 2018. The plans consist of: Sheet 1 Cover, Sheet 2 Main Entrance Landscape Plan, Sheet 3 Landscape Plan, Sheet 4 Landscape Plan, Sheet 5 Landscape Plan, Sheet 6 Landscape plan, Sheet 7 Landscape Plan, Sheet 8 Lighting Details, sheet 9 Typical Home Landscape Plans, sheet 10 Landscape Details and Sheet 11 Landscape Notes.

E. Any Field Changes requested by the developer regarding plans identified in A, B, C, and D above approved by the Town’s Building Commissioner or his designated representative shall be deemed to be approved by the Board.

F. Architectural Plans - The model types shown below were designed for both the Market Rate Homes and the Affordable Homes. The Affordable Homes generally have 1½ baths and the Market Rate Homes may have additional bathrooms.

- There will be elevation design variations among model types for features such as windows, doors, pilasters etc.
- The Basic Specifications for both the Market Rate Homes and Affordable Homes have been submitted to the board in correspondence dated September 24, 2018 as identified in Exhibit “A” and as attached herewith as Exhibit “B”.
- Interior finishes may differ between the Market and Affordable Homes, including; flooring, counter tops, kitchen cabinets and electrical fixtures. However, the interior finishes for the Affordable Homes must still satisfy a reasonable quality standard.

The following list includes potential upgrades/options that may be offered at additional cost: enlarged decks, kitchen islands, fireplaces, soaking tubs, built-in bookcases.

MODEL TYPES

The Affordable model types listed below range in livable square footage range from 1,602 to 2,700 square feet. The homes are of New England architectural style. The architectural plans are attached as Exhibit “B”.

Model	Style	Approximate Square Feet	Garage	Affordable Homes	Bedrooms	Baths
The Andover	Two story	1625	1 car	5	3	1 1/2
The Newport	Ranch	1682	2 car	3	3	2
The Arlington-I	Two Story	1720	1 car	5	3	1 1/2
The Beacon	Ranch	1602	2 car	4	2	2
The Berkeley	Two Story	1881	2 car	4	3	1 1/2
The Charles	Two Story	1721	1 car	5	3	1 1/2
The Clarendon	Two Story	1815	1 car	3	3	2
The Dartmouth	Two Story	2090	2 car	3	3	1 1/2
The Exeter	Two Story	2447	1 car	2	3	1 1/2
The Fairfield	Two Story	2384	2 car	2	3	1 1/2
The Gloucester-II	Two Story	2700	2 car	1	3	1 1/2
Total				37		

BASEMENTS

All Affordable Homes shall have full basements.

BEDROOMS

Some of the model types could be either 2 or 3 bedrooms. Should some of the 4-bedroom style homes be built, then the average number of bedrooms in the development shall not be more than 3- bedrooms. The total number of bedrooms in the development, including all 148 homes, shall not exceed four hundred forty-four (444).

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2016 NOV 19 A 10:22

GARAGES

The garages shall not be habitable, nor converted to habitable space.

3. All of the 37 Affordable Homes shall be deed restricted and be affordable in perpetuity for purchase and occupancy by households whose total household income is no more than 80% of the Median Family Income for the Brockton, MA HUD Metro FMR Area, as adjusted for household size and as determined by the United States Department of Housing and Urban Development. Affordable Home households must satisfy all other applicable Subsidizing Agency and Chapter 40B eligibility requirements including but not limited to First Time Home Buyer status and maximum asset level requirements. The Affordable Homes shall be indistinguishable on the exterior from the Market Rate Homes.
4. Subject to the approval of the Subsidizing Agency, the Affordable Homes shall be located on Lots as shown on the Engineered Site Plans labeled "Affordable Distribution Index Sheet LL1.0"

PHASE I	PHASE II	PHASE III	PHASE IV	PHASE V	PHASE VI
LOT 17	LOT 100	LOT 26	LOT 33	LOT 62	LOT 3
LOT 21	LOT 122	LOT 30	LOT 37	LOT 65	LOT 7
LOT 24	LOT 130	LOT 50	LOT 42	LOT 67	LOT 13
LOT 116	LOT 133	LOT 55	LOT 47	LOT 70	
LOT 118		LOT 60		LOT 73	
LOT 142		LOT 103		LOT 79	
LOT 146		LOT 107		LOT 80	
		LOT 112		LOT 83	
				LOT 91	
				LOT 94	
				LOT 98	

TOTAL AFFORDABLE HOMES: 37

5. The Applicant shall enter into the standard MassHousing Regulatory Agreement (the "Regulatory Agreement") which shall be recorded with the Plymouth County Registry of Deeds prior to the issuance of the initial Building Permit. The Applicant must receive Final Approval from the Subsidizing Agency prior to the issuance of the initial Building Permit. The Applicant must provide evidence of Final Approval by the Subsidizing Agency and the recording of the Regulatory Agreement to the Board and the Building Inspector as part of the Applicant's Building Permit application.

However, stock piling of material (fill etc.) on the subdivision site shall be allowed prior to the execution of the Regulatory Agreement by MassHousing. In addition, work as shown on the plans entitled "Duxburrow Estates Off-Site Improvement Plan dated 7/13/17 with the latest date of 8/12/2018 may commence prior to the execution of the Regulatory Agreement by MassHousing.

6. The Applicant shall enter into the standard MassHousing Limited Dividend Monitoring Agreement with MassHousing prior to receiving the initial building permit for the project. Compliance with the Limited Dividend requirements under M.G.L. c. 40B shall be determined by the Subsidizing Agency in accordance with the rules of the applicable housing subsidy program.

All revenue and expenses attributable to upgrades and/or options purchased by home buyers must be included in the cost certification documents. The Applicant shall provide to the Board copies of any and all materials submitted to the Subsidizing Agency related to Cost Certification and Limited Dividend restriction monitoring and reviews.

7. The Applicant shall enter into the standard MassHousing Affordability Monitoring Agreement with MassHousing or with a monitoring agent approved by MassHousing prior to receiving the initial occupancy permit.
8. The deeds to the Affordable Units shall include the standard MassHousing Affordable Housing Restriction/Deed Rider in which the affordability restrictions described herein survive foreclosure.
9. Building Permits for the Project shall not be issued until the Applicant receives Final Approval, as that term is defined in 760 CMR 56.04(7), from the Subsidizing Agency and submits evidence of same to the Board and the Building Inspector.
10. For every three (3) Market Rate Homes for which an Occupancy Permit is issued, there shall be at least one (1) Affordable Home for which an Occupancy Permit is issued.

The Applicant has the right but not the obligation to accelerate the rate of construction of the Affordable Units.

Certificates of Occupancy must be issued for all thirty-seven (37) Affordable Homes before a Certificate of Occupancy will be issued for the final three Market Rate Homes.

11. Any proposed changes to the Comprehensive Permit Plans must be submitted to the Board pursuant to 760 CMR 56.05(11).
12. All construction materials and equipment for work done on the Duxburrow subdivision must be stored on-site.
13. Parking for construction workers must be on-site and not on public ways. No construction vehicle parking shall be allowed on Curve Street.
14. Landscaping required for each defined phase, as required in the Comprehensive Permit Plans and including but not limited to landscaping required in individual lots, common areas, and buffer areas for each phase, shall be completed in a timely manner. However, landscaping, including fencing, to be completed in buffer areas may be delayed, subject to the requirements of Condition 15, if the installation of such landscaping will interfere with the orderly and efficient construction of homes abutting the buffer areas.
15. Certificates of Occupancy may be granted for homes on a phase by phase basis even if the roadway and infrastructure for homes in the subject phase and the entire development has not been completed. However, the issuance of any Certificate of Occupancy will require a determination by the Building Commissioner that the roadway and infrastructure improvements that have been completed can service any such homes in a safe manner. The bonding alternative will be allowed only if the Applicant can demonstrate that seasonal weather conditions prevent the completion of such infrastructure improvements.

However, Building Permits shall not be issued for more than two active development phases, as shown on the Comprehensive Permit Plans, until the Applicant has completed or bonded to the satisfaction of the Building Commissioner all required roadway and infrastructure improvements, including but not limited to the road paving final course, all sidewalks, and all landscaping for at least one of the two active development phases. For example, no Building Permits shall be issued for a third phase unless the required roadway and infrastructure improvements for at least one of the two earlier phases has been completed or bonded.

16. The Homeowner Association documents, including Declaration of Trust, Declaration of Covenants, Restrictions and Easements and Operating Budget have been submitted to the Board and Town Counsel as identified in Exhibit "A".

Said operating budget includes the cost of maintaining the roadways and sidewalks, storm water management system, common landscaping, all infrastructure and other common facilities. The HOA shall also be responsible for snowplowing and trash removal.

The Board acknowledges that the Subsidizing Agency has final approval authority in regards to the Homeowners Association documents.

17. The property shall be addressed, and each unit shall be posted in accordance with Town of Bridgewater requirements. The mail box kiosk(s) shall be acceptable to the Bridgewater Postmaster.

18. All signage shall conform to the site plans and landscape plans as identified above.

19. Exterior construction activities shall be confined to the hours between 7:00 am and 6:00pm, Monday through Friday and between the hours of 8:00 am and 5:00 pm on Saturday. There shall be no construction on federal holidays. Additionally, heavy construction vehicles and/or heavy equipment shall not be started or operated prior to or after the times stated herein. For this condition, construction activities shall be defined as: start-up of equipment or machinery, delivery of building materials and supplies; removal of trees; grubbing; clearing; grading; filling; excavating; import or export of earth materials; installation of utilities on the Property; removal of stumps and debris; and the erection of structures.

Notwithstanding the above, the above restriction on the hours of construction activities shall not apply to any off-site work (for example, work hours for improvements on Curve Street shall be 8:00am to 5:00pm or in accordance with the Town department customary hours, such as the Sewer/Water department.

20. During construction, the Applicant shall conform to all local, state, and federal laws regarding noise, vibration, dust and the blocking of any roads. The Applicant shall at all times use all reasonable means to minimize inconvenience to residents in the general area. For this condition, construction activities shall include, but not be limited to: start-up of equipment or machinery, delivery of building materials and supplies; removal of trees; grubbing; clearing; grading; filling; excavating; import or export of earth materials; installation of utilities both on and off the site; demolition of existing structures; removal of stumps and debris; and erection of new structures.

21. The Applicant shall submit to the Board on a phase-by-phase basis as-built plans showing the buildings, roadways, sidewalks, driveway aprons, edge of pavement, and utilities. Said as-built plans shall be submitted in a format satisfactory to the Building Inspector and be stamped by a licensed Massachusetts Professional Engineer. The Applicant shall also submit to the Zoning Board of Appeals digital copies of said as-built plans in a format acceptable to the Building Inspector.

22. Insofar as allowed under M.G.L. c. 40B and any other applicable laws and by the Subsidizing Agency, with respect to the initial sale at least 70% of the Affordable Homes, the Applicant shall provide a preference category in the Lottery for the Affordable Homes for current Bridgewater residents, Bridgewater municipal employees, employees of local Bridgewater businesses, and households with children attending Bridgewater schools.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA
JUN 18 2018

The Board acknowledges that it will be required to provide evidence satisfactory to the Subsidizing Agency of the need for the foregoing local preferences and obtain approval of the categories of persons qualifying for the same, in accordance with Chapter 40B requirements. In no event shall the Applicant be in violation of the terms of this Comprehensive Permit to the extent the Subsidizing Agency disapproves the local preference requirement or any aspect thereof. The Applicant shall provide reasonable and timely assistance to the Town in providing this evidence. If the Board or its designee does not provide such information within thirty (30) days of a written request by the Applicant, its Lottery Agent, or the Subsidizing Agency, then this condition shall be void unless the Applicant has failed to provide reasonable and timely assistance as described above.

Delphic Associates LLC, (“Delphic”), the Applicant’s designated Lottery Agent, anticipates a total of at least 3 lotteries will be needed throughout the construction phases of this development.

The first lottery will be for Phase I and II (11 Affordables Homes). The second lottery will be for Phases III and IV (12 Affordables Homes). The third lottery will be for Phases V and VI (14 Affordable Homes).

The Affordable Homes designated for “Local Applicants” will be disbursed at a 2 to 1 ratio in each phase. Under no circumstances shall the local preference exceed 70% of the affordable homes within the development.

The cost associated with the Lottery and marketing plans, including the advertising and processing for the Affordable Homes shall be borne by the Applicant.

The Affirmative Fair Housing Marketing Plan (AFHMP) must be approved by the Subsidizing Agency.

23. Enforcement of the conditions of this Decision shall be by the Building Commissioner, or the Board, or its Agents.
24. An estimated construction schedule shall be submitted to the Building Commissioner prior to the issuance of a building permit in order to facilitate inspections. Such schedule shall be revised quarterly to reflect work completed and changes in construction timing.
25. Appropriate measures shall be taken during construction to prevent the tracking of material onto any public way. Any material tracked onto a public way shall be swept up and removed by the Applicant as necessary and as required by the Building Commissioner.
26. The Applicant shall repair in a timely manner any damage caused by the Applicant, its agents and subcontractors to public roads adjacent to the Project that results from the construction and/or maintenance of the Project.
27. A Construction Management Plan, including a proposed Trucking Plan for the construction activities of Duxburrow Estates has been submitted to the Board. The Trucking Plan specifies: (i) planned truck routes (ii) estimated volumes of any imported and exported materials (iii) estimated truck trips and (iv) construction period mitigation measures, street sweeping protocols and dust control measures to be implemented on the Property. Trucks shall be prohibited from using the easterly portion of Curve Street.

The Building Commissioner can require reasonable modification to the trucking plan based upon actual experience during the construction period.

The Applicant shall provide a 48-hour notice to the relevant Town departments of installation of utilities and infrastructure for inspections prior to backfilling.

The Applicant shall file a Construction General Permit within 2 weeks prior to the start of construction and shall at the same time file a copy with the Board.

28. Maintenance of the project roadways, driveways, storm drainage and other infrastructure improvements shall be in accordance with the Operation and Maintenance Plan submitted by the Applicant. The Board strongly recommends that all such infrastructure improvements remain private.
29. If any provision of this Permit or portion of such provision or the application thereof to any person or circumstances is for any reason held invalid or unenforceable, the remainder of this Permit (or the remainder of such provision) and the application thereof to other persons or circumstances shall not be affected thereby.
30. The terms, provisions and conditions of this Permit shall burden and benefit the authorized successors and assigns of the Town and the Applicant with the same effect as if mentioned in each instance where the Town or the Applicant is named or referred to.
31. The Applicant shall pay all reasonable costs of construction oversight of the roadway and infrastructure by the Town representative. The Applicant shall pay for construction oversight by an engineer on behalf of the Town who shall be, if such engineer deems his or her presence necessary, present during the cutting of slopes and the installation of storm water facilities. Construction inspections shall occur at a minimum of once a month and more frequently during construction of the storm water management system, again dependent on the reasonable conclusion of such engineer. Site reports shall be prepared and submitted to the Board after each inspection. The reports shall include any recommendations or changes to respond to issues observed during the inspections.

Yearly inspections, for the period of 3 years after substantial completion of the Project, shall be performed in the month of April or May, weather permitting, at the Homeowners Association expense. The inspection shall include review of the storm water management system function and observation of the slopes on the site to determine any erosion on the site. A field report shall be prepared and submitted to the Board after each yearly inspection. The Homeowners Trust shall be responsible for repairing any reasonable deficiencies. This requirement shall be included in the Declaration of Trust for the Homeowners Trust that is established for the Project.
32. All utilities serving this development shall be installed underground, including any extensions from existing lines or poles external to the subject property.
33. The Applicant shall conform to all applicable requirements of the Americans with Disabilities Act and the Regulations of the Massachusetts Architectural Access Board. The Applicant shall at its expense make reasonable accommodations for any approved qualified Affordable Home households for the initial sale of the 37 Affordable Homes.
34. If there are any changes in the referenced Comprehensive Permit Plans, the Applicant shall submit prior to the issuance of Building Permits for any of the 6 applicable phases as identified in the Phasing Plan sheet LL1.0 1) a final set of Site and Engineering Plans, which shall include but not be limited to the storm water plans and calculations (the "Final Plans") to the Board for reviewed by Stantec Consulting Services Inc., or other agreed upon engineering firm, to ensure consistency with the terms of this Decision; and 2) final architectural plans (the "final architectural plans") to the Board and Building Commissioner to confirm the consistency of such plans with the terms of this Decision and with the Massachusetts Building Code and with the Landscaping Plan. Any comments to the Applicant from Stantec Consulting Services Inc. (or successor engineering firm), the Board, or the Building Commissioner shall be made in writing within thirty (30) days after submission of Final Plans by the

Applicant, and if no comments or requests for additional information are received within such period, then the Final Plans and the final architectural plans shall be deemed to be consistent with the terms of this Decision.

35. In the event that the snow storage areas designated on the Comprehensive Permit Plans are inadequate for a particular storm event or events, any excess snow must be removed from the Property.
36. The Applicant shall comply with all requirements included in the final Stantec Peer Review letters entitled "Peer Review – 7th, Peer Review -8th, and Peer Review-9th" all of which are included herewith in Exhibit "E".
37. As shown on the engineering plans dated March 15, 2016 revised thru August 12, 2018"
- A) The proposed new low pressure and forced main sewer lines shall be installed off the pavement on the northerly edge of Auburn Street. Stubs for future tie-ins to properties north of Auburn Street shall be extended to the property line of each lot. The future connection location for properties on the south side of Auburn Street shall be limited to a short connection/stub at the low-pressure line. Exact locations shall be recorded for ease of connection in the future.

Individual properties affected are shown on Exhibit "D"

- B) All properties along the westerly leg of Curve shall be supplied with a stub for future connection to the low-pressure sewer main. Stubs for future tie-ins are provided as a courtesy for residents wishing to tie-in at a future date.

Individual properties affected are shown on Exhibit "D"

- C) To satisfy the Town's requirement for looping of the water main, the existing water main in Auburn Street shall be tapped twice. One tap will replace the northern portion of the existing 6" AC water main with a new 8" line to Jennings Hill Way. The other tap shall extend southward along Curve Street, replacing the remainder of the 6" AC water line, to the entrance of Duxburrow Estates.

The new line shall continue into the development and also connect to the existing 8" line located along the central leg of Curve Street. An 8" line shall also be tapped at Curve St and Solar Way and shall be looped into the development.

All properties currently tied to the 6" line shall be redirected to the new 8" lines. See approved plans 8/12/18 as agreed to by Water and Sewer Commissioners at the meeting on July 25, 2018.

The agreed upon water line configuration is shown on the 8/12/2018 plans except for the upgrades to the Laurel Street pumps.

- D) In order to handle the increased sewerage flow to the Laurel Street pump, the pumps within that station shall be replaced as per the agreement with the Water and Sewer Commission at the meeting on July 25, 2018.
- E) A potential alternative looping configuration along the eastern leg of Curve St. may be substituted for the looping described above, if the Water and Sewer Commissioners determine that the alternative configuration is more beneficial to the Town's needs. Should the Town choose the more costly alternative, the developer shall be compensated for the increased construction cost through a reduction in the tie-in fees for the Market Rate homes in the subdivision in an amount equal to the agreed upon incremental cost of the alternative looping plan.

- F) Hydrant flow tests have been conducted and the results were reviewed by the Water and Sewer Commission's consultant. The agreed upon improvements are based upon the results of those tests.
- G) The inspector's schedule is to be based upon the need when the water and sewer utilities are being installed. The inspector will be chosen by the Sewer Department and paid for by the Applicant.
- H) In an effort to provide mitigation, the use of credited fees paid to the Town of Bridgewater shall be determined by the Town Manager, in accordance with notes of meeting with Town Manager and Sewer/Water Department officials (the "Memo") The Applicant shall provide an amount equal to the water and sewer tie-in fees for the Affordable Homes, to the Town, in exchange for forgiveness of said fees. The memo from the Town Manager is identified in Exhibit "A".

The total fee of Two Hundred Fifty-Five Thousand Three Hundred Dollars (\$255,300) shall be paid as follows:

- One Hundred Twenty-Five Thousand Dollars (\$125,000) shall be paid within 60 days of Final Approval of the project by MassHousing or within 60 days of the commencement of any subdivision site work, whichever occurs earlier.
- Sixty Thousand dollars (\$60,000) shall be paid after receipt of the 10th certificate of occupancy.
- Final balance of Seventy Thousand Three Hundred Dollars (\$70,300) shall be paid after the sale of the final Affordable Home.

38. Where the Comprehensive Permit Plans or documents submitted to support the Application contain information in conflict with the wording of this Comprehensive Permit, the wording of the Comprehensive Permit shall prevail.
39. The Applicant has requested, and the Board has granted, the exceptions from the Bridgewater Zoning Bylaws and other applicable rules and regulations as specified on said Comprehensive Permit Plans and as listed in Exhibit "C" herein. In the event the Applicant determines in the final design of the Project that additional exceptions not identified herein are necessary to construct the Project as approved by this Decision, the Applicant shall submit a list of such additional waivers to be reviewed by the Board pursuant to the requirements of 760 CMR 56.05(11).
40. This Permit is granted to the Applicant and may not be transferred or assigned to any party without the approval of the Subsidizing Agency and notice to the Board, as required by 760 CMR 56.05(12) (b), except to an Applicant- controlled affiliate.
41. In accordance with 760 CMR 56.05(12), this Comprehensive Permit shall expire three years from the date hereof if commencement of site work has not begun. The Applicant may apply to the Board for reasonable extensions to the Comprehensive Permit for good cause.
42. The Applicant shall regularly, but not less than every two weeks remove construction trash and debris from the Property in accordance with good construction practice. No tree stumps, demolition material, trash or debris shall be burned or buried on the Property. However, material intended for future use may be stockpiled on the Property and maintained in a neat and workmanlike manner.
43. The Applicant shall implement dust control operations as necessary to comply at all times with applicable law, including without limitation DEP's Dust regulations at 310 CMR 7.09, as amended, as directed by the Building Inspector. Methods of controlling dust shall meet all applicable air pollutant standards as set forth by Federal and State regulatory agencies.

44. Each condition in this Decision shall run with the land and shall, in accordance with its terms, be applicable to and binding on the Applicant and the Applicant's successors and assigns for as long as the Project and the use of the land does not strictly and fully conform to the requirements of the Bridgewater Zoning Bylaw; and reference to this Comprehensive Permit Decision shall be incorporated in every deed conveying all or a portion of the Property and in all Homeowners Association documents.
45. No disposal of yard and landscaping waste shall be permitted in the surrounding wooded areas on the site.
46. The Applicant shall comply with the Order of Conditions to be issued by the Town of Bridgewater Conservation Commission.
47. The Board shall endorse, after review by the Board or its designated representative for consistency with the Comprehensive Permit, the mylar set of Final Lot Layout Sheets for recording at the Plymouth Registry of Deeds
48. The Applicant shall comply with all of the Offsite Improvement Requirements as listed in "Offsite Improvement Summary, Duxburrow Estates, Bridgewater, MA dated October 30, 2018 (Exhibit "F").
49. The Applicant shall submit for review and approval by the Board or its designated representative a copy of the proposed Homeowners Association Declaration of Trust, Homeowners Association Budget, and Declaration of Covenants, Restrictions and Easements. Said documents shall reference this Decision and the affordability requirements upon which the Comprehensive Permit is conditioned and state that the Project is subject to this Decision. The Homeowners Association documents shall provide that the Homeowners Association is responsible for maintaining the roadways and sidewalks, storm water management system, common landscaping, all infrastructure and other common facilities and shall also be responsible for snowplowing and trash removal. The HOA documents shall state that all trash and recycle barrels must be kept in garages and/or sheds except on trash/recycle collection days.
- The Board acknowledges that the Subsidizing Agency has final approval authority in regard to the Homeowners Association documents, including the HOA budget.
50. There shall be no additional parking spaces or areas constructed beyond those shown on the comprehensive Permit Plans.
51. The Applicant shall pay the cost of all professional consultants retained to review the Project and matters related thereto, including fees for legal counsel in the event the Board determines that it is necessary to retain such consultants to assist it with the ongoing review and approval of the Project. No Building Permits will be issued if deposits to be placed in escrow for such costs are not made by the Applicant. Following the completion of such review, excess funds in the escrow account shall be returned to the Applicant or its successor in interest.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:23

V. WAIVERS FROM TOWN OF BRIDGEWATER BYLAWS, ORDINANCES, RULES AND REGULATIONS

The Board grants the waivers to the Town of Bridgewater bylaws, rules and regulations as shown on Exhibit "C" attached hereto and incorporated by reference herein and as stated on the plans associated with this project.

V. LIST OF EXHIBITS

Exhibit "A"	Correspondence/Documentation Received
Exhibit "B"	Architectural Plans and Building Specifications (Affordable & Market Rate)
Exhibit "C"	Requested Waivers October 19, 2018
Exhibit "D"	Low Pressure Connection Addresses
Exhibit "E"	STANTEC Review Letters (#7, #8 & #9)
Exhibit "F"	Off-Site Improvement Summary

VI. VOTE

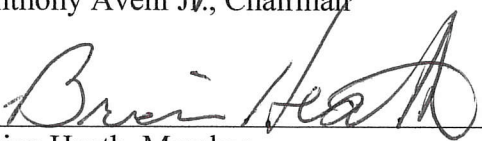
Based on the foregoing and subject to the Conditions stated above, the Board VOTED on November 14, 2018 to grant a Comprehensive Permit pursuant to G.L. c. 40B, ss. 21.

Date: November 14, 2018

Bridgewater Zoning Board of Appeals



Anthony Aveni Jr., Chairman



Brian Heath, Member



Gerald Chipman, Member

RECEIVED
TOWN CLERK'S OFFICE
BRIDGEWATER, MA.
1 2018 NOV 19 A 10:23

EXHIBIT A

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

1 2016 NOV 19 A 10 20 1

Duxburrow Estates 40B Correspondence/Documentation Received

Correspondence/Document	Date
Letter from John Allaire, Broker, Easton Real Estate – Market Analysis	March 8, 2016
Engineered Plan Set entitled “ <i>A Comprehensive Permit Duxburrow Estates, Assessor’s Map 77, Lot 18; Assessor’s Map 78, Lot 1, 2, 3, & 4; Map 91, Lots 1 & 2; Portions of Map 78, Lot 5; Map 91, Lots 3 & 6, Curve Street, Bridgewater, MA</i> ”, Sheets CV0.1-CV0.2 entitled “ <i>Cover Sheet</i> ”, Sheets EX0.3-EX0.5 entitled “ <i>Existing Conditions</i> ”, Sheet LL1.0 entitled “ <i>Affordable Distribution Index</i> ”, Sheets LL1.1-LL1.7 entitled “ <i>Lot Layout Sheets</i> ”, Sheet PP2.0 entitled “ <i>Plan and Profile Index</i> ”, Sheets PP2.1-PP2.13 entitled “ <i>Plan and Profile Sheets</i> ”, Sheets GR3.1-GR3.7 entitled “ <i>Topographic Sheets</i> ”, Sheets UT4.1-4.2 entitled “ <i>Utility Sheets</i> ”, Sheets CD5.1-5.3 entitled “ <i>Construction Details Sheets</i> ”, and Sheets DR6.1-6.6 entitled “ <i>Drainage Evaluation</i> ”	March 15, 2016, March 9, 2017, July 13, 2017, December 27, 2017, January 22, 2018, August 12, 2018
Engineered Plans entitled “ <i>A Comprehensive Permit Duxburrow Estates – Affordable Phasing Plan, Assessor’s Map 77, Lot 18; Assessor’s Map 78, Lot 1, 2, 3, & 4; Map 91, Lots 1 & 2; Portions of Map 78, Lot 5; Map 91, Lots 3 & 6 SITE: Curve Street, Bridgewater, MA</i> ” as prepared by Silva Engineering Associates, P.C. 1615 Bedford Street, Bridgewater, MA	March 15, 2016
Traffic Impact and Access Study Proposed Duxburrow Estates, Bridgewater, Massachusetts prepared for Stonebridge Homes, Inc., August 2016, prepared by Green International Affiliates, Inc.	August 2016
Project Eligibility / Site Approval Letter form MassHousing to Mr. Muhammad M. Itani, Duxburrow Estates, LLC	August 12, 2016
Comprehensive Permit Application, Duxburrow Estates, Bridgewater, MA	October 25, 2016
Memorandum from Zoning Board of Appeals to Town Departments Requesting Comments	November 4, 2016
Letter to Zoning Board of Appeals from David R. Moore, Interim Building Commissioner/Zoning Enforcement	December 5, 2016
Email to Zoning Board of Appeals from Paul E. Cusson, Managing Member, Delphic Associates extending the opening of the initial hearing to January 11, 2017	December 6, 2016
Email to the Zoning Board of Appeals from Paul E. Cusson, Managing Member, Delphic Associates, Reference: Duxburrow Estates – Grant of Extension of the Opening of the initial Public Hearing to January 11, 2017	December 6, 2016
Engineered Plans entitled “ <i>Typical Neighborhood Layout</i> ” as prepared by Silva Engineering Associates, P.C. 1615 Bedford Street, Bridgewater, MA	January 4, 2017
Engineered Plans entitled “ <i>A Comprehensive Permit Duxburrow Estates – Construction Phasing, Assessor’s Map 77, Lot 18; Assessor’s Map 78, Lot 1, 2, 3, & 4; Map 91, Lots 1 & 2; Portions of Map 78, Lot 5; Map 91, Lots 3 & 6 SITE: Curve Street, Bridgewater, MA</i> ” as prepared by Silva Engineering Associates, P.C. 1615 Bedford Street, Bridgewater, MA	January 11, 2017

EXHIBIT A

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2016 NOV 19 A 10:20

Duxburrow Estates 40B Correspondence/Documentation Received

Correspondence/Document	Date
Email from Kim Larcom, 50 Curve Street to the Zoning Board of Appeals	January 12, 2017
Letter from ATC, 588 Silver Street, Agawam, MA to Massachusetts Department of Environmental Protection regarding: Permanent Solution Statement Former Bridgewater Farm Curve Street, Bridgewater, MA Release Tracking Number (RTN) 4-26079	April 19, 2017
Meeting Notes from Stantec regarding Existing Conditions Site Walk	May 10, 2017
Letter from Delphic Associates requesting a continuation	May 22, 2017
Engineered Plan Set entitled " <i>Sewer Improvement Plan from "Duxburrow Estates", Assessor's Map 78, Lot 1, 2, 3, & 4; Map 91, Lots 1 & 2; Portions of Map 78, Lot 5; Map 91, Lots 3 & 6 from Laurel Street to Duxburrow Pump Station, Bridgewater, Massachusetts, DATE: April 27, 2017</i> " Includes Sheets 1 through 8, entitled " <i>Cover Sheet</i> ", " <i>Plan & Profile from Sta 0+00 to 11+00, Laurel Street to Auburn Street</i> ", " <i>Plan & Profile from Sta 11+00 to 22+00, Auburn Street to Curve Street</i> ", " <i>Plan & Profile from Sta 22+00 to 33+00, Curve Street</i> ", " <i>Plan & Profile from Sta 33+00 to 43+00, Curve Street</i> ", " <i>Plan & Profile from Sta 0+00 to 11+00 Solar Way</i> ", " <i>Plan & Profile from Sta 11+00 to 22+00 Solar Way</i> ", and " <i>Construction Details</i> "	May 27, 2017
Stantec – Preliminary Draft Comments for Consideration	May 31, 2017
Engineered Plan Set entitled " <i>Duxburrow Estates Offsite Improvement Plan Assessor's Map 78, Lot 1, 2, 3, & 4; Map 91, Lots 1 & 2; Portions of Map 78, Lot 5; Map 91, Lots 3 & 6 from Laurel Street to Duxburrow Pump Station, Bridgewater, Massachusetts, DATE: July 13, 2017</i> " Includes Sheets 1 through 9, entitled " <i>Cover Sheet</i> ", " <i>Plan & Profile from Sta 0+00 to 11+00, Laurel Street to Auburn Street</i> ", " <i>Plan & Profile from Sta 11+00 to 22+00, Auburn Street to Curve Street</i> ", " <i>Plan & Profile from Sta 22+00 to 33+00, Curve Street</i> ", " <i>Plan & Profile from Sta 33+00 to 43+00, Curve Street</i> ", " <i>Plan & Profile from Sta 0+00 to 11+00 Solar Way</i> ", " <i>Plan & Profile from Sta 11+00 to 22+00 Solar Way</i> ", " <i>Plan & Profile from Sta 0+00 to 5+91 Off Solar Way</i> ", and " <i>Construction Details</i> "	July 13, 2017
Letter from Silva Engineering Associates, P.C. to Zoning Board of Appeals re: Duxburrow Estates – Curve Street response addressing comments by abutter Mike Mainvielle.	July 25, 2017
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 1 st Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324	August 24, 2017
Letter from Duxburrow Estates, LLC to Zoning Board of Appeals re: New Public Hearing on Duxburrow Estates Comprehensive Permit Application – Extension of Time Standards Under G.L. c. 40B § 21 and 760 C.M.R § 56.50(3)	September 13, 2017
Duxburrow Estates - Progress Report and Summary	September 27, 2017

EXHIBIT A

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2016 NOV 19 A 10:22

Duxburrow Estates 40B Correspondence/Documentation Received

Correspondence/Document	Date
Letter from Jason S. Sobel, P.E., PTOE, Project Manager, Green International Affiliates, Inc., 239 Littleton Road, Suite 3, Westford, MA 01886 to Zoning Board of Appeals regarding Response to Peer Review Comments – Traffic Proposed Duxburrow Estates, Bridgewater	November 1, 2017
Easement Agreement	November 1, 2017
Engineered Plans entitled “ <i>Easement Plan, Assessor’s Map Map 91, Lot 3, and Assessor’s Map 78, Lot 110 SITE: Off Solar Way, Bridgewater, MA</i> ” as prepared by Silva Engineering Associates, P.C. 1615 Bedford Street, Bridgewater, MA	November 1, 2017
Letter from GIO Group, 89 Rocky Meadow Street, Middleborough, MA to Mr. Anthony Esposito, Duxburrow Estates LLC, 32 Norfolk Avenue, South Easton, MA regarding: Duxburrow Estates, Fire Flow Calculation	November 4, 2017
Easement Plan	November 6, 2017
Letter from Silva Engineering Associates, P.C. to Zoning Board of Appeals re: Duxburrow Estates, a 40B Comprehensive Permit Project; Located Off Curve Street, Bridgewater, MA 02324 – Sewer Impacts	November 8, 2017
Memorandum from Jack Martin to Mark Bartlett, Stantec reference: Comments on Green International Affiliates November 1, 2017 response	November 8, 2017
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 2 nd Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324	November 8, 2017
Letter from GIO Group, 89 Rocky Meadow Street, Middleborough, MA to Zoning Board of Appeals regarding: Duxburrow Estates, Fire Flow Calculations, Response to November 8, 2017 Stantec Letter	December 19, 2017
Engineered Plans entitled “ <i>Auburn Street and Curve Street “West” Assessor’s Map 77, Lot 18; Assessor’s Map 78, Lot 1, 2, 3, & 4; Map 91, Lots 1 & 2; Portions of Map 78, Lot 5; Map 91, Lots 3 & 6 SITE: Auburn Street and Curve Street “West” Bridgewater, Massachusetts</i> ”, as prepared by Silva Engineering Associates, P.C. 1615 Bedford Street, Bridgewater, MA	December 20, 2017
Engineered Plans entitled “ <i>Auburn Street and Curve Street “East” Assessor’s Map 77, Lot 18; Assessor’s Map 78, Lot 1, 2, 3, & 4; Map 91, Lots 1 & 2; Portions of Map 78, Lot 5; Map 91, Lots 3 & 6 SITE: Auburn Street and Curve Street “East” Bridgewater, Massachusetts</i> ”, as prepared by Silva Engineering Associates, P.C. 1615 Bedford Street, Bridgewater, MA	December 20, 2017
Letter from Silva Engineering Associates, P.C. to Zoning Board of Appeals re: First Review of Duxburrow Estates, a 40B Comprehensive Permit Project Located Off Curve Street, Bridgewater, MA – In response to Stantec Consulting Services comments dated August 24, 2017.	December 27, 2017

EXHIBIT A

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

Duxburrow Estates 40B Correspondence/Documentation Received

2018 NOV 19 A 10:23

Correspondence/Document	Date
Drainage Calculations, Duxburrow Estates off of Curve Street Assessor's Map 77, Lot 18; Assessor's Map 78, Lot 1, 2, 3 & 4; Assessor's Map 91, Lot 1 & 2; Portions of Map 78, Lot 5; Portions of Map 91, Lot 3 & 6, Bridgewater, Massachusetts	December 27, 2017
Letter from Muhammad M. Itani, Manager, Duxburrow Estates, LLC to Zoning Board of Appeals	December 28, 2017
Engineered Plan Set entitled " <i>Landscape Plan Duxburrow Estates, Curve Street, Bridgewater</i> " prepared for Stonebridge Homes, Inc., 32 Norfolk Avenue, South Easton, MA and prepared by Grady Consulting, LLC, 71 Evergreen Street, Suite 1, Kingston, MA includes Sheet 1 entitled " <i>Cover</i> ", Sheet 2 entitled " <i>Main Entrance Landscape Plan</i> ", Sheets 3-7 entitled " <i>Landscape Plan</i> ", Sheets 8-10, " <i>Lighting Plan / Lighting Details</i> ", Sheet 11, " <i>Landscape Details</i> ", and Sheet 12 " <i>Landscape Notes</i> "	January 8, 2018 April 19, 2018 June 19, 2018
Curve Street Improvements – Aerial View – Pages 1-4	January 10, 2018
Letter from Abutter Mike Mainvielle, 25 Curve Street to the Zoning Board of Appeals	January 10, 2018
Letter from Silva Engineering Associates, P.C. to Zoning Board of Appeals re: Alternative Access: Summer Street Feasibility Duxburrow Estates, a 40B Comprehensive Permit Project Located Off Curve Street, Bridgewater, MA 02324	January 31, 2018
Letter from Michael Dutton, Town Manager, to Anthony Aveni, Zoning Board of Appeals regarding planned Duxburrow 40B Development / Mitigation	February 7, 2018
Letter from Muhammad Itani, Duxburrow Estates, re: school impacts	February 7, 2018
Letter from ATC, 588 Silver Street, Agawam, MA to Rebecca Baptista, Silva Engineering Associates, P.C., regarding: Former Bridgewater Farm Curve Street, Bridgewater, MA	February 8, 2018
Engineered Plans entitled " <i>A Comprehensive Permit Duxburrow Estates – Site Plan: Attachment 1, Assessor's Map 77, Lot 18; Assessor's Map 78, Lot 1, 2, 3, & 4; Map 91, Lots 1 & 2; Portions of Map 78, Lot 5; Map 91, Lots 3 & 6 SITE: Curve Street, Bridgewater, MA</i> " as prepared by Silva Engineering Associates, P.C. 1615 Bedford Street, Bridgewater, MA	February 8, 2018
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 3 rd Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324	February 22, 2018
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 4 th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324	March 12, 2018
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 5 th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324	March 12, 2018
Letter from Paul Cusson, Managing Member, Delphic Associates LLC to Zoning Board of Appeals regarding 40B – State Permit	March 26, 2018

EXHIBIT A

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

Duxburrow Estates 40B **Correspondence/Documentation Received**

2018 NOV 19 A 10:22

Correspondence/Document	Date
Letter from Kevin T. Toppan, 40 Curve Street, Bridgewater, MA to Zoning Board of Appeals	April 4, 2018
Stormwater Pollution Prevention Plan	April 11, 2018
Construction Management Plan	April 16, 2018
Letter from Silva Engineering Associates requesting a continuation from April 25, 2018 to May 23, 2018 hearing	April 20, 2018
Letter from Silva Engineering Associates, P.C. to Zoning Board of Appeals re: 4 th Letter on Review of Duxburrow Estates – Landscape Plans, Located Off Curve Street, Bridgewater, MA – In response to Stantec Consulting Services comments dated March 12, 2018	May 16, 2018
Letter from Silva Engineering Associates, P.C. to Zoning Board of Appeals re: 5 th Letter on Review of Duxburrow Estates; Review of Phase 1 Environmental Report Located Off Curve Street, Bridgewater, MA – In response to Stantec Consulting Services comments dated March 12, 2018	May 16, 2018
Memorandum from Department of Public Works, Water Supply and Water Pollution Control to Zoning Board of Appeals regarding Duxburrow Estates Development Project – Plan Review	May 22, 2018
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 6 th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324	May 23, 2018
Letter from Silva Engineering Associates, P.C. to Zoning Board of Appeals re: 3 rd Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project, Bridgewater, MA – In response to Stantec Consulting Services comments dated February 22, 2018	June 16, 2018
Letter from Silva Engineering Associates, P.C. to Zoning Board of Appeals re: 6 th Letter on Review of Duxburrow Estates – Landscape Plans, Located Off Curve Street, Bridgewater, MA – In response to Stantec Consulting Services comments dated May 23, 2018	June 20, 2018
Letter from Silva Engineering Associates, P.C. to Town of Bridgewater, Water and Sewer Department re: Duxburrow Estates Development Project – Plan Review Located Off Curve Street, Bridgewater, MA – In response to Water and Sewer Department Comments dated May 22, 2018	June 22, 2018
Letter from Silva Engineering Associates requesting a continuation from June 27, 2018 to July 11, 2018 hearing	June 22, 2018
Letter from ATC, 588 Silver Street, Agawam, MA to Massachusetts Department of Environmental Protection regarding: Former Bridgewater Farm, 143 Curve Street, Bridgewater, MA to Silva Engineering Associates, Inc. 1615 Bedford Street, Bridgewater	June 27, 2018
Letter from Derek J. Swenson, Superintendent of Schools, to Chairman Aveni, Zoning Board of Appeals	July 9, 2018

EXHIBIT A

Duxburrow Estates 40B **Correspondence/Documentation Received**

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:20

Correspondence/Document	Date
Duxburrow Estates Water Sewer Agreement	August 2, 2018
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 7 th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324	September 7, 2018
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 8 th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324 – Issues related to Phase I Environmental Site Assessment, and Landscape Plans	September 7, 2018
DEP Checklist for Stormwater Report	September 10, 2018
Email from Mark Bartlett, PE, Stantec regarding outstanding issues regarding Water and Sewer	September 12, 2018
Email to the Zoning Board of Appeals from Paul E. Cusson, Managing Member, Delphic Associates, Reference: Duxburrow Estates – Grant of Extension of the Public Hearing Process – Extension through October 18, 2018	September 13, 2018
Letter from Stantec Consulting Services, 400 Crown Colony Drive, Suite 200, Quincy, MA 02169-0982 – Peer Review – 9 th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324	October 9, 2018
Duxburrow Estates – Proposed Comprehensive Permit Development, Curve Street, Bridgewater, MA – Requested Waivers – (Exhibit C)	October 19, 2018
Declaration of Covenants, Restrictions and Easements for Duxburrow Estates, Bridgewater	November 14, 2018
Rider A – Duxburrow Estates (Specifications – Affordables)	November 14, 2018
Duxburrow Estates – Construction Management Plan	November 14, 2018

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2010 NOV 19 AM 10:21

“EXHIBIT B”

RIDER ADuxburrow EstatesSPECIFICATIONS (Affordable)RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2016 NOV 19 A 10:21

UTILITIES	Water	- Public Water
	Sewer	- Public Sewer
	Gas	- Columbia Gas
	Electric	- National Grid
FOUNDATION	Poured Concrete:	3000 PSI
	Footings	- 20" x 10"
	Walls	- 8"
	Floors	- Average 4"
	Damp Proofing	- Bituminous asphalt sealer – 5 year Warranty
	French Drain in crushed stone under 4" basement slab	
	Vapor Barrier	
DOORS	Exterior	- Metal insulated
	Interior	- 2, 4 or 6 Panel Masonite & Brushed Nickel Door Hardware
	Sliders	- Vinyl insulated glass with screen
	Garage	- Metal insulated raised panel, pre-painted in white (no openers)
WINDOWS	Insulated glass with full window screens, Energy Star.	
DECK	Front Landing: Trex (PT) Composite system with vinyl railings- if grading requires.	
	Back Deck: Pressure-treated lumber with balusters and capped railings. Size: 10'x10'.	
PLUMBING	<u>Number of Bathrooms as Per Affordable Plan</u>	
	Sinks	- Kitchen, Single bowl S/S with sprayer
	Baths	- Single bowl porcelain
	Showers/Tubs	- Fiberglass
	Master Baths	- Fiberglass
	Waterclosets	- Standard porcelain
	Fixtures Color	- White Only
	Laundry	- Hook up for washer and electric dryer
	Faucets	- Delta – chrome finish
	High Efficiency, Hot Water Tank (50GL)	
	Builder shall have the option to substitute make of fixtures or sinks with equal quality	
ELECTRICAL	Service	- 150 Amps
	Phone Jacks	- 2 Outlets
	Cable Jacks	- 2 Outlets
	Bathrooms Vents	- Included
	Door Bell, Smoke Detectors, CO2 Detectors, Outlets: Per code	
LIGHTING	Interior Ceiling lights	
	- dining room	- kitchen - bedrooms
	- bathrooms	- foyer - living room
	- hallways	- attic - basement
	*All bedrooms rooms shall have a switched light or a ceiling light	
	Exterior Lights	
	- front door	- deck area
	- basement door	- garage
HEATING	One-zone forced hot air by gas and central air conditioning – 95% Efficiency	
	Air conditioning to utilize same registers as heating – 13 Seer.	
INSULATION	AS PER ENERGY ENVELOPE CODE	

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:24

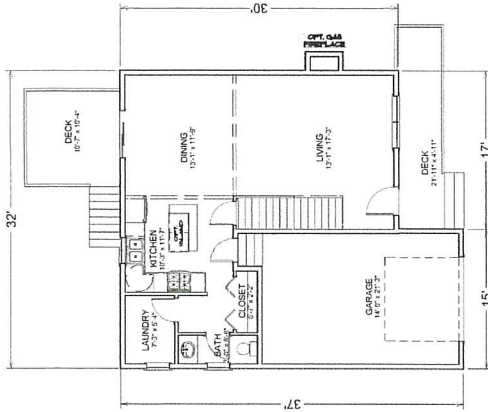
SIDING	Sheathing - 7/16" ZIP System Vinyl siding w/vinyl windows
SHUTTERS	As per plan (choice from builder's selection)
GUTTERS & DOWNSPOUTS	Seamless aluminum
ROOFING	Certaanteed Landmark Lifetime.
CABINETS/ VANITIES	Kitchen cabinets, bathroom vanities & laminate countertops, installed Bathroom sinks will have mirrors, selected by Builder.
INTERIOR	All walls and ceilings to have 1/2" blueboard: Walls - Skim coat of plaster Ceilings - Textured finish Casings - 2 1/2 Colonial Pine Baseboard - 3 1/2 Colonial Pine Linen Closets - 4 Shelves Other Closets - One pole and one shelf Stairs - Carpeted with round wood balusters and hand rails
PAINTING	Interior Walls - Two coats: one prime and one finish, latex paint (flat), one color (builder's colors) Interior Trim - Two coats paint: semi-gloss, one color (white) Doors - Painted Masonite, two coats (white)
FLOORING	Kitchen (excl. dining area) - Choice of Ceramic Tile or Hardwood (from builder's samples) Baths/Laundry - Ceramic Tile (from builder's samples) Front Entrance(6'x4'area) - Choice of Ceramic Tile or Hardwood (from builder's selection) Remaining Rooms - W/W Carpet (from builder's samples) Maximum of one color on carpet and one color on tile selection
APPLIANCES	Range - Electric – Frigidaire Dishwasher - Built-in – Frigidaire Microwave - Built-in with Ductless Vent – Frigidaire Builder shall have the option to substitute make of appliances with equal quality
LANDSCAPING	Standard Package - As per subdivision approval of landscaping plan - Hydroseed up to 40' in back yard (if site allows; subject to lot line and conservation limitations) - Walkway stepping stones (Builder's selection)
PAVING	20'x22' Pad, tapers 11' wide to road- one coat approx. 2"
WARRANTY	One Year Builder's Warranty (See Detailed Warranty Standard)

Above specifications are subject to change without notification. Seller may substitute any item with a similar one. No modifications will be made after purchase and sales agreement without a written change order.

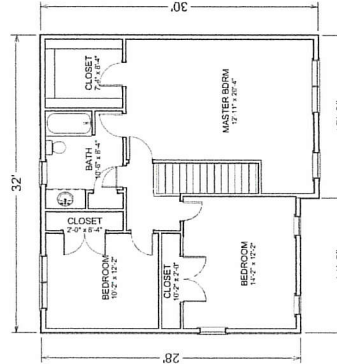
Affordable

THE ANDOVER

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2010 NOV 19 A 10:24

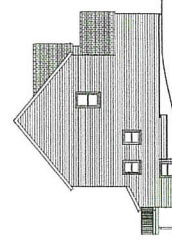
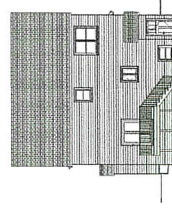
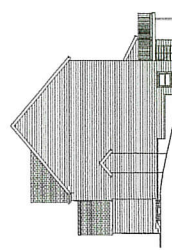
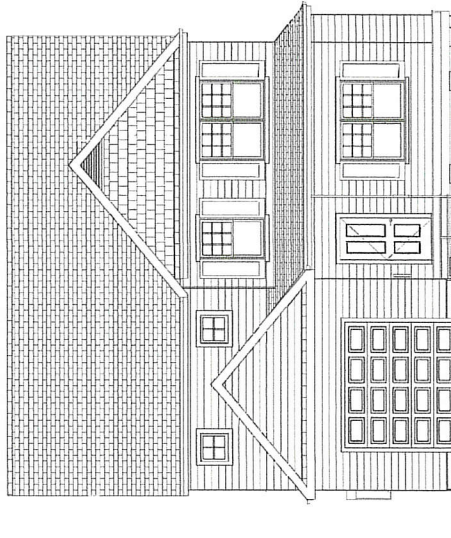


FIRST FLOOR PLAN



SECOND FLOOR PLAN

FRONT ELEVATION



ALTERNATE ELEVATIONS

Duxburrow Estates Bridgewater, Massachusetts

November 14, 2018

DRAWINGS PROVIDED BY:
Stonebridge Homes, Inc.
32 Norfolk Ave.
South Boston, MA 02375
858-230-2200

AREA BREAKDOWN	HOUSE FEATURES
FIRST FLOOR	3 1/2
SECOND FLOOR	3 1/2
TOTAL AREA	6,635 SF
CAR	1 CAR

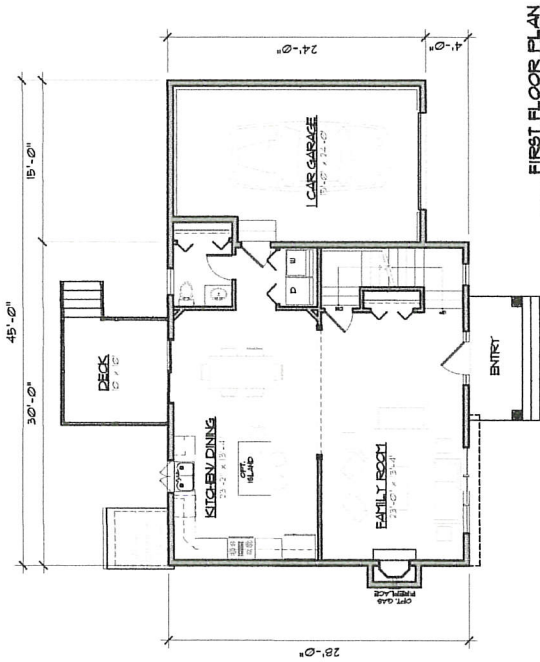
NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO CHANGE WITHOUT NOTICE. THE CLIENTS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL GOVERNMENT.

Affordable

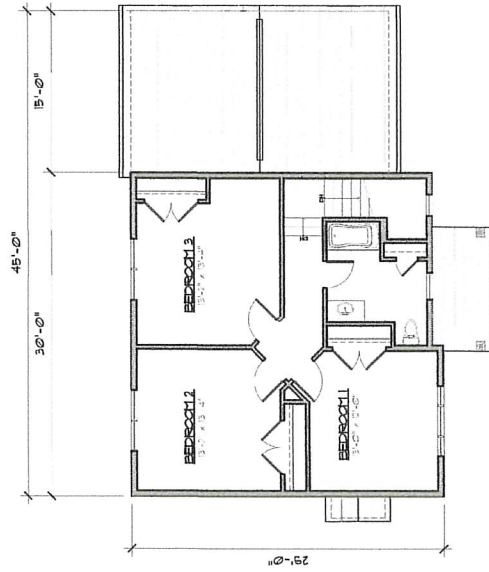
THE ARLINGTON-I

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 0 21



FIRST FLOOR PLAN



SECOND FLOOR PLAN



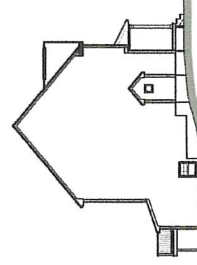
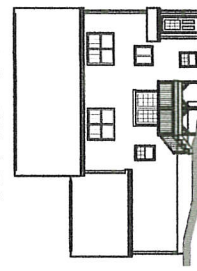
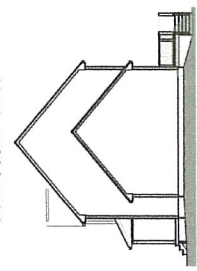
NOTE: ELEVATION SHOWN WITH OPTIONAL BONUS ROOM OVER GARAGE

FRONT ELEVATION

SIDE ELEVATION

REAR ELEVATION

SIDE ELEVATION



BUILDING ELEVATIONS

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO CHANGE. SOME OPTIONS UPDATES AT AN ADD'L COST ARE SHOWN INCLUDING BUT NOT LIMITED TO: HARDWARE, FINISHES, AND OTHERS. PLEASE REFER TO THE SPECIFICATIONS FOR FULL BUILDING CONDITIONS.

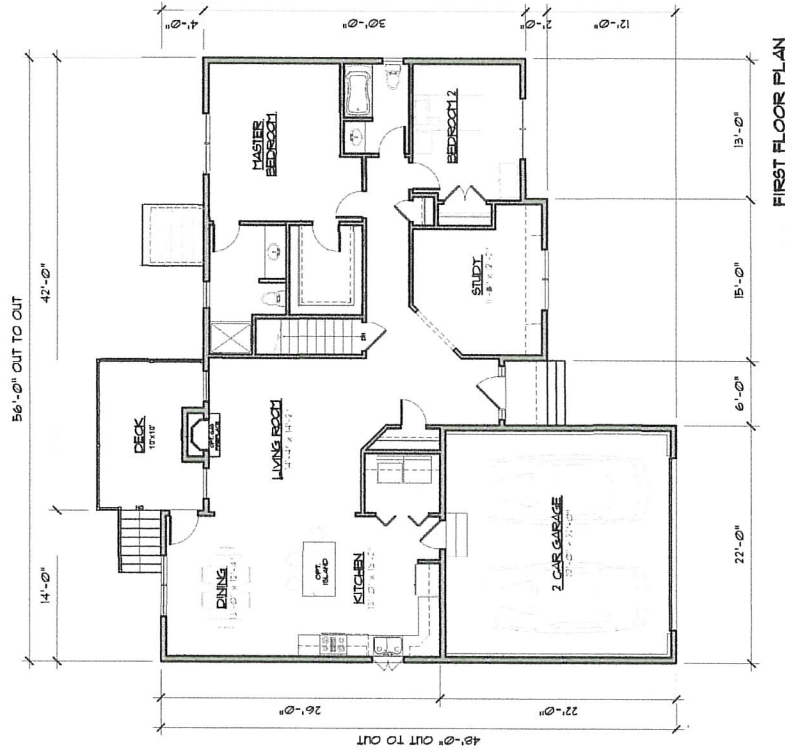
Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375



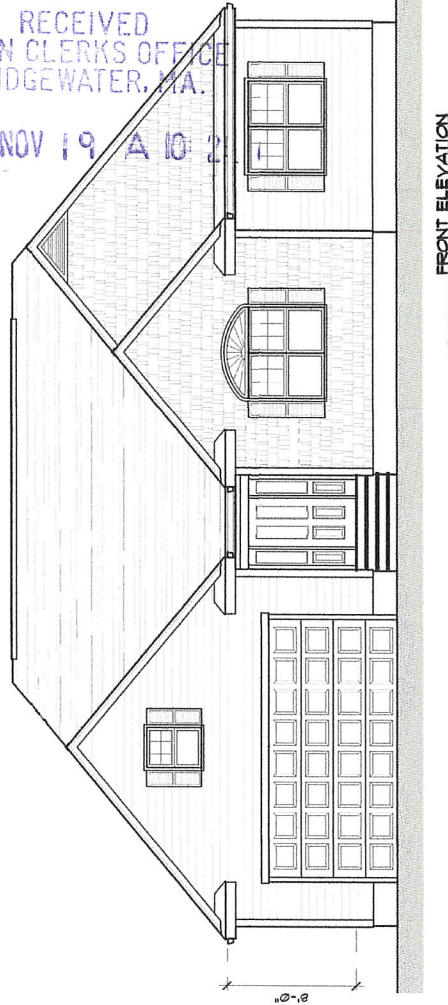
AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	866 SF	BEDROOMS	3
SECOND FLOOR	854 SF	BATHROOMS	1 1/2
TOTAL AREA	1,720 SF	GARAGE	1 CAR

Affordable

THE BEACON



RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2016 NOV 19 A 10:21

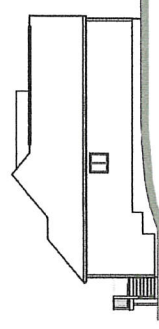
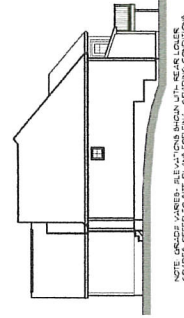


FRONT ELEVATION

SIDE ELEVATION

REAR ELEVATION

SIDE ELEVATION



BUILDING ELEVATIONS

NOTE: GARAGE, PORCH, DECK AND STAIRS ARE NOT INCLUDED IN THE SQUARE FOOTAGE. DIMENSIONS ARE TO THE FACE OF THE EXTERIOR FINISHES.

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO CHANGE WITHOUT NOTICE. ANY CHANGES TO THE PLANS SHALL BE THE RESPONSIBILITY OF THE CLIENT. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL BUILDING DEPARTMENT. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL BUILDING DEPARTMENT.

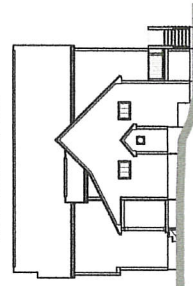
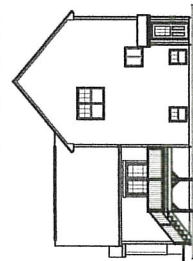
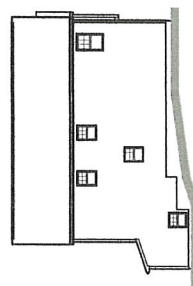


Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1,602 SF	BEDROOMS	2
TOTAL AREA	1,602 SF	BATHROOMS	2
		GARAGE	2 CAR

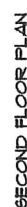
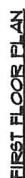
THE BERKELEY

2010 NOV 19: A410-212



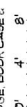
NOTE: GRADE VARIATIONS SHOWN WITH REAR LOWER

BUILDING ELEVATIONS



AREA BREAKDOWN

HOUSE FEATURES	
BEDROOMS	3
BATHROOMS	1 1/2
GARAGE	2 CAR



NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MINOR CHANGE, SOME OPTIONS/UPGRADES (AT AN ADD'L COST) ARE SHOWN INCLUDING BUT NOT LIMITED TO KITCHEN ISLAND.

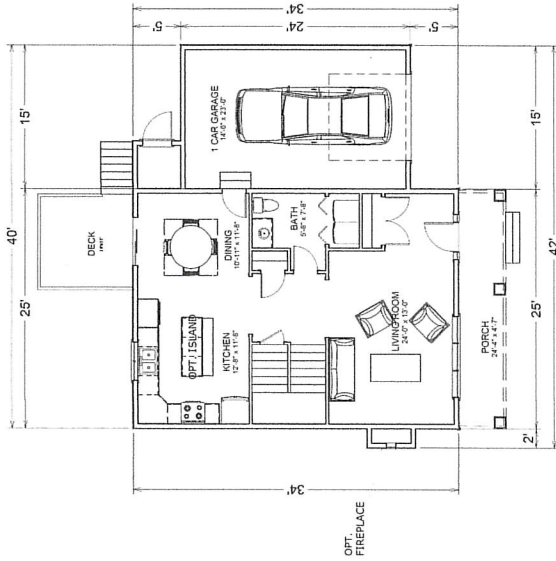
Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

Duxburrow Estates
Bridgewater, Massachusetts

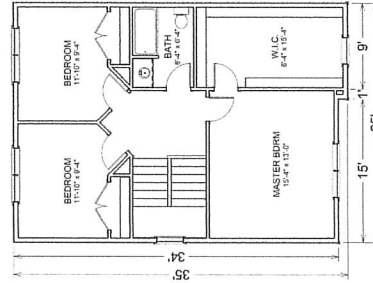
Affordable

THE CHARLES

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2016 NOV 19 A 10:21



FIRST FLOOR PLAN



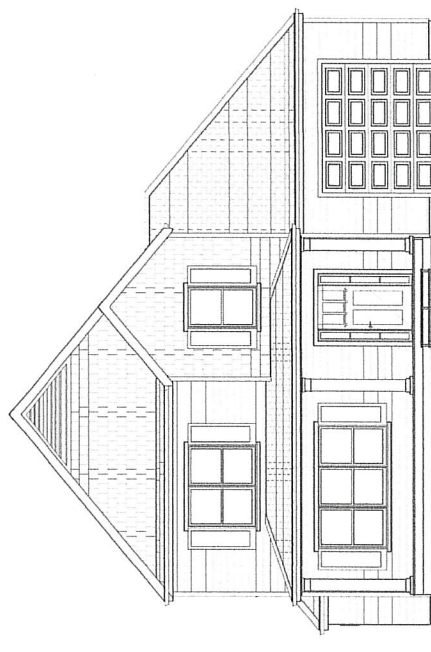
SECOND FLOOR PLAN

November 14, 2018

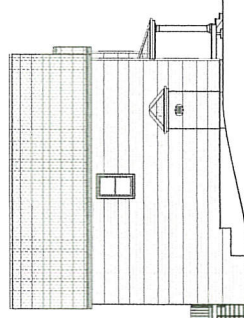
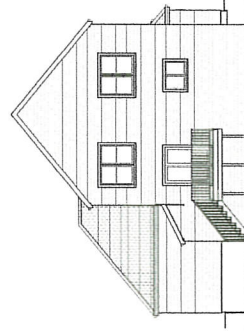
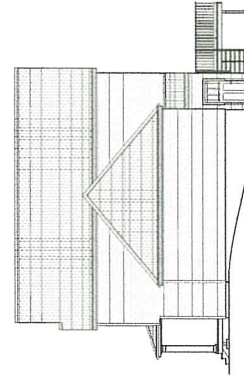
Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	840 SF	BEDROOMS	3
SECOND FLOOR	840 SF	BATHS	2
TOTAL AREA	1,680 SF	CAR GARAGE	1

NOTE: THESE FIGURES ARE APPROXIMATE AND ARE SUBJECT TO ANY CHANGES. SOME DIMENSIONS ARE SHOWN INCLUDING BUT NOT LIMITED TO KITCHEN ISLAND. ALL DIMENSIONS ARE IN FEET AND INCHES. SEE SET FOR DETAILS.



FRONT ELEVATION



ALTERNATE ELEVATIONS

Duxburrow Estates
Bridgewater, Massachusetts

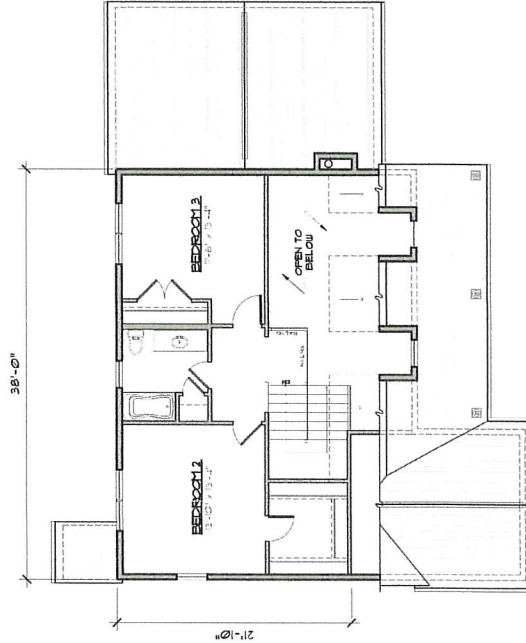
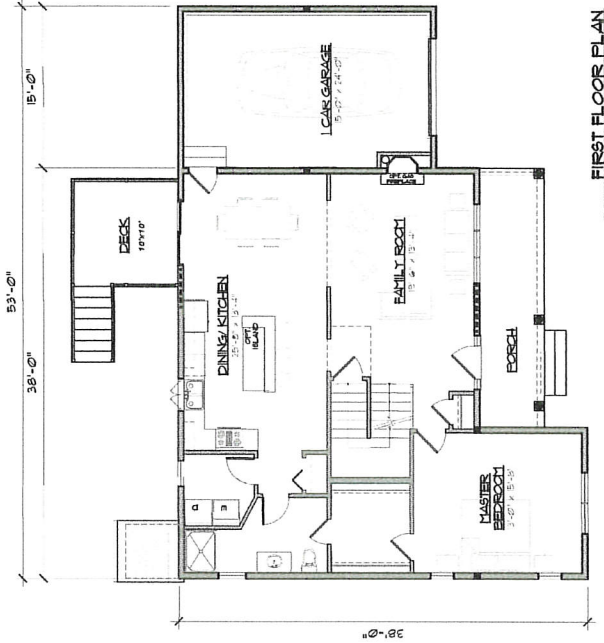
NOTE: THIS PLAN CAN BE MODIFIED TO MEET A.D.A. REQUIREMENTS IF NEEDED

Affordable

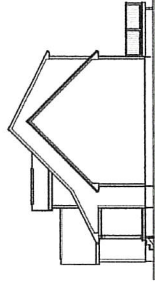
THE CLARENDON

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

NOV 19 10 21



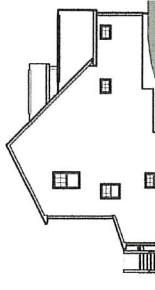
SIDE ELEVATION



REAR ELEVATION



SIDE ELEVATION



BUILDING ELEVATIONS

NOTE: GRADE LINES - ELEVATIONS SHOWN WITH GRADE LINES
DO NOT REPRESENT THE FINAL GRADE LINES

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT
TO CHANGE WITHOUT NOTICE. ANY CHANGES TO THE
PLANS & ELEVATIONS SHALL BE AT THE CLIENT'S RISK. THE
CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY
PERMITS AND APPROVALS. THE ARCHITECT IS NOT
RESPONSIBLE FOR ANY CONSTRUCTION DEFECTS OR
OCCUPANCY ISSUES. THE ARCHITECT IS NOT
RESPONSIBLE FOR ANY CONSTRUCTION DEFECTS OR
OCCUPANCY ISSUES.

Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375



AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1205 SF	BEDROOMS	3
SECOND FLOOR	610 SF	BATHROOMS	2
TOTAL AREA	1815 SF	GARAGE	1 CAR

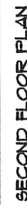
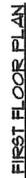
Duxburrow Estates
Bridgewater, Massachusetts

THE DARTMOUTH-II

Architectural drawing of the rear elevation of a building. The drawing shows a gabled roof on the left side and a series of windows and doors on the right. The windows are arranged in a grid pattern. A large, multi-paned door is visible on the right side. The drawing is labeled with dimensions at the bottom: 10'-0" and 10'-0".

The floor plan shows a rectangular building with a large central hall. On the left side, there are four windows of varying sizes. On the right side, there is a kitchen area with a sink, stove, and refrigerator, and a bathroom. A doorway leads to a small room at the bottom right. The plan is oriented with the entrance at the bottom center.

NOTE: GRADE VARIES. ELEVATIONS SHOWN WITH NEAR LOWER
MARGINS BEING -C SITE B. AND FOR FINAL GRADING CONDITIONS.



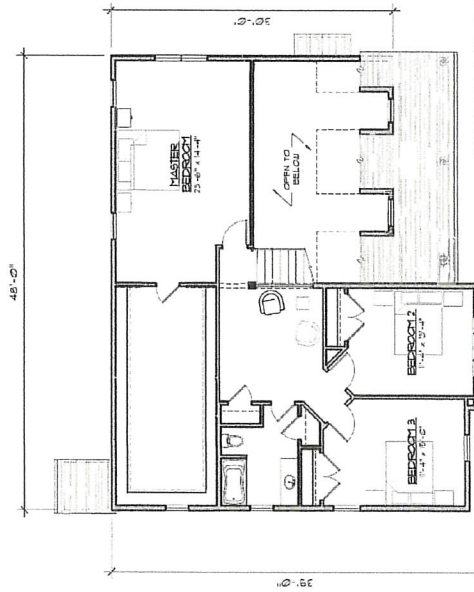
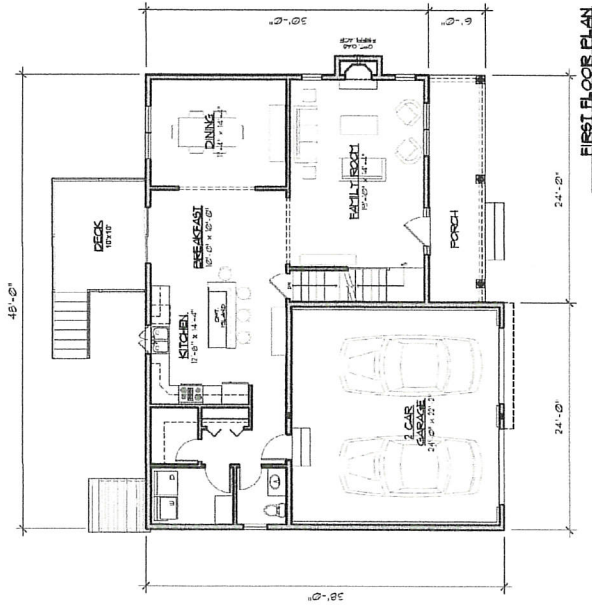
Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

Duxburrow Estates
Bridgewater, Massachusetts

Affordable

THE FAIRFIELD

3 Bedroom



November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO FINAL CHANGE. SOME OPTIONS/UPGRADES AT AN ADDITIONAL COST. SEE SCHEDULE OF FINISHES FOR MATERIALS AND KITCHEN DELTA, WASHERS & DRYER, PROBE, BUCK CASE & PREP PLACE.

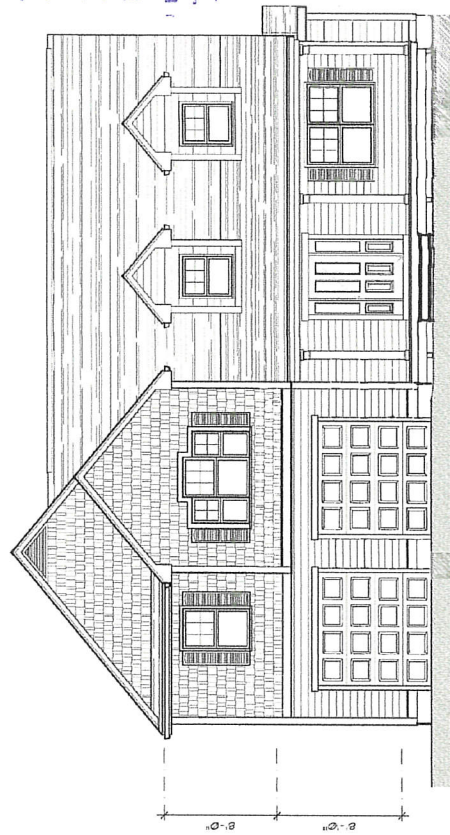
Snyder & Jones, Inc.
32 Norfolk Ave
South Easton, MA 01937



AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1,095 SF	BEDROOMS	3
SECOND FLOOR	1,283 SF	BATHROOMS	1 1/2
TOTAL AREA	2,378 SF	GARAGE	1 CAR

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

1 2018 NOV 19 A 10:21



BUILDING ELEVATIONS

Duxbrow Estates
Bridgewater, Massachusetts

Affordable

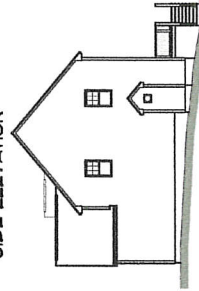
THE GLOUCESTER-II

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
NOV 19 4 18 21

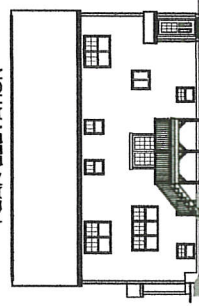


FRONT ELEVATION

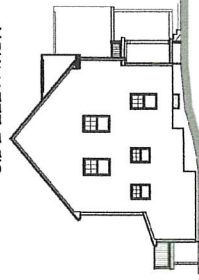
SIDE ELEVATION



REAR ELEVATION

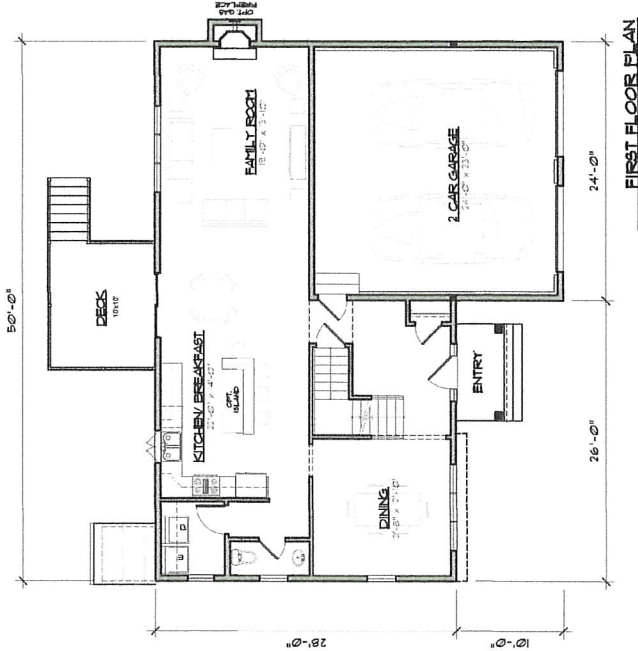


SIDE ELEVATION

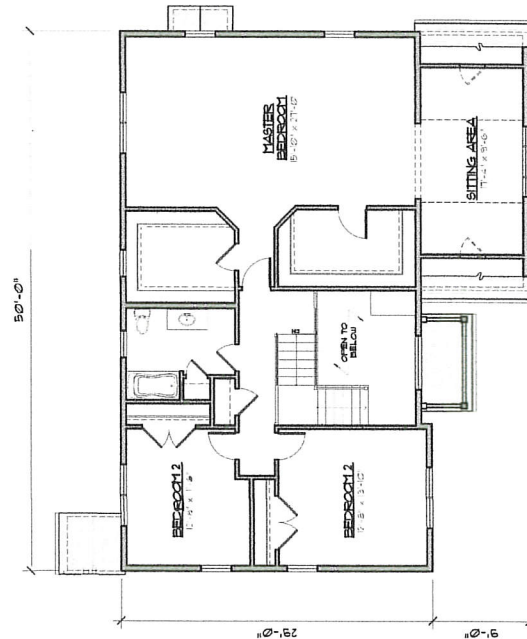


BUILDING ELEVATIONS

NOTE: GARAGE VARIATION SHOWN WITH REAR DOOR
CHANGING REFLECTS DIFFERENT GARAGE DOOR



FIRST FLOOR PLAN



SECOND FLOOR PLAN

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO ANY CHANGE. NO WARRANTIES ARE MADE BY THE ARCHITECT. THE ARCHITECT'S RESPONSIBILITY IS LIMITED TO THE DESIGN OF THE HOUSE. THE ARCHITECT IS NOT RESPONSIBLE FOR ANY OTHER ASPECTS OF THE PROJECT, INCLUDING BUT NOT LIMITED TO: UTILITY, LAND, KITCHEN DEL. SINK, WASH & DRYER, FRIDGE, BOILER CASE & FIREPLACE.

Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375



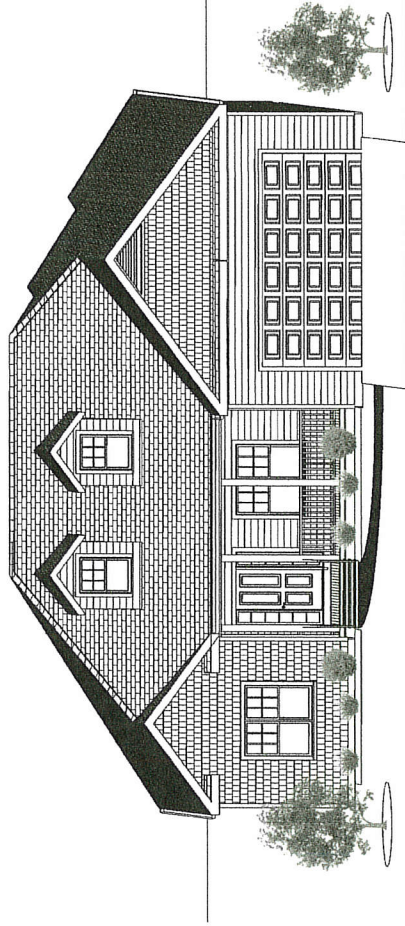
10.04.10

AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1,095 SF	BEDROOMS	3
SECOND FLOOR	1,605 SF	BATHROOMS	1 1/2
TOTAL AREA	2,700 SF	GARAGE	2 CAR

Affordable

The Newport

Duxburrow Estates
Bridgewater, MA



November 14, 2018

Note: These plans & elevations are schematic & are subject to minor change. Some options/upgrades (at an add'l cost) are shown including but not limited to kitchen island, kitchen dbl sink, bath dbl sinks, washer & dryer, fridge, book case & fireplace.

Area Breakdown	
First Floor	1,682 SF
Total Area	1,682 SF

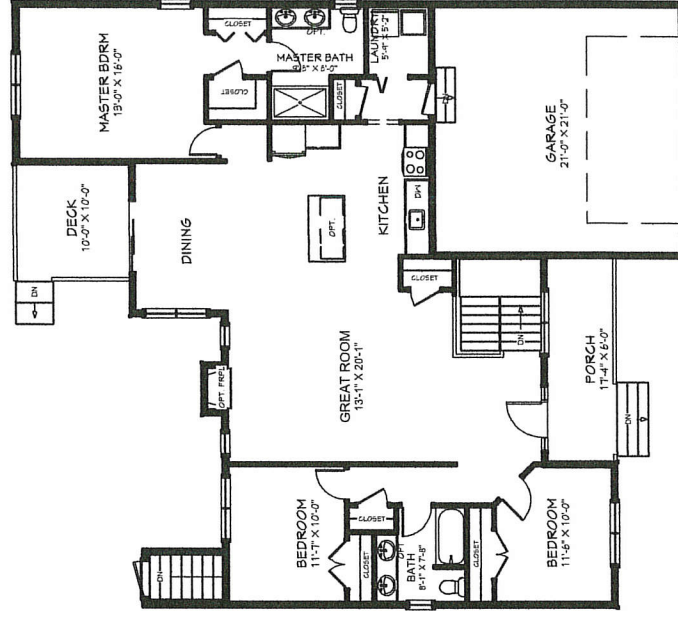
House Features	
Bedrooms	3
Bathrooms	2
Garage	2 Car

Stonebridge
HOMES, INC.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:25

First Floor



RIDER ADuxburrow EstatesSPECIFICATIONS (Market Rate)

UTILITIES	Water	- Public Water
	Sewer	- Public Sewer
	Gas	- Columbia Gas
	Electric	- National Grid
FOUNDATION	Poured Concrete:	3000 PSI
	Footings	- 20" x 10"
	Walls	- 8"
	Floors	- Average 4"
	Water Proofing	- Bituminous asphalt sealer- 5 year Warranty
	French Drain in crushed stone under 4" basement slab	
	Vapor Barrier	
DOORS	Exterior	- Metal insulated
	Interior	- 2, 4 or 6 Panel Masonite
	Hardware	- Brushed Nickel or Oil Rubbed Bronze (Knobs)
	Sliders	- Vinyl insulated glass with screen
	Garage	- Metal insulated raised panel, pre-painted in white with opener(s)
WINDOWS	Insulated glass with full window screens, Energy Star.	
DECK	Front Landing: Trex (PT) Composite system with vinyl railings- if grading requires.	
	Back Deck: Pressure-treated lumber with balusters and capped railings. Size as Per Plan.	
PLUMBING	Sinks	- Kitchen, Single bowl S/S faucet and sprayer
	Baths	- Single bowl porcelain
	Showers/Tubs	- Fiberglass
	Master Baths	- Fiberglass
	Water closets	- Standard porcelain
	Fixtures Color	- White Only
	Laundry	- Hook up for washer and electric dryer
	Faucets	- Delta – chrome finish
	High Efficiency, Electric Hot Water Heater Tank (50GL)	
	Builder shall have the option to substitute make of fixtures or sinks with equal quality	
ELECTRICAL	Service	- 150 Amps
	Phone Jacks	- 2 Outlets
	Cable Jacks	- 4 Outlets
	Bathrooms Vents	- Included
	Door Bell, Smoke Detectors, CO2 Detectors, Outlets: Per code	
LIGHTING	Interior Ceiling lights	
	- dining room	- kitchen - bedrooms
	- bathrooms	- foyer - living room
	- hallways	- attic - basement
	* 4 Recessed Lights-Location: Buyer's choice	
	**All bedrooms rooms shall have a switched receptacle or a ceiling light	
	Exterior Lights	
	- front door	- deck area
	- basement door	- garage
HEATING	Forced hot air by gas and central air conditioning – 95% Efficiency. Air conditioning to utilize same registers as heating – 13 Seer.	
INSULATION	AS PER ENERGY ENVELOPE CODE	

RECEIVED
TOWN CLERK'S OFFICE
BRIDGEWATER, MA.
2018 NOV 19 AM 10:26

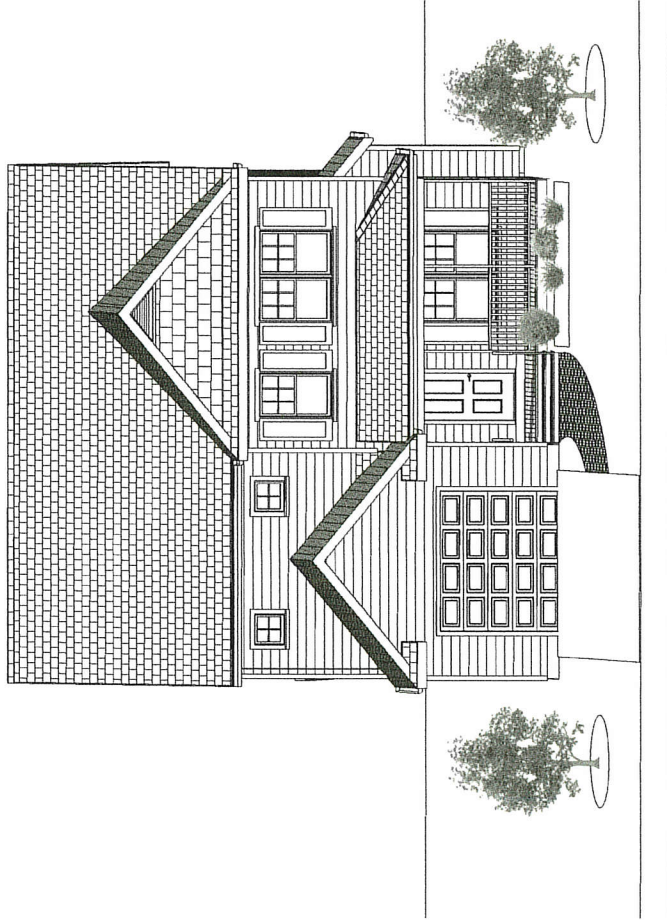
SIDING	Sheathing - 7/16" ZIP System Vinyl siding w/vinyl windows
SHUTTERS	As per plan (choice from builder's selection)
GUTTERS & DOWNSPOUTS	Seamless aluminum
ROOFING	Certainteed Landmark Lifetime.
CABINETS/ VANITIES	Kitchen cabinets, bathroom vanities & granite countertops, installed Bathroom sinks will have mirrors, selected by Builder.
INTERIOR	All walls and ceilings to have 1/2" blueboard: Walls - Skim coat of plaster Ceilings - Textured finish Casings - 2 1/2 Colonial Pine Baseboard - 3 1/2 Colonial Pine Linen Closets - 4 Shelves Other Closets - One pole and one shelf Stairs - Carpeted with round wood balusters and hand rails
PAINTING	Interior Walls - Two coats: one prime and one finish, latex paint (flat), one color (builder's colors) Interior Trim - Two coats paint: semi-gloss, one color (white) Doors - Painted Masonite, two coats
FLOORING	Kitchen/Dining Area - Choice of Ceramic Tile or Hardwood (from builder's selections) Baths/Laundry - Ceramic Tile (from builder's selections) Front Entrance(6'x4'area) - Choice of Ceramic Tile or Hardwood (from builder's selection) Dining Room - Hardwood (from builder's selection) Family Room/Great Room - Hardwood (from builder's selection) Remaining Rooms - W/W Carpet (from builder's selections) Stairs to 2nd Level - Carpeted with wood balusters and hand rails maximum of 2 color on carpet and tile selection
APPLIANCES	Range - Electric – Frigidaire Dishwasher - Built-in – Frigidaire Microwave - Built-in with Ductless Vent – Frigidaire Builder shall have the option to substitute make of appliances with equal quality
LANDSCAPING	Standard Package - As per subdivision approval of landscaping plan - Hydroseed up to 40' in back yard (if site allows; subject to lot line and conservation limitations) - Walkway stepping stones (Builder's selection)
PAVING	20'x22' Pad, tapers 11' wide to road- one coat approx. 2"
WARRANTY	One Year Builder's Warranty (See Detailed Warranty Standard)

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:21

Above specifications are subject to change without notification. Seller may substitute any item with an equal or better quality one. No modifications will be made after purchase and sales agreement without a written change order.

The Andover

Duxburrow Estates
Bridgewater, MA



November 14, 2018

Note: These plans & elevations are schematic & are subject to minor change. Some options/upgrades are shown

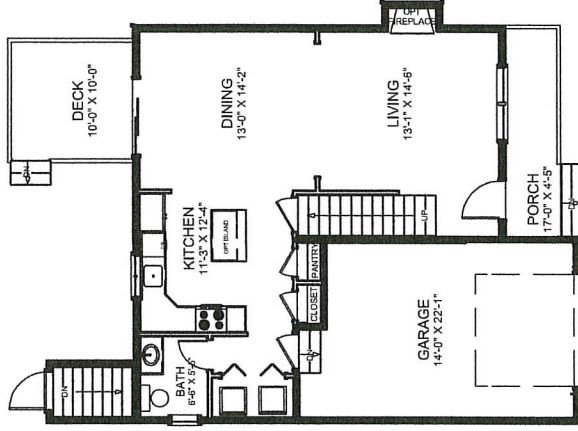
Area Breakdown	
First Floor	751 SF
Second Floor	931 SF
Total Area	1,682 SF

House Features	
Bedrooms	3
Bathrooms	2.5
Garage	1 Car

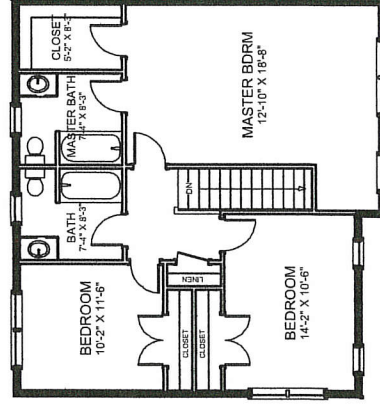
Stonebridge
HOMES, INC.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2016 NOV 19 A 10:21

First Floor



Second Floor

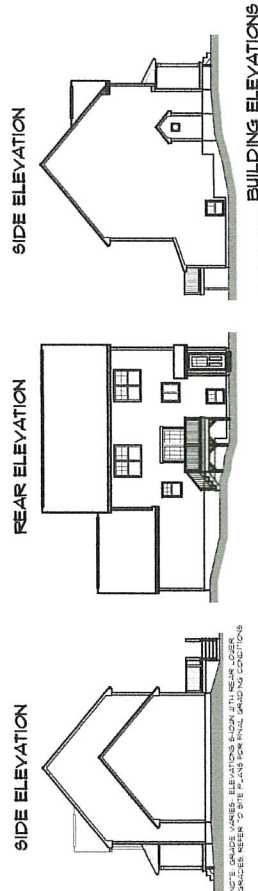
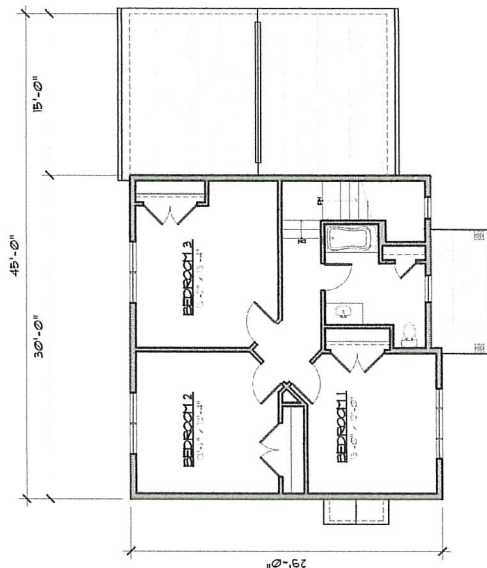
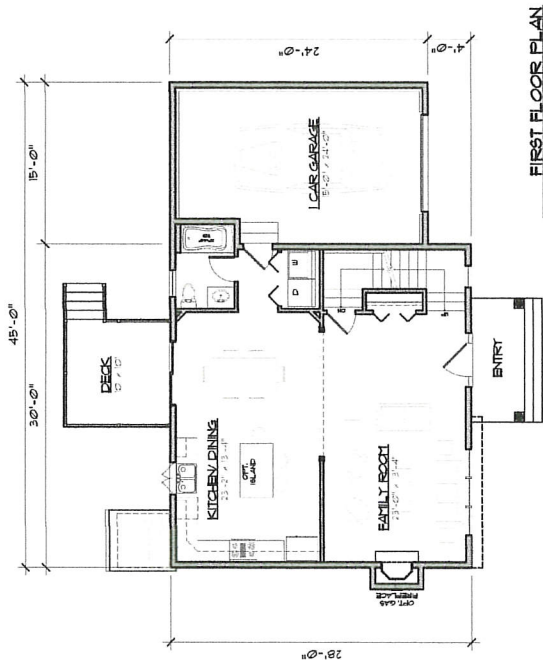


Market Rate Design

THE ARLINGTON

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2016 NOV 19 A 10:21



BUILDING ELEVATIONS

NOTE: ELEVATION SHOWN WITH OPTIONAL BONUS ROOM OVER GARAGE

SIDE ELEVATION

REAR ELEVATION

SIDE ELEVATION

NOTE: GRADES, LEVELS, ELEVATIONS SHOWN WITH THESE GRASSES ARE SUBJECT TO SITE PLANS FOR FINAL GRADING CONDITIONS

AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	866 SF	BEDROOMS	3
SECOND FLOOR	854 SF	BATHROOMS	2
TOTAL AREA	1,720 SF	GARAGE	1 CAR

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MINOR CHANGE. SOME OPTIONS/UPGRADES ARE SHOWN.

Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

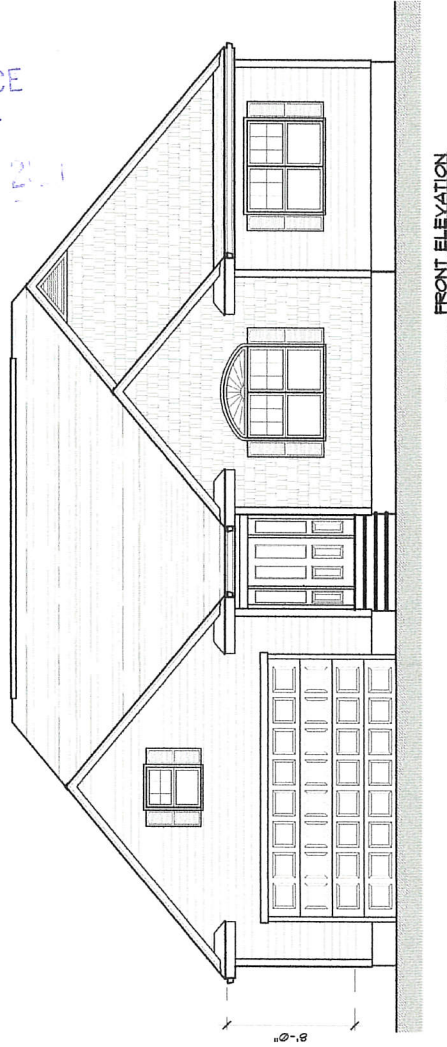
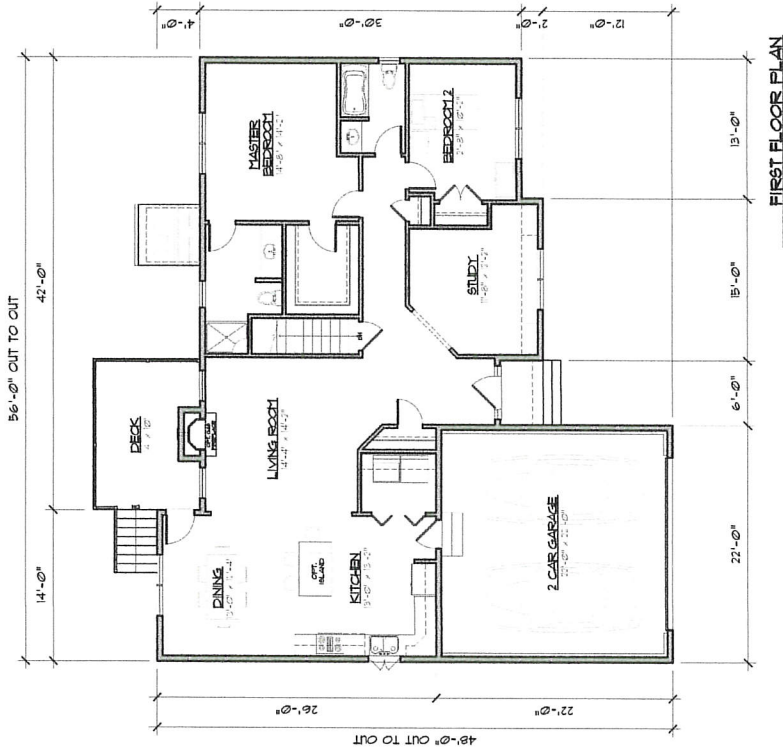


Duxburrow Estates
Bridgewater, Massachusetts

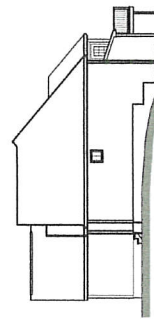
THE BEACON

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2016 NOV 19 A 10:21



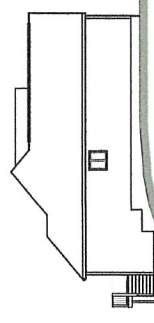
SIDE ELEVATION



REAR ELEVATION



SIDE ELEVATION



BUILDING ELEVATIONS

NOTE: GARAGE, PORCH, DECK, AND SIDEWALK ARE NOT SHOWN. SEE SEPARATE SHEETS FOR DETAILS.

AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1,602 SF	BEDROOMS	2
TOTAL AREA	1,602 SF	BATHROOMS	2
		GARAGE	2 CAR

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MINOR CHANGE. SOME OPTIONS/UPGRADES ARE SHOWN.

Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

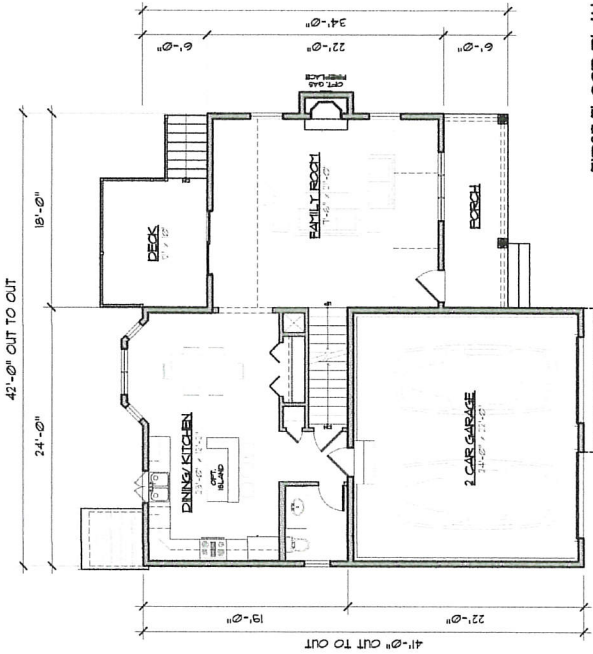


Duxburrow Estates
Bridgewater, Massachusetts

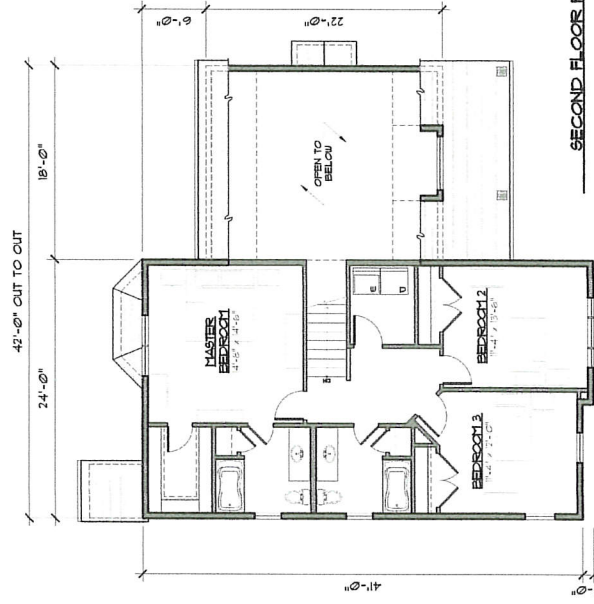
RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2010 NOV 19 A 10 25

THE BERKELEY



FIRST FLOOR PLAN

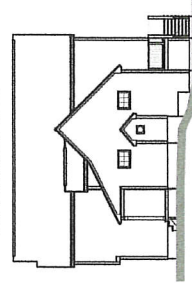


SECOND FLOOR PLAN

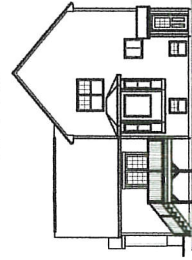


FRONT ELEVATION

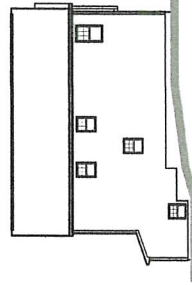
SIDE ELEVATION



REAR ELEVATION



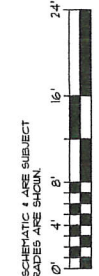
SIDE ELEVATION



BUILDING ELEVATIONS

NOTE: GRADE MARKS, ELEVATIONS SHOWN WITH REAR LOWER GARAGE ARE NOT TO SCALE FOR THIS ELEVATION.

AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	864 SF	BEDROOMS	3
SECOND FLOOR	931 SF	BATHROOMS	2 1/2
TOTAL AREA	1895 SF	GARAGE	2 CAR



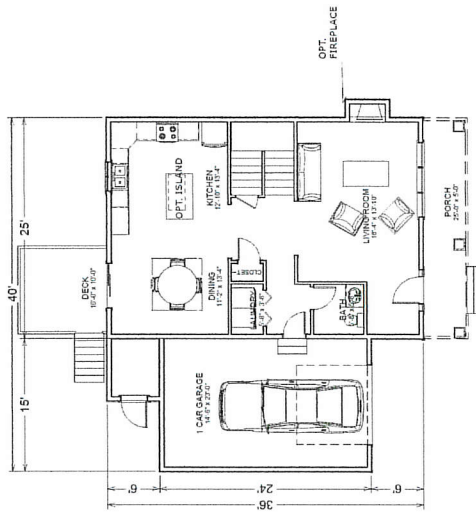
November 14, 2018
NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MINOR CHANGE. SOME OPTIONS/UPGRADES ARE SHOWN.
Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

Duxburrow Estates
Bridgewater, Massachusetts

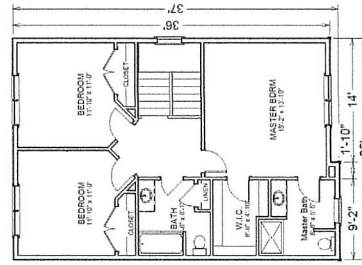
THE CHARLES

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:28



FIRST FLOOR PLAN



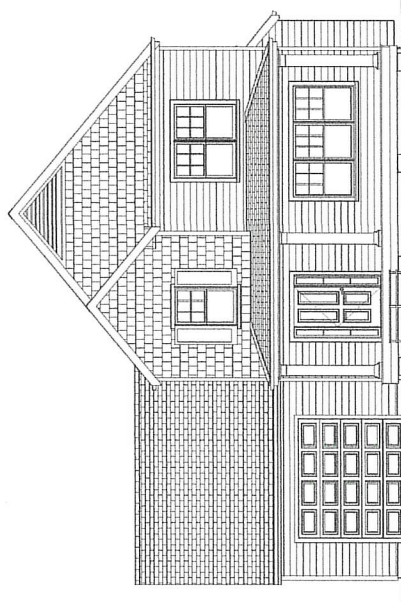
SECOND FLOOR PLAN

November 14, 2018

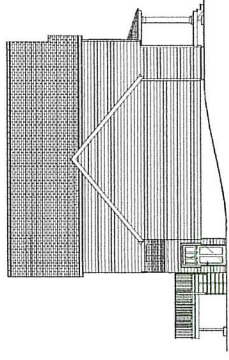
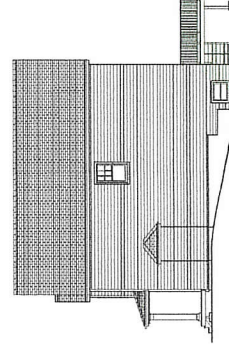
Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

LINE#	DESCRIPTION	TYPE	AREA
1	FIRST FLOOR	1000 SF	1000
2	SECOND FLOOR	1000 SF	1000
3	TOTAL AREA	2000 SF	2000

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO PRIOR CHANGE. SOME OPTIONS/UPGRADES ARE SHOWN.



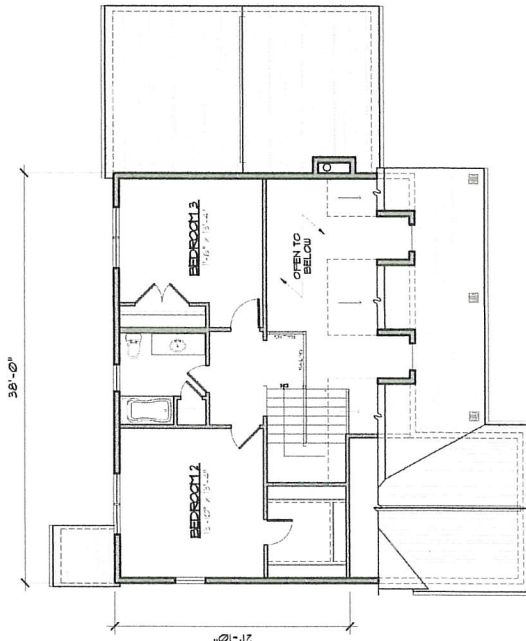
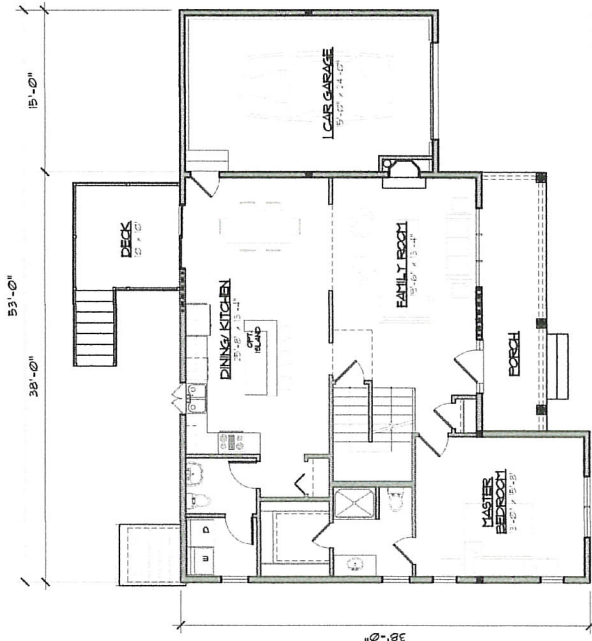
FRONT ELEVATION



ALTERNATE ELEVATIONS

Duxburrow Estates Bridgewater, Massachusetts

NOTE: THIS PLAN CAN BE MODIFIED TO MEET A.D.A. REQUIREMENTS IF NEEDED



November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MINOR CHANGE. SOME OPTIONS / UPGRADES ARE SHOWN.

Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

0' 4' 8' 16' 24'

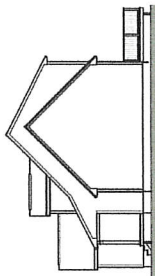
AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1205 SF	BEDROOMS	3
SECOND FLOOR	610 SF	BATHROOMS	2 1/2
TOTAL AREA	1815 SF	GARAGE	1 CAR

THE CLARENDON

RECEIVED
TOWN CLERK'S OFFICE
BRIDGEWATER, MA.
1 2018 NOV 9 A 10:25

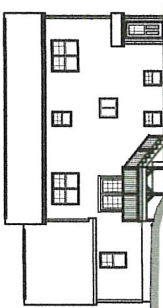


SIDE ELEVATION



NOTE: GRADE VARIATIONS & ELEVATIONS SHOWN IN REAR ELEVATION
DO NOT REFLECT TO SITE PLANS OR FINAL CONSTRUCTION

REAR ELEVATION



SIDE ELEVATION



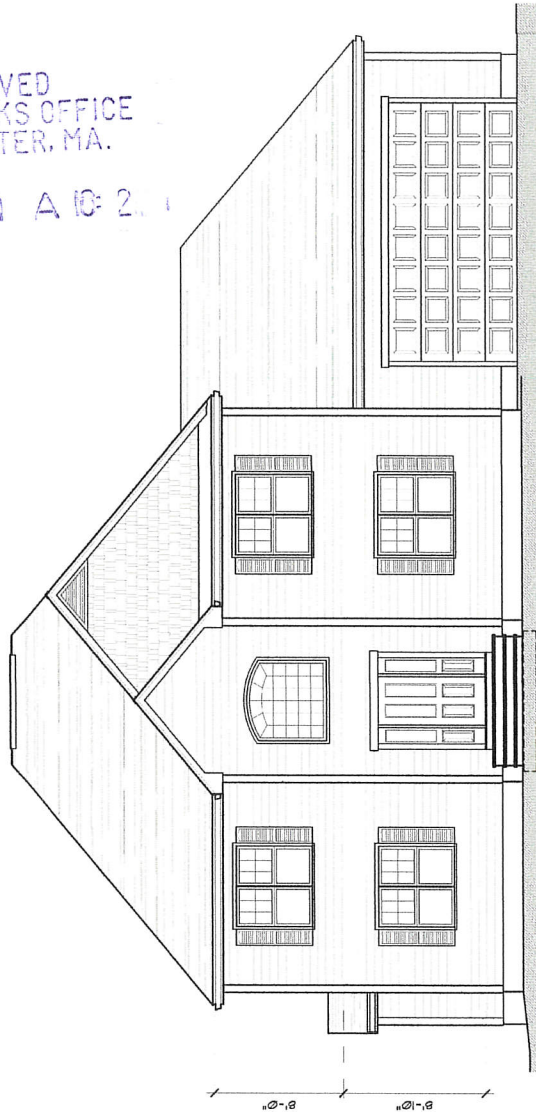
BUILDING ELEVATIONS

Duxburrow Estates
Bridgewater, Massachusetts

THE DARTMOUTH

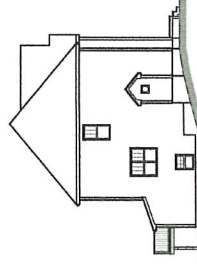
RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

NOV 19 A 10:21



FRONT ELEVATION

SIDE ELEVATION

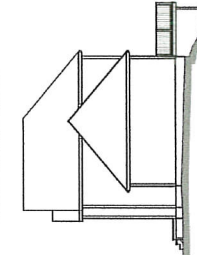


BUILDING ELEVATIONS

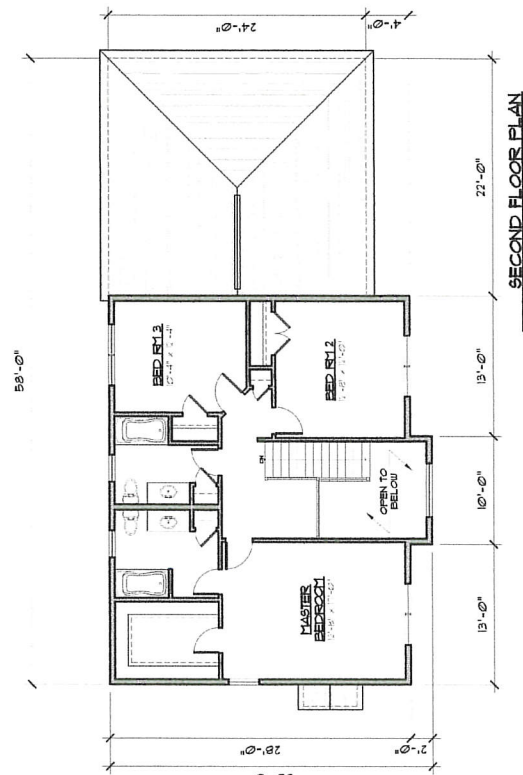
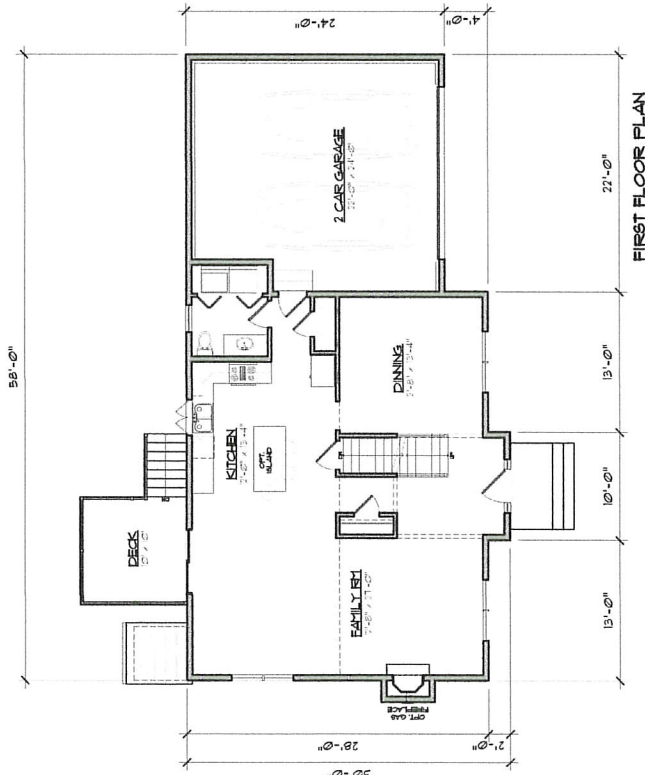
REAR ELEVATION



SIDE ELEVATION



NOTES: GARAGE, PORCH, DECK, AND STAIRS ARE NOT SHOWN. COULD BE REFERRED TO SITE PLAN FOR FINAL LOCATIONS.



November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MAKE CHANGES. SOME OPTIONS/UPGRADES ARE SHOWN.

Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375



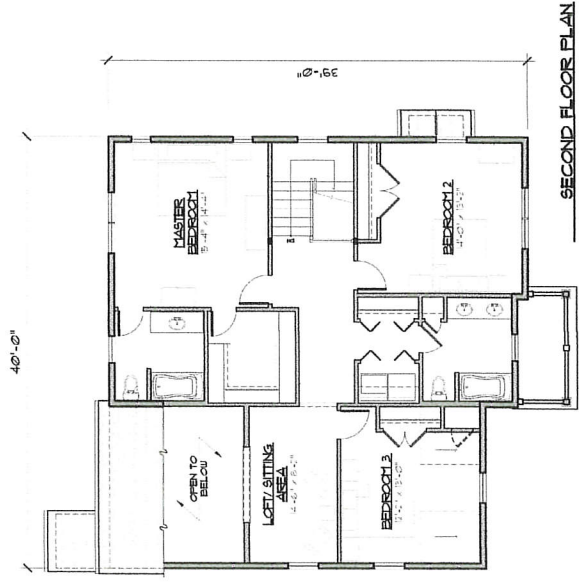
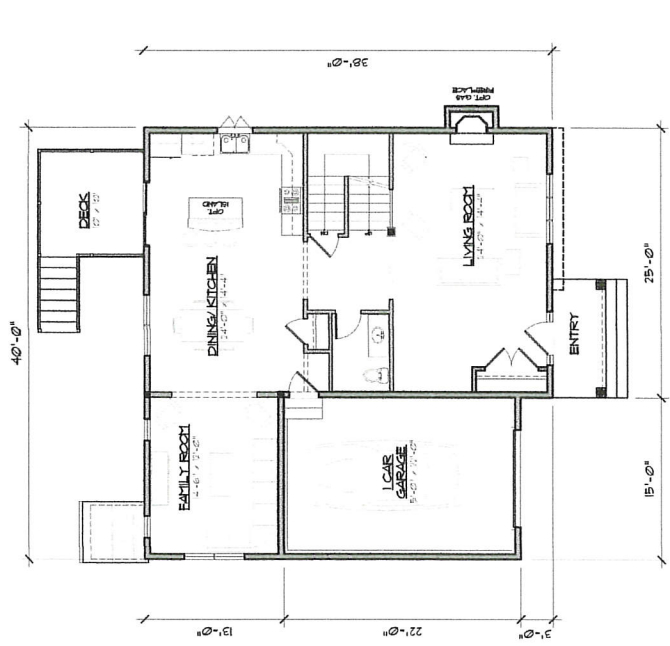
AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1,062 SF	BEDROOMS	3
SECOND FLOOR	1,028 SF	BATHROOMS	2 1/2
TOTAL AREA	2,090 SF	GARAGE	2 CAR

Duxburrow Estates
Bridgewater, Massachusetts

THE EXETER

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA

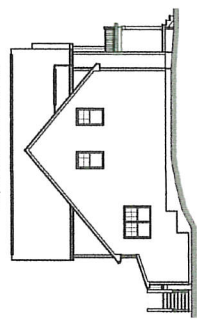
2016 NOV 19 A 0 2 1



FRONT ELEVATION



SIDE ELEVATION



REAR ELEVATION



SIDE ELEVATION



NOTE: GRADES VARY. ELEVATIONS SHOWN WITH NEAR LOWEST GRADES. NEWLY 5' STEEP PAVING, GRASS, AND SOILS.

BUILDING ELEVATIONS

AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1,145 SF	BEDROOMS	3
SECOND FLOOR	1,302 SF	BATHROOMS	2 1/2
TOTAL AREA	2,447 SF	GARAGE	1 CAR

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MINOR CHANGE. SOME OPTIONS / UPGRADES ARE SHOWN.

Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375

Duxburrow Estates
Bridgewater, Massachusetts

THE FAIRFIELD

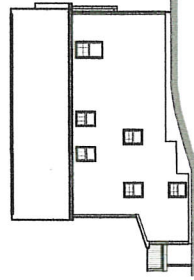
RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA

1 2016 NOV 19 A 10 23



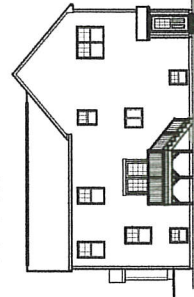
FRONT ELEVATION

SIDE ELEVATION

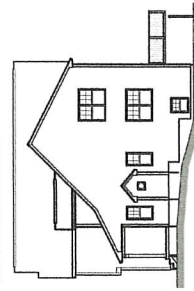


BUILDING ELEVATIONS

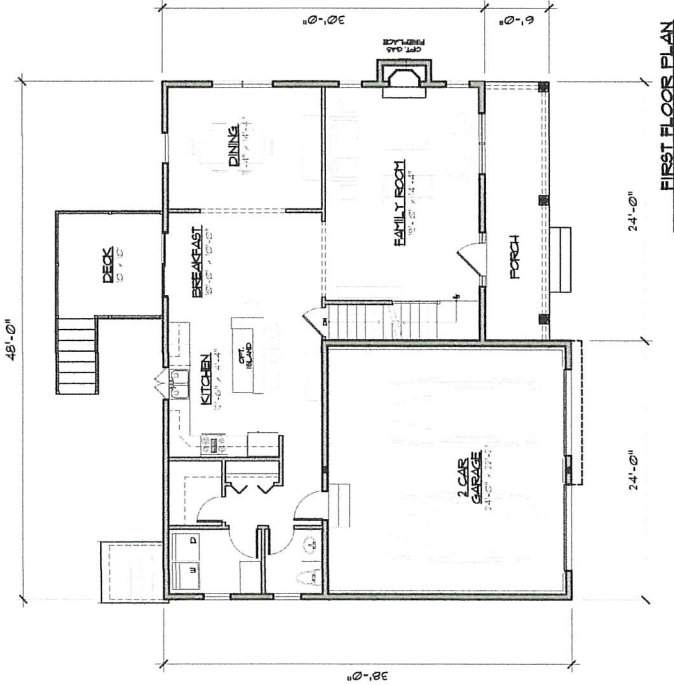
REAR ELEVATION



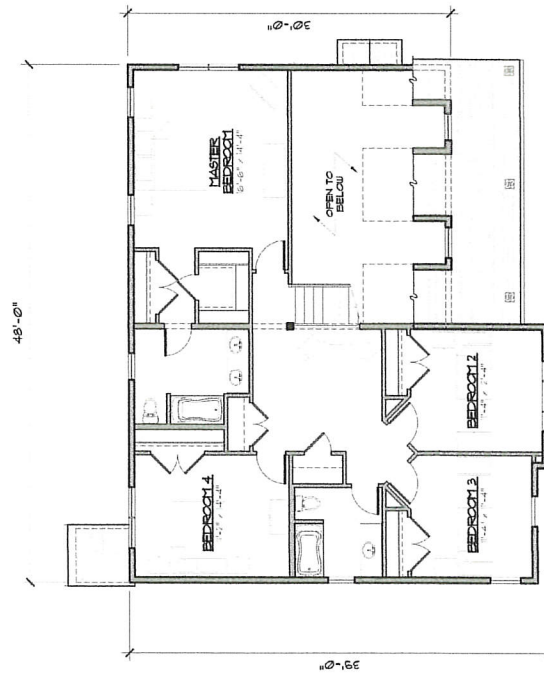
SIDE ELEVATION



NOTE: GARAGE VARIANTS ARE SHOWN WITH REAR LOWER GARAGES REFER TO SITE PLAN FOR FINAL LANDING CONDITIONS



FIRST FLOOR PLAN



SECOND FLOOR PLAN

AREA BREAKDOWN		HOUSE FEATURES	
FIRST FLOOR	1,095 SF	BEDROOMS	4
SECOND FLOOR	1,289 SF	BATHROOMS	2 1/2
TOTAL AREA	2,384 SF	GARAGE	2 CAR

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MINOR CHANGE. SOME OPTIONS/UPGRADES ARE SHOWN.

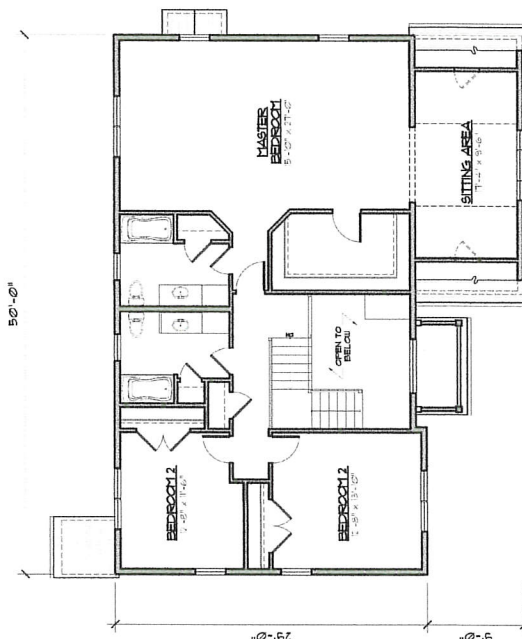
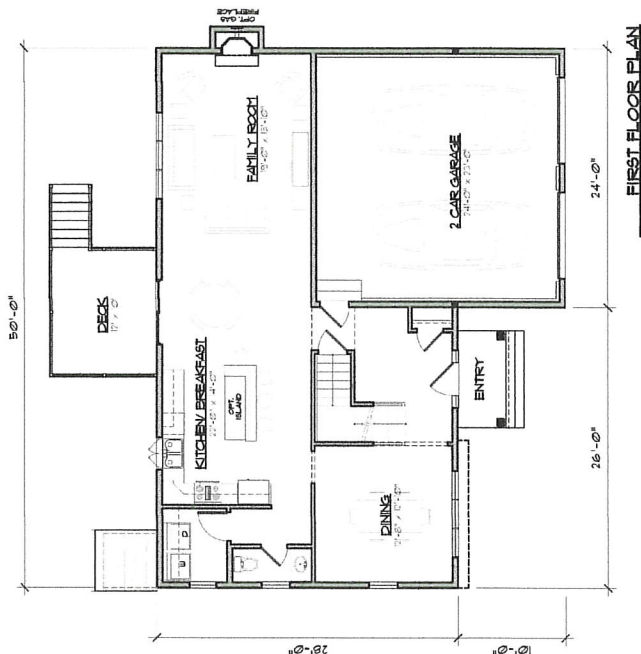
Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375



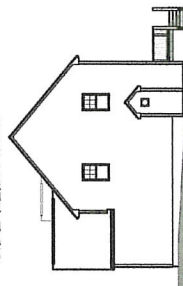
THE GLOUCESTER-II

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

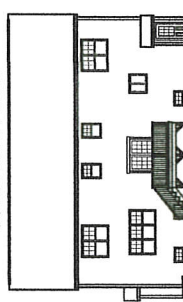
2018 NOV 19 A 10:20



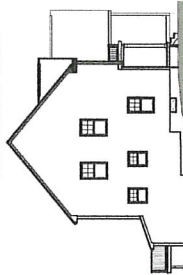
SIDE ELEVATION



REAR ELEVATION



SIDE ELEVATION



BUILDING ELEVATIONS

NOTE: GRADES VARY. ELEVATIONS SHOWN WITH NEAR LOUEN. GRADES REFER TO THE PLANS FOR FULL QUALITY CONDITIONS.

November 14, 2018

NOTE: THESE PLANS & ELEVATIONS ARE SCHEMATIC & ARE SUBJECT TO MINOR CHANGE. SOME OPTIONS/UPGRADES ARE SHOWN.

Stonebridge Homes, Inc.
32 Norfolk Ave
South Easton, MA 02375



10.04.10

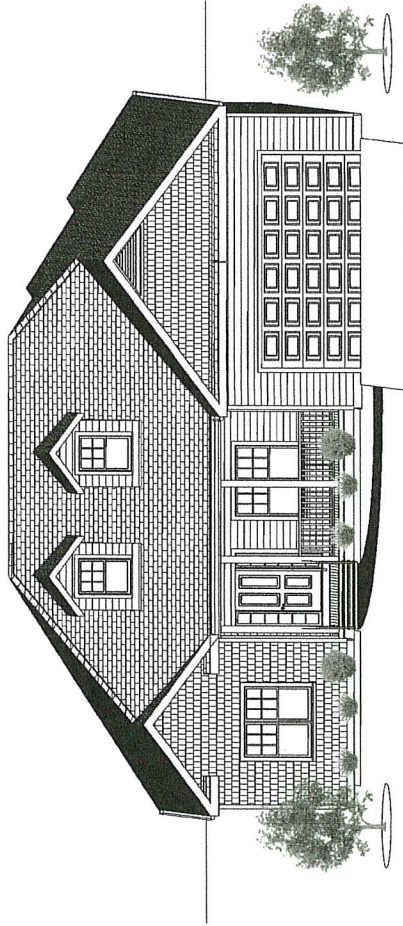
HOUSE FEATURES	
BEDROOMS	3
BATHROOMS	2 1/2
GARAGE	2 CAR

AREA BREAKDOWN	
FIRST FLOOR	1,033 SF
SECOND FLOOR	1,605 SF
TOTAL AREA	2,700 SF

Duxburrow Estates
Bridgewater, Massachusetts

The Newport

Duxburrow Estates
Bridgewater, MA



Affordable Plan

November 14, 2018

Note: These plans & elevations are schematic & are subject to minor change. Some options/upgrades are shown

Area Breakdown	
First Floor	1,682 SF
Total Area	1,682 SF

House Features	
Bedrooms	3
Bathrooms	2
Garage	2 Car

Stonebridge
HOMES, INC.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:25

First Floor



EXHIBIT “C”

“Duxburrow Estates”

Proposed Comprehensive Permit Development Curve Street, Bridgewater, Massachusetts

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

A 10:23

Applicant: Duxburrow Estates, LLC.

Subject Property: Curve Street; Assessor's Map 77, Lot 18; Assessor's Map 78, Lot 1, 2, 3 & 4
And Portions of 5; Assessor's Map 91, Lot 1, 2, 3 & Portions of Map 91, Lots 3 & 6.

WAIVERS Revised November 14, 2018

The Board hereby waives any and all local rules, regulations and/or bylaws necessary to construct the project consistent with the plans of approval as stipulated in the decision by the Bridgewater Zoning Board of Appeals. To the extent the approved plans and the conditions of approval set forth in the decision with any unwaived local regulations, the requirements of the plans and conditions as approved shall supersede such conflicting regulations. Nothing herein may be construed as a waiver of any applicable state or federal law. The waiver list as submitted is a combined effort by the development team to itemized all waivers necessary to build the development in accordance with the approved plans. No local fees are waived unless specifically referenced in the decision.

Town of Bridgewater Comprehensive Permit Chapter 40B Rules and Regulations

	Requirement	Proposed/Justification
Section 3.2.14	Roadway profiles with left and right side lines.	Request waiver from the requirement to show left side and right-side roadway and sidewalk profiles.
Section 3.2.16	A signed statement that all surveying conforms to Land Court Standards shall appear on the original “plot” sheets.	Waiver requested. The land is not in registered land.
Section 3.2.17	Boundary traverse closure tables showing the areas and precision will be supplied for all lots, streets and easements.	Waiver requested from requirement of traverse closure tables.
Section 3.2.18	Water table tests are required under all proposed drainage detention facilities, under all buildings and adjacent to any road cuts greater than three feet (3').	Waiver requested from the requirement of roadway test pits and proposed building locations. The site is mostly a “fill” site. Buildings and roadways will be elevated above groundwater based on the test pits completed.
Section 3.2.19	Requiring that the drainage design and construction must adhere to all requirements of the Bridgewater Land Subdivision Regulations, a waiver is requested. (See request for Waiver from Section IV.B.2.d.)	Request that drainage design be in accordance with the Massachusetts Stormwater Regulations as required.
Section 3.2.35	A note that states: “All construction shall conform to the Land Subdivision Regulations of the Town of Bridgewater Planning Board, and the Public Works Department specifications”.	Waivers are requested from the Town of Bridgewater Planning Board and the Public Works Department, see below, thus a waiver is requested.

Section 3.2.38	Construction standard detail sheets consisting of Bridgewater Standards germane to the applicant's project as shown on the Appendices of the Land Subdivision Regulations, as amended.	Waivers are requested from the Land Subdivision Regulations, see below, thus a waiver is requested.
Section 3.2.44	Projections of down gradient concentrations of nitrogen, phosphorus, and other relevant chemicals to be disposed of on-site, at property boundaries and at other locations deemed pertinent by the Board, prepared by a Hydrogeologist or Registered Professional Engineer possessing experience and education in Water Supply Protection and Hydrology.	Waiver from requirements. There are no chemicals to be disposed of on-site. The project is not located upgradient of a Zone I, II, public water
Section 3.3.1	All streets, drainage, water system, sewerage, utilities, grading, and other improvements shall be made in accordance with the Land Subdivision Regulations governing the Subdivision of Land in the Town of Bridgewater as amended.	Waivers are requested from the Land Subdivision Regulations, see below, thus a waiver is requested.
Section 3.3.4	All rubbish and trash containers shall be screened from view by fencing or landscaping. Said containers shall have heavy-duty plastic tops to reduce noise when being serviced.	Waiver requested as it is not applicable. Dumpsters and enclosures are not proposed. Trash will be by private pickup with individual barrels.
Section 3.3.5	The wastewater treatment system shall meet a ten (10) parts per million (PPM) of nitrate-nitrogen limitation on the overall property.	Waiver requested as it is not applicable. There is no onsite wastewater treatment system proposed.
Section 3.3.10	Periodic monitoring shall be required when the site location and land use activities indicate a significant risk of contamination to the water supply.	Waiver requested. A residential subdivision is not a high-risk use.
Section 3.3.11	All drainage structures including outlets shall have a minimum twenty-five (25') foot vegetated buffer to wetlands.	Waiver requested to allow a 5-foot buffer to the vegetated wetlands.
Section 3.3.12	Soil shall not be lowered to finished exterior grade less than five (5) feet above maximum groundwater elevation.	The shallow groundwater has required most of the site to be raised. Waiver requested to allow less than five feet separation to groundwater with use of roadway underdrains.
Section 7.1	Performance Guarantee before endorsement of its approval of the Plan by the Zoning Board of Appeals, the applicant shall agree to complete the required improvements (construction of ways, site work, buildings, and installation of municipal services) specified for the entire project on the approved plans, documents, etc.	Waiver requested to allow performance guarantee on a phase by phase and not the entire project.
Section 8.4	The endorsement of the plan approval by the Board shall be valid for a period of four (4) years from the date of said endorsement. Beyond four (4) years following the date of endorsement of the Plan, any undeveloped areas must conform to the current Zoning By-Laws and the Rules and Regulations of the Town of Bridgewater, as amended.	Waiver request to allow a minimum of 4 years for each phase for the completion of the infrastructure.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:25

Town of Bridgewater Massachusetts Zoning Bylaws (Dated July 22, 2016)

SECTION	REQUIREMENT	PROPOSED
Section 7	Unspecified	Entrance 3' x 10' (Permanent) Marketing 4' x 8' (Temporary) As shown and illustrated on the landscaping plan.
Section 8.40 Land Space		
Minimum Lot Size	43,560 sf	10,000* sf
Minimum Lot Frontage	150 ft	25* ft
Minimum Setbacks		
Front	40 ft	25 ft
Rear	30 ft	20 ft
Side	20 ft	8 ft However, distance between buildings and structures shall not be less than 20 ft.
Max. % Building Coverage:	20%	30%
One Shed /out building; max of 120 sq.-ft.		8 ft minimum side/rear setback Shed to be located behind the building foot print.
Pools		10 ft side/rear setback
Section 8.60	Requirement	Proposed
Building Setback	Notwithstanding other setback requirements, no building, except those specifically referred to in Section 8.40 shall be located within fifty (50) feet of a bordering vegetative wetland, as defined by Section 40 of Chapter 131, M.G.L.	Exemption Requested. Building setback of twenty-five (25) feet proposed.
Section 17.0	Regulating Storm Water Discharges Generated by Construction Activity.	Waiver requested from the requirement of this section. This project will be permitted under a comprehensive permit and the project will obtain a NPDES Permit under the EPA regulations as required.

* Minimum allowed in Open Space Development

Rules and Regulations Governing the Subdivision of Land in Bridgewater, MA (last Amended 2012)

Section III.B Definitive Plan of Subdivision	Requirement	Proposed
Sections 1 through 8 in its entirety.	Submission of a Definitive Plan of a subdivision for approval by Planning Board.	Exemption Requested. Zoning Board of Appeals to be administrative agency.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA
NOV 19 10 25

Section IV.A General Requirements	Requirement	Proposed
3. Compliance with Zoning	The proposed plan shall be in compliance with the existing Zoning By-Law, as amended, particularly relating to shape, width, and frontage of lots, within a subdivision, before the Board will grant approval.	Exemption Requested. Compliance with dimensions indicated.
9. As-Built Plan	The developer shall provide the Planning Board with a final as-built plan.	Exemption Requested. Zoning Board of Appeals to be administrative agency.
Section IV.B Design Standards	Requirement	Proposed
1. Storm Water drainage design		
b. On-site drainage design and calculations:	All drainage basins shall be designed and located on individual lots and shall be deeded to the Town at time of street acceptance.	No separate drainage lot requirement. Drainage basins are located on Open Space lots with adequate frontage and access.
	For all subdivision proposals, the post-development rate and volume of runoff shall not exceed ninety (90) percent of the corresponding predevelopment rate and volume of runoff.	Waiver from requirement for meeting 90% predevelopment volume levels. Proposed to meet minimum state requirement for Stormwater Management design of Post development peak rate not volume.
3. Stormwater Drainage Structures Design and Details		
d. Drain Lines	Drain lines should be installed at three feet and six inches (3' 6") depth to avoid frost penetration.	Two feet and six inches (2'-6") with crushed stone bedding.
4. Drainage Pipe Design		
a. Minimum Design Velocity	3.0 fps	No minimum on lines from Catch basins to drain manholes.
6. Drainage Basins		
Drainage Lot	Drainage basins shall be located on individual drainage lots within the subdivision, which are to be deeded to the Town at time of street acceptance.	No separate drainage lot requirement. Drainage basins are located on Open Space lots with adequate frontage and access.
Drainage Berm	The tops of the berms surrounding those three sides shall have a minimum width of ten (10) feet to allow for access and proper use of maintenance equipment.	Minimum eight (8) foot drainage berm. There are seven drainage basins proposed. Two large basins have a twelve (12) foot berm; three have a ten (10) foot berm and only two small basins propose an eight (8) foot berm.
Outlet from Basin	All drainage basins shall be designed with a V-notch weir outlet control device in accordance with the detail shown in Appendix "A"	Use of any outlet that controls the discharge leaving the site; i.e. standpipe; rectangular weir or culvert.
Basin Setback from Property line	All drainage basin(s) and drainage outfall(s) shall be a minimum of twenty-five feet from a property line.	Toe of basin grading a minimum of 5 feet from property line.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA
NOV 19 2018

Recharge system	On-site recharge through recharge structures (as shown in detail drawing number 10)	A Recharge system that meets Stormwater Management Best Management Practices (BMP)
Section IV.C Streets	Requirement	Proposed
4. Right of Way Widths and Grades		
Min. Radius of Curve	200 feet	80 feet
Section IV.C	Requirement	Proposed
6. Dead End Streets		
a. Twenty lots	Dead end streets shall not provide frontage for more than twenty (20) lots.	Requested for 22 lots on the dead end "Forbes Road". A 40-foot gravel access and utility easement is proposed at the end of the cul-de-sac. There is also a 20-wide gravel access for emergencies connecting Titicut Avenue to Forbes Road.
e. Twenty-foot-wide easement	A twenty (20) foot wide minimum easement shall be required at the end of a cul-de-sac to provide for continuation of pedestrian traffic and/or utilities to the next street or adjoining properties, unless waived by the board in writing.	Exemption Requested. Easements for connections to existing streets to the north and west site are not practical or viable. Easements and connections within site as well as connection east and south are proposed.
7. Driveway Cuts	None within 55 feet of intersecting street	20 feet is requested due to the reduced frontage of each house lot.
Section V.B. Improvement Specifications	Requirement	Proposed
Layout Width	40 feet (Residential B & C) 44 feet (Residential A) 46 feet (Sub Collector)	40 feet - Pratt Ave, Hewitson Way, Forbes Rd, Titicut Ave, Jennings Hill Way Variable - Duxburrow Way
Pavement Width	20 feet (Residential C) 22 feet (Residential B) 24 feet (Residential A) 28 Feet (Sub Collector)	24 feet (Residential A, B & C -Hewitson Way, Forbes Rd, Titicut Ave, Jennings Hill Way) 26 feet (Sub Collector - Pratt Ave) Variable - Duxburrow Way
Sidewalks	Two @ 5 ft (Sub Collector & Residential A)	One @ 5.5 ft
3. Minimum Depth Requirements Curbs	4-inch thickness	5-inch thickness
12. Use of Consulting Services	The Planning Board imposes on all applicants, reasonable fees for the employment of outside consultants to review subdivision plans.	Exemption Requested. Zoning Board of Appeals to be administrative agency.
13. Construction Activities	The applicant and/or developer shall submit to the Planning Board in writing	Exemption Requested. Zoning Board of Appeals to be administrative agency.
15. Drainage As-Built Certification	The developer shall submit certification to the Planning Board...	Exemption Requested. Zoning Board of Appeals to be administrative agency.
21. Shade Trees	All trees shall be planted within the right of way at a distance not to exceed thirty (30) feet.	Trees planted in an easement at an Average of 2 trees per lot (total of 300 trees). Exclusive of open space areas.

23. Street Lights	Street lighting shall be provided by the developer before the first house is occupied at the ratio of one light per every four (4) house lots but not more than 600'.	Request for one light per every six (6) house lots. The spacing of the poles at this ratio is less than 600 feet.
25. Monuments		
a. Granite Bounds	Bounds shall be of granite, not less than 30" long and not less than 5" square	Concrete Bounds not less than 30" long and not less than 5" square
b. Lot Marker	Lot markers in the form of 5/8" re-rod with cap shall be installed on all lot lines within a subdivision.	Exemption Requested.
Section VI Administration	Requirement	Proposed
Section A through K entirely	The Planning Board shall be the administrative agency.	Exemption Requested. Zoning Board of Appeals to be administrative agency.

Bridgewater, Massachusetts Wetlands Protection By-Laws (last Amended February 14, 2006)

- Waivers are requested from local bylaw fees associate with all Conservation Commission filings.

Section 7. Regulations	Requirement	Proposed
j. 25-foot "no activity" buffer	There shall be a 25-foot "no activity" buffer around a bordering vegetated wetland for all construction activities including but not limited to grading and brush dumping.	Exemption Requested to follow DEP minimum requirements. DEP does not require a "no touch" buffer. A five (5) foot limit is proposed.
p. Permanent BVW boundary markers	All permanent BVW boundary markers as required in an Order of Conditions (OOC) issued by the BCC shall be installed.	Exemption Requested.
r. Erosion control barriers	Except as otherwise approved by the BCC, erosion control barriers shall be installed no closer than twenty-five (25) feet to the boundary of an approved BVW.	Exemption Requested. Erosion control shall be installed no closer than five (5) feet.

Article II Building Sewers Service Connections (new by-law regulation effective July 22, 2003)

Section 2A. Connection Permits	Requirement	Proposed
Sewer connections	Sewer connections for new dwellings in non-needs area will be allowed only if the lot fronts on a common sewer and has the required lot frontage for the zoning district. Sewer connections will not be allowed for so-called estate lots of three (3) acres or more unless said lot has the required minimum frontage.	Exemption Requested. Proposed sewer connection is 0.5 miles northwest at the intersection of Auburn and Laurel Streets.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
NOV 19 4 10 PM '07

EXHIBIT D

Duxburrow Estates – 40B Low Pressure Connection

October 30, 2018

Future Tie-in extended to the property line:

Curve Street

Address	Map	Lot
143 Curve St	78	777
140 Curve St	78	23
125 Curve ST	78	67
110 Curve St	78	73
95 Curve St	78	68
102 Curve St	78	24
75 Curve St	78	69
70 Curve St	78	72
55 Curve St	78	70
50 Curve St	78	71
45 Curve St	78	105
40 Curve St	78	108
25 Curve St	78	104
30 Curve St	78	107
5 Curve St	78	103
20 Curve St	78	106

Auburn St

255 Auburn St	78	27
248 Auburn St	65	1
244 Auburn St	64	10
242 Auburn St	78	39
0 Auburn St	78	56
218 Auburn St	78	38
204 Auburn St	77	48
200 Auburn St	77	47
172 Auburn St	77	46
160 Auburn St	77	45
150 Auburn St	77	44
140 Auburn St	64	25
120 Auburn St	77	42
106 Auburn St	77	41

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:23

Future Tie-in stub located at low pressure line and recorded:

Auburn St

Address	Map	Lot
241 Auburn St	78	102
235 Auburn St	78	101
215 Auburn St	77	119
191 Auburn St	77	122
169 Auburn St	77	16
165 Auburn St	77	15
155 Auburn St	77	14
115 Auburn St	77	98
95 Auburn St	77	93
84 Auburn St	77	40

Laurel St

265-275 Laurel St	77	39
-------------------	----	----

Glenwood Dr

10 Glenwood Dr	77	99
----------------	----	----

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
NOV 19 AM 10:20

"EXHIBIT E"

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2010 NOV 19 A 10:26



Stantec Consulting Services Inc.
400 Crown Colony Drive Suite 200, Quincy MA 02169-0982

September 7, 2018
File: 195150493

Attention: Mr. Anthony Aveni, Chairman

Sent as PDF via email

Bridgewater Zoning Board of Appeals
Academy Building, 2nd Level
66 Central Square
Bridgewater, MA 02324

Dear Zoning Board Members,

**Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B
Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324**

Stantec has reviewed several revised documents, and supplemental documents, which are outlined below, that were submitted to the Zoning Board of Appeals (the Board or ZBA) by Silva Engineering Associates, P.E. (SEA) in response to Stantec's peer review letters for the Comprehensive Permit¹ project Duxburrow Estates, off Curve Street, Bridgewater. Below are the documents reviewed for this Peer Review 7th Response Letter.

1. Letter from Delphic Associates LLC to Town of Bridgewater ZBA dated March 26, 2018, with attached email from the MEPA office dated March 15, 2018, concerning MEPA status for 40B projects.
2. ANRAD Plan (Plan to Accompany Resource Area Delineation) with modifications per Conservation Commission review, signed and stamped by Larry Silva 4-24-18.
3. Duxburrow Estates Offsite Improvement Plan (10 sheets) last revised May 23, 2018 (unstamped).
4. "Construction Phase Pollution Prevention and Erosion and Sedimentation Plan" dated June 6, 2018, prepared by Anthony Esposito, P.E., Duxburrow Estates LLC
5. Letter from William Maltby, Tree Warden, to SEA dated June 11, 2018.
6. Landscape Plan Duxburrow Estates Curve Street Bridgewater, Massachusetts – revised as of June 19, 2018.
7. Requested Waivers List, Revised June 20, 2018.

¹ under Massachusetts General Law Chapter 40B
Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:26

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

8. SEA Letter dated June 20, 2018 in response to comments from Stantec Consulting Services Inc. dated May 23, 2018 (Peer Review - 6th Letter).
9. Construction Management Plan (CMP) dated June 20, 2018 prepared by Anthony A. Esposito, P.E., Duxburrow Estates, LLC (64 pages), which included as an appendix a Stormwater Pollution Prevention Plan (SWPPP) – dated June 1, 2018.
10. Easement Plan dated 6-25-18; and Easement Agreement dated 11-1-17.
11. Letter from ATC Group Services LLC (ATC) to SEA, dated June 27, 2018, which concurs with the finding of "No Significant Risk of harm to human health, the public welfare and safety, and the environment" stated in prior reports from Applicant.
12. SEA Letter dated August 12, 2018 in response to comments from Stantec Consulting Services Inc. dated February 22, 2018 (Peer Review – 3rd Letter).
13. Drainage Calculations Duxburrow Estates, last revised August 12, 2018.
14. Duxburrow Estates project plan set (45 sheets) last revised August 12, 2018 (unstamped).
15. Emails from SEA, documenting discussions of, and resulting revisions to certain plans and submittals, completed through today September 7, 2018.

Stantec has also received documents addressed to the ZBA but related to on-going responses on issues of water supply and sewer services, that the Applicant is working on with the Bridgewater Water & Sewer Board. These documents were not reviewed by this office but are under a process of review by the Water & Sewer Board with assistance from the Stantec engineers who regularly assist the Water & Sewer Board.

Stantec's comments are presented below, organized based on SEA's response letter of August 12, 2018, which carried forth the Stantec comments and SEA replies as appropriate. However, to simplify, only those "comments & responses" that still needed to be addressed since the last reviews have been listed below (i.e. comments that have been previously addressed are not included below).

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

1 2016 NOV 19 A 10: 21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 3 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

TOWN OF BRIDGEWATER CHAPTER 40B RULES AND REGULATIONS

STANTEC Comment 1: *Section 3.1.2 states that a properly executed Comprehensive Permit Application, including fees and abutters list, should be submitted. Stantec recommends the Applicant provide a check list to the ZBA indicating that all the requirements listed under Sections 3.1 and other appropriate sections were included with the Permit Application.*

SEA Response: **Complete.**

STANTEC Response: Stantec and the ZBA office have not received the suggested check list to document that all the requirements listed under Sections 3.1 and other appropriate sections were included with the Permit Application.

SEA Response: **A checklist was provided to the Board as requested. It is attached with this letter.**

STANTEC Response: This comment has been addressed.

STANTEC Comment 3: *Section 3.2.3 requires "Location and ownership of abutting property as it appears on the Certified List of Abutters...including all abutting land owned by the applicant, and all other land within three hundred feet (300') of the boundaries of the land shown on the plan including across an existing street". Although abutters are noted on the lot layout sheets, Stantec recommends that all abutting property owners be shown on the Existing Conditions sheet and the Lot Layout Index sheet.*

SEA Response: **The plans have been revised to comply with this requirement.**

STANTEC Response: Abutting land owners are shown on the "Affordable Distribution Index Sheet" however, they are not displayed on the "Existing Conditions Sheet". In addition, all land within 300-feet of the land boundary is not shown, so it is unclear if the abutters noted on the plans are all accounted for.

SEA Response: **The subdivision plans have been revised to include a separate Sheet 0.3 illustrating a 300-foot buffer and abutter information within that area.**

STANTEC Response: This comment has been addressed by a revised plan received on Sept 4, 2018.

STANTEC Comment 4: *Section 3.2.5 requires project plans to show several major features, most of which are shown as required or applicable; however, "large trees" are not noted. A waiver should be requested. Also, during a Site visit, some monitoring wells were observed to be on-Site, and these should be shown along with any other "underground structures".*

SEA Response: **A waiver for locating "large trees" is requested. Some of the former underground storage tanks have been added to the revised existing conditions.**

STANTEC Response: The Landscape Plans that have been submitted address the main entrance area and the interior of the development. However, we recommend that the applicant provide a

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 4 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

SEA Response:

supplemental plan developed by a registered Landscape Architect detailing trees and plants located along the northerly property lines along Jennings Hill Way, and north side of Pratt Avenue that provide screening for abutting residences. In addition, Stantec recommends that the Town's Tree Warden inspect the Site, particularly the areas noted above, to determine what trees should be retained / saved if possible. A meeting between the Applicant's Landscape Architect and the Town's Tree Warden to review the plans and the Site may be appropriate, with the results of such meeting reported to the Board concerning trees and other plants that may be impacted by the project, and which should be saved, if possible; and, if there will be tree losses, what supplemental plantings may be appropriate as mitigation for such losses.

The comments above have been addressed and or answered in the Landscape Review letter #4. The Tree Warden reviewed the landscape plans and recommended a species change. This was reflected in the plan set submitted for review in Comment Letter #4. A site walk with the Tree Warden took place on June 7th. There are 4 white oaks of interest within the entrance area that were deemed to be viable. There were numerous red oaks, ash and cherry that were no of interest either due to health or species. The existing conditions plan has been updated to illustrate the white oaks. There entrance design and the elevations that a proposed will not allow the oaks to survive. A 2.5:1 ratio for replacement of the white oak is proposed on site. The landscape plans have been revised to illustrate this.

The work along Curve Street was also reviewed during the site walk. Numerous Oak and Ash were identified along with a Chestnut, Sycamore, a young Hickory, and a young Catalpa. The efforts to move the roadway around the Sycamore were viewed favorably. The most significant "loss" would be the few homes that have planted within the right of way. Mr. Maltby recommended, as a condition, that a tree be provided for each lot where removal is proposed, provided the homeowner wishes. The proponent will send letters to each homeowner affected and if a tree replacement is desired they will have 60 days to respond to the letter. The proponent will warranty the trees for 2 years.

STANTEC Response:

This comment has been addressed. Stantec recommends that the ZBA require, as a condition of approval, that the proponent (developer) send letters to each homeowner affected by tree removal to inquire if tree replacement is desired, and to advise the homeowners that they will have 60 days to respond to the letter; and, to advise that the developer will warranty any replacement trees for 2 years.

STANTEC Comment 6:

Section 3.2.8 states that the plan should indicate the location of all existing and proposed monuments. The submitted plans do not indicate any proposed survey monuments. Stantec recommends that as part of any final submittal, the Applicant submit a plot plan that

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 5 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

- SEA Response:** indicates proposed survey monuments at all lot corners, roadway layout intersections, and radii with proposed lots. Stantec recommends the Applicant provide monumentation as outlined under Part 25 Monumentation of the Subdivision Rules and Regulations. **The plans have been revised to indicate roadway monuments as required by the Bridgewater Subdivision rules and regulations. A waiver from the requirement for iron rods at individual lot corners is being requested.**
- STANTEC Response:** This comment has been addressed subject to the ZBA issuing the requested waiver.
- STANTEC Comment 7:** Sections 3.2.10 and 3.2.11 require that plan information include any "easements, covenants or restrictions" that apply to the land; and, to note if any part of project land has "been examined, approved, and confirmed by the Massachusetts Land Court". Stantec recommends that these aspects of the land be listed on the plan, if applicable; or, if not applicable, that note be added to the plans to state none exist.
- SEA Response:** **All easements, covenants and or restrictions have been documented properly.**
- STANTEC Response:** A 40' utility easement is shown for Solar Way along with two other 40' utility easements which are shown on the southern end of the property, but no other easements/covenants or restrictions are shown on the plan. On the easterly end of Jennings Hill Way, a drainage pipe runs between lots 10 and 11 with no callout of an easement. Stantec recommends that all underground drainage structures located on private property have an appropriate utility easement.
- SEA Response:** **The missing easement along Lot 10 and 11 has been added to the revised lotting Sheet LL1.1. Some additional easements with the revised drainage design have been incorporated into the revised plans**
- STANTEC Response:** This comment has been addressed.
- STANTEC Comment 9:** Section 3.2.13 states that the proposed layout including profiles of street stormwater and sewage systems and all other utilities including all details and information on the utility be included on the plans. The Applicant has provided street profiles for the project but they are preliminary and not complete. More information is required to properly define the roadways, and proposed utilities with respect to inverts, pipe diameters, pipe slopes, pipe material, and cover depth, and other underground utility information and details as required for construction and for review by the ZBA.
- SEA Response:** **The plans have been revised to comply with this requirement.**
- STANTEC Response:** Plans have been updated to show plan and profile view of all the streets within the development. However, plan and profile plans do not display proposed sewer locations, and we understand that these will be provided after the Bridgewater Water

1 2016 NOV 19 A 10:20

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 6 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

and Sewer Board has completed their review and are satisfied with Applicant's layout.

SEA Response: The sewer has been incorporated into the revised plan set and matches with the Duxburrow Offsite improvement plan.

STANTEC Response: This comment has been addressed.

STANTEC Comment 10: *Section 3.2.14 indicates that a roadway profile with both left and right roadway profiles should be submitted for review. The Applicant did not submit such detailed roadway profiles for review. Stantec recommends the Applicant provide a roadway profile with both left and right sides of the roadway including existing and proposed elevations and slopes for roadway and sidewalk, in the next submission for review. Stantec also recommends the Applicant add more detail to the profile of Duxburrow Way at the intersection of Curve Street, to show the entire width of Curve Street (as an extension of the Duxburrow Way centerline), to indicate grading transitions, and to show Curve Street utilities, both existing and proposed, and proposed project connections thereto within this main intersection.*

SEA Response: A waiver from the requirement of left and right street profiles and sidewalk is requested. Additional details for the transition to Curve Street have been added to the revised plan set.

STANTEC Response: Stantec does not have documentation of the waiver requested for the exemption to show left and right roadway profile views on the proposed plans. We find additional details for the transition to Curve Street satisfactory on the plans.

SEA Response: Sheet CV0.2 contains an updated list with all the requested waivers.

STANTEC Response: This comment has been addressed subject to the ZBA issuing the requested waiver.

STANTEC Comment 11: *Section 3.2.15 (topography) – The plans show more accurate 1-ft contour intervals for areas of the Site that are being developed, and utilize Lidar based 2-ft intervals on remaining land. Stantec recommends that the applicant label these 2-ft Lidar contours to better clarify Site grading. Also, more benchmarks, including descriptions must be identified on the plans.*

SEA Response: The plans have been revised to comply with this requirement.

STANTEC Response: Stantec finds the benchmarks and their descriptions to be satisfactory. We do not find any distinction between the 1-foot contours and the less accurate 2-foot Lidar contours. Stantec recommends this be added to the legend on the plans to distinguish these two types of contours.

SEA Response: A legend has been added to Sheet CV0.2 of the plan set to distinguish the two sets of topography

STANTEC Response: This comment has been addressed.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
1 2018 NOV 19 A 10:25

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 7 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Comment 12: *Section 3.2.16 states that a signed statement indicating all surveying conforms to Land Court Standards on the original plot sheets. Stantec recommends that Applicant include the signed statement on the final plans.*

SEA Response: **The land is not intended to be registered therefore will not be held to Land Court standards. A waiver is requested.**

STANTEC Response: We find no waiver appears on the plans for this requirement; and we suggest either a waiver be added to the plans and filed with the Board or that the signed statement be added to the plans.

SEA Response: **Sheet CV0.2 contains an updated list with all the requested waivers.**

STANTEC Response: This comment has been addressed subject to the ZBA issuing the requested waiver.

STANTEC Comment 13: *Section 3.2.17 states that a boundary traverse closure table is required for all lots and streets and easements. Stantec recommends the Applicant provide the traverse table for all the lots, street, and easements on the plan set.*

SEA Response: **A waiver is requested from the requirement of listing the boundary traverse closure table on the plan set.**

STANTEC Response: We find no waiver appears on the plans for this requirement; and we suggest either a waiver be added to the plans and filed with the Board, or that the boundary traverse closure table be added to the plan set.

SEA Response: **Sheet CV0.2 contains an updated list with all the requested waivers.**

STANTEC Response: This comment has been addressed subject to the ZBA issuing the requested waiver.

STANTEC Comment 14: *Section 3.2.18 states that soil tests are required at all detention facilities, under all proposed buildings, and adjacent to road cuts greater than 3 feet. Also, noted in Section III B. 3. m. of the Subdivision Regulations, test pits must be conducted every 150' of roadway. Stantec notes that numerous test pits and soil evaluations were conducted, and these are noted on the Test Pit Location Plan that is part of the submittal set. However, there were no test pits conducted at each proposed building, and it is not clear if test pits were located every 150' along the roadway and at all detention facilities. Therefore, Stantec recommends (1) the Applicant show test pit locations on the drainage and grading plans to ensure that test pits have been recorded for all detention basins, and (2) provide test pits at each proposed house location, or request a waiver (with explanation) from this second requirement, and (3) conduct test pits every 150' along the proposed roadway, or request a waiver (with explanation) from this third requirement. Based on plans submitted so far, it does not appear*

1 2016 NOV 19 A 10:20

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 8 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

- that there are roadway cuts greater than 3 feet, in fact it appears that most roads will need to be built up above existing grades.*
- SEA Response:** Additional test pits were completed in the areas of proposed drainage basins. A waiver from the requirement of roadway test pits and proposed building locations is requested. The site does not have any large cuts and will in fact include raising the grades to provide separation to seasonal high groundwater.
- STANTEC Response:** Stantec finds additional test pits were completed on site however, these test pits are not shown on the "Topographic Sheets" or the "Drainage Evaluation" sheets to display their location as is relates to the proposed drainage facilities. No waiver from the roadway test pits or the building location test pits are show on the plans.
- SEA Response:** Sheet CV0.2 contains an updated list with all the requested waivers. Test pit locations have been added to the Topographic and Drainage Sheets as requested.
- STANTEC Response:** This comment has been addressed subject to the ZBA issuing the requested waiver.
- STANTEC Comment 16:** *Section 3.2.20 states that the location and species of proposed trees will be shown including existing trees to be retained as determined by the Tree Warden. The Applicant did not provide a Landscape Plan or indicate if any existing trees will be retained. Stantec recommends the Applicant provide a Landscape plan indicating proposed plantings and any existing trees that are to remain; and that the Applicant provide a planting plan that is stamped by a Massachusetts Registered Landscape Architect.*
- SEA Response:** A landscape plan will be developed by a Registered Landscape Architect. A Landscape Architect has been hired for this project. There are two trees along Curve Street that have been highlighted and the design modified to ensure the trees are retained. The remainder of the site does not have any tree of significant size to warrant retaining.
- STANTEC Response:** Stantec cannot locate on the plans where the two trees to be saved have been highlighted. We recognize that much of the Site is open fields, however there are trees and other screening vegetation located along abutting northerly property lines that may need to be protected or replaced. See Stantec comment in item 4 above.
- SEA Response:** One of the two trees called out for protection is a Sycamore located at the main entrance of Duxburrow adjacent to 147 Curve Street as well as the Sycamore located in front of 25 Curve Street. The second is an oak tree illustrated as part of the "Offsite Improvement Plan" located in front of 45 Curve Street. Additional responses to landscaping comments can be found in the Review Letter #4 and comment #4 above
- STANTEC Response:** This comment has been addressed.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

1 2018 NOV 19 A 10:26

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 9 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Comment 21: *Section 3.2.28 states that any decision by the ZBA, Planning Board, Conservation Commission, and any other Town, State, or Federal Agency shall be provided to the ZBA for inclusion into the record. Stantec recommends the Applicant update the ZBA on any other decisions by other Town Boards, Commissions, and Federal or State Agencies.*

SEA Response: **Any decisions by other Boards will be given to the ZBA upon receipt.**

STANTEC Response: This comment has been addressed, subject to follow through by the Applicant.

SEA Response: **The Conservation Commission has approved the wetland line as shown on the plan revised through April 24, 2018. The "Plan to Accompany Resource Area Delineation" is included with this letter for your records. Any decisions by other Boards will be given to the ZBA upon receipt.**

STANTEC Response: This comment has been addressed.

STANTEC Comment 22: *Section 3.2.31 states that the location of adjacent private water supplies and septic systems within 100 feet of the project's property line. Stantec recommends the Applicant indicate if private water supplies or septic systems are within 100 feet of the project property line.*

SEA Response: **There are no private water supplies within 100-feet of the project site. A note has been added to the existing conditions plan. Some of the abutting septic systems have been added to the revised plans. Additional information on septic locations will be added prior to the endorsement plan set.**

STANTEC Response: Stantec finds this response satisfactory for the private water supplies within 100-feet of the project site. Additional information on the septic locations will need to be added to the plan set before it is endorsed.

SEA Response: **All available septic information from the Board of Health was added to the revised plan set.**

STANTEC Response: This comment has been addressed.

STANTEC Comment 30: *Section 3.2.40 states that Landscape Plan should be included in the plan set. A Landscape Plan was not included in the plan set. Stantec recommends the Applicant provide a Landscape Plan stamped by a Massachusetts registered Landscape Architect that includes planting information including but not limited to quantity, size, species, and materials. Stantec recommends the planting plan include native and drought tolerant plant species that require little or no fertilizers or irrigation.*

SEA Response: **A landscape plan will be developed by a Registered Landscape Architect. A Landscape Architect has been hired.**

STANTEC Response: This comment has been addressed, however please note responses to items 4 & 16.

SEA Response: **Refer to Comment #4 and #16.**

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:26

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 10 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Response: This comment has been addressed.

STANTEC Comment 32: *Section 3.2.42 states that the location and description of proposed open or recreational space be included. The Applicant has shown open space on the plan, but there is no note concerning recreational space on the property. Stantec recommends that the Applicant update the plan to indicate the sizes of all be open space lots, and which, if any, are to be used as recreational space for the project.*

SEA Response: The plans have been revised to comply with this requirement.

STANTEC Response: The open space is called out on the plan however, none of the open space is dedicated as "recreational". It is unclear if recreational space will be a requirement of the ZBA.

SEA Response: The lotting sheets have been revised to include a table of each open space and associated area. Open Space Area B and D are dedicated to passive recreation the other eight open spaces parcels are available for recreational use as well as drainage and wetland areas

STANTEC Response: This comment has been addressed.

STANTEC Comment 36: *Section 3.3.2 states that fencing is required by the ZBA for safety and screening. The plans do not indicate fencing, screening, or associated details. Stantec recommends the Applicant consult with the ZBA and Conservation Commission on where a fence or screen may be appropriate for the project. Also, Section IV.B.6 Drainage Basins of the Subdivision Regulations requires "If a basin does not drain within twenty-four (24) hours, fencing and/or any other necessary safeguards shall be installed surrounding all sides of the basin. A basin landscape and buffer plan shall be submitted showing screening of abutting properties as deemed appropriate by the Planning Board." Insufficient information is provided to know if any proposed detention basins will require fencing per this requirement. Stantec has recommended in this letter that the Applicant submit a complete Stormwater Report, and compliance with this requirement should be addressed by the Applicant in such report.*

SEA Response: Fencing is proposed for the abutter location at 143 Curve Street. Additional screening will be vegetated as appropriate. Guardrails will be added to the area of the site that have hazards in elevation change. Including some cul-de-sacs and drainage berms. The basins are not designed to hold water for any real length of time and most are estimated to drain in 7 hours.

STANTEC Response: A fence is shown on sheet PP2.04 however there is no line type for this fence in the legend or anywhere on the plans. The legend should be updated to reflect this line type. In addition, guardrails should be added at locations where there are potential hazardous elevation changes (e.g. from road to basin bottom). Examples of locations

2018 NOV 19 A 10:26

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 11 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

where this feature would be appropriate are at the intersection of Jennings Hill Way, along Jennings Hill Way adjacent to drainage basin A, and on Hewitson Way; however, the Applicant should review the entire project to address this concern.
Guard rails have been added to the revised plan set.

SEA Response:

STANTEC Response: This comment has been addressed.

STANTEC Comment 37: Section 3.3.3 states requirements for exterior lighting. The submitted plans do not indicate lighting, light details, cut sheets, or overall photometric lighting plan. The Applicant has requested a waiver from Streetlights, and use of driveway lanterns is proposed instead. Stantec recommends that the Applicant and ZBA consider placement of street lights at street intersections for night safety, and that all lighting, whether driveway lanterns or street lights, comply with the Subdivision Regulations requirement (Section IV.B.23) that "lighting shall be designed to eliminate problems of glare, minimize light pollution, and reduce the energy and financial costs of outdoor lighting". Stantec recommends the Applicant provide lighting details, cut sheets, height, and photometric plan for review.

SEA Response: The waiver to use driveway lanterns has been removed and street lights are proposed. A photometric plan will be provided by the Landscape Architect.

STANTEC Response: This comment has been addressed. SEA has placed light pole locations on the plans. A photometric plan has not been submitted.

SEA Response: The photometric information was illustrated on Sheets 3-7 on the Landscape Plans Dated May 18, 2018.

STANTEC Response: This comment has been addressed.

STANTEC Comment 41: Section 3.3.10 states that periodic groundwater monitoring shall be required for contamination. It does not appear that this type of project is by itself high risk for releasing contamination. However, Stantec has received a letter report addressed to MassDEP, prepared by ATC Group Services (which is yet to be reviewed by Stantec) entitled "Permanent Solution without Conditions Statement, pursuant to 310 CMR 40.0000, the Massachusetts Contingency Plan (MCP), for the release of petroleum at the Former Bridgewater Farm on Curve Street in Bridgewater, Massachusetts", dated April 17, 2017. Apparently two (2) underground storage tanks were removed along with some contaminated soil in the vicinity of proposed lots 41 and 105. Stantec recommends the Applicant discuss the findings of this report with the ZBA given that these are proposed residential lots, as to the potential of these lots being at risk; and / or if there are any existing conditions that could contribute contamination to groundwater downstream of the project.

SEA Response: A waiver is requested from the requirements of groundwater monitoring.

2018 NOV 19 A 10:22

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 12 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Response: A waiver request was not found on the plans ("Waivers Requested" on Cover Sheet of plan set) or in the updated waiver response letter; and, Stantec would not recommend approval of such a waiver until we have opportunity to review the pending Phase I Environmental Report.

SEA Response: A waiver is requested from the requirements of groundwater monitoring.

STANTEC Response: Stantec has reviewed the Phase I Environmental Report, and this comment has been addressed.

STANTEC Comment 42: Section 3.3.11 states that all drainage structure outlets shall have a minimum 25-foot vegetated buffer to the wetlands. The plans indicate stormwater discharge outlets that are within 25 feet of the delineated wetland. The Applicant has requested a waiver from Section 7.j of the Bridgewater Massachusetts Wetlands Protection Bylaw (the Wetlands Bylaw). Stantec recommends the Applicant discuss this waiver with the ZBA and Bridgewater Conservation Commission, and indicate what options have been explored to avoid, minimize the need for, and/or mitigate for this waiver request.

SEA Response: The project has been designed in accordance with the Massachusetts Wetlands Protection Act. Additionally, throughout the project, no activity is proposed to be within 5' of the line, as approved by the Conservation Commission. An ANRAD has been filed with the Commission to seek agreement on the wetland boundary.

STANTEC Response: Stantec recommends the Applicant present the results / findings from their recent Conservation Commission ANRAD filing and discuss a waiver with the ZBA and as part of this, indicate what options have been explored to avoid, minimize, or mitigate impacts for this waiver request.

SEA Response: The Commission has agreed with the wetland line shown on the revised plans. A five (5) foot no touch buffer is proposed. The smaller lot size and a larger buffer limits homeowners and functionality of the lot. The drainage outfalls shown comply with the minimum allowed by DEP standards

STANTEC Response: This comment has been addressed.

STANTEC Comment 43: Section 3.3.12 states that "soil shall not be lowered to finished exterior grade less than five (5) feet above maximum groundwater elevation, unless technical evidence is to be provided showing to the Board's satisfaction that groundwater quantity or quality will not be detrimentally affected. Technical evidence may include, without limitation, a determination of soils and geologic conditions where evaporation/transpiration occurs." As noted earlier, the Applicant's test pits indicate that depth to seasonal high groundwater can be as little as 2 to 3-ft below existing grade in many cases. Plans submitted so far indicate that cuts (or the lowering of soil) for roadway or home sites will be unlikely; and it appears that most roads

2018 NOV 19 A 10:26

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 13 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

and home sites will need to be built up above existing grades. Stantec recommends that the Applicant address the concerns of this Section 3.3.12 as it may apply to any homes sites and utilities that end up, after final grading, within 5-foot or less separation from seasonal high groundwater levels. See related comments 34, 41 and 57 in this letter. Important topics to address include: Protecting roadways from frost heaves and sewers from infiltration, and providing water quality treatment for project stormwater.

SEA Response: The shallow groundwater has required a design with a significant amount of fill to raise grade to satisfy groundwater separation requirements.

STANTEC Response: It appears most roadways have been built up to allow separation from groundwater. However, Stantec has identified one location where the roadway will be within approximately 3.5' to high groundwater elevation (Station 4+50 on Pratt Ave). Stantec recommends that a waiver to be requested for such locations to allow groundwater within such closest identifiable places of the proposed roadways; and further, the Applicant should propose some form of mitigation to avoid the adverse effects of roadway and utilities within high groundwater areas (e.g. roadway under-drains, special sewer construction, or other appropriate mitigation).

SEA Response: The sewer line would be the only real utility at potential risk and we will require neoprene sleeves and clamps at each connection to provide secondary protection to prevent infiltration.

STANTEC Response: This comment has been addressed; and we recommend that the application of sleeves and clamps as noted above be included in any ZBA conditions of approval.

STANTEC Comment 45: *Section 3.3.15 states that all signage shall be per the Bridgewater Zoning By-law. The plans do not indicate if there will be signage for the development. Stantec recommends the Applicant indicate if signage is proposed for the project. Stantec also recommends the Applicant indicate what traffic control signs are proposed at the Curve Street intersections, and within the project's street intersections.*

SEA Response: The plans have been revised to comply with this requirement. Stop signs and street sign locations have been added to the revised plan set.

STANTEC Response: Stantec agrees stop signs and street signs have been added to the plan set for the development. Final plans for Curve Street improvements have not been submitted, so we have not checked traffic management devices proposed for Curve Street.

SEA Response: The preliminary design for Curve Street was submitted with cursory comment provided. The final Curve Street Improvement plan is submitted with this letter.

STANTEC Response: This comment has been addressed; and we recommend that a stop sign be added at the end of Curve Street where it intersects with Auburn Street.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:20

September 7, 2018

Mr. Anthony Aveni, Chairman

Sent as PDF via email

Page 14 of 36

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

PERMITTING

STANTEC Comment 48: *The project will disturb more than one (1) acre of land. The Applicant will need to file an Environmental Protection Agency (EPA) Notice of Intent (NOI) for coverage under the Nation Pollution Discharge Elimination System (NPDES) General Construction Permit. The Applicant is required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and present that plan to the Bridgewater Conservation Commission prior to the start of construction.*

SEA Response: **Correct. A SWPPP will be filed 2 weeks prior to the start of construction as required by the EPA. A copy will be submitted to the Bridgewater Conservation Commission.**

STANTEC Response: *This comment has been addressed, and this should be a condition of approval if ZBA issues a project approval in the future. However, the Applicant is still required to submit similar information in the form of (1) a Long-Term Pollution Prevention Plan (LTPPP, which should include a snow management plan), (2) a Construction Period Pollution Prevention Plan, (3) an Erosion and Sedimentation Control Plan, and (4) an Operation and Maintenance Plan, all of which need to be included in the project stormwater report as required by the MA Stormwater Policy, and as part of the ZBA review. (Also see item #'s 89, 91, 100 and 101.) As an alternative, a SWPPP could be submitted with the stormwater report.*

SEA Response: **The requested documents are provided with this letter for review.**

STANTEC Response: *This comment has been addressed.*

STANTEC Comment 50: *It is not clear if the project will alter 50 or more acres of land, which would require filing of an Environmental Notification Form (ENF) and mandatory Environmental Impact Report (EIR) for review by the Massachusetts Environmental Policy Act (MEPA) office in Boston. However, because the project will clearly alter 25 or more acres of land, the Applicant will need to submit an ENF for review by the MEPA office, and then may possibly be required to submit other information after MEPA review of the ENF. Stantec recommends the Applicant provide a letter to the ZBA indicating their status with respect to MEPA rules, and if MEPA processes are completed, what mitigation or requirements were imposed by the MEPA office.*

SEA Response: **An ENF is being prepared for submittal. The ZBA will be updated as the process proceeds.**

STANTEC Response: *This comment is being addressed. The Land Disturbance aspect of this project will require the ENF filing.*

SEA Response: **In an email correspondence from Delphic Associates dated March 26, 2018 it was stated that an Environmental Notification Form was not required. The correspondence is attached for your records.**

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:21

September 7, 2018

Mr. Anthony Aveni, Chairman

Sent as PDF via email

Page 15 of 36

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Response: This comment is being addressed: It has been determined that the project is not subject to State agency action and is therefore exempt from a MEPA ENF filing. However, if either the 40B Comprehensive Permit or the Conservation Commission Order of Conditions is appealed, then subsequent decisions by the Housing Appeals Committee and DEP would constitute Agency Actions, and in such circumstances the project would require MEPA review.

STANTEC Comment 51: *The project is located within a bordering vegetated wetland buffer zone and there will be discharges of stormwater to wetlands. This project is required to submit a Notice of Intent (NOI) and Stormwater Report to the Bridgewater Conservation Commission for review and Approval under the Massachusetts Wetland Protection Act (WPA).*

SEA Response: **An ANRAD has been filed with the Conservation Commission for the wetland delineation. A NOI will be submitted at a later date.**

STANTEC Response: We question if the latest plans stamped and dated 12/18/17 depict the wetland line as filed with the ANRAD to the Bridgewater Conservation Commission? We noted that the wetland delineation (as referenced on plan set cover sheet) is almost 7 years old, and therefore question if the Conservation Commission will find that acceptable. Also, if the Conservation Commission NOI process will occur after ZBA approval, then Stantec recommends that the ZBA require, as condition of approval, that any change(s) to the project design (drainage systems, site layout, etc.) be re-submitted to the ZBA for consideration and approval.

SEA Response: **The wetland line has been approved through the ANRAD process. There were some adjustments to flags that have been incorporated into the revised plan set. Four house lots at the end of Forbes Road have been adjusted. A Notice of Intent for the road work within the 100-foot buffer will be submitted and any changes will be submitted to the Zoning Board for approval. Individual house lots that are located within the 100-foot buffer will require filing of individual Notices of Intent as development progresses.**

STANTEC Response: This comment has been addressed.

LAYOUT/SITE FEATURES

STANTEC Comment 58: *Because of shallow depth to seasonal high groundwater (test pits indicate depth can be as little as 2 to 3-ft in many cases), Stantec recommends that the Applicant's engineer (1) comment on this issue, and (2) consider modifying plans and details to protect roads and utilities which might be compromised high groundwater conditions (e.g. frost heaves in wet soils, sewer infiltration). The Subdivision Regulations Sections IV.B.3.d. and V.B.16 refer to the possible use of sub-drains in areas "where soils are poorly drained".*

Design with community in mind

2018 NOV 19 A 10:27

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 16 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

- SEA Response:** The finished elevations after filling will in most cases not require sub drains.
- STANTEC Response:** Stantec recommends that the Applicant provide a more detailed response. See our response and recommendation at item #43 above.
- SEA Response:** Locations where the depth to groundwater is less than 4-feet will require additional excavation below the frost line with backfill of free draining material.
- STANTEC Response:** This comment has been addressed; and we recommend that the following requirement be included in any ZBA conditions of approval: "In roadway or utility installation locations where the depth to groundwater from finished grade will be less than 4-feet, there shall be additional excavation below the frost line with backfill of free draining material."
- STANTEC Comment 60:** The details do not indicate manhole or catch basin frame, grate, and cover requirements. Stantec recommends that all manhole or catch basin frames, grates, and covers meet the requirements of the Town of Bridgewater unless otherwise indicated by the DPW Director.
- SEA Response:** The plans have been revised to comply with this requirement.
- STANTEC Response:** The plans state "...shall conform to the standard specifications for highways and bridges (Mass DOT latest edition). The Applicant should clarify if this also meets the "Town of Bridgewater Standards", otherwise a waiver request may be required.
- SEA Response:** This note is specifically called out in the Subdivision Rules and Regulations. Section V.B.11 requires "All materials contained herein shall conform to The Standard Specifications for Highways and Bridges. (Mass Highway – 1995 Edition)" The definition section for Standard Specifications requires the latest edition to be utilized.
- STANTEC Response:** This comment has been addressed.
- STANTEC Comment 62:** Section III.B.3.a. of the Subdivision Regulations requires certain basic information on each plan such as magnetic north, legend, and scales. Stantec recommends the Applicant provide: (1) a complete legend for the various line types and symbols being used within the plan set, and (2) a scale bar, consistent with the stated scale of each plan.
- SEA Response:** The plans have been revised to comply with this requirement.
- STANTEC Response:** This comment has been partially addressed. The legend has not been updated to show all line types which appear on the plans. For instance, fence line type, and contour line types need to be shown in the legend.
- SEA Response:** A more thorough legend has been incorporated on Sheet CV0.2.
- STANTEC Response:** This comment has been addressed.

2018 NOV 19 A 10:27

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 17 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Comment 63: *The plans do not indicate street signs (traffic signs) for the project. Stantec recommends the Applicant provide street signs for the project, such as stop signs and street name signs for review and Approval by the Fire, Police, and ZBA as indicated under Part 22 Street Signs in the Subdivision Regulations.*

SEA Response: **The plans have been revised to comply with this requirement.**

STANTEC Response: This comment has been addressed, however the applicant needs documentation that all proposed signs have been reviewed and approved by the DPW, and Police & Fire departments.

SEA Response: **It is requested that this information be provided to the Board as a condition of approval and prior to the start of construction.**

STANTEC Response: This comment has been addressed subject to ZBA approval of this as a condition.

STANTEC Comment 64: *Section IV.C.6.a. of the Subdivision Rules and Regulations state that "dead end street shall not provide frontage for more than twenty (20) lots". The number of lots with frontage on Forbes Road exceeds twenty. The Applicant should either change the length of Forbes Road or seek a waiver from this rule.*

SEA Response: **A waiver from this requirement is requested. A 20ft wide gravel access from Titicut Ave to Forbes Road is being provided for emergency personnel.**

STANTEC Response: There is no waiver requested on the cover of the plan set to waive the frontage for no more than 20 lots on a cul-de-sac.

SEA Response: **Sheet CV0.2 contains an updated list with all the requested waivers.**

STANTEC Response: This comment has been addressed.

GRADING

STANTEC Comment 65: *The grading for the Site indicates that it is a net importer of fill. Stantec recommends the Applicant provide a cut and fill analysis for the project that confirms if the project is a net importer or exporter of fill. Stantec also recommends the Applicant indicate how many trucks will travel to and from the Site during construction, what routes are proposed, when such trucking will occur, and discuss any potential impacts the construction traffic will have to the surrounding area.*

SEA Response: **A cut and fill analysis and determination of number of trucks and routing will be provided as part of the construction plans.**

STANTEC Response: This comment implies that the plans being approved are not the plans to be used for construction. Given the substantial amounts of fill that will need to be trucked into the Site to raise grades for the proposed roads and home sites, Stantec recommends that the Applicant submit for ZBA review a construction sequencing plan that should include a preliminary proposed schedule, and an outline of the proposed means and

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:27

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 18 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

- methods to be used to minimize and mitigate for impacts to the Town and the abutting neighborhood.
- SEA Response:** The cut and fill analyses of the proposed roadways is included in the truck traffic calculation sheet dated June 1, 2018 and attached with this letter. The material to be imported is approximately 192,000 cubic yards for roads and house development. The estimates on average 9 trucks per day for the roadway construction with a peak of 27 trucks per day.
- STANTEC Response:** This comment has been addressed. Stantec requested a clarification from the Applicant's engineer, and a revised version of the calculations was received today that clarifies the results noted above.

DRAINAGE & SITE STORMWATER

STANTEC Comment 67: *Stantec generally agrees with the method for stormwater routing, however, comparing the pre-and post-development tributary area plans we find that the post-development tributary area does not match (is less than) the pre-development tributary area. Stantec recommends the tributary area plans should be refined to show the correct tributary areas, and the overall limits of these tributary areas should match once they are refined.*

SEA Response: The plans have been revised to comply with this requirement. The initial set was preliminary.

STANTEC Response: Stantec finds this response unsatisfactory, the tributary areas have been updated however, the pre- and post-tributary areas still do not match. A revised DR6.4 plan was issued to Stantec via email on January 22, 2018. This revised plan highlights each tributary area however, as mentioned above the tributary areas still do not match the HydroCAD analysis.

SEA Response: The delineation of the site has been updated. There are 3 points of interest with 6 pre-development areas consisting of 163.73 acres. There are numerous post development sub watershed areas contributing to one of seven drainage basins or unmitigated flow towards the 3 points of interest. The watershed plans and HydroCAD have been updated to reflect this information.

STANTEC Response: This comment has been addressed.

STANTEC Comment 68: *The Applicant clearly intends to provide a standard drainage design using curbing, pipes, and detention basins. Stantec recommends the Applicant explain to the ZBA why a Low Impact Design approach was not used in the design of the stormwater management of the project.*

SEA Response: A LID design is being utilized. The curvilinear approach to the subdivision instead of the straight 90 angle intersections has decreased roadway length by 1000 feet. This

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 19 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

decreases the amount of impervious area the site needs to design storm water management. Also some of the basins are designed with 3 sided berms to utilize the natural grades on the site and minimize the “bath tub” approach to drainage.

STANTEC Response: Stantec agrees that these intersections have slightly minimized the length of the roadways within the subdivision. Regarding the detention basins, of the seven proposed basins only three are designed using 3 sided berms. Although this design does minimize land disturbance, Stantec believes other low impact development (LID) methods could be employed at the project site. Because of low permeability soils, exfiltrating rain gardens would not be practical, but we suggest that the Applicant consider integrating lined “filtering rain gardens” into certain area within the project to help pre-treat first-flush stormwater prior to its release to down-gradient detention basins.

SEA Response: The ability to capture runoff in the first flush is primarily associated with catch basins. Filtering rain gardens or other maintenance heavy devices are not considered due to the expense to the Homeowners Association and when the roads are accepted, the expense to the Town.

STANTEC Response: This comment has been addressed. The design engineer has selected a more traditional approach to stormwater management, which is acceptable; however, it is our opinion that the approach taken will not be less expensive to maintain than an approach that would have employed LID methods.

STANTEC Comment 69: *Proposed detention basin outlets are protected with rip rap energy dissipaters. Stantec recommends the Applicant provide calculations to support the proposed sizing of these rip rap pads to protect against the maximum velocities that are anticipated at each location.*

SEA Response: The size of each rip rap outlet control has been added to the revised plans.

STANTEC Response: The size of each rip rap outlet control device has been added to the plans. Calculations should be submitted to document that the rip rap outlet control are adequately sized.

SEA Response: The plan set has been revised to provide dimensions for rip-rap at each inlet and outlet. The NRCS Engineering Design Method of outlet protection is included in the revised Drainage Evaluation. The plans specify a rip-rap stone of 8” to 12” in size which covers the requirements for every location.

STANTEC Response: This comment has been addressed. Additional calculations for the seven (7) basin outlets were missing but have been recently provided by SEA upon request.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 20 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Comment 71: *The Applicant has provided incomplete drainage calculations. HydroCAD analysis has been provided only for "points of interest" A and B. So far, for these areas analyzed, the submittals indicate that the pre-development peak flow rate is less than the post-development rate. However, this lower post-development rate may be due to post-development analyzed area being less than the pre-development analyzed area. Also, the Subdivision Rules and Regulations under Section IV.B.1.b Design Standards states that "the post-development rate and volume of runoff shall not exceed ninety (90) percent of the corresponding predevelopment rate and volume of runoff." But, it appears that this is not the case. Stantec recommends the Applicant analyze matching total pre- and post-development areas to determine if the rates and volumes meet the requirements under the Town's standards and the Mass stormwater policy. Stantec also recommends the Applicant provide a summary table that presents peak flow rates and total volumes of runoff for pre- and post-development conditions (per their HydroCAD analysis).*

SEA Response: **The Drainage Evaluation has been finished using HydroCAD. The evaluation demonstrates that the post-development rates and volumes leaving the watershed are 90% of the pre-development totals.**

STANTEC Response: *Stantec agrees a complete HydroCAD analysis has been completed for the proposed site. However, Stantec questions the validity of combining design points A, B, and C to analyze all the stormwater leaving the site. Stantec, asks that the engineer explain this methodology, as it is generally an industry standard to analyze each design point individually. SEA issued a HydroCAD summary sheet on January 22, 2018. This summary sheet facilitates an overall review of the calculation results.*

SEA Response: **Originally the points were combined as the final downgradient receptor is the same large wetland area heading towards the south and the Taunton River. The 3 design points were separated and analyzed pre to post individually. A waiver is requested from local requirement for 90% predevelopment total volume.**

STANTEC Response: *This comment has been addressed; and, Stantec finds the requested waiver "from local requirement for 90% predevelopment total volume" to be fair and reasonable. The post-development runoff volumes reasonably match the pre-development volumes, and all proposed peak flows are reduced from pre-development conditions.*

STANTEC Comment 72: *The Applicant provided a soil map for the project locus that indicates soils at the Site vary and include all Hydrologic Soil Groups (HSG) A, B, C, and D. However, this information is not shown on the proposed Site development layout, so it is not clear where the various soil types and land cover types will influence the project hydrology. These should be shown on the post development tributary area plan. Stantec recommends revising pre-development and post-development tributary area plans to show the land cover and soil types present. This will facilitate review of the underlying assumptions that are so critical to a hydrologic*

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

12016 NOV 19 A 10:27

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 21 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

analysis of project impacts. In addition, Stantec does not agree that portions of the project indicated as Woods in the post-development condition will remain as Woods given the small lots and limited clearance between proposed houses. Stantec recommends the Applicant revise the post-development tributary area plan to show the type of cover which is being proposed on the Site.

SEA Response: A post development watershed plan has been provided in the revised plan set.

STANTEC Response: This response is unsatisfactory. There is still no post development map which shows the proposed cover type or the existing Hydrologic Soil Groups. Stantec believes this information is critical to the drainage analysis and should be submitted to the town in the next revision.

SEA Response: All Drainage Sheets 6.1-6.6 have been revised in the latest plan set. The Soils delineation has been expanded with the expansion of the delineation area. The predevelopment includes land cover and soils. Post development has also been expanded for the additional watersheds and includes soils/landcover assumptions.

STANTEC Response: This comment has been addressed.

STANTEC Comment 73: *The Applicant provided 29 soil logs for the project. (Also see comment 14 above.) The test pits indicate groundwater is generally 2 to 3 feet below grade. It is unknown if all drainage detention basins have at 2 feet of separation between the bottom of the detention basins and the groundwater elevations noted in the test pit logs. Therefore, Stantec recommends the Applicant show test pit locations on the drainage and grading plans to ensure that test pits have been recorded for all detention basins.*

SEA Response: Test pit locations within each basin has been completed and added to the revised plan set. A minimum 2-foot separation to groundwater has been provided.

STANTEC Response: This comment has been partially addressed. Most of the test pit data shows less than a 2-foot separation to groundwater and one of the basins was designed in an area which had no test pit. Stantec recommends the basins be re-designed to allow for at least 2-feet of separation from the bottom of the basin to SHGW. Also, Stantec has discussed with SEA our recommendation that all basins have test pits conducted in them, or if test pits cannot be completed, that SEA provide a list of assumptions made for the design of the basins which do not have test pit information. Through discussion with SEA, this issue has since been resolved. See Stantec's email comments, and SEA reply, as noted under item #77 below.

SEA Response: Also, a drainage basin detail should be added to the detail sheets in the plan set.
Drainage basin outlet device details have been added to the revise plan set.

STANTEC Response: This comment has been addressed.

Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 22 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Comment 74: *Test pit information in some cases indicates that the underlying soils at some proposed basins may closer to an HSG Soil Group B. Stantec recommends the Applicant explain to the ZBA if some infiltration of stormwater is proposed, or if not, why the project drainage design does not implement infiltration into the design.*

SEA Response: **The plans have been revised to comply with the requirement of recharge volume for Group B, C and D soils as appropriate and mapped out on the drainage plans.**

STANTEC Response: This comment has been partially addressed, however, some revisions are needed regarding separation to SHGW. See the comments above and below.

SEA Response: **A uniform separation to groundwater of 24-inches has been assumed. The proposed basins have been adjusted to provide 2-separation to ground water. Additional discussion in Comment #77.**

STANTEC Response: This comment has been addressed.

STANTEC Comment 75: *The DEP Stormwater Management Standards require that sufficient run-off be directed to infiltration Best Management Practices (BMPs) to ensure infiltration of the required recharge volume. The DEP states that in no case will run-off from less than 65% of the Site's impervious cover be directed to the BMPs intended to infiltrate the Required Recharge Volume. When less than 65% of the impervious surfaces on a site are directed to infiltration BMPs, the system cannot capture sufficient run-off to infiltrate the Required Recharge Volume. Stantec recommends the Applicant implement stormwater BMPs which will infiltrate the required Recharge Volume under the stormwater policy.*

SEA Response: **The required 65% of the impervious surfaces are captured and direct to recharge the required volume. Calculations are provided in the revised Stormwater Management Calculations.**

STANTEC Response: This comment is currently being addressed see further comments and responses in item number 77 below.

SEA Response: **The Stormwater Management Calculations have been updated with the new watersheds and demonstrates that 68% of the impervious area proposed is captured for infiltration. This meets the minimum 65% requirement.**

STANTEC Response: This comment has been addressed.

STANTEC Comment 76: *As noted, it is unclear if the detention basins will have exfiltration. If there will be none, how will basins drain down within 72-hours as required by the Mass Stormwater Policy. A trenchlike feature is noted to be in several basins but the purpose or design of these*

2018 NOV 19 A 10:20

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 23 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

SEA Response: *features are not named indicated on the plans. The Applicant should explain and detail these features, and provide basin drawdown calculations.*
Calculations for infiltration drawdown have been provided in the revised Stormwater Management Calculations.

STANTEC Response: This comment is currently being addressed see further comments and responses in item number 77 below.

SEA Response: **The drainage basins have been revised through the design process. The drawn calculations have been updated with latest designs. The Stormwater Management Calculations demonstrate that each basin will drain within 72 hours and that infiltration is not the primary attenuation mechanism.**

STANTEC Response: This comment has been addressed.

STANTEC Comment 77: *If exfiltration is employed, the Stormwater Standards require a 4-foot separation from the bottom of a detention pond, and a groundwater mounding analysis when the proposed system is used to attenuate peak discharge from the 10-year or higher 24-hour storm. If exfiltration is to be employed at proposed basins, Stantec recommends the Applicant revise the plans to indicate at least 4 feet of separation from the bottom of the basins to the top of a mounded seasonal high groundwater condition, and submit mounding calculations for these locations.*

SEA Response: **The drainage basins have been designed to recharge only the volume required. The basins are not utilizing infiltration to attenuate the peak discharge from the 10-year or higher storm even. There is 2-foot separation from the bottom of the basins to high groundwater in each area.**

STANTEC Responses Per Stantec email to SEA on January 31, 2018:
All infiltration basins have been designed with the assumption that the bottom is situated in a Sandy Loam layer with an infiltration rate of 1.02 in/hr. However, looking at the test pits located on page DR6.3 in the plan set, 12 test pit logs indicate "silt loam" and/or "silt" layers. These layers are logged as high as 24" below grade and as low as 90" below grade. Stantec is not comfortable with the assumption that a Rawls Rate of 1.02 in/hr for "sandy loam" should be used for infiltration rates when a significant number of the test pits throughout the site indicate presence of a silt loam layer. If SEA has additional test pits which were completed on site (In past years etc.), please include these in your response with a plan showing their location as it relates to the proposed stormwater basins. Any additional soils data will help to determine the type of soils which are found on site.

Stantec recommends SEA do one of two things to comply with the infiltration requirement. One option is to conduct (or provide record of) test pits for every 5,000 sf of

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 24 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

the stormwater basins per the Mass Storm Water Policy (SWP) to confirm that the "silt" layer is below the bottom of the basin. The second option is to re-calculate the draw-down using a Rawls Rate for silt loam (0.27 in/hr) to confirm that the detention basins will drain within 72 hours after the end of precipitation.

Looking at SEA's drawdown calculations Stantec has noticed a few errors. First, Stantec is assuming these basins do not rely on a permanent pool of water. If this is the case, then the extended dry detention basins must drain within 72-hours after precipitation. As highlighted in the attached PDF (excerpt from the Mass SWP) titled "72-hour drawdown policy" the drawdown time should be calculated using the storage volume of the basin. SEA has used the "required recharge volume" to calculate the drawdown time, however, in cases where the volume of the basins is attenuating the peak flow and peak volume, the entire storage volume of the basin should be used to calculate draw-down time. For more information on this requirement please see footnote #21 on page 2 of the attached PDF.

How is "Bottom Area of the Recharge Structure" going to be calculated when determining draw-down time as requested above? SEA is proposing that six of the seven detention basins will have a significant slope to them (about 2'-3' difference across the bottom of the basins). Stantec would like to point out as these basins drain, the water will take up less surface area on the bottom of each basin, thus making the "bottom area" of the basin variable during the drawdown period. Stantec would like calculations and/or a written explanation as to how the bottom areas of the basins is calculated. We suggest that it may be necessary to calculate draw-down time incrementally, and to integrate these incremental values to account for the incremental bottom areas (getting increasingly smaller) as the water surface lowers.

Your submittal is missing detail of the various outlet control structures for the drainage basins. Each outlet control device appears to have different overflow devices and elevations. Please confirm. Stantec would like to review engineered drawings of these outlet control devices to make sure they are appropriate and modeled correctly in HydroCAD. Such details (sections and elevations) will be important for construction of these drainage basins.

SEA Response

Per email of February 6, 2018: Thank you. We have reviewed the comments. We will apply an infiltration rate of 0.27 for the site and eliminate the need for additional test pits. This impacts the design of some elevations in the basins. Before I work out the details of those changes could you (sic) phone me and review the details for the drawdown calculations.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 25 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Response: During a subsequent phone conversation between SEA and Stantec, SEA indicated that all the above noted email comments would be addressed in their next submission. Stantec will wait for the next submission to see if these comments have been adequately addressed.

SEA Response: The plans submitted utilize a 0.27 infiltration rate and 2-foot separation to groundwater. Through the design process the basin bottoms have become flatter to comply with the drawdown calculations. Each basin outlet bottom has been designed at the minimum required for infiltration volume. Infiltration is not the primary attenuation method and so only the required recharged volume is used for the calculations.

STANTEC Response: This comment has been addressed.

STANTEC Comment 78: *The Applicant has not provided calculations or documentation for water quality volumes and recharge volumes for the project. Stantec recommends the Applicant submit these calculations and any supporting details with a narrative that describes how the water quality volumes and recharge volumes will be achieved.*

SEA Response: Calculations for water quality volumes and recharge volumes have been provided in the revised Stormwater Management Calculations.

STANTEC Response: The calculations for recharge volume must be re-issued to account for the sloping basins. This was discussed with SEA via email. This email correspondence can be seen in Stantec Comment 77 above.

SEA Response: The Stormwater Management Calculations have been updated with the new recharge volumes for the revised watersheds.

STANTEC Response: This comment has been addressed.

STANTEC Comment 83: *Section IV.B.4. of the Subdivision Regulations, Drainage Pipe Design states that pipes of 3 feet and smaller shall have a minimum velocity of 3 feet per second (fps) and a maximum velocity of 10 fps. Stantec recommends that the Applicant provide information in their drainage submittals regarding pipe velocities for the drainage system.*

SEA Response: A Rational Method closed pipe network calculation includes pipe velocities and has been provided in the revised drainage analysis.

STANTEC Response: Stantec finds this response satisfactory in that there are only a few instances (listed below) where the velocities in pipes would be less than 3 fps. A waiver to allow these drain lines is reasonable given that there are very few, and they are all simple catch basin to drain manhole pipes.

1 2018 NOV 19 A 10:27

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 26 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

From Structure	To Structure	Velocity (Design)
CB1	DMH1	2.5
CB26	DMH22	2.7
CB27	DMH22	2.0
CB37	DMH32	2.6

STANTEC Comment 84: *Section IV.B.6. of the Subdivision Regulations, Drainage Basins states that all basins should have a minimum berm width of 10-feet and all basins should have a V-notch weir outlet. The submitted basin designs do not have a 10-foot berm or V-notch weir outlet. Also, all drainage basins must be 25 feet from a property line. Stantec recommends the Applicant provide the 10-foot maintenance berm, a V-notch outlet, and ensure all basins are twenty-five feet from all property lines or request a waiver from these requirements with adequate explanation.*

SEA Response: **A waiver from strict compliance with Section IV.B.6 of the Subdivision Regulations. The width of the berms varies. The smaller basins A2 and C3 propose an 8-foot berm. The basins A1 and C4 proposed a 10-foot berm and the three larger basins B1, C1 and C2 proposed a 12-foot berm. The proposed basins and outfalls are greater than 25-feet to an abutting property line. Basins range from 5-feet to 20-feet for separation to internal site property lines. A waiver from the strict use of v-notch weirs is requested as a v-notch is not always the best way to throttle stormwater flow.**

STANTEC Response: *Stantec finds this response partially satisfactory. It will be necessary for the Conservation Commission to issue a waiver from these requirements. However, regarding waivers before the ZBA, Stantec recommends that the applicant update the waiver request table that has been submitted to include a column with descriptions of the justification or reasons for needing each waiver, as this information will help to guide the ZBA in its final decisions on waiver requests.*

SEA Response: **The waiver requests from Planning Board rules on drainage basins requirements has been updated. Justifications are incorporated into the proposed column.**

STANTEC Response: *This comment has been addressed.*

STANTEC Comment 85: *Section IV.B.12. of the Subdivision Regulations, Sediment Control Plan states that Sediment Control Plan should be submitted. The Applicant has not submitted an Erosion Control Plan, and Stantec recommends the Applicant provide such a plan and include information on*

2016 NOV 19 4 10 PM

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 27 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

- management of construction site entrances/exits, and notes on temporary soil stabilization throughout the construction process, the proposed location of soil stockpiles and temporary drainage detention areas, and the proposed methods to stabilize and maintain such areas to prevent sediment transport to adjacent resource areas or abutters.*
- SEA Response:** **A Sediment Control Plan will be developed as part of the NPDES submittal and will be submitted to the Board prior to start of construction. Planned controls include erosion control, staging areas, construction entrance, inlet protection as well as Long Term Pollution Prevention Plan.**
- STANTEC Response:** *Stantec finds this response to be partially satisfactory. As noted in item #48 above, the Applicant is still required to submit LTPPP information as part of the project stormwater report, per the Massachusetts Stormwater Policy. As an alternative, a SWPPP could be submitted with the stormwater report.*
- SEA Response:** **A SWPPP has been developed and is provided for review.**
- STANTEC Response:** *This comment has been addressed; and the SWPPP submittal is satisfactory.*
- STANTEC Comment 86:** *Section IV.B.13. of the Subdivision Regulations, Dust Control Plan states that a dust control plan shall be provided. Stantec recommends the Applicant include language within an Erosion Control Plan (requested above) that indicates how dust will be controlled during construction.*
- SEA Response:** **A Sediment Control Plan including Dust Control measures will be developed as part of the NPDES submittal and will be submitted to the Board prior to start of construction.**
- STANTEC Response:** *Stantec finds this response to be partially satisfactory. As noted in item #48 above, the Applicant is still required to submit an Erosion and Sediment Control Plan as part of the project stormwater report, per the Massachusetts Stormwater Policy. As an alternative, a SWPPP could be submitted with the stormwater report.*
- SEA Response:** **A SWPPP has been developed and is provided for review.**
- STANTEC Response:** *This comment has been addressed; and the SWPPP submittal is satisfactory.*
- STANTEC Comment 87:** *Proposed off-site improvements include new catch basins where Curve St, meets Solar way. Flow from these catch basins will enter a proposed 24-inch drain that will transfer flow to the south along Solar Way, then west within a 40-ft easement, to a point of discharge via 30-inch drain to an existing wetland located on the easterly property line of the Site. Stantec recommends the Applicant include additional water quality pre-treatment for this drainage prior to release to the wetland, as will be required by the MassDEP Stormwater Policy.*

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 28 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

- SEA Response:** Off-site improvements will be submitted in a separate plan set. A sediment forebay will be properly sized and included in separate calculations and drainage report.
- STANTEC Response:** Stantec has received preliminary off-site design plans. Stantec is unable to comment on this until further information has been added to the offsite improvement plans.
- SEA Response:** The Offsite Improvement Plan includes enhancements to the existing conditions at Solar Way and Curve Street. The discharge for the drain line will be submitted to DEP for a Notice of Intent as a redevelopment project to the maximum extent practicable.
- STANTEC Response:** This comment has been addressed. The ZBA should require as a condition of approval that the Applicant provide an Order of Conditions issued by the Bridgewater Conservation Commission for a future Offsite Improvement Plan NOI filing noted above.
- STANTEC Comment 88:** *The plans do not indicate where snow storage locations are anticipated. Stantec recommends the Applicant provide snow removal and snow storage calculations, and a plan that indicates the locations of snow storage areas and appropriate separation of snow storage areas from the resource areas in accordance with DEP Snow Removal Guidelines.*
- SEA Response:** Snow storage will be along the edges of the roadway which is the current practice in Town. Signs indicating that "no snow" storage is allowed will be added to the areas near Basin A1, C1 and C3. The other open space areas no including drainage basins will be used for additional snow storage as needed.
- STANTEC Response:** This response is unsatisfactory. A designated snow storage plan must be developed for review. Snow removal and snow storage calculations, and a plan that indicates the locations of snow storage areas and appropriate separation of snow storage areas from the resource areas in accordance with DEP Snow Removal Guidelines need to be incorporated into the plan set. This is typically part of the LTPPP submittal (see comment 85).
- SEA Response:** A LTPPP has been developed and provided for review.
- STANTEC Response:** This comment has been addressed; and the LTPPP submittal is satisfactory.
- STANTEC Comment 89:** *The Applicant has not submitted a Stormwater Report, per MA Stormwater Policy, which must include: Applicant/Project Name, Project Address, Name of Firm and Registered Professional Engineer that prepared the Report, a Long-Term Pollution Prevention Plan (LTPPP) required by Standards 4-6, a Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8, an Operation and Maintenance Plan required by Standard 9, and a Stormwater Checklist completed and stamped by a*

RECEIVED
TOWN CLERK'S OFFICE
BRIDGEWATER, MA.

1 2018 NOV 19 A 10:27

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 29 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Registered Professional Engineer that certifies that the Stormwater Report contains all required submittals.

SEA Response: **A stormwater checklist has been included in the revised Drainage Evaluation.**

STANTEC Response: As noted under item #48 above, the Applicant is required to submit a Long-Term Pollution Prevention Plan, Construction Period Pollution Prevention Plan, Erosion and Sedimentation Control Plan, and an Operation and Maintenance Plan to be included in the stormwater report submission per the Massachusetts Stormwater Policy. As an alternative, a SWPPP could be submitted with the stormwater report.

SEA Response: **A SWPPP has been developed and is provided for review.**

STANTEC Response: This comment has been addressed; and the SWPPP submittal is satisfactory.

STANTEC Comment 90: *Regarding the Stormwater Report to be submitted, Stantec recommends that this include all stormwater management calculations (e.g. pre- and post-development HydroCAD reports) and summary tables, drainage network calculations, and calculations to show compliance with the Massachusetts DEP Stormwater Policy Standards, and proposed maintenance of the Site during and after construction. See additional comments under the DEP Stormwater Management Standards heading in this letter.*

SEA Response: **The Drainage Evaluation have been revised to comply with this requirement.**

STANTEC Response: Stantec finds this response unsatisfactory. Although HydroCAD has been submitted, there is no proposed maintenance plan in the stormwater report for the site during and after construction. (See comment 89 above.)

SEA Response: **An O&M has been developed and provided for review.**

STANTEC Response: This comment has been addressed; and the O&M Plan submittal is satisfactory.

STANTEC Comment 91: *Regarding the LTPPP to be submitted with the Stormwater Report, Stantec recommends that it include discussion of appropriate sanding and sodium chloride use, location(s) for fueling construction vehicles, maintenance, and storage of vehicles within the buffer zone, locations of snow storage areas on the Site, proposed landscape maintenance, and areas for storage of fertilizers and chemicals, if applicable.*

SEA Response: **A Sediment Control Plan will be developed as part of the NPDES submittal and will be submitted to the Board prior to start of construction. Planned controls include erosion control, staging areas, construction entrance, inlet protection as well as Long Term Pollution Prevention Plan.**

STANTEC Response: Stantec understands a LTPPP may be developed as part of the NPDES SWPPP process, however, a LTPPP including a snow management plan and guidelines should be developed as part of this submission's stormwater management report.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 30 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

SEA Response: A SWPPP has been developed and is provided for review.

STANTEC Response: This comment has been addressed; and the SWPPP submittal is satisfactory.

STANTEC Comment 92: *A detailed Construction Sequence Plan was not provided. Stantec recommends the Applicant provide a construction sequence plan to the ZBA and Conservation Commission for review and comment.*

SEA Response 92: A construction sequence plan will be developed for a future submittal on construction procedures.

STANTEC Response: Stantec finds this response satisfactory and is awaiting SEA's submission of a Construction Sequence Plan. (Also see item #65.)

SEA Response: A Construction Management Plan (CMP) has been developed and provided for review.

STANTEC Response: This comment has been addressed; and the CMP submittal is satisfactory.

MASSDEP STORMWATER MANAGEMENT STANDARDS

STANTEC Comment 97: *Standard 5: Stormwater discharges from areas with higher potential pollutant loads require the use of specific stormwater management BMPs, and the use of infiltration practices without pretreatment is prohibited. This Site is generally not an area with higher potential pollutant loads, and so for most of the Site, this Standard is not applicable. However, the Applicant should address the possible need to comply with Standard 5 for Stormwater features that may be located in the vicinity of the area of residual pollution as reported in the letter to MassDEP from ATC Group Services that served as a "Permanent Solution without Conditions Statement", pursuant to 310 CMR 40.0000, the Massachusetts Contingency Plan (MCP), for the release of petroleum at the Former Bridgewater Farm on Curve Street in Bridgewater, Massachusetts, dated April 17, 2017.*

SEA Response: The site is not a potential for higher pollutant loads. There are no stormwater features in the areas of the potential residual of pollution.

STANTEC Response: Stantec finds this response incomplete. Stantec would like to review the findings in the phase I report before further comments can be addressed.

SEA Response: Phase 1 report provided for review. Additional comments/responses are raised in Comment Letter #5.

STANTEC Response: This comment has been addressed.

STANTEC Comment 100: *Standard 8: Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities. An erosion control line, stabilized construction entrance, and details need to be indicated on the plans. The Applicant indicated a SWPPP will be submitted prior to construction. This standard has not been met.*

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 31 of 36

Sent as PDF via email

RECEIVED
TOWN CLERK'S OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:21

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

SEA Response: A Stormwater Pollution Prevention Plan will be developed as part of the NPDES submittal and will be submitted to the Board prior to start of construction. Planned controls include erosion control, staging areas, construction entrance, inlet protection as well as Long Term Pollution Prevention Plan.

STANTEC Response: As noted in item #48 above, even if a SWPPP is prepared later, the Applicant is still required to submit related information within the project stormwater report, per the Massachusetts Stormwater Policy. As an alternative, a SWPPP could be submitted with the stormwater report now.

SEA Response: A SWPPP has been developed and is provided for review.

STANTEC Response: This comment has been addressed; and the SWPPP submittal is satisfactory.

STANTEC Comment 101: *Standard 9: All stormwater management systems must have an O&M Plan to ensure that systems function as designed. The applicant has not submitted an O&M plan. This Standard is not met. An operation and Maintenance plan should be submitted.*

SEA Response: Notes for operation and maintenance of the drainage structures have been added to the construction details sheets. Additional information for O&M will be included in the SWPPP to be developed and submitted as part of the NPDES process.

STANTEC Response: As noted in item #48 above, even if a SWPPP is prepared later, the Applicant is still required to submit related information within the project stormwater report, per the Massachusetts Stormwater Policy. As an alternative, a SWPPP could be submitted with the stormwater report now.

SEA Response: A SWPPP has been developed and is provided for review.

STANTEC Response: This comment has been addressed; and the SWPPP submittal is satisfactory.

WATER AND SANITARY

STANTEC Comment 103: *The plans show hydrant locations only for Jennings Hill Way (sheet PP2.1). Stantec recommends the Applicant provide plans showing all proposed hydrant locations and then review the Site layout and hydrant locations and hydrant spacing with the Bridgewater Fire Department. Stantec recommends the Applicant provide a letter from the Bridgewater Fire Department to the ZBA indicating the recommended locations and quantity of fire hydrants for the project.*

SEA Response: Additional fire hydrants have been indicated on a revised Utility Sheet 4.1. This will be sent to the Fire Chief for his agreement on placement.

STANTEC Response: This comment has been addressed subject to the Board receiving written confirmation from the Fire Chief on his agreement.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 32 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

SEA Response: The Fire Chief will be provided a plan for review and approval prior to the next meeting.

STANTEC Response: This comment has been addressed, subject to Fire Chief approval of the plan.

STANTEC Comment 105: *The profiles for the proposed project sewers are incomplete, and do not show manholes and service connections; and on some sheets the profile is missing. The Applicant is proposing 8-inch sewer pipe as required under Part 18 of the Subdivision Regulations, however pipe material specifications are missing. Also, sewer invert elevations and slopes and junctions are not noted on the profiles. Complete plan and profile drawings are required, and Stantec recommends adding a note to the plans specifying minimum sewer slope and minimum requirements for sewer setback from water and drainage lines.*

SEA Response: Sewer design will be incorporated into the plan set in a future submittal.

STANTEC Response: No comment at this time. Further comments may be forthcoming once the sewer design is incorporated into the plan set.

SEA Response: Sewer has been incorporated into the revised plan set.

STANTEC Response: This comment has been addressed. The sewer and water plans have been reviewed in detail by the Bridgewater Board of Water & Sewer Commissioners and their consultant. Nevertheless, we have reviewed the plans and profiles that now include water and sewer lines, in a general way, and find them to be acceptable, and did not note any conflicts with the drainage system which we have reviewed in more detail.

STANTEC Comment 106: *The detail sheet indicates intended locations and separation of sewer, water and drain lines, with sewer to be 6-feet horizontally from water line, and 12-feet horizontally from drain line. The standard minimum requirements for sewer separation is 10-feet minimum horizontally from water and drain lines; and, if not possible, or if these utilities cross, then in such cases the sewer shall be 18-inches (minimum) lower than both water and drainage lines. This 18-inch separation standard is not met at the end of Jennings Hill Way where water and sewer lines cross with less than the 18-inch minimum separation. The Applicant should address this and any other such locations that may arise within the completed plan set, by providing at least 18-inches vertical separation, or by alternative pipe installation methods (e.g. mechanical joints or concrete encasement, per referenced standards or requirements of the Bridgewater Water and Sewer Commission). Stantec recommends the Applicant indicate on the plan set any locations where the horizontal and/or vertical separation between utilities will require special attention by the Site contractor. Also, Stantec recommends the Applicant provide a standard detail(s) to address utilities crossings.*

SEA Response: A detail for water/sewer crossing has been added to the detail sheet. Additional crossing conflicts will be called out on the plans.

Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
2018 NOV 19 A 10:28

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 33 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Response: As noted, the standard minimum requirements for sewer separation is 10-foot minimum horizontally from water and drain lines, and it is not clear if the Applicant has adequately addressed this issue on the plans, as sewer plan and profile information has not been submitted.

SEA Response: **Sewer has been incorporated into the revised plan set. When a ten-foot lateral separation from water and drains is not possible the sewer is placed a minimum of 1.5-feet below the water or drain line to provide a safe working separation.**

STANTEC Response: This comment has been addressed. The sewer and water plans have been reviewed in detail by the Bridgewater Board of Water & Sewer Commissioners and their consultant. Nevertheless, we have reviewed the plans and profiles that now include water and sewer lines, in a general way, and find them to be acceptable, and did not note any unresolved horizontal or vertical setbacks or conflicts between the two utilities and/or with the drainage system.

STANTEC Comment 107: *Stantec recommends the Applicant provide a copy of the Plan Set for review by the Bridgewater Board of Water and Sewer Commissioners for review and Approval of the project's proposed water and sewer systems layouts, and proposed water and sewer connections via Curve Street to the Municipal system. The Applicant should provide a copy of the Bridgewater Board of Water and Sewer Commissioners Approval letter to the ZBA.*

SEA Response: **Agreed.**

STANTEC Response: No further comment, except that the Applicant should provide to the ZBA a copy of the Bridgewater Board of Water and Sewer Commissioners Approval letter.

SEA Response: **Agreed.**

STANTEC Response: This comment has been addressed.

TRAFFIC IMPACTS

STANTEC Comment 110: *The TIAS does not adequately address the impact of the subdivision's traffic generation upon Curve Street. By having the subdivision's access roads intersect only Curve Street (a residential street by Bridgewater's definition) and not collector streets such as Auburn Street and/or Summer Street, the proposed plan imposes the subdivision's traffic onto a narrow residential street. The traffic expected to be generated by the 150 homes of the proposed subdivision would more than triple the traffic generated by the 40+ existing homes on Curve Street. The plan's proposed access effectively would change Curve Street's functional class from a residential street to at minimum a sub-collector street which, were it to be newly laid out to current subdivision rules, would require a 28'-wide pavement with granite curbing plus two 5' sidewalks. Today, Curve Street has only 17 to 22 feet of pavement with no curbing or sidewalks. Stantec recommends the Applicant address this concern with the ZBA in the*

RECEIVED
TOWN CLERK'S OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:28

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 34 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

context that road reconstruction will likely be required by the new water and sewer lines to be constructed in Curve Street (as noted on page 4 of this letter report).

SEA Response: Addressed under separate letter from the Traffic consultant.

STANTEC Response: Final plans for Curve Street improvements have not been submitted, so we have no further comments at this time until such plans are submitted.

SEA Response: Curve Street improvement plans have been submitted for initial comments. Changes have been incorporated into the off-site plan set and are attached for review.

STANTEC Response: Plans for Curve Street improvements dated May 23, 2018 have been reviewed, and we find them to be approvable, and we have no further comments.

STANTEC Comment 111: While most of the subdivision's traffic could be expected to access the area roadway network through Curve Street's westerly intersection with Auburn Street, its impact on the easterly intersection of Curve Street with Auburn Street may or may not be negligible. In fact, given the sight distance limitations discussed in the TIAS at the westerly intersection of Auburn and Curve Streets, the easterly intersection of Auburn and Curve Streets could be an alternative that would be preferred by some traffic. Therefore, the easterly intersection should at least be included in the sight distance discussion, particularly regarding the curve on the Auburn Street eastbound approach, as well as why it is not included in the capacity analysis discussion.

SEA Response: Addressed under separate letter from the Traffic consultant.

STANTEC Response: Final plans for Curve Street improvements have not been submitted, so we have no further comments at this time until such plans are submitted.

SEA Response: Curve Street improvement plans have been submitted for initial comments. Changes have been incorporated into the off-site plan set and are attached for review.

STANTEC Response: Plans for Curve Street improvements dated May 23, 2018 have been reviewed, and we find them to be approvable, and we have no further comments.

ADDITIONAL COMMENTS

STANTEC Comment 112: Why are there no bypass systems for the stormceptors? Can it be proven that during the 100-year storm these stormceptors will not backup and be able to handle the flow? If these units are not able to handle the flow Stantec recommends they be implemented as "offline" systems.

SEA Response: The Stormceptor unit has been designed by the manufacturer to overflow the sediment storage with in the upper portion of the unit. A "Stormceptor Overview" description has been attached with this letter.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
1300 NOV 19 A 10:28

September 7, 2018

Mr. Anthony Aveni, Chairman

Sent as PDF via email

Page 35 of 36

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

STANTEC Response: The Stormceptor manufacturer's information provided has been reviewed, and we find them to be approvable, and we have no further comments.

STANTEC Comment 113: *There are no details on the plans listed for the outlet control devices from the proposed basin. Stantec is unable to verify the outlet devices which are modeled in HydroCAD due to the lack of detail on the plan set. Please submit detail drawings of each outlet control device so the outlet control devices can be reviewed and the HydroCAD model can be checked.*

SEA Response: **The outlet control devices have been detailed on the revised plan set.**

STANTEC Response: The outlet control details provided on the plans have been reviewed, and we find them to be approvable, and we have no further comments. Some minor errors in the details noted during review have been revised with SEA this week.

STANTEC Comment 114: *In SEA's stormwater report, the use of Stormceptors as a proprietary separator is outlined. A stormceptor sizing report was completed for basin B1 and it outlines the use of a STC 450i Stormceptor model. However, in the plans only an STC 900 Stormceptor is included in the details. Also, in the water quality calculations only STC 900 is used while there is no sizing information included from Stormceptor for this unit in the submittal. Also, in the water quality calculations the TSS removal rate for the STC 900 units is 55% in most of the basins and 42% in another. SEA needs to explain where these percentages originated from and if there are any backup calculations for these values. As noted in #112 above, SEA should also submit literature to explain why these units are not "off-line". The areas which drain to these basins are significant, and during the 100-year storm these may significantly back up.*

SEA Response: **The initial design used the largest basin to approximate the size needed. Each of the seven basin has a stormceptor design/sizing worksheet provided in the revised Stormwater Management Calculation under Standard 4. The plan set has been revised to address any labeling discrepancies.**

STANTEC Response: The Stormceptor design information provided on the plans and in the Stormwater Report have been reviewed, and we find them to be approvable, and we have no further comments.

TOWN DEPARTMENT COMMENTS

Except for comments received from the Board of Water & Sewer Commissioners, Stantec has not received or reviewed comments from other Town of Bridgewater Boards and Commissions, or Departments (police, fire, buildings, etc.).

Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:28

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 36 of 36

Sent as PDF via email

Reference: Peer Review – 7th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

SUMMARY

The project plans submitted are substantially complete, however, the final set(s) of project design plans submitted to the ZBA must be stamped by Massachusetts Registered Professional Engineer and Land Surveyor, as appropriate; and, the waivers listed in the plans will need to be approved by the ZBA. Also, this letter has recommendations for certain conditions of approval (see Stantec final comments on items 4, 43, 48, 58, 63, and 87 of this letter).

In conclusion this letter presents Stantec's final review based on the documents received to date. We can discuss this letter at your continued hearing on September 12, 2018. In the meantime, please contact us should you have any questions.

Thank you for the opportunity for Stantec to provide engineering consulting services relative to this project. We trust the information contained herein is beneficial to your review of the project.

Sincerely yours,

Stantec Consulting Services, Inc.



Mark S. Bartlett, P.E.
Senior Associate
Phone: (508) 591-4331
Fax: (617) 786-7962
Mark.Bartlett@stantec.com

- c. Ms. Jane Brown, Administrative Clerk (also as PDF via email)
Mr. Larry Silva, P.E., Silva Engineering Associates, P.C. (also as PDF via email)



Stantec Consulting Services Inc.
400 Crown Colony Drive Suite 200, Quincy MA 02169-0982

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

SEP 19 10:21

September 7, 2018
File: 195150493

Attention: Mr. Anthony Aveni, Chairman
Bridgewater Zoning Board of Appeals
Academy Building, 2nd Level
66 Central Square
Bridgewater, MA 02324

Sent as PDF via email

Dear Zoning Board Members,

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Stantec has reviewed the following supplemental documents submitted to the Zoning Board of Appeals (the Board or ZBA) by Silva Engineering Associates, P.E. (SEA) in response to Stantec's peer review letter #5 of May 16, 2018 (re: Phase I Environmental Report), and peer review letter #4 of May 16, 2018 (re: Landscape Plans) for the Comprehensive Permit¹ project Duxburrow Estates, off Curve Street, Bridgewater:

1. Letter from William Maltby, Tree Warden, to SEA dated June 11, 2018.
2. Landscape Plan Duxburrow Estates Curve Street Bridgewater, Massachusetts – revised as of June 19, 2018.
3. Requested Waivers List, Revised June 20, 2018.
4. SEA Letter dated June 20, 2018 in response to comments from Stantec Consulting Services Inc. dated May 23, 2018 (Peer Review - 6th Letter).
5. Letter from ATC Group Services LLC (ATC) to SEA, dated June 27, 2018, which concurs with the finding of "No Significant Risk of harm to human health, the public welfare and safety, and the environment" stated in prior reports from Applicant.
6. Emails from SEA, documenting discussions of, and resulting revisions to certain plans and submittals, completed through today September 7, 2018.

Stantec's comments are presented below, organized based on SEA's response letter of June 20, 2018, which carried forth the Stantec comments and SEA replies as appropriate. However, to simplify, only those "comments & responses" that still needed to be addressed since the last reviews have been listed below (i.e. comments that have been previously addressed are not included below).

¹ under Massachusetts General Law Chapter 40B
Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
1 2018 NOV 19 A 10:21

September 7, 2018

Mr. Anthony Aveni, Chairman

Sent as PDF via email

Page 2 of 11

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Peer Review 5th Letter on Review of Duxburrow Estates; Review of Phase 1 Environmental Report Located Off Curve Street, Bridgewater, MA 02324, Dated May 16, 2018.

- Stantec Comment 1:** Section 5.1.2 of the ESA - State and Tribal Data Base Findings (on page 9) RTN² 4-00042, notes that a Phase II Comprehensive Site Assessment report was reviewed by ATC concerning a release of waste into a surface impoundment; and it is noted that this impoundment site is also listed on the EPA CERCLIS (Superfund) data base. The ATC review states no continuing source of OHM (oil or hazardous material) was present, but notes too that septic waste and concentrations of metals were present in the impoundment. **Stantec Question: Did ATC review the metals data and are the concentrations in the former lagoon below current MCP risk standards?**
- SEA Response:** Yes, ATC reviewed the metals data included in the Phase II Comprehensive Site Assessment prepared by ENSR dated July 1998. Concentrations of metals were detected in soil and groundwater with concentrations of nickel in groundwater in excess of MCP Method I cleanup standards. ENSR evaluated the potential risk to human health, public welfare, safety and the environment using a Method 2 Risk Characterization and determined that based on current and potential future site use, a condition of no significant risk exists.
- Stantec Response:** Is ATC in agreement with the ENSR risk evaluation; and is the 1998 Risk Assessment valid based on current standards?
- ATC Response:** ATC did not evaluate ENSR's sampling methodology, evaluate the laboratory data for usability, nor did I evaluate the adequacy of the Method 2 standard developed for nickel in the risk characterization. The purpose of the Phase I was to identify whether there are any RECs associated with the site and the release associated with RTN 4-0042 was identified as an HREC.
- SEA Response:** An evaluation of the risk characterization performed has been requested from the risk assessment group.
- Stantec Response:** This comment has been addressed. We have reviewed a letter from ATC Group Services LLC (ATC) to SEA, dated June 27, 2018, which concurs with the finding of "No Significant Risk of harm to human health, the public welfare and safety, and the environment" as stated in prior reports from Applicant; and we find this response to be acceptable.

² RTN stands for Release Tracking Number, as assigned by the MassDEP for waste sites or sites where there have been reportable releases of oil or hazardous waste.

RECEIVED
TOWN CLERK'S OFFICE
BRIDGEWATER, MA.

1 2018 NOV 19 A 10:21

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 3 of 11

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Stantec Comment 2: Sec. 5.2.4 of the ESA – Hydrology (on page 12) states that groundwater at the site will not be used for potable water because is not in a drinking water source areas. **Stantec Question:** Will groundwater in the area of, or downgradient of, the prior release be suitable for irrigation water should a future resident choose to install an irrigation well?

SEA Response: Irrigation wells will be in common open space locations and not allowed on individual lots.

Stantec Response: As long as common irrigation wells are not downgradient of the prior release Stantec finds this response to be acceptable, and this should be a condition of the ZBA approval, if issued.

Peer Review 4th Letter on Review of Duxburrow Estates; Landscape Plans Curve Street, Bridgewater, MA 02324, Dated May 16, 2018.

Stantec Comment 3: Section V.B.21 (Shade Trees) states: "Existing trees, which in the opinion of the Planning Board are suitable for street trees, shall be maintained and left as such. Where trees are inadequate, new trees of at least two (2) inch caliper measured at a height of forty-two (42) inches from the ground and at least twelve (12) feet in height shall be planted. All trees shall be planted within the right of way at a distance not to exceed thirty (30) feet. The species and variety of the trees shall be selected and approved by the Tree Warden. Evergreen trees such as fir, pine, hemlock or spruce may be planted along the way only with the approval of the Board. No trees shall be planted at any intersection so as to obstruct vision or safe vehicle traffic. All planted trees shall be planted in one-half (1/2) cubic yards of loam, mulched with four (4) inches of wood chips and guyed in a manner to ensure their survival. There shall be a maintenance plan to replace any diseased or damaged trees for two years from time of planting. A bond shall be calculated to secure that the trees are planted and maintained." **Stantec Comments regarding this section:**

3.a. We note that the Applicant has requested a waiver from the requirement to plant trees within the right-of-way and has proposed using a planting easement. We recommend that this planting easement be shown on the plans.

SEA Response: A 10-foot tree planting easement has been added to the revised subdivision plans.

Stantec Response: Stantec finds this response to be acceptable, however the revised plans have not been received or reviewed to confirm this.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
1700 NOV 19 A 10:20

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 4 of 11

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

SEA Response: A 10-foot tree planting easement has been added to the revised subdivision plans.

Stantec Response: This comment has been addressed. Revised plans have been received.

Stantec Comment 3e: Whereas the plant schedule calls for 2" caliper trees, we recommend that the plant schedule specify 2"-2.5" caliper trees (in addition to the minimum height of 12 feet) to ensure that all new trees meet this regulation.

SEA Response: The plans have been revised as requested.

Stantec Response: The planting schedule has not been revised as suggested.

SEA Response: The plans have been revised as requested.

Stantec Response: This comment has been addressed. Revised landscape plans have been received.

Stantec Comment 4.d: The photometric information is very difficult to view at the given drawing scale, and photometric information is only given for roadways and sidewalks. Therefore, we cannot fully review the effects of light pollution on certain house lots. It would be helpful to see photometric information on all sides of proposed light poles, and at a larger scale.

SEA Response: The photometrics for the overall project has been added to the revised plans.

Stantec Response: Stantec has not yet received updated plans to confirm this.

SEA Response: The photometrics for the overall project has been added to the revised plans.

Stantec Response: This comment has been addressed. Revised plans have been received.

Stantec Comment 5: Section 3.2.5 (under Contents) of the Town's Chapter 40B Rules & Regulations, states: "Major features of the land, such as existing waterways, all wetlands and water bodies (per the Wetland Protection Act), rivers and riparian zones (per 310 CMR 10.0), natural drainage courses, walls, fences, structures, underground structures, utilities, historic markers, milestones, bridges, clearly defined trails, large trees, wooded areas, outcroppings and ditches which exist on or are contiguous and relevant to the site at the time of survey."

Stantec Comments regarding this section:

5.a. The existing conditions plan shows (13) existing trees, located in a row that runs approximately east to west, near the center of the project. It

2018 NOV 19 A 10:23

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 5 of 11

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

appears that the (2) trees at the eastern end of this row are slated to remain – as these trees have a circle around them (presumably tree protection fence?) on the existing conditions plan. These (2) trees are also shown on the landscape plans (sheet 5 of 12, lot 129). We recommend that the grading and landscape plans show and label all trees to remain, as well as call out the proper tree protection measures.

SEA Response: **Sheet 5 of the Landscape plans as well as the revised subdivision plans callout tree protection as requested.**

Stantec Response: Although the landscape plans have been updated to display this request Stantec has not received an updated planset from SEA and therefore we will defer commenting on this topic until these plans have been re-submitted to the Board and Stantec.

SEA Response: **Sheet 5 of the Landscape plans as well as the revised subdivision plans callout tree protection as requested.**

Stantec Response: This comment has been addressed. Revised plans have been received.

Stantec Comment 5b: We also note that 2016 aerial imagery shows several other existing trees located west and southwest of #147 Curve Street. We recommend that these trees be located and labeled (with species and size) on the plans to help determine if it is feasible to save any of these trees. In addition, we recommend that a site walk be scheduled with the Tree Warden to review the existing trees as per Section 3.2.20.

SEA Response: **Most of the vegetation to the west of 147 is actually on the project property. The Tree Warden has been asked to visit the site and provide his recommendations. Any additional recommendations from the Tree Warden will be forwarded to the Board.**

Stantec Response: Although a site walk with the Tree Warden is appropriate, Stantec continues to recommend that these existing trees to be located by a surveyor and properly delineated on the project plans.

SEA Response: **There are 4 white oaks of interest within the entrance area that were deemed to be viable. There were numerous red oaks, ash and cherry that were no of interest either due to health or species. The existing conditions plan has been updated to illustrate the white oaks. There entrance design and the elevations that a proposed will not allow the oaks to survive. A 2.5:1 ratio for replacement of the white oak is proposed on site. The landscape plans have been revised to illustrate this.**

1 2018 NOV 19 A 10:23

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 6 of 11

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Stantec Response: This comment has been addressed. Four (4) white oaks will be taken down, and ten (10) new white oaks will be planted in areas suitable for their growth within Open Space Areas B & D.

Stantec Comment 6.c: We note that the "topographic" sheets show the locations for proposed street trees (and screening), which do not agree with the locations of the proposed street trees (and screening) shown on the landscape plans. In some locations, the "topographic" sheets show more screening of abutting properties than the landscape plans. Specifically, we note that the topographic plans show more screening behind Lots 135 thru 130 (Pratt Ave.) and behind Lots 92 and 93 (Hewitson Way).

SEA Response: **The subdivision plans have been revised to match the Landscape Plans.**

Stantec Response: Although the landscape plans have been updated, Stantec has not received an updated planset from SEA and therefore we will defer commenting on this topic until these plans have been re-submitted to the Board and Stantec.

SEA Response: **The subdivision plans have been revised to match the Landscape Plans.**

Stantec Response: This comment has been addressed as is appropriate for plantings located behind abutting Curve Street Lots 130 through 135. The area behind lots 92 and 93 on Hewitson Way is Open Space F and there are no abutters in that area, so screening should not be an issue in those locations.

Stantec Comment 6.d: Landscape plans suggest that the existing vegetation behind #75 Curve Street thru #125 Curve Street will be maintained as a buffer, however, the topographic plans show proposed trees in this location. Stantec recommends that the Applicant clarify this by showing tree protection fence and / or erosion control measures at the limit of existing trees to remain – throughout the project.

SEA Response: **The subdivision plans have been revised to match the Landscape Plans.**

Stantec Response: Although the landscape plans have been updated, Stantec has not received an updated planset from SEA and therefore we will defer commenting on this topic until these plans have been re-submitted to the Board and Stantec.

SEA Response: **The subdivision plans have been revised to match the Landscape Plans.**

Stantec Response: This comment has been addressed. Revised plans have been received.

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:23

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 7 of 11

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Stantec Comment 8.b: We also recommend evaluating the need for proposed privacy fence and / or proposed vegetation behind Lots 1 thru 8 (Jennings Hill Way) to screen the existing residences.

SEA Response: The photometrics for the overall project have been revised to maintain less than 10-foot candles.

Stantec Response: The reduction to less than 10-foot candles is appropriate. Stantec defers to the Board on requiring the applicant to provide a privacy fence and/or plantings to screen the existing residences.

Construction Management Plan (CMP) – Dated April 16, 2018.

Stantec has reviewed the Construction Management Plan (CMP) for conformance with Town of Bridgewater Comprehensive Permit Chapter 40B Rules and Regulations, and Rules and Regulations regarding the Subdivision of Land in Bridgewater. Stantec finds the CMP to be generally acceptable under the above-mentioned rules and regulations however, Stantec offers the following recommendations for revision of the CMP:

Stantec, CMP 1 Snow Removal – Snow should not be placed in stormwater basins or stormwater BMPs.

SEA Response: The CMP has been revised to address this comment.

Stantec Response: This comment has been addressed. We recommend that developer compliance with the CMP should be a condition of ZBA approval.

Stantec, CMP 2 Construction working hours should from 7:00 AM to 5:00 PM.

SEA Response: The CMP has been revised to address this comment.

Stantec Response: This comment has been addressed.

Stantec, CMP 3 The Applicant should provide the Board with calculations of fill quantities required for the project and convert this quantity to equivalent trucking requirements and a trucking schedule.

SEA Response: This calculation is provided with this letter for review.

Stantec Response: This comment has been addressed. A revision to the truck calculations was requested of the Applicant's engineer (SEA) on 9.6.18, and the revised calculation was received on 9.7.18; and this will be part of the CMP (appendix).

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

1306 NOV 19 A 10:26

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 8 of 11

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxborrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Stantec, CMP 4 Any entrance way to Duxborrow Estates should be provided with a BMP to ensure the removal of sediment from trucks leaving the site, and such entrances should be regularly cleaned to ensure that mud and sediment are not tracked off-site onto Curve Street or other local roads.

SEA Response: **Access to the site and offsite work areas for construction vehicles will be limited to the Duxborrow Estates entrance off of Curve St., the access off of Jennings Hill Way onto Curve Street "West" and minimal access at Solar Way. A construction entrance pad is illustrated on the revised plans.**

Stantec Response: This comment has been addressed. We recommend that the ZBA require, as a condition of approval, that a construction entrance as detailed on the project plans be placed and maintained, at the two points of access to and from Curve Street.

Stantec, CMP 5 The Applicant should describe or submit what action levels they will propose for the purpose of dust control and mitigation.

SEA Response: **The CMP has been revised to address this comment.**

Stantec Response: This comment has been addressed.

Stormwater Pollution Prevention Plan (SWPPP) – Dated April 11, 2018.

Stantec has reviewed the Stormwater Pollution Prevention Plan (SWPPP) for conformance with Town of Bridgewater Comprehensive Permit Chapter 40B Rules and Regulations, and Rules and Regulations regarding the Subdivision of Land in Bridgewater, and for conformance with U.S. EPA requirements. Stantec finds the SWPPP to be generally acceptable under the above-mentioned rules and regulations, however, we offer the following recommendations for revision of the SWPPP.

Stantec, SWPPP 1 Appendices A through F are missing. Appendices A and B are most likely the project plans, please confirm. Appendix C is the EPA document which should be included in the final SWPP. Appendix D should contain the finalized NOI from and EPA acknowledgement when completed and received respectively. Appendix E should contain a standard inspection form that can be used during the project.

SEA Response: **The SWPPP has been revised to address this comment.**

Stantec Response: This comment has been addressed.

Stantec, SWPPP 2 Generally, wherever responsible staff is indicated as "Homeowners Association or local DPW" Stantec recommends that this read

Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
12016 NOV 19 A 10:28

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 9 of 11

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

"Homeowners Association" as this development consists of private roads which will be maintained by the Homeowners Association.

SEA Response: **The SWPPP has been revised to address this comment.**

Stantec Response: This comment has been addressed.

Duxburrow Estates Offsite Improvement Plan – Dated April 30, 2018.

For this letter, Stantec has reviewed the Duxburrow Estates Offsite Improvement Plan solely with respect to the proposed Curve Street improvements and drainage improvements. Stantec's Burlington, MA office is reviewing the proposed water and sewer improvements separately as part of their work with the Bridgewater Water and Sewer Commission. Stantec finds the Offsite Improvement Plan to be generally acceptable based on the aspects that were reviewed, however, Stantec offers the following comments:

Stantec, Offsite 1 What is "CBR-95.12" as noted in the profile view?

SEA Response: **This is the location of an existing catch basin. It is assumed to be a leaching catch basin. Upon inspection it is nonfunctional with the water level is just below the grate. It is proposed to be removed.**

Stantec Response: This comment has been addressed.

Stantec, Offsite 2 Labels should be added in the plan view for the catch basins and drain manholes.

SEA Response: **The revised offsite improvement plans have labels on the plan view.**

Stantec Response: This comment has been addressed.

Stantec, Offsite 3 Should additional catch basins be added between Auburn Street and catch basins A and B.? To assess this, gutter flow and spread onto the roadway should be checked. Also, the catch basin grate inlet capture capacity should be analyzed and checked versus the anticipated flow in this area. Supportive calculations should be submitted to the Board.

SEA Response: **Additional catch basins will not fit further north on Curve Street given the layout of existing utilities and the proposed roadway. The catch basins provided are the furthest upgradient and curb inlets with grates will be provided to ensure the runoff can be captured.**

Stantec Response: This comment has been addressed.

Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
1 2018 NOV 19 2 10 PM

September 7, 2018
Mr. Anthony Aveni, Chairman
Page 10 of 11

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Stantec, Offsite 4 Drainage from Curve Street is proposed to be connected to the project drainage system in Jennings Hill Way. The Applicant will need to submit a revised stormwater analysis for that section of the project.

SEA Response: Revised drainage calculations and pipe network calculations have been provided for review.

Stantec Response: This comment has been addressed.

Stantec, Offsite 5 Certain trees are noted as "to be protected" but Stantec questions if it will be feasible to save all these trees due to the proximity of some trees to the proposed wider roadway.

SEA Response: A site walk with the Tree Warden took place on June 7th. The work along Curve Street was reviewed during the site walk. Numerous Oak and Ash were identified along with a Chestnut, Sycamore, a young Hickory, and a young Catalpa. The efforts to move the roadway around the Sycamore were viewed favorably. The most significant "loss" would be the few homes that have planted within the right of way. Mr. Maltby recommended, as a condition, that a tree be provided for each lot where removal is proposed, provided the homeowner wishes. See comment letter #3 Dated June 20, 2018.

STANTEC Response: This comment has been addressed. Stantec recommends that the ZBA require, as a condition of approval, that the proponent (developer) send letters to each homeowner affected by tree removal to inquire if tree replacement is desired, and to advise the homeowners that they will have 60 days to respond to the letter; and, to advise that the developer will warranty any replacement trees for 2 years. (Note: This is the same response as issued for Comment #4 in our 7th Peer Review letter.)

SUMMARY

The project environmental reports and project landscape plans that have been submitted are substantially complete; and this letter presents Stantec's final review of these documents based on the documents received to date. Also, this letter has made recommendations for conditions of approval (see Stantec final comments on items 2, CMP 1, CMP 4 and Offsite 5, of this letter).

We can discuss this letter at your continued hearing on September 12, 2018. In the meantime, please contact us should you have any questions.

Thank you for the opportunity for Stantec to provide engineering consulting services relative to this project. We trust the information contained herein is beneficial to your review of the project.

Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.
1 2018 NOV 19 4 10:20

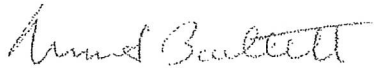
September 7, 2018
Mr. Anthony Aveni, Chairman
Page 11 of 11

Sent as PDF via email

**Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off
Curve Street, Bridgewater, MA 02324**

Sincerely yours,

Stantec Consulting Services, Inc.



Mark S. Bartlett, P.E.
Senior Associate
Phone: (508) 591-4331
Fax: (617) 786-7962
Mark.Bartlett@stantec.com

- c. Ms. Jane Brown, Administrative Clerk (also as PDF via email)
Mr. Larry Silva, P.E., Silva Engineering Associates. P.C. (also as PDF via email)



Stantec Consulting Services Inc.
400 Crown Colony Drive Suite 200, Quincy MA 02169-0982

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

OCT 10 2018 4 10:26

October 9, 2018
File: 195150493

Attention: Mr. Anthony Aveni, Chairman
Bridgewater Zoning Board of Appeals
Academy Building, 2nd Level
66 Central Square
Bridgewater, MA 02324

Sent as PDF via email

Dear Zoning Board Members,

Reference: Peer Review – 9th Letter with Comments on Draft Decision, Exhibit A (Correspondence/Documentation Received) and Exhibit B (Requested Waivers) for Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

Stantec has reviewed the following documents submitted to the Zoning Board of Appeals (the Board or ZBA) by Delphic Associates email on October 3, 2018, on behalf of the applicant for the above noted project:

1. Redlined draft of "Record, Decision & Comprehensive Permit, Duxburrow Estates, LLC."
2. Draft of Exhibit A (Correspondence/Documentation Received).
3. Draft of Exhibit B (Requested Waivers)

The purpose of our review was to check and confirm the accuracy of any aspect of these documents as may have been subject to our peer review scope of work. We have the following comments.

Draft Record of Decision

- Paragraph III.7 – This section lists Stantec recommended conditions of approval. We find this listing to be complete, however the date year is mis-typed, and regarding the list under "Peer Review – 8th letter", the comment that has been noted as "CMP 5", should be changed to read "Offsite 5"
- Paragraph IV.35 – the date year is mis-typed.

Draft Exhibit A – Correspondence/Documentation Received

This Exhibit was found to be missing references to six (6) of Stantec's review letters. The letters that should be listed are those issued on the following dates:

Design with community in mind

RECEIVED
TOWN CLERK'S OFFICE
BRIDGEWATER, MA.

1300 NOV 19 4 10 PM

October 9, 2018
Mr. Anthony Aveni, Chairman
Page 2 of 2

Sent as PDF via email

Reference: Peer Review – 8th Letter on Review of Duxburrow Estates, a 40B Comprehensive Permit Project Off Curve Street, Bridgewater, MA 02324

- Letter 1 of August 24, 2017
- Letter 4 of March 12, 2018
- Letter 5 of March 12, 2018
- Letter 6 of May 23, 2018
- Letter 7 of September 7, 2018
- Letter 8 of September 7, 2018

A redlined version of this list is attached in which we have inserted the correct review letter references. Also, we noted that the list of documents is not sequenced by date of issue, and we suggest that re-ordering the list by the date of document issue could be helpful for future use.

Draft Exhibit B – Requested Waivers

The waivers list was found to be consistent with our record of peer review to date, and we have no further comment on the substance of these waivers.

However, we noted on pages 3 to 4 of this draft listing that revisions are proposed to (1) allow for temporary and permanent signs (Section 7) and (2) to modify the size of sheds/out buildings and their required location and minimum side/rear setback. We recommend that if these changes are acceptable to the Board, that they also be included on the list of waivers provided within the final engineering plan set (see sheets 1 & 2 of the final project plan set issued by SEA).

We can discuss this letter at your continued hearing on October 10, 2018. In the meantime, please contact us should you have any questions.

Thank you for the opportunity for Stantec to provide engineering consulting services relative to this project. We trust the information contained herein is beneficial to your review of the project.

Sincerely yours,

Stantec Consulting Services, Inc.



Mark S. Bartlett, P.E.
Senior Associate
Phone: (508) 591-4331
Fax: (617) 786-7962
Mark.Bartlett@stantec.com

- c. Ms. Jane Brown, Administrative Clerk (also as PDF via email)
Mr. Larry Silva, P.E., Silva Engineering Associates. P.C. (also as PDF via email)

Design with community in mind

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

"EXHIBIT F"

2016 NOV 19 AM 10:21

OFFSITE IMPROVEMENT SUMMARY
DUXBURROW ESTATES, BRIDGEWATER, MA

October 30, 2018

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 4 10 PM

In conjunction with and to facilitate construction of the 148 single family homes off Curve Street in the development referred to as "Duxburrow Estates", a number of offsite improvements will be made as follows:

- Two new water mains will be installed along the westerly portion of Curve Street, both starting at Auburn Street. One 8" water line will extend southerly to the entrance at Jennings Hill Way where it will begin a loop through the development. Looping will improve the volume and pressure of water to homes.
- The second 8" water main will extend southerly to the entrance to the development at Duxburrow Way where it will connect to the existing 8" water main in Curve Street.
- It should be noted that the Town of Bridgewater may direct the developer to modify his looping plan to include the easterly portion of Curve Street.
- The existing 6" transite water main will be abandoned in place and each home along the westerly leg of Curve Street will be connected to the new water mains.
- Sewer will be extended from the intersection of Laurel and Auburn Streets to Curve Street and Solar Way. A low-pressure sewer line will provide for future tie-in's to sewer for homes along the westerly leg of Curve Street, and the northerly side of Auburn Street from Curve Street to Laurel Street. Stubs to each property will be provided. Connection taps will be installed on the low-pressure sewer line for residents on the southerly side of Auburn Street, that wish to extend sewer to their property in the future.
- There will be a new pump station and forced main installed adjacent to the low pressure sewer and pump upgrades to the Water Street pump station will be made by the developer.
- Other offsite improvements include the reconstruction and widening of the westerly leg of Curve Street, with a sidewalk and curbing. Replacement trees and shrubs will be provided where the improvements have resulted in the loss of existing vegetation within the road layout on Curve Street.
- Drainage improvements will be completed near the intersection of Solar Way and Curve Street to mitigate a long standing problem. New catch basins and drain lines will collect and convey stormwater southerly to Solar Way.
- Natural gas will be extended from its current location at Glenwood Drive westerly along Auburn Street and southerly along Curve Street and into Jennings Hill Way.
- Configuration changes to the intersection of Auburn and Curve Street West will be made to enhance safety of pedestrians and motorists, as well as, a constructed parking spot for a shuttle bus.
- Another configuration change is at the entrance to the development, where an island and signage will be used to prevent usage of the easterly portion of Curve Street for access or egress.
- Construction management will include limiting the time and days that construction can be ongoing at the site. No work will be allowed on Sunday and major holidays. Trucks will be prohibited from using the easterly portion of Curve Street.

EXHIBIT "F"

OFFSITE IMPROVEMENT SUMMARY

DUXBURROW ESTATES, BRIDGEWATER, MA

October 30, 2018

RECEIVED
TOWN CLERKS OFFICE
BRIDGEWATER, MA.

2018 NOV 19 A 10:29

In conjunction with and to facilitate construction of the 148 single family homes off Curve Street in the development referred to as "Duxburrow Estates", a number of offsite improvements shall be made as follows:

- Two new water mains shall be installed along the westerly portion of Curve Street, both starting at Auburn Street. One 8" water line shall extend southerly to the entrance at Jennings Hill Way where it will begin a loop through the development. Looping will improve the volume and pressure of water to homes.
- The second 8" water main shall extend southerly to the entrance to the development at Duxburrow Way where it will connect to the existing 8" water main in Curve Street.
- It should be noted that the Town of Bridgewater may direct the developer to modify his looping plan to include the easterly portion of Curve Street.
- The existing 6" transite water main shall be abandoned in place and each home along the westerly leg of Curve Street shall be connected to the new water mains.
- Sewer shall be extended from the intersection of Laurel and Auburn Streets to Curve Street and Solar Way. A low-pressure sewer line will provide for future tie-in's to sewer for homes along the westerly leg of Curve Street, and the northerly side of Auburn Street from Curve Street to Laurel Street. Stubs to each property will be provided. Connection taps will be installed on the low-pressure sewer line for residents on the southerly side of Auburn Street, that wish to extend sewer to their property at their expense in the future.
- A new pump station and force main shall be installed adjacent to the low-pressure sewer and pump upgrades to the Water Street pump station shall be made by the applicant.
- Other offsite improvements shall include the reconstruction and widening of the westerly leg of Curve Street, with a sidewalk and curbing. Replacement trees and shrubs shall be provided where the improvements have resulted in the loss of existing vegetation within the road layout on Curve Street.
- Drainage improvements shall be completed near the intersection of Solar Way and Curve Street to mitigate a long-standing problem. New catch basins and drain lines will collect and convey stormwater southerly to Solar Way.
- Natural gas shall be extended from its current location at Glenwood Drive westerly along Auburn Street and southerly along Curve Street and into Jennings Hill Way.
- Configuration changes to the intersection of Auburn and Curve Street West shall be made to enhance safety of pedestrians and motorists, as well as, a constructed parking spot for a shuttle bus.
- Another configuration change shall be made at the entrance to the development, where an island and signage shall be used to prevent usage of the easterly portion of Curve Street for access or egress.
- The Construction Management Plan shall include limiting the time and days that construction can be ongoing at the site. No work shall be allowed on Sunday and major holidays. Trucks shall be prohibited from using the easterly portion of Curve Street.