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*32 Marion St. Senior  
Housing*

*Construction Management Plan*

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*32 Marion Street, Brookline, MA 02446*





**Building Responsibly.**

Prepared for:  
**Brookline Housing Authority**

General Contractor:  
**Delphi Construction Inc.**

Prepared by:  
**Steven McCaul, Project Manager**  
**Delphi Construction Inc.**

## General Information:

On behalf of Brookline Housing Authority (the Developer) and Delphi Construction (Construction Manager) in collaboration with Davis Square Architects, the attached Construction Management Plan (CMP) has been developed for review and approval by the Brookline Building Department (BBD) and the Transportation Division of Brookline DPW. This CMP plan includes the following:

1. Written agreement describing construction activities
2. Construction Management Plans
3. Construction Schedule

## Project Overview:

This Project is located at **32 – 40A Marion Street, New Construction**, in Brookline, MA. This 6-story mid-rise passive house building will be for 115 low-income elderly and disabled households in, accordance with ZBA Conditions 1 and 2, and is located at the site of the existing Col, Floyd Apartments. Work is expected to start on 6/16/2023 and to be completed by 7/16/2025.

The building is 120,730 SF, 1.2-acre site, and includes 115 units. The overall structure consists of garden level cast-in-place slab on grade, the first and second floors will be steel deck and concrete, and floors 3 thru 6 will be wood framed. The exterior comprises masonry veneer at the ground floor, fiber cementitious siding at the upper levels with PVC trim, and a flat TPO roof, all plans will be provided to the Assistant Director of Regulatory Planning in accordance with Condition 30 and to all local approving Agencies in accordance with ZBA Condition 31, DEP Site Review and Stormwater Management Plans to be submitted in accordance with ZBA Conditions 32, 33, 34, and 35.

This project requires Davis Bacon Prevailing Wages.

This construction management plan has been prepared for the **Brookline Housing Authority** for review and approval prior to the start of construction. This construction management plan includes detailed information of construction activities, including but not limited to the construction schedule, site access, traffic control, construction mitigation, and impact on abutters/ neighbors.

Delphi Construction, Inc. and all subcontractors will comply with the details of this approved construction management plan.

Developer: Brookline Housing Authority  
90 Longwood Ave Suite #1  
Brookline, MA 02446  
617-277-2022

Construction Manager: Delphi Construction Inc.  
255 Bear Hill Road, Suite 301,  
Waltham, MA 02451  
781-893-9900

24-Hour Emergency Contact: Sean Mannion – Site Superintendent  
Delphi Construction Inc  
Direct Number – 339-225-5828  
Email: smannion@delphiconstruction.com

## Construction Phasing and Schedule:

The project's scheduled start date is 9/01/2023 The duration of the project is anticipated to be 25 months, giving us a completion date of 8/04/2025 Our phasing of work will be the following:

### *Phasing:*

- Mobilization & Construction Start Date 9/01/2023
- Demolition & Site Abatement 7/11/23 (in accordance with ZBA Condition 21 (a))
- Sitework/ Ground Improvements 9/26/2023
- Structural Steel 02/14/2024
- Concrete Slabs 12/29/2023
- Rough Framing 5/14/2024
- Rough MEP's 6/12/2024
- Building Envelope / Siding & Trim 11/08/2024
- Interior Construction 11/27/2024
- Elevator Installation 12/05/2024
- MEP's / Finishes 11/27/2024
- Site Finishes 6/10/2025
- Building Turnover/Completion 8/04/2025

***Hours of Construction Operation:***

Typical hours of construction operation shall be from 7:00 AM to 5:00 PM Monday through Friday, per the city of **Brookline Noise Regulation**, and in accordance with ZBA Condition 36. Weekend and off-hours work may be required periodically to meet the project schedule and shall be coordinated with all necessary parties.

Weekend Work is only permissible between 8:30am to 5:00pm.

**The Below By-law may be cited as the "Noise Control By-law of The Town of Brookline."**

**SECTION 8.15.6 PROHIBITIONS AND MEASUREMENT OF NOISE**

**EMISSIONS** Noise By-Law Article 8.15 of the Town By-Law will be Fully Complied With.

**All devices employed in construction or demolition, subject to the maximum Noise Levels specified in Section 8.15.6b and 8.15.6c**

The following devices shall not be operated except between the hours of 7(seven) A.M. to 7(seven) P.M. Monday through Friday, and from 8:30(eight-thirty) A.M. to 6(six) P.M. on Saturdays, Sundays and holidays: All devices employed in construction or demolition, subject to the maximum Noise Levels specified in Section 8.15.6b and 8.15.6c.

Any noise outside those permitted by the noise by-law will seek a waiver from the Select Board per Town By-Law section 8.15.8.

## **Preconstruction Surveying:**

Delphi Construction will be performing a preconstruction survey of existing structures, both the interior and exterior, within 100 feet of the construction site. This survey will include the retaining wall and home at 24-26 Marion Street in accordance with ZBA Conditions 26 and 27. The report generated from this survey will include both video and still photographs. This report will be provided to the Building Commissioner prior to the start of construction and again prior to the issuance of the Certificate of Occupancy. This report will be available to any abutter upon request.

Prior to commencement, Delphi Construction will meet with the Town of Brookline Arborist will be consulted regarding the health of existing street trees and a plan will be provided for their review describing how these will be protected.

Throughout the course demolition and construction Delphi Construction will use seismic monitoring machines to monitor ground vibrations.

Delphi Construction Inc. has prepared a detailed site logistics and operations plan (please see attached) in order to isolate and secure construction operations while providing safe and convenient access for pedestrians and vehicles during the construction process.

- The entire construction site will be enclosed by an 8' tall construction fence. The gates will at all times be maintained, repaired, and kept in good working order. The construction site will be accessed from the entry gate on Marion Street.
- In accordance with ZBA Condition 28 there will be no blasting during the construction of this project.
- Delivery traffic will access via Marion Street. Deliveries of any kind will be staged to avoid queuing of trucks in accordance with ZBA Condition 19 and the attached Trucking Plan.
- Prior to the start of construction all overhead lines will be surveyed in accordance with ZBA Condition 23.
- Emergency vehicle access will be maintained at all times throughout the construction process in accordance with ZBA Condition 17 and 25.
- All necessary and required signage will be posted at sidewalk and street closures.
- All crane and concrete pumping operations will be completed in accordance with the operations listed above and with accordance to ZBA Condition 22.
- All snow shall remain onsite. At no point will snow be removed from the site and travel through Foster Street or be placed behind any abutting property.
- No staging will be used, placed, or maintained on Foster Street or any abutting property.
- Foster Street will only be used for access for (6) days (non-sequential) for heavy equipment or crane access and for a 30 day period during demo only. Foster Street will be swept daily during the demolition phase in the morning and at the end of each day as needed.
- Parking on Foster Street will be prohibited for all contractors. Signage will be provided.
- Erosion control will be maintained throughout the construction site perimeter as needed to prevent erosion into any public storm water systems.
- Utility connections will occur during construction by separate permit and will be completed with minimal disruption to abutters and neighbors.
- Back Up Generators to be provided as needed in the event of power shut off in accordance with ZBA Condition 24.
- Prior to the start of construction the Town Arborist will be consulted in accordance with ZBA Condition 29.
- All equipment used onsite will be kept in good working order in accordance to ZBA Condition 39.



**Building Responsibly.**

***Jobsite Office:***

The jobsite office location is located in the Construction Trailer at 32 Marion Street. We will have one or more Delphi Construction Inc. team members on site during construction hours at all times.

## **Vehicle and Pedestrian Traffic:**

### ***Construction Workers Commute and Parking:***

The number of workers required during construction will vary based on the construction schedule with an estimated average daily workforce of 50 men and women. The workers will arrive prior to peak traffic times and are not anticipated to impact traffic patterns. There will be worker parking provided on site. Workers will be encouraged to utilize either public transportation or public parking areas. Carpooling to the Site will be Implemented to Maximize Parking. Paid Parking Lots to be Utilized if Needed. No Parking is Allowed on Brookline Streets or Ways.

### ***Truck Routes and Deliveries:***

Truck traffic will vary significantly throughout the construction process, depending on the project schedule. All deliveries will be coordinated to avoid peak traffic hours. Delivery traffic will access the site via Harvard Street to Marion Street. All trucks and deliveries will move immediately into the designated loading/unloading area. Due to the tight street access to the site, deliveries will be coordinated to ensure trucks are not lined up waiting to unload, interrupting vehicle or pedestrian traffic in the area. If the need arises to disrupt any traffic patterns for deliveries, Delphi Construction Inc. will coordinate with the Brookline DPW, Brookline Building Department, Brookline Fire Department, and Police Department. Please see below for the approved Truck Routes.

## **CLOSURE of PUBLIC WAYS, PUBLIC SIDEWALKS, PRIVATE WAYS:**

It is anticipated that public ways and sidewalks may be closed at times during construction.

The work is to proceed with the least disruption/obstruction to vehicular and or pedestrian flow. Safety barricades, warning and directional signage, and police details will be utilized as required. All work requiring the temporary diversion of vehicular and pedestrian traffic to be fully coordinated with the Brookline DPW, Brookline Building Department, Brookline Fire Department, and Brookline Police Department. All required permits are to be obtained.

## **PUBLIC SAFETY:**

Delphi Construction Inc. has a full site-specific safety plan that will be implemented and monitored at all times by Delphi staff, as well as periodic site inspections from a third-party inspector. All construction barriers and public safety devices will be monitored and inspected continuously throughout the day. Secure fencing and barricades will be used to separate construction areas from pedestrian and vehicle traffic. Appropriate signage will be used to direct pedestrian and vehicular traffic. Police details will be utilized as needed to direct traffic



and access to the site. All safety programs are designed to adhere to all OSHA standards, and all employees are required to have completed OSHA safety training prior to entering the site. There will be no blasting used for demolition or material removal.

An NFPA 241 plan, in accordance with ZBA Conditions 13 (a) and (b), will be kept in a conspicuous place in the Field Office Trailer. The NFPA 241 Plan will be updated, as needed, to maintain a safe job site for all. All persons onsite should familiarize themselves with the NFPA 241.

### **PEST CONTROL:**

Delphi Construction Inc. will maintain pest and rodent control with B&B Pest, throughout the entirety of the construction schedule in accordance to ZBA Condition 50 (h). This will be maintained by a separate vendor who will be dedicated to this task.

### **CONSTRUCTION AIR QUALITY and DUST CONTROL:**

To reduce emissions of dust and debris from the site, Delphi Construction Inc. will adhere to the following mitigation procedures:

- All trucks transporting construction materials or debris will be fully covered.
- Wetting agents will be used where required to suppress dust created by demolition or cutting activities.
- Storage of construction debris will be limited in size and will use construction practices that minimize the disturbance of loose material.
- Wheel wash stations will be used when necessary to prevent debris from being tracked onto public roadways.
- Streets and sidewalks will be cleaned as needed to minimize dust and debris.

### **EROSION CONTROL:**

To reduce soil erosion and runoff from the construction site into the local environment, Delphi Construction, Inc. will adhere to the following mitigation procedures:

- Prior to demolition or excavation, erosion control measures such as silt fence and hay bales shall be appropriately placed along the site's perimeter as needed in accordance with ZBA Condition 18.
- Silt sacks will be installed in all drainage basins within the project site.
- Temporary erosion controls shall remain in place until permanent measures are established.
- See attached Erosion Control Plan

This construction project may require the use of equipment and tools that can be heard beyond the site. On-site physical work is scheduled to take place from July 2023 through July 2025. Careful attention will be paid to the timing of types of construction that cause excessive noise within the construction schedule. Delphi Construction, Inc. will, to the best of its ability, limit noise disruption to abutters, neighbors, and pedestrians. All work will be performed between 7 AM and 6 PM according to the Town of Brookline noise regulations. All off-hours work will be coordinated with the appropriate parties to minimize noise disruption. Careful attention will be paid to exterior equipment and deliveries to reduce engine idle times and excessive noise. No load noise is permitted before 8am.

### **CONSTRUCTION WASTE:**

Delphi Construction, Inc. is committed to green building and will attempt to recycle as much construction debris as possible; all waste will meet the minimum recycling quota outlined in the Construction Waste Management Plan. Dumpsters will be provided on-site during the duration of the project, and all necessary permits to do so will be obtained. Construction waste will not be stored on-site and will be removed from the site as needed.

### **Emergency Contacts:**

Delphi Construction – Main office: 781 – 893 – 9900  
Sean Mannion – Construction Superintendent 339 – 225 -5828  
Steven McCaul – Project Manager 781 – 971 – 1332

A 24-hour emergency contact list will be distributed to all parties involved with the project prior to the start of construction.

# 32 Marion Street Senior Housing



Signage will be Maintained at all Times on the Construction Fence that Will Provide the Contact Information for the DCI Superintendent.

No vehicle associated with the project will park on any public streets and are not eligible for temporary parking permits issued by the Town of Brookline. Parking or storage on the public way will be prohibited.

Contractor Parking to be Maintained Onsite with Direction Coordination of all Trades Onsite. Carpooling will be Required and Encouraged.

There Will be no Idling of Construction Vehicles or Equipment per Town Idling By Law

Existing Fire Hydrant on Marion Street. Access to be Always be Free and Clear from any Obstruction.

Construction Exit. Double Gate Exit Access from Marion Street.

Interior Location of Temporary Standpipe at Stair 1. Standpipe to be installed as Required by Code.

Construction Fence Around the Perimeter of the Site.

Direction of Travel Shown in Blue.

Construction Entrance. Double Gate Access from Marion Street.

DCI Construction Office Onsite. Contact Information will be posted on the Front and Rear Construction Fence.

Construction Materials Stored Onsite. DCI to have 5-10 Containers Onsite that will be used for Material Storage. No Hazardous or Flammable Materials to be Unmarked or Improperly Stored.

Contractor Site Offices.

Fire Department Access. Gates to be Maintained and Kept Clear for Emergency Use.

A Crane will be Required at Times During Construction. All Conditions Noted in Condition #22 of the ZBA Will be Met Prior to the Crane Accessing the Site.

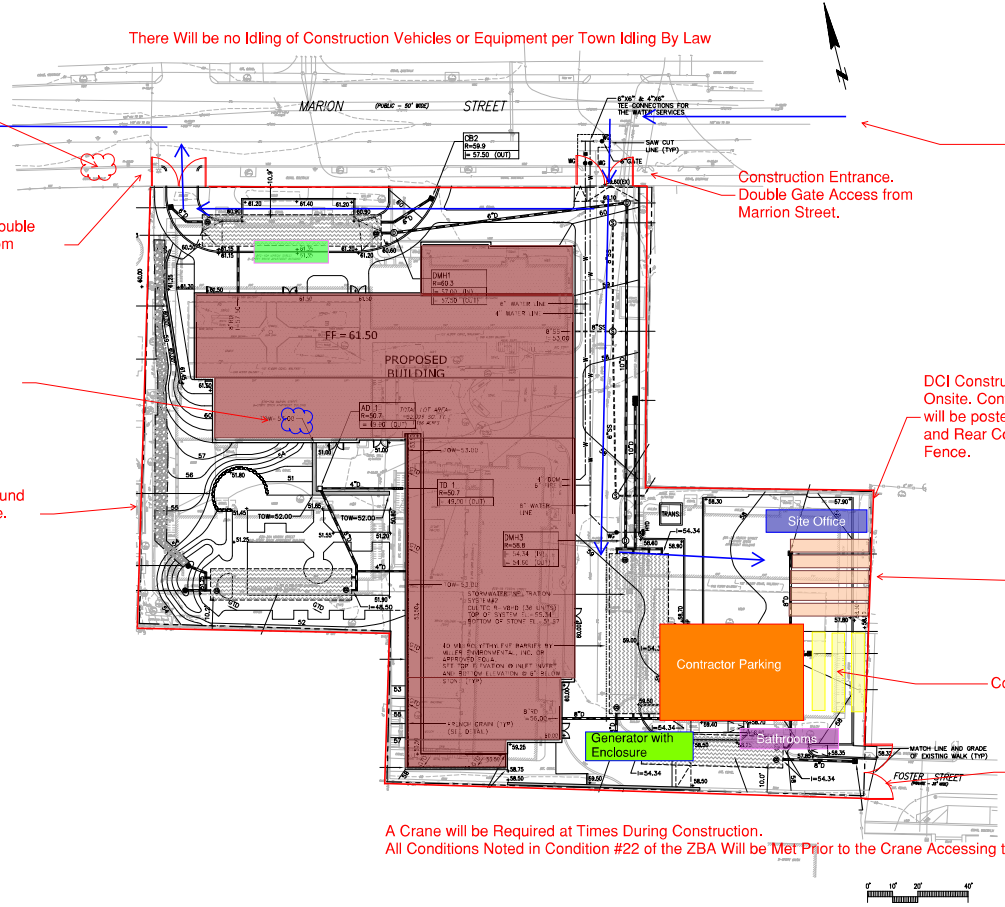


Exhibit A

8	CONSTRUCTION SHEET	11/29/22
4	ADDENDUM #1	9/13/22
3	ADDENDUM #3	9/6/22
1	180 SHEET	7/15/22
NA	REVISIONS/SUBMITTALS	DATE

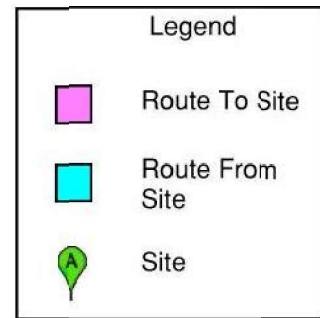
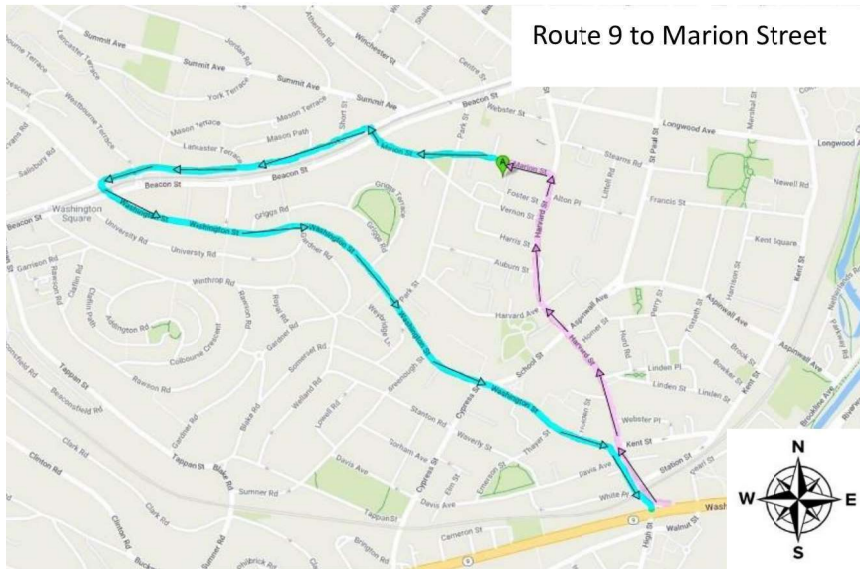
**DAVIE SQUARE ARCHITECTS**  
 100A Elm St.  
 Brookline, MA 02445  
 617.552.5000  
 www.daviesquare.com

**DeVellis Zrein Inc.**  
 1000 Washington St.  
 Boston, MA 02111  
 617.552.5000  
 www.develiszrein.com

Project: NEW CONSTRUCTION OF 32 MARION ST SENIOR HOUSING  
 32 MARION ST, BROOKLINE, MA 02446

Site Logistical Plan

Project No.	210264.00
Scale	AS SHOWN
Date	07/15/2022



Approved Routes of Travel to and from major Highways. Subcontractors should avoid densely settled areas for all travel.



**Condition 21 of the ZBA - Site Excavation**

21 A - An excavation period of 5 weeks will be needed to complete this scope.

21 B - 30 Yard Triaxle Dump Trucks Will be Utilized to Haul off Excess Materials.

21 C - 30 Trucks will be Utilized at the Height of Excavation Daily for a period of 12 Days.

21 D - Truck Arrivals will be Staggered and will be Scheduled in Advance. Materials will also be Stock Piled Onsite to Expedite the Removal of Excess Material. Trucks will not be Allowed to Arrive Before the Start of Work and they are not Allowed to Que and Disrupt Travel.

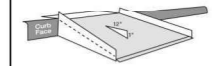
**Signage to be Installed Notifying Pedestrians of Work and Where the Safe Areas of Travel Are**



Choose Your Direction

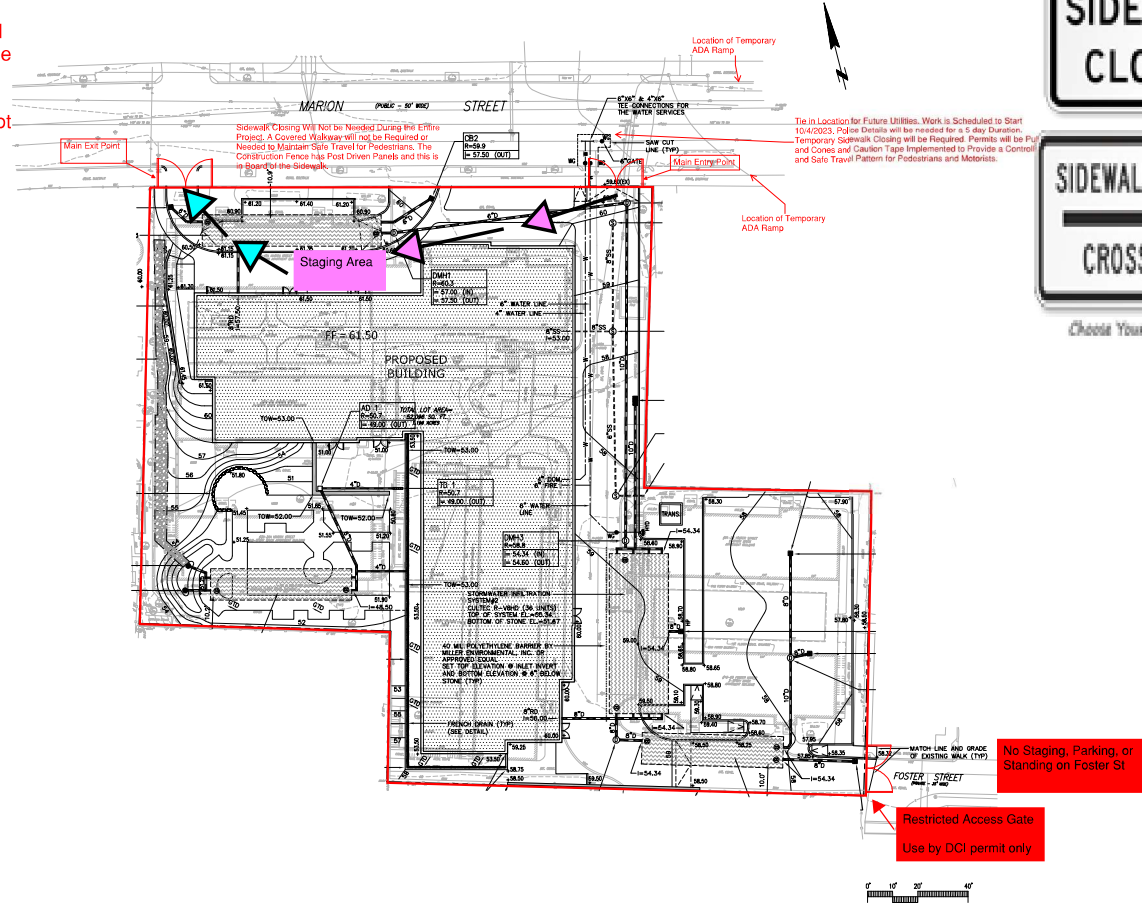


An ADA accessible wheel chair ramp must be provided to detour the pedestrians off the sidewalk and onto the roadway/bike lane.



The Town's Winter moratorium is November 15th through April 15th. No roadway excavations should be performed during that time, unless they have permission from the Commissioner of Public Works.

Temporary ADA ramps and signage will be on mirrored on the other side of the work site since pedestrians will be coming from that direction.



No Staging, Parking, or Standing on Foster St

Restricted Access Gate Use by DCJ permit only

8	CONTRACTOR SHEET	11/23/22
4	ADDENDUM #1	9/13/22
3	ADDENDUM #3	9/6/22
-	RD SHEET	7/15/22
NA	REVISIONS/SUBMITTALS	DATE

**DAVIS SQUARE ARCHITECTS**  
 100A Elm St  
 Brookline, MA 02148  
 617.552.7000  
 www.davis-square.com

**DeVellis Zrein Inc.**  
 1000 State St  
 Boston, MA 02118  
 617.552.7000  
 www.develis-zrein.com

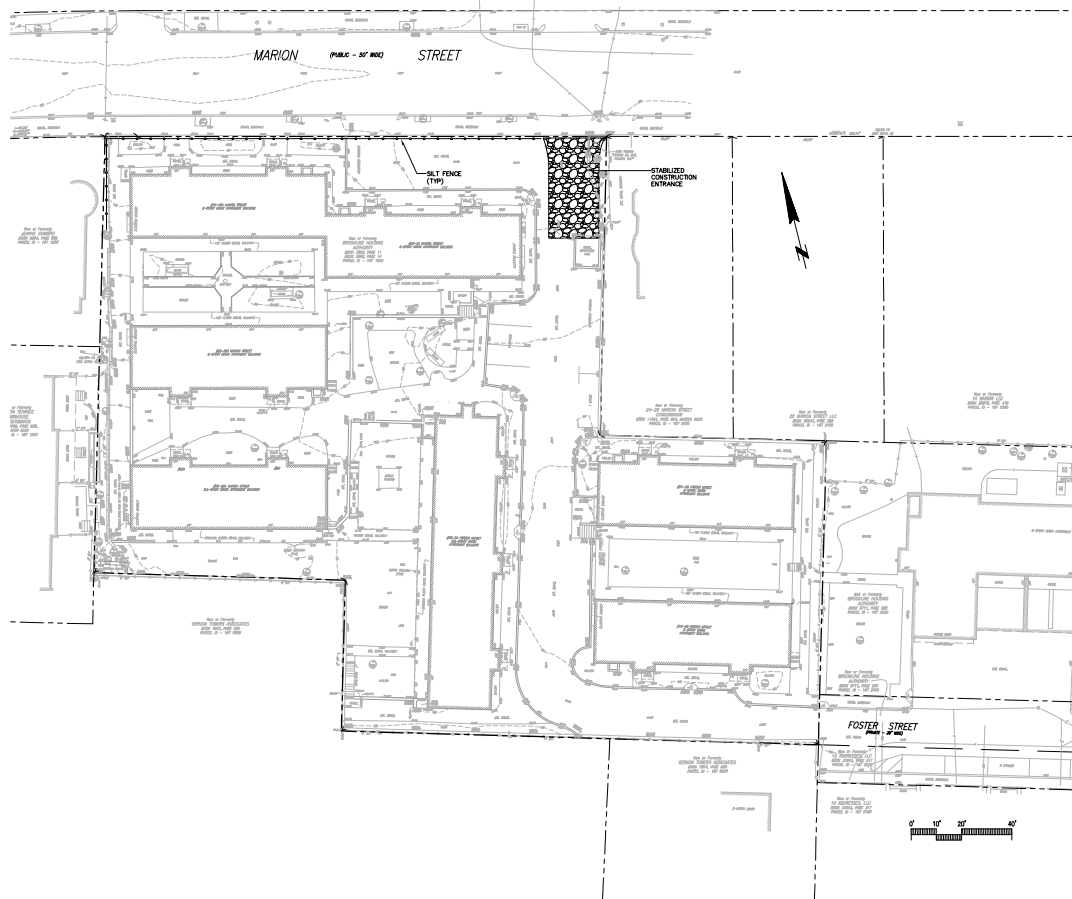
Project: NEW CONSTRUCTION OF 32 MARION ST SENIOR HOUSING 32 MARION ST, BROOKLINE, MA 02148

Site Vehicle Egress




DATE	07/15/2022
SHEET	27

**EROSION CONTROL MEASURES**

1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR DISTURBANCE AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
2. STABILIZE SLOPES GREATER THAN 3:1 (HORIZONTAL/VERTICAL) WITH SEED, SECURED GEOTEXTILE FABRIC, BRANDED COMPOST BLANKET TO PREVENT EROSION DURING CONSTRUCTION.
3. ALL COLLECTED SEDIMENT AND DISCARDED TEMPORARY EROSION CONTROL MATERIALS SHALL BE DISPOSED OF PROPERLY IN ACCORDANCE WITH LEGAL DISPOSAL PRACTICES.
4. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE KEPT IN PLACE AFTER CONTRACTOR SCOPE IS COMPLETED.
5. DAMAGED OR DETERIORATED ITEMS ARE TO BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
6. THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR DAILY INSPECTIONS, MAINTENANCE, AND REPAIR ACTIVITIES.



**LEGEND**

-  PROPERTY LINE
-  CONSTRUCTION ENTRANCE
-  SILT FENCE LINE

8	CONSTRUCTION SET	11/23/22
4	ADDENDUM #1	9/13/22
3	ADDENDUM #2	9/6/22
-	180 SET	7/15/22
NA	REVISIONS/SUMMARY	DATE

**DAVIE SQUARE ARCHITECTS**

100 Elm St.  
Brookline, MA 02445  
Tel: 617.552.5000  
www.daviesquare.com

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Project: NEW CONSTRUCTION OF  
32 MARION ST SENIOR HOUSING  
32 MARION ST, BROOKLINE, MA 02446

Title: **EROSION CONTROL PLAN**

Revision	2/20/24, 00
Date	02/27
Date	07/15/2022

