

**STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
MATERIALS AND RESEARCH**

DATE OF SURVEY : 2/15/2015-5/1/2015  
 SURVEY MADE BY : HARTFORD TESTING COMPANY  
 SUBMITTED BY : LARRY BALLARD, P.E.

PROJECT NAME: \_\_\_\_\_  
 FINANCIAL PROJECT ID : \_\_\_\_\_

DISTRICT : 3  
 ROAD NO : SR 22  
 COUNTY : BAY

**CROSS SECTION SOIL SURVEY FOR THE DESIGN OF ROADS**

SURVEY BEGINS STA. : 125+87 SURVEY ENDS STA. : 442+67  
 REFERENCE: BASELINE SURVEY

| STRATUM NO. | ORGANIC CONTENT |           |                  | SIEVE ANALYSIS RESULTS % PASS |         |         |         |          | ATTERBERG LIMITS (%) |              |              | DESCRIPTION | CORROSION TEST RESULTS |              |              |                     |              |              |    |
|-------------|-----------------|-----------|------------------|-------------------------------|---------|---------|---------|----------|----------------------|--------------|--------------|-------------|------------------------|--------------|--------------|---------------------|--------------|--------------|----|
|             | NO. OF TESTS    | % ORGANIC | MOISTURE CONTENT | NO. OF TESTS                  | 10 MESH | 40 MESH | 60 MESH | 100 MESH | 200 MESH             | NO. OF TESTS | LIQUID LIMIT |             | PLASTIC INDEX          | AASHTO GROUP | NO. OF TESTS | RESISTIVITY ohms-cm | CHLORIDE ppm | SULFATES ppm | pH |
| 1           |                 |           |                  |                               |         |         |         |          |                      |              | N.P.         |             |                        |              |              |                     |              |              |    |
| 2           |                 |           |                  | 4                             | 87-98   | 77-93   | 59-82   | 44-55    | 3-10                 |              | N.P.         | A-3         |                        |              |              |                     |              |              |    |
| 3           | 7               | 3-4       | 8-20             | 7                             | 94-100  | 86-94   | 65-71   | 34-45    | 15-21                |              | N.P.         | A-2-4       |                        | 7            | 34000-43000  | 40-60               | 18-72        | 6.4-8.3      |    |
| 4           | 3               | 1-2       | 15-25            | 4                             | 84-100  | 71-93   | 60-90   | 53-82    | 37-45                | 4            | 25-38        | 5-9         | A-4                    | 4            | 23000-26000  | 60-120              | 84-96        | 8.4-8.9      |    |
| 5           |                 |           |                  | 3                             | 100     | 99-100  | 96-98   | 75-80    | 30-34                | 3            | 42-44        | 11-15       | A-2-7                  | 3            | 6600-8000    | 60-120              | 156-216      | 7.5-8.2      |    |
| 6           | 3               | 18-40     | 20-60            |                               |         |         |         |          | 30-46                | 3            | 25-33        | 10-15       | A-8                    |              |              |                     |              |              |    |
| 7           |                 |           |                  | 3                             | 100     | 88-92   | 73-79   | 60-69    | 51-55                | 3            | 55-61        | 38-53       | A-7                    |              |              |                     |              |              |    |
| 8           | 3               | 16-20     | 20-58            | 3                             | 99-100  | 97-99   | 88-97   | 77-80    | 10-15                |              | N.P.         | A-8         |                        | 3            | 20000-35000  | 120                 | 120          | 4.6-5.2      |    |
| 9           |                 |           |                  |                               |         |         |         |          |                      |              |              |             |                        |              |              |                     |              |              |    |

**EMBANKMENT AND SUBGRADE MATERIAL**

STRATA BOUNDARIES ARE APPROXIMATE MAKE FINAL CHECK AFTER GRADING

W - WATER TABLE ENCOUNTERED

GNE - GROUND WATER NOT ENCOUNTERED

The material from Stratum Number 1 is Rock Base under Asphaltic Concrete.

The material from Stratum Number 2 appears satisfactory for use in the embankment when utilized in accordance with Index 505.

The material from Stratum Number 3 appears satisfactory for use in the embankment when utilized in accordance with Index 505. However, this material is likely to retain excess moisture and may be difficult to dry and compact. It should be used in the embankment above the water level existing at the time of construction. This material may not be used in the subgrade portion of the roadbed due to its organic content.

The materials from Stratum Numbers 4 and 5 are plastic materials and shall be removed in accordance with Index 500. They may be placed above the existing water level at the time of construction, to within 4 feet of the proposed base. They should be placed uniformly in the lower portion of the embankment for some distances along the project rather than full depths for short distances.

The material from Stratum Numbers 6 and 8 is ORGANIC/A-8 material and shall be removed in accordance with Index 500, except where noted in the cross sections.

The material from Stratum Number 7 is Highly Plastic material and shall be removed in accordance with Index 500. It may be used within the project limits as indicated in index 505 only when excavated within the project limits and is not to be used when obtained from outside the project limits.

The material from Stratum Number 9 is the Natural Limestone Formation. Special tools and equipment may be required to excavate and/or dewater this material.

**EXHIBIT RSS-1**  
Date: **1/1/16**

| REVISIONS |             |      |             | LARRY BALLARD, P.E.<br>P.E. NO.: 88880<br>HARTFORD TESTING COMPANY<br>123 FIRST AVENUE<br>TALLAHASSEE, FL 32312<br>CERTIFICATE OF AUTHORIZATION: 54321 | STATE OF FLORIDA<br>DEPARTMENT OF TRANSPORTATION |        |                      | <b>ROADWAY SOIL SURVEY</b> | SHEET NO. |
|-----------|-------------|------|-------------|--|--|--------|----------------------|----------------------------|-----------|
| DATE      | DESCRIPTION | DATE | DESCRIPTION |  | ROAD NO.   | COUNTY | FINANCIAL PROJECT ID |                            |           |
|           |             |      |             |  | SR 22  | BAY    | 000001-1-52-01       |                            |           |