



Development Summary

Existing Conditions

The project site consists of 130 acres of land in the town of Westwood bisected by University Avenue between Blue Hill Drive and Canton Street near the intersection of Route 128/Route 95. The University Avenue MBTA Station, and its 2500 car parking facility, located adjacent to Route 128/95, provides a direct transit link to the Boston Metropolitan area. The adjacent land uses include residential areas to the west, Route 128/95 to the north (Town of Dedham), commercial/industrial uses to the south (Town of Norwood) and the MBTA/Amtrak rail corridor and the Neponset River along the eastern boundary. In the pre-redevelopment condition the site consisted of 15 one and two story industrial buildings. These buildings were underutilized and many were vacant.

The project site was previously approved for a 4,500,000 square foot mixed use development. Under the previous approvals, site work activities had begun. Most of the existing industrial buildings were demolished. Mass grading activities along with utility relocations were in process when the project was stopped due to the recent economic downturn. During the spring and summer of 2012, the project proponent implemented a site stabilization program to comply with the US EPA NPDES permit and the MA DEP Order of Conditions issued by the Westwood Conservation Commission.

Proposed Project

The proposed project will provide approximately 2.1 million square feet of mixed use development. The project will provide space for retail (includes restaurant use(s)), office, residential, assisted living and hotel. The overall development program is anticipated to provide the following use intensities:

Proposed Use	Intensity
Retail	610,000 sf
Grocery	140,000 sf
Residential	650 units
Assisted Living	100 units
Hotel	160 keys
Office	325,000 sf

In addition to the proposed development program, the project proponent will provide roadway layout plans to the Town of Westwood for the reconstruction of University Avenue for approval at an upcoming Town Meeting. This public roadway will be built in a coordinated effort between the Town and the Proponent. In locations that require additional land to accommodate

the proposed roadway layouts, all additional land will be project land, subject to a zero land damages agreement. In addition, as described below in the Traffic section two MassDOT designed projects will be constructed at the Route 128 ramp, Blue Hill Drive at the north end of the project and Canton Street intersection improvements at the south.

Traffic Summary

A comprehensive traffic impact study encompassing 35 area intersections has been prepared and provided under separate cover.

In the immediate vicinity of the Project site, there are several regional infrastructure improvement projects that are currently under construction or being planned by the MassDOT. The infrastructure improvement projects include:

I-95/Route 128 Add-A-Lane Project. MassDOT is in the process of widening a 14 mile segment of I-95/Route 128/I-93 between Route 9 in Wellesley and Route 24 in Randolph. The widening includes the addition of a fourth travel lane in each direction.

Blue Hill Drive Ramp Improvements. This MassDOT project will reconstruct the current southbound ramps which are of substandard design. The reconfigured ramps will provide for improved safety, queue storage and capacity at the terminus of the ramps at University Avenue. The key elements of the Blue Hill Drive ramp improvements are:

- Re-align the ramps to eliminate the unsignalized intersection with Blue Hill Drive at the terminus of the existing ramp.
- Termination of Blue Hill Drive as a cul-de-sac west of the new ramp alignment.
- Reconstruct the signalized intersection of the Blue Hill Drive ramps with University Avenue/Green Lodge Street to provide appropriate lane arrangement and capacities to support redevelopment at the University Station site.
- Reconfigure the existing commercial driveways on the north side of the existing Blue Hill Drive west of University Avenue (future Blue Hill Drive on-ramp) to limit traffic access/egress to right-in/right-out operations only.
- Construct a new driveway on University Avenue opposite the MBTA Westwood Station Driveway to service the existing commercial parcel on the north side of Blue Hill Drive.

Canton Street/University Avenue Improvements. This MassDOT project will provide increased capacity through additional lanes and traffic signal improvements. The key elements of the Canton Street/University Avenue improvements are:

- Canton Street Westbound - an exclusive left turn lane, a through lane and a channelized right turn lane
- Canton Street Eastbound – an exclusive left turn lane, a through lane and share through/right lane
- University Avenue Northbound – an exclusive left turn lane, a through lane and an exclusive right turn lane

- University Avenue Southbound – two exclusive left turn lanes and a shared through/right lane.

Dedham Street Corridor Improvements/I-95 Northbound Off-Ramp. The Dedham Street corridor improvements are expected to significantly enhance capacity and traffic flow between University Avenue in Westwood/Norwood and Shawmut Road in Canton. This project is not expected to be complete until 2022. As currently envisioned by MassDOT, the Dedham Street corridor improvements include the following key elements:

- Widen Dedham Street from two to four lanes between University Avenue and the existing I-95 southbound on-ramp (including the bridge over the Neponset River).
- Widen the Dedham Street Bridge over I-95 from two lanes to five lanes.
- Widen Dedham Street from two lanes to four lanes between the I-95 Bridge to Shawmut Road.
- Signalize the existing intersection of Dedham Street/I-95 southbound ramp and provide a left turn lane/signal phase on the Dedham Street westbound approach so that left turns can be made onto the on-ramp (left turns onto the ramp are currently prohibited on this approach).
- Construct a new I-95 northbound off-ramp to Dedham Street and signalize the ramp junction with Dedham Street.
- Signalize the existing intersection of Dedham Street and Shawmut Road

Parking Summary

The project will provide adequate parking to support the proposed development. In general, the following parking ratios have been utilized as a guideline to determine the project's parking needs.

Use Type	Use Intensity	Required Ratio
Retail (square feet)	610,000	1 space / 250 sf
Supermarket (square feet)	140,000	1 space / 250 sf
Office (square feet)	325,000	1 space / 333 sf
Hotel (rooms)	160	1 space / each sleeping room
Residential (units)		
Residential Housing	650	2 spaces / unit
Assisted Living	100	1.5 spaces / unit

Given the mixed use nature of the project and the proximity of the MBTA/Amtrak station, actual parking counts that are appropriate for this development will be reflected on the Master

Development Plan for the project and may, in some cases, be lower than the above parking ratios.

Parking spaces will be 9' x 18' with 24' drive aisles. Handicap parking spaces will be provided in accordance with the ADA and AAB requirements in terms of quantity, location and surface slope.

The parking lot aisles and access driveways have been designed to allow for turning movements of an E-One HP 100 fire truck (the design emergency vehicle). This vehicle is 40.9' in overall length. From the front axle to the center rear axle, the dimension is 18.3'. The steering angle is 45 degrees.

The service areas in the rear of the buildings and their access drives have been designed to accommodate a WB-65 delivery truck (a tractor with a 53' trailer), which is the largest delivery truck that will service the development. The access driveway that services the core retail has been design to allow access only from Harvard Street. Two 110' turning circles have been provide for truck turn-arounds.

A turning movement diagram has been prepared and is attached for review.

Stormwater Management

A Stormwater Management Plan has been developed for the project that will meet or exceed all the requirements of the MADEP Stormwater Management Policy. The intent of the Stormwater Management Plan is to create the framework and performance standards to which the project must adhere as the design advances. The University Station project includes multiple stormwater improvements that when constructed will provide three significant environmental enhancements.

First, the project will reduce all peak rates of runoff to levels below pre-project conditions. These reductions will be achieved by routing stormwater through on-site detention basins (both wet and dry basins will be constructed) and on-site subsurface infiltration basins.

Second, the project will result in significant water quality improvements prior to discharge to bordering vegetative wetlands and groundwater. The project will implement Best Management Practices (BMP's) such as monthly pavement sweeping of on-site parking areas and drives, deep sump hooded catch basins, catch basin stenciling, proprietary water quality units, sediment forebays, wet detention basins and subsurface infiltration basins to reduce total suspended sediment loads by 80% or more. It should be noted that in the existing condition, BMP's such as the ones indicated above did not exist.

Third, the project will significantly increase recharge to groundwater over what currently existed. In the pre-construction condition, all stormwater that was collected was piped directly to wetlands or ditches up gradient of the Neponset River, without any opportunity for groundwater recharge. In the proposed development, three large subsurface infiltration systems are planned. These basins collectively can recharge the runoff created by a 2.5 inch rainfall from 49.5 acres of impervious roofs and pavements. This represents approximately 99% of all precipitation events

that occur annually and far exceeds the equivalent volume of 1" of stormwater from all impervious surfaces on-site required by MADEP's Stormwater Management Policy.

The proposed project has significant water quality and quantity benefits for the stressed Neponset River basin. It will replace years of untreated and un-buffered direct stormwater discharges from an industrial area. The proposal incorporates several BMP's including peak buffering, bioretention, the installation of water quality units and the collection and filtered recharge of over 50 million gallons of runoff every year. This will reduce peak flood levels and improve base flow water quality.

Wastewater Generation

Consistent with the previous approvals, wastewater is planned to be directed to the municipal sewer in University Avenue. From University Avenue wastewater will flow to the MWRRA interceptor system and on to the Deet Island Treatment Plant. In previous MEPA filings it had been documented that there would be sufficient capacity in the existing downstream systems to receive the projected wastewater flows from the Westwood Station project (which was nearly twice the size of the proposed project).

Anticipated wastewater flow rates have been calculated based on the current plan and in accordance with Title V, on an unadjusted basis. The anticipated average daily wastewater flow rate for the University Station project is anticipated to be 228,367 gallons per day. When compared to the previous Westwood Station project, which was expected to generate 452,455 gallons per day (utilizing the same Title V generation rates on an unadjusted basis), the University Station project will generate 49.5% less wastewater.

The new on-site sewers are anticipated to be 8-inches in diameter and will connect to the 16-inch town sewer that currently exists in University Avenue. All sewer manholes located with the Zone 1 Wellhead Protection Area will be installed with watertight covers with locking or bolted gasket assemblies. All sewer piping within the Zone I will be SDR35 PVC with bell and spigot joints.

A new sewer main is planned to be constructed within the relocated portion of Rosemont Avenue by the project proponent. Also, approximately 2,500 lineal feet of 16" diameter sewer main will be re-lined by the project proponent within University Avenue.

Water Demand

Consistent with the previous approvals, water will be supplied by the Dedham/Westwood Water District from their White Lodge Water Treatment Plant located on University Avenue, adjacent to the site. Based on unadjusted Title V estimates, water demand is anticipated to be 238,367 gpd (including HVAC makeup water). The new on-site water mains serving University Station will connect to the existing water mains in University Avenue and since University Avenue will no longer be relocated, much of the existing infrastructure will be preserved. The existing water main within the discontinued portion of Rosemont Avenue will be relocated, including a portion of the Westwood high service main. This relocation will be coordinated with the Dedham/Westwood Water District.

To minimize the impact to the Dedham/Westwood Water District water supply and distribution system, University Station will incorporate the following mitigation measures.

- Pre-treated stormwater recharge to replenish the aquifer. Pretreatment will be in accordance with the MADEP Stormwater Management Policy for working within Zone II's.
- All stormwater infiltration structures will be located outside of the Zone I.
- Landscape irrigation with non-potable water combined with using drought tolerant, hardy native plant species.
- Implementation of water conservation practices.
- Continuing monitoring of groundwater wells located within the Zone I radius.
- All new sanitary sewer manholes within the Zone I will feature water tight, locking gasket covers. All sewer piping within the Zone I will be SDR35 PVC with bell and spigot joints.

Water Budget

The pre-redevelopment CCF industrial park consisted of 15 industrial buildings with an estimated 42,080 gallons per day (gpd) or about 15,000,000 gallons per year water usage. All of that came from the adjacent Dedham Westwood Water District (DWWD) wells. While the proposed redevelopment project uses that same supply, it dramatically offsets its increased demand by collecting, treating and recharging approximately 53,500,000 gallons per year or nearly 60% of its projected Title 5 water demand.

The prior Westwood Station proposal, in its approved environmental assessment, used a modified Title V flow for its water demand. This adjustment resulted from incorporation of modern water conservation measures, which are also included in the proposed project. In a head-to-head comparison, the prior proposal would have generated an average water demand of 211,600 gpd (or 77,234,000 gallons per year) compared to the current project demand of 104,724 gpd (or 38,224,260 gallons per year).

The proposed infiltration recharge design will return to the same aquifer 140% of its annual consumption (53.5 million gallons versus 38.2 million gallons). It is therefore very likely that the proposed project, when built, will recharge its actual water consumption, leaving the demand on the basin's groundwater resources unchanged. If the prior MEPA approved demand estimates prove true, then the project will not only replace its consumption but will add to the base flow of the Neponset River.

Public Utilities

The proposed development will be served by public utilities including NStar for electrical service, National Grid for natural gas and Verizon and Comcast for telephone, cable and internet

services. As the project design evolves, the project needs will be coordinated with the public utility companies to size and lay out the appropriate infrastructure.

Earthwork for Site Redevelopment and Building Foundations

The proposed building structures will be constructed using conventional spread footing foundations, with the ground floor constructed as a concrete slab-on-grade. Some preparatory earthwork will be required in each of the proposed building areas. In general, this earthwork is expected to include excavation of surface fill materials and abandoned foundations, and reuse of the excavated soil as compacted engineered fill. In some isolated building locations, it will be necessary to remove buried organic soil which is compressible and unsuitable for support of future buildings. The excavations will subsequently be backfilled with compacted engineered fill.

An objective of the final site design will be to balance the cut and fill earthwork so as to reduce the amount of material to be imported or exported from the site during construction. As indicated above, it is anticipated most soil and rock materials excavated from cut areas will be suitable for reuse as compacted engineered fill on the site. Bedrock excavation by blasting is anticipated to regrade a portion of the site to the west (rear) of the retail core buildings. A grade differential of approximately 47 feet is anticipated between the rear of the retail core buildings (about El. 58 ft) leading up to a proposed parking area for a future office building complex above (about El. 105 ft). This grade change will be constructed as a “mixed face” bedrock cut slope with a segmental retaining wall above as needed to achieve the required finished grade. Excavated bedrock is expected to be crushed on-site for reuse as base course material below proposed paved areas and to create portions of the infiltration galleries.

Landscape Architecture

Overview

While the physical implementation of the University Station project will be sequentially constructed due to the project’s size, the overall landscape master plan has been envisioned to create a single comprehensive environment. Conceptually, the development has seven land use areas: the Retail Core, the Village, the Office Campus, the Canton Street Residences, the Entry Park and the Meadow, and University Avenue.

University Avenue

As the primary corridor through the development, University Avenue is designed to become a recognizable and cohesive landscape, with an identity and overall “sense of place” achieved through the use of an organized roadway cross section, deliberately placed lighting, landscape and tree plantings, thoughtful signage and quality site features and improvements.

The streetscape is further organized as a sequence of four related “blocks”, punctuated by focal intersections. Each block and each intersection are similar in overall materials and quality, but at the more detailed scale, each has its own unique formal responses to the varied architectural programs, edge conditions and site uses.

When entering University Avenue from Blue Hill Drive, the edge of the roadway is tree lined, but no major architectural forms enclose the roadway. The first block is open spatially and views are of public and civic uses such as the T Station and appropriately scaled commercial uses, and on the west side of the road, the Entry Park with its water feature, created ornamental wetlands and overlooks. This openness creates a “gateway character” for people arriving at the development from the intersection. Also, the overall project character is introduced in the stone walls, lighting, signage and landscape.

The second block begins at the intersection of University and Rosemont, which has attractive residential development on both sides of the road and therefore a more developed and urban character. The second and third blocks are punctuated by intersections which concentrate landscape features. The third block has the Retail Core to the west and the existing well head building and the Meadow to the east. The fourth block of University Avenue has the Retail Core continuing to the west and existing property parcels to the east.

Pedestrian linkages are emphasized throughout the entire project.

Retail Core

The Retail Core is comprised of large format stores linked with a continuous pedestrian retail sidewalk system highlighted with several “pocket” parks which are small plazas open to the public. The primary retail plaza is located at the end of the main approach drive and includes a vertical gateway element in the form of a pergola structure. Low stone seatwalls define the space where small clusters of outdoor seating are provided. Site amenities used throughout the Retail Core include regularly spaced pedestrian scale lights with banner arms, sidewalk planters and benches.

Village

This area is comprised of a mix of retail, office residential, restaurant and hotel uses. It is urban in character and scale. The center piece of the Village landscape is the traditional “Green”; a large park surrounded by shade trees with a central open lawn for gathering and small public events, and feature plazas at each end. The village will have enhanced urban streetscape treatments such as tree-way planting systems in the sidewalks, uniformity and regular cadence of site furnishings and pedestrian scale lighting.

Entry Park

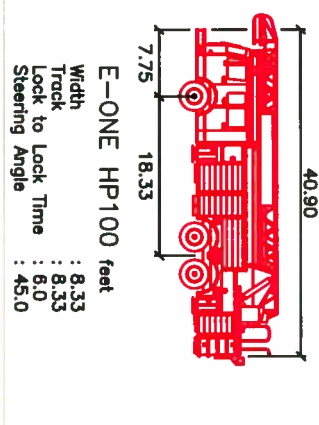
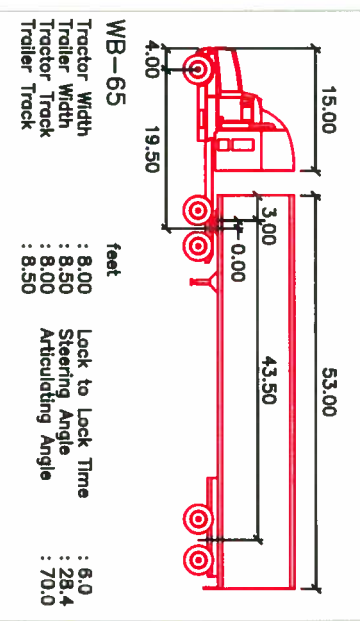
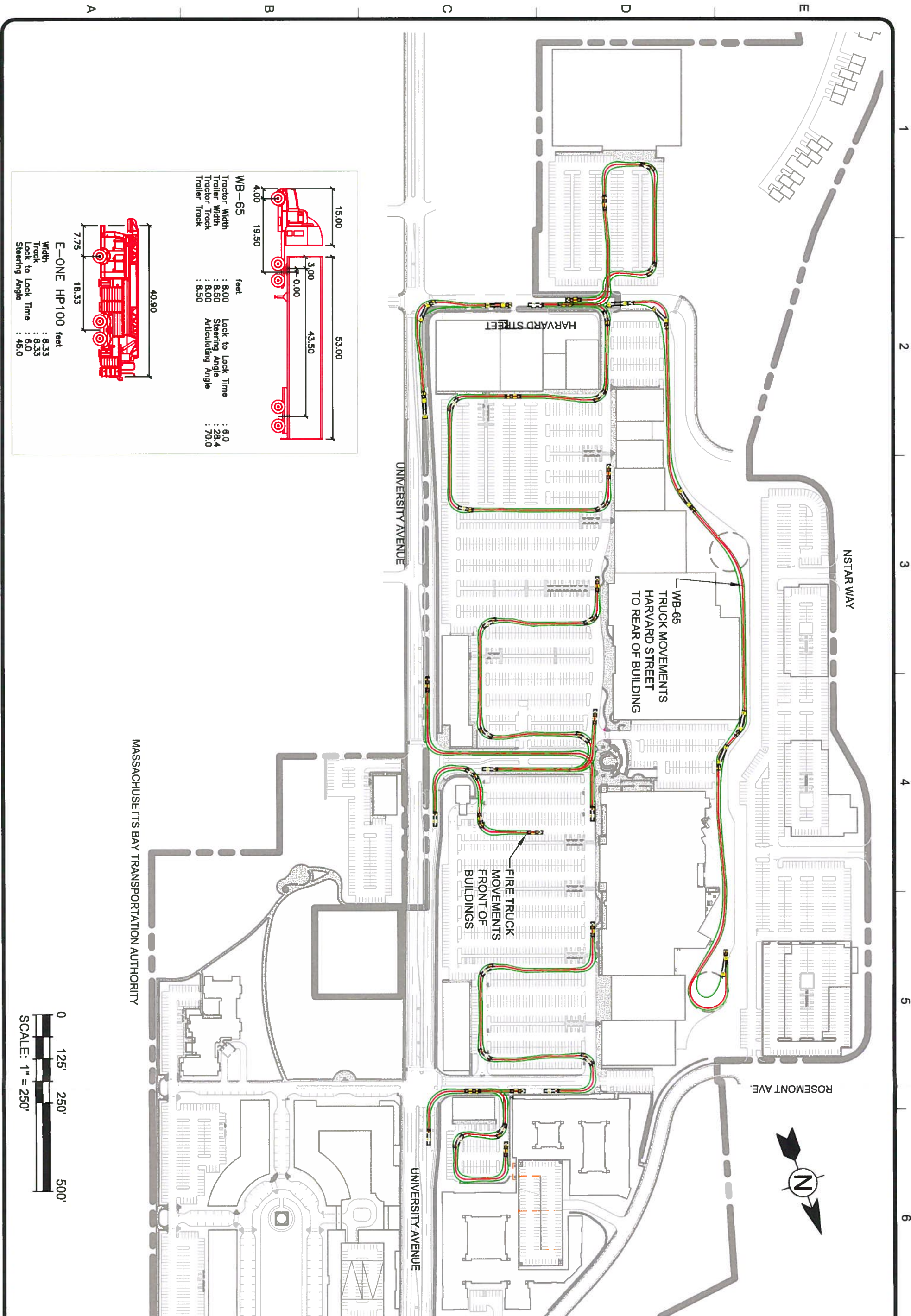
The park at the corner of Blue Hill Drive and University Avenue serves many purposes. The park’s prominent location requires it to act as a formalized entrance to University Station while also serving as a neighborhood park for future residences, and finally, as a place for stormwater storage and treatment. The conceptual park design transitions from a naturalized, organic vegetated wetland at the south into a more formalized pond and water feature to the north where visitors first glimpse university station. A fountain in the pond is the main focal point as visitors enter university station. The wetland is anchored by a kinetic sculpture that responds to the organic quality of this space. A central walkway bisects the park while additional walkways provide circulation within the park. A central overlook offers seating opportunities and views of

the pond and wetland. The planting palette will consist predominantly of native plants to create a naturalistic woodland effect.

Meadow

The meadow functions as both a public park and as a compensatory flood storage area. This open space falls partially within the 400' municipal well head protection radius and therefore all treatments, including all plantings, pavements and improvements in this area will be low-impact to ensure protection of the ground water drinking supply. There will be screened fencing along an inner zone to avoid "dog park" issues. No irrigation, fertilizers or pesticides will be used in this area. The landscape design ranges from formal and ornamental near University Avenue to an informal and all native landscape closer to the Neponset River.

The meadow will normally be dry and maintained as a natural open space, but is topographically sculpted to allow flood storage between elevation 45 to 47 resulting from large floods on the Neponset River.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY



MARK	DATE	DESCRIPTION	BY
1	10/9/12	Preliminary Site Development Plans	N.H.C.
2	11/30/12	Revised Site Development Plans	N.H.C.

Westwood Marketplace Holdings LLC
 University Ave, Westwood, MA

University Station - University Avenue
 Redevelopment

Proposed Truck Turning Movements

TETRA TECH

www.tetrattech.com

One Grant Street
 Framingham, MA 01701
 PHONE: (508) 903-2000 FAX: (508) 903-2001

Project No.: 127-3659-12003
 Designed By: N.H.C.
 Drawn By: J.V.B.
 Checked By: R.F.D.

Bar Measures 1 inch