ZANEVAN ENGINEERING

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Zanevan Engineering, LLC
1221 Oak Street
Carthage, MO 64836
417.800.2500
www.zanevan.com

# ADDENDUM NO. 2

TO: All Holders of Plans and Contract Documents for TAP-1601(705) – Hwy. HH and Chapel Road Sidewalks, Jasper County, Carthage, Missouri

ISSUED: April 28, 2025

_____
Name of Bidder

_____
Receipt of Acknowledged By

Planholders:

This Addendum is hereby made a part of the Contract Documents to the same extent as if it were originally included herein. This Addendum shall be inserted into the Contract Documents and submitted with the Bid, and includes the following items:

**CONTRACT DOCUMENTS**:

1) BID PROPOSAL FORM: - The attached revised Bid Proposal Form has been changed to address Bid Item #21 – Rectangular Rapid Flashing Beacons and shall be used for bid submission.

2) The DBE goal was inadvertently put at 0% when it should read **"3%"**. See revised and attached DBE Identification Submittal Form 135.9.9.

**SPECIFICATIONS:**

1) Chapter 4L – Rectangular Rapid Flashing Beacons specification has been included and is attached.

**PLANS:**

1) Plan Sheets C-1.0, C-1.1 and C-1.2 are hereby revised and attached herewith.

Sincerely,

***Zanevan Engineering***

Jason Eckhart

Jason Eckhart, P.E.
President/Owner

## BID PROPOSAL FORM

Bidder assures and acknowledges that each unit or lump sum bid price includes the cost of all adjacent, incidental, related, and companion items which are shown on the drawings, called for in the specifications, or otherwise necessary to provide a complete and functional installation.

The OWNER reserves the right to increase, decrease, or delete from the Project quantities of work at the Unit Bid Price or Lump Sum Price in order to bring the total contract price to the budgeted project expenditures.

| Item No. | Description | Unit | Qty | Unit Price | Extended Total |
|---|---|---|---|---|---|
| 1 | MOBILIZATION | LS | 1 | | |
| 2 | SEEDING & MULCH | AC | 0.5 | | |
| 3 | REMOVAL OF IMPROVEMENTS | LS | 1 | | |
| 4 | RELOCATED SIGNS | EA | 2 | | |
| 5 | TYPE "A" SIDEWALK | SY | 1703 | | |
| 6 | TYPE "B" SIDEWALK | SY | 432 | | |
| 7 | MODOT TYPE 1-A CURB RAMP | SY | 82 | | |
| 8 | MODOT TYPE 1-B CURB RAMP | SY | 27 | | |
| 9 | CONCRETE STREET CROSSING | SY | 177 | | |
| 10 | CURB & GUTTER | LF | 12 | | |
| 11 | COMPACTED CRUSHED STONE | TONS | 228 | | |
| 12 | TACTILE WARNING SURFACE | SF | 131 | | |
| 13 | WHITE MID-BLOCK CROSSWALK | EA | 7 | | |
| 14 | 24" WHITE STOP BAR | LF | 100 | | |
| 15 | 18" RCP | LF | 46 | | |
| 16 | 24" RCP | LF | 10 | | |
| 17 | ROCK LINING | CY | 8 | | |
| 18 | TYPE "A" CURB INLET | EA | 2 | | |
| 19 | TYPE "B" CURB INLET | EA | 1 | | |
| 20 | CLASS 3 EXCAVATION | CY | 33 | | |
| 21 | RECTANGULAR RAPID FLASHING BEACON (SOLAR POWERED) | EA | 2 | | |
| 22 | SIGNAGE | SF | 51 | | |
| 23 | ROCK DITCH CHECK | EA | 4 | | |
| 24 | CONSTRUCTION SIGNS | SF | 152 | | |
| 25 | CHANNELIZER (TRIM-LINE) | EA | 132 | | |
| 26 | TYPE III MOVEABLE BARRICADE | EA | 4 | | |
| 27 | LINEAR GRADING | STA | 43.6 | | |
| | | | | | |

**TOTAL BID AMOUNT**

# DBE Submittal Forms - LPA

**(6)** **DBE Submittal Forms**: This form must be submitted by 4 p.m. three (3) business days after bid opening. You may also use the Excel version located at:
https://epg.modot.org/forms/CM/DBE_Identification_Submittal_Form_LPA_Excel.xlsm

(A) DBE Contract Goal: By submitting this bid, the bidder certifies that the bidder is familiar with the DBE Program Requirements in this contract. The contract DBE goal for the amount of work to be awarded is **0%** of the total federal project price. The bidder shall also complete the DBE Submittal Form in accordance with the program requirements.

(B) DBE Participation: The bidder certifies that it will utilize DBE's as follows:

3% OF TOTAL FEDERAL CONTRACT

NOTE: Bidder must fill in the above blank. If no percentage is specified, the bidder certifies that it agrees to, and will comply with the contract goal. If a percentage below the contract goal is specified, then the bidder must submit complete documentation of good faith efforts to meet the DBE contract goal, immediately below.

(C) Certification of Good Faith Efforts to Obtain DBE Participation: By submitting its signed bid, the bidder certifies under penalty of perjury and other provisions of law, that the bidder took each of the following steps to try to obtain sufficient DBE participation to achieve the Commission's proposed DBE Contract Goal: (Attach additional sheets if necessary).

# DBE Identification Submittal Form

**(For Local Program Agency (LPA) Projects)**

Job Number: _____

Route: _____ County: _____

Prime Contractor: _____ Contract Amount: _____

**Identification of Participating DBE's:** Provide the requested information below for each DBE participating on the project. Submit this information with your bid or no later than 4:00 p.m. on the 3rd business day after the bid opening. Contact MoDOT's Business Development and Compliance (BDC) Division at (573) 526-2978 for questions and assistance on completion. **This page of this document must be received for each DBE utilized on the project. A DBE Regular Dealer/Distributor Affirmation Form is required for each DBE firm submitted as a regular dealer or distributor.**

All information must be provided.

If awarded the contract for this project, the undersigned will use the following DBE to perform or furnish the work, supplies, and/or services as shown below:

DBE Name: _____ Address: _____

| (A) Line No. | (B) Dollar Value of DBE Work** (Unit Price x Quantity of the Item in (A), or Lump Sum) | (C) Dollar value applicable to DBE Goal** (40%, 60%, 100%) | (D) Dollar amount applicable to DBE Goal ( B x C ) | (E) Percent of total contract amount for line item (D / total contract amount) |
|---|---|---|---|---|
| | | | | |
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| | | | | |
| | | **DBE Total:** | | **Total %** |

**Cannot exceed contract amount for given item of work
Trucking services credited at 100% if the DBE owns the trucks or is leasing from a DBE firm
Allowed amount of participation will be in accordance with 49 CFR Part 26.
Supplier Affirmation Form required for all DBE firms submitted as suppliers.
Brokered services will only receive credit for fees.

Respectfully submitted:

_____ _____

Company Name (Prime Contractor) Name / Title

_____

Signed (Prime Contractor)

# Instructions for Completing the
# DBE Identification Submittal Form
### (For Local Program Agency (LPA) Projects)
# (BDC-101)

Submit this form with your bid or as outlined on front of page no later than 4:00 p.m. on the 3rd working day after the bid opening. Only DBE's listed in MoDOT's Missouri Regional Certification Committee (**MRCC**) directory may be used towards obtaining the DBE goal on the project. DBE firm must be certified with the appropriate North American Industrial Classification System (**NAICS**) code for the type of work being utilized to perform. The MRCC directory is available at the following link under the MRCC Directory tab: https://www.modot.org/welcome-business-development-and-compliance.

(A) Insert Bid Line Item in the same order as it appears in the bid document.

(B) Insert the result from multiplying the unit price for the bid line item by the quantities listed in column (A); a lump sum, if applicable, may also be inserted.

(C) Insert the percentage of column (B) that the DBE will perform. If the DBE is a distributor as that term is defined in 49 CFR Part 26.55, then only 40% of the value in column (B) can be applied towards the contract specific goal. If the DBE is a supplier as that term is defined in 49 CFR Part 26.55, then only 60% of the value in column (B) can be applied towards the contract specific goal. **A Supplier Affirmation Form is required for each DBE firm submitted as a supplier. A copy of this form is provided on the next page.** If the DBE is furnishing and installing the line item, then 100% of the value can be applied.

(D) Insert the result from dividing columns (B) and (C).

(E) Insert the result from dividing column (D) from the total bid line item amount.

U.S. Department of Transportation

# DBE Regular Dealer/Distributor Affirmation Form

Bidder Name:

Contract Name/Number:

Sections 26.53(c)(1) of Title 49 Code of Federal Regulations requires recipients to make a preliminary counting determination for each DBE listed as a regular dealer or distributor to assess its eligibility for 60 or 40 percent credit, respectively, of the cost of materials and supplies based on its demonstrated capacity and intent to perform as a regular dealer or distributor, as defined in section 26.55(e)(2)(iv)(A),(B),(C), and (3) under the contract at issue. The regulation requires the recipient's preliminary determination to be made based on the DBE's written responses to relevant questions and its affirmation that its subsequent performance of a commercially useful function will be consistent with the preliminary counting of such participation. The U.S. Department of Transportation is providing this form as a tool for recipients, prime contractors, regular dealers, and distributors to use to carry out their respective responsibilities under this regulation. The form may be used by each DBE supplier whose participation is submitted by a bidder for regular dealer or distributor credit on a federally-assisted contract with a DBE participation goal. The form may also be used by prime contractors in connection with DBE regular dealer or distributor participation submitted after a contract has been awarded provided such participation is subject to the recipient's prior evaluation and approval. If this form is used, it should be accompanied by the bidder's commitment, contract, or purchase order showing the materials the DBE regular dealer or distributor is supplying. Use of this tool is not mandatory. If a recipient chooses a different method for complying with Section 26.53(c)(1), it must include that method in its DBE Program Plan.

| DBE Name: | Total Subcontract/Purchase Order Amount: |
|---|---|
| Authorized DBE Representative (Name and Title): | NAICS Code(s) Related to the Items to be Sold/Leased: |

1. Will all items sold or leased be provided from the on-hand inventory at your establishment? ☐ **YES** ☐ **NO**
   **(If "YES," you have indicated that your performance will satisfy the regular dealer requirements and may be counted at 60%. STOP here. Read and sign the affirmation below. If "NO" Continue.)**

   a) Are you selling bulk items (e.g., petroleum products, steel, concrete, concrete products, sand, gravel, asphalt, etc.) or items not typically stocked due to their unique characteristics (aka specialty items)?
   ☐ **YES** ☐ **NO** **(If "YES," Go to Question 2. If "NO" Continue.)**

   b) Will at least 51% of the items you are selling be provided from the inventory maintained at your establishment, and will the minor quantities of items delivered from and by other sources be of the general character as those provided from your inventory?

   ☐ **YES** ☐ **NO*** **(If "YES," you have indicated that your performance will satisfy the regular dealer requirements and may be counted at 60%. STOP here. Read and sign the affirmation below.**

   ***If 1.,1.a), and 1. b) above are "NO," your performance on the whole will not satisfy the regular dealer requirements; therefore, only the value of items to be sold or leased from inventory can be counted at 60%. (Go to Question 3. to determine if the items delivered from and by other sources are eligible for Distributor credit.)**

2. Will you deliver all bulk or specialty items using distribution equipment you own (or under a long-term lease) and operate?
   ☐ **YES** ☐ **NO[1]**

   **(If "YES," you have indicated that your performance will satisfy the requirements for a regular dealer of bulk items and may be counted at 60%. STOP here. Read and sign the affirmation below.)**

   **[1] If "NO," your performance will not satisfy the requirements for a regular dealer of bulk items; the value of items to be sold or leased cannot be counted at 60%. (Go to Question 3.)**

3. Will the written terms of your purchase order or bill of lading from a third party transfer responsibility, including risk for loss or damage, to your company at the point of origin (e.g. a manufacture's facility) ? ☐ **YES[2]** ☐ **NO[3]**

   a) Will you be using sources **other than** the manufacturer (or other seller) to deliver or arrange delivery of the items sold or leased? ☐ **YES[2]** ☐ **NO[3]**

**[2] If your responses to 3 and 3.a) are "YES," you have indicated that your performance will satisfy the requirements of a distributor; therefore, the value of items sold or leased may be counted at 40%.**

**[3] If you responded "NO" to either 3 or 3.a), counting of your participation is limited to the reasonable cost of fees or commissions charged, including transportation charges for the delivery of materials or supplies; the cost of materials or supplies may not be counted.**

I affirm that the information that I provided above is true and correct and that my company's subsequent performance of a commercially useful function will be consistent with the above responses. I further affirm that my company will independently negotiate price, order specified quantities, and pay for the items listed in the bidder's commitment. This includes my company's responsibility for the quality of such items in terms of necessary repairs, exchanges, or processing of any warranty claims for damaged or defective materials.

**Printed Name and Signature of DBE Owner/Authorized Representative:**

The bidder acknowledges its responsibility for verifying the information provided by the DBE named above and ensuring that the counting of the DBE's participation is accurate. Any shortfall caused by errors in counting are the responsibility of the bidder.

**Printed Name and Signature of Bidder's Authorized Representative:**

# CHAPTER 4L. RECTANGULAR RAPID FLASHING BEACONS

## Section 4L.01 Application of Rectangular Rapid Flashing Beacons

Option:

01 A pedestrian-activated and/or bicyclist-activated rectangular rapid flashing beacon (RRFB) may be used to provide supplemental emphasis to pedestrian, school, and trail warning signs at marked crosswalks across uncontrolled approaches.

**Standard:**

02 **An RRFB shall only be installed to function as a Warning Beacon (see Section 4S.03). Except as otherwise provided in this Chapter, all other provisions of the MUTCD applicable to Warning Beacons shall apply to RRFBs.**

03 **An RRFB shall only be used to supplement a post-mounted W11-2 (Pedestrian), S1-1 (School), or W11-15 (Trail) crossing warning sign with a diagonal downward arrow (W16-7P) plaque, or an overhead-mounted W11-2 , S1-1, or W11-15 crossing warning sign, located at or immediately adjacent to a marked crosswalk.**

04 **Except for crosswalks across the approach to or egress from a roundabout, or crosswalks across free-flow turn lanes separated by a channelizing island, an RRFB shall not be used for crosswalks across approaches controlled by YIELD signs, STOP signs, traffic control signals, or pedestrian hybrid beacons.**

Option:

05 An additional RRFB may be installed on that approach in advance of the crosswalk, as a Warning Beacon to supplement a W11-2 (Pedestrian), S1-1 (School), or W11-15 (Trail) crossing warning sign with an AHEAD (W16-9P) or distance (W16-2P or W16-2aP) plaque.

**Standard:**

06 **If an additional RRFB is installed on the approach in advance of the crosswalk, it shall be supplemental to and not a replacement for the RRFB at the crosswalk itself.**

## Section 4L.02 Design of Rectangular Rapid Flashing Beacons

**Standard:**

01 **Each RRFB unit shall consist of two rapidly-flashed rectangular-shaped yellow indications, each with an LED-array based pulsing light source. The size of each RRFB indication shall be at least 5 inches wide by at least 2 inches high.**

02 **The two RRFB indications for each RRFB unit shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of at least 7 inches, measured from nearest edge of one indication to the nearest edge of the other indication. The outside edges of the RRFB indications, including any housings, shall not project beyond the outside edges of the W11-2, S1-1, or W11-15 sign that it supplements.**

03 **An RRFB unit shall not be installed independent of the crossing warning signs for the approach that the RRFB faces. If the RRFB unit is supplementing a post-mounted sign, the RRFB unit shall be installed on the same support as the associated W11-2, S1-1, or W11-15 crossing warning sign and plaque. If the RRFB unit is supplementing an overhead-mounted sign, the RRFB unit shall be mounted directly above the top of sign or below the bottom of the sign.**

Option:

04 As a specific exception to Paragraph 6 of Section 4S.01, the RRFB unit associated with a post-mounted sign and plaque may be located between and immediately adjacent to the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque (or, in the case of a supplemental advance sign, the AHEAD or distance plaque) or within 12 inches above the crossing warning sign, rather than the recommended minimum of 12 inches above or below the sign assembly.

05 Signal visors and backplates, with or without a yellow retroreflective strip, may be used with RRFB units based on provisions in Section 4D.06.

**Standard:**

06 **For any approach on which RRFBs are used to supplement post-mounted signs, at least two W11-2 , S1-1, or W11-15 crossing warning signs (each with an RRFB unit and a W16-7P plaque) shall be installed at the crosswalk, one on the right-hand side of the roadway and one on the left-hand side of the roadway.**

*Guidance:*

07 *On a divided highway, the left-hand side RRFB assembly should be installed on the median, if practicable, rather than on the far left side of the highway.*

**Standard:**

08 **For any approach on which RRFBs are used to supplement an overhead-mounted sign, at least one W11-2 , S1-1, or W11-15 crossing warning sign (without a W16-7P plaque) located approximately over the center of the lanes of the approach (or where optimum visibility can be achieved) shall be installed at the crosswalk.**

**Standard:**

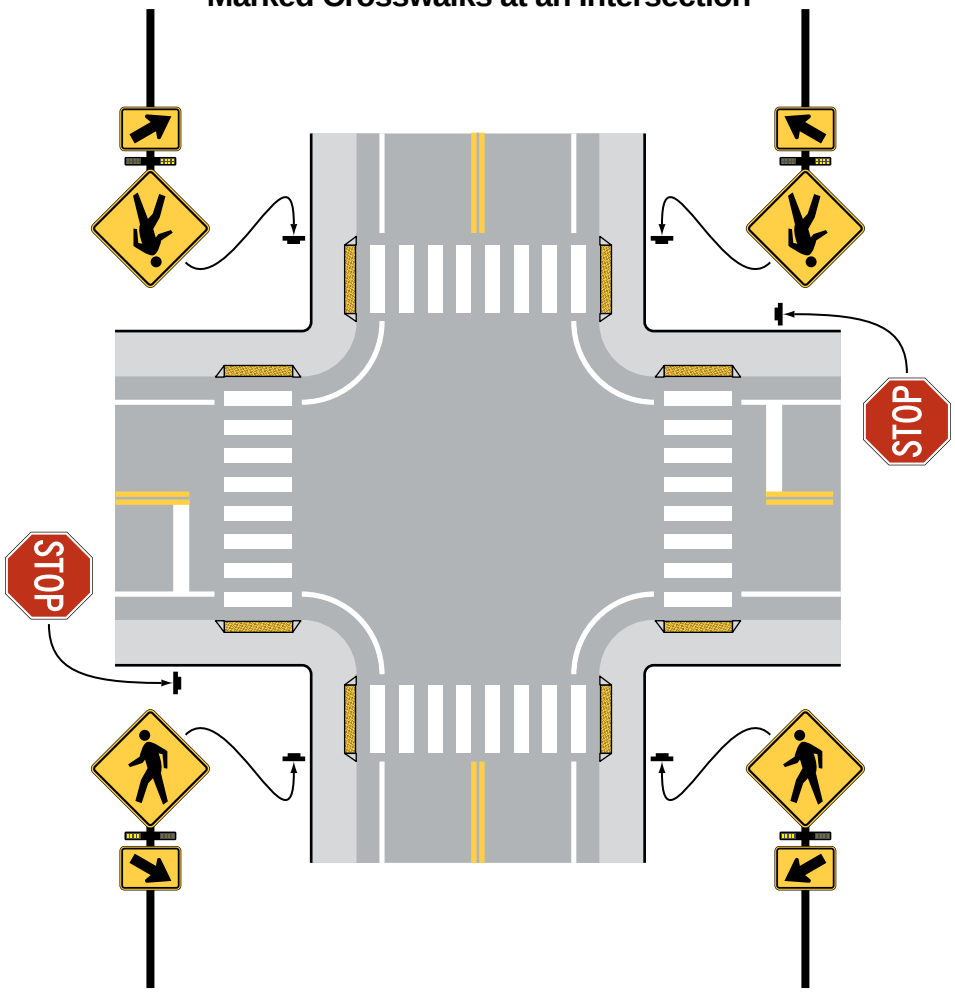
09 **If used at intersections, the design of the RRFBs shall conform to the requirements for post-mounted or overhead placement described in Paragraph 3 of this Section.**

Option:

10 RRFBs may be installed at intersections with more than one crosswalk on the same uncontrolled approach (see Figure 4L-1).

11 If used at intersections with two crosswalks on an uncontrolled approach, post-mounted RRFBs may be installed to face only one direction of travel at the first crosswalk that traffic encounters (see Figure 4L-1).

**Figure 4L-1. Example of RRFBs at Uncontrolled, Marked Crosswalks at an Intersection**




Notes:

1. When activated, the RRFBs on both approaches shall simultaneously commence operation of their rapid flashing indications and shall cease operation simultaneously.
2. If placed overhead, follow the requirements of Paragraph 8 of Section 4L.02, except that the signs may be placed approximately over the center of the intersection.

**Standard:**

12 **The light intensity of the yellow indications during daytime conditions shall meet the minimum specifications for Class 1 yellow peak luminous intensity in the publication "Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles J595," 2005, Society of Automotive Engineers (SAE).**

Option:

13 If the RRFB indications are so bright that they cause excessive glare during nighttime conditions, an automatic signal dimming device may be used to reduce the brilliance of the RRFB indications during nighttime conditions.

**Standard:**

14 **If pedestrian push button detectors (rather than passive detection) are used to actuate the RRFB indications, a PUSH BUTTON TO TURN ON WARNING LIGHTS/AWAIT GAP IN TRAFFIC (R10-25) sign (see Section 2B.58) shall be installed explaining the purpose and use of the pedestrian push button detector.**

Support:

15 Section 4I.05 contains further information about pedestrian push button detector location criteria.

16 Section 4H.12 contains information about bicyclist push buttons.

*Guidance:*

17 *An audible information device should be used with RRFBs to assist pedestrians with vision disabilities.*

Option:

18 A small light directed at and visible to pedestrians in the crosswalk may be installed integral to the RRFB or pedestrian push button detector to give confirmation that the RRFB is in operation.

## Section 4L.03 Operation of Rectangular Rapid Flashing Beacons

**Standard:**

01 **The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation at a predetermined time after the pedestrian actuation or, with passive detection, after the pedestrian clears the crosswalk.**

02 **All RRFB units associated with a given crosswalk (including those with an advance crossing sign, if used) shall, when activated, simultaneously commence operation of their rapid flashing indications and shall cease operation simultaneously.**

*Guidance:*

03 *The minimum duration of a predetermined period of operation of the RRFBs following each actuation should be based on the procedures for the timing of pedestrian clearance times for pedestrian signals (see Section 4I.06).*

Support:

04 One consideration for lengthening the duration of the predetermined period of operation of the RRFBs is adding the perception/reaction time for pedestrians to confirm that a vehicle will yield or stop.

**Standard:**

05 **The predetermined flash period shall be immediately initiated each and every time that a pedestrian is detected either through passive detection or as a result of a pedestrian pressing a push button detector, including when pedestrians are detected while the RRFBs are already flashing and when pedestrians are detected immediately after the RRFBs have ceased flashing.**

06 **When activated, the two yellow indications in each RRFB unit shall flash in a rapidly flashing sequence. As a specific exception to the requirements for the flash rate of beacons provided in Paragraph 3 of Section 4S.01, RRFBs shall use a much faster flash rate and shall provide 75 flashing sequences per minute.**

07 **Except as provided in Paragraph 8 of this Section, during each 800-millisecond flashing sequence, the left and right RRFB indications shall operate using the following sequence:**

**A. The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds.**
**B. Both RRFB indications shall be dark for approximately 50 milliseconds.**
**C. The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds.**
**D. Both RRFB indications shall be dark for approximately 50 milliseconds.**
**E. The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds.**
**F. Both RRFB indications shall be dark for approximately 50 milliseconds.**
**G. The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds.**

**H. Both RRFB indications shall be dark for approximately 50 milliseconds.**
**I. Both RRFB indications shall be illuminated for approximately 50 milliseconds.**
**J. Both RRFB indications shall be dark for approximately 50 milliseconds.**
**K. Both RRFB indications shall be illuminated for approximately 50 milliseconds.**
**L. Both RRFB indications shall be dark for approximately 250 milliseconds.**

08 **The flash rate of each individual RRFB indication, as applied over the full flashing sequence, shall not be more than 5 flashes per second, to avoid frequencies that might cause seizures.**

09 **If an audible information device is used in conjunction with an RRFB, the audible information device shall not use vibrotactile indications or percussive indications.**

*Guidance:*

10 *If an audible information device is used in conjunction with an RRFB, the audible message should be a speech message that says, "Warning lights are flashing." The audible message should be spoken twice.*

# TAP-1601(705)

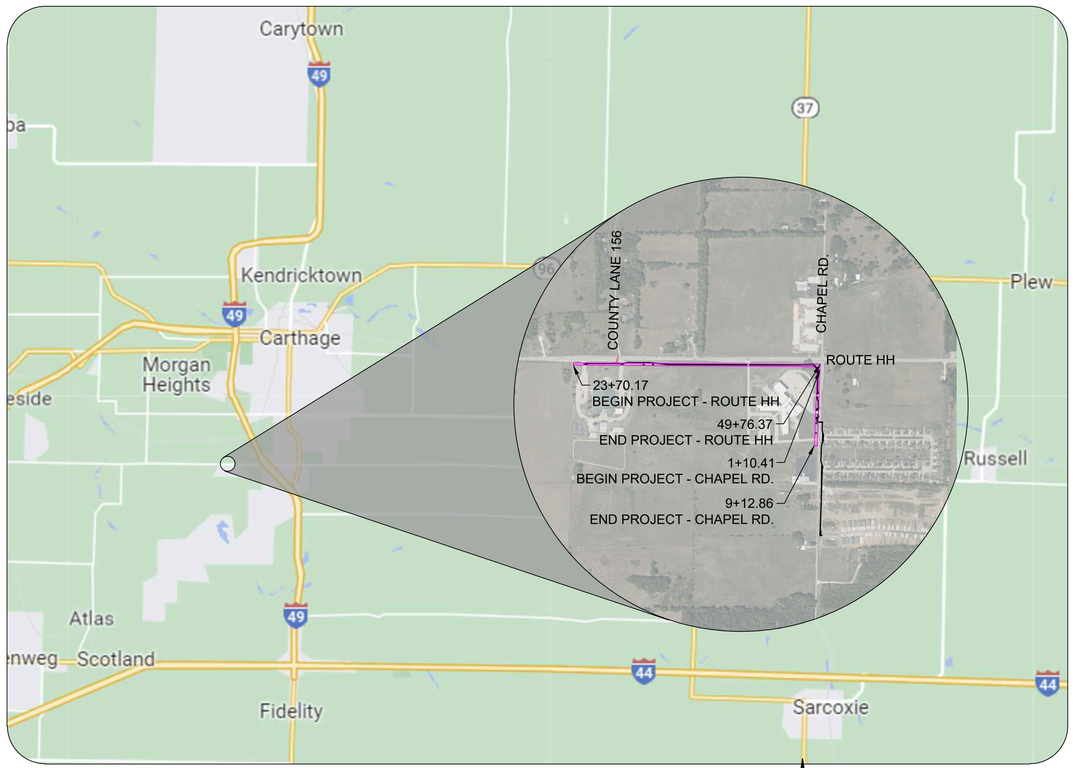
## ROUTE HH & CHAPEL ROAD SIDEWALKS

## CARTHAGE, MISSOURI

## INDEX OF SHEETS



| REVISION | REV. NO. |
|---|---|
| MODOT COMMENTS | 1 |
| MODOT COMMENTS | 2 |
| ADDENDUM NO. 2 | 3 |




**PROJECT LOCATION MAP**

**NOT TO SCALE**

## CONTACT INFORMATION

CITY OF CARTHAGE PUBLIC WORKS
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CARTHAGE, MO 64836
ZEB CARNEY
(417) 237-7010

MODOT PERMIT SPECIALIST
MICHAEL CHRISTENSON
(417) 291-5740
MICHAEL.CHRISTENSON@MODOT.MO.GOV

## UTILITIES INFORMATION

ELECTRIC
CARTHAGE WATER & ELECTRIC PLANT
627 W. CENTENNIAL AVE.
CARTHAGE, MO 64836
KEVIN EMERY
(417) 237-7300

WATER / SEWER
CARTHAGE WATER & ELECTRIC PLANT
627 W. CENTENNIAL AVE.
CARTHAGE, MO 64836
JASON CHOATE
(417) 237-7300

ELECTRIC
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JOPLIN, MO 64804
WILL ENDICOTT
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321 W. 8TH ST.
JOPLIN, MO 64801
JOHN FISK

CABLE PROVIDER
OPTIMUM
TONY GILBERT

NATURAL GAS
SPIRE ENERGY
520 E. 5TH ST.
JOPLIN, MO 64801
KEN STEGALL
(417) 626-4831

STATE OF MISSOURI
JOHN JASON ECKHART
NUMBER E-30102
REGISTERED PROFESSIONAL ENGINEER
MISSOURI CERTIFICATE OF AUTHORITY E-2003147078

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 1 | MODOT COMMENTS | CAW | 11/26/2023 |
| 2 | MODOT COMMENTS | CAW | 3/4/2025 |
| 3 | ADDENDUM NO. 2 | CAW | 4/28/2025 |

## DESIGN TEAMS

CIVIL ENGINEERING
ZANEVAN ENGINEERING
1221 OAK STREET
CARTHAGE, MO 64836
JASON ECKHART P.E.
(417) 540-1107

CALL OR CLICK 3 DAYS BEFORE YOU DIG!
MISSOURI ONE CALL SYSTEM
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www.mo1call.com

CAUTION:
INFORMATION ON THIS DRAWING CONCERNING TYPE & LOCATION OF UNDERGROUND & OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE & LOCATION OF UNDERGROUND & OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

Approved by: CITY OF CARTHAGE PUBLIC WORKS

Zeb Carney, Director of Public Works — Date 1/4/25

C-1.0
COVER SHEET

TAP-1601(705)
SIDEWALKS

ROUTE HH & CHAPEL ROAD
CARTHAGE, MISSOURI

PROJECT NUMBER: 230012
DATE: 4/28/2025


ZANEVAN ENGINEERING
PHONE: 417-800-2500
1221 OAK ST.
CARTHAGE, MO 64836

## SUMMARY OF QUANTITIES

### TAP-1601(705) ROUTE HH & CHAPEL RD.

| Item No. | Description | Unit | Quantity |
|---|---|---|---|
| 1 | MOBILIZATION | LS | 1 |
| 2 | SEEDING & MULCH | AC | 0.5 |
| 3 | REMOVAL OF IMPROVEMENTS | LS | 1 |
| 4 | RELOCATED SIGNS | EA | 2 |
| 5 | TYPE "A" SIDEWALK | SY | 1,703 |
| 6 | TYPE "B" SIDEWALK | SY | 432 |
| 7 | MODOT TYPE 1-A CURB RAMP | SY | 82 |
| 8 | MODOT TYPE 1-B CURB RAMP | SY | 27 |
| 9 | CONCRETE STREET CROSSING | SY | 177 |
| 10 | CURB & GUTTER | LF | 12 |
| 11 | COMPACTED CRUSHED STONE | TONS | 228 |
| 12 | TACTILE WARNING SURFACE | SF | 131 |
| 13 | WHITE MIDBLOCK CROSSWALK | EA | 7 |
| 14 | 24" WHITE STOP BAR | LF | 100 |
| 15 | 18" RCP | LF | 46 |
| 16 | 24" RCP | LF | 10 |
| 17 | ROCK LINING | CY | 8 |
| 18 | TYPE "A" CURB INLET | EA | 2 |
| 19 | TYPE "B" CURB INLET | EA | 1 |
| 20 | CLASS 3 EXCAVATION | CY | 33 |
| 21 | RECTANGULAR RAPID FLASHING BEACON (SOLAR) | EA | 2 |
| 22 | SIGNAGE | SF | 51.0 |
| 23 | ROCK DITCH CHECK | EA | 4 |
| 24 | CONSTRUCTION SIGNS | SF | 152.0 |
| 25 | CHANNELIZER (TRIM-LINE) | EA | 132.0 |
| 26 | TYPE III MOVEABLE BARRICADE | EA | 4.0 |
| 27 | LINEAR GRADING | STA | 43.6 |
| | | | |

## LEGEND
(USED IN PLANS)

- EXISTING STORM WATER
- EXISTING FEATURE
- EXISTING FENCE
- EXISTING GUARDRAIL
- SECTION LINE
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND TELEPHONE
- EXISTING OVERHEAD TELEPHONE
- EXISTING FIBER OPTIC
- EXISTING UNDERGROUND CABLE TV
- EXISTING OVERHEAD CABLE TV
- EXISTING MAILBOX
- EXISTING STORM INLET
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING GUY WIRE ANCHOR
- EXISTING GROUND LIGHT
- EXISTING TELEPHONE PEDESTAL
- EXISTING SIGN
- EXISTING TREE
- CONTROL POINT
- FOUND CORNER
- EXISTING BENCHMARK

**NOTES ON QUANTITIES:**
PLAN QUANTITIES FOR STORM WATER PIPES, INCLUDE LENGTHS FOR FLARED END SECTIONS (WHERE REQUIRED). THE COST FOR FLARED END SECTIONS SHALL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR APPLICABLE STORM WATER PIPE.
SAW CUT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION. THE COST OF THIS WORK SHALL BE INCLUDED WITH THE PRICE FOR TYPE B (BARRIER) CURB & GUTTER AND WITH CONCRETE SIDEWALKS/DRIVEWAY ENTRANCES, 7" THICK.

## ABBREVIATION TABLE

| | |
|---|---|
| STA: | STATION |
| OFF: | OFFSET |
| FL: | FLOW LINE |
| EG: | EXISTING GRADE |
| FG: | FINISH GRADE |
| BC: | BACK OF CURB |
| GL: | GUTTER LINE |
| EX. | EXISTING |
| PR. | PROPOSED |
| R/W | RIGHT-OF-WAY |
| ℄ | PROPERTY LINE |
| TBM | TEMPORARY BENCHMARK |
| CP | CONTROL POINT |
| ℄ | CENTERLINE |
| TYP. | TYPICAL |
| TEMP. | TEMPORARY |

## GENERAL NOTES:

1. ALL WORK, MATERIALS, AND DETAILS SHALL BE IN ACCORDANCE WITH THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE STANDARD SPECIFICATIONS FOR THE APPLICABLE CITY AND/OR COUNTY. CONTRACTORS SHALL OBTAIN A COPY OF THESE STANDARDS TO ENSURE COMPLIANCE.
2. EXISTING UTILITIES AND UNDERGROUND INSTALLATIONS HAVE BEEN LOCATED TO THE GREATEST EXTENT PRACTICAL THROUGH REVIEW OF CONSTRUCTION PLANS AND SURFACE OBSERVATIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL HORIZONTAL AND VERTICAL LINES AND GRADES OF EXISTING UTILITIES PRIOR TO THE CONSTRUCTION OF IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERING A DISCREPANCY BETWEEN THE CONTRACT DRAWINGS AND ACTUAL FIELD CONDITIONS. CONTACT ONE CALL.
3. THE CONTRACTOR MUST COORDINATE CONSTRUCTION WITH THE NECESSARY AUTHORITIES.
4. NO WORK SHALL COMMENCE UNTIL ALL NECESSARY PERMITS ARE OBTAINED BY THE OWNER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LINE AND GRADE STAKES.
6. CONTRACTOR SHALL REMOVE, PRESERVE, AND REPLACE ALL SIGNS, MAIL BOXES, FENCES, METAL FLAG POLE BASES AND THE LIKE, WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENTS.
7. ALL TRAFFIC WAYS INCLUDING DRIVEWAYS, ALLEYWAYS, ETC., SHALL REMAIN ACCESSIBLE TO RESIDENTIAL AND EMERGENCY VEHICLES DURING PROJECT DURATION.
8. ALL CONSTRUCTION AND EXCAVATION ACTIVITIES SHALL BE CONFINED TO EASEMENTS, ROAD RIGHT-OF-WAY, AND/OR WORK AREA LIMITS AS SHOWN ON DRAWINGS.
9. CONTRACTOR SHALL RAISE OR LOWER ALL AFFECTED MANHOLE RIMS AND VALVE BOXES IN THE WORK AREA TO MATCH PROPOSED GRADE.
10. ALL AREAS DISTURBED BY CONSTRUCTION ARE FIRST TO BE FINE GRADED AND THEN FOLLOWED BY SEED AND STRAW MULCH, UNLESS OTHERWISE NOTED, OVER, MIN. 4" TOPSOIL STOCKPILED FROM SITE OR HAULED IN AS REQUIRED.
11. PROVIDE POSITIVE DRAINAGE FROM ALL IMPROVED AREAS, SO THAT RUNOFF DRAINS TO DRAIN WAYS.
12. ALL CONTOURS AND SPOT ELEVATIONS SHOWN ARE FINISH GRADE.
13. ANY DAMAGE TO EXISTING STRUCTURES, VEGETATION, OR IMPROVEMENTS RESULTING FROM NEW CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
14. ALL SIDEWALKS AND ADA RAMPS SHALL BE IN ACCORDANCE WITH ADA REGULATIONS.
15. EROSION CONTROL PLAN SHALL BE FOLLOWED AS DETAILED IN THE ACCOMPANYING SWPPP - STORMWATER POLLUTION PREVENTION PLAN. CONTRACTOR TO PROTECT ANY STORM INLETS, THAT RECEIVE STORM WATER FROM THE AREA OF CONSTRUCTION, FROM SEDIMENT. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE WHOLE CONSTRUCTION PERIOD BY THE CONTRACTOR. ALL EROSION CONTROL DEVICES, NOT LISTED IN THE PLANS, SHALL BE INCIDENTAL TO CONSTRUCTION.
16. ALL TRENCHES, WHICH LIE UNDER PROPOSED PAVEMENT, OR LIE WITHIN TWO FEET OF BACK OF CURB, SHALL BE BACKFILLED TO PAVEMENT SUB-GRADE WITH COMPACTED GRANULAR BACK FILL.
17. TRENCHES SHALL BE COMPACTED TO 95% STANDARD PROCTOR WHEN PIPES ARE LAID IN FILL.
18. ANY REMOVALS NECESSARY TO COMPLETE THE PROJECT AS SHOWN ON THE PLANS, BUT NOT QUANTIFIED IN THE REMOVAL OF IMPROVEMENTS PAY ITEM, SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
19. CONTRACTOR SHALL LOCATE ALL SUMP/HOUSE DRAIN LOCATIONS ALONG PROPOSED SIDEWALK AND INSTALL SIDEWALK DRAIN AS NECESSARY. ALL SIDEWALK DRAINS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
20. ALL VALVES, LIDS AND BOXES LOCATED WITHIN THE PROPOSED SIDEWALK SHALL BE RAISED OR LOWERED AND MADE ADA COMPLIANT. ANY SUCH ITEMS NOT QUANTIFIED ON THE PAY ITEMS LIST, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

## CURB & GUTTER CONSTRUCTION

1. CONTRACTOR TO SAW CUT EXISTING ASPHALT STREETS.
2. CURB & SIDEWALK SHALL MAINTAIN A UNIFORM GRADE WITH AS FEW BREAKS AS POSSIBLE.

## STAGES OF CONSTRUCTION:

1. CONTRACTOR TO PERFORM DETAILED SITE INSPECTION TO LOCATE ALL EXISTING UTILITIES AND VERIFY ANY POSSIBLE CONFLICTS WITH PROPOSED IMPROVEMENTS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTACT ENGINEER WITH ANY CONFLICTS.
2. INSTALLATION OF EROSION CONTROL MEASURES.
3. INSTALLATION OF ALL STORM WATER DRAINAGE IMPROVEMENTS.
4. FINAL GRADING.
5. PLACEMENT OF FINAL LANDSCAPING ITEMS AND SOD.
6. REMOVAL OF EROSION CONTROL MEASURES.

## TURF REINFORCEMENT NOTE:

TURF REINFORCEMENT SHALL BE INSTALLED ON ALL SLOPES THAT EXCEED 3H:1V. TURF REINFORCEMENT MAT SHALL BE INSTALLED AND STAPLED AS PER THE MANUFACTURER'S SPECIFICATIONS.
TURF REINFORCEMENT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

## SEEDING AND MULCHING NOTE:

ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED PER THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

**CAUTION:**
CONTRACTOR SHALL FIELD VERIFY PROPOSED GRADES MATCH EXISTING ELEVATIONS AT INDICATED LOCATIONS. CONTRACTOR SHALL NOTIFY ENGINEER IF DISCREPANCY OCCURS.

THE DEPTH OF ALL EXISTING UTILITIES AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD-VERIFY ACTUAL DEPTHS AT ALL CROSSINGS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF CONFLICT OCCURS.

**UTILITY RELOCATIONS:**
KNOWN CONFLICTING UTILITY MAINS SHALL BE RELOCATED BY OTHERS. SERVICE LINES IN CONFLICT SHALL BE RELOCATED DURING CONSTRUCTION. CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING SERVICE LINES IN CONFLICT.

UTILITY PROVIDERS SHALL RELOCATE SERVICE LINES AND INSTALL NEW CONNECTIONS.

CONTRACTOR SHALL BACKFILL AND REPLACE PAVEMENT AFTER NEW SERVICE CONNECTIONS ARE COMPLETED.

**NOTE FOR CURB AND GUTTER REPLACEMENT:**
ALL NEW CURB AND GUTTER SHALL MEET APPLICABLE CITY AND/OR COUNTY SPECIFICATIONS AND STANDARD DETAILS. CONTRACTOR SHALL MATCH EXISTING GUTTER FLOW LINES FOR PLACEMENT OF NEW CURB AND GUTTER, EXCEPT WHERE STATED OTHERWISE ON THE PLANS.

CONTRACTOR SHALL GRADE FROM BACK OF CURB TO TEMPORARY CONSTRUCTION EASEMENT OR RIGHT OF WAY AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE TO TOP OF CURB.

STATE OF MISSOURI
JOHN JASON ECKHART
NUMBER E-30102
REGISTERED PROFESSIONAL ENGINEER
MISSOURI CERTIFICATE OF AUTHORITY C-2020A2929

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 1 | MODOT COMMENTS | CAW | 11/28/2023 |
| 2 | ADDENDUM NO. 2 | CAW | 4/28/2025 |

TAP-1601(705)
SIDEWALKS

ROUTE HH & CHAPEL ROAD
CARTHAGE, MISSOURI

C-1.1
GENERAL NOTES

PROJECT NUMBER: 230012
DATE: 4/28/2025

ZANEVAN ENGINEERING
PHONE: 417-800-2500
1221 OAK ST.
CARTHAGE, MO 64836

## MOBILIZATION

| (LS) = | 1 |
|---|---|

## SEEDING & MULCH

| (AC) = | 0.5 |
|---|---|

### REMOVAL OF IMPROVEMENTS

| SHEET | LOCATION | STATION | TO | STATION | (EACH) | (LF) | (SY) | (LS) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| C-4.1 | RTE. HH | 24+19 | | | 1 | | | | REMOVE EXISTING PEDESTRIAN CROSSING SIGN |
| C-4.2 | RTE. HH | 28+13 | | | 1 | | | | REMOVE EXISTING PEDESTRIAN CROSSING SIGN |
| C-4.2 | RTE. HH | 28+25 | - | 28+35 | | | 3.5 | | CONCRETE CURB RAMP/SIDEWALK REMOVAL |
| C-4.2 | RTE. HH | 28+25 | - | 28+40 | | | 6.1 | | REMOVE EXISTING WHITE MIDBLOCK CROSSWALK |
| C-4.2 | RTE. HH | 28+84 | | | 1 | | | | REMOVE EXISTING PEDESTRIAN CROSSING SIGN |
| C-4.2 | RTE. HH | 32+50 | | | 1 | | | | REMOVE EXISTING PEDESTRIAN CROSSING SIGN |
| C-4.7 | CHAPEL RD. | 7+93 | - | 8+57 | | | 24.1 | | ASPHALT PAVEMENT REMOVAL |
| C-4.9 | CHAPEL RD. | 11+27 | - | 11+92 | | | 24.1 | | ASPHALT PAVEMENT REMOVAL |
| C-4.10 | CHAPEL RD. | 18+18 | - | 18+45 | | | 10.9 | | ASPHALT PAVEMENT REMOVAL |
| | | | | | | | | | |
| | | | | TOTAL | 4 | 0.0 | 68.7 | | |
| | | | | USE | | | | 1 | |

### RELOCATE

| SHEET | LOCATION | STATION | (EACH) | REMARKS |
|---|---|---|---|---|
| C-4.2 | ROUTE HH | 28+97 | 1 | STOP SIGN |
| C-4.9 | CHAPEL RD. | 11+24 | 1 | STOP SIGN |
| | | | | |
| | | TOTAL | 2 | |
| | | USE | 2 | |

### TYPE "A" SIDEWALK

| SHEET | LOCATION | STATION | TO | STATION | (SY) | REMARKS |
|---|---|---|---|---|---|---|
| C-4.1 | RTE. HH | 25+03.70 | - | 25+19.48 | 10.36 | |
| C-4.1 to C-4.2 | RTE. HH | 25+14.48 | - | 28+48.61 | 185.63 | |
| C-4.2 | RTE. HH | 29+01.40 | - | 29+40.00 | 22.21 | |
| C-4.3 to C-4.4 | RTE. HH | 35+00.00 | - | 41+94.88 | 386.04 | |
| C-4.4 to C-4.5 | RTE. HH | 42+38.10 | - | 49+03.87 | 369.37 | |
| C-4.6 | CHAPEL RD. | 2+00.53 | - | 3+51.28 | 84.48 | |
| C-4.6 to C-4.7 | CHAPEL RD. | 4+06.41 | - | 5+25.79 | 67.92 | |
| C-4.7 | CHAPEL RD. | 5+94.26 | - | 6+13.27 | 10.56 | |
| C-4.7 | CHAPEL RD. | 6+58.31 | - | 6+63.31 | 4.73 | |
| C-4.7 | CHAPEL RD. | 6+58.31 | - | 7+83.76 | 70.51 | |
| C-4.7 to C-4.9 | CHAPEL RD. | 8+66.17 | - | 11+18.79 | 142.99 | |
| C-4.9 to C-4.10 | CHAPEL RD. | 12+00.99 | - | 18+07.38 | 336.88 | |
| C-4.10 | CHAPEL RD. | 18+51.56 | - | 18+60.85 | 11.07 | |
| | | | | | | |
| | | | | TOTAL | 1,702.75 | |
| | | | | USE | 1703 | |

### TYPE "B" SIDEWALK

| SHEET | LOCATION | STATION | TO | STATION | (SY) | REMARKS |
|---|---|---|---|---|---|---|
| C-4.2 to C-4.3 | RTE. HH | 29+40.00 | - | 35+00.00 | 311.41 | |
| C-4.5 to C-4.6 | CHAPEL RD. | 0+51.78 | - | 2+00.53 | 94.42 | |
| C-4.7 | CHAPEL RD. | 6+13.27 | - | 6+58.31 | 26.63 | |
| | | | | | | |
| | | | | TOTAL | 432.46 | |
| | | | | USE | 432 | |

### MODOT TYPE 1-A CURB RAMP

| SHEET | LOCATION | STATION | TO | STATION | (SY) | REMARKS |
|---|---|---|---|---|---|---|
| C-4.1 | ROUTE HH | 25+03.03 | - | 25+14.48 | 6.78 | |
| C-4.2 | ROUTE HH | 28+48.61 | - | 28+59.66 | 6.63 | |
| C-4.2 | ROUTE HH | 28+93.01 | - | 29+01.40 | 5.51 | |
| C-4.4 | ROUTE HH | 41+94.88 | - | 42+03.91 | 4.80 | |
| C-4.4 | ROUTE HH | 42+29.95 | - | 42+38.10 | 4.49 | |
| C-4.6 | CHAPEL RD. | 3+96.23 | - | 4+06.41 | 6.13 | |
| C-4.7 | CHAPEL RD. | 6+57.81 | - | 6+63.81 | 5.40 | RT. |
| C-4.7 | CHAPEL RD. | 6+57.81 | - | 6+63.81 | 6.02 | LT. |
| C-4.7 | CHAPEL RD. | 7+83.76 | - | 7+92.62 | 5.85 | |
| C-4.7 | CHAPEL RD. | 8+57.34 | - | 8+66.17 | 5.81 | |
| C-4.9 | CHAPEL RD. | 11+18.79 | - | 11+27.38 | 5.70 | |
| C-4.9 | CHAPEL RD. | 11+92.08 | - | 12+00.99 | 5.86 | |
| C-4.10 | CHAPEL RD. | 18+07.38 | - | 18+17.79 | 6.38 | |
| C-4.10 | CHAPEL RD. | 18+45.44 | - | 18+55.89 | 6.39 | |
| | | | | | | |
| | | | | TOTAL | 81.73 | |
| | | | | USE | 82 | |

### MODOT TYPE 1-B CURB RAMP

| SHEET | LOCATION | STATION | TO | STATION | (SY) | REMARKS |
|---|---|---|---|---|---|---|
| C-4.6 | CHAPEL RD. | 3+51.28 | - | 3+69.24 | 9.81 | |
| C-4.7 | CHAPEL RD. | 5+25.79 | - | 5+41.99 | 8.62 | |
| C-4.7 | CHAPEL RD. | 5+78.56 | - | 5+94.26 | 8.53 | |
| | | | | | | |
| | | | | TOTAL | 26.97 | |
| | | | | USE | 27 | |

### CONCRETE STREET CROSSING

| SHEET | LOCATION | STATION | TO | STATION | (SY) | REMARKS |
|---|---|---|---|---|---|---|
| C-4.7 | CHAPEL RD. | 7+92.62 | - | 8+57.34 | 72.31 | |
| C-4.9 | CHAPEL RD. | 11+27.38 | - | 11+92.08 | 72.18 | |
| C-4.10 | CHAPEL RD. | 18+17.79 | - | 18+45.44 | 32.83 | |
| | | | | | | |
| | | | | TOTAL | 177.32 | |
| | | | | USE | 177 | |

### CURB & GUTTER

| SHEET | LOCATION | STATION | TO | STATION | (LF) | REMARKS |
|---|---|---|---|---|---|---|
| C-4.6 | CHAPEL RD. | 3+50.77 | - | 3+61.95 | 11.80 | |
| | | | | | | |
| | | | | TOTAL | 11.80 | |
| | | | | USE | 12 | |

### COMPACTED CRUSHED STONE

| SHEET | LOCATION | (TONS) | REMARKS |
|---|---|---|---|
| C-4.1 to C-4.10 | SIDEWALK "A" | 153.3 | |
| C-4.2 to C-4.7 | SIDEWALK "B" | 38.9 | |
| C-4.6 to C-4.7 | TYPE "A" CURB RAMP | 4.9 | |
| C-4.1 to C-4.10 | TYPE "B" CURB RAMP | 14.8 | |
| C-4.7 to C-4.10 | CONCRETE STREET CROSSING | 15.9 | |
| C-4.6 | CURB & GUTTER | 0.7 | |
| | | | |
| | | | |
| | TOTAL | 228.4 | |
| | USE | 228 | |

### TACTILE WARNING SURFACE

| SHEET | LOCATION | STATION | (SF) | REMARKS |
|---|---|---|---|---|
| C-4.6 | CHAPEL RD. | 3+61 | 15.1 | |
| C-4.6 | CHAPEL RD. | 4+01 | 10.0 | |
| C-4.7 | CHAPEL RD. | 5+35 | 13.3 | |
| C-4.7 | CHAPEL RD. | 5+86 | 13.1 | |
| C-4.7 | CHAPEL RD. | 6+61 | 10.0 | RT |
| C-4.7 | CHAPEL RD. | 6+61 | 10.0 | LT |
| C-4.7 | CHAPEL RD. | 7+89 | 10.0 | |
| C-4.7 | CHAPEL RD. | 8+61 | 10.0 | |
| C-4.9 | CHAPEL RD. | 11+24 | 10.0 | |
| C-4.9 | CHAPEL RD. | 11+96 | 10.0 | |
| C-4.10 | CHAPEL RD. | 18+12 | 10.0 | |
| C-4.10 | CHAPEL RD. | 18+51 | 10.0 | |
| | | | | |
| | | TOTAL | 131.46 | |
| | | USE | 131 | |

### WHITE MIDBLOCK CROSSWALK

| SHEET | LOCATION | STATION | TO | STATION | (EA) | REMARKS |
|---|---|---|---|---|---|---|
| C-4.7 | CHAPEL RD. | 6+57.81 | - | 6+63.81 | 7 | |
| | | | | | | |
| | | | | TOTAL | 7 | |
| | | | | USE | 7 | |

### 24" WHITE STOP BAR

| SHEET | LOCATION | STATION | (LF) | REMARKS |
|---|---|---|---|---|
| C-4.1 | ROUTE HH | 24+89.96 | 24 | |
| C-4.2 | ROUTE HH | 28+82.26 | 22 | |
| C-4.7 | CHAPEL RD. | 8+02.50 | 20 | |
| C-4.9 | CHAPEL RD. | 11+37.18 | 20 | |
| C-4.10 | CHAPEL RD. | 18+25.08 | 14 | |
| | | | | |
| | | TOTAL | 100 | |
| | | USE | 100 | |

### 18" RCP / CLASS 3 EXCAVATION

| SHEET | LOCATION | STATION | TO | STATION | (LF) | LENGTH | WIDTH | DEPTH | (CY) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| C-4.6 | CHAPEL RD. | 3+42.21 | - | 3+48.46 | 12 | 12 | 4.50 | 1.70 | 3.40 | |
| C-4.7 | CHAPEL RD. | 5+12.56 | - | 5+20.45 | 16 | 16 | 4.50 | 2.14 | 5.70 | |
| C-4.7 | CHAPEL RD. | 6+06.78 | - | 6+13.96 | 18 | 18 | 4.50 | 2.78 | 8.33 | |
| | | | | | | | | | | |
| | | | | TOTAL | 46 | | | TOTAL | 17.43 | |
| | | | | USE | 46 | | | USE | 17 | |

### 24" RCP / CLASS 3 EXCAVATION

| SHEET | LOCATION | STATION | TO | STATION | (LF) | LENGTH | WIDTH | DEPTH | (CY) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| C-4.7 | CHAPEL RD. | 6+16.94 | - | 6+19.32 | 10 | | | | | |
| | | | | | | | | | | |
| | | | | TOTAL | 10 | | | TOTAL | 0.00 | |
| | | | | USE | 10 | | | USE | 0 | |

### ROCK LINING

| SHEET | LOCATION | STATION | TO | STATION | (CY) |
|---|---|---|---|---|---|
| C-4.6 | CHAPEL RD. | 3+46.82 | - | 3+61.02 | 1.9 |
| C-4.7 | CHAPEL RD. | 5+18.72 | - | 5+36.61 | 2.9 |
| C-4.7 | CHAPEL RD. | 6+12.97 | - | 6+26.97 | 3.1 |
| | | | | | |
| | | | | TOTAL | 7.9 |
| | | | | USE | 8 |

### CONCRETE STORM WATER STRUCTURES / CLASS 3 EXCAVATION

| SHEET | LOCATION | STATION | TYPE "A" CURB INLET (EA) | TYPE "B" CURB INLET (EA) | LENGTH | WIDTH | DEPTH | (CY) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| C-4.6 | CHAPEL RD. | 3+42.27 | | 1 | 11 | 7 | 2.21 | 6.30 | |
| C-4.7 | CHAPEL RD. | 5+12.55 | 1 | | 7 | 7 | 2.71 | 4.92 | |
| C-4.7 | CHAPEL RD. | 6+06.77 | 1 | | 7 | 7 | 2.71 | 4.92 | |
| | | | | | | | | | |
| | | TOTAL | 2 | 1 | | | TOTAL | 16.14 | |
| | | USE | 2 | 1 | | | USE | 16 | |

### 3. RECTANGULAR RAPID FLASHING BEACON (SOLAR)

| SHEET | LOCATION | STATION | (EA) | REMARKS |
|---|---|---|---|---|
| C-4.7 | CHAPEL RD. | 6+61 | 2 | |
| | | | | |
| | | TOTAL | 2 | |
| | | USE | 2 | |

### SIGNAGE

| SHEET | LOCATION | STATION | (SF) | REMARKS |
|---|---|---|---|---|
| C-4.7 | CHAPEL RD. | 4+57 | 9.00 | W11-2 |
| C-4.7 | CHAPEL RD. | 4+57 | 3.75 | W16-9P |
| C-4.7 | CHAPEL RD. | 6+57 | 9.00 | W11-2 |
| C-4.7 | CHAPEL RD. | 6+57 | 3.75 | W16-7P |
| C-4.7 | CHAPEL RD. | 6+65 | 9.00 | W11-2 |
| C-4.7 | CHAPEL RD. | 6+65 | 3.75 | W16-7P |
| C-4.7 | CHAPEL RD. | 8+79 | 9.00 | W11-2 |
| C-4.7 | CHAPEL RD. | 8+79 | 3.75 | W16-9P |
| | | | | |
| | | TOTAL | 51.00 | |
| | | USE | 51.0 | |

### ROCK DITCH CHECK

| SHEET | LOCATION | STATION | (EA) | REMARKS |
|---|---|---|---|---|
| C-4.2 | ROUTE HH | 31+11 | 1 | |
| C-4.2 | ROUTE HH | 32+11 | 1 | |
| C-4.7 | CHAPEL RD. | 6+79 | 1 | |
| C-4.7 | CHAPEL RD. | 7+79 | 1 | |
| | | | | |
| | | TOTAL | 4 | |
| | | USE | 4 | |

### LINEAR GRADING

| SHEET | LOCATION | STATION | TO | STATION | (STA.) |
|---|---|---|---|---|---|
| C-4.1 TO C-4.5 | ROUTE HH | 25+00.00 | - | 50+00.00 | 25.0 |
| C-4.6 TO C-4.10 | CHAPEL RD. | 0+00.00 | - | 18+61.00 | 18.6 |
| | | | | | |
| | | | | TOTAL | 43.6 |
| | | | | USE | 43.6 |

STATE OF MISSOURI — JOHN JASON ECKHART — NUMBER E-30102 — REGISTERED PROFESSIONAL ENGINEER
MISSOURI CERTIFICATE OF AUTHORITY C-2020043028

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 1 | MODOT COMMENTS | CAW | 11/28/2023 |
| 2 | MODOT COMMENTS | CAW | 3/4/2025 |
| 3 | ADDENDUM NO. 2 | CAW | 4/28/2025 |

TAP-1601(705)
SIDEWALKS
ROUTE HH & CHAPEL ROAD
CARTHAGE, MISSOURI

C-1.2
QUANTITIES

PROJECT NUMBER: 230012
DATE: 4/28/2025

ZANEVAN ENGINEERING
PHONE: 417-800-2500
1221 OAK ST.
CARTHAGE, MO 64836