

[Applicant team responses in RED text 11-18-2025]

November 18, 2025

Devens Enterprise Commission
c/o Neil Angus, FAICP CEP, LFA, LEED AP
Director/Land Use Administrator
33 Andrews Parkway
Devens, MA 01434

RE: Nitsch Project #9419
Commonwealth Fusion (CFS-4)
111 Hospital Road
Site Plan and Stormwater Review
Devens, MA

Dear Neil Angus:

Nitsch Engineering (Nitsch) received and reviewed the Site Plans (the Plans) entitled "Commonwealth Fusion Systems Campus Building 4," dated September 23, 2025, prepared by Vanasse Hangen Brustlin, Inc. (VHB) for the Devens Enterprise Commission (DEC). In addition, Nitsch has received and reviewed the following documents:

1. Stormwater Management Report, prepared by VHB, dated September 2025;
2. Soil Management Plan, prepared by Boston Environmental Corporation, dated September 2025;
3. Preliminary Geotechnical Findings and Design Recommendations, Revision 1, prepared by GZA, dated October 17, 2025;
4. Level 2 Unified Permit Application, prepared by VHB, dated September 2025; and
5. Level 2 Unified Permit, Checklist for Determination of Completeness, dated September 25, 2025.

Nitsch is providing comments with respect to Site Plan, Geotechnical, and Stormwater Management in this letter. Please note that traffic review is being provided in a separate letter.

PROJECT UNDERSTANDING

The Applicant, Commonwealth Fusion Systems (CFS), is proposing the expansion of their existing corporate campus and R&D facility on an approximately 35.7-acre parcel of land located at 111 Hospital Road. CFS has previously permitted the first two buildings on campus (CFS-1 and CFS-2). CFS-1 is complete and CFS-2 is still currently under construction. CFS is now proposing an additional project, CFS-4, which consists of two buildings and two large exterior industrial equipment pads, which will serve as a specialized heat transfer research facility located to the north of CFS-2. The project also proposes the construction of associated access drives, site utilities, and a stormwater management system.

The Project Site is located at 111 Hospital Road within the Innovation and Technology Business Zoning District, and the Limit of Work totals ± 3.8 acres. The site is currently a combination of areas previously disturbed by the CFS-2 development and undeveloped woodlands. The site is split within the Watershed (southern portion of site) and Aquifer (northern portion of site) Water Resource Protection Districts (WRPD). The Applicant is proposing a subsurface infiltration system to manage stormwater runoff generated by the proposed development.

DEC REGULATORY CONFORMANCE

Based on Nitsch's review of the submitted documents and the above-referenced regulations, we offer the following comments for consideration:

DEC SITE DESIGN STANDARDS

- **974 CMR 3.04(3)(a)1.h** requires bicycle storage facilities for all developments. The Applicant should review and address this requirement.
Response: Bicycle storage is provided at other locations on the campus appropriately proximate to employee's permanent workstations. Bike storage at CFS-4 does not provide any TDM benefits for the campus.
- **974 CMR 3.04(3)(a)2.b** mandates that the portion of the parking lots, loading docks, and driveway subject to truck traffic, truck and container storage, and other railroad related vehicles, shall be constructed of bituminous concrete pavement. The construction specifications shall be the following: Compacted subgrade, free of frost, roots, and debris; 8 inches of compacted gravel sub-base conforming to Massachusetts Highway Department Standard Specifications for Highway and Bridges (MHDSSHB) M.1.03.0 Type A (<http://www.mhd.state.ma.us/downloads/manuals/1995Mspeccs.pdf>); 4 inches of compacted gravel base conforming to MHDSSHB M.1.03.0 Type B; 3 inches of bituminous concrete base course; 1½ inches of bituminous concrete binder course; and 1½ inches of bituminous concrete top course. The Applicant should revise the detail for the Bituminous Concrete Pavement Section to be in compliance with this standard.
Response: 974 CMR 3.04(3)(a)2.c allows modifications to the pavement construction specification. The pavement section proposed for the project is based upon the recommendations contained within the final Geotechnical Report by GZA and is consistent with the pavement section approved for the CFS-2 construction.
- **974 CMR 3.04(3)(a)(4.g)** requires standard "STOP" at the intersection of driveways with streets and roads. The Applicant should evaluate the intersections of the internal driveways to provide adequate signage for traffic safety.
Response: Stop signs have already been installed at the site driveways at Hospital Road. The circulation drive around CFS-4 is primarily for fire and emergency vehicle access and it creates two internal intersections with the circulation road around CFS-3. Since traffic around CFS-4 will be minimal and sight lines are adequate stop signs are not warranted for traffic safety.
- **974 CMR 3.04(3)(a)(5)** requires that access to buildings be kept clear of hazardous substances and obstacles that may, in the opinion of the fire officials, impede the proper placement of fire apparatus and personnel in case of emergency. The Applicant shall obtain a letter from the Devens Fire Chief stating there is adequate access for fire equipment. Access for fire equipment shall be provided and maintained on at least two (2) sides of the building. Fire lanes shall be designated with pavement marking and signage. The Applicant should provide a letter from the Devens Fire Chief to confirm compliance with this requirement.
Response: Plans were submitted for review by the Fire Chief. Letter pending.
- **974 CMR 3.04(3)(a)(6)** decrees that if an Applicant proposes parking lot construction phasing, the Applicant shall demonstrate that the portion to be constructed is sufficient for the needs of the users of the proposed structure. The unconstructed parking area shall be large enough for anticipated needs and shall be shown in a contrasting graphic pattern delineated on the Site Plan. The Parking Lot Phasing plan shall address erosion and sediment controls before and during construction, and

specifically cite measures to be implemented to minimize soil compaction in areas not to be paved until later phases. Surety or other adequate performance assurance to construct the parking lot at a specified time in the future may be required. The DEC may then approve the parking lot phasing if it determines sufficient parking will be provided for current needs and adequate assurance exists to construct the remaining parking area when needed.

It is our understanding that there will be no full-time employee workstations within the CFS-4 buildings, and parking for employees who periodically utilize CFS-4 facilities has been accounted for within the CFS-1 development. Additionally, the construction of the adjacent CFS-3 development will include a parking garage, which is being reviewed by traffic/transportation engineers under a separate letter. The Applicant should provide a parking phasing and logistics plan to demonstrate how existing employees, construction traffic and laydown will be safely accommodated on-site.

Response: This comment and our response apply equally to CFS-3 and CFS-4. There is no parking lot construction phasing planned in association with either project. CFS-4 requires no additional parking and the CFS-3 project proposes a 600 space parking garage to satisfy the long term needs of the campus.

For the project record the following information about parking was provided in the CFS-3 permit narrative:

CFS has experienced significant growth, surpassing initial employment projections made during the campus’ permitting phase. As of August 2025, CFS employs over 1,000 people, with approximately 700 located in Devens. To address their parking needs, CFS has adopted several strategies including using internal roadways on the Oak Street parcel for parking, leasing off-site parking spaces with a shuttle service connecting the campus to these locations, and coordinating shuttle services between Devens and Cambridge. Additionally, they are sharing temporary contractor parking. To accommodate this unexpected workforce expansion/parking requirement, the CFS-3 building program includes construction of a 600-space parking garage in addition to 57 surface parking spaces near the main entrance of the CFS-3 building for visitor parking, mobility impaired and courtesy EV charging. Upon completion of construction the campus will have 970 parking spaces at the following locations:

<u>Parcel</u>	<u>Building</u>	<u>Surface Spaces</u>	<u>Garage Spaces</u>
111 Hospital Rd	CFS-2	25	--
111 Hospital Rd	CFS-4	--	--
117 Hospital Rd	CFS-1	288	--
125 Hospital Rd	CFS-3	<u>57</u>	<u>600</u>
Totals		370 sp	600 sp

CFS anticipates potential growth of 100-150 additional employees to be stationed at Devens over the course of the next 3-5 years for which the parking supply will be right-sized.

Additionally, a preliminary construction logistics plan was filed with the Level 2 permit application for CFS-3 that illustrates how construction will proceed in two phases with CFS-4 being Phase 1 and CFS-3 being Phase 2.

- **974 CMR 3.04(6)(a)(1.c)** requires that principle building entries shall have an accessible pedestrian walkway connecting to pedestrian walkways within abutting Rights-of-Way or ways. As shown, there does not appear to be an accessible pedestrian walkway connecting CFS-4 to adjacent internal roads. Additionally, the Applicant should clarify which, if any, of the entrances are the principal entrance. The Applicant should review and address this requirement.

Response: The main entrance to this processing complex is the control center, known as the "Annex Building", which is connected to an accessible pedestrian walkway per the requirements.

The FLiBe building is a processing building that has restricted access to specific personnel and is not a public building. To be in this building there is a requirement that staff are able bodied to be able to climb stairways and ladders to perform the operations required. This building contains the main process space as well as support spaces directly related to the main process space such as electrical rooms, control equipment rooms, storage rooms, as well as spaces for PPE donning and doffing. During normal operations, the FLiBe Building will be completely unoccupied. The FLiBe building will be occupied only for periodic scheduled and unscheduled maintenance of the process equipment within, and only by authorized CFS employees and contractors. Maintenance activities will require specialized knowledge and training as well as the ability to climb stairs and ladders to elevated equipment platforms.

Because the public will be specifically excluded from accessing any part of the Main Building, 521 CMR MAAB requirements do not apply, and connection to an accessible pedestrian walkway is not required for the FLiBe building.

- **974 CMR 3.04(6)(a)(2.b)** decrees that vertical granite curb, where provided, shall be Type VA4 as specified in Section M9.04.1 of the Massachusetts Highway Department Standard Specifications For Highways and Bridges (MHDSSHB) with a 6-inch reveal. Granite transition stones shall be installed when vertical granite curb changes profile to sloped granite curbing or Cape Cod berm or where curbing transitions to areas with no curbs. The Applicant should confirm that they are using Type VA4 and clarify on that detail.

Response: VHB has added a note to the vertical granite curb detail specifying Type VA4.

- **974 CMR 3.04(6)(a)(3.a)** requires all access road/parking lighting shall be 0.5-foot candles minimum (maintained), with 30-foot maximum height posts. The Applicant should confirm that no lighting is proposed above 30 feet on the buildings, tanks, process equipment and proposed stacks, which reach up to 75 feet.

Response: Design team will comply with access road/parking lighting requirement.

Lighting may be required above 30 feet on elevated equipment platforms to facilitate safe service and maintenance activities. Such lighting will be provided only where required and controlled in accordance with lighting approach outlined in design team response to DEC Staff Comment #1.

SITE PLAN DESIGN AND CALCULATIONS

- The Site Lighting Photometric Study on Sheet E3 indicates approximately 5.0-foot candles throughout the site, with some areas of up to 12.0-foot candles. The proposed site is approximately 700 feet away from existing and proposed residences. The Applicant should provide additional information on how the proposed development will protect nearby residential areas from light trespass and other potential impacts.

Response: The design team has undertaken a two-step approach to assessing potential visual impacts on nearby existing and planned homes for both the CFS-3 and CFS-4 projects, concurrently. The first-step was a study of site cross sections to assess the extent to which either project could be viewed based on topography and to a lesser extent existing vegetation. This initial study concludes that the CFS-4 site will be entirely obscured from view of existing and future homes by the construction of CFS-3 and the parking garage. Therefore, as far as CFS-4 is concerned, visual impacts, if any, would be short term for 8-10 months until vertical construction of the CFS-3 project has gotten underway.

The second step of the study now underway will utilize GPS and virtual reality photo simulation techniques to assess the degree to which existing vegetation will fully or partially screen the CFS-3 project.

- The existing Beech Street continues beyond the proposed CFS-4 development in the northwest corner of the project site. The Applicant should clarify the proposed approach to coordinate with the existing road, including the limit of pavement removal and revegetation, on the plans.

Response: This comment is addressed on the CFS-3 project site plans. Existing pavement within the limits of disturbance will be removed, and disturbed areas will be stabilized with vegetative ground cover and plantings – refer to the CFS-3 Landscape Plans

- Nitsch Engineering performed a site visit on October 29, 2025 to observe the proposed site. The Applicant's representative, Rich Holcomb, was present during the site visit and provided general information. Also in attendance was Beth Suedmeyer, Devens' Associate Planner, and Sandra Brock and Kathryn Piasecki from Nitsch Engineering. During the site visit the area formerly known as Beech Street was walked. This area is shown on Sheet C4.01.

Existing contours shown on Sheet C4.01 indicate a soil mound with a 1.5:1 slope located immediately to the west of the site. Based on a site visit and discussion with the Applicant's Representative conducted on October 29, 2025, fill material from previous project phases is placed atop existing pavement and has been left in place. The fill material appears to be stabilized with established vegetation. The Applicant's Representative should confirm extents of fill material to remain and areas of pavement to be removed on the plans.

Response: Soils and pavement will remain as shown on the site plans from the former culdesac bulb to approximately 20' west of Annex Building. All topsoil, pavements and any abandoned utilities eastward will be removed and disposed.

- The construction of a modular block retaining wall will require over-excavation for the geogrid reinforcement. The Applicant should review the required limit of disturbance related to the construction wall to reflect the limit of work on the grading plans. The plans also indicate a tree line directly adjacent to the wall; this should be updated as required to reflect the over-excavation. Any trees in excess of 12" caliper should be identified in this area and whether or not they are marked for removal or preservation.

Response: The proposed wall will retain fill. It is not a cut wall. The geogrid will be on the roadway side of the wall and will be constructed as the site is brought up in grade. The limits of disturbance shown are within a previously disturbed area where fill was placed in the ravine during construction of CFS 2.

- The construction of a modular block retaining wall will require geogrid reinforcement. Given the proximity of the retaining wall to the steel beam guardrail, subsurface utilities, and site lighting, the Applicant should review for potential conflicts and show approximate extents of geogrid limits on the plans.

Response: This comment requests final design details but the wall has not been designed yet. We anticipate modular block will be the most cost-effective solution, but it could be a different wall type. We will work with the supplier's engineer at the appropriate time to account for these potential penetrations into the geogrid.

- The soils on site are noted as loamy sand/sandy soils and therefore it is critical to provide adequate slope stabilization during and immediately following construction. Based on preliminary review of the geotechnical report by a structural engineer, slope stabilization is adequately addressed. The Applicant should continue to coordinate closely with geotechnical engineers to confirm adequate slope stabilization is provided throughout construction.

----- **DEC STORMWATER DESIGN STANDARDS**

- **974 CMR 3.04(4)(a)(3)** decrees that Low Impact Development (LID) Stormwater Management design shall be incorporated into the site plan to allow for the full utilization of the property while maintaining the pre-development characteristics of the site as though it were a "green field" (volume, frequency, peak runoff rate) to the maximum extent feasible. We note that the Applicant did not provide an in-depth assessment of potential green infrastructure opportunities. However, given the use of the site as a highly specialized research facility, we feel that the proposed stormwater management approach of a subsurface infiltration system is appropriate.

- **974 CMR 3.04(4)(b)(4)** decrees that drainage features in loading/unloading and/or fueling areas shall be equipped with post-indicator valves (which are to remain in the closed position) on the outlets for containment in the event of any spills. The Applicant should add a post-indicator valve to DMH-113 or WQU-1 in order to isolate any potential spills prior to infiltration.

Response: Containment and spill prevention strategies for the unique materials and operations on the pads and within the FTL building are still being developed and may be quite different than strategies for containing fuel oils. The applicant and design team are aware of the potential for hazardous material spills and Applicant is committed to implementing a plan with containment, isolation valves and standard operating procedures as may be required.

- **974 CMR 3.04(4)(c)** requires that the applicant shall include a Stormwater Operations and Maintenance Plan in accordance with 974 CMR 4.08(7) as may be applicable. The Site Plan shall specify the construction and post development Maintenance Schedule in detail on the Utility Plan. This will ensure that all parties understand and are aware that a Stormwater Operations and Maintenance Plan exists. The Applicant should review and address standard by providing a note on Sheet C5.01.

Response: The Stormwater O&M was provided in the Stormwater Report. A note has been added to the utility plan.

- **974 CMR 4.08(2)(d.iii)** requires that for all stormwater improvements, drainage calculations shall be prepared by the Applicant's Engineer in accordance with the Stormwater Management Standards

(SMS) requirements and shall include design criteria, pre- and post-development drainage areas, and other information to verify the size and effectiveness of the proposed stormwater management technique. "Pre-development" drainage areas shall be considered to be "green fields" regardless of any development or improvements on the site at the time of application. Calculations shall be made separately for each drainage facility, showing its location, the total upstream drainage area, the underlying soil types and the flow paths for the times of concentration, the design runoff, facility size, slope, and capacity and velocity of water through all the site drainage system.

We note that the Applicant's Engineer has not provided in-depth existing conditions analysis in the stormwater report. However, given the Applicant's Engineer's conservative assumption that the existing peak discharge rates are zero, we feel that the green field requirement has been sufficiently met.

- **974 CMR 4.08(3)(h)** requires recommended post-construction erosion control methods include geotextile and /or biodegradable erosion control fabrics staked or anchored to the slope, with loose weave to allow vegetative cover to be established. Vegetative cover shall consist of native woody plant species installed as live brush or nursery stock, or native grasses. The Applicant should provide information on post-construction erosion control measures on Sheet C2.01.

Response: Sheet C2.01 is intended to show construction period erosion control. Post-construction erosion control (i.e. final site stabilization) is provided by seeding/plantings shown on sheet L1.01. An Erosion Control Blanket detail is also provided on Sheet C6.01. Please note that the Site does not contain any areas of significantly steep slopes that require additional long term erosion control measures. The largest/steepest slope on the site is along the southern wing of the retaining wall, but this slope is a mow-able 3:1. We expect that the meadow seed mix specified on sheet L1.01 will be adequate for long term slope stability.

- **974 CMR 4.08(3)(i)** requires stormwater management systems shall be designed to meet an average annual pollutant removal equivalent to 90% of the average annual load of Total Suspended Solids (TSS) related to the total post-construction impervious area on the site AND 60% of the average annual load of Total Phosphorus (TP) related to the total post-construction area on the site. While we believe that this standard has been met through the infiltration of the water quality storm over the site's impervious area, the Applicant should provide documentation to confirm phosphorus removal.

Response: Documentation based on EPA performance curves for phosphorus removal in infiltration basins has been added to the Stormwater Report.

- **974 CMR 4.08(3)(j)** requires that all BMPs must be optimized for the removal of phosphorus to support compliance with the MS4 Permit. The justification and design of such BMPs must also include a methodology for assessing BMP performance. Pollutant removal shall be consistent with EPA Region 1's evaluation tool. The Applicant should review and address this requirement.

Response: Performance criteria established by EPA Region 1 indicate that infiltration basins underlain by sandy soils (such is the case with this site) are capable of removing 100% of TP with a 1-inch water quality volume. Performance charts are provided in the revised Stormwater Report.

- **974 CMR 4.08(4)(a)** Minimize basin size to 5,000 square feet per basin or less (by using smaller catchment areas and/or alternative stormwater management design methods) and minimize disturbance to natural or re-established vegetated areas to the maximum extent feasible. If a basin exceeds 5,000 square feet, the Applicant shall demonstrate to the satisfaction of the DEC why a smaller size is not feasible. We note that the footprint of the proposed of the subsurface infiltration system is approximately 5,140 square feet. However, given the impervious area directed to the system, we do not take exception to this approach.

- **974 CMR 4.08(6)(c)** requires all drainage structures shall be constructed of pre-cast concrete. The Applicant should review and address this standard and specify that all drainage structures will be constructed of pre-cast concrete on the details sheet and note pipe materials on Sheet C4.01.

Response: Notes have been added/revised on the details sheet and Sheet C4.01

- During the October 29 site visit, previously detailed in Comment #11, the Applicant's Representative, Rich Holcomb, noted that a stormwater management easement will be granted from the Owner of CFS-4 to the Owner of CFS-3. We note that this will be reviewed during the upcoming submission for the CFS-3 development.

If the Commission has any questions, please call.

Very truly yours,

Nitsch Engineering, Inc.

Approved by:

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