

ADDENDUM NUMBER 1

Dec. 11, 2019

CITY OF COVINGTON 2019 GRAVITY SEWER REPAIRS

Covington City Project Number 119-106
Kyle Associates Project Number 19017

KYLE ASSOCIATES, LLC
638 Village Lane North
Mandeville, LA 70471

This Addendum No. 1 forms a part of the Contract Documents and modifies the original Contract Documents, dated November 1, 2019, as noted below. Bidder shall acknowledge receipt of this Addendum in the space provided on the Uniform Public Work Bid Form.

General

1. The prebid conference was held on **Wednesday, Dec. 4, 2019**. The agenda and attendance list are attached.
2. At all areas where street paving is removed shall have a temporary asphalt patch a minimum of 4" thick.
3. Contractor shall be required to submit a traffic plan that will need to be approved prior to beginning work. Traffic control on Boston Street will need to meet DOTD requirements. DOTD sheets are included as part of this addendum.
4. Note that a temporary asphalt patch is to replace the maintenance aggregate where paving is removed.
5. No separate pay for smoke testing, this is included in section 30 03 00-Mainline Point Repair Testing.
6. No separate pay for backfill of point repairs and lateral replacement, cost for backfill to be included in the unit price bid.
7. Base material (8") for asphalt repairs is to be Class II Base Course.
8. Engineer shall be notified if a pipe indicated to be lined on this contract is already lined. It is the intention of this contract to only line pipes that have not been previously lined.

Specifications:

1. Replace Bid Form in original bid package with the Bid Form marked Addendum 1 included in this addendum.

2. Replace Agreement Form in original bid package with the Agreement Form marked Addendum 1 included in this addendum. Contract times have been changed
3. Replace Section 01 22 20, Measurement and Payment in original bid package with the Measurement and Payment marked Addendum 1 included in this addendum.

Drawings:

1. Replace DT-4, Foundation Details in original bid package with DT-4 marked Addendum 1 included in this addendum.
2. The following traffic detail sheets are to be added to the project TTC-00(A), TTC-00(B), TTC-00(C), TTC-00(D), TTC-01, TTC-02, TTC-03, TTC-04, AND TTC-16

Total Pages with attachments: 33

End of Addendum No. 1

PROJECT NAME: City of Covington 2019 Gravity Sewer Repairs

CCE Project No. 119-106

DATE: Wednesday, December 4, 2019 TIME: 2:00 p.m.

MEETING: Pre-Bid Conference



| | NAME | DEPT./COMPANY | PHONE NUMBER | EMAIL |
|----|------------------|-------------------------|--------------|----------------------------|
| 1 | Jeff Wilson | Kyle Associates, LLC | 985-727-9377 | jwilson@kyleassociates.net |
| 2 | Dennis Rankin | Subterranean Const. LLC | 504-416-5706 | DRankin@SubtLLC.com |
| 3 | Bill Seelig | MAGNOLIA CONST. CO. | 225-355-7787 | bseelig@magconco.com |
| 4 | Neal Sherman | Lussemburg Technology | 985-507-2023 | nsherman@region.com |
| 5 | Bob Mevinian | City of Covington | 985-892-1811 | Bmevinian@CoCofa.com |
| 6 | David Zechevelly | City of Covington | 985-898-4700 | dzechevelly@CoCofa.com |
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SECTION 00 52 43
AGREEMENT FORM

FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT

THIS AGREEMENT is by and between _____ City of Covington _____ (“Owner”) and

_____ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents for the **2019 Gravity Sewer Repairs**. The Work is generally described as follows: Provide sewer system repair services consisting of pipe inspection, pipe lining, point repairs, and other miscellaneous items need to complete sanitary sewer system repairs for the City of Covington as directed by project engineer. The total value of this contract (combined of task orders) will not exceed \$690,000.00. No minimum contact value is guaranteed.

ARTICLE 2 – TASK ORDERS

2.01 The Work under the Contract Documents may include the whole or only a part of the quantities estimated on the Unit Prices Bid Table. The Work will be assigned to the Contractor on a Task Order basis. Each duly executed Task Order will include limits of work, a written scope of work, estimated material quantities and Task Order value, performance period, and any supplemental drawings or details required for completion of the work. Task Orders will be issued sequentially, without overlap of performance period, unless agreed otherwise by all parties. The Contractor may decline to perform a Task Order valued at under \$25,000 without prejudice.

ARTICLE 3 – ENGINEER

3.01 The Project will be assigned to a project engineer (Engineer), which is to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents. Owner shall issue a written notification to Contractor identifying the assigned project engineer within ten (10) days of contract execution.

ARTICLE 4 – CONTRACT TIMES

4.01 *Contract Duration*

A. The agreement will expire at the final payment for the last task order issued within one hundred and eighty (180) calendar days of this agreement’s effective date. All work shall be completed within two hundred and seventy (270) calendar days after the execution of the contract. No task order may be

issued after one hundred and eighty days anniversary of the agreement's effective date, unless time is added by change order.

4.02 *Days to Achieve Task Order Substantial Completion and Final Payment*

- A. The Work will be substantially completed on or before the date specified in each task order, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before the date specified in each task order.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$100 for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$100 for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A, below:

- A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item performed under each task order.

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions. No unit price adjustments for actual quantities will be made.

All item shall be at the prices stated in Contractor's Bid, attached hereto in Section 00 41 43, Bid Form.

ARTICLE 5 – PAYMENT PROCEDURES

5.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

5.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 1st day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
 - 1. Prior to Final Completion of individual Task Orders, progress payments will be made in an amount equal to the percentage indicated below, and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.
 - a. Retainage on Task Orders from \$0 to \$250,000 shall be 10% of the Task Order Amount
 - b. Retainage on Task Orders \$250,000 and over shall be 5% of the Task Order Amount
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 90 or 95 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 150 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

5.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07, less retainage.
- B. Following acceptance of the Work by Owner, Contractor, at his expense, shall file the acceptance with the Clerk of Court and Ex-Officio Recorder of Mortgages.
- C. Release and payment of Retainage, or balance due, will become due and will be paid by Owner to Contractor thirty days after receipt of Application for Retainage Payment (which must include a clear lien and privilege certificate secured from the Clerk of Court and Ex-Officio Recorder of Mortgages dated no less than forty-five (45) days after the filing of the acceptance and other documentation as required by the Contract Documents), and recommendation of payment by ENGINEER.

ARTICLE 6 – CONTRACTOR’S REPRESENTATIONS

- 6.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data."
 - E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor’s safety precautions and programs.
 - F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
 - G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
 - H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
 - I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 7 – CONTRACT DOCUMENTS

7.01 *Contents*

- A. The Contract Documents consist of the following:

1. This Agreement (pages 00 52 43 - 1 to 00 52 43 - 8, inclusive).
 2. Performance and Payment bond (pages 00 61 13 - 1 to 00 63 13 - 2, inclusive).
 3. General Conditions (pages 00 72 43 - i to 00 72 43 - 57, inclusive).
 4. Specifications as listed in the table of contents of the Project Manual.
 5. Project Drawings with each sheet bearing the following general title: n/a
 6. Addenda (numbers _____ to _____, inclusive).
 7. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages _____ to _____, inclusive).
 - b. Documentation submitted by Contractor prior to Notice of Award (pages _____ to _____, inclusive).
 8. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed (pages _____ to _____, inclusive).
 - b. Work Change Directives.
 - c. Change Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 8 – MISCELLANEOUS

8.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

8.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and

unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

8.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

8.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

8.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective on date as signed by the Mayor of the City of Covington .

OWNER: City of Covington

CONTRACTOR

By: Mark R. Johnson

By: _____

Title: Mayor

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

License No.: _____

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: City of Covington
317 N. Jefferson Avenue
Covington, Louisiana 70433

BID FOR: 2019 Gravity Sewer Repairs
CCC No. 119-106

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: Kyle Associates, LLC., 638 Village Ln. N. Mandeville, LA 70471 and dated: November 1, 2019

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following ADDENDA: (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging)

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" * but not alternates) the sum of:

Dollars (\$)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

Alternate No. 2 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

Alternate No. 3 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

NAME OF BIDDER:

ADDRESS OF BIDDER:

LOUISIANA CONTRACTOR'S LICENSE NUMBER:

Name OF AUTHORIZED SIGNATORY OF BIDDER:

TITLE OF AUTHORIZED SIGNATORY OF BIDDER:

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **:

DATE:

THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public Work as prescribed by LA R.S. 38:2212(B)(5).

BID SECURITY in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38:2218.(A) attached to and made a part of this bid.

**LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM**

TO: City of Covington
317 N. Jefferson Avenue
Covington, Louisiana 70433

BID FOR: 2019 Gravity Sewer Repairs
CCC No. 119-106

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ TEMPORARY TRAFFIC CONTROL | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| NS-200 | 1 | LUMP SUM | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ MOBILIZATION FOR POINT REPAIRS | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-100 | 1 | LUMP | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ REMOVAL OF ASPHALTIC PAVEMENT PAVEMENT (FULL DEPTH) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-101 | 684 | SY | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ REMOVAL OF CONCRETE WALKS AND DRIVES | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-102 | 171 | SY | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ ASPHALTIC PAVEMENT PATCHING (12" MINIMUM THICKNESS) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-103 | 684 | SY | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ CONCRETE DRIVE (6" THICK WITH WWF REINFORCEMENT) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-105 | 197 | SY | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ SAWCUTTING ASPHALTIC AND/OR CONCRETE PAVEMENT (FULL DEPTH) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-106 | 2301 | LF | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ CLEARING AND GRUBBING | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-107 | .07 | ACRE | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ RESTORE 8" SEWER MAIN BY POINT REPAIR (0-8' DEEP) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-200 | 35 | EACH | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ RESTORE 8" SEWER MAIN BEYOND POINT REPAIR (0-8' DEEP) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-201 | 10 | LF | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ RESTORE 12" SEWER MAIN BY POINT REPAIR (0-8' DEEP) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-203 | 11 | EACH | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ RESTORE 12" SEWER MAIN BEYOND POINT REPAIR (0-8' DEEP) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-204 | 10 | EACH | | |

Wording for "DESCRIPTION" is to be provided by the Owner
All quantities are estimated. The contractor will be paid upon actual quantities as verified by Owner.

**LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM**

TO: City of Covington
317 N. Jefferson Avenue
Covington, Louisiana 70433

BID FOR: 2019 Gravity Sewer Repairs
CCC No. 119-106

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

| | | | | |
|--|-----------|------------------|------------|---|
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ RESTORE 15" SEWER MAIN BY POINT REPAIR (ALL DEPTHS) | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-205 | 5 | EACH | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ RESTORE 15" SEWER MAIN BEYOND POINT REPAIR (ALL DEPTHS) | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-206 | 121 | LF | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ 8" SERVICE TEE | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-400 | 28 | EACH | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ 12" SERVICE TEE | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-402 | 11 | EACH | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ 15" SERVICE TEE | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-403 | 1 | EACH | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ REPAIR MANHOLE CONNECTION | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-500 | 3 | EACH | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ PROVIDE AND SETUP 6" BYPASS PUMP | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-501 | 1 | EACH | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ OPERATION OF 6" BYPASS PUMP | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-503 | 40 | HR | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ REMOVE UNSUITABLE MATERIAL AND REPLACE WITH SELECT GRANULAR MATERIAL | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-504 | 23 | CY | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ REMOVE AND REPLACE 6" SEWER LATERAL | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-507 | 878 | LF | | |
| DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ DEWATERING | | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-508 | 2 | EACH | | |

Wording for "DESCRIPTION" is to be provided by the Owner
All quantities are estimated. The contractor will be paid upon actual quantities as verified by Owner.

UNIT PRICE FORM

TO: City of Covington
317 N. Jefferson Avenue
Covington, Louisiana 70433

BID FOR: 2019 Gravity Sewer Repairs
CCC No. 119-106

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSTALL SEWER CLEANOUT ON EXISTING LATERAL | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-509 | 9 | EACH | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSTALL SEWER CLEANOUT BOX IN SIDEWALK | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-510 | 36 | EACH | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSTALL LAMPHOLE MANHOLE | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PR-511 | 5 | EACH | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ CLEAN 8" TO 10" SANITARY SEWER | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| TV-200 | 998.8 | | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ CLEAN 12" TO 15" SANITARY SEWER | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| TV-201 | 406 | LF | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ ROOT REMOVAL, ALL PIPE | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| TV-300 | 50 | LF | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ VIDEO INSPECTION/RADIAL VIEW CAMERA IN 8" TO 10" PIPE | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| TV-400 | 728 | LF | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ VIDEO INSPECTION/RADIAL VIEW CAMERA IN 12" TO 15" PIPE | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| TV-401 | 406 | LF | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ REVERSE SETUP FOR 8" THRU 15" PIPE | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| TV-402 | 1 | EACH | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ CLEAN 4" TO 6" SANITARY SEWER LATERAL | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| TV-403 | 21 | EACH | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ VIDEO INSPECTION/RADIAL VIEW CAMERA IN 4" TO 6" LATERAL | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| TV-404 | 21 | EACH | | |

Wordings for "DESCRIPTION" is to be provided by the Owner
 All quantities are estimated. The contractor will be paid upon actual quantities as verified by Owner.

**LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM**

TO: City of Covington
317 N. Jefferson Avenue
Covington, Louisiana 70433

BID FOR: 2019 Gravity Sewer Repairs
CCC No. 119-106

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ MOBILIZATION FOR CIPP INSERTION | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-100 | 1 | LUMP | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSERTION OF 6.0 MM CIPP IN 8" PIPE | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-200 | 3277.1 | LF | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSERTION OF 6.0 MM CIPP IN 12" PIPE | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-202 | 731 | LF | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSERTION OF 6.0 MM CIPP IN 15" PIPE | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-203 | 218.9 | LF | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ ADDITIONAL 1.5 MM THICKNESS FOR 12" AND 15" CIPP | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-301 | 218.9 | LF | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSERTION OF 6.0 MM CIPP IN 4" to 6" Lateral (0' to 25'), (8" to 10" Main) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-400 | 9 | EACH | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSERTION OF 6.0 MM CIPP IN 4" to 6" Lateral (0' to 25'), (12" to 15" Main) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-401 | 14 | EACH | | |

| | | | | |
|--------------|---|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSERTION OF 6.0 MM CIPP IN 4" to 6" (Beyond 25'), (8" to 10" Main) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-402 | 10 | LF | | |

| | | | | |
|--------------|--|------------------|------------|---|
| DESCRIPTION: | <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ INSERTION OF 6.0 MM CIPP IN 4" to 6" (Beyond 25'), (12" to 15" Main) | | | |
| REF. NO. | QUANTITY: | UNIT OF MEASURE: | UNIT PRICE | UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>) |
| PL-403 | 10 | LF | | |

Wording for "DESCRIPTION" is to be provided by the Owner
All quantities are estimated. The contractor will be paid upon actual quantities as verified by Owner.

**SECTION 01 22 20
MEASUREMENT AND PAYMENT**

1.0 Description

- A. CONTRACTOR shall furnish all labor, materials, tools, equipment, appurtenances and all services necessary to perform all Work required, at the lump sum or unit prices for the items listed herein.
- B. The items listed below beginning with Section 4.0, refer to and are the same pay items listed on the Bid Form. These items constitute all of the pay items for the completion of the Contract. No direct or separate payment will be made for providing miscellaneous, temporary, or accessory works, plant, services, Contractor's field offices, layout surveys, job signs, sanitary requirements, testing, safety devices, approval and record drawings, water supplies, power, removal of waste, watchmen, taxes, and all other requirements of the Contract Documents unless specifically covered by a pay item. Compensation for all such services, things and materials shall be included in the prices stipulated for the lump sum and unit pay items listed herein.

2.0 Engineer's Estimate of Quantities

- A. The Engineer's estimated quantities for unit bid prices, as listed in the Bid Form, are approximate only and are included solely for the purpose of comparison of Bids. The Owner does not expressly or by implication agree that the nature of the materials encountered below the surface of the ground or the actual quantities of material encountered or required will correspond therewith and reserves the right to increase or decrease any quantity or to eliminate any quantity as Owner may deem necessary.

3.0 Related Provisions Specified Elsewhere

- A. Payments to CONTRACTOR: Refer to General Conditions Article 14.
- B. Changes in Contract Price: General Conditions, Article 11 and Contract Forms.

4.0 Pay Items

- 1. Temporary Traffic Control. (Item NS-200)
 - a. Description and Measurement: This work consists of planning, furnishing, installing, maintaining, and removing temporary construction barricades and signs; providing flaggers; and complying with all other requirements regarding the protection of the work, workers and safety of the public. This work also includes traffic control in compliance with the Manual on Uniform Traffic Control Devices (MUTCD), including the installation, inspection, maintenance, and removal of all traffic control devices on the project. Signs, barricades, barriers, channelizing devices, pavement markings, etc., shall comply with LADOTD standard details and the MUTCD; all as required for the proper performance and completion of the Work. Measurement for payment for Temporary Traffic Control shall be based on a per each basis per each Task Order as approved by the Owner or Project Manager.
 - b. Payment: Temporary Traffic Control shall be paid in accordance with the requirements of the specifications shall be made at the unit price bid per each.

2. Mobilization for Point, Manhole and Misc. Repairs. (Items PR-100, PL-100 and TV-100)

- a. Measurement: Measurement for payment for mobilization and demobilization will be on a lump-sum basis as specified herein.
- b. Payment: Payment for Mobilization and Demobilization shall cover all preparatory work, obtaining all permits, insurance and bonds, movement of personnel, equipment, supplies and incidentals to the project site, preconstruction photographs and videos, the establishment of temporary offices, furnishing and installing temporary signage, and other construction facilities necessary for work on this project. It shall include removal of all personnel, equipment, supplies and incidentals from the project site, removal of temporary offices and other construction facilities necessary for work on this project, all as required for the proper performance and completion of the work. Payment will be made at the contract lump sum price, subject to the following provisions:

Partial payments for mobilization and demobilization will be made in accordance with the following schedule up to a maximum of 5 percent of the total contract amount (including this item), and payment of any remaining amount will be made upon completion of all work under the contract.

| <u>Percent of Total Contract Amount Earned</u> | <u>Allowable Percent of the Lump Sum Price for the Item</u> |
|--|---|
| 1 st Partial Estimate | 25% |
| 10% | 50% |
| 25% | 75% |
| 50% | 100% |

No price adjustments will be made for this item due to changes in the work.

3. Removal of Asphaltic Concrete Pavement (Full Depth). (Item PR-101)

- a. Description and Measurement: Removal of Asphaltic Concrete Pavement (Full Depth), designated for removal, shall be disposed of in accordance with project specifications, applicable regulations, and as directed. Unless otherwise noted, maintenance aggregate, removal of base materials under pavements shall be removed with the pavement at no additional pay.
- b. Payment: Removal of Asphaltic Concrete Pavement (Full Depth), will be paid for at the per Square Yard price indicated in the Bid Form.

4. Removal of Concrete Walks and Drives.(Item PR-102)

- a. Description and Measurement: Item PR-102 includes necessary excavation, lifting, hauling, disposal, and for all materials, equipment, tools, labor, and incidentals

- necessary to complete the work. Removal of Concrete Walks and Drives will be measured by the Square Yard removed and accepted.
- b. Payment: Removal of Concrete Walks and Drives will be paid for at the per Square Yard price indicated in the Bid Form.
5. Asphaltic Pavement Patching (12" Minimum Thickness). (Item PR-103)
 - a. Description and Measurement: Asphaltic concrete shall be used for patching areas removed for sewer repair operations. The patching shall include 12" of asphaltic concrete pavement and up to 8 inches of class II base material. This work consists of patching of existing asphaltic concrete pavements in accordance with these specifications and in conformity with the lines and grades as directed by project engineer. Patching of pavement will be measured by the square yard of existing pavement designated to be removed and replaced. Removal of existing surfacing and base course, tack coat, and required excavation will not be measured for payment.
 - b. Payment: Payment for pavement patching will be made at the contract unit prices per square yard
 6. Concrete Drive (6" Thick with WWF Reinforcement). (Item PR-105)
 - a. Description and Measurement: Item PR-105 includes grading in advance of concrete driveway placement as required, sub grade compaction, furnishing, installing, shaping, finishing, and curing concrete, reinforcement steel, joints and joint material, and for all other materials, equipment, tools, labor, and incidentals necessary to complete the work. Concrete Drive will be measured by the Square Yard installed and accepted.
 - b. Payment: Item PR-105 Concrete Drive (6" Thick with WWF Reinforcement) will be paid for at the per Square Yards price indicated in the Bid Form.
 7. Saw Cutting Asphalt and/or Concrete Pavement (Full Depth). (Item PR-106)
 - a. Description and Measurement: Item PR-106 includes all materials, equipment, tools, labor, and incidentals necessary to complete the work. Saw cutting Asphalt and/or Concrete Pavement (Full Depth) will be measured in the field by the Engineer or his representative, by the Linear Foot. Additional length of saw cut required to achieve the depth specified due to blade curvature will not be measured for payment.
 - b. Payment: Sawcutting Asphalt and/or Concrete Pavement (Full Depth) will be paid for at the per Linear Foot indicated in the Bid Form.
 8. Clearing and Grubbing. (Item PR-107)
 - a. Description and Measurement: Item PR-107 includes clearing and grubbing overgrown area where existing gravity sewer lines will be replaced. Clearing and Grubbing will be measured by the acre or percent of an acre cleared and grubbed.
 - b. Payment: Item PR-107 clearing and Grubbing will be paid for at the per Acre price indicated in the Bid Form.
 9. Restore 8 inch - 15 inch Sewer Main by Point Repair. (Items PR-200, PR-201, PR-203, PR-204, PR-205, and PR-206)
 - a. Description and Measurement: Measurement for the work items listed below will be per each work item completed and accepted. This item shall include, but not be limited to, sheeting and shoring, repair of service line, removal, replacement of

sewer features, and any other incidentals necessary to complete the various work items. All pipe excavation, fittings, adapters, concrete collar, bedding, backfill, removal and replacement of grass sodding required shall be considered incidental to service line repair and temporary asphalt patch until permanent patch is installed. If no pay item is included for any work required to properly complete a service line repair as specified, the cost to perform said work, including any required removal and replacement of materials, shall be considered incidental to the service line repair.

- b. Payment: Payment for main line point repair shall be made by the unit price bid per each repair for varying depths. Depth of repair is determined by averaging the invert elevation of the sewer line at the upstream and downstream manholes of the repair. The pay length of the per each repair shall be eight (8) feet. Any length exceeding eight (8) feet shall be paid under Items PR-201, PR-204 and PR-206

10. Service Tees. (Items PR-400, PR-402, and PR-403)

- a. Description and Measurement: Item shall include all labor, materials, and equipment necessary to install a service tee on a Sanitary Sewer line as specified herein Measurement for payment for service tee shall be per each service tee installed at a point repair.
- b. Payment: Payment for installing service tees on sanitary sewer lines shall be made at the unit price bid per each installed for various pipe sizes without regard to pipe material.

11. Repair Manhole Connection. (Item PR-500)

- a. Description and Measurement: Item shall include all labor, materials, and equipment necessary to repair a manhole connection on a Sanitary Sewer line as specified herein Measurement for payment for service tee shall be per each service tee installed at a point repair.
- b. Payment: Payment for repairing manhole connections on sanitary sewer lines shall be made at the unit price bid per each repair made for various pipe sizes without regard to pipe material.

12. Provide and Setup Bypass Pump. (Items PR-501)

- a. Description and Measurement: These items are in addition to the minimum by-pass pumping requirements of other bid items and will only be allowed upon prior approval of the Project Manager. Each set-up will be measured separately. Each "Set-Up" pay item shall include all costs associated with providing of the pumping equipment and up to 350 feet of discharge force main. If additional force main is required to reach the designated discharge point, this additional force main will be measured by the linear foot and be paid for at the appropriate pay item. For CIPP operations, there will be no direct payment for sewer bypass up to, and including the first 6 inch pump. If more than one 6 inch pump or a larger pumps (s) is (are) required to adequately handle the flow, the Contractor will be paid at the bid unit prices for each size pump setup as approved by the Project Manager.
- b. Payment: Payment for set-up of the by-pass pumps will be at the unit price bid per each for each size required. The item will only be used for pumping beyond the minimum requirements of other bid items.

13. Operation of Bypass Pump.(Items PR-503)

- a. Description and Measurement: Separate measurement will be made for the operation of by-pass pumps. This item will only be allowed upon prior approval of the Project Manager. The operation of the pumps will be measured on the actual hourly time used. If more than one 6 inch pump or a larger pumps (s) is (are) required to adequately handle the flow, the Contractor will be paid at the bid unit prices at the hourly operating rate per unit bid price as approved by the Project Manager.
- b. Payment: Payment for operation of each size pump shall be at the hourly unit bid prices.

14. Remove Unsuitable Material and Replace with Select Granular Material. (Item PR-504)

- a. Measurement: Measurement for removal of unsuitable soil and replacement with select granular backfill where directed and approved by the Engineer will be by in-place field measurement per cubic yard of material delivered and placed.
- b. Payment: The total cubic yardage of granular backfill, as determined above, will be paid for at the unit price bid, and this price and payment will constitute complete compensation for excavation of the unsuitable material and hauling the material off-site, for furnishing, hauling, placement, and compaction of granular backfill at locations approved and directed by the Engineer, and for furnishing all equipment and labor required to complete the item in accordance with the plans and specifications. No separate measurement or payment will be made for granular backfill used for backfilling pipe trenches or backfilling around lift stations or manholes. Delivery tickets must be submitted with the monthly invoice in order to be considered for payment.

15. Remove and Replace 6" Sewer Lateral. (PR-507)

- a. Description and Measurement: Item shall include all labor, materials, and equipment necessary to remove and replace a 6" sewer lateral as specified herein Measurement for payment for 6" sewer lateral shall be per each service lateral installed. All pipe fittings, adapters, bedding, sewer cleanout at property line and removal and replacement of grass sodding required shall be considered incidental to lateral replacement. If no pay item is included for any work required to properly complete a lateral replacement as specified, the cost to perform said work, including any required removal and replacement of materials, shall be considered incidental to the service line repair.
- b. Payment: Payment for lateral replacement shall be made at the unit price bid per each installed. No separate measurement or payment will be made for granular backfill used for backfilling pipe trenches or cleanouts installed at the property line.

16. Dewatering. (Item PR-508)

- a. Description and Measurement: This item is in to cover dewatering requirements of other bid items and will only be allowed upon prior approval of the Project Manager. Each set-up will be measured separately. Each "Set-Up" pay item shall include all costs associated with providing of the pumping equipment and/or well pointing equipment if required.
- b. Payment: Payment for dewatering will be at the unit price bid per each for each. The item will only be allowed upon prior approval of the Project Manager.

17. Install Sewer Cleanout on Existing Lateral. (Item PR-509)
 - a. Description and Measurement: Item shall include all labor, materials, and equipment necessary to install a 6" sewer cleanout on an existing lateral as specified herein. Measurement for payment for sewer cleanout shall be per unit installed. All pipe fittings, adapters, bedding, and removal and replacement of grass sodding required shall be considered incidental to cleanout installation. If no pay item is included for any work required to properly install a cleanout as specified, the cost to perform said work, including any required removal and replacement of materials, shall be considered incidental to the service line repair.
 - b. Payment: Payment for cleanout installation shall be made at the unit price bid per each installed. No separate measurement or payment will be made for granular backfill used for backfilling pipe trenches or cleanouts installed at the property line. This item is not to be included separately in item PR-507.
18. Install Sewer Cleanout Box in Sidewalk. (Item PR-510)
 - a. Description and Measurement: Item shall include all labor, materials, and equipment necessary to install a sewer cleanout in sidewalk where required. Measurement for payment for sewer cleanout box shall be per unit installed. If no pay item is included for any work required to properly install a cleanout box as specified, the cost to perform said work, including any required removal and replacement of materials, shall be considered incidental to the installation.
 - b. Payment: Payment for cleanout box installation shall be made at the unit price bid per each installed.
19. Install Sanitary Sewer Manhole (0'-8' Deep). (Item PR-511)
 - a. Description and Measurement: Item shall include all labor, materials, and equipment necessary to install a sanitary sewer manhole where required. Measurement for payment for sanitary sewer manhole shall be per unit installed. If no pay item is included for any work required to properly install a sanitary sewer manhole as specified, the cost to perform said work, including any required removal and replacement of materials, shall be considered incidental to the installation.
 - b. Payment: Payment for sanitary sewer manhole installation shall be made at the unit price bid per each installed.
20. Clean Sanitary Sewer. (Items TV-200 and TV-201)
 - a. Description and Measurement: Item shall include all labor, materials, and equipment necessary to complete Cleaning of Sanitary Sewer as specified herein and shall include all costs associated with debris removal and disposal. Debris removal and disposal shall be performed in accordance with all local, state and federal regulations. Measurement for payment for cleaning sanitary sewer pipe and associated manholes shall be per linear foot with measurement being made between centerlines of consecutive manholes for the line segments and manholes cleaned.
 - b. Payment: Payment for cleaning sanitary sewer lines, storm drains and associated manholes shall be made at the unit price bid per linear foot for various pipe sizes and debris level, without regard to pipe type.
21. Root Removal. (Item TV-300)
 - a. Description and Measurement: Measurement for payment for root removal from sanitary or storm sewers will be made per linear foot. The Project Manager or

- designated representative will determine the length of the sections in which the roots shall be required to be removed.
- b. Payment: Payment for root removal will be made at the unit prices bid per linear foot for the various sizes of pipe and shall constitute full compensation for all labor, materials, and equipment necessary to complete this item as specified herein.
22. Video Inspection/Radial View Camera. (Items TV-400 and TV-401)
- a. Description and Measurement: Measurement for payment for radial view color camera evaluation video will be made per linear foot with measurement being made between centerlines of consecutive structures for the line segments televised. The use of a radial view color camera will be specifically directed by the Project Manager.
 - b. Payment: Payment for radial view color camera evaluation video will be made at the unit price bid per linear foot at various pipe sizes indicated on bid form and shall constitute full compensation for all labor, materials and equipment necessary to complete the item as specified.
23. Reverse Setup for 8" thru 15" Pipe.(Item TV-402)
- a. Description and Measurement: Measurement for payment for root removal from sanitary or storm sewers will be made per linear foot. The Project Manager or designated representative will determine the length of the sections in which the roots shall be required to be removed.
 - b. Payment: Payment for root removal will be made at the unit prices bid per linear foot for the various sizes of pipe and shall constitute full compensation for all labor, materials, and equipment necessary to complete this item as specified herein.
24. Clean 4" to 6" Sanitary Sewer Lateral. (Item TV-403)
- a. Description and Measurement: Item shall include all labor, materials, and equipment necessary to complete Cleaning of 4' to 6" sanitary sewer laterals as specified herein and shall include all costs associated with debris removal and disposal. Debris removal and disposal shall be performed in accordance with all local, state and federal regulations. Measurement for payment for cleaning 4" to 6" sanitary sewer laterals shall be per each lateral cleaned.
 - b. Payment: Payment for cleaning 4" to 6" sanitary sewer laterals, shall be made at the unit price bid per each for various pipe sizes and debris level, without regard to pipe type.
25. Video Inspection/Radial View Camera 4" to 6" Lateral. (Item TV-404)
- a. Description and Measurement: Measurement for payment for radial view color camera evaluation video will be made per lateral inspected. The use of a radial view color camera will be specifically directed by the Project Manager.
 - b. Payment: Payment for radial view color camera evaluation video will be made at the unit price bid per each inspection regardless of pipe sizes and shall constitute full compensation for all labor, materials and equipment necessary to complete the item as specified.
26. Items PL-200, PL-202 and PL-203 - Insertion of 6.0 mm CIPP:
- a. Description and Measurement: Measurement for payment for installation of CIPP will be made per linear foot for various pipe sizes as measured between centerlines of consecutive structures for the line segment lined.
 - b. Payment: Payment for CIPP insertion will be made at the unit price bid per linear foot for the sizes and thickness of CIPP installed in accordance with these specifications.

Payment for installation of CIPP shall be for pre-inversion cleaning, pre and post inversion television inspection, wet out of liner, curing of liner, cutting ends, sealing CIPP in manholes, testing and cleanup and in accordance with the bid unit prices for the various pipe sizes. There shall be no direct payment for pre-television inspection of sewer mainline prior to lining, cost shall be incidental to work. Initial pipe cleaning and inspection shall be performed to determine the suitability of the pipe for rehabilitation. Pre-television inspection is that performed immediately prior to the CIPP installation to assure the existing pipe is clean and ready for installation.

27. Additional 1.5 mm CIPP Thickness. (Item PL-301)

- a. Description and Measurement: Measurement for payment for installation of additional thickness of CIPP will be made per linear foot as measured between centerlines of consecutive structures for the line segment lined with additional thickness.
- b. Payment: Payment for additional thickness of CIPP will be made at the unit prices bid per linear foot for the sizes and additional thicknesses of CIPP installed in accordance with these specifications. Payment for pre-inversion cleaning, pre and post inversion television inspection, wet out of liner, insertion of liner, curing manholes or wet-well, testing, cleanup and bypass pumping shall be paid for under separate bid items. Payment for this item will only be made if the additional thickness is approved by the Project Engineer, prior to insertion.

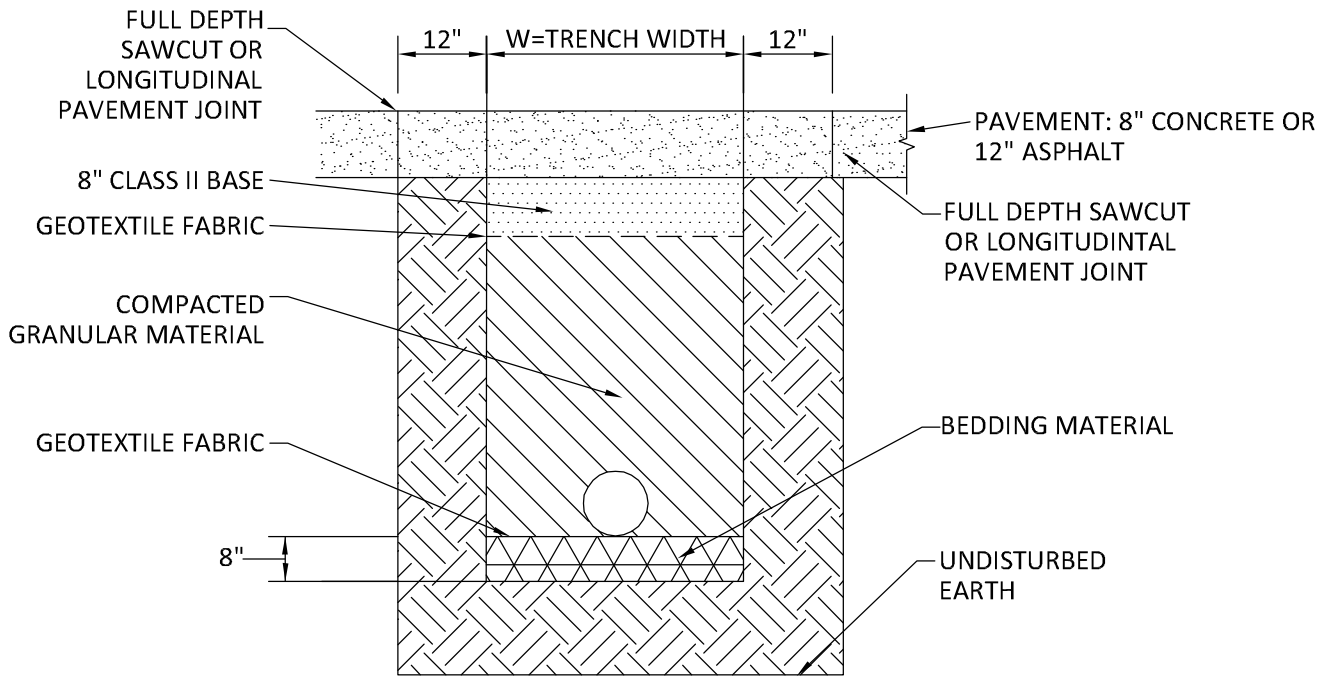
28. Insertion of 6.0 mm CIPP in 4" to 6" Lateral (0 to 25'). (Items PL-400 and 401)

- a. Description and Measurement: Measurement for payment for installation of CIPP will be made per each lateral lined for various pipe sizes as measured between the mainline tap and the cleanout at the property line up to 25' for the line segment lined.
- b. Payment: Payment for CIPP insertion will be made at the unit price bid per each lateral lined for the sizes and thickness of CIPP installed in accordance with these specifications. Payment for installation of CIPP shall be for pre-inversion cleaning, pre and post inversion television inspection, wet out of liner, curing of liner, cutting ends, sealing CIPP at taps, testing and cleanup and in accordance with the bid unit prices for the various lateral sizes. There shall be no direct payment for pre-television inspection of sewer mainline prior to lining, cost shall be incidental to work. Initial pipe cleaning and inspection shall be performed to determine the suitability of the pipe for rehabilitation. Pre-television inspection is that performed immediately prior to the CIPP installation to assure the existing pipe is clean and ready for installation.

29. Insertion of 6.0 mm CIPP in 4" to 6" Lateral (Beyond 25'). (Items PL-402 and 403)

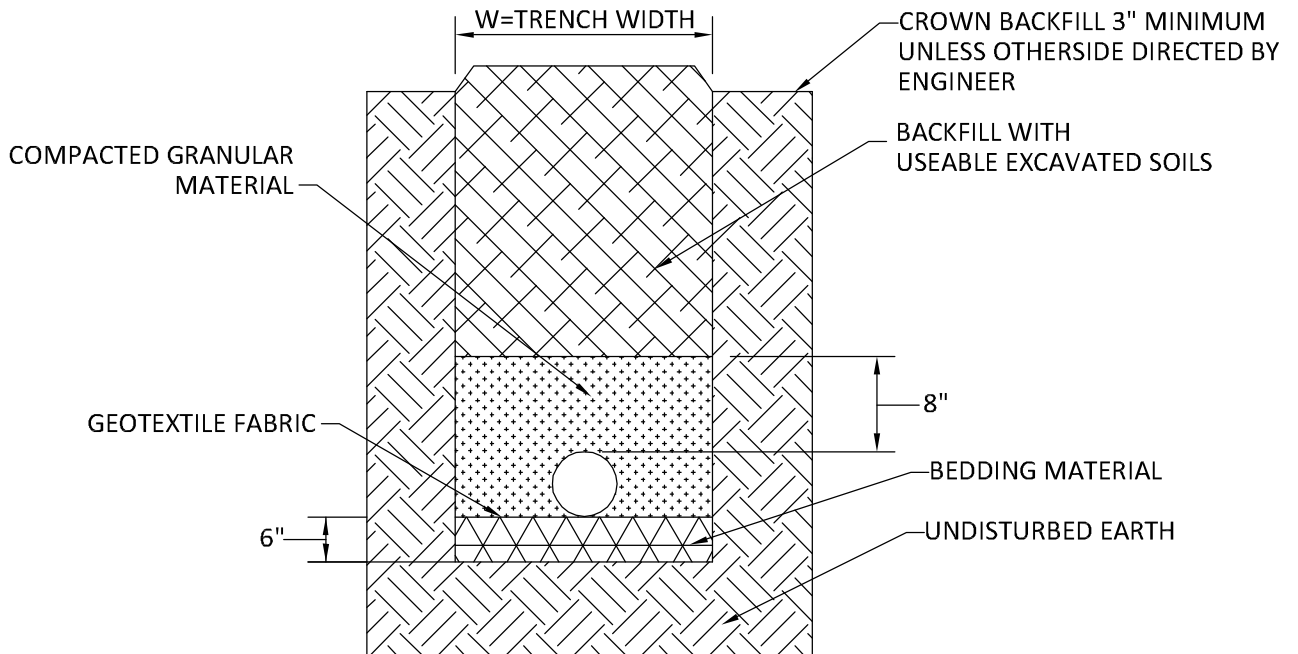
- a. Description and Measurement: Measurement for payment for installation of CIPP will be made per linear foot beyond the initial 25' of lateral lined for various pipe sizes as referenced in PL -400 and PI-401.
- b. Payment: Payment for CIPP insertion will be made at the unit price bid per each linear foot lined beyond the initial 25' lined as referenced in PL-400 and PI-401

END OF SECTION



**PIPE FOUNDATION
UNDER PAVEMENT**

N.T.S.



**PIPE FOUNDATION
NATURAL GROUND**

N.T.S.

Kyle Associates, LLC
Planning, Engineering, and Landscape Architecture
638 Village Lane N. • Mandeville, LA 70471 • 986.727.9377

STAMP:

COVINGTON SSES
SEWER REPAIRS
COVINGTON, LOUISIANA
ST. TAMMANY PARISH

FOUNDATION DETAILS ADDENDUM 1

| | |
|-------------------|---------------------|
| SCALE: N.T.S. | JOB NO. 19017 |
| DESIGNED BY: - | DATE: 10/16/2019 |
| DRAWN BY: - | SHEET NO. DT-4 |
| CHECKED BY: - | |

GENERAL PROVISIONS

- All temporary traffic control (TTC) devices used shall be in accordance with the Louisiana Standard Specifications for Roads and Bridges, the MUTCD, and shall meet the NCHRP Report 350 or MASH requirements for Test Level 3 devices where applicable.
- Materials used for TTC shall be in accordance with the Louisiana Standard Specifications for Roads and Bridges and, when applicable, the LADOTD A.M.L.
- Placement of TTC devices shall not commence without the approval of the Engineer and until work is about to begin, unless they are covered.
- No lane closures, lane shifts, diversions or detours shall occur without the approval of the Engineer.
- Responsibility is hereby placed upon the contractor for the installation, maintenance and operation of all TTC devices called for in these plans or required by the Engineer for the protection of the traveling public as well as all LADOTD and construction personnel.
- The contractor shall also be responsible for the maintenance and placement of permanent signs, pavement markings, and traffic signals within the project limits unless noted in the plans.
- The DTOE shall serve as a technical advisor to the Engineer for all traffic control matters.
- The Chief Construction Engineer or his appointed designee shall approve all signs and situations not addressed in the plans based on the recommendations of the Project Engineer and the DTOE. All changes shall be noted in all project traffic control diaries.
- The Chief Construction Engineer or his appointed designee shall approve all design speeds of diversions or shifts, if it differs from design plans, based on the recommendations of the Project Engineer and the DTOE.
- All temporary traffic control plans shall comply with the Transportation Management Plan.
- Any additional signs shown in the MUTCD and required by the Engineer shall be installed under Item 713-01-00100.
- Neither work activity nor storage of equipment, vehicles, TMA's, or materials shall occur within the buffer space.
- When a work area has been established on one side of the roadway only, there shall be no conflicting operations or parking on the opposite shoulder within 500 feet of the work area.
- A lighting plan shall be submitted to the Engineer 30 days prior to night work for approval. (See section 105.20 of the Louisiana Standard Specifications for Roads and Bridges.)
- Parking of vehicles or unattended equipment or storage of materials, within the clear zone shall not be permitted unless protected by guardrail or barriers. If the clear zone is not defined on the plan sheets, the Engineer shall verify.
- Immediately upon removal of existing guardrail, the contractor shall install and maintain an NCHRP Report 350 or MASH approved device to protect the blunt end of the bridge or column until new guardrail is installed. After removal of the existing guardrail, new guardrail should be installed within seven (7) days. On non-NHS routes with shoulders less than 8 feet wide: if an NCHRP 350 Report Test Level 3 or MASH device is required, then a Test Level 2 roadway cannot support a Test Level 3 device, then a Test Level 2 device can be substituted in its place upon approval by the Engineer. If utilized, a TMA is allowed for a maximum of 72 hours.
- All costs associated with crash devices are to be included in Item 713-01-00100.
- Sight distance should be considered when placing traffic control devices.
- On all mainline Interstates, a minimum of 1.5 feet of paved shoulder on the left and right side shall be maintained at all times.

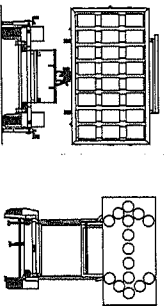
SPEED LIMITS

- On Interstates, a minimum of 11 foot lanes shall be maintained. On all other roadways, a 10 foot minimum travel lane should be maintained where practical. TTC Standards are not drawn to scale.
- The contractor shall develop an internal traffic control plan approved by the Engineer prior to each phase.
- Truck restrictions such as (but not limited to) restricting lanes, oversize loads or times of travel, may be required for narrow lanes or other field conditions. PAVEMENT MARKINGS (see A.M.L.)
- All pavement markings within the limits of the project or adjacent to the project limits that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding. (Existing striping shall not be painted over with black paint or covered with tape.)
- If special pavement markings are needed, they shall be reflectorized.
- Temporary Raised Pavement Markers may be added to supplement temporary striping in areas of transition, in tapers, in diversions and in other areas of need as shown in the plans or as directed by the Engineer.
- Materials and placement of temporary pavement markings shall conform to Section 713 of the Louisiana Standard Specifications for Roads and Bridges. If no pay item exists for temporary markings, they shall be installed under Item 713-01-00100.
- Temporary markings installed in the permanent configuration shall comply with LADOTD pavement marking standard plans, MUTCD and/or the permanent striping plans.
- PCSMS shall be used on all Interstate Highways. PCSMS shall be used on all other roadways where space is available with an ADT greater than 20,000. When used in advance of a lane closure or a lane shift, the PCSMS should be placed on the right hand side of the road a minimum distance of 2 miles in advance of the taper for interstates and to be determined by the Engineer for other highways.
- For interstates and multi-lane highways, if vehicles are queuing beyond the 2 mile PCSMS, an additional PCSMS should be placed on the right hand side of the road approximately 5 miles in advance of the taper or at the end of the queue, whichever is greater.
- PCSMS messages shall be approved by the DTOE. Messages shall be no more than 3 lines and 2 screens.
- Messages shall display only traffic operational, regulatory, warning and guidance information. PCSMS messages shall not display advertising or society messages. Messages should only convey information concerning the problem/situation, location, and recommended driver action.
- PCSMS should be placed as far from the traveled lane as possible. They shall be shielded by guardrail or barriers. If this is not possible, they shall be delineated with a min. 3 drum taper spaced at 20ft with a 4th drum alongside the PCSMS.
- If the PCSMS encroaches on the improved shoulder then the contractor shall install a shoulder closure.
- When the PCSMS is not displaying a work zone appropriate message pertaining to the ongoing construction project it shall be shielded by guard rail or barriers, or removed from the clear zone.

FLASHING ARROW BOARDS

- All Flashing Arrow Boards shall be 4 feet by 8 feet and Type C.
- Flashing Arrow Boards should be placed on the shoulder. When there is no shoulder or median area, the arrow board shall be placed within the closed lane behind the channelizing devices and as close to the beginning of the taper as practical.
- Flashing arrow boards shall be delineated with retroreflective TTC devices.
- At no time shall the arrow board encroach in the traveled way. When Flashing Arrow Board signs are not being used, they shall be shielded by guard rail or barriers, or removed.
- Arrow boards shall only be used for lane reduction tapers and shall not be used for lane shifts.
- American Association of State Highway and Transportation Officials
- Average Daily Traffic
- Associated General Contractors of America
- Approved Materials List
- American National Standards Institute
- American Traffic Safety Services Association
- Beginning of Project
- District Traffic Operations Engineer
- End of Project
- Louisiana Department of Transportation and Development
- Manual on Uniform Traffic Control Devices
- National Cooperative Highway Research Program
- National Highway System
- Portable Changeable Message Sign
- Truck Mounted Attenuator
- Traffic Management Center
- Temporary Traffic Control
- Temporary Traffic Control Standard Plans

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING. ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER. CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.



TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET

TTC-00 (A)

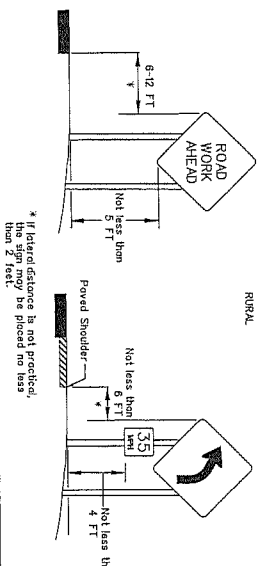


| | | |
|-----|------|--------------------------------------|
| NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION |
| | | |
| | | |

| | | | |
|-------------|---------------------|-----------------|--|
| DESIGNED BY | C. LEBLANC COLVIN | PARISH | |
| DESIGNED BY | C. PARCOURT LEBLANC | CONTROL SECTION | |
| DATE | 7/1/18 | STATE PROJECT | |

SIGNS

- All signs used for temporary traffic control shall follow the plans, the LADOTD TTC Standards and the MUTCD.
- Signs shown in the TTC illustrations are typical and may vary with each specific condition.
- One Type B High Intensity light shall be used to supplement the first sign (or pair of signs) that gives warning about a lane closure during nighttime operations (See AML).
- Mesh rollup signs shall not be allowed on any project.
- Contractor shall use caution not to damage existing signs which remain in place. Any LADOTD signs damaged by work operations shall be replaced by the contractor under Item 713-01-00100.
- All signs (permanent and temporary) shall be removed or completely covered with a strong, lightweight, opaque material when no longer applicable. (Burial is not an acceptable material for cover signs).
- At no time shall signs warning against a particular operation be left in place once the operation has been completed or when the condition has been removed.
- Warning signs used for temporary traffic control shall meet the following guidelines unless otherwise noted in the plans:
 - (A) size shall be 48 inches by 48 inches.
 - (B) see the Louisiana Standard Specifications for Roads and Bridges and the AML for sheeting information.
 - (C) lateral distance of signs shall be a minimum of 6 feet from the edge of shoulder or edge of pavement if no shoulder exists and 2 feet from the back of curb in urban areas (see diagram).
- When portable sign frames are not in use, they shall be moved to an area inaccessible to traffic and not visible to the driver.
- Left side mounted signs will not be required for roadways with a center left turn lane and for undivided roadways.
- Vary/rollup signs may be used if work zone is in place for 12 hours or less; there are no more than 2 lanes in each direction and if signs meet all size, color, retroreflectivity and NCHRP 350 Report or MASH requirements.
- All signs shall be visible to the drivers (i.e., no obstructions such as on street parking or other traffic control devices shall block the sign).
- On divided highways, signs shall be placed on the right and the left as shown on the TTC standards.
- 1 foot portable sign stands may be used if the work zone is in place for 14 hours or less and there are no more than 2 lanes in each direction.
- Sign posts:
 - Signs measuring 10 square feet or less shall be mounted on 1 rigid post
 - Signs over 10 square feet shall be mounted on 2 rigid posts
 - Signs over 20 square feet shall be mounted on at least 3 rigid posts
- Rigid sign supports shall be driven to a minimum depth of 3 feet. (If splicing is required, see Allowable Lap Splice U-channel Post.)
- For sign height, see the Rural and Urban diagrams:

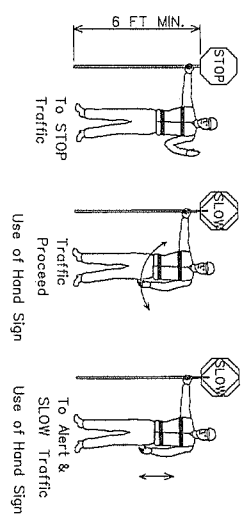


LANE CLOSURES

- All proposed lane, road or shoulder closures shall be reviewed by the DTOE and approved by the Engineer.
- Two lane, two-way highways shall have a maximum work area of two miles; all other roadways shall have a four-mile maximum work area.
- A queue analysis shall be performed prior to approval of lane closures on all Interstates according to Section 6A.1 of the Traffic Engineering Manual. Closure plans and times shall be turned in to the Engineer for review according to the following:
 - 5 working days minimum if traffic control plan has been approved
 - 10 working days minimum if not approved
- If a working day is contained in the plans, the contractor shall be responsible for lane closures not addressed in the plans.
- Weekly updates to the DTOE, Project Engineer, the LADOTD TMC operator and the regional TMC operator (if applicable) will be required for all ongoing lane closures to update the closure status.
- Daily updates to the DTOE, Project Engineer and TMC operator (if applicable) will be required for all projects where active closures are in place.

FLAGGERS

- All flaggers shall be qualified.
- The contractor shall be responsible for training or ensuring that all flaggers are qualified to perform flagging duties.
- A Qualified Flagger is one that has completed courses such as those offered by ATSSA or other courses approved by the LADOTD Work Zone Task Force. The contractor shall be responsible for getting the flagger approved.
- When utilized, a flagger shall use a minimum 18 inch octagonal shape sign vest during day time operations and ANSI Class 3 Lime Green ensemble during night operations.
- In all flagging operations, the flagger must be visible from the flagger advance warning sign.
- Flaggers shall not be used on the Interstate.



PEDESTRIAN CONSIDERATIONS

- If the TTC zone affects the movement of pedestrians, adequate pedestrian access and walkways shall be provided either through the TTC zone or a designated alternate route.
- Pedestrians should be provided with a convenient and accessible path that replicates as nearly as practical the most desirable characteristics of the existing sidewalk(s) or footpaths(s).
- Advance notification of sidewalk closures shall be provided by the maintaining agency.

REFERENCES

- The contractor shall be responsible for understanding all rules and requirements in the current edition of the following documents:
 - 1) Louisiana Standard Specifications for Roads and Bridges. <http://www.dotd.la.gov/highways/specifications/>
 - 2) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). <http://mutcd.fhwa.dot.gov/>
 - 3) LADOTD Approved Materials List (AML) Manual. http://www.wsp.dotd.la.gov/inside_LADOTD/Divisions/Engineering/Materials_Lab/Pages/Menu_OPL.aspx
 - 4) LADOTD Traffic Engineering Manual http://www.wsp.dotd.la.gov/inside_LADOTD/Divisions/Engineering/Traffic_Engineering/Misc/220Documents/Traffic%20Engineering%20Manual.pdf
 - 5) National Cooperative Highway Research Program (NCHRP) Report 350: "Guidelines for Work Zones Traffic Control Devices", http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_350-4q.pdf
 - 6) NCHRP Report 475: "A Procedure for Assessing and Planning Nighttime Highway Construction and Maintenance", http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_475.pdf
 - 7) NCHRP Report 476: "Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance", http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_476.pdf
 - 8) NCHRP Report 498: "Illumination Guidelines for Nighttime Highway Work", http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_498.pdf
 - 9) American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide.
 - 10) American Traffic Safety Services Association (ATSSA) Quality Guidelines for Work Zone Traffic Control Devices and Features.
 - 11) U.S. Department of Transportation Federal Highway Administration Traffic Control Handbook for Mobile Operations at Night. <http://www.dot.state.il.us/bf/1023.pdf>

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING. ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER. CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.



TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET
TTC-00 (B)



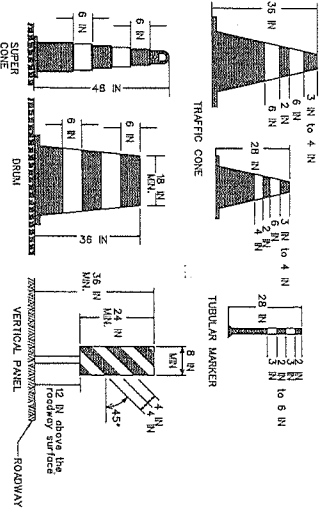
NO. _____ DATE _____

REVISION OR CHANGE GREEN DESCRIPTION _____ BY _____

APPROVED BY CHIEF ENGINEER _____ DATE 7/2/18

| | | | |
|---------------------------|-------------------------|-------------------------|-------------------------------|
| DESIGNED BY G. LEBLANC | CHECKED BY L. COLVIN | PAIRED BY C. FAKOURT | CONTROL SECTION G. LEBLANC |
| DATE 7/2/18 | PROJECT _____ | DATE 7/2/18 | PROJECT _____ |

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING. ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER. CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.



- ### CHANNELIZING DEVICES
- The following devices may be used as channelizing devices:
 - Tubular Markers, Vertical Panels, Cones, Drums and Super Cones.
 - 28 inch traffic cones are not allowed on:
 - Interstates
 - Highways with speeds greater than 40 mph.
 - During nighttime operations, 28 inch and 36 inch cones are not allowed.
 - Retroreflective material/pattern used on super cones shall match that used on drums.
 - Intersecting Areas:**
 - Standard Spacing: See Standard Device Spacing and Buffer Space Table.
 - Daylight Operations: Drums and super cones are spaced at standard spacing. All other devices are at standard spacing.
 - Nighttime Operations: Drums and supercones at standard spacing are the only devices allowed.
 - Topers Areas:**
 - Standard Spacing: See Standard Device Spacing and Buffer Space Table.
 - Daylight Operations: Drums are spaced at standard spacing. All other devices are 1/2 standard spacing.
 - Nighttime Operations: Drums (at standard spacing) are the only devices allowed.
 - Type C steady burn lights** shall be used on all channelizing devices in the toper as well as the first two devices in the longest at night. (see the AML).
 - Typical channelizing device lateral placement (do not include when it is used as a divider for opposing directions of traffic) shall be 2 feet off the lane line in the closed lane or shoulder.
 - Devices may be adjusted laterally to accommodate ongoing work in the immediate vicinity but must be returned to the closed lane after the work activity has moved.
 - Channelizing devices on the lane line shall be of the same type.
 - Channelizing devices in each toper shall be of the same type.

TYPE III BARRICADES shall be used.

- Only Type III Barricades shall be used.
- All barricades shall use Type 3 High Intensity Sheeting on both sides of the barricade.
- All barricades shall be a minimum of 8 feet in length and must meet NCHRP Report 350 or MASH requirements.
- When used for overnight closures, two Type B High Intensity Lights shall supplement all barricades that are placed in a closed lane or that extend across a highway. Two Type A Low Intensity Lights may be used in urban areas if approved by the Engineer (See AML).
- When signs and lights are to be mounted to a barricade, they must meet NCHRP Report 350 or MASH requirements.
- A truck with a TMA may be substituted for a barricade when workers are present.

TYPE III BARRICADES

| Average Drop-off | Current Posted Speed (Prior to Construction) | Low Shoulder Sign (Optional) | Shoulder Drop Off Sign & Edge Lines or No Shoulder Sign & Channelizing Device | Shoulder Drop Off Sign & Channelizing Device | No Shoulder Sign & Channelizing Device | No Shoulder Sign & Vertical Panel |
|------------------|--|------------------------------|---|--|--|-----------------------------------|
| < 3 IN | > 45 MPH | Low Shoulder Sign (Optional) | Shoulder Drop Off Sign & Edge Lines or No Shoulder Sign & Channelizing Device | Shoulder Drop Off Sign & Channelizing Device | No Shoulder Sign & Channelizing Device | No Shoulder Sign & Vertical Panel |
| > 3 IN | < 45 MPH | Low Shoulder Sign (Optional) | Shoulder Drop Off Sign & Edge Lines or No Shoulder Sign & Channelizing Device | Shoulder Drop Off Sign & Channelizing Device | No Shoulder Sign & Channelizing Device | No Shoulder Sign & Vertical Panel |
| > 6 IN | < 45 MPH | Low Shoulder Sign (Optional) | Shoulder Drop Off Sign & Edge Lines or No Shoulder Sign & Channelizing Device | Shoulder Drop Off Sign & Channelizing Device | No Shoulder Sign & Channelizing Device | No Shoulder Sign & Vertical Panel |
| > 10 IN | < 45 MPH | Low Shoulder Sign (Optional) | Shoulder Drop Off Sign & Edge Lines or No Shoulder Sign & Channelizing Device | Shoulder Drop Off Sign & Channelizing Device | No Shoulder Sign & Channelizing Device | No Shoulder Sign & Vertical Panel |

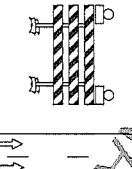
TYPE III BARRICADES

ALL BARRICADES SHALL BE PLACED AT THE BEGINNING OF A CLOSED LANE OR SHOULDER AND AT 1,000 FOOT INTERVALS WHERE NO ACTIVE WORK IS ONGOING AND THE LANE MUST REMAIN CLOSED. A minimum of 2 barricades shall be placed if the lane or shoulder closure is less than 2,000 feet. (One barricade shall be placed at the beginning of the lane closure after the buffer space and one shall be placed in the middle of the lane closure.)

(A) before each or group of unfilled holes or holes filled with temporary material.

(B) in the closed lane on each side of every intersection and crossover. (Do not block sight distance.)

(C) in front of piles of potential dirt, aggregate, broken concrete, culverts and equipment which is near the work zone.

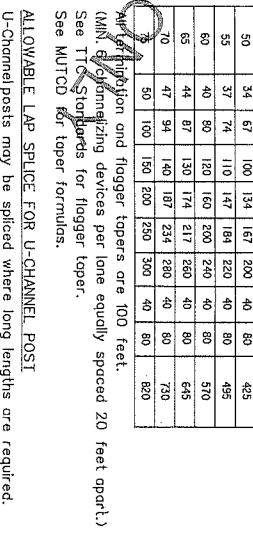


STANDARD DEVICE SPACING AND BUFFER SPACE

| SHOULDER TAPER LENGTH (L) (MIN.) | LANE WIDTH (FT) | LANE LENGTH (FT) | SHOULDER WIDTH (FT) | SHOULDER TAPER LENGTH (L) (MIN.) | SHOULDER TAPER WIDTH (FT) | SHOULDER TAPER LENGTH (L) (MIN.) | SHOULDER TAPER WIDTH (FT) | SHOULDER TAPER LENGTH (L) (MIN.) | SHOULDER TAPER WIDTH (FT) | SHOULDER TAPER LENGTH (L) (MIN.) | SHOULDER TAPER WIDTH (FT) |
|----------------------------------|-----------------|------------------|---------------------|----------------------------------|---------------------------|----------------------------------|---------------------------|----------------------------------|---------------------------|----------------------------------|---------------------------|
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 |
| 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 |
| 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 |
| 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 |
| 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 |

ALLOWABLE LAP SPICE FOR U-CHANNEL POSTS

U-Channel posts may be spliced where long lengths are required. The upper section shall overlap the lower section by at least 24 inches. The bottom edge of the upper section of the splice shall be a minimum of 24 inches above the ground. The spliced sections shall be secured with at least four 5/8 inch diameter hex bolts spaced evenly along the splice.



TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET

TTC-00 (C)

REVISION NO. _____ DATE _____

REVISION OR CHANGE SHEET DESCRIPTION _____

BY _____

DATE 1/4/18

DESIGNED G. LEBLANC

CHECKED J. COLVIN

DRAWN G. FAKOURI

CHECKED G. LEBLANC

STATE PROJECT _____

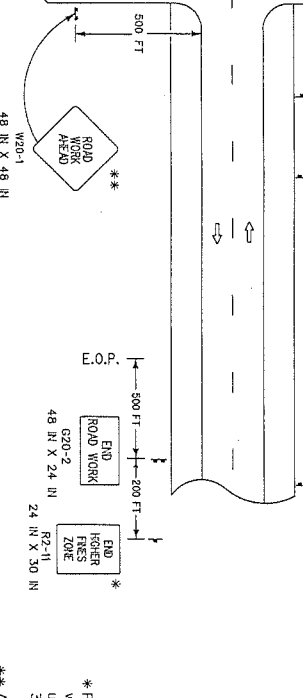
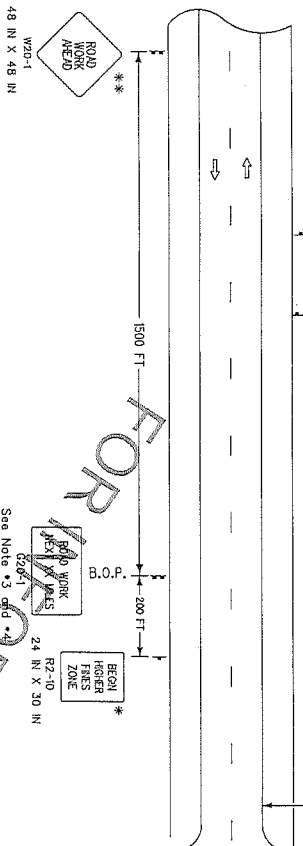
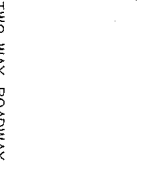
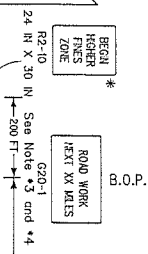
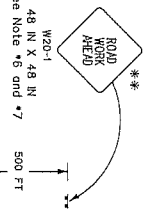
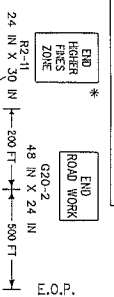
CONTRACT NO. _____

SECTION NO. _____

DATE 1/4/18

SCALE _____

SEE TTC-00(A), TTC-00(B), AND TTC-00(C)



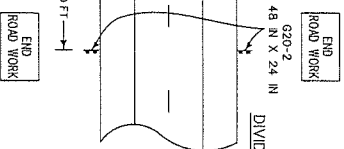
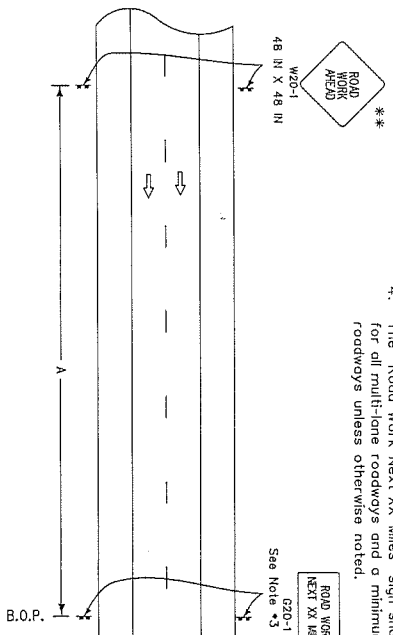
NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and other Temporary Traffic Control Sheets as appropriate.

- This layout represents the minimum traffic controls required for placement of "Road Work Next XX Miles" and "End Road Work" signs.
- This layout does not replace other TTC Standard Sheets, but is intended as a supplement to the required signing.
- The distance on the "Road Work Next XX Miles" sign shall be stated to the nearest whole mile. This sign shall be placed at the Beginning of Project (B.O.P.) limits. This sign may be omitted if work zone is less than 0.5 miles.
- The "Road Work Next XX Miles" sign shall be a minimum of 48 inches by 36 inches for all multi-lane roadways and a minimum of 48 inches by 24 inches for two-lane roadways unless otherwise noted.
- The "End Road Work" sign shall be placed 500 feet past the End of Project (E.O.P.) limits.
- If "Road Work Ahead" sign is used on a cross road to warn of road work on another route, then "End Road Work" sign is not required.
- When projects are separated by less than 1 mile, they shall be signed as one project; this may require coordination.

LEGEND

- Traffic Sign
- Direction of Travel



ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING. ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER. CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

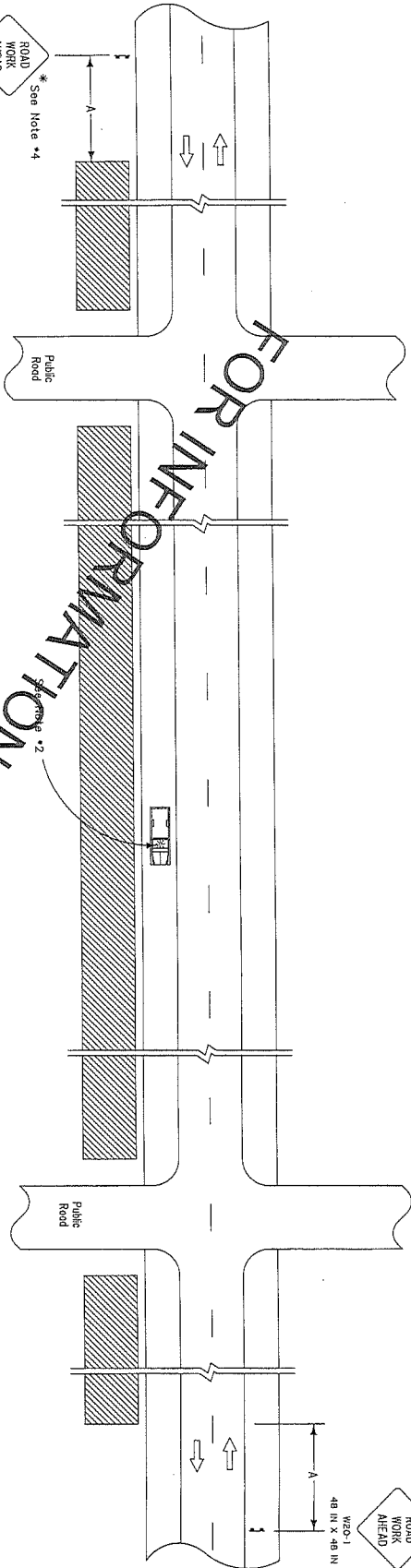
| SPEED LIMIT (prior to construction) | SPACING |
|-------------------------------------|---------|
| ≤ 40 mph | 1500 FT |
| 45 mph | 2640 FT |
| > 45 mph | 5280 FT |

* Sign spacing to be adjusted for horizontal and vertical curves.
* For work outside of the traveled way, see TTC-01 and TTC-02.



| | | | | | | | | | |
|--------------------------|------|--|--|---------------|--|---|--------------|---|--|
| | | TEMPORARY TRAFFIC CONTROL LAYOUT FOR PLACEMENT OF ROAD WORK NEXT XX MILES AND END ROAD WORK SIGNS TTC-00 (D) | | | | DESIGNED: G. LEBLANC CHECKED: L. COLVIN DETAILED: C. FAKOURI CHECKED: G. LEBLANC | | PAWID: CONTROL SECTION STATIC PROJECT | |
| NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | | | | BY | SHEET NUMBER | DATE: 7/2/10 | |
| APPROVED BY: [Signature] | | DATE: 7/2/10 | | SERIES NUMBER | | | | | |

SEE TTC-00(A), TTC-00(B) AND TTC-00(C)



LEGEND

- 1 Traffic Sign
- Work Area
- Direction of Travel
- Truck with Amber Light

| SPEED (refer to construction) | SPACING |
|-------------------------------|---------|
| ≤ 40 mph | 500 FT |
| 45-50 mph | 1000 FT |
| ≥ 55 mph | 1500 FT |

NOTES

1. This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B) and TTC-00(C).
2. This layout represents the minimum traffic controls required for workers and equipment operating more than 15 feet from the travel way.
3. If the operation results in equipment or other vehicles being parked closer than 15 feet to the travel way, but not within the roadway, each vehicle shall have an amber light.
4. When a work area has been established on one side of the roadway only, there shall be no parking on the opposite shoulder within 500 feet of the work area.
5. Other signs may be used in place of the "Road Work Ahead" sign, such as W21-8 (Mowing) W21-7 (Utility), or W21-6 (Survey) when applicable.

* Any sign of the W20-1 series may be used.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING. ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER. CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

6-2-18



TEMPORARY TRAFFIC CONTROL FOR WORK GREATER THAN 15 FEET FROM THE TRAVELED WAY
 TTC-01

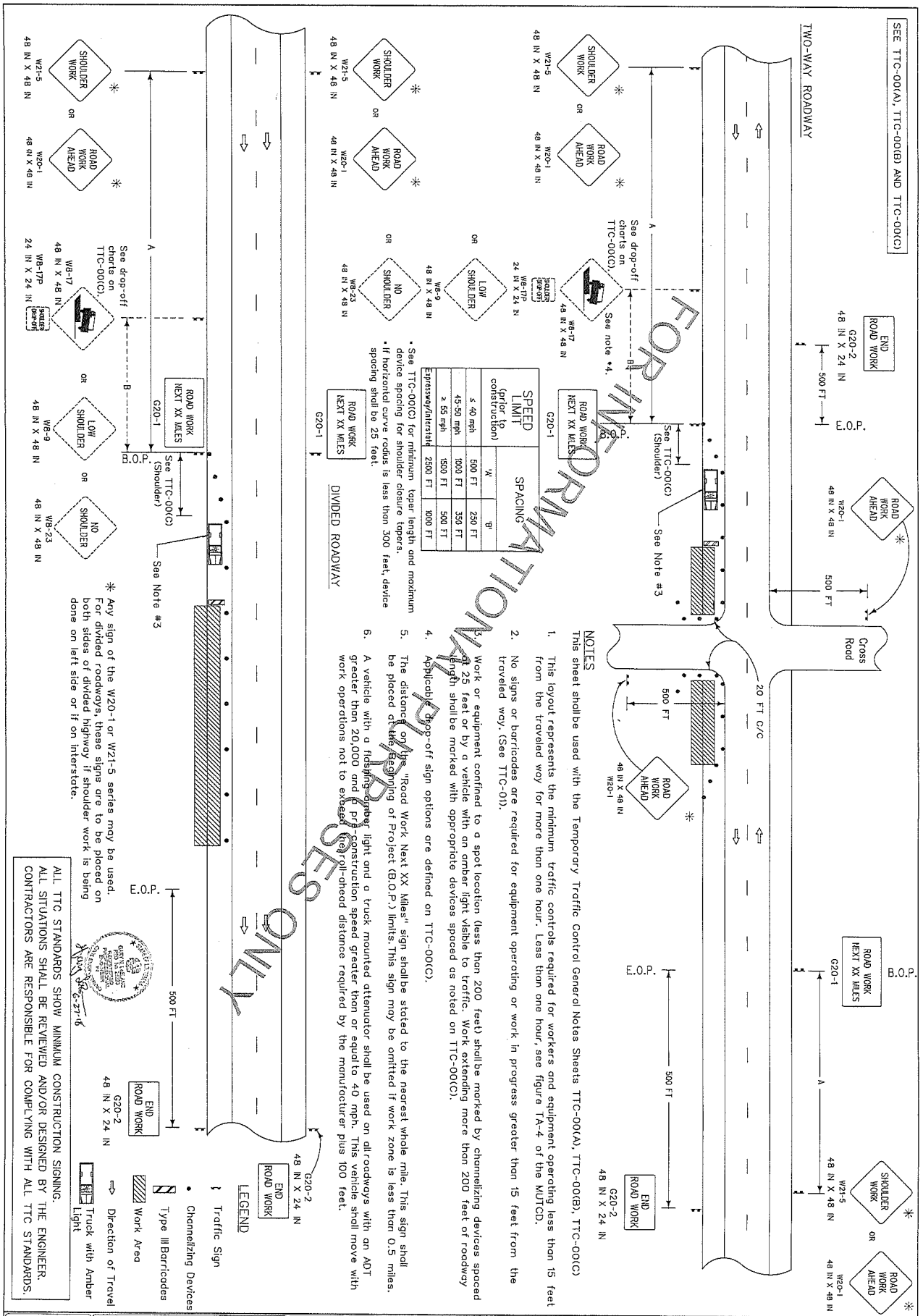


| NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY |
|-----|------|--------------------------------------|----|
| | | | |

DESIGNED BY G. LEBLANC
 CHECKED BY J. COLVIN
 DETAILED BY F. FAKOURI
 CHECKED BY G. LEBLANC

DATE: 7/2/18

| DESIGNED BY | DESIGN NO. | STATE PROJECT |
|-------------|-----------------|---------------|
| G. LEBLANC | | |
| CHECKED BY | CONTROL SECTION | |
| J. COLVIN | | |
| DETAILED BY | | |
| F. FAKOURI | | |
| CHECKED BY | | |
| G. LEBLANC | | |



SEE TTC-00(A), TTC-00(B) AND TTC-00(C)

END ROAD WORK
G20-2
48 IN X 24 IN
500 FT

ROAD WORK AHEAD
W20-1
48 IN X 48 IN
500 FT

ROAD WORK NEXT XX MILES
G20-1

SHOULDER WORK
W21-5
48 IN X 48 IN

ROAD WORK AHEAD
W20-1
48 IN X 48 IN

See drop-off charts on TTC-00(C), TTC-00(D), and TTC-00(E)

See Note #3
See TTC-00(C)
(Shoulder)

ROAD WORK AHEAD
W20-1
48 IN X 48 IN

END ROAD WORK
G20-2
48 IN X 24 IN

SHOULDER WORK
W21-5
48 IN X 48 IN

ROAD WORK AHEAD
W20-1
48 IN X 48 IN

| SPEED LIMIT (prior to construction) | SPACING | |
|-------------------------------------|---------|--------|
| | A | B |
| ≤ 40 mph | 500 FT | 250 FT |
| 45-50 mph | 1000 FT | 350 FT |
| ≥ 55 mph | 1500 FT | 500 FT |

Expressway/Interstate: 2500 FT, 1000 FT

* See TTC-00(C) for minimum taper length and maximum device spacing for shoulder closure tapers.
• If horizontal curve radius is less than 300 feet, device spacing shall be 25 feet.

ROAD WORK NEXT XX MILES
G20-1
DIVIDED ROADWAY

NOTES
This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C)

- This layout represents the minimum traffic controls required for workers and equipment operating less than 15 feet from the traveled way for more than one hour. Less than one hour, see figure TA-4 of the MUTCD.
- No signs or barricades are required for equipment operating or work in progress greater than 15 feet from the traveled way. (See TTC-01).
- Work or equipment confined to a spot location (less than 200 feet) shall be marked by channelizing devices spaced at 25 feet or by a vehicle with an amber light visible to traffic. Work extending more than 200 feet of roadway length shall be marked with appropriate devices spaced as noted on TTC-00(C).
- Applicable drop-off sign options are defined on TTC-00(C).
- The distance on the "Road Work Next XX Miles" sign shall be stated to the nearest whole mile. This sign shall be placed at the beginning of Project (B.O.P.) limits. This sign may be omitted if work zone is less than 0.5 miles.
- A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all roadways with an ADT greater than 20,000 and a posted construction speed greater than or equal to 40 mph. This vehicle shall move with greater lead-trail distance required by the manufacturer plus 100 feet.

ROAD WORK NEXT XX MILES
G20-1
(Shoulder)

LOW SHOULDER
WB-3
48 IN X 48 IN

NO SHOULDER
WB-23
48 IN X 48 IN

* Any sign of the W20-1 or W21-5 series may be used. For divided roadways, these signs are to be placed on both sides of divided highway if shoulder work is being done on left side or if on Interstate.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING. ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER. CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.



END ROAD WORK
G20-2
48 IN X 24 IN

TRUCK WITH AMBER LIGHT
WB-1
48 IN X 48 IN



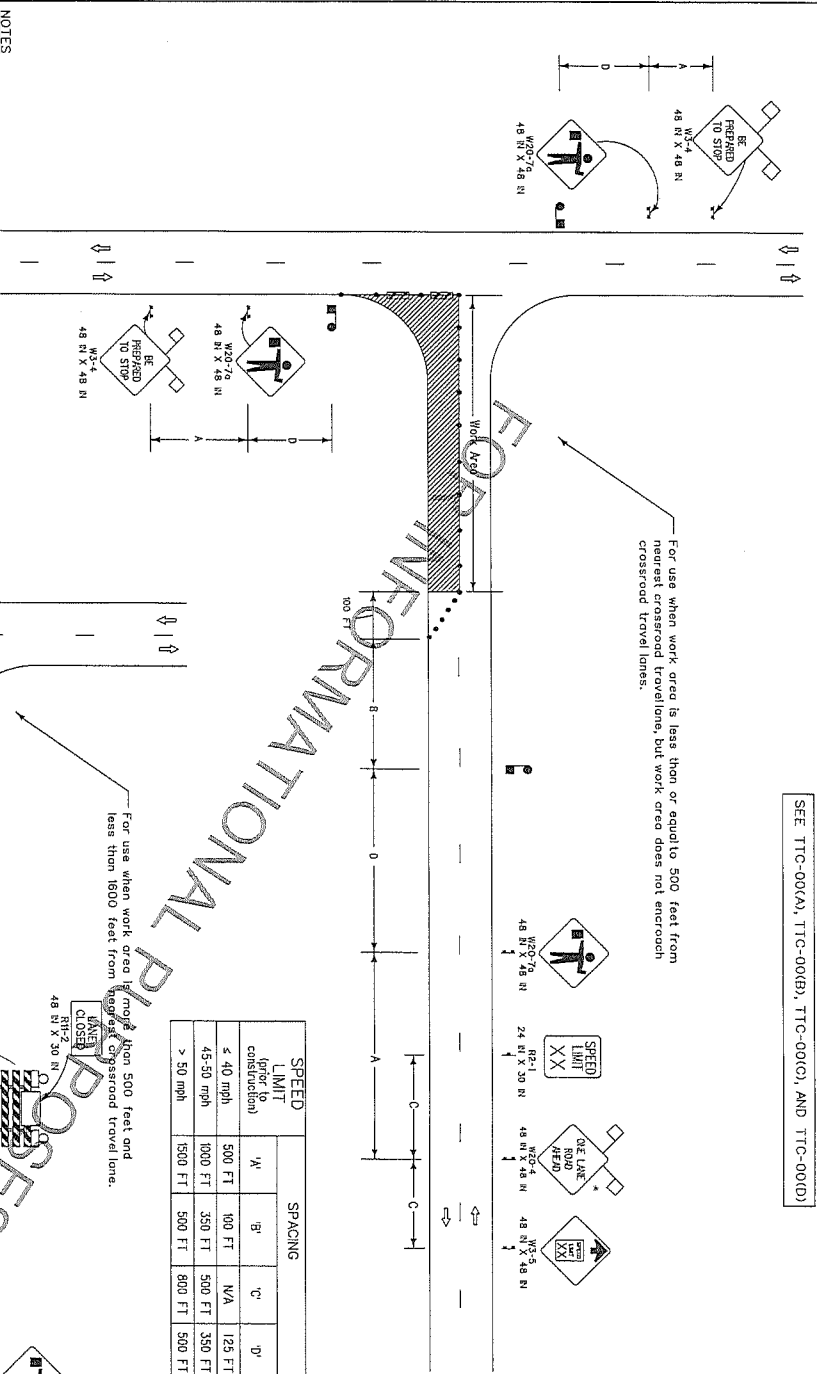
TEMPORARY TRAFFIC CONTROL LAYOUT FOR WORK LESS THAN 15 FEET FROM THE TRAVELED WAY
TTC-02



| | | | |
|----------|------------|---------------|--------|
| DESIGNED | G. LEBLANC | PARISH | |
| CHECKED | J. COLVIN | CONTROL | |
| DRAWN | C. FAKOURI | REVISION | |
| CHECKED | G. LEBLANC | DATE | 7/2/18 |
| APPROVED | | STATE PROJECT | |
| CHECKED | | | |

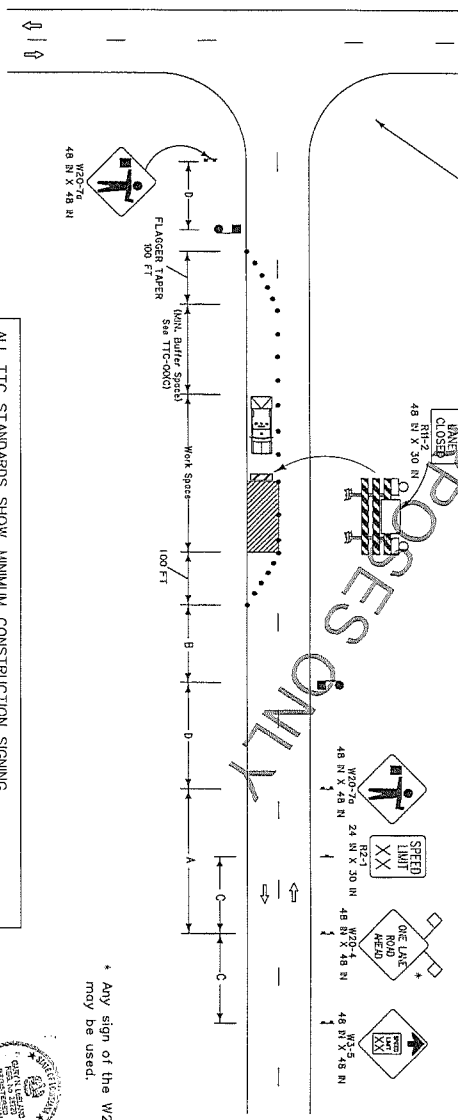
SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D).

For use when work area is less than or equal to 500 feet from nearest crossroad travel lane, but work area does not encroach crossroad travel lanes.



| SPEED LIMIT (prior to construction) | SPACING | | | |
|-------------------------------------|---------|--------|--------|--------|
| | 'A' | 'B' | 'C' | 'D' |
| ≤ 40 mph | 500 FT | 100 FT | N/A | 125 FT |
| 45-50 mph | 1000 FT | 350 FT | 500 FT | 350 FT |
| > 50 mph | 1500 FT | 500 FT | 800 FT | 500 FT |

For use when work area (more than 500 feet and less than 1600 feet from nearest crossroad travel lane).



- PILOT CAR**
- If used, a pilot car shall guide a queue of vehicles through the work zone or diversion.
 - It shall be used in restricted visibility operations such as lane or channel stabilization, chip seals or operations in heavy or carry services where flaggers cannot see each other (no other line-of-sight).
 - The operation of the pilot vehicle shall be coordinated with flagging operations or other controls at each end of the one-lane section and all major driveways and street intersections.
 - The pilot car sign should be mounted 7 feet above roadway in a position visible to oncoming and following traffic.
 - The pilot car shall have an amber beacon light.
 - The sign mounted on the vehicle shall be two-sided.

PILOT CAR
G20-4
36 IN X 18 IN
(FRONT OF SIGN)

PILOT CAR FOLLOW ME
G20-4
36 IN X 18 IN
(BACK OF SIGN)

- LEGEND**
- Traffic Sign
 - Channelizing Devices
 - Type III Barricades
 - Work Area
 - Flagger
 - Type B Light
 - Direction of Travel
 - Truck with Amber Light and T/M/A

NOTES

1. This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).
2. This layout represents the minimum traffic controls required for lane closures on two-lane roads with two-way traffic less than 1600 feet from an intersection. For advance signing see TTC-00(D).
3. Visual or radio contact shall be required between flaggers at all times. The flagger shall be visible from flogger sign.
4. Only law officers shall direct traffic against a traffic signal indication.
5. If a pilot car is required then the contractor is not required to have channelizing devices in the tangent section.
6. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 40 mph. This vehicle shall move with work operations not to exceed the roll-over distance required by the manufacturer plus 100 feet.

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* Any sign of the W20-4 series may be used.



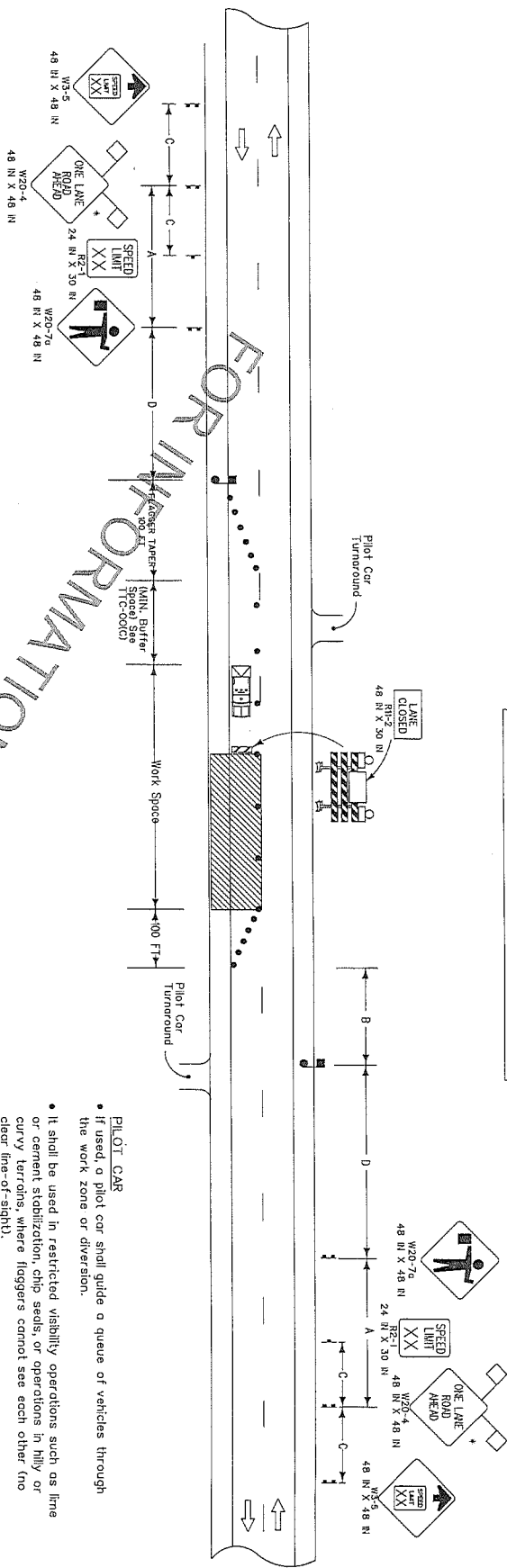
TEMPORARY TRAFFIC CONTROL
LAYOUT FOR LANE CLOSURES ON TWO LANE ROADS
WITH TWO-WAY TRAFFIC NEAR INTERSECTIONS
(FLAGGING OPERATIONS)
TTC-03



| | | | |
|----------|------------|--------------------------------------|---------|
| DESIGNED | G. LEBLANC | DATE | 12/2/18 |
| CHECKED | J. COLVIN | REVISION OR CHANGE ORDER DESCRIPTION | |
| DETAILED | C. FAKOURI | APPROVED BY | 12/2/18 |
| CONTRACT | G. LEBLANC | DATE | 12/2/18 |

| | | |
|---------|---------|------|
| PROJECT | NO. | DATE |
| DATE | 12/2/18 | |
| PROJECT | | |

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)



NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C) and TTC-00(D).

- This layout represents the minimum traffic controls required for lane closures on two-lane roads with two-way traffic greater than 1600 feet from an intersection. For this type of closure either a flagger or a pilot car will be required. For advance signing see TTC-00(D).
- To prevent vehicles from entering the work area against the flow of traffic, an additional flagger shall be stationed at each intersection, major driveway, railroad crossing, or crossing within the work area.
- For projects in rural areas the distance between flaggers shall not exceed:
 - (A) 2.5 miles for ADT $\le 2,500$
 - (B) 2.0 miles for 2,500 <math>< ADT < 5,000</math>
 - (C) 1.5 miles for ADT > 5,000
- The flagger station shall be near the beginning of the taper and shall have adequate sight distance to be visible to oncoming traffic. If sight distance cannot be achieved, the distance between flaggers may be extended for a short duration.
- Visual or radio contact shall be required between flaggers at all times. The flagger shall be visible from the flagger sign.
- A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 40 mph. This vehicle shall move with work operations not to exceed the roll-ahead distance required by the manufacturer plus 100 feet.

- If a pilot car is required, the contractor is not required to have channelizing devices in the taper section.
- If work zone is less than 1600 feet from an intersection see TTC-03.

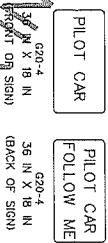
| SPEED LIMIT (prior to construction) | SPACING | | | |
|-------------------------------------|---------|--------|--------|--------|
| | A' | B' | C' | D' |
| ≤ 40 mph | 500 FT | 100 FT | N/A | 125 FT |
| 45-50 mph | 1000 FT | 350 FT | 500 FT | 350 FT |
| ≥ 55 mph | 1500 FT | 500 FT | 800 FT | 500 FT |

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING. ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER. CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

- PILLOT CAR**
- If used, a pilot car shall guide a queue of vehicles through the work zone or diversion.
 - It shall be used in restricted visibility operations such as lime or cement stabilization, chip seals, or operations in hilly or curvy terrain, where flaggers cannot see each other (no clear line-of-sight).

- The operation of the pilot vehicle shall be coordinated with flagging operations or other controls at each end of the one-lane section and all major driveways and street intersections.

- The pilot car sign should be mounted 7 feet above roadway in a position visible to oncoming and following traffic.
- The pilot car shall have an amber beacon light.
- The sign mounted on the vehicle shall be two-sided.



LEGEND

- Traffic Sign
- Flagger
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light
- Direction of Travel
- Truck with Amber Light and TMA

* Any sign of the W20-4 series may be used.



TEMPORARY TRAFFIC CONTROL LAYOUT FOR LANE CLOSURES ON TWO LANE ROADS WITH TWO-WAY TRAFFIC (FLAGGING OPERATIONS) TTC-04



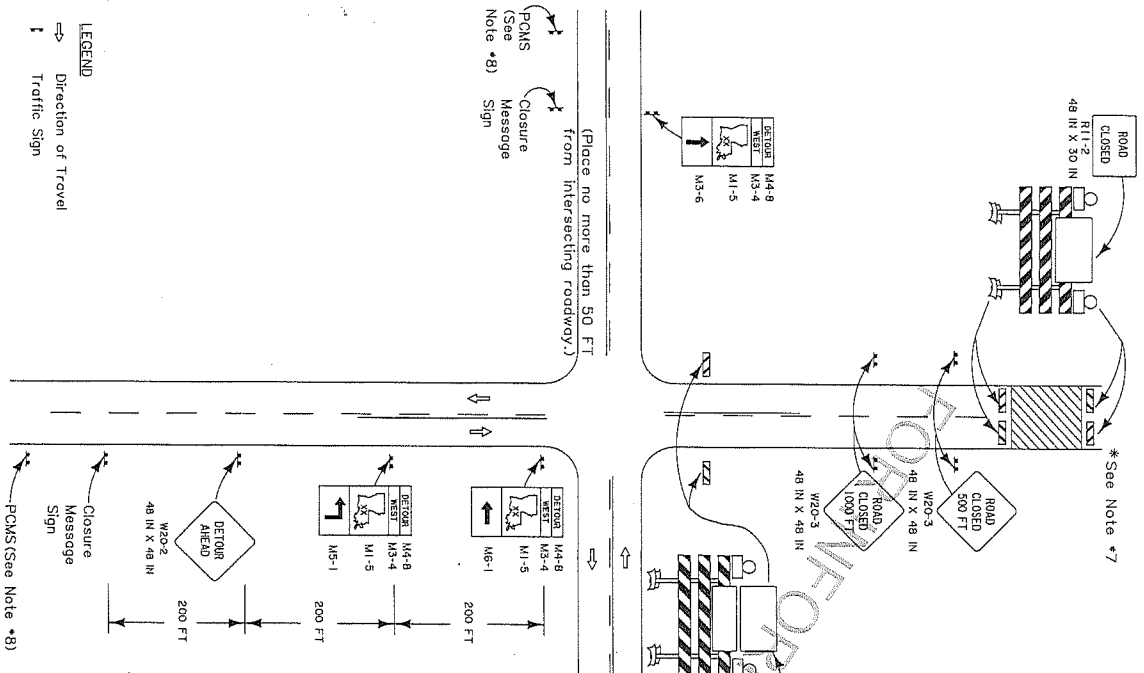
| | | | |
|-----|------|--------------------------------------|----|
| NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY |
| | | | |

APPROVED BY: *G. LeBlanc* DATE: 7/2/16

| | | | |
|----------|------------|-----------------|--------|
| DESIGNED | G. LEBLANC | PERMIT | |
| CHECKED | J. COLVIN | CONTROL SECTION | |
| DESIGNED | C. FAKOURI | DATE | 7/2/16 |
| APPROVED | G. LEBLANC | PROJECT | |

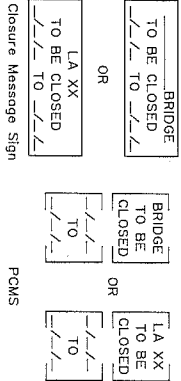
SEE TTC-00(A), TTC-00(B) AND TTC-00(C)

ADVANCE WARNING SIGN DURING ROAD CLOSURE



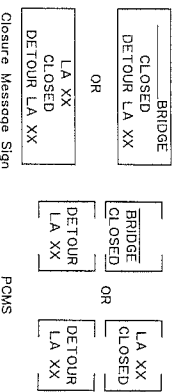
7 DAYS PRIOR TO ROAD CLOSURE

See Note #4 and #8



DURATION OF ROAD CLOSURE

See Note #4 and #8



NOTES

- This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B) and TTC-00(C).
- This layout represents the generic traffic controls required for road closure on a two-lane roadway. A specific detour plan with all required signs and routes is required for all detours.
- Any signs in conflict with detour signing shall be removed or covered.
- Closure Message Sign or PCMS shall be placed 7 days prior to road closure on all approaches to the closure. This sign shall be placed no farther than 50 FT from the work area to be closed.
- Closure Message Sign or PCMS shall be placed on all approaches to the closure for the duration of the road closure. Minimum letter size on static signs shall be 8 inches.
- Detour routes shall only be state-maintained routes, unless the project manager has made an agreement with the road owner.
- Not all detour signs are shown. The DTOE shall approve all detours. The contractor shall be responsible for placing and maintaining all detour signs. There should be a sign at every decision point.
- The signing is to be mirrored in the opposite direction.
- PCMS shall be used in addition to the closure message sign on all highways with an ADT greater than 20,000. Place at a location approved by the Engineer.
- A complete detour map shall be included with the set of plans. If there are changes in the routing, then the contractor will need to submit to the Engineer for approval.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.



TEMPORARY TRAFFIC CONTROL FOR ROAD CLOSURES
TTC-16



| NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY |
|-----|------|--------------------------------------|----|
| | | | |

| | | | |
|---------------|------------|--------------|--|
| DESIGNED | G. LEBLANC | PATCH | |
| CHECKED | J. COLVIN | CONTROL | |
| DETAILS | C. FAKOURI | SECTION | |
| DATE | G. LEBLANC | DATE PROJECT | |
| SERIES NUMBER | | | |