

January 28, 2021

Mr. Richard S. Novak, Chairman
Sherborn Zoning Board of Appeals
Town Hall
19 Washington Street
Sherborn, MA 01770

**Re: Coolidge Crossing
Comprehensive Permit Peer Review
84-86 Coolidge Street
Sherborn, Massachusetts
Responses to Comments**

Dear Mr. Novak:

Baystone Sherborn, LLC and Civil Design Group, LLC (CDG) are in receipt of the peer review memorandum prepared by Tetra Tech (TT), dated January 14, 2021, for the above-referenced project. Our responses are provided below in **bold** following each of TT's comments. Please note that on January 22, 2021, following the issuance of the peer review letter, a full set of civil engineering design plans and a comprehensive stormwater management report were submitted to the Sherborn Zoning Board of Appeals and TT. This new information is referenced throughout this response letter and addresses many of the comments which ask for additional information to be submitted.

SITE PLAN

1. Emergency access to the rear of the buildings has not been proposed. We recommend the Applicant confirm access is acceptable to the Sherborn Fire Department.

The site driveways have been designed to comply with the applicable access standards of the Board of Fire Prevention Regulations (527 CMR 1 Section 18). The applicant has spoken with the Fire Chief and it is our understanding that he finds the proposed access to be acceptable.

2. Secondary emergency access at the rear of the site is predicated on a connection to a proposed road that is part of another development and is not within the control of the Project. We recommend that Project Plans show construction of the emergency access to the public right-of-way unless other documentation can be provided that ensures the off-site work will be complete prior to any request for building permits.

The plan set dated January 22, 2021 depicts the emergency access extending out to Coolidge Street. The applicant has spoken with the Fire Chief and it is our understanding that he finds the emergency access to be acceptable.

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3. Parking and dumpster storage are proposed within the electric easement on the southern side of the site. Please provide confirmation that this is consistent with easement terms.

The project plans are consistent with the language of the utility easement recorded in Middlesex South Registry of Deeds Book 4221 Page 281, which does not prohibit these proposed site features from being located within the easement so long as they do not impede access to the utility lines and their appurtenances. The applicant is in the process of setting up a meeting with Eversource (the easement grantee) to review the project plans.

4. The plans show 200 parking spaces for 120 units (1.67 spaces/unit which exceeds the 1.5 spaces/unit required for Multidwelling Projects). However, some of these spaces are shown within the electric utility easement and we request confirmation that parking is allowed within the easement.

See response to #3 above.

5. The parking stalls are proposed at 20-foot length which is 2 feet longer than standard parking spaces. We understand the additional length provides mitigation for bumper overhang on the adjacent sidewalk. However, reduction in parking space length would decrease overall impervious coverage, locate the development further away from the wetland resource areas and would allow for additional pervious surface to remain at the site.

It is our understanding that parking stalls in the Town of Sherborn are required to be 20' in length to meet the definition of "Parking Space" under section 1.5 of the Town of Sherborn Zoning By-Laws.

6. We recommend a sidewalk connection from the Coolidge Crossing development to the abutting Pulte development if sidewalk is proposed on that Project.

The plans show a trail / path connection to the Pulte development. This is anticipated to be a natural path and not a formal sidewalk.

UTILITY PLAN

7. The plans should show specific connection locations for water and sewer services.

The plan set dated January 22, 2021 depicts the specific connection locations for water and sewer services.

8. The plans do not provide invert information to confirm adequate cover and check for potential conflicts with other utilities. We recommend future plans include a simple roadway/utility profile.

The plan set dated January 22, 2021 includes invert information to confirm adequate cover and to be able to check for potential conflicts with other utilities. Road profiles were not part of the submission as this is not a lineal project but could be prepared if required by the Zoning Board of Appeals.

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9. We recommend the plans show proposed stormwater infrastructure (screened) on the Utility Plan to coordinate all subsurface installations to ensure there are no conflicts.

The plan set dated January 22, 2021 shows proposed stormwater infrastructure (screened) on the Utility Plan to be able to coordinate all subsurface installations and ensure there are no conflicts.

10. The Plans should show electrical connections to proposed garages if power will be provided in those units.

Power will be provided to the garages. The plan set dated January 22, 2021 depicts the electrical connections.

STORMWATER PLAN

11. The proposed Stormwater Plan is lacking detail typically provided to confirm viability of the proposed layout. We request additional engineering design detail be provided demonstrating how the project will meet applicable stormwater performance standards.

The plan set and stormwater management report dated January 22, 2021 provide the requested level of detail to facilitate further review of the stormwater design.

SITE PLANTING PLAN (L1.0)

12. There is no irrigation well proposed for the site. The applicant shall confirm how proposed landscaping will be irrigated as we anticipate limits on using domestic water for irrigation at the site.

The applicant may consider wells for irrigation.

13. Screening of the project is minimal along the eastern property line and the limit of clearing is not defined. We recommend the Applicant coordinate screening along this property line with the abutting project and show all proposed landscaping that will be constructed as part of this Project on the plans.

The plan set dated January 22, 2021 depicts the defined limit of clearing. We currently anticipate that a wooded strip will remain on the adjacent *Meadowbrook Commons* project site to buffer the two projects from one another. The applicant has coordinated closely with Pulte Homes, the developer of *Meadowbrook Commons*, and the two parties agree that any screening in this area would be minimal if at all due to the remaining wooded buffer. Furthermore, any such screening, if determined to be necessary, would be more effective if located on the *Meadowbrook Commons* site given the grade differential between the two developments.

SITE LIGHTING PLAN (L1.1)

14. The Plan appears to depict light trespass on the multiple properties abutting the project. Additionally, photometrics should be provided to determine light values at the property limits and to confirm proposed lighting will not spill over onto adjacent property.

The applicant is in the process of updating the Site Lighting Plans for consistency with the civil plan set dated January 22, 2021 and will provide the updated Site Lighting Plans to the Board. The plan will be adjusted to eliminate spill over onto abutting properties and to include lighting on the buildings.

15. No proposed lighting is shown on the buildings, particularly the rear of each building where we anticipate lighting may be placed at access/egress points. The Plan should be comprehensive and include all proposed lighting for the site.

See response to #14 above.

AMENITY AREA LAYOUT AND MATERIALS PLAN (L2.0)

16. Proposed trees are shown in areas that may conflict with subsurface stormwater management features. Landscaping should be placed only in areas where root intrusion will not cause issues with the proposed stormwater systems.

The applicant is in the process of updating the Landscape Plans for consistency with the civil plan set dated January 22, 2021 and will provide the updated Landscape Plans to the Board.

TYPICAL BUILDING PLANTING PLAN (L3.0)

17. Proposed landscaping is only provided on the front facing portion of the buildings. Additional landscaping may be required at the rear of buildings to mitigate view impacts.

Proposed landscaping at the rear of the buildings was intentionally kept to a minimum to embrace the views of the surrounding natural landscape, which was a fundamental consideration in the siting of the three residential buildings. All three buildings will have unobstructed views to the rear of the natural environment.

STORMWATER

18. The Applicant is proposing five subsurface stormwater basins for stormwater mitigation. The basins may not be viable options for mitigation due to expected height of groundwater at the site and possible presence of ledge. Test pit information has not been provided to confirm viability of these structures.

The plan set and stormwater management report dated January 22, 2021 provide test pit data documenting seasonal high groundwater and ledge conditions throughout the site. The test

pits were performed by the undersigned, a Massachusetts registered professional civil engineer and licensed soil evaluator.

19. It appears a significant amount of off-site area is flowing to the Project site from the east. These areas should be included in the stormwater analysis for the project, particularly if these areas will flow to the proposed basins.

The stormwater management report dated January 22, 2021 accounts for the “run-on” from the off-site areas to the east as requested.

20. Several of the subsurface stormwater basins are located within 50 feet of a wetland resource area. The Handbook recommends infiltration basins be located outside of the 50-foot buffer to limit impacts to the resource area as well as ensure proper functionality of the proposed basins.

The plan set dated January 22, 2021 includes one subsurface stormwater system and two surface basins whose infiltration footprints lie partially within 50' of the wetland line. While we are aware of the 50' setback recommendation in the Handbook, we have designed these systems to provide 4' of separation to seasonal high groundwater, which is double the separation required by the Handbook. Furthermore, the project plans call for an impermeable membrane to be placed on the downgradient side of the subsurface systems to limit lateral exfiltration toward the wetlands and all of the stormwater entering these systems from paved areas of the site will be pre-treated to beyond 44% TSS removal prior to infiltration. SIS-CC-4, which, the closest system to an adjacent wetland line, only manages clean rooftop runoff from a portion of Building 2. In our professional opinion, these design factors justify the infiltration system setbacks as currently proposed.

21. A subsurface stormwater basin is proposed within the electric easement. Please confirm this is consistent with easement terms.

See response to #3 above.

22. It does not appear there will be adequate snow storage at the site and we anticipate the need for snow to be removed and disposed of off-site. Snow removal and disposal should be documented in the site Operation and Maintenance Plan (O&M Plan) required under the Standards and Handbook.

The Long-Term Pollution Prevention Plan contained within the stormwater report dated January 22, 2021 includes a section on snow disposal. Snow storage areas can be depicted on the site plan if required by the Zoning Board of Appeals. The applicant understands and acknowledges that should the on-site snow storage reach full capacity, any additional snow would need to be hauled off-site.

EROSION AND SEDIMENTATION CONTROL

23. The Project will disturb more than an acre of area and likely require coverage under the United States Environmental protection Agency (US EPA) National Pollutant Discharge Elimination

System (NPDES) General Permit for Discharges from Construction Activities (CGP). We recommend a copy of the permit be provided prior to the start of any construction on site.

Noted, the project will be required to obtain coverage under EPA's National Pollutant Discharge Elimination System (NPDES) Construction General Permit. The applicant has no objection to providing a copy of the permit coverage documents to the Zoning Board of Appeals as a condition of approval.

24. The Project will also require an Order of Conditions from the Sherborn Conservation Commission or MA DEP for work within areas subject to jurisdiction under the Massachusetts Wetlands Protection Act. We recommend a copy of the Order of Conditions be provided prior to the start of any construction.

Noted, the project will be required to obtain an Order of Conditions under the Massachusetts Wetlands Protection Act. The applicant will be filing a Notice of Intent with the Sherborn Conservation Commission in the coming days. The applicant has no objection to providing a copy of the Order of Conditions to the Zoning Board of Appeals as a condition of approval.

WATER

25. Please provide a "will serve" letter or similar documentation proving potable water will be provided in the quantity and pressure needed to serve the development's potable and fire protection demands. Without the proposed connection we do not anticipate this project will be viable.

Noted, the project will be dependent on an adequate supply of water in the quantity and pressure needed to serve the development's potable and fire protection demands. While the applicant and its representatives continue to work diligently to finalize the details of the water supply for this project, it is not clear whether that process will be finalized prior to the conclusion of the Comprehensive Permit process. The applicant would therefore suggest a condition of approval requiring the applicant to secure an adequate water supply to support the project.

26. Any offsite water system infrastructure improvements needed to supply the site should be shown on the plans and documentation provided showing rights of access over lands not under the Project's control.

See response to #25 above.

SEWER

27. Please provide a "will serve" letter or similar documentation proving adequate sewer service will be provided to the site. Without the proposed connection to public sewer we do not anticipate this project will be viable.

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Noted, the project is dependent upon a municipal sewer connection. While the applicant and its representatives continue to work diligently to finalize the details of said connection, it is not clear whether that process will be finalized prior to the conclusion of the Comprehensive Permit process. The applicant would therefore suggest a condition of approval requiring the applicant to secure a municipal sewer connection.

28. Please provide pump station and force main design and sizing information and confirm that all pumping equipment is served by emergency power systems.

The proposed *Coolidge Crossing* pump station and force main will be connected to a common force main in the abutting *Meadowbrook Commons* project by Pulte Homes prior to discharging to the municipal sewer system in Natick. The plan set dated January 22, 2021 includes the location of the proposed pump station, the design of the entire *Coolidge Crossing* gravity sewer system contributing to the pump station, and the route of the force main from the pump station to the *Meadowbrook Commons* project. The pump station design will be completed in conjunction with the design of the *Meadowbrook Commons* sewer system and the off-site force main leading to Natick as these systems will all be tied together and will need to function in harmony with one another. The applicant has no objection to providing a copy of the final pump station design to the Zoning Board of Appeals as a condition of approval.

29. Any offsite sewer system infrastructure improvements needed to serve the site should be shown on the plans and documentation provided showing rights of access over lands not under the Project's control.

See response to #25 above. Furthermore, the appropriate easement(s) will be executed to allow the *Coolidge Crossing* sewer to discharge into the *Meadowbrook Commons* sewer system and ultimately to the Natick municipal sewer system. The applicant has no objection to providing a copy of the final easement documents(s) to the Zoning Board of Appeals as a condition of approval.

TRAFFIC

30. The TIAS presents Stopping Sight Distance (SSD) for both the posted speed limit (35 mph) and the observed 85th percentile speed (44 mph); however, Intersection Sight Distance (ISD) is only noted for the posted speed limit. Since the observed 85th percentile travel speeds are higher than the posted speed limit, TT recommends the Applicant include a discussion of the available ISD compared to the desired ISD using the observed travel speed. TT also recommends the Applicant confirm the SSD is listed in the appropriate directions in Table 4, as the available SSD eastbound and westbound appear to be reversed.

Refer to the attached memorandum by MDM Transportation Consultants, Inc., which addresses the traffic comment section of this peer review.

31. As currently shown on the Plan View in Figure 4, the Ideal ISD line is drawn through a wooded area on the site (looking left from the site driveway). There appears to be a number of large trees within

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that wooded area that may hinder the line of sight. The TIAS notes that the recommended sight lines will be satisfied “with selective clearing and grading as part of the installation of the Site driveway.” If any of the trees within the wooded area are to be removed, they should be noted on the plan. The sight triangles and area of clearing for the 44-mph observed speed should be shown on the plan.

See response to #30 above.

32. The crash analysis has generally been prepared in accordance with industry standards and includes an evaluation of data from the MassDOT crash database for the study intersections for the five-year period between 2015 and 2019. However, the volumes included on the crash rate worksheets are inconsistent with the volumes presented in Figure 3. The results of the crash rate calculation with the volumes presented in Figure 3 do not change significantly, however, so no further action is required.

See response to #30 above.

33. Vehicle trip generation estimates for the project were developed based on trip rates published in ITE’s Trip Generation for Land Use Code (LUC) 221 – Multifamily Housing (Mid-Rise) applied to 120 units. The site program evaluated in the TIAS is expected to generate approximately 652 daily trips on a weekday (43 vph during the morning peak hour and 53 vph during the evening peak hour). TT agrees with the trip generation and trip distributed methodology used in the TIAS.

See response to #30 above.

34. The TIAS utilized Highway Capacity Manual (HCM) 6th edition methodology for the unsignalized intersections using Synchro software. TT generally agrees with the methodology used in the TIAS but notes some discrepancies with some of the data inputs used in the analysis (i.e., lane use assumption for the Coolidge Street approach to North Main Street is inconsistent with the text). The TIAS notes that the Coolidge Street eastbound approach is a single lane, while the capacity analysis shows separate left- and right-turn lanes on the approach. If analyzed with a single approach lane, the Coolidge Street eastbound approach is likely to exceed capacity and operate at LOS F during both peak hours under baseline conditions and will worsen under future conditions with and without the proposed project. While the delay for the approach will be higher than reported in the TIAS, the end result is still the same for the eastbound approach (LOS F) under Build conditions. The project is expected to add no more than 24 peak hour trips to the intersection.

See response to #30 above.

35. The Applicant shows a proposed bus shelter and pull-out just south of the site driveway. The shelter is to be located outside of the sight triangle. Since the ideal sight distance shown on Figure 4 was based on the posted speed limit and not the observed 85th percentile speed, this bus shelter may need to be relocated further back from the edge of the roadway to provide an adequate line of sight looking left from the site driveway. Additionally, the need for a bus pull-out is unclear at this location. There was no discussion of any transit in the TIAS. A school bus would be safer stopping directly in the roadway as the bus stops traffic in both directions with the use of the flashing red

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lights and STOP sign. TT recommends the Applicant clarify the need for this bus pull-out and the relocation of the bus shelter to be outside of the ideal ISD line based on the 85th percentile speed.

See response to #30 above.

36. The Applicant shows an entry sign on the Site Planting Plan. It should be confirmed that this entry sign will not interfere with the line of sight looking left from the site driveway or the sign should be relocated.

We trust that the responses provided above and the enclosed plans sufficiently address the comments expressed by TT. Please feel free to contact our office should you have any questions or required further clarification.

Respectfully Submitted,
CIVIL DESIGN GROUP, LLC



Matthew A. Leidner, P.E.
Principal