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December 19, 2022

Tim Callanan  
County Manager  
Effingham County Board of Commissioners  
601 N. Laurel Street  
Springfield, GA 31329

Re: **Effingham County – Professional Transportation Design Services Fee Proposal –  
Goshen Road – Traffic Analysis and Concept Design**

Pond & Company (Pond) is pleased to submit this proposal for transportation engineering design services for the above project. The paragraphs below describe the professional services and fees to accomplish this work.

**PROJECT UNDERSTANDING:**

Effingham County is looking to evaluate Goshen Road, from SR 21 to Hodgeville Road to determine if a two-way left turn lane (TWLTL) is a reasonable alternative based on existing conditions. It is our understanding that the county has recently installed a water line along Hodgeville Road that will need to be evaluated for impacts, along with ROW impacts. Tasks will include traffic analysis, as well as the development of a concept layout and associated costs to identify impacts including adjacent properties, utilities, etc.

**PROFESSIONAL SERVICES:**

Pond will provide all labor, materials, and equipment necessary to assist Effingham County in completing the tasks as described herein.

***Scope of Work***

**Task 1: Base Data Coordination**

*Task 1A. Geotechnical Services* – Pond will utilize the geotechnical subconsultant, Terracon, to complete asphalt pavement cores (9 total) with soil test borings at locations along Goshen Road. See Exhibit A for these locations.

The soil test borings are planned to a depth of 5 feet below existing ground surface. The purpose of the field exploration would be to provide information on the pavement and shallow subsurface soil conditions. Laboratory testing will be completed for all samples. The results of the field and laboratory programs will be evaluated, and a geotechnical engineering report will be prepared under the supervision of a licensed professional engineer. The geotechnical engineering report will provide the following:

- Boring logs with field and laboratory data
- Stratification based on visual soil classification
- Groundwater levels observed during and after the completion of drilling

- Site Location and Exploration Plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Earthwork recommendations including site/subgrade preparation
- Recommended pavement options and design parameters

**Deliverables for Task 1:**

- Geotechnical Report

**Task 2: Traffic Analysis**

*Task 2A.* Traffic Data Collection – All traffic data collection will be performed by a sub-consultant and provided to Pond. Traffic counts will be collected during a week that schools are in session. The previous peak hour was referenced from the Effingham County TMP to determine when this area should be collected:

- 4-Hour Turning Movement Count (7:00 – 9:00 AM – 4:00 – 6:00 PM):
  - SR 21 at Goshen Road Extension (north)
  - SR 21 at Goshen Road Extension (south)
  - Goshen Road at Huger Street
  - Goshen Road at Crystal Drive
  - Goshen Road at Stephens Drive
  - Goshen Road at Golden Drive
  - Goshen Road at Center Drive
  - Goshen Road at Exley Loop
  - Goshen Road at Paddleford Drive
  - Goshen Road at Autumn Drive
  - Goshen Road at Jamestown Drive
- 24-Hour Traffic Volume and Classification Counts:
  - Goshen Road, west of SR 21
  - Goshen Road, east of Hodgeville Road

*Task 2B.* Traffic Analysis – Pond will analyze the traffic along the corridor to determine what lane configuration (along Goshen Road) is most suitable for each intersection. In addition, the intersection of SR 21 at Goshen Road will be evaluated to determine necessary improvements.

A review of crash history will be completed utilizing GDOT's GEARS and Numetric databases. Capacity analysis will be performed for each intersection using Synchro Software. This analysis will be performed for the AM and PM peak hours of the existing year, opening year, and design year. Analysis of the opening and design years will include a no-build condition. This analysis will be used to determine what improvements and alternatives are necessary to obtain acceptable operations.

The GDOT Intersection Control Evaluation (ICE) tool will be utilized to determine the potential improvements at the intersection of SR 21 at Goshen Road. Although Stage 1 with a Waiver Request might be sufficient, Stage 2 will be considered for overall alternative evaluation.

*Task 2C.* Traffic Engineering (TE) Report – Pond will document the analysis results and recommendations in a Traffic Engineering Report.

- Pond will submit the Report to Effingham County for comment/approval. This task includes one meeting with the county to discuss the plans. We will respond to (1) round of comments and incorporate appropriate comments into the report.

**Deliverables for (Task 2)**

- Traffic Engineering Report

**Task 3: Concept Layout**

*Task 3A:* Base Mapping Setup: Pond will utilize the electronic design files (i.e. DGN, DWG, etc) provided by Effingham County to develop the basemapping. This includes any applicable data, including topographic survey, parcel data, roadway data, utility data, and contour information. This information will be overlaid on high-resolution aerial imagery.

*Task 3B:* Concept Layout – Pond will utilize the basemapping from Task 2A to prepare a concept layout for the intersection of SR 21 at Goshen Road, as well as the proposed widening along Goshen Road from SR 21 to Hodgeville Road.

The concept layout will indicate the proposed improvements and potential impacts, including property/right-of-way, utility, etc.

- Includes (1) meeting with Effingham County staff and addressing (1) round of comments.

*Task 3C:* Cost Estimate – Pond will prepare a concept-level cost estimate for the concept layout, including right-of-way/property costs. Results from the geotech report will be considered to include accurate costs for the recommended pavement design.

**Deliverables (Task 3)**

- Concept Layout
- Cost Estimate

***Schedule***

Pond has estimated that the tasks above can be completed within (3) months from approved notice to proceed and receipt of traffic counts. Please note that these time frames are dependent on agency review times.

**ASSUMPTIONS:**

The concept plans will be prepared as a Effingham County let and funded project.

Services or tasks not specifically outlined above are excluded and would be considered additional services.

Services not included in the scope:

- Design/Engineering Plans
- Additional Concept Alternative
- Roundabout Alternative
- GDOT Coordination
- GDOT Forecasting and Methodology Process
- Traffic Analysis (Beyond Task 1)
- Right-of-Way Plans
- GDOT Plan Development Process (PDP)
- Staging Plans
- Topographic Survey
- Subsurface Utility Engineering (SUE) Services
- Landscape/Hardscape Plans
- GDOT Concept Report
- Additional Meetings
- MS4 Analysis/Documentation
- Environmental Services
- Erosion Control Plans/Inspection
- Utility Coordination
- Public Involvement

**PROFESSIONAL FEES:**

Pond proposes to accomplish *Task 1* through *Task 3* for a total Lump-Sum fee of \$97,600.

Total Fee: \$97,600 (Lump-Sum fee is inclusive of labor, expenses, and direct costs)

If this fee and scope is acceptable, Pond & Company is available to begin work immediately. If you have any questions or would like us to discuss/modify the scope, please contact myself or Zach Puckett, who will serve as the Project Manager. If you need any additional information, please feel free to contact me at (678) 336-7740.

Sincerely,

**POND & COMPANY**



Richard Fangmann, PE, PTOE  
Vice-President

Cc:

Melissa Phillips, Client Liaison  
Zach Puckett, PE, IMSA II



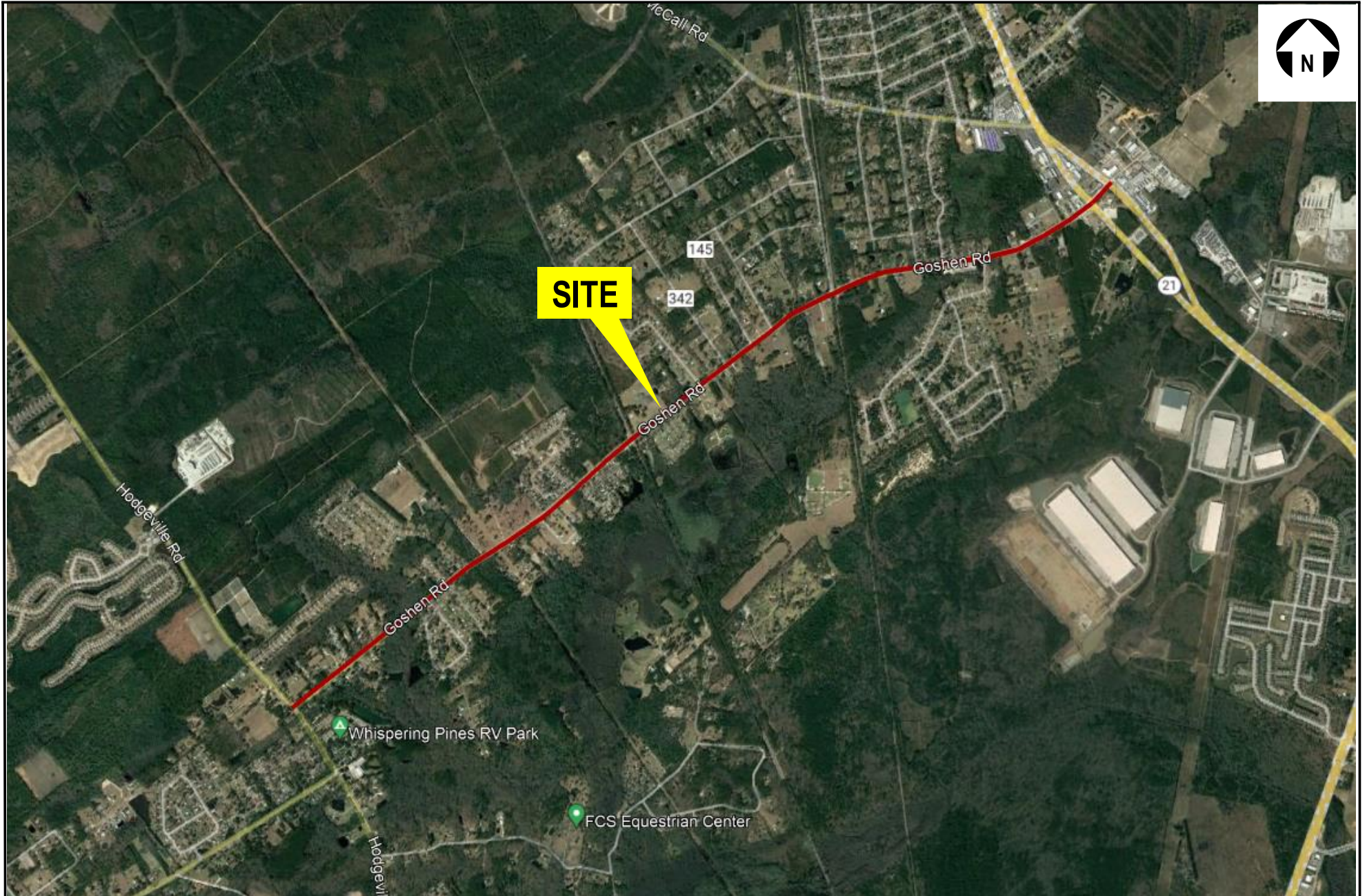


Image Courtesy of  
Google Earth™

Proposal Manager:	NAA
Drawn by:	NAA
Checked by:	GL
Approved by:	GL

Proposal No.	PES225356
Scale:	N.T.S.
File Name:	
Date:	12-19-22



2201 Rowland Avenue Savannah, Georgia 31404  
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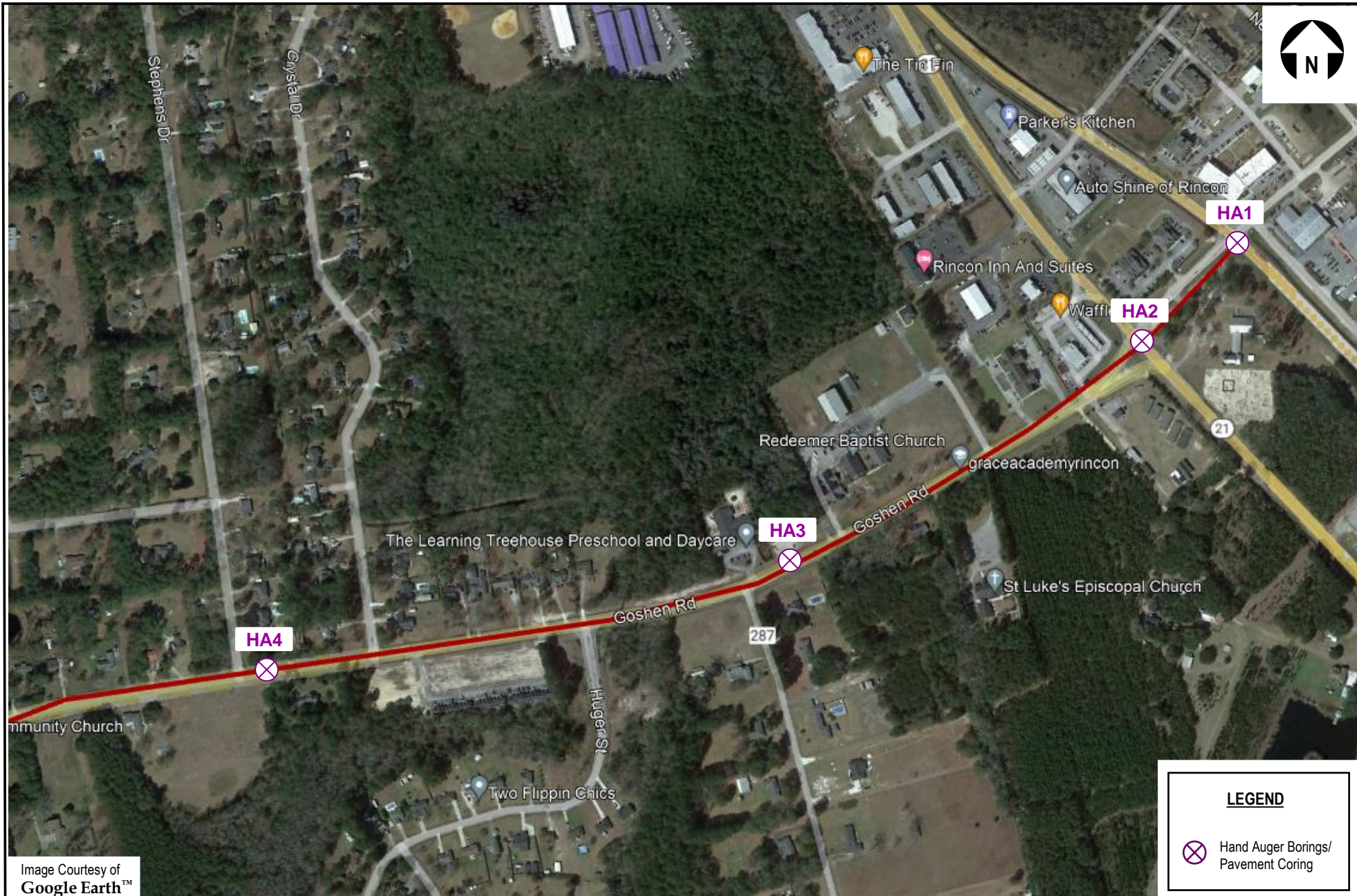
**SITE LOCATION MAP**

Goshen Road Corridor Study  
Rincon  
Effingham County, Georgia

Exhibit:

**D**





**LEGEND**

Hand Auger Borings/  
Pavement Coring

Image Courtesy of  
**Google Earth™**

**NOTES:**  
 CONCEPTUAL PLAN PROVIDED TO TERRACON BY POND & COMPANY VIA EMAIL ON 12-15-22.  
 ALL EXPLORATION LOCATIONS WERE LOCATED IN THE FIELD USING A GPS UNIT AND / OR SITE LANDMARKS. EXPLORATION LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. DIAGRAM IS FOR GENERAL LOCATION ONLY; NOT INTENDED FOR CONSTRUCTION PURPOSES.

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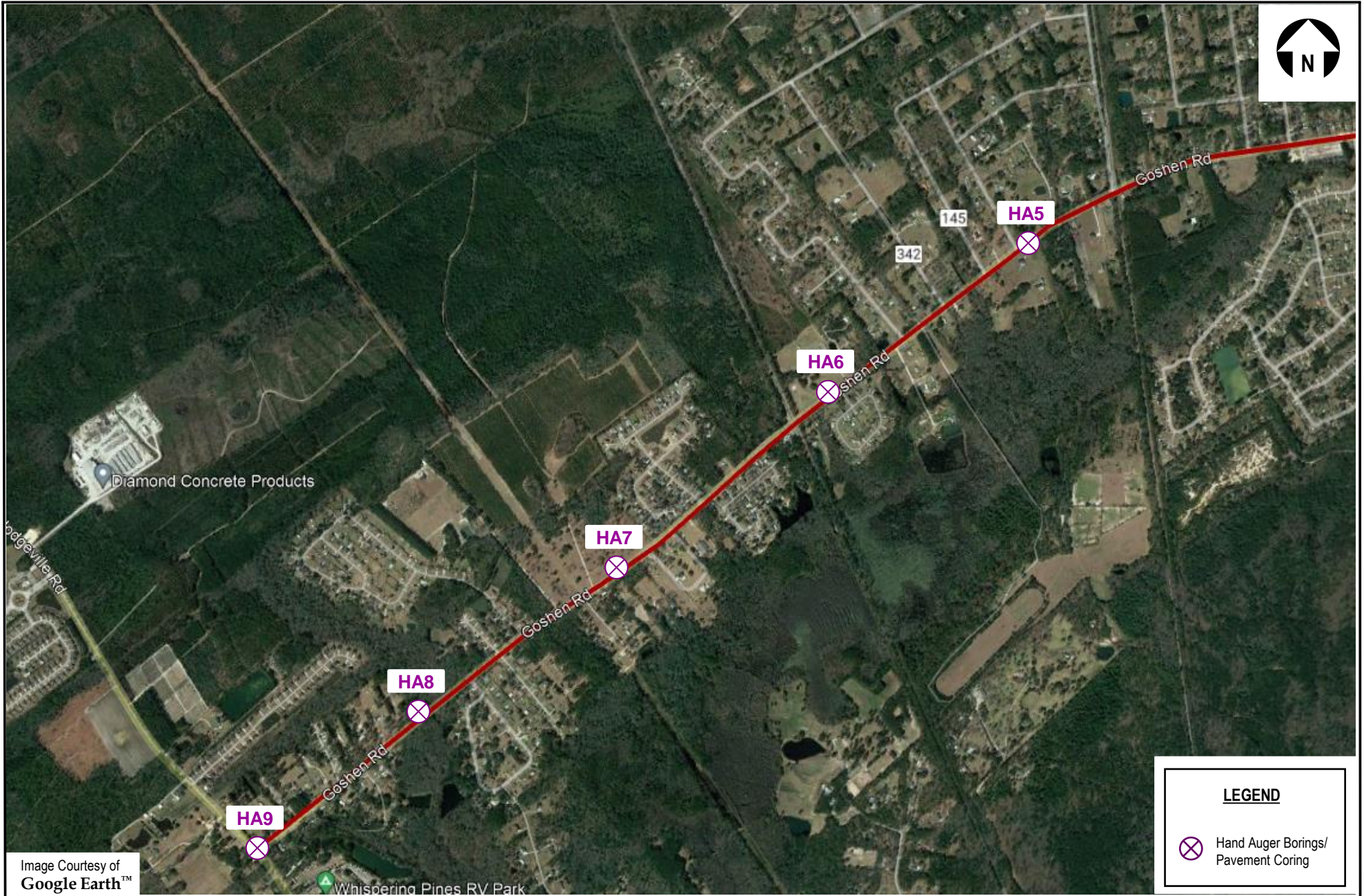
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**EXPLORATION LOCATION PLAN**

**Goshen Road Corridor Study**  
 Rincon  
 Effingham County, Georgia

Exhibit:  
**E-1**





**LEGEND**


 Hand Auger Borings/  
Pavement Coring

Image Courtesy of  
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**EXPLORATION LOCATION PLAN**

Goshen Road Corridor Study  
Rincon  
Effingham County, Georgia

Exhibit:  
**E-2**