



Public Notice

US ARMY CORPS
OF ENGINEERS
St. Louis District
Gateway to Excellence

Reply To:
U.S. Army Corps of Engineers
Attn: CEMVS-OD-F
1222 Spruce Street
St. Louis, Missouri 63103-2833

Public Notice No.
P-3112, P-3113, P-3114 & P-3122

Public Notice Date:
June 6, 2019

Expiration Date:
June 26, 2019

Postmaster Please Post Conspicuously Until:

File Numbers: MVS-2019-314

Interested parties are hereby notified that an application has been received for a Department of the Army permit for certain work in waters of the United States, as described below and shown on the attached maps.

COMMENTS AND ADDITIONAL INFORMATION: Comments on the described work should reference the U.S. Army Corps of Engineers File Number shown above and must reach this office no later than the above expiration date of the Public Notice to become part of the record and be considered in the decision. Comments should be mailed to the following address:

U.S. Army Corps of Engineers
Regulatory Branch (OD-F)
1222 Spruce Street
St. Louis, Missouri 63103-2833
ATTN: Charles Frerker

APPLICANT: Cave City Sand, c/o Mr. Josh Lehde, 211 N Broadway Suite 2850, St Louis, Missouri 63102.

LOCATION: The project area is located in Sections 14, 15, 22, and 23, Township 39 North, Range 7 East, in Ste. Genevieve County, Missouri. The proposed river activities are located near the right descending bank of the Mississippi River, at approximate river mile 137.

PROJECT DESCRIPTION: The applicant has an existing sand and limestone quarry with proposed expansion and product transportation upgrade needs to meet projected capacity increases and customer bulk delivery requirements. Proposed facility upgrades include expanded quarry operations, a wet and dry material processing facility, a barge terminal with conveyor, loader, two associated fleets and the construction of a BNSF unit train rail spur. The sand production operation would include an approximate 1.5 Million Metric (MM) tons per year facility with finished product shipped primarily by barge and rail. The limestone operation would consist of local shipments of product sorted and sized through a crusher/screen plant combination, with a projected output of approximately 250,000 tons annually.

The applicant estimates an average of 100 barges cycling through the proposed river terminal on a monthly basis to meet anticipated outbound product requests. Two fleets, containing 20 barges each, are proposed. Each fleet area would have one captive barge held in a permanent position at the most upstream, landward

corner of the fleet. Each captive barge would maintain its position by affixing three anchor chains to associated anchors. Two chains would be connected at the bow of the barge and the third chain would be attached at a midpoint connection on the port (landward) side of the barge. Each of the chains would be connected to marine grade wire and related hardware affixed to engineer designed anchor structures placed in the river bed and river bank. Each anchor, chain and cable size would be designed to securely hold the weight of a loaded 20 barge fleet under high river stage, high flow conditions. When each fleet is in its maximum 20 barge configuration, two additional anchors, chains and cable devices would be affixed to a midpoint connector on the port (landward) side of the barges in the third and fifth rows of each fleet for additional mooring integrity, as shown in the attached barge fleet drawings. The most upstream fleet is assigned pending permit number P-3112. This 20 barge fleet would be configured in a 4 barge wide by 5 barge long arrangement, located near the right descending bank of the Mississippi River at approximate river mile 137.3. The most downstream fleet is assigned pending permit number P-3113. This 20 barge fleet configured would be configured in a 4 barge wide by 5 barge long arrangement, located near the right descending bank of the Mississippi River at approximate river mile 137.1. The barge loading terminal and associated conveyor structure is assigned pending permit number P-3114 and would be located near the right descending bank of the Mississippi River at approximate river mile 136.8. Vessels and infrastructure associated with the proposed barge loading terminal include two permanent deck barges measuring 35 feet wide by 195 feet long and one permanent deck barge measuring 45 feet wide by 195 feet long. The larger deck barge would be positioned in the center of the terminal to support the pivoting portion of the conveyor loading tower. The riverward side of the deck barges would be in approximately the same alignment with the loading terminal mooring cells. Empty barges, configured no more than two barges wide, would be delivered to the loading terminal from the upstream barge fleets, attached to a cable push/pull system, and filled with the applicant's quarry generated products. The conveyor system would transport the quarry generated products from the adjacent landside storage areas to the barge loading tower for controlled loading operations.

The barge loading terminal includes 12 proposed mooring dolphins. Each mooring dolphin would include a vertical 54-inch-diameter, sand-filled, steel pipe pile and two 24-inch-diameter battered support pilings arranged as tripod dolphin mooring structures. An approximate 35-foot-diameter sheet pile cell located near the center of the loading terminal would support the last horizontal portion of the conveyor before it transition to the pivoting loading tower. The proposed mooring infrastructure would impact less than .08 acre of substrate. The applicant stated the potential need to perform temporary construction access dredging to facilitate adequate depth for barge mounted construction equipment to install the conveyor supports, if the river stage is low or accumulated sediment is present during the project construction period. If necessary, a 70-foot-wide channel would be dredged towards the riverbank to allow a construction barge with a 4-foot draft to gain access to the proposed conveyor pier support structure installation areas. Up to 4,500 cubic yards of dredge material could potentially be removed, contained in barges or dredge pipe and transported to an upland disposal location within the facility. The proposed river structures and associated activities, all located near the northeast corner of the Doerr Tract, would be evaluated under Section 10 of the Rivers and Harbors Act.

The applicant also requests authorization under Section 404 of the Clean Water Act to impact the downstream portion of five ephemeral tributaries, totaling 4,039 linear feet. Pending permit number P-3122 is assigned to evaluate the ephemeral tributary impacts, which are all located on the Doerr Tract. The tributary impacts would result from the proposed construction of the rail spur, culverted crossings and overburden fill activities. The proposed rail spur would be constructed with a connection to the existing mainline rail running

adjacent to the Mississippi River bluff. The rail spur would be constructed just above the 500 year flood elevation to minimize periodic flooding impacts and rail spur shutdown periods. The applicant selected the proposed rail spur in the higher elevation area, just above the base of bluff's side slopes, to minimize fill placement in the floodplain and to avoid high quality wooded wetlands and emergent wetlands located near the confluence of Morrison Hollow and the Mississippi River. All five ephemeral tributaries exist in bluff terrain adjacent to the proposed rail spur. Rail site preparation would require excavation in the bluff side slopes to create a level area for the rail spur. The rail crossings' culverts and excess overburden generated from the rail site preparation and upland quarry activities would be placed in the five tributaries and their adjacent valleys. The waterways are shown on the attached plans beginning with Tributary 1 located furthest west and Tributary 5 located furthest east. The following is the proposed impacted length of each waterway: Tributary 1 approximately 441 linear feet; Tributary 2 approximately 490 linear feet, Tributary 3 approximately 588 linear feet; Tributary 4 approximately 678 linear feet and Tributary 5 approximately 1,842 linear feet. The applicant coordinated, conducted bat mist net surveys and received approval from the U.S. Fish and Wildlife Service to hand cut the wooded hillsides and riparian corridor adjacent to Tributary 4 and Tributary 5 prior to submitting a permit application to the U.S. Army Corps of Engineers. The jurisdictional bed and bank of both tributaries remain, but no adjacent vegetation is present along their combined 2,520 linear feet of channel. Details and drawings of the proposed project are shown on the attached figures. The applicant proposes to offset waterway impacts by purchasing mitigation credits through an in-lieu-fee program or stream mitigation bank.

The applicant reviewed delineations from consulting firms to identify the location of jurisdictional waters of the United States on their existing and proposed expanded quarry areas, shown as the Booth, Minden and Foerstel properties on the attachments. The applicant designed and located their quarry limits, quarry processing facilities and associated infrastructure in locations where there are no jurisdictional waters of the United States. The applicant's avoidance measures eliminate the need for a Section 404 Clean Water Act permit. The quarried material from the Booth, Minden and Foerstel properties would be hauled to the riverside Doerr property via Missouri Highway 61 to Brickey's Road for further processing and stockpiling. From the stockpile area, the finished quarry products would transfer to silo storage until it's ready for transport by conveyor to the barge loading terminal or rail load out for outbound bulk freight shipment. The applicant designed and located the final quarry processing plant in areas of the Doerr property that do not impact jurisdictional waters of the United States as an avoidance measure to reduce impacts and eliminate the need for a Section 404 Clean Water Act permit.

Project Impact Mitigation Measures:

The applicant selected project features and designs that added extra costs to avoid and minimize impacts to both Cave City Sand properties and the surrounding area. The low impact goal required higher construction costs than typical quarry projects. The following avoidance and minimization measures were incorporated in the design to reduce and offset impacts:

- The quarry dry plant, rail spur, and river terminal were designed to minimize land disturbance and occupy less than 10% of the 800 acre Doerr property;
- The remaining acreage on the Doerr property is suitable for related development and quarry activities, but the applicant elected to minimize land impacts by not using the remaining areas;
- The quarry's dry plant, river terminal and rail spur were designed to occupy the smallest footprint to avoid and minimize impacts to jurisdictional waters of the United States to greatest practicable extent;
- A more expensive span bridge, rather than a box culvert, was selected to provide access over a higher quality intermittent waterway in Morrison Hollow for worker/pedestrian transport to the dry plant. The span

bridge requires no Section 404 Clean Water Act permit since it avoids disturbance to jurisdictional areas below the ordinary high water elevation.

- The rail spur totals 20,000 +/- linear feet of track. While it would have been more cost effective and a simpler installation to install the rail spur connection in lower elevation areas near the Mississippi River confluence, it would have impacted high quality wooded and emergent wetlands and generated significant quantities of fill in the floodplain and floodway. To remedy impacts, the applicant selected the more costly option to install the rail spur in the base of river bluffs along the north side of Morrison Hollow, adding 500,000 cubic yards of overburden excavation requirements.
- The following are examples of studies performed for various aspects of the project to allow the applicant to identify and offset impacts:
 - Wetland Delineation – In 2015 the 800 acre Doerr Tract, where the dry plant processing facility and rail spur is proposed, was reviewed and delineated to identify jurisdictional areas. In 2017 the quarry properties and initial quarry processing facilities were delineated to identify the location of jurisdictional waters of the United States. The study findings were used to assist the applicant and their design team in avoiding impacts to jurisdictional wetlands and waterbodies resulting from the quarry operations and construction of the product processing facilities.
 - Traffic study – To better understand potential impacts of adding trucks to Missouri Highway 61 and Brickey's Road, the applicant hired a consultant to perform a traffic study of the area to analyze pre/post project traffic patterns. The study determined the proposed project would not have significant impact as Highway 61 is utilized at a rate less than 10% of its designed capacity. It should be noted the traffic study was completed prior to the applicant adding additional adjacent acres for future quarry operations. The larger quarry area increases the lifespan of the facility, but it does not change the originally analyzed production rate or trucking activities that were evaluated in the traffic study, which maintains its validity. Additionally, the applicant does not anticipate shipping finished product to customers by truck. The primary truck traffic would be to transport the quarry generated material between the wet and dry plant, which was the evaluation performed by traffic study consultant.
 - Cultural Resource Assessment(s) – Coordination between the applicant and the Missouri State Historic Preservation Office (SHPO) occurred prior to submittal of a complete application to the U.S. Army Corps of Engineers to address a cultural resource assessment. At the direction of SHPO, a Phase 1 & 2 survey was performed. The applicant chose to follow SHPO recommendations to ensure there are no cultural or historic property impacts within the project boundary. The SHPO concluded, after the Phase 1 & 2 studies were completed, that there is no cultural or historic properties affected by the proposed project activities.
 - Threatened and Endangered Species - Coordination between the applicant and the U.S. Fish and Wildlife Service (FWS) occurred prior to submittal of a complete application to the U.S. Army Corps of Engineers. The applicant requested and received permission from the FWS to hand cut approximately 70 acres of trees and riparian corridor in potential bat habitat areas outside of the typical restricted tree clearing timeframe. In order to receive FWS approval, the applicant hired a qualified consultant who coordinated and completed bat mist net surveys in approved FWS areas. No federally listed bat species were captured during the surveys. However, the applicant worked with the FWS to provide compensatory habitat funds to the Conservation Fund's in-lieu-fee program in addition to placing a conservation easement on 100 acres of existing forest near the applicant's northern portion of the Doerr property. A large portion of the FWS tree clearing approval area allowed the applicant to recently hand clear the wooded corridor adjacent to two of the ephemeral tributaries that the applicant proposes to impact on the Doerr property for rail spur construction and storage of overburden material. The jurisdictional bed and bank of the two associated ephemeral channels still exist, but the majority of their surrounding woods have been removed. The applicant also hired a qualified consultant

to conduct surveys for potential fresh water mussels and pallid sturgeon in the proposed fleeting, barge loading terminal and riverside conveyor activity areas. The survey results found no mussels, pallid sturgeon or habitat that is known to be suitable for pallid sturgeon spawning.

LOCATION MAPS AND DRAWINGS: See attached. In addition, the project plans may be viewed in color and in more detail by visiting the Public Notice section of our website at:
<http://www.mvs.usace.army.mil/Missions/Regulatory/PublicNotices/OpenNotices.aspx>

ADDITIONAL INFORMATION: Additional information may be obtained by contacting Charles Frerker, Project Manager, U.S. Army Corps of Engineers, at (314) 331-8583. Inquiries can also be sent by facsimile at (314) 331-8741 or by e-mail to charles.f.frerker@usace.army.mil.

AUTHORITY: This pending permits will be evaluate under provisions of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act.

WATER QUALITY CERTIFICATION: Section 401 of the Clean Water Act (33 USC 1341) requires that all discharges of dredged or fill material must be certified by the appropriate state agency as complying with applicable effluent limitations and water quality standards. The project plans will be submitted to the Missouri Department of Natural Resources, Water Protection Program (MDNR) in accordance with Section 401. While the Corps of Engineers may provide all relevant information to MDNR and request Section 401 review on behalf of the applicant, the applicant assumes final responsibility to ensure that both agencies receive all information required to complete their independent review. If issued, Certification will express the MDNR's opinion that the proposed activities will not violate applicable water quality standards. Written comments concerning possible impacts to waters of Missouri should be addressed to: Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, with a copy provided to the Corps of Engineers.

SECTION 404 (b)(1) EVALUATION: The impact of the activity on the public interest will be evaluated in accordance with the Environmental Protection Agency guidelines pursuant to Section 404 (b)(1) of the Clean Water Act.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the applicant's proposal. Any request for a public hearing shall state, with particularity, the reason for the hearing, and must be based on issues that would warrant additional public review.

ENDANGERED SPECIES: The proposed project is within range of the federally endangered Indiana bat (*Myotis sodalis*), gray bat (*Myotis grisescens*), pallid sturgeon (*Scaphirhynchus albus*) and the threatened northern long-eared bat (*Myotis septentrionalis*). The permit applicant coordinated directly with the U.S. Fish and Wildlife Service (FWS) prior to submitting a complete permit application to the U.S. Army Corps of Engineers Regulatory Branch. The applicant requested and received permission from the FWS to hand cut approximately 70 acres of trees and riparian corridor in potential bat habitat areas outside of the typical tree clearing restricted timeframe. Prior to receiving FWS approval, the applicant hired a qualified consultant who coordinated and completed bat mist net surveys in approved FWS areas. No federally listed bat species were captured during the surveys. However, the applicant offered habitat compensation by providing money towards the Conservation Fund's in-lieu-fee program and placing a conservation easement on 100 acres of existing forest near the northern portion of the Doerr property. The tree clearing areas include Tributary 4

and 5, the rail spur route, the conveyor route and a large portion of the proposed overburden disposal area. The applicant also hired a qualified consultant to conduct surveys for potential fresh water mussels and pallid sturgeon in the proposed fleeting, barge loading terminal and riverside conveyor activity areas. The survey results found no mussels, pallid sturgeon or habitat that is known to be suitable for pallid sturgeon spawning. Quarry operations require phased clearing, mining and product removal over the life of the project. The applicant stated they are willing to conduct future bat surveys, if needed, over the phased life of the quarry in areas the FWS identifies as potential bat roosting and habitat areas. The applicant also hired divers to perform a survey of approximately 1.6 miles of river frontage in the proposed fleeting, river terminal and conveyor area to determine if pallid sturgeon, mussels or suitable habitat were present. The applicant's coordinated efforts with the FWS concluded negative results for both the presence and habitat of pallid sturgeon and listed mussel species. Based on the findings and the applicant's willingness to conduct future bat surveys, we have determined the proposed activities are not likely to adversely affect listed species or their habitats. In order to further complete our evaluation, written comments are solicited by this public notice from the U.S. Fish and Wildlife Service and other interested agencies and individuals.

CULTURAL RESOURCES: The St. Louis District will evaluate information provided by the State Historic Preservation Officer, Native American Tribes, and the public in response to this public notice and we may conduct, or require additional reconnaissance surveys of the project area. Coordination between the applicant and the Missouri State Historic Preservation Office (SHPO) occurred prior to submittal of a complete application to the US Army Corps of Engineers to address a cultural resource assessment. At the direction of SHPO, a Phase 1 & 2 survey was performed. The SHPO concluded, after the Phase 1 & 2 studies were completed, that there is no cultural or historic properties affected by the proposed project activities. The Corps will continue to coordinate with SHPO and Native American Tribes as appropriate.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the described activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that may reasonably be expected to accrue from the described activity must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the activity described, will be considered including the cumulative effects. Among factors considered are: conservation; economics; aesthetics; general environmental concerns; wetlands; historic properties; fish and wildlife values; flood hazards; flood plain values; land use; navigation; shoreline erosion and accretion; recreation; water supply and conservation; water quality; energy needs; safety; food and fiber production; mineral needs; consideration of property ownership; and in general the needs and welfare of the people. Several of the public interest factors listed above, including land use, reclamation, air quality, mineral needs, consideration of property ownership/impact and other potential quarry related activities are also evaluated and permitted under more direct authority by the Missouri Department of Natural Resources through their mines, mineral and reclamation permit evaluation process.

SOLICITATION OF COMMENTS: The U.S. Army Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of the proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in

the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Robert S. Gramke

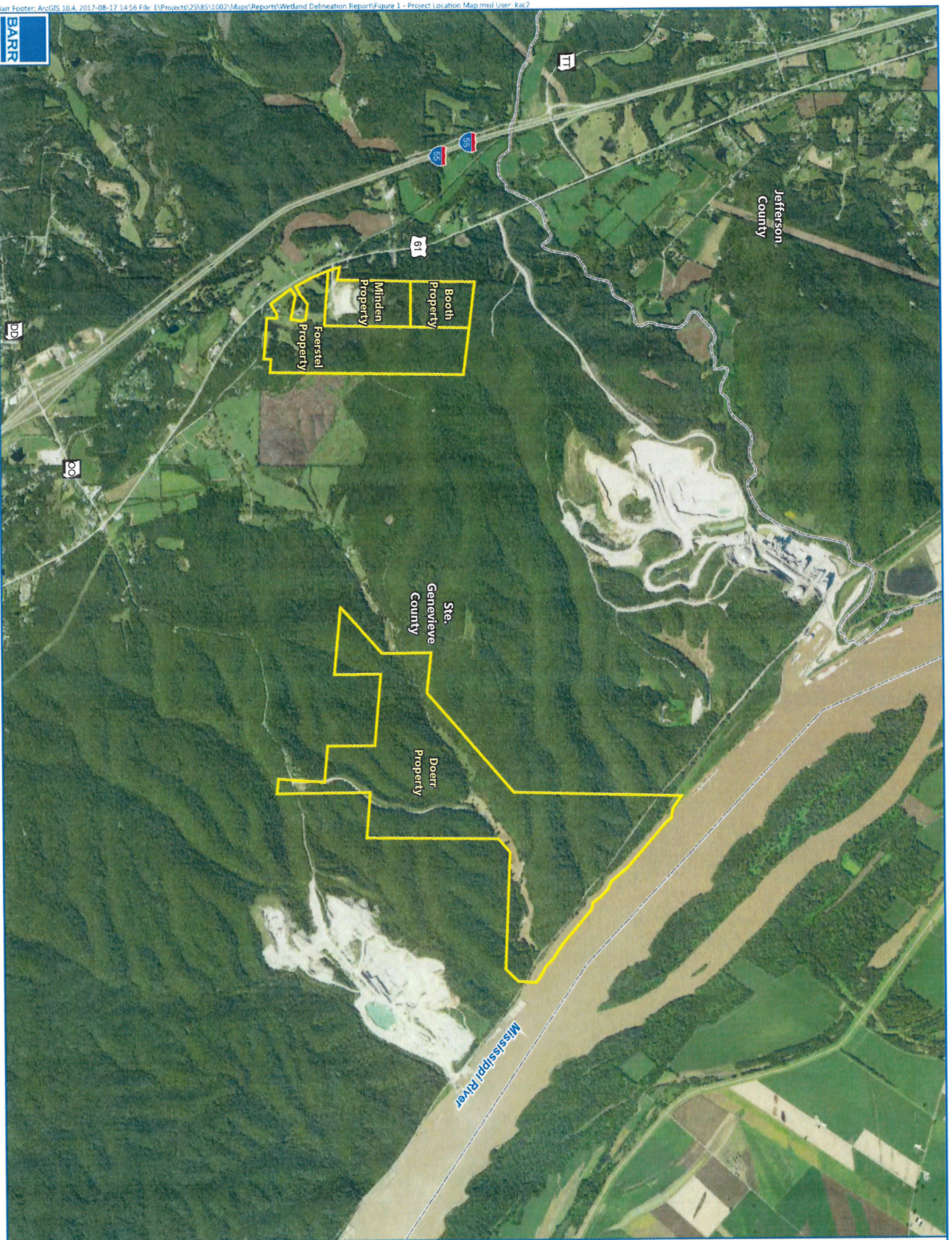
Robert S. Gramke
Chief, Regulatory Branch

Attachments

NOTICE TO POSTMASTERS:

It is requested that this notice be conspicuously and continually placed for 21 days from the date of this issuance of this notice.

PROJECT LOCATION MAP



- Property Boundaries
- County Boundary



PROJECT LOCATION MAP
 Morrison Hollow Wetland
 Delineation
 Cave City Sand
 St. Genevieve County, MO

FIGURE 1



Planners and Engineers
 2300 Berkshire Lane N, Suite 200
 Plymouth, MN 55441

763.559.9100
www.vaaeng.com
info@vaaeng.com

CLIENT: CAVE CITY SAND LLC 662 COLILINS DR FESTUS, MO	DATE: 08/20/18
	DRAWN: MAF
	DESIGNED: KRF

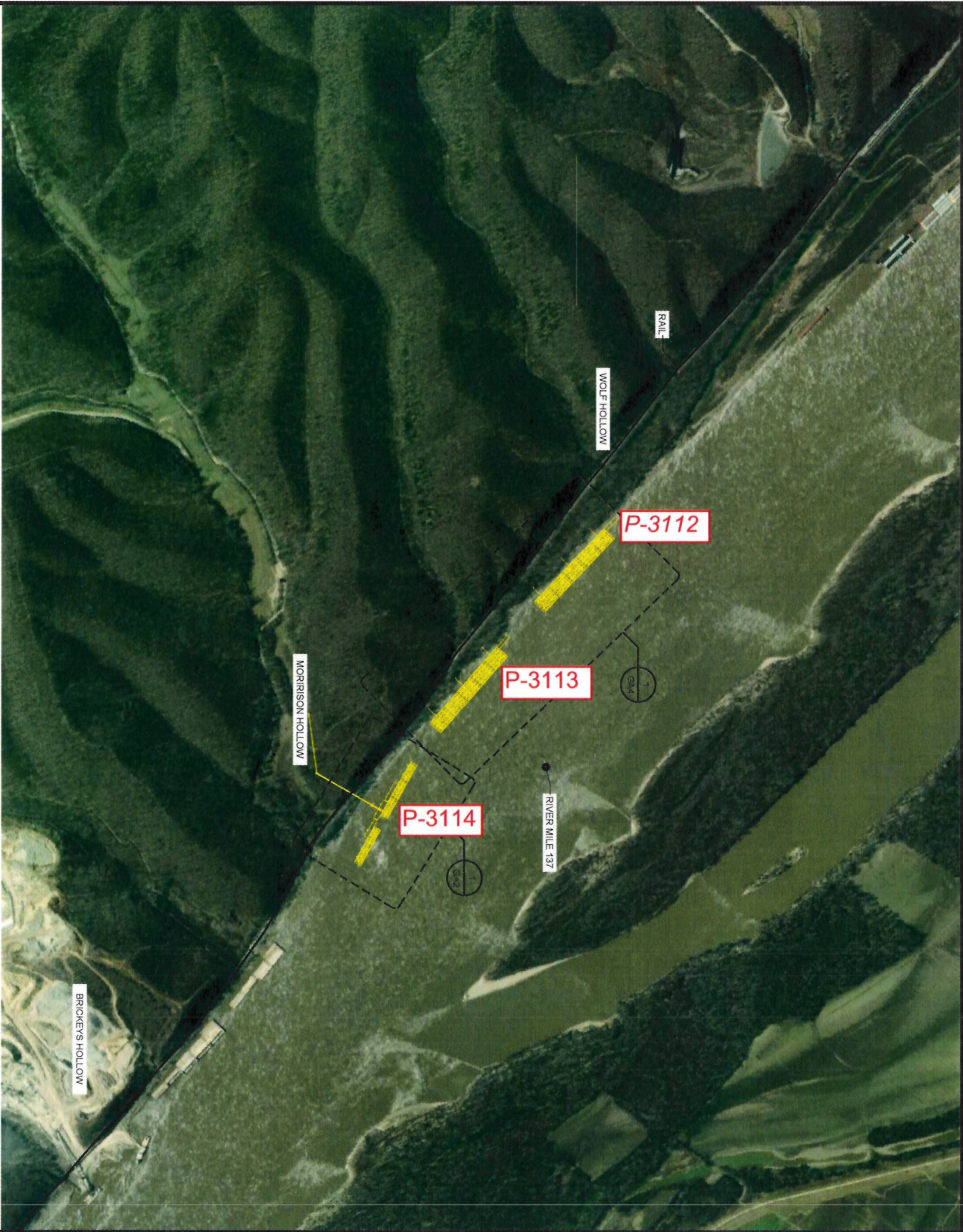
PROJECT: CAVE CITY SAND - MISSOURI BLOOMSDALE, MO	
DRAWING NO.: PROJECT #: 170684	GA1



OVERALL SITE PLAN

NTS

PRELIMINARY
NOT FOR CONSTRUCTION





Planners and Engineers
2300 Berkshire Lane N, Suite 200
Plymouth, MN 55441
763.559.9100
www.vaaeng.com
info@vaaeng.com

CLIENT:
CAVE CITY SAND LLC
662 COLILINS DR
FESTUS, MO

DATE:
08/20/18

DRAWN:
MAF

DESIGNED:
KRF

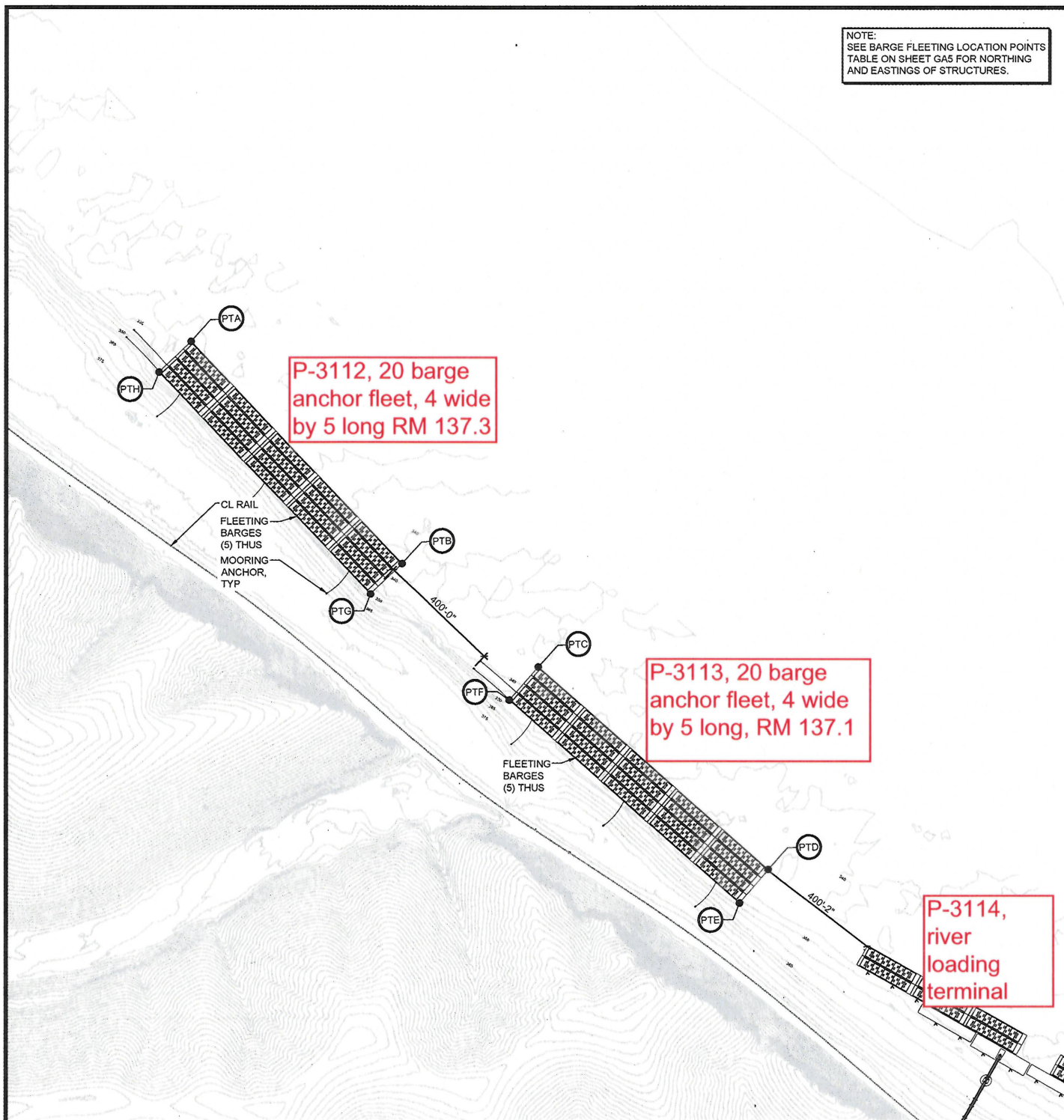
PROJECT:
CAVE CITY SAND - MISSOURI
BLOOMSDALE, MO

DRAWING NO.:

GA4

PROJECT #: 170684

NOTE:
SEE BARGE FLEETING LOCATION POINTS
TABLE ON SHEET GA5 FOR NORTHING
AND EASTINGS OF STRUCTURES.



1
GA4

FLEETING LAYOUT PLAN

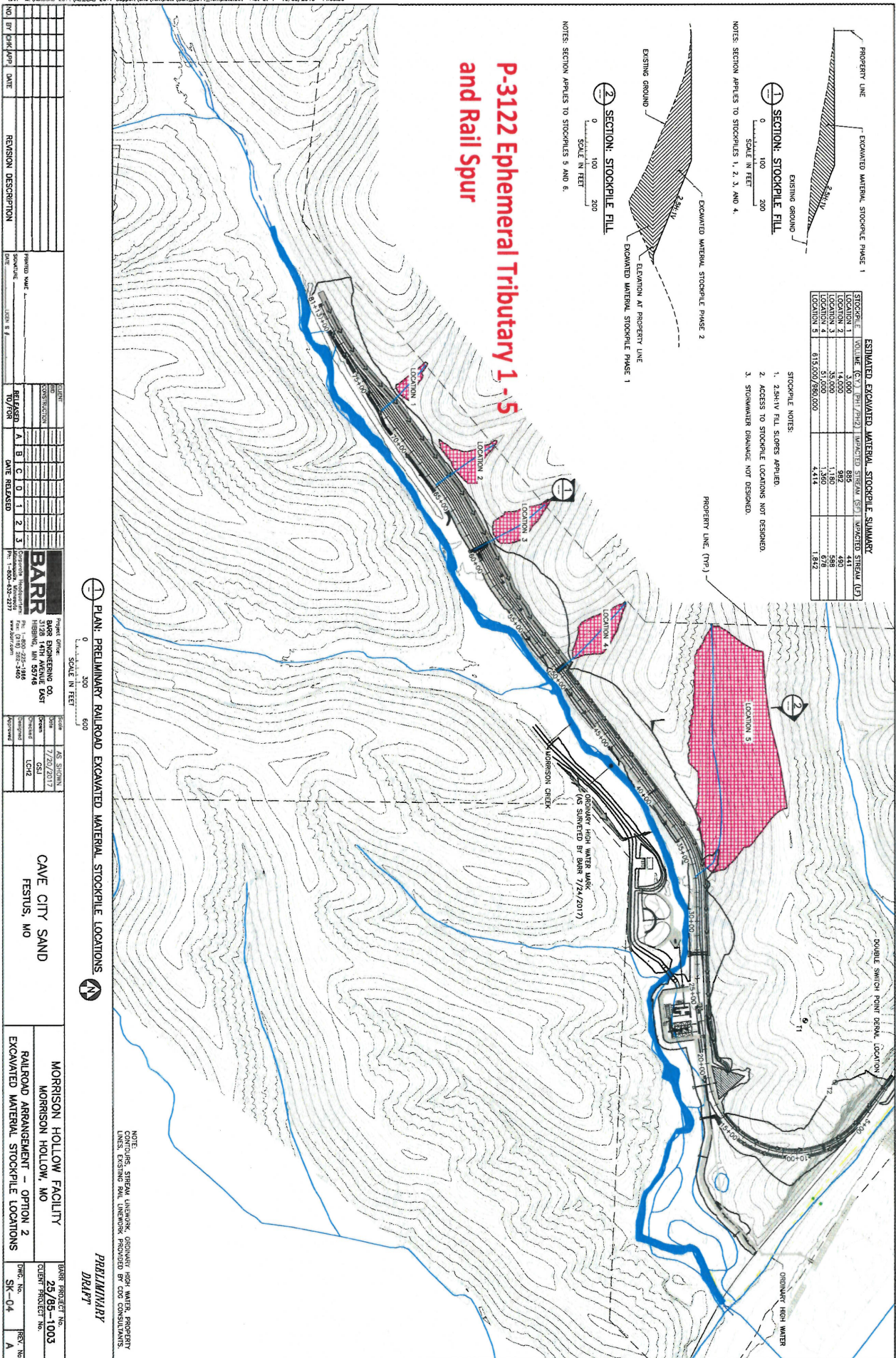
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NOTE
LAYOUT BASED ON GROUND
TOPOGRAPHY PROVIDED BY BARR
ENGINEERING AND BATHYMETRIC
SURVEY PROVIDED BY J.F. BRENNAN.

[illegible]



1 PLAN: DRY PLANT GRADING OVERALL PLAN

NOTE: LAYOUT AND DESIGN OF DRY PLANT, DRY PLANT STOCKPILING AREA, TRUCK UNLOADING, CONVEYORS, BARGE LOADOUT, RAILROAD EARTHWORK AND THEIR ASSOCIATED FOUNDATIONS AND E. CAVALION DESIGN IS BY OTHERS.

PRELIMINARY
DRAFT

NOT FOR CONSTRUCTION

CAVE CITY SAND, LLC

FESTUS. MO

CAVE CITY SAND - MISSOURI
BLOOMSDALE, MO

BARR PROJECT No.	25851003
CLIENT PROJECT No.	
DWG No.	REV No.



