



Project: CONC-0020

November 2, 2020

Ms. Elizabeth Hughes
Town Planner
Concord Planning Division
141 Keyes Road
Concord, MA 01742

Re: Center & Main – **Response #2 to Town Staff Comments**
Symes Development & Permitting, LLC
Definitive Subdivision Plan #2436
1440-1450 Main Street

Dear Ms. Hughes,

Enclosed please find the following items for resubmittal in response to the updated comments memorialized in writing within this letter:

- Definitive Plan Set; dated Revised October 29, 2020.
- Stormwater Report dated Revised November 2, 2020
- Construction Period Pollution Prevention Plan (CPPP); dated October 30, 2020.
- Long-Term Operation & Maintenance Plan (LTO&M); dated October 30, 2020
-

The following recent documents have also been incorporated into the updated comments:

- 10/7/2020 Letter from Assistant Fire Chief.
- 10/8/2020 Memorandum; To: Town Planner; From; Public Works Engineering Division.

The Revised Stormwater Report and addition of the recent Geoprobe (conducted October, 22, 2020) to the expanded plan set, provide the additional level of detail necessary to overcome any previous argument of improper drainage or adverse drainage which appeared to ignore the Board's rules that post development drainage shall mimic pre-development drainage. The drainage design meets that standard, amongst others and has been presented to the town engineer for review and confirmation.

Overview of Plan Updates:

- ❖ **Two Sheets have been added to plan set in order to provide additional detail and soil information to support presence of suitable material.**
- ❖ **Geoprobe locations conducted by Haley & Aldrich, Inc., added to plans.**
- ❖ **Profile of suitable material depth from soil observations and Geoprobe results provided for Roadways (Sheets 3, 4 & 9) and foundations on Lots 1-5 (Sheet 7).**
- ❖ **The Street Topographic Plan (Sheet 5) has been added to show minimal cut grading necessary to construct subdivision roadway, with labels pointing out where proposed grades match existing grades within turnaround area per regulations.**
- ❖ **The Site Topographic Plan (Sheet 6) has been adjusted to minimize grading on Lots 1-5 along boundary in common with Center Village.**
- ❖ **House footprints have been reduced on Lots, 1, 2 & 5, with a garage under now proposed on Lot 4 to reduce extent of cut volume.**
- ❖ **A Landscape Plan for Lots 1-5 has been prepared showing additional mitigation.**
- ❖ **Required Sight Distance Triangles (See Figure 1; Sheet 3) has been added. House footprint depths (Lot E & Lot F), to be served by town sewer, have been reduced to set driveway access back further from Main Street (Sheet 3).**
- ❖ **Construction Notes per subdivision regulations have been added to plan sheets.**
- ❖ **Utility Plan (Sheet 7) illustrates adjusted locations for underground CMLP services.**
- ❖ **Table 1 - Geoprobe depth results added (Sheet 11) and unwitnessed soil test pit observations (TP D50 – TP D66) also added (Sheet 12).**
- ❖ **Board of Health Conditions of approval added (Sheet 12).**
- ❖ **Construction Entrance widened to accommodate turning movements of trucking and specification for construction fencing along Main Street added (Sheet 13).**
- ❖ **The Resource Area Delineation Plan, referenced in the Order of Resource Area Delineation (ORAD) issued for this Isolated Vegetated Wetland has been incorporated into the Stormwater Report. The information presented on this plan provides proof of runoff onto site from upgradient Junction Square Drive.**

DEPARTMENT OF PLANNING & LAND MANAGEMENT

TOWN PLANNER - REPORT DATE SEPTEMBER 8, 2020

I. Proposed Project

II. Zoning Bylaw Lot Requirements

1. Agreed
2. Agreed
3. Agreed
4. Agreed
5. Building envelopes have been added to Sheets 5 & 6.

Each Proposed Plot Plan, prepared prior to submittal of Building Permit application, will include a Building Envelope along with Calculations confirming compliance with the Building Height. Plan set (Sheets 1, 2 & 5) currently provides a Legend - Zoning District: RC, which states setback requirements.

6. See Comment 5. above.
7. See Comment 5 above.
8. Lot 9 & lot 15 will comply with the corner clearance requirements within the subdivision.
9. Applicant has stated that each dwelling will comply with Maximum Height. Sufficient information to make a Height determination will become available at a later date following approval of the definitive plan. The maximum height determination is an obligation of the Building Commissioner, prior to issuance of a building permit for each individual lot.

III. Subdivision Rules and Regulations

On May 6, 2020, the Planning Board issued a Preliminary Plan Decision with the following conditions for submission of the Definitive Subdivision Plan:

1. Upon submittal of an Earth Removal Special Permit to the Board of Appeals, copies of the application are provided to the Planning Board for review and recommendation.
2. The plan includes, a road cross-section with curbing requirements on Plan & Profile (Sheet 4). Four (4) Hydrant locations are provided on Sheets 3-6. The cul-de-sac turning radius is provided on the Fire Truck Vehicle Turning Path Plan. Provisions for on-street parking and vehicle access appear to be already considered within the regulations. Section 6.8.1 requires a Min. Pavement Width of twenty-six (26) feet in Residence C, as opposed to a lesser Min. Pavement Width of twenty-two (22) feet within Residential Districts AA, A & B.

3. Stormwater BMPs for roadway consists of deep sump hooded catch basins, sediment forebays and underground infiltration systems. Roof drywells have also been provided on a majority of the lots where feasible. The Stormwater Report submitted for review, provides calculations to illustrate no increase in stormwater rate or runoff volume for up to and including the 100-year storm event. Water quality calculations are also included.
4. Stormwater Report has been provided, (See Addendum).
5. The drainage pipe layout has been clarified to indicate that stormwater directed to the sediment forebay does not flow into the subsurface infiltration system.
6. The acronym “DVMH” for Diversion Manhole has been omitted from the plan set.
7. The infiltration systems under each center island have been designed in compliance with the Storm Drainage regulations (Section 6.13) and the Drainage Standards (Section 2.2.4.E.). Above ground, off-line sediment forebays (first flush) have been provided in lieu of a subsurface isolator row, in an effort to alleviate maintenance concerns from town. A Long-Term Operation and Maintenance Manual has been provided under separate cover. Should the town not accept responsibility of the Long-term O&M, then the maintenance of the underground infiltration systems only, shall become the responsibility of a homeowner’s association.
8. Note 1., has been added to Sheet 4 to indicate the Design Speed of the subdivision roadway is twenty-five (25) MPH per regulation 6.8.1 Table 1A.
9. The sidewalk extends around Road A cul-de-sac to the last driveway curb cut (Lot 5).
10. See Definitive Plan (Sheet 2) for Drainage easement locations on Lots 6, 7, 8, 10 & 11.
11. See Staff Comments below for Updates to the Engineering Division Memorandum.
12. Water Service connections are now shown on Plan & Profile (Sheets 3 & 4). See Staff Comments Section below for updates to Water & Sewer Division Memorandum.
13. A water main loop has been provided from Main Street over to Highland Street with easements provided on subdivision Lots 8, 9, 10, 13, 14 & frontage Lot A1 along Highland Street. Water service connections to each lot have been provided from the section of water main located along each respective street frontage. Definitive Subdivision approval is a requirement, per the Public Works, prior to submittal of an application for a water main extension.
14. Agreed, condition of approval.
15. Proposed Street Names for consideration:

Road A: Fowler Lane; Hayden Lane; Hogan Lane
Road B: Hayes Circle; Carter Circle; Sullivan Circle

16. Four (4) hydrants have been provided all within 400-feet of each other.
17. Agreed, condition of approval.
18. The isolated vegetated wetland is jurisdictional under the Army Corps of Engineers and was assigned a File Number: NAE-2020-00193 earlier in the year (January 17, 2020). This was in response to the submittal of a Self-Verification Form (SVNF) for the General Permits for Massachusetts (GPs for MA) associated with the cluster. Additional correspondence with the ACOE Project Manager, will be conducted by the Applicant in association with the final design plans for the conventional subdivision. Similar to water main and septic systems (17. & 19.), a condition of approval prior to site work is appropriate.
19. Agreed, Board of Health Conditions (1.-5.), approved on September 3, 2020, have been added as plan notes (See Detail Sheet 5 of 5).
20. See Comment 19. above.
21. See Comment 19. above.
22. See Comment 19. above.
23. See Comment 19. above.
24. See notes for Electric and Communication lines; Section 6.16; added to Detail Sheet 5 of 5; relating to underground utility requirement.
25. Per discussions with CMLP, the new underground duct bank will now rise up pole #139 to the west of the entrance and connect to the existing overhead system rather than Pole #138 to the east.
26. See Comment 24 above.

IV. Section 5.4 Site Evaluation

5.4.2 A Narrative Statement

- (a) The Engineering Memorandum has been received and design engineer has provided responses (see Section V.B.).
- (b) In response to comments relating to wildlife within the site, our Professional Wetland Scientist, has provided the following additional information, at the request of the Applicant.

The property is not mapped as Estimated Habitats of Rare Wildlife or Priority Habitats of Rare Species by the Division of Fisheries & Wildlife Natural Heritage and Endangered

Species Program (NHESP) according to the current NHESP Atlas. In addition, the property does not contain any certified or potential vernal pools according to the NHESP. On April 16, 2019, Greg J. Hochmuth, PWS, RS, CWS from Williams & Sparages LLC conducted a detailed investigation on the property to evaluate the isolated vegetated wetland (IVW) to determine if it may be functioning as a vernal pool. The IVW did not meet the certification criteria that is detailed in the Division of Fisheries & Wildlife NHESP Guidelines for the Certification of Vernal Pool Habitat, dated March 2009. The IVW is very shallow and underlain with well drained sandy soils. It does not appear that the IVW hold water long enough to support vernal pool species. In most area the IVW was less than knee deep. In addition to the IVW investigation, the Professional Wetland Scientist walked the remainder of the property and no unique wildlife habitat components were noted.

(c) The Engineering Memorandum has been received and the design engineer has provided responses (see Section V.B.).

(d) The Engineering Memorandum has been received and the design engineer has provided responses (see Section V.B.).

(e) See Comment III.18. above.

(f) Vanesse & Associates Inc. has now prepared two traffic response letters dated September 21, 2020 & October 27, 2020.

(g) No additional information has been requested or provided.

(h) See Revenue letter from Symes dated September 30, 2020.

(i) Vanesse & Associates Inc. has prepared a traffic response letter dated September 21, 2020.

(j) No additional information has been requested or provided.

(k) No additional information has been requested or provided.

Subdivision Rules & Regulations Section 6 Design Standards

6.2.1 Protection of Natural Features: Per Section 4.2(a) of the Tree Preservation Bylaw, the requirements of the Tree Bylaw shall not apply to the subdivision of land under the Town of Concord Rules and Regulations.

6.2.2 *Unsuitable Land:*

See Latham Law Offices LLC letter dated September 24, 2020 to the Applicant.

See Patriot Excavating Corporation; Trucking Plan dated September 24, 2020

Geoprobings, to depths up to twenty-five (25') feet were conducted on October 22, 2020 by Haley & Aldrich, Incorporated. The results provide further confirmation that there is suitable soils beneath the surface of the land within roadway layout and lots. See cross-sections and profiles added for Road A (Sheet 9) and Lots 1-6 (Sheet 12). We also added bottom of test pit information along plan and profiles of Road A & B (Sheets 3 & 4).

House boxes on Lot 1 & 2 have been reduced in depth away from Center Village and cut slope adjusted. Also the House box on Lot 5 has been changed to a garage under to reduce cut volume, which reduces cut in rear yard area. A Landscape Plan has been prepared for mitigation, with top of slope pushed away from boundary line, approximately ten (10') feet away from existing six-foot chain link fence along Center Village boundary (Sheet 6).

Section 6.20 Reservation of Land for Public Purposes

No additional information has been requested or provided.

Section 6.21 Reservation of Land for Housing Purposes

. See Latham Law Offices LLC letter dated September 24, 2020 to the Applicant.

V. Town Department Comments

A. Fire Department

A second Letter dated October 7, 2020 has been provided by the Asst. Fire Chief stating that Applicant has now met all requirements.

The Assistant Fire Chief, in Memorandum dated July 30, 2020, appears to simply be rephrasing applicable sections within the Subdivision Rules and Regulations, in a manner which provides more clarity to the Planning Board and parties of interest attending the meetings.

6.8.1 - Table 1A; Minimum Design Standards for Local Streets; (Design Speed 25 MPH).

Max. Grade (Res. AA = 8%; Res. A&B = 8%; Res. C = 7% & Non-Res. = 7%).

Less than 7% Max. Grade has been provided (Road A = 6.8%; Road B = 4.6%).

6.8.9 Intersections:

Intersections shall be designed with a flat grade (not greater than two (2) percent) for a distance of at least sixty (60) feet from the intersection street.

Not greater than two percent has been provided: (Road A = 1.93%; Road B = 1.83%).

6.14.2 Fire Hydrants:

Fire hydrants shall be required for all subdivisions. Hydrants shall be located not more than four hundred (400) feet apart, and shall be approved for location by the Fire Chief.

Four (4) Fire hydrant locations are currently provided on the plan each within 400 ft.

Hydrant #1 - near intersection with Main Street (Road A - STA 0+10).

Hydrant #2 – prior to intersection with Road B (Road A - STA 2+25).

Hydrant #3 – within turnaround of Road A near (STA 6+25).

Hydrant #4 - within turnaround of Road B near (STA 3+50).

B. CPW Engineering Division

ENGINEERING DIVISION – UPDATED MEMORANDUM DATED OCTOBER 8, 2020,
2020

1. 50'-WIDE dimension label has been added to Sheet 2.
2. Districts have been defined; RC – Residence C, WCB – Wetlands Conservancy District.
3. A vertical bar scale has been added to profile sheets.
4. Labels have been added and lines extended within the profile sheets, to indicate left sideline, centerline and right sideline of right-of-way.
5. Design Speed is 25 MPH (6.8.1 Table 1A – Minimum Design Standards for Local Streets); See Note 1., added to Sheet 3.
6. Benchmarks are provided in lower left corner on Sheets 5 & 6.
7. Labels and Notes 2, 3 & 4, have been added to profile (Sheet 3) to designate curb type and locations.

8. Per CMLP Engineer, Street lighting is already present along Main Street at set intervals on the utility poles now properly labeled on plan. Also See Note 26 (Sheet 7).
9. Electrical conduit has been moved back and street trees forward to provide separation.
10. The side entry driveways shown for Lot E & Lot F, are provided in order to properly size the stormwater system. Regulations require us to incorporate all upgradient areas into our watershed calculations which include (Lot E, Lot F & a portion abutting Center Village). Driveways could also come off Main Street, should they be constructed prior to roadway. Actual location will be displayed on Proposed Plot Plan at time of Building Permit Application. At this time, house boxes have been reduced by ten (10') feet away from Main Street.
11. Vanasse & Associates Inc. has prepared a traffic response letter dated September 21, 2020, with a follow-up letter dated October 27, 2020 relative to sight distance triangles.
12. A Legend has been added to Site Evaluation Plan; A majority of the information requested is more accurately provided in clarity within the Definitive Plan Set and Watershed Maps. The existing lawn area labels are limited to along Main Street, with remainder of site woodland.
13. A Long-Term Operation & Maintenance Plan dated October 30, 2020 has been provided.
14. The Stormwater Pollution Prevention Plan is provided as Sheets 13 & 14. The filing of the NPDES will occur a minimum of fourteen days prior to the start of construction.
15. At this time, the updated Stormwater Report calculations for Subcatchments (M1 & M2) show that a rain garden is currently not necessary on Lot D1 or Lot F. A Bioretention Area Detail has been added (Sheet 8) and will be followed, if deemed necessary at time of building permit.
16. The rate and volume increases indicated are to an arbitrary interior analysis point along the edge of Isolated vegetated wetland flags. The ORAD Plan illustrates the existing topography and locations of the five Depressions within this IVW. This does not represent an increase in runoff at the boundary to the upgradient Junction Square Condominium.

Runoff from Junction Square actually discharges onto our site along northeasterly boundary to a low area (Depression Areas #5, #4 & #3) located partially within the Junction Square Open Space Parcel and within our site. The minor increases in question, are collected by Depression Areas (#1 & #2) where the storm events are mitigated in separate low areas located completely within our site, thus resulting in no increase in runoff at the site boundary (See ORAD Plan).

17. We agree to a condition of approval for review of roof drywells, at time of building permit, since the dwelling style, septic design and roof pitches are not yet available for each lot.
18. Roof drywell elevations, with soil testing information, will be included with the septic design for complete review of each lot at time of building permit.
19. Subcatchment P3 has been accounted for and is now connected within the HydroCAD Routing Diagram. The Report and Tables have been updated accordingly.
20. The design of the Underground Infiltration System, under each cul-de-sac island, has been adjusted from the preliminary to be offline and in compliance with the Public Works Drainage Standards; Section 2.2.4. Structural Best Management Practices as follows:

E. Leaching Basins/Drywells/Underground Infiltration Systems:

1. Will be used in areas with highly permeable soils.
2. Has been designed as an offline system.
3. Safe overflow has been provided.
4. Discharge of the overflow has been incorporated into the design.
5. System locations meet minimum building, property line and Title V setbacks.

We are agreeable to a condition requiring a to submittal in writing to the Public Works Commission.

21. The Report does include sediment forebay calculations (See report Section 2.4 – Sediment Forebay Sizing) that show the first 1-inch of flow will enter the forebay.
22. The Routing Diagram has been updated to connect P10 and P11 to each infiltration system and has been reflected in the revised stormwater report.
23. Storm Sewer Design Table has been expanded to include pipe velocities.
24. Inlet grate capacity calculations have also been provided.
25. The Groundwater Mounding Analysis was performed full up to the 100-year storm.
26. Double grate orientations have been updated, with granite curb inlets shown in plan view.
27. Agree, condition of approval.
28. See Patriot Excavating Letter for response.
29. See Symes Supplemental Trucking Letter dated October 30, 2020.

30. A Definitive Street Topographic Plan (Sheet 5) has been added, to illustrate only the cut area grades required to construct the roadways. Please note, labels have been provided indicating where proposed grades match exiting grades within turnaround areas.

The six Geoprobes (GP801 – GP806), conducted by Haley & Aldrich, Inc, provide further confirmation of suitable depths of sand, down to twenty-five (25') feet; (Road A – STA 2+09). Test locations as illustrated by Geoprobe Plan & Profile added to Sheet 9. An additional Plan & Profile has been added for Lots 1-5 (Sheet 7). Soil Observation Depths have also been added to both Street Plan & Profiles (Sheets 3 & 4).

Regardless of additional test pit data, the construction of the roadway within all areas of the right of way is still required to be completed in accordance with the regulations as follows:

Section 6.6 Construction Materials and Materials

6.6.1 *Clearing and Grubbing:* Right of way shall be cleared and grubbed.

6.6.2 *Earth Excavation:* If mucky soils, ledge or clay is encountered then Applicant is required to remove entirely and replace with sand and gravel.

6.6.3 *Ledge Excavation:* If encountered, Applicant is required to remove all boulders or ledge to a required depth below final pavement grade.

6.6.4 *Retaining walls:* Will not be necessary since right-of-way layout is located away from abutting property lines.

6.6.5 *Materials:* Public Works will be conducting inspections to confirm that specifications and standards have been followed.

31. Status of easements will follow typical town guidelines.

32. Agree, condition of approval.

33. Temporary settling basins have been relocated to outside of the forebay areas. Additional details have been added to the SWPPP relative to protection of infiltration systems during construction.

34. Agree, our office is available to meet or discuss with Engineering prior to hearing.

Engineering Division further Comments on 10/8/2020

1. Contours, obtained from the Center Village Site Plan, have been added to the applicable sheets. The proposed cut slope (2:1) has been moved away from the common boundary.

2. See response to Comment #34 above.

C. CPW Water/Sewer Division

1. Common water main: Definitive Plan approval is a requirement prior to Public Works review.
 - a. Water service connections have been added to the plan. Each lot will be served by town water and not a private well. Each service connection from the main to the exterior line of the street right of way will be constructed for each lot. In regards to Lot A1, 14 & 15; connections will be from water main within Highland Street, Road B at (STA 2+00) and Road A at (STA 2+10) respectively
2. Sewer eligibility: Comment is so noted, Final details for each sewer connection will be provided with building permit application, for ANR lots (Lot D1, Lot E & Lot F).
3. Wastewater capacity: Comment is so noted, a Title 5 Building review (Form S) will be prepared for ANR lots (Lot D1, Lot E & Lot F) with associates sewer improvement fee.

D. Concord Municipal Light Plant

We have spoken to the CMLP Engineer on October 20, 2020, and it is our understanding that the definitive plan, as revised, is satisfactory. Street lights are already present along Main Street and connection to overhead will now be from utility pole to the west of entrance.

E. Building Inspections Division

Agreed.

F. Health Division

Agreed.

G. Natural Resources Division

Army Corp of Engineers File Number: NAE-2020-00193 (See comment III.18. above).

H. Planning Division

Runoff from Lot E and Lot F have been included within the Stormwater Report watersheds.

See letter from Latham Law Office, LLC.



Thank you for your attention to this matter, please do not hesitate to contact our office with any questions prior to the next public hearing.

Respectfully,

For WILLIAMS & SPARAGES, LLC

Richard J. Harrington, P.E.

Cc Symes Development & Permitting, LLC
Latham Law Offices, LLC

Response to Town Planner Report - 11.2.2020.docx