



November 30, 2020

Joseph T. Martella II  
Environmental Engineer III  
Rhode Island Department of Environmental Management  
Office of Land Revitalization & Sustainable Materials Management  
235 Promenade Street  
Providence, Rhode Island 02908

**Re: SIR Addendum - Response to RIDEM SIR Comments  
Former Hope Mill (5 Main Street, Scituate, RI)  
RIDEM No. SR-30-0623A (Formerly Case No. 2007-010 and Part of SR-30-0623)  
ESS Project No. P312-009**

Dear Mr. Martella,

On behalf of Paramount Apartments, LLC and BMP, LLC (the "Operator" and "Site Owner"), ESS Group, Inc. (ESS) is providing the Rhode Island Department of Environmental Management's (RIDEM) Office of Land Revitalization and Sustainable Materials Management (LRSMM) with this Site Investigation Report (SIR) Addendum for the Hope Mill Project in Scituate-Coventry, Rhode Island. This SIR Addendum, as requested by the RIDEM, provides the appropriate information required in the RIDEM's SIR Comment Letter, dated October 29, 2020. In the SIR Comment Letter, the RIDEM required a response to twenty-six (26) separate comments, questions, and concerns about the SIR (ESS, October 10, 2020) in order to receive a Program Letter. Below are ESS's responses to the twenty-six items.

1. Section 1.0 of the Site Investigation Report (SIR) indicates that the current owner of the property is Paramount Apartments LLC. The recent Bona Fide Prospective Purchaser Certification Statement, executed on July 2, 2020, indicates that the Bona Fide Prospective Purchaser (BFPP) is BMP, LLC. Please clarify who the current owner of the property is.

*ESS Response: BMP, LLC (BMP) recently (July 15, 2020) purchased the Site from the former court appointed receiver, Mr. Peter J. Furness. Paramount Apartments LLC (Paramount; the Operator) has a legal agreement with BMP to develop the Site for residential reuse.*

2. The BFPP Certification Statement indicates that 4 parcels were being acquired by BMP, LLC, including Scituate Plat 3, Lot 8, Plat 1, Lot 114, Plat 5 Lot 117, and Coventry Plat 101, Lot 5. Based upon review of the submitted documentation to date, it appears that the BFPP Certification Statement incorrectly cites Plat 1, Lot 114, when it should have cited Plat 5, Lot 114, please confirm the correct Plat citation.

*ESS Response: Correct, the BFPP Certification Statement should read Plat 5, Lot 114.*

3. Prior investigation reports have identified the Site as being comprised of up to eight (8) individual lots, including Scituate Plat 3, Lot 8, Plat 5, Lots 1, 58, 69, 107, 114 and 117, and Coventry Plat 101, Lot 5. Section 3.2 of the SIR limits the Site to five (5) total lots, including Scituate Plat 3, Lot 8, Plat 5, Lots 1, 114 and 117, and Coventry Plat 101, Lot 5. The Department acknowledges that BMP, LLC only owns the five lots that are the subject of the SIR, and is therefore only proposing remediation of the five parcels it owns and controls, excluding the other three parcels (Scituate Plat 5, Lots 58, 69 and 107).



*ESS Response: The Site is comprised of seven (7) lots including Scituate Plat 3, Lot 8, Plat 5, Lots 1, 58, 69, 114 and 117, and Coventry Plat 101, Lot 5. These lots are all currently owned by BMP. Lots 58 and 69 are not part of BMP's proposed redevelopment plan (designated Phase I) and, therefore, were not included in the SI activities completed to date. The parcel of land identified by the Town of Scituate Assessing Department as Lot 107 on Plat Map 5 is owned by Mr. Nicholas Izzi and not BMPC. While BMP does have interest in purchasing this parcel of land, it is not currently a part of the Site and not part of the SIR.*

4. In order to better track the divergent regulatory paths of the various lots described in Comment 3 above, the Department has re-designated this five parcel Site as **SR-30-0623A**, and will likely be re-designating the remaining three parcels as SR-30-0623B, C & D. In order to facilitate this division of the original Hope Mill Site into multiple Sites, the Department requests that a brief description of each of the other three parcels (Scituate Plat 5, Lots **58**, **69** and **107**) be provided in the SIR Addendum along with identification of any reported impacts to soil or groundwater included in any earlier investigations if available.

ESS Response:

- *The RIDEM's suggestion on re-designating the five parcels to SR-30-0623A is reasonable. However, there are only two remaining parcels (Scituate Plat 5, Lots 58, 69), which BMP owns. As indicated above, Lot 107 is not owned by BMP; therefore, ESS anticipates that the RIDEM will designate Lots 58 and 69 as SR-30-0623B and C, respectively, and there will be no need for a "D".*
  - *Lot 58 (Plat 5) covers approximately 1.2-acres, is situated on the north side of Hope Furnace Road, abuts the Pawtuxet River to the south and, is currently unoccupied and undeveloped. An unimproved road serves to allow public access to the Lot and Pawtuxet River. This unpaved access road leads to a sandy boat ramp on the river. The RIDEM is using this area for boat access and for stocking fish. No SI activities have been completed on Lot 58.*
  - *Lot 69 (Plat 5) covers approximately 0.732-acres, is situated on the west side of Main Street, is currently unoccupied and undeveloped and abuts the Pawtuxet River, the tailrace and dam to the north. The remainder of the Site is partially vegetated with trails providing access to the river. An earth-covered parking area is located near Main Street. Furnace Hope may have existed on a portion of Lot 69 but no physical remnants of the furnace are currently obvious. No SI activities have been completed on Lot 69.*
5. Plat 5, Lot 107, is not owned or controlled by BMP, LLC, but is surrounded by BMP, LLC properties. Please be advised that BMP, LLC may be required to provide reasonable access to responsible parties or performing parties for Lot 107, should it be determined that additional future investigation/remediation of that lot is necessary.

*ESS Response: The RIDEM's comments are understood regarding allowing reasonable access by Lot 107. BMP has and will continue to provide access by responsible parties to Lot 107.*

6. Section 2.1 identified an on-site septic system historically used for disposal of sanitary and process wastewater. Please explain why no groundwater monitoring wells were installed downgradient of the former leachfield/septic tank shown on Figure 2.

*ESS Response: Investigations performed in 2006 (JWC) did include two soil borings and two monitoring wells (B6 and B7 and MW-3 and MW-4, respectively) “within” the former leach field area of the septic tank. After reviewing the subsurface investigation plan including in JWC’s Phase II ESA Report (JWC, July 2006), ESS realized that the above-listed borings and wells were incorrectly located and depicted on several ESS figures contained in the SIR. ESS has corrected the figures (attached to submittal) which now show the 2006 soil and groundwater samples as being within the former leach field area. Additionally, as indicated in ESS’ SIR, no COCs were detected in the 2006 soil and groundwater samples above applicable RIDEM Residential Direct Exposure Criteria (RDEC) or GA Groundwater Objectives (GAGOs). Based on the foregoing results, ESS determined that no further assessment of soil or groundwater was warranted in or around the leach field and septic tank.*

7. Section 2.1 references “Miscellaneous discharge features were identified with unknown sources and unknown discharge or the final discharge point location (i.e., pipes, sumps, catch basins, etc. were identified, some of which of which were sourced from or discharged to unknown locations).” What are the proposed plans to address the identified miscellaneous discharge features?

*ESS Response: This is a ‘general’ comment provided in a Phase I ESA Report completed by JWC (2005) for the former Site owner, Hope Mill Village Associates LLC (i.e., Vincent R. Coccoli). This general statement was not considered an Area of Concern (AOC) by JWC in 2007 and was not a focus of the RIDEM comments to their SIR (JWC, 2007). Further, ESS is of the opinion that SI activities completed to date by ESS have adequately assessed unknown discharge locations and addressed and characterized the potential for Hazardous Material releases across the Site. However, if during Site redevelopment (Phase I), any new Hazardous Materials releases are identified associated with unknown pipes, etc., the RIDEM will be notified and the release(s) will be assessed and remediated in accordance with the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (50-RICR-140-30-1; Remediation Regulations).*

8. Section 2.2 indicates that “Certain PAHs, arsenic, beryllium and lead were detected in soil samples collected across the Site at concentrations greater than the respective RDECs.” Later in Section 7.1 (Summary of Impacted Media) it is indicated that polycyclic aromatic hydrocarbons (PAHs) above the Department’s Residential Direct Exposure Criteria (RDEC) are limited to AOCs 2, 4 and 7. Please clarify the distribution of PAHs in soil since Figure 3 (Soil Exceedances) seems to indicate a much broader Site-wide distribution of PAHs consistent with the description in Section 2.2.

*ESS Response: Section 2.2 is solely a summary of findings from a historic Phase II Environmental Site Assessment (JWC, 2006) and not inclusive of all soil results. Section 7.1 (Summary of Impacted Media) contains impacted media identified during ESS’ investigations (2018 – 2020) but did not include results of JWC’s investigations (2006). As such, Section 7.1 is amended as follows:*

#### **7.1 Summary of Impacted Media**

*Impacts to soil and groundwater as a result of historic Site uses were identified during SI activities and include:*

- *Lead above the RDEC and GALC from ~0 to 3 feet below ground surface (bgs) in AOC 4, specifically at soil boring ESS-31 and test pit ESS-31D.*
- *PAHs intermittently across the Site above the RDEC at depths ranging from ~0.5 to 4 feet bgs.*
- *Chlordane above the RDEC from ~3 to 5 feet bgs in AOC 5.*

- Arsenic intermittently across the Site above the RDEC at depths ranging from ~2 to 10 feet bgs.
  - NAPL on groundwater in AOC 6 at an undetermined thickness. Note that based on PID soil screening results and observations, petroleum impacts to soil are expected from the ~4 to 10-foot depth range bgs around well MW-10 and boring ESS-63 (~10 feet away from MW-10).
9. Section 4.0 of the SIR identifies eight (8) Areas of Concern (AOCs) that were first introduced in an earlier SIR produced in 2007. Please include a Site Figure delineating the eight AOCs in the SIR Addendum.

*ESS Response:* The approximate boundaries of the eight (8) AOCs identified in ESS' SIR are now shown on a new figure (Figure 6 - Current AOC), which is attached to this submittal. It should be noted that only a portion of one AOC (AOC 6 - Former #2 UST) that was identified in the ESS SIR was introduced in the initial SIR (JWC, 2007). The remaining seven (7) AOCs were either identified based on Paramount's/BMP's proposed Site redevelopment design or the RIDEM's comments to the initial SIR (JWC – 2007). Further, except for the area identified by ESS as AOC 6 (Former #2 UST), it is the opinion of ESS that the AOCs identified by JWC in the 2007 SIR have been adequately characterized from collective SI activities.

10. Section 4.1 references "evaluating contaminants of concern (COCs) in soils in future excavation areas and at areas where stormwater and/or wastewater infiltration will occur (i.e., porous paved/subdrain areas and OWTS area)." Please verify that the "wastewater" described here is limited to sanitary wastewater from future residential usage of the Site, or otherwise explain the source of the proposed wastewater infiltration.

*ESS Response:* Correct, the "wastewater" described in Section 4.1 (SI Scope of Work) is limited to only wastewater from the from RIDEM-approved OWTS.

11. Section 4.4.1.2 OWTS (AOC5) indicates that volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), pesticides and metals were not detected above RDECs in subsurface soils in the area of the proposed OWTS leachfield. Review of Figure 3 (Soil Exceedances) seems to indicate that several PAHs and a pesticide were detected in surface soils within the approximate limits of the proposed OWTS leachfield. It is the Department's position that concentrated infiltration of water should not be allowed through contaminated soil, and therefore typically requires excavation of impacted soil and replacement with clean material in locations subject to injection of water. The Department may allow for the excavation, stockpiling, reinternment and capping of moderately impacted soil at another location on the Site that is not subject to concentrated infiltration of water. The Department further acknowledges that the Preferred Remedial Alternative does indicate that the location where the pesticide chlordane was detected will include targeted excavation, post-excavation confirmatory sampling, and proper offsite disposal of impacted soil.

*ESS Response:*

- ESS' SIR was written to distinguish the phasing of investigations (i.e., Limited Phase II ESA, Phase 1, Phase 2, and Phase 3) completed by ESS because they were performed for differing purposes (e.g., due diligence for a potential property transaction versus SI activities) and/or because the investigations of a phase were based on results and findings of one or more of the previous phases of investigations. As such, Section 4.4.1.2 (OWTS - AOC5) describes details of

investigations completed only under the first phase (i.e., Phase 1) of SI activities. ESS acknowledges that chlordane, lead, and certain SVOCs (i.e., benzo(a)pyrene, benzo(b)fluoranthene, and chrysene) exist in certain soils above the RIDEM's RDECs in AOC 5.

- The RIDEM's position is that concentrated infiltration of water should not be allowed through contaminated soil and, therefore, typically requires excavation and replacement with clean material. While ESS does not believe that wastewater infiltration in the OWTS leach field will occur in the upper two feet of soil in this area, which is the only depth range where two samples (SS-4 and SS-19) had PAHs exceeding the RIDEM RDECs, the preferred remedial alternative will be modified to include removal of PAH-impacted soils from these two areas. Excavated soils are expected to be reused beneath a section of Building 3 and capped. Figure 7 (attached) has been revised to allow for this new condition.

- There are three (3) Underground Storage Tanks (USTs) noted on SIR Figure 2 identified as former 1,000-, 10,000- and 20,000-gallon USTs. In addition, Section 4.5.1 references a 500-gallon gasoline UST, not shown on Figure 2, and reportedly closed on July 1, 2020. Please provide brief summary table listing all former (and if applicable any current) USTs associated with the Site, indicating their size, former contents, and current regulatory status.

*ESS Response:* The 500-gallon gasoline UST referenced in Section 4.5.1 (GPR Survey) is the 1,000-gallon UST discovered and removed in 2020, as described in the second bullet listed under Section 1.3 (Past Incidents and Releases). Only three (3) USTs, which are described below, are known to have existed at the Site.

**Summary of Underground Storage Tanks**

UST ID	Size (Gals)	Contents	Date Removed	Leak Detection	LUST No.	Certificate No./Status
001	10,000	No. 2 Fuel Oil	March 5, 2010	No	N/A	235
002	20,000	No. 6 Fuel Oil	November 1, 2011	Yes	3024-ST	Closure Pending
003	1,000	Gasoline	July 1, 2020	Yes	3024-LS	Closure Pending

- Section 4.5.2.3 Fill Area (AOC7) indicates "The detection of PAHs and lead above RDECs indicates that practical remedial efforts coupled with subsequent confirmatory soil sampling (if necessary) is warranted." Please elaborate on what practical remedial efforts are being suggested.

*ESS Response:* The Preferred Remedial Alternative selected for AOC 7 includes installing fencing and thorny brush to restrict or prevent access. This is presented as part of Remedial Alternative #3 in Section 7.2.3 of ESS' SIR. This exercise would take into consideration the wetlands restoration plans and requirements to satisfy certain provisions of the Notice of Violation (NOV) (refer to Section 7.2.3). A new figure (Figure 7 – Proposed Remedy Plan) is attached and depicts the layout for the proposed fencing and capping to restrict and prevent access to/of contaminant-impacted soils.

- Section 4.5.4.1 (Groundwater Analytical Results) indicates that lead was detected in groundwater from monitoring well MW-9 at detectable concentrations below the GA Groundwater Objective (GAGO). It is the Department's position that this well should be retained and included in the post-remedial groundwater monitoring plan, or alternatively a replacement well installed if the original well is damaged during removal of area soils with SPLP lead exceedances.



*ESS Response: ESS respectfully disagrees with this recommendation but will commit to collecting one additional groundwater sample from MW-9 for total lead to show consistent total lead concentrations below the RIDEM GAGO. Committing to retaining or replacing this well when the past lead detection was 'below' the GAGO seems unreasonable.*

15. Section 4.6.2.1 (Soil Analytical Results) indicates that *"The completed SI investigations have delineated to the extent practical the No. 6 fuel oil impacts to soil."* Please be advised the extent of excavation necessary in the area with observed Non-Aqueous Phase Liquid (NAPL) in and around MW-10 and ESS-63 will be determined based upon the results of compliance confirmation sampling in the excavation.

*ESS Response: Yes, the results of post-remediation confirmatory sampling in this area will determine the extent and compliance with the RIDEM Remediation Regulations. Detail on the proposed post-remediation sampling protocols will be provided in the Remedial Action Work Plan (RAWP).*

16. Section 4.6.3.1 (Groundwater Analytical Results) indicates that *"The laboratory analytical results indicate that No. 6 fuel oil impacts (i.e., NAPL and dissolved phase) to groundwater are limited to an area south of Building 7 in the generally area of the former UST. The completed SI investigations have delineated to the extent practical the No. 6 fuel oil impacts to groundwater."* Please be advised that groundwater in the NAPL remediation area will likely require post-remediation groundwater gauging and monitoring for NAPL, TPH and VOCs.

*ESS Response: Yes, post-remediation monitoring of groundwater for NAPL and VOCs is appropriate and will be specified in the RAWP. However, ESS does not agreed with the post-remediation monitoring of groundwater for TPH because there not a GAGO for TPH in the RIDEM's Remediation Regulations.*

17. Section 5.1 (Reportable Concentrations and Conditions) indicates that *"Note - Total metals were detected in groundwater samples above applicable RIDEM GAGOs."* Please list the wells, type of total metals, and reported metals concentrations detected in groundwater samples above applicable GAGOs.

*ESS Response: This is a typographical error. The sentence in Section 5.1 (Reportable Concentrations and Conditions) referenced above should read:*

*Note - Total metals were not detected in groundwater samples above applicable RIDEM GAGOs.*

18. Regarding SIR Section 5.2 (Determination of Background Concentrations of Hazardous Substances), please be advised that Remediation Regulation Section 1.13 (Special Requirements for Managing Arsenic in Soil) *"shall only apply for the investigation and remediation of Source Area(s) involving only exceedances of the contaminant arsenic."* Arsenic at the subject Site cannot be considered solely a background contaminant since it was detected throughout the Site in samples identified as fill and impacted to varying degrees by PAHs which are not naturally occurring substances. This comment would also apply to SIR Section 4.5.2.4 West of Building 2 (AOC8), which indicates that while arsenic is above the RDEC it is considered background and no remedial actions are warranted. While the Department does not consider arsenic a background contaminant at this Site, it does acknowledge that the Preferred Remedial Alternative, including capping of fill areas, will also address detections of arsenic above the RDEC as well as total lead and PAHs.

*ESS Response: ESS' interpretation of § 1.13 of the Remediation Regulations is slightly different from the RIDEM. However, ESS acknowledges the RIDEM's comment and recognizes arsenic as a contaminant of concern (COC) for the Site. Please refer to ESS's response to RIDEM's Comment No. 8.*

19. Regarding Section 6.1 (Potential for Volatilization), the Department acknowledges that resolution of concerns regarding the potential for volatilization of COCs into the indoor air of Building 7 cannot be determined or resolved until after NAPL related remedial actions are completed and will be based, in part, upon the results of confirmation soil sampling results.

*ESS Response: ESS agrees with the RIDEM's statement on this point.*

20. Regarding Section 7 (Development of Remedial Alternatives), will any existing buildings be demolished as part of the proposed redevelopment, and have any hazardous building materials been identified that will need to be abated (i.e. asbestos, lead paint and/or polychlorinated biphenyls (PCB) containing caulking)?

*ESS Response:*

- *One small existing building (Building 5 – not labeled on the Figures) located adjacent to and east of Building 2 and north of Building 6 is slated for demolition. Two other buildings (Building 3 and Building 4) have collapsed and are slated for reconstruction.*
  - *ESS is not sure why hazardous building materials, such as asbestos<sup>1</sup>, lead paint and/or PCBs, are the subject of the RIDEM's comment/response to ESS' SIR. However, a Hazardous Building Material (HBM) survey was completed in 2016 of the subject buildings which identified asbestos containing building materials (ACBMs), lead-based paint, PCB-containing building materials and petroleum products and other hazardous (e.g., mercury, refrigerants, etc.) on or within certain materials, containers and/or equipment. These materials will be the subject of future abatement/removal/disposal, pursuant to applicable regulations and guidelines, prior to renovation and construction activities.*
21. Regarding the general discussion of wetlands in Section 7.2.3 (Remedial Alternative #3), Please be reminded that the final Remedial Action Work Plan (RAWP) will be subject to review by the Department's Freshwater Wetlands Program with regard to proposed remedial activities in jurisdictional wetlands areas and required wetland restoration activities.

*ESS Response: ESS acknowledges this point by the RIDEM. A new figure (Figure 7 – Soil Exceedance in Wetland Restoration Area) is attached for reference.*

22. The OLRSM is aware of previous discussions between representatives of the current Site owner, the Department's Office of Compliance and Inspection, Office of Legal Services, and the Freshwater Wetlands Program with regard to resolving an outstanding Notice of Violation (NOV) pertaining to wetland violations and requirements for wetland restoration. The OLRSM received several Site Figures via email from ESS on September 9, 2020, regarding the proposed and approved planting plan and wetland restoration areas. In order to facilitate completion of this SIR review, the OLRSM

<sup>1</sup> Pursuant to at § 1.4(A) of the Remediation Regulations, "Hazardous substance" means any substance designated as such pursuant to 40 C.F.R. § 300.5, incorporated above of this Part. Hazardous Substance also includes any material that meets the definition of Hazardous Waste. Hazardous Substance shall not include, for the purposes of these regulations, asbestos or radioactive materials.

is requesting clarification of the following items:

- a. The emailed figure identified as Proposed Restoration Areas seems to include wetland restoration activities on Scituate Plat 5, Lots 58 and 69, which were excluded from the SIR definition of this Site. Who is responsible for completing these restoration activities? Are there agreements in place with the owners of both lots granting access for the proposed restoration activities? Have these parcels been evaluated for potential contamination. Who will be responsible for monitoring and annually reporting on the status of the restored wetlands on these two lots for the next three (3) years to ensure survivability of the plants that have been installed, and to ensure invasive plants do not colonize the restored area?

*ESS Response: As indicated in ESS' response to the RIDEM's Question 3, BMP is the current owner of Scituate Plat 5, Lots 58 and 69 and intends to complete the wetland restoration activities on these lots following the completion of Phase I of the Hope Mill redevelopment project. Therefore, BMP will also be responsible for monitoring and reporting, consistent with the agreed upon timeframes, on the status of the restored wetlands on these lots.*

- b. Please include an updated final Proposed Remedy Plan Figure in the SIR Addendum, based on the draft Proposed Remedy Plan Figure submitted via email.

*ESS Response: An updated figure (Figure 7 – Proposed Remedy Plan) is attached.*

- c. Please submit a figure in the SIR Addendum, similar to the emailed draft Proposed Remedy Plan, but which also clearly shows all identified COC exceedances in areas that will be subject to wetlands restoration and are not being proposed for targeted excavation or capping activities. The Department acknowledges that many or all of these areas are proposed for installation of fencing and thorny brush to restrict or prevent future access and will be further subject to the restrictions of the ELUR.

*ESS Response: Two updated figures (Figure 8 – Soil Exceedances in Wetland Restoration Area; and Figure 8A – All Soil Samples in Wetland Restoration Area) are attached.*

23. Regarding Section 7.3 (Preferred Remedial Alternative), the Department generally concurs with the proposed Preferred Remedial Alternative of focused excavation and dewatering (SPLP lead impacted soil, chlordane impacted soil and NAPL and petroleum impacted soil and groundwater), encapsulation, physical access barriers (i.e. capping) and an ELUR, with the following conditions:

*ESS Response: Please note that the RIDEM may have inadvertently indicated "capping" above when referencing physical access barriers. For clarification purposes, encapsulation under Section 7.2.3 (Remedial Alternative #3) and Section 7.3 (Preferred Remedial Alternative) of ESS' SIR refers to the use of soil, asphalt and/or concrete pavement, or existing building slabs to prevent direct contact while "physical access barriers" refers to fencing and thorny brush to prevent access.*

- a. RDEC exceedances of arsenic shall be included as a COC subject to remedial action (i.e. excavation and/or capping) and not exempted as a proposed background contaminant.

*ESS Response: Arsenic is now considered a COC for the Site and will be addressed under the Preferred Remedial Alternative.*



- b. A periodic post-remediation groundwater gauging and monitoring plan for targeted NAPL and SPLP-lead removal areas shall be included in the RAWP.

*ESS Response: ESS agrees with and will include in the RAWP a periodic post-remediation groundwater gauging and monitoring plan for targeted NAPL. However, ESS does not agree that the periodic post-remediation plan should include monitoring at the SPLP-lead removal areas because: (i) excavation under the proposed Remedy will include removal of SPLP-lead in soil/fill; (ii) the results of a groundwater sample collected from MW-9 which is located within the SPLP-lead removal area has shown no exceedance of the GAGO for lead; and (iii) lead has not been detected Site-wide above the GAGO in any of the six former groundwater monitoring wells or any of the ten newly-installed groundwater monitoring wells.*

- c. The potential for volatilization of COCs into the indoor air of any current or proposed Site buildings shall be evaluated based upon the results of post-remediation confirmation compliance sampling, and if deemed necessary, soil gas and/or indoor air sampling and analysis.

*ESS Response: ESS agrees with the RIDEM's comment and will provide details for evaluating soil gas and/or indoor air, if determined to be necessary, in the RAWP.*

24. Based upon the information provided to date, no Site investigation activities were performed on Scituate Plat 3, Lot 8, or the portion of Coventry Plat 101 / Lot 5 south of the river, reportedly due to no development or use history on these parcels. Please be advised that since these significant portions of the Site have not been investigated and determined to be compliant, upon the successful completion of all final approved remedial activities, the Department will be limited to issuing a No Further Action Letter (NFA) rather than a Letter of Compliance (LOC). Should a LOC be desired instead of an NFA, assessment of these two areas may be included in the SIR Addendum, or as a Limited Design Investigation (LDI) in the RAWP.

*ESS Response: The Applicant (Paramount and BMP) can accept a NFA.*

25. The Underground Storage Tank Program has reviewed documents on the discovery of contamination from two separate UST Releases at this property. Michael Cote will be this project's LUST Project Manager and has provided the following comments to the Site Remediation Program for inclusion in this Comment Letter:

- a. UST 003 1,000 Gasoline:

- i. The UST closure indicated a release and also included the removal of contaminated soils. This office is requiring the installation of one monitoring well at the actual UST location. Soil samples are to be analyzed for TPH, EPA 8260 and metals. Groundwater samples are to be analyzed for EPA 8260 and metals. Subsequent actions will be determined after the well is completed, such as any groundwater monitoring.

*ESS Response: ESS disagrees with the RIDEM's request to install a monitoring well in the former UST location and to subsequently sample groundwater for TPH, VOCs and metals. Reasoning for the disagreement is as follows:*

- *Five discrete post-excavation soil samples have already been collected at depths, as directed by the RIDEM (Mr. Mike Cote) during the closure of the UST system, to confirm that the soil removal activities were successfully with achieving RIDEM RDECs. Details of the soil samples include:*
  - *One discrete soil sample was collected from the bottom and each of the four sidewalls of the excavation area at depths of ~11 and 10 feet below the ground surface (bgs), respectively.*
  - *The samples were collected at ~4 to 5 feet beneath the bottom of the UST and ~3.5 to 4.5 feet into the groundwater table.*
- *As indicated in the UST Closure Assessment Report (ESS, 2020), two monitoring wells (MW-6 and MW-9) exist within 30 feet due north and 100 feet south/southeast of the former UST, respectively, and have no detection of VOCs or metals including lead above the RIDEM GAGOs. Groundwater in the vicinity of the UST excavation is expected to flow in an easterly to southeasterly direction, generally towards well MW-9.*

b. UST 002 - 20,000 No. 6 Fuel Oil:

- i. The discovery of separate phase petroleum at the location of this UST has been reviewed. Rhode Island Regulations for Groundwater Quality and Rhode Island Regulations for Underground Storage Facilities (250-RICR- 150-05-3(3.11)(A)(5)) prohibit the presence of separate phase petroleum product.

ESS Response: *ESS acknowledges the RIDEM's prohibition of separate phase petroleum product.*

- ii. Until a long-term remedy to address this product is approved by this office, the gauging and removal of separate phase product from wells in this UST area is now required on a monthly basis.

ESS Response: *ESS disagrees with the RIDEM's request to gauge and remove NAPL on a monthly basis from the one well (not wells) where NAPL has been detected for the following reasons: (i) the NAPL is No. 6 fuel oil which is a dense, non-mobile heavy end petroleum and is not expected to migrate a substantial distance from the source; (ii) the source of the NAPL, the former UST, has been removed; (iii) the completed SI activities have delineated the extent of subsurface impacts, which are located within the Site boundaries; (iv) remedial actions to address the NAPL with other COCs at the Site are collectively proposed in ESS' SIR; and (v) there is no immediate human health or environmental benefit or value to performing this monthly event. Based on these conditions, ESS respectfully requests of the RIDEM's OLRSM (UST Management and Site Remediation Programs) allow Paramount/BMP to manage/remediate the No. 6 fuel oil under with the SIR and Remediation Regulations for File No. SR-30-0623.*

- iii. Regarding a long-term remedy, this office's preferred action for this situation is the removal of contaminated soils with RIDEM oversight [Excavation of soils UST Regulation 1.15D(11)(b)]. If excavation is performed, subsequent actions will be determined after the excavation is completed, such as monitoring well and monitoring.

*ESS Response: The RIDEM comment on soil excavation is consistent with ESS' preferred remedial alternative selected to address the Release of No. 6 fuel oil to at AOC 6, as presented in Section 7.2.3 of ESS' SIR. As indicated in ESS' response to Comment 25(b)(ii), ESS again respectively requests that the remediation for contaminated soils and NAPL at AOC 6 be performed as a remedial action under File No. SR-30-0623 and the OLRSMR Remediation Regulations. If this is approved, ESS will keep the RIDEM's UST Management Program updated on the soil excavation schedule (to coordinate oversight by RIDEM) and will provide results of soil and groundwater testing.*

- iv. In the event excavation cannot be completed, the following the following guidance is generally applied:

*ESS Response: The Applicant and ESS fully intend to perform soil excavation, dewatering and NAPL removal at AOC 6 and are aware of guidance below.*

1. SIR: A SIR specific to RIDEM UST Regulations will be required to establish the full extent of product, soil and groundwater contamination. Well locations must be pre-approved by the RIDEM LUST project manager. Wells must be 4" in diameter minimum. –
  2. Monitoring year: The wells in this UST area must be gauged monthly for a year. Quarterly groundwater analysis for TPH and 8260 will be required.
  3. At sites where the excavation of soils has not occurred, the following guidance on data interpretation will apply:
    - a. All applicable groundwater standards must be met before a No Further Action Determination can be issued. No product must be detected and no exceedances of groundwater standards will be allowed if soil excavation is not completed. Additional groundwater monitoring will be required if standards are not met within one year.
    - b. Risk based evaluations will not be permitted if soil excavation is not completed.
    - c. Any subsequent NFA issued at a property without soil excavation will include:
      - i. A statement on the presence of contaminated soils remaining.
      - ii. A statement that the NFA is based on existing commercial land use.
      - iii. The prohibition of residential land use in the UST location without additional work.
- c. Please communicate with this office on your desired course of action for the product discovery at UST 002 (20,000 No. 6 Fuel Oil), will it be excavation or assessment? This office will discuss additional details once this decision has been made.

*ESS Response: As indicated in Section 7.2.3 (Remedial Alternative #3) of ESS's SIR, the recommended course of action (preferred remedial alternative) for the product discovery at the former 20,000-gallon UST (AOC 6) is "excavation and dewatering to remove NAPL and petroleum-impacted soil and groundwater". The SIR also indicates that the SI activities under File No. SR-30-0623 have sufficiently delineated to the extent practical the Release of No. 6 fuel oil at AOC 6. Lastly, as indicated in ESS' responses to several questions above and as requested in*



*various emails from ESS to the OLRSM's Site Remediation and UST Management Programs, the Applicant's objective and commitment is to remediate the all COCs on the Site, including AOC 6, and would like to do so collectively as part of the Preferred Remedial Alternatives pursuant to the RIDEM's Remediation Regulations and ESS' SIR.*

26. Please submit an SIR Addendum that addresses the abovementioned comments on or before December 31, 2020.

*ESS Response: This letter and attachments serve as the SIR Addendum and are being submitted prior December 31, 2020.*

If the RIDEM reviewers of this SIR Addendum should have any questions regarding this submittal, please either of the undersigned at 781-419-7705 (office) or 508-641-0124 (cell).

Sincerely,

**ESS GROUP, INC.**

A handwritten signature in blue ink, appearing to read "William M. Chapman".

William M. Chapman  
Market Director  
Land and Waterfront Development and Remediation Division

C: Richard J. DeRosas, Paramount Apartments, LLC

Attachments: Figure 2 (Site Plan)  
Figure 3 (Site Plan – Soil Exceedances)  
Figure 4 (Site Plan – Groundwater Exceedances)  
Figure 5 (Groundwater Contour Map)  
Figure 6 (Areas of Concern (AOCs))  
Figure 7 (Proposed Remedy Plan)  
Figure 8 (Soil Exceedances in Wetland Restoration Area)  
Figure 8A (All Soil Samples in Wetland Restoration Area)



## Figures

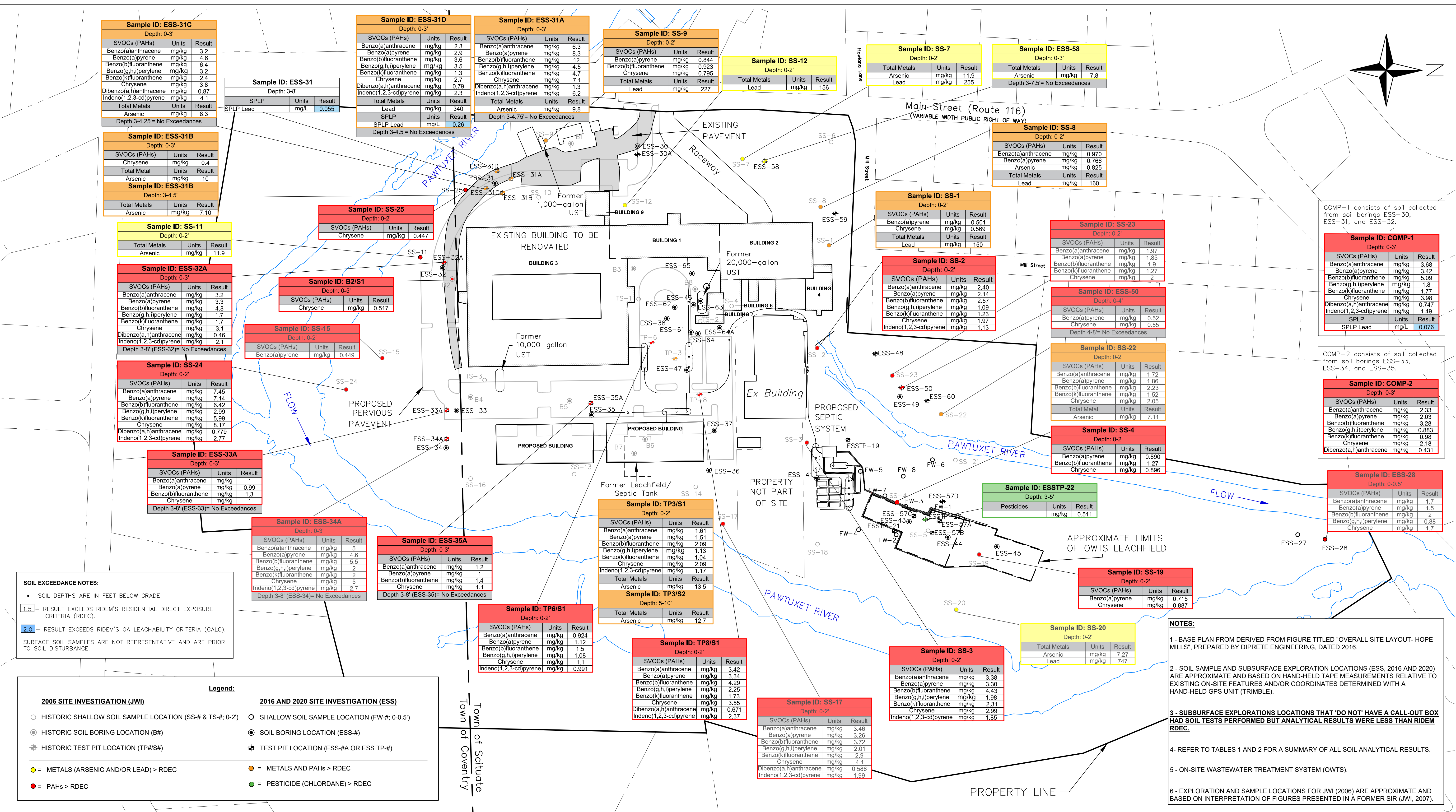
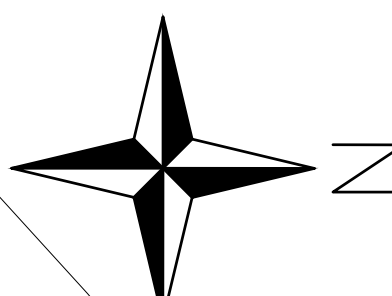
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**SOIL EXCEEDANCE NOTES:**

- SOIL DEPTHS ARE IN FEET BELOW GRADE
- 1.5 - RESULT EXCEEDS RIDEM'S RESIDENTIAL DIRECT EXPOSURE CRITERIA (RDEC).
- 2.0 - RESULT EXCEEDS RIDEM'S GA LEACHABILITY CRITERIA (GALC).

SURFACE SOIL SAMPLES ARE NOT REPRESENTATIVE AND ARE PRIOR TO SOIL DISTURBANCE.

**Legend:**

<b>2006 SITE INVESTIGATION (JWI)</b>	<b>2016 AND 2020 SITE INVESTIGATION (ESS)</b>
○ HISTORIC SHALLOW SOIL SAMPLE LOCATION (SS-# & TS-#; 0-2')	○ SHALLOW SOIL SAMPLE LOCATION (FW-#; 0-0.5')
● HISTORIC SOIL BORING LOCATION (B#)	● SOIL BORING LOCATION (ESS-#)
⊕ HISTORIC TEST PIT LOCATION (TP#/#S#)	⊕ TEST PIT LOCATION (ESS-#A OR ESS TP-#)
● = METALS (ARSENIC AND/OR LEAD) > RDEC	● = METALS AND PAHS > RDEC
● = PAHS > RDEC	● = PESTICIDE (CHLORDANE) > RDEC

**NOTES:**

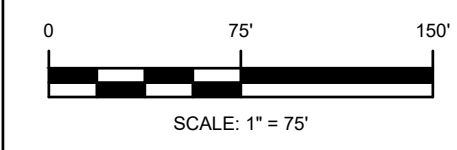
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- 2 - SOIL SAMPLE AND SUBSURFACE EXPLORATION LOCATIONS (ESS, 2016 AND 2020) ARE APPROXIMATE AND BASED ON HAND-HELD TAPE MEASUREMENTS RELATIVE TO EXISTING ON-SITE FEATURES AND/OR COORDINATES DETERMINED WITH A HAND-HELD GPS UNIT (TRIMBLE).
- 3 - SUBSURFACE EXPLORATIONS LOCATIONS THAT 'DO NOT' HAVE A CALL-OUT BOX HAD SOIL TESTS PERFORMED BUT ANALYTICAL RESULTS WERE LESS THAN RIDEM RDEC.
- 4 - REFER TO TABLES 1 AND 2 FOR A SUMMARY OF ALL SOIL ANALYTICAL RESULTS.
- 5 - ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS).
- 6 - EXPLORATION AND SAMPLE LOCATIONS FOR JWI (2006) ARE APPROXIMATE AND BASED ON INTERPRETATION OF FIGURES PRESENTED IN A FORMER SIR (JWI, 2007).

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**SITE PLAN  
SOIL EXCEEDANCES**

**FIGURE:  
3**

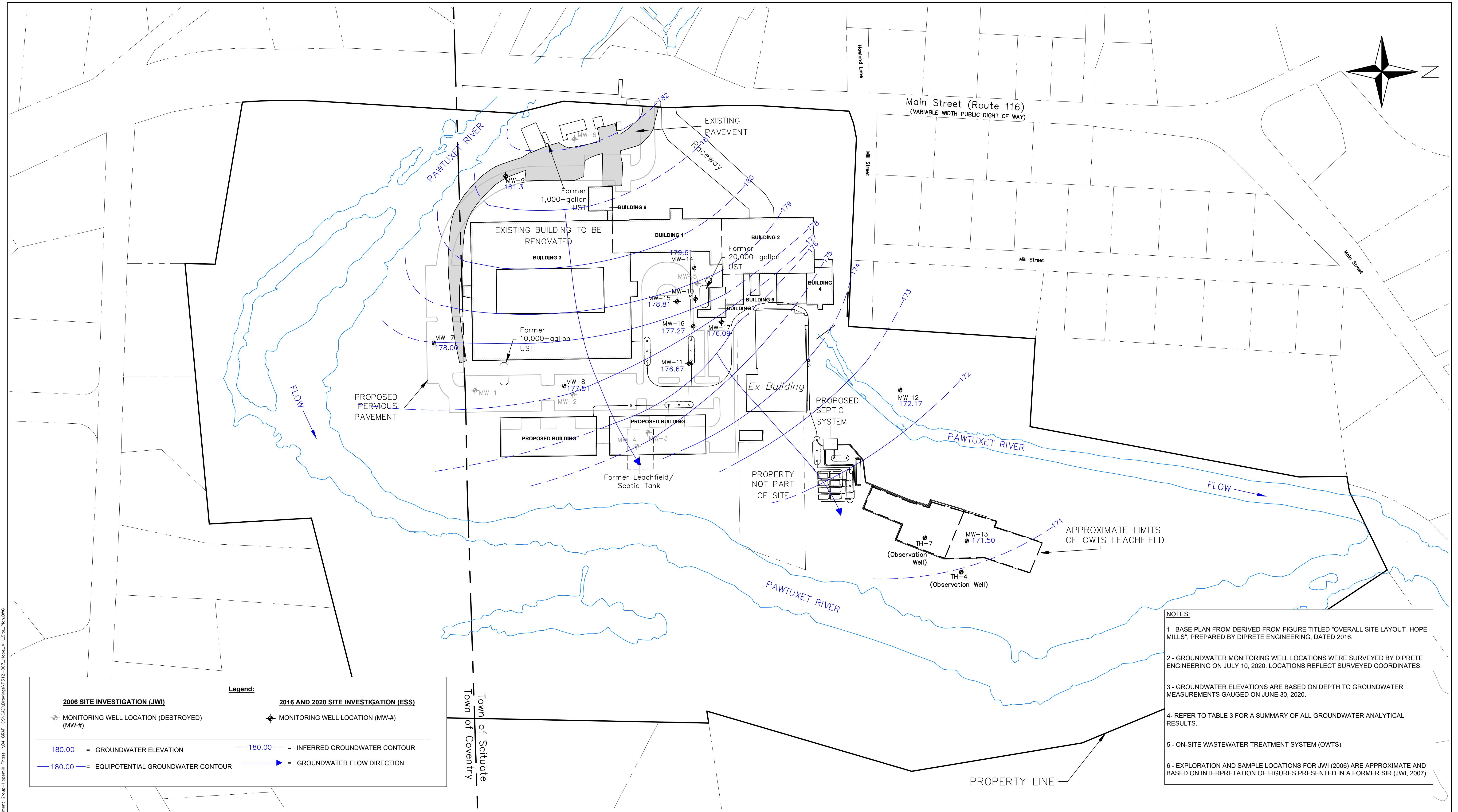
PROJECT NO: P312-007  
DATE OF ISSUE: 11/17/2020  
SHEET NO: 3 OF 8

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**Legend:**

<b>2006 SITE INVESTIGATION (JWI)</b>	<b>2016 AND 2020 SITE INVESTIGATION (ESS)</b>
⊕ MONITORING WELL LOCATION (DESTROYED) (MW-#)	⊕ MONITORING WELL LOCATION (MW-#)
180.00 = GROUNDWATER ELEVATION	-- 180.00 -- = INFERRED GROUNDWATER CONTOUR
— 180.00 — = EQUIPOTENTIAL GROUNDWATER CONTOUR	→ = GROUNDWATER FLOW DIRECTION

- NOTES:**
- 1 - BASE PLAN FROM DERIVED FROM FIGURE TITLED "OVERALL SITE LAYOUT- HOPE MILLS", PREPARED BY DIPRETE ENGINEERING, DATED 2016.
  - 2 - GROUNDWATER MONITORING WELL LOCATIONS WERE SURVEYED BY DIPRETE ENGINEERING ON JULY 10, 2020. LOCATIONS REFLECT SURVEYED COORDINATES.
  - 3 - GROUNDWATER ELEVATIONS ARE BASED ON DEPTH TO GROUNDWATER MEASUREMENTS GAUGED ON JUNE 30, 2020.
  - 4 - REFER TO TABLE 3 FOR A SUMMARY OF ALL GROUNDWATER ANALYTICAL RESULTS.
  - 5 - ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS).
  - 6 - EXPLORATION AND SAMPLE LOCATIONS FOR JWI (2006) ARE APPROXIMATE AND BASED ON INTERPRETATION OF FIGURES PRESENTED IN A FORMER SIR (JWI, 2007).

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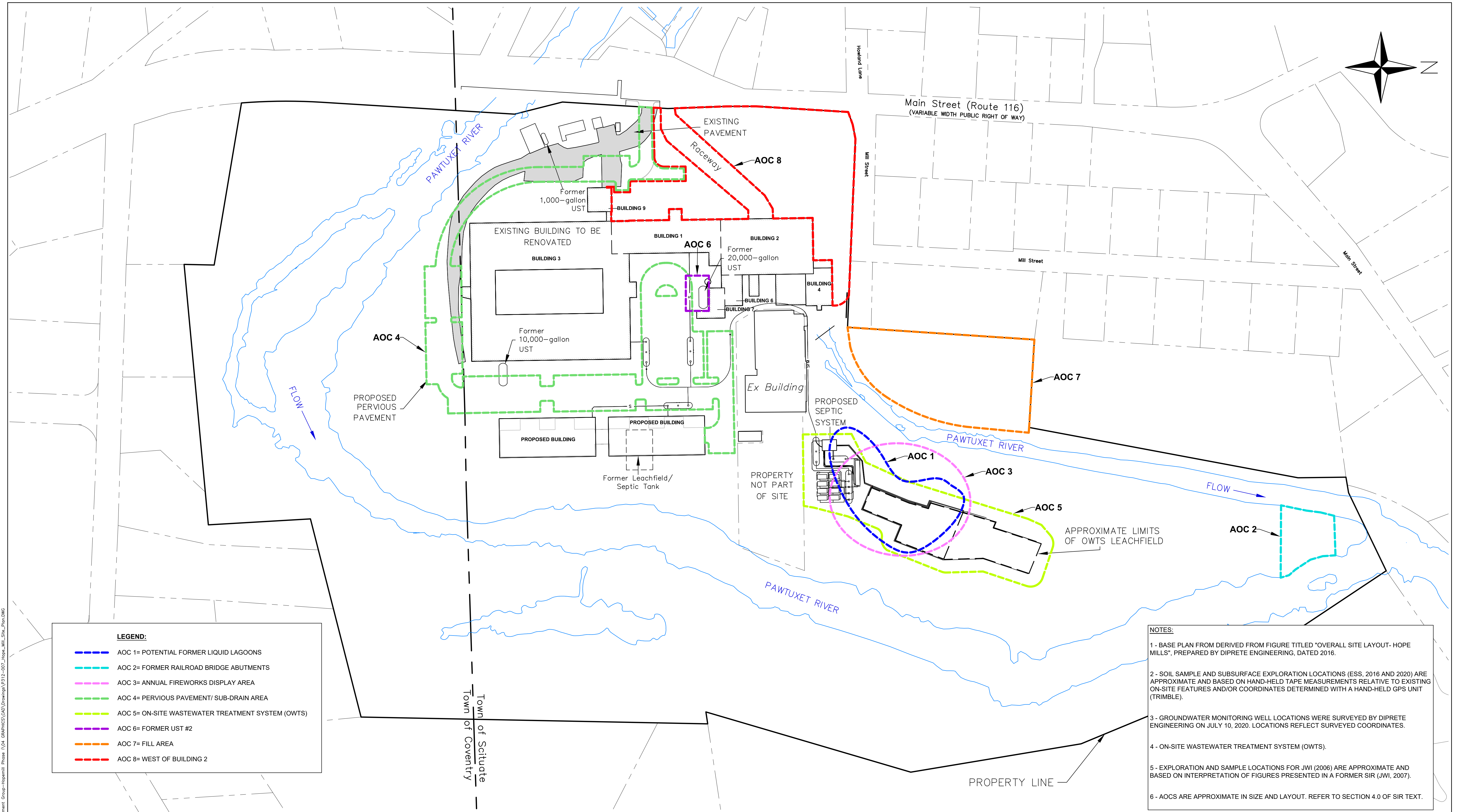
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**GROUNDWATER CONTOUR MAP**

**FIGURE: 5**

PROJECT NO: P312-007  
 DATE OF ISSUE: 11/17/2020  
 SHEET NO: 5 OF 8





**LEGEND:**

- AOC 1= POTENTIAL FORMER LIQUID LAGOONS
- AOC 2= FORMER RAILROAD BRIDGE ABUTMENTS
- AOC 3= ANNUAL FIREWORKS DISPLAY AREA
- AOC 4= PERVIOUS PAVEMENT/ SUB-DRAIN AREA
- AOC 5= ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS)
- AOC 6= FORMER UST #2
- AOC 7= FILL AREA
- AOC 8= WEST OF BUILDING 2

**NOTES:**

- 1 - BASE PLAN FROM DERIVED FROM FIGURE TITLED "OVERALL SITE LAYOUT- HOPE MILLS", PREPARED BY DIPRETE ENGINEERING, DATED 2016.
- 2 - SOIL SAMPLE AND SUBSURFACE EXPLORATION LOCATIONS (ESS, 2016 AND 2020) ARE APPROXIMATE AND BASED ON HAND-HELD TAPE MEASUREMENTS RELATIVE TO EXISTING ON-SITE FEATURES AND/OR COORDINATES DETERMINED WITH A HAND-HELD GPS UNIT (TRIMBLE).
- 3 - GROUNDWATER MONITORING WELL LOCATIONS WERE SURVEYED BY DIPRETE ENGINEERING ON JULY 10, 2020. LOCATIONS REFLECT SURVEYED COORDINATES.
- 4 - ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS).
- 5 - EXPLORATION AND SAMPLE LOCATIONS FOR JWI (2006) ARE APPROXIMATE AND BASED ON INTERPRETATION OF FIGURES PRESENTED IN A FORMER SIR (JWI, 2007).
- 6 - AOCS ARE APPROXIMATE IN SIZE AND LAYOUT. REFER TO SECTION 4.0 OF SIR TEXT.

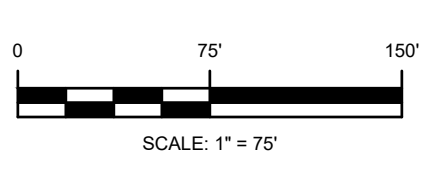
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**AREAS OF CONCERN (AOCS)**

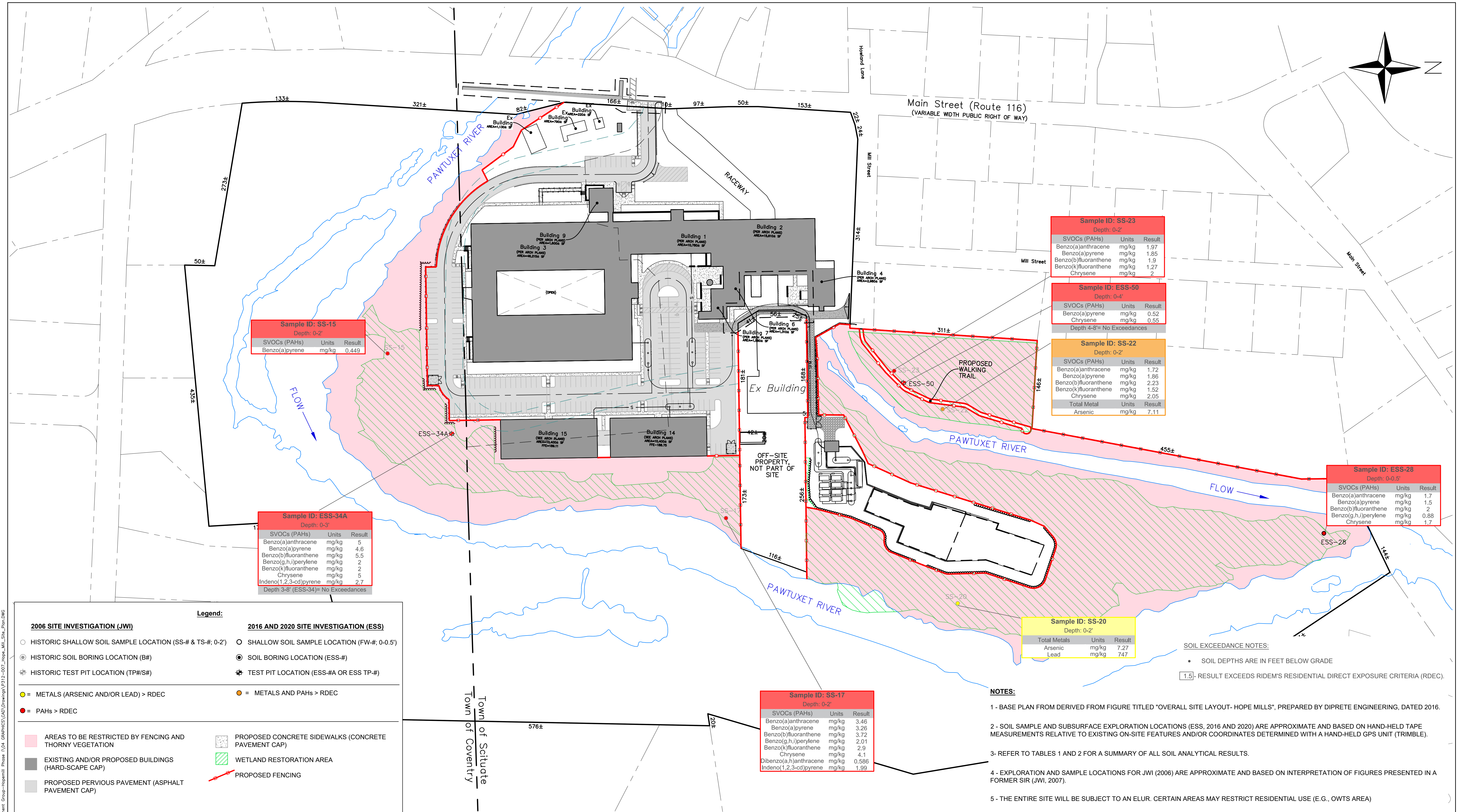
**FIGURE:**  
6

PROJECT NO: P312-007  
 DATE OF ISSUE: 11/17/2020  
 SHEET NO: 6 OF 8









**Sample ID: SS-15**  
Depth: 0-2'

SVOCs (PAHs)	Units	Result
Benzo(a)pyrene	mg/kg	0.449

**Sample ID: ESS-34A**  
Depth: 0-3'

SVOCs (PAHs)	Units	Result
Benzo(a)anthracene	mg/kg	5
Benzo(a)pyrene	mg/kg	4.6
Benzo(b)fluoranthene	mg/kg	5.5
Benzo(g,h,i)perylene	mg/kg	2
Benzo(k)fluoranthene	mg/kg	2
Chrysene	mg/kg	5
Indeno(1,2,3-cd)pyrene	mg/kg	2.7

Depth 3-8' (ESS-34)= No Exceedances

**Sample ID: SS-23**  
Depth: 0-2'

SVOCs (PAHs)	Units	Result
Benzo(a)anthracene	mg/kg	1.97
Benzo(a)pyrene	mg/kg	1.85
Benzo(b)fluoranthene	mg/kg	1.9
Benzo(k)fluoranthene	mg/kg	1.27
Chrysene	mg/kg	2

**Sample ID: ESS-50**  
Depth: 0-4'

SVOCs (PAHs)	Units	Result
Benzo(a)pyrene	mg/kg	0.52
Chrysene	mg/kg	0.55

Depth 4-8'= No Exceedances

**Sample ID: SS-22**  
Depth: 0-2'

SVOCs (PAHs)	Units	Result
Benzo(a)anthracene	mg/kg	1.72
Benzo(a)pyrene	mg/kg	1.86
Benzo(b)fluoranthene	mg/kg	2.23
Benzo(k)fluoranthene	mg/kg	1.52
Chrysene	mg/kg	2.05
<b>Total Metal</b>	<b>Units</b>	<b>Result</b>
Arsenic	mg/kg	7.11

**Sample ID: SS-20**  
Depth: 0-2'

Total Metals	Units	Result
Arsenic	mg/kg	7.27
Lead	mg/kg	747

**Sample ID: SS-17**  
Depth: 0-2'

SVOCs (PAHs)	Units	Result
Benzo(a)anthracene	mg/kg	3.46
Benzo(a)pyrene	mg/kg	3.26
Benzo(b)fluoranthene	mg/kg	3.72
Benzo(g,h,i)perylene	mg/kg	2.01
Benzo(k)fluoranthene	mg/kg	2.9
Chrysene	mg/kg	4.1
Dibenzo(a,h)anthracene	mg/kg	0.586
Indeno(1,2,3-cd)pyrene	mg/kg	1.99

**SOIL EXCEEDANCE NOTES:**

- SOIL DEPTHS ARE IN FEET BELOW GRADE
- [1.5] - RESULT EXCEEDS RIDEM'S RESIDENTIAL DIRECT EXPOSURE CRITERIA (RDEC).

- NOTES:**
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  - 3- REFER TO TABLES 1 AND 2 FOR A SUMMARY OF ALL SOIL ANALYTICAL RESULTS.
  - 4 - EXPLORATION AND SAMPLE LOCATIONS FOR JWJ (2006) ARE APPROXIMATE AND BASED ON INTERPRETATION OF FIGURES PRESENTED IN A FORMER SIR (JWJ, 2007).
  - 5 - THE ENTIRE SITE WILL BE SUBJECT TO AN ELUR. CERTAIN AREAS MAY RESTRICT RESIDENTIAL USE (E.G., OWTS AREA)

**Legend:**

<b>2006 SITE INVESTIGATION (JWJ)</b>	<b>2016 AND 2020 SITE INVESTIGATION (ESS)</b>
○ HISTORIC SHALLOW SOIL SAMPLE LOCATION (SS-# & TS-#, 0-2')	○ SHALLOW SOIL SAMPLE LOCATION (FW-#, 0-0.5')
⊙ HISTORIC SOIL BORING LOCATION (B#)	⊙ SOIL BORING LOCATION (ESS-#)
⊕ HISTORIC TEST PIT LOCATION (TP#/#)	⊕ TEST PIT LOCATION (ESS-#A OR ESS TP-#)
● = METALS (ARSENIC AND/OR LEAD) > RDEC	● = METALS AND PAHs > RDEC
● = PAHs > RDEC	

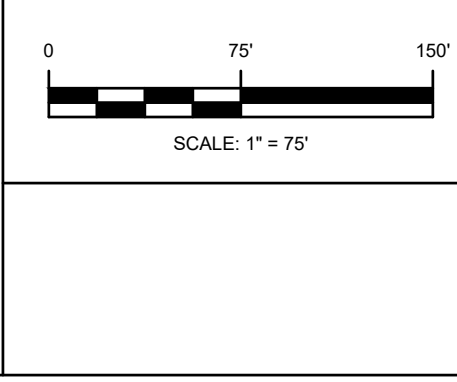
■ AREAS TO BE RESTRICTED BY FENCING AND THORNY VEGETATION	■ PROPOSED CONCRETE SIDEWALKS (CONCRETE PAVEMENT CAP)
■ EXISTING AND/OR PROPOSED BUILDINGS (HARD-SCAPE CAP)	■ WETLAND RESTORATION AREA
■ PROPOSED PERVIOUS PAVEMENT (ASPHALT PAVEMENT CAP)	■ PROPOSED FENCING

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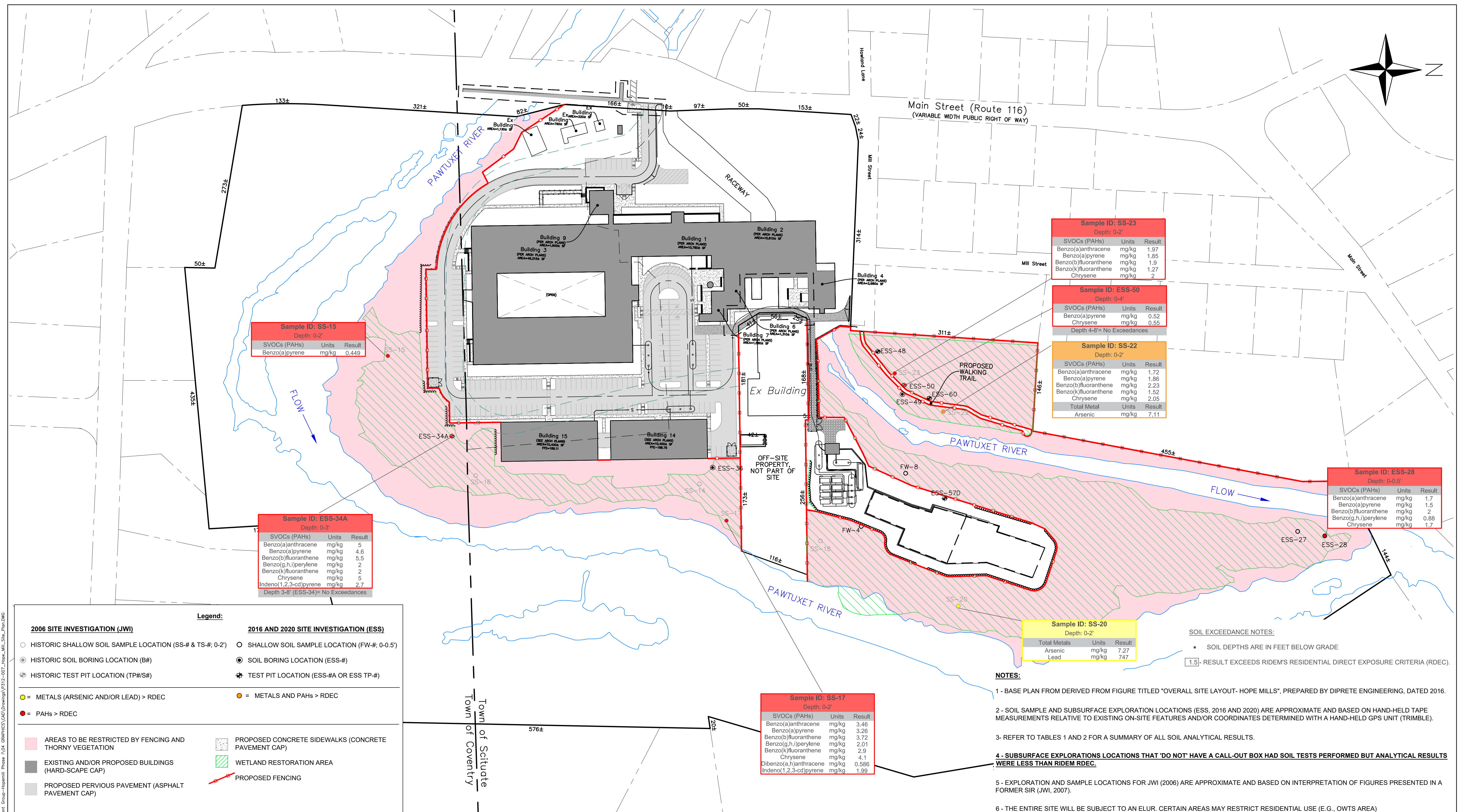
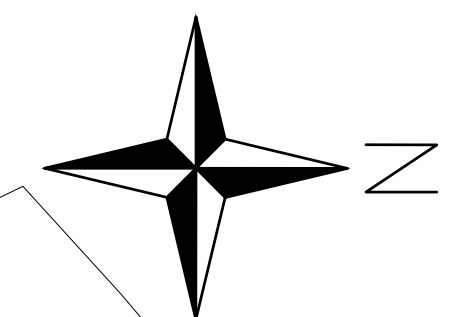
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**SOIL EXCEEDANCES IN WETLAND RESTORATION AREA**

**FIGURE: 8**

PROJECT NO: P312-007  
DATE OF ISSUE: 11/17/2020  
SHEET NO: 8 OF 8





**Sample ID: SS-15**  
Depth: 0-2'

SVOCs (PAHs)	Units	Result
Benzo(a)pyrene	mg/kg	0.449

**Sample ID: ESS-34A**  
Depth: 0-3'

SVOCs (PAHs)	Units	Result
Benzo(a)anthracene	mg/kg	5
Benzo(a)pyrene	mg/kg	4.6
Benzo(b)fluoranthene	mg/kg	5.5
Benzo(g,h,i)perylene	mg/kg	2
Benzo(k)fluoranthene	mg/kg	2
Chrysene	mg/kg	5
Indeno(1,2,3-cd)pyrene	mg/kg	2.7

Depth 3-8' (ESS-34)= No Exceedances

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Benzo(b)fluoranthene	mg/kg	2.23
Benzo(k)fluoranthene	mg/kg	1.52
Chrysene	mg/kg	2.05
<b>Total Metal</b>	<b>Units</b>	<b>Result</b>
Arsenic	mg/kg	7.11

**Sample ID: ESS-28**  
Depth: 0-0.5'

SVOCs (PAHs)	Units	Result
Benzo(a)anthracene	mg/kg	1.7
Benzo(a)pyrene	mg/kg	1.5
Benzo(b)fluoranthene	mg/kg	2
Benzo(g,h,i)perylene	mg/kg	0.88
Chrysene	mg/kg	1.7

**Sample ID: SS-20**  
Depth: 0-2'

Total Metals	Units	Result
Arsenic	mg/kg	7.27
Lead	mg/kg	747

**Sample ID: SS-17**  
Depth: 0-2'

SVOCs (PAHs)	Units	Result
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Benzo(a)pyrene	mg/kg	3.26
Benzo(b)fluoranthene	mg/kg	3.72
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**Legend:**

<b>2006 SITE INVESTIGATION (JWI)</b>	<b>2016 AND 2020 SITE INVESTIGATION (ESS)</b>
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■ PROPOSED PERVIOUS PAVEMENT (ASPHALT PAVEMENT CAP)	■ PROPOSED FENCING

**SOIL EXCEEDANCE NOTES:**

- SOIL DEPTHS ARE IN FEET BELOW GRADE
- 1.5- RESULT EXCEEDS RIDEM'S RESIDENTIAL DIRECT EXPOSURE CRITERIA (RDEC).

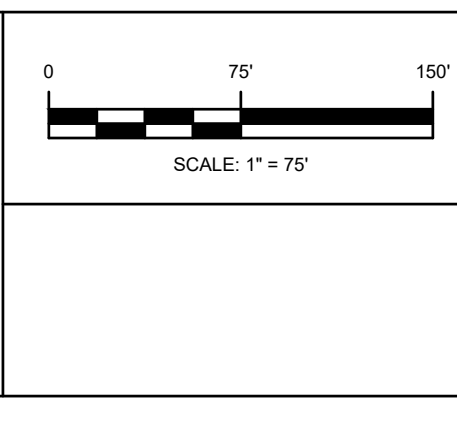
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**ALL SOIL SAMPLES IN WETLAND RESTORATION AREA**

**FIGURE: 8A**

PROJECT NO: P312-007  
DATE OF ISSUE: 11/17/2020  
SHEET NO: 8A OF 8