# CI TY OF NAPLES <br> PURCHASI NG DI VISI ON <br> CITY HALL, $7358^{\text {TH }}$ STREET SOUTH <br> NAPLES, FLORI DA 34102 <br> PH: 239-213-7100 FX: 239-213-7105 

## ADDENDUM NUMBER 3

| NOTIFICATION DATE: | Itre: | Bio Nuner: | bid opewning date \& tive |
| :---: | :---: | :---: | :---: |
| 01/ 15/ 16 | Central Avenue Improvements Construction | 16-012 | $\begin{gathered} 01 / 20 / 2016 \\ 2: 00 P M \end{gathered}$ |

## THE FOLLOWI NG I NFORMATI ON I S HEREBY I NCORPORATED I NTO, AND MADE AN OFFI CI AL PART OF THE ABOVE REFERENCED BID.

The following clarifications are issued as an addendum identifying the following for the referenced solicitation:

Written request for "As Equal" approval: Lighting Product Manufactured by Sternberg Lighting. Answer: No. In review of the technical specification for Sternberg, there are differences in appearance, specifications, and how the luminaire is lit that requires us to determine that Sternberg is not an equivalent product in terms of maintenance, repair and aesthetics.

## Submitted written question:

1) Detectors for Loops Table indicates new detectors but no new Pay-Item exist for same; how will the NEW detectors be paid for.
Answer- Plan sheet T-2, T-3 and sheet 2 have been revised to reflect the appropriate number of detectors including the addition of a new pay. Plans have been clouded to reflect the modified information.
2) Is the report, as mentioned on sheet T-5, part of the bid package?

Answer - Refer to attached Exhibit A
3) How will the contractor be compensated, if they are required to drill additional depth (beyond $16.5^{\prime}$ ), to ensure the 3 ' embedment into limestone layer, for Pole B?
Answer- The contractor will need to include the cost of limestone excavation to allow for the appropriate embedment within the cost of the mastarm payitem.
4) Dave Rivera reviewed the Signal plans and noted that the plans call for 1EA of the Central/Riverside sign and Goodlette sign where 2 will be necessary (with arrows reversed on Central/Riverside sign). Also, the pedestrian push buttons will need to be 10' apart but the plans appear to show them next to each other. He also had a phasing comment that I think we can address down the road.

Answer-

1) Additional signs are not necessary since the western signal poles are not being modified as a part of this project. The new signs are for the signal poles located to the east and only require one sign for each direction therefore 2 signs.
2) Pedestrian signal poles and conduit quantities have been modified to reflect the necessary 10 ft . separation. Plan sheets have been revised to address additional quantities and other revisions as necessary.
3) It is likely during construction the City will modify the signal timing for the intersection.
4) Are the Mast Arms Painted or Galvanized; see Pay-Items 649-31-102/108?

Answer - The mast arms will be painted black consistent with City standards and the cost included in the payitem bid price. Plan sheet T-4 has been revised to reflect the black paint requirement.
6) The quantities on the bid sheet don't match up to the summary of quantities tabulation for structures S-101, S-108, S-111, S-306, S-307, S-308, S-309, S-312 AND S-409
Answer- We did find a slight error in our spreadsheet and these structures were inadvertently left off the summary of drainage structures, bid tab and OPC. Plan sheets 2, 2A, 9, 10, \& 11 have been modified and clouded to address the additional quantities and pay items addressing this question.
7) There is not a bid item or an item in the summary of quantities for $S-500$ Answer- The structure is listed per station and is not grouped with the $S 500$ series structures, the bid item was already included in the plans.

Addendum 3-Exhibit A - Report of Geotechnical Exploration
Addendum 3 - Exhibit B - REVISED Central Bid Form (FINAL)
Addendum 3 - Exhibit C - REVISED PLAN SHEETS, 2, 2A, 9, 10, 11, T-2, T-3 \& T-4
Addendum 3-Exhibit D - REVISED Opinion of Probable Construction Cost

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# GFA INTERNATIONAL 

FLORIDA'S LEADING ENGINEERING SOURCE

## Report of Geotechnical Exploration

Mast Arm Signalization

Intersection of Riverside Circle and Goodlette Frank Road Naples, Collier County, Florida

January 4, 2016<br>GFA Project No.: 15-2531<br>For: Kimley-Horn

Mr. Mike Donahue
Kimley - Horn
1777 Main Street, Suite 200,
Sarasota, FL 34236
(941) 3797602

Mike.Donahue@Kimley-Horn.com

## Site: Mast Arm Signalization <br> Intersection of Riverside Circle and Goodlette Frank Road Naples, Collier County, Florida <br> GFA Project No. 15-2531

Dear Mr. Donahue:
GFA International, Inc. (GFA) has completed the subsurface exploration and geotechnical engineering evaluation for the above-referenced project in accordance with the geotechnical and engineering service agreement for this project. The scope of services was completed in accordance with our Geotechnical Engineering Proposal (15-2531), planned in conjunction with and authorized by you.

## EXECUTIVE SUMMARY

The purpose of our subsurface exploration was to classify the nature of the subsurface soils and general geomorphic conditions and evaluate their impact upon the proposed signalization installation. This report contains the results of our subsurface exploration at the site and our engineering interpretations of these, with respect to the project characteristics described to us.

It is our understanding the project will consist of the installation of new mast arm signalization at the intersection of Riverside Circle/Central Avenue and Goodlette Frank Road located in Naples, Florida. An aerial photograph of the project area was provided by you. The recommendations provided herein are based upon the above considerations. If the project description has been revised, please inform GFA International so that we may review our recommendations with respect to any modifications.

A total of two (2) standard penetration test (SPT) borings to depths of approximately 25 feet below ground surface (BGS) were completed for this study.

The subsurface soil conditions encountered at this site generally consists of very loose to medium dense sand (SP), silty sand (SM), and hard limestone (LS), to the boring termination depths. A layer of hard limestone was encountered at a depths of approximately 12 to 13.5 feet BGS in the borings. Please refer to Appendix D - Record of Test Borings for a detailed account of each boring.

We appreciate the opportunity to be of service to you on this project and look forward to a continued association．Please do not hesitate to contact us if you have any questions or comments，or if we may further assist you as your plans proceed．

Respectfully Submitted， GFA International Inc： 1 ， $1,1,1$, Florida Certificatè of Nuthorizatióon Number 4930


Copies：1，Addrésseenいいい


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### 1.0 INTRODUCTION

### 1.1 Scope of Services

The objective of our geotechnical services was to collect subsurface data for the subject project, summarize the test results, and discuss any apparent site conditions that may have geotechnical significance for building construction. The following scope of service is provided within this report:

1. Prepare records of the soil boring logs depicting the subsurface soil conditions encountered during our field exploration.
2. Conduct a review of each soil sample obtained during our field exploration for classification and additional testing if necessary.
3. Analyze the existing soil conditions found during our exploration with respect to foundation support for the proposed structure.
4. Provide recommendations with respect to foundation support of the structure, including allowable soil-bearing capacity, bearing elevations, and foundation design parameters.
5. Provide criteria and site preparation procedures to prepare the site for the proposed construction.

### 1.2 Project Description

It is our understanding the project will consist of the installation of new mast arm signalization at the intersection of Riverside Circle and Goodlette Frank Road located in Naples, Florida. An aerial photograph of the project area was provided by you. The recommendations provided herein are based upon the above considerations. If the project description has been revised, please inform GFA International so that we may review our recommendations with respect to any modifications.

### 2.0 OBSERVATIONS

### 2.1 Site Inspection

The recovered samples were not examined, either visually or analytically, for chemical composition or environmental hazards. GFA would be pleased to perform these services for an additional fee, if required.

### 2.2 Field Exploration

A total of two (2) standard penetration test (SPT) borings to depths of approximately 25 feet below ground surface (BGS) were completed for this study. The locations of the borings performed are illustrated in Appendix B: "Test Location Plan". The Standard Penetration Test (SPT) boring method was used as the investigative tool within the borings. SPT tests were performed in substantial accordance with ASTM Procedure D-1586, "Penetration Test and SplitBarrel Sampling of Soils". This test procedure consists of driving a 1.4 -inch I.D. split-tube sampler into the soil profile using a 140-pound hammer falling 30 inches. The number of blows per foot, for the second and third 6 -inch increment, is an indication of soil strength.

The soil samples recovered from the soil borings were visually classified and their stratification is illustrated in Appendix D: "Record of Test Borings". It should be noted that soil conditions might vary between the strata interfaces, which are shown. The soil boring data reflect information from a specific test location only. Site specific survey staking for the test locations was not provided for our field exploration. The indicated depth and location of each test was approximated based upon existing grade and estimated distances and relationships to obvious landmarks. The boring depths were selected based on our knowledge of vicinity soils and to include the zone of soil likely to be stressed by the proposed construction.

### 2.3 Laboratory Analysis

Soil samples recovered from our field exploration were returned to our laboratory where they were visually examined in general accordance with ASTM D-2488. Samples were evaluated to obtain an accurate understanding of the soil properties and site geomorphic conditions. After a thorough visual examination of the recovered site soils, no laboratory testing was deemed necessary. Bag samples of the soil encountered during our field exploration will be held in our laboratory for your inspection for 30 days and then discarded unless we are notified otherwise in writing.

### 2.4 Geomorphic Conditions

Boring logs derived from our field exploration are presented in Appendix D: "Record of Test Borings". The boring logs depict the observed soils in graphic detail. The Standard Penetration Test borings indicate the penetration resistance, or N -values, logged during the drilling and sampling activities. The classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered soil samples. All soil samples reviewed have been depicted and classified in general accordance with the Unified Soil Classification System, modified as necessary to describe typical southwest Florida conditions. See Appendix E: "Discussion of Soil Groups", for a detailed description of various soil groups.

The subsurface soil conditions encountered at this site generally consists of very loose to medium dense sand (SP), silty sand (SM), and hard limestone (LS), to the boring termination depths. A layer of hard limestone was encountered at a depths of approximately 12 to 13.5 feet BGS in the borings. Please refer to Appendix D - Record of Test Borings for a detailed account of each boring.

### 2.5 Hydrogeological Conditions

On the dates of our field exploration, the groundwater table was encountered at depths approximately 4 feet below the existing ground surface. The groundwater table will fluctuate seasonally depending upon local rainfall and other site specific and/or local influences such as tidal events. Brief ponding of stormwater may occur across the site after heavy rains.

No additional investigation was included in our scope of work in relation to the wet seasonal high groundwater table or any existing well fields in the vicinity. Well fields may influence water table levels and cause significant fluctuations. If a more comprehensive water table analysis is necessary, please contact our office for additional guidance.

### 3.0 ENGINEERING EVALUATION AND RECOMMENDATIONS

### 3.1 General

A foundation system for any structure must be designed to resist bearing capacity failures, have settlements that are tolerable, and resist the environmental forces that the foundation may be subjected to over the life of the structure. The soil bearing capacity is the soil's ability to support loads without plunging into the soil profile. Bearing capacity failures are analogous to shear failures in structural design and are usually sudden and catastrophic.

The amount of settlement that a structure may tolerate is dependent on several factors including: uniformity of settlement, time rate of settlement, structural dimensions and properties of the materials. Generally, total or uniform settlement does not damage a structure but may affect drainage and utility connections. These can generally tolerate movements of several inches for building construction. In contrast, differential settlement affects a structure's frame and is limited by the structural flexibility.

The geotechnical evaluations for the tested site are based on the subsurface soil and groundwater conditions encountered during this study, the project information made available, our site observations, laboratory test results, and our experience in the vicinity. The test data had been evaluated using established correlations between geotechnical parameters of the soils similar with those recorded at this site, laboratory test results, and the observed performance of similar soil types.

### 3.2 Mast Arm Foundation Recommendations

We understand, the proposed intersection improvement includes design and construction of mast arm structures founded on a caisson or drilled shaft foundation. Typically, these structures are subject to large wind load, and this load generally controls foundation design. Based on our understanding of the structural load and subsurface conditions encountered in our borings, it is GFA's opinion that drilled shaft type foundations are suitable for support of the proposed mast arm/pole assemblies. Size, depth and installation requirements for the drilled shaft anchors should be based on the soil parameters presented in Appendix D (Report of Test Borings) and the developed design loads.

The soil design parameters presented in this report have been estimated based upon the results of the SPT tests, visual classification of the samples obtained and our past experience with similar soils. Drilled shaft design and installation requirements are to be specified by others. Shallow groundwater and granular soil conditions will require the use of temporary casing for successful installation of drilled pier foundations at this site. Concrete should be placed using tremie methods from the bottom of the pier excavations in order to displace water from the holes as the concrete is placed.

The shafts installation should be monitored by the geotechnical engineer or his designated representative. The shafts shall be vertical and all loose debris should be removed from the bottom of the shaft prior to placing of the concrete.

We will be glad to further assist you, as your needs dictate, to develop a specific foundation details regarding an embedment depth and diameter of the shafts.

### 4.0 REPORT LIMITATIONS

This consulting report has been prepared for the exclusive use of the current project owners and other members of the design team for the signalization installation located at the east intersection of Riverside Circle and Goodlette Frank Road in Naples, Collier County, Florida. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty is expressed or implied. The evaluation submitted in this report, is based in part upon the data collected during a field exploration, however, the nature and extent of variations throughout the subsurface profile may not become evident until the time of construction. If variations then appear evident, it may be necessary to reevaluate information and professional opinions as provided in this report. In the event changes are made in the nature, design, or locations of the proposed structure, the evaluation and opinions contained in this report shall not be considered valid, unless the changes are reviewed and conclusions modified or verified in writing by GFA International. GFA is not responsible for damage caused by soil improvement and/or construction activity vibrations related to this project. GFA is also not responsible for damage concerning drainage or moisture related issues for the proposed or nearby structures.

### 5.0 BASIS FOR RECOMMENDATIONS

The analysis and recommendations submitted in this report are based on the data obtained from the tests performed at the locations indicated on the attached figure in Appendix B. This report does not reflect any variations, which may occur between borings. While the borings are representative of the subsurface conditions at their respective locations and for their vertical reaches, local variations characteristic of the subsurface soils of the region are anticipated and may be encountered. The delineation between soil types shown on the soil logs is approximate and the description represents our interpretation of the subsurface conditions at the designated boring locations on the particular date drilled.

Any third party reliance of our geotechnical report or parts thereof is strictly prohibited without the expressed written consent of GFA International. The methodology (ASTM D-1586) used in performing our borings and for determining penetration resistance is specific to the sampling tools utilized and does not reflect the ease or difficulty to advance other tools or materials.

## Appendix A - Vicinity Map

## Appendix B - Notes Related to Borings

## NOTES RELATED TO

## RECORDS OF TEST BORING AND

## GENERALIZED SUBSURFACE PROFILE

1. Groundwater level was encountered and recorded (if shown) following the completion of the soil test boring on the date indicated. Fluctuations in groundwater levels are common; consult report text for a discussion.
2. The boring location was identified in the field by offsetting from existing reference marks and using a cloth tape and survey wheel.
3. The borehole was backfilled to site grade following boring completion, and patched with asphalt cold patch mix when pavement was encountered.
4. The Record of Test Boring represents our interpretation of field conditions based on engineering examination of the soil samples.
5. The Record of Test Boring is subject to the limitations, conclusions and recommendations presented in the Report text.
6. "Field Test Data" shown on the Record of Test Boring indicated as $11 / 6$ refers to the Standard Penetration Test (SPT) and means 11 hammer blows drove the sampler 6 inches. SPT uses a 140 -pound hammer falling 30 inches.
7. The N -value from the SPT is the sum of the hammer blows required to drive the sampler the second and third 6inch increments.
8. The soil/rock strata interfaces shown on the Records of Test Boring are approximate and may vary from those shown. The soil/rock conditions shown on the Records of Test Boring refer to conditions at the specific location tested; soil/rock conditions may vary between test locations.
9. Relative density for sands/gravels and consistency for silts/clays are described as follows:

| SPT | CPT | SANDS/GRAVELS | SPT | CPT | SILTS/CLAYS |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BLOWS/FOOT | $\underline{\text { KG/CM }}{ }^{2}$ | RELATIVE DENSITY | $\underline{\text { BLOWS/FOOT }}$ | $\underline{\text { KG/CM }}{ }^{2}$ | CONSISTENCY |
| $0-2$ | $0-16$ | Very loose | under 1 | $0-3$ | Very soft |
| $3-8$ | $17-40$ | Loose | $1-3$ | $4-9$ | Soft |
| $9-24$ | $41-120$ | Medium Dense | $4-6$ | $10-17$ | Firm |
| $25-40$ | over 120 | Dense | $7-12$ | $18-31$ | Stiff |
| over 40 |  | Very Dense | $13-24$ | $32-60$ | Very stiff |
|  |  |  | over 24 | over 60 | Hard |

10. Grain size descriptions are as follows:
11. Definition of Descriptive Terms of Fines:

| NAME | SIZE LIMITS | PROPORTION | ADJECTIVE |
| :--- | :--- | :--- | :--- |
| Boulder | 12 Inches or more | Up to $10 \%$ | with a trace |
| Cobbles | 3 to 12 Inches | 10 to $30 \%$ | with some |
| Coarse Gravel | $3 / 4$ to 3 Inches |  |  |
| Fine Gravel | No. 4 sieve to $3 / 4$ inch |  |  |
| Coarse Sand | No. 10 to No. 4 sieve |  |  |
| Medium Sand | No. 40 to No. 10 sieve |  |  |
| Fine Sand | No. 200 to No. 40 sieve |  |  |
| Fines | Smaller than No. 200 sieve |  |  |

11. Definitions related to adjectives used in soil/rock descriptions:

| PROPORTION | ADJECTIVE | APPROXIMATE ROOT DIAMETER | ADJECTIVE |
| :--- | :--- | :--- | :--- |
| Up to $10 \%$ | with a trace | Less than $1 / 32^{\prime \prime}$ | Fine roots |
| 10 to $30 \%$ | with some | $1 / 32^{\prime \prime}$ to $1 / 4^{\prime \prime}$ | Small roots |
| 30 to $50 \%$ | with | $1 / 4^{\prime \prime}$ to $1 "$ | Medium roots |
|  |  | Greater than $1^{\prime \prime}$ | Large roots |

## Appendix C - Report of Test Borings

GFA


## Appendix D - Discussion of Soil Groups

## DISCUSSION OF SOIL GROUPS

## COARSE GRAINED SOILS

GW and SW GROUPS. These groups comprise well-graded gravelly and sandy soils having little or no plastic fines (less than 5 percent passing the No. 200 sieve). The presence of the fines must not noticeably change the strength characteristics of the coarse-grained fraction and must not interface with it's free-draining characteristics.

GP and SP GROUPS. Poorly graded gravels and sands containing little of no plastic fines (less than 5 percent passing the No. 200 sieve) are classed in GP and SP groups. The materials may be called uniform gravels, uniform sands or non-uniform mixtures of very coarse material and very fine sands, with intermediate sizes lacking (sometimes called skip-graded, gap-graded or step-graded). This last group often results from borrow pit excavation in which gravel and sand layers are mixed.

GM and SM GROUPS. In general, the GM and SM groups comprise gravels or sands with fines (more than 12 percent passing the No. 200 sieve) having low or no plasticity. The plasticity index and liquid limit of soils in the group should plot below the "A" line on the plasticity chart. The gradation of the material is not considered significant and both well and poorly graded materials are included.

GC and SC GROUPS. In general, the GC and SC groups comprise gravelly or sandy soils with fines (more than 12 percent passing the No. 200 sieve), which have a fairly high plasticity. The liquid limit and plasticity index should plot above the "A" line on the plasticity chart.

## FINE GRAINED SOILS

ML and MH GROUPS. In these groups, the symbol $M$ has been used to designate predominantly silty material. The symbols $L$ and $H$ represent low and high liquid limits, respectively, and an arbitrary dividing line between the two is set at a liquid limit of 50. The soils in the ML and MH groups are sandy silts, clayey silts or inorganic silts with relatively low plasticity. Also included are loess type soils and rock flours.

CL and CH GROUPS. In these groups the symbol C stands for clay, with L and H denoting low or high liquid limits, with the dividing line again set at a liquid limit of 50. The soils are primarily inorganic clays. Low plasticity clays are classified as CL and are usually lean clays, sandy clays or silty clays. The medium and high plasticity clays are classified as CH . These include the fat clays, gumbo clays and some volcanic clays.

OL and OH GROUPS. The soil in the OL and OH groups are characterized by the presence of organic odor or color, hence the symbol O. Organic silts and clays are classified in these groups. The materials have a plasticity range that corresponds with the ML and MH groups.

## HIGHLY ORGANIC SOILS

The highly organic soils are usually very soft and compressible and have undesirable construction characteristics. Particles of leaves, grasses, branches, or other fibrous vegetable matter are common components of these soils. They are not subdivided and are classified into one group with the symbol PT. Peat humus and swamp soils with a highly organic texture are typical soils of the group.

## Addendum 3 - Exhibit B - REVISED Central Bid Form (FINAL)

Attachment A

| ITEM No. | ITEM DESCRIPTION | UNIT | PROJECT QUANTITY | UNIT PRICE | AMOUNT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Roadway |  |  |  |  |  |
| 01011 | MOBILIZATION | LS | 1 |  | \$0.00 |
| 01021 | MAINTENANCE OF TRAFFIC | LS | 1 |  | \$0.00 |
| 0104103 | SEDIMENT BARRIER | LF | 1885 |  | \$0.00 |
| 010418 | INLET PROTECTION SYSTEM | EA | 44 |  | \$0.00 |
| 011011 | CLEARING \& GRUBBING | AC | 3.72 |  | \$0.00 |
| 01104 | REMOVAL OF EXISTING CONCRETE PAVEMENT | SY | 2230 |  | \$0.00 |
| 01201 | REGULAR EXCAVATION | CY | 3908 |  | \$0.00 |
| 01206 | EmbANKMENT | CY | 813 |  | \$0.00 |
| 01604 | TYPE B STABILIZATION | SY | 7547 |  | \$0.00 |
| 0162111 | PREPARED SOIL LAYER, FINISH SOIL, 6" | SY | 533 |  | \$0.00 |
| 021018 | REWORKING LIMEROCK BASE, 4" | SY | 155 |  | \$0.00 |
| 0285709 | OPTIONAL BASE,BASE GROUP 09 | SY | 5104 |  | \$0.00 |
| 0327705 | MILLING EXIST ASPH PAVT, 2" AVG DEPTH | SY | 11693 |  | \$0.00 |
| 0334112 | SUPERPAVE ASPHALTIC CONC, TRAFFIC B | TN | 1205.4 |  | \$0.00 |
| 0334112 | SUPERPAVE ASPHALTIC CONC, TRAFFIC B (OVERBUILD) | TN | 470.6 |  | \$0.00 |
| 0337742 | ASPH CONC FC, TRAFFIC B, FC-9.5, PG 76-22 | TN | 929.2 |  | \$0.00 |
| 03391 | MISC. ASPHALT PAVEMENT | TN | 8.25 |  | \$0.00 |
| 04251201 | INLETS, CURB, TYPE 9, <10 | EA | 2 |  | \$0.00 |
| 04251203 | INLETS, CURB, TYPE 9, J BOT, <10 | EA | 1 |  | \$0.00 |
| 04251331 | INLETS, CURB, TYPE P-3, <10 | EA | 2 |  | \$0.00 |
| 04251341 | INLETS, CURB, TYPE P-4, <10 | EA | 7 |  | \$0.00 |
| 04251351 | INLETS, CURB, TYPE P-5, <10 | EA | 7 |  | \$0.00 |
| 04251361 | INLETS, CURB, TYPE P-6, <10 | EA | 7 |  | \$0.00 |
| 04251362 | INLETS, CURB, TYPE P-6, >10 | EA | 1 |  | \$0.00 |
| 04251441 | INLETS, CURB, TYPE J-4, <10 | EA | 1 |  | \$0.00 |
| 04251451 | INLETS, CURB, TYPE J-5, <10 | EA | 1 |  | \$0.00 |
| 04251461 | INLETS, CURB, TYPE J-6, <10 | EA | 1 |  | \$0.00 |
| 04251521 | INLETS, DT BOT, TYPE C, <10' | EA | 8 |  | \$0.00 |
| 04251910 | INLETS, CLOSED FLUME | EA | 6 |  | \$0.00 |
| 0425241 | MANHOLE, P-7, <10' | EA | 8 |  | \$0.00 |
| 0425243 | MANHOLE, P-7, PARTIAL | EA | 4 |  | \$0.00 |
| 0425261 | MANHOLE, P-8 <10 | EA | 1 |  | \$0.00 |
| 0425271 | MANHOLE, J-7, <10' | EA | 3 |  | \$0.00 |
| 0425273 | MANHOLE, J-7, PARTIAL | EA | 1 |  | \$0.00 |
| 0425293 | MANHOLE, J-8, PARTIAL | EA | 1 |  | \$0.00 |
| 0430175118 | PIPE CULV, OPT. MATL, ROUND 18" S/CD | LF | 1791 |  | \$0.00 |
| 0430175124 | PIPE CULV, OPT. MATL, ROUND 24" S/CD | LF | 220 |  | \$0.00 |
| 0430175130 | PIPE CULV, OPT. MATL, ROUND, 30" S/CD | LF | 1026 |  | \$0.00 |
| 0430175218 | PIPE CULV, OPT. MATL, OTHER 18" S/CD | LF | 398 |  | \$0.00 |
| 0440110 | UNDERDRAIN, TYPE I | LF | 591 |  | \$0.00 |
| 0520110 | CONCRETE CURB \& GUTTER, TYPE F | LF | 5915 |  | \$0.00 |
| 052022 | CONCRETE CURB, TYPE B | LF | 425.9 |  | \$0.00 |
| 052024 | CONCRETE CURB, TYPE D | LF | 4320 |  | \$0.00 |
| 052028 | CONCRETE CURB, TYPE RA | LF | 301.8 |  | \$0.00 |
| 05221 | SIDEWALK CONC, 4" THICK | SY | 3496 |  | \$0.00 |
| 05222 | SIDEWALK CONC, 6 " THICK | SY | 176 |  | \$0.00 |
| 052611 - | PAVERS, ARCHITECTURAL, TRUCK APRON | SY | 250.2 |  | \$0.00 |
| 052611 -B | PAVERS, ARCHITECTURAL, SPLITTER ISLANDS | SY | 135 |  | \$0.00 |
| 052611 -C | PERVIOUS PAVERS, ARCHITECTURAL, PARKING | SY | 557 |  | \$0.00 |
| 55010228 | FENCING, TYPE B, 5.1-6.0, RESET EXISTING | LF | 280 |  | \$0.00 |
| 55060223 | FENCE GATE, TYPE B, DOUBLE, 12.1-18.0' OPENING | EA | 1 |  | \$0.00 |
| 05272 | DETECTABLE WARNINGS | SF | 328 |  | \$0.00 |
| 057012 | PERFORMANCE TURF, SOD | SY | 533 |  | \$0.00 |
| BIO-S. | BIOSWALES (WATER QUALITY SYSTEM) | EA | 5 |  | \$0.00 |
| Signing and Marking |  |  |  |  |  |
| 052313 | PATTERNED PAVEMENT, VEHICULAR AREAS, GREEN BIKE LANE | SY | 744 |  | \$0.00 |
| 0700111 | SINGLE POST SIGN, F\&I, LESS THAN 12 SF | AS | 39 |  | \$0.00 |
| 0700150 | SINGLE POST SIGN, RELOCATE | AS | 3 |  | \$0.00 |
| 0700160 | SINGLE POST SIGN, REMOVE | AS | 1 |  | \$0.00 |
| 07063 | RETRO-REFLECTIVE PAVEMENT MARKERS | EA | 142 |  | \$0.00 |
| 071111123 | THERMOPLASTIC, STD, WHITE, SOLID, 12" | LF | 2026 |  | \$0.00 |
| 071111124 | THERMOPLASTIC, STD, WHITE, SOLID, 18" | LF | 30 |  | \$0.00 |
| 071111125 | THERMOPLASTIC, STD, WHITE, SOLID, 24" | LF | 2201 |  | \$0.00 |
| 071111141 | THERMOPLASTIC, STD, WHITE, 2-4 DOTTED GUIDELINE / 6-10 DOTTED EXTENSION LINE, 6" | GM | 0.769 |  | \$0.00 |
| 071111160 | THERMOPLASTIC, STD, WHITE, MESSAGE | EA | 8 |  | \$0.00 |
| 071111170 | THERMOPLASTIC, STD, WHITE, ARROW | EA | 19 |  | \$0.00 |
| 071111180 | THERMOPLASTIC, STD, WHITE, YIELD LINE | LF | 111 |  | \$0.00 |
| 071111224 | THERMOPLASTIC, STD, YELLOW, SOLID, 18" | LF | 149 |  | \$0.00 |
| 071111241 | THERMOPLASTIC, STD, YELLOW, 2-4 DOTTED GUIDELINE / 6-10 DOTTED EXTENSION LINE, 6" | GM | 0.129 |  | \$0.00 |
| 071111421 | THERMOPLASTIC, STD, BLUE, SOLID, $\mathrm{6}^{\prime \prime}$ | LF | 56 |  | \$0.00 |
| 071114160 | THERMOPLASTIC, PREFORMED, WHITE, MESSAGE | EA | 22 |  | \$0.00 |
| 071114170 | THERMOPLASTIC, PREFORMED, WHITE, ARROWS | EA | 21 |  | \$0.00 |
| 071116101 | THERMOPLASTIC, STD-OTHER SURFACES, WHITE, SOLID, 6 ' | GM | 1.615 |  | \$0.00 |


| 071116102 | THERMOPLASTIC, STD-OTHER SURFACES, WHITE, SOLID, $8^{\text {" }}$ | GM | 0.047 | \$0.00 |
| :---: | :---: | :---: | :---: | :---: |
| 071116131 | THERMOPLASTIC, STD-OTHER SURFACES, WHITE, SKIP, 6 " | GM | 0.03 | \$0.00 |
| 071116201 | THERMOPLASTIC, STD-OTHER SURFACES, YELLOW, SOLID, $6^{\prime \prime}$ | GM | 1.093 | \$0.00 |
| 071116202 | THERMOPLASTIC, STD-OTHER SURFACES, YELLOW, SOLID, 8" | GM | 0.02 | \$0.00 |
| Signalization |  |  |  |  |
| 0630211 | CONDUIT, F\&l, OPEN TRENCH | LF | 530 | \$0.00 |
| 0630212 | CONDUIT, F\&I, DIRECTIONAL BORE | LF | 555 | \$0.00 |
| 063271 | SIGNAL CABLE, FURNISH \& INSTALL | PI | 1 | \$0.00 |
| 0635211 | PULL \& SPLICE BOX, F\&I, 13"X24" COVER SIZE | EA | 14 | \$0.00 |
| 0641270 | PRESTRESSED CONCRETE POLE, SHALLOW POLE REMOVAL, POLE 30' \& GREATER | EA | 1 | \$0.00 |
| 0646111 | ALUMINUM SIGNALS POLE, PEDESTAL | EA | 4 | \$0.00 |
| 0646160 | ALUMINUM SIGNALS POLE, REMOVE | EA | 2 | \$0.00 |
| 064931102 | MAST ARM, F\&I, WIND SPEED-150, SINGLE ARM, W/0 LUMINAIRE - 46 | EA | 1 | \$0.00 |
| 064931108 | MAST ARM, F\&I, WIND SPEED-150, SINGLE ARM, WITH LUMINAIRE - 60 | EA | 1 | \$0.00 |
| 064936300 | MAST ARM, REMOVE SHALLOW FOUNDATION, BOLT ON ATTACHMENT | EA | 2 | \$0.00 |
| 0650114 | TRAFFIC SIGNAL, F\&I, 3 SECTION, 1 WAY, ALUMINUM | AS | 6 | \$0.00 |
| 0650118 | TRAFFIC SIGNAL, F\&I, 5 SECTION STRAIGHT, 1 WAY, ALUMINUM | AS | 1 | \$0.00 |
| 0650170 | TRAFFIC SIGNAL, RELOCATE | AS | 2 | \$0.00 |
| 0653112 | PEDESTRIAN SIGNAL, F\&I, LED COUNTDOWN, 2 WAYS | AS | 2 | \$0.00 |
| 06601101 | LOOP DETECTOR INDUCTIVE, F\&I, TYPE 1 | EA | 1 | \$0.00 |
| 06602102 | LOOP ASSEMBLY, F\&I, TYPE B | AS | 12 | \$0.00 |
| 06602106 | LOOP ASSEMBLY, F\&I, TYPE F | AS | 9 | \$0.00 |
| 0665111 | PEDESTRIAN DETECTOR, F\&I, STANDARD | EA | 4 | \$0.00 |
| 06705400 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY | AS | 1 | \$0.00 |
| 06821400 | ITS CCTV CAMERA, RELOCATE | EA | 1 | \$0.00 |
| 0700522 | INTERNALLY ILLUMINTATED SIGN, F\&I, OVERHEAD MOUNT, 12-18 SF | EA | 2 | \$0.00 |
| Lighting |  |  |  |  |
| 0630211 | CONDUIT, F\&I, OPEN TRENCH | LF | 3525 | \$0.00 |
| 0630212 | CONDUIT, F\&I, DIRECTIONAL BORE | LF | 1505 | \$0.00 |
| 0635211 | PULL \& SPLICE BOX, F\&I, 13"X24" COVER SIZE | EA | 42 | \$0.00 |
| 0715112 | LIGHTING CONDUCTORS, F\&I, INSULATED, NO. 8-6 | LF | 19540 | \$0.00 |
| 0715113 | LIGHTING CONDUCTORS, F\&I, INSULATED, NO. 4-2 | LF | 160 | \$0.00 |
| 0715160 | LIGHTING CONDUCTORS, REMOVE \& DISPOSE, CONTRACTOR OWNS | LF | 1395 | \$0.00 |
| 0715711 | LOAD CENTER, F\&I SECONDARY VOLTAGE | EA | 1 | \$0.00 |
| 071511118 | LUMINAIRE, F\&I, ROADWAY, FLOOD | EA | 4 | \$0.00 |
| 0715-516-115 | LIGHT POLE COMPLETE-SPECIAL DESIGN, F\&I, POLE TOP MOUNT, ALUMINUM, CUSTOM HEIGHT | EA | 31 | \$0.00 |
| 0715-540-000 | LIGHT POLE COMPLETE-SPECIAL DESIGN, RELOCATE | EA | 5 | \$0.00 |
| 0715-550-000 | LIGHT POLE COMPLETE-SPECIAL DESIGN, REMOVE | EA | 3 | \$0.00 |
| Utilities |  |  |  |  |
| 105011222 | 2-4.9" PVC Pipe (F\&I) - PROPOSED 2" \& 4" | LF | 125 | \$0.00 |
| 105011223 | 5-7.9" PVC Pipe (F\&I) - PROPOSED 6" | LF | 625 | \$0.00 |
| 105011224 | 8-19.9" PVC Pipe (F\&I) - PROPOSED 8", 12", 16", 18" | LF | 2010 | \$0.00 |
| 105011424 | 8-19.9" DI PIPE (F\&I) - PROPOSED 8" | LF | 80 | \$0.00 |
| 105011324 | 8-19.9" PE Pipe (F\&I) - PROPOSED 10" (Directional Drill) | LF | 375 | \$0.00 |
| 105018002 | 2-4.9" Plug \& Out of Service - 2" \& 4" | LF | 1021 | \$0.00 |
| 105018003 | 5-7.9" Plug \& Out of Service - 6" | LF | 1235 | \$0.00 |
| 105018004 | 8-19.9"Plug \& Out of Service - 16" | LF | 120 | \$0.00 |
| 108011207 | UTILITY FIXTURES, F\&I, 2-4.9", LINE STOP | EA | 1 | \$0.00 |
| 108011307 | UTILITY FIXTURES, F\&I, 5-7.9", LINE STOP | EA | 4 | \$0.00 |
| 108011407 | UTILITY FIXTURES, F\&I, 8-19.9", LINE STOP | EA | 3 | \$0.00 |
| 105511414 | UTILITY FITTING,F\&I,DI/CI,ELBOW, 8-19.9" | EA | 65 | \$0.00 |
| 105511424 | UTILITY FITTINGS, F\&I, DI/Cl, TEE, 8 - 19.9" | EA | 17 | \$0.00 |
| 105511454 | 8-19" UTILITY FITTINGS (F\&I) PLUG/CAP | EA | 2 | \$0.00 |
| 108011404 | UTIL FIXT,F\&1,8-19.9",VALVE ASSEMBLY | EA | 32 | \$0.00 |
| 108011409 | UTIL FIXT, F\&I, 8-19.9", MECH JONT RESTR | EA | 260 | \$0.00 |
| 164411308 | FIRE HYDRANT,F\&I,STD,2 HOSE,1PUMP,6" | EA | 5 | \$0.00 |
| - | Long Water Services | EA | 8 | \$0.00 |
| - | Short Water Services | EA | 10 | \$0.00 |
| Landscaping |  |  |  |  |
| 751-38-11 | BENCH | EA | 3 | \$0.00 |
| SINGLE TRUNK PALMS - LARGE PLANTS |  |  |  |  |
| 580-1-2 | ARCHONTOPHOENIX CUNNINGHAMIANA (PICCABEEN PALM) | EA | 29 | \$0.00 |
| 580-1-2 | ROYSTONEA REGIA (ROYAL PALM) | EA | 63 | \$0.00 |
| 580-1-2 | ADONIDIA MERRILLII (CHRISTMAS PALM) | EA | 45 | \$0.00 |
| TREES - LARG |  |  |  |  |
| 580-1-2 | QUERCUS VIRGINIANA `HIGH RISE` (HIGH RISE SOUTHERN LIVE OAK) | EA | 17 | \$0.00 |
| 580-1-2 | TAXODIUM DISTICHUM (BALD CYPRESS) | EA | 9 | \$0.00 |
| SHRUBS - SMALL AND LARGE PLANTS |  |  |  |  |
| 580-1-2 | CHRYSOBALANUS ICACO 'RED TIP`(RED TIP COCOPLUM) & EA & 232 & \$0.00 \\ \hline 580-1-1 & DIANELLA TASMANICA `VARIEGATA'(FLAX LILY) | EA | 675 | \$0.00 |
| 580-1-1 | CODIAEUM VARIEGATUM 'MAMMEY' (CROTON) | EA | 692 | \$0.00 |
| 580-1-1 | SCHEFFLERA ARBORICOLA `TRINETTE`(VARIEGATED SCHEFFLERA) | EA | 505 | \$0.00 |
| 580-1-1 | DURANTA REPANS ` GOLD MOUND`(GOLDEN DEWDROP DURANTA) | EA | 101 | \$0.00 |
| 580-1-1 | FICUS MICROCARPA `GREEN ISLAND`(GREEN ISLAND FICUS) | EA | 3019 | \$0.00 |
| 580-1-1 | JUNIPERUS CHINENSIS `PARSONII'(CHINESE JUNIPER) & EA & 488 & \$0.00 \\ \hline 580-1-1 & NEOREGELIA X `ROYAL BURGANDY (ROYAL BURGANDY BROMELIAD) | EA | 186 | \$0.00 |

Attachment A
CONCentral






tabulation of quantities

| $\begin{aligned} & \text { PAY } \\ & \text { ITEM } \\ & \text { NO. } \end{aligned}$ | DESCRIPTION | UNIT | SHEET NUMBERS |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { TOTAL } \\ & \text { THIS } \\ & \text { SHEET } \end{aligned}$ |  | $\begin{aligned} & \text { GRAND } \\ & \text { TOTAL } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | T-3 |  | PLAN | FINAL | PLAN | FINAL | PLAN | FINAL | PLAN | FINAL | PLAN | FINAL | PLAN | FINAL |  |  |  |  |
|  |  |  | PLAN | FINAL |  |  |  |  |  |  |  |  |  |  |  |  | PLAN | FINAL | PLAN FINAL |  |
| 630-2-11 | CONDUIT, FURNISH \& INSTALL, OPEN TRENCH | LF | \{530\} |  |  |  |  |  |  |  |  |  |  |  |  |  | 530\} |  | $530\}$ |  |
|  |  |  |  | , |  |  |  |  |  |  |  |  |  |  |  |  |  | $\triangle$ |  | 1 |
| 630-2-12 | CONDUIT, FURNISH \& INSTALL, DIRECTIONAL BORE | LF | 555 |  |  |  |  |  |  |  |  |  |  |  |  |  | 555 |  | 555 |  |
| 632-7-1 | Signal Cable-new or reconstructed intersection, furnish \& install | PI | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 635-2-11 | PULL \& SPLICE BOX, F\&I, 13"X24" COVER SIZE | EA | 14 |  |  |  |  |  |  |  |  |  |  |  |  |  | 14 |  | 14 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 641-2-70 | PRESTRESSED CONCRETE POLE, SHALLOW POLE REMOVAL-POLE 30' AND GREATER | EA | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |
| 646-1-11 | aluminum signals pole, PEDESTAL | EA | 4 | 1 |  |  |  |  |  |  |  |  |  |  |  |  | 431 |  | 431 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 646-1-60 | ALUMINUM SIGNaLS Pole, remove | EA | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  | 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 649-31-102 | MAST ARM, F\&I, WIND SPEED-150, SINGLE ARM, W/O LUMINAIRE-46 | EA | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |
| 649-31-108 | MAST ARM, F\&I, WIND SPEED-150, SINGLE ARM, WITH LUMINAIRE-60 | EA | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 649-36-300 | MASt ARM, REMOVE SHALLOW FOUNDAT ION, BOLT ON ATTACHMENT | EA | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  | 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 650-1-14 | TRAFFIC SIGNAL, FURNISH \& INSTALL ALUMINUM, 3 SECTION, 1 WAY | AS | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |  | 6 |  |
| 650-1-18 | TRAFFIC SIGNAL, furnish \& install aluminum, 5 SECTION Straight, 1 WAY | AS | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |
| 650-1-70 | TRAFFIC SIGNAL, RELOCATE | AS | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  | 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 653-1-12 | PEDESTRIAN SIGNAL, FURNISH \& INSTALL LED COUNTDOWN, 2 WAY | AS | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  | 2 |  |
| 660-1-101 | INDUCTIVE LOOP DETECTOR | EA |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  | 13, |  | $13 / 1$ |  |
|  | TNOUCTIVE LOOP DETECTOR ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 660-2-102 | LOOP ASSEMBLY, F\&I, TYPE B | AS | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  | 12 |  | 12 |  |
| 660-2-106 | LOOP ASSEMBLY, F\&I, TYPE F | AS | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  | 9 |  | 9 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 665-1-11 | PEDESTRIAN DETECTOR, FURNISH \& INSTALL, STANDARD | EA | $436$ | $\triangle$ |  |  |  |  |  |  |  |  |  |  |  |  | 4311 |  | 4318 |  |
| 670-5-400 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY | AS | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 682-1-400 | its cctiv camera, relocate | EA |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |
| 700-5-22 | Internally illuminated sign, furnish \& install, overhead mount, 12-18 Sf | EA | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  | 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

SIGNALIZATION GENERAL NOTES
PAY ITEM 682-1-40: THE CONTRACT UNIT PRICE FOR THIS ITEM SHALL INCLUDE REMOVAL FROM THE EXISTING SUPPORT, RELOCATION

## Kimley»)Horn


PAY ITEM NOTES



| CENTRAL AVE IMPROVEMENTS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ITEM NO. | DESCRIPTION | UNIT | QTY | UNIT PRICE |  | Amount |  |
| Roadway |  |  |  |  |  |  |  |
| 01011 | MOBILIZATION | LS | 1 | \$ | 229,692.00 | \$ | 229,692.00 |
| 01021 | MAINTENANCE OF TRAFFIC | LS | 1 | \$ | 229,692.00 | \$ | 229,692.00 |
| 0104103 | SEDIMENT BARRIER | LF | 1885 | \$ | 1.06 | \$ | 1,998.10 |
| 010418 | INLET PROTECTION SYSTEM | EA | 44 | \$ | 93.60 | \$ | 4,118.40 |
| 011011 | CLEARING \& GRUBBING | AC | 3.72 | \$ | 14,180.30 | \$ | 52,750.72 |
| 01104 | REMOVAL OF EXISTING CONCRETE PAVEMENT | SY | 2230 | \$ | 21.19 | \$ | 47,253.70 |
| 01201 | REGULAR EXCAVATION | CY | 3908 | \$ | 4.32 | \$ | 16,882.56 |
| 01206 | EMBANKMENT | CY | 813 | \$ | 10.29 | \$ | 8,365.77 |
| 01604 | TYPE B STABILIZATION | SY | 7547 | \$ | 4.26 | \$ | 32,150.22 |
| 0162111 | PREPARED SOIL LAYER, FINISH SOIL, $6^{\prime \prime}$ | SY | 533 | \$ | 0.78 | \$ | 415.74 |
| 021018 | REWORKING LIMEROCK BASE, 4" | SY | 155 | \$ | 8.00 | \$ | 1,240.00 |
| 0285709 | OPTIONAL BASE,BASE GROUP 09 | sy | 5104 | \$ | 23.73 | \$ | 121,117.92 |
| 0327705 | MILLING EXIST ASPH PAVT, 2" AVG DEPTH | SY | 11693 | \$ | 4.76 | \$ | 55,658.68 |
| 0334112 | SUPERPAVE ASPHALTIC CONC, TRAFFIC B | TN | 1205.4 | \$ | 95.88 | \$ | 115,573.75 |
| 0334112 | SUPERPAVE ASPHALTIC CONC, TRAFFIC B (OVERBUILD) | TN | 470.6 | \$ | 95.88 | \$ | 45,121.13 |
| 0337742 | ASPH CONC FC, TRAFFIC B, FC-9.5, PG 76-22 | TN | 929.2 | \$ | 123.34 | \$ | 114,607.53 |
| 03391 | MISC. ASPHALT PAVEMENT | TN | 8.25 | \$ | 147.17 | \$ | 1,214.15 |
| 04251201 | INLETS, CURB, TYPE 9, <10 | EA | 2 | \$ | 3,124.08 | \$ | 6,248.16 |
| 04251203 | INLETS, CURB, TYPE 9, J BOT, <10 | EA | 1 | \$ | 5,579.36 | \$ | 5,579.36 |
| 04251351 | INLETS, CURB, TYPE P-5, <10 | EA | 7 | \$ | 4,254.44 | \$ | 29,781.08 |
| 04251361 | INLETS, CURB, TYPE P-6, <10 | EA | 7 | \$ | 4,659.70 | \$ | 32,617.90 |
| 04251362 | INLETS, CURB, TYPE P-6, >10 | EA | 1 | \$ | 6,122.39 | \$ | 6,122.39 |
| 04251451 | INLETS, CURB, TYPE J-5, <10 | EA | 1 | \$ | 6,850.44 | \$ | 6,850.44 |
| 04251461 | INLETS, CURB, TYPE J-6, <10 | EA | 1 | \$ | 7,246.66 | \$ | 7,246.66 |
| 04251521 | INLETS, DT BOT, TYPE C, <10' | EA | 8 | \$ | 2,843.71 | \$ | 22,749.68 |
| 04251910 | INLETS, CLOSED FLUME | EA | 6 | \$ | 4,223.87 | \$ | 25,343.22 |
| 0425241 | MANHOLE, P-7, <10' | EA | 8 | \$ | 3,926.67 | \$ | 31,413.36 |
| 0425243 | MANHOLE, P-7, PARTIAL | EA | 4 | \$ | 2,171.76 | \$ | 8,687.04 |
| 0425261 | MANHOLE, P-8 <10 | EA | 1 | \$ | 3,276.96 | \$ | 3,276.96 |
| 0425271 | MANHOLE, J-7, <10' | EA | 3 | \$ | 5,540.76 | \$ | 16,622.28 |
| 0425273 | MANHOLE, J-7, PARTIAL | EA | 1 | \$ | 3,315.83 | \$ | 3,315.83 |
| 0425293 | MANHOLE, J-8, PARTIAL | EA | 1 | \$ | 4,286.49 | \$ | 4,286.49 |
| 0430175118 | PIPE CULV, OPT. MATL, ROUND 18" S/CD | LF | 1791 | \$ | 74.39 | \$ | 133,232.49 |
| 0430175124 | PIPE CULV, OPT. MATL, ROUND 24" S/CD | LF | 220 | \$ | 79.27 | \$ | 17,439.40 |
| 0430175130 | PIPE CULV, OPT. MATL, ROUND, 30" S/CD | LF | 1026 | \$ | 90.55 | \$ | 92,904.30 |
| 0430175218 | PIPE CULV, OPT. MATL, OTHER 18" S/CD | LF | 398 | \$ | 66.31 | \$ | 26,391.38 |
| 0440110 | UNDERDRAIN, TYPE I | LF | 591 | \$ | 23.66 | \$ | 13,983.06 |
| 0520110 | CONCRETE CURB \& GUTTER, TYPE F | LF | 5915 | \$ | 18.21 | \$ | 107,712.15 |
| 052022 | CONCRETE CURB, TYPE B | LF | 426 | \$ | 23.75 | \$ | 10,115.13 |
| 052024 | CONCRETE CURB, TYPE D | LF | 4320 | \$ | 14.96 | \$ | 64,627.20 |
| 052028 | CONCRETE CURB, TYPE RA | LF | 302 | \$ | 33.36 | \$ | 10,068.05 |
| 05221 | SIDEWALK CONC, 4" THICK | SY | 3496 | \$ | 35.10 | \$ | 122,709.60 |
| 05222 | SIDEWALK CONC, $\mathbf{6}^{\prime \prime}$ THICK | SY | 176 | \$ | 45.93 | \$ | 8,083.68 |
| 052611 - | PAVERS, ARCHITECTURAL, TRUCK APRON | SY | 250 | \$ | 80.00 | \$ | 20,016.00 |
| 052611 - B | PaVERS, ARCHITECTURAL, SPLITTER ISLANDS | SY | 135 | \$ | 80.00 | \$ | 10,800.00 |
| 05261 1-C | PERVIOUS PAVERS, ARCHITECTURAL, PARKING | SY | 557 | \$ | 90.00 | \$ | 50,130.00 |
| 55010228 | FENCING, TYPE B, 5.1-6.0, RESET EXISTING | LF | 280 | \$ | 15.00 | \$ | 4,200.00 |
| 55060223 | FENCE GATE, TYPE B, DOUBLE, 12.1-18.0' OPENING | EA | 1 | \$ | 1,100.00 | \$ | 1,100.00 |
| 05272 | DETECTABLE WARNINGS | SF | 328 | \$ | 31.26 | \$ | 10,253.28 |
| 057012 | PERFORMANCE TURF, SOD | SY | 533 | \$ | 2.03 | \$ | 1,081.99 |
| BIO-S. | BIOSWALES (WATER QUALITY SYSTEM) | EA | 6 | \$ | 20,000.00 | \$ | 120,000.00 |

## OPINION OF PROBABLE CONSTRUCTION COST

(Bid Plans December 2015)

| CENTRAL AVE IMPROVEMENTS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ITEM NO. | DESCRIPTION | UNIT | QTY | UNIT PRICE |  | AMOUNT |  |
| Signing and Marking |  |  |  |  |  |  |  |
| 052313 | PATTERNED PAVEMENT, VEHICULAR AREAS, GREEN BIKE LANE | SY | 744 | \$ | 50.00 | \$ | 37,200.00 |
| 0700111 | SINGLE POST SIGN, F\&I, LESS THAN 12 SF | AS | 39 | \$ | 326.92 | \$ | 12,749.88 |
| 0700150 | SINGLE POST SIGN, RELOCATE | AS | 3 | \$ | 271.70 | \$ | 815.10 |
| 0700160 | SINGLE POST SIGN, REMOVE | AS | 1 | \$ | 21.80 | \$ | 21.80 |
| 07063 | RETRO-REFLECTIVE PAVEMENT MARKERS | EA | 142 | \$ | 3.73 | \$ | 529.66 |
| 071111123 | THERMOPLASTIC, STD, WHITE, SOLID, 12" | LF | 2026 | \$ | 2.22 | \$ | 4,497.72 |
| 071111124 | THERMOPLASTIC, STD, WHITE, SOLID, 18" | LF | 30 | \$ | 3.42 | \$ | 102.60 |
| 071111125 | THERMOPLASTIC, STD, WHITE, SOLID, $24 "$ | LF | 2201 | \$ | 4.45 | \$ | 9,794.45 |
| 071111141 | THERMOPLASTIC, STD, WHITE, 2-4 DOTTED GUIDELINE / 6-10 DOTTED EXTENSION LINE, $6 "$ | GM | 0.769 | \$ | 2,484.73 | \$ | 1,910.76 |
| 071111160 | THERMOPLASTIC, STD, WHITE, MESSAGE | EA | 8 | \$ | 128.81 | \$ | 1,030.48 |
| 071111170 | THERMOPLASTIC, STD, WHITE, ARROW | EA | 19 | \$ | 61.84 | \$ | 1,174.96 |
| 071111180 | THERMOPLASTIC, STD, WHITE, YIELD LINE | LF | 111 | \$ | 10.79 | \$ | 1,197.69 |
| 071111224 | THERMOPLASTIC, STD, YELLOW, SOLID, 18" | LF | 149 | \$ | 3.34 | \$ | 497.66 |
| 071111241 | THERMOPLASTIC, STD, YELLOW, 2-4 DOTTED GUIDELINE / 6-10 DOTTED EXTENSION LINE, 6" | GM | 0.129 | \$ | 1,609.20 | \$ | 207.59 |
| 071111421 | THERMOPLASTIC, STD, BLUE, SOLID, 6" | LF | 56 | \$ | 1.46 | \$ | 81.76 |
| 071114160 | THERMOPLASTIC, PREFORMED, WHITE, MESSAGE | EA | 22 | \$ | 237.28 | \$ | 5,220.16 |
| 071114170 | THERMOPLASTIC, PREFORMED, WHITE, ARROWS | EA | 21 | \$ | 117.58 | \$ | 2,469.18 |
| 071116101 | THERMOPLASTIC, STD-OTHER SURFACES, WHITE, SOLID, 6 " | GM | 1.615 | \$ | 4,045.84 | \$ | 6,534.03 |
| 071116102 | THERMOPLASTIC, STD-OTHER SURFACES, WHITE, SOLID, 8" | GM | 0.047 | \$ | 5,963.75 | \$ | 280.30 |
| 071116131 | THERMOPLASTIC, STD-OTHER SURFACES, WHITE, SKIP, 6" | GM | 0.030 | \$ | 1,332.31 | \$ | 39.97 |
| 071116201 | THERMOPLASTIC, STD-OTHER SURFACES, YELLOW, SOLID, $6^{\prime \prime}$ | GM | 1.093 | \$ | 4,085.89 | \$ | 4,465.88 |
| 071116202 | THERMOPLASTIC, STD-OTHER SURFACES, YELLOW, SOLID, $8^{\prime \prime}$ | GM | 0.020 | \$ | 5,212.09 | \$ | 104.24 |
| Signalization |  |  |  |  |  |  |  |
| 0630211 | CONDUIT, F\&I, OPEN TRENCH | LF | 750 | \$ | 5.67 | \$ | 4,252.50 |
| 0630212 | CONDUIT, F\&I, DIRECTIONAL BORE | LF | 335 | \$ | 24.37 | \$ | 8,163.95 |
| 063271 | SIGNAL CABLE, FURNISH \& INSTALL | PI | 1 | \$ | 8,272.84 | \$ | 8,272.84 |
| 0635211 | PULL \& SPLICE BOX, F\&I, 13"X24" COVER SIZE | EA | 14 | \$ | 547.99 | \$ | 7,671.86 |
| 0641270 | PRESTRESSED CONCRETE POLE, SHALLOW POLE REMOVAL, POLE 30' \& GREATER | EA | 1 | \$ | 1,960.27 | \$ | 1,960.27 |
| 0646111 | ALUMINUM SIGNALS POLE, PEDESTAL | EA | 4 | \$ | 1,058.62 | \$ | 4,234.48 |
| 0646160 | ALUMINUM SIGNALS POLE, REMOVE | EA | 2 | \$ | 233.31 | \$ | 466.62 |
| 064931102 | MAST ARM, F\&I, WIND SPEED-150, SINGLE ARM, W/0 LUMINAIRE - 46 | EA | 1 | \$ | 28,085.05 | \$ | 28,085.05 |
| 064931108 | MAST ARM, F\&I, WIND SPEED-150, SINGLE ARM, WITH LUMINAIRE - 60 | EA | 1 | \$ | 37,000.00 | \$ | 37,000.00 |
| 064936300 | MAST ARM, REMOVE SHALLOW FOUNDATION, BOLT ON ATTACHMENT | EA | 2 | \$ | 2,456.06 | \$ | 4,912.12 |
| 0650114 | TRAFFIC SIGNAL, F\&I, 3 SECTION, 1 WAY, ALUMINUM | AS | 6 | \$ | 1,012.97 | \$ | 6,077.82 |
| 0650118 | TRAFFIC SIGNAL, F\&I, 5 SECTION STRAIGHT, 1 WAY, ALUMINUM | AS | 1 | \$ | 1,710.00 | \$ | 1,710.00 |
| 0650170 | TRAFFIC SIGNAL, RELOCATE | AS | 2 | \$ | 220.34 | \$ | 440.68 |
| 0653112 | PEDESTRIAN SIGNAL, F\&I, LED COUNTDOWN, 2 WAY | AS | 2 | \$ | 1,190.37 | \$ | 2,380.74 |
| 06602102 | LOOP ASSEMBLY, F\&I, TYPE B | AS | 12 | \$ | 664.18 | \$ | 7,970.16 |
| 06602106 | LOOP ASSEMBLY, F\&I, TYPE F | AS | 9 | \$ | 1,011.30 | \$ | 9,101.70 |
| 0665111 | PEDESTRIAN DETECTOR, F\&I, STANDARD | EA | 4 | \$ | 204.18 | \$ | 816.72 |
| 06705400 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY | AS | 1 | \$ | 3,498.67 | \$ | 3,498.67 |
| 06821400 | ITS CCTV CAMERA, RELOCATE | EA | 1 | \$ | 2,495.00 | \$ | 2,495.00 |
| 0700522 | INTERNALLY ILLUMINTATED SIGN, F\&I, OVERHEAD MOUNT, 12-18 SF | EA | 2 | \$ | 3,363.93 | \$ | 6,727.86 |
| Lighting |  |  |  |  |  |  |  |
| 0630211 | CONDUIT, F\&I, OPEN TRENCH | LF | 3525 | \$ | 5.67 | \$ | 19,986.75 |
| 0630212 | CONDUIT, F\&I, DIRECTIONAL BORE | LF | 1505 | \$ | 24.37 | \$ | 36,676.85 |
| 0635211 | PULL \& SPLICE BOX, F\&I, 13"X24" COVER SIZE | EA | 42 | \$ | 547.99 | \$ | 23,015.58 |
| 0715112 | LIGHTING CONDUCTORS, F\&I, INSULATED, NO. 8-6 | LF | 19540 | \$ | 1.03 | \$ | 20,126.20 |
| 0715113 | LIGHTING CONDUCTORS, F\&I, INSULATED, NO. 4-2 | LF | 160 | \$ | 1.85 | \$ | 296.00 |
| 0715160 | LIGHTING CONDUCTORS, REMOVE \& DISPOSE, CONTRACTOR OWNS | LF | 1395 | \$ | 0.20 | \$ | 279.00 |
| 0715711 | LOAD CENTER, F\&I SECONDARY VOLTAGE | EA | 1 | \$ | 12,036.74 | \$ | 12,036.74 |
| 071511118 | LUMINAIRE, F\&I, ROADWAY, FLOOD | EA | 4 | \$ | 1,190.51 | \$ | 4,762.04 |
| 0715-516-115 | LIGHT POLE COMPLETE-SPECIAL DESIGN, F\&I, POLE TOP MOUNT, ALUMINUM, CUSTOM HEIGHT | EA | 31 | \$ | 6,450.00 | \$ | 199,950.00 |
| 0715-540-000 | LIGHT POLE COMPLETE-SPECIAL DESIGN, RELOCATE | EA | 5 | \$ | 1,750.00 | \$ | 8,750.00 |
| 0715-550-000 | LIGHT POLE COMPLETE-SPECIAL DESIGN, REMOVE | EA | 3 | \$ | 303.70 | \$ | 911.10 |

## OPINION OF PROBABLE CONSTRUCTION COST <br> (Bid Plans December 2015)

| CENTRAL AVE IMPROVEMENTS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ITEM NO. | DESCRIPTION | UNIT | QTY |  | PRICE |  | AMOUNT |
| Utilities |  |  |  |  |  |  |  |
| 105011222 | 2-4.9" PVC Pipe (F\&I) - PROPOSED 2" \& 4" | LF | 125 | \$ | 69.45 | \$ | 8,681.25 |
| 105011223 | 5-7.9" PVC Pipe (F\&I) - PROPOSED 6" | LF | 625 | \$ | 74.17 | \$ | 46,356.25 |
| 105011224 | 8-19.9" PVC Pipe (F\&I) - PROPOSED 8", 12", 16", 18" | LF | 2010 | \$ | 85.80 | \$ | 172,458.00 |
| 105011424 | 8-19.9" DI PIPE (F\&I) - PROPOSED 8" | LF | 80 | \$ | 88.64 | \$ | 7,091.20 |
| 105011324 | 8-19.9" PE Pipe (F\&I) - PROPOSED 10" (Directional Drill) | LF | 375 | \$ | 124.43 | \$ | 46,661.25 |
| 105018002 | 2-4.9" Plug \& Out of Service - 2" \& 4" | LF | 1021 | \$ | 12.00 | \$ | 12,252.00 |
| 105018003 | 5-7.9" Plug \& Out of Service - 6" | LF | 1235 | \$ | 12.44 | \$ | 15,363.40 |
| 105018004 | 8-19.9"Plug \& Out of Service - 16" | LF | 120 | \$ | 13.33 | \$ | 1,599.60 |
| 108011207 | UTILITY FIXTURES, F\&I, 2-4.9", LINE STOP | EA | 1 | \$ | 2,544.00 | \$ | 2,544.00 |
| 108011307 | UTILITY FIXTURES, F\&I, 5-7.9", LINE STOP | EA | 4 | \$ | 4,383.13 | \$ | 17,532.52 |
| 108011407 | UTILITY FIXTURES, F\&I, 8-19.9", LINE STOP | EA | 3 | \$ | 5,312.21 | \$ | 15,936.63 |
| 105511414 | UTILITY FITTING,F\&I,DI/CI,ELBOW, 8-19.9" | EA | 65 | \$ | 1,279.75 | \$ | 83,183.75 |
| 105511424 | UTILITY FITTINGS, F\&I, DI/CI, TEE, 8-19.9" | EA | 17 | \$ | 1,376.91 | \$ | 23,407.47 |
| 105511454 | 8-19" UTILITY FITTINGS (F\&I) PLUG/CAP | EA | 2 | \$ | 712.37 | \$ | 1,424.74 |
| 108011404 | UTIL FIXT,F\&I,8-19.9",VALVE ASSEMBLY | EA | 32 | \$ | 3,212.59 | \$ | 102,802.88 |
| 108011409 | UTIL FIXT, F\&I, 8-19.9", MECH JONT RESTR | EA | 260 | \$ | 264.24 | \$ | 68,702.40 |
| 164411308 | FIRE HYDRANT,F\&I,STD, 2 HOSE, 1PUMP,6" | EA | 5 | \$ | 4,187.06 | \$ | 20,935.30 |
| - | Long Water Services | EA | 8 | \$ | 1,750.00 | \$ | 14,000.00 |
| - | Short Water Services | EA | 10 | \$ | 750.00 | \$ | 7,500.00 |
| Landscaping |  |  |  |  |  |  |  |
| 751-38-11 | BENCH | EA | 3 | \$ | 1,500.00 | \$ | 4,500.00 |
| SINGLE TRUNK PALMS - LARGE PLANTS |  |  |  |  |  |  |  |
| 580-1-2 | ARCHONTOPHOENIX CUNNINGHAMIANA (PICCABEEN PALM) | EA | 29 | \$ | 1,200.00 | \$ | 34,800.00 |
| 580-1-2 | ROYSTONEA REGIA (ROYAL PALM) | EA | 63 | \$ | 1,500.00 | \$ | 94,500.00 |
| 580-1-2 | ADONIDIA MERRILLII (CHRISTMAS PALM) | EA | 45 | \$ | 700.00 | \$ | 31,500.00 |
| TREES - LARGE PLANS |  |  |  |  |  | \$ | - |
| 580-1-2 | QUERCUS VIRGINIANA `HIGH RISE` (HIGH RISE SOUTHERN LIVE OAK) | EA | 17 | \$ | 2,000.00 | \$ | 34,000.00 |
| 580-1-2 | TAXODIUM DISTICHUM (BALD CYPRESS) | EA | 9 | \$ | 1,050.00 | \$ | 9,450.00 |
| SHRUBS - SMALL AND LARGE PLANTS |  |  |  |  |  | \$ | - |
| 580-1-2 |  | EA | 232 | \$ | 45.00 | \$ | 10,440.00 |
| 580-1-1 | DIANELLA TASMANICA `VARIEGATA`(FLAX LILY) | EA | 675 | \$ | 18.00 | \$ | 12,150.00 |
| 580-1-1 | CODIAEUM VARIEGATUM 'MAMMEY' (CROTON) | EA | 692 | \$ | 15.00 | \$ | 10,380.00 |
| 580-1-1 | SCHEFFLERA ARBORICOLA `TRINETTE`(VARIEGATED SCHEFFLERA) | EA | 505 | \$ | 11.00 | \$ | 5,555.00 |
| 580-1-1 | DURANTA REPANS `GOLD MOUND \({ }^{\text {(GOLDEN DEWDROP DURANTA) }}\) & EA & 101 & \$ & 15.00 & \$ & 1,515.00 \\ \hline 580-1-1 & FICUS MICROCARPA `GREEN ISLAND`(GREEN ISLAND FICUS) & EA & 3019 & \$ & 15.00 & \$ & 45,285.00 \\ \hline 580-1-1 & JUNIPERUS CHINENSIS `PARSONII (CHINESE JUNIPER) | EA | 488 | \$ | 13.50 | \$ | 6,588.00 |
| 580-1-1 | NEOREGELIA X `ROYAL BURGANDY`(ROYAL BURGANDY BROMELIAD) | EA | 186 | \$ | 25.00 | \$ | 4,650.00 |
| ANNUALS |  |  |  |  |  |  |  |
| 580-1-1 | ANNUALS | EA | 308 | \$ | 7.00 | \$ | 2,156.00 |
| ORNAMENTAL GRASSES - SMALL PLANTS |  |  |  |  |  |  |  |
| 580-1-1 | MUHLENBERGIA CAPILLARIS(PINK MUHLY) | EA | 503 | \$ | 5.00 | \$ | 2,515.00 |
| 580-1-1 | SPARTINA BAKERI(SAND CORD GRASS) | EA | 156 | \$ | 6.00 | \$ | 936.00 |
| SOIL AMENDMENTS |  |  |  |  |  |  |  |
| - | BOLD \& GOLD | CY | 48 | \$ | 53.00 | \$ | 2,544.00 |
| Irrigation |  |  |  |  |  |  |  |
| 059070 | IRRIGATION SYSTEM | LS | 1 | \$ | 82,000.00 | \$ | 82,000.00 |
| CENTRAL AVE IMPROVEMENTS |  |  |  |  |  |  |  |
| SUBTOTAL (DOES NOT INCLUDE MOBILIZATION \& MOT) |  |  |  |  |  | \$ | 3,281,308.72 |
| MOBILIZATION \& MOT |  |  |  |  |  | \$ | 459,384.00 |
| O.P.C. SUBTOTAL |  |  |  |  |  | \$ | 3,740,692.72 |
| 10\% Contingency |  |  |  |  |  | \$ | 374,069.27 |
| ESTIMATED O.P.C. TOTAL |  |  |  |  |  | \$ | 4,114,761.99 |

[^0] industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs


[^0]:    The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction

