

# ADDENDUM NO. 3

# TANGER PARK

COLG20-TANPARK-1 FOR THE

# **CITY OF LOCUST GROVE, GEORGIA**

March 20, 2020

#### **ITEM NO. 1:**

Response to all written questions received by the stated deadline of 12:00 PM Noon, March 19, 2020 are listed below with the response.

**Question:** As it was communicated in pre bid meeting a Georgia stat general contractors license is required for this project?

**Response:** A Georgia General Contractors License is required for bidding this project.

**Question:** Please confirm that the site is to be balanced with existing soil, no export or import will be required?

**Response:** Currently, there is an excess of approximately 4,440 cubic yards, but the site can be balanced with grade adjustments of approximately 6 inches. Engineer will provide a balance grading plan to the low responsive bidder who is awarded this contract.

Question: Can we please be provided a copy of the pre bid sign in sheet?

**Response:** A copy of the PreBid sign-in sheet was attached to the meeting minutes sent out on Thursday, March 12, 2020.

Question: Is it mandatory that the subcontractor E-verify affidavits be part of the bid package?

**Response:** As stated in the pre-bid meeting, if the subcontractor is known, please provide the subcontractor affidavits as part of the bid package however these are not required until awarded the bid.

**Question:** At the pre-bid you stated this was a balanced site with no material brought in or hauled off. Is this still correct?

**Response:** Currently, there is an excess of approximately 4,440 cubic yards, but the site can be balanced with grade adjustments of approximately 6 inches. Engineer will provide a balance grading plan to the low responsive bidder who is awarded this contract.

**Question:** If the site is balanced does this mean the dirt piles and asphalt millings can be used/disposed on-site?

**Response:** Soil stockpiles on site will be incorporated into the final grading. Asphalt millings and stone is to be excavated and removed from the site.

**Question:** A balanced site was mentioned in the pre-bid and addendum 1. Does balancing the site include the dirt that is piled on the site, or does it need to be hauled off as described on the demo plan? **Response:** Soil stockpiles on-site will be incorporated into the final grading.

**Question:** Is the aggregate parking lot required to be removed or can the aggregate be wasted on site? **Response:** The parking lot material consisting of asphalt millings, asphalt pieces, and stone is to be excavated and removed from the site.

**Question:** Is the excavation unclassified?

**Response:** Yes.

**Question:** If rock is encountered in the water line bore, will the contractor be paid the additional cost for a

rock bore?

**Response:** A change order will be considered for unforeseen circumstances.

**Question:** What was the site previously? It appears it was water resources site.

**Response:** The site was previously used for an oxidation pond.

**Question:** Is there chance when the detention pond is being excavated that we could encounter a liner or contaminated soil from the previous use of the site? If so, will this be paid for under a change order? **Response:** That is unknown at this time, but a change order will be considered for unforeseen circumstances.

**Question:** The specifications regarding sod say that we are required to place 3" of topsoil from on-site material. If the site does not have 3" of topsoil on it that would be suitable for sod placement, will whatever topsoil that is on-site be suitable to place the sod, or will the contractor be required to furnish 3" of topsoil at no additional cost to the owner? If 3" is required to be imported can the site be balanced to not require 3" of material over the sodded area to be hauled off?

**Response:** This part of this addendum, a new "Section 02933 – Revised – Seeding / Sod" specification is being substituted into the contract documents that addresses this issue.

**Question:** Is the paving in the ROW to be the same paving section as the parking lot?

Response: Yes.

**Question:** Is it correct that there is no curb and gutter around the parking lot?

Response: Yes.

**Question:** Where is the 8"x8" header curb being installed? Based on the quantities it would appear to be on the inside and outside edge of the rubberized track. Is there a detail that shows how this is to be installed? **Response:** The header curb is being installed on the inside and outside edges of the pervious rubberized track. The detail shown in the plans is similar to the installation being required.

**Question:** The detail for the rubberized track provided is where it is a ramp between two paved areas. That is not the application we are installing. Can you provide a detail of how the rubberized track and header curb are to be installed? Does the curb have aggregate beneath it? Does the asphalt "key" into the top of the header curb 3" like it would on the ramp detail provided? Is the paved track 10' and the curb outside the 10' width or is the curb within the 10' wide track?

**Response:** The header curb is being installed on the inside and outside edges of the pervious rubberized track. The detail shown in the plans is similar to the installation being required.

**Question:** Since there is no curb and gutter will the sidewalk ADA ramps in the ROW just be detectable

warning strips at the transition from sidewalk to asphalt?

**Response:** That is correct.

**Question:** Are the light poles currently live, or are they dead? **Response:** The light poles on site are currently in service.

**Question:** Please clarify the size and location of the ADA ramp required in the site near the handicap parking

space.

Response: Since there is no curb and gutter, no ramp is required. Only a detectable warning pad will be

required.

**Question:** Will any erosion control measures necessary to dig the bore pit and water line connection on the opposite side of the street be paid for at the unit prices provided?

**Response:** All erosion control measures necessary for these installations are to be included in the unit price for this specific work.

Question: Do the trees in the ROW that are not impacted by the new work need to be removed?

<u>Response:</u> These trees are not shown on the plan. If these trees are impacted in any way, they will need to be removed as part of the site demolition.

**Question:** Section 1 - Article 3- Qualification of Bidders - 3.01. - Are Bidders required to be current GDOT-Pre-Qualified Construction Contractors prior to submitting bid?

**Response:** Bidders are not required to have GDOT prequalification's. As part of this addendum, a new "Section I - Instruction the Bidders" is being substituted into the Contract Documents to address this issue.

**Question:** Please confirm that all bidders are required to have a Georgia General Contractors License? **Response:** A Georgia General Contractors License is required for bidding this project.

**Question:** Section 3 - Page 1 reflects City of Sugar Hill, Georgia and also in the Addendum section it shows one Addendum dated 3-5-20. Will this be corrected?

**Response:** As part of this addendum, a new "Section III – Bid Form" is being substituted into the Contract Documents to address this issue. However, an addendum dated March 5, 2020 was issued for this project and is correct.

#### <u>ITEM NO. 2:</u>

Remove "Section I – Instruction the Bidders" from the Contract Documents and replace with "Section I – Revised – Instruction the Bidders" that is attached to this addendum.

#### **ITEM NO. 3:**

Remove "Section III – Bid Form" from the Contract Documents and replace with "Section III – Revised – Bid Form" that is attached to this addendum.

#### ITEM NO. 4:

Remove "Section 02933 – Seeding / Sod" from the technical specifications of the Contract Documents and replace with "Section 02933 – Revised – Seeding / Sod" that is attached to this addendum.

#### **END ADDENDUM NO. 3**

# **INSTRUCTIONS TO BIDDERS**

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#### ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
  - **A.** Issuing Office (Falcon Design Consultants) The office from which bidders may also acquire Bidding Documents for a fee and where the bidding procedures are to be administered.
  - B. Plan Holders List The list of potential bidders who attended the Mandatory PreBid Meeting (Instruction to Bidders Section 5.01) and have obtained Bidding Documents from the Issuing Office only. (Only bidders shown on the Plan Holders List for this project will be allowed to submit a bid. Bids received from any source not listed on the Plan Holders List shall be considered invalid and excluded from the Bid Opening.)

#### ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Bidding Documents shall include but not be limited to the Contract Documents and Technical Specifications, Contract Drawings, Addendums, miscellaneous reports if available, and any other documentation directed by the Issuing Office.
  - **A.** Complete sets of the Bidding Documents in the form of PDF files on a CD may be purchased from Falcon Design Consultants (Issuing Office): Falcon Design Consultants, LLC at: 235 Corporate Center Drive; Suite 200; Stockbridge, GA; (770) 389-8666, for a non-refundable cost of \$100 per set.
  - **B.** Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
  - **C.** Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

#### ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit written evidence with bid such as financial data, previous experience, present commitments, and such other data as may be called for below.
  - A. Contractor's License No.
  - **B.** List of Proposed Subcontractors;
  - C. List of Proposed Suppliers;

#### D. List of 5 Project References;

# ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

- 4.01 Subsurface and Physical Conditions
  - **A.** The Supplementary Conditions identify:
    - 1. Those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site. (No additional site testing reports are available)
    - 2. Those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
  - **B.** Copies of reports and drawings, if any, referenced in Paragraph 4.01.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
  - **C.** Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by Owners of such Underground Facilities, including Owner, or others.
- 4.02 Hazardous Environmental Condition
  - **A.** The Supplementary Conditions identify any reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site. (No known reports exist)
  - **B.** Copies of reports and drawings, if any, referenced in Paragraph 4.01.B will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
- 4.03 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions

appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 4.06 of the General Conditions.

- 4.04 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.
- 4.05 It is the responsibility of each Bidder before submitting a Bid to:
  - **A.** examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;
  - **B.** visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
  - **C.** become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
  - **D.** consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;
  - **E.** agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
  - **F.** become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
  - **G.** promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and

- **H.** determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.06 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

#### ARTICLE 5 – MANDATORY PRE-BID CONFERENCE

A Mandatory Pre-Bid Conference will be held at 10:00 AM local time on Thursday, March 12, 2020 at the Locust Grove City Hall; 3644 Highway 42; Locust Grove, GA 30248. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are required to attend and participate in the conference but this meeting. Engineer will transmit to all prospective Bidders such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

#### ARTICLE 6 – SITE AND OTHER AREAS

6.01 The Site is identified in the Contract Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

#### ARTICLE 7 – INTERPRETATION AND CLARIFICATIONS

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted in writing and are to be submitted to the Falcon Design Consultants, LLC; Attention: Tyler Price, P.E. via email at <a href="mailto:typrice@fdc-llc.com">typrice@fdc-llc.com</a> by <a href="mailto:12:00 PM">12:00 PM</a>
<a href="mailto:Noon">Noon</a> on <a href="mailto:Thursday, March 19, 2020</a>. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received after the deadline will not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. Addenda may be issued.

to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

#### **ARTICLE 8 – BID SECURITY**

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of five percent (5%) of Bidder's maximum Bid price and in the form of a certified check, bank money order, or a Bid bond (on the form attached) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.
- 8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.
- 8.03 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within ten working days after the Bid opening.

#### **ARTICLE 9 – CONTRACT TIMES**

9.01 The number of consecutive calendar days within which, or the dates by which, the Work is to be substantially completed (135 Days) and ready for final payment (150 Days) are set forth in the Agreement.

#### ARTICLE 10 – LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

#### ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or those substitute or "or-equal" materials and equipment approved by Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or "or-equal" item. No item of material or equipment will be considered by Engineer as a substitute or "or-equal" unless written request for approval has been submitted by Bidder (Not Vendor) and has been received by Engineer at least 10 days prior to the date for receipt of Bids. Each such request shall conform to the requirements of Paragraph

6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

#### ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.
- 12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.
- 12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

#### ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents. Additional copies may be obtained from the Issuing Office.
- 13.02 All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid Price shall be indicated for each section listed therein.
- 13.03 A Bid by a corporation shall be executed in the corporate name by the President or a Vice-President or other corporate officer <u>accompanied by evidence of authority</u> <u>to sign.</u> The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

- 13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.
- 13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.06 A Bid by an individual shall show the Bidder's name and official address.
- 13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.08 All names shall be printed in ink below the signatures.
- 13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.10 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

#### ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS

#### 14.01 Unit Price

- **A.** Bidders shall submit a Bid on a unit price basis as set forth in the Bid Form. All items bid are estimated quantities to complete the project in accordance with the Contract Documents. Quantities will be adjusted at the completion of the project in a Final Adjusting Change Order utilizing the unit pricing provided in the Bid Form and the actual quantity utilized of each item bid. These quantities may be extended or reduced as directed by the Owner at the unit price for each item bid.
- **B.** The contract will be awarded after the review of the bids submitted. Based upon the total price submitted the Owner reserves the right to issue a contract the can reduce the scope of this project up to fifty percent.

#### 14.02 Allowances

**A.** In the amount bid on the Bid Form submitted, the Bidder shall include a \$25,000.00 Contingency Allowance. This allowance is for additional work as directed by the Owner.

#### ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bid Documents acquired from the Issuing Office, a Bidder is furnished a CD containing PDF's of all the Contract Documents and Technical Specifications, Contract Drawings, Addendums, miscellaneous reports if available, and any other documentation directed by the Issuing Office for the Bidder to reproduce in hardcopy form for the submission of the bid. The "Section III Bid Form" is to be completed and submitted with the following documents:
  - A. Required Bid security;
  - **B.** List of Proposed Subcontractors;
  - C. List of Proposed Suppliers;
  - D. List of 5 Project References;
  - E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
  - F. Certificate of Insurance with the Owner listed as the Certificate Holder;
  - G. Contractor Affidavit and Agreement;
  - H. Subcontractor Affidavit.
- 15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, the Bidder's Contractor's License No., and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other courier delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID CITY OF LOCUST GROVE, GEORGIA TANGER PARK". A mailed/delivered Bid shall be addressed to City of Locust Grove, Attention: City Clerk; 3644 Highway 42; Locust Grove, GA 30248
- 15.03 Bid packages submitted shall include one complete set of Bid Documents, as required by this section, with original signatures and seals as required and this document set shall be labeled "**Original**". Additionally, one complete copy set of the bid documents, as required by this section, labeled "**Copy**" shall be included in the bid package.
- 15.04 Bid packages are to be received and accepted by the City of Locust Grove; whether mailed, courier service, or hand-delivered; prior to the advertised bid time and date of 10:00 AM Local Time, Tuesday, March 24, 2020.

#### ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

#### **ARTICLE 17 – OPENING OF BIDS**

17.01 Bids, from bidders listed on the official Plan Holders List, will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

#### ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

#### ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible.
- 19.02 Owner reserves the right to waive bidding informalities that may occur at the time of the Bid Opening.
- 19.03 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.04 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

- 19.05 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 19.06 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.
- 19.07 If the Contract is to be awarded, Owner will award the Contract to the Bidder whose Bid is in the best interests of the Owner.
- 19.08 Based upon the total price submitted the Owner reserves the right to issue a contract that may reduce the scope of this project up to fifty percent.

#### ARTICLE 20 – CONTRACT SECURITY AND INSURANCE

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds.

#### **ARTICLE 21 – SIGNING OF AGREEMENT**

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement along with the other Contract Documents which are identified in the Agreement as attached thereto. Within fifteen (15) calendar days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten days thereafter, Owner shall execute and fully sign all counterparts. The Owner will provide the Successful Bidder with a complete set of the Drawings and two (2) complete sets of Contract Documents with appropriate identification at/or before the Preconstruction Conference for this project.



# CITY OF LOCUST GROVE, GEORGIA

# TANGER PARK COLG20-TANPARK-1

# **BID FORM**

MARCH 24, 2020 – 10:00 AM



STOCKBRIDGE OFFICE: 235 Corporate Center Dr., Suite 200, Stockbridge, GA 30281 / Phone: 770.389.8666
CUMMING OFFICE: 500 Pirkle Ferry Road, Suite C, Cumming, GA 30040 / Phone: 678.807.7100
NEWNAN OFFICE: 40 Greenway Court, Suite A, Newnan, GA 30265 / Phone: 770.755.7978

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#### ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

#### City of Locust Grove, Georgia

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work and furnish all Materials, Labor, and Equipment as specified or indicated in the Bidding Documents or required for a complete project for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

#### ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

#### **ARTICLE 3 – BIDDER'S REPRESENTATIONS**

- 3.01 In submitting this Bid, Bidder represents that:
  - A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

<u>e</u>	Addendum No.
	1
	2
)	3
	3

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Siterelated reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific

means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

- E. Based on the information and observations referred to in Paragraph 3.01.D above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- F. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- G. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- 1. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

#### **ARTICLE 4 – BIDDER'S CERTIFICATION**

#### 4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

- 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
- 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

#### **ARTICLE 5 – BASIS OF BID**

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following unit price(s) "

ITEM NO.	EST. OTY.	<u>UNITS</u>	<u>DESCRIPTION</u>	UNIT PRICE	TOTAL PRICE
1	1	L.S.	MOBILIZATION, BONDS AND INSURANCE	\$	\$
2	1	L.S.	DEMOLITION AND DISPOSAL OF EXISTING FENCING, SIDEWALK, ASPHALT PAVING, GRAVEL SURFACE, AND EXISTING STORM CULVERT WITH RELATED APPURTENANCES	\$	\$
3	1	L.S.	SITE GRADING COMPLETE ± 6.8 ACRES INCLUDING THE CONSTRUCTION OF DETENTION POND WITH OCS AND RELATED APPURTENANCES	\$	\$
4	570	TON	6" THICK GDOT GRADED AGGREGATE BASE COURSE PER GDOT	\$	\$
5	564	GAL.	BY BITUMINOUS PRIME COAT APPLIED AT THE RATE OF 0.25 GAL/YD <sup>2</sup> PER GDOT	\$	\$
6	250	TON	2" RECYCLED ASPHALTIC CONC 12.5 MM SUPERPAVE INCL. BITUMINOUS MATERIAL & H LIME	\$	\$

ITEM NO.	EST. OTY.	<u>UNITS</u>	DESCRIPTION	UNIT PRICE	TOTAL PRICE
7	38	EA.	CONCRETE WHEEL STOP INSTALLED (COMPLETE)	\$	\$
8	390	S.Y.	4" THICK CONCRETE SIDEWALK (GDOT TYPE "A" CONCRETE, 3000 PSI)	\$	\$
9	3	EA.	ADA HANDICAP RAMP WITH DETECTABLE INSERT	\$	\$
10	162	L.F	18" RCP CLASS IV STORM CULVERT COMPLETE INCLUDING BEDDING AND COMPACTED COVER	\$	\$
11	50	L.F.	18" CMP STORM CULVERT, 16 GA. FULLY BITUMASTIC COATED	\$	\$
12	5	EA.	GDOT 1001B HEADWALL COMPLETE INCLUDING BEDDING AND INSTALLATION	\$	\$
13	1	EA.	GDOT 1011A JUNCTION BOX COMPLETE INCLUDING BEDDING AND INSTALLATION	\$	\$
14	150	TON	GDOT TYPE III STONE RIP-RAP FURNISH AND INSTALLED	\$	\$
15	750	L.F.	4" WIDE WHITE THERMOPLASTIC PARKING LOT STRIPING PER GDOT	\$	\$
16	150	L.F.	5" WIDE BLUE THERMOPLASTIC HATCH STRIPING AT ADA HANDICAP PARKING	\$	\$
17	2	EA.	ADA HANDICAP PARKING SYMBOL, BLUE THERMOPLASTIC	\$	\$
18	2	EA.	ADA HANDICAP PARKING SIGNAGE PER GDOT	\$	\$

ITEM NO.	EST. OTY.	<u>UNITS</u>	<u>DESCRIPTION</u>	UNIT PRICE	TOTAL PRICE
19	6	EA.	WHITE THERMOPLASTIC TRAFFIC DIRECTIONAL ARROWS PER GDOT	\$	\$
20	550	L.F.	4' HIGH BLACK PVC COATED 9GA CHAIN- LINK FENCE, FURNISH AND INSTALL COMPLETE INCLUDING GATES AND APPURTENANCES	\$	\$
21	820	L.F.	5' HIGH BLACK PVC COATED 9GA CHAIN- LINK FENCE, FURNISH AND INSTALL COMPLETE INCLUDING GATES AND APPURTENANCES	\$	\$
22	325	L.F.	6" DUCTILE IRON WATER MAIN	\$	\$
23	1	EA.	8" x 6" TAPPING SLEEVE AND VALVE WITH BOX AND VALVE MARKER	\$	\$
24	65	L.F.	JACK AND BORE 12" STEEL CASING UNDER ROADWAY INCLUDING CASING SPACERS AT 9' O.C. AND WEDGELOCK GASKETS FOR RESTRAINED JOINT THROUGH CASING	\$	\$
25	1500	LBS.	DUCTILE IRON FITTINGS WITH MEGA LUGS	\$	\$
26	1	EA.	5 ¼" RESTRAINED FIRE HYDRANT ASSEMBLY COMPLETE, INCLUDING TEE, 6" GATE VALVE WITH BOX AND VALVE MARKER, F.H. LEAD, AND RELATED APPURTENANCES	\$	\$

ITEM NO.	EST. OTY.	<u>UNITS</u>	<u>DESCRIPTION</u>	UNIT PRICE	TOTAL PRICE
27	2	EA.	2" METERED WATER SERVICE COMPLETE INCLUDING WATER MAIN TAP, METER BOX AND CONNECTIONS FOR 2" WATER METER (METER BY OWNER), METER BOX WITH 2" BACKFLOW PREVENTER, AND ALL RELATED APPURTENANCES.	\$	\$
28	400	L.F.	2" TYPE "K" COPPER WATER SERVICE COMPLETE WITH CAPPED END	\$	\$
29	2	EA.	1" WATER SERVICE TO DOG PARK COMPLETE INCLUDING TAP OF 2" SERVICE LINE	\$	\$
30	40	L.F.	1" TYPE "K" COPPER WATER SERVICE COMPLETE WITH CAPPED END	\$	\$
31	1	L.S.	6" SANITARY SEWER SERVICE COMPLETE INCLUDING SEWER MAIN TAP AND FITTINGS, PVC SERVICE LINE AND CLEANOUT WITH PLUG	\$	\$
32	2900	L.F.	8" x 8" 3000 PSI CONCRETE HEADER CURB	\$	\$
33	1620	S.Y.	2-LAYER PERVIOUS RUBBER WALKING TRAIL COMPLETE WITH STONE SUBGRADE AND GEOTEXTILE FABRIC AND RELATED APPURTENANCES	\$	\$

ITEM NO.	EST. OTY.	<u>UNITS</u>	<u>DESCRIPTION</u>	UNIT PRICE	TOTAL PRICE
34	1250	S.Y.	GDOT EROSION CONTROL SLOPE MATTING	\$	\$
35	6.8	ACRE	TEMPORARY GRASSING COMPLETE INCLUDING SUBGRADE PREP, SEED, FERTILIZER & MULCH	\$	\$
36	1.5	ACRE	PERMANENT GRASSING COMPLETE INCLUDING SUBGRADE PREP, SEED FERTILIZER & MULCH	\$	\$
37	4.2	ACRE	TIFWAY 419 BERMUDA SOD COMPLETE INCLUDING SUBGRADE PREP, INSTALLATION, ROLLING AND ALL RELATED APPURTENANCES	\$	\$
38	5	ACRE	MULTIZONE IRRIGATION SYSTEM COMPLETE INCLUDING SYSTEM DESIGN, CONTROLLER, PIPING, SPRAY HEADS, AND ALL RELATED APPURTENANCES	\$	\$
39	1	EA.	CONSTRUCTION EXIT INCLUDING TIRE WASH ASSEMBLY (COMPLETE)	\$	\$
40	1350	L.F.	TYPE "S" SILT FENCE INSTALLED AND MAINTAINED	\$	\$
41	3	EA.	HAY BALE CHECK DAM IN ACCORDANCE WITH GA. EROSION AND SEDIMENT MANUAL INSTALLED AND MAINTAINED	\$	\$
42	4	MONTH	WATER QUALITY MONITORING, INSPECTIONS AND SAMPLING PER GA EPD NOI PERMIT	\$	\$

<u>ITEM</u> <u>NO.</u>	<u>EST.</u> <u>OTY.</u>	<u>UNITS</u>	DESCRIPTION	UNIT PRICE	TOTAL PRICE
43	1	L.S.	CONTINGENCY ALLOWANCE (FOR USE AS DIRECTED ONLY BY THE OWNER)	\$ <u>25,000.00</u>	\$25,000.00

Total Base Bid in Words:	
	Dollars
In Numbers: \$	

Unit Prices have been computed in accordance with Paragraph 11.03.B of the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Unit Prices have been computed in accordance with Paragraph 11.03.B of the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

#### **ARTICLE 6 – TIME OF COMPLETION**

- 6.01 Bidder agrees that the Work will be substantially complete within <u>165</u> calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within <u>180</u> calendar days after the date when the Contract Times commence to run.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

#### ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
  - A. Required Bid security;
  - **B.** List of Proposed Subcontractors;
  - C. List of Proposed Suppliers;

- D. List of 5 Project References;
- E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
- F. Certificate of Insurance with the Owner listed as the Certificate Holder;
- G. Contractor Affidavit and Agreement;
- H. Subcontractor Affidavit.

#### **ARTICLE 8 – DEFINED TERMS**

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

#### **ARTICLE 9 – BID SUBMITTAL**

9.01	This Bid is submitted by:
	If Bidder is:
	An Individual
	Name (typed or printed):
	By: (Individual's signature)
	(Individual's signature)
	Doing business as:
	A Partnership
	Partnership Name:
	By:(Signature of general partner attach evidence of authority to sign)
	(2-8
	Name (typed or printed):

# A Corporation Corporation Name: (SEAL) State of Incorporation: \_\_\_\_ Type (General Business, Professional, Service, Limited Liability):\_\_\_\_\_ (Signature -- attach evidence of authority to sign) Name (typed or printed): \_\_\_\_ Title: (CORPORATE SEAL) Date of Qualification to do business in \_\_\_\_\_ is \_\_\_\_/\_\_\_\_. A Joint Venture Name of Joint Venture: First Joint Venturer Name: (SEAL) (Signature of first joint venture partner -- attach evidence of authority to sign) Name (typed or printed): Second Joint Venturer Name: (SEAL) (Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _	
Title:	
` •	sign. The manner of signing for each individual, on that is a party to the joint venture should be in the
	Fax No
E-mail	
SUBMITTED on	, 20
GDOT Prequalification Certificate	No

#### **SECTION 02933 - REVISED**

#### SEEDING / SOD

#### PART 1 GENERAL

#### 1.01 SUMMARY

- A. The work covered by this Section consists of furnishing all labor, equipment and material required to place topsoil, sod or seed, commercial fertilizer, agricultural limestone and mulch material, including seedbed preparation, harrowing, compacting and other placement operations on graded earthen areas as described herein and/or shown on the Drawings. In general, seeding operations shall be conducted on all newly graded earthen area not covered by structures, pavement or sidewalks; all cleared or grubbed areas which are to remain as finish grade surfaces; and on all existing turf areas which are disturbed by construction operations and which are to remain as finish grade surfaces. Areas disturbed by borrow activities shall also be seeded according to these Specifications.
- B. The work shall include temporary seeding operations to stabilize earthen surfaces during construction or inclement weather and to minimize stream siltation and erosion. Temporary seeding shall be performed at the times and locations as directed by the Engineer.

#### 1.02 QUALITY ASSURANCE

- A. Prior to sodding / seeding operations, the Contractor shall furnish to the Engineer labels or certified laboratory reports from an accredited commercial seed laboratory or a state seed laboratory showing the analysis and germination of the seed to be furnished. Acceptance of the seed reports shall not relieve the Contractor of any responsibility or liability for furnishing seed meeting the requirements of this Section.
- B. Prior to topsoil operations, the Contractor shall obtain representative samples and furnish soil test certificates including textural, pH, and organic analysis from the State University Agricultural Extension Services or other certified testing laboratory.

#### PART 2 PRODUCTS

#### 2.01 ACCEPTABLE MANUFACTURERS

- A. All materials shall conform to the requirements and standards of this Section.
- B. Wood-cellulose fiber mulch shall be manufactured by Weyerhaeuser Company or Conway Corporation or approved equivalent.

#### 2.02 TOPSOIL

- A. Utilizing existing soils on site, the contractor shall place any available topsoil over all graded earthen areas and over any other areas to be seeded / sodded. A 6" deep tilled and pulverized subgrade to create a seedbed/root zone that is free of rock and organic material larger than 2" and free from any material such as hard clods shall be established for placement of all sod and seeded materials. Importing topsoil from offsite sources shall be at the discretion of the Contractor and shall performed without additional compensation to the Contractor. No additional compensation will be allowed for topsoil.
- B. Imported topsoil shall be friable containing a large amount of humus and shall be original surface soil of good, rich, uniform quality, free from any material such as hard clods, stiff clay, hardpan, partially disintegrated stone, pebbles larger than 1/2-inch diameter, lime cement, bricks, ashes, cinders, slag, concrete, bitumen or its residue, boards, sticks, chips or other undesirable material harmful or unnecessary to plant growth. Topsoil shall be reasonably free from perennial weeds and shall not contain objectionable plant material, toxic amounts of either acid or alkaline elements or vegetable debris undesirable or harmful to plant life.
- C. Topsoil shall be natural topsoil and shall be classifiable as loam, silt loam, clay loam, sandy loam, or a combination thereof. The pH range from 5.5 to 7.0. Topsoil shall contain not less than five percent not more than 20 percent, by weight, of organic matter as determined by loss on ignition of over-dried samples to 65 degrees C.

#### 2.03 SOD

- A. Sod shall be weed free Tifway 419, or approved equivalent.
- B. All sod shall be fresh and placed within 36 hours of cutting.
- C. Fertilization rates shall be in accordance with suppliers recommendation and in accordance with the recommendations resulting from the required soil testing.
- D. Subgrade preparation shall be smoothed within 1 inch in 10 feet.
- E. All sod shall be rolled into place to assure contact with subgrade and eliminate any seam variance.
- F. Contractor is responsible for watering and establishing sod during the first 30 days after installation. After the initial 30 days, contractor is responsible for establishing a watering schedule for the installed sod.

#### 2.03 SEED

- A. Seed shall be delivered in new bags that are sound and labeled in accordance with the U.S. Department of Agriculture Federal Seed Act.
- B. All seed shall be from the last crop available at time of purchase and shall not be moldy, wet or otherwise damaged in transit or storage.
- C. Seed shall bear the growers analysis testing to 98 percent for purity and 90 percent for germination. At the discretion of Engineer, samples of seed may be taken for verification against the grower's analysis.
- D. Species, rate of seeding, fertilization and other requirements are shown in Table 1 of this Section.

#### 2.04 FERTILIZER AND LIMING MATERIALS

- A. Fertilizer and liming materials shall comply with applicable state, local and federal laws concerned with their production and use.
- B. All fertilizer, liming materials, soil neutralizers, and mulch materials shall be installed in accordance with the manufacturer's recommendations and the recommendations resulting from the required soil testing.
- C. Commercial fertilizer shall be a ready mixed material equivalent to the grade or grades specified in Table A. Container bags shall have the name and address of the manufacturer, the brand name, net weight and chemical composition.
- D. Agricultural limestone shall be a pulverized dolomitic limestone having a calcium carbonate content of not less than 85 percent by weight. Agricultural limestone shall be crushed so that a least 85 percent of the material will pass a No.10 mesh screen and 50 percent will pass a No.40 mesh screen.

#### 2.05 MULCH MATERIAL

- A. All mulch materials shall be air dried and reasonably free of noxious weeds and weed seeds or other materials detrimental to plant growth.
- B. Mulch shall be composed of wood cellulose fiber, straw or stalks, as specified herein. Mulch shall be suitable for spreading with standard mulch blowing equipment.
- C. Straw mulch shall be partially decomposed stalks of wheat, rye, oats or other approved grain crops.

D. Stalks shall be the partially decomposed, shredded residue of corn, cane, sorghum or other approved standing field crops.

#### 2.06 MULCH BINDER

- A. Mulch on slopes exceeding 3 to 1 ratio shall be held in place by the use of an approved mulch binder. The mulch binder shall be non-toxic to plant life and shall be acceptable to the Engineer.
- B. Emulsified asphalt binder shall be Grade SS-1, ASTM D 977. Cutback asphalt binder shall be Grade RC 70 or RC 250.

#### 2.07 INNOCULANTS FOR LEGUMES

All leguminous seed shall be inoculated prior to seeding with a standard culture of nitrogen-fixing bacteria that is adapted to the particular seed involved.

#### **2.08 WATER**

Water shall be clean, clear water free from any objectionable or harmful chemical qualities or organisms and shall be furnished by the Contractor.

#### PART 3 EXECUTION

#### 3.01 SECURING AND PLACING TOPSOIL

- A. Topsoil shall be secured from areas from which topsoil has not been previously removed, either by erosion or mechanical methods. Topsoil shall not be removed to a depth in excess of the depth approved by the Engineer. If required, imported topsoil shall be utilized by the contractor and be tested for compliance with the specifications.
- B. The area or areas form which topsoil is secured shall possess such uniformity of soil depth, color, texture, drainage and other characteristics as to offer assurance that, when removed the product will be homogeneous in nature and will conform to the requirements of these Specifications.
- C. All areas from which topsoil is to be secured, shall be cleaned of all sticks, boards, stones, cement, ashes, cinders, slag, concrete, bitumen or its residue and any other refuse which will hinder or prevent growth.
- D. In securing topsoil form a designated pit, or elsewhere, should strata or seams of material occur which do not come under the requirements for topsoil, such material shall be removed from the topsoil o if required by the Engineer, the pit shall be abandoned.

- E. Before placing or depositing topsoil upon any areas, all improvement within the area shall be completed, unless otherwise approved by the Engineer.
- F. The areas in which topsoil is to be placed or incorporated shall be prepared before securing topsoil for use.

#### 3.02 SEEDBED PREPARATION

- A. Before fertilizing and seeding, the finish grade surfaces shall be trimmed and worked to true line from unsightly variation, bumps, ridges and depressions and all detrimental material, roots and stones larger than 2-inches in any diameter shall be removed from the soil.
- B. Not earlier than 24 hours before seed is to be sown, the soil surface to be seeded shall be thoroughly cultivated to a depth of not less than 6-inches with a weighted disc, tiller, pulvimixer or other equipment, until the surface is smooth and in a condition acceptable to the Engineer.
- C. If the prepared surface becomes eroded as a result of rain or for any other reason, or becomes crusted before the seed is sown, the surface shall again be placed in a condition suitable for seeding.
- D. Ground preparation operations shall be performed only when the ground is in a tillable and workable condition, as determined by the Engineer.

#### 3.03 FERTILIZATION AND LIMING

- A. Following seedbed preparation, fertilizer shall be applied to all areas to be seeded so as to achieve the application rates shown in Table 1.
- B. Fertilizer shall be spread evenly over the seedbed and shall be lightly harrowed, raked, or otherwise incorporated into the soil for a depth of 2-inches.
- C. Fertilizer need not be incorporated in the soil as specified above when mixed with seed in water and applied with power sprayer equipment. The seed shall not remain in water containing fertilizer for more than 30 minutes when a hydraulic seeder is used.
- D. Agricultural limestone shall be thoroughly mixed into the soil according to the rates shown in Table A. The specified rate of application of limestone may be reduced by the Engineer if pH tests indicate this to be desirable. It is the responsibility of the Contractor to obtain such tests and submit the results to the Engineer for adjustment in rates.
- E. It is the responsibility of the Contractor to make one application of a maintenance fertilizer according to the recommendations listed in Table A.

#### 3.04 SEEDING

- A. Seed of the specified group shall be sown as soon as preparation of the seedbed has been completed. No seed shall be sown during high winds, nor until the surface is suitable for working and is in a proper condition. Seeding shall be performed during the dates shown in Table A unless otherwise approved by the Engineer. Seed mixtures may be sown together provided they are kept in a thoroughly mixed condition during the seeding operation.
- B. Seed shall be uniformly sown by any approved mechanical method suitable for the slope and size of the areas to be seeded, preferably with a broadcast type seeder, windmill hand seeder or approved mechanical power drawn seed drills. Hydroseeding and hydro-mulching may be used on steep embankments, provided full coverage is obtained. Care shall be taken to adjust the seeder for seedings at the proper rate before seeding operations are started and to maintain their adjustment during seeding. Seed in hoppers shall be agitated to prevent segregation of the various seeds in a seeding mixture.
- C. Immediately after sowing, the seeds shall be covered and compacted to a depth of 1/8 to 3/8-inch by a cultipacker or suitable roller.
- D. Leguminous seeds shall be inoculated prior to seeding with an approved and compatible nitrogen-fixing inoculant in accordance with the manufacturer's mixing instructions.

#### 3.05 MULCHING

- A. All seeded areas shall be uniformly mulched in a continuous blanket immediately after seeding. The mulch shall be applied evenly so as to permit sunlight to penetrate and the air to circulate and at the same time shade the ground, reduce erosion and conserve soil moisture. Approximately 45 percent of the ground shall be visible through the mulch blanket.
- B. One of the following mulches shall be spread evenly over the seeded areas at the following application rates:
  - 1. Wood Cellulose Fiber: 1,400 pounds/acre.
  - 2. Straw: 4,000 pounds/acre.
  - 3. Stalks: 4,000 pounds/acre.
  - 4. These rates may be adjusted at the discretion of the Engineer at no additional cost to the Owner, depending on the texture and condition of the mulch material and the characteristics of the seeded area.

- C. Mulch on slopes greater than 3 to 1 ratio shall be held in place by the use of an approved mulch binder. Binder shall be thoroughly mixed and applied with the mulch. Emulsified asphalt or cutback asphalt shall be applied at the approximate rate of five gallons per 1,000 square feet as required to hold the mulch in place.
- D. The Contractor shall cover structures, poles, fences and appurtenances if the mulch binder is applied in such a way that it would come in contact with or discolor the structures.
- E. Mulch and binder shall be applied by suitable blowing equipment at closely controlled application rates in a manner acceptable to the Engineer.

#### 3.06 WATERING

- A. The Contractor shall be responsible for maintaining the proper moisture content of the soil to insure adequate plant growth until a satisfactory stand is obtained. If necessary, watering shall be performed to maintain an adequate water content in the soil.
- B. Watering shall be accomplished by hoses, tank truck or sprinklers in such a way to prevent erosion, excessive runoff and over-watered spots.

#### 3.07 MAINTENANCE

- A. Upon completion of seeding/sod operations, the Contractor shall clear the area of all equipment, debris and excess material and the premises shall be left in a neat and orderly condition.
- B. The Contractor shall maintain all seeded/sodded areas without additional payment until final acceptance of the work by the Owner, and any regrading, refertilizing, reliming, reseeding/resodding or remulching shall be done at Contractor's own expense. Seeding/sodding work shall be repeated on defective areas until a satisfactory uniform stand is accomplished. Damage resulting from erosion, gulleys, washouts or other causes shall be repaired by filling with topsoil, compacting and repeating the seeding/sodding work at Contractor's expense.

 $\frac{\text{TABLE A}}{\text{SEEDING REQUIREMENTS}}$ 

			Rates per acre			
Area	Sowing Season	Species	Seed	Fertilizer	Limesto ne	Maintenanc e
Temporary Flat to Rolling Terrain with Slopes Less than 3:1	8/1 - 4/1 4/1 - 8/1	Ryegrass Sudangrass	40 lbs. 60 lbs.	500 lbs. (10- 10-10) 500 lbs. (10- 10-10)	2000 lbs. 2000 lbs.	400 lbs. (10-10-10) 400 lbs. (10-10-10)
Temporary Embankme nts with Slopes Greater than 3:1	3/1 - 6/1	Weeping Lovegrass	4 lb.	500 lbs. (10- 10-10)	2000 lbs.	400 lbs. (10-10-10)
Permanent Flat to Rolling Terrain with Slopes Less than 3:1	3/1 - 6/15 8/15 - 10/30	Wilmington Bahia & Bermuda, Common (hulled) Fescue, Tall	30 lbs. 6 lbs. 50 lbs.	1500 lbs. (6- 12-12) 1500 lbs. (6- 12-12)	2000 lbs. 2000 lbs.	400 lbs. (10-10-10) 400 lbs. (10-10-10)
Permanent Embankme nts with Slopes Greater than 3:1	3/1 - 6/30 9/1 - 3/30	Common Bermuda (Hulled Seed) & Weeping Lovegrass *Lespedeza Sericea & Tall Fescue	6 lb. 2 lb. 60 lbs. 30 lbs.	1500 lbs. (6- 12-12) 1500 lbs. (6- 12-12)	2000 lbs. 2000 lbs.	400 lbs. (10-10-10) 400 lbs. (10-10-10)

Note: Omit lime application in permanent grass establishment if it follows temporary grass established in the same area.

\*Inoculate seed with EL inoculate.

**END OF SECTION**