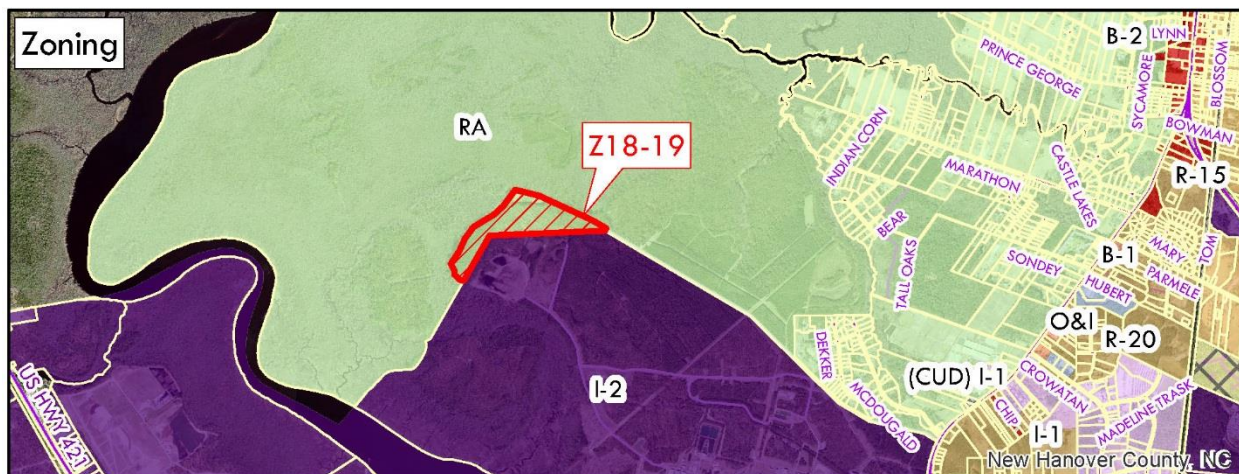


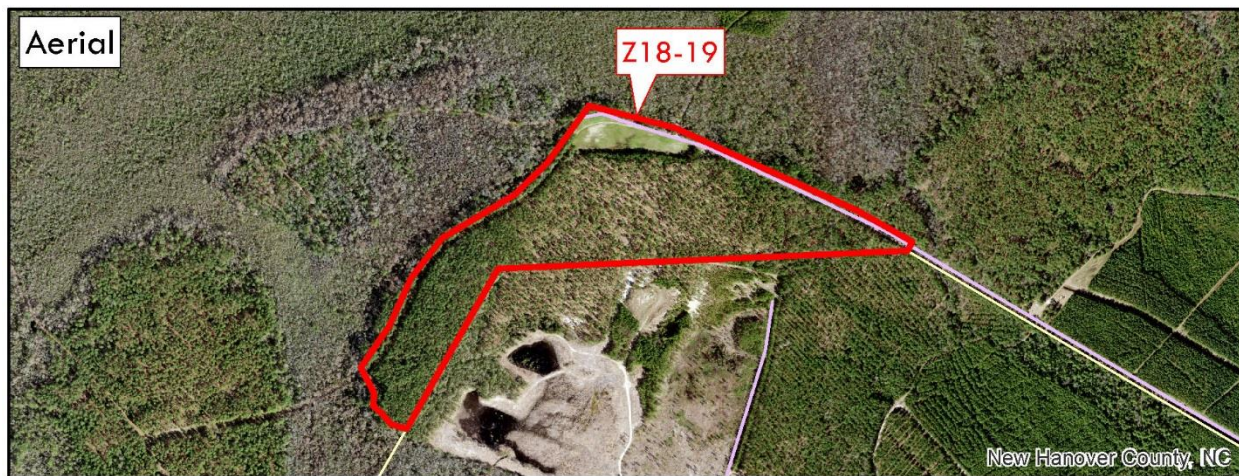
# STAFF SUMMARY FOR Z18-19

## CONDITIONAL USE ZONING DISTRICT APPLICATION

| APPLICATION SUMMARY   |                                       |
|---|---------------------------------------|
| <b>Case Number:</b> Z18-19  |                                       |
| <b>Request:</b>   |                                       |
| A) Rezoning to a Conditional Use I-2 Zoning District<br>B) Special Use Permit for a high intensity mining operation |                                       |
| <b>Applicant:</b>   | <b>Property Owner(s):</b>             |
| Stephen D. Coggins – Rountree Losee LLP   | Hilton Properties Limited Partnership |
| <b>Location:</b>  | <b>Acreage:</b>                       |
| 4117 Castle Hayne Road/Sledge Road  | 63.02                                 |
| <b>PID(s):</b>  | <b>Comp Plan Place Type:</b>          |
| R00900-001-002-000  | Commerce Zone                         |
| <b>Existing Land Use:</b>   | <b>Proposed Land Use:</b>             |
| Undeveloped   | High intensity mining operation       |
| <b>Current Zoning:</b>  | <b>Proposed Zoning:</b>               |
| RA  | (CUD) I-2                             |



| SURROUNDING AREA |                                 |        |
|------------------|---------------------------------|--------|
|                  | LAND USE                        | ZONING |
| <b>North</b>     | Undeveloped                     | RA     |
| <b>East</b>      | Undeveloped                     | RA     |
| <b>South</b>     | Manufacturing (GE), Undeveloped | I-2    |
| <b>West</b>      | Undeveloped                     | RA     |



## ZONING HISTORY

|                     |                                   |
|---------------------|-----------------------------------|
| <b>July 1, 1985</b> | Initially zoned RA (Castle Hayne) |
|---------------------|-----------------------------------|

## COMMUNITY SERVICES

|                        |  |
|------------------------|--|
| <b>Water/Sewer</b>     | Water and sewer services are not proposed for the operation. CFPUA services are not available in this area.          |
| <b>Fire Protection</b> | New Hanover County Fire Services, New Hanover County Northern Fire District, New Hanover County Station Castle Hayne |
| <b>Schools</b>         | The proposed mining operation will not generate students.  |
| <b>Recreation</b>      | Northern Regional Park   |

## CONSERVATION, HISTORIC, & ARCHAEOLOGICAL RESOURCES

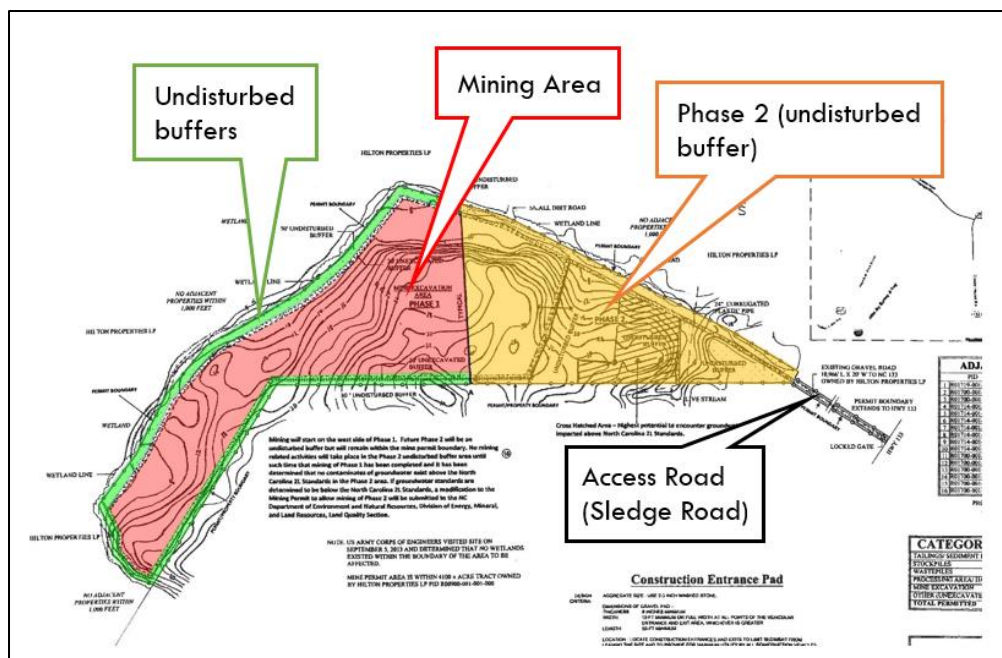
|                       |                                   |
|-----------------------|-----------------------------------|
| <b>Conservation</b>   | No known conservation resources   |
| <b>Historic</b>       | No known historic resources       |
| <b>Archaeological</b> | No known archaeological resources |

## PROPOSED SITE PLAN

- The application proposes to develop a high intensity sand mine located in Castle Hayne, approximately two miles west of NC 133.
- The Zoning Ordinance classifies mining operations under two categories: low intensity and high intensity. Low intensity mining operations are limited to no more than 20 acres of area, cannot use on-site processing equipment or explosives, and have a maximum excavation depth of 35 feet if dewatering. The proposed mine is classified as high intensity due to its permitted size (28.10 acres). No use of explosives, on-site processing, or

dewatering are proposed by the applicant. Both low and high intensity mining operations require a special use permit in the I-2 zoning district.

- The North Carolina Department of Environmental Quality (DEQ), Division of Energy, Mineral and Land Resources (DEMLR) issued a mining permit for the proposed operation on December 15, 2015. The permit allows for a mining operation of 28.10 acres to take place on the western portion of the property. The permit expires on February 5, 2024.
- The state permit includes operation conditions for the proposed mine. Those conditions include, but are not limited to:
  - Maintaining a 50-foot undisturbed buffer between any affected land and any adjoining waterway or wetland;
  - Utilizing water trucks or other appropriate method to prevent dust from leaving the permitted area (including the access road);
  - Prohibiting dewatering activities; and
  - Requiring the area east of the mining operation (shown as phase 2 on the site plan) to remain as an undisturbed buffer. Per DEQ, no activities associated with the mining operation (outside of the access road) can take place within the undisturbed buffer including the placement of structures or the parking of vehicles. Any future mining activities in the phase 2 area would require revision of the DEQ permit and also a modification of the special use permit.
- The issuance of the state permit on December 15, 2015 was a modification of a permit initially issued in February 2014 to “address concerns of groundwater contamination on the neighboring General Electric property.” The modification reduced the size of the mining operation (from 56.63 acres to 28.10), and required monitoring wells to be installed near the contaminated area. The permit states that “mining shall cease immediately upon notification that regulatory limits have been exceeded” at the monitoring wells.
- The proposed mine will excavate sand from its highest elevation point of approximately 39 feet down to about zero feet (Mean Sea Level). The applicant estimates the mine will go below the water table at about four to six feet, and a seven-foot-deep lake will be left at the completion of the excavation.



Proposed Site Plan

## TRANSPORTATION

- Access is provided to the subject property by Castle Hayne Road (NC 133) via Sledge Road (private).
- Sledge Road is a private gravel road, approximately 10 feet in width, that runs about two miles from the subject site to Castle Hayne Road. About a half mile of the road is adjacent to a residential neighborhood (Wooden Shoe Subdivision). The subdivision contains 68 lots with nine existing single-family dwellings and an equestrian facility directly abutting Sledge Road.
- Concerns have been raised by the adjacent residents regarding potential noise, vibration, and dust impacts generated by the trucks traveling to and from the mine.
- The number of trips generated by the mine will vary based on the demand, however according to the applicant, the mine will average 60-80 truckloads a day while it is in operation.
- The Institute of Transportation Engineers (ITE) does not provide trip generation estimates for mining operations. Based on the applicant's estimate and the hours of operation, it is expected that the proposed mine will not exceed 100 trips in the peak hours. Staff consulted with NCDOT staff regarding the trip generation for this proposal and they concur based on the information provided by the applicant.
- A driveway permit from NCDOT is required for access to Castle Hayne Road. NCDOT has reviewed the proposal and provided preliminary comments. The comments indicate modifications must be made to the Sledge Road driveway, but did not define the specific improvements at this time.

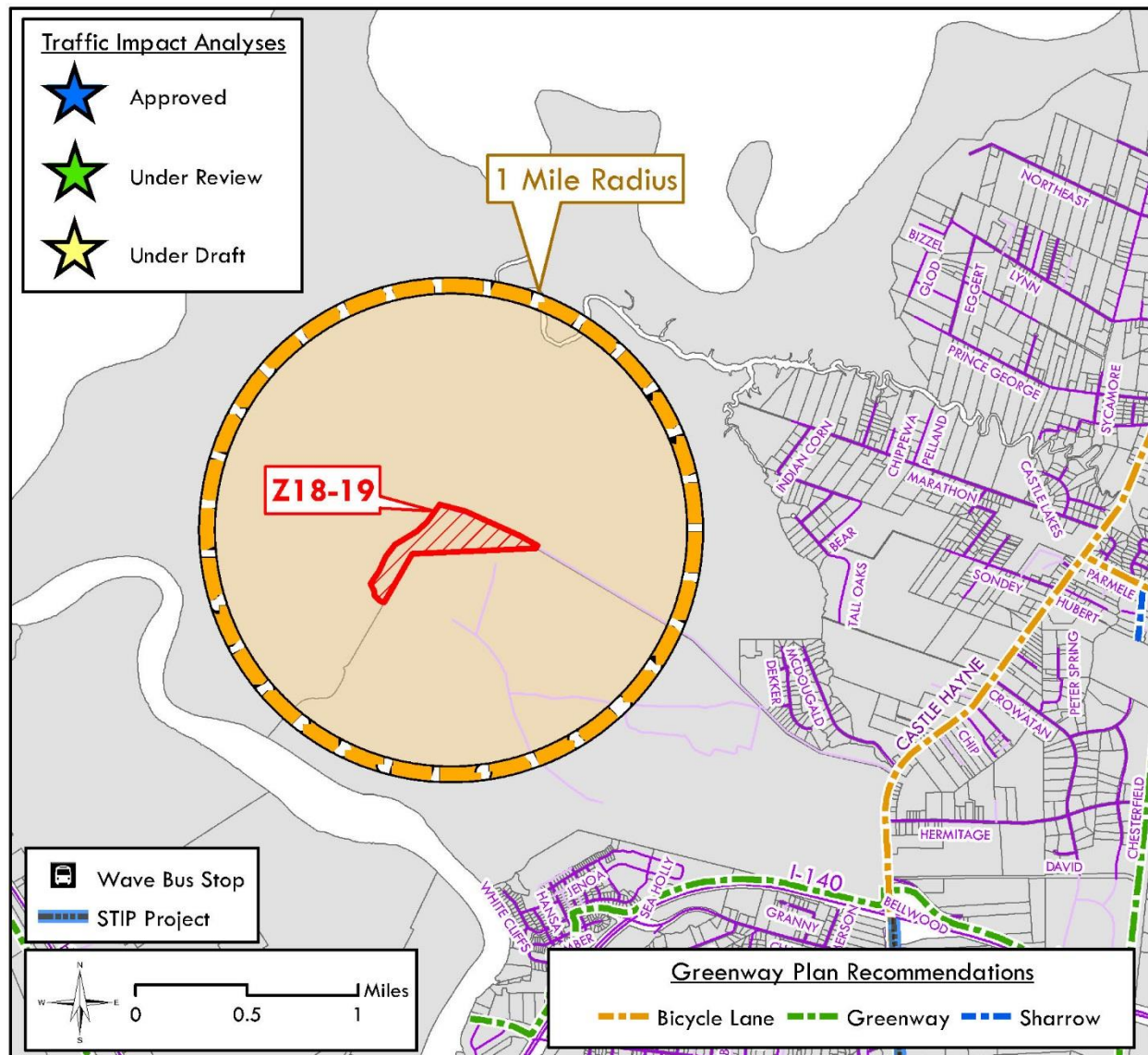
### *Traffic Counts – January 2018*

| <b>Road</b>       | <b>Location</b>     | <b>Volume</b> | <b>Capacity</b> | <b>V/C</b> |
|-------------------|---------------------|---------------|-----------------|------------|
| Castle Hayne Road | Near the 4100 Block | 10,232        | 16,200          | 0.63       |



## Nearby Planned Transportation Improvements and Traffic Impact Analyses

No TIAs are currently being drafted or have been completed for projects within a one-mile radius from the subject site within the last five years, or in the general vicinity of the site in the Castle Hayne area.



### Regional Transportation Plans:

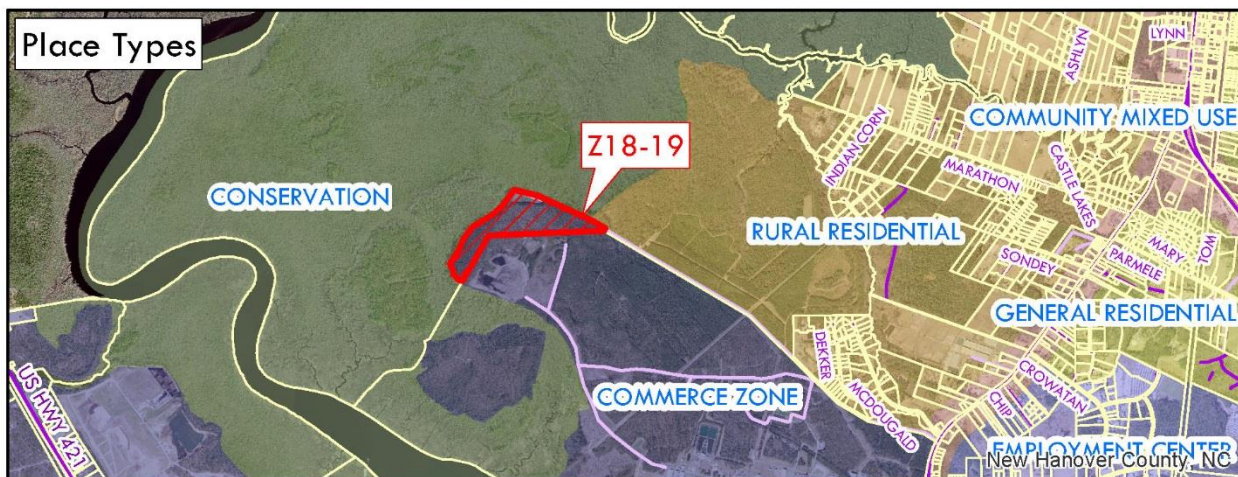
- STIP Project U-5863
  - Project to widen Castle Hayne Road to multi-lanes from I-140 to MLK Parkway. Construction is expected to begin in 2023.

## ENVIRONMENTAL

- Portions of the property along the northern property line are within an AE Special Flood Hazard Area.
- The property is not within a Natural Heritage Area.
- The site is classified as Wetland Resource Protection on the 2006 CAMA Land Classification MAP. Per Section 72-42: Mining, of the Zoning Ordinance, high intensity mining operations are permitted in this classification.
- The US Army Corps of Engineers determined in 2013 that the proposed mine will not impact jurisdictional waters or wetlands. However, this determination is no longer valid and a new determination must be issued by the Corps prior to commencing of the mining operation.
- The property is within the Cape Fear River (C;Sw) and Prince Georges Creek (C;Sw) watersheds.
- Per the Classification of Soils in New Hanover County for Septic Tank Suitability, soils on the property consist of Class I (suitable/slight limitation) soils.
- The issuance of the state mining permit on December 15, 2015 was a modification of a permit initially issued in February 2014 to “address concerns of groundwater contamination on the neighboring General Electric property.” The modification reduced the size of the mining operation (from 56.63 acres to 28.10), and required monitoring wells to be installed near the contaminated area. The permit states that “mining shall cease immediately upon notification that regulatory limits have been exceeded” at the monitoring wells.

## 2016 COMPREHENSIVE LAND USE PLAN

- The New Hanover County Future Land Use Map provides a general representation of the vision for New Hanover County’s future land use, as designated by place types describing the character and function of the different types of development that make up the community. Specific goals of the comprehensive plan are designated to be promoted in each place type, and other goals may be relevant for particular properties.



**Future Land Use  
Map Place Type**

Commerce Zone

|                                   |  |
|-----------------------------------|--|
| <b>Place Type Description</b>     | Serves to provide areas for employment and production hubs, predominantly composed of light and heavy industrial uses, though office and complementary commercial uses are also allowed. Densities are dependent, in part, on the type of industry, and residential uses are discouraged.  |
| <b>Analysis</b>                   | The subject property, located to the northwest of the GE site, was designated Commerce Zone on the Future Land Use Map to allow for future GE expansions and/or other industrial uses. The County's industrial zoning districts are compatible with this place type. Mining is classified as intensive manufacturing in the Zoning Ordinance and is permitted in industrial districts. |
| <b>Consistency Recommendation</b> | The proposed sand mine is generally <b>CONSISTENT</b> with the intent of the Commerce Zone place type to provide areas for industrial uses.  |

## STAFF RECOMMENDATION ON REZONING

**Staff recommends approval of the Conditional Use Zoning District.** Staff concludes that the request is consistent with the requirements of the Zoning Ordinance and also the 2016 Comprehensive Plan, finding that the application is:

1. Consistent with the purposes and intent of the 2016 Comprehensive Plan because the property is classified as Commerce Zone, a place type that encourages light and heavy industrial uses.
2. Reasonable and in the public interest because the proposed mining operation site is located adjacent to existing heavy industrial zoning and will provide employment opportunities. Additionally, the mining operation site is located approximately 1.5 miles from an existing single-family subdivision. However, truck traffic generated by the operation could be heavy at times and without sufficient mitigation could impact the nearby homes.

## STAFF PRELIMINARY CONCLUSIONS AND FINDINGS OF FACT:

Staff has conducted an analysis of the proposed use and the information provided as part of the application package and has created preliminary findings of fact for each of the conclusions required to be reached to approve the special use permit request. These preliminary findings of fact and conclusions are based solely on the information provided to date, prior to any information or testimony in support or opposition to the request that may be presented at the upcoming public hearing at the Board meeting.

**Finding 1: The Board must find that the use will not materially endanger the public health or safety where proposed and developed according to the plan as submitted and approved.**

- A. The site is accessed from Castle Hayne Road, an arterial street and North Carolina highway (NC 133).
- B. The subject property is located in the New Hanover County North Fire Service District.
- C. Traffic impacts are reviewed by NCDOT through the driveway permitting process, and any required roadway improvements must be installed in accordance with NCDOT's standards prior to the mine being in operation.
- D. According to the applicant, the mine will average 60-80 truckloads a day while it is in operation.
- E. The proposed operation obtained a mining permit from the North Carolina Department of Environmental Quality. The permit allows for up to 28.10 acres to be utilized for the mining operation.
- F. The state mining permit, initially issued in February 2014, was modified on December 15, 2015 to "address concerns of groundwater contamination on the neighboring General Electric property." The permit set operating conditions for the mine, including utilizing monitoring wells and leaving the portion of the property around the contaminated area as an undisturbed buffer. The state mining permit also requires that the mining cease immediately upon notification that regulatory limits have been exceeded at the monitoring wells.
- G. The state mining permit requires that a water truck or other appropriate means be utilized during mining operations to prevent dust from leaving the permitted area including the access road.
- H. The operation will use wet mining techniques. No detwatering will occur at the site.

**Staff Suggestion:** Evidence provided by the applicant at this time supports a finding that the use will not materially endanger the public health or safety in the location proposed. The state mining permit includes operational conditions to mitigate the environmental impacts of the nearby groundwater contamination.

**Finding 2: The Board must find that the use meets all required conditions and specifications of the Zoning Ordinance.**

- A. The site is proposed to be zoned I-2, Heavy Industrial.
- B. High intensity mining operation are allowed by special use permit in the I-2 zoning districts.
- C. The site plan complies with all applicable County technical standards including Zoning Ordinance Section 72-42: Mining.
- D. The site is classified as Wetland Resource Protection on the 2006 CAMA Land Classification MAP. Per Section 72-42: Mining, of the Zoning Ordinance, high intensity mining operations are permitted in this classification.

**Staff Suggestion:** Evidence in the record at this time supports a finding that the use meets all of the required conditions and specifications of the Zoning Ordinance.



**Finding 3: The Board must find that the use will not substantially injure the value of adjoining or abutting property or that the use is a public necessity.**

- A. The surrounding area is mostly undeveloped.
- B. The property abuts an approximate 1,600-acre parcel of land that is zoned 1-2, Heavy Industrial.
- C. The access road to the mine (Sledge Road) runs along nine existing single-family dwellings and an equestrian facility located in the Wooden Shoe subdivision, and a total of 68 lots are located within the neighborhood.
- D. The applicant provided an analysis of the impacts an active sand mine will have on single-family residential property values within a close proximity to the mining operations (*Proposed Sane Mine – What impact does the presence of an active sand mine have on home values in the adjacent neighborhoods? – Prepared by Trevor Tarleton & F. Blynn Beall, Streamline Evaluation Services*). The analysis examined three sand mines located near residential neighborhoods and found “no significant economic impacts to home values as result of an active sand mine in close proximity to each neighborhood.”

**Staff Suggestion:** *Evidence provided by the applicant at this time supports a finding that the use will not substantially injure the value of adjoining or abutting property.*

**Finding 4: The Board must find that the location and character of the use if developed according to the plan as submitted and approved will be in harmony with the area in which it is to be located and in general conformity with the plan of development for New Hanover County.**

- A. The property is located in the Commerce Zone place type, as classified in the 2016 Comprehensive Plan.
- B. The Commerce Zone place type areas serve as employment and production hubs, predominantly composed of light and heavy industrial uses.
- C. The proposal is consistent with the recommended uses of the Commerce Zone place type.
- D. The property abuts an approximate 1,600-acre parcel of land that is zoned 1-2, Heavy Industrial and an approximate 4,000-acre parcel of land that is zoned RA, Rural Agricultural.
- E. The access road to the mine (Sledge Road) runs along nine existing single-family dwellings and an equestrian facility located in the Wooden Shoe subdivision, and a total of 68 lots are located within the neighborhood.
- F. The number of trips generated by the mine will vary based on the demand, however according to the applicant, the mine will average 60-80 truckloads a day while it is in operation.

**Staff Suggestion:** *The proposed location of the mining operation is generally consistent with Comprehensive Plan and the Commerce Zone place type. However, the access road to the mine may generate impacts to the abutting residential neighborhood. Without improvements along this section of the road to mitigate those impacts, the potential truck traffic may not be in harmony with the area.*

## **POTENTIAL CONDITIONS**

The Planning Board can recommend reasonable and appropriate conditions be added to the special use permit. The applicant has provided the following conditions they are willing to consider on the special use permit:

1. Maintain hours of operation of 8 a.m. to 5 p.m. (7 days a week);
2. Enforcing a speed limit of 10 to 15 mph on the section of the access road between the two existing gates to which houses are immediately adjacent;
3. Installation of speed bumps on the section of the access road between the two existing gates to which houses are immediately adjacent;
4. Use of a watering truck or some other means of irrigation on the section of the access road between the two existing gates to which houses are immediately adjacent;
5. Possibly adding some crushed asphalt or rock/aggregate on the section of the access road between the two existing gates to which houses are immediately adjacent;
6. Working with the owners of the houses immediately adjacent to the access road and installing either a wooden fence or vegetative buffer for the impacted properties.