## Lincoln Road Sidewalk

March 21, 2024

Subject: Addendum NO. 2
This addendum provides clarifications and/or responses to questions received for the Lincoln Road Sidewalk Bid.

## Bidder Questions:

- Can a CAD file be given prior to bid opening to do a cut/fill analysis?
- CAD files are available in the folder at this link: $\square$ Lincoln Road Sidewalk Bid\# PO41977
- Does the winning General Contractor have to be a certified Prime Contractor of SCDOT?
- No, the General Contractor does not need to be a Prime Contractor of SCDOT.
- Who will do and pay for all $3^{\text {rd }}$ party testing?
- It is anticipated the General Contractor will include fees from the $3^{\text {rd }}$ party testing into their estimate and will be responsible for paying all $3^{\text {rd }}$ parties.
- Can you provide an exhibit or drawings for the ADA sidewalk handrail? Material type? Paint or powder coated? 2rail or 3rail?
- It is anticipated that the proposed handrail will be a $48^{\prime \prime}$ Ornamental Steel Picket Fence. The Specifications for Construction have been revised to include Section 806 for Fences. SCDOT detail 806-505-00 will be included in the construction documents. Lastly, the bid schedule has been revised to include a line item for the 48 " Ornamental Steel picket fence.
- Is the handrail to be core drilled into the concrete sidewalk? or into the earth?
- Handrail should be installed per SCDOT detail.806-505-00. We suggest a 1-ft diameter and 36 -inch-deep concrete embedment.
- What if any inspections will be done or required by SCDOT?
- The General Contractor will be required to meet all requirements of the SCDOT encroachment permit, once issued.
- When working on the box culvert can the creek be dammed on the upstream side on a daily basis?
- Please refer to the Erosion Control plans. They call for a pump around and impervious dikes during construction.
- If the creek can't be dammed up daily, can we utilize bypass pumping?
- Please refer to the Erosion Control plans. They call for a pump around and impervious dikes during construction.
- If undercut is required for the box culverts, will the backfill recommended by the $3^{\text {rd }}$ party inspector, whether it is washed stone or structural fill, what line item will it be paid from?
- Under the permanent pipe culverts section of the specifications for construction documents, subsection 714.5 states that "when select structural backfill is required, no additional measurement will be made for the structural backfill material and payment for this material will be included in the cost of the pipe."
- Who quantifies the backfill recommended for the base of the box culvert?
- Under the permanent pipe culverts section of the specifications for construction documents, subsection 714.5 states that "when select structural backfill is required, no additional measurement will be made for the structural backfill material and payment for this material will be included in the cost of the pipe."


## APPENDIX A - REVISED BID SCHEDULE

Item Steel handrail has been replaced with Ornamental Steel Picket Fence - 48".

BID SCHEDULE - SIDEWALK CONSTRUCTION
March 21, 2024

STARTUP \& ACQUISITION

| DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
| :--- | :---: | :---: | :---: | :---: |
| Mobilization | 1 | LS |  |  |
| Bonds and Insurance | 1 | LS |  |  |
| SUBTOTAL STARTUP \& ACQUISITION= |  |  |  |  |


| CLEARING AND GRUBBING, DEMOLITION |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| DESCRIPTION | QUANTITY | UNIT | UNIT PRICE |  |
| Clearing \& Grubbing within Right of Way | 1 | LS |  |  |
| Removal of Structures and Obstructions | 1 | LS |  |  |


| EARTHWORK |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| DESCRIPTION | QUANTITY | UNIT | UNIT PRICE |  |
| Unclassified Excavation | 560 | CY |  |  |
| Borrow Excavation | 3600 | CY |  |  |
| Fine Grading for Sidewalks and Shoulders | 3190 | SY |  |  |
| Relocation of Structures and Other Items | 1 | LS |  |  |

## EROSION CONTROL

| DESCRIPTION | QUANTITY | UNIT | UNIT PRICE |  |
| :--- | :---: | :---: | :---: | :---: |
| Rip-Rap (Class B) | 5 | TN |  |  |
| Geotextile For Erosion Control Under Riprap (Class 2) Type (B) | 20 | SY |  |  |
| Seeding (Mulched) | 20 | MSY |  |  |
| Temporary Erosion Control Blanket (Class B) | 5 | MSY |  |  |
| Sediment Tube | 1140 | LF |  |  |
| Silt Fence | 3700 | LF |  |  |
| Inlet Structure Filter - Type B | 1 | EA |  |  |
| Aggregate No.5 or 57 for Erosion Control | 20 | TON |  |  |


| STORM DRAINAGE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
| 15" RC Pipe Culvert (RCP) - Class IV | 130 | LF |  |  |
| 18" RC Pipe Culvert (RCP) - Class III | 60 | LF |  |  |
| 18" RC Pipe Culvert (RCP) - Class IV | 440 | LF |  |  |
| Catch Basin (Type 9) | 1 | EA |  |  |
| Extra Depth of Box | 10 | LF |  |  |
| Manhole | 1 | EA |  |  |
| Adjust Manhole | 5 | EA |  |  |
| Beveling of Pipe End | 30 | EA |  |  |
| 4' x 5' P C Box Culvert (RCP) | 40 | LF |  |  |
| Concrete for Structures - Class 4000 (Culvert) | 50 | CY |  |  |
|  | SUBTOTAL STORM DRAINAGE= |  |  |  |

## SIDEWALK AND ROAD WORK

| DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
| :---: | :---: | :---: | :---: | :---: |
| Aggregate No. CR-14 (Gravel for Parking Area) | 40 | TN |  |  |
| Asphalt Base Course Type B | 50 | TN |  |  |
| Liquid Asphalt Binder PG64-22 | 5 | TN |  |  |
| Milling Existing Asphalt Pavement (Variable) | 50 | SY |  |  |
| HMA Intermediate Course Type C | 10 | TN |  |  |
| HMA Surface Course Type C | 5 | TN |  |  |
| 8" White Solid Lines Thermoplastic - 125 mil | 260 | LF |  |  |
| Concrete Curb and Gutter (1'-6") | 150 | LF |  |  |
| Concrete Sidewalk (4" Uniform) | 1950 | SY |  |  |
| Concrete Driveway (6" Uniform) | 80 | SY |  |  |
| Surface Applied Detectable Warning | 70 | SF |  |  |
| Ornamental Steel Picket Fence - 48" | 410 | LF |  |  |
|  | SUBTOTAL SIDEWALK AND ROAD WORK= |  |  |  |

TRAFFIC CONTROL

| DESCRIPTION | QUANTITY | UNIT | UNIT PRICE |  |
| :--- | :---: | :---: | :---: | :---: |
| Traffic Control | 1 | LS |  |  |


| SUBTOTAL PROJECT COST= |  |
| ---: | ---: |
|  | 10\% CONTINGENCY $=$ |
| TOTAL PROJECT COST $=$ |  |

APPENDIX B - SCDOT DETAIL 806-505-00
The referenced detail will be added to the construction plans.

## SECTION 806

FENCES

### 806.1 Description

This section contains specifications for the materials, equipment, construction, measurement, and payment for the construction of fences and gates in conformity with the Plans and the Specifications or as directed by the RCE.

### 806.1.1 Fence Types

1 The fence types in this section include the following:

- Woven Wire,
- Barbed Wire,
- Chain-Link, and
- Ornamental Steel Picket.


### 806.2 Materials

### 806.2.1 Wood and Braces

Use wood posts and braces that meet the requirements of Subsection 706.2.5.

If approved by the RCE, use galvanized studded T-posts instead of wood posts for Woven Wire Fence. Use the T-posts for line installation only, but do not use as corner or pull posts. Provide T-posts meeting the requirements of ASTM A 702, and galvanizing conforming to the requirements of AASHTO M 111.

### 806.2.2 Steel Fence Posts

Provide steel posts that conform to the size, shape, and dimensions shown on the Plans and to the requirements of ASTM A 120 for tubular steel fence posts, AASHTO M 111 for all other posts, and ASTM A 153 for all anchor plates attached to posts. Protect cut ends that are not placed underground by applying two coats of a $90 \%$ minimum zinc-rich, cold-galvanizing compound. Provide posts and anchor plates for line posts of good commercial quality steel and of the shapes, weights, and dimensions shown on the Plans. Provide tubular section posts with heavy malleable iron caps made to provide a drive-fit over the outside of the section to exclude moisture. Ensure the weight per linear foot for tubular posts and braces is not less than $95 \%$ of the weight specified. Furnish all end, pull, and brace posts for farm-field type fence with braces, fittings and details required to make a complete installation as shown on the Plans. Furnish all line posts for farm-field fence with anchor plates.

If fastenings are necessary for attaching farm-field fence to the posts, use either 9-gauge galvanized wire or galvanized clamps of the manufacturer's standard design. Furnish a sufficient quantity of individual tie-wires or clamps to provide for 5 attachments of the fencing to each line post and one tie-wire
for each strand of barbed wire.
3 Furnish line posts for chain-link type fence with the necessary tie-wires or fabric bands for fastening the fabric to the posts. Use fastenings of either aluminum strip or wire of approved gauge and design or galvanized steel wire and in accordance with the manufacturer's standard design. If galvanized steel wire ties are furnished, use wire no smaller than 9-gauge. Furnish a sufficient quantity of individual ties or bands to provide for attaching the fabric to each line post every 12 inches or as called for on the Plans.

### 806.2.3 Zinc-Coated Steel Woven Wire Fabric

1 Use zinc-coated steel woven wire fabric conforming to the requirements of AASHTO M 279, Grade 60, Coating Type Z, and Coating Class 1.

### 806.2.4 Barbed Wire

1 Furnish barbed wire with two 121/2-gauge (or heavier) steel wires or two $151 / 2$-gauge high tensile strength steel wires with 14 -gauge (or heavier) 4point round barbs placed not more than 5 inches apart in conformance with AASHTO M 280, Coating Type Z, Class 1 (or better), for zinc-coated (galvanized) steel barbed wire or ASTM A 121, Coating Type A, for aluminumcoated steel barbed wire.

### 806.2.5 Chain-Link Fence Fabric

1 Use chain-link fence fabric conforming to the requirements of AASHTO M 181, except perform tensile strength testing in accordance with AASHTO T 244 for the kind of metal, coating, size of wire, and mesh specified on the Plans or SCDOT Standard Drawings.

### 806.2.6 Ornamental Steel Picket Fencing

### 806.2.6.1 Tubing

1 Use cold roll steel sheet meeting the requirements of ASTM A 924 for fence elements. Ensure that cold roll sheet metal conforms to requirements of ASTM A 787, Type 2 AWG, light oil 1008/1010. Coat fence elements in accordance with the requirements of ASTM A 653, LFQ RS Coating G90 C10088/C1010, Grade C.

### 806.2.6.2 Welds

1 Weld elements with $1 / 8$-inch fillet butt weld on two sides with $50,000 \mathrm{psi}$ tensile strength.

### 806.2.6.3 Pickets

1 Use 1-inch x 1-inch x 16-gauge galvanized cold roll steel for pickets.

### 806.2.6.4 Rails

Use 1-inch x 2-inch x 14-gauge galvanized cold roll steel for rails.

### 806.2.6.5 Posts

1 Use $21 / 2$-inch x $21 / 2$-inch $\times 14$-gauge galvanized cold roll steel for posts.

### 806.2.6.6 Post caps

Provide pressed steel caps to fit over the posts.

### 806.2.6.7 Concrete and Reinforcement (if required)

 steel posts. Ensure that concrete conforms to the applicable requirements in Section 701. If reinforcing steel is required, use reinforcing steel conforming to the applicable requirements in Section 703.
### 806.2.6.8 Finish Color

1 Furnish fence elements with a black finish unless otherwise specified.

### 806.2.7 Gates

### 806.2.7.1 Chain-Link Fence Gates

1 Ensure that chain-link fence gate material conforms to the requirements of AASHTO M 181 for the kind of metal, coating, sizes of wire, and mesh specified.

### 806.2.7.2 Farm-Fence Gates

Furnish materials and fabricate farm-fence gates in accordance with the Plans or SCDOT Standard Drawings, or in the absence of Plan details, as directed by the RCE and in keeping with the type fence being erected and the purpose it serves.

### 806.2.8 Staples

1 To attach woven wire and barbed wire to wooden fence posts, use staples made of galvanized steel wire of not less than 9 -gauge and not less than $11 / 2$ inches in length or 16-gauge stainless steel pneumatically driven staples, made from 304 stainless steel, coated with adhesive, and not less than 2 inches in length.

### 806.3 Equipment

Ensure that the equipment necessary for the proper construction of the work is on site, in acceptable working condition, and approved by the RCE as to both type and condition before the start of work under this section. Provide sufficient equipment to enable prosecution of the work in accordance with the project schedule and completion of the work in the specified time.

### 806.4 Construction

### 806.4.1 General

1 Perform clearing and grubbing as necessary to construct the fence to the required grade and alignment. Remove and dispose of existing fences, trees,
brush, stumps, logs, weeds, or other debris that interfere with the construction of the fence.

2 Grade the surface of the ground beneath the fence to a reasonable contour to prevent the bottom strand from coming in contact with the ground. Provide spaces between the various types of wire, namely barbed wire and fabric as shown on the Plans and prevent excessive openings between the ground and the bottom of the fence before erecting the fabric. Where it is not practicable for the fencing to closely follow the contour of the ground, close the openings under fences caused by crossing ditches or small ground depressions sufficiently to retain livestock or serve the purpose intended. new fence before removing the existing fence. The Contractor is responsible for all crop or property damage caused by livestock escaping or entering through gaps left in fences during erection.

Set the tops of posts to the required grade and alignment. Do not cut the tops of treated wooden posts or metal posts unless approved by the RCE under specified conditions.
Firmly attach the required wire or fencing to the posts and braces as indicated on the Plans or the Specifications. Stretch all wire taut at the required elevations.

At each location where an electric transmission, distribution, or secondary line crosses any of the fence types covered by these specifications, furnish and install a ground conforming to the requirements of Section 9 of the National Electric Safety Code.

Whenever farm type fence is erected for farm purposes, construct access gates at locations of existing access points or at other locations when, in the opinion of the RCE, such access is essential to the farming or other land use operations.

### 806.4.2 Setting Posts

Unless otherwise directed, set posts (including the concrete base for posts of fences erected for control of access purposes) so that the entire fence is inside the right-of-way with the fence placed on the side of the post facing the mainline pavement. For fences erected for land use purposes, set posts and related items outside of the right-of-way with the fence placed on the side of the post as determined by the property owner. galvanized staple in each horizontal wire and as many additional staples as required to secure the fabric in a workmanlike installation. Stretch with an approved stretcher that produces equal tension in each line of wire. At each end, corner, or gatepost wrap each strand of wire around the post and securely fasten by winding the end around the beginning of the loop close to the post. Do not splice fence between posts unless splicing devices recommended by the fence manufacturer are used and are approved by the RCE.

### 806.4.4 Installing Chain-Link Fabric

Unless otherwise indicated on the Plans, use the same posts spacing as the fence being replaced, but with a maximum distance of 12 feet on centers for woven wire and barbed wire fences and a maximum of 10 feet for chainlink fence.

Set posts accurately spaced, lined, plumb, and to a uniform height before the fabric is attached. Set end, corner, gate, and pull posts to a minimum depth of 3 feet. Set line posts to a minimum depth of $21 / 2$ feet. Posts may be driven into place provided the method of driving does not damage the post. Treated posts that are driven may have the small end machine-pointed th the plant before being treated. When the posts are hand set, backfill and thoroughly compact the holes in layers not exceeding 6 inches in depth and such that the post is securely held.

Securely brace the corner, end, gate, and pull posts at intervals of not more than 500 feet as indicated on the Plans or as directed by the RCE. When changes in the fence line result in an angle of deflection of 30 degrees or more, install corner posts at point of change. Brace all corner and pull posts in two directions. Brace end and gate posts in one direction. Ensure the posts at intersecting fences are properly braced to withstand the pull of the intersecting fence.
At stream crossings and other locations where it is not practicable for the fencing to follow the contour of the ground closely, furnish extra-length posts without additional compensation.

Install posts of additional lengths when erecting sections of fence in low, swampy areas where the nature of the soil and water conditions prevents the posts from being held firmly in place at the usual required depths ( $21 / 2$ feet for line posts and 3 feet for pull and corner posts) and when additional lengths are included in the proposal. The RCE will determine the lengths of posts required.

When post is set in concrete, use Class 2500 concrete crowned at the top to shed water.

### 806.4.3 Installing Woven Wire

Stretch the wire fabric taut and securely attach to each wood post with a

Stretch and securely attach the fabric to the end, corner, gate, and pull posts with stretcher bars and stretcher bands as indicated on the Plans. Fasten the fabric to line posts, top rail, and tension wires with the wires or bands
specified and spaced as indicated on the Plans.

### 806.4.5 Installing Barbed Wire

 te fence, stretch and fasten to each wood post by means of galva nized staples or to metal posts by means of suitable fasteners. Wrap the ends of wire around wood posts and securely fasten by winding the end around the wire close to the post. Do not splice fence between posts.
### 806.4.6 Installing Ornamental Steel Picket Fencing

1 Set all posts plumb in 9-inch diameter $x$ 36-inch deep holes in Mechanically Stabilized Earth walls and in 4-inch x 9 -inch $\times 12$-inch deep holes in brick walls.

2 Construct fence in accordance with details shown on the Plans.
3 Apply black finish as follows:

1. Clean, degrease, and prime welded panels and posts.
2. Powder coat primed panel, post, and cap with one coat.
3. Touch up field welds with cold galvanized primer and enamel spray paint.

### 806.4.7 Installing Gates

Install gates in accordance with the Plans, SCDOT Standard Drawings, or as otherwise specified. Ensure that gates are square, plumb, and swing freely through their entire range of required movement.

### 806.5 Measurement

The quantity for the pay item Fence (of the size or type required) is the length of fence in-place and is measured by the linear foot (LF) along the top of fence from outside to outside of end posts for each continuous run of fence including gates, unless gates are in the proposal as a separate pay item, complete, and accepted.

When included as a pay item, the quantity for Gate (of the size or type required) is measured by each (EA) gate installed, complete, and accepted. When not included in the Contract as a pay item, the gate is measured as fence.

3 When included as a pay item, the quantity for Additional Length of Post is the length of post installed in excess of the normal post length specified and is measured by the linear foot (LF) of post, complete, and accepted.

### 806.6 Payment

Payment for the accepted quantity for each pay item, measured in accordance with Subsection 806.5, is paid at the contract unit bid price for the applicable pay item, and the payment includes all direct and indirect costs and expenses necessary to complete the work. (of the type and size required) is full compensation for constructing fence as specified or directed and includes furnishing and installing fence including posts, rails, post caps, and braces; clearing and grubbing; grading, excavating, backfilling, and disposing of surplus materials; providing and installing gates unless otherwise specified; and all other materials, labor, equipment, tools, supplies, transportation, and incidentals necessary to fulfill the requirements of the pay item in accordance with the Plans, the Specifications, and other terms of the Contract.

Payment for Ornamental Steel Picket Fence (of the height required) is full compensation for constructing ornamental steel picket fence as specified or directed and includes furnishing and installing the fence including pickets, rails, posts, post caps, concrete, primer, paint, powder coat, and welds and all other materials, labor, equipment, tools, supplies, transportation, and incidentals necessary to fulfill the requirements of the pay item in accordance with the Plans, the Specifications, and other terms of the Contract.

Payment for Gate (of the type and size required) is full compensation for fabricating and installing gates as specified or directed and includes all materials, labor, equipment, tools, supplies, transportation, and incidentals necessary to fulfill the requirements of the pay item in accordance with the Plans, the Specifications, and other terms of the Contract.

Payment for Additional Length of Post is full compensation for furnishing and installing the additional length of post beyond the standard post length as specified or directed and includes all materials, labor, equipment, tools, supplies, transportation, and incidentals necessary to fulfill the requirements of the pay item in accordance with the Plans, the Specifications, and other terms of the Contract.

Pay items under this section include the following:

| Item No. | Pay Item | Unit |
| :---: | :---: | :---: |
| $8061 \times X 0$ | Woven Wire Fence (type) | LF |
| $8062 \times 00$ | Barbed Wire Fence $-(1,2,3,4,5$, or 6) Strands | LF |
| 8063100 | $48^{\prime \prime}-$ Chain-link Fence | LF |
| 8063200 | $60 "-$ Chain-link Fence | LF |
| 8063300 | $72^{\prime \prime}-$ Chain-link Fence | LF |
| 8063600 | $96 "-$ Chain-link Fence | LF |
| 8063800 | $120 "-$ Chain-link Fence | LF |
| $806 X X X X$ | (width)' (type) Gate (height)" Height | EA |

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| Item No. | Pay Item | Unit |
| :---: | :---: | :---: |
| 8066000 | Additional Length of Post | LF |
| 8068142 | Ornamental Steel Picket Fence $-42^{\prime \prime}$ | LF |
| 8068148 | Ornamental Steel Picket Fence $-48^{\prime \prime}$ | LF |
| 8068154 | Ornamental Steel Picket Fence $-544^{\prime \prime}$ | LF |

## APPENDIX C - SECTION 806 FENCES

Section 806 was added to the Specifications for Construction documents to include provisions for the ornamental steel picket fence.


