

# REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

9i

On this 02 day of DECEMBER, 2014, Commissioners Court came on to be heard and reviewed the accompanying notice of TIC - THE INDUSTRIAL COMPANY

Job Location SMITHERS LAKE ROAD

Dated 11/24/14 BOND NO. 106175570, Permit No. 84725 to make use of certain Fort Bend County property subject to, "A Revised Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, date the 3<sup>rd</sup> day of August, 1987, recorded in Volume \_\_\_\_\_ of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Article 1436a, Vernon's Texas Civil Statutes. Upon Motion of Commissioner Meyers, seconded by Commissioner Patterson, duly put and carried, it is ORDERED, ADJUGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

## Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
  - a. 48 hours in advance of construction start up, and
  - b. When construction is completed and ready for final inspection

Mail notices to: Permit Administrator  
Fort Bend County Engineering  
301 JACKSON STREET  
RICHMOND, Texas 77469  
281-633-7500

3. This permit expires one (1) year from date of permit if construction has not commenced.

By

[Signature]  
County Engineer

By

N/A  
Drainage District Engineer/Manager

Presented to Commissioners Court and approved.

Recorded in Volume 12/2/14  
Minutes of Commissioners Court.

Clerk of Commissioners Court

By

[Signature]  
Deputy RENE MICHULKA

# COUNTY OF FORT BEND

## Engineering Department

301 JACKSON STREET  
RICHMOND, Texas 77469

Johnny Ortega  
Permit Administrator

1124 Blume Road  
Phone: (281) 633-7500

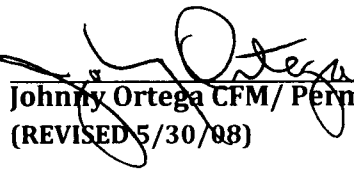
### PERMIT APPLICATION REVIEW FORM FOR CABLE, CONDUIT, AND POLE LINE ACTIVITY IN FORT BEND COUNTY

PERMIT NO. 004725

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

- X   (1) Complete Application Form.
- X   a. Name of road, street, and/or drainage ditch affected.
- X   b. Vicinity map showing course of direction.
- X   c. Plans and specifications.
- X   (2) Bond:
- District Attorney, approval when applicable.
- Perpetual bond currently posted.
- No. \_\_\_\_\_
- Amount \_\_\_\_\_
- X   Performance bond submitted.
- No. 106175570
- Amount \$5,000.00
- Cashier's Check.
- No. \_\_\_\_\_
- Amount \_\_\_\_\_
- (3) Verbal permission given for emergencies, to start construction before approved in Commissioner's Court.
- Precinct Engineer Acknowledgment \_\_\_\_\_ Date \_\_\_\_\_
- Precinct Commissioner Acknowledgment \_\_\_\_\_ Date \_\_\_\_\_
- (4) \_\_\_\_\_
- Drainage District Approval when applicable

We have reviewed this project and agree it meets minimum requirements.

  
Johnny Ortega CFM/ Permit Administrator  
(REVISED 5/30/08)

11/24/2014  
Date

**FORT BEND COUNTY ENGINEERING PERMIT DEPARTMENT**  
**CONSTRUCTION OF DRIVEWAYS AND CULVERTS ON COUNTY EASEMENTS AND RIGHT OF WAYS**  
**COMMERCIAL PIPE PERMIT APPLICATION**  
1124 BLUME ROAD ROSENBERG, TX 77471  
**Mailing Address: 301 Jackson Richmond, Texas 77469**  
(Phone) 281-633-7502 or 7503 • (Fax) 281-633-7545

**APPLICANT INFORMATION**

Application No. 84725  
(County Use Only)

Applicant Name TIC – The Industrial Company  
Applicant Mailing Address 2500 Y.U. Jones Road  
City Richmond State TX Zip 77469  
Work Phone 970-846-5306 Daytime Phone \_\_\_\_\_  
Property Owner's Name N.R.G. Phone \_\_\_\_\_  
Property Owner's Mailing Address 2500 Y.U. Jones Road  
City Richmond State TX Zip 77469

**LOCATION OF PROPERTY**

Subdivision Smithers Lake Road Sec \_\_\_\_\_ Lot \_\_\_\_\_ Blk \_\_\_\_\_  
Physical Address Smithers Lake Road

(PLEASE ATTACH SITE MAP)

**SITE USE**

Driveway Curb & Gutter Section ☐  
Culvert Only ☐  
Driveway - Open Ditch Section ☒  
Other ☐

As of 9/1/2014, we will no longer mail out permits. Instead, we will email them.

Please complete:

Name:

Clay McKenzie

Email address:

Clay.Mckenzie@tclus.com

**DRIVEWAY REQUIREMENTS**

Length 20' minimum and 40' maximum Number of drives 2  
(See - Fort Bend County Procedures to be followed for Commercial Driveway, and Median Openings or Modifications)  
Available on website www.co-fort-bend.tx.us

Does project comply with Fort Bend County Lighting Regulation Yes ( ) No ( )  
(See- Fort Bend County Outdoor Lighting Regulation on website www.co.fort-bend.tx.us )

- By signing and submitting this permit application, I am stating that I am the owner of this property and I am aware of and agree to abide by the Fort Bend County Regulations of Subdivisions and I am aware of Section 2, Item F in the Permits for the Construction of Driveways & Culverts on County Easements and Right of Ways in Fort Bend County, and am responsible to obtain all other required permits associated with the above mentioned property. Driveway and Pipe Permits shall provide that construction pursuant to the permit will be commenced within six months and be completed within nine months from the date of the permit and that fees collected for said permits shall not be refundable or transferable. I further understand the permit fee, in the form of CASH or PERSONAL CHECK or COMPANY CHECK or a CASHIERS CHECK or MONEY ORDER payable to FORT BEND COUNTY, must be attached.
- The undersigned applicant, agent or attorney hereby certifies to Commissioners' Court to be strictly bound to Commissioners' Court to construct the driveway and/or culvert in strict conformity with the plans, specifications, terms, provisions and conditions of the permit and any other written material incorporated by reference in this application.
- Other permits may be required for development. Please contact the Fort Bend County Road & Bridge Department for pipe sizing or the Fort Bend County Health Department for information on On-Site Sewage Facility permits prior to planning construction.
- Failure to possess or obtain required permits will result in legal action against the property owner as allowed by law.

Signature of Applicant, Agent or Attorney

Clay McKenzie

Clay McKenzie  
Printed Name

Date

11/20/2014

**PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE LINE  
ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY ROAD, COMMERCIAL  
DRIVEWAY AND MEDIAN OPENINGS OR MODIFICATIONS**

**AUTHORIZED**

BOND NO. 106175570

THE STATE OF TEXAS

§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

§

THAT WE, TIC - The Industrial Company whose address is 785 Greens Parkway, Suite 125, Houston, TX 77067 Texas, hereinafter called the Principal, And Travelers Casualty and Surety Company of America, a Corporation existing under and by virtue of the laws of the state of Connecticut and authorized to do an indemnifying business in the state of Texas, and whose principal office is located at One Tower Square, Hartford, CT 06183, whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is Carmen Mims and Whose address is 1301 E. Collins Blvd., Richardson, TX 75081, hereinafter called the Surety, and held and firmly bound unto, Robert e. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of Five Thousand-- Dollars (\$ 5,000.00-- ) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing, maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity, commercial driveway and median openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shall pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

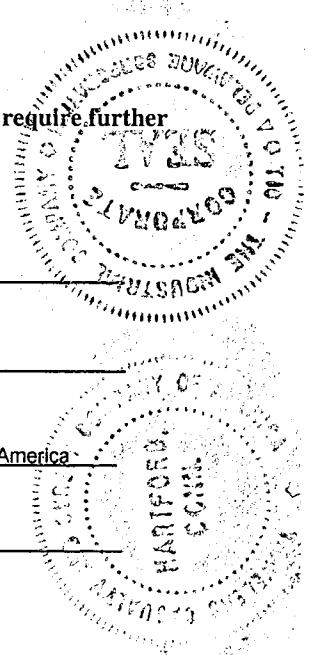
EXECUTED this 19th day of November, 2014.

TIC - The Industrial Company  
PRINCIPAL

[Signature]  
BY

Travelers Casualty and Surety Company of America  
SURETY

[Signature]  
BY Traci Sutton, Attorney-in-Fact





## POWER OF ATTORNEY

Farmington Casualty Company  
 Fidelity and Guaranty Insurance Company  
 Fidelity and Guaranty Insurance Underwriters, Inc.  
 St. Paul Fire and Marine Insurance Company  
 St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company  
 Travelers Casualty and Surety Company  
 Travelers Casualty and Surety Company of America  
 United States Fidelity and Guaranty Company

Attorney-In Fact No.

225764

Certificate No.

006023647

**KNOW ALL MEN BY THESE PRESENTS:** That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Philip G. Dehn, Terry K. Bartel, Tammy Pike, Paul A. Foss, Lisa Buller, Marie Huggins, and Traci Sutton

of the City of Omaha, State of Nebraska, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 14th day of August, 2014.

Farmington Casualty Company  
 Fidelity and Guaranty Insurance Company  
 Fidelity and Guaranty Insurance Underwriters, Inc.  
 St. Paul Fire and Marine Insurance Company  
 St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company  
 Travelers Casualty and Surety Company  
 Travelers Casualty and Surety Company of America  
 United States Fidelity and Guaranty Company



State of Connecticut  
 City of Hartford ss.

By:

*Robert L. Raney*  
 Robert L. Raney, Senior Vice President

On this the 14th day of August, 2014, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.  
 My Commission expires the 30th day of June, 2016.



*Marie C. Tetreault*  
 Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

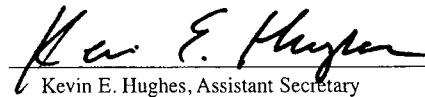
**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

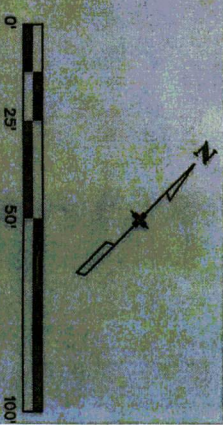
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 19th day of November, 20 14

  
Kevin E. Hughes, Assistant Secretary

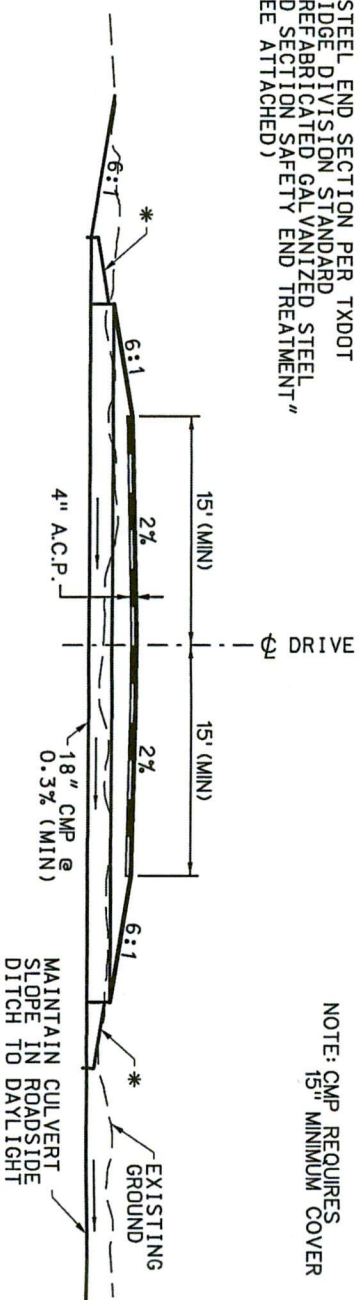


To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at [www.travelersbond.com](http://www.travelersbond.com). Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.



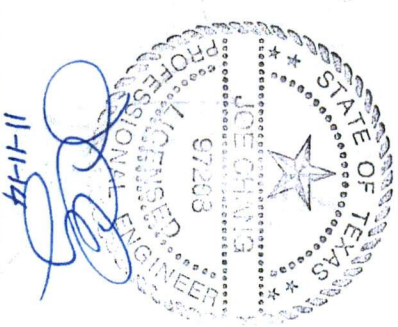


\* STEEL END SECTION PER TxDOT  
BRIDGE DIVISION STANDARD  
"PREFABRICATED GALVANIZED STEEL  
END SECTION SAFETY END TREATMENT"  
(SEE ATTACHED)



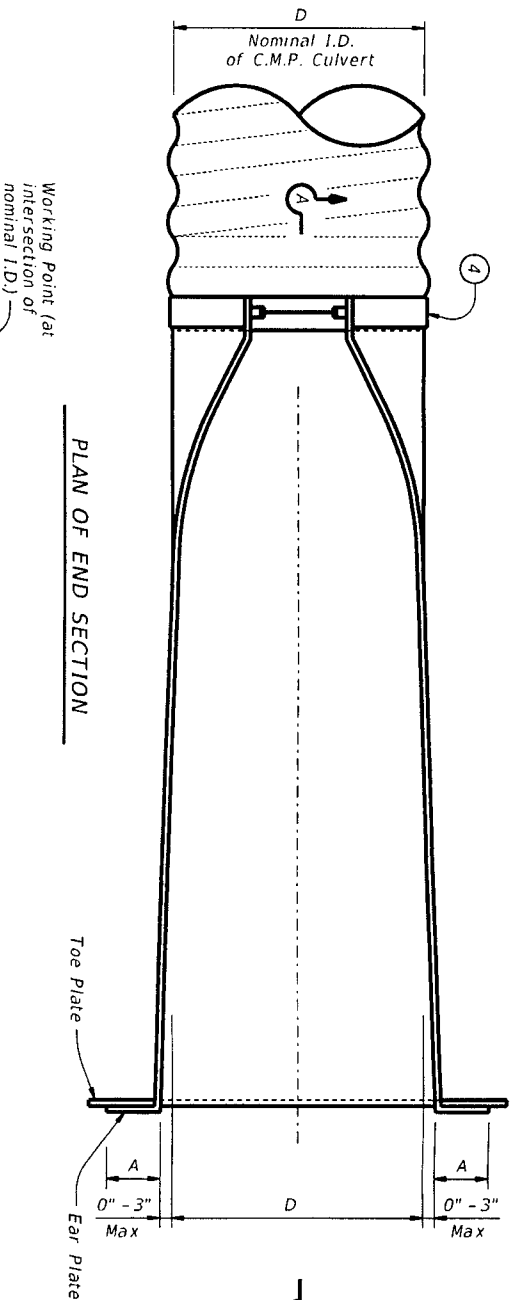
NOTE: CMP REQUIRES  
15\"/>

NOTE: REFER TO TMUTCD STANDARD  
TCP (1-1) -12 FOR SHOULDER  
CLOSURE (SEE ATTACHED)

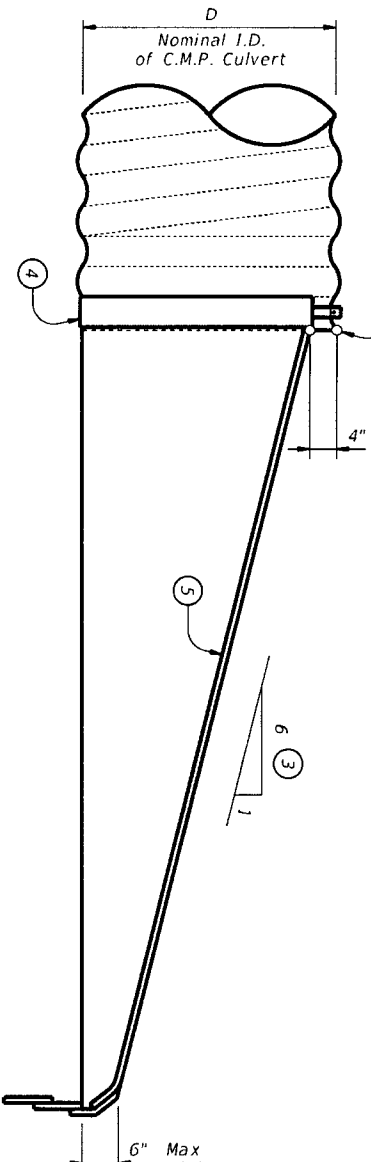


DISCLAIMER:  
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

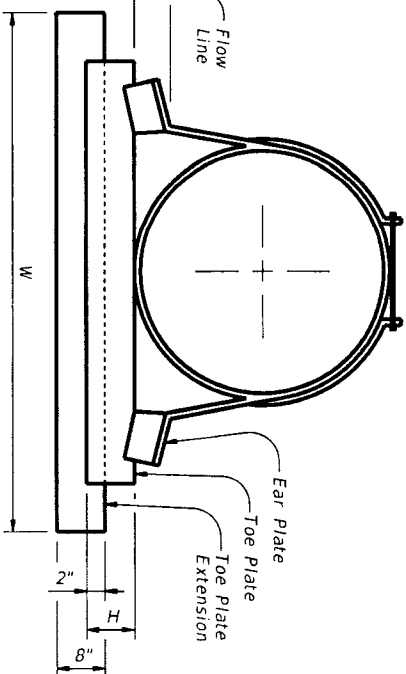
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PLAN OF END SECTION



SIDE ELEVATION OF END SECTION

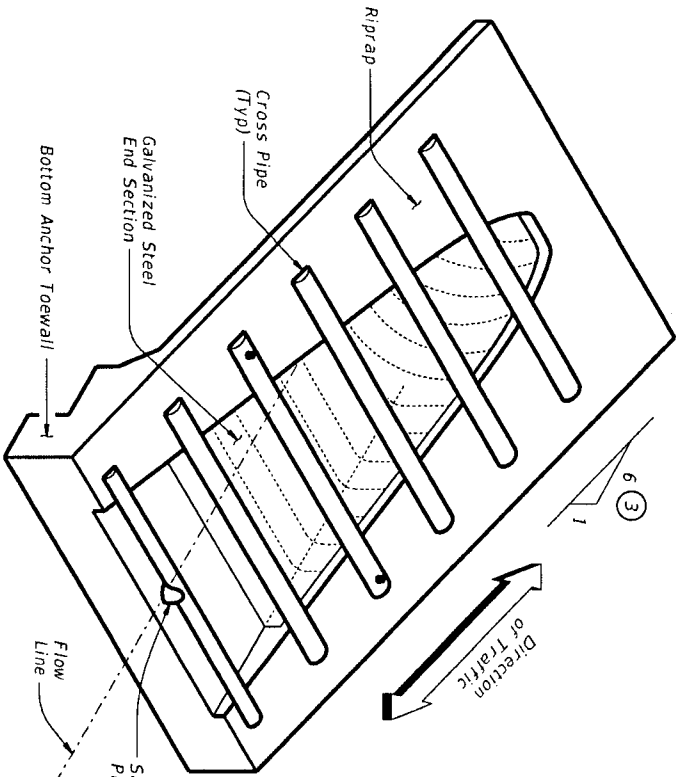


END ELEVATION OF END SECTION

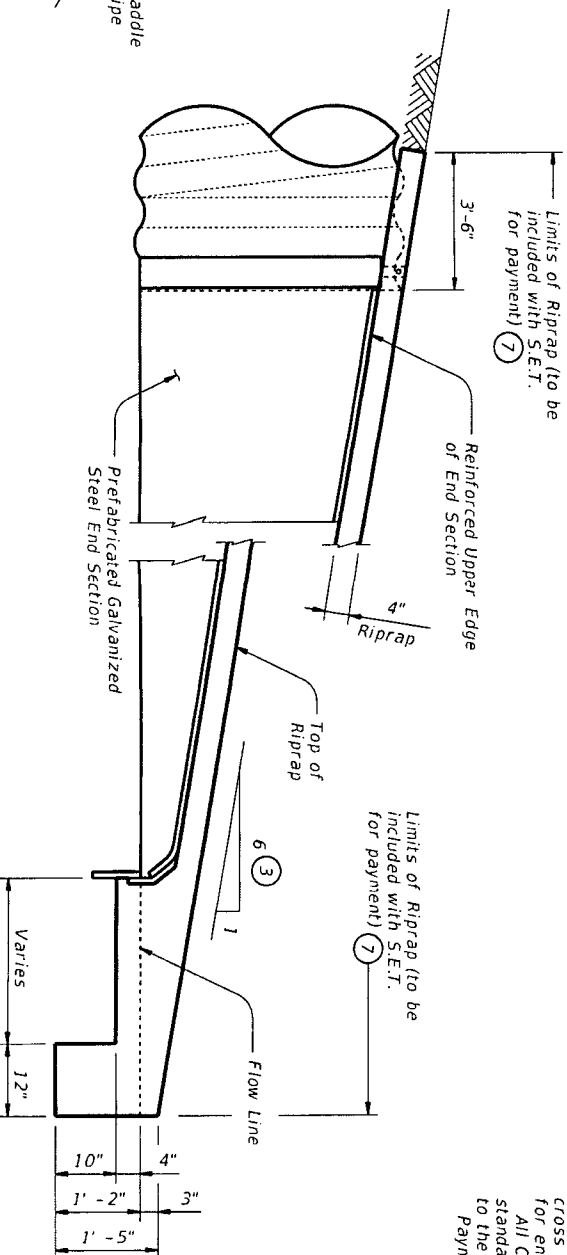
- 1 Provide Size and Lengths of Cross Pipes as shown in the tables, except the first Cross Pipe from the bottom and the Saddle Pipe must be 3 1/2".
- 2 Provide all 3-piece apron sections with 12 gage sides and 10 gage center panels.
- 3 Match Cross Slope as shown elsewhere in the plans. All quantities, calculations, and dimensions shown herein are based on the 6:1 Slope. 6:1 slope or flatter is required for vehicle safety.
- 4 Connection between Corrugated Metal Pipe Culvert and Galvanized Prefabricated End Section may be with strap and bolt as shown or other combinations of threaded rods and/or coupling bands.
- 5 Reinforce upper edge of Prefabricated End Section with minimum 3/8" dia smooth or deformed bar (pre-galvanized).
- 6 Values shown are minimum requirements.
- 7 Riprap placed beyond the limits shown will be paid as Concrete Riprap in accordance with Item 432, "Riprap".

## PREFABRICATED GALVANIZED STEEL END SECTION DETAILS

(Safety End Treatment & Riprap not shown for clarity)



ISOMETRIC VIEW OF  
TYPICAL INSTALLATION



SIDE ELEVATION OF  
CAST-IN-PLACE CONCRETE

(Cross Pipes not shown for clarity)

## CROSS PIPE LENGTHS & REQUIRED PIPE SIZES 1

D (Nominal Culvert I.D.)	Length of Cross Pipes	Cross Pipes Required	Cross Pipe Size
30" or Less	N/A	Not Required	N/A
36"	4' - 5'	Always Required	4,500 x 0.237
42"	4' - 11"	Always Required	4,500 x 0.237
48"	5' - 5'	Always Required	5,563 x 0.258
54"	5' - 11"	Always Required	5,563 x 0.258
60"	6' - 5'	Always Required	5,563 x 0.258

## PREFABRICATED END SECTION INFORMATION

D (Nominal Culvert I.D.)	H	A	W	Gage	STD Pipe Size
24" or less	6"	9"	D + 24"	16	4,000 x 0.226
30"	9"	12"	D + 32"	14	4,500 x 0.237
36"	9"	12"	D + 32"	14	5,563 x 0.258
42" or greater	12"	16"	D + 40"	12/10	5"

## MATERIAL NOTES:

Provide Cross Pipes and Saddle Pipes conforming to ASTM A1085, A500 (Grade B), A53 (Type E or S, Grade B), or API 5LX52.  
Provide bolts and nuts conforming to ASTM A307.  
Galvanize all steel components, except reinforcement, after fabrication. Repair galvanizing damaged during transport or construction in accordance with Item 445, "Galvanizing".  
Toe Plate Extensions are required only when shown elsewhere in the Plans.  
Concrete Riprap is required only when Cross Pipes are required, unless otherwise shown in the Plans. Provide Concrete Riprap in accordance with Item 432, "Riprap". Bolted Anchor Toewall may be omitted when an alternate End Section with pre-attached cross pipes is supplied.  
Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of reinforcing steel in concrete riprap unless noted otherwise.

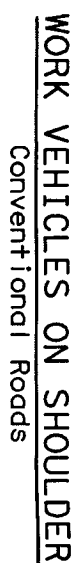
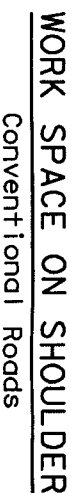
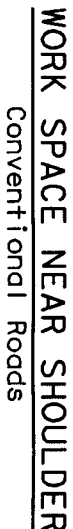
## GENERAL NOTES:

The Safety End Treatments shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the Cross Pipes.  
Cross Pipes are designed for a traversing load of 10,000 pounds at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March 1981.  
Alternate styles of End Sections, including those with pre-attached cross pipes, may be supplied. Alternate styles must meet all of the following: design values shown in tables for cross pipe size; spacing of cross pipes and location of first cross pipe; H, A, W, and gage for end section; and material requirements noted.  
All Cross Pipes, calculations, and dimensions are based on the End Section shown on this standard. Alternate styles of End Sections will require that appropriate adjustments be made to the values presented on this standard.  
Payment for riprap and toewall is included in price bid for each Safety End Treatment.

SHEET 1 OF 2

PREFABRICATED GALVANIZED STEEL END SECTION SAFETY END TREATMENT TYPE II ~ PARALLEL DRAINAGE																			
GS-ES-PD																			
TITLE: gsespd-09n																			
DATE: FEBRUARY 2010																			
REVISIONS:																			
11-10: Add note for Synthetic Fibers																			
5-14: Notes and alternate requirements																			
DWG: T100T										CK: T100T									
CONTRACT: J08										JRP									
COUNTY:										SHEET NO:									

DATE:  
FILE:



LEGEND		
	Type 3 Barricade	■ ■
	Heavy Work Vehicle	
	Trailer Mounted Flashing Arrow Board	
	Sign	
	Flag	

Posted Speed *	Formula	Minimum Desirable Taper Lengths * *			Suggested Spooling of Channelizing Devices		Minimum Sign Spooling "x"	Suggested Longitudinal Buffer Spacing "g"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30		150'	165'	180'	30'	60'	120'	90'
35	$WS_2$	205'	225'	245'	35'	70'	160'	120'
40	$L = 60$	265'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60	$L = WS$	600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

\* Conventional Roads Only

**\*\* Taper lengths have been rounded off.**

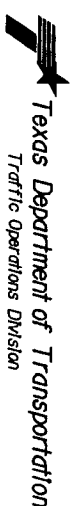
L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
MOBILE	✓	✓		

## GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stored elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
4. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
6. See TCP (5-1) for shoulder work on divided highways, expressways and freeways.
7. CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.



# TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP(1-1)-12

① TK001 December 1985 REVISIONS 2-94 8-95 1-97 4-98	DNV TK00T	CK4 TK00T	DNV TK00T	CK1 TK00T
	CONT	SECT	JOB	MICHAMV
	COUNTY			SHEET NO.
	DIST			

