

Summary of Hearing Examiner Recommendation

CEMEX ALICO QUARRY EXTENSION PHASE 3D

Hearing Examiner Remarks

The request seeks to unify zoning of an existing mining operation and extend resource material excavation into an area internal to the site. The site has actively provided valuable resources to support the region for decades. The request seeks to acknowledge that history and expand into an additional phase within the confines of existing property boundaries.

No additional traffic impacts are anticipated because extracted material will be processed by the existing plant, which has finite processing capabilities. Accordingly, the quantity of extracted material leaving the site will be similar to current conditions. The request is limited in scope to expanding mining operations into Phase 3D. Existing approvals are not on review.¹

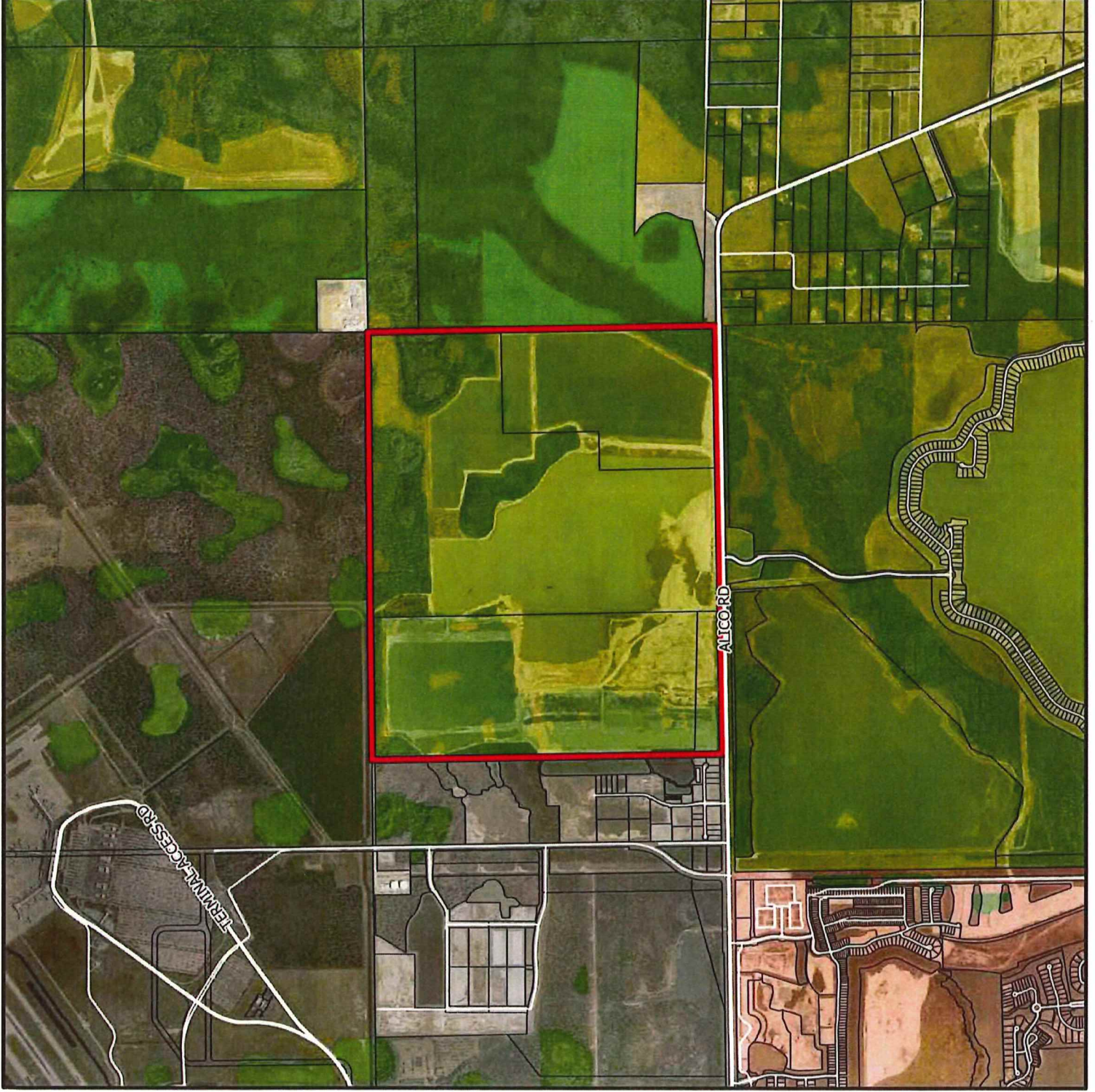
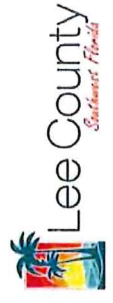
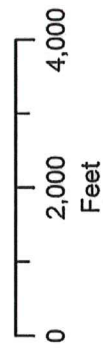
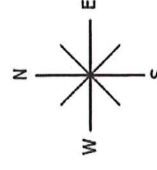
Detailed recommendation follows

¹ Applicant has certain legally protected vested rights in existing approvals.

DCI2021-00009

Future Land Use

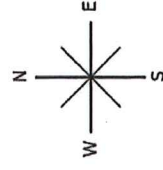
- Subject Property
- Public Facilities
- University Community
- Tradeport
- Airport
- Density Reduction/
Groundwater Resource
- Conservation Lands - Upland
- Wetlands
- Conservation Lands - Wetland



DCI2021-00009

Aerial

 Subject Property



OFFICE OF THE HEARING EXAMINER, LEE COUNTY, FLORIDA

HEARING EXAMINER RECOMMENDATION

REZONING: DCI2021-00009

Regarding: CEMEX ALICO QUARRY EXTENSION PHASE 3D

Location: 12501 Alico Road
Southeast Lee County Planning Community
(District 2)

Hearing Date: December 14, 2022

Record Closed: January 6, 2023

I. Request

Extend an existing construction material mine into an area within the site. The new area to be mined is 205 acres and encompasses lands previously approved for "general excavation."²

The request rezones 1,193± acres to Mine Excavation Planned Development (MEPD). The request encompasses all previous phases north of Alico Road currently zoned Agricultural (AG-2) with a special exception for excavation and MEPD to MEPD. The request also seeks to memorialize existing, vested approvals.

The property's legal description is set forth in Exhibit A.

II. Hearing Examiner Recommendation

Approval, subject to the conditions and deviations set forth in Exhibit B.

III. Discussion

The Hearing Examiner serves in an advisory capacity to the Board of County Commissioners (Board) on applications to rezone property.³ In furtherance of this duty, the Hearing Examiner accepted testimony and evidence on the application to rezone approximately 1,193± acres from AG-2 and MEPD to the MEPD district.

In preparing a recommendation to the Board, the Hearing Examiner applies the Lee County Comprehensive Plan (Lee Plan), the Land Development Code (LDC), and other County regulations to testimony and evidence in the hearing record. The

² ZAB-86-62 and Special Exception #93-01-28-EXC-02.

³ LDC §34-145(d)(4)a.

record must include competent substantial evidence to support the recommendation.

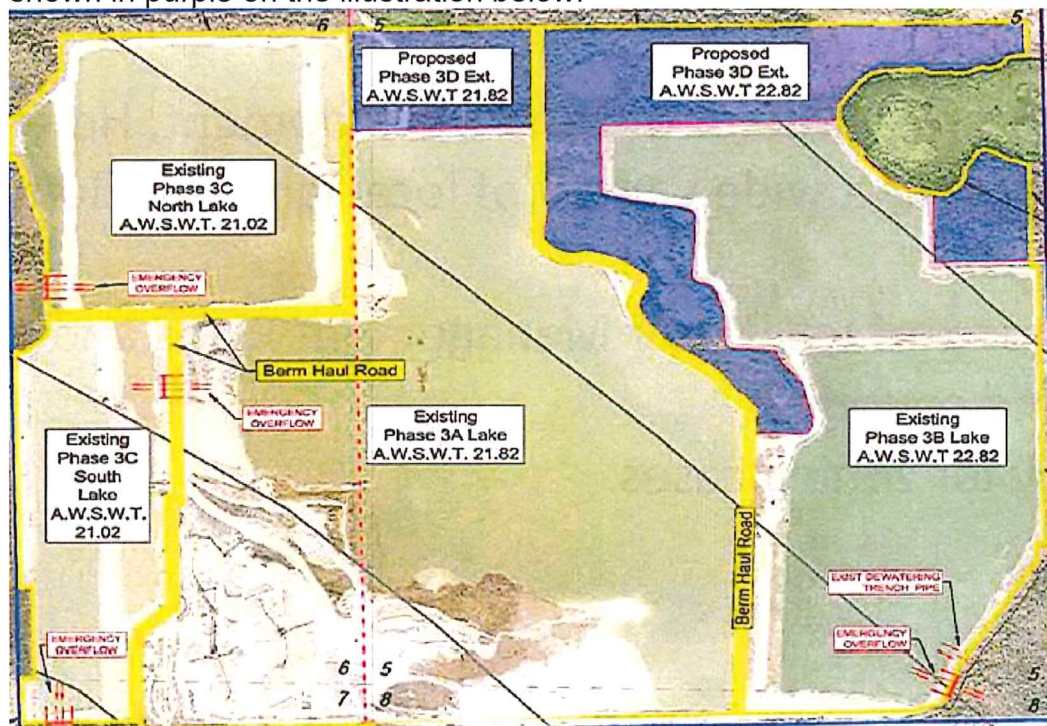
Discussion supporting the Hearing Examiner's recommendation of approval on the Cemex Alico Quarry MEPD follows.

Request Summary

The property is comprised of 1,193± acres north of Alico Road, east of I-75 in the Southeast Lee County Planning Community.⁴

The general area has hosted resource material extraction since the 1970s.⁵ The site has been subject to mining activity for several decades. In 1986, the county identified a general excavation area that included the property.⁶ In 1993, the property received Special Exception approval to permit mining operations.⁷

Mining plans reflect phased excavations designated as Phases 3A-C.⁸ The request seeks to extend construction material mining into an area identified as Phase 3D, shown in purple on the illustration below.



⁴ Four parcels constitute the property. See Staff Report (pg. 1-2, Attachment G). Applicant owns three parcels, with one parcel owned by FGCU. See *Id.* Lee Plan Map 2-A.

⁵ See Staff Report (pg. 2). Ms. Montgomery detailed the history of the mine, including its relocation to facilitate siting FGCU in the University Community. Transcript pg. 8-10.

⁶ See ZAB-86-62, Staff Report (pg. 2-3, Figure 1).

⁷ See Hearing Examiner Decision 93-01-28-EXC-02; Staff Report (pg. 3-4).

⁸ Cemex Construction Materials Florida, LLC Alico Quarry Phase 3D Extension plan set, last revised 7/18/2022 (the "MEPD Plans") (contained in Staff Report Attachment E).

The request also unifies prior zoning approvals into a single planned development.⁹ Applicant is pursuing expansion into the 3D area to meet market demand and utilize new technologies.¹⁰ Prior zoning approvals permit excavation activities on lands surrounding Phase 3D but did not extend into the 3D area because it was primarily wetlands.¹¹ Twenty-two approved deviations are carried forward, eight are specific to Phase 3D.¹²

The Mine Site Plan expands excavation within the site to permit an additional 205± acres to be mined.¹³ The Mine Site Plan reflects the existing processing plant, administrative offices, scale house, wheel wash area, vehicle service area, rock crushing area, parking, active excavation cells, and wetland/conservation areas.¹⁴ The request does not alter these facilities or affect operations outside of Phase 3D.

Existing approvals authorize mining in phases through 2034.¹⁵ Material may be excavated at a depth of 45 feet or one foot above confining layer, whichever is encountered first.¹⁶ At the conclusion of site reclamation, the property will consist of lakes, restored wetlands, and wildlife habitat areas.

The request proposes limited uses for Phase 3D lands. Permitted uses for other phases are carried forward from prior approvals.

Proposed uses for Phase 3D include:¹⁷

- Excavation, Mining
- Excavation, Water Management
- Storage, Open (limited to excavated materials)
- Fences and Gates
- Signs

⁹ Applicant's Ex. 1; ZAB-86-62, Special Exception #93-01-28-EXC-02.

¹⁰ Morris Testimony (Transcript pg. 14).

¹¹ See ZAB-86-62, HEX Decision 93-01-28-EXC-02, LDO2007-00214, DOS2015-00078, MOP2017-00007, & MOP2018-00001.

¹² Staff recommends one additional deviation for the request, one deviation was withdrawn. MEPD Plans Sheet HM-14 graphically depicts the location of the deviations. See Staff Report (pg. 1, Attachment E).

¹³ See MEPD Plans Phase 3D Extension Sheet 6A; Morris Testimony (Transcript pg. 14).

¹⁴ See Mining Plans Sheet HM-16.

¹⁵ See Staff Report (pg. 4, Attachment G, *referencing* LDO2007-00214 (expiring 7/15/34), DOS2015-00078 (expiring 7/11/23), MOP2017-00007 (expiring 12/15/27), and MOP2018-00001 (expiring 3/14/28)). Approvals may be extended consistent with LDC requirements.

¹⁶ Condition 1 further limits approval to a lesser depth if required by the Florida Department of Environmental Protection.

¹⁷ Lee Plan Policy 10.2.3.

Existing uses carried forward for Phases 3A-B include the above in addition to Accessory uses to Excavation, Mining including:

- Administrative offices, including scale house and scales
- Vehicle repair and services limited solely to the maintenance and repair of vehicles and equipment for the mining operation
- Entrance gates and gate house
- Self-service fuel pumps (limited to two pumps for the on-site business to provide fuel for the mining operation's fleet of vehicles/trucks)
- Bins
- Crushers
- Mixers
- Parking lot, accessory
- Rock crushing
- Signs
- Storage, Open (limited to storage of excavated materials)
- Truck and tire wash
- Truck scales
- Vehicle service/fueling area and storage of equipment related to mining operations

Access is limited to Alico Road. Before mining activity begins, Applicant will place approximately 73.1 acres under a conservation easement.¹⁸

The mine is actively operating pursuant to numerous state, local, and federal permits, including an FDEP Air Permit.¹⁹ Applicant provided a Hazardous Materials Emergency Plan to address hazardous materials.²⁰

Staff recommended approval of the request with conditions.

History

The property received general excavation approval via a Special Exception in 1986.²¹ This approval identified future mining areas without issuing an excavation permit for a specific mining plan. The Board included a condition of approval placing surrounding landowners on notice that future mining activities would occur on the site, subject to review procedures in effect at the time excavation permits are sought.²²

¹⁸ See Condition 10, Lee Plan Policy 10.2.5.

¹⁹ See Staff Report (pg. 12).

²⁰ See Staff Report (pg. 12, Attachment N); See also Lee Plan Goal 69, Objective 69.3

²¹ ZAB-86-62.

²² See ZAB-86-62, Condition (k), stating "This approval shall be an indication to future land owners surrounding the subject property that future mining activities may be located in these areas."

In 1993, the county authorized mining on a portion of the property through Special Exception and a General Excavation Permit.²³ Additional approvals followed to permit mining on Phases 3A-C. Staff summarized the site's mining history in the staff report.²⁴

Phase 3D lands were historically farmed from 1970 until 2006, when the mine received limited development order approval.²⁵ These lands are primarily comprised of wetlands, flatwoods, and unimproved pasture.

Proposed Mine Excavation Planned Development Zoning

Applicant seeks to rezone the property using the Mine Excavation Planned Development district.²⁶

Following approval of a General Mining Permit, a mine operator must secure two additional development permits before commencing mine activity.²⁷ The Department of Community Development (DCD) processes these two permits administratively.

The first of the two development permits is a Mine Development Order (MDO).²⁸ The MDO authorizes site work including land clearing, road construction, and buffer installation. The second development permit is the Mine Operations Permit (MOP), which authorizes excavation of material from the site for commercial purposes.²⁹

Mining operations are also subject to review by state and federal agencies including the South Florida Water Management District, Florida Department of Environmental Protection, Florida Fish and Wildlife Commission, US Army Corps of Engineers, and Florida Department of Transportation.³⁰

The request is unique in that Applicant has vested zoning and development approvals that pre-date certain LDC mining regulations.³¹ The property is subject

²³ Case 93-01-28-EXC-02, see Staff Report (Attachment F).

²⁴ Staff's Ex. 2; Staff Report (pg. 4-5, Attachment G).

²⁵ Roberts Testimony (Transcript pg. 99); LDO2007-00214.

²⁶ LDC §12-108(d).

²⁷ LDC §12-106.

²⁸ LDC §12-105, §12-108 through §12-110. The MDO addresses on- and off-site improvements necessary to carry out the mine operation.

²⁹ The MOP follows the MDO. DCD issues a MOP to authorize the mine operator to commence excavation of natural resource material and haul extracted material from the site in accordance with applicable regulations. The MOP also authorizes active operation of accessory uses and activities. LDC §34-2. MOPs are valid for ten years and renewable in compliance with LDC §12-115, §12-121(g).

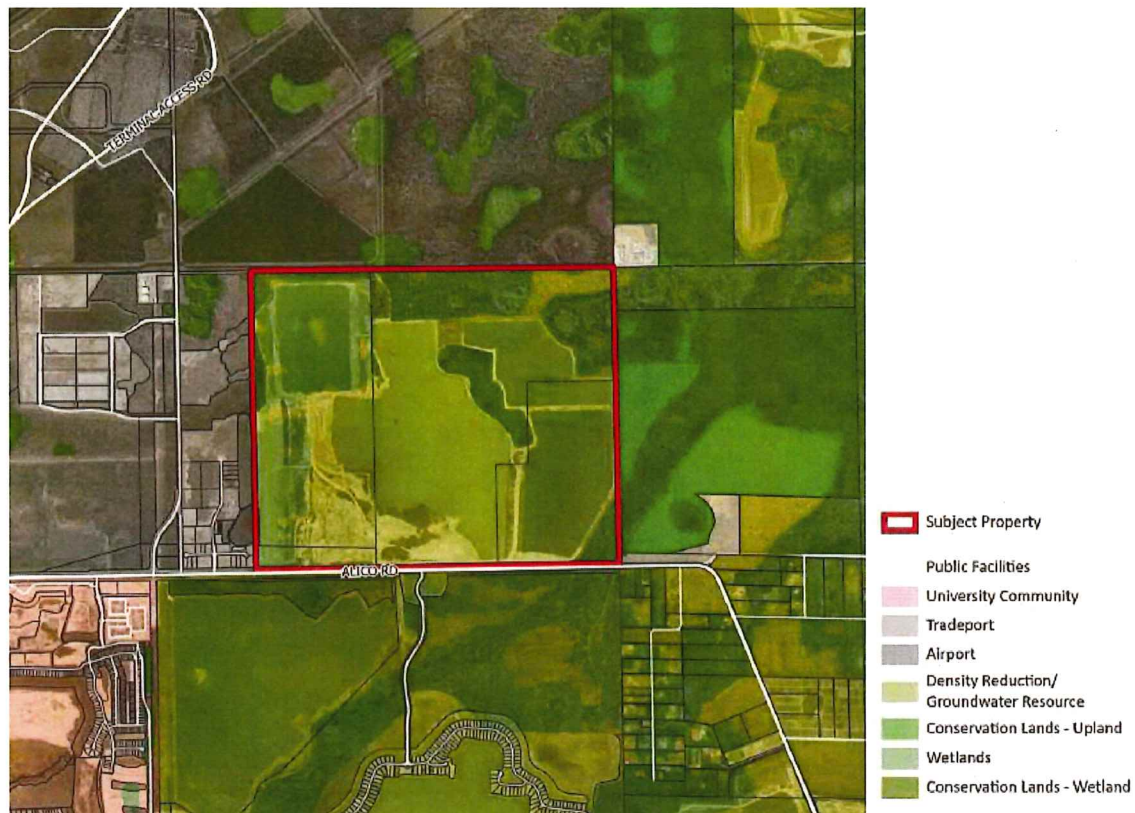
³⁰ LDC §12-114.

³¹ LDC Chapter 12 was created via Ordinance 08-21 in 2008.

to several active development orders authorizing mine activity.³² This application seeks to: (1) acknowledge vested approvals; (2) unify bifurcated zoning districts into a single MEPD; and (3) extend new mining activity into Phase 3D.

Character of Area

Surrounding properties lie within a variety of land use classifications including DR/GR, Public Facilities, University Community, Airport, Tradeport, and Wetlands. The site is classified within the DR/GR and Wetlands categories. Uses permitted in the DR/GR include agriculture, natural resource extraction and related facilities, conservation uses, public and private recreation facilities, and residential.³³ Wetlands are very low density residential and recreational uses that do not adversely affect wetland ecological function.³⁴



³² Applicant indicates existing development orders issued for Phases 3A-B that will need to be modified to accommodate the proposed expansion. See Staff Report (Attachment G, *referencing* LDO2007-00214, LDP96-05-098.08L, LDO2007-00214, DOS2015-00078, and DOS2004-00334).

³³ See Lee Plan Policy 1.4.5.

³⁴ Lee Plan Policy 1.5.1.

A detailed summary of surrounding land uses follows below.

North: The entire northern boundary abuts Southwest International Airport lands.³⁵ The northeast corner touches the Lee County Utilities Green Meadows Water Treatment Plant.

South: The southern property boundary abuts Alico Road. Lands across Alico Road are zoned AG-2 and Mixed Use Planned Development (MPD). Lee County owns the AG-2 property, largely occupied by a stormwater management lake.³⁶ The WildBlue MPD is developing with residential uses. The nearest home is located 0.66 miles south of Phase 3B.³⁷ The proposed expansion into Phase 3D is over one mile away from the closest residence.³⁸

East: Vacant lands zoned AG-2 owned by Lee County and Florida Rock.

West: The Florida Gulf Coast University Innovation Hub zoned MPD is partially developed with commercial and industrial uses.

Mining Operation³⁹

The Mine Site Plan reflects a series of active mining areas identified as Phases 3A-C and proposed excavation in portions of Phase 3D.⁴⁰ Preserved wetlands/indigenous preserves occupy the site's northern boundary/northeastern corner. The southeastern corner is labelled as "Non-Phase Undeveloped Lands" and is not approved for mining.⁴¹ Internal roadways run along mining cells to transport excavated material to the processing plant near the site's entrance along Alico Road.

The graphic below depicts the site plan. Portions in pink show the location of the scale house to weigh loaded trucks leaving the site, wash station to remove dust before exiting, a maintenance facility for maintenance/repair of equipment, and administrative offices. The request proposes no changes to existing site operations.⁴²

³⁵ These lands are zoned Air Operations Planned Development (AOPD).

³⁶ See Staff Report (pg. 2).

³⁷ *Id.*

³⁸ *Id.*

³⁹ Summary of testimony provided by James Morris, Regional Environmental Manager, Alico Quarry Permitting Manager for more than 10 years. Applicant's Ex. 2 Morris Resume; Applicant's Ex. 1 (slide 6-10).

⁴⁰ See Staff Report (Attachment E: Alico Quarry Phase 3D Extension MEPD plan set).

⁴¹ See *Id.* at Sheet 6: Master Drainage Plan. The same area is labelled as "Wetland Preserve" on Sheet 9.

⁴² See *Id.* at Sheet HM16.



Lee Plan

Planned developments must be consistent with the Lee Plan.⁴³ A zoning approval is consistent with the Lee Plan if the proposed uses further the goals, objectives, and policies of the Lee Plan.⁴⁴

The Lee Plan encourages industrial development opportunities in suitable locations.⁴⁵ The Plan also directs protection of areas with commercially valuable natural resources while minimizing adverse effects of extraction through efficient use of land.⁴⁶

Mines are the primary providers of building materials such as ready mix concrete, road base, asphalt, and concrete blocks. These materials are necessary to support regional construction projects. Rebuilding efforts following Hurricane Ian have imposed greater demand for these resources.⁴⁷

⁴³ LDC §34-378(a), §34-411(a), §34-491, §34-901(2).

⁴⁴ Lee Plan Chapter XIII.a.

⁴⁵ Lee Plan Goal 7.

⁴⁶ Lee Plan Goal 10.

⁴⁷ Post-Hurricane Ian, the demand for construction aggregate material has increased. Morris Testimony.

The DR/GR area was established to protect surface and groundwater.⁴⁸ The Plan requires land uses in the DR/GR to be compatible with maintaining surface and ground water at historic levels.⁴⁹ Permitted uses within designated Wetlands cannot adversely affect ecological function.⁵⁰

The request meets Lee Plan's directives as follows:

- Soil borings conducted since the 1970s have identified the site as a valuable source of high-quality limerock.⁵¹
- Extending excavation into Phase 3D within the property maximizes the opportunity to meet regional resource demands while mitigating the need to open new lands to mining activity.
- Mining depth is conditioned to prevent breach of the confining layer.⁵²
- The mine is currently selling overburden material and will continue this practice for Phase 3D material.⁵³
- Mine site plans designate indigenous preserve areas proposed for wildlife habitat and connect to abutting natural systems minimizing adverse effects to wildlife.⁵⁴
- Preservation areas will be placed under conservation easement.⁵⁵
- The mine's adopted surface/groundwater monitoring program will be expanded to include Phase 3D excavation.⁵⁶
- Applicant held a public informational meeting.⁵⁷
- The request provides a finite resource needed to meet regional growth demands.⁵⁸
- The mine provides jobs through the resource extraction as well as the construction projects that utilize the extracted material.⁵⁹

Natural Resources

Surface and subsurface waters flow from the northeast to the southwest across the site.⁶⁰ Two watersheds bisect the property – the Estero River watershed to the east and the Six Mile Cypress watershed to the west.⁶¹

⁴⁸ Lee Plan Policy 1.4.5; See Goal 63.

⁴⁹ *Id.*

⁵⁰ Lee Plan Policy 1.5.1.

⁵¹ Lee Plan Goal 10; Transcript at 102.

⁵² Lee Plan Policy 10.1.1.

⁵³ Lee Plan Policy 10.1.2.

⁵⁴ Lee Plan Policy 10.1.5.

⁵⁵ Lee Plan Policy 10.2.5.

⁵⁶ Lee Plan Policies 10.2.1, 10.2.2.

⁵⁷ Lee Plan Policies 10.2.9, 17.3.4. The meeting was held on September 8, 2022.

⁵⁸ Morris Testimony (Transcript pg. 13).

⁵⁹ Lee Plan Goal 158.

⁶⁰ Lee Plan Goals 60, 61, Objective 61.2, Policies 33.1.3, 60.1.1, 60.1.3, 124.1.1; LDC §34-145(d)(4)a; Stephens Testimony (Transcript pg. 62, 191).

⁶¹ Brylanski Testimony (Transcript pg. 44); Applicant's Ex. 1. The ridge of the watersheds runs generally in the middle of the site.

Surface Water⁶²

The property has been in mining use for decades with elevated berms and haul roads to provide water storage during rainfall events.⁶³ This design retains runoff and ensures that no water leaves the site.⁶⁴ The request to excavate Phase 3D poses no impact to the flow-way.⁶⁵

The Florida Department of Environmental Protection (FDEP) issued an Environmental Resource Permit (ERP) for active phases of the mine site plan.⁶⁶ Applicant amended the ERP to include Phase 3D excavation lands.⁶⁷ The ERP conditions stormwater containment, water quality monitoring, site reclamation, wetland creation, and other impacts to surface waters.⁶⁸

A water management system contains runoff from the mine operation.⁶⁹ Berms and water management features ensure project stormwater remains on the property. The design of the mine's surface water management system avoids negative impacts to water resources.⁷⁰ Natural Resources Staff concluded extending mining area into Phase 3D will not significantly impact seasonal high-water table elevations or adjacent wetland/wellfield protection areas/water levels.⁷¹

Ground Water⁷²

The Lee Plan contains numerous protective measures aimed at the county's surface and ground waters, particularly as it relates to the DR/GR.⁷³ Maintaining

⁶² Applicant's surface water expert was Rick Brylanski, PE, Hole Montes, Inc. Applicant's Ex. 6.

⁶³ Brylanski and Roberts Testimony (Transcript pg. 43, 103-04).

⁶⁴ The cells are designed to retain all stormwater, offering total water quality and quantity protection. *Id.*

⁶⁵ Brylanski Testimony (Transcript pg. 51). Mr. Brylanski elaborated that the request preserves the wetland in the site's northeast corner that connects to off-site wetlands and testified that there is no impact to the hydrological function of that wetland.

⁶⁶ Applicant's Ex. 3. ERPs are required to prevent flooding, protect water quality from stormwater pollution, and protect wetlands and other surface waters. The ERP permitting process entails detailed review by engineers, geologists, and environmental professionals. Issuance of permit is an indication that the project will be consistent with the Florida Coastal Zone Management Program and the Clean Water Act.

⁶⁷ Applicant's Ex. 3; Morris Testimony (Transcript pg. 27); Permit/Auth No. MMR_166176-064, issued 10/17/2022.

⁶⁸ Applicant's Ex. 3; Lee Plan Objective 10.2, Policy 10.2.6

⁶⁹ The design of the water management system accommodates zero discharge from the site during active mining, including storm events. Brylanski Testimony (Transcript pg. 43); See Lee Plan Policy 125.1.3

⁷⁰ Applicant's Ex. 3; Brylanski Testimony (Transcript pg. 45). A Pollution Prevention Plan protects water quality in the wetlands and mining pit. The operation must also meet FDEP's Industrial Wastewater permit criteria, the mining ERP, and monitoring/reporting obligations. Lee Plan Goal 60, Objective 10.2, Policies 10.2.6, 33.2.7, 60.1.1, 60.1.3.

⁷¹ Lee Plan Policy 1.4.5; Roberts Testimony (Transcript pg. 100-01).

⁷² Applicant's groundwater expert was Mark Stephens, P.G., P.E. He was qualified as an expert in the areas of hydrogeology, geology, and engineering. Applicant's Ex. 7.

⁷³ Lee Plan Goal 33, 60, 61, 63, 125, Policy 1.4.5.

surface/groundwater at historic levels is paramount.⁷⁴ Applicant demonstrated compliance with these directives through hydrologic monitoring since 2010, evidencing no adverse impacts caused by the mining operation.⁷⁵

The Lee County Green Meadows Water Treatment Plant adjoins the site at its northeastern corner. The northeast portion of the site also lies within the County's Wellfield Protection Zone 2, subjecting Applicant to extensive monitoring requirements.⁷⁶ There is a long history of mine operations proximate to potable supply wells with no adverse effects.⁷⁷

Applicant conducted simulations to project possible impacts of mining Phase 3D on the wellfield protection area.⁷⁸ Results from the simulations and historical monitoring data since 2010 showed no adverse impact on seasonal high-water table elevations, water levels of adjacent wetlands, or wellfield protection area water levels.⁷⁹ Staff's hydrogeologist reviewed this information and agreed there were no adverse impacts to the wellfield.⁸⁰

The mine's longstanding operation has provided extensive monitoring data for water quantity and quality. Monitor wells are peppered throughout the site, internally and along the perimeter.⁸¹ Deep and shallow wells capture comprehensive data on aquifer effects. Applicant's hydrogeologic report demonstrated mining within Phase 3D will rely on established wet season water table. Retaining stormwaters within the mining impoundment: (1) eliminates off-site runoff; (2) improves water quality and nutrient reduction; and (3) provides groundwater recharge.⁸²

Applicant is adding monitoring wells, staff gauges, and piezometers to evaluate impacts from the proposed expansion into Phase 3D.⁸³ The request proposes a 500-foot setback from the nearest water supply well. These protections, coupled

⁷⁴ Lee Plan Goal 33, Policy 1.4.5.

⁷⁵ Staff Report (Attachment L).

⁷⁶ Lee Plan Map 4-C, Lee Plan Objective 10.2, Policies 10.2.6, 125.1.2, 125.1.4, 126.1.6; LDC §12-117. Proposed Condition 6 addressed water quality monitoring and remained at issue between the parties prior to closing the hearing. The parties arrived at resolution as memorialized in Post-Hearing Written Submissions. The spirit of the condition addressed monitoring requirements, which Applicant provided in prior zoning/development actions. See Applicant's Ex. 11, Staff's Ex. 4.

⁷⁷ Applicant provided monitoring data since 2010 showing no adverse impact. Experts testified the site's monitoring history predates 2010 that but did not provide older data in the record. Transcript pg. 57, 61-63.

⁷⁸ Stephens Testimony (Transcript pg. 56).

⁷⁹ *Id.*

⁸⁰ See Staff Report; Roberts Testimony (pg. 104); Lee Plan Policy 63.1.2.

⁸¹ Applicant's Ex. 1 (slide 71).

⁸² Roberts Testimony (pg. 104); Lee Plan Goals 60, 61, 63.

⁸³ Stephens Testimony (Transcript pg. 58). New monitoring wells will be placed at the site's northeast and southwest corners to aid in aquifer evaluation to ensure Phase 3D excavations do not negatively impact water levels.

with existing conditions under Applicant's permits, ensure the requested extension into Phase 3D does not degrade water quality or quantity.⁸⁴

Environmental⁸⁵

The LDC requires mines to meet open space requirements through buffers, indigenous areas, setbacks, and wildlife habitat.⁸⁶ Applicant provided a detailed table summarizing open space/indigenous preservation for the MEPD by phase.⁸⁷ The request seeks a deviation to provide less than the code requirement for the overall MEPD. However, the table reflects that Phase 3D retains 61.4% general open space and 49.4% indigenous open space.⁸⁸ The deviation is only necessary to acknowledge prior approvals for existing phases.⁸⁹

Expert testimony recounted the site does not offer good habitat for wildlife due to historical farming operations.⁹⁰ Extensive invasive exotics cover nearly 80 percent of the property.⁹¹

The Lee Plan requires wetland system impacts to be avoided or minimized.⁹² Wetlands delineation is regulated by the state. Impacts to wetlands can be mitigated through on-site preservation or off-site mitigation. Off-site mitigation serves regional preservation goals.⁹³

Hydrogeologic simulations indicate a slight drop in seasonal high ground water levels during Phase 3D mining.⁹⁴ In response, Applicant proposes a spreader swale system and monitoring program to maintain hydration of the wetland. Staff concluded these measures will mitigate the predicted drawdown.⁹⁵ Post-mining models show water table elevations will remain within the range of historical levels.⁹⁶

⁸⁴ Lee Plan Policy 125.1.2.

⁸⁵ Applicant's environmental expert Cathy Litscher of Southeast Environmental Solutions, Inc. testified (Transcript pg. 29-42); Applicant's Ex. 5: Litscher Resume.

⁸⁶ LDC §12-133(l).

⁸⁷ See Condition 9.

⁸⁸ Deviation 10D seeks to provide 16.6% indigenous open space rather than 25% required by LDC §12-113(m).

⁸⁹ See Staff Report (pg. 13, Attachment K). Staff detailed the prior phases off-site mitigation commitments authorized in prior approvals.

⁹⁰ Testimony of Cathy Litscher (Transcript pg. 31-34); Applicant's Ex. 1 (slide 47-58).

⁹¹ *Id.* at 32-34.

⁹² Lee Plan Goal 124.

⁹³ Roberts Testimony (Transcript pg. 101).

⁹⁴ See Staff Report (pg. 12, Attachment L, Hydrogeologic Report Attachment 1).

⁹⁵ See Staff Report (pg. 12, Attachment L). Staff explained a spreader swale system is akin to a recharge trench, commonly used to reduce impacts to adjacent areas. Roberts Testimony (Transcript pg. 106).

⁹⁶ See Staff Report (pg. 12, Attachment L).

The Mine Site Plan reflects 73.1 acres of indigenous/preserve areas along the site's northern boundary and portions of the western/eastern boundaries.⁹⁷ Impacts have been narrowed to areas of limited natural function. The request concentrates mining activity within previously impacted areas adjacent to existing mine operations.

Wetlands and indigenous preserve areas will be preserved under a long-term management plan.⁹⁸ The flow-way will also be preserved. Areas proposed for conservation will be cleared of exotic vegetation and replanted with native species to restore and create more inviting wildlife habitats.⁹⁹ Conservation areas will protect wetlands connecting off-site conservation lands on the east side of the property.¹⁰⁰

Proposed restoration activities for Phase 3D include:

- Restoring/protecting over 17 acres of upland habitats and over 31 acres of wetland habitats;
- providing habitat diversity by restoring exotic and monoculture areas;
- improving habitat, food sources, and shelter for wildlife;
- creating diverse vegetative communities for lands adjacent to the Turkey Creek Strand; and
- expanding connections between conservation lands in Phase 3C and 3D to the Turkey Creek Strand.¹⁰¹

Several listed species were observed on site.¹⁰² Additional site inspections will be required prior to clearing or development activity. Portions of the site are within the primary Panther Focus Area. Applicant is addressing panther related issues with U.S. Fish and Wildlife Service.¹⁰³ Conditions of approval require panther habitat mitigation credits prior to county issuance of development permits.¹⁰⁴

⁹⁷ Master Mining Site Plan Sheet No. 5.

⁹⁸ See Staff Report (Attachment K, labelled as Attachment C Alico Quarry 3D Extension Indigenous Preserve Restoration Plan, dated May 18, 2020).

⁹⁹ Testimony of Cathy Litscher (Transcript pg. 35-37); Applicant's Ex. 1 (slide 47-58); Lee Plan Policies 60.1.2, 123.2.9.

¹⁰⁰ Lee Plan Goals 60, 123, Objectives 1.5, 123.3 and Policies 10.1.3, 10.1.5, 33.2.4, 123.1.1, 123.1.5, 123.2.8. See Staff Report (pg. 6); Roberts Testimony (Transcript pg. 100).

¹⁰¹ *Id.* at 39-40.

¹⁰² Ms. Litscher recounted observing Florida sandhill crane, little blue heron, wood stork, black bear scat, American alligator nest, and re-shouldered hawk nest. Transcript pg. 39. Ms. Litscher further testified conditions are not optimal for gopher tortoise occupation given inhospitable site conditions such as a shallow water table. Transcript pg. 37, 40.

¹⁰³ Litscher Testimony (Transcript pg. 40-41). Applicant must address panther habitat compensation and panther protection through federal agency permitting.

¹⁰⁴ Applicants can obtain mitigation bank credits in lieu of providing onsite habitat. The parties testified off-site mitigation is appropriate in this case given the low quality habitat available on the site. Applicant's environmental expert testified the site's extensive exotic vegetative cover limits the prey base for panthers on the site. Off-site mitigation credits are secured from the Panther Island Mitigation Bank, located in Lee County. Litscher Testimony (Transcript pg. 207-08).

Concerned residents identified the site's southeastern corner as part of a panther corridor.¹⁰⁵ The requested Phase 3D excavation does not impact the site's southeastern corner, yet the site plans contain an ambiguous label for those lands. A condition of approval is appropriate to clarify mining/development is not permitted within that area and cannot occur without further approvals.

Reclamation

Post Mining Reclamation plans include restoring lake banks through grading and planting littoral shelves.¹⁰⁶ Special care will be given to post-mine areas proximate to the Southwest International Airport to prevent/abate wildlife attractants.¹⁰⁷ Interior haul road embankments will be removed and planted to create a forested conifer/hardwood environment.¹⁰⁸ These actions will allow for the free flow of surface water, restoring historical flow patterns and improving hydration of wetland areas. Post-mine conditions model simulations demonstrate mine lake impact on the water table is within historical range of water levels.¹⁰⁹

Transportation/Traffic¹¹⁰

Mine trip generation rates are directly proportional to demand for material removed from the site.¹¹¹ Applicant sought a waiver from providing a traffic impact statement (TIS), asserting the request does not produce additional trips.

Applicant's transportation expert testified the request opens new areas to mining, but there will be no increase in processing plant capacity.¹¹² Applicant asserts the plant's capacity controls the quantity of material transported from the site.

Staff approved the TIS waiver in agreement that the request does not result in additional/new traffic impacts beyond what current approvals contemplate.¹¹³ Applicant will still be required to provide a TIS at the time of MDO review.¹¹⁴

The request retains a single access to Alico Road. Applicant installed turn lanes on Alico Road pursuant to prior zoning approvals.¹¹⁵ Scheduled improvements to

¹⁰⁵ The site's southeastern 18.5± acres

¹⁰⁶ Brylanski Testimony (Transcript pg. 51). This process is for areas designated in orange on Applicant's Ex. 1 (slide 61).

¹⁰⁷ See *Id.* at pg. 51-52; Staff Report (Attachment H). These areas are designated in blue on Applicant's Ex. 1 (slide 61).

¹⁰⁸ *Id.* at 52; Lee Plan Objective 60.4., Policies 60.4.1, 60.4.2, 60.4.3, 61.3.6.

¹⁰⁹ See Staff Report (Attachment L); Roberts Testimony (Transcript pg. 106).

¹¹⁰ Applicant's transportation expert was Ted Treesh, President of TR Transportation Consultants, Inc. Treesh testimony (Transcript pg. 67-70); Applicant Ex. 1 (slides 76-85); Applicant's Ex. 8.

¹¹¹ The demand for material is dependent upon development. Treesh testimony (Transcript pg. 68). The volume of trucks will fluctuate with demand.

¹¹² Treesh Testimony (Transcript pg. 68).

¹¹³ See Staff Report (Attachment J).

¹¹⁴ Roberts Testimony (Transcript pg. 220); LDC §12-116; Lee Plan Objective 39.1 and Policy 39.1.1.

¹¹⁵ Treesh testimony (Transcript pg. 68-69, 218-219).

Alico Road include widening and enhancing turn lanes into/out of the mine.¹¹⁶ These improvements will facilitate truck turning movements along this corridor and improve safety for the traveling public.

Conditions of approval require Applicant to fund a right-turn lane on Alico Road similar to the lengthy left-turn lane serving the site.¹¹⁷ The parties agreed Applicant will fund but the county will construct the improvements to ensure compliance with Alico Road design improvements.¹¹⁸

Blasting¹¹⁹

There has been blasting activity onsite for over 40 years.¹²⁰ Mines utilize blasting because the rock's depth/hardness requires explosives to fragment the rock. A dragline removes fragmented material from the ground.¹²¹

The State Fire Marshal has exclusive authority to regulate explosives for construction materials mining.¹²² The State therefore governs all aspects of blasting, including times/dates of blasts.¹²³ Blasts can generally occur from 8AM to 5PM, with additional times available with the consent of the State Fire Marshal.¹²⁴

Various state and federal agencies must issue permits before blasting can occur in a mining operation.¹²⁵ Mine operators must obtain permits from the State Fire

¹¹⁶ *Id.* Mr. Treesh testified the most recent information from Lee County DOT anticipates Alico Road widening improvements commencing within the next 3-4 years. See also Roberts Testimony (Transcript pg. 112).

¹¹⁷ See Condition 16.

¹¹⁸ Applicant objects to the futility of installing the turn lane now, only to have it removed when the County improves Alico Road. Transcript pg. 217-218.

¹¹⁹ Applicant blasting expert was Jeffery Straw, VP and General Manager of GeoSonics. Mr. Straw is a vibration acoustic consultant, independent seismologist with a background in the area of vibration measurement, analysis, blast measurement, the use of commercial explosives and effects on structures. Applicant's Ex. 9: Straw Resume; Applicant's Ex. 1 (slides 86-104).

¹²⁰ See Applicant's Ex. 1 (slide 87).

¹²¹ A dragline does not have the mechanical force to dig through rock. The dragline simply uses the weight of the bucket, chains and cables to pull fragmented rock across the bottom of the excavation and up to the surface. Straw Testimony (Transcript pg. 72-73).

¹²² See F.S. §552.25, §552.30.; F.A.C. Chapter 69A-2 Straw Testimony (Transcript pg. 71-93). The State preempts the County from regulating blasting. The State has sole and exclusive authority to regulate construction materials mining activity. This includes drilling, loading of explosives, and hours of operation.

¹²³ F.S. §552.3(1).

¹²⁴ F.A.C 69A-2.024(6). The Florida Administrative Code prohibits blasting on Saturday, Sunday, and official holidays recognized by Florida Statute 110.117. Blasting may occur between 8 AM to 5 PM *unless the mine operator obtains consent for additional hours from the State Fire Marshall.* The State Fire Marshall may authorize blasting beyond those hours if in the interest of public safety. Accordingly, blasting could potentially occur prior to 8 AM and past 5 PM during periods of high demand, with the State Fire Marshal's consent.

¹²⁵ Independent seismologists monitor the intensity of each blast and adjust to minimize offsite impacts. The mine operator performs pre and post blast surveys of structures on property surrounding the mine to determine the likelihood of damage from blasting activities. Straw Testimony (Transcript pg. 73-76).

Marshal, Florida Department of Environmental Protection, US Army Corp of Engineers, the Bureau of Alcohol, Tobacco, Firearms and Explosives, and Florida Department of Transportation.¹²⁶

State regulators review the mining operation's explosives and practices to ensure compliance with adopted guidelines before issuing a blasting permit. The State requires seismographs measuring ground vibration at the closest offsite structure. Consulting firms operate the seismographs. These firms are independent from the mine operator as an added measure of oversight. The mine operator moves monitoring instruments as mining progresses throughout the site to follow/measure the blasts.¹²⁷

Phase 3D blasting will be more than a mile from the nearest residence. Residents questioned whether directional blasting away from WildBlue could be accommodated. The blasting expert indicated that site blasts were not and would not be directed toward WildBlue.¹²⁸

Experts estimated the mine would blast approximately once or twice a month based on the operation's historical data.¹²⁹ However, blasting frequency may fluctuate depending on demand.¹³⁰ The duration of each blast is approximately three seconds.¹³¹

State standards do not prohibit offsite impacts; only that vibration levels do not exceed certain levels at the property line. Adopted standards protect against structural damage.¹³² Historical monitoring data derived from the county's adjacent water treatment plant shows minimal off-site vibration, registering at levels half of what the State permits.¹³³ Expert witnesses anticipate minimally perceptible vibration levels to humans one mile from the blast site.¹³⁴

¹²⁶ *Id.*; See also Applicant's Ex. 1 (slide 89).

¹²⁷ *Id.* (pg. 74-75, 80-81, 88).

¹²⁸ Straw Testimony (Transcript pg. 202). Mr. Straw further opined that he did not anticipate residents to feel discernible impacts from site blasts. *Id.* He did indicate that directional blasting away from the Green Meadows Water Treatment Plant and adjacent FCGU buildings are accommodated to minimize impacts.

¹²⁹ Straw Testimony (Transcript pg. 77-78, citing review of mine operations for the past five years).

¹³⁰ *Id.*

¹³¹ *Id.* (pg. 77, 81). Mr. Straw recounted the blast is over in less than half a second, but resulting vibration moves out over the course of approximately three seconds. At two blasts per month, Mr. Straw estimated about six seconds of perceptible ground vibration outside of the site over the period of a month.

¹³² State standards prohibit blasting levels that causes damage to wells and homes. The blasting plan, together with data collected from test blasts, allows the mine operator to limit adverse effects outside the blasting area. Studies indicate daily environmental stressors impact structures more than the proposed blasting. Mr. Straw referenced studies conducted by the United States Bureau of Mines and Northwestern University concluding temperature and wind produce greater stress on buildings than ground vibrations. *Id.* (pg. 82-83).

¹³³ Straw Testimony (Transcript pg. 84-85); Applicant's Ex. 1 (slide 91-95). Similar data is reflected for the adjacent FCGU buildings and Southwest International Airport. (Transcript pg. 87-89).

¹³⁴ Straw Testimony (pg. 92).

The State Fire Marshal performs a minimum of one annual inspection of the mine each year. There may be additional inspections in response to complaints.¹³⁵ Violations of state blasting standards may result in fines or temporary suspension of operations.

The projected blasts are not expected to disturb wildlife.¹³⁶

Dust

Applicant employs several measures to control dust including requiring trucks to pass through a wheel wash before exiting the mine. The wheel wash limits sediment transfer to the road network.¹³⁷

Public Services

The proposed MEPD has access to a host of urban services including paved roads, fire protection, emergency medical services, and law enforcement. The site accesses Alico Road, an arterial road.

San Carlos Park Fire Protection and Rescue District provides fire protection and emergency medical services.¹³⁸ The Lee County Sheriff's South District serves the project.

Potable water serves the site. Operations will continue to utilize onsite septic tank.¹³⁹

Public Participation

Several members of the public spoke at hearing.¹⁴⁰ The majority of participants reside in the WildBlue community south of Alico Road.

Most speakers were opposed to the request. Objections focused on impacts from truck traffic, dust, noise, blasting, vibrations, lighting, and environmental impacts. Most issues related to overall mining operations rather than the proposed expansion into Phase 3D.¹⁴¹

¹³⁵ Straw Testimony (Transcript pg. 90).

¹³⁶ *Id.* at 204. Mr. Straw testified to his personal involvement with blasting projects proximate to wildlife in the Everglades and other locations without incident.

¹³⁷ The mine has active federal air quality permits to ensure dust pollutants remain within permissible ranges. Roberts/Morris Testimony (Transcript pg. 215-216),

¹³⁸ See Staff Report (pg. 15). San Carlos Park Fire Protection and Rescue District Station 54 is 4± miles west of the site. The nearest Lee County Sheriff stations is 9.3± miles to the northwest.

¹³⁹ The DR/GR is a Non-Urban Area. Lee Plan Objective 1.4, Policy 1.4.5, Standards 4.1.1, 4.1.2.

¹⁴⁰ Public testimony (Transcript pg. 127-189).

¹⁴¹ Applicant has declared vested rights to existing mining approvals, precluding re-evaluation of many issues of concern. Because the processing plant's capacity is not increasing, current levels of dust, traffic, and blasting are not anticipated to increase.

The Hearing Examiner recommends revising the Mine Site Plan and adding a new condition to prohibit mining the southeastern 18.5± acres without further development approvals. The Mine Site Plan depicts the area as “Non-Phase Undeveloped Lands.” The public expressed concern with the ambiguous label because the land is part of a wildlife corridor in their opinion. Labelling the tract as “Land Not Permitted for Mining Without Further MEPD Approval” provides assurance to residents without imposing an undue burden on Applicant.¹⁴²

Deviations

“Deviations” are departures from the land development regulations.¹⁴³ The request retains 22 deviations approved in prior zoning actions.¹⁴⁴ Deviations pertain to access, buffers, lake bank slopes and plantings, open space, lighting, setbacks, and reclamation activities.¹⁴⁵

The Hearing Examiner's standard of review for deviations requires a finding that the deviation:

1. Enhances the achievement of the objectives of the planned development; and
2. Preserves and promotes the general intent of the LDC to protect the public health, safety and welfare.¹⁴⁶

Applying the LDC standards of review leads to the conclusion the requested deviations meet the criteria for approval.¹⁴⁷

Conditions

The County must administer the zoning process so proposed land uses minimize adverse impacts on adjacent property and protect County's water resources.¹⁴⁸

¹⁴² Applicant indicated on rebuttal that FCGU Foundation, Inc. owns the 18.5± acres, negating Applicant's ability to place the lands under conservation easement as the public requested. However, the legal description for the proposed MEPD includes these lands. See Staff Report (Attachment C). As part of the MEPD, it is appropriate to memorialize that the 18.5± acres cannot be mined without further MEPD approvals consistent with LDC chapter 12.

¹⁴³ LDC §34-2.

¹⁴⁴ The Staff Report reflects 22 deviations carried forward with 8 newly requested, but those numbers were adjusted over the course of hearing due to withdrawal and additions of deviations.

¹⁴⁵ Staff recommended approval of requested deviations, except for one relating to turn lane improvements. A condition was added to address turn lane improvements given the timing of programmed improvements to Alico Road. Condition 6. Applicant will fund but the county will construct necessary improvements rather than require Applicant to construct improvements now which would be removed during the county's slated Alico Road construction.

¹⁴⁶ LDC §34-377(a)(4); See also Lee Plan Policy 2.2.1.

¹⁴⁷ LDC §34-377(a)(4).

¹⁴⁸ Lee Plan Goal 10, Objective 10.1, Policies 5.1.5, 7.1.1, 7.1.2, 135.9.6 LDC §34-145(d)(4)a.2.(b), LDC §34-377(a)(3), §34-411, and §34-932(c).

Conditions must plausibly relate to anticipated impacts, and pertinent to mitigating impacts to public health, safety and welfare.¹⁴⁹ The Hearing Examiner recommends the MEPD be subject to several conditions designed to address impacts reasonably anticipated from the mine operation.¹⁵⁰

The Hearing Examiner has the authority to recommend conditions in the context of a proposed planned development.¹⁵¹ In furtherance of this authority, the Hearing Examiner recommends a condition clarifying that the southeasterly 18.5± acres are not intended for excavation activity.¹⁵² If the Board adopts the Hearing Examiner's recommendation, Applicant must revise the mine plan to re-label this area accordingly.

The Hearing Examiner recommends the following:

- Delete conditions restating LDC standards and criteria applicable pursuant to Condition 1.¹⁵³
- Accept Hearing Examiner revisions to the proposed wording of conditions and deviations.
- Accept Hearing Examiner's recommended condition relating to the southeasterly 18.5± acres.

Applicant must submit a revised Mine Site Plan to the Director of DCD reflecting the substance of the approved resolution prior to the Board's execution.¹⁵⁴

Conclusion

The Lee Plan and LDC require mine requests to balance the critical need for material resources with the potential effects of extraction on the human/natural environments and hydrology of the surrounding area. Applicant provided competent substantial evidence to support finding this balance has been met with proposed conditions of approval.¹⁵⁵

The Hearing Examiner recommends approval, finding the request consistent with the Lee Plan and meets LDC review criteria.

¹⁴⁹ LDC §34-932(b).

¹⁵⁰ LDC §34-83(a)(4)a.3, §34-377(a)(3); Lee Plan Goals 10, 33, 61, Objective 62.2, Policies 5.1.5, 60.1.1, 61.2.6.

¹⁵¹ LDC 34-145(d)(1)c. and (d)(6)a.

¹⁵² Lee Plan Policy 10.2.4.

¹⁵³ The Hearing Examiner's recommended conditions of approval deleted text/conditions restating LDC requirements.

¹⁵⁴ LDC §12-110(b)(1), §34-936(a)

¹⁵⁵ The record contains documentary evidence and testimony detailing proposed impacts of the requested extension and attendant mitigation of those impacts.

IV. Findings and Conclusions

Based on the testimony and evidence in the hearing record, the Hearing Examiner finds the proposed Mine Excavation Planned Development meets the following review criteria:

- A. The proposed MEPD zoning district, *as conditioned*:
 - 1. Complies with the Lee Plan; (Goals 4, 7, 10, 33, 60, 61, 63, 69, 123, 125, 158)
 - 2. Meets the LDC and other applicable County regulations or qualifies for deviations;
 - 3. Is compatible with existing and planned uses in the surrounding area;
 - 4. Will provide access sufficient to support the proposed development intensity; (Lee Plan Policy 7.1.3)
 - 5. The expected impacts on transportation facilities will be addressed by County regulations and conditions of approval; (Lee Plan Policies 7.1.1, 7.1.2, 7.1.3, 7.1.5, 39.1.1);
 - 6. Will not adversely affect environmentally critical or sensitive areas and natural resources; (Lee Plan Policy 125.1.3) and
 - 7. Will be served by urban serves including paved roads, fire, EMS and police. (Lee Plan Policies 7.1.3, 7.1.5)
- B. The proposed mix of uses is appropriate at the proposed location. (Lee Plan Goals 7, 10, 33, 158 Objective 10.1, Policies 1.4.5, 1.5.1, 7.1.3, 10.1.1, LDC 34-145(d)(4)a.2.a))
- C. The recommended conditions provide sufficient safeguards to the public interest and are reasonably related to the impacts on the public's interest expected from the proposed development. (Lee Plan Objective 69.3, Policies 5.1.5, 7.1.8, 10.2.4, LDC 34-145(d)(4)a.2.b), 34-932)
- D. The requested deviations enhance achievement of the objectives of the planned development and preserves/promotes the intent of the LDC to protect the public health, safety and welfare. (LDC 34-145(d)(4)a.2.c))
- E. The proposed mining activity will not create/cause adverse effects from dust, noise, lighting and odor on agricultural, residential, conservation activities, or other nearby land uses. (Lee Plan Policies 7.1.1, 7.1.2, 7.1.8, 10.2.4, LDC 34-145(d)(4)a.2.d.1))

- F. The Mine Site Plan and conditions of approval considers protection of surrounding private and publicly owned conservation and preservation lands. (Lee Plan Goal 33, Policies 10.1.5, 10.2.5, 33.1.7, 123.1.5, LDC 34-145(d)(4)a.2.d.2))
- G. The MEPD zoning district, as conditioned:
 - 1. Maintains wet and dry season water level elevations and hydro-periods necessary to restore/sustain water resources and adjacent wetland hydrology on and off-site during and upon completion of the mining operations; (Lee Plan Goals 60, 61, LDC 34-145(d)(4)a.2.d.3)i.)
 - 2. Preserves, restores and enhances natural flow ways deemed important for local and regional water resource management; (Lee Plan Goals 125, 126, LDC 34-145(d)(4)a.2.d.3)ii.)
 - 3. Preserves indigenous areas that are occupied wildlife habitat to the maximum extent possible; (Lee Plan Policies 10.2.5, 123.2.8, 123.3.1, 123.10. 3, LDC 34-145(d)(4)a.2.d.3)iii.) and
 - 4. Provides interconnection to off-site preserve areas and conservation lands via indigenous preservation areas, flow way preservation or restoration, and planted buffer areas. (Lee Plan Policies 10.1.5, 10.2.5, 123.1.5, LDC 34-145(d)(4)a.2.d.3)iv.)
- H. The MEPD Mine Site Plan is designed to:
 - 1. Avoid adverse effects to existing agricultural, residential or conservation activities in the surrounding areas; (Lee Plan Goal 10, Objective 69.3, Policies 5.1.5, 7.1.8, 10.2.4, LDC 34-145(d)(4)a.2.d.4)i.)
 - 2. Avoid adverse effects from dust noise, lighting, or odor on surrounding land uses and natural resources; (Lee Plan Policies 7.1.8, 10.1.4, 10.2.4, 125.1.3, LDC 34-145(d)(4)a.2.d.4)ii.) and
 - 3. Mimic or restore the natural system pre-disturbed water budget to the maximum extent practicable. (LDC 34-145(d)(4)a.2.d.4)iii.)
- I. The MEPD complies with traffic mitigation standards set forth in LDC 12-116.
- J. The MEPD complies with reclamation standards set forth in LDC 12-119. (Lee Plan Policy 10.2.5, LDC 34-145(d)(4)a.2.d))

Date of Recommendation: April 20, 2023.



Amanda L. Rivera
Deputy Hearing Examiner

Lee County Hearing Examiner
1500 Monroe Street, Suite 218
Post Office Box 398
Fort Myers, FL 33902-0398

Exhibits to Hearing Examiner's Recommendation

Exhibit A Legal Description and Vicinity Map
Exhibit B Recommended Conditions and Deviations
Exhibit C Exhibits Presented at Hearing
Exhibit D Hearing Participants
Exhibit E Information

Exhibit A

LEGAL DESCRIPTION AND VICINITY MAP

EXHIBIT A

Sketch & Description Cemex Alico Quarry Sections 5, 6, 7 & 8, Township 46 South, Range 26 East Lee County, Florida

Project No.: 20060122
Phase: 4-2
Drawing Name: 20060122_4S_2SK
Last Field Date: N/A
Field Book/Page: N/A

Drafted By: M. Rook
Date Drafted: 6/20/22
Revision Date: 6/30/22
Approved By: S. Brown
Date Approved: 06/22/22

SURVTECH SOLUTIONS, INC. SURVEYORS AND MAPPERS
10220 U.S. Highway 92 East, Tampa, FL 33610
phone: (813)-621-4929, fax: (813)-621-7194, Licensed Business #7340
email: sbrown@survtechsolutions.com <http://www.survtechsolutions.com>

As-Surveyed Legal Description: As Written by SurvTech Solutions

A parcel of land lying and being in Sections 5, 6, 7 & 8, Township 46 South, Range 26 East, Lee County, Florida, being more particularly described as follows:

COMMENCE at a point marking the Northeast corner of Section 8, Township 46 South, Range 26 East, Lee County, Florida; thence coincident with the East boundary of the Northeast 1/4 of said Section 8, S 01°02'58" E a distance of 213.72 feet to a point coincident with the North Right-of-way boundary of Alico Road as described in Official Records Book 399, page 334, of the Public Records of Lee County, Florida; thence departing said East boundary, coincident with said North Right-of-way boundary for the following three (3) courses: 1.) S 89°00'16" W a distance of 2651.91 feet to a point coincident with the West boundary of the Northeast 1/4 of said Section 8; 2.) thence S 89°00'16" W a distance of 2643.34 feet to a point coincident the West boundary of the Northwest 1/4 of said Section 8, also being the East boundary of Northeast 1/4 of Section 7, Township 46 South, Range 26 East, Lee County, Florida; 3.) thence S 88°59'51" W a distance of 2647.87 feet to a point coincident with the West boundary of the East 1/2 of said Section 7; thence departing said North Right-of-way boundary, coincident with said West boundary, N 01°06'39" W a distance of 525.65 feet a point coincident with the North boundary of said Section 7, said point also being the South boundary of Section 6, Township 46 South, Range 26 East, Lee County, Florida; thence coincident with the West boundary of the East 1/2 of said Section 6, N 01°02'54" W a distance of 6032.09 feet to a point marking the Northwest corner of the Northeast 1/4 of said Section 6; thence departing said West boundary, coincident with the North boundary of the Northeast 1/4 of said Section 6, N 89°17'20" E a distance of 2637.85 feet to a point marking the Northeast corner of said Section 6, also being the Northwest corner of Section 5, Township 46 South, Range 26 East, Lee County, Florida; thence coincident with the North boundary of the Northwest 1/4 of said Section 5, N 89°31'50" E a distance of 2649.60 feet to a point marking the Northwest corner of the Northeast 1/4 of said Section 5; thence coincident with the North boundary of the Northeast 1/4 of said Section 5, N 89°25'36" E a distance of 2645.58 feet to a point marking the Northeast corner of said Section 5; thence departing said North boundary, coincident with the East boundary of said Section 5, S 01°06'01" E a distance of 2499.62 feet; thence continue coincident with said East boundary, S 01°03'49" E a distance of 652.44 feet to a point marking the Northeast corner of the Southeast 1/4 of said Section 5; thence coincident with the East boundary of the Southeast 1/4 of said Section 5, S 01°12'13" E a distance of 3134.75 feet to the POINT OF BEGINNING.

Containing an area of 51,837,389.62 square feet, 1,190.023 acres, more or less

REVIEWED
DCI2021-00009
Hunter Searson, GIS
Planner
Lee County Government
11/28/2022



Digitally
signed by
Stacy L Brown
Date:
2022.06.30
08:46:18
-04'00'

Stacy L. Brown PSM No. 6516
SurvTech Solutions, Inc. LB No. 7340

- 1.) Paper copies of this survey are not valid without the original signature and raised seal of a Florida Licensed Surveyor and Mapper. Digital copies are not valid without the digital signature of a Florida Licensed Surveyor and Mapper.
- 2.) The bearing structure for this sketch is based on a Florida West State Plane grid bearing of N 89°12'06" E for the North Boundary of the NE 1/4 of Section 5-46S-26E.
- 3.) THIS IS NOT A BOUNDARY SURVEY.

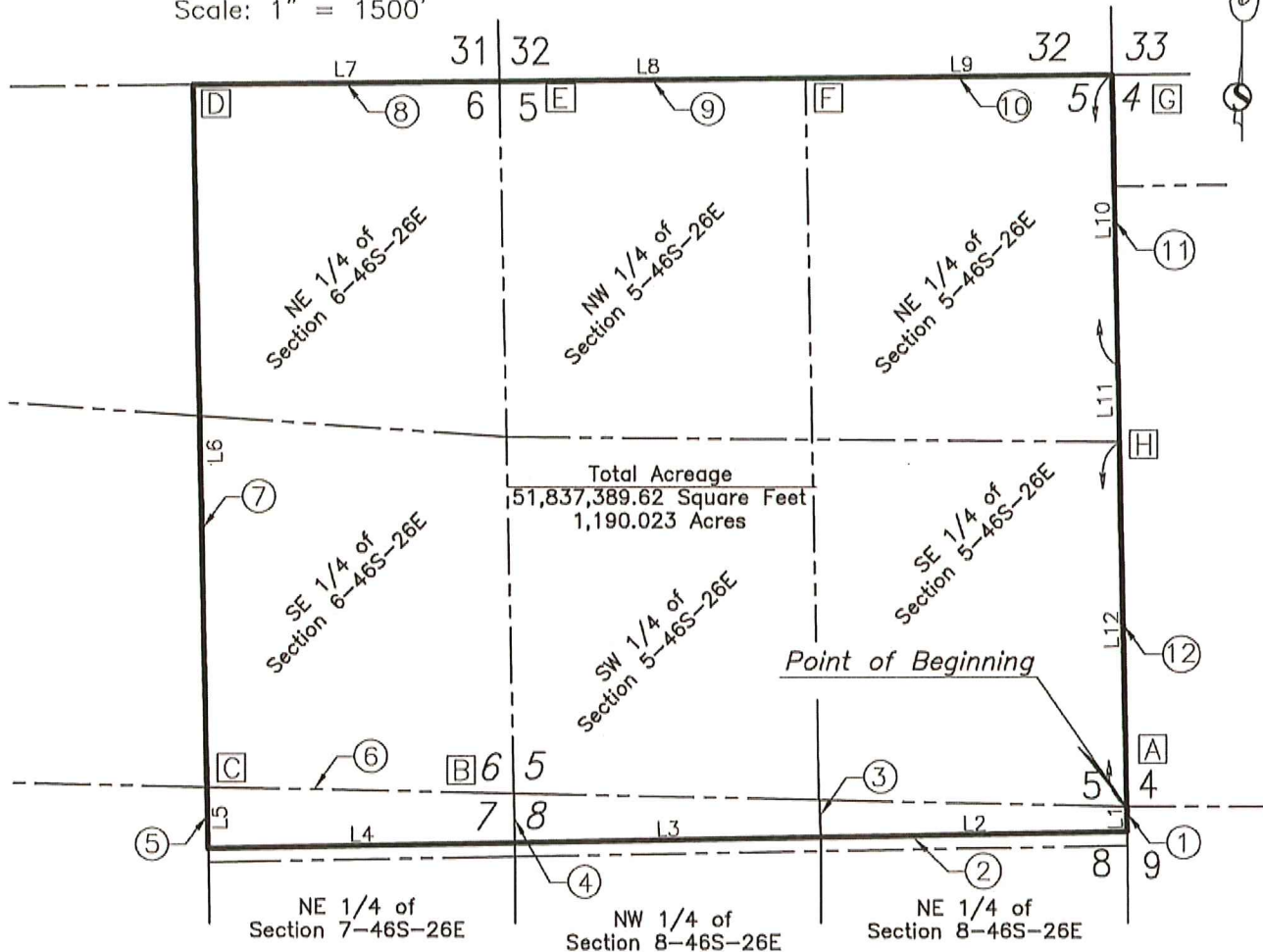
SURVEYING TODAY WITH
TOMORROW'S TECHNOLOGY



Sketch & Description
Cemex Alico Quarry
 Sections 5, 6, 7 & 8, Township 46 South, Range 26 East
 Lee County, Florida



Scale: 1" = 1500'



Line Information:

LINE	BEARING	DISTANCE
L1	S 01°02'58" E	213.72'
L2	S 89°00'16" W	2651.91'
L3	S 89°00'16" W	2643.34'
L4	S 88°59'51" W	2647.87'
L5	N 01°06'39" W	525.65'
L6	N 01°02'54" W	6032.09'

Line Information:

LINE	BEARING	DISTANCE
L7	N 89°17'20" E	2637.85'
L8	N 89°31'50" E	2649.60'
L9	N 89°25'36" E	2645.58'
L10	S 01°06'01" E	2499.62'
L11	S 01°03'49" E	652.44'
L12	S 01°12'13" E	3134.75'

PROJECT NO.: 20060122
 PHASE: 4
 LAST FIELD DATE: N/A



10220 U.S. Highway 92 East, Tampa, FL 33610
 phone: (813)-621-4929, fax: (813)-621-7194, Licensed Business #7340
 email: sbrown@survtechsolutions.com <http://www.survtechsolutions.com>

Sketch & Description
Cemex Alico Quarry
Sections 5, 6, 7 & 8, Township 46 South, Range 26 East
Lee County, Florida
Qualifying Calls

- ① East Boundary of the NE 1/4 of Section 8-46S-26E
- ② North Right-of-way Boundary of Alico Road
per Official Record Book 399, Page 334
- ③ West Boundary of the NE 1/4 of Section 8-46S-26E
- ④ West Boundary of the NW 1/4 of Section 8-46S-26E, also being
the East Boundary of the NE 1/4 of Section 7-46S-26E
- ⑤ West Boundary of the East 1/2 of Section 7-46S-26E
- ⑥ North Boundary of Section 7-46S-26E, also being the South
Boundary of Section 6-46S-26E
- ⑦ West Boundary of the East 1/2 of Section 6-46S-26E
- ⑧ North Boundary of the NE 1/4 of Section 6-46S-26E
- ⑨ North Boundary of the NW 1/4 of Section 5-46S-26E
- ⑩ North Boundary of the NE 1/4 of Section 5-46S-26E
- ⑪ East Boundary of Section 5-46S-26E
- ⑫ East Boundary of the SE 1/4 of Section 5-46S-26E

Property/Section Corner Designations

- [A] Southeast Corner of Section 5-46S-26E, also
being the Northeast Corner of Section 8-46S-26E
- [B] Southwest Corner of Section 5-46S-26E, also
being the Northwest Corner of Section 8-46S-26E
- [C] Southwest Corner of the Southeast 1/4 of Section 6-46S-26E, also
being Northwest Corner of the Northeast 1/4 of Section 7-46S-26E
- [D] Northwest Corner of the Northeast 1/4 of Section 6-46S-26E
- [E] Northeast Corner of Section 6-46S-26E, also being the Northwest
Corner of Section 5-46S-26E
- [F] Northwest Corner of the Northeast 1/4 Section 5-46S-26E
- [G] Northeast Corner of Section 5-46S-26E
- [H] Northeast Corner of the Southeast 1/4 of Section 5-46S-26E

PROJECT NO.: 20060122
PHASE: 4
LAST FIELD DATE: N/A



SURVTECH SOLUTIONS, INC. SURVEYORS AND MAPPERS

10220 U.S. Highway 92 East, Tampa, FL 33610

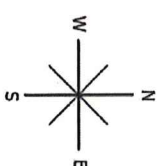
phone: (813)-621-4929, fax: (813)-621-7194, Licensed Business #7340

email: sbrown@survtechsolutions.com <http://www.survtechsolutions.com>

DCI2021-00009

Zoning

 Subject Property



0 2,000 4,000
Feet



Exhibit B

RECOMMENDED CONDITIONS AND DEVIATIONS

CONDITIONS

All references to uses are as defined or listed in the Lee County Land Development Code (LDC).

1. **Mine Excavation Planned Development (MEPD) Plan, Mine Development Order (MDO) Plan, and Development Parameters**

- a. MEPD and MDO Plans. Development must be substantially consistent with the eighteen-page MEPD Plan, prepared by Hole Montes & Associates stamped received September 15, 2022 and the MDO Plans prepared by Hole Montes & Associates stamped received August 16, 2022, except as modified by the conditions below (Exhibit B1 & B2).
- b. LDC and Lee Plan. Development must comply with the LDC and Lee Plan at time of development order approval, except where deviations are approved herein. Changes to the MEPD may require further development approvals.
- c. Development Parameters. Maximum permitted mining depth is 45 feet below current ground elevation or one foot above the confining layer, whichever occurs first, unless a lesser depth is required by the Florida Department of Environmental Protection.

2. **Schedule of Uses**

- a. All Phases:
 - Excavation, Mining
 - Excavation, Water Management
 - Storage, Open (limited storage of excavated materials)
 - Fences and Gates
 - Signs

- b. Phases 3A and 3B:

Accessory to the principal use of Excavation, Mining:

- Administrative offices, including scale house and scales
- Vehicle repair and services limited to the maintenance/repair of vehicles and equipment for the mining operation
- Entrance gate and gate house

- Self-service fuel pumps (limited to two pumps for the on-site business to provide fuel for the mining operation's own fleet of vehicles and trucks)
- Bins
- Crushers
- Mixers
- Parking lot, accessory
- Rock crushing
- Storage, Open (limited to storage of excavated materials)
- Truck and tire wash
- Truck scales
- Vehicle service/fueling area and storage of equipment related to mining operations

3. Hours of Operation

Office Operations -	24 hours per day, Monday thru Sunday
Excavation Operations -	Excavation operations on Sunday and Federal holidays are prohibited.
Blasting Operations -	Excavation operations on Sunday and Federal holidays are prohibited.
Trucking Operations -	Excavation operations on Sunday and Federal holidays are prohibited.

4. Airport Noise Zone

The developer, successor, or assign acknowledges the property's proximity to Southwest Florida International Airport and the potential for noises created by and incidental to the operation of the airport as outlined in Land Development Code Section 34-1104. The developer, successor or assign acknowledges that a disclosure statement is required on plats, and in association documents for condominium, property owner and homeowner associations as outlined in Land Development Code Section 34-1104(b).

5. Lee County Port Authority - Blasting

The Mining Development Order and Mining Operation Permit holder, or their designee, must provide a record of blasting operation data to the Lee County Port Authority upon their written request which must identify the individuals(s)/ department(s) at the Port Authority to receive such data.

6. Protected Species Survey

Developer must submit a protected species survey for Phase 3D that includes a gopher tortoise survey prior to development order approval.

7. Protected Species

Developer must submit a pre-construction cavity trees survey for red-cockaded woodpecker and Florida Bonneted Bat to Development Services prior to Vegetation Removal Permit approval for Phase 3D.

8. Florida Panther

Developer must submit a receipt of payment for Panther Habitat Units to Development Services prior to Vegetation Removal Permit approval for Phase 3D.

9. Open Space

Landscape plans must demonstrate compliance with the open space summary table below:

Phase	Total Acreage	Open Space (AC) (buffers/setbacks)	Indigenous Open Space (AC)	Total Open Space (AC)
3A	447.5	41.1	N/A	41.10
3B	245.1	13.5	N/A	13.50
3C	262.6	31.62	23.7	55.32
3D	204.9	12.0	49.4	61.40
Non-phase and undeveloped land	32.9	32.9	N/A	32.90
OVERALL MEPD	1193	120.42	73.10	193.52
Offsite Indigenous			124.75	
Total Open Space				318.27

The 73.10 acres of indigenous preservation must be placed into a conservation easement as part of development order approval.

10. Reclamation

Development order plans must demonstrate buffers in substantial compliance with the Mining Landscape Plans prior to development order approval.

11. Indigenous Preserves Monitoring Reports

Developer must submit monitoring reports to Lee County Development Services that include one baseline monitoring report submitted prior to MDO approval; one “time zero” report must be submitted prior to MOP approval for Phase 3D; quarterly monitoring reports for the first year; and annual monitoring reports for the next four (4) years or until release of semi-annual monitoring reports. These reports must include the following:

- a. Vegetative monitoring data will be collected quantitatively by 10 meter square quadrat sampling and canopy measurements; and qualitatively by photographs and observations. Quantitative sampling will use quadrats established in all elevations in the site. See Figure 15 of the Restoration Plan maps for estimated dispersal of quadrats depending on site conditions at the time of installation.
- b. PVC poles will also be placed to mark the corners of the 10 meter square quadrat as permanent markers for herbaceous/groundcover data collection and canopy cover if present. Percent cover will be recorded throughout the quadrat. Soil moisture or water level data will be taken at a designated and marked corner pole at each quadrat.
- c. Two permanent panoramic photo-stations will be marked at opposite corner poles of the quadrant to provide views of the area from both sides of the site. Each monitoring report must include color, fixed-point photographs.
- d. Groundwater hydrologic monitoring data will be collected with the installation of four piezometers. The piezometer wells will be located along the upland edge of Wetland 200, 300, and between Wetlands 500-600. See Figure 15 of the Restoration Plan maps for estimated location depending on site conditions.
- e. Surface water monitoring data will be collected with the installation of nine staff gauges within the Preserve area. One monitoring staff gauge will be installed in each of the deep-water areas near the culverts of Wetland 300, 500 and 600. Four monitoring staff gauges will be installed in Wetland 200, with two in each zone. Wetland 200 is a large shallow marsh that fluctuates significantly. Staff gauges in both the shallow zones and deep zones will allow surface water readings when water levels are high in the summer or low in the winter. Two monitoring staff gauges will be installed in the Wetland Hydrologic Swale to monitor operational water levels. See Figure 15 of the Restoration Plan maps for estimated location depending on site conditions.

- f. The existing rain gauge on the mine site will continue to be monitored daily. An additional rain gauge will be added adjacent to Wetland 200 for rain data within this area. The Preserve piezometers and staff gauges will be monitored daily by transducers.
- g. The Annual Mitigation Wetland Monitoring Report filed with the Department must include the "Mitigation Wetland Hydrologic Report." This section will provide a tabular and graphical comparison of wetland water levels and onsite rainfall data. Indicators of wetland impacts, positive or negative will be addressed in the report.

12. Development Permits

County development permits do not create rights to obtain permits from state or federal agencies and do not create liability on the part of the County if applicant fails to obtain requisite approvals or fulfill obligations imposed by state/federal agencies or if applicant undertakes actions resulting in a violation of state or federal law. Developer must obtain applicable state/federal permits prior to commencing development.

13. Buffers

Development order plans must demonstrate buffers in substantial compliance with the Master Mining Plan.

14. Existing Processing Facility and Access

Construction material removed from Phase 3D may not exit the site directly onto Alico Road. Vehicles must enter/exit Alico Road using only the existing processing facility plant and the access point.

15. Preserves

Development order plans must include:

- a. 73.10 acres of indigenous preservation in substantial compliance with the Mining Plan. Restoration must be in substantial compliance with the Indigenous Preservation Restoration Plan received September 12, 2022 (Exhibit B3) and the Onsite Indigenous Management Plan approved by Z-13-026 (Exhibit B4).
- b. 124.75 acres of offsite preserve in substantial compliance and managed in accordance with the Offsite Indigenous Management Plan (Exhibit B5).

16. Alico Road Extension: Turn Lanes

Developer must enter into an agreement with the County addressing site-related turn lane improvements on Alico Road in accordance with Lee County Administrative Code AC-11-4 before MDO approval. The agreement will establish:

1. The county will provide direction to the county's design consultant to include replacement of the eastbound left-turn lane at the same length as currently exists in the design for the Alico widening/extension project.
2. The county will include the right turn lane in the Alico widening project.
3. Applicant will pay for the construction cost of the right turn lane. Funding may be off set against the county's cost of acquiring a slope and drainage easement.
4. Applicant must maintain the drainage easement but reserve a right of entry for County maintenance if necessary.
5. The County will construct the right turn lane as part of the Alico widening and extension project.

17. Southeastern 18.5± Acres

The 18.5± acres in the southeasterly corner is not approved for mining. Excavation activity on the 18.5± acres requires an amendment to these approvals consistent with LDC chapter 12.

HEX NOTE: Recommend this condition to ensure proper regulatory review is conducted should mine operators seek to expand into this area.

DEVIATIONS

1. **Buffers: Phase 3A Right-of-Way. Deviation (1-A)** seeks relief from LDC §12-113 (o)(1)a., Buffers, Right-of-way, which requires a minimum 50-foot-wide landscape buffer maintained at natural grade with every 100 feet containing: ten ten-foot trees with two-inch caliper and four-foot spread, ten 5-foot trees with one-inch caliper and two-foot spread, and 100 native shrubs 24 inches in height. 50 percent of the required trees must be native pines, and 20 percent native palms or appropriate native wetland vegetation, to recognize the existing, previously approved landscape buffer that consists of five trees per 100 linear feet, a double staggered hedge row, and a 12-foot berm adjacent to Alico Road in Phase 3A. (Lee County D.O.#96-0509.808L)
2. **Buffers: Phase 3A/3B. Deviation (2-A/2-B)** seeks relief from LDC §12-113 (o)(1), which requires landscape buffers when the mine property abuts a right-of-way or conservation lands, to recognize the existing condition of no buffers in Phase 3A and 3B.

Deviation (3-A/3-B) WITHDRAWN

3. **Setback. Deviation (3-C)** seeks relief from the LDC §12-113(c)(1)a requirement to provide a 150-foot excavation setback from an existing street right-of-way, to recognize the existing approval for a 75-foot excavation setback from a future right-of-way for the future Alico Road widening (150 feet from the existing street right-of-way).
4. **Permanent Count Stations. Deviation (4-A)** seeks relief from LDC §12-116 (b)(2), Permanent Count Stations, which requires the construction of a paved channelized access from a minimum of 200 feet inside the mine property boundary up to the public road and a permanent count station to monitor daily vehicle trips along with a warranty for repairs, major maintenance and replacement, and that the mine operation pay the annual operational and maintenance fees, to not provide the permanent count station with warranty.
5. **Transportation Impact Mitigation. Deviation (5-A)** seeks relief from LDC §12-116 (c), Transportation Impact Mitigation, which requires the mine operator to contract with local law enforcement to provide continuous monitoring of truck traffic, to develop a truck hauling operation plan, to maintain, repair or replace the access within the off-site specific improvements, and to provide certain information to establish a user fee, to not provide these services.
6. **Reclamation Standards. Deviation (6-A/6-B)** seeks relief from the LDC §12-119(b) requirement to provide the reclaimed shoreline littoral shelf as a created wetland designed to sustain wildlife, to recognize the existing/approved reclamation plan for Phases 3A/3B.

Deviation (6-C) seeks relief from the LDC §12-119(b) requirement to provide the reclaimed shoreline littoral shelf as a created wetland designed to sustain wildlife, to recognize the existing approval for the shoreline design per FAA Advisory Circular 150/5200-33C.

Deviation (6-D) seeks relief from LDC §12-119(b), which requires that reclamation standards be followed to ensure long term plans to sustain fish and wildlife, to allow for the shoreline design per FAA Advisory Circular 150/5200-33C.
7. **Reclamation Plan. Deviation (7-C)** seeks relief from LDC §12-119(a), which requires the excavated lake to be designed to ensure appropriate native wetland areas will be created as a littoral shelf, to recognize the existing approval for the shoreline design per FAA Advisory Circular 150/5200-33C.

Deviation (7-D) seeks relief from LDC §12-119(a), which requires that the excavated lake be designed to ensure appropriate native wetland areas will be created as a littoral shelf, to allow for the shoreline design per FAA Advisory Circular 150/5200-33C.

8. **Reclamation Plan: Bank Slope. Deviation (8-C)** seeks relief from LDC §12-119(a)(7), Reclamation Plan, which requires that lake bank slopes be sloped at a ratio not greater than 6 horizontal to 1 vertical from the top of finished grade to a water depth of 4 feet below the dry season depth, to recognize the existing approval for lake bank slopes to be sloped at a ratio of 4 horizontal to 1 vertical from the top of finished grade to the wet season water table and 2 horizontal to 1 vertical down to a water depth of 4 feet below the wet season water table and to be covered with rip rap, as shown on the typical reclamation section, in accordance with FAA Advisory Circular 150/5200-33C.

Deviation (8-D) seeks relief from LDC §12-119(a)(7), which requires that lake bank slopes be sloped at a ratio not greater than 6 horizontal to 1 vertical from the top of finished grade to a water depth of 4 feet below the dry season depth, to allow for lake bank slopes to be sloped at a ratio of 4 horizontal to 1 vertical from the top of finished grade to the wet season water table and 2 horizontal to 1 vertical down to a water depth of 4 feet below the wet season water table and to be covered with rip rap as shown on the typical reclamation section, in accordance with FAA Advisory Circular 150/5200- 33C.

9. **Open Space. Deviation (9-D)** seeks relief from LDC §12-113(l), which provides that the open space requirements may be met by the provision of buffers, indigenous area, setbacks, and wildlife habitat areas on site, to allow for the open space requirements to be met by areas previously permitted within Phases 3A, 3B, and 3C, and proposed within Phase 3D, as shown on the Master Mining Plan.
10. **Indigenous Preservation/Replanting. Deviation (10-D)** seeks relief from LDC §12-113 (m), which requires mines to provide 25 percent of the project site as indigenous preservation or as on-site indigenous replanting if the property does not contain existing indigenous plant communities, to allow existing, previously approved indigenous areas, both on and off-site, and proposed preserve areas to meet this requirement, for a total of 73.1 acres on-site and 124.75 acres off-site (16.6 percent).
11. **Wildlife Habitat. Deviation (11-D)** seeks relief from LDC §12-113(p), which requires 300-foot wide wildlife habitat areas with plantings providing connectivity to adjacent preserves or conservation lands, to allow for the indigenous preserves and open spaces with a minimum width of 125 feet and a maximum width of 1,534 feet to meet the intent of the wildlife habitat area, with an alternate planting plan to include the plant types and sizes in both wetland and upland areas as shown on Sheet 10 of the Landscape Plans.
12. **Interconnected Lakes. Deviation (12-D)** seeks relief from LDC §12-107(5), which requires that mining activity must facilitate the connection of mining lakes in a system of interconnected lakes and flowways, to not require the mining lake connections.

13. **Lighting. Deviation (13-D)** seeks relief from LDC §34-625, which requires a site lighting plan, to allow existing lighting to remain in accordance with previously approved photometric plans.

14. **Deviation (14-D) DENIED**

HEX NOTE: This deviation sought relief from turn lane improvements. Condition 16 has been added to address the substance of this request. Applicant will fund the turn lanes but the county will construct them at the time Alico Road improvements are undertaken.

15. **Access. Deviation (15)** seeks relief from LDC §10-291(3), which requires industrial development more than ten acres to provide more than one means of ingress/ egress for the development, to allow the previously approved single access point to Alico Road as shown in the MEPD plans.

16. **Water Quality/Quantity Baseline Analysis. Deviation (16)** seeks relief from LDC § 12-117(a)(2) which requires a baseline surface and groundwater analysis designed and conducted to establish baseline data for surface and groundwater monitoring for the mining project area, to allow the previously conducted baseline analysis and ongoing surface water/groundwater monitoring conducted since 2010 to meet this requirement.

HEX NOTE: This deviation was discussed at length at hearing, with the record left open for post-hearing written submissions for the parties to devise agreeable language to acknowledge that Applicant satisfied baseline reporting requirements under data already reported to governing authorities since 2010.

Exhibits to Conditions:

B1 MEPD Plan set dated 9/15/22

B2 MDO Plan set dated 8/16/22

B3 Indigenous Preservation Restoration Plan revised 3/29/22

B4 Onsite Indigenous Management Plan (Z-13-026, Ex. D)

B5 Offsite Indigenous Management Plan

EXHIBIT B-1

CEMEX Construction Materials Florida, LLC

Alico Quarry Phasing Sites:

- Phase 3A & 3B
- Phase 3C
- Plant Site
- Phase 3D (FLUCOS Assessment Area for: FDEP & UMAM)
- Phase 3A & 3B Potential Reclaimable Mine Areas
- Phase 3D Indigenous Area
- Previously Permitted Lake Areas
- Main Regional Traverse Truck Flow

CEMEX Construction Materials Florida, LLC
TOTAL EXISTING ACREAGE: 1,190.0 Ac.

Alico Quarry - West Portion: 398.7Ac.	=	±136.1 Ac.
Plant Site & Portion 3A (Exist.)	=	±262.6 Ac.
Phase 3C (Exist.)	=	±245.1 Ac.
Alico Quarry - East Portion: 794.9 Ac.	=	±311.4 Ac.
Phase 3A (Exist.)	=	±245.1 Ac.
Phase 3B (Exist.)	=	±204.9 Ac.
Phase 3D Extension	=	±18.5 Ac.
Non-Phase Undeveloped Lands	=	±11.4 Ac.
Stockpile/Setbacks/Buffer/Berms/O.S.	=	±11.4 Ac.

All Property within the 1,190.0 Ac. described above are owned by: CEMEX Construction Materials Florida, LLC.

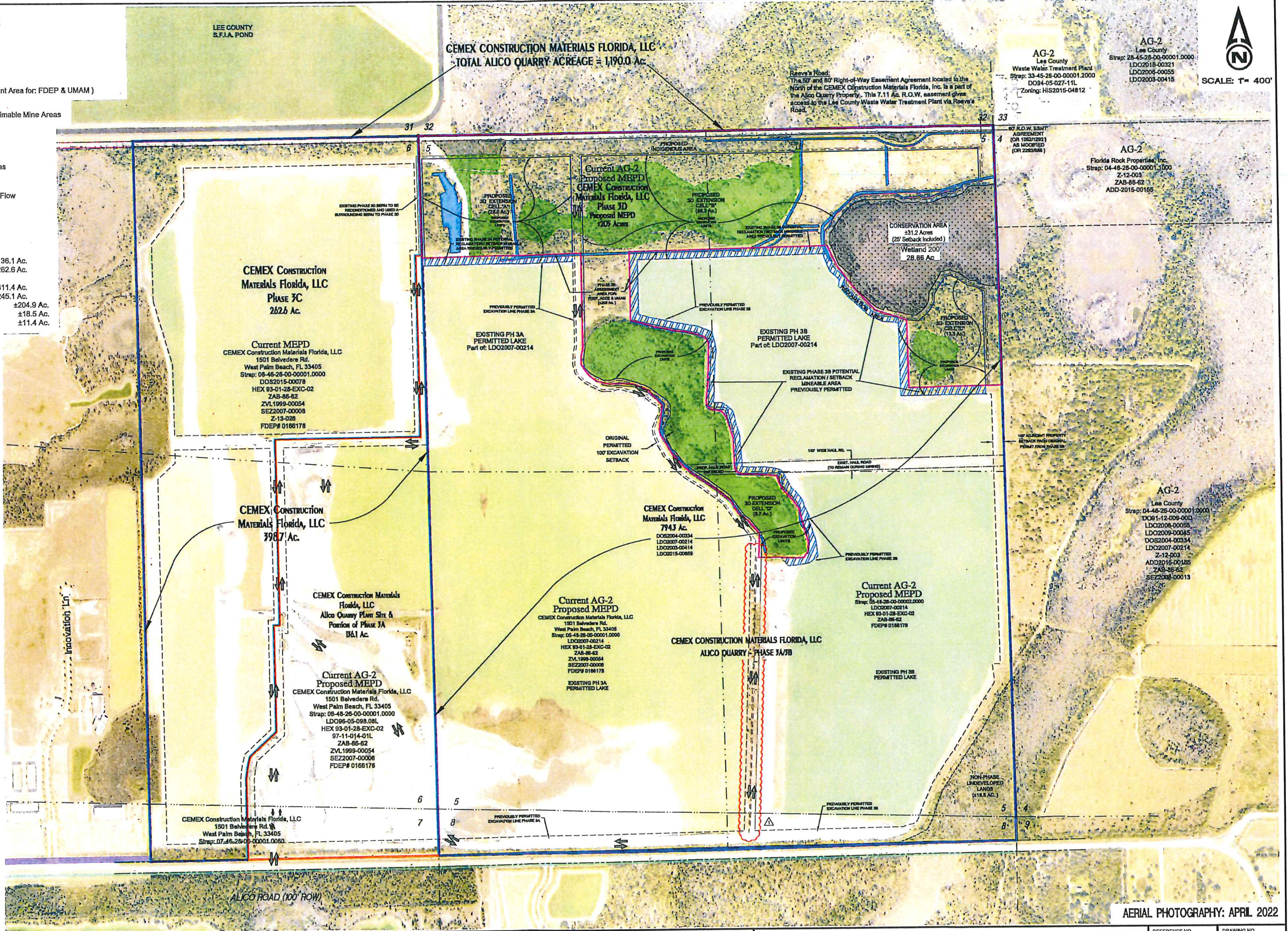
No new properties, or additions, have been added to the previous permitted boundaries for Phases 3A, 3B, 3C and the Plant Site area. The proposed Phase 3D is within the current ownership boundary.

PROPOSED HOURS OF OPERATION

PHASE 3D EXCAVATION OPERATION
Excavation Operation
24 HOURS PER DAY, MONDAY THRU SATURDAY
(No excavation operations on Federal Holidays)

Blasting Operation
Blasting will be in compliance with FAC 69A-2.024.

PLEASE NOTE THAT ALL PROCESSING WILL TAKE PLACE AT THE EXISTING PLANT FACILITY LOCATED WITHIN THE PHASE 3A EXISTING MINE AREA LDO96-05-098.08L.



NUMBER	REVISIONS	DATE
1	LAKE 3B HAUL RD REDUCTION PER LDO96	2022/07/21



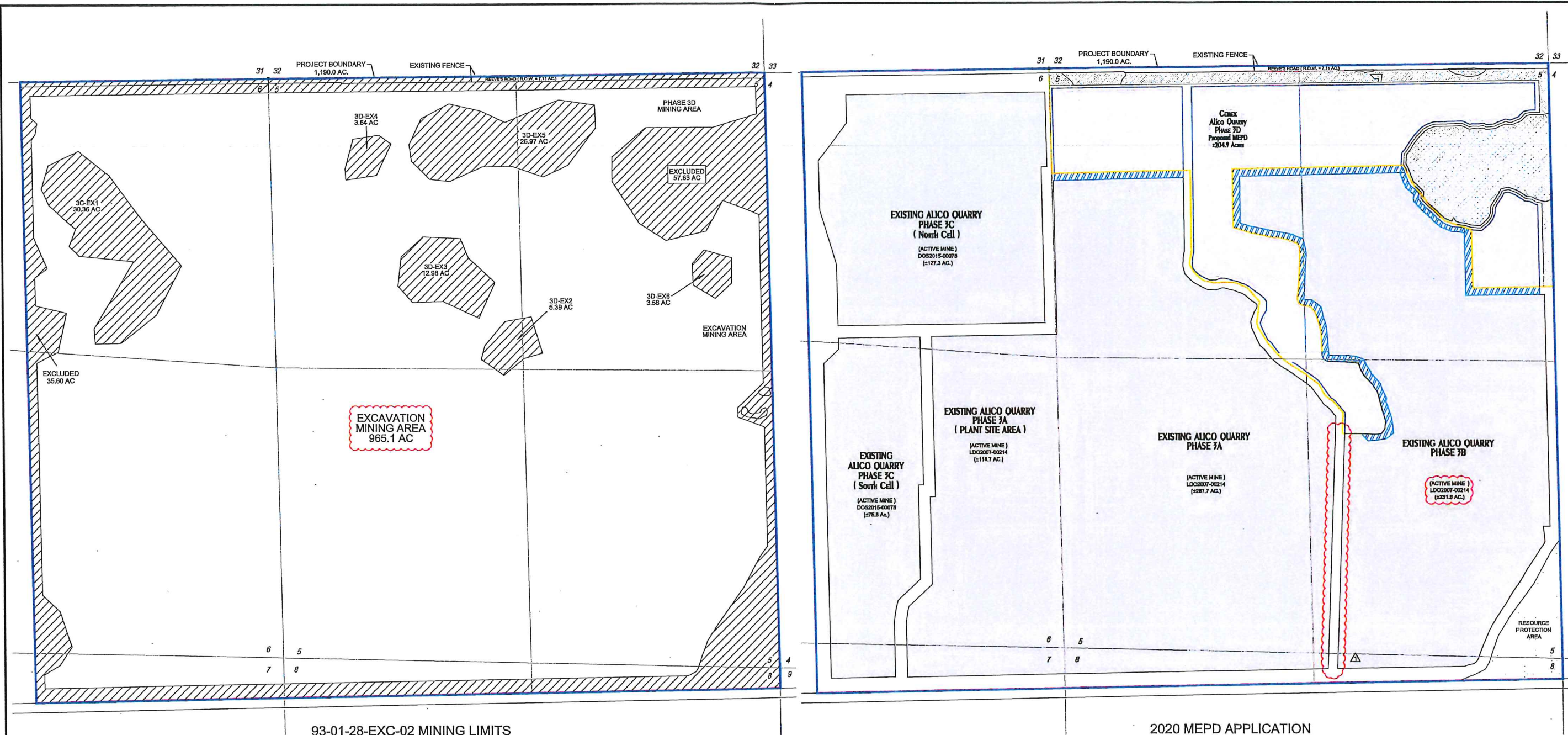
DESIGNED BY:	J.K.H.	DATE:	3/2020
DRAWN BY:	J.K.H.	DATE:	3/2020
CHECKED BY:	R.E.B.	DATE:	3/2020
VERTICAL SCALE:	NONE	HORIZONTAL SCALE:	1"=400'



6200 Whiskey Creek Drive
Fort Myers, FL 33919
Phone : (239) 985-1200
Florida Certificate of
Authorization No.1772

AERIAL PHOTOGRAPH
CURRENT ZONING RESOLUTIONS & APPROVALS

REFERENCE NO.	0013ALOC	DRAWING NO.	1467
PROJECT NO.	2000.013A	SHEET NO.	HM01



HEX 93-01-28-EXC-02 LEGEND:

- CEMEX CONSTRUCTION MATERIALS FLORIDA, INC. OWNERSHIP PROPERTY BOUNDARY
A PORTION OF:
ALICO QUARRY PHASE 3A/3B
LDO2007-00214 / FDEP PERMIT NO. 0166176
- PREVIOUSLY PERMITTED MINING LIMITS
- 93-01-28-EXC-02 MINING LIMITS (RESOURCE PROTECTION AREA)
REFER TO: HOLE MONTES AND ASSOCIATES, INC.
FLORIDA ROCK IND., INC. PHASE THREE DRAWING SET 366

2020 MEPD Overall Mining Area Breakdown:	
Phase 3A (Existing)	= 287.7 Ac.
Phase 3A Plant Site (Existing)	= 118.7 Ac.
Phase 3B (Existing)	= 231.6 Ac.*
Phase 3C (Existing)	= 203.1 Ac.
Phase 3D Extension (Proposed)	= 136.4 Ac.
TOTAL	= 977.5 Ac.
1993 HEX vs. 2020 MEPD Mining Excavation:	
1993 HEX - OVERALL MINING AREA	965.1 Ac.
2020 MEPD OVERALL MINING AREA	977.5 Ac.
TOTAL NET NEW MINING AREA	12.4 Ac.
MAX. REQUESTED DEPTH	45.0 Ft.
NET NEW MINING VOLUME	900,240 C.Y.

* LDO2007-00214, AMENDMENT #6 (APPROVED, May 24, 2022)
12.2 AC. REDUCTION OF HAUL RD. BETWEEN PHASES 3A & 3B

MEPD LEGEND:

- CEMEX CONSTRUCTION MATERIALS FLORIDA, INC. OWNERSHIP PROPERTY BOUNDARY
A PORTION OF:
ALICO QUARRY PHASE 3A/3B
LDO2007-00214 / FDEP PERMIT NO. 0166176
- Phase 3D (FLUCCS Assessment Area for: FDEP, ACOE & UMAM ±205 Ac.)
- EXISTING WETLAND AREA (±31.2 Ac.)
- Phase 3A & 3B Potential Setback Mineable Areas (±15.0 Ac.)

- Phase 3D Indigenous Area (49.4 Ac.)
- Previously Permitted Lake Areas
- Phase 3D Extension Lake Area



NUMBER	REVISIONS	DATE
1	LAKE 3B HAUL RD REDUCTION PER LDO006	2022/07/21



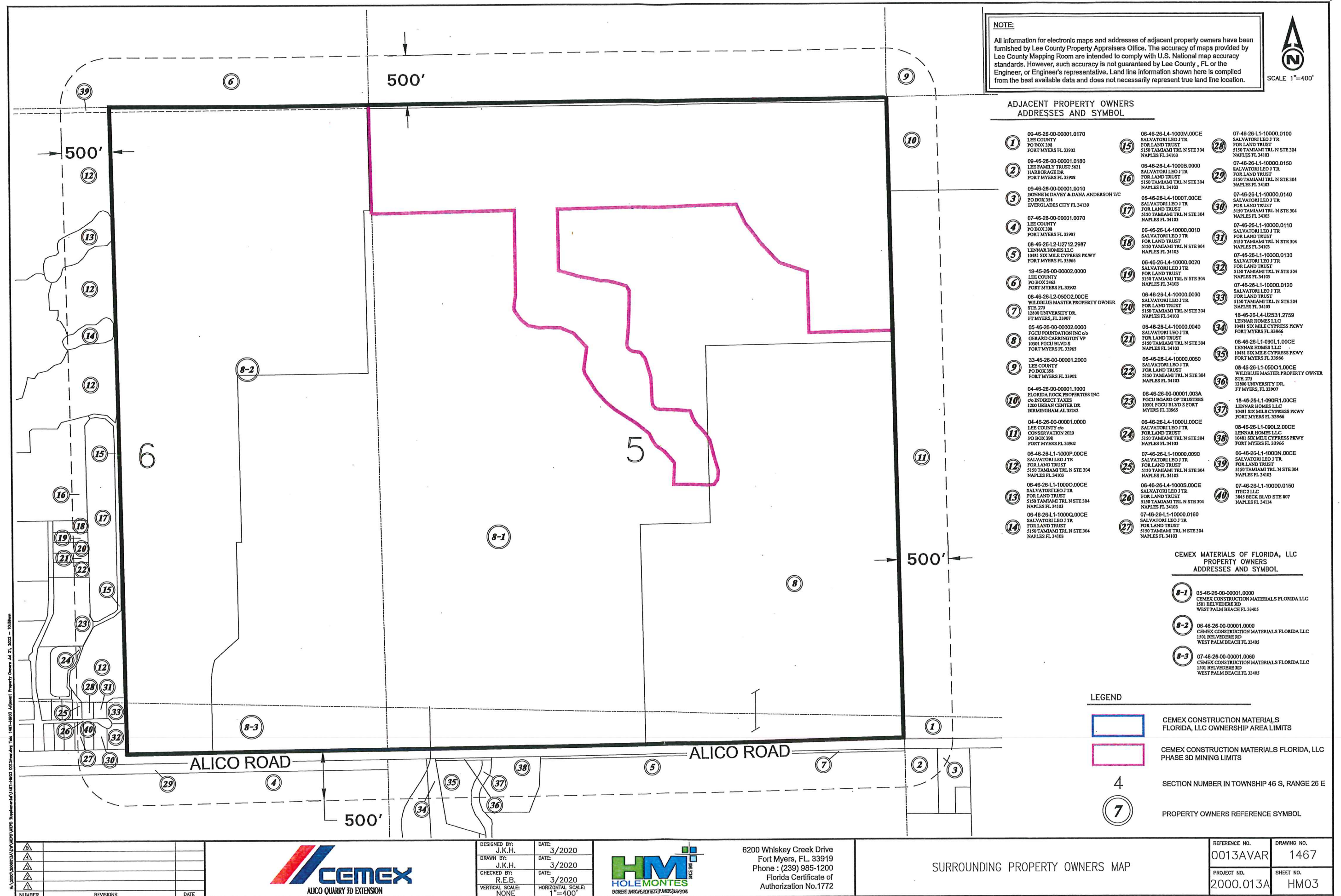
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DRAWN BY: J.K.H.	DATE: 3/2020
CHECKED BY: R.E.B.	DATE: 3/2020
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1"=500'



6200 Whiskey Creek Drive
Fort Myers, FL 33919
Phone : (239) 985-1200
Florida Certificate of
Authorization No.1772

HEX 93-01-28-EXC-02
vs.
2021 MEPD APPLICATION

REFERENCE NO. 0013AHX	DRAWING NO. 1467
PROJECT NO. 2000.013A	SHEET NO. HM02





NOTE:
All information for electronic maps and addresses of adjacent property owners have been furnished by Lee County Property Appraisers Office. The accuracy of maps provided by Lee County Mapping Room are intended to comply with U.S. National map accuracy standards. However, such accuracy is not guaranteed by Lee County, FL or the Engineer, or Engineer's representative. Land line information shown here is compiled from the best available data and does not necessarily represent true land line location.

SUBJECT PROPERTY OWNERS
ADDRESSES AND SYMBOL

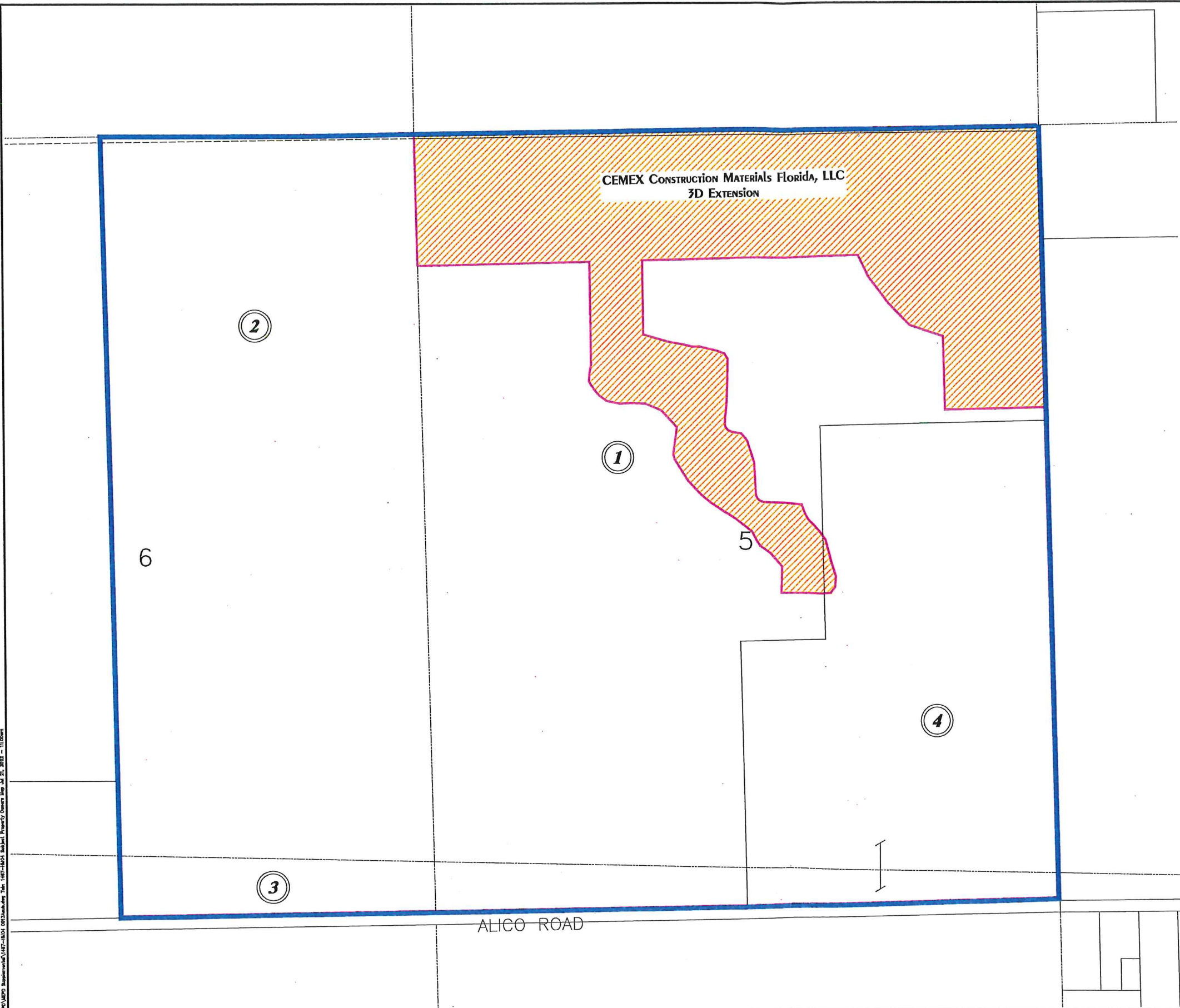
- Owner of Record:
- ① 05-46-26-00-00001.0000
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC
1501 BELVEDERE RD
WEST PALM BEACH FL 33405
 - ② 06-46-26-00-00001.0000
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC
1501 BELVEDERE RD
WEST PALM BEACH FL 33405
 - ③ 07-46-26-00-00001.0060
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC
1501 BELVEDERE RD
WEST PALM BEACH FL 33405
 - ④ 05-46-26-00-00002.0000
FGCU FOUNDATION INC
c/o GERARD CARRINGTON VP
10501 FGCU BLVD S
FORT MYERS FL 33965

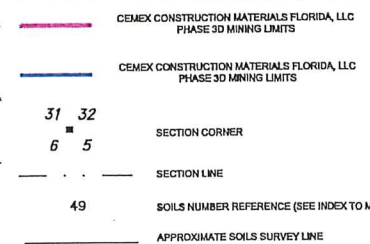
Project Site Address:
13501 ALICO RD
FORT MYERS FL 33913

Property Description:
PARL LOC IN SEC 05 + 08 AS DESC
IN OR 4795 PG 2813
LESS PARCEL 2.0000

LEGEND

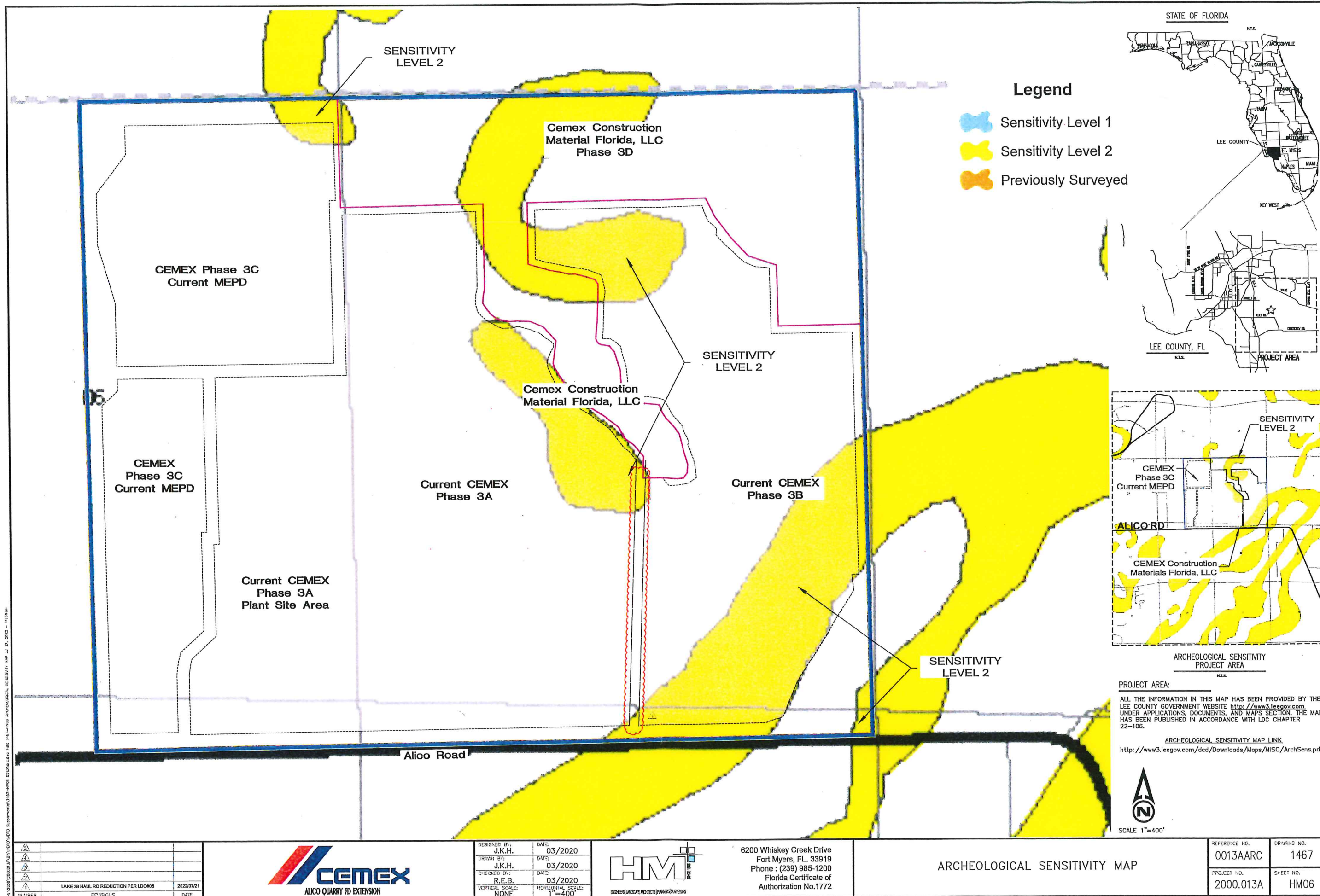
- CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC
MEPD OWNERSHIP AREA LIMITS
- CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC
PHASE 3D EXTENSION
- 4 SECTION NUMBER IN TOWNSHIP 46 S, RANGE 26 E
- ① PROPERTY OWNERS REFERENCE SYMBOL

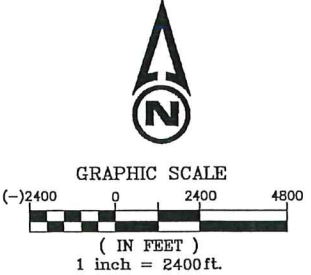
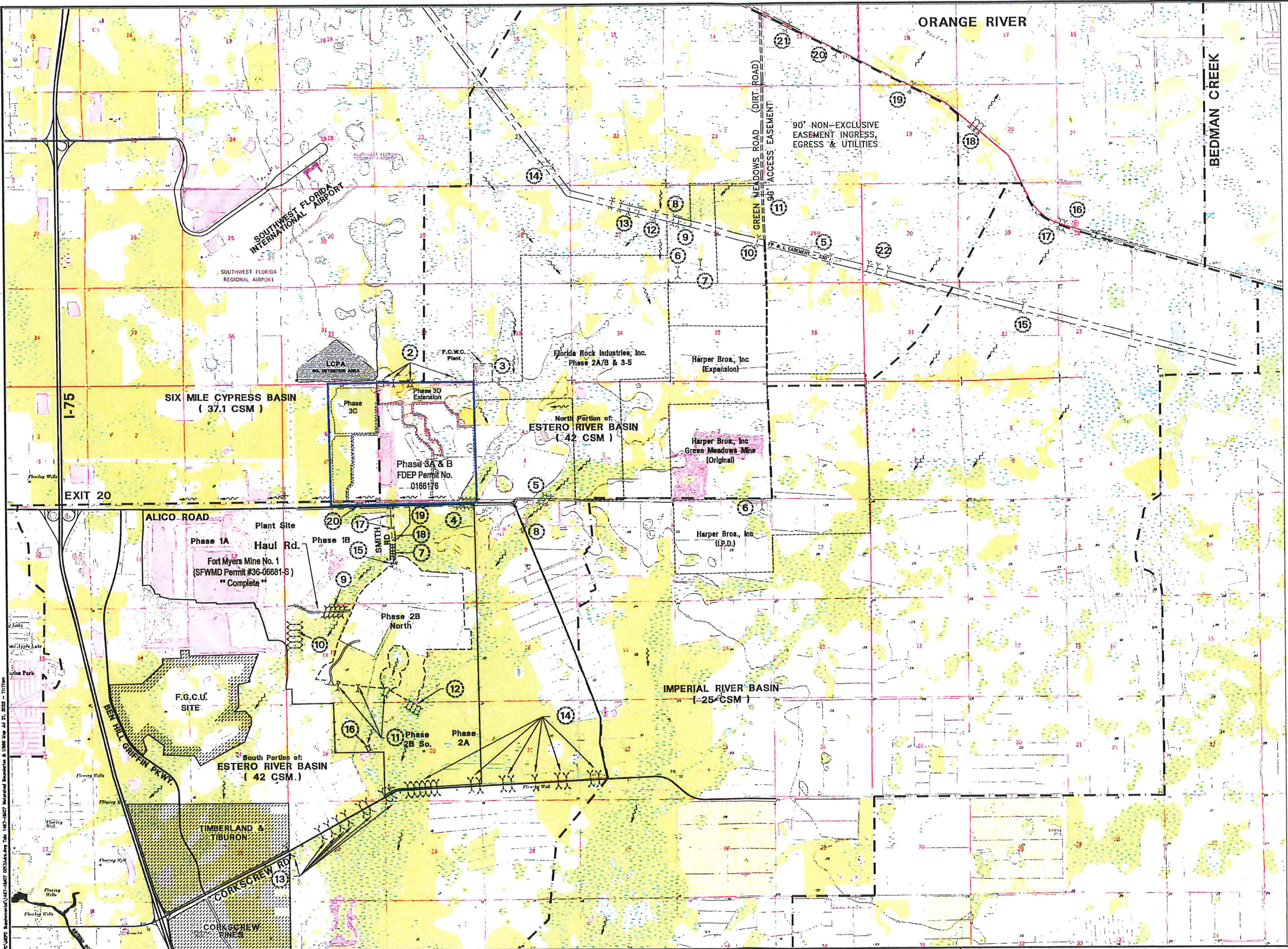




* In the "high water table—depth" column, a plus sign preceding the range in depth indicates that the water table is above the surface of the soil. The first numeral in the range indicates how high the water rises above the surface. The second numeral indicates the depth below the surface.

REFERENCE NO. 0013ASOI	DRAWING NO. 1467
PROJECT NO. 2000.013A	SHEET NO. HM05





PIPE SIZE TABLE

STRUCTURE No.	EXISTING / PERMITTED AMOUNT OF PIPES - PIPE SIZE
2	5 - 30" R.C.P.
3	1 - 36" C.M.P.
4	5 - 42" x 60" E.R.C.P.
5	3 - 72" R.C.P.
6	1 - 48" C.M.P.
7	6 - 57" x 36" A.S.C.M.P.'s
8	2 - 36" R.C.P.
9	5 - 36" x 60" E.R.C.P.
10	5 - 34" x 33" C.M.P.
11	4 - 14" x 23" E.R.C.P.
12	4 - 18" x 30" R.C.P.
13	9 - 23" x 45" R.C.P.
14	15 - 23" x 45" R.C.P.
15	1 - 48" x 33" A.S.C.M.P.
16	2 - 24" A.S.C.M.P.
17	4 - 21" x 15" A.S.C.M.P.
18	3 - 18" A.S.C.M.P.
19	8 - 18" A.S.C.M.P.
20	1 - 60" R.C.P.

- LEGEND
- CEMEX - ALICO NORTH QUARRY PHASE 3D PROJECT BOUNDARY
 - PROPOSED MEPD AREA ORIGINAL PHASE 3A & 3B
 - EXISTING ROADWAY / HIGHWAY
 - BASIN BOUNDARY
 - EX. STRUCTURE NUMBER SYMBOL
 - FLOW DIRECTION

NUMBER	REVISIONS	DATE



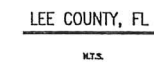
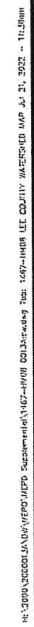
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DRAWN BY: J.K.H. DATE: 3/2020
CHECKED BY: R.E.B. DATE: 3/2020
VERTICAL SCALE: NONE HORIZONTAL SCALE: 1"=2400'



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WATERSHED BOUNDARIES / USGS MAP

REFERENCE NO.	DRAWING NO.
0013ADRN	1467
PROJECT NO.	SHEET NO.
2000.013A	HM07

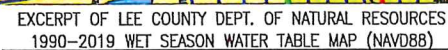
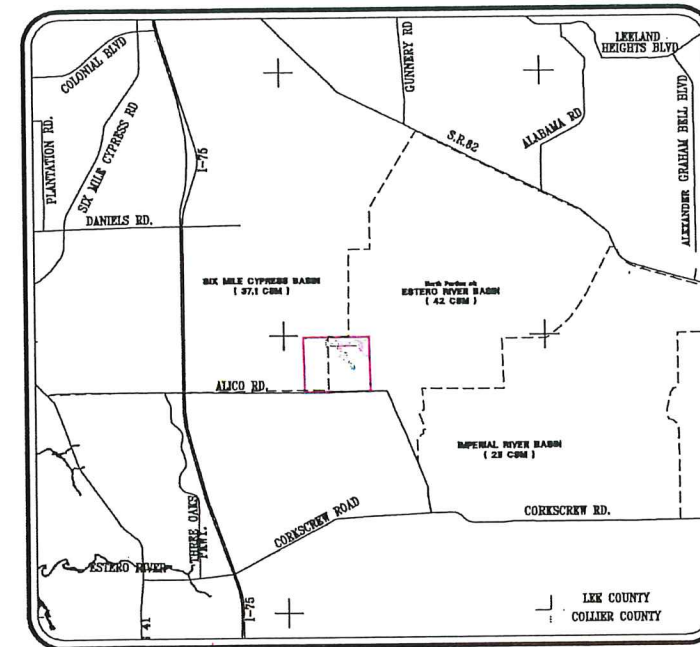


CEMEX
ALICO QUARRY 7D EXTENSION

6200 Whiskey Creek Drive
Fort Myers, FL. 33919
Phone : (239) 985-1200
Florida Certificate of
Authorization No.1772

LEE COUNTY WATERSHED MAP

REFERENCE NO. 0013ALCW	DRAWING NO. 1467
PROJECT NO. 2000.013A	SHEET NO. HM08



47A-GW5		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Mean
Ground elevation = 24.40'	Jan	ND	ND	ND	21.86	22.01	21.38	21.12	19.83	21.02	20.57	20.45	20.73	21.83	19.23	21.03	19.88	19.68	18.12	<16.42	20.31	20.89	20.49	20.47	20.51	21.52	20.35	23.58	20.98	21.96	21.31	21.73	20.85
	Feb	ND	ND	21.65	23.45	22.06	20.94	20.51	19.91	22.59	20.21	19.76	20.53	20.43	<18.73	21.75	<18.82	20.02	17.17	16.64	19.89	20.81	20.31	19.81	20.04	21.30	19.89	23.41	20.44	21.48	22.79	21.80	20.73
	Mar	ND	ND	22.04	21.42	21.82	20.70	20.35	19.57	21.71	20.06	20.02	<20.43	19.33	20.33	21.73	20.04	18.70	16.82	<16.42	19.12	22.33	19.77	<19.37	19.97	20.89	19.69	22.66	19.82	20.51	ND	20.75	20.43
	Apr	ND	ND	21.62	21.68	21.38	20.03	19.34	20.30	20.49	19.53	19.14	21.33	23.23	19.13	21.13	20.30	17.71	<16.42	17.38	18.37	20.99	19.49	<19.37	19.54	21.22	19.27	21.48	19.11	20.02	ND	19.85	20.13
	May	ND	ND	DRY	DRY	22.14	19.51	19.78	19.44	19.85	19.89	<18.73	20.33	19.33	20.23	20.83	ND	17.71	<16.42	<16.42	17.89	21.60	<19.37	19.26	19.03	20.17	19.10	21.31	18.83	21.43	22.02	21.48	20.01
	May	ND	ND	DRY	DRY	20.57	19.10	21.73	19.25	20.68	<18.73	<18.73	20.13	19.23	<18.73	20.36	ND	<16.42	<16.42	<16.42	18.12	20.85	ND	19.48	ND	ND	ND	ND	ND	ND	ND	21.3	20.07
	June	ND	ND	DRY	DRY	ND	19.99	20.52	19.05	19.38	<18.73	<18.73	19.93	<18.73	19.64	20.22	22.37	<16.42	<16.42	<16.42	18.26	20.39	<19.37	19.36	19.63	20.56	19.83	22.97	22.84	20.94	20.72	22.15	20.46
Mean Wet Season (1990-2019)	June	ND	ND	23.00	DRY	ND	20.43	22.38	20.47	19.18	22.79	<18.73	<18.73	<18.73	22.24	20.08	22.38	17.19	16.82	16.52	20.42	20.64	<19.37	20.68	22.38	20.46	19.69	24.70	22.80	20.84	21.82	21.95	20.84
Water Table = 22.62'	July	ND	ND	23.34	DRY	20.02	20.33	21.52	19.52	18.85	22.48	<18.73	<18.73	<18.73	21.26	21.33	22.43	20.35	16.84	16.07	20.29	22.44	<19.40	19.90	20.01	23.61	21.00	21.11	23.49	23.42	22.57	20.73	21.13
	July	ND	ND	23.42	20.67	19.64	22.33	20.54	21.71	19.41	22.38	ND	23.43	18.83	21.53	ND	21.99	19.08	17.47	19.17	19.87	20.80	19.80	20.37	24.08	21.56	20.39	23.60	24.27	22.16	23.28	21.22	
	Aug	ND	ND	23.09	DRY	20.97	22.43	20.52	21.81	19.33	21.92	22.15	23.73	19.23	22.38	22.61	22.27	19.05	17.30	18.82	20.13	21.44	19.62	20.22	24.56	22.28	22.44	24.14	24.40	21.15	24.26	21.56	
	Aug	ND	ND	23.59	21.54	20.81	22.92	20.54	21.43	20.81	22.56	21.63	23.13	20.83	22.84	23.22	22.31	19.89	16.82														

AVERAGE WET SEASON WATER TABLE (JUNE - OCTOBER) = 21.62 NAVD
AVERAGE DRY SEASON WATER TABLE (NOVEMBER - MAY) = 20.57 NAVD
AVERAGE WATER TABLE = 21.10 NAVD

46A-GW5		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Mean
Ground elevation = 21.16'	Jan	ND	15.38	16.79	16.51	16.41	17.47	18.22	17.85	ND	19.24	17.92	17.70	<15.64	17.74	17.64	17.81	16.66	17.60	17.11	<17.98	18.77	18.61	18.72	18.77	17.85	18.23	17.67	19.98	17.97	18.59	17.60	17.70	
	Feb	ND	15.31	16.58	17.18	16.05	17.25	17.60	17.16	ND	20.84	17.16	<15.99	<15.64	16.84	16.34	18.10	<16.14	17.72	16.37	<17.98	18.40	18.73	18.49	18.14	17.35	18.19	17.22	19.90	17.48	18.31	18.51	17.70	
	Mar	ND	14.49	16.01	16.77	16.28	16.93	16.89	16.82	ND	19.89	<15.99	<15.99	<15.64	16.64	16.04	18.15	16.97	16.80	<16.14	<17.98	17.98	19.59	17.99	17.76	17.26	17.86	17.26	19.45	16.89	17.51	17.66	17.70	
	Apr	ND	14.22	15.61	16.66	16.25	16.08	16.15	ND	18.11	<15.99	<15.64	<15.64	<15.64	15.94	17.38	17.76	16.08	<16.14	<17.98	<17.98	18.83	17.79	17.08	18.07	16.04	16.81	18.75	16.29	17.12	17.28	17.70		
	May	ND	ND	ND	16.33	15.34	16.75	15.03	15.51	ND	17.06	<15.99	<15.64	<15.64	<15.64	15.74	16.82	17.51	<16.14	<16.14	<17.98	<17.98	19.42	17.39	16.58	16.52	17.49	16.43	19.39	16.03	17.73	ND	17.70	
	May	ND	13.97	17.56	15.85	14.46	15.35	14.70	17.09	<15.79	16.29	<15.99	<15.64	<15.64	<15.64	<15.64	16.45	<16.14	20.30	<16.14	<16.14	<17.98	<17.98	18.64	16.75	16.80	16.45	17.50	17.05	19.68	16.65	17.78	ND	17.70
	June	ND	14.90	16.44	16.11	14.10	15.03	15.96	ND	<15.79	15.87	<15.99	<15.64	<15.64	<15.64	16.45	<16.14	20.30	<16.14	<16.14	<17.98	<17.98	18.64	16.34	17.44	17.44	17.53	17.09	20.39	18.76	17.63	ND	17.70	
Mean Wet Season (1990-2017)	June	ND	17.16	16.08	20.41	15.05	14.88	16.30	ND	16.47	16.60	17.10	<15.64	<15.64	16.84	16.54	20.85	15.97	16.69	<17.98	<17.98	19.40	18.64	16.75	16.80	16.45	17.50	17.05	19.68	16.65	17.78	ND	17.70	
Water Table = 19.68'	July	ND	15.72	17.92	19.01	16.19	16.46	16.04	ND	16.52	17.95	20.42	16.24	<15.64	<15.64	16.84	16.77	20.57	15.76	<16.14	18.89	18.75	19.66	17.34	17.79	19.29	17.93	17.52	19.98	19.34	18.73	ND	17.70	
	July	16.70	15.61	18.69	19.21	15.80	16.71	19.12	ND	18.87	ND	19.91	15.94	19.44	<15.64	17.84	18.30	20.02	17.67	<16.14	19.12	18.70	18.94	17.21	18.00	19.63	19.23	17.15	19.93	19.74	18.56	ND	17.70	
	Aug	19.48	18.98	19.90	19.32	16.00	16.61	19.44	ND	19.49	18.57	19.40	16.96	20.14	<15.64	18.90	20.38	19.89	17.56	<16.14	18.54	18.91	19.56	17.69	18.25	20.16	19.36	18.84	20.43	20.38	17.74	ND	17.70	
Lower detection limit	Aug	19.29	17.46</																															

AVERAGE WET SEASON WATER TABLE (JUNE - OCTOBER) = 18.62 NAVD
AVERAGE DRY SEASON WATER TABLE (NOVEMBER - MAY) = 17.44 NAVD
AVERAGE WATER TABLE = 18.03 NAVD

Monitoring Wells 46A-GW28 & 47A-GW12 were not provided from Lee County Government. The Ground Water Level Data for 2020 in NAVD88 datum is for public information in file GWLEVEL2020NAVD88.xlsx
Information provided for current as of: July 2020
Drawing updated: April 19th, 2021

ALL ELEVATIONS NOTED ON THE PLAN REFER TO THE NORTH AMERICAN VERTICAL DATUM, 1988. TO OBTAIN AN ELEVATION IN THE NATIONAL GEODETIC VERTICAL DATUM, 1929, ADD 12 FEET TO THE NAVD ELEVATION.



DESIGNED BY: J.K.H.	DATE: 3/2020
DRAWN BY: J.K.H.	DATE: 3/2020
CHECKED BY: R.E.B.	DATE: 3/2020
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1"=500'

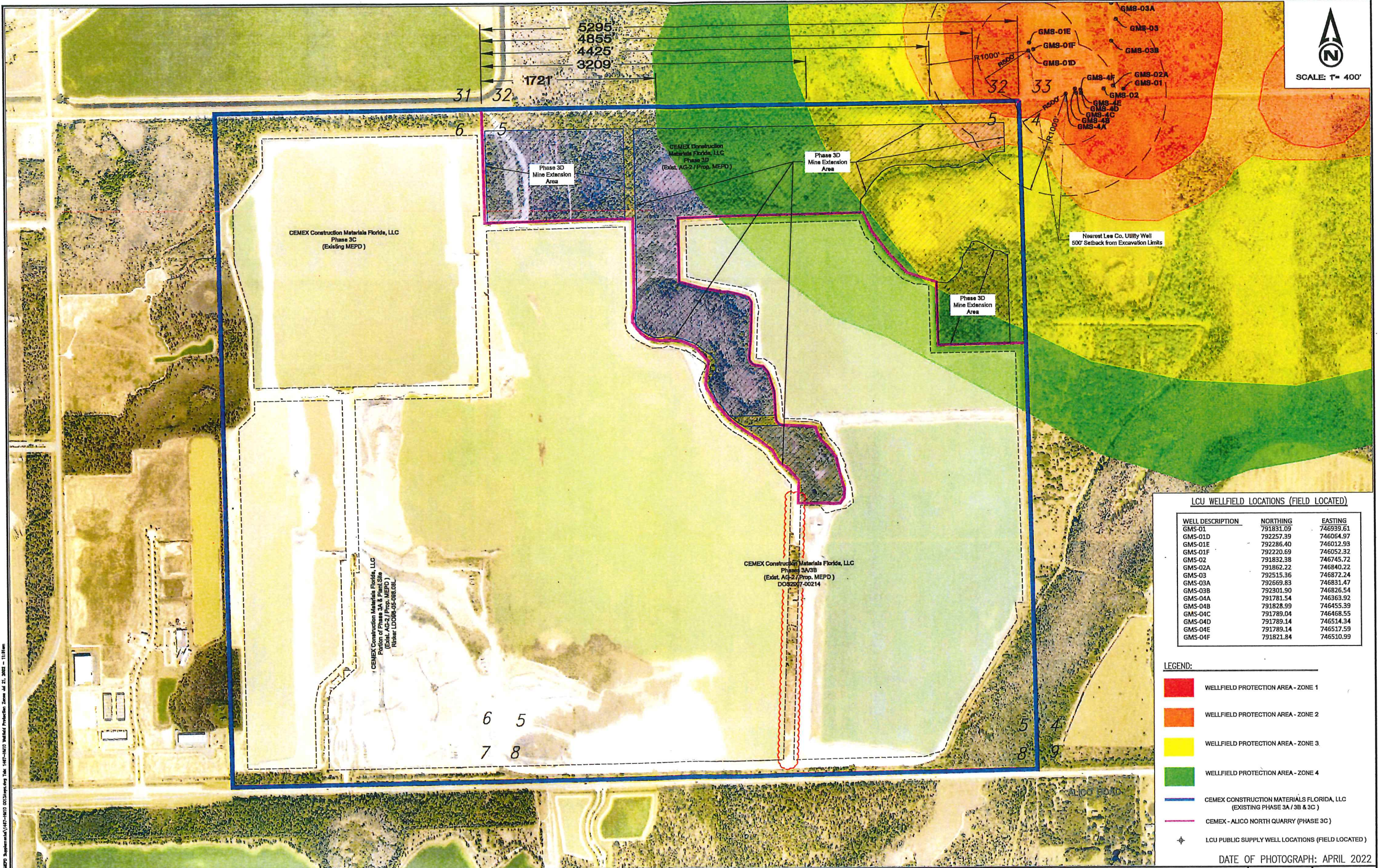


6200 Whiskey Creek Drive
Fort Myers, FL. 33919
Phone : (239) 985-1200
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LEE COUNTY WET SEASON
WATER TABLE MAP

REFERENCE NO.	DRAWING NO.
0013AWSWT	1467
PROJECT NO.	SHEET NO.
2000.013A	HM09

Additional info dated 09-15-2022



LCU WELLFIELD LOCATIONS (FIELD LOCATED)

WELL DESCRIPTION	NORTHING	EASTING
GMS-01	791831.09	746939.61
GMS-01D	792257.39	746064.97
GMS-01E	792286.40	746012.93
GMS-01F	792220.69	746052.32
GMS-02	791832.38	746745.72
GMS-02A	791862.22	746840.22
GMS-03	792515.36	746872.24
GMS-03A	792659.83	746831.47
GMS-03B	792301.90	746826.54
GMS-04A	791781.54	746363.92
GMS-04B	791828.99	746455.39
GMS-04C	791789.04	746468.55
GMS-04D	791789.14	746514.34
GMS-04E	791789.14	746517.59
GMS-04F	791821.84	746510.99

- LEGEND:
- WELLFIELD PROTECTION AREA - ZONE 1
 - WELLFIELD PROTECTION AREA - ZONE 2
 - WELLFIELD PROTECTION AREA - ZONE 3
 - WELLFIELD PROTECTION AREA - ZONE 4
 - CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC (EXISTING PHASE 3A / 3B & 3C)
 - CEMEX - ALICO NORTH QUARRY (PHASE 3C)
 - LCU PUBLIC SUPPLY WELL LOCATIONS (FIELD LOCATED)

DATE OF PHOTOGRAPH: APRIL 2022

NUMBER	REVISIONS	DATE
1	LAKE 3B HAVIL RD REDUCTION PER LDO#06	2022/07/21
2	UPDATE WELL INFORMATION	12/21/2021



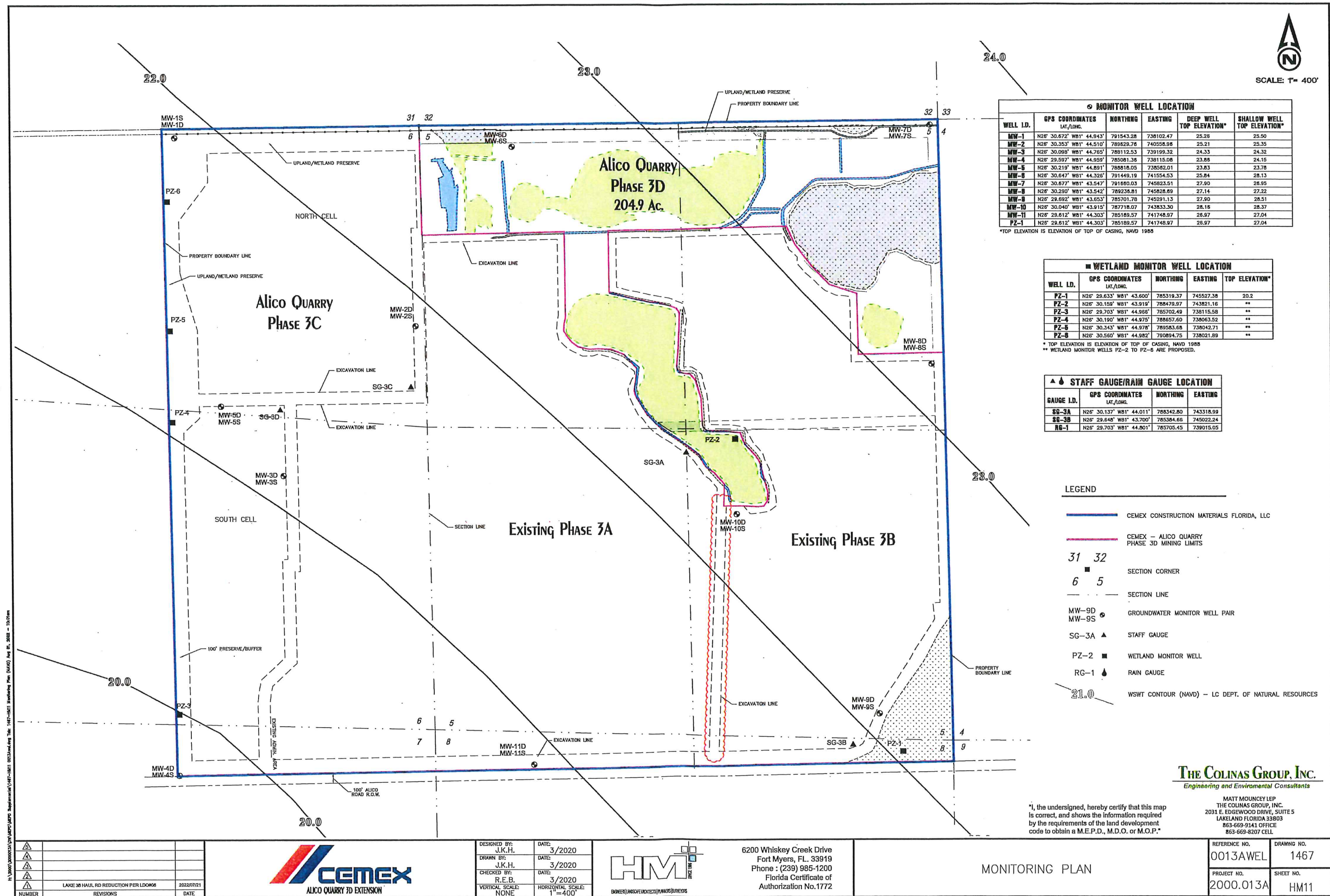
DESIGNED BY: J.K.H.	DATE: 3/2020
DRAWN BY: J.K.H.	DATE: 3/2020
CHECKED BY: R.E.B.	DATE: 3/2020
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1"=400'

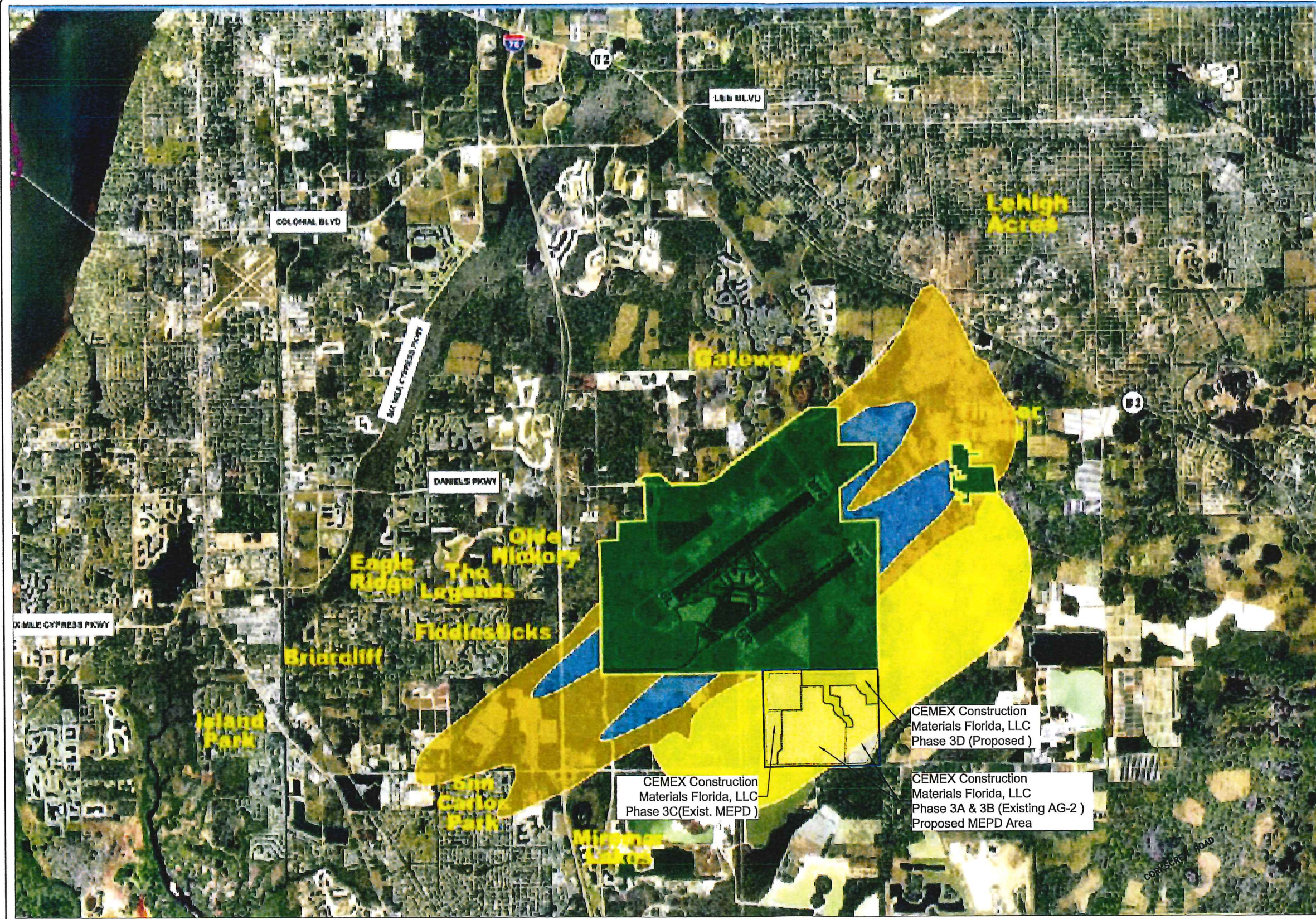


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WELLFIELD PROTECTION ZONES

REFERENCE NO.	DRAWING NO.
0013AWPZ	1467
PROJECT NO.	SHEET NO.
2000.013A	HM10





PROPOSED OVERLAY ZONES

Zone	Land Uses
Zone A	Airport Property
Zone B	No New Noise Sensitive Uses (2020 60+ DNL)
Zone C	No Noise-Related Restrictions (2020 55-60 DNL)
Zone D	No Noise-Related Restrictions (Flight Training Area)
Zone	Proposed Requirements
Zone A	N/A
Zone B	Notification
Zone C	Notification
Zone D	Notification

		
		
		
		
		
NUMBER	REVISIONS	DATE



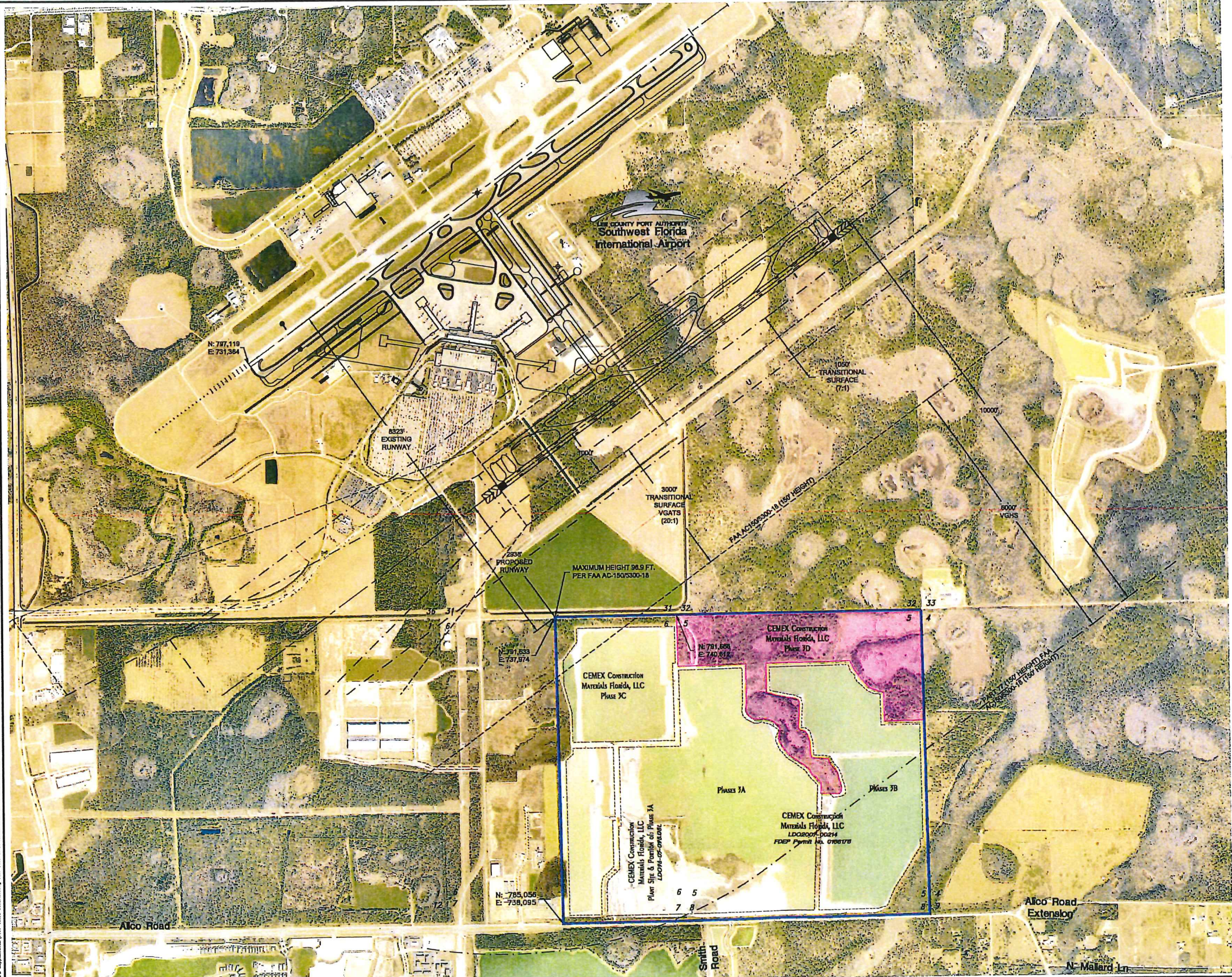
DESIGNED BY: J.K.H.	DATE: 3/2020
DRAWN BY: J.K.H.	DATE: 3/2020
CHECKED BY: R.E.B.	DATE: 3/2020
VERTICAL SCALE: NONE	HORIZONTAL SCALE: N.T.S.



6200 Whiskey Creek Drive
Fort Myers, FL. 33919
Phone : (239) 985-1200
Florida Certificate of
Authorization No.1772

AIRPORT NOISE OVERLAY (RSW)

REFERENCE NO. 0013AAIR	DRAWING NO. 1467
PROJECT NO. 2000.013A	SHEET NO. HM12



NOTES:

1. THE PHASE 3C PROJECT AREA LIES WITHIN THE HORIZONTAL SURFACE WITH MAXIMUM HEIGHT OF 150' PER PART 77. NO PERMANENT STRUCTURES ARE PROPOSED AND EXCAVATION EQUIPMENT WILL NOT EXCEED 90 FEET HEIGHT.
2. THE NORTHWEST CORNER OF THE PHASE 3C PROJECT AREA LIES WITHIN THE TRANSITIONAL SURFACE (VGATS) WITH MAXIMUM HEIGHT OF 96.9' PER FAA AC 150/5300-18. NO PERMANENT STRUCTURES ARE PROPOSED AND EXCAVATION EQUIPMENT WILL NOT EXCEED 90 FEET HEIGHT.
3. THE PHASE 3C PROJECT LIES WITHIN THE 10,000' AREA AS DEFINED IN FAA AC 150/5200-33B. AS SUCH ALL FINISHED LAKE SHORELINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FAA AC 150/5200-33B AS SHOWN ON THE RECLAMATION PLAN 1262-28.
4. DUST CONTROL WILL BE PROVIDED WITHIN THE PHASE 3C AREA BY THE USE OF A PERIODIC HAUL ROAD WATERING PLAN.
5. NO USES ARE PROPOSED THAT WILL REQUIRE PERMANENT SITE LIGHTING. ALL EXCAVATOR MOUNTED LIGHTING USED FOR EXCAVATION OPERATIONS AT NIGHT WILL BE INSTALLED WITH PROPER SHIELDING IN ACCORDANCE WITH FAA STANDARDS SUCH THAT NO HAZARD TO AVIATION IS EXPECTED.
6. NO USES ARE PROPOSED WITHIN PHASE 3C THAT WILL PRODUCE SMOKE, VISIBLE FUMES OR VAPORS, GLARE OR OTHER VISUAL HAZARDS.
7. ALL SITE RELATED COMMUNICATIONS AND CONTROLS WILL BE IN ACCORDANCE WITH FAA STANDARDS SUCH THAT NO PRODUCTION OF ELECTRONIC INTERFERENCE WITH NAVIGATIONAL SIGNALS OR RADIO COMMUNICATION BETWEEN AIRCRAFT, AND AIRPORT OR OTHER TYPES OF AIR TRAFFIC CONTROLLING FACILITIES.

LEGEND:

- CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC
- PHASE 3D EXPANSION MINING LIMITS
- SECTION CORNER
- RUNWAY CENTER LINE
- FAA AC150/5300-18 (150' HEIGHT)
- PART 77 (150' HEIGHT)
- FAA AC150/5300-18 (150' HEIGHT)
- VGHS VERTICALLY GUIDED HORIZONTAL SURFACE
- VGAS VERTICALLY GUIDED APPROACH SURFACE
- VGATS VERTICALLY GUIDED APPROACH TRANSITIONAL SURFACE

DATE OF PHOTOGRAPH: APRIL 2022

NUMBER	REVISIONS	DATE
1	UPDATED 2021 AERIAL PHOTOGRAPH	9/9/2021



DESIGNED BY: J.K.H.	DATE: 3/2020
DRAWN BY: J.K.H.	DATE: 3/2020
CHECKED BY: R.E.B.	DATE: 3/2020
VERTICAL SCALE: NONE	HORIZONTAL SCALE: N.T.S.



6200 Whiskey Creek Drive
Fort Myers, FL 33919
Phone : (239) 985-1200
Florida Certificate of
Authorization No.1772

AVIATION HAZARD MAP
Southwest Florida International Airport (RSW)

REFERENCE NO.	DRAWING NO.
0013AAVI	1467
PROJECT NO.	SHEET NO.
2000.013A	HM13

- Schedule of Deviations and Justifications**
- 1-A - LANDSCAPE BUFFERS - 12-113(O)(1)A.
(EXISTING CONDITION APPROVED PER LEE COUNTY D.O.#96-0509.808L)
DEVIATION (1-A) SEEKS RELIEF FROM LDC SECTION 12-113 (O)(1)A, BUFFERS, RIGHT-OF-WAY, WHICH REQUIRES A MINIMUM 50 FOOT WIDE LANDSCAPE BUFFER MAINTAINED AT NATURAL GRADE; EVERY 100 FEET OF THE BUFFER MUST CONSIST OF: TEN TEN-FOOT TREES WITH TWO-INCH CALIPER AND FOUR-FOOT SPREAD, TEN 5-FOOT TREES WITH ONE-INCH CALIPER AND TWO-FOOT SPREAD, AND 100 NATIVE SHRUBS 24 INCHES IN HEIGHT; AND 50 PERCENT OF THE REQUIRED TREES MUST BE NATIVE PINES, AND 20 PERCENT NATIVE PALMS OR APPROPRIATE NATIVE WETLAND VEGETATION, TO RECOGNIZE THE EXISTING, PREVIOUSLY APPROVED LANDSCAPE BUFFER (LEE COUNTY D.O.#96-0509.808L) THAT CONSISTS OF FIVE TREES PER 100 LINEAR FEET, A DOUBLE STAGGERED HEDGE ROW, AND A 12 FOOT BERM ADJACENT TO ALICO ROAD IN PHASE 3A OF THE MEPD.
- 2-A/2-B - LANDSCAPE BUFFERS - 12-113(O)(1)A. & D.
(EXISTING CONDITION APPROVED PER LEE COUNTY LDO2007-00214)
DEVIATION (2-A/2-B) SEEKS RELIEF FROM LDC SECTION 12-113 (O)(1), BUFFERS, WHICH REQUIRES LANDSCAPE BUFFERS WHEN THE MINE PROPERTY ADJUTS A RIGHT-OF-WAY OR CONSERVATION LANDS, TO RECOGNIZE THE EXISTING CONDITION OF NO BUFFERS IN PHASE 3B OF THE MEPD.
- 3-A/3-B - EXCAVATION SETBACKS - 12-113(C)(1)A.
(EXISTING CONDITION APPROVED PER LDO2007-00214)
DEVIATION (3-A/3-B) SEEKS RELIEF FROM THE LDC § 12-113(C)(1)A, REQUIREMENT TO PROVIDE A 150 FOOT EXCAVATION SETBACK FROM AN EXISTING STREET RIGHT-OF-WAY, TO RECOGNIZE THE EXISTING APPROVAL FOR A 100-FOOT EXCAVATION SETBACK FROM A RIGHT-OF-WAY (ALICO ROAD).
- 3-C - EXCAVATION SETBACKS - 12-113(C)(1)A.
(APPROVED VIA Z-13-026, DEVIATION #8, DOS2015-00078)
DEVIATION (3-C) SEEKS RELIEF FROM THE LDC § 12-113(C)(1)A, REQUIREMENT TO PROVIDE A 150 FOOT EXCAVATION SETBACK FROM AN EXISTING STREET RIGHT-OF-WAY, TO RECOGNIZE THE EXISTING APPROVAL FOR A 75 FEET EXCAVATION SETBACK FROM A FUTURE RIGHT-OF-WAY FOR THE FUTURE ALICO ROAD WIDENING (150 FEET FROM THE EXISTING STREET RIGHT-OF-WAY).
- 4-A - PERMANENT COUNT STATIONS - 12-116(B)(2)
(EXISTING CONDITION APPROVED PER LDO2007-00214, LDO96-05-098.08L)
(APPROVED VIA Z-13-026, DEVIATION #13, DOS2015-00078)
DEVIATION (4-A) SEEKS RELIEF FROM LDC SECTION 12-116 (B)(2) PERMANENT COUNT STATIONS WHICH REQUIRES THE CONSTRUCTION OF A PAVED CHANNELIZED ACCESS FROM A MINIMUM OF 200 FEET INSIDE THE MINE PROPERTY BOUNDARY UP TO THE PUBLIC ROAD AND A PERMANENT COUNT STATION TO MONITOR DAILY VEHICLE TRIPS ALONG WITH A WARRANTY FOR REPAIRS, MAJOR MAINTENANCE AND REPLACE, AND THAT THE MINE OPERATION PAY THE ANNUAL OPERATIONAL AND MAINTENANCE FEES, TO NOT PROVIDE THE PERMANENT COUNT STATION WITH WARRANTY.
- 5-A - TRANSPORTATION IMPACT MITIGATION - 12-116(C)
(APPROVED VIA Z-13-026, DEVIATION #15, DOS2015-00078)
DEVIATION (5-A) SEEKS RELIEF FROM LDC SECTION 12-116 (C) TRANSPORTATION IMPACT MITIGATION WHICH REQUIRES THE MINE OPERATOR TO CONTRACT WITH LOCAL LAW ENFORCEMENT TO PROVIDE CONTINUOUS MONITORING OF TRUCK TRAFFIC, TO DEVELOP A TRUCK HAULING OPERATION PLAN, TO MAINTAIN, REPAIR OR REPLACE THE ACCESS WITHIN THE OFF-SITE SPECIFIC IMPROVEMENTS, AND TO PROVIDE CERTAIN INFORMATION TO ESTABLISH A USER FEE, TO NOT PROVIDE THESE SERVICES.
- 6-A/6-B - RECLAMATION STANDARDS - SHORELINE DESIGN - 12-119(B)
(EXISTING CONDITION APPROVED PER LEE COUNTY LDO2007-00214)
DEVIATION (6-A/6-B) SEEKS RELIEF FROM THE LDC §12-119(B), RECLAMATION STANDARDS, REQUIREMENT TO PROVIDE THE RECLAIMED SHORELINE LITTORAL SHELF BE A CREATED WETLAND DESIGNED TO SUSTAIN WILDLIFE, TO RECOGNIZE THE EXISTING, APPROVED RECLAMATION PLAN FOR PHASES 3A/3B.
- 6-C - RECLAMATION STANDARDS - SHORELINE DESIGN - 12-119(B)
(APPROVED VIA Z-13-026, DEVIATION #4, DOS2015-00078)
DEVIATION (6-C) SEEKS RELIEF FROM THE LDC §12-119(B), RECLAMATION STANDARDS, REQUIREMENT TO PROVIDE THE RECLAIMED SHORELINE LITTORAL SHELF BE A CREATED WETLAND DESIGNED TO SUSTAIN WILDLIFE, TO RECOGNIZE THE EXISTING APPROVAL FOR THE SHORELINE DESIGN PER FAA ADVISORY CIRCULAR 150/5200-33B.
- 6-D - RECLAMATION STANDARDS - SHORELINE DESIGN - 12-119(B)
DEVIATION (6-D) SEEKS RELIEF FROM LDC SECTION 12-119(B) RECLAMATION STANDARDS WHICH REQUIRES THAT RECLAMATION STANDARDS BE FOLLOWED TO ENSURE LONG TERM PLANS TO SUSTAIN FISH AND WILDLIFE, TO ALLOW FOR THE SHORELINE DESIGN PER FAA ADVISORY CIRCULAR 150/5200-33C.
- 7-C - RECLAMATION PLAN - LITTORAL SHELF - 12-119(A)
(APPROVED VIA Z-13-026, DEVIATION #3, DOS2015-00078)
DEVIATION (7-C) SEEKS RELIEF FROM THE LDC §12-119(A), RECLAMATION PLAN, REQUIREMENT TO PROVIDE THE EXCAVATED LAKE BE DESIGNED TO ENSURE APPROPRIATE NATIVE WETLAND AREAS WILL BE CREATED AS A LITTORAL SHELF, TO RECOGNIZE THE EXISTING APPROVAL FOR THE SHORELINE DESIGN PER FAA ADVISORY CIRCULAR 150/5200-33B.
- 7-D - RECLAMATION PLAN - LITTORAL SHELF - 12-119(A)
DEVIATION (7-D) SEEKS RELIEF FROM LDC SECTION 12-119(A) RECLAMATION PLAN WHICH REQUIRES THAT THE EXCAVATED LAKE BE DESIGNED TO ENSURE APPROPRIATE NATIVE WETLAND AREAS WILL BE CREATED AS A LITTORAL SHELF, TO ALLOW FOR THE SHORELINE DESIGN PER FAA ADVISORY CIRCULAR 150/5200-33C.
- 8-C - RECLAMATION - BANK SLOPE - 12-119(A)(7)
(APPROVED VIA Z-13-026, DEVIATION #7, DOS2015-00078)
DEVIATION (8-C) SEEKS RELIEF FROM THE LDC §12-119(A)(7), RECLAMATION PLAN, REQUIREMENT TO PROVIDE THAT LAKE BANK SLOPES BE SLOPED AT A RATIO NOT GREATER THAN 6 HORIZONTAL TO 1 VERTICAL FROM THE TOP OF FINISHED GRADE TO A WATER DEPTH OF 4 FEET BELOW THE DRY SEASON DEPTH, TO RECOGNIZE THE EXISTING APPROVAL FOR LAKE BANK SLOPES TO BE SLOPED AT A RATIO OF 4 HORIZONTAL TO 1 VERTICAL FROM THE TOP OF FINISHED GRADE TO THE WET SEASON WATER TABLE AND 2 HORIZONTAL TO 1 VERTICAL DOWN TO A WATER DEPTH OF 4 FEET BELOW THE WET SEASON WATER TABLE AND TO BE COVERED WITH RIP RAP, AS SHOWN ON THE TYPICAL RECLAMATION SECTION, IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5200-33B.
- 8-D - RECLAMATION - BANK SLOPE - 12-119(A)(7)
DEVIATION (8-D) SEEKS RELIEF FROM LDC SECTION 12-119(A)(7) RECLAMATION PLAN WHICH REQUIRES THAT LAKE BANK SLOPES BE SLOPED AT A RATIO NOT GREATER THAN 6 HORIZONTAL TO 1 VERTICAL FROM THE TOP OF FINISHED GRADE TO A WATER DEPTH OF 4 FEET BELOW THE DRY SEASON DEPTH TO ALLOW FOR LAKE BANK SLOPES TO BE SLOPED AT A RATIO OF 4 HORIZONTAL TO 1 VERTICAL FROM THE TOP OF FINISHED GRADE TO THE WET SEASON WATER TABLE AND 2 HORIZONTAL TO 1 VERTICAL DOWN TO A WATER DEPTH OF 4 FEET BELOW THE WET SEASON WATER TABLE AND TO BE COVERED WITH RIP RAP AS SHOWN ON THE TYPICAL RECLAMATION SECTION, IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5200-33C.
- 9-D - OPEN SPACE - 12-113(I)
DEVIATION (9-D) SEEKS RELIEF FROM LDC SECTION 12-113(I) OPEN SPACE, REQUIREMENT TO PROVIDE THE OPEN SPACE REQUIREMENTS MAY BE MET BY THE PROVISION OF BUFFERS, INDIGENOUS AREA, SETBACKS, AND WILDLIFE HABITAT AREAS ON SITE, TO ALLOW FOR THE OPEN SPACE REQUIREMENTS TO BE MET BY AREAS PREVIOUSLY PERMITTED WITHIN PHASES 3A, 3B, AND 3C, AND PROPOSED WITHIN PHASE 3D, AS SHOWN ON THE MASTER MINING PLAN.
- 10-D - INDIGENOUS PRESERVATION - 12-113(M)
DEVIATION (10-D) SEEKS RELIEF FROM LDC SEC. 12-113 (M) INDIGENOUS PRESERVATION AND REPLANTING. MINES MUST PROVIDE 25 PERCENT OF THE PROJECT SITE AS INDIGENOUS PRESERVATION OR AS ON-SITE INDIGENOUS REPLANTING IF THE PROPERTY DOES NOT CONTAIN EXISTING INDIGENOUS PLANT COMMUNITIES, TO ALLOW EXISTING, PREVIOUSLY APPROVED INDIGENOUS AREAS, BOTH ON AND OFF-SITE, AND PROPOSED PRESERVE AREAS TO MEET THIS REQUIREMENT, FOR A TOTAL OF 73.1 ACRES ON-SITE AND 124.75 ACRES OFF-SITE (16.6 PERCENT).
- 11-D - WILDLIFE HABITAT - 12-113(P)
DEVIATION (11-D) SEEKS RELIEF FROM LDC SECTION 12-113(P) WILDLIFE HABITAT WHICH REQUIRES 300 FEET WIDE WILDLIFE HABITAT AREAS WITH PLANTINGS PROVIDING CONNECTIVITY TO ADJACENT PRESERVES OR CONSERVATION LANDS, TO ALLOW FOR THE INDIGENOUS PRESERVES AND OPEN SPACES WITH A MINIMUM WIDTH OF 125 FEET AND A MAXIMUM WIDTH OF 1,534 FEET TO MEET THE INTENT OF THE WILDLIFE HABITAT AREA, WITH AN ALTERNATE PLANTING PLAN AS SHOWN ON SHEET 10 OF THE LANDSCAPE PLANS, TO INCLUDE SLASH PINE, SWEETGUM, AND WILD COFFEE IN UPLAND AREAS, 3-GALLON IN SIZE AND PLANTED 20 FT. ON CENTER; AND IN WETLAND AREAS, STAR RUSH, LN 2 PLANTED 3 FT. ON CENTER; SAND CORDGRASS, 1-GAL. PLANTED 5 FT. ON CENTER; ARROWHEAD LANCE-LEAF, LN 2 PLANTED 3 FT. ON CENTER; AND SAWGRASS, LN 2 PLANTED 5 FT. ON CENTER.
- 12-D - INTERCONNECTION OF MINING LAKES - 12-107(5)
(APPROVED VIA Z-13-026, DEVIATION #17, DOS2015-00078)
DEVIATION (12-D) SEEKS RELIEF FROM LDC SECTION 12-107(5) WHICH REQUIRES THAT MINING ACTIVITY MUST FACILITATE THE CONNECTION OF MINING LAKES IN A SYSTEM OF INTERCONNECTED LAKES AND FLOWWAYS, TO NOT REQUIRE THE MINING LAKES CONNECTIONS.
- 13-D - OUTSIDE LIGHTING STANDARDS - 34-625
DEVIATION (13-D) SEEKS RELIEF FROM LDC SECTION 34-625 WHICH REQUIRES A SITE LIGHTING PLAN, TO ALLOW EXISTING LIGHTING TO REMAIN IN ACCORDANCE WITH PREVIOUSLY APPROVED PHOTOMETRIC PLANS.
- 14-D - TURN LANES - 12-116(B)(1)
(APPROVED VIA Z-13-026, DEVIATION #12, DOS2015-00078, AND SEZ2007-00006, CONDITIONS #6 & 7, LDO96-05-098.08L)
DEVIATION (14-D) SEEKS RELIEF FROM THE LDC §12-116 (B)(1) TURN LANES, WHICH REQUIRES LEFT TURN AND RIGHT TURN DECELERATION AND STORAGE LANES MUST BE INSTALLED AT THE MINE ENTRANCE ON ALL COLLECTOR AND ARTERIAL ROADS, TO UTILIZE THE EXISTING EAST BOUND TO NORTH BOUND LEFT TURN LANE AND WEST BOUND RIGHT-TURN ACCELERATION LANE WITHIN ALICO ROAD, WITHOUT MODIFICATION TO THE EXISTING FACILITIES.



LAKE 3B HAUL RD REDUCTION PER LDO96, UPDATE NOTES	07/21/2022
REVISED PER INSUFFICIENCY LETTER	09/24/2022
REVISE REFERENCES TO ALICO ROAD R.O.W.	11/12/2021
UPDATED OVERALL ACREAGE & 2021 AERIAL PHOTOGRAPH	9/9/2021
ADDED DESCRIPTIONS & REFERENCED APPROVALS	5/11/2021
NUMBER	REVISIONS
DATE	



DESIGNED BY:	J.K.H.	DATE:	3/2020
DRAWN BY:	J.K.H.	DATE:	3/2020
CHECKED BY:	R.E.B.	DATE:	3/2020
VERTICAL SCALE:	NONE	HORIZONTAL SCALE:	1"=400'

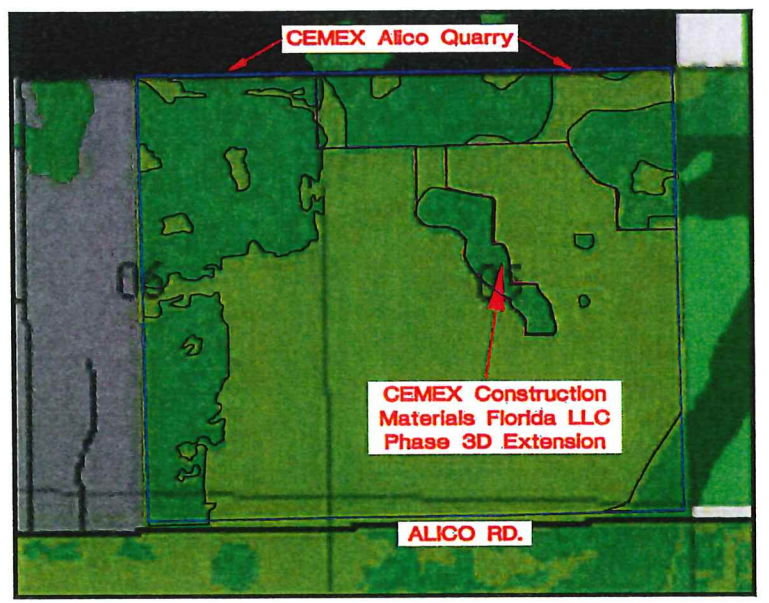
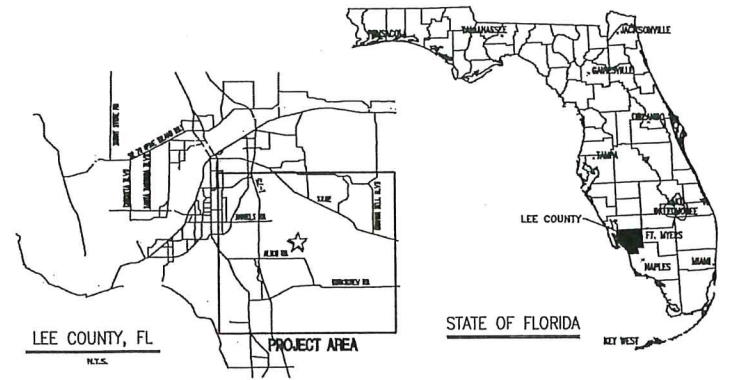
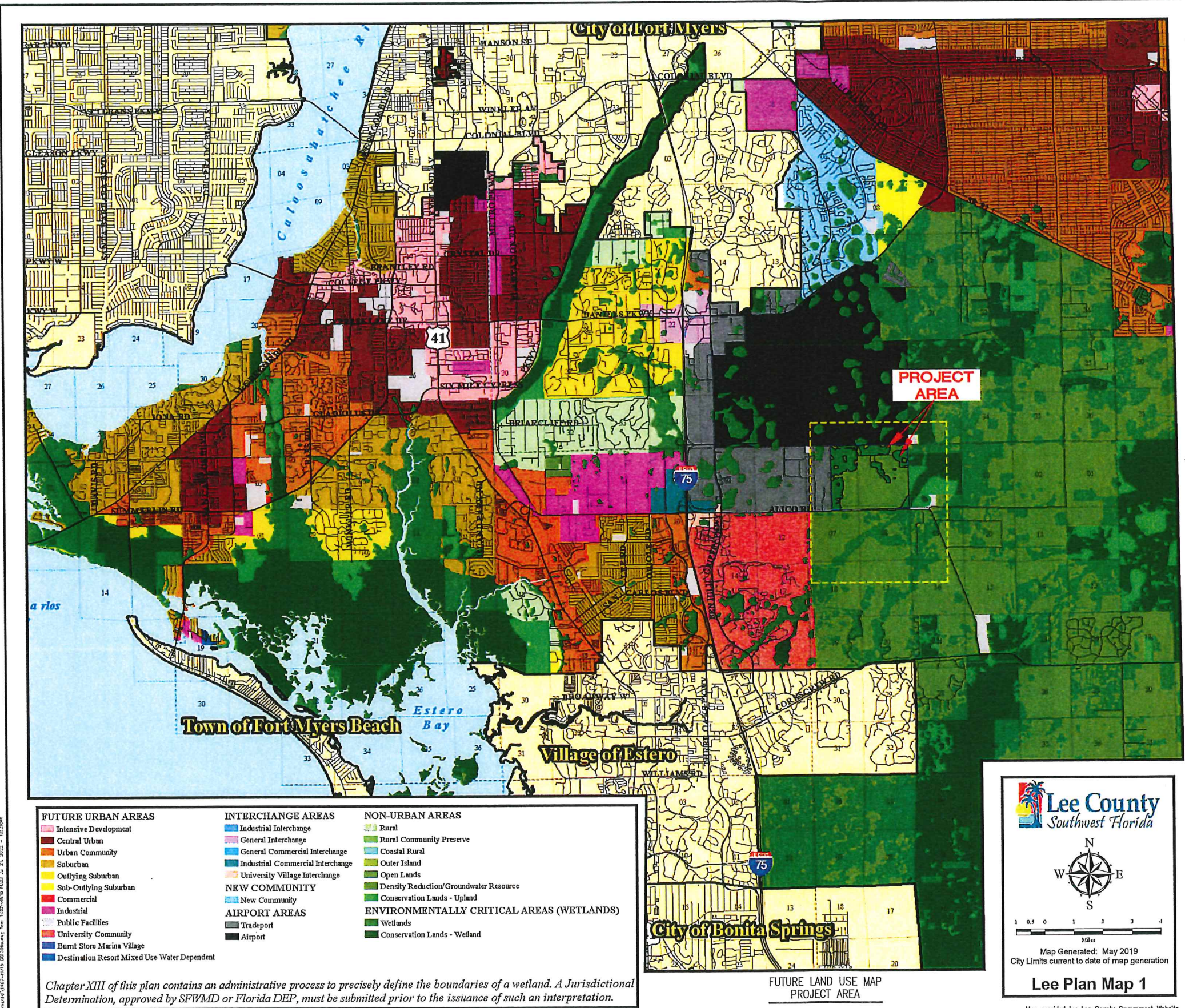


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SCHEDULE OF DEVIATIONS
LOCATION MAP

DATE OF PHOTOGRAPH: APRIL 2022

REFERENCE NO.	0013ADEV	DRAWING NO.	1467
PROJECT NO.	2000.013A	SHEET NO.	HM14



FUTURE LANDUSE MAP
PROJECT AREA ZOOM

FUTURE LANDUSE MAP CLASSIFICATIONS LEGEND:

Total Overall CEMEX Allico Quarry Mine = 1,193.0 Ac.

Future Land Use Breakdown per Mine Phase Area

Phases 3A / 3B & Plant Site:	725.5 Ac.
Density Reduction / Groundwater Resource	708.2 Ac.
Wetlands	17.3 Ac.

Phase 3C:	262.6 Ac.
Density Reduction / Groundwater Resource	36.6 Ac.
Wetlands	226.0 Ac.

Phase 3D Extension:	204.9 Ac.
Density Reduction / Groundwater Resource	60.6 Ac.
Wetlands	144.3 Ac.

Future Land Use for Total Mine Area

Density Reduction / Groundwater Resource	805.4 Ac.
Wetlands	387.6 Ac.
TOTAL Mine Acreage	1,193.0 Ac.

NON-URBAN AREAS

- Density Reduction/Groundwater Resource

ENVIRONMENTALLY CRITICAL AREAS (WETLANDS)

- Wetlands

Lee County
Southwest Florida

Map Generated: May 2019
City Limits current to date of map generation

Lee Plan Map 1

Map provided by: Lee County Government Website
http://www.lee.gov.com/dcd/Documents/Planning/LeePlan/Maps/Map01_01.pdf

CEMEX Construction Materials Florida, LLC

PROPOSED HOURS OF OPERATION

PHASE 3D EXCAVATION OPERATION
24 HOURS PER DAY, MONDAY THRU SATURDAY
(NO EXCAVATION OPERATIONS ON FEDERAL HOLIDAYS)

PLEASE NOTE THAT ALL PROCESSING WILL TAKE PLACE AT THE EXISTING PLANT FACILITY LOCATED WITHIN THE PHASE 3-A EXISTING MINE AREA DO96-05-098.08L.

SCHEDULE OF USES:

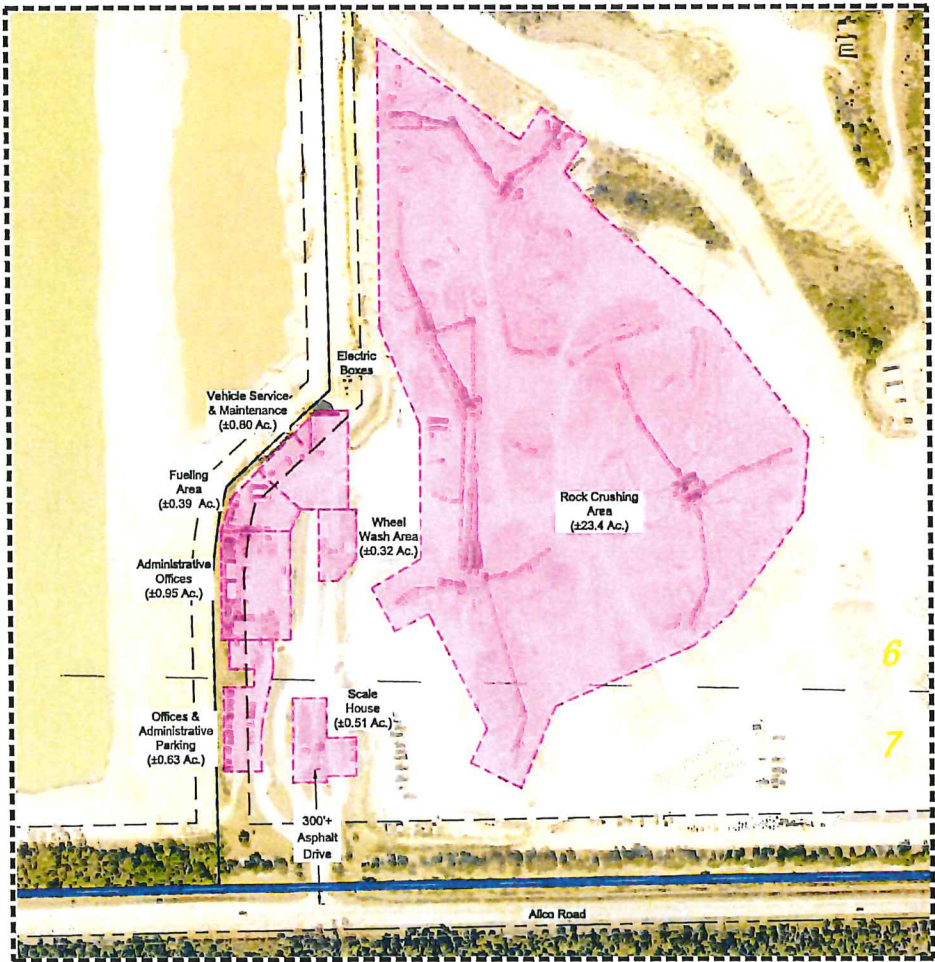
- EXCAVATION MINING
- EXCAVATION, WATER MANAGEMENT
- STORAGE, OPEN (STORAGE PILES FOR EXCAVATED MATERIALS)
- FENCES, GATES
- SIGNS IN ACCORDANCE WITH CHAPTER 30 LDC

PHASE 3A / 3B:

ACCESSORY TO THE PRINCIPAL USE OF EXCAVATION, MINING:

- ADMINISTRATIVE OFFICE
- BINS
- CRUSHERS
- MIXERS
- PARKING LOT, ACCESSORY
- ROCK CRUSHING AND STORAGE OF EXCAVATED MATERIALS
- TRUCK AND TIRE WASH
- TRUCK SCALES
- VEHICLE SERVICE/FUELING AREA AND STORAGE OF EQUIPMENT RELATED TO MINING OPERATIONS

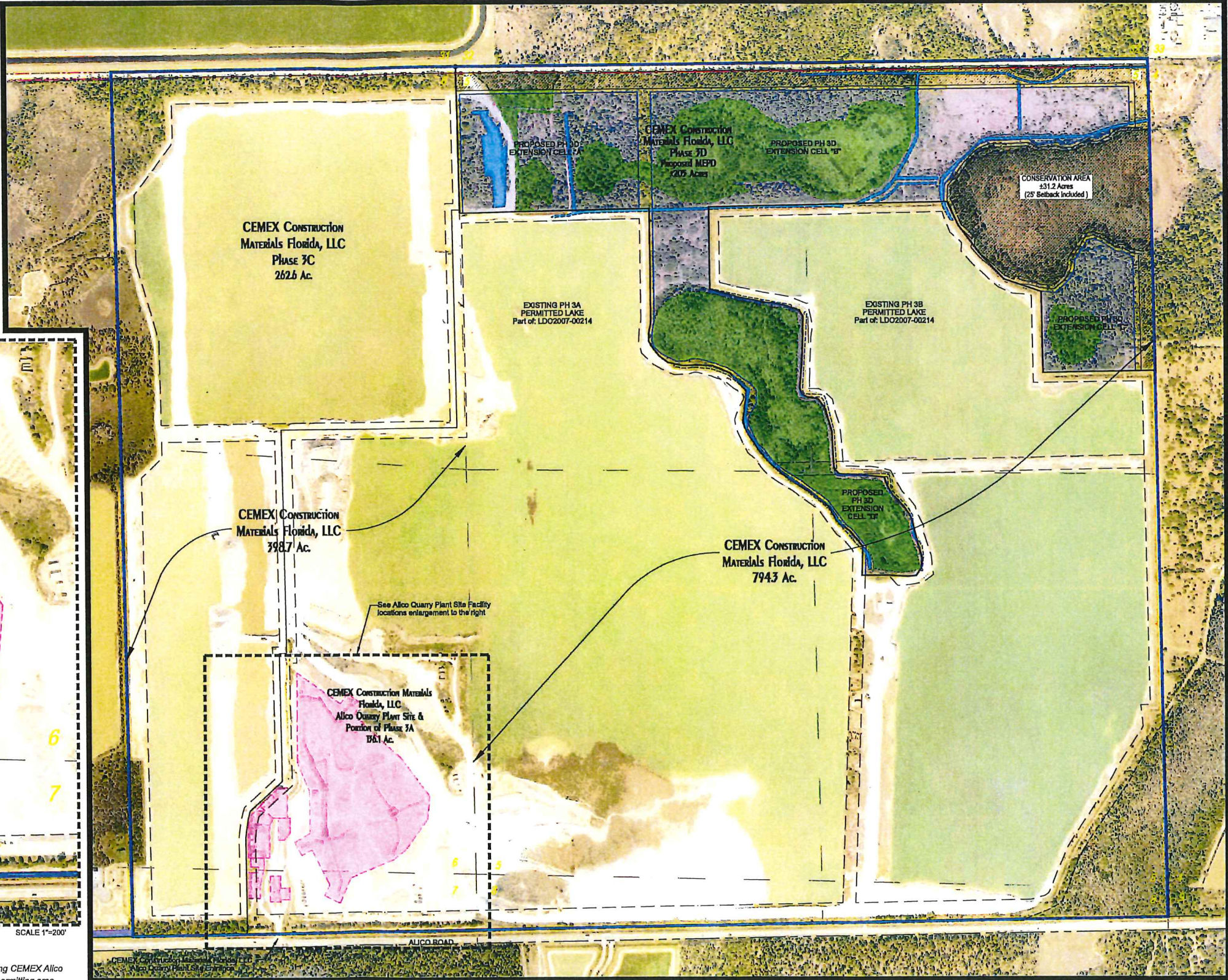
Existing Plant Site Uses:	
Administrative Offices	0.95 Ac.
Rock Crushing	23.40 Ac.
Fueling Area	0.39 Ac.
Vehicle Servicing Area	0.80 Ac.
Wheel Wash	0.32 Ac.
Scale House	0.51 Ac.
Office / Administrative Parking	0.63 Ac.
TOTAL	27.00 Ac.



ALICO QUARRY PLANT SITE FACILITY
PORTION OF PHASE 3A

Please note that Phase 3D will be for excavation only. All of the resource that is extracted will be hauled to the southwest existing CEMEX Alico North Quarry processing plant located within the existing Phase 3A Existing Mine area, which is part of the proposed MEPD permitting area.

No proposed physical plant facilities are requested for Phase 3D portion.



AERIAL PHOTOGRAPHY: APRIL 2022

NUMBER	REVISIONS	DATE



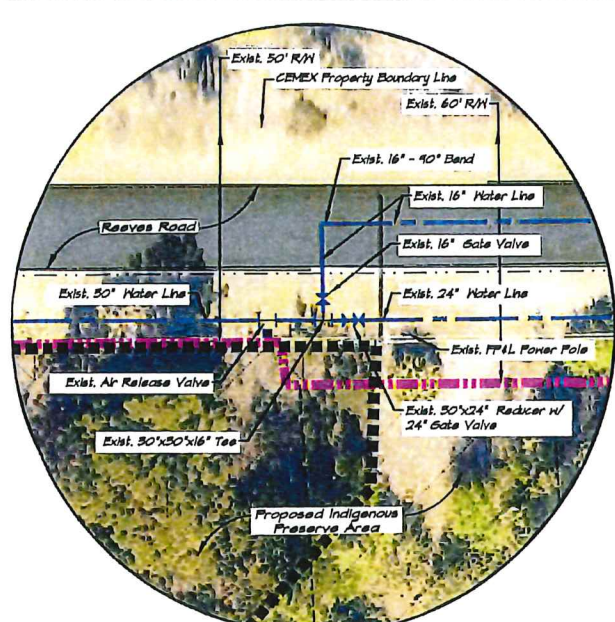
DESIGNED BY:	J.K.H.	DATE:	6/2021
DRAWN BY:	J.K.H.	DATE:	6/2021
CHECKED BY:	R.E.B.	DATE:	6/2021
VERTICAL SCALE:	NONE	HORIZONTAL SCALE:	1"=400'



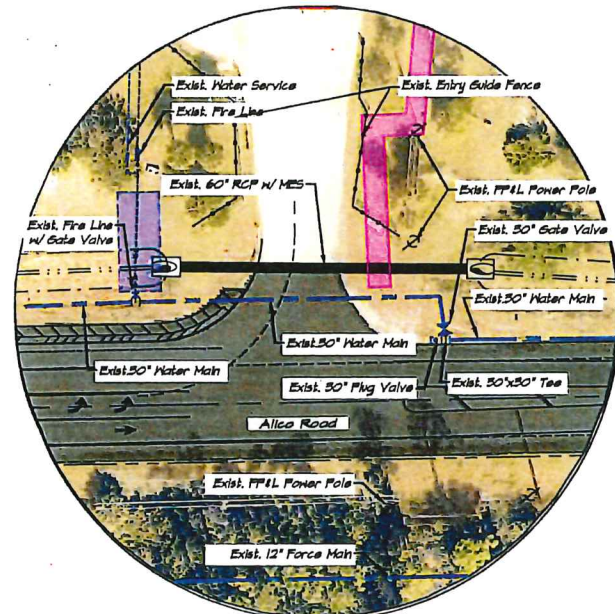
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Phone : (239) 985-1200
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EXISTING PLANT MATERIAL SITE LOCATIONS
AND MATERIAL STOCKPILE

REFERENCE NO.	0013APLNT	DRAWING NO.	1467
PROJECT NO.	2000.013A	SHEET NO.	HM16



Inset "A"
Reeves Road
(Transition: 50' R/W to 60' R/W)
Scale 1"=20'



Inset "B"
Allico Road
Entrance to CEMEX Plant Site
Scale 1"=40'

**CEMEX Construction Materials Florida, LLC
Allico Quarry - Proposed MEPD Site:**

- | | | | |
|--|--|--|--------------------------|
| | CEMEX Construction Materials Florida, LLC MEPD Permit Area | | Existing Power Pole |
| | Phase 3D Indigenous Area | | Existing Fire Hydrant |
| | Previously Permitted Lake Areas | | Existing Water Main Line |
| | Restored Indigenous Preserve | | Existing Force Main Line |
| | Welland Preservation Area | | |



NUMBER	REVISIONS	DATE
1	LAKE 38 HMA RD REDUCTION PER LDO#06	2022/07/21
2	UPDATED REEVES RD INV. EL. & 2021 AERIAL PHOTOGRAPH	09/2021



DESIGNED BY:	J.K.H.	DATE:	6/2021
DRAWN BY:	J.K.H.	DATE:	6/2021
CHECKED BY:	R.E.B.	DATE:	6/2021
VERTICAL SCALE:	NONE	HORIZONTAL SCALE:	1"=400'



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EXISTING UTILITIES

REFERENCE NO.	0013AUTL	DRAWING NO.	1467
PROJECT NO.	2000.013A	SHEET NO.	HM17

REFERENCE NO. 0013AWELL	DRAWING NO. 1467
PROJECT NO. 2000.013A	SHEET NO. HM18

MINING DEVELOPEMENT ORDER PLANS:

CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC

INDEX OF SHEETS

DRAWING NO.	DESCRIPTION
<i>MDO Plans; Provided By: Hole Montes, Inc.</i>	
1467-1	COVER SHEET
1467-2	SITE AERIAL PHOTOGRAPH - ALICO QUARRY
1467-3	EXISTING CONDITIONS / TOPOGRAPHIC CONTOUR MAP
1467-3A	BOUNDARY SURVEY - Provided by: SurveyTech (1 OF 3)
1467-3B	BOUNDARY DETAIL - Provided by: SurveyTech (2 OF 3)
1467-3C	SCHEDULE B-2 EXEMPTIONS - Provided by: SurveyTech (3 OF 3)
1467-4	PRE DEVELOPMENT FLUCCS
1467-4A	PRE DEVELOPMENT FLUCCS WITH AERIAL
1467-5	MASTER MINING SITE PLAN
1467-5A	PHASE 3D MASTER MINING PLAN
1467-6	MASTER DRAINAGE PLAN
1467-6A	PHASE 3D DRAINAGE PLAN / EXISTING CONTOURS
1467-7	PHASE 3D MINE SEQUENCING PLAN AND GENERAL NOTES
1467-8	POST DEVELOPMENT FLUCCS
1467-8A	POST DEVELOPMENT FLUCCS WITH AERIAL
1467-9	PHASE 3D MINING TYPICAL SECTIONS
1467-10	PHASE 3D EROSION AND SEDIMENT CONTROL PLAN, NOTES DETAILS
1467-11	PHASE 3D RECLAMATION PLAN
1467-11A	POST RECLAMATION MASTER SITE PLAN
1467-12A	DRAINAGE EXHIBIT (PRE-DEVELOPMENT)
1467-12B	DRAINAGE EXHIBIT (DURING MINING)
1467-12C	DRAINAGE EXHIBIT (POST RECLAMATION)
1467-12D	REEVE'S ROAD EXISTING SECTIONS

MEPD Supplemental Exhibits; Provided By: Hole Montes, Inc.

1467-HW01	AERIAL PHOTOGRAPH / CURRENT ZONING RESOLUTIONS / APPROVALS
1467-HW02	HEX 93-01-28-EXC-02 VS. 2021 MEPD APPLICATION
1467-HW03	SURROUNDING PROPERTY OWNERS MAP
1467-HW04	PROPERTY OWNERS LIST & MAP
1467-HW05	SCS SOILS MAP
1467-HW06	ARCHEOLOGICAL SENSITIVITY MAP
1467-HW07	WATERSHED BOUNDARIES / USGS MAP
1467-HW08	LEE COUNTY WATERSHED MAP
1467-HW09	LEE COUNTY WET SEASON WATER TABLE MAP
1467-HW10	WELLFIELD PROTECTION ZONES
1467-HW11	WELL MONITORING PLAN (WSP)
1467-HW12	AIRPORT NOISE OVERLAY
1467-HW13	AVIATION HAZARD MAP
1467-HW14	DEVIATION LOCATION MAP
1467-HW15	FUTURE LAND USE MAP
1467-HW16	EXISTING PLANT AND MATERIAL STOCKPILE LOCATIONS
1467-HW17	EXISTING UTILITIES
1467-HW18	EXISTING WELLS WITHIN 1 MILE OF SUBJECT MEPD

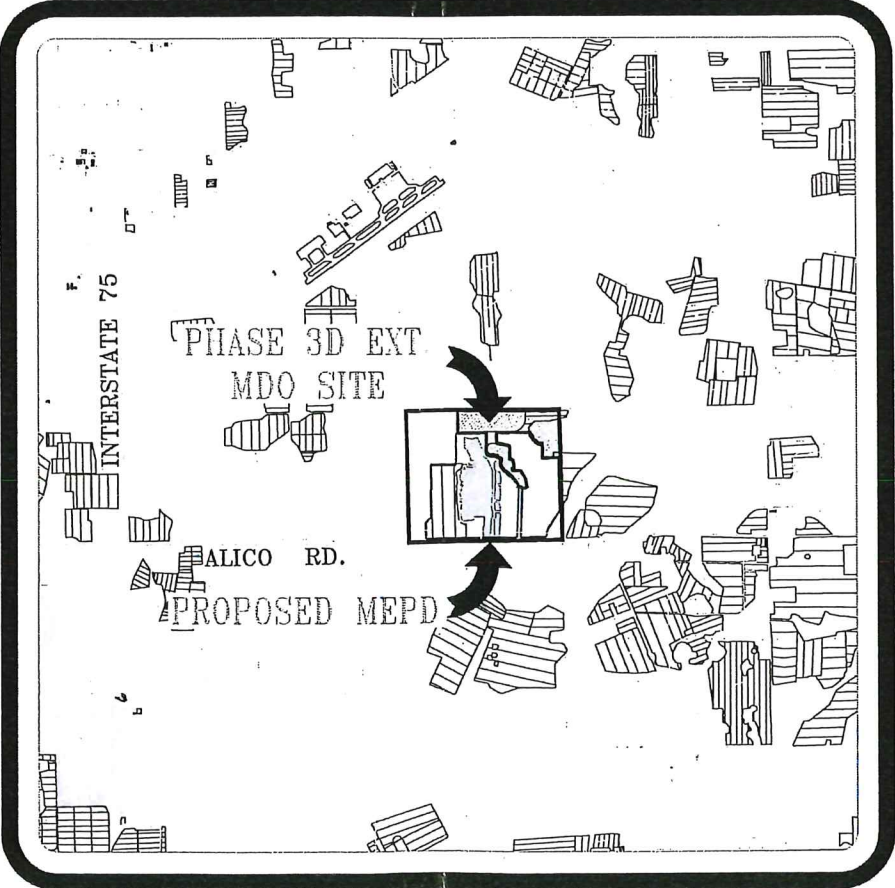
MDO Landscape Plans Alico Quarry - Phases 3A thru 3D; Provided By: Hole Montes, Inc.

LP2.00	1 of 14	ALICO QUARRY - MEPD PREVIOUS D.O. LANDSCAPE PLANS & KEY SHEET
LP2.01	2 of 14	ALICO QUARRY - PHASE 3D OPEN SPACE EXHIBIT / BUFFER EXHIBIT
LP2.03	3 of 14	ALICO QUARRY - PHASE 3A PLANT SITE LANDSCAPE PLAN
LP2.04	4 of 14	ALICO QUARRY - PHASE 3A OFFICE COMPLEX LANDSCAPE PLAN
LP2.05	5 of 14	ALICO QUARRY - PHASE 3A ALICO ROAD LANDSCAPE PLAN
LP2.06	6 of 14	ALICO QUARRY - PHASE 3C BUFFER LANDSCAPE KEY SHEET
LP2.07	7 of 14	ALICO QUARRY - PHASE 3C BUFFER LANDSCAPE PLAN ENLARGEMENTS 1
LP2.08	8 of 14	ALICO QUARRY - PHASE 3C BUFFER LANDSCAPE PLAN ENLARGEMENTS 2
LP2.09	9 of 14	ALICO QUARRY - PHASE 3D CODE LANDSCAPE PLAN
LP2.10	10 of 14	ALICO QUARRY - PHASE 3A - 3D / PHASE 3D BUFFER LANDSCAPE PLAN
LP3.00	11 of 14	ALICO QUARRY - PHASE 3A - 3D EXOTIC & NUISANCE PLANT SPECIES
LP3.02	12 of 14	ALICO QUARRY - PHASE 3A - 3D LANDSCAPE DETAILS & NOTES
LP3.03	13 of 14	ALICO QUARRY - PHASE 3A - 3D LANDSCAPE DETAILS & NOTES
IR1.00	14 of 14	ALICO QUARRY - PHASE 3A - 3D IRRIGATION DETAILS NOTES & GUIDELINES

ACRONYMS and ABBREVIATIONS:	
EX or EXIST.	Existing
PR or PROP.	Proposed
RD	Road
AC	Acre
FT	Feet
AC-FT	Acre-Feet
CY	Cubic Yard
EL or ELEV	Elevation
MIN	Minimum
MAX	Maximum
DIA	Diameter
ADSWT	Average Dry Season Water Table
AWSWT	Average Wet Season Water Table
FDEP	Florida Department Environmental Protection
LCU	Lee County Utilities
MDO	Lee County Mining Development Order
MOP	Lee County Mining Excavation Planned Development
NAVD	North American Vertical Datum of 1988
NGVD	National Geodetic Vertical Datum of 1929
SEC	Section
TWP	Township
RNG	Range
UMAM	Uniform Mitigation Assessment Method

Alico Quarry
Phase 3D Extension

Property Located in a Portion of Section:
5 Twp 46 S, Rng 26 E
DATE: JULY 2022



PROJECT LOCATION MAP

PROJECT CONSULTANTS

COMPANY NAME	TELEPHONE NUMBER	CONTACT PERSON	SERVICE
HOLE, MONTES, INC.	239-985-1200	RICK BYRLANSKI	ENGINEERS/SURVEYORS
THE COLINAS GROUP, INC.	863-669-9141	MATT MOUNCEY	ENVIRONMENTAL CONSULTANT
THE COLINAS GROUP, INC.	863-669-9141	MARK STEPHENS, PE	WATER RESOURCES / HYDROLOGY
SOUTHEAST ENVIRONMENTAL SOLUTIONS, INC.	813-752-1289	CATHY D. LITSCHER	ENVIRONMENTAL SCIENTIST



ATTACHMENT E

Building a better future

PREPARED FOR:

CEMEX Construction Materials Florida, LLC

1501 Belvedere Road
West Palm Beach, FL 33406
Ph.: (561) 651-7105
Fax: (561) 820-8624
Attn: James Morris

PREPARED BY:



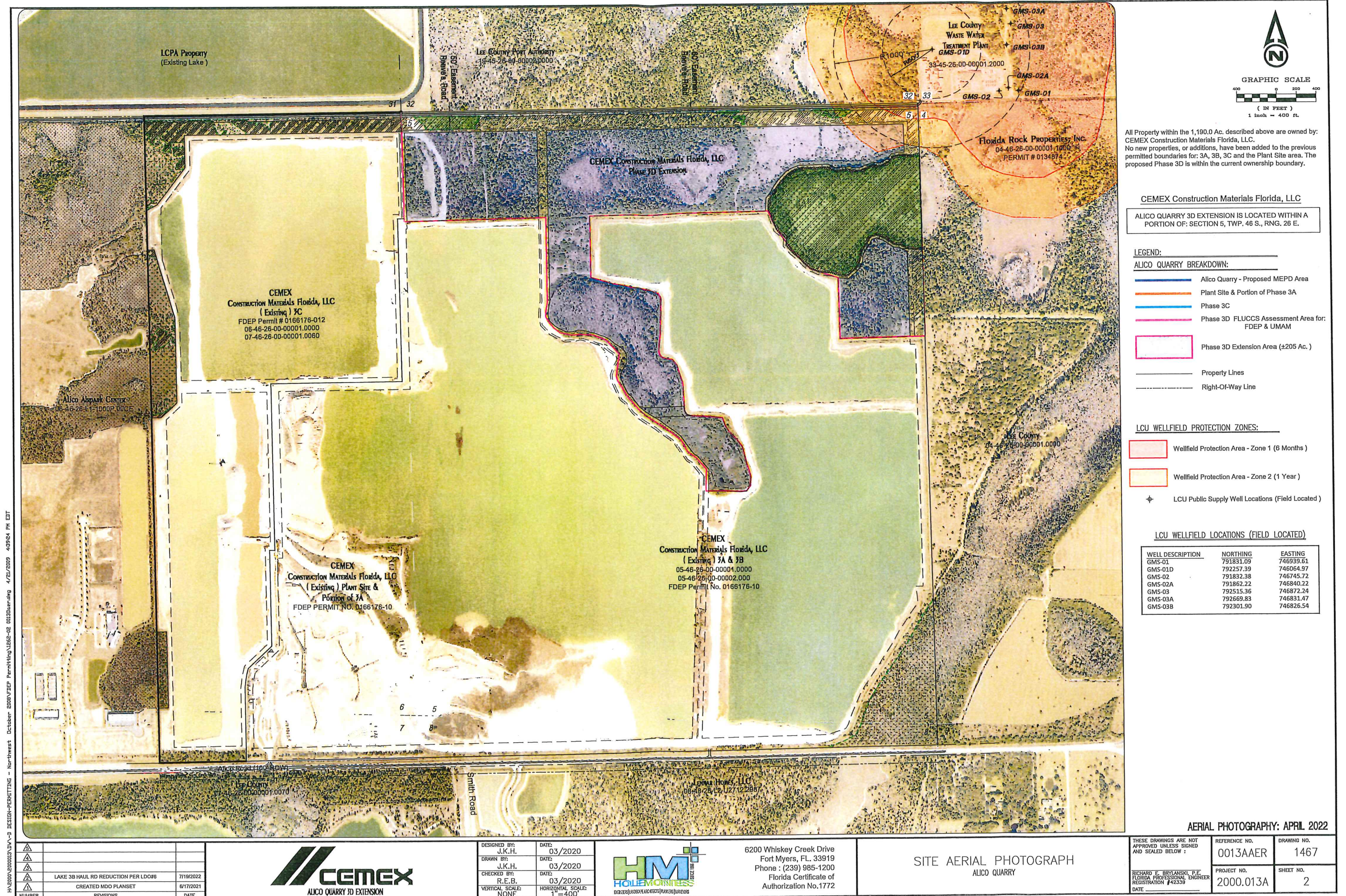
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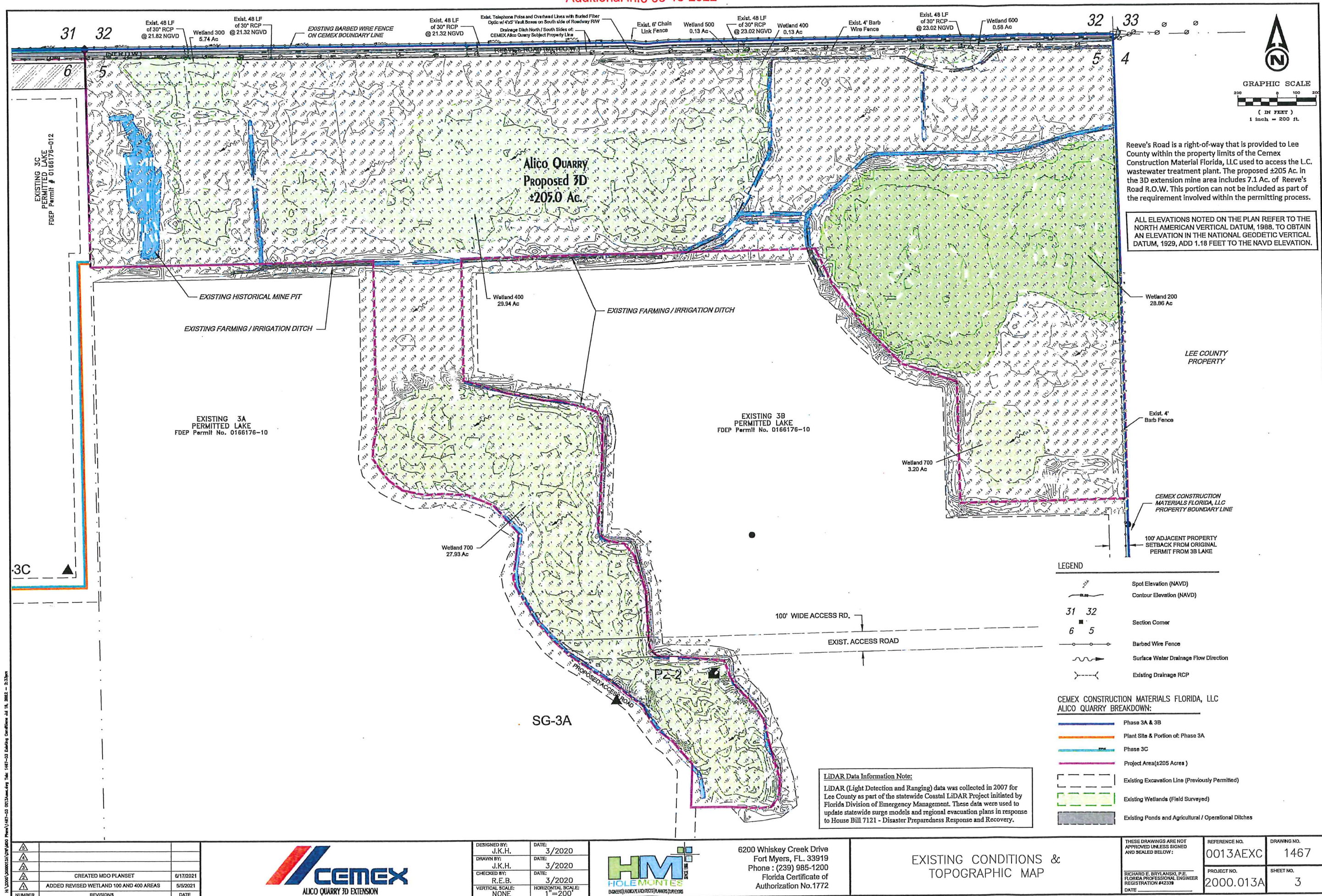
Project No.: 2000.013A

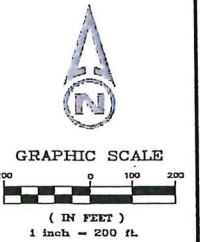
Digitally signed by Richard Edmund Brylanski P. E. 42339 State of Florida
DN: cn=Richard Edmund Brylanski P. E. 42339 State of Florida, o=Printed
copies of the document are not considered signed and sealed and all
SHA-1 authentication code must be verified on any electronic copies,
ou=The item has been electronically signed and sealed using a SHA-1
authentication codes, email=rickbrylanski@himgem.com, c=US
Date: 2022.08.09 14:04:21 -0400

"I, the undersigned, hereby certify that this map is correct, and shows the information required by the requirements of the Land Development Code to obtain a M.E.P.D., M.D.O. or M.O.P."

			THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW :	REFERENCE NO.	DRAWING NO.
				0013ACOV	1467
	LAKE 3B HAUL RD REDUCTION PER LDO#6	7/19/2022			
	CREATED MDO PLANSET	6/17/2021	RICHARD E. BYRLANSKI, P.E. FLORIDA PROFESSIONAL ENGINEER REGISTRATION #42339	JOB NO. W/ EXT.	SHEET NO.
INURSEP	REVISIONS	DATE	DATE	2000013A	1







INFORMATION NOTE:

Information regarding FLUCCS data provided, is generated by:
The Colinas Group, Inc. and Southeast Environmental Solutions, Inc. for:
Environmental and Listed Species reports required within the permitting process.

		
		
	UPDATE CHART	12/21/2021
	CREATED MDO PLANSET	6/17/2021
	ADDED REVISED WETLAND 100 AND 400 AREAS	5/5/2021
NUMBER	REVISIONS	DATE



DESIGNED BY: J.K.H.	DATE: 03/2020
DRAWN BY: J.K.H.	DATE: 03/2020
CHECKED BY: R.E.B.	DATE: 03/2020
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1" = 200'



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Fort Myers, FL. 33919
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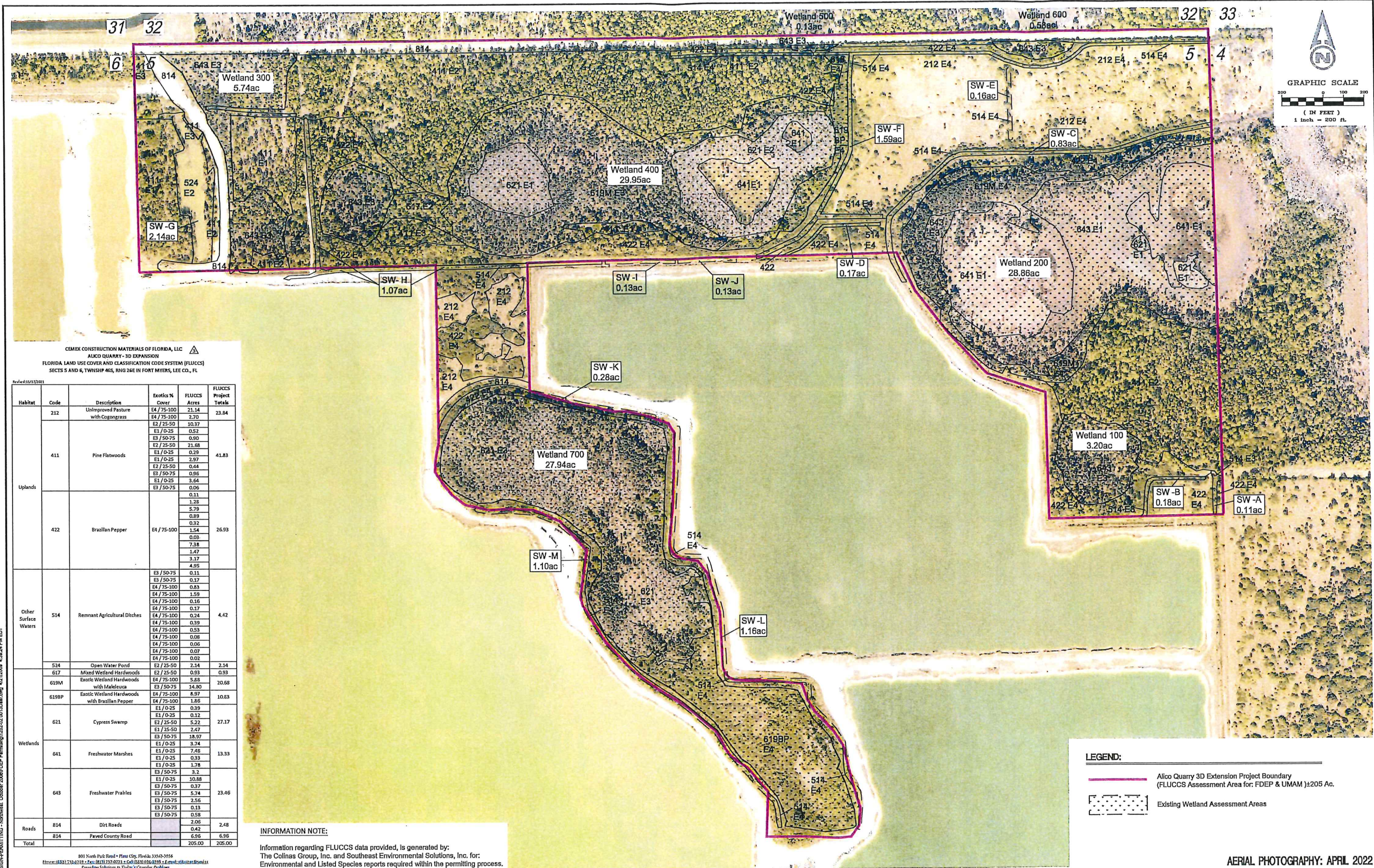
PRE DEVELOPMENT FLUCCS

THESE DRAWINGS ARE NOT
APPROVED UNLESS SIGNED
AND SEALED BELOW:

RICHARD E. BRYLANSKI, P.E.
FLORIDA PROFESSIONAL ENGINEER
REGISTRATION #42339

DATE _____

REFERENCE NO. 0013AFLCS	DRAWING NO. 1467
PROJECT NO. 2000.013A	SHEET NO. 4



CEMEX CONSTRUCTION MATERIALS OF FLORIDA, LLC
ALICO QUARRY - 3D EXPANSION
FLORIDA LAND USE COVER AND CLASSIFICATION CODE SYSTEM (FLUCCS)
SECTS 5 AND 6, TOWNSHIP 46S, RING 26E IN FORT MYERS, LEE CO., FL

Revised 03/17/2021

Habitat	Code	Description	Exotics % Cover	FLUCCS Acres	FLUCCS Project Totals
Uplands	212	Unimproved Pasture with Cogongrass	E4 / 75-100	21.14	23.84
			E4 / 75-100	2.70	
			E2 / 25-50	10.37	
			E1 / 0-25	0.52	
			E3 / 50-75	0.90	
	411	Pine Flatwoods	E2 / 25-50	21.28	41.83
			E1 / 0-25	0.25	
			E1 / 0-25	2.97	
			E2 / 25-50	0.44	
			E3 / 50-75	0.96	
	422	Brazilian Pepper	E1 / 0-25	3.64	26.93
			E3 / 50-75	0.06	
			E4 / 75-100	0.11	
			E4 / 75-100	1.28	
			E4 / 75-100	5.75	
Other Surface Waters	514	Remnant Agricultural Ditches	E4 / 75-100	0.89	4.42
			E4 / 75-100	0.32	
			E4 / 75-100	1.54	
			E4 / 75-100	0.03	
			E4 / 75-100	7.38	
	524	Open Water Pond	E4 / 75-100	1.47	2.14
			E4 / 75-100	3.17	
			E4 / 75-100	4.95	
			E3 / 50-75	0.11	
			E3 / 50-75	0.17	
Wetlands	617	Mixed Wetland Hardwoods	E4 / 75-100	0.83	10.63
			E4 / 75-100	1.59	
			E4 / 75-100	0.16	
			E4 / 75-100	0.17	
			E4 / 75-100	0.24	
	619M	Exotic Wetland Hardwoods with Maleuca	E4 / 75-100	0.39	20.68
			E4 / 75-100	0.53	
			E4 / 75-100	0.08	
			E4 / 75-100	0.06	
			E4 / 75-100	0.07	
	619BP	Exotic Wetland Hardwoods with Brazilian Pepper	E4 / 75-100	0.02	10.63
			E2 / 25-50	2.14	
			E2 / 25-50	0.93	
			E4 / 75-100	5.68	
			E3 / 50-75	14.80	
Roads	621	Cypress Swamp	E4 / 75-100	8.97	27.17
			E4 / 75-100	1.56	
			E1 / 0-25	0.39	
			E1 / 0-25	0.12	
			E2 / 25-50	5.22	
	641	Freshwater Marshes	E1 / 25-50	7.47	13.33
			E3 / 50-75	18.97	
			E1 / 0-25	3.74	
			E1 / 0-25	7.48	
			E1 / 0-25	0.33	
Total	643	Freshwater Prairies	E1 / 0-25	1.78	23.46
			E3 / 50-75	3.2	
			E1 / 0-25	10.88	
			E3 / 50-75	0.37	
			E3 / 50-75	5.74	
	814	Dirt Roads	E3 / 50-75	2.56	2.48
			E3 / 50-75	0.13	
			E3 / 50-75	0.58	
			E3 / 50-75	2.06	
			E3 / 50-75	0.42	
	814	Paved County Road	E3 / 50-75	6.56	6.96
			E3 / 50-75	0.05	
			E3 / 50-75	2.05	
			E3 / 50-75	0.42	
			E3 / 50-75	0.42	

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Phone: (813) 734-7121 • Fax: (813) 734-7121 • Cell: (813) 666-8335 • Email: info@hmm.com
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INFORMATION NOTE:
Information regarding FLUCCS data provided, is generated by:
The Collins Group, Inc. and Southeast Environmental Solutions, Inc. for:
Environmental and Listed Species reports required within the permitting process.



DESIGNED BY: J.K.H.
DATE: 03/2020
DRAWN BY: J.K.H.
DATE: 03/2020
CHECKED BY: R.E.B.
DATE: 03/2020
VERTICAL SCALE: NONE
HORIZONTAL SCALE: 1"=200'



6200 Whiskey Creek Drive
Fort Myers, FL 33919
Phone : (239) 985-1200
Florida Certificate of
Authorization No.1772

PRE DEVELOPMENT FLUCCS
(AERIAL PHOTOGRAPH)

THESE DRAWINGS ARE NOT
APPROVED UNLESS SIGNED
AND SEALED BELOW :
RICHARD E. BRYLANSKI, P.E.
FLORIDA PROFESSIONAL ENGINEER
REGISTRATION #42339
DATE

REFERENCE NO.
0013AFLCS
PROJECT NO.
2000.013A

DRAWING NO.
1467
SHEET NO.
4A

AERIAL PHOTOGRAPHY: APRIL 2022

GENERAL PHASING NOTES:

- The above timeframes for the various phases are projected excavations based upon current market demands. The excavation timeframes may vary between phases or be accelerated as conditions dictate. The local excavation permit is set to expire in October 2033, or as extended by approval, with all excavation ceasing and restoration being completed prior to the County Development Order permit LDO2007-00214 expiration.
- Post phasing plant site areas, within the development orders LDO95-05-098.08L and LDO2007-00214, will remain until all excavation ceases and restoration is completed after the expiration of the Phase 3C mining that is permitted under the Lee County Development Order DOS2015-00078. In final, the plant site will be dismantled and the land excavated in accordance to the relevant development order.

PROJECT COMPLETION DATES

PHASE	PROPERTIES	ESTIMATED COMMENCEMENT (YR.)	ESTIMATED COMPLETION (YR.)	ESTIMATED RECLAMATION COMPLETION (YR.)
3A		1996	2032	2033 **
3B		2008	2032	2033 **
3C		2013	2019	2020 **
3D *		2022	2032	2033

GENERAL PROJECT NOTES:

- THE PROPOSED PHASE 3D ±205 AC. PROJECT AREA DENOTES THE PROPOSED PROJECT AREA WITHIN THE 794.9 EAST SITE PARCEL THAT IS OWNED BY: CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC. THE REEVE'S ROAD R.O.W. OF 7.1 AC. IS INCLUDED IN THE ±205 AC. PROJECT BOUNDARY BUT, WILL NOT BE INCLUDED AS PART OF THE TABULATION FOR PERMITTING PURPOSES.
- RECLAMATION OF EACH OF THE CELLS WILL BE COMPLETED WITHIN 6 MONTHS AFTER THE COMPLETION OF MINING.
- IN CONJUNCTION WITH EXECUTIVE ORDER CASE#LDO2007-00214, References: EO17-235 & EO17-146

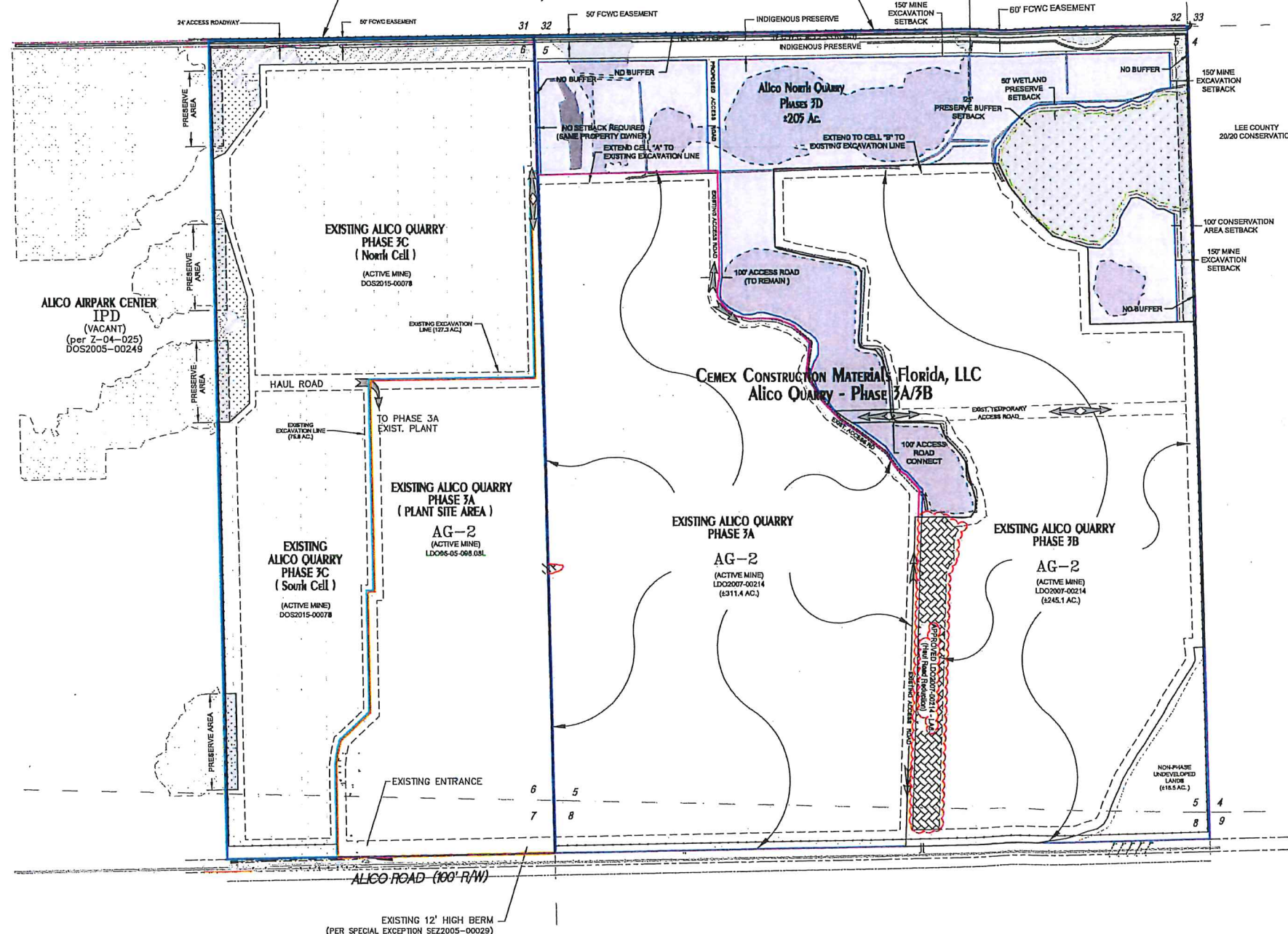


S.W. FLORIDA INTL. AIRPORT
AOPD
(AIRPORT - VACANT)
(per Z-06-030)
DOS2003-00041
S.F.W.M.D. PERMIT #36-00080-S
APPLICATION #000403-6

CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC

LEASE LIMITS

1,190.0 ACRES



CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC

PHASE 3A/3B LAND USE TABULATION

DESCRIPTION	3A LAKE EXCAVATION	3B LAKE EXCAVATION	3C LAKE EXCAVATION	INDIGENOUS AREA	REEVE'S RD. R/W & ALICO RD. R/W (NOT PART)	ADDITIONAL AREAS	AREA (AC.)
EXISTING PHASE 3A	287.7	---	---	---	---	23.7	311.4
EXISTING PHASE 3A PLANT SITE	118.7	---	---	---	---	17.4	136.1
EXISTING PHASE 3B	---	231.6	---	---	---	13.5	245.1
EXISTING PHASE 3C	---	---	203.1	23.7	5.2	30.6	262.6
SURROUNDING UNDEVELOPED LAND	---	---	---	---	---	29.9	29.9
PROPOSED PHASE 3D (3A/3B EXPANSION)	28.0	108.4	---	49.4	7.1 *	12.0	204.9 *
EAST PARCEL TOTALS	434.4	340.0	203.1	73.1	12.3	127.1	1,190.0

PROPOSED PHASE 3D PERMIT AREA

ADDITIONAL AREAS Is defined as areas outside of the designated phasing lines. These areas include: access roads, non-phase undeveloped lands, stockpiles, setbacks, buffers, berms and open space.

NOT PART Is referring to Reeve's Road Right-of-Way = 10.1 Ac. and the Phase 3C Alico Road 50' Buffer = 1.0 Ac. / Alico Road 55' ROW Reservation = 1.2 Ac. These areas are not to be included in the permitting process.

CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC

OVERALL PHASES 3A / 3B / 3C & 3D LAND USE BREAKDOWN

DESCRIPTION	PHASE 3A	PHASE 3A PLANT SITE	PHASE 3B	PHASE 3C	PHASE 3D	TOTALS
EXCAVATION LIMITS	287.7 Ac.	118.7 Ac.	231.6 Ac.	203.1 Ac.	136.4 Ac.	977.5 Ac.
INDIGENOUS / PRESERVE AREA	---	---	---	23.7 Ac.	49.4 Ac.	73.1 Ac.
STOCKPILE/SETBACKS/BUFFERS/BERMS/D.S.	23.7 Ac.	17.4 Ac.	13.5 Ac.	30.6 Ac.	12.0 Ac.	97.2 Ac.
REEVE'S RD. R/W & ALICO RD. R/W RESERV. BUFFER	---	---	---	5.2 Ac.	7.1 Ac.	12.3 Ac.
TOTALS	±311.4 Ac.	±136.1 Ac.	±245.1 Ac.	±262.6 Ac.	±204.9 Ac.	±1,160.1 Ac.

CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC

OVERALL PROPERTY LEASED AREA ACREAGE IS: 1,190.0 AC.

TOTAL MINE PHASING AREA ACREAGE IS: 1,147.8 AC.

- EXCLUDES 10.1 AC. OF REEVE'S ROAD R/W
- EXCLUDES 1.0 AC. OF 50' ROW LANDSCAPE BUFFER
- EXCLUDES 1.2 AC. OF 55' ROW RESERVATION

MINE PHASING DOES NOT INCLUDE ALL EXISTING INTERNAL MINING ACCESS ROADS OR NON-PHASE UNDEVELOPED LANDS

LEGEND

CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC (EXIST. PH 3A & 3B)	PROPOSED PHASE 3D MINING AREAS
PHASE 3D - FLUCCS ASSESSMENT AREA FOR: FDEP & UMAM (±205 ACRES)	OFFSITE PRESERVE AREA
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC (PHASE 3-C)	ONSITE WETLAND PRESERVE AREA (PHASE 3D)
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC (PLANT SITE)	ONSITE INDIGENOUS PRESERVE AREA (PHASE 3D)
EXISTING LAKE LINE	LAKE EXCAVATION AREAS
EXISTING PHASE 3A (PLANT SITE)	
EXISTING PHASE 3A	
EXISTING PHASE 3B	
EXISTING PHASE 3C	

PROP. GINN RESIDENTIAL PROJECT
AG-2
(VACANT-MINING COMPLETE)
DOS2004-00334



DESIGNED BY: J.K.H.
DATE: 3/2020
DRAWN BY: J.K.H.
DATE: 3/2020
CHECKED BY: R.E.B.
DATE: 3/2020
VERTICAL SCALE: NONE
HORIZONTAL SCALE: 1"=500'



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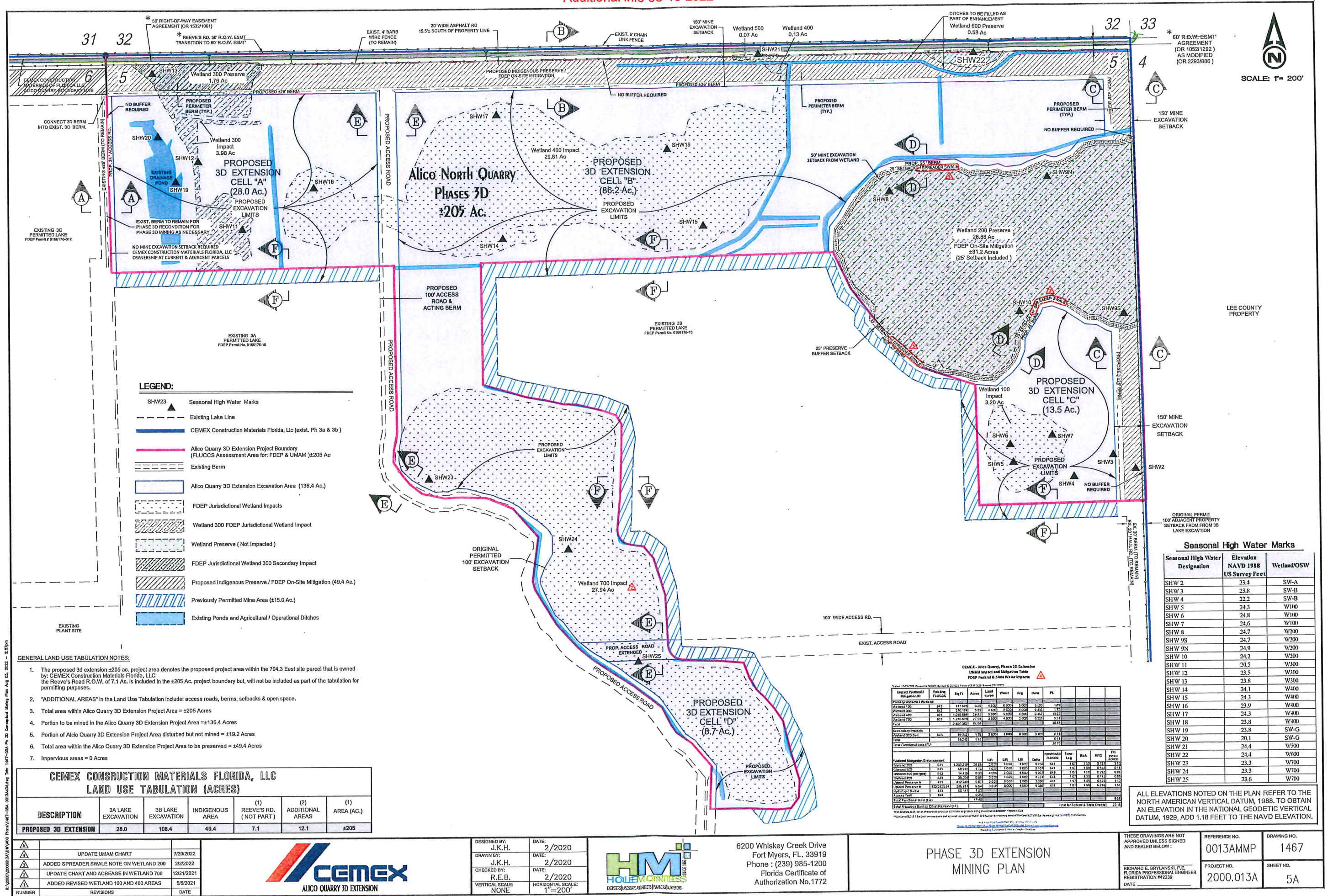
MASTER MINING SITE PLAN

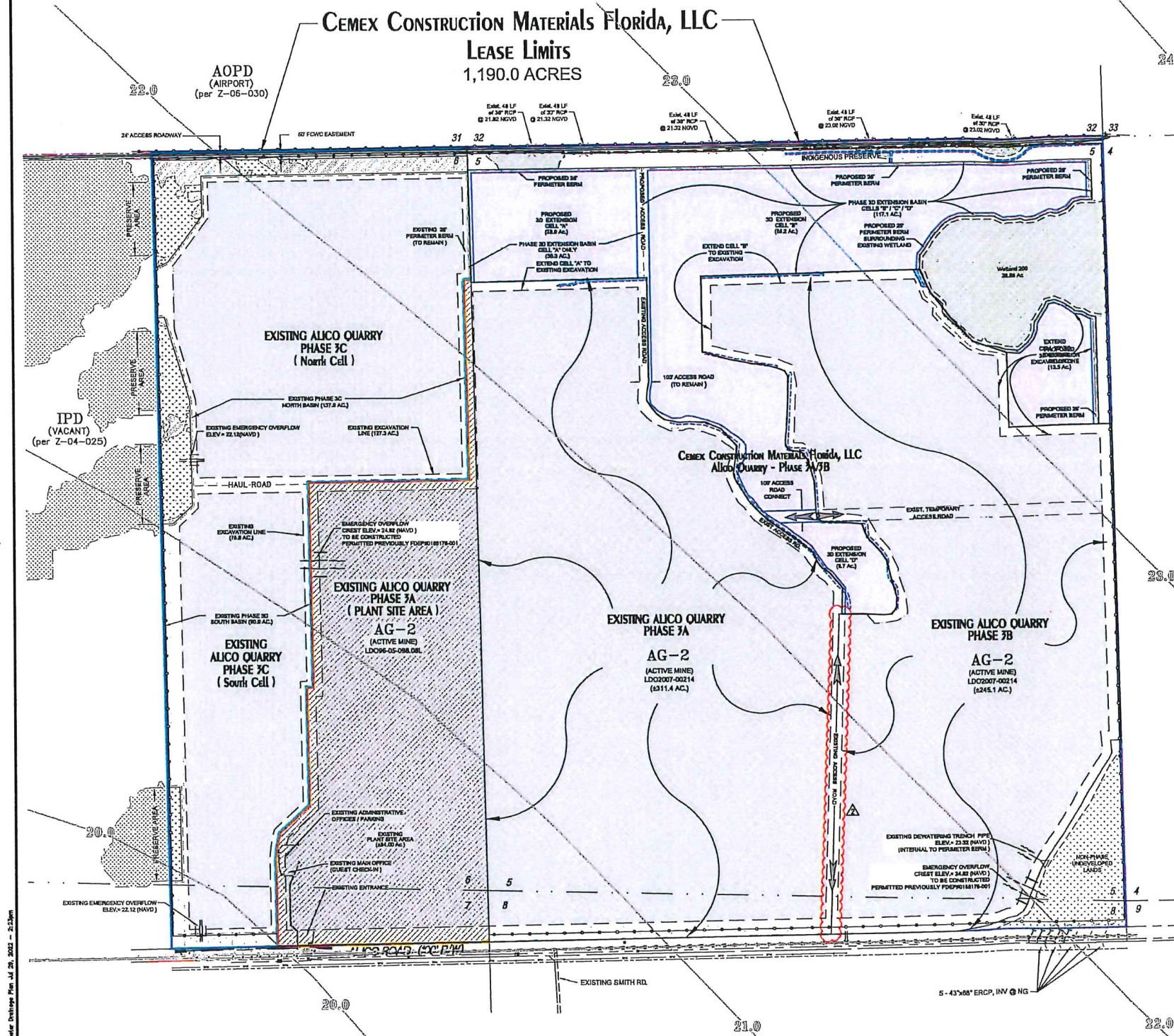
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REFERENCE NO.
0013DMMP
PROJECT NO.
2000.013D
DRAWING NO.
1467
SHEET NO.
5

RICHARD E. BRYLANSKI, P.E.
FLORIDA PROFESSIONAL ENGINEER
REGISTRATION #12339
DATE

NUMBER	REVISIONS	DATE
1	LAKE 3B HAUL RD REDUCTION PER APPROVED LDO#6	7/19/2022
2	ADDED PROJECT COMPLETION DATES FOR PHASE 3D	11/17/2021
3	CREATED MDO PLANSET	6/17/2021





ALL ELEVATIONS REPRESENTED IN THIS CHART, AND REFERRED TO ON THE MASTER DRAINAGE PLAN, REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988 (N.A.V.D.)

STORM WATER MANAGEMENT SUMMARY

PHASE	PROPERTIES	BASIN AREA ACRES	A.W.S.W.T. CONTROL ELEV.	A.D.S.W.T.	AVERAGE GROUND	25yr.-3day	25yr.-1day	MINIMUM OVERFLOW	MINIMUM BERM	MIN. ROAD EL.	MINIMUM FINISHED FLOOR	AVERAGE WATER TABLE
EXISTING PHASE 3A*		447.5	21.82	19.82	23.82	24.73	24.47	24.82	25.82	23.82	26.32	20.82
PROPOSED 3D EXT. (PHASE 3A)		30.3	21.82	19.82	23.82	24.73	24.47	24.82	25.82	23.82	26.32	21.82
EXISTING PHASE 3B*		245.1	22.82	20.82	23.82	24.73	24.47	24.82	25.82	23.82	N/A	21.82
PROPOSED 3D EXT. (PHASE 3B)		117.1	22.82	20.82	23.82	24.73	24.47	24.82	25.82	23.82	N/A	21.82
EXISTING PHASE 3C-NORTH*		137.0	21.22	18.32	21.52	22.12	21.86	22.12	25.12	22.32	N/A	19.12
EXISTING PHASE 3C-SOUTH*		90.0	21.02	18.32	21.32	22.12	21.86	22.12	25.12	22.32	N/A	19.12
BASIN PHASE TOTAL		1,067.0										

ALL SITE RUNOFF RETAINED ON-SITE
PEAK ELEVATIONS BASED ON ZERO DISCHARGE

PROPOSED PHASE 3D PERMIT AREA

* PREVIOUSLY PERMITTED DATA, NOT PART OF THIS PERMIT.

LEGEND

CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC	EXIST. DEWATERING TRENCH PIPE (PREVIOUSLY PERMITTED)
PHASE 3D - FLUCCS ASSESSMENT AREA FOR: FDEP & UMAM (±205 ACRES)	EXIST. EMERGENCY OVERFLOW STRUCTURE (PREVIOUSLY PERMITTED)
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC (EXIST. PH 3A & 3B)	EXIST. PIPE STRUCTURE
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC (PHASE 3-C)	MINE BOUNDARY BASIN LINE
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC (PLANT SITE)	WET SEASON WATER TABLE CONTOUR (NAVD) PER LEE CO. DEPT. OF NATURAL RESOURCES
EXISTING PHASE 3A (PLANT SITE)	LAKE EXCAVATION AREAS
EXISTING PHASE 3A	OFFSITE PRESERVE AREA (PHASE 3C)
EXISTING PHASE 3B	ONSITE WETLAND PRESERVE AREA (PHASE 3D)
EXISTING PHASE 3C	ONSITE INDIGENOUS PRESERVE AREA (PHASE 3D)

ALL ELEVATIONS NOTED ON THE PLAN REFER TO THE NORTH AMERICAN VERTICAL DATUM, 1988. TO OBTAIN AN ELEVATION IN THE NATIONAL GEODETIC VERTICAL DATUM, 1929, ADD 1.18 FEET TO THE NAVD ELEVATION.

NUMBER	REVISIONS	DATE
1	LAKE 3B HAIL ROAD REDUCTION PER LDO#6	7/20/2022
2	CREATED MDO PLANSET	8/17/2021



DESIGNED BY: J.K.H.	DATE: 10/08
DRAWN BY: J.K.H.	DATE: 10/08
CHECKED BY: T.W.M.	DATE: 10/08
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1"=500'



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Authorization No.1772

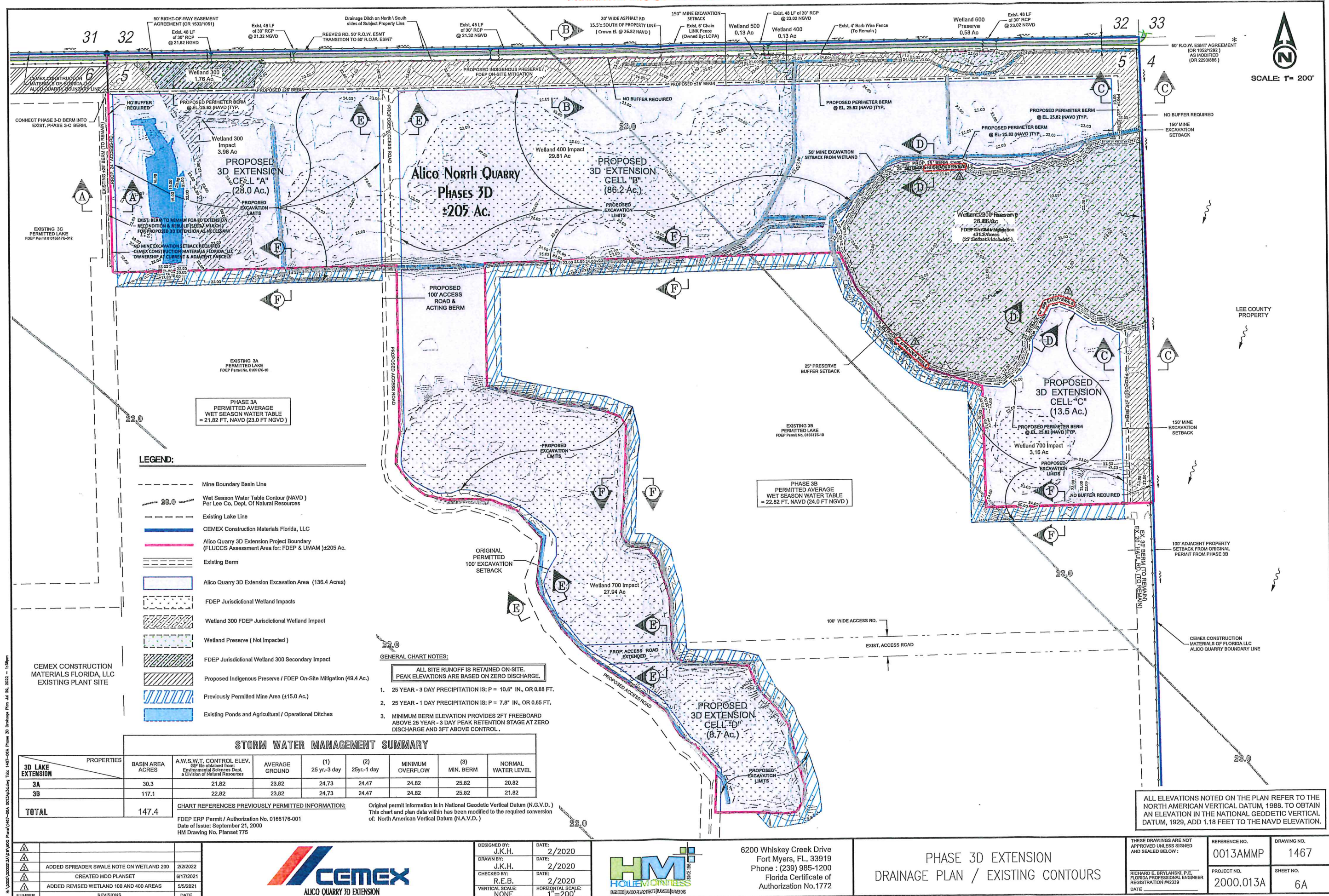
MASTER DRAINAGE PLAN

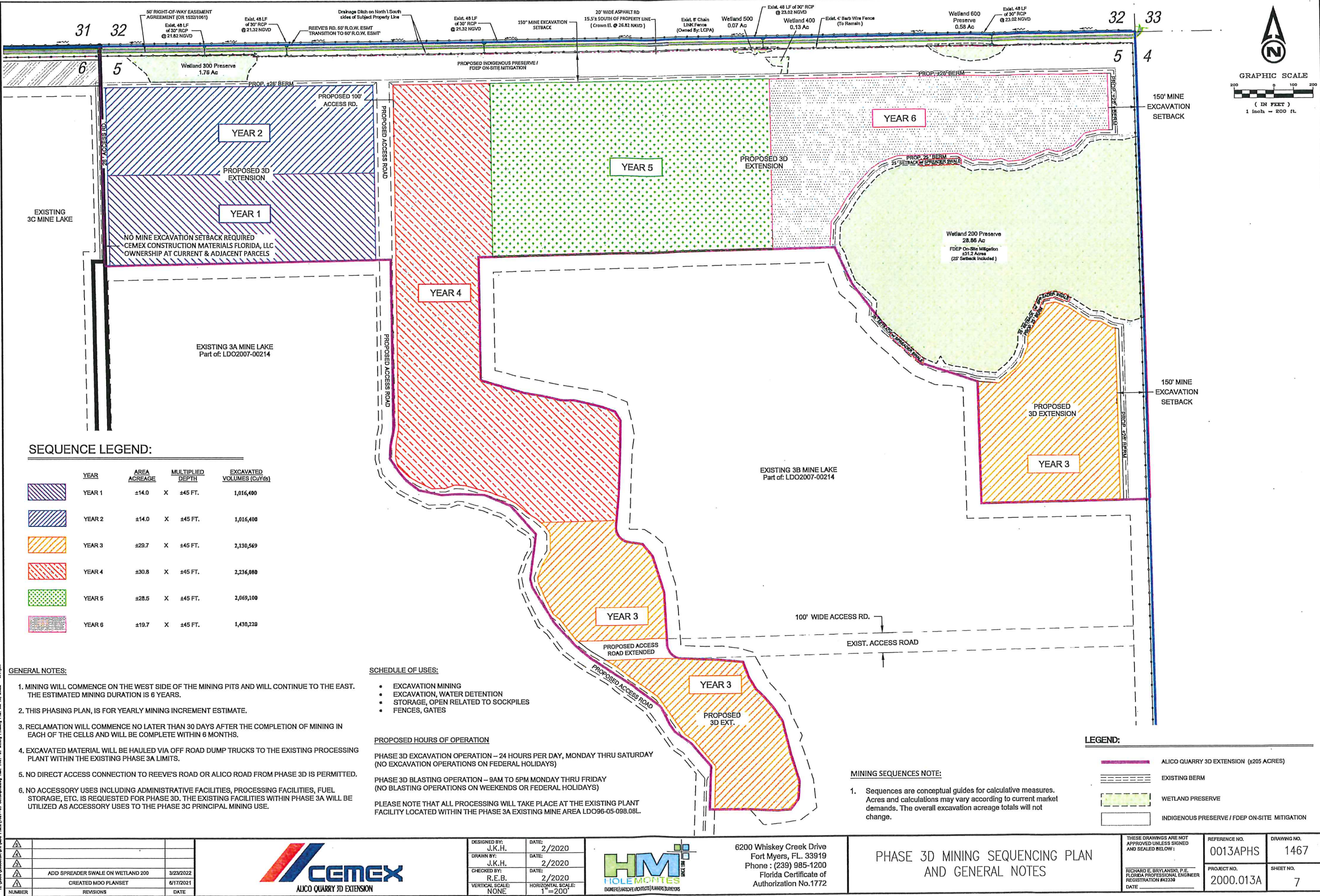
THESE DRAWINGS ARE NOT
APPROVED UNLESS SIGNED
AND SEALED BELOW :

RICHARD E. BRYLANSKI, P.E.
FLORIDA PROFESSIONAL ENGINEER
REGISTRATION #42339
DATE

REFERENCE NO.	DRAWING NO.
0013DMDR	1467
PROJECT NO.	SHEET NO.
2000.013D	6

Additional info 08-16-2022





DESIGNED BY: J.K.H.
DATE: 2/2020
DRAWN BY: J.K.H.
DATE: 2/2020
CHECKED BY: R.E.B.
DATE: 2/2020
VERTICAL SCALE: NONE
HORIZONTAL SCALE: 1" = 200'



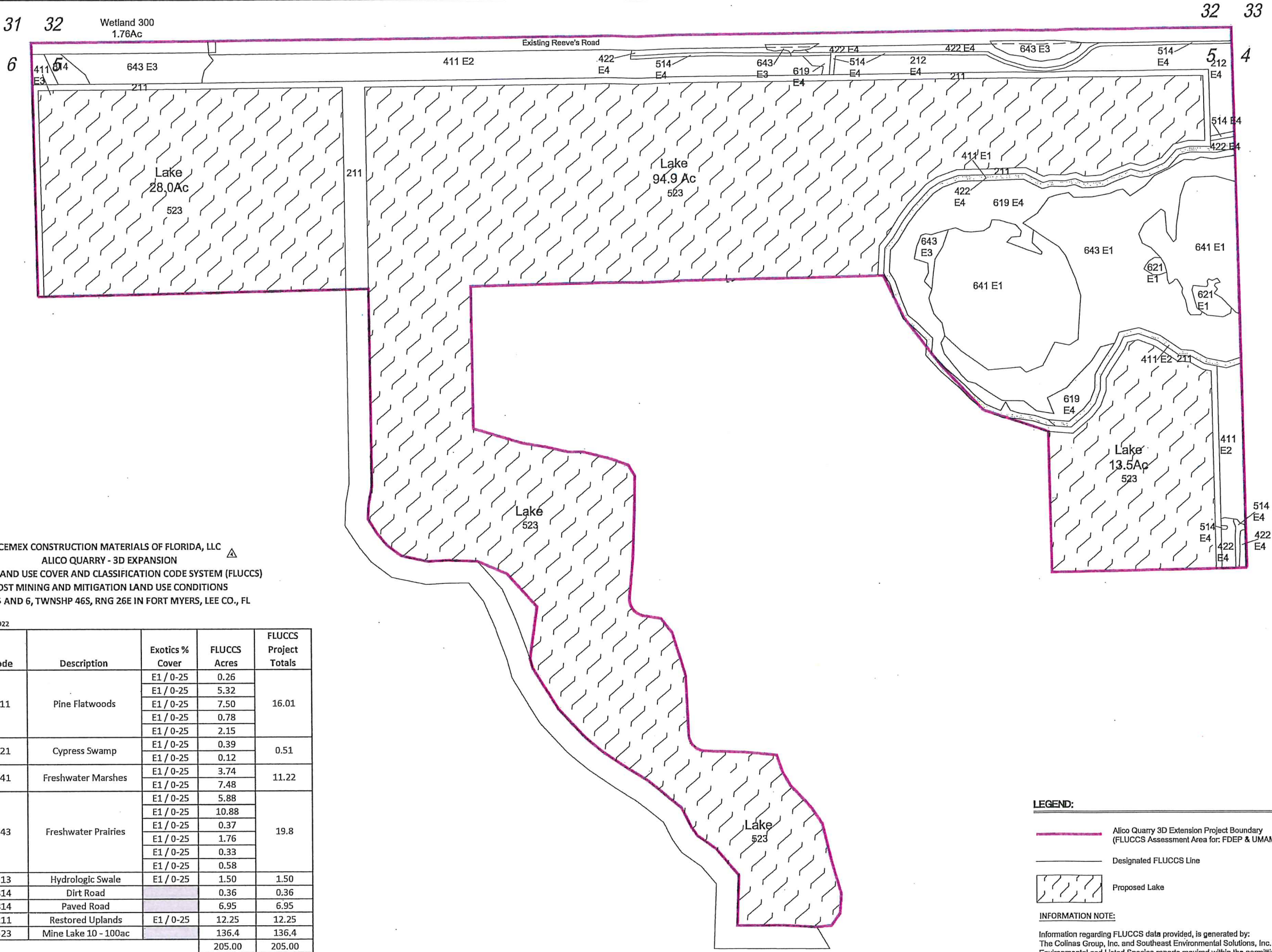
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PHASE 3D MINING SEQUENCING PLAN
AND GENERAL NOTES

THESE DRAWINGS ARE NOT
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AND SEALED BELOW:

RICHARD E. BRYLANSKI, P.E.
FLORIDA PROFESSIONAL ENGINEER
REGISTRATION #42339
DATE:

REFERENCE NO.	DRAWING NO.
0013APH5	1467
PROJECT NO.	SHEET NO.
2000.013A	7



CEMEX CONSTRUCTION MATERIALS OF FLORIDA, LLC
ALICO QUARRY - 3D EXPANSION
FLORIDA LAND USE COVER AND CLASSIFICATION CODE SYSTEM (FLUCCS)
POST MINING AND MITIGATION LAND USE CONDITIONS
SECTS 5 AND 6, TOWNSHIP 46S, RANG 26E IN FORT MYERS, LEE CO., FL

Revised 03/17/2022; 07/15/2022

FLUCCS Post Habitat	Code	Description	Exotics % Cover	FLUCCS Acres	FLUCCS Project Totals
Uplands	411	Pine Flatwoods	E1 / 0-25	0.26	16.01
			E1 / 0-25	5.32	
			E1 / 0-25	7.50	
			E1 / 0-25	0.78	
			E1 / 0-25	2.15	
Wetlands	621	Cypress Swamp	E1 / 0-25	0.39	0.51
			E1 / 0-25	0.12	
	641	Freshwater Marshes	E1 / 0-25	3.74	11.22
			E1 / 0-25	7.48	
			E1 / 0-25	5.88	
	643	Freshwater Prairies	E1 / 0-25	10.88	19.8
			E1 / 0-25	0.37	
			E1 / 0-25	1.76	
			E1 / 0-25	0.33	
			E1 / 0-25	0.58	
			E1 / 0-25	1.50	
Roads	814	Dirt Road		0.36	0.36
Roads	814	Paved Road		6.95	6.95
Uplands	211	Restored Uplands	E1 / 0-25	12.25	12.25
Water	523	Mine Lake 10 - 100ac		136.4	136.4
				205.00	205.00

LEGEND:

- Allico Quarry 3D Extension Project Boundary (FLUCCS Assessment Area for: FDEP & UMAM) ±205 Ac.
- Designated FLUCCS Line
- Proposed Lake

INFORMATION NOTE:

Information regarding FLUCCS data provided, is generated by: The Colinas Group, Inc. and Southeast Environmental Solutions, Inc. for: Environmental and Listed Species reports required within the permitting process.

NUMBER	REVISIONS	DATE
1	UPDATE CHART	7/20/2022
2	UPDATE CHART	3/23/2022
3	UPDATE CHART	12/21/2021
4	CREATED MDO PLANSET	8/17/2021



DESIGNED BY: J.K.H.	DATE: 03/2020
DRAWN BY: J.K.H.	DATE: 03/2020
CHECKED BY: R.E.B.	DATE: 03/2020
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1"=200'



6200 Whiskey Creek Drive
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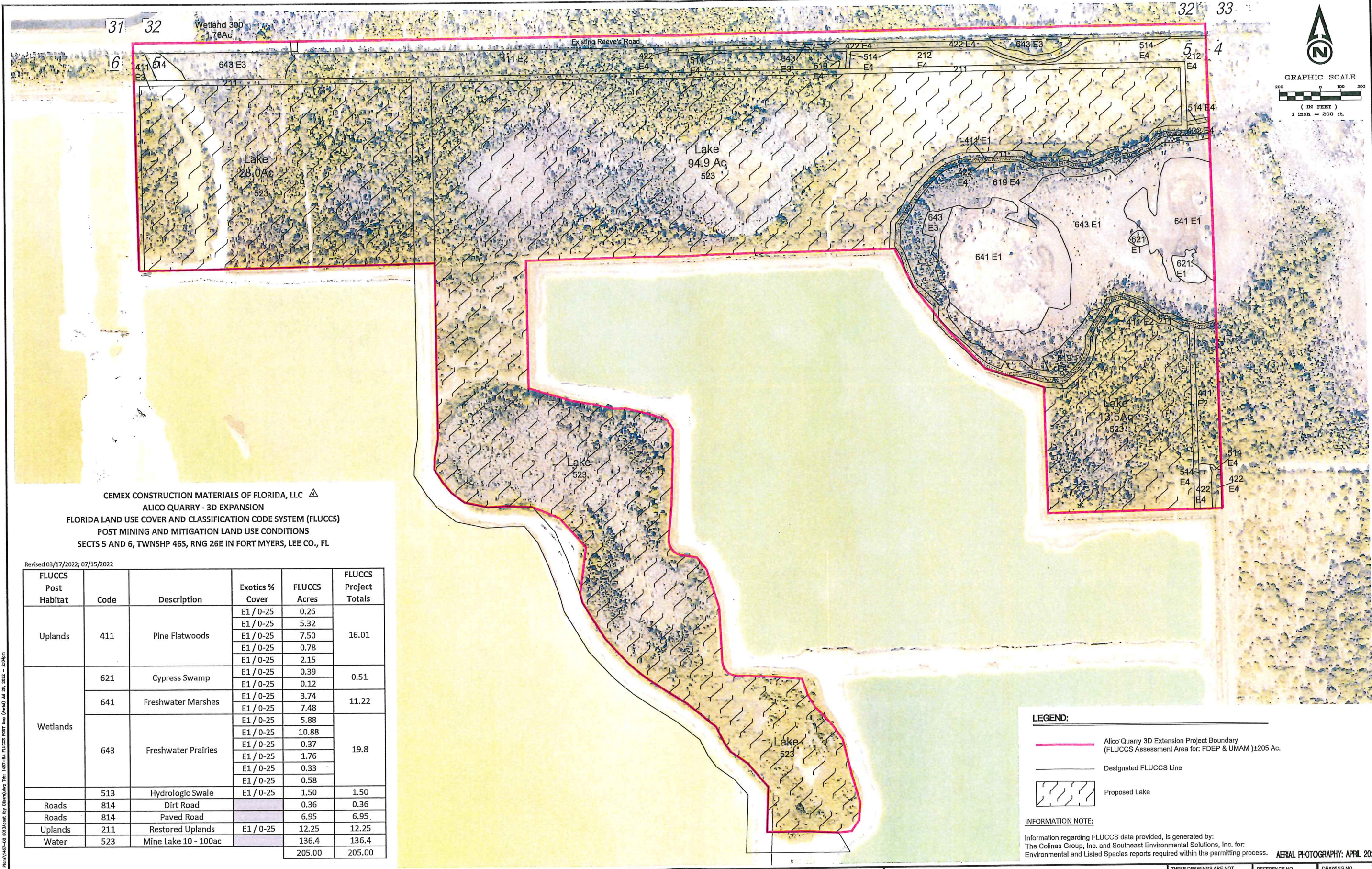
POST DEVELOPMENT FLUCCS

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AND SEALED BELOW:

RICHARD E. BRYLANSKI, P.E.
FLORIDA PROFESSIONAL ENGINEER
REGISTRATION #42339
DATE

REFERENCE NO.	0013APOST
PROJECT NO.	2000.013A

DRAWING NO.	1467
SHEET NO.	8



CEMEX CONSTRUCTION MATERIALS OF FLORIDA, LLC
ALICO QUARRY - 3D EXPANSION
FLORIDA LAND USE COVER AND CLASSIFICATION CODE SYSTEM (FLUCCS)
POST MINING AND MITIGATION LAND USE CONDITIONS
SECTS 5 AND 6, TOWNSHIP 46S, RING 26E IN FORT MYERS, LEE CO., FL

Revised 03/17/2022; 07/15/2022

FLUCCS Post Habitat	Code	Description	Exotics % Cover	FLUCCS Acres	FLUCCS Project Totals
Uplands	411	Pine Flatwoods	E1 / 0-25	0.26	16.01
			E1 / 0-25	5.32	
			E1 / 0-25	7.50	
			E1 / 0-25	0.78	
			E1 / 0-25	2.15	
Wetlands	621	Cypress Swamp	E1 / 0-25	0.39	0.51
			E1 / 0-25	0.12	
	641	Freshwater Marshes	E1 / 0-25	3.74	11.22
			E1 / 0-25	7.48	
	643	Freshwater Prairies	E1 / 0-25	5.88	19.8
			E1 / 0-25	10.88	
			E1 / 0-25	0.37	
			E1 / 0-25	1.76	
			E1 / 0-25	0.33	
			E1 / 0-25	0.58	
Roads	513	Hydrologic Swale	E1 / 0-25	1.50	1.50
Roads	814	Dirt Road		0.36	0.36
Roads	814	Paved Road		6.95	6.95
Uplands	211	Restored Uplands	E1 / 0-25	12.25	12.25
Water	523	Mine Lake 10 - 100ac		136.4	136.4
				205.00	205.00

LEGEND:

- Alico Quarry 3D Extension Project Boundary (FLUCCS Assessment Area for: FDEP & UMAM) ±205 Ac.
- Designated FLUCCS Line
- Proposed Lake

INFORMATION NOTE:
Information regarding FLUCCS data provided, is generated by:
The Colinas Group, Inc. and Southeast Environmental Solutions, Inc. for:
Environmental and Listed Species reports required within the permitting process. **AERIAL PHOTOGRAPHY: APRIL 2022.**

ALICO QUARRY 3D EXTENSION

DESIGNED BY:
J.K.H.

DATE:
03/2020

DRAWN BY:
J.K.H.

DATE:
03/2020

CHECKED BY:
R.E.B.

DATE:
03/2020

VERTICAL SCALE:
NONE

HORIZONTAL SCALE:
1"=200'

6200 Whiskey Creek Drive
Fort Myers, FL. 33919
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POST DEVELOPMENT FLUCCS
(AERIAL PHOTOGRAPH)

THESE DRAWINGS ARE NOT
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RICHARD E. BRYLANSKI, P.E.
FLORIDA PROFESSIONAL ENGINEER
REGISTRATION #12339
DATE:

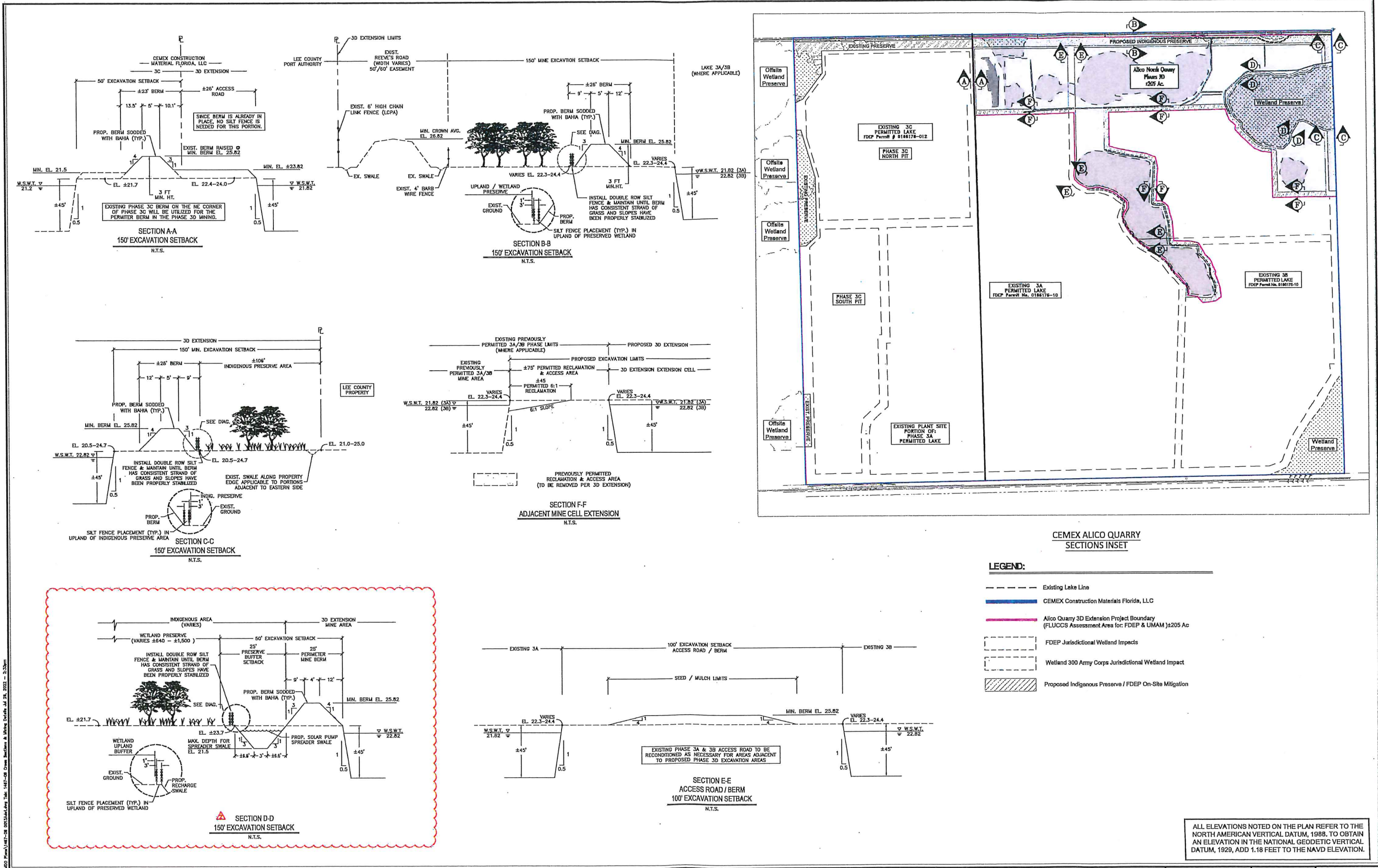
REFERENCE NO.
0013AFLCS

DRAWING NO.
1467

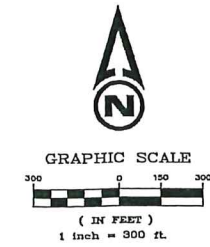
PROJECT NO.
2000.013A

SHEET NO.
8A

NUMBER	REVISIONS	DATE
1	UPDATE CHART	7/20/2022
2	UPDATE CHART	3/23/2022
3	UPDATE CHART	12/21/2021
4	CREATED MDO PLANSET	8/17/2021



DESIGNED BY: J.K.H.	DATE: 10/08	 ALCOA QUARRY 3D EXTENSION	6200 Whiskey Creek Drive Fort Myers, FL 33919 Phone : (239) 985-1200 Florida Certificate of Authorization No.1772	PHASE 3D MINING TYPICAL SECTIONS	THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW : RICHARD E. BRYLANSKI, P.E. FLORIDA PROFESSIONAL ENGINEER REGISTRATION #42339 DATE _____	REFERENCE NO. 0013ADET	DRAWING NO. 1467
DRAWN BY: J.K.H.	DATE: 10/08					PROJECT NO. 2000.013D	SHEET NO. 9
CHECKED BY: T.W.M.	DATE: 10/08						
VERTICAL SCALE: NONE	HORIZONTAL SCALE: VARIES						
NUMBER	REVISIONS	DATE					
1	LAKE 3B HAUL RD REDUCTION PER LDO#6	7/19/2022					
2	REVISE SECTION D-D, ADDED SPREADER SWALE	1/19/2022					
3	CREATED MID PLANSET	8/17/2021					



1. THE CONTRACTOR SHALL EXERCISE CARE TO PRESERVE THE NATURAL LANDSCAPE AND SHALL CONDUCT CONSTRUCTION OPERATIONS SO AS TO PREVENT ANY UNNECESSARY DESTRUCTION, SCARRING OR DEFACING OF THE NATURAL SURROUNDINGS IN THE VICINITY OF THE WORK AREA. EXCEPT WHERE CLEARING IS REQUIRED FOR PERMANENT WORK, FOR APPROVED CONSTRUCTION ROADS OR FOR EXCAVATION OPERATIONS, ALL TREES, NATIVE SHRUBBERY AND VEGETATION TO BE PRESERVED AND PROTECTED FROM DAMAGE WHICH MAY BE CAUSED BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS AND EQUIPMENT.
2. GRADED AREAS ARE TO BE SEEDED AND/OR SODDED WITHIN SEVEN (7) DAYS FOLLOWING EARTH MOVING PROCEDURES. IF THE TIME OF YEAR IS NOT CONDUCTIVE FOR PERMANENT SEEDING, A TEMPORARY MULCH AND/OR SEEDING SHOULD BE USED.
3. REPAIR ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT BEFORE THE END OF EACH WORK DAY.
4. SEDIMENT SHALL BE REMOVED FROM SUMP AREAS. THE SEDIMENT SHALL BE PLACED IN SUCH A MANNER THAT IT WILL NOT ERODE FROM THE SITE. THE SEDIMENT SHALL NOT BE DEPOSITED DOWNSTREAM FROM THE EMBANKMENT, IN OR ADJACENT TO A STREAM OR FLOOD PLAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION AND UPON OWNER SATISFACTION.
6. THE CONTRACTOR SHALL ABIDE BY ALL RULES AND CONDITIONS OF ERP AND LEE COUNTY PERMITS. ALL DISTURBED SLOPES SHALL BE SODDED WITHIN 48 HOURS OF COMPLETION OF FINAL GRADING. ALL EROSION CONTROL DEVICES (I.E. SYNTHETIC HAY BALES AND SILT FENCES) SHALL BE IN PLACE PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
7. THE CONTRACTOR SHALL CONDUCT CLEANING AND DISPOSAL OPERATIONS TO COMPLY WITH ALL APPLICABLE PERMITS, LAWS AND REGULATIONS. CLEANING SHALL BE EXECUTED DAILY TO KEEP THE WORK, SITE AND ADJACENT PROPERTIES FREE FROM ACCUMULATIONS OF WASTE MATERIALS, WATER, ERODED MATERIAL, RUBBISH AND WIND BLOWN DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS.
8. WHERE ADJACENT PROPERTY HAVE BEEN DISTURBED, ALL AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
9. CONTRACTOR SHALL PROTECT EXISTING TREES, SHRUBS, AND OTHER PLANTINGS DURING CONSTRUCTION. WHERE EXISTING PLANTS HAVE BEEN DISTURBED OR NEED TO BE RELOCATED, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND COMPLETE THE WORK TO OWNERS SATISFACTION.
10. ANY DAMAGE TO EXISTING IRRIGATION PIPES, WIRING AND SPRINKLER HEADS SHALL BE REPLACED WITH NEW MATERIAL AT THE CONTRACTOR'S EXPENSE.
11. THIS DRAWING PROVIDE GENERAL EROSION CONTROL INFORMATION ONLY, CONTRACTOR IS RESPONSIBLE FOR OBTAINING NPDES-SPP PERMIT FROM FDEP AND FOR COMPLIANCE WITH ALL PERMIT CONDITIONS. WORK SHALL NOT COMMENCE UNTIL A COPY OF THE PERMIT DOCUMENTS HAVE BEEN RECEIVED BY ENGINEER.

	Single Row Silt Fence
	Double Row Silt Fence
	Existing Lake Line
	CEMEX Construction Materials Florida, LLC
	Alico Quarry 3D Extension Project Boundary (FLUCCS Assessment Area for: FDEP & UMAM) ±205 Ac.
	Existing Berm
	Alico Quarry 3D Extension Excavation Area
	Welland Preserve
	Proposed Indigenous Preserve / FDEP On-Site Mitigation
	Previously Permitted Mine Area (±15.0 Ac.)

TOTAL = 23,420 L.F.

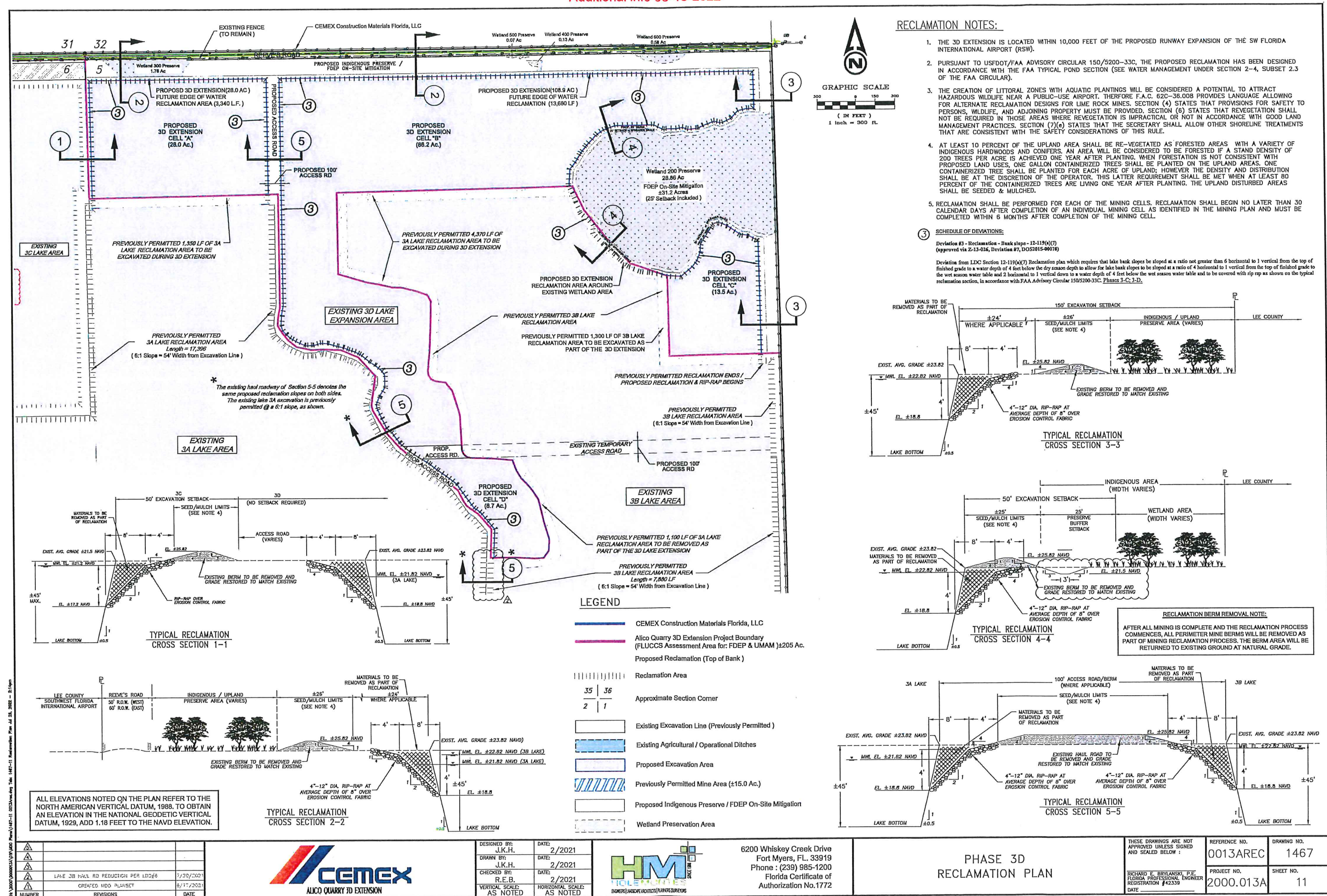


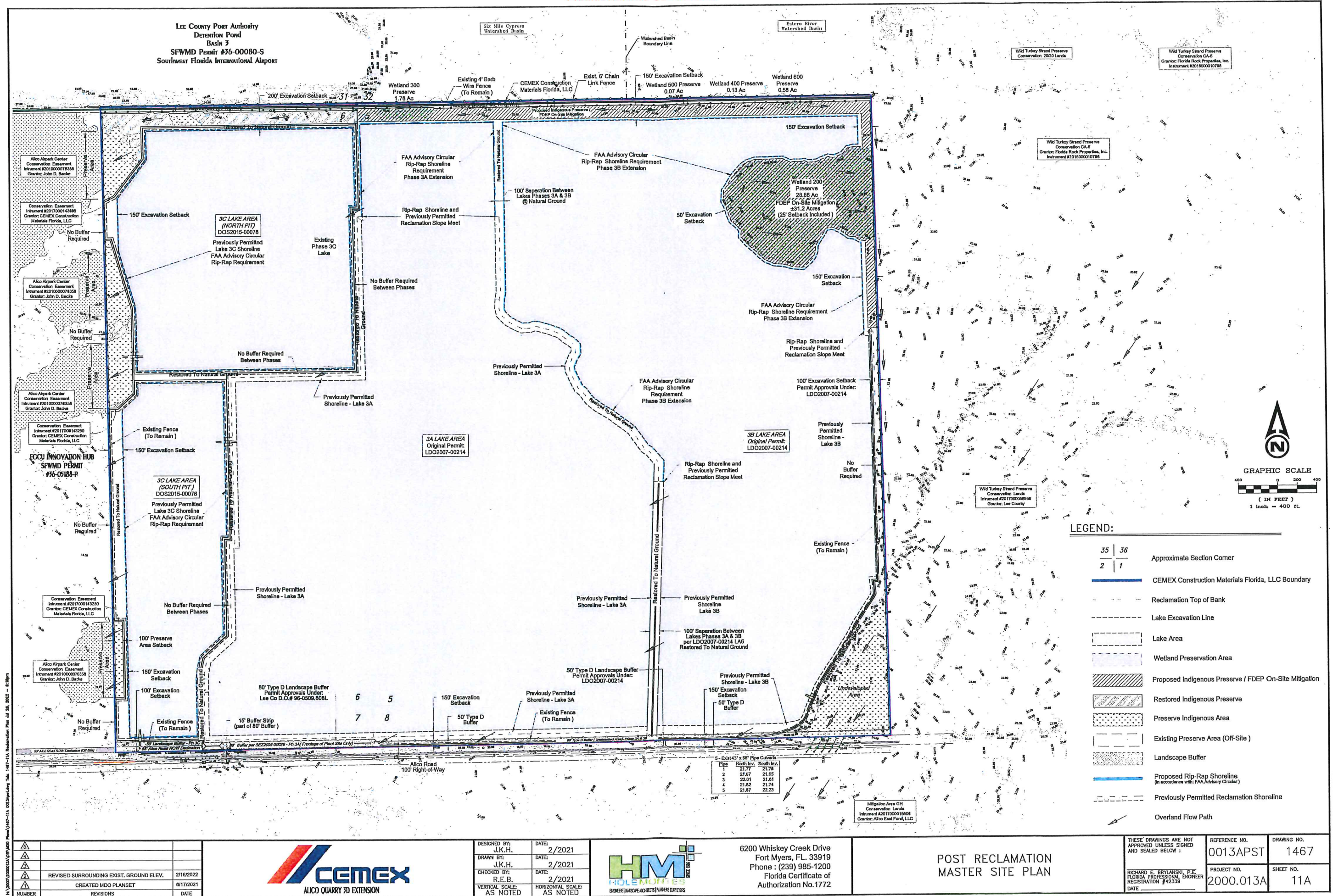
CEMEX
ALICO QUARRY 3D EXTENSION

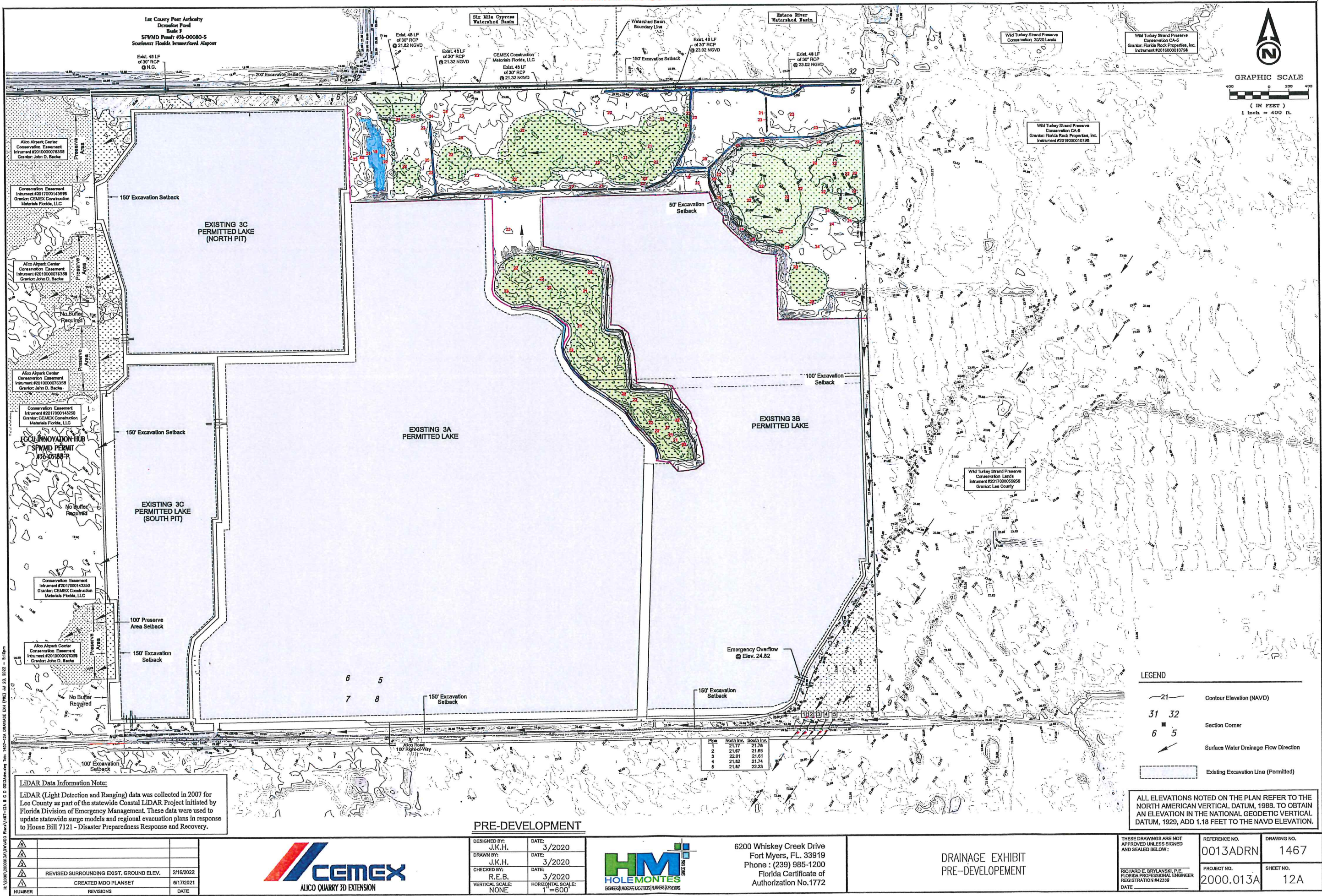
PHASE 3D
EROSION & SEDIMENT CONTROL PLAN, NOTES DETAILS

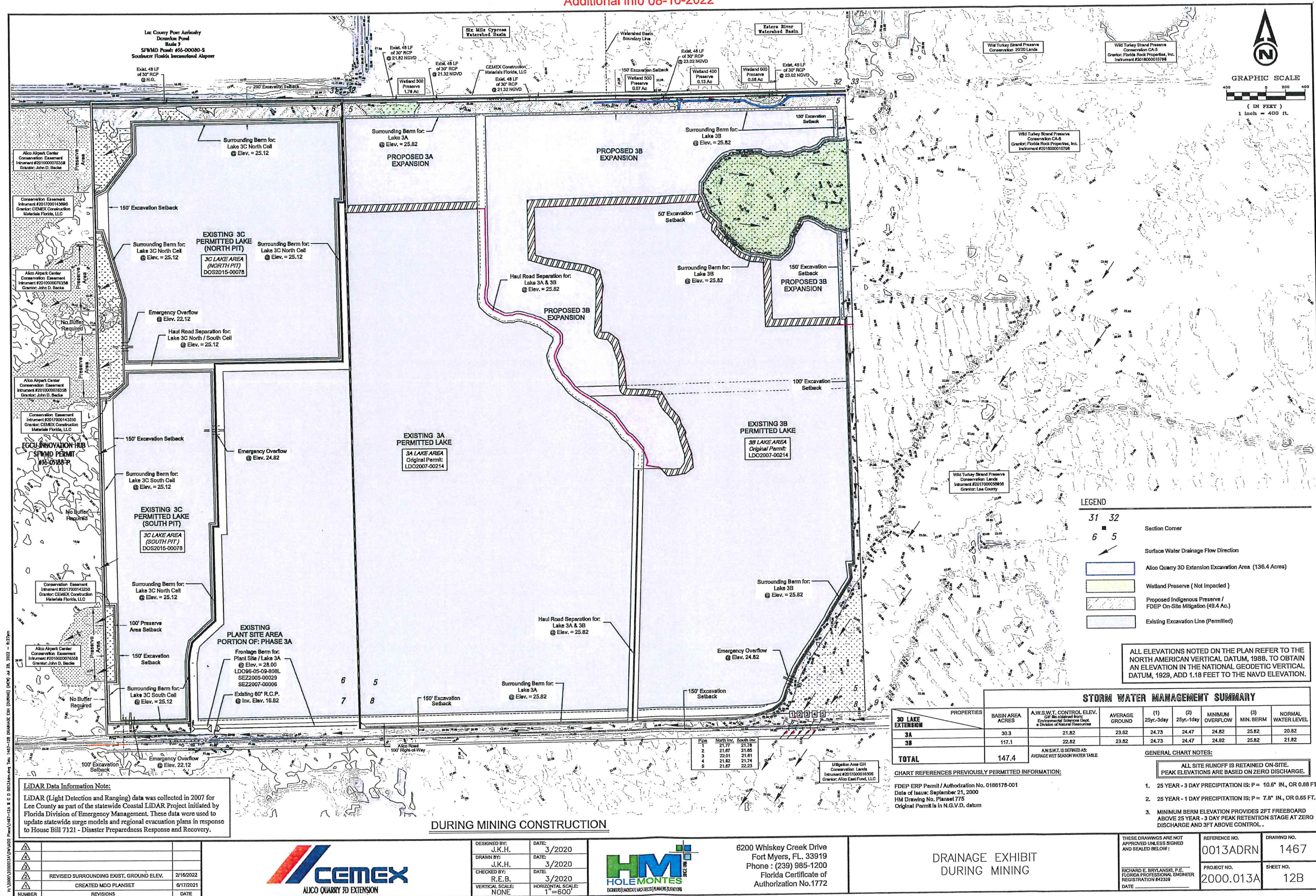
THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW : _____ RICHARD E. BRYLANSKI, P.E. FLORIDA PROFESSIONAL ENGINEER REGISTRATION #42339 DATE: _____	REFERENCE NO.	DRAWING NO.
	0013DECD	1467
	PROJECT NO.	SHEET NO.
	2000.013D	10

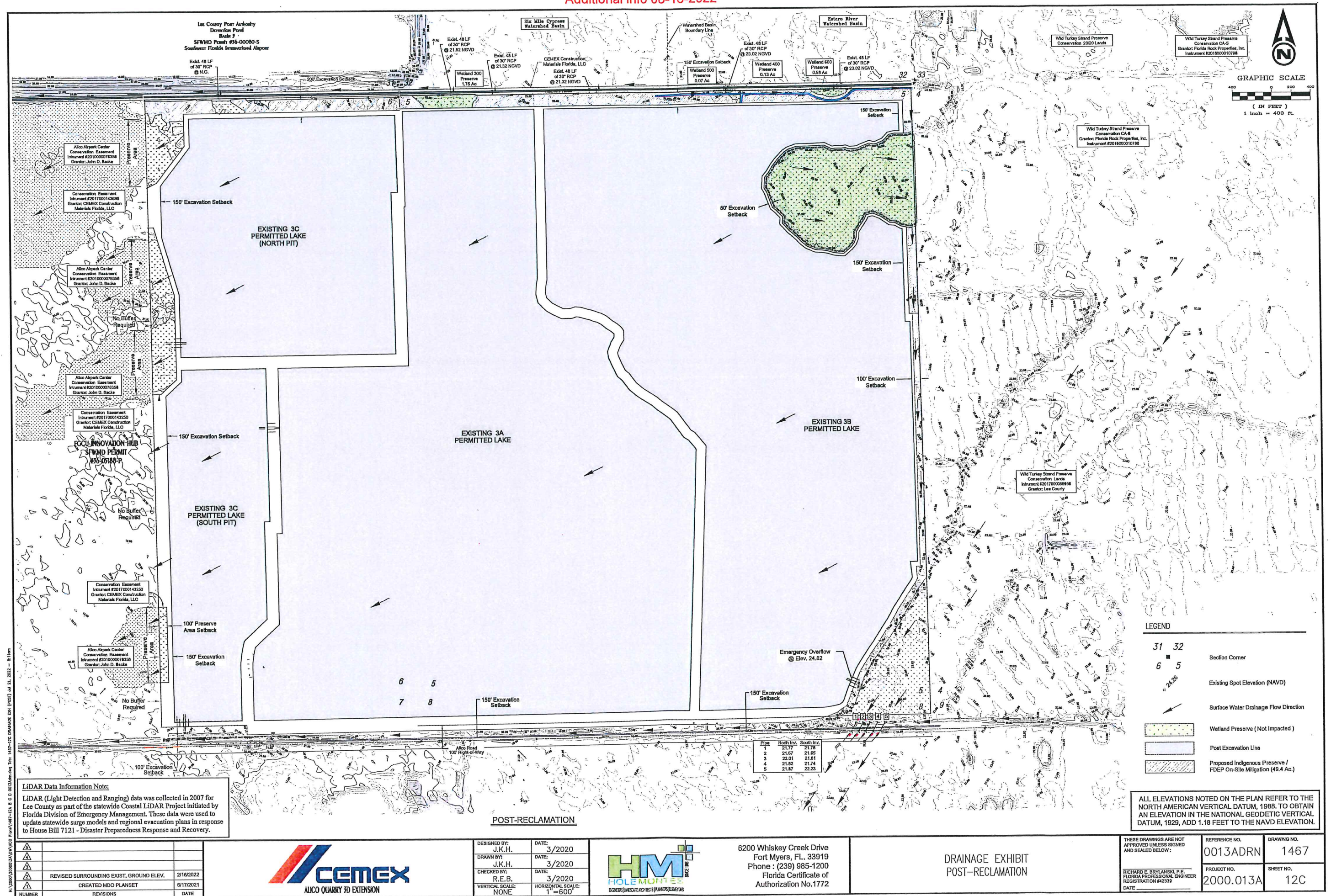
Additional info 08-16-2022

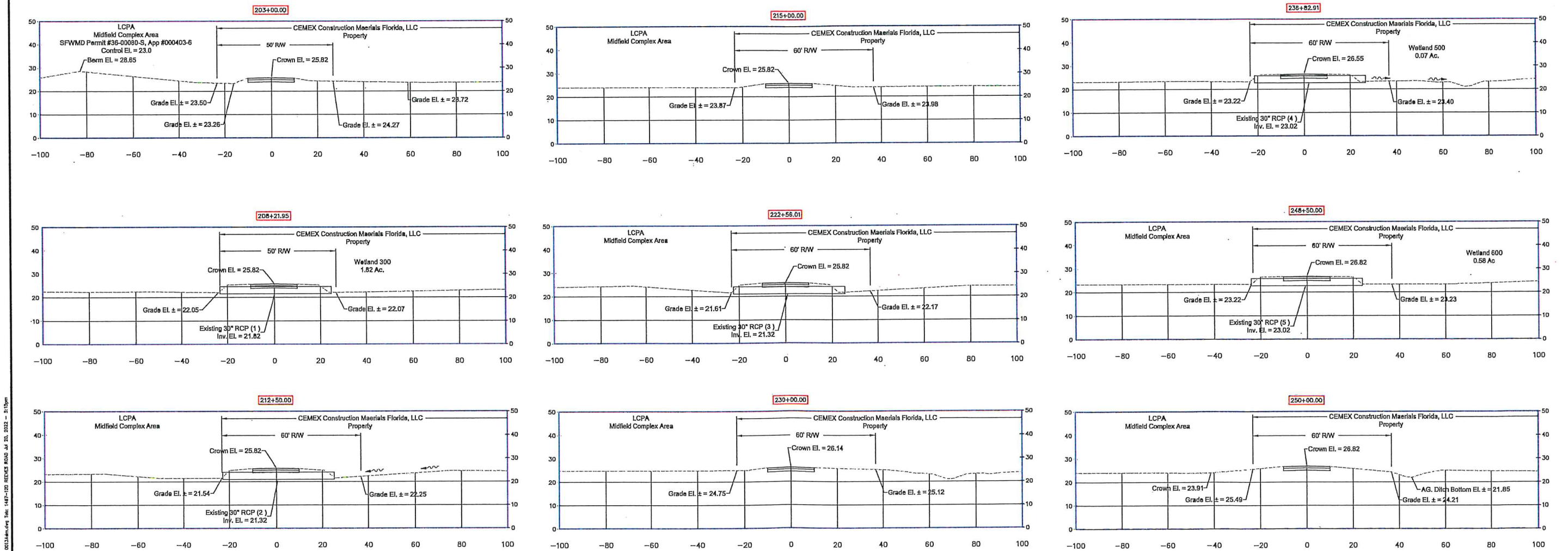
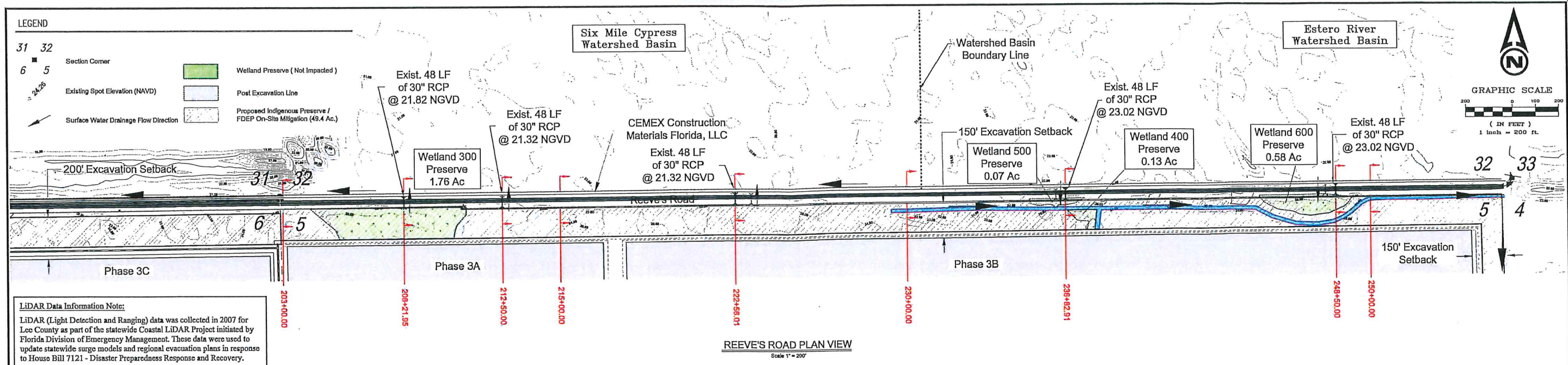








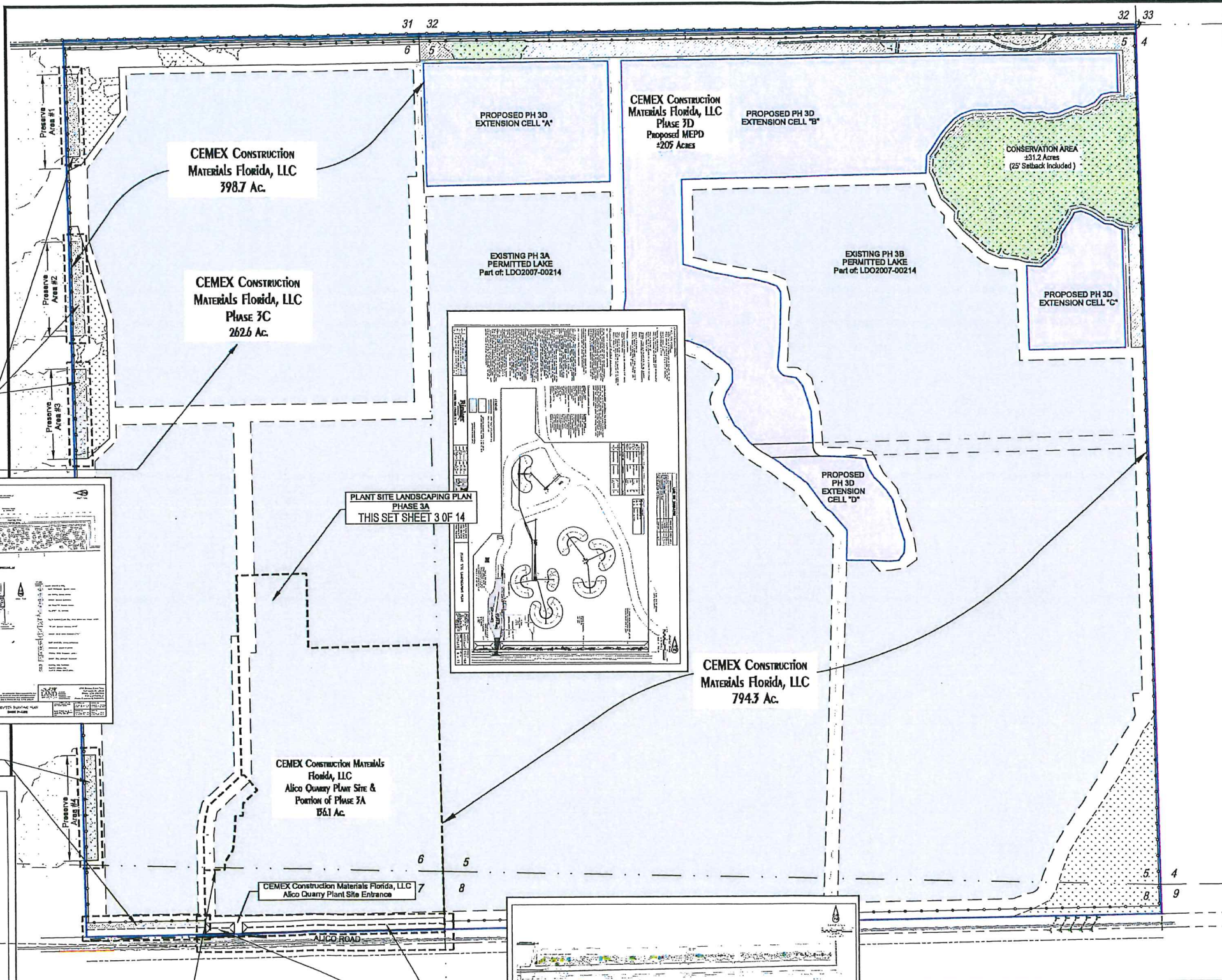




ALL ELEVATIONS NOTED ON THE PLAN REFER TO THE NORTH AMERICAN VERTICAL DATUM, 1988. TO OBTAIN AN ELEVATION IN THE NATIONAL GEODETIC VERTICAL DATUM, 1929, ADD 1.18 FEET TO THE NAVD ELEVATION.

 CEMEX ALCO QUARRY 3D EXTENSION	DESIGNED BY: J.K.H.	DATE: 3/2020	 HOLE MONTES ENGINEERS/ARCHITECTS/PLANNERS/SURVEYORS	6200 Whiskey Creek Drive Fort Myers, FL 33919 Phone : (239) 985-1200 Florida Certificate of Authorization No.1772	THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW: RICHARD E. BRYLANSKI, P.E. FLORIDA PROFESSIONAL ENGINEER REGISTRATION #42339 DATE: _____	REFERENCE NO. 0013ADRN	DRAWING NO. 1467
	DRAWN BY: J.K.H.	DATE: 3/2020				PROJECT NO. 2000.013A	SHEET NO. 12D
	CHECKED BY: R.E.B.	DATE: 3/2020					
	VERTICAL SCALE: 1"=20'	HORIZONTAL SCALE: 1"=20'					
REVISED SURROUNDING EXIST. GROUND ELEV. 2/16/2022							

REEVES ROAD EXISTING SECTIONS



EXISTING DEVELOPMENT ORDER NUMBERS
FOR THE LANDSCAPING APPROVALS INCLUDE:

Phase 3A
D.O.#96-0509.808L

Phase 3B
LDO2007-00214

Phase 3C
DOS2015-00078

ADDITIONAL ZONING:
ZVL2009-00031
ZAB-86-62
HEX93-01-28-EXC-02
SEZ2005-00029
SEZ2007-00029
Z-13-026

LEGEND:

$$\begin{array}{r} 35 \\ \hline 2 \end{array}$$

Approximate Section Corner

CEMEX Construction Materials Florida, LLC Bndy

----- Lake Excavation Line



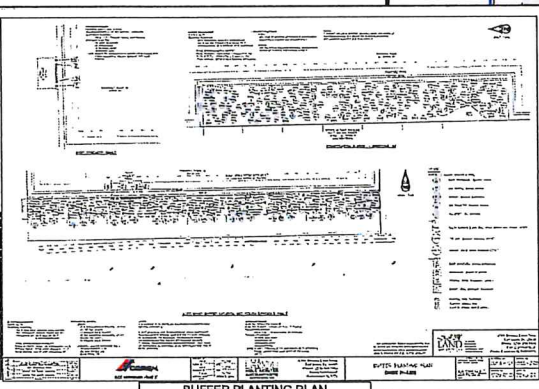
Proposed Lake Area

Existing Lake Area

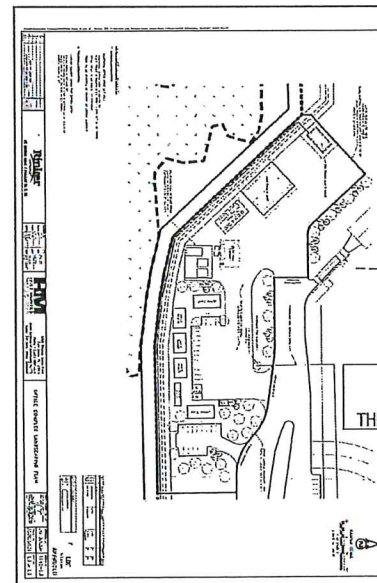
 Wetland Preservation Area Prop. Indigenous Presv. / FDEP On-Site Mitigation Restored Indigenous Preserve

 Existing Preserve Area (Off-Site)

 Landscape Buffer / Alico R.O.W Buffer



BUFFER PLANTING PLAN
PHASE 3C
PRESERVE #4 AND ALICO RD BUFFER
THIS SET SHEET 8 OF 14



OFFICE COMPLEX
LANDSCAPING PLAN
PHASE 3A
THIS SET SHEET 4 OF 14

PLANT SITE LANDSCAPING PLAN
PHASE 3A
THIS SET SHEET 3 OF 14

**CEMEX CONSTRUCTION MATERIALS
Florida, LLC
ALICO QUARRY PLANT SITE &
PORTION OF PHASE 3A
66.1 AC.**

CEMEX Construction Materials Florida, LLC
Afco Quarry Plant Site Entrance

ALICO ROAD BERM
BUFFER PLAN
PHASE 3A
THIS SET SHEET 5 OF 14

**CEMEX CONSTRUCTION
MATERIALS Florida, LLC**
7943 Ac.

**CEMEX CONSTRUCTION
MATERIALS Florida, LLC
398.7 Ac.**

**CEMEX CONSTRUCTION
MATERIALS Florida, LLC
PHASE 3C
2626 AC**

PROPOSED PH 3D
EXTENSION CELL "A"

**CEMEX CONSTRUCTION
MATERIALS FLORIDA, LLC
PHASE 3D
PROPOSED MEPD
±205 ACRES**

PROPOSED PH 3D
EXTENSION CELL "B"

EXISTING PH 3B
PERMITTED LAKE
Part of: LDO2007-00214

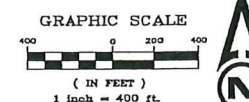
CONSERVATION AREA
±31.2 Acres
(25' Setback Included)

PROPOSED PH 3D
EXTENSION CELL "C"

PROPOSED
PH 3D
EXTENSION
CELL 101

William E. Prysi, PLA, ASLA

Digitally signed by William E. Prys, PLA,
ASLA
Date: 2022.07.29 15:22:27 -04'00'



		
		
		
		
	MEPD LANDSCAPE PLAN CHANGES	2021/06/22
NUMBER	REVISIONS	DATE



DESIGNED BY: J.K.H.	DATE: 12/20
DRAWN BY: J.K.H.	DATE: 12/20
CHECKED BY: WEP	DATE: 12/20
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1" = 40'



Oak Hammock Office Park at Whiskey Creek
6280 Whiskey Creek Drive
Fort Myers, Florida 33911
Office: (239) 885-1200
Web: www.HabibMansour.com / www.642eng.com
Florida Certificate Of Authorization No. 177

ALICO QUARRY - MEPD
PREVIOUS D.O. LANDSCAPE PLANS / KEY MAP

THESE DRAWINGS ARE NOT
APPROVED UNLESS SIGNED
AND SEALED BELOW

1342

WILLIAM E. PRYSI, P.E., A.S.L.A.
FLORIDA REGISTERED LANDSCAPE
ARCHITECT NO. 00001342

DATE _____

REFERENCE NO. 2000013LA	DRAWING NO. LP2.00
PROJECT NO. 2000.013A	SHEET NO. 1 OF 14

LANDSCAPE CODE REQUIREMENTS:

CALCULATIONS

1. ALICO ROAD BUFFER:
LENGTH = 1,702 FEET
REQ'D TREES = 5 PER/100LF = 5/100*1702 = 85
REQ'D SHRUBS = DOUBLE STAGGERED ROW HEDGE
= 1702/3 * 2 = 1,135 SHRUBS
PROV'D TREES = 85
PROV'D SHRUBS = 1,135
2. GENERAL LANDSCAPING
GENERAL TREES TO BE PROVIDED FOR BERM/BUFFER AREA
AND FUTURE OFFICE/ADMIN SITE.
- AREA = 234,594 SF
REQ'D TREES = 234,594 SF / 3,500 = 67 TREES
PROV'D TREES = 68
- GENERAL TREES FOR PLANT SITE TO BE PLANTED AROUND
COMPLETED EXCAVATION DURING RECLAMATION PHASE.
- AREA = 3,354,850 SF
REQ'D TREES = 3,354,850 / 3,500 = 959 TREES
PROV'D TREES = 959 (479 BALD CYPRESS, 480
SLASH PINE, 10' OAH)
3. INTERNAL LANDSCAPING:
PARKING CANOPY TREES TO BE PROVIDED FOR SCALE HOUSE
PARKING AREA.
- PAVED AREA = 46,441 SF
REQ'D PLANTING AREA = 10% X 46,441 SF = 4,644 SF
REQ'D TREES = AREA/250 = 4644/250 = 19 TREES
PROV'D TREES = 19

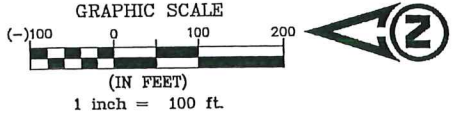
PLANTING REQUIREMENTS

- Sec. 10-417. Irrigation design standards.
- All new developments that have required landscaping must be irrigated by the use of an automatic irrigation system with controller set to conserve water. Moisture detection devices must be installed in all automatic sprinkler systems to override the sprinkler activation mechanism during periods of increased rainfall. Where existing irrigation systems are modified requiring the acquisition of a permit, automatic activation systems and overriding moisture detection devices must be installed.
- The irrigation system shall be designed by the landscape installer as a design/build package in accordance with the above specifications.
- Sec. 10-420. Plant material standards.
- (a) Quality. Plant materials used to meet the requirements of this division must meet the standards for Florida No. 1 or better, as set out in Grades and Standards for Nursery Plants, Parts I and II, Department of Agricultural, State of Florida (as amended). Root ball sizes on all transplanted plant materials must also meet state standards.
- (b) Native varieties. At least 75 percent of the trees and 50 percent of the shrubs used to fulfill these requirements must be native Florida species.
- (c) Trees and palms.
- (1) Code-required trees must be a minimum of ten feet in height, have a two-inch caliper (at 12 inches above the ground) and a four-foot spread at the time of installation. Palms must have a minimum of ten feet of clear trunk at planting. Trees having an average mature spread or crown less than 20 feet may be substituted by grouping the same so as to create the equivalent of a 20-foot crown spread. Trees adjacent to walkways, bike paths and rights-of-way must be maintained with eight feet of clear trunk.
- (2) Larger trees substituted to reduce the minimum number of general trees must be no less than four inches in diameter at 12 inches above the ground and no less than 16 feet in height at the time of planting. The general tree requirement cannot be reduced in number by more than 50 percent.
- (d) Shrubs and hedges. Shrubs must be a minimum of 24 inches (48 inches for type F buffers) in height, at time of planting. Saw palmettos (*Serenoa repens*) and coonties (*Zamia floridana*) may be used as shrubs, provided they are 12 inches in height at time of planting. All shrubs must be a minimum three-gallon container size and be spaced 18 to 36 inches on center. They must be at least 36 inches (60 inches for type F buffers) in height within 12 months of time of planting and maintained in perpetuity at a height of no less than 36 inches (60 inches for type F buffers).
- (e) Required hedges must be planted in double staggered rows and maintained so as to form a continuous, unbroken, solid visual screen within a minimum of one year after time of planting.
- (f) The height of all trees and shrubs must be measured from the final grade of the project site.
- (g) Mulch requirements. A two-inch minimum layer, after watering-in, of mulch or other recycled materials must be placed and maintained around all newly installed trees, shrubs, and groundcover plantings. Each tree must have a ring of mulch no less than 24 inches beyond its trunk in all directions. The use of cypress mulch is strongly discouraged.

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SPECS	NATIVE
TREES					
38		<i>Ilex coccinea</i>	Dahoon Holly	10' OAH	yes
38		<i>Pinus elliotii</i> var. 'Densa'	South Florida Slash Pine	10-15' OAH Staggered file	yes
58		<i>Quercus virginiana</i>	Live Oak	10' OAH	yes
38		<i>Sabal palmetto</i>	Cabbage Palm	15-20' CT, Staggered file	yes
SHRUBS					
SSRC	568	<i>Serenoa repens</i> 'Cinerea'	Silver Saw Palmetto	3 gal., 12"-18" OAH 36" OC	yes
STD	557	<i>Tripsacum dactyloides</i>	Falckenhoe Grass	3 gal., 24"-36" OAH 36" OC	yes
REQUIREMENT					
45		ALICO ROAD BUFFER			
68		GENERAL LANDSCAPE			
19		INTERNAL CANOPY TREE			

LAND USE TABULATION		
DESCRIPTION	AREA (SF)	AREA (AC.)
BERM/BUFFER	184,922	4.24
FUTURE OFFICE/ADMIN AREA	49,672	1.14
PLANT/ENTRANCE SCALES/HAUL ROADS	3,354,850	77.02
PLANT SITE RELOCATION AREA TOTALS	3,589,444	82.40



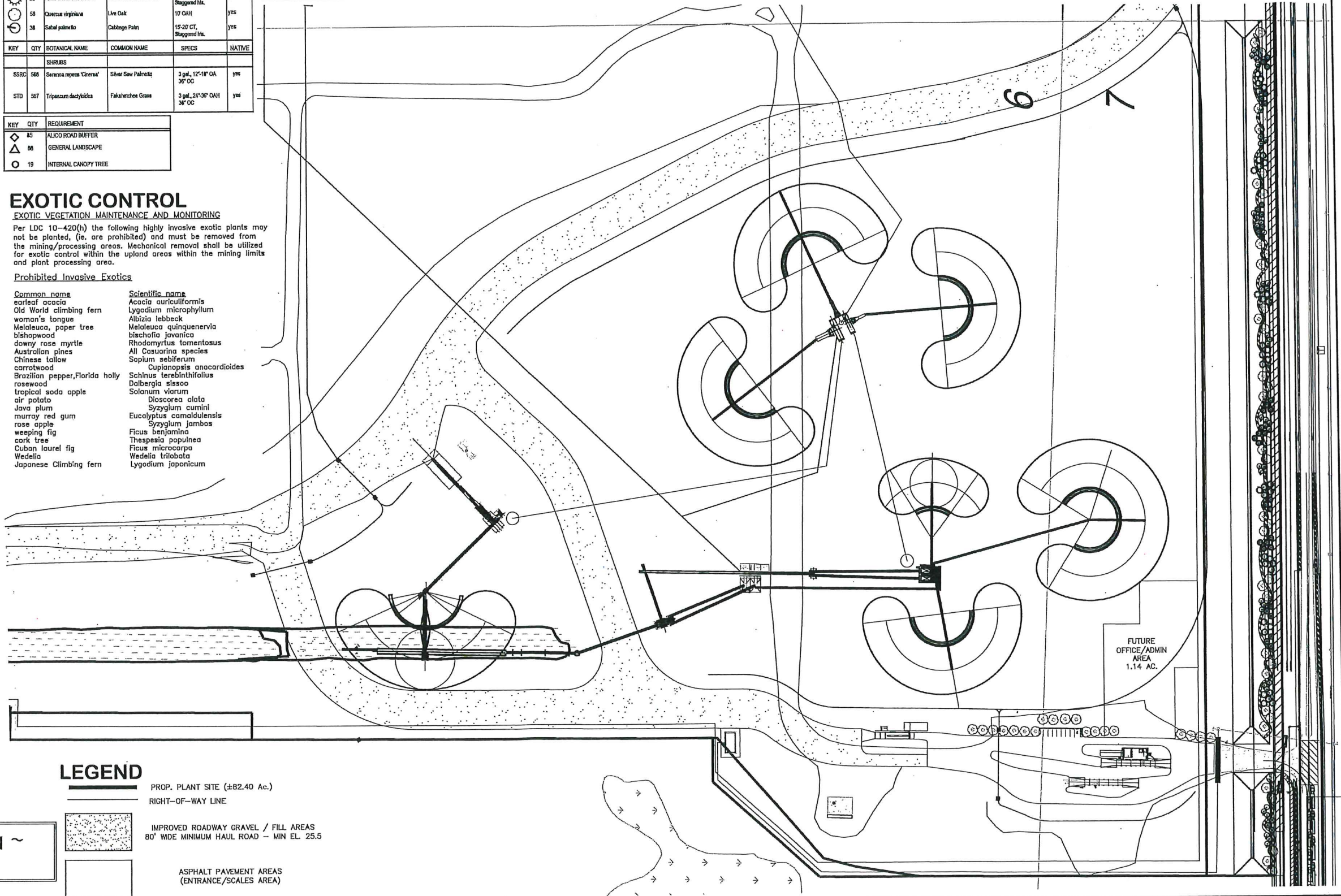
EXOTIC CONTROL

EXOTIC VEGETATION MAINTENANCE AND MONITORING

Per LDC 10-420(h) the following highly invasive exotic plants may not be planted, (ie, are prohibited) and must be removed from the mining/processing areas. Mechanical removal shall be utilized for exotic control within the upland areas within the mining limits and plant processing area.

Prohibited Invasive Exotics

Common name	Scientific name
earleaf acacia	<i>Acacia auriculiformis</i>
Old World climbing fern	<i>Lygodium microphyllum</i>
woman's tongue	<i>Albizia lebbbeck</i>
Melaleuca, paper tree	<i>Melaleuca quinquenervia</i>
bishopwood	<i>Bischofia javanica</i>
downy rose myrtle	<i>Rhodomyrtus tomentosa</i>
Australian pines	All <i>Casuarina</i> species
Chinese tallow	<i>Sapium sebiferum</i>
carrotwood	<i>Cuplanopsis anacardioides</i>
Brazilian pepper, Florida holly	<i>Schinus terebinthifolius</i>
rosewood	<i>Dalbergia sissoo</i>
tropical soda apple	<i>Solanum viscarium</i>
air potato	<i>Dioscorea alata</i>
Java plum	<i>Syzygium cumini</i>
murray red gum	<i>Eucalyptus camaldulensis</i>
rose apple	<i>Syzygium jambos</i>
weeping fig	<i>Ficus benjamina</i>
cork tree	<i>Thespesia populnea</i>
Cuban laurel fig	<i>Ficus microcarpa</i>
Wedelia	<i>Wedelia trilobata</i>
Japanese Climbing fern	<i>Lygodium japonicum</i>



PREVIOUSLY APPROVED PLAN ~
LEE Co D.O.#96-0509.808L

LEGEND

	PROP. PLANT SITE (±82.40 Ac.)
	RIGHT-OF-WAY LINE
	IMPROVED ROADWAY GRAVEL / FILL AREAS 80' WIDE MINIMUM HAUL ROAD - MIN EL. 25.5
	ASPHALT PAVEMENT AREAS (ENTRANCE/SCALES AREA)

ALICO QUARRY 3D EXTENSION

DESIGNED BY: J.K.H.
DATE: 12/20

DRAWN BY: J.K.H.
DATE: 12/20

CHECKED BY: WEP.
DATE: 12/20

VERTICAL SCALE: NONE
HORIZONTAL SCALE: 1"=100'

HOLEMONTES
ENGINEERS (LANDSCAPE ARCHITECTS) PLANNERS (LAWYERS)

5400 Hammock Office Park at Whiskey Creek
6200 Whiskey Creek Drive
Fort Myers, Florida 33919
Office: (239) 845-1288
Web: www.holemontes.com
Florida Certificate of Registration No. 1772

ALICO QUARRY - PHASE 3A
PLANT SITE LANDSCAPE PLAN

THESE DRAWINGS ARE NOT
APPROVED UNLESS SIGNED
AND SEALED BY THE
REGISTERED LANDSCAPE ARCHITECT

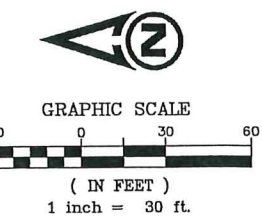
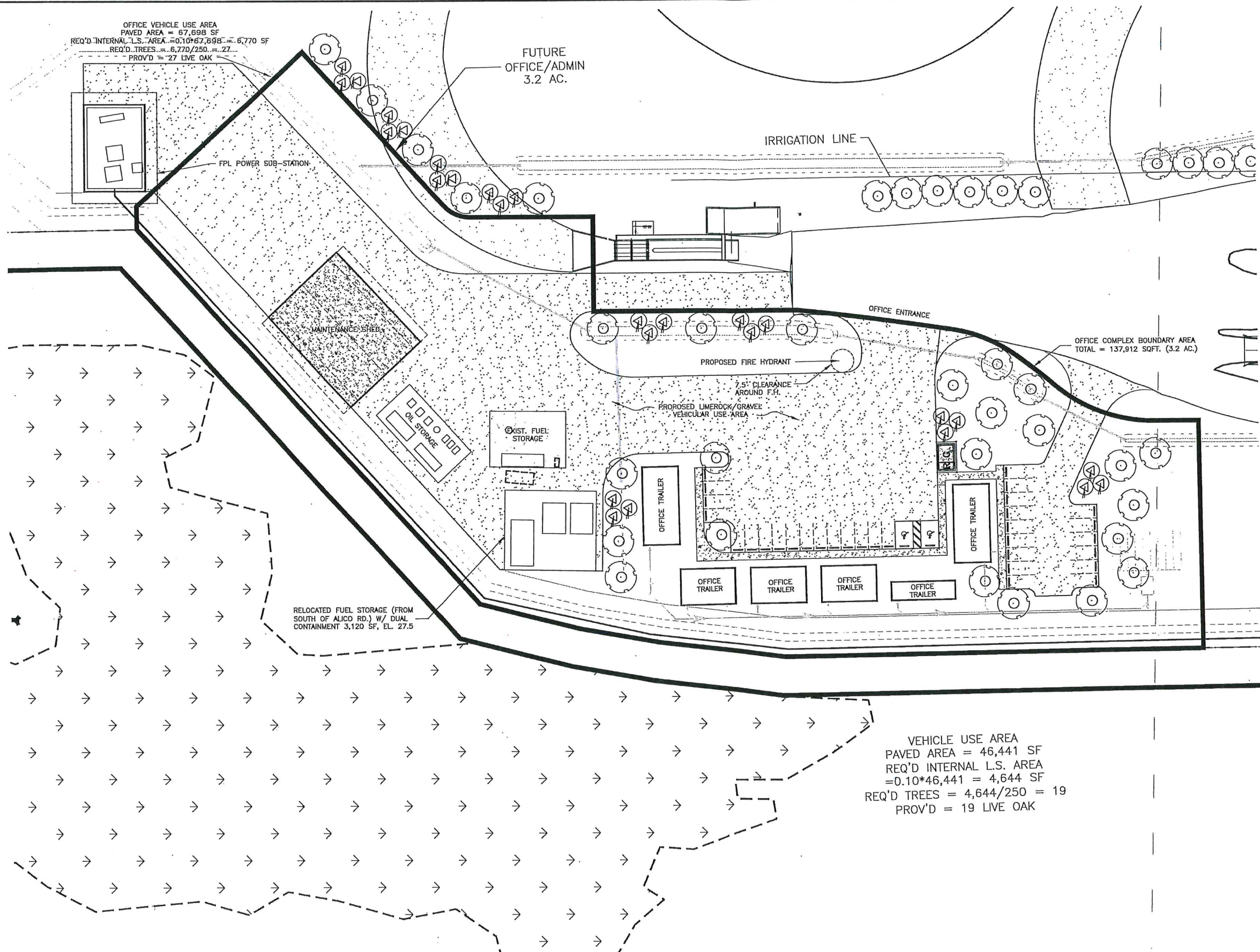
WILLIAM E. FARRAR
REGISTERED LANDSCAPE ARCHITECT
FLORIDA REGISTRATION NO. 0001342
DATE: _____

REFERENCE NO.
2000013-02

PROJECT NO.
2000.013D

DRAWING NO.
LP2.03

SHEET NO.
3 OF 14



LANDSCAPE REQUIREMENTS:

1. GENERAL LANDSCAPING

ADDITIONAL OFFICE AREA (2.0 AC.):

ADDITIONAL OFFICE AREA = 88,240 SF
REQ'D TREES = 88,240 X (1 TREE/ 3,500 SF) = 25 TREES
TOTAL TREES = 25 REQ'D, 27 PROVIDED
TREES TO BE PLANTED IN VICINITY OF OFFICE COMPLEX

2. INTERNAL LANDSCAPING:

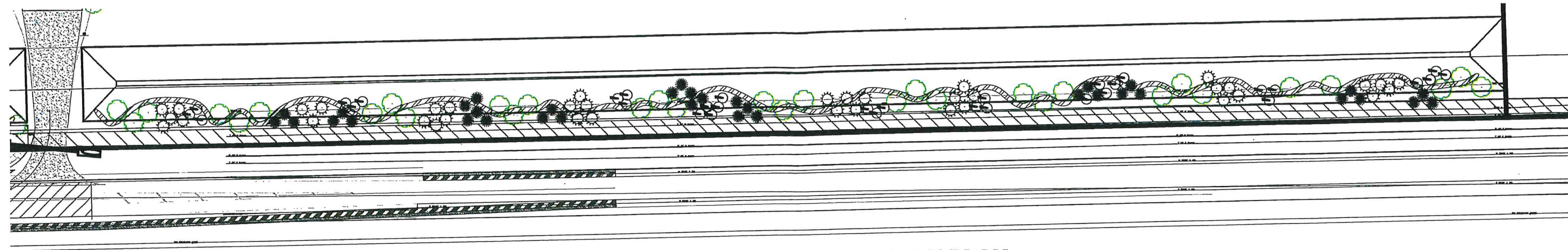
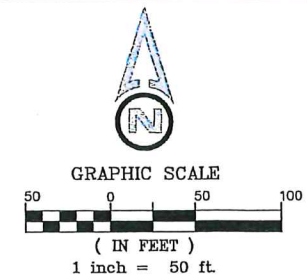
PARKING CANOPY TREES FOR OFFICE AREA:

PAVED AREA = 67,698 SF
REQ'D PLANTING AREA = 10% X 67,698 SF = 6,770 SF
REQ'D TREES = 6,770/250 = 27 TREES
PROV'D TREES = 27

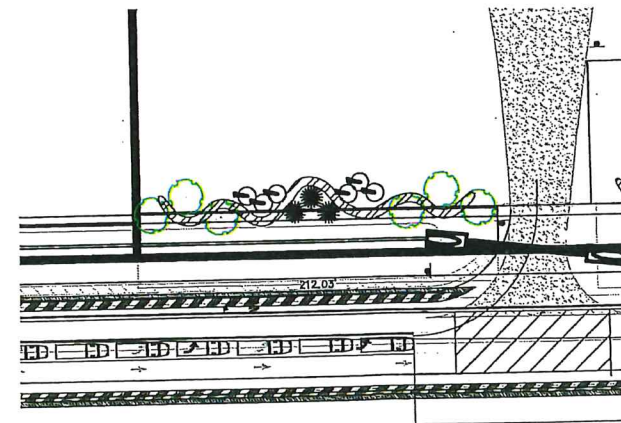
KEY	BOTANICAL NAME	COMMON NAME	SPECS	QTY	NATIVE
TREES					
○	Quercus virginiana	Live Oak	18' OAH	27	yes
○	Sabal palmetto	Cabbage Palm	15'-20' CT, Staggered Pl.	27	yes

KEY	QTY	REQUIREMENT
△	27	GENERAL LANDSCAPE
○	27	INTERNAL CANOPY TREE

VEHICLE USE AREA
PAVED AREA = 46,441 SF
REQ'D INTERNAL L.S. AREA
= 0.10 * 46,441 = 4,644 SF
REQ'D TREES = 4,644/250 = 19
PROV'D = 19 LIVE OAK



EAST SIDE ENTRANCE LANDSCAPE PLAN



WEST SIDE ENTRANCE LANDSCAPE PLAN

PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SPECS	NATIVE
TREES				
	<i>Pinus casahuate</i>	Dahoon Holly	12" OAH	yes
	<i>Pinus edulis</i> var. <i>densa</i>	South Florida Slash Pine	12"-18" OAH, Staggered Pl.	yes
	<i>Quercus virginiana</i>	Live Oak	12" OAH	yes
	<i>Sabal palmetto</i>	Palmetto Palm	12"-20" CT, Staggered Pl.	yes
SHRUBS				
SSRC	<i>Sarcocornia repens</i> 'Chamae'	Silver Saw Palmetto	3 gal., 12"-18" OAH, 42" OC	yes
STD	<i>Tripsacum dactyloides</i>	Fakahatchee Grass	3 gal., 24"-36" OAH, 48" OC	yes

KEY	BOTANICAL NAME	COMMON NAME	SPECS	NATIVE
TREES				
	<i>Pinus casahuate</i>	Dahoon Holly	12" OAH	yes
	<i>Pinus edulis</i> var. <i>densa</i>	South Florida Slash Pine	12"-18" OAH, Staggered Pl.	yes
	<i>Quercus virginiana</i>	Live Oak	12" OAH	yes
	<i>Sabal palmetto</i>	Palmetto Palm	12"-20" CT, Staggered Pl.	yes
SHRUBS				
SSRC	<i>Sarcocornia repens</i> 'Chamae'	Silver Saw Palmetto	3 gal., 12"-18" OAH, 42" OC	yes
STD	<i>Tripsacum dactyloides</i>	Fakahatchee Grass	3 gal., 24"-36" OAH, 48" OC	yes

KEY	BOTANICAL NAME	COMMON NAME	SPECS	NATIVE
TREES				
	<i>Pinus casahuate</i>	Dahoon Holly	12" OAH	yes
	<i>Pinus edulis</i> var. <i>densa</i>	South Florida Slash Pine	12"-18" OAH, Staggered Pl.	yes
	<i>Quercus virginiana</i>	Live Oak	12" OAH	yes
	<i>Sabal palmetto</i>	Palmetto Palm	12"-20" CT, Staggered Pl.	yes
SHRUBS				
SSRC	<i>Sarcocornia repens</i> 'Chamae'	Silver Saw Palmetto	3 gal., 12"-18" OAH, 42" OC	yes
STD	<i>Tripsacum dactyloides</i>	Fakahatchee Grass	3 gal., 24"-36" OAH, 48" OC	yes

~ PREVIOUSLY APPROVED PLAN ~
LEE Co D.O.#96-0509.808L

RECORD DRAWING

THESE RECORD DRAWINGS SHOW THE WORK
COMPLETED DURING CONSTRUCTION
RECORD DRAWING DATE: 8/29/15

THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BY THE REGISTERED LANDSCAPE ARCHITECT WILLIAM E. PRYSLICK, A.S.A. FLORIDA REGISTRATION #0001342 DATE		REFERENCE NO. 2000013-02	DRAWING NO. LP2.05
		PROJECT NO. 2000.013D	SHEET NO. 5 OF 14

Plantings Enhancement List:
1. Pinus casahuate
2. Pinus edulis var. densa
3. Quercus virginiana
4. Sabal palmetto
5. Sarcocornia repens 'Chamae'
6. Tripsacum dactyloides
7. Pinus casahuate
8. Pinus edulis var. densa
9. Quercus virginiana
10. Sabal palmetto
11. Sarcocornia repens 'Chamae'
12. Tripsacum dactyloides

EXOTIC VEGETATION MAINTENANCE MONITORING AND REMOVAL
Per LDC 10-420(h) the following highly invasive exotic
plants may not be planted, (ie, are prohibited) and
must be removed from the mining/processing area.
Mechanical removal shall be utilized for exotic control
within the upland areas within the mining limits and
plant processing areas.
EXOTICS HAVE BEEN REMOVED 8/24/15

NUMBER	REVISIONS	DATE
1	MEPD LANDSCAPE PLAN CHANGES	2021/05/22
2	RAI Response	2021/05/26
3	REVISED PLAN PER ROB IRVING EMAIL	2009/08/24



DESIGNED BY: J.K.H.	DATE: 12/20
DRAWN BY: J.K.H.	DATE: 12/20
CHECKED BY: WEP	DATE: 12/20
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1"=50'



Oak Hammock Office Park at Whiskey Creek
6204 Whiskey Creek Drive
Fort Myers, Florida 33919
Office: (239) 385-1200
Fax: (239) 385-1200
Website: www.holemontes.com
Florida Certificate of Registration No. 1775

ALICO QUARRY - PHASE 3A
ALICO ROAD LANDSCAPE PLAN

S.W. FLORIDA INTL AIRPORT
AOPD
(AIRPORT - VACANT)
(per Z-06-030)
DOS2003-00041
S.F.W.M.D. PERMIT #36-00080-S
APPLICATION #000403-6

NO BUFFER
24' ACCESS ROADWAY
50' FCWC EASEMENT

PROPOSED
ALICO QUARRY
PHASE 3D

EXISTING
ALICO QUARRY
PHASE 3C
(North Cell)

EXCAVATION LINE (127.3 AC.)
(PERIMETER 9,414 LF)

Alico North Quarry
Phases 3C
262.6 Ac.

HAUL ROAD
TO EXIST. PHASE 3A
PROCESSING PLANT

EXISTING
ALICO QUARRY
PHASE 3A

EXISTING
ALICO QUARRY
(PLANT SITE AREA)
PHASE 3A

(ACTIVE MINE)
LD096-05-098.08L
EXISTING
PLANT SITE AREA
(±84.00 Ac.)

50' EXCAVATION SETBACK
EXCAVATION LINE (76.8 AC.)
(PERIMETER 8,274 LF)

NO BUFFER
EXISTING
ALICO QUARRY
PHASE 3C
(South Cell)

SPREADER SWALE

NO BUFFER REQUIRED

ALICO AIRPARK CENTER
IPD
(VACANT)
(per Z-04-025)
DOS2005-00249
S.W.F.M.D. PERMIT #36-05188-P

EXISTING MAIN OFFICE
(GUEST CHECK-IN)
EXISTING
ADMINISTRATIVE
OFFICES / PARKING

EXISTING ENTRANCE

886 LF
ALICO R.O.W.
BUFFER
(SEE SHEET 20B)

55' ROW RESERVATION

SPREADER SWALE

NO BUFFER REQUIRED

LEE COUNTY LDC CHAPTER 12 REGULATIONS:

SEC 12-113

(m) Indigenous Preservation and
Replanting:

Required: 25% of Project Site
Required Area: 25 x 262.6 Ac. = 65.7
Ac.

Provided: Approximately 23.7 Acres of
indigenous habitat will be preserved
on site. These acres are located
within the noted preserve areas and
western buffers.

(n) Invasive Exotic Removal:
All exotic species as follows will be removed
from the site and the site will be maintained
free of these species in perpetuity.

PROHIBITED INVASIVE EXOTICS:
EARLEAF ACACIA, ACACIA
AUICULIFORMIS
WOMAN'S TONGUE, ALBIZIA LEBECK
BISHOPWOOD, BISHOPFIA JAVANICA
AUSTRALIAN PINES, ALL CASUARINA
SPECIES
CARROTWOOD, CUPANOPSIS
ANACARDIODES
ROSEWOOD, DALBERGIA SISSOO
AIR POTATO, DIOSCOREA ALATA
MURRAY RED GUM, EUCALYPTUS
CAMALDULENSIS
WEeping FIG, FICUS BENJAMINA
CUBAN LAUREL FIG, FICUS MICROCARPA
JAPANESE CLIMBING FERN LYGODIUM

JAPONICUM
OLD WORLD CLIMBING FERN, LYGODIUM
MICROPHYLLUM MELALEUCA, PAPER
TREE, MELALEUCA QUINQUENARIA
DOWNY ROSE MYRTLE, RHODOMYRTUS
TOMENTOSUS
CHINESE TALLOW, SAPIUM SEBIFERUM
BRAZILIAN PEPPER, SCHINUS
TEREBINTHIFOLIUS
TROPICAL SODA APPLE, SOLANUM VIARUM
JAVA PLUM, SYZYGIUM CUMINI
ROSE APPLE, SYZYGIUM JAMBOS
CORK TREE, THESPIA POPULNEA
WEDELIA, WEDELIA TRILOBATA

(o) Buffers:

- Required: Buffers are required between mining and right-of-way, residential, agriculture, and conservation lands.
- For Phase 3C there are conservation lands to the west and Alico Road to the south.
- 100 ft. wide buffers have been located along the west property line matching the location of conservation areas on the Alico Airpark property based upon the S.F.W.M.D. permit plans. The existing vegetation within the on-site preserve areas will be used to meet the minimum planting requirement. Supplemental plantings will be determined once exotics are removed and a minor change will be submitted to demonstrate the plantings proposed and those being saved on site:

- Ten 10' trees with 2" caliper & 4' spread per 100ft.
- Ten 5' trees with 1" caliper & 2' spread per 100 ft.
- 100 native shrubs - 24" in height per 100 ft.

TOTAL BUFFER LENGTH = 2,718 LF
TOTAL 10' TREES - 10/100 x 2,718 = 272 trees (10' / 2' / 4')
TOTAL 5' TREES - 10/100 x 2,718 = 272 trees (5' / 1' / 2')
TOTAL SHRUBS - 100/100 x 2,718 = 2718 shrubs
(24", 3 gallon container size)

- Right-of-way buffer along Alico Road. A 50 feet wide buffer at natural grade will be provided. Existing native vegetation will be utilized to meet the requirement. A tree survey will be provided post exotic removal and the final planting quantities will be determined at the time of the MDO approval.

The minimum standard will be provided:

- LENGTH = 886 LF
- TOTAL 10' TREES
= 886 x 10/100 = 89 Trees (10' / 2' / 4')
- TOTAL 5' TREES
= 886 x 10/100 = 89 Trees (5' / 1' / 4')
- TOTAL SHRUBS
= 886 x 100/100 = 886 Shrubs (24", 3 gallon container size)

(p) Wild Life Habitat:

- Required: Wild life habitat areas connecting existing offsite habitat areas, minimum 300 ft. wide.
- Most probable location is north 300' of property.

Area = 300' X 2638' / 43560 = 18.2 acres

Provided: The north approximately 150 feet of the property will be set aside for preserve as noted on the plan.

Development Approval does not vest or
guarantee that changes will not be required if
subsequent changes are made to the
Uniform Lee County Fire Code.

Minor Change #1

APPROVED
DOS2015-00078
Tom Sawtell Plan Reviewer
Lee County Development Services
12/6/17

SCALE 1"=300'

NUMBER	REVISIONS	DATE
1	MEPD LANDSCAPE PLAN CHANGES	2021/06/22
2	RAI Response	2021/05/28
3	MDO RAI DOZ RESPONSE LETTER 4/15/16	2016/06/02



DESIGNED BY: J.K.H.	DATE: 12/20
DRAWN BY: J.K.H.	DATE: 12/20
CHECKED BY: WEP	DATE: 12/20
VERTICAL SCALE: NONE	HORIZONTAL SCALE: 1"=300'



ALICO QUARRY - PHASE 3C
BUFFER LANDSCAPE KEY SHEET



REFERENCE NO. 2000013-02	DRAWING NO. LP2.06
PROJECT NO. 2000.013D	SHEET NO. 6 OF 14

BUFFER PLANT SCHEDULE

ID	COMMON NAME	BOTANICAL NAME	Quantity	SPECIFICATION
Trees				
PE(10)	South Florida Slash Pine	Pinus elliotii var. 'Densa'	232	10 feet height, 2-inch caliper, 4' spread
PE(5)	South Florida Slash Pine	Pinus elliotii var. 'Densa'	232	5 feet height, 1-inch caliper, 2' spread
MC(10)	Wax Myrtle	Myrica cerifera	105	10 feet height, 2-inch caliper, 4' spread
MC(5)	Wax Myrtle	Myrica cerifera	105	5 feet height, 1-inch caliper, 2' spread
QV(10)	Live Oak	Quercus virginiana	27	10 feet height, 2-inch caliper, 4' spread
QV(5)	Live Oak	Quercus virginiana	27	5 feet height, 1-inch caliper, 2' spread
SP(10)	Cabbage Palm	Sabal palmetto	17	10 feet height (gray wood)
SP(5)	Cabbage Palm	Sabal palmetto	17	5 feet height (gray wood)
Shrubs				
SB	Sand Cordgrass	Spartina bakeri	1504	24" height
BH	Saltbush	Baccharis halimifolia	402	24" height
PM	Gulf dune Paspalum	Paspalum monostachyum	427	24" height
AS	Wiregrass	Aristida stricta	950	24" height
PH	Maidencane	Panicum hemitomon	525	24" height

SEE SHEET 20A & 20B FOR PLANTING LOCATIONS

LEGEND

TREES:

- PE(10) SOUTH FLORIDA SLASH PINE, Pinus elliotii var. 'Densa' (HEIGHT)
- MC(10) WAX MYRTLE, Myrica cerifera (HEIGHT)
- 411 FLUCFCS, PINE PALMETTO FLATWOODS
- 625 FLUCFCS, HYDRIC PINE FLATWOODS
- 643 FLUCFCS, WET PRAIRIE

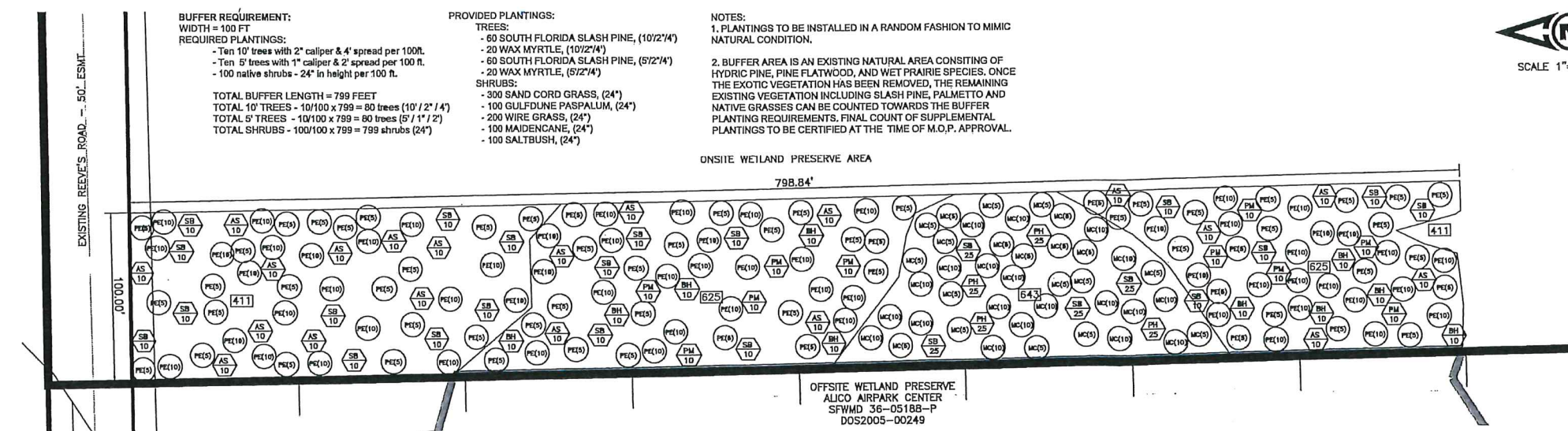
SHRUBS:

- SB SAND CORDGRASS, Spartina Bakeri
- BH SALT BUSH, Baccharis halimifolia
- PM GULFDUNE PASPALUM, Paspalum monostachyum
- AS WIREGRASS, Aristida stricta
- PH MAIDENCANE, Panicum hemitomon

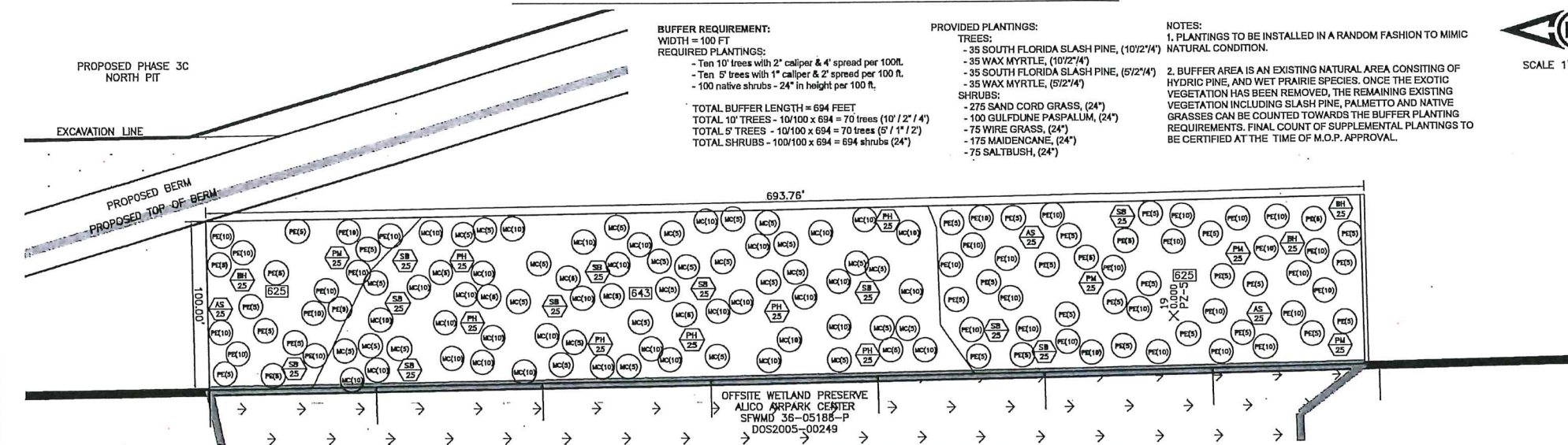
Development Approval does not vest or guarantee that changes will not be required if subsequent changes are made to the Uniform Lee County Fire Code.

Minor Change #1

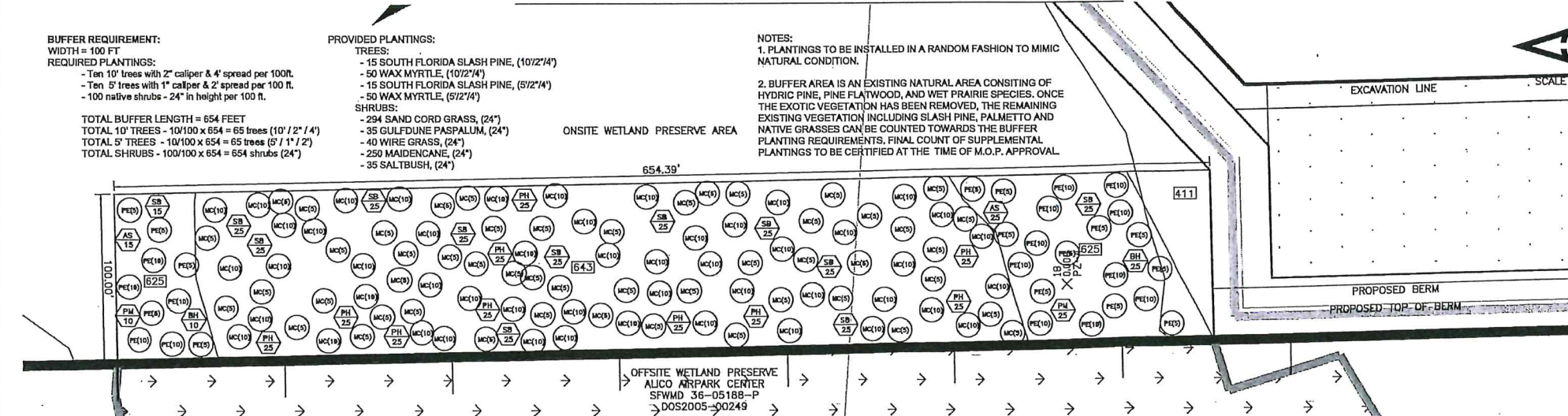
APPROVED
DOS2015-00078
Tom Sawtell Plan Reviewer
Lee County Development Services
12/6/17



CONSERVATION BUFFER LOCATION #1

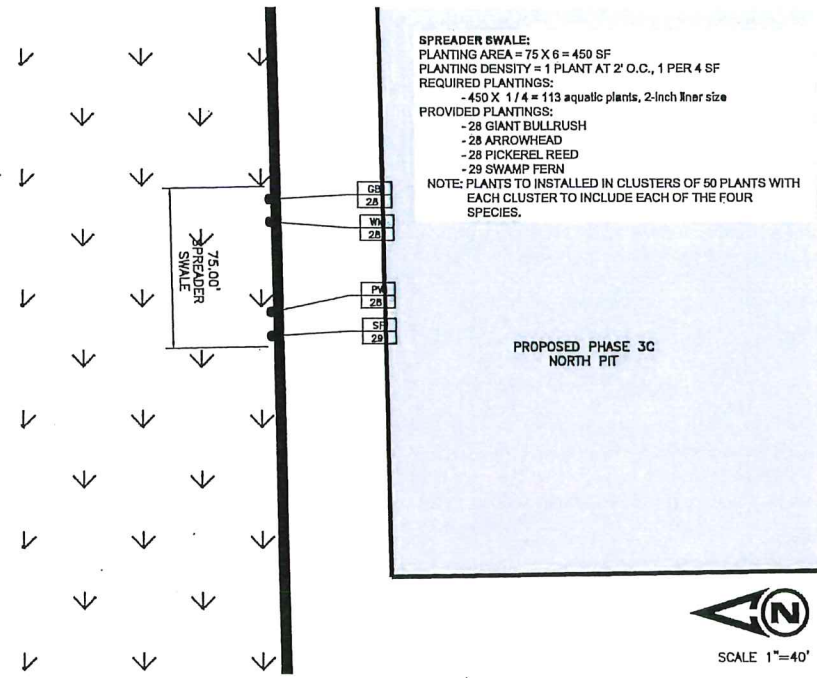


CONSERVATION BUFFER LOCATION #2



CONSERVATION BUFFER LOCATION #3

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WEST SPREADER SWALE

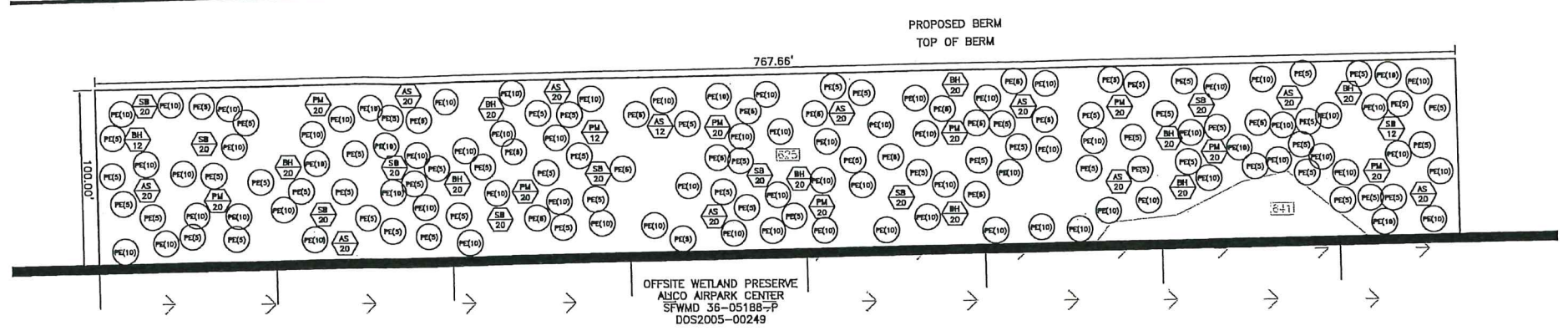
SPREADER SWALE:
PLANTING AREA = 75 X 6 = 450 SF
PLANTING DENSITY = 1 PLANT AT 2' O.C., 1 PER 4 SF
REQUIRED PLANTINGS:
- 450 X 1/4 = 113 aquatic plants, 2-inch liner size
PROVIDED PLANTINGS:
- 28 GIANT BULLRUSH
- 28 ARROWHEAD
- 28 PICKEREL REED
- 28 SWAMP FERN
NOTE: PLANTS TO BE INSTALLED IN CLUSTERS OF 50 PLANTS WITH EACH CLUSTER TO INCLUDE EACH OF THE FOUR SPECIES.

BUFFER REQUIREMENT:
WIDTH = 100 FT
REQUIRED PLANTINGS:
- Ten 10' trees with 2" caliper & 4' spread per 100ft.
- Ten 5' trees with 1" caliper & 2' spread per 100 ft.
- 100 native shrubs - 24" in height per 100 ft., 3-gallon size.

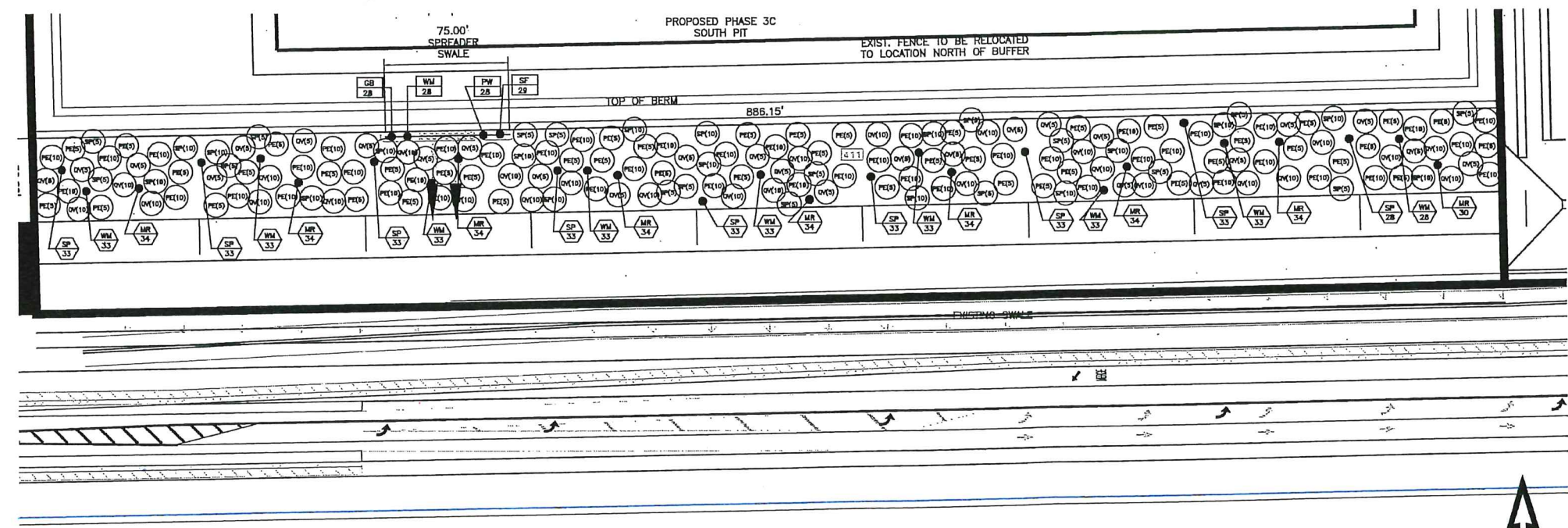
TOTAL BUFFER LENGTH = 768 FEET
TOTAL 10' TREES - 10/100 x 768 = 77 trees (10' / 2" / 4")
TOTAL 5' TREES - 10/100 x 768 = 77 trees (5' / 1" / 2")
TOTAL SHRUBS - 100/100 x 768 = 768 shrubs (24"-3 gallon size)

PROVIDED PLANTINGS:
TREES:
SEE ON-SITE INDIGENOUS PRESERVE MANAGEMENT PLAN FOR PLANTING LOCATIONS/SPECIES.
SHRUBS:
SEE ON-SITE INDIGENOUS PRESERVE MANAGEMENT PLAN FOR PLANTING LOCATIONS/SPECIES

NOTES:
1. BUFFER AREA IS AN EXISTING NATURAL AREA AND NOTED AS PRESERVE AREA #3. SEE ON-SITE INDIGENOUS PRESERVE MANAGEMENT PLAN FOR PLANTING DETAILS.



CONSERVATION BUFFER - PRESERVE #4



ALICO ROAD BUFFER LOCATION AND SOUTH SPREADER SWALE

BUFFER REQUIREMENT:
WIDTH = 50 FT
REQUIRED PLANTINGS:
- Ten 10' trees with 2" caliper & 4' spread per 100ft.
- Ten 5' trees with 1" caliper & 2' spread per 100 ft.
- 100 native shrubs - 24" in height per 100 ft. (3 gallon container size)

TOTAL BUFFER LENGTH = 886 FEET
TOTAL 10' TREES - 10/100 x 886 = 89 trees (10' / 2" / 4")
TOTAL 5' TREES - 10/100 x 886 = 89 trees (5' / 1" / 2")
TOTAL SHRUBS - 100/100 x 886 = 886 shrubs (24")

PROVIDED PLANTINGS:
TREES:
- 45 SOUTH FLORIDA SLASH PINE, (10/2"/4")
- 27 LIVE OAK, (10/2"/4")
- 17 CABBAGE PALM, (10/2"/4")
- 45 SOUTH FLORIDA SLASH PINE, (5/1"/2")
- 27 LIVE OAK, (5/1"/2")
- 17 CABBAGE PALM, (5/1"/2")
SHRUBS (3 GALLON CONTAINER SIZE):
- 292 SAW PALMETTO, (24")
- 292 WAX MYRTLE, (24")
- 302 MYRSINE, (24")

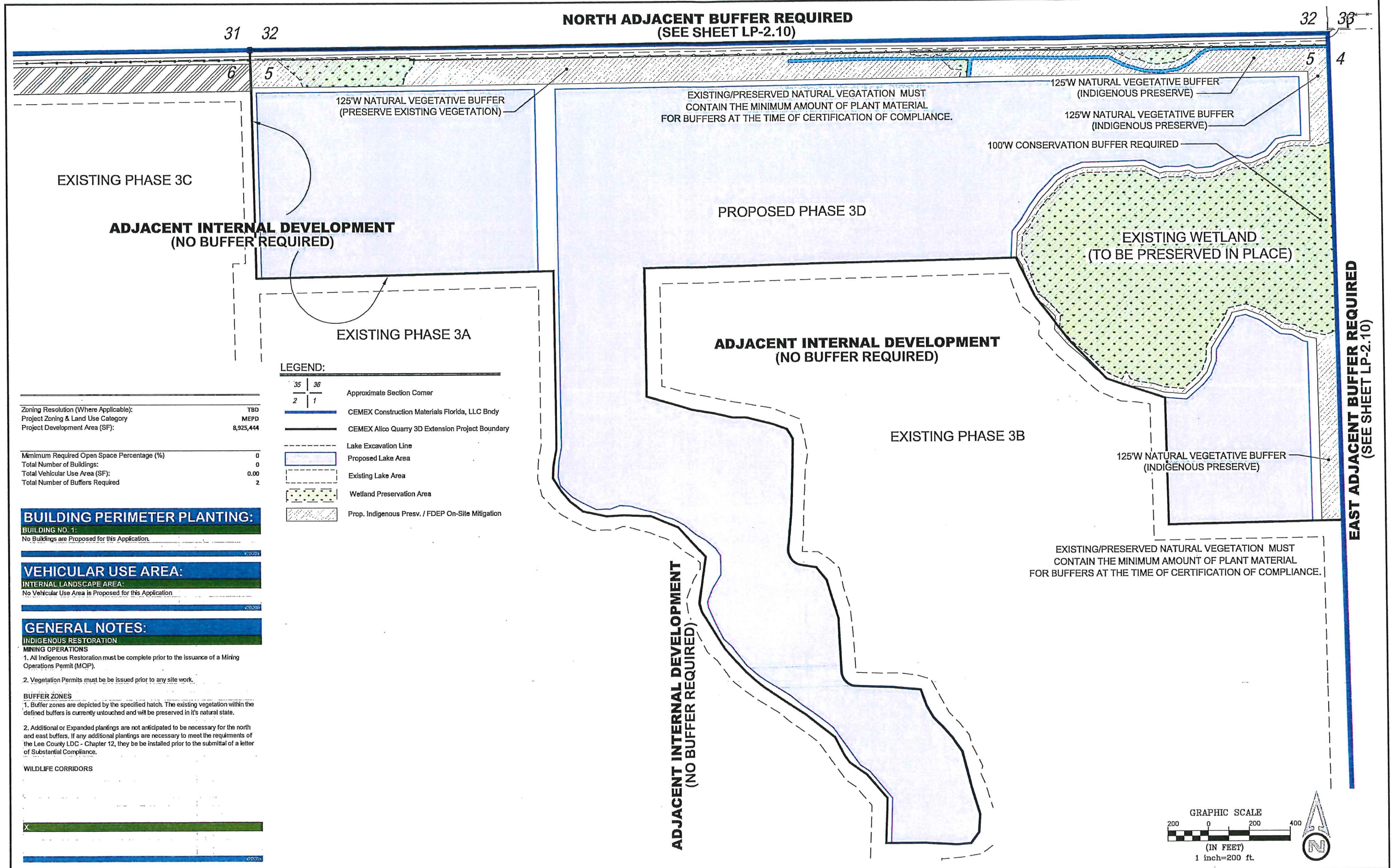
NOTES:
1. PLANTINGS TO BE INSTALLED IN A RANDOM FASHION TO MIMIC NATURAL CONDITION.
2. BUFFER AREA IS AN EXISTING NATURAL AREA CONSISTING OF PINE FLATWOODS SPECIES. ONCE THE EXOTIC VEGETATION HAS BEEN REMOVED, THE REMAINING EXISTING VEGETATION INCLUDING SLASH PINE AND PALMETTO CAN BE COUNTED TOWARDS THE BUFFER PLANTING REQUIREMENTS. FINAL COUNT OF SUPPLEMENTAL PLANTINGS TO BE CERTIFIED AT THE TIME OF M.O.P. APPROVAL.

SPREADER SWALE:
PLANTING AREA = 75 X 6 = 450 SF
PLANTING DENSITY = 1 PLANT AT 2' O.C., 1 PER 4 SF
REQUIRED PLANTINGS:
- 450 X 1/4 = 113 aquatic plants, 2-inch liner size
PROVIDED PLANTINGS:
- 28 GIANT BULLRUSH
- 28 ARROWHEAD
- 28 PICKEREL REED
- 28 SWAMP FERN
NOTE: PLANTS TO BE INSTALLED IN CLUSTERS OF 50 PLANTS WITH EACH CLUSTER TO INCLUDE EACH OF THE FOUR SPECIES.

Development Approval does not vest or guarantee that changes will not be required if subsequent changes are made to the Uniform Lee County Fire Code.
Minor Change #1
APPROVED
DOS2015-00078
Tom Sawtelli, Plan Reviewer
Lee County Development Services
12/6/17

LEGEND

- TREES:**
- PE(10) SOUTH FLORIDA SLASH PINE, *Pinus elliotii* var. 'Densa' (HEIGHT)
 - OV(10) LIVE OAK, *Quercus virginiana* (HEIGHT)
 - SP(10) CABBAGE PALM, *Sabal Palmetto* (HEIGHT)
- SHRUBS (3 GALLON CONTAINER SIZE):**
- SC QTY SAND CORDGRASS, *Spartina bakeri*
 - WM QTY WAX MYRTLE, *Myrica cerifera*
 - MR QTY MYRSINE, *Myrsine guianensis*
 - SP QTY SAW PALMETTO, *Serenoa repens*
 - GB QTY GALLBERRY, *Ilex coriacea*
- AQUATICS:**
- GB QTY GIANT BULLRUSH, *Scirpus californicus*
 - WM QTY ARROWHEAD, *Sagittaria latifolia*
 - PW QTY PICKEREL WEED, *Pontederia cordata*
 - SF QTY SWAMP FERN, *Blechnum Serrulatum*
 - A11 FLUCFCS, PINE FLATWOOD
 - B25 FLUCFCS, HYDRIC PINE
 - B41 FLUCFCS, FRESH WATER MARSH



Zoning Resolution (Where Applicable): TBD
Project Zoning & Land Use Category: MEPD
Project Development Area (SF): 8,925,444

Minimum Required Open Space Percentage (%): 0
Total Number of Buildings: 0
Total Vehicular Use Area (SF): 0.00
Total Number of Buffers Required: 2

BUILDING PERIMETER PLANTING:
BUILDING NO. 1:
No Buildings are Proposed for this Application.

VEHICULAR USE AREA:
INTERNAL LANDSCAPE AREA:
No Vehicular Use Area is Proposed for this Application.

GENERAL NOTES:
INDIGENOUS RESTORATION
MINING OPERATIONS
1. All Indigenous Restoration must be complete prior to the issuance of a Mining Operations Permit (MOP).
2. Vegetation Permits must be issued prior to any site work.
BUFFER ZONES
1. Buffer zones are depicted by the specified hatch. The existing vegetation within the defined buffers is currently untouched and will be preserved in its natural state.
2. Additional or Expanded plantings are not anticipated to be necessary for the north and east buffers. If any additional plantings are necessary to meet the requirements of the Lee County LDC - Chapter 12, they be installed prior to the submittal of a letter of Substantial Compliance.
WILDLIFE CORRIDORS

NUMBER	REVISIONS	DATE
1	RAI Response	2021/05/28
2	MEPD LANDSCAPE PLAN CHANGES	2021/04/22

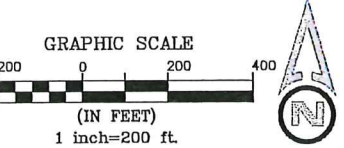


DESIGNED BY: J.K.H. DATE: 12/20
DRAWN BY: J.K.H. DATE: 12/20
CHECKED BY: WEP. DATE: 12/20
VERTICAL SCALE: NONE HORIZONTAL SCALE: 1"=200'

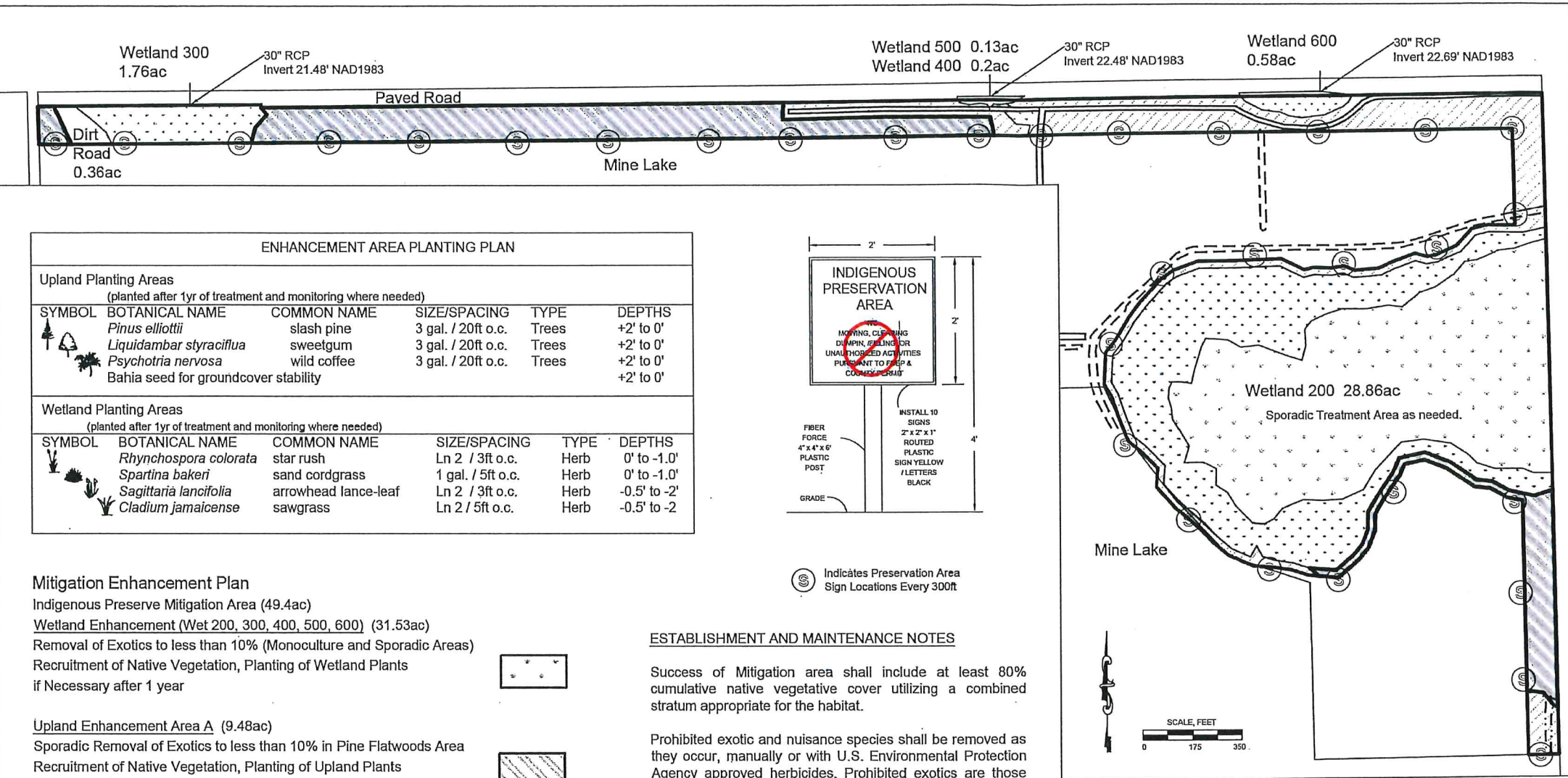


Oak Hammock Office Park at Whiskey Creek
6300 Whiskey Creek Drive
Fort Myers, Florida 33919
Office: (239) 945-1200
Web: www.holemontes.com / www.3dmc.com
Florida Certificate of Authorization No. 1772

ALICO QUARRY - PHASE 3D
CODE LANDSCAPE PLAN



THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BY THE ARCHITECT	REFERENCE NO. 2000013-02	DRAWING NO. LP2.09
WILLIAM E. PRYSL, P.C.A., A.S.I.A. REGISTERED LANDSCAPE ARCHITECT FLORIDA REGISTRATION #0001342	PROJECT NO. 2000.013D	SHEET NO. 9 OF 14



Mitigation Enhancement Plan
Indigenous Preserve Mitigation Area (49.4ac)
Wetland Enhancement (Wet 200, 300, 400, 500, 600) (31.53ac)
Removal of Exotics to less than 10% (Monoculture and Sporadic Areas)
Recruitment of Native Vegetation, Planting of Wetland Plants
if Necessary after 1 year

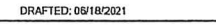
Upland Enhancement Area A (9.48ac)
Sporadic Removal of Exotics to less than 10% in Pine Flatwoods Area
Recruitment of Native Vegetation, Planting of Upland Plants
if Necessary after 1 year

Upland Enhancement Area B (8.03ac)
Removal of Exotics to less than 10% & Fill in Agricultural Rim Ditches
Enhance Growth of Pine Flatwoods Habitat by Planting Upland Plants
According to Above Plan after 1 year of Quarterly Treatments

ESTABLISHMENT AND MAINTENANCE NOTES

Success of Mitigation area shall include at least 80% cumulative native vegetative cover utilizing a combined stratum appropriate for the habitat.

Prohibited exotic and nuisance species shall be removed as they occur, manually or with U.S. Environmental Protection Agency approved herbicides. Prohibited exotics are those species as listed in the County LDC Section 2.4.4.12., listed as Class I and Class II prohibited aquatic plants specified in Chapter 5B-64.011, F.A.C., and/or by the Florida Exotic Pest Plant Council. Native nuisance species, which may include but limited to, cattails and Carolina willow shall be removed manually or with approved herbicides when they exceed 5% coverage of the required Area.

DRAFTED: 06/18/2021				
 801 North Park Road Plant City, Florida 33563 (813) 752-1289 www.southeastenvironmentalsolutions.com SES PROJECT No: 1280B	Section: 16, 21, & 22	MITIGATION ENHANCEMENT PLAN & PLANTING PLAN		FIGURE 13
	Township: 49 South			
	Range: 27 East	ALICO QUARRY PHASE 3D CEMEX CONSTRUCTION MATERIALS OF FL		
	County: Collier			
	State: Florida			
	LABINS: HR AERIAL 2018			

PERIMETER BUFFERS:

NORTH PERIMETER BUFFER	
Development Area Adjacent to:	Airport PD
Buffer Type Required:	125'W Chapter 12 Buffer
Special Conditions:	LDC Ch 12, Sec 12-113(o)
Length of Buffer (LF):	5,280
REQUIRED TREES:	
Buffer Trees Required- 10'H x 4"S (10 Trees per 100 LF):	528
Buffer Trees Required 5'H x 2"S (10 Trees per 100 LF):	528
Buffer Trees Provided	530 within 125'W Required & Existing Vegetative Buffer
REQUIRED SHRUBS:	
Buffer Shrubs Required (100 Shrubs per 100 LF):	5280
Buffer Shrubs Provided	5300 within 125'W Required & Existing Vegetative Buffer

CONSERVATION BUFFERS:

CONSERVATION BUFFERS:	
Development Area Adjacent to:	Lee County 2020
Buffer Type Required:	125'W Chapter 12 Buffer
Special Conditions:	LDC Ch 12, Sec 12-113(o)
Length of Buffer (LF):	2,368
REQUIRED TREES:	
Buffer Trees Required- 10'H x 4"S (10 Trees per 100 LF):	236.8
Buffer Trees Required 5'H x 2"S (10 Trees per 100 LF):	236.8
Buffer Trees Provided	240 within 125'W Required & Existing Vegetative Buffer
REQUIRED SHRUBS:	
Buffer Shrubs Required (100 Shrubs per 100 LF):	2368
Buffer Shrubs Provided	2400 within 125'W Required & Existing Vegetative Buffer

BUFFER CONDITIONS:

1. Provided 125'W existing native vegetative may be used to meet the required buffers in this application within the minimum or exceeding amount of vegetation required.
2. The existing native vegetation within the preserved buffer areas must contain the minimum amount of vegetation required for the defined buffers at the time of compliance per each 100 LF section.
3. Wetland areas within the buffer areas will not be impacted. All Listed Exotics to be removed.

PERIMETER BUFFER NOTES

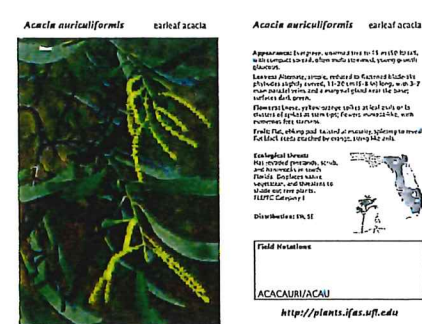
The Included Restoration Plan depicts the minimum number of plants required to be either maintained and/or installed along the applicable North and East property perimeters to meet the requirements of Chapter 12 of the LDC. Phase 3D requires perimeter planting along the northern and eastern boundaries consistent with the approved deviations. The intent is to provide preservation, buffer installations, and restorations as defined by the FDEP Permit requirements. Any existing plants preserved that meet the County requirements for either trees or shrubs will count toward the required plants for Phase 3D, with any difference being planted as needed to provide the required number of plantings as required by Chapter 12 of the Lee County LDC.

OPEN SPACE per PHASE 3D:

OPEN SPACE:	
Overall Site Development Area (Acres):	204.90
OPEN SPACE MATRIX:	
Total Open Space	
Open Space Area	12.00
Indigenous Open space Area	49.40
TOTAL OPEN SPACE	61.40

OPEN SPACE NOTES:

1. Open Space Requirements Per Lee County LDC Section 12-113(e). Open space requirements applicable to this project site will be deemed satisfied if the mine site maintains the buffer areas, indigenous preserve areas, setbacks, and wildlife habitats required under the noted LDC Chapter or as otherwise provided in the approved MEPP resolution.



ACACIA AURICULIFORMIS



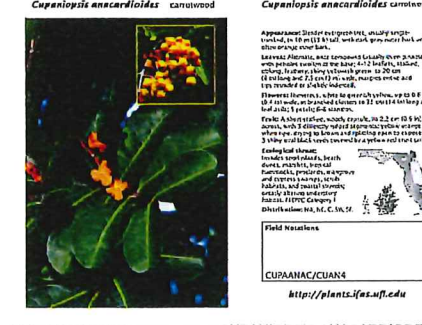
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BISCHOFIA JAVANICA



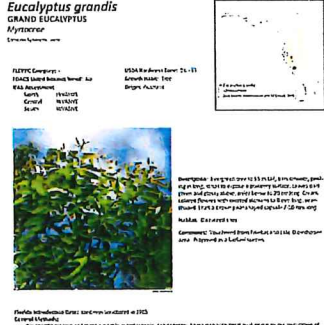
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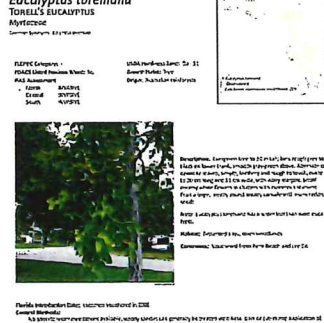
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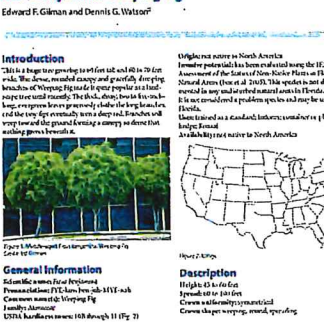
DALBERGIA SISSOO



EUCALYPTUS GRANDIS



EUCALYPTUS TORRELLIANA



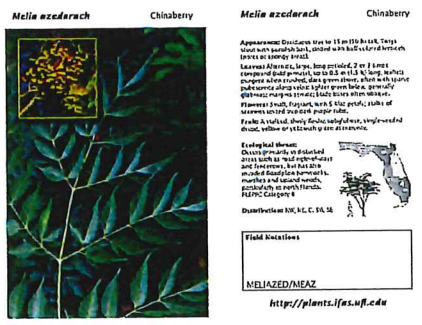
FICUS BENJAMINA



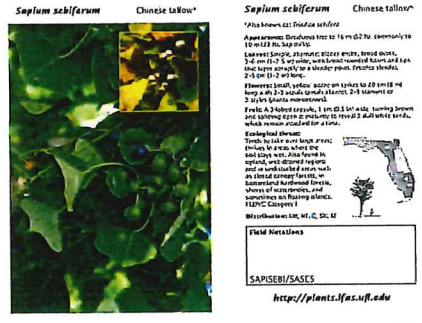
FICUS RETUSA



FICUS MICROCARPA



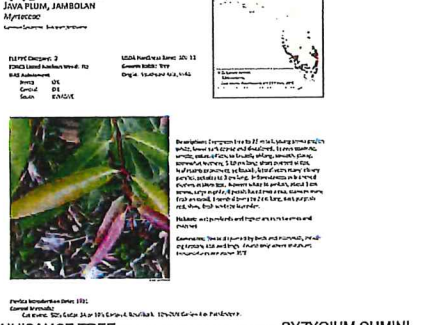
MELALEUCA AZADIRACH



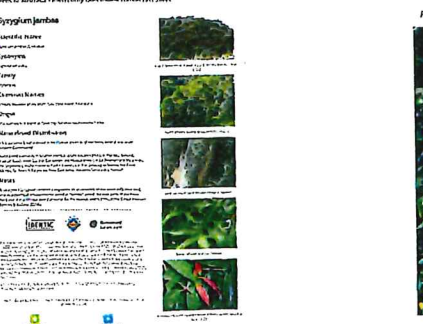
SAPIUM SEBIFERUM



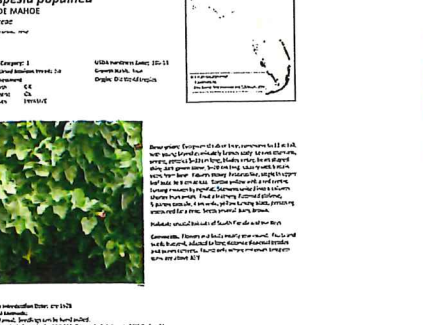
SCHINUS TEREBINTHIFOLIUS



SYZYGIUM CUMINI



SYZYGIUM JAMBOS



THESPEZIA POPULNEA



DIOSCOREA ALATA



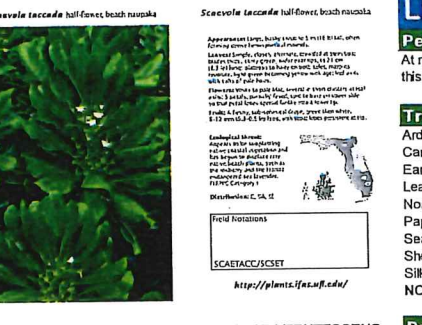
DIOSCOREA BULBIFERA



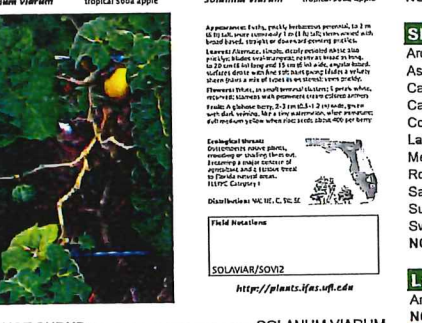
LYGODIUM MICROPHYLLUM



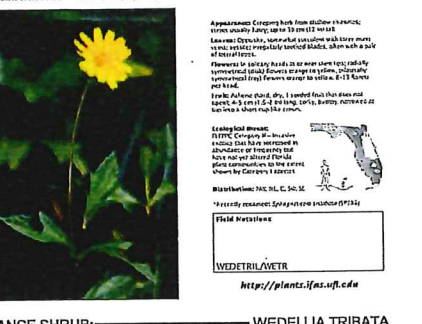
RHODOMYRTUS TOMENTOSA



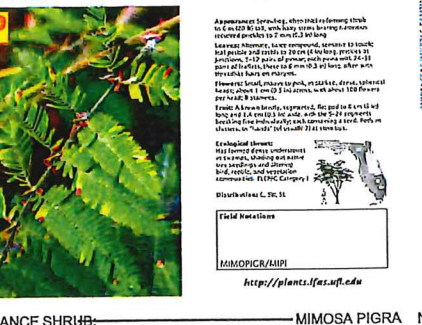
SCAEOLE TACCADA



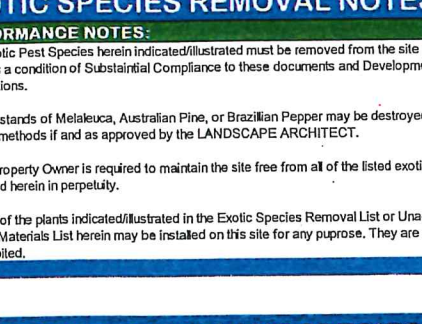
SOLANUM VIARUM



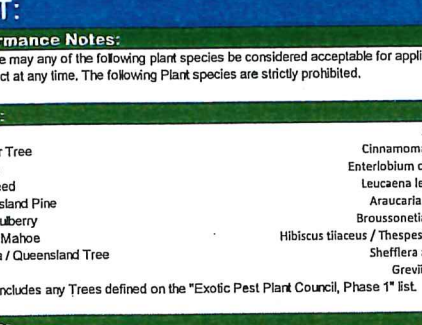
WEDELIA TRIBATA



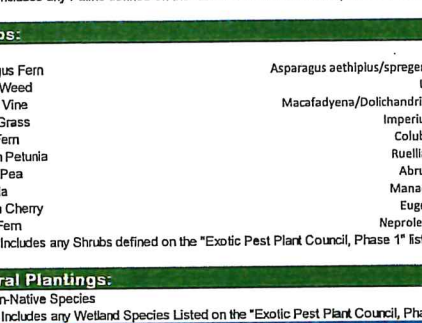
MIMOSA PIGRA



MELALEUCA QUINQUENERVIA



MELALEUCA QUINQUENERVIA



MELALEUCA QUINQUENERVIA



MELALEUCA QUINQUENERVIA



MELALEUCA QUINQUENERVIA

EXOTIC SPECIES REMOVAL NOTES:

PERFORMANCE NOTES:

- 1 All Exotic Pest Species herein indicated/illustrated must be removed from the site prior to and as a condition of Substantial Compliance to these documents and Development Order Conditions.
2 Large stands of Melaleuca, Australian Pine, or Brazilian Pepper may be destroyed by kill-in-place methods if and as approved by the LANDSCAPE ARCHITECT.
3 The Property Owner is required to maintain the site free from all of the listed exotic species defined herein in perpetuity.
4 None of the plants indicated/illustrated in the Exotic Species Removal List or Unacceptable Plant Materials List herein may be installed on this site for any purpose. They are strictly prohibited.

UNACCEPTABLE PLANT SPECIES LIST:

Performance Notes:

At no time may any of the following plant species be considered acceptable for application on this project at any time. The following Plant species are strictly prohibited.

- Trees:
Ardisia spp.
Cinnamomum camphora
Enterolobium cyclocarpum
Leucaena leucocephala
Araucaria heterophylla
Broussonetia papyrifera
Hibiscus tiliaceus / Thespesia populnea
Shefflera / Queensland Tree
Grevillea robusta
NOTE: Includes any Trees defined on the "Exotic Pest Plant Council, Phase 1" list.

- Palms:
Syagrus romanzoffiana
NOTE: Includes any Palms defined on the "Exotic Pest Plant Council, Phase 1" list.

- Shrubs:
Ardisia spp.
Asparagus aethiops/sparganium/densiflorus
Urena lobata
Macaranga diorthis/dolichandra unguis-cati
Imperium cylindrica
Colubrina asiatica
Ruellia brittoniana
Abrus precatorius
Manacra zapotona
Eugenia unifolia
Neprolepis cordifolia
NOTE: Includes any Shrubs defined on the "Exotic Pest Plant Council, Phase 1" list.

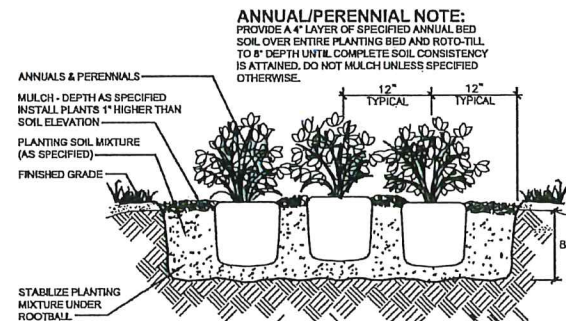
- Littoral Plantings:
Any Non-Native Species
NOTE: Includes any Wetland Species Listed on the "Exotic Pest Plant Council, Phase 1" List.

EXOTIC & NUISANCE PLANT SPECIES (Sheet 1 of 3):

Project information block including: PROJECT: ALICO QUARRY - PHASES 3A-3D, Lee County, FL; PREPARED FOR: COMBIX, INC.; SHEET TITLE: EXOTIC & NUISANCE PLANT SPECIES; DRAWN BY: WEP; DATE: 01/05/21; PROJECT NO: 2000013LA; DRAWING NO: 2000013LA-01-LP3.00; SHEET REFERENCE: 300 LANDSCAPE; SHEET SET NO: LP-3.00; SHEET NO: 11 of 14.

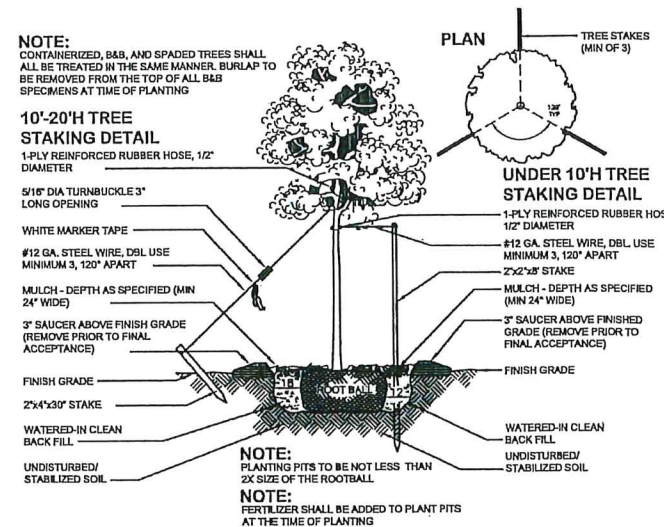
PERFORMANCE NOTES

1. **EXISTING CONDITIONS:** The CONTRACTOR shall be in compliance with the CONTRACTOR's responsibility to assure that all work on the site shall be done in compliance and are the most current consistent with the approved development order or any amendments thereto prior to bidding and execution. If there is any doubt, contact the LANDSCAPE ARCHITECT prior to the commencement of work to have assurance. Working with an obsolete set of drawings will be the sole responsibility of the CONTRACTOR to bear.
2. **VEGETATION REMOVAL:** Prior to the execution of any work on-site, the CONTRACTOR will acquire the appropriate vegetation removal permits as may/are required by the local jurisdictional agency. Any failure to obtain the appropriate permits prior to the execution of work are the responsibility of the CONTRACTOR.
3. **CERTIFICATE OF COMPLIANCE:** Prior to receipt of a certificate of occupancy (CO), the CONTRACTOR shall be responsible for coordinating the appropriate inspections of substantial compliance with the LANDSCAPE ARCHITECT. The LANDSCAPE ARCHITECT will be required to determine that the project is in compliance with the permit documents, conditions, and situations as a requisite to obtain a certificate of compliance (CC) which precedes the CO.
4. **PLANTING IN EASEMENTS:** No plants that are 'required' by code may be located within any utility or public easements. Drainage and lake maintenance easements may be planted so long as there are no obstructions to water flow or access for maintenance.
5. **OVERHEAD POWERLINES:** Where overhead powerlines are present, palms must be at least a palm frond distance away and trees must be at least ten feet (10') away, unless the tree species is such that it will not grow and interfere with the specific powerlines at maturity.
6. **PLANTING NEAR BUILDINGS:** Trees may not be planted closer than eight feet (8') to any curbs, sidewalks or foundations unless the appropriate root barrier provisions have been included (see details). Trees may not be planted closer than ten feet (10') from any building (depending on building height and tree species).
7. **SITE PROTECTIONS:** The CONTRACTOR shall be responsible for providing and maintaining the appropriate protections for existing vegetation as herein detailed. All parking lot island applications shall meet the requirements of fill and grades as herein detailed.
8. **UTILITY CLEARANCES:** There is to be a minimum clearance of seven and one-half feet (7'-6") in front of and to the sides of all fire hydrants, FDC, meters, and utility control valves.
9. **CANOPY TREES:** All trees and palms planted to meet the requirements of internal 'Canopy' trees (indicated herein as 'Canopy') must be planted where illustrated on the plans and as the species specified.
10. **PLANT SYMBOL TAGS:** The same species of plant materials may be illustrated with differing symbols. Leaders will define the species and its application. The Plant ID Tags will generally depict the category the material is intended to meet. Actual graphic symbols may vary. See Plant ID Tags for specific uses and the plant schedule for specifications.
11. **MULCH:** All planting required by the local Land Development Code in effect must be installed with a layer of mulch not less than two inches (2") in depth. See plant schedule for the specification of mulch.
12. **MINIMUM NATIVE SPECIES:** All trees planted to meet the requirements of code shall meet the minimum standards defined herein. Not less than 75% of all required trees and 50% of all required shrubs must be native species, unless noted to be more restrictive.
13. **BUILDING PERIMETER PLANTING:** Not more than ten percent (10%) of the required building perimeter landscape area (where applicable) may be planted in sod. Within the jurisdictional limits of the Village of Estero, not more than ten percent (10%) of the required internal landscape areas may be planted in sod and all dry detention basins must be fully planted with natives' grasses or other wetland herbaceous material.
14. **SUPPORTING DOCUMENTS:** The CONTRACTOR shall note and acknowledge that these approved permit documents include supporting calculations, specifications, requirements, and conditions that are not illustrated on this sheet. However, are made part of the requirements of work to be executed.
15. **PLANT QUALITY:** All plant material specified for this project shall be Florida no. 1 quality or better (unless specified otherwise as Florida fancy) as defined by grades & standards (latest edition).
16. **NUISANCE PLANT SPECIES:** The entire project site as defined by these documents must maintain all exotic nuisance species as herein indicated free from the site in perpetuity.



NOTE (REQUIRED SOIL MIXTURE AMENDMENTS):
REFER TO TECHNICAL SPECIFICATIONS FOR PLANTING SOIL REQUIREMENTS. IF
NONE ARE SPECIFIED, THEN MINIMUM MIXTURE SHALL BE 30% PEAT/COMPOST,
30% SAND, & 40% PLANTING SOIL.

LANDSCAPE DETAILS & CONSTRUCTION NOTES (Sheet 2 of 3):



NOTE:
CONTAINERIZED, B&B, AND SPADED TREES SHALL ALL BE TREATED IN THE SAME MANNER. BURLAP TO BE REMOVED FROM THE TOP OF ALL B&B SPECIMENS AT TIME OF PLANTING

NOTE:
PLANTING PITS TO BE NOT LESS THAN 2X SIZE OF THE ROOTBALL

1-PLY REINFORCED RUBBER HOSE, 1/2" DIAMETER

2"x4"x8" STAKE

MULCH - DEPTH AS SPECIFIED (MIN 24" WIDE)

3" SAUCER ABOVE FINISH GRADE (REMOVE PRIOR TO FINAL ACCEPTANCE)

FINISH GRADE

WATERED-IN CLEAN BACK FILL

UNDISTURBED SOIL

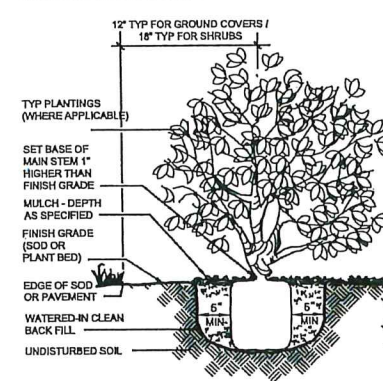
ROOT BALL

Diagram illustrating the planting pit setup for a tree. The diagram shows a cross-section of the ground with a tree trunk and root ball. A 1-PLY REINFORCED RUBBER HOSE, 1/2" DIAMETER, is shown around the root ball. A 2"x4"x8" STAKE is shown on the left side of the pit. MULCH - DEPTH AS SPECIFIED (MIN 24" WIDE) is shown on the right side. A 3" SAUCER ABOVE FINISH GRADE (REMOVE PRIOR TO FINAL ACCEPTANCE) is shown on the left side. FINISH GRADE is indicated by a horizontal line. WATERED-IN CLEAN BACK FILL is shown on the right side. UNDISTURBED SOIL is shown on the left side. The ROOT BALL is labeled at the bottom of the tree trunk.

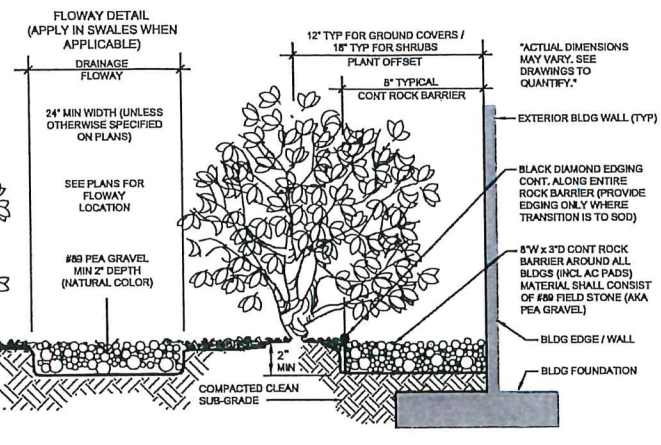
NOTES:

1. THE CONTRACTOR SHALL ASSURE THAT ALL PLANT BEDS HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND CONTAIN NO LOW AREAS IN WHICH WATER WILL HOLD.
2. ALL PLANT BEDS MUST PERCOLATE AND MUST BE FREE OF DEBRIS, LARGE ROCKS, LIMESTONE OR ANY OTHER OBSTRUCTIONS THAT WILL NEGATIVELY EFFECT PERCOLATION.
3. ALL SHRUBS & GROUND COVERS WILL BE PLANTED TWO-INCHES (2") ABOVE FINISHED GRADE WITH SURROUNDING SOILS MOUND TO COMPLETE THE INSTALLATION.
4. WHEN GROUND COVERS ARE USED IN MASSES, THE ENTIRE BEDDING AREA IS TO BE EXCAVATED, THE MATERIALS OF LIKE SIZES SET, AND THE BALANCE OF THE SPACE BACKFILLED IN CLEAN SPECIFIED AMENDMENT MIX AND PLANTING SOIL.

NOTE:
SEE SHRUB & GROUND COVER INSTALLATION DETAIL FOR
MORE SPECIFIC INFORMATION, THE SHRUB & GROUND COVER
INSTALLATION TAKES PRECEDENCE.



SHRUB / GROUND COVER NOTE:
SEE THE THE SHRUB & GROUND COVER INSTALLATION DETAILS FOR MORE SPECIFIC INFORMATION FOR PLANTING REQUIREMENTS. WHERE SHRUBS OR GROUND COVERS ARE ADJACENT TO ROCK EDGING OR FLOWWAYS, PROVIDE NOT LESS THAN TWELVE-INCHES OF SEPARATION FROM THE PLANTS BACK TO THE EDGE OF ROCK UNLESS NOTED OTHERWISE.



FLOWWAY NOTE:
ANYWHERE IN SWALES, DETENTION BASINS, OR OTHER STORMWATER FLOWWAYS, ROCK IS TO BE INSTALLED AS DETAILED AND INCLUDED IN THE CONTRACTOR'S BID. INSTALL #69 STONE AT A MINIMUM DEPTH OF 2-INCHES (2") TO ASSURE THE CONVEYANCE OF WATER AND EASE OF MANAGEMENT. ALL CONDITIONS PER DETAILS UNLESS SPECIFIED OTHERWISE.

ROCK EDGING NOTE:
ALL ROCK USED FOR BUILDING EDGING IS TO BE #69 STONE
(PEA GRAVEL) UNLESS OTHERWISE SPECIFIED. ALL DEPTH OF
EDGING ROCK TO BE A MINIMUM OF TWO-INCHES (2") UNLESS
OTHERWISE SPECIFIED. ROCK EDGING TO BE PROVIDED IN
PLANT BEDS ADJACENT TO ALL/ANY BLDGS. EQUAL TO OR
GREATER THAN 2-STORIES IN HEIGHT.

NOTE:
SEE PLANT MATERIAL SCHEDULE FOR ALL SPACING REQUIREMENTS FOR EACH PLANT.

NOTE:
ALL PLANTING PITS TO BE AT LEAST 2X THE SIZE OF THE INDIVIDUAL PLANT CONTAINER SIZE.

STRUCTURE, PAVEMENT, CURB, FENCE, ETC (WHERE APPLICABLE)

GROUND COVER (12"-18" OC TYP) ALL DIMENSIONS 3" EQUAL

MEDIUM SHRUBS (24" OC TYP) ALL DIMENSIONS 1" EQUAL

LARGE SHRUBS (30"-36" OC TYP) ALL DIMENSIONS 1" EQUAL

MULCH - DEPTH AS SPECIFIED

FINISH GRADE

PLANTING SOIL BACKFILL & FERTILIZER AS SPECIFIED

EXISTING SUB-GRADE

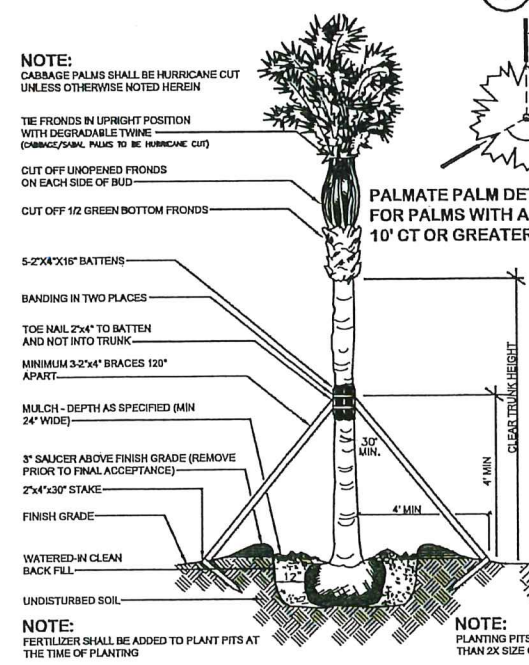
NOTE:
STAGGERED TRIANGULAR SPACING IS REQUIRED IN ALL PLANT BEDS. SQUARE SPACING LAYOUTS ARE PROHIBITED.

A cross-sectional diagram of a tree pit. At the top, a tree trunk is labeled "NEW OR EXISTING TREE". Below the ground surface, which is marked "FINAL GRADE", the tree's root system is shown. A vertical dimension line on the left indicates a depth of "24\". To the right of the roots is a vertical "ROOT BARRIER (MB 24-2 OR BETTER)". Further right is a layer of "RIBS FACING PLANT MATERIAL". The outermost layer on the right is "CONCRETE CURB SIDEWALK, OR FOUNDATION". The area between the root barrier and the concrete curb is labeled "NATIVE MATERIAL BACKFILL". A horizontal dimension line at the top indicates a width that "VARIES". The entire diagram is labeled "SECTION" at the bottom.

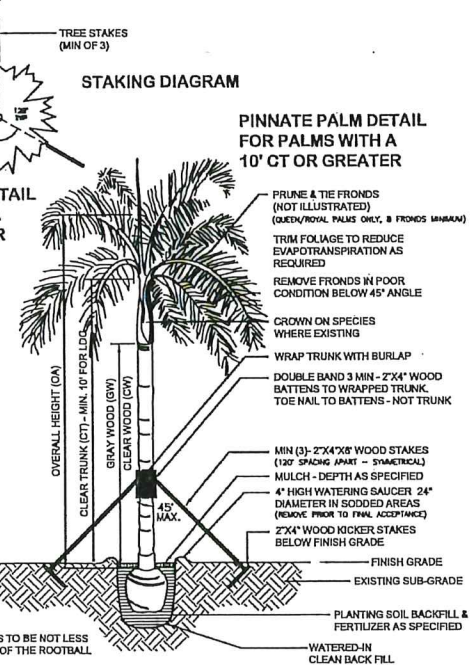
ROOT BARRIER APPLICATION NOTES:

1. APPLY ROOT BARRIER PER THIS DETAIL WHERE LOCATIONS ARE SPECIFIED ON THE DRAWINGS.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. USE "DEEP ROOT SYSTEMS" PRODUCT OR APPROVED EQUAL PER THE LANDSCAPE ARCHITECT, (WWW.DEEPROOT.COM)
3. DO NOT SCALE THIS DETAIL. USE DRAWINGS FOR SPECIFIC LOCATIONS AND QUANTITIES.
4. THE TOP OF THE BARRIER PANELS MUST BE SLIGHTLY ABOVE GRADE, NEVER BELOW GRADE.
5. POSITION BARRIER PANELS VERTICALLY WITH TOP AGAINST THE STRUCTURE INTENDED TO BE PROTECTED.
6. SEE LANDSCAPE PLANS TO DETERMINE ALL TREES AND LOCATIONS THAT REQUIRED BARRIER PANELS APPLICATIONS TO BE INSTALLED PER THESE DETAILS AND THEN MANUFACTURER'S GUIDELINES.
7. UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS, ALL SITUATIONS WHERE ANY TREE IS LOCATED WITHIN SIX (6') OF A CURB, SIDEWALK, OR FOUNDATION.

NOTE:
CABBAGE PALMS SHALL BE HURRICANE
UNLESS OTHERWISE NOTED HEREIN



NOTE:
FERTILIZER SHALL BE APPLIED
AT THE TIME OF PLANTING



NOTE:
PLANTING PITS TO BE NOT LESS
THAN 2X SIZE OF THE ROOTBALL

6 PALMATE PALM PLANTING DETAIL | PINNATE PALM PLANTING DETAIL

PLANT INSTALLATION & MAINTENANCE STANDARDS

INSTALLATION STANDARDS:

- INSTALLATION:** plant materials must be installed in soil conditions that are conducive to the proper growth of the plant material. Limerock located within planting areas must be removed and replaced with native or growing quality soil before planting. A plant's growth habit must be considered in advance of conflicts that might be created (e.g. views, signage, overhead power lines, lighting, buildings, circulation). Trees may not be placed where they interfere with site drainage, subsurface utilities, or overhead utility lines, or where they will require frequent pruning in order to avoid interference with overhead power lines.
- All landscape materials must be installed in a recognized horticultural correct manner. At a minimum, the following installation requirements must be met:
 - All landscape areas must be mulched unless vegetative cover is already established.
 - Light poles must be located outside of all parking islands containing required or specified trees.
 - Trees and shrubs used in buffers must be planted in a minimum width area equal to one-half the required width of the buffer. However, in no case may the planting area be less than five-feet in width (5'W).
 - All landscaped areas must be provided protection from encroachment by any type of vehicle.
 - All required plants used in buffers and landscaping must be installed using xeriscape principles. Xeriscape principles include water conservation through drought-tolerant landscaping, the use of appropriate plant material, mulching, and the reduction of sodded areas.
 - Utility or drainage easements may overlap required buffers; however, no code required trees or shrubs may be located in any utility easement unless a written statement, from the entity holding the beneficial interest in the easement, is submitted specifically stating that the entity has no objection to the landscaping and, that the proposed landscaping will not interfere with the long term maintenance of the infrastructure within easement area. No code required landscaping may be located in any street easement or right-of-way. To avoid conflicts with overhead utility lines, only trees less than twenty feet (20'H) in height at maturity may be used directly adjacent to an overhead line. Variances or deviations from the requirements of this subsection are prohibited.
 - Safe sight distance triangles at intersections and vehicle connections. Where an access way intersects a right-of-way or when a property abuts the intersection of two or more rights-of-way, a minimum safe sight distance triangular area must be established. Within this area, vegetation must be planted and maintained in a way that provides unobstructed visibility at a level between thirty inches (30") and eight-feet (8') above the crown of the adjacent roadway. Landscaping must be located in accordance with the roadside recovery area provisions of the state of Florida Department of Transportation's manual of uniform minimum standards for design, construction, and maintenance of streets and highways (FDOT green book) where appropriate.
 - Where signage is located within or adjacent to landscape buffer areas, all trees and shrubs located within landscape buffer must be located so as not to block the view of signage.
 - If a wall is proposed, but not required, then the required buffer plantings must be installed on the exterior side (between the wall and the abutting property or street right-of-way) of the wall or fence. Where a non-opaque decorative fence is proposed, but not required, the planting may straddle the fence so long as not less than fifty percent (50%) of the plant material is on the abutting property side of the decorative fence.

INITIAL MAINTENANCE STANDARDS:

- Maintenance of Landscaping:** the OWNER is responsible for maintaining the required landscaping in a healthy and vigorous condition at all times. Tree and palm staking must be removed within twelve (12) months after installation. All landscapes must be kept free of refuse, debris, disease, pests, and weeds. Ongoing maintenance to prohibit the establishment of prohibited invasive exotic species is required. The CONTRACTOR is responsible for maintenance through substantial compliance.
- Pruning:** vegetation required by this code may only be pruned to promote healthy, uniform, natural growth of the vegetation (except where necessary to promote health, safety, and welfare) and be in accordance with "American National Standard for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices (Pruning) (A300, part 1)" by the American National Standard Institute, and "Best Management Practices: Tree Pruning" by the International Society of Arboriculture (ISA).

Trees must not be severely pruned to permanently maintain growth at a reduced height or spread. Pruning must not interfere with the design intent of the original installation. Severely pruned trees must be replaced by the property owner. Replacement trees must meet the minimum tree size requirements of local code. A plant's growth habit must be considered in advance of conflicts which might arise (i.e. views, signage, overhead power lines, lighting, circulation, sidewalks, buildings, and similar conflicts). Any "hat-racking, baling, or topping" of trees is prohibited.
- Maintenance Schedule:** A monthly landscape maintenance meeting shall be held between the Contractor of Record (or highered Maintenance Contractor) and OWNER to review and address landscape maintenance issues. These meetings shall include a site drive-through to observe landscape conditions and identify problem areas to be addressed by the landscape maintenance contractor. The landscape contractor shall implement the maintenance guidelines for turf, trees, palms, shrubs and groundcovers found below and communicate to the client any changes, discrepancies or alterations to the maintenance schedule and techniques.
- See the accompanying "Landscape Management Manual" for specific outline, conditions, and tasks for successful ongoing care of the landscape implemented.

PERMITTING, GRADING, & PLANTING

PERMITTING NOTES:

- WORK PREPARATION:** The CONTRACTOR shall be responsible for the location of all utilities and services both underground and overhead prior to the commencement of work. Protection of all utilities, appliances, and services throughout the course of work is required.
- COORDINATION OF WORK:** Coordinate all work with all trades so as to avoid and conflict with the execution of work by others. The OWNER shall not be responsible for the damage to plant materials caused by any trades through the course of work prior to final acceptance. The condition of plant material shall be in accordance to the quality standards specified herein.
- UTILITY LOCATIONS:** Call "811" at least 48 hours prior to the execution of work to have all underground utilities located. This is a mandatory measure that must be conducted prior to commencement of any work on the project.
- VEGETATION REMOVAL:** At no time may any work on the site commence without a valid vegetation removal permit as required by and made part of the permit documents. The CONTRACTOR is fully responsible for obtaining this permit prior to work and for any consequences that arise for the lack thereof.
- CONTRACTOR UTILITIES:** The CONTRACTOR assumes full responsibility for executing these documents as drawn, specified, and required. Any rework associated with the failure to execute these documents as illustrated shall be done at the CONTRACTOR'S consequence unless duly coordinated with the OWNER and LANDSCAPE ARCHITECT in writing prior to substantial compliance.

GRADING NOTES:

- GRADING & DRAINAGE:** It shall be the responsibility of the CONTRACTOR to finish grade all landscape areas eliminating all bumps, depressions, rocks, sticks, or other debris prior to the installation of any plant material. The CONTRACTOR shall also be responsible for maintaining positive sheet flow drainage away from all structures and in accordance with all drainage ways shown or implied on the civil grading & drainage drawings. See detail this sheet for additional flow way work requirements.
- FINE GRADING:** All areas will be fine graded with a drag mat or grading rake to blend all imperfections and to remove surface debris (in excess of two-inches; 2") prior to sodding, mulching, and as a condition of final acceptance.
- STABILIZING GRADES:** The CONTRACTOR will be responsible for stabilizing grades using approved methods prior to landscape installation. Any repairs, alterations, or efforts to restore specified grades must be done prior to sodding or mulching.
- ROUGH GRADING:** Rough grading must be reviewed and approved by either the ENGINEER or LANDSCAPE ARCHITECT prior to final grading or the commencement of any landscape installations. All grades must be maintained as delineated on the site civil grading & drainage drawings as a prerequisite to final acceptance.

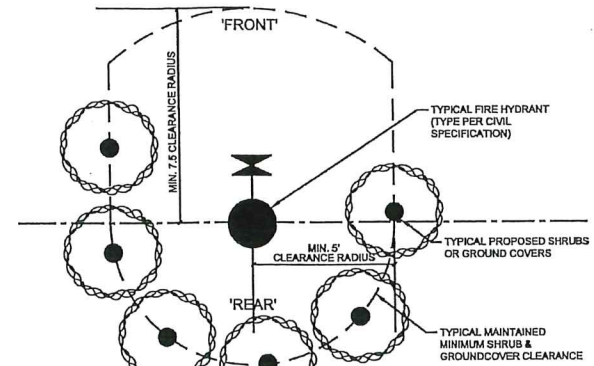
LANDSCAPE PLANTING EXECUTION:

- Sod:** Sod used on the project shall be type specified herein and shall be provided throughout or as indicated. All swales and drainage system berms shall be sodded unless indicated otherwise. All disturbed areas off-site shall be sodded or replaced with like vegetation damaged or removed prior to final acceptance.
- Guarantees:** The CONTRACTOR shall provide a guarantee and warrant all workmanship, products, and plant materials for a period of not less than one (1) year from the date of final acceptance. No guarantees that warrant any of the aforementioned for a period of time less than that stated herein shall be considered valid. These drawings supersede any time period that are may conflict. The CONTRACTOR may not offer any warranties or guarantees that are less than those indicated in these contract documents. The CONTRACTOR shall indemnify the OWNER against any documents signed that may conflict with this requirement for the CONTRACTOR to fulfill.
- Soil Testing:** The CONTRACTOR is fully responsible for providing and bearing the costs for all soil tests, soil amendments, and/or fertilizers that may be indicated as necessary through a soil test analysis. If the CONTRACTOR does not provide soil tests as specified, the CONTRACTOR shall bear full responsibility for any adverse impacts affected by the failure to execute these tasks or for any improper fertilization that may be applied.
- Plant locations:** The CONTRACTOR shall field locate all plant material either by staking or placement of plants in containers for review and approval of the LANDSCAPE ARCHITECT prior to installation. Any movement of re-execution of work determined necessary by the LANDSCAPE ARCHITECT due to the failure to have locations pre-approved will be reworked at the CONTRACTOR'S consequence.
- Specifications:** Any failure by the CONTRACTOR to adhere to the specifications herein delineated within these documents may require the re-execution of work/services, replacement of materials, or rejection of work applied.
- Grow bags:** Trees or any other materials previously grown in grow bags or grow bag material are strictly prohibited.
- Familiarity with Documents:** See all plans, details, and specification sheets for a complete outline of requirements for the project.

CONSTRUCTION PERFORMANCE REQUIREMENTS:

PERFORMANCE NOTES:

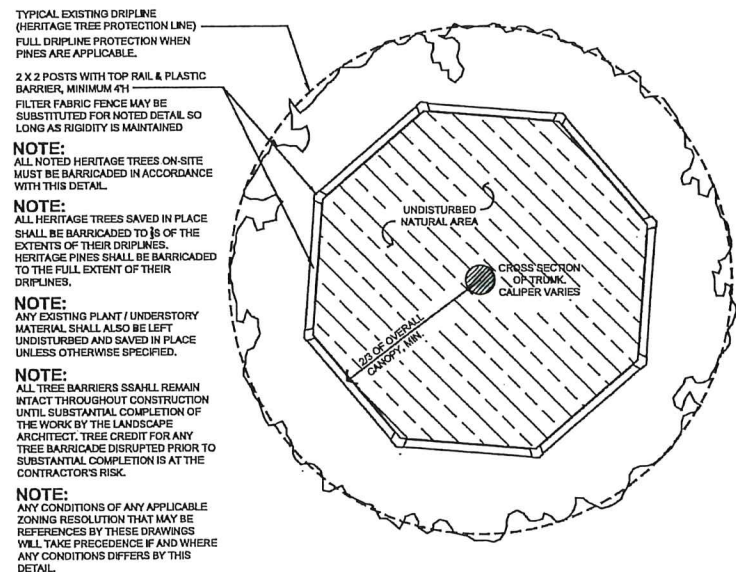
- MULTIPLE DRAWING SHEETS:** This permit set contains multiple sheets of which collectively must be executed together to be in compliance. It is the CONTRACTOR'S responsibility to assure that all of the sheets in this set have been acquired and are the most current consistent with the approved development order or any amendments thereto prior to bidding and execution. If there is any doubt, contact the LANDSCAPE ARCHITECT prior to the commencement of work to have assurance. Working with an obsolete set of drawings will be the sole responsibility of the CONTRACTOR to bear.
- VEGETATION REMOVAL:** Prior to the execution of any work on-site, the CONTRACTOR will acquire the appropriate vegetation removal permits as may/are required by the local jurisdictional agency. Any failure to obtain the appropriate permits prior to the execution of work are the responsibility of the CONTRACTOR.
- CERTIFICATE OF COMPLIANCE:** Prior to receipt of a certificate of occupancy (CO), the CONTRACTOR shall be responsible for coordinating the appropriate inspections of substantial compliance with the LANDSCAPE ARCHITECT. The LANDSCAPE ARCHITECT will be required to determine that the project is in compliance with the permit documents, conditions, and stipulations as a requisite to obtain a certificate of compliance.
- PLANTING IN EASEMENTS:** No plants that are "required" by code may be located within any utility or public easements. Drainage and lake maintenance easements may be planted so long as there are no obstructions to water flow or access for maintenance.
- OVERHEAD POWERLINES:** Where overhead powerlines are present, palms must be at least a palm frond distance away and trees must be at least ten feet (10') away, unless the tree species is such that it will not grow and interfere with the specific powerlines at
- PLANTING NEAR BUILDINGS:** Trees may not be planted closer than eight feet (8') to any curbs, sidewalks or foundations unless the appropriate root barrier provisions have been included (see details). Trees may not be planted closer than ten feet (10') from any building (depending on building height and tree species).
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- UTILITY CLEARANCES:** There is to be a minimum clearance of seven and one-half feet (7'-6") in front of and to the sides of all fire hydrants, FDC, meters, and utility control
- CANOPY TREES:** All trees and palms planted to meet the requirements of internal "Canopy" trees (indicated herein as "Canopy") must be planted where illustrated on the plans and as the species specified.
- PLANT SYMBOL TAGS:** The same species of plant materials may be illustrated with differing symbols. Leaders will define the species and its application. The Plant ID Tags will generally depict the category the material is intended to meet. Actual graphic symbols may vary. See Plant ID Tags for specific uses and the plant schedule for specifications.
- MULCH:** All planting required by the local Land Development Code in effect must be installed with a layer of mulch not less than two inches (2") in depth. See plant schedule for the specification of mulch.
- NATIVE PLANT SPECIES:** All tree planted to meet the requirements of codes shall meet the minimum standards defined herein. Not less than seventy-five percent (75%) of all required trees and palms & fifty percent (50%) of all required shrubs must be native species to the state of Florida, unless otherwise noted herein to be more restrictive.
- BUILDING PERIMETER PLANTING:** Not more than ten percent (10%) of the required building perimeter landscape area (where applicable) may be planted in sod. Within the jurisdictional limits of the Village of Estero, not more than ten percent (10%) of the required internal landscape areas may be planted in sod and all dry detention basins must be fully planted with natives' grasses or other wetland herbaceous material.
- SUPPORTING DOCUMENTS:** The CONTRACTOR shall note and acknowledge that these approved permit documents include supporting calculations, specifications, requirements, and conditions that are not illustrated on this sheet. However, are made part of the requirements of work to be executed.
- PLANT QUALITY:** All plant material specified for this project shall be Florida no. 1 quality or better (unless specified otherwise as Florida fancy) as defined by grades & standards (latest edition).
- NUISANCE PLANT SPECIES:** The entire project site as defined by these documents must maintain all exotic nuisance species as herein indicated free from the site in perpetuity.



NOTE: REQUIRED SHRUBS & GROUND COVERS THAT ARE IN PROXIMITY TO ABOVE GROUND LIFE SAFETY APPLIANCES SUCH AS FIRE HYDRANTS, FDC DEVICES, BACK FLOW PREVENTORS AND OTHER SUCH ALLIANCES CANNOT BE PLANTED WITHIN THE DIMENSIONS DESCRIBED BY THIS DETAIL.

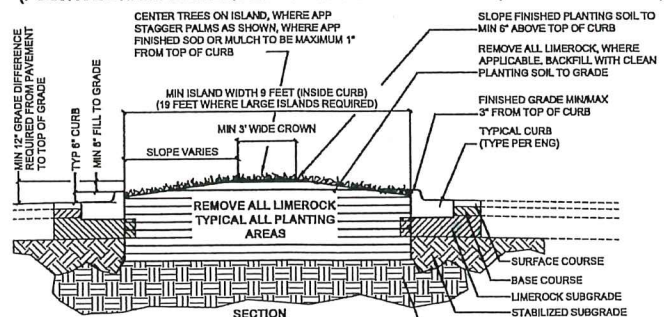
NOTE: IF ANY OF THE PRESCRIBED LIFE SAFETY UTILITY APPLIANCES FALL WITHIN AN EASEMENT, THEN NO TREES OR PALMS MAY BE LOCATED WITHIN THE EASEMENTS.

9 UTILITY APPLIANCES CLEARANCE DIAGRAM



12 TYPICAL HERITAGE TREE PROTECTION DETAIL

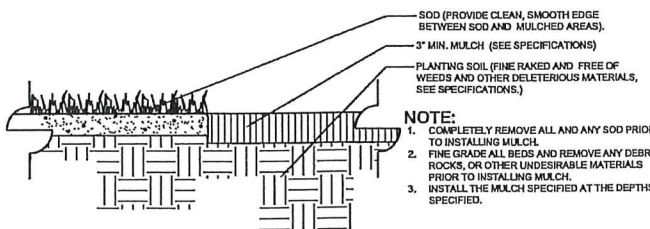
ALL ISLANDS TO BE GRADED ABOVE CURB LINE (POSITIVE DRAINAGE REQUIRED FOR FINAL ACCEPTANCE, "NO EXCEPTIONS")



NOTE (GRADING & POSITIVE DRAINAGE): ABSOLUTELY NO EXPOSED CURBS OR SIDEWALKS SHALL BE ACCEPTED. FINAL GRADING SHALL BE WITHIN ONE INCH (1") OF THE TOP OF CURB OR EDGE. THE CENTER POINT OF THE PARKING LOT ISLAND SHALL BE NOT LESS THAN THREE INCHES (3") ABOVE THE CURB LINE TO ASSURE POSITIVE DRAINAGE IN ALL DIRECTIONS.

NOTE (LIMEROCK EXTRACTION): ABSOLUTELY NO EXPOSED CURBS OR SIDEWALKS SHALL BE ACCEPTED. NO LIMEROCK MAY BE ALLOWED WITHIN PLANTING BED AREA (I.E. INSIDE CURBED AREA). THE CONTRACTOR SHALL RE-EXECUTE WORK IF ANY OF THE NOTED CONDITIONS OF THIS DETAIL ARE NOT FOLLOWED.

11 TYPICAL PARKING LOT ISLAND | CURB TRANSITION DETAIL



10 MULCH APPLICATION DETAIL

ALICO QUARRY 3D EXTENSION

INDIGENOUS PRESERVE RESTORATION PLAN

PREPARED FOR:



1501 BELVEDERE ROAD
WEST PALM BEACH, FLORIDA 33406

MAY 18, 2020
REVISED BY SES 11/10/2020
REVISED BY SES 03/29/2022

PREPARED BY:



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INDIGENOUS PRESERVE RESTORATION PLAN

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1. INTRODUCTION AND PROJECT PURPOSE

The project purpose is to extend the life of limerock reserves at the CEMEX Construction Materials Florida, LLC. (CEMEX), Alico Quarry in Lee County, Florida, in order to continue to supply construction grade aggregates for local and regional infrastructure projects.

CEMEX is proposing a modification of existing (FDEP) MMR_166176 in order to obtain authorization for direct, permanent impact to a total of 64.94 acres of jurisdictional wetland and 1.76 acres of secondary impact of jurisdictional wetland. These proposed impacts are necessary and will allow for the extension of the reserves life of the Alico Quarry.

Development of the proposed 3D Extension project will result in direct, permanent impacts to a total of 64.94 acres of FDEP jurisdictional wetlands. As used herein, the term "direct, permanent impacts" refers to actions that will result in the complete elimination of jurisdictional areas (i.e., excavation and fill). Development of the 3D Extension project will also result in secondary impacts to a total of 1.76 acres of wetland 300, pursuant to Applicant's Handbook Volume 1 Part 3 – Environmental Considerations Section 10.2.7 F.A.C (AH Vol 1 10.2.7). As used herein, the term "secondary impacts" or as referenced to by the US Army Corps of Engineers as "indirect impacts" refer to actions that will result in changes or reductions of wetland functions or quality to adjacent wetlands which are not directly impacted by dredging or filling activities.

As detailed in the subsequent sections, Wetland 200 and Wetland 300 have been identified as being potentially contiguous with Federally jurisdictional (USACE jurisdictional) waters. Wetland 200, a 28.86-acre wetland, will not be impacted and will be included as planned minimization and avoidance, partial mitigation for FDEP jurisdictional wetland impacts, PHUs, as well as indigenous preserve area required by Lee County. Wetlands 100, 400, and 700 will also be treated as federal and state waters regardless of contiguousness to other waters.

Conducting the proposed Florida Department Environmental Protection (FDEP) on-site wetland restoration program and the Indigenous Preserve Restoration Plan required by Lee County for the project will result in temporary "impacts" to certain on-site wetlands as part of the enhancement within the preserve areas. As used herein, "temporary impacts" refer to those impacts that represent a temporary or short-term physical disturbance to wetlands associated with removal of exotics species within the restoration preserve areas.

There are several other upland-cut surface waters (OSWs) within the Alico Quarry 3D Extension project area boundary which are all segments of man-made agricultural ditches (Surface Water A, B, C, D, E, F, H, K, L, M, 4.99ac) and a man-made pond (Surface Water G, 2.14ac). Development of the project will result in direct, permanent impacts to most of these OSWs. The direct impacts to the upland-cut agricultural ditches are exempt pursuant to AH Vol 1 10.2.2.2 F.A.C. Surface Water G is an upland cut pond remnant of historical mining permitted by the SFWMD MSSW 36-00681-S and exempt from delineation as a wetland / or other surface water pursuant to 62-340.700 F.A.C. and thereby exempt from mitigation.

The OSW (rim-ditches) within the indigenous buffer preserve will be filled as part of the restoration activities and exotic removal for Lee County Indigenous Preserve requirements, as well as for a portion of the restoration program for FDEP jurisdictional wetland impacts. Wetland impacts have been avoided and minimized to the maximum extent practicable and unavoidable impacts are to resources of limited natural function.

2. WETLAND RESTORATION PROGRAM

The Phase 3D Indigenous Preserve Restoration Area (Preserve) proposes 49.4 acres of indigenous habitat to account for a portion of the mitigation necessary to offset the proposed project wetland impacts. The remaining mitigation will be by the purchase of federal and state mitigation banking credits from one of the permitted banks with a service area covering Alico Sand Mine Extension area.

The proposed Phase 3D Indigenous Preserve Restoration Area (Preserve) will enhance and preserve ACE-jurisdictional Wetland 200 and a portion of Wetland 300, along with isolated wetlands 500 and 600. Additionally, natural upland pine flatwoods will be preserved as part of the Preserve, along with lands encroached by exotics will be restored. The existing dirt road access (0.36ac) located in the preserve area is used by personnel vehicles for inspection or restoration maintenance. The dirt road access will remain a part of the preserve area to ensure connectivity within the conservation easement parcel. As shown in the UMAM table, there will be no lift or functional gain accounted towards mitigation credits for this dirt road area. Overall, the Phase 3D Indigenous Preserve Restoration Area will be a total of 49.4 acres of indigenous lands that will be enhanced by the removal of exotic species, filling in some of the agricultural rim ditches, maintenance of the lands, and preservation in perpetuity. See Figures 13, 13A, 13B, 14, and 15 of the attached Phase 3D Indigenous Preserve Plans for details.

As required by FDEP and the USACE, the Phase 3D Indigenous Preserve Restoration Area was scored based on the Unified Mitigation Assessment Method (UMAM) pursuant to 62-345 F.A.C. to determine mitigation lift to offset wetland impacts. Based on the UMAM Table, which shows the UMAM assessment sheet scores, the functional loss (FL) by the 64.94 acres of wetland impacts is 26.55 FL. The functional loss by the secondary impacts to Wetland 300 is 0.18 FL, for a total functional loss of 26.73 FL. The Preserve provides a functional gain (FG) of 7.12 FG to offset a portion of the impacts. To offset the remaining functional loss, 19.61 Mitigation banking Federal & State credits will be purchased from the Panther Island Mitigation Bank which has a service area encompassing the Alico Quarry 3D Extension project area. See table below, also included in Appendix G.

**ALICO QUARRY 3D EXTENSION
INDIGENOUS PRESERVE RESTORATION PLAN
MAY 2020, REVISED: MARCH 2022**

CEMEX - Alico Quarry, Phase 3D Extension

UMAM Impact and Mitigation Table

FDEP Federal & State Water Impacts

Drafted: 10-23-2020; Revised 04/05/2021; Revised 12/20/2021; Revised 03/17/2022

Impact Wetland / Mitigation ID	Existing FLUCCS	Sq Ft	Acres	Land scape	Water	Veg	Delta	FL				
Primary Impacts / Wetland												
Wetland 100	643	137,875	3.20	4,000	6,000	5,000	0.500	1.60				
Wetland 300	643	250,174	3.98	4,000	5,000	4,000	0.433	1.72				
Wetland 400	621	1,215,098	29.02	5,000	5,000	4,000	0.467	13.02				
Wetland 700	621	1,216,835	27.94	3,000	4,000	3,000	0.333	9.31				
Total		2,820,382	64.94					26.55				
Secondary Impacts												
Wetland 300 Sec	643	59,242	1.76	2,000	1,000	0,000	0.100	0.18				
Total		59,242	1.76					0.18				
Total Functional Loss (FL)								26.73				
Wetland Mitigation Enhancement												
				Lift	Lift	Lift	Delta	PROPOSED FLUCCS	Time-Lag	Risk	RFG	FG (RFG x ACRES)
Wetland 200	641	1,257,249	28.86	2,000	1,000	3,000	0.200	641	1.07	1.50	0.125	3.60
Wetland 300	641	59,242	1.76	1,000	1,000	3,000	0.167	641	1.07	1.50	0.104	0.18
Wetland 500 (merged)	643	14,459	0.33	4,000	3,000	4,000	0.367	643	1.07	1.50	0.228	0.08
Wetland 600	643	25,364	0.58	3,000	1,000	3,000	0.233	643	1.07	1.50	0.145	0.08
Upland Preserve A	411	412,849	9.00	2,000	0,000	2,000	0.200	411	1.07	1.50	0.125	1.12
Upland Preserve B	422/212/514	349,787	7.01	3,000	0,000	4,000	0.350	411	1.07	1.50	0.218	1.53
Wetland Hydro Swale	641	65,141	1.50	5,000	5,000	7,000	0.567	641	1.07	1.50	0.353	0.53
Access Trail	814		0.36									
Total Functional Gain (FG)			49.40									7.12
Total Mitigation Bank to Offset Remaining FL									Total for Federal & State Credits			19.61

*Rim Ditches (514) fall in Preserve B since the dominate vegetation along the banks is Brazilian Pepper (422).

**Wetland 500 (0.13ac) will remove berm and connect a portion of SWAF (0.07ac) and remaining area of Wetland 400 (0.13ac) to enlarge Wetland 500 to 0.33 acres.

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Providing Solutions to Today's Complex Problems

2.1 RESTORATION ENHANCEMENT ACTIVITY CATEGORIES (TYPES)

Wetland 200 - Freshwater Marsh (641)

Wetland 200 is a 28.86-acre natural marsh that has been invaded by Melaleuca trees and Brazilian pepper trees along the edges. In some areas the Melaleuca has grown into a close 4-6ft on-center monoculture stand, while in other areas Melaleuca is sporadic or mixed with cypress trees. As such, those areas with a thick monoculture of trees will be removed manually with light equipment to prevent compaction within the wetland soils. Those areas where exotics are sporadically growing amongst native trees or vegetation then more hands-on manual removal or authorized spraying treatment methods will be utilized. Disturbances will be minimized to the greatest extent possible and if disturbed the area will be restored according to the Preserve Plan. Natural grading will not be significantly altered within the wetland and the area will remain a freshwater marsh. Due to the natural diversity in the marsh any disturbed areas are anticipated to cultivate naturally. The average pre-activities seasonal high water level is 24.6ft NAVD88. The area will be monitored and maintained until released.

Wetland 300 – Freshwater Marsh (641)

Wetland 300 within the Preserve area is a 1.76-acre portion of the natural marsh connected to wetlands on the north side of Reeve's Road by a culvert. This area has been invaded by Melaleuca trees and Brazilian pepper trees along the edges.

The best means of removal will be determined onsite where exotics are sporadically growing amongst native trees or vegetation. A hands-on manual removal or authorized spraying treatment method will be utilized to remove exotics. Disturbances will be minimized to the greatest extent possible and if disturbed the area will be restored according to the Preserve Plan. Natural grading will not be significantly altered, actions will be taken to prevent compaction during restoration activities, and the area will remain a freshwater marsh. Due to the natural diversity in the marsh any disturbed areas are anticipated to cultivate naturally. The average pre-activities seasonal high water level is 23.8ft NAVD88. The area will be monitored and maintained until released.

Wetland 500 (Merged) – Freshwater Prairie (643)

Wetland 500 within the Preserve area is a portion of the natural marsh connected to wetlands on the north side of Reeve's Road by culverts. Rim ditches were dug along the southern edge of the wetland with berms separating 500 from the ditch, except for a narrow overflow where the ditch and 500 connect. South of the ditch a section of Wetland 400, that is not being impacted, flows over to the ditch as well. Since Wetland 500 (0.13ac) and a portion of Wetland 400 (0.13ac) connect by the ditch (0.06ac), the wetland restoration in this area proposes to merge the three (3) areas to create a larger preserved wetland area. Since the overflow between 500 and the ditch is narrow a portion of berm (0.01ac), which is covered in Brazilian pepper, will be lowered to match the surrounding wetland elevations to open the connecting systems. The merged systems will make a larger Wetland 500 for a total of 0.33acres. The average pre-activities seasonal high water level for Wetland 500 is 24.4ft NAVD88.

The best means of removal will be determined onsite with the rim ditch and berms along the upland edges will be removed mechanically. The rim ditches in the area not part of Wetland 500 (merged) will be filled when the exotics are removed. Where exotics are sporadically growing amongst native trees or vegetation the best means of removal will be determined onsite. A hands-on manual removal or authorized spraying treatment method will be utilized to remove exotics.

Disturbances will be minimized to the greatest extent possible and if disturbed the area will be restored according to the Preserve Plan. Natural grading will not be significantly altered, actions will be taken to prevent compaction during restoration activities, and the area will remain a freshwater prairie. Due to the portion of Wetland 400 being merged is 75-100% Brazilian pepper along the with grading and merging of systems, Wetland 500 (merged) will be planted in accordance with the planting plan. See Figures 13, 13A, and 13B for the Indigenous Preserve Planting Plan and Details. The area will be monitored and maintained until released.

Wetland 600 – Freshwater Prairie (643)

Wetland 600 (0.582ac) within the Preserve area is a portion of the natural marsh connected to wetlands on the north side of Reeve's Road by culverts. Rim ditches were dug along the southern edges of these wetlands causing the edge of the wetlands to be invaded by Brazilian pepper trees. The best means of removal will be determined onsite with the rim ditch and berms along the upland edges will be removed mechanically. The rim ditches will be filled when the exotics are removed. Where exotics are sporadically growing amongst native trees or vegetation the best means of removal will be determined onsite. A hands-on manual removal or authorized spraying treatment method will be utilized to remove exotics. Disturbances will be minimized to the greatest extent possible and if disturbed the area will be restored according to the Preserve Plan. Natural grading will not be significantly altered, actions will be taken to prevent compaction during restoration activities, and the area will remain a freshwater prairie. Due to the natural diversity in the marsh any disturbed areas are anticipated to cultivate naturally. The average pre-activities seasonal high-water level is 24.6ft NAVD88. The area will be monitored and maintained until released.

Upland Preserve A – Pine Flatwoods (411)

Upland pine flatwoods area within the Preserve is approximately 9.43 acres along the north boundary between Wetlands 300 and 500 also along the eastern boundary south of Wetland 200. This area has been invaded by Melaleuca trees and Brazilian pepper trees in varying degrees throughout the area. In many areas 20 – 60% of the subcanopy is exotics. The best means of removal will be determined onsite with some areas potentially removed mechanically while others will be removed by non-mechanized methods. Disturbances will be minimized to the greatest extent possible within the preserve area. Natural grading will not be significantly altered and the area will remain as pine flatwoods. Due to the natural diversity in the area any disturbed areas are anticipated to cultivate naturally. The area will be monitored and maintained until released.

Upland Preserve B – Exotic Monocultures (422 / 212 / 514)

Upland monoculture areas of exotics within the Preserve are approximately 7.01 acres including Brazilian pepper in monocultures along the banks of the rim ditches. Cogon grass covering the pasture areas with sporadic Brazilian pepper throughout. Additionally, the buffer along the northern and western sides of Wetland 200 is thick Brazilian pepper. The best means of removal will be determined onsite with most areas potentially removed mechanically while others will be removed by non-mechanized methods. Disturbances will be minimized to the greatest extent possible within the preserve area. Restoration activities include restoring the natural grading especially ditches back to upland elevations and removing spoil deposits in the preservation area.

Due to the monoculture of exotics in this area disturbed areas will be planted in accordance with the planting plan to restore the natural conditions and improve the potential panther habitat area. See Figures 13, 13A and 13B for the Indigenous Preserve Planting Plan and Details. The area will be monitored and maintained until released.

Wetland Hydration Swale – Freshwater Marsh (643)

Create a wetland hydration swale within the buffer surrounding Wetland 200. The swale is designed to supplement hydration between the mining activities and Wetland 200, preventing the potential of dewatering to the Wetland 200 system and offsite preservation lands. The swale will be approximately 2 feet deep with 3:1 slopes and a 3 foot wide base. Waters will have a minimum controlled elevation of 22.0 feet NAVD88. If water levels drop below 22.0 feet NAVD88 the automated water control system will pump water from the mining lake in to the swale to maintain hydrology. Maximum pumped water level is 23.0 feet NAVD88 to maintain freeboard in the hydration swale. Water levels and the wetland system will be monitored so estimated operational parameters can be adjusted as necessary. Water pumped into the swale will meet Class III Surface Water Quality Standards pursuant to 62-302 F.A.C. The created swale will be planted with wetland herbaceous plants in accordance with the planting plan. See Figures 13, 13A and 13B for the Indigenous Preserve Planting Plan and Details. The area will be monitored and maintained until released.

2.2 ADDITIONAL COMPONENTS OF RESTORATION PROGRAM

In addition to the restoration /enhancement activity types and features described above, the wetland restoration program will have several other facets. These are discussed in the following paragraphs.

Hydrologic Enhancement of Wetlands:

An important component of the wetland restoration program is improvement of hydrologic conditions (hydrology and hydroperiod) within preservation area wetlands. Currently rim ditches from historic farming are cut along the edges of Wetland 500, 600, and 200. The rim ditches are typically 4-6 feet deep in many areas with steep slopes and covered with exotic plants. These ditches disrupt the normal wetland hydroperiod and prevent natural sheet-flow and interchange of surface waters within the preserve. Removal of the berms and ditches along edges of the wetlands will minimize the impedances to water flow, restoring more normal hydrologic patterns to Wetlands 500 and 600.

To prevent the potential drawdown of hydrology in Wetland 200 by the adjacent mining activities, a wetland hydrologic swale will be constructed around the system within the preserve area and maintained. Unlike the rim ditches being removed, the swale will be approximately 2 feet deep instead of 4-6 feet deep. The swale will be hydrologically augmented with an automated water control system to ensure a stable hydrology to supplement Wetland 200.

Protection of Wetlands and Uplands via Conservation Easements:

The preserve area will be placed under appropriate conservation easements which will protect the future integrity of the created, restored, and enhanced wetlands and uplands encompassed by the conservation area. The easements will ensure that the preserve area is preserved and protected in perpetuity.

Wetland and Upland Enhancement via Maintenance Eradication of Exotic and Nuisance Plants:

The preserve area will be maintained in perpetuity to ensure that exotic and nuisance plant species will constitute no more than 5% of the total plant cover within the area. Exotic invasive plant species will include Category I and Category II species identified in the current "Invasive Plant List" published by the Florida Exotic Pest Plant Council (FLEPPC) as well as Class I and Class II Prohibited Aquatic Plants listed in Chapter 5B-64.011, Florida Administrative Code. Nuisance plant species will include native plant species whose noxious characteristics or presence in sufficient number, biomass, or areal extent that prevents, or interferes with, uses or management of resources.

Visual inspection for exotic, non-native and nuisance plant invasion will be conducted annually and all exotic, non-native and nuisance vegetation defined by County codes and the Florida Exotic Pest Plant Council, found within the preserve areas will be flagged, mapped and reported for treatment. Felled material will be removed from the preserve areas where possible or killed in place where removal would cause extreme damage to the surrounding native areas. Any stumps remaining after the exotic, non-native and nuisance removal will be treated with a U.S. EPA approved herbicide and visible tracer dye to prevent regeneration from the roots.

Exotic/nuisance plant control is likely to occur on at least a quarterly basis for the first three years and semi-annual basis for the following years until completion of initial eradication efforts. Such maintenance events may be conducted more frequently if field observations indicate the need. These maintenance activities will be performed until release, then performed in perpetuity on an as needed basis.

Wetland and Upland Preserve Delineation:

Preserves will be clearly delineated with appropriate signage both during and after construction activities. Protective barricades will be used to cordon off construction areas and keep construction equipment out of preserve areas. A double row of silt fence will be used along preserve areas to separate them from the construction activities. The silt fence will remain in place until the perimeter berm is installed and stabilized with native grasses. Permanent conservation signage will be placed along the perimeter of the preserves at approximately 300 foot spacing. See example below.



Example of a Conservation Area sign.



County Preserve Sign along property's eastern line in Wetland 200.

2.3 GENERAL RESTORATION SPECIFICATIONS

The restoration program will require exotic and nuisance plant eradication activities, grading activities, and planting activities as previously noted. Exotic/nuisance plant control is likely to occur on at least a quarterly basis for the first three years and semi-annual basis for the following years until completion of initial eradication efforts. Such maintenance events may be conducted more frequently if field observations indicate the need. The following paragraphs provide additional information and specifications regarding these activities.

Exotic & Nuisance Vegetation Eradication:

The previously noted eradication methods will be employed throughout the preserve area in both uplands and wetlands. They may include physical removal of exotics and/or directed herbicide applications as dictated by the restoration feature type and specific conditions and species encountered. Initial exotic and nuisance plant eradication efforts will involve a combination of methods including directed herbicide applications and cutting down exotics with subsequent application of herbicides to the stumps. In areas to be graded, exotic and nuisance vegetation will be physically removed using heavy machinery during the clearing, grubbing, and grading process. Non-mechanized exotic and nuisance plant eradication methods will be employed in other areas. Such methods include the use of hand implements such as chainsaws and machetes to cut down exotic vegetation with follow-up applications of herbicides as well as directed herbicide applications alone.

Manual eradication activities, if necessary, will take place between January to May, when the species are not blooming to prevent seed spreading. The spring season is the typical dry season with lower water levels and also best for accessing the wetland areas for eradication activities.

During the initial exotic/nuisance vegetation eradication process, felled materials will be generally removed from the preserve area. Some felled woody plants may be chipped on-site, however chipping will be avoided unless deemed necessary to best preserve desirable vegetation and provide for re-growth of desirable plants. Where (and if) chipping is employed, chips will be segregated into a limited number of scattered piles rather than spreading the chips.

Following initial eradication process, subsequent maintenance events will commonly employ non-mechanized exotic and nuisance plant eradication methods. These methods may include directed herbicide applications and/or physical removal of exotics.

Clearing & Grading Activities:

The restoration program includes grading activities that will affect existing wetland and upland areas within the preserve boundary. The process will involve mechanized clearing and grubbing of the areas to be graded followed by the actual grading work. Cleared vegetation will be removed from the Preserve area for disposal either within portions of the Alico Quarry Mine development area or via within a duly licensed off-site disposal facility. It is anticipated that excess soil excavated during the grading process will be removed from the preserve area and used as fill in areas of the Mine to be developed.

Prior to the clearing, grubbing, and grading activities, the exact limits of zones requiring complete clearing and grading will be determined in the field and will be marked with protective barriers such as flagging, ropes, silt fence, enviro-fence, or a combination of such items. These marker barriers will remain in place until grading activities are completed. Prior to initiation of the clearing and grading activities, silt fences will also be installed at appropriate locations adjacent to existing wetlands to control erosion and sediment transport. These erosion/sediment control devices will remain in place until grading activities are completed and the graded areas are stabilized. Machinery/vehicle ingress and egress routes to the areas requiring grading will be restricted to avoid unnecessary damage to upland and wetland areas both within the boundaries of the preserve area and to areas situated outside the Alico Quarry 3D Extension project area boundary and the preserve area.

Planting Specifications:

Certain restoration activities will require planting native vegetation. The Indigenous Preserve Restoration Planting Plan table below outlines the plants, size, and spacing that may be employed when planting in the upland and wetland restoration areas. Most wetland and upland areas are anticipated to recruit naturally. The final determination of plant species to install may vary depending on site conditions and the species availability.

INDIGENOUS PRESERVE RESTORATION PLANTING PLAN SECTS 5 AND 6, TWSHP 46S, RNG 26E IN FORT MYERS, LEE CO., FL

Revised 03/17/2022

Upland Pine Flatwoods Planting Areas (FLUCCS 411)					
(Max 25% of each plant type. Planted after 1yr of treatment and monitoring, where needed for restoration or enhancement in accordance with LDC12-113(m)(n)(o)(p). See Planting Detail.					
Scientific Name	Common Name	Minimum Height	Minimum Container Size	Canopy Spread / Tree Caliper at 6" AbvGrd	Planting Density (On Center)
TREES					
<i>Pinus elliotii</i>	slash pine	10ft	7gal	4ft / 2in	10+ clustered
<i>Pinus palustris</i>	longleaf pine	5ft	3gal	2ft / in	10+ clustered
<i>Quercus virginiana</i>	live oak	10ft	7gal	4ft / 2in	10+ clustered
<i>Liquidambar styraciflua</i>	sweetgum	5ft	3gal	2ft / 2in	10+ clustered
SHRUBS					
<i>Psychotria nervosa</i>	wild coffee	2ft	3gal		3ft oc
<i>Chrysobalanus icaco</i>	cocoplum	2ft	3gal		3ft oc
<i>Forestiera segregata</i>	Florida privet	2ft	3gal		3ft oc
<i>Serenoa repens</i>	saw palmetto	2ft	3gal		3ft oc

Wetland Freshwater Prairie Herbaceous Planting Areas (FLUCCS 643)				
(Max 25% of each plant type. Planted after 1yr of treatment and monitoring, where needed for restoration or enhancement in accordance with LDC12-113(m)(n)(o)(p). See Planting Detail.				
Scientific Name	Common Name	Minimum Container Size	Percent Cover	Planting Density (On Center)
<i>Rhynchospora colorata</i>	star rush	2-4" Ln	25%	2ft oc
<i>Spartina bakeri</i>	sand cordgrass	2-4" Ln	25%	2ft oc
<i>Sagittaria lancifolia</i>	arrowhead lance-leaf	2-4" Ln	25%	2ft oc
<i>Cladium jamaicense</i>	sawgrass	2-4" Ln	25%	2ft oc
Wetland Freshwater Marsh Planting Areas (FLUCCS 641)				
(Max 25% of each plant type. Planted after 1yr of treatment and monitoring, where needed for restoration or enhancement in accordance with LDC12-113(m)(n)(o)(p). See Planting Detail.				
Scientific Name	Common Name	Minimum Container Size	Percent Cover	Planting Density (On Center)
<i>Spartina bakeri</i>	sand cordgrass	2-4" Ln	25%	2ft oc
<i>Amphicarpum muhlenbergianum</i>	blue maidencane	2-4" Ln	25%	2ft oc
<i>Sagittaria lancifolia</i>	arrowhead lance-leaf	2-4" Ln	25%	2ft oc
<i>Pontederia cordata</i>	pickerelweed	2-4" Ln	25%	2ft oc

2.4 ANTICIPATED RESTORATION PROGRAM SCHEDULE

While it is common to begin re-planting activities as soon as feasible following completion of initial exotic eradication activities and initial clearing and grading activities. This will not be the case for the proposed restoration program. Instead, the initial plantings necessary will not be conducted until near the beginning of the wet season of the year following completion of the initial exotic/nuisance plant eradication activities and completion of the clearing and grading activities (i.e., 12+ months will elapse between completion of initial exotic/nuisance eradication & grading activities and installation of initial plantings needed).

There are two main reasons for taking this approach. The primary reason is that it will allow very intensive exotic and nuisance plant eradication activities to occur during the year prior to planting without fear of killing planted species. The first growing season following initial eradication efforts and particularly clearing/grading activities is often a time of rapid colonization of treated areas by ruderal species (both desirable native species and especially nuisance species) as well as re-growth of exotics not fully killed and sprouting of exotics from seed sources and propagules. Too often the intensity of follow-up exotic and nuisance plant eradication required during this first year results in inadvertent damage to planted species. Competition by nuisance and exotic species can also hinder growth of planted species. Another reason for this approach is that it will allow time for some initial colonization of treated areas by desirable native plant species.

The establishment of these pioneer native species can reduce the quantity of plantings needed somewhat and the established desirable species can help serve as a guide to appropriate species to utilize for the plantings that are necessary.

Using this approach, a preliminary estimation of the schedule key milestone activities involved in the restoration program is as follows:

Milestones	Approximate Date
All necessary permits for site development & the restoration program acquired.	April 2022
Begin initial exotic/nuisance eradication and clearing & grading activities.	February 2023
Complete initial exotic/nuisance eradication and clearing/grading activities.	April 2023
Intensive follow-up exotic/nuisance plant eradication activities prior to initial plantings.	August 2023
Install initial plantings.	June - Aug2024
Time Zero monitoring (actual monitoring activities prior to report submittal).	Sept. 2024
Routine management/maintenance activities during period of monitoring.	Quarterly
Quarterly Monitoring (actual monitoring activities, 1 year)	Dec 2024, Mar, June, Sept 2025
Semi-Annual monitoring (actual monitoring activities, 4-year period or until released by FDEP)	Spring/Fall 2026 thru 2030

3. WETLAND RESTORATION PROGRAM SUCCESS CRITERIA

Success criteria for the Alico Quarry Indigenous Preserve Restoration Area wetland restoration program is described in the following paragraphs.

1. Record Conservation Easement(s).
2. Complete initial eradication of exotic/invasive and nuisance plant species. Exotic/invasive plant species will include Category I and Category II species identified in the current "Invasive Plant List" published by the Florida Exotic Pest Plant Council (FLEPPC) as well as Class I and Class II Prohibited Aquatic Plants listed in Chapter 5B-64.011, Florida Administrative Code. Nuisance plant species will include native plant species whose noxious characteristics or presence in sufficient number, biomass, or areal extent that prevents, or interferes with, uses or management of resources. Examples of potential nuisance plant species include but not limited to: cattail (*Typha spp.*), Carolina willow (*Salix caroliniana*), primrose willow (*Ludwigia peruviana*), wild balsam apple (*Momordica charantia*), climbing hempvine (*Mikania scandens*, *M. micrantha*), pepper vine (*Ampelopsis arborea*), and love vine (*Cassytha filiformis*).
3. Construct the wetland hydrologic swale and install automated water control system.
4. Install wetland and swale hydrologic monitoring piezometers and staff gauges. Begin regular monitoring schedule.
5. Maintain the preserve area such that this area is essentially free from exotic/invasive vegetation immediately following a given maintenance event and such that the total vegetative cover accounted for by exotic and nuisance plants each constitute no more than 5% of the total plant cover.
6. Within the upland enhancement areas, maintain a minimum average cover of 80% for native species of all stratum together. The target habitat of pine flatwoods can vary from an open canopy with more ground and shrub cover to thick canopy with little in the bottom stratum due to needle and leaf litter. As such, monitoring will assess all strata (canopy, sub-canopy, shrub, and groundcover) and combine strata to determine a natural cover of the enhancement areas.
7. Within the wetland enhancement areas, achieve a minimum average ground cover of 80% by native wetland species over upland species, pursuant to 62.340 F.A.C. As used herein, "native species" exclude plants that are native (i.e., non-exotic) but are also considered nuisance species.
8. Satisfy the criteria 5, 6 and 7 above (as applicable) for at least two years of monitoring or four seasons without human interaction to show the restoration areas are self-sustainable.

4. WETLAND RESTORATION MONITORING PROGRAM

The permittee will submit monitoring reports to the FDEP and Lee County documenting general conditions in the Alico Quarry Indigenous Preserve Restoration Area established for the project's wetland impact restoration program. One "baseline", one "time zero", four quarterly monitoring reports for the first year, and four (4) years or until release of semi - annual monitoring reports will be submitted.

1. Vegetative monitoring data will be collected quantitatively by 10meter square quadrat sampling and canopy measurements; and qualitatively by photographs and observations. Quantitative sampling will use quadrats established in all elevations in the site. See Figure 15 of the Restoration Plan maps for estimated dispersal of quadrats depending on site conditions at the time of installation.
2. PVC poles will also be placed to mark the corners of the 10meter square quadrat as permanent markers for herbaceous/groundcover data collection and canopy cover if present. Percent cover will be recorded throughout the quadrat. Soil moisture or water level data will be taken at a designated and marked corner pole at each quadrat.
3. Two permanent panoramic photo-stations will be marked at opposite corner poles of the quadrat to provide views of the area from both sides of the sites. Color, fixed-point photographs will be provided in each monitoring report.
4. Groundwater hydrologic monitoring data will be collected with the installation of four (4) piezometers. The piezometer wells will be located along the upland edge of Wetland 200, 300, and between Wetlands 500-600. See Figure 15 of the Restoration Plan maps for estimated location depending on site conditions.
5. Surface water monitoring data will be collected with the installation of nine (9) staff gauges within the Preserve area. One monitoring staff gauge will be installed in each of the deep-water areas near the culverts of Wetland 300, 500 and 600. Four (4) monitoring staff gauges will be installed in Wetland 200, with two (2) in each zone. Wetland 200 is a large shallow marsh that fluctuates significantly. Staff gauges in both the shallow zones and deep zones will allow surface water readings when water levels are high in the summer or low in the winter. Two (2) monitoring staff gauges will be installed in the Wetland Hydrologic Swale to monitor operational water levels. See Figure 15 of the Restoration Plan maps for estimated location depending on site conditions.
6. The existing rain gauge on the mine site will continue to be monitored daily. An additional rain gauge will be added adjacent to Wetland 200 for rain data within this area. The Preserve piezometers and staff gauges will be monitored daily by transducers.
7. The "Mitigation Wetland Hydrologic Report" section will be included in the annual Mitigation Wetland Monitoring Report to be filed annually with the Department. This section will provide a tabular and graphical comparison of wetland water levels and on-site rainfall data. Any indicators of wetland impacts, positive or negative will be addressed in the report.

5. RESTORATION / PRESERVE MANAGEMENT PROGRAM

The Alico Quarry Sand Mine preserve area, which encompasses the lands where the wetland restoration program will be conducted, will be maintained to suppress infestation by exotic/invasive and nuisance plant species. Maintenance/management actions will be conducted as required to meet the mitigation success criteria previously described. Once the applicable regulatory agencies have determined that all success criteria have been achieved and annual monitoring is no longer necessary, these areas will be maintained in perpetuity such that exotic and nuisance plant infestations do not exceed the maximum allowed by the original mitigation success criteria.

After initial eradication efforts are complete, follow-up exotic and nuisance plant control will include directed herbicide applications and/or physical removal methods throughout all portions of the preserve area. Exotic/nuisance plant control is likely to occur on at least a quarterly basis for the first three years and semi-annual basis for the following years until completion of initial eradication efforts. Such maintenance events may be conducted more frequently if field observations indicate the need. At the end of this period, the frequency of activities necessary to adequately control nuisance and exotic plants will be re-assessed and a program developed for future maintenance. At a minimum there will be at least one exotic/nuisance plant control event per year of monitoring.

Follow-up plantings of previously planted areas will be conducted as necessary when and where survivorship, density, and/or percent cover goals are not achieved. The need for such re-plantings will typically be assessed on an annual basis. Management/maintenance activities may include removal of dead, dying, or diseased plants (both planted and existing plants) as deemed necessary.

A qualified biologist or similar environmental professional will inspect the preserve area at least twice a year for the duration of the restoration monitoring program. During the first few year's inspections will likely occur more frequently in an effort to rectify any potential problem situations (e.g., exotic/nuisance plant infestations, mortality of planted species, etc.) before they worsen. The necessary maintenance activities will be determined by the biologist during these inspections. The maintenance will be conducted during the course of the year following issuance of the biologist's recommendations.

Following completion of the restoration monitoring program, the preserve area will be maintained in perpetuity such that the total vegetative cover accounted for by exotic and nuisance plants each constitute no more than 5% of total plant cover.

6. FINANCIAL RESPONSIBILITY FOR THE WETLAND RESTORATION PROGRAM

The Mitigation Enhancement Cost Estimate attached provides the estimated costs of the proposed 49.40-acre wetland restoration area, including estimated costs for initial restoration /enhancement activities, for maintenance exotic and nuisance plant eradication (control) activities during the monitoring period, and for restoration monitoring activities. The total estimated cost for this program is \$1,125,491.50 while the total estimated cost plus an additional ten percent is \$1,238,040.65.

The permittee will provide FDEP and Lee County with a performance bond, an irrevocable letter of credit, or other form of surety acceptable to FDEP and Lee County in order to establish a financial responsibility mechanism for the restoration program pursuant to applicable sub-sections within AH Vol 1, 10.3.7 F.A.C. The amount of financial responsibility ensured through this mechanism would be \$ 1,238,040.65. (Total estimated mitigation cost plus 10%).

As the restoration activities are concluded, the permittee will request FDEP and Lee County to release portions of this bond in amounts applicable to the portion of restoration, maintenance, and/or monitoring successfully completed. Appropriate documentation would be provided with these written requests pursuant to AH Vol 1, 10.3.7 F.A.C.

FDEP and Lee County will be notified prior to any of the bond releases and written concurrence will be obtained that they (FDEP and Lee County) are satisfied with the progress of the enhancement activities.



801 North Park Road, Plant City, FL 33563
Tel: 813-752-1289 Fax: 813-757-0721

**CEMEX Alico Quarry 3D Extension Project
Indigenous Preserve Restoration Area
Mitigation Enhancement Cost Estimate**

November 10, 2020
Revised 01/10/2022; 03/29/2022

The mitigation cost quoted below by the Collnas Group, Inc. and/or Southeast Environmental Solutions, Inc. (SES) accounts as "third party" work for the Indigenous Preserve Mitigation (49.4ac) activities. Total Cost are rounded up to the nearest dollar.

Homestead Mitigation Area						
Activity	Contractor	Date of Estimate	Details	Detail Cost	Number of Events	Total Cost
Clearing & Grubbing					1	15,450.00
As-built Survey & Certification					1	7,500.00
Maintenance Water Control	NA					n/a
Planting & Installation	FL Natives est	1/10/2022	& 03/21/22	\$528,897.00	1	528,897.00
Structure installation/removal					1	n/a
Structure maintenance / operation						n/a
Nuisance/exotic removal & control	A1 Native Plants	3/29/2022	Initial	\$247,722.00	1	247,722.00
Nuisance/exotic removal & control	A1 Native Plants	3/29/2022	Qtly/Annual	\$21,906.00	4	87,624.00
Fire Management						n/a
Mitigation Monitoring	SES	3/17/2022	Baseline	\$13,400.00	1	13,400.00
Mitigation Monitoring	SES	3/17/2022	Time-Zero	\$14,800.00	1	14,800.00
Mitigation Monitoring	SES	3/17/2022	1yr qtly	\$6,800.00	4	27,200.00
Mitigation Monitoring	SES	3/17/2022	semi-annual	\$6,800.00	8	54,400.00
Hydrologic Instrument Install			4 PZ wells		1	10,000.00
Hydrologic Instrument Install			9 SG		1	9,000.00
Hydrologic Instrument Install			1 Rain gauge		1	500.00
Hydrologic Monitoring	SES	3/17/2022		\$1,800.00	60	108,000.00
Preservation Area Boundary Signs			30 signs		1	998.50
Total Estimated Cost						1,125,491.50
Financial Assurance Needed			110%			1,238,040.65

Note:

1. Maintenance Water Control, Structure Installation/removal, Structure maintenance and fire management will be completed by CEMEX personnel



Wetland Seasonal High Water	Average Elevation NAVD 1988
Wetland 200	24.5
Wetland 300	23.8
Wetland 500	24.4
Wetland 600	24.4

INDIGENOUS PRESERVE EXISTING LAND USE & RESTORATION PLAN	ALICO QUARRY PHASE 3D	CEMEX CONSTRUCTION MATERIALS OF FL	FIGURE 13
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Section: 16, 21, & 22
Township: 49 South
Range: 27 East
County: Collier
State: Florida

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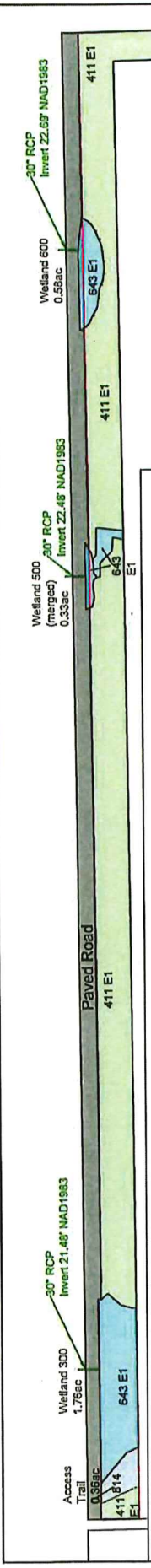
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SOLUTIONS, INC.**

president

shall be removed as they occur, manually or by approved herbicides. Prohibited by LDC Section 2.4.4.12., listed as Class II and in Chapter 5B-64.011, F.A.C., and invasive nuisance species, which may include any of the following shall be removed manually or by approved herbicides to ensure 100% coverage of the required Area.

Prohibited exotic and nuisance species with U.S. Environmental Protection Agency Class II prohibited aquatic plants species the Florida Exotic Pest Plant Council, but limited to, cattails and Carolina approved herbicides when they exceed





CEMEX CONSTRUCTION MATERIALS OF FLORIDA, LLC
ALICO QUARRY - 3D EXPANSION INDIGENOUS PRESERVE AREA
INDIGENOUS PRESERVE RESTORATION PLANTING PLAN
SECTS 5 AND 6, TOWNSHIP 46S, RING 26E IN FORT MYERS, LEE CO., FL
Revised 03/17/2022

CEMEX CONSTRUCTION MATERIALS OF FLORIDA, LLC
ALICO QUARRY - 3D EXPANSION INDIGENOUS PRESERVE AREA
FLORIDA LAND USE COVER AND CLASSIFICATION CODE SYSTEM (FLUCCS)
RESTORATION LAND USE CONDITIONS
SECTS 5 AND 6, TOWNSHIP 46S, RING 26E IN FORT MYERS, LEE CO., FL
Revised 03/17/2022

FLUCCS Post Habitat	FLUCCS Code	Description	Exotics % Cover	FLUCCS Acres	FLUCCS Project Totals
Uplands	411	Pine Flatwoods	E1 / 0-25	0.26	16.01
			E1 / 0-25	5.32	
			E1 / 0-25	7.50	
			E1 / 0-25	0.78	
Wetlands	621	Cypress Swamp	E1 / 0-25	2.15	0.51
			E1 / 0-25	0.39	
			E1 / 0-25	0.12	
			E1 / 0-25	3.74	
Wetlands	641	Freshwater Marshes	E1 / 0-25	7.48	12.72
			E1 / 0-25	1.50	
			E1 / 0-25	5.88	
			E1 / 0-25	10.88	
Roads	814	Dirt Roads	E1 / 0-25	0.37	19.8
			E1 / 0-25	1.76	
			E1 / 0-25	0.33	
			E1 / 0-25	0.58	
Roads	814	Paved County Road	E1 / 0-25	0.36	0.36
			E1 / 0-25	49.40	

Scientific Name	Common Name	Minimum Height	Minimum Container Size	Canopy Spread at Tree Calliper at 6" Above	Planting Density (On Center)
<i>Pinus elliotii</i>	Slash pine	10ft	7gal	4ft / 3in	10+ clustered
<i>Pinus palustris</i>	Longleaf pine	5ft	3gal	2ft / 1in	10+ clustered
<i>Quercus virginiana</i>	Live oak	10ft	7gal	4ft / 3in	10+ clustered
<i>Liquidambar styraciflua</i>	Sweetgum	5ft	3gal	2ft / 2in	10+ clustered
<i>Psychotria nervosa</i>	Wild coffee	2ft	3gal		3it oc
<i>Chrysobalanus icaco</i>	Cocoplum	2ft	3gal		3it oc
<i>Ficus floridana</i>	Florida privet	2ft	3gal		3it oc
<i>Serenoa repens</i>	Saw palmetto	2ft	3gal		3it oc
Wetland Freshwater Prairie Herbaceous Planting Areas (FLUCCS 643)					
(Max 25% of each plant type. Planted after 1yr of treatment and monitoring, where needed for restoration or enhancement in accordance with LDC13-131(m)(1)(i)(1)(i). See Planting Detail.)					
Scientific Name	Common Name	Minimum Height	Minimum Container Size	Canopy Spread at Tree Calliper at 6" Above	Planting Density (On Center)
<i>Rhynchospora colorata</i>	Star rush	2-4" Ln	2-4" Ln	25%	2it oc
<i>Spergularia bakeri</i>	Sand cordgrass	2-4" Ln	2-4" Ln	25%	2it oc
<i>Segitaria arifolia</i>	Arrowhead lance-leaf	2-4" Ln	2-4" Ln	25%	2it oc
<i>Codium jamaicense</i>	Cowgrass	2-4" Ln	2-4" Ln	25%	2it oc
Wetland Freshwater Marsh Planting Areas (FLUCCS 641)					
(Max 25% of each plant type. Planted after 1yr of treatment and monitoring, where needed for restoration or enhancement in accordance with LDC13-131(m)(1)(i)(1)(i). See Planting Detail.)					
Scientific Name	Common Name	Minimum Height	Minimum Container Size	Canopy Spread at Tree Calliper at 6" Above	Planting Density (On Center)
<i>Spartina bakeri</i>	Sand cordgrass	2-4" Ln	2-4" Ln	25%	2it oc
<i>Amphicarpum muhlenbergianum</i>	Blue maidencane	2-4" Ln	2-4" Ln	25%	2it oc
<i>Segitaria arifolia</i>	Arrowhead lance-leaf	2-4" Ln	2-4" Ln	25%	2it oc
<i>Pentstemon carolinensis</i>	Blue crested	2-4" Ln	2-4" Ln	25%	2it oc

ESTABLISHMENT AND MAINTENANCE NOTES

Success of the Indigenous Preserve Enhancement/Restoration Plan shall include at least 80% cumulative native vegetative cover utilizing a combined stratum appropriate for the habitat.

Prohibited exotic and nuisance species shall be removed as they occur, manually or with U.S. Environmental Protection Agency approved herbicides. Prohibited exotics are those species as listed in the County LDC Section 24.12, listed as Class I and Class II prohibited aquatic plants specified in Chapter 38-64.01, F.C., and listed in the Florida Exotic Pest Plant Council. Native nuisance species, which may include but limited to, cattails and Carolina yellow shall be removed manually or with approved herbicides when they exceed 5% coverage of the required Area.

Section: 16, 21, & 22
Township: 49 South
Range: 27 East
County: Collier
State: Florida

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SECT PROJECT No. 1280B

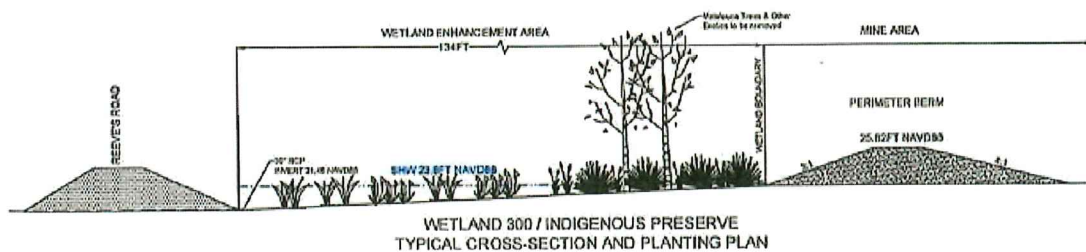
INDIGENOUS PRESERVE RESTORATION PLANTING PLAN & POST LAND USE

ALICO QUARRY PHASE 3D

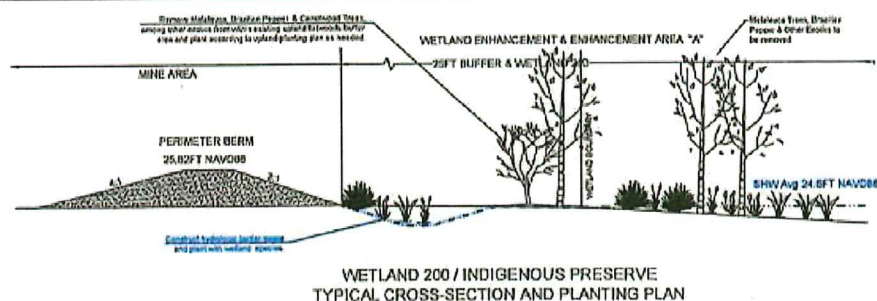
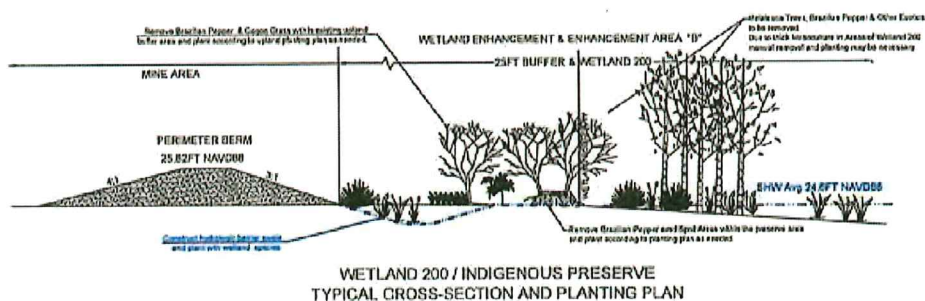
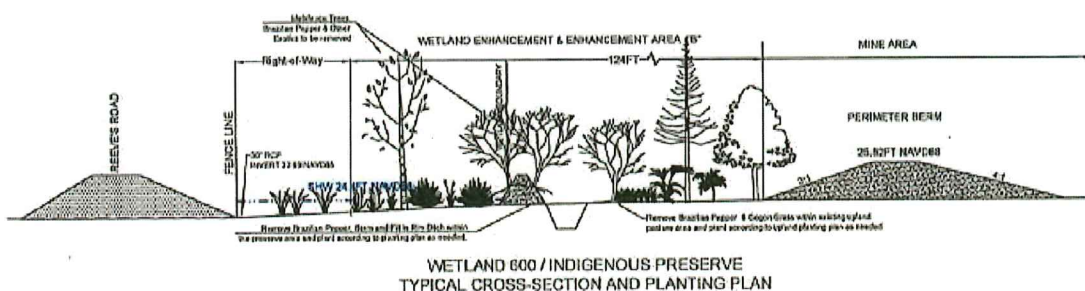
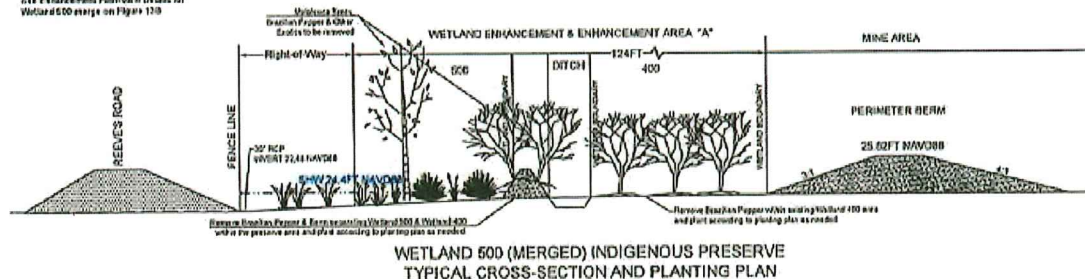
CEMEX CONSTRUCTION MATERIALS OF FL

FIGURE 13A





See Enhancement Plan/View Details for Wetland 500 on Figure 13B



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REVISED: 01/17/02



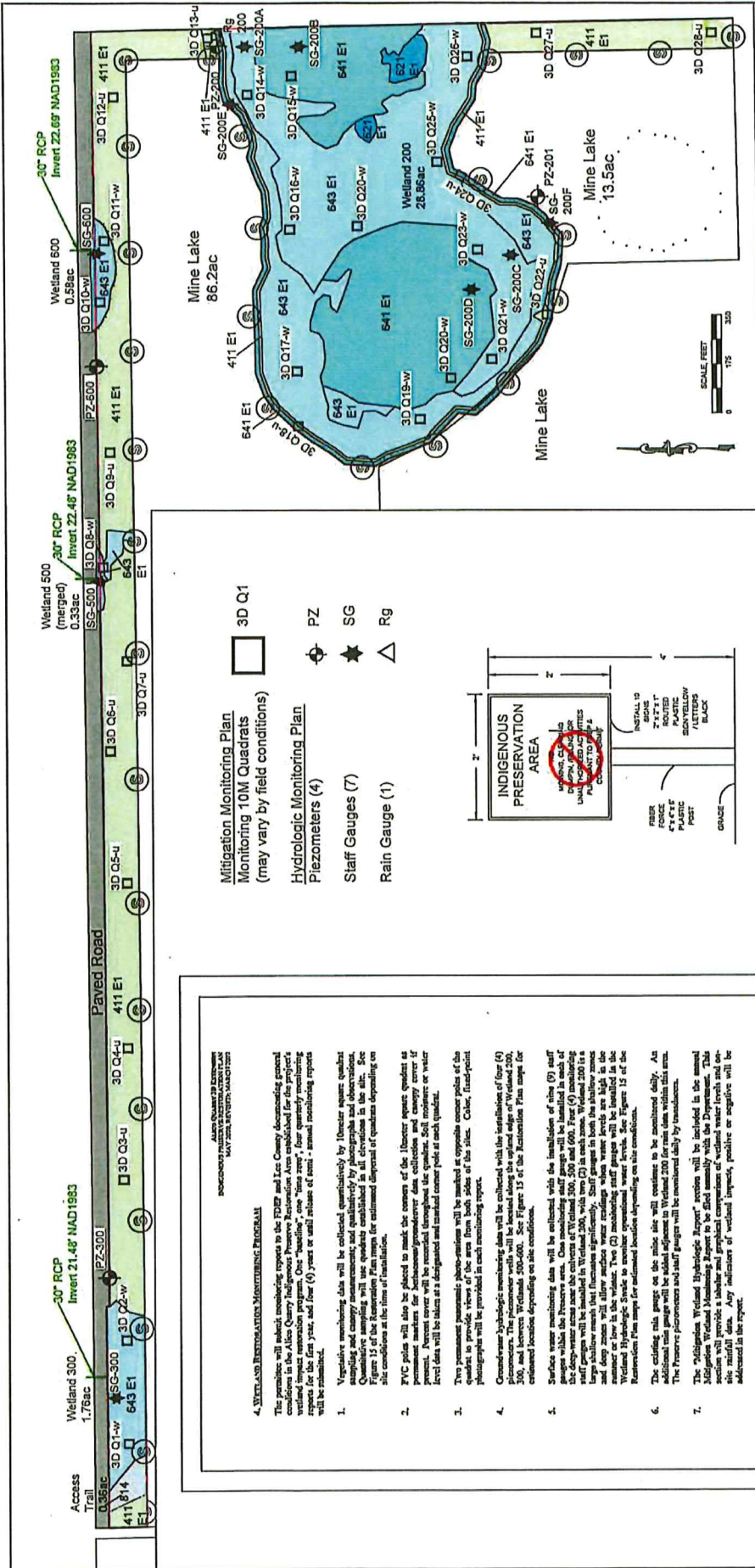
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GES PROJECT No: 12600

Section: 05
Township: 46 South
Range: 28 East
County: Collier
State: Florida

INDIGENOUS PRESERVE RESTORATION
& PLANTING PLAN CROSS-SECTIONS
ALICO QUARRY PHASE 3D
CEMEX CONSTRUCTION MATERIALS OF FL

FIGURE
14

Note: See Figures 13, 13A, & 13B Indigenous Preserve Restoration Planning Plan, for details on Restoration Planning Plan, Post Land Use, & Planting Details, for the Allico Quarry Phase 3D Lee County Indigenous Preserve Plan.



Wetland Seasonal High Water	Average Elevation NAVD 1988
Wetland 200	24.6
Wetland 300	23.8
Wetland 500	24.4
Wetland 600	24.4

 Indicates Preservation Area
Sign Locations
Approximately Every 300ft

INDIGENOUS PRESERVE RESTORATION MONITORING DETAILS	FIGURE
ALICO QUARRY PHASE 3D CEMEX CONSTRUCTION MATERIALS OF FL	15

Section:	16, 21, & 22
Township:	49 South
Range:	27 East
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State:	Florida

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LEGEND		
411	Pine Flatwoods	E1 / O-25
621	Cypress Swamp	E1 / O-25
641	Freshwater Marshes	E1 / O-25
643	Freshwater Prairies	E1 / O-25
814	Dirt Roads	
814	Pied County Road	

EXHIBIT B4

CEMEX ALICO NORTH QUARRY – PHASE 3C ON-SITE INDIGENOUS PRESERVE AND PROTECTED SPECIES MANAGEMENT PLAN

Revised April 2013

INTRODUCTION

The following outlines the indigenous preserve management plan for the on-site preserve areas on the Cemex Alico North Quarry – Phase 3C expansion (Project) located in Section 6, Township 46 South, Range 26 East, Lee County (Figure 1). There are a total of three separate preserve areas on-site. The on-site preserve areas abut off-site preserves located immediately west of the expansion. Additionally, Preserve Area No. 1 extends along the north property boundary and connects to off-site, undeveloped land (Appendix A).

A total of 9.20± acre of indigenous uplands and 14.47± acres of indigenous wetlands will be preserved and enhanced on-site. Additionally 0.30± acre of uplands within Preserve Area No. 1 and 1.76± acres of wetlands within Preserve Area No. 3 will be restored and planted (Appendix A).

The predominant vegetation communities on the mitigation parcel generally include pine flatwoods, hydric melaleuca, hydric pine, and wet prairie communities. The existing land use and cover summary table and Florida Land Use, Cover and Forms Classification System (FLUCFCS) descriptions of the existing community types are included as Appendix B.

METHOD AND FREQUENCY OF PRUNING AND TRIMMING

Exotic removal is scheduled to begin after all applicable permits and approvals have been attained. After the initial removal of exotics, semi-annual inspections and annual maintenance of the mitigation area will occur for the first two years. During the initial exotic vegetation removal, selective hand pruning of sub-canopy vegetation and vines will occur within the preserve. Maintenance of sub-canopy native vegetation and vines will be conducted by selective hand pruning approximately every three years. Table 1 provides an estimated work schedule for these events.

Table 1. Preserve Work Schedule

Activity	Anticipated Completion Date
Initial Removal of Exotics	June 2013
Semi-Annual Inspection	November 2013
Annual Maintenance	December 2013
Semi-Annual Inspection	June 2014
Annual Maintenance	December 2014

During these inspections, the mitigation area will be traversed by a qualified ecologist. Locations of nuisance and/or exotic species will be identified for immediate treatment with an appropriate herbicide. Any additional potential problems will also be noted and corrective actions taken. Once exotic/nuisance species levels have been reduced to acceptable limits (i.e., less than five percent cover), inspections of the mitigation areas will be conducted annually. Prior to any preserve maintenance, the Lee County Division of Environmental Sciences (DES) will be notified.

METHODS TO REMOVE AND CONTROL ALL EXOTICS AND NUISANCE PLANTS

All exotics will be removed by hand from the preserve and immediately disposed of off-site. No exotic vegetation will be stockpiled on-site. Hand removal will be either felling of exotic trees, hand removal, and herbicide treatment of the stumps; or hand pulling. The hand removal of exotic and nuisance vegetation will include one or more of the following methods: (1) cut exotics within 12 inches of ground elevation, hand remove cut vegetation, and treat remaining stump with approved herbicide; (2) girdle standing Brazilian pepper (*Schinus terebinthifolius*), melaleuca (*Melaleuca quinquenervia*), and Australian pine (*Casuarina equisetifolia*) with diameter at breast height greater than four inches and apply approved herbicide to cambium; (3) foliar application of approved herbicide to Brazilian pepper, melaleuca saplings, Australian pine, and downy rose-myrtle (*Rhodomyrtus tomentosa*); (4) foliar application of approved herbicide or hand pulling of exotic seedlings; and (5) foliar application of approved herbicide to nuisance grasses. All exotics listed in Table 2 will be removed prior to the Certificate of Compliance issuance. Access to the indigenous preserve will be through the existing developed area.

Table 2. Prohibited Invasive Exotics

Common Name	Scientific Name
Earleaf acacia	<i>Acacia auriculiformis</i>
Woman's tongue	<i>Albizia lebbek</i>
Bishopwood	<i>Bischofia javanica</i>
Australian pines	All <i>Casuarina</i> species
Carrotwood	<i>Cupaniopsis anacardioides</i>
Rosewood	<i>Dalbergia sissoo</i>
Air potato	<i>Dioscorea alata</i>
Murray red gum	<i>Eucalyptus camaldulensis</i>
Weeping fig	<i>Ficus benjamina</i>
Cuban laurel fig	<i>Ficus microcarpa</i>
Japanese climbing fern	<i>Lygodium japonicum</i>
Old World climbing fern	<i>Lygodium microphyllum</i>
Melaleuca, paper tree	<i>Melaleuca quinquenervia</i>
Downy rose-myrtle	<i>Rhodomyrtus tomentosa</i>
Chinese tallow	<i>Sapium sebiferum</i>
Brazilian pepper, Florida holly	<i>Schinus terebinthifolius</i>
Tropical soda apple	<i>Solanum viarum</i>
Java plum	<i>Syzygium cumini</i>

Table 2. (Continued)

Common Name	Scientific Name
Rose apple	<i>Syzygium jambos</i>
Cork tree	<i>Thespesia populnea</i>
Wedelia	<i>Wedelia trilobata</i>

INDIGENOUS VEGETATION RESTORATION

Indigenous vegetation restoration will be conducted for 0.30± acre of on-site upland areas and 1.76± acres of on-site wetland area that do not meet indigenous vegetation requirements in their current condition. Habitats to receive vegetation restoration include: Disturbed Land, Hydric (FLUCFCS Code 740), Berm (FLUCFCS Code 747), Hydric Pine, Disturbed (76-100% Exotics) (FLUCFCS Code 6259 E4), and Melaleuca, Hydric (FLUCFCS Code 4241). Restoration areas will be planted using the planting specifications provided in Tables 3 and 4. No more than 25 percent of one species will be utilized.

Table 3. Supplemental Plantings for 0.30± Acre of Upland Restoration Area

Common Name	Scientific Name	Minimum Height	Minimum Container Size	Planting Density (On Center)
Upland Plantings				
Trees				
Slash Pine	<i>Pinus elliottii</i>	5 ft.	3 gal.	15 ft.
Live Oak	<i>Quercus virginiana</i>	5 ft.	3 gal.	15 ft.
Cabbage Palm	<i>Sabal Palmetto</i>	5 ft.	3 gal.	15 ft.
Shrubs				
Wax Myrtle	<i>Myrica cerifera</i>	3 ft.	1 gal.	12 ft.
Myrsine	<i>Rapanea punctata</i>	3 ft.	1 gal.	12 ft.
Beauty Berry	<i>Callicarpa Americana</i>	3 ft.	1 gal.	12 ft.
Gallberry	<i>Ilex glabra</i>	3 ft.	1 gal.	12 ft.
Ground Cover				
Cordgrass	<i>Spartina bakeri</i>	12 in.	2 in.	5 ft.
Wiregrass	<i>Aristida stricta</i>	12 in.	2 in.	5 ft.
Saw palmetto	<i>Serenoa repens</i>	12 in.	2 in.	5 ft.
Muhly grass	<i>Muhlenbergia capillaris</i>	12 in.	2 in.	5 ft.

Table 4. Supplemental Plantings for 1.764 Acres of Wetland Restoration Area

Common Name	Scientific Name	Minimum Height	Minimum Container Size	Planting Density (On Center)
Wetland Plantings				
Trees				
Slash Pine	<i>Pinus elliotii</i>	5 ft.	3 gal.	15 ft.
Laurel Oak	<i>Quercus laurifolia</i>	5 ft.	3 gal.	15 ft.
Cabbage Palm	<i>Sabal Palmetto</i>	5 ft.	3 gal.	15 ft.
Shrubs				
Wax Myrtle	<i>Myrica cerifera</i>	3 ft.	1 gal.	12 ft.
Myrsine	<i>Rapanea punctata</i>	3 ft.	1 gal.	12 ft.
Button Bush	<i>Cephalanthus occidentalis</i>	3 ft.	1 gal.	12 ft.
Coco plum	<i>Chrysobalanus icaco</i>	3 ft.	1 gal.	12 ft.
Ground Cover				
Cordgrass	<i>Spartina bakeri</i>	12 in.	2 in.	5 ft.
Gulfclume paspalum	<i>Paspalum monostachyum</i>	12 in.	2 in.	5 ft.
Little blue maidencane	<i>Amphicarpum muhlenbergianum</i>	12 in.	2 in.	5 ft.
Muhlygrass	<i>Muhlenbergia capillaris</i>	12 in.	2 in.	5 ft.

DEBRIS REMOVAL

Any debris (including, but not limited to, construction and landscaping debris) located within the preserve area will be hand removed (i.e., no machinery will be used to remove the debris).

PRESERVE SIGNAGE

Signage shall be placed around preserve areas to identify and protect the preserves during construction. The signs shall be no closer than ten feet from residential property lines, be limited to a maximum height of four feet and a maximum size of two square feet, and otherwise comply with Section 5.06.00 of the Lee County Land Development Code (LDC). Maximum sign spacing shall be 300 feet. Signs identifying the preserve as a "nature preserve area" will be installed along the boundary of the preserve. The signage should include language stating "no dumping allowed." A typical preserve sign is attached (Appendix A).

APR 15 2013

MONITORING REPORTS

A monitoring report documenting the preserve's initial condition will be provided under separate cover. The report will include preserve photographs, a map of the photograph stations, a narrative describing existing conditions with an estimate of exotic coverage levels, and a brief description of mitigation and maintenance work performed, if applicable or to be performed in the near future. A similar report will be submitted to DES staff after the exotic removal and enhancement activities have been completed and prior to Certificate of Compliance approval.

PROTECTED SPECIES MANAGEMENT PLANS

Passarella & Associates, Inc. conducted a Lee County protected species survey for the Project in July 2006 which was updated in June 2012. The surveys were conducted to meet Lee County LDC Chapter 10, Article III, Division 8 (Protection of Habitat) standards. The July 2006 protected species survey identified the little blue heron (*Egretta caerulea*) and snowy egret (*Egretta thula*) on the Project site. The protected species survey conducted during June 2012 identified gopher tortoise (*Gopherus polyphemus*) burrows and a Big Cypress fox squirrel (*Sciurus niger avicennia*) (BCFS) on the Project site. Additionally, Florida Fish and Wildlife Conservation Commission (FWCC) Florida panther (*Puma concolor coryi*) GPS locations were previously documented on-site. A management plan has been prepared to address the wading birds, Big Cypress fox squirrel, gopher tortoise, and Florida panther for the Project. No evidence of nesting/denning by the little blue heron, snowy egret, and Florida panther was documented on the property. The proposed management plan for the above species includes the preservation and enhancement of on-site indigenous upland and wetland habitat areas as shown in Appendix A.

I. WADING BIRD MANAGEMENT PLAN

This habitat management plan has been prepared for the purpose of addressing the conservation of potential wading bird habitat on the Project.

A little blue heron and snowy egret were observed on the property during the July 2006 protected species survey. Foraging areas will be provided on-site through wetland preservation and enhancement. The on-site preserve areas contain wetlands that will serve as potential foraging and nesting habitats for wading birds. Invasive exotic removal will result in upland and wetland preserves that are more suitable as foraging habitats, as well as making the wetlands better for roosting.

II. BIG CYPRESS FOX SQUIRREL MANAGEMENT PLAN

This habitat management plan has been prepared for the purpose of addressing the conservation of potential BCFS habitat on the Project. One BCFS was observed on-site during the protected species survey conducted in June 2012.

The goal of the management plan is to protect active nest sites and maintain suitable BCFS habitat on-site after development. This will be accomplished through pre-

construction surveys and the preservation and enhancement of existing suitable habitat. Preserves will incorporate both upland and wetland habitats. Long-term management will be implemented to ensure that the exotic vegetation does not reinvade the preserves and the BCFS habitat is maintained in open park-like conditions.

Biology

The BCFS lives and breeds in varied habitats in Southwest Florida including cypress swamps, pine flatwoods, tropical hardwood forests, live oak woods, mangrove forests, and suburban habitats including golf courses, city parks, and residential areas in native vegetation (Humphrey 1992). Dense cypress/hardwood swamps are avoided. This may be due to the competition for food and habitat with the gray squirrel (*Sciurus carolinensis*). Little data is available on the preferred forage habitat of the BCFS. BCFSs prefer to feed on the male and female cones of the slash pine. A smaller percentage of the diet may consist of seasonal fruits, berries, and seeds (Humphrey 1992).

BCFSs often form platform nests in pines and hardwoods and moss and stick nests in cypress (*Taxodium* sp.), tops of cabbage palms, and large clumps of bromeliads (*Tillandsia* sp.). Cabbage palms and bromeliads are especially important because they can provide immediate shelter which allows the squirrel to travel over large areas without requiring a daily return to a permanent nesting facility (Humphrey 1992).

BCFSs are solitary animals. Interaction between animals occurs primarily during mating season. Mating chases occur frequently throughout the months of May through August. During the non-mating season, interactions are infrequent and often occur around food sources (Humphrey 1992).

Pre-Construction Surveys

A qualified ecologist will be on-site to supervise BCFS management and monitoring activities as detailed in this plan. Prior to commencement of clearing activities, a survey will be conducted in areas to be cleared to identify potential BCFS nests. If potential nests are identified within the clearing limits, observations will be conducted for five consecutive days to determine if the nests are being utilized by BCFSs. Clearing near an active BCFS nest tree will occur no closer than 125 feet. No clearing will occur within the established buffer of an active BCFS nest tree.

After nesting is complete and observations document that juvenile squirrels have left the nest, the nest tree and buffer will be cleared, if within the proposed mining limits.

III. GOPHER TORTOISE MANAGEMENT PLAN

This management plan has been prepared for the purpose of addressing the protection of the gopher tortoises identified on-site. Five gopher tortoise burrows were documented on-site during the protected species survey conducted in June 2012. The burrows are

located within the mining limits and will therefore, be relocated to an FWCC approved recipient site prior to commencement of clearing activities.

Biology

This information regarding the biology of the gopher tortoise was obtained from the FWCC and the Ashton Biodiversity Research Preservation Institute, Inc.

The gopher tortoise is a large, terrestrial turtle averaging 23 to 28 centimeters (9 to 11 inches) in shell length. Maximum length is around 38 centimeters (15 inches). The gopher tortoise is characterized by stumpy, elephantine hind feet and flattened, shovel-like forelimbs adapted for digging. The tan, brown, or gray carapace (top portion of shell) is domed and oblong. The plastron (bottom portion of shell) is somewhat concave in males. Growth annuli may be conspicuous, particularly in juveniles. Hatchlings are approximately 4.4 cm (1.7 inches) in length and are yellowish-orange in color.

The gopher tortoise occurs in the Southeastern Coastal Plain from extreme eastern Louisiana to southern South Carolina. In Florida, tortoises occur in all 67 counties.

Three environmental conditions are especially important for gopher tortoises: well-drained, loose soil in which to burrow; adequate low-growing herbs for food; and open sunlit sites for nesting. The gopher tortoise is primarily associated with longleaf pine scrub oak woodlands (sandhills), but it is also found in sand pine scrub, coastal strands, live oak hammocks, dry prairies, pine flatwoods, and mixed hardwood-pine communities. Disturbed habitats, such as roadsides, fencerows, clearings, and old fields often support relatively high tortoise densities.

Life History and Ecology

Gopher tortoises excavate burrows averaging 4.5 meters (14.8 feet) in length and 2.0 meters (6.6 feet) in depth and wide enough to allow them to turn around at any point. These burrows provide protection from temperature extremes, desiccation, and predators, and serve as refuges for a variety of other animals. The placement and depth of burrows vary with the soil type, geographic location, and ground water levels. An individual tortoise may use more than one burrow and may excavate new burrows at any time during its life.

Gopher tortoise densities and movements are affected by the amount of herbaceous ground cover present. Generally, feeding activity is confined to within 50 meters (164 feet) of the burrow. Principal foods include grasses, legumes, and grasslike plants of the sedge and aster families. Legumes appear to be particularly important in the diet of juveniles. Fruits such as blackberries, pawpaws, gopher apples, and saw palmetto berries are also consumed.

The gopher tortoise exhibits deferred sexual maturity, low reproductive potential, and a long life span. Females mature sexually at 10 to 20 years of age, depending on latitude.

The breeding season is usually from April to June, but males may attempt to mate throughout the activity season. Eggs are usually deposited in the burrow mounds from mid-May to mid-June. Only one clutch of eggs is produced annually. Clutch size usually ranges from 3 to 12, with an average of 6; however, a clutch of 25 eggs has been reported. The incubation period varies from about 80 to 110 days. Predation on eggs and hatchlings is heavy. Predators include raccoons, foxes, skunks, armadillos, snakes, and various raptors. Although some hatchlings immediately construct burrows, others may use burrows of adults or merely shelter opportunistically under sand or litter. Estimated life expectancy is 40 to 60 years.

Relocation Plan

Prior to the performance of any gopher tortoise related activities, the applicant will obtain a Gopher Tortoise Relocation Permit from the FWCC. A copy of the permit will be forwarded to DES for their records. Potentially occupied burrows will be excavated. Removal of the vegetation and heavier overburden material will be accomplished by a backhoe. The finer digging around the burrow will be done by hand with a shovel. Excavation activities will be overseen by an approved FWCC authorized agent.

Any gopher tortoises and their commensals found will be relocated to an approved FWCC Recipient Site.

IV. FLORIDA PANTHER MANAGEMENT PLAN

This habitat management plan has been prepared for the purpose of addressing the enhancement and preservation of potential Florida panther habitat on the Project site.

Potential Florida panther habitat will be preserved on-site and enhanced through the removal of invasive exotic vegetation. Additionally, a wildlife corridor, for the movement of wildlife through the property, including Florida panthers, will be maintained along the northern property boundary to provide a connection from the Project site to off-site, undeveloped lands.

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COMMUNITY DEVELOPMENT

DCI 2010-00012

REFERENCES

Humphrey, S.R. 1992. Rare and Endangered Biota of Florida. Volume I. Mammals. University Press of Florida, Gainesville, Florida.

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COMMITTEE ON SCIENCE

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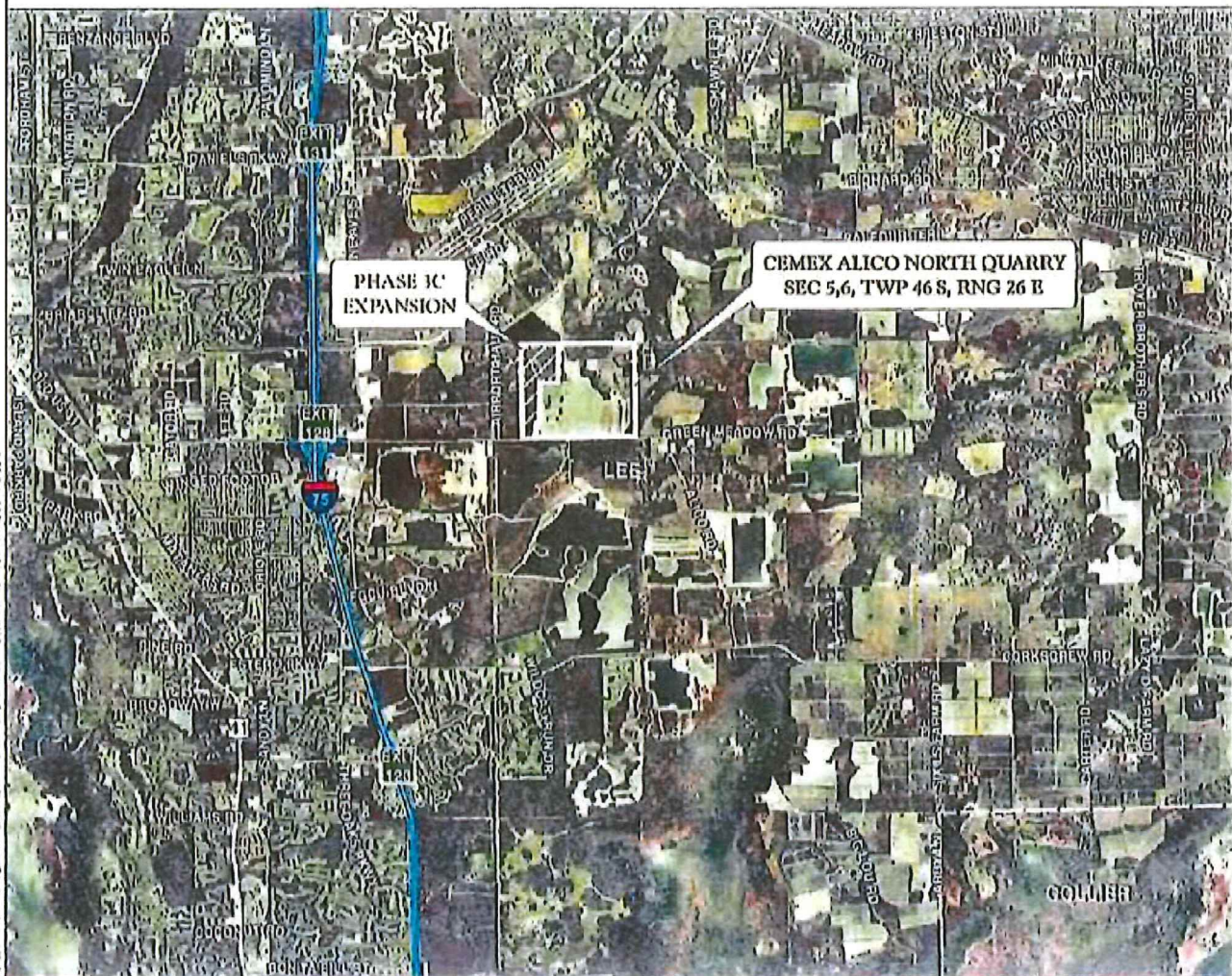
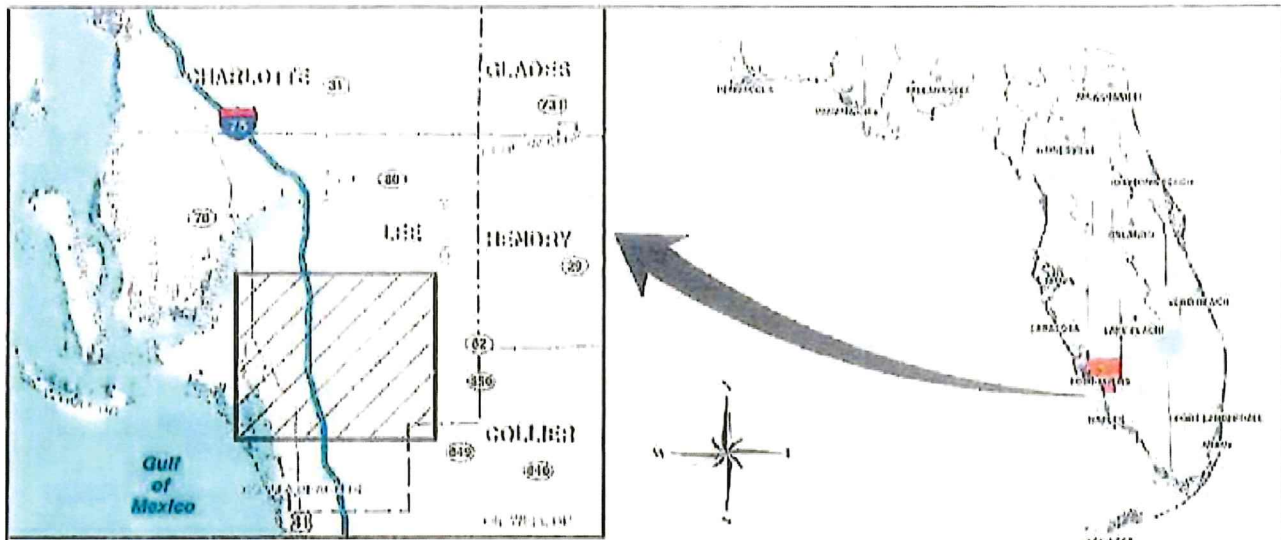


FIGURE 1. PROJECT LOCATION MAP
CEMEX ALICO NORTH QUARRY - PHASE 3C

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APPENDIX A
INDIGENOUS PRESERVE MANAGEMENT PLAN

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APPENDIX B

ON-SITE PRESERVE AREAS EXISTING LAND USE AND COVER SUMMARY TABLE AND FLUCFCS DESCRIPTIONS

CEMEX ALICO NORTH QUARRY - PHASE 3C
ON-SITE PRESERVE AREAS
EXISTING LAND USE AND COVER SUMMARY TABLE
AND FLUCFCS DESCRIPTIONS

Existing Land Use and Cover Summary

FLUCFCS Code	Description	Acreage	Percent of Total
Preserve Area No. 1			
4119 E1	Pine Flatwoods, Disturbed (0-24% Exotics)	5.94	44.2
4119 E2	Pine Flatwoods, Disturbed (25-49% Exotics)	2.03	15.1
4119 E3	Pine Flatwoods, Disturbed (50-75% Exotics)	0.16	1.2
6259 E1	Hydric Pine, Disturbed (0-24% Exotics)	1.32	9.8
6259 E2	Hydric Pine, Disturbed (25-49% Exotics)	2.12	15.8
6259 E3	Hydric Pine, Disturbed (50-75% Exotics)	1.58	11.7
7401	Disturbed Land, Hydric	0.17	1.3
747	Berm	0.13	1.0
Sub-Total		13.45	100.0
Preserve Area No. 2			
4119 E1	Pine Flatwoods, Disturbed (0-24% Exotics)	0.13	1.5
4119 E2	Pine Flatwoods, Disturbed (25-49% Exotics)	0.64	7.6
4119 E3	Pine Flatwoods, Disturbed (50-75% Exotics)	0.17	2.0
6259 E1	Hydric Pine, Disturbed (0-24% Exotics)	1.64	19.4
6259 E2	Hydric Pine, Disturbed (25-49% Exotics)	1.58	18.7
6259 E3	Hydric Pine, Disturbed (50-75% Exotics)	0.58	6.9
6439 E1	Wet Prairies, Disturbed (0-24% Exotics)	3.72	44.0
Sub-Total		8.46	100.0
Preserve Area No. 3			
4241	Melaleuca, Hydric	1.51	85.8
6259 E4	Hydric Pine, Disturbed (76-100% Exotics)	0.25	14.2
Sub-Total		1.76	100.0
Total		23.67	100.0

Pine Flatwoods, Disturbed (0-24% Exotics) (FLUCFCS Code 4119 E1)

This upland habitat has a canopy that is dominated by slash pine (*Pinus elliotii*) with scattered melaleuca (*Melaleuca quinquenervia*) and cabbage palm (*Sabal palmetto*). The sub-canopy consists of slash pine, dahoon holly (*Ilex cassine*), Brazilian pepper (*Schinus terebinthifolius*), melaleuca, and myrsine (*Rapanea punctata*). The ground cover is dominated by saw palmetto (*Serenoa repens*) with wiregrass (*Aristida stricta*) and chalky bluestem (*Andropogon virginicus*).

Pine Flatwoods, Disturbed (25-49% Exotics) (FLUCFCS Code 4119 E2)

This upland habitat is similar to that of FLUCFCS Code 4119 E1, except it has 25 to 49 percent coverage of melaleuca in the canopy.

Pine Flatwoods, Disturbed (50-75% Exotics) (FLUCFCS Code 4119 E3)

This upland habitat is similar to that of FLUCFCS Code 4119 E2, except with higher concentrations of melaleuca in the canopy.

Melaleuca, Hydric (FLUCFCS Code 4241)

This low quality wetland habitat type has a canopy of melaleuca, sparse cypress (*Taxodium distichum*), and cabbage palm. The sub-canopy consists of melaleuca, Brazilian pepper, and scattered cabbage palm. The ground cover includes cabbage palm, myrsine, rush luirena (*Puirena scirpoides*), yellow-eyed grass (*Xyris* sp.), rosy camphorweed (*Pluchea rosea*), swamp fern (*Blechnum serrulatum*), pickersweed (*Pontederia cordata*), and maidencane (*Panicum hemitomon*).

Hydric Pine, Disturbed (0-24% Exotics) (FLUCFCS Code 6259 E1)

This wetland community contains slash pine and widely scattered melaleuca in the canopy. The sub-canopy consists of slash pine, melaleuca, cabbage palm, wax myrtle (*Myrica cerifera*), myrsine, and Brazilian pepper. The ground cover includes rush luirena, corkwood (*Stillingia aquatica*), wiregrass, gulfdune paspalum (*Paspalum monostachyum*), bushy bluestem (*Andropogon glomeratus*), beakrush (*Rhynchospora microcarpa*), inundated beakrush (*Rhynchospora inundata*), yellow-eyed grass, and bog-bultou (*Lachnocaulon* sp.).

Hydric Pine, Disturbed (25-49% Exotics) (FLUCFCS Code 6259 E2)

This wetland habitat is similar to that of FLUCFCS Code 6259 E1, except with higher concentrations of melaleuca in the canopy.

Hydric Pine, Disturbed (50-75% Exotics) (FLUCFCS Code 6259 E3)

This wetland habitat is similar to that of FLUCFCS Code 6259 E2, except with higher concentrations of melaleuca in the canopy.

Wet Prairies, Disturbed (0-24% Exotics) (FLUCFCS Code 6439 E1)

This wetland habitat has an open canopy and sub-canopy. The ground cover vegetation includes sandweed (*Hypericum fasciculatum*), rush luirena, gulfdune paspalum, beaksedge, and maidencane.

Disturbed Land, Hydric (FLUCFCS Code 7401)

This hydric land use has an open canopy and sub-canopy. The ground cover is sparse and includes dog fennel (*Eupatorium capillifolium*), torpedograss (*Panicum repens*), and maidencane.

Berm (FLUCFCS Code 747)

This upland land use occupies has an open canopy. The sub-canopy includes Brazilian pepper and wax myrtle. The ground cover is predominantly bahiagrass (*Paspalum notatum*) and includes beggar-ticks (*Bidens alba* var. *radiata*), caesarweed (*Urena lobata*), and grapevine (*Vitis rotundifolia*).

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EXHIBIT B-5

CEMEX ALICO NORTH QUARRY – PHASE 3C OFF-SITE INDIGENOUS PRESERVE AND PROTECTED SPECIES MANAGEMENT PLAN

Revised April 2013

INTRODUCTION

The following outlines the indigenous preserve management plan for the 110.83± Acre Off-Site Mitigation Parcel located in Sections 21 and 28, Township 46 South, Range 26 East, Lee County. The off-site parcel is located approximately 4.55 miles southeast of the Phase 3C Expansion (Figure 1). Mitigation activities on this parcel will include 83.77± acres of wetland and 20.38± acres of upland enhancement (Appendix A). Approximately 1.09± acres of Disturbed Land (FLUCFCS Code 740) and Berm (FLUCFCS Code 747) are included in the Off-Site Mitigation Parcel, but were not counted as indigenous vegetation.

The predominant vegetation communities on the mitigation parcel generally include pine flatwoods, hydric pine, cypress, and freshwater marsh communities. The existing land use and cover summary table and Florida Land Use, Cover and Forms Classification System (FLUCFCS) descriptions of the existing community types are included as Appendix B.

METHOD AND FREQUENCY OF PRUNING AND TRIMMING

Exotic removal is scheduled to begin after all applicable permits and approvals have been attained. After the initial removal of exotics, semi-annual inspections and annual maintenance of the mitigation area will occur for the first two years. During the initial exotic vegetation removal, selective hand pruning of sub-canopy vegetation and vines will occur within the preserve. Maintenance of sub-canopy native vegetation and vines will be conducted by selective hand pruning approximately every three years. Table 1 provides an estimated work schedule for these events.

Table 1. Preserve Work Schedule

Activity	Anticipated Completion Date
Initial Removal of Exotics	June 2013
Semi-Annual Inspection	November 2013
Annual Maintenance	December 2013
Semi-Annual Inspection	June 2014
Annual Maintenance	December 2014

During these inspections, the mitigation area will be traversed by a qualified ecologist. Locations of nuisance and/or exotic species will be identified for immediate treatment with an appropriate herbicide. Any additional potential problems will also be noted and corrective actions taken. Once exotic/nuisance species levels have been reduced to acceptable limits (i.e.,

less than five percent cover), inspections of the mitigation areas will be conducted annually. Prior to any preserve maintenance, the Lee County Division of Environmental Sciences (DES) will be notified.

METHODS TO REMOVE AND CONTROL ALL EXOTICS AND NUISANCE PLANTS

All exotics will be removed by hand from the preserve and immediately disposed of off-site. No exotic vegetation will be stockpiled on-site. Exotic removal and treatment methods will include hand pulling of young saplings; felling of larger trees, to be cut within 12 inches of the soils surface and removed by hand; and treatment of stumps with appropriate herbicide. All exotics listed in Table 2 will be removed prior to the Certificate of Compliance issuance. Access to the indigenous preserve will be through the existing developed area.

Table 2. Prohibited Invasive Exotics

Common Name	Scientific Name
Earleaf acacia	<i>Acacia auriculiformis</i>
Woman's tongue	<i>Albizia lebbek</i>
Bishopwood	<i>Bischofia javanica</i>
Australian pines	All <i>Casuarina</i> species
Carrotwood	<i>Cupaniopsis anacardioides</i>
Rosewood	<i>Dalbergia sissoo</i>
Air potato	<i>Dioscorea alata</i>
Murray red gum	<i>Eucalyptus camaldulensis</i>
Weeping fig	<i>Ficus benjamina</i>
Cuban laurel fig	<i>Ficus microcarpa</i>
Japanese climbing fern	<i>Lygodium japonicum</i>
Old World climbing fern	<i>Lygodium microphyllum</i>
Melaleuca, paper tree	<i>Melaleuca quinquenervia</i>
Downy rose-myrtle	<i>Rhodomyrtus tomentosa</i>
Chinese tallow	<i>Sapium sebiferum</i>
Brazilian pepper, Florida holly	<i>Schinus terebinthifolius</i>
Tropical soda apple	<i>Solanum viarum</i>
Java plum	<i>Syzygium cumini</i>
Rose apple	<i>Syzygium jambos</i>
Cork tree	<i>Thespesia populnea</i>
Wedelia	<i>Wedelia trilobata</i>

DEBRIS REMOVAL

Any debris (including, but not limited to, construction and landscaping debris) located within the preserve area will be hand removed (i.e., no machinery will be used to remove the debris).

PRESERVE SIGNAGE

Signage shall be placed around preserve areas to identify and protect the preserves during construction. The signs shall be no closer than ten feet from residential property lines, be limited to a maximum height of four feet and a maximum size of two square feet, and otherwise comply with Section 5.06.00 of the Lee County Land Development Code (LDC). Maximum sign spacing shall be 300 feet. Signs identifying the preserve as a "nature preserve area" will be installed along the boundary of the preserve. The signage should include language stating "no dumping allowed." A typical preserve sign is attached (Appendix A).

MONITORING REPORTS

A monitoring report documenting the preserve's initial condition will be provided under separate cover. The report will include preserve photographs, a map of the photograph stations, a narrative describing existing conditions with an estimate of exotic coverage levels, and a brief description of mitigation and maintenance work performed, if applicable or to be performed in the near future. A similar report will be submitted to DES staff after the exotic removal and enhancement activities have been completed and prior to Certificate of Compliance approval.

PROTECTED SPECIES MANAGEMENT PLANS

Passarella & Associates, Inc. conducted a Lee County protected species survey (PSS) on the project site on August 18 and 19, 2010. The survey was conducted to meet Lee County LDC Chapter 10, Article III, Division 8 (Protection of Habitat) standards. The protected wildlife species identified on the property during the survey included American alligator (*Alligator mississippiensis*), black bear (*Ursus americanus*), and a Big Cypress fox squirrel (*Sciurus niger avicennia*) (BCFS). Additionally, a total of four stick nests were also observed on the project site. The proposed management plan for the above species includes the preservation and enhancement of the indigenous wetland habitat areas as outlined in this management plan.

I. AMERICAN ALLIGATOR MANAGEMENT PLAN

INTRODUCTION

The following plan outlines the protection guidelines that will be implemented for the American alligator on the Off-Site Mitigation Parcel. The plan identifies the procedures taken, such as the use of signage to avoid the feeding or harassing of American alligators located on the Off-Site Mitigation Parcel. The plan has been prepared following the guidelines established by Lee County for the protection of the American alligator and per Lee County LDC Section 10-474.

BACKGROUND INFORMATION

Description

The American alligator is a reptile with an elongated, armored, lizard-like body with a muscular, flat tail. Adult alligators are dark with a pale underside while juveniles have bright yellow stripes and blotches. The average size for adults is 8.2 feet for females and 11.2 feet for males. The body weight can reach up to one-half ton.

Habitats

American alligators inhabit all counties in the State of Florida and are most common in the major river drainage basins and large lakes in the central and southern portions of the state. They also can be found in marshes, swamps, ponds, drainage canals, phosphate-mine settling ponds, and ditches. Alligators are tolerant of poor water quality and occasionally inhabit brackish marshes along the coast. A few even venture into salt water. Individuals are wide ranging and some males may utilize an area of two square miles or more. Individuals of both sexes are most likely to become more active and extend their ranges during the April to May courtship and breeding season. Prey may include frogs, snakes, birds, and small mammals, although alligators are opportunistic feeders and may prey on whatever is readily available. Larger individuals often prefer carrion to fresh meat.

Protection

The American alligator is listed as a species of special concern by the State of Florida. Only representatives of the Florida Fish and Wildlife Conservation Commission (FWCC) are empowered to handle nuisance alligators.

II. BIG CYPRESS FOX SQUIRREL MANAGEMENT PLAN

The goal of the management plan is to protect active nest sites and maintain suitable BCFS habitat in perpetuity. This will be accomplished through the preservation and enhancement of existing suitable habitat. Preserves will incorporate both upland and wetland habitats. Long-term management will be implemented to ensure that the exotic vegetation does not reinvade the preserves and the BCFS habitat is maintained in open park-like conditions.

Biology

The BCFS lives and breeds in varied habitats in Southwest Florida including cypress swamps, pine flatwoods, tropical hardwood forests, live oak woods, mangrove forests, and suburban habitats including golf courses, city parks, and residential areas in native vegetation (Humphrey 1992). Dense cypress/hardwood swamps are avoided. This may be due to the competition for food and habitat with the gray squirrel (*Sciurus carolinensis*). Little data is available on the preferred forage habitat of the BCFS. BCFSs

BCFSs often form platform nests in pines and hardwoods and moss and stick nests in cypress (*Taxodium* sp.), tops of cabbage palms, and large clumps of bromeliads (*Tillandsia* sp.). Cabbage palms and bromeliads are especially important because they can provide immediate shelter which allows the squirrel to travel over large areas without requiring a daily return to a permanent nesting facility (Humphrey 1992).

Existing Big Cypress Fox Squirrel Nests

III. FLORIDA BLACK BEAR MANAGEMENT PLAN

IV. FLORIDA PANTHER MANAGEMENT PLAN

Potential Florida panther habitat will be preserved on-site and enhanced through the removal of invasive exotic vegetation. Additionally, a wildlife corridor, for the movement of wildlife through the property, including Florida panthers, will be maintained along the northern property boundary to provide a connection from the Project site to off-site, undeveloped lands.

APR 15 2013

REFERENCES

Humphrey, S.R. 1992. Rare and Endangered Biota of Florida. Volume I. Mammals. University Press of Florida, Gainesville, Florida.

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COMMUNITY DEVELOPMENT

DCI 2010-00012

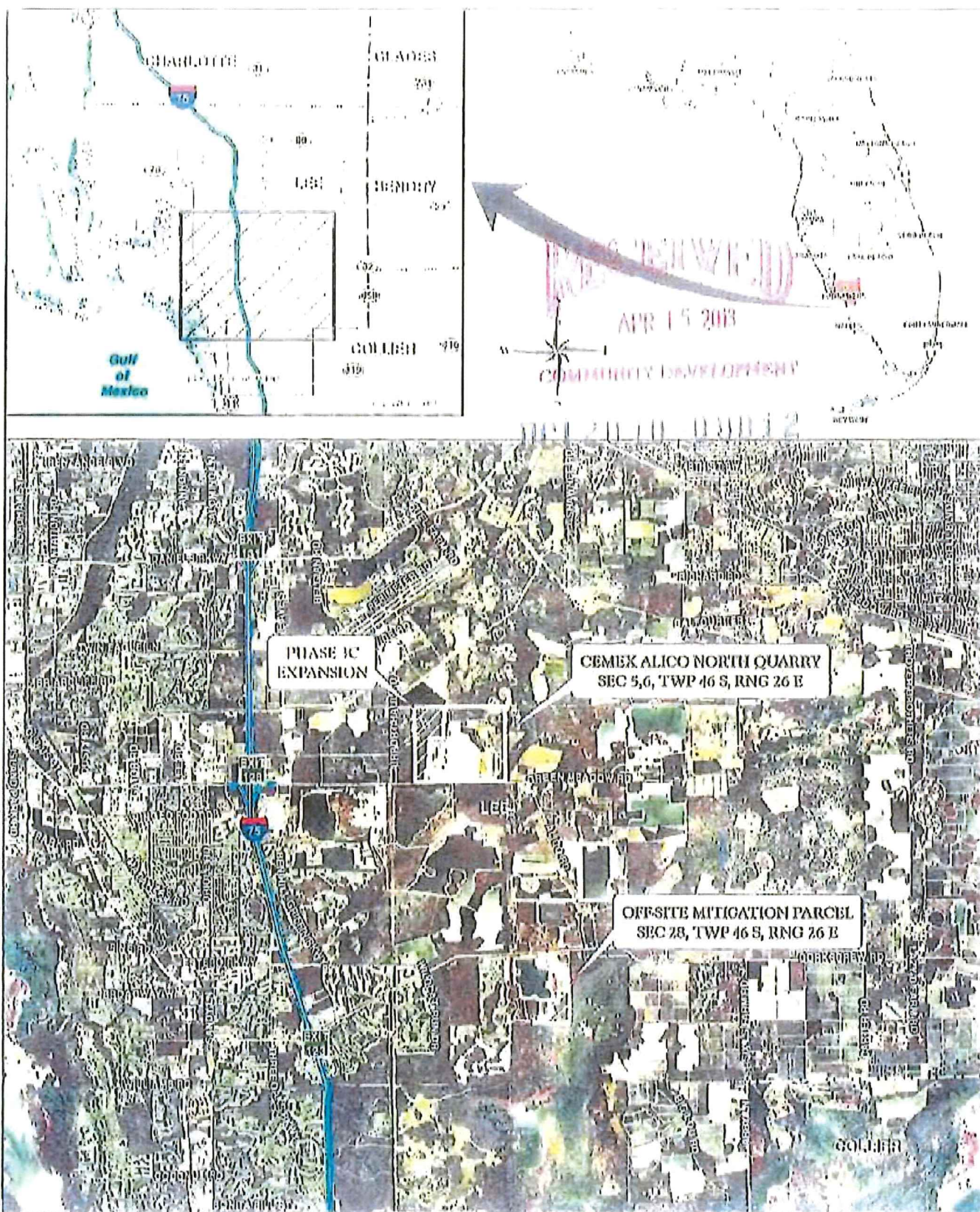


FIGURE 1. PROJECT LOCATION MAP
CEMEX ALICO NORTH QUARRY - PHASE 1C
AND OFF-SITE MITIGATION PARCEL.

DATE	11/11/11
BY	D.B.
FOR	D.B.
PROJECT	11/11/11

PASSARELLA
& ASSOCIATES

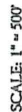
APPENDIX A
INDIGENOUS PRESERVE MANAGEMENT PLAN

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2° MAX —



TYPICAL
PRESERVATIVE SIGNAGE

LEGEND:

	WETLAND ENHANCEMENT - HAND REMOVAL OF EXOTICS (03.77 AC.±)
	UPLAND ENHANCEMENT - HAND REMOVAL OF EXOTICS (20.38 AC.±)
	PRICE UPLAND CONSERVATION EASEMENT (0.69 AC.±)
	SURVEYED WETLAND LINE

FLUCICS CODES	DESCRIPTIONS	ACREAGE	TOTAL	% OF TOTAL
1189 E1	PINE FLATWOODS, DISTURBED (0-24% EXOTICS)	19.29	Ac	10.5%
1191 E1	CABBAGE PALM, INVADING, DISTURBED (0-24% EXOTICS)	0.24	Ac	0.2%
1202 E1	CYPRESS, DISTURBED (0-24% EXOTICS)	40.47	Ac	45.5%
1203 E1	CYPRESS/SLIPY CABBAGE PALM, DISTURBED (0-24% EXOTICS)	10.42	Ac	15.6%
1204 E1	WETLAND FOREST, DISTURBED (0-24% EXOTICS)	4.58	Ac	4.9%
1205 E1	WETLAND FOREST, DISTURBED (0-24% EXOTICS)	0.05	Ac	0.0%
1206 E1	WETLAND FOREST, DISTURBED (0-24% EXOTICS)	3.27	Ac	3.1%
1207 E1	FRESHWATER MARSH, DISTURBED (0-24% EXOTICS)	0.33	Ac	0.5%
1208 E1	WET PRAIRIE, DISTURBED (0-24% EXOTICS)	0.71	Ac	0.7%
1209 E1	DISTURBED LAND	129.15	Ac	100.0%
1210 E1	TOTAL	129.15	Ac	

Notes:

PROPERTY BOUNDARY PER HOLE MONTES, INC.
DRAWING NO 0013DOSE-COMSCREW WOODS.DWG
DATED JANUARY 7, 2015

FLUCFCS LINES ESTIMATED FROM 1"=200' AERIAL PHOTOGRAPHS AND LOCATIONS APPROXIMATED

FLUCFCS PER FLORIDA LAND USE, COVER AND FORMS
CLASSIFICATION SYSTEM (FLUCFCS) (FDOT 1999).

UPLAND/WETLAND LIMITS PER MORRIS-DEPUE
BORROWING NO. 11066 WETLAND FLAG TO PASARELLA DEC
DATED APRIL 20, 2012 AND JUNE 22, 2012.

2002-00012



PASSARELLA
& ASSOCIATES

CEMEX ALICO NORTH QUARRY - PHASE 3C
OFF-SITE MITIGATION PARCEL
INDIGENOUS PRESERVE MANAGEMENT PLAN

					PASSARELLA & ASSOCIATES	CEMEX ALICO NORTH QUARRY - PHASE 3C OFF-SITE MITIGATION PARCEL INDIGENOUS PRESERVE MANAGEMENT PLAN	SUBMITTING AGENCY 90FRID03 JULY 2006 APPENDIX A.
		DRAWN BY DATE	DESIGNED BY DATE	PROJECT LOCATION SHEET NO.	REVISION DATE		
		J.M.L. 2/18/13	D.B. 2/18/13	13450 Utergalis Avenue Suite 700 Fort Myers, Florida 33912 Phone (239) 217-4007 Fax (239) 217-4009	B.B. 2/18/13		
					K.C.P. 2/18/13		

APPENDIX B

OFF-SITE MITIGATION PARCEL
EXISTING LAND USE AND COVER SUMMARY TABLE
AND FLUCFCS DESCRIPTIONS

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CEMEX ALICO NORTH QUARRY - PHASE 3C
OFF-SITE MITIGATION PARCEL
EXISTING LAND USE AND COVER SUMMARY TABLE
AND FLUCFCS DESCRIPTIONS

The following table summarizes the FLUCFCS codes and provides an acreage breakdown of the habitat types found on the Off-Site Mitigation Parcel, while a description of each of the FLUCFCS classifications follows.

Existing Land Use and Cover Summary

FLUCFCS Code	Description	Acreage	Percent of Total
4119 E1	Pine Flatwoods, Disturbed (0-24% Exotics)	19.29	18.5
4281 E1	Cabbage Palm, Hydric, Disturbed (0-24% Exotics)	0.24	0.2
6219 E1	Cypress, Disturbed (0-24% Exotics)	48.42	46.5
6249 E1	Cypress/Pine/Cabbage Palm, Disturbed (0-24% Exotics)	16.07	15.4
6259 E1	Pine, Hydric, Disturbed (0-24% Exotics)	9.72	9.3
6309 E1	Wetland Forest Mixed, Disturbed (0-24% Exotics)	4.56	4.4
6319 E1	Wetland Shrub, Disturbed (0-24% Exotics)	0.96	0.9
6419 E1	Freshwater Marsh, Disturbed (0-24 % Exotics)	3.27	3.1
6439 E1	Wet Prairie, Disturbed (0-24% Exotics)	0.53	0.5
740	Disturbed Land	0.74	0.7
747	Berm	0.35	0.3
Total		104.15	100.0

* 6.69± acres of upland conservation easement were excluded from the summary table.

Pine Flatwoods, Disturbed (0-24% Exotics) (FLUCFCS Code 4119 E1)

This upland habitat has a canopy that is dominated by slash pine (*Pinus elliotii*) with scattered melaleuca (*Melaleuca quinquenervia*) and cabbage palm (*Sabal palmetto*). The sub-canopy consists of slash pine, dahoon holly (*Ilex cassine*), Brazilian pepper (*Schinus terebinthifolius*), melaleuca, and myrsine (*Rapanea punctata*). The ground cover is dominated by saw palmetto (*Serenoa repens*) with wiregrass (*Aristida stricta*) and chalky bluestem (*Andropogon virginicus*).

Cabbage Palm, Hydric, Disturbed (0-24% Exotics) (FLUCFCS Code 4281 E1)

This wetland community type contains a canopy dominated by cabbage palm with scattered slash pine. The sub-canopy includes cabbage palm and myrsine. The ground cover includes swamp fern (*Blechnum serrulatum*) and sawgrass (*Cladium jamaicense*).

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Cypress, Disturbed (0-24% Exotics) (FLUCFCS Code 6219 E1)

This wetland community type has a canopy dominated by cypress (*Taxodium distichum*) and melaleuca. The sub-canopy contains cypress, Brazilian pepper, cabbage palm, myrsine, and wax myrtle (*Myrica cerifera*). The ground cover includes swamp fern, leather fern (*Acrostichum danaeifolium*), widely scattered Boston fern (*Nephrolepis* sp.), sawgrass, and maidencane (*Panicum repens*).

Cypress/Pine/Cabbage Palm, Disturbed (0-24% Exotics) (FLUCFCS Code 6249 E1)

This wetland habitat type contains cypress, slash pine, and melaleuca in the canopy. The sub-canopy contains cypress, slash pine, melaleuca, myrsine, Brazilian pepper, and cabbage palm. The ground cover includes myrsine, Brazilian pepper, cabbage palm, climbing hempvine (*Mikania scandens*), caesarweed (*Urena lobata*), swamp fern, and maidencane.

Hydric Pine, Disturbed (0-24% Exotics) (FLUCFCS Code 6259 E1)

This wetland community contains slash pine and widely scattered melaleuca in the canopy. The sub-canopy consists of slash pine, melaleuca, cabbage palm, wax myrtle, myrsine, and Brazilian pepper. The ground cover includes rush fuirena (*Fuirena scirpoides*), corkwood (*Stillingia aquatica*), wiregrass, gulfdune paspalum (*Paspalum monostachyum*), bushy bluestem (*Andropogon glomeratus*), beakrush (*Rhynchospora microcarpa*), inundated beakrush (*Rhynchospora inundata*), yellow-eyed grass (*Xyris* sp.), and bog-button (*Lachnocaulon* sp.).

Wetland Forest Mixed, Disturbed (0-24% Exotics) (FLUCFCS Code 6309 E1)

This wetland habitat type contains laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), cabbage palm and scattered cypress and pine trees in the canopy. The sub-canopy is dominated by Brazilian pepper. The ground cover contains swamp fern, sawgrass, and little blue maidencane (*Amphicarpum nuthlenbergianum*).

Wetland Shrub, Disturbed (0-24% Exotics) (FLUCFCS Code 6319 E1)

This wetland habitat type has an open canopy with wax myrtle, saltbush (*Atriplex* sp.), and scattered melaleuca in the sub-canopy. The ground cover contains corkwood, little blue maidencane, Gulfdune paspalum, yellow-eyed grass, and maidencane.

Freshwater Marsh, Disturbed (0-24% Exotics) (FLUCFCS Code 6419 E1)

This high quality wetland type has an open canopy and sub-canopy. The herbaceous vegetation includes maidencane, sandweed (*Hypericum fasciculatum*), pickerelweed (*Pontedaria cordata*), arrowhead (*Sagittaria lancifolia*), corkwood, yellow-eyed-grass, beaksedge (*Rhynchospora* sp.), alligator flag (*Thalia geniculata*), and rush fuirena.

Wet Prairie, Disturbed (0-24% Exotics) (FLUCFCS Code 6439 E1)

This wetland habitat has an open canopy and sub-canopy. The ground cover vegetation includes sandweed, rush fuirena, Gulfdune paspalum, beaksedge, and maidencane.

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Disturbed Land (FLUCFCS Code 740)

This upland area has an open canopy and sub-canopy. The ground cover is sparse and includes dog fennel (*Eupatorium capillifolium*), fireweed (*Erechtites hieracifolia*), ragweed (*Ambrosia artemisiifolia*), caesarweed, hairy beggar-ticks (*Bidens pilosa*), sandspur (*Cenchrus* sp.), smutgrass (*Sporobolus indicus*), and bahiagrass (*Paspalum notatum*).

Berm (FLUCFCS Code 747)

This upland land use includes a sub-canopy of Brazilian pepper and wax myrtle. The ground cover is predominantly bahiagrass and includes beggar-ticks, caesarweed, and grapevine (*Vitis rotundifolia*).

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COMMISSIONER OF DEPARTMENT

DEPARTMENT OF

5. *Résumé*: For Catherine Litscher, Senior Environmental Scientist (1 page – 8.5"x11")
6. *Résumé*: For Richard E. Brylanski, P.E., Senior Vice President/Director of Land Development (1 page – 8.5"x11")
7. *Résumé*: For Mark R. Stephens, P.G., P.E., President/Principal Consultant (4 pages – 8.5"x11")
8. *Résumé*: For Ted Treesh, PTP, President (1 page – 8.5"x11")
9. *Résumé*: For Jeffrey A. Straw, Consultant in Vibration and Acoustics, Vice President and Area Manager GeoSonics, Inc. (3 page – 8.5"x11")
10. *Listed Species Survey*: Prepared by Southeast Environmental Solutions, Inc., for Cemex Construction Materials Florida, LLC., Alico Quarry 3D Extension Project, Section 5, Township 46S, Range 26E, Lee County, FL., original report date: January 21, 2022, Field Survey Dates: August 23-25 and January 11-13, 2022 (multiple double-sided pages – 8.5"x11")
11. *Written Submissions*: Email from Bob Mulhere, to Brian Roberts, Anthony Rodriguez, Rebecca Sweigert, with copies to Olga Ramos, Neale Montgomery, Esq., James Morrie, Hearing Examiner, Rick Brylanski, Joseph Adams, Esq., Jessica Sulzer, Maria Perez, Tracy Toussaint, Deborah Carpenter, Jamie Princing, Elizabeth Workman, Tina Boone, Lauren Schaefer, Warren Baucom, Mikki Rozdolski, Jessica Sulzer, Amanda Swindle, Esq, Dirk Danley, Jr., Michael Jacob, Esq., dated Thursday, January 5, 2023 8:17 AM (2 pages – 8.5"x11")

OTHER EXHIBITS

Marsha Ellis

1. *PowerPoint Presentation*: Prepared for Cemex/FGCU Mining Extension and Memorialization (multiple pages – 8.5"x11")[color]

Exhibit C

EXHIBITS PRESENTED AT HEARING

STAFF EXHIBITS

- a. *48-Hour Notice*: From Brian Roberts, Plan Reviewer, to Amanda L. Rivera, Deputy Hearing Examiner, dated December 12, 2022 (multiple pages – 8.5"x11")
1. *DCD Staff Report with attachments for DCI*: Prepared by Brian Roberts, Plan Reviewer, date received November 30, 2022 (multiple pages – 8.5"x11" & 11"x14") [black & white, color]
2. *PowerPoint Presentation*: Prepared by Lee County Staff, for Cemex Alico Quarry, Phase 3D Extension, DCI2021-00009, December 14, 2022 (multiple pages – 8.5"x11")[color]
3. *Public Email*: Email from Dina Giampietro, dated December 11, 2022 8:22 PM (2 pages – 8.5"x11")
4. *Written Submissions*: Memorandum from Brian Roberts, Plan Reviewer, to Amanda L. Rivera, Deputy Hearing Examiner, dated January 4, 2023 (multiple pages – 8.5"x11"){post hearing submission}

APPLICANT EXHIBITS

- a. *48-Hour Notice*: Email from Jeremie Chastain, with Holemontes, to Joseph Adams, Esq., Michael Jacob, Esq., Maria Perez, Brian Roberts, with copies to Hearing Examiner, Bob Mulhere, Stephanie Karol, Neale Montgomery, Esq., James P Morris, Rick Brylanski, dated Friday, December 9, 2022 2:55 PM (multiple pages – 8.5"x11")
1. *PowerPoint Presentation*: Prepared for Cemex Alico Quarry, Phase 3D Extension, DCI2021-00009, Hearing Examiner, December 14, 2022 (multiple pages – 8.5"x11")[color]
2. *Résumé*: For James P Morris, Regional Environmental Manager with Cemex, East Region (2 pages – 8.5"x11")
3. *Environmental Resource Permit*: Alico Quarry Project, in Lee County, permit/authorization No. MMR 166176-034, issued October 17, 2022, Expiration Date October 17, 2042, Applicant Cemex Construction Materials Florida, LLC. (multiple double-sided pages – 8.5"x11")
4. *Résumé*: For Robert J. Mulhere, FAICP, President/CEO (1 page – 8.5"x11")

Exhibit D

HEARING PARTICIPANTS

County Staff:

1. Brian Roberts
2. Elizabeth Workman

Applicant Representatives:

1. Rick Brylanski
2. Cathy Litscher
3. James Morris
4. Robert Mulhere
5. Neale Montgomery, Esq.
6. Jeffrey Straw
7. Mark Stephens
8. Ted Treesh

Public Participants:

1. John Buchholz
2. Karen DesRochers
3. Marsha Ellis
4. Britt Gladwell
5. Jeff Hoss
6. Carol MacNamara
7. Thomas MacNamara

Exhibit E
INFORMATION

UNAUTHORIZED COMMUNICATIONS

The LDC prohibits communications with the Hearing Examiner or her staff on the substance of pending zoning actions. There are limited exceptions for written communications requested by the Hearing Examiner, or where the Hearing Examiner seeks advice from a disinterested expert.

HEARING BEFORE LEE COUNTY BOARD OF COUNTY COMMISSIONERS

- A. The Hearing Examiner will provide a copy of this recommendation to the Board of County Commissioners.
- B. The Board will hold a final hearing to consider the Recommendation and record made before the Hearing Examiner. The Department of Community Development will notify hearing participants of the final hearing date. Only Parties and participants may address the Board at the final hearing. Presentation by participants are limited to the substance of testimony presented to the Hearing Examiner, testimony concerning the correctness of Findings of Fact or Conclusions of Law contained in the Recommendation, or allegations of relevant new evidence not known or that could not have been reasonably discovered by the speaker at the time of the Hearing Examiner hearing.

COPIES OF TESTIMONY AND TRANSCRIPTS

- A. Every hearing is recorded. Recordings are public records that become part of the case file maintained by the Department of Community Development. The case file and recordings are available for public examination Monday through Friday between 8:00 a.m. and 4:30 p.m.
- B. A verbatim transcript may also be available for purchase from the court reporting service.