



CITY OF TAMPA

Bob Buckhorn, Mayor

CONTRACT ADMINISTRATION DEPARTMENT

David L. Vaughn, AIA, Director

ADDENDUM NO. 1

DATE: December 3, 2014

Contract 14-C-00033; Tampa Riverwalk – Doyle Carlton Drive Segment and Seawall Repair

Bidders on the above referenced project are hereby notified that the following addendum is made to the Contract Documents. BIDS TO BE SUBMITTED SHALL CONFORM TO THIS NOTICE.

- Item 1: Streetlight and Pole Replacement Clarification: The existing streetlights and poles will be removed from the recovery area along Doyle Carlton Drive and new streetlights and poles will be installed by Tampa Electric on the property side of the sidewalks at the existing locations. Strong coordination between the Contractor, Tampa Electric and the City is required during the project.

Tampa Electric contact information is:

Lee Isham
Tampa Electric
Supervisor, Lighting Field Engineering
Lighting and Engineering
813-630-6518
RLISHAM@TECOENERGY.COM

- Item 2: Art Sculpture Clarification: The America America art sculpture is located outside on the west side of the John F. German Public Library where the stairs intersect with the pedestrian bridge. The address is 900 N Ashley Drive. Bidders are encouraged to visit during business hours.
- Item 3: Art Sculpture Clarification: The Levitating Nimbus art sculpture is currently located at the Tampa Museum of Art in storage. Please contact Amanda Seadler at (813) 421-8377 to schedule an appointment to view the sculpture this Thursday, December 4th; Friday December 5th or Monday December 8th during normal business hours.
- Item 4: Attached is the Riverwalk Geotechnical Report
- Item 5: Attached is the pre-bid meeting sign-in sheet.
- Item 6: Hardcape Details, Sheet H314, Note 2, Revise the 2nd sentence to read: The concrete mix ratio is to be 60% limestone and 40% granite.
- Item 7: Replace Proposal pages P-3 through P-7 with the attached Proposal pages P-3R through P-7R.

All other provisions of the Contract Documents and Specifications not in conflict with this Addendum shall remain in full force and effect. Questions are to be e-mailed to ContractAdministration@tampagov.net.

Jim Greiner

Jim Greiner, P.E., Contract Management Supervisor

306 E. Jackson Street, 4N • Tampa, Florida 33602 • (813) 274-8456 • FAX: (813) 274-8080



TIERRA

August 30, 2013

URS Corporation
7650 West Courtney Campbell Causeway
Tampa, FL 33607

Attn: Mr. David Crawley, PLA, ASLA

**RE: Preliminary Geotechnical Engineering Services Report
Doyle Carlton Segment of the Tampa Riverwalk
Hillsborough County, Florida
Tierra Project No.: 6511-13-025**

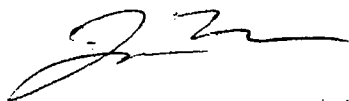
Mr. Crawley:

Tierra, Inc. has completed a Preliminary Geotechnical Engineering Services Report for the above referenced project. The results of our field exploration program and subsequent geotechnical recommendations are presented in this report.

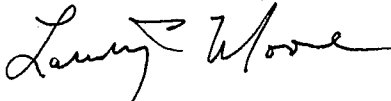
Tierra, Inc. appreciates the opportunity to be of service to URS on this project. If you have any questions or comments regarding this report, please contact our office at your earliest convenience.

Sincerely,

TIERRA, INC.



Jon D. Meade, P.E.
Geotechnical Engineer
Florida License No. 71529



Larry P. Moore, P.E.
Principal Geotechnical Engineer
Florida License No. 47673

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Boring Location Plan Sheets
Soil Profiles Sheet
Report of Core Borings Sheets

APPENDIX B

Summary of Laboratory Test Results

1.0 PROJECT INFORMATION

1.1 Project Authorization

Authorization to proceed with this project was issued by URS

1.2 Project Description

This project is located along the east side of the Hillsborough River extending from the Straz Center to Water Works Park for a total length of approximately 2050 feet. The project is one segment of the greater Tampa Riverwalk (Riverwalk) project.

1.3 General Site Conditions

This portion of the Riverwalk traverses the eastern bank of the Hillsborough River just adjacent to the existing sea wall. The proposed Riverwalk will cross over Laurel Street and under interstate I-275. Trees and landscaping exist along the proposed alignment near the sea wall. The Hillsborough River is tidally influenced by Tampa Bay in this area.

2.0 PURPOSE AND SCOPE OF SERVICES

This study was performed to obtain information on the existing subsurface conditions along the limits of the proposed improvements to provide information for the design of the construction plans. The following services were provided:

1. Reviewed published topographic and soils information. This information was obtained from the "Soil Survey of Hillsborough County, Florida" published by the United States Department of Agriculture (USDA) Soil Conservation Services (SCS) as well as the appropriate quadrangle maps and potentiometric surface maps published by the United States Geological Survey (USGS).
2. Conducted a visual reconnaissance of the project site, located and coordinated utility clearance.
3. Performed a geotechnical field study for the proposed Riverwalk improvements consisting of hand auger borings, Standard Penetration Test (SPT) borings, subsurface sampling and field testing. A total of twelve (12) hand auger borings were performed along the project alignment to depths ranging from approximately 4 to 6 feet below the existing ground surface. Five (5) SPT borings were performed along the project alignment in areas suggested by URS to depths of approximately 40 feet below the existing ground surface.
4. Visually examined all soil samples recovered by Tierra, Inc. in the laboratory. Performed laboratory tests on selected representative samples to develop the soil legend for the project using the American Association of State Highway and Transportation Officials (AASHTO) Soil Classification System for the auger borings and the Unified Soil Classification System (USCS) for the Standard Penetration Test (SPT) borings.
5. Measured groundwater table levels (GWT).

6. Prepared this Preliminary Geotechnical Report for the project.

These Geotechnical services were performed in general accordance with Florida Department of Transportation (FDOT) guidelines.

3.0 REVIEW OF AVAILABLE DATA

3.1 Regional Geology

Hillsborough County Geology has been paraphrased from the Florida Geological Survey, Open-File Report 80, 2001 and other geologic references.

The near surface geologic deposits and formations from youngest to oldest in Hillsborough County include: Undifferentiated sediments (Qu, TQu), Shelly sediments (TQsu), the Hawthorn Group Peace River Formation (Thp), the Hawthorn Group Peace River Formation Bone Valley Member (Thpb), the Hawthorn Group Arcadia Formation Tampa Member (That), and the Suwannee Limestone (Ts).

The Undifferentiated sediments and Beach are siliciclastics that are light gray, tan, brown to black, unconsolidated to poorly consolidated, clean to clayey silty, unfossiliferous, variably organic-bearing sands to blue green to olive green, poorly to moderately consolidated, sandy, silty clays. The Shelly sediments are variably calcareous and fossiliferous quartz sands to well indurated, sandy, fossiliferous limestones with clayey sands and sandy clays present.

The Peace River Formation is primarily found in eastern Hillsborough County and is composed of interbedded sands, clays and carbonates. The sands are generally light gray to olive gray, poorly consolidated, clayey, variably dolomitic, very fine to medium grained and phosphatic. The clays are yellowish gray to olive gray, poorly to moderately consolidated sandy, silty, phosphatic and dolomitic. The carbonates are light gray to yellowish gray, poorly to well indurated, variably sandy and clayey, and phosphatic. The carbonates often include opaline chert. The Bone Valley Member is a clastic unit consisting of sand-sized and larger phosphate grains in a matrix of quartz sand, silt and clay. The lithology is highly variable ranging from sandy, silty, phosphatic clays and relatively pure clays to clayey, phosphatic sand to sandy, clayey phosphorites. The Peace River Formation is a semi-confining unit and forms an intermediate aquifer system in eastern Hillsborough County.

The Arcadia Formation Tampa member is white to yellowish gray, fossiliferous and variably sandy and clayey mudstones, wackestone and packstone with minor to no phosphate grains that is found near sea level throughout the County. The Tampa Limestone forms the upper part of the Floridan Aquifer System in the area.

The Suwannee Limestone consists of a white to cream, poorly to well indurated, fossiliferous, vuggy to moldic limestone (grainstone and packstone). The dolomitized parts are gray, tan, light brown to moderate brown, moderately to well indurated, finely to coarsely crystalline, dolostone with limited occurrences of fossiliferous beds of mollusks, foraminifers, corals and echinoids. The Suwannee Limestone underlies all of Hillsborough County and outcrops in the northeast corner of the County.

3.2 Review of USGS Quadrangle Map of Tampa, Florida

Based on a review of the United States Geological Survey (USGS) quadrangle map of Tampa, Florida, it appears that the project site elevations generally range from approximately 0 feet to +10 feet National Geodetic Vertical Datum of 1929 (NGVD 29).

3.3 Review of USDA Soil Survey, Hillsborough County, Florida

Based on a review of the USDA Soil Survey of Hillsborough County, one (1) soil map unit is identified within the proposed project alignment. Map units represent areas dominated by one or more kinds of soil. The landscape position, drainage classification and water table tendencies are presented in following sub-section.

3.3.1 Urban Land (56)

The Urban Land Complex map unit consists of miscellaneous areas that are covered by concrete, asphalt, buildings, or other impervious surfaces that obscure or alter the soils so that identification is not feasible. In areas mapped as Urban Land, 85 percent or more of the surface is covered by streets, parking lots, buildings or other structures. Most areas of Urban Land are artificially drained by sewer systems, gutters, tile drains and surface ditches that lower historic water tables.

Specific soil information for the Urban Land mapping unit is not available in the Web Soil Survey.

4.0 SUBSURFACE EXPLORATION

4.1 Boring Location Plan, Utility Clearance and Traffic Control

Prior to commencing our subsurface explorations, a boring location plan for the proposed Riverwalk alignment was produced. Tierra personnel staked and performed the borings in the field. Generally, the borings were performed at the proposed boring locations. When not possible, due to access or utility constraints, the boring locations were altered and the offsets were recorded on the field boring logs.

Utility clearances were coordinated by Tierra and updated as required prior to performing the soil borings in order to reduce the potential for damage to the utilities during drilling.

4.2 Auger and Standard Penetration Test (SPT) Borings

A total of five (5) SPT borings and twelve (12) hand auger borings were performed along the Riverwalk alignment at intervals of approximately 150 to 200 feet.

The hand auger borings were performed by manually twisting and advancing a bucket auger into the ground, typically in 4 to 6 inch increments. As each soil type was revealed, representative samples were collected and returned to our office for confirmation of the field classification by a geotechnical engineer. The borings were advanced to depths of 4 to 6 feet below grade.

The SPT borings were performed with the use of a track-mounted drill rig using Bentonite Mud drilling procedures. The soil sampling was performed in general accordance with ASTM D-1586 - "Penetration Test and Split-Barrel Sampling of Soils". The initial 4 feet of the test borings were hand augered (HA) to verify subsurface utility clearance. The SPT resistance N-values were then taken at intervals of 2 feet in the initial 10 feet (with continuous soil sampling) and at intervals of 5 feet thereafter. Representative portions of these soil samples were sealed in glass jars, labeled and transferred to our Tampa laboratory for classification and analysis.

The borings were located by Tierra personnel using hand-held Global Positioning System (GPS) equipment at the time of the field activities.

Soil stratification was determined based on a review of recovered samples, laboratory test results, and interpretation of field boring logs. Stratification lines represent approximate boundaries between soil layers of different engineering properties; however actual transitions between layers may be gradual. In some cases, small variations in properties that were not considered pertinent to our engineering evaluation may have been abbreviated or omitted for clarity. The soil profiles represent the conditions at the particular boring location and variations do occur among the borings. Specific details about subsurface conditions and materials encountered at each test location can be obtained from the Soil Profile Sheets and Report of Core Borings Sheets presented in Appendix A.

5.0 LABORATORY TESTING

5.1 General

Representative soil samples collected from the shallow auger borings were classified and stratified in general accordance with the AASHTO Soil Classification System. Samples collected from the SPT borings were classified in general accordance with both the AASHTO Soil Classification System and the Unified Soil Classification System (USCS). Our classification was based on visual observations, using the results from the laboratory testing as confirmation.

5.2 Test Designation

The following list summarizes the laboratory tests performed and respective test methods.

- Grain-Size Analyses - The grain-size analyses were conducted in general accordance with the AASHTO test designation T-088 (ASTM test designation D-422).
- Fines Content Test - The fines content tests were conducted in general accordance with the AASHTO test designation T-088 (ASTM test designation D-1140).
- Atterberg Limits - The liquid limit and the plastic limit tests ("Atterberg Limits") were conducted in general accordance with the AASHTO test designations T-089 and T-090, respectively (ASTM test designation D-4318).
- Organic Content - The organic content tests were conducted in general accordance with the AASHTO test designation T-267 (ASTM test designation D-2974).
- Natural Moisture Content - The laboratory moisture content test consists of determining the percentage of moisture in selected samples in general accordance with the AASHTO test designation T-265 (ASTM test designation D-2216).

A summary of the laboratory test results for each soil stratum is presented on the Soils Survey Sheet in Appendix A. The Soils Survey Sheet includes ranges of laboratory test results for different stratum soil samples collected from borings included in this report. A detailed summary of the laboratory tests with the corresponding results is also presented in Appendix B.

6.0 RESULTS OF SUBSURFACE EXPLORATION

6.1 General Soil Conditions

Typically, the soil profiles consisted of sandy soils with various amounts of silt and debris (rock, cemented sand, shell, limerock, asphalt, glass, brick ect.) underlain by clayey soils.

The soil types encountered during exploration have been assigned a stratum number. The stratum numbers and soil types associated with this project are as listed:

Stratum Number	Typical Soil Description	AASHTO Classification	Unified Soil Classification System (USCS)
1	Light Brown to Dark Gray Fine SAND to Silty SAND occasionally with cemented SAND, rock, shell, asphalt, glass and brick fragments	A-3/A-2-4	SP/SP-SM/SM
2	Light Gray to Green-Gray Clayey SAND to CLAY to Clayey SILT	A-7	SC/CH/MH

The soil stratification was based on a visual review of the recovered samples, laboratory testing and interpretation of the field boring logs. The boring stratification lines represent the approximate boundaries between soil types of significantly different engineering properties; however, the actual transition may be gradual. In some cases, small variations in properties not considered pertinent to our engineering evaluation may have been abbreviated or omitted for clarity. The boring profiles represent the conditions at the particular boring location and variations do occur among the borings.

The results of the borings performed for this project along with the boring location plans are presented in Appendix A of this report.

6.2 Groundwater

The groundwater table was measured at each of the auger boring locations during our field exploration. The depths to the groundwater table along the project alignment were generally measured to range from about 2½ to 5 feet below the existing ground surface. The groundwater table measured at each of the boring locations is presented on the Soil Profiles Sheet and the Report of Core Borings Sheets in Appendix A.

The groundwater table will vary with the fluctuation in the river water level. Groundwater conditions will also vary with environmental variations and seasonal conditions, such as the frequency and magnitude of rainfall patterns, as well as man-made influences (i.e. existing water management canals, swales, drainage ponds, underdrains and areas of covered soils, such as paved parking lots and sidewalks).

6.3 Seasonal High Groundwater Estimates

The seasonal high groundwater table (SHGWT) levels at the boring locations will vary with the fluctuation in the river water level.

The subsurface soil conditions were disturbed, therefore, normal indications such as "stain lines" were not evident.

7.0 ENGINEERING EVALUATIONS AND RECOMMENDATIONS

7.1 General

The removal of top-soils and other surficial organic soils should be accomplished in accordance with the FDOT Standard Indexes 500 and 505. Site preparation should consist of normal clearing and grubbing followed by compaction of subgrade soils. Backfill should consist of materials conforming to FDOT Standard Index 505 and compacted in accordance with Section 120-9 of the FDOT Standard Specifications for Road and Bridge Construction (SSRBC), latest edition.

7.2 Settlement of Riverwalk Sidewalk

Based on the anticipated construction, proposed fill heights are anticipated to be less than approximately 2 to 3 feet. Based on the results of the geotechnical exploration program, the estimated settlement of the sidewalk section is anticipated to be less than 1 inch. Due to the

nature of the soils encountered in the borings performed, the settlement is expected to be elastic in nature and should occur during construction. Once final cross sectional information is available then settlement analyses can be performed if appropriate. Embankment fill soils should be placed and compacted in accordance with FDOT Standard Specifications for Road and Bridge Construction (SSRBC).

7.3 Slope Stability

Based on the anticipated sidewalk construction, fill heights are anticipated to be less than 2 to 3 feet. Slope stability analyses were not performed for this project. Recommendations for cut and fill are presented in the following section. If final cross-sectional information indicates fill heights greater than 3 feet with side slopes steeper than 2 Horizontal: 1 Vertical then slope stability analyses can be performed if deemed necessary. Tierra should be given the opportunity to review final cross sections when they become available and amend the recommendations provided herein, if necessary.

7.4 Cut and Fill Slopes

We anticipate that fill will be required for the proposed improvements. Fills are anticipated to be on the order of 2 to 3 feet along the proposed sidewalk alignment. Assuming proper subgrade preparation and adequate fill materials are utilized, we recommend that all proposed side slopes be constructed on 2.0 horizontal to 1.0 vertical (2H:1V) or flatter. Once cross sectional information becomes available then critical slopes can be analyzed as appropriate.

7.5 Groundwater Control

Depending upon groundwater levels at the time of construction, some form of dewatering may be required to achieve the required compaction. During subgrade soil preparation, plastic soils below design grade, if encountered, could become disturbed by construction activities. If this becomes the case, the Contractor may be directed to remove the disturbed or pumping soils and backfill the area with approved fill. In such situations, appropriate FDOT Indices should be followed.

7.6 On-Site Soil Suitability

The general suitability of the soils encountered during our geotechnical investigation is presented on the Soils Survey Sheet in Appendix A. Indices 500 and 505 of the FDOT Design Standards should be consulted to determine the specific usability of the soil types encountered during the geotechnical exploration program for the project.

7.7 General Sidewalk Construction

The overall site preparation and mechanical densification work for the construction of the proposed sidewalk should be in accordance with the FDOT SSRBC and Standard Index requirements.

7.8 Retaining Wall Construction, Wall Modification and Deep Foundations

Based on conversations with URS, some retaining wall analyses may be required for structure design. To evaluate the subsurface conditions at possible structure locations, Tierra performed five (5) SPT borings to depths of approximately 40 feet below existing grades at locations suggested by URS. Soil parameters for use in the design of structures are provided on the Report of Core Borings Sheets in Appendix A.

8.0 REPORT LIMITATIONS

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices at the time of this report. Our geotechnical engineering evaluation of the site and subsurface conditions with respect to the planned improvements, and our recommendations for site preparation and foundation construction are based upon the following: (1) site observations, (2) the field exploratory test data obtained during the geotechnical study, and (3) our understanding of the project information and anticipated grades as presented in this report. This company is not responsible for the conclusions, opinions or recommendations made by others based on these data.

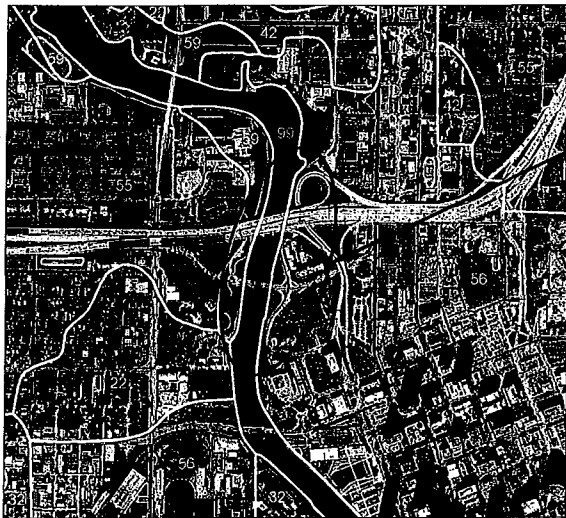
The scope of the exploration was intended to evaluate soil conditions within the influence of the proposed improvements. The analyses and recommendations submitted in this report are based upon the anticipated location and type of construction and data obtained from the soil borings performed at the locations indicated and does not reflect any variations which may occur among these borings. If any variations become evident during the course of construction, a re-evaluation of the recommendations contained in this report will be necessary after we have had an opportunity to observe the characteristics of the conditions encountered.

The scope of services, included herein, did not include any environmental assessment for the presence or absence of hazardous or toxic materials in the soil, surface water, groundwater, air, on the site, below and around the site. Any statements in this report or on the boring logs regarding odors, colors, unusual or suspicious items and conditions are strictly for the information of the URS Consultant team and the City of Tampa.

APPENDIX A

- USGS and USDA Vicinity Map
- Soils Survey Sheet
- Boring Location Plan Sheets
- Soil Profiles Sheets
- Report of Core Borings Sheets

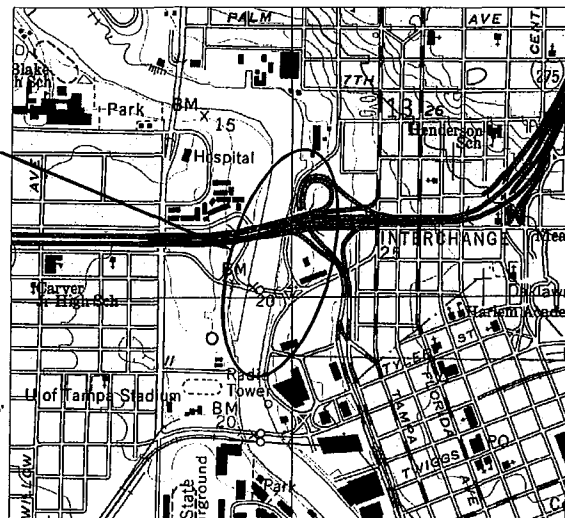
USDA VICINITY MAP



REFERENCE: USDA SOIL SURVEY OF HILLSBOROUGH COUNTY, FLORIDA

TOWNSHIP: 29 S
RANGE: 18 E
SECTION: 13

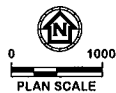
USGS VICINITY MAP



REFERENCE: "TAMPA, FLORIDA" USGS QUADRANGLE MAP

TOWNSHIP: 29 S
RANGE: 18 E
SECTION: 13

APPROXIMATE
PROJECT —
LOCATION

[illegible]

URS

SOIL SURVEY SHEET CITY OF TAMPA

DATE OF SURVEY: AUGUST 2013
SURVEY MADE BY: TIERRA, INC.
SUBMITTED BY: JOHN D. MEADE, P.E.

CROSS SECTION SOIL SURVEY FOR THE DESIGN OF THE CITY OF TAMPA RIVERWALK

STRATUM NO.	ORGANIC CONTENT		MOISTURE CONTENT		SIEVE ANALYSIS RESULTS PERCENT PASS						ATTERBERG LIMITS (%)				DESCRIPTION
	NO. OF TESTS	X ORGANIC	NO. OF TESTS	MOISTURE CONTENT	NO. OF TESTS	10 MESH	40 MESH	60 MESH	100 MESH	200 MESH	NO. OF TESTS	LIQUID LIMIT	PLASTIC INDEX	ASTM GROUP	
1	1	3	1	31	4	100	90-99	79-92	45-50	6-24	4	---	---	A-3/A-2-4	LIGHT BROWN TO DARK GRAY FINE SAND TO SILTY SAND OCCASIONALLY WITH CEMENTED SAND, ROCK, SHELL, ASPHALT, GLASS AND BRICK FRAGMENTS (FILL WITH DEBRIS) [A-3/A-2-4] LIGHT GRAY TO GREEN-GRAY CLAYEY SAND TO CLAY TO CLAYEY SILT
2	---	---	2	38-46	2	---	---	--	--	75	2	75	40-42	A-7	

EMBANKMENT AND SUBGRADE MATERIAL

STRATA BOUNDARIES ARE APPROXIMATE. MAKE FINAL CHECK AFTER GRADING.
X - GROUNDWATER TABLE ENCOUNTERED DURING INVESTIGATION

NOTES:

- THE MATERIAL FROM STRATUM 1 (A-3/A-2-4) IS EXISTING FILL MATERIAL WITH DEBRIS. THIS MATERIAL MAY REMAIN IN PLACE UNLESS EXCAVATION IS REQUIRED BY THE PLANS. IF EXCAVATED IT SHALL BE UTILIZED IN ACCORDANCE WITH FDOT INDEX 605 AND SECTION 120 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- THE MATERIAL FROM STRATUM 2 IS HIGH PLASTIC (A-7) MATERIAL AND SHALL BE REMOVED IN ACCORDANCE WITH FDOT INDEX 500. IT MAY BE USED WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH FDOT INDEX 505 WHEN EXCAVATED WITHIN THE PROJECT LIMITS AND IS NOT TO BE USED WHEN OBTAINED FROM OUTSIDE THE PROJECT LIMITS.

DATE	NO.	BY	CHKD.	APP'D.
8/20/13	1	JDM		
8/20/13	2	JDM		
8/20/13	3	JDM		
8/20/13	4	JDM		
8/20/13	5	JDM		
8/20/13	6	JDM		
8/20/13	7	JDM		
8/20/13	8	JDM		
8/20/13	9	JDM		
8/20/13	10	JDM		

2001 Tampa-Terrace Highway
Tampa, FL 33606
Phone: 813-888-1344
Fax: 813-888-1346
E-Mail: info@terra-inc.com

TIERRA

TAMPA RIVERWALK/DOYLE CARLTON
CITY OF TAMPA
FLORIDA

URS

DATE	NO.	BY	CHKD.	APP'D.
8/20/13	1	JDM		
8/20/13	2	JDM		
8/20/13	3	JDM		
8/20/13	4	JDM		
8/20/13	5	JDM		
8/20/13	6	JDM		
8/20/13	7	JDM		
8/20/13	8	JDM		
8/20/13	9	JDM		
8/20/13	10	JDM		



NOTE: BASE MAP PROVIDED BY URS

BORING LOCATION PLAN (1)

0 50'
PLAN SCALE



LEGEND

- ◆ APPROXIMATE LOCATION OF AUGER BORING
- ◆ APPROXIMATE LOCATION OF SPT BORING

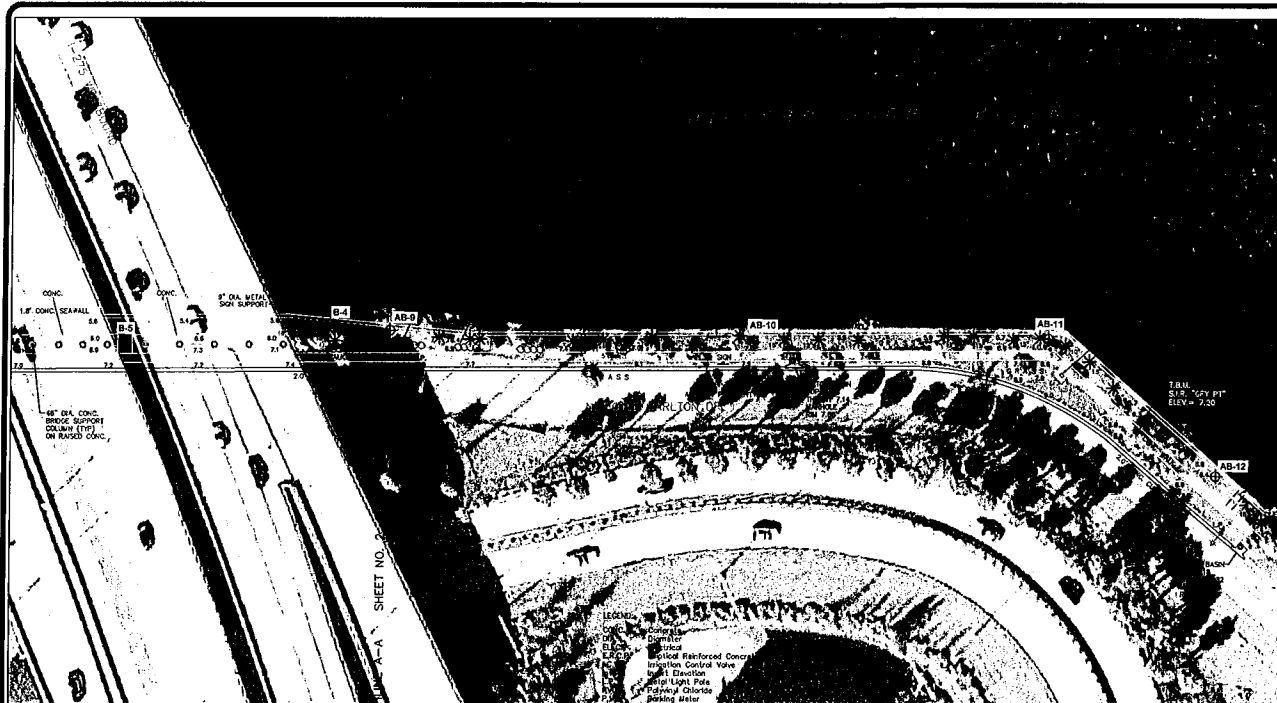
NO.	DATE	REVISION
1	10/1/00	ISSUED FOR PERMIT
2	10/1/00	REVISED FOR PERMIT
3	10/1/00	REVISED FOR PERMIT
4	10/1/00	REVISED FOR PERMIT
5	10/1/00	REVISED FOR PERMIT
6	10/1/00	REVISED FOR PERMIT
7	10/1/00	REVISED FOR PERMIT
8	10/1/00	REVISED FOR PERMIT
9	10/1/00	REVISED FOR PERMIT
10	10/1/00	REVISED FOR PERMIT

TERRA
7500 Tampa-Terrace Highway
Tampa, Florida 33637
Phone: (813) 988-1000
Fax: (813) 988-1001
E-Mail: terra@terra.com

TAMPA RIVERWALK DOYLE CARLTON
CITY OF TAMPA
FLORIDA

URS
555 California Street, Suite 200
San Francisco, CA 94111
Phone: (415) 774-2000
Fax: (415) 774-2001
E-Mail: urs@urscorp.com

NO.	DATE	REVISION
1	10/1/00	ISSUED FOR PERMIT
2	10/1/00	REVISED FOR PERMIT
3	10/1/00	REVISED FOR PERMIT
4	10/1/00	REVISED FOR PERMIT
5	10/1/00	REVISED FOR PERMIT
6	10/1/00	REVISED FOR PERMIT
7	10/1/00	REVISED FOR PERMIT
8	10/1/00	REVISED FOR PERMIT
9	10/1/00	REVISED FOR PERMIT
10	10/1/00	REVISED FOR PERMIT



NOTE: BASE MAP PROVIDED BY URS

BORING LOCATION PLAN (3)

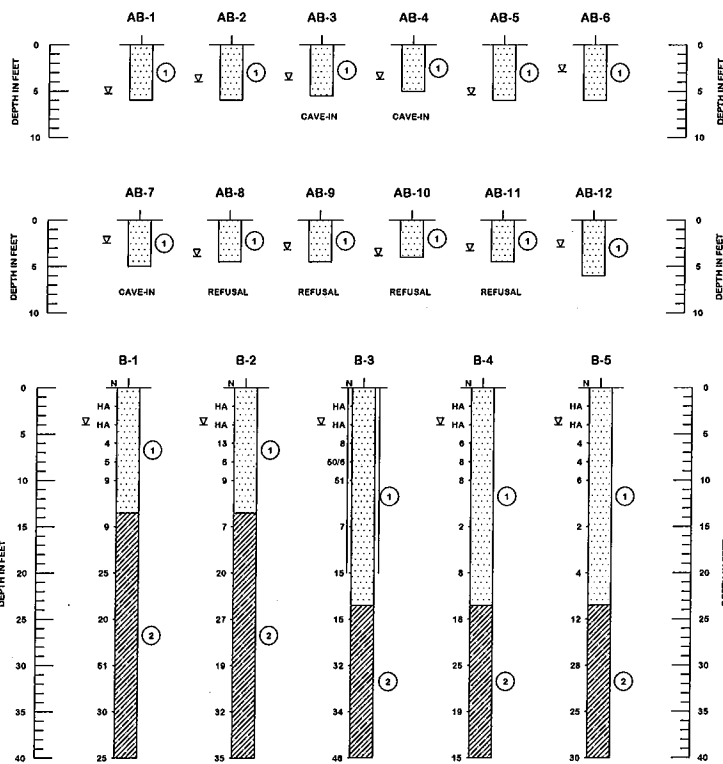


LEGEND

- ⊕ APPROXIMATE LOCATION OF AUGER BORING
- ◆ APPROXIMATE LOCATION OF SPT BORING

TERRA 2801 Tampa-Terrace Highway Suite 200 Tampa, FL 33609 Phone: 813-889-1200 Fax: 813-889-1205 E-Mail: info@terra.com	
TAMPA RIVERWALK DOYLE CARLTON City of Tampa Planning 1301 N. Howard Avenue Suite 200 Tampa, FL 33604 Phone: 813-259-1200 Fax: 813-259-1205 E-Mail: info@tampacarlton.com	
URS 1000 North Howard Avenue Suite 200 Tampa, FL 33604 Phone: 813-259-1200 Fax: 813-259-1205 E-Mail: info@urscorp.com	

SOIL PROFILES



LEGEND

- ① LIGHT BROWN TO DARK GRAY FINE SAND TO SILTY SAND OCCASIONALLY WITH CEMENTED SAND, ROCK, SHELL, ASPHALT, GLASS AND BRICK FRAGMENTS (FILL WITH DEBRIS) (A-3/A-2-4)
- ② LIGHT GRAY TO GREEN-GRAY CLAYEY SAND TO CLAY TO CLAYEY SILT (A-7)
- Σ GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION
- N SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)
- A-3 ASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGURED TO VERIFY UTILITY CLEARANCES
- || CASING
- CAVE-IN BORING TERMINATED DUE TO BOREHOLE COLLAPSE DUE TO GROUNDWATER INTRUSION
- REFUSAL BORING TERMINATED DUE TO REFUSAL OF HAND AUGER

NOTE: BORINGS PERFORMED UTILIZING A SAFETY HAMMER

GRANULAR MATERIALS - RELATIVE DENSITY	SAFETY HAMMER	AUTOMATIC HAMMER
	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 60	24 to 40
VERY DENSE	GREATER THAN 60	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

TAMPA RIVERWALK DOYLE CARLTON

CITY OF TAMPA

FLORIDA

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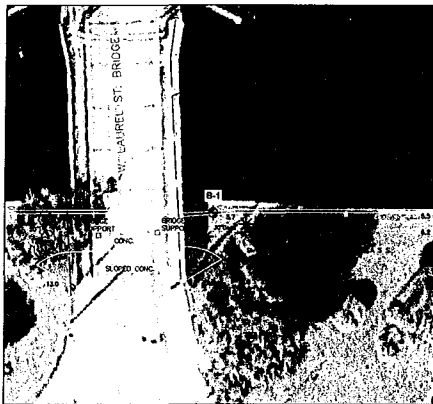
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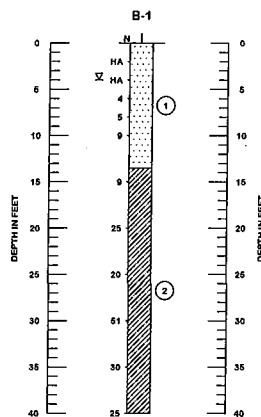
REPORT OF CORE BORINGS (1)

0 50'
PLAN SCALE



NOTE: BASE MAP PROVIDED BY URS

SOIL PROFILES



LEGEND

- 1 LIGHT BROWN TO DARK GRAY FINE SAND TO SILTY SAND
OCCASIONALLY WITH CEMENTED SAND, ROCK, SHELL, ASPHALT,
GLASS AND BRICK FRAGMENTS (FILL WITH DEBRIS)
(SP/SP-SM/SM) (A-3/A-2-4)
- 2 LIGHT GRAY TO GREEN-GRAY CLAYEY SAND TO CLAY TO CLAYEY
SILT (SC/CH/MH) (A-7)
- ◆ APPROXIMATE LOCATION OF SPT BORING
- Σ GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION
- N SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES
OF PENETRATION (UNLESS OTHERWISE NOTED)
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487)
GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW
AND LABORATORY TESTING ON SELECTED SAMPLES
FOR CONFIRMATION OF VISUAL REVIEW.
- A-3 AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL
REVIEW AND LABORATORY TESTING ON SELECTED
SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCES

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE EXTREMELY AGGRESSIVE

NOTE: BORINGS PERFORMED UTILIZING A SAFETY HAMMER

	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 60	24 to 40
VERY DENSE	GREATER THAN 60	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 8
STIFF	8 to 15	8 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

RECOMMENDED SOIL PARAMETERS									
BORING NUMBER	DEPTH (FT)	N	SOIL CLASSIFICATION	SOIL UNIT WEIGHT (PCF)		SOIL ANGLE OF FRICTION (DEGREES)	COHESION (PSF)	EARTH PRESSURE COEFFICIENT	
				γ SAT	γ SUB			ACTIVE	PASSIVE
B-1	0 TO 13.5	4 TO 9	SP/SP-SM/SM (FILL)	105	42.8	29	0	0.347	2.88
	13.5 TO 16.5	9	SC/CH/MH	115	52.8	0	1150	1.000	1.00
	16.5 TO 40	20 TO 51	SC/CH/MH	125	62.8	0	3150	1.000	1.00

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E-Mail: info@terra.com

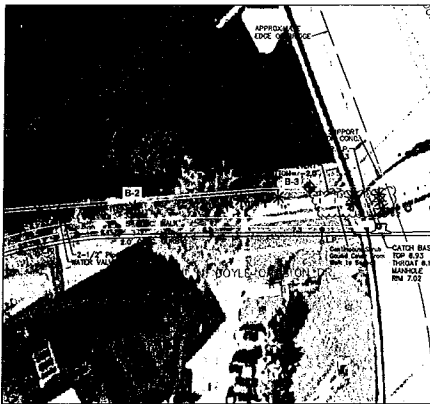
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TAMPA RIVERWALK DOYLE CARLTON
CITY OF TAMPA
FLORIDA

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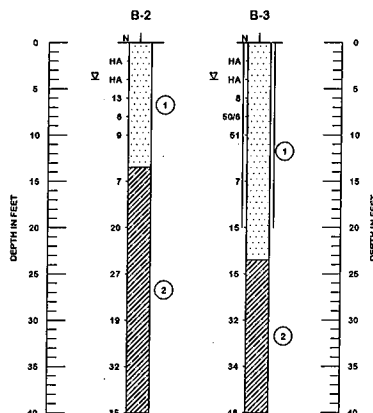
REPORT OF CORE BORINGS (2)

0 50'
PLAN SCALE



NOTE: BASE MAP PROVIDED BY URS

SOIL PROFILES



LEGEND

- 1 LIGHT BROWN TO DARK GRAY FINE SAND TO SILTY SAND OCCASIONALLY WITH CEMENTED SAND, ROCK, SHELL, ASPHALT, GLASS AND BRICK FRAGMENTS (FILL WITH DEBRIS) (SP/SP-SM/SM) (A-3/A-2-4)
- 2 LIGHT GRAY TO GREEN-GRAY CLAYEY SAND TO CLAY TO CLAYEY SILT (SC/CH/MH) (A-7)
- APPROXIMATE LOCATION OF SPT BORING
- GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION
- N SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- A-3 AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- 504 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCES
- RECOMMENDED ENVIRONMENTAL CLASSIFICATION:
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE EXTREMELY AGGRESSIVE

NOTE: BORINGS PERFORMED UTILIZING A SAFETY HAMMER

BORING NUMBER	DEPTH (FT)	N	SOIL CLASSIFICATION	SOIL UNIT WEIGHT (PCF)		SOIL ANGLE OF FRICTION (DEGREES)	COHESION (PSF)	EARTH PRESSURE COEFFICIENT	
				γ SAT	γ SUB			ACTIVE	PASSIVE
B-2	0 TO 13.5	6 TO 13	SP/SP-SM/SM (FILL)	105	42.6	29	0	0.347	2.88
	13.5 TO 18.5	7	SC/CH/MH	115	82.6	0	700	1.000	1.00
	18.5 TO 40	19 TO 35	SC/CH/MH	125	82.6	0	2500	1.000	1.00
B-3	0 TO 8	8	SP/SP-SM/SM (FILL)	105	42.6	29	0	0.347	2.88
	8 TO 13.5	6 TO 13	SP/SP-SM/SM (FILL)	115	82.6	32	0	0.307	3.25
	13.5 TO 23.5	7 TO 15	SP/SP-SM/SM (FILL)	105	42.6	29	0	0.347	2.88
	23.5 TO 40	15 TO 40	SC/CH/MH	125	82.6	0	3500	1.000	1.00

GRANULAR MATERIALS- RELATIVE DENSITY	SAFETY HAMMER	AUTOMATIC HAMMER
	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

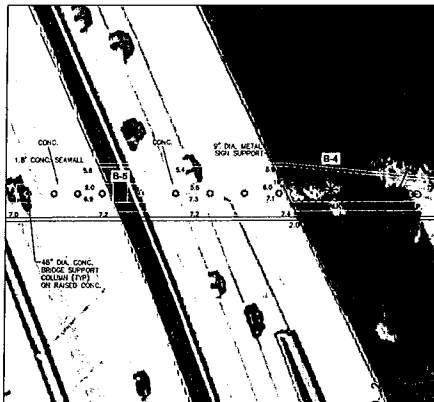
TAMPA RIVERWALK DOYLE CARLTON

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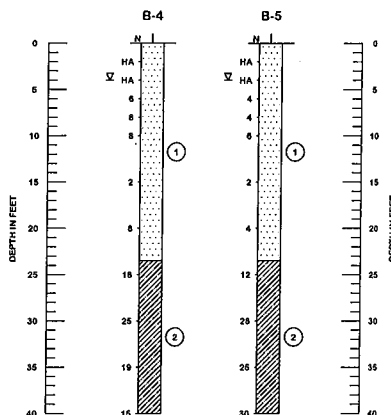
REPORT OF CORE BORINGS (3)

0 50'
PLAN SCALE



NOTE: BASE MAP PROVIDED BY URS

SOIL PROFILES



LEGEND

- 1 LIGHT BROWN TO DARK GRAY FINE SAND TO SILTY SAND OCCASIONALLY WITH CEMENTED SAND, ROCK, SHELL, ASPHALT, GLASS AND BRICK FRAGMENTS (FILL WITH DEBRIS) (SP/SP-SM/SM) (A-3/A-2-4)
- 2 LIGHT GRAY TO GREEN-GRAY CLAYEY SAND TO CLAY TO CLAYEY SILT (SO/CH/WH) (A-7)
- APPROXIMATE LOCATION OF SPT BORING
- GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION
- N SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- SO4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGURED TO VERIFY UTILITY CLEARANCES

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE EXTREMELY AGGRESSIVE

NOTE: BORINGS PERFORMED UTILIZING A SAFETY HAMMER

GRANULAR MATERIALS- RELATIVE DENSITY	SAFETY HAMMER	AUTOMATIC HAMMER
	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 60	24 to 40
VERY DENSE	GREATER THAN 60	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 8
STIFF	8 to 15	8 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

RECOMMENDED SOIL PARAMETERS									
BORING NUMBER	DEPTH (FT)	N	SOIL CLASSIFICATION	SOIL UNIT WEIGHT (PCF)		SOIL ANGLE OF FRICTION (DEGREES)	COHESION (PSF)	EARTH PRESSURE COEFFICIENT	
				Y SAT	Y SUB			ACTIVE	PASSIVE
B-4	0 TO 23.5	2 TO 8	SP/SP-SM/SM (FILL)	105	42.6	29	0	0.347	2.88
	23.6 TO 40	15 TO 25	SO/CH/WH	125	62.6	0	2500	1.000	1.00
B-5	0 TO 23.5	2 TO 8	SP/SP-SM/SM (FILL)	105	42.6	29	0	0.347	2.88
	23.6 TO 28.5	12	SO/CH/WH	120	57.6	0	1200	1.000	1.00
	28.6 TO 40	25 TO 35	SO/CH/WH	125	62.6	0	3500	1.000	1.00

TAMPA RIVERWALK DOYLE CARLTON

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APPENDIX B

- **Summary of Laboratory Test Results**

Summary of Laboratory Test Results
Doyle Carlton Segment of the Tampa Riverwalk
Tierra Project No: 6511-13-025

Boring Number	Sample Depth (ft)	Stratum Number	USCS Symbol	Sieve Analysis					Atterberg Limits			Organic Content (%)	Natural Moisture Content (%)
				#10	#40	#60	#100	#200	Liquid Limit	Plastic Limit	Plasticity Index		
B - 1	23.5 - 25.0		CH					77.5	75	33	42		45.5
B - 4	38.5 - 40.0		CH/MH					77.8	75	35	40		38.1
B - 5	6.0 - 8.0		SP-SM	100	98.5	92.2	44.6	8.0					
AB - 2	5.5 - 6.0		SM					19.3				2.6	30.6
AB - 6	2.5 - 3.0		SM	100	90.0	78.5	49.9	19.7					
AB - 12	2.0 - 5.0		SM					23.6					

14 L 00033 DOYLE CARLTON RIVERWALK SEC 1 SEAWALK

PRE BID CONF 11-18-14

Sign-In Sheet ▶▶▶ Please Print Clearly

City of Tampa, Contract Administration Department

	Name	Organization	E-Mail OR Phone
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2	KEVIN ROSE	ALL AMERICAN CONCRETE	KROSE@aaconcrete.net
3	David Wirth	Dallas 1	david.wirth@d1cd.com
4	JUSTIN BORELUND	NELSON CONSTRUCTION	estimating@nelson-construction.com
5	Collin Wiggan	DBEC	CWiggan@dbec.com
6	Joe DiStefano	MC Squared met Testing	distefano@mcengineers.com
7	Christine Bruno	COT - CAD	christine.bruno@tampagov.com
8	Ahmad Erchid	TBC	aerchid@tbcei.com
9	KURT KEITH	Pepper Contracting	KURT@PEPPERCONTRACTING.COM
10	ROLANDO LUIS	NELCO CONST/DEV	RLUIS@NELCOCONSTRUCTION.COM
11	Mark C. Valenti	Orion Marine	mvalenti@orionmarinegroup.com
12	DENNIS SYRJA	URS	dennis_syrja@urs.com
13	Lee Hoffman	COT	lee.hoffman@tampagov.net
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Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price in Figures	Total Price in Figures
BASE BID						
101- 1	Mobilization	LS	1		\$	\$
102- 1	Maintenance of Traffic	LS	1		\$	\$
104-10-3	Staked Silt Fence	LF	3,066		\$	\$
104-11	Floating Turbidity Barrier	LF	1,850		\$	\$
104-15	Soil Tracking Prevention Device	EA	2		\$	\$
104-18	Inlet Protection System	EA	6		\$	\$
110- 1- 1	Clearing and Grubbing	LS	1		\$	\$
110- 4	Removal of Existing Pavement	SY	462		\$	\$
110-15-1	Tree Protection/ Tree Trimming/ Root Pruning	LS	1		\$	\$
110-73	Demolish Seawall and Cap	LF	172		\$	\$
162-2	Sod	SY	2,624		\$	\$
400-0-11	CIP Concrete Gravity Wall including concrete columns	LF	593		\$	\$
400-4-4	CIP Concrete Cantilevered Slab	LF	172		\$	\$
400-8	CIP Concrete Seawall and Cap	LF	172		\$	\$
440-1-20	Underdrain System - (Underdrain Pipe)	LF	160		\$	\$
440-70	Underdrain System (Cleanout/Inspection Box)	EA	3		\$	\$
440-73-2	Underdrain System (Outlet Pipe)	LF	87		\$	\$
520- 1- 10	Curb and Gutter Type F	LF	98		\$	\$
520- 2- 4	Curb and Gutter Type D	LF	99		\$	\$
521-72-4	CIP Concrete Vehicle Barrier Wall	LF	232		\$	\$
522- 1	Concrete Sidewalk (4")	SY	645		\$	\$
522- 2	At Grade Concrete Path	SY	3,090		\$	\$
526-1-2	Concrete Pavers (Furnish and Install)	SF	1,961		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price in Figures	Total Price in Figures
700-3-501	Sign Relocation	EA	1		\$	\$
711-11-121	Thermoplastic, Standard, White, Solid, 6"	LF	251		\$	\$
711-11-124	Thermoplastic, Standard, White, Solid, 18"	LF	111		\$	\$
SP-2.13	Project Aerial Photographs	LS	1		\$	\$
SP-2.14	Project Videotaping	LS	1		\$	\$
SP-6.03.1	Water Service Main	LF	1,775		\$	\$
SP-6.03.2	Water Flush-Mounted Quick Coupler and Cover	EA	12		\$	\$
SP-6.03.3	Drinking Fountain with Pet Fountain and Concrete Pad	EA	1		\$	\$
SP-10.15	Crushed Oyster Shell Groundcover 4" (Furnish & Install)	SY	221		\$	\$
SP-11.01	Reserve Parking Signs in Parking Meter Area	LS	1		\$	\$
SP-11.05	Water for Dust Control	1000/gal	30		\$	\$
SP-16.01-1	Helical Pulldown Micropiles w/Anchorage (F&I)	LF	2,860		\$	\$
SP-16.01-2	Helical Pulldown Micropiles - verification load tests	EA	2		\$	\$
SP-16.01-3	Helical Pulldown Micropiles - proof load test	EA	2		\$	\$
SP-16.02-1	Helical Tiebacks w/Anchorage (F&I)	LF	782		\$	\$
SP-16.02-2	Helical Tiebacks - performance load tests	EA	2		\$	\$
SP-16.02-3	Helical Tiebacks - proof load tests	EA	15		\$	\$
SP-17.03	Railing System (Furnish and Install)	LF	2,621		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price in Figures	Total Price in Figures
ELECTRICAL						
630-2-11	Lighting Homerun Circuit (Conduit) (Furnish and Install)	LF	3,665		\$	\$
630-2-11-2	Conduit, Boxes and Raceway for Fiber Optic System	LF	2,073		\$	\$
635-2-14	Pull Boxes	EA	18		\$	\$
639-1-121	Modify Power Service	LS	1		\$	\$
715-1-12	Lighting Homerun Circuit (Wire) (F&I)	LF	16,698		\$	\$
715-4-300-1	Single Arm Light Pole	EA	44		\$	\$
715-4-300-2	Double Arm Light Pole	EA	1		\$	\$
715-4-300-3	Double Arm Light Pole (One Arm longer than the Other)	EA	4		\$	\$
715-10-2	Light Pole Foundations	EA	50		\$	\$
715-11-119	Pole Mounted Light Fixtures	EA	65		\$	\$
715-11-129	Underdeck Light Fixtures	EA	7		\$	\$
715-11-139-1	Art Display Light Fixtures	EA	66		\$	\$
715-11-139-2	Light Fixtures for America America Public Art	EA	5		\$	\$
715-11-139-3	Light Fixtures for Levitating Nimbus Public Art & Trees	EA	11		\$	\$
715-11-139-4	Lockable Disconnect Switches for Public Art	EA	2		\$	\$
715-11-139-5	Relocate Pull Box or Light Fixture	EA	4		\$	\$
ARCHITECTURAL FEATURES						
SP-10.13.1	Screen Wall under Laurel Street Bridge	LS	1		\$	\$
SP-10.13.2	Screen Wall under I-275 Bridge	LS	1		\$	\$
SP-10.13.3	Monument Stand/Plaque/Foundation	EA	1		\$	\$
SP-10.14.1	America America Art Sculpture	LS	1		\$	\$
SP-10.14.2	Levitating Nimbus Art Sculpture	LS	1		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price in Figures	Total Price in Figures
HARDSCAPE FEATURES						
SP-10.12.1	Benches	EA	5		\$	\$
SP-10.12.2	Backless Benches	EA	2		\$	\$
SP-10.12.3	Cube Bench	EA	6		\$	\$
SP-10.12.4	Shade Structure/Swing	EA	3		\$	\$
SP-10.12.5	Bicycle Rack	EA	6		\$	\$
SP-10.12.6	Trash Receptacle	EA	4		\$	\$
SP-10.12.7	Bicycle Repair Station	EA	1		\$	\$
SP-11.17	Riverwalk Wayfinding Signage (Fabrication, Furnish and Installation)	LS	1		\$	\$
LANDSCAPING & IRRIGATION						
590-70	Irrigation System	LS	1		\$	\$
999-2	Landscape Complete	LS	1		\$	\$
2900-1	90 Day Maintenance	MONTH	3		\$	\$
SEALWALL REPAIR / REPLACEMENT						
101	Mobilization	LS	1		\$	\$
400-4-8	Class 4 Concrete Bulkhead	CY	750		\$	\$
411-1	Epoxy Materials for Crack Injection	GAL	45		\$	\$
411-2	Inject and Seal Crack	LF	400		\$	\$
415-1-8	Reinforcing Steel	LB	80,000		\$	\$
443-70-06	French Drain	LF	1,860		\$	\$
455-87	Tie-Rod Repair Type 1	EA	108		\$	\$
455-87	Tie-Rod Repair Type 2	EA	108		\$	\$

Item No.	Description	Unit	Approx. Quantity	Unit Price in Words	Unit Price in Figures	Total Price in Figures
EXTRA WORK						
SP-11.16	Contingency Funds	LS	1	One Hundred Thousand Dollars and no/cents	\$ 100,000	\$ 100,000
SP-11.18	Skateboard Deterrent Allowance	LS	1	Thirty Thousand Dollars and no/cents	\$ 30,000	\$ 30,000
TOTAL BID:					\$	\$