

**ADDENDUM #2**

**to**

**GLENN COUNTY TRANSFER STATION**  
**CONTRACT DOCUMENTS**

**Bid Date: February 15, 2018**

February 13, 2018

To All Bidders:

The following is Addendum #2 to the Contract Documents for the Glenn County Transfer Station Project. Please acknowledge receipt of this addendum on your bid. The text below summarizes the request for information, response, and changes (if applicable) to the Contract Documents. The revised Bid Schedule and modified specification sections are attached and included as part of this Addendum.

1. Addition of “All Other” bid item in Section 01025 Measurement and Payment. Review and refer to this section. This item will include, but is not limited to the following:
  - a) Relocation of the ABOPS building
  - b) Complete installation and materials related to the 36” metal door at the HHW building.
  
2. Bid Schedule and Specification Section revisions as listed below:
  - a) Addition of Bid Item 1.06 for “All Other” per Section 01025.
  - b) Addition of Bid Item 2.12 for “Aggregate Base – Heavy Duty Roadways (15” Scales Area) per Section 02232.
  - c) Addition of Bid Item 5.08 for “Paving – Heavy Duty Roadways (4” AC) – Scales Area” per Section 02553.
  - d) Revision to Bid Item 9.09 “Paving – under scales” in quantity from 470 SF to 1,440 SF based on the paving layout on the Drawings.
  - e) Revision to Bid Item 5.53 “Paving – Light to Medium Duty Roadways (3” AC)” from 29,900 SF to 24,120 SF” based on the paving layout on the Drawings.

Attached:

Bid Schedule – Revised  
Section 01025 Measurement and Payment – Revised  
Section 02232 Aggregate Base - Revised  
Section 02553 Asphaltic Concrete Pavement - Revised

## Bid Schedule (Rev 2-13-2018 Addendum 2)

### Glenn County Transfer Station Improvements Glenn County Landfill, Artois, California

**Bidder:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

| Summary                                    | Totals of Each Section |
|--|------------------------|
| 1.0 General Requirements                   |                        |
| 2.0 Site Earthwork                         |                        |
| 3.0 Site Storm Drainage                    |                        |
| 4.0 Site Water Distribution                |                        |
| 5.0 Site Paving                            |                        |
| 6.0 Site Retaining Walls                   |                        |
| 7.0 Transfer Station Building              |                        |
| 8.0 Erosion Control                        |                        |
| 9.0 Scale House & Scales                   |                        |
|  |                        |
| Optional Area (included in Base Bid)       |                        |
| 1.5 General Requirements                   |                        |
| 2.5 Site Earthwork                         |                        |
| 5.5 Site Paving                            |                        |
| <b>Total Base Bid (sum of items above)</b> |                        |

*Contractor to refer to Exhibit A - attached to this Bid Schedule as a general depiction of project areas to be completed by the Contractor and County.*

*The Bid Schedule includes items pertaining to "Areas Completed by Contractor" and separate listings for an "Optional Area" to include in the base bid, however the County may elect to complete all, or a portion of, the Optional Area.*

*There are select line items also shown on the last page of the Bid Schedule as Alternate Deduct Items which the County may also elect to perform and deduct from the Base Bid.*

| Item   | Description                       | Spec  | Unit | Quantity | Unit Price | Amount |
|--|-----------------------------------|-------|------|----------|------------|--------|
| <b>1.0 General Requirements (Area to be completed by Contractor)</b> |                                   |       |      |          |            |        |
| 1.01   | Mobilization                      | 01900 | LS   | 1        |            |        |
| 1.02   | Coordination                      | 01039 | LS   | 1        |            |        |
| 1.03   | Field Engineering                 | 01050 | LS   | 1        |            |        |
| 1.04   | Site Safety                       | 01020 | LS   | 1        |            |        |
| 1.05   | Submittals                        | 01300 | LS   | 1        |            |        |
| 1.06   | All Other (added per Addendum #2) | 01025 | LS   | 1        |            |        |
| <b>Sub-total</b>   |                                   |       |      |          |            |        |

**Glenn County Transfer Station Bid Schedule - continued**

| Item   | Description   | Spec    | Unit | Quantity | Unit Price       | Amount |
|--|---|---------|------|----------|------------------|--------|
| <b>2.0 Site Earthwork (Area to be completed by Contractor)</b>                 |   |         |      |          |                  |        |
| 2.01   | Clearing & Grubbing (Transfer Station)                    | 02110   | Acre | 3.3      |                  |        |
| 2.02   | Transfer Station - Excavation                             | 02210   | CY   | 14,100   |                  |        |
| 2.03   | Transfer Station - Structural Fill                        | 02210   | CY   | 230      |                  |        |
| 2.04   | Subgrade Preparation - Paved Areas (24" Depth)            | 02210   | SF   | 64,750   |                  |        |
| 2.05   | Subgrade Preparation - Transfer Station Bldg (3.5' depth) | 02210   | SF   | 14,500   |                  |        |
| 2.06   | Subgrade Preparation - Water Tank (3.5' depth)            | 02210   | SF   | 1,134    |                  |        |
| 2.07   | Grass-Lined V-Ditch (4 feet wide)                         | 02271   | LF   | 220      |                  |        |
| 2.08   | Aggregate Base - Concrete Apron Base                      | 02232   | SF   | 384      |                  |        |
| 2.09   | Aggregate Base - Heavy Duty Roadways (15")                | 02232   | SF   | 50,400   |                  |        |
| 2.10   | Aggregate Base - Light to Medium Roadways (10.5")         | 02232   | SF   | 14,350   |                  |        |
| 2.11   | ABOP Building Slab (includes subgrade and AB)             | 03 3000 | CY   | 4        |                  |        |
| 2.12   | Aggregate Base - Heavy Duty Roadways (15") Scales Area    | 02232   | SF   | 18,500   |                  |        |
| <i>*Added 2.12 per Addendum #2</i>   |   |         |      |          | <b>Sub-total</b> |        |
| <b>3.0 Site Storm Drainage System (Area to be completed by Contractor)</b>     |   |         |      |          |                  |        |
| 3.01   | Drop Inlet  | 02721   | EA   | 3        |                  |        |
| 3.02   | 12" CMP Storm Drain                                       | 02609   | LF   | 60       |                  |        |
| 3.03   | 12" N-12 Storm Drain                                      | 02609   | LF   | 50       |                  |        |
| 3.04   | 8" PVC Floor Drain - Load Out Bay to 5,000 gal tank       | 02609   | LF   | 50       |                  |        |
| 3.05   | Floor Drainage Tank - 5,000 gallon                        | 02721   | EA   | 1        |                  |        |
|  |   |         |      |          | <b>Sub-total</b> |        |
| <b>4.0 Site Water Distribution System (Area to be completed by Contractor)</b> |   |         |      |          |                  |        |
| 4.01   | WL Connect to 2" Main                                     | 02510   | EA   | 1        |                  |        |
| 4.02   | Structural Concrete - Water Tank Concrete Ring            | 03306   | CY   | 6        |                  |        |
| 4.03   | Fire Suppression Water Tank (40,000 gal)                  | 15420   | EA   | 1        |                  |        |
| 4.04   | WL Connect to Water Tank                                  | 02510   | EA   | 3        |                  |        |
| 4.05   | Structural Concrete - Fire Pump House Foundation          | 03306   | CY   | 6        |                  |        |
| 4.06   | WL Package Fire Pump System (500 gpm)                     | 15310   | EA   | 1        |                  |        |
| 4.07   | Fire Pump Enclosure (Tuff-Shed 10'x12') w/ foundation     | 15310   | LS   | 1        |                  |        |
| 4.08   | WL 8" PVC C-900 Water line                                | 02510   | LF   | 405      |                  |        |
| 4.09   | WL 2" PVC Sch 40 Water Line                               | 02510   | LF   | 35       |                  |        |
| 4.10   | WL Fire Department Connection (FDC)                       | 02510   | EA   | 2        |                  |        |
| 4.11   | WL Fire Hydrant Assembly                                  | 05300   | EA   | 2        |                  |        |
| 4.12   | WL Supply Riser - Transfer Station                        | 02510   | EA   | 1        |                  |        |
| 4.13   | Single Bollards - Utility Related                         | 02444   | EA   | 6        |                  |        |
|  |   |         |      |          | <b>Sub-total</b> |        |

**Glenn County Transfer Station Bid Schedule - continued**

| Item  | Description   | Spec      | Unit | Quantity | Unit Price       | Amount |
|---|---|-----------|------|----------|------------------|--------|
| <b>5.0 Site Paving (Area to be completed by Contractor)</b> |   |           |      |          |                  |        |
| 5.01  | Concrete Curb   | 03306     | LF   | 80       |                  |        |
| 5.02  | Paving - Concrete Valley Gutter (4' wide)             | 03306     | LF   | 94       |                  |        |
| 5.03  | Paving - Heavy Duty Roadways (4" AC)                  | 02553     | SF   | 50,400   |                  |        |
| 5.04  | Paving - Light to Medium Duty Roadways (3" AC)        | 02553     | SF   | 14,350   |                  |        |
| 5.05  | Paving - Entrance of Truck Exit (westernmost) (4" AC) | 02553     | SF   | 1,400    |                  |        |
| 5.06  | Paving - Shoulder Backing                             | 02232     | LF   | 2,120    |                  |        |
| 5.07  | Striping  | per plans | LS   | 1        |                  |        |
| 5.08  | Paving - Heavy Duty Roadways (4" AC) - Scales Area    | 02553     | SF   | 18,500   |                  |        |
| <i>*Added 5.08 per Addendum #2</i>                          |   |           |      |          | <b>Sub-total</b> |        |

|   |  |       |    |       |                  |  |
|---|--|-------|----|-------|------------------|--|
| <b>6.0 Retaining Walls (Area to be completed by Contractor)</b> |  |       |    |       |                  |  |
| 6.01  | Soil nailing wall North of Transfer Building (8" thick)    | 03306 | SF | 524   |                  |  |
| 6.02  | Soil nailing wall along Transfer Building (12" thick)      | 03306 | SF | 1,320 |                  |  |
| 6.03  | Soil nailing wall South of Transfer Building (8" thick)    | 03306 | SF | 1,940 |                  |  |
| 6.04  | Retaining Wall (southeast corner beyond Transfer Building) | 03306 | SF | 80    |                  |  |
|   |  |       |    |       | <b>Sub-total</b> |  |

|   |  |           |    |       |                  |  |
|---|--|-----------|----|-------|------------------|--|
| <b>7.0 Transfer Station Building (Area to be completed by Contractor)</b> |  |           |    |       |                  |  |
| 7.01  | Structural Concrete - Transfer Station Apron | 03306     | CY | 10    |                  |  |
| 7.02  | Single Bollards - Transfer Station           | 02444     | Ea | 20    |                  |  |
| 7.03  | Double Bollards                              | 02444     | Ea | 2     |                  |  |
| 7.04  | 90-Degree Triple Bollards                    | 02444     | Ea | 2     |                  |  |
| 7.05  | Transfer Station Building (total cost)       |           | SF | 9,960 |                  |  |
| 7.06  | Transfer Station Pit Scales                  | 15900     | EA | 2     |                  |  |
| 7.07  | Misting System                               | 15812     | LS | 1     |                  |  |
| 7.08  | 6' No-Climb Chain Link Fence                 | 02444     | LF | 315   |                  |  |
| 7.09  | Barrier Gates                                | 02444     | EA | 1     |                  |  |
| 7.10  | Site Electrical                              | per plans | LS | 1     |                  |  |
|   |  |           |    |       | <b>Sub-total</b> |  |

**Glenn County Transfer Station Bid Schedule - continued**

| Item  | Description                  | Spec  | Unit | Quantity | Unit Price | Amount |
|---|------------------------------|-------|------|----------|------------|--------|
| <b>8.0 Erosion Control (All project areas, including contractor and County completed areas)</b> |                              |       |      |          |            |        |
| 8.01  | SWPPP Preparation            | 02271 | LS   | 1        |            |        |
| 8.02  | Seeding and Mulching         | 02271 | Acre | 2        |            |        |
| 8.03  | Silt Fence                   | 02271 | LF   | 3,200    |            |        |
| 8.04  | Straw Wattles                | 02271 | LF   | 3,200    |            |        |
| 8.05  | Stabilized Construction Exit | 02271 | EA   | 2        |            |        |
| 8.06  | Riprap (General)             | 02271 | CY   | 100      |            |        |
| <b>Sub-total</b>  |                              |       |      |          |            |        |

|   |   |       |    |       |  |  |
|---|---|-------|----|-------|--|--|
| <b>9.0 Scale House (Area to be completed by Contractor)</b> |   |       |    |       |  |  |
| 9.01  | Clearing & Grubbing (Relocated & New Scale Area)      | 02110 | LS | 1     |  |  |
| 9.02  | Scales Area - Excavation                              | 02210 | CY | 22    |  |  |
| 9.03  | Scales Area - Structural Fill                         | 02210 | CY | 2,335 |  |  |
| 9.04  | 12" CMP Storm Drain                                   | 02609 | LF | 200   |  |  |
| 9.05  | Structural Concrete - Scale Footings/Foundation       | 03306 | LS | 1     |  |  |
| 9.06  | Structural Concrete - Relocated Scale House           | 03306 | CY | 9     |  |  |
| 9.07  | 8" PVC Storm Drain - 70 Foot Scales                   | 02609 | LS | 200   |  |  |
| 9.08  | Drop Inlets - 70 foot Scales                          | 02721 | EA | 6     |  |  |
| 9.09  | Paving - Under Scales                                 | 02553 | SF | 1,440 |  |  |
| 9.10  | Removal, relocate and install - Scale Booth           | 02210 | LS | 1     |  |  |
| 9.11  | Removal, relocate, and install 70-Foot Scale          | 02110 | LS | 1     |  |  |
| 9.12  | Structural Concrete - Ramp Approaches                 | 03306 | SF | 1,100 |  |  |
| 9.13  | New 70-foot Scale                                     | 15900 | EA | 1     |  |  |
| 9.14  | Single Bollards - Scale House                         | 02444 | EA | 8     |  |  |
| 9.15  | Signs and Sign Posts                                  | 02849 | EA | 27    |  |  |
| 9.16  | WL Scales - Connect to 2" Main                        | 02510 | EA | 1     |  |  |
| 9.17  | WL Scales - 2" PVC Sch 40 waterline                   | 02510 | LF | 85    |  |  |
| 9.18  | Electrical - (from connection to building and lights) |       | LS | 1     |  |  |
| <b>Sub-total</b>  |   |       |    |       |  |  |

**Glenn County Transfer Station Bid Schedule - continued**

*Note: The Optional Area shown on Exhibit A reflects the construction area that the County may elect to construct and shall be determined prior to award Bidding, Contractor shall include this item in their bidding within the referenced line items below.*

**Optional Area (to be included in Base Bid)**

| <b>1.5 General Requirements (Optional Area)</b> |                    |             |             |                 |                   |               |
|---|--------------------|-------------|-------------|-----------------|-------------------|---------------|
| <b>Item</b>                                     | <b>Description</b> | <b>Spec</b> | <b>Unit</b> | <b>Quantity</b> | <b>Unit Price</b> | <b>Amount</b> |
| 1.51  | Mobilization       | 01900       | LS          | 1               |                   |               |
| 1.52  | Coordination       | 01039       | LS          | 1               |                   |               |
| 1.53  | Field Engineering  | 01050       | LS          | 1               |                   |               |
| 1.54  | Site Safety        | 01020       | LS          | 1               |                   |               |
| 1.55  | Submittals         | 01300       | LS          | 1               |                   |               |
| <b>Sub-total</b>                                |                    |             |             |                 |                   |               |

| <b>2.5 Site Earthwork (Optional Area)</b> |  |             |             |                 |                   |               |
|---|--|-------------|-------------|-----------------|-------------------|---------------|
| <b>Item</b>                               | <b>Description</b>   | <b>Spec</b> | <b>Unit</b> | <b>Quantity</b> | <b>Unit Price</b> | <b>Amount</b> |
| 2.50                                      | Clearing & Grubbing - Optional Area                        | 02110       | Acre        | 1.5             |                   |               |
| 2.51                                      | Optional Area - Excavation                                 | 02210       | CY          | 12,220          |                   |               |
| 2.52                                      | Optional Area - Structural Fill                            | 02210       | CY          | 934             |                   |               |
| 2.53                                      | Subgrade Preparation - Gravel Travelled Areas (24" depth)  | 02210       | SF          | 27,140          |                   |               |
| 2.54                                      | Subgrade Preparation - Recycle Area (24" depth)            | 02210       | SF          | 29,900          |                   |               |
| 2.55                                      | Grass-Lined V-Ditch (4 feet wide)                          | 02271       | LF          | 605             |                   |               |
| 2.56                                      | Aggregate - Gravel Trailer Parking (West of Transfer Bldg) | 02232       | SF          | 10,500          |                   |               |
| 2.57                                      | Aggregate - Gravel Transfer Road                           | 02232       | SF          | 16,640          |                   |               |
| 2.58                                      | Aggregate Base - Light to Medium Roadways (10.5")          | 02232       | SF          | 29,900          |                   |               |
| <b>Sub-total</b>                          |  |             |             |                 |                   |               |

| <b>5.5 Site Paving (Optional Area - Recycle)</b>                 |  |             |             |                 |                   |               |
|--|--|-------------|-------------|-----------------|-------------------|---------------|
| <b>Item</b>  | <b>Description</b>                             | <b>Spec</b> | <b>Unit</b> | <b>Quantity</b> | <b>Unit Price</b> | <b>Amount</b> |
| 5.50   | Mobilization                                   | 01900       | LS          | 1               |                   |               |
| 5.51   | Paving - Concrete Valley Gutter (4' wide)      | 03306       | LF          | 94              |                   |               |
| 5.52   | Paving - Light to Medium Duty Roadways (3" AC) | 02553       | SF          | 24,120          |                   |               |
| 5.53   | Paving - Shoulder Backing                      | 02232       | LF          | 100             |                   |               |
| <b>*changed 5.52 from 29,900 SF to 24,120 SF per Addendum #2</b> |  |             |             |                 |                   |               |
| <b>Sub-total</b>   |  |             |             |                 |                   |               |

**Glenn County Transfer Station Bid Schedule - continued**

*Note: There are specific line items that the County may elect to construct and shall be determined prior to award of contract. Refer to the summary of W line items below may be deducted (on a line by line basis) from the Base Bid.*

**Alternate Bid Deduct Items**

| <b>Item</b>                                    | <b>Description</b>                               | <b>Spec</b> | <b>Unit</b> | <b>Quantity</b> | <b>Unit Price</b> | <b>Amount</b> |
|--|--|-------------|-------------|-----------------|-------------------|---------------|
| 8.06   | Riprap (General)                                 | 02271       | CY          | 100             |                   |               |
| 9.01   | Clearing & Grubbing (Relocated & New Scale Area) | 02110       | LS          | 1               |                   |               |
| 9.02   | Scales Area - Excavation                         | 02210       | CY          | 22              |                   |               |
| 9.03   | Scales Area - Structural Fill                    | 02210       | CY          | 2335            |                   |               |
| 9.15   | Signs and Sign Posts                             | 02849       | EA          | 27              |                   |               |
| <b>Sub-total of Alternate Bid Deduct Items</b> |  |             |             |                 |                   |               |

## SECTION 01025

### MEASUREMENT AND PAYMENT

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Measurement and payment criteria applicable to the Work performed under a unit price payment method.
- B. Defect assessment and non-payment for rejected work.
- C. Payment procedures and timelines.

##### 1.02 AUTHORITY

- A. Measurement methods defined in the individual specification sections complement the requirements of this section. In the event of conflict, the requirements of the individual specification section govern.

##### 1.03 UNIT QUANTITIES SPECIFIED

- A. Quantities indicated in the Bid Schedule area described in Part 4 - Measurement and Payment of each specification

##### 1.04 MEASUREMENT OF QUANTITIES

- A. Prior to preparing a monthly request for payment, the Contractor shall estimate the percentage of each bid item that will be completed by the end of the month and e-mail the information to the Project Engineer for confirmation.
- B. Measurement by Volume
  - 1. Measurement by volume will be by the cubic dimension listed or indicated in the Bid Schedule. Method of volume measurement will be as determined or directed by the Owner or Design Engineer.
- C. Measurement by Area
  - 1. Measurement by area will be by the square dimension listed or indicated in the Bid Schedule. Method of square measurement will be as determined or directed by the Owner or Design Engineer.

D. Linear Measurement

1. Linear measurement will be by the linear dimension listed or indicated in the Bid Schedule. Method of linear measurement will be as determined or directed by the Owner or Design Engineer. Generally, items, components, or work to be measured will be measured at the centerline of the item in place.

E. Lump-Sum Measurement

1. Lump-sum measurement will be for the entire item, unit of work, structure, or combination thereof, as listed or indicated in the Bid Schedule.

1.05 PAYMENT

A. Payment Includes: Full compensation for all required labor, products, tools, equipment, plant, transportation, superintendence, bonds, insurance, taxes, services and incidentals; erection, application or installation of an item of the Work; overhead and profit and any other items not specifically listed.

B. Progress payments will be made monthly. Each progress payment shall be submitted to the Project Engineer for approval 5 days prior to the end of the month. The progress payment shall show the following:

- 1 List of bid items with percentage billed during the period.
2. Documentation of the quantity of each bid item by means of survey, delivery tickets, or measurements that can be confirmed in the field by the Project Engineer.
3. Previous amount billed for each bid item.
4. Total billed for each item to date.
5. Organized by the specific bid items shown on the Bid Schedule.
6. Materials and equipment that has been delivered but not incorporated in the work may be included in the invoice. Per the General Conditions, 50% of the value of the materials and equipment will be allowed for payment prior to installation.
7. Total current amount due this invoice.
8. Total billed to date.
9. 5% retention.

10. Signature line for Engineer approval.
- C. Submit the invoice to the Engineer for review. The Engineer will initial the invoice and return it to the Contractor for submittal to the Owner.
- D. Upon receipt of the Notice of Completion of the project from the Engineer, the Contractor shall invoice for the 10% retention.

#### 1.06 NON-PAYMENT FOR REJECTED PRODUCTS

- A. Payment will not be made for any of the following:
  1. Products wasted or disposed of in a manner that is not acceptable.
  2. Products determined as unacceptable before or after placement.
  3. Products not completely unloaded from the transporting vehicle.
  4. Products placed beyond the lines and levels of the required Work.
  5. Products remaining on hand after completion of the Work.
  6. Loading, hauling, and disposing of rejected products.

#### 1.07 ALTERNATE BID DEDUCT ITEMS

- A. The Bid Schedule for the work includes Alternate Bid Deduct Items. Alternate Bid Deduct Items are defined as work items that will be included in the bid total and used as a method of comparing bids, but may be removed from the scope of work to either reduce project cost to within the Owner's Budget or to be constructed by the Owner's resources.
- B. Alternate Bid Deduct Items shall include the cost of all of the mobilization, overhead, profit, and work related to the item so that when they are deducted, no cost adjustment is necessary to the base bid items.
- C. Prior to award of the Contract, the Owner will determine which Alternate Bid Deduct Items to remove from the Work.

#### 1.08 VALUES OF UNIT PRICES

- A. The number of units and quantities contained in the Bid Schedule are approximate only, and final payment will be made for the actual number of units and quantities which are incorporated in or made necessary by the Work included in the Contract.
- B. In the event that work and materials or equipment are required to be furnished to a greater or lesser extent than is indicated by the Contract Drawings and Specifications, such work and materials or equipment shall be furnished in greater or lesser quantities

and notified to the Design and Project Engineers with respect to the greater or lesser quantities.

#### 1.09 CHANGE ORDERS

- A. Changes in Work which require a contract change order must be approved by the Owner or Design Engineer prior to the change order work beginning. All change orders must be submitted in writing, with an estimate of time and expense to the Owner and Design Engineer for approval. When submitting change orders, the Contractor shall indicate the number of working days that the change will add or subtract to the project duration.
- B. Changes in Quantity of a bid item that have the potential to result in a change in quantity of greater than 5% over that shown in the Bid Schedule shall be brought to the attention of the Project Engineer in writing upon discovering that potential.

#### 1.09 ALL OTHER PAYMENT ITEM<sup>1</sup>

- A. The Bid Schedule includes a bid item called “All Other”. The purpose for this item is to provide a place for the Contractor to include cost for items not described in any other bid item, but is required to complete the project. It is the responsibility of the Contractor to review the Documents thoroughly and identify any work that is not included in a bid item and include it in the “All Other” bid item.

### **PART 2 – PRODUCTS – not used**

### **PART 3 - EXECUTION – not used**

### **PART 4 - MEASUREMENT AND PAYMENT**

Specifications not identified for specific payment shall be paid within the item for which they apply. This includes, but is not limited to the following specification sections related to the Transfer Station Building, and shown on the Bid Schedule for the same.

#### **TRANSFER STATION BUILDING SPECIFICATIONS:**

|  |                                  |
|--|----------------------------------|
| 03 1000 Concrete Forming and Accessories | 03 2000 Concrete Reinforcing     |
| 03 3000 Cast-in-Place Concrete           | 05 1200 Structural Steel Framing |
| 05 4000 Cold Formed Metal Framing        | 06 1600 Wood Sheathing           |
| 08 1113 Hollow Metal Doors and Frames    | 08 3223 Overhead Coiling Doors   |
| 08 7100 Door Hardware                    | 09 9100 Painting                 |
| 10 1400 Signage                          | 13 3419 Metal Building System    |

END OF SECTION

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<sup>1</sup> Added “All Other” Bid Item per Addendum #2 2-13-2018

## SECTION 02232

### AGGREGATE BASE COURSE

#### PART 1 - GENERAL

1.1 DESCRIPTION: The work of this section consists of furnishing and placing aggregate base course, at thicknesses as shown on the Drawings and referenced in the *Geotechnical Report (Appendix A)*, and filler if required, on a prepared subgrade, which includes but is not limited to:

- A. Green waste area.
- B. Gravel trailer parking west of the transfer building.
- C. Concrete apron at east entry to transfer building.
- D. Road base: heavy duty roadways.
- E. Road base: light to medium duty roadways.
- F. Sidewalks.
- G. Foundation base layers.

1.2 SUBMITTALS: As specified in Section 01300.

- A. If materials are obtained from a commercial source, submit certification from the supplier certifying that aggregate base course meets the requirements of this section. Submit certification no less than 14 calendar days before use.

1.3 QUALITY ASSURANCE: Material testing required to determine compliance with the requirements for the work of this section will be the responsibility of the Contractor.

1.4 REFERENCES:

- A. The following are reference materials for this project included in the Appendix:
  - *Holdrege & Kull, July 31, 2017 Geotechnical Engineering Investigation Report ("Geotechnical Report")*.

The Contractor shall consider these documents as "Reference Materials" as described in the Contract Documents and are not part of the Contract Documents.

#### PART 2 - PRODUCTS

2.1 AGGREGATE: Clean, hard, durable fragments or particles of crushed stone, or crushed or natural gravel and shall meet the following requirements:

- A. Gradation: The aggregate shall be 3/4" maximum and shall conform to requirements of Standard Specification (CalTrans) Section 26 for Class 2 base:

| <u>Sieve Size</u> | <u>Percent Passing</u> |
|-------------------|------------------------|
| 1"                | 100                    |
| 3/4"              | 87-100                 |
| No. 4             | 30-65                  |
| No. 30            | 5-35                   |
| No. 200           | 0-12                   |

B. Quality Requirements: The material shall conform to the following:

| <u>Test</u>      | <u>Test Method No.</u> | <u>Requirement</u> |
|------------------|------------------------|--------------------|
| R-Valve          | Calif. 301             | 78 Min.            |
| Sand Equivalent  | Calif. 217             | 50 Min.            |
| Durability Index |                        | 35 Min.            |

### **PART 3 - EXECUTION**

- 3.1 **PLACING:** If the required compacted depth of the aggregate base course exceeds 6 inches, place course in two or more layers of approximately equal thickness. The maximum compacted thickness of any one layer shall not exceed 6 inches.
- 3.2 **SUBGRADE PREPARATION:** Contractor to review the subgrade to confirm that it is ready to receive Aggregate Base materials. Refer to 02210 for subgrade requirements.
- 3.3 **COMPACTION:** Compact each layer to a density of not less than 98 percent of the maximum density, as determined by AASHTO T180-74. Random tests for compacted depth will be made during the progress of the work.
- 3.3 **SURFACE FINISHING:**
  - A. Use a smooth steel wheel roller for the final rolling of top surface base course. Water surface and evenly spread loose stones before final rolling. Make minimum of two complete passes over area to embed stones. Correct soft spots developed during rolling.
  - B. Compacted base course surface shall be smooth, free from waves and other irregularities, and to grade elevations as shown on the drawings. Unsatisfactory portions of base course shall be removed, reworked, re-laid and re-rolled at no additional expense to the Owner.
- 3.4 **MATERIAL ACCEPTANCE REQUIREMENTS:** Acceptance will be based on periodic samples and tests taken following mixing and before laying.

### 3.5 TOLERANCES:

- A. Surface: The Project Engineer will test finished surface of the base course with a 10-foot straightedge or other device. The variation between any two flat plane contacts with the surface shall not exceed one-inch. Any areas not complying with these tolerances shall be reworked to obtain conformity.
- B. Width: Plan dimension, plus or minus 0.5 foot.
- C. Thickness: Plan dimension, plus or minus 0.05 foot.

3.6 MAINTENANCE: Maintain base course in a satisfactory condition until surfaced or until final acceptance.

## **PART 4 - MEASUREMENT AND PAYMENT**

### 4.01 MEASUREMENT

- A. Per-Square-Foot Basis: Items that are pair on a per-square-foot basis will be measured by survey or other Owner approved measurement of the finished surface. No additional payment will be made for thickness exceeding that specified.
- B. Incorporated in Other Work Items: No separate measurement will be made for aggregate base that is used incidentally to other work.

### 4.02 PAYMENT

- A. Aggregate - Gravel Trailer Parking (West of Transfer Bldg): This item shall include the placement, leveling, compaction, rolling, and other requirements to fully complete installation of the aggregate base layer related to and listed on the Bid Schedule as “Aggregate – Gravel Trailer Parking (West of Transfer Bldg)”. Payment shall be on a price-per-square-foot basis.
- B. Aggregate - Gravel Transfer Road: This item shall include the placement, leveling, compaction, rolling, and other requirements to fully complete installation of the aggregate base layer related to and listed on the Bid Schedule as “Aggregate – Gravel Transfer Road”. Payment shall be on a price-per-square-foot basis.
- C. Aggregate – Concrete Apron Base: This item shall include the placement, leveling, compaction, rolling, and other requirements to fully complete installation of the aggregate base layer related to and listed on the Bid Schedule as “Aggregate – Concrete Apron Base” related to the two concrete aprons near the easterly entrance locations to the transfer station building. Payment shall be on a price-per-square-foot basis.

- D. Aggregate – Road Base: Heavy Duty Roadways (15”): This item shall include the placement, leveling, compaction, rolling, and other requirements to fully complete installation of the aggregate base layer related to and listed on the Bid Schedule as “Aggregate Base - Heavy Duty Roadways (15”)” and “Aggregate Base – Heavy Duty Roadways (15”) Scales Area”<sup>1</sup>. Payment shall be on a price-per-square-foot basis.
- E. Aggregate – Road Base: Light to Medium Duty Roadways (10.5”): This item shall include the placement, leveling, compaction, rolling, and other requirements to fully complete installation of the aggregate base layer related to and listed on the Bid Schedule as “Aggregate – Road Base: Light to Medium Roadways (10.5”)”. Payment shall be on a price-per-square-foot basis.
- F. Aggregate – Sidewalks: All aggregate and base layers related to sidewalks shall be included in the unit bid for Sidewalks. No separate payment for associated aggregate base layer for sidewalks will occur.
- G. Aggregate – Foundations: All aggregate and base layers related to foundation, including but not limited to building foundations, slabs otherwise not specified, footings, or other similar structures shall have payment included in the base bid or unit bid for the respective structure. No separate payment for associated aggregate base layer for these items.
- H. Paving – Shoulder Backing: This item shall include the shoulder backing and include the aggregate, placement, compaction, and complete installation per the details and at the locations as shown on the Drawings. Payment shall be on a price per linear foot basis as listed on the Bid Schedule as “Paving – Shoulder Backing.”

**END OF SECTION**

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<sup>1</sup> Modified per Addendum #2 2-13-2018

## SECTION 02553

### ASPHALT CONCRETE PAVEMENT

#### PART 1 - GENERAL

- 1.1 RESPONSIBILITIES AND COORDINATION: This section is the responsibility of the General Contractor. The General Contractor shall coordinate with the Building Contractor to assure that all concrete slabs, scale pits, and underground work within 5 feet of the building are in place prior to paving.
- 1.2 REFERENCES: The requirements for asphalt concrete and base thickness are described in the following reference included in the Appendix:
- A. Geotechnical Engineering Investigation Report (*Geotechnical Report*), Glenn County Transfer Station, 5700 County Road 33, Artois, California, prepared by Holdredge & Kull, July 31, 2017.
- 1.3 DESCRIPTION: The work of this section consists of constructing one or more surface courses composed of a mixture of aggregate, filler if required, and bituminous material, placed on a prepared base to the thicknesses shown on the Drawings and upon base and subgrade as specified in the *Geotechnical Report*.
- 1.4 QUALITY ASSURANCE: Material testing and compliance certification required to determine compliance with the work of this section will be the responsibility of the Contractor. An independent testing laboratory may be used to sample and test asphalt concrete at the job site. Thickness control, temperature and compaction will also be the responsibility of the Contractor.
- 1.5 SUBMITTALS: As specified in Section 01300, at least 4 weeks prior to use.
- A. Certificates:
1. Certification from supplier that asphalt cement is of correct type and meets requirements of this section. Two copies will be required for each load.
  2. Two copies of certified weight tickets for each load of bituminous concrete.
  3. Job mix formula shall be submitted with certification that the mix formula meets the requirements of CalTrans Section 39. The job mix formula shall include definite single values for:
    - a. The percent of aggregate passing the specified sieve, based on dry weight of aggregate.

- b. The percent of bituminous material to be added, based on the total weight of the mix.
- c. Kind and amount of chemical additives (anti-stripping, hydrated lime, etc.) as established by the design procedure.
- d. Maximum theoretical density.
- e. Temperature ranges for the bituminous material at the point of mixing with the aggregate and bituminous mixture at the paving machine.

1.6 PROJECT CONDITIONS: Apply mixture only during hours of daylight; when air temperature is 50 degrees F. or higher; when surfaces to be paved are dry and free of frost, snow or ice; and when precipitation is not imminent.

**PART 2 - PRODUCTS**

2.1 AGGREGATE:

A. The aggregate shall meet the general and physical requirements of CalTrans Section 39, Type B, 1/2-inch maximum, medium grading. When crushed gravel is used, a minimum of 50 percent of the material passing the No. 4 sieve shall have at least one fractured face. In the table below, the symbol 'X' is the gradation which the Contractor proposes to furnish for the specific sieve. The proposed gradation shall meet the gradation shown in the table under 'Limits of Proposed Gradation.'

| <u>Sieve Size</u> | <u>Limits of Proposed Gradation</u> | <u>Operating Range</u> | <u>Contract Compliance</u> |
|-------------------|-------------------------------------|------------------------|----------------------------|
| 3/4"              |                                     | 100                    | 100                        |
| 1/2"              |                                     | 95-100                 | 89-100                     |
| 3/8"              |                                     | 80-95                  | 75-100                     |
| No. 4             | 59-66                               | X±5                    | X±8                        |
| No. 8             | 43-49                               | X±5                    | X±8                        |
| No. 30            | 22-27                               | X±5                    | X±8                        |
| No. 200           |                                     | 3-8                    | 0-11                       |

2.2 BITUMINOUS MATERIAL: Asphalt binder to be mixed with aggregate shall be steam-refined paving asphalt, Grade AR-4000, meeting the requirements of CalTrans Section 92. The amount of asphalt in the mix will be determined by approved job mix formula.

2.3 PENETRATION ASPHALT (PRIME COAT): Where specified, penetration grade asphalt shall be Grade MC250 or MC70 liquid grade asphalt applied to the prepared base

course at the rate of 0.20 gallons per square yard, or as shown on the drawings. Application shall be in accordance with CalTrans specification Section 39.

- 2.4 PAVING FABRIC: Where specified, paving reinforcement fabric shall be placed over prepared asphalt concrete surfaces. Fabric shall be Petromat, as supplied by Amoco or approved equal.
- 2.5 BITUMINOUS TACK COAT: Where specified, asphaltic emulsion bituminous tack coat shall be in accordance with CalTrans Section 94 for rapid setting or slow setting type and grade, and shall be applied at the rate of 0.02 to 0.10 gallon per square yard to existing asphalt surfaces to receive asphalt overlays and patches. Tack coat for paving fabrics shall be as recommended by the fabric manufacturer.
- 2.6 ASPHALT BERMS: Where specified, asphalt concrete berms, curbs and drain ditches shall be constructed to the lines, grades, and dimensions shown on the plans. Material shall be 3/8" maximum, medium grading in accordance with CalTrans Standard Specification Section 39.

### **PART 3 - EXECUTION**

- 3.1 EQUIPMENT: Plant, hauling, placing and rolling equipment shall be adequate to ensure uniformity and continuity of operations and be in good operating condition, capable of performing according to manufacturer's specifications.
  - A. Hauling Equipment: Trucks used for hauling bituminous mixtures shall have tight, clean, smooth metal beds which have been thinly coated with a minimum amount of paraffin oil, lime solution, or other approved material to prevent the mixture from adhering to the beds. Each truck shall have a cover of canvas or other suitable material of such size as to protect the mixture from the weather.
  - B. Bituminous Pavers: Bituminous pavers shall be self-contained, power-propelled units, provided with an activated screed or strike-off assembly, heated if necessary, and capable of spreading and finishing courses of bituminous plant mix material in widths applicable to the specified typical section and thickness' shown on the drawings.

The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to place the mixture uniformly in front of the screed.

Maintain screed at the proper elevation at each end by controlling the elevation of one end and automatically controlling the transverse slope or by controlling the elevation of each end independently, as directed.

The screed or strike-off assembly shall effectively produce a finished surface of the required evenness and texture without tearing, shoving or gouging the mixture. The paver shall be capable of being operated at forward speeds consistent with satisfactory laying of the mixture.

- C. Rollers: Rollers shall be of the steel-wheel, vibratory, pneumatic tire type, or combination, capable of reversing without backlash. Steel-wheel rollers other than vibrating shall be capable of exerting a force of not less than 250 pounds per inch of width of the roller. Vibrating steel-wheel rollers shall have a minimum weight of 6 tons.

Pneumatic-tired rollers shall have smooth tread tires of equal size that will provide a uniform compaction pressure for the full width of the roller and shall be capable of exerting a ground pressure of at least 80 pounds per square inch.

### 3.2 APPLICATION:

- A. Conditioning of Existing Surface: When the surface of the existing pavement or old base is irregular, it shall be brought to uniform grade and cross section as directed.

Paint contact surfaces of curbing, gutters, manholes and other structures with a thin, uniform coating of bituminous material before placing the bituminous mixture against them.

- B. Preparation of Bituminous Material: Provide a continuous supply of the bituminous material to the mixer at a uniform temperature at all times; avoid local overheating.

- C. Material delivered to the paver shall not be less than 225 degrees Fahrenheit.

### 3.3 SPREADING AND FINISHING MIX:

- A. The mixture shall be laid upon an approved surface, spread and struck off to the grade and elevation established. Use bituminous pavers to distribute the mixture either over the entire width or over such partial width as may be practicable.

- B. The longitudinal joint in one layer shall offset that in the layer immediately below by approximately 6 inches.

- C. On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the mixture shall be spread, raked, and luted by hand tools. For such areas, the mixture shall be dumped, spread and screeded to give the required compacted thickness.

- D. Transport and place bituminous mixture on the roadway in a manner that will minimize segregation. Remove segregated areas behind the paver immediately and

replace the segregated material with specification material before the initial rolling has taken place. The removal and replacement of nonspecification material or unacceptable work shall be accomplished at no additional expense to the Owner.

- E. Place bituminous material as continuously as possible. Rollers shall not pass over the unprotected end of a freshly laid mixture unless authorized by the Project Engineer. Form transverse joints by cutting back on the previous run to expose the full depth of the course. When directed, use a coat of bituminous material on contact surfaces of all joints just before additional mixture is placed against the previously rolled material.

### 3.4 COMPACTING MIX:

- A. After the bituminous mixture has been spread and struck off, and surface irregularities have been adjusted, thoroughly and uniformly compact mixture by rolling.
- B. Breakdown roll surface when the mixture is in the proper condition and when the rolling does not cause undue displacement, cracking or shoving.
- C. The number, weight and type of rollers furnished shall be sufficient to obtain the required compacting while the mixture is in a workable condition.
- D. Begin rolling at the sides and proceed longitudinally parallel to the road centerline, each trip overlapping one-half the roller width, gradually progressing to the crown of the road. When paving in echelon or abutting a previously placed lane, roll the longitudinal joint first, then follow regular rolling procedure. Continue rolling until all roller marks are eliminated and the minimum density specified has been obtained.
- E. Any displacement occurring as a result of the reversing of the direction of a roller, or from other causes, shall be corrected at once by the use of rakes and addition of fresh mixture when required. Care shall be exercised in rolling not to displace the line and grade of the edges of the bituminous mixture.
- F. To prevent adhesion of the mixture to the rollers, keep wheels properly moistened with water or water mixed with very small quantities of detergent or other approved material. Excess liquid will not be permitted.
- G. Along forms, curbs, headers, walls and other places not accessible to the rollers, thoroughly compact mixture with hand tampers or with mechanical tampers.
- H. Remove mixture that becomes loose and broken, mixed with dirt, or is in any way defective and replace with fresh hot mixture; compact to conform with the surrounding area.

### 3.5 ACCEPTANCE REQUIREMENTS:

- A. **Surface Tolerance:** The variation between any two contacts with the surface shall not exceed 1/4 inch in 10 feet. Correct all humps or depressions exceeding the specified tolerance by removing defective work and replacing it with new material at no additional expense to the Owner.
- B. **Density:** Acceptable density of the in-place bituminous concrete pavement shall be 95 percent of the optimum values as determined from the job-mix formula. Field sampling and density determinations will be made by the Project Engineer in accordance with ASHTO T230-68, or an acceptable nuclear procedure.
- C. A uniform compacted thickness shall be obtained for each course equal to or greater than the thickness shown on the drawings. Individual tests shall not vary by more than plus or minus 1/4 inch.

## PART 4 - MEASUREMENT AND PAYMENT

### 4.01 MEASUREMENT

- A. **Measurement:** Measurement for AC paving shall be on a price per square-foot basis, surveying or otherwise measuring the surface of the finished and approve material.

### 4.02 PAYMENT

- A. **General:** Payment for asphaltic concrete (AC) paving shall include the surface preparation, placement and installation, rolling, and mobilization specific to paving. Paving shall be in accordance with the thicknesses shown on the Drawings and referenced in the *Geotechnical Report* for the project.
- B. **Heavy Truck Asphaltic Concrete Pavement:** Payment for Heavy Truck Asphaltic Concrete Pavement (AC) as shown on the Drawings shall be on a price-per-square-foot basis as shown on the Bid Schedule under “Paving - Heavy Duty Roadways (4” AC)”, ~~and~~ “Paving – Entrance of Truck Exit (westernmost)(4” AC)”, and “Paving – Heavy Duty Roadways (4” AC) Scales Area”<sup>1</sup>.
- C. **Light-Medium Asphaltic Concrete Pavement:** Payment for Light to Medium Vehicle Asphaltic Concrete Pavement (AC) as shown on the Drawings shall be on a price-per-square-foot basis as shown on the Bid Schedule under “Paving - Light to Medium Roadways”, and “Paving – Under Scales”.

### END OF SECTION

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<sup>1</sup> Modified per Addendum #2 2-13-2018