

Town of Franklin

355 East Central Street
Franklin, Massachusetts 02038-1352



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DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

DATE: November 2, 2022
TO: Franklin Planning Board
FROM: Department of Planning and Community Development
RE: 700 Union Street (750 Union St)
Site Plan

General:

1. The site is located at 700 Union Street in the Commercial II Zoning District (Assessors Map 303 Lots 046 & 047).
2. The applicant is proposing to construct a 13,525 sq/ft foot daycare with 50 parking spaces.
3. The Applicant is not required to file with the Conservation Commission.
4. Revised plans were received on November 2, 2022. BETA and Town Engineer are reviewing the plans but do not have letters available in time.

Waivers requested:

1. 185-31.C(4)(e) – Minor light overspill beyond property at driveway location
2. 185-28 - Required sidewalk along frontage
3. 185-29 - Required curbing along frontage
4. 185-32.A - Foundation wall height

Comments from August 8, 2022:

1. The Planning Board was concerned about the 12% grade and asked the Fire review. Fire has submitted a letter.
2. Provide an area for snow storage. One area has been provided.
3. Fencing around the basin in the rear.
4. Provide reinforced concrete detail. Applicant has added to the plans.
5. The Applicant should show on the abutting structures on the site plan.
6. The applicant will need to file with the Design Review Commission for signage and building facade. Applicant has recommendation from Design Review.
7. An ANR plan will need to be filed to combine the lots prior to construction.
8. A traffic Impact Assessment has been submitted by the Applicant. BETA has completed their traffic review and there are no outstanding items.

STONEFIELD

October 28, 2022

Amy Love – Town Planner
Franklin Planning Board
355 East Central Street
Franklin, MA 02038

**RE: Primrose Schools Franchising, Co.
Map 303, Parcels 46 & 47
700-712 Union Street
Town of Franklin, Norfolk County, Massachusetts**

Dear Ms. Love:

Our office is submitting documents on behalf of the Applicant to address comments contained within the latest Board Engineer (BETA Group, Inc.) review letter dated October 11, 2022, and the Town Engineer (Michael Maglio) review letter dated August 4, 2022. Additionally included is a memorandum addressing the relief sought for this application based on the principles of the Dover Amendment. Please find the following items enclosed for your review:

ITEM DESCRIPTION	DATED	COPIES	PREPARED BY
Site Plan Set (24" x 36")	10-28-2022	2	Stonefield Engineering & Design
Site Plan Set (11" x 17")	10-28-2022	5	Stonefield Engineering & Design
Stormwater Pollution Prevention Plan	10-28-2022	2	Stonefield Engineering & Design
Dover Amendment Relief Memorandum	10-28-2022	2	Stonefield Engineering & Design
Hydrant Flow Test Results	10-28-2022	2	Stonefield Engineering & Design

The following is an itemized response to the comments contained within the BETA Group Inc. Site Plan and Special Permit Review Letter dated October 11, 2022. For the sake of brevity, any comments that are statements of fact or have been previously addressed are not included in the response below:

SITE VISIT:

A thorough field review by BETA is currently pending. BETA has reviewed the Site using available aerial imagery and street view photography. Comments associated with this review are as noted throughout this report.

- Provide existing conditions information for the area abutting the Site to the northeast, including Spruce Pond Road. Indicate topography in this area and location of existing catch basins within the street to show anticipated flow characteristics of stormwater runoff discharged via the proposed outfalls.*

STONEFIELD: Existing conditions for the area abutting the site to the northeast is provided on the site plans included as part of this submission.

BETA2: Plans revised. Recommend evaluating possibility of a piped connection between OS-2 and the nearby existing culvert to mitigate erosion potential at the steep slope.

A piped connection is not advised to protect the existing heavy vegetation toward the rear of the site. The discharge point and outlet protection shown on the Stormwater Management Plan (Sheet C-6) have been designed to mitigate soil erosion as shown in the Stormwater Pollution Prevention Plan.

STONEFIELDENG.COM

120 WASHINGTON STREET, SALEM, MA 01970 617.203.2076 T.201.340.4472 F.

General:

1. The project as proposed will modify the nature of the stormwater discharge on to the abutting parcel. Based upon the topography, it appears that under existing conditions the majority of site runoff will flow towards a swale along the rear property line and flow from west to east to a low point at the northeast corner of the lot. The applicant should note if there are any easement rights for this flow condition and if they apply to the proposed conditions.

STONEFIELD: The existing storm and drainage easement associated with the outfall in the rear of the site are provided as part of this submission. This documentation has also been approved for compliance by the town DPW.

BETA2: Information provided. Depict location of referenced easements on the plans and provide plan showing that the subject parcel is one of the subdivided lots benefitted by the easement. BETA defers to the Town whether modification of flow characteristics falls under the rights granted by the easement.

The Applicant is agreeable to provide this information as a condition of approval. The easement and deeds recorded with the Norfolk County Registry of Deeds specify that the necessary agreements are in place for the project site utilizing the existing sewer and drain easements.

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

1. Review grading of gravel access road to confirm that vertical curves can be safely traveled by a Town of Westwood Fire Apparatus.

STONEFIELD: The proposed gravel access path is designed at a maximum slope of 10% and to function safely for access by emergency vehicles.

BETA2: The proposed access road as designed will require two vertical curves: one which transitions from the Union Street cross slope to the 10% downslope, and one which transitions from the 10% downslope to the 1% ± bottom area. Vertical curves must be designed such that a fire apparatus or other vehicle will not get stuck while navigating these curves. Provide profile for access road with curve lengths and rate of vertical curvature (K) identified. Also review driveway entrance to ensure a fire apparatus can safely navigate the turn from Union Street onto the access road. Recommend coordinating with Fire Department to design access road to their satisfaction.

Both proposed driveways along Union Street have been revised to have a maximum slope of 8% which gradually flattens to 1% and 4.5% respectively for the fire access and site access as shown on the Grading Plan (Sheet C-5).

LIGHTING (§185-31.C(4)(E)):

1. Request waiver for light spillage beyond the limit of the property (§185-31.C(4)(e)).

STONEFIELD: A waiver is requested for light spillage beyond the limit of the property, as noted in the waiver request memorandum included as part of this submission. It should be noted that the spillage occurs at the proposed driveway location.

BETA2: BETA defers to the Town regarding the proposed waiver.

Acknowledged.

STORMWATER MANAGEMENT:

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

STONEFIELD: A waiver is requested for the utilization of reinforced concrete drainage pipes, as noted in the waiver request memorandum included as part of this submission.

BETA2: BETA defers to the Town regarding the proposed waiver.

All proposed drainage pipes, other than the subsurface infiltration structures, have been revised to be reinforced concrete pipe as shown on the Stormwater Management Plan (Sheet C-6).

2. Revise catch basin detail to include a 4' sump (§300-11.B(3.c)).

STONEFIELD: The Double Grate Catch Basin Detail now provides a 4' sump note on Sheet C-14 and a Hood and Sump detail is has been added on Sheet C-15 of the site plans included as part of this submission.

BETA2: Detail revised. Correct Double Grate Catch Basin Detail to specifically call out 4' sump depth.

Inverts for the 4-foot sumps within the proposed Double Grate Catch Basins have been provided on the Stormwater Management Plan (Sheet C-6).

3. Provide table comparing pre- and post-development runoff volume

STONEFIELD: A table comparing pre- and post-development runoff volume is provided within the SWPPP included as part of this submission.

BETA2: Table provided. The proposed design will result in a 1.54% increase in runoff volume during the 100- year storm event. Provide information on the Quince Island Road drainage system outfall to evaluate potential increase in off-site flooding.

A subsurface structural infiltration basin has been added to the parking area to decrease the runoff volume for the 100-year storm event as shown on the Stormwater Management Plan (Sheet C-6). Calculations have been included in the revised Stormwater Pollution Prevention Plan.

4. Provide data quantifying the anticipated rate of infiltration through the artificial turf layer. Provide means of ensuring that stormwater runoff will flow into the artificial turf layer rather than flowing to the north and west.

STONEFIELD: Tested infiltration rates through the artificial turf layer are included as part of this submission. It should be noted the infiltration rate through the turf surface far exceeds the infiltration rate of a typical porous asphalt or pervious paver system.

BETA2: Data provided. Provide means of ensuring that stormwater runoff will flow into the artificial turf layer rather than flowing to the north and west.

A ridgeline has been defined to show flow patterns as shown on the Grading Plan (Sheet C-5).

5. Provide calculations for provided recharge volume. Due to the proposed low-flow outlets, there is no static storage within this basin and calculations to support dynamic storage have not been provided.

STONEFIELD: Calculations of the proposed recharge volume are provided within the SWPPP included as part of this submission.

BETA2: See #8 below

Acknowledged.

6. Provide impervious barrier, typically a curb, through emergency spillway riprap to prevent flows through the spillway below the intended invert elevation.

STONEFIELD: Concrete curb spillway enforcement is now provided. Please refer to Stormwater Management Plan (Sheet C-6) and Construction Details (Sheet C-14) of the site plans included as part of this submission.

BETA2: Revise detail to show top of curb at the top of spillway elevation. As designed, the spillway will be obstructed.

The emergency spillway detail has been revised to show the top of curb at the top of spillway elevation as shown on the Construction Details (Sheet C-14, Detail 8).

7. Provide calculations for provided total phosphorus (TP) removal and total nitrogen removal (TN) (BDPG).

STONEFIELD: Because the provided water quality volume exceeds the required minimum by 6,687 CF, the project is therefore not subject to the Town of Franklin's treatment requirements (90% average annual post-construction Total Suspended Solids (TSS) removal and 60% Total Phosphorus (TP) removal) and has been designed to meet the MassDEP 80% TSS treatment requirement standard.

BETA2: See #8 below

Acknowledged.

8. Refer to comment SW13 above for determination of water quality volume, accounting for runoff that will bypass treatment via the low-flow outlets. If the project cannot retain the 1.0-inch water quality volume on-site, the treatment train must provide 90% TSS removal and 60% Phosphorus removal.

STONEFIELD: An anti-float pad for OS- 1 is proposed within the aboveground infiltration basin. Please refer to Stormwater Management Plan (Sheet C-6) and Construction Details (Sheet C-15) of the site plans included as part of this submission. [BETA anticipates this response was erroneously duplicated from SW-1]

BETA2: The basin design has been revised such that there is now storage between the basin bottom and the lowest invert. However, most of the water quality volume is provided via the subsurface drainage system, with only a small storage volume available in the above-ground basin. This will limit the water quality treatment provided by the above-ground basin. Revise above-ground basin such that it has adequate storage to treat the 1-inch water quality volume from its contributing impervious area.

The stormwater management system has been revised to include an additional subsurface structural infiltration basin as shown on the Stormwater Management Plan (Sheet C-6). All basins treat the 1-inch water quality volume from its contributory impervious areas as outlined in the Stormwater Pollution Prevention Plan.

9. Provide Long-Term Pollution Prevention Plan or include required measures as part of the Operation & Maintenance Plan.
STONEFIELD: A long-term pollution prevention plan is provided in the SWPPP included as part of this submission.

BETA2: BETA could not locate this plan. Required content of the long-term pollution prevention plan is outlined in Volume 1, Chapter 1, Page 9 of the MA Stormwater Handbook.

A revised Stormwater Pollution Prevention Plan will be provided as a condition of approval.

10. Provide Stormwater Pollution Prevention Plan (SWPPP).
STONEFIELD: A stormwater pollution prevention plan is included as part of this submission.

BETA2: Though the Stormwater Report has been titled as a SWPPP, it lacks much of the required information required for an EPA NPDES permit. BETA recommends the use of the SWPPP template available on the EPA website.

A revised Stormwater Pollution Prevention Plan will be provided as a condition of approval.

11. Provide description of all construction and stockpile and/or excess materials removed from the Site of expected to be stored on-site (§153-12.L).

STONEFIELD: Description of all stockpile materials and/or excess materials to be removed from the site is provided under Section 3.0 - Proposed Conditions of the SWPPP included as part of this submission.

BETA2: Recommend that SWPPP prepared in conjunction with the EPA filing and the DPW stormwater permit include language associated with both proposed stockpile locations and protection measures. (See SW22 above)

A revised Stormwater Pollution Prevention Plan will be provided as a condition of approval.

12. Provide owner signature (§153-18.B(5)).
STONEFIELD: Owner's signature to be provided prior to construction or final approval.

BETA2: BETA recommends including the signature as a Condition of Approval.

The owner's signature will be provided as a Condition of Approval.

13. Provide signature of owner on the illicit discharge compliance statement.
STONEFIELD: Owner's signature to be provided prior to construction or final approval.

BETA2: BETA recommends including the signature as a Condition of Approval.

The owner's signature will be provided as a Condition of Approval.

The following is an itemized response to the comments contained within the Town Engineer (Michael Maglio) Review Letter dated October 11, 2022:

1. *Applications that may need to be filed with the Franklin Department of Public Works include (but are not necessarily limited to) a Soil Erosion and Sediment Control Plan Certification Permit, a Water and Sewer Permit, a Street Excavation Permit and a Public Way Access Permit.*

Acknowledged.

2. *The domestic water and fire service taps shall be two separate taps coming off the main in Union Street.*

The domestic water and fire services have been revised to include two (2) separate taps coming off the main within Union Street. Please refer to the Utility Plan (Sheet C-7) of the site plans included as part of this submission.

3. *The applicant has previously submitted a copy of the easement from the abutting condominium development giving them the right to connect to the existing sewer at the rear of the property.*

Acknowledged.

4. *A test pit should be performed prior to construction to verify the location of the sewer stub at the rear of the property.*

A test pit will be conducted to confirm the location of the sewer stub at the rear of the property prior to construction. A note reaffirming this has been added to the Utility Plan (Sheet C-7) of the site plans included as part of this submission.

5. *The plans include a detail for concrete curb, the Board has typically required concrete curb to be reinforced concrete. We note that vertical granite curb will be required for the entrance radii within the Town right-of-way.*

Granite curb is now proposed at the entrance driveway radii as required. Please refer to the Site Plan (Sheet C-4).

6. *The plans call out for HDPE drainage pipe, however the Board typically requires reinforced concrete pipe for on-site drainage systems.*

All proposed drainage pipes, other than the subsurface infiltration structures, have been revised to be reinforced concrete pipe as shown on the Stormwater Management Plan (Sheet C-6).

7. *In addition to not increasing the peak rate of stormwater runoff from the site, the proposal must also not increase the peak volume of runoff from a site. The applicant should include a table in the stormwater report comparing the pre- vs. post- runoff volumes to go along with the comparison of runoff flow rates.*

Comparison tables with pre- vs. post-construction runoff volume and peak flow rates are included in the Stormwater Pollution Prevention Plan.

8. *The drainage design will need to document that it meets the Town's Stormwater bylaw section 153-16 which requires on site retention of the volume of runoff equal to or greater than 1" multiplied by the total post-construction impervious surface.*

The stormwater management system has been revised to include an additional subsurface structural infiltration basin as shown on the Stormwater Management Plan (Sheet C-6). All basins treat the 1-inch water quality volume from its contributory impervious areas as outlined in the Stormwater Pollution Prevention Plan.

9. *Soil test pit locations should be identified on the plan.*

Soil test pit locations are now identified on the site plans included as part of this submission. Please refer to the Grading Plan (Sheet C-5) and the Stormwater Management Plan (Sheet C-6).

10. *The proposed underground stone infiltration system area B-1 is called out on the plans, but the limits and details of this system are a bit unclear. Is runoff from other areas being directed to this infiltration system?*

The proposed underground infiltration system B-1 is designed to capture drainage from the turf playground area, the building roof, and the sidewalk along the northwestern face of the building. The proposed underground pipe layout is provided on the Stormwater Management Plan (Sheet C-6) of the site plans included as part of this submission. The drainage areas and stormwater facilities are also described in greater detail within the Stormwater Pollution Prevention Plan.

Should you have any questions regarding the submission items or responses above please do not hesitate to contact our office.

Best Regards,



Joshua Kline, PE
Stonefield Engineering and Design, LLC

Via FedEx

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STONEFIELD

October 28, 2022

Dover Amendment Relief Memorandum

TO: Franklin Planning Board

FR: Stonefield Engineering

RE: Primrose Schools, Application for Site Plan Approval
700-712 Union Street
Request for Dover Amendment Relief

Please be informed that Stonefield represents Primrose with regard to an application for site plan approval for a child care facility at the above-referenced address.

As a child care center or school aged child care program, Primrose is protected by G.L. c. 40A, s. 3, the "Dover Amendment." The statute states the following:

No zoning ordinance or bylaw in any city or town shall prohibit, or require a special permit for, the use of land or structures, or the expansion of existing structures, for the primary, accessory or incidental purpose of operating a child care facility; 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. As used in this paragraph, the term "child care facility" shall mean a child care center or a school-aged child care program, as defined in section 1A of chapter 15D.

The protection afforded child care centers equals that provided to religious and educational institutions under the Dover Amendment. *Petrucchi v. Board of Appeals of Westwood*, 45 Mass. App. Ct. 818, 822 (1998). Generally speaking, a use protected by the Dover Amendment may not be prohibited or made subject to a special permit requirement. However, it can be made 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. No "waiver" or variance is required to obtain this relief.¹

Instead, a Dover-related use may seek relief from those local regulations that impact use or operation of the facility. The test was first explained by the Supreme Judicial Court in *Trustees of Tufts College v. City of Medford*, 415 Mass. 753 (1993). The college proposed construction of several buildings and additions to others on its Medford campus. When the city applied its generic dimensional, parking, and loading space requirements to the proposal, the college invoked the educational use exemption. The Court announced just how to resolve such disputes:

[T]he question of reasonableness of a local zoning requirement, as applied to a proposed educational use, will depend on the particular facts of each case. Because local zoning laws are intended to be uniformly applied, an educational institution making challenges similar to those made by Tufts will bear the burden of proving that the local requirements are unreasonable as applied to its proposed project.

¹ See, *Trustees of Tufts College v. City of Medford*, at 760; *Campbell v. City Council of Lynn*, 415 Mass. 772, 778 n.2 (1993); *Petrucchi*, at 824.

The educational [or religious] institution might do so by demonstrating that compliance would substantially diminish or detract from the usefulness of a proposed structure, or impair the character of the institution's campus, without appreciably advancing the municipality's legitimate concerns. Excessive cost of compliance with a requirement imposed on an educational [or religious] institution, without significant gain in terms of municipal concerns, might also qualify as unreasonable regulation of an educational [or religious] use.

When compliance will involve no significant cost or other hardship to an educational [or religious] institution, and does not interfere to any appreciable extent with the institution's plans, the institution has failed to make out a case that the requirement, as applied, is unreasonable.

Several aspects of the proposed Primrose project require relief under the Dover Amendment. The following matrix identifies the local regulation, its subject matter, and the reason(s) Primrose requests relief:

Zoning Bylaw	Topic	Reason for Requested Relief
s. 185-31.C(4)(e)	Minor light overspill beyond property at driveway location	Lighting has been designed to provide the minimum illumination necessary for the safety and security of the proposed facility
s. 185-28	Required sidewalk along frontage	Regulation imposes costs without any benefit
s. 185-29	Required curbing along frontage	Regulation imposes costs without any benefit
s. 185-32.A	Foundation wall height	Impairs usefulness of the rear of the property; Excessive cost of compliance

Conclusion

Under the balancing test set forth in *Tufts College*, Primrose is entitled to relief under the Dover Amendment. Please let me know if you have any questions. Thank you for your consideration.



Joshua H. Kline, PE
Stonefield Engineering and Design



October 05, 2022

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

Re: 700-712 Union Street (Primrose School)
Site Plan and Special Permit Review
Traffic Review

Dear Mr. Rondeau:

BETA Group, Inc. (BETA) has reviewed documents for the project entitled: Primrose School located at 700-712 Union Street in Franklin, MA. This letter is provided to present 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 (16 sheets) entitled: Site Plan Set for Primrose School Franchising Company Proposed Child Day Care Facility dated June 22, 2022, revised September 23, 2022, prepared by Stonefield Engineering & Design, LLC. of Salem, MA.
- Traffic Impact Assessment, dated June 22, 2022, revised September 23, 2022, prepared by Stonefield Engineering & Design, LLC.

INTRODUCTION

The project site is approximately 2.6 acres and is located at the corner of Union Street and Spruce Pond Road in the Town of Franklin (the "Site"). The Site is located within the Commercial II zoning district.

The existing Site is an area of open space with various amenities including a playground, basketball court, and two sheds. The majority of the Site is an open field and is bordered by a fence. A sidewalk is present along Union Street on the opposite side of the roadway from the Site.

FINDINGS, COMMENTS AND RECOMMENDATIONS

To help with the review, the Stonefield response to the 1st review will be labeled "STONEFIELD". The BETA response to these comments will follow the Stonefield response and be labeled "BETA2".

The proposed development would consist of a 13,525± sq. ft. one-story childcare facility with 50 parking spaces. Access to the Site is proposed via a new curb cut and driveway along Union Street at the southeastern corner of the Site.

The study area includes the signalized intersection of King Street at Union Street, in addition to the unsignalized access driveway intersection with Union Street.

- T1. Previous studies in the area, including the 700 Union Street development, have additionally included the signalized intersections of King Street at Interstate 495 (I-495) Northbound Ramps, King Street at I-495

Southbound Ramps, and King Street at Constitution Boulevard. Clarify why these intersections are missing as they operate under coordinated conditions.

STONEFIELD: Per the Massachusetts Department of Transportation (MassDOT) Transportation Impact Assessment (TIA) Guidelines, "intersections (to be assessed by approach) or roadway segments where site-generated trips increase the peak hour traffic volumes by a) five (5) percent or more or b) by more than 100 vehicles per hour should be included in the study." Based on a review of the 2021 Existing Traffic Volume data presented in the "Response to Peer Review Update" prepared by Vanasse & Associates, Inc. (VAI), dated January 10, 2022 for the proposed warehouse development at 585 King Street, and the site-generated trip assignment for the proposed child care center, the anticipated subject site impacts would not exceed the thresholds identified within the MassDOT TIA guidelines at the signalized intersections of King Street at Interstate 495 (I-495) Northbound Ramps, King Street at I-495 Southbound Ramps, and King Street at Constitution Boulevard. As such, as the development is not anticipated to have a significant adverse impact on the signal operations at these intersections, an analysis of these intersections was not deemed necessary.

BETA2: Information provided. No further comment.

- T2. The timing directives mentioned in the report are missing from the Appendix. Provide the information for reference.

STONEFIELD: Traffic Signal Plans provided by MassDOT pertaining to the study intersection of King Street and Union Street utilized for analysis purposes are contained within the Technical Appendix of the Traffic Impact Assessment prepared by Stonefield.

BETA2: Information provided. No further comment.

2022 EXISTING TRAFFIC VOLUMES

Traffic volume data was obtained from a Traffic Impact Assessment prepared by Vanasse & Associates, Inc. (VAI) dated October 2021 for the proposed development located at 585 King Street in Franklin, MA.

This included manual turning movement counts (TMCs) taken on Wednesday, May 26th, 2021, from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM and automatic traffic recorder (ATR) on King Street over a 48-hour period on Wednesday, May 26th and Thursday, May 27th, 2021. To account for the difference in traffic patterns due to the pandemic, permanent count station data from 2018 was compared to the 2021 data by VAI. The existing 2021 volumes were increased by 6.1% to account for the volume reduction due to the pandemic. Additionally, the proponent applied a 1.0% growth rate to bring the 2021 volume to 2022 in the report.

The base volumes used in this study were taken from the original 585 King Street TIA prior to any peer review comments. As part of the 585 King Street project review, the 2021 volumes were compared with 2018 volumes presented in the 700 Union Street Traffic Study. This comparison found several movements were lower in 2021 than in 2018. In particular, the Union Street southbound AM & PM right-turn movement, and the King Street through movements and Union Street northbound left-turn movements during the AM peak.

MassDOT recently updated their volume data policies stating traffic data collected after May 1st, 2022, is generally considered typical for "post-pandemic" conditions, with the application of adjustments as needed.

- T3. Consideration should be given to collecting AM and PM peak hour data at the intersection to verify the data provided in this study.

STONEFIELD: Given that there is acceptable pre-COVID-19 traffic volume data available in connection with the other planned developments within the subject site vicinity, and per consultations with BETA, it was deemed that collection of new traffic count data is not necessary at this time.

In order to address comments contained within the subject review letter regarding the difference in the identified turning movements from the 2018 versus 2021 historical traffic volumes at the study intersection, the analysis was updated to reflect the revisions contained within the "Response to Peer Review Update" prepared by Vanasse & Associates, Inc. (VAI), dated January 10, 2022, for the proposed warehouse development at 585 King Street. These revisions include the use of turning movement counts collected in 2018 which were grown to 2021 in accordance with "Guidance on Traffic Counting Data," published by MassDOT in April 2020, rather than utilizing 2021 turning movement counts. Note the 2021 Existing Traffic Volumes presented within the aforementioned response letter were conservatively grown by 1.0% for one (1) year to illustrate the 2022 Existing Traffic Volumes utilized within the enclosed Traffic Impact Assessment. The Level of Service analysis of the 2022 Existing, 2029 No-Build, and 2029 Build Conditions was revised accordingly within the Traffic Impact Assessment. Based on the analysis findings, the proposed development would not have a significant impact on the operations of the adjacent roadway network.

BETA2: Information provided. No further comment.

MOTOR VEHICLE COLLISION ANALYSIS

Crash data were obtained from the MassDOT database for the three-year period from March 1, 2017, to March 1, 2020. Eleven crashes were reported at the intersection over the three-year period which included six angle-type crashes. MassDOT crash data after 2019 is generally deemed "not complete" and may not accurately represent conditions. Crash data from January 2017 to December 2019 may be requested pending the review of additional data/information outlined below.

The crash rate, quantified as crashes per million entering vehicles, was found to be 0.49 MEV for the King Street at Union Street intersection which is lower than both the statewide and District 3 average crash rates for signalized intersections.

- T4. The directional volumes used to calculate the crash rate on the Intersection Crash Rate Worksheet could not be verified. Please clarify how these traffic volumes were developed.

STONEFIELD: The directional volumes and calculations contained within the Crash Intersection Worksheet were revised to be consistent with the 2022 Existing Traffic Volumes illustrated in Figure 2 within the revised Traffic Impact Assessment prepared by Stonefield.

BETA2: Information provided. No further comment.

- T5. The study referenced a "MassDOT Collision Diagram" which was not included in the Appendix. Please provide the Collision Diagram and list of associated crashes for reference.

STONEFIELD: A detailed list of the crashes referred to in the analysis and an updated MassDOT Intersection Crash Rate Worksheet are provided in the Technical Appendix of the revised Traffic Impact Assessment.

BETA2: A MassDOT Collision Diagram, as originally stated, was not provided but it is not necessary for this study. No further comment.

2029 NO-BUILD CONDITION

No-Build traffic volumes were determined by applying a growth rate of 1-percent per year over a seven-year design horizon. This growth rate is consistent with other studies being conducted in the area.

The No-Build condition also includes the addition of the project trips from the proposed developments at 725 Union Street and 585 King Street. The projected trips were then distributed in the study area.

A review of the planned development trip distribution revealed small discrepancies with the number of proposed planned development site trips based on the TIA's for each project. These discrepancies are not expected to significantly impact the conclusions of the Assessment.

TRIP GENERATION

Project-generated traffic volumes were determined by utilizing trip-generation statistics published by the Institute of Transportation Engineers (ITE) for Land Use Code 565 (Day Care Center). The chosen land use is appropriate for the Project. The Project Site is estimated to generate approximately 650 new trips on an average weekday based on the gross floor area (GFA) of the facility. New peak hour trips are estimated to be 149 (79 entering, 70 exiting) in the weekday morning peak hour, and 150 (70 entering, 80 exiting) in the weekday afternoon peak hour.

- T6. BETA understands that there are multiple existing facilities similar to the proposed within the immediate region. Recommend the Applicant collect empirical trip generation data at one or two similar sized facilities to confirm the anticipated trip generation.

STONEFIELD: Stonefield completed a review of empirical data collected at a similar existing Primrose child care center operation in Paramus, New Jersey, and compared the Institute of Transportation Engineers' (ITE) trip generation projections prepared within the Traffic Impact Assessment for the proposed development. It is important to note that the empirical trip generation data is representative of the tenant-specific characteristics associated with the proposed development that would influence typical trip generation patterns. Please note the observed facility operated with 123 students whereas the proposed development would have a capacity of 183 students, and therefore the projections were proportionally increased to provide a conservative analysis. Please refer to Table I below.

TABLE I -TRIP GENERATION COMPARISON

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	Ente	Exit	Total	Ente	Exit	Total
13,525 SF Day Care Center <i>ITE Land Use 565</i>	79	70	149	70	80	150
123-Student Primrose Child Care Center <i>Site-Specific Operations</i>	40	45	95	43	48	91
183-Student Primrose Child Care Center <i>Calibrated Site-Specific Operations</i>	60	67	127	64	71	135

A pass-by rate was applied to the proposed number of site trips. The pass-by rate of 44% was obtained from the ITE's Trip Generation Handbook, 3rd Edition for the weekday evening peak hour. BETA finds this methodology to generally be in accordance with ITE, though notes that the 44% pass-by rate is based on one



Study Site evaluated in 1990, which is not a good representation of what the pass-by rate would be. The proposed Project is located on a spur road nearby an interstate interchange and several other business/commercial parks and uses. It is very likely that some trips will divert from the Interstate and/or King Street to utilize the Site, though these patterns would not be directly apparent.

As shown in Table I, the ITE projection provides a more conservative projection of the anticipated site-generated trips compared to standard Primrose child care center operations. Accordingly, the ITE projections were maintained within the revised Traffic Impact Study. It should be noted that the Site Plan prepared by Stonefield indicates the development will operate with an 8,685-square-foot classroom floor area and a 13,525-square-foot total floor area. The total floor area of 13,525 square feet was conservatively utilized to prepare the trip generation projections and analyses contained within the Traffic Impact Assessment, however it is reasonable to assume that the number of trips generated by the site may be lower than projected within the analysis.

BETA2: Information provided. No further comment.

- T7. BETA recommends that a pass-by rate not be applied to the proposed trips due to the limited study size.

STONEFIELD: Data published within the ITE Trip Generation Manual, 11th Edition is widely accepted within the industry and is reflective of the anticipated portion of site-generated trips which would consist of diverted trips due to motorists temporarily diverting from King Street or 1-495 to complete a trip to the child care center. As stated within the traffic review letter, "it is very likely that some trips will divert from the Interstate and/or King Street to utilize the Site." However, since ITE publishes a pass-by rate for a day care center land use during the weekday evening peak hour only, the applied pass-by credit was removed from the weekday morning peak hour analysis contained within the revised Traffic Impact Assessment in order to provide a conservative analysis.

BETA2: Information provided. No further comment.

Trips were distributed through the study area based on existing travel patterns which BETA finds acceptable for the site location.

COMPARATIVE LEVEL OF SERVICE TABLES

Capacity analyses were performed for the Existing, No-Build, and Build conditions. The analysis results provided show the intersection currently operates, and would continue to operate during the Build condition, at acceptable Level of Service (LOS) C overall, with all approaches operating at LOS D or better during the morning peak period, and LOS E or better during the evening peak No-Build and Build conditions. The proposed driveway would operate at LOS B or better.

- T8. Queue information was not provided. Provide a simple table which shows the average and 95th percentile queue data.

STONEFIELD: The study was updated to provide a summary of the average and 95th percentile queue lengths at the adjacent intersection of King Street and Union Street and at the proposed site driveway along Union Street. Please refer to Tables 7 through 11 within the revised Traffic Impact Assessment prepared by Stonefield.

BETA2: Information provided. No further comment.

- T9. Table 5 of the Assessment should be revised to show the WB Left/Through/Right LOS for Existing, No-Build, and Build operate with LOS C instead of LOS B.

STONEFIELD: The aforementioned correction was applied to Table 5 within the revised Traffic Impact Assessment prepared by Stonefield.

BETA2: Table revised. No further comment.

SIGHT DISTANCE

The available stopping sight distance (SSD) at the site driveway was measured by the proponent and found to exceed the 390 feet minimum required SSD based on the 35-mph posted speed limit. BETA concurs with this assessment with the understanding that any vegetation would be cleared along the site that might restrict the sight line.

SITE CIRCULATION/PARKING

The site was reviewed as part of BETA's peer review letter dated August 4, 2022. The comments below are additional to the comments noted in the prior review.

- T10. Clarify the location of the proposed driveway in relation to the adjacent driveway and driveways on the opposite side of Union Street.

STONEFIELD: In relation to the easterly side of Union Street where the subject property is situated, the proposed site driveway is located approximately 207 feet north of the adjacent Milford-Franklin Eye Center driveway. In relation to the westerly (opposite) side of Union Street, the proposed site driveway is situated between the existing Hampton Inn driveways, approximately 25 feet from the northerly Hampton Inn driveway and approximately 75 feet from the southerly Hampton Inn driveway. Note these measurements do not include the driveway curb radii.

BETA2: Information provided. No further comment.

- T11. Elaborate on the placement and application of the proposed speed bumps. Clarify if these speed bumps have been installed in other day care location parking lots.

STONEFIELD: The proposed speed bump locations have been revised to provide a traffic calming effect along the ingress/egress to the site in order to reduce speeds when entering and exiting the property.

BETA2: The speed bumps have been relocated to the driveway which is an improved location. No further comment.

- T12. Ideally the speed bumps would not be located directly in line with parking spaces. Consideration should be given to installing islands in between the parking for the speed bump placements.

STONEFIELD: The proposed speed bump locations have been revised and no longer conflict with the proposed parking spaces.

BETA2: Speed bumps have been removed adjacent to parking spaces. No further comment.

- T13. Consideration should be given to one-way circulation throughout the parking lot to avoid the added potential conflicts throughout the parking lot given the tight two-way turning locations.

STONEFIELD: The Applicant has agreed to one-way circulation throughout the parking area. It should be noted the drive-aisles, turning radii, and parking space layout meet the Town requirements and are aligned with industry standards.

Mr. Gregory Rondeau, Chairman

October 05, 2022

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BETA2: The circulation has been reconfigured to one-way circulation. No further comment.

T14. Clarify if designated parking will be allocated to the employees and if so, please label.

STONEFIELD: Testimony was provided that employees are instructed to park in the spaces far away from the entrance area. The Applicant is providing designated drop-off and pick-up spaces along the building for parents to utilize.

BETA2: Information provided. No further comment.

T15. Consideration should be given to providing a pedestrian path connecting the parking adjacent to the driveway to the building.

STONEFIELD: The Applicant has provided enhanced measures to ensure safe pedestrian access to the building including introducing one-way circulation, providing designated drop-off/pick-up spaces along the building, and oversized aisles between parking spaces to assist the drop-off/pick-up operation.

BETA2: Information provided. No further comment.

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

Very truly yours,
BETA Group, Inc.



Jaklyn Centracchio, PE, PTOE
Project Manager

cc: Amy Love, Town Planner

Job No: 10519.01