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TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243
Toll Free Number: 1-888-891-8332 (TDEC)

NOTICE OF INTENT (NOI) FOR GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES (TNR100000)

Site or Project Name: Clarksville WWTP Thermal Dryer Improvements		**NPDES Tracking Number: TNR**
Street Address including city or zip code or Location: 15 Quarry Rd, Clarksville, TN 37042		Construction Start Date: 7/1/2022
		Estimated End Date: 12/30/2023
Site Description: The site is an existing wastewater treatment plant.		Latitude (dd.dddd): 36.546059
		Longitude (-dd.dddd): -87.355472
County(ies): Montgomery	MS4 Jurisdiction (if applicable):	Acres Disturbed: 1.84
		Total Acres: 31.74

Are there any streams ☐ and/or wetlands ☐ on or adjacent to the construction site?
If wetlands are located on-site and may be impacted, attach wetlands delineation report.
If an Aquatic Resource Alteration Permit has been obtained for this site, what is the permit number? ARAP Number:

Receiving waters: Red River

Include the SWPPP with the NOI ■ SWPPP Included | Include a site location map ■ Map Included

Name of Site Owner or Developer (Site-Wide Permittee): (correct legal name of person, company, or entity that has operational or design control over construction plans and specifications)
City of Clarksville

For corporate entities only, provide the Tennessee Secretary of State (SOS) Control Number:

Site Owner or Developer Contact Name: (individual responsible for site) Garth Branch, P.E.	Title or Position: (the party who signs the certification below): Chief Utility Engineer		
Mailing Address: 2215 Madison Street	City: Clarksville	State: TN	Zip: 37043
Phone: (931) 645-7418	E-mail: Garth.Branch@cityofclarksville.com		

Optional Contact Name: Michael Orr, P.E.	Title or Position: Project Engineer		
Mailing Address: 545 Mainstream Dr. #320	City: Nashville	State: TN	Zip: 37228
Phone: (615) 490-8113	E-mail: morr@hazenandsawyer.com		

Owner or Developer Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)		
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.		
Owner or Developer Name: (print or type): Garth Branch, P.E.	Signature:	Date: 04-28-2022

Contractor(s) Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)		
I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.		
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:

Hazen and Sawyer
545 Mainstream Dr., Suite 320
Nashville, TN 37228 • 615.783.1515

May 2, 2022

To: Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243

Re: SWPPP & NOI Submittal
Clarksville WWTP Thermal Dryer Improvements
Clarksville, Tennessee

To Whom it May Concern:

Enclosed is a copy of the NOI and SWPPP for the referenced project for review and approval. The $250.00 NOI fee will be dropped off at the Environmental Field Office at 711 R.S. Gass Blvd.

Please let me know if you have any questions regarding this project.

Sincerely,
Hazen and Sawyer

Michael L. Orr, P.E.
Senior Associate

Clarksville Wastewater Treatment Plant

Thermal Dryer Improvements

Stormwater Pollution Prevention Plan

Stormwater Pollution Prevention Plan
32118-028
April 29, 2022

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List of Acronyms

Abbreviation	Definition
BMP	Best Management Practice
CN	Curve Number
EPA	United States Environmental Protection Agency
EPSC	Erosion Protection and Sediment Control
IDF	Intensity-Duration-Frequency
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Coverage
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resources Conservation Service
SCM	Stormwater Control Measure
SOV	Stay on Volume
SWPPP	Storm Water Pollution Prevention Plan
TDEC	Tennessee Department of Environment and Conservation
USACE	United States Army Corp of Engineers
USGS	United States Geological Survey

1. Site/Owner Information

Project Name and Location:	Clarksville Wastewater Treatment Plant Thermal Dryer Improvements 15 Quarry Road Clarksville, TN 37042 Lat. N 36° 32’ 45.8”, Long W 87° 21’ 19.7”
Owner Name and Address:	Clarksville Gas & Water 2215 Madison Street Clarksville, TN 37043
Contact Person:	Garth Branch, P.E. Chief Utility Engineer 931.645.7418 office Garth.Branch@cityofclarksville.com
Permittee Responsible for Implementation of Controls:	_____ / Contractor for Project

2. Site Description

Posting of the Notice of Coverage (NOC): A copy of the NOC containing the NPDES permit tracking number will be posted on a message board outside the job site trailer.

Description of Construction Activities: The proposed project will consist of the construction of one thermal dryer facility and regenerative thermal oxidizer (RTO) room in a pre-engineered metal building, two storage silos, sludge screen building, plant drain pump station, plant water pump station, biofilter odor control system, and electrical/control rooms. The work will be located at the Clarksville wastewater treatment plant at 15 Quarry Road.

Sequence of Major Activities:

The major soil disturbing activities are as follows:

a) Installation of initial erosion and sediment control devices and site preparation.

b) Installing truck washdown area and demolition of existing structures.

c) Construction of site structures: yard piping, meter vaults, valve vaults, wastewater treatment facilities, pump stations, and other related building.

d) Temporary/permanent vegetation cover of site as project progresses.

e) Final stabilization of site.

f) Removal of erosion and sediment control structures.

Construction Site Estimates:

Construction Start Date:	07/01/2022
Construction End Date:	12/30/2023
Total Project Area:	31.74 acres
Total Area Disturbed:	1.84 acres
Filter Fabric Fence (approximate):	200.00 L.F.
Rolled Sediment Logs (approximate):	700.00 L.F.
Temporary Seeding and Mulching (approximate):	1,000 S.Y.
Pre-Construction Impervious Area:	0.79 acres (42.9%)
Post-Construction Percent Impervious:	1.57 acres (85.3%)
Increase of Impervious Area at Project Site:	0.78 acres (42.4%)

Site Topography: The site is in a low area, north of the Red River. Within this low area, the higher elevations at the site are located on the northeast and slope downward in the southwest direction. The downward slope progresses to an overall low point. At this point, the slope moves upward towards the opposite edge of the site. Existing drainage is achieved by using area drains strategically placed throughout the plant. Stormwater flows into the area drains and from there to a pump station. Water is pumped off site from this pump station. Site grading will be minimal. Just the necessary grading needed for the proposed building structures. See Appendix A for USGS QUAD Topo Maps.

Soil Description: The site is in the middle of a wastewater treatment plant. A substantial amount of the ground surface is concrete, asphalt, and existing structures. After downloading a soils map of the area, soils on the site are described as Arrington Silt Loam, 0 to 2 percent slopes (Ar), Lindell silt loam, 0 to 2 percent slopes (Ld), Pembroke silt loam, 2 to 6 percent slopes (PeB), and Statler silt loam, 5 to 12 percent slopes (StC).

Erosion Prevention and Sediment Control Plan: See attached EPSC Plan sheets in Appendix C.

Streams or Wetlands on or Adjacent to the Project: There have been no wetlands identified on the site. The Red River runs east to west to the south of the site.

Receiving Waters and Size and Location of Effected Wetland Area: The site does not have any immediate receiving waters or wetland areas. Drainage eventually reaches the Red River via a pump station.

Project Site History: The site is the location of the Clarksville wastewater treatment plant. This plant has undergone expansion and upgrades through the years, in particular the last 10 years.

Construction Phasing: Phasing of this project will rely heavily on Contractors means and methods to complete work. Work will occur in various locations at the same time.

3. Erosion Prevention and Sediment Control

Stormwater management practices listed in the TDEC Erosion & Sediment Control Handbook shall be incorporated for erosion prevention and sediment control. These practices shall be installed and implemented as practical prior to beginning soil disturbing activities and maintained throughout construction and until the site reaches final stabilization. The appropriate combination of erosion prevention and sediment control measures and Best Management Practices (BMPs) will be implemented at the project site. Temporary and permanent stabilization practices along with structural practices, waste disposal, and offsite vehicle tracking are mentioned in this SWPPP. All erosion prevention and sediment control measures shall be designed to control the rainfall and runoff from a 5-year/24-hour storm, as a minimum.

3.1 General Criteria for EPSC

General Design Criteria: Stormwater drainage systems under a City (public or private) shall accommodate a 25-year, 24-hour duration storm. Permanent stormwater management systems (i.e. a stormwater detention pond) shall be sized to prevent flooding of any new structures for the 100-year frequency 24-hour duration storm. Construction shall not aggravate upstream or downstream flooding. Development shall not cause or have the potential to cause water quality degradation to immediate or downstream water resources. The required hydrologic and hydraulic computations shall be in accordance with NRCS (formerly known as the SCS) unit hydrograph procedures using AMC II curve numbers and type II rainfall distribution, or other criteria that the City Engineer or Designee shall establish based on scientific and engineering information. All post developed conditions must be routed at appropriately small-time intervals using either hand calculations or computer models that are widely accepted among engineering professionals.

- Peak runoff control shall be designed to address the rate at which flow is released over the entire runoff discharge period and the volume of discharge over the Critical Design-Storm Period. This shall be applied for 2, 5, 10, 25, 50, and 100 year 24-hour storms.
- The post-development peak discharge rate shall not to exceed the pre-development peak discharge rate.

Control Measures: All control measures on the project site will be properly installed and maintained in accordance with manufacture's specifications. No support activity areas are associated with this project.

Removal of Off-Site Sediment: If sediment leaves the construction site, off-site sediment that has not reached a stream will be removed at a frequency sufficient to minimize off site impacts. Fugitive sediment that has escaped the construction site and has collected in the street will be removed.

Removal of Sediment from Sediment Controls: Sediment will be removed from silt fences, sediment barriers, ponds, and other sediment controls as necessary, when the design capacity has been reduced by 33%. The sediment within the sediment basin will be removed by first dewatering the basin and then machine digging out the sediment for proper disposal, where appropriate. All EPSC

devices are to remain in place until the site has been stabilized and a good area of grass has been established.

Disturbance of Pre-construction Vegetative Ground Cover: The pre-construction vegetative ground cover will not be destroyed, removed, or disturbed more than 15 days prior to grading or earth moving unless a temporary cover is installed.

EPSC Measures before Earth-Moving Begins: EPSC measures will be in place and functioning before earth-moving operations begin. They will be constructed and maintained throughout the project. If necessary, temporary measures may be removed at the beginning of the day but will be replaced at the end of the day before the contractor leaves the project site.

Dewatering for Excavation and Work Areas: It is not anticipated that dewatering measures will be needed for this project. However, if needed, appropriate controls that include, but are not limited to: weir tank, dewatering tank, gravity bag filter, sand media particulate filter, pressurized bag filter, cartridge filter or other control units providing the level of treatment necessary to comply with permit requirements should be utilized.

3.2 Clearing and Grubbing

Existing vegetation on the site will be preserved to the maximum extent practicable. Clearing and grubbing will be held to the minimum necessary for grading and equipment operation.

3.3 Stabilization Practices

3.3.1 Temporary Stabilization

Denuded areas, soil stockpiles, dikes, dams, channels, etc. are to be seeded and mulched. Stabilization measures must be performed within seven (7) days in portions of the site where construction activities have temporarily or permanently ceased, and within fourteen (14) days after final grading (cover crop with at least 75% coverage). Where surface water cannot be diverted from flowing over the face of slopes, install a strip of heavy jute or plastic netting and fasten tight along the crown or top of the slope for extra protection against lifting and undercutting of sod. Suitable barricades and guards shall be erected to prevent equipment or material from being placed on any planted area. Plastic lining shall be used on all ditches and exposed surfaces when time does not permit the Contractor to use seed and mulch for stabilization. Unpacked or unwashed gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface.

3.3.2 Permanent Stabilization

Disturbed portions of the site where activity permanently ceases shall be stabilized with permanent vegetation or impervious cover within 14 days after the activity has ceased. Slope and ditches that are constructed to final subgrade or a portion of any slope or ditch that is constructed to subgrade shall immediately receive topsoil and final stabilization. All ditches shall receive stabilization as indicated

on the plans. The Contractor shall be responsible for watering seeded areas to prevent the soil from drying out until approved and accepted.

3.3.3 Stabilization of Steep Slopes

Steep slopes shall be stabilized not later than 7 days after construction activity on the slope has temporarily or permanently ceased. Straw mulch with mulch control netting or erosion control blankets must be installed on all slopes 3:1 and steeper.

3.4 Structural Practices

3.4.1 Construction Entrance/Exit(s)

Because asphalt pavement is located at the perimeter of the site, a standard construction entrance / exit will not be installed. The entrance to the site is off Quarry Road. A truck washdown station will be constructed to minimize tracking of sediments and generation of dust from dump trucks, concrete trucks, semi-trailers, and all supply vehicles. Dump trucks that haul material from the site will be covered by a tarpaulin.

In the case where a construction entrance is necessary, a construction access road abuts a public paved road. It must be installed within 24 hours of grading, or the permit will be revoked. The use of filter cloth beneath construction entrance is required. Stones should be 3-inch crushed, washed, and well graded rock to at least a 6-inch (15.2) deep and shall be kept clean by adding stone as needed. it shall be 20 feet wide.

3.4.2 Siltation Control Barriers

Siltation control barriers (silt fence) will be placed on contours prior to clearing, grubbing, and grading. Silt fence will be installed where sheet flow runoff can be stored behind the barrier without damaging the barrier or the submerged area behind the barrier. Silt fence shall be installed by excavating between 8” below grade with support posts 4’ – 6’ on center and 6” into the ground with soil backfilled into the trench. Where two sections of silt fence meet, the sections will be overlapped at least 18 inches. When a sediment fence’s capacity has been reduced 33%, it shall be cleaned out.

3.4.3 Hay or Straw Bales

Neither hay nor straw bales will be an acceptable BMP on this site.

3.4.4 Mulching

Mulching, if appropriate, will be used to reduce runoff, conserve moisture, promote germination of seed, prevent surface compaction, protect seeds from birds, modify soil temperature, and increase biological activity in the soil. Mulching materials used consist of hay, straw, mulch, plant residues, or other suitable material. Mulching without seeding may be applied to cleared areas where seed may not have a suitable growing season to produce erosion retardant cover. Mulch can be used as an erosion

control device for up to six months, if applied at the appropriate depth, anchored, and have a continuous 95% cover or greater of soil surface. Mulch should be applied with seeding for vegetative stabilization. The seeded areas should have 75% coverage.

3.4.5 Matting

Matting if appropriate for use, may be installed on previously graded and seeded swales, channels, slopes, or critical areas. Matting will be firmly anchored by means of trenching, anchor slots, stakes and/or staples. Types of matting include straw blankets, coconut blankets, and jute mesh. Matting will be installed to the manufacturer's specifications.

3.4.6 Check Dams

Check Dams, if used, will adhere to the following standards:

- Stone check dams will not exceed one acre of drainage area and rock check dams will not exceed five acres of drainage.
- The center of the check dam will be at least 9 inches lower than the outer edges.
- Maximum dam height will be 2 feet.
- Dam material used will include stone, rock, or sandbags.

3.4.7 Temporary Sediment Trap

Temporary sediment traps may be used as needed to detain pumped sediment-laden runoff from disturbed areas long enough to allow the majority of the sediment to settle out. The sediment must be periodically removed from the trap to maintain the required volume.

3.5 Streamside Buffer

A streamside buffer at locations where necessary shall be fenced off where there is no encroachment. Buffer means a vegetated area, including trees and shrubs that exists or is established to protect a stream system, lake, or reservoir area. The buffer also applies to other sensitive areas such as springs, wetlands, and sinkholes. An orange construction fence is required to designate the buffer area before clearing or tree removal has begun.

3.6 Stormwater Detention Pond

A stormwater detention pond if appropriate shall be sized to accommodate a 100-yr, 24-hr storm event. A forebay can be included in the detention pond to facilitate easier maintenance. An antiseep collar (or collars) shall be placed around the outlet pipe with earthen walls. A box/riser structure with pipe culvert shall be used to attenuate basin outflows with a removable trash-rack/grate on top of the riser. A V-notch weir shall be used as the primary flow regulation device. Side slopes of the detention pond shall be no steeper than 3:1. A minimum of 1 foot of freeboard shall be provided from the water surface

elevation for the 100-year, 24-hr storm event, to the lowest point of the dam embankment, not including the emergency spillway. The emergency spillway must be capable of passing the entire 100-yr, 24-hr storm without overtopping the embankment, in the event of the primary outlet structure clogging.

4. Stormwater Management

4.1 Required Records

The contractor will maintain records at the site of the following construction activities:

- The dates when major activities occur;
- The dates when activities temporarily or permanently cease on a portion of the site;
- The dates when stabilization measures are initiated;
- Records of inspections and corrective measures.

4.2 Rainfall Records

The contractor will maintain a rain gauge on site to record daily rainfall data. The rain gauge will be checked after each rainfall event occurring at the project site. Detailed records of the rainfall event(s) including dates, amounts of rainfall, and the approximate duration or starting and ending times shall be maintained.

4.3 Maintenance Activities

Maintenance activities will be undertaken to ensure that vegetation, erosion and sediment control measures, and other protective measures identified in the site Erosion Control Plan are kept in good and effective operating condition. All erosion control measures will be maintained in good working order; if repair is necessary, it will be initiated within 24 hours of the report, unless conditions make a particular activity impracticable. Built up sediment will be removed from silt fencing when it has reached one-half the height of the fence.

4.4 Inspections

These are the inspection practices that will be used to maintain erosion and sediment controls:

- Qualified personnel will inspect disturbed areas of the demolition site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.
- The demolition site will be maintained in a condition that will prevent tracking or flow of material onto public right-of-way, including periodic top dressing with fresh stone, repair and/or cleanout of any structures to trap sediment.

- Silt fencing will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Riprap outlet structures will be inspected after heavy rains. If any erosion around or below the riprap has taken place or if stones have been dislodged repairs will be made immediately to prevent further damage.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- An inspection report will be made after each inspection (see Appendix D for an example of a Storm Water Inspection Report). A copy of the report form to be completed by the inspector is attached.

4.5 Inspector Training

The Contractor will select an individual who will be responsible for inspections, maintenance, and repair activities, and for filling out the inspection and maintenance report. The inspector must be a qualified person who has taken an approved TDEC erosion and sedimentation course, or equivalent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls and other BMPs used on site in good working order. A copy of the certification for inspector will be maintained on site.

4.6 Schedule of Inspections

Inspections will be performed at least twice every calendar week. These inspections will be performed at least 72 hours apart and 24 hours before a rain event and/or after a 0.25-inch rain event and documented on the inspection site checklist.

5. Other Items Needing Controls

5.1 Solid Waste Materials

All construction waste and trash generated by the Contractor and his Subcontractors shall be collected and stored in a securely lidded metal dumpster approved by the City of Clarksville and meeting all local and State Solid Waste Management regulations. Waste material shall be defined as unwanted materials left over from a manufacturing or other man-made process. Such debris shall be cleaned up after each specific job has been completed and at the end of each workweek, whichever comes first. No construction waste materials shall be buried on any property. Any waste material excavated from past construction or demolition shall be disposed of in the same manner, after the Engineer has approved the material for disposal. Such dumpsters shall be emptied a minimum of once each week or more if necessary, and the trash will be hauled to the local landfill. The Contractor and the Owner's representative shall manage and be responsible for seeing that these procedures are followed.

5.2 Sanitary Waste

All sanitary waste will be collected from portable units a minimum of two times per week by a licensed sanitary waste management contractor.

5.3 Description of Materials Expected to be Stored on Site

The construction materials listed below are expected to be present on-site during construction:

- Structural Steel
- Rebar
- Asphalt
- Lumber
- Concrete
- Rock
- Plastic and Fabrics
- Bituminous Materials

Stockpiled erodible construction materials will be secured by control measures down gradient of the stockpiles.

Other materials not used for construction, but needed for construction at the site include, but are not limited to, the following:

- Fertilizers and Lime
- Diesel and Gasoline
- Cleaning Solvents
- Machinery Lubricants (Oil and Grease)

Soils at fueling stations should be checked daily for signs of spillage or staining of the soil. Any fixed fueling station/tank storage shall have a containment system to prevent runoff by potential spills or tank rupture. Machinery should be serviced or repaired immediately to prevent leaks of fluids from construction machinery.

5.4 Other Stormwater Sources from Outside Construction Area

Non-storm water discharges having potential for occurring from the site include groundwater from excavation dewatering, pavement wash waters, dust suppression water, and vehicle wash waters. All non-storm water discharges will be directed to stable discharge reduction structures prior to leaving the site outfall.

6. Spill Prevention

6.1 Material Management Practices

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff:

6.1.1 Good Housekeeping

The following good housekeeping practices will be followed on site during the construction project:

- An effort will be made to store only enough products required to do the job.
- All materials stored on site will be stored in a neat, orderly manner in their appropriate containers.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The site superintendent will inspect daily to ensure proper use and disposal of materials on site.
- Litter and construction debris exposed to stormwater will be picked up prior to anticipated storm events or before being carried of site by wind.

6.1.2 Hazardous Products

These practices are to be used to reduce the risks associated with hazardous materials:

- Products will be kept in original containers unless they are not re-sealable.
- Original labels and Material Safety Data Sheets will be retained.
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

6.1.3 Product Specific Practices

The following product specific practices will be followed on site:

a) Petroleum Products - All on site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used on site will be applied according to the manufacturer's recommendations.

b) Fertilizers - Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

6.1.4 Spill Control Practices

In addition to the good housekeeping and material management practices discussed in this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not be limited to absorbent booms, spill pillows, brooms, dustpans, mops, rags, gloves, goggles, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate local and State government agency, regardless of the size.
- The spill prevention plan will be adjusted to include measures to prevent a particular type of spill from re-occurring. A description of each spill, what caused it, and the cleanup measures will be included.
- The site superintendent responsible for the day-to-day site operations will be the spill prevention and clean-up coordinator. He will designate site personnel who will receive spill prevention and clean up training. These individuals will each become responsible for a particular phase of prevention and clean up. The names of responsible spill personnel will be posted in the material storage area and in the office trailer on site.

7. Requirements for Plans and Reports

7.1 Keeping the SWPPP Current

The site superintendent or designated site personnel will amend the SWPPP when any of the following conditions apply:

a) Whenever there is a change in the scope of the project, which would be expected to have a significant effect on the discharge of pollutants to waters of the State and which has not otherwise been addressed in the SWPPP;

b) Whenever inspections by site operators, local state, or federal officials indicate the SWPPP is proving ineffective in eliminating or significantly minimizing pollutants from construction activity sources; and

c) When any new operator and/or sub-operator is assigned or relived of their responsibility to implement a portion of the SWPPP.

7.2 SWPPP Accessibility

The operator will retain a copy of the SWPPP at the construction site from the date construction commences to the date of final stabilization. The SWPPP will be located in the job trailer and a notice of the SWPPP location will be posted on the board outside the trailer.

7.3 Notice of Termination

When all stormwater discharges from construction activities that are authorized by the Permit are eliminated by final stabilization, a Notice of Termination (NOT) will be signed and submitted to TDEC. The NOT shall be submitted on the form provided in Appendix E.

8. SWPPP CERTIFICATION SIGNATURE PAGE

Owner/Builder, Primary Permittee

"I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

Garth Branch

Printed Name

Signature

04-28-2022

Date

Construction Contractor, Secondary Permittee

"I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities onsite are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

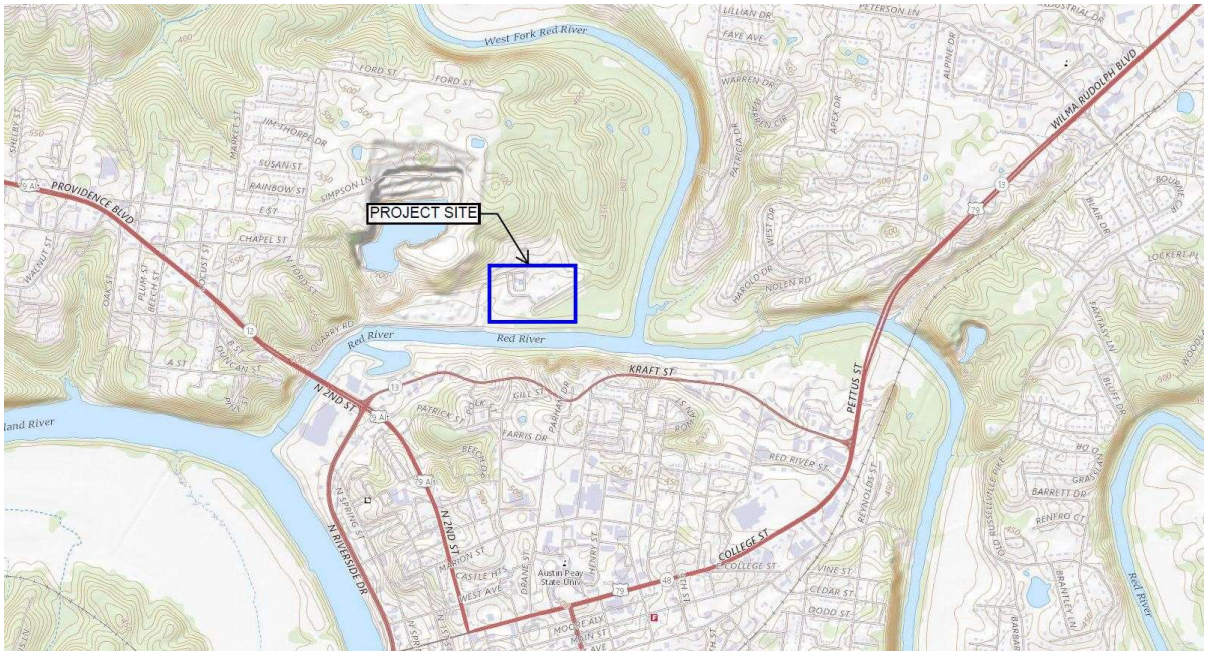
Printed Name

Signature

Date

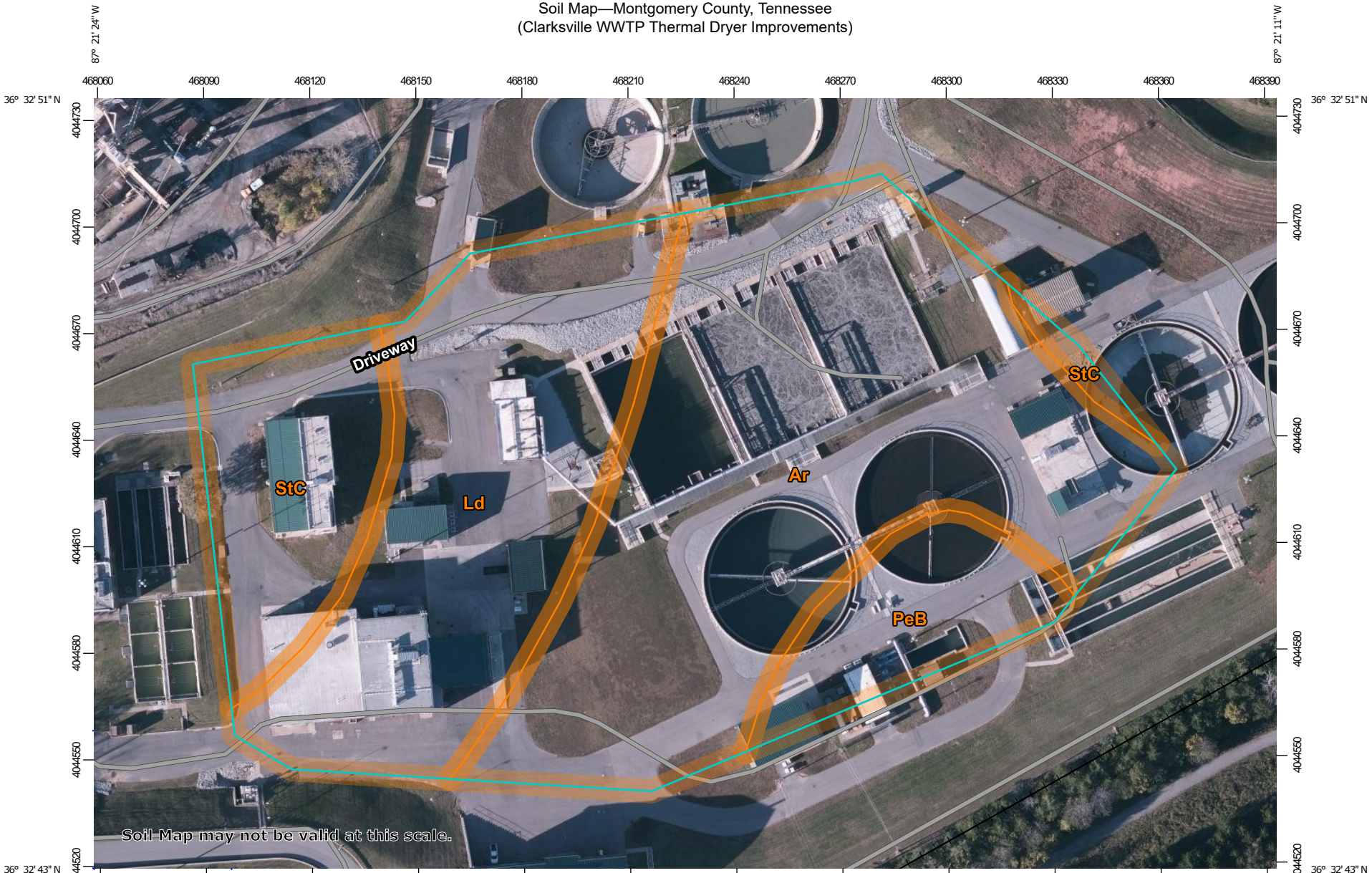
Appendix A: Vicinity and Miscellaneous Maps

Figure 1: Inset Map from USGS Topographic QUAD Maps



Appendix B: NRCS Web Soil Survey

Soil Map—Montgomery County, Tennessee
(Clarksville WWTP Thermal Dryer Improvements)



Map Scale: 1:1,530 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Tennessee
Survey Area Data: Version 16, Sep 10, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 1, 2018—Oct 31, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ar	Arrington silt loam, 0 to 2 percent slopes, occasionally flooded	4.2	49.2%
Ld	Lindell silt loam, 0 to 2 percent slopes, occasionally flooded	2.5	29.3%
PeB	Pembroke silt loam, 2 to 6 percent slopes	0.7	8.5%
StC	Statler silt loam, 5 to 12 percent slopes	1.1	12.9%
Totals for Area of Interest		**8.4**	**100.0%**

Appendix C: Civil and Erosion Prevention and Sediment Control Plan Sheets

MATCH LINE - SEE SHEET C200

MATCH LINE - SEE SHEET C202

18" RCP
TOP EL 384.50±

12" PD

3+00

24" SS
TOP EL 371.50±

(2) 6" PS
TOP EL 381.00±
4" SC
TOP EL 380.00±

ABANDONED 36" DIP
CL 380.00±

RIP-RAP
SEE NOTE 7

6" SL (ABD IN PLACE)

(3) 1/2" HYPO (DW)
CL 375.75±

24" RAS
CL 376.00±

12" PD
SEE NOTE 4

4+00

MH-2 (4Ø) SEE NOTE 8
STA 0+00
RIM: 377.69
INV IN: 370.00 (24" PVC) (W)
INV IN: 370.10 (4" PVC) (N)
INV IN: 369.50 (2" DIP) (SW)
INV OUT: 369.10 (24" PVC) (NE)

SEE NOTE 3

AIR PIPING
(ABOVE)

WEST PLANT DRAIN
PUMP STATION
STA 0+00

5+08

CB-1
STA 1+66
GRATE: 378.61
INV OUT: 369.20 (15" RCP) (SW)

61 LF 15" RCP

CB-2
STA 1+03
GRATE: 377.45
INV IN: 368.88 (15" RCP) (NE)
INV OUT: 368.88 (18" RCP) (SW)

1+00

SD LINE-1

100 LF 18" RCP

EX MH-A (4'Ø)
STA 0+31
RIM: 377.57
INV IN: 370.80 (24" PVC) (N)
INV OUT: 372.00 (12" PVC) (S)
INV OUT: 370.60 (24" PVC) (E)

MH-1 (4'Ø)
STA 0+82
RIM: 377.26
INV IN: 371.00 (12" PVC) (S)
INV IN: 371.75 (12" PVC) (N)
INV IN: 370.10 (12" PVC) (SW)
INV OUT: 369.90 (12" PVC) (E)

12" SS, CAP

0+00

SOLIDS ODOR CONTROL
PUMP STATIONS

31 LF 24" PVC

SS LINE-1

82 LF 12" PVC

SS LINE-2

46 LF 12" PVC

2" SC, CAP
12" PD
8" PD

SILOS

SLUDGE SCREEN
BUILDING

BLENDED SLUDGE
PUMP STATION

ELECTRICAL
BUILDING

BLOWER BUILDING

AERATION BASINS

RAS
SPLITTER
BOX

SIDEWALK

ODOR
CONTROL
FANS

SOLIDS ODOR
CONTROL SYSTEM

NPW HYDRANT
"SIGNAGE REQ'D"
TYP

NPW
PRV VAULT

AREA DRAIN
T.C. = 383.8"
INV. IN (S) - 377.3"
INV. IN (W) - 377.2"
INV. OUT NE) - 377.1"

CP 1
CP 2
CP 3
CP 4

6" LATERAL WYE

(4) 4" BSL

PLAN
SCALE: 1" = 20'

NOTES:

1. PROVIDE 36" MINIMUM COVER OVER ALL YARD PIPING UNLESS NOTED OTHERWISE.
2. EXISTING NPW YARD HYDRANTS TO BE PAINTED PURPLE TO MATCH NEW NPW HYDRANTS AND SHALL HAVE CONCRETE PAD AND SIGNAGE PER DETAIL C-33-0641.
3. CONTRACTOR SHALL LOCATE EXISTING 4" DRAIN FROM BLOWER BUILDING AND REROUTE TO NEW MH-3. REMAINDER OF EXISTING 4" DRAIN SHALL BE ABANDONED IN PLACE WITH CAP/PLUG ON BOTH DISCOVERED ENDS.
4. CONTRACTOR SHALL MAINTAIN POSITIVE SLOPE WITH NO HIGH SPOTS IN THE 12" PD INSTALLATION. IF INSTALLATION CANNOT MAINTAIN POSITIVE SLOPE, CONTRACTOR SHALL INSTALL AIR RELEASE VALVE PER DETAIL C-33-0604 AS APPROVED BY THE ENGINEER. IF NECESSARY, PAYMENT WILL BE COVERED UNDER ENGINEER'S CONTINGENCY ALLOWANCE.
5. CONTRACTOR SHALL VERIFY IF NATURAL GAS LINE IS ACTIVE. IF SO, PROVIDE REQUIRED CONNECTION. IF ABANDONED, DEMOLISH AND CAP ENDS.
6. FOR NATURAL GAS LINES, CONTRACTOR SHALL DIG THE TRENCH FOR THE LINE AND THE OWNER SHALL INSTALL THE NATURAL GAS LINE. COORDINATE WITH OWNER FOR INSTALLATION SCHEDULE.
7. AFTER INSTALLATION OF 12" PD, CONTRACTOR SHALL STABILIZE BANK AND REPLACE RIP RAP IN EQUAL OR BETTER CONDITION.
8. CONTRACTOR SHALL TERMINATE 2" PD WITHIN MANHOLE SO THAT FLOW DISCHARGES INTO 4" D FLOW. COORDINATE WITH ENGINEER.

KEY MAP
SCALE: 1" = 300'

REV	ISSUED FOR	DATE	BY
2	CONSTRUCTION SET	04/2022	JVD
1	REGULATORY REVIEW	03/2022	JVD

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE (0, 1/2", 1")

PROJECT ENGINEER:	J. VAN DYKE
DESIGNED BY:	VALUE
DRAWN BY:	M SEEBOLD
CHECKED BY:	VALUE

CONSTRUCTION DRAWING

Hazen
HAZEN AND SAWYER
545 MAINSTREAM DRIVE, SUITE 320
NASHVILLE, TENNESSEE 37228

CLARKSVILLE GAS & WATER
CLARKSVILLE, TENNESSEE

CLARKSVILLE WASTEWATER
TREATMENT PLANT
THERMAL DRYER IMPROVEMENTS

CIVIL
YARD PIPING PLAN - AREA 2

DATE:	APRIL 2022
HAZEN NO.:	32118-028
CONTRACT NO.:	412-21814
DRAWING NUMBER:	C201

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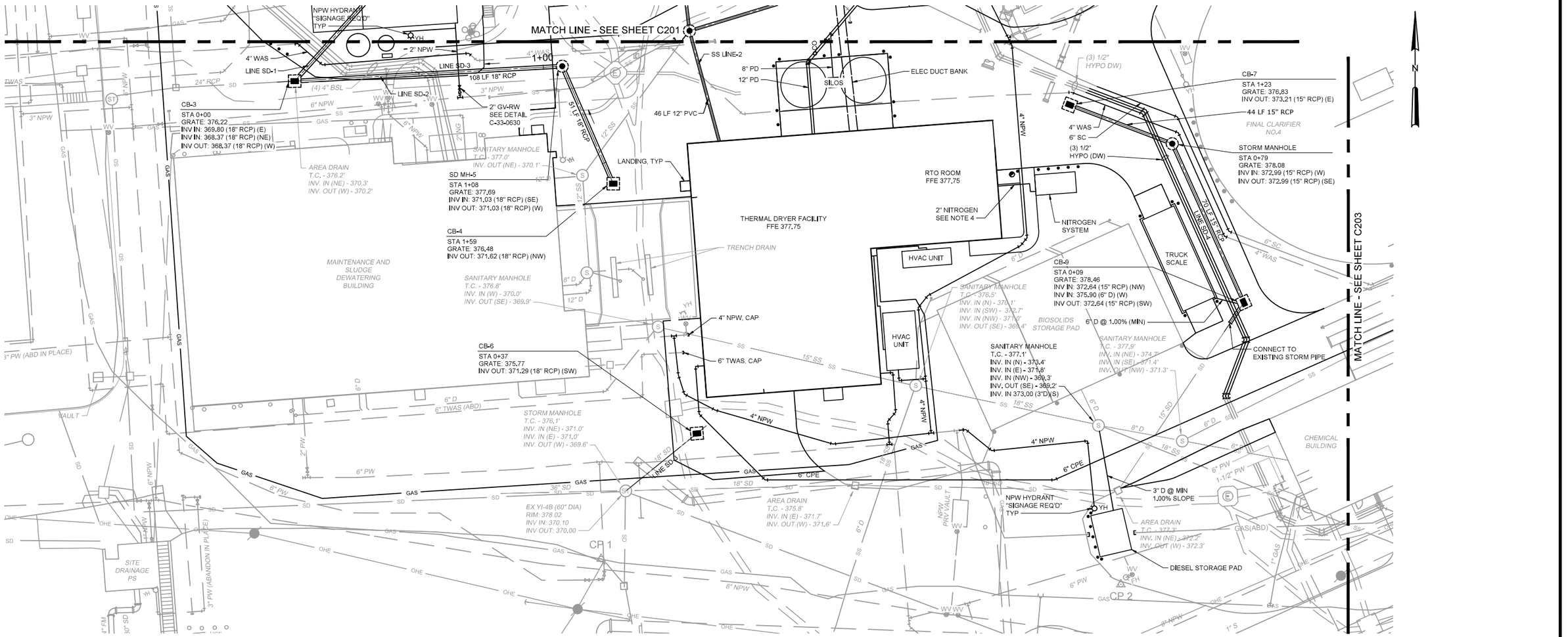
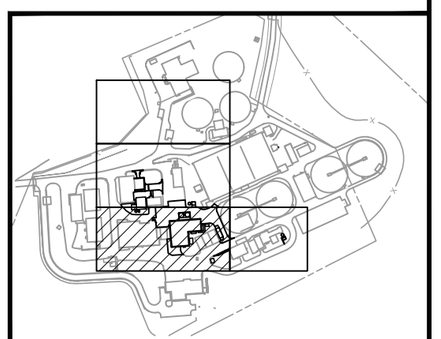


PLAN
SCALE: 1" = 20'



KEY MAP
SCALE: 1" = 300'

NOTES:

1. PROVIDE 36" MINIMUM COVER OVER ALL YARD PIPING UNLESS NOTED OTHERWISE.
2. EXISTING NPW YARD HYDRANTS TO BE PAINTED PURPLE TO MATCH NEW NPW HYDRANTS AND SHALL HAVE CONCRETE PAD AND SIGNAGE PER DETAIL C-33-0641.
3. OWNER SHALL INSTALL NG LINES IN THE YARD. CONTRACTOR SHALL CUT TRENCH AND BACKFILL. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULE COORDINATION WITH OWNER FOR INSTALLATION.
4. INSTALL 2" SST NITROGEN LINE BELOW GRADE FROM NITROGEN VAPORIZER TO THE EDGE OF THE DRYER FACILITY. INSTALL LINE UP THE EXTERIOR WALL TO THE ELEVATION SHOWN ON THE M DRAWINGS. CONTRACTOR SHALL COORDINATE SIZING WITH SYSTEM SUPPLIER.

REV	ISSUED FOR	DATE	BY
2	CONSTRUCTION SET	04/2022	JVD
1	REGULATORY REVIEW	03/2022	JVD

PROJECT ENGINEER:	J. VAN DYKE
DESIGNED BY:	VALUE
DRAWN BY:	M SEEBOLD
CHECKED BY:	VALUE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE (0, 1/2", 1")

CONSTRUCTION DRAWING

Hazen
HAZEN AND SAWYER
545 MAINSTREAM DRIVE, SUITE 320
NASHVILLE, TENNESSEE 37228

CLARKSVILLE GAS & WATER
CLARKSVILLE, TENNESSEE

CLARKSVILLE WASTEWATER TREATMENT PLANT
THERMAL DRYER IMPROVEMENTS

CIVIL
YARD PIPING PLAN - AREA 3

DATE:	APRIL 2022
HAZEN NO.:	32118-028
CONTRACT NO.:	412-21814
DRAWING NUMBER:	C202

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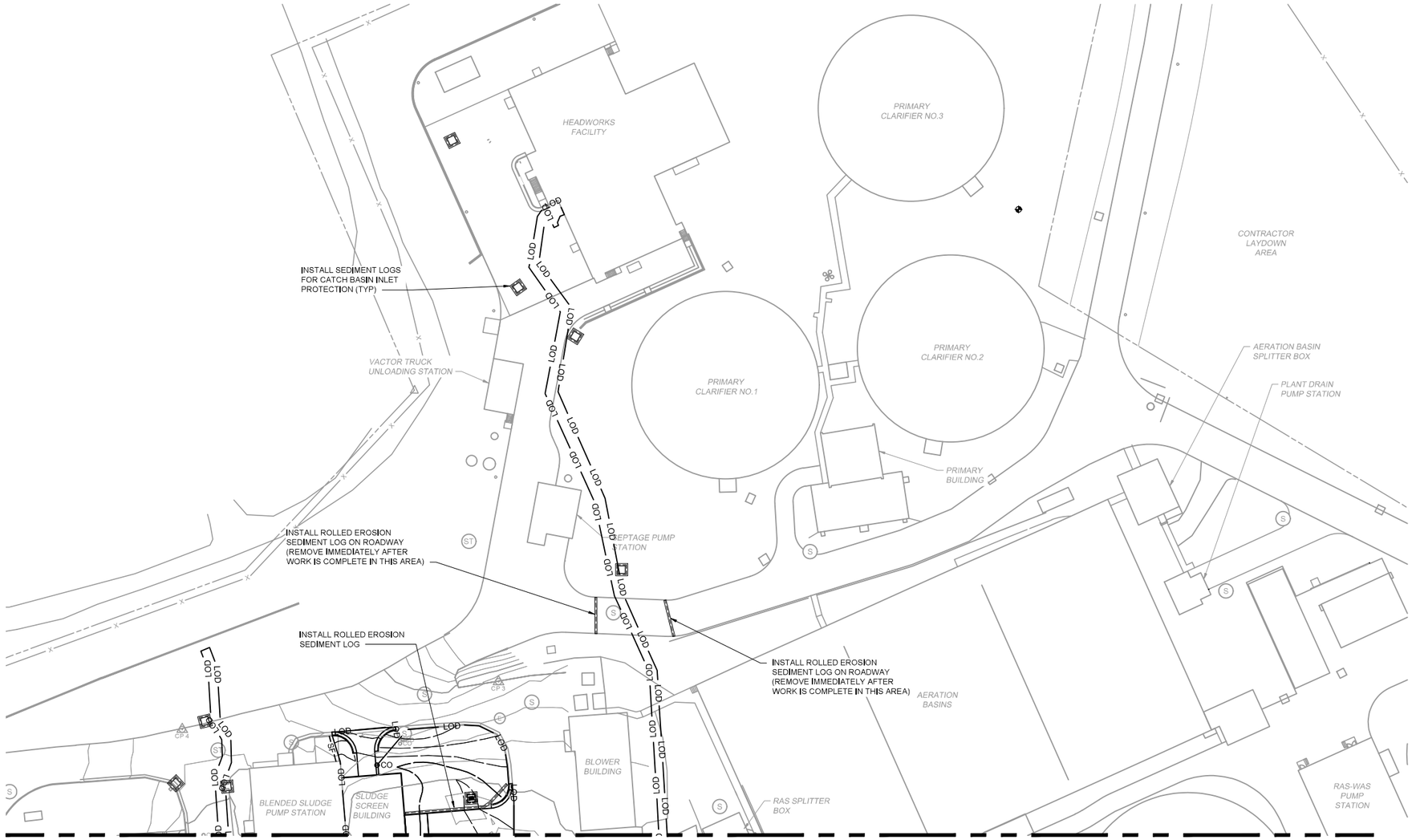
PLOT DATE: 4/1/2022 3:58 PM BY: KROBINSON

EROSION AND SEDIMENT CONTROL NOTES:

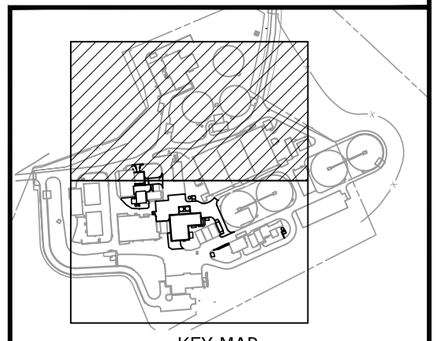
1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
2. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
3. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY OR ENGINEER.
4. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
6. THE PLAN APPROVING AUTHORITY WILL BE NOTIFIED ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO FINAL INSPECTION.
7. CONTRACTOR SHALL SEED AND MULCH WITHIN 5 DAYS OF INITIAL DISTURBANCE AND IN NO CASE SHALL OVER 1000 FEET BE LEFT UNSEEDED AND UNMULCHED AT ANY ONE TIME.
8. SEDIMENT FENCES SHALL BE REMOVED FROM THE SITE WHEN GRASSING IS ACCEPTED AND STABILIZATION IS COMPLETE.
9. WHEN A LINE IS TO BE INSTALLED ALONG A SHOULDER WITH A SLOPE FROM THE ROAD, SOIL (FILL) REMOVED FROM THE CUT SHALL BE STOCKPILED ON THE PAVEMENT SIDE OF THE CUT. THE CONTRACTOR SHALL REMOVE ALL WASTE MATERIAL FROM THE SITE PER THE JOB SPECIFICATIONS. CONTRACTOR SHALL SWEEP ALL MATERIAL OFF ROAD WHERE SOIL IS STOCKPILED.
10. ADDITIONAL BMPs MAY BE REQUIRED BY THE CONTRACTOR DEPENDING ON MEANS, METHODS, DRAINAGE PATTERNS, AND SURFACE DISTURBANCE DURING CONSTRUCTION.
11. CONTRACTOR ACKNOWLEDGES THE EROSION AND SEDIMENT CONTROL PLANS AND GOVERNING SWPPP ARE DYNAMIC DOCUMENTS AND ARE THE CONTRACTOR'S RESPONSIBILITY TO REVISE AS NEEDED DUE TO MEANS AND METHODS OF CONSTRUCTION TECHNIQUES AT NO ADDITIONAL COST TO THE OWNER.



MATCH LINE - SEE SHEET C401

PLAN

SCALE: 1" = 40'



KEY MAP

SCALE: 1" = 300'

REV	ISSUED FOR	DATE	BY
2	BID SET	04/2022	JVD
1	REGULATORY REVIEW	03/2022	JVD

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE (0, 1/2", 1")

PROJECT ENGINEER:	J. VAN DYKE
DESIGNED BY:	VALUE
DRAWN BY:	M SEEBOLD
CHECKED BY:	VALUE

BID DOCUMENT

Hazen

HAZEN AND SAWYER
545 MAINSTREAM DRIVE, SUITE 320
NASHVILLE, TENNESSEE 37228

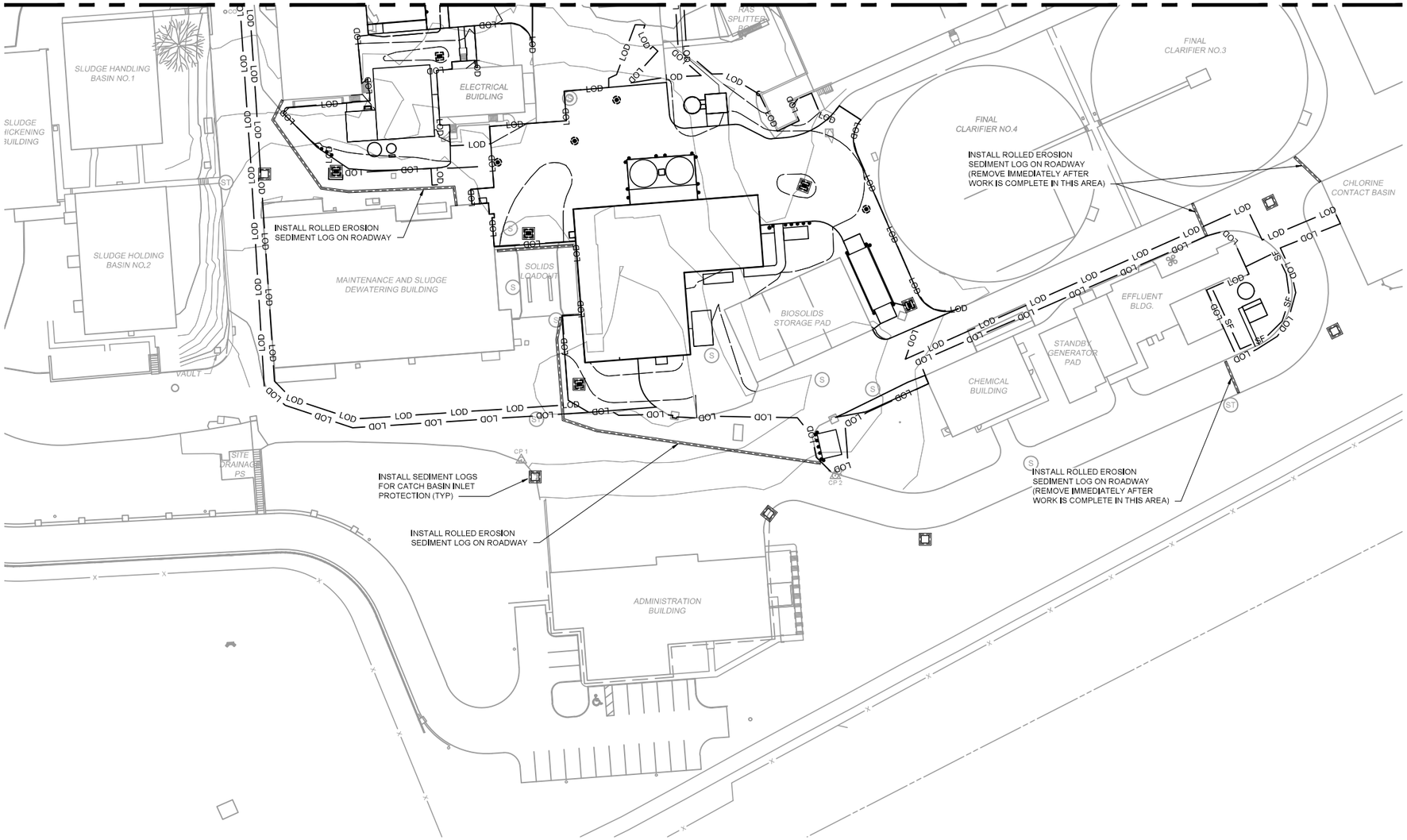
CLARKSVILLE GAS & WATER
CLARKSVILLE, TENNESSEE

CLARKSVILLE WASTEWATER TREATMENT PLANT
THERMAL DRYER IMPROVEMENTS

CIVIL
EPSC PLAN - PHASE 1 - AREA 1

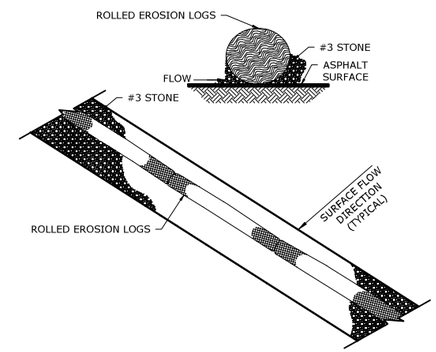
DATE:	APRIL 2022
HAZEN NO.:	32118-028
CONTRACT NO.	412-21814
DRAWING NUMBER:	C400

MATCH LINE - SEE SHEET C400

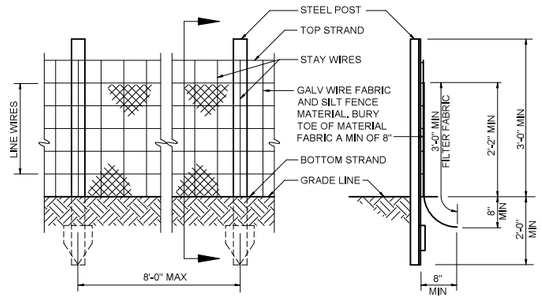


PLAN
SCALE: 1" = 40'

EROSION LOG FIBERS SHALL BE FORMED TO 20 INCHES IN DIAMETER AND ENCASED IN AN OPEN WEAVE CONTAINMENT FABRIC MESH WITH EACH END SECURED. FIBERS SHALL BE SEED FREE AND CURLED WITH INTERLOCKING BARBS FORMING A STRONG ORGANIC FILTRATION MEDIA. AT MINIMUM 80% OF THE FIBERS SHALL BE 6 INCHES LONG OR GREATER. THESE FIBERS SHALL BE EVENLY DISTRIBUTED THROUGHOUT THE LENGTH AND DIAMETER OF THE LOG. THE DENSITY OF THE LOGS SHALL NOT EXCEED 2.6LB/CF TO PROVIDE ADEQUATE FILTERING. EROSION LOGS SHALL MODEL "CURLEX SEDIMENT LOG" AS MANUFACTURED BY AMERICAN EXCELSIOR CO. OR APPROVED EQUIVALENT



ROLLED EROSION SEDIMENT LOGS
NOT TO SCALE

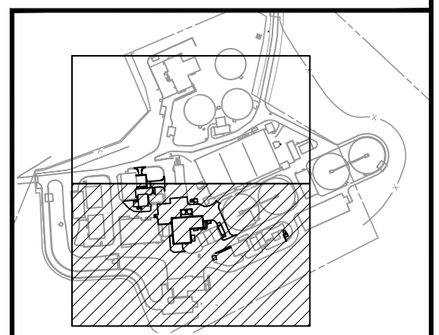


ELEVATION SILT FENCE

SECTION SILT FENCE

NOTE:
1. EXTRA STRENGTH SILT FENCE MATERIAL (AS APPROVED BY ENGINEER) WITH 6'-0" POST SPACING DOES NOT REQUIRE MESH SUPPORT FENCE.
2. SILT FENCE MATERIAL SHALL BE WIRED DIRECTLY TO POST.

SILT FENCE
NOT TO SCALE



KEY MAP
SCALE: 1" = 300'

REV	ISSUED FOR	DATE	BY
2	BID SET	04/2022	JVD
1	REGULATORY REVIEW	03/2022	JVD

PROJECT ENGINEER: J. VAN DYKE
DESIGNED BY: VALUE
DRAWN BY: M SEEBOLD
CHECKED BY: VALUE
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

BID DOCUMENT

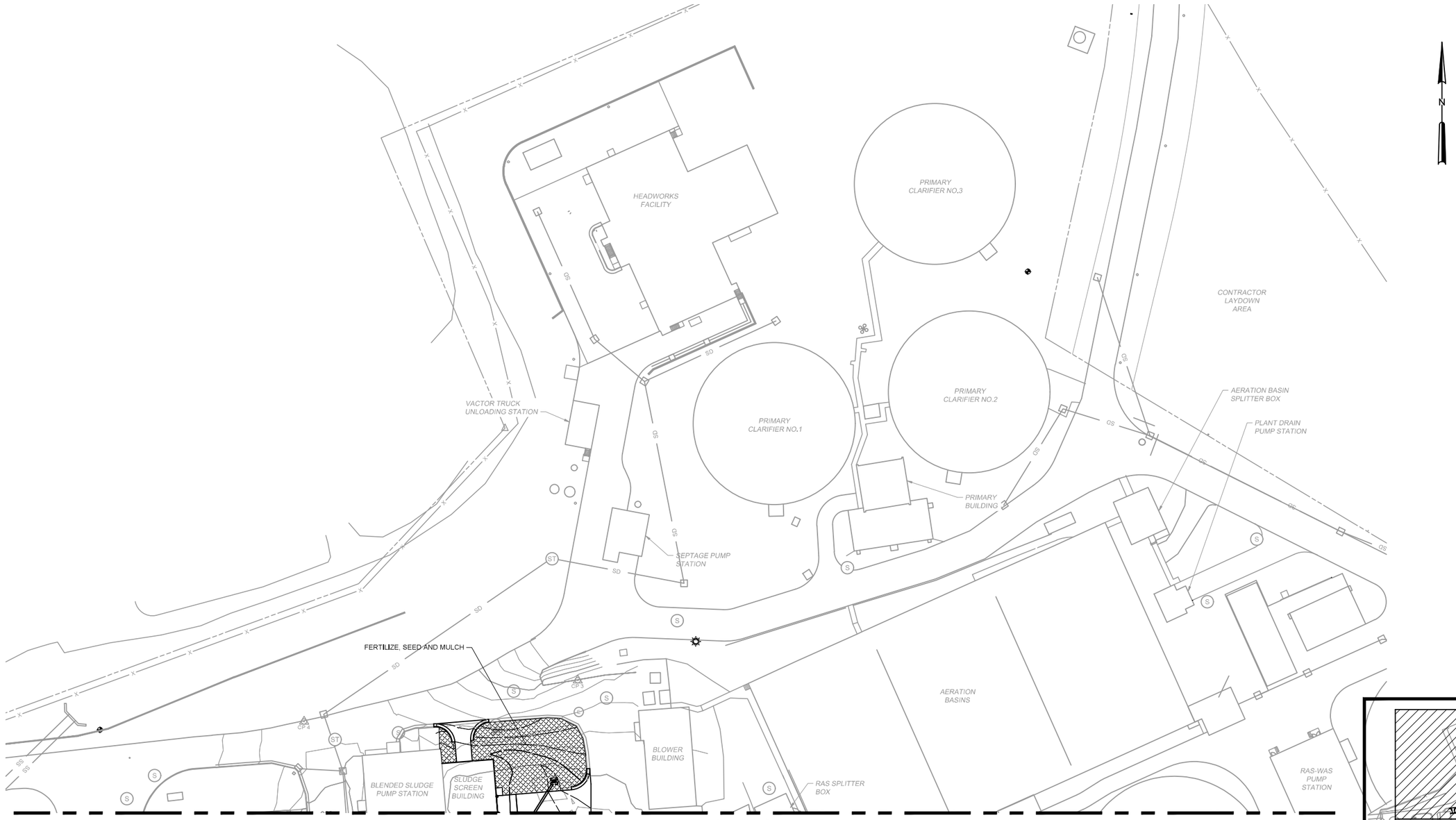
Hazen
HAZEN AND SAWYER
545 MAINSTREAM DRIVE, SUITE 320
NASHVILLE, TENNESSEE 37228

CLARKSVILLE GAS & WATER
CLARKSVILLE, TENNESSEE

CLARKSVILLE WASTEWATER TREATMENT PLANT
THERMAL DRYER IMPROVEMENTS

CIVIL
EPSC PLAN - PHASE 1 - AREA 2

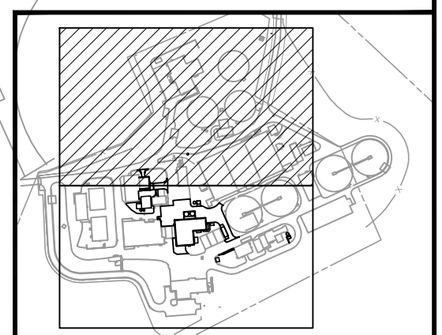
DATE: APRIL 2022
HAZEN NO.: 32118-028
CONTRACT NO. 412-21814
DRAWING NUMBER: C401



MATCH LINE - SEE SHEET C403

PLAN

SCALE: 1" = 40'



KEY MAP

SCALE: 1" = 300'

REV	ISSUED FOR	DATE	BY
2	BID SET	04/2022	JVD
1	REGULATORY REVIEW	03/2022	JVD

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE (0, 1/2", 1")

PROJECT ENGINEER:	J. VAN DYKE
DESIGNED BY:	VALUE
DRAWN BY:	M SEEBOLD
CHECKED BY:	VALUE

BID DOCUMENT

Hazen

HAZEN AND SAWYER
545 MAINSTREAM DRIVE, SUITE 320
NASHVILLE, TENNESSEE 37228

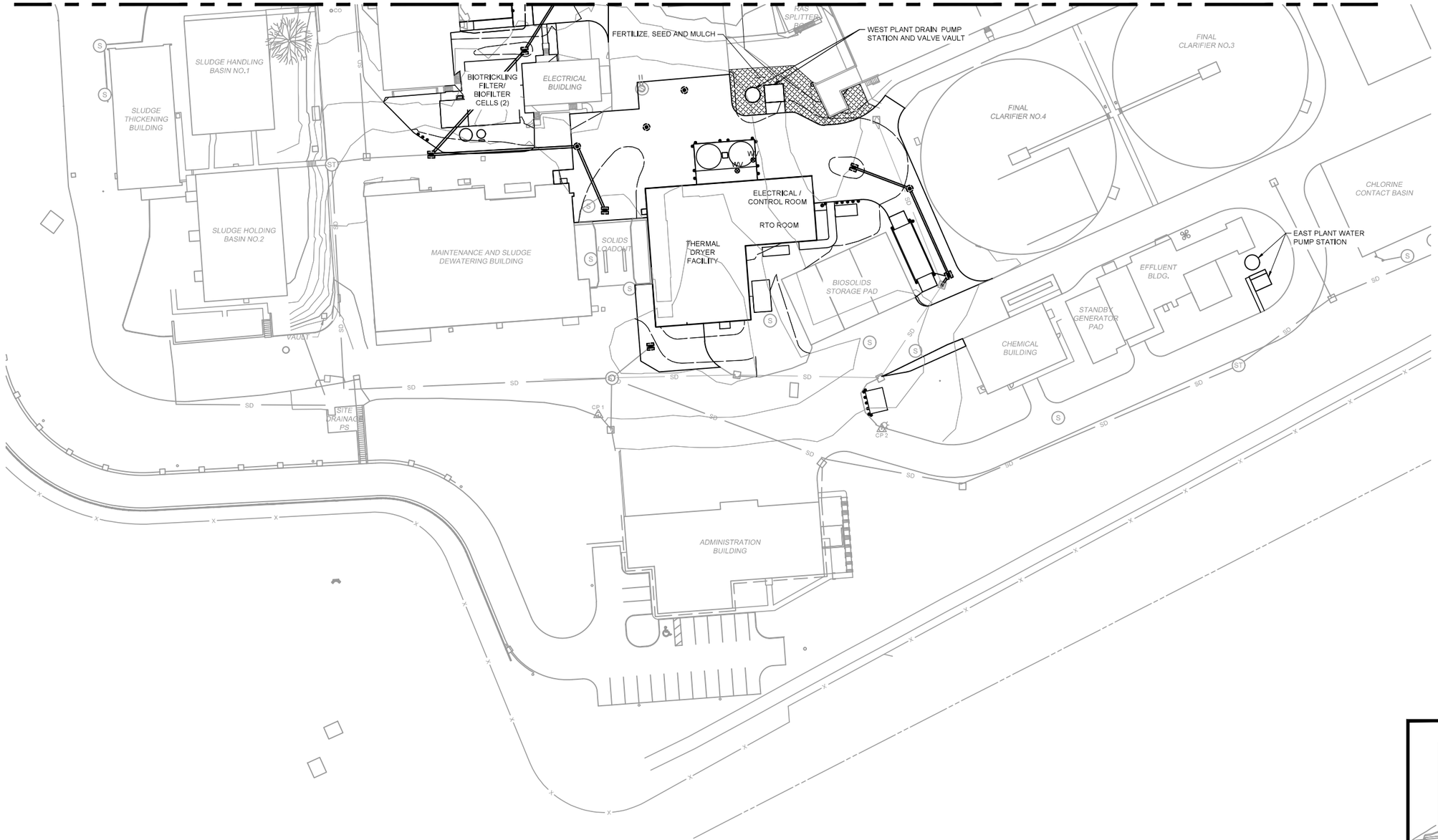
CLARKSVILLE GAS & WATER
CLARKSVILLE, TENNESSEE

CLARKSVILLE WASTEWATER TREATMENT PLANT
THERMAL DRYER IMPROVEMENTS

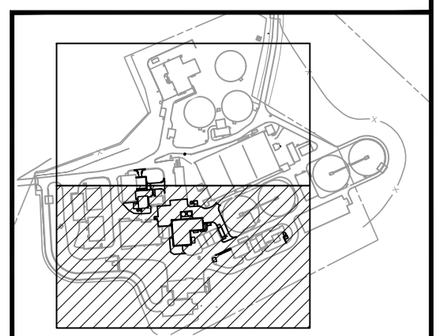
CIVIL
EPSC PLAN - PHASE 2 - AREA 1

DATE:	APRIL 2022
HAZEN NO.:	32118-028
CONTRACT NO.:	412-21814
DRAWING NUMBER:	C402

MATCH LINE - SEE SHEET C402



PLAN
SCALE: 1" = 40'



KEY MAP
SCALE: 1" = 300'

REV	ISSUED FOR	DATE	BY
2	BID SET	04/2022	JVD
1	REGULATORY REVIEW	03/2022	JVD

PROJECT ENGINEER:	J. VAN DYKE
DESIGNED BY:	VALUE
DRAWN BY:	M SEEBOLD
CHECKED BY:	VALUE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE (0, 1/2", 1")

BID DOCUMENT

Hazen
HAZEN AND SAWYER
545 MAINSTREAM DRIVE, SUITE 320
NASHVILLE, TENNESSEE 37228

CLARKSVILLE GAS & WATER
CLARKSVILLE, TENNESSEE

CLARKSVILLE WASTEWATER
TREATMENT PLANT
THERMAL DRYER IMPROVEMENTS

CIVIL
EPSC PLAN - PHASE 2 - AREA 2

DATE:	APRIL 2022
HAZEN NO.:	32118-028
CONTRACT NO.:	412-21814
DRAWING NUMBER:	C403

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