Wellesley Sports Center

900 Worcester Street
Wellesley, MA

Issued for:

- Project of Significant Impact

Applicant:

Wellesley Sports Center, LLC
41 North Road, Suite 203
Bedford, MA 01730

Prepared by:

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A&M PROJECT #2329-01

April 13, 2017

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The information presented herein this report has been a collaborate effort from the various members/personnel of the Project Team.

TABLE OF CONTENTS

APPLICATION FORM FOR REVIEW OF A PROJECT OF SIGNIFICANT IMPACT
ABUTTERS LIST
CHECK

1.0 – Project Summary 1
2.0 – Existing Conditions 1
2.1 – Existing Site Development 1
2.2 – Existing Site Utilities and Municipal Demand 2
2.2.1 – Stormwater 2
2.2.2 – Sanitary Sewer 3
2.2.3 – Water 3
2.2.4 – Electrical 3
2.2.5 – Gas 3
2.3 – Other Site Characteristics 4
2.3.1 – Wetland Resource Areas 4
2.3.2 – Flood Plain 4
2.3.3 – MEPA Permit Thresholds 4
3.0 – Proposed Conditions 5
3.1 – Proposed Overview 5
3.2 – Proposed Site Utilities and Municipal Demand 5
3.2.1 – Stormwater 5
3.2.2 – Sanitary Sewer 8
3.2.3 – Water 9
3.2.4 – Electrical 9
3.2.5 – Gas 10
3.2.6 – Refuse Disposal 10
3.2.7 – Building Occupant Safety 10
3.2.8 – Pedestrian Safety 10
3.3 – Other Site Characteristics 11
3.3.1 – Wetland Resource Areas 11
3.3.2 – Flood Plain 12
3.3.3 – MEPA Permit Thresholds 12
3.4 – Construction Period 13
3.4.1 – Access and Site Management 13

3.4.2 – Erosion and Sediment Control 13
4.0 – Transportation 14
4.1 – Transportation Impact Assessment 14
4.2 – Parking 14
5.0 – Environmental Impact 15
5.1 – Stormwater Management 15
Standard #1 15
Standard #2 15
Standard #3 15
Standard 4 16
Standard 5 17
Standard 6 17
Standard 7 17
Standard 8 18
Standard 9 18
Standard 10 18
5.2 – Stormwater Management System Maintenance 19
5.3 – Long-Term Pollution Prevention 22
6.0 – Conclusion 27

Appendix A – Drainage Calculations

Appendix B – Traffic Report

Site Plans (Separate Cover)

WELLESLEY PLANNING BOARD
APPLICATION FORM FOR REVIEW OF A
PROJECT OF SIGNIFICANT IMPACT

DATE: 4-12-17

ADDRESS OF PROPERTY: 900 Worcester Street PRECINCT B

NAME OF OWNER OF RECORD: Town of Wellesley

signature

EXISTING USE OF
LAND/BUILDINGS: Vacant (Parking Lot) former ST. James Church

PRESENT ZONING: SR10: Single Residence 10 & Commercial Recreation Overlay District

PROPOSED USE OF
LAND/BUILDINGS: Recreation/Sports Complex

FLOOR AREA OF BUILDING(S) NOW EXISTING ON THE
SITE: 0 sf (21,853 sf previously) SQUARE FEET. (Church 17,622 sf (2-story) & Rectory 4,231 sf (2.5-story))

TOTAL FLOOR AREA OF BUILDING(S) PROPOSED ON THE
SITE: 129,716 sf SQUARE FEET.

AGGREGATE TOTAL FLOOR AREA OF PROPOSED NEW CONSTRUCTION
ONLY 129,716 sf SQUARE FEET.

(IF RESIDENTIAL) NUMBER OF DWELLING UNITS 0

AREA OF LOT OR DEVELOPMENT SITE 341,802 SQUARE FEET.

CONSULTANT(s) FOR IMPACT ANALYSIS Allen & Major Associates, Inc.
10 Main Street Lakeville, MA 02347 (Attn: Phil Cordeiro, P.E.) Phone 508-923-1010

****

This portion to be completed by Planning Department

APPLICATION FORM AND IMPACT ANALYSIS AS REQUIRED BY PLANNING BOARD
RECEIVED BY _____
signature date

REVIEW COMPONENTS WAIVED BY PLANNING BOARD
_____ date of vote _____
_____ date of vote _____
_____ date of vote _____
_____ date of vote _____

SUBMISSION FEE RECEIVED $_____ _____
date

IMPACT ANALYSIS TRANSMITTED TO REVIEW DEPARTMENTS _____
date

IMPACT ANALYSIS APPROVED BY:
Board of Selectmen _____
date

Board of Public Works _____
date

Fire Chief _____
date

Special Permit Approved by Planning Board _____ date.

WELLESLEY PLANNING BOARD

DEFINITIVE SUBMISSION - PROJECT PLAN SPECIFICATIONS

PROJECT OF SIGNIFICANT IMPACT

The Definitive Submission Project Plan shall be drawn to a scale of 1"=40' and shall show:

a. Title and North arrow;

b. Name of owner of record;

c. Name of applicant (if different than owner);

d. Names of all abutters as they appear on the most recent tax list;

e. The general topography including an indication of open and wooded areas, permanent monuments, natural objects such as waterways, drainage courses, large boulders or ledge outcroppings, stone walls and the like;

f. Proposed location of building(s) and structures, roads, drives, and parking areas, with the proposed rough layout of storm drains, water supply, sewage disposal system and necessary easements;

g. The general relation of the proposed driveway(s), water, sewer and drainage systems and easements to adjoining properties and ways.

Should the plan be submitted on more than one sheet, all sheets shall be of the same size.

abutters_id_field	abutters_owner1	abutters_owner2	abutters_address	abutters_tow	abutters_state	abutters_zip	abutters_bookpage	abutters_location
158-99	Commonwealth of Massachusetts	Mass Highway Department	10 Park Plaza	Boston	MA	02116		Worcester St.
181-106	Town of Wellesley	Natural Resources Department	525 Washington St.	Wellesley	MA	02482	5444-16	340 R Weston Rd
182-12	Hammer, Laurie		24 Bay View Road	Wellesley	MA	02482	31855-91	24 Bay View Rd
182-13	Chinitz, Leigh M &	Reilly, Erin C. Trustees	28 Bay View Road	Wellesley	MA	02482	14216-386	28 Bay View Rd
182-14	Luniewicz, John R &	Beckman, Sharon L	30 Bay View Road	Wellesley	MA	02482	7048-335	30 Bay View Rd
182-15	Kidik, Charles S & Patricia		33 Bay View Road	Wellesley	MA	02482	7421-643	33 Bay View Rd
182-16	Sarni, James L, III		29 Bay View Road	Wellesley	MA	02482	25223-536	29 Bay View Rd
182-17	Vig, Katherine W L, Trustee	Katherine W L Vig 2015 Fam Trust	24 Shadow Lane	Wellesley	MA	02482	8409-187	24 Shadow Lane
182-18	Hess, Donna E		19 Bay View Road	Wellesley	MA	02482	5952-400	19 Bay View Rd
182-27	Barrett, Robert W & Joan M		14 Shadow Lane	Wellesley	MA	02482	18907-451	14 Shadow Lane
182-28	Goldman, Jennifer L		18 Shadow Lane	Wellesley	MA	02482	-	18 Shadow Lane
182-29	Davis, Richard &	Davis, Robert	23 Shadow Lane	Wellesley	MA	02482		23 Shadow Lane
182-30	Barrett, Michelle Sterk &	Barrett, Timothy	21 Shadow Lane	Wellesley	MA	02482	12639-215	21 Shadow Lane
182-31	Hart, Taylor J &	Brannelly, Jill M	19 Shadow Lane	Wellesley	MA	02482	-	19 Shadow Lane
182-32	Humphreys, David & Tracy		15 Shadow Lane	Wellesley	MA	02482	9328-236	15 Shadow Lane
182-33	Miao, Harry H &	She, Lei	11 Shadow Lane	Wellesley	MA	02482	25394-565	11 Shadow Lane
182-40-1A	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	13195-433	892 -1A Worcester St.
182-40-1B	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	13195-433	888 -1B Worcester St.
182-40-1C	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	16386-209	888 -1C Worcester St.
182-40-1D	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	13195-433	888 -1D Worcester St.
182-40-2A	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	13195-433	892 -2A Worcester St.
182-40-2B	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	13195-433	888 -2B Worcester St.
182-40-2C	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	16386-209	888 -2C Worcester St.
182-40-3B	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	13195-433	888 -3B Worcester St.
182-40-3C	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	16386-209	888 -3C Worcester St.
182-40-GB	Associated General	Contractors of Mass Inc	888 Worcester St	Wellesley	MA	02482	6036-572	888 -GB Worcester St.
182-40-GC	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	16386-209	888 -GC Worcester St.
182-40-GD	Wayne Office Park, LLC	c/o Haynes Management, Inc	34 Washington St., Ste 7	Wellesley	MA	02481	13195-433	888 -GD Worcester St.
182-76	Town of Wellesley		525 Washington St.	Wellesley	MA	02482		47 Russell Rd
192-1	Clifford, Joan Ellen		34 Bay View Road	Wellesley	MA	02482		34 Bay View Rd
192-10	Town of Wellesley		525 Washington St.	Wellesley	MA	02482	2654-459	900 Worcester St.
192-11	Canoni, Gary R & Barbara P		1 Dale Street	Wellesley	MA	02482	12620-286	2 Dale St.
192-12	Canoni, Gary R & Barbara P		1 Dale Street	Wellesley	MA	02482		1 Dale St.
192-13	Town of Wellesley	Sewer Department	20 Municipal Way	Wellesley	MA	02481		3 Dale St.
192-14	Town of Wellesley	Sewer Department	20 Municipal Way	Wellesley	MA	02481		5 Dale St.
192-15	Sancomb, Herbert A & Marilyn E, Trstees	Herbert A Sancomb Rev Trust	930 Worcester Street	Wellesley	MA	02482	6598-411	926 Worcester St.
192-16	Sancomb, Herbert A & Marilyn E, Trstees	Herbert A Sancomb Rev Trust	930 Worcester Street	Wellesley	MA	02482	23882-207	930 Worcester St.
192-18-E	Zhang, Jian & Dongning Bai		1 Ottaway Circle	Wellesley	MA	02482	10103-111	1 Ottaway Circle
192-19	Town of Wellesley	Natural Resources Department	525 Washington St.	Wellesley	MA	02482		929 Worcester St.
192-2	Mariani, Peter H & Linda M		36 Bay View Road	Wellesley	MA	02482	15131-218	36 Bay View Rd
192-20	Hsiao Chang & Zheng Guo		925 Worcester Street	Wellesley	MA	02482	-	925 Worcester St.
192-21	O'Kane, William J, Jr		4 Lexington Road	Wellesley	MA	02482	14636-233	4 Lexington Rd
192-22	Lin, Dali &	Pai, Jing Yi	10 Lexington Rd	Wellesley	MA	02482	23757-116	10 Lexington Rd
192-23	Vernon, Stanley &	Rubin, Beverly	9 Lexington Road	Wellesley	MA	02482	5858-330	9 Lexington Rd
192-24	3 Lexington RD LLC		46 Winter Street	Lexington	MA	02420	6779-55	3 Lexington Rd
192-25	Heaton, Richard B & Elizabeth L		917 Worcester Street	Wellesley	MA	02482		917 Worcester St.
192-27	Town of Wellesley	Natural Resources Department	525 Washington St.	Wellesley	MA	02482		5 R Dale St.
192-28	Wellesley Conservation Council Inc.		PO Box 81129	Wellesley	MA	02481		49 R Russell Rd
192-29	Commonwealth of Massachusetts	Mass Highway Department	10 Park Plaza	Boston	MA	02116		Worcester St.

192-3	Hodge, Thomas		38 Bay View Road	Wellesley	MA	02482	-	38 Bay View Rd
192-30	Town of Wellesley	Natural Resources Department	525 Washington St.	Wellesley	MA	02482		47 R Russell Rd
192-4	Feingold, Joseph, Trustee	42 Bay View Rd Real Estate Trust	42 Bay View Road	Wellesley	MA	02482	30360-582	42 Bay View Rd
192-5	Grignaffini, Louis A & J Michelle		44 Bay View Road	Wellesley	MA	02482	10883-714	44 Bay View Rd
192-6	Meng, Song		45 Bay View Road	Wellesley	MA	02482	10903-742	45 Bay View Rd
192-7	Hall, George J &	Cronin, Martha	41 Bay View Road	Wellesley	MA	02481	23838-185	41 Bay View Rd
192-8	Buzzell, Gregory T & Anne G		39 Bay View Road	Wellesley	MA	02482	-	39 Bay View Rd
192-9	Brambilla, Gabriele &	Zanelli, Anna	35 Bay View Road	Wellesley	MA	02482	8587-564	35 Bay View Rd
200-37	Commonwealth of Massachusetts	Mass Highway Department	10 Park Plaza	Boston	MA	02116		Worcester St.

1.0 – PROJECT SUMMARY

The proposed redevelopment of 900 Worcester Street in the Town of Wellesley, Massachusetts consist of a complete site demolition and the construction of a 101,356 square foot sports complex with off-street parking and infrastructure to support the development on a site of approximately 7.8± acres in size. The project is required to obtain several permits from various departments and include the following:

- Special Permit – Project of Significant Impact (Sec. XVIA) from the Planning Board;
- Special Permit – Flood Plain District (Sec. XIVB) from the Zoning Board of Appeals;
- Special Permit – Water Supply Protection District (Sec. XIVE) from the Zoning Board of Appeals;
- Design Review – Project Approval (Sec. XVIA) from the Design Review Board;
- Site Plan Review – Project Approval (Sec. XVIA) from the Zoning Board of Appeals;
- Notice of Intent – (Article 44) from the Wetlands Protection Committee and MassDEP;
- Application for Permit to Access State Highway from MassDOT.

2.0 – EXISTING CONDITIONS

2.1 – EXISTING SITE DEVELOPMENT

The Town of Wellesley Assessor's office currently identifies the site as Map 192 Lot 10 with a total area of approximately 7.8± acres and a street address of 900 Worcester Street. The site is the location of the former Saint James Church which was owned by the Roman Catholic Archbishop of Boston. The Town of Wellesley purchased the property and has been the owner of record since November 2014. The church and rectory buildings were razed by the Town around November 2015. The property is located in the SR-10 Single Residence Zoning District and Water Supply Protection District as shown on the current Zoning Map. The Town recently approved the Commercial Recreation Overlay District, which encompasses the entire site, at Special Town Meeting on April 3, 2017.

Figure 1 - Google Earth

The property is situated on the eastbound side of Route 9 near the Wellesley/Natick town line and is bounded by Worcester Street (Route 9) to the north, professional office buildings to the east, residential properties to the south and Dale Street to the west. The site currently has direct access via two (2) curb cuts along Worcester Street and one (1) curb cut on Dale Street. The site was fully developed and

included two (2) buildings with building footprints of 9,776 sf (Church) and 2,356 sf (Rectory). These two building were previously razed by the Town. The site still contains a large parking lot with approximately 290 parking spaces. The entire site is covered by approximately 50% impervious surfaces which includes paved parking lot and vehicle and pedestrian access areas. The rear portion of the site is undeveloped and contains woodlands with an isolated vegetated wetland pocket. The wetland line was approved and received an Order of Resource Area Delineation (ORAD) on August 21, 2014 (See MassDEP #324-755). There is also Bordering Land Subject to Flooding (BLSF) which is associated with the Flood Zone A, located on the westerly portion of the site. The northeasterly corner of the site is located with the 200-ft Riverfront Area associated with Boulder Brook which is located on the northerly side of Worcester Street.

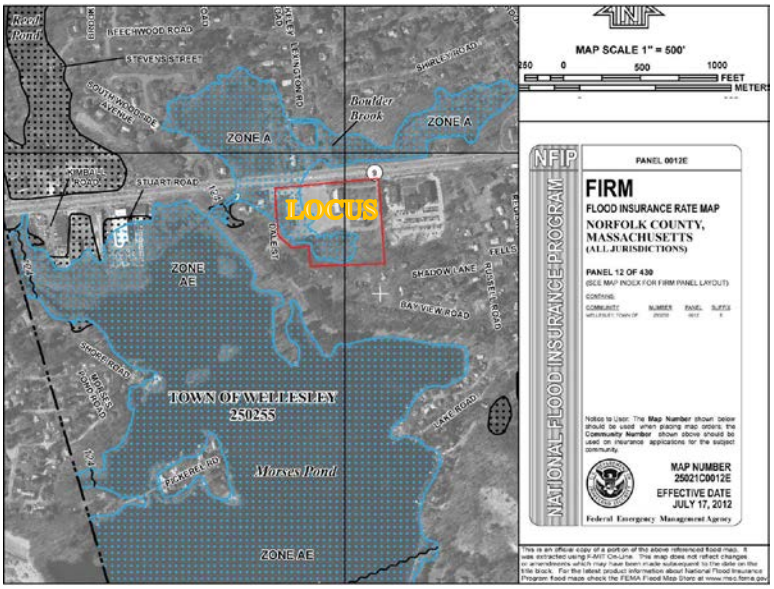

Figure 2 - FEMA Firmette

The site topography indicates the site is fairly flat with a gradual slope in the north-south direction. Steeper slopes exist along the entire southerly property line separating the residential development of Bay View Road from the project site. Elevations on the developed portion of the site range from elevation 135 to elevation 129 (Town of Wellesley Datum). Elevations along the southerly property line range from elevation 170 to elevation 129 (Town of Wellesley Datum). The majority of the site currently slopes to a low point within the parking lot on the westerly side and eventually into the isolated wetland pocket. Stormwater runoff drains via sheet flow uncontrolled and untreated into the wetlands. A small portion of the site on the easterly portion drains into an existing leaching catch basin with no visible outlet.

2.2 – Existing Site Utilities and Municipal Demand

2.2.1 – Stormwater

The site topography indicates the site is fairly flat to steep slopes on the southerly property line. The majority of the site slopes to a low point in the westerly portion of the parking lot and eventually sheet flows into the isolated wetland. Stormwater drains uncontrolled and untreated into the wetlands. A small portion of the site drains by sheet flow into a leaching catch basin located on the easterly side of the site. Worcester Street drainage system consists of several catch basins and manholes which are piped within the layout and eventually discharge to Boulder Brook and into Morse Pond.

2.2.2 – SANITARY SEWER

The site is currently serviced by two (2) existing sewer services. One (1) service for the church and one (1) service for the rectory. The existing sewer main is currently located along the southerly side of Worcester Road. The sewer service from the rectory is tied into the existing main while the sewer service from the church is connected to an existing sewer manhole located in the sidewalk and eventually tied into the main. Based on the survey information the current sewer main in front of the site ranges in elevation from 127± to 124±. There is also an existing sewer main located on Dale Street. The existing sewer flows are calculated as follows:

Table 2.2.2.1 – Calculated Existing Sewage Flows per The State Environmental Code, Title V

Type of Establishment	Min. Flow	Size	Calculated Flow	Design Flow
Residential Dwelling (Rectory)	110 gpd/bedroom	4,231 sf (assume 5 bedrooms)	550 gpd	550 gpd
Place of Worship without kitchen (Church)	3 gpd/seat	17,622 sf (assume 500 seats)	1,500 gpd	1,500 gpd
Total				2,050 gpd or (0.003 cfs)

Assuming a peaking factor of three (3), the adjusted sewage flow is estimated to be 6,150 gpd (0.01 cfs).

2.2.3 – WATER

The site is currently serviced by two (2) existing water services. One (1) service for the church and one (1) service for the rectory. The existing water main is currently located along the northerly side of Worcester Street eastbound lane. There is also an existing water main located on Dale Street. The site is covered by two (2) existing hydrants along the frontage of Worcester Street and one (1) hydrant one Dale Street. Water usage is estimated by using half of the sewage flow values and adding 10% to the projected sewage values to account for water consumption.

Table 2.2.3.1 – Calculated Water Flows

Type of Establishment	Calculated Sewage Flows	½ Sewage Flows	10%	Design Flow
Residential Dwelling (Rectory)	550 gpd	275 gpd	27.5 gpd	303 gpd
Place of Worship without kitchen (Church)	1,500 gpd	750 gpd	75 gpd	825 gpd
Total				1,128 gpd or (0.78 gpm)

Assuming a peaking factor of three (3), the maximum water usage is estimated to be 3,384 gpd (2.35 gpm).

2.2.4 – ELECTRICAL

The site is currently serviced by Wellesley Municipal Light Plant via overhead electrical wires and utility poles which are located on the southerly side of Worcester Street. A&M does not have record information on the electrical demands produced by the former church buildings.

2.2.5 – GAS

National Grid Gas currently has a gas main along Worcester Street and on Dale Street. The applicant is in communication with National Grid to determine the exact size and location of the main for serviceability.

More detailed information will be provided when available. A&M does not have record information on the gas demands produced by the former church buildings.

2.3 – OTHER SITE CHARACTERISTICS

Several environmental and regulatory factors have been evaluated in terms of effects on the redevelopment potential for the site which include the following:

- Wetland Resource Areas;
- Flood Plain;
- MEPA Permit Thresholds.

2.3.1 – WETLAND RESOURCE AREAS

The project site currently has an isolated vegetated wetland pocket, approximately 6,395 sf located on the southerly side of the site. The wetland line was approved and received an ORAD on August 21, 2014 (See MassDEP #324-755). The wetland line was delineated by Steve Ivas of Ivas Environmental. The isolated wetland has a 100-ft buffer zone, a 25-ft No Disturbance Zone and a Limited Disturbance Zone per the Town's Wetland Protection By-Law and Wetlands Protection Regulations. The northeast corner of the site is also located within the 200-ft Riverfront Area associated with Boulder Brook which is located on the northerly side of Worcester Street. The site includes previously-degraded Riverfront Area consisting of graded areas, paving, and maintained landscaping. According to the latest NHESP Atlas (13th Edition October 2008) there are no Priority Habitats of Rare Species, no Estimated Habitats of Rare Wildlife, no Certified Vernal Pools and no Potential Vernal Pools located on the property.

2.3.2 – FLOOD PLAIN

According to the latest FEMA Flood Insurance Rate Map (25021C0012E, dated July 17, 2012) the westerly portion of the site is located within a special flood hazard area subject to inundation by the 1% annual chance flood "Zone A", no base flood elevation determined. The area is protected as BLSF and compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within BLSF, when in the judgement of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood waters during peak flows.

2.3.3 – MEPA PERMIT THRESHOLDS

The project site may trigger one or several of the MEPA review thresholds in 301 CMR 11.03 under Section (6) Transportation due to the following:

13. *Generation of 2,000 or more new ADT on roadways providing access to a single location;*
14. *Generation of 1,000 or more new ADT on roadways providing access to a single location and construction of 150 or more new parking spaces at a single location;*
15. *Construction of 300 or more new parking spaces at a single location.*

The current site, former location of St. James Church, has been vacant for several years and the buildings recently razed. The dilapidated remnants of the parking lot remain, but the painted parking spaces have faded substantially. Based on historic aerial maps, there appears to be avialability for approximately 290 cars.

3.0 – PROPOSED CONDITIONS

The information presented below and on the attached site plans is based on the current site programming model and facility information known at the time of PSI submission. Some details presented are not required under the PSI application given its focus on Municipal impacts (external to the site). However, in order to provide a comprehensive analysis of the project, A&M has included enhanced detail to allow for a more thorough understanding of the project.

3.1 – PROPOSED OVERVIEW

The proposed redevelopment project will consist of a complete site demolition and the construction of a 101,356 square foot sports complex with off-street parking and infrastructure to support the development on a site of approximately 7.8± acres in size. The sports complex will include two (2) ice rinks, swimming pool, an athletic sports field, several locker rooms, an elevated track, strength and conditioning room, therapy room, conference rooms and spectator viewing areas. Parking will be provided along the westerly, northerly and easterly side of the building and will consist of 355 parking spaces at a 82%/18% full size to compact size ratio as allowed under the zoning bylaw. The existing driveway curb cuts along Worcester Street will be slightly modified to accommodate the proposed development. An existing mid-block crosswalk curb cut onto Route 9 will be eliminated. The existing curb cut onto Dale Street will be eliminated. A bus drop-off and queuing area will be provided on the northerly side of the building and a marked passenger vehicle drop-off area will be provided on the westerly side of the building. A stormwater management system is being proposed that will consist of standard practices as well as the implementation of Low Impact Development (LID) techniques. The proposed LID measures include porous pavement, country drainage, grass swales and rain gardens. The proposed system has been designed to comply with the new MA MS4 General Permit regulations for redevelopment which will become effective on July 1, 2017, the applicable Town of Wellesley regulations, and the Massachusetts Stormwater Standards for redevelopment. The proposed system reduces the rate and volume of runoff at all existing design points during all storm events and complies with the water quality standards as presented in the Massachusetts Department of Environmental Protection (Mass DEP) Policy on stormwater runoff to the maximum extent practicable.

3.2 – PROPOSED SITE UTILITIES AND MUNICIPAL DEMAND

3.2.1 – STORMWATER

A hydrologic study of the site was conducted in order to evaluate the impact of the peak rate of runoff and runoff volume of the proposed redevelopment as compared to the existing development at the design points. Based on the topography, it was determined the design points are the isolated wetland and the leaching catch basin. The site remains isolated in nature and does not discharge stormwater to the surrounding roadways or piping networks with the exception of small portions of sheet flow that occurs at the current site driveways. With this premise in place, A&M prepared a stormwater plan that does not increase offsite runoff. The 2014 Ivas Environmental reports noted that the isolated wetland system was controlled by groundwater flow. Under proposed conditions, the predominance of stormwater is recharged to groundwater that will continue to feed the wetland area.

The study concluded that the proposed rates of runoff and runoff volumes at the wetland is less than the existing conditions analysis. Please refer to the following tables:

Table 3.2.1.1 – Design Point 1 Existing vs Proposed peak rate of runoff (Wetlands)

Design Storm	Existing (cfs)	Proposed (cfs)	Difference (cfs)
Water Quality (0.8")	0.00	0.00	0.00
2-year	1.78	0.00	-1.78 (100%)
10-year	8.46	0.05	-8.41 (99.4%)
25-year	13.49	0.28	-13.21 (97.9%)
100-year	20.33	0.85	-19.48 (95.8%)

Table 3.2.1.2 – Design Point 1 Existing vs Proposed runoff volume (Wetlands)

Design Storm	Existing (ac-ft)	Proposed (ac-ft)	Difference (ac-ft)
Water Quality (0.8")	0.000	0.000	0.0 (100%)
2-year	0.210	0.000	-0.21 (100%)
10-year	0.634	0.023	-0.611 (96.3%)
25-year	0.955	0.061	-0.894 (93.6%)
100-year	1.397	0.129	-1.268 (90.7%)

The leaching catch basin has been eliminated under proposed conditions. The remaining stormwater controls have been designed to retain and infiltrate all storm events up to and including the 100-year storm event. Emergency overflows have been provided in both Retain-It system and will be directed towards the isolated wetland.

The stormwater management design incorporates Best Management Practices (BMP's) to protect down gradient points and measures to reduce peak rates of runoff from the site between existing and proposed conditions. The stormwater design incorporates LID techniques, a CDS hydrodynamic separator for stormwater from portions of the parking lot and into the Retain-It concrete chambers design with an overflow into the isolated wetlands. The building downspouts will be directly connected into the Retain-It chambers, since the runoff is considered clean roof runoff and no treatment is required. The proposed layout, grading and the drainage system will reduce the total site runoff rate, volume and total suspended solids discharging off-site. The developed site will meet and exceed the criteria set forth in the Mass DEP Stormwater Technical handbook as well as the MA MS4 General Permit. Proposed BMP's include implementing a sweeping program, the CDS unit, bio-retention/rain gardens, grass channels, porous pavement and the underground infiltration chambers. The combination of these BMP's will remove greater than 80% of TSS from the anticipated stormwater runoff. The project will improve the water quality and quantity leaving the site and increase groundwater recharge.

Given the low lying nature of the property, a connection to the existing Route 9 drain infrastructure is infeasible. All stormwater is handled onsite. The westerly parking field, approximately 60,000 square feet is comprised of porous asphalt. The cross section of the asphalt will provide a filter media and a storage media. The filter traps and removes any oils and gases that would come from parked cars and allow for evaporation. Stormwater would be retained in the gravel section and allowed to recharge into the groundwater. The added benefit of the porous asphalt is to accommodate any flooding that may occur given its location in the flood plain. The water would be allowed to penetrate the asphalt wearing course as opposed to surface ponding that is currently experienced on the lot and along Dale Street.

The mid-section of the property, or roughly 40,000 square feet, is directed to a series of rain gardens. The rain gardens allow for the introduction of vegetative material that acts as the stormwater filter prior to groundwater recharge. In higher storm events, the water overflows into a catch basin system connected to other onsite storage areas.

The easterly portion of the site is approximately 156,000 square feet with the proposed facility occupying roughly 65% of the area. Clean roof runoff from the facility will be collected via gutters and downspouts. These will be connected into a subsurface recharge field. The parking surface around the building

perimeter graded to move stormwater into a water quality hydrodynamic separator that removes oils, gases, and total suspended solids. The building does not require water quality treatment under the stormwater regulations. The combined water flows will be directed to a subsurface recharge field comprised on Retain-It precast concrete chambers, or approved equal. The chambers provide a temporary holding cell allowing for the slow recharge of stormwater into the ground in the area of the soil with the well-draining soils. The infiltration chambers alone have a total volume of 44,475 cubic foot capacity (below the emergency overflow weir).

All totaled, there will be no stormwater runoff from the property in any direction or municipal system.

Methodology
The peak rate of runoff was determined using techniques and data found in the following:

1. Urban Hydrology for Small Watersheds – Technical Release 55 by the United States Department of Agriculture Soils Conservation Service, June 1986. Runoff curve numbers and 24-hour precipitation values were obtained from this reference.

2. HydroCAD© Stormwater Modeling System by HydroCAD Software Solutions LLC, version 10.18. The HydroCAD program was used to generate the runoff hydrographs for the watershed areas, to determine discharge/stage/storage characteristics for the infiltration systems, to perform drainage routing and to combine the results of the runoff hydrographs.

3. Soil Survey of Norfolk and Suffolk Counties, Massachusetts by United States Department of Agriculture, National Resource Conservation Service. Soil types and boundaries were obtained from this reference and includes the following soils:

Figure 3 - Soil's Map

- 253D Hinckley loamy sand, 15-35% slopes — Hydrologic Soil Group "A"
- 260B Sudbury fine sandy loam, 2-8% slopes — Hydrologic Soil Group "B"
- 602 Urban Land, 0-15% slopes

Soil test pits conducted by Gale Associates during the 2015 site assessment categorized the easterly portion of the site as well draining sandy soils. The westerly portion of the site under the parking field, was poor draining with a high water table.

4. Rainfall Data for each of the storm events was based on the National Weather Service Technical Paper 40 (TP-40) 24-hour rainfall maps as published in the TR-55 book. The total rainfall for each event is shown in the following table:

Table 3.2.1.3 – Rainfall

Water Quality	2-year	10-year	25-year	100-year
0.8 inches	3.10 inches	4.60 inches	5.50 inches	6.60 inches

Closed Drainage System Computational Methods

The closed drainage system calculations determine the rate of runoff, the time of concentration and the rainfall intensity for the drainage basin. The calculations were performed for a 25-year storm event. The following standards were used:

1. The Rational Formula (Q =CIA) was used to determine the flow to each structure.
   Q = Flow cubic feet per second (CFS)
   C = Runoff coefficients
   I = Rainfall Intensity (inches per hour)
   A = Drainage Area (acres)

2. The runoff coefficients used are as follows:
   Impervious (pavement and roofs) = 0.9
   Grassed = 0.40
   Bare Ground and gravel = 0.50
   Landscape = 0.4
   Wooded = 0.2

3. The intensity for each area was determined by the Steel Formula for a 25-year frequency storm. The Steel Formula is:
   $I = k/(t+b)$
   I = Intensity
   k = 230 (25 yr)
   t = Time of Concentration
   b = 30 (25 yr)

4. The times of concentration were calculated using a nomograph provided in "Design, Volume 1," by Seelye, 1960. A minimum time of concentration of ten (10) minutes was utilized.

5. The Manning's formula was utilized to calculate the capacity of the individual pipes in the closed drainage system. The Manning's formula is:
   $Q = (Ap)\ (1.486/n)\ (s^{1/2})\ (h^{2/3})$
   Q = Flow in CFS
   Ap = Cross-sectional area of the pipe (square feet)
   n = Roughness coefficient
   s = slope of the pipe (ft/ft)
   h = hydraulic radius

The closed drainage system, as designed, is capable of handling the design flow as calculated, as well as maintaining a design velocity of between 2.0 feet per second (fps) and 12.0 fps.

Using low impact design techniques, A&M was able to minimize the amount of drain structures that will be used on the property.

3.2.2 – SANITARY SEWER

The proposed project will abandon all existing sewer connections and is proposing a new sewer service. The main plumbing for the sports complex will be via a new eight (8) inch connection into the existing

sewer manhole located within the existing sidewalk. The proposed sewer flows are estimated to be 11,732 gallons per day (0.02 cfs) based on 314 CMR 7.00 and 310 CMR 15.00. The sewage flows were calculated as follows:

Table 3.2.2.1 – Calculated Sewage Flows per The State Environmental Code, Title V

Type of Establishment	Min. Flow	Size	Calculated Flow	Design Flow
Office	75 gpd/1000 sf or 200 gpd minimum	14,425 sf	1,081.8 gpd	1,082 gpd
Skating Rink	5 gpd/seat or 3,000 gpd minimum	700 seats	3,500 gpd	3,500 gpd
Swimming Pool	10 gpd/person	360 users (max) 200 seats	5,600 gpd	5,600 gpd
Gymnasium (field)	25 gpd/participant	50 participants	1,250 gpd	1,250 gpd
Gymnasium (field)	3 gpd/spectator	100 spectators	300 gpd	300 gpd
Total				11,732 gpd or (0.02 cfs)

Assuming a peaking factor of three (3), the adjusted sewage flow is estimated to be 35,196 gpd (0.05 cfs). This is an increase of 29,046 over pre-development conditions. The peak demand assumes that the facility is fully occupied with hosted events occurring on all sports surfaces. The operational needs of the facility are such that it is unlikely that a large pool event would be hosted simultaneous with a large hockey event. The careful scheduling of the facility will minimize the potential of a sewer demand of 11,732 or the peak demand of 35,196 gpd.

3.2.3 – WATER

The proposed project will abandon all existing water service connections and is proposing two (2) new connections on the twelve (12) main in Worcester Street. Domestic water and fire protection service will be via a new two (2) inch copper pipe and an eight (8) inch CLDI tap connection, respectively. In lieu of a peak water demand calculation based on a plumbing fixture unit count, the daily water usage for the project is estimated at 6,453 gpd (4.5 gpm) which is estimated by using half of the sewage flow values and adding 10% to the projected sewage values to account for water consumption. Assuming a peak factor of three (3) the adjusted water usage is 19,359 gpd (13.4 gpm). A more accurate estimate of domestic water demand will be provided by the owner as the building design progresses.

Table 3.2.3.1 – Calculated Water Flows

Type of Establishment	Calculated Sewage Flows	½ Sewage Flows	10%	Design Flow
Office	1,082 gpd	541 gpd	54 gpd	595 gpd
Skating Rink	3,500 gpd	1,750 gpd	175 gpd	1,925 gpd
Swimming Pool	5,600 gpd	2,800 gpd	280 gpd	3,080 gpd
Gymnasium (field)	1,550 gpd	775 gpd	78 gpd	853 gpd
Total				6,453 gpd or (4.5 gpm)

One time demands including filling of the pool and ice rinks would be coordinated directly with the water superintendent to minimize long term pressure drops in the service main during filling. At a maximum, these would occur once annually.

3.2.4 – ELECTRICAL

A preliminary analysis of the project was conducted by Dacon Corporation and the mechanical engineering team. The project is anticipated to require a 2500 Amp 277/480 volt 3 phase 4 wire complete with all distribution panelboards, dry-type step down transformers and safety switches for equipment. Additional amperage will be required for the proposed site lighting and will be provided when the design

has been finalized. The primary source of electrical load is based on the heating and cooling elements to run the facility. The applicant is also coordinating the installation of solar panels on the roof of the proposed building lessening the demand load on the Wellesley Municipal Light Plant. Further information on the electrical usage will be provided by others under separate cover as the design is finalized.

During construction temporary meters would be requested by the contractor.

3.2.5 – GAS

The applicant is currently communicating with National Grid Gas to determine the exact size and location of the main on Worcester Street. The gas demand has not been calculated by would be provided by a national vendor.

3.2.6 – REFUSE DISPOSAL

The proposed sports complex facility will utilize private haulers to remove solid waste from the property. An enclosed dumpster area is being proposed along the back of the building. The vehicles will have adequate access along the easterly side of the building. The waste will be brought to a licensed disposal facility in accordance with all applicable Federal, State and Local regulations. The concession area will utilize a recycling program for the plastic water bottles and soda cans. No negative impact is expected as a result of this construction on the Town of Wellesley refuse disposal program.

3.2.7 – BUILDING OCCUPANT SAFETY

As part of the building construction, a full new fire alarm system will be installed meeting all applicable codes. Portions of the building will also be serviced by a sprinkler system. These systems will be in accordance with the National Fire Protection Association regulations. The applicant will be required to submit fire protection drawings for review through the Wellesley Fire Department prior to the issuance of the building permit.

3.2.8 – PEDESTRIAN SAFETY

The proposed project is proposing to relocate the existing bituminous concrete sidewalk by moving it further southerly away from the vehicles traveling easterly along Worcester Street. Additional pedestrian access ways, cross-walks and accessible routes will be provided internally. The facility's site design is integrated into the Route 9 corridor for any pedestrians that may utilize it. Cement concrete sidewalks will be provide along the perimeter of the southerly parking lot as well as the northerly and westerly side of the building.

The primary pedestrian interaction is the arrival and departure of sports teams. They would typically arrive via school bus or passenger car. School buses are provided a dedicated queuing location that places visitors directly onto a sidewalk leading to the front door. Similarly, passenger drop offs will be accommodated directly at the front door via a 40 foot wide marked access point. A striped and marked pedestrian path within the parking field will bring visitors to the facility in a well-lit and clearly marked path. Directional signs will be using throughout the facility to maximize efficiency.

ADA accessible parking spaces will be located near the main entrance. The applicant is also proposing a new crosswalk on Worcester Street connecting pedestrians to Lexington Road. Crossing of Route 9 would be coordinated through off-site signal improvements and pedestrian beacons. Visitors arriving to the facility by bicycle are being provided an exterior bike rack for temporary storage. All sidewalks associated with this project are being fully reconstructed to ensure hazardous conditions, cracks, and potholes are removed.

There are no public transportation stops in vicinity of the project.

No negative impact is expected as a result of this construction and the proposed improvements will increase the pedestrian's safety along Worcester Street.

3.3 – OTHER SITE CHARACTERISTICS

3.3.1 – WETLAND RESOURCE AREAS

While not specifically identified as a PSI criteria, protection of wetland resource areas should be clearly identified through this project and will be coordinated directly with the Natural Resources Commission.

The proposed project will be required to obtain a waiver from the Town of Wellesley Wetlands Protection By-Law for work within the 25-ft No Disturbance Zone. The By-Law also protects the remaining 75-ft of the buffer zone which is designated as a Limited Disturbance Zone. The proposed southwest corner of the building will be located right on the 25-ft No Disturbance Zone. It is assumed during construction that additional work will be required within the No Disturbance Zone to be able to construct the footing, foundation walls and the exterior portion of the building. The applicant is proposing to expand the wetland area which will be planted/seeded with a wetland mix. The enlargement will allow for an flood capacity that may be needed given the FEMA designation on the property, but also as a measure to enhance and minimize the potential negative effects that granting relief to the 25' Zone may cause. Another area in which the No Disturbance Zone will be affected is associated with the construction of the parking lot/sidewalk in the vicinity of Wetland Flag 14. This is due to the grading and tie off of the existing contours and the creation of additional compensatory storage for the BLSF.

A small portion of the northeasterly corner of the site is located within the 200 Foot Riverfront Area associated with Boulder Brook. This area is already considered a previously-degraded Riverfront Area consisting of graded areas, paving, and maintained landscaping. The applicant is proposing to modify the curb cut by narrowing the entrance and creating additional landscape areas.

During the site design, A&M reviewed several building layout configurations to avoid all impacts to the wetland resource areas. The size of the building is dictated by the lease agreements and design parameters of the 900 Worcester Street committee through the multiple years of negotiations. Its position on the easterly part of the site is required given the existence of the flood plain on the westerly lands. It's separation from the easterly property line (60') is required by property line setbacks noted in the fire code. The only potential variable on the site layout is the rotation of the building to set the long face of the building along the Route 9 corridor. This option however, creates an awkward separation of the parking fields that complicates internal site circulation. The building in this position would lessen the relief needed from the NRC, but the resultant site design would expose the wetland areas to vehicle exposure. While all precautions would be taken to prevent runoff towards the wetland area, the construction of the

building is a permanent stabilization approach with "clean" roof runoff, that should it flow to the wetland area, would not be detrimental.

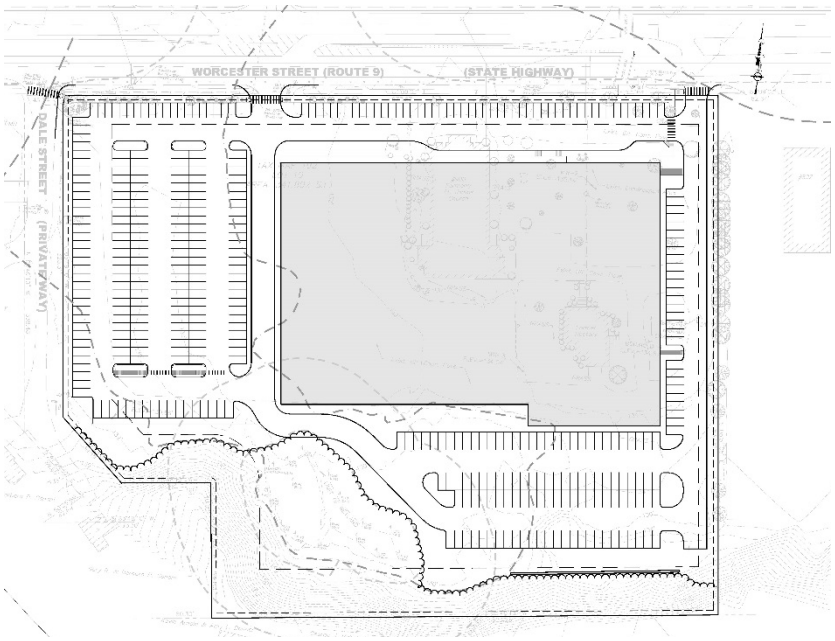

Figure 4 - Conceptual Layout

3.3.2 – FLOOD PLAIN

The proposed project will be constructed within the Flood Zone. The applicant is proposing to maintain the existing grades along the westerly portion of the site and will be constructing a porous pavement section to allow stormwater to infiltrate and not restrict the movement of flood waters. Additional compensatory storage is being provided with the porous pavement section and along the southerly portion of the parking lot adjacent to the isolated wetlands.

3.3.3 – MEPA PERMIT THRESHOLDS

The applicant is seeking an advisory opinion in accordance with 301 CMR 11.01(6) to determine if MEPA jurisdiction on the proposed project currently in the permitting stages is required. The proposed project may appear to trigger the following thresholds under 301 CMR 11.03 Section (6) Transportation:

13. *Generation of 2,000 or more new ADT on roadways providing access to a single location;*
14. *Generation of 1,000 or more new ADT on roadways providing access to a single location and construction of 150 or more new parking spaces at a single location;*
15. *Construction of 300 or more new parking spaces at a single location.*

A&M has conducted a review and do not believe the criteria to be met because the proposed project is considered a redevelopment project which currently has approximately 290 existing parking spaces. The proposed project will provide a total of 355 parking spaces, which equates to 65 new parking spaces, therefore not meeting the thresholds per 301 CMR 11.03 Section 6.14 and 6.15. The proposed project will generate approximately 2,928 vehicle trips on a weekday and 2,614 vehicle trips on a Saturday. Additional information will be provided upon receipt of the advisory opinion.

3.4 – CONSTRUCTION PERIOD

3.4.1 – ACCESS AND SITE MANAGEMENT

The site will be secured and completely enclosed by a temporary construction fence. Access for construction vehicle and personnel will occur off Worcester Street in the vicinity of the existing curb cuts. Temporary construction facility, equipment, office trailer, dumpster, portable sanitary facilities will be located within the footprint of the existing pavement and relocated accordingly as construction progresses. All products of demolition will be removed from the site and legally disposed of in accordance with applicable Federal, State and Locals regulations. Similarly, all materials entering the site will be reviewed against standard specifications to ensure no detrimental import materials are brought into the Water Supply Protection District.

Construction is anticipated to take 12 months with an aggressive groundbreaking scheduled to begin in the Fall of 2017. The applicant is prepared to submit a detailed Traffic and Construction Management Plan for this project as part of the Special Permit/Site plan review that will be conducted by the Zoning Board of Appeals upon completion of the PSI process.

3.4.2 – EROSION AND SEDIMENT CONTROL

The site will be enclosed with a staked silt fence or wattle to prevent incidental conveyance of sediment from disturbed areas off-site or into the Municipal drainage system. All existing drainage inlets adjacent to the site will have silt sacks installed prior to any construction activities. A stabilized construction entrance will be installed in the vicinity of the existing/proposed curb cut. The erosion and control measures will remain in place until all construction activities are complete and all disturbed areas have been stabilized. The contractor will be required to inspect all controls regularly to ensure that they are working properly and to see if they need to be cleaned and/or replaced on an as-needed basis. The proposed project will disturb greater than one (1) acre of land, therefore the project will require the filing of a National Pollutant Discharge Elimination System (NPDES) Stormwater Construction General Permit. A stormwater Pollution Prevention Plan (SWPPP) will be prepared prior to any construction activity. The SWPPP will prescribe in detail the performance standards to which the contractor for the project will be responsible for. The SWPPP will be maintained at the construction trailer on-site throughout the duration of the project.

4.0 – TRANSPORTATION

4.1 – TRANSPORTATION IMPACT ASSESSMENT

A detailed Traffic Impact and Access Study (TIAS) report has been prepared by MDM Transportation Consultants, Inc. and is located in Appendix B. A quick summary of the TIAS is as follows:

Trip generation for the development is projected to only moderately increase traffic activity on area roadways relative to existing/baseline conditions with no material impact to operating conditions at primary study intersections. This assessment indicates that there is ample capacity at these study locations to accommodate these project-related traffic increases without the need for major infrastructure enhancements.

4.2 – PARKING

The proposed development will provide a total of 355 parking spaces. The 355 parking spaces are broken down further by providing 8 handicap accessible spaces, 64 compact and 283 regular size spaces. The proposed parking supply meets the Town requirement. The Owner is also proposing bicycle parking near the entrance of the building.

Off-Street Parking Requirements per Commercial Recreation Overlay District

Type	Size	Min. Space Per	Min. Space
Seats	1050 seats	1 space / 3 seats	350 spaces
*Building Square Footage	129,716 sf	1 space / 1000 sf	130 spaces*
Total			350 spaces

Note: *At a minimum no less than one (1) parking space per 1,000 sf of floor area of buildings.

5.0 – ENVIRONMENTAL IMPACT

5.1 – STORMWATER MANAGEMENT

STANDARD #1
No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

The existing on-site drainage system currently does not have any stormwater controls. All stormwater currently flows uncontrolled and untreated into either the wetlands or a leaching catch basin. The proposed drainage system will be designed to avoid direct discharge into the wetlands. The system will be designed with an emergency overflow into the wetlands for storms exceeding the design storm. All discharges from impervious surfaces will be treated.

STANDARD #2
Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.

Calculations have been provided to show that the proposed redevelopment will not cause an increase in peak discharge rates or runoff volume. Refer to the HydroCAD calculations provided within Appendix A of this report for detailed breakdowns of each study point.

STANDARD #3
Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.

The USDA Soil Survey of Norfolk and Suffolk Counties was used to determine soil types on site as well as on-site soil investigations done by Gale Associates in 2015. The rear/undeveloped portion of the site is identified as Hinckley loamy sand with a hydrologic soil group "A" and the front/developed portion of the site is identified as Urban Land with no defined hydrologic rating. For the purposes of stormwater evaluation, A&M has assumed the front portion of the site to by a Hydrologic Soil Group B. Infiltration rates vary for the site and are as defined by the Rawls Rates in the Massachusetts Stormwater Handbook.

The required recharge rates for each soil classification are as follows:

Table 5.1.1 – Recharge Volume per Hydrologic Soil Group (HSG)

	HSG A	HSG B	HSG C	HSG D
Required Recharge	0.60 inches	0.35 inches	0.25 inches	0.10 inches

Table 5.1.2 – Existing vs Proposed Impervious Surface

	Existing Conditions		Proposed Conditions	
	HSG A	HSG B	HSG A	HSG B
Impervious Area	11,433 sf	128,092 sf	53,291 sf	185,959 sf
Increase			+41,858 sf	+57,867 sf

Under proposed conditions, the project will introduce approximately 2.28 acres (99,725 sf) of new impervious surface included the building and parking area. All runoff that flows from impervious areas (parking lot) will be picked up by either the rain gardens or the proposed closed drainage system. The required recharge volume is given by the following equation:

R_v = F x IA (Equation 1 Stormwater Handbook Volume 3)

where R_v = Required Recharge Volume, ft^3
F = Target Depth factor
IA = Impervious drainage area

R_v = F x IA
= (0.60 inches)(1foot/12 inches)(41,858 sf) + (0.35 inches)(1foot/12 inches)(57,867 sf)
=3,781 cubic feet

For this project, all impervious surfaces shall be recharged through onsite infiltration via the proposed rain gardens, porous asphalt and the underground infiltration chambers. The infiltration chambers alone have a total volume of 44,475 cubic foot capacity (below the emergency overflow weir). The entire stormwater management system has been design to recharge all storm events up to an including the 100-year event.

The basin drawdown time is defined as:

$Time_{drawdown} = R_v / (K)(bottom\ area)$

where R_v = Required Recharge Volume, ft3
K =Saturated Hydraulic Conductivity (Rawls table)
Bottom area =bottom area of recharge structure

Table 5.1.3 – Drawdown Calculation

System	R_v	K	Bottom Area	$Time_{drawdown}$
Porous Pavement	21,829 cf	0.17 in/hr	60,636 sf	25.41 hrs
ReTain-It System 1	31,363 cf	2.41 in/hr	20,852 sf	7.48 hrs
ReTain-It System 2	10,106 cf	2.41 in/hr	7,124 sf	7.06 hrs

Where "the vertical separation from the bottom of an exfiltration system to seasonal high groundwater is less than four (4) feet *and* the recharge system is proposed to attenuate the peak discharge from a 10-year or higher 24-hour storm" a mounding analysis is required. "In such cases the mounding analysis must demonstrate that the *Required Recharge Volume* is fully dewatered within 72 hours. This project has been classified as redevelopment under the stormwater standards and is required to meet the stormwater standards to the maximum extent practicable, therefore a mounding analysis has not been completed.

STANDARD 4

Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:

a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;
b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook and
c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook

All runoff that flows through or along any impervious area will be treated in a manner such that 80% (min.) of the total suspended solids are removed. Parking lot sweeping shall be performed in order to remove at least 5% of TSS. Sweeping shall comply with Table 7 for a minimum of 5% removal. Also the site will employ a proprietary treatment device (Contech VSHS36), deep sump hooded catch basins, rain garden, porous asphalt, grass channel and an underground infiltration chambers to achieve and exceed the required 80% TSS removal. Refer to the TSS Removal Calculation Worksheets included in this report.

Table 7 – TSS Removal Credits for Street Sweeping (Massachusetts Stormwater Handbook Volume 2 Chapter 1)

TSS Removal Rate	High Efficiency Vacuum Sweeper – Frequency of Sweeping	Regenerative Air Sweeper – Frequency of Sweeping	Mechanical Sweeper (Rotary Broom)
10%	Monthly Average, with sweeping scheduled primarily in spring and fall	Every 2 Weeks Average, with sweeping scheduled primarily in spring and fall.	Weekly Average, with sweeping scheduled primarily in spring and fall.
5%	Quarterly Average, with sweeping scheduled primarily in spring and fall.	Quarterly Average, with sweeping scheduled primarily in spring and fall.	Monthly Average, with sweeping scheduled primarily in spring and fall.
0%	Less than above	Less than above	Less than above

STANDARD 5

For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

The proposed project is not a Land Use with Higher Potential Pollutant Loads and therefore Standard 5 does not apply.

STANDARD 6

Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

The project site does not discharge to or near a critical area therefore Standard 6 does not apply.

STANDARD 7

A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best

management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.

This project has been classified as redevelopment under the stormwater standards and is required to meet the stormwater standards to the maximum extent practicable. The proposed stormwater management system has been designed to meet all of the stormwater standards that are applicable and provide an improvement over the existing conditions of the site. At present, the site does not contain any stormwater controls or treatment and all stormwater sheet flows uncontrolled to the isolated wetlands. The stormwater management design incorporates Best Management Practices (BMP's) to protect down gradient points and measures to reduce peak rates of runoff from the site. The stormwater design incorporates LID techniques, a CDS hydrodynamic separator for stormwater from portions of the parking lot and into the Retain-It concrete chambers design with an overflow into the isolated wetlands. The building downspouts will be directly connected into the Retain-It chambers, since the runoff is considered clean roof runoff and no treatment is required. The proposed layout, grading and the drainage system will reduce the total site runoff rate, volume and total suspended solids discharging off-site

STANDARD 8
A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

An Erosion Control plan has been incorporated with the design plans. Also, the project requires a Stormwater Pollution Prevention Plan. This plan will be prepared and submitted prior to construction of the proposed roadways. The SWPPP shall also be kept on file as required under the NPDES Construction General Permit program.

STANDARD 9
A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed

An operations and maintenance (O&M) plan has been included in this report that outlines the general maintenance for the stormwater systems during and after construction.

STANDARD 10
All illicit discharges to the stormwater management system are prohibited.

No illicit discharges exist on site. The storm water management system proposed shall not be connected to the wastewater management system and shall not be contaminated by contact with process wastes, raw materials, toxic pollutants, hazardous substances, oil, or grease per Massachusetts DEP Storm Water Standard 10. A signed statement shall be provided by the owner in concurrence with issuance of the final site plan.

5.2 – STORMWATER MANAGEMENT SYSTEM MAINTENANCE

In accordance with the standards set forth by the Stormwater Management Policy issued by the Department of Environmental Protection (DEP), Allen & Major Associates, Inc. (A&M) has prepared the following Operation and Maintenance plan for the proposed stormwater management system for Wellesley Sports Center, LLC.

This plan is focuses on post construction maintenance of the on-site drainage system. Operation and Maintenance (O&M) practices discussed below are recommendations made by the Design Engineer based on available reference material on Best Management Practices (BMP's) and experience. The property owner is responsible for implementation of the plan, and is encouraged to revise / supplement this plan accordingly based on actual site conditions. All inspection reports shall be submitted to the Town Engineer annually.

This plan is broken into two major sections. The first section describes construction-related erosion and sedimentation controls. The second section is devoted to a post-development operation and maintenance plan.

Basic Information

Proponent: Wellesley Sports Center, LLC.
Address: 41 North Road, Suite 203
City: Bedford, MA 01730

Section 1 Construction Activities

1. Contact the Wellesley Engineering Department at least three (3) days prior to start of construction.
2. Install the wattles, silt fence, construction fencing and silt sacks in the catch basins as shown on the Erosion and Sediment Control Plan.
3. All erosion and sedimentation controls shall be in accordance with DEP's Erosion and Sedimentation Control guidelines revised through May 2003 and the USDA SCS Erosion and Sedimentation Control in site development dated September 1983.
4. Site access shall be achieved only from the designated construction entrance.
5. All erosion control measures shall be inspected weekly and after any rainfall event greater than 0.5", and shall be maintained, repaired or replaced as required or at the direction of the owner's engineer, or the Town Engineer.
6. Sediment accumulation up-gradient of the wattles and silt fence greater than 6" in depth shall be removed and disposed of in accordance with all applicable regulations.
7. If it appears that sediment is exiting the site, additional silt sacks shall be installed in all catch basins adjacent to the site as directed by the Engineer. Sediment accumulation on all adjacent catch basin inlets shall be removed and the silt sack replaced if torn or damaged.
8. The contractor shall comply with the General and Erosion Notes as shown on the Site Development Plans.
9. All disturbed areas shall be stabilized with mulch or seed immediately upon completion of the construction activity that disturbed the soil or at 6 months whichever is less.
10. All slopes greater than 3:1 shall be stabilized with an erosion control blanket.
11. The contractor shall keep on site additional silt fence and hay bales to mitigate any emergency condition.
12. All proposed drainage structures (catch basins, manholes, etc.) should be cleaned at the end of construction and any time the sediment within the structures equals 12" deep.
13. All newly installed inlets shall be protected during construction by installing silt sacks.

14. The contractor shall be responsible for preventing any silt or sediment from entering the infiltration systems.

Section 2 Post-Development Activities

1. The entire project area shall be stabilized with vegetation upon completion of construction and prior to removal of the erosion control devices.
2. Salt for de-icing on the paved areas during the winter months shall be limited to the minimum amount practicable. Sand containing the minimum amount of calcium chloride (or approved equivalent) needed for handling may be applied as part of the routine winter maintenance activities.
3. The closed drainage system shall be inspected every 6 months. If more than 18" of sediment is found within the drainage structures, manholes or catch basins the structures shall be cleaned and the sediment removed and disposed of.
4. CDS specific maintenance shall be as follows:
   A. Inspections shall be performed twice per year (e.g. spring and fall).
   B. A visual inspection should ascertain that the system components are in working order and there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument.
   C. Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber and isolated sump. The other allows for inspection and cleanout of sediment captured and retained outside the screen.
   D. Cleaning is required once the sediment depth reaches 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated.
   E. Cleaning should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.
   F. The system should be cleaned out immediately in the event of an oil or gasoline spill.
   G. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oil layer.
   H. Trash and debris can be netted out to separate it from other pollutants. The screen should be power washed to ensure it is free of trash and debris.
5. Work within any drainage structures shall performed in accordance with the latest OSHA regulations, and only by individuals with appropriate OSHA certification.
6. Subsurface Infiltration Structure (ReTain-It) will be inspected within the first three months after construction within 72 hours of a half-inch storm event to ensure it is draining properly. Thereafter, the filter should be inspected for sediment, trash and debris at least twice per year. Trash, debris, and visible sediment should be removed. The filter should also be inspected annually within 72 hours of a half-inch storm event to ensure it is draining properly. Inspection can be accomplished by using the observation well, inspection port, and/or access structure for underground chamber systems. Adjust the inspection interval based on previous observation of sediment accumulation and high water elevations. Conduct jetting and vactoring annually or when inspection shows that maintenance is necessary.

7. Bio-Retention / Rain Gardens will be inspected within the first three months after construction; thereafter the filter will be inspected 2 times per year to ensure that the filter is draining properly. Mulch and vegetation should be refreshed, pruned, or replaced annually. Any undesirable woody vegetation or accumulated sediment must be removed.
8. Grass Drainage Channels should be inspected within the first three months after construction to ensure proper vegetation is established; thereafter, Inspect 2 times per year (preferably in Spring and Fall) to ensure they are working in their intended fashion and that they are free of sediment and debris. Remove any obstructions to flow, including accumulated sediments and debris and vegetated growth. Repair any erosion of the ditch lining. Vegetated ditches will be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable and correct any erosion of the channel's bottom or side slopes.
9. Pervious Pavement area will be inspected within the first three months after construction; thereafter the paving area will be inspected 2 times per year to ensure that it is clear of accumulated sediment and debris and permeability will be assessed. The pervious pavement area will be swept monthly using a vacuum sweeping machine. The surface will be inspected annually for deterioration or spalling. No winter sand will be used on the pervious pavement area and salt will be kept to a minimum.
10. Check Dams, Rip Rap and Level Spreaders will be inspected twice per year for erosion, debris accumulation, and unwanted vegetation. Erosion will be stabilized and sediment, debris, and woody vegetation will be removed
11. Maintenance Responsibilities - All post-construction maintenance activities shall be documented and kept on file and made available upon request. Copies of the maintenance logs shall be submitted to the Department of Public Works.

5.3 – LONG-TERM POLLUTION PREVENTION

As required under stormwater Standard 4, the project requires the "development and implementation of suitable practices for source control and pollution prevention. These measures must be identified in a long term pollution prevention plan. The plan shall include the proper procedures for the following:

- good housekeeping;
- storing materials and waste products inside or under cover;
- vehicle washing;
- routine inspections and maintenance of stormwater BMPs;
- spill prevention and response;
- maintenance of lawns, gardens, and other landscaped areas;
- storage and use of fertilizers, herbicides, and pesticides;
- pet waste management;
- operation and management of septic systems (where applicable); and
- proper management of deicing chemicals and snow.

The proposed project consists of the construction of a sports complex, parking facility and infrastructure to support the development. Upon completion of the projects the maintenance and pollution prevention activities will be the responsibility of the property owner. The Pollution prevention items noted herein shall be followed post construction. Additional constraints shall be followed per the Stormwater Pollution Prevention Plan prepared at the time of construction.

Good Housekeeping
The following good housekeeping practices will be followed onsite during the construction project: • An effort will be made to store only the amount of material required to do the job. • All materials stored onsite will be stored in a near, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure. • Products will be kept in their original containers with the original manufacturer's label. • Substances will not be mixed with one another unless recommended by the manufacturer. • Whenever possible, all of a product will be used up before disposing of the container. • Manufacturer's recommendations for proper use and disposal will be followed. • The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.

Hazardous Products
These practices are used to reduce the risks associated with hazardous materials: • Products will be kept in the original containers unless they are not re-sealable. • Original labels and material safety data will be retained; they contain important product information. • If surplus product must be disposed of, manufacturers or local and State recommended methods for proper disposal will be followed.
Product Specific Practices
The following product specific practices will be followed onsite:
Petroleum Products
All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.
Fertilizers
Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.
Paints
All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to the manufacturer's instructions or State and local regulations.

Concrete Trucks

Concrete Trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site.

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and clean-up:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately upon discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous substances will be reported to the appropriate State or local government agency, regardless of the size.
- The spill prevention plan will be adjusted to include measure to prevent this type of spill from reoccurring and how to clean up the spill if there should be another. A description of the spill, what caused it, and the cleanup measure will also be included.
- The Site Superintendent responsible for the day-to-day site operation will be the spill prevention and cleanup coordinator.

Waste Disposal

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will meet all local and State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. No construction waste materials will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and the individual who manages day-to-day site operations, will be responsible for seeing that these practices are followed.

Hazardous Waste

All hazardous waste materials will be disposed of in the manner specified by local or State regulation or by the manufacturer. Site personnel will be instructed in these practices and the individual whom manages day-to-day site operations, will be responsible for seeing that these practices are followed.

Sanitary Waste

All sanitary waste will be collected from the portable units a minimum of once per week by a licensed sanitary waste management contractor, as required by the local or State regulation.

Pet Waste

The Owner shall implement a cleanup program where pet owners must put the pet waste into bags and dispose of the waste in the trash.

Sanitary Waste (septic)

There is no septic component to this project that will require long term maintenance.

Landscaping

1) **Mulching and Netting** – Mulching will provide immediate protection to exposed soils during the period of short construction delays, or over winter months through the application of plant residues, or other suitable materials, to exposed soil areas. In areas which have been seeded either for temporary or permanent cover, mulching should immediately follow seeding. On steep slopes, mulch must be supplemented with netting. The preferred mulching material is straw.

Mulch (Hay or Straw) Materials and Installation

a) Straw has been found to be one of the most effective organic mulch materials. The specifications for straw are described below, but other material may be appropriate. The straw should be air-dried; free of undesirable seeds & coarse materials. The application rate per 1,000 sq.ft. is 90-100 lbs. (2-3 bales) and the application rate per acre is 2 tons (100-120 bales). The application should cover about 90% of the surface. The use of straw mulch is appropriate where mulch is maintained for more than three months. Straw mulch is subject to wind blowing unless anchored, is the most commonly used mulching material, and has the best microenvironment for germinating seeds.

Mulch Maintenance

a) Inspect after rainstorms to check for movement of mulch or erosion. If washout, breakage, or erosion occurs, repair surface, reseed, remulch, and install new netting.

b) Straw or grass mulches that blow or wash away should be repaired promptly.

c) If plastic netting is used to anchor mulch, care should be taken during initial mowings to keep the mower height high. Otherwise, the netting can wrap up on the mower blade shafts. After a period of time, the netting degrades and becomes less of a problem.

d) Continue inspections until vegetation is well established.

Vehicle Washing & Construction Access

A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. Any paved streets adjacent to the site entrance will be swept daily to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

1) **Stabilized Construction Entrance** – An existing stabilized construction entrance shall be used for the duration of construction activity for this project.

Construction Entrance Inspection/Maintenance

a) The entrance should be maintained in a condition that will prevent tracking or flowing of sediment onto adjacent properties. This may require periodic topdressing with additional stone
b) The construction entrance and sediment disposal area shall be inspected weekly and after heavy rains or heavy use.
c) Mud and sediment tracked or washed onto public road shall be immediately removed.
d) Once mud and soil particles clog the voids in the gravel and the effectiveness of the gravel pad is no longer satisfactory, the pad must be topdressed with new stone. Replacement of the entire pad may be necessary when the pad becomes completely clogged.
e) If washing facilities are used, the sediment traps should be cleaned out as often as necessary to assure that adequate trapping efficiency and storage volume is available.
f) The pad shall be reshaped as needed for drainage and runoff control.
g) Broken road pavement on adjacent access roadways shall be repaired immediately.
h) All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization is achieved or after the temporary practices are no longer needed. Trapped sediment shall be removed or stabilized on site. Disturbed soil areas resulting from removal shall be permanently stabilized.

2) **Construction Road Stabilization** – Existing internal construction roads shall be used for the duration of construction activity for this project. Additional construction road shall be constructed as required with the following requirements:

The proposed stabilization of existing gravel and/or paved roadways will provide a means for construction vehicles to move around the site without causing significant erosion. The road stabilization will significantly speed up on-site work and generally improve site efficiency and working conditions during adverse weather. The construction roads will be stabilized at the beginning of construction and maintained throughout construction. The stabilized construction road will not be located in a cut or fill area until after grading has been performed. Some of the stone used will remain in place for use as part of the final base course of the road. The permanent roadway and cul-de-sac will be paved as soon as possible.

Construction Road Stabilization Design/Construction Requirements

a) A 6-inch course of 2 to 4-inch crushed rock, gravel base, or crushed surfacing base course should be applied immediately after grading or the completion of utility installation. The temporary roads should follow the contour of the natural terrain to the maximum extent possible and/or the existing gravel and/or paved roadways. Slope should not exceed 15 percent. Roadways should be carefully graded to drain to the edge of the road, forcing storm water to travel the shortest route. Provide drainage swales on each side of the roadway in the case of a crowned section, or one side in the case of a super-elevated section.
b) Drain inlets should be protected to prevent sediment-laden water entering.
c) Areas adjacent to culvert crossings and steep slopes should be seeded and mulched.
d) Dust control should be used when necessary. (Please refer to page 15 of 19)

Construction Road Stabilization Inspection/Maintenance

a) Inspect stabilized areas regularly, especially after large storm events. Add 2 to 4-inch crushed rock if necessary and restabilize any areas found to be eroding.

b) All temporary erosion and sediment control measures should be removed with 30 days after final site stabilization is achieved or after the temporary practices are no longer needed.
c) Trapped sediment should be removed or stabilized on site. Disturbed soil areas resulting from removal should be permanently stabilized.

Structural BMP Maintenance

1) **Temporary Diversion** – Temporary Diversion channels will be constructed alongside the proposed roadway until it is paved. The temporary diversion channels will route storm water to temporary sediment basins to remove sediment-laden storm water, before the storm water is allowed to discharge to the permanent detention basin. Check dams need to be utilized along the diversion channels. The maximum spacing of temporary diversion channels should be no greater than the following:

Land Slope (%)	Spacing (feet)
1% or less	300 ft
2%	200 ft
3% to 5%	150 ft
5% or greater	100 ft

Temporary Diversion Design/Construction Requirements

a) The temporary diversion channel cross-section should have a top width between two and four feet, a minimum height of 1.5 ft, and side slopes between 2:1 and 4:1.
b) The grade may be variable depending on the topography and must have a positive grade to the outlet. The maximum channel grade should be limited to 1.0 %.
c) The diverted runoff will outlet through check dams and then to a temporary sediment basin.
d) Diversions that are to serve longer than 30 working days should be seeded and mulched as soon as they are constructed, in order to preserve dike height and reduce maintenance.
e) Once the temporary diversion channels are no longer needed, they should be brought to the design grade and permanently stabilized.

Temporary Diversion Inspection/Maintenance

a) Inspect temporary diversion channels once a week and after every rainfall.
b) Damage caused by construction traffic or other activity should be repaired before the end of each working day.
c) Immediately remove sediment from the flow area and repair the diversion ridge.
d) Check outlets carefully and make timely repairs as needed.
e) When the area protected has been permanently stabilized, remove the ridge and the channel to blend with the natural ground level, and appropriately stabilize it.

2) **Check Dam** – Temporary check dams should be installed along the temporary diversion channels alongside the proposed roadway until it is paved. The check dams will lower the velocities of concentrated flows, thereby reducing erosion in the channel and promoting the settlement of sediments.

Check Dam Design/Construction Requirements

a) Check dams can be constructed of stone, sand bags filled with pea-gravel, or logs. Provide a sump immediately upstream.
b) The maximum spacing between the dams should be such that the toe of the upstream dam is at the same elevation as the top of the downstream dam.
c) The stone must be placed by hand or mechanical placement (do not dump rock to form dam) to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges. The stone used should be 2 to 4-inch size.
d) Log check dams should be constructed of 4 to 6-inch diameter logs embedded into the soil at least 18 inches.

Check Dam Inspection/Maintenance

a) Inspect after each rainfall event.

Erosion and Sediment Control Inspection and Maintenance Practices

The following are the inspection and maintenance practices that will be used to maintain erosion and sediment controls:

- All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- Built up sediment will be removed from haybales when it has reached a depth of 6-inches.
- Haybales will be inspected to ensure secured posts, continuous coverage and proper alignment.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts and to ensure healthy growth.
- A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is attached.
- The Site Superintendent will be responsible for inspection, maintenance and repair activities and reports.
- Personnel selected to aid the Site Superintendent in the above responsibilities will be knowledgeable in all of the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

Non-Storm Water Discharges

During construction activities at the site, some water from the site will be suitable for discharge to the detention areas and/or temporary sediment basin areas. Non-stormwater discharges will be directed to recharge groundwater and to replenish wetland resource areas as follows:

1) Water from line flushing will be recharged if in compliance with MA Surface and Ground Water Quality Regulations.
2) Uncontaminated groundwater from de-watering excavations will also be recharged.

The construction de-watering and all non-stormwater discharges will be directed into a storm drain inlet equipped with a siltsack (or equivalent) inlet protection or a sediment basin. The developer and site general contractor will comply with the E.P.A.'s Final General Permit for Construction De-watering Discharges, (N.P.D.E.S., Section 402 and 40 C.F.R. 122.26(b)(14)(x).

INVENTORY FOR POLLUTION PREVENTION PLAN

The materials and substances listed below are expected to be present on site during construction:

- Concrete
- Detergents
- Paints (enamel and latex)
- Concrete
- Tar
- Fertilizers
- Petroleum Based Products
- Cleaning Solvents
- Wood
- Masonry Block
- Roofing Shingles

SPILL PREVENTION

Material Management Practices

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff.

Paints

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to the manufacturer's instructions or State and local regulations.

Concrete Trucks

Concrete Trucks will be allowed to wash out on-site to a designated area as directed by the Site Superintendent. Concrete waste will be disposed of in accordance with Federal, State and Local regulations.

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and clean-up:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately upon discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous substances will be reported to the appropriate State or local government agency, regardless of the size.
- The spill prevention plan will be adjusted to include measure to prevent this type of spill from reoccurring and how to clean up the spill if there should be another. A description of the spill, what caused it, and the cleanup measure will also be included.
- The Site Superintendent responsible for the day-to-day site operation will be the spill prevention and cleanup coordinator.

Deicing and Snow Removal
Relative to the agricultural area that surrounds the project, environmentally appropriate deicing tools will be used. Standard snow removal plowing techniques shall be used.

6.0 – CONCLUSION

The proposed project has been designed to avoid any alteration to the isolated wetlands and minimize disturbance to the 25-ft No Disturbance Zone. The site has been graded to minimize fill within the BLSF on the westerly portion to avoid increasing or contributing incrementally to the increase in the horizontal extent and level of flood waters during peak flows. This has been accomplished with the use of porous pavement and the creation of additional flood storage adjacent to the isolated wetland. The drainage system has been designed to capture, treat and infiltrate all storm events up to and including the 100-year event and eliminated discharging of untreated stormwater to the wetlands. The proposed project has also been designed to avoid any significant impact on the Town of Wellesley's municipal system which includes water, sewer, storm drain, electric distribution system and refuse disposal. The site has incorporated several features to accommodate the safety of pedestrians and vehicle which include bus drop-off area, standard car drop-off area and pedestrian accessible routes.