FHWA TEXAS DIVISION	STATE PROJECT NO.		SHEET NO.
	C 905-00-120		001
STATE	DISTRICT	COUNTY	
TEXAS	LBB	LUBBOCK,ETC.	
CONTROL	SECTION	JOB	HIGHWAY NO.
0905	00	120	VAR

FUNCTIONAL CLASSIFICATION: VARIES
DESIGN SPEED: VARIES
ADT: VARIES

INDEX OF SHEETS

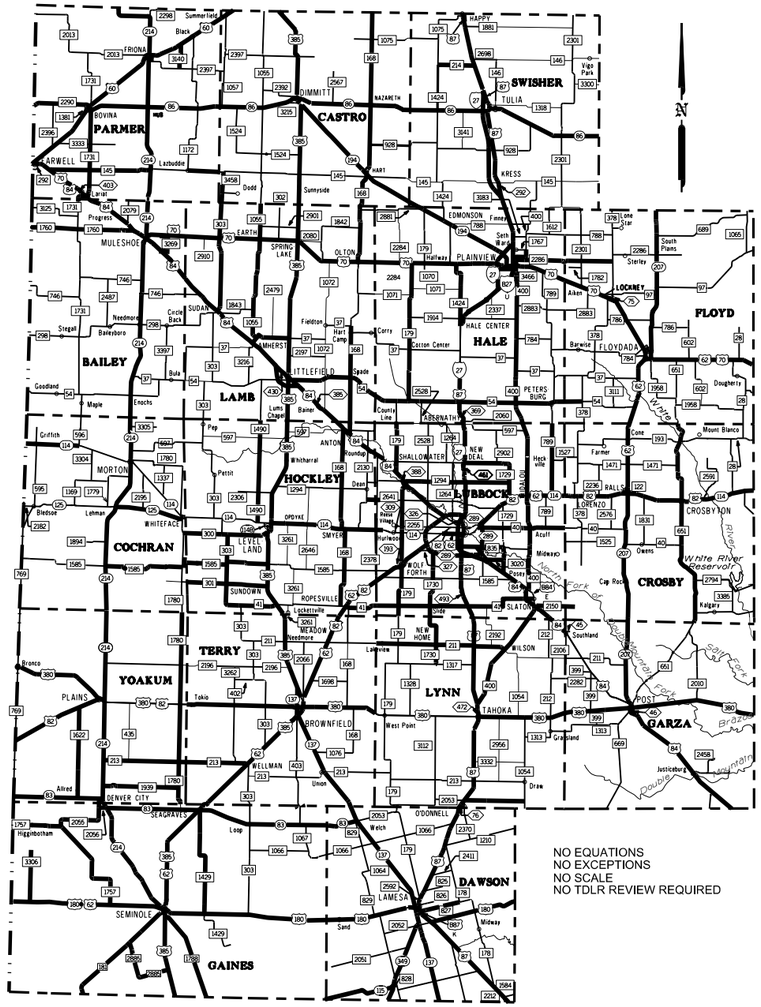
SHEET NO.	DESCRIPTION
1. GENERAL	
1	TITLE SHEET
2	PROJECT INDEX

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, NOVEMBER 1, 2014 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS. SHALL GOVERN ON THIS PROJECT:REQUIRED SPECIAL LABOR PROVISIONS FOR ALL STATE PROJECTS (000-008)

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY HIGHWAY IMPROVEMENT

VARIOUS HIGHWAY
LUBBOCK COUNTY, ETC
STATE PROJECT NO C905-00-120
CSJ 0905-00-120
NET LENGTH OF PROJECT 0.001 MILES
FOR THE CONSTRUCTION OF RAISED PAVEMENT MARKERS



NO EQUATIONS
NO EXCEPTIONS
NO SCALE
NO TDLR REVIEW REQUIRED

39 RR CROSSINGS BNSF- 014799K, 014781A, 014787R, 014840A
014854H, 014859S, 014869X, 014883T
014884A, 014898H, 014908L, 014910M
01918S, 014919Y, 015155L, 014981J
015001B, 015015J, 015021M, 017585D
017584W, 017513A, 017329M, 017280F
2756582V, 017271G, 275673X, 275674E
275675L, 017376V, 017382Y, 017216G

L&WR-276681T, 276677D, 275934V, 275935C
900272X, 017604F, 017627M

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

SUBMITTED FOR LETTING: 11/29/2023
DocuSigned by: Jeremy T. Dearing, P.E.
AB1484D2F6DA4F6...
DIR. OF TRANSPORTATION OPERATIONS

11/29/2023
RECOMMENDED FOR LETTING:
DocuSigned by: Shelley C. Harris P.E.
F9984108931347C...
DISTRICT DESIGN ENGINEER

11/29/2023
APPROVED FOR LETTING:
DocuSigned by: Stacy P. Warren P.E.
842C855E1DDD46A...
DISTRICT ENGINEER

FILE: T:\LBBTRAFF\PROJECTS (CURRENT)\0905-00-120 2024 RRPM\001 2024 RRPM Title.dgn
DATE: 11/29/2023 9:28:46 AM

GENERAL

001		TITLE SHEET
002		INDEX OF SHEETS
003, 003A-003B		GENERAL NOTES
004		ESTIMATE & QUANTITY
005		PROJECT SUMMARY

TRAFFIC CONTROL PLAN STANDARDS

##	006	BC (1)-21
##	007	BC (2)-21
##	008	BC (3)-21
##	009	BC (4)-21
##	010	BC (5)-21
##	011	BC (6)-21
##	012	BC (7)-21
##	013	BC (8)-21
##	014	BC (9)-21
##	015	BC (10)-21
##	016	BC (11)-21
##	017	BC (12)-21
##	018	TCP (3-3)-14

PAVEMENT MARKINGS & DELINEATION

019	COUNTY LAYOUT BAILEY
020	BAILEY COUNTY CURVE ADVISORY RRPMs
021	COUNTY LAYOUT CASTRO
022	CASTRO COUNTY CURVE ADVISORY RRPMs
023	COUNTY LAYOUT COCHRAN
024	COCHRAN COUNTY CURVE ADVISORY RRPMs
025	COUNTY LAYOUT CROSBY
026	CROSBY COUNTY CURVE ADVISORY RRPMs
027	COUNTY LAYOUT DAWSON
028	DAWSON COUNTY CURVE ADVISORY RRPMs
029	COUNTY LAYOUT FLOYD
030	FLOYD COUNTY CURVE ADVISORY RRPMs
031	COUNTY LAYOUT GAINES
032	GAINES COUNTY CURVE ADVISORY RRPMs
033	COUNTY LAYOUT GARZA
034	GARZA COUNTY CURVE ADVISORY RRPMs
035	COUNTY LAYOUT HALE
036	COUNTY LAYOUT HALE CONCRETE
037	HALE COUNTY CURVE ADVISORY RRPMs
038	COUNTY LAYOUT HOCKLEY 1 OF 2
039	COUNTY LAYOUT HOCKLEY 2 OF 2
040	HOCKLEY COUNTY CURVE ADVISORY RRPMs
041	COUNTY LAYOUT LAMB
042	LAMB COUNTY CURVE ADVISORY RRPMs
043	COUNTY LAYOUT LUBBOCK 1 OF 2
044	COUNTY LAYOUT LUBBOCK 2 OF 2
045	COUNTY LAYOUT LUBBOCK CONCRETE
046	LUBBOCK COUNTY CURVE ADVISORY RRPMs
047	COUNTY LAYOUT LYNN
048	LYNN COUNTY CURVE ADVISORY RRPMs
049	COUNTY LAYOUT PARMER
050	PARMER COUNTY CURVE ADVISORY RRPMs
051	COUNTY LAYOUT SWISHER
052	COUNTY LAYOUT SWISHER CONCRETE
053	SWISHER COUNTY CURVE ADVISORY RRPMs
054	COUNTY LAYOUT TERRY
055	TERRY COUNTY CURVE ADVISORY RRPMs
056	COUNTY LAYOUT YOAKUM

PAVEMENT MARKINGS & DELINEATION STANDARDS

##	057	PM (2)-22
##	058	PM (3)-22
##	059	FMP (1)-22
##	060	FMP (2)-22
##	061	FMP (3)-22
##	062	FMP (4)-22
	063	FOUR LANE DIVIDED CROSSOVER DETAIL

RAILROAD SCOPE OF WORK SHEETS

064-065	NON-BRIDGE-PROJECT SHEETS
066-069	RAILROAD SCOPE OF WORK SHEET

ENVIRONMENTAL ISSUES

070	ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE BY A ## HAVE BEEN ISSUED BY ME AND ARE APPLICABLE TO THIS PROJECT.

INDEX OF SHEETS

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			002
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

GENERAL NOTES:

General Requirements and Covenants - Items 1 thru 9
Contractor questions on this project are to be addressed to the following individual(s):

Jeremy.Dearing@txdot.gov (806) 748-4564

Contractor questions will be accepted through email, phone, and in person by the above individuals. Questions may also be submitted via the Letting Pre-Bid Q&A web page. This webpage can be accessed from the Notice to Contractors dashboard located at the following Address:

https://tableau.txdot.gov/views/ProjectInformationDashboard/NoticetoContractors

All contractor questions will be reviewed by the Engineer. All questions and any corresponding responses that are generated will be posted through the same Letting Pre-Bid Q&A web page.

The Letting Pre-Bid Q&A web page for each project can be accessed by using the dashboard to navigate to the project you are interested in by scrolling or filtering the dashboard using the controls on the left. Hover over the blue hyperlink for the project you want to view the Q&A for and click on the link in the window that pops up.

Item 1 – Abbreviations and Definitions
Contract Prosecution – Each contract awarded by the Department stands on its own and as such, is separate from other contracts. A contractor awarded multiple contracts, must be capable and sufficiently staffed to concurrently process any and all contracts at the same time.

Item 2 – Instructions to Bidders
The construction time determination schedule will be posted on the Letting Pre-Bid Q&A web page.

View the plans on-line or download from the web at:
http://www.dot.state.tx.us/business/plansonline/agreement.htm
Choose "I Agree" then, "Click here", then "State-Let-Construction", pick the letting month, then "Plans" and then choose the plans set.

Order plans from any of the plan reproduction companies shown on the web at:
http://www.dot.state.tx.us/business/contractors_consultants/repro_companies.htm

Item 5 – Control of the Work
Perform construction surveying in accordance with Article 5.9.3, "Method C."

Replace all damaged ROW and USGS monuments at the contractor's expense.

County: Lubbock **Control: 0905-00-120**

Highway: Various **Sheet 003**

At the end of each day remove from the ROW, inside or outside the project limits, any excess material and debris resulting from construction.

Correct any deficiencies identified during the final inspection including required paperwork.

Submit all required paperwork within 60 days of project acceptance.

Item 6 – Control of Materials
To comply with the latest provisions of Build America, Buy America Act (BABA Act) of the Bipartisan Infrastructure Law, the contractor must submit a notarized original of the TxDOT Construction Material Buy America Certification Form for all items classified as construction materials. This form is not required for materials classified as a manufactured product.

Refer to the Buy America Material Classification Sheet for clarification on material categorization.

The Buy America Material Classification Sheet is located at the below link.
https://www.txdot.gov/business/resources/materials/buy-america-material-classification-sheet.html
for clarification on material categorization.

Provide the State 30 days to test all materials and resolve any disputes.

Item 7 – Legal Relations and Responsibilities
Coordinate street closures with the local fire, police, and other emergency personnel.

Maintain access to adjacent property at all times.

When applicable, comply with all requirements of the Environmental Permits Issues and Commitments (EPIC) sheets.

Dispose of all waste materials in compliance with local, state, and federal regulations. Submit a list of all approved waste sites to the Engineer for review.

All vehicles in the work zone shall use flashing amber strobe lights visible 360 degrees.

No significant traffic generator events identified.

This project will not require a railroad agreement, flagging, insurance, or right-of-entry.

Lesser Prairie Chicken:
Habitat for the Lesser Prairie Chicken is located in Parmer County in the Lubbock District. The Lesser Prairie Chicken is listed as an **ENDANGERED** species for the SDPS.

If encountered in TxDOT Right-of-Way, any PSL location, or if the species is entering the project area, **ALL work must seize until the species moves out.**

PSL's and stockpile locations must be approved by the District Environmental Coordinator prior to construction.

Work operations will not be performed from 3AM-9AM from March 15th to July 15th.

All stockpiles must be placed prior to March 15th.

Item 8 - Prosecution and Progress

This project is to be complete in 68 days and 4 months of barricades in accordance with the contract documents..

Work must begin by April 15, 2024.

Monthly schedule updates are a very important aspect of managing the progress of this project. The Engineer may withhold the monthly estimate if the schedule update has not been received.

A P6 Compatible Critical path method will be required on this project.
A bar chart will be required on this project.

Do not begin work before sunrise or end work after sunset unless authorized by the Engineer, and remove all equipment from the roadway before sundown.

Perform any erosion control measures such as seeding or sodding before beginning the next phase, or land, unless otherwise authorized by the Engineer.

Working days will be computed and charged in accordance with Article 8.3.1.4 Standard Workweek.
.
Work hours will be restricted to off-peak hours as defined in the following table:

Peak Hours		Off-Peak Hours	
7 to 9 AM Monday through Friday	4 to 6 PM Monday through Friday	9AM to 4PM and 6 PM to 7 AM Monday through Friday	All day Saturday and Sunday

Work is allowed to be performed during the nighttime, with Engineer's approval.

Work that interferes with traffic is required to be performed during off-peak hours, 6 pm until 7 am.

County: Lubbock **Control: 0905-00-120**

Highway: Various **Sheet 003A**

Shut down operations the working day before the following major traffic generating holidays: January 1st (New Year's); Last Monday in May (Memorial Day); July 4th (Independence Day); First Monday in September (Labor Day); Fourth Thursday in November (Thanksgiving); and December 24th (Christmas Eve).

Payment for final 3% mobilization will be made once all project signage has been removed and all other items according to Article 500.3. Timeliness for submittal of required paperwork and correction of deficiencies is a consideration in developing the final contractor evaluation score.

Item 9 - Measurement and Payment

Submit material-on-hand payment requests by the monthly estimate cutoff date.

Material-on-hand will be paid item for item regardless of how the work was bid.

Item 502 - Barricades, Signs And Traffic Handling

Prior to beginning construction, the Engineer shall approve the routing of traffic and sequence of work.

Additional signs and barricades as directed by the Engineer shall be considered subsidiary to Item 502.

Provide flashing portable arrow panels for all lane closures.

To ensure the safety and convenience of traffic, flaggers may be required when construction machinery is being operated along, across, or adjacent to lanes carrying traffic. If considered necessary by the Engineer, supplemental signs and barricades may be required.

Barricades, Signs and Traffic Handling is a plan quantity item. If time is suspended, no additional compensation will be made.

Square tubing sign supports may be used for temporary construction signs. Aluminum and wood signs may be mounted if the vertical supports are embedded into the ground. Square tubing supports on skids which are typically held in place with sand bags can only support signs made of light weight flutted plastic.

The Contractor Force Account "Safety Contingency" that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the Traffic Control Plan, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor's Responsible Person based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

Correct all noted deficiencies within 7 calendar days, otherwise, cease all operations until the noted deficiencies are corrected.

Like new traffic control devices will be required at the initial setup for all projects or as approved by the Engineer.

Provide flags and a CW8-15P "MOTORCYCLE WARNING" plaque on all CW20-1D "ROAD WORK AHEAD" signs except on side roads.

Use only the work zone speed limit and TCP signs that are relevant to the active work area and as directed. Reset signs for subsequent work phases as work progresses and approved by the Engineer. Reset normal speed limit signs at the ends of work areas.

Project limit signage is required on both sides of each roadbed on a divided highway.

All bid items and work requiring traffic control is the responsibility of the contractor, even when not explicitly detailed in the plans. Consider this work subsidiary to Item 502.

TMAs and Portable Changeable Message Boards will not be used as Arrow Boards.

Ground mount all signs if possible.

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Item 506 - Temporary Erosion, Sedimentation, and Environmental Controls

The Storm Water Pollution Prevention Plan (SWP3) consists of temporary erosion control measures needed and provided for under this Item. The disturbed area is less than one acre and use of erosion control measures is not anticipated. If physical conditions encountered at the job site require necessary controls, BMP installation, maintenance, and removal will be paid as extra work on a force account basis per Articles 4.4 and 9.7.

No N.O.I. is required for this project.

Sediments removed from BMPs shall be paid for by force account. The Contractor shall submit an invoice for the work.

Correct all noted deficiencies within 7 calendar days, otherwise, cease all operations until the noted deficiencies are corrected.

Item 672 - Raised Pavement Markers

Install RPMs, TY II-AA, on all curves with advisory speeds posted 5 mph or more below the posted speed limit. Begin 800-feet before the PC, extend through the curve, continue 800-feet beyond the PT of the curve.

Item 6185 – Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)

Provide 6 TMAs for mobile use. Mobile TMAs will be used for moving operations such as striping and RPM placement. Payment will be made by the day for each TMA used in mobile operations.

Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0905-00-120 **DISTRICT** Lubbock **COUNTY** Lubbock
HIGHWAY Various

		CONTROL SECTION JOB		**0905-00-120**		TOTAL EST.	TOTAL FINAL
		PROJECT ID		**A00133747**			
		COUNTY		**Lubbock**			
		HIGHWAY		**Various**			
ALT	**BID CODE**	**DESCRIPTION**	**UNIT**	EST.	FINAL		
	500-6001	MOBILIZATION	LS	1.000		1.000	
	502-6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	4.000		4.000	
	672-6006	REFL PAV MRKR TY I-A	EA	7,118.000		7,118.000	
	672-6007	REFL PAV MRKR TY I-C	EA	20,191.000		20,191.000	
	672-6009	REFL PAV MRKR TY II-A-A	EA	161,123.000		161,123.000	
	672-6010	REFL PAV MRKR TY II-C-R	EA	139,327.000		139,327.000	
	6185-6005	TMA (MOBILE OPERATION)	DAY	360.000		360.000	
	08	CONTRACTOR FORCE ACCOUNT SAFETY CONTINGENCY (NON-PARTICIPATING)	LS	1.000		1.000	
		CONTRACTOR FORCE ACCOUNT EROSION CONTROL MAINTENANCE (NON-PARTICIPATING)	LS	1.000		1.000	

Raised Reflective Pavement Markers				
County	**TY I-A (EA)**	**TY I-C (EA)**	**TY II-A-A (EA)**	**TY II C-R (EA)**
Bailey	136	178	5,819	896
Castro	0	141	8,089	0
Cochran	0	175	6,001	0
Crosby	210	219	5,317	3,613
Dawson	371	1,955	6,923	3,495
Floyd	298	368	7,964	2,721
Gaines	659	1,643	9,040	4,420
Garza	140	106	5,027	1,346
Hale	248	2,356	15,884	9,709
Hockley	323	721	12,351	3,,690
Lamb	345	263	10,691	1,736
Lubbock	3,199	9,015	26,856	87,475
Lynn	218	80	5,287	2,524
Parmer	526	942	8,346	6,064
Swisher	112	401	13,178	9,312
Terry	333	232	5,531	2,353
Yoakum	0	1,396	8,819	0
Total	**7,118**	**20,191**	**161,123**	**139,327**

68 WORKING DAYS ASSUMPTION THAT 3 CREWS PRODUCTION RATE OF 4,820 RPMS PER DAY TOTAL.

PROJECT SUMMARY SHEET

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			005
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/30/2023

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BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).

2. The development and design of the Traffic Control Plan (TCP)is the responsibility of the Engineer.

3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.

4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.

5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.

6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.

7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.

8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.

9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.

10. Where highway construction or maintenance work is being undertaken, other than mobile operations as defined by the Texas Manual on Uniform Traffic Control Devices, CSJ limit signs are required. CSJ limit signs are shown on BC(2). The OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits. For mobile operations, CSJ limit signs are not required.

11. Traffic control devices should be in place only while work is actually in progress or a definite need exists.

12. The Engineer has the final decision on the location of all traffic control devices.

13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY NOTES:

1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.

2. Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES

1. Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources.

2. Work zone traffic control devices shall be compliant with the Manual for Assessing safety Hardware (MASH).

THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT http://www.txdot.gov
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS

BC(1)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0905	00	120	VAR
4-03 7-13	DIST	COUNTY		SHEET NO.
9-07 8-14	LBB	LUBBOCK		006
5-10 5-21				

DATE: 11/28/2023 11:31:00 AM
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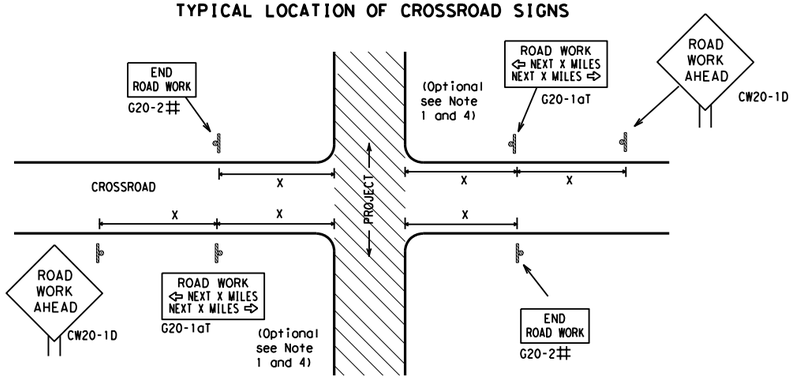
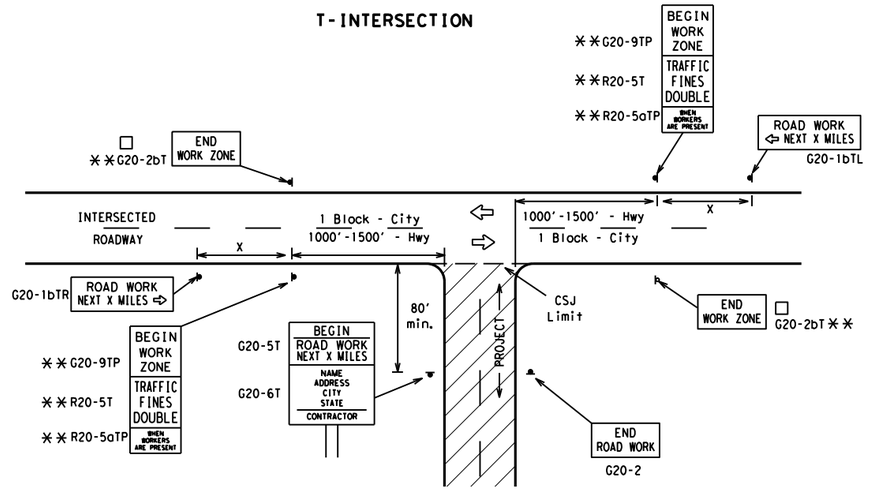
TYPICAL LOCATION OF CROSSROAD SIGNS



May be mounted on back of "ROAD WORK AHEAD"(CW20-1D) sign with approval of Engineer. (See note 2 below)

1. The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D)sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
2. The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK"(G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume as per TMUTCD Part 5. This information shall be shown in the plans.
3. Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
4. The "ROAD WORK NEXT X MILES"(G20-1aT)sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
5. Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
6. When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

1. The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
2. If construction closes the road at a T-intersection, the Contractor shall place the "CONTRACTOR NAME"(G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow(G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR)" signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING[1,5,6]

SIZE

Sign Number or Series	Conventional Road	Expressway/ Freeway
CW20[4] CW21 CW22 CW23 CW25	48" x 48"	48" x 48"
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"

SPACING

Posted Speed	Sign △ Spacing "X"
MPH	Feet (Apprx.)
30	120
35	160
40	240
45	320
50	400
55	500[2]
60	600[2]
65	700[2]
70	800[2]
75	900[2]
80	1000[2]
*	*[3]

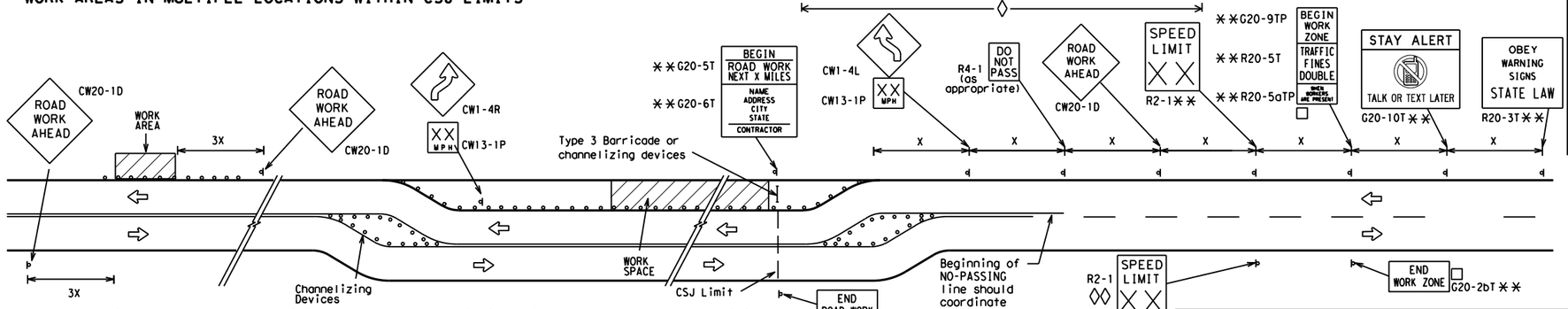
* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

1. Special or larger size signs may be used as necessary.
2. Distance between signs should be increased as required to have 1500 feet advance warning.
3. Distance between signs should be increased as required to have 1/2 mile or more advance warning.
4. 36" x 36" "ROAD WORK AHEAD" (CW20-1D)signs may be used on low volume crossroads at the discretion of the Engineer as per TMUTCD Part 5. See Note 2 under "Typical Location of Crossroad Signs".
5. Only diamond shaped warning sign sizes are indicated.
6. See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

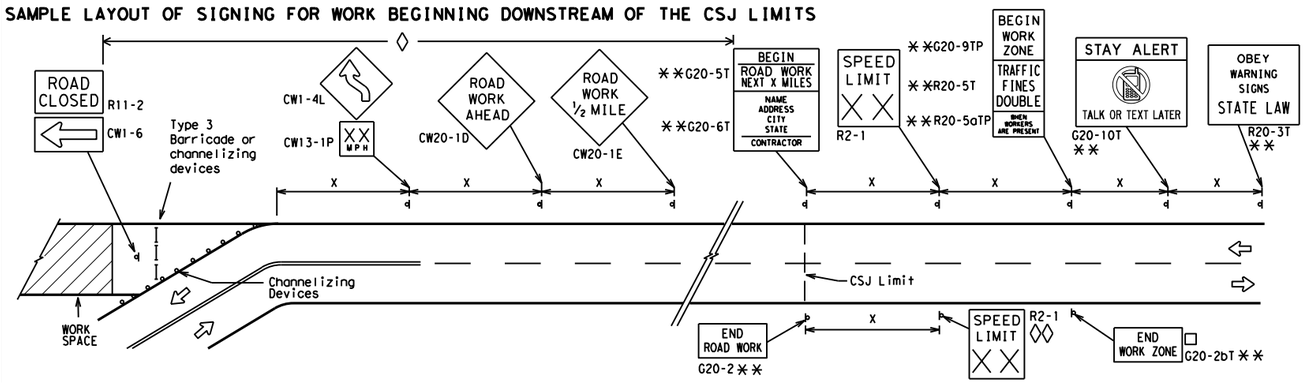
WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD"(CW20-1D)signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



NOTES

The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES"(G20-5T)sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.

□ The "BEGIN WORK ZONE"(G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.

** CSJ limit signing is required for highway construction and maintenance work, with the exception of mobile operations.

◊ Area for placement of "ROAD WORK AHEAD" (CW20-1D)sign and other signs or devices as called for on the Traffic Control Plan.

◊◊ Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND	
⟼	Type 3 Barricade
○ ○ ○	Channelizing Devices
▬	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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REVISIONS	0905	00	120	VAR
9-07 8-14	DIST	COUNTY		SHEET NO.
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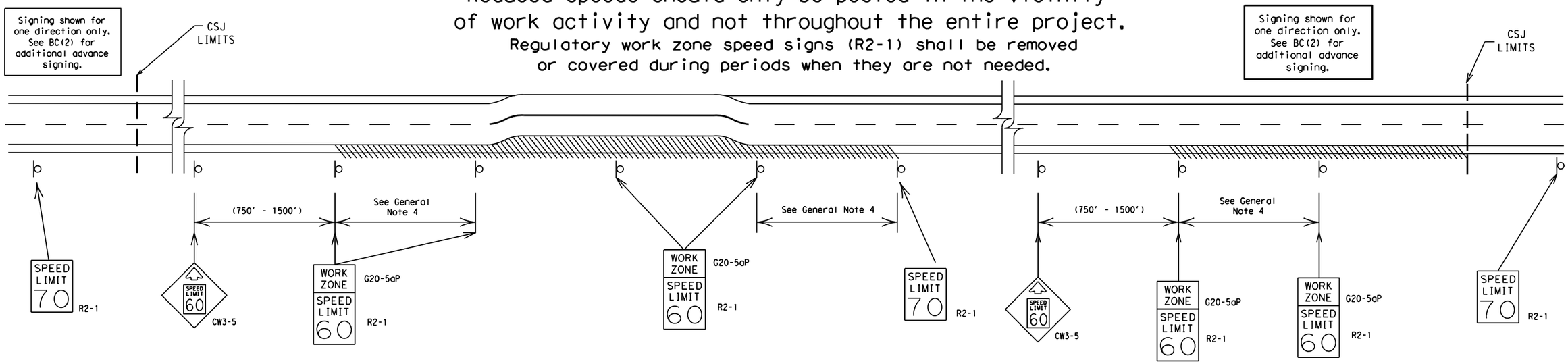
TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project.

Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

a) rough road or damaged pavement surface
b) substantial alteration of roadway geometrics (diversions)
c) construction detours
d) grade
e) width
f) other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the traveled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered.
(See Removing or Covering on BC(4)).

GENERAL NOTES

1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
3. Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
4. Frequency of work zone speed limit signs should be:
   40 mph and greater 0.2 to 2 miles
   35 mph and less 0.2 to 1 mile
5. Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
6. Fabrication, erection and maintenance of the"ADVANCE SPEED LIMIT"(CW3-5)sign, "WORK ZONE"(G20-5aP) plaque and the "SPEED LIMIT"(R2-1)signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
7. Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
8. Techniques that may help reduce traffic speeds include but are not limited to:
   A. Law enforcement.
   B. Flagger stationed next to sign.
   C. Portable changeable message sign (PCMS).
   D. Low-power (drone) radar transmitter.
   E. Speed monitor trailers or signs.
9. Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
10. For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

Texas Department of Transportation | Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

BC(3)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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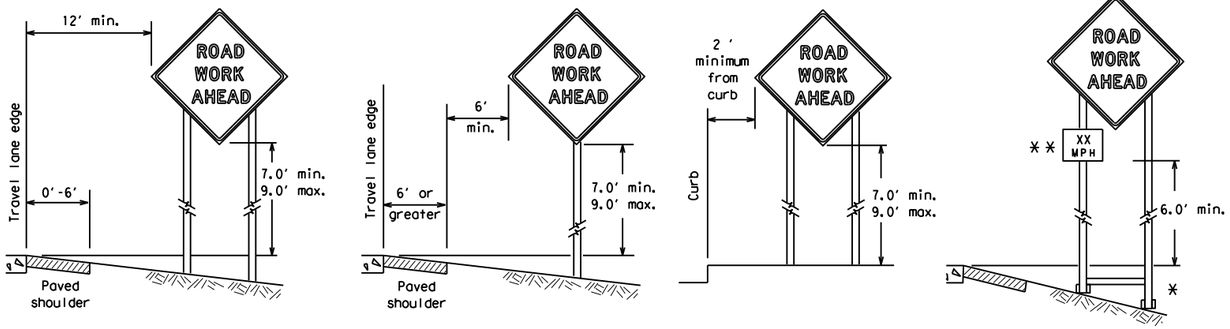
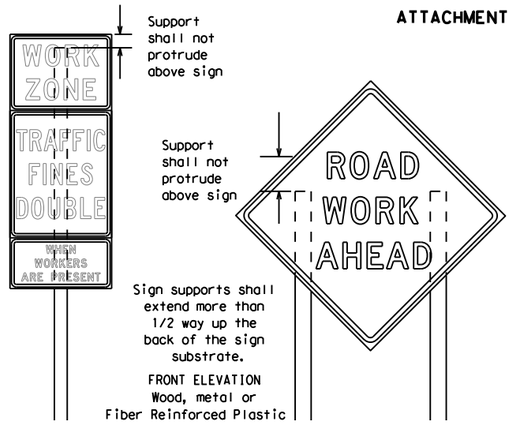
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS

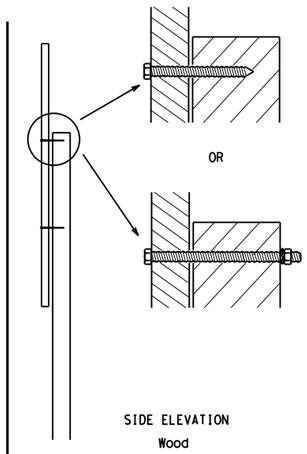


* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

** When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

ATTACHMENT FOR SIGN SUPPORTS





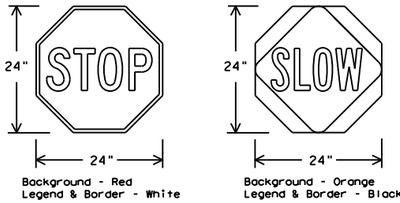
Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the spice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

STOP/SLOW PADDLES

1. STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24".
2. STOP/SLOW paddles shall be retroreflectorized when used at night.
3. STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
4. Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



SHEETING REQUIREMENTS (WHEN USED AT NIGHT)		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	ORANGE	TYPE B_{FL} OR C_{FL} SHEETING
LEGEND & BORDER	WHITE	TYPE B OR C SHEETING
LEGEND & BORDER	BLACK	ACRYLIC NON-REFLECTIVE FILM

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

1. Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, specific service (LOGO), or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
2. When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition. For details for covering large guide signs see the TS-CD standard.
3. When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
4. If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
5. If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC standard sheets, TLRS standard sheets or the CWZTCD list. The signs shall meet the required mounting heights shown on the BC, or the SMD standard sheets during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
6. Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

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. 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.
5. 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.
6. The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD) for small roadside signs. Supports for temporary large roadside signs shall meet the requirements detailed on the Temporary Large Roadside Signs (TLRS) standard sheets. 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 the Engineer can verify the correct procedures are being followed.
7. The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
8. 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 inch.
9. 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 6)

1. The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
   a. Long-term stationary - work that occupies a location more than 3 days.
   b. Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
   c. Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
   d. Short, duration - work that occupies a location up to 1 hour.
   e. Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

1. The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
2. The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
3. Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
4. Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
5. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

1. The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

1. The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations 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, regardless of the tightness of the weave.
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 face.

REFLECTIVE SHEETING

1. All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
2. White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
3. Orange sheeting, meeting the requirements of DMS-8300 Type B_{FL} or Type C_{FL}, shall be used for rigid 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. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
2. Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
3. Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
4. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face.
7. Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

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 should be used.
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 shall 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. Rubber (such as tire inner tubes) shall NOT be used.
6. Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
7. 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 support.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

1. Flags may be used to draw attention to warning signs. When used, the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

Texas Department of Transportation | Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

BC(4)-21

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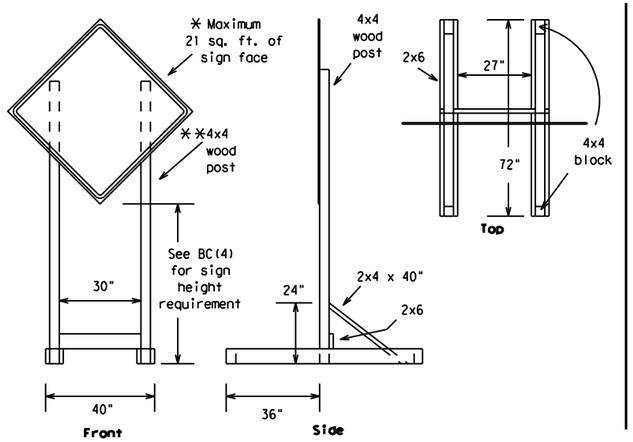
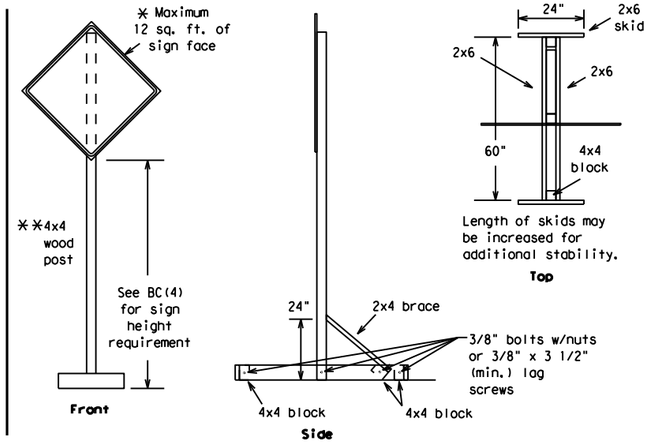
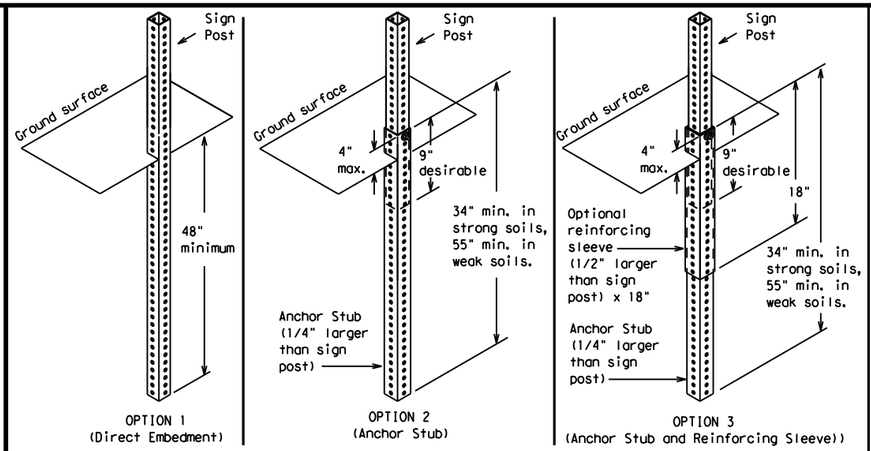




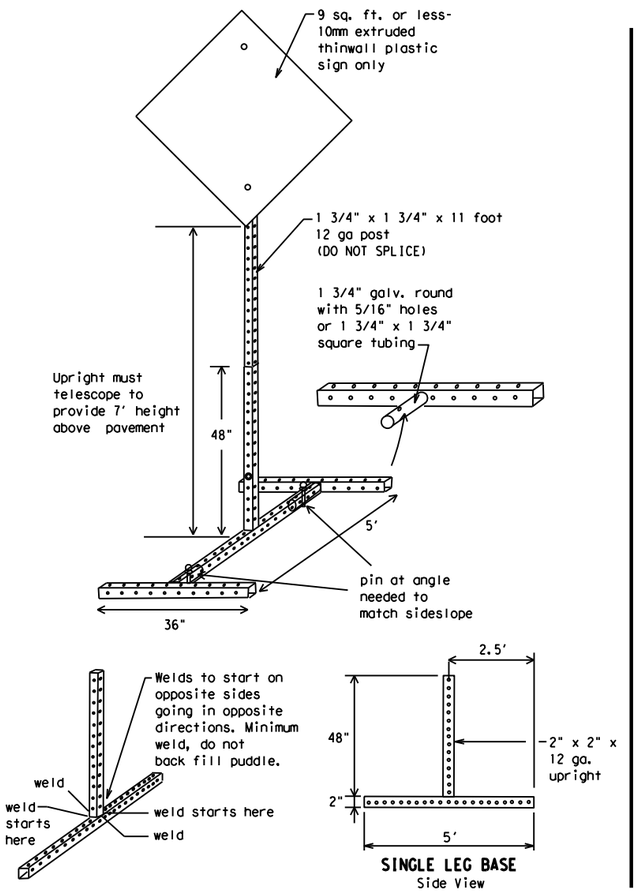
SKID MOUNTED WOOD SIGN SUPPORTS

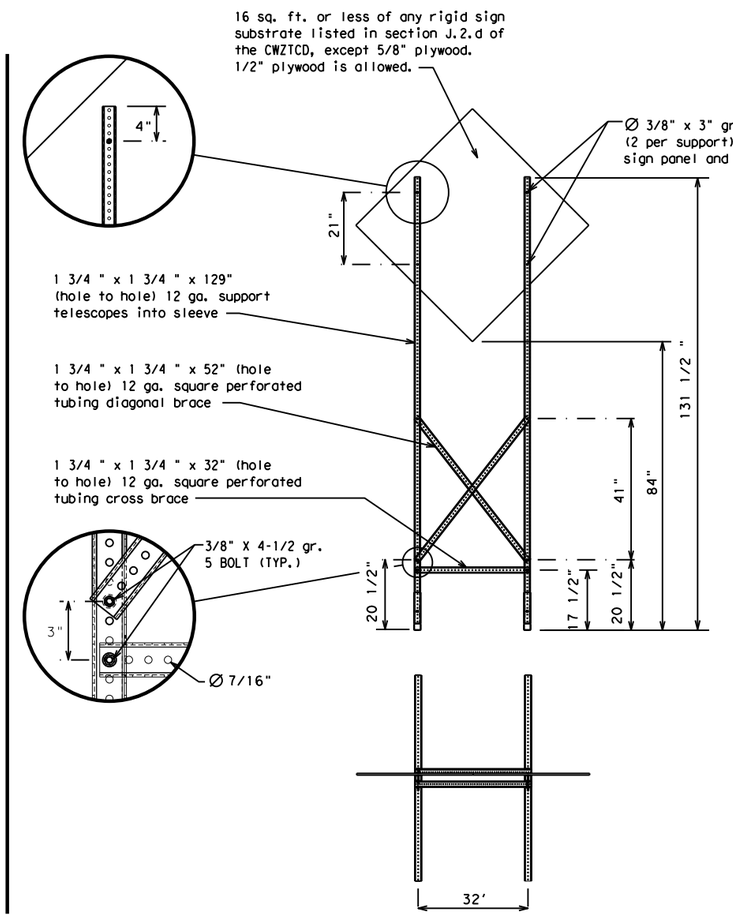
* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS

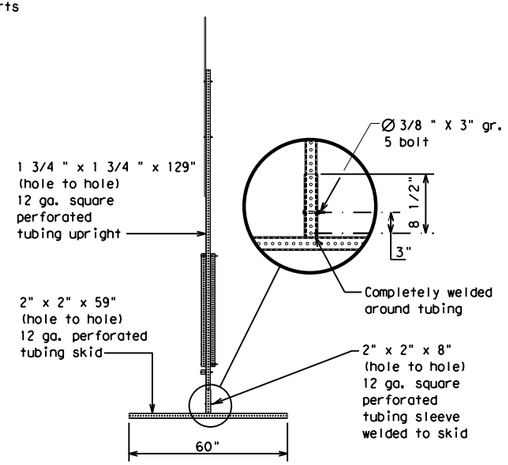


GROUND MOUNTED SIGN SUPPORTS

Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support.
The maximum sign square footage shall adhere to the manufacturer's recommendation.
Two post installations can be used for larger signs.







SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS

* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS

WEDGE ANCHORS

Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS

MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

GENERAL NOTES

1. Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
2. No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
3. When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

* See BC(4) for definition of "Work Duration."

** Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.

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

Texas Department of Transportation | Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC(5)-21

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

PORTABLE CHANGEABLE MESSAGE SIGNS

1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
3. Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
4. Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
5. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
6. When in use, the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
7. The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
8. The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
9. Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
10. Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
11. Do not use the word "Danger" in message.
12. Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
13. Do not display messages that scroll horizontally or vertically across the face of the sign.
14. The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
15. PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
16. Each line of text should be centered on the message board rather than left or right justified.
17. If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD
Alternate	ALT
Avenue	AVE
Best Route	BEST RTE
Boulevard	BLVD
Bridge	BRDG
Cannot	CANT
Center	CTR
Construction Ahead	CONST AHD
CROSSING	XING
Detour Route	DETOUR RTE
Do Not	DONT
East	E
Eastbound	(route) E
Emergency	EMER
Emergency Vehicle	EMER VEH
Entrance, Enter	ENT
Express Lane	EXP LN
Expressway	EXPWY
XXXX Feet	XXXX FT
Fog Ahead	FOG AHD
Freeway	FRWY, FWY
Freeway Blocked	FWY BLKD
Friday	FRI
Hazardous Driving	HAZ DRIVING
Hazardous Material	HAZMAT
High-Occupancy	HOV
Vehicle Highway	HWY
Hour(s)	HR, HRS
Information	INFO
It Is	ITS
Junction	JCT
Left	LFT
Left Lane	LFT LN
Lane Closed	LN CLOSED
Lower Level	LWR LEVEL
Maintenance	MAINT
Major	MAJ
Miles	MI
Miles Per Hour	MPH
Minor	MNR
Monday	MON
Normal	NORM
North	N
Northbound	(route) N
Parking	PKING
Road	RD
Right Lane	RT LN
Saturday	SAT
Service Road	SERV RD
Shoulder	SHLDR
Slippery	SLIP
South	S
Southbound	(route) S
Speed	SPD
Street	ST
Sunday	SUN
Telephone	PHONE
Temporary	TEMP
Thursday	THURS
To Downtown	TO DWNTN
Traffic	TRAF
Travelers	TRVLRS
Tuesday	TUES
Time Minutes	TIME MIN
Upper Level	UPR LEVEL
Vehicles (s)	VEH, VEHS
Warning	WARN
Wednesday	WED
Weight Limit	WT LIMIT
West	W
Westbound	(route) W
Wet Pavement	WET PVMT
Will Not	WONT

Roadway designation * IH-number, US-number, SH-number, FM-number

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

- FREEWAY CLOSED X MILE
- FRONTAGE ROAD CLOSED
- ROAD CLOSED AT SH XXX
- SHOULDER CLOSED XXX FT
- ROAD CLSD AT FM XXXX
- RIGHT LN CLOSED XXX FT
- RIGHT X LANES CLOSED
- RIGHT X LANES OPEN
- CENTER LANE CLOSED
- DAYTIME LANE CLOSURES
- NIGHT LANE CLOSURES
- I-XX SOUTH EXIT CLOSED
- VARIOUS LANES CLOSED
- EXIT XXX CLOSED X MILE
- EXIT CLOSED
- RIGHT LN TO BE CLOSED
- MALL DRIVEWAY CLOSED
- X LANES CLOSED TUE - FRI
- XXXXXXXX BLVD CLOSED

Other Condition List

- ROADWORK XXX FT
- ROAD REPAIRS XXXX FT
- FLAGGER XXXX FT
- LANE NARROWS XXXX FT
- RIGHT LN NARROWS XXXX FT
- TWO-WAY TRAFFIC XX MILE
- MERGING TRAFFIC XXXX FT
- CONST TRAFFIC XXX FT
- LOOSE GRAVEL XXXX FT
- UNEVEN LANES XXXX FT
- DETOUR X MILE
- ROUGH ROAD XXXX FT
- ROADWORK PAST SH XXXX
- ROADWORK NEXT FRI-SUN
- BUMP XXXX FT
- US XXX EXIT X MILES
- TRAFFIC SIGNAL XXXX FT
- LANES SHIFT *

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

- MERGE RIGHT
- FORM X LINES RIGHT
- DETOUR NEXT X EXITS
- USE XXXXX RD EXIT
- USE EXIT XXX
- USE EXIT I-XX NORTH
- STAY ON US XXX SOUTH
- USE I-XX E TO I-XX N
- TRUCKS USE US XXX N
- WATCH FOR TRUCKS
- WATCH FOR TRUCKS
- EXPECT DELAYS
- EXPECT DELAYS
- PREPARE TO STOP
- REDUCE SPEED XXX FT
- END SHOULDER USE
- USE OTHER ROUTES
- WATCH FOR WORKERS
- STAY IN LANE *

Location List

- AT FM XXXX
- BEFORE RAILROAD CROSSING
- NEXT X MILES
- PAST US XXX EXIT
- XXXXXXX TO XXXXXXX
- US XXX TO FM XXXX

Warning List

- SPEED LIMIT XX MPH
- MAXIMUM SPEED XX MPH
- MINIMUM SPEED XX MPH
- ADVISORY SPEED XX MPH
- RIGHT LANE EXIT
- USE CAUTION
- DRIVE SAFELY
- DRIVE WITH CARE

** Advance Notice List

- TUE-FRI XX AM- X PM
- APR XX-XX X PM-X AM
- BEGINS MONDAY
- BEGINS MAY XX
- MAY X-X XX PM - XX AM
- NEXT FRI-SUN
- XX AM TO XX PM
- NEXT TUE AUG XX
- TONIGHT XX PM- XX AM

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

1. Only 1 or 2 phases are to be used on a PCMS.
2. The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
3. A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
4. A Location Phase is necessary only if a distance or location is not included in the first phase selected.
5. If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
6. For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

WORDING ALTERNATIVES

1. The words RIGHT, LEFT and ALL can be interchanged as appropriate.
2. Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
3. EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
4. Highway names and numbers replaced as appropriate.
5. ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
6. AHEAD may be used instead of distances if necessary.
7. FT and MI, MILE and MILES interchanged as appropriate.
8. AT, BEFORE and PAST interchanged as needed.
9. Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

1. When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
2. When symbol signs, such as the "Flagger Symbol"(CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
3. When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
4. A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

Texas Department of Transportation

Traffic Safety Division Standard

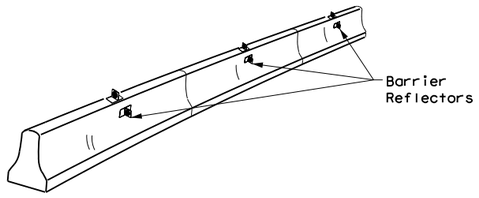
BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC(6)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0905	00	120	VAR
9-07 8-14	DIST	COUNTY		SHEET NO.
7-13 5-21	LBB	LUBBOCK		011

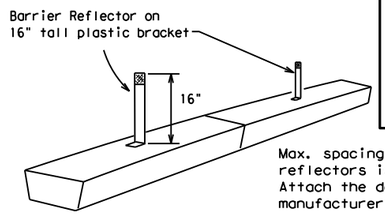
DATE: 11/28/2023 11:31:05 AM
FILE: T:\LBBTRAFF\PROJECTS (CURRENT)\0905-00-120 2024 RRPM\Standards\006-017 bc(1-12)21.dgn

1. Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
2. Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.



CONCRETE TRAFFIC BARRIER (CTB)

3. Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
4. Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional)while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
5. When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
6. Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
7. Maximum spacing of Barrier Reflectors is forty (40) feet.
8. Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
9. Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
10. Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
11. Single slope barriers shall be delineated as shown on the above detail.

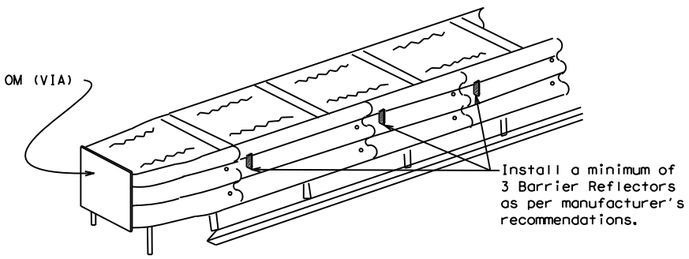


Max. spacing of barrier reflectors is 20 feet. Attach the delineators as per manufacturer's recommendations.

LOW PROFILE CONCRETE BARRIER (LPCB) USED IN WORK ZONES

LPCB is approved for use in work zone locations, where the posted speed is 45mph, or less. See Roadway Standard Sheet LPCB.

LOW PROFILE CONCRETE BARRIER (LPCB)

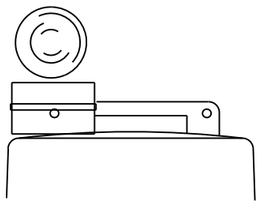


DELINEATION OF END TREATMENTS

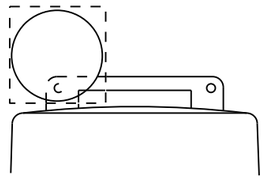
END TREATMENTS FOR CTB'S USED IN WORK ZONES

End treatments used on CTB's in work zones shall meet the apppropriate crashworthy standards as defined in the Manual for Assessing Safety Hardware (MASH). Refer to the CWZTCD List for approved end treatments and manufacturers.

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS



Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.



Warning reflector may be round or square.Must have a yellow reflective surface area of at least 30 square inches

WARNING LIGHTS

1. Warning lights shall meet the requirements of the TMUTCD.
2. Warning lights shall NOT be installed on barricades.
3. Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The Type A Warning Lights shall not be used with signs manufactured with Type B_{FL} or C_{FL} Sheeting meeting the requirements of Departmental Material Specification DMS-8300.
4. Type-C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
5. The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
6. When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
7. When used to delineate curves, Type-C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
8. The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

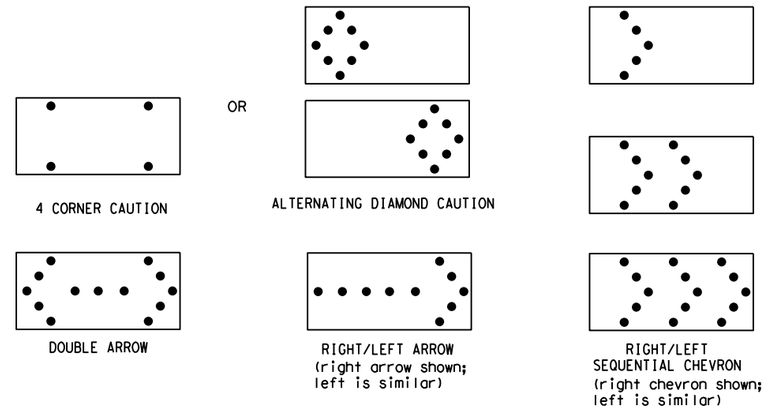
1. Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
2. Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
3. A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
4. Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
5. Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
6. Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
7. The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS

1. A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
2. The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CWZTCD.
3. The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
4. Round reflectors shall be fully reflectorized, including the area where attached to the drum.
5. Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
6. The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-Type B or Type C.
7. When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
8. The warning reflector should be mounted on the side of the handle nearest approaching traffic.
9. The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.

Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

1. The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
2. Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
3. The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
4. The Flashing Arrow Board should be able to display the following symbols:



5. The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
6. The straight line caution display is NOT ALLOWED.
7. The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
8. Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
9. The sequential arrow display is NOT ALLOWED.
10. The flashing arrow display is the TxDOT standard; however, the sequential chevron display may be used during daylight operations.
11. The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
12. A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
13. A full matrix PCMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
14. Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

ATTENTION

Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

FLASHING ARROW BOARDS

SHEET 7 OF 12

TRUCK-MOUNTED ATTENUATORS

1. Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the Manual for Assessing Safety Hardware (MASH).
2. Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
3. Refer to the CWZTCD for a list of approved TMAs.
4. TMAs are required on freeways unless otherwise noted in the plans.
5. A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
6. The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR

BC(7)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0905	00	120	VAR
9-07 8-14	DIST	COUNTY		SHEET NO.
7-13 5-21	LBB	LUBBOCK		012

101

DATE: 11/28/2023 11:31:06 AM
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GENERAL NOTES

1. For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
2. For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections, one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
3. For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
4. Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
5. Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
6. The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

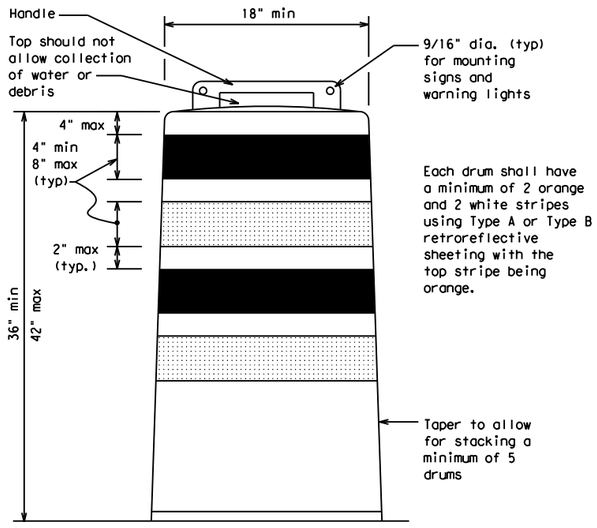
1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
3. Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
4. Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
5. The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
6. The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
7. Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
8. Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
9. Drum body shall have a maximum unballasted weight of 11 lbs.
10. Drum and base shall be marked with manufacturer's name and model number.

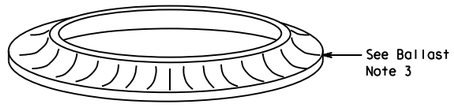
RETROREFLECTIVE SHEETING

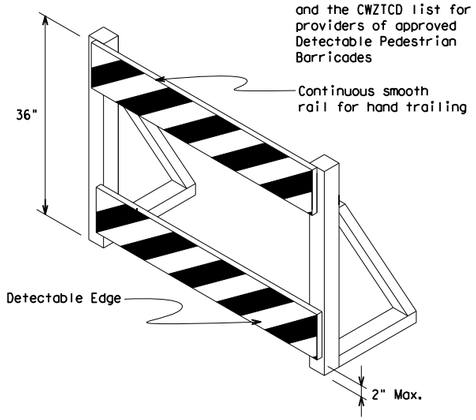
1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials," Type A or Type B reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

BALLAST

1. Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
2. Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
3. Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
4. The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
5. When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
6. Ballast shall not be placed on top of drums.
7. Adhesives may be used to secure base of drums to pavement.

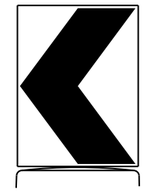




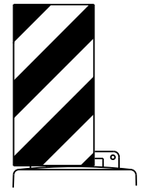


DETECTABLE PEDESTRIAN BARRICADES

1. When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility. Refer to WZ(BTS-2) for Pedestrian Control requirements for Sidewalk Diversions, Sidewalk Detours and Crosswalk Closures.
2. Where pedestrians with visual disabilities normally use the closed sidewalk, a Detectable Pedestrian Barricade shall be placed across the full width of the closed sidewalk instead of a Type 3 Barricade.
3. Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
4. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines (ADAAG)" and should not be used as a control for pedestrian movements.
5. Warning lights shall not be attached to detectable pedestrian barricades.
6. Detectable pedestrian barricades should use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



18" x 24" Sign
(Maximum Sign Dimension)
Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer



12" x 24"
Vertical Panel
mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

1. Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
2. Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL} or Type C_{FL} Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A or Type B. Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
4. Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
5. Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
6. Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
7. Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations, they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
8. R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

Texas Department of Transportation | Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(8)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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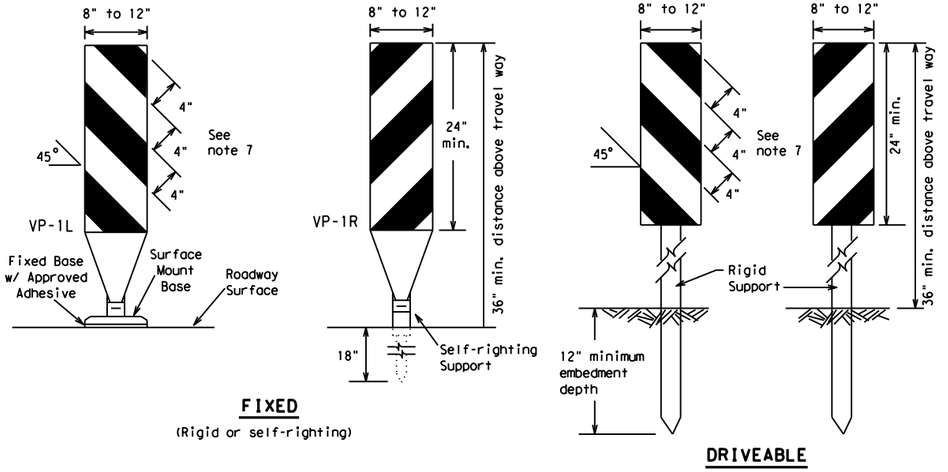
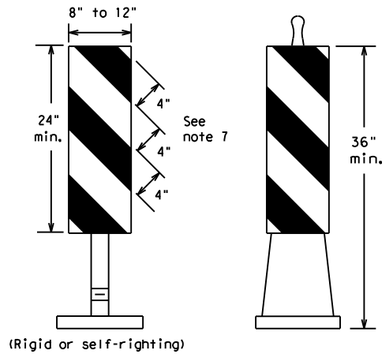


FIXED
(Rigid or self-righting)

DRIVEABLE

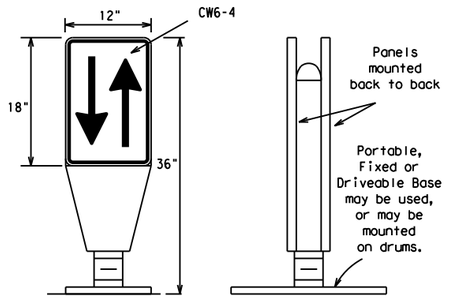


(Rigid or self-righting)

PORTABLE

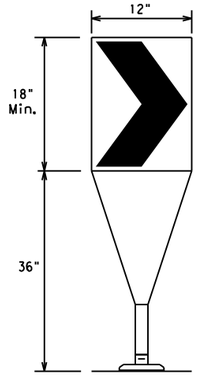
1. Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
2. VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual for additional requirements on the use VP's for drop-offs.
3. VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
4. VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
5. Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
6. Sheeting for the VP's shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
7. Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.

VERTICAL PANELS (VPs)



1. Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to convert a normal one-way roadway section to two-way operation. OTLD's are used on temporary centerlines. The upward and downward arrows on the sign's face indicate the direction of traffic on either side of the divider. The base is secured to the pavement with an adhesive or rubber weight to minimize movement caused by a vehicle impact or wind gust.
2. The OTLD may be used in combination with 42" cones or VPs.
3. Spacing between the OTLD shall not exceed 500 feet. 42" cones or VPs placed between the OTLD's should not exceed 100 foot spacing.
4. The OTLD shall be orange with a black non-reflective legend. Sheeting for the OTLD shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.

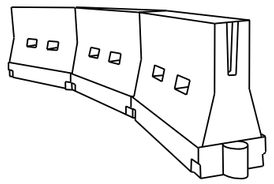
OPPOSING TRAFFIC LANE DIVIDERS (OTLD)



Fixed Base w/ Approved Adhesive (Driveable Base, or Flexible Support can be used)

1. The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
2. Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
3. Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
4. To be effective, the chevron should be visible for at least 500 feet.
5. Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
6. For Long Term Stationary use on tapers or transitions on freeways and divided highways, self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

CHEVRONS



LONGITUDINAL CHANNELIZING DEVICES (LCD)

1. LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
2. LCDs may be used instead of a line of cones or drums.
3. LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
5. LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
6. LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10). Place reflective sheeting near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

1. Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (MASH) crashworthiness requirements based on roadway speed and barrier application.
2. Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
3. Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
5. When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long canes and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

GENERAL NOTES

1. Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
3. Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
4. The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
5. Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
6. Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
7. The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

Posted Speed	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L = WS	450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

** Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

SHEET 9 OF 12

Texas Department of Transportation — Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(9)-21

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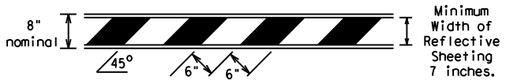
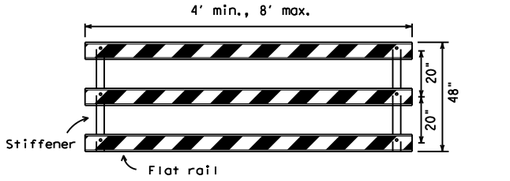
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road, striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.



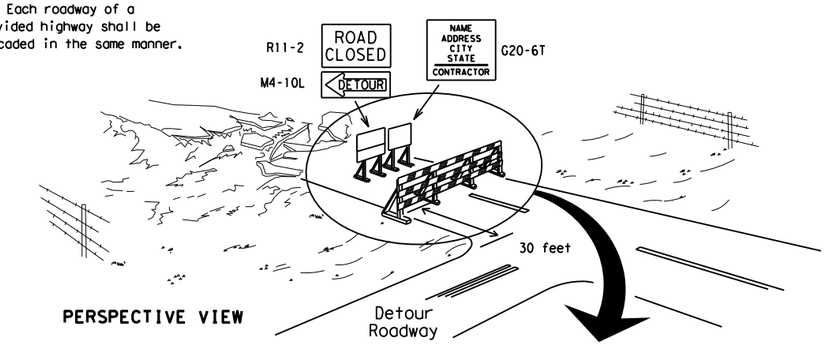
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

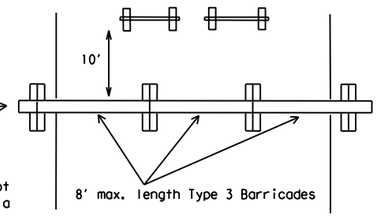
TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES

Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

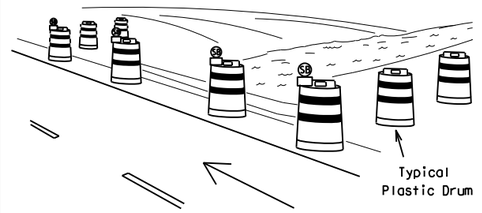
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic.
Barricade striping should slant downward in the direction of detour.



PLAN VIEW

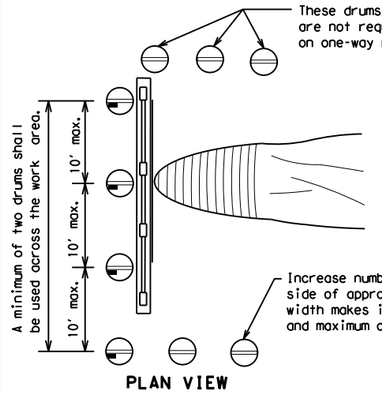
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

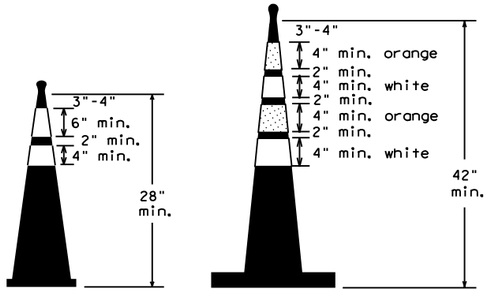
1. Where positive redirectional capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.



LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
SB	Steady burn warning light or yellow warning reflector

PLAN VIEW

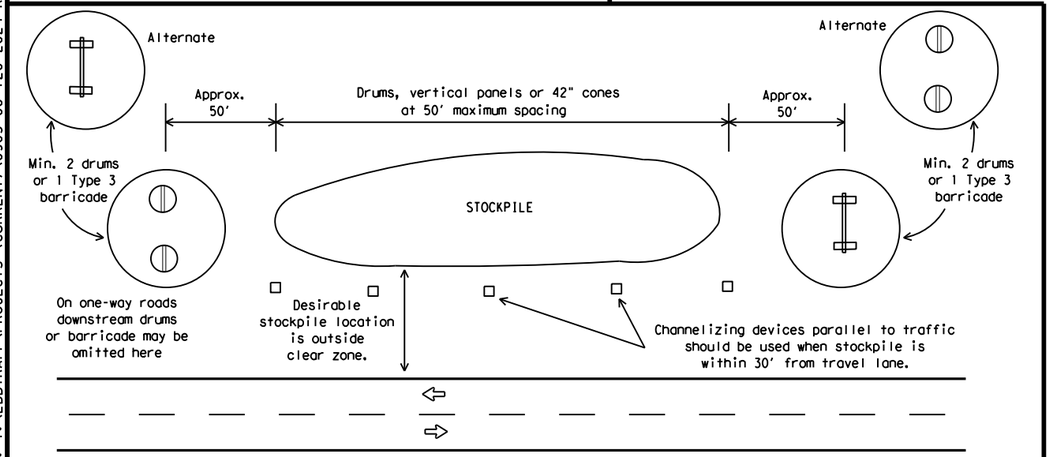
CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



28" Cones shall have a minimum weight of 9 1/2 lbs.

42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A or Type B.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

Texas Department of Transportation — Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(10)-21

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WORK ZONE PAVEMENT MARKINGS

GENERAL

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

1. Raised pavement markers are to be placed according to the patterns on BC(12).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

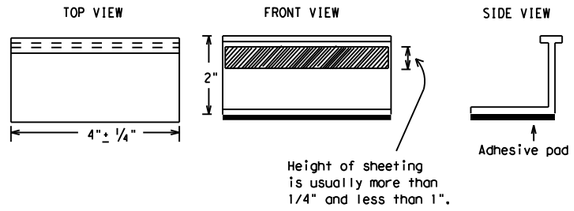
MAINTAINING WORK ZONE PAVEMENT MARKINGS

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-painting of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective Roadway Marker Tabs



STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
   A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
   B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:
YELLOW - (two amber reflective surfaces with yellow body).
WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

BC(11)-21

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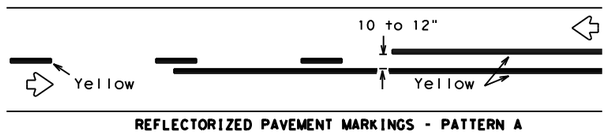
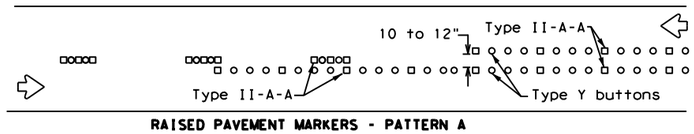
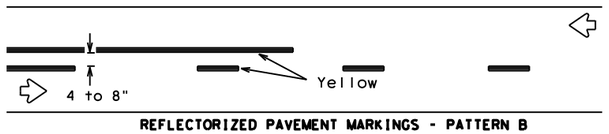
PAVEMENT MARKING PATTERNS



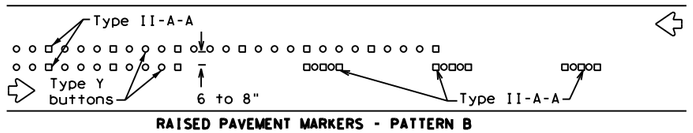
REFLECTORIZED PAVEMENT MARKINGS - PATTERN A



RAISED PAVEMENT MARKERS - PATTERN A



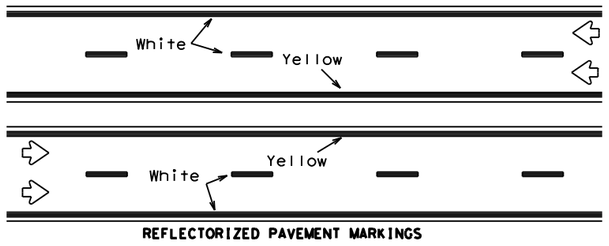
REFLECTORIZED PAVEMENT MARKINGS - PATTERN B



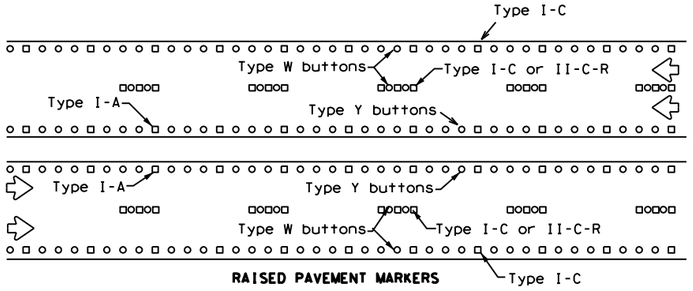
RAISED PAVEMENT MARKERS - PATTERN B

Pattern A is the TXDOT Standard, however Pattern B may be used if approved by the Engineer.
Prefabricated markings may be substituted for reflectorized pavement markings.

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



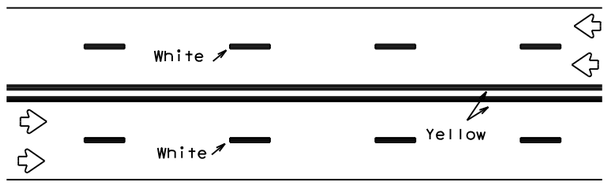
REFLECTORIZED PAVEMENT MARKINGS



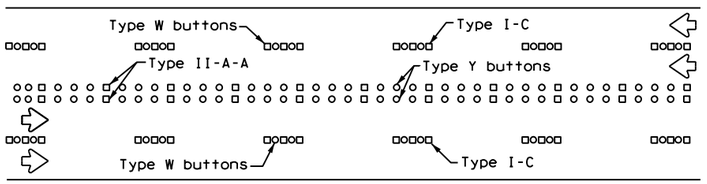
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



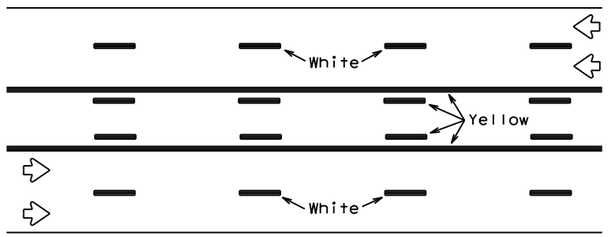
REFLECTORIZED PAVEMENT MARKINGS



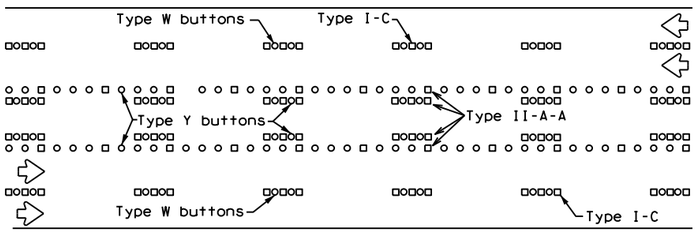
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS



RAISED PAVEMENT MARKERS

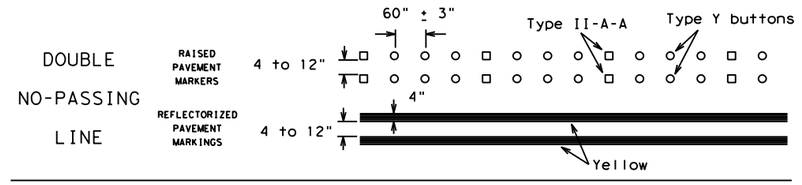
Prefabricated markings may be substituted for reflectorized pavement markings.

TWO-WAY LEFT TURN LANE

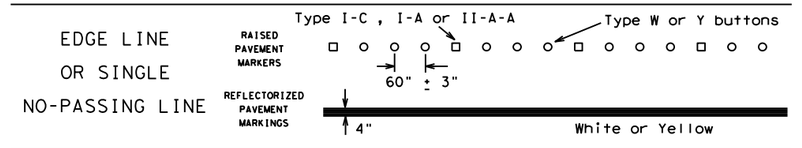
STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS

SOLID LINES

DOUBLE NO-PASSING LINE

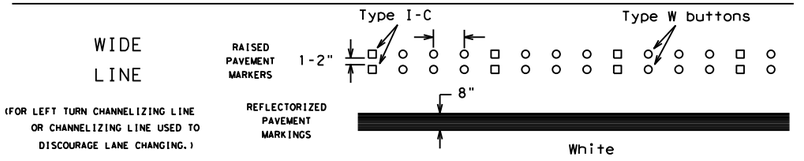


EDGE LINE OR SINGLE NO-PASSING LINE



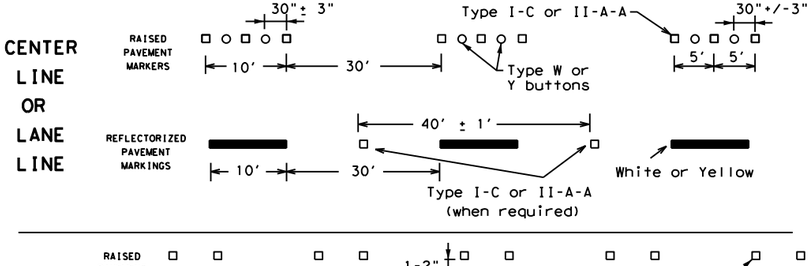
WIDE LINE

(FOR LEFT TURN CHANNELIZING LINE OR CHANNELIZING LINE USED TO DISCOURAGE LANE CHANGING.)

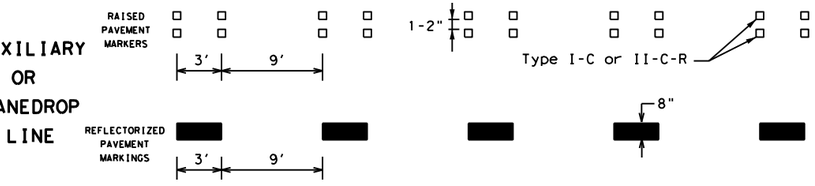


BROKEN LINES

CENTER LINE OR LANE LINE

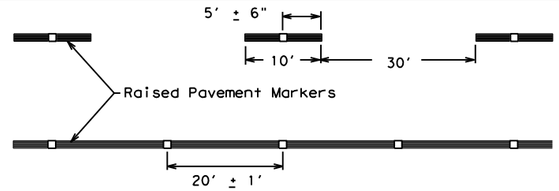


AUXILIARY OR LANEDROP LINE



REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

If raised pavement markers are used to supplement REMOVABLE markings, the markers shall be applied to the top of the tape at the approximate mid length of tape used for broken lines or at 20 foot spacing for solid lines. This allows an easier removal of raised pavement markers and tape.



Centerline only - not to be used on edge lines

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

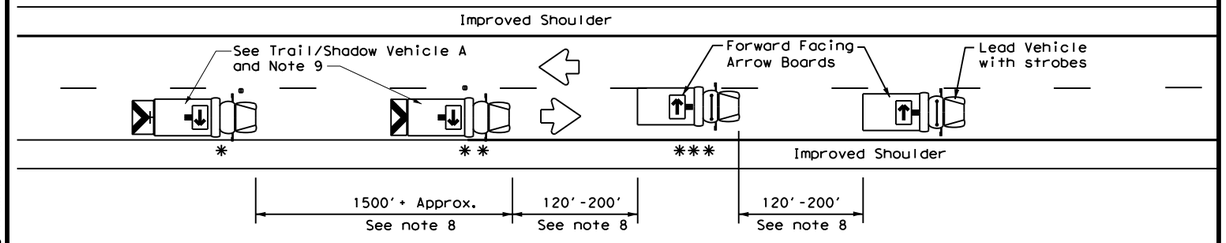
Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

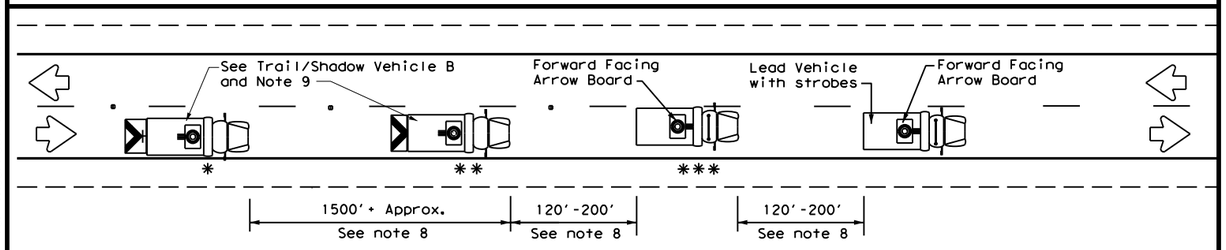
BC(12)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS 1-97 9-07 5-21 2-98 7-13 11-02 8-14	0905	00	120	VAR
	DIST	COUNTY		SHEET NO.
	LBB	LUBBOCK		017



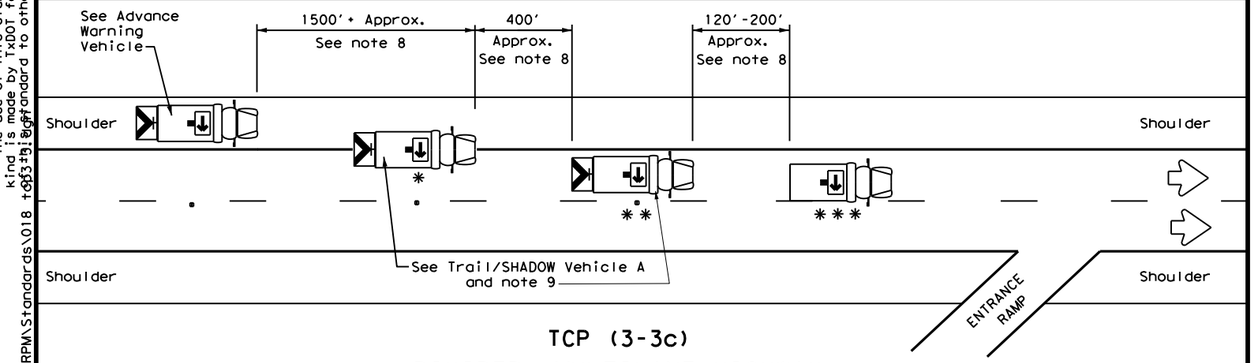
TCP (3-3a)

TWO LANE HIGHWAY WITH PAVED SHOULDERS
(WORK ON TRAVEL LANE)



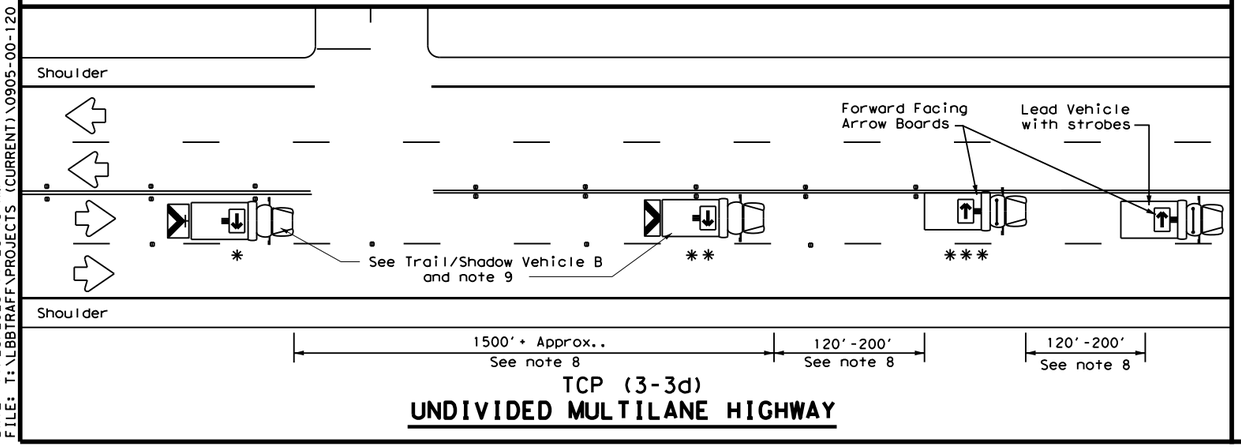
TCP (3-3b)

TWO LANE HIGHWAY WITHOUT PAVED SHOULDERS
(WORK ON TRAVEL LANE)



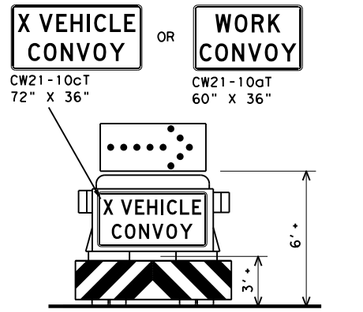
TCP (3-3c)

DIVIDED MULTILANE HIGHWAY



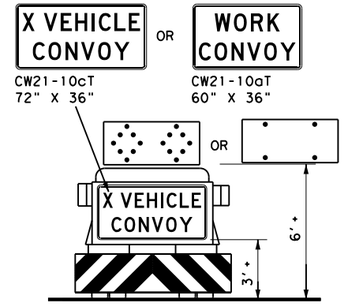
TCP (3-3d)

UNDIVIDED MULTILANE HIGHWAY



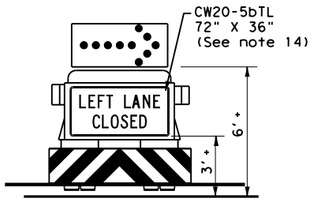
TRAIL/SHADOW VEHICLE A

with RIGHT Directional display
Flashing Arrow Board

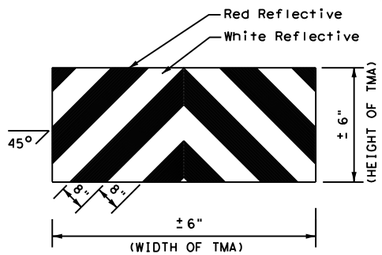


TRAIL/SHADOW VEHICLE B

with Flashing Arrow Board
in Caution Mode



ADVANCE WARNING VEHICLE



STRIPING FOR TMA

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 on two way roads the WORK vehicle must have an arrow board. For divided roadways, the arrow board on the WORK vehicle is optional based on the type of work being performed. 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, ADVANCE WARNING 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 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. For divided highways with two or three lanes in one direction, the appropriate LEFT LANE CLOSED (CW20-5bTL), RIGHT LANE CLOSED (CW20-5bTR), or CENTER LANE CLOSED (CW20-5dT) sign should be used on the Advance Warning Vehicle. As an option, a portable changeable message sign (PCMS) or 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 may 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. A double arrow shall not be displayed on the arrow board on the Advance Warning Vehicle.
12. For divided highways with three or four lanes in each direction, use TCP(3-2).
13. Standard diamond shape versions of the CW20-5 series signs may be used as an option if the rectangular signs shown are not available.
14. The Advance Warning Vehicle may straddle the edgeline when Shoulder width makes it necessary.
15. 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.

Texas Department of Transportation

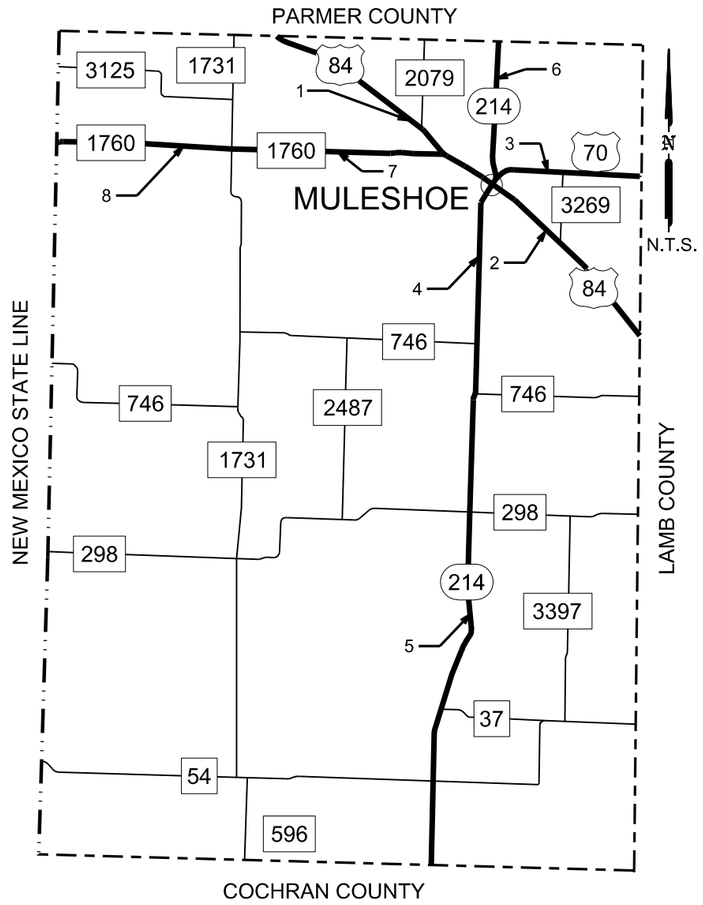
Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
MOBILE OPERATIONS
RAISED PAVEMENT MARKER INSTALLATION/ REMOVAL
TCP(3-3)-14

FILE: tcp3-3.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT September 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0905	00	120	VAR
2-94 4-98	DIST	COUNTY		SHEET NO.
8-95 7-13	LBB	LUBBOCK		018
1-97 7-14				

DATE: 11/28/2023 11:26:48 AM
FILE: T:\LBB\TRAFF\PROJECTS (CURRENT)\0905-00-120 2024 RRPM\Standards\018 tcp3-3.dgn

County : Bailey	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	70/84	Parmer County Line to East 6th st in Muleshoe	52	02	238+0.000	246+3.487	11.484	78	84	192	357
2	US	84	East 6th St. in Muleshoe to Lamb County Line	52	03	246+3.487	258+0.000	8.291	58	27	75	539
3	US	70	US 84 to Lamb County Line	145	01	250-0.863	254+1.611	6.501	0	55	402	0
4	SH	214	US 84 to FM 298	461	01	184-1.927	196-0.472	11.854	0	12	794	0
5	SH	214	FM 298 to Cochran County Line	461	02	196-0.472	210+0.173	13.970	0	0	971	0
6	SH	214	Parmer County Line to US 70	461	07	176+0.00	180+1.744	5.727	0	0	370	0
7	FM	1760	US 70 to FM 1731	1634	03	234-0.645	242+0.0298	7.965	0	0	621	0
8	FM	1760	FM 1731 to State Line	3286	01	226+0.000	234-0.649	8.065	0	0	768	0
						TOTAL		**73.857**	**136**	**178**	**4,193**	**896**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

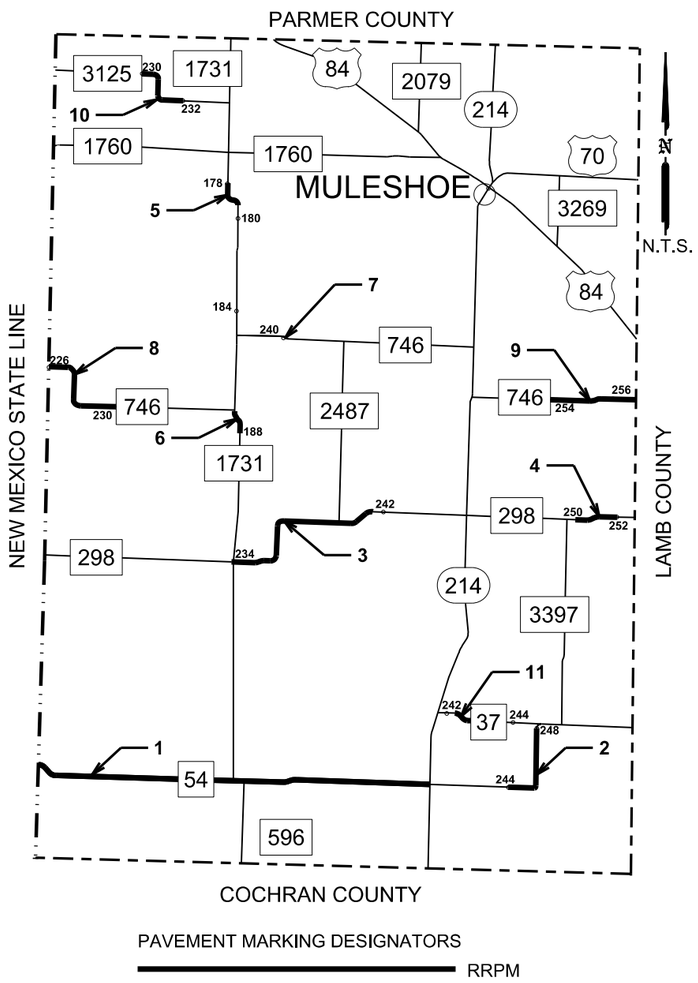
Jeremy T. Dearing, P.E.

11/29/2023

COUNTY LAYOUT
BAILEY

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			019
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs



PAVEMENT MARKING DESIGNATORS

RRPM

County : Bailey	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	54	ALL SPEED ADVISORY CURVES BETWEEN STATE LINE & SH 214	563	01	224	240	246
2	FM	54	ALL SPEED ADVISORY CURVES BETWEEN SH 214 & FM 37	563	02	244	248	125
3	FM	298	ALL SPEED ADVISORY CURVES BETWEEN FM 1731 & SH 214	884	02	234	242	402
4	FM	298	ALL SPEED ADVISORY CURVES BETWEEN FM 3397 & LAMB CO. LINE	884	02	250	252	90
5	FM	1731	ALL SPEED ADVISORY CURVES BETWEEN FM 746 & FM 1760	968	04	178	180	138
6	FM	1731	ALL SPEED ADVISORY CURVES BETWEEN FM 298 & FM 746	968	05	184	188	109
7	FM	746	ALL SPEED ADVISORY CURVES BETWEEN FM 1731 & FM 2487	1084	01	240	240	27
8	FM	746	ALL SPEED ADVISORY CURVES BETWEEN THE STATE LINE & FM 1731	1084	01	226	230	109
9	FM	746	ALL SPEED ADVISORY CURVES BETWEEN SH 214 & LAMB CO. LINE	1084	02	254	256	91
10	FM	3125	ALL SPEED ADVISORY CURVES BETWEEN STATE LINE & FM 1731	1904	03	230	232	170
11	FM	37	ALL SPEED ADVISORY CURVES BETWEEN SH 214 & FM 54	2044	01	242	244	119
						TOTAL		1,626

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

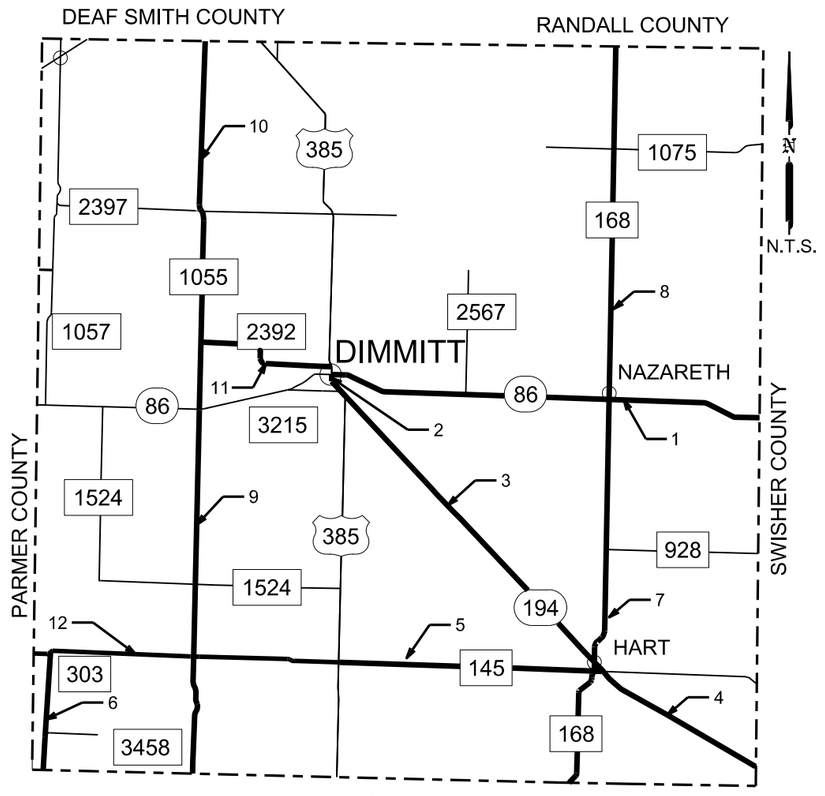
Jeremy T. Dearing, P.E.

11/29/2023

BAILEY COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			020
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Castro	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	SH	86	US 385 to Swisher County Line	302	03	268+0.443	288+0.000	18.214	0	0	956	0
2	US	385	SH 86 to FM 3215	439	01	148-0.517	148+0.325	0.842	0	100	100	0
3	SH	194	US 385 to County Road 519	439	01	270-0.570	278-1.390	7.182	0	41	475	0
4	SH	194	County Road 519 to Swisher County Line	439	02	278-1.390	294+0.120	15.873	0	0	556	0
5	FM	145	US 385 to SH 194	754	04	270+0.732	282-0.013	11.255	0	0	960	0
6	FM	303	FM 145 to Lamb County Line	820	10	158-0.085	164-0.001	5.991	0	0	160	0
7	FM	168	SH 86 to Lamb County Line	874	01	148+0.446	166-0.008	17.956	0	0	1,047	0
8	FM	168	Randall County Line to SH 86	874	05	134-0.194	148+0.446	14.640	0	0	1,000	0
9	FM	1055	FM 2397 to Lamb County Line	1291	01	136+0.985	146-0.871	23.903	0	0	802	0
10	FM	1055	FM 2397 to Deaf Smith County Line	1291	08	130+0.023	136+0.985	6.096	0	0	351	0
11	FM	2392	FM 1055 to beginning of 4 lane	2359	01	264-0.040	268+1.240	4.120	0	0	437	0
12	FM	145	US 385 to Parmer County Line	2419	01	258+0.070	270+0.792	12.072	0	0	542	0
						TOTAL		138.144	0	141	7,386	0



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

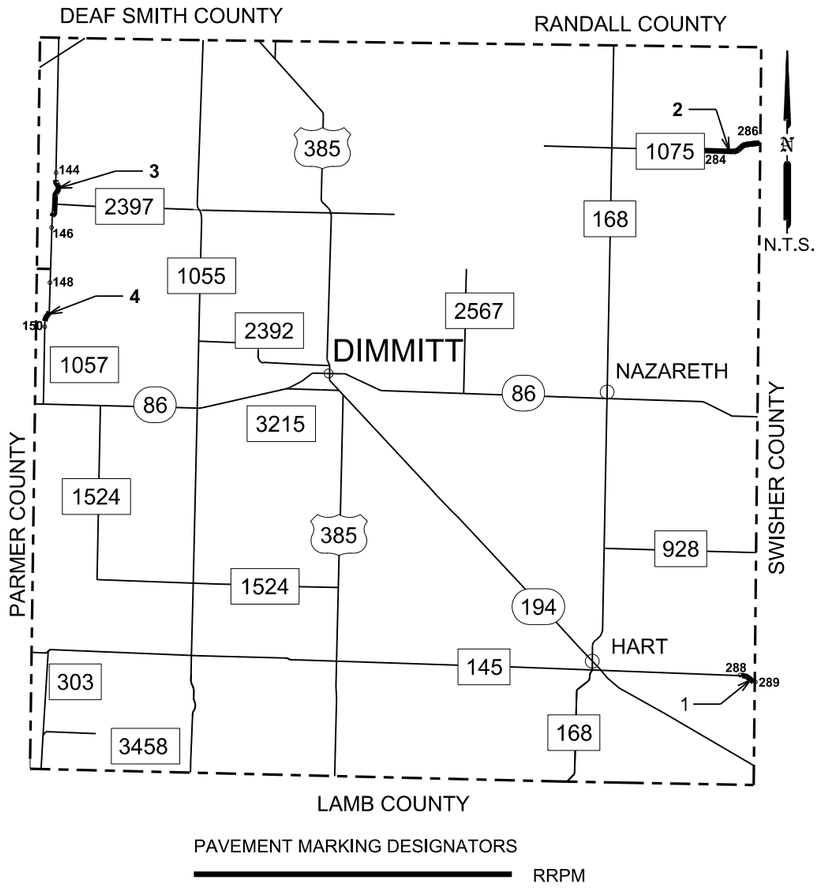
Jeremy T. Dearing, P.E.

11/29/2023

COUNTY LAYOUT
CASTRO

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			021
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs



PAVEMENT MARKING DESIGNATORS

RRPM

County : Castro	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	145	ALL SPEED ADVISORY CURVES NEAR SWISHER CO. LINE	754	04	288	289	75
2	FM	1075	ALL SPEED ADVISORY CURVES BETWEEN FM 168 & SWISHER CO. LINE	1256	01	284	286	221
3	FM	1057	ALL SPEED ADVISORY CURVES BETWEEN JUST NORTH & SOUTH OF FM 2397	1891	01	144	146	243
4	FM	1057	ALL SPEED ADVISORY CURVES BETWEEN SH 86 & FM 2397 (WEST)	1891	01	148	150	164
						TOTAL		**703**

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

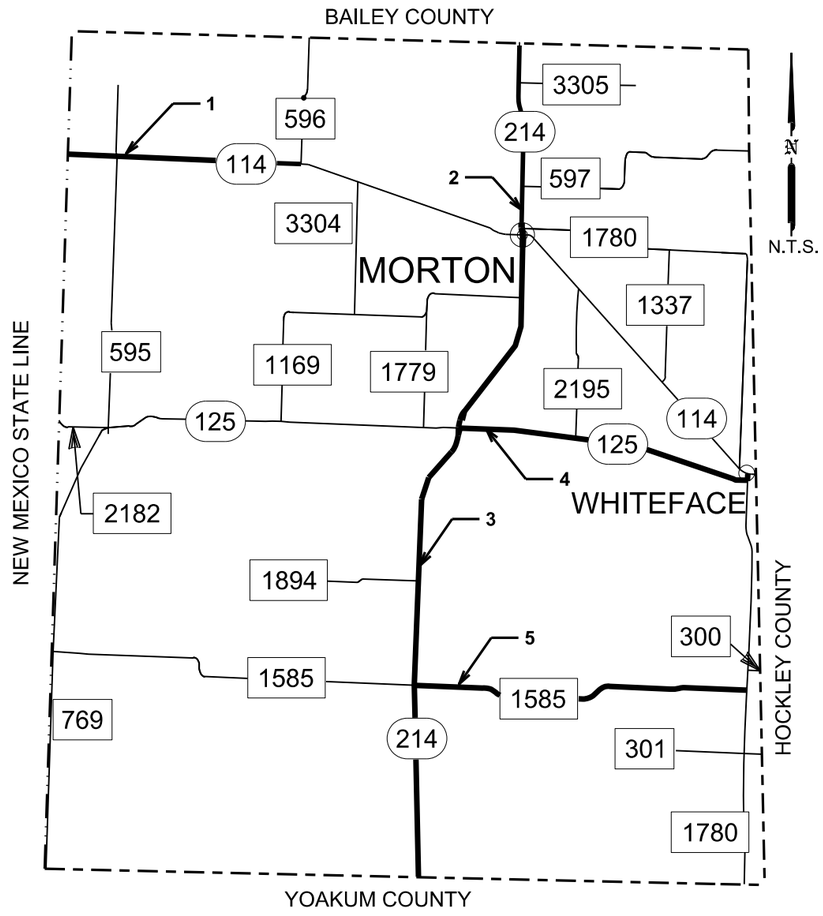
Jeremy T. Dearing, P.E.

11/29/2023

CASTRO COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			022
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Cochran	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	SH	114	Texas State Line to FM 596	130	01	224+0.000	232+0.485	8.485	0	72	1,845	0
2	SH	214	Bailey County Line to SH 114	461	03	212+0.013	218+0.887	6.874	0	50	400	0
3	SH	214	SH 114 to Yoakum County Line	461	04	218+0.887	244-0.011	25.912	0	53	871	0
4	SH	125	SH 214 to FM 1780	967	02	240+0.935	250+1.811	10.876	0	0	540	0
5	FM	1585	SH 214 to FM 1730	3126	02	238-0.275	250+0.400	12.013	0	0	814	0
						TOTAL		**64.160**	**0**	**175**	**4,470**	**0**



PAVEMENT MARKING DESIGNATORS

RRPM

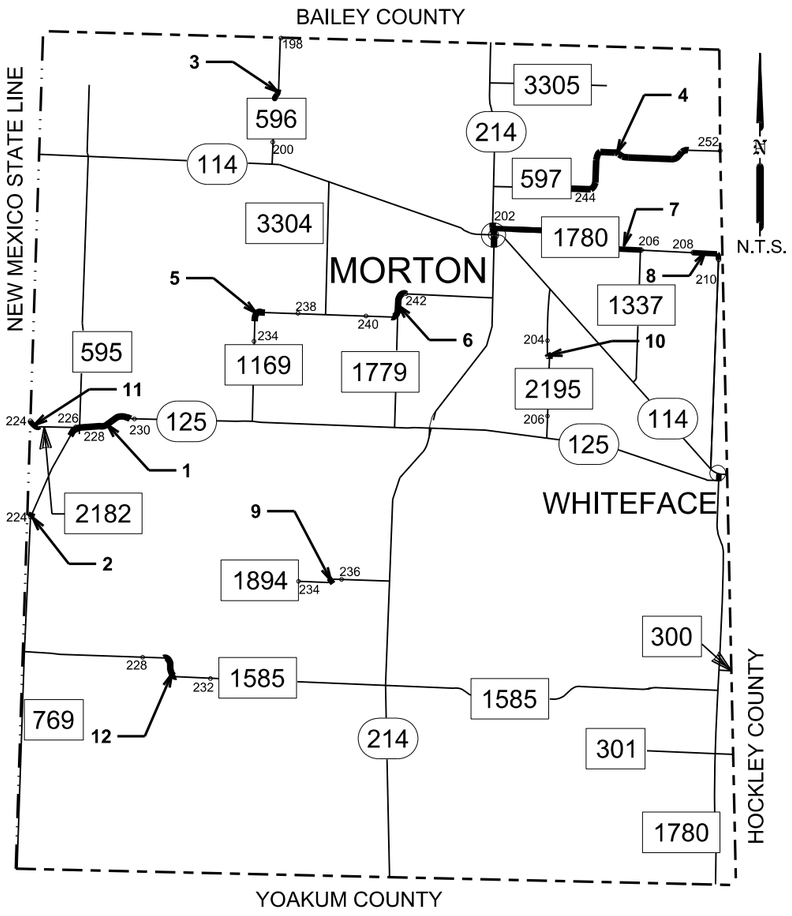
STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

COUNTY LAYOUT
COCHRAN

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			023
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023



PAVEMENT MARKING DESIGNATORS

RRPM

CURVE ADVISORY RRPMs

County : Cochran	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	SH	125	ALL SPEED ADVISORY CURVES BETWEEN FM 595 & FM 1169	967	02	228	230	105
2	SH	125	ALL SPEED ADVISORY CURVES NEAR STATE LINE	967	02	224	224	41
3	FM	596	ALL SPEED ADVISORY CURVES BETWEEN SH 114 & BAILEY CO. LINE	968	02	198	200	101
4	FM	597	ALL SPEED ADVISORY CURVES BETWEEN SH 214 & HOCKLEY CO. LINE	969	01	244	252	367
5	FM	1169	ALL SPEED ADVISORY CURVES WEST OF FM 3304	1481	01	234	238	108
6	FM	1169	ALL SPEED ADVISORY CURVES BETWEEN SH 214 & FM 3304	1481	01	240	242	175
7	FM	1780	ALL SPEED ADVISORY CURVES BETWEEN SH 214 & FM 1337	1481	02	202	206	175
8	FM	1780	ALL SPEED ADVISORY CURVES EAST OF FM 1337	1481	02	208	210	86
9	FM	1894	ALL SPEED ADVISORY CURVES BETWEEN END OF STATE MAINTENANCE & SH 214	1748	01	234	236	92
10	FM	2195	ALL SPEED ADVISORY CURVES BETWEEN SH 125 & SH 114	2080	01	204	206	89
11	FM	2182	ALL SPEED ADVISORY CURVES BETWEEN STATE LINE TO FM 595	2615	01	224	226	49
12	FM	1585	ALL SPEED ADVISORY CURVES BETWEEN FM 769 & SH 214	3126	01	228	232	143
						TOTAL		1,531

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.

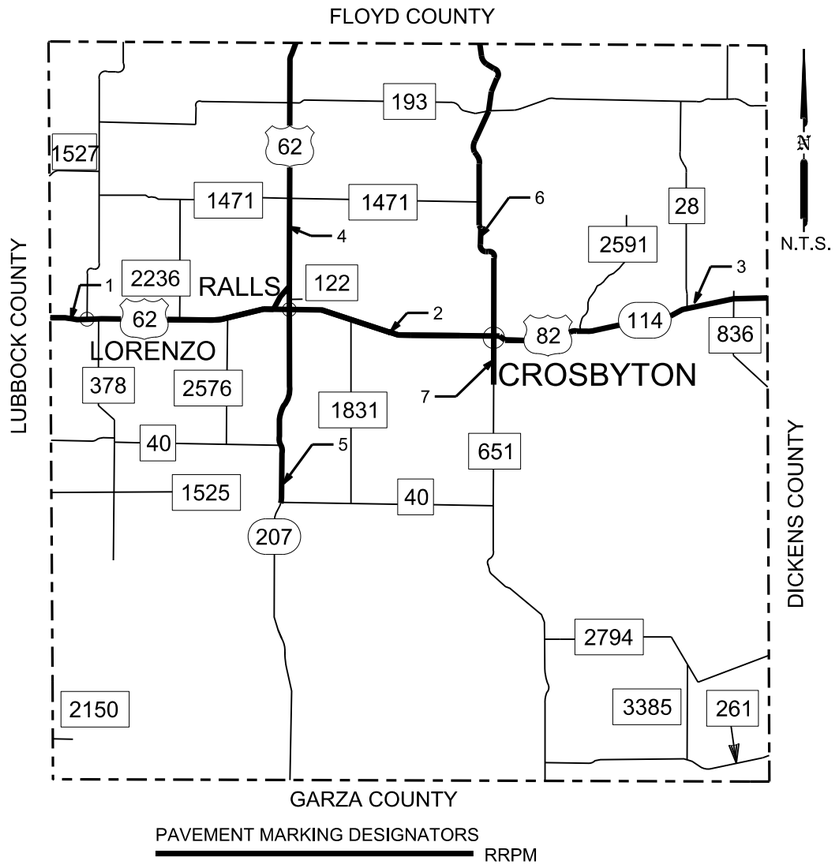
STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

COCHRAN COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			024
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023



PAVEMENT MARKING DESIGNATORS

RRPM

County : Crosby	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	62	Lubbock County Line to TRM 344-1.145	131	03	350+0.000	344-1.145	14.854	95	89	125	1,500
2	US	82	TRM 344-1.145 to FM 2591	131	04	344-1.145	350+0.579	7.730	45	0	541	1,439
3	US	82	FM 2591 to Dickens County Line	131	05	350+0.579	358+0.602	8.016	70	0	0	674
4	US	62	Floyd County Line to US 62/82	453	02	360+0.550	370+0.532	11.115	0	0	62	0
5	SH	207	US 62 to FM 40	453	04	232-1.703	238+1.143	8.846	0	20	779	0
6	FM	651	Floyd County Line to US 82	806	02	196-0.002	210-0.687	13.315	0	60	292	0
7	FM	651	US 82 to start of 2 lane	806	03	210-0.687	210+0.064	0.751	0	50	50	0
						TOTAL		**64.627**	**210**	**219**	**1,849**	**3,613**

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

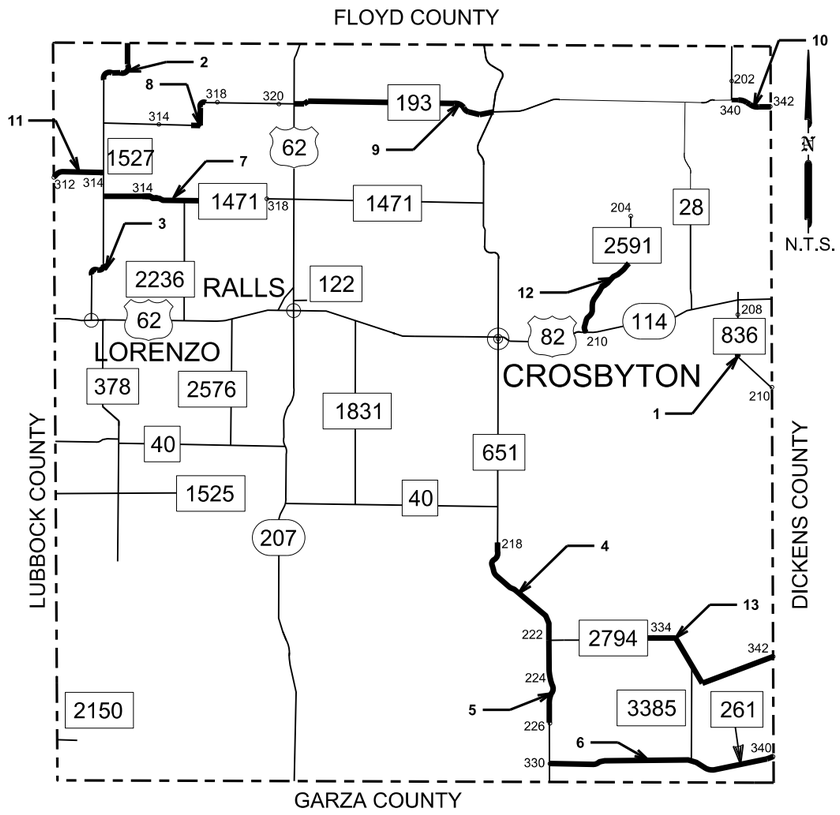
Jeremy T. Dearing, P.E.

11/29/2023

COUNTY LAYOUT
CROSBY

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			025
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs



PAVEMENT MARKING DESIGNATORS

RRPM

County : Crosby	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	836	ALL SPEED ADVISORY CURVES BETWEEN US 82 & DICKENS CO. LINE	651	03	208	210	230
2	FM	378	ALL SPEED ADVISORY CURVES BETWEEN FLOYD CO. LINE & FM 193	800	03	202	206	200
3	FM	378	ALL SPEED ADVISORY CURVES BETWEEN FM 1471 & LORENZO CITY LIMITS	800	03	212	214	210
4	FM	651	ALL SPEED ADVISORY CURVES BETWEEN FM 40 & FM 2794	806	03	218	222	473
5	FM	651	ALL SPEED ADVISORY CURVES BETWEEN FM 2794 & GARZA CO. LINE	806	03	224	226	128
6	FM	261	ALL SPEED ADVISORY CURVES BETWEEN FM 651 & DICKENS CO. LINE	949	02	330	340	312
7	FM	1471	ALL SPEED ADVISORY CURVES BETWEEN FM 378 & US 62	1143	01	314	318	274
8	FM	193	ALL SPEED ADVISORY CURVES BETWEEN FM 378 & US 62	1254	01	314	318	134
9	FM	193	WEST OF FM 651	1254	02	320	330	218
10	FM	193	ALL SPEED ADVISORY CURVES BETWEEN FM 28 (NORTH) & DICKENS CO. LINE	1254	02	340	342	125
11	FM	1527	ALL SPEED ADVISORY CURVES BETWEEN LUBBOCK CO. LINE & FM 378	1462	01	312	312	60
12	FM	2591	NORTH OF US 82	2616	01	204	208	382
13	FM	2794	ALL SPEED ADVISORY CURVES BETWEEN FM 651 & DICKENS CO. LINE	2777	01	334	342	722
						TOTAL		3,468

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

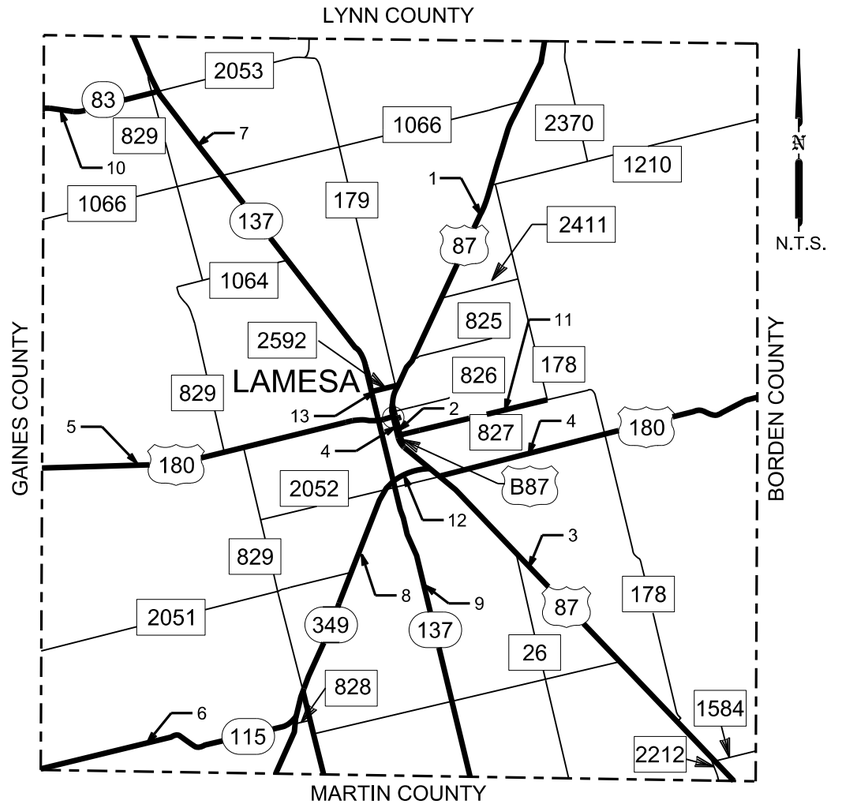
Jeremy T. Dearing, P.E.

11/29/2023

CROSBY COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			026
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Dawson	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	87	Lynn County Line to South 1st St in Lamesa	68	04	316+0.000	332+1.097	17.119	180	34	72	1,354
2	BU	87K	Northern Junction with US 87 South to US 180	68	04	334-1.674	334+1.150	0.524	0	31	194	2
3	US	87	South 1st St in Lamesa to Martin County Line	68	05	332+1.097	354+0.000	20.333	191	355	324	2,129
4	US	87	US 180 South to the Southern Junction with US 87	68	05	334-1.150	334+0.156	1.306	0	75	262	10
5	US	180	Gaines County Line to US 87	294	03	274-0.017	288+1.102	15.119	0	0	0	0
6	SH	115	Gaines County Line to SH 349	354	07	284-0.035	296+0.000	11.359	0	0	756	0
7	SH	137	Lynn County Line to US 180	380	05	258-0.020	276-0.492	18.047	0	103	1,089	0
8	SH	349	SH 137 to Martin County Line	380	06	274-0.041	388+0.000	13.085	0	1,161	1,865	0
9	SH	137	US 180 to Martin County Line	491	01	278-1.119	290+1.894	15.013	0	20	867	0
10	SH	83	Gaines County Line to SH 137	583	04	274+0.000	278+0.952	4.962	0	0	221	0
11	FM	827	US 87 to FM 178	959	02	286-0.050	292+0.286	6.024	0	0	261	0
12	SH	349	SH 137 to US 87	380	19	274-1.579	274-0.037	1.542	0	0	226	0
13	FM	2592	SH 137 to US 87	2617	04	274+0.585	274+1.693	1.108	0	176	261	0
						TOTAL		**125.541**	**371**	**1,955**	**6,398**	**3,495**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

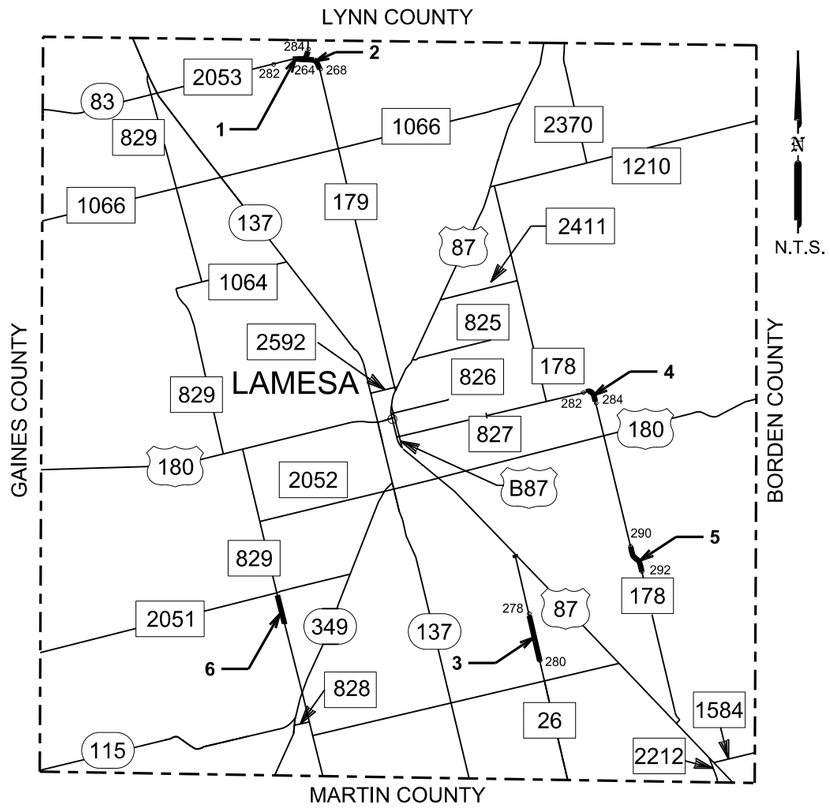
Jeremy T. Dearing, P.E.

11/29/2023

COUNTY LAYOUT
DAWSON

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			027
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs



PAVEMENT MARKING DESIGNATORS

RRPM

County : Dawson	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	2053	ALL SPEED ADVISORY CURVES BETWEEN SH 137 & FM 179	494	05	282	284	70
2	FM	179	ALL SPEED ADVISORY CURVES BETWEEN FM 2053 & FM 1066	494	05	264	268	20
3	FM	28	ALL SPEED ADVISORY CURVES BETWEEN US 87 & FM 828	637	01	278	280	128
4	FM	178	NORTH OF US 180	959	02	282	284	65
5	FM	178	ALL SPEED ADVISORY CURVES BETWEEN US 180 & US 87	959	02	290	292	92
6	FM	829	ALL SPEED ADVISORY CURVES SOUTH OF FM 2051	1638	01	280	281	150
						TOTAL		525

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

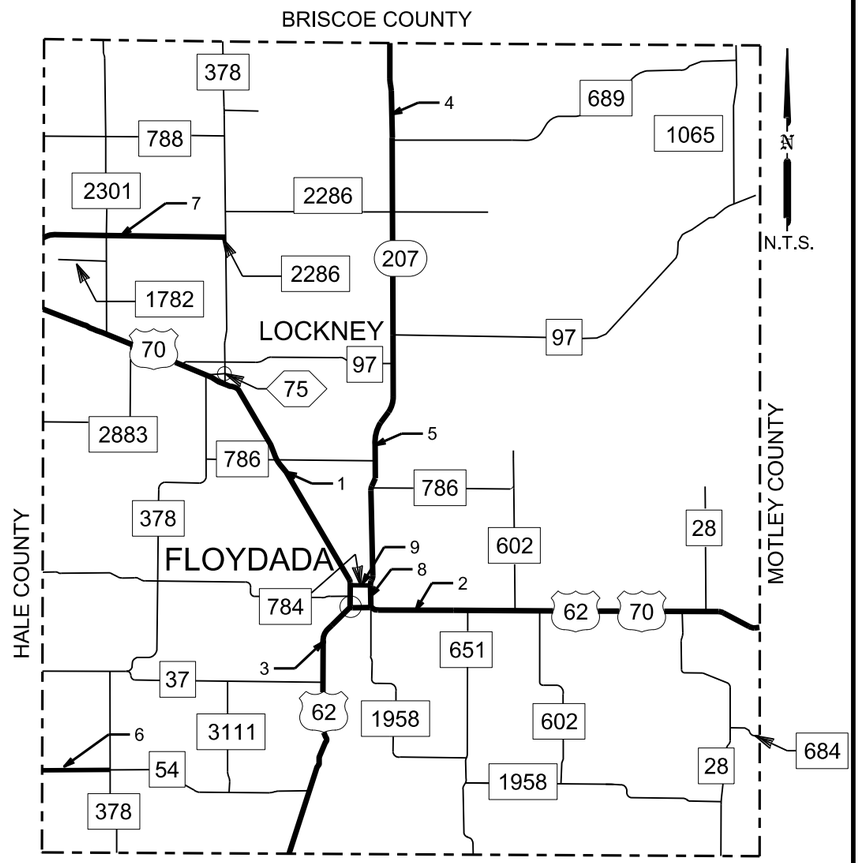
Jeremy T. Dearing, P.E.

11/29/2023

DAWSON COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			028
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Floyd	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	70	Hale County Line to North City Limits of Floydada	145	06	320+0.000	336+1.929	17.929	243	0	0	1,646
2	US	62/70	North City Limits of Floydada to Motley County Line	145	07	382-0.146	400+0.059	17.929	55	167	773	518
3	US	62	Crosby County Line to US 70	453	01	372+0.000	382+0.829	10.827	0	201	579	557
4	SH	207	Briscoe County Line to TRM 196+0.186	453	07	184+0.000	196+0.186	12.166	0	0	434	0
5	SH	207	TRM 196+0.186 to Missouri Street	453	08	196+0.186	206+0.894	10.728	0	0	563	0
6	FM	54	Hale County Line to FM 378	563	07	316+0.040	318+0.887	2.847	0	0	450	0
7	FM	2286	Hale County Line to FM 378	2125	02	310-0.009	316+1.546	6.154	0	0	288	0
8	SH	207	Missouri Street to US 62/70	2497	01	207-0.112	207+0.385	0.497	0	0	24	0
9	FM	784	US 70 to SH 207	3241	01	328-0.236	328+0.651	0.887	0	0	24	0
						TOTAL		**79.964**	**298**	**368**	**3,135**	**2,721**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

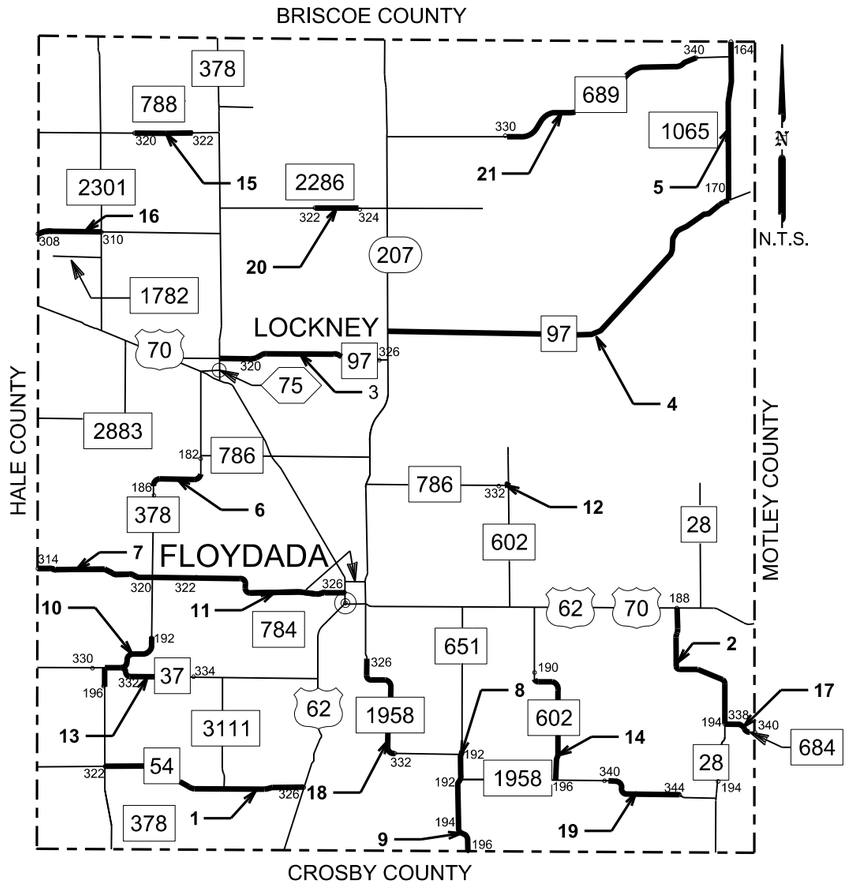
COUNTY LAYOUT
FLOYD

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			029
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs

County : Floyd	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	54	ALL SPEED ADVISORY CURVES BETWEEN FM 378 & US 62	563	07	322	326	113
2	FM	28	ALL SPEED ADVISORY CURVES BETWEEN US 62/70 & FM 684	651	01	188	194	267
3	FM	97	ALL SPEED ADVISORY CURVES BETWEEN FM 378 & SH 207	740	01	320	326	221
4	FM	97	ALL SPEED ADVISORY CURVES BETWEEN SH 207 & FM 1065	740	02	328	346	500
5	FM	1065	ALL SPEED ADVISORY CURVES BETWEEN SH 207 & FM 1066	740	02	164	170	535
6	FM	378	ALL SPEED ADVISORY CURVES BETWEEN FM 786 & FM 784	800	01	182	186	188
7	FM	784	ALL SPEED ADVISORY CURVES BETWEEN HALE CO. LINE & FM 378	800	01	314	320	250
8	FM	651	ALL SPEED ADVISORY CURVES BETWEEN US 62 & FM 1958	806	01	192	192	126
9	FM	651	ALL SPEED ADVISORY CURVES BETWEEN FM 1958 & CROSBY CO. LINE	806	05	192	192	93
10	FM	378	ALL SPEED ADVISORY CURVES BETWEEN FM 784 & FM 37	1128	01	1092	196	194
11	FM	784	ALL SPEED ADVISORY CURVES BETWEEN FM 378 & US 70	1128	01	322	326	248
12	FM	786	ALL SPEED ADVISORY CURVES BETWEEN SH 207 & FM 602	1128	01	332	332	89
13	FM	37	ALL SPEED ADVISORY CURVES BETWEEN FM 378 & FM 3111	1627	01	332	334	90
14	FM	602	ALL SPEED ADVISORY CURVES BETWEEN US 62 & FM 1958	1628	01	190	196	268
15	FM	788	ALL SPEED ADVISORY CURVES BETWEEN FM 2301 & FM 378	2123	01	320	322	71
16	FM	2286	ALL SPEED ADVISORY CURVES BETWEEN HALE CO. LINE & FM 378	2125	02	308	310	0
17	FM	684	ALL SPEED ADVISORY CURVES BETWEEN FM 28 & MOTLEY CO. LINE	2425	01	338	340	107
18	FM	1958	ALL SPEED ADVISORY CURVES BETWEEN US 62 & FM 651	2497	01	326	332	423
19	FM	1958	ALL SPEED ADVISORY CURVES BETWEEN FM 602 & FM 28	2497	02	340	344	215
20	FM	2286	ALL SPEED ADVISORY CURVES BETWEEN FM 378 & SH 207	2766	01	322	324	129
21	FM	689	ALL SPEED ADVISORY CURVES BETWEEN SH 207 & FM 1065	2766	03	330	340	702
						TOTAL		**4,829**

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

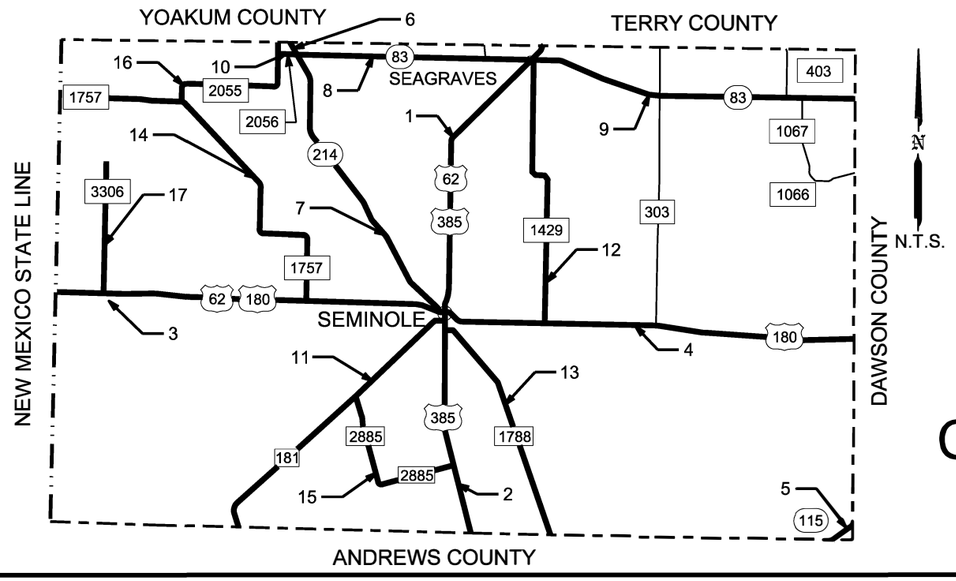
Jeremy T. Dearing, P.E.

11/29/2023

FLOYD COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			030
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Gaines	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	62/385	Terry County Line to US 180	228	02	246-0.210	264+1.755	19.151	145	600	735	1,065
2	US	385	US 180 to Andrews County Line	228	03	292-0.908	304+0.881	13.733	50	125	221	900
3	US	62/180	State Line to US 385	294	01	221+1.260	245+1.798	24.538	214	87	221	1,155
4	US	180	US 385 to Dawson County Line	294	02	244+0.979	274-0.017	29.004	250	108	262	1,300
5	SH	115	Andrews County Line to Dawson County Line	354	08	296-0.421	296+0.000	0.421	0	0	50	0
6	SH	83	Yoakum County Line to SH 214	461	09	236-0.011	238-0.886	1.125	0	22	102	0
7	SH	214	SH 83 to US 62/180	461	09	276-0.835	292+1.562	18.397	0	558	863	0
8	SH	83	SH 214 to US 62/385	583	02	238-0.886	250+0.574	13.460	0	88	1,198	0
9	SH	83	US 62/385 to Dawson County Line	583	03	252-0.244	274+0.000	20.637	0	5	925	0
10	FM	2056	FM 2055 to SH 214	583	09	236-0.037	236+1.138	1.175	0	0	40	0
11	FM	181	US 385 to Andrews County Line	961	01	272-0.043	292-0.008	20.035	0	50	917	0
12	FM	1429	SH 83 to US 180	1704	01	256-0.040	272+0.866	16.906	0	0	631	0
13	FM	1788	US 385 to Andrews County Line	1718	03	266-0.083	280-0.264	13.819	0	0	456	0
14	FM	1757	State Line to US 62/180	1836	01	222-0.063	246+0.575	24.121	0	0	1,238	0
15	FM	2885	FM 181 to US 385	1836	03	240-0.035	250+0.571	10.606	0	0	350	0
16	FM	2055	FM 1757 to Yoakum County Line	1865	02	256-0.006	264+1.851	9.857	0	0	406	0
17	FM	3306	US 62/180 to End of State Maintenance	3501	04	262+0.009	270+0.094	8.009	0	0	265	0
						TOTAL		**244.994**	**659**	**1,643**	**8,880**	**4,420**



PAVEMENT MARKING DESIGNATORS

RRPM

11/29/2023

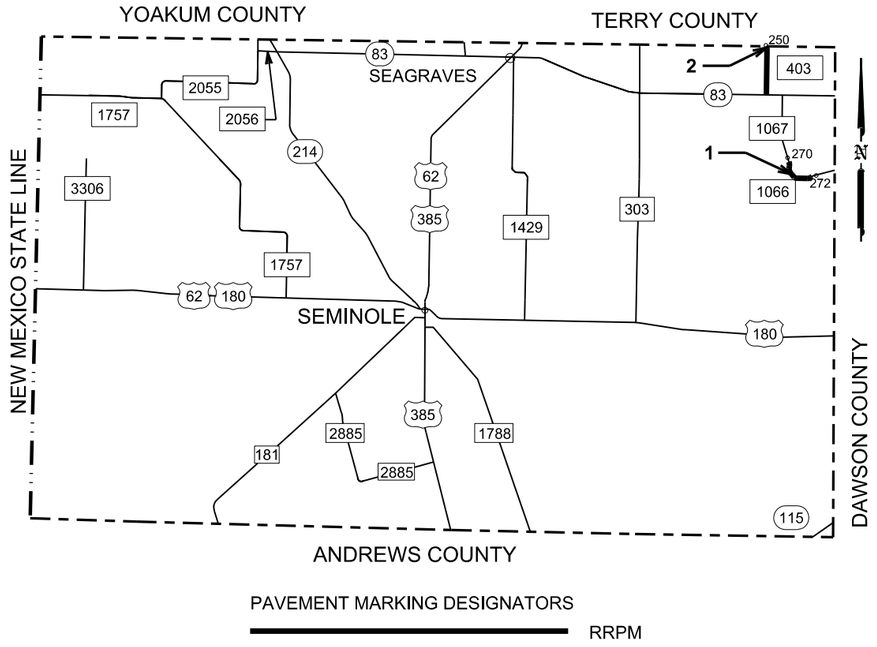
STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

COUNTY LAYOUT
GAINES

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			031
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs



County : Gaines	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	1066	ALL SPEED ADVISORY CURVES BETWEEN SH 83 & DAWSON CO. LINE	820	07	270	272	87
2	FM	403	ALL SPEED ADVISORY CURVES BETWEEN SH 83 & TERRY CO. LINE	881	02	250	250	73
						TOTAL		**160**

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

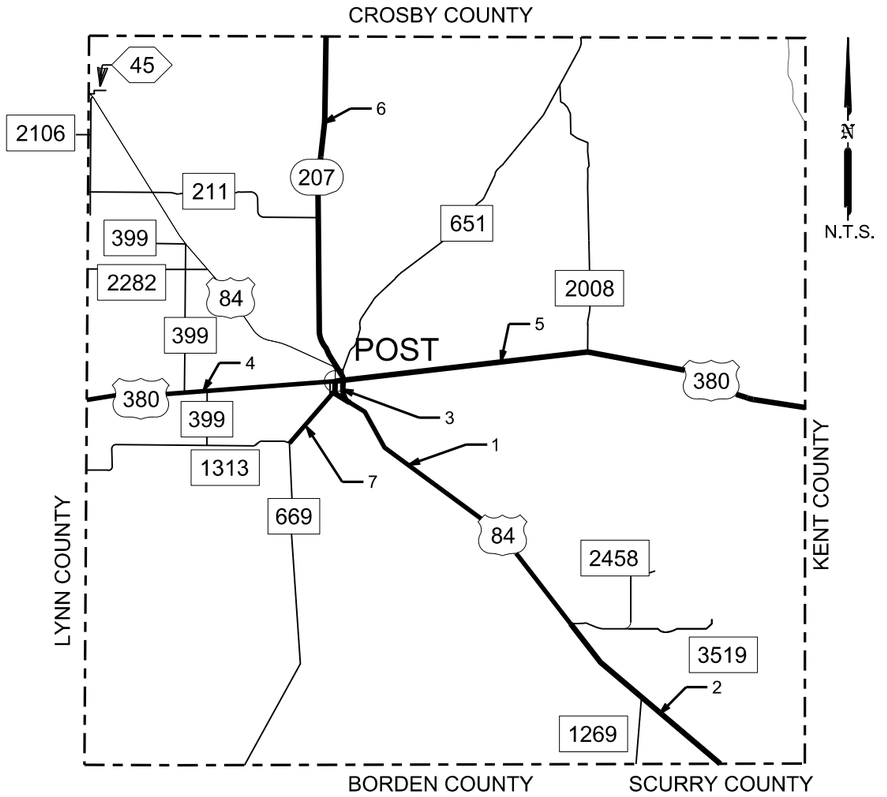
Jeremy T. Dearing, P.E.

11/29/2023

GAINES COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			032
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Garza	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	84	US 380 to FM 2458	53	05	360+0.159	374+1.552	15.393	70	0	0	673
2	US	84	FM 2458 to Scurry County Line	53	06	374+1.552	382+1.954	8.410	70	0	0	673
3	SL	46	US 380 to US 84	53	14	290+0.010	290+0.957	0.967	0	27	94	0
4	US	380	Lynn County Line to US 84	297	07	318+0.000	328+0.510	10.510	0	0	1,167	0
5	US	380	RR Crossing to Kent County Line	298	01	328+0.871	350+0.001	21.128	0	0	1,167	0
6	SH	207	Crosby County Line to US 380	453	05	352+0.000	366+0.471	14.474	0	29	729	0
7	FM	669	US 380 to FM 1313	453	05	240-0.841	242+0.149	2.990	0	50	150	0
						TOTAL		**73.872**	**140**	**106**	**3,307**	**1,346**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

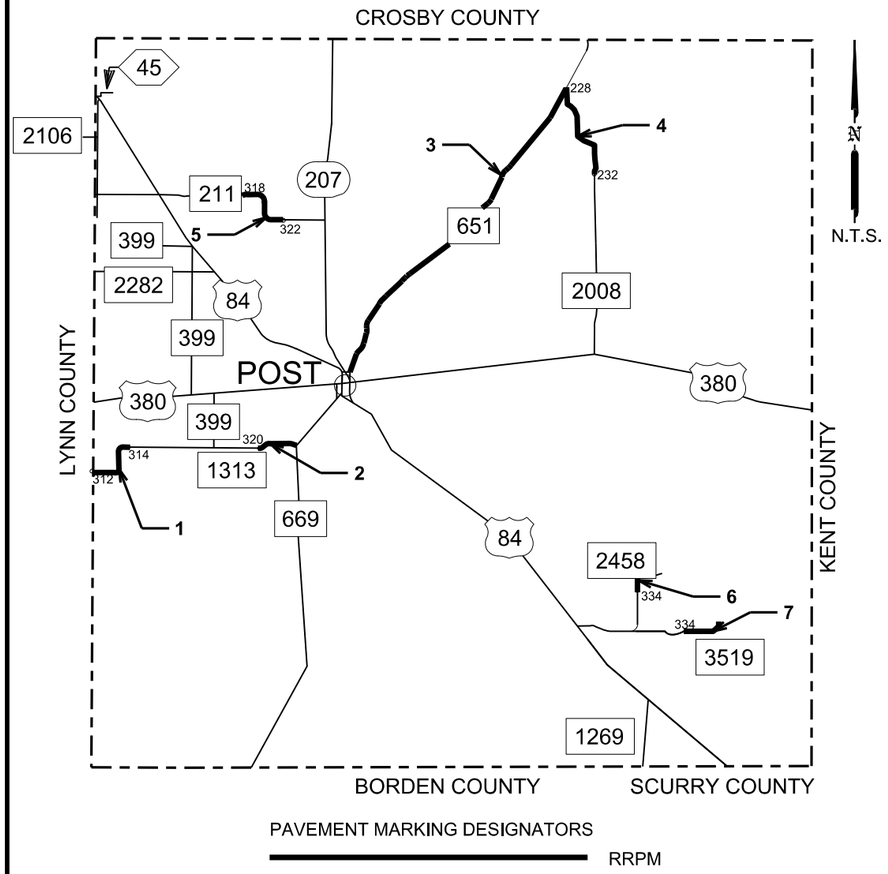
Jeremy T. Dearing, P.E.

11/29/2023

COUNTY LAYOUT
GARZA

FED.RD. DIV.NO.	STATE PROJECT NO.			SHEET NO.
6				033
STATE	DIST.	County		
TEXAS	LBB	LUBBOCK,ETC.		
CONT.	SECT.	JOB	HIGHWAY NO.	
0905	00	120	VAR	
FILE NAME			DATE	
2024 RRPM			11/29/2023	

CURVE ADVISORY RRPMs



PAVEMENT MARKING DESIGNATORS

RRPM

County : Garza	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	1313	ALL SPEED ADIVISORY CURVES BETWEEN LYNN CO. LINE & FM 399	453	01	312	314	92
2	FM	1313	ALL SPEED ADIVISORY CURVES BETWEEN FM 399 & FM 669	453	01	320	320	83
3	FM	651	ALL SPEED ADVISORY CURVES BETWEEN US 380 & FM 2008	806	04	250	230	560
4	FM	2008	ALL SPEED ADVISORY CURVES BETWEEN FM 651 & TRM 232	2180	02	228	232	376
5	FM	211	ALL SPEED ADVISORY CURVES BETWEEN US 84 & SH 207	2498	01	314	322	315
6	FM	2458	ALL SPEED ADVISORY CURVES NORTH OF FM 3519	2767	01	334	EOP	137
7	FM	3519	ALL SPEED ADVISORY CURVES EAST OF FM 2458	2767	02	334	EOP	157
						TOTAL		**1,720**

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.

STATE OF TEXAS
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PROFESSIONAL ENGINEER

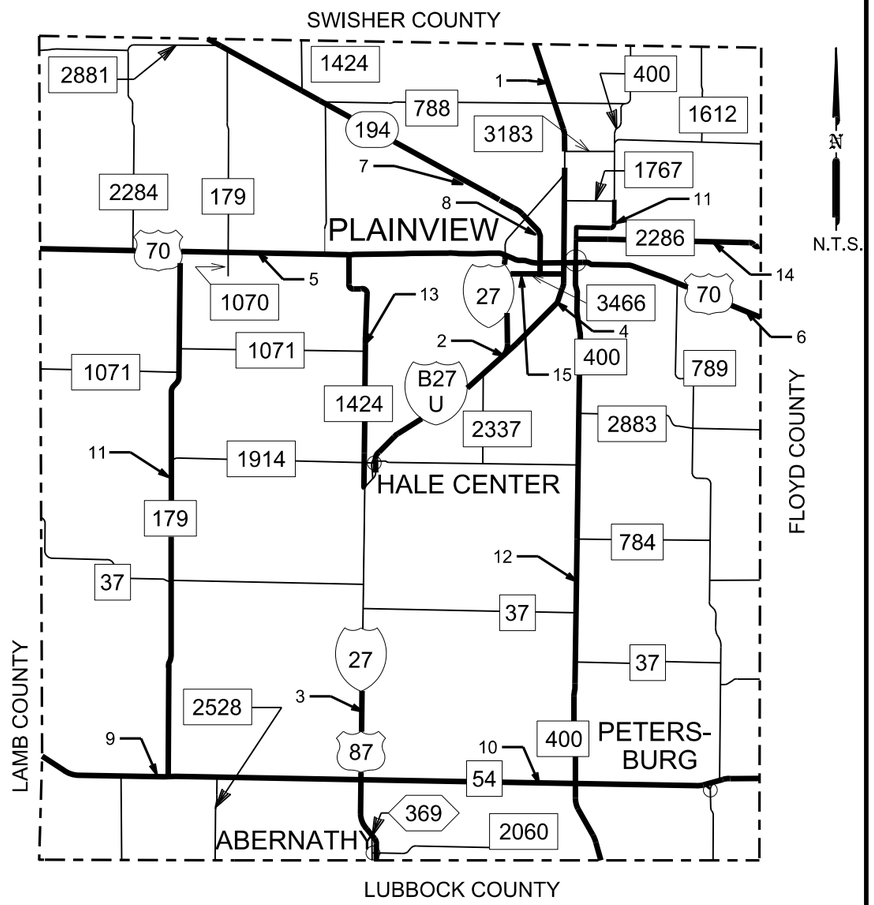
Jeremy T. Dearing, P.E.

11/29/2023

GARZA COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			034
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Hale	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	IH	27	Mile Marker 54 to Swisher County Line (F.R.)	67	04	54+0.039	58+0.887	4.848	0	16	335	72
2	IH	27	S. Hale Center City Limits to 0.193 Miles S. of US 70 (F.R.)	67	05	38-0.520	48+0.927	11.449	0	101	1,450	0
3	IH	27	Lubbock County Line to Ref Marker 27 (F.R)	67	06	27+0.000	37+0.484	10.484	0	64	1,219	0
4	BI	27	South Off Ramp of IH 27 to North On Ramp of IH 27	67	09	170-2.218	176+1.020	9.282	143	238	530	150
5	US	70	Lamb County Line to Austin St in Plainview	145	04	228+0.000	310+0.077	22.139	0	594	3,921	0
6	US	70	Austin St in Plainview to Floyd County Line	145	06	310+0.077	320+0.000	8.375	55	125	150	7
7	SH	194	Swisher County Line to Sun Road	439	04	296-0.071	308+0.436	12.507	0	22	509	0
8	SH	194	Sun Road to FM 3446	439	05	308+0.436	312+0.992	4.556	0	217	598	0
9	FM	54	Lamb County Line to IH 27	563	05	284+0.001	298-0.415	13.584	0	0	531	4
10	FM	54	IH 27 to Floyd County Line	563	06	298-0.415	316+0.008	18.423	0	0	592	0
11	FM	400	US 70 to FM 1767	800	05	170+0.625	174+0.237	3.612	0	0	642	0
12	FM	400	US 70 to Lubbock County Line	1041	01	174+0.642	200+0.012	25.370	0	56	943	0
13	FM	1424	US 70 to IH 27	1629	02	178-0.175	186+0.436	8.611	0	0	350	0
14	FM	2286	FM 400 to Floyd County Line	2125	01	302-0.044	310-0.010	8.034	0	0	291	0
15	FM	3466	IH 27 to BI 27	3485	01	290-0.291	292+0.075	2.366	0	213	326	0
						TOTAL		163.640	198	1,646	12,387	233



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

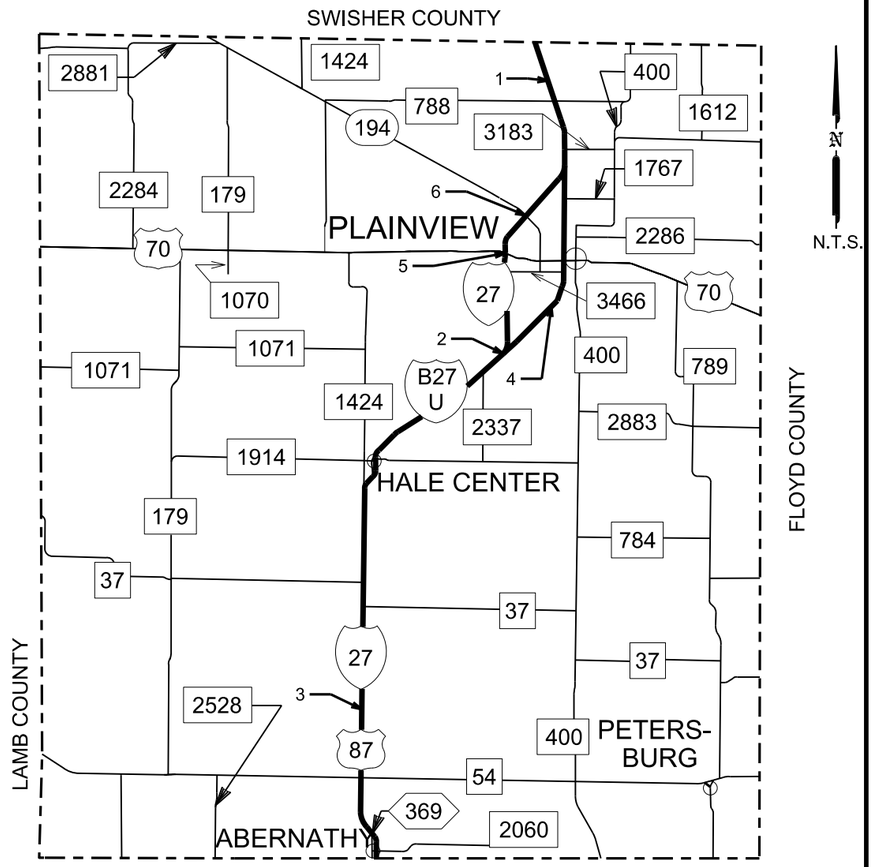
11/29/2023

COUNTY LAYOUT
HALE

FED.RD. DIV.NO.	STATE PROJECT NO.			SHEET NO.
6				035
STATE	DIST.	County		
TEXAS	LBB	LUBBOCK,ETC.		
CONT.	SECT.	JOB	HIGHWAY NO.	
0905	00	120	VAR	
FILE NAME			DATE	
2024 RRPM			11/29/2023	

CONCRETE

County : Hale	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	IH	27	0.193 Miles South of US 70 to Swisher County Line (M.L.)	67	04	49-0.079	58+0.887	9.960	0	64	0	2,879
2	IH	27	S. Hale Center City Limits to 0.193 Miles S. of US 70 (M.L.)	67	05	38-0.520	48+0.927	11.449	0	202	0	3,143
3	IH	27	Lubbock County Line to S Hale Center City Limits (M.L.)	67	06	22-0.816	37+0.484	16.308	0	194	0	3,204
4	BI	27	North Bridge Intersection and South Bridge Intersection	67	09	170-2.218	176+1.020	9.282	50	50	125	50
5	US	70	IH 27 Frontage Rd Intersection	145	04	228+0.000	310+0.077	22.139	0	100	100	100
6	SH	194	IH 27 Frontage Rd Intersection	439	05	308+0.436	312+0.992	4.556	0	100	100	100
						TOTAL		73.694	50	710	325	9,476



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

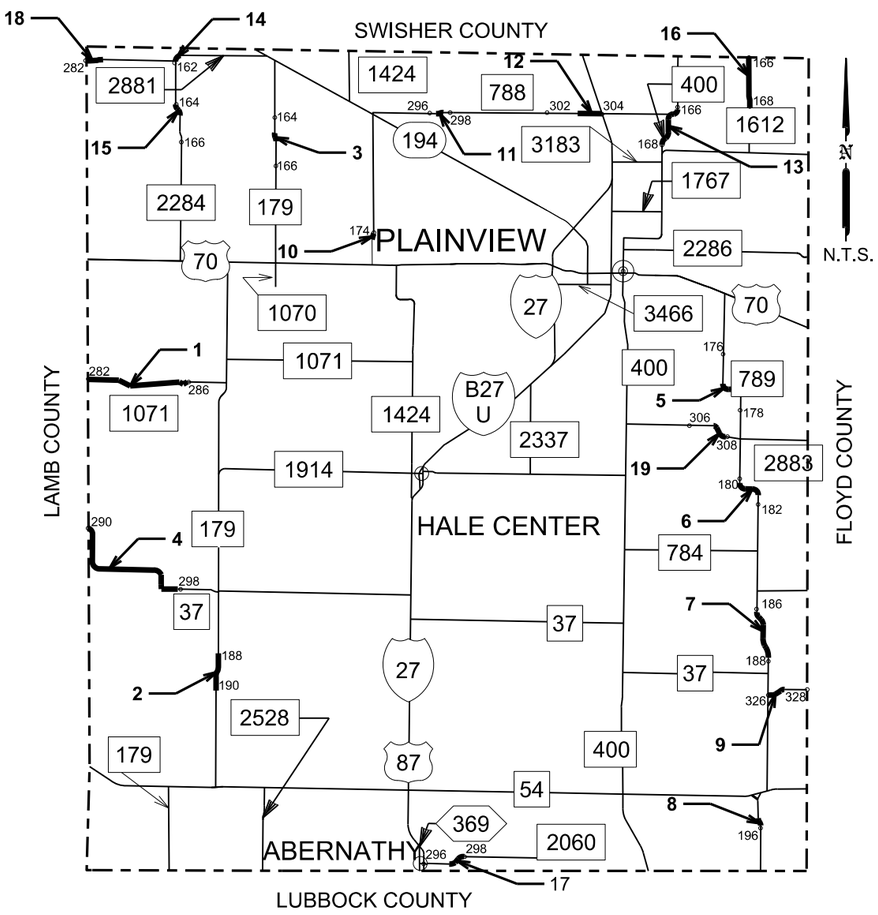
COUNTY LAYOUT
HALE CONCRETE

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			036
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs

County : Hale	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	1071	ALL SPEED ADVISORY CURVES BETWEEN LAMB CO. LINE & FM 179	565	03	282	286	275
2	FM	179	ALL SPEED ADVISORY CURVES BETWEEN FM 37 & FM 54	880	01	188	190	110
3	FM	179	ALL SPEED ADVISORY CURVES BETWEEN SH 194 & US 70	880	05	164	166	95
4	FM	37	ALL SPEED ADVISORY CURVES BETWEEN LAMB CO. LINE & FM 179	884	06	290	298	65
5	FM	789	ALL SPEED ADVISORY CURVES BETWEEN US 70 & FM 2883	1126	01	176	178	410
6	FM	789	ALL SPEED ADVISORY CURVES BETWEEN FM 2883 & FM 784	1126	01	180	182	137
7	FM	789	ALL SPEED ADVISORY CURVES BETWEEN FM 784 & FM 37	1126	01	186	188	156
8	FM	789	ALL SPEED ADVISORY CURVES BETWEEN FM 54 & LUBBOCK CO. LINE	1126	02	196	196	213
9	FM	37	ALL SPEED ADVISORY CURVES BETWEEN FM 789 & FLOYD CO. LINE	1126	03	326	328	77
10	FM	1424	ALL SPEED ADVISORY CURVES BETWEEN TRM 174 & TRM 176	1629	01	174	176	247
11	FM	788	ALL SPEED ADVISORY CURVES BETWEEN SH 194 & TRM 298	1906	01	296	298	151
12	FM	788	ALL SPEED ADVISORY CURVES BETWEEN TRM 302 & 304	1906	01	302	304	145
13	FM	400	ALL SPEED ADVISORY CURVES BETWEEN SWISHER CO. LINE & FM 3183	1907	02	166	168	155
14	FM	2881	ALL SPEED ADVISORY CURVES BETWEEN FM 2884 & SH 194	2046	02	162	162	161
15	FM	2284	ALL SPEED ADVISORY CURVES BETWEEN FM 2881 & US 70	2046	02	164	166	206
16	FM	1612	ALL SPEED ADVISORY CURVES BETWEEN SWISHER CO. LINE & FM 788	2332	02	166	168	83
17	FM	2060	ALL SPEED ADVISORY CURVES BETWEEN IH 27 & TRM 298	2500	01	296	298	164
18	FM	2881	ALL SPEED ADVISORY CURVES BETWEEN LAMB CO. LINE & FM 2284	2902	02	282	286	236
19	FM	2883	ALL SPEED ADVISORY CURVES BETWEEN FM 400 & FM 789	2903	01	306	308	86
						TOTAL		**3,172**

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

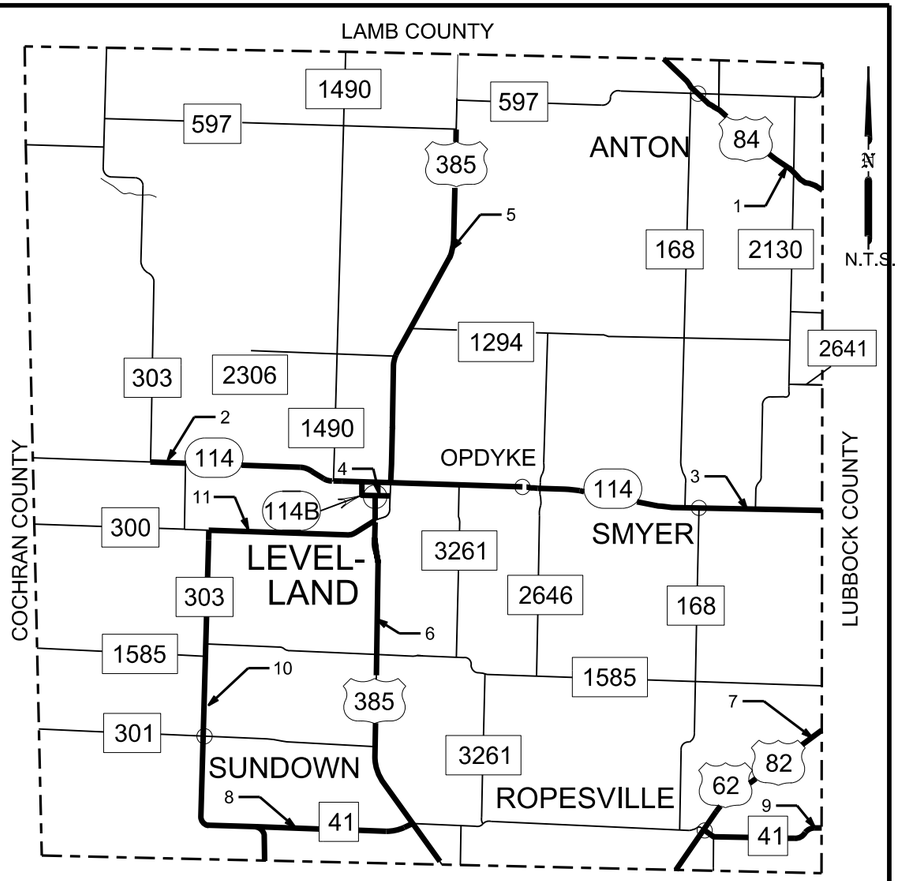
Jeremy T. Dearing, P.E.

11/29/2023

HALE COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			037
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Hockley	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	84	Lamb County Line to Lubbock County Line	52	06	292-0.018	300-0.008	8.010	80	0	0	768
2	SH	114	Cochran County Line to FM 303	130	03	260-0.083	266+1.802	7.885	0	75	0	450
3	SH	114	US 385 to Lubbock County Line	130	04	266+1.802	286+0.000	16.600	153	187	383	2,231
4	BS	114B	US 385 to SH 114	130	07	262+1.551	262-0.033	1.584	0	58	68	0
5	US	385	FM 597 West to SH 114	227	05	202+0.697	216+0.446	13.749	0	256	1,211	0
6	US	385	FM 300 to Terry County Line	227	06	218+1.000	232+0.000	13.611	0	38	675	0
7	US	62/82	Terry County Line to Lubbock County Line	380	02	304+0.000	312+0.073	8.092	90	94	640	214
8	FM	41	FM 303 to US 385	645	01	254-0.073	260+0.048	5.975	0	0	342	0
9	FM	41	US 62/82 to Lubbock County Line	645	06	272-0.778	278-0.013	6.765	0	0	330	0
10	FM	303	FM 300 to Terry County Line	721	01	222-0.305	238+0.001	16.306	0	0	579	0
11	FM	300	FM 303 to US 385	721	01	258+0.890	266-0.721	6.389	0	8	305	0



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

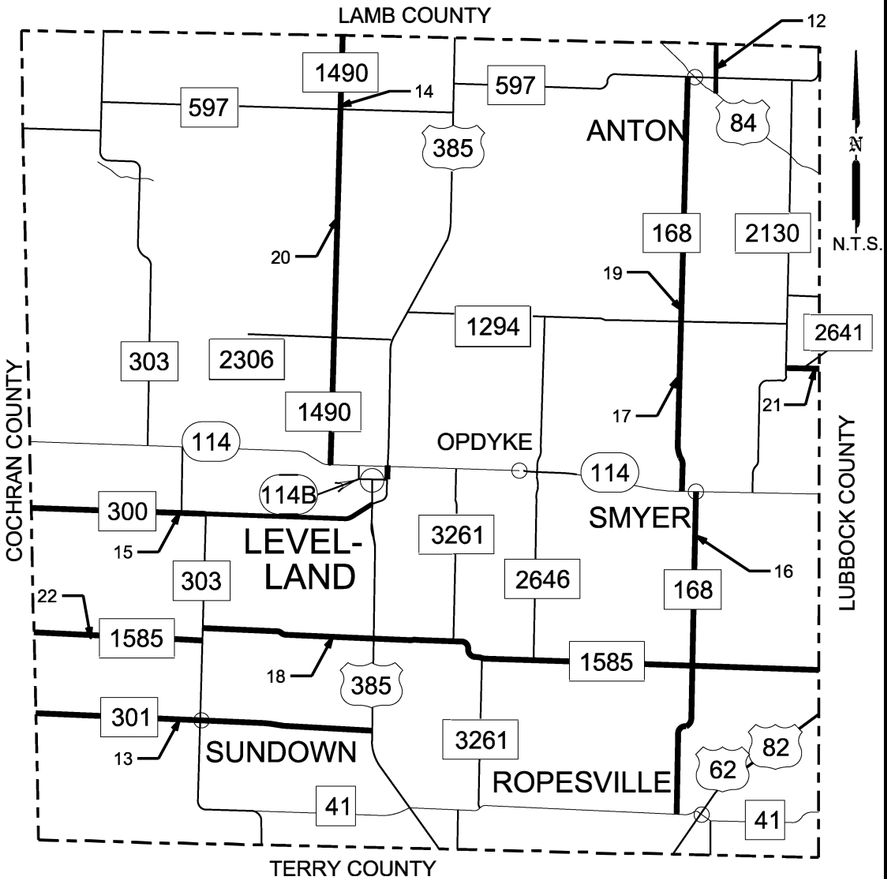
Jeremy T. Dearing, P.E.

11/29/2023

COUNTY LAYOUT
HOCKLEY 1 OF 2

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			038
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Hockley	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
12	FM	168	US 84 to Lamb County Line	874	06	204+0.054	202-0.013	2.067	0	5	70	0
13	FM	301	Cochran County Line to US 385	885	02	250-0.003	262+0.677	12.680	0	0	335	0
14	FM	1490	Lamb County Line to FM 597	1291	05	250-0.003	262+0.677	12.680	0	0	104	0
15	FM	300	Cochran County Line to FM 303	1341	02	252+0.002	258+0.890	6.888	0	0	221	0
16	FM	168	SH 114 to FM 41	1630	02	220+0.888	232+0.961	12.073	0	0	659	0
17	FM	168	FM 1294 to SH 114	1866	04	214+0.018	220+0.344	6.316	0	0	275	0
18	FM	1585	FM 303 to Lubbock County Line	2182	02	260-1.022	284-0.002	25.020	0	0	2,956	0
19	FM	168	FM 597 to FM 1294	2334	01	206-1.069	214+0.018	9.087	0	0	479	0
20	FM	1490	FM 597 to SH 114	2904	01	198+0.685	212+0.046	13.361	0	0	733	0
21	FM	2641	FM 2130 to Lubbock County Line	2740	01	278-0.043	280+0.015	2.058	0	0	254	0
22	FM	1585	Cochran County Line to FM 303	3126	04	252+0.002	260-1.022	6.976	0	0	750	0
						TOTAL		**214.172**	**323**	**721**	11,369	**3,663**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

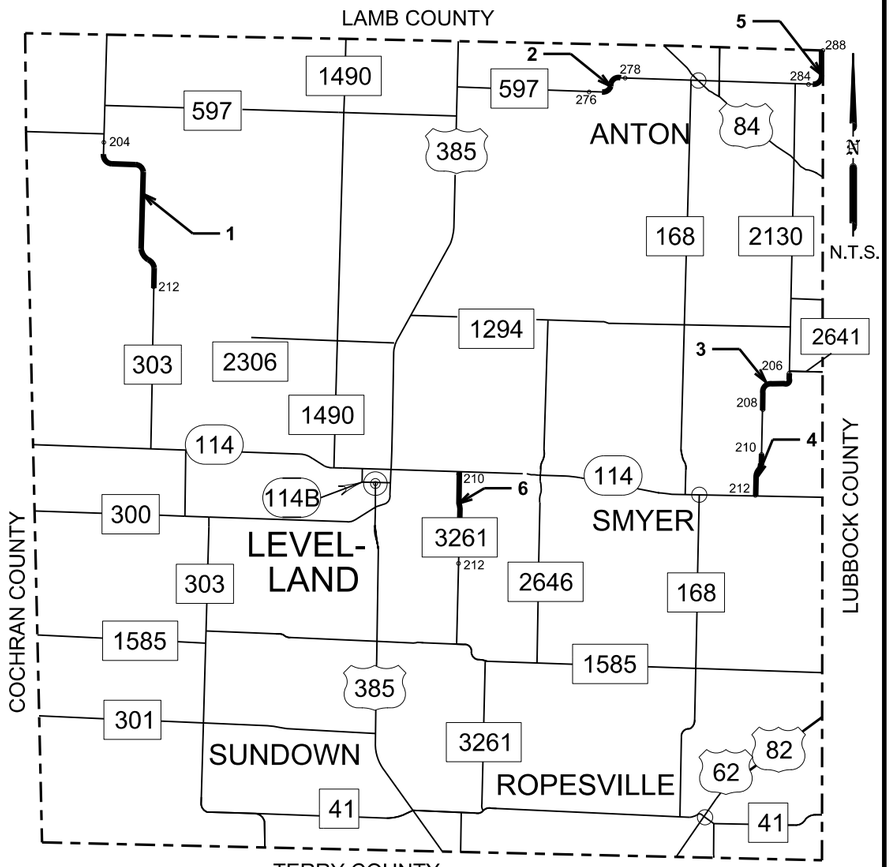
11/29/2023

COUNTY LAYOUT
HOCKLEY 2 OF 2

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			039
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Hockley	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	303	ALL SPEED ADVISORY CURVES BETWEEN FM 597 & SH 114	820	03	204	212	305
2	FM	597	ALL SPEED ADVISORY CURVES WEST OF FM 168	1291	06	276	278	120
3	FM	2130	ALL SPEED ADVISORY CURVES BETWEEN FM 2641 & TRM 208	1630	01	206	208	75
4	FM	2130	ALL SPEED ADVISORY CURVES BETWEEN TRM 210 & SH 114	1630	01	210	212	225
5	FM	597	ALL SPEED ADVISORY CURVES BETWEEN FM 2130 & LUBBOCK CO. LINE	2047	01	284	288	188
6	FM	3261	SPEED ADVISORY CURVES SOUTH OF SH 114	2692	02	210	212	69
						TOTAL		**982**

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

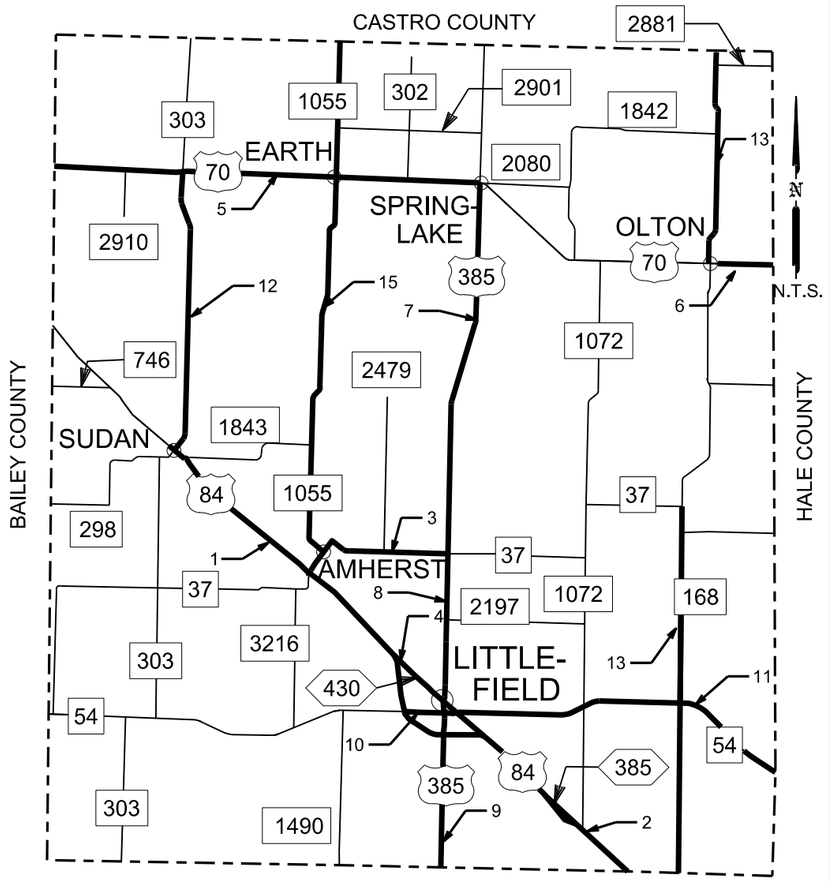
Jeremy T. Dearing, P.E.

11/29/2023

HOCKLEY COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			040
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Lamb	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	84	West Sudan City Limits to FM 37	52	04	264+0.654	272+0.679	8.025	85	46	100	638
2	US	84	FM 37 to Hockley County Line	52	05	272+0.679	292-0.003	19.318	260	0	0	1,098
3	FM	37	US 84 to US 385	52	08	266+0.876	274-0.556	6.568	0	50	378	0
4	SL	430	North US 84 intersection to South US 84 intersection	52	13	186-0.044	190+0.94	4.984	0	0	650	0
5	US	70	Bailey County Line to West Springlake City Limits	145	02	256-0.021	272+1.177	17.198	0	121	838	0
6	US	70	Olton East City Limits to Hale County Line	145	03	284+0.968	288+0.035	3.067	0	17	107	0
7	US	385	US 70 to CR 72	227	02	166+0.000	180+0.711	14.710	0	29	889	0
8	US	385	CR 72 to SL 430	227	03	180+0.711	192+0.994	11.381	0	0	888	0
9	US	385	SL 430 to Hockley County Line	227	04	192+0.857	200-0.187	6.956	0	0	432	0
10	FM	54	West side of US 84 Bridge to SL 430	563	03	268-0.715	270-0.552	2.163	0	0	125	0
11	FM	54	SL 430 to Hale County Line	563	04	270-0.552	284+0.001	14.553	0	0	619	0
12	FM	303	US 70 to US 84	820	01	168+1.672	182-1.051	11.277	0	0	598	0
13	FM	168	Castro County Line to US 70	874	02	166-0.007	175-0.332	8.675	0	0	322	0
14	FM	168	FM 37 West to Hockley County Line	874	03	186-0.769	202-0.013	16.756	0	0	2,380	0
15	FM	1055	Castro County Line to FM 37	1291	02	160+0.028	180+1.469	21.441	0	0	1,314	0
						TOTAL		**167.072**	**345**	**263**	**9,640**	**1,736**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

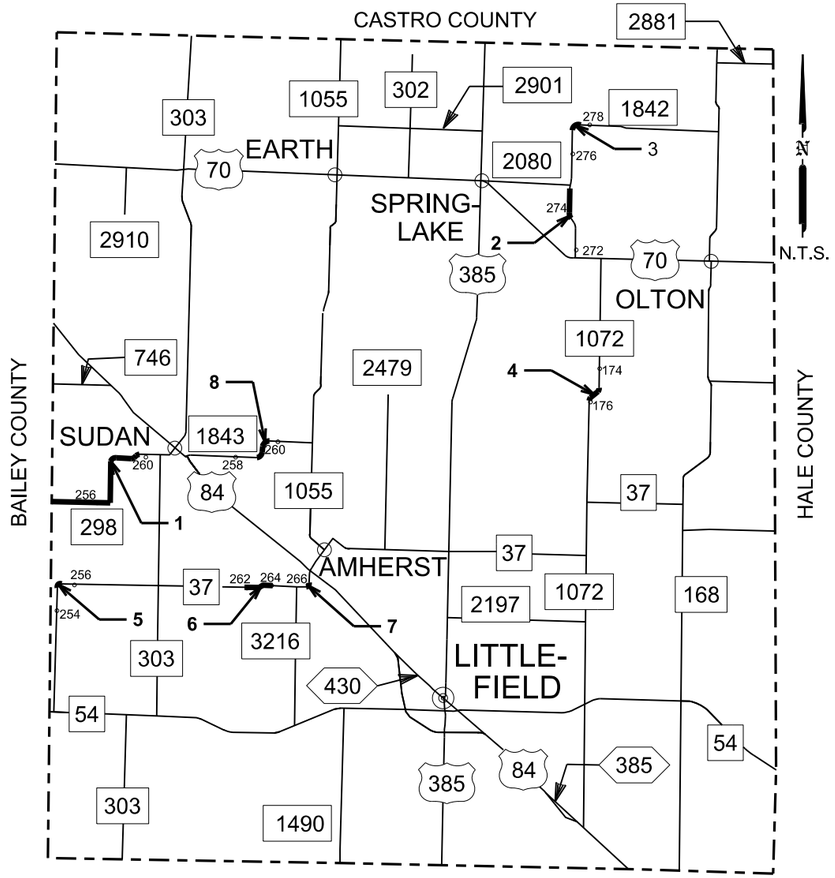
COUNTY LAYOUT
LAMB

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			041
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs

County : Lamb	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	298	ALL SPEED ADVISORY CURVES BETWEEN FM 303 & BAILEY CO. LINE	884	03	256	260	332
2	FM	1842	SPEED ADVISORY CURVES NORTH OF US 70	1252	02	272	274	100
3	FM	1842	ALL SPEED ADVISORY CURVES BETWEEN FM 2080 & TRM 278	1252	02	276	278	98
4	FM	1072	ALL SPEED ADVISORY CURVES BETWEEN US 70 & FM 37	1252	03	174	176	116
5	FM	37	ALL SPEED ADVISORY CURVES BETWEEN FM 54 & FM 303	1631	01	254	256	72
6	FM	37	ALL SPEED ADVISORY CURVES BETWEEN FM 303 & FM 3216	1631	01	262	264	111
7	FM	37	SPEED ADVISORY CURVES SOUTH OF AMHERST	1631	01	266	266	61
8	FM	1843	ALL SPEED ADVISORY CURVES BETWEEN US 84 & FM 1055	1783	01	258	260	161
						TOTAL		1,051

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.



HOCKLEY COUNTY

PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

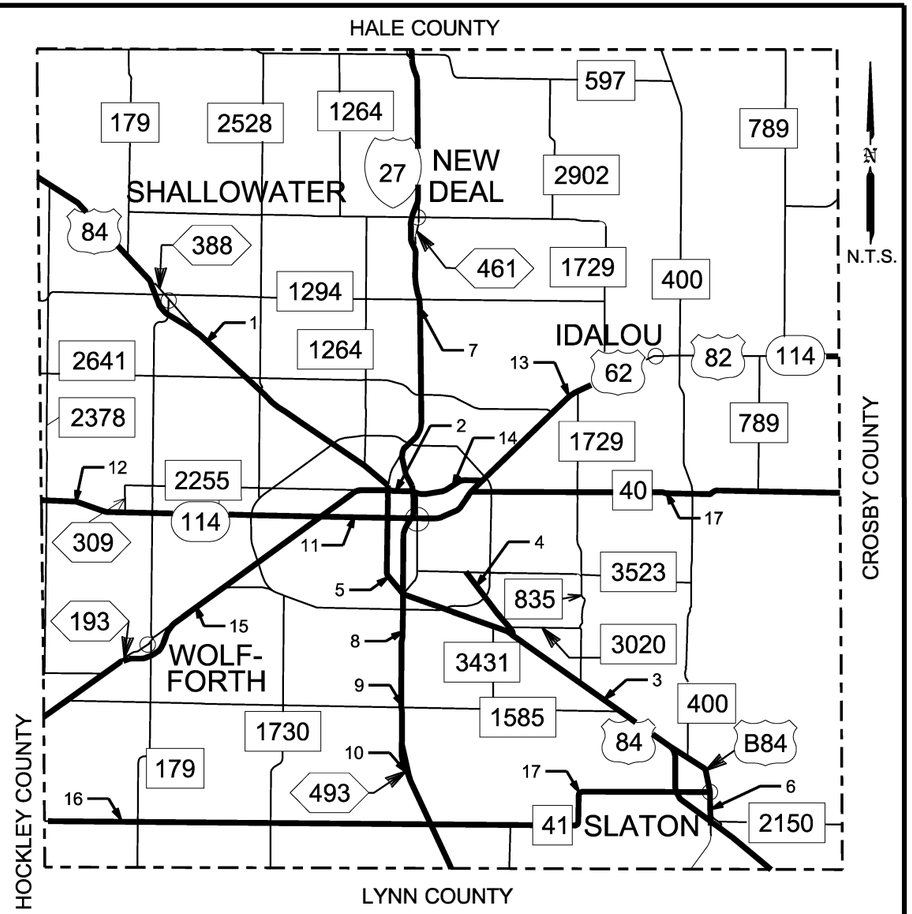
Jeremy T. Dearing, P.E.

11/29/2023

LAMB COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			042
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Lubbock	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	84	Hockley County Line to US 82 at 4th St	52	07	300+0.000	316+1.757	17.540	178	365	500	1,250
2	US	82	Ave Q to Ave A	53	01	312-1.088	314+0.373	3.461	0	63	325	500
3	US	84	SS 331 to Lynn County Line	53	01	328-1.682	340+0.000	13.682	0	0	65	2,265
4	SS	331	FM 835 to FM 3020	53	01	216-0.005	218+0.630	2.635	0	0	175	0
5	US	84	4th St to Spur 331	53	18	318-0.432	326+0.037	8.490	83	753	934	1,127
6	BU	84E	US 84 to US 84	53	19	334-0.529	336+1.803	3.933	80	88	0	1,155
7	IH	27	MM 6+0.295 to Hale County Line (F.R.)	67	07	6+0.295	21+0.183	14.890	125	14	1,285	4,300
8	IH	27	MM 0+0.000 to MM 6+0.295 (F.R.)(Seal Coat 50th Street to 13th Street)	67	11	0+0.000	6+0.295	5.524	70	10	13	1,569
9	US	87	MP 0+0.000 to Lynn County Line (M.L.)	68	01	0+000	284+0.000	9.932	0	0	117	1,865
10	SL	493	US 87 to US 87	68	14	220+1.915	222+1.015	1.100	0	0	75	0
11	US	62	Marsha Sharp Freeway to East Broadway	130	05	296+0.489	332+0.439	5.462	0	343	505	937
12	SH	114	Hockley County Line to Marsha Sharp Freeway	130	05	286+0.000	296+0.489	15.478	10	1,319	1,652	346
13	US	62/82	East Broadway to Chestnut St in Idalou	131	02	332+0.439	340+1.828	9.389	0	54	288	403
14	US	82	Ave A to Us 62/SH 114	131	08	312-1.088	212+1.692	2.780	0	73	388	544
15	US	62	Hockley County Line to Ave Q (M.L & F.R.)	380	01	314+0.373	331+0.393	17.020	33	31	434	5,986
16	FM	41	Hockley County Line to US 87	645	01	278+0.016	292+0.556	14.540	0	0	306	0
17	FM	41	US 87 to BU 84E	645	02	292+0.574	304+0.055	11.481	0	12	510	11



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

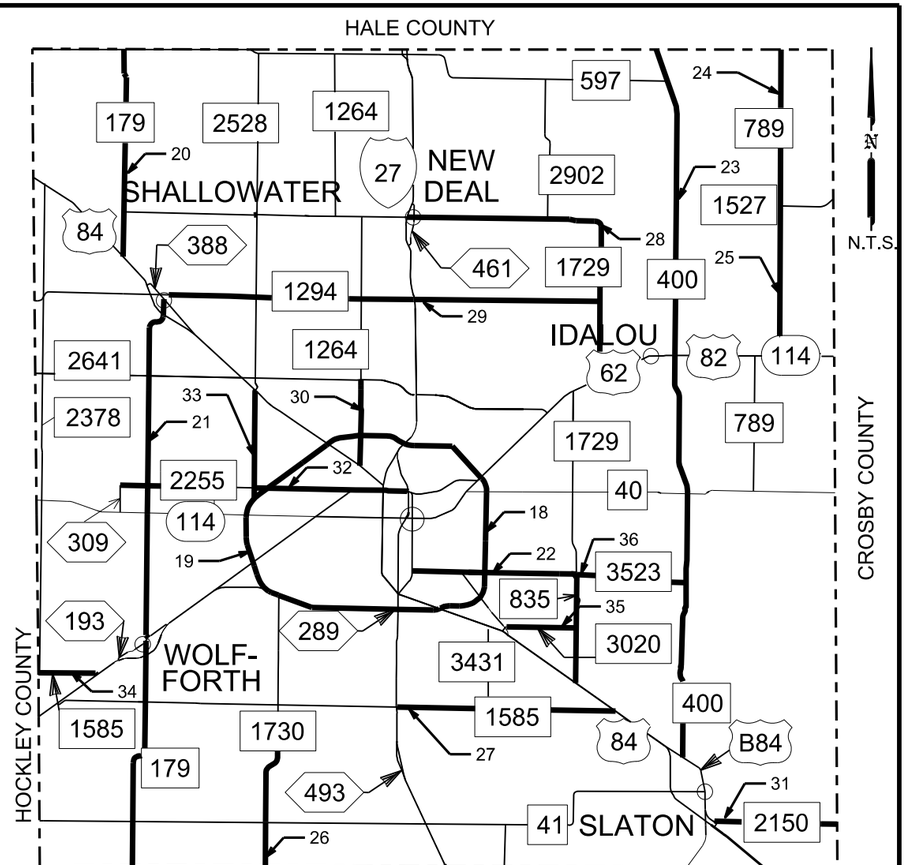
Jeremy T. Dearing, P.E.

11/29/2023

COUNTY LAYOUT
LUBBOCK 1 of 2

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			043
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Lubbock	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
18	SL	289	US 62/82 N.E. clockwise to US 62/82 S.W. (M.L. & F.R)	783	01	301-0.813	314+0.098	13.923	325	0	125	5,500
19	SL	289	US 62/82 S.W. clockwise to US 62/82 N.E. (M.L. & F.R.)(Seal Coat F.R. 34th Street to Slide Road)	783	02	288-0.109	300+0.840	12.183	376	45	73	5,495
20	FM	179	Hale County Line to US 84	880	03	200-0.015	206+1.628	7.643	0	0	308	0
21	FM	179	SL 388 to Lynn County Line	880	04	212-1.464	232-0.046	8.248	0	75	1,450	100
22	FM	835	IH 27 to US 84	933	01	296-0.153	306+0.618	10.787	0	400	534	0
23	FM	400	Hale County Line to BU 84E	1041	02	200+0.012	226+0.098	26.086	0	0	1,112	0
24	FM	789	Hale County Line to FM 1527	1126	03	198+0.005	204-0.265	5.730	0	0	152	0
25	FM	789	FM 1527 to US 82	1126	04	204-0.265	210-1.058	5.207	0	0	217	0
26	FM	1730	FM 1585 to Lynn County Line	1344	02	220+0.190	228+0.000	7.810	0	332	731	0
27	FM	1585	US 87 to US 84	1502	01	300+0.527	308+0.765	8.238	0	80	1,185	26
28	FM	1729	SL 461 to US 62	1632	02	296+0.965	310-1.183	11.852	0	0	561	0
29	FM	1294	SL 388 to FM 1729	1866	01	288+0.847	306+0.055	17.208	0	76	539	0
30	FM	1264	(University Ave) from FM 2641 to US 84	1867	01	208+0.832	212+0.266	3.116	0	95	273	302
31	FM	2150	US 84 to End of State Maintanence	2183	01	306-0.143	310+0.702	4.845	0	0	0	306
32	FM	2255	(4th St) from SS 309 to Valencia Ave	2256	01	284+0.999	286+0.986	1.987	0	250	600	0
33	FM	2528	US 84 to South of SL 289	2501	01	208+1.437	212+1.553	4.116	0		136	0
34	FM	1585	Hockley County Line to US 62/82	2182	03	284-0.002	286+0.059	2.061	0	21	85	0
35	FM	3020	SS 331 to FM 835	3273	01	298-0.037	304+0.397	6.434	0	0	213	0
36	FM	3523	FM 835 to FM 400	3587	01	300-0.049	304+0.159	4.160	0	8	263	0
						TOTAL		**318.971**	1,280	4,507	16,129	33,987



PAVEMENT MARKING DESIGNATORS

RRPM

Jeremy T. Dearing, P.E.

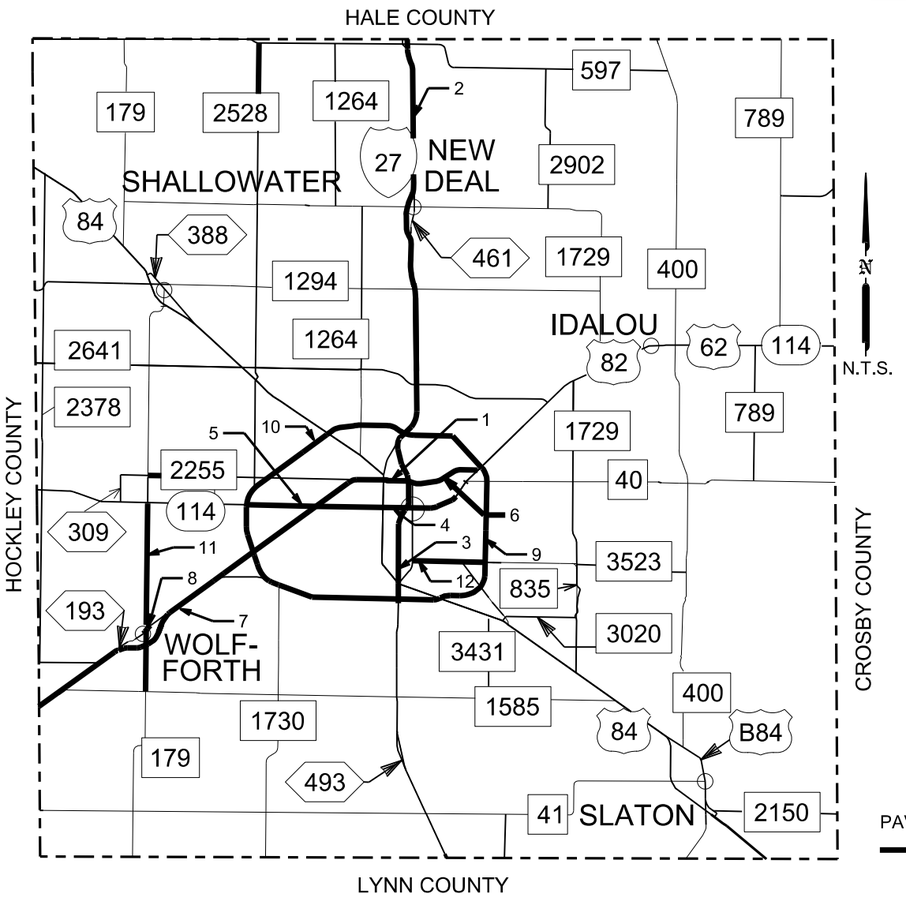
11/29/2023

COUNTY LAYOUT
LUBBOCK 2 of 2

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			044
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CONCRETE

County : Lubbock	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	82	Ave Q to Ave A	53	01	312-1.088	314+0.373	3.461	0	125	650	1,000
2	IH	27	MM 6+0.295 to Hale County Line (M.L & F.R. Int.)	67	07	6+0.295	21+0.183	14.890	250	28	2,569	8,599
3	IH	27	MM 0+0.000 to MM 6+0.295 (M.L. & F.R. Int.)	67	11	0+0.000	6+0.295	5.524	183	26	48	6,276
4	US	62	Marsha Sharp Freeway Bridge, Univiersity Int., & IH 27 Int.	130	5	296+0.489	332+0.439	5.462	0	685	1,009	1,873
5	SH	114	SL 289 Int. and Quaker Ave Int.	130	05	286+0.000	296+0.489	15.478	20	2,638	3,303	692
6	US	82	Ave A to US 62/SH 114	131	08	312-1.088	212+1.692	2.780	0	145	776	1,087
7	US	62	South SL 193 to Ave Q (M.L & F.R.)	380	01	314+0.373	331+0.393	17.020	65	61	868	11,972
8	SL	193	FM 179 Int.	380	14	284-0.073	286+0.062	2.135	0	61	100	0
9	SL	289	US 62/82 N.E. clockwise to US 62/82 S.W. (M.L. & F.R. Int.)	783	01	301-0.813	314+0.098	13.923	650	0	250	11,000
10	SL	289	US 62/82 S.W. clockwise to US 62/82 N.E. (M.L. & F.R. Int.)	783	02	288-0.109	300+0.840	12.183	751	89	146	10,989
11	FM	179	SH 114 Int. and 82nd Street Int.	880	04	212-1.464	232+0.846	22.310	0	350	200	0
12	FM	835	IH 27 Int. and Ave A Int.	933	01	296-0.153	306+0.618	10.787	0	300	100	0
						TOTAL		125.953	1,919	4,508	10,019	53,488



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

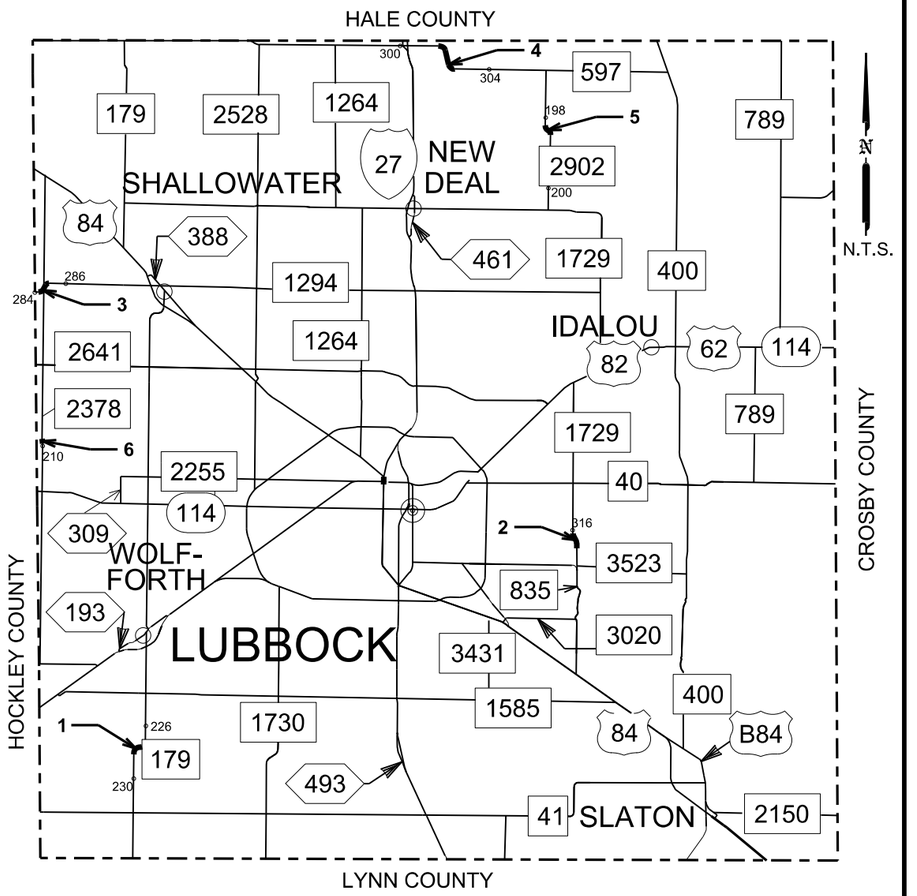
COUNTY LAYOUT
LUBBOCK CONCRETE

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			045
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs

County : Lubbock	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	179	ALL SPEED ADVISORY CURVES BETWEEN FM 1585 & FM 41	880	04	226	230	90
2	FM	1729	SPEED ADVISORY CURVES NORTH OF FM 3523	1632	03	316	316	103
3	FM	1294	SPEED ADVISORY CURVES NEAR THE HOCKLEY CO. LINE	1866	01	284	286	110
4	FM	597	ALL SPEED ADVISORY CURVES BETWEEN IH 27 & FM 2902	2047	02	300	304	131
5	FM	2902	ALL SPEED ADVISORY CURVES BETWEEN FM 597 & FM 1729	2932	03	198	200	178
6	FM	2378	SPEED ADVISORY CURVES NORTH OF SH 114	2933	02	210	210	96
						TOTAL		**708**

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

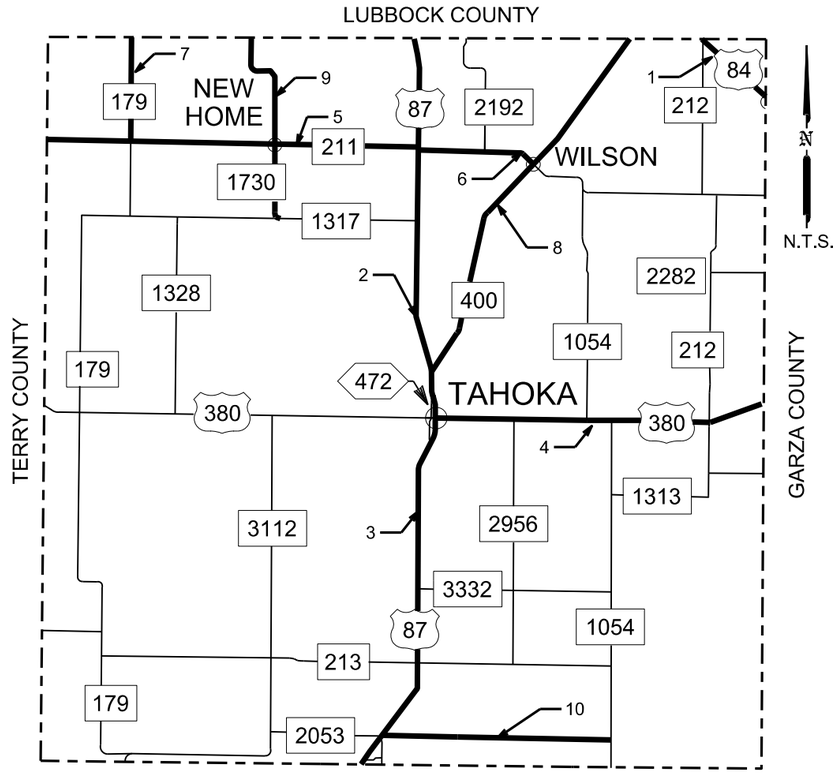
Jeremy T. Dearing, P.E.

11/29/2023

LUBBOCK COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			046
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Lynn	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	84	Lubbock County Line to Garza County Line	53	03	340+0.000	344+0.000	3.751	160	0	0	250
2	US	87	Lubbock County Line to Centerline of Cemetery RD BRG	68	02	284+0.000	300+0.844	16.765	0	0	414	1,793
3	US	87	Centerline of Cemetery RD BRG to Dawson County Line	68	03	300+0.844	316+0.000	14.076	58	0	0	481
4	US	380	SL 472 to Garza County Line	297	06	302+0.258	316+2.770	14.019	0	18	750	0
5	FM	211	Terry County Line to US 87	721	04	280-0.003	296-0.232	15.771	0	0	1,245	0
6	FM	211	US 87 to FM 400	721	05	296-0.045	302-0.308	5.737	0	38	345	0
7	FM	179	Lubbock County Line to FM 211	880	06	232-0.045	236+0.400	4.445	0	5	175	0
8	FM	400	Lubbock County Line to US 87	1041	04	232+0.007	248+0.532	16.525	0	13	636	0
9	FM	1730	Lubbock County Line to FM 1317	1344	01	228-0.016	236+0.116	8.132	0	6	327	0
10	FM	2053	US 87 to FM 1054	1966	03	298-0.278	306+1.200	9.478	0	0	388	0
						TOTAL		**108.699**	**218**	**80**	**4,280**	**2,524**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

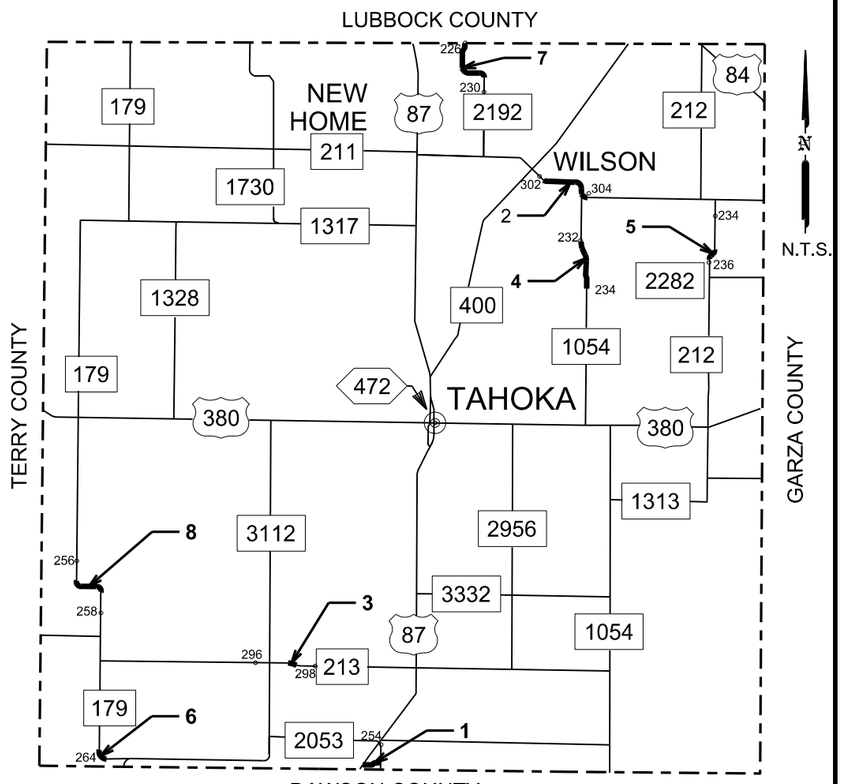
COUNTY LAYOUT
LYNN

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			047
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs

County : Lynn	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	SL	76	SPEED ADVISORY CURVES EAST OF US 87	68	09	254	254	50
2	FM	211	ALL SPEED ADVISORY CURVES BETWEEN FM 400 & TRM 304	721	05	302	304	182
3	FM	213	ALL SPEED ADVISORY CURVES BETWEEN FM 3112 & US 87	879	04	296	298	110
4	FM	1054	ALL SPEED ADVISORY CURVES BETWEEN FM 211 & TRM 234	933	03	232	234	64
5	FM	212	ALL SPEED ADVISORY CURVES BETWEEN FM 211 & FM 2282	1055	01	234	236	97
6	FM	179	SPEED ADVISORY CURVES WEST OF FM 2053	1967	01	264	264	200
7	FM	2192	ALL SPEED ADVISORY CURVES BETWEEN LUBBOCK CO. LINE & FM 211	2082	02	226	230	185
8	FM	179	SPEED ADVISORY CURVES NORTH OF FM 213	2184	01	256	258	119
						TOTAL		1,007

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.



PAVEMENT MARKING DESIGNATORS

RRPM

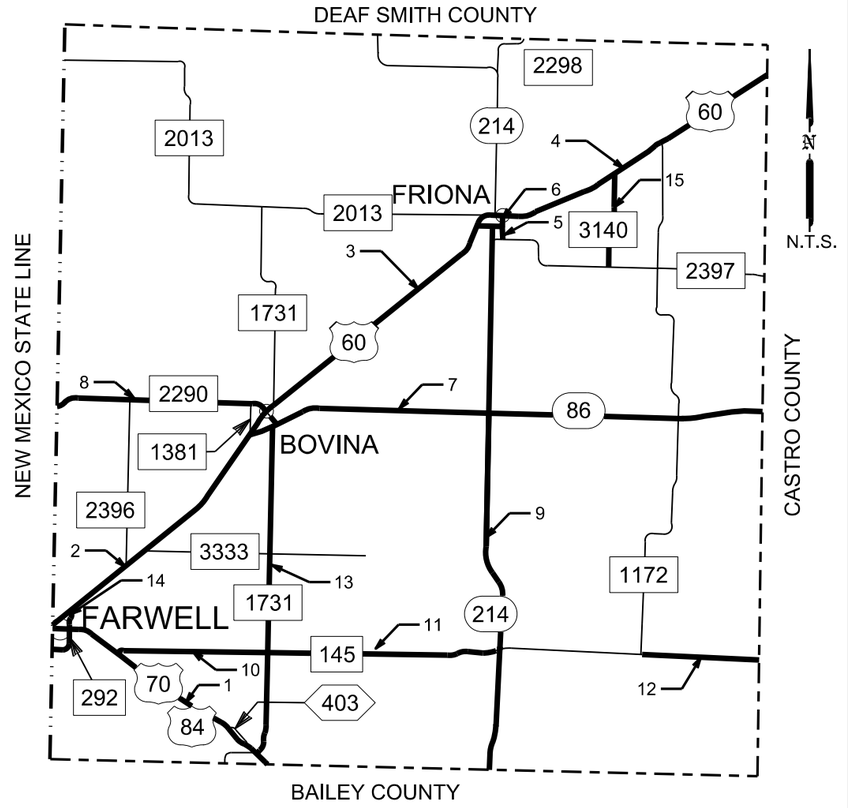
Jeremy T. Dearing, P.E.

11/29/2023

LYNN COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			048
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Parmer	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	70	N.M. State Line to Bailey County Line	52	01	226+0.000	236+0.705	10.705	90	104	213	847
2	US	60	N.M. State Line to 5.3 Miles W of Bovina	168	01	226+0.000	232+1.441	7.492	150	250	350	1,825
3	US	60	5.3 Miles W of Bovina to TRM 248+1.650	168	02	232+1.441	248+1.650	16.209	88	52	0	1,744
4	US	60	TRM 248+1.650 to Castro County Line	168	03	248+1.650	266+0.000	14.827	198	206	487	1,648
5	SH	214A	Main Street to US 60	168	13	244+1.533	244+0.419	1.114	0	75	75	0
6	SH	214A	US 60 to Main Street	168	17	244+0.419	244-0.011	0.430	0	33	33	0
7	SH	86	US 60 to Castro County Line	302	01	256+0.000	234-0.058	21.876	0	97	1,434	0
8	FM	2290	New Mexico State Line to US 60	302	06	228-0.064	238+0.044	10.108	0	0	1,178	0
9	SH	214	SH 214A to Bailey County Line	461	06	153+0.288	176+0.000	22.712	0	100	1,500	0
10	FM	145	US 70/84 to FM 1731	754	01	230-0.035	236+0.383	6.418	0	0	261	0
11	FM	145	FM 1731 to SH 214	754	02	236+0.383	246+0.098	9.715	0	0	544	0
12	FM	145	FM 1172 to Castro County Line	820	09	252+0.197	258+0.070	5.900	0	0	229	0
13	FM	1731	US 60 to US 70/84	1634	01	155-0.648	168+0.606	14.254	0	25	475	0
14	FM	292	New Mexico State Line to US 60	1904	01	158+0.029	156-0.063	2.092	0	0	100	0
15	FM	3140	US 60 to FM 2397	3243	01	136-0.056	140+0.041	4.097	0	0	240	0
						TOTAL		**147.949**	**526**	**942**	**7,119**	**6,064**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

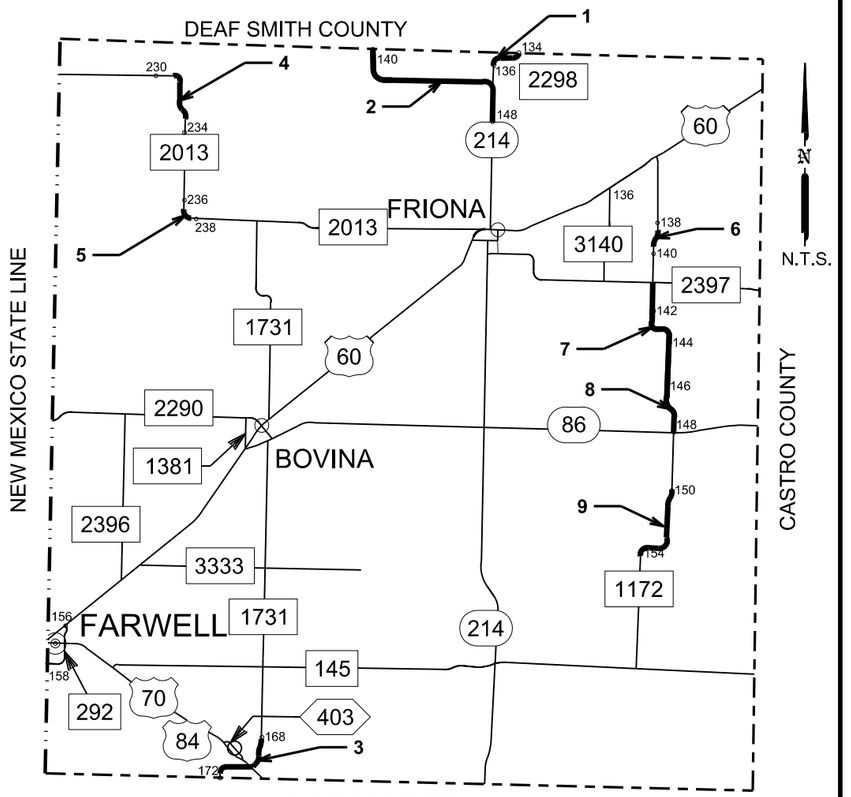
COUNTY LAYOUT
PARMER

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			049
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs

County : Parmer	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	2298	SPEED ADVISORY CURVES SOUTH OF DEAF SMITH CO. LINE	461	16	134	136	155
2	SH	214	ALL SPEED ADVISORY CURVES BETWEEN DEAF SMITH CO. LINE AND TRM 148	1491	03	140	148	300
3	FM	1731	SPEED ADVISORY CURVES IN LARIAT	1634	02	164	172	188
4	FM	2013	ALL SPEED ADVISORY CURVES BETWEEN STATE LINE & TRM 234	2185	01	230	234	158
5	FM	2013	SPEED ADVISORY CURVES WEST OF FM 1731	2185	01	236	238	69
6	FM	1172	ALL SPEED ADVISORY CURVES BETWEEN US 60 & FM 2397	2444	01	138	140	96
7	FM	1172	ALL SPEED ADVISORY CURVES BETWEEN FM 2397 & SH 86	2444	01	142	144	154
8	FM	1172	ALL SPEED ADVISORY CURVES BETWEEN FM 2397 & SH 86	2444	01	146	148	78
9	FM	1172	ALL SPEED ADVISORY CURVES BETWEEN SH 86 & FM 145	3243	01	150	154	29
						TOTAL		**1,227**

NOTE: INSTALL RPMS 800 FEET BEFORE THE PC, EXTEND THROUGH THE CURVE, CONTINUE 800 FEET BEYOND THE PT OF THE CURVE.



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

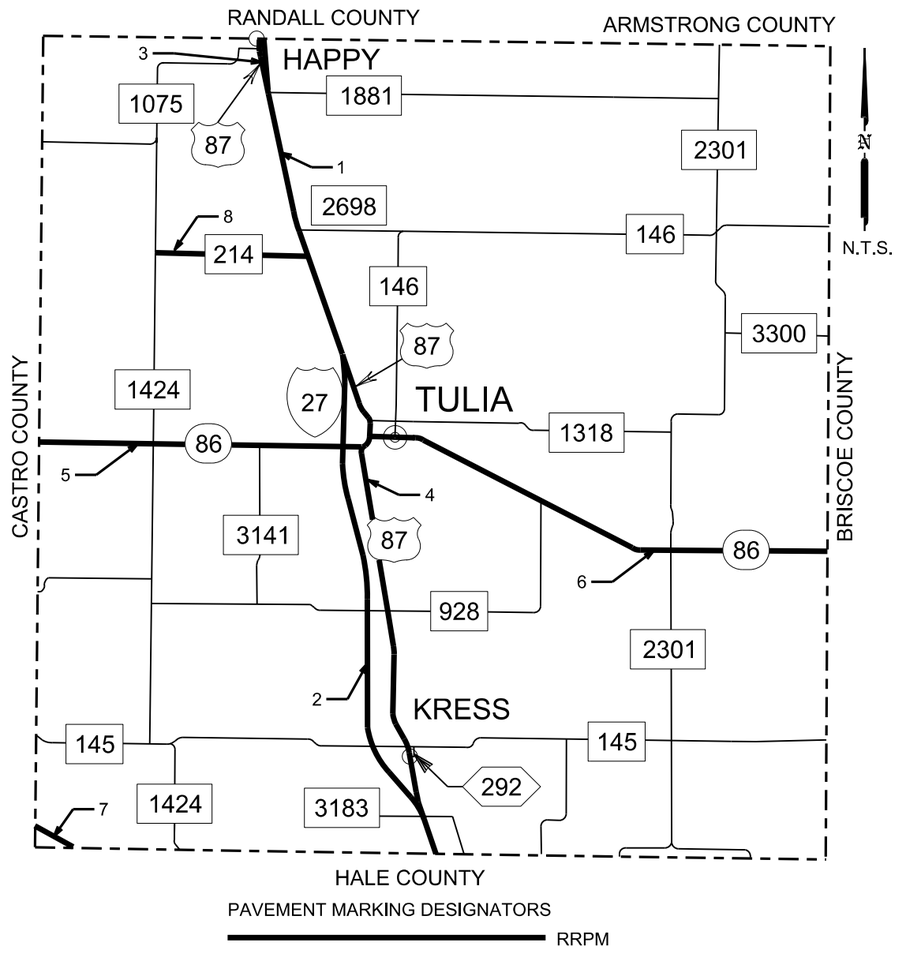
Jeremy T. Dearing, P.E.

11/29/2023

PARMER COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			050
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Swisher	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	IH	27	SH 86 to Randall County Line (F.R.)	67	02	76-1.314	90+0.302	15.616	0	14	434	291
2	IH	27	Hale County Line to SH 86 (F.R)	67	03	59-0.065	76-1.314	15.800	0	35	517	806
3	US	87	Randall County Line to IH 27	67	10	180+0.000	180+1.568	1.568	12	32	31	72
4	US	87	North IH 27 to South IH 27	67	18	194-1.609	205+0.922	16.531	100	0	0	1,200
5	SH	86	Castro County Line to US 87	302	04	288+0.000	300+0.623	12.608	0	0	480	0
6	SH	86	US 87 to Briscoe County Line	303	01	300+0.623	318+1.581	18.300	0	0	988	0
7	SH	194	Castro County Line to Hale County Line	439	03	294+0.000	296+0.000	1.960	0	0	97	0
8	FM	214	FM 1424 to IH 27	755	04	180-2.694	208+0.774	5.780	0	0	1,155	0
						TOTAL		**88.163**	**112**	**81**	**3,702**	**2,369**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

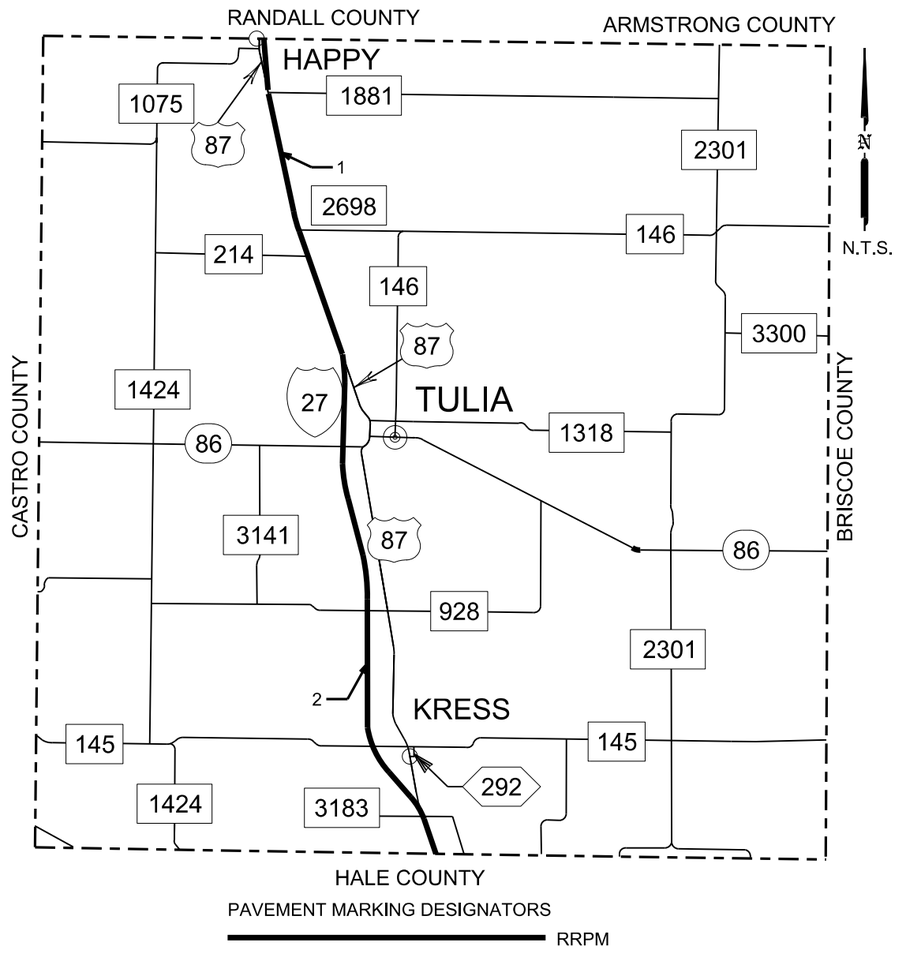
11/29/2023

COUNTY LAYOUT
SWISHER

FED.RD. DIV.NO.	STATE PROJECT NO.			SHEET NO.
6				051
STATE	DIST.	County		
TEXAS	LBB	LUBBOCK,ETC.		
CONT.	SECT.	JOB	HIGHWAY NO.	
0905	00	120	VAR	
FILE NAME			DATE	
2024 RRPM			11/29/2023	

CONCRETE

County : Swisher	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	IH	27	SH 86 to Randall County Line (M.L & F.R.)	67	02	76-1.314	90+0.302	15.616	0	143	4,342	2,913
2	IH	27	Hale County Line to SH 86 (M.L & F.R)	67	03	59-0.065	76-1.314	15.800	0	177	2,584	4,030
						TOTAL		**31.416**	**0**	**320**	**6,926**	**6,943**



STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

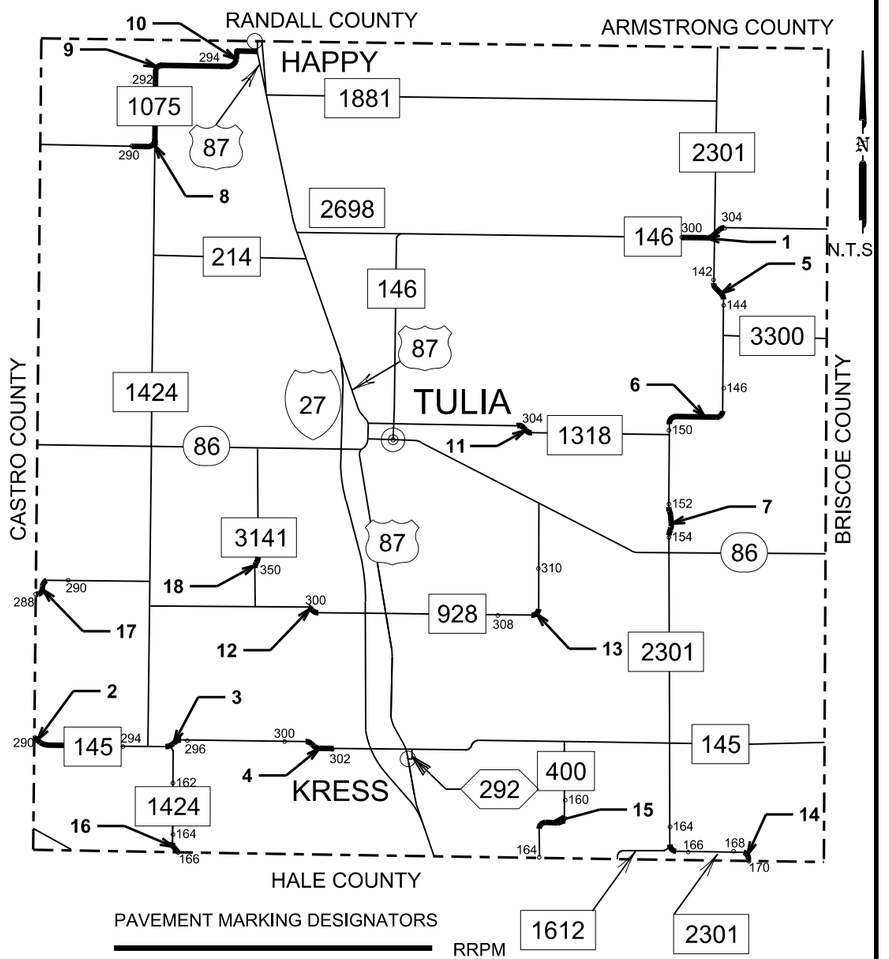
11/29/2023

COUNTY LAYOUT
SWISHER CONCRETE

FED.RD. DIV.NO.	STATE PROJECT NO.			SHEET NO.
6				052
STATE	DIST.	County		
TEXAS	LBB	LUBBOCK,ETC.		
CONT.	SECT.	JOB	HIGHWAY NO.	
0905	00	120	VAR	
FILE NAME			DATE	
2024 RRPM			11/29/2023	

CURVE ADVISORY RRPMs

County : Swisher	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	146	SPEED ADVISORY CURVES BETWEEN TRM 300 & 304	357	04	300	304	109
2	FM	145	SPEED ADVISORY CURVES NEAR CASTRO CO. LINE	754	05	290	290	94
3	FM	145	SPEED ADVISORY CURVES EAST OF FM 1424	754	05	294	296	131
4	FM	145	SPEED ADVISORY CURVES WEST OF IH 27	754	05	300	302	109
5	FM	2301	ALL SPEED ADVISORY CURVES BETWEEN FM 146 & FM 3300	789	04	142	144	274
6	FM	2304	ALL SPEED ADVISORY CURVES BETWEEN FM 3300 & FM 1318	789	04	146	150	206
7	FM	2301	ALL SPEED ADVISORY CURVES BETWEEN FM 1318 & SH 86	789	04	152	154	155
8	FM	1075	SPEED ADVISORY CURVES WEST OF FM 1424	1256	01	290	290	137
9	FM	1075	ALL SPEED ADVISORY CURVES BETWEEN FM 1424 & IH 27	1256	01	292	294	169
10	FM	1075	ALL SPEED ADVISORY CURVES BETWEEN FM 1424 & IH 27	1256	01	296	296	150
11	FM	1318	ALL SPEED ADVISORY CURVES BETWEEN FM 146 & FM 2301	1345	01	304	304	94
12	FM	928	ALL SPEED ADVISORY CURVES BETWEEN FM 3141 & IH 27	1635	01	300	300	94
13	FM	928	ALL SPEED ADVISORY CURVES BETWEEN SH 86 & US 87	1635	02	308	310	71
14	FM	2301	ALL SPEED ADVISORY CURVES BETWEEN FM 1612 & HALE CO. LINE	1863	03	164	170	204
15	FM	400	ALL SPEED ADVISORY CURVES BETWEEN FM 145 & HALE CO. LINE	1907	01	160	164	212
16	FM	1424	SPEED ADVISORY CURVES NEAR HALE CO. LINE	2499	02	164	164	101
17	FM	928	SPEED ADVISORY NEAR CASTRO CO. LINE	3003	02	288	290	150
18	FM	3141	ALL SPEED ADVISORY CURVES BETWEEN SH 86 & FM 928	3244	01	350	350	90
						TOTAL		**2,550**



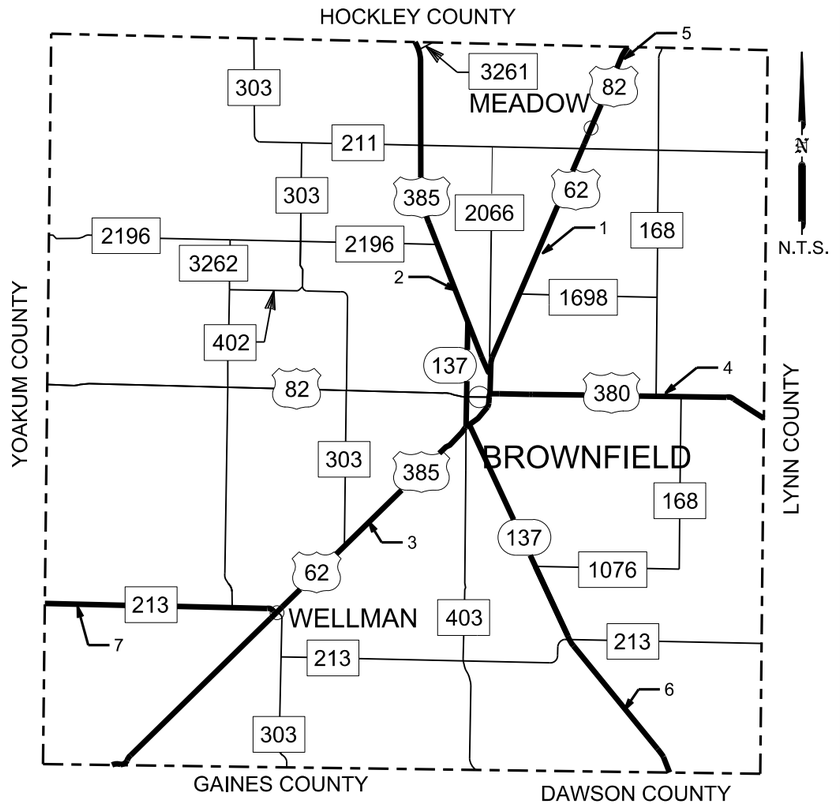
Jeremy T. Dearing, P.E.

11/29/2023

SWISHER COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			053
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

County : Terry	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	62	US 82/380 to Morehead St in Meadow	227	07	288-0.397	300-0.239	12.158	10	50	0	700
2	US	385	Hockley Co Line to US 62/82	227	09	232+0.000	244+2.198	14.215	0	0	480	120
3	US	62	Gaines County Line to US 82/380	228	01	266+0.244	288-0.397	21.379	18	167	0	1,283
4	US	380	US 62 to Lynn County Line	297	04	274-1.248	286+0.015	13.230	150	0	1,208	0
5	US	62	Morehead Street to Hockley Co Line	380	03	300-0.239	304+0.412	4.651	5	15	0	250
6	SH	137	US 385 to Dawson County Line	380	04	234-0.015	256+1.264	23.279	150	0	1,208	0
7	FM	213	Yoakum County Line to US 62	879	02	252+0.006	260+1.667	9.661	0	0	1,208	0
						TOTAL		**98.573**	**333**	**232**	**4,104**	**2,353**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

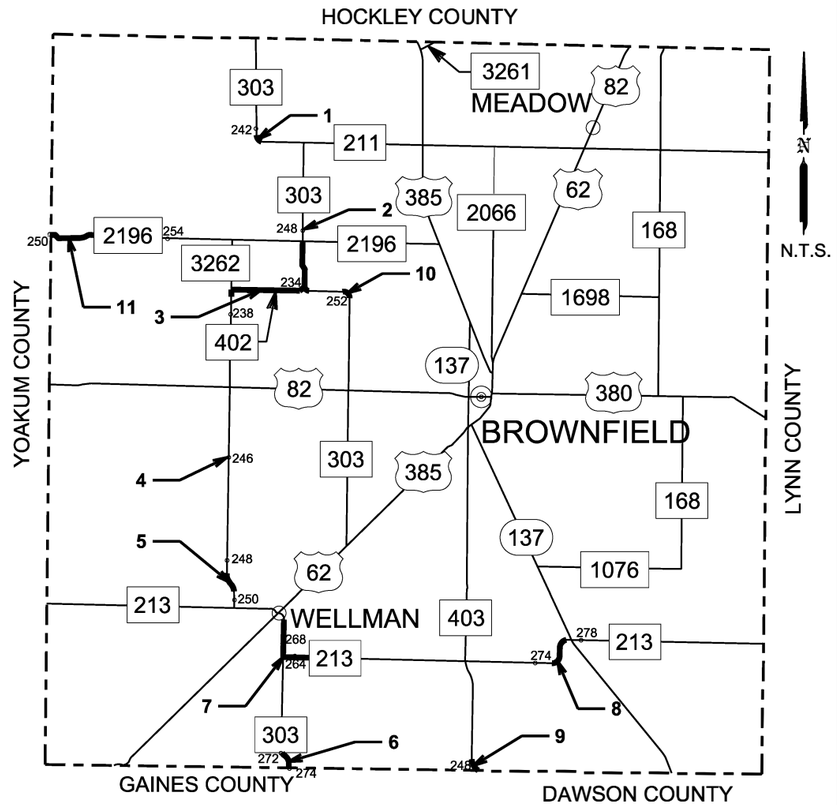
11/29/2023

COUNTY LAYOUT
TERRY

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			**054**
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

CURVE ADVISORY RRPMs

County : Terry	Hwy	Rdwy	Description	Cont	Sect	Begin TRM (MI)	END TRM (MI)	TY II-A-A
1	FM	303	ALL SPEED ADVISORY CURVES BETWEEN FM 211 & HOCKLEY CO. LINE	721	01	242	242	93
2	FM	303	ALL SPEED ADVISORY CURVES BETWEEN FM 211 & FM 402	820	05	248	252	74
3	FM	402	ALL SPEED ADVISORY CURVES BETWEEN FM 303 & US 82	820	05	234	238	315
4	FM	402	ALL SPEED ADVISORY CURVES BETWEEN US 82 & FM 213	820	06	246	246	79
5	FM	402	ALL SPEED ADVISORY CURVES BETWEEN US 82 & FM 213	820	06	248	250	109
6	FM	303	SPEED ADVISORY CURVES NEAR GAINES CO. LINE	820	08	272	274	66
7	FM	213	SPEED ADVISORY CURVES SOUTH OF WELLMAN	879	03	264	268	50
8	FM	213	ALL SPEED ADVISORY CURVES BETWEEN FM 403 & SH 137	879	03	274	278	176
9	FM	403	SPEED ADVISORY CURVES NEAR DAWSON CO. LINE	881	01	248	248	88
10	FM	303	ALL SPEED ADVISORY CURVES BETWEEN FM 402 & US 82	1716	01	248	252	87
11	FM	2196	ALL SPEED ADVISORY CURVES BETWEEN YOAKUM CO. LINE & FM 3262	2069	02	250	254	290
						TOTAL		1,427



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED
PROFESSIONAL ENGINEER

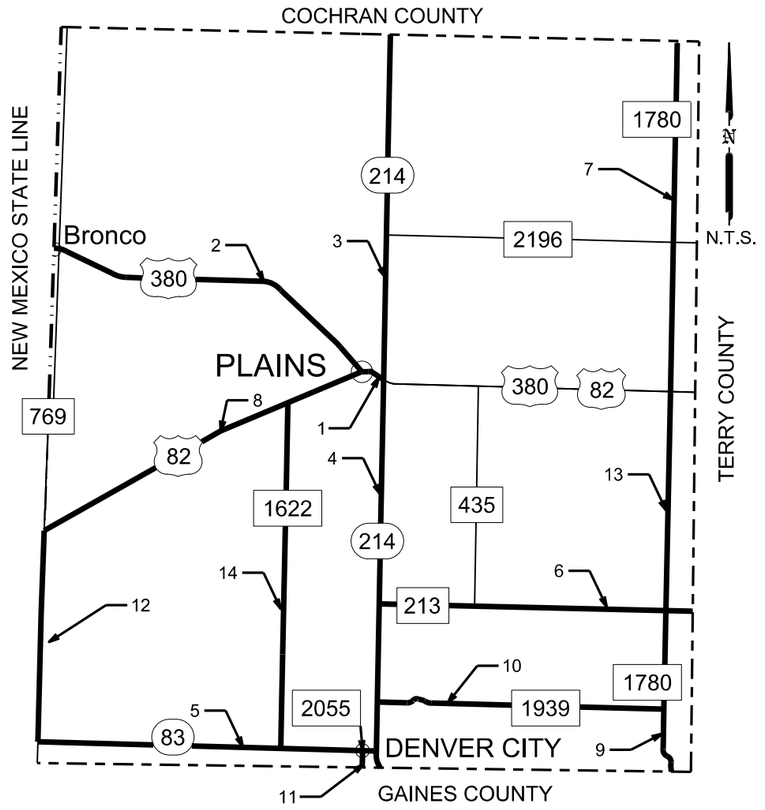
Jeremy T. Dearing, P.E.

11/29/2023

TERRY COUNTY
CURVE ADVISORY RRPMs

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			055
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILENAME			DATE
2024 R R PM			1/29/2024

County : Yoakum	Hwy	Rdwy	Description Limits	Cont	Sect	Begin TRM (MI)	End TRM (MI)	Length (MI)	TY I-A	TY I-C	TY II-A-A	TY II-C-R
1	US	82	Ave B in Plains to 10th Street	297	01	236+1.203	238+0.866	1.663	0	125	150	0
2	US	380	N.M. State Line to US 82	297	01	224-0.019	238+0.866	14.870	0	265	637	0
3	SH	214	Cochran County Line to us 82/380	461	05	244-0.001	258+0.054	14.055	0	4	402	0
4	SH	214	Gaines County Line to US 82/380	461	08	236-0.012	258+0.054	22.066	0	308	1,313	0
5	SH	83	State Line to SH 214	583	01	220+0.000	232+2.272	14.240	0	338	1,200	0
6	FM	213	SH 214 to Terry County Line	879	01	238-0.038	252+0.006	14.044	0	0	804	0
7	FM	1780	Cochran County Line to US 82/380	967	04	232+0.005	246+0.044	14.039	0	0	371	0
8	US	82	N.M. State Line to TRM 236+1.203	1253	01	222-0.009	236+1.203	15.027	0	178	827	0
9	FM	1780	FM 1939 to Gaines County Line	1633	01	160-0.680	262-0.028	2.652	0	0	100	0
10	FM	1939	SH 214 to FM 1780	1633	01	236-0.042	248+0.038	12.080	0	0	919	0
11	FM	2055	SH 83 to Gaines County Line	1865	01	254-0.022	256+0.032	2.054	0	0	250	0
12	FM	769	US 82 to SH 83	1892	03	284+0.626	292+0.238	8.612	0	0	569	0
13	FM	1780	US 82/380 to FM 1939	1909	02	246+0.044	260-0.680	13.276	0	0	450	0
14	FM	1622	US 82 to SH 83	1910	01	238-0.051	252+0.134	14.185	0	178	827	0
						TOTAL		**162.863**	**0**	**1,396**	**8,819**	**0**



PAVEMENT MARKING DESIGNATORS

RRPM

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

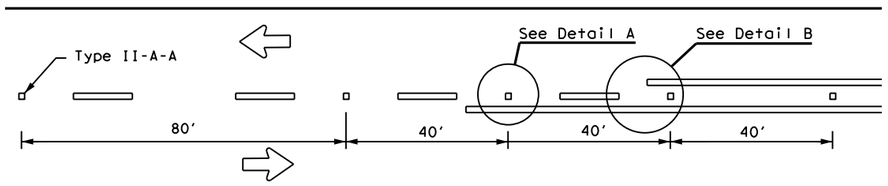
Jeremy T. Dearing, P.E.

11/29/2023

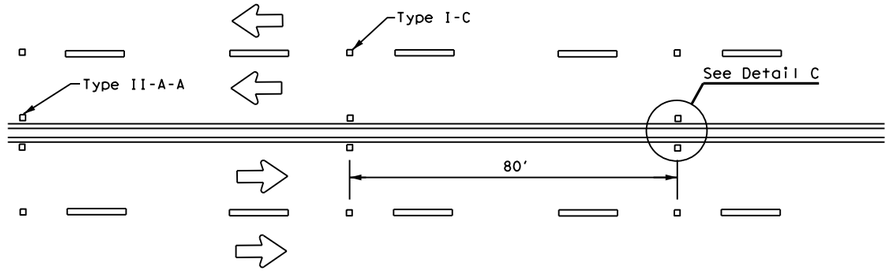
COUNTY LAYOUT
YOAKUM

FED.RD. DIV.NO.	STATE PROJECT NO.		SHEET NO.
6			056
STATE	DIST.	County	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILE NAME			DATE
2024 RRPM			11/29/2023

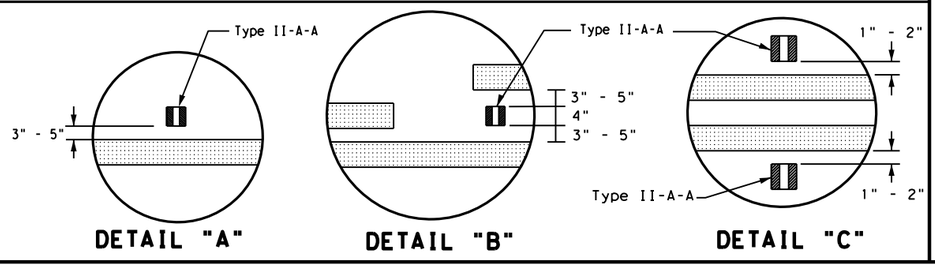
REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE

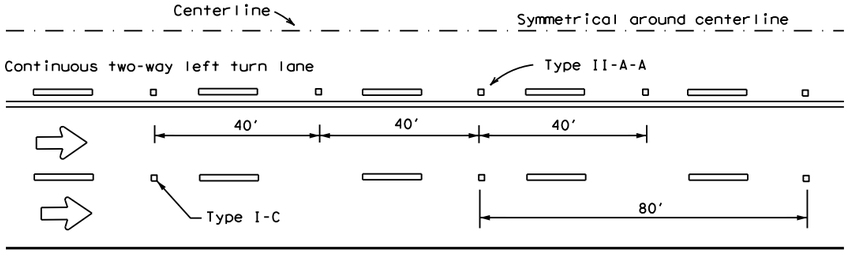


CENTERLINE FOR ALL TWO LANE TWO-WAY ROADWAYS

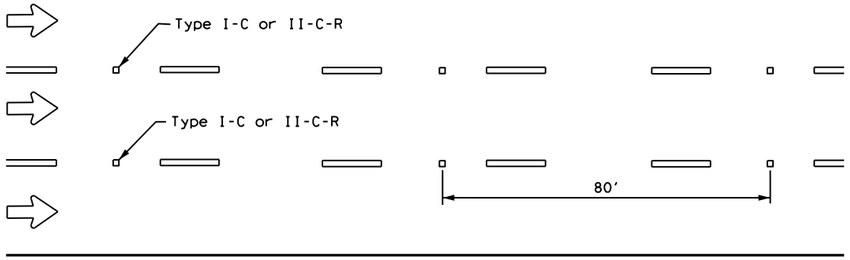


CENTERLINE & LANE LINES FOR FOUR LANE TWO-WAY ROADWAYS





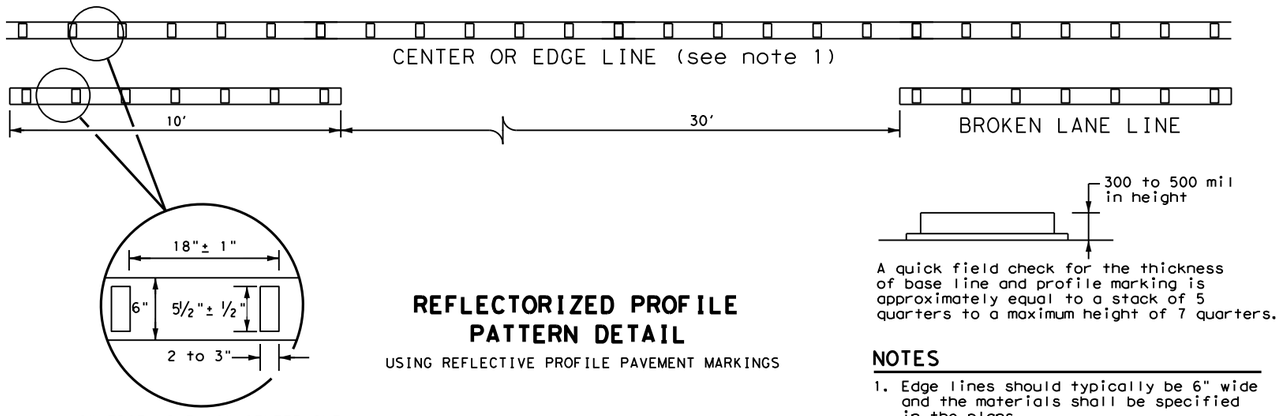
CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE



LANE LINES FOR ONE-WAY ROADWAY (NON-FREEWAY FACILITIES)

Raised pavement markers Type II-C-R shall have clear face toward normal traffic and red face toward wrong-way traffic.

See Note 3.



REFLECTORIZED PROFILE PATTERN DETAIL

USING REFLECTIVE PROFILE PAVEMENT MARKINGS

NOTES

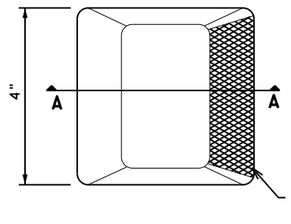
1. Edge lines should typically be 6" wide and the materials shall be specified in the plans.
2. Profile markings shall not be placed on roadways with a posted speed limit of 45 MPH or less.

GENERAL NOTES

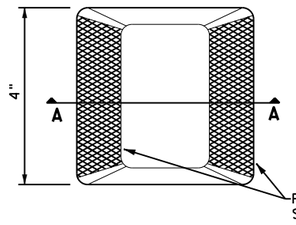
1. All raised pavement markers placed along broken lines shall be placed in line with and midway between the stripes.
2. On concrete pavements the raised pavement markers should be placed to one side of the longitudinal joints.
3. Use raised pavement marker Type I-C with undivided roadways, flush medians and two way left turn lanes. Use raised pavement marker Type II-C-R with divided highways and raised medians.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

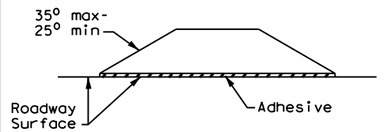
All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



Type I (Top View)



Type II (Top View)



SECTION A

RAISED PAVEMENT MARKERS

Texas Department of Transportation

Traffic Safety Division Standard

POSITION GUIDANCE USING RAISED MARKERS RELECTORIZED PROFILE MARKINGS PM(2)-22

FILE: pm2-22.dgn	DN:	CK:	DW:	CK:
©TxDOT December 2022	CONT	SECT	JOB	HIGHWAY
REVISIONS	0905	00	120	VAR
4-77 8-00 6-20	DIST	COUNTY		SHEET NO.
4-92 2-10 12-22	LBB	LUBBOCK, ETC.		057
5-00 2-12				

22B

DATE: 1/2/2024 10:48:46 AM
FILE: ☆\lbbtraff\projects (current)\0905-00-120 2024 rrpm\standards\057 pm2-22.dgn

DATE: 1/2/2024 10:48:48 AM
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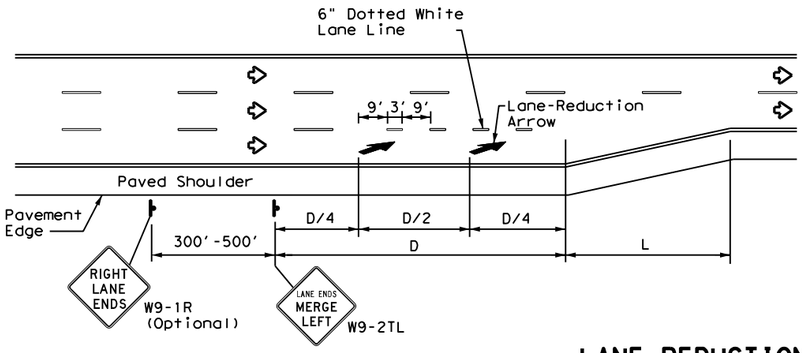
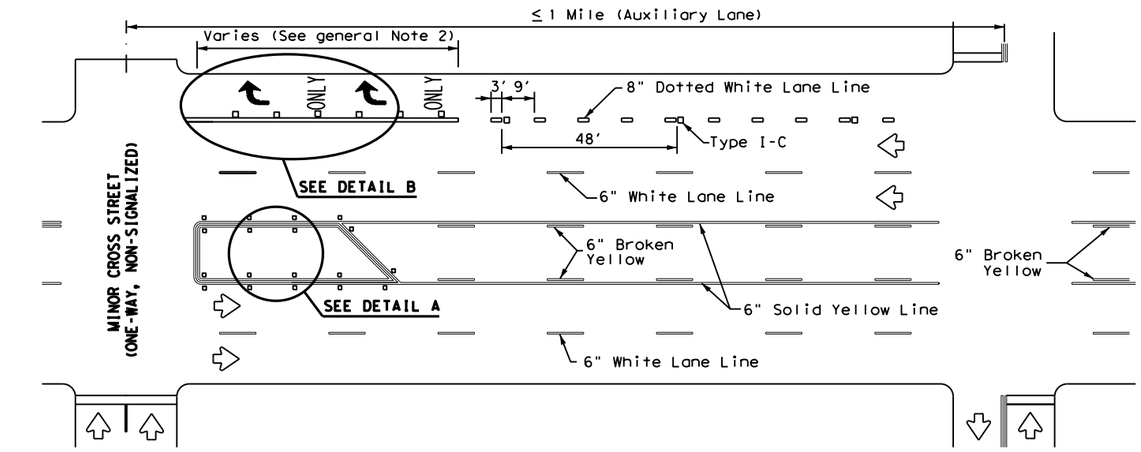


LANE REDUCTION

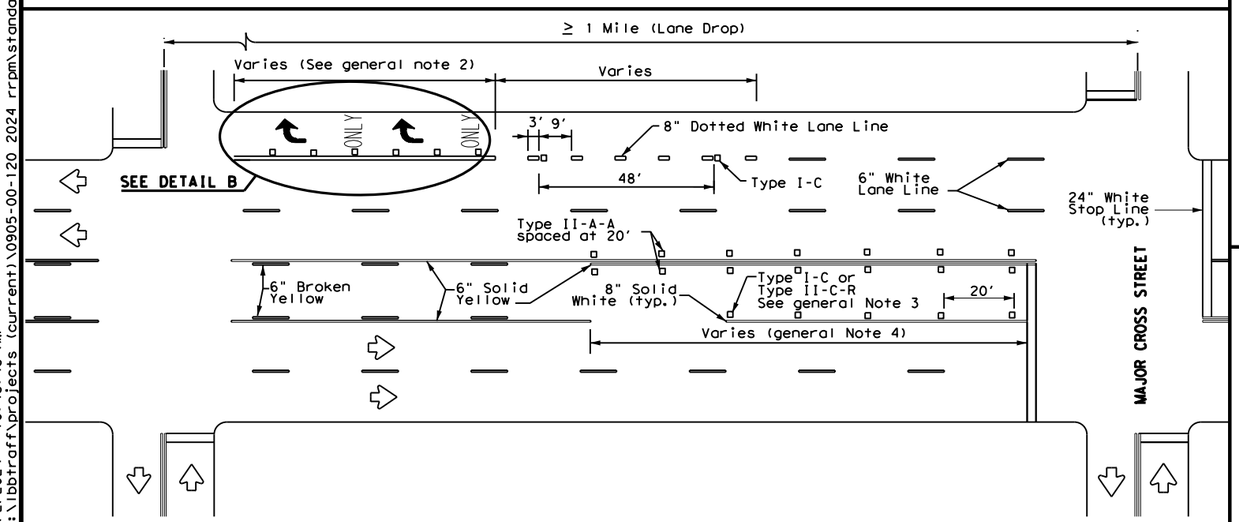
NOTES

1. Lane reduction pavement markings are used where the number of through lanes is reduced because of narrowing of the roadway or because of a section of on-street parking in what would otherwise be a through lane. For Texas Super 2 Passing Lanes, see TS2(PL) standard sheets.
2. On divided highways, an additional RIGHT LANE ENDS (W9-1R) sign may be installed in the median aligned with the W9-1R sign on the right side of the highway.
3. Lane reduction arrows are required for speeds of 45 mph or greater. An optional third lane reduction arrow may be added based on engineering judgement. If used, the optional third lane reduction arrow should be centered between the first and last lane reduction arrows.
4. For lane reductions on Freeways and Expressways, signing shall conform to the TxDOT Freeway Signing Handbook.

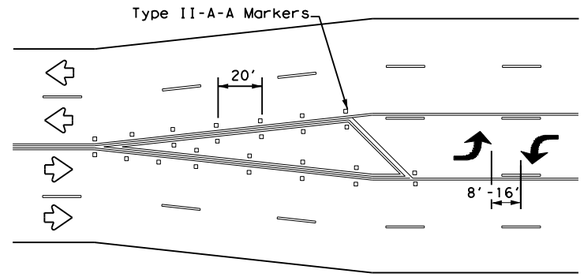
ADVANCED WARNING SIGN DISTANCE (D)		
Posted Speed	D (ft)	L (ft)
30 MPH	460	$L=\frac{WS^2}{60}$
35 MPH	565	
40 MPH	670	
45 MPH	775	L=WS
50 MPH	885	
55 MPH	990	
60 MPH	1,100	
65 MPH	1,200	
70 MPH	1,250	
75 MPH	1,350	



TYPICAL TWLTL AT ONE-WAY STREET AND RIGHT TURN AUXILIARY LANE



TYPICAL TWLTL AT TWO-WAY CROSS STREET AND RIGHT TURN LANE DROP



A two-way left-turn (TWLT) lane-use arrow pavement marking should be used at or just downstream from the beginning of a two-way left-turn lane within a corridor. Repeating the marking after each intersection or dedicated turn bay is not required unless stated elsewhere in the plans.

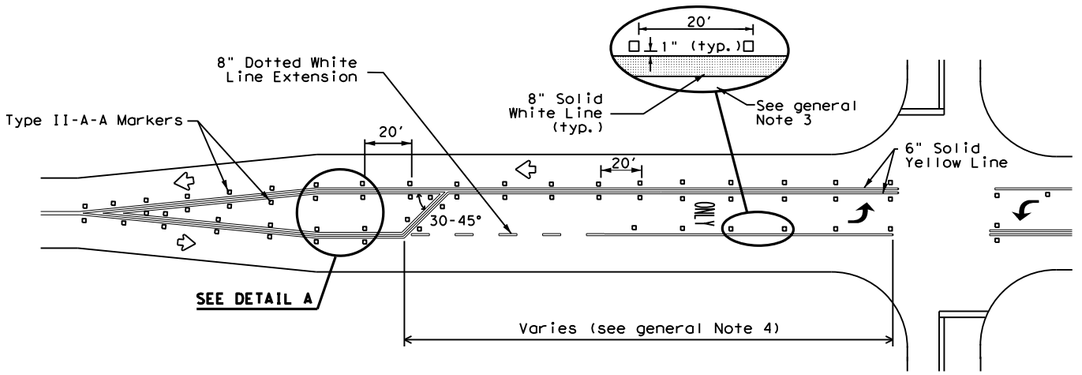
TYPICAL TRANSITION FOR TWLTL AND DIVIDED HIGHWAY

GENERAL NOTES

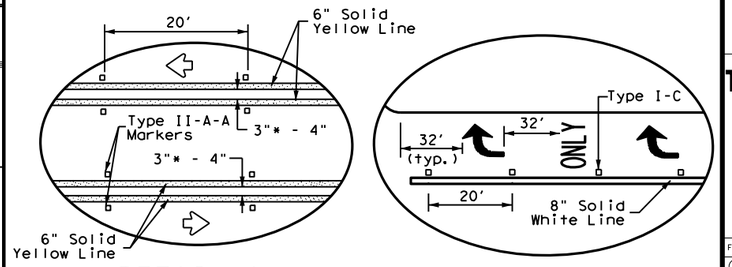
1. Lane use word and arrow markings shall be used where through lanes approaching an intersection become mandatory turn lanes. Lane use word and arrow markings should be used in auxiliary lanes of substantial length. Lane use arrow markings or word and arrow markings may be used in other lanes and turn bays for emphasis. Details for words and arrows are as shown in the Standard Highway Sign Designs for Texas.
2. When lane-use words and arrow markings are used, two sets of arrows should be used if the length of the bay is greater than 180 feet. When a single lane use arrow or word and arrow marking is used for a short turn lane, it should be located at or near the upstream end of the full-width turn lane.
3. Use raised pavement marker Type I-C with undivided highways, flush medians and two way left turn lanes. Use raised pavement marker Type II-C-R with divided highways and raised medians.
4. Length of turn bays, including taper, deceleration, and storage lengths shall be as shown on the plans or as directed by the Engineer. See Chapter 3 of the Roadway Design Manual for additional information on turning lanes or storage lengths.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



TYPICAL TWO-LANE ROADWAY INTERSECTION WITH LEFT TURN BAYS



* 2" minimum allowed for restripe projects when approved by the Engineer.

Texas Department of Transportation

Traffic Safety Division Standard

TWO-WAY LEFT TURN LANES, RURAL LEFT TURN BAYS, AND LANE REDUCTION PAVEMENT MARKINGS

PM(3)-22

FILE: pm3-22.dgn	DN:	CK:	DW:	CK:
© TxDOT December 2022	CONT	SECT	JOB	HIGHWAY
REVISIONS 4-98 3-03 6-20 5-00 2-10 12-22 8-00 2-12	0905	00	120	VAR
	DIST	COUNTY		SHEET NO.
	LBB	LUBBOCK, ETC.		058

22C

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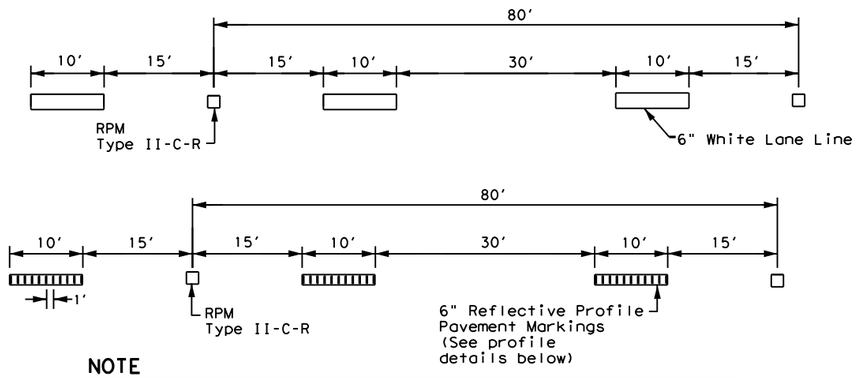
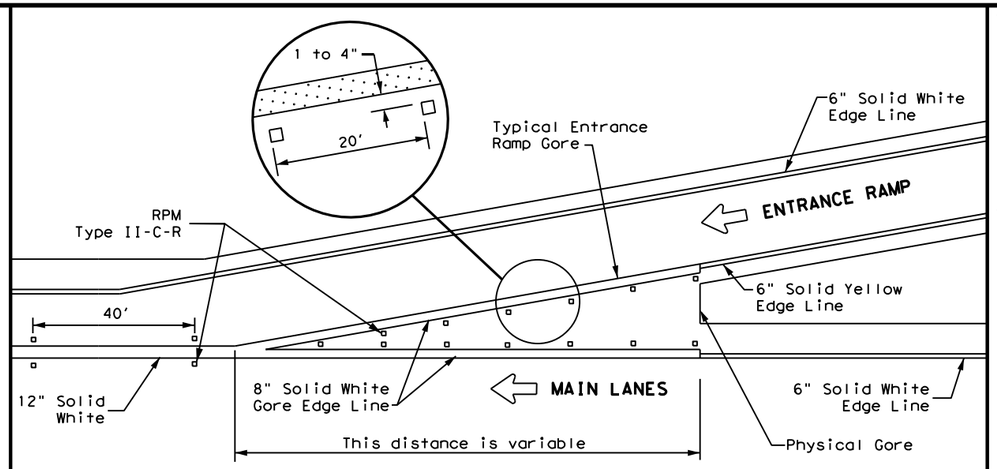


NOTE

Reflectorized raised pavement markers Type II-C-R shall be spaced on 80' centers with the clear face toward normal traffic and the red face toward wrong way traffic. All raised pavement markers placed along broken lines shall be placed in line with and midway between the stripes.

TRAFFIC LANE LINES PAVEMENT MARKING

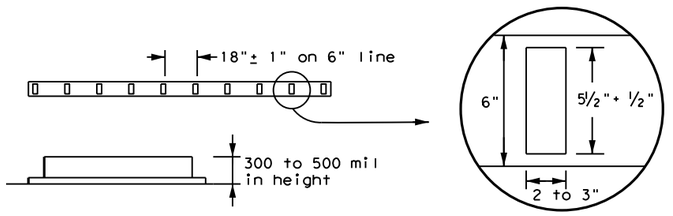


TYPICAL ENTRANCE RAMP GORE MARKING

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

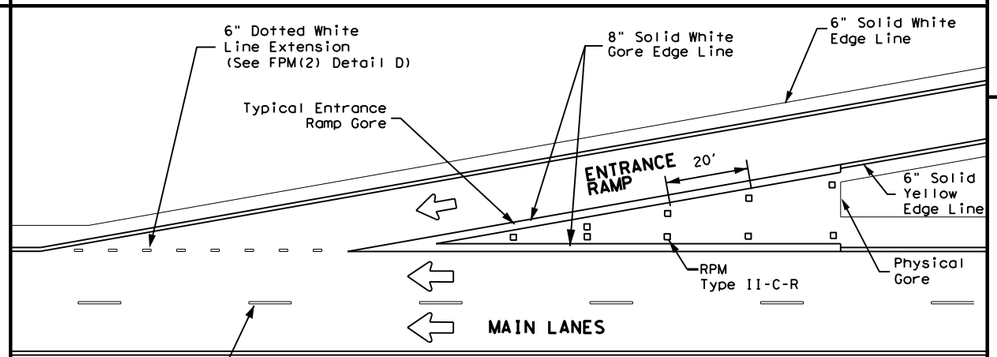
LEGEND	
⇦	Traffic flow
↱	Pavement marking arrows (white)
▫	Reflectorized Raised Markers (RPM) Type II-C-R



NOTE

Edge lines should typically be 6" wide and the materials shall be as specified in the plans. See details above if reflective profile pavement markings are to be used.

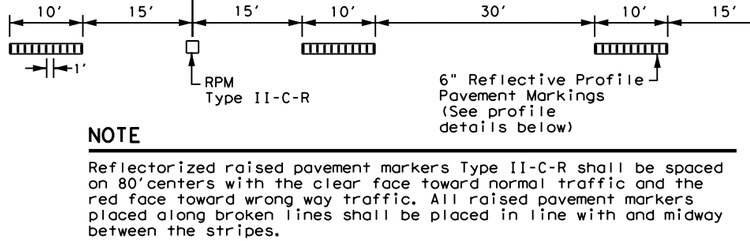
EDGE LINE PAVEMENT MARKINGS



NOTE

See the Roadway Design Manual Chapter 3 to determine if a tapered acceleration lane may be used.

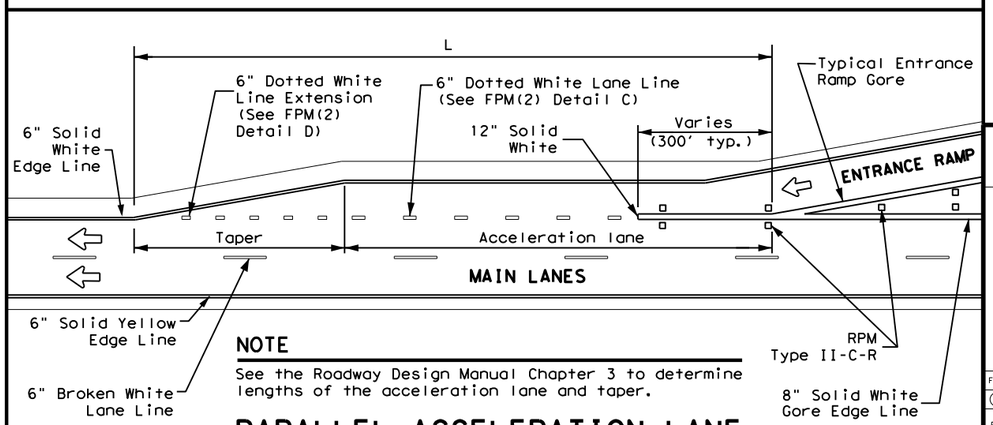
TAPERED ACCELERATION LANE



NOTES

1. Reflectorized raised pavement markers Type-II-C-R in the wrong way arrow shall have the clear face toward normal traffic and the red face toward the wrong way traffic.
2. Red reflectorized wrong way arrows, not to exceed two, may be placed on exit ramps. Locations of the arrows shall be as shown in the plans or as directed by the engineer.

WRONG WAY ARROW



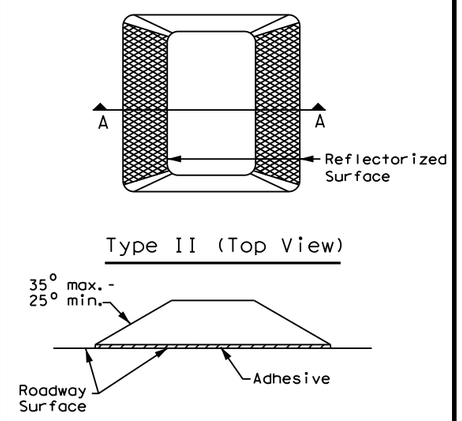
NOTE

See the Roadway Design Manual Chapter 3 to determine lengths of the acceleration lane and taper.

PARALLEL ACCELERATION LANE

GENERAL NOTE

On concrete pavements the raised pavement markers shall be placed to one side of the longitudinal joints.



SECTION A

REFLECTORIZED RAISED PAVEMENT MARKER (RPM)

Texas Department of Transportation — Traffic Safety Division Standard

TYPICAL STANDARD FREEWAY PAVEMENT MARKINGS WITH RAISED PAVEMENT MARKERS

FPM(1)-22

FILE: fpm(1)-22.dgn	DN:	CK:	DW:	CK:
© TxDOT October 2022	CONT	SECT	JOB	HIGHWAY
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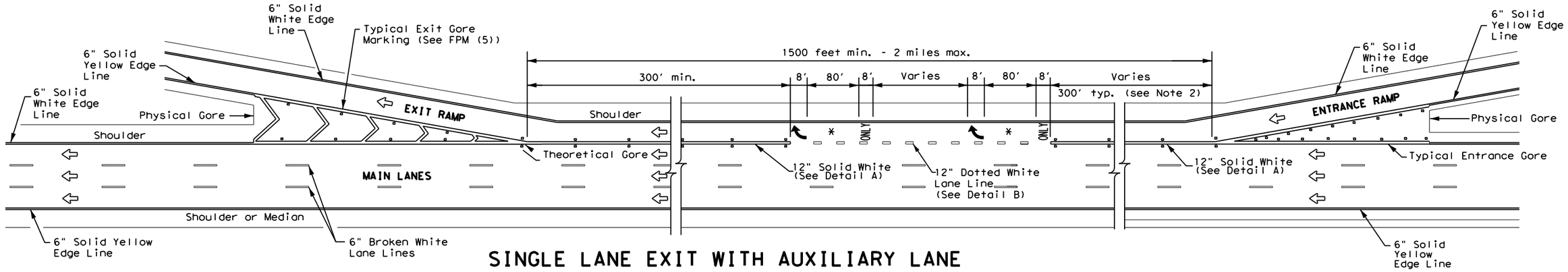
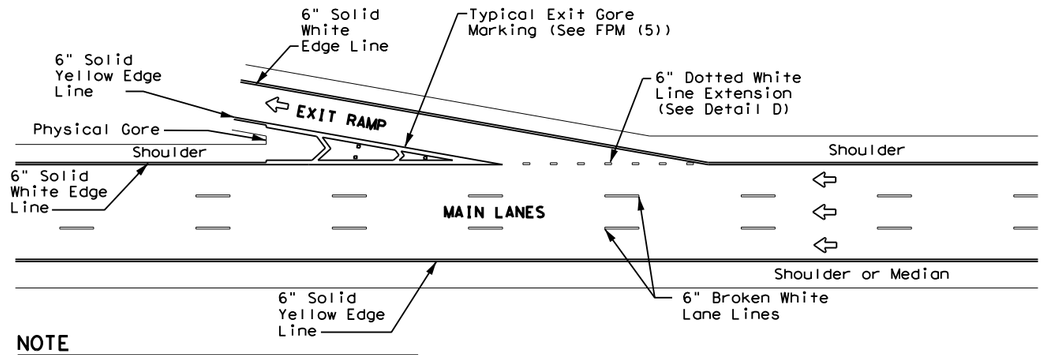
4-92 2-08 10-22	LBB	LUBBOCK, ETC.		059
5-00 2-10				

23A



SINGLE LANE EXIT WITH AUXILIARY LANE

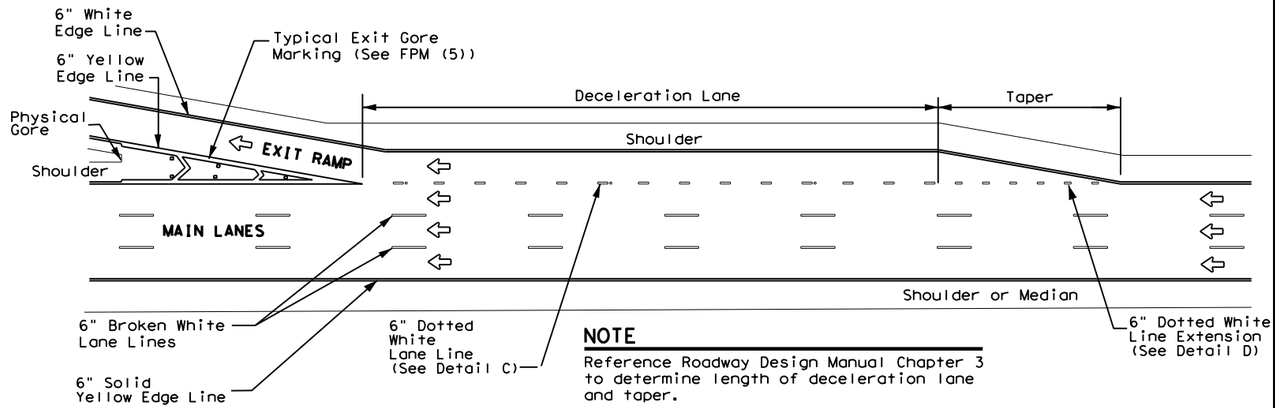
(See Note 2)



NOTE

Reference Roadway Design Manual Chapter 3 to determine if tapered deceleration lane may be used.

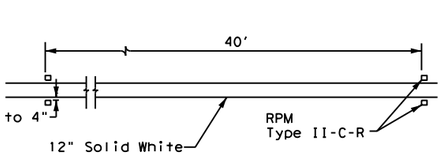
TAPERED DECELERATION LANE



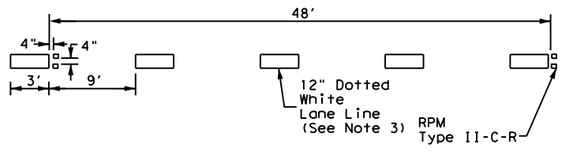
NOTE

Reference Roadway Design Manual Chapter 3 to determine length of deceleration lane and taper.

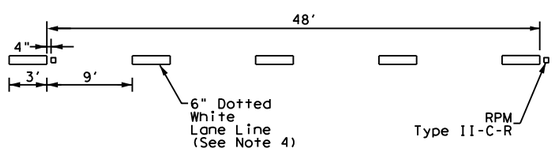
PARALLEL DECELERATION LANE



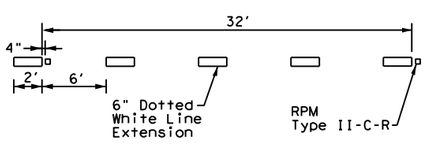
DETAIL A



DETAIL B



DETAIL C



DETAIL D

GENERAL NOTES

1. Pavement markings shall be white except as otherwise noted.
2. Length of 12" white line may vary depending on location.
3. Wide (12") dotted lane line (see Detail B) is used to separate a through lane that continues beyond the interchange from an adjacent mandatory exit lane.
4. Normal (6") dotted lane line (see Detail C) is used at parallel acceleration and deceleration lanes.
5. See FPM(1) for traffic lane line pavement marking details.

LEGEND	
⇦	Traffic flow
↱	Pavement marking arrows (white)
▫	Reflectorized Raised Markers (RPM) Type II-C-R
✳	Arrow markings are optional, however "ONLY" is required if arrow is used

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

Texas Department of Transportation

Traffic Safety Division Standard

TYPICAL STANDARD FREEWAY PAVEMENT MARKINGS ENTRANCE AND EXIT RAMPS

FPM(2)-22

FILE: fpm(2)-22.dgn	DN:	CK:	DW:	CK:
©TxDOT October 2022	CONT	SECT	JOB	HIGHWAY
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	DIST	COUNTY		SHEET NO.
	LBB	LUBBOCK, ETC.		060

23B

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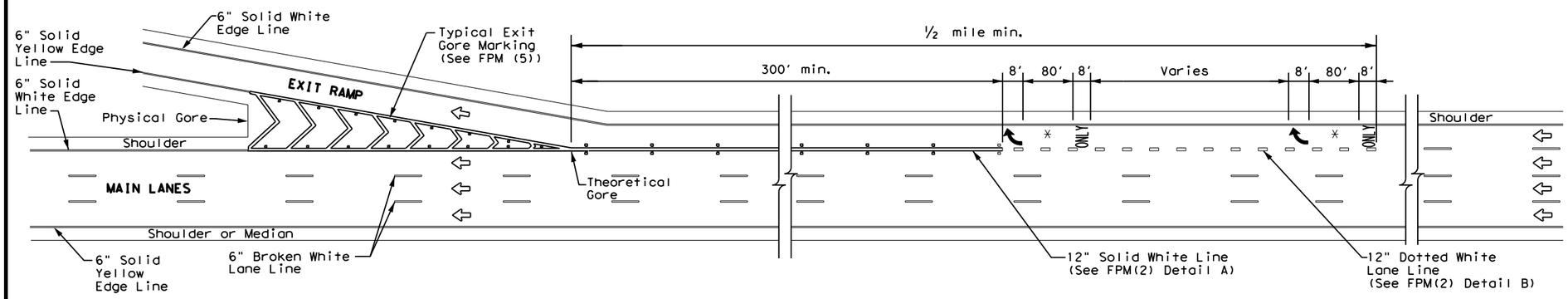
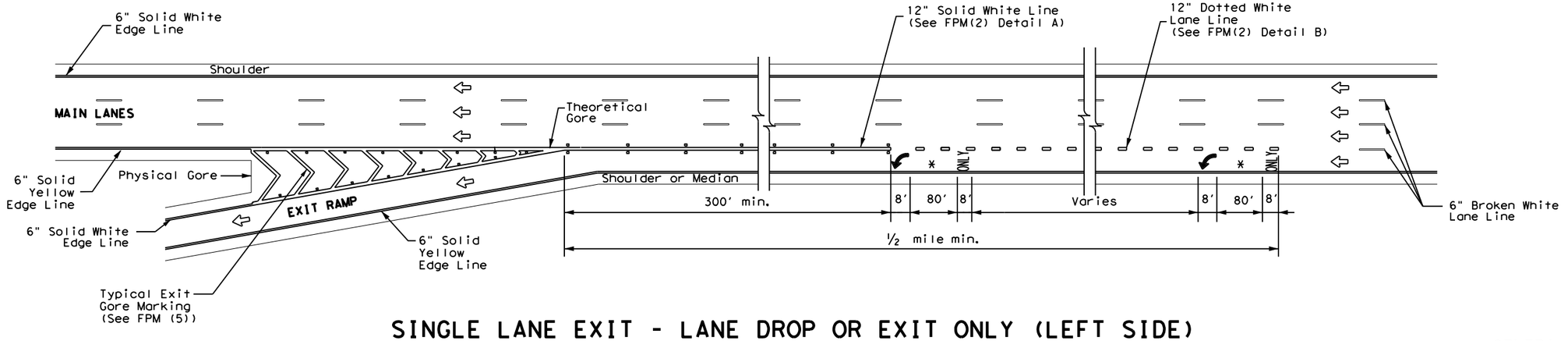


SINGLE LANE EXIT - LANE DROP OR EXIT ONLY

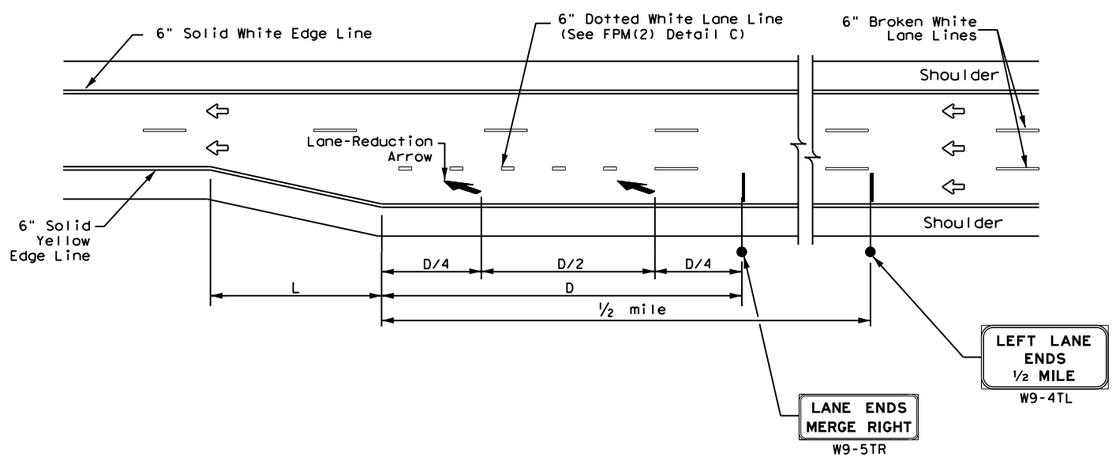
MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

LEGEND	
⇦	Traffic flow
↱	Pavement marking arrows (white)
▫	Reflectorized Raised Markers (RPM) Type II-C-R
*	Arrow markings are optional, however "ONLY" is required if arrow is used



SINGLE LANE EXIT - LANE DROP OR EXIT ONLY (LEFT SIDE)



FREEWAY LANE REDUCTION

NOTES

1. Large Guide signs shall conform to the TxDOT Freeway Signing Handbook.
2. An optional third lane reduction arrow may be added based on engineering judgement. If used, the optional third lane reduction arrow should be centered between the first and last lane reduction arrows.
3. Arrows and sign details can be found in the Standard Highway Sign Designs for Texas (SHSD) at http://www.txdot.gov.
4. These guidelines may also be applied to the design of a right side lane reduction. Use LANE ENDS MERGE LEFT (W9-5TL) and RIGHT LANE ENDS 1/2 MILE (W9-4TR) signs in lieu of what is shown on drawing.

ADVANCED WARNING SIGN DISTANCE (D)		
Posted Speed	D (ft)	L (ft)
45 MPH	775	L=WS
50 MPH	885	
55 MPH	990	
60 MPH	1,100	
65 MPH	1,200	
70 MPH	1,250	
75 MPH	1,350	
80 MPH	1,500	
85 MPH	1,625	

GENERAL NOTES

1. Pavement markings shall be white except as otherwise noted.
2. Length of 12" white line may vary depending on location.
3. Wide (12") dotted lane line (see FPM(2) Detail B) is used to separate a through lane that continues beyond the interchange from an adjacent mandatory exit lane.
4. Edge lines are not required in curb and gutter sections of frontage roads.
5. See FPM(1) for traffic lane line pavement marking details.

Texas Department of Transportation

Traffic Safety Division Standard

TYPICAL STANDARD FREEWAY PAVEMENT MARKINGS SINGLE LANE DROP (EXIT ONLY) AND LANE REDUCTION DETAILS

FPM(3)-22

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© TxDOT October 2022	CONT	SECT	JOB	HIGHWAY
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8-00 10-22	LBB	LUBBOCK, ETC.		061

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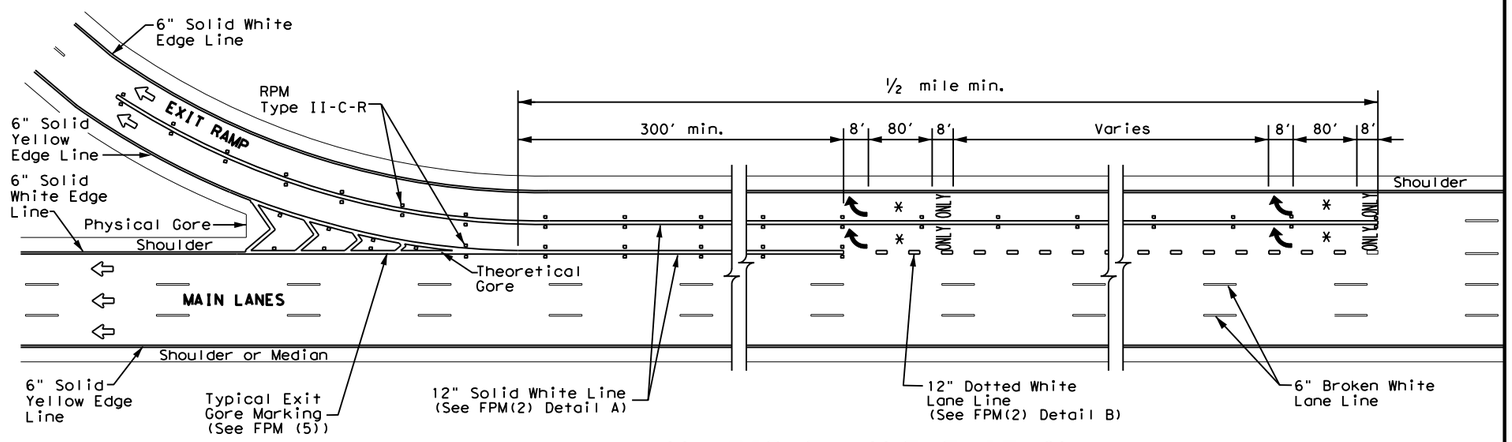


MULTIPLE LANE EXIT ONLY

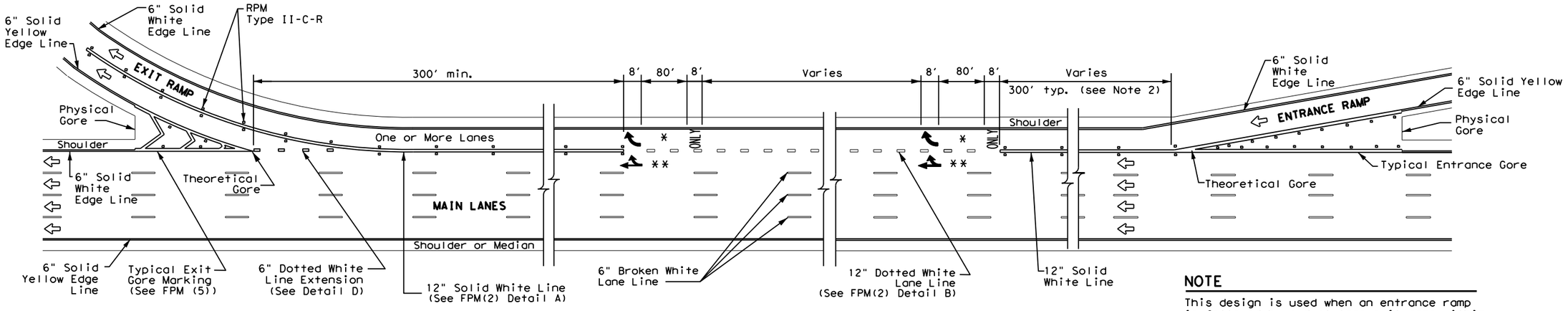
LEGEND	
⇦	Traffic Flow
▫	Reflectorized Raised Markers (RPM) Type II-C-R
↱	Pavement marking arrow (white)
*	Arrow markings are optional, however "ONLY" is required if arrow is used
**	Arrow markings are optional

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

GENERAL NOTES

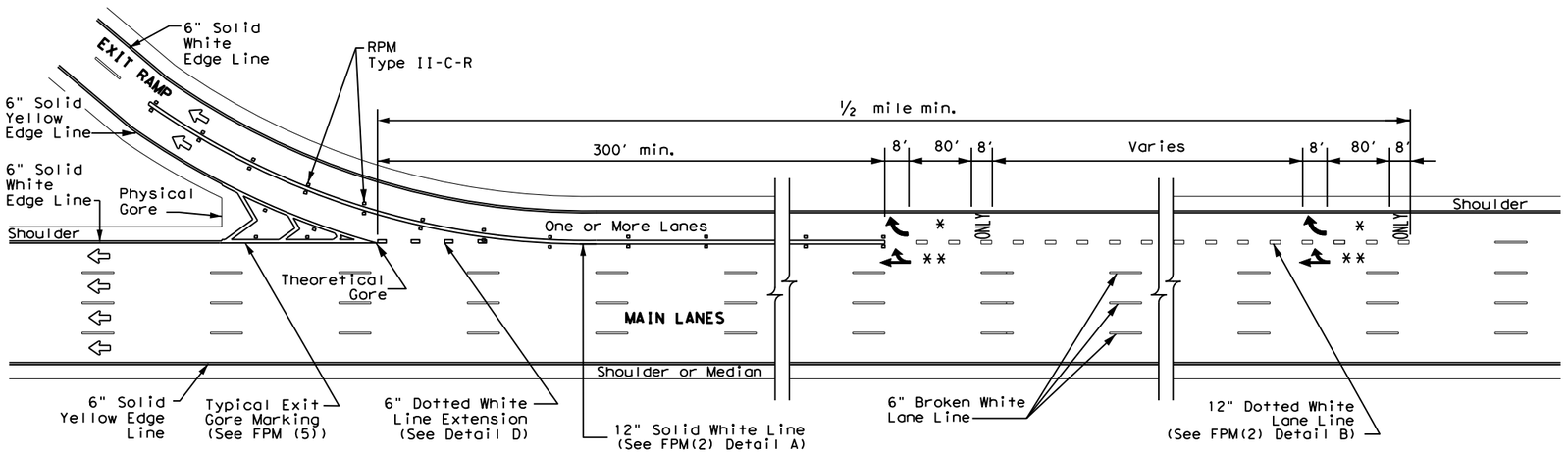
1. Pavement markings shall be white except as otherwise noted.
2. Length of 12" white line may vary depending on location.
3. Wide (12") dotted lane line (see FPM(2) Detail B) is used to separate a through lane that continues beyond the interchange from an adjacent mandatory exit lane.
4. Edge lines are not required in curb and gutter sections of frontage roads.
5. See FPM(1) for traffic lane line pavement marking details.



SINGLE LANE ENTRANCE WITH MULTIPLE LANE EXIT - EXIT ONLY WITH OPTION LANE

NOTE

This design is used when an entrance ramp is followed by a dual lane exit ramp within 2400' downstream (theoretical gore to theoretical gore).



MULTIPLE LANE EXIT - EXIT ONLY WITH OPTION LANE

Texas Department of Transportation — Traffic Safety Division Standard

TYPICAL STANDARD FREEWAY PAVEMENT MARKINGS MULTIPLE LANE DROP (EXIT) DETAILS

FPM(4)-22

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© TxDOT October 2022	CONT	SECT	JOB	HIGHWAY
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5-00 2-12	LBB	LUBBOCK, ETC.		062
8-00 10-22				

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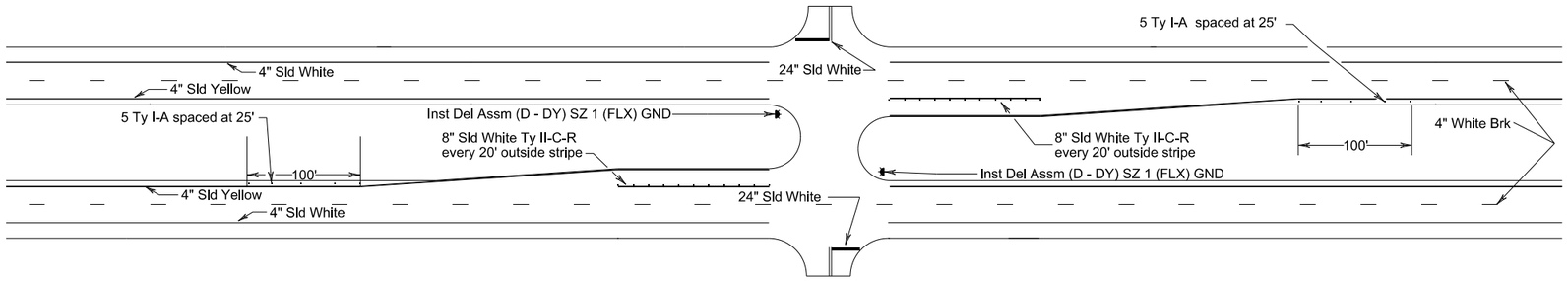
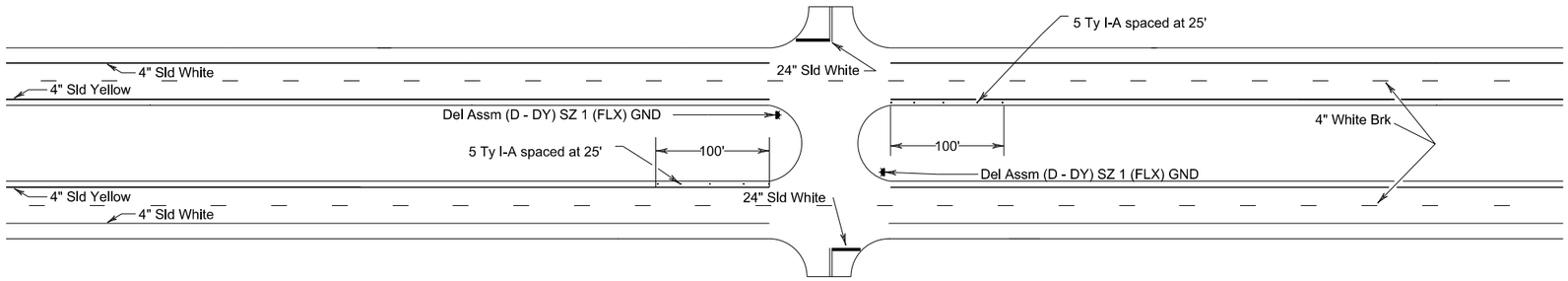


Crossovers With Decel Lanes



Crossovers Without Decel Lanes

STATE OF TEXAS
JEREMY T. DEARING
98218
LICENSED PROFESSIONAL ENGINEER

Jeremy T. Dearing, P.E.

11/29/2023

4-LANE DIVIDED CROSSOVER DETAIL

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			063
STATE	STATE DIST. NO.	COUNTY	
TEXAS	LBB	LUBBOCK,ETC.	
CONT.	SECT.	JOB	HIGHWAY NO.
0905	00	120	VAR
FILENAME	FOUR LANE CROSSOVER		

PART 1 - GENERAL

1.01 DESCRIPTION

This project includes construction work within the right of way and/or properties of the Railroad and adjacent to its tracks, wire lines and other facilities. These sheets describe the minimum special requirements for coordination with the Railroad when working upon, over or under Railroad Right of Way or when impacting current or future Railroad operations. Coordinate with the Railroad while performing the work outlined herein, and afford the same cooperation with the Railroad as with TxDOT. Complete all submittals and work in accordance with TxDOT Standard Specifications, Railroad Guidelines and AREMA recommendations as modified by these minimum special requirements or as directed in writing by the Railroad Designated Representative.

For purposes of this project, the Railroad Designated Representative is the person or persons designated by the Railroad Manager of Industry and Public Projects to handle specific tasks related to the project.

1.02 REQUEST FOR INFORMATION / CLARIFICATION

Submit Requests for Information ("RFI") involving work within any Railroad Right of Way to the TxDOT Engineer. The TxDOT Engineer will submit the RFI to the Railroad Designated Representative for review and approval for RFI's corresponding to work within Railroad Right of Way. Allow six (6) weeks total time for review and approval, which includes four (4) weeks for review and approval by the Railroad.

1.03 PLANS / SPECIFICATIONS

TxDOT has received written Railroad approval of the plans and specifications for this project. Any revisions or changes in the plans after award of the Contract must have the approval of TxDOT and the Railroad.

PART 2 - UTILITIES AND FIBER OPTIC

Construct all utility installations in accordance with current AREMA recommendations, Railroad, TxDOT and owning utility specifications and requirements. Railroad general guidelines can be found on the Railroad website or by contacting the Railroad Designated Representative.

PART 3 - CONSTRUCTION

3.01 GENERAL

A. Perform all work in compliance with all applicable Railroad, Federal Railroad Administration (FRA), and TxDOT rules and regulations. Arrange and conduct work in a manner that does not endanger or interfere with the safe operation of the tracks and property of the Railroad and the traffic moving on such tracks, or the wires, signals and other property of the Railroad, its tenants or licensees, at or in the vicinity of the Work. The safe operation of railroad train movements takes precedence over any work to be performed by the Contractor. The Contractor is responsible for train delay cost and lost revenue claims due to any delays or interruption of train operations resulting from Contractor's construction or other activities.

B. Construction activities within 15 feet of the operational tracks will only be allowed if absolutely necessary and the Railroad's Designated Representative grants approval. Construction activities within 15 feet of the operational track(s) preferably allow the tracks to stay operational. In such cases, coordination and approval by the Railroad Track Manager is required with regard to schedule, flagging, and slow orders. See Sections 3.07 and 3.08 for additional information.

C. Provide track protection for all work equipment (including rubber tired equipment) operating within 25 feet from nearest rail. When not in use, keep Contractor machinery and materials at least 50 feet from the Railroad's nearest track.

D. Vehicular crossings of railroad track are allowed only at existing crossings, or haul road crossings developed with Railroad approval.

E. The Contractor is also advised that new railroad facilities within the project may be built by the Railroad. If applicable, these facilities are delineated in the plans. Be aware of the limits of responsibilities and coordinate efforts with the Railroad and TxDOT.

F. Railroad requirements do not allow work within 50 feet of track centers when a train passes the work site and all personnel must clear the area within 50 feet of the track centerline and secure all equipment. Additional allowances may be pursued as outlined in 3.02 and 3.03.

G. All permanent clearances shall be verified before project closing.

3.02 RAILROAD OPERATIONS

A. Trains and/or equipment are expected on any track, at any time, in either direction. Become familiar with the train schedules in this location and structure bid assuming intermittent track windows in this period, as defined in Paragraph B that follows.

B. All railroad tracks within and adjacent to the contract site are active, and rail traffic over these facilities shall be maintained throughout the Project. Activities may include both through moves and switching moves to local customers. railroad traffic and operations will occur continuously throughout the day and night on these tracks and shall be maintained at all times as defined herein. Coordinate and schedule the work so that construction activities do not interfere with railroad operations.

C. Coordinate work windows with TxDOT and the Railroad's Designated Representative. Types of work windows include Conditional Work Windows and Absolute Work Windows, as defined below:

1. Conditional Work Window: A Conditional Work Window is a period of time that railroad operations have priority over construction activities. When construction activities may occur on and/or adjacent to the railroad tracks within 25 feet of the nearest track, a railroad flag person will be required. At the direction of the railroad flag person, upon approach of a train, and when trains are present on the tracks, the tracks must be cleared (i.e., no construction equipment, materials or personnel within 25 feet, or as directed by the Railroad Designated Representative, from the tracks). Conditional Work Windows are available for the Project.

2. Absolute Work Window: An Absolute Work Window is a period of time that construction activities are given priority over railroad operations. During this time frame, the designated railroad track(s) will be inactive for train movements and may be fouled by the Contractor. At the end of an Absolute Work Window, the railroad tracks and/or signals must be completely operational for train operations and all Railroad, Public Utilities Commission (PUC) and FRA requirements, codes and regulations for operational tracks must be satisfied. In the situation where the operating tracks and/or signals have been affected, the Railroad will perform inspections of the work prior to placing that track back into service. Railroad flag persons will be required for construction activities requiring an Absolute Work Window. Absolute Work Windows will not generally be granted. Any request will require a detailed explanation for Railroad review.

3.03 RIGHT OF ENTRY, ADVANCE NOTICE AND WORK STOPPAGES

A. Do not perform any work within Railroad Right of Way without a valid executed Right of Entry Agreement if required on this project.

B. Give advance notice to the Railroad as required in the "Contractor's Right of Entry Agreement" before commencing work in connection with construction upon or over Railroad Right of Way and observe the Railroad's rules and regulations with respect thereto.

C. Perform all work upon Railroad Right of Way in a manner to avoid interference with or endanger the operations of the Railroad. Whenever work may affect the operations or safety of trains, submit the work method to the Railroad Designated Representative for approval. Approval does not relieve the Contractor from liability. Do not commence any work which requires flagging service or inspection service until the flagging protection required by the Railroad is available at the job site. See Section 3.15 for railroad flagging requirements.

D. Make requests in writing for both Absolute and Conditional Work Windows, at least 30 days in advance of any work. Include in the written request:
1. Exactly what the work entails.
2. The days and hours that work will be performed.
3. The exact location of work, and proximity to the tracks.
4. The type of window requested and the amount of time requested.
5. The designated contact person.

Provide a written confirmation notice to the Railroad at least 48 hours before commencing work in connection with approved work windows when work is within 25 feet of nearest rail. Perform all work in accordance with previously approved work plans.

E. Make provisions to protect operations and property of the Railroad should a condition arising from, or in connection with the work, require immediate and unusual action. If in the judgment of the Railroad Designated Representative such provisions are insufficient, the Railroad Designated Representative may require or provide such provisions as deemed necessary. In any event, such provisions shall be at the Contractor's expense and without cost to the Railroad or TxDOT. The Railroad or TxDOT shall have the right to order the Contractor to temporarily cease operations in the event of an emergency or, if in the opinion of the Railroad Designated Representative, the Contractor's operations could endanger railroad operations. In the event of such an order, immediately notify TxDOT of the order.

3.04 INSURANCE

Do not begin work upon or over Railroad Right of Way until furnishing the Railroad with the insurance policies, binders, certificates and endorsements required by the "Contractor's Right of Entry Agreement", and until the Railroad Designated Representative has advised TxDOT that such insurance is in accordance with the Agreement.

3.05 RAILROAD SAFETY ORIENTATION

A. Complete the railroad course "Orientation for Contractor's Safety", and maintain current registration prior to working on railroad property. This course is required to be completed annually by Contractor and Subcontractor personnel working on site.

"UPRR, BNSF, KCS/TEXMEX will not accept on-track safety training certificates from other railroads. Refer to Railroad specific contractor right of entry for training information."

B. Know and follow the "Contractor's Right of Entry Agreement" EXHIBIT D, MINIMUM SAFETY REQUIREMENTS regarding clothing, personal protective equipment, and general safety requirements.

3.06 COOPERATION

The Railroad will cooperate with Contractor so that work may be conducted in an efficient manner, and will cooperate with Contractor in enabling use of Railroad Right of Way in performing the work.

3.07 MINIMUM CONSTRUCTION CLEARANCES FOR FALSEWORK AND OTHER TEMPORARY STRUCTURES

Abide by the following minimum temporary clearances during the course of construction:
A. 15' - 0" (BNSF)(UPRR)and 14'-0" (KCS) horizontal from centerline of track
B. 22' (KCS) and 21' - 6" (UPRR & BNSF) vertically above top of rail.

For construction clearance less than listed above, obtain local Railroad Operating Unit review and approval.

3.08 APPROVAL OF REDUCED CLEARANCES

A. Maintain minimum track clearances during construction as specified in Section 3.07.

B. Submit any proposed infringement on the specified minimum clearances to the Railroad Designated Representative through TxDOT at least 30 days in advance of the work. Do not proceed with such infringement without written approval by the Railroad Designated Representative.

C. Do not commence work involving an approved infringement without receiving written assurance from the Railroad Designated Representative that arrangements have been made for any necessary flagging service.

Texas Department of Transportation | Rail Division

RAILROAD REQUIREMENTS FOR NON-BRIDGE CONSTRUCTION PROJECTS

FILE:	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
	CONT	SECT	JOB	HIGHWAY
REVISIONS March 2020	0905	00	120	VAR
	DIST	COUNTY		SHEET NO.
	LBB	LUBBOCK		064

DATE:
FILE:

3.09 MAINTENANCE OF RAILROAD FACILITIES

A. Maintain all ditches and drainage structures free of silt or other obstructions resulting from Contractor's operations. Repair eroded areas and any other damage within Railroad Right of Way and repair any other damage to the property of the Railroad, or its tenants.

B. Perform all such maintenance and repair of damages due to the Contractors's operations at Contractor's expense.

C. Submit a proposed method of erosion control for review by the Railroad prior to beginning any grading on the project site. Comply with all applicable local, state and federal regulations when developing and implementing such erosion control.

3.10 SITE INSPECTIONS BY RAILROAD's DESIGNATED REPRESENTATIVE

A. In addition to the office reviews of construction submittals, site inspections may be performed by the Railroad Designated Representative at significant points during construction, including the following if applicable:
   1. Pre-construction meetings.
   2. Pile driving/drilling of caissons or drilled shafts.
   3. Reinforcement and concrete placement for railroad bridge substructure and/or superstructure.
   4. Erection of precast concrete or steel bridge superstructure.
   5. Placement of waterproofing (prior to placing ballast on bridge deck).
   6. Completion of the bridge structure.

B. Site inspection is not limited to the milestone events listed above. Site visits to check progress of the work may be performed at any time throughout the construction as deemed necessary by the Railroad.

C. Provide a detailed construction schedule, including the proposed temporary horizontal and vertical clearances and construction sequence for all work to TxDOT for submittal to the Railroad Designated Representative for review prior to commencement of work. Include the anticipated dates when the above listed events will occur. Update this schedule for the above listed events as necessary and each month at a minimum to allow the Railroad to schedule site inspections.

3.11 RAILROAD REPRESENTATIVES

Railroad representatives, conductors, flag person or watch person will be provided by the Railroad at expense of TxDOT to protect Railroad facilities, property and movements of its trains or engines. In general, the Railroad will furnish such personnel or other protective services as follows:

A. When any part of any equipment is standing or being operated within 25 feet, measured horizontally, from nearest rail of any track on which trains may operate, or when any object is off the ground and any dimension thereof could extend inside the 25 foot limit, or when any erection or construction activities are in progress within such limits, regardless of elevation above or below track.

B. For any excavation below elevation of track subgrade if, in the opinion of the Railroad Designated Representative, track or other railroad facilities may be subject to settlement or movement.

C. During any clearing, grubbing, excavation or grading in proximity to railroad facilities, which, in the opinion of the Railroad Designated Representative, may endanger railroad facilities or operations.

D. During any Contractor's operations when, in the opinion of the Railroad Designated Representative, railroad facilities, including, but not limited to, tracks, buildings, signals, wire lines, or pipe lines, may be endangered.

E. Arrange with the Railroad Designated Representative to provide the adequate number of flag persons to accomplish the work.

3.12 COMMUNICATIONS AND SIGNAL LINES

If required, the Railroad will rearrange its communications and signal lines, its grade crossing warning devices, train signals and tracks, and facilities that are in use and maintained by the Railroad's forces in connection with its operation at expense of TxDOT. This work by the Railroad will be done by its own forces and it is not a part of the Work under this Contract.

3.13 TRAFFIC CONTROL

Coordinate any operations that control traffic across or around railroad facilities with the Railroad Designated Representative.

3.14 CONSTRUCTION EXCAVATIONS AND BORING ACTIVITIES UNDER TRACK

A. Take special precaution and care in connection with excavating and shoring. Excavations for construction of footings, piers, columns, walls or other facilities that require shoring shall comply with requirements of TxDOT, OSHA, AREMA and Railroad "Guidelines for Temporary Shoring".

B. The project plans indicate whether there are fiber optic lines or other such telecommunications systems that require consideration. Regardless, contact the necessary call center to determine if such cable systems are present:

   UPRR 1-800-336-9193
   7:00 AM to 9:00 PM CST Monday-Friday except holidays,
   staffed 24 hrs/day for emergencies
   48 hrs notice required

   BNSF 1-800-533-2891
   24 hour number
   5 working days notice required

   KCS 1-800-344-8377
   Texas One Call, a 24 hour number
   48 hrs notice required, excluding weekends and holidays

   If a telecommunications system is buried anywhere on or near railroad property, coordinate with TxDOT, the Railroad and the Telecommunication Company(ies) to arrange for relocation or protective measures prior to beginning work on or near railroad property. Refer to the project General Notes for additional information.

C. Projects involving a boring or jack and bore operation under track such as drainage pipes or culverts and utilities require an installation plan reviewed and approved by the Railroad and TxDOT prior to proceeding with such construction. A railroad inspector and contractor assisted monitoring of ground and track movement is required to maintain safe passage of rail traffic. Stop installation and do not allow passage of trains if movements in excess of $\frac{1}{4}$ inch vertical or horizontal is detected in the tracks. Immediately repair the damage to the satisfaction of TxDOT and the Railroad before proceeding.

3.15 RAILROAD FLAGGING

Per the Right of Entry Agreement for flagging, notify the Railroad Representative at least 10 working days in advance of Contractor's work and at least 30 working days in advance of any Contractor's work in which any person or equipment will be within 25 feet of nearest rail or as specified in the Contractor Right of Entry (CROE).

3.16 CLEANING OF RIGHT-OF-WAY

When work is complete, remove all tools, implements, and other materials brought into Railroad Right of Way and leave the right of Way in a clean and presentable condition to the satisfaction of TxDOT and the Railroad.

Texas Department of Transportation | Rail Division

RAILROAD REQUIREMENTS FOR NON-BRIDGE CONSTRUCTION PROJECTS

FILE:	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT October 2018	CONT	SECT	JOB	HIGHWAY
REVISIONS March 2020	0905	00	120	VAR
	DIST	COUNTY		SHEET NO.
	LBB	LUBBOCK		065

DATE:
FILE:

I. WORK AT CROSSING LOCATIONS (AT GRADE, HIGHWAY OVERPASS, HIGHWAY UNDERPASS, PEDESTRIAN, OR CLOSED/ABANDONED)

☑ This project is adjacent or parallel work, not within RR ROW:

DOT No.: SEE ATTACHMENT
Crossing Type: SEE ATTACHMENT
RR Company Operating Track at Crossing: BNSF
RR Company Owning Track at Crossing: BNSF
RR MP: SEE ATTACHMENT
RR Subdivision: SEE ATTACHMENT
City: SEE ATTACHMENT
County: SEE ATTACHMENT
CSJ at this Crossing: 0905-00-120
Latitude: SEE ATTACHMENT
Longitude: SEE ATTACHMENT

Scope of Work, including any TCP, to be performed by State Contractor:

REMOVAL AND REPLACEMENT OF RAISED REFLECTIVE PAVEMENT MARKERS ON VARIOUS ROADS IN ALL COUNTIES IN THE LUBBOCK DISTRICT. ALL WORK AND TCP WILL BE PERFORMED OUTSIDE OF THE RR RIGHT OF WAY.

Scope of Work to be performed by Railroad Company:

NA

II. FLAGGING & INSPECTION

No. of Days of Railroad Flagging Expected: 32

On this project, night or weekend flagging is:

☐ Expected
☑ Not Expected

Flagging services will be provided by:

☐ Railroad Company: 1) Txdot will pay flagging invoices. Flagging Agreement with railroad will be needed or, 2) Permitted crossing. Railroad company to provide flagging.
☐ Outside Party: Contractor will pay flagging invoices to be reimbursed by TxDOT

Contractor must incorporate flaggers into anticipated construction schedule. The Railroad requires a 30-day notice if their flaggers are to be utilized. If Contractor falls behind schedule due to their own negligence and is not ready for scheduled flaggers, any flagging charges will be paid by Contractor.

Contact Information for Flagging:

☐ **UPRR** UP.info@railpros.com
Call Center 877-315-0513, Select #1 for flagging
UP.request@nrssinc.net
Call Center 877-984-6777

☑ **BNSF** BNSFinfo@railprosfs.com
Call Center 877-315-0513, Select #1 for flagging

☐ **CPKCR** KCS.info@railpros.com
Call Center 877-315-0513, Select #1 for flagging
Bottom Line On-Track Safety Services
bottomline076@aol.com, 903-767-7630

☐ OTHERS:

Contractor must incorporate railroad construction inspection into anticipated construction schedule.

☑ Not Required
☐ Required. Contact Information for Construction Inspection:

III. CONSTRUCTION WORK TO BE PERFORMED BY THE RAILROAD

☐ Required.
☑ Not Required

Railroad Point of Contact: _____

Coordinate with TxDOT for any work to be performed by the Railroad Company. TxDOT must issue a work order for any work done by the Railroad Company prior to the work being performed.

IV. RAILROAD INSURANCE REQUIREMENTS

The Contractor shall confirm the insurance requirements with the Railroad as the insurance limits are subject to change without notice.

Insurance policies and corresponding certificates of insurance must be issued by the contractor on behalf of the Railroad. Separate insurance policies and certificates are required when more than one Railroad Company is operating on the same right of way, or when several Railroad Companies are involved and operate on their own separate right of ways.

No direct compensation will be made to the Contractor for providing the insurance coverages shown below or any deductibles. These costs are incidental to the various bid items.

Escalated Limits

Type of Insurance	Amount of Coverage (Minimum)
Workers Compensation	$500,000 / $500,000 / $500,000
Commercial General Liability	$2,000,000 / $4,000,000
Business Automobile	$2,000,000

Railroad Protective Liability Limits

☑ Not Required
☐ Non - Bridge/Typical Maintenance Projects. Includes repairs to overpass/underpass and culvert structures — $2,000,000 / $6,000,000
☐ Bridge Structure Projects. Includes new construction or replacement of overpass/ underpass structures — $5,000,000 / $10,000,000
☐ Other: _____

V. CONTRACTOR'S RIGHT OF ENTRY (CROE)

☑ Not Required
☐ Required: UPRR Maintenance Consent Letter. TxDOT to assist
☐ Required: TxDOT to assist in obtaining the UPRR CROE
☐ Required: Contractor to obtain
  ☐ BNSF: _____
  https://bnsf.railpermitting.com
  ☐ CPKCR
  https://jllrpg.360works.com/fmi/webd/rpo_web_kcs.fmp12
  ☐ Other Railroads: _____

To view previously approved CROE templates agreed upon between the State and Railroad, see: https://www.txdot.gov/business/resources/railroad-highway-crossing/sample-right-of-entry-agreements.html

Approved CROE templates are not to be modified by the Contractor.

Contractor shall not operate within Railroad Right of Way without an executed Construction & Maintenance Agreement between the State and the Railroad and an executed CROE between the Contractor and the Railroad if required on project.

VI. RAILROAD COORDINATION MEETING

A Railroad Coordination Meeting is required. See item 5, Article 8.1, of the Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges Manual for more details.

VII. RAILROAD SAFETY ORIENTATION

A. Complete the Railroad's course "Orientation for Contractor's Safety," and maintain registration prior to working on the Railroad's property. This course is required to be completed annually by Contractor and Subcontractor personnel working on site.

UPRR, BNSF, CPKCR will not accept on-track safety training certificates from other Railroads. Refer to each Railroad's specific contractor right of entry for training information.

Know and follow the Contractor's Right of Entry Agreement EXHIBIT D, MINIMUM SAFETY REQUIREMENTS regarding clothing, personal protective equipment, and general safety requirements.

VIII. SUBCONTRACTORS

Contractor shall not subcontract work without written consent of TxDOT. Subcontractors are subject to the same insurance requirements as the Prime Contractor.

IX. EMERGENCY NOTIFICATION

In Case of Railroad Emergency
Call: BNSF EMERGENCY LINE
Railroad Emergency Line at: 800-832-5452
Location: DOT VARIOUS
RR Milepost: VARIOUS
Subdivision: VARIOUS

RRD Review Only
Initials: _____
Date: _____

Texas Department of Transportation — Rail Division

RAILROAD SCOPE OF WORK
PROJECT SPECIFIC DETAILS

FILE: rr-scope-of-work.pdf		DN: TxDOT	CK:	DW:		CK:	
© TxDOT June 2014		CONT	SECT	JOB		HIGHWAY	
REVISIONS		0905	00	120		VARIOUS	
6/2023		DIST	COUNTY			SHEET NO.	
		05	VARIOUS			66	

DOT#	CROSSING TYPE	TRACK OWNER	TRACK OPERATOR	RR MP	SUBDIVISION	CITY	COUNTY	CSJ	TRAINS PER DAY	SWITCHING MOVEMENTS	% OF WORK
014799K	PUBLIC	BNSF	BNSF	622.41	HEREFORD	FROINA	PARMER	90500120	82	0	0
014781A	PUBLIC	BNSF	BNSF	635.35	HEREFORD	BOVINA	PARMER	90500120	41	0	0
014787R	PUBLIC	BNSF	BNSF	647.27	HEREFORD	FARWELL	PARMER	90500120	90	0	0
014840A	PUBLIC	BNSF	BNSF	10.48	SLATON	LARIAT	PARMER	90500120	18	0	0
014854H	PUBLIC	BNSF	BNSF	22.17	SLATON	MULESHOE	BAILEY	90500120	18	0	0
014859S	PUBLIC	BNSF	BNSF	26.02	SLATON	MULESHOE	BAILEY	90500120	18	0	0
014869X	PUBLIC	BNSF	BNSF	38.03	SLATON	SUDAN	LAMB	90500120	16	0	0
014883T	PUBLIC	BNSF	BNSF	53.12	SLATON	LITTLEFIELD	LAMB	90500120	16	0	0
014884A	PUBLIC	BNSF	BNSF	53.87	SLATON	LITTLEFIELD	LAMB	90500120	16	0	0
014898H	PUBLIC	BNSF	BNSF	66.21	SLATON	ANTON	HOCKLEY	90500120	16	0	0
014908L	PUBLIC	BNSF	BNSF	75.71	SLATON	SHALLOWATER	LUBBOCK	90500120	16	0	0
014910M	PUBLIC	BNSF	BNSF	77.71	SLATON	SHALLOWATER	LUBBOCK	90500120	16	0	0
014918S	PUBLIC	BNSF	BNSF	82.08	SLATON	LUBBOCK	LUBBOCK	90500120	16	0	0
014919Y	PUBLIC	BNSF	BNSF	82.7	SLATON	LUBBOCK	LUBBOCK	90500120	16	0	0
015155L	PUBLIC	BNSF	BNSF	86.03	SLATON	LUBBOCK	LUBBOCK	90500120	2	2	0
014981J	PUBLIC	BNSF	BNSF	677.88	SLATON	LUBBOCK	LUBBOCK	90500120	20	0	0
015001B	PUBLIC	BNSF	BNSF	688.66	SLATON	SLATON	LUBBOCK	90500120	20	0	0
015015J	PUBLIC	BNSF	BNSF	703.23	SLATON	POST	GARZA	90500120	18	0	0
015021M	PUBLIC	BNSF	BNSF	713.68	SLATON	POST	GARZA	90500120	18	0	0
017585D	PUBLIC	BNSF	BNSF	0.81	CROSBYTON	LUBBOCK	LUBBOCK	90500120	4	2	0
017584W	PUBLIC	BNSF	BNSF	0.74	CROSBYTON	LUBBOCK	LUBBOCK	90500120	4	2	0
017513A	PUBLIC	BNSF	BNSF	0.75	CROSBYTON	LUBBOCK	LUBBOCK	90500120	2	2	0
017329M	PUBLIC	BNSF	BNSF	653.92	PLAINVIEW	ABERNATHY	HALE	90500120	6	0	0
017280F	PUBLIC	BNSF	BNSF	629.87	PLAINVIEW	PLAINVIEW	HALE	90500120	12	0	0
276582V	PUBLIC	BNSF	BNSF	324.06	DIMMITT SPUR	PLAINVIEW	HALE	90500120	6	4	0
017271G	PUBLIC	BNSF	BNSF	627.94	PLAINVIEW	PLAINVIEW	HALE	90500120	12	0	0
275673X	PUBLIC	BNSF	BNSF	326.64	DIMMITT SPUR	PLAINVIEW	HALE	90500120	4	2	0
275674E	PUBLIC	BNSF	BNSF	326.62	DIMMITT SPUR	PLAINVIEW	HALE	90500120	4	2	0
275675L	PUBLIC	BNSF	BNSF	326.6	DIMMITT SPUR	PLAINVIEW	HALE	90500120	4	2	0
017376V	PUBLIC	BNSF	BNSF	603.78	PLAINVIEW	TULIA	SWISHER	90500120	0	0	0
017382Y	PUBLIC	BNSF	BNSF	600.78	PLAINVIEW	TULIA	SWISHER	90500120	8	0	0
017216G	PUBLIC	BNSF	BNSF	600.61	PLAINVIEW	TULIA	SWISHER	90500120	12	0	0

Texas Department of Transportation — Rail Division

RAILROAD SCOPE OF WORK

PROJECT SPECIFIC DETAILS

FILE: RR Scope of Work.dgn	DN: TxDOT	CK:	DW:	CK:
© TxDOT June 2014	CONT	SECT	JOB	HIGHWAY
REVISIONS	0905	00	120	VAR
9/2021	DIST	COUNTY		SHEET NO.
	LBB	LUBBOCK		067

11/28/2023 11:26:27 AM
T:\LBBTRAFF\PROJECTS (CURRENT)\0905-00-120 2024 RRPM\067 Scope of Work Sheet 2 of 4.dgn

I. WORK AT CROSSING LOCATIONS (AT GRADE, HIGHWAY OVERPASS, HIGHWAY UNDERPASS, PEDESTRIAN, OR CLOSED/ABANDONED)

☑ This project is adjacent or parallel work, not within RR ROW:

DOT No.: SEE ATTACHMENT
Crossing Type: SEE ATTACHMENT
RR Company Operating Track at Crossing: L&WR
RR Company Owning Track at Crossing: L&WR
RR MP: SEE ATTACHMENT
RR Subdivision: SEE ATTACHMENT
City: SEE ATTACHMENT
County: SEE ATTACHMENT
CSJ at this Crossing: 0905-00-120
Latitude: SEE ATTACHMENT
Longitude: SEE ATTACHMENT

Scope of Work, including any TCP, to be performed by State Contractor:

REMOVAL AND REPLACEMENT OF RAISED REFLECTIVE PAVEMENT MARKERS ON VARIOUS ROADS IN ALL COUNTIES IN THE LUBBOCK DISTRICT. ALL WORK AND TCP WILL BE PERFORMED OUTSIDE OF THE RR RIGHT OF WAY.

Scope of Work to be performed by Railroad Company:

NA

II. FLAGGING & INSPECTION

No. of Days of Railroad Flagging Expected: 7

On this project, night or weekend flagging is:

☐ Expected
☑ Not Expected

Flagging services will be provided by:

☐ Railroad Company: 1) Txdot will pay flagging invoices. Flagging Agreement with railroad will be needed or, 2) Permitted crossing. Railroad company to provide flagging.
☐ Outside Party: Contractor will pay flagging invoices to be reimbursed by TxDOT

Contractor must incorporate flaggers into anticipated construction schedule. The Railroad requires a 30-day notice if their flaggers are to be utilized. If Contractor falls behind schedule due to their own negligence and is not ready for scheduled flaggers, any flagging charges will be paid by Contractor.

Contact Information for Flagging:

☐ **UPRR** UP.info@railpros.com
Call Center 877-315-0513, Select #1 for flagging
UP.request@nrssinc.net
Call Center 877-984-6777

☐ **BNSF** BNSFinfo@railprosfs.com
Call Center 877-315-0513, Select #1 for flagging

☐ **CPKCR** KCS.info@railpros.com
Call Center 877-315-0513, Select #1 for flagging
Bottom Line On-Track Safety Services
bottomline076@aol.com, 903-767-7630

☑ OTHERS:

ROBBY RODRIGUEZ, L&WR
608-787-0658
robby.rodriguez@watco.com

Contractor must incorporate railroad construction inspection into anticipated construction schedule.

☑ Not Required
☐ Required. Contact Information for Construction Inspection:

III. CONSTRUCTION WORK TO BE PERFORMED BY THE RAILROAD

☐ Required.
☑ Not Required

Railroad Point of Contact: _____

Coordinate with TxDOT for any work to be performed by the Railroad Company. TxDOT must issue a work order for any work done by the Railroad Company prior to the work being performed.

IV. RAILROAD INSURANCE REQUIREMENTS

The Contractor shall confirm the insurance requirements with the Railroad as the insurance limits are subject to change without notice.

Insurance policies and corresponding certificates of insurance must be issued by the contractor on behalf of the Railroad. Separate insurance policies and certificates are required when more than one Railroad Company is operating on the same right of way, or when several Railroad Companies are involved and operate on their own separate right of ways.

No direct compensation will be made to the Contractor for providing the insurance coverages shown below or any deductibles. These costs are incidental to the various bid items.

Escalated Limits

Type of Insurance	Amount of Coverage (Minimum)
Workers Compensation	$500,000 / $500,000 / $500,000
Commercial General Liability	$2,000,000 / $4,000,000
Business Automobile	$2,000,000

Railroad Protective Liability Limits

☑ Not Required
☐ Non - Bridge/Typical Maintenance Projects. Includes repairs to overpass/underpass and culvert structures — $2,000,000 / $6,000,000
☐ Bridge Structure Projects. Includes new construction or replacement of overpass/ underpass structures — $5,000,000 / $10,000,000
☐ Other: _____

V. CONTRACTOR'S RIGHT OF ENTRY (CROE)

☑ Not Required
☐ Required: UPRR Maintenance Consent Letter. TxDOT to assist
☐ Required: TxDOT to assist in obtaining the UPRR CROE
☐ Required: Contractor to obtain
  ☐ BNSF: _____
  https://bnsf.railpermitting.com
  ☐ CPKCR
  https://jllrpg.360works.com/fmi/webd/rpo_web_kcs.fmp12
  ☐ Other Railroads: _____

To view previously approved CROE templates agreed upon between the State and Railroad, see: https://www.txdot.gov/business/resources/railroad-highway-crossing/sample-right-of-entry-agreements.html

Approved CROE templates are not to be modified by the Contractor.

Contractor shall not operate within Railroad Right of Way without an executed Construction & Maintenance Agreement between the State and the Railroad and an executed CROE between the Contractor and the Railroad if required on project.

VI. RAILROAD COORDINATION MEETING

A Railroad Coordination Meeting is required. See item 5, Article 8.1, of the Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges Manual for more details.

VII. RAILROAD SAFETY ORIENTATION

A. Complete the Railroad's course "Orientation for Contractor's Safety," and maintain registration prior to working on the Railroad's property. This course is required to be completed annually by Contractor and Subcontractor personnel working on site.

UPRR, BNSF, CPKCR will not accept on-track safety training certificates from other Railroads. Refer to each Railroad's specific contractor right of entry for training information.

Know and follow the Contractor's Right of Entry Agreement EXHIBIT D, MINIMUM SAFETY REQUIREMENTS regarding clothing, personal protective equipment, and general safety requirements.

VIII. SUBCONTRACTORS

Contractor shall not subcontract work without written consent of TxDOT. Subcontractors are subject to the same insurance requirements as the Prime Contractor.

IX. EMERGENCY NOTIFICATION

In Case of Railroad Emergency

Call: L&WR EMERGENCY LINE
Railroad Emergency Line at: 888-783-4316
Location: DOT VARIOUS
RR Milepost: VARIOUS
Subdivision: VARIOUS

RRD Review Only

Initials: _____
Date: _____

Texas Department of Transportation — Rail Division

RAILROAD SCOPE OF WORK
PROJECT SPECIFIC DETAILS

FILE: rr-scope-of-work.pdf		DN: TxDOT	CK:	DW:		CK:	
© TxDOT June 2014		CONT	SECT	JOB		HIGHWAY	
REVISIONS		0905	00	120		VARIOUS	
6/2023		DIST	COUNTY			SHEET NO.	
		05	VARIOUS			68	

DOT#	CROSSING TYPE	TRACK OWNER	TRACK OPERATOR	RR MP	SUBDIVISION	CITY	COUNTY	CSJ	TRAINS PER DAY	SWITCHING MOVEMENTS	% OF WORK
276681T	PUBLIC	WATCO	L&WR	367.47	SOUTH PLAINS	DIMMITT	CASTRO	90500120	4	0	0
276677D	PUBLIC	WATCO	L&WR	368.14	DIMMITT	DIMMITT	CASTRO	90500120	3	0	0
275934V	PUBLIC	WATCO	L&WR	350.97	DIMMITT	HART	CASTRO	90500120	1	0	0
275935C	PUBLIC	WATCO	L&WR	350.82	DIMMITT	HART	CASTRO	90500120	1	0	0
900272X	PUBLIC	WATCO	L&WR	3.34	LEHMAN	LUBBOCK	LUBBOCK	90500120	2	0	0
017604F	PUBLIC	WATCO	L&WR	8.26	LEHMAN	LUBBOCK	LUBBOCK	90500120	2	0	0
017627M	PUBLIC	WATCO	L&WR	24.99	WHITEFACE	LEVELLAND	HOCKLEY	90500120	4	0	0

Texas Department of Transportation

Rail Division

RAILROAD SCOPE OF WORK

PROJECT SPECIFIC DETAILS

FILE: RR Scope of Work.dgn	DN: TxDOT	CK:	DW:	CK:
© TxDOT June 2014	CONT	SECT	JOB	HIGHWAY
REVISIONS	0905	00	120	VAR
9/2021	DIST	COUNTY		SHEET NO.
	LBB	LUBBOCK		069

DATE:
FILE:

I. STORMWATER POLLUTION PREVENTION-CLEAN WATER ACT SECTION 402

TPDES TXR 150000: Stormwater Discharge Permit or Construction General Permit required for projects with 1 or more acres disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 506.

List MS4 Operator(s) that may receive discharges from this project. They may need to be notified prior to construction activities.

1. City of Lubbock
2. City of Wolfforth

☒ No Action Required ☐ Required Action

Action No.

1. Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000
2. This project disturbs less than one acre of surface area. The contractor is responsible for any PSL's as defined in the Standar Specifications for Construction and Maintenance of Highways, Streets, and Bridges (2014 Edition, Item 7, Section 7.7, Page 43) The total disturbed acreage is the combined acreage to be disturbed on the project and any contractor PSL's. This EPIC must be updated if the disturbed area increases to one or more acres during the course of construction. It may become necessary to post a site notice and/or NOI for project and/or PSL's.

II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas.

The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

☒ No Permit Required
☐ Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)
☐ Nationwide Permit 14 - PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)
☐ Individual 404 Permit Required
☐ Other Nationwide Permit Required: NWP# _____

Required Actions: List waters of the US permit applies to, location in project and check Best Management Practices planned to control erosion, sedimentation and post-project TSS.

1. None

The elevation of the ordinary high water marks of any areas requiring work to be performed in the waters of the US requiring the use of a nationwide permit can be found on the Bridge Layouts.

Best Management Practices:

Erosion	Sedimentation	Post-Construction TSS
☐ Temporary Vegetation	☐ Silt Fence	☐ Vegetative Filter Strips
☐ Blankets/Matting	☐ Rock Berm	☐ Retention/Irrigation Systems
☐ Mulch	☐ Triangular Filter Dike	☐ Extended Detention Basin
☐ Sodding	☐ Sand Bag Berm	☐ Constructed Wetlands
☐ Interceptor Swale	☐ Straw Bale Dike	☐ Wet Basin
☐ Diversion Dike	☐ Brush Berms	☐ Erosion Control Compost
☐ Erosion Control Compost	☐ Erosion Control Compost	☐ Mulch Filter Berm and Socks
☐ Mulch Filter Berm and Socks	☐ Mulch Filter Berm and Socks	☐ Compost Filter Berm and Socks
☐ Compost Filter Berm and Socks	☐ Compost Filter Berm and Socks	☐ Vegetation Lined Ditches
	☐ Stone Outlet Sediment Traps	☐ Sand Filter Systems
	☐ Sediment Basins	☐ Grassy Swales

III. CULTURAL RESOURCES

Refer to TxDOT Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.

☒ No Action Required ☐ Required Action

IV. VEGETATION RESOURCES

Preserve native vegetation to the extent practical.
Contractor must adhere to Construction Specification Requirements Specs 162, 164, 192, 193, 506, 730, 751, 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

☐ No Action Required ☒ Required Action

Action No.

1. Comply with Executive Order 13112 on Invastion Plant Species.
2. Comply with TxDOT Executive Memorandum on beneficial landscaping.
3. Comply with temporary and permanent vegetation stabilization protocols of the SW3P.

V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS.

☐ No Action Required ☒ Required Action

Action No.

1. Do not handle or harm Texas horned lizards, prairie dogs, barn swallows or burrowing owls.
2. No prairie dog towns can be damaged or crossed with equipment without approval of the Engineer.
3. No nests of burrowing owls (in prairie dog holes) can be disturbed or damaged. (See General Notes)
4. No nests of barn swallows (likely on structures such as bridges) can be disturbed or damaged. (See General Notes)
5. Project actions would be avoided during the lekking season (March 15th-July 15th) between the hours of 3 AM and 9 AM without prior approval from the District Environmental Staff. Heavy equipment cannot be operated during this time to avoid noise impacts to the LPC.
6. Project actions in the following counties will not occurr during lekking season (March 15th - July 15th): Bailey, Cochran, and Yoakum.
7. Obey the Bald and Golden Eagle Protect act. Do not handle, harm, capture, disturb, or kill the species, do not handle, harm, or take nests, eggs feathers, bones or eagles.
8. Obey the Migratory Bird Treaty Act of 1916, of which details there cannot be any handling or harming of migratory bird species, including their eggs, nest, or feathers.
9. If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediate area, and contact the Engineer immediately.

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropiate for any hazardous materials used.

Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act.

Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

LIST OF ABBREVIATIONS

BMP:	Best Management Practice	SPCC:	Spill Prevention Control and Countermeasure
CGP:	Construction General Permit	SW3P:	Storm Water Pollution Prevention Plan
DSHS:	Texas Department of State Health Services	PCN:	Pre-Construction Notification
FHWA:	Federal Highway Administration	PSL:	Project Specific Location
MOA:	Memorandum of Agreement	TCEQ:	Texas Commission on Enviromental Quality
MOU:	Memorandum of Understanding	TPDES:	Texas Pollutant Discharge Elimination System
MS4:	Municipal Separate Stormwater Sewer System	TPWD:	Texas Parks and Wildlife Department
MBTA:	Migratory Bird Treaty Act	TxDOT:	Texas Department of Transportation
NOT:	Notice of Termination	T&E:	Threatened and Endangered Species
NWP:	Nationwide Permit	USACE:	U.S. Army Corps of Engineers
NOI:	Notice of Intent	USFWS:	U.S. Fish and Wildlife Service

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

General (applies to all projects):

Contact the Engineer if any of the following are detected:

* Dead or distressed vegetation (not identified as normal)
* Trash piles, drums, canister, barrels, etc.
* Undesirable smells or odors
* Evidence of leaching or seepage of substances

Does the project involve any bridge class structure rehabilitation or replacements (bridge class structures not including box culverts)?

☐ Yes ☒ No

If "No", then no further action is required.
If "Yes", then TxDOT is responsible for completing asbestos assessment/inspection.

Are the results of the asbestos inspection positive (is asbestos present)?

☐ Yes ☐ No

If "Yes", then TxDOT must retain a DSHS licensed asbestos consultant to assist with the notification, develop abatement/mitigation procedures, and perform management activities as necessary. The notification form to DSHS must be postmarked at least 15 working days prior to scheduled demolition.

If "No", then TxDOT is still required to notify DSHS 15 working days prior to any scheduled demolition.

In either case, the Contractor is responsible for providing the date(s) for abatement activities and/or demolition with careful coordination between the Engineer and asbestos consultant in order to minimize construction delays and subsequent claims.

Any other evidence indicating possible hazardous materials or contamination discovered on site. Hazardous Materials or Contamination Issues Specific to this Project:

☒ No Action Required ☐ Required Action

VII. OTHER ENVIRONMENTAL ISSUES

(includes regional issues such as Edwards Aquifer District, etc.)

☐ No Action Required ☒ Required Action

Action No.

1. Maintain equipment muffler systems and work hour restrictions to reduce traffic noise.
2. No PSL's may be located in the prairie dog towns, playa lakes (wet or dry) or stream beds (wet or dry).
3. No dumping of construction material in playa lakes or stream beds regardless of property owner requests.
4. Contractor must obtain historical and archaeological clearances for off-site PSL's.
5. Contractor is responsible for air quality permits for concrete and asphalt batch and similar plants.
6. Contractor is responsible for water appropriation or impoundment TCEQ permits.
7. Contractor will protect environmentally sensitive areas with fencing, work sequencing or scheduling as directed.
8. PSL's beyond the project right-of-way have "individual operator" status under the TPDES Construction General Permit and the Contractor is responsible for the SW3P and any TCEQ permits.
9. No waste material of any type may be placed at any location where it could be washed into a water of the U.S. or a surface water of Texas.
10. Flood elevations will not be increased to a level that would violate flood plain regulations or ordinances.
11. TxDOT will provide an informational packet to project contractors, including information on LPC habitat that may occur outside of the ROW and requirements to avoid effects to the LPC or its habitat.
12. PSL locations planned within TxDOT ROW must receive approval from the District Environmental staff prior to installation.
13. Contractor shall remove all construction debris daily from the waterway by close of business, where applicable.
14. The SWP3, including best management practices, must be in-place prior to disturbing soil.

Texas Department of Transportation

Design Division Standard

ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS

EPIC

FILE: epic.dgn	DN: TxDOT	CK: RG	DW: VP	CK: AR
©TxDOT: February 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS	0905	00	120	VAR
12-12-2011 (DS)	DIST	COUNTY		SHEET NO.
05-07-14 ADDED NOTE SECTION IV.	LBB	LUBBOCK		070
01-23-2015 SECTION I (CHANGED ITEM 1122 TO ITEM 506, ADDED GRASSY SWALES.				