



Date: October 19, 2012

To: Nora Loughnane, Town Planner

From: Merrick Turner BETA Project #: 4410

Subject: University Station Peer Review

The purpose is this memorandum is to provide review comments for the October 9<sup>th</sup>, 2012 preliminary plan submission made by the Proponent in connection with the University Station Development Project.

Documents reviewed included the following:.

Preliminary Site Development Plans, University Station dated October 9,2012

#### **GENERAL**

- 1. We recommend that the proponent submit a summary design report for the overall project with the future submissions. The Report should discuss key issues guiding the project including but not limited to:
  - a. Executive Summary
  - b. Overall compliance with the By-law and any waivers requested.
  - c. Existing Conditions Report
  - d. Proposed Development Report Proposed build out, transportation features of all modes, open space and streetscape features, construction phasing and timeline, stormwater upgrades, water and sewer systems, utility upgrades, , water quality issues/controls, shared parking analysis etc.
  - e. Services Improvements Report Monitoring requirements, O+M Summary
  - f. Summary of Fiscal and Community Impact Summary of key mitigations, assumed to be a stand-alone report
  - g. Transportation Assumed to be a stand-alone report
  - h. Environmental Impact Report Water budget, LEED/Sustainability features, wetland impact summary, Air and Noise impact Summary
  - i. Summary of Housing, Affordability Provisions etc.
  - j. Summary of Project Mitigations and Public Benefits
- 2. Dedham Westwood Water to provide review and comment on the water system . It is assumed that all details for water Construction will be reviewed and approved by DWWD. Show all proposed

water systems in accordance with DWWD requirements. Please provide a copy of DWWD commenst to Peer Review Team

- 3. Coordinate with Town of Westwood Board of Health to obtain comments. Please provide a copy of comment to Peer Review Team
- 4. We anticipate the Fire Department will have specific requirements relative to access and we suggest the proponent meet with the fire department as soon as possible if they have not already done so. Please provide a copy of comment to Peer Review Team
- 5. Provide documentation that all hydrant locations have been approved by the Fire Chief. Please provide a copy of comment to Peer Review Team
- 6. Sign type and location should be clarified for the entire project. This may be most effectively achieved by the development of signage guidelines. The extent to which complete sign locations and details will be shown on the plan needs to be determined and we anticipate this will be an important issue for the Board. We recommend that the proponent develop signage guidelines and clarify to what extent they anticipate signage will be shown on the "approved plan" or submitted as part of the consistency review.
- 7. Provide air quality and noise impact analysis and report
- 8. Prepare summary plan indicating all zoning classification and zoning district boundaries including boundaries of Special Flood Hazard Areas and Water Resource Protection Districts as applicable. Include a summary table which for each building identifies , # floors, height, grade elevation, roof elevation, total floor area, units total, # affordable housing by # unit size (# bedrooms) and total units, # moderate income housing by unit size, # of senior residential units by unit size and total, total residential floor area, total retail floor area, and FAR. Provide parking summary in area, # levels as applicable and # spaces, # accessible spaces. As applicable to by-law provide area designated as permanent open space, area and percentage on non-wetland area, area and percentage on impervious area. Identify areas of land within Canton.
- 9. It is assumed that the existing lotting plan was derived from the approved Westwood Station Definitive Plan Please confirm.
- 10. Show Location and outline or footprint of all buildings, or structures with finished floor elevation and dimensions on all plans.
- 11. Sheet layouts for each design discipline should match to the max extent practicable.



- 12. Plans set should be organized to differentiate Primary Roadways (owned by Town) and Site Plan areas (owned by the proponent). Primary Roadways are assumed to include University Avenue, Rosemount. Marymount and Harvard Street. Site Plan areas are all other locations. Primary roadway plan coverge should focus on the "ROW corridor" that will become the responsibility of the Town, whereas the site plans will cover work typically beyond.
- 13. The level of detail required by the Peer Review Team is dependent upon the scope of consistency review anticipated by the Proponent for each phase of the development and certain aspects of the information requested below may fall to consistency review pending clarification. For example, does the proponent intend to submit PS&E level of completion for all phases of the development or just the first phase. This is a critical item to be resolved moving forward.

## **PRIMARY ROADWAYS:**

#### **Typical Sections**

- Typical Sections should be provided for primary roadways. Typical sections should be similar in content to MassDOT design requirements and indicate basic materials types and dimensions, cross slopes, lane widths, side slopes etc. The key for typical sections is illustration of the proposed roadway and sidewalk construction and multiple sections would only be necessary to illustrate material changes in type of construction, roadway banking etc.
- 2. 12' travel lanes should be utilized along main truck access routes such as University Avenue and Harvard Street. Pending clarification of usage along Rosemount and Marymount 11 foot lanes may be appropriate.
- 3. Pavement design shall calculation shall be provided in accordance with MassDOT Chapter 9. Back-up should be provided to show derivation of truck volumes.

## **Curb Tie Plans (20 Scale)**

1. Prepare plans showing various data required for layout of the roadway. This includes but is not limited to survey control points, baseline data, curb offsets, curb layout data.

#### **Roadway Construction Plans (20 Scale)**

- 1. Prepare plans showing general material types, dimension s and locations. Show baselines, slope limits, ROW and easement lines, driveways, sidewalks, pedestrian ramps, curbing, edging, walls and other proposed construction features.
- 2. Clarify the extent to which the plan incorporates bike shoulders/lanes. Note that this may be a specific request from the Planning Board.
- 3. Truck Turn Templates should be provided at all side streets intersecting primary roadways.



4. Show grading at back of sidewalks and slope transitions to overall site grading.

## Roadway Profiles (20 scale or 40 Scale, with 5X vertical exaggeration)

- 1. Profile grades should not exceed 5% for new roadways. .
- 2. Profile grades should not exceed 2% within 50 feet of an intersection.
- 3. Sight distance should be included on the profiles at all crest vertical curves.
- 4. Drain and Sewer Trunk lines should be added to profiles.

## **Grading and Drainage Plans (20 Scale)**

- 1. Showing all proposed and existing drainage.
- 2. Contours should be provided at 1 foot intervals. Spot grades should be provided at 50 foot intervals on tangents, 25 foot intervals along vertical curves
- 3. Identify the extent to which existing drainage is abandoned.
- 4. Number all Drainage catch basins and manhole structures. Show pipe material types. Show slopes, rim and inverts elevations.
- 5. To demonstrate that conflicts have been evaluated, utility pipes or ducts 24" and larger should be drawn actual size ie parallel lines. Manholes and catch basins should be drawn actual size. Utilities should not be placed impractically close to one another and must allow for constructability issues to as earth support systems.
- 6. Show major structural elements above ground and below ground such as walls, mast arms and foundations, major signs and foundations
- Verify trees, lights, plantings and other key streetscape elements are not placed above utility alignments
- 8. Show access and utility easements

## **Utility Plans (20 scale)**

1. A composite utility plan should be provided showing all proposed and existing utilities. Emergency power systems shall also be shown. Drainage should be shown for completeness but need not be labeled on this plan.



- 2. Number all Sewer manhole structures. Show pipe material types. Show slopes, rim and invert elevations.
- 9. To demonstrate that conflicts have been evaluated, utility pipes or ducts 24" and larger should be drawn actual size i.e. parallel lines. Manholes and catch basins should be drawn actual size. Utilities should not be placed impractically close to one another and must allow for constructability issues to as earth support systems.
- 3. Show proposed lighting poles, duct and hand holes.
- 4. Show major structural elements above ground and below ground such as walls, mast arms and foundations, major signs and foundations
- 5. Verify trees, lights, plantings and other key streetscape elements are not placed above utility alignments
- 6. Show access and utility easements

## **Pavement Markings Plans (20 Scale)**

1. Show all proposed pavement markings and regulatory signs. Show all lane and shoulder widths.

#### Signal Plans (20 Scale)

- 1. Provide signal plans showing layout of equipment, conduit, pull-boxes controller and power source. Plans should include existing and proposed utilities (screened) to demonstrate no conflicts exist.
- 2. Provide signal phasing and timing plans for each signalized intersection.

## **Working Cross Sections**

 Working cross section (Top Line) may be required to verify slope conditions beyond the assigned ROW. For example what are the conditions/limitations at in the slope area between Marymount and the Loading docks to the retails areas. Also, what does the embankment grading look like along University Avenue.

#### **Traffic Management Plans**

1. Provide traffic management plans that indicate the proposed sequence and staging methodologies.

#### **SITE PLANS**

## **Existing Conditions Plan**

1. Prepare an existing conditions plan in accordance with the Town requirements. Section 6.4 of the Rules and Regulations for FMUOD may be used as the basis for such requirements.



## **General Layout Plans (40 scale)**

- 1. Show Location and layout of proposed streets, ways, access and interior driveways, walkways sidewalks, parking lots, fire lanes, loading area and other impervious areas with all dimensions necessary to determine compliance with the zoning by law
- 2. Show Baseline for each road/driveway.
- 3. Lane and shoulder dimension need to be added to plans for all roadways and site driveways.
- 4. We recommend site drives are designed and constructed in accordance with the Site Drive criteria established for the previous Westwood Station Project. Guidelines will be provided under separate cover.
- 5. Clarify the extent that the plan incorporates bike shoulders/lanes. Note that this may be a specific request from the Planning Board.
- 6. Pavement marking and regulatory signing needs to be shown and labeled.
- 7. Major structural elements above and below ground such as mast arms and foundations, major signs, should be shown on the plan
- 8. All pedestrian ramps should be shown on the plan.
- 9. Truck Turn Templates should be provided at all side streets intersecting primary roadways.
- 10. Auto-turn analysis should be provided to demonstrate feasibility of loading and unloading operations.
- 11. Show location, type sizing and screening of any solid waste disposal facilities.

# **Grading and Drainage (40 Scale):**

- 1. Roadway contours should be provided at 1 foot intervals. Provide additional spot elevations at back of walk, top of curb and bottom of curb at all control points such as doorways, low points in the sidewalk or roadway etc. Level of detail should be sufficient to demonstrate positive drainage.
- 2. Number all drainage structures. Show pipe material types. Show slopes and rim and invert elevations.
- 3. To demonstrate that conflicts have been evaluated, drainage pipes 24" and larger should be drawn actual size ie parallel line. Manholes and CB's should be drawn actual size.



4. Show access and utility easements

## **Utility Plan (40 Scale)**

- 1. Composite utility plan should be provided showing all utilities. Drainage should be shown but need not be labeled since detail is provided on the grading plan.
- 2. Number all Sewer structures. Show pipe material types. Show slopes, rim and invert elevations.
- 3. To demonstrate that conflicts have been evaluated, utility pipes or ducts 24" and larger should be drawn actual size i.e. parallel lines. Manholes should be drawn actual size.
- 4. Show access and utility easements

## Land Scape and Street Scape (20 Scale)

- 1. Show General dimensioned layout and details of sidewalk materials, feature strips, plantings, light poles, planters, bollards, trash containers, signal equipment, fencing, furniture, bike racks, walls and other urban design elements within public and private roadways. Summarize proposed planting by a table proposed on each sheet including botanical and common name, height and size at planting, height and size at maturity, quantity to be planted, typical spacing, and symbol used to represent the planting on the plan.
- 2. Prepare grading plans as appropriate to detail specific landscape features.
- 3. Show location, type sizing and screening of any solid waste disposal facilities.
- 4. Identify existing plantings to be retained including the location, size and species.
- 5. Prepare details as required to show construction of streetscape design elements.

# Photometric Plans (40 scale)

- 1. Prepare and submit to the Town lighting design guidelines for review and comment. Light levels used in design shall be consistent with IESNA guidelines. An example lighting guideline will be provided under separate cover.
- 2. Show the location, orientation, and type of outdoor luminaire including the height.
- 3. Prepare photometric plan showing the intensity of the illumination expressed in foot candles at the ground level for each roadway and within the interior of the property. Light levels shall be in accordance with agreed upon photometric levels established in the lighting design guidelines. The lighting plan shall also include the following illumination information in a table format: Minimum,



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Maximum, Average to Minimum, and Maximum to minimum light levels for each roadway or interior parcel as applicable.

4. Include a schedule on the plan summarizing the following, Symbol legend, Qty of fixtures used, Fixture ID, Luminaire Arrangement, Lumens, Description of Light pole assembly including height.

#### **Detail Sheets:**

- 1. Organize detail by discipline ie do not mix water details with sewer details, sewer with drainage etc. This will facilitate review and approval by various jurisdictions.
- 2. Prepare typical detail of each type of parking space to be used on the site showing the dimensions of the parking space to be used on the site are in compliance with the Boards Regulations.
- 3. Provide detail sheets for structural walls showing typical section and elevation.

Ref: Document2

