

GRAPHICS FILE		MAINTENANCE PROJECT NO.		SHEET NO.
Title-MNT.dgn		RMC 6457-73-001		1
CHECKED	STATE	STATE DIST.	COUNTY	
	TEXAS	08	NOLAN	
CHECKED	CONT.	SECT.	JOB	HIGHWAY NO.
	6457	73	001	IH20, ETC.

INDEX OF SHEETS
SHEET NO. DESCRIPTION

GENERAL	
1	Title Sheet
2 - 3	General Notes
4	Estimate & Quantity
5	#RS-TCP-05
6	#TCP-AbiCableBarrier

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION
PLANS OF PROPOSED
HIGHWAY ROUTINE MAINTENANCE CONTRACT

TYPE OF WORK:

MOWING HIGHWAY RIGHT OF WAY

PROJECT NO. : RMC 6457-73-001

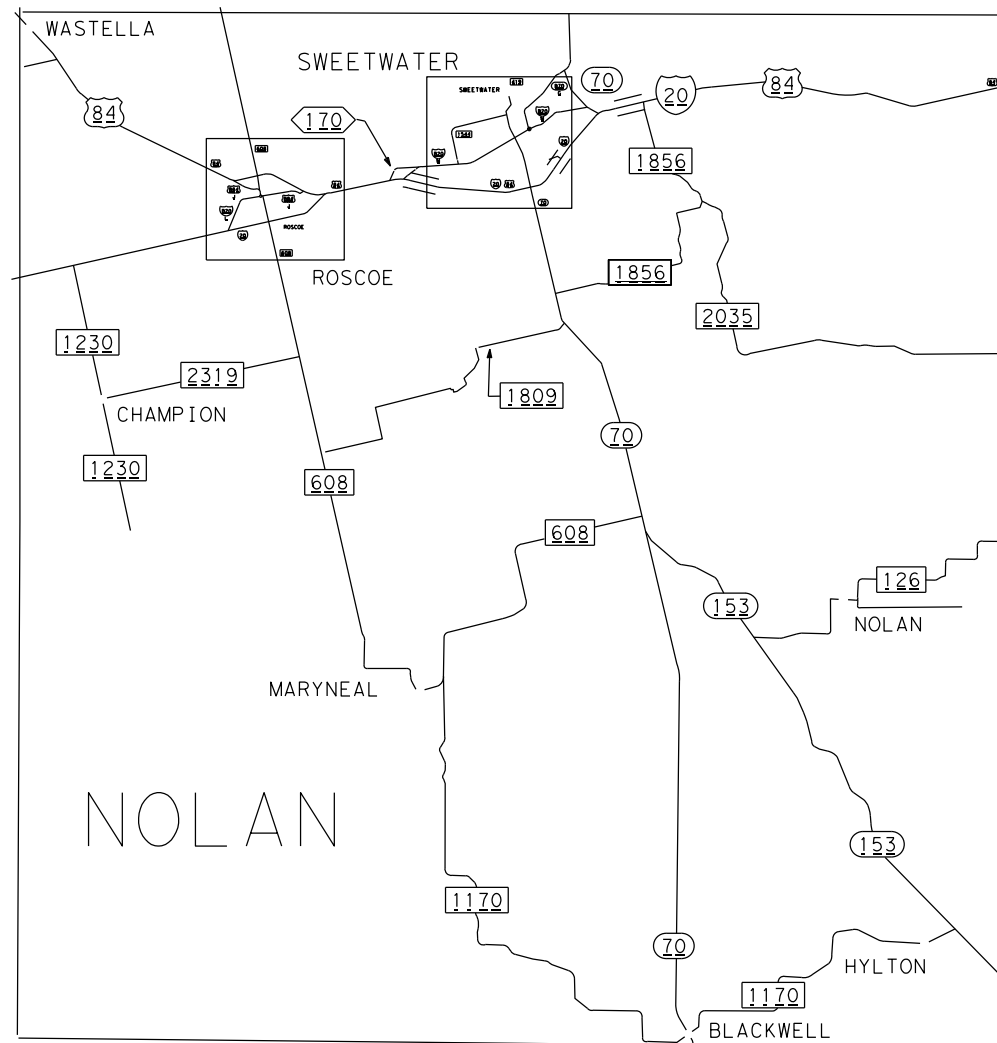
HIGHWAY : IH 20, ETC.

LIMITS OF WORK : Various locations in Nolan Counties

#TxDOT Standards

The standard sheets specifically identified on this sheet with a # have been selected by me or under my responsible supervision as being applicable to this project.

DocuSigned by:
Cal Hays, P.E. 1/8/2024
A2B0DD676470482...
Cal W. Hays, P.E. Date



FINAL PLANS:
Date Contractor Began Work: _____
Date Work was Completed: _____
Date Work Accepted: _____
Final Contract Cost: \$ _____

CERTIFICATION FOR FINAL PLANS:
Project was built according to the plans and specifications. These final plans reflect the work done and the quantities shown thereon and on the final estimate are final quantities.

Area Engineer

TEXAS DEPARTMENT OF TRANSPORTATION

Submitted For Letting:
DocuSigned by:
Cal Hays, P.E. 1/8/2024
A2B0DD676470482...
Cal W. Hays, P.E.
Maintenance Engineer

Recommended For Letting:
DocuSigned by:
Paul N Norman, P.E. 1/8/2024
25E04E8F4AB8444...
Paul Norman, P.E.
Director of Maintenance

Approved For Letting:
DocuSigned by:
Thomas G. Allbritton, P.E. 1/8/2024
0F6F7E74C37D430...
Thomas G. Allbritton, P.E.
District Engineer

LEVELS DISPLAYED
1
2
3
4

GENERAL NOTES

Item 2 Instructions to Bidders

Questions may 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 4 – Scope of Work

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

This is a non-site-specific contract, locations of tracts and work to be performed will be identified in individual work orders on an as need basis. Site information shown in the plans is for contractor's information only.

Item 7 Legal Relations and Responsibilities

No significant traffic generator events identified.

Cost for repair or replacement of appurtenances damaged by the contractor will be deducted from the contractor's monthly estimate.

Item 8 Prosecution and Progress

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 or all contracts at the same time.

Liquidated Damages as stated in Special Provision, "Schedule of Liquidated Damages", will be assessed if a cycle is not completed within the specified number of working days.

Item 9 Measurement and Payment

This is a callout contract, plans quantity measurement requirements are not applicable.

Item 502 Barricades, Signs, and Traffic Handling

Additional signs, barricades and traffic handling may be necessary to complete the work shown herein and will be provided by the contractor as required and will be considered subsidiary to the bid items.

Traffic control shall be in compliance with the "Texas Manual on Uniform Traffic Control Devices", the TCP standards included in the plans, and the "Compliant Work Zone Traffic Control Device" list.

pg. A

GENERAL NOTES

When mowing narrow strips of vegetation near cable barrier, metal beam guard fence, other areas identified by the Engineer and/or where conventional mowing operations impede traveling lanes, the Contractor will use the standard TCP-AbI CableBarrier.

Work will not be allowed on both sides of the roadbed at the same time.

All workers are required to wear appropriate OSHA approved personal protective equipment, (fluorescent safety vest, hard hats, safety toed shoes, etc.), at all times while outside of vehicles on the project.

No mowing operations or moving of mowing equipment will be allowed before sunrise or after sunset. Trimming operations, for the day, must be completed at least 30 minutes before sunset.

All vehicles, including work trucks and tractors, must be equipped with highly visible omnidirectional amber flashing warning lights.

Item 730 Roadside Mowing

The Engineer will determine the sequence of tracts to be mowed.

In area where cable median barrier exist, narrow strips of vegetation will be mowed with a rigid frame mower or as approved in writing by the Engineer.

Slopes will be mowed with no damage to the established vegetation.

Other construction and/or maintenance contracts may be underway on roadsides to be mowed in this contract. Mowing will not be required in these areas when approved by the Engineer.

For each cycle required, the Engineer will send the contractor a work order containing the following information:

- Tract numbers in priority order and total number of acres to be mowed and litter removal.
- Working days allowed to complete the cycle
- Date when time charges for the cycle will begin
- Inspectors contact information

Working days allowed to complete a cycle will be determined by dividing the total number of acres by the production rate of 125 acres/working day, a fraction of a day will be rounded up to the nearest whole number. An additional 2 working days will be added to the total for each cycle when litter removal is required. If the total number of working days is not used during the completion of the work required within one cycle, the working days will not be carried forward to any cycle periods.

The Contractor is required to contact the inspector prior to beginning work each day.

Always mow the entire width of medians and outer separations (areas between main lanes, ramps, and frontage road), before moving to another tract.

pg. B

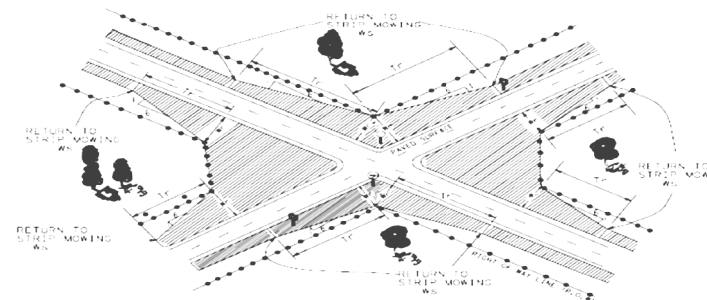
GENERAL NOTES

Perform hand trimming in areas where mowers are unable to access and hand trim 5 ft. behind guardrail or as directed by the Engineer.

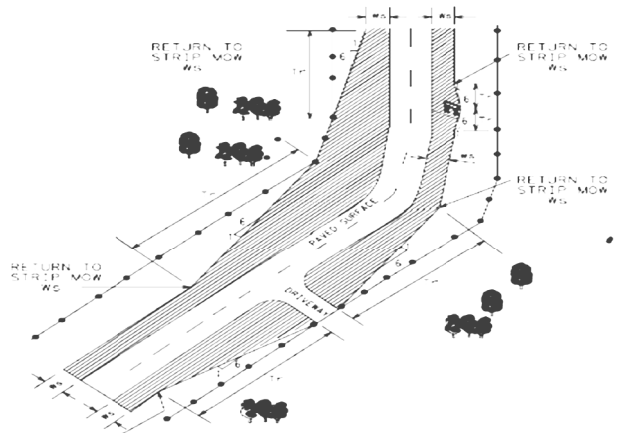
Definitions:

- Full Width Mow – Mow entire width of right of way.
- Strip Mow – Mow 15 feet from edge of pavement or unpaved shoulder.

Strip mow as shown below at intersections and curves for sight distance. Transition Length (Tr) will be no less than 200’.



MOWING FOR SIGHT DISTANCE WITH TRANSITION FROM INTERSECTION BACK TO STRIP MOWING



MOWING FOR SIGHT DISTANCE TRANSITIONS AT DRIVEWAYS, SIGNS, AND CURVES

GENERAL NOTES

Item 734 Litter Removal

Litter removal will be performed no more than 2 working days prior to the mowing cycle.

Pick up any litter remaining after mowing operation.

Only one cycle of litter removal will be paid per mowing cycle.

It is the intent of this item that TxDOT’s right-of-way be mowed and litter-free after the contractor’s mowing operation.

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

BASIS OF ESTIMATE FOR MOBILE TMAs				
		TMA (Mobile)		
LOCATION	Standard	Required	Additional	TOTAL
Inside lanes of IH 20	TCP-AbtCableBarrier	2		2

NOLAN COUNTY 2024 MOWING LOCATION AND ITEM QUANTITY SUMMARY

TRACT	HWY	LIMITS	ITEM 730-6001 STRIP MOWING			ITEM 730-6002 FULL-WIDTH MOWING			ITEM 734-6001 LITTER REMOVAL			ITEM 6185-6005 TMA MOBILE OPERATION		
			CYCLES	ACRES	TOTAL ACRES	CYCLES	ACRES	TOTAL ACRES	CYCLES	ACRES	TOTAL ACRES	TMA'S PER DAY	TOTAL DAYS	TOTAL TMA DAYS
*1	¹ IH 20	FROM MITCHELL CO/L TO TAYLOR CO/L	1	747	747	2	807	1614	3	807	2421	2	2	4
2	US 84	FROM MITCHELL CO/L TO IH 20	1	150	150	2	441	882			0			0
*3	² SH 70	FROM FISHER CO/L TO COKE CO/L	1	96	96	2	269	538			0			0
4	SH 153	FROM SH 70 TO TAYLOR CO/L	1	67	67	2	186	372			0			0
5	FM 608	FROM FISHER CO/L TO SH 70	1	117	117	2	263	526			0			0
6	FM 126	FROM TAYLOR CO/L TO SH 153	1	48	48	2	70	140			0			0
7	FM 1856	FROM IH 20 TO SH 70	1	37	37	2	80	160			0			0
8	FM 2035	FROM FM 1856 TO TAYLOR CO/L	1	49	49	2	132	264			0			0
9	FM 1170	FROM MARYNEAL TO TO SH 153	1	98	98	2	251	502			0			0
10	FM 1230	FROM IH 20 TO 8 MILES SOUTH	1	29	29	2	59	118			0			0
11	FM 2319	FROM MITCHELL CO/L TO FM 608	1	32	32	2	81	162			0			0
12	FM 1809	FROM SH 70 TO 2.7 MILES WEST	1	10	10	2	19	38			0			0
13	FM 419	FROM FISHER CO/L TO SWEETWATER NORTH C/L	1	10	10	2	19	38			0			0
14	BU 84-J	FROM US 84 WEST TO US 84 EAST	1	5	5	2	9	18			0			0
15	BI 20-L	FROM IH 20 TO BU 84-J	1	4	4	2	8	16			0			0
16	FM 1982	FROM US 84 TO MITCHELL CO/L	1	4	4	2	10	20			0			0
TOTALS					1503			5408			2421			4

***Notes:**

1. Tract 1...There is approximately 6.8 miles of concrete median barrier on tract #1. Hand trimming will be required from 5' behind the barrier to the face of barrier. An additional 5 acres of full width mowing has been added to this tract as compensation for the hand trimming.

2. Tract 3...SH 70 - Non-mow area from Sweetwater North City Limit to the South City Limit.

FHWA DIVISION	PROJECT NO.			SHEET NO.
6	RMC 6457-73-001			4
STATE	DISTRICT	COUNTY		
TEXAS	ABL	Nolan		
CONTROL	SECTION	JOB	HIGHWAY NO.	
6457	73	001	IH20, etc.	

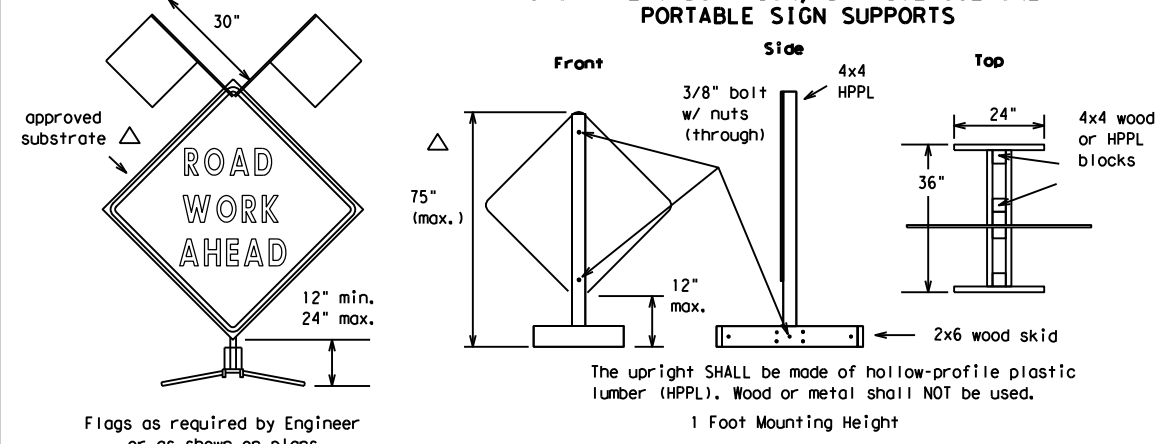
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	

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

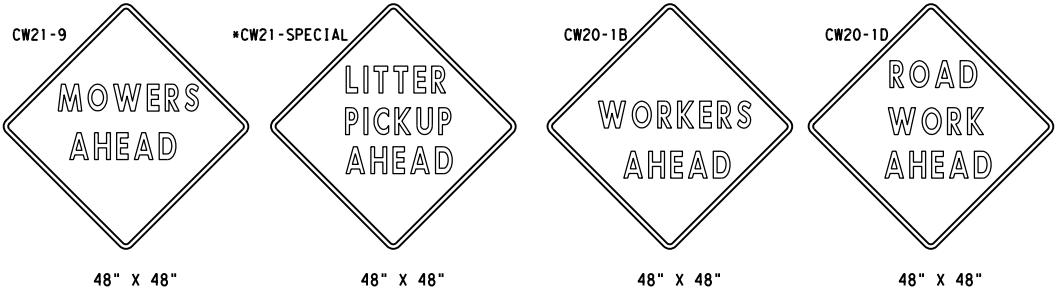
EXAMPLES OF SIGN SUPPORTS

SHORT TERM DURATION, DAYTIME USE ONLY PORTABLE 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.

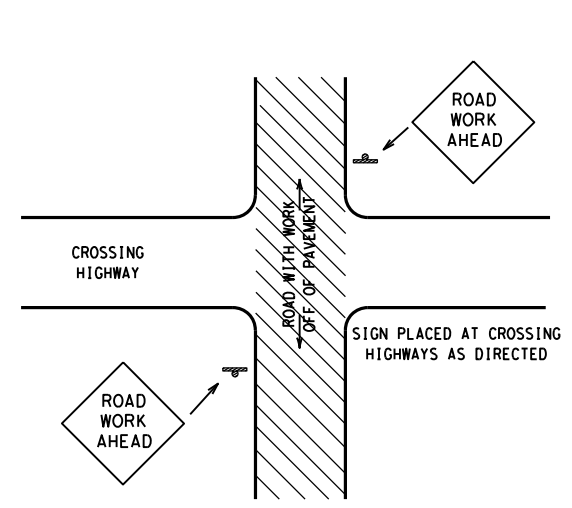
Nails will NOT be allowed.



SIGN IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS
MOWERS AHEAD SIGNS ARE USED FOR MOWING OPERATIONS.
LITTER PICKUP AHEAD, ROAD WORK AHEAD AND WORKER AHEAD SIGNS ARE USED AS DIRECTED FOR OTHER MAINTENANCE OPERATIONS WHEN ALL WORK OCCURS OFF OF THE PAVED HIGHWAY SURFACE.

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

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

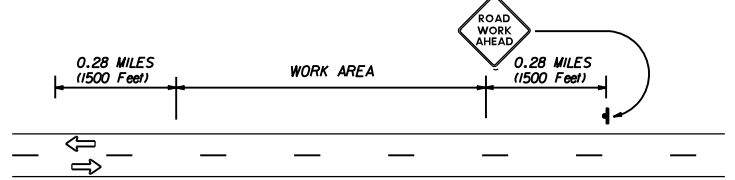


TYPICAL LOCATION OF SIGNS AT HIGHWAY CROSSING

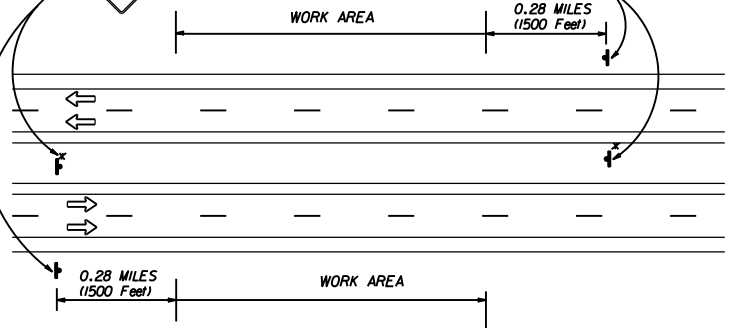
WORK AREA IS A MAXIMUM OF 2.0 MILES UNLESS OTHERWISE DIRECTED.
SIGNS MAY REMAIN IN PLACE ONLY DURING DAYLIGHT HOURS.
SIGNS ARE TO BE PLACED 6' TO 12' OFF OF THE PAVED SURFACE UNLESS OTHERWISE DIRECTED.
ROAD WORK AHEAD SIGNS SHOWN AS EXAMPLES, ONE OF THE FOUR TYPE SIGNS WILL BE USED AS DIRECTED.

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

UNDIVIDED HIGHWAY OR FRONTAGE ROAD



DIVIDED HIGHWAY



TRAFFIC CONTROL PLAN FOR WORK OFF OF THE PAVED SURFACE.

GENERAL NOTES FOR WORK ZONE SIGNS

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

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

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

SIGN SUBSTRATES

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

REFLECTIVE SHEETING

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

SIGN LETTERS

- 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

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

SIGN SUPPORT WEIGHTS

- Where sign supports 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.
- Rock, concrete, iron, steel or other solid objects will not be permitted for use as sign support weights.
- 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.
- Rubber ballasts (such as those used with cones or edgeline channelizers) shall NOT be used as sign support weights.
- Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign supports.
- Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

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

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

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

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

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

Texas Department of Transportation
Maintenance Division
Standard Plans

ROADSIDE TRAFFIC CONTROL PLAN

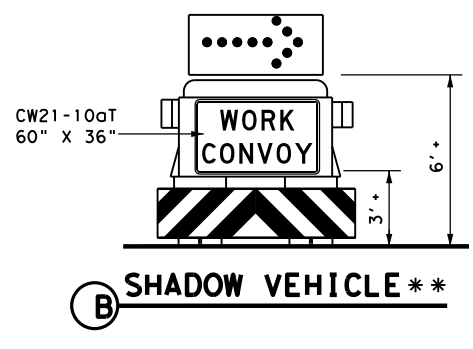
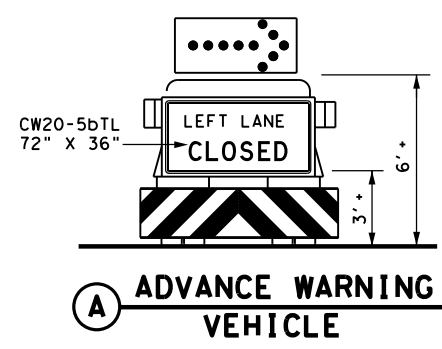
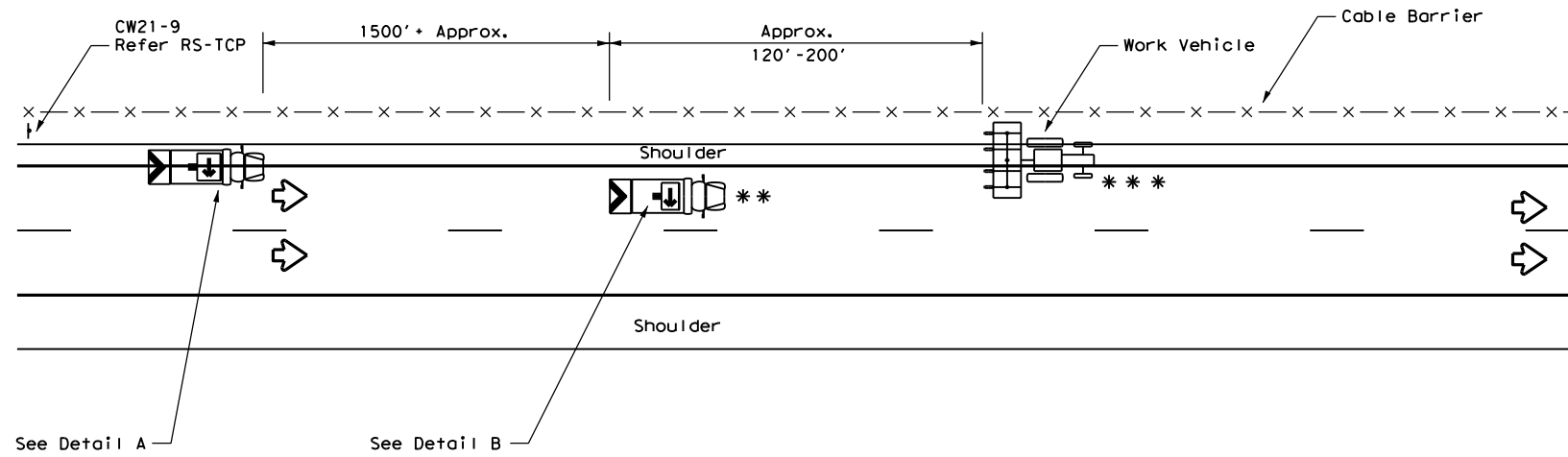
RS-TCP-05

SHEET 1 OF 1 NOT TO SCALE

FILE: RSTCP05.DGN	DN: LJB	CK: JG	DR: -	CK: -	NEG NO.:
© TxDOT FEBRUARY 2005		STATE DISTRICT	FEDERAL REGION	FEDERAL AID PROJECT	
REVISED: September 17, 2004	08	N/A	N/A		5
REVISED: FEBRUARY 2, 2005 Sign placement in TCP	COUNTY		CONTROL SECTION	JOB	HIGHWAY
REVISED:	NoTan		6457	73	001 IH20, etc.

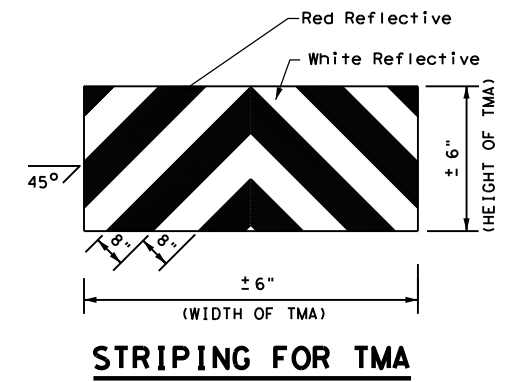
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DATE:
FILE:



LEFT LANE CLOSURE ADJACENT TO CABLE BARRIER

Note: An engineer's seal is not required in accordance with 137.33.m of the Texas Engineering Act and Board Rules.



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
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GENERAL NOTES

- ADVANCE WARNING and SHADOW vehicles shall be equipped with Type B or Type C flashing arrow boards as per the Barricade and Construction (BC) standards. Arrow boards on WORK vehicles will be optional based on the type of work being performed. The arrow boards shall be operated from inside the vehicle.
- A TRAIL VEHICLE is not required.
- 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.
- The use of truck mounted attenuators (TMA) on the ADVANCE WARNING and SHADOW vehicles are required.
- Reflective sheeting on the rear of the TMA shall meet or exceed the reflectivity and color requirements of DMS 8300, Type A.
- Each vehicle shall have two-way radio communication capability.
- When work convoys must change lanes, the ADVANCE WARNING VEHICLE should change lanes first to shadow the other convoy vehicles.
- Vehicle spacing between the ADVANCED WARNING VEHICLE and the SHADOW VEHICLE will vary depending on sight distance restrictions. Motorists approaching the work convoy should be able to see the ADVANCE WARNING VEHICLE in time to slow down and/or change lanes as they approach the ADVANCED WARNING VEHICLE. Vehicle spacing between the WORK VEHICLE and SHADOW VEHICLE may vary according to terrain, work activity and other factors.
- Standard 48" X 48" diamond shaped warning signs with the same message as those shown may be used where adequate mounting space exists.
- The signs shown should be used on the Advance Warning Vehicle. As an option, a portable changeable message sign (PCMS) or a truck mounted changeable message sign (TMCMS) with a minimum character height of 12", and displaying the same legend may be substituted for these signs. An appropriate directional arrow display, simulating the size and legibility of the flashing arrow board, must be used in the second phase of the PCMS/TMCMS message. When this is done, the arrow board will not be required on the Advance Warning Vehicle.
- Standard diamond shape versions of the CW20-5 series signs may be used as an option if the rectangular signs shown are not available.
- The Advance Warning Vehicle may straddle the edgeline when shoulder width makes it necessary.

		Traffic Operations Division Standard	
TRAFFIC CONTROL PLAN MOBILE OPERATIONS ADJACENT TO CABLE BARRIER			
TCP-Ab1CableBarrier			
FILE:TCP-Ab1CableBarrier.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT
© TxDOT February 2017	CONT: 6457	SECT: 73	JOB: 001
REVISIONS			HWY: IH20, etc.
	DIST: 08	COUNTY: Nolan	SHEET NO.: 6