ALTA ENVIRONMENTAL

To: Amanda Cruz, United States Environmental Protection Agency

From: Eric Fraske, Alta Environmental/NV5

CC: Peter Ruttan, Dan Gamon, and Poonam Acharya, California Department of Toxic Substances Control

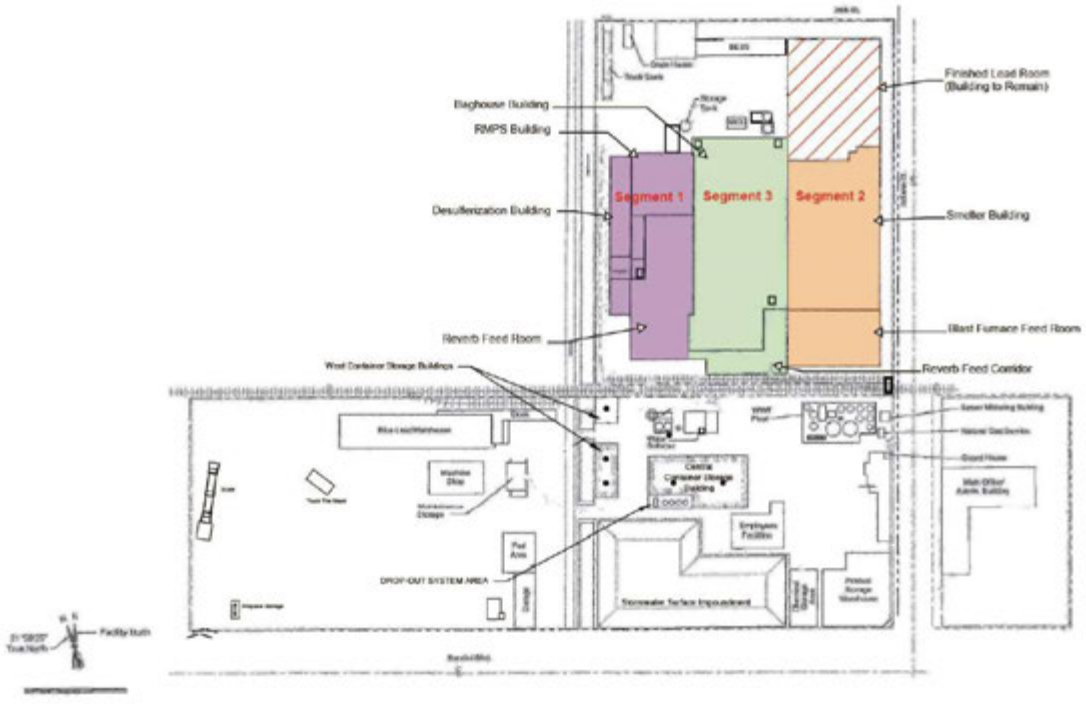
Date: December 14, 2020

Subject: Technical Memorandum #3: Deconstruction of Kettle Gallery and Backfill of Containment Building Tunnels and Sumps

BACKGROUND

Phase I Closure of the former Exide Vernon facility (Site) consists of decontamination and deconstruction of the three segments of the Main Containment Building located on the northern portion of the Site (Figure 1).

Figure 1: Site Map



Throughout the three segments there are several sump areas as well as a large basement and tunnel area (the Kettle Gallery) located within Segment 2 (Attached Figures 2 and 3). In the Closure Plan, it was assumed that these areas would remain open following completion of Phase I closure activities as remedial excavation and removal of the footings and floor beneath the main containment building would

likely be required as part of the Phase 2 Closure and future corrective action measures. These subterranean features would continue to act as sumps that would collect stormwater during rain events and require manual pumping and transfer of accumulated water to the on-site wastewater treatment plant (WWTP) by Exide plant staff.

In May 2020, Exide Technologies filed for bankruptcy and the Site was transferred to the Vernon Environmental Response Trust (VERT). Phase I Closure activities have resumed; however, the timeframe for completion of all Site closure activities (including the possible removal of these subterranean structures) is unknown and may not happen prior to long term abandonment of the Site. If left open to the elements and without regular maintenance, these subterranean features will fill with stormwater and become potential safety hazards. Therefore, it is proposed that these features be backfilled using a combination of existing building materials (concrete deconstruction debris) and imported fill soil prior to paving.

Backfill Material

Throughout Segments 2 and 3, there are concrete building features (walls, equipment pads, and tunnel and basement ceilings) that will be decontaminated and deconstructed as part of planned Phase I Closure activities. Previously, this material was sent off-site to landfills in Arizona and Nevada for disposal as a hazardous waste. In most instances, these decontaminated concrete building materials contained concentrations of lead similar to those encapsulated beneath asphalt pavement and left in place in Segment 1. For value engineering purposes, it is proposed that the remaining concrete building features within Segment 2 or 3 be decontaminated (removal of visible surficial lead containing dust by washing or vacuuming) and repurposed as fill material in the sumps and tunnels located throughout Segments 2 and 3. It is important to note, that concrete building features such as the Kettle Gallery basement ceiling/Segment 2 floor deck would have been left in place and paved if not used as a fill material. The deconstruction of the basement ceiling will allow for a more efficient backfilling process and will eliminate a potential long-term maintenance item/health threat associated with maintaining the Kettle Gallery basement intact.

Concrete building features used for backfilling will be limited to those located within the Segment 2 and Segment 3 Full Enclosure Units (FEU). The FEU is a temporary tent-like structure that is constructed over the entire building segment for dust control purposes during decontamination and deconstruction. The FEU's are maintained under negative pressure to ensure capture of fugitive dust emissions.

A gross decontamination of the concrete building features within Segments 2 and 3 will be conducted with power washing equipment prior to sizing for placement as fill. The concrete will be broken and sized using a concrete pulverizing attachment on the excavator equipment. The pulverized concrete will be mixed with finer grain fill material, as described below, during placement. The placement of the concrete debris backfill will be conducted within the operational Segment 2 and Segment 3 FEUs.

The anticipated quantity of repurposed concrete building debris is not sufficient to backfill the subterranean features located within the Main Containment Building footprint. AIS will use an imported fill soil to supplement the volume of fill required. AIS will also use this virgin sand exclusively to backfill subterranean areas located outside of the active FEU system (Segment 1).

The proposed imported fill material would consist of Nursery Sand provided by Vulcan Materials Company and sourced from their Durbin Mine (See attached November 16, 2020 letter from Vulcan Materials). This

material meets the requirements listed in Public Resources Code Section 2717 (b) and is produced entirely from virgin aggregate sources. Durbin sand is primarily comprised of Granite and does not contain any recycled or reclaimed materials. It is reportedly free of chemical contaminants, petroleum hydrocarbons, or other regulated substances.

Backfill of Tunnel and Sump Locations

The proposed backfilling of tunnels and sumps throughout the main containment building is described below. Compaction of the fill material will be done using vibratory drummed rollers where possible in approximately 12”-18” lifts while maintaining optimum moisture. Compaction will be done to a visual non pumping state by AIS however no compaction testing was assumed for these areas.

Segment 2 Kettle Gallery, Sumps, and Coke Tunnel and Segment 3 Apron Feeder Tunnel and Sumps

A large basement area (known as the Kettle Gallery) is present beneath the central portion of Segment 2 (Figure 2). Three sumps and two tunnels are also located within this basement. A second tunnel, the Coke Tunnel, is located on the southeastern corner of Segment 2. It is proposed that the upper floor deck of the kettle gallery will be deconstructed and sized for use as fill material within the Segment 2 basement and tunnels. Imported fill consisting of Nursery Sand will be used to complete the backfilling of these features. Backfilling of these subterranean features would be completed prior to Segment 2 paving activities and subsequent removal of the Segment 2 FEU.

Segment 3 Apron Feeder Tunnel and Sumps

An open trench, known as the Apron Feeder Tunnel, is located along the central portion of Segment 3. Five sumps (Neptune Scrubber Sump, Baghouse Truck Wash Sump, Baghouse Sumps 1 through 3, and Corridor Truck Wash Sump) are also located within Segment 3 (Figure 3). These features would be backfilled using remaining concrete building debris materials within Segment 3 along with the imported Nursery Sand following completion of Segment 3 deconstruction activities, but prior to Segment 3 paving activities and subsequent removal of the Segment 3 FEU.

Segment 1 Apron Feeder Tunnel and Sumps

Two large sump areas, The Pan Feeder and Apron Feeder Sumps, are located along the western and eastern portions of Segment 1, respectively. These areas were previously encapsulated as part of Segment 1 deconstruction activities and are currently open-air sumps used to collect stormwater during rain events. As the Segment 1 FEU was previously removed, these sumps will also be backfilled with Nursery Sand prior to paving.

Schedule and Authorization

AIS will commence with backfilling operations within Segment 2 upon authorization by the US EPA. In order to complete backfilling of the Segment 2 site features without impacting overall project schedule and subsequent removal of the Segment 2 FEU, authorization to proceed will be required by December 21, 2020.

Attachments:

Figure 2 – Segment 2 Tunnel and Sump Locations
Figure 3 – Segment 1 and Segment 3 Tunnel and Sump Locations
Attachment 1 – Vulcan Materials Company Letter (November 16, 2020)

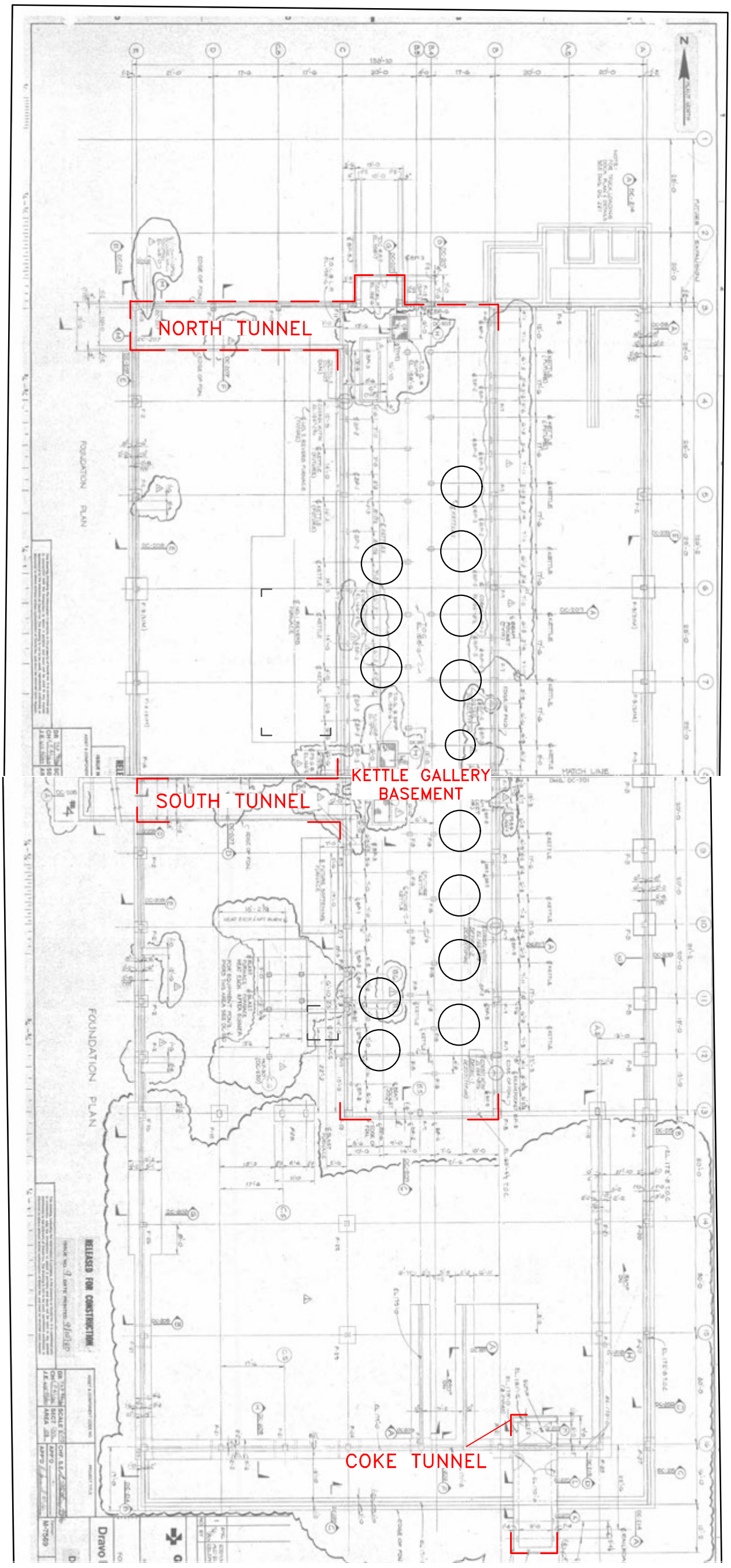


FIGURE: SEGMENT 2 TUNNELS AND SUMPS

CLIENT:
Exide Technologies, Inc.

PROJECT #: VERT-20-9944

NV5 ALTA ENVIRONMENTAL
3777 Long Beach Blvd., Annex Bldg.
Long Beach, CA 90807
(562) 495-5777 www.altaenviron.com

NORTH

SITE LOCATION:
2700 Indiana Street
Vernon, California

DRAWN: BP

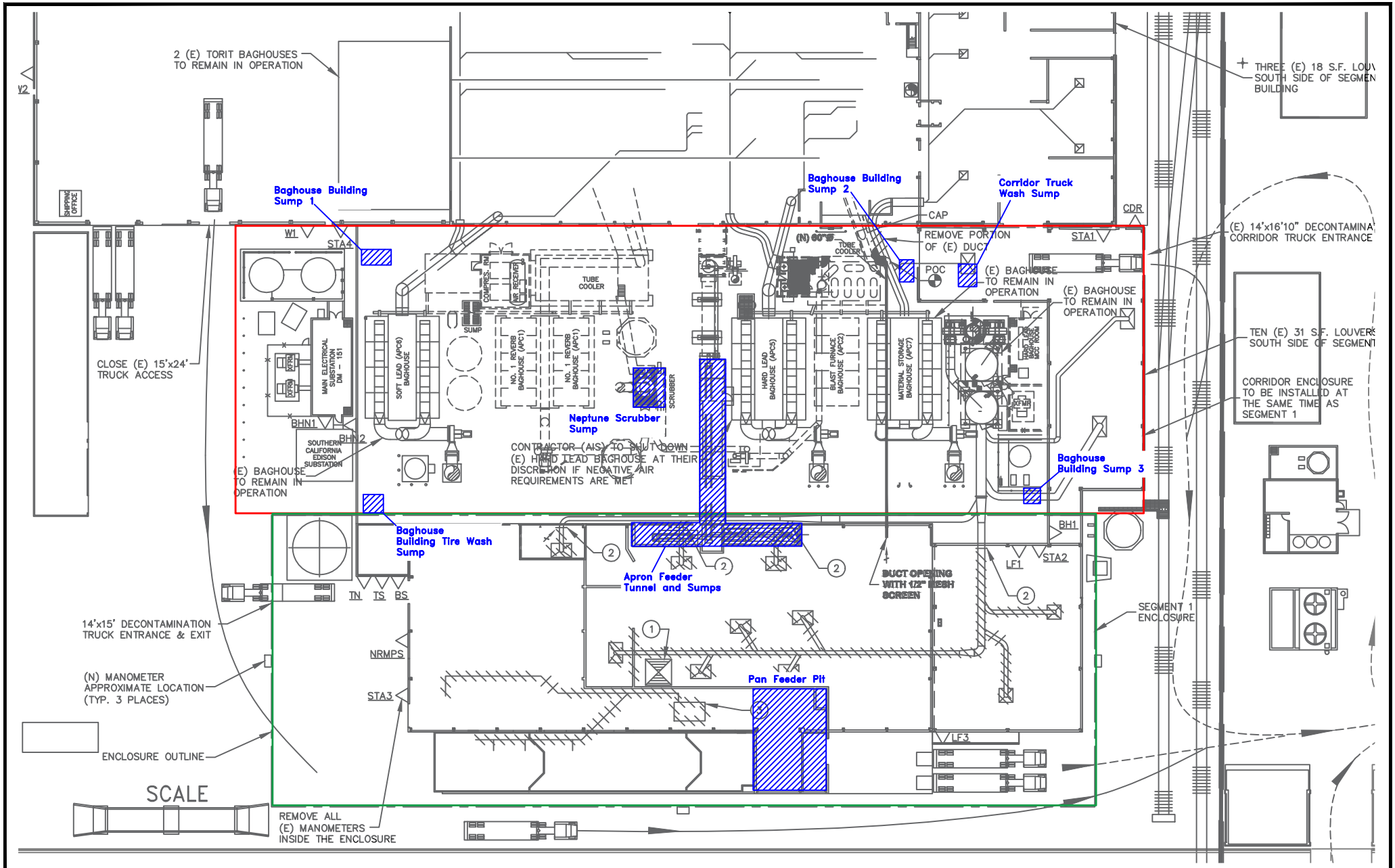
APPROVED: EF

SCALE:
None

DATE: December 2020

LEGEND:

- Approximate Outline of Basement Area
- Approximate Location of Former Kettle



LEGEND:

- Segment 3 Boundary
- Segment 1 Boundary
- Approximate Location of Tunnel or Sump

FIGURE 3: Segment 1 and Segment 3 Tunnel and Sump Locations

CLIENT: Exide Technologies, Inc.	DRAWN: BP	APPROVED: EF
	APPX. SCALE: 1"=20'	Date: February 2020
SITE: 2700 S. Indiana Street Vernon, California 90058		
PROJECT NO.: VERT-20-9944		

NV5 ALTA ENVIRONMENTAL
3777 Long Beach Blvd. Annex Bldg. Long Beach CA 90807
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Vulcan
Materials Company

West Region

November 16, 2020

Company: Huntington Pacific

Product: Nursery Sand Durbin

Project: Various

To Whom It May Concern:

The California Mine ID for our Durbin is 91-19-0023. This mine is on the current list of mining operations eligible to sell materials to State and local government agencies. Mining operations on this list have demonstrated to the Department of Conservation that they have met the requirements in Public Resources Code Section 2717 (b). The Nursey Sand produced and shipped out of this plant is produced entirely from virgin aggregate sources. The material is comprised of Granite. The composition varies naturally, typically containing some Quartz. Please find material Safety Data Sheets at **vulcanmaterials.com** under Construction Materials, material Safety Data Sheets listed under Western Division.

The Nursery Sand does not contain any recycled material or reclaimed materials and is free of all vegetation and other deleterious materials.

Except for quarrying operations, no development of any kind has occurred on land containing the quarry/source from which the materials originates. No Chemical contaminants, petroleum, hydrocarbons, or other regulated substances are present in the proposed material shipped by Vulcan Materials Company Durbin facility.

If you have any questions or need additional information please call (626) 856-6190.

Sincerely,

Manolito Limos
Technical Services

LOS ANGELES REGIONAL LABORATORY
16009 FOOTHILL BOULEVARD•IRWINDALE, CALIFORNIA 91706•TELEPHONE 626 856 6190•FAX 626 969 2918