

Construction Management Plan

28 Austin Street

Newton, MA

Prepared for

City of Newton

Developer

Austin Street Partners

Construction Manager

NEI General Contracting, Inc.

Prepared by

Howard Stein Hudson

Date

January 3, 2018



General Information

On behalf of Austin Street Partners (The Developer) and NEI General Contracting, Inc. (The Contractor), in collaboration with Howard Stein Hudson (HSH), the attached Construction Management Plan (CMP) has been developed for review and approval by the City of Newton. This CMP includes the following:

- Written agreement describing construction activities;
- Construction Management Plans, *dated January 3, 2018*, and;
- Construction Schedule.

Project Description

The Project includes the construction of a 4-story residential/retail building at 28 Austin Street to include approximately 68 residential apartments, approximately 5,000 square feet of retail space and underground parking. The project site is bounded to the east by Philip Bram Way (private road), to the south by residential apartments, to the north by Austin Street, and to the west by a Rockland Trust Bank.

As part of an agreement with the City of Newton, the project is required to maintain 50 on-site parking stalls and 20 dedicated parking stalls in the Star Market parking lot for residents and city patrons. Therefore, the project will be constructed in 3 stages to provide sufficient laydown area and on-site parking.

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Construction Phasing and Scheduling

To minimize impacts on the surrounding roadway network and to provide a safe pedestrian environment, it is expected that construction would occur in seven phases:

- 1) Mobilization, Stormwater Management System, Tree Removal, and Footings
- 2) Basement Support of Excavation and Excavation
- 3) Basement Concrete Foundation
- 4) Concrete Structure and Module Erection
- 5) Exterior Façade and Interior Finishes
- 6) North Curb, Sidewalk and Tree Installation
- 7) Hardscaping and Roadway Construction

WORK HOURS

Work Period	Time Period
Typical (Monday – Friday)	7:00 AM – 7:00 PM
Saturday (by permit only)	7:00 AM – 7:00 PM

It is expected that the overall construction duration should last approximately 12 months. If night work or weekend work becomes necessary, approval shall be obtained from the City of Newton.

Phase I: Mobilization, Stormwater Management System, Tree Removal, and Footings (ref. CMP-005)

ESTIMATED DURATION: 5 WEEKS (JANUARY 2018 – FEBRUARY 2018)

Phase I involves installing 12 footings and the stormwater management system at the southwest corner of the proposed building and removing trees around the site. To complete this phase, excavators, bulldozers, a concrete pumper and other support equipment will be used. To provide a safe working environment, the southern portion of the site will be surrounded by 6-foot high chain link leaving 105 spaces remaining for public use. The 28 spaces along the construction fence will be for long term parking. The remaining parking spaces will be designated as "3-hour parking only," to account for the high turn-over rate. Parking lot access will be maintained off Austin Street during this phase.

Also, a field office will be placed at the southwest corner of the site and will remain here for the duration of construction.

While the trees are being removed along the southern Austin Street sidewalk, pedestrians will be detoured to the north sidewalk. After the trees are removed, pedestrian may use the southern Austin Street sidewalk until Phase II begins.

During this phase, trucks will access the site via a 40-foot gate along the Philip Bram Way. Police detail officers will be required to hold vehicular and pedestrian traffic while the trucks are entering and exiting the site.

Upon completion of the installation of the footings, a concrete deck will be poured for temporary parking during the next 2 phases.

Phase II: Basement Support of Excavation and Excavation (ref. CMP-007)

ESTIMATED DURATION: 8 WEEKS (MARCH 2018 - APRIL 2018)

Phase II involves driving sheet piles around the foundation limits and excavating to subsurface grade for the proposed basement. To complete this phase, excavators, bulldozers, pile drivers and other support equipment will be used. To provide 50 temporary on-site parking spaces and sufficient laydown, the construction fence will be relocated to encompass the north half of the site, extend 8 feet into Austin Street and extend 8 feet into Philip Bram Way. The on-site parking will be designated as "2-hour parking" to account for the high turn-over rate. In addition, 4 on-street parallel parking spaces will be installed on the east side of Philip Bram Way. As such, the travelway will be shifted north by installing new pavement markings and eliminating 6 parking stalls on the north side of Austin Street. In addition, Philip Bram Way will be restricted to northbound traffic only. Pedestrians will be detoured to the opposite side of the roadway via the crosswalk abutting the site to the west and the crosswalk at the Austin Street/Walnut Street intersection. Vehicles will be detoured to Highland Avenue from Austin Street to access Philip Bram Way. To provide 20 parking stalls in the Star Market parking lot, the east access point will be closed, 20 new stalls will be striped, and one-way circulation will be established.

Trucks will access the site via a 50-foot section of drums at the west end of the extended work zone. Appropriate MUTCD-compliant signage will be erected to direct vehicles and pedestrian around the work zone. Police detail officers will continue to be required to hold vehicular and pedestrian traffic while the trucks are entering and exiting the site.

Phase III: Basement Concrete Foundation (ref. CMP-008)

ESTIMATED DURATION: 8 WEEKS (MAY 2018 – JUNE 2018)

Phase III involves pouring the concrete foundation columns, walls and decks. To complete this phase, a concrete pumper and other support equipment will be used. All staging including fence, gates, barriers, and signage will remain from phase II.

Trucks will continue to access the site off of Austin Street and police detail officers will continue to be required to hold vehicular and pedestrian traffic while the trucks are entering and exiting the site.

Phase IV: Concrete Structure and Module Erection (ref. CMP-009)

ESTIMATED DURATION: 6 WEEKS (JULY 2018 – AUGUST 2018)

Phase IV involves delivering the building modules and erecting them on-site. To complete this phase, a hydraulic mobile crane will be placed on the south side of the building and other support equipment will be used to assist. All staging along Austin Street will remain from phase III however the fence surrounding the building will be adjusted to encompass the at-grade building footprint. At the southwest corner of the lot, the fence will surround the whole parking area to allow for sufficient laydown and building construction. Along the Philip Bram Way frontage, the fence will pulled in approximately 14 feet to allow for 11 angled parking spaces. The remaining southern portion of the lot will be reopened to provide 39 on-site parking spaces. In total, 50 parking spaces will be provided. These parking spaces will be designated as "2-hour parking" spaces to account for the high turnover.

For the module deliveries, trucks will queue in the eastbound lane while modules are being lifted off of the trucks inside the work zone on Austin Street. As such, the eastbound side of the Austin Street will be shutdown and traffic will be detoured as shown on the Vehicle Detour Plan; westbound traffic will remain. To minimize impacts to daily traffic, module deliveries will be restricted to weekend work hours. As the trucks are approximately 100 feet long, only 4 trucks will be able to queue without impeding Lowell Avenue. Police detail officers will continue to be required to hold vehicular and pedestrian traffic while the trucks are entering and exiting the site. In addition, a police detail officer will be present to facilitate vehicles around the road closure. Additional MUTCD-compliant signage will be erected to direct vehicles around the road closure.

Phase V: Exterior Façade and Interior Finishes (ref. CMP-010)

ESTIMATED DURATION: 20 WEEKS (AUGUST 2018 – JANUARY 2019)

Phase V involves erecting the exterior façade and completing any remaining interior finishes. The hydraulic mobile crane will remain on-site and other support equipment including lull cranes and boom lifts will be used. All staging including fence, gates, barriers, and signage will remain from phase IV and the eastbound lane will remain open throughout the remainder of construction.

Trucks will continue to access the site off of Austin Street and police detail officers will continue to be required to hold vehicular and pedestrian traffic while the trucks are entering and exiting the site.

Phase VI: North Curb, Sidewalk and Tree Installation (ref. CMP-011)

ESTIMATED DURATION: 2 WEEKS (SEPTEMBER 2019)

Phase VII involves installing reconstructing the north curb and sidewalk along Austin Street opposite the site as well as installing new trees. As such, the north sidewalk will be closed and pedestrians will be detoured to the south sidewalk.

Upon completion of construction, any disturbed signage, parking meters, light posts, curb, sidewalks, and pavement markings will be restored to their existing condition or the final condition as approved by the city, which is shown on the Restoration Plan. All temporary signage, including parking restrictions, detour signs, and warning signs will be removed and stacked.

Phase VII: Hardscaping and Roadway Construction (ref. CMP-012)

ESTIMATED DURATION: 4 WEEKS (JANUARY 2019)

Phase VI involves installing all on-site hardscaping features in addition to the installation of brick pavers within Philip Bram Way. Pedestrians will be detoured to the new north sidewalk during this phase to allow for the installation of sidewalk improvements along the southern sidewalk. The parking lot will be constructed in stages such that 50 stalls can be maintained throughout the remainder of construction. To allow for the construction on Philip Bram Way, the road will be closed along the site frontage. Vehicles will be detoured to the southern portion Philip Bram way as shown on the Vehicle Detour Plan.

Overall Schedule

Key construction activities and approximate time periods are summarized below and on the attached CMP.

Phase	Estimated Duration
Mobilization and Spread Footings	5 weeks
Basement Support of Excavation and Excavation	8 weeks
Basement Concrete Foundation	8 weeks
Concrete Structure and Module Erection	6 weeks
Exterior Façade and Interior Finishes	20 weeks
North Curb, Sidewalk and Tree Installation	2 weeks
Hardscaping and Roadway Construction	4 weeks

Street Occupancies

The street occupancies are limited to Austin Street and Philip Bram Way. Throughout the duration of construction, street occupancies will be affected by the following construction equipment.

- Construction Fencing
- MASH Test-Level III Jersey Barriers
- Reflectorized Construction Drums
- Impact Attenuators
- Construction Gates
- Temporary Barricades
- Pedestrian Detour Signage
- Vehicular Detour Signage

Pre-Construction

NEI will meet with the City of Newton Building Department & City Officials to review construction procedures and to finalize all details of this CMP plan prior to any work beginning on-site. Two weeks prior to mobilization of any subcontractor the Project Manager and onsite Foreman are required to attend a preconstruction meeting. At this meeting the subcontractor's personnel review, along with other topics, these key project specific items to ensure a successful project for all trades. These key specifics are as follows:

| 6 |

- 1) Subcontractor orientation of the project (work hours, truck routes, parking etc.)
- 2) Specific scope of work is reviewed for content and execution.
- 3) The project schedule is reviewed for complete acceptance and understanding of expectations and project phasing logic.
- 4) Safety and housekeeping requirements.

Perimeter Protection/Public Safety

NEI will work to ensure the staging areas minimize impact to pedestrian and vehicular flow. Secure fencing and barricades will be used to isolate construction areas from pedestrian traffic around the site. In addition, sidewalk areas and walkways near construction activities will be well marked to protect pedestrians and ensure their safety. Proper signage will be installed and regularly updated as site conditions change during the construction process.

Police detail officers will be provided during all construction activities to facilitate traffic flow and pedestrian safety. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities.

Safety on Site

All subcontractors working on site shall provide and maintain all safety measures, procedures, and documentation as required by governing agencies. The jobsite will be enclosed by temporary fencing. NEI will meet with City Officials to review the proposed traffic management plan to ensure acceptance and compliance with local jurisdiction. Prior to the start of work by any subcontractor a Hazardous Risk Assessment Plan is reviewed. During this review all potential hazardous work requirements and the safety plans required to mitigate these risks are confirmed. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities. With the support of NEI, all subcontractors will implement and manage their own Health and Safety program for the project. All site personnel will be subject to follow the safety orientation and identification guidelines and processes established by NEI.

Access to the site for emergency vehicles will be maintained at all times with a dedicated and marked point of access. All other site points of access will be maintained for a secondary access as needed. The proposed site logistic and traffic plans are designed to isolate the construction while providing safe access for pedestrians and automobiles during normal day to day activities and emergencies.

Signage and Distribution of Information

Signage will direct pedestrians around the site as well as direct truck traffic and deliveries. Proper signage will be placed at every corner of the site as well as in those areas that may be confusing to pedestrians and automobile traffic. Construction and regulatory signage shall be provided as shown on the CMP.

The construction site shall have a sign installed that shall list the name of construction company/general contractor, and their contact information including the phone number. This sign shall be clearly visible to enable the public to call with any questions or concerns.

Abutter and Agency Coordination

NEI recognizes the challenges of building construction in an urban setting and the importance of responding to the needs of adjacent businesses and residents. The abutting properties shall be informed of the scheduled start of construction, and will be updated on the development during its construction as needed.

As appropriate, NEI will coordinate construction activities with the City of Boston and other ongoing construction projects in the area to help minimize the impacts to the community.

Material Handling/Construction Waste

NEI will take an active role in regard to the processing and recycling of construction waste and will have in-place a Construction Waste Management Plan (CWMP) for the project. The CWMP will require NEI to contract with a licensed waste hauler that has off-site sorting capabilities. All construction debris will be taken off site by the waste hauler, sorted as either recycled debris or waste debris and sent to the proper recycling center or waste facility. Construction debris shall be wetted and covered to minimize air born dust particles.

During site development activities, it is anticipated that on-site refueling of machinery will be required. The site contractor will obtain the necessary onsite refueling permit prior to commencing site development activities. Fuel will likely be needed for temporary heat on the interior of the buildings and/or the exterior façade and the appropriate permits/inspections will be obtained from the plumbing inspector and fire department.

Dumpster Location and Loading

Dumpsters will be located within the construction staging area. Dumpsters will be secured with odor and dust control measures and will have proper Fire Department permits. Dumpster pick-ups to be done during normal construction hours and will avoid peak traffic periods.

Loading and unloading of the dumpsters will take place with-in the proposed fence areas.

Emergency Vehicle Access

Access to the site for emergency vehicles will be maintained at all times. The proposed staging plan is designed to isolate the construction while providing safe access for pedestrians and automobiles during normal day to day activities and emergencies.

All construction material delivery trucks will be loaded and unloaded inside the construction fence throughout the course of the project. Trucks and equipment will follow the designated truck route and be staged at the designated areas on the CMP.

Utility Connections

There will be multiple utility connections on this project, most utilities will be located onsite, but some may affect Austin Street and Philip Bram Way. All utility connections will require coordination with each respective utility company and the City of Newton Public Works Department. Road closures and street opening permits will be submitted for approval accordingly prior to the start of each task. All right-of-way utility work will conform to the City of Newton's utility standards.

Truck Movements During Construction

Trucks are needed for material removal and delivery from and to the site as the project proceeds. Truck traffic related to this construction site shall vary considerably throughout the construction period.

The impact of construction trucks in the evening peak hour is expected to be insignificant because most deliveries are completed prior to the end of the typical work day (3:00 PM).

Trucks coming to and from the site are required to use major arterial roadways or highways and not local streets. The selection of proposed truck routes is based on the following criteria:

- Minimizing truck activity in the residential neighborhoods;
- Designating specific roads where trucks are permitted; and
- Providing access to and from the major arteries (e.g. Interstate 95)

Trucks accessing the site will follow routes indicated on the Truck Routing Plan (Sheet 14) and the individual truck maneuvers for entering and exiting the site are shown on Sheet 13 of the attached CMP.

Construction Employee Trip Generation

The project has access to public transportation and most workers will use one of the many transit options. The developer will also provide sufficient and secure storage areas for workers' equipment to facilitate use of the public transportation. Given the high cost of parking, it is unlikely that all the workers will choose to drive alone, many workers, in order to save money, will be likely to carpool. In addition to these factors, construction workers generally travel before the morning peak hour further lessening the impact that these workers will have on the adjacent street network during the morning and evening peak hours.

Construction Worker and Staff Parking

On-site parking by construction workers is not allowed. Any personal vehicles will be restricted from parking at or around the construction site so as to reduce the impact to residential parking. As part of an agreement with the City of Newton, a shuttle bus provided by the developer will provide transportation for construction workers off site as well as patrons of the city.

Street Cleaning

Street cleaning will take place daily or as required (see dust control and snow removal sections below for more information).

Dust Control

Construction activities generate fugitive dust that will result in localized increases in airborne particulate levels. To reduce emissions of fugitive dust and minimize impacts on the local environment, strictly enforced mitigation measures will be employed, including:

- Wetting agents will be used regularly to control and suppress dust that may come from construction activities.
- Trucks used for the transportation of construction debris will be covered before exiting the project site.
- Streets and sidewalks will be cleaned regularly using mechanical street sweepers to minimize accumulations.
- Trucks tires shall be hosed down prior to entering public streets.

Snow Removal

NEI shall be responsible for removing snow from all public sidewalk affected by their work. This will be done daily and continuously to ensure that all sidewalks are clear of snow and ice. Under no condition will the removed snow be disposed of on public property.

Noise and Odor Control

A significant effort will be made to minimize the noise impact of the Project's construction activities. Mitigation measures to be undertaken will include:

- Using mufflers on equipment and ongoing maintenance of intake and exhaust mufflers.
- Use of low sulfur fuels.
- Using less noisy specific construction operations and techniques where feasible (e.g., mixing concrete off-site instead of on-site.)
- Scheduling equipment operations to keep average levels low, to synchronize noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels.
- Turning off idling equipment.
- Utilize saw-cutting methods in lieu of jack hammering where feasible.
- Use of a mobile crane for module erection will reduce street noise associated with truck-mounted equipment, where practical. Possible off hours loading only of the project to reduce traffic during the day. All off hour work will be per City of Boston requirements and permitted as required. The City of Newton will be notified of all off-hour work.

On-site Dewatering

Site dewatering is expected to be limited and will be in accordance with the applicable stormwater pollution prevention plan (SWPPP) or National Pollutant Discharge Elimination System (NPDES)

requirements for sedimentation control. Groundwater levels will be monitored during the construction process.

Emergency Contacts

A 24-hour emergency contact list will be provided to all parties involved in the project prior to start of construction and maintained throughout construction.

Dinosaur Capital Partners, LLC

Contact: Scott Oran (617) 422-6584

NEI General Contracting, Inc.

Contact: Bill Young (781) 664-3505

Special Conditions

- Community Outreach: NEI and ownership will provide notices and updates on progress and upcoming expectations for the construction activities. At all times during construction activity there will management staff on-site and available for assistance. Proper 24-hour emergency contacts and information will be provided.
- NEI will replace, in kind, any pavement markings, signage, loop detectors, and/or other traffic signal control equipment damaged as part of construction activities.
- All local, state and federal laws governing the work will be strictly adhered to at all times.



Signatures and Approvals

Submitted By:	Approved By:
Bill Young	
NEI General Contracting, Inc.	Newton Transportation Department
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Signature	Signature
Date	Date