

© 2024		Texas Department of Transportation	
PROJECT NO.	RMC 645879001	SHEET NO.	1
STATE	TEXAS	DIST.	79
COUNTY	GAINES / YOAKUM	SECTION	00
JOB	VARIOUS	HIGHWAY NO.	VARIOUS
DATE	01/08/2024	FILENAME	

INDEX OF SHEETS

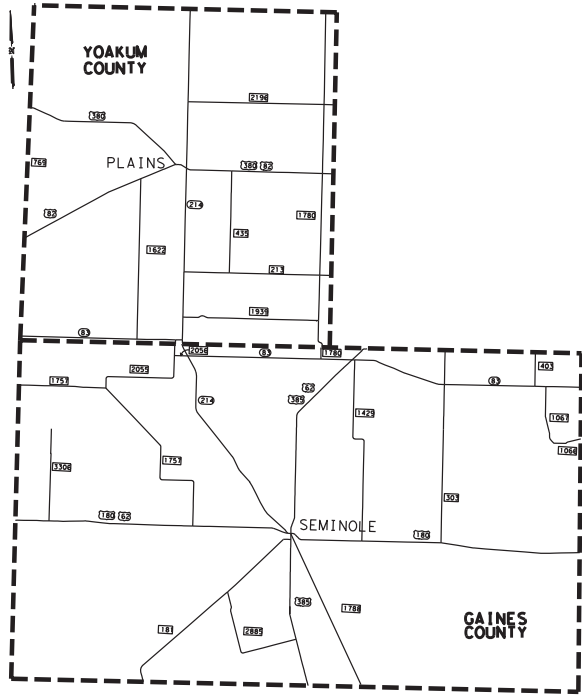
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2A - 2E	SPECIFICATION DATA AND GENERAL NOTES
3	ESTIMATE AND QUANTITY SUMMARY
4	MOWING AREAS SUMMARY SHEET
5	RS-TCP-05
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STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION
PLANS OF PROPOSED
ROUTINE MAINTENANCE CONTRACT

TYPE OF WORK:
ROADSIDE MOWING

PROJECT NO.: RMC 645879001
CSJ: 6458-79-001
HIGHWAY: VARIOUS

LIMITS OF WORK: GAINES AND YOAKUM COUNTIES



MAPS DO NOT DEPICT ALL ROADWAYS FOR THIS CONTRACT. SEE SHEET 4 FOR EXACT ROADWAYS AND LIMITS.

THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.



DocuSigned by:
Michael Stroope, P.E.
C0CB990D620C4DD...
Date



SUBMITTED FOR LETTING: 1/8/2024 .20
DocuSigned by:
Michael Stroope, P.E.
C0CB990D620C4DD...
APPROVED FOR LETTING: 1/8/2024 .20
DocuSigned by:
Michael Stroope, P.E.
C0CB990D620C4DD...

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

NO SCALE
NO EQUATIONS
NO EXCEPTIONS
NO RAILROAD CROSSINGS

RMC 645879001

Project Number: RMC 645879001**Sheet 2****County:** Gaines / Yoakum**Control:** 6458-79-001**Highway:** US0062**GENERAL NOTES:**

Contractor questions on this project are to be addressed to the following individual(s):

Michael P. Stroope, P.E. – mike.stroope@txdot.gov

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.

General Requirements and Covenants - Items 1 thru 9

Project Description – This project consists of Roadside Mowing in Gaines and Yoakum Counties.

TxDOT Project Supervisor – The project will be managed by:

Gaines / Yoakum County Maintenance Supervisor
George DeLeon
175 E US 180
Seminole, TX 79360
806-758-3632

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.

Item 2 - Instructions to Bidders

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:

Project Number: RMC 645879001**Sheet 2****County:** Gaines / Yoakum**Control:** 6458-79-001**Highway:** US0062

http://www.dot.state.tx.us/business/contractors_consultants/repro_companies.htm

By signing this proposal, a bidder acknowledges that he/she has a copy of the “Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges”, adopted by the Texas Department of Transportation, November 1, 2014. This specification book may be purchased from the Department or downloaded at: <http://www.txdot.gov/business/resources/txdot-specifications.html>

Item 3 - Award and Execution of Contract

This Contract includes work required under multiple Work Orders. Perform work as shown in the plans and continue until work is completed.

Item 4 - Scope of Work

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

When the contract is extended by agreement of both parties, a Performance Bond, if required, and Payment Bond shall be executed in the amount of the extension before the additional work begins.

Item 5 - Control of Work

Notify TxDOT representative by 9:00 am each day for work completed the previous day, including hand trimming and cleanup. The Engineer will then inspect the section(s) of roadway for acceptance, not more than two (2) working days after notification.

Item 8 - Prosecution and Progress

Contract time charges shall begin upon issuance of “Authorization to Begin Work” letter. Seven Hundred and Thirty (730) days have been designated for this contract. Days shall be computed and charged in accordance with Article 8.3.1.5 “Calendar Day.”

Pre-Work Meeting - Prior to beginning work, a conference between the Contractor's representative and the Department will be arranged by the Department.

Submit the outline referenced in Item 8.5.5 in writing. Include all roadways in the sequential order of mowing and the number of day(s) allotted to each roadway. In the event that the schedule is not submitted to the Engineer, work will not be allowed to begin, but time charges will be charged.

Project Number: RMC 645879001**Sheet 2****County:** Gaines / Yoakum**Control:** 6458-79-001**Highway:** US0062

Do not begin work each day until 30 minutes after sunrise and stop work 30 minutes before sundown unless authorized by the Engineer. During non-working hours, remove all equipment at least 30 feet from the roadway. No equipment repair will be allowed on the rights of way during non-working hours.

Work Prosecution

Cycles shall begin upon issuance of a Work Order. Individual Work Order charge days shall run concurrently with Contract time charges.

Estimated working days per cycle are calculated as follows:

Mowing--total acreage per cycle divided by 100 acres per day.

Each cycle stands alone as to the number of working days allowed for that cycle. The contractor shall be charge liquidated damages per each cycle not completed in the specified time.

Remaining days on each cycle shall not be carried on to future cycles.

The designated number of working days per cycle is 47.

Item 500 - Mobilization

Mobilization for call out work will be paid for each callout work request.

Item 502 - Barricades, Signs and Traffic Handling

For this project, Barricades, Signs, and Traffic Handling will be subsidiary to the various bid items.

The Engineer will inspect and approve all traffic control devices prior to work starting on each cycle.

A traffic control plan is required as shown in the plans. For this Contract, this operation will be considered Short Term Stationary. The Contractor is responsible for furnishing, erecting, and maintaining all signs necessary to comply with the Texas Manual on Uniform Traffic Control Devices. Flags are required on all signs. The Contractor is responsible for compliance with all City, State, and Federal laws.

Use only signs that are 48" x 48". Use signs and sign supports that are listed in the "Compliant Work Zone Traffic Control Devices." This list is available from TxDOT and may be obtained by calling 512-416-3335, or visiting the Departments Web Site at www.dot.state.tx.us.

Project Number: RMC 645879001**Sheet 2****County:** Gaines / Yoakum**Control:** 6458-79-001**Highway:** US0062**Item 730 – Roadside Mowing**

Full Width (3.2.2) mowing unless otherwise indicated in the plans or as directed.

Curb and Gutter

Mow and hand trim behind curb and gutter in all developed areas if included in the limits of that roadway.

Omitted Areas

Areas not able to be mowed, or that do not need to be mowed, which have been included in the estimated measurements, may be omitted, at the discretion of the Engineer.

Areas omitted will be deducted from the pay measurement. These areas will usually be a minimum of two (2) acres. Areas will be noted in work order.

Easements

Mow State-owned easements and easement slopes as directed by the Engineer. These areas are included in the estimated measurements, except as indicated otherwise in the plans.

Equipment

The Engineer will inspect and approve all equipment prior to work starting on each cycle.

Keep mowers in good operating condition. Repair or replace any equipment the Engineer determines is defective to the point that it may affect the quality of the work.

Equip all decks, including bat-wings, with either safety chains or the manufacturer's safety device long enough to be in constant contact with the ground during operation.

Provide highly visible amber strobe warning lights on all tractors and work trucks.

Cutting Height

Cutting height shall be seven (7) inches when measured on level ground.

Areas left in a ragged condition will be re-mowed with no additional compensation. The Contractor will not be required to make more than two (2) additional passes.

Hand Trimming

Project Number: RMC 645879001

Sheet 2

County: Gaines / Yoakum

Control: 6458-79-001

Highway: US0062

Hand trimming is required for all tracts listed in the plans and is considered subsidiary to Item 730.

Hand trimming shall be completed within 24 hours after mowing is completed on any section of Right of Way.

Hand trim around appurtenances/objects, whether temporary or permanent.

Perform hand trimming operations inside an established safety work zone area.

Hand trim around metal beam guard fence included within the mowing limits. Extend hand trimming from the edge of the roadway, under the guard fence, to a minimum of five (5) feet, for the length of the metal beam guard fence and guardrail extruder terminal or terminal section.

Hand trim all vegetation growing in and around the guardrail in rip-rap and non-mow areas.

Hand trim all vegetation growing around appurtenances/objects behind curb and gutter.

Hand trim around all safety lighting and/or traffic signal lighting. Hand trim a seven (7) foot radius around the base.

Hand trim all vegetation growing in and around all rip-rap areas, including but not limited to all medians, islands, turnarounds, channels, slopes, etc.

DAMAGES

Charges for damages, including paved surfaces, rights of way, vegetation, and appurtenances, will be deducted from payments due to the contractor.

Item 6185 - Truck Mounted Attenuator and Trailer Attenuator

Provide shadow vehicle equipped with Truck Mounted Attenuator (TMA) as shown on Traffic Control Plan (TCP) standard TCP (3-5)-18.

TMA's used for this project shall comply with requirements found in the Complaint Work Zone Traffic Control Devices list, which can be found at the following website.

<http://www.txdot.gov/business/resources/materials/producer-list.html>

Certified weights of host vehicles may be required by the Engineer to verify compliance with TMA/TA requirements of SS6185.

A minimum of One (1) TMA for Mowing Operations shall be available daily as noted on the summary sheet.

ESTIMATE SUMMARY

PROJECT NUMBER RMC 645879001
CSJ 6458-79-001

EST.	FINAL	EST.	FINAL	EST.	FINAL	EST.	FINAL	DESCRIPTION		A L T	ITEM- CODE			DESCRIPTION	U N I T	TOTAL	
								EST.	FINAL		ITEM NO.	DESC CODE	SP NO.			EST.	FINAL
								4.000			500	6033		MOBILIZATION (CALLOUT)	EA	4.000	
								18660.000			730	6002		FULL-WIDTH MOWING	AC	18660.000	
								20.000			6158	6005		TMA (MOBILE OPERATIONS)	DAY	20.000	

ESTIMATE & QUANTITY SHEET

STATE/DIST. NO. 5	COUNTY GAINES/YOAKUM	PROJECT NO. RMC 6458-79-001	SHEET NO. 3
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Gaines County

Tract No.	Highway	Limits	Ref. Marker	# Full Cycles	AC PER Cycle	TOTAL AC Full Width
1*	US 62	Terry C/L to N.M. State Line Non-Mow Seminole and Seagraves	222-264	4	773	3092
2	SH 83	US 62 to Dawson C/L	250-272	4	230	920
3	US 180	US 62 to Dawson C/L	248-272	4	190	760
4	SH 214	SH 83 to US 62	272-292	4	177	708
5	US 385	S. C/L Seminole to Andrews C/L	292-306	4	212	848
6	FM 181	W.C/L Semlnole to Andrews C/L	272-290	4	199	796
7	FM 1757	N.M. State Line to US 62	22-246	4	240	960
8	FM 2055	FM 1757 to FM 2056	256-264	4	76	304
9	FM 2885	FM 181 to US 385	240-252	4	87	348
10	FM 3306	US 62 to 8.0 Mi. North	262-268	4	74	296
11	FM 303	Terry C/L to US 180	272-290	4	152	608
12	FM 403	Terry C/L to SH 83	250-252	4	18	72
13	FM 1066	FM 1067 to the Dawson C/L	270-274	4	39	156
14	FM 1067	HWY 83 to FM 1066	258-262	4	40	160
15	FM 1429	HWY 83 to US 180	252-273	4	124	496
16	FM 1788	US 385 to Andrews C/L	266-278	4	112	448
Estimated Acreage Totals:					2743	10972

Yoakum County

Tract No.	Highway	Limits	Ref. Marker	# Full Cycles	AC PER Cycle	TOTAL AC Full Width
17	SH 83	US 62 to N.M. State Line Non Mow Seagraves & Denver City	222-236	4	327	1308
18	SH 214	Cochran C/L to SH 83 East Non Mow Denver City	244-274	4	281	1124
19	US 380	N.M. State Line to US 82	224-238	4	105	420
20	FM 213	SH 214 to Terry C/L	238-252	4	135	540
21	FM 435	US 82/380 to FM 213	238-246	4	65	260
22	FM 1780	Cochran C/L to SH 83	232-262	4	215	860
23	FM 1939	SH 214 to FM 1780	236-248	4	88	352
24	FM 2055	SH 83 to FM 2056	256-258	4	11	44
25	FM 2056	FM 2055 to US 83/SH 214	236-238	4	13	52
26	FM 2196	SH 214 to Terry C/L	236-250	4	95	380
27	FM 769	Cochran C/L to SH 83	264-292	4	213	852
28	FM 1622	US 82 to SH 83	240-252	4	103	412
29	US 82	Terry C/L to N.M. State Line	222-252	4	271	1084
Estimated Acreage Totals:					1922	7,688

Notes:

Tract 1: TMA required where median cable barrier present if mower deck extends into roadway. Estimated 5 days per cycle.

COMBINED TOTALS

MOWING ACRES PER CYCLE	4665
TOTAL MOWING ACRES	18660
WORKING DAYS PER CYCLE	47
TOTAL WORKING DAYS	188

MOWING AREAS SUMMARY SHEET

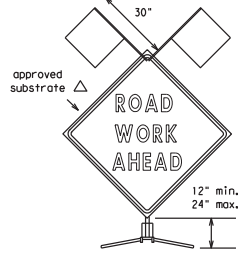
FED. NO.	MAINTENANCE PROJECT NO.	SHEET NO.
06	RMC 645873001	4
STATE	COUNTY	
TX	GAINES / YOAKUM	
CONT.	SECT.	JOB
6458	79	00
HIGHWAY NO.	VARIOUS	

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LEVELS DISPLAYED
 1 12 3 4 5 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

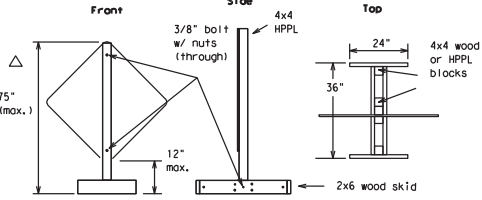
EXAMPLES OF SIGN SUPPORTS

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



Flags as required by Engineer or as shown on plans

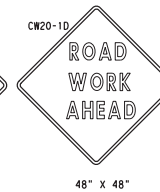
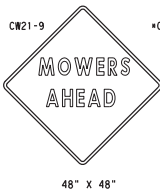
SHORT TERM DURATION, DAYTIME USE ONLY PORTABLE SIGN SUPPORTS



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

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

Nails will NOT be allowed.



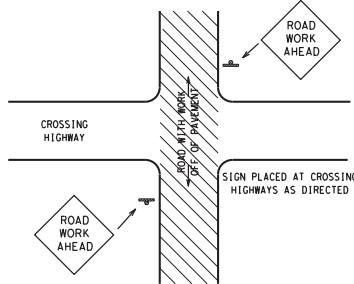
SIGN IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS

MOWERS AHEAD SIGNS ARE USED FOR MOWING OPERATIONS.

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

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

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

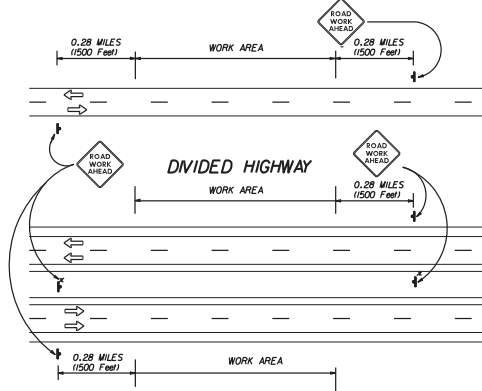


TYPICAL LOCATION OF SIGNS AT HIGHWAY CROSSING

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

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

UNDIVIDED HIGHWAY OR FRONTAGE ROAD



TRAFFIC CONTROL PLAN FOR WORK OFF OF THE PAVED SURFACE.

GENERAL NOTES FOR WORK ZONE SIGNS

- 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.
- Barriocades 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/dynweb/colmatres/#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

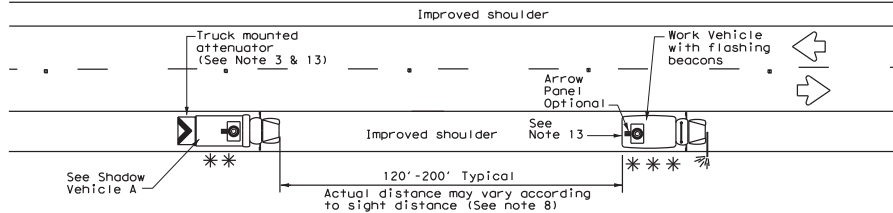
ROADSIDE
 TRAFFIC CONTROL PLAN

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

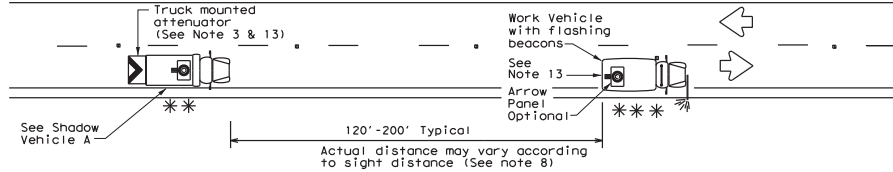
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©TxDOT FEBRUARY 2005					
REVISION: SEPTEMBER 17, 2004	LBB	6	RMC	645879001	5
REVISION: FEBRUARY 9, 2005 SIGN SHEETMENT IN TEP	COUNTY		CONTROL SECTION	JOB	HSWAY
REVISION:	GAINES / YOAKUM		6458	79	001 VARIOUS

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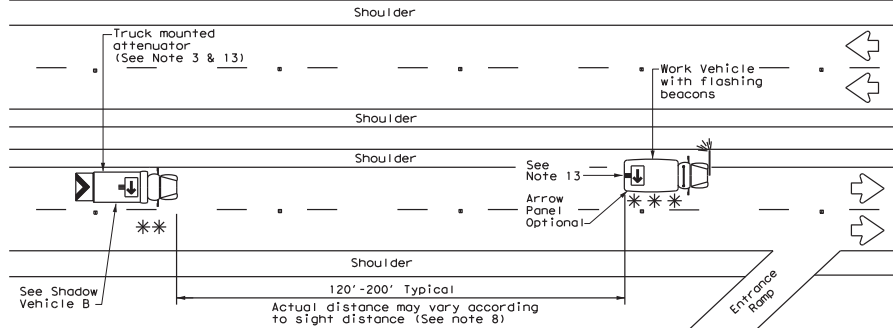
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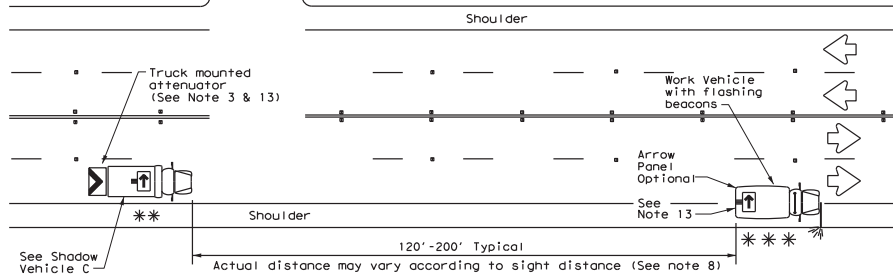
TWO LANE HIGHWAY WITH PAVED SHOULDERS MINIMUM 8'



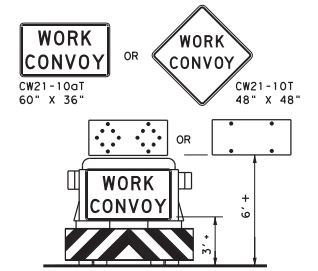
TWO LANE HIGHWAY WITH NO SHOULDER OR NARROW SHOULDER



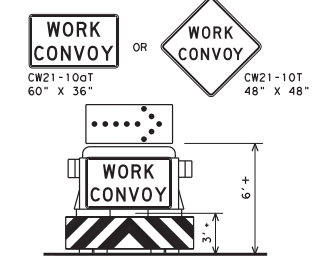
MULTILANE HIGHWAY



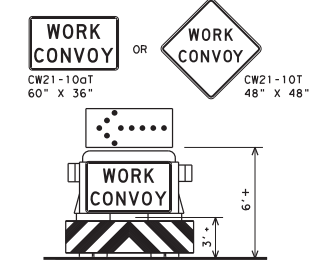
MULTILANE HIGHWAY



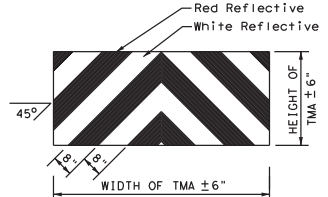
SHADOW VEHICLE A
with Flashing Arrow Board in Caution Mode



TYPICAL SHADOW VEHICLE B
with RIGHT Directional display Flashing Arrow Board



TYPICAL SHADOW VEHICLE C
with LEFT Directional display Flashing Arrow Board



STRIPING FOR TMA

LEGEND			
**	Shadow Vehicle	ARROW BOARD DISPLAY	
***	Work Vehicle		
↑	Sign	→	RIGHT Directional
↓	Heavy Work Vehicle	←	LEFT Directional
↔	Traffic Flow	↔	Double Arrow
⊠	Truck Mounted Attenuator (TMA) or Trailer Attenuator (TA)	⊠	CAUTION (Alternating Diamond or 4 Corner Flash)

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

GENERAL NOTES

- All traffic control devices shall be in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD), latest edition.
- 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 Shadow Vehicle is required.
- Striping on the back panel of all TMAs shall be 8" red reflective sheeting with white background, placed in an inverted "V" design. Reflective sheeting shall meet or exceed the reflectivity and color requirements of DEPARTMENTAL MATERIAL SPECIFICATION DMS-8300, TYPE A.
- Flashing Arrow Panels shall be Type B or Type C as per BC Standards. The panel operation shall be controlled from inside the vehicle.
- Each vehicle shall have two-way radio communication capability.
- When the work convoy must change lanes, the Shadow Vehicle should change lanes first to protect the Work Vehicle.
- Spacing between Shadow and Work Vehicle will vary depending on sight distance restrictions. Motorists approaching the work convoy should be able to see the Shadow Vehicle in time to slow down and/or change lanes as they approach the Work Convoy.
- Use of an arrow panel on the Work Vehicle is optional except as provided in note 13, but may be required by the Engineer. If an arrow panel is not used, dual flashing beacons, mounted as high and as widely separated as practicable at the rear of the Work Vehicle shall be required.
- On two-lane two-way roadways, the Work and Shadow Vehicles should pull over periodically to allow motor vehicle traffic to pass.
- Work and Shadow Vehicles should stay on the shoulder of highways having 8' or wider shoulders when possible.
- A Trail Vehicle may be added to the operation when approved by the Engineer. See TCP(3) series standards.
- The shadow vehicle may be omitted on conventional roadways when a TMA or TA and arrow panel is mounted to the herbicide vehicle. A separate shadow vehicle will be required on expressways and Freeways.

		Traffic Operations Division Standard	
TRAFFIC CONTROL PLAN MOBILE OPERATIONS HERBICIDE TRUCK OPERATIONS TCP (3-5) - 18			
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