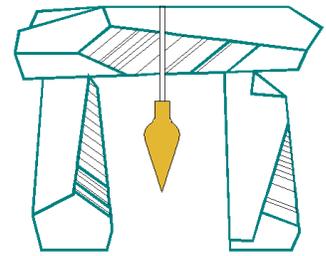


July 7, 2021

Mr. Nicholas Iannuzzi, Chair
Belmont Zoning Board of Appeals
455 Concord Avenue
Belmont, MA 02478

**Re: Peer Review Response
91 Beatrice Circle
Belmont, MA**

DeCelle-Burke-Sala



& Associates, Inc.

Dear Mr. Chair & Board of Appeals Members:

DeCelle-Burke-Sala & Associates, Inc. (DBS) has prepared the attached information to respond to outstanding concerns raised by your peer review professional, Jesse Johnson, PE of Weston & Sampson Engineers, Inc. (W&S) during recent work sessions and as outlined in an email dated June 16, 2021 and another email dated July 6, 2021. The outstanding bulleted and numbered concerns itemized in the emails with corresponding responses underneath are as follows:

June 16, 2021 Email

- Provide documentation/calculations that the proposed tie-in at Frontage Road.

The current stormwater management design proposes to connect to the existing 15" drain pipe with a 10" HDPE drain pipe. The proposed 10" drain pipe allows treated and detained stormwater runoff generated from the project site to enter the existing Town of Belmont drainage infrastructure. WSE requested this office to prepare calculations that determine how this connection impacts the existing infrastructure's capacity.

DBS generated a watershed map that delineates the up-gradient watershed for the existing 15" drain pipe that runs along Frontage Road at the project locus, 91 Beatrice Circle. The watershed area is 618,294 square feet (s.f.) and we provided an existing coverage number (CN) of 61 for existing conditions and calculated a time of concentration of 9.9 minutes. The existing drain pipe is a 15" reinforced concrete pipe with a slope of 7.7%.

DBS used HydroCAD to calculate the existing stormwater flow for this 15" pipe using the data above. In addition, DBS generated a proposed condition HydroCAD model for the proposed condition. The proposed condition model includes the redeveloped project site along with the up-gradient neighborhood flow. The project site watershed contributing to the pipe is 25,100 s.f. and is routed through a subsurface recharge structure and a detention tank. DBS removed 25,100 s.f. of area from the existing watershed area and added the proposed site's HydroCAD model to form the proposed conditions HydroCAD model.

The results show a reduction of flow into the 15" pipe for each calculated storm event. The calculations also show that the pipe under current conditions is slightly surcharged for the 10-year storm event. The proposed conditions model shows that the on-site detention allows the pipe to operate under open-channel conditions for the 10-year event. The pipe is not surcharged. The

DeCelle-Burke-Sala & Associates, Inc.
1266 Furnace Brook Pkwy., #401 Quincy, MA 02169
PH: 617-405-5100 FX: 617-405-5101

proposed stormwater management structures not only reduces the flow off-site to the abutters but allows the existing drainage infrastructure to operate at an improved efficiency.

DBS has attached the watershed map, the HydroCAD calculations for the existing condition off-site drainage analysis, the HydroCAD calculations for the proposed condition off-site drainage analysis and comparison summary sheets showing peak flows and flow depth for the 15" pipe.

- Provide more detail on how the apparent ledge will be dealt with at the site.

DBS generated a plan showing estimated ledge contours calculated by interpolating between the ledge elevations found in each test pit. A copy of this plan is attached to this letter. In addition DBS estimated the underground excavation required for this site and created a surface using Civil 3D AutoCAD software. A ledge removal volume of 726 cubic yards was calculated with a maximum depth of 3.5 feet for the installation of the detention tank. The applicant proposes to remove the ledge by hydraulic hammer. No blasting is proposed for this site.

- The system is proposed 2' closer to foundations than DEP suggests

DBS replaced the Cultec chambers and stone with twenty-nine (29) concrete 4'x4'x4' subsurface recharge galleys backfilled with stone and native soil making the width of the recharge structure six feet. The building footprints were resized to accommodate a minimum of twenty-six (26) feet of clearance between the foundations thereby allowing this proposed recharge structure to have a 10-foot setback to the foundation as suggested by the MADEP Stormwater Guidelines.

DBS revised the plans and the HydroCAD calculations to include this revision and the plans and supporting calculations are attached to this letter. The data is in a document titled Supplemental Engineering Report revised July 7, 2021. A flow comparison summary sheet is also attached to this letter.

- The mounding analysis needs to be done with correct input parameters. We ran the correct numbers informally and they appeared to work but the Applicant should confirm.

DBS has attached a revised mounding analysis that shows the calculated groundwater mound does not have a negative impact upon the revised subsurface recharge structure and that it drains within 72 hours. The base of the recharge structure is at elevation 219.0 with an overflow pipe at elevation 221.92. Ledge shall be removed below the recharge structure to elevation 217.0 meeting the two-foot separation requirement. The mound calculates to a depth of 3.89 feet bringing the mound to elevation 220.89. This elevation is less than the overflow pipe elevation thereby allowing the required recharge volume for the site to flow into the ground and not into the detention basin. The mounding analysis can be found in the Supplemental Engineering Report.

July 6, 2021 Email

1. 100-year storm event elevation for the chamber system is above top of chamber (223.61 vs top of chamber at 223.5).

The proposed 100-year storm event flow elevation for the chamber system is 222.90; less than the proposed interior top of the chamber elevation of 223.17.

2. Storage height in HydroCAD model for the chamber system (infiltration system 1) is referenced as 5 feet, detail/drawings only have available storage height of 4.5'. If the intent is to have 6" of stone above the top of the chambers then the detail should be updated.

The HydroCAD calculations and site plan details for the recharge structure correlate and show the height of the structure as 4.67 feet. The 6" of stone has been eliminated.

3. The storage volume calculation for the chamber system lists the inside height dimension at 43". The detail indicates the top is 6" thick which would put the height at 42". One of them needs to be corrected. Also, the detail for the chambers should specify a thickness of the walls. The calculations indicate they are 3".

The interior height of the structure is 44". This dimension correlates with both the site plan detail and the HydroCAD calculations.

4. The proposed ledge contours around the infiltration system indicate that a "bathtub" will be created. The project needs to indicate how water will be able to migrate away from the system. Also, if the intent is to have it travel easterly, as it does now, then you should indicate how the water leaving the infiltration system will not migrate to the stone around the detention system or the stone behind the retaining wall. There is a potential for water to travel along pipe/structure bedding and/or build up behind the wall.

It is not the intent to create a "bathtub" for the recharge structure. As discussed previously we have found ledge elevations below elevation 217 and the contractor will remove ledge to allow the free flow of water across the ledge to prevent ponding under the recharge structure. As for the retaining wall, the grade at the base of the wall is at 217 with an estimated ledge elevation of 213. With these elevations we do not anticipate any issue with water building up behind the wall. Further we proposed bentonite dams along the utility pipes to prevent water from flowing within the utility trench. Once the site is excavated a serviceable control plan for underground flow can be implemented with several various types of dams and controls to prevent ponding and breakout.

5. Effluent pipe of the detention system in HydroCAD = 8" pipe, drawings reference 10".

The outfall pipe for the detention basin was revised in the HydroCAD calculations to correlate with the plans as a 10" HDPE pipe.

6. Drawings reference 4x4x3 galley structure. HydroCAD uses 4x4x4.

The plans were revised to correlate with the HydroCAD calculations and reference the 4x4x4 galleys.

7. Typical trench drain / area drain detail included on Sheet 8 of the dwgs. Specific elevations should be provided to confirm the system will work as designed.

The trench drain and area drain were revised to include some minimal dimensions.

8. Proposed snow storage areas identified in parking medians. Landscape plans have plantings here. Confirm / update snow storage areas.

It is our understanding that the snow areas shall be landscaped.

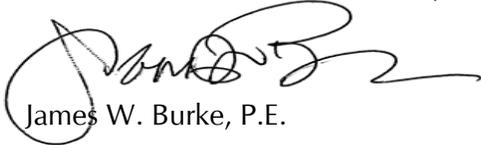
9. The limit of tree clearing and restoration needed to install the drainage pipe from the detention overflow to the roadway system should be updated.

The HydroCAD calculations were revised to include this area as lawn to allow for a more conservative design. The area is proposed to be landscaped with trees and shrubs.

We realize that WSE may have other items requiring attention with the attached design but we look forward to continuing to work with WSE and the Town of Belmont to address these concerns. We look forward to presenting these revisions to the Board at the next scheduled hearing.

Sincerely,

DeCelle-Burke-Sala & Associates, Inc.



James W. Burke, P.E.

91 Beatrice Circle Apartments – List of Requested Waivers

<u>Chapter/Section</u>	<u>Subject</u>	<u>Requirement</u>	<u>Waiver Requested/Applicability</u>
<u>Zoning By-Law of the Town of Belmont, Massachusetts</u>			
§ 1.3	Basic Requirements	Basic requirements for compliance with the Bylaw.	A waiver is sought for this section in its entirety to permit the Project pursuant to M.G.L. c. 40B and 760 CMR 56, as shown on the Project Plans, which will include multifamily residential use (12 units in 2 buildings) in the Single Residence A (SR-A) zoning district in accordance with the dimensional and use waivers requested herein.
§ 1.6	Variation	“Where this By-Law imposes a greater restriction upon the use of buildings or premises than is imposed by existing provisions of law or other By-Laws, the provisions of this By-Law shall control. Where a provision of this By-Law may be in conflict with any other provision or provisions of this By-Law, the more stringent or greater requirements shall control.”	A waiver is sought for this section in its entirety to permit the Project pursuant to M.G.L. c. 40B and 760 CMR 56, as shown on the Project Plans, which will include multifamily residential use (12 units in 2 buildings) in the Single Residence A (SR-A) zoning district in accordance with the dimensional and use waivers requested herein.
§ 3.1	General Use Requirements	General Use Requirements.	A waiver is sought for this section in its entirety to permit the Project pursuant to M.G.L. c. 40B and 760 CMR 56, as shown on the Project Plans, which will include multifamily residential use (12 units in 2 buildings) – a forbidden use in the Single Residence A (SR-A) zoning district – in accordance with the dimensional and use waivers requested herein.

91 Beatrice Circle Apartments – List of Requested Waivers

<u>Chapter/Section</u>	<u>Subject</u>	<u>Requirement</u>	<u>Waiver Requested/Applicability</u>																				
§ 3.3	Schedule of Use Regulations	Specific use requirements in all zoning districts.	A waiver is sought for this section in its entirety to permit the Project pursuant to M.G.L. c. 40B and 760 CMR 56, as shown on the Project Plans, which will include multifamily residential use (12 units in 2 buildings) – a forbidden use in the Single Residence A (SR-A) zoning district – in accordance with the dimensional and use waivers requested herein. Specifically enumerated uses to be allowed will include, without limitation, “other apartment house”, “open lot parking in excess of the above accessory to residential use”, and “shared driveway”.																				
§ 4.1	General Dimensional Requirements	General dimensional requirements	A waiver is sought for this section in its entirety to permit the Project pursuant to M.G.L. c. 40B and 760 CMR 56, as shown on the Project Plans, which will include multifamily residential use (12 units in 2 buildings) in accordance with the dimensional and use waivers requested herein.																				
§ 4.2.1	Schedule of Dimensional Regulations (Area)	<p>This section imposes the following dimensional requirements (area) in the SR-A zoning district:</p> <table border="0"> <thead> <tr> <th><u>Dimension</u></th> <th><u>Requirement</u></th> <th><u>Dimension</u></th> <th><u>Provided</u></th> </tr> </thead> <tbody> <tr> <td>Lot Area</td> <td>25,000 SF</td> <td>Lot Area</td> <td>23,496 SF (WAIVER)</td> </tr> <tr> <td>Frontage</td> <td>125’</td> <td>Frontage</td> <td>200.0’ (NO WAIVER)</td> </tr> <tr> <td>Max. Lot Coverage</td> <td>20%</td> <td>Lot Coverage</td> <td>29.9% (WAIVER)</td> </tr> <tr> <td>Min. Open Area</td> <td>50%</td> <td>Open Area</td> <td>38.3% (WAIVER)</td> </tr> </tbody> </table>	<u>Dimension</u>	<u>Requirement</u>	<u>Dimension</u>	<u>Provided</u>	Lot Area	25,000 SF	Lot Area	23,496 SF (WAIVER)	Frontage	125’	Frontage	200.0’ (NO WAIVER)	Max. Lot Coverage	20%	Lot Coverage	29.9% (WAIVER)	Min. Open Area	50%	Open Area	38.3% (WAIVER)	<p>Waivers are sought for this section to permit the Project as specified below:</p>
<u>Dimension</u>	<u>Requirement</u>	<u>Dimension</u>	<u>Provided</u>																				
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91 Beatrice Circle Apartments – List of Requested Waivers

<u>Chapter/Section</u>	<u>Subject</u>	<u>Requirement</u>	<u>Waiver Requested/Applicability</u>																								
§ 4.2.2	Schedule of Dimensional Regulations (Linear)	<p>This section imposes the following dimensional requirements (linear) in the SR-A zoning district:</p> <table border="0"> <thead> <tr> <th><u>Dimension</u></th> <th><u>Requirement</u></th> </tr> </thead> <tbody> <tr> <td>Front Yard Setback</td> <td>30'</td> </tr> <tr> <td>Side Yard Setback</td> <td>15'</td> </tr> <tr> <td>Rear Yard Setback</td> <td>40'</td> </tr> <tr> <td>Max. Bldg. Height</td> <td>36'</td> </tr> <tr> <td>Max. Bldg. Stories</td> <td>2.5</td> </tr> </tbody> </table>	<u>Dimension</u>	<u>Requirement</u>	Front Yard Setback	30'	Side Yard Setback	15'	Rear Yard Setback	40'	Max. Bldg. Height	36'	Max. Bldg. Stories	2.5	<p>Waivers are sought for this section to permit the Project as specified below:</p> <table border="0"> <thead> <tr> <th><u>Dimension</u></th> <th><u>Provided</u></th> </tr> </thead> <tbody> <tr> <td>Front Yard Setback</td> <td>7.7' (WAIVER)</td> </tr> <tr> <td>Side Yard Setbacks</td> <td>23.3' (WAIVER) >45'</td> </tr> <tr> <td>Rear Yard Setback</td> <td>12.1' (WAIVER)</td> </tr> <tr> <td>Bldg. Height</td> <td>43' (WAIVER) 30.5' (Rear Bldg)</td> </tr> <tr> <td>Bldg. Stories</td> <td>4/3 (WAIVER)</td> </tr> </tbody> </table>	<u>Dimension</u>	<u>Provided</u>	Front Yard Setback	7.7' (WAIVER)	Side Yard Setbacks	23.3' (WAIVER) >45'	Rear Yard Setback	12.1' (WAIVER)	Bldg. Height	43' (WAIVER) 30.5' (Rear Bldg)	Bldg. Stories	4/3 (WAIVER)
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Bldg. Stories	4/3 (WAIVER)																										
§ 4.3.5(a)(3)	Garages	A garage shall have a vehicular access from the street.	A waiver is sought for this section to allow all garages to have vehicular access to/from the internal site driveway, as shown on the Project plans.																								
§ 4.3.9	Multiple Buildings	Regulations pertaining to multiple buildings on one lot.	Waiver sought for this section in its entirety to allow 12 residential units in 2 buildings (7 and 5 units in two row house-style townhouse buildings), as shown on the Project plans.																								
§§ 5.1, 5.1.1(a), 5.1.2(a), 5.1.2(i), 5.1.2(j), 5.1.3(b), 5.1.3(c), 5.1.3(d), 5.1.3(e), 5.1.3(f), 5.1.3(g), 5.1.3(h), 5.1.3(j)	Off-Street Parking and Loading Regulations	Regulations applicable to off-street parking and loading.	A waiver is sought for these sections in their entirety. Instead, the project, including the approval of all parking/loading design, dimensions, locations, setbacks, screening/landscaping, topography, lighting, configuration, layout, and construction as shown on the attached site plans, will be permitted under M.G.L. c. 40B. The Project will include 21 parking spaces (12 garage spaces, 9 surface).																								

91 Beatrice Circle Apartments – List of Requested Waivers

<u>Chapter/Section</u>	<u>Subject</u>	<u>Requirement</u>	<u>Waiver Requested/Applicability</u>
§ 5.2	Signs	Regulations and permitting requirements applicable to signs.	A waiver is sought for this section in its entirety. Instead, any/all Project signage, including design, dimensions, location(s), setbacks, screening/landscaping, topography, lighting, configuration, layout, maintenance, and construction as shown on the attached site plans, will be permitted under M.G.L. c. 40B.
§ 5.3	Landscaping	Regulations applicable to landscaping.	A waiver is sought for this section in its entirety. Instead, any/all Project landscaping, including types, numbers, locations, species, sizes, dimensional particulars, and maintenance of any/all landscaping, and including any/all removal of existing vegetation, all as shown on the Project plans, will be permitted under M.G.L. c. 40B and 760 CMR 56.00 as part of the Comprehensive Permit for the Project.
§§ 5.4.1, 5.4.3, 5.4.8	Light/Glare	Requiring a special permit to approve project lighting.	A waiver is sought for these sections solely to the extent that they would require a special permit to approve Project lighting. Instead, all Project lighting, as shown on the Project plans, will be permitted under M.G.L. c. 40B and 760 CMR 56.00 as part of the Comprehensive Permit for the Project in accordance with the performance standards outlined in Section 5.4.3.
§ 6.2	Earth Removal	Restrictions and permitting requirements for the removal of earth.	A waiver is sought for this section in its entirety. Instead, any/all earth removal associated with the construction of the Project will be permitted under M.G.L. c. 40B and in accordance with any applicable state or federal law.

91 Beatrice Circle Apartments – List of Requested Waivers

<u>Chapter/Section</u>	<u>Subject</u>	<u>Requirement</u>	<u>Waiver Requested/Applicability</u>
§ 6.10	Inclusionary Housing	Inclusionary housing bylaw.	A waiver is sought for this section in its entirety to the extent it differs from or imposes more stringent standards than found in M.G.L. c. 40B and 760 CMR 56.00, and to the extent it would impose additional permitting requirements for the Project. Instead, the Project, including the affordability component thereof, will be permitted in accordance with the requirements and standards specified in M.G.L. c. 40B and 760 CMR 56.00. More specifically, the Project will provide 9 market rate units and 3 affordable units (25%).
§ 7.1	Enforcement	Enforcement of Zoning Bylaw.	A waiver is sought for this section in its entirety to the extent necessary to permit the Project under M.G.L. c. 40B and 760 CMR 56.00, including the variations from the Zoning Bylaw for which waivers are herein requested.
§ 7.2	Compliance	Compliance with Zoning Bylaw.	A waiver is sought for this section in its entirety to the extent necessary to permit the Project under M.G.L. c. 40B and 760 CMR 56.00, including the variations from the Zoning Bylaw for which waivers are herein requested.
§ 7.3	Design and Site Plan Review	Design and Site Plan Review.	A waiver is sought for this section in its entirety, including all permitting requirements, procedures, submittal requirements, guidelines for review/approval, and design standards. Instead, the Project will be permitted under M.G.L. c. 40B and 760 CMR 56.00.

91 Beatrice Circle Apartments – List of Requested Waivers

<u>Chapter/Section</u>	<u>Subject</u>	<u>Requirement</u>	<u>Waiver Requested/Applicability</u>
§ 7.5	Development Impact Report	Development Impact Report.	A waiver is sought for this section in its entirety, including all permitting requirements, procedures, submittal requirements, costs/fees allocations, peer review consultancy requirements, guidelines for review/approval, and design standards. Instead, the Project will be permitted under M.G.L. c. 40B and 760 CMR 56.00.
<u>Belmont Streets & Sidewalks Bylaw (Bylaws of the Town of Belmont, Sections 60-800 - 60-810)</u>			
All Sections	Streets & Sidewalks	Regulations pertaining to activities in/on public streets and sidewalks, including construction.	A waiver is sought for this Bylaw solely to the extent required to authorize the proposed improvements within the layout of Beatrice Circle as shown on the Project plans as part of the Comprehensive Permit for this Project.
<u>Town of Belmont Zoning Board of Appeals – Comprehensive Permit Rules and Regulations</u>			
All Sections	Regulations applicable to Chapter 40B applications	Filing and other technical requirements applicable to Chapter 40B Comprehensive Permit applications	<p>A waiver is sought for these Rules and Regulations in their entirety to the extent their requirements differ from M.G.L. c. 40B and 760 CMR 56.00. Instead, the project will be permitted under M.G.L. c. 40B and 760 CMR 56.00.</p> <p>In particular, the Applicant objects to any/all filing fees and deposits required by this Bylaw and reserves the right to appeal any/all such fees and deposits. Subject to this objection and reservation of rights, the Applicant has included with this filing payment of all required fees/deposits.</p>

PROPOSED SITE PLAN

91 BEATRICE CIRCLE BELMONT, MASSACHUSETTS

NOVEMBER 4, 2020



LOCUS AERIAL

IMAGE FROM 2020 GOOGLE MAP DATA

APPLICANT

91 BEATRICE CIRCLE LLC
c/o REGNANTE STERIO
401 EDGEWATER PL, SUITE 630
WAKEFIELD, MA 01880

LEGAL

REGNANTE STERIO, LLP
401 EDGEWATER PLACE SUITE 630
WAKEFIELD, MA 01880

ARCHITECT

EMBARC STUDIO
60 K STREET
BOSTON, MA 02127

TRAFFIC

MDM TRANSPORTATION
CONSULTANTS, INC.
20 LORD ROAD SUITE 280
MARLBOROUGH, MA 01752

CIVIL/SURVEY

DECILLE-BURKE-SALA & ASSOCIATES, INC.
1266 FURNACE BROOK PARKWAY
SUITE 401
QUINCY, MA 02169

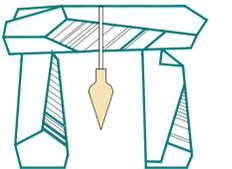
SHEETS

- 1 COVER SHEET
- 2 EXISTING CONDITIONS
- 3 DEMOLITION
- 4 PROPOSED LAYOUT
- 5 PROPOSED GRADING
- 6 PROPOSED UTILITIES
- 7 SEWER PROFILE
- 8 PROPOSED DRAINAGE
- 9 CONSTRUCTION DETAILS
- 10 CONSTRUCTION DETAILS
- 11 CONSTRUCTION DETAILS

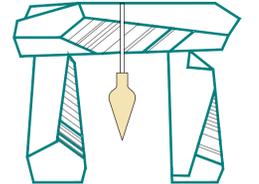


NO.	DATE	COMMENT
1	4/19/2021	PEER REVIEW COMMENTS
2	6/1/2021	REVISED SITE DESIGN/PEER REVIEW
3	6/25/2021	REVISED SITE DESIGN/PEER REVIEW
4	7/06/2021	REVISED SITE DESIGN/PEER REVIEW

DeCelle-Burke-Sala



& Associates, Inc.
1266 Furnace Brook Parkway #401
Quincy, MA 02169
617-405-5100(o) 617-405-5101(f)
Project No. 19.085



& Associates, Inc.
 1266 Furnace Brook Parkway #401
 Quincy, MA 02169
 617-405-5100 (o) 617-405-5101 (f)
 www.decelle-burke-sala.com



CLAUDIO SALA, PLS

- GENERAL NOTES:**
- LOCUS: ASSESSORS MAP 51 BLOCK LOT 36
 RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
 DEED REFERENCE: CERTIFICATE #271959
 PLAN REFERENCE: LC PLAN 2367-12
 - ELEVATIONS REFER TO NAVD-88.
 - EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM SURFACE OBSERVATION AND RECORD INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING THE PROPOSED CONSTRUCTION ACTIVITY WITH DIG-SAFE AND THE APPLICABLE UTILITY COMPANIES AND MAINTAINING THE EXISTING UTILITY SYSTEM IN SERVICE. DIG-SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 408 AT TEL. 1-888-344-7233. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND ELEVATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM RECORD PLANS. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS OF UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
 - THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE AS DELINEATED ON FIRM 25017C-00416E, DATED JUNE 4, 2010.
 - PARCEL IS ZONED SR-A.

PROJECT TITLE & LOCATION:

PROPOSED SITE PLAN
 91 BEATRICE CIRCLE
 BELMONT, MASS.

PLAN TITLE:

EXISTING CONDITIONS

PREPARED FOR:

91 BEATRICE CIRCLE LLC
 c/o REGNANTE STERIO
 401 EDGEWATER PL, SUITE 630
 WAKEFIELD, MA 01880

DATE: NOVEMBER 4, 2020

REVISED: APRIL 19, 2021

REVISED: JUNE 1, 2021

REVISED: JUNE 25, 2021

REVISED: JULY 6, 2021

JOB NUMBER: 19.085 SHEET 2 OF 11



SOIL TEST PIT DATA:

DATE: 12/5/2019
 TEST BY: KAMERON CAMPBELL, SE #14227

TEST PIT	GRD. EL.	NGWO	TEST PIT	GRD. EL.	NGWO
1	225.0		2	224.7	
0" FILL, SANDY LOAM, 10YR3/2 Granular, Very Friable			0" FILL, SANDY LOAM, 10YR3/2 Granular, Very Friable		
10" FILL, SANDY LOAM, 10YR3/4 Massive, Friable			11" FILL, SANDY LOAM, 10YR3/4 Massive, Friable		
48" App. SANDY LOAM, 10YR3/2 Granular, Very Friable			41" App. SANDY LOAM, 10YR3/2 Granular, Very Friable		
54" Bw, SANDY LOAM, 10YR4/6 Massive, Friable			50" Bw, SANDY LOAM, 7.5YR4/4 Massive, Friable		
88" R, Ledge			60" R, Ledge		

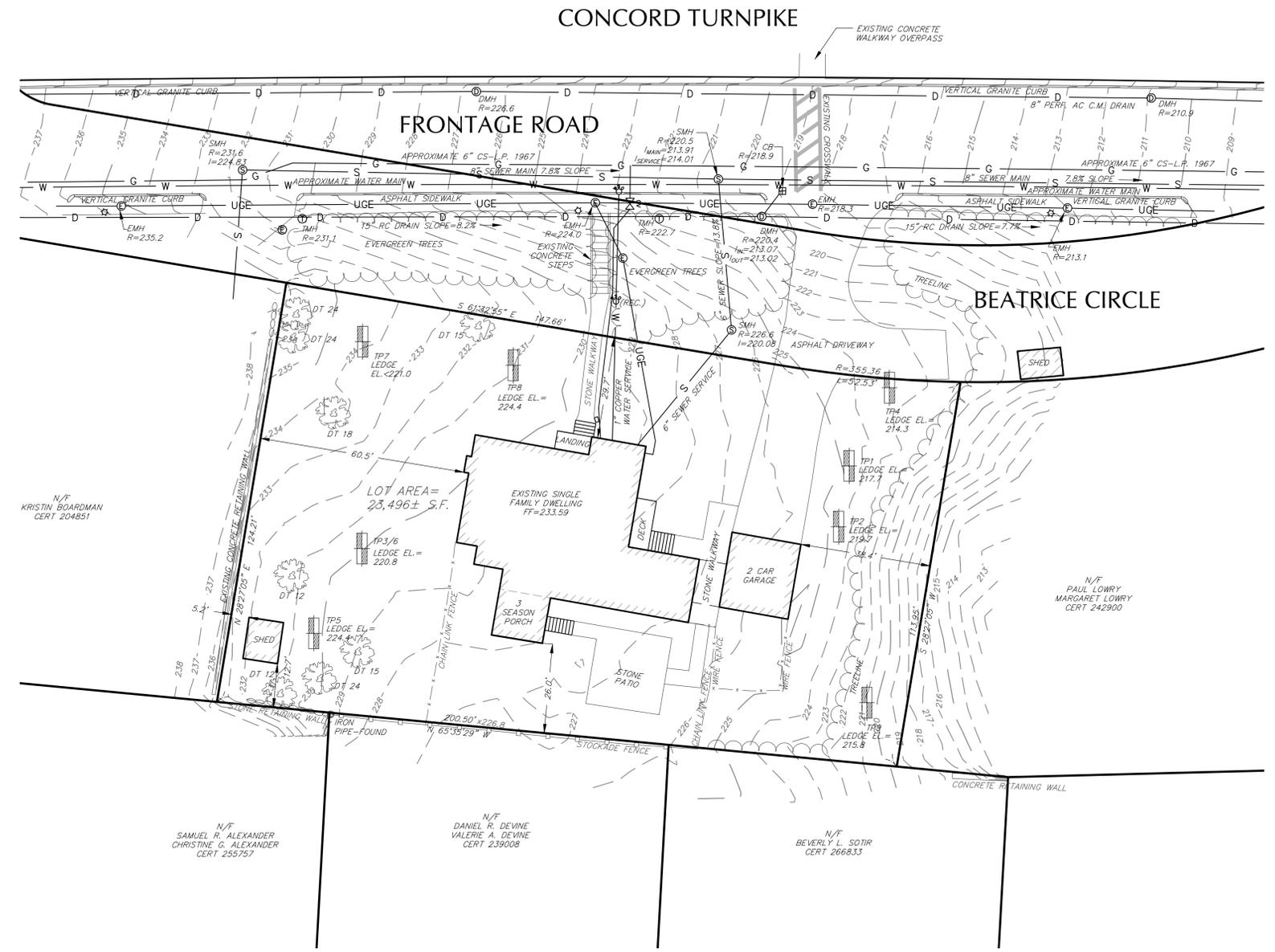
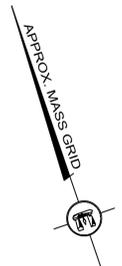
DATE: 05/12/2021
 TEST BY: KAMERON CAMPBELL, SE #14227

TEST PIT	GRD. EL.	NGWO	TEST PIT	GRD. EL.	NGWO
4	223.5		5	230.3	
0" FILL, SANDY LOAM, 10YR3/2 Massive, Very Friable			0" App. SANDY LOAM, 10YR3/2 Granular, Very Friable		
10" FILL, SANDY LOAM, 2.5Y4/2 Massive, Friable			12" Bw, SANDY LOAM, 10YR4/6 Massive, Friable		
36" App. SANDY LOAM, 5Y4/2 Massive, Very Friable			35" C _o SANDY LOAM, 5Y4/2 Massive, Firm Gravelly(±30%) Cobbles(±10%). Soil friable once removed from wall face		
42" Bw, SANDY LOAM, 10YR4/6 Massive, Friable			69" C, SANDY LOAM, 5Y4/2 Massive, Friable Gravelly(±30%) Cobbles(±10%)		
110" R, Ledge			71" R, Ledge		

SOIL TEST PIT DATA:

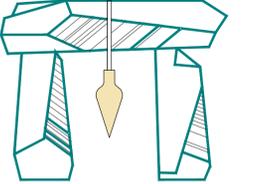
TEST PIT	GRD. EL.	NGWO	TEST PIT	GRD. EL.	NGWO
6	229.8		7	234.2	
0" App. SANDY LOAM, 10YR3/2 Granular, Very Friable			0" FILL, SANDY LOAM, 10YR3/2 Massive, Very Friable		
12" Bw, SANDY LOAM, 10YR4/6 Massive, Friable			10" FILL, SAND 2.5Y6/6 Single Grained, Loose		
42" C _s SANDY LOAM, 5Y4/2 Massive, Friable Gravelly(±30%) grittier than C ₂			34" App. SANDY LOAM, 5Y4/2 Massive, Very Friable		
72" C _{2s} SANDY LOAM, 5Y4/2 Massive, Firm Very gravelly(±40%) Cobbles(±10%) Soil friable once removed from wall face			37" Bw, SANDY LOAM, 10YR4/6 Massive, Friable		
107" R, Ledge			72" C, SANDY LOAM, 5Y4/2 Massive, Friable Gravelly(±30%) Cobbles(±10%)		

*No groundwater or any signs of groundwater observed in any of the test pits performed.



LEGEND:

- EXISTING:**
- LOCUS PROPERTY LINE
 - TREE LINE
 - SEWER MANHOLE (SMH)
 - DRAIN MANHOLE (DMH)
 - CATCH BASIN (CB)
 - STONEWALL
 - GAS VALVE
 - WATER VALVE
 - WATER SERVICE
 - HYDRANT
 - UTILITY POLE
 - NOW OR FORMERLY
 - DRAIN PIPE
 - WATER MAIN
 - GAS SERVICE
 - UNDERGROUND POWER
 - OVERHEAD WIRES
 - SEWER MAIN
 - LANDSCAPED AREA
 - SPOT GRADE
 - CHAIN LINK FENCE
 - STOCKADE FENCE
 - TEST PIT
 - HAND HOLES FOR UTILITIES
 - LIGHT POLE
 - FIRST FLOOR



JAMES W BURKE, P.E.

GENERAL NOTES:

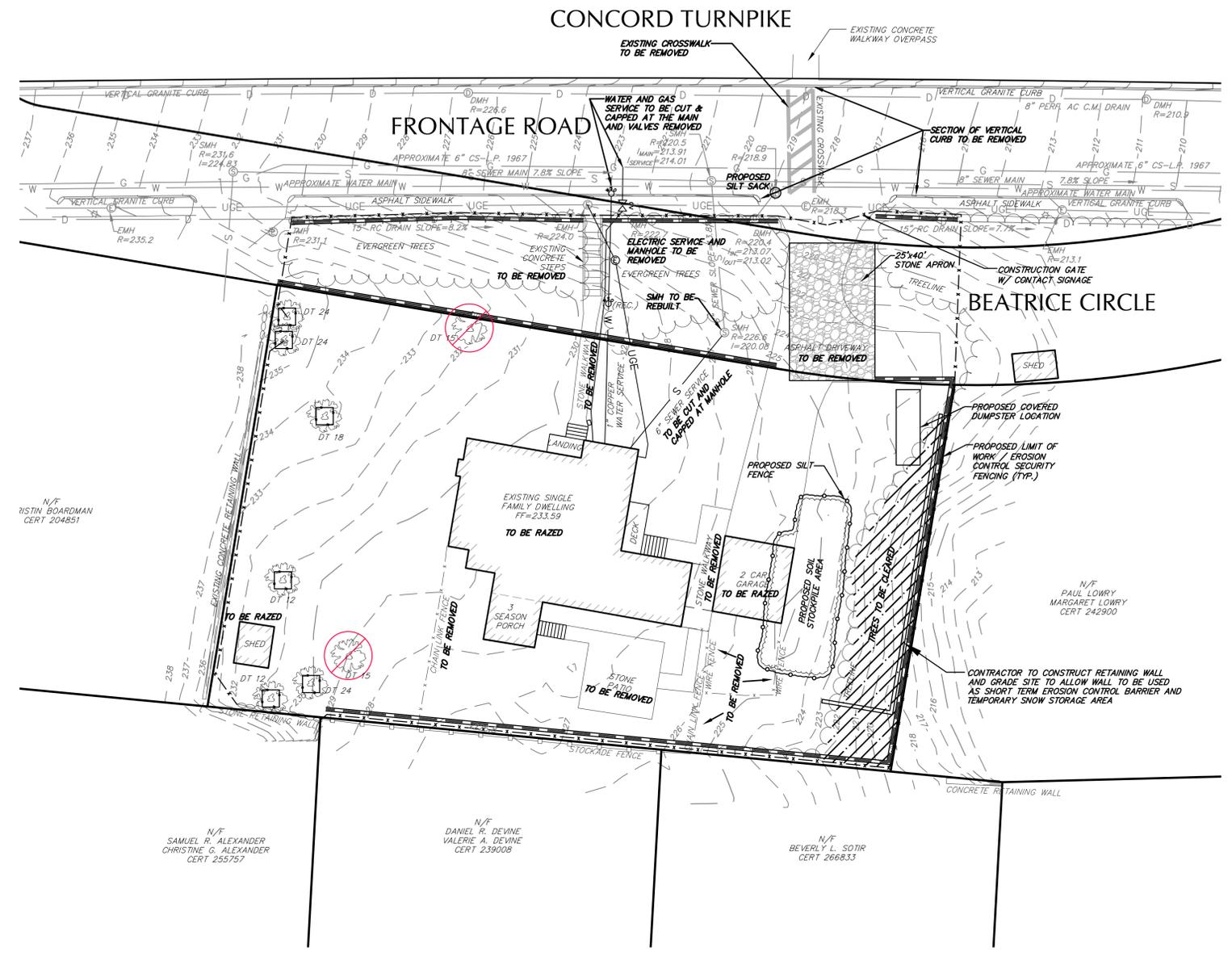
- LOCUS: ASSESSORS MAP 51 BLOCK LOT 36
 RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
 DEED REFERENCE: CERTIFICATE #271959
 PLAN REFERENCE: LC PLAN 2367-12
- ELEVATIONS REFER TO NAVD-88.
- EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM SURFACE OBSERVATION AND RECORD INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING THE PROPOSED CONSTRUCTION ACTIVITY WITH DGS-SAFE AND THE APPLICABLE UTILITY COMPANIES AND MAINTAINING THE EXISTING UTILITY SYSTEM IN SERVICE.
- DGS-SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 40B AT TEL: 1-888-344-7233. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND ELEVATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM RECORD PLANS. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS OF UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
- THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE AS DELINEATED ON FIRM 25017C-00416E, DATED JUNE 4, 2010.
- PARCEL IS ZONED SR-A.

DEMOLITION & CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL PLACE A 6' HIGH TEMPORARY SAFETY FENCE AND EROSION CONTROL MEASURES AS SHOWN ON THE PLAN AROUND THE SITE PRIOR TO THE DEMOLITION ON SITE.
- A WATER TRUCK SHALL BE ON-SITE DURING THE DEMOLITION AND SITE WORK PROCESS TO MINIMIZE FUGITIVE DUST.
- A CRUSHED STONE APRON SHALL BE CONSTRUCTED AS SHOWN TO MINIMIZE TRUCK TIRES LEAVING SEDIMENT ON THE ROADWAYS.
- A COVERED DUMPSTER SHALL BE KEPT ON-SITE TO ELIMINATE ANY WIND BLOWN DEBRIS FROM BECOMING LITTER IN THE NEIGHBORHOOD.
- ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
- CONTRACTOR TO GRADE THE SITE AND USE TEMPORARY EROSION CONTROL BARRIERS PARALLEL WITH SITE CONTOURS TO MINIMIZE CHANNELLING SURFACE RUNOFF. THE SITE AND THE CRUSHED STONE APRON SHALL BE GRADED TO PREVENT ANY CHANNELIZED RUNOFF FROM FLOWING OFF SITE.
- CONTRACTOR IS RESPONSIBLE TO CONTROL THE ON-SITE STORMWATER USING BEST MANAGEMENT PRACTICES TO PREVENT EROSION AND FLOODING IMPACTS.
- CONTRACTOR TO MANAGE ON-SITE SNOW BY STOCKPILING SNOW ALLOWING IT TO MELT IN A CONTROLLED MANNER WITHOUT IMPACTS TO THE ADJACENTS. IF THE SNOW VOLUME EXCEEDS THE STOCKPILE ALLOWANCE VOLUME THE CONTRACTOR SHALL REMOVE IT FROM THE SITE AND DISPOSE OF IT IN A LEGAL MANNER.
- CONSTRUCTION HOURS SHALL BE FROM 7:00AM TO 5:00PM MONDAY THROUGH FRIDAY, 8:00AM TO 4:00PM ON SATURDAYS. ALL CONSTRUCTION AND DELIVERIES ARE PROHIBITED SUNDAYS UNLESS APPROVED BY THE BUILDING COMMISSIONER.

LEGEND:

EXISTING:	PROPOSED:



PROJECT TITLE & LOCATION:

PROPOSED SITE PLAN
 91 BEATRICE CIRCLE
 BELMONT, MASS.

PLAN TITLE:

DEMOLITION

PREPARED FOR:

91 BEATRICE CIRCLE LLC
 c/o REGNANTE STERIO
 401 EDGEWATER PL, SUITE 630
 WAKEFIELD, MA 01880

DATE:

NOVEMBER 4, 2020

REVISED:

APRIL 19, 2021

REVISED:

JUNE 1, 2021

REVISED:

JUNE 25, 2021

REVISED:

JULY 6, 2021

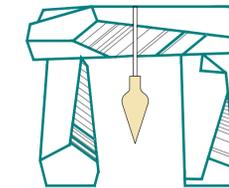
JOB NUMBER:

19.085

SHEET

3 OF 11

SCALE: 1"=20'



JAMES W BURKE, P.E.

GENERAL NOTES:

- LOCUS: ASSESSORS MAP 51 BLOCK LOT 36
- RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
 DEED REFERENCE: CERTIFICATE #271959
 PLAN REFERENCE: LC PLAN 2367-12
- ELEVATIONS REFER TO NAVD-88.
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- THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE AS DELINEATED ON FIRM 25017C-00416E, DATED JUNE 4, 2010.
- PARCEL IS ZONED SR-A.
- FOR PROPOSED BUILDING DIMENSIONS SEE ARCHITECTS PLAN BY EMBARC.

PROJECT TITLE & LOCATION:

**PROPOSED SITE PLAN
 91 BEATRICE CIRCLE
 BELMONT, MASS.**

PLAN TITLE:

PROPOSED LAYOUT

PREPARED FOR:

**91 BEATRICE CIRCLE LLC
 c/o REGNANTE STERIO
 401 EDGEWATER PL, SUITE 630
 WAKEFIELD, MA 01880**

DATE: NOVEMBER 4, 2020

REVISED: APRIL 19, 2021

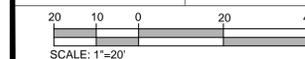
REVISED: JUNE 1, 2021

REVISED: JUNE 25, 2021

REVISED: JULY 6, 2021

JOB NUMBER: 19.085

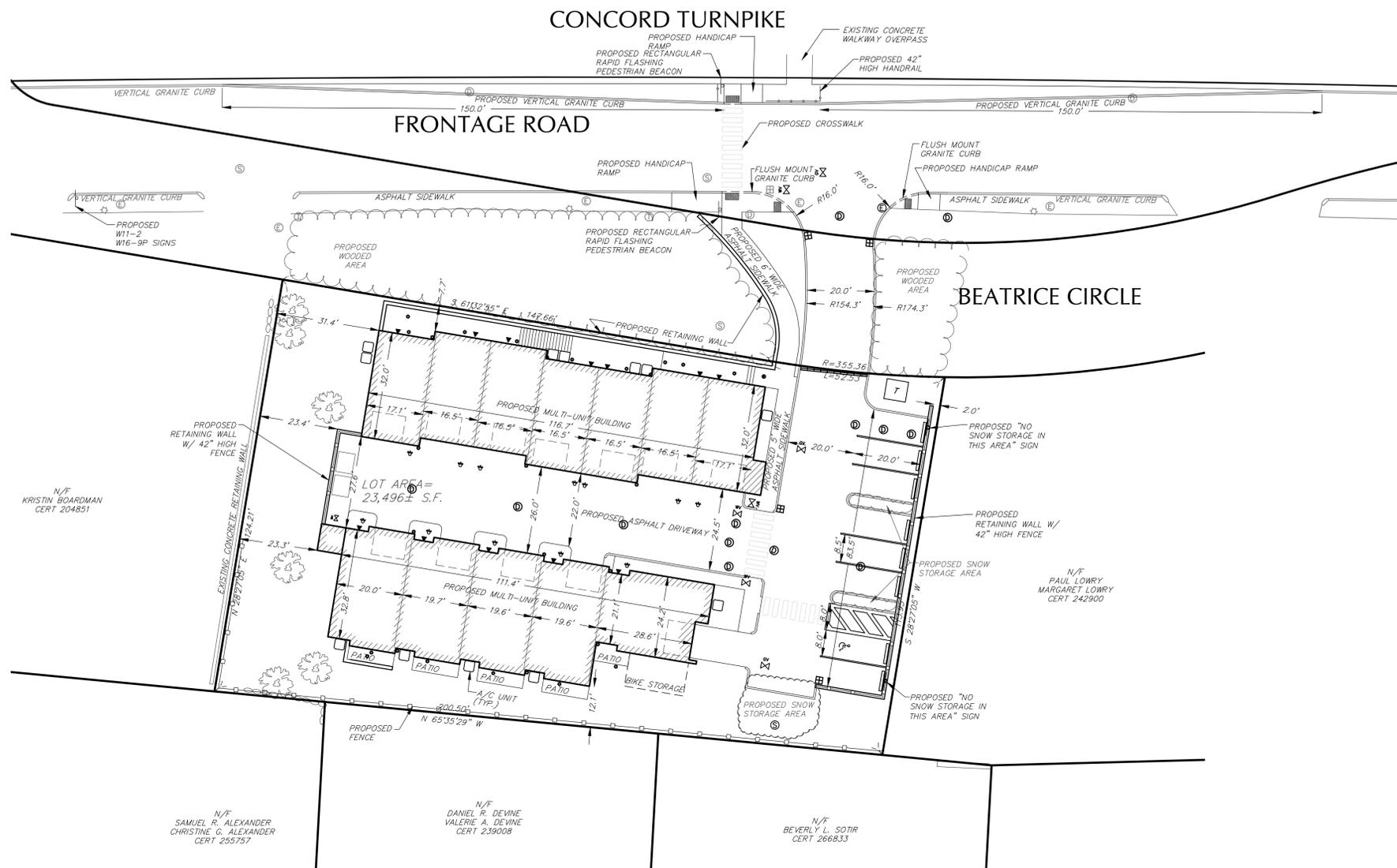
SHEET 4 OF 11



ZONING DISTRICT: SR-A			
DIMENSIONAL REQUIREMENTS	EXISTING	PROPOSED	PROPOSED
MINIMUM LOT AREA (SQ.FT.)	25,000	23,496	23,496
MINIMUM FRONTAGE (FT.)	125	200	200
MAX. BUILDING HEIGHT (FT.)	36		
MIN. SETBACKS (FT.)			
FRONT	30	29.7'	8.2'
SIDE	15	38.4'	23.3'
REAR	40	26.0'	12.1'
MAXIMUM LOT COVERAGE	20%	14.5%	29.9%
MINIMUM OPEN SPACE	50%	81.4%	38.3%

LEGEND:

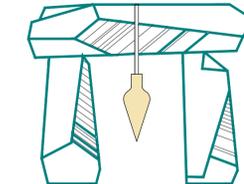
EXISTING:	PROPOSED:



APPROX. MASS GRID



DeCelle-Burke-Sala



& Associates, Inc.
 1266 Furnace Brook Parkway #401
 Quincy, MA 02169
 617-405-5100(o) 617-405-5101(f)
 www.decelle-burke-sala.com

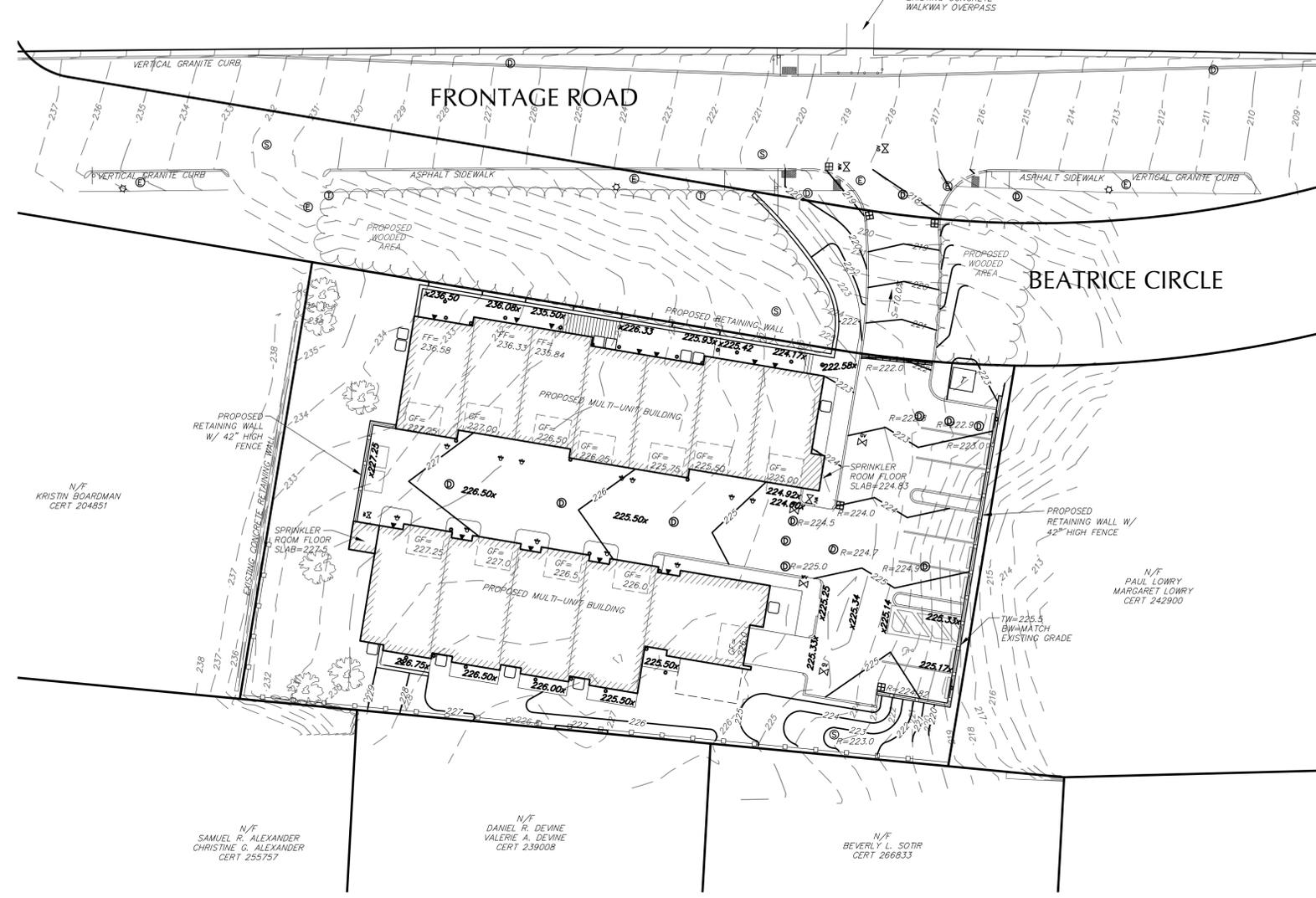


JAMES W BURKE, P.E.

GENERAL NOTES:

- LOCUS ASSESSORS MAP 51 BLOCK LOT 36
 RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
 DEED REFERENCE: CERTIFICATE #271959
 PLAN REFERENCE: LC PLAN 2367-12
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- PARCEL IS ZONED SR-A.

CONCORD TURNPIKE



LEGEND:

EXISTING:	PROPOSED:

PROJECT TITLE & LOCATION:

PROPOSED SITE PLAN
 91 BEATRICE CIRCLE
 BELMONT, MASS.

PLAN TITLE:

PROPOSED GRADING

PREPARED FOR:

91 BEATRICE CIRCLE LLC
 c/o REGNANTE STERIO
 401 EDGEWATER PL, SUITE 630
 WAKEFIELD, MA 01880

DATE: NOVEMBER 4, 2020

REVISED: APRIL 19, 2021

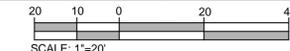
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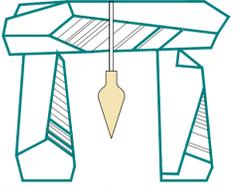
REVISED: JUNE 25, 2021

REVISED: JULY 6, 2021

JOB NUMBER: 19.085

SHEET 5 OF 11





JAMES W BURKE, P.E.

GENERAL NOTES:

- LOCUS: ASSESSORS MAP 51 BLOCK LOT 36
 RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
 DEED REFERENCE: CERTIFICATE #271959
 PLAN REFERENCE: LC PLAN 2367-12
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- PARCEL IS ZONED SR-A.

DRAINAGE NOTES:

- ALL WATER SERVICES LESS THAN OR EQUAL TO 2" IN SIZE SHALL BE CONSTRUCTED OF TYPE K COPPER PIPING. ALL WATER SERVICES GREATER THAN 2" IN SIZE SHALL BE CONSTRUCTED OF CONCRETE LINED DUCTILE IRON PIPE.
- ALL SEWER PIPES SHOULD BE CONSTRUCTED OF 6" SDR35 PVC AND HAVE A MINIMUM SLOPE OF 2.0% AND A MAXIMUM SLOPE OF 8.0%.
- A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN ALL SEWER AND WATER CROSSINGS. IF 18" OF VERTICAL SEPARATION CANNOT BE OBTAINED THEN THE SEWER LINE SHALL BE ENCASED IN 6" OF CONCRETE FOR A MINIMUM OF 10' ON EITHER SIDE OF THE CROSSING.
- ALL WATER SERVICES SHALL HAVE A MINIMUM COVER OF 4'-6".
- ALL SEWER PIPES SHALL HAVE A MINIMUM COVER OF 4'-0".
- ALL DRAIN PIPES SHALL HAVE A MINIMUM DEPTH OF 2'-0".
- ALL UTILITIES SHALL BE AS-BUILT BY A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR PRIOR TO BEING BACKFILLED.
- A BENTONITE DAM SHALL BE PLACED EVERY 20' WITHIN THE EXCAVATION OF THE WATER SERVICES ALONG THE INFILTRATION SYSTEM TO MITIGATE THE FLOW OF GROUNDWATER THROUGH THE UTILITY TRENCH. (SEE DETAIL PROVIDED)

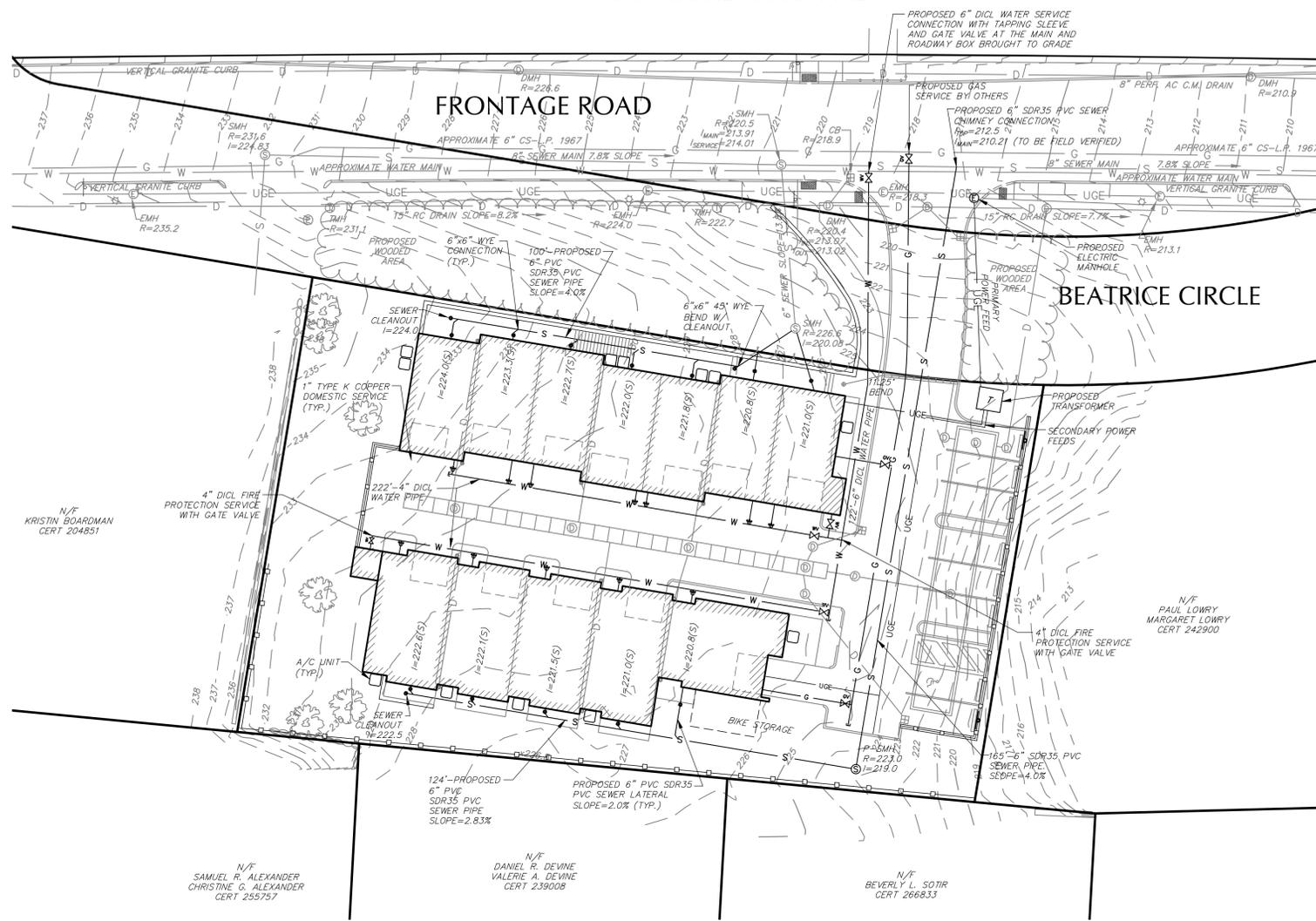
ANTICIPATED SEWER FLOW:

- (4) 4-BEDROOM UNITS
- (8) 3-BEDROOM UNITS
- TOTAL= 40 BEDROOMS
- 110 GPD/BEDROOM X 40 BEDROOMS = 4,400 GPD

CONCORD TURNPIKE

FRONTAGE ROAD

BEATRICE CIRCLE



LEGEND:

EXISTING:		PROPOSED:
	- LOCUS PROPERTY LINE	
	- TREE LINE	
	- SEWER MANHOLE (SMH)	
	- DRAIN MANHOLE (DMH)	
	- CATCH BASIN (CB)	
	- STONEWALL	
	- GAS VALVE	
	- WATER VALVE	
	- WATER SERVICE	
	- HYDRANT	
	- UTILITY POLE	
	- NOW OR FORMERLY	
	- DRAIN PIPE	
	- WATER MAIN	
	- GAS SERVICE	
	- UNDERGROUND POWER	
	- OVERHEAD WIRES	
	- SEWER MAIN	
	- LANDSCAPED AREA	
	- GRADE	
	- SPOT GRADE	
	- CHAIN LINK FENCE	
	- CHAIN LINK FENCE	
	- TEST PIT	
	- HAND HOLES FOR UTILITIES	
	- LIGHT POLE	
	- FIRST FLOOR	
	- TOP OF FOUNDATION	
	- GARAGE FLOOR	
	- SECOND FLOOR	
	- SEWER INVERT	
	- DRAIN INVERT	

PROJECT TITLE & LOCATION:

PROPOSED SITE PLAN
 91 BEATRICE CIRCLE
 BELMONT, MASS.

PLAN TITLE:

PROPOSED UTILITIES

PREPARED FOR:

91 BEATRICE CIRCLE LLC
 c/o REGNANTE STERIO
 401 EDGEWATER PL, SUITE 630
 WAKEFIELD, MA 01880

DATE: NOVEMBER 4, 2020

REVISED: APRIL 19, 2021

REVISED: JUNE 1, 2021

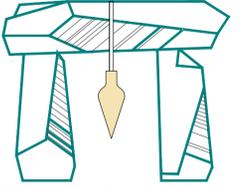
REVISED: JUNE 25, 2021

REVISED: JULY 6, 2021

JOB NUMBER: 19.085

SHEET 6 OF 11



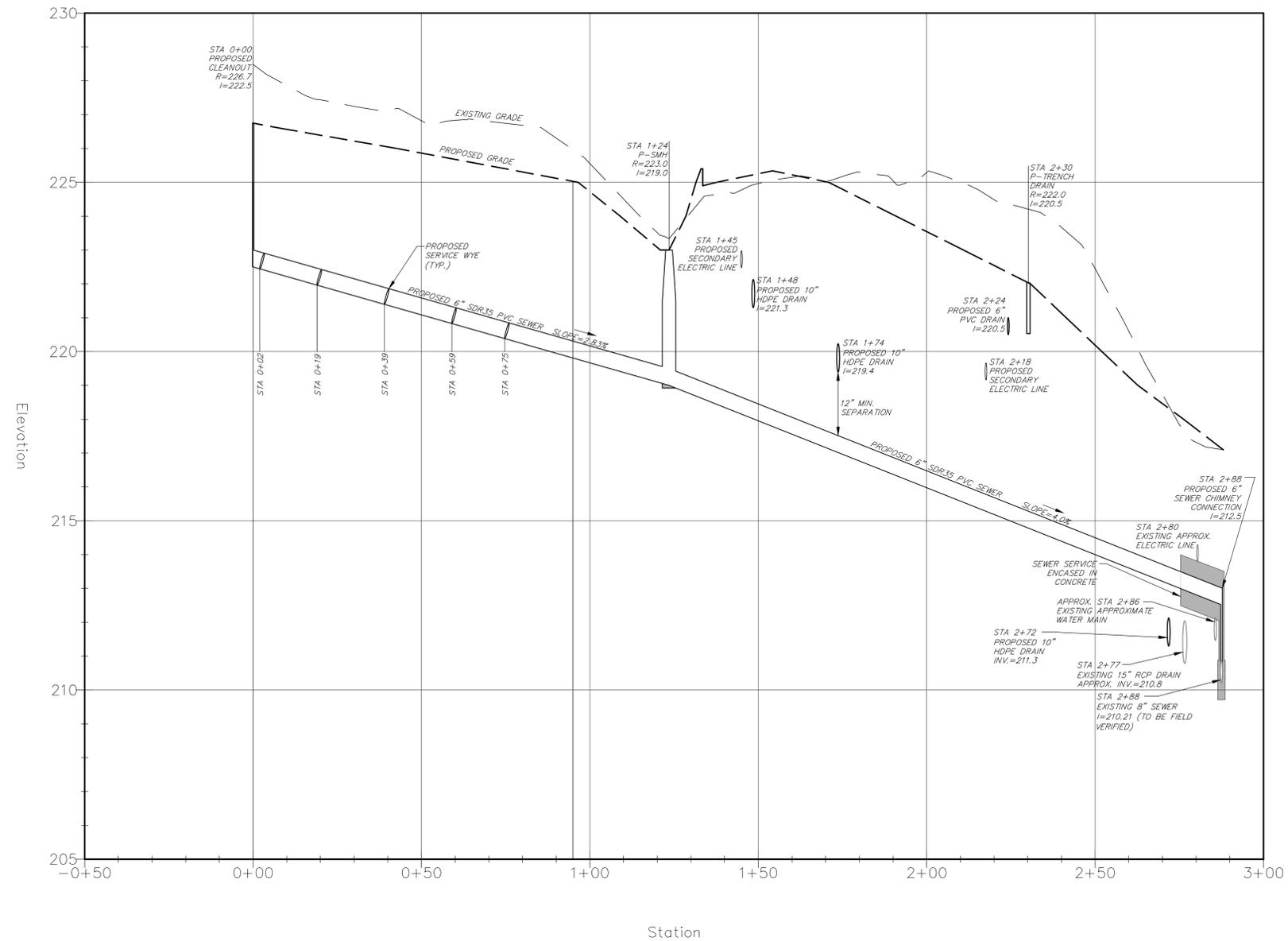


JAMES W BURKE, P.E.

GENERAL NOTES:

- LOCUS: ASSESSORS MAP 51 BLOCK LOT 36
- RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
 DEED REFERENCE: CERTIFICATE #271959
 PLAN REFERENCE: LC PLAN 2367-12
- ELEVATIONS REFER TO NAVD-88.
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- PARCEL IS ZONED SR-A.

Proposed Sewer Alignment Profile



HORIZONTAL SCALE: 1"=20'
 VERTICAL SCALE: 1"=2'

LEGEND:

EXISTING:		PROPOSED:	
	- LOCUS PROPERTY LINE		- SEWER MANHOLE (SMH)
	- TREE LINE		- DRAIN MANHOLE (DMH)
	- CATCH BASIN (CB)		- STONEWALL
	- GAS VALVE		- WATER VALVE
	- WATER SERVICE		- HYDRANT
	- UTILITY POLE		- SEWER MAIN
	- NOW OR FORMERLY		- WATER MAIN
	- DRAIN PIPE		- GAS SERVICE
	- WATER MAIN		- UNDERGROUND POWER
	- GAS SERVICE		- OVERHEAD WIRES
	- UNDERGROUND POWER		- SEWER MAIN
	- OVERHEAD WIRES		- LANDSCAPED AREA
	- SEWER MAIN		- SPOT GRADE
	- LANDSCAPED AREA		- CHAIN LINK FENCE
	- GRADE		- CHAIN LINK FENCE
	- SPOT GRADE		- TEST PIT
	- CHAIN LINK FENCE		- HAND HOLES FOR UTILITIES
	- CHAIN LINK FENCE		- LIGHT POLE
	- TEST PIT		- FIRST FLOOR
	- HAND HOLES FOR UTILITIES		- TOP OF FOUNDATION
	- LIGHT POLE		- GARAGE FLOOR
	- FIRST FLOOR		- SECOND FLOOR
	- TOP OF FOUNDATION		- SEWER INVERT
	- GARAGE FLOOR		- DRAIN INVERT
	- SECOND FLOOR		
	- SEWER INVERT		
	- DRAIN INVERT		

PROJECT TITLE & LOCATION:

PROPOSED SITE PLAN
 91 BEATRICE CIRCLE
 BELMONT, MASS.

PLAN TITLE:

PROPOSED SEWER PROFILE

PREPARED FOR:

91 BEATRICE CIRCLE LLC
 c/o REGNANTE STERIO
 401 EDGEWATER PL, SUITE 630
 WAKEFIELD, MA 01880

DATE: NOVEMBER 4, 2020

REVISED: APRIL 19, 2021

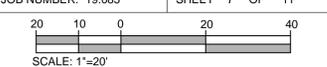
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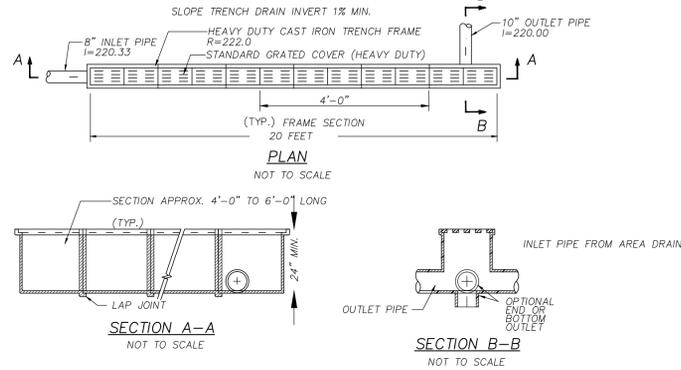
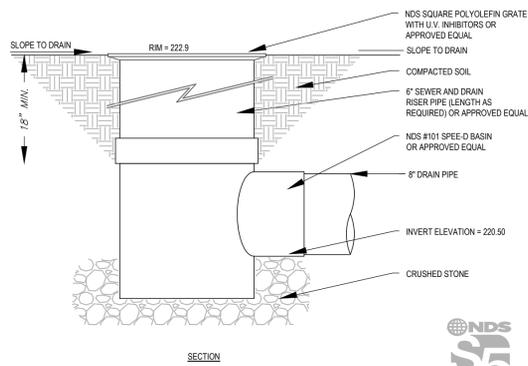
REVISED: JUNE 25, 2021

REVISED: JULY 6, 2021

JOB NUMBER: 19.085

SHEET 7 OF 11





TRENCH DRAIN DETAIL
(W/ HEAVY DUTY FRAME AND GRATED COVER)
MANUFACTURER: NEENAH FOUNDRY CO.
OR APPROVED EQUAL

NOTE: PROVIDE BOTTOM OUTLET, LENGTH L = 20'-0"

- NOTES:**
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWING.
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
 4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

**PROPOSED AREA DRAIN
ROUND SPEED-O BASINS**

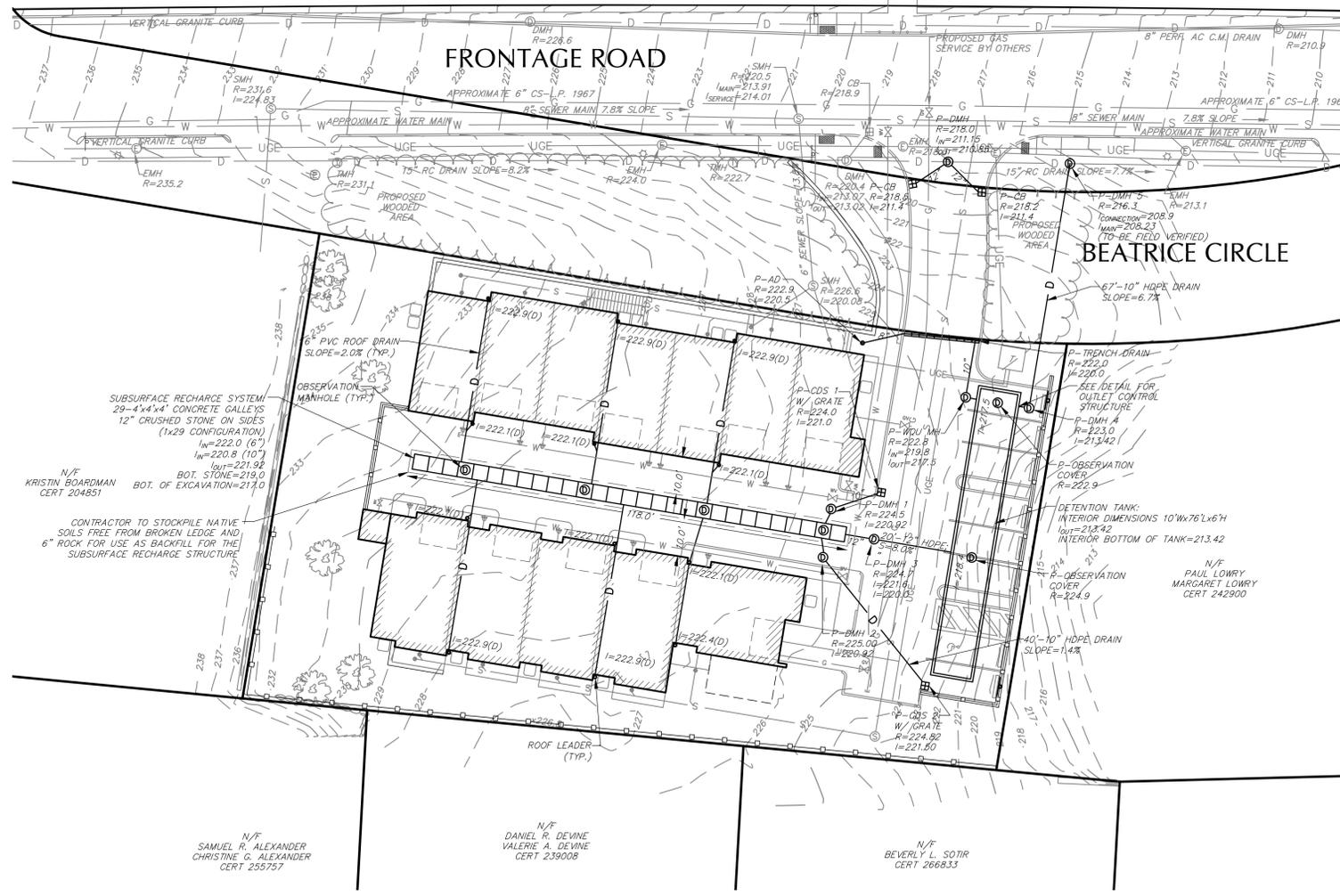
SQUARE GRATE WITH SPEED-O BASIN (N/S)



CONCORD TURNPIKE

FRONTAGE ROAD

BEATRICE CIRCLE

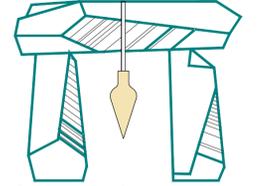


DRAINAGE NOTES:

1. ALL DRAIN PIPES GREATER THAN OR EQUAL TO 10" IN SIZE SHALL BE CONSTRUCTED OF HDPE. ALL DRAIN PIPES LESS THAN 10" IN SIZE SHALL BE CONSTRUCTED OF SCHEDULE 40 PVC.
2. ALL DRAIN PIPES SHOULD HAVE A MINIMUM SLOPE OF 1.0% AND A MAXIMUM SLOPE OF 8.0%.
3. A MINIMUM OF 12 INCHES OF VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN ALL UTILITY CROSSINGS.
4. THE EXCAVATION FOR THE PROPOSED INFILTRATION SYSTEM SHALL BE INSPECTED AND SIGNED OFF BY THE DESIGN ENGINEER PRIOR TO THE INSTALLATION OF THE STRUCTURES.
5. THE BACKFILL MATERIAL FOR THE PROPOSED SUBSURFACE RECHARGE STRUCTURE SHALL BE INSPECTED AND SIGNED OFF BY THE DESIGN ENGINEER PRIOR TO BACKFILL.
6. SILT SACKS SHALL BE INSTALLED IN THE CATCH BASINS AND TRENCH DRAIN AFTER THEY HAVE BEEN CONSTRUCTED TO PREVENT ANY CONSTRUCTION RELATED DEBRIS FROM ENTERING THE DRAINAGE SYSTEM.
7. ALL DRAINAGE STRUCTURES AND PIPES SHALL BE FLUSHED AND CLEANED PRIOR TO CONNECTING THEM TO THE PROPOSED INFILTRATION AND DETENTION SYSTEMS.
8. THE DRAINAGE STRUCTURES AND PIPING SHALL BE AS-BUILT BY A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR PRIOR TO BEING BACKFILLED.

LEGEND:

EXISTING:	- LOCUS PROPERTY LINE	PROPOSED:	- 6\"/>
	- TREE LINE		- SEWER MANHOLE (SMH)
	- DRAIN MANHOLE (DMH)		- CATCH BASIN (CB)
	- STONE WALL		- GAS VALVE
	- WATER VALVE		- WATER SERVICE
	- HYDRANT		- UTILITY POLE
	- UTILITY POLE (N/F)		- DRAIN PIPE
	- WATER MAIN		- WATER MAIN
	- GAS SERVICE		- GAS SERVICE
	- UNDERGROUND POWER		- OVERHEAD WIRES
	- SEWER MAIN		- LANDSCAPED AREA
	- GRADE		- SPOT GRADE
	- CHAIN LINK FENCE		- CHAIN LINK FENCE
	- TEST PIT		- HAND HOLES FOR UTILITIES
	- LIGHT POLE		- FIRST FLOOR
	- TOP OF FOUNDATION		- GARAGE FLOOR
	- SECOND FLOOR		- SEWER INVERT
	- DRAIN INVERT		- DRAIN INVERT



& Associates, Inc.
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Quincy, MA 02169
617-405-5100 (o) 617-405-5101 (f)
www.decelle-burke-sala.com



JAMES W. BURKE, P.E.

GENERAL NOTES:

1. LOCUS: ASSESSORS MAP 51 BLOCK LOT 36
- RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
DEED REFERENCE CERTIFICATE #271959
PLAN REFERENCE: LC PLAN 2367-12
2. ELEVATIONS REFER TO NAVD-88.
3. EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM SURFACE OBSERVATION AND RECORD INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING THE PROPOSED CONSTRUCTION ACTIVITY WITH DIG-SAFE AND THE APPLICABLE UTILITY COMPANIES AND MAINTAINING THE EXISTING UTILITY SYSTEM IN SERVICE.
- DIG-SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 40B AT TEL. 1-888-344-7233. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND ELEVATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM RECORD PLANS. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS OF UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
4. THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE AS DELINEATED ON FIRM 25017C-00416E, DATED JUNE 4, 2010.
5. PARCEL IS ZONED SR-A.

PROJECT TITLE & LOCATION:

**PROPOSED SITE PLAN
91 BEATRICE CIRCLE
BELMONT, MASS.**

PLAN TITLE:

PROPOSED UTILITIES

PREPARED FOR:

**91 BEATRICE CIRCLE LLC
c/o REGNANTE STERIO
401 EDGEWATER PL, SUITE 630
WAKEFIELD, MA 01880**

DATE: NOVEMBER 4, 2020

REVISED: APRIL 19, 2021

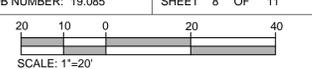
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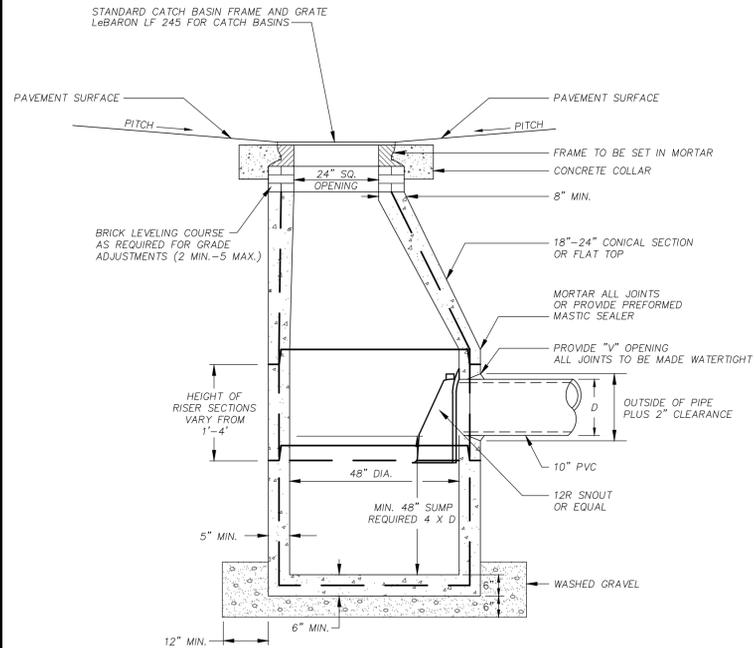
REVISED: JUNE 25, 2021

REVISED: JULY 6, 2021

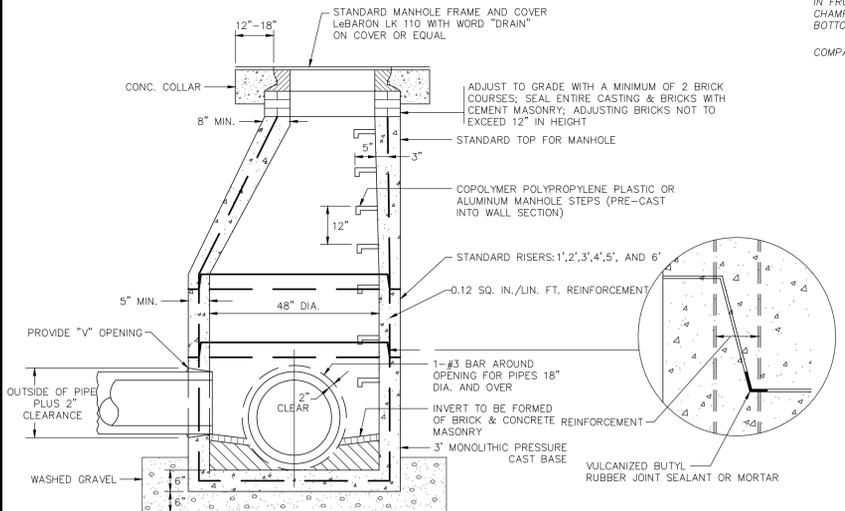
JOB NUMBER: 19.085

SHEET 8 OF 11

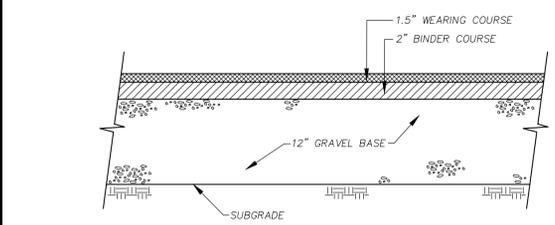




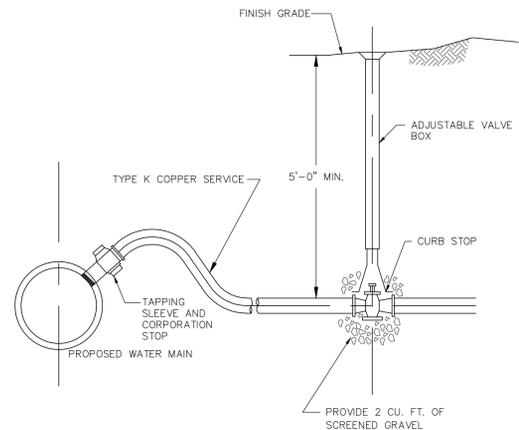
PRECAST CONCRETE CATCH BASIN
NOT TO SCALE



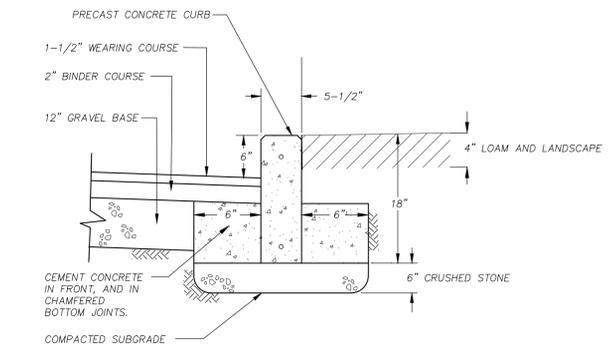
STANDARD PRE-CAST DRAIN MANHOLE
NOT TO SCALE



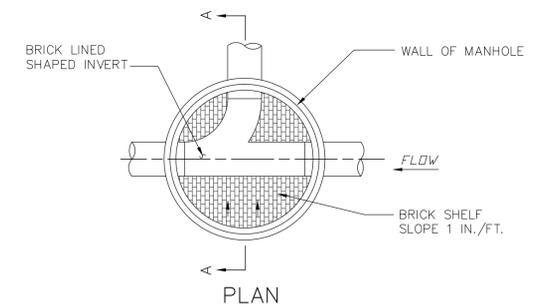
PAVEMENT SECTION
NOT TO SCALE



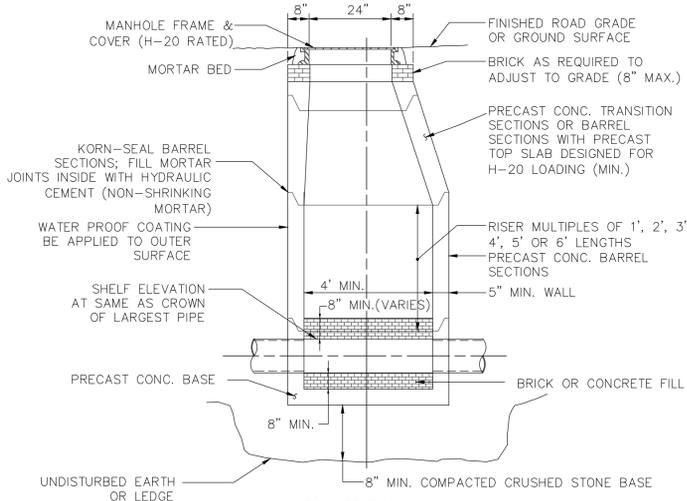
1" WATER SERVICE CONNECTION
NOT TO SCALE



PRECAST CONCRETE CURB
NOT TO SCALE

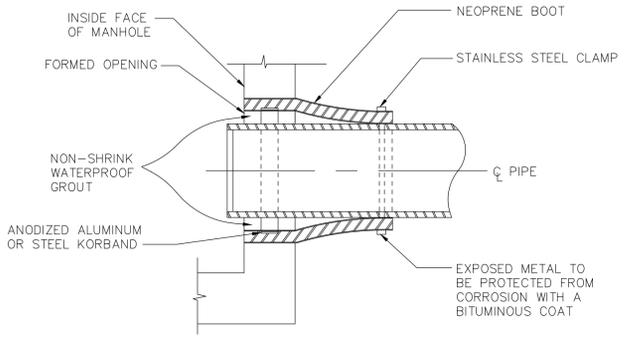


PLAN

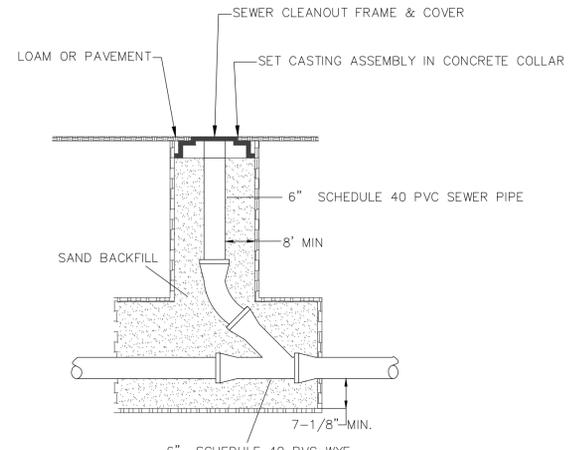


SECTION

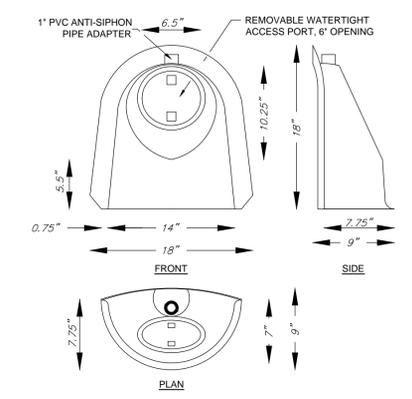
TYPICAL PRECAST SEWER MANHOLE
NOT TO SCALE



NEOPRENE BOOT CONNECTION
NOT TO SCALE

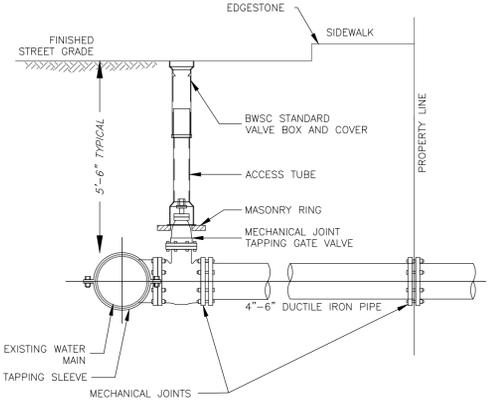


SEWER CLEANOUT
NOT TO SCALE

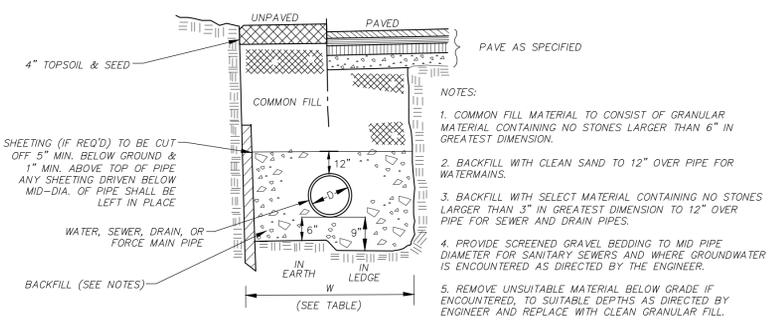


12R SNOUT
NOT TO SCALE

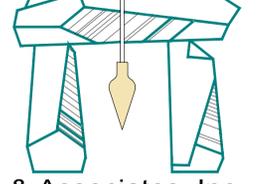
NOTES:
- CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL
BEAR ON UNDISTURBED EARTH.
- USE RESTRAINED JOINT FITTINGS OR TIE RODS
WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE.
- SIZE OF BLOCK OR MEGALUG TO BE DESIGNED FOR SPECIFIC
CONDITIONS.



4"-6" WATER SERVICE CONNECTION
NOT TO SCALE



TYPICAL TRENCH SECTIONS
NOT TO SCALE



JAMES W BURKE, P.E.

GENERAL NOTES:

- LOCUS: ASSESSORS MAP 51 BLOCK LOT 36
RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
DEED REFERENCE: CERTIFICATE #271959
PLAN REFERENCE: LC PLAN 2367-12
- ELEVATIONS REFER TO NAVD-88.
- EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM
SURFACE OBSERVATION AND RECORD INFORMATION AND SHOULD BE
CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE
FOR PROPERLY LOCATING AND COORDINATING THE PROPOSED
CONSTRUCTION ACTIVITY WITH DIG-SAFE AND THE APPLICABLE UTILITY
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DIG-SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS
STATUTE CHAPTER 82, SECTION 409 AT TEL. 1-888-344-7233. THE
ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES
AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND
ELEVATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM RECORD
PLANS. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS
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- THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD
ZONE AS DELINEATED ON FIRM 25017C-00416E, DATED JUNE 4, 2010.
- PARCEL IS ZONED SR-A.

PROJECT TITLE & LOCATION:

PROPOSED SITE PLAN
91 BEATRICE CIRCLE
BELMONT, MASS.

PLAN TITLE:

CONSTRUCTION DETAILS

PREPARED FOR:

91 BEATRICE CIRCLE LLC
c/o REGNANTE STERIO
401 EDGEWATER PL, SUITE 630
WAKEFIELD, MA 01880

DATE: NOVEMBER 4, 2020

REVISED: APRIL 19, 2021

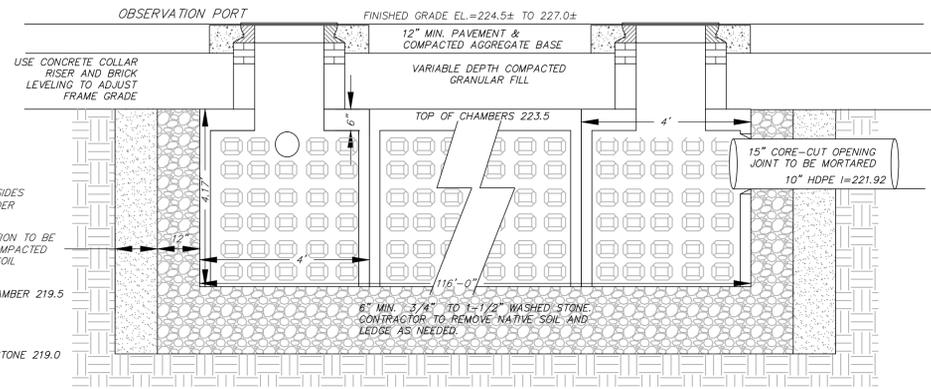
REVISED: JUNE 1, 2021

REVISED: JUNE 25, 2021

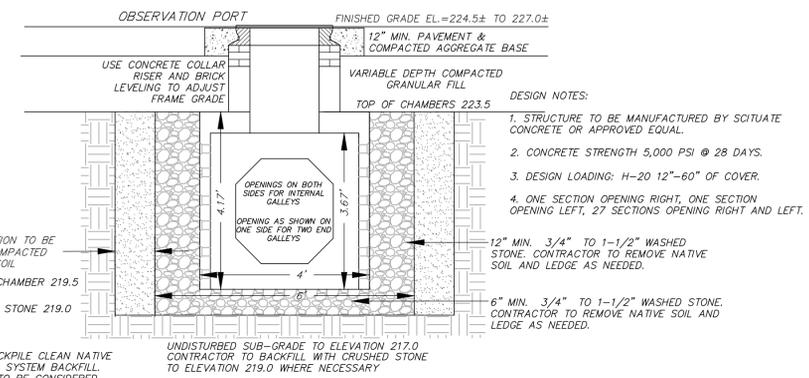
REVISED: JULY 6, 2021

JOB NUMBER: 19.085

SHEET 9 OF 11

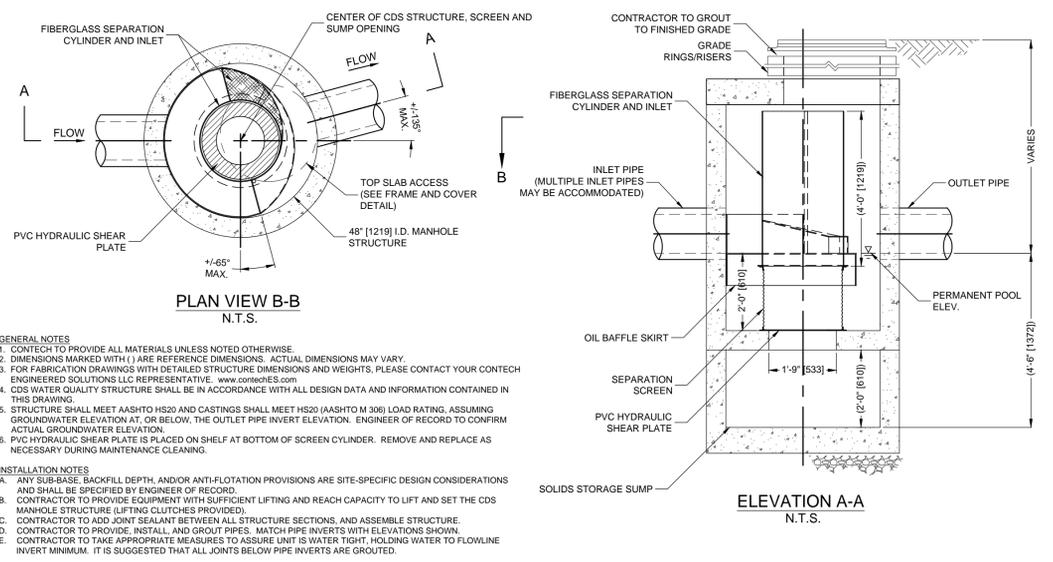


PROFILE SECTION
NOT TO SCALE

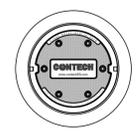


CROSS SECTION
NOT TO SCALE

4'x4'x4' CONCRETE LEACHING GALLEY STRUCTURE
NOT TO SCALE



CDS2015-4-C BY CONTECH STANDARD DETAIL
NOT TO SCALE

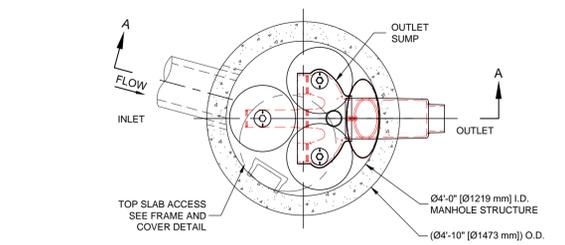


SECTION A-A
FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

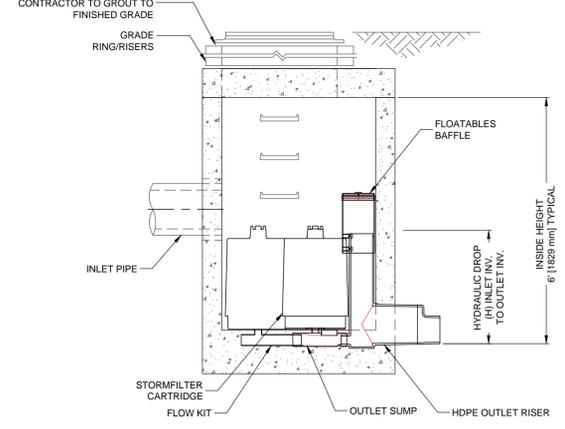
STORMFILTER DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (3). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 3 CARTRIDGES. 84\"/>

CARTRIDGE SELECTION	16"	18"
CARTRIDGE HEIGHT	2.3'	2.3'
RECOMMENDED HYDRAULIC DROP (H)	2.3'	2.3'
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	15	7.5

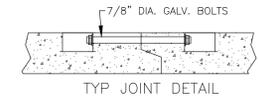


PLAN VIEW
STANDARD OUTLET RISER
FLOWKIT: 40A

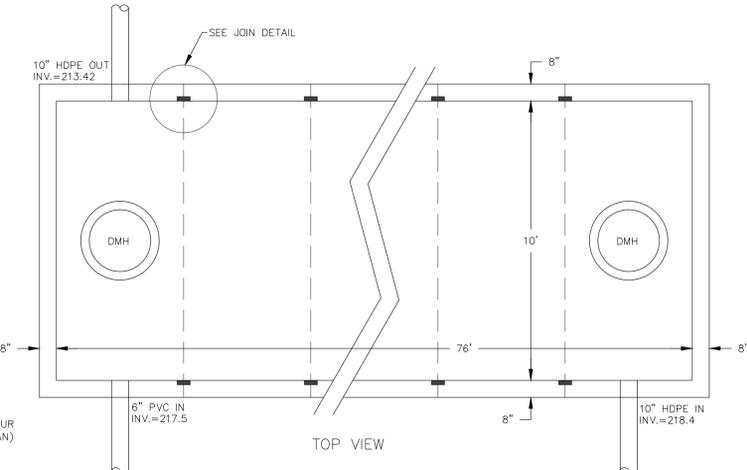


SECTION A-A

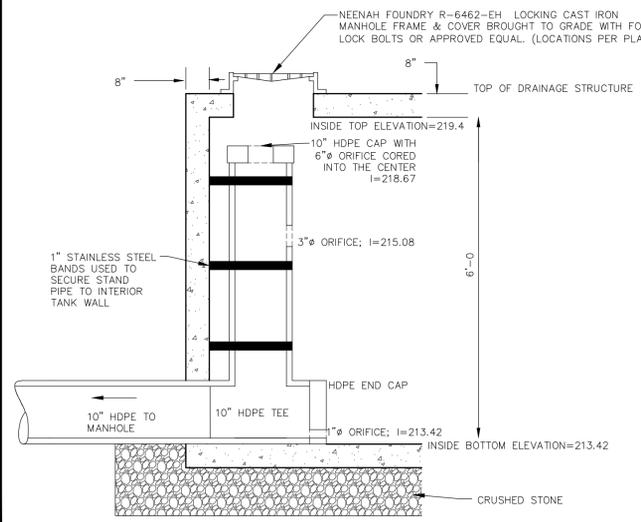
SFMH48 STORMFILTER WATER QUALITY UNIT
BY CONTECH STANDARD DETAIL
NOT TO SCALE



- NOTES:**
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS
 2. DESIGN PER ASTM C1433 BOX CULVERT
 3. ALL REINFORCEMENT PER ASTM A615
 4. DESIGNED FOR AASHTO HS-20 LOADING WITH 12\"/>



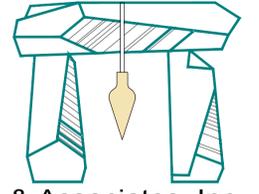
TOP VIEW



SECTION VIEW
BOX CULVERT
NOT TO SCALE

OUTLET CONTROL STRUCTURE FOR TANK
NOT TO SCALE

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617-405-5100 (o) 617-405-5101 (f)
www.decelle-burke-sala.com



JAMES W BURKE, P.E.

- GENERAL NOTES:**
1. LOCUS: ASSESSORS MAP 51 BLOCK LOT 36
 - RECORD OWNER: COMPREHENSIVE LAND HOLDINGS
DEED REFERENCE: CERTIFICATE #271959
PLAN REFERENCE: LC PLAN 2367-12
 2. ELEVATIONS REFER TO NAVD-88.
 3. EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM SURFACE OBSERVATION AND RECORD INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING THE PROPOSED CONSTRUCTION ACTIVITY WITH DIG-SAFE AND THE APPLICABLE UTILITY COMPANIES AND MAINTAINING THE EXISTING UTILITY SYSTEM IN SERVICE. DIG-SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 409 AT TEL. 1-888-344-7233. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND ELEVATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM RECORD PLANS. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS OF UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
 4. THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE AS DELINEATED ON FIRM 25017C-00416E, DATED JUNE 4, 2010.
 5. PARCEL IS ZONED SR-A.

PROJECT TITLE & LOCATION:

PROPOSED SITE PLAN
91 BEATRICE CIRCLE
BELMONT, MASS.

PLAN TITLE:
CONSTRUCTION DETAILS

PREPARED FOR:
91 BEATRICE CIRCLE LLC
c/o REGNANTE STERIO
401 EDGEWATER PL, SUITE 630
WAKEFIELD, MA 01880

DATE: NOVEMBER 4, 2020
REVISED: APRIL 19, 2021
REVISED: JUNE 1, 2021
REVISED: JUNE 25, 2021
REVISED: JULY 6, 2021
JOB NUMBER: 19.085 **SHEET** 10 **OF** 11



JAMES W. BURKE, P.E.

GENERAL NOTES:

1. LOCAL ASSESSORS MAP 51 BLOCK LOT 38
 RECORD OWNER, COMPREHENSIVE LAND HOLDINGS
 BEED REFERENCE: CERTIFICATE #271959
 PLAN REFERENCE: LC PLAN 257-12
2. ELEVATIONS REFER TO WMO-88.
3. EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND CORRECTING THE PROPOSED CONSTRUCTION ACCORD WITH DIG-SAFE AND THE APPLICABLE UTILITY COMPANIES AND MAINTAINING THE DESIGN UTILTY SYSTEM IN SERVICE. DIG-SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS REQUIREMENTS PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND RECORD ELEVATIONS DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES OF UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
4. THE LOT SHOWN DOES NOT JE. WITHIN A SPECIAL 1000 HAZARD ZONE AS Delineated ON FIRM 25017C-00418E, DATED JUNE 4, 2010.
5. PARCEL IS ZONED SR-A.
6. FOR PROPOSED BUILDING DIMENSIONS SEE ARCHITECTS PLAN BR 040000.

PROJECT TITLE & LOCATION:
PROPOSED SITE PLAN
91 BEATRICE CIRCLE
BELMONT, MASS.

PLAN TITLE:
PROPOSED OPEN SPACE

PREPARED FOR:
91 BEATRICE CIRCLE LLC
c/o REGNANTE STERIO
401 EDGEWATER PL, SUITE 630
WAKEFIELD, MA 01880

DATE: NOVEMBER 4, 2020
 REVISED: APRIL 19, 2021
 REVISED: JUNE 1, 2021
 REVISED: JUNE 25, 2021
 REVISED: JULY 6, 2021

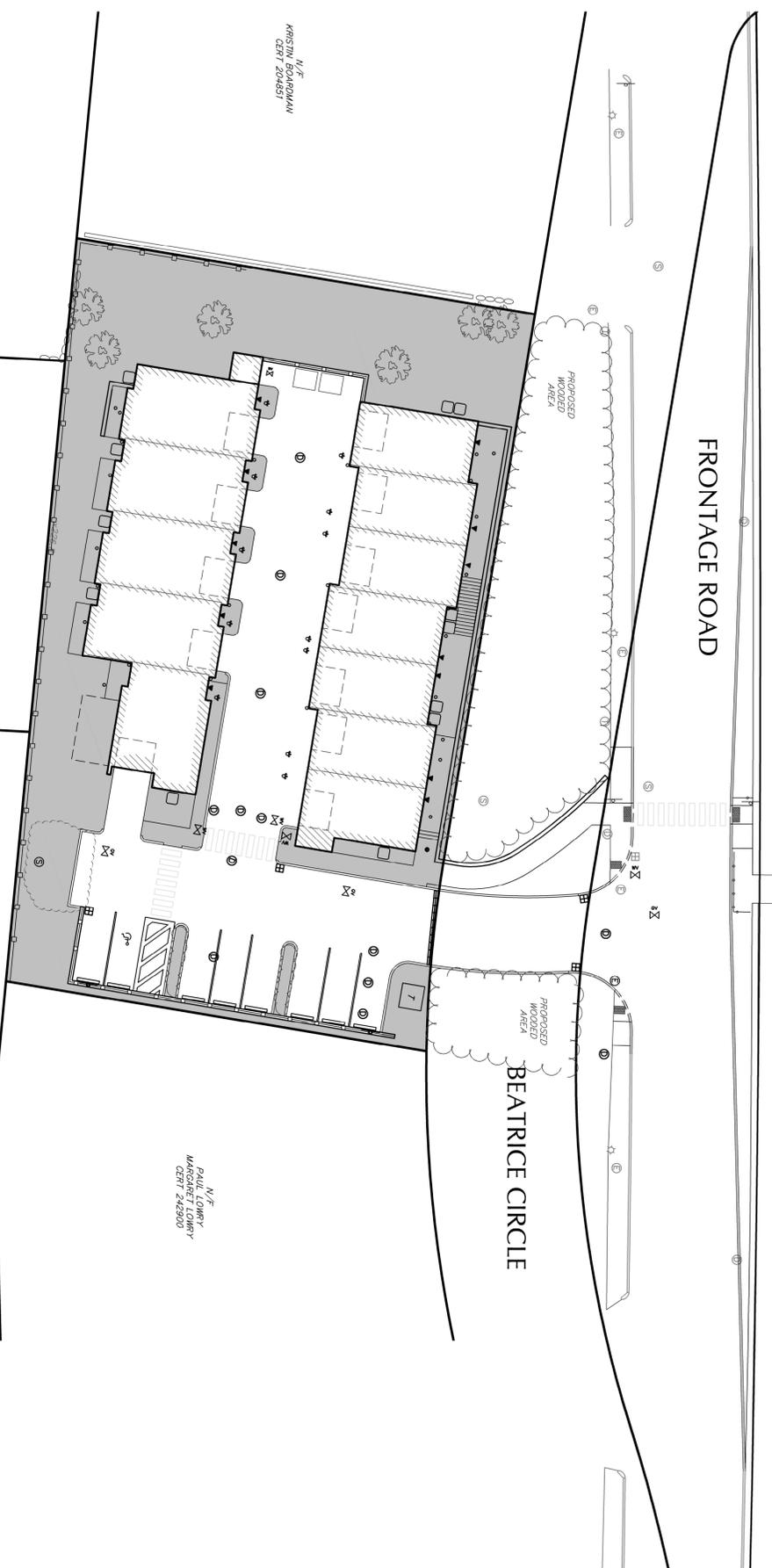
JOB NUMBER: 19.065 SHEET 1 OF 1
 SCALE: 1" = 20'



ZONING DISTRICT: SR-A		EXISTING	PROPOSED
MINIMUM LOT AREA (SQ.FT.)	25,000	23,496	23,496
MINIMUM FRONTAGE (FT.)	125	200	200
MAX. BUILDING HEIGHT (FT.)	36		
MIN. SETBACKS (FT.)			
FRONT	30	29.7'	8.2'
SIDE	15	38.4'	23.3'
REAR	40	26.0'	12.1'
MAXIMUM LOT COVERAGE	20%	14.5%	29.9%
MINIMUM OPEN SPACE	50%	81.4%	38.3%

LEGEND:

- EXISTING:**
- LOCUS PROPERTY LINE
 - TREE LINE
 - ⊙ SEWER MANHOLE (SMH)
 - ⊙ DRAIN MANHOLE (DMH)
 - ⊞ CATCH BASIN (CB)
 - STONEWALL
 - ⊗ GAS VALVE
 - ⊗ WATER VALVE
 - ⊗ WATER SERVICE
 - ⊗ HYDRANT
 - ⊗ UTILITY POLE
 - ⊗ MOW OR POWEREVELY
 - N/F
- PROPOSED:**
- D
 - W
 - G
 - U
 - OHW
 - S
 - LSA
 - 25'
 - 25.7
 - ⊗ TEST PIT
 - ⊗ HAND HOLES FOR UTILITIES
 - ⊗ LIGHT POLE
 - FF
 - FF
 - TOP OF FOUNDATION
 - GF
 - GF
 - SF



N/F
 KRISTIN BORDMAN
 CERT 250657

N/F
 SAMUEL R. ALEXANDER
 CHRISTINE G. ALEXANDER
 CERT 259757

N/F
 PAUL LOMRY
 MARGARET LOMRY
 CERT 249800

N/F
 DANIEL A. DENNIS
 VALERIE A. DENNIS
 CERT 239008

N/F
 BEVERLY L. SOTIR
 CERT 286833



VERDANT

LANDSCAPE PLAN
 91 BEATRICE CIRCLE
 BELMONT, MA

L1

JULY 7, 2021



Columnar Sweet Gum



Pillar Pin Oak



Green Giant Red Cedar



Red Oak



Pennsylvania Carex



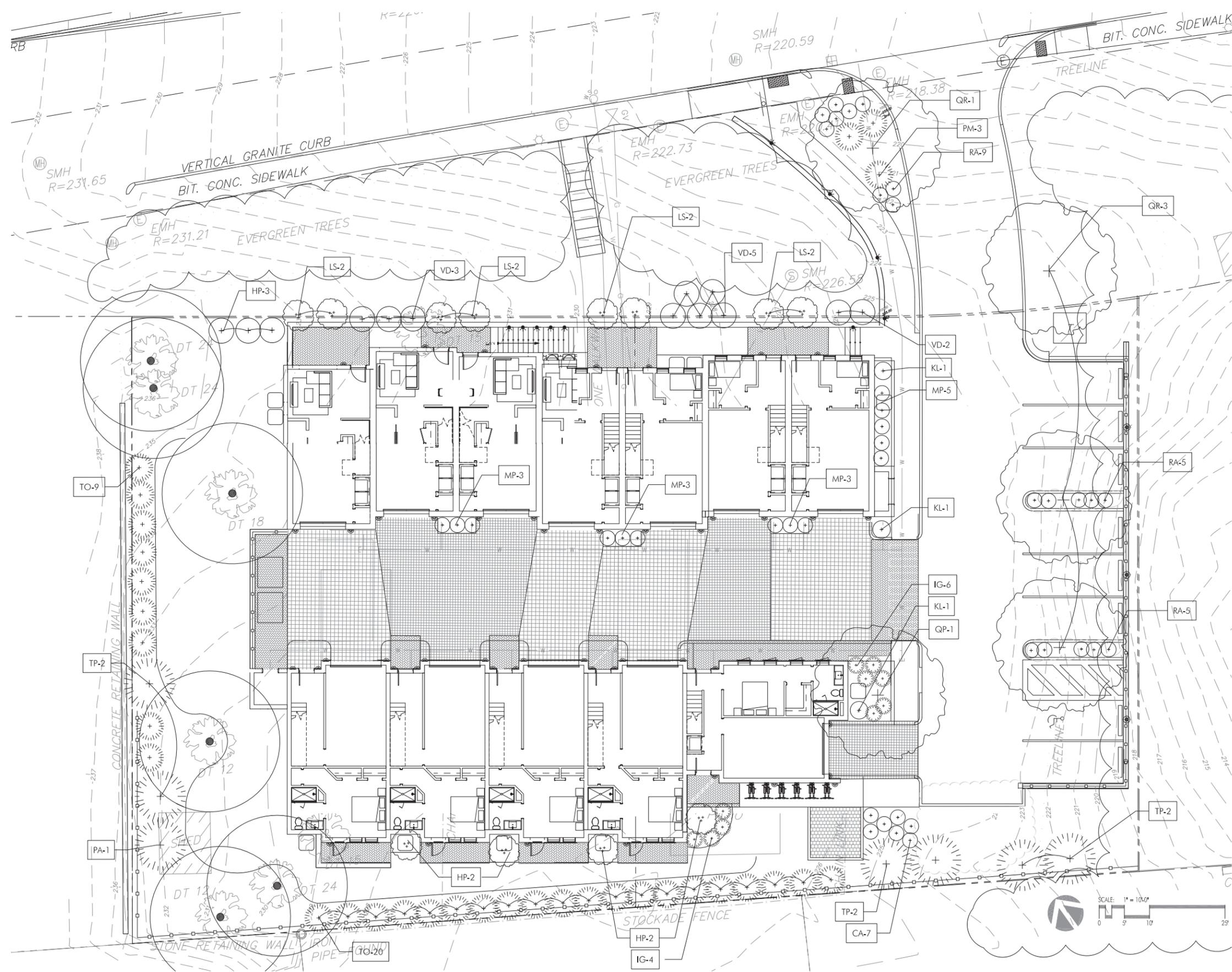
Vinca



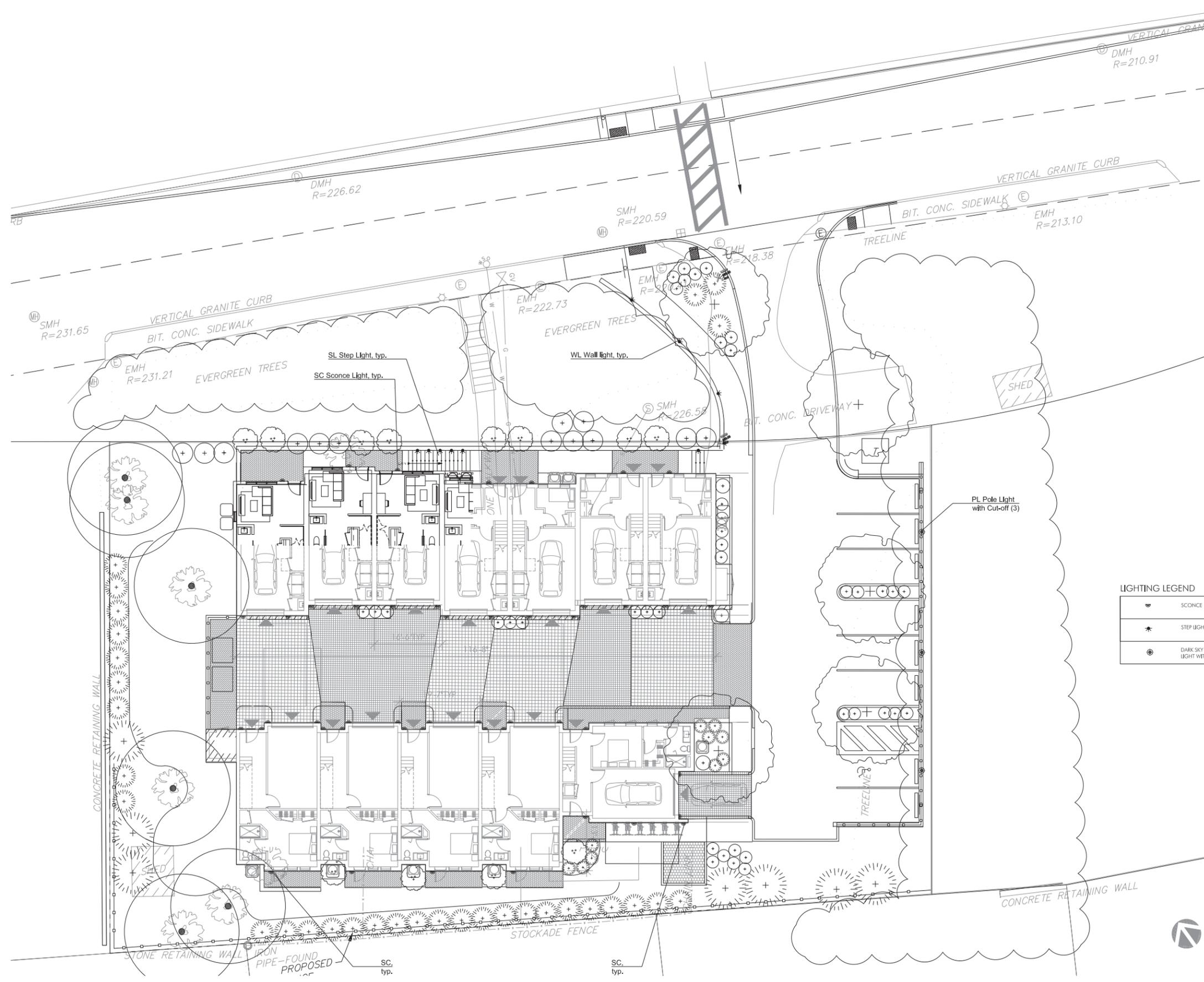
Rhododendron



Mountain Laurel



PROPOSED PLANT LIST				
SYMB	LATIN NAME	COMMON NAME	SIZE	NOTES
TREES				
PA 1	<i>Picea abies</i>	Norway Spruce	7-8' ht.	b&b
TP 5	<i>Thuja plicata</i> 'Green Giant'	Green Giant Western Red Cedar	7-8' ht.	b&b
TO 27	<i>Thuja occidentalis</i> 'Emerald Green'	Emerald Green Arborvitae	7-8' ht.	b&b
LS 7	<i>Liquidambar styraciflua</i> 'Slend. Silhouette'	Slender Silhouette Sweetgum	2-2.5" cal.	b&b
QP 1	<i>Quercus palustris</i> 'Green Pillar'	Green Pillar Pin Oak	3-3.5" cal.	b&b
QR 4	<i>Quercus rubra</i>	Red Oak	2-2.5" cal.	b&b
SHRUBS				
CA 7	<i>Clethra alnifolia</i>	Summersweet	3 gal.	
HP 7	<i>Hydrangea paniculata</i> 'Grandiflora'	Pee Gee Hydrangea	7 gal.	
IG 10	<i>Ilex glabra</i> 'Densa'	Inkberry	5 gal.	
KL 3	<i>Kalmia latifolia</i>	Mountain Laurel	24" ht.	
MP 14	<i>Myrica pensylvanica</i>	Northern Bayberry	24-36" ht.	
PM 3	<i>Pinus mugo</i> 'Pumila'	Dwarf Mugo Pine	5 gal.	
RA 19	<i>Rhus aromatica</i> 'Lo Gro'	Lo Gro Sumac	5 gal.	
VD 10	<i>Virburnum dentatum</i>	Arrowwood Viburnum	3'-4" ht.	
PERENNIALS & GRASSES				
cp 110	<i>Carex pensylvanica</i>	Pennsylvania Carex	2" plug	12" o.c
ls 46	<i>Liriope spicata</i>	Lilyturf	2 gal	
vm 209	<i>Vinca minor</i>	Myrtle	2 gal	



Sconce by Bega



Step Light/Wall Light by Bega



Pole Light by Sternberg With shield and dialer