



**Department of Public Works – Engineering Division**

Town Hall, 365 Boston Road, Billerica, Massachusetts 01821  
PH: (978) 671-1300

Frederick Russell, PE, PWLF, Director  
Kelley Conway PE, Town Engineer

**MEMORANDUM**

---

To: Planning Board

From: DPW – Engineering Division

Date: November 3, 2025

Re: Site Plan Special Permit Amendment– 0 and 161 Concord Road

---

The Engineering Division has reviewed the plans entitled “*Site Development Plans for Berkeley*” prepared by Bohler Engineering, last revised October 10, 2025. Comments are as follows.

**General Comments:**

1. Respond to all outstanding DPW comments referenced in the Planning Board memorandum dated June 10, 2024 (attached).
2. Update prior review responses as necessary to reflect any plan amendments, including revisions to water usage and sewer flow calculations. If projected site flows have increased, additional sewer review will be required.
3. Submit a revised utility plan and profile for DPW review and approval prior to the issuance of the Foundation Building Permit.

**Please submit a written response to comments and revised plans to the Engineering Division for review and approval prior to Foundation/Building Permit approval.**

If you have any questions, please do not hesitate to contact our office.



## Department of Public Works – Engineering Division

Town Hall, 365 Boston Road, Billerica, Massachusetts 01821  
PH: (978) 671-1300

Frederick Russell, PE, PWLF, Director  
Kelley Conway PE, Town Engineer

### MEMORANDUM

---

To: Planning Board

From: DPW – Engineering Division

Date: June 10, 2024

Re: Site Plan Special Permit – 0 and 161 Concord Road

---

The Engineering Division has reviewed the plans entitled “*Proposed Site Plan Documents for Berkeley*” prepared by Bohler Engineering, dated May 11, 2022, July 28, 2022, and last revised March 1, 2024. The comments below are from our original review letter dated June 1, 2022, then by responses offered in a letter from Bohler Engineering (BE) dated June 29, 2022, then by DPW response dated August 17, 2022, then by response from Bohler Engineering dated April 8, 2024 in italic text and our reply is in bold text.

#### **General Comments:**

1. A downstream sewer analysis and water system review will be required, with the cost to be borne by the Applicant.

BE 7/26/22: The downstream analysis for sewer and water has been initiated and paid for.

DPW 8/17/22: No further comment.

2. Additional offsite utility improvements may be required as will be determined by the sewer analysis, water system review and stormwater review.

BE 7/26/22: The Applicant will be paying approximately \$286,140 to obtain a sewer connection permit. Approximately \$137,200 will be designated for plant expansion. The Applicant agrees to discuss reasonable improvements with the DPW should the downstream analysis call for offsite improvements.

DPW 8/17/22: Analysis is underway. Additional comments are forthcoming.

*BE 4/8/24: The downstream analysis did not identify any offsite improvements based on this proposed project.*

**DPW 6/10/24: Refer to water comments below.**

3. The Developer will be required to fund the Town's Consulting Engineer for both peer review of design plans and construction oversight as needed.

BE 7/26/22: Understood

DPW 8 /16/22: No further comment.

4. The proposed Yankee Doodle Bike Path is at 75% design. The alignment of the bike path runs adjacent to and through the subject property. As part of the re-zoning approval at Town Meeting the Applicant's Attorney stated that there would be full cooperation with the Town in constructing portion of the bike path. Therefore, DPW recommends that, at a minimum, the Developer construct the portion of the bike path that falls within the proposed construction limits of this project. Additionally, DPW recommends that the site development plans be reviewed by VHB, the Consultant for the Yankee Doodle Bike Path, with respect to bike path alignment, intersection layout and traffic signal coordination and that peer review shall be paid for by the Developer. CAD files showing the proposed alignment of the bike path and proposed easements that the Town will be pursuing as the project advances have already been provided to the Developer's Engineer. The proposed site plans must incorporate the proposed bike path location.

BE 7/26/22: The applicant has agreed to construct 370+/- feet of the proposed bike path within the proposed limit of work as shown on the approved site plan. The applicant agrees to discuss minor refinements to the design with the DPW and the Town's consultant.

BE 7/28/22 Updated Response: Based on discussions with the DPW on July 27, the applicant has made updates to the proposed bike path. The applicant will continue to work through minor refinements to the design with the DPW and the Town's consultant.

DPW Per email dated 08/05/22 from Heather Chew to Bohler:

- Please provide a written response to the VHB Memorandum dated 7/20/2022.

*BE 8/9/22: Attached*

- Yesterday, VHB provided the attached plan showing a revised bike path alignment that meets the limit of work to be done by the Developer. DPW would like the developer to construct the necessary improvements at the intersection of the driveway with Concord Road so that disturbance to operation of the property will be minimized

during bike path construction. Please revise plans to show the improvements at the intersection.

BE 8/9/22: The developer agrees to construct the curb radius and accessible ramps as part of the bike path improvement within the limit of work. The layout of the radius and ramps has been provided by VHB, and will be incorporated.

- VHB will be providing limits of proposed permanent and temporary easements by early next week. Please revise plans to show limits of permanent and temporary easements.

BE 8/9/22: The easements will be added to the plan when received.

- Once DPW completes review of the most recent submittal, additional revisions may be necessary. We will forward easement information and our review early next week.

BE 8/9/22: Understood.

DPW 8/17/22: BE has provided a response to VHB memo. Once BE submits revised plans, the response and plans will be forwarded to VHB for review. Temporary and permanent easements for the bike path shall be granted to the Town and in place prior to Building Permit Approval.

*BE 04/08/24: The Applicant has been informed the alignment of the bike path and associated temporary and permanent easements may be changing slightly. The Applicant will review the proposed easements upon receipt. These easements will be granted in good faith prior to construction of the bike path.*

**DPW 6/10/24: Bike path design is still underway. Easement needs and site design will be coordinated as the bike path design advances.**

**Additionally, regarding the existing utility pole guy wire anchor at the corner of the intersection with Concord Rd: The current site plan calls for the guy wire to be “relocated as needed to accommodate new asphalt path”. As part of the Yankee Doodle Bike Path design and utility coordination, MassDOT and National Grid requested that to accommodate the path, a new guy pole needs to be installed across the driveway with an overhead guy wire and a new guy anchor. VHB has provided a markup of the plan with the proposed design shown for reference. (attached at end of this file)**

**Depending on the timing of the project, the new guy pole and overhead guy wire may need to be installed as part of the 161 Concord Rd project. The designer should review and coordinate with National Grid Electric.**

5. The Town is currently exploring a new water main crossing the Concord River that will provide a supplemental connection between the Water Treatment Plant on the north side of the river and the water distribution

system on the south side of the river. There is an existing 24-inch water main extension constructed from the intersection of Middlesex Turnpike and Concord Road running to the northwest under the existing entrance to the subject property that will be abandoned due to issues with depth. The new 24-inch water transmission main will tie into an existing 5-foot deep, 24-inch water main located at the intersection of Middlesex Turnpike and Concord Road and will follow the route of the proposed bike path through the subject property. DPW recommends that the Developer coordinate with the Town's consultant to show the new 24-inch transmission main on the site plans and at a minimum install the portion of the main that is on site. This was previously discussed with the Applicant's Engineer and Attorney.

BE 7/26/22: The applicant has ongoing coordination with the DPW on the 24" water main. Following the coordination effort, the applicant will provide an updated plan set reflecting the agreed upon improvements within the proposed limit of work.

BE 7/28/22 Updated Response: Based on discussions with the DPW on July 27, the applicant will work with the DPW to identify the location that the existing 24" water main exceeds 8' of cover, and the applicant will vertically relocate the applicable section of 24" watermain. Furthermore, the applicant will install new 24" water main at the typical 5' of cover to the limit of work for the proposed project. The applicant agrees to discuss minor refinements of the design and details with the DPW and Town's consultant. The attached updated plan set shows the above improvements.

DPW 8/17/22: Plans are currently under review by the Town's consultant. Additional comments are forthcoming. Temporary and permanent easements for the water main shall be granted to the Town and in place prior to Building Permit Approval.

*BE 04/08/24: The Town's consultant reviewed the portion of 24" water main within this project's limit of work and did not have further comment. The applicant will modify the existing water easement to reflect this new layout and limit of work prior to Building Permit Approval.*

**DPW 6/10/24: Easement needs will be coordinated as the design advances.**

6. Provide the Engineering Division with a plan and profile of the existing drainage that was constructed as part of the 2008 Site Plan Special Permit Modification that was approved by the Planning Board on April 30, 2008.

BE 7/26/22: The plan and profiles will be provided in the final plan set that includes the agreed upon bike path and water main layout within the

proposed limit of work as ongoing coordination may impact this information.

BE 7/28/22 Updated Response: The attached updated plan set provides the requested profiles.

DPW 8/17/22: The profile on C-801 does not show all of the existing drainage. Revise plan to show corresponding stationing and profile to show the first drain manhole that is approximately 100 feet north of the Town detention basin. Additionally, revise plan and profile to show connectivity of existing site drainage and connectivity of existing Town drainage in the driveway. The two catch basins near the existing hydrant in the driveway may connect to a manhole that has not been located by survey and the proposed water main may conflict with the **existing** drainage system. The site drainage shall remain separate from the Town drainage unless the Applicant intends to take over maintenance responsibilities of the Town's drainage system downstream of the connection.

*BE 04/08/24: Plans have been revised to show stationing corresponding to the profiles. The first drain manhole and its connection to the two catch basins near the existing hydrant is now shown.*

**DPW 6/10/24: Refer to drainage comment #15.**

7. The drainage easement (Book 23144-40) does not encompass the existing drainage as shown on the Existing Conditions Plan dated March 31, 2022. This drainage was constructed to accommodate the 2008 Site Plan Special Permit Modification. The grant of easement expressly prohibits relocation of the easement, but location of this easement will need to be modified so that it encompasses the existing drainage outlet from the drainage basin near the entrance to the property. The Town will not be responsible for maintenance of the drainage system that is not associated with Concord Road.

BE 7/26/22: The applicant will work with the Town in good faith to update the easement to encompass the existing drainage from the Town-owned basin serving Concord Road.

DPW 8/17/22: Modification to the drainage easement must be provided prior to DPW approval of Building Permit. Additionally permanent and temporary bike path easements shall be in place prior to approval of a Building Permit.

*BE 04/08/24: The applicant will modify the existing drainage easement to reflect the current existing conditions prior to Building Permit Approval. Please refer to Comment #4 response for permanent and temporary bike path easements.*

**DPW 6/10/24: No further comment.**

8. Provide a profile of the proposed driveway showing existing and proposed utilities. Ensure that cover depths are adequate over existing and proposed utilities.

BE 7/26/22: The driveway profile will be provided in the final plan set that includes the agreed upon bike path and water main layout within the proposed limit of work as ongoing coordination may impact this information.

BE 7/28/22 Updated Response: The attached updated plan set provides the requested profiles.

DPW 8/17/22: Refer to Comment 6.

*BE 04/08/24: The profiles have been updated to show the existing drainage and utilities.*

**DPW 6/10/24: No further comment.**

9. Provide additional top and bottom of wall elevations on the wall in the vicinity of Wetland Flags WFA-12 through WFA-22.

BE 7/26/22: Additional detail to the wall elevations have been added.

DPW 8/17/22: No further comment.

**DPW 6/10/24: Retaining walls over 4 feet in height shall be designed by a Registered Structural Engineer. Construction shall be overseen and certified by a Professional Structural Engineer.**

10. DPW fees will be due prior to Building Permit approval for the new building. Provide detailed water and sewer use projections for the development, including the number of employees and any water usage in labs. Contact the Operations Supervisor for questions regarding DPW fees.

BE 7/26/22: Understood that DPW fees will be required prior to Building Permit. Based on similar projects, it is anticipated that the sewer and water generation for the Project will be generally equivalent to an office use in terms of building functionality and associated Title V generation rates. There is currently no lab use generation rate provided under Title V, so this has been a commonly accepted approach in the industry. Accordingly, we have estimated the usage in the below table. The demand and usage can vary tenant to tenant and will be refined and reviewed further with the Town and DPW once a tenant has been identified.

**Proposed Sewer Generation**

<i>Proposed Use</i>	<i>Quantity</i>	<i>Sewer Generation Rate*</i>	<i>Estimated Sewer Flow (GPD)</i>
<i>GMP Lab Facility (functionally office)</i>	<i>203,260 GSF</i>	<i>75 GPD/1,000 GSF</i>	<i>15,245</i>

*\*Estimated sewer flows are based on 310 CMR 15.203*

DPW 8/17/22: Fees will be revisited during application for tenant fit-up.

BE 04/08/24: Understood.

**DPW 6/10/24: No further comment.**

11. A Street Opening Permit will be required for the utility work within the right of way and curb cut for the new entrance proposed at the southeast portion of the site on Concord Road.

BE 7/26/22: Understood.

DPW 8/17/22: No further comment.

**Traffic Comments:**

12. DPW recommends exploring construction of a connection from the existing access drive for #129 Concord Road to channel traffic from that property to the signalized intersection as was previously approved by the Planning Board in 2007.

BE 7/26/22: The applicant is open to discuss the matter with the abutter should there be an expressed desire provided the applicant will not be compelled to give up or dedicate portions of its land for mitigation and/or replication should there be resource area impacts. As noted in the previously approved condition, the abutter "shall be responsible for making all associated arrangements and for its funding". The abutter must agree to pay for all permitting and construction.

DPW 8/17/22: No further comment.

13. Although the Traffic Study indicates site distance is adequate, DPW recommends that the secondary access be removed from the plan or be designated as a gated emergency access for the following reasons:
  - a. There is a safe, signalized entrance near the proposed secondary access and the secondary access would introduce and increased risk for accidents.
  - b. The proposed secondary access location is in a critical area where the single lane traveling westbound opens into three lanes.



- c. Though designated as “right turn only”, drivers will not necessarily obey the sign.
- d. Drivers entering the existing Cabot driveway have on more than one occasion expressed concerns about safely turning into the existing driveway, having experienced near misses and almost being rear ended while slowing down to turn into the driveway.
- e. The other companies along that side of Concord Road only have one entrance.

BE 7/26/22: The applicant has revised the secondary access to be a right-in only and designed and signed to prevent left turns into the site. It has also been off-set from the opposite driveway.

DPW 8/17/22: No further comment.

**Drainage Comments:**

14. Site development will require a Stormwater Permit through the Board of Health and DPW.

BE 7/26/22: Understood.

DPW 8/17/22: No further comment.

15. Provide additional detail and information regarding modifications to the existing drainage structures, outlet pipes and headwall near Wetland Flag WFA-16.

BE 7/26/22: The existing drainage structures will continue to function as they do in existing conditions. The frame and cover will be adjusted as needed to accommodate the new curb.

DPW 8/17/22: Refer to Comment 6.

*BE 04/08/24: The profiles have been updated to show the existing drainage and utilities.*

**DPW 6/10/24: One of the manholes at the headwall is a ConTech unit, we believe it is the one to the north that proposed drainage is tying into from OCS#4. This needs to be verified.**

16. As mentioned in General Comment 7, the existing easement will need to be modified to encompass drainage that will be the responsibility of the Town.

BE 7/26/22: Understood. The applicant will work with the Town in good faith to update the easement to encompass the existing drainage from the Town owned basin serving Concord Road.

DPW 8/17/22: Refer to Comment 7.

BE 04/08/24: *The applicant will modify the existing drainage easement to reflect the current existing conditions prior to Building Permit Approval.*

**DPW 6/10/24: No further comment.**

**Sewer Comments:**

17. Provide the amount and type of wastewater flows to be generated from the proposed development.

BE 7/26/22: Based on similar projects, it is anticipated that the sewer and water generation for the Project will be generally equivalent to an office use in terms of building functionality and associated Title V generation rates. There is currently no lab use generation rate provided under Title V, so this has been a commonly accepted approach in the industry.

Accordingly, we have estimated the usage in the below table. The demand and usage can vary tenant to tenant and will be refined and reviewed further with the Town and DPW once a tenant has been identified.

**Proposed Sewer Generation**

<i>Proposed Use</i>	<i>Quantity</i>	<i>Sewer Generation Rate*</i>	<i>Estimated Sewer Flow (GPD)</i>
<i>GMP Lab Facility (functionally office)</i>	<i>203,260 GSF</i>	<i>75 GPD/1,000 GSF</i>	<i>15,245</i>

*\*Estimated sewer flows are based on 310 CMR 15.203*

**Proposed Water Generation**

<i>Proposed Use</i>	<i>Prop. Sewer Flow (GPD)</i>	<i>Water Usage Factor</i>	<i>Estimated Water Usage (GPD)</i>
<i>GMP Lab Facility (functionally office)</i>	<i>15,245</i>	<i>1.1</i>	<i>16,770</i>

DPW 8/17/22: No further comment.

18. A sewer extension either within Concord Road or on private property will be required. The sewer extension plan and profile must be reviewed and approved by DPW prior to approval of a Building Permit and the new sewer must be inspected and tested in accordance with DPW standards with reports submitted and approved to DPW prior to Occupancy.

BE 7/26/22: The inspection requirements are understood. The sewer profile will be provided in the final plan set following the coordination on separate items.

BE 7/28/22 Updated Response: The attached updated plan set provides the requested profiles.

DPW 8/17/22:

- a. Utilities are congested in this area. DPW recommends having utilities marked and located so that sewer alignment can be designed without utility conflicts.
- b. DPW recommends considering relocating the proposed sewer alignment off the pavement on the north side of Concord Road to avoid utility conflicts.
- c. The current proposed sewer alignment is shown between two water mains in Concord Road. Revise plans to show the 12-inch water main on north side and the 8-inch water main on the south side of Concord Road for the entire length of the proposed sewer in the **utility plan C-501**. Additionally, show the underground fiber optics line on the north side of Concord Road.
- d. Provide adequate separation between proposed sewer main and existing water mains.
- e. Show all utility crossings in the profile view (water mains and services, gas main and services, drainage, and fiber optics).
- f. Sewer invert in elevations shall be 0.10 foot above sewer invert out.
- g. Provide stationing on the sewer alignment in plan view.

BE 04/08/24:

- a) *Additional survey for the existing utilities in Concord Road is included in the revised plans.*
- b) *The applicant has revised the sewer alignment to leave the paved way of Concord Road as soon as feasible based on existing utilities and constraints.*
- c) *Both existing water mains and fiber line have been updated on the revised plans and the new sewer alignment has been revised accordingly.*
- d) *Adequate separation has been provided between the existing water mains and the proposed sewer line.*
- e) *All utility crossings have been added to the sewer profile on Utility Plans A and B.*
- f) *Sewer invert in elevations have been adjusted to be 0.10 foot above the sewer invert out elevations.*
- g) *Stationing along the sewer alignment has been provided in plan view on Utility Plans A and B.*

**DPW 6/10/24: A Sewer Extension Permit needed, with approval of asbuilt plan, and testing required prior to sewer service permit approval.**

19. Coordinate with Wastewater Division to confirm location of existing sewer in the field.

BE 7/26/22: The connection location and invert has been located using record plans. The invert will be confirmed in the field prior to construction and in coordination with the Wastewater Division.

DPW 8/17/22: Plans must be revised to show confirmed invert elevation prior to plan approval by DPW.

*BE 04/08/24: The sewer invert at the existing manhole in Concord Road has been identified by the surveyor and is provided in the updated plan set.*

**DPW 6/10/24: Plan indicates record information, not actual inverts. The invert from the existing SMH will have to be determined and the proposed slope will have to be adjusted accordingly to the first MH.**

20. DPW: A doghouse manhole will not be permitted on the existing 14-inch asbestos cement sewer pipe. The proposed sewer main must tie into an existing manhole either within the Concord Road right of way or within the existing sewer easement adjacent to the property, or a new standard manhole must be installed. Easements may be required and must be obtained and recorded prior to approval of a Building Permit.

BE 7/26/22: The proposed sewer main has been revised to tie into an existing manhole with the Concord Road right of way.

DPW 8/17/22: Refer to Comments 18 and 24.

*BE 04/08/24: The requested detail has been added to the plan set on Sheet C-903.*

**DPW 6/10/24: No further comment.**

21. If the sewer extension is constructed on Concord Road, the proposed sewer must cross the existing water main as close to 90 degrees as possible. Additionally, a full width overlay of the road will be required for the entire length of the longitudinal sewer trench in Concord Road. Limits of the full width overlay must be shown on the plan.

BE 7/26/22: Adjustments to the proposed sewer alignment will be provided in the final plan set following coordination on separate items. Limits of full width overlay will be added to the final plans as well.

DPW 8/17/22: Comments remains until the final plans are submitted to and approved by DPW.

*BE 04/08/24: The revised sewer layout provides as close to a 90 degree crossing as possible based on other site constraints.*

**DPW 6/10/24: The sewer crossing of the water main is diagonal. The water main should be cut out and placed back to minimize the chance of water breaks. The Street Opening Permit will include trench and final paving requirements. The limits of the full width overlay shall extend to include the trench for the water main and gas work on Concord Road.**

22. A Sewer Connection Permit from the Wastewater Division will be required.

BE 7/26/22: Understood.

DPW 8/17/22: No further comment.

23. Pretreatment plans for kitchen flows and industrial wastes must be submitted to DPW and Board of Health for review and approval prior to issuance of a Building Permit. Contact the Board of Health regarding kitchen flow requirements and contact the Wastewater Division regarding industrial flows from the new facility and any pretreatment or special permits required for flows.

BE 7/26/22: Understood.

DPW 8/17/22: No further comment.

24. Detail for connection into existing sewer manhole must be provided.

BE 7/26/22: The existing sewer connection detail has been requested and will be added to the final plans.

DPW 8/17/22: Comment remains until final plans are submitted and approved by DPW. Detail is attached.

*BE 04/08/24: The requested detail has been added to the plan set on Sheet C-903.*

**DPW 6/10/24: No further comment.**

25. The profile of the proposed sewer must be shown in the plan set.

BE 7/26/22: The sewer profile will be provided in the final plan set following the coordination on separate items.

BE 7/28/22 Updated Response: The attached updated plan set provides the requested profiles.

DPW 8/17/22: Refer to Comment 18.

*BE 04/08/24: The proposed sewer profile has been updated based on the revised alignment and other comments within this letter.*

**DPW 6/10/24: No further comment.**

26. Sewer pipe size and material must be labeled.

BE 7/26/22: As noted on the plans, the proposed sewer will be 8" SRD-35 PVC.

DPW 8/17/22: No further comment.

27. Contact DPW for a detail for sewer manhole frame and cover. Show this information on revised plan.

BE 7/26/22: The DPW sewer frame and cover detail has been requested and will be added to the final plans

DPW 8/17/22: Comment remains until final plans are submitted and approved by DPW. Detail is attached.

BE 04/08/24: The requested detail has been added to the plan set on Sheet C-903.

**DPW 6/10/24: No further comment.**

**Water Comments:**

28. Provide the anticipated water usage for the development.

BE 7/26/22: The below table outlines the estimated water generation for this project.

**Proposed Water Generation**

<i>Proposed Use</i>	<i>Prop. Sewer Flow (GPD)</i>	<i>Water Usage Factor</i>	<i>Estimated Water Usage (GPD)</i>
<i>GMP Lab Facility (functionally office)</i>	<i>15,245</i>	<i>1.1</i>	<i>16,770</i>

DPW 8/17/22: No further comment.

29. A water tapping permit from the Water Division is required.

BE 7/26/22: Understood.

DPW 8/17/22: No further comment.

30. The proposed building will require backflow prevention devices. Contact the Water Division Backflow Control Office prior to construction.

BE 7/26/22: Understood.

DPW 8/17/22: No further comment.

31. Water main size, material and class must be noted on the utility plan.

BE 7/26/22: As noted on the plans, the proposed site water pipes will be 8" Ductile Iron Cement Lined.

DPW 8/17/22: No further comment.

32. Revise the plan to show the proposed water main tap on the 12-inch main in Concord Road so that it is made with an MJ x MJ tee with three (3) gate valves.

BE 7/26/22: The proposed connection to the existing main has been updated to be made with 3 gates valves and a new 12"x12"x8" tee.

DPW 8/17/22: No further comment.

33. The hydrant locations as shown are acceptable to Water Division. Please confirm that hydrant locations are acceptable to the Fire Department.

BE 7/26/22: The fire department did not have any comments regarding the hydrant locations on site.

DPW 8/17/22: No further comment.

**DPW 6/10/24: The flow and pressure requirements of the fire protection system should be provided to the Town to confirm the distribution system is adequate to satisfy the demand. A water booster pump may be required for the fire line. At final interior buildout, when specific tenant utility needs, and fire protection systems are finalized, the applicant should provide that information to DPW.**

**Additionally, gas service should be at least 10' away from water service.**

08/17/22: New Comment:

In reference to BETA Comment T9: Indicate if modifications are proposed to the traffic signal at Concord Rd / Middlesex Turnpike to facilitate traffic into/out of the proposed development. Applicant should provide a traffic signal plan or any required updates to the existing traffic signal plan for review.

VAI: The Applicant will design and implement an optimal traffic signal timing and phasing plan for the Concord Road/Middlesex Turnpike/Project site driveway intersection subject to receipt of all necessary rights, permits and approvals. Geometric improvements to the intersection are precluded due to the alignment of left- turn lanes on the Project site driveway and Middlesex Turnpike, and the presence of wetland resource areas.

BETA2: Recommend traffic signal timings be adjusted after full occupancy of the Site to reflect any necessary unforeseen changes in travel patterns.

BE 7/29/22: The Applicant will consult with the Traffic Safety Officer and the Department of Public Works within two (2) months of tenant occupancy of the proposed building and commencement of operations to review the traffic signal timing at the Concord Road/Middlesex Avenue intersection. To the extent that it is determined by the Traffic Safety Officer and the Department of Public Works that there is a need to adjust the traffic signal timing to accommodate actual traffic volumes and travel patterns at the intersection post occupancy, the Applicant will design and implement an optimal traffic signal timing plan subject to receipt of all necessary rights, permits and approvals.

DPW 8/17/22: The traffic controller will need to be modified to activate the fourth leg of the intersection. Modification to the existing signal must be reviewed and approved by the Town's traffic consultant. The cost of review and modifications will be the responsibility of the Developer.

*BE 04/08/24: 'Response to Traffic Assessment Review Proposed Lab/cGMP Building – 0 & 161 Concord Road' dated July 6, 2022, Vanasse & Associates, Inc. (VAI): "The Applicant will design and implement an optimal traffic signal timing and phasing plan for the Concord Road/Middlesex Turnpike/Project site driveway intersection subject to receipt of all necessary rights, permits and approvals. Geometric improvements to the intersection are precluded due to the alignment of left-turn lanes on the Project site driveway and Middlesex Turnpike, and the presence of wetland resource areas." Modifications to the existing signal will be submitted for review to the Town's traffic consultant.*

**DPW 6/10/24: No further comment.**

**6/7/2024: New Comments:**

- 1. A Street Opening Permit will be required for sidewalk work adjacent to Concord Road.**
- 2. Curb adjacent to Concord Road and within the right of way shall be vertical granite curb type VA-4.**
- 3. Provide details for the sidewalk section to and granite curb to constructed adjacent to or within the Concord Road right of way.**
- 4. Current policy requires a grass strip between the sidewalk and the roadway. There are several existing signs located within the proposed sidewalk alignment. The signs shall either be located within the grass strip or moved to the back of the sidewalk.**
- 5. Per Planning Board Decision, the current plans show sidewalk between the two site entrances. It is difficult to determine on the plans if the existing highway easement encompasses the proposed sidewalk along the frontage of the property. Additional permanent easements along**



**the frontage of the property may be required for the proposed sidewalk. Please provide plan that shows the proposed sidewalk with the existing highway easement and proposed highway easement as needed to encompass the new sidewalk, grass strip and signs.**

- 6. The current plan shows the sidewalk ending abruptly at a curb at the easterly site entrance. The sidewalk should ramp down to the easterly entrance pavement with a detectable warning panel.**
- 7. Ideally, the sidewalk would extend to the existing crosswalk east of the Cabot property entrance. Additionally, Cabot has been inquiring about having a designated left turn lane on Concord Road for traffic approaching the site from Route 3. Would the Developer/Applicant be amenable to extending the sidewalk and/or coordinating with Cabot to achieve these goals?**

**Please submit a written response to comments and revised plans to the Engineering Division for review and approval prior to Foundation/Building Permit approval.**

If you have any questions, please do not hesitate to contact our office.



PROP. LAB cGMP FACILITY  
FOOTPRINT: 148,550± S.F.  
SECOND FLOOR: 54,615± S.F.  
TOTAL: 203,165± S.F.



**BOHLER**  
SITE CIVIL AND CONSULTING ENGINEERING  
LAND SURVEYING  
PROGRAM MANAGEMENT  
LANDSCAPE ARCHITECTURE  
SUSTAINABLE DESIGN  
PERMITTING SERVICES  
TRANSPORTATION SERVICES

REVISIONS			
REV	DATE	COMMENT	DRAWN BY
1	7/6/2022	PIR RESPONSE	WVW
2	7/18/2022	PIR REVIEW RESPONSE	ZLR
3	7/28/2022	DPW AND PEER REVIEW RESPONSES	WVW
4	3/9/2023	80% CONSTRUCTION SET	ZLR
5	4/6/2023	100% CONSTRUCTION SET	WVW
6	3/1/2024	DPW REVIEW RESPONSE	ZLR

**811**  
Know what's below.  
Call before you dig.  
ALWAYS CALL 811  
It's fast. It's free. It's the law.

**PERMIT SET**  
THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT. SEE THE INDICATED OTHER PROJECTS.  
PROJECT NO.: M211075  
DRAWN BY: LPF  
CHECKED BY: WVW  
DATE: 7/28/22  
CAD I.D.: M211075-SPPD-1D

**SITE DEVELOPMENT PLANS**  
FOR  
**BERKELEY**  
PROPOSED  
cGMP LAB BUILDING  
MAP 68, BLOCK 22, LOT 1  
MAP 69, BLOCK 29, LOT 2  
6 & 161 CONCORD ROAD  
TOWN OF BILLERICA,  
MIDDLESEX COUNTY, MA

**BOHLER**  
45 FRANKLIN STREET, 5th FLOOR  
BOSTON, MA 02110  
Phone: (617) 849-8040  
www.BohlerEngineering.com

**Z.L. RICHARDS**  
PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE NO. 91416

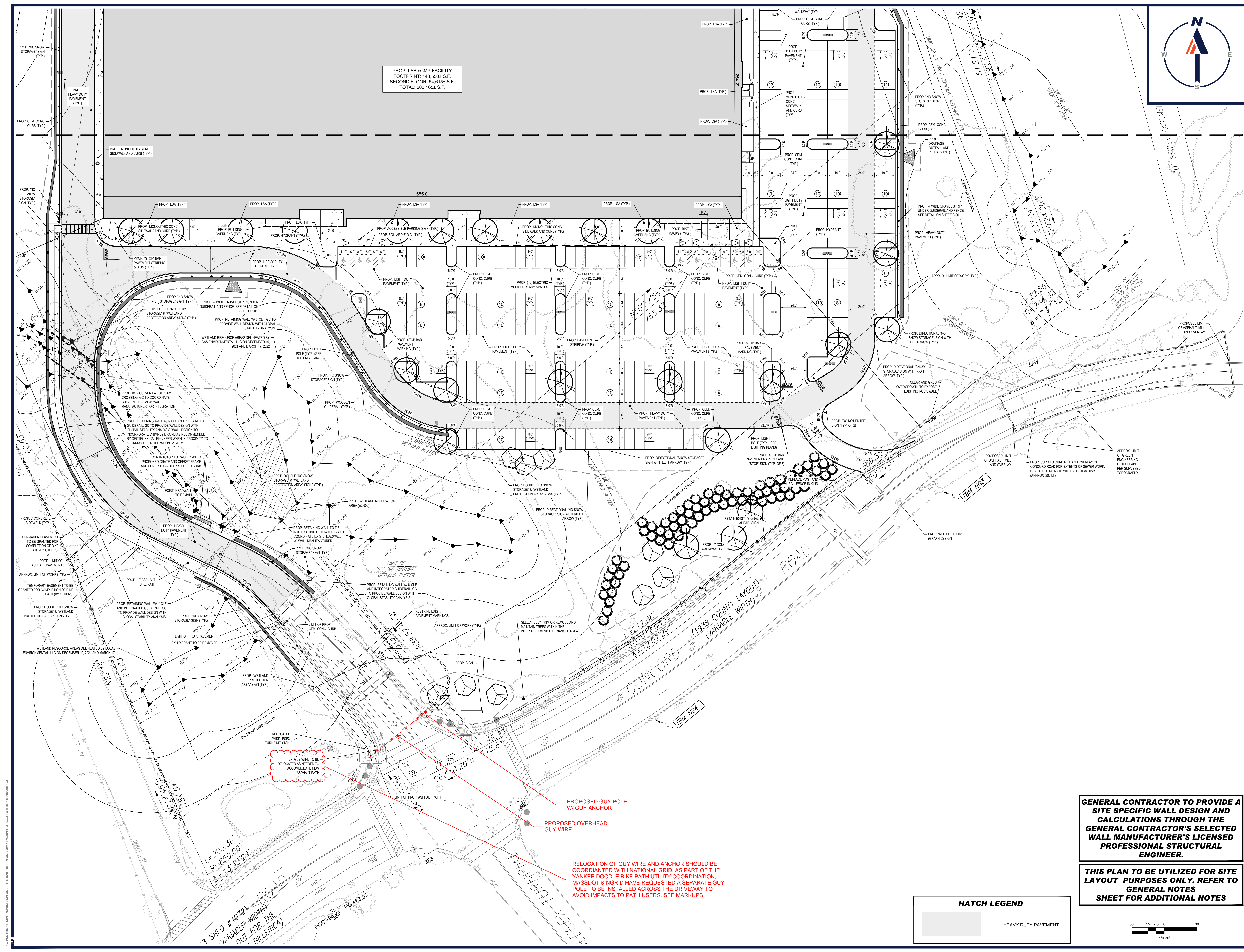
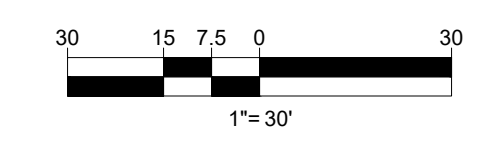
**SITE LAYOUT PLAN A**  
SHEET NUMBER:  
**C-302**  
REVISION 6 - 3/1/2024

**GENERAL CONTRACTOR TO PROVIDE A SITE SPECIFIC WALL DESIGN AND CALCULATIONS THROUGH THE GENERAL CONTRACTOR'S SELECTED WALL MANUFACTURER'S LICENSED PROFESSIONAL STRUCTURAL ENGINEER.**

**THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES**

**HATCH LEGEND**

HEAVY DUTY PAVEMENT



P:\211075\SET\CD\DRAWINGS\PLAN SET\CD\CD SITE PLANS\REV 1075-SPPD-1D - LAYOUT, C-302 SITE A