MARVEL

MEMO

Title: Village of Dobbs Ferry Planning Board , Engineer Comments design team responses
Project: The Masters School Innovation and Entrepreneurship Center

Date: June 17, 2021

To: George E. Pommer, P.E., Vice President
James J. Hahn Engineering, P.C.

From: Jennifer Olson, AIA, LEED AP, Director, Marvel
Cc: Edward Biddle, The Masters School

Upon receipt of the comments from Mr. Pommer dated May 20,2021, the design team offers the following responses:

Engineer comment:

1. The proposed project type is listed in Table 2 of Appendix B of the NYSDEC SPDES GP-0-20-001. As a result, a SWPPP that includes post-construction stormwater practices shall be prepared. It shall include the various items listed in GP-0-20-001, Part III, including drainage calculations, per the NYSDEC Stormwater Management Design Manual.
    - *Team response: Stormwater calculations showing no net increase in discharge rate and compliance with NYSDEC criteria are submitted here with. Additional information, including post-construction stormwater practices and full maintenance requirements to be prepared prior to next Planning Board submission to have a complete package for SWPPP review and approval.*

Engineer comment:

2. Per the applicant, the Westchester County Department of Health permit approvals will be required for the proposed utility relocations. Approvals should be submitted to the Village after they have been obtained.
    - *Team response: NYS DOH approval of new building backflow prevention device(s) to be pursued by Engineer of Record. Engineer Of Record to verify with Provider/DOH that no requirement is needed for relocation of secondary (behind property line existing backflow prevention device) water service.*

Engineer comment:

3. Sheet L-700 includes structures that were designed by a Landscape Architect. In accordance with NY EDN Law 7321, any drawings or calculations that include the design of structures must be signed and sealed by a NYS licensed architect or engineer.
    - *Team response: for any landscape retaining walls over 4'-0" in height, engineered signed and sealed drawings and calculations will be provided for the next Planning Board.*

Retaining wall detail is included on S501 and signed and sealed detail on S501SK, attached to these comments.

Engineer comment:

4. Parking requirements are generally a function of floor area. It appears the proposed IEC building wil be about 18,000 square-feet. In accordance with Appendix C of the Dobbs Ferry Village Code, the Board should determine the minimum parking required. Additionally, the proposed floor area should be listed in the zoning table.
    - *Team response: The program spaces in the proposed IEC building will not add new students or faculty to the existing campus population. Rather, the new IEC program spaces will fulfill existing course demand on campus that is unrealized due to the scheduling limitations of the existing facilities. Existing campus traffic patterns and parking demands will not change, and therefore the project will not provide any new parking spaces. Any spaces that must be removed or modified due to the new construction will be replaced one to one. The project impacts two existing parking spaces, but includes the creation of two new spaces (both ADA-accessible) for a net zero impact.*

Engineer comment:

5. The softball field reorientation should be compares to best practice. As shown, the proposed home base to pitcher's plate line will generally run towards the northwest.
    - *Team response: The construction activities of the new building will eliminate all functionality of the softball field in its current location, and therefore the field will be removed and dirt seeded as lawn. The school is currently analyzing alternative campus locations for a relocated softball field, and will pursue an amended site plan application if necessary.*

Engineer comment:

6. It should be noted on the architectural plans any places where hazardous, flammable, or explosive materials or chemicals will be stored. This information should be shared with the Fire Department.
    - *Team response: All hazardous, flammable, or explosive materials or chemicals will be stored in UL listed fire-safe cabinets provided as part of the Owner's equipment package. Paints will go in a compliant paint cabinet in the paint room. A fire-safe cabinet will go into each shop area for small material containers. Rooms containing fire-safe cabinets are labeled accordingly on the Architectural plans. The equipment specifications and floor plans will be provided to the fire department for review prior to building permit review.*

Engineer comment:

7. Hazardous or volatile chemicals or other materials shall not be discharged to the sanitary sewer system in accordance with Village and County regulations. Such materials shall be collected separately and legally disposed. This should be noted on the plans.
    - *Team response: Waste is handled under the School Safety and Health Plan. Small "day" collection stations for wastes will be provided in each shop area, designated larger waste holding area with proper disposal procedures will also be provided to prevent discharge to sanitary system. Rooms containing these collection stations are labeled on the Architectural plans. The equipment specifications and floor plans will be provided to the fire department for review prior to building permit review.*

Engineer comment:

8. As most clearly shown on Sheet C-701, it appears the proposed pedestrian ramp is located at the center of the wye intersection. The pedestrian ramp should be located such that the crossing distance is minimized and a crosswalk should be provided. Additionally, as shown on Sheet C-700 a pedestrian ramp and crosswalk should be provided at the crossing near the existing speed hump. Locating the crosswalk away from the speed hump should be considered.
    - *Team response: The southern pedestrian ramp is located as necessary to avoid bus queuing for delivery/pick-up, and cannot be shifted westward without impact to this queuing. Crosswalk is proposed for visibility. The eastern crosswalk to the Middle School is shifted to avoid the speed bump, and a receiving ramp is proposed fronting the Middle School. Reference drawing sheets C500 and C701.*

Engineer comment:

9. The area of disturbance should be delineated, and the square-footage noted. It should include the proposed work at the softball field.
    - *Team response: Softball field will be eliminated and the area is proposed for lawn restoration. Area of total construction disturbance (new building and construction logistics) is shown on C502.*

Engineer comment:

10. It should be clarified if any regrading at the existing softball field is proposed.
    - *Team response: See response to Comment #5.*

Engineer comment:

11. The sequence of construction and notes should be revised for the proposed project. Such references as “Township”, “Washington County”, and “Maryland” should be corrected.
    - *Team response: Notes are corrected on all drawings.*

Engineer comment:

12. A pedestrian ramp should be shown at the proposed accessible parking spaces. A detail should be provided.
    - *Team response: Pedestrian ramps are shown on C500, and a detail has been provided on Sheet C900.*

Engineer comment:

13. The proposed detention system should be located a minimum of 10 feet from structures.
    - *Team response: All detention facilities are placed minimum 10’ from structures.*

Engineer comment:

14. The applicant should consider designing the proposed detention system as an infiltration system.
    - *Team response: Infiltration test results confirm soils are conducive to infiltration designs. Detention facilities are designed to promote infiltration to the extent possible. Refer to stormwater calculations.*

Engineer comment:

15. Stormwater pre-treatment should be provided.
    - *Team response: Stormwater pretreatment is provided by dedicated isolation row within underground chambers.*

Engineer comment:

16. A detail for the proposed bioretention basin should be provided. It should also be shown how it connects into the drainage system.
    - *Team response: Detail of bioretention is provided on C901. Bioretention basin will include underdrains and overflow drains for connection to stormwater chambers.*

Engineer comment:

17. A draft New York State Department of Environmental Conservation (NYSDEC) Notice of Intent (NOI) should be submitted.
    - *Team response: Draft NOI to be provided prior to next Planning Board submission.*

Engineer comment:

18. The stormwater system must not be connected until construction is complete and the contributing area is stabilized. A note, stating as much, should be added to the plans.
    - *Team response: Note has been added to sheet C101.*

Engineer comment:

19. The area of the proposed stormwater system should be protected from over-compaction during construction. The area should be fenced off during construction or the area should be de-compacted prior to installation.
    - *Team response: Note has been added to sheet C101.*

Engineer comment:

20. Inspection ports should be shown for the Stormtech units and a detail should be provided. They should be located as recommended by the manufacturer.
    - *Team response: Full design of detention facilities, including inspection ports and detail, to be included in next Planning Board submission.*

Engineer comment:

21. Invert and rim elevations and pipes sizes and materials should be shown for the proposed stormwater drainage system.
    - *Team response: Stormwater drainage system information shown as available, refer to sheet C600 and provided stormwater calculations. Full stormwater design including all inverts, sizes, materials to be included in next Planning Board submission.*

Engineer comment:

22. The drain inlet detail should depict a two-foot minimum sump.
    - *Team response: The project does not propose new curb inlets, and area drains will not include a 2' sump, rather they will tie directly into the site storm piping. Manholes associated with detention facilities to be evaluated for appropriateness of a 2' sump.*

Engineer comment:

23. A drainage structure should be provided at all pipe bends and intersections.
    - *Team response: Stormwater drainage system information shown as available, refer to sheet C600. Full stormwater design including locations of cleanouts to be included in next Planning Board submission.*

Engineer comment:

24. Post-construction maintenance notes should be provided for the stormwater management practices.
    - *Team response: Refer to Comment Response 1.*

Engineer comment:

25. Inspections of the Erosion and Sediment Control Devices will be required throughout the project. The following should be shown on the plans and in the SWPPP.

    "The applicant shall notify the Village Building Inspector at least 48 hours before any of the following as required by the Stormwater Management Officer:
    - Start of Construction
    - Installation of sediment and erosion control measures
    - Completion of site clearing
    - Completion of rough grading
    - Installation of Stormwater Management Facilities
    - Completion of final grading
    - Close of the construction season
    - Completion of final landscaping
    - Successful establishment of landscaping"

    - *Team response: Notes added to the sheet C101.*

Engineer comment:

26. Concrete wash-out and soil stockpile locations should be shown. Details for all proposed erosion and sediment controls should be provided.
    - *Team response: Refer to Construction Logistics Plan on C502, and details on C900.*

Engineer comment:

27. Existing tree sizes and types should be shown.
    - *Team response: Tree sizes and types are shown in the site survey on C300.*

Engineer comment:

28. Tree protection should be shown and a detail should be provided.
    - *Team response: Required tree protection as shown on C300. Tree protection detail as shown on L710.*

Engineer comment:

29. A 3” water lateral is shown coming off of the proposed 2” water line. This should be addressed. Water line material should be provided.
    - *Team response: This water service has been field-verified to be an existing 6-inch service.*

Engineer comment:

30. Sanitary sewer pipe size and materials should be provided. Also, sanitary manhole inverts should be provided.
    - *Team response: Plans are updated to include inverts, sizes and materials, see sheet C700.*

Engineer comment:

31. A utility trench detail should be provided.
    - *Team response: Trench detail is added on C900.*

Engineer comment:

32. A cleanout location and detail should be provided along the proposed sanitary sewer connection.
    - *Team response: Manholes added to sanitary routing, see sheet C700.*

Engineer comment:

33. It should be confirmed with the Village Fire Department that the proposed fire hydrant detail conforms to Village Standards.
    - *Team response: Per Village Fire Department requirements, hydrants to have one 2-1/2” and one 4-1/2” (NYC) threaded nozzle connections.*

Engineer comment:

34. If a footing drain is proposed, then the footing drain discharge location should be shown. It should not be connected to the stormwater management system.
    - *Team response: Footing drain to connect to independent infiltration chamber, design to be submitted with next Planning Board submission.*

Engineer comment:

35. The Site Plan Checklist should be completed and submitted.
    - *Team response: Checklist completed and included with submission.*

Engineer comment:

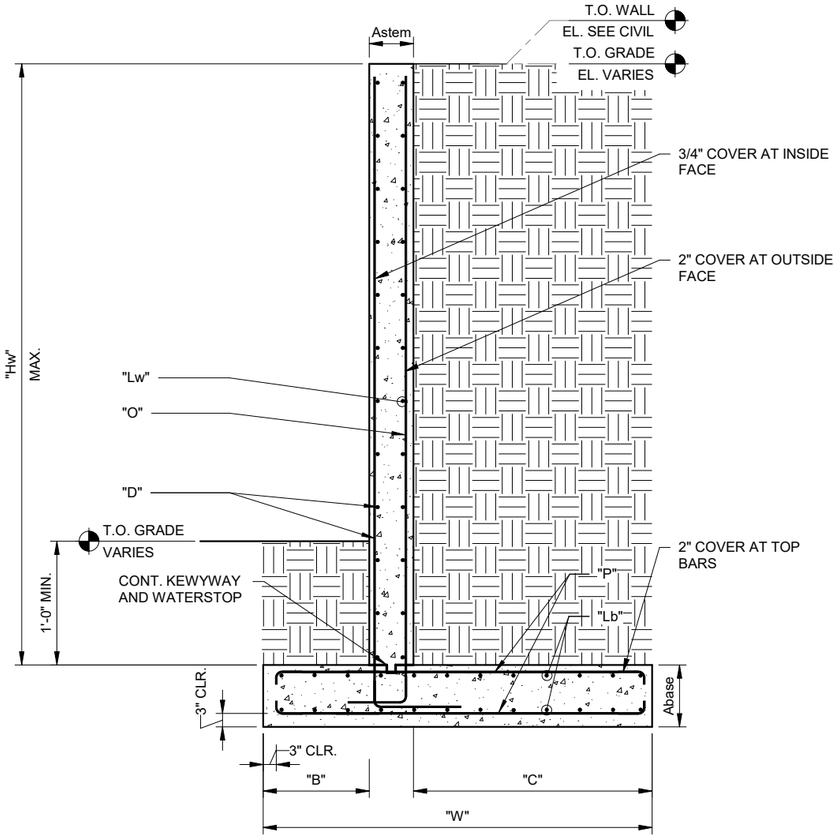
36. The quantity of cut /fill material to be imported / exported should be stated of the plans.
    - *Team response: The quantities have been added to sheet C300.*

Engineer comment:

37. The following notes should be shown on the plans:
    - “The Building Inspector or Village Engineer may require additional erosion control measures if deemed appropriate to mitigate unforeseen siltation and erosion of disturbed soils.”
    - “As-Built drawings of the site improvements shall be submitted to the Village Engineer for review prior to obtaining Certification of Occupancy.”
    - “Stormwater system access ports shall be shown on the “As-Built”. “

- "Fill imported to the Site shall be certified in writing by a New York Licensed Professional Engineer as clean, non-contaminted fill suitable for the intended use."
- "Should rock blasting be required, a permit application in accordance with Chapter 125 – Blasting of the Dobbs Ferry Village Code must be submitted to the Village by the applicant for review/ approval."
- "Before the Site Plans are signed by the Chairman of the Planning board, the applicant shall be required to post a performance bond or other type of acceptable monetary guaranty which shall be in an amount determined by the Planning Board and the Village Engineer in a form satisfactory to the Village Attorney."
    - *Team response: Notes have been added to sheet C101.*

WALL TYPE	HEIGHT ABOVE BASE (Hw)	STEM THICKNESS (Astem)	HEEL (C)	WITH OF BASE (W)	BASE DEPTH (Abase)	"O" BARS	"D" BARS	"Lw" BARS	"P" BARS	"Lb" BARS
	ft.	in.	ft-in.	ft-in.	ft-in.	SIZE @ in.	SIZE @ in.	SIZE @ in.	SIZE @ in.	SIZE @ in.
W101	0'-6'	12"	2'-6"	4'-6"	1'-0"	#4 @ 12	#4 @ 12	#4 @ 12	#5 @ 12	#4 @ 12
W102	6'-12'	12"	4'-6"	7'-0"	1'-0"	#7 @ 12	#4 @ 12	#4 @ 12	#7 @ 12	#4 @ 12



1. FOR TOP OF WALL. GRADE ELEVATION AND LOCATION, SEE CIVIL, LANDCSAPE AND ARCH. DWGS.
2. REFER TO TYPICAL DETAILS FOR CONTROL JOINT & EXPANSION JOINT DETAILS, AND REQUIRED JOINT SPACINGS.RETAINING WALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR CONTROLLED COMPACTED BACKFILL HAVING A MINIMUM SAFE BEARING CAPACITY OF TWO TONS PER SQ.FT.
3. REFER TO CIVIL DRAWINGS FOR LENGTH AND LOCATION OF RETAINING WALLS.

TYPICAL CONCRETE SITE RETAINING WALL DETAIL

N.T.S.

STATE OF NEW YORK
SCOTT E. HUGHES
No. 085531
LICENSED PROFESSIONAL ENGINEER

THE MASTERS SCHOOL **INNOVATION AND ENTREPRENEURSHIP CENTER**

RETAINING WALL DETAIL **S-501SK**

MARVEL
145 HUDSON STREET, FLR. 3 NEW YORK, NY 10013
212.616.0420

6/16/2021
5:09:18 PM