HUDSON LOGISTICS CENTER

SP #12-22 & CU #07-22

November 9, 2022

Staff Report #2

(please see Staff Report #1 October 12, 2022 for additional detail)

SITE: Map 234/Lots 005, 034 & 035; Map 239/Lot 001; aka Green Meadow Golf Club

ZONING: General-1 (G-1)

PURPOSE OF PROPOSALS:
From the Site Plan Application: Proposed redevelopment of Property for a warehouse and distribution facility, representing a reduction of the scope of the approved Hudson Logistics Center originally approved by Site Plan Decision (SP #04-20) issued on May 5, 2021 for redevelopment of three (3) buildings having a footprint collectively consisting of 2,614,984 s.f., to a single building having a footprint of approximately 1,393,822 s.f. for warehouse, distribution, and associated uses and structures on a single 375.37-acre lot, along with access driveways, parking, stormwater/drainage, and other utility infrastructure, along with lighting, landscaping and other improvements shown on the plans.

From the Conditional Use Permit Application: Proposed redevelopment of property into the Hudson Logistics Center which includes a reduction in project scope originally approved, in part, by a Wetland Conditional Use Permit Decision (#02-20), by the Planning Board in April 21, 2021, for redevelopment of a single building having a building footprint of approximately 1,393,822 s.f. for warehouse, distribution and associated uses and structures, where a redevelopment of three (3) buildings having a footprint collectively consisting of 2,614,984 s.f were formerly approved, on a single 375,37 acre lot, along with access driveways, parking, stormwater/drainage, and other utility infrastructure, along with lighting, landscaping and other improvements shown on the plans.

PLAN & SUBMITTALS UNDER REVIEW:
Hudson Logistics Center, Site Plan & Wetlands Conditional Use Applications; dated September 9, 2022; consisting of 164 sheets including cover, and notes on Sheet CS003; prepared by: Langan Engineering & Environmental Services, Inc., 888 Boylston St., Boston, MA 02116, with surveying by: Hayner/Swanson, Inc., 3 Congress St., Nashua, NH 03062, and wetlands & natural resources by: Gove Environmental Services, 8 Continental Drive Bldg. 2, Unit H, Exeter, NH 03833; prepared for Applicant, Hillwood Enterprises, L.P. 5050 W. Tilghman St., Suite 435, Allentown, PA 18104 and Owner, Greenmeadow Golf Club, Inc., 55 Marsh Rd., Hudson, NH 03051.

Additional site plan submittals under review (Previously Provided):

1. Hudson Logistics Center – Site Plan Narrative, prepared by Smolak & Vaughan, LLP & Donahue, Tucker & Ciandella, PLLC, dated 09-12-2022.

2. Traffic Impact Study for Hudson Logistics Center, prepared by Langan Engineering, dated Sept. 2022, and Executive Summaries.
3. Stormwater Management Report, prepared by Langan Engineering, dated Sept. 2022, and Executive Summaries.
4. Geotechnical Engineering Study for Hudson Logistics Center, prepared by Langan Engineering, dated 09-12-2022, and Executive Summaries.
5. Air Quality Impacts Report, prepared by Epsilon Associates, Inc., dated 09-07-2022.
6. Sound Level Assessment Report, prepared by Epsilon Associates, Inc., dated 09-07-2022.
7. Real Estate Appraisal Services Report, Proposed Hudson Logistics Center, dated 09-07-2022, prepared by Wesley G. Reeks, MAI.
8. Letter from John D. Krebs, dated September 7, 2022.
9. Fiscal Impact Analysis –Hudson Logistics Center, prepared by RKG Associates, Inc., dated 09-07-2022.
10. Waiver Requests, prepared by Langan Engineering.

Additional Conditional Use Permit Application Submittals Under Review:

11. Revised Hudson Logistics Center, Application for Amended Conditional Use Permit, prepared by prepared by Smolak & Vaughan, LLP & Donahue, Tucker & Ciandella, PLLC, dated 09-12-2022.
12. Wetland Natural Resources Report for Revised Hudson Logistics Center Project, prepared by Gove Environmental Services, Inc., dated 09-09-2022.
13. Wildlife Habitat Evaluation: 2022 Update, prepared by Lucas Environmental, LLC, dated 09-09-2022.

**PDF copies of application materials can be found here:*
https://www.hudsonnh.gov/planning/page/hudson-logistics-center-2022

WAIVERS REQUESTED

Discussed further in the Comments section of this report:

1. §276-13 – Underground Utilities: Applicant requesting overhead electrical line for a distance of 820-feet extending from an existing line to existing property at 267 Lowell Road.

2. §275-8(C)(4) – Parking Space Dimensions: Applicant requests to allow parking spaces dimensions to be 9-feet by 18-feet instead of 10-feet by 20-feet.

3. §275-8.C(2) – Number of Parking Spaces: Applicant requests to reduce the number of required parking spaces from 3,705 to 1,585.

4. §193-10.G – Number of Driveways: Applicant requesting two driveways to serve the site.

5. §193-10.F – Driveway Width: Applicant requests a driveway width exceeding 50-feet.

6. §200-3 – Excavation for Site Plans: Applicant requests waiver from a potential clerical error. The regulation in question exempts projects requiring site plan approval from excavation permits, however it contains an outdated reference.

ATTACHMENTS TO THIS STAFF REPORT

A. Response to Peer Review of Site Plan, received October 13, 2022
B. Response to Peer Review of Traffic, received October 13, 2022
C. Response to Peer Review of Sound Study, received October 13, 2022
D. Supplemental Information, received October 26, 2022
    a. Response to Town Engineer Comments
    b. Response to comments received at October 12, 2022 Planning Board hearing.
    c. Revised Infiltration Feasibility for Stormwater Report
    d. Addendum to Appraisal Service Report
E. Written Public Input Received, as of November 1, 2022

APPLICATION TRACKING:

- September 12, 2022: Application received.
- September 14, 2022: Application determined as have potential for regional impact pursuant to RSA 36:56.
- October 12, 2022: Application accepted, public input received, site walk scheduled October 22, 2022, hearing continued to November 9, 2022.
- October 22, 2022, site walk conducted.
- November 9, 2022, hearing continuance scheduled.

COMMENTS:

Site Walk

On October 22, 2022 the Planning Board and Conservation Commission conducted a joint site walk at which the Applicant reviewed the changes in location of the screening strategies and closest edges and the areas of wetland impact. A request was received to schedule a second view of what was viewed on this site walk to accommodate those who are not available for the time and day this walk was scheduled.

Attendees of the site walk viewed the new, larger area of open space proposed in the southeast (plan lower-right). At the moment, emergency access via Steel Road appears to be the proposed use. This might be an opportunity for conservation and/or recreation. Also, the screening along the southern property line shared with abutters on Fairway Drive has shifted north. The site walk viewed a stand of mature trees that are proposed to remain under the current proposal. A mixture of meadow seed, tree plantings and existing vegetation is proposed between an earthen berm (with sound wall) and the abutting property line. The site walk was unable to view the proposed trailer storage area on the north end (plan left), a large paved area without any landscaping. While this may be considered trailer storage as opposed to a parking lot, some landscaping or segmentation of this storage area as well as enhanced landscaping around its exterior may benefit environmental impacts as well as visual impacts for those entering Hudson from the west.

Peer Reviews & Response

Attachment A is the Applicant's response to the peer review of the site plan. Peer review is considered ongoing as the Applicant has acknowledged that revisions will be made in accordance with this round of comments, particularly related to stormwater design, sewer design

and other engineering details. Peer review of the water is on-going and being performed separately by Weston & Sampson. Of this response letter, Staff notes the following:

1. Page 3 of 17, Item 1.m: Detail R-8 pertains to driveways. As this is an internal, privately owned parking lot, the Engineering Department finds 8" of crushed gravel base course acceptable.
2. Page 4 of 17, Item 3.d: Details of the proposed retaining walls should be provided as shop drawings prior to construction.
3. Page 5 of 17, Item 5.b: The Engineering Department recommends that where cover is less than 6-feet, the sewer run be insulated for frost protection.
4. Page 6 of 17, Item 5.f: The Applicant must obtain an approved sewer discharge permit from NHDES prior to recording the plan, if approved.
5. Page 9 of 17, Item 6.d: The affected areas are subject to the Wetland Conditional Use Permit application.
6. Page 13 of 17, Item 6.aa: To receive the approval of the Engineering Department for slopes less than 2%, the Applicant must demonstrate that these areas are self-cleaning (which requires a certain velocity).
7. Page 16 of 17, Item 9.b & c: The fixtures along the southern edge of the site are shown at a height of 30-feet on the lighting schedule Sheet LL502, while the screening berm with wall is at a proposed average height of 35-feet. The Applicant should confirm that the lighting fixtures are screened to the satisfaction of the Planning Board. Additional clarification of lighting operation will be provided by the Applicant.
8. Review of the sewer design and stormwater design is ongoing.

Attachment B is the Applicant's response to Peer Review of the Traffic Study. Review of the revisions and responses by the Peer Reviewer is on-going. Although this proposal shows a reduction in traffic from the approved plan, the Applicant is proposing the same traffic mitigation measures. NH DOT review of traffic improvements remains on-going.

Attachment C is the Applicant's response to Peer Review of the Sound Study. Minor revisions are noted. The Sound Study consultant indicated that if the additional clarification and information are included in a revised report, they will have no further comment.

Attachment D is a packet of additional responses received following the previous meeting, including response to the Town Engineer's comments, questions from the Planning Board and from the public hearing. There are also supplements to the stormwater report and the appraisal report.

Attachment E contains written public input received thus far. Concerns include the application and review process, the effect that cut and fill will have on the water table and environment, and the effect the development could have on the resources of the Police Department.

The Applicant and their fiscal analyst, RKG Associates, met with the Police Chief, Fire Chief and Director of Public Works to further understand the potential impacts this development may have on the resources of their departments. Additional analysis related to this, as well as the Peer Review of the fiscal reports, is expected for inclusion in a future meeting packet.

Waiver Requests

Staff recommends the Board review the Applicant's waiver requests. A copy of the Applicant's waiver requests and rationale was included in the initial packet of application materials. With the exception on #6, all of these waivers were granted in the previous approval on April 21, 2021:

1. §276-13 – Underground Utilities: Applicant requesting overhead electrical line for a distance of 820-feet extending from an existing line to existing property at 267 Lowell Road. (Previously granted April 21, 2021)

2. §275-8(C)(4) – Parking Space Dimensions: Applicant requests to allow parking spaces dimensions to be 9-feet by 18-feet instead of 10-feet by 20-feet. (Previously granted April 21, 2021)

3. §275-8.C(2) – Number of Parking Spaces: Applicant requests to reduce the number of required parking spaces from 3,705 to 1,585. (Previously granted April 21, 2021 for a reduction from 4,777 to 1,806))

   The Applicant should clarify the proposed parking count.

4. §193-10.G – Number of Driveways: Applicant requesting two driveways to serve the site. (Previously granted April 21, 2021)

5. §193-10.F – Driveway Width: Applicant requests a driveway width exceeding 50-feet. (Previously granted April 21, 2021)

6. §200-3 – Excavation for Site Plans: Applicant requests waiver from a potential clerical error. The regulation in question exempts projects requiring site plan approval from excavation permits, however it contains an outdated reference. (Not previously requested)

   §200-3 describes circumstances where an Excavation Permit is not required. Among them, §200-3.B(2) states:

   > "EXCAVATION of eventual nonresidential occupancy or use that is in conformance with SITE PLANS approved and signed pursuant to Section XVI of the Hudson SUBDIVISION Regulations.[1] Editor's Note: For current site plan review regulations, see Ch. 275"

   General practice has been that site plan approval includes excavation required to construct the approved site plan, thereby exempting the project from a separate Excavation Permit as implied by subsection B(2). However, this subsection also makes reference to a non-existent Section XVI of the Hudson Subdivision Regulations; the Subdivision Regulations only go up to Section IX. Due to this ambiguity, the Applicant has requested a waiver.

   It seems likely that the excavation permit was not intended to be required incidental to a project requiring site plan approval, which would be consistent with RSA 155-E:2-a. It is also noted that final approved plans must be signed by all parties including the Town and recorded with the Registry of Deeds prior to building permit application. Having

reviewed the matter with Town Counsel, Staff advises that the Board may decide whether or not a waiver is required.

DRAFT WAIVER MOTIONS:

Consider applicability of a waiver request:

I move that the intent of §200-3.B(2) **IS or IS NOT** to require an excavation permit when the work is incidental to a project requiring site plan approval.

If "**is**" then deliberate waiver request belwo. If "**is not**" waiver is unnecessary therefore request does not need to be addressed, ignore following draft motion.

I move to grant a waiver from §200-3, which allows for exemptions to an excavation permit, based on the Board's discussion, the testimony of the Applicant's representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____Second: _____Carried/Failed: _____

To GRANT a waiver:

I move to grant a waiver from §276-13 – Underground Utilities to allow overhead electrical line for a distance of 820-feet extending from an existing line to existing property at 267 Lowell Road, based on the Board's discussion, the testimony of the Applicant's representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____Second: _____Carried/Failed: _____

To GRANT a waiver:

I move to grant a waiver from §275-8(C)(4) – Parking Space Dimensions to allow requests to allow parking spaces dimensions to be 9-feet by 18-feet instead of 10-feet by 20-feet, based on the Board's discussion, the testimony of the Applicant's representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____Second: _____Carried/Failed: _____

To GRANT a waiver:

I move to grant a waiver from §275-8.C(2) – Number of Parking Spaces, to reduce the number of required parking spaces, based on the Board's discussion, the testimony of the Applicant's representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____Second: _____Carried/Failed: _____

To GRANT a waiver:

I move to grant a waiver from §193-10.G that permits only one driveway per parcel, based on the Board's discussion, the testimony of the Applicant's representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____Second: _____Carried/Failed: _____

To GRANT a waiver:

I move to grant a waiver from §193-10.F that permits driveway width to be up to 50-feet, based on the Board's discussion, the testimony of the Applicant's representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____Second: _____Carried/Failed: _____

DRAFT MOTIONS:
2ND VIEW OF SITE WALK:

I move to schedule a second view of the site walk conducted on October 22, 2022, at a date and time of _____.

Motion by: _____Second: _____Carried/Failed: _____

CONTINUE the site plan & conditional use permit applications:

I move to (accept/not accept) site plan application SP #12-22 and conditional use permit application CU #07-22, Hudson Logistics Center for Map 234/Lots 005, 034 & 035; Map 239/Lot 001, to date certain, _____.

Motion by: _____Second: _____Carried/Failed: _____

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

October 12, 2022

Mr. Brian Groth
Town Planner
Town of Hudson
12 School Street
Hudson, MA 03051

Re: Town of Hudson Planning Board Review
Hudson Logistics Center Amended Site Plan, Lowell Road
Response to Fuss & O'Neill Letter dated September 28, 2022
Langan Project No.: 151010102

Dear Mr. Groth,

On behalf of Hillwood, Langan is submitting this letter to respond to the comments included in Fuss & O'Neill's letter to you dated September 28, 2022. Below please find each comment followed by our response in **bold.**

1. SITE PLAN REVIEW CODES (HR 275) COMMENTS

a. Hudson Regulation (HR) 275-6.I. The scope of this review does not include the adequacy of any fire protection provisions for the proposed buildings. Fuss & O'Neill defers to the Hudson Fire Department for review of proposed fire protection for this facility.

COMMENT RESPONSE: Acknowledged. No response required.

b. HR 275-6.C. The applicant has proposed a sidewalk along the main access way to the front of the proposed building.

COMMENT RESPONSE: Acknowledged. No response required.

c. HR 275-8.C.(2) and Zoning Ordinance (ZO) 334-15.A. The applicant has provided parking calculations in the plan set showing that 3,705 parking spaces are required. The applicant has noted that there are 1,585 proposed parking spaces and has requested a waiver for the reduction in spaces proposed. We note that the total number of parking spaces shown on the plans appears to be 1,573. The count shown for each of the southwestern rows of spaces on sheet CS118 is incorrect (18 actual spaces vs. 20 noted).

COMMENT RESPONSE: We will correct the number of parking spaces as noted on Sheet CS118. The total number of spaces noted on CS100 (1,585) is correct.

d. HR 275-8.C.(4) The applicant has proposed parking spaces that are 9 feet by 18 feet. This will require approval by the Planning Board and the applicant has noted that a waiver is required on the plan set.

COMMENT RESPONSE: Acknowledged. No response required.

e. HR 275-8.C.(4). The length of the parking spaces is noted as 18 feet (typical) but they actually measure 20 feet long on the plans.

COMMENT RESPONSE: ***We drew the parking spaces at 20 feet long so that the total width of the parking spaces on the eastern side of the site would not need to be increased in the event that the requested waiver was not granted. Our stormwater design and calculations account for the additional impervious area for the 20 foot long spaces. If the waiver is granted, we will revise the plans to make the parking spaces 18 feet long.***

f. HR 275-8.C.(6). The applicant has provided loading space calculations on the plan set showing that 224 loading spaces are required and has proposed 1,034 loading spaces.

COMMENT RESPONSE: ***Acknowledged. No response required.***

g. HR 275-8.C.(8). The subject lot abuts a residential zone to the south. The applicant has provided screening with the installation of a landscape berm. We note that the proposed berm will be up to 25 feet tall before the addition of 8-10' tall tree plantings and a 10-foot-tall fence.

COMMENT RESPONSE: ***Acknowledged. No response required.***

h. HR 275-8.C.(11). The applicant has proposed 37 handicapped accessible parking spaces for the project, which well exceeds the minimum number of spaces required based on the overall total of spaces proposed.

COMMENT RESPONSE: ***Acknowledged. No response required.***

i. HR 275-9.C. The applicant has provided a Noise Study for the proposed project. Review comments related to this study will be provided under separate cover.

COMMENT RESPONSE: ***Acknowledged. No response required.***

j. HR 275-9.D. The applicant has provided a Fiscal Impact Study for the proposed project. Review comments related to this study will be provided under separate cover.

COMMENT RESPONSE: ***Acknowledged. No response required.***

k. HR 275-9.I. The applicant has provided an Air Quality Impact Study for the proposed project. Review comments related to this study will be provided under separate cover.

COMMENT RESPONSE: ***Acknowledged. No response required.***

l. Hudson Engineering Technical Guidelines & Typical Details (HETGTD) 565.1. The applicant has included General Note #33 on Sheet CS003 regarding the requirements for off-site fill materials if imported for this project.

COMMENT RESPONSE: ***Acknowledged. No response required.***

m. HETGTD Detail R-8. The applicant has proposed an asphalt pavement section in the Site Plans which includes 8 inches of processed aggregate base course for passenger car drive aisles and parking stalls. Hudson details require 12 inches of crushed gravel for driveways.

COMMENT RESPONSE: ***Our geotechnical report details a site specific analysis of the soil and the proposed loading of the private ways. This design supports the use of 8" of crushed gravel instead of the town's general detail requirement. We request that the town allow for the use of 8" of crushed gravel to reduce the import of gravel material to the site.***

2. ADMINISTRATIVE REVIEW CODES (HR 276) COMMENTS

a. HR 276-7. B. Waiver request forms were not included as part of the package received for review. Several waiver requests were noted on sheet CS002 of the plan set.

COMMENT RESPONSE: ***Waiver requests were provided to the town of Hudson with the filing on 9/12/2022.***

b. HR 276-11.1.B.(5). The applicant has not provided the required statement adjacent to the approval block on all sheets of the plan set.

COMMENT RESPONSE: ***The required statement will be added to our drawings.***

c. HR 276-11.1.B.(13). The applicant has not included details for any proposed business signage and should revise their sign note to provide the required note on the plan set, "All signs are subject to approval by the Hudson PLANNING BOARD prior to installation thereof."

COMMENT RESPONSE: ***A comprehensive signage package will be reviewed under a separate permit application. The location of the monument signs are indicated on the site plans in the same locations as in the previously approved plans.***

d. HR 276-11.1.B.(20). The applicant has not provided the size or height of the existing buildings on the plan set.

COMMENT RESPONSE: ***There are three buildings and a shed on site. Their sizes and heights will be added to the revised Existing Conditions Plans.***

e. HR 276-11.1.B.(21). The applicant has not provided copies of any proposed easements.

COMMENT RESPONSE: ***Attached is a copy of the drawing "Easement Plan – Master Sheet" dated 7 October 2022 prepared by Hayner/Swanson, Inc. to the town planner for information. Once easements are finalized a plan documenting them will be provided to the town. Existing easements are shown on the existing conditions plans and copies of the property deeds, including easement documents, were provided with the amended permit application submission.***

f. HR 276-11.1.B.(23). The applicant has not noted any pertinent highway projects on the plan set.

COMMENT RESPONSE: ***Although there are no highway projects adjacent to the site, a note will be added to Sheet CS003 indicating that the town of Hudson's project to construct a third southbound lane on NH 3A Lowell Road is included on the Nashua Metropolitan Planning Organization's 2021-2024 Transportation Improvement Program. Based on conversations with the town engineer, there are no additional town roadway projects planned or funded pertinent to our project.***

3. DRIVEWAY REVIEW CODES (HR 275-8.B.(34)/CHAPTER 193) COMMENTS

a. HR 193.10.E. The applicant has not shown sight distances for the proposed driveways on the plan set. We note that both driveways are proposed to be continuations of access ways that already exist and are connected to Lowell Road via signalized intersections.

COMMENT RESPONSE: ***Sight distances will be added to sheets CS101 and CS109. The two driveways designs are the same as the previously approved project. The intersection of the northerly driveway is the existing Sam's Club driveway and the southerly driveway is an expansion of the existing Mercury Systems driveway. Both driveways are signalized.***

b. HR 193.10.F. The applicant has noted that a waiver is being requested from this Regulation to allow certain portions of the Green Meadow Drive site access road to be greater than 50 feet in width.

COMMENT RESPONSE: ***Acknowledged. No response required.***

c. HR 193.10.G. The applicant has proposed two driveways for Map 233 Lot 1. The proposed site would connect into Wal-Mart Boulevard as well as the existing Mercury driveway. The applicant has noted that a waiver is being requested from this Regulation.

COMMENT RESPONSE: ***Acknowledged. No response required.***

d. The applicant has proposed retaining walls adjacent to the driveway. The applicant has provided a typical detail for the walls for reference only, but individual designs were not provided. The applicant should provide detailed designs for each proposed wall, stamped by an Engineer licensed in the State of New Hampshire, for Town review prior to construction.

COMMENT RESPONSE: ***Acknowledged. No response required.***

4. TRAFFIC COMMENTS

a. HR 275-9.B. Fuss & O'Neill, Inc. has reviewed the Traffic Impact Study prepared by Langan Engineering & Environmental Services, Inc. dated September 2022. Our review comments are being provided under a separate letter dated September 28, 2022.

***COMMENT RESPONSE:* Acknowledged. No response required.**

5. UTILITY DESIGN/CONFLICTS COMMENTS

a. Subsequent to the submission of the amended site plan review application, we were requested by the town engineer to submit a full design package for the water and sewer design including pump stations. We will provide those full design packages after receipt of the peer review for the water system and the comments below will be addressed as required in the full design packages. HR 275-9.E. The applicant should review the proposed sewer design with the Town of Hudson Sewer Department to ensure that enough capacity exists in the existing sewer mains to handle the flows that will be generated by the proposed project.

***COMMENT RESPONSE:* We reviewed the capacity of the town's existing sewer main and treatment facility for the approved project. We will reconfirm the capacities with the Hudson Sewer Department.**

b. Several proposed sewer runs have less than the required 6' of cover in paved areas, per Env-Wq 704.04(b). These include:
   i. Dwg. CU107: SMH-1
   ii. Dwg. CU118: SMH-6, 11, and 12

The applicant should review the elevations for these sewer sections and adjust as needed.

***COMMENT RESPONSE:* The drawings will be revised to show a minimum of 6' of cover wherever possible. The previously approved project had limited portions of the sewer force main with less than 6' of cover at certain critical points.**

c. Along the west side of the proposed building, a 6-inch sewer serves a "Back-in Trailer Maintenance Building (Dwg CU118) and a "Transportation Building" (Dwg CU 114). The sewer diameter is shown as 6-inch with several segments specified with 0.60% slope. Env-Wq 704.(a) requires a 6-inch sewer to have a minimum 0.01 feet per foot slope. (i.e. 1.00% slope).

***COMMENT RESPONSE:* The sewer serving the Back-in Trailer Maintenance Building will be revised to an 8-inch sewer to allow a shallower slope and reduce the total depth of the sewer.**

d. Plan sheets CU108, CU121, CU122, and CU123 are missing from both the paper and electronic copies of the plan set. If no Utility work is proposed for these sheets the Sheet Legend should note that (similar to the LL series drawings).

COMMENT RESPONSE: ***Sheet number CU108 has been added to the drawing set. There is no utility design on sheets CU121-CU123. These references will be removed from the sheet legend.***

e. The Sheet Legend for plan sheets CU107 through CU120 have the drawings mis-labelled as CS drawings.

COMMENT RESPONSE: ***The sheet legend in the noted drawings will be corrected.***

f. The proposed force main from the primary Sanitary Lift Station on Dwg. CU114 is labeled as 3-inch PVC. Env-Wq 704.07 requires a 4-inch or larger diameter force main. We have noted that two smaller E-One grinder pump stations are also specified at the facility.

COMMENT RESPONSE: ***E-One grinder pump stations with a 1 ¼" force main and 3" force mains for the private pump stations were approved by the NHDES for the previously approved project. We intend to utilize the same materials for the amended design, and anticipate that the NHDES will approve the amended design.***

g. HETGTD 720.5 & 720.9.7. The applicant has shown pump stations on the proposed site plan and provided a typical detail on the plan set. We note that no design information (pump station/force main system calculations) was provided for the review of these private pump stations.

COMMENT RESPONSE: ***Based on the request of the town engineer, we are finalizing detailed design of the entire sanitary sewer system, including the pump stations and will provide plans when they are complete.***

h. The applicant has proposed several gravity sewer pipe runs (sewer out of east side pump house; sewer from pull through inspection area) that are 4-inch diameter instead of the 6-inch diameter required by the Town.

COMMENT RESPONSE: ***The sewer size will be increased to 6"diameter pipes minimum at the two locations indicated.***

i. The applicant should clarify the proposed routing of the force main that connects to the gravity flow out of the east side pump house and how it will connect to the sewer system on the west side of the main building.

COMMENT RESPONSE: ***The force main from the pump house will discharge into the gravity sewer system in the main warehouse building. This has been coordinated with the plumbing engineer and meets code.***

j. HR 275-9.E. The applicant has not shown inverts into sewer manholes from various sewer force mains within the plan set.

COMMENT RESPONSE: ***Inverts will be added to the plans and will be part of the final design of the sanitary sewer system package.***

k. The applicant has not provided a detail for the oil-water separators in the plans. Also, the applicant should provide additional detail about proposed sewer flows from the Pump House, Truck Inspection, and Guard House structures and the need for these separators.

COMMENT RESPONSE: ***Oil-water separator details will be provided in plumbing drawings to be provided with building permit applications. The proposed sewer flows from the pump house and truck inspection include floor drains and will be directed to an oil water separator. No oil-water separators will be required at the guard house, and that structure will be removed from the plans. We note that the maintenance building will also have an oil-water separator.***

l. HETGTD 720.8.5. The applicant should confirm that floor drains, roof drains, sump pumps or any other non-sanitary sewerage drain will not be connected to any of the proposed sewer service connections.

COMMENT RESPONSE: ***No roof drains or sump pumps will be connected to the sanitary sewer system. Floor drains are required to be connected to the sanitary sewer by the International Building Code. We note that the previously approved project included connections of the floor drains of the water tank pump houses to sanitary sewer. Appropriately sized oil-water separators will be provided.***

m. No sewer gravity or force main profiles were included in the plan set.

COMMENT RESPONSE: ***Gravity sewer and force main profiles (Sheets CU301 through CU313) will be provided.***

n. HR 275-9.E and HETGTD 720.8. Connection to Exiting Sewer behind Sam's Club (Walmart Blvd.) on Dwg. CU101:
   i. Two short gravity sewer segments are proposed between the force-main discharge SMH – 12A and the existing SAM-7 SMH, but no pipe diameter or material is specified.
   ii. Existing inverts in SAM-7 should be shown.
   iii. Work in SAM-7 should specify re-bricking the invert to direct the new facility flows towards the downstream direction.

COMMENT RESPONSE: ***i) Revised drawings will clarify the pipe diameters and materials. ii) Existing inverts will be added to SAM-7. iii) A note will be added to the plan to require re-bricking of the invert at SAM-7.***

o. HR 275-9.E and HETGTD 720.8. The applicant has proposed a minimum slope of one inch per foot for the invert in sewer manhole 12A. Based on invert grades the actual slope will be greater than four inches per foot. The applicant should confirm that this slope and the expected system pressure will not cause velocity issues with the adjacent SMH 13A drop manhole.

COMMENT RESPONSE: ***The inverts at SMH 12A will be revised to be 1" per foot.***

p. We understand that another firm is providing peer review of the proposed domestic water and fire protection systems for the proposed project. Fuss & O'Neill offers the following comments based on our review of other site elements and their interaction with the water system.
   i. There are multiple locations where the proposed fire water line crosses the proposed drain line on the west side of the main building. The applicant may want to consider relocating the fire water line closer to the building to avoid these crossings.
   ii. For the water service main along the access road, the applicant should confirm that it is intended to be installed below the proposed drain lines to provide adequate cover and to avoid conflicts between these utilities (a water main profile was not included in the plans).
   iii. At the 24" drain line between OCS-2 and FES-2 the applicant has proposed to install a tee on the water main with valves on both sides of the drain. We would recommend moving the full tee and valve arrangement to the south side of the drain line.
   iv. The applicant has not included any details for the Pump House in the plans.
   v. The applicant should coordinate with the Town of Hudson Water Utility and Hudson Fire Department to ensure that capacity exists in the Lowell Street water main to meet the water service needs of the proposed development, including both domestic and fire protection needs.
   vi. A ¾-inch water service is proposed to feed a yard hydrant adjacent to the sewer pump station on Dwg. CU113 and 114. A note requiring a backflow preventor should be added to ensure integrity of the domestic water supply.

COMMENT RESPONSE: ***Noted. Weston and Sampson is providing peer review for the water systems.***

q. HR 276-13. The applicant has noted that a waiver from the Regulation is being requested to allow a portion of the site power to be provided via overhead lines.

COMMENT RESPONSE: ***Acknowledged. No response required.***

6. DRAINAGE DESIGN/STORMWATER MANAGEMENT (HR 275-9.A./Chapter 290) COMMENTS

a. HR 290-5.A.4. The applicant should provide the GRV excel spreadsheet calculation to the Stormwater Management Report. We note all other BMP worksheets are provided.

COMMENT RESPONSE: ***The GRV calculation sheet is attached, and will be added to the final record copy of the Stormwater Management Report.***

b. HR 290-5.A.9. We note there is critical design information lacking from the Infiltration Feasibility Report with respect to infiltration rates and potential soil amendments. The project is proposing field testing verification after approval for this information. We also note that General Notes #40 states this requirement. The applicant should keep the State and Town informed of all Geotechnical findings for test pit information periodically, as this information is dynamically interconnected and may alter many of the downstream drainage calculations on such a large-scale project.

COMMENT RESPONSE: ***Test pit and infiltration testing information collected in 2021 is included in Appendix F, Infiltration Feasibility of the Stormwater Report. This data provides coverage adequate to design the stormwater infiltration systems. As areas have become available for additional testing to be in compliance with the regulations, additional test pit explorations and infiltration testing is ongoing, and the Infiltration Feasibility report will be updated when testing is complete. If this additional data has an impact on the design, the systems will be adjusted accordingly. Provisions for those adjustments are included in the current design.***

c. HR 290-5.A.9. We request the applicant add the location of all outstanding test pits to the plan set. The contractor will need to know approximate locations and number of test pits to perform.

COMMENT RESPONSE: ***Test pits are being performed the weeks of 10/3 and 10/10. Results of the testing and a plan showing all completed test pits will be provided. See the attached Fig. 2 "Proposed Infiltration Test Location Plan" for reference.***

d. HR 290-5.A.10. Due to the proximity of wetlands and other buffer zones to the proposed locations for installation of erosion control practices, the applicant should review the need for relief from this requirement by the Planning Board.

COMMENT RESPONSE: ***Work in buffer zones and wetland impacts are part of the previously approved plan and the amended project reduces impacts to wetlands and buffers.***

e. HR 290-5.A.12. Due to the complexity of the project, the applicant should provide a more detailed Inspection and Maintenance checklist, listing individual BMP practice. This ensures each basin/practice achieves appropriate inspection and maintenance and functions as designed.

COMMENT RESPONSE: ***A more detailed Inspection and Maintenance checklist will be provided with the revised Stormwater Report.***

f. HR 290-6.A.7. The applicant should illustrate the location of all Construction Entrances upon all phased Erosion and Sediment Control Plans as these will be utilized in all phases for construction vehicle entrancing and exiting.

COMMENT RESPONSE: ***All phases (I-III) of Soil Erosion and Sediment Control plans have been revised to reflect the addition of construction entrances for vehicle entrancing and exiting.***

g. HR 290-6.A.8. We note the requirement for the applicant to coordinate a pre-construction meeting with the Town Engineer. This should be stated on the plans.

COMMENT RESPONSE: ***A note requiring pre-construction meeting coordination with the Town Engineer will be added on sheet CE501.***

h. HR 290-7.A.5. Comparing the pre- and post-development areas, there is an increase in A soils of 97± acres, a decrease of B soils of 95± acres, an increase in C soils of 1± acre, and a decrease in D soils of 3± acres. The applicant should provide additional information as to the reasoning behind the significant soil reclassification within the stormwater calculations.

COMMENT RESPONSE: ***In the post-development condition, areas that were converted to impervious were classified as HSG A to simplify the area take-off process as the CN of impervious paved area is 98 regardless of HSG designation. This is the reason for the increase in HSG A soils and decrease in HSG B and D soils. Per the Site Specific Soils Report there is HSG C soil onsite; ±1 acre of HSG C soil is located along the eastern site perimeter and was not classified as HSG C soils for in the pre-development area take-off. This will be addressed in our revised Stormwater Management Report, and is not anticipated to alter the results of the analysis that the design meets and exceeds all town and state requirements.***

i. HR 290-7.A.7. The applicant should also add the Eastern Box Turtle photos to the NHF&G note on the Sheet Index Plan or the Master Legend and Notes Plan Sheet. This will ensure the contractor is fully aware of the occurrence of the species, and it is not lost in the 167-page plan set of information.

COMMENT RESPONSE: ***Eastern Box Turtle photos and wildlife notes will be added to the Sheet Index Plan sheet CS002.***

j. HR 290-7.A.7. The applicant should add all coordination with the Local River Advisory Committee to the Stormwater Report.

COMMENT RESPONSE: ***We will provide a copy of the site plans and Stormwater Report to the Local River Advisory Committee as part of our AoT submission.***

k. HR 290-7.A.7. The applicant should provide additional information on the proposed cut and fill volumes of the project. Is the site balanced, or is there a net import/export of materials? Please provide information on the volume of cut and fill proposed and also how this converts to daily/weekly construction traffic/trips/trucks. If cut/fill volumes are not balanced this could potentially result in impacts and deterioration of Town (and State) roadways by the transport of significant amounts of material.

COMMENT RESPONSE: ***The site is designed to balanced, the on-site soils will remain on-site. The only imported material (stone, gravel, processed aggregate, concrete, etc.) will be those required for proposed infrastructure and the building. Therefore the only truck trips will be associated with construction materials and not on-site earthwork.***

l. HR 290-7.A.7. It would be beneficial for the applicant to provide a color-coded cut and fill volume plan and report with a maximum of 5 foot increments. This simple visual tool will

allow the Planning Board, Town Agents, and general public to grasp the amount of earthwork disturbance proposed for the project.

COMMENT RESPONSE: ***Please refer to the attached Fig. 1 "Cut Fill Plan" for proposed cut and fill areas of*** **the** ***project.***

m. HR 290-7.A.7. The applicant has included blasting information in the notes on sheet CS003 and noted that blasting shall be performed in accordance with Hudson Regulation 202 and applicable State requirements. The applicant and Contractor shall coordinate with the Hudson Fire Department for permitting, scheduling, etc., prior to any blasting being performed.

COMMENT RESPONSE: ***Acknowledged. No response required.***

n. HR 290-7.A.8. We note that although the Stormwater Management Report is signed by both Tim and Jon. A PE stamp with date should be provided on the Stormwater Management Report.

COMMENT RESPONSE: ***The revised Stormwater Report to be filed, will be stamped by John Plante.***

o. HR 290-7.B.13. The applicant should have the Site-Specific Soils Report stamped by the soil scientist.

COMMENT RESPONSE: ***The Site-Specific Soils Report submitted is stamped by the soil scientist (see last page of report).***

p. HR 290-7.B.13. The applicant should add the Site-Specific Soils lines and info to the Plan Set and also have the Soil Scientist stamp same plan.

COMMENT RESPONSE: ***Site Specific Soil Maps that include the soil map units are included in the Drawings section of the Stormwater Report.***

q. HR 290-7.B.13. We note that Appendix G-J are missing from the Paper version of the Stormwater Report but are included in the PDF version. The applicant should ensure all paper copies have a complete copy of the entire report and appendix.

COMMENT RESPONSE: ***Revised Stormwater Report Appendices including Appendices G-J will be provided with our final hard copy of the Stormwater Report. Appendix G is the Geotechnical Report, which was provided under separate cover.***

r. HR 290-7.B.14. The applicant should have the Wetland Scientist stamp the Existing Conditions Plans.

COMMENT RESPONSE: ***Revised Existing Conditions Plans with the wetland scientist's stamp will be provided.***

s. HR 290-7.B.14. The applicant should have the Wetland Scientist stamp the Soil Erosion & Sediment Control Plans, as these plans illustrate wetland impacts.

***COMMENT RESPONSE:* Revised Soil Erosion & Sediment Control Plans with the wetland scientist's stamp will be provided.**

t. HR 290-7.B.16. The applicant has noted that a Green Snow Pro applicator will be utilized for snow management. The applicant should review with NHDES AoT for this possible requirement. This requirement should be added to the Inspection and Maintenance manual.

***COMMENT RESPONSE:* A Green Snow Pro applicator was a requirement of the AoT permit that was issued by NHDES for the project. We will add to the Inspection and Maintenance Manual in the revised Stormwater Report, to be filed.**

u. HR 290-7.B.16. The applicant should provide more information on the Yeti Snow Removal system that is labeled upon the site plan.

***COMMENT RESPONSE:* The Yeti snow removal system consists of and automatic head, auger screws with a snow blower. Additional information can be found at www.goyeti.ca**

v. HR 290-8.B.4. & 5. We note the requirement of the applicant to coordinate the need for a Bond or Escrow with the Town Engineer and add a note to the plan set.

***COMMENT RESPONSE:* Acknowledged, a bond will be provided if required.**

w. HR 290-8.B.5. Due to the sheer size of the proposed project, the applicant should review with the Town if a formal agreement with legal description and signatures is required.

***COMMENT RESPONSE:* The cited regulation is applicable to homeowner associations, and not to this project.**

x. HR 290-10.A. The applicant should keep the Town informed of all communication with NHDES in relation to the required Alteration of Terrain, Shoreland, and Wetlands Permits to ensure NHDES comments do not alter drainage design/calculations.

***COMMENT RESPONSE:* Acknowledged.**

y. HR 290-10.A. We note that additional items will be required for the NHDES AoT Permit which could potentially affect the stormwater calculations and/or construction of the site. The applicant should provide additional detail related to the following items:
    i. The applicant should review typical NHDES screening layers as well as the NHDES PFAS sampling maps. We note the close proximity of the site to the Hampshire Chemical Corp directly across the Merrimack River, which has four test locations that illustrate the site contains elevated levels of PFAS, considered higher than health based levels.

ii. We note the phasing of the site will be required to meet or request a waiver from the 5-acre disturbed area limit from NHDES Env-1505.03.
iii. We note the phasing of the site will be required to meet or request a waiver from the 1-acre winter disturbed area limit from NHDES Env-1505.06(b)(1).

COMMENT RESPONSE: ***i) Acknowledged. ii) Acknowledged. iii) Acknowledged.***

z. HETGTD Section 920.2., 920.4.1. through 920.4.5. The applicant should illustrate all critical areas, stump disposal areas, refueling areas, cut/fill areas, etc. upon the Erosion and Sediment Control Plans.

COMMENT RESPONSE: ***No stump disposal areas will be included in the project. Refueling areas will be added to the revised Erosion and Sediment Control plans. Cut and fill areas are shown in the attached Fig. 1 "Cut Fill Plan".***

aa. HETGTD Section 920.3.4. We note there are storm drains that do not meet the minimum slope of 2.0%. The applicant should review these slopes with the Town Engineer.

COMMENT RESPONSE: ***This element of the design was similar in the previously approved design due to the scale of the site and the distances traversed by the pipe. The slopes less than 2% were previously approved by the town engineer.***

ab. HETGTD Section 920.7.B.15. Grading and Drainage Detail Plan sheets CG505 and CG506:
i. The applicant should correct the 6" diameter orifice leader, as it is labeled as an outlet pipe on Outlet Control Structure A1-2.
ii. The applicant should provide a height of the varying width rectangular orifice of Outlet Control Structure Details A1-3, A11-2, B1-2, B1-3, and B6-2.
iii. The applicant should correct the leader arrow location of the 128.0' invert, currently it points to the top of pipe instead of the inert on Outlet Control Structure detail B6-2.
iv. The applicant should provide the number of cored orifices in the summary below all Outlet Structure Details. For example (3) 8" orifice.

COMMENT RESPONSE:
i. The 6" orifice leader on the detail for Outlet Control Structure A1-2 will be revised.
ii. The height of rectangular orifices will be added to Outlet Control Structure Details A1-3, A11-2, B1-2, B1-3, and B6-2 on sheets CG505 and CG506.
iii. The leader for the 128.0' invert callout will be revised accordingly for Outlet Control Structure detail B6-2 on CG505.
iv. The number of cored orifices will be included in the summary below each applicable Outlet Control Structure detail on sheets CG505 and CG506.
The revisions cited above do not impact the conclusions of the stormwater system design.

ac. HETGTD Section 920.7.B.15. General Note #40 on CS003 references a "Proposed Infiltration Test Location Plan". The applicant should provide additional information as to where this plan is located; is this a plan set plan, is this plan part of the stormwater report, or update the plan reference and title to the appropriate plan.

COMMENT RESPONSE: ***The plan is provided (attached), and is meant to be a stand-alone drawing. We will remove the note from the plans and the Infiltration Feasibility section of the Stormwater Report will be updated with the testing locations and testing results.***

ad. The applicant has noted that snow shall be removed from trucks prior to leaving the project site in accordance with Jessica's Law (General Note 35 sheet CS003) but has not shown a means or location (pull through inspection area?) for this snow removal. The applicant should clarify how and where this snow removal will take place and include any potential impacts to site drainage infrastructure as applicable.

COMMENT RESPONSE: ***A Yeti Snow removal System will be utilized on the site to be in compliance with Jessica's Law and in accordance with Target standard approach to truck safety. The Yeti Snow Removal System is located in the truck court and shown on CS105 and CS108. A gate in the perimeter fence has been provided north of the Yeti location to allow access to a large snow storage area. Snow melt from the storage area will filter across a landscaped area and into Infiltration Basin A1-3.***

ae. The applicant will be required to comply with all provisions of the Town of Hudson's MS4 permit, including but not limited to annual reporting requirements, construction site stormwater runoff control, and record keeping requirements.

COMMENT RESPONSE: ***Acknowledged. No response required.***

af. Please note that this review was carried out in accordance with applicable regulations and standards in place in New Hampshire at this time. Note that conditions at the site, including average weather conditions, patterns and trends, and design storm characteristics, may change in the future. In addition, future changes in federal, state, or local laws, rules or regulations, or in generally accepted scientific or industry information concerning environmental, atmospheric and geotechnical conditions and developments may affect the information and conclusions set forth in this review. In no way shall Fuss & O'Neill be liable for any of these changed conditions that may impact the review, regardless of the source of or reason for such changed conditions. Other than as described herein, no other investigation or analysis has been requested by the Client or performed by Fuss & O'Neill in preparing this review.

COMMENT RESPONSE: ***Acknowledged. No response required.***

7. ZONING (ZO 334)

a. Zoning Ordinance (ZO) 334-14. The applicant has proposed a building height of 47 feet and has provided the extended setback from the residential area based on the square footage of the proposed building.

COMMENT RESPONSE: ***Acknowledged. No response required.***

b. ZO 334-17 & 334-21. The applicant has noted that the subject parcel is located within the General-One zoning district and a small undeveloped portion in the Business (B) zoning districts. The proposed use is permitted by the Ordinance.

COMMENT RESPONSE: ***Acknowledged. No response required.***

c. ZO 334-33. The applicant has shown impacts to the wetlands on-site and has stated that a NHDES Dredge and Fill permit is required. A copy of this permit once approved should be provided to the Town for their records.

COMMENT RESPONSE: ***Once approved, a copy of the Dredge and Fill permit application will be provided to the town.***

d. ZO 334-35.B and 334-35.C. The applicant had proposed impacts to the wetlands for the construction of new driveway areas. A Special Exception will need to be granted by the Zoning Board of Adjustment to allow these uses.

COMMENT RESPONSE: ***Article IX of the Town's Zoning Ordinance applying to the Wetland Conservation District was amended and replaced in its entirety at the 2020 by vote at a prior Town Meeting. Special exceptions are no longer required for the proposed impacts. Rather, the applicant is pursuing a conditional use permit from the Planning Board via the procedures outlined new Article IX of the Zoning Ordinance.***

e. ZO 334-60. The applicant has not provided any size or detail information for any signs other than handicapped parking and traffic signs within the subject lot. The applicant did note in the Subdivision plans that signs are subject to the requirements of the Hudson Zoning Ordinance as determined during the sign permit application process.

COMMENT RESPONSE: ***Monument signs and other site specific signs will be permitted separately.***

f. ZO 334-84 and HR 218-4.E. The applicant has shown all flood hazard areas on the plans. Proposed base building grades appear to be above the Merrimack River's 100-year flood elevation.

COMMENT RESPONSE: ***Acknowledged. No response required.***

8. EROSION CONTROL/WETLAND IMPACTS

a. ETGTD 565.1.1. The applicant should note on the plans the requirement for testing any imported fill over 10 cubic yards.

COMMENT RESPONSE: ***This note was included on Sheet CS003 (General Notes, #33), We will also add note 10 to Sheet CE501 to include the requirement for testing imported fill over 10 CY.***

b. The Town of Hudson should reserve the right to require any additional erosion control measures as needed.

COMMENT RESPONSE: ***Acknowledged. No response required.***

9. LANDSCAPING (HR 275.8.C.(7) & 276-11.1.B.(20)) AND LIGHTING (HR 276-11.1.B.(14))

a. HR 275-8.C.(7). The applicant has provided landscaping calculations showing that the sites meet the number of trees and shrubs required.

COMMENT RESPONSE: ***Acknowledged. No response required.***

b. HR 276-11.1.B.(14). The applicant has not provided information detailing the proposed hours of operation for the site lighting (i.e., what are the proposed hours of operation for the facility; will the lights operate only during those prescribed hours; will they operate during all nighttime hours; etc.). The Traffic Impact Study notes that the facility will operate 24/7. The applicant should clarify if all proposed lighting will operate during all nighttime hours, or if some will operate via timers, photocells, etc., and what those hours of operation will be.

COMMENT RESPONSE: ***We will follow up with this information.***

c. HR 276-11.1.B.(14). The applicant has proposed light pole installations that have a fixture mounting height of 40 feet. Due to their height, some of these lights may be visible to abutting properties. The applicant should review the proposed lighting along the south side of the site to ensure that lights are not visibly higher than the proposed landscape berm, fence, and associated plantings.

COMMENT RESPONSE: ***Site lighting along the southern edge of site is proposed at a lower height of 30 feet along perimeter of parking, and 40 feet interior to the parking lot. Lighting is dark-sky compliant within this area, and these poles that are lower than the building height should not be visible from adjacent properties due to the distance and height of the proposed berm, fence, and screening.***

d. HR 276-11.1.B.(14). The applicant is proposing several light poles along the entrance driveway that are at least graphically shown to be within the pavement at the edge of the road.

COMMENT RESPONSE: ***The plans will be revised to correct this drafting.***

10. STATE AND LOCAL PERMITS (HR 275-9.G.)

a. HR 275-9.G. The applicant has listed all the required permits and their status on the plan set. The applicant should forward all relevant permit documentation to the Town for their records.

***COMMENT RESPONSE:* Acknowledged. We will provide copies of relevant permit documentation to the town for their records as permits are received.**

b. HR 275-9.G. The applicant has noted that a NPDES permit and preparation of a SWPPP will be required for this project.

***COMMENT RESPONSE:* Acknowledged. No response required.**

c. HR 275-9.G. The applicant did not provide copies of any applicable Town, State or Federal approvals or permits in the review package.

***COMMENT RESPONSE:* We will provide copies of town, state, and federal approvals as they become available.**

d. Additional local permitting may be required.

***COMMENT RESPONSE:* We acknowledge that additional local permitting, consisting of signage approvals and construction related permits, will be required.**

11. OTHER

a. The applicant has noted that a waiver is being requested from Chapter 200-3 to exempt the project from the entirety of Chapter 200 (Excavation of Soil).

***COMMENT RESPONSE:* Acknowledged. No response required.**

b. The applicant should add the missing parking space lines on Drawing CS117.

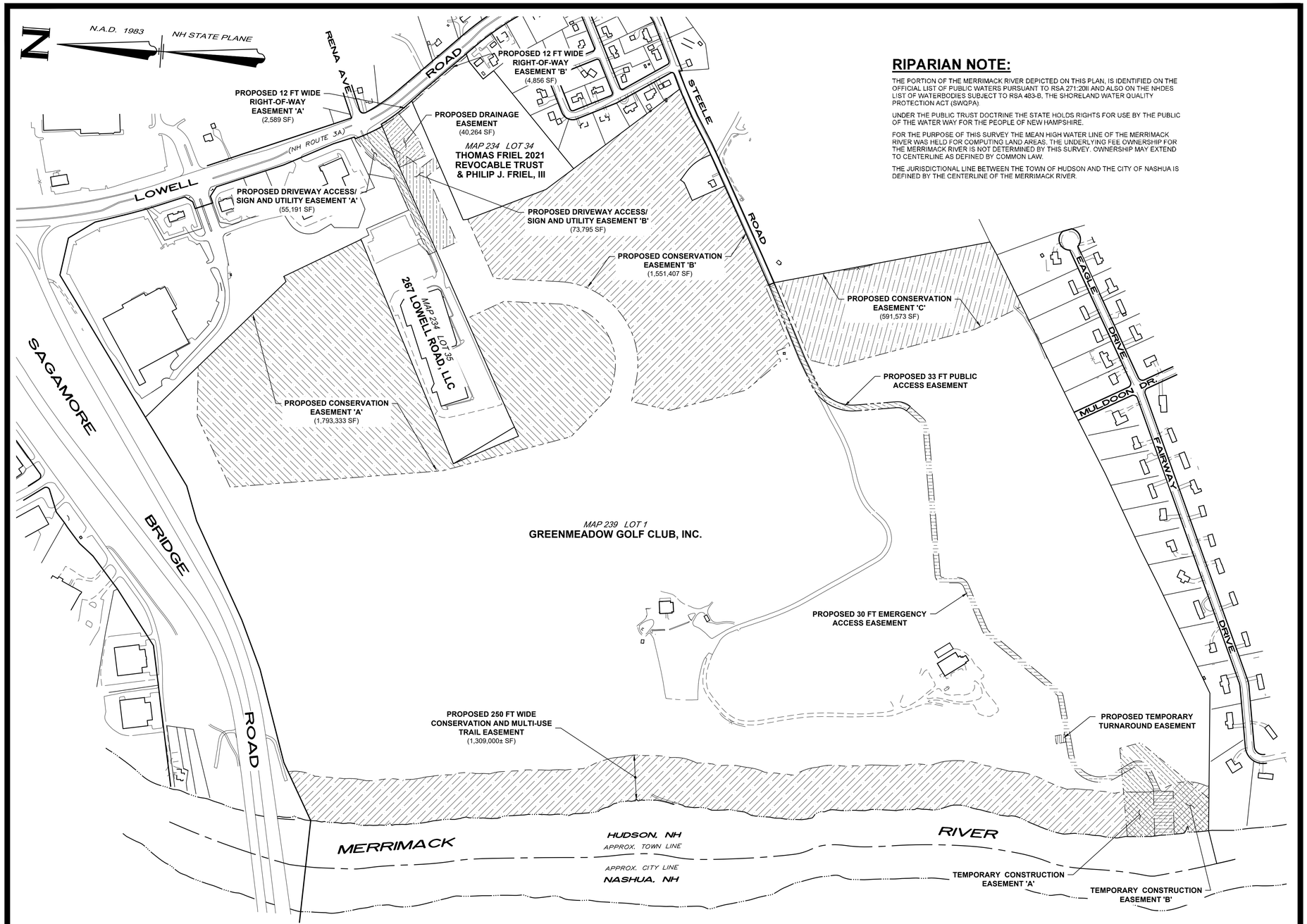
***COMMENT RESPONSE:* Sheet CS117 will be revised.**

Sincerely,
Langan Engineering and Environmental Services, Inc.

Frank Holmes
Senior Associate

cc:

Attachments: Easement Plan - Master Sheet (dated 10/07/2022) by Hayner/Swanson, Inc.
Fig. 1 "Cut Fill Plan"
Fig. 2 "Proposed Infiltration Test Location Plan"



RIPARIAN NOTE:

THE PORTION OF THE MERRIMACK RIVER DEPICTED ON THIS PLAN, IS IDENTIFIED ON THE OFFICIAL LIST OF PUBLIC WATERS PURSUANT TO RSA 271:20II AND ALSO ON THE NHDES LIST OF WATERBODIES SUBJECT TO RSA 483-B, THE SHORELAND WATER QUALITY PROTECTION ACT (SWQPA).

UNDER THE PUBLIC TRUST DOCTRINE THE STATE HOLDS RIGHTS FOR USE BY THE PUBLIC OF THE WATER WAY FOR THE PEOPLE OF NEW HAMPSHIRE.

FOR THE PURPOSE OF THIS SURVEY THE MEAN HIGH WATER LINE OF THE MERRIMACK RIVER WAS HELD FOR COMPUTING LAND AREAS. THE UNDERLYING FEE OWNERSHIP FOR THE MERRIMACK RIVER IS NOT DETERMINED BY THIS SURVEY. OWNERSHIP MAY EXTEND TO CENTERLINE AS DEFINED BY COMMON LAW.

THE JURISDICTIONAL LINE BETWEEN THE TOWN OF HUDSON AND THE CITY OF NASHUA IS DEFINED BY THE CENTERLINE OF THE MERRIMACK RIVER.

LEGEND

⊡ NHHB	N.H. HIGHWAY BOUND	—x—x—	WIRE FENCE
⊡ SB	STONE BOUND	—x—x—	CHAINLINK FENCE
⊡ FSB	FIELD STONE BOUND	═══	CURBING
◎ I.PIN	IRON PIN	———	EDGE OF PAVEMENT
◎ I.PIPE	IRON PIPE	———	PROPERTY LINE
■	STONE BOUND TO BE SET	———	RIGHT OF WAY LINE
●	IRON PIN TO BE SET		
— — —	NHDES SHORELAND PROTECTION DISTRICT		

CERTIFICATION

PURSUANT TO RSA 676:18,III AND RSA 672:14

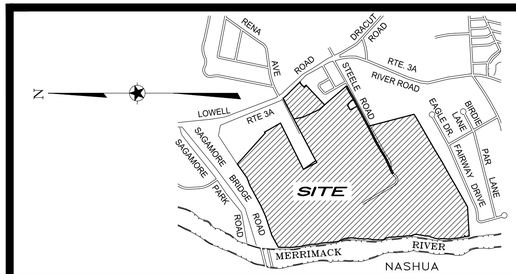
I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

I FURTHER CERTIFY, TO MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PLAN SHOWS THE RESULTS OF AN ON THE GROUND "STANDARD PROPERTY SURVEY" AND THAT SAID SURVEY MEETS THE MINIMUM PRECISION AND/OR ACCURACY MEASUREMENTS FOR SURVEY CLASSIFICATION "U" (URBAN) AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS ADOPTED 08/23/01, EFFECTIVE 01/01/09.

I FURTHER CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS A MAXIMUM ERROR OF CLOSURE OF ONE PART IN FIFTEEN THOUSAND ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

DATE

LEE B. GAGNON, LLS



VICINITY MAP SCALE: 1" = 2,000±

PLAN REFERENCES:

1. LOT LINE RELOCATION/CONSOLIDATION PLAN, MASTER SHEET, (MAP 234, LOTS 5 & 34 AND MAP 239, LOT 1), HUDSON LOGISTICS CENTER, LOWELL AND STEELE ROADS, HUDSON, NEW HAMPSHIRE. PREPARED FOR: LANGAN, RECORD OWNERS: GREENMEADOW GOLF CLUB, INC., THOMAS P. FRIEL & PHILIP J. FRIEL, III, SCALE: 1" = 400'. DATED: 16 FEBRUARY 2021, REVISED 03/26/21 AND PREPARED BY THIS OFFICE.
   RECORDED: HCRD – PLAN No. (NOT YET RECORDED)
2. OVERALL SITE PLAN , HUDSON LOGISTICS CENTER, MAP No. 239, LOT No. 1, HUDSON, HILLSBOROUGH, NEW HAMPSHIRE, DATED: 04-21-2020 WITH REVISIONS THRU 03/10/21 AND PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC.
   ON FILE WITH THE TOWN OF HUDSON.

NOTES:

1. PURPOSE OF PLAN:
   TO SHOW EXISTING AND PROPOSED EASEMENTS ASSOCIATED WITH THE HUDSON LOGISTICS CENTER.
2. SURVEY CONTROL DATA:
   HORIZONTAL DATUM: NAD83(1986)*
   HORIZONTAL PROJECTION: NH STATE PLANE
   UNITS: US SURVEY FEET
   * HORIZONTAL AND VERTICAL DATUMS WERE VERIFIED USING G.P.S. (KEYNET NETWORK) WITH OBSERVATIONS ON SITE AND ON NGS (FORMERLY USGS) "DISK D-26" LOCATED ON THE NORTHERLY SIDE OF NH ROUTE 101A, APPROXIMATELY 4.5 MILES WEST OF THE NASHUA LIBRARY.
3. LOT NUMBERS REFER TO THE TOWN OF HUDSON ASSESSORS MAPS 227, 228, 233, 234, 239, 240, 245 & 246 AND NASHUA MAP A.
4. PRESENT OWNERS OF RECORD.

MAP 239, LOT 1
GREENMEADOW GOLF CLUB, INC.
55 MARSH ROAD
HUDSON, NEW HAMPSHIRE 03051
BK. 5581, PG. 800 & 802
BK. 1668, PG. 239 & 241

MAP 234, LOT 35
267 LOWELL ROAD, LLC
c/o CHESTNUT REALTY MGMT, LLC
P.O. BOX 15228
SPRINGFIELD, MA 01115-5228
BK. 9412, PG. 460

THOMAS FRIEL 2021 REVOCABLE TRUST
PHILIP J. FRIEL, III
55 MARSH ROAD
HUDSON, NEW HAMPSHIRE 03051
BK. 5693, PG. 1364
BK 9486, PG. 2979

No.	DATE	REVISION	BY

EASEMENT PLAN – MASTER SHEET
(MAP 234, LOTS 34 & 35 AND MAP 239, LOT 1)

HUDSON LOGISTICS CENTER

LOWELL AND STEELE ROADS
HUDSON, NEW HAMPSHIRE

PREPARED FOR:
HILLWOOD ENTERPRISES, L.P.
5050 W. TILGHMAN STREET, STE 435 ALLENTOWN, PA 18104

RECORD OWNERS:
GREENMEADOW GOLF CLUB, INC., THOMAS FRIEL 2021 REVOCABLE TRUST & PHILIP J. FRIEL, III
55 MARSH ROAD HUDSON, NEW HAMPSHIRE 03051
and 267 LOWELL ROAD, LLC
c/o CHESTNUT REALTY MNGT, LLC P.O. BOX 15228 SPRINGFIELD, MA 01115–5228

300 0 300 600 900 1,200 FEET
150 0 150 300 METERS
SCALE: 1"=300 Feet
1"=91.441 Meters

7 OCTOBER 2022

HSI Hayner/Swanson, Inc.
Civil Engineers/Land Surveyors
3 Congress Street, Nashua, NH 03062, (603) 883-2057
131 Middlesex Turnpike, Burlington, MA 01803, (781) 203-1501
www.hayner-swanson.com

FIELD BOOK: --	DRAWING NAME: 3867L_EASE-FE72	3867L	1 OF 1
DRAWING LOC: J:\3000\3867\DWG\3867L EASEMENT		File Number	Sheet

ELEVATIONS TABLE				
NUMBER	MIN. Δ	MAX. Δ	AREA (SF)	COLOR
1	−35'	−30'	821	
2	−30'	−25'	11,284	
3	−25'	−20'	190,788	
4	−20'	−15'	252,923	
5	−15'	−10'	419,416	
6	−10'	−5'	722,824	
7	−5'	0'	1,330,019	
8	0'	5'	2,139,596	
9	5'	10'	1,632,179	
10	10'	15'	547,261	
11	15'	20'	264,722	
12	20'	25'	92,840	
13	25'	30'	42,449	
14	30'	35'	20,365	
15	35'	40'	7,198	

WALMART
RENA AVE
BRUCE STREET
STEELE ROAD
NEW ENGLAND MOTOR CAR
WORLD CUP GOLF CENTER
LINDA STREET
PROPOSED MAIN ENTRANCE WAY
LOWELL ROAD
DIGITAL FEDERAL CREDIT UNION
FRIEND LUMBER & BUILDING CENTERS
MCDONALD'S
EXISTING ACCESS DRIVE
50 FT WETLAND ZONE OF NONINTERFERENCE (TYP)
WETLANDS LIMIT LINE (TYP)
INFILTRATION BASIN B6-2
WETLANDS (TYP)
SAM'S CLUB
SAGAMORE BRIDGE ROAD (EASTBOUND)
SAGAMORE BRIDGE ROAD (WESTBOUND)
2508'
EXTENDED DRY DETENTION BASIN B3-2 WITH MICRO POOL
FLOOD ZONE X (SHADED)
FLOOD ZONE X (UNSHADED)
FLOOD ZONE X (UNSHADED)
FLOOD ZONE A
MERCURY SYSTEMS
EXISTING BUILDING TO REMAIN
EAGLE EAGLE DRIVE
MULDOON STREET
INFILTRATION BASIN B5-2
VERNAL POOL
INFILTRATION BASIN B1-2
EXTENDED DRY DETENTION BASIN B1-3 WITH MICRO POOL
PROPOSED BUILDING
BUILDING FOOTPRINT = ±1,391,600 SF
FFE = ±147
FAIRWAY DRIVE IVE
PROPE
FLOOD ZONE X (UNSHADED)
FLOOD ZONE X (SHADED)
FLOOD ZONE AE
FLOOD ZONE X (UNSHADED)
FLOOD ZONE X (SHADED)
INFILTRATION BASIN A1-3
FLOOD ZONE LINE (TYP)
MERRIMACK RIVER
250' SHORELAND ZONE LIMITS (TYP)
150' WOODLAND BUFFER (TYP)
50' WATERFRONT BUFFER (TYP)
INFILTRATION BASIN A11-1
INFILTRATION BASIN A1-2
FLOOD ZONE AE

FOR PERMITTING ONLY, NOT FOR CONSTRUCTION

250 0 125 250
SCALE: 1 INCH = 250 FEET

Date	Description	No.
Revisions		

LANGAN
Langan Engineering and Environmental Services, Inc.
100 CAMBRIDGE STREET, SUITE 1310
Boston, MA 02114
T: 617.824.9100 F: 617.824.9101 www.langan.com

Project
HUDSON LOGISTICS CENTER
MAP No. 239, LOT No. 1
HUDSON
HILLSBOROUGH NEW HAMPSHIRE

Drawing Title
CUT FILL PLAN

Project No.	Figure
151010101	FIG.1
Date: 10/05/2022	
Drawn By: KJH	
Checked By: TDO	

LANGAN
Project No. 151010101

Date: 10/5/2022 Time: 12:14 User: khebard Style Table: Langan.stb Layout: FIG.01 Document Code: FG01-151010101-0201-CG101-0107

NOTES

1. ALL BORING, TEST PIT, AND OBSERVATION WELL LOCATIONS ARE APPROXIMATE.
2. BASE MAP INFORMATION OBTAINED FROM "TOPOGRAPHIC SUBDIVISION PLAN, HUDSON LOGISTICS CENTER" PREPARED BY HAYNER/SWANSON, INC., DATED 21 APRIL 2020.
3. PROPOSED DEVELOPMENT INFORMATION OBTAINED FROM SITE PLAN BY LANGAN, DATED SEPTEMBER 9 2022.
4. ELEVATIONS REFERENCE THE NGVD29 DATUM.
5. APPROXIMATE EXPLORATION LOCATIONS BY GZA GEOENVIRONMENTAL, INC. WERE OBTAINED FROM A REPORT TITLED "PRELIMINARY GEOTECHNICAL ENGINEERING STUDY" PREPARED BY GZA GEOENVIRONMENTAL, INC., DATED MAY 2006.
6. LANGAN EXPLORATIONS WERE PERFORMED BETWEEN JUNE 2020 AND JANUARY 2022. ALL TEST PITS AND BORINGS WERE OBSERVED FULL TIME BY A LANGAN FIELD ENGINEER. PROPOSED TEST PITS TO BE CONDUCTED ON THE WEEKS OF 10/03/2022 AND 10/10/2022.
7. SEE INFILTRATION LOGS FOR ADDITIONAL INFORMATION OF TEST PERFORMED IN BOTH TEST PITS AND BORINGS.
8. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

ADDITIONAL NOTES

1. INFORMATION PROVIDED HERE IS INFERRED BASED ON THE AVAILABLE BORINGS AND TEST PITS AND IS PROVIDED FOR INFORMATION/DISCUSSION PURPOSES ONLY.
2. CONTRACTOR IS RESPONSIBLE TO DETERMINE/CONFIRM ESTIMATED QUANTITIES AND DEPTHS BASED ON THE AVAILABLE BORING/TEST PIT LOGS, THEIR OWN EXPLORATION WORK, AND THEIR OWN MEANS/METHODS.

LEGEND

LANGAN BORING	A-B-BOR-01
LANGAN TEST PIT	A-B-TP-01
HISTORIC GZA BORING	B-1
HISTORIC GZA TEST PIT	TP-1
PROPOSED TEST PIT FOR INFILTRATION	TP-100
PROPOSED BUILDING LIMITS	
PROPOSED ROADWAY AND PARKING LOT LIMITS	
PROPOSED INFILTRATION BASIN LIMITS	
AREA LINES	
PROPERTY LINE	

Date	Description	No.
Revisions		

LANGAN

Langan Engineering and Environmental Services, Inc.
100 CAMBRIDGE STREET, SUITE 1310
Boston, MA 02114

T: 617.824.9100 F: 617.824.9101 www.langan.com

Project

HUDSON LOGISTICS CENTER

MAP No. 239, LOT No. 1
HUDSON
HILLSBOROUGH NEW HAMPSHIRE

Drawing Title

PROPOSED INFILTRATION TEST LOCATION PLAN

Project No.	Figure
151010101	FIG .2
Date: 09/09/2022	
Drawn By: JNW	
Checked By: FH	Sheet 1 of 1

250 0 125 250
SCALE: 1 INCH = 250 FEET

FOR PERMITTING ONLY, NOT FOR CONSTRUCTION

LANGAN

Project No. 151010101

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

October 10, 2022

Brian Groth
Town Planner
Town of Hudson
12 School Street
Hudson, NH 03051
bgroth@hudsonnh.gov

Re: Traffic Study Peer Review: Comment Response Letter
Hudson Logistics Center
Hudson, NH
Langan Project No.: 151010102

Dear Mr. Groth,

On behalf of Hillwood, Langan is submitting this traffic peer review response letter for the amended Hudson Logistics Center. Enclosed please find our responses to the traffic peer review comments dated September 28, 2022. Below please find each comment followed by our response in **bold.**

TRAFFIC STUDY PEER REVIEW COMMENTS

a) No descriptions of existing pedestrian amenities were provided in the report.

COMMENT RESPONSE: A description of the pedestrian accommodations was provided in the Executive Summary page ES4 of 5. We will amend the report to provide additional descriptions of the existing and future pedestrian amenities.

b) The River Road/Lowell Road/Dracut Road & Steele Road Intersection 2019 Existing Conditions PM Synchro report provided in Appendix C does not appear to match the data shown in Tables 5 and 7 of the report.

COMMENT RESPONSE: Acknowledged. The results indicated in Tables 5 and 7 are accurate. We revised the appendices with the proper synchro reports. Please note that the overall results and conclusions of the analysis do not change with this revision.

c) The report correctly identifies adjacent approved and pending projects when determining No-Build conditions. These adjacent projects are identified as Flagstone Crossing (225 Lowell Road) and a Distribution Warehouse on Friar's Drive. Trips generated for a previously approved Cumberland Farms were included in the No-Build instead of those generated by the Flagstone Crossing development, which we agree is appropriate and more conservative. However, Figure 4B which displays trip distribution for these developments notes at the bottom that the volumes displayed are based on the Cumberland Farms traffic impact study but does not mention the Friar's Drive warehouse development. We suggest either confirming that the trips generated by the Friar's Drive project have been included in the No-Build calculations, or to include them if they have not already been.

COMMENT RESPONSE: ***Acknowledged. We confirmed that the trips shown on Figure 4B correspond to the committed developments mentioned in the study. We revised Figure 4B with the correct footnote.***

d) The provided Synchro reports show that there is unused time (shown as gray on the Splits and Phases diagram) for phases of several intersections under most conditions. If there is a reason for this, it should be provided. If this is unintended, the timings should be revised to give these phases the appropriate green time. This should not have an impact on the Synchro analysis results.

COMMENT RESPONSE: ***Acknowledged. We revised the synchro timings and reports with the appropriate green time and agree that there are no impacts to the Synchro analysis results.***

e) The Lowell Road at Fox Hollow Drive/Nottingham Square Driveway and Lowell Road at Pelham Road intersections were evaluated with an exclusive pedestrian phase under No-Build and Build conditions, but not under existing conditions. If there is a reason for this, it should be stated. This likely accounts for the increase in queue lengths between existing and No-Build/Build conditions displayed in the synchro report summary tables for these intersections. No pedestrian count data was provided in the report or its appendix. If pedestrian count data was collected at these intersections, it should be included in the report and the Synchro files updated to reflect the volume observed. Currently in the scenario's pedestrian phase that is included the default setting of 5 calls an hour is used. If it is determined that this setting is appropriate, it should be used in all scenarios.

COMMENT RESPONSE: ***We confirmed that these intersections do not have an existing exclusive pedestrian phase. We revised the synchro and report to analyze the intersections without a pedestrian phase as done for the existing conditions. In addition, we confirmed that the existing pedestrians at these intersections are very low (less than three pedestrians within the peak hours). We revised the Appendix B to include the pedestrian data. Please note the revised synchro analysis does not impact the overall results and conclusions of the study.***

f) Similarly, the Lowell Road at Wason Road/Flagstone Drive existing intersection appears to have an exclusive pedestrian phase but was not modeled with one in any of the Synchro files under any of the analyzed conditions.

COMMENT RESPONSE: ***We acknowledge that the intersection has an exclusive pedestrian phase, however, NHDOT guidelines do not recommend the use of pedestrian phases for Traffic Impact Assessment Studies. We also note that the pedestrians volume activity at the intersection is extremely low (less than two pedestrians within the roadway peak hours), as shown on the pedestrian data included in Appendix B. Therefore, due to the low volume of pedestrians and in accordance with NHDOT guidelines, the intersection was modeled without a pedestrian phase and more accurately represent the expected traffic operations at the intersection. No revisions required.***

g) According to the NHDOT Synchro Inputs Checklist, the preferred output of Synchro reports for signalized intersections is HCM 2000. The Langan study does not provide reports in this format, but instead provides them in the Synchro 10 (Lanes, Volumes, Timings) format. This format is acceptable with documented justification, but it does not appear that any justification has been provided.

COMMENT RESPONSE: ***Most of the intersections analyzed along the Lowell Road corridor operate with a coordinated system. The HCM 2000 methodology has some limitations when analyzing the interaction between intersections such as taking into account the potential impacts of downstream congestion on intersection operation. In addition, the HCM methodology does not support intersections with exclusive pedestrian phases. Therefore, to provide a consistent output for all intersections and demonstrate the existing and future traffic conditions of the area more accurately we used the Synchro 10 analysis format. Please note that this is the same method used in the previous study, which was reviewed and approved by NHDOT.***

h) The cover of the Traffic Impact Study notes the site address as 43 Lowell Road, while the narrative within the study notes the address as 43 Steele Road.

COMMENT RESPONSE: ***Acknowledged. We have revised the cover page to show the correct address (43 Steele Road).***

If you have any questions please do not hesitate to contact us at 617-824-9161 or via email to mpolanco@langan.com/ JPlante@Langan.com.

Sincerely,
Langan Engineering and Environmental Services, Inc.

Maximo G. Polanco
Project Manager

John Plante, P.E.,
Managing Principal/Executive VP

MGP:mgp
cc: Steve Reichert (Fuyss & O'Neill)
Elvis Dhima (Town of Hudson)
Dan Clarey (Langan)

CONSULTING SCIENTISTS, PLANNERS & ENGINEERS

October 11, 2022

Mr. Frank Holmes
Langan Engineering and Environmental Services, Inc.
100 Cambridge Street, Suite 1310
Boston, MA 02114

Subject: Hudson Logistics Center – Response to Sound Level Study Peer Review

Dear Mr. Holmes:

Epsilon Associates, Inc. ("Epsilon") is pleased to provide responses to the September 29, 2022 peer review letter report from HMMH. HMMH reviewed the September 7, 2022 Epsilon "Sound Level Assessment Report – Hudson Logistics Center Project" report ("Report") on behalf of Fuss & O'Neil. Epsilon's responses to each HMMH comment are provided below. Our conclusions from the September 7, 2022 report remain unchanged.

1. Section 4.1 of the Report summarizes the Town of Hudson's Noise Ordinance, which are contained in §249 of the Town of Hudson Code. In the second paragraph of Section 4.1, Epsilon states that nighttime is the period from 6:00 p.m. to 7:00 a.m. The Town defines nighttime in §249-2 of the Noise Ordinance as "the hours between 6:00 p.m. (six post meridian) and 7:00 a.m. (seven ante meridian) of the following day on weekdays, **together with all hours on Sunday, Saturday and legally observed holidays**" (emphasis added).

Response: The predicted facility daytime sound levels also meet the nighttime sound level limits. The final report will be updated to reflect this.

2. In Section 4.1 of the Report, Epsilon notes that Noise Limit 9 of the Noise Ordinance well-maintained equipment shall be used during construction. It should be noted that the Noise Ordinance also prohibits unmuffled exhaust or intake systems on mobile or stationary equipment. The contractor should be made aware of these requirements for the construction equipment.

Response: Acknowledged. The contractor will be made aware of the requirements.

3. In Section 4.2 of the Report, a reference is made to §275-6E of the Hudson Site Plan Review Ordinance. Based on my review of the Town's ordinance, as it appears on eCode360,1 the appropriate reference would appear to be §275-6H.

Response: The reference to §275-6E is a typo. The typo will be corrected in the final report.

4. Table 6-1 of the Report provides a summary of the measured ambient sounds levels for each of the measurement locations for daytime and nighttime periods. Epsilon should confirm that the measured sound levels for daytime and nighttime are consistent with the definitions contained in the Noise Ordinance. Section 6.0 also should include a brief narrative that describes the measured sound levels in Table 6-1, including a description of the "ANS L90".

Response: Daytime and nighttime ambient levels were determined based on the Noise Ordinance definitions. The "ANS L_{90}" is the ANS-weighted statistical L_{90} sound level. This is the level exceeded 90 percent of the measurement interval with high frequency energy (in the 1250 Hz third octave band and above) removed. This will be clarified in the final report.

5. The caption of Table 7-1 indicates the levels reported therein are the modeled sound power levels for sources of on-site noise. However, the octave band levels shown in the table are represented as *sound pressure* levels. Is this a typo? If the octave band levels are *sound pressure* levels, a reference distance from each source should be provided.

Response: The data are sound power levels, as the caption states. The "sound pressure level" text in the table heading is a typo and will be corrected in the final report.

6. It appears that the broadband A-weighted sound power level for the proposed roof top units (RTUs) in Table 7-1 is 86 dBA (re: 1 pW). Please confirm the reference sound power for the sources, since it is not indicated in the report.

Response: All reported sound power levels reference 1 pW. This will be clarified in the final report.

7. The proposed 1.4 million square-foot building will have 64 RTUs. Does the broadband level in Table 7-1 represent a tenant specification for the sound power level of the RTUs? What are the capacities of the RTUs for this proposed project? The sound study prepared by Ostergaard Acoustical Associates2 for the previously approved project indicated that 36 out of 57 RTUs on the proposed Building A, which was approximately 1.1 million square feet, would have capacities of 25 tons, with corresponding sound power levels of 93 dBA (re: 1 pW).

Response: The RTU sound level data were tenant specified as noted in Table 7-1. The capacity for each unit is 25-tons. The final report will be updated to include this information.

8. Does the proposed 1.4 million square-foot building have a parapet along the edge of the roof?

Response: The proposed building will have a very small parapet with a height of approximately 2 feet. To be conservative, no parapet wall was included in the noise model.

9. The modeling methodology presented in Section 7.3 is consistent with industry standards for the prediction of community noise levels from such facilities.

Response: Acknowledged. No response required.

10. Table 8-1 of the report provides computed sound level results for on-site trucks and RTUs. Given that the Town's definition of nighttime includes all hours on Sundays and Saturdays, it is noted that the continuous daytime Leq at each receptor is also projected to be less than the applicable nighttime limit in the Noise Ordinance.

Response: Acknowledged. The final report will be updated to show that sound levels due to daytime facility activities will meet nighttime limits as well as daytime limits.

11. Table 8-4 indicates compliance with Noise Limit 4 of the Town's Noise Ordinance. Considering the Towns' definition of nighttime includes all hours on Sundays and Saturdays, would operation of the facility remain in compliance with Noise Limit 4 between the hours of 7 a.m. and 6 p.m. on Sundays and Saturdays?

Response: Sound levels due to facility activities will not cause an increase in sound level greater than 10 dBA at any time of day and therefore will meet Noise Limit 4. This is the case for all hours on Saturday and Sunday as well as during the week. The final report will be updated to clarify this.

12. Consistent with Epsilon's recommendation in Section 9.0, I would recommend the Town consider a condition that on-site terminal tractors be equipped with broadband or ambient-sensitive backup alarms.

Response: Acknowledged. No response required.

13. The Site Plans and Report indicate an earthen berm and sounds fences will be included as part of the proposed project. These features should be included as shown and referenced to ensure compliance with the Town's Noise Ordinance.

Response: Acknowledged. No response required.

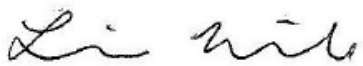
14. Based on a comparison of the amended Site Plan and the Site Plan for the previously approved project, it appears that the proposed 1.4 million square foot building for the current project will be located further from the community to the south than either Building B or Building C from the previously approved project.

Response: Acknowledged. No response required.

If you have any questions about these responses, please feel free to contact me at 503-927-9026 or at lmorrill@epsilonassocaites.com.

Sincerely,

EPSILON ASSOCIATES, INC.



Laurie Morrill
Senior Scientist

SMOLAK & VAUGHAN LLP
ATTORNEYS AT LAW

John T. Smolak, Esq.
T: 978-327-5215 | F: 978-327-5219
jsmolak@smolakvaughan.com

October 26, 2022

VIA EMAIL AND BY HAND

Planning Board
Town of Hudson
Attn: Brian Groth, Town Planner
12 School Street
Hudson, NH 03051

RE: Hudson Logistics Center – Site Plan, Conditional Use Permit Applications
Supplemental Information

Dear Brian:

On behalf of the Applicant, Hillwood Enterprises, L.P., enclosed for filing with the Board are thirteen (13) copies of the following documents:

1. Response to Town Engineer Comments, dated September 19, 2022;
2. Response to Comments Received at October 12, 2022 Planning Board Hearing, dated October 26, 2022, prepared by Langan (including the calculation of building height, responses to lighting matters, and responses to traffic signalization questions);
3. Revised Appendix F, Infiltration Feasibility, dated October 26, 2022, as supplement to Stormwater Report dated September, 2022 (provides all remaining required soils testing and other data); and,
4. Addendum to September 7, 2022 Appraisal Services Report, dated October 23, 2022, (which provides updated information in response to comments from the Town and public).

We look forward to discussing these and other matters with the Board at the Board's November 9, 2022 hearing. Thank you.

Very truly yours,

John T. Smolak, Esq.

cc: Brian Kutz, Hillwood (email only)
Langan (email only)
Justin L. Pasay, Esq. (email only)
Distribution List

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

October 26, 2022

Brian Groth
Town Planner
Town of Hudson, NH
12 School St.
Hudson, NH 03051
bgroth@hudsonnh.gov

Re: Response to Town Engineer Comments
Hudson Logistics Center
Hudson, NH
Langan Project No.: 151010101

Dear Mr. Groth,

On behalf of Hillwood, Langan is submitting this letter responding to comments related to the proposed Hudson Logistics Center project in Hudson, NH. Below please find our responses to the comments contained in Staff Report for the Hudson Logistics Center, SP# 12-22 CU #07-22, from the Town Engineer in his email to you and Brook Dubowik dated September 19, 2022. Below is each comment followed by our response in **bold.**

PEER REVIEW COMMENTS

1. Applicant shall coordinate all offsite improvement located within the Town Right of Way with the Engineering and Public Works Departments.

   COMMENT RESPONSE: Acknowledge and will comply.

2. Applicant shall coordinate all traffic control adjustments outside of Hudson jurisdiction, with NHDOT.

   COMMENT RESPONSE: Acknowledge and will comply.

3. Applicant shall coordinate all traffic control adjustments with Town of Hudson Engineering and Public Works Department, if Hudson and NHDOT have a traffic maintenance agreement in place.

   COMMENT RESPONSE: Acknowledge and will comply.

4. Applicant shall accommodate all necessary traffic control upgrades, included in the traffic study zone, to the satisfaction of Hudson Engineering and Public Works Department, if Hudson and NHDOT have a traffic maintenance agreement in place.

   COMMENT RESPONSE: Acknowledge and will comply.

5. Applicant shall have a complete water domestic and fire protection design and model, prior to final approval.

   ***COMMENT RESPONSE*: Acknowledge and will comply.**

6. Applicant shall have a complete sewer collection system design, prior to final approval.

   ***COMMENT RESPONSE*: Acknowledge and will comply.**

7. Applicant shall have a complete traffic offsite improvements design, prior to final approval.

   ***COMMENT RESPONSE:* Acknowledge and will comply.**

8. Applicant shall comply with the Hudson Engineering construction specifications and standards.

   ***COMMENT RESPONSE:* Acknowledge and will comply.**

Sincerely,
Langan Engineering and Environmental Services, Inc.

Frank Holmes

Frank Holmes, PE
Senior Associate

cc: Brian Kutz, Hillwood
John Smolak, Smolak & Vaughan LLP
Justin Pasay, Donahue, Tucker & Ciandella, PLLC

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

October 26, 2022

Brian Groth
Town Planner
Town of Hudson, NH
12 School St.
Hudson, NH 03051
bgroth@hudsonnh.gov

Re: Response to Questions and Comments Received at October 12, 2022 Planning Board Hearing
Hudson Logistics Center
Hudson, NH
Langan Project No.: 151010101

Dear Mr. Groth,

On behalf of Hillwood, Langan is submitting this letter to respond to questions received at the Planning Board hearing held on October 12, 2022 for the above referenced project, Hudson Logistics Center, in Hudson, NH.

Traffic Signalization

Planning Board Member Comment: Request to understand the software and communication system for the proposed adaptive traffic signal control technology.

Comment Response: The HLC development is proposing to upgrade the traffic signals at the intersections listed below that will be connected into the Town's GRIDSMART system.

1. ***Lowell Road (Route 3A) & Wason Road/Flagstone Drive***
2. ***Lowell Road (Route 3A) & Sagamore Bridge Road***
3. ***Lowell Road (Route 3A) & Wal-Mart Boulevard***
4. ***Lowell Road (Route 3A) & Green Meadow Drive/Rena Avenue***
5. ***Lowell Road (Route 3A)/River Road/Dracut Road/Steele Road***

The GRIDSMART system is a traffic management solution that allows the control of signalized intersections with the use of innovative smart cameras dedicated to gather and analyze traffic data to adjust signal timing and traffic flow strategies enabling city planners and traffic engineers to resolve problems with real-time remote monitoring and visual assessment. We have attached for reference a brochure providing more information of the GRIDSMART system.

The proposed traffic signal controllers at these intersections will be Advanced Transportation Controllers (ATC) model eX2 NEMA produced by McCain Inc. These controllers provide the latest technology for traffic management and intelligent

transportation systems. In addition, the proposed controllers comply with the latest requirements from the Institute of Transportation Engineers (ITE) standard ATC 5.2b. We have attached for reference a brochure providing the specifications of the proposed controllers (Attachment A)

Site Lighting

Planning Board Member Comment: Will site lighting be visible from the abutters to the south of the project?

Comment Response: The proposed site lighting will not be visible to abutting properties to the south of the project. Refer to attached updated representative sight line study which illustrates in section at the bottom of each page the proposed sight lines from both ground and second-story windows relative to the proposed location and heights of the light fixtures (Attachment B). In each scenario the lights would not be visible due to the landscape berm and sound fence alone. The additional plantings as they mature will enhance this screen even further.

Relative to fixture heights, light poles are proposed at 40 feet interior to the parking lot, lowered to 30 feet along the perimeter of parking closer to abutters, and 20 feet mounted on the building. These mounting heights produce an energy-efficient layout and reduce the number of light sources and poles required throughout the site with both energy savings and sustainability of materials in mind as well as being compliant with local zoning and Illuminating Engineering Society of North America (IESNA) recommendations for minimum parking lot security. As is noted in the lighting plans provided as part of our drawing submission, at no point will light levels exceed 0.0 footcandles within 750 feet from the southern property line.

All light fixtures throughout the site are certified International Dark-Sky Association (IDA) "Dark Sky Approved". IDA recommends that all fixtures focus light downward only and do not shine any light upward toward the sky to avoid ambient light. The fixtures specified have been certified on the manufacturer catalogue sheets as IDA "Dark Sky Approved" as they accomplish this goal.

In addition, the light source has been reduced from 4,000 kelvin to 3,000 kelvin, which is a softer/warmer color temperature to meet IDA's latest recommendations. Although reflectance is not required for dark-sky compliance, the dark asphalt color of the parking lot further reduces the possibility of ambient light reflection or glow. Lastly, the perimeter fixtures feature internal individual LED house-side shields which direct light toward the development and prevents the possibility of glare toward the abutting properties.

Project Comparison

Planning Board Member Comment: Please provide a side by side comparison of the approved project to the amended project.

Comment Response: See the attached comparison (Appendix C).

Building Height

Planning Board Member Comment: Clarify the building height and elevation.

Comment Response: The first floor elevation of the building will be 147'. The height of the building will be <= 48.43'. Maximum Building Height Calculations are attached as Attachment D.

Sincerely,
Langan Engineering and Environmental Services, Inc.

Frank Holmes, PE
Senior Associate

Attachments: GRIDSMART system overview brochure (Attachment A)
Sight Line Study (four total) (Attachment B)
Project Comparison (Attachment C)
Maximum Building Height Calculation (Attachment D)

cc: Brian Kutz, Hillwood
John Smolak, Smolak & Vaughan LLP
Justin Pasay, Donahue, Tucker & Ciandella, PLLC

ATC eX2 NEMA CONTROLLER

TS 2 Type 1
TS 2 Type 2

TS 2 Type 1

TS 2 Type 2

Overview

McCain's ATC eX2 NEMA Controller is an advanced, multi-application controller that simultaneously supports multiple software applications through a single platform. Designed in full compliance with NEMA TS 2 and ATC 5.2b standards, the ATC eX2 NEMA Controller provides revolutionary flexibility and control. Best of all, the single ATC eX compliant housing can be configured for either TS 2 Type 1 or TS 2 Type 2 applications and is backward compatible with TS 1. This allows end users to upgrade existing intersections to a modern, high-performance platform without replacing cabinet hardware.

Benefits

- Compliant with NEMA and ATC 5.2b standards
- Powerful CPU and generous memory configurations
- Multi-tasking ability minimizes the amount of hardware required at intersections
- Robust, open-architecture Linux platform supports application software from multiple vendors
- Wide variety of communication options for connectivity in any environment
- Multiple configuration options include NEMA TS 1, TS 2 Type 1, and TS 2 Type 2

Product Description

The McCain ATC eX2 NEMA Controller is a revolutionary, multi-application controller.

The ATC eX2 NEMA Controller features a wide variety of communication options, including a standard 3-port hardened switch, 2 USB ports, serial, and Ethernet for secure connectivity in any kind of environment. Quick data transfers, firmware upgrades, and log retrievals can be done via USB directly from the front panel.

The oversized screen features auto-contrast making it easily legible in a variety of conditions.

The controller's Linux operating system provides a robust, flexible, open-architecture platform that can support application software from multiple vendors.

McCain®
A SWARCO Company

ATC eX2 NEMA Controllers

Standard Features

Operating System
- Linux

Microprocessors
- Freescale PowerQUICC II Pro microprocessor

Memory
- 256MB Flash memory
- 256MB DRAM
- 2MB Non-volatile SRAM

Backup real-time clock (RTC)

Applicable standards
- NEMA TS 2-2003 v2.06
- ATC 5.2b
- NTCIP 1201, 1202 and applicable base standards

General Specifications

Dimensions:	TS 2 Type 1: 7″ H x 10″W x 10.5″ D TS 2 Type 2: 10″ H x 10″W x 10.5″ D (rounded to the nearest 0.1″)
Form Factor:	Shelf mount configuration
Power:	89 VAC to 135 VAC, 60 Hz (± 3 Hz)
Environment:	Operating Temperature: -37° C to +74° C Humidity: 0 to 95% (non-condensing)
Weight:	TS 2 Type 1: 7 lbs TS 2 Type 2: 10 lbs

Interfaces

Communication interfaces
- SDLC ports (2) including SP3 routed to NEMA TS 2 Port 1
- Serial (asynchronous) on front panel (3)
- Serial (asynchronous) on 2070 compatible modem slot (2)
- ENET 1: 100 Base-T Ethernet switch, 1 uplink, and 1 additional port
- ENET 2: 100 Base-T Ethernet port dedicated for local communications (i.e. laptop or similar)
- USB ports (2)

Front panel interfaces
- Display: 16 lines x 40 characters
- Keyboard: 7 x 4 keypad (28 key)

Cabinet interfaces
- NEMA TS 2 Type 1 Port 1 (SDLC)
- NEMA TS 2 Type 1 A connector
- NEMA TS 2 Type 2 A, B, C and D connectors

Software

Compatible with McCain's Omni eX® Intersection Control Software (see separate data sheet for details).

Options

- Custom D connectors
- International Input Voltage: 190VAC to 253VAC, 50 Hz (± 3 Hz)

Available Modules
- Various communication modules (2070 form factor)
- GPS module

McCain® A SWARCO Company

2365 OAK RIDGE WAY | VISTA, CA 92081 | USA | WWW.MCCAIN-INC.COM

ATTACHMENT A

THE ROAD TO BETTER INFRASTRUCTURE

» ITS Overview

ATTACHMENT A

CUBIC

THE ROAD TO BETTER INFRASTRUCTURE

At Cubic Transportation Systems (CTS), we design, assemble, and engineer products that create safer, more efficient, and conscientious cities for drivers, vulnerable road users, municipal partners, and equipment installers. Our intersection management technology minimizes congestion to enhance mobility for all travelers, whether in dense, urban city centers or arterial corridors.

Our solutions include a comprehensive suite of hardware and software components that manage traffic movements, delivering a fully integrated approach that provides traffic managers with seamless, real-time, and predictive insights into traffic conditions. Innovation is at the heart of our efforts, a relentless focus on delivering the next generation of products that connect people, vehicles, and communities. It is a critical undertaking to support our vision of protecting all road users who travel through a CTS intersection.

ATTACHMENT A

OPTIMIZE TRAFFIC FLOW AND PROTECT VULNERABLE ROAD USERS AT THE INTERSECTION

According to the U.S. Department of Transportation, more than 20,000 people died on U.S. roads in the first six months of 2021, the highest number of transportation-related fatalities since 2006. Unfortunately, this scenario will continue if we ignore solutions that do not put safety at the forefront. Municipalities must innovate their transportation systems to improve operations and focus on safer roads for all users.

Cities can use computer vision to make intersections safer and more efficient for vehicles and vulnerable road users like pedestrians and bicyclists. Much like the human visual system, the GRIDSMART Solution combines traditional computer vision and Deep Neural Networks to detect, identify, and track all moving objects in a scene.

The GRIDSMART Solution tracks all road users, including pedestrians, as they enter, travel through, and exit the intersection, extending clearance times to accommodate each traveler or giving back valuable time to vehicles. Additionally, GRIDSMART is simple to install and low maintenance, minimizing a technician's time in the field and relieving the agency budget.

- **Accommodate each road user with automatic clearance time extensions** regardless of how quickly or slowly they move through the intersection, preventing accidents.
- **Eliminate the need for manual timing signals** and optimize the intersection by actively adjusting signal times to respond to current traffic demand.
- **Access complete intersection performance reports** with vehicle detection, analytics, and more to understand infrastructure demand and make informed city-planning decisions.
- **Helps cities improve safety and efficiency** at transit network's busiest points—intersections, focusing on the safety of the community's most vulnerable members: pedestrians and bicyclists.

ACCESS DATA ANYTIME, ANYWHERE

Traffic engineers require data to make quicker and more informed traffic management decisions.

Our Signal Performance Measures (SPM) is an out-of-the-box solution that stores and analyzes high-resolution data collected from traffic signals. The cloud-based platform provides access to your data anytime, anywhere.

- SPM includes custom reports developed by our engineers and leading DOTs.
- Automated data collection and analysis allow agencies to quickly identify potential signal timing issues before they are noticed by the public, saving time and money by immediately pinpointing problems.

OPTIMIZE AVAILABLE ROADWAY CAPACITY, IMPROVE TRAVEL TIME, AND REDUCE FUEL CONSUMPTION AND EMISSIONS WITH A SINGLE SOLUTION

Unlike outdated manual signal timing, adaptive signal control technology automatically adjusts signal timings based on vehicle demand and pedestrian traffic. Adaptive signal timing ensures updates as situations occur, increasing the probability of receiving a green light when approaching a signalized intersection. Adaptive technology reduces vehicle stops, travel time, and road user frustration.

SynchroGreen is the industry's premier Real-time Adaptive Traffic Signal Control Technology, a field-proven software solution that reduces motorist travel time, delays, and stops by continuously assessing traffic trends for all phases of intersection movements to determine the optimal signal settings.

- **A holistic approach to traffic signal management**, considering mainline and side-street vehicle traffic and pedestrian movements.
- **Allocate time for each vehicle and pedestrian phase in real-time**, powerful functionality that makes it a leading adaptive solution.
- **Reduce emissions of hydrocarbons and carbon monoxide** with improved traffic flow.
- **Respond to road conditions faster**, resulting in happier road users and fewer complaints.
- **Save money** by getting travelers to their destination more efficiently, cutting fuel costs.

> Our solutions include a comprehensive suite of hardware and software components that manage traffic movements, delivering a fully integrated approach that provides traffic managers with seamless, real-time, and predictive insights into traffic conditions.

INTEGRATE TRAFFIC ANALYSIS, SIGNAL TIMING AND TRAFFIC SIMULATIONS

Cities of all sizes and traffic network complexities rely on Synchro Studio to deliver precise insights for managing traffic at intersections and roundabouts. Transportation planners and engineers use Synchro Studio as a single application to design, optimize, and simulate both signalized and unsignalized intersections.

Synchro Studio includes three core modules that collectively provide traffic analysis, optimization, and simulation capabilities. Synchro integrates seamlessly with our ATMS Central Transportation Management System, providing a holistic approach for managing every mobility-related asset of a city's network.

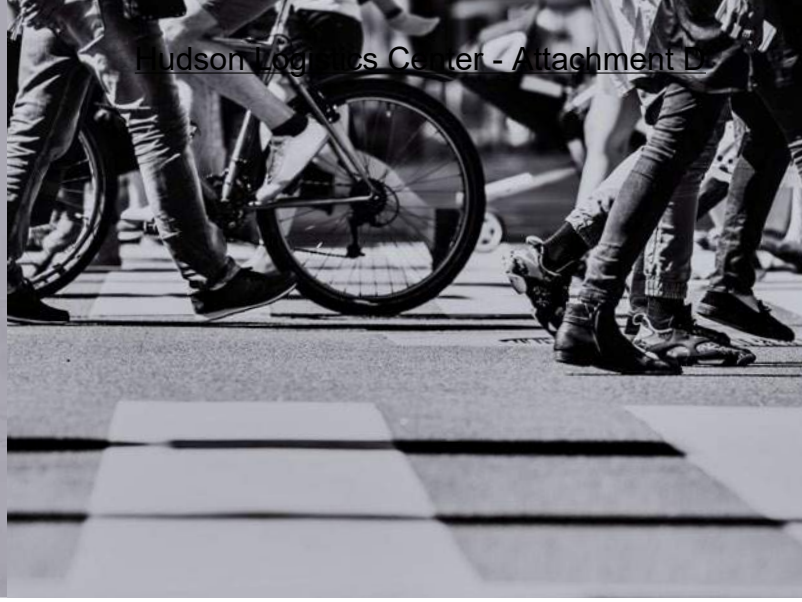
- **Design, model, and optimize** traffic signal infrastructure.
- **Simulate real-world** vehicular and pedestrian traffic scenarios.
- **Support Highway Capacity Manual (HCM) 6th Edition**, 2010 and 2000 best practice methodology for signalized intersections, unsignalized intersections, and roundabouts.

ONE SOLUTION FOR OPTIMAL THROUGHPUT

A central management system allows traffic operations staff to respond to congestion and incidents quickly.

Our Advanced Transportation Management Software (ATMS) has powered traffic management systems for communities worldwide. ATMS simplifies the management of complex, multi-modal networks and provides a holistic view of all network infrastructure, devices, traffic, and environmental conditions through a cloud-based platform. This facilitation enables users to quickly pinpoint and respond to congestion incidents, abnormal events, or accidents, potentially saving lives. ATMS also helps our customers address their Net Zero objectives by addressing carbon emissions through effective congestion management.

- **Improve response times using real-time data**, intuitive dashboards, and automated response workflows.
- **Reduce congestion by quickly communicating with travelers** using message signs and variable speed limits.
- **Make informed city-planning decisions** with predictive demand management and analytics.
- **Minimize carbon emissions** with superior congestion management.



UNMATCHED DURABILITY, EVEN IN THE HARSHEST CONDITIONS

Thousands of communities worldwide utilize our traffic cabinets to safehouse traffic signal equipment and accessories. We work closely with each customer to determine their needs, offering both standard built cabinets and fully customizable designs to meet each location's size and performance demands. This unwavering commitment to quality and performance excellence has earned Cubic cabinets the trust of thousands of communities worldwide.

- **We build each cabinet to exact standards** in our manufacturing facility, leveraging the expertise of nearly a half-century of engineering.
- **All cabinets undergo exhaustive testing** before shipping, ensuring they meet the most stringent operational standards.

KEEPING YOU FIRMLY IN CONTROL OF INTERSECTION TRAFFIC

We are proud to offer an extensive portfolio of traffic controllers designed with the latest ATC standards, including NEMA and CalTrans. The range of options ensures seamless compatibility for our customers as they migrate (or upgrade) their current technology. Our controllers are known for their quality build and superior reliability, performance distinctions borne from decades of manufacturing experience.

PROJECT FUNDING AVAILABLE

With the new **Infrastructure Investment and Jobs Act**, also known as the bi-partisan infrastructure legislation, more Department of Transportation funding opportunities are available than we've seen in previous years. Grants are more accessible than you think to secure, and our team is here to help guide you through the process, from developing grant content to aligning support.

The Infrastructure Investment and Jobs Act includes programs (see Figure 1) that agencies can use to partner with Cubic to help improve your transportation system. These are a mix of new and old programs – some are competitive grant programs, and some are formula programs providing State, regional, and local governments, as well as transit agencies, with an array of opportunities. To start the grant process, contact your Cubic sales representative or audrey.denis@cubic.com.

FUNDING PROGRAMS AVAILABLE TO IMPROVE YOUR TRANSPORTATION SYSTEM

Cubic is Here to Assist in the Grant Process. Contact us Today.

Title	Size Over 5 Years	Purpose	Agency	Eligible Awardees	Size	Funding Share	Technology Investment
Advanced Transportation Technology and Innovative Mobility	$900M	• Investment in the development of and deployment of large scale installation and operation of advanced transportation technologies to improve safety, efficiency, system performance, and infrastructure return on investment • Formerly ATCMTD • 200% funding increase from IIJA	FHWA	States, municipal gov'ts, transit agencies	$3M-$12M (typically $6M)	50% federal / 50% local	• ATMS • Detection • VRU Analysis • Adaptive • Transit Signal Priority
Safe Streets and Roads for All (new)	$5B	• Grant to develop and carry out comprehensive safety plans to prevent death and injury on roads and streets • Support Vision Zero	USDOT-OST	State and local gov'ts		80% federal / 20% local	• Detection • VRU • Signal Optimization
SMART (new)	$500M	• Provide grants for demonstration projects focused on smart city technologies to improve transportation efficiency and safety • AVs, sensor-based infrastructure, logistics, smart grid, smart traffic signals, UAVs for surface transportation safety and efficiency	USDOT-OST	State and local gov'ts		80% federal / 20% local	• ATMS • Detection • VRU Analysis • Adaptive • Transit Signal Priority
Congestion Relief (new)	$250M	• Advanced innovative, integrated and multi-modal solutions for congestion relief in congested metro areas. Funds projects that reduce congestion and optimize existing highway capacity and use of highway and transit systems	FHWA	Units of local gov'ts in regions with a pop. over 1.0M		80% federal / 20% local	• ATMS • Detection • VRU Analysis • Adaptive • Transit Signal Priority

Figure 1

WHO WE ARE

For us, transportation is personal. We know that every journey matters, no matter how long or short. That's why the team at Cubic Transportation Systems helps transportation authorities and transit agencies design, integrate, deploy and manage mobility systems fit for the challenges of tomorrow.

We work alongside our transportation partners to understand their needs, objectives, and budgets while helping them build modern mobility systems to manage demand and congestion, make journeys safer, and empower travelers to make informed and preferred travel choices.

Whether you're after a small-scale cloud-based, real-time passenger information system, a regional congestion management platform, or a complex traffic management system for urban networks delivered in an as-a-Service model, we're here to support you and your customers.

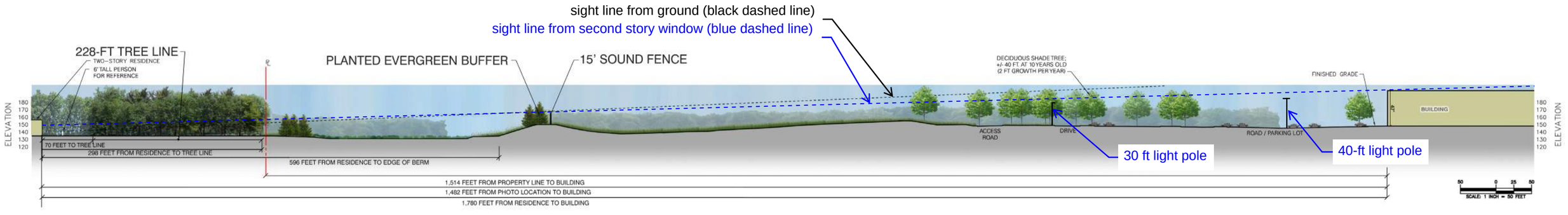
Our solutions are scalable to ensure we're the right-sized partner for any job, from rural communities like Eugene, Oregon, and Merida, Mexico, to urban metropolises like London, New York City, Sydney, and Singapore. With over 1,500 transportation projects across every continent under our belt and a network of convenient, locally-based offices with dedicated support teams, we have the technology and the know-how to solve your mobility challenges.

But don't just take it from us. Hear from our local partners who entrusted us with their mobility needs. We've worked with partners from all transportation modes, including transit agencies, airports, highways, intersections, and corridors across small communities, metropolitan cities, and regional authorities.

Get in touch to see how we can work together to help your transportation network.

Cubic Transportation Systems, Inc.
9233 Balboa Avenue
San Diego, CA 92123
TEL: +1 858-277-6780
ctsinfo@cubic.com
cubic.com/transportation

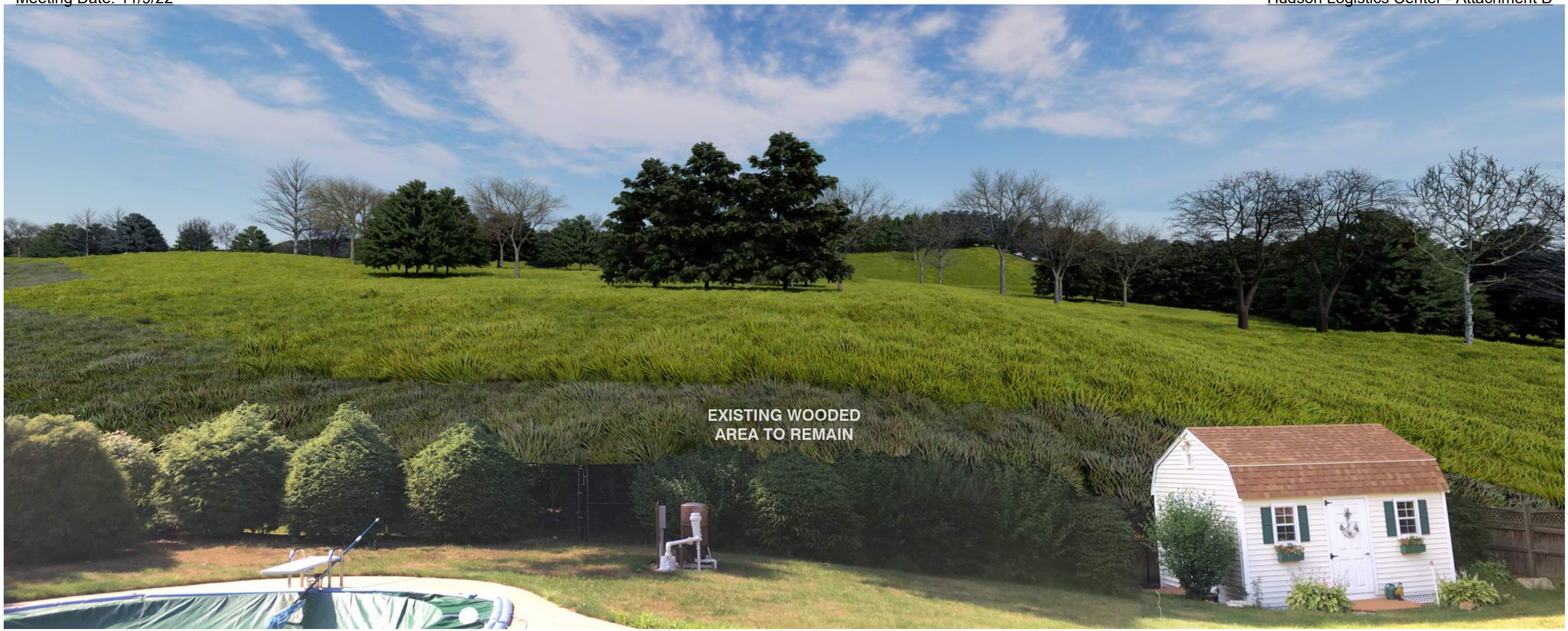
ATTACHMENT A

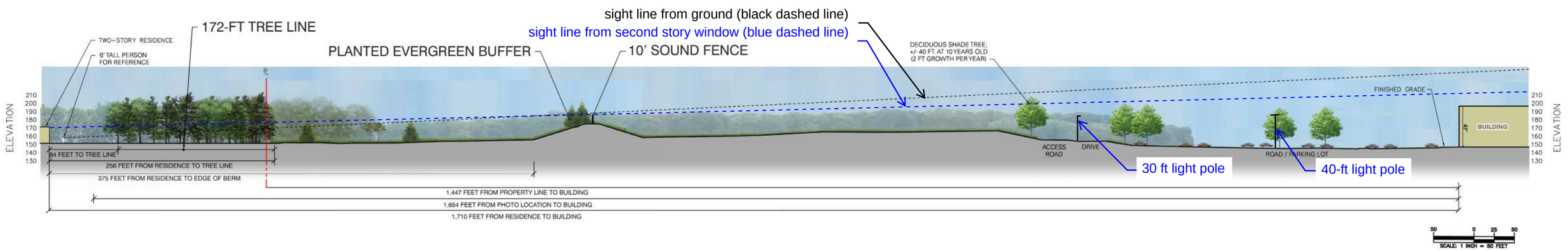


8 Eagle Drive

Proposed Development with Berm and Screening - Ten Years After Planting

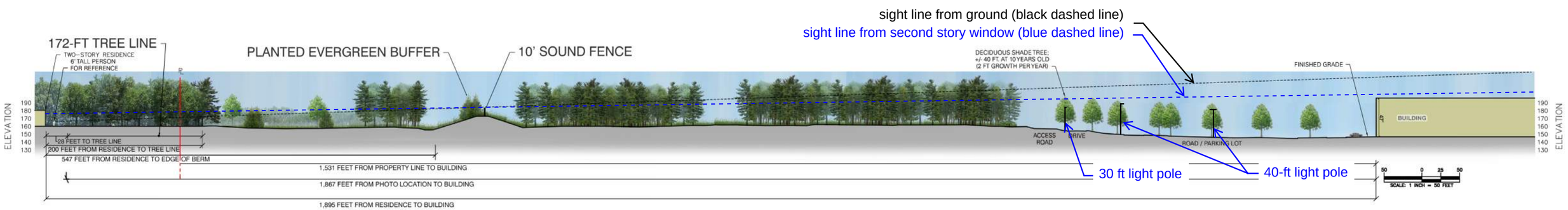
ATTACHMENT B





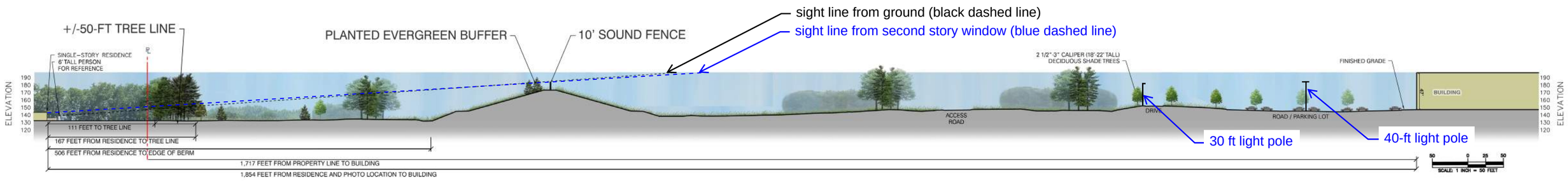
2 Eagle Drive

Proposed Development with Berm and Screening - Ten Years After Planting



9 Fairway Drive

Proposed Development with Berm and Screening - Ten Years After Planting



15 Fairway Drive

Proposed Development with Berm and Screening - Ten Years After Planting

ATTACHMENT B

HILLWOOD
A PEROT COMPANY®

HUDSON LOGISTICS CENTER

COMPARISON

TARGET®

ITEM	APPROVED	AMENDED	% CHANGE	COMMENTS
Building Footprint Area	2,614,984 SF	1,393,822 SF	-47%	3 buildings reduced to 1 building
Building Area	2,866,149 GSF	2,222,482 GSF	-22%	
Impervious Area	143 Acres	105 Acres	-36%	
Open Space Area	171 Acres	214 Acres	+25%	
Setbacks				
• From Southerly Property Line	454 ft	1,340 ft	+295%	Closest to Building B
• From Merrimack River	400 ft	920 ft	+230%	
Open Space Buffers				
• Merrimack River Area	37 Acres	48 Acres	+30%	
• Limit Brook Wetland Area	105 Acres	110 Acres	+5%	
• Southerly Residential Area	30 Acres	57 Acres	+90%	
Wetlands Impact	233,869 sf	203,061 sf	-13%	
Traffic (ADT)	4,114 trips	2,406 trips	-42%	
Car Parking Spaces	1,806 spaces	1,585 spaces	-12%	
Loading Spaces	1,244 spaces	1,034 spaces	-17%	
Lighting Temperature	4000k	3000k	-25%	Softer lights
Sound Study				Truck & RTU Model Nighttime Leg dBA at property line
• Eagle Dr. Residence	51 dBA	36 dBA	-29%	
• Fairway Dr. Residence	51 dBA	33 dBA	-35%	
• Fairway Dr. Residence	48 dBA	31 dBA	-35%	
• Linda St. Residence	51 dBA	44 dBA	-44%	
• Rena Ave. Residence	46 dBA	40 dBA	-13%	

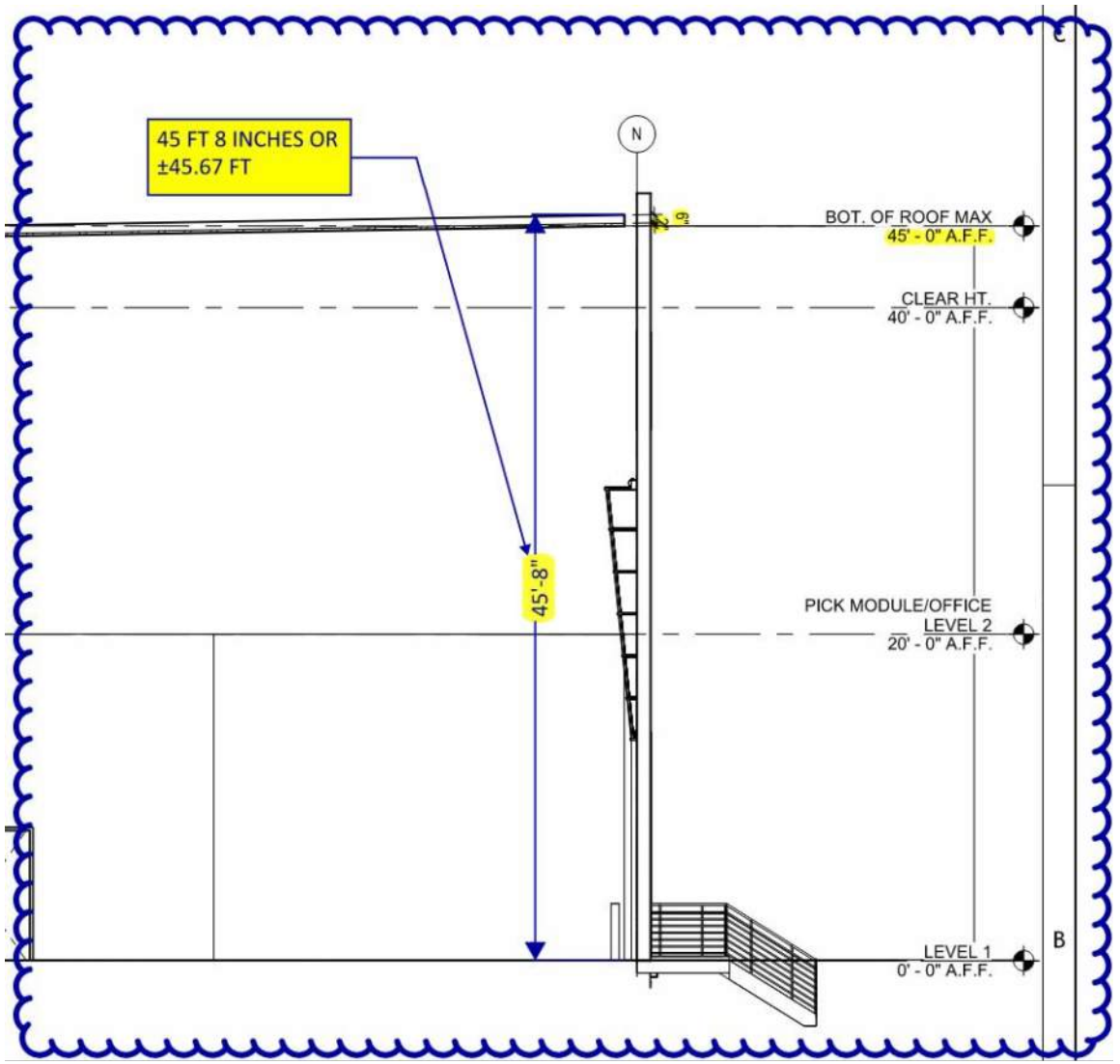
LANGAN

HUDSON LOGISTICS CENTER

MAXIMUM BUILIDNG HEIGHT CALCULATION | PAGE 1 OF 3

PROPOSED BUILDING

Height of Building from FFE to Exterior Peak of Sloped Roof



HILLWOOD
A PEROT COMPANY

ATTACHMENT D

HUDSON LOGISTICS CENTER

MAXIMUM BUILIDNG HEIGHT CALCULATION | PAGE 2 OF 3

PROPOSED BUILDING

AVERAGE GRADE CALCULATION FIGURE

HILLWOOD
A PEROT COMPANY

ATTACHMENT D

HUDSON LOGISTICS CENTER

MAXIMUM BUILIDNG HEIGHT CALCULATION | PAGE 3 OF 3

BLDG FFE CALC @ 5-FT O/S
±50-FT INCREMENTS & BLDG CORNERS

Note: CCW from NW corner

Station	Elevation	Distance from previous (ft)
+00.00	142.86	0
0+50.00	142.92	50
1+00.00	142.92	50
1+50.00	142.92	50
2+00.00	142.92	50
2+50.00	142.92	50
3+00.00	142.92	50
3+50.00	142.92	50
4+00.00	142.92	50
4+50.00	142.92	50
5+00.00	142.92	50
5+50.00	142.92	50
6+00.00	142.92	50
6+50.00	142.92	50
7+00.00	142.92	50
7+50.00	142.92	50
8+00.00	142.92	50
8+50.00	142.92	50
9+00.00	142.92	50
9+50.00	142.92	50
10+00.00	142.92	50
10+50.00	142.92	50
11+00.00	142.92	50
11+50.00	142.92	50
12+00.00	142.92	50
12+50.00	142.92	50
13+00.00	142.92	50
13+50.00	142.92	50
14+00.00	142.92	50
14+50.00	142.92	50
15+00.00	142.92	50
15+50.00	142.92	50
16+00.00	142.92	50
16+50.00	142.92	50
16+62.17	142.63	12.166
16+83.17	142.63	20.999
17+00.00	142.93	16.833
17+50.00	142.92	50
18+00.00	142.92	50
18+50.00	142.92	50
19+00.00	142.92	50
19+14.26	142.63	14.266
19+35.26	142.63	20.999
19+50.04	142.92	14.774

Station	Elevation	Distance from previous (ft)
20+00.04	142.92	50
20+50.04	142.92	50
21+00.04	142.92	50
21+50.04	142.92	50
22+00.04	142.92	50
22+50.26	142.63	50.226
22+71.26	142.63	20.999
23+00.04	142.93	28.774
23+50.04	142.93	50
24+00.04	144.03	50
24+13.37	144.59	13.333
24+63.37	146.62	50
25+13.37	146.90	50
25+63.37	146.90	50
26+13.37	146.90	50
26+63.37	146.90	50
27+13.37	146.90	50
27+63.37	146.90	50
28+13.37	146.90	50
28+63.37	146.90	50
29+13.37	146.90	50
29+63.37	146.90	50
30+14.71	146.84	51.336
30+64.71	146.91	50
31+14.71	146.91	50
31+64.71	146.91	50
32+14.71	146.91	50
32+64.71	146.91	50
32+99.37	146.72	34.667
33+29.79	146.72	30.418
33+64.71	146.91	34.915
34+14.71	146.92	50
34+64.71	146.91	50
35+04.75	146.72	40.04
35+35.16	146.72	30.418
35+60.71	146.91	25.542
36+10.71	146.91	50
36+60.71	146.91	50
37+10.71	146.91	50
37+28.75	146.72	18.04
37+59.16	146.72	30.418
38+10.71	146.91	51.542
38+60.71	146.86	50
39+10.71	146.86	50
39+60.71	146.86	50
40+10.71	146.91	50
40+60.71	146.91	50

Station	Elevation	Distance from previous (ft)
41+10.71	145.35	50
41+60.71	143.92	50
42+10.71	143.92	50
42+60.71	142.93	50
43+10.71	142.93	50
43+60.71	142.93	50
44+10.71	142.93	50
44+60.71	142.93	50
45+10.71	142.93	50
45+60.71	142.93	50
46+10.71	142.93	50
46+60.71	142.93	50
47+10.71	142.93	50
47+60.71	142.93	50
48+10.71	142.93	50
48+60.71	142.93	50
49+10.71	142.93	50
49+60.71	142.93	50
50+10.71	142.93	50
50+60.71	142.93	50
50+60.71	142.93	50
51+24.04	142.93	50
51+60.71	142.93	50
51+74.04	142.93	50
52+10.71	142.93	50
52+37.37	142.85	63.333
52+61.37	142.90	50.668
52+87.37	142.89	50
53+11.37	142.90	50
53+37.37	142.92	50
53+61.37	142.90	50
53+87.37	142.87	50
54+11.37	142.90	50
54+37.37	142.92	50
54+61.37	142.90	50
54+87.37	142.90	50
55+11.37	142.90	50

Ave. Grade 5' ft from Bldg.	**144.24**
FFE Elevation:	**147.00**
Difference from FFE:	**-2.76**

PROPOSED BUILDING - AVERAGE GRADE CALCULATION

FFE to Highest Peak of Roof (45.67') +

Average Grade 5 ft Off of Building (2.76')

≤ 48.43 FT

HILLWOOD
A PEROT COMPANY

ATTACHMENT D

Infiltration Feasibility Report

Hudson Logistic Center
Hudson, New Hampshire
October 2022

TABLE OF CONTENTS:

LANGAN

The project proposes six systems that require infiltration to function properly. These systems are identified on the plans as Infiltration Basin A1-2, A1-3, A11-2, B1-2, B5-2, and B6-2.

In support of the design of these systems, extensive geotechnical investigations have taken place to categorize and assess the functionality of the on-site soils and define the subgrade profile. This document outlines the testing performed and the design criteria established from the investigation for the proposed infiltration features.

Geotechnical information was gathered between 06/2021 – 10/2022 by Langan Engineering and Environmental Services, Inc.

I. Location of the practice

Infiltration Basin A1-2 – This basin is located on the west side of the site, to the east of the Merrimack River and north of the existing southwestern pond.

Infiltration Basin A1-3 – This basin is located at the northwest corner of the site, to the east of Merrimack River.

Infiltration Basin A11-2 – This basin is located on the southwest side of the site, to the east of the Merrimack River and south of the existing southwestern pond.

Infiltration Basin B1-2 – This basin is located on the north side of the site, to the south of the secondary entrance drive and north of the truck court.

Infiltration Basin B5-2 – This basin is located near the center of the site, to the west of the main entrance drive and east of the truck court.

Infiltration Basin B6-2 – This basin is located on the southern side of the, northeast of the landscaped berm and west of the southern wetlands.

II. Existing topography at the location of the practice

Infiltration Basin A1-2 – The existing topography within the area of the infiltration basin is mostly grass, with a sand trap and a few trees. The slope mostly ranges from 0-15%, but increases up to 40% at the southeastern edge of the basin.

Infiltration Basin A1-3 – The existing topography within the area of the infiltration basin is combination of grass and tree cover. The eastern side is steeply sloped at 20-50% and the western side is sloped mostly between 0-6%.

Infiltration Basin A11-2 – The existing topography within the area of the infiltration basin is a mostly grass, with some impervious path areas, and a material pile. The slope is mostly 0-20%, however, at the northeastern corner of the basin, it increases up to 70%.

Infiltration Basin B1-2 – The existing topography within the area of the infiltration basin is a sloped 0-15%, with grass cover.

Infiltration Basin B5-2 – The existing topography within the area of the infiltration basin is grass, sloped mostly 0-3%. The northern portion is sloped up to 12%.

Infiltration Basin B6-2 – The existing topography within the area of the infiltration basin is mostly grass with some tree cover and is sloped mostly 0-5%, with a small portion in the east sloped 10-25%.

III. Test pit or boring locations

In accordance with Env-Wq 1504.12(c), NHDES requires that a minimum number of test pits or borings be dug or drilled in the location of the system, depending on the size of the proposed system. Test pit and boring locations can be found in the location figures attached below and the geotechnical investigation reports for the project.

Infiltration Basin A1-2 – This basin is roughly ±35,900 SF, therefore four tests have been performed in the location of the proposed practice. The test pits are identified as TP-114, TP-115, TP-116, TP-117 as shown in the attached figures below.

Infiltration Basin A1-3 – This basin is roughly ±45,000 SF, therefore five test pits have been performed in the location of the proposed practice. These test pits are identified as A-S-TP-22 / A-IT-22, A-S-TP-37 / IT-A6-2(A), A-S-TP-38 / IT-A6-2(B), A-S-TP-39 / IT-A6-2(C), and A-S-TP-41 / IT-A6-2E shown in the attached figures below.

Infiltration Basin A11-2 – This basin is roughly ±98,600 SF, therefore ten tests have been performed in the location of the proposed practice. The test pits are identified as B-S-TP-24 / IT-A11-2(A), B-S-TP-25 / IT-A11-2(B), B-S-TP-28 / IT-A11-2(E), B-S-TP-29 / IT-A11-2(F), B-S-TP-31 / IT-A11-2(H), and TP-118, TP-119, TP-120, TP-122, TP-123 as shown in the attached figures below.

Infiltration Basin B1-2 – This basin is roughly ±14,800 SF, therefore four test pits have been performed in the location of the proposed practice. The test pits are identified as A-S-TP-01 / A-IT-01, A-S-TP-27 / IT-B1-2(B), A-S-TP-28 / IT-B1-2(C), and A-S-TP-26 / IT-B1-2(A) which are shown in the attached figures below.

Infiltration Basin B5-2 – This basin is roughly ±27,800 SF, therefore three tests have been performed in the location of the proposed practice. The test pits are identified as A-S-TP-09 / A-IT-09, A-S-TP-29 / IT-A1-6(A) REV2, A-S-TP-30 / IT-A1-6(B) REV2, which are shown in the attached figures below.

Infiltration Basin B6-2 – This basin is roughly ± 104,000 SF, therefore twelve test pits have been performed in the location of the proposed practice. The test pits are identified as C-S-TP-26 / IT-B6-4(B), TP-105, TP-105A, TP-106A, TP-107, TP-108, TP-109, TP-110, TP-111, TP-112, TP-112A, TP-113, which are shown in the attached figures below.

IV. Seasonal high water table (SHWT) and bedrock elevations

Infiltration Basin A1-2

Bottom of Pond Elevation = 116.0

TP-114: Existing Surface Elevation of TP = 118.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 111.0
Date Collected = 10/11/2022

TP-115: Existing Surface Elevation of TP = 116.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 111.0
Date Collected = 10/07/2022

TP-116: Existing Surface Elevation of TP = 114.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 110.0
Date Collected = 10/07/2022

TP-117: Existing Surface Elevation of TP = 112.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 111.0
Date Collected = 10/07/2022

Infiltration Basin A1-3

Bottom of Pond Elevation = 113.0

A-S-TP-22 / A-IT-22 Existing Surface Elevation of TP = 114.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 106.5
Date Collected = 06/29/2020

A-S-TP-37 / IT-A6-2(A):	Existing Surface Elevation of TP = 114.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 108.0 Date Collected = 06/30/2021
A-S-TP-38 / IT-A6-2(B):	Existing Surface Elevation of TP = 114.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 108.0 Date Collected = 07/01/2021
A-S-TP-39 / IT-A6-2(C):	Existing Surface Elevation of TP = 113.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 106.5 Date Collected = 07/12/2021
A-S-TP-41 / IT-A6-2E:	Existing Surface Elevation of TP = 115.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 112.0 Date Collected = 01/26/2022

Infiltration Basin A11-2

Bottom of Pond Elevation = 116.0

B-S-TP-24 / IT-A11-2(A):	Existing Surface Elevation of TP = 117.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 109.5 Date Collected = 07/06/2021
B-S-TP-25 / IT-A11-2(B):	Existing Surface Elevation of TP = 120.5 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 110.5 Date Collected = 07/06/2021

B-S-TP-28 / IT-A11-2(E): Existing Surface Elevation of TP = 118.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 110.0
Date Collected = 07/07/2021

B-S-TP-29 / IT-A11-2(F): Existing Surface Elevation of TP = 118.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 109.5
Date Collected = 07/06/2021

B-S-TP-31 / IT-A11-2(H): Existing Surface Elevation of TP = 115.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 112.0
Date Collected = 01/26/2022

TP-118: Existing Surface Elevation of TP = 118.0
SWHT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 111.0
Date Collected = 10/04/2022

TP-119: Existing Surface Elevation of TP = 118.0
SWHT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 108.8
Date Collected = 10/04/2022

TP-120: Existing Surface Elevation of TP = 116.0
SWHT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 111.0
Date Collected = 10/06/2022

TP-122: Existing Surface Elevation of TP = 116.0
SWHT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 111.0
Date Collected = 10/04/2022

TP-123: Existing Surface Elevation of TP = 115.0
SWHT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 108.0
Date Collected = 10/11/2022

Infiltration Basin B1-2

Bottom of Pond Elevation = 129.0

A-S-TP-01 / A-IT-01: Existing Surface Elevation of TP = 133.5
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 127.5
Date Collected = 06/25/2020

A-S-TP-27 / IT-B1-2(B): Existing Surface Elevation of TP = 133.5
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 127.0
Date Collected = 01/26/2022

A-S-TP-28 / IT-B1-2(C): Existing Surface Elevation of TP = 133.5
SHWT = NA
BEDROCK = NA
Deepest Elevation of TP = 127.0
Date Collected = 01/26/2022

A-S-TP-26 / IT-B1-2(A): Existing Surface Elevation of TP = 134.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 125.0
Date Collected = 06/23/2021

Infiltration Basin B5-2

Bottom of Pond Elevation = 133.5

A-S-TP-09 / A-IT-09:	Existing Surface Elevation of TP = 132.5 SHWT = 125.5 BEDROCK = Not Encountered Deepest Elevation of TP = 125.5 Date Collected = 06/23/2020
A-S-TP-29 / IT-A1-6(A) REV2:	Existing Surface Elevation of TP = 132.5 SHWT = 127.5 BEDROCK = 126.0 Deepest Elevation of TP = 126.0 Date Collected = 06/28/2021
A-S-TP-30 / IT-A1-6(B) REV2:	Existing Surface Elevation of TP = 133 SHWT = 127.0 BEDROCK = Not Encountered Deepest Elevation of TP = 124.5 Date Collected = 06/28/2021

Infiltration Basin B6-2

Bottom of Pond Elevation = 128.0

C-S-TP-26 / IT-B6-4(B):	Existing Surface Elevation of TP = 129.0 SHWT = Not Encountered BEDROCK = Not Encountered Deepest Elevation of TP = 122.5 Date Collected = 06/28/2021
TP-105:	Existing Surface Elevation of TP = 130.0 SHWT = Not Encountered BEDROCK = Inferred at 124.0 Deepest Elevation of TP = 124.0 Date Collected = 10/12/2022

TP-105A: Existing Surface Elevation of TP = 130.0
SHWT = Not Encountered
BEDROCK = Inferred at 124.30
Deepest Elevation of TP = 124.30
Date Collected = 10/12/2022

TP-106A: Existing Surface Elevation of TP = 127.5
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 122.5
Date Collected = 10/12/2022

TP-107: Existing Surface Elevation of TP = 130.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 123.0
Date Collected = 10/12/2022

TP-108: Existing Surface Elevation of TP = 128.0
SHWT = Not Encountered
BEDROCK = Inferred at 120.0
Deepest Elevation of TP = 120.0
Date Collected = 10/12/2022

TP-109: Existing Surface Elevation of TP = 128.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 123.0
Date Collected = 10/12/2022

TP-110: Existing Surface Elevation of TP = 129.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 123.0
Date Collected = 10/12/2022

TP-111: Existing Surface Elevation of TP = 128.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 123.0
Date Collected = 10/12/2022

TP-112: Existing Surface Elevation of TP = 130.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 125.0
Date Collected = 10/12/2022

TP-112A: Existing Surface Elevation of TP = 130.5
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 125.5
Date Collected = 10/12/2022

TP-113: Existing Surface Elevation of TP = 132.0
SHWT = Not Encountered
BEDROCK = Not Encountered
Deepest Elevation of TP = 126.0
Date Collected = 10/12/2022

V. Profile descriptions

Test pits were performed at various locations and depths throughout the site. More detailed information can be found in the geotechnical investigation reports prepared for this project. Infiltration test locations and data collection can be found in the location figure and attached field reports below.

Infiltration Basin A1-2

TP-114:	Tan varved silty fine SAND, trace c-m sand, trace c-f gravel (moist)
TP-115:	Tan medium-fine SAND, trace silt, trace coarse sand, trace fine gravel
TP-116:	Tan medium-fine SAND, some silt, trace fine gravel (dry)
TP-117:	Tan medium-fine SAND, some silt (dry)

Infiltration Basin A1-3

A-IT-22:	Light brown SILT, some fine sand, trace roots (moist)
IT-A6-2(A):	Tan silty fine SAND, trace coarse sand, trace roots (moist)

IT-A6-2(B):	Light brown fine SAND, some silt, trace roots (moist)
IT-A6-2(C):	Brown silty fine-medium SAND, trace roots (moist)
IT-A6-2E:	Brown fine to medium SAND, some silt

Infiltration Basin A11-2

IT-A11-2(A):	Brown m-f SAND, some c-f gravel, trace silt (moist)
IT-A11-2(B):	Light brown m-f SAND, trace silt, trace fine gravel (dry)
IT-A11-2(E):	Dark brown gravelly m-f SAND, some fine gravel, trace silt (moist)
IT-A11-2(F):	Dark brown m-f SAND, some silt, some c-f gravel, trace wood (moist)[FILL]
IT-A11-2(H):	Brown fine to coarse SAND, some fine gravel, trace silt
TP-118:	Light brown medium-fine SAND, trace silt, trace fine gravel (dry)
TP-119:	Brown medium-fine SAND, some fine gravel, trace wood, trace metal, trace glass, trace silt (dry) [FILL]
TP-120:	Light tan coarse-medium SAND, trace m-f gravel (moist)
TP-122:	Light brown medium-fine SAND, some silt, some c-f gravel, trace cobbles (dry)
TP-123:	Tan coarse-medium SAND, trace c-f gravel (moist)

Infiltration Basin B1-2

A-IT-01:	Light brown fine SAND, trace silt
IT-B1-2(B):	Brown fine SAND, some silt, trace clay
IT-B1-2(C):	Brown fine SAND, some silt, trace clay
IT-B1-2(A):	Brown fine SAND, trace silt, trace fine gravel (moist)

Infiltration Basin B5-2

A-IT-09:	Dark brown fine-medium SAND, trace silt, Some roots (dry)[TOPSOIL]
IT-A1-6(A) REV2:	Light brown m-f SAND, trace silt (moist)
IT-A1-6(B) REV2:	Tan fine SAND, trace silt, trace cobbles (moist)

Infiltration Basin B6-2

IT-B6-4(B):	Orange brown SILT, trace fine sand, trace roots (moist)
TP-105:	Tan medium-fine SAND, some silt (moist)
TP-105A:	Tan medium-fine SAND, some silt (moist)
TP-106A:	Tan medium-fine SAND, some silt (moist)
TP-107:	Tan medium-fine SAND, some silt (moist)
TP-108:	Tan medium-fine SAND, trace silt, trace coarse gravel, trace cobbles (moist)
TP-109:	Tan medium-fine SAND, some silt (moist)
TP-110:	Tan medium-fine SAND, some silt (moist)
TP-111:	Orangish tan to tan medium-fine SAND, some silt (moist)
TP-112:	Tan medium-fine SAND, some silt
TP-112A:	Tan medium-fine SAND, some silt (moist)
TP-113:	Tan coarse-fine SAND, some silt (moist)

VI. Soil plan in the area of the proposed practice(s)

(See attached)

VII. Summary of [Default, Field Testing, or Lab Testing] data used to determine the infiltration rate

Infiltration testing was performed at various locations and in various soil types throughout the site.

Infiltration rates for each of the practices below were chosen based on field observed infiltration rates, soil characteristics, and the New Hampshire Soils, Society of Soil Scientist of Northern New England, Special Publication No.5. Design rates are based on the closest proximity and most similar soil condition and field obtained data to date.

Infiltration Basin A1-2

The infiltration rate was determined using the Field Measurement method described in Env-Wq 1504.14.

The basin is located within native material identified in the Soil Series survey as 513 Ninigret and 24 Agawam.

Based on our field measurement data, using the method described above and a factor of safety of 2, the design rate used in the drainage analysis is: 10 in/hr.

Infiltration Basin A1-3

The infiltration rate was determined using the Field Measurement method described in Env-Wq 1504.14.

The basin is located within native material identified in the Soil Series survey as 513 Ninigret and 24 Agawam.

Based on our field measurement data, using the method described above and a factor of safety of 2, the design rate used in the drainage analysis is: 7 in/hr.

Infiltration Basin A11-2

The infiltration rate was determined using the Field Measurement method described in Env-Wq 1504.14.

The basin is located within native material identified in the Soil Series survey as 513 Ninigret, 24 Agawam, and 400 Udorthents Sandy.

Based on our field measurement data, using the method described above and a factor of safety of 2, the design rate used in the drainage analysis is: 10 in/hr.

Infiltration Basin B1-2

The infiltration rate was determined using the Field Measurement method described in Env-Wq 1504.14.

The basin is located within native material identified in the Soil Series survey as 115 Scarboro Muck (400 Udorthents Sandy adjacent).

Based on our field measurement data, using the method described above and a factor of safety of 2, the design rate used in the drainage analysis is: 10 in/hr.

Infiltration Basin B5-2

The infiltration rate was determined using the Field Measurement method described in Env-Wq 1504.14.

The basin is located within native material identified in the Soil Series survey as 513 Ninigret.

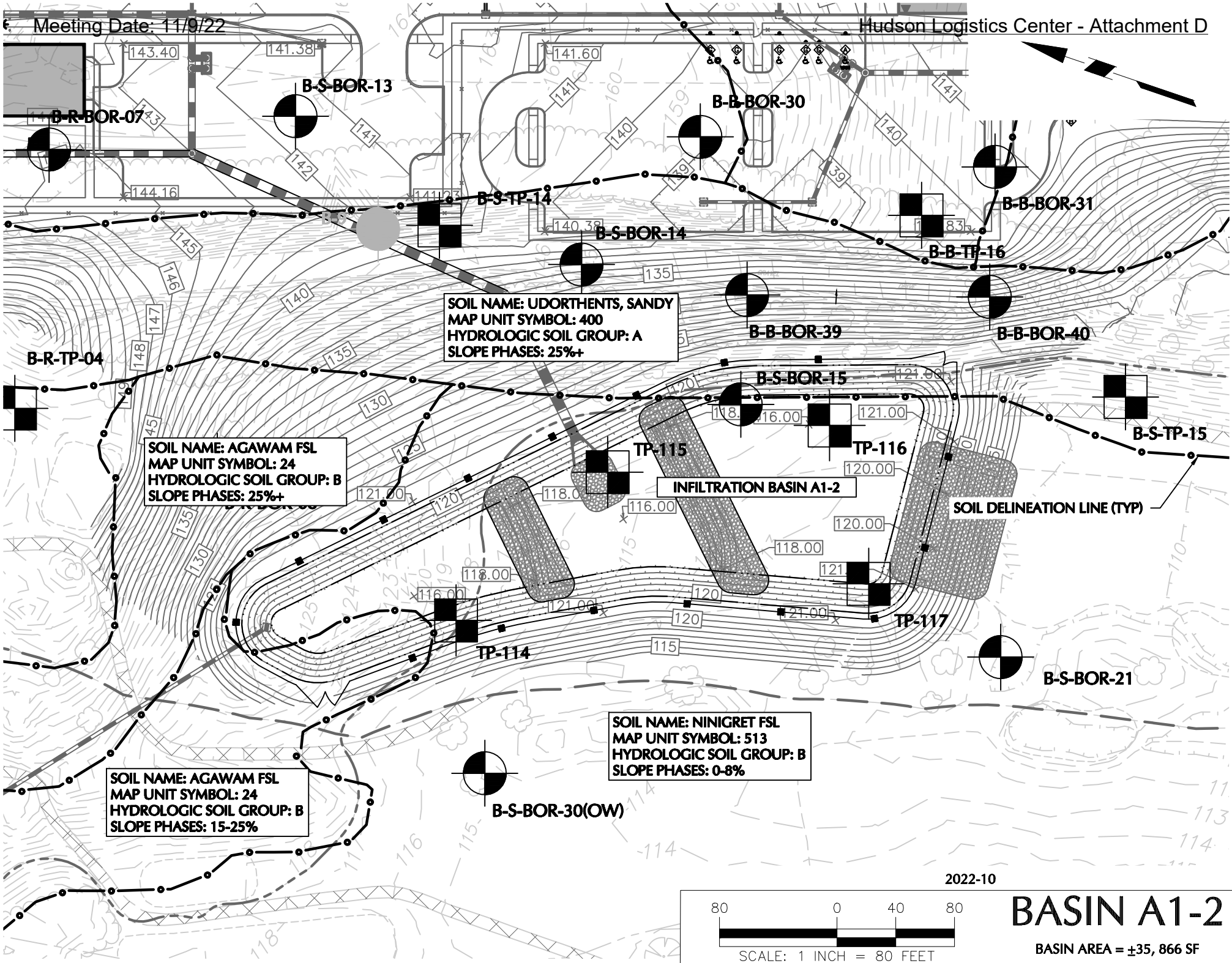
Based on our field measurement data, using the method described above and a factor of safety of 2, the design rate used in the drainage analysis is: 10 in/hr.

Infiltration Basin B6-2

The infiltration rate was determined using the Field Measurement method described in Env-Wq 1504.14.

The basin is located within native material identified in the Soil Series survey as 513 Ninigret and 24 Agawam.

Based on our field measurement data, using the method described above and a factor of safety of 2, the design rate used in the drainage analysis is: 10 in/hr.



2022-10

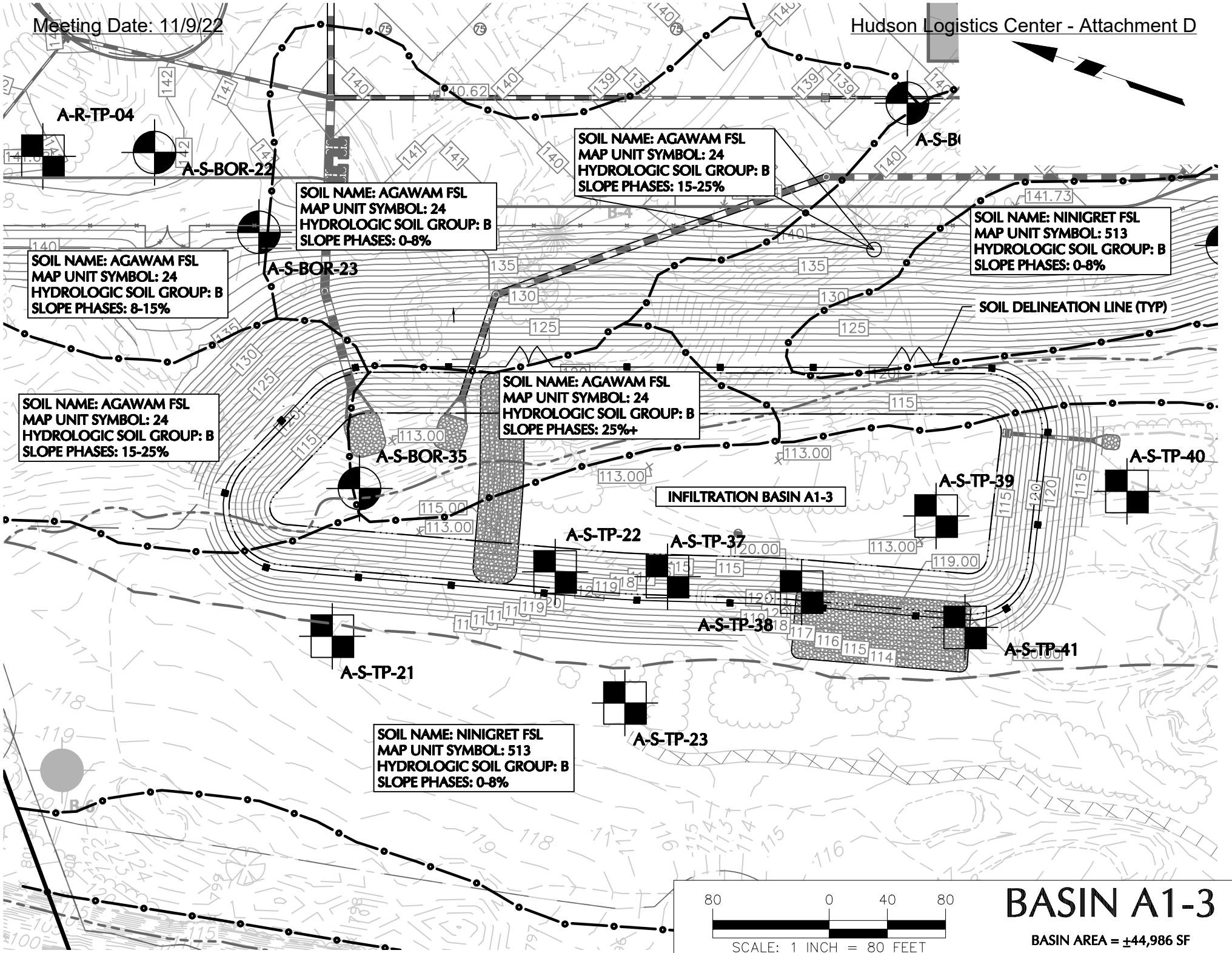
80 0 40 80

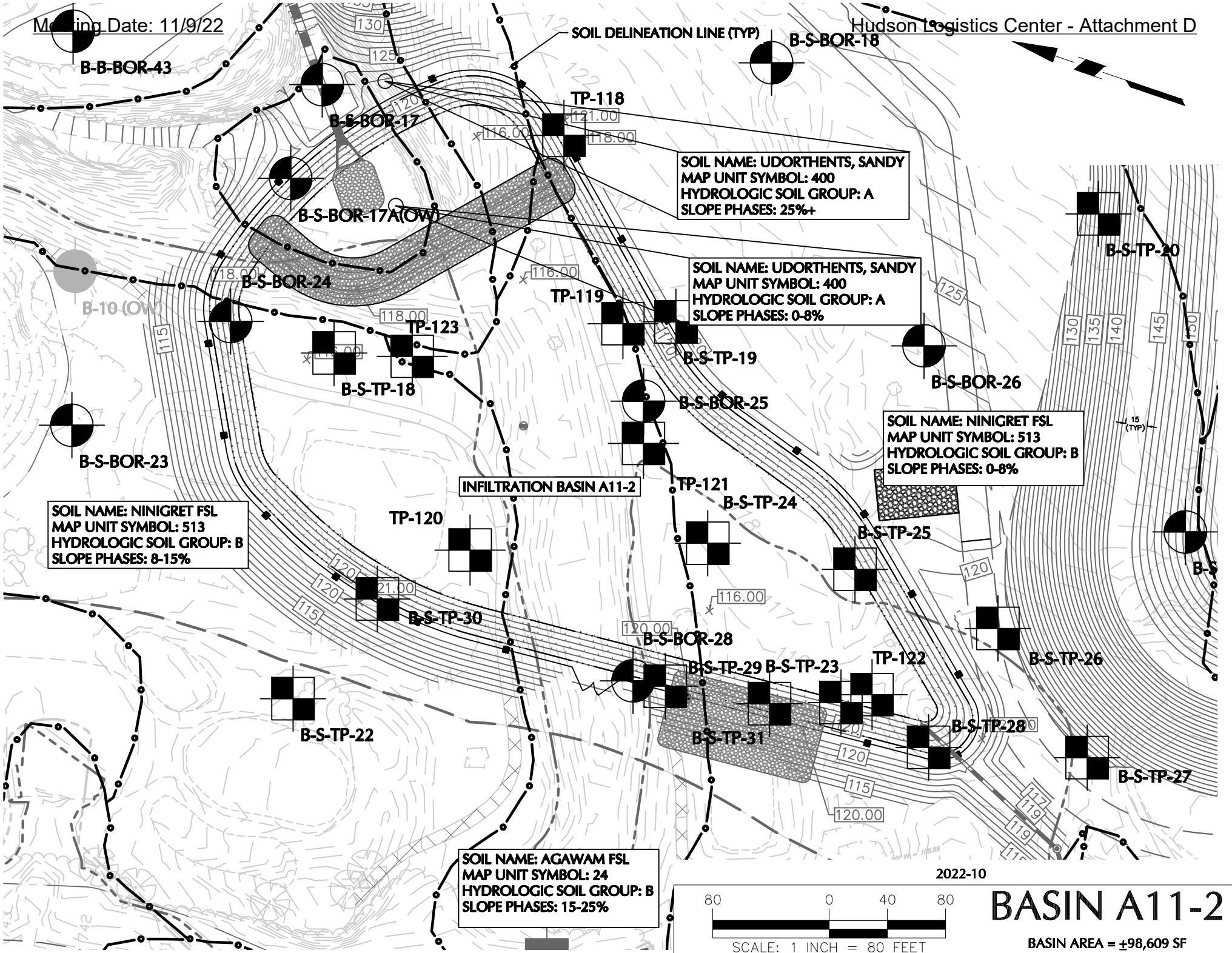
SCALE: 1 INCH = 80 FEET

BASIN A1-2

BASIN AREA = ±35, 866 SF

TEST PITS REQUIRED = 4

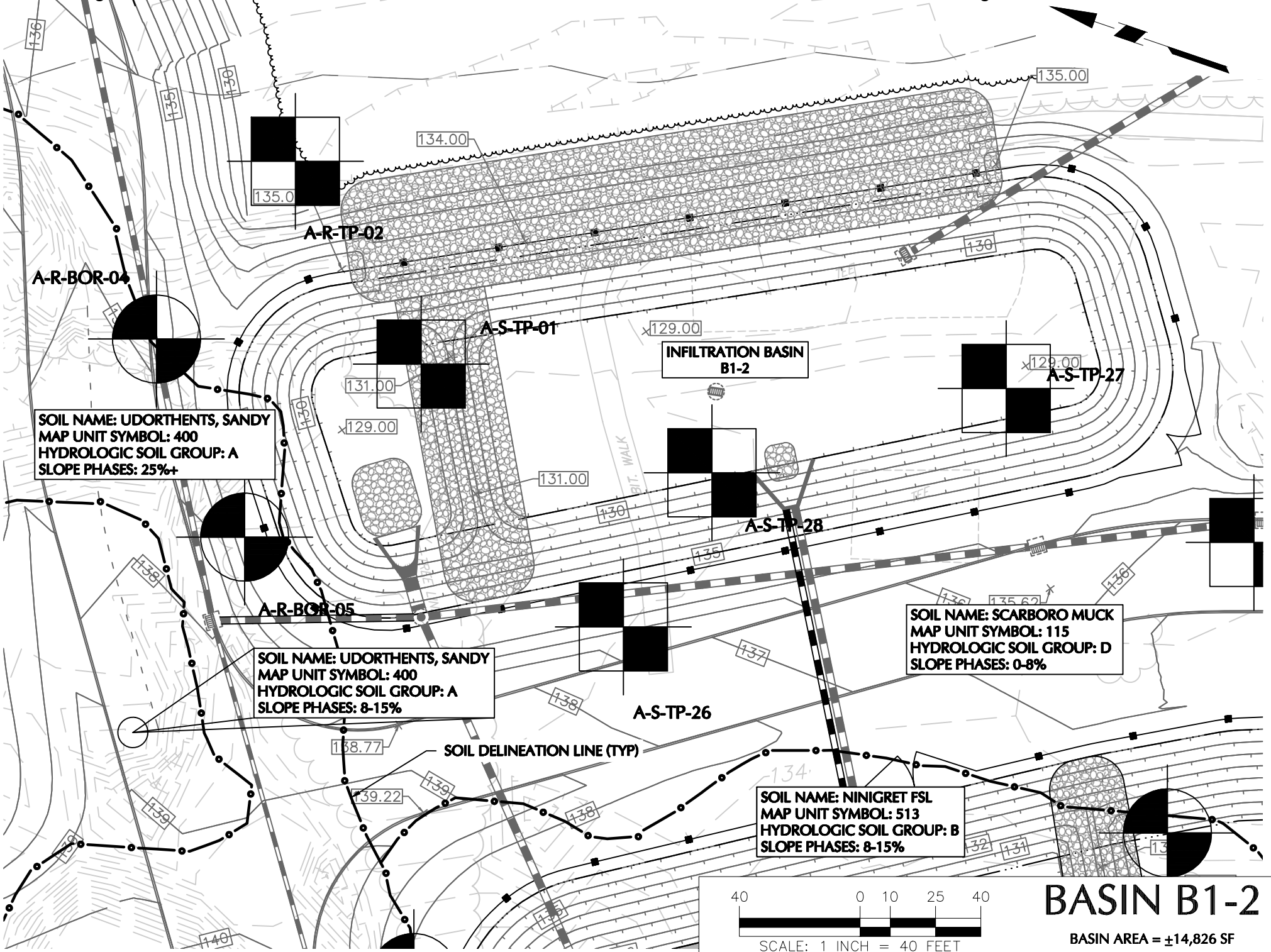

Meeting Date: 11/9/22
Hudson Logistics Center - Attachment D
A-R-TP-04
A-S-BOR-22
A-S-BOR-23
A-S-BOR-35
A-S-TP-21
A-S-TP-22
A-S-TP-23
A-S-TP-37
A-S-TP-38
A-S-TP-39
A-S-TP-40
A-S-TP-41
SOIL NAME: AGAWAM FSL
MAP UNIT SYMBOL: 24
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 0-8%
SOIL NAME: AGAWAM FSL
MAP UNIT SYMBOL: 24
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 8-15%
SOIL NAME: AGAWAM FSL
MAP UNIT SYMBOL: 24
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 15-25%
SOIL NAME: AGAWAM FSL
MAP UNIT SYMBOL: 24
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 25%+
SOIL NAME: NINIGRET FSL
MAP UNIT SYMBOL: 513
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 0-8%
SOIL NAME: NINIGRET FSL
MAP UNIT SYMBOL: 513
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 0-8%
SOIL DELINEATION LINE (TYP)
INFILTRATION BASIN A1-3
80 0 40 80
SCALE: 1 INCH = 80 FEET
BASIN A1-3
BASIN AREA = ±44,986 SF
TEST PITS REQUIRED = 5



BASIN A11-2

BASIN AREA = ±98,609 SF

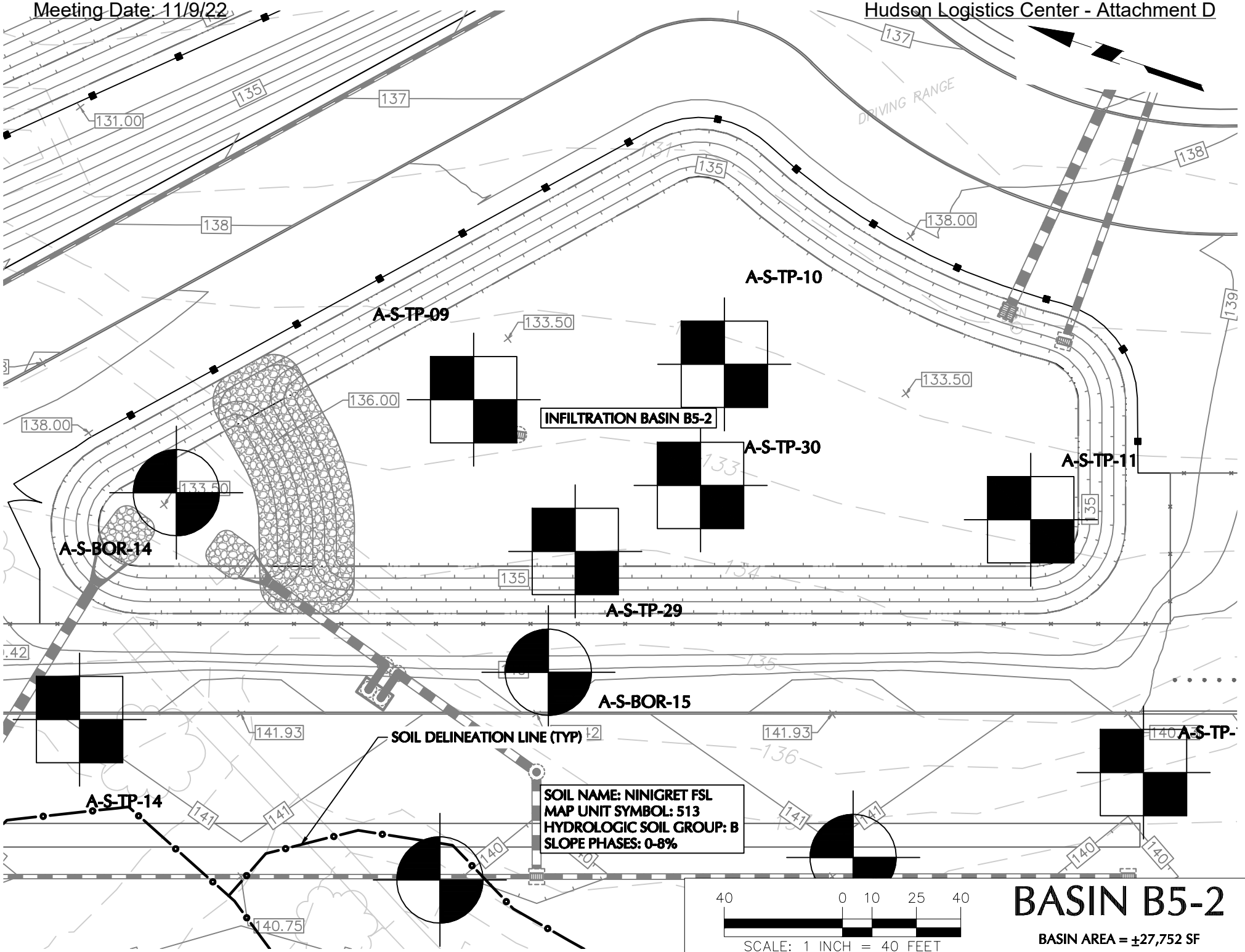
TEST PITS REQUIRED = 11



BASIN B1-2

BASIN AREA = ±14,826 SF

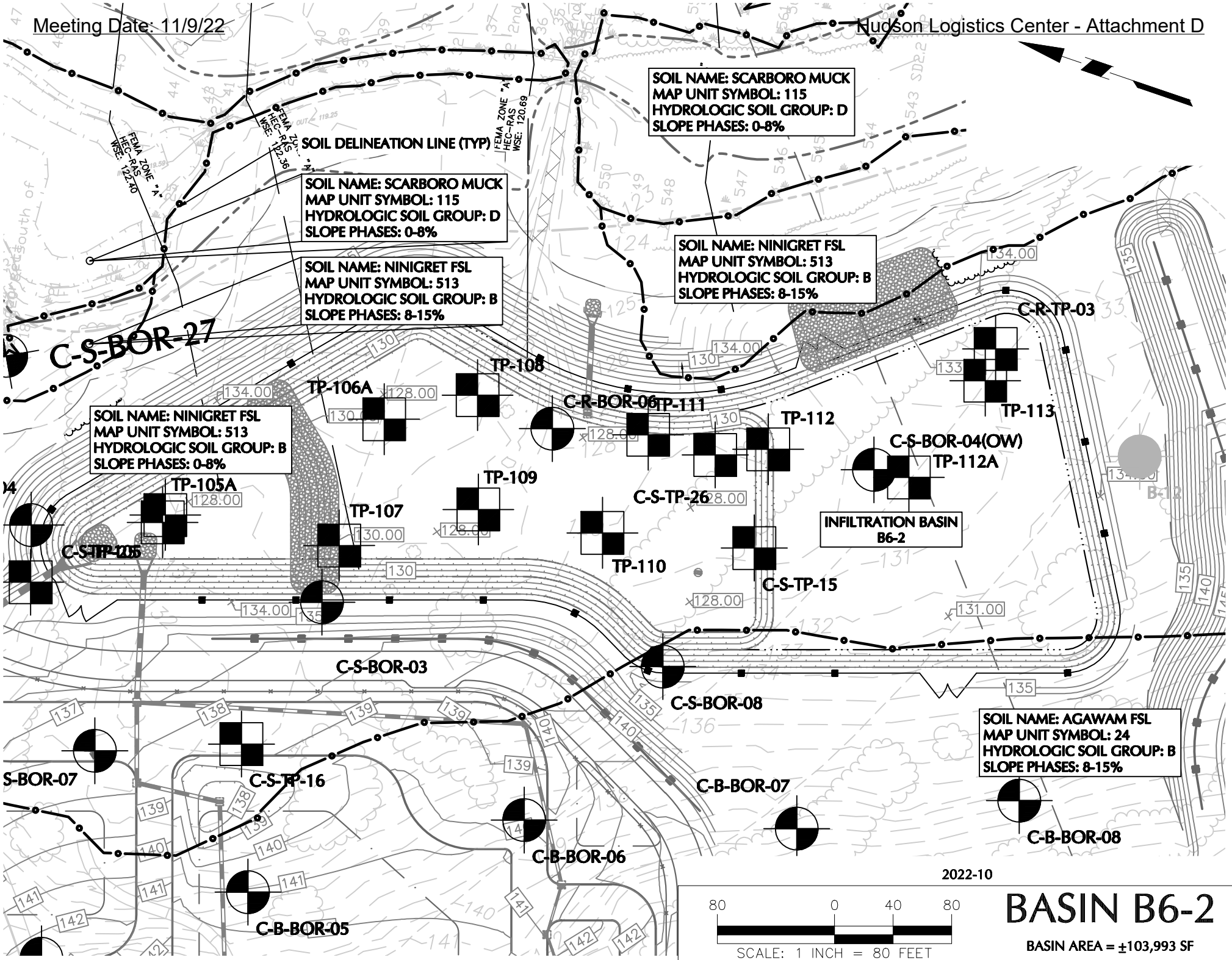
TEST PITS REQUIRED = 2



BASIN B5-2

BASIN AREA = ±27,752 SF

TEST PITS REQUIRED = 3


SOIL NAME: SCARBORO MUCK
MAP UNIT SYMBOL: 115
HYDROLOGIC SOIL GROUP: D
SLOPE PHASES: 0-8%
SOIL DELINEATION LINE (TYP)
FEMA ZONE "A" HEC-RAS WSE: 122.40
FEMA ZONE "A" HEC-RAS WSE: 122.36
FEMA ZONE "A" HEC-RAS WSE: 120.69
SOIL NAME: SCARBORO MUCK
MAP UNIT SYMBOL: 115
HYDROLOGIC SOIL GROUP: D
SLOPE PHASES: 0-8%
SOIL NAME: NINIGRET FSL
MAP UNIT SYMBOL: 513
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 8-15%
SOIL NAME: NINIGRET FSL
MAP UNIT SYMBOL: 513
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 8-15%
SOIL NAME: NINIGRET FSL
MAP UNIT SYMBOL: 513
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 0-8%
C-S-BOR-27
TP-106A
TP-108
C-R-BOR-06
TP-111
TP-112
C-R-TP-03
TP-113
C-S-BOR-04(OW)
TP-112A
TP-105A
TP-109
TP-107
C-S-TP-26
INFILTRATION BASIN
B6-2
TP-110
C-S-TP-15
C-S-BOR-03
C-S-BOR-08
SOIL NAME: AGAWAM FSL
MAP UNIT SYMBOL: 24
HYDROLOGIC SOIL GROUP: B
SLOPE PHASES: 8-15%
C-S-TP-16
C-B-BOR-07
C-B-BOR-06
C-B-BOR-08
C-B-BOR-05
2022-10
80 0 40 80
SCALE: 1 INCH = 80 FEET
BASIN B6-2
BASIN AREA = ±103,993 SF
TEST PITS REQUIRED = 12

WESLEY G. REEKS, MAI
Real Estate Appraisers · Consultants

Wesley G. Reeks, MAI
Jeffrey S. Bradley
Teofelia M. Tyler

23 October 2022

Gary Frederick
Executive Vice President/Market Leader-Northeast
Northeast Regional Office
Hillwood Enterprises, LP
5050 West Tilgham Street, Suite 435
Allentown, Pennsylvania 18104

RE: Addendum letter to market data research and analysis report dated 7 September 2022 associated with the proposed Hudson Logistics Center in Hudson, New Hampshire

Dear Mr. Frederick:

Pursuant to several questions and items raised at the Hudson Planning Board meeting on 12 October 2022, this addendum letter is submitted for clarification, correction, and/or re-statement of market data, as well as requests for analysis of additional market data relating to potential impacts on value to nearby residential and non-residential properties due to the proposed Hudson Logistics Center. It is intended that this addendum letter be attached to and made a part of the *Appraisal Services Report* dated 21 August 2022 and submitted to the Planning Board on 7 September 2022. In sum, the additional data and analysis do not change the conclusions made in my 21 August 2022 Appraisal Services Report.

Addressed first are five clarifications/corrections to the original submission as follows:

- In the table on page 4, the 2014 sale at 6 Birdie should be changed from a sale price of $335,000 to $330,000 which amounts to a sales price of $157.14 per square foot. The selling Realtor reported the $335,000 sales price, but the transfer tax stamps indicate a sales price of $330,000.

- In the same table on page 4, the final entry at 5 Par Lane mistakenly includes an older price from 2017 when it sold for $365,000. The most recent sale in June 2022 was at $570,000, or $306.78 per square foot. This is a 56% increase in value over five years. The 2022 transfer is also the first sale in Green Meadow at over $300 per square foot.

- In the table on page 7, a sale at 10 Rita Avenue inadvertently was not included. It sold on 13 July 2018 for 290,000, or $222.91 per square foot. This price per square foot follows trends in this subdivision where prior sales were under $200 per square foot, but where two subsequent sales in 2019 and 2020 of similar-size dwellings were at $238.38 and $264.14 per square foot, respectively, reflecting a consistently upward trend for this neighborhood.

- In the first table on page 18, the date of sale for 13 Hickory should be changed to 31 August 2011. The 2014 transaction in the report was a non-arms-length transfer. This lowers the Annual Value change of this sale to 10.5%. This percentage is within the range of the sales not along the Friars Drive boundary listed in the second chart.

- In the second table on page 18, 935 Fox Hollow was subject to two additional transfers within a short time frame. This unit sold on 21 April 2017 for $177,500 and subsequently on 29 November 2018 for $192,500 which amounts to an Annual Value Change of 5.3%. It sold again on 27 July 2020 for $212,500, an Annual Value Change of 7.2%. Lastly, it sold on 20 July 2021 for $270,000 which amounts to an annual value change of 25.8%. Adding these two transactions lowers the average annual value change from 13.6% to 12.9%, but remains in line with the two sales backing to the new development.

Next to be addressed is a re-statement of sales data in the report that was claimed to have been omitted. During the public comments segment of the 12 October 2022 planning board meeting, it was indicated that sales data in Green Meadow were not included. Specifically, the six sales noted were:

- 23 Fairway
- 13 Par
- 5 Par
- 10 Fairway
- 6 Fairway
- 9 Fairway

Of these, the first four in fact are included in the table on page 4 in the real estate valuation study. Furthermore, the property at *6 Fairway* is discussed in detail in the paragraph at the bottom of Page 24 of the study. This property was placed under agreement of sale during the time of data research and collection for this study. As noted on page 24, it was included although the Realtor declined to disclose the final sales price. This property was listed for $589,900, or $321.65 per square foot. Subsequently, it closed on 29 September 2022 for $635,000, or $346.24 per square foot which far exceeds the price per square foot of any of the sales in the table on page 4.

The one property above not included was *9 Fairway*. At the time of data research and collection for this updated study, this property was listed for sale for $549,900. It since closed on 22 September for $550,000, or $251.83 per square foot which is lower than 6 Fairway, but within the range of the most recent sales in Green Meadow, including 23 Fairway ($255.90 psf) and 8 Eagle ($225.12 psf), both of which also back to the proposed HLC development.

Lastly, additional data have been gathered from a small subdivision near the southeasterly corner of the proposed HLC development. The property consists of three streets – Steele Road, Bruce Street, and Linda Street. These were not included in the original study because Steele Road is to be gated and used only for emergency ingress/egress for use by the Fire Department and for inspections of restoration areas along the Merrimack River by the Conservation Commission.

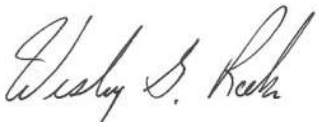
Year	Property	Sales Price	SF	Price/SF
2013	279 Lowell Road	$185,000	1,764	$104.88
2014	12 Linda	$252,000	1,836	$137.25
2018	7 Steele	$345,000	1,779	$193.93
2019	20 Linda	$280,000	1,272	$220.13
	12 Linda	$375,000	1,836	$204.25
2021	1 Steele	$299,000	895	$334.08
	5 Bruce	$335,000	960	$348.96
	2 Bruce	$348,000	1,393	$249.82
	3 Bruce	$295,000	1,428	$206.58
	6 Steele	$405,000	1,808	$224.00
2022	4 Linda	$515,000	2,816	$182.88

Notwithstanding the low price per square foot for the most recent sale because it is approximately two times larger that the typical dwelling in this subdivision, these sales follow similar trend lines as the sales in Green Meadow and Ridgecrest with increases in line with the general Hudson market.

These clarifications, corrections, and additional market data relating to potential impacts on residential values near the proposed HLC project continue to support my findings and conclude there will be no discernable impacts to the market value of residential family dwellings and non-residential properties in the vicinity of the proposed Hudson Logistics Center, and further, that no significant diminution in value of surrounding properties would be suffered by reason of the Hudson Logistics Center.

If you have questions or comments concerning this appraisal, please feel free to contact me. Thank you for allowing me to be of service to you.

Sincerely yours,



Wesley G. Reeks
Certified General Appraiser CG411
State of New Hampshire

From: John Dubuc <johnnygd24@gmail.com>
Sent: Wednesday, October 12, 2022 1:00 PM
To: Groth, Brian; Malizia, Steve; Planning; ~BoS
Subject: HLC2

Good Afternoon Brian,

I have concern that this application will be accepted tonight as an amended site plan and not a New Site Plan.

I need to ask you how this would be considered an Amended Site Plan when there is such a huge material change to the project, some examples are below:

I spoke to a PE friend and he noted the following would be considered a Material Change which would need a new site plan:

1. Major changes to the building footprint or location
- All three of the original buildings are gone
- A building that is larger than any single building originally proposed
- A maintenance building
- A pallet storage area
- A pump house
- A truck inspection canopy
- And a transportation center

2. 10 – 20% change in the building size
- The original buildings are gone, in my public school math that would be a 100% change

3. A major site reconfiguration like flipping the building or the parking lot location
- All new buildings and parking lots

And I would also add

- The New project plans have 30% less pages (75 pages) than the original plan, this is a major change
- The main building is bigger and moved
- The Soundwall/Berm has moved and changed
- The developer calls it a Warehouse and Distribution facility where the original approval was for a Non-Sort Facility

I can tell you from where I sit it looks like this is trying to be fast tracked which would be an incredible disservice to all of the residents of Hudson.

Please allow public input before the board makes any decision about accepting the application as an amended site project, what harm is there in listening to the folks in town

Thank you,

John Dubuc

From: Linda Zarzatian <zarzatian@gmail.com>
Sent: Wednesday, October 12, 2022 5:37 PM
To: Groth, Brian; ~BoS; Planning
Subject: Hudson Logistics

To all board members,

1. Why is this not considered a NEW PROJECT?
From the original HLC project to this current version, so much has changed, both about this project and in the town.

2. Bob Guefferd, as the liaison to the planning board, I am asking you to stress to the planning board that it should ask questions and perform it's due diligence and to consider this a new project.

3. There is NO Rush to get this done, to approve this. Why is this being rushed? We are just getting peer reviews and other documents out. There are hundreds of pages of materials which the planning board has most likely not been able to review or ask basic questions or both for this project and the previous one..

4. The last time this developer was here they stated they would be breaking ground in 3 months. It has been almost 2.5 years. During all that time there have been many many questions and concerns from over 1,000 residents of Hudson. These have gone unanswered and ignored by the developer. The developed stated they cared about the town and their residents, but, still we remain with unanswered concerns

5. All board members, please review the sewer approval. Who will the tenant be? Is it a school, hospital, emergency facility for the health and well being of the town?

6. All board members I TRUST you will not give in to legal pressure and please do you DUE DILIGENCE.

Sincerely,

Sleepless in Hudson

ps; I have sent you many many emails regarding this proposal in the past few years and every single one of them still holds true with all my concerns and questions. Please review, if you will and please address my questions. Thanking you in advance .

From: John Dubuc <johnnygd24@gmail.com>
Sent: Friday, October 21, 2022 12:19 PM
To: Malizia, Steve; Groth, Brian; Planning
Subject: Conservation Committee

Good Morning,

I could not find an email to get this directly to the members of the Conservation Committee and would ask that you forward this to them before their site walk for the New Site Plan Development at Green Meadows.

ConCom Members and Planning Board Members

I wrote to you about my concerns with both water table problems and contamination, infiltration and disturbing the Aquifer that runs through the Green Meadows Golf Course during the Old Site Plan for the Amazon Project at the golf course.

I am more concerned with the New Proposed Target project at this location.

The engineering company (Langan) points out " Due to the large flat footprint required by the specific use, the central and central southern portions of the site are located in a large cut area".

First, I would ask that you ask the developer what the size of the "large cut area" is.

Limit Brook is to the side and back of my property and any disturbance of the water table could have an impact on the levels of Limit Brook impacting my property during high rain. I am equally concerned about the impact this will have on my neighbors that are abutters to the Golf Course, what will this do to their backyards, pools or basements if the water table rises during heavy rains.

Any impact to both the Water Table and the Aquifer could have a detrimental impact to water levels and the quality of the water supply that Hudson draws from the aquifer.

During the site walk please ask the developer to stand at the "large cut area" and explain to all of those present how far down into the earth they will be digging to provide a real world example for all to see and understand.

Limiting the impact to the environment should be a driving force when this site is designed and if this building is not suited to be in the location of the property that this New Site Plan has designed it needs to be moved to provide the least impact to our Town.

Thank you for your time,

John Dubuc
11 Eagle Drive, Hudson

From: Linda Zarzatian <zarzatian@gmail.com>
Sent: Tuesday, November 1, 2022 4:45 PM
To: Groth, Brian; ~BoS; Planning
Subject: Proposed Hudson Logistics Center

At the last Board of Selectmen's meeting I was concerned when I heard the Chief of Police state that he was at minimal staffing on all police shifts,except the middle shift.

I would like to express my concern regarding this proposed logistics center with regards to the police staffing.

It sounded like we are in need of more police to protect this town, right now.

I can not imagine how this town could possibly believe that there will be enough police protection, of all kinds, when this proposed center is completed. For that matter, even throughout the very long development of said project. The mere number of 18 wheelers, trucks and cars that will be on our towns roads 24/7 is monumental and we do not have enough coverage now.

Police protection is probably the most important need of our town.

How will we, the citizens of Hudson , receive the responses we may need when there is not 100% full staffing of the police department.

This must be addressed and corrected prior to any massive project, like the Hudson Logistics Center, could be coming to our town.

PRIORITIZE the safety and protection of our residents!

If there is not sufficient funding for the proper policing then, absolutely, we Can Not build more and more facilities that will need police protection that we may not be able to provide. I am talking about, needing an ambulance or help at an accident etc etc

This is just one of my many concerns to try and keep Hudson as safe as we possibly can.

Thank you,
Sleepless in Hudson