FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	RMC: 6406-41-001		1
STATE	STATE DIST. NO.	COUNTY	
TEXAS	22	MAVERICK	
CONT.	SECT.	JOB	HIGHWAY NO.
6406	41	001	VARIOUS

STATE OF TEXAS
TEXAS DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
HIGHWAY ROUTINE MAINTENANCE CONTRACT

PROJECT NO. RMC 6406-41-001

PROJECT LENGTH : VARIOUS

PROJECT LIMITS : VARIOUS

COUNTY : MAVERICK

HIGHWAY : US 277, ETC.

CSJ# 6406-41-001

FOR THE CLEANING AND SWEEPING OF HIGHWAYS
AND LITTER REMOVAL FROM THE ROW

FINAL PLANS

Letting Date :

Work Began :

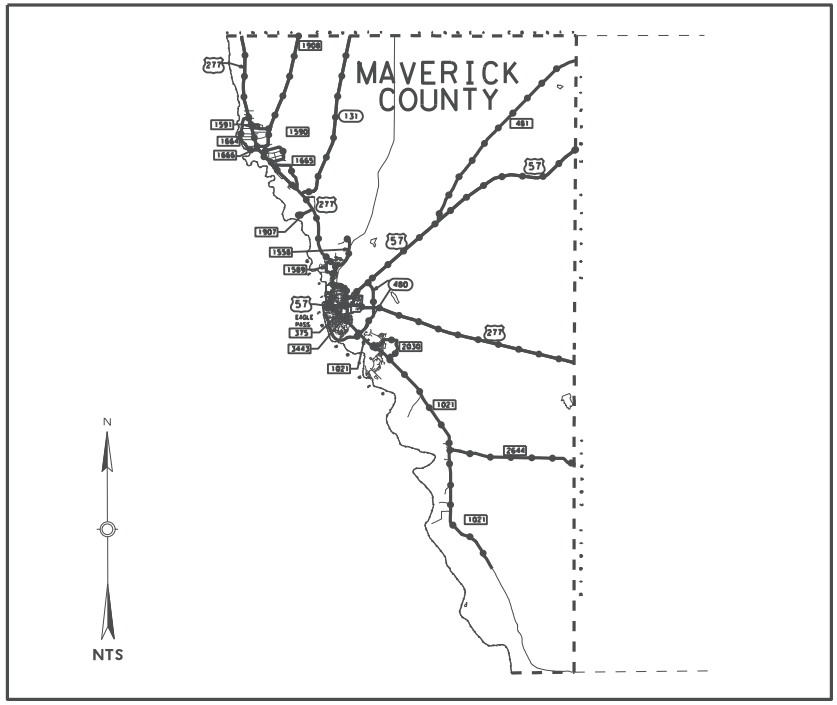
Date Accepted :

Contractor :

Total Cost :

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
GENERAL	
1.	TITLE SHEET
2.	LOCATION MAP MAVERICK CO. - (LITTER REMOVAL)
3.	LOCATION MAP MAVERICK CO. - (CLEANING & SWEEPING)
4.	GENERAL NOTES
5.	ESTIMATE AND QUANTITY SHEET
6.	SUMMARY OF TRACTS & QUANTITIES (MAVERICK CO. SWEEPING)
7.	SUMMARY OF TRACTS & QUANTITIES (MAVERICK CO. LITTER PICK-UP)
STANDARD SHEETS	
8.	SWEEP-04
9.	RS-TCP-05
10.	TCP (3-1)-13
11.	TCP (3-2)-13



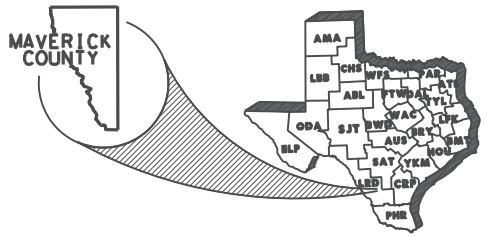
TEXAS DEPARTMENT OF TRANSPORTATION

SUBMITTED FOR LETTING: 5/27/2022

APPROVED FOR LETTING: 5/27/2022

DocuSigned by: Cynthia M. Saldaña 800D2BE906AC4DD...
CYNTHIA M. SALDAÑA, P.E.
DIRECTOR OF MAINTENANCE

DocuSigned by: Vanessa Rosales-Herrera 70CAB6EA8F3B42B...
VANESSA ROSALES-HERRERA, P.E.
AREA ENGINEER



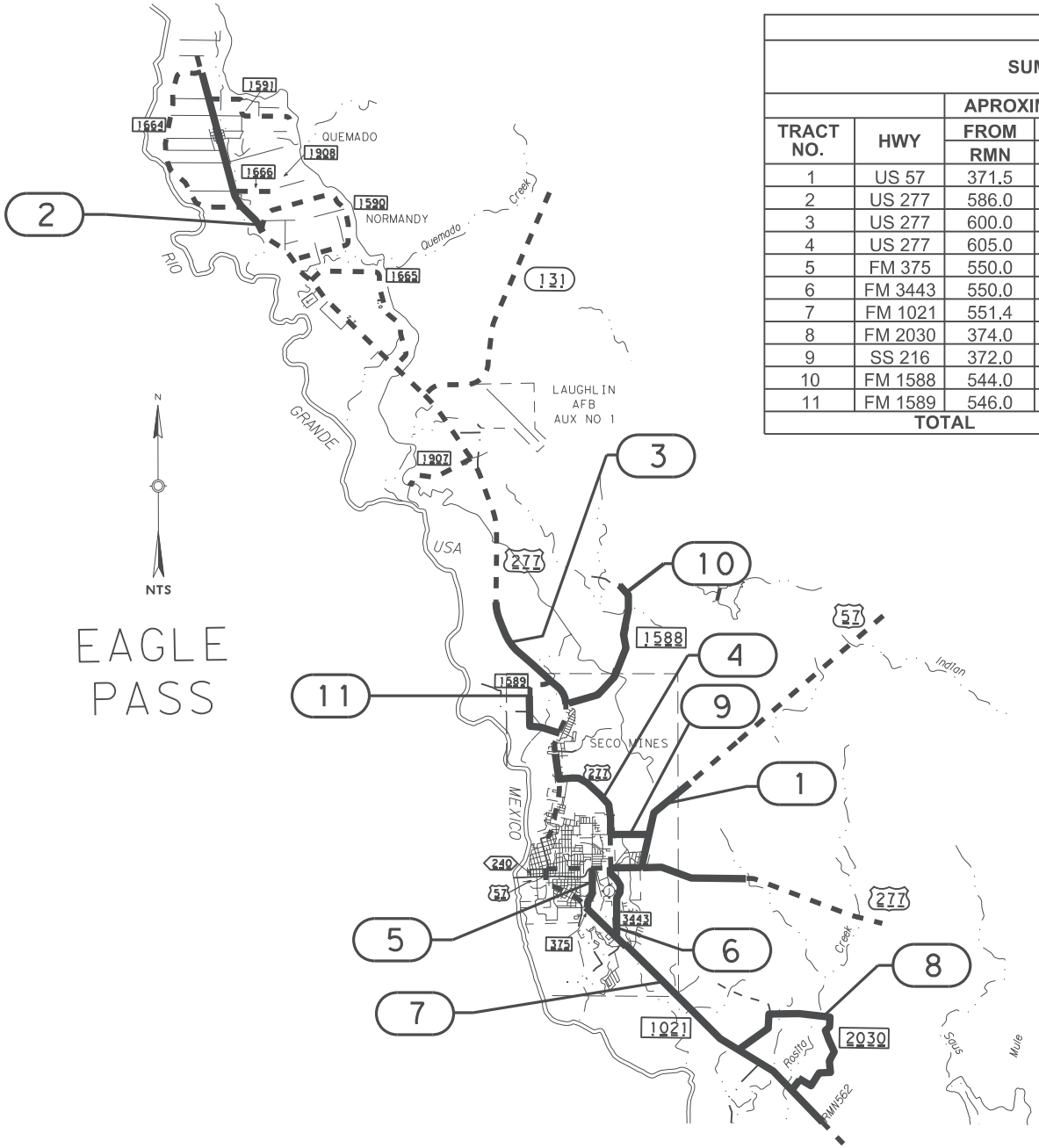
THE STANDARD SHEETS SPECIFICALLY IDENTIFIED WITH A SINGLE ASTERISK(*) HAVE BEEN ISSUED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

DATE 5/27/2022

DocuSigned by: Cynthia M. Saldaña 800D2BE906AC4DD...

STATE OF TEXAS — CYNTHIA SALDANA — 104786 — LICENSED PROFESSIONAL ENGINEER

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, JUNE 1, 2014 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT.



MAVERICK COUNTY

MAVERICK LITTER REMOVAL

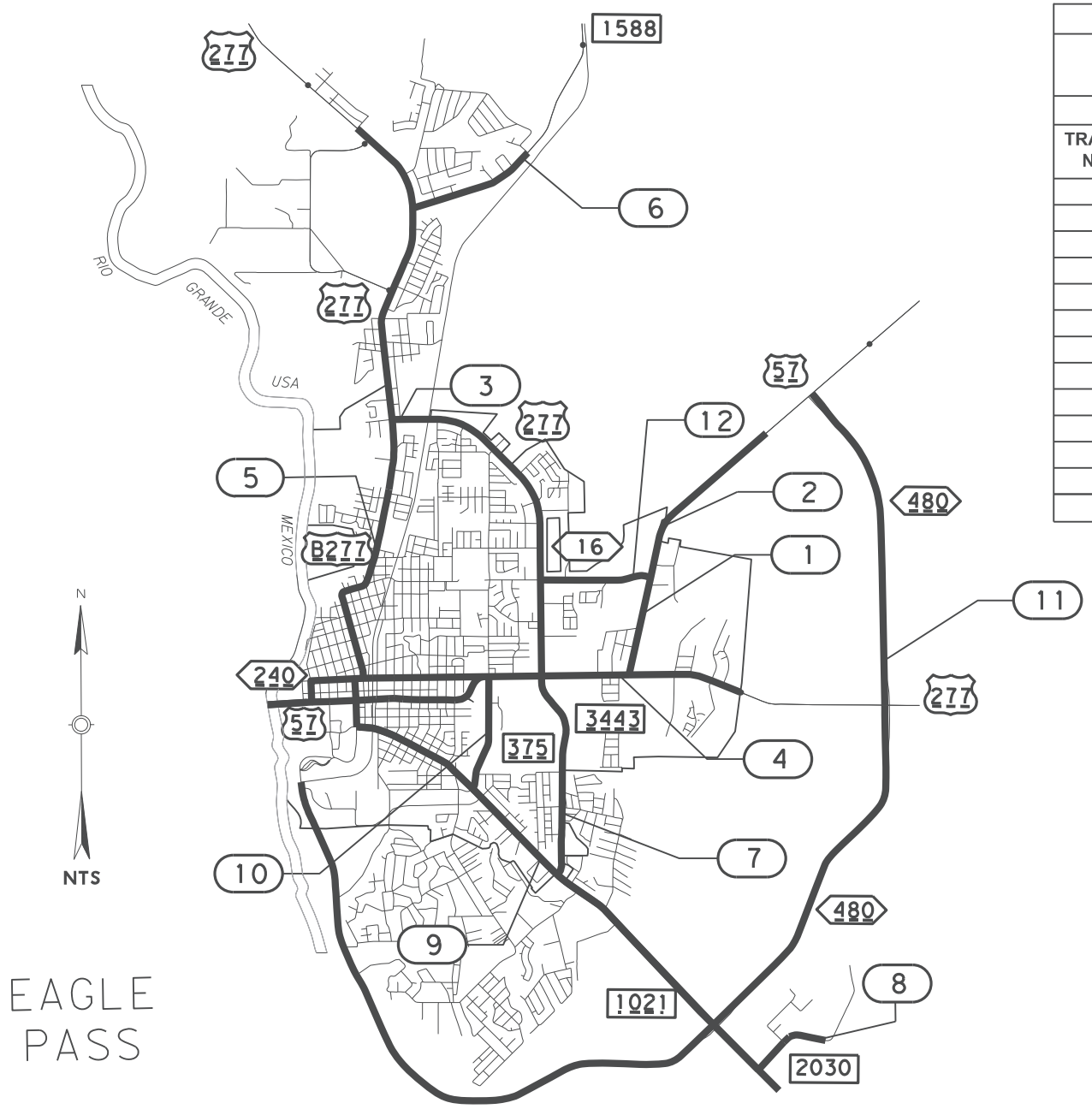
SUMMARY OF TRACTS AND QUANTITIES

TRACT NO.	HWY	APROXIMATION FROM RMN	APROXIMATION TO RMN	MILES	DESCRIPTION LIMITS FROM	DESCRIPTION LIMITS TO
1	US 57	371.5	375.0	3.5	FM375 (BIBB AVE.)	RMN375
2	US 277	586.0	590.5	4.5	FM1664 (NORTH PT.)	FM1590 (NORTH PT.)
3	US 277	600.0	603.7	3.7	RMN600	FM1589 (NORTH PT.)
4	US 277	605.0	607.0	2.0	BU277	SS16
5	FM 375	550.0	551.0	1.0	US57	FM1021
6	FM 3443	550.0	552.0	2.0	US57	FM1021
7	FM 1021	551.4	562.0	10.6	FM375	RMN562
8	FM 2030	374.0	379.0	5.0	FM1021 (NORTH PT.)	FM1021 (SOUTH PT.)
9	SS 216	372.0	372.8	0.8	US277	US57
10	FM 1588	544.0	548.0	4.0	RMN544	US277
11	FM 1589	546.0	548.0	2.0	US277 (SOUTH PT.)	US277 (NORTH PT.)
TOTAL				39.1		

MAVERICK COUNTY
LOCATION MAP
LITTER REMOVAL

DN: S.P.	DW: S.P.	STATE	SHEET NUMBER	SHEET NO.
CK: C.S.	CK: C.S.	TEXAS	SHEET 1 OF 1	2

FED.RD. DIV.NO.	STATE DIST.NO.	COUNTY	CONTROL	SECTION	JOB	HIGHWAY NO.
6	22	MAVERICK	6406	41	001	VARIOUS



MAVERICK SWEEPING				
SUMMARY OF TRACTS AND QUANTITIES OF SWEEPING				
		APROXIMATEL		
TRACT NO.	HWY	FROM RMN	TO RMN	MILES
1	US 57	370	373	3.20
2	US 57	373	375	1.94
3	US 277	604.7	605.2	0.50
4	US 277	602	610	7.41
5	BU 277	548	550	2.17
6	FM 1588	544	548	3.50
7	FM 3443	550	552	1.60
8	FM 2030	374	376	2.00
9	FM 1021	550	558	8.00
10	FM 375	550	551	0.90
11	SL 480	560	570.74	10.74
12	SS 16	372	373	0.90
			TOTAL	42.86

MAVERICK COUNTY

TEXAS DEPARTMENT OF TRANSPORTATION ®

MAVERICK COUNTY
LOCATION MAP
CLEANING & SWEEPING

DN: S.P.	CK: C.S.	DW: S.P.	CK: C.S.	STATE	SHEET NUMBER	SHEET NO.
				TEXAS	SHEET 1 OF 1	3

FED.RD. DIV.NO.	STATE DIST.NO.	COUNTY	CONTROL	SECTION	JOB	HIGHWAY NO.
6	22	MAVERICK	6406	41	001	VARIOUS

5/25/2022 SPACHICA T:\LRDDSTMNT\FY 2022\MNT Contracts\Cleaning and Sweeping of Highways\Maverick County\CAD\Maverick County.dgn

GENERAL NOTES:

This contract becomes effective upon issuance of a Work Order letter by the Engineer, and covers one (1) year. Provide sufficient staff to concurrently pursue each contract in the event that additional sweeping contracts are awarded to the same Contractor.

Contractor questions on this project are to be emailed to the following individual(s): Angel Alejo at angel.alejo@txdot.gov

Contractor questions will only be accepted through email to the above individuals.

All contractors' questions will be reviewed by the Area Engineer. Once a response is developed, it will be posted to TxDOT's Public FTP at the following address:
https://ftp.dot.state.tx.us/pub/txdot-info/Pre-Letting Responses/

All questions submitted that generate a response will be posted through this site. This site is organized by: District, Project type (Construction or Maintenance), Letting Date, CCSJ/Project Name.

Plans may be reviewed at Laredo District office of the Texas Department of Transportation, 1817 Bob Bullock Loop, Laredo, Texas 78043. The contact person is Angel Alejo at angel.alejo@txdot.gov.

Questions concerning the specifications, work requirements, etc. of this contract should be directed to Cynthia Saldana, P.E. at cynthia.saldana@txdot.gov.

Work is estimated at being performed (8) eight times a year for sweeping and (6) six times for litter pick-ups, however, the quantity may be increased or decreased as considered and necessary by the Engineer.

Repair and/or replace damaged rails, sign posts, etc., caused by the Contractor's actions during the performance of work. Complete repairs within a time limit as determined by the Engineer.

If agreed upon in writing by both parties to the contract, the contract may be extended for an additional period of time, not to exceed the original contract time period. The extended contract shall be for the original bid quantities, terms and conditions, plus any approved applicable change orders.

When the contract is extended by agreement, a performance and/or payment bond, if required, shall be executed in the amount of the extension before the additional work begins.

SUPERVISION:

The Engineer's representative in charge of all work in this contract is the maintenance supervisor listed below. The Pre-Work Meeting will be held at this location and all requests for payment are certified by this office.

For this project, the Maintenance Supervisor in charge is:

Maverick County
Charles Fite
2440 Main St.
Eagle Pass, Texas 78852
830-773-2617

Employees are required to wear proper safety equipment. Contractor is responsible for supplying proper safety equipment for employees.

Work must commence within one week of work order letter to contractor. Work per tract has to be completed in the number of days listed on the summary of tracts and quantities sheet (weather permitting) or less. Contractor must work continuously to complete items on tracts called out (with exception of Saturday, Sundays or National Holidays) unless approved by the Maintenance Supervisor. Approval by Maintenance Supervisor for non continued work on tracts does not relieve Contractor from completing work by original tract completion date.

Liquidated damages will be assessed per work order(s) which exceed the total allocated work days for tracts assigned on work order. In the event that job performance is not to the satisfaction of the Engineer, sub marginal work is subject to special provision "Schedule of Liquidated Damages".

LIMITS:

Cover the roadways and limits as shown on the plans.

ITEM 4 SCOPE OF WORK:

If agreed upon in writing by both parties to the Contract, the Contract may be extended for an additional period of time not to exceed the original Contract time period. The extended Contract shall be for the original bid quantities, terms and conditions plus any approved, applicable change orders.

ITEM 7 LEGAL RELATIONS & RESPONSIBILITIES:

Roadway closures during the following key dates and/or special events are prohibited: January 1, the last Monday in May, July 4, the first Monday in September, the fourth Thursday in November, and December 24 or 25.

ITEM 502 BARRICADES, SIGNS AND TRAFFIC HANDLING:

Furnish traffic control devices that conform to all current "Traffic Control Plan Standards" (TCPS) and the current Texas Manual on Uniform Traffic Control Devices (MUTCD). Provide a truck-mounted attenuator (TMA) for the shadow vehicle when sweeper is obstructing any portion of travel lane. Leave one lane open for existing traffic. Include trail and lead vehicles per traffic standards.

This item will not be paid for directly, but shall be subsidiary to pertinent bid items.

ITEM 734 LITTER REMOVAL:

Begin removing litter ten business days after notification by work order. Refer to the 2014 "Standard Specifications for Construction and Maintenance of Highways, Streets, Bridges" for additional information.

ITEM 738 CLEANING AND SWEEPING HIGHWAYS:

Disposal of any collected debris at a state-approved landfill site is mandatory and no exceptions will be allowed.

Provide a minimum of 2 fully operational sweepers during each scheduled working day for this contract. No exceptions will be considered without a written request.

Loose aggregate accumulated by traffic barrier, raised medians, rail, etc. will be removed from the roadway. This work will be considered subsidiary to Item 738 "Cleaning and Sweeping Highways"

Whole tires, rubber and scrap metal debris picked up from the ROW may be disposed of at the respective Maintenance Office in accordance with applicable federal, state, and local regulations.

Refer to the 2014 "Standard Specifications for Construction and Maintenance of Highways, Streets, Bridges" for additional information.

ITEM 6185 TRUCK MOUNTED ATTENUATOR (TMA) AND TRAILER:

The total number of truck mounted attenuators (TMA) required when utilizing the traffic control standards are shown in the tables below.

TCP 3 Series	Scenario	Required TMA
(3-1)-13	AII	2
(3-2)-13	AII	3

The Contractor will be responsible for determining if one or more of these operations will be ongoing at the same time to determine the total number of TMA needed for the project for those times per plan requirements. Additional TMAs used that are not specified in the plans in which the Contractor expects compensation will require prior approval from Engineer.

GENERAL NOTES

DN: S.P.	CK: C.S.	DW: S.P.	CK: C.S.	STATE	SHEET NUMBER	SHEET NO.
				TEXAS	SHEET 1 OF 1	4

FED.RD. DIV.NO.	STATE DIST.NO.	COUNTY	CONTROL	SECTION	JOB	HIGHWAY NO.
6	22	MAVERICK	6406	41	001	VARIOUS

Estimate & Quantity Sheet

CONTROLLING PROJECT ID 6406-41-001 **DISTRICT** Laredo **COUNTY** Maverick
HIGHWAY US0277

		CONTROL SECTION JOB		**6406-41-001**		TOTAL EST.	TOTAL FINAL
		PROJECT ID		**A00188139**			
		COUNTY		**Maverick**			
		HIGHWAY		**US0277**			
ALT	**BID CODE**	**DESCRIPTION**	**UNIT**	EST.	FINAL		
	734-6004	LITTER REMOVAL - TRACT (1)	AC	1,548.300		1,548.300	
	738-6002	CLEANING / SWEEPING (CENTER MEDIAN)	MI	159.100		159.100	
	738-6004	CLEANING / SWEEPING (OUTSIDE MAIN LANE)	MI	337.800		337.800	
	738-6006	CLEANING / SWEEPING (FRONTAGE ROAD)	MI	4.000		4.000	
	738-6008	CLEANING / SWEEPING(ENTRANCE/EXIT RAMP)	MI	26.200		26.200	
	738-6011	CLEANING / SWEEPING (HANDWORK)	SY	14,824.000		14,824.000	
	6185-6005	TMA (MOBILE OPERATION)	DAY	171.000		171.000	

MAVERICK SWEEPING

SUMMARY OF TRACKS AND QUANTITIES

TRACK*	HIGHWAY	FROM	TO	ITEM	738-6002	738-6004	738-6006	738-6008	738-6011
				DESC.	SWEEPING (CENTER MEDIAN)	SWEEPING (OUTSIDE MAINLANE)	SWEEPING (FRONTAGE ROAD)	SWEEPING (ENTRANC EXIT	SWEEPING HANDWORK
				UNITS	MI	MI	MI	MI	SY
1	US 57	370	373		25.6	25.6	0.0	0.0	0.0
2	US 57	373	375		0.0	15.5	0.0	0.0	0.0
3	US 277	604.7	605.2		0.0	0.0	4.0	0.0	5864.0
4	US 277	602	610		59.3	59.3	0.0	0.0	0.0
5	BU 277	548	550		17.4	17.4	0.0	0.0	0.0
6	FM 1588	544	548		0.0	28.0	0.0	0.0	0.0
7	FM 3443	550	552		12.8	12.8	0.0	0.0	0.0
8	FM 2030	374	376		0.0	16.0	0.0	0.0	0.0
9	FM 1021	550	558		39.2	64.0	0.0	0.0	0.0
10	FM 375	550	551		4.8	7.2	0.0	0.0	0.0
11	SL 480	560	570.74		0.0	84.8	0.0	26.2	0.0
12	SS 16	372	373		0.0	7.2	0.0	0.0	8960.0
				TOTAL	159.0	337.8	4.0	26.2	14824.0

FOR CONTRACTOR'S INFORMATION

CYCLES	TRACT TIME ALLOWANCE	ROADWAY LENGTH (INSIDE)	ROADWAY LENGTH (OUTSIDE)	FRONTAGE ROAD LENGTH	RAMP LENGTH	HANDWORK SWEEPING
(PER YEAR)	(DAY)	(CL MI.)	(CL MI.)	(CL MI.)	(CL MI.)	SY
8	0.25	3.2	3.2			
8	0.25		1.9			
8	0.25			0.5		1466.0
8	0.50	7.4	7.4			
8	1.00	2.2	2.2			
8	0.50		3.5			
8	0.25	1.6	1.6			
8	1.00		2.0			
8	0.25	4.9	8.0			
8	0.25	0.6	0.9			
8	0.50		10.6		3.3	
8	1.00		0.9			2240.0
	6.0	19.9	42.2	0.5	3.3	3706.0

NOTE:

THE TOTAL AMOUNT OF MILES ARE CALCULATED CONSIDERING A SWEEPING CYCLE EIGHT TIMES (8) A YEAR, HOWEVER THE MAINTENANCE SUPERVISOR WILL ISSUE THE CONTRACTOR A WORK ORDER EACH TIME SWEEPING IS REQUIRED.

ENTRANCE/EXIT RAMP QUANTITIES ARE INCLUDED IN THE FRONTAGE CENTERLINE MILES FOR TRACT NO. 12. THE QUANTITIES ARE APPROXIMATE. THE QUANTITIES OF WORK MAY BE INCREASED OR DECREASED AS CONSIDERED NECESSARY BY THE ENGINEER.

* HANDWORK SWEEPING WILL CONSIST OF 4 CYCLES PER YEAR

SUMMARY OF TRACKS AND QUANTITIES (CLEANING & SWEEPING)

DN: S.P.	DW: S.P.	STATE	SHEET NUMBER	SHEET NO.
CK: C.S.	CK: C.S.	TEXAS	SHEET 1 OF 1	6

FED.RD. DIV.NO.	STATE DIST.NO.	COUNTY	CONTROL	SECTION	JOB	HIGHWAY NO.
6	22	MAVERICK	6406	41	001	VARIOUS

5/25/2022 SPACHICA T:\LRDDSTMNT\FY 2022\MNT Contracts\Cleaning and Sweeping of Highways\Maverick County\CAD\SummTracts.dgn

MAVERICK LITTER PICK-UP

SUMMARY OF TRACKS AND QUANTITIES

TRACK #	HIGHWAY	APPROX. FROM RMN	APPROX. TO RMN	LENGTH MI	DESCRIPTION LIMITS FROM	DESCRIPTION LIMITS TO	734-6004 LITTER REMOVAL - TRACT (1) AC	FOR CONTRACTOR'S INFORMATION CYCLES PER YEAR	QUANTITY AC/CYC	ALLOWANCE TIME/TRACK DAY(S)
1	US 57	371.5	375	3.5	FM375 (BIBB AVE.)	RMN375	**142.5**	6	23.8	1
2	US 277	586	590.5	4.5	FM1664 (NORTH PT.)	FM1590 (NORTH PT.)	**193.7**	6	32.3	2
3	US 277	600	603.7	3.7	RMN600	FM1589 (NORTH PT.)	**183.0**	6	30.5	0.5
4	US 277	605	607	2	BU277	SS16	**171.6**	6	28.6	2
5	FM 375	550	551	1	US57	FM1021	**14.5**	6	2.4	0.5
6	FM 3443	550	552	2	US57	FM1021	**69.8**	6	11.6	1
7	FM 1021	551.4	562	10.6	FM375	RMN562	**404.7**	6	67.4	2
8	FM 2030	374	379	5	FM1021 (NORTH PT.)	FM1021 (SOUTH PT.)	**130.9**	6	21.8	1
9	SS 216	372	372.8	0.8	US277	US57	**40.6**	6	6.8	0.5
10	FM 1588	544	548	4	RMN544	US277	**115.4**	6	19.2	1
11	FM 1589	546	548	2	US277 (SOUTH PT.)	US277 (NORTH PT.)	**81.5**	6	13.6	1
TOTALS				**39.1**			**1548.3**		**258.04**	**12.5**

NOTE:

1. QUANTITIES ARE APPROXIMATE AND THE QUANTITIES OF WORK MAY BE INCREASED OR DECREASED AS CONSIDERED NECESSARY BY THE ENGINEER.

2. FOR DIVIDED HIGHWAYS, LITTER WILL NEED TO BE REMOVED FROM THE MEDIAN AS WELL.

3. ALL MATERIAL REMOVED FROM THIS PROJECT SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT A SITE AWAY FROM STATE RIGHT OF WAY, AS APPROVED BY THE ENGINEER. DISPOSE OF RUBBER AND SCRAP METAL DEBRIS AT THE TXDOT'S COUNTY MAINTENANCE OFFICE.

SUMMARY OF TRACKS AND QUANTITIES (LITTER REMOVAL)

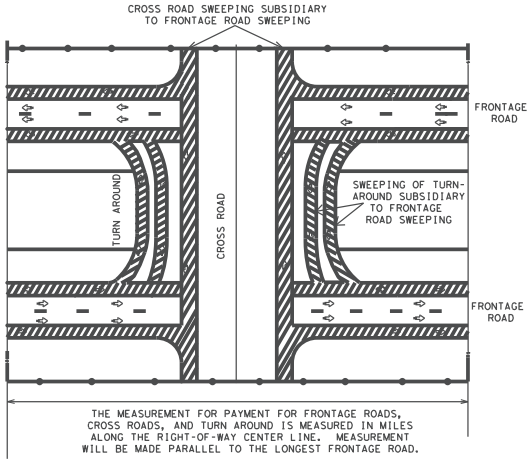
DN: S.P.	DN: S.P.	STATE	SHEET NUMBER	SHEET NO.
CK: C.S.	CK: C.S.	TEXAS	SHEET 1 OF 1	

FED.RD. DIV.NO.	STATE DIST.NO.	COUNTY	CONTROL	SECTION	JOB	HIGHWAY NO.
6	22	MAVERICK	6406	41	001	VARIOUS

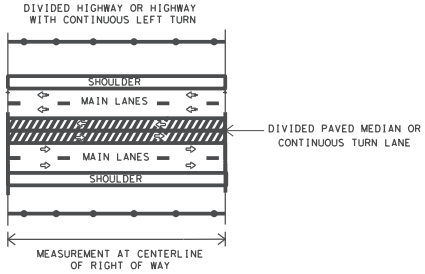
7

5/25/2022 SPACHICA T:\LRDDSTMNT\FY 2022\MNT Contracts\Cleaning and Sweeping of Highways\Maverick County\CAD\SummTracts.dgn

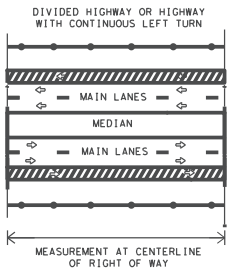
FRONTAGE ROAD SWEEPING



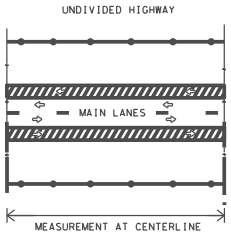
CENTER MEDIAN SWEEPING

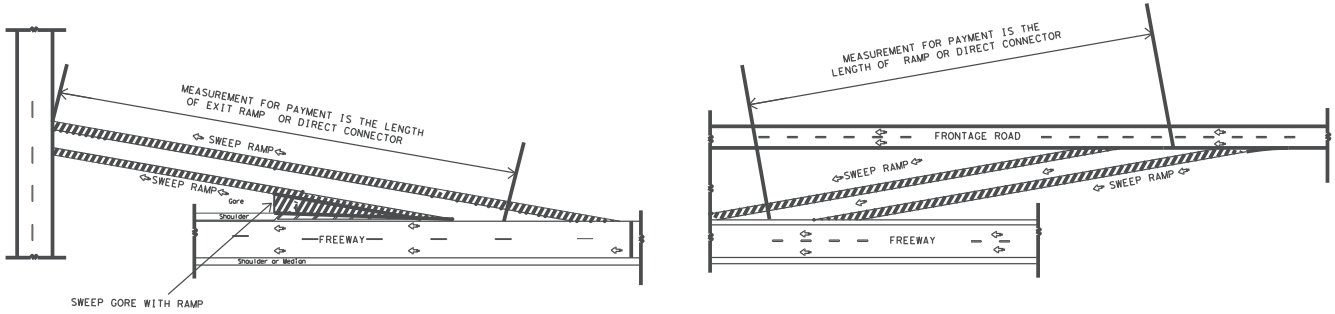


OUTSIDE MAIN LANE SWEEPING



OUTSIDE MAIN LANE SWEEPING





RAMPS OR DIRECT CONNECTORS

PAYMENT ITEM	NORMAL NUMBER OF PASSES OF THE SWEEPER	MEASUREMENT OF CENTER LINE MILES	OTHER AREAS SUBSIDARY TO PAYMENT ITEM
SWEEPING (CENTER MEDIAN)	2	OF RIGHT OF WAY	NONE
SWEEPING (OUTSIDE MAIN LANE)	2	OF RIGHT OF WAY	NONE
SWEEPING (ONE FRONTAGE ROAD)	2	OF RIGHT OF WAY	CROSS ROADS & TURN AROUNDS
SWEEPING (TWO FRONTAGE ROADS)	4	OF RIGHT OF WAY	CROSS ROADS & TURN AROUNDS
SWEEPING (RAMP)	2	OF RAMP	GORE AREA
SWEEPING (DIRECT CONNECTOR)	2	OF CONNECTOR	GORE AREA

KEY

- PATH OF SWEEPER
- DIRECTION OF TRAFFIC & SWEEPER
- LANE DIVIDER STRIPE
- RIGHT-OF-WAY LINE

Texas Department of Transportation

Maintenance Division
Standard Plans

SWEEPING HIGHWAYS

SHEET 1 OF 1

SWEEP - 04

NOT TO SCALE

FILE: SWEEP04.DGN	DN: LJB	CK: JG	DW: -	CK: -	NEG NO.:	
©TxDOT MAY 2004	STATE DISTRICT	FEDERAL REGION	FEDERAL AID PROJECT #			SHEET
REVISED:	N/A	N/A	N/A			8
REVISED:	COUNTY		CONTROL	SECTION	JOB	HIGHWAY
REVISED:	N/A		N/A	N/A	N/A	N/A

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

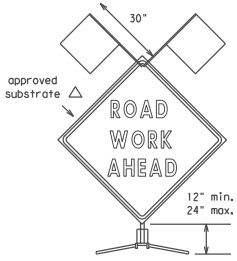
LEVELS DISPLAYED

1	2	3	4	5	6	7	8	9	10	11	12	31	41	51	61	
7	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63		

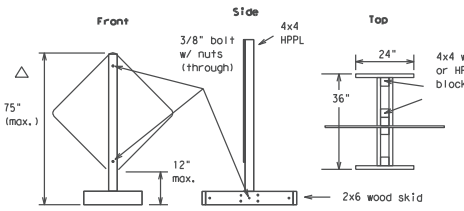
EXAMPLES OF SIGN SUPPORTS

△ See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

SHORT TERM DURATION, DAYTIME USE ONLY PORTABLE SIGN SUPPORTS



Flags as required by Engineer or as shown on plans

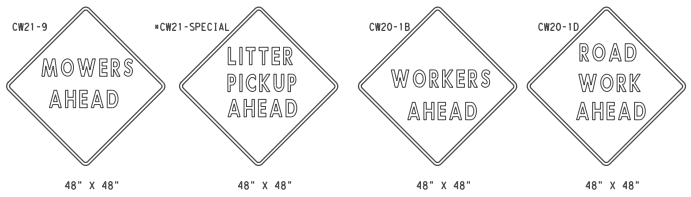


The upright SHALL be made of hollow-profile plastic lumber (HPPL). Wood or metal shall NOT be used.

1 Foot Mounting Height

Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports.

Nails will NOT be allowed.



48" X 48" | 48" X 48" | 48" X 48" | 48" X 48"

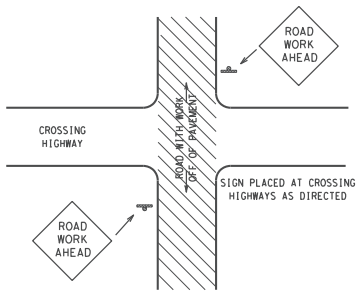
SIGN IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS

MOWERS AHEAD SIGNS ARE USED FOR MOWING OPERATIONS.

LITTER PICKUP AHEAD, ROAD WORK AHEAD AND WORKER AHEAD SIGNS ARE USED AS DIRECTED FOR OTHER MAINTENANCE OPERATIONS WHEN ALL WORK OCCURS OFF OF THE PAVED HIGHWAY SURFACE.

ROLL-UP SIGNS CONFORMING TO DMS-8310 AND THE CWZTCD ALLOWED

*Letter dimensions and spacing for "CW21-SPECIAL" is the same as C20-1D>



TYPICAL LOCATION OF SIGNS AT HIGHWAY CROSSING

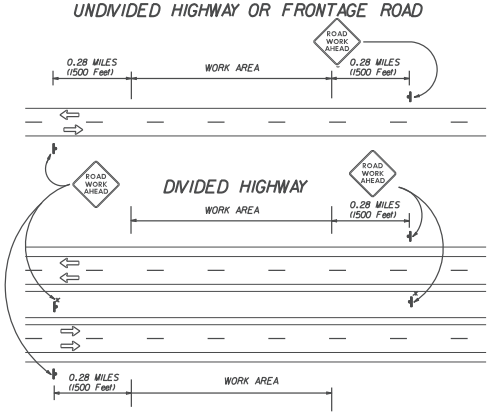
WORK AREA IS A MAXIMUM OF 2.0 MILES UNLESS OTHERWISE DIRECTED. SIGNS MAY REMAIN IN PLACE ONLY DURING DAYLIGHT HOURS.

SIGNS ARE TO BE PLACED 6' TO 12' OFF OF THE PAVED SURFACE UNLESS OTHERWISE DIRECTED.

ROAD WORK AHEAD SIGNS SHOWN AS EXAMPLES. ONE OF THE FOUR TYPE SIGNS WILL BE USED AS DIRECTED.

* SIGNS IN THE MEDIAN ARE REQUIRED WHEN WORK OCCURS IN MEDIAN

UNDIVIDED HIGHWAY OR FRONTAGE ROAD



TRAFFIC CONTROL PLAN FOR WORK OFF OF THE PAVED SURFACE.

GENERAL NOTES FOR WORK ZONE SIGNS

1. Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. Nails shall NOT be used to attach signs to any support.
5. All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
6. The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes. The additional signs requested by the Engineer/Inspector shall not be subsidiary.
7. The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD). The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so that the Engineer can verify the correct procedures are being followed.
8. The Contractor is responsible for sign installations and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
9. Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1".
10. The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

Duration of Work (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part VI)

1. The Contractor is responsible for ensuring the sign support and substrate meets crashworthiness. For mowing operation all signs and supportS are Short-term Duration for daytime work.
2. The Contractor shall furnish the sign sizes shown on this sheet or as directed by the Engineer.

SIGN SUBSTRATES

1. The Contractor shall ensure that the sign substrate is allowed for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
2. "Mesh" type materials are NOT an approved sign substrate.
3. All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign faces.

REFLECTIVE SHEETING

1. Reflectorized signs shall be constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 or DMS-8310. The DMS specifications can be accessed from the following web address:
   http://manuals.dot.state.tx.us:80/dynaweb/colmates/@Generic__CollectionView;cs=default;ts=default
2. White sheeting, meeting the requirements of DMS-8300 Type C (High Specific Intensity), shall be used for signs with white background and channelizing devices.
3. Orange sheeting, meeting the requirements of DMS-8300 Type E (Fluorescent Prismatic), shall be used for signs with orange backgrounds.

SIGN LETTERS

1. All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

1. Signs should be removed or completely covered when not mowing.
2. Duct tape or other adhesive material shall NOT be affixed to a sign face.
3. Signs and supports shall be removed by the end of the day.

SIGN SUPPORT WEIGHTS

1. Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry cohesionless sand is recommended.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects will not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact.
6. Rubber (such as tire inner tubes) shall NOT be used for sandbags.
7. Rubber ballasts (such as those used with cones or edgeline channelizers) shall NOT be used as sign support weights.
8. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign supports.
9. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

Any sign, sign support or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced or repaired as soon as possible by the Contractor at the Contractor's expense.

Only pre-qualified products shall be used. A copy of the "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be obtained by contacting:

Standards Engineer
Traffic Operations Division - TE
Texas Department of Transportation
125 East 11th Street
Austin, Texas 78701-2483
Phone (512) 416-3120
Fax (512) 416-3299

Instructions to locate the "CWZTCD" on TxDOT website are:

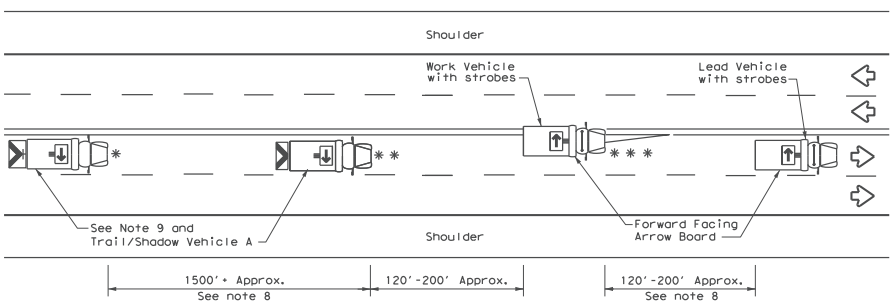
Start at website - www.dot.state.tx.us
Click on "About TxDOT",
Click on "Organizational Chart",
Click on Traffic Operations Box,
Click on "Compliant Work Zone Traffic Control Devices",
Click on "View PDF".
This site is printable.

Texas Department of Transportation
Maintenance Division
Standard Plans

ROADSIDE TRAFFIC CONTROL PLAN

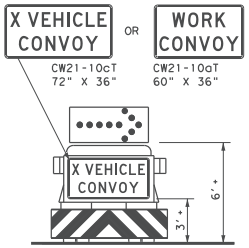
SHEET 1 OF 1 RS-TCP-05 NOT TO SCALE

FILE: RSTCP05.DGN	DN: LJB	CK: JG	DW:	CK:	MEG NO.:	
©TxDOT FEBRUARY 2005	STATE DISTRICT	FEDERAL REGION	FEDERAL AID PROJECT			SHEET
REVISED: September 17, 2004		N/A	N/A	N/A		9
REVISED: FEBRUARY 2, 2005 Sign placement in TCP		COUNTY		CONTROL	SECTION	JOB	HIGHWAY
REVISED:		N/A		N/A	N/A	N/A	N/A



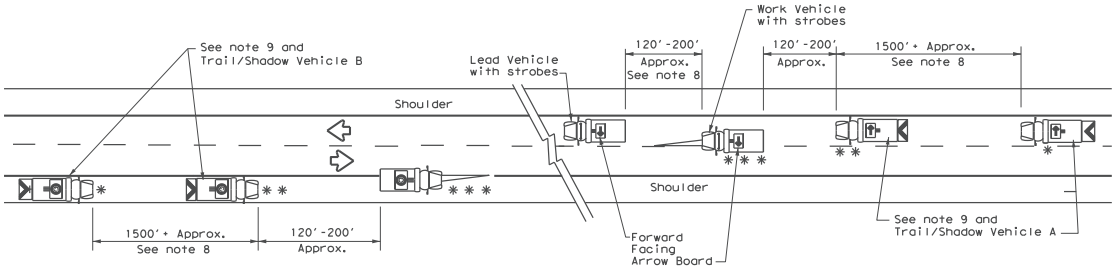
TCP (3-1a)

UNDIVIDED MULTILANE ROADWAY



TRAIL/SHADOW VEHICLE A

with RIGHT Directional display Flashing Arrow Board

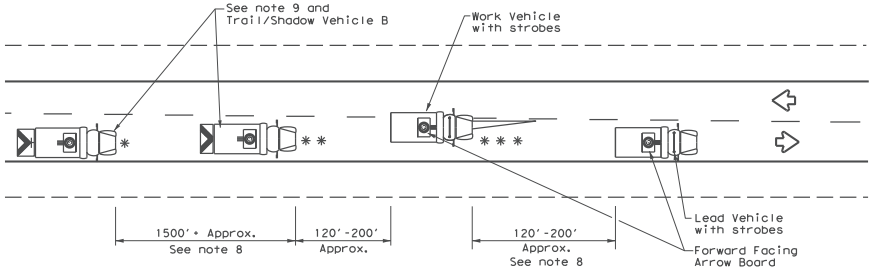


WORK ON SHOULDER

WORK ON TRAVEL LANE

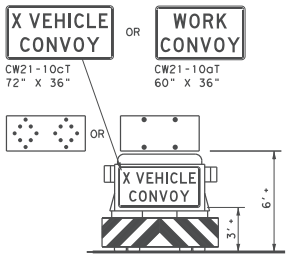
TCP (3-1b)

TWO-WAY ROADWAY WITH PAVED SHOULDERS



TCP (3-1c)

TWO-WAY ROADWAY WITHOUT PAVED SHOULDERS



TRAIL/SHADOW VEHICLE B

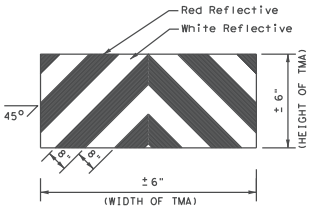
with Flashing Arrow Board in CAUTION display

LEGEND			
*	Trail Vehicle	ARROW BOARD DISPLAY	
**	Shadow Vehicle		
***	Work Vehicle		RIGHT Directional
	Heavy Work Vehicle		LEFT Directional
	Truck Mounted Attenuator (TMA)		Double Arrow
	Traffic Flow		CAUTION (Alternating Diamond or 4 Corner Flash)

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

GENERAL NOTES

1. TRAIL, SHADOW, and LEAD vehicles shall be equipped with arrow boards as illustrated. When a LEAD vehicle is not used the WORK vehicle must be equipped with an arrow board. The Engineer will determine if the LEAD VEHICLE and/or TRAIL VEHICLE are required based on prevailing roadway conditions, traffic volume, and sight distance restrictions.
2. The use of amber high intensity rotating, flashing, oscillating, or strobe lights on vehicles are required. Blue high intensity rotating, flashing, oscillating or strobe lights when mounted on the driver's side of the vehicle may be operated simultaneously with the amber beacons or strobe lights.
3. The use of truck mounted attenuators (TMA) on the SHADOW VEHICLE and TRAIL VEHICLE are required.
4. Reflective sheeting on the rear of the TMA shall meet or exceed the reflectivity and color requirements of DEPARTMENTAL MATERIAL SPECIFICATION DMS 8300, Type A.
5. Flashing arrow boards shall be Type B or Type C as per the Barricade and Construction (BC) standards. The board shall be controlled from inside the vehicle.
6. Each vehicle shall have two-way radio communication capability.
7. When work convoys must change lanes, the TRAIL VEHICLE should change lanes first to shadow the other convoy vehicles.
8. Vehicle spacing between the TRAIL VEHICLE and the SHADOW VEHICLE will vary depending on sight distance restrictions. Motorists approaching the work convoy should be able to see the TRAIL VEHICLE in time to slow down and/or change lanes as they approach the TRAIL VEHICLE. Vehicle spacing between the WORK VEHICLE and SHADOW VEHICLE and vehicle spacing between WORK VEHICLE and LEAD VEHICLE may vary according to terrain, work activity and other factors.
9. "X VEHICLE CONVOY" (CW21-10cT) or "WORK CONVOY" (CW21-10aT) signs shall be used on TRAIL VEHICLES and SHADOW VEHICLES as shown. As an option 48" X 48" diamond shaped "WORK CONVOY"(CW21-10T) or "X VEHICLE CONVOY" (CW21-10bT) signs may be used where adequate mounting space exists. When used, the X VEHICLE CONVOY sign shall have the number of the convoy vehicles displayed on the sign in the number designation "X" location. The "X VEHICLE CONVOY" sign shall not be used on the SHADOW VEHICLE if a TRAIL VEHICLE is used.
10. On two-lane two-way roadways, the work and protection vehicles should pull over periodically to allow motor vehicle traffic to pass. If motorists are not allowed to pass the work convoy, a "DO NOT PASS" (R4-1) sign should be placed on the back of the rearmost protection vehicle.



STRIPING FOR TMA

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC CONTROL PLAN MOBILE OPERATIONS UNDIVIDED HIGHWAYS

TCP(3-1)-13

FILE: tcp3-1.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS				
2-94 4-98	DIST	COUNTY		SHEET NO.
8-95 7-13				10
1-97				

175

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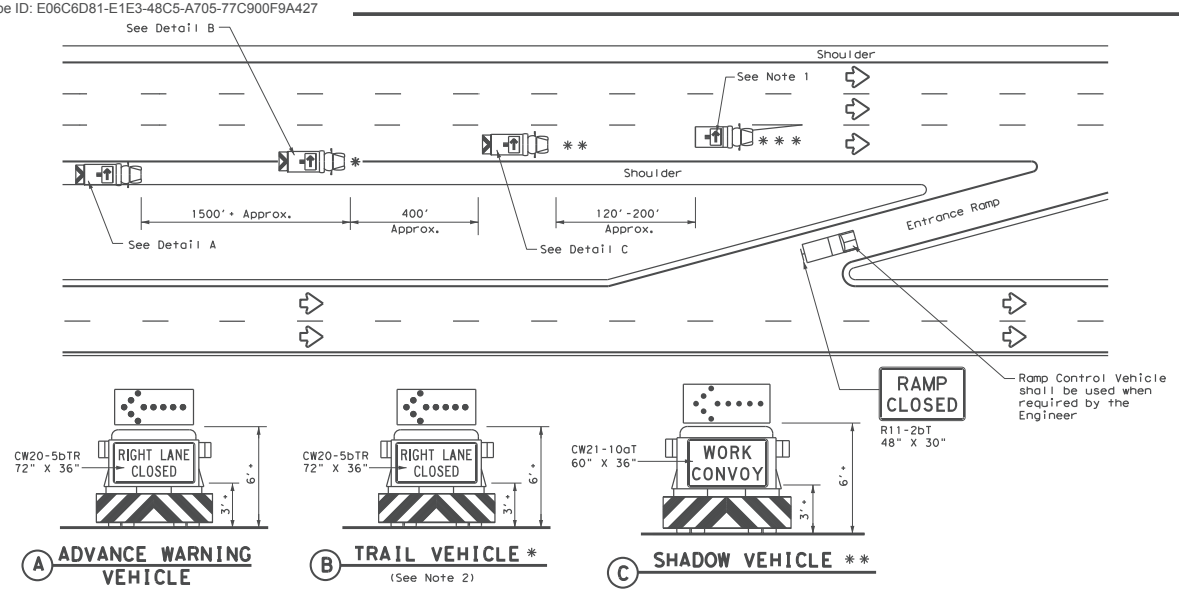
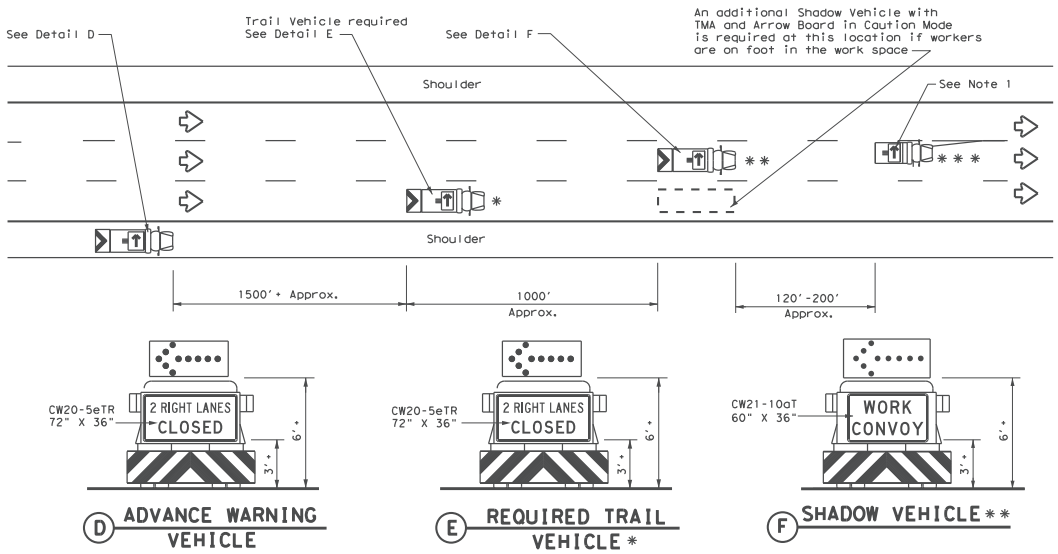


RIGHT LANE CLOSURE ON DIVIDED HIGHWAY - TCP(3-2a)



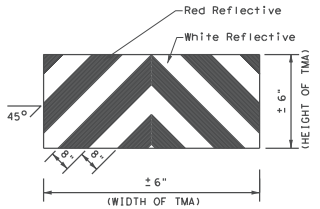
INTERIOR LANE CLOSURE ON MULTI-LANE DIVIDED HIGHWAY - TCP(3-2b)

LEGEND			
*	Trail Vehicle	ARROW BOARD DISPLAY	
**	Shadow Vehicle		
***	Work Vehicle		RIGHT Directional
	Heavy Work Vehicle		LEFT Directional
	Truck Mounted Attenuator (TMA)		Double Arrow
	Traffic Flow		CAUTION (Alternating Diamond or 4 Corner Flash)

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

GENERAL NOTES

1. ADVANCE WARNING, TRAIL and SHADOW vehicles shall be equipped with Type B or Type C flashing arrow boards as per the Barricade and Construction (BC) standards. Arrow boards on WORK vehicles will be optional based on the type of work being performed. The arrow boards shall be operated from inside the vehicle.
2. For TCP(3-2a) the Engineer will determine if the TRAIL VEHICLE is required based on prevailing roadway conditions, traffic volume, and sight distance restrictions. All other vehicles shown for both TCP(3-2a) and TCP(3-2b) are required.
3. The use of amber high intensity rotating, flashing, oscillating, or strobe lights on vehicles are required. Blue high intensity rotating, flashing, oscillating or strobe lights when mounted on the driver's side of the vehicle may be operated simultaneously with the amber beacons or strobe lights.
4. The use of truck mounted attenuators (TMA) on the ADVANCE WARNING, SHADOW, and TRAIL vehicles are required.
5. Reflective sheeting on the rear of the TMA shall meet or exceed the reflectivity and color requirements of DMS 8300, Type A.
6. Each vehicle shall have two-way radio communication capability.
7. When work convoys must change lanes, the TRAIL VEHICLE should change lanes first to shadow the other convoy vehicles.
8. Vehicle spacing between the TRAIL VEHICLE and the SHADOW VEHICLE will vary depending on sight distance restrictions. Motorists approaching the work convoy should be able to see the TRAIL VEHICLE in time to slow down and/or change lanes as they approach the TRAIL VEHICLE. Vehicle spacing between the WORK VEHICLE and SHADOW VEHICLE may vary according to terrain, work activity and other factors.
9. Standard 48" X 48" diamond shaped warning signs with the same message as those shown may be used where adequate mounting space exists.
10. The signs shown should be used on the Advance Warning Vehicle. As an option, a portable changeable message sign (PCMS) or a truck mounted changeable message sign (TMCMS) with a minimum character height of 12", and displaying the same legend may be substituted for these signs. An appropriate directional arrow display, simulating the size and legibility of the flashing arrow board, must be used in the second phase of the PCMS/TMCMS message. When this is done, the arrow board will not be required on the Advance Warning Vehicle.
11. Standard diamond shape versions of the CW20-5 series signs may be used as an option if the rectangular signs shown are not available.
12. The principles on this sheet may be used to close lanes from the left side of the roadway considering the number of lanes, shoulder width, sight distance, and ramp frequency.
13. Signs and flashing arrow board modes shall be appropriately altered when implementing left lane closures or interior closures which close the left lanes.
14. The Advance Warning Vehicle may straddle the edgeline when shoulder width makes it necessary.



STRIPING FOR TMA

Texas Department of Transportation — Traffic Operations Division Standard

TRAFFIC CONTROL PLAN MOBILE OPERATIONS DIVIDED HIGHWAYS

TCP(3-2)-13

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