**1112 Manatee Avenue West**
**Bradenton, FL 34205**
**purchasing@mymanatee.org**

**Solicitation Addendum**

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|---|---|
| Addendum No.: | 1 |
| Solicitation No.: | 23-R081820SAM |
| Project No.: | 6012629 |
| Solicitation Title: | Washington Park Preserve Phase 1 Soil Abatement – Community Development Block Grant (CDBG) |
| Addendum Date: | May 24, 2023 |
| Procurement Contact: | Sherri Meier, Procurement Manager – Construction |

**IFBC 23-R081820SAM is amended as set forth herein. Responses to questions posed by prospective bidders are provided below. This Addendum is hereby incorporated in and made a part of IFBC 23-R081820SAM.**

**The deadline to submit all inquiries concerning interpretation, clarification or additional information pertaining to this IFBC is June 9, 2023.**

**CHANGE TO:**

**SECTION B, BID FORMS, APPENDIX A, MINIMUM QUALIFICATIONS, ITEM NO. 5**

Change to Section B, Bid Forms, Appendix A, Minimum Qualifications, Item No. 5 as follows:

Bidder or Bidder's subcontractor has provided soil abatement and dewatering projects for at least three (3) projects in which each project included the following components: (i) soil abatement; (ii) dewatering; ~~(iii) management~~; and (~~iv~~iii) disposal of arsenic and benzo(a)pyrene (BAP) soil. Project clients shall be currently employed, available and agreeable to responding to an email inquiry by the County.

**ADD:**

**SECTION C, BID ATTACHMENTS, BID ATTACHMENT 7, MEASUREMENT AND PAYMENT**

The attached Bid Attachment 7, Measurement and Payment is hereby incorporated into this IFBC.

**NOTE:**
Deleted items will be ~~struck through~~, added or modified items will be underlined. All other terms and conditions remain as stated in the IFBC.

**INSTRUCTIONS**:
Receipt of this Addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the response being deemed non-responsive.

**END OF ADDENDUM**

AUTHORIZED FOR RELEASE

Chris Daley, CPPO, CPPB

Digitally signed by Chris Daley, CPPO, CPPB
Date: 2023.05.24 09:11:08 -04'00'

**SECTION D**
**MEASUREMENT AND PAYMENT**
**WASHINGTON PARK PHASE I SOIL ABATEMENT PROJECT**
**5/23/2023**

## D.1 SCOPE

This Section defines the items included in each Bid Item in the Bid Form section. Payment will be made based on the specified items included in the description in this section for each bid item.

### D.1.1 MOBILIZATION

#### D.1.1.1 DESCRIPTION OF WORK

The work included under this Section consists of the preparatory work and operations in mobilizing to begin work on the project. This may include those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site and for the establishment of temporary offices, safety equipment and first aid supplies, and sanitary and other facilities/utilities. This item also includes demobilization of all equipment, personnel, supplies and incidentals from the project site upon final completion.

#### D.1.1.2 PAYMENT

All work specified under this Section shall be paid for under the Lump Sum Pay Item for MOBILIZATION on the Bid Form and in accordance with the following schedule:

| Percent of Total Contract Amount Earned | Allowable Percent of the Lump Sum Price for Mobilization |
|---|---|
| 5 | 25 |
| 10 | 50 |
| 25 | 75 |
| 100 | 100 |

### D.1.2 MISCELLANEOUS PERMITS AND BONDING

#### D.1.2.1 DESCRIPTION OF WORK

The work included under this Section includes obtaining any miscellaneous permits not furnished by the owner (including any required permit fees). These permits may include, but are not limited to, NPDES permits, dewatering permits, right-of-way use permits, temporary access/drainage permits, and burn permits, if required.

The Contractor shall also be responsible for the preparation of a Stormwater Pollution Prevention Plan and submittal of NPDES Notice of Intent and Notice of Termination pursuant to State NPDES permitting requirements. The Contractor shall provide a Stormwater Pollution Prevention Plan to Engineer and the County prior to commencing construction. The Contractor shall be responsible for the implementation of the NPDES and related Stormwater Pollution Prevention Plan for the duration of the project.

In addition, the Contractor shall also obtain any required temporary dewatering permits through the Florida Department of Environmental Protection (FDEP), if required, and shall provide copies to the County and Engineer.

The Contractor shall have copies of all permits readily accessible on-site. The Contractor shall be responsible for adhering to all applicable permit conditions.

The cost of any bonds required by the County as part of this contract shall also be included under this Section.

#### D.1.2.2 PAYMENT

All work specified under this section shall be paid for under the Lump Sum Pay Item for MISCELLANEOUS PERMITS AND BONDING on the Bid Form.

### D.1.3 CONSTRUCTION SURVEYING AND STAKEOUT (INCLUDING RECORD DRAWINGS)

#### D.1.3.1 DESCRIPTION OF WORK

The work included under this Section includes all survey related services needed to complete the construction of the project. The Contractor shall employ a Land Surveyor registered in the State of Florida and acceptable to the County to perform survey functions on this project. The Contractor shall provide the name, address, and telephone number of the Surveyor before starting survey work.

The Surveyor shall maintain a complete and accurate log of control and survey work as it progresses. Contractor shall locate and protect survey control and reference points prior to starting work.

Surveyor shall establish a minimum of two permanent benchmarks on-site, referenced to established control points. The benchmark locations, with horizontal and vertical data, shall be provided on project documents. Surveyor shall sign field notes and keep duplicate field notes.

Upon completion of finished grading and prior to initiation of seeding, sodding, and/or planting, the Contractor's Surveyor shall provide preliminary as-built project drawings and CAD file of the finished grade elevations of the constructed features to the Project Engineer and the County for review (to confirm adherence with the Construction Plans) and approval.

The Contractor's Surveyor shall also provide accurate, detailed, and complete signed and sealed record drawings (10 sets) and one CD containing CAD files of all record drawing sheets to the Project Engineer and the County. The record drawings shall be signed and sealed by a Florida registered Land Surveyor. The record drawings shall meet or exceed the requirements of the Florida Department of Environmental Protection (FDEP) and Manatee County.

#### D.1.3.2 PAYMENT

All work specified under this section shall be paid for under the Lump Sum / Unit Price Pay Items for CONSTRUCTION SURVEYING AND STAKEOUT (INCLUDING RECORD DRAWINGS) on the Bid Form.

## D.1.4 EROSION AND TURBIDITY CONTROL AND MONITORING

### D.1.4.1 DESCRIPTION OF WORK

The work included under this Section consists of furnishing all necessary labor, equipment, tools, and materials associated with erosion and turbidity control and environmental, wildlife and turbidity monitoring and reporting needed throughout the construction of the project. Contractor shall be responsible for erection and maintenance of all required erosion and turbidity control devices best management practices (BMPs) in accordance with the Construction Plans prior to the start of construction. Contractor shall be responsible for preparation and implementation of and adherence to required construction turbidity monitoring plans where required.

Prior to the installation of the erosion control devices, the Contractor shall contact the Manatee County Building and Development Services Department - Environmental Planning Division to schedule and confirm the required inspections of the erosion control devices for the project.

The Contractor shall re-establish, at no additional expense to the County, all erosion and turbidity controls, or sections thereof, which may become damaged, destroyed, or otherwise rendered unsuitable for their intended function during the construction of the project. The Contractor shall, at their expense, provide routine maintenance of permanent and temporary erosion and turbidity control features until the project is completed and accepted. If such erosion and turbidity control features must be reconstructed due to the Contractor's negligence or carelessness or, in the case of temporary erosion and turbidity control features, failure by the Contractor to install permanent erosion control features as scheduled, such replacement shall be at the Contractor's own expense. The Contractor, at their expense, shall also be responsible for repair/re-establishment of areas damaged by failure of erosion and turbidity control features to the design specifications until the project is completed and accepted. The work specified under this Section shall include the installation, re-establishment and maintenance of all required erosion and turbidity control devices, all other work required to minimize turbidity in downstream waters, and the removal of all such temporary erosion and turbidity control features upon completion of the project.

### D.1.4.2 PAYMENT

All work specified under this section shall be paid for under the Lump Sum / Unit Price Pay Items for EROSION AND TURBIDITY CONTROL on the Bid Form at the indicated schedule:

ITEM D.1.4.1.1 Staked Silt Fence and Maintenance

## D.1.5 EXCAVATION AND MATERIAL REMOVAL

### D.1.5.1 DESCRIPTION OF WORK

Work specified in this Section consists of excavation and embankment of the stormwater pond and areas identified as "Other Areas/Non Pond Area" identified on Sheet X01 of the construction plans and other similar work described herein or shown on the plans. This section includes material excavation, hauling and disposal of materials, construction of embankments, placement of clean fill and compaction of excavated areas and embankments. All work shall conform to the proposed alignment, elevations, slopes, and cross sections shown on the plans. Contractor shall include any temporary dewatering (and required permitting if necessary) work necessary to

complete the project and adhere to requirements specified in the Soil and Dewatering Management Plan (SDMP) prepared by PSI.

Manatee County's Environmental Consultant will guide excavation activities as they relate to the final depth of excavation to ensure compliance with FDEP excavation requirements. Based on original estimates, up to 12,380 cubic yards of material are anticipated to be excavated from the proposed pond area and an additional 4,789 cubic yards are estimated to be excavated and removed from four (4) hatched locations and the playground area as shown on the Construction Plans and Sheet X01.

Contractor shall notify all utility companies or utility owners, both public and/or private of their intent to perform such work and coordinate field location of utility lines prior to commencement of construction. Locating existing underground utilities shall be the responsibility of the Contractor. In the event of any utility conflict, the Contractor shall immediately inform the utility company, the County, and the Project Engineer of the conflict. Contractor at Contractor's expense shall be responsible for the immediate repair of any utility lines damaged during construction.

If the excavation requires the use of cofferdams, dewatering, sheeting, or bracing, all such work will be done in strict compliance with all permit requirements and any laws or ordinance that may apply to the work being performed. It shall be the responsibility of the Contractor to be familiar with any applicable regulations and to satisfy said regulations at the Contractor's own expense.

The contractor shall backfill excavated areas and compact to final grade as detailed in the construction drawings. Clean fill used to backfill excavated areas and in embankments shall be obtained from a source approved by the County and the County's Environmental Consultant. Proposed fill material shall be submitted to a National Environmental Accreditation Program (NELAP) certified laboratory for analysis of the following:

- Volatile Organics (by EPA Method 8260)
- Semi-volatile Organics [Base/Neutrals (e.g., PAHs, Pesticides, PCBs) and Acid Extractables (e.g., Phenols)] (by EPA Methods 8270/8081/8082)
- RCRA Metals (by EPA Method 6010 and EPA Method 7471 OR EPA Method 6020, and EPA Method 7471 if not certified for mercury under EPA Method 6020)
- Total Recoverable Petroleum Hydrocarbons (by FL-PRO)

**Disposal of Excavated Material**

All excavated material will be transported to a Class I Landfill that will accept the waste(s) and is approved by Manatee County. Analytical results previously obtained by PSI will be provided to contractor to assist with waste characterization and acceptance into a Manatee County approved landfill. At this time, the percent of C&D debris to the percent of soil is not known. The selected contractor should weigh the cost benefit of screening C&D debris from soil and disposing of the two (2) waste streams separately to maximize cost savings.

Copies of all waste manifests tracking the transport and ultimate disposal of material removed from the site will be required by Manatee County's Environmental Consultant.

Due to the presence of C&D debris, Manatee County's Environmental Consultant will perform landfill gas testing. It will be the selected contractor's responsibility to coordinate with the consultant prior to any excavation activities occurring in (or around) known disposal locations, allowing sufficient time (minimum 10 days) for the consultant to mobilize a technician for landfill gas testing.

**Embankment Construction Requirements**
Embankment material shall be placed in horizontal layers not to exceed 12 inches thickness measured loose. Each layer shall be leveled and compacted in accordance with Embankment Compaction Requirements. No fill material shall be placed where area is wet. Dewatering may be required prior to filling operation, either by pumping or well pointing. Water shall not be allowed to stand on or adjacent to fill areas that could saturate the material.

Embankments shall be constructed true to line and grades shown in the Construction Plans or ordered by the Project Engineer or County (or designee). When embankments are constructed on a hill or slope, slope shall be "stepped" so as to permit the embankment to be placed in horizontal layers and compacted as stated above. Upon completion of the embankment steps on a slope, steps shall be dressed to conform to the specified slope.

For any embankments not covered above, construction methods shall be approved by the Project Engineer prior to placement.

**Embankment Compaction Requirements**
Materials shall be compacted at moisture content such that the specific density can be attained. If necessary, water shall be added to the material, or the moisture content shall be lowered by manipulating the material or allowing it to dry, as is appropriate. Each layer of material shall be compacted by the use of a smooth drum vibratory roller or other method approved by the Project Engineer. The top 12” of natural ground shall be compacted in accordance with be requirements listed below.

Field density tests shall be conducted in accordance with ASTM D-1556, D-2167, D-2922, or D-2937 (latest revisions) by a certified laboratory or soils engineer approved by the County according to the Compaction Requirements stated below:

| Embankment Area | Density[1] Below 3' | Density[1] 0' to 3' | Testing Frequency/Lift |
|---|---|---|---|
| Building Pads[2] | 95% | 98% | 1 Ea/2000 SF, Minimum 2 Ea/Structure |
| Pavement Areas[3] | 95% | 98% | 1 Ea/500 SY |
| Retention Areas[4] | 95% | 95% | 1 Ea/500 SY |
| Other Areas | N/A | N/A | N/A |

1 The percentage listed shall be the minimum acceptable amount of the maximum theoretical density as determined by the Modified Proctor Density (ASTM-D-1557).
2 Includes future building pads and lots.
3 Includes any permanent pavement structure such as curb and gutter, sidewalk, roadway, shoulder, driveway, or any other similar surface.
4 Includes shell trails, earth berms, water retention slopes, dikes, and other similar areas.

Contractor shall be responsible for scheduling of all soil testing. These soil testing costs shall be borne by the Contractor unless stated otherwise in the plans or specifications. In the event of a test failure all subsequent tests required to pass density shall be at the expense of the Contractor. The County may deduct this expense from the Contractor's payment or request payment directly from Contractor.

Contractor shall be responsible for protection of any existing underground stormwater facilities within and directly adjacent to the project area from damage and shall repair or replace damaged facilities at no additional cost.

### D.1.5.2 PAYMENT

All work specified under this section shall be paid for under the Unit Price Pay Items for EXCAVATION AND MATERIAL REMOVAL on the Bid Form at the indicated schedule:

ITEM D.1.5.1.1 Stormwater Pond (SW) Excavation
ITEM D.1.5.1.2 SW Pond Embankment (Furnish, Place and Compact)
ITEM D.1.5.1.3 Other Areas/Non Pond Area-Excavation
ITEM D.1.5.1.4 Other Areas/Non Pond Area-Clean Fill -Furnish, Place & Compact
ITEM D.1.5.1.5 Disposal of Excavated Material

## D.1.6 FINISHED GRADING

### D.1.6.1 DESCRIPTION OF WORK

The work included under this Section consists of all finished grading required to achieve the design elevations shown on the Construction Plans. As a final grading operation, the surface of the earthwork shall be shaped to conform to the lines, grades and contours shown on the Construction Plans. Hand dressing will be required in confined areas where equipment operation is restricted or where the equipment-finished surface is unsatisfactory in the judgment of the County. It shall also include restoring (re-grading) any access routes to existing pre-construction grades upon completion of construction and stockpile removal activities. The Contractor shall be responsible for the removal and proper disposal of surplus material (if any) upon completion of finished grading as directed by the County.

The Contractor shall take the necessary precautions to prevent erosion of the slopes before and after finish grading. Any erosion of whatever consequence shall be repaired at the expense of the Contractor until final acceptance of the project.

### D.1.6.2 PAYMENT

All work specified under this section shall be paid for under the Unit Price Pay Items for FINISHED GRADING on the Bid Form at the indicated schedule:

ITEM D.1.6.1.1 Stormwater Pond and Other Areas

## D.1.7 SOD AND SEED/MULCH

### D.1.7.1 DESCRIPTION OF WORK

The work included under this Section consists of sodding and seeding/mulching upon completion of finish grading activities in conformity with the lines and grades as shown on the Construction Plans.

Argentine Bahia (*Paspalum notatum*) sod shall be used on areas to be sodded as specified on the Sod, Seed and Mulch Exhibit X01 and the Construction Plans. Sod shall be free of Bermuda grass (*Cynodon* spp.), Smut grass (*Sporobolus indicus*), or any species identified on the 2017 Florida Exotic Pest Plant Council list of invasive plant species or it will be rejected. It shall be well matted with roots. The sod shall be taken up in commercial-size rectangles preferably 12 by 24 inches. The sod shall be sufficiently thick to secure a dense stand of live turf with a minimum thickness of two inches. The sod shall be live, fresh, and uninjured, at the time of planting. It shall have

a soil mat of sufficient thickness adhering firmly to the roots to withstand necessary handling. It shall be planted within 48 hours after being cut and kept shaded and moist from the time it is cut until it is planted. The sod shall be firmly embedded by light tamping. No sod, which has been cut for more than 48 hours, may be used unless specifically authorized. A letter of certification from the turf supplier as to when the sod was cut shall be provided if requested. Immediately before sod is placed, fertilizer shall be applied evenly at the equivalent rate of approximately 10 pounds of 6-6-6 per 1,000 square feet and shall be cut into the soil with suitable equipment. After the sod has been placed, it shall be thoroughly watered with freshwater. Sodding includes maintaining sod until growth is established. All erosion, siltation and maintaining grades are the responsibility of the Contractor until the root system has adequately "survived" and taken "hold".

The areas to be seeded and mulched shall have the ground over which the seed is to be sown prepared by disking and thoroughly pulverizing the soil to a suitable depth. The prepared soil shall be loose and reasonably smooth and reasonably free of large clods, roots, and other material which will interfere with the work or subsequent mowing and maintenance operations. The proportions of seed and fertilizer shall be as follows unless otherwise approved/directed by County:

- Annual Ryegrass or Brown Top Millet seed at 30 pounds per acre.
- Scarified Argentine Bahia seed at 150 pounds per acre.
- Fertilizer at 500 pounds of 12-8-8 per acre.

All seed shall meet the requirements of the Florida Department of Agriculture and Consumer Services (FDACS). Seed mixture shall be free of Bermuda grass (*Cynodon* spp.) or it will be rejected.

On steep slopes or other areas where machine-spreading may not be practicable, the spreading may be done by hand. Immediately after the fertilizer is spread, it shall be mixed with the soil to a depth of approximately four inches. While the soil is still loose and moist, the seed shall be scattered uniformly over the grassing area. When mulching, approximately two inches, loose thickness, of the mulch material shall be applied uniformly over the seeded area, and the mulch material cut into the soil uniformly to produce a loose mulched thickness of three to four inches. The mulching equipment shall be a type capable of cutting the specified materials uniformly into the soil and to the required depth. Care shall be exercised that the materials are not cut too deeply into the soil. Unless otherwise approved/directed by the County, the mulch material used shall be dry mulch and shall consist of oat or rye straw or peanut or Bahia grass hay. Only un-deteriorated mulch which can readily be cut into the soil shall be used. Immediately after completion of the seeding/mulching, the entire grassed/mulched area shall be rolled thoroughly. At least two trips over the entire area will be required. The Contractor shall be responsible for watering (salty or brackish water shall not be used) the seeded areas to provide optimum growth conditions for the establishment of the grass. In no case shall the period of maintaining such moisture be less than two weeks following planting.

On steep slopes, where the use of a machine for the cutting-in process described above is not practicable, the construction operations shall be modified as follows:

- The fertilizer shall be applied uniformly, at the rate specified, and shall be raked in and thoroughly mixed with the soil to a depth of approximately two inches.
- The seeding operations shall follow the fertilizing.
- The mulch material, in lieu of being cut into the soil, may be anchored down. Anchoring shall be done by either of the following methods:

a. Placing a layer of soil, approximately two inches thick by nine inches wide, along the upper limits of the mulch, and spotting soil piles over the rest of the area at a maximum spacing of four feet.
b. spreading a biodegradable natural fiber string net over the mulch, using stakes driven flush with the top of the mulch, at six foot centers, and stringing parallel and perpendicular, with diagonals in both directions.

Fertilizers used shall be commercial fertilizers that comply with the state/local fertilizer laws.

The Contractor shall, at their expense, maintain the seeded, mulched, planted or sodded areas in a satisfactory condition until final acceptance or completion of the project, whichever occurs last. Such maintenance shall include the filling, leveling, and repairing of any washed-out or eroded areas, equipment damaged areas, etc. The County may require re-seeding, re-planting or re-sodding of any areas in which establishment of the grass stand does not appear to be developing satisfactorily (e.g. browning or dead spots) within sixty days following planting (or replanting). Replanting or replacement shall be at the Contractor's expense.

### D.1.7.2 PAYMENT

All work under this section shall be paid for under the Unit Price Pay Items for SOD AND SEED/MULCH on the Bid Form at the indicated schedule:

ITEM D.1.7.1.1 Sod (Argentine Bahia)
ITEM D.1.7.1.2 Seed and Mulch (Argentine Bahia)

## D.1.8 8TH AVENUE EXTENSION

### D.1.8.1 DESCRIPTION OF WORK

Prior to startup of the excavation, removal and hauling of material offsite, the contractor shall install the first asphalt lift along 8th Avenue East as detailed in the construction plans.

The work included in this Section shall consist of furnishing all equipment, labor, materials, surveying, testing and incidentals necessary to prepare the work area for construction (including but not limited to: clearing, grubbing, re-grading, and proper disposal of debris) and complete the construction of the first asphalt lift per the Construction Plans and in accordance with County requirements.

Contractor shall notify all utility companies or utility owners, both public and private, of their intent to perform such work and coordinate field location of utility lines prior to commencement of construction. Locating existing aboveground or underground utilities and protection of these facilities shall be the responsibility of the Contractor. In the event of any utility conflict, the Contractor shall immediately inform the utility company, the County and the Engineer of the conflict. Contractor shall at Contractor's expense be responsible for the repair of any utilities damaged during construction.

Preparation of Stabilized Subbase

The work shall consist of bringing the bottom of excavations and the top of embankments of the roadway to a surface conforming to the grades, lines and cross sections shown on the plans.

All soft and yielding material and other portions of the subbase which will not compact readily shall be removed and replaced with suitable material and the whole subbase brought to line and grade, allowing for subsequent compaction.

a. All submerged stumps, roots or other organic matter encountered in the preparation of the subbase shall be removed.

b. The subbase shall be stabilized to the minimum Bearing Ratio and depth shown on the plans. LBR tests shall be taken per each 1,500 SY area or per each 1,500 feet of roadway, whichever is less. If the natural in-place soils do not meet the required stability, sufficient borrow material for stabilization shall be uniformly mixed with in-place soils to produce the load Bearing Ratio. Material used for stabilization must be specifically approved for usage. Borrow material shall be included in the cost of subbase bid item.

c. The stabilized subbase in both cuts and fills shall be compacted to a density as determined by AASHTO T-180 (modified). The subbase shall be shaped prior to making the density tests.

d. The subbase shall be firm and able to support the construction equipment without displacement. The minimum density acceptable at any location will be 98 percent of the maximum density as determined by AASHTO T-180 (modified). Load Bearing Ratio determinations shall be made by the Limerock Bearing Ratio Method, Test Method D of AASHTO T-180 as modified by the Florida Department of Transportation's Research Bulletin 22-8, revised April, 1972. Soft or yielding subgrade shall be corrected and made stable before construction proceeds.

e. Density tests shall be made before work proceeds.

f. The required density shall be maintained until the base of pavement has been laid or until the aggregate materials for the base of pavement course have been spread in place.

g. After the subbase has been prepared, and immediately before any base material is placed, the subbase shall be tested for substantial compliance as to crown and elevation. Material shall be removed or added, as the condition necessitates, and again stabilized and compacted to bring all portions of the subbase to the specified elevation, stability and density.

Construction of Shell Base

This work may be performed with any machine, combination of machine or equipment that will produce the specified results.

The shell shall be transported (over material previously spread) to the point where it is to be used. It shall then be dumped on the end of the preceding spread. In no case shall material be dumped directly on the subbase. The shell shall be spread uniformly. All segregated areas of fine or coarse material shall be removed and replaced with well graded shell.

For double-course base, the material shall be spread in two courses. The thickness of the first course shall be approximately one-half the total thickness of the finished base, or enough additional to bear the weight of the construction equipment without disturbing the subbase.

For double-course base, the first course shall be bladed if necessary to secure a uniform surface and shall be compacted to the density specified below immediately prior to spreading the second course. No other finishing of this course is required.

After spreading is completed, the entire surface shall be scarified and shaped so as to produce the exact grade and cross-section after compaction. For double-course bases, this scarifying shall extend to a depth sufficient to penetrate slightly the surface of the first course.

As soon as proper conditions of moisture are attained, the material shall be compacted to a density of 98 percent of the maximum density obtainable under AASHTO Method T-180 (modified). Where the base is being constructed in one course and the specified thickness is more than six inches, the density specified above shall be obtained in both the bottom half and the top half of the base. During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross-section, the compacting operations for such areas shall be completed prior to making the density determinations on the finished base.

The surface shall be "hard-planed" with a blade grader immediately prior to the application of the prime coat to remove the tin-glazed or cemented surface, leaving a granular or porous condition that will allow free penetration of the prime material. The materials planed from the base shall be removed from the base area.

If, at any time, the subbase material should become mixed with the base course material, the CONTRACTOR shall excavate and remove the mixture. He shall reshape and compact the subgrade, and replace the materials removed with clean base material. The clean base material shall then be shaped and compacted as specified above.

The finished surface of the base course shall be checked with a templet cut to the required cross-section and with a 15 foot straight edge laid parallel to the centerline of the road or other approved testing devices. All irregularities greater than ±1/4 inch shall be corrected by scarifying and removing or adding rock, as may be required, after which the entire areas shall be recompacted as specified herein. On every project at least one of each of the following density tests shall be made by the laboratory at intervals not exceeding 500 SY unless otherwise specified.

a. Modified Proctor Maximum Density Determination Tests. Tests shall be taken per each 500 SY maximum area.

b. Field In-Place Density Tests.

After the base is completed, test holes shall be dug or cores taken at intervals of not more than 500 SY, or at closer intervals if necessary. Where the base is deficient in thickness, the area covered by this deficient base shall be reworked by scarifying to a depth of at least three inches and adding more base material, so that after proper compacting the thickness will conform to the plans.

All tests shall be performed by an independent testing laboratory, approved by the ENGINEER. The testing laboratory shall be under the direction of a Professional Engineer with at least five years of materials testing experience.

The CONTRACTOR shall make every effort to preserve the grade stakes until the job is completed. Destroyed or moved stakes shall be replaced at the CONTRACTOR’s expense.

Application of Prime and Tack Coat

This work may be performed with any machines, combination of machines, or equipment that will produce the specified results.

Before any bituminous material is applied, all loose material, dust, caked clay and foreign materials which might prevent proper bond with existing surface shall be moved to the shoulders. Particular care shall be taken to clean the outer edges of the strip to the treated in order to insure that the tack coat will adhere. Where the prime or tack coat is applied adjacent to the curb and gutter or valley gutter, such concrete surfaces are to be protected and kept free of bituminous material.

No bituminous material shall be applied when the temperature of the air is less than 40° Fahrenheit in the shade, or when the weather conditions or the condition of the existing surface is unsuitable.

The surface to be primed shall be clean and contain optimum moisture. The temperature of the prime material shall be between 100° and 150° Fahrenheit. The exact temperature shall be such as will insure uniform distribution. The material shall be applied by means of a pressure distributor.

The amount of bituminous material applied shall be at the rate of approximately 0.10 to 0.25 gallons per square yard, dependent upon the type of base materials. The rate of application shall be sufficient so as to coat the surface thoroughly and uniformly without having any excess to form pools or to flow off the base. A light, uniform application of clean sand shall be applied prior to opening the primed base to traffic. To cure the prime coat in such cases, the sand shall be rolled with a traffic roller in conjunction with traffic. If warranted by traffic conditions, the application shall be made only on one-half of the width of the base at one time, care being taken to secure the correct amount of bituminous material at the joint. The base shall be sufficiently moist in order to obtain maximum penetration of the asphalt.

Where a bituminous surface is to be laid and a tack coat is required, both shall be applied as herein specified. On newly constructed base courses, the application of the tack coat (when one is required) shall follow the application of the prime coat, immediately before the wearing surface is applied. In general, a tack coat will not be required on primed bases, except in areas which have become excessively dirty and cannot be cleaned, or in areas where the prime has cured and lost bonding effect. The tack coat shall be applied with a pressure distributor. The bituminous material shall be heated to a suitable consistency as designated. The bituminous material shall be applied only in the amount necessary to bond the wearing surface to the base. The rate of application shall be between 0.02 and 0.08 gallons per square yard. The exact rate shall be designated by the ENGINEER. The tack coat shall be applied sufficiently in advance of the wearing surface to permit drying. However, it shall not be applied so far in advance or over such an area as to lose its adhesiveness as a result of being covered with dust or other foreign material. The tack coat shall be kept free from traffic until the wearing surface is laid.

Asphaltic Concrete

The work consists of the application of hot bituminous mixtures of the type and thickness specified on the construction plans which shall be composed of a mixture of:
a. Aggregate.

b. Mineral filler, if necessary to produce the desired stability hereinafter described; and

c. Asphalt cement.

The application of hot bituminous mixtures shall be properly placed upon a prepared base of the type called for on the construction plans in accordance with lines, grades, thickness, and typical section(s) shown including the conditioning of existing surface or base.

Except for friction courses and base courses, the hot bituminous mixture shall be of the type called for on the construction plans and shall conform to hot mix design criteria as outlined in the latest edition of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

The asphaltic concrete friction course shall be in accordance with Section 337, Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, latest edition.

Application of Asphalt Mixes

Limitation of Operations

The mixture shall be spread only when the air temperature (in the shade) is above 40° Fahrenheit and rising. The temperature of the mixture at the time of spreading shall be within 25° Fahrenheit of the temperature set by the ENGINEER for this stage of the operation. The temperatures thus set by the ENGINEER shall be between 250° Fahrenheit and 340° Fahrenheit. Any mixture caught in transit by a sudden rain may be laid only at the CONTRACTOR's risk. Should such mixture prove unsatisfactory, it shall be removed and replaced with satisfactory mixture at the CONTRACTOR's expense. In no case shall the mixture be laid while rain is falling or when there is water on the surface to be covered

Joints

Transverse joints: Placing of the mixture shall be as continuous as possible and the roller shall not pass over the unprotected end of the freshly laid mixture except when the laying operation is to be discontinued long enough to permit the mixture to become chilled. When the laying operation is thus interrupted, or laying operation is to commence from a cold joint, a transverse joint shall be construction by cutting back on the previous run to expose the full depth of the mat.

Longitudinal joints: Where only a portion of the width of pavements is to be laid, the exposed edge shall be vertical. If traffic has rolled over the edge the ENGINEER may require the rolled edge trimmed back to a vertical face prior to construction the adjacent strip.

General: When the fresh mixture is laid against the exposed edges of joints (trimmed or formed) it shall be placed on close contact with the exposed edge so that an even, well compacted joint will be produced after rolling without having an open joint or unlevel surface condition.

Layered placement of hot bituminous mixture shall be accomplished to cause longitudinal joints to be offset 6 to 12 inches laterally between successive layers.

Finished Surface Requirements

For the purpose of testing the finished surface, the CONTRACTOR shall provide a 15-foot straight edge and a standard template cut to the true cross-section of the

road. These shall be available at all times during construction so that the ENGINEER may check the finished surface. The CONTRACTOR shall provide and designate some employee whose duty it is to use the straight edge and template in checking all rolled surface under the direction of the ENGINEER. Vertical measurements from a string line between curbs to determine crown may be accepted as an alternate. The finished surface shall be such that it will not vary more than one-fourth inch from the 15-foot straight edge. Any irregularity of the surface exceeding the above limits shall be corrected.

The CONTRACTOR shall be responsible for obtaining a smooth surface on all pavement courses placed. The finished surface shall be of uniform thickness texture and compaction. The surface shall have no pulled, torn, loosened portions and shall be free of segregation, sand streaks, sand spots, ripples or roller marks, depressions that show up after initial rolling, and roller depressions. Any area of the surface which does not meet the foregoing requirements shall be corrected at the CONTRACTOR's expense.

Correction of unacceptable pavement or portion thereof shall be determined in one of the following methods, only if approved by the ENGINEER:

a. Remove and replace - if correction is made by removing and replacing the pavement, the removal must be for the full depth of the course and extend at least 50 feet on either side of the defective area, for the full width of the paving lane.

b. Overlaying - if correction is made by overlaying, the overlay shall cover the length of the defective area and taper uniformly to a feather edge thickness at a minimum distance of 50 feet on either side of the defective area and for the entire width of roadway.

Compaction

The complete pavement will be accepted with respect to in-place density when the following criteria has been met:

a. Ninety-five percent of laboratory density (FM 1-T166) has been achieved.

b. Laboratory density (FM-T166) will be determined from a sample of the hot mix obtained in the field.

c. In-place density will be determined from field cores obtained during thickness evaluation.

Tests (Allowable Deficiencies – Thickness)

The average thickness of the compaction in-place mixture shall be determined as shown on the construction plans typical cross-section(s) for that particular roadway(s) to be constructed. The pavement shall not be approved or accepted unless the following criteria has been met:

a. The compacted in-place pavement has not exceeded a deficiency of ¼-inch in thickness as determined by the measured depths of two-inch diameter cores taken at random at a rate of one every 500 SY.

b. Not more than 20 percent of the total cores taken for than roadway (thickness and type) shall be deficient with no individual core exceeding the ¼-inch

tolerance. Roadway pavement indicating an average thickness of 1 inch shall not have an individual core of less than ¾-inch in-place thickness.

c. Core lengths shall not exceed the average pavement thickness by more than three-eighths inch and shall be calculated as the next lower thickness

d. All testing required such as mixture, density, cores, etc. shall be the responsibility of the Contractor with the testing performed by an independent testing laboratory and testing results submitted to and approved by the Engineer.

Care to be Exercised

The Contractor shall use extreme care when applying prime coats, tack coats or laying the asphaltic concrete to insure the materials being applied do not come in contact with surface of adjacent structures such as but not limited to curb, inlets, etc., other than those surfaces designed for contact. Any material allowed to come in contact with surfaces other than those scheduled shall be cleaned by any method acceptable to the Manatee County that does not destroy the function or aesthetic value of the structure. Any surface after cleaning that remains objectionable to Manatee County may result in removing and replacing the objectionable section. All removal, replacement or attempts to clean surfaces shall be at the Contractor's expense.

The Contractor shall use extreme care in using equipment adjacent to structures such as, but not limited to curbs, inlets, etc. to prevent damage to those structures such as roller scars, grader scars, etc. Manatee County may direct removal and replacement of those objectionable surfaces that have in his opinion destroyed the functional or aesthetic value of the structure. Cost of removal and replacement shall be at the Contractor's expense.

Sod
Refer to Section D.1.7.1 for description of work for supply and installation of sod.

### D.1.8.2 PAYMENT

All work specified under this section shall be paid for under the Lump Sum / Unit Price Pay Items for 8TH AVENUE EXTENSION on the Bid Form at the indicated schedule:

ITEM D.1.8.1.1 1" Asphaltic Concrete Type S-I (Initial Lift)
ITEM D.1.8.1.2 6" Caloosahatchee Shell Base 98% AASHTO T-180
ITEM D.1.8.1.3 6" Stabilized Sub-base LBR 40
ITEM D.1.8.1.4 Sod (Argentine Bahia)

## D.1.9 DUST CONTROL/ABATEMENT MEASURES

### D.1.9.1 DESCRIPTION OF WORK

Dust control abatement measures for work conducted onsite shall be provided as described in the SDMP.

Deposition of soil on adjacent roadways shall be mitigated by use of the proposed wheel wash shown in the construction plans to be located at the construction entrance and by use of a street sweeper as directed by Manatee County to prevent and/or mitigate off-site impacts by construction activities.

### D.1.9.2 PAYMENT

All work specified under this section shall be paid for under the Lump Sum / Unit Price Pay Items for DUST CONTROL/ABATEMENT MEASURES on the Bid Form at the indicated schedule:

ITEM D.1.9.1.1 Wheel Wash, Street Sweeper, Water Trucks

## CONTRACT CONTINGENCY

Contract Contingency is a monetary allowance used solely at Owner's discretion to handle unexpected conditions as required to satisfactorily complete the Work in accordance with the solicitation documents. A written notice must be issued by an authorized Owner representative to authorize use of contract contingency funds.

Payment for all work under this Bid Item shall be made only at the County's discretion. This Bid Item shall not exceed 10% of the Bidders Total Base Bid. The Bidder shall calculate and enter a dollar amount for this Bid Item.

**END OF SECTION D**