May 1, 2024

Mr. Gregory Rondeau, Chairman
355 East Central Street
Franklin, MA 02038

Re: Tri-County Regional Technical High School
147 Pond Street
Site Plan Review

Dear Mr. Rondeau:

BETA Group, Inc. (BETA) has reviewed documents for the project entitled **"Tri-County Regional Vocational Technical High School"** located at 147 Pond Street in Franklin, Massachusetts. This letter is provided to outline BETA's findings, comments, and recommendations.

Basis of Review

The following documents were received by BETA and will form the basis of the review:

- Plans (71 sheets) entitled: ***"Tri-County Regional Vocational Technical High School Site Plan Approval",*** dated March 18, 2024, prepared by Drummey Rosane Anderson, Inc. of Waltham, MA stamped by Stephen J. Powers, MA PE #45896.
- Stormwater Management Report, dated March, 2024, prepared by Samiotes Consultants, Inc. of Framingham, MA.
- Topographic Plan of Land (6 sheets) dated May 3, 2023, revised March 18, 2024, prepared by Samiotes Consultants, Inc., stamped by Daniel F. Fleming, MA PPLS #55476.
- Site Plan Review Application, dated April, 2024, prepared by Samiotes Consultants, Inc., including the following attachments:
    - Project Narrative
    - Form P Application for Approval of a Site Plan
    - Certificate of Ownership
    - Certified Abutters List
    - Notification to Abutters
    - Locus Map
    - Zoning Map
    - Consultant Memos
    - Waivers Request
    - Drawing List

Review by BETA will included the above items along with the following:

- Site Visit
- ***Zoning Chapter 185 From the Code of the Town of Franklin,*** current through July 2021
- ***Zoning Map of the Town of Franklin, Massachusetts,*** attested to October 7, 2020

1.0 SITE AND PROJECT DESCRIPTION

The project area is a 60.3± acre site identified as assessor's map 259 Lot 004 (the "Site"). The project is located at 147 Pond St and is within the Rural Residential II Zoning District. Parcels surrounding the Site are within the Rural Residential I and II zoning districts and predominantly include single-family residential properties or condominiums.

The existing Site is the Tri-County Regional Vocational School and is developed with a multi-story school building with a footprint of approximately 172,000 ± Sq. Ft. Associated existing site features include parking lots, driveways, curbing, athletic fields, and landscaping areas. A ground-mounted solar array is located on the eastern portion of the Site. Existing utilities include drainage, sanitary sewer, water, gas, and electric.

Bordering & isolated vegetated wetlands are located on the southern and northwestern portions of the Site. Bordering vegetated wetlands are also located adjacent to the Site to the east. The Site is not located within the Aquifer and Water Resource Protection Zone, FEMA mapped flood zone, wellhead protection area, or in proximity to estimated habitat of rare or endangered species. NRCS soil maps indicate the presence of Charlton-Hollis-Rock outcrop complex rated in Hydrologic Soil Group Rating (HSGR) A (high infiltration potential), Montauk Fine Sandy Loam and Paxton Fine Sandy Loam, rated in HSGR C (low infiltration potential), Hollis-Rock outcrop complex, rated in HSGR D (very low infiltration potential), and Urban Land with no assigned HSGR.

The project proposes to demolish the existing building and construct a new three-story school building in the eastern portion of the Site. The majority of existing parking areas and driveways will be removed and replaced with a new configuration in the areas west, south, and east of the new building. Existing water, sanitary sewer, gas, electric, and telecommunications utilities will be replaced. The project also includes new and re-constructed athletic fields. The solar array is proposed to be dismantled and removed.

Stormwater management is proposed via four subsurface stormwater systems (infiltration and detention). Stormwater runoff conveyance is proposed via a closed drainage system consisting of catch basins, drain manholes, and water quality units. Review of the stormwater management design has been provided under separate cover to the Conservation Commission.

The project includes work within wetland resource areas, including buffer zones to bordering vegetated wetlands areas and bordering land subject to flooding which will require obtaining an Order of Conditions from the Conservation Commission.

2.0 WAIVERS

The Applicant has requested the following waivers from the submittal requirements:

WA1. §185-36 Impervious Structures: Waiver to allow impervious coverage in excess of 25% maximum allowed.

WA2. §185-31.C.2.A Regarding Plan Size: Waiver to allow submission of plans of the sizes 36" x 48" and 30" x 42".

3.0 GENERAL REVIEW COMMENTS

G1. Several plan sheets, particularly the layout and materials plans, are difficult to read. Recommend providing greater screening for existing conditions linework. Revise text callouts to be located away from hatches and overlapping linework to the extent practicable.

G2. Clarify what the linework around the perimeter of the northwest field represents. These lines are indistinguishable from contours on the Civil Grading Plans.

G3. Provide Professional Engineer's stamp on all plan sheets.

G4. Recommend providing labels and designations for all swales, headwalls, and outlets for ease of reference during future reviews, permitting, construction, and maintenance.

4.0 SITE VISIT

BETA visited the Site on April 19, 2024. Observed conditions were generally consistent with the existing conditions plan.

5.0 ZONING REGULATIONS

The project is subject to the Town of Franklin zoning regulations outlined under Chapter 185. Review comments related to the zoning bylaw are provided in the following sections.

The project proposes an Educational Use and is located within the Rural Residential II (RRII) district. The proposed use is permitted by right in this district.

SCHEDULE OF LOT, AREA, FRONTAGE, YARD AND HEIGHT REQUIREMENTS (§185 ATTACHMENT 9)

The project will comply with dimensional requirements for lot area, frontage, lot depth, front yard, side yard, rear yard, maximum number of stories, and building coverage. The project does not appear to comply with dimensional requirements for lot frontage, lot width, or maximum impervious coverage; however, these are existing nonconformities. The project also does not comply with requirements for building height, exceeding the maximum 35' height permitted in this district.

Z1. BETA defers to the Town regarding the requested relief from impervious coverage requirements and notes this is an existing non-conformity.

Z2. Identify compliance with frontage, lot width, and maximum impervious coverage of structures on the Zoning Table.

Z3. Confirm the lot is exempt from frontage and lot width requirements in accordance with §185-10 or seek relief, if necessary.

Z4. Identify compliance with building height requirements on the zoning table and seek relief, as necessary.

PARKING, LOADING AND DRIVEWAY REQUIREMENTS (§185-21)

Required parking is defined by §185-21.B of the Town Zoning Bylaw. No required parking is stipulated for an educational use.

The project proposes 501 total parking spaces. Fifteen (15) of the parking spaces are designed to be accessible, five (5) of which will be van accessible, in accordance with 521 CMR 23.2.1. Nine (9) spaces are designed with electric vehicle charging stations.

All maneuvering aisles are at least 24 feet wide; parking spaces in perpendicular layout are 9 feet wide and 19 feet long. Angled parking spaces are 9 feet wide and 24 feet long at a 60° angle.

T1. Provide information to confirm the proposed quantity of parking spaces is adequate.

T2. Confirm provided parking quantity. 501 spaces are identified in the table, but 519 are identified on Sheets C203 and C204.

T3. Indicate location of proposed EV parking spaces.

T4. Identify snow storage areas for the parking area and driveway.

EARTH REMOVAL (§185-23)

The project is anticipated to require significant earth disturbance and may require further permitting under this section.

Z5. Quantify approximate required earth removal volume to determine if a Special Permit is required.

SIDEWALKS (§185-28) AND CURBING (§185-29)

The project is not located within a Commercial I, Commercial II, or Business zone and thus new sidewalks are not required along street frontage. Existing sidewalks are present along Pond St and one side of Tri-County Drive. New sidewalks and pedestrian walkways are proposed throughout the project.

Proposed curbing includes vertical granite curbing along the boundaries of all driveways and parking areas.

Z6. Clarify proposed sidewalk materials throughout the project site. Details are provided for both concrete and asphalt sidewalks; however, only the sidewalks at Tri-County Drive appear to have a material designation (asphalt). BETA notes the existing sidewalks on Tri-County Drive are concrete. BETA defers to the preference of the Board on sidewalk materials and notes that at a minimum it is recommended to provided concrete at all pedestrian curb ramps to ensure ADA compliance can be maintained.

Z7. Provide transition curb and sidewalk ramps at the southern driveway entrance to avoid disruption to the existing sidewalk.

Z8. Provide detail for pedestrian curb ramps.

Z9. Provide a detail for curb installation.

SITE PLAN AND DESIGN REVIEW (§185-31)

The project has been submitted for Site Plan Review and is required to conform to the requirements of this section. The submission is in compliance with this section except as noted below:

Z10. For future revisions, Include description of any revisions made to the plan and the nature of the revisions (§185-31.C.(3).(b).

Z11. Provide assessor's map and parcel identification numbers on the plans (§185-31.C.(3).(b).

Z12. Clarify identity of Owner. The plans identify Karen Maguire as the owner which contradicts the Certificate of Ownership.

LANDSCAPING AND SCREENING (§185-35)

Refer to Landscape and Grading section below.

6.0 TRAFFIC ASSESSMENT AND IMPACT

The Applicant has not provided a traffic study or traffic assessment.

GENERAL TRAFFIC COMMENTS

T5. The Applicant should provide sufficient traffic information for the Planning Board to determine whether a Traffic Impact Analysis is warranted for this project. BETA anticipates providing a review of the traffic analysis, site circulation, and signing in a future review.

SITE ACCESS AND CIRCULATION

Access to the Site is proposed via two new driveways which will connect to Tri-County Drive. No modifications are proposed to Tri-County Drive, which connects to Pond St in the north and Old West Central St in the South. The new driveways will continue west to east and provide access to parking areas, athletics fields, and a loading area behind the proposed building.

The northern proposed driveway is 32 feet in width and the southern driveway is 20 feet in width. Other driveways throughout the Site are 25 feet in width.

Pedestrian access is proposed via sidewalks and walkways which will connect Tri-County Drive to parking areas, athletic fields, and the school entrance. Crosswalks with pedestrian curb ramps are provided throughout the Site.

T6. Indicate if the southern driveway will be one-way or two-way and confirm that adequate width is provided.

7.0 SIGNAGE AND LIGHTING

The project proposes traffic control signage including "stop," "all way," "do not enter," "no parking," "one-way," accessible parking, and pedestrian crossing signs. The selected signs are generally appropriate for their use.

Sheet L203 indicates that an entry sign is proposed at the Site Entrance.

SL1. Provide detail for proposed entry sign.

SL2. Provide labels for signs proposed in rear loading area.

A photometric plan has been provided indicating 119 new luminaires throughout the Site. Luminaires are proposed to be either pole-mounted, to be located throughout the driveways and parking areas, or wall-mounted, to be located around the building perimeter and in the courtyard. Mounting height is identified as 12 ft., 16 ft., or 20 ft.

The Illuminating Engineers Society of North America (IESNA) recommends the following illuminance for parking lots:

Level	Horizontal Illuminance (Min)	Vertical Illuminance (Min.)	Uniformity Ratio (Max/Min)
Basic Maintained Illuminance	0.2	0.1	20/1
Enhanced Security Illuminance	0.5	0.25	15/1

Luminance within the parking lot is generally consistent with the above table.

SL3. Evaluate illuminance levels for the west driveway, labeled as "Drive." The Lighting Plans show a max/min ratio of 121.00 for this area.

SL4. Provide detail for pole and wall mounts.

SL5. Provide detail or cutsheet for each type of luminaire and indicate if they will be downward facing.

SL6. Recommend depicting boundaries of wetland resource areas on the lighting plan to evaluate potential impacts to environmental functions.

SL7. Recommend including existing lighting along Tri-County drive on the photometric plan to determine if this lighting is adequate.

SL8. Indicate if lighting is proposed for athletic fields.

SL9. Recommend providing lighting for walkway west of lacrosse/football field and walkway east of soccer field.

SL10. Indicate the hours of operations for lighting. Identify which lights are to be on after close of business for security purposes.

8.0 UTILITIES

Proposed utilities depicted on the plans include domestic water, fire service, sanitary sewer, electric service, and gas service. Existing utilities within the limit of work are to generally be retained.

Domestic water and fire service is proposed via new 8" CLDI pipe which will extend around the perimeter of the new building. Building connections will be 6" CLDI for domestic water and 8" CLDI for fire protection. Several new hydrants are also proposed around the building perimeter.

Sanitary sewer service is proposed via new 8" PVC SDR-35 pipe as well as several new sewer manholes. Building connections will be 4" or 6" SDR-35. A kitchen waste line is proposed in the rear of the building which will connect to a new fiberglass grease waste tank. A gas/oil separator is also proposed.

Natural gas is proposed via a new service of size and material to be coordinated with the utility company. Electrical service is proposed via a new conduit which will connect to existing infrastructure. One new electric manhole is proposed as well as 2 new transformers, a new generator, and an electrical box.

All new utilities except electric will interconnect at the existing mains/services along Tri-County Drive near the intersection with the proposed eastern driveway. Electric is proposed to connect to existing infrastructure in the eastern portion of the Site.

U1. Provide general notes regarding proposed approach to existing utilities that may conflict with the work, i.e. whether they will be removed or abandoned and capped.

U2. BETA defers to the Fire Chief to confirm that the proposed hydrant layout is adequate.

U3. Indicate disposition of existing fire hydrants.

U4. Clarify the nature of the rectangular linework near the southwestern building corner, connected to the sanitary sewer service but not identified by callout.

U5. BETA notes that grease traps must be sized in accordance with Title V requirements per DPW policy. Recommend providing a note on the plans indicating such along with the requirement to provide sizing calculations. BETA defers to the DPW on the proposed material (fiberglass) for the grease trap.

U6. Evaluate if there is any conflict between the proposed electric and the stormwater basin located near the southeast corner of the proposed building. The proposed electric is also depicted as passing through the isolated wetland and should be relocated, if possible.

U7. Recommend depicting drainage invert elevations on the civil utility plans to confirm that there will be no conflicts between drainage, sewer, water, and other utilities.

9.0 LANDSCAPE TREATMENT & GRADING

The project proposes numerous tree and shrub plantings throughout the project area. New trees are generally proposed along driveways, around parking areas, or within landscaping islands.

Per §185-21.C.(5), the project is required to provide 1 tree per 10 parking spaces. For 501 spaces, 52 trees are required. The planting plan includes 63 trees near parking areas to satisfy this requirement.

The project includes outdoor parking for 10 or more cars and is required to provide screening in accordance with §185-35. Residential uses and districts are present on all sides of the Site for which screening must be provided. The project generally proposes to meet this requirement by retaining existing vegetation around the property perimeter.

Disturbed areas are proposed to be restored with lawn: fescue seed mix, conservation seed mix, or native wetland seed mix as illustrated on the Planting Plans.

LA1. *The designer should evaluate the suitability of existing vegetation to remain around the lot perimeter to meet the requirements of §185-35.B, particularly where vegetated buffers will be reduced compared to the existing conditions. BETA notes that mature deciduous vegetation may provide little screening. Recommend to provide sections at critical locations to show the relationship of the proposed development to adjacent residences.*

LA2. *Clarify which of the three proposed ground covers represent the "lawn," "conservation," and "native wetland" seed mixes identified in the legend on Sheet L401.*

LA3. *Revise landscaping plan to clearly indicate which areas will be grassed, including landscaping islands, areas adjacent to the building, and areas between parking areas/driveways. Provide seed mix for all unhatched grass areas.*

LA4. *Evaluate if fencing is required adjacent to the southern baseball field to provide protection from nearby steep slopes.*

LA5. *Evaluate if fencing is required around wetland replication areas for safety.*

LA6. *Several proposed drainage structures to remain are in the footprint of the athletic fields. Confirm that these structures will not post a safety risk to players.*

The project includes substantial regrading throughout the project area. Grading is highly variable and includes areas of both cut and fill. The building finished floor elevation will require cuts as great as 10 ft. on the building's eastern side.

LA7. *Evaluate proposed grading for the eastern portion of the Site. Test pits conducted in this area show a shallow groundwater elevation that is above the proposed pavement and building FFE elevation. Shallow bedrock/ledge was also encountered in several locations. It is unclear from the plans if the project has been designed to account for these impacts.*

LA8. *Confirm that a Geotechnical Engineer has been retained to evaluate the proposed development, including the building, in relation to high groundwater and bedrock.*

LA9. *Provide additional contour labels on the plans, particularly near the northern athletic fields and the southeastern side slopes.*

LA10. *Provide spot grades for the proposed eastern reinforced concrete slab.*

LA11. Provide contour labels and spot grades at the two wetland replication areas located southeast of the proposed building.

LA12. Provide spot grades and contour labels along proposed swales to clarify design.

LA13. Provide top and bottom of wall grades for the SRW Retaining Walls identified on the layout and materials plans. Depict walls on grading plans.

LA14. Evaluate location of D3-02-DCB. This on-sag catch basin is located in an accessible parking aisle and is likely to interfere with accessibility.

LA15. Review grading around the accessible parking area near the southwestern building corner. As proposed, the parking area is graded towards a corner with no drainage inlets and may result in ponding.

LA16. Provide additional spot grades in the southeastern parking area and driveway. The area east of the 378' contour appears to be very flat which may interfere with drainage.

LA17. Provide an assessment of proposed landscaping to confirm conformance with Franklin's Best Development Practices Guidebook (e.g. native plantings and seed mixes, minimizing cuts and fills, etc.). BETA defers to the preference of the Board on having a detailed landscaping review performed.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.

Stephen Borgatti, PE, MENG
Senior Project Engineer

Matthew J. Crowley, PE
Senior Project Manager

IMPROVING COMMUNITIES TOGETHER

April 23, 2024

Ms. Breeka Lí Goodlander, Agent
Town of Franklin Conservation Commission
355 East Central Street
Franklin, MA 02038

Re: Tri-County Regional Vocational Technical High School
147 Pond Street
Stormwater Peer Review

Dear Ms. Goodlander:

BETA Group, Inc. (BETA) has reviewed documents and plans for the ***Tri-County High School development***, located at ***147 Pond Street*** in Franklin, Massachusetts. This letter is provided to present BETA's findings, comments and recommendations for stormwater management.

BASIS OF REVIEW

The following documents were received by BETA and will form the basis of the review:

- Notice of Intent entitled ***Tri-County Regional Vocational Technical High School – Notice of Intent;*** prepared Samiotes Consultants, Inc., dated March 2024. Attachments include:
  - Project Narrative;
  - WPA form 3;
  - Local Filling Fees and Forms;
  - Stormwater Checklist;
  - Certified Abutters List & Notification to Abutters;
  - WPA Form 4A – ANRAD;
  - Wetland Delineation Report;
  - Variance Requests; and
  - Various Figures (FEMA, NHESP and Zoning Maps)
- Stormwater Report entitled ***Stormwater Management Report,*** dated March 2024, prepared by Samiotes Consultants, Inc.; stamped and signed by Stephen J. Powers MA P.E. No. 45896.
- Plans (6 Sheets) entitled ***Topographic Plan of Land***, dated May 3, 2023, prepared by Samiotes Consultants Inc.; stamped and signed by Daniel F. Fleming P.L.S. No.55476.
- Plans (56 Sheets) entitled ***Tri-County Regional Vocational Technical High School Notice of Intent***, dated March 18, 2024, prepared by Drummey Rosane Anderson, Inc.; stamped and signed by Stephen J. Powers MA P.E. No. 45896.

Review by BETA included the above items along with the following, as applicable:

- ***Massachusetts Wetlands Protection Act 310 CMR 10.00*** effective October 24, 2014
- ***Massachusetts Stormwater Handbook*** effective January 2, 2008 by MassDEP
- ***Stormwater Management Chapter 153 From the Code of the Town of Franklin,*** Adopted May 2, 2007

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- ***Subdivision Regulations Chapter 300 From the Code of the Town of Franklin,*** current through March 8, 2021
- ***Wetlands Protection Chapter 181 From the Code of the Town of Franklin,*** dated August 20, 1997
- ***Town of Franklin Best Development Practices Guidebook***, dated September 2016

STORMWATER MANAGEMENT

The proposed stormwater management design consists of four subsurface stormwater systems located beneath parking and loading areas. Stormwater runoff will be conveyed to these systems via a closed drainage system consisting of catch basin to manhole connections with water quality units. Roof leaders are proposed to convey stormwater runoff from the building to the eastern subsurface system. Overflow from the two western systems is proposed to discharge to a new outfall upgradient of the "B-Series" wetlands located in the southern area of the Site. Overflow from the two eastern systems is proposed to discharge upgradient of the "A-Series" wetlands also located in the southern area of the Site.

A separate field drainage system consisting of underdrain and trench drains is proposed to collect stormwater runoff from the athletic fields. The system is proposed to connect to existing conveyance infrastructure for discharge to the existing Tri County Drive drainage system.

Additional proposed stormwater management features include a vegetated swale along the northeastern limit of work.

GENERAL

SW1. Indicate proposed treatment of all existing catch basins, manholes, outfalls, and pipes. Per the utility plans, existing utilities are to be retained unless otherwise noted, but retaining existing catch basins will conflict with the proposed drainage systems.

SW2. Clarify if an underdrain is proposed for the northeastern soccer fields. Underdrains are referenced on Sheet L202 but not identified for these fields on the Landscape Grading Plans.

SW3. Identify the proposed subsurface systems as "StormTrap" systems on the plans or details for consistency with the O&M Plan.

SW4. In coordination with the Town, evaluate if installation of additional catch basins along the southern/western side of Tri-County Drive is appropriate. Based on the existing conditions plan, there is a distance of over 1,000 ft. between a catch basin at the Old West Central St. intersection and a catch basin near the athletic fields.

SW5. Recommend including flow arrows along all pipe spans to clarify stormwater design.

SW6. Recommend providing additional catch basin(s) at the southern driveway to minimize stormwater runoff flowing onto the roadway. Due to the steepness of the driveway evaluate if additional measures are needed to ensure stormwater is captured.

SW7. Review proposed drainage manholes to ensure that a sufficient angle is provided between all pipe connections. Several manholes are shown to require 4 or more pipe connections with minimal vertical and angular separation which may pose constructability issues. Revise manhole diameter as required.

SW8. Review design of drainage pipes. Several pipes appear to have inadequate cover and insufficient depth for frame and grate/cover. Recommend providing table comparing required/provided cover for all structures to ensure constructability or including in hydraulic calculations.

SW9. At the discretion of the Town, consider providing a grate or similar measure at the 24" headwall entrance to prevent access.

SW10. Confirm that all roof drainage can be conveyed to the rear of the building as designed. The building plans show a complex roof with multiple elevations and distinct roof drains.

SW11. Clarify outlet design for all subsurface systems. The hydroCAD models indicate a multi-stage outlet design with weir and orifices, but no outlet control structures or similar measures are provided for these systems. Provide detail to demonstrate how outlets will be constructed.

SW12. Provide sizing calculations for vegetated swales.

SW13. Provide additional contour labels, spot grades, and callouts for vegetated swales and headwalls located along the north/northeast side of the Site. Ensure that proposed grading will properly convey flow to the outlet pipes. Indicate the destination of the pipe heading southwest from the eastern headwall.

SW14. Review design of swale proposed west of the northeastern soccer fields. Determine if stormwater flow discharging from the swale will cause erosion along the 8' slope directly downgradient of its discharge point.

STORMWATER MANAGEMENT REGULATIONS (CHAPTER 153)

The project proposes to disturb land in excess of one acre within the Town of Franklin. It will be therefore subject to the Stormwater Management Regulations. The project is also required to comply with the Town of Franklin Best Development Practices Guidebook (BDPG). Although these regulations are not under the jurisdiction of the Conservation Commission, compliance with these regulations is outlined below and throughout the following sections to ensure that all comments related to stormwater management are provided in a comprehensive review document.

SW15. Revise the stormwater management system to meet the criteria outlined in §153-16.B. It is anticipated that the project will quality as a redevelopment and must retain the volume of runoff equivalent to 0.8 inches multiplied by the total post-construction impervious surface area or achieve 80% TSS removal and 50% total phosphorus removal by other means. BETA defers to the Town for final determination on the extent of compliance required for the project.

SUBDIVISION REGULATIONS - STORMWATER MANAGEMENT REGULATIONS (§300-11)

Additional requirements for stormwater management are outlined in §300-11 of the Town of Franklin Subdivision Regulations. Although these regulations are not under the jurisdiction of the Conservation Commission, compliance with these regulations is outlined below and throughout the following sections to ensure that all comments related to stormwater management are provided in a comprehensive review document.

SW16. Provide comparison of pre- and post-development runoff volume. Post-development runoff volume shall not exceed pre-development volumes from the Site (§300-11.A(3).

SW17. Provide hydraulic calculations to demonstrate that the drainage system is designed to accommodate a 25-year storm frequency with a design velocity between 2.5 and 10 feet per

second (§300-11.B(1)). Impacts to the existing drainage systems on Tri-County Drive should also be evaluated.

SW18. Revise proposed drainage pipe to be reinforced concrete or request waiver (§300-11.B(2.a)).

MASSDEP REPORTABLE RELEASES

The MassDEP Waste Site / Reportable Release database does not identify any reportable releases within or near the Site.

MASSDEP STORMWATER STANDARDS

The project is subject to the Wetlands Protection Act and therefore must comply with the Massachusetts Stormwater Standards as outlined by MassDEP. Compliance with these standards is outlined below:

LOW IMPACT DEVELOPMENT (LID) TECHNIQUES

Proposed LID measures include use of country drainage for portions of the Site.

NO UNTREATED STORMWATER (STANDARD NUMBER 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 project proposes to retain existing discharge locations including several outfalls located upgradient of wetland resource areas. The two outfalls upgradient of the "B-Series" wetlands discharge to a paved waterway which extends to the toe of slope. No direct discharges to wetland resource areas are proposed. A new riprap apron is proposed at FES#1 to mitigate erosion potential.

SW19. Provide riprap apron at all existing outfalls to remain or demonstrate that existing scour protection is sufficient.

SW20. Provide calculations for sizing of riprap aprons.

SW21. Verify condition of existing outfalls and confirm they are in suitable condition to convey post-development flows.

SW22. Clarify outlet design for the southern baseball field underdrain. The proposed drain linework is a few feet east of the existing outfall. BETA notes that this span of pipe is inconsistent with the Landscape Grading Plans.

SW23. Evaluate if check dams are required along proposed vegetated swales and include riprap aprons at bottom of each swale.

SW24. Clarify if outlet "D" from manhole B2-07-DMH-EX is to remain. This drain pipe ultimately discharges to an existing outfall, down a paved waterway, into a plunge pool located within the B-Series wetlands.

POST-DEVELOPMENT PEAK DISCHARGE RATES (STANDARD NUMBER 2): *Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.* The project proposes to mitigate increases to runoff rates with the use of subsurface infiltration and detention systems. Calculations indicate a decrease in peak discharge rate to all points of analysis.

SW25. Provide scale on watershed plans.

SW26. Recommend turning off linework for non-drainage utilities on the watershed plans for legibility.

SW27. Depict soil group boundaries on watershed plans and clarify why a rating of HSGR C has been applied to the entire project area. Based on NRCS mapping, portions of the Site should be HSGR A or unrated. BETA notes that test pits have only been conducted in a portion of the Site and it is unknown if the poor soil conditions logged in the test pits represent the entire Site.

SW28. Provide names/labels on existing and proposed routing diagram POA nodes to clarify model.

SW29. Depict limit of tree clearing on the post-development watershed plan.

SW30. Provide labels for the northeastern and southeastern watershed areas on the pre-development watershed plan.

SW31. Provide table comparing pre- and post-development runoff volumes for each watershed area to evaluate flooding impacts to wetland resource areas and downgradient properties.

SW32. Review existing/proposed watershed narrative in the stormwater report:

a. POA-3 is identified as the wetlands on the southern portion of the Site, presumed to refer to the "C-Series" wetlands. However, the watersheds stated to drain to this POA appear to actually drain to one of several closed drainage systems at Try County Drive. Clarify how these watersheds will discharge to the wetlands. Provide additional POAs as necessary to represent the existing closed drainage systems.

b. POA-4, POA-5, and "POA" are each identified in the narrative as the wetlands just south of the solar fields of the Site. This appears to be a typo, as EWS-9, 10, and 12 respectively, each drain to a different location. Revise the description of each of these POAs.

SW33. Separate EWS-12/PWS-10 into several subcatchments with appropriate points of analysis. This watershed drains in several different directions and should not be considered a single subcatchment. BETA recommends generally dividing the watershed as follows:

a. The northern and western portions of the watershed, which will drain offsite and will not be affected by the development.

b. The southern portion that drains to the 30" RCP drain line west of the Site, towards Hilltop Road. Provide POA at this location to confirm that the peak flow to the system will not exceed its capacity. The "A-Series" and "B-Series" wetlands also appear to drain to this location.

c. The southern portion that drains to the 12" RCP drain line south of the Site, towards Old West Central Street. Include stormwater runoff to catch basins and to the headwall inlet. Provide POA at this location to confirm that the peak flow to the system will not exceed its capacity.

d. The southeastern portion that drains to the nearby "D-Series" wetlands. Provide POA at the wetlands to measure the impact of the new driveway on the wetland resource area.

e. The northeastern portion that drains east towards the "E-Series" wetlands. This subcatchment should likely be combined with EWS-10.

f. The easternmost portion that drains to the southeast to an unknown destination. Evaluate offsite topography to determine ultimate discharge point and provide new POA as necessary.

g. Additionally, smaller portions of this watershed may drain to POA-1, 4, and 5 and should be included in the appropriate subcatchments.

SW34. Review routing for the following watershed/nodes:

a. EWS-4. The existing conditions plan shows that this area is collected by a closed drainage system and conveyed to a drain manhole near the EWS 3 / 4 boundary. The DMH is identified as not found with no surveyed inverts, but shows one outlet pipe towards POA-2 and one outlet pipe towards POA-1. Provide information on which of these points of analysis the system discharges to.

b. BMP-1. System BMP-1 is designed to overflow to BMP-2; therefore, BMP-1 should be routed to BMP-2 in the hydroCAD model.

c. BMP-3. System BMP-3 is designed to overflow to BMP-4; therefore, BMP-3 should be routed to BMP-4 in the hydroCAD model.

d. PWS-6. This area is graded to drain to a pair of catch basins which discharge to BMP-4; therefore, PWS-6 should be routed to BMP-4. Recommend combining PWS-4, PWS-6, and PWS-9 into one subcatchment for simplicity.

SW35. Revise boundaries of PWS-2 and PWS-10 to account for the wetland and replication areas. These areas are low points to which stormwater runoff will be routed. Model these areas as “impervious water surface” to account for a permanent pool.

SW36. Review the following subcatchment boundaries:

a. Northeastern portion of EWS-1. It appears that this area will be collected by a drainage ditch which discharges south to EWS-9.

b. PWS-1 and PWS-3. The boundary between these two watersheds does not appear to represent the proposed high point based on the grading plans.

c. Building portion of PWS-2. Based on the roof leader design, the roof area will be conveyed to BMP-1, rather than BMP-2.

d. Southern portion of PWS-2. Based on the drainage system design, the majority of this subcatchment will be collected by catch basins and conveyed west, rather than to BMP-2.

e. Boundary between PWS-4/9 and PSW-5. The proposed football field is designed with an underdrain which conveys stormwater to BMP-4. The entire field and all areas draining to it should be included in either PWS-4 or PWS-9.

SW37. Revise limits of watersheds to include all areas, including offsite areas, that will drain to the proposed SCMs and closed drainage systems. Offsite areas to the north will drain to PWS-1 and PWS-3 and thus must be included in the appropriate BMP system sizing. Refer to previous comments relating to swales and headwalls located along the northern portions of the Site; the proper design of these conveyance systems will determine if upgradient areas drain to the BMPs or bypass them.

SW38. Review HydroCAD model for the following subcatchments:

a. EWS-1: Confirm that the time of concentration represents the flowpath from the most hydrologically remote point in the subcatchment. The easternmost portion of the subcatchment may be more appropriate. Include flow through pipes in the calculation.

b. EWS-7: Clarify the location of the 10,693 Sq. Ft. of area attributed to "paved parking." Confirm that the overall area attributed to this subcatchment is consistent between the model and the watershed plans. Revise cover type for sheet flow to be "Woods."

c. EWS-9 and EWS-10: Clarify the location of the areas attributed to "paved parking." If these areas are intended to represent the solar array, then the cover type should be revised to reflect the final land cover type proposed below the panels per MassDEP Wetland Program Policy 17-1.

d. PWS-7: Review area modeled as "Woods." The area depicted on the plans to remain wooded appears to be smaller than that used in the model.

RECHARGE TO GROUNDWATER (STANDARD NUMBER 3): *Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to maximum extent practicable.*

NRCS soil maps indicate the presence of Charlton-Hollis-Rock outcrop complex rated in Hydrologic Soil Group Rating (HSGR) A (high infiltration potential), Montauk Fine Sandy Loam and Paxton Fine Sandy Loam, rated in HSGR C (low infiltration potential), Hollis-Rock outcrop complex, rated in HSGR D (very low infiltration potential), and Urban Land with no assigned HSGR.

Test pits conducted at the Site indicate that subsurface soils are generally Sand, Sandy Loam, or Loamy Sand with shallow bedrock/ledge and areas of organics. Test pits identified shallow groundwater and bedrock throughout the Site. Two geotechnical reports have been prepared by O'Reilly, Talbot, & Okun (OTO) discussing the findings.

Subsurface infiltration systems have been designed with a Rawls Rate of 0.27 in/hr. reflecting HSGR C soils. Hydraulic conductivity tests were conducted by OTO at TP-101, 103, and 105 identifying a hydraulic conductivity "K" value of less than 0.1 ft/day (0.05 in/hr)

Groundwater recharge is proposed via two new subsurface infiltration systems. The project is expected to provide a recharge volume in excess of what is required.

Calculations have been provided indicating all BMPs will drawdown within 72 hours.

SW39. Add test pit locations to the Stormwater Management Plans. Recommend providing critical information to plans such as ESHGW elevations and refusal, as applicable.

SW40. The March 15, 2024 report by OTO is identified as a draft report. Provide final report.

SW41. Justify the use of a 0.27 in/hr. infiltration rate for the subsurface infiltration systems. Hydraulic conductivity tests indicate a much lower rate of 0.05 in/hr is reflective of the Site. BETA notes that the in-situ rate is below the minimum allowable infiltration rate of 0.17 in/hr and the geotechnical reports note that soils are not favorable for infiltration.

SW42. Test pits in the eastern portion of the Site were not completed to the proposed system bottom elevation for Detention System-1 and ledge was encountered in some test pits in proximity to the proposed system. Additional subsurface explorations should be conducted to ensure the system can be constructed.

SW43. Test pits in the area of Detention System-1 identified significant areas of organics. Discuss how these organics will be accounted for in the design and during construction.

SW44. Additional subsurface explorations should be conducted within the footprints of Infiltration System-3 and -4. Though several test pits have been completed in the general vicinity of these BMPs, none are located within the footprints and ledge was encountered in TP-103 and TP-104.

SW45. Detention Systems-1 and -2 are located below the groundwater elevation and the design calls for a watertight application to be provided by others. Options for the watertight application should be explored during the design process and requirements/specifications should be added to the plans to ensure the system will function as designed.

SW46. Revise Detention System-2 to account for bedrock encountered in test pit TP-110. Bedrock was encountered at elevation 376.5', above the system bottom elevation of 368.25. Also refer to comments related to groundwater.

SW47. Not all impervious area is directed to infiltration practices, provide a capture adjustment calculation (see MassDEP Handbook Vol 3, Ch 1, page 27-29).

SW48. The proposed grading in the eastern portion of the Site as well as the construction of the building and Detention System-1 and -2 will be below existing groundwater. It is anticipated there may be long-term seepage along the easterly slopes. Evaluate groundwater impacts to the slope, flow onto the site, downstream stormwater management systems, and any adjacent residences or wetlands.

SW49. Review model for the following systems:

a. Detention System-1 & -2: The bottom and invert elevations are inconsistent between the model and the plans for both systems. Additionally, these systems have been designated as detention systems, but the only "invert out" elevations listed on the plans are above the respective system bottom elevations.

b. Infiltration System-3 & -4: The bottom and invert elevations are inconsistent between the model and the plans for both systems.

SW50. Provide required mounding analysis where infiltration BMPs have less than 4 feet of separation to estimated seasonal high groundwater.

SW51. Revise drawdown calculations to use an exfiltration rate consistent with the Geotechnical Report.

TOTAL SUSPENDED SOLIDS (STANDARD NUMBER 4): *For new development, stormwater management systems must be designed to remove 80% of the annual load of Total Suspended Solids (TSS)*.

The project includes the following treatment trains:

Treatment Train	SCM 1	SCM 2	Infiltration BMP	TSS Removal %
A	Deep Sump Catch Basin	Water Quality Unit	Subsurface Detention System*	>80%
B	Deep Sump Catch Basin	Water Quality Unit	Subsurface Infiltration System*	>80%

C	None	None	Athletic Field Underdrain	0%

*Portions of the Site will be treated by multiple subsurface systems in series.

The project narrative indicates that at least 80% TSS removal will be provided for treated impervious areas. The proposed infiltration BMPs have been sized to treat the required 1-inch water quality volume for their respective catchment areas. Significant areas of the Site will remain untreated.

Portions of the Site (PWS-5, PWS-7, PWS-8, PWS-10) will not receive any formal treatment except for catch basins.

Per Standard 5, the project may be required to provide at least 44% TSS removal as pretreatment for infiltration BMPs. Pretreatment is provided via deep-sump catch basins and water quality units.

A Long Term Pollution Prevention Plan has not been provided.

SW52. Provide required TSS removal for all impervious areas within the limit of work.

SW53. Review TSS removal calculation for PR-Watershed-5; the calculation lists catch basins, water quality units, and subsurface infiltration systems which are not proposed for this watershed.

SW54. Revise TSS removal calculations to account for subsurface structures where no infiltration is proposed or is feasible.

SW55. Provide TSS removal calculations for PWS-7, PWS-8, and PWS-10.

SW56. Remove pretreatment devices from TSS worksheet for infiltration systems; the 80% TSS removal is inclusive of required pretreatment.

SW57. Provide third party TSS removal rate documentation and sizing calculations for proprietary water quality unit. If manufacturer/model are to be determined in the future the minimum criteria for each unit should be specified.

SW58. Provide calculations for required/provided water quality volume and/or water quality flow rate.

SW59. Provide supporting information for the storage volumes provided, such as a hydroCAD printout of stage/storage.

SW60. Provide Long-Term Pollution Prevention Plan.

HIGHER POTENTIAL POLLUTANT LOADS (STANDARD NUMBER 5): *Stormwater discharges from Land Uses with Higher Potential Pollutant Loads (LUHPPLs) require the use of specific stormwater management BMPs.*

The project includes a large parking lot. Per Standard 5, Parking lots with high-intensity uses (>1,000 vehicle trips per day) are considered LUHPPLs. The applicant has not provided trip generation data but given the large number of parking spaces (>500 spaces) it is possible it may exceed 1,000 vehicle trips per day and would be subject to this standard.

The project meets the additional treatment requirements for LUHPPLs (see standard 4) for areas within the treatment area. Subsurface structures are considered recommended BMPs for use in LUHPPLs. Source control and pollution prevention measures have not been provided.

SW61. Evaluate trip generation and provide the following, if necessary:

- Revise narrative to indicate the Site is a LUHPP.
- Provide oil grit separator, sand filter, filtering bioretention area, or equivalent for treatment trains originating in any LUHPPL area. If the water quality units are intended to satisfy this requirement, provide documentation from manufacturer identifying their suitability for LUHPPLs.
- Provide Source Control and Pollution Prevention Plan.
- Indicate means of emergency shut-off or containment prior to discharge to an infiltration BMP.

CRITICAL AREAS (STANDARD NUMBER 6): *Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas.*

The project is not located in a critical area – **standard not applicable**.

REDEVELOPMENT (STANDARD NUMBER 7): *Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable.*

The narrative states the project qualifies as a redevelopment but that all standards will be met.

SW62. Based upon provided comments, evaluate if all standards can be met.

EROSION AND SEDIMENT CONTROLS (STANDARD NUMBER 8): *Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities.* As the project proposes to disturb greater than one acre of land, a Notice of Intent will be required to file with EPA including development of a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP was not provided with the submission. Erosion control measures are depicted on the plans (C100 to C105) including compost filter sock, stabilized construction entrance, temporary seeding, erosion control blanket, and inlet protection. A basic narrative on proposed erosion controls is provided as an attachment to the Stormwater Report and in the Notice of Intent. The narrative identifies measures for dust control, temporary sediment basins, diversion swales, check dams, dewatering practices, street sweeping, and stabilization requirements.

SW63. The required EPA SWPPP will also need to be filed with the Department of Public Works as part of a Soil Erosion and Sediment Control Plan.

SW64. Provide inspection and maintenance requirements for construction-period erosion controls.

SW65. Provide detail for compost filter sock and clarify if silt fence is proposed per the “silt fence with straw wattle” detail. BETA notes that use of silt fence is typically prohibited in the Town of Franklin.

SW66. Provide detail for proposed erosion control blanket.

SW67. Clarify if all construction traffic will be limited to the southerly entrance. Stabilized construction entrances should be provided at all access point to the site from Tri County Drive.

SW68. In coordination with DPW, provide inlet protection at downgradient catch basins within Tri County Drive. Also, include inlet protection for proposed catch basins within the Site.

SW69. Clarify proposed location of construction staging area. The O&M Plan indicates it will be established “on the existing woodlands.”

SW70. Provide measures to protect open excavations for infiltration structures during construction.

SW71. Provide a general construction sequence including phasing of work on the plan.

OPERATIONS/MAINTENANCE PLAN (STANDARD NUMBER 9): *A Long-Term Operation and Maintenance Plan shall be developed and implemented to ensure that stormwater management systems function as designed.* A Stormwater Operation and Maintenance Manual was provided with the Stormwater Management Report.

SW72. Revise the O&M to include the following information, as required by the Handbook:

- Indicate stormwater management system(s) owners.
- The party or parties responsible for operation and maintenance, including how future property owners will be notified of the presence of the stormwater management system and the requirement for proper operation and maintenance.
- Provide map, drawn to scale, that shows the location of all stormwater BMPs in each treatment train and snow storage areas.
- Provide description of public safety features.
- Provide approximate annual maintenance budget.
- Provide signature of owner on the O&M Plan.

SW73. Include operation and maintenance requirements for vegetated swales and headwalls add to maintenance checklist.

SW74. Revise O&M requirements for infiltration and detentions systems to match manufacturer documentation, which suggests quarterly inspections for the first 12 months.

SW75. Clarify how subsurface system inspection and maintenance is performed. The manufacturer documentation references a manhole that will be visually inspected, but no manholes are proposed in the system footprint. Depict any inspection ports or manholes in plan view.

SW76. Clarify if isolator rows are proposed. A manual from ADS Stormtech is included in the O&M Plan but no such system is identified on the plans.

SW77. Provide manufacturer documentation for inspection and maintenance of water quality units.

SW78. Revise O&M Plan to remove information that does not pertain to the project e.g. “level spreaders” and “police equipment.”

ILLICIT DISCHARGES (STANDARD NUMBER 10): *All illicit discharges to the stormwater management system are prohibited.* A signed Illicit Discharge Compliance Statement was provided with the submission.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.

Stephen Borgatti, PE, MENG
Senior Project Engineer

Matthew J. Crowley, PE
Senior Project Manager

Town of Franklin

355 East Central Street
Franklin, Massachusetts 02038-1352

Phone: (508) 520-4907
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DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

DATE: **May 1, 2024**

TO: **Franklin Planning Board**

FROM: **Department of Planning and Community Development**

RE: **147 Pond St – Tri-County Regional HS**
Site Plan

The DPCD has reviewed the above referenced Site Plan application for the Monday, May 6, 2024 Planning Board meeting and offers the following commentary:

General:

1. The site is at 147 Pond St, and located in the Rural Residential II Zoning District.
2. The proposed project includes the construction of a new High School and demolition of the old High School.
3. The Applicant has filed a NOI with the Conservation Commission.
4. Review letters will be provided from BETA, DPW and Fire.

Comments:

- BETA is reviewing the stormwater report for the Planning Board and Conservation Commissioner together.

TRI-COUNTY REGIONAL VOCATIONAL TECHNICAL HIGH SCHOOL
147 POND ST

FRANKLIN, MA 02038

SITE PLAN REVIEW
Pursuant to M.G.L c. 131 §40
& Franklin Zoning Bylaws Chapter 185

Submitted to:
Town of Franklin Planning Board
Prepared for:
Karen Maguire-School Superintendent
Tri-county Regional Vocational Technical High School
147 Pond St
Franklin, MA 02038

Prepared by:
Stephen Powers PE
Samiotes Consultants, Inc.
20 A Street
Framingham, MA 01701

Architect:
Drummey Rosane Anderson, Inc.
260 Charles Street
Studio 300
Waltham, MA 02453

Land Surveyor:
Samiotes Consultants, Inc.
20 A Street
Framingham, MA 01701

Landscape Architect:
Warner Larson Landscape Architects
130 W Broadway
Boston, MA 02127

Environmental Permitting:
Environmental Consulting & Restoration, LLC
26 Union Street
Plymouth, MA 02360

Photometrics Consultant:
Griffith & Vary, Inc.
12 Kendrick Road
Wareham, MA 02571

Traffic Consultant:
Bryant Associates
90 Canal Street
Boston, MA 02114

Logistics:
Consigli Construction Company
72 Sumner Street
Milford, MA 01757

Sound Consultant:
Acentech
33 Moulton Street
Cambridge, MA 02138

samiotes

April, 2024

TRI-COUNTY VOCATIONAL HIGH SCHOOL
PROJECT NARRATIVE

1.0 Introduction

The existing Tri-County Regional Vocational school site, located at 147 Pond Street in Franklin, The existing school building, constructed in 1977, is a multi-level steel framed, masonry clad building of approximately 285,000 square feet. The school has a current capacity of 1,000 students (including 100 staff) and the proposed program is designed to accommodate the same student/staff population. The site is approximately 60.5 acres. There have been no additions.

The property is abutted by single family residences to the North and West. Larger condominium complex is located to the South/Southeast of the existing site. An open, wooded lot owned by the Town's Affordable Housing Trust is located to the east. The existing site has frontage along both Pond and Old West Central Street. The site slopes downgradient 80-100 feet in height from north/northwest to south/southwest, with the high point northeast of the property and the low point(s) at the bordering vegetated wetlands resource areas along the south and southwest portions of the site. All proposed development will occur on the northern/eastern sides of the wetlands delineation.

1.1 Existing Conditions

The Plan entitled T-1 "Topographic Plan of Land" (by Samiotes Consultants, Inc. last revised March 18, 2024 illustrates the existing conditions, topography, wetland resource areas, vegetation/trees, and hardscape areas using field survey data.

1.2 Regional Context

Land use surrounding the property is a single-family and multi-home residential area, with an open wooded lot located to the East of the school. A Site Locus Plan is located on the Plan Cover sheet and depicts the context of the property in relation to the neighborhood.

1.3 Resource Areas

On March 23, 2023 and February 1, 2024, Brad Holmes of ECR delineated the wetland resource areas throughout the property. The limits of the wetland resource areas are represented on the Topographic Plan of Land, noted in Section 1.1, and was used as the base plan in developing the proposed site improvements.

Wetlands were delineated in accordance with the procedures established in the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) and the Town of Franklin Wetlands Bylaw. Numbered and sequence flags were placed in the field to identify the limit of wetland resource area.

An Abbreviated Notice of Resource Area Delineation (ANRAD) was filed with the Town, with an Order of Resource Area Delineation (ORAD) being issued in April 2024. A Notice of Intent (NOI) is currently on file with the Conservation Commission and will be permitted concurrently with the Site Plan Review through the Planning Board.

2.0 Project Description

The Tri-County High School development will include a new a compact, three-story, rectangular design fitting into the available buildable area into the sloping behind the existing school. The building will be located on a newly created level area located in the area currently being used as a solar field

(The solar field is anticipated to be dismantled and removed in June of 2024). The new school building will be accessed by both the existing driveway (reconfigured to accommodate the proposed development) and a new emergency access drive from the existing access road. The main entrance will be the focal point of the new entrance drive; framed by the three-story vertical stair tower and sloping roof of the library/learning commons. The proposed site include updated athletic fields, parking/drive aisles, pedestrian connectivity (via sidewalks), landscaping, new utilities and a proposed stormwater management system designed in accordance with the Massachusetts DEP Stormwater Standards, as well as the Town of Franklin Stormwater Bylaw. The existing school building will be demolished and removed as part of later construction phases, once the new school building is constructed and is in full operation.

3.0 Stormwater

A proposed stormwater management system is proposed to accommodate an increased rate of runoff and stormwater designed in accordance with the Massachusetts DEP Stormwater Standards, as well as the Town of Franklin Stormwater Bylaw. The full Stormwater Management report is included under separate cover and is being formally reviewed as part of the Notice of Intent submission filed with the Conservation Commission.

Soils:
Soils on the site consist of a mix of hydrological "C", and "D" Soils. The soils resource report, and test pit results conducted on January 16 and March 12, 2024 are located in the Appendix of this report (Note: Two separate reports are included by OTO, Project geotechnical engineers). Soils were generally found to be glacial till with low hydraulic conductivity results (K values < 1ft/day based on infiltrometer testing). Groundwater elevations fluctuated between 3'-9' depending on locations.

Existing Stormwater Management:
The site is 60.3± acres in size, with the existing school building, constructed in 1977, a multi-level steel framed, masonry clad building of approximately 285,000 square feet and existing athletic fields. Per the Record documents (Original 1975 construction drawings) and our on-site existing conditions survey (See: Sheet T-1), the existing stormwater management on the property consists solely of stormwater conveyance with a series of swales, catch basins and drainage manholes, and excludes any use of Best Management Practices (BMPs) throughout the site to meet the MassDEP Stormwater Standards for stormwater. The site does not include mitigation for stormwater quantity or quality. All stormwater runoff appears to be conveyed (untreated) from the North and East portions of the property to low-lying wetland resource areas along the western and southern portions of the property before flowing off-site.

Proposed Stormwater Management System:
The proposed post-development stormwater management system consists of a series of catch basins/drain manholes/water quality units that convey site run-off to one of four (4) underground detention and/or infiltration systems. Detention system #1 is located to the east of the proposed school building within the rear driveway, Detention system #2 is located Southeast of the proposed school building and east of the parking lot area, Infiltration system #3 is located west of the new building within the new front parking lot, and Infiltration system #4 is located within a new parking lot near the site entrance. The underground systems ultimately discharge to existing wetland resource areas and the project's Point of Analysis. It should be noted that underground lined detention systems are being proposed in earthwork cut areas that are within the determined maximum groundwater elevations; as such infiltration requirements for these areas will not be met.

4.0 Utilities:

All existing utilities serving the school will remain in constant operations throughout the construction of the new school in order to serve continuing school operations.

Water Service

Existing Conditions:

According to Record documents (Original 1975 construction drawings), Tri-County Technical High School is serviced by an 8" water main that runs north up Tri-County Drive and loops around the main building. The building is serviced by a 6" Domestic line (Note: The building is not sprinkled so there is no separate fire protection line). Per the original documents, this water service is connected to an 8" water main (Cast Iron) that runs within Old West Central Street. Additionally, there are five (5) existing hydrants located throughout the site. Finally, there appears to be a booster pump station assumed to increase domestic water service pressure to the building. Per communication with the Plumbing Engineer, it is our understanding that there is an interior booster pump located within the building.

Proposed

This design option includes the addition of a new 8" water line that will be connected to the existing 8" Ductile Iron Main in Tri-County Drive (per existing conditions survey) and will extend to the school along the proposed new emergency access drive located at the southern portion of the site. The 8" water main (Final size to be confirmed by Plumbing Engineer) will then loop around the proposed building footprint. A designated fire protection line will be tapped off the water main loop and will connect to the building's mechanical room to serve the new school's fire sprinkler system. A separate domestic water line will be tapped off the same water main loop and will enter at the mechanical room. Capacity requirements are being evaluated by the MEP to confirm the size of the proposed main/services(s). Please note that a portion of the existing 8" water main is proposed to be maintained to service the two (2) outbuildings located to the North as well as provide water for irrigation of the athletic fields. Upgraded water services will be provided for each building and the irrigation system. The site will have six (6) fire hydrants dispersed at various points along the water main loop around the site.

The majority of the existing 8" water main loop around the existing building may be abandoned, but is being reviewed and will remain in-tact for any future potential water needs that the site might have, specifically near the proposed fields at the western parts of the sites.

Sanitary Sewage

Existing Conditions:

According to record documents (Original 1975 construction drawings), Tri-County Technical High School is serviced by 6"-8" VC sanitary lines that run parallel on the north and south sides of the existing gym. The sanitary service extends along the access drive to the main entrance and the north side of the gym. All sanitary service connections appear to exit to the west. An 8" VC sewer main extends south along Tri-County Drive and ties into the municipal system within Old West Central Street.

Proposed

For the new construction design option, most of the existing sanitary sewer infrastructure will be removed/abandoned in place. However, part of the existing sanitary mains will be kept to accommodate new services at the maintenance buildings near the proposed fields. Two (2) new grease traps will be provided at the northeast of the school's footprint near the kitchen, as well as the southwest corner. A new 8" SDR 35 sewer service will tie into the existing sewer main in Tri County Drive, and will run up the proposed access drive located at the southern portion of the site.

Gas Service

Existing Conditions:

The existing gas service enters the building near the front lobby adjacent to the domestic water service. Additionally, it appears that gas main extends to the rear of the property and connects to the building adjacent to the cafeteria.

Proposed:

A new 2" high-pressure gas service line is proposed to service the school, and will be fed from existing infrastructure in Tri County Drive. The gas line will also run along the southern access drive before entering at the school's mechanical room. The gas line will have a new gate valve and gas meter.

Electric & Communication Services

Existing Conditions:

Overhead wires and utility poles running along Old West Central Street and north up Tri-County Road provide primary service to the school. The overhead utilities are directed Northeast through the woods via a utility easement. Telecom services also appear to follow the same path (overhead wires to underground feed).

Additionally, a solar farm was installed approximately 5-6 years ago. It is assumed that this facility supplements the campus electrical use, in addition to feeding unused power back to the electrical grid. The proposed design will require the removal of the solar farm. The solar farm will be removed as part of this project in order to site the new school building.

Proposed:

The primary electric service will run along the new emergency access drive at the southern portion of the site before connecting to multiple transformers at the rear (Eastern) part of the site. Overhead wires will extend from the existing main drive, along the current easement to new utility poles before going underground and routing along the new access drive. New secondary services will then enter the school at the new building's electric distribution room at two locations. Two (2) new emergency generators are also proposed and located near the proposed transformers. It is anticipated that communication cables will follow a similar path as the proposed electric cables. Electrical service to the school will remain uninterrupted throughout construction.

5.0 Traffic:

The existing and proposed student population and support staff will remain the same as part of the proposed program (1,000+/- students; 100 administrative staff). While there is a new emergency access road proposed as part of the reconfigured site design, the traffic pattern will remain relatively the same. Currently, access to the school is provided via curb cuts on Old West Central and Pond Streets. One main two-way access point is provided off of the main driveway to parking areas and secondary drive aisles surrounding the school. The existing two-way access driveway will remain and be reconfigured slightly to the north.

Brennan Consulting is the project traffic engineer and has supplied a traffic memo (dated April 3, 2024) that is included as part of this submittal.

FORM P

APPLICATION FOR APPROVAL OF A SITE PLAN

To the Franklin Planning Board:

The undersigned, herewith, submits the accompanying Site Plan entitled Tri-County Regional Vocational Technical High School for approval under the provisions of the Zoning By-Laws of the Town of Franklin covering Site Plans.

1. Name of Applicant: Tri County Regional Vocational Technical School District
   Address of Applicant: 147 Pond Street, Franklin, MA 02038
   Phone No.: 508-528-5400x101 Email: maguire@tri-county.us (Karen Maguire - Superintendent)

2. Name of Owner (if not the Applicant): _____
   Address of Owner: _____
   Phone No.: _____ Email: _____

3. Name of Engineer: Stephen Powers, PE, Samiotes Consultants, Inc.
   Address of Engineer: 20 A Street, Framingham, MA
   Phone No.: 508-877-6688x14 Email: spowers@samiotes.com

4. Deed of Property recorded with Norfolk Registry of Deeds in Book 5113, Page 538, (or Certificate of Title No. _____)

5. Location and Description of Property:
   Tri-County Regional Vocational Technical High School, 147 Pond Street, Franklin, MA

   Square Footage of Building(s) 156,000
   Assessor's Map 259 Lot 004

6. Purpose of Site Plan: Redevelopment of existing school campus. Proposed new school building and associated reconfigured vehicular and athletic areas

7. List of Waivers Requested (if any): Attach Form R for each waiver

RECEIVED
2024 APR -9 A 9:34
TOWN OF FRANKLIN
TOWN CLERK

Karen M. Maguire
Signature of Applicant

Karen M. Maguire
Print Name of Applicant

Karen M Maguire
Signature of Owner

Karen M. Maguire
Print Name of Owner

CERTIFICATE OF OWNERSHIP

I the undersigned Applicant, do hereby certify to the Town of Franklin, through its Planning Board, that all parties of interest to the below-listed plan are identified in Section B: below,

SECTION A:

Title of Plan: Tri-County Regional Vocational Technical High School

Date of Plan: 3/18/2024 Assessor's Information: 259-004

Prepared by: Drummey Rosane Anderson, Inc., Samiotes Consultants, Inc.

Type of Plan: 81-P; Prelim.; Def.; (Site Plan)

SECTION B:

Name of Record Owner(s): Tri-County Regional Vocational Technical School District

Address of Record Owner(s): 147 Pond Street
Franklin, MA 02038

*If in the name of a Trust, Corporation or Partnership, list the names and addresses of all Trustee(s), Corporate Officer(s) or Partner(s):

*If in the name of a Trust or Corporation, list the Beneficiary(ies) of the Trust or the Shareholder(s) of the Corporation:

*If in the name of a Trust or Corporation, list the date, county, book and page of recording of the Trust Instrument, or the date and State of incorporation:

Executed as a sealed instrument this 1 day of April 2024

Karen M. Maguire
Signature of Applicant

Karen M. Maguire
Print name of Applicant

Karen M. Maguire
Signature of Owner

Karen M. Maguire
Print name of Owner

COMMONWEALTH OF MASSACHUSETTS

Norfolk County ss. 2024

On this 1st day of April 2024, before me, the undersigned notary public, personally appeared Karen M. Maguire *(name of Applicant)*, proved to me through satisfactory evidence of identification, which were known personally to be the person whose name is signed on the preceding document in my presence.

Melissa M. Farrow
(Official signature and seal of notary)
Notary Public:
My Commission Expires: 2/26/27

Melissa M. Farrow
NOTARY PUBLIC
Commonwealth of
Massachusetts
My Commission Expires
2/26/27

Town of Franklin

355 East Central Street
Franklin, Massachusetts 02038-1352

Phone: (508) 520-4907
www.franklinma.gov

PLANNING BOARD

The following notice will be published in the Milford Daily Newspaper once on Monday, April 22, 2024 and again on April 29, 2024

FRANKLIN PLANNING BOARD
PUBLIC HEARING NOTICE

In accordance with the Town of Franklin Zoning By-Laws, the Franklin Planning Board will hold a public hearing at the Town Hall (and can also be attended remotely) on **Monday, May 6, 2024 at 7:00 PM** in the Town Council Chambers of the Franklin Municipal Building, 355 East Central Street, for a Site Plan application titled "Tri-County Regional Vocational Technical High School" prepared by Stephen Powers of Samiotes Consultants Inc., Southborough, MA and submitted to the Department of Planning & Community Development on April 9, 2024, by the Tri-County Regional Vocational Technical School District, Franklin, MA.

The property is located in the Rural Residential II Zoning District (Assessors Map 259 Lot 004) at Tri-County Regional Vocational Technical High School on 147 Pond Street. The Applicant is proposing the redevelopment of the existing school campus for a new school building and associated reconfigured vehicular and athletic areas.

Please note: This will be your only written notice of this public hearing. Should the Planning Board vote to continue this Public Hearing, the date and time will be posted on the Planning Board's website under Agendas.

Please contact the Department of Planning & Community Development at (508) 520-4907 if you require further information or if you need to make arrangements to provide translation services for the hearing impaired, or for persons with language barriers.

Copies of the plan and supporting documentation may be reviewed in the Department of Planning & Community Development during regular office hours.

Greg Rondeau, Chairman