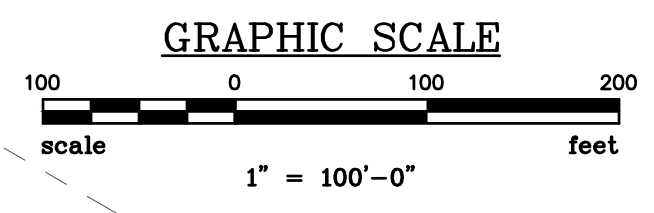
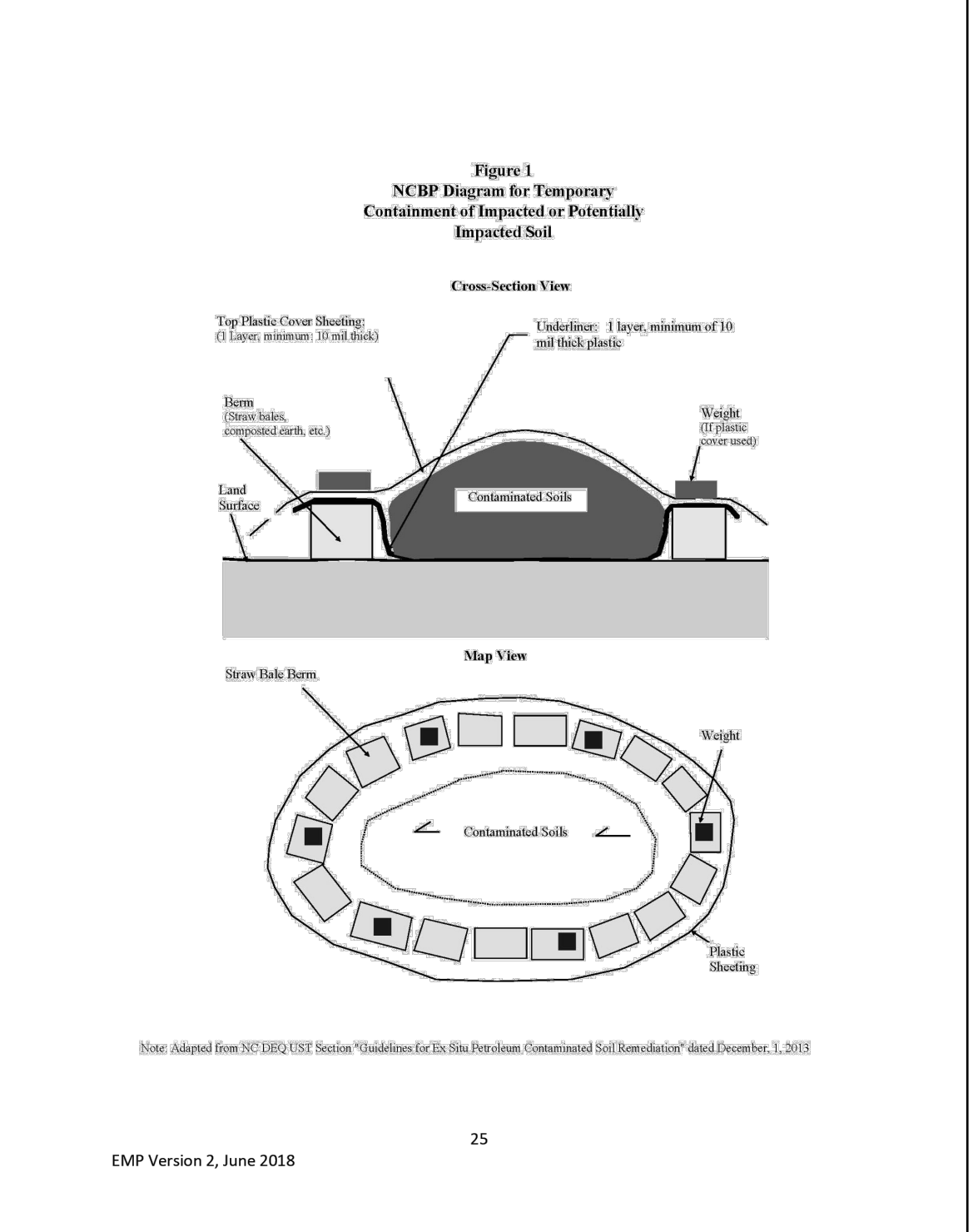
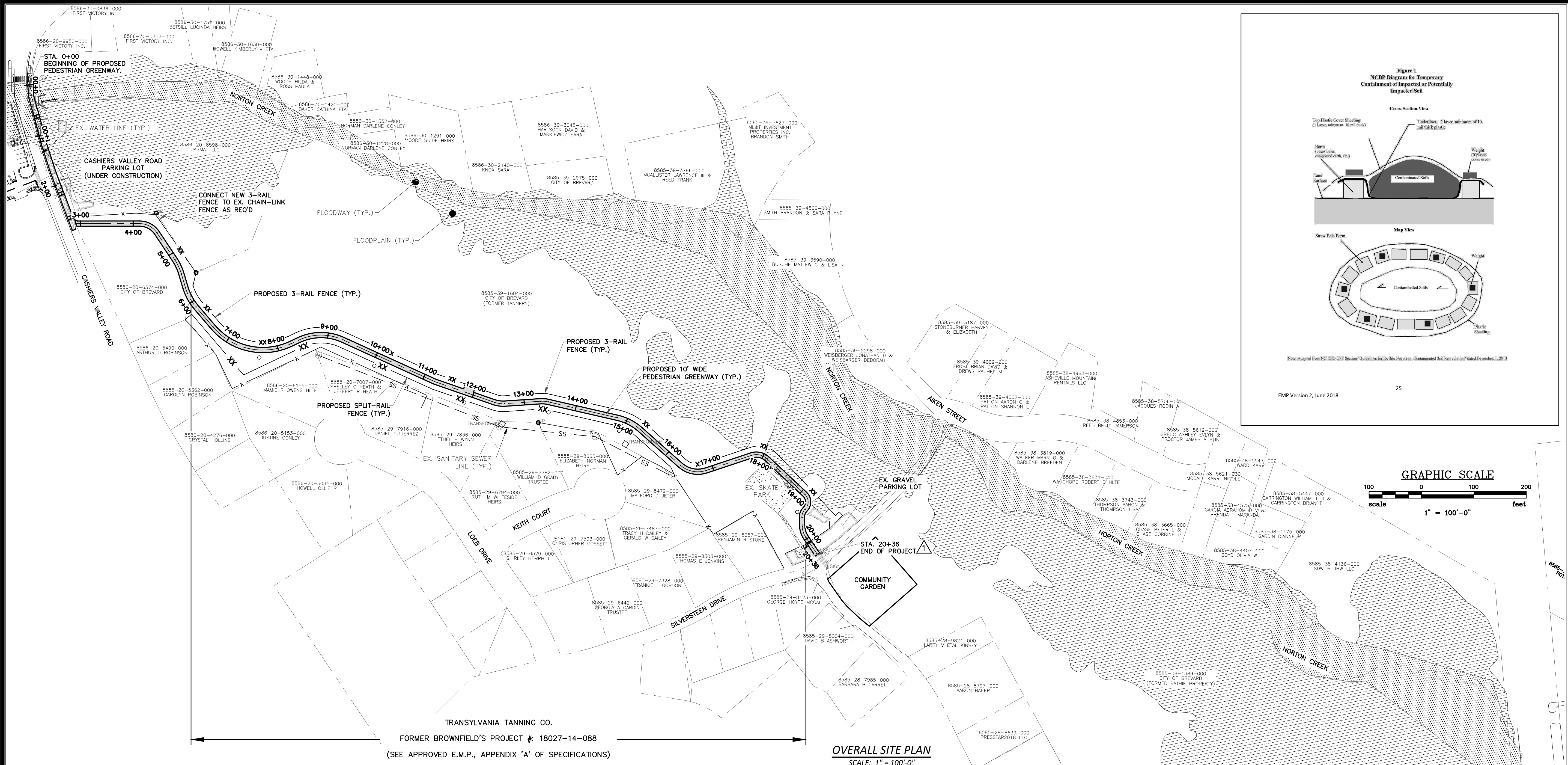


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- NOTES:**
- Assessment activities performed by NCDEQ and S&ME have identified lead in the near-surface soils as the primary contaminant of concern; however, arsenic has also been detected at concentrations that exceed the respective July 2020 NCDEQ Residential Preliminary Soil Remediation Goal (PSRG). According to the U.S. Geological Survey (USGS) Professional Paper 1648 Geochemical Landscapes of Conterminous United States—New Map Presentations for 22 Elements (<http://pubs.usgs.gov/pp/p1648/p1648.pdf>), arsenic has been documented as existing in Western North Carolina at concentrations as high as 10 milligrams per kilogram (mg/kg). The assessment activities performed to date do not suggest arsenic to be a contaminant of concern at the site related to anthropogenic causes as the detected arsenic concentrations, while generally exceeding the Residential PSRGs, do not appear to be grossly elevated and generally fall within the ranges documented in the USGS paper previously referenced with the exception of arsenic detected in soil sample SB-4 at a concentration of 31 mg/kg. It should be noted that lead was also detected in the soil sample SB-4 at a concentration that exceeds the respective Residential PSRG; therefore, the soil will be managed in accordance with the attached EMP. A comprehensive summary of the soil analytical data collected from the site is provided in Figure 2 and Table 1 of the EMP, see Appendix A of the Contract Documents and Specifications.
 - Soil from the site that has been properly sampled may be reused on site with prior DEQ written approval. Said soil will use the same sampling protocol of VOCs, SVOCs, and RCRA metals. The soil will be documented and the location from which it is removed will be recorded with GPS and its resting location recorded with GPS.
 - Unless proven otherwise via soil analytical data, soil encountered by workers will be treated as lead-impacted. Soil that is excavated will be stockpiled in the general work area in accordance with Figure 1 of this EMP and tested for VOCs, SVOCs, and RCRA metals prior to relocation to its final destination.
 - For contaminants other than lead, the on-site contractors will use visual and olfactory methods to field screen soils for materials of concern (e.g., drums, tanks, staining). Should the contractor and/or site workers observe and/or smell materials of concern during the construction activities, the contractor and site/workers shall notify the environmental professional. If the environmental professional confirms the materials of concern, the soil shall be stockpiled and tested to determine proper disposal/reuse methodology. A flow chart depicting the procedure that will be followed for non-metallic contaminants is included as Figure 3, Appendix II of the EMP, see Appendix A of the Contract Documents and Specifications.
 - Suspected contaminated soils (other than soil assumed to contain lead) will be placed in stockpiles per Figure 1 of this EMP and sampled for characterization purposes. In addition, appropriate erosion control measures will be implemented to prevent soil from leaving the Site via surface water or stormwater transport. To sample the stockpiles, the stockpiles will be segregated into approximate 100 cubic yard piles and five grab samples will be randomly collected. The randomly collected samples will be screened with a PID for the presence of volatile organic vapor indicative of VOCs. The sample with the highest PID concentration will be placed in laboratory containers to be analyzed for VOCs. The remaining soil will be composited into one sample to be analyzed for SVOCs, and RCRA Metals. Soils that are excavated and assumed to contain lead will also be stockpiled per Figure 1 of this EMP and sampled via the composited soil sampling procedure provided above for RCRA Metals.
 - If it is deemed necessary to import soil onto a Brownfields property, soil samples should be collected at a rate of one soil sample per 500 cubic yards and analyzed for VOCs, SVOCs, and RCRA Metals.
 - The potential exists for groundwater to be encountered during construction activities depending on the methodology for the construction of the trail system. As noted previously, construction activities may involve excavating lead-impacted soil and/or installation of shallow footers for the elevated walkway and given the shallow water table conditions – groundwater may be encountered. As noted previously, the groundwater assessment conducted in the vicinity of the former tannery infrastructure detected benzene, iron, and manganese greater than the 2L Standards. If groundwater is encountered during construction activities, on-site water management will be conducted and groundwater will be allowed to percolate, discharge onto the ground surface at the work area, and/or evaporate unless free-phase petroleum liquids (non-aqueous phase liquids [NAPL]) are observed. If the groundwater must be removed from the subsurface, a representative sample of the water will be collected and analyzed for VOCs, SVOCs, and RCRA Metals to determine if contaminants are present. If NAPL is observed, a vacuum truck will be used to collect the material for off-Site disposal purposes. Extracted water that is containerized and contains constituents above North Carolina 2B and 2L Surface Water Standards will be removed and disposed of off-Site at a permitted facility. Accumulated water that does not contain constituents above 2L or 2B Surface Water Standards will be managed on-Site by being discharged on the ground surface.
 - It is not anticipated contaminated soil vapor will be encountered; however, if materials of concern are confirmed and the environmental professional suspects a potential exposure to contaminated soil vapor, a landfill gas meter (AKA four gas meter) and photo ionization detector (PID) meter will be used to screen ambient air in the vicinity of the location of the encountered materials of concern. VOCs, hydrogen disulfide (H₂S), lower explosive limit (LEL), and carbon dioxide (CO₂) will be monitored. Should harmful levels of these parameters be identified, persons will not be allowed to enter, or remain in, the feature. Levels of the parameters, if detected, will be allowed to dissipate prior to continuing, or positive pressure fans/blowers will be used to remove harmful vapors. Other engineering controls may be implemented based on field conditions and alternative technologies available.

- LEGEND**
- FLOODZONE AE
 - FLOODWAY

NO.	DESCRIPTION	DATE	BY
1	REVISED BASED ON	1/14/25	MFC
2	REVISED BASED ON	1/27/24	MFC
3	REVISED BASED ON	1/27/24	MFC

PROJECT ENG.	DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED:
AF	AF	ADK	MFC	AF



8/28/2026

SUMMIT
ENGINEERING GROUP, INC.
ENGINEERS • PLANNERS • SURVEYORS

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SHEET TITLE: **OVERALL SITE PLAN**

DATE: DEC. 2023 | SCALE: AS SHOWN

PROJECT	ESTATOE TRAIL PHASE III (TANNERY PROPERTY) FOR THE CITY OF BREVARD, NC	TRANSYLVANIA COUNTY NORTH CAROLINA
N.B. NO.	REF.	SHEET 3 OF
PROJECT NO.	22017	
FILE:	22017_Base	