

Date January 8, 2024

To Hamilton Planning Board

From Thomas C. Houston, PE, AICP

Project Site Plan Review Application and
Stormwater Management Permit Application for
Hamilton Wenham Regional High School
Athletic Campus Redevelopment, Hamilton, MA

Subject Peer Review of Zoning and Site Planning Issues Based upon Evaluation of
the First Submittal of the Site Plan Review Application

INTRODUCTION

This memorandum encompasses peer review of zoning and site planning issues and is based upon evaluation of the First Submittal of the Site Plan Review Application. Stormwater issues and the Stormwater Management Permit Application will be addressed in a subsequent memorandum.

The Project Site consists of a portion of the Hamilton-Wenham Regional School campus located on the east side (rear) of the high school building. The Project Site is located in the R-1B Zoning District.

Currently, the Project Site is developed for athletic facilities that include a natural grass softball field, a natural grass baseball field, a natural grass football field, a paved track, grass soccer practice field, and various “field” event facilities. The softball field is separated from the remaining athletic facilities by a jurisdictional wetland. There are no tennis courts, and the facilities are not lighted.

The Athletic Campus Improvements (Proposed Project) include reconstruction and installation of synthetic turf on the softball field and on two multipurpose athletic fields, reconstruction of the running track, reconstruction and relocation of “field event” facilities, new tennis courts, and new athletic field lighting will be provided. Other improvements include new bleachers, a press box, and an amenities building. Portions of the work area are located within buffer zones to



jurisdictional wetlands and an Order of Conditions has been issued by the Hamilton Conservation Commission.

The scope of site plan review required for the Proposed Project is limited. Pursuant to MGL c. 40A §3 the Hamilton-Wenham Regional School should be categorized as "...land or structures for religious purposes or for educational purposes on land owned or leased by the commonwealth or any of its agencies, subdivisions or bodies politic..." and therefore, qualifies for protection under MGL c. 40A §3. the "...Therefore, the scope of site plan review "...shall be limited to two (2) inquiries: 1. Whether the use qualifies for protection under G.L. c. 40A, s. 3; and, if so, 2. What reasonable regulations concerning the bulk and height of structures and determining yard sizes, lot area, setbacks, open space, parking and building coverage requirements, if any, should be imposed on the use (ZBL §10.7.3).

The Hamilton-Wenham Regional School District will voluntarily comply with the provisions of the "Town of Hamilton Bylaws, Chapter XXIX Stormwater Management" and the "Town of Hamilton Stormwater Management Permit Rules and Regulations."

FIRST SUBMITTAL

- A. "Site Plan Review Application and Accompanying Stormwater Management Report, Hamilton-Wenham Regional School District, Hamilton-Wenham Regional High School Athletic Campus Improvements, Hamilton, Massachusetts 01982" prepared by Gale Associates, Inc. dated November 16, 2023.
- B. "Hamilton-Wenham Regional School District, Hamilton-Wenham Regional High School Athletic Campus Improvements," Engineer, Gale Associates, Inc, Electrical Engineer, Vincent A DiOrio, Inc., dated November 16, 2023, containing 40 sheets.

REFERENCES

- A. "Town of Hamilton Zoning Bylaw, First Adopted 1954 Including Amendments Up To October 22, 2019, Adopted Pursuant To The Massachusetts Zoning Act MGL. Chapter 40a As Amended," August 11, 2021.
- B. "Zoning Map, Hamilton, Massachusetts," date April 24, 2017.
- C. "Town of Hamilton Bylaws, Chapter XXIX Stormwater Management," November 6, 2023.
- D. "Town of Hamilton Stormwater Management Permit Rules and Regulations, Revised, Approved, and In Effect as of November 9, 2021" August 11, 2021."



ACRONYMS/ABBREVIATIONS

MGL – Massachusetts General Laws

ZBL – “Town of Hamilton Zoning Bylaw...as amended,” August 11, 2021

ZONING – EXISTING SCHOOL FACILITY

The Project Site is located in the R-1B Single Residential District (Zoning Map, Reference B). Small portions of the property are located within the Conservancy District (Wetland Overlay Zone), but no work is proposed in this Overlay District.

Site plan approval is required for the entirety of the property, not for a portion of a property. Therefore, the Athletic Campus Improvements should be evaluated as a modification of the site plan of the overall school facility.

The Hamilton-Wenham Regional High School is a so called “Dover Amendment Use” and is governed by the provisions of Mass General Laws Chapter 40A Section 3 which states in part “No zoning ordinance or by-law shall...prohibit, regulate or restrict the use of land or structures for...religious purposes or for educational purposes on land owned or leased by the commonwealth or any of its agencies, subdivisions or bodies politic...provided; however, that such land or structures may be subject to reasonable regulations concerning the bulk and height of structures and determining yard sizes, lot area, setbacks, open space, parking and building coverage requirements.”¹

The Hamilton Zoning Bylaw contains comparable provisions. The “Table of Use Regulations” for “A. Community Facilities §3” provides that “Use of land or Structures for educational purposes on land owned or leased by the Commonwealth of Massachusetts or any of its agencies, subdivisions or bodies politic...” is a use permitted by right in the R-1B District.

The existing high school is a use by right in the R-1B Single Residential District and conforms with the Bylaw.²

ZONING – PROPOSED ATHLETIC CAMPUS IMPROVEMENTS

The Athletic Campus Improvements are a component of the existing Principal Use (use of land or structures for educational purposes on land owned or leased by the Commonwealth of Massachusetts or any of its agencies, subdivisions or bodies politic...” Therefore, The proposed Athletic Campus Improvements are also a “Dover Amendment Use.”³

¹ Mass General Laws (MGL) C. 40A §3.

² “Town of Hamilton Zoning Bylaw (Reference A) §3.1.3 Table of Use Regulations, A Community Uses #3.

³ Mass General Laws (MGL) C. 40A §3.



The Athletic Campus Improvements are a use permitted by right in the R-1B District and conform with the Bylaw.⁴

In addition to student use, the redeveloped Athletic Campus will also be used by members of the Hamilton-Wenham community. The “Table of Use Regulations” for “A. Community Facilities §2” provides that “...other land owned and operated for the public enjoyment or service by a public or semi-public agency” is a use permitted by right in the R-1B District. Thus, use of the Athletic Campus by members of the Hamilton-Wenham community is also a use by right.⁵

The Athletic Campus Improvements “...may be subject to reasonable regulations concerning the bulk and height of structures and determining yard sizes, lot area, setbacks...”⁶

The Bylaw defines a “Structure” as “Any construction, erection, assemblage or other combination of materials upon the land made in such a manner as to indicate a purpose that it remain in position indefinitely.”⁷ The Athletic Campus Improvements include numerous “structures” including backstops, batting cages, bleachers, dugouts, press box, scoreboards, and other elements. We consider the bulk and height of these structures as proposed to be “reasonable” and not impactful to the neighborhood and thus further “regulation” of “bulk and height” is not required.

The Amenities Building is the only “building” proposed as part of the Athletic Campus Improvements. The maximum building height permitted in the R-1B District is 35-ft. and the height provided is approximately 15-ft. (ZBL §4.1.2 Table of Dimensional Regulations). Building height as defined in the Bylaw Building Height “...is measured as the vertical distance from the average elevation of the finished lot grade at the front of the building...to the mean height between the plate and the ridge in the case of a pitched roof” (ZBL §11.0). The proposed Building Height complies with the Bylaw and thus further “regulation” of “bulk and height” is not required.

The Bylaw defines “Yard” (front, side, and rear) as the space between a street line of property line and a building. Thus, only “buildings” (and not “structures”) are required to meet minimum yard setbacks. The “Amenities Building” complies with the front yard setback from Longmeadow Way (private) with a setback of 60-ft. provided (scaled) and 25-ft. minimum required to the street line. The front yard setback should be shown. See Comment 8. The concrete pad and storage structures, although arguably not a “building” in any instance complies with the front yard setback from

⁴ “Town of Hamilton Zoning Bylaw (Reference A) §3.1.3 Table of Use Regulations, A Community Uses #3.

⁵ “Town of Hamilton Zoning Bylaw (Reference A) §3.1.3 Table of Use Regulations, A Community Uses #2.

⁶ Mass General Laws (MGL) C. 40A §3.

⁷ “Town of Hamilton Zoning Bylaw (Reference A) §11.0 Definitions.



Longmeadow Way (private) with a setback of 40-ft.± provided (scaled) and 25-ft. minimum required to the street line.

We do not consider score boards to be “signs” and therefore the provisions limiting signs in residential districts do not apply. Further, signs are not enumerated in MGL c. 40A §3 as elements subject to “reasonable regulations.”^{8 9 10}

The Athletic Campus Improvements are subject to provisions of the “Table of Use Regulations” for “A. Community Facilities §3” and are therefore subject to provisions of “§10.7 Site Plan Review for Religious and Educational Uses and Certain Child Care Centers.”¹¹

Pursuant to §10.7.3, the Scope of Site Plan Review is limited to two inquiries:

- “Whether the use qualifies for protection under G.L. c. 40A, s. 3; and, if so,
- What reasonable regulations concerning the bulk and height of structures and determining yard sizes, lot area, setbacks, open space, parking and building coverage requirements, if any, should be imposed on the use.”

In our opinion, as a publicly owned educational facility, the Hamilton-Wenham Regional School, including the Athletic Campus component of the facility, qualify for protection under MGL c. 40A §3. The Athletic Campus Improvements comply with the yard sizes, lot area, setbacks, and building coverage requirements of the Zoning Bylaw and the requirements imposed by compliance are sufficient.

SITE PLAN CONTENTS

The Site Plan Review Application does not fully comply with the content requirements of §10.7.5. The Bylaw does not provide for waiver of these requirements. The Applicant may provide the required information or may petition for relief in the form of a variance. Alternatively, the Board could find that certain submittal requirements are not applicable.

1. The plans should be signed and sealed by the Professional Engineer (PE) of record and the Professional Land Surveyor (PLS) of record prior to final approval of the Site Plan Review Application (ZBL §10.7.5 3).
2. The land surveyor shall certify the accuracy of the locations of the buildings, setbacks, and all other required dimensions to property lines (ZBL §10.7.5 3). It does not appear that an instrument survey

⁸ “Town of Hamilton Zoning Bylaw (Reference A) §6.3.2 1.

⁹ Mass General Laws (MGL) C. 40A §3.

¹⁰ “Town of Hamilton Zoning Bylaw (Reference A) §3.1.3 Table of Use Regulations, A Community Uses #3.

¹¹ Section 10.7.2 cites the Table of Use Regulations paragraph B.3 as triggering the requirements of §10.7.2 which is an apparent typographical error. The Table of Use Regulations paragraph A.3 should have been cited.



was performed and consequently, relief is required. In lieu of seeking relief, it is likely that a property plan of the Hamilton-Wenham Regional High School facility was prepared at the time of property acquisition or at the time that the school was constructed and could be updated by the Professional Land Surveyor of Record and submitted to satisfy the requirement.

3. A Zoning Chart should be provided showing “required and provided” for “applicable criteria.” We recommend that the Planning Board allow the Zoning Chart to be omitted (ZBL §10.7.5 4).
4. Show bearings and distance for on-site lot lines and lot lines of abutting properties in a general way or seek relief (ZBL §10.7.5 7). It is likely that a property plan of the Hamilton-Wenham Regional High School campus was prepared when the property was acquired or developed, and this could be submitted to satisfy the requirement.
5. Show the approximate boundary of the Conservancy District (Wetland Overlay Zone) (ZBL §10.7.5 8).
6. Seek relief from requirements to show the entire property and in particular the total square footage of all buildings and the entirety of all wetland resource areas (ZBL §10.7.5 9, 10). As stated in Comment 2, it is likely that a property plan of the Hamilton-Wenham Regional High School facility was previously prepared and could be submitted to satisfy the requirement.
7. Show utilities (water, sewer, natural gas (if applicable), and electrical cables or seek relief (ZBL §10.7.5 12).
8. Show the proposed “front yard “setbacks to the sideline of Longmeadow Way for the Amenities Building and possibly the storage units or seek relief. Refer to Comment 2 (ZBL §10.7.5 14).
9. Show any directional or way finding signage (ZBL §10.7.5 16).
10. Provide a parking calculation (ZBL §10.7.5 19). Refer to Comments 21-22.

UTILITIES

11. Show utilities for the Amenities Building including pipe diameters, materials, class, slopes, structures, and inverts.
 - a. Show the building water service.
 - b. Show the building sanitary sewer service.
 - c. Show the cable utility services (electric, cable)
 - d. Show the building natural gas service if applicable.
12. Provide a complete photometric of the Athletic Campus, not just the cutoff perimeter line.
13. Provide detail on the lighting fixtures and in particular provide information on compliance with dark skies principals.
14. Specify fixture mounting heights.



15. Provide a light pole and pole foundation detail.
16. Provide any possible mitigation which minimizes the visibility of lighting fixtures and point sources of light from adjacent residences.
17. Provide lighting controls that shut off field lights when the fields are not in active use.

ACCESS AND PARKING

18. Confer with Town emergency services and determine which vehicles would respond to the fields in case of injury or other emergency. It is likely that an ambulance (AASHTO SU vehicle) and fire apparatus with defibrillator (AASHTO BUS 40 commonly used to emulate fire apparatus) must be accommodated.
19. Revise the geometry of the pavement approach and/or adjust the location of the 12-ft. wide swing gates serving the multipurpose field and track and the two adjacent 12-ft. wide swing gates serving the west multipurpose field and the 165 X 300 soccer field such that each field can be accessed (enter and exit) by the emergency vehicles (per Comment 18) in a single continuous turning movement. Revise the geometry of the gravel access road approach and/or adjust the location of the 12-ft. wide swing gates serving the softball field such that the field can be accessed by the emergency vehicles in a continuous turning movement.

Non-vehicular access should be accommodated and encouraged.

20. Provide bicycle racks at each field.

For places of public assembly, one parking place is required for every three seats (ZBL §6.1). The Athletic Campus bleachers will provide 1,007 seats total (not including temporary bleachers) which results in a requirement for 336 parking spaces.

21. Determine through field observation, the peak parking demand for non-athletic based school use that occurs during the time when the athletic facilities are in use for competitive events. Determine if the parking supply can accommodate simultaneous nonathletic based school parking demand plus the 336 parking spaces required for the athletic facilities.
22. Expand the parking supply if required to accommodate the calculated parking demand (Comment) or provide a parking management plan.

Provision should be made for dropping off athletes and spectators and for turnaround of vehicles unable to locate a parking space.

23. Provide a hammerhead turnaround at the east end of the existing parking field to accommodate drop-offs and turnarounds.



The School District may not want private passenger vehicles circulating around the school building. Bus drop-offs may be appropriate in front of the Amenities Building. As no turnaround is provided, busses would exit by circulating behind the school building.

24. Place a sign at the east end of the parking area stating, "Busses Only Beyond this Point."

GRADING

25. Clarify if the 4-ft. wide walk adjacent to the softball field is curbed or if the walk is to be delineated with a pavement edgeline.
26. Segments of the unit masonry wall south of the Amenities Building has an exposed face of approximately 5.3-ft. and require fall protection.
27. Show top and bottom of wall elevations for the wall at the east end of the track and along the east and south edges of the Multi-Purpose Combination Synthetic Turf Field.

ACCESSIBILITY

28. Confirm that all bleachers have provisions to accommodate persons with limited mobility.
29. Ensure that all bleachers are provided with an accessible route. We note that the bleacher seating for the tennis courts is not accessible by pavement.
30. The 4-ft. wide walk adjacent to the softball field is not an accessible route as it is obstructed by a light pole and does not provide continuity to reach the bleachers. If the walk is curbed, ramps must be provided at either end.

PUBLIC SAFETY

31. Obtain written approval of the Athletic Campus from the Fire Department/Emergency Services.
32. Obtain written approval of the Athletic Campus from the Police Department.

CONSTRUCTION

Add construction notes to the plans.

33. Work hours including deliveries and on-site engine warmup and idling shall comply with the School District's requirements and further shall be limited to 7:00 AM to 5:00 PM on weekdays with no work on Sunday or legal holidays.
34. Mark the limit of work with high visibility temporary fencing.
35. Provide convenient sanitary facilities and trash collection containers. Remove any litter or waste two times per week or more frequently if required.



36. Due to proximity of wetlands, dust control should be limited to the application of mist using potable water.
37. Designate an on-site refueling area with a paved surface and berm to contain a fuel spill.
38. Sweep Bay Road in proximity to the site during earth or materials transport whenever sediment deposits are visible.

TRAFFIC

Analysis of traffic impacts focuses on peak hour traffic volumes. Peak hour traffic volumes generated by team sport events including football, baseball, softball, soccer, and track and field are anticipated to be comparable to peak hour traffic associated with these events with the current athletic facilities. There may be some increase in peak hour traffic as spectators can be better accommodated due to the increased seating capacity of the new bleachers.

The total daily traffic volumes generated by the Athletic Campus are likely to increase due to the new tennis courts and principally because the proposed field lighting systems will extend the time during which the facilities can be used allowing multiple events to be scheduled on the same day.

The standard methodology to quantify future trip generation is to utilize the trip generation data provided in the Institute of Transportation Engineers (ITE) Trip Generation Manual¹². The current edition of the Trip Generation Manual does not provide data for high school football, track and field, softball, or baseball facilities which would facilitate quantification of peak hour volumes for these facilities. Therefore, quantitative trip generation forecasts cannot readily be developed.

CONSTRUCTION DETAILS

39. Pavement Jointing Detail – Specify joint to be sawcut.
40. Driveway Pavement Section – If the “Dense Graded Crushed Stone” layer specifies MassDOT M2.01.7, we recommend limiting the thickness to approximately 2-inches due to the fines content. The remainder of the granular base should be specified as Gravel Borrow MassDOT M1.03.0 Type c or crushed stone. We recommend a minimum thickness of 12-inches for the granular base in areas subject to regular vehicle traffic (which is the standard for subdivision streets) and a minimum thickness of 8-inches for the granular base elsewhere.
41. Sidewalk Pavement Section – We recommend limiting the thickness of the “Dense Graded Crushed Stone” layer to approximately 2-inches. Refer to Comment 40.

¹² Institute of Transportation Engineers, Trip Generation Manual, 11th Edition, September 2021.



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42. Handicapped Accessible Ramp – Show maximum slope. The specified length of 14-ft. would only apply to a specific elevation change.
43. Backstop Detail – Shop drawing review by a Structural MA Professional Engineer is recommended. Require site specific soil testing as part of shop drawing review. Consider specifying black vinyl coated fabric to match fencing.
44. Segmental Block Retaining Wall – Require site specific soil testing as part of shop drawing review. Specify the free-draining backflow material.