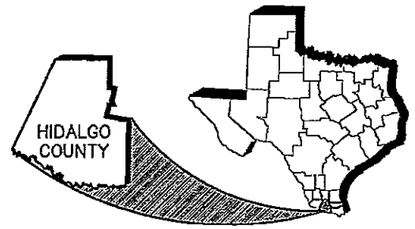
HIDALGO COUNTY PRECINCT No. 4

CONSTRUCTION PLANS FOR
COLONIA ACCESS PROJECT THIRD ROUND
ALLOCATED FUNDS
LAS BRISAS ESTATES

LIMITS: VARIOUS SUBDIVISIONS (SEE PROJECT LAYOUTS)
CONSTRUCTION OF LOCAL STREETS CONSISTING OF:
GRADING, LIME TREATED SUBGRADE, FLEXIBLE BASE
AND STORM SEWER.



PROJECT LIMIT DESCRIPTIONS

ID	COLONIA NAME	CSJ #	ST NAME	FROM:	TO:	NET LENGTH (FT)	NET LENGTH (MI)
1	LAS BRISAS ESTATES	3C1080406	LAS BRISA CIRCLE	10+19.03	21+93.56	1174.53	0.222
2	LAS BRISAS ESTATES	3C1080406	LAS BRISA LANE	10+14.48	11+65.00	151.0	0.029
3							
					TOTAL NET LENGTH	1325.53	0.251

APPROVAL:
COLONIA ACCESS PROGRAM DIRECTOR
HIDALGO COUNTY
DATE:
NAME

APPROVAL:
COUNTY PRECINCT COMMISSIONER
PRECINT No 4
DATE:
NAME

APPROVAL:
HIDALGO COUNTY PLANNER
HIDALGO COUNTY
DATE:
NAME

CONCURRENCE:
HIDALGO COUNTY DRAINAGE DISTRICT No.1 MANAGER
HIDALGO COUNTY
DATE:
NAME

FOR REVIEW
PRELIMINARY
90% SUBMITTAL
NOT FOR REGULATORY APPROVAL
PERMITTING, OR CONSTRUCTION
JOSE E. SAENZ--REGISTRATION NO. 62553
TBPE FIRM REGISTRATION No. F1273
JUNE 2009

PROJECT DATA
DESIGN SPEED: 30 MPH
EXCEPTIONS: NONE
EQUATIONS: NONE
RAILROAD CROSSINGS: NONE

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

DATE

JOSE E. SAENZ, REGISTERED PROFESSIONAL ENGINEER

STATE OF TEXAS
JOSE E. SAENZ
62553
REGISTERED
PROFESSIONAL ENGINEER

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION ON JUNE 1, 2004 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS SHALL GOVERN ON THIS PROJECT. SPECIAL LABOR PROVISIONS FOR STATE PROJECTS.

COURT OF COMMISSIONERS
J. D. SALINAS.....COUNTY JUDGE
SYLVIA HANDY.....PRECINCT NO. 1
HECTOR (TITO) PALACIOS.....PRECINCT NO. 2
JOE M. FLORES.....PRECINCT NO. 3
OSCAR L. GARZA Jr.....PRECINCT NO. 4

COUNTY OF HIDALGO TEXAS

TEXAS DEPARTMENT OF TRANSPORTATION

J.E. SAENZ & ASSOCIATES, INC.
P.O. BOX 5293 TEL. (956) 383-2934
EDINBURG, TEXAS 78540 FAX (956) 383-3736

SHEET NO. DESCRIPTION

GENERAL

1– TITLE SHEET
2– INDEX OF SHEETS
3– COLONIA LIMITS
4– PROPOSED TYPICAL SECTION
5– ESTIMATE AND QUANTITIES LAS BRISAS ESTATES
5A– DRIVEWAY SUMMARY ESTIMATE AND QUANTITIES
6– GENERAL NOTES

TRAFFIC CONTROL PLAN SHEETS

7–A– TRAFFIC CONTROL NOTES
7–B– TRAFFIC CONTROL DETAILS

ROADWAY DETAILS

8–A– LAS BRISAS CIRCLE & LAS BRISAS LANE EXISTING CONDITIONS
8–B– LAS BRISAS CIRCLE & LAS BRISAS LANE PROPOSED ROAD SECTION
9– LAS BRISAS CIRCLE PLAN AND PROFILE STA 10+00 to 15+00
10– LAS BRISAS CIRCLE PLAN AND PROFILE STA 15+00 TO 20+00
11– LAS BRISAS CIRCLE PLAN AND PROFILE STA 22+16.56
12– LAS BRISAS LANE PLAN AND PROFILE STA 10+00 TO 11+65

ROADWAY STANDARDS

13– [D] DRIVEWAY DETAILS PRIVATE
14– [D] DRIVEWAY PROFILE DETAILS
15– [D] TURNOUT DETAILS PUBLIC

TRAFFIC CONTROL STANDARDS

16– [D] TCP (2–2)–03

ENVIRONMENTAL SW3P STANDARDS

17– (SW3P)
18– [S] EC (1)–93

– [D] DENOTES DISTRICT STANDARD
– [S] DENOTES STATE STANDARD

SHEET NO. DESCRIPTION

BARRICADE AND CONSTRUCTION BC STANDARDS

19– BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS (BC(1)–03)
20– BARRICADE AND CONSTRUCTION PROJECT LIMIT STANDARD (BC(2)–03)
21– BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT (BC(3)–03)
22– BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES (BC(4)–03)
23– BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT (BC(5)–03)
24– BARRICADE AND CONSTRUCTION ARROW & MESSAGE SIGNS, REFLECTORS & WARNING LIGHT (BC(6)–03)
25– BARRICADE AND CONSTRUCTION PLASTIC DRUM (BC(7)–03)
26– BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES (BC(8)–03)
27– BARRICADE AND CONSTRUCTION TYPE III BARRICADE & CONES (BC(9)–03)
28– BARRICADE AND CONSTRUCTION PAVEMENT MARKING (BC(10)–03)
29– BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS (BC(11)–03)
30– BARRICADE AND CONSTRUCTION REGULATORY & GUIDE SIGNS (BC(12)–03)

STRIPING

31– STRIPING DETAILS

STORM DETAILS

32– TYPICAL STORM DETAILS (1/3)
33– INLET AND MANHOLE CAPPING DETAILS (2/3)
34– INLET TYPE "A" DETAILS (3/3)

STATE OF TEXAS
JOSE E. SAENZ
62553
REGISTERED PROFESSIONAL ENGINEER

FOR REVIEW
PRELIMINARY
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JOSE E. SAENZ–REGISTRATION NO. 62553
TBPE FIRM REGISTRATION No. F1273
JUNE 2009

TEXAS DEPARTMENT OF TRANSPORTATION

J.E. SAENZ & ASSOCIATES, INC.
P.O. BOX 3293 TEL. (956) 383-2984
EDINBURG, TEXAS 78540 FAX (956) 383-3735

HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
INDEX OF SHEET

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:	6	TEXAS	ENG. 08, 008	
DW:	STATE DIST No.	COUNTY	CSJ#	SHEET NO.
CK DW:	29	HIDALGO	3C1080406	02
TR:				
CK TR:				

LAS BRISAS ESTATES

Total Area of disturbed Soil = 1.58 acres

LAS BRISAS CIRCLE
CSJ # 3C1080406
BEG. STA. 10+19.03
END. STA. 21+93.56
NET LENGTH OF PROJECT: 1174.53 FT. = 0.222 MI

LAS BRISAS LANE
CSJ # 3C1080406
BEG. STA. 10+14.48
END. STA. 11+65
NET LENGTH OF PROJECT: 151 FT. = 0.029 MI

STATE OF TEXAS
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JUNE 2009

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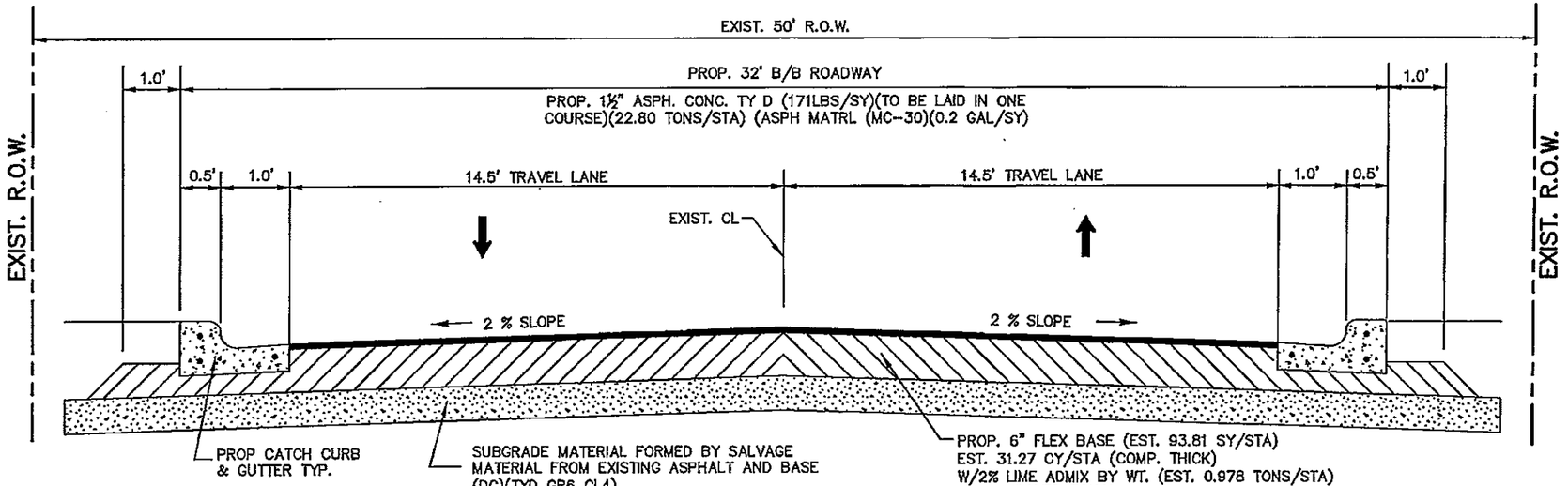
EDINBURG, TEXAS 78540 FAX (956) 383-3736

HIDALGO COUNTY ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
COLONIA LIMITS

DN	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN	6	TEXAS	ENG. 08 008	VARIES
DW	STATE DIST. No.	COUNTY	CSJ#	SHEET NO.
CK DW	29	HIDALGO	3C1080406	03
TR				
CK TR				

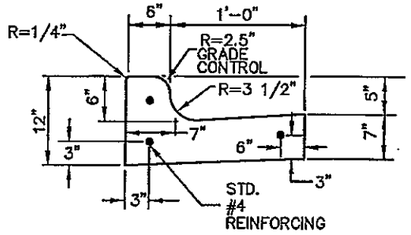


NOTE:
PREPARATION OF THE SUBGRADE OR EXISTING ROADBED SHALL BE BLADED TO PROVIDE A UNIFORM CROSS-SECTION TO THE LINE AND GRADE SHOWN ON THE PLANS. THE SECTION SHALL BE PROOF ROLLED, ANY SOFT SPOTS SHALL NEED TO BE STABILIZED. THIS WORK WILL BE SUBSIDIARY TO ITEM 247.

THE EXISTING ASPHALT AND BASE SHALL BE REMOVED AND REUSE AS SALVAGE SUBGRADE.

PROPOSED TYPICAL SECTION

N.T.S.



CATCH

N.T.S.

GENERAL NOTES:

WHERE POSSIBLE AND UNLESS OTHERWISE DIRECTED BY ENGINEER, PERMISSIBLE CONSTRUCTION JOINTS SHALL FALL ON STRIPING LINES AS SHOWN ON STRIPING DETAILS.

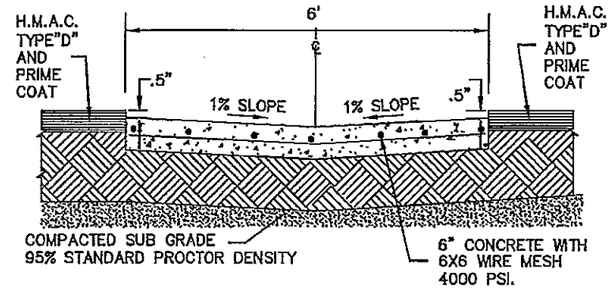
ALL GRADING SHALL BE WITHIN R.O.W. LIMITS

WHERE REQUIRED BY FIXTURES OR UNUSUAL CONDITIONS THE GOVERNING SLOPES MAY BE VARIED WHEN SPECIFICALLY DIRECTED BY THE ENGINEER.

THE SUBGRADE SHALL BE SHAPED AND BLADED. THE COMPLETE BASE SHALL BE ROLLED BEFORE THE EARTH SHOULDER IS SHAPED, AND FINAL COMPACT WILL BE DONE OVER AND EDGE OF SHOULDER.

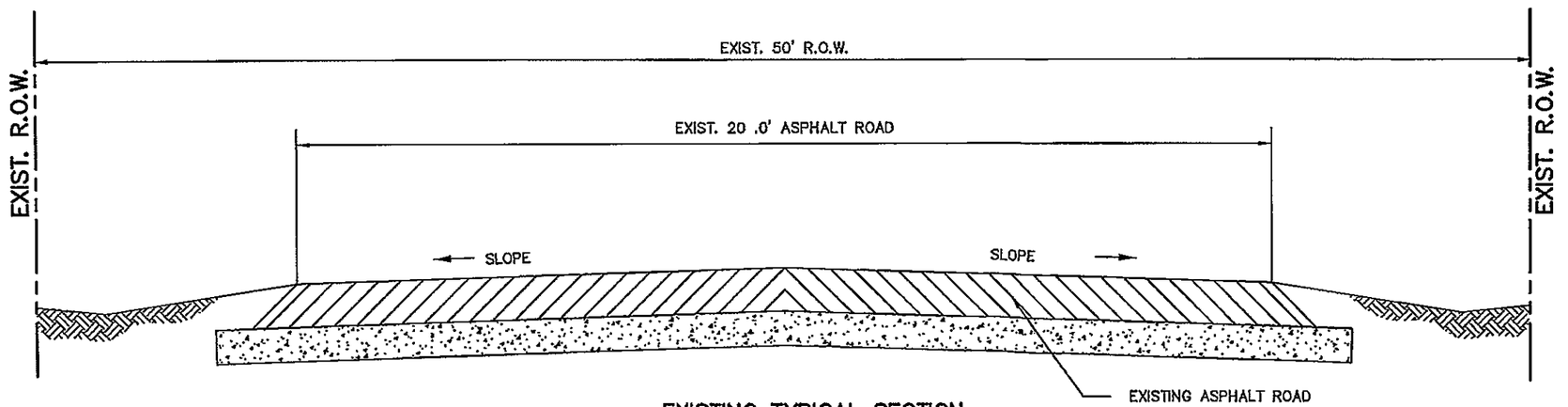
LAS BRISAS ESTATES

LAS BRISAS CIRCLE	CSJ# 3C1080406	STA. 10+00.00 TO STA. 22+16.56	12+16.56 STAS.
LAS BRISAS LANE	CSJ# 3C1080406	STA. 10+00.00 TO STA. 11+65.00	1+65.00 STAS.



CURB & GUTTER AND VALLEY GUTTER DETAIL

N.T.S.



EXISTING TYPICAL SECTION

N.T.S.

STATE OF TEXAS
JOSE E. SAENZ
62553
REGISTERED PROFESSIONAL ENGINEER

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JOSE E. SAENZ-REGISTRATION NO. 62553
TBPE FIRM REGISTRATION No. F1273
JUNE 2009

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EDINBURG, TEXAS 78540 FAX (956) 383-3738

HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
PROPOSED TYPICAL SECTION

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:	6	TEXAS	ENG. 08 008	
DW:	STATE DIST No.	COUNTY	CSJ#	SHEET NO.
CK DW:	29	HIDALGO	3C1080406	04
TR:				
CK TR:				

ROADWAYS PROJECT QUANTITIES

LAS BRISAS ESTATES

LAS BRISAS CIRCLE CSJ # 3C1080406		LAS BRISAS LANE CSJ # 3C1080406					TOTAL	
EST.	FIN.	EST.	FIN.	ITEM	UNIT	DESCRIPTION	EST.	FIN.
11+75		1+51		100	STA	PREPARING R.O.W.	13+26	
4994		780		152	SY	ROAD GRADER WORK (DENS CONT.) (SALVAGE MATERIAL)	5774	
4840		756		247	SY	FLEXIBLE BASE (COMPL IN PLAC)	5596	
24		4		260	TONS	LIME TREATMENT FOR BASE COURSE (ROAD MIXED)	28	
4128		645		340	SY	DENSE-GRADED HOT-MIX ASPH CONC TY D	4773	
826		129		310	GAL	PRIME COAT ASPH MATRL (MC-30)	955	
1		0		500	LS	MOBILIZATION	1	
1		1		502	MO	BARRICADES, SIGNS AND TRAFFIC HANDLING	2	
1		0		530	EA	TURNOUTS (ASPH CONC PAV) (PB-1)	1	
25		4		275	TONS	CEMENT FOR SUBGRADE (ROAD MIXED)	29	

DRAINAGE PROJECT QUANTITIES

LAS BRISAS CIRCLE CSJ # 3C1080406		LAS BRISAS LANE CSJ # 3C1080406					TOTAL	
EST.	FIN.	EST.	FIN.	ITEM	UNIT	DESCRIPTION	EST.	FIN.
114		0		402	LF	TRENCH EXCAVATION PROTECTION	114	
45		0		464	LF	18" RCP STORM DRAIN CL III	45	
617		0		464	LF	24" RCP STORM DRAIN CL III	609	
2		0		465	EA	6' x 4' TYPE A CURB INLET (COMPL IN PLACE)	2	
2		0		465	EA	48" DIA. CONCRETE MANHOLE (COMPL IN PLACE)	2	
0		0		529	LF	18" x 12" CONCRETE CURB & GUTTER (REMOVE EXIST)	0	
2506		295		529	LF	18" x 12" CONCRETE CURB & GUTTER	2301	
382		0		464	LF	18" RCP STORM DRAIN CL III (REMOVE EXISTING)	382	
2		0			EA	SAFETY END TREATMENT	2	
136		0		506	LF	TEMP SEDMT CONT FENCE	136	
136		0		506	LF	TEMP SEDMT CONT FENCE (REMOVE)	136	
0		28		0	SY	6' VALLEY GUTTER	28	

NOTES:

-TEMPORARY RELOCATION AND REPLACING TO PERMANENT LOCATION OF MAILBOXES AND CONCRETE DRIVEWAYS WILL BE SUBSIDIARY TO ITEM 100.

-DRIVEWAY BIDS SHALL INCLUDE ASPAHLT, FLEX BASE AND SUBGRADE ITEMS.

STATE OF TEXAS
JOSE E. SAENZ
62553
REGISTERED PROFESSIONAL ENGINEER
6/11/09

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JUNE 2009

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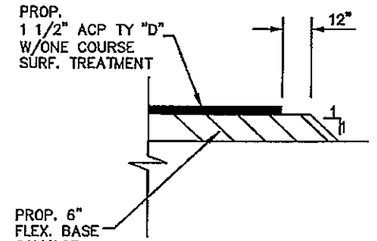
HIDALGO COLONIA ACCESS PROJECTS
THIRD ROUND ALLOCATION FUNDING
ESTIMATE AND QUANTITY

DN	FED. RD DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN	6	TEXAS	ENG. 08 008	
DW	STATE DIST No.	COUNTY	SECT. NO.	SHEET NO.
CK DW	29	HIDALGO	3C1080406	05
TR				
CK TR				

DRIVEWAY – CSJ: 3C1080406										
DRIVEWAY ID #	STATION	EXIST. DRIVEWAY WIDTH	PROP WIDTH @ CURB & GUTTER	PROP WIDTH @ R.O.W. LINE	EXIST. DRIVEWAY MATERIAL	ITEM 530 ACP DRWY AREA (SY)			ITEM 247 FLEX BASE 4"	ITEM 530 (4") CONC. DRIVEWAYS
		(FT)	(FT)	(FT)	(FT)	P1	PRB–1	PB–1	(CY)	(SY)
LAS BRISAS ESTATES										
1	10+72.05 RT	9.2	15.0	9.0	ASPHALT	–	14.0	–		
2	12+29.77 LT	14.0	24.0	14.0	ASPHALT	–	22.1	–		
3	12+57.04 RT	12.1	15.0	12.0	ASPHALT	–	15.8	–		
4	13+52.99 RT	17.5	25.5	18.0	ASPHALT	–	22.5	–		
5	13+75.66 LT	27.5	24.0	24.0	ASPHALT	–	28.0	–		
6	14+07.20 RT	15.7	21.0	16.0	ASPHALT	–	21.6	–		
7	14+45.65 LT	30.0	24.0	24.0	ASPHALT	–	28.0	–		
8	15+778.81 RT	11.8	14.0	12.0	ASPHALT	–	15.2	–		
9	17+64.60 RT	15.6	18.0	16.0	CONCRETE	–		–		19.8
10	17+98.00 LT	11.3	13.0	12.0	ASPHALT	–	14.6	–		
11	18+55.63 LT	11.9	13.0	12.0	ASPHALT	–	14.6	–		
12	18+78.21 RT	33.6	24.0	24.0	CONCRETE	–		–		28.0
13	19+58.33 LT	10.1	11.0	10.0	CONCRETE	–		–		12.2
14	19+93.84 RT	13.5	15.0	14.0	CONCRETE	–		–		16.9
15	20+34.68 LT	11.7	13.0	12.0	ASPHALT	–	14.6	–		
16	20+67.17 RT	10.5	12.0	11.0	ASPHALT	–	13.4	–		
17	21+57.62 RT	14.2	39.0	14.0	ASPHALT	–	18.2	–		
18	21+68.52 LT	25.0	39.0	25.0	ASPHALT	–	32.1	–		
19	22+01.21 RT	20.0	39.0	20.0	ASPHALT	–	26.9	–		
20	10+92.80 LT	11.50	38.0	12.0	CONCRETE	–		–		15.1
21	10+99.39 RT	10.9	13.0	11.0	ASPHALT	–	14.0	–		
22	11+34.11 RT	8.0	10.0	8.0	ASPHALT	–	10.5	–		
TOTALS							326.1			92.0



DRIVEWAY TYPICAL SECTION
FOR ASPHALT PAVEMENT
N.T.S.

FOR REVIEW
PRELIMINARY
90% SUBMITTAL
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JOSE E. SAENZ–REGISTRATION NO. 62553
TBPE FIRM REGISTRATION No. F1273
JUNE 2009

STATE OF TEXAS
JOSE E. SAENZ
62553
REGISTERED
PROFESSIONAL ENGINEER

TEXAS DEPARTMENT OF TRANSPORTATION

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P.O. BOX 3293
EDINBURG, TEXAS 78540
TEL. (956) 383-2984
FAX (956) 383-3738

HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
LAS BRISAS CIRCLE
DRIVEWAY SUMMARY TABLE

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:				
DW:	x	TEXAS	ENG. 08.008	
CK DW:	STATE DIST No.	COUNTY	CSJ#	SHEET NO.
TR:				
CK TR:	29	HIDALGO	3C1080406	5A

GENERAL NOTES

1.– THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL. ALL WORK AND MATERIALS REQUIRED FOR TRAFFIC HANDLING SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED PART OF ITEM 502, "BARRICADES, SIGNS, AND TRAFFIC HANDLING". ALL BARRICADES AND SIGNS TO REPLACE DAMAGED ONES.

2.– FLASHING WARNING LIGHTS AND/OR FLAGS SHALL BE USED TO CALL ATTENTION TO THE EARLY WARNING SIGNS.

3.– STEADY BURN (TY C) WARNING LIGHTS SHALL BE USED TO MARK CHANNELIZING DEVICES AT NIGHT AS NEEDED.

4.– ADDITIONAL SIGNS, BARRICADES AND/OR OTHER CHANNELIZING DEVICES MAY BE REQUIRED AND/OR ADJUSTED AS DIRECTED BY THE ENGINEER.

5.– SIGN AND/OR BARRICADE LOCATIONS SHALL BE IN ACCORDANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND/OR THE BACK OF CURB STANDARD SHEETS.

6.– EXISTING CONNECTING ROADS AND PRIVATE DRIVES SHALL BE KEPT OPEN TO TRAFFIC AT ALL TIMES, EXCEPT AS OTHERWISE PROVIDED FOR OR APPROVED BY THE ENGINEER.

7.– ALL STRIPING AND SIGNING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE "T.M.U.T.C.D."

8.– WHEN CONSTRUCTION OPERATIONS RESULT IN A DROP OF MORE THAN 2" NEXT TO TRAVEL WAY, A 3:1 SLOPE OR 4.0' BUFFER ZONE WILL BE REQUIRED DURING NON WORKING HOURS.

9.– FOR POSTED SPEEDS EXCEEDING 45 M.P.H., ADVISORY SPEED SIGNS WITH APPROPRIATE WARNINGS SIGNS SHALL BE POSTED IN THE VICINITY OF SPECIFIED WORK ZONES WITHIN THE PROJECT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

10.– LENGTH AND SPACING OF CHANNELIZING DEVICES SHALL BE AS SHOWN ON THE BC STANDARDS AND THE "T.M.U.T.C.D." OTHER SIGNS MAY BE USED IN ADDITION TO THOSE REQUIRED BY BARRICADE STANDARDS.

11.– NON–REMOVEABLE WORK ZONE STRIPING FOR THIS PROJECT REQUIRED BY THE "T.M.U.T.C.D." SHALL CONSIST OF THERMOPLASTIC MATERIAL AND SHALL BE IN ACCORDANCE WITH THE "WORK ZONE PAVEMENT MARKINGS" STANDARD WZ(STPM)–97.

12.– ALL WORK SHALL BE DONE EXPEDITIOUSLY DURING DAYLIGHT HOURS, AS DIRECTED BY THE ENGINEER. NECESSARY FLAGGERS AND APPROPRIATE SIGNING TO SAFELY GUIDE TRAFFIC THROUGH THE WORK AREA WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

13.– REFER TO STANDARD SHEETS BC(1)–03 THRU BC(12)–03 FOR OTHER PERTINENT INFORMATION NOT SHOWN.

14.– THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF ITEM, "LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC" OF THE STANDARD SPECIFICATION AND TO SPECIAL PROVISION "DETOUR, BARRICADES, WARNING SIGNS, SEQUENCE OF WORK, ETC."

16.–REFER TO STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES (JUNE 1, 2004 EDITION) TO SEE COMPACTION REQUIREMENTS FOR BASE COURSES ALSO SHOWED IN PROPOSED TYPICAL SECTION OF EACH COLONIA (SHEETS 04–A TO 04–C).

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TBPE FIRM REGISTRATION No. F1273
JUNE 2009

STATE OF TEXAS
JOSE E. SAENZ
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REGISTERED
PROFESSIONAL ENGINEER
06/11/09

TEXAS DEPARTMENT OF TRANSPORTATION

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HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
GENERAL NOTES

DN:	FED. RD DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:	6	TEXAS	ENG. 08 008	
DW:	STATE DIST. NO.	COUNTY	CSJ#	SHEET NO.
CK DW:	29	HIDALGO	3C1080406	06
TR:				
CK TR:				

I:\JESAENZ\ENGPROJS\ENG2008\ENG 08 008\04 - LAS RANAS\dwg\SH-08 HIDALGO_GLNLNAL NOTES LAS

TRAFFIC CONTROL NARRATIVE

SEQUENCE OF WORK

INSTALL PROJECT LIMIT SIGNS, ADVANCE WARNING SIGNS, AND CROSSROAD BARRICADE SIGNS AS SHOWN ON THE TRAFFIC CONTROL PLAN (TCP) AND OR AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD, AND SHALL BE IN PLACE PRIOR TO COMMENCING ANY CONSTRUCTION. THE SIGNS WILL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT AND UNTIL COMPLETION AND ACCEPTANCE OF THE PROJECT BY TxDOT.

PHASE I

INSTALL ALL SW3P DEVICES ACCORDING TO THE SW3P PLAN AND STANDARDS.
ADJUST ALL UTILITIES THAT ARE IN CONFLICT WITH THE PROPOSED CONSTRUCTION.
INSTALL PROPOSED DRAINAGE ROADWAY CROSS CULVERTS AND DRIVEWAY/COUNTY ROADSIDE DRAINS AS SHOWN IN THE PLANS.
THE EXISTING STORM SEWER SYSTEM SHALL BE REMOVED AND REPLACE.
INSTALL PROPOSED NEW STORM SEWER SYSTEM AS SHOWN IN THE PLANS.
THE PROPOSED STORM SEWER SYSTEM SHALL BE CONNECTED WITH A DROP MANHOLE IN EXISTING STORM SEWER SYSTEM LOCATED IN ALBERTA ROAD .

CONTRACTOR SHALL MAINTAIN 3:1 MAXIMUM SLOPE ADJACENT TO THE ROADWAY TRAVEL SURFACE EXCAVATED MATERIAL SHALL BE SALVAGED AND USED THROUGHOUT THE PROJECT AS DIRECTED BY THE ENGINEER.

PHASE II

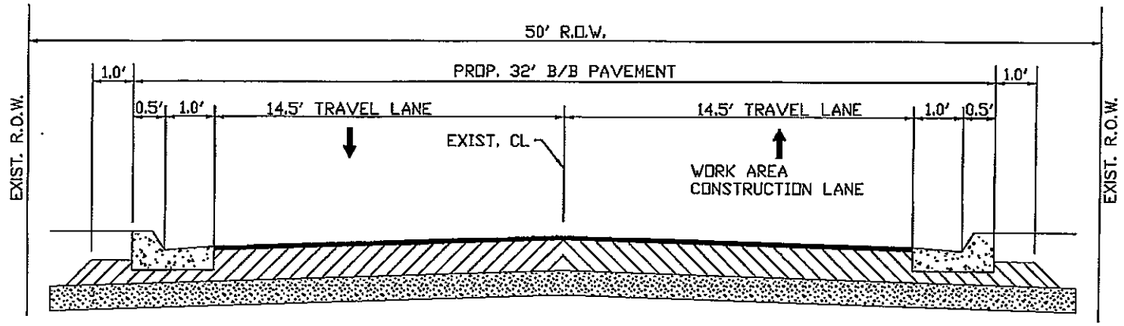
CONSTRUCT PROPOSED ROADWAY IN HALF-SECTIONS, AND ACCORDING TO TCP STANDARD 7/32 TCP (1-2)-98 9/32. THE CONTRACTOR WILL BE REQUIRED TO OPEN UP THE ROADWAY TO TRAFFIC AT THE END OF DAYS WORK. THE CONTRACTOR SHALL ENSURE THAT ALL DROP OFF CONDITIONS ARE SAFE AND IN ACCORDANCE WITH THE MUTCD AND TxDOT TCP STANDARDS. CONTRACTOR SHALL BE ALLOWED TO WORK ON SEVERAL STREETS AT ONE TIME AS LONG AS ACCESS IS MAINTAINED AT THE END OF DAYS WORK.

PHASE III

PLACE FINAL OVERLAY IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. COMPLETE ROADWAY DITCH SLOPE GRADES TO MATCH THE TOP EDGE OF THE ACP PAVEMENT.

FINAL CLEAN UP

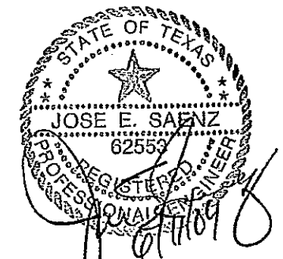
UPON COMPLETION OF THE WORK AND BEFORE THE FINAL ACCEPTANCE IS MADE, THE CONTRACTOR SHALL SHAPE AND FINISH SUCH PORTIONS OF THE RIGHT-OF-WAY AS MAY HAVE BEEN DISTURBED DURING THE CONSTRUCTION AND WILL BE REQUIRED TO LEAVE THE ENTIRE RIGHT-OF-WAY IN A SMOOTH, CLEAN AND NEAT CONDITIONS TO THE SATISFACTION OF THE ENGINEER.



TYPICAL WORK CROSS-SECTION
N.T.S.

NOTES:

1. THE CONTRACTOR WILL PHASE CONSTRUCTION SO THAT ONE TRAVEL LANE OF TEN FT. IN WIDTH, MINIMUM, IS MAINTAINED OPEN TO LOCAL TRAFFIC AT ALL TIMES.
2. THE CONTRACTOR WILL COORDINATE WITH HOMEOWNERS WHEN RECONSTRUCTING ENTRANCES SO THAT ACCESS IS REASONABLY AVAILABLE AT ALL TIMES.
3. THE CONTRACTOR WILL ENSURE THAT AT NO TIME WILL THERE BE A STRAIGHT DROP GREATER THEN SIX INCH BETWEEN EXISTING TRAVEL LANES
4. IF THE GRADE CHANGE BETWEEN THE EXISTING LANE AND THE CONSTRUCTION LANE IS GREATER THEN TWO INCHES, THE CONTRACTOR WILL ENSURE THAT A TRANSITION SLOPE OF 3' TO 1' IS MAINTAINED THROUGHOUT THE WORK AREA.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL THOUGH THE WORK AREA AT ALL TIMES, MORE ESPECIALLY AT TIMES WHEN THERE IS ONLY ONE TRAVEL LANE OPEN TO LOCAL TRAFFIC.



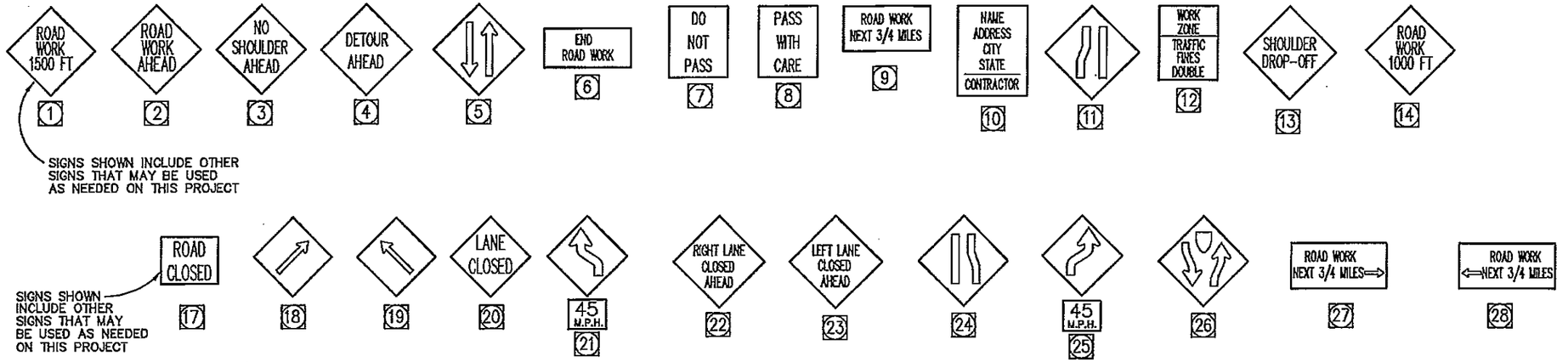
FOR REVIEW
PRELIMINARY
90% SUBMITTAL
NOT FOR REGULATORY APPROVAL PERMITTING, OR CONSTRUCTION
JOSE E. SAENZ-REGISTRATION NO. 62553
TBPE FIRM REGISTRATION No. F1273
JUNE 2009

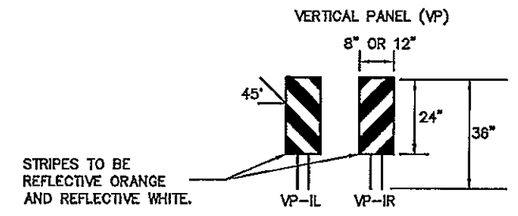
TEXAS DEPARTMENT OF TRANSPORTATION

J.E. SAENZ & ASSOCIATES, INC.
P.O. BOX 3293 · TEL. (956) 383-2984
EDINBURG, TEXAS 78540 FAX (956) 383-3736

HIDALGO COLONIA ACCESS PROJECTS
THIRD ROUND ALLOCATION FUNDING
TRAFFIC CONTROL NOTES
& TYPICAL SECTION

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:				
DW:	6	TEXAS	ENG. 08 008	
CK DW:	STATE DIST. NO.	COUNTY	CSJ#	SHEET NO.
TR:				
CK TR:	29	HIDALGO	3C1080406	7-A





GENERAL NOTES:

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF ITEM 7, TxDOT 1993 STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES. "LEGAL REGULATIONS AND RESPONSIBILITIES TO THE PUBLIC" OF THE STANDARD SPECIFICATIONS.

THE PORTION OF THIS PROJECT WHICH COINCIDES WITH EXISTING ROADS AND/OR PRIVATE DRIVES SHALL BE KEPT OPEN TO THE TRAFFIC AT ALL TIMES, UNLESS OTHERWISE PROVIDED FOR OR APPROVED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN AT ALL TIMES A TWO WAY ROADWAY AS SHOWN ON THE TYPICAL SECTIONS FOR THE TRAFFIC CONTROL PLAN SHEETS.

WHEN CONNECTING PROPOSED ROADWAY AND/OR DETOUR TO SECTIONS OF EXISTING PAVEMENT BEING USED BY TRAFFIC AND SUCH OPERATIONS RESULTS IN A DROP-OFF OF MORE THAN 2-INCHES, A 3:1 SLOPE WITH VERTICAL PANELS AND A 4-FOOT BUFFER ZONE WILL BE REQUIRED. THIS WORK SHALL BE DONE EXPEDITIOUSLY DURING DAYLIGHT HOURS.

NECESSARY FLAGGERS AND APPROPRIATE SIGNING TO SAFELY GUIDE TRAFFIC THROUGH THE WORK AREA WILL BE REQUIRED AS DIRECTED AND/OR APPROVED BY THE ENGINEER.

ADEQUATE SIGNS AND BARRICADES SHALL BE INSTALLED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO OPENING ANY SECTION TO TRAFFIC. OTHER SIGNS MAY BE USED IN ADDITION TO THOSE REQUIRED BY THE BARRICADE STANDARDS.

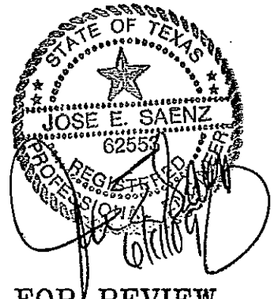
THE CONTRACTOR SHALL HAVE AT ALL TIMES ENOUGH BARRICADES AND SIGNS ON HAND TO REPLACE THOSE DAMAGED.

CHANNELIZING DEVICES SHALL BE REQUIRED ALONG THE EDGE OF THE PORTIONS OF THE ROADWAY OPEN TO TRAFFIC.

ALL WORK AND MATERIALS REQUIRED FOR CONSTRUCTION OF DETOURS WILL NOT BE PAID FOR DIRECTLY.

STOP SIGNS OF INTERSECTION STREETS SHALL BE ADJUSTED DURING THE VARIOUS CONSTRUCTION PHASES. ALL EXISTING REGULATORY SIGNS SHALL NOT BE REMOVED UNTIL TEMPORARY SIGN SUPPORTS HAVE BEEN INSTALLED TO ALLOW FOR IMMEDIATE REPLACEMENT OF PROPOSED RELOCATED SIGNS.

EXCAVATED MATERIAL SHALL BE HANDLED BY CONTRACTOR IN SUCH A WAY THAT IT SHALL NOT BLOCK DRAINAGE.



FOR REVIEW
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JOSE E. SAENZ-REGISTRATION NO. 62553
TBPE FIRM REGISTRATION No. F1273
JUNE 2009

TEXAS DEPARTMENT OF TRANSPORTATION

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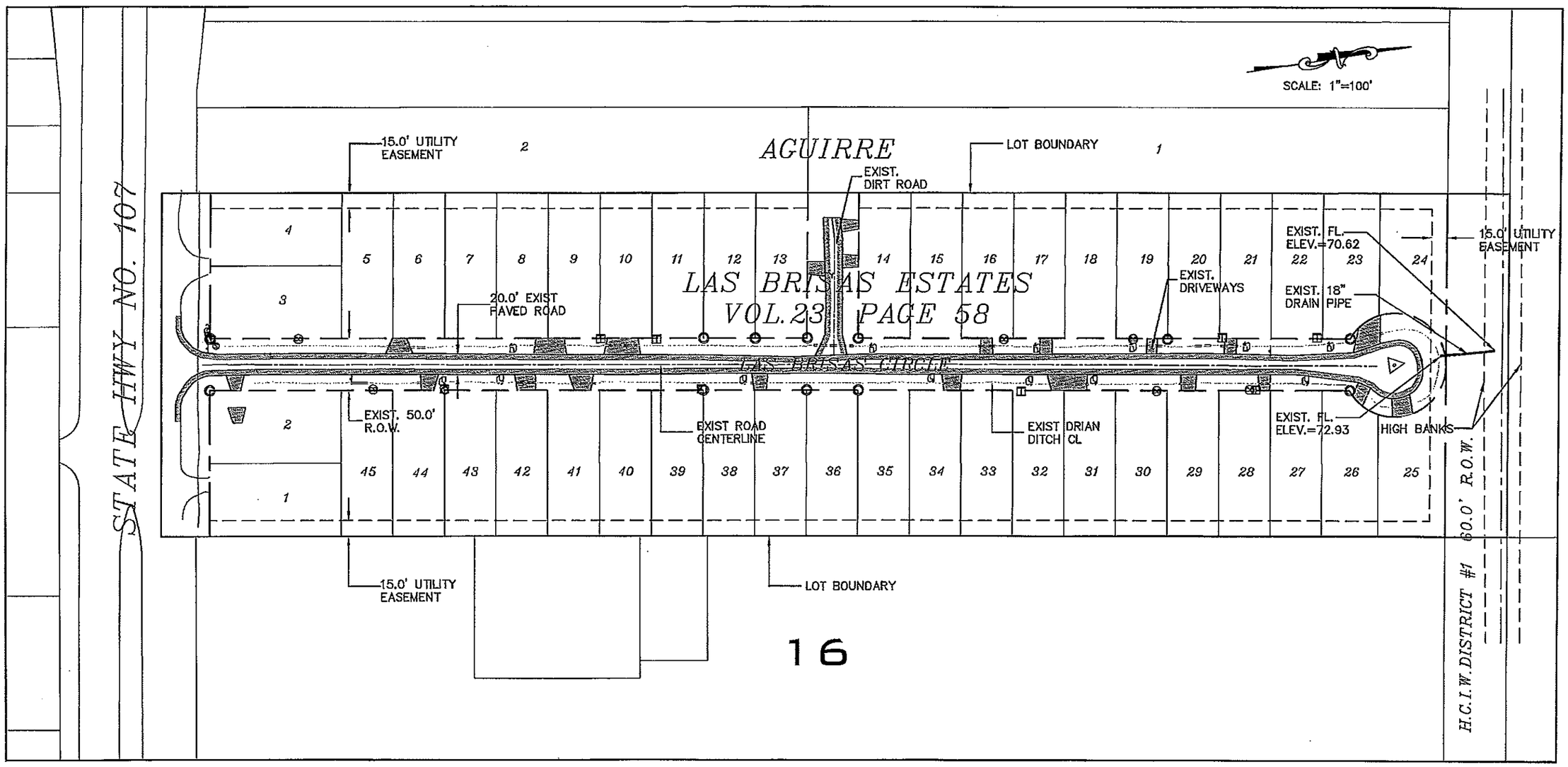
P.O. BOX 3293 TEL. (956) 383-2984
EDINBURG, TEXAS 78540 FAX (956) 383-3736

HIDALGO COLONIA ACCESS PROJECTS THIRD ROUND ALLOCATION FUNDING TRAFFIC CONTROL DETAILS

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:	6	TEXAS	ENG. 08 008	
DW:	STATE DIST. NO.	COUNTY	CSJ#	SHEET NO.
CK DW:	29	HIDALGO	3C1080406	07-B
TR:				
CK TR:				



CONSTRUCTION NOTES:

1) CONTRACTOR TO CALL 1-800-DIG TESS FOR VERIFICATION OF ALL UTILITY LOCATIONS BEFORE ANY CONSTRUCTION.

2) ONLY UTILITIES FOR WHICH INFORMATION WAS AVAILABLE ARE SHOWN. LOCATIONS AND ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES FOR VERIFICATION OF LOCATIONS PRIOR TO COMMENCEMENT OF WORK.

3) CONTRACTOR SHALL VERIFY UTILITY LOCATIONS WITH OWNER.

LEGEND

WM	WATER METER		SIGN
O	IRON ROD		POWER POLE
	TELEPHONE PEDESTAL	CO	CLEAN OUT
	MAILBOX	S	SANITARY SEWER
			EXISTING DRIVEWAYS

NOTE: SYMBOLS ARE DRAWN N.T.S. SO THEY MAY BE LEGIBLE.

STATE OF TEXAS
JOSE E. SAENZ
62553
REGISTERED PROFESSIONAL ENGINEER

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JOSE E. SAENZ-REGISTRATION NO. 62553
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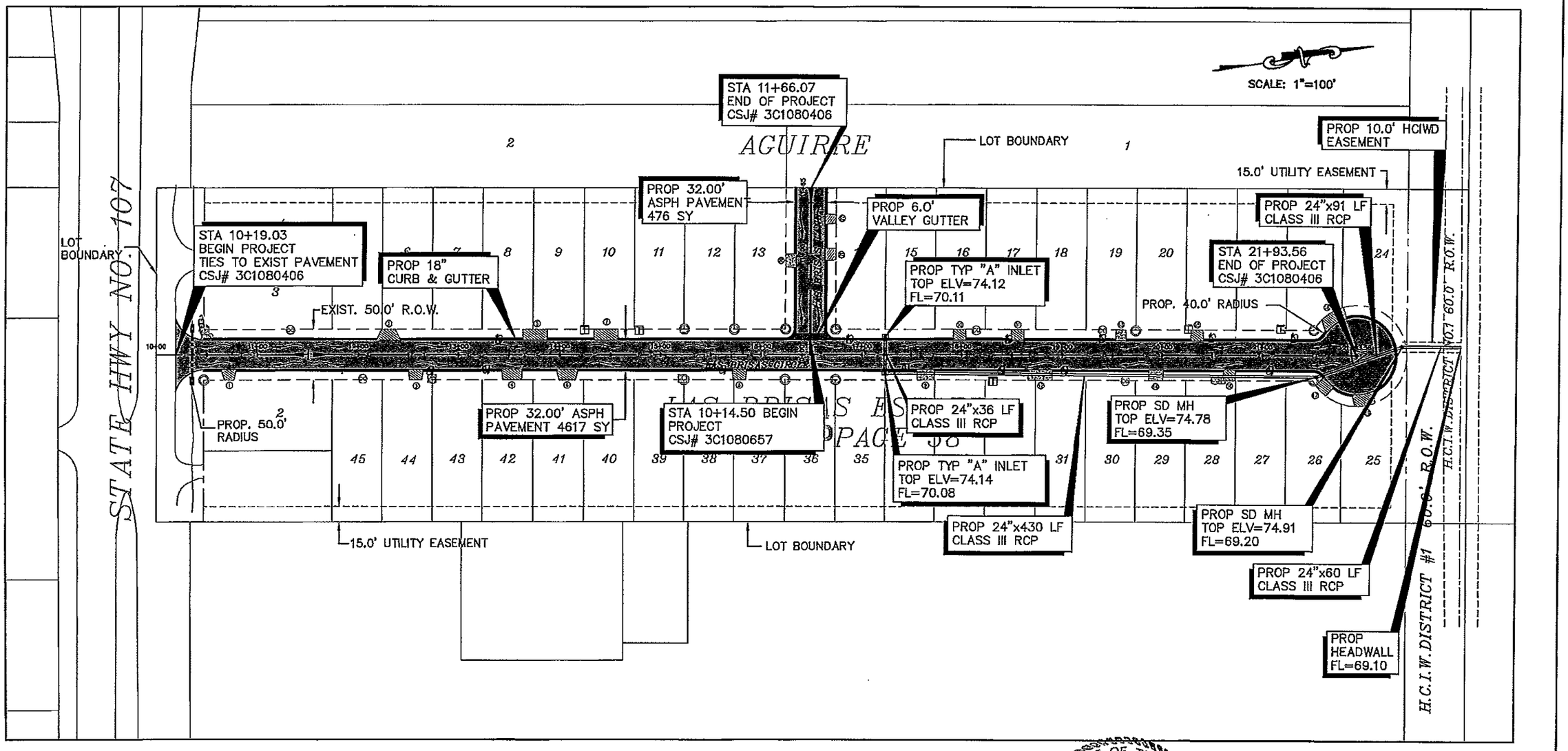
EDINBURG, TEXAS 78540 FAX (956) 383-3738

HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
LAS BRISAS ESTATES
LAS BRISAS CIRCLE
AND LAS BRISAS LANE
EXISTING CONDITIONS

DN	FED. RD. DIV. NO.	STATE	PROJECT NO.		HIGHWAY NO.
CK DN	6	TEXAS	ENG. 08.008		
DW	STATE DIST. No.	COUNTY	CSJ#		SHEET NO.
CK DW	21	HIDALGO	3C1080406		08-A
TR					
CK TR					



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LEGEND

WATER METER		SIGN	
IRON ROD		POWER POLE	
TELEPHONE PEDESTAL		CLEAN OUT	
MAILBOX		SANITARY SEWER	
PROP CONC DRIVEWAYS		PROP ASPHALT DRIVEWAYS	
		DRAINAGE FLOW DIRECTION	

NOTE: SYMBOLS ARE DRAWN N.T.S. SO THEY MAY BE LEGIBLE.

STATE OF TEXAS
JOSE E. SAENZ
62553
REGISTERED PROFESSIONAL ENGINEER

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TBPE FIRM REGISTRATION No. F1273
JUNE 2009

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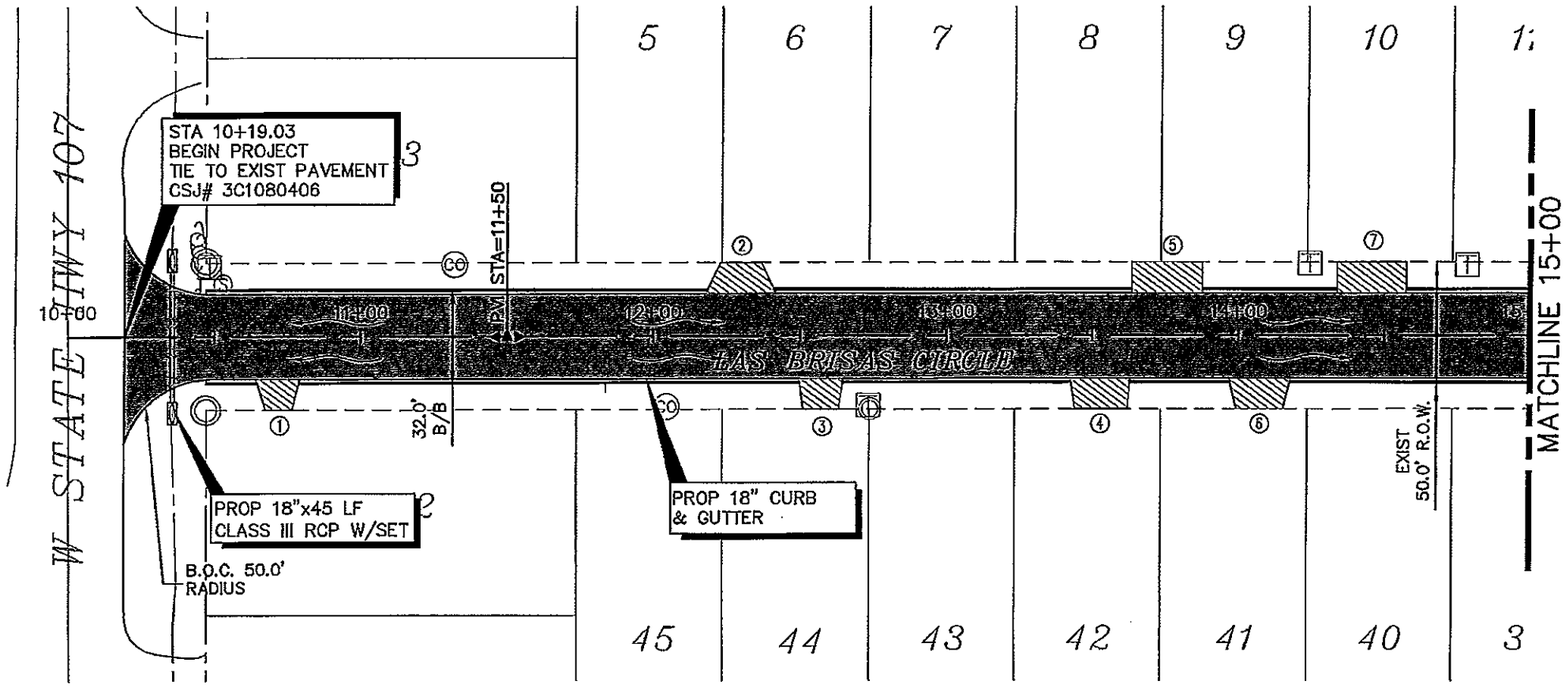
EDINBURG, TEXAS 78540 FAX (956) 383-3738

HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
LAS BRISAS CIRCLE &
LAS BRISAS LANE
PROPOSED ROAD SECTIONS

	FED. RD DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
DN:	6	TEXAS	ENG. 08. 009	
CK:	STATE DIST. No.	COUNTY	CSJ#	SHEET NO.
TR:	21	HIDALGO	3C1080406	08-2



SCALE: 1"=50'
HORIZ. SCALE; 1"=50'
VERT. ELEV. SCALE; 1"=5'

LEGEND

WATER METER	SIGN
IRON ROD	POWER POLE
TELEPHONE PEDESTAL	CLEAN OUT
MAILBOX	SANITARY SEWER
PROP CONC DRIVEWAYS	PROP ASPHALT DRIVEWAYS
	DRAINAGE FLOW DIRECTION

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NOTES:
1. MAILBOXES TO BE ADJUSTED AS NEEDED.
2. ADJUST SANITARY SEWERS AS NEEDED.
3. ADJUST WATER VALVES AS NEEDED.

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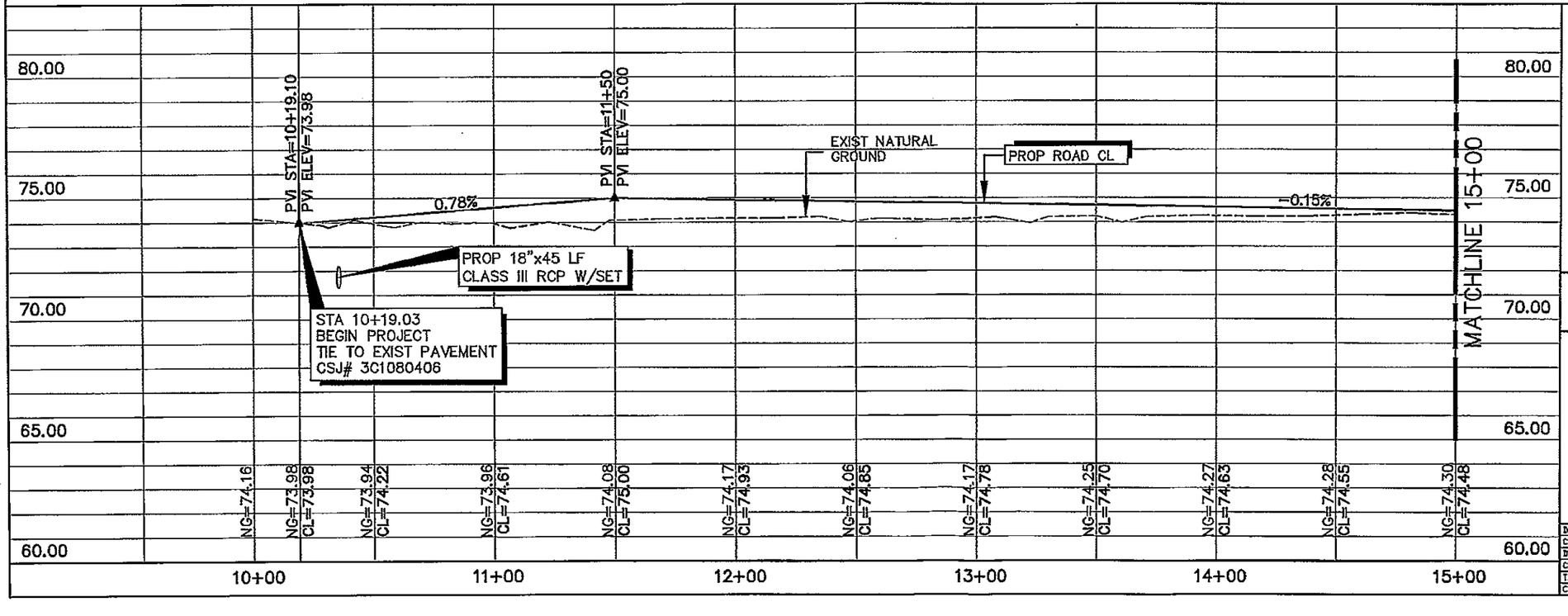

STATE OF TEXAS
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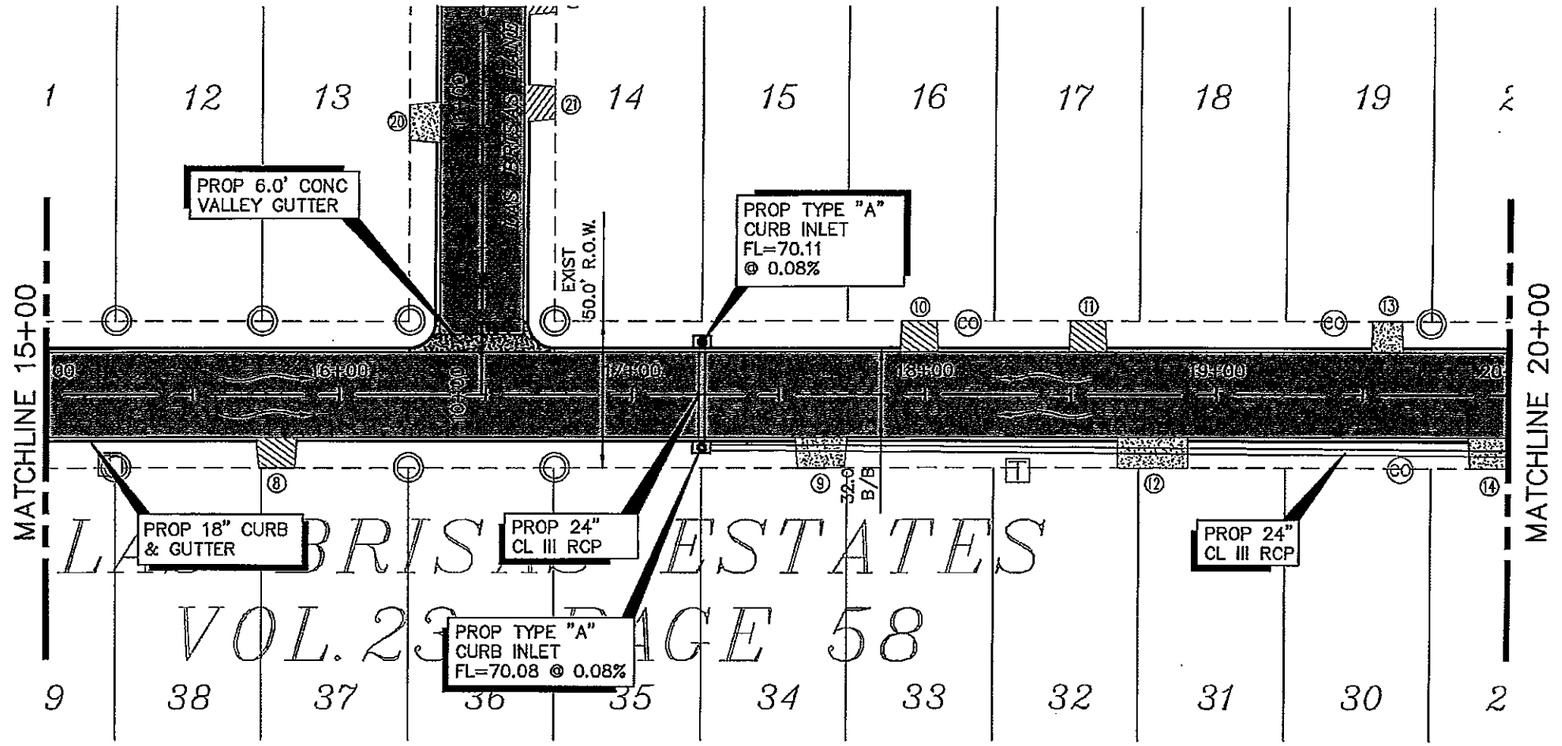
HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
LAS BRISAS CIRCLE
PLAN AND PROFILE

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:	6	TEXAS	ENG. 09.008	
DW:	STATE DIST. No.	COUNTY	CSJ#	SHEET NO.
CK DW:	21	HIDALGO	3C1080406	09
TR:				
CK TR:				



SCALE: 1"=50'
HORIZ. SCALE; 1"=50'
VERT. ELEV. SCALE; 1"=5'

LEGEND

WATER METER	SIGN
IRON ROD	POWER POLE
TELEPHONE PEDESTAL	CLEAN OUT
MAILBOX	SANITARY SEWER
PROP CONC DRIVEWAYS	PROP ASPHALT DRIVEWAYS
	DRAINAGE FLOW DIRECTION

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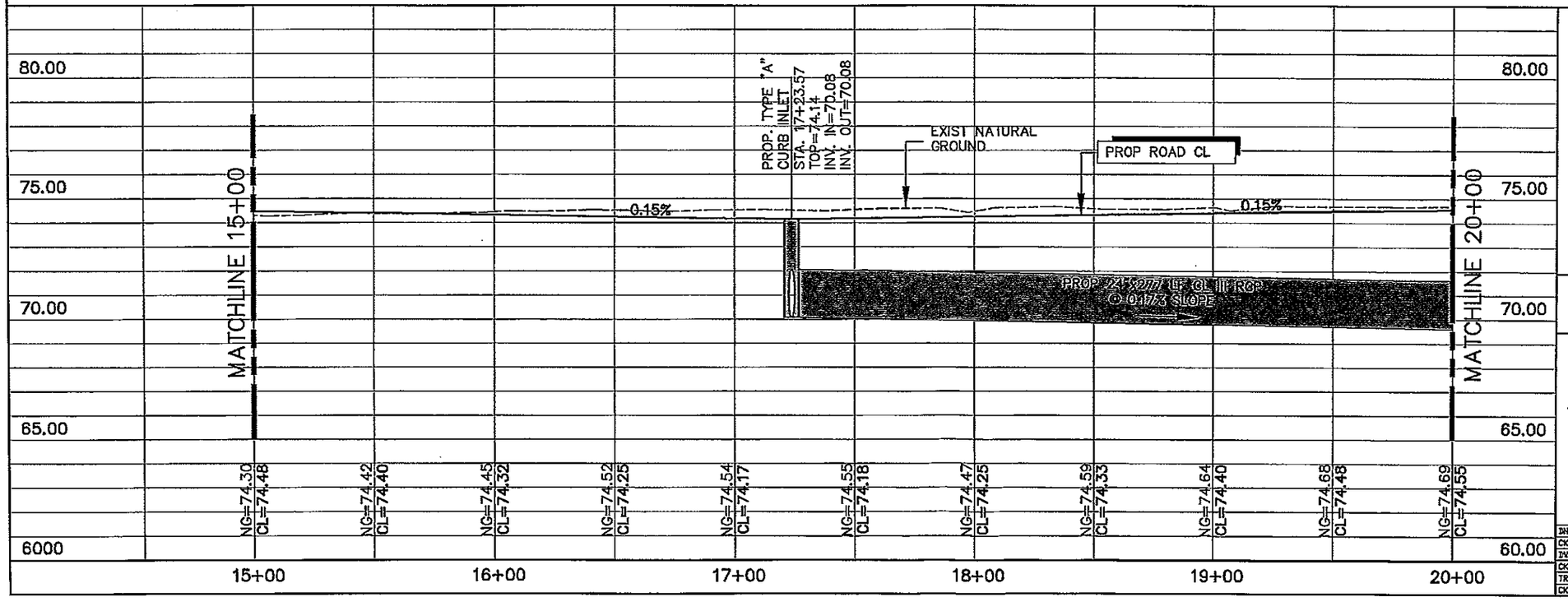

STATE OF TEXAS
JOSE E. SAENZ
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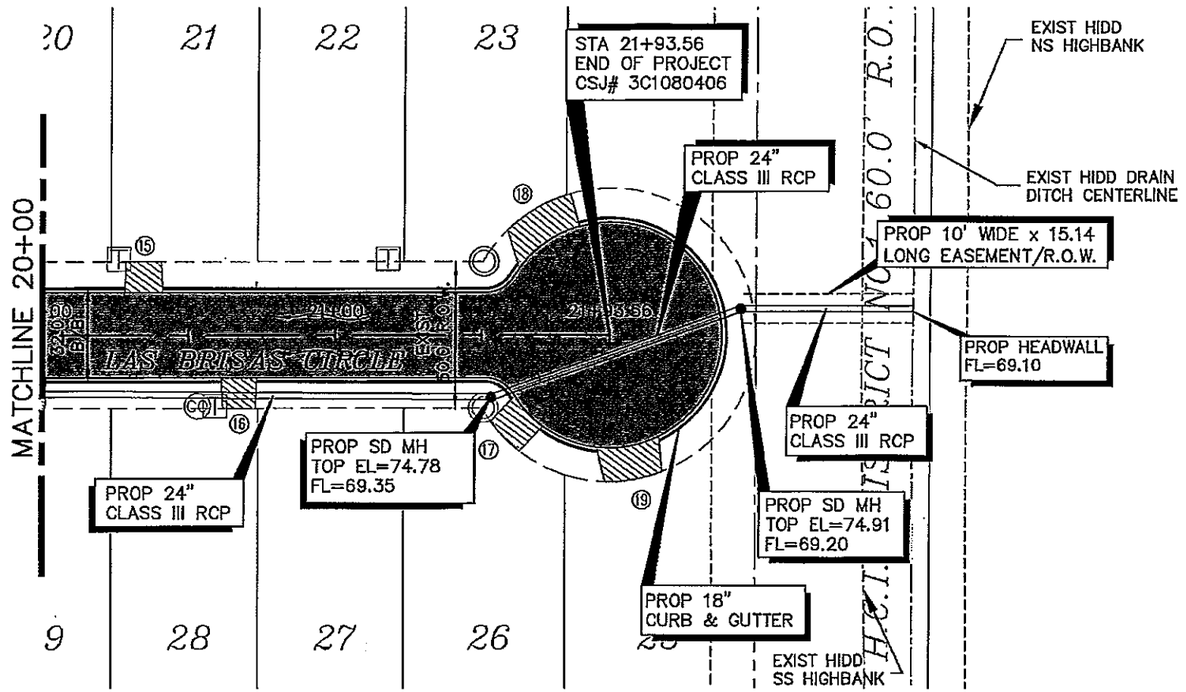
HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
LAS BRISAS CIRCLE
PLAN AND PROFILE

DN	FED. RD DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN	6	TEXAS	ENG. 08, 009	
DW	STATE DIST. No.	COUNTY	CSJ#	SHEET NO.
CK DW	21	HIDALGO	3C1080406	10
TR				
CK TR				



SCALE: 1"=50'
HORIZ. SCALE; 1"=50'
VERT. ELEV. SCALE; 1"=5'

LEGEND

WATER METER	SIGN
IRON ROD	POWER POLE
TELEPHONE PEDESTAL	CLEAN OUT
MAILBOX	SANITARY SEWER
PROP CONC DRIVEWAYS	PROP ASPHALT DRIVEWAYS
	DRAINAGE FLOW DIRECTION

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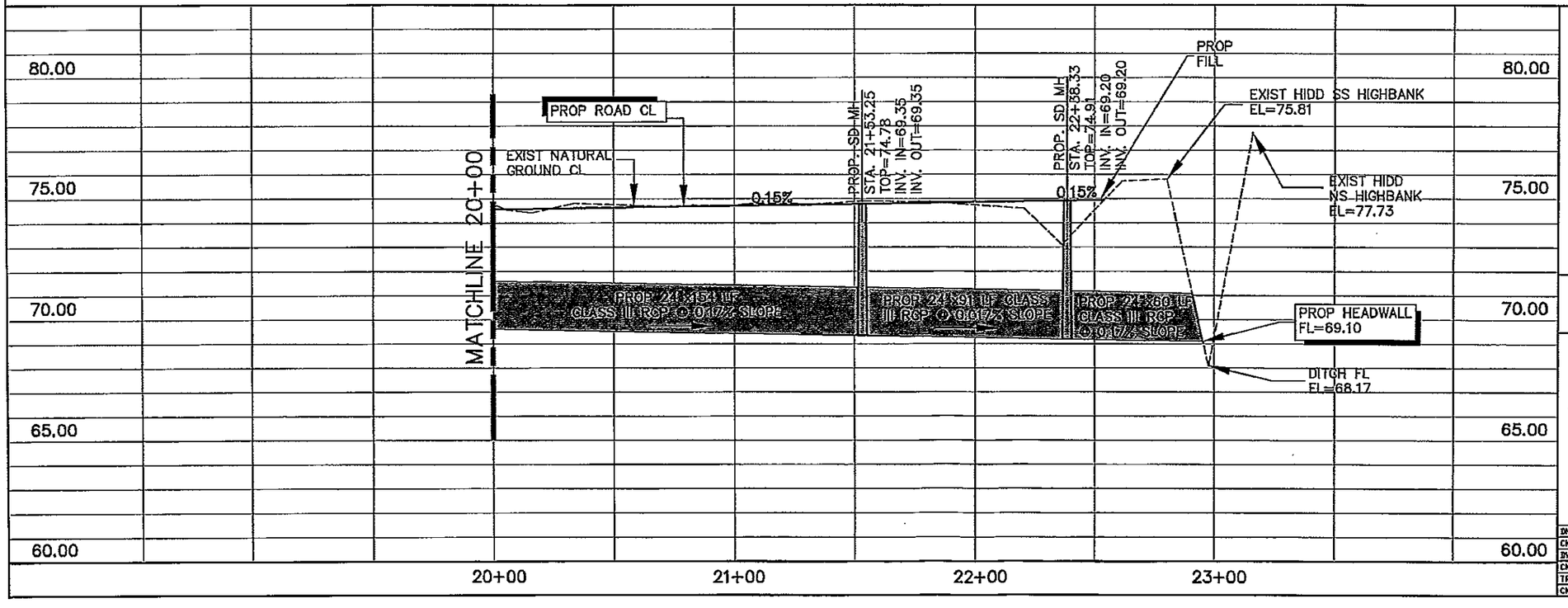

STATE OF TEXAS
JOSE E. SAENZ
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6/11/09

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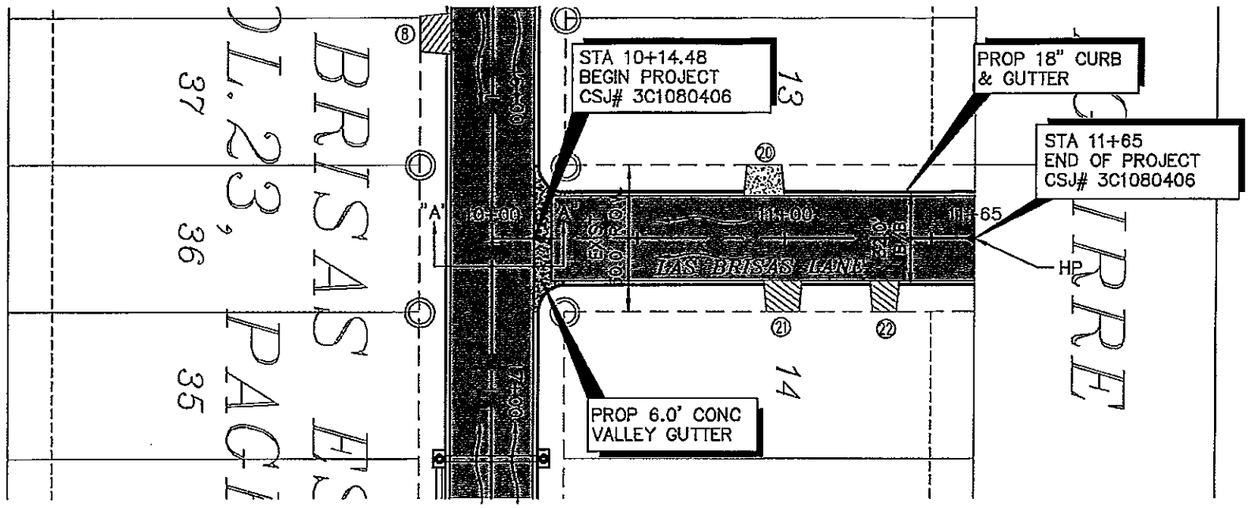
THIRD ROUND ALLOCATION FUNDING
LAS BRISAS CIRCLE
PLAN AND PROFILE

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DW:	6	TEXAS	ENG. 08.008	
DN:	STATE DIST. No.	COUNTY	CSJ#	SHEET NO.
CK TR:	21	HIDALGO	3C1080406	11



SCALE: 1"=50'
HORIZ. SCALE; 1"=50'
VERT. ELEV. SCALE; 1"=5'

LEGEND

WATER METER		SIGN	
IRON ROD		POWER POLE	
TELEPHONE PEDESTAL		CLEAN OUT	
MAILBOX		SANITARY SEWER	
PROP CONC DRIVEWAYS		PROP ASPHALT DRIVEWAYS	
		DRAINAGE FLOW DIRECTION	

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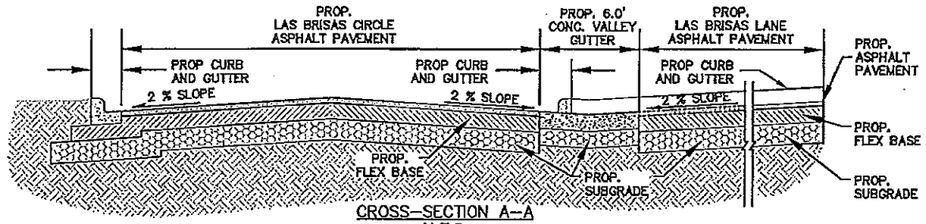

CROSS-SECTION A-A
N.T.S.

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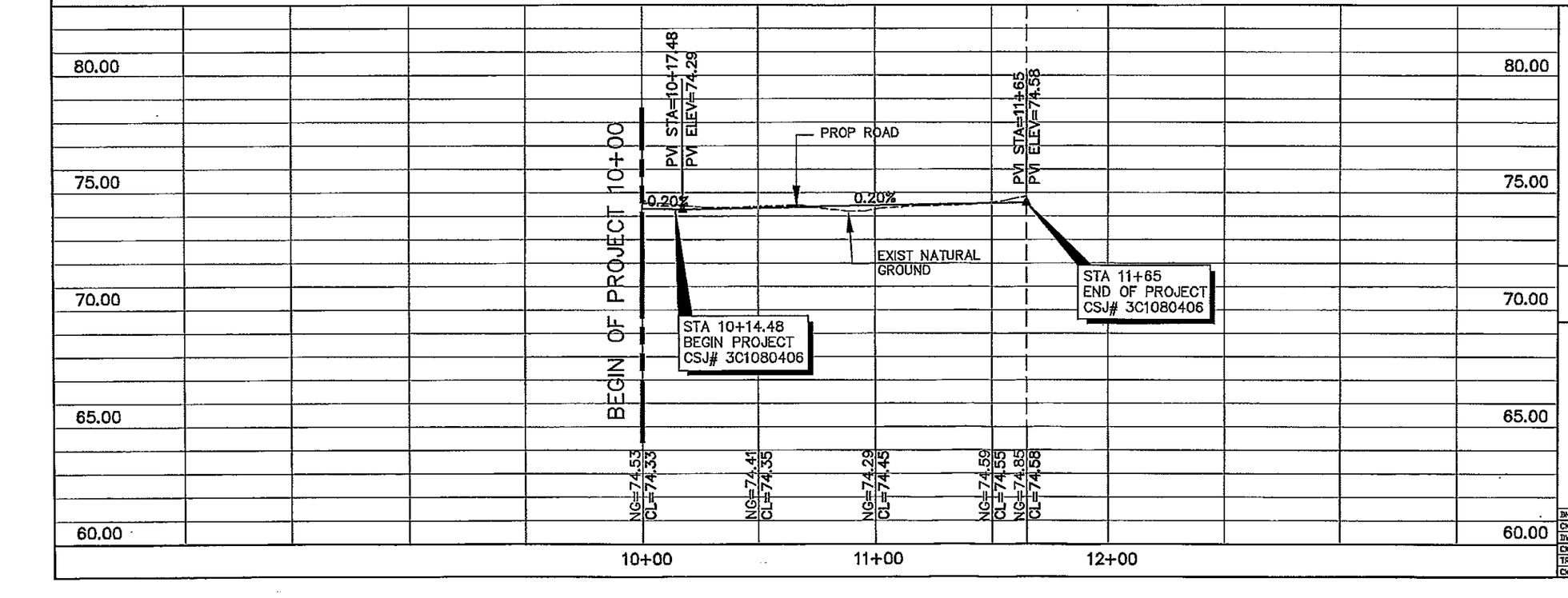

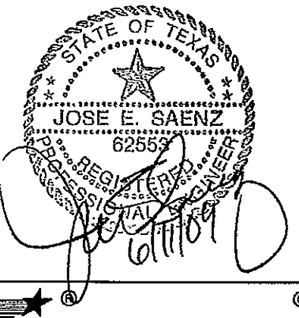

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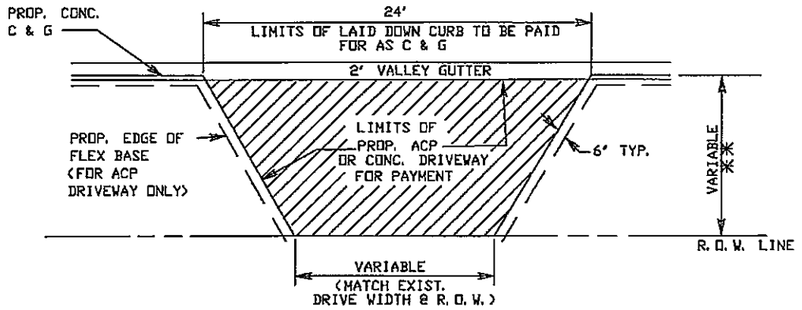
HIDALGO COLONIA ACCESS PROJECT
THIRD ROUND ALLOCATION FUNDING
LAS BRISAS CIRCLE
PLAN AND PROFILE

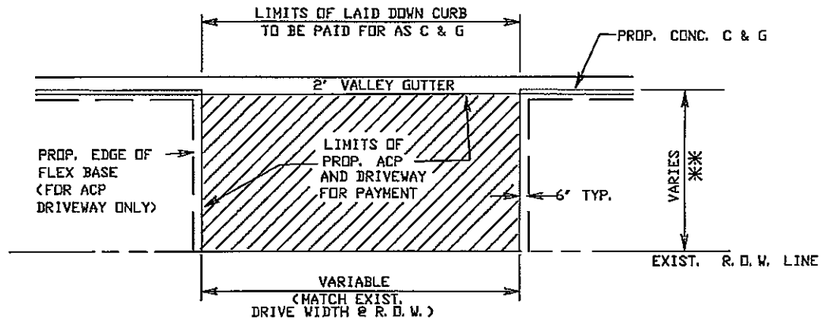
DN	CK DN	DW	CK DW	TR	CK TR	FED. RD DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
						6	TEXAS	ENG. 08.008	
						STATE DIST No.	COUNTY	CSJ#	SHEET NO.
						21	HIDALGO	3C1080406	12

PRIVATE AND COMMERCIAL DRIVES WITH CURB & GUTTER



PLAN OF PRIVATE AND COMMERCIAL DRIVES
(W/DRIVEWAY WIDTH LESS THAN 24')

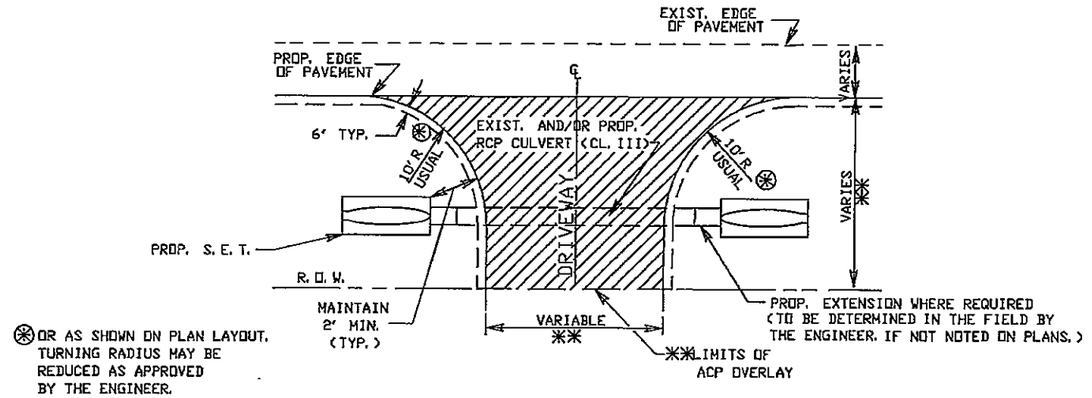
** SEE P&P SHEETS



PLAN OF PRIVATE AND COMMERCIAL DRIVES
(W/DRIVEWAY WIDTH EQUAL TO OR GREATER THAN 24' @ R. O. W. LINE)

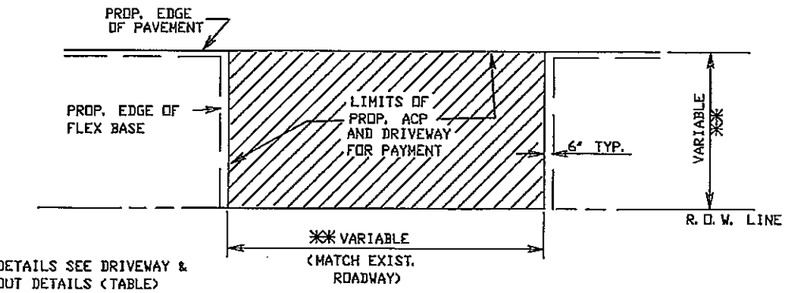
N. T. S.

PRIVATE AND COMMERCIAL DRIVES WITHOUT CURB & GUTTER



⊛ OR AS SHOWN ON PLAN LAYOUT. TURNING RADIUS MAY BE REDUCED AS APPROVED BY THE ENGINEER.

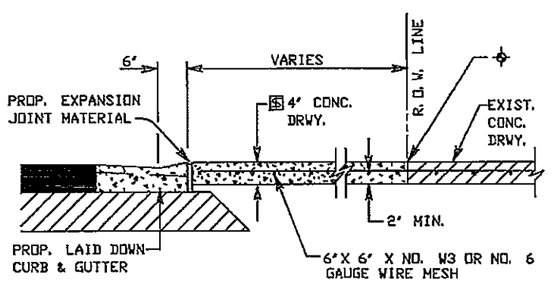
PLAN OF PRIVATE AND COMMERCIAL DRIVES
*W/DRIVEWAY WIDTH LESS THAN 24')



** FOR DETAILS SEE DRIVEWAY & TURNOUT DETAILS (TABLE)

PLAN OF PRIVATE AND COMMERCIAL DRIVES
(W/DRIVEWAY WIDTH EQUAL TO OR GREATER THAN 24' @ R. O. W. LINE)

N. T. S.



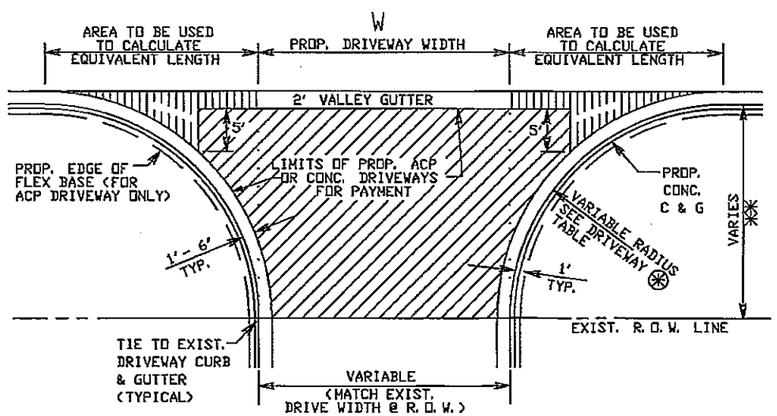
TYPICAL CONCRETE DRIVEWAY SECTION

⊕ CONC. SHALL BE SAW CUT TO THE LIMITS OF REMOVAL WHERE APPLICABLE.

[S] 6' FOR COMMERCIAL DRIVES

N. T. S.

PRIVATE AND COMMERCIAL DRIVES WITH CURB & GUTTER



PLAN OF PRIVATE AND COMMERCIAL DRIVES

SEE P&P SHEETS FOR LOCATIONS OF DRIVES

N. T. S.

LF EQUIVALENT TABLE FOR PAYMENT LIMITS OF 2' VALLEY GUTTER

LF OF VALLEY GUTTER= W + X1 + X2	
WHERE X1 AND X2 MAY VARY DEPENDING ON RADIUS	
Prop. Driveway Radius	X1 or X2 (Sq Ft Area / 2') Equivalent LF Length
5'	1
8'	2
10'	4
12'	6
15'	9
18'	12
20'	15
22'	18
25'	24
28'	30
30'	34

SEE DRIVEWAY TABLE FOR LIMITS OF LAID DOWN CURB TO BE PAID FOR AS CURB AND GUTTER

DRIVEWAY TYPES

TY PRB-1
EXIST. PAVED CALICHE AND /OR GRAVEL DRIVEWAYS TO BE SCARIFED AND RECONSTRUCTED WITH 3' NEW AND/OR SALVAGE FLEX. BASE TO MATCH THE PROPOSED WIDENED SECTION. THEN PRIMED AND SURFACED WITH 114#/SY ACP (TY 'D')

TY PB-1
EXIST. UNPAVED PRIVATE OR COMMERCIAL DRIVEWAYS TO BE CONSTRUCTED AS SHOWN WITH 4' NEW AND/OR SALVAGE FLEX. BASE, PRIMED AND SURFACED WITH 114#/SY ACP.

TY P1
EXIST. PAVED DRIVEWAYS TO BE PAVED WITH 114#/SY ACP TY 'D'.

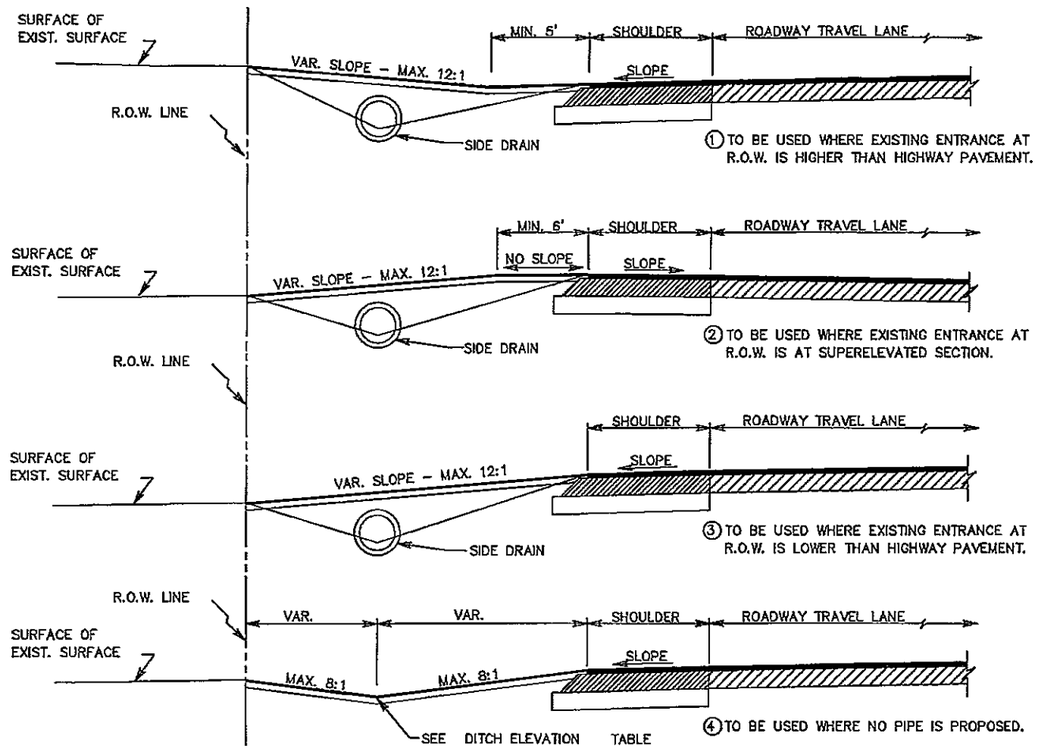
TEXAS DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS
PRIVATE
(RESIDENTIAL-COMMERCIAL)

REV. 4/05

DRIVEWAY2. DGN

FED. RD. DIV. NO.	STATE AID PROJECT NO.	FILE NO.	SHEET NO.
6	HIDALGO COLONIA ACCESS PROGRAM	ENG. 08 008	13
STATE	STATE DIST. NO. / COUNTY	CSJ#	HIGHWAY NO.
TEXAS	21 / HIDALGO	3C1080406	



NOTES:

ALL ENTRANCES CONSTRUCTED ON THIS PROJECT ARE SUBJECT TO CONCURRENCE WITH EXISTING GOVERNING REGULATIONS AS SET OUT BY THE STATE HIGHWAY COMMISSION.

ENTRANCE'S BASE AND SURFACING MAY BE EXTENDED BEYOND R.O.W. LINE AS REQUIRED TO MEET EXISTING GRADE IN A SATISFACTORY MANNER OF WHICH NO STEEPER THAN 12:1 SLOPE WILL BE CONSTRUCTED.

ALL FLEXIBLE BASE USED FOR PRIVATE DRIVES & COMMERCIAL DRIVES WILL NOT REQUIRE LIME TREATMENT.

EXACT LOCATIONS, DIMENSIONS, AND TYPE TO BE ESTABLISHED DURING CONSTRUCTION BY THE ENGINEER.

PROP. WIDTH OF DRIVEWAYS TO MATCH EXISTING WIDTH AT R.O.W. LINE.

114 #/SY ACP (COMPACTED) IS EQUAL TO 1 IN. DEPTH
171 #/SY ACP (COMPACTED) IS EQUAL TO 1 1/2 IN. DEPTH.

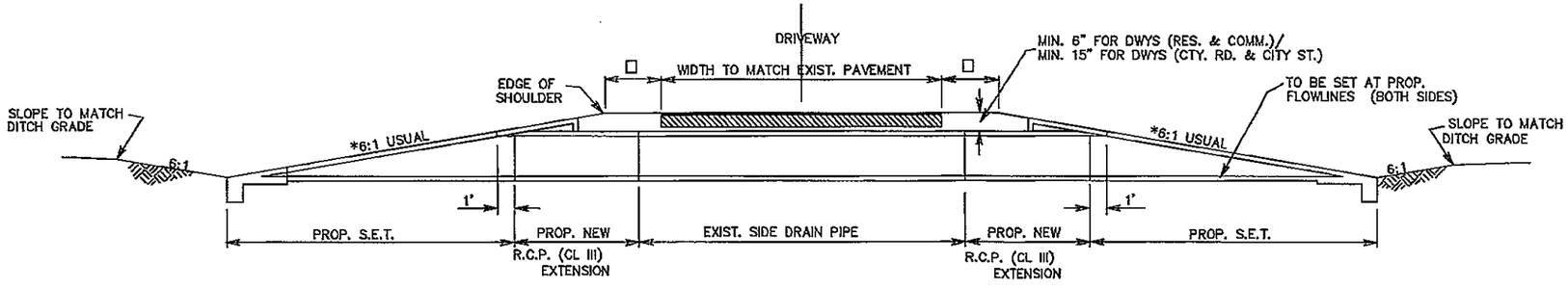
SIDE DRAINS TO BE INSTALLED WHERE ROADWAY DITCH DRAINAGE IS NECESSARY, AS INDICATED ON PLANS AND/OR AS DIRECTED BY THE ENGINEER.

SIDE DRAINS TO BE INSTALLED WITH A MINIMUM OF 6" COVER BY PROPOSED RESIDENTIAL & COMMERCIAL MATERIAL OR 15" COVER OF PROPOSED COUNTY RD. & CITY STREET ROADWAY MATERIAL.

AVERAGE DIMENSIONS SHOWN ON TABLE OF DRIVEWAYS ARE FOR ESTIMATING PURPOSES ONLY.

THE RATE OF PRIME SHALL BE 0.10 GAL/SY FOR PRIVATE AND/OR COMMERCIAL DRIVEWAYS AND 0.20 GAL/SY FOR PUBLIC DRIVEWAYS.

TYPICAL ENTRANCE PROFILE FOR DRIVEWAYS W/OUT C&G



□ – 1' MIN. ON DRIVEWAYS (RES. & COMM.)
2' MIN. ON DRIVEWAYS (COUNTY RD. & CITY ST.)

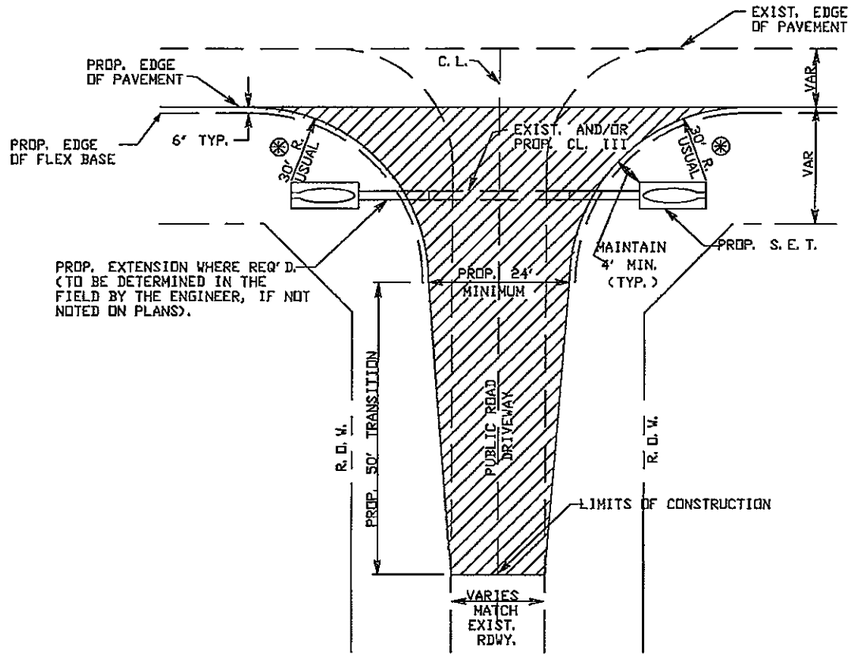
* – 6:1 SLOPE USUAL
UNLESS OTHERWISE NOTED ON PLANS

TEXAS DEPARTMENT OF TRANSPORTATION

DRIVEWAY PROFILE DETAILS

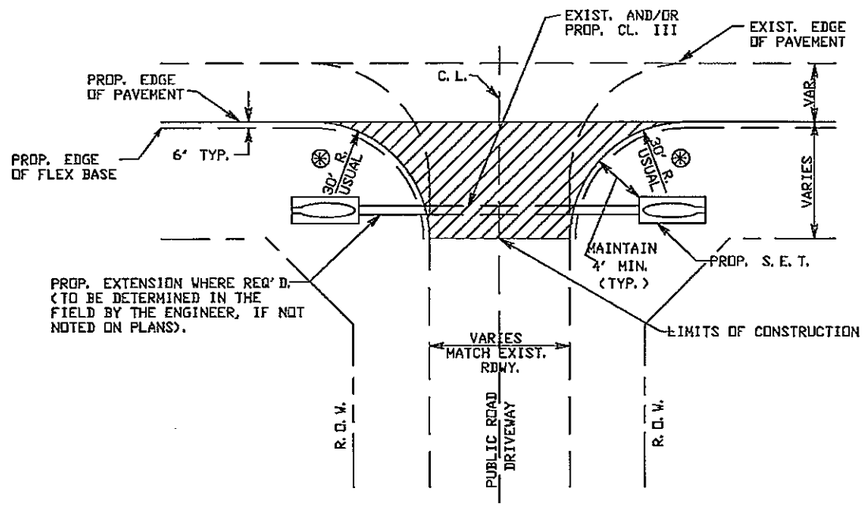
REV, 4/05 DRIVEWAY1.DGN

CSJ DIV. NO.	STATE AID PROJECT NO.	FILE NO.	SHEET NO.
6	HIDALGO COLONIA ACCESS PROGRAM	ENG. 08 008	14
STATE	STATE DIST. NO. / COUNTY	CSJ#	HIGHWAY NO.
TEXAS	21 HIDALGO	3C1080406	



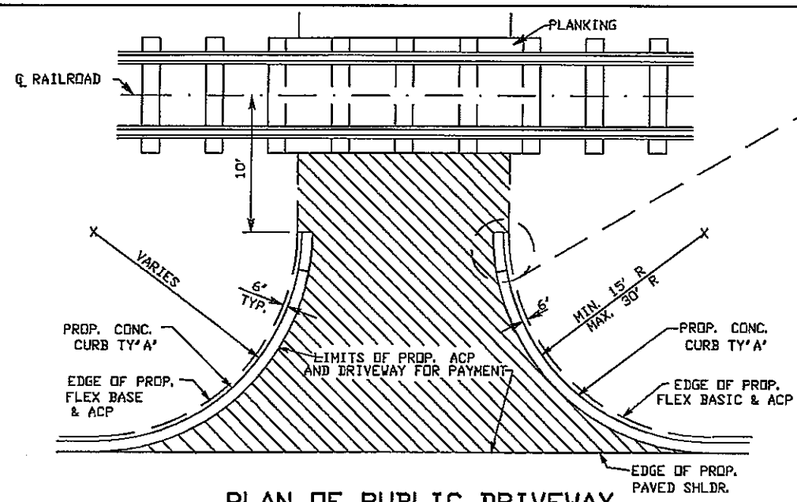
TYPICAL DETAIL

(WHEN EXIST. ROADWAY WIDTH LESS THAN 24'.)

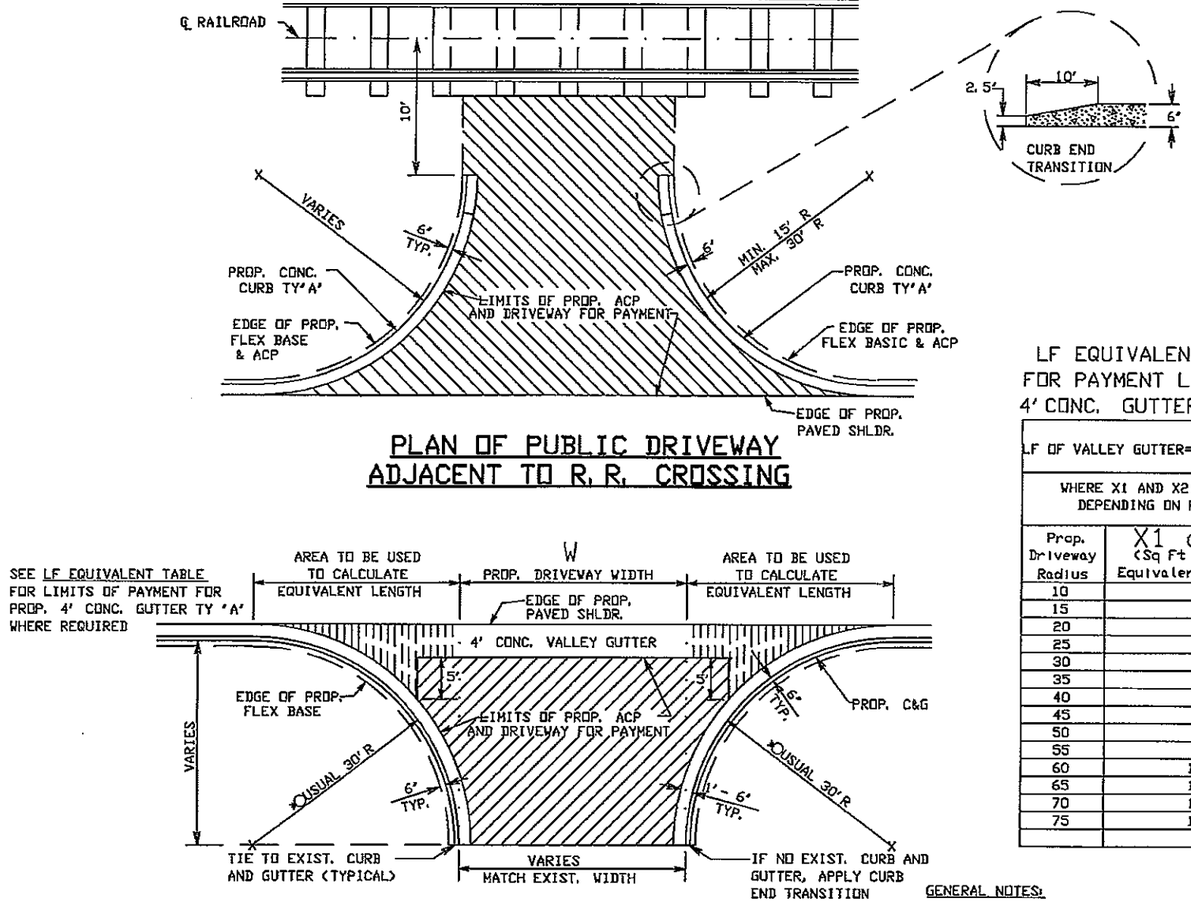


TYPICAL DETAIL

(WHEN EXIST. ROADWAY WIDTH EQUAL TO OR GREATER THAN 24'.)



PLAN OF PUBLIC DRIVEWAY ADJACENT TO R. R. CROSSING



PLAN OF PUBLIC DRIVEWAY

LF EQUIVALENT TABLE FOR PAYMENT LIMITS OF 4' CONC. GUTTER TY. 'A'

LF OF VALLEY GUTTER= W + X1 + X2	
WHERE X1 AND X2 MAY VARY DEPENDING ON RADIUS	
Prop. Driveway Radius	X1 or X2 (Sq Ft Area / 4') Equivalent LF Length
10	3
15	7
20	12
25	19
30	27
35	37
40	48
45	61
50	75
55	91
60	109
65	127
70	148
75	170

GENERAL NOTES:

AVERAGE DIMENSIONS SHOWN ON TABLE OF DRIVEWAYS ARE FOR ESTIMATING PURPOSES ONLY.

LOCATIONS LISTED ON THE TABLE ARE APPROXIMATE, EXACT LOCATIONS, DIMENSIONS, AND TYPE TO BE ESTABLISHED DURING CONSTRUCTION BY THE ENGINEER AS REQUIRED.

⊛ SEE DRIVEWAY TABLE, TURNING RADIUS MAY BE REDUCED AS APPROVED BY THE ENGINEER.

SEE TABLE OF DRIVEWAYS FOR TOTAL LENGTH OF PROP. 4' CONC. VALLEY GUTTER FOR EACH LOCATION.

TY P

EXIST. PAVED DRIVEWAYS TO BE SURFACED W/171#/SY ACP.

TY PRB1

EXIST. PAVED, CALICHE AND/OR GRAVEL DRIVEWAYS TO BE SCARIFIED AND RECONTRUCTED WITH 4' NEW FLEX. BASE W/1% LIME TO MATCH THE PROPOSED WIDENED SECTION, THEN PRIMED AND SURFACED WITH 171#/SY ACP

TY PBS1

EXIST. UNPAVED PUBLIC DRIVEWAYS TO BE CONSTRUCTED AS SHOWN WITH 12' LIME TREAT. SUBGRADE, 8' FLEX. BASE 1% LIME, THEN PRIMED AND SURFACED WITH 171#/SY ACP.

TY PBS2

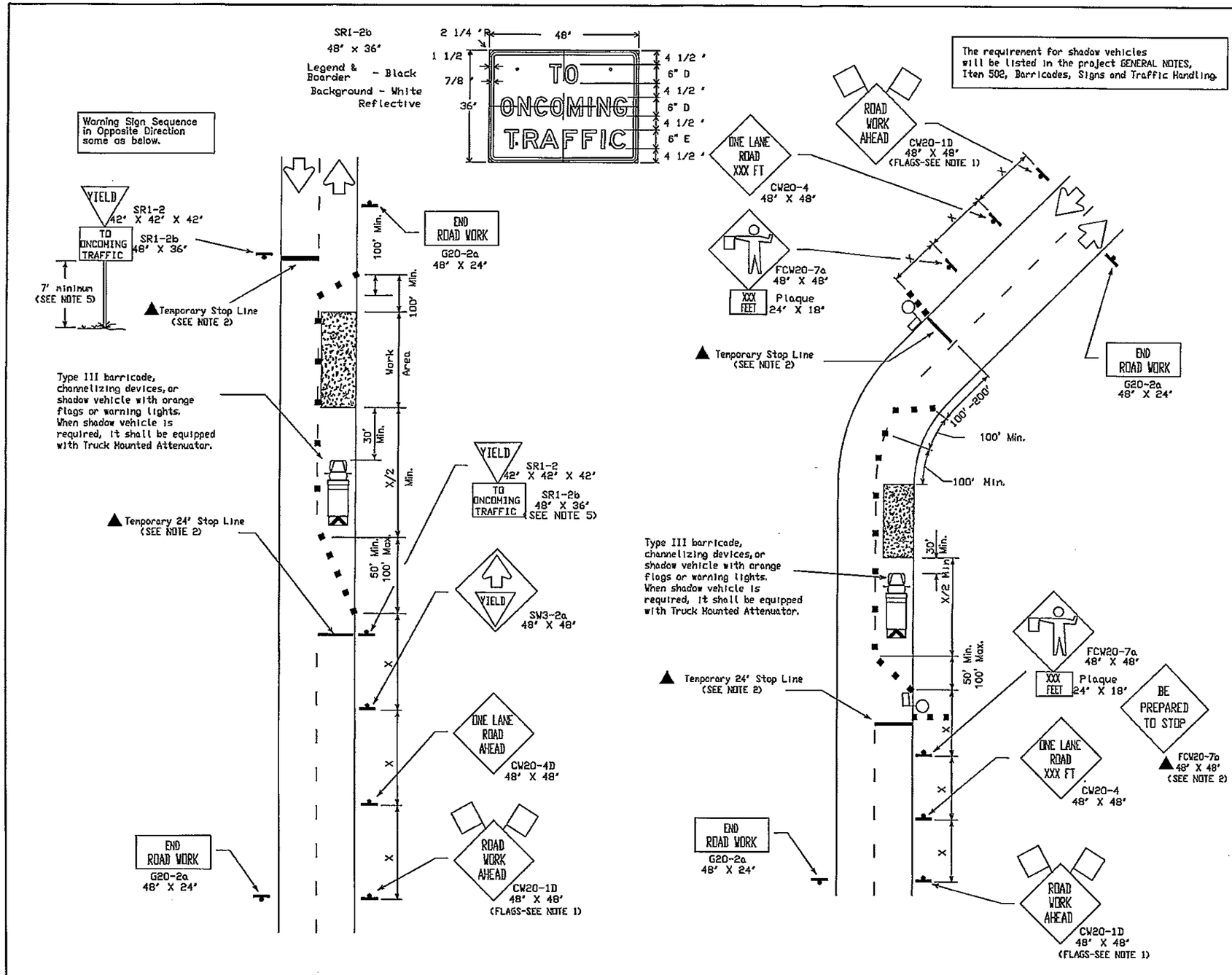
EXIST. DRIVEWAY TO BE CONSTRUCTED SAME AS ROADWAY.

TEXAS DEPARTMENT OF TRANSPORTATION

TURNOUT DETAILS
PUBLIC
(COUNTY ROAD-CITY STREET)

REV. 4/05 DRIVEWAY3.DGN

FED. RD. DIV. NO.	STATE AID PROJECT NO.	FILE NO.	SHEET NO.
6	HIDALGO COLONIA ACCESS PROGRAM	ENG. 08 008	15
STATE	STATE DIST. NO. / COUNTY	CSJ#	HIGHWAY NO.
TEXAS	21 / HIDALGO	3C1080406	



TCP (2-2a)

2-Lane Roadway Without Paved Shoulders
One Lane Closed
Adequate Field of View

TCP (2-2b)

2-Lane Roadway Without Paved Shoulders
One Lane Closed
Inadequate Field of View

LEGEND

Type III Barricade ■ ■ Channelizing Devices Flag
Heavy Work Vehicle Truck Mounted Attenuator
Trailer Mounted Flashing Arrow Panel (M) Portable Changeable Message Sign
Flagger Sign Post

Posted Speed*	Formula	Minimum Desirable Taper Lengths** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Device On a Taper	On a Tangent	Minimum Sign Spacing X Distance
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'-75'	120'
35		205'	225'	245'	35'	70'-90'	160'
40		265'	295'	320'	40'	80'-100'	240'
45	L=WS	450'	495'	540'	45'	90'-110'	320'
50		500'	550'	600'	50'	100'-125'	400'
55		550'	605'	660'	55'	110'-140'	500'
60		600'	660'	720'	60'	120'-150'	*600'
65		650'	715'	780'	65'	130'-165'	*700'
70		700'	770'	840'	70'	140'-175'	*800'

* Conventional Roads Only

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

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

GENERAL NOTES:

1. Flags attached to signs are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans.
3. The BE PREPARED TO STOP sign may be installed after the ONE LANE ROAD XXX FT sign, but proper sign spacing shall be maintained.
4. YIELD sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work zones should be no longer than one half city block. In rural areas on roadways with less than 4000 ADT and work areas should be no longer than 400'.
5. YIELD TO ONCOMING TRAFFIC sign shall be placed on a support at a 7' minimum mounting height.
6. Flaggers should use two-way radios or other methods of communication to control traffic.
7. Length of work area should be based on the ability of flaggers to communicate.
8. For intermediate term situations, when it is not feasible to remove and restore pavement markings, the channelization must be made dominant by using a very close spacing. This is especially important in locations of conflicting information, such as where traffic is directed over a double yellow centerline. In such locations a maximum channelizing device spacing of 10 feet is recommended. The 10 foot channelizing device spacing recommendation is intended for the area of conflicting information and not the entire work zone.

Only pre-qualified products shall be used. A list of compliant products and their sources may be obtained by writing or faxing:
Standards Engineer
Traffic Operations Division - TE
Texas Department of Transportation
125 East 11th Street
Austin, Texas 78701-2483
Phone (512) 416-3335
Fax (512) 416-3161
E-mail TRF-STANDARD@mailgw.dot.state.tx.us

TEXAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
TCP(2-2)-03

© TxDOT DECEMBER 1985	DN-LR	CK-MT	DW-DN	CK-MT	JOB NO.
REVISIONS 8-95 1-97 4-98 3-03	FED. RD DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.	
	6	TEXAS	ENG. 08 008		
	STATE DIST No.	COUNTY	CSJ#		SHEET NO.
	29	HIDALGO	3C1080406		16

SITE DESCRIPTION

PROJECT LIMITS: Within the 50.00 foot R.O.W. of Las Brisas Circle and Las Brisas Lane in Las Brisas Estates Colonia located North of US HWY 107 between Sharp RD and Val Verde RD with a net length of 1325.53 Lineor Feet or 0.251 miles.

PROJECT DESCRIPTION: ReConstruct of 2-16 lanes with existing Curb and Gutter. Consisting of grading, flexible base, asphaltic concrete pavement and storm water pollution prevention plan. Also the design of 2489.58 linear feet of Storm Drain 24" RCP Class III with Curb Inlet.

MAJOR SOIL DISTURBING ACTIVITIES: Include preparing R.O.W. clearing and grubbing, grading excavation and embankment for roadway entry crossing drainage culverts, erosion and sediments control seeding.

TOTAL PROJECT AREA: 1.58 acres

TOTAL AREA TO BE DISTURBED: 1.04 acres

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): .073

EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: The existing soil primarily consists of one soil type, Hidalgo Sandy Clay loam, 0 to 1 percent slopes. This soils is well drained, surface runoff is slow. Permeability is moderate, and the available water capacity is high. This soils has improvements and is covered with approximately 50 % of grasses and the remaining 50 % of the soil in the R.O.W. is covered with the existing roadway base material.

This soils has a Unified Classification as SC, SM-SC and AASTHO A-6, Liquid Limit between 29-44 and Plasticity Index between 11-23.

NAME OF RECEIVING WATERS: Storm water will drain into Curb Inlet located on both side of the Las Brisas Circle. Thereafter it will fully drain into the 24" RCP Class III pipe towards the Ditch at north of Las Brisas Lane.

HISTORICAL STRUCTURES: None

ENDANGERED SPECIES: None

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- [X] TEMPORARY SEEDING
- [X] PERMANENT PLANTING, SODDING, OR SEEDING
- [ ] MULCHING
- [ ] SOIL RETENTION BLANKET
- [ ] BUFFER ZONES
- [X] PRESERVATION OF NATURAL RESOURCES

OTHER: Disturbed areas on which construction activity has ceased (temporarily or permanently) shall be stabilized within 14 days unless activities are scheduled to resume within 21 days.

STRUCTURAL PRACTICES:

- [X] TEMPORARY SILT FENCES
- [ ] HAY BALES
- [ ] ROCK BERMS
- [ ] DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- [ ] DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- [ ] DIVERSION DIKE AND SWALE COMBINATIONS
- [ ] PIPE SLOPE DRAINS
- [ ] PAVED FLUMES
- [ ] ROCK BEDDING AT CONSTRUCTION EXIT
- [ ] TIMBER MATTING AT CONSTRUCTION EXIT
- [ ] CHANNEL LINERS
- [ ] SEDIMENT TRAPS
- [ ] SEDIMENT BASINS
- [X] STORM INLET SEDIMENT TRAP
- [ ] STONE OUTLET STRUCTURES
- [X] CURBS AND GUTTERS
- [X] STORM SEWERS
- [ ] VELOCITY CONTROL DEVICES

OTHER: _____

NARRATIVE - SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES: None

STORM WATER MANAGEMENT: Storm water will drain into Curb Inlet located on both side of the Las Brisas Circle. Thereafter it will fully drain into the 24" RCP Class III pipe towards the Ditch at north of Las Brisas Lane.

OTHER EROSION AND SEDIMENT CONTROLS:

MAINTENANCE: All erosion and sediment controls will be maintained in good working order. If a repair is necessary, it will be done at the earliest date possible, but no later than 7 calendar days after the surrounding exposed ground has dried sufficiently to prevent further damage from heavy equipment. The areas adjacent to creeks and drainage ways shall have priority followed by devices protecting storm sewer inlets.

INSPECTION: An inspection will be performed by a TxDOT Inspector every week as well as after every half inch or more of rain (as recorded on a non-freezing rain gauge to be located at the Project Site). An Inspection and Maintenance Report will be made per each inspection. Based on the inspection results, the controls shall be revised per the inspection report.

WASTE MATERIALS: All waste materials will be collected and stored in a securely lidded dumpster. All trash and construction debris from the site will be deposited as necessary at a local dump. No construction waste material will be buried on site.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING): At a minimum, any products in the following categories to be hazardous: Paints, Acids for cleaning masonry surfaces, Cleaning Solvents, Asphalt products,Chemical additives for soil stabilization, or Concrete curing compounds and additives. In the event of a spill which may be hazardous, the spill Coordinator should be contacted immediately. Emptying of excess concrete should not be allowed on site. Likewise, washout of concrete trucks should not be performed on site. These discharges are considered non-allowable non-storm water discharges. Concrete trucks should never be allowed to dump into storm drains or sanitary sewers.

SANITARY WASTE: All sanitary waste will be collected from the portable units as necessary or as required by local regulation by a licensed sanitary waste management contractor.

OFFSITE VEHICLE TRACKING:

- [X] HAUL ROADS DAMPENED FOR DUST CONTROL
- [X] LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- [X] EXCESS DIRT ON ROAD REMOVED DAILY
- [X] STABILIZED CONSTRUCTION ENTRANCE

OTHER: _____

REMARKS: Disposal areas, stockpiles, and haul roads shall be constructed in a manner that will minimize and control the amount of sediment that may enter receiving waters. Disposal areas shall not be located in any wet land, water body or stream bed. Construction staging areas and vehicle maintenance areas shall be constructed by the Contractor in a manner to minimize the runoff of pollutants.

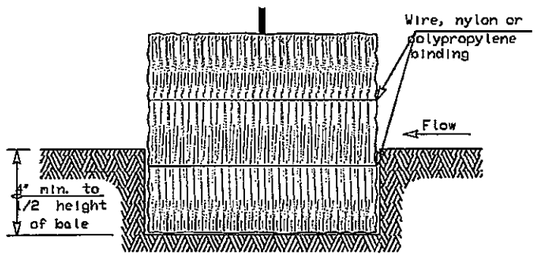
" I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalities for submitting false information, including the possibility of fine and imprisonment for knowing violations."

FOR REVIEW
PRELIMINARY 90% SUBMITTAL
NOT FOR REGULATORY APPROVAL, PERMITTING OR CONSTRUCTION
TBPE FIRM REGISTRATION NO. F1273
J.E. SAENZ-REGISTRATION NO. 62553
JUNE 2009

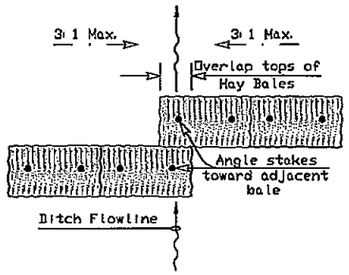
J.E. SAENZ & ASSOCIATES, INC.
P.O. BOX 3293 TEL. (956) 383-2384
EDINBURG, TEXAS 78540 FAX (956) 383-3738

TxDOT STORM WATER
LAS BRISAS ESTATES
POLLUTION PREVENTION
PLAN (SW3P)

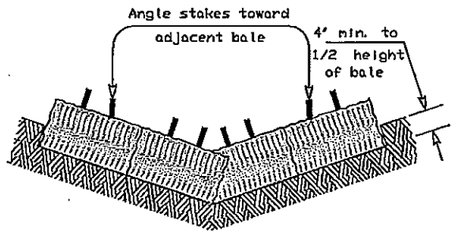
FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
	ENG 08 008	17
STATE	DIST. / COUNTY	
TEXAS	HIDALGO	
CSJ#		HIGHWAY NO.
3C1080406		



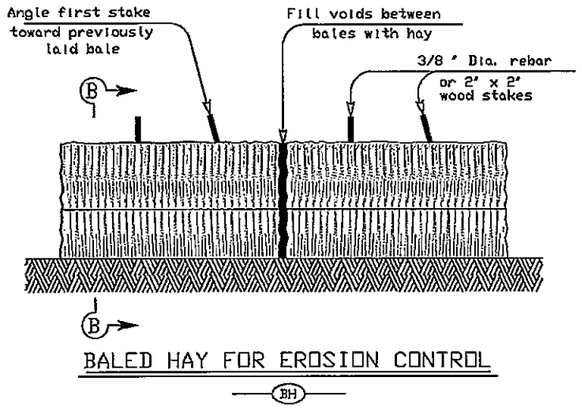
SECTION B-B



PLAN VIEW



PROFILE VIEW



BALED HAY FOR EROSION CONTROL

BH

GENERAL NOTES

1. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 Lbs.
2. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetative matter.
3. Hay bales shall be embedded in the soil a minimum of 4" and where possible 1X2e height of the bale.
4. Hay bales shall be placed in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
5. Hay bales shall be securely anchored in place with 3/8 " Dia. rebar or 2" x 2" wood stakes, driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

PLANS SHEET LEGEND

Baled Hay — BH

BALED HAY USAGE GUIDELINES

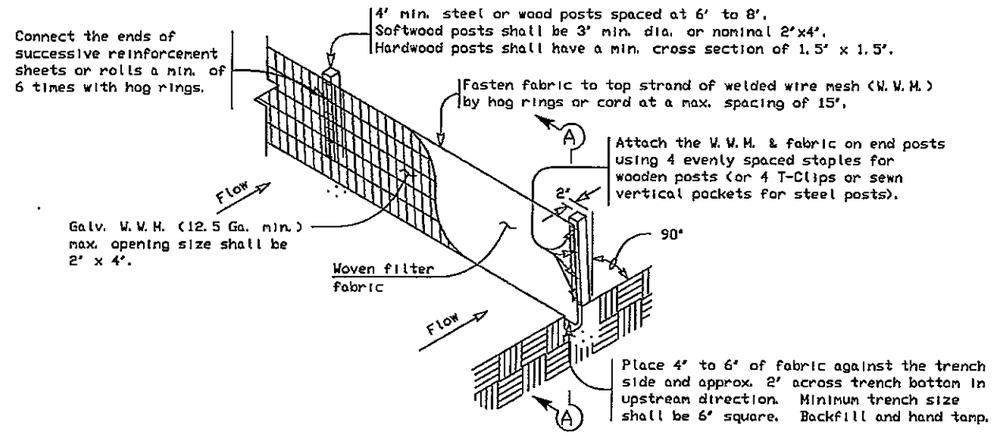
A Baled Hay installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flow rate to be filtered. The installation should be sized to filter a maximum flow thru rate of 5 GPM/FT^2 of cross sectional area. Baled hay may be used at the following locations:

1. Where the runoff approaching the baled hay flows over disturbed soil for less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
2. Where the installation will be required for less than 3 months.
3. Where the contributing drainage area is less than 1/2 acre.

For Baled Hay installations in small ditches, the additional following considerations apply:

1. The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate thru the hay.
2. The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the top of the baled hay.

Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.



TEMPORARY SEDIMENT CONTROL FENCE

SCF

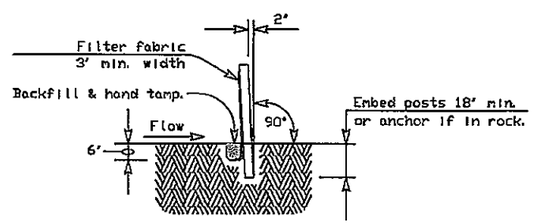
SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT^2. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

PLAN SHEET LEGEND

Sediment Control Fence — SCF



SECTION A-A

GENERAL NOTES

1. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

TEXAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES FENCED & BALED HAY EC(1)-93

FILE	EC193.DGN	DN: HEJ	CK: HEJ	DW: BGD	CK:
©TxDOT	JUNE 1993	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS		29	COLONIA ACCESS PROJECTS		18
		COUNTY		ESJB	HIGHWAY
		HIDALGO		3C1060406	

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64

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 traffic control devices, construction pavement markings, and typical construction 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) "Policy on the Geometric Design of Highways and Streets" or the TxDOT "Roadway Design Manual".
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 will 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 will be revised to show appropriate work zone distance.
7. The Engineer may require duplicate construction 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 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. As shown on BC(2), the OBSERVE WARNING SIGNS STATE LAW, BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits.
11. Except for devices required by Note 10, 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.

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.

4/03 Revision

⚠ Revised General Notes

BARRICADE AND CONSTRUCTION
GENERAL NOTES
AND REQUIREMENTS

1 of 12 BC(1)-03

©TxDOT 11-4-02	DN-BAS	CK-GRB	DW-FIN	CK-CAL
REVISIONS 4-03	DISTRICT 29	COUNTY 6	PROJECT NUMBER COLONIA ACCESS PROJECTS	SHEET 19
	COUNTY HIDALGO		CSJ 3C1080406	HIGHWAY

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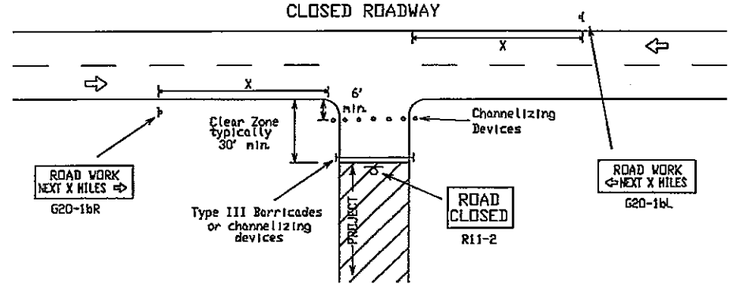
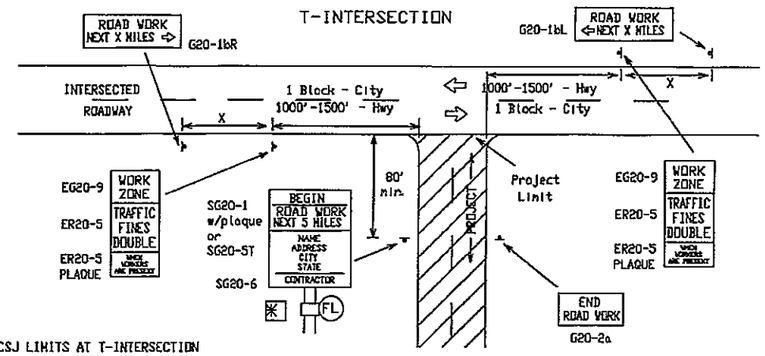
CLOSED ROADWAY



Barricades or channelizing devices shall be erected completely across roadway. Drums, vertical panels or cones shall be used in place of Type III Barricades when shown in plans or as specified by the Engineer.

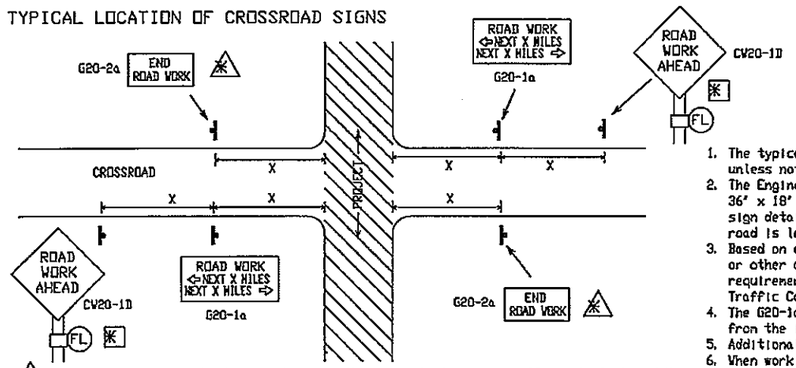
T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

1. A ROAD WORK NEXT X MILES (G20-1bR(L)) sign should be erected on the intersected highway as shown above.
2. 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.
3. The Engineer/Inspector shall ensure that construction work zone signs are installed with adequate spacing between the signs so the legibility of existing permanent and other work zone signs is not obstructed.

TYPICAL LOCATION OF CROSSROAD SIGNS



* May be mounted on back of CW20-1D sign with approval of engineer. (See note 2 at right)

1. The typical minimum signing on a crossroad approach should be a CW20-1D ROAD WORK AHEAD sign and a G20-2a END ROAD WORK sign, unless noted otherwise in plans.
2. The Engineer may use the reduced size 36' x 36' ROAD WORK AHEAD (HCW20-1D) sign mounted back to back with the reduced size 36' x 18' END ROAD WORK (SG20-2a) sign on low volume crossroads. 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. 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 G20-1a sign shall be required on major 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.

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

Posted Speed	Sign Spacing 'X' △	Long-term Or Intermediate-term Stationary Approach Warning Signs CW20 and CW21 Series		Short-term Stationary Or Short Duration Approach Warning Signs CW21 Series		Other Warning Signs
MPH	Feet (Apprx.)	Standard inches	Minimum [4] inches	Standard inches [7]	Minimum [4] inches [7]	Standard inches [7]
30	120	48 x 48	36 x 36	30 x 30 or 36 x 36	24 x 24 or 30 x 30	30 x 30 or 36 x 36
35	160					
40	240					
45	320		Use Standard Size		Use Standard Size	
50	400					
55	500 [2]			48 x 48		48 x 48
60	600 [2]					
65	700 [2]					
70	800 [2]					
75	900 [2]					
*	* [3]					

* For typical sign spacings on expressways and freeways, see Part VI 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 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. For use only on secondary roads or city streets where speeds are low.
5. Only diamond shaped warning sign sizes are indicated.
6. See sign size listing in 'TMUTCD', Appendix A or the 'Standard Highway Sign Design' manual for complete list of available sign design sizes.
7. Where two sizes are listed, see sign size listing in 'TMUTCD', Appendix A or the 'Standard Highway Sign Design' manual for proper size.

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

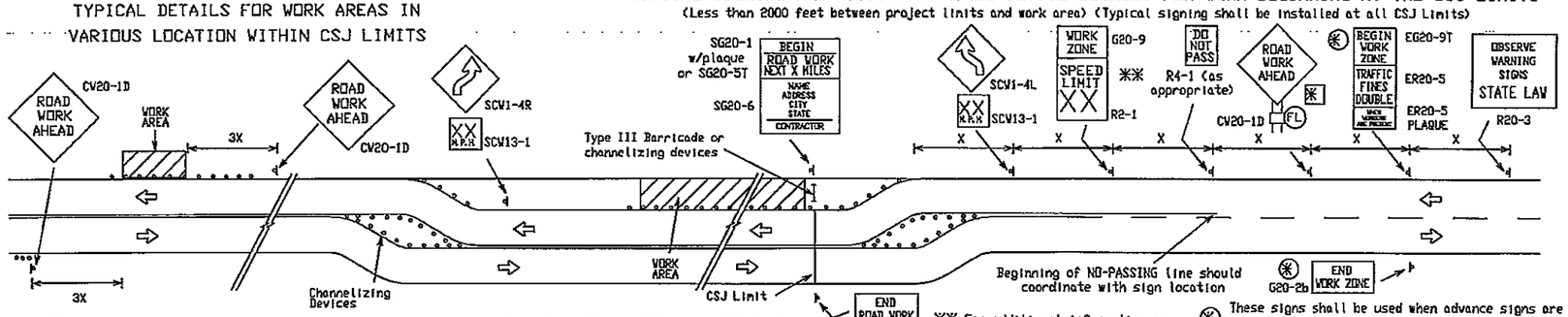
Instructions to locate the 'CWZTCD' on TxDOT website are:

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.

TYPICAL DETAILS FOR WORK AREAS IN VARIOUS LOCATION WITHIN CSJ LIMITS

TYPICAL SIGNING AND TRAFFIC CONTROL DEVICE DETAILS FOR WORK BEGINNING AT THE CSJ LIMITS

(Less than 2000 feet between project limits and work area) (Typical signing shall be installed at all CSJ Limits)



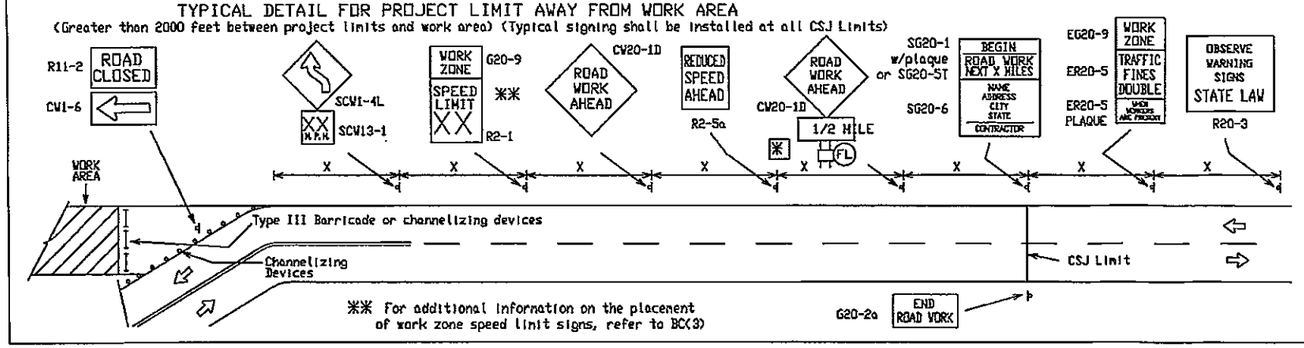
When extended distances occur between minimal work areas, the Engineer/Inspector should ensure additional Road Work Ahead (CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing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

** For additional information on the placement of work zone speed limit signs, refer to BC(3)

* These signs shall be used when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a work zone where traffic fines may double if workers are present.

TYPICAL DETAIL FOR PROJECT LIMIT AWAY FROM WORK AREA

(Greater than 2000 feet between project limits and work area) (Typical signing shall be installed at all CSJ Limits)



LEGEND

- Sign
- (FL) Flashing Type A-Low Intensity Warning Light
- O O Channelizing Devices
- I Type III Barricade
- * The Type A Warning Lights shall not be used with signs manufactured with Type E Sheeting (Fluorescent Prismatic) meeting the requirements of Departmental Material Specification DMS-8300.
- X See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

LEVELS DISPLAYED
ACC

STANDARD PLANS
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BARRICADE AND CONSTRUCTION PROJECT LIMIT STANDARD

2 of 12 BC(2)-03

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REVISIONS	DISTRICT	COUNTY	FEDERAL AID PROJECT	SHEET
	29	6	COLONIA ACCESS PROJECTS	20
	COUNTY		CSJ	HIGHWAY
	HIDALGO		3C1080406	

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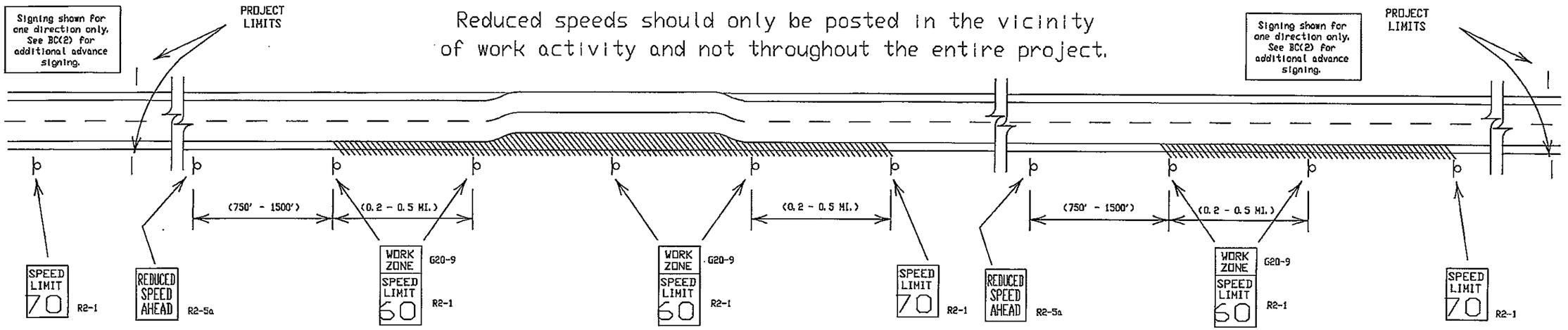
TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the 'Procedures for Establishing Speed Zones,' and approved by the Texas Transportation Commission.

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



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 should be posted and visible to the motorists at all times. Work activity in the area of reduced speed zone should be greater than 12 consecutive hours per day. 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 should be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, work activity is within 15 feet of pavement edge or actually on the pavement.

SHORT TERM WORK ZONE SPEED LIMIT signs should be posted and visible to the motorists only when work activity is present. Work activity in the area of reduced speed should be less than 12 consecutive hours. When work activity is not present, signs should be covered with an approved sign cover or removed from work area.

GENERAL NOTES:

1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance. Regulatory work zone speed signs (R2-1) should be removed during periods when they are not needed to minimize interference with traffic.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot 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 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.
6. Fabrication, erection and maintenance of REDUCED SPEED AHEAD sign, WORK ZONE plaque and SPEED LIMIT 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 otherwise noted.
8. Techniques that may help reduce traffic speeds. (In order of effectiveness.)
   A. Flagger stationed next to sign.
   B. Law enforcement.
   C. Portable changeable message sign (PCMS).
   D. Low-power radar transmitter.
9. Refer to 'Work Zone Speed Limit Work Sheets 1 and 2' to determine when a construction speed zone should be required.

LEVELS DISPLAYED
ACCESS

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BARRICADE AND CONSTRUCTION
WORK ZONE SPEED LIMIT
STANDARD

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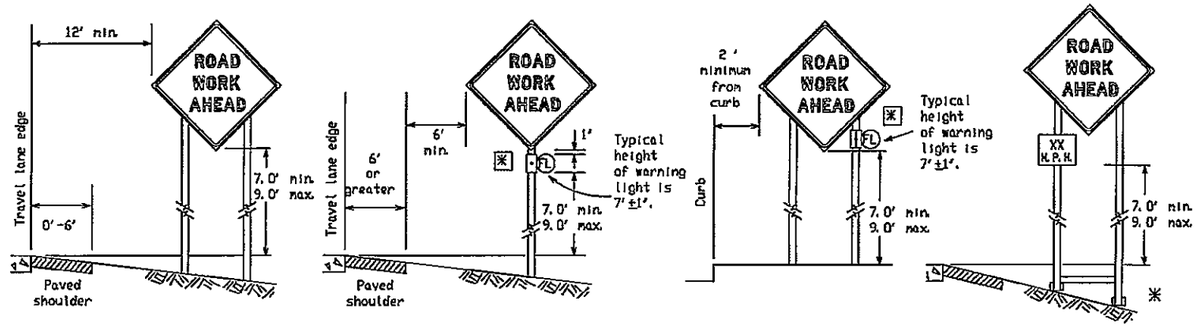
REVISIONS	DIST. DISTRICT	SUBDIV. SUBDIVISION	FEDERAL AID PROJECT	SHEET
	29	6	COLONIA ACCESS PROJECTS	21
	COUNTY		CSJ	HIGHWAY
	HIDALGO		3C1080406	

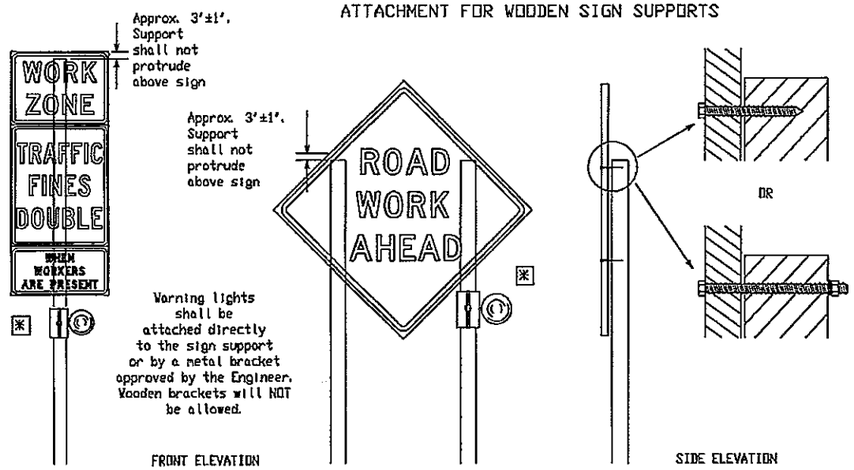
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS



It is the intent of these plans to provide positive guidance to motorists throughout the project limits by the use of signs, pavement markings, delineation and/or channelizing devices. All traffic control devices shall conform with the 'Texas Manual on Uniform Traffic Control Devices for Streets and Highways' (TMUTCD) and the 'Compliant Work Zone Traffic Control Devices List' list (CWZTCD).

✳ 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.

ATTACHMENT FOR WOODEN 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.

Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Supports shall not be extended or repaired by splicing or other means.

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:

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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.

(FL) Flashing Type A - Low Intensity Warning Light

✳ The Type A Warning lights shall not be used with Type E Sheeting (Fluorescent Prismatic) meeting the requirements of DMS-8300.

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

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

1. The types of sign supports, 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 that the sign support and substrate meets crashworthiness and length 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 from overnight to 3 days.
   c. Short-term stationary - daytime work that occupies a location from 1 to 12 hours.
   d. Short, duration - work that occupies a location up to 1 hour.
   e. Mobile - work that moves intermittently or continuously. Does not stop for more than 15 minutes at a time.

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.
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.
5. Regulatory signs shall be mounted at least 7 feet, but not more than 9.0 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

1. The Engineer may allow the use of smaller size construction warning signs on secondary roads or city streets where speeds are low if the sign size is listed as an option on the 'Typical Construction Warning Sign Size and Spacing' chart shown on BC(2).
2. The Contractor shall furnish the sign sizes shown in plans, the BC Sheets, the TCP sheets or as directed by the Engineer.

SIGN SUBSTRATES

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

REFLECTIVE SHEETING

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

SIGN LETTERS

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

REMOVING OR COVERING

1. 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 type of sign support meets the crashworthiness standards regardless of the direction of impact. 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 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.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face. These materials can damage the retroreflectivity of sign sheeting.
7. Signs shall be removed upon completion of the 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 is recommended.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects will not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact.
6. Rubber (such as tire inner tubes) shall NOT be used for sandbags.
7. Rubber ballasts (such as those used with cones or edgeline channelizers) shall NOT be used as sign support weights.
8. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
9. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

LEVELS DISPLAYED: ACCO

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TEXAS DEPARTMENT OF TRANSPORTATION

BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES STANDARD

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REVISIONS	STATE DISTRICT	FEDERAL AID PROJECT		SHEET
	29	6	COLONIA ACCESS PROJECTS	22
	COUNTY		ESD	CONTROL
	HIDALGO		3C1080406	

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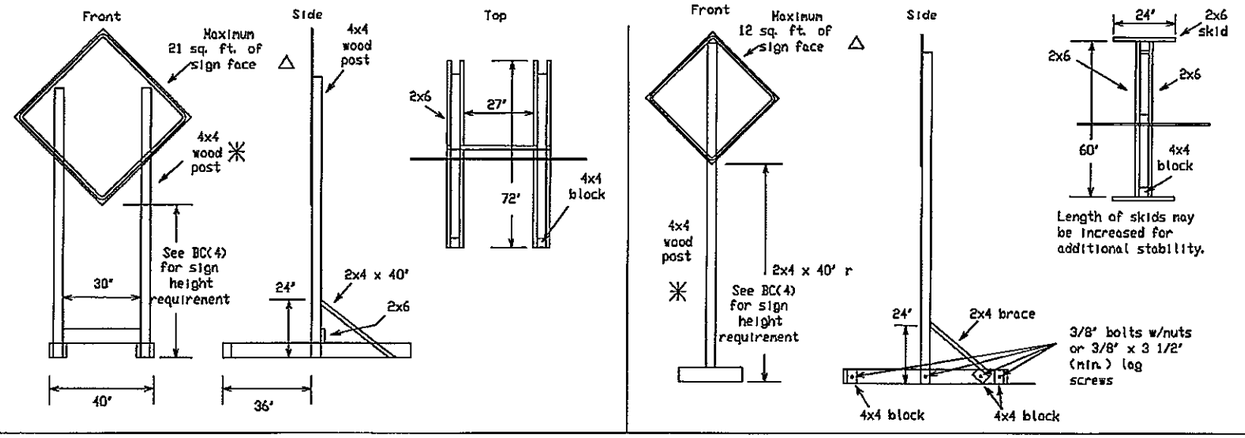
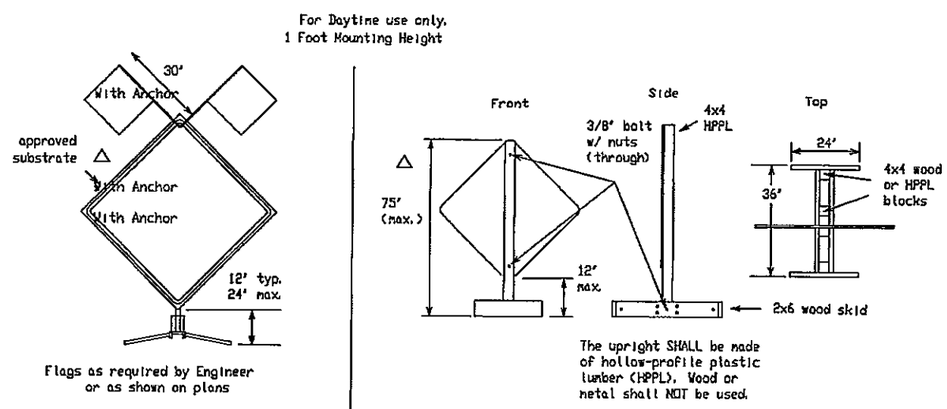
EXAMPLES OF SKID MOUNTED SIGN SUPPORTS

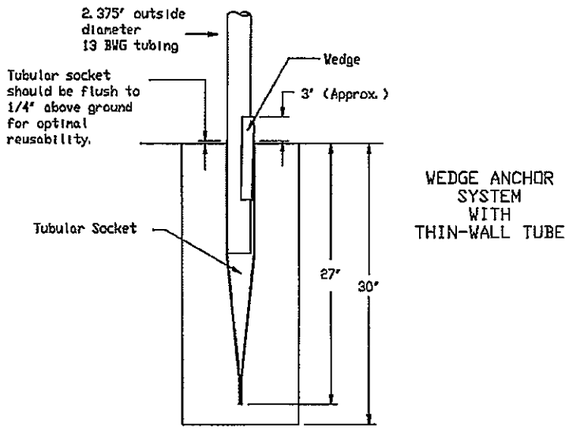
LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS □



SHORT TERM STATIONARY/SHORT DURATION - PORTABLE SIGN SUPPORTS □



EXAMPLES OF GROUND MOUNTED SIGN SUPPORTS



WEDGE ANCHOR SYSTEM WITH THIN-WALL TUBE

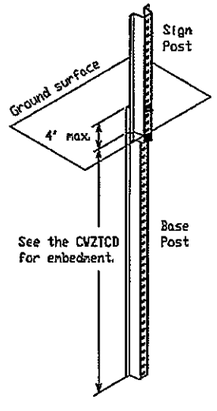
The wedge anchor system with thin wall tubing may be used to support up to 10 sq. ft. of sign area.

Where solid rock is encountered at ground level, the foundation shall be a minimum depth of 18 inches. When solid rock is encountered below ground level, the foundation shall extend in the solid rock a minimum depth of 18 inches or provide a minimum foundation depth of 30 inches. If solid rock is encountered, the socket/stub may be reduced in length as required to a min. length of 18 inches. Any material removed from the socket/stub shall be from the bottom and the clearance requirements shown above must still be adhered to. The inner surfaces of the socket/stub must remain free of debris.
Install Wedge Anchor System per manufacturer recommendations.
Attach the sign to the sign post.
Insert the sign post into the socket and align the sign face with the roadway.
Drive the wedge into the socket to secure post. This will leave approximately 3 inches of the wedge exposed.

Supports shall be straight within 1/4 inch per 5 feet of length and shall have a smooth, uniform finish free from defects affecting strength or appearance. Any bolt holes and sheared ends shall be free from burrs.

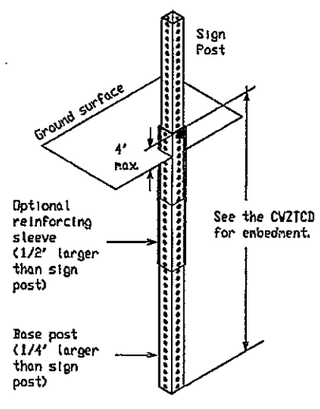
WING CHANNEL

Lap-splice/base bolted anchor



PERFORATED SQUARE METAL TUBING

With Anchor



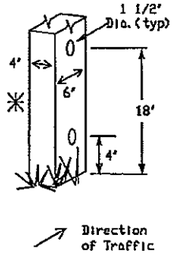
Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support.
The maximum sign square footage shall adhere to the manufacturer's recommendation. Two post installations can be used for larger signs.

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.



WOOD POST SYSTEM FOR GROUND MOUNTED SIGN SUPPORTS

Nominal Post Size	No. of Posts	Maximum Sq. Feet of Sign Face	Minimum Soil Embedment	Drilled Hole(s) Required
4 x 4	1	12	36"	NO
4 x 4	2	21	36"	NO
4 x 6	1	21	36"	YES
4 x 6	2	36	36"	YES

No more than 2 sign posts shall be mounted within a 7 ft. circle.

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."

✳ 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.

LEVELS DISPLAYED
ACCESSORIES

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TEXAS DEPARTMENT OF TRANSPORTATION

BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT STANDARD

5 of 12 BC(5)-03

©TxDOT 11-4-02	DN-JWT	CK-GRB	DW-FDN	CK-CAL
REVISIONS	DIST. NUMBER	COUNTY NUMBER	HIGHWAY NO. OR PROJECT	SHEET
	29	6	COLONIA ACCESS PROJECTS	23
	COUNTY		CSJ	SHEETS
	HIDALGO		3C1080406	

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PORTABLE CHANGEABLE MESSAGE SIGNS

1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. PCMS placed on the shoulder or within the R-O-W, but are not behind a concrete traffic barrier shall have a minimum of four plastic drums placed perpendicular to traffic, on the upstream side of the PCMS.
3. Messages on PCMS should contain no more than 8 words (four to eight characters per word), not including simple words such as 'TO,' 'FOR,' 'AT,' etc.
4. Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed.
5. Each phase of the message should convey a single thought.
6. Use the word 'EXIT' to refer to an exit ramp on a freeway; i.e., 'EXIT CLOSED.' Do not use the term 'RAMP.'
7. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
8. Specify the actual days of the week; e.g., TUES THROUGH FRI or TUES-FRI in the coming week that work activity will occur.
9. 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.
10. 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 two seconds each.
11. Do not 'flash' messages or words included in a message. The message should be steady burn or continuous while displayed.
12. 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.
13. Do not use the words 'Danger' or 'Caution' in message.
14. Do not display the message 'LANES SHIFT LEFT' or 'LANES SHIFT RIGHT' on a PCMS. Drivers do not understand the message.
15. Do not display messages that scroll horizontally or vertically across the face of the sign.
16. 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.

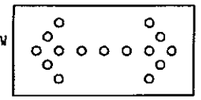
Word or Phrase	Abbreviation	Word or Phrase	Abbreviation
Access Road	ACCES RD	Miles	MI
Air Quality	AIR QLTY	Miles Per Hour	MPH
Avenue	AVE	Time Minutes	Time MIN
Best Route	BEST RTE	Monday	MON
Boulevard	BLVD	Normal	NORM
Bridge	BRDG	North	N
Cannot	CANT	Parking	PKING
Center	CNTR	Parking Lot	PRK LOT
Construction Ahead	CONST AHEAD	Road	RD
Detour Route	DETOUR RTE	Right Lane	RGT LN
East	E	Saturday	SAT
Emergency	EMER	Service Road	SERV RD
Emergency Vehicle	EMER VEH	Shoulder	SHLDR
Entrance, Enter	ENT	Slippery	SLIP
Express Lanes	EXP LANE	South	S
Expressway	EXPWY	Speed	SPD
Distance Feet	Distance FT	Street	ST
Fog Ahead	FOG AHD	Sunday	SUN
Freeway	FRWY, FWY	Telephone	PHONE
Freeway Blocked	FWY BLKD	Thursday	THURS
Friday	FRI	To Downtown	TO DWNTN
Hazardous Driving	HAZ DRIVING	Traffic	TRAF
Highway	HWY	Travelers	TRVLRS
Hours	HR	Tuesday	TUES
Information	INFO	Turnpike	Name TRNPK
Left	LFT	Upper Level	UPPR LVL
Left Lane	LFT LN	Warning	WARN
Lane Closed	LN CLSD	Wednesday	WED
Lower Level	LOWR LVL	Weight Limit	WT LIMIT
Maintenance	MAINT	Wet Pavement	WET PVMT
Roadway designation #	IH-number, US-number, SH-number, FM-number	West	W

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

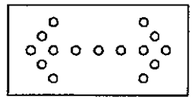
TYPICAL FLASHING ARROW PANEL

1. The Flashing Arrow Panel 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 Panels 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 Panel.
4. The Flashing Arrow Panel should be able to display the following symbols:

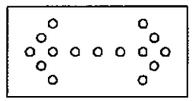
Flashing RIGHT (LEFT) ARROW



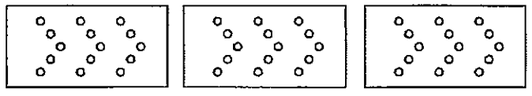
Flashing DOUBLE ARROW



Flashing CAUTION



5. The 'CAUTION' display consists of four corner lamps flashing simultaneously.
6. The straight line caution display is NOT ALLOWED.
7. The Flashing Arrow Panel 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 Panel shall be mounted on a vehicle, trailer or other suitable support.
12. A Flashing Arrow Panel SHOULD NOT BE USED to laterally shift all lanes of traffic on a multi-lane roadway at once.

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

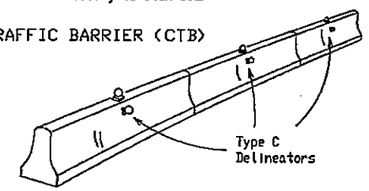
ATTENTION: Flashing Arrow Panels shall be equipped with automatic dimming devices.

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

TYPE C DELINEATORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS

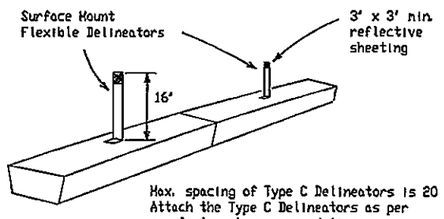
1. Type C Delineators shall be prequalified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Type C Delineators can be found at the following Web site: ftp://ftp.dot.state.tx.us/pub/txdot-info/gsd/pdf/dms8600preq.pdf.
2. Color of delineators shall be as specified in the 'Texas Manual on Uniform Traffic Control Devices' (TMUTCD). The cost of the Type C Delineators shall be considered subsidiary to Item 502.

CONCRETE TRAFFIC BARRIER (CTB)



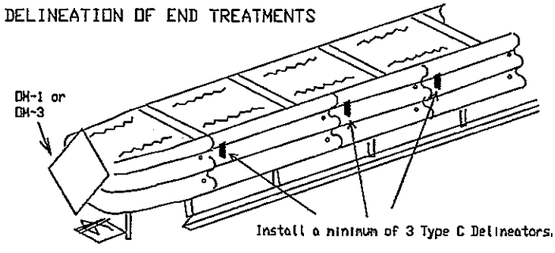
3. Two (2) Type C Delineators should be mounted on each section of CTB in approximately the midsection of the CTB. The Type C Delineator on the side of the CTB shall be installed directly below the Type C Delineator mounted on top of the CTB.
4. Maximum spacing of Type C Delineators is 40 feet.
5. Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
6. Attach Type C Delineators on CTB as per manufacturer's recommendations.
7. Missing or damaged Type C Delineators shall be replaced as directed by the Engineer.

LOW PROFILE CONCRETE BARRIER (LPCB)



Max. spacing of Type C Delineators is 20 feet. Attach the Type C Delineators as per manufacturer's recommendations.

DELINEATION OF END TREATMENTS



	APPROACHING TRAFFIC	
	BOTH SIDES	ONE SIDE
DELINEATION	DM-1	DM-3 or Vertical Panel

Attach the Type C Delineators as per manufacturer's recommendations.

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 signs. They are intended to warn of an approaching 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 E Sheeting (Fluorescent Prismatic) meeting the requirements of Departmental Material Specification DMS-8300.
4. Type-C 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.

END TREATMENTS FOR CTB'S USED IN WORK ZONES

End treatments used on CTB's in work zones shall meet crashworthy standards as defined in the National Cooperative Highway Research Report 350. Refer to the CWZTCD List for approved end treatments and manufacturers.

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.

TRUCK-MOUNTED ATTENUATORS

1. Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the National Cooperative Highway Research Report No. 350 (NCHRP 350).
2. Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
3. Refer to the dates shown in the CWZTCD to ensure that the TMA meets the age requirements and the crashworthiness criteria established by the Federal Highway Administration (FHWA) for TMAs.
4. Refer to the CWZTCD for a list of approved TMAs.
5. TMAs are required on freeways unless otherwise noted in the plans.
6. A TMA should be used anytime that it can be positioned approximately 100 feet or less in advance of the area of crew exposure without adversely affecting the work performance.
7. 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.

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TEXAS DEPARTMENT OF TRANSPORTATION

BARRICADE AND CONSTRUCTION ARROW & MESSAGE SIGNS, REFLECTORS & WARNING LIGHT STANDARD

6 of 12 BC(6)-03

© TxDOT 11-4-02	DN-BAS	CK-GRB	DW-FDN	CK-CAL
REVISIONS	STATE DISTRICT	CONTROL SECTION	FEDERAL AID PROJECT	SHEET
	29	6	COLONIA ACCESS PROJECTS	24
	COUNTY		CSJ	HIGHWAY
	HIDALGO		3C1080406	

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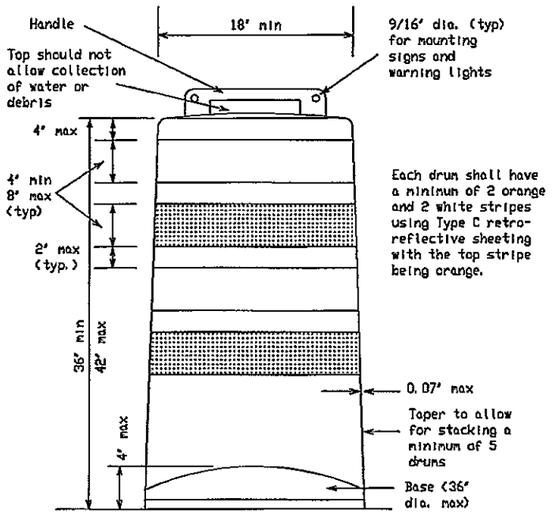


GENERAL NOTES

1. 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).
2. 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.
3. ⚠ The Contractor shall have a maximum of 24 hours to replace any plastic drums or other traffic control devices identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

Prequalified plastic drums shall meet the following requirements:

GENERAL DESIGN REQUIREMENTS

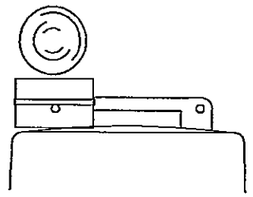
1. Plastic drums shall be a two-piece design; the 'body' of the drum shall be the top portion and the 'base' shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents 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, delineator reflector unit or non-plywood 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 minimum unballasted weight of 7.7 lbs. and maximum unballasted weight of 11 lbs. The wall of the drum body shall be a minimum of 0.07 inch in thickness. Weight of any drum supplied shall not vary more than 0.5 lb. from that of the prequalified sample.
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, 'Flat Surface Reflective Sheeting,' High Specific Intensity (Type C) retro-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, checking, 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. 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.
4. 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.
5. Ballast shall not be placed on top of drums.
6. Adhesives may be used to secure base of drums to pavement.

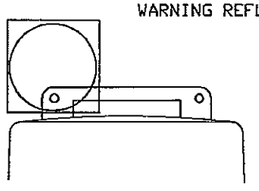


Type C Warning Light or approved substitute mounted adjacent to the travel way.

WARNING LIGHTS AND DELINEATORS 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 flashing warning lights are not intended for delineation and shall not be used in a series.
3. Type C 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.
4. Type A and Type C warning lights shall be installed at locations as detailed on other sheets in the plans.
5. Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
6. Type A Class 1, Type A Class 2, or Type B Reflector Units (D & DN Standard) may be attached to drums to delineate the intended vehicular path. The color of the reflector unit shall correspond to the pavement marking it is supplementing or for which it is substituting (left edgeline-yellow or right edgeline-white). The reflective unit shall be attached to the handle of the drum using the mounting hole nearest the travel lane and shall be aligned perpendicular to approaching traffic.
7. Delineators may be used as directed by the Engineer. Delineators may not be used as a substitute for warning lights.

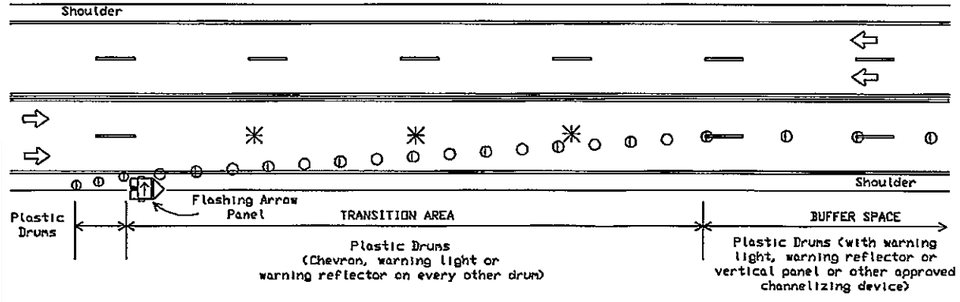
WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C WARNING LIGHTS



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

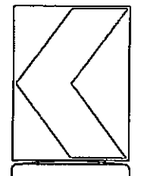
1. A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
2. The warning reflector shall be manufactured using a sign substrate approved for use with plastic 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 D (Non-fluorescent Prismatic).
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.

TYPICAL DETAIL OF LANE CLOSURE USING PLASTIC DRUMS AS CHANNELIZING DEVICES

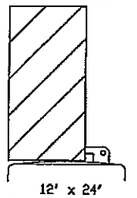


Provide adequate sight distance when placing lane closures. Do not place lane closures in vertical or horizontal curves.
See BC(8) for table showing the spacing of channelizing devices in the taper and tangent section.

✳ NOTE: Lane lines shall be removed when the lane closure occupies a location for longer than 2 weeks.



18' x 24' Sign (Maximum Sign Dimension) Chevron CW1-8, 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 E (Fluorescent Prismatic) sheeting meeting the color and retroreflectivity requirements of DMS-8300, 'Flat Surface Reflective Sheeting,' unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type C (High Specific Intensity). 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.
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.

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.

STANDARD PLANS
TEXAS DEPARTMENT OF TRANSPORTATION

BARRICADE AND CONSTRUCTION PLASTIC DRUM STANDARD

4/03 Revision

⚠ Revised note

7 of 12

BC(7)-03

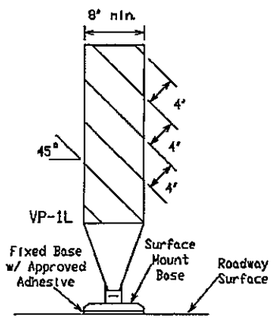
© TxDOT 11-4-02	DN-BAS	CK-GRB	DW-FIN	CK-CAL
REVISIONS 4-03	STATE 29	FEDERAL AID PROJECT 6	COLONIA ACCESS PROJECTS	SHEET 25
		DISTRICT HIDALGO	COUNTY 3C1080406	HIGHWAY

107

LEVELS DISPLAYED
ACCU

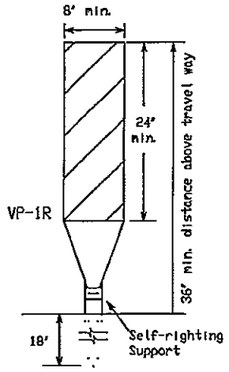
CHANNELIZING DEVICES

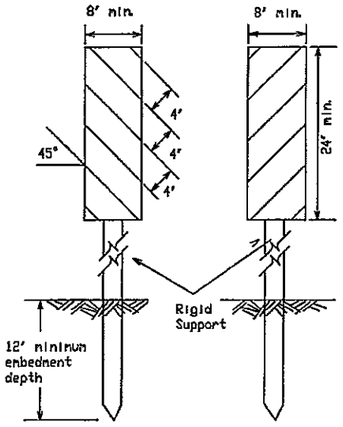
VERTICAL PANELS



FIXED

(Rigid or self-righting)





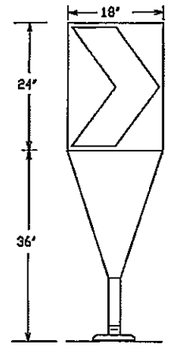
DRIVEABLE

(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 Appendix B 'Treatment of Pavement Drop-offs in Work Zones' for additional guidelines on the use of 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, freeways, and on high speed roadways shall have a minimum of 2 square feet 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 C (High Specific Intensity) conforming to Departmental Material Specification DMS-8300, unless noted otherwise.

CHEVRONS



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 non-reflective legend. Sheeting for the chevron shall be retroreflective Type E (Fluorescent Prismatic) conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall be black vinyl non-reflective decal sheeting meeting the requirements of DMS-8320.

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' -75'
35		205'	225'	245'	35'	70' -90'
40		265'	295'	320'	40'	80' -100'
45	L=WS	450'	495'	540'	45'	90' -110'
50		500'	550'	600'	50'	100' -125'
55		550'	605'	660'	55'	110' -140'
60		600'	660'	720'	60'	120' -150'
65		650'	715'	780'	65'	130' -165'
70		700'	770'	840'	70'	140' -175'
75		750'	825'	900'	75'	150' -185'

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

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, non-reflective, 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 approximately 35 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.
8. Examples on this sheet are the most commonly used channelizing devices in work zones. For other devices, refer to the CWZTCD.

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
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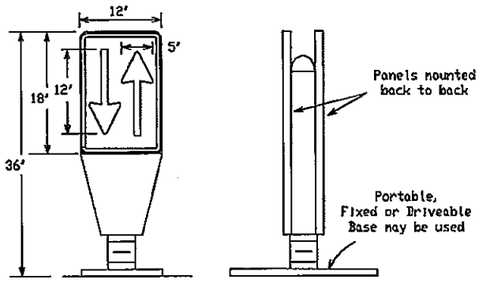
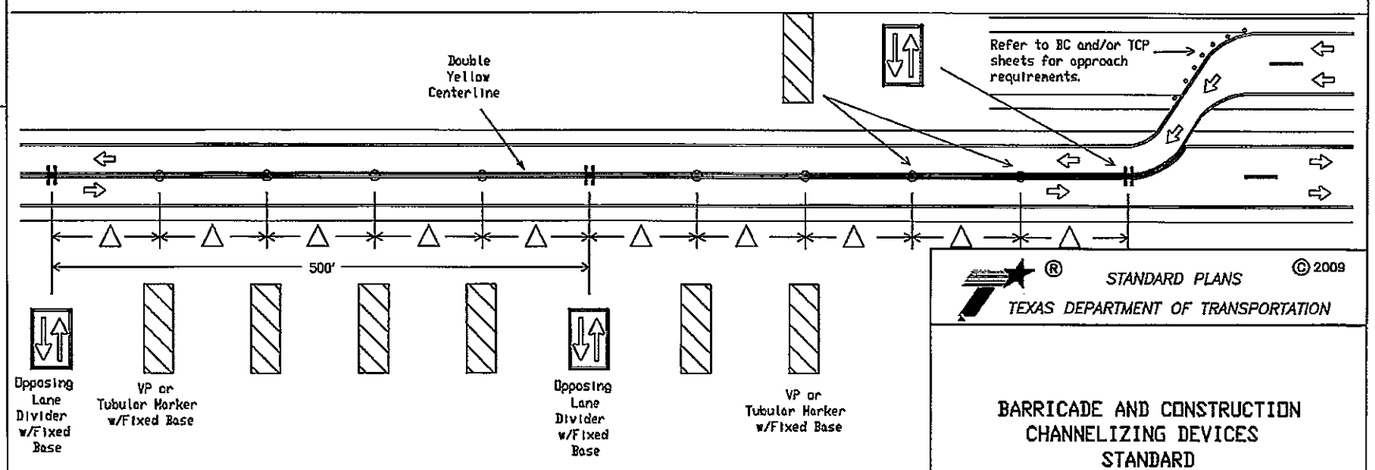
OPPOSING TRAFFIC LANE DIVIDERS (OTLD)



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. The OTLD is placed on a flexible self-righting support that returns to an upright position when impacted by a vehicle.
2. The OTLD may be used in combination with simple tubular markers or vertical panels (vp's).
3. Spacing between the OTLD shall not exceed 500 feet. Tubular markers or vp's 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 E (Fluorescent Prismatic) conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall be black vinyl non-reflective decal sheeting meeting the requirements of DMS-8320.



△ Spacing between the VP's or tubular markers shall not exceed 100 feet. On roadways with speeds less than 45 MPH, spacing between the tubular markers or VP's shall be as shown on the channelizing spacing table shown on this page. If the table shows spacing greater than 100 feet based on the roadway speed, then use a maximum of 100 feet spacing between the tubular markers or VP's. Every fifth channelizing device shall be an OTLD. Spacing between the OTLD shall not exceed 500 feet. When using this type of traffic control set-up, the OTLD, VP's or tubular markers shall have the fixed base with approved adhesive per the manufacturer's recommendations.

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 ACC

STANDARD PLANS
TEXAS DEPARTMENT OF TRANSPORTATION

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES STANDARD

8 of 12 BC(8)-03

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REVISIONS	STATE DISTRICT	COUNTY	FEDERAL AID PROJECT	SHEET
	29	6	COLONIA ACCESS PROJECTS	26
	COUNTY		CSJ	HIGHWAY
	HIDALGO		3C1080406	

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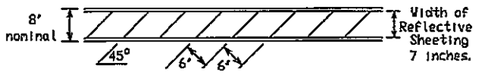
TYPE III BARRICADES

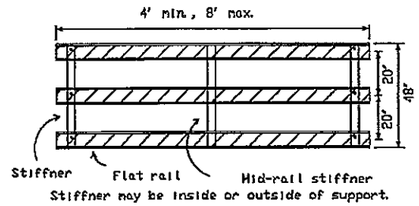
1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type III Barricades and a list of all materials used in the construction of Type III Barricades.
2. Type III Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades 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.
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. 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.

Barricades shall NOT be used as a sign support.

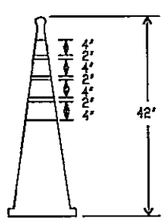
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES



Stiffner may be inside or outside of support.

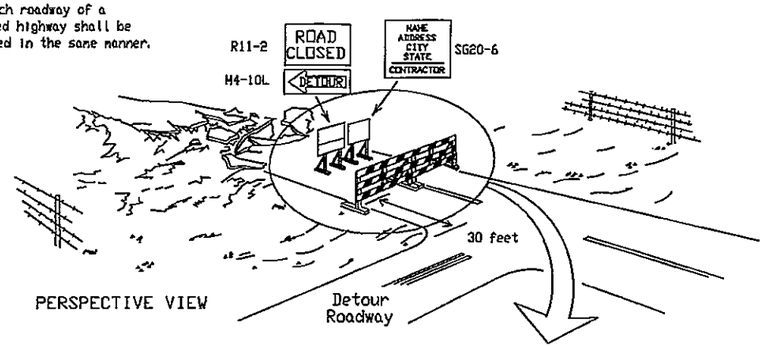


EDGELINE CHANNELIZER

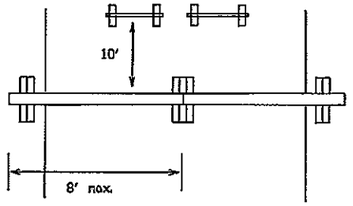
1. This device is intended only for use in place of a vertical panel to channelize traffic by indicating the edge of the travel lane.
2. This device shall not be used to separate lanes of traffic (opposing or otherwise) or warn of objects.
3. This device is based on a 42 inch, two-piece cone with an alternate striping pattern: four 4 inch retroreflective bands, with an approximate 2 inch gap between bands. The color of the band should correspond to the color of the edgeline (yellow for left edgeline, white for right edgeline) for which the device is substituted or for which it supplements. The reflectorized bands shall be retroreflective Type C (High Specific Intensity) conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
4. The base must weigh a minimum of 30 lbs.

TYPE III BARRICADE (POST AND SKID) TYPICAL APPLICATION

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



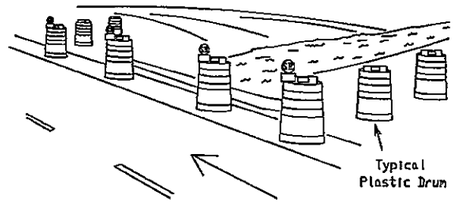
The three rails on Type III barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic.
Barricade striping should slant downward in the direction of detour.



PLAN VIEW

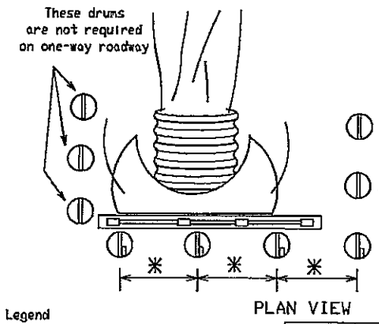
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type III Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



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.



PLAN VIEW

Legend
- Plastic drum
- Plastic drum with steady burn light

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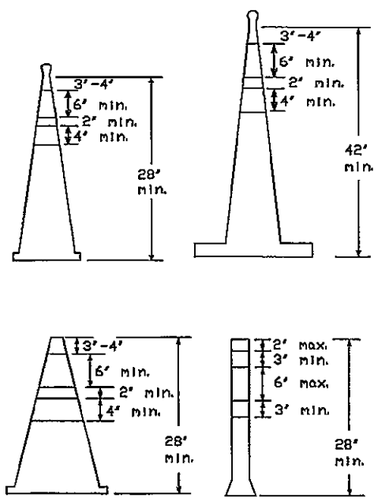
Click on 'View PDF',
This site is printable.

CONES

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

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



1. Traffic cones and tubular markers shall be a minimum of 28 inches in height when used either on freeways or at nighttime.
2. Cones or tubular markers shall be predominantly orange, fluorescent red-orange, or fluorescent yellow-orange. They should be kept clean and bright for maximum visibility.
3. Cones used only for daytime operations do not require the reflectorized bands.
4. Cones used for nighttime operations shall be reflectorized. Reflectorized material shall have a smooth, sealed outer surface that displays the same approximate color during the day and night. The reflectorized bands shall be retroreflective Type C (High Specific Intensity) conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
5. When used at night, appropriate personnel shall ensure that cones and tubular markers remain in their proper location and in an upright position.
6. Reflectorization of cones shall consist of a minimum 6 inch band placed at least 3 inches but not more than 4 inches from the top, supplemented by a minimum 4 inch band spaced a minimum of 2 inches below the 6 inch band.
7. Reflectorization of tubular markers shall be a minimum of two 3 inch bands placed a maximum of 2 inches from the top with a maximum of 6 inches between bands. The reflectorized bands shall be retroreflective Type C (High Specific Intensity) conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
8. One-piece cones or tubular markers are generally suitable for temporary usage (up to 8 hours) with other channelization devices such as vertical panels, drums or two-piece cones for long term usage. Care should be taken to ensure they remain in their proper location and in an upright position.
9. Cones or tubular markers used on each project shall be of the same size and shape.
10. The handle may be designed as a hook or other shape, fabricated from non-rigid materials similar to the cone material, and may extend up to a maximum of 8 inches above the top of cone. Length of the handle shall not be considered with regard to the overall height of the cone.

STANDARD PLANS
TEXAS DEPARTMENT OF TRANSPORTATION

BARRICADE AND CONSTRUCTION TYPE III BARRICADE & CONES STANDARD

BC(9)-03

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REVISIONS	FED. ROAD DIV. NO.	FED. AID PROJECT NO.		SHEET NO.
	6	COLONIA ACCESS PROJECTS		27
	COUNTY		CSJ	HIGHWAY
	HIDALGO		3C1080406	

LOADS DISPLAYED
ACCESS

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 the 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(11).
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.
3. A list of prequalified reflective raised pavement markers can be found at the following web site:
   ftp://ftp.dot.state.tx.us/pub/txdot-info/gsd/pdf/dms4200preq.pdf
4. A list of prequalified non-reflective traffic buttons can be found at the following web site:
   ftp://ftp.dot.state.tx.us/pub/txdot-info/gsd/pdf/4300preq.pdf

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241. A list of prequalified products can be found at the following web site:
   ftp://ftp.dot.state.tx.us/pub/txdot-info/gsd/pdf/pavemark.pdf
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240 or the TXDOT Purchase Specification No. 550-74-89. A list of prequalified products and a copy of the TXDOT Purchase Specifications can be found at web sites:
   ftp://ftp.dot.state.tx.us/pub/txdot-info/gsd/pdf/pavement.pdf
   ftp://ftp.dot.state.tx.us/pub/txdot-info/gsd/pdf/tss/tss377.pdf

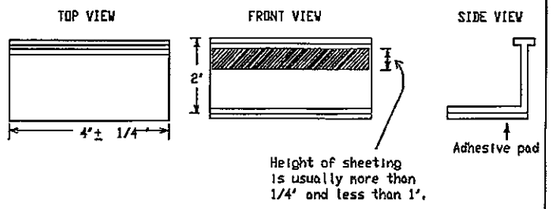
MAINTAINING WORK ZONE PAVEMENT MARKINGS

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 150 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 shall be replaced as required by the Engineer at the expense of the Contractor.

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 two weeks, 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 discernible marking, by any method that does not materially damage the surface or texture of the pavement.
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway.
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.

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 mated between tab manufacturers.

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
PREFABRICATED PAVEMENT MARKINGS-PERMANENT	DMS-8240
PREFABRICATED PAVEMENT MARKINGS-REMOVABLE	DMS-8241
TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS	DMS-8242

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BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS STANDARD

BC(10)-03

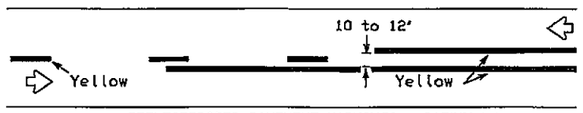
© TxDOT February 1998 | DN-LR | CK-DTN | DW-FDN | CK-CAL

REVISIONS	STATE DISTRICT	CONTROL SECTION JOB	FEDERAL AID PROJECT	SHEET
1-97	29	6	COLONIA ACCESS PROJECTS	28
2-98				
1-02	COUNTY		CSJs	HIGHWAY
11-02	HIDALGO		3C1080406	

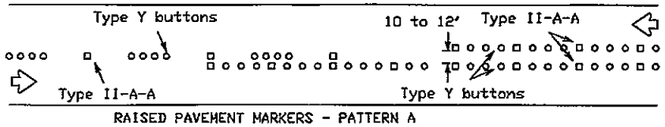
109A

PAVEMENT MARKING PATTERNS

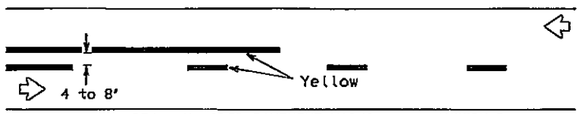
CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



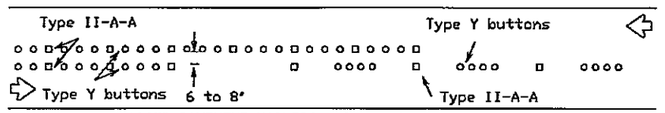
REFLECTORIZED PAVEMENT MARKINGS - PATTERN A



RAISED PAVEMENT MARKERS - PATTERN A



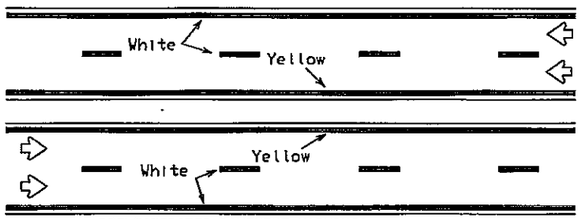
REFLECTORIZED PAVEMENT MARKINGS - PATTERN B



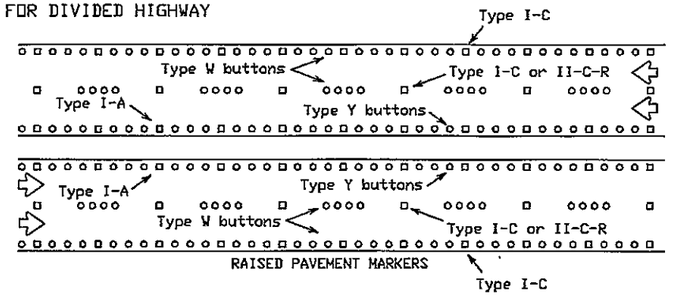
RAISED PAVEMENT MARKERS - PATTERN B

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.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



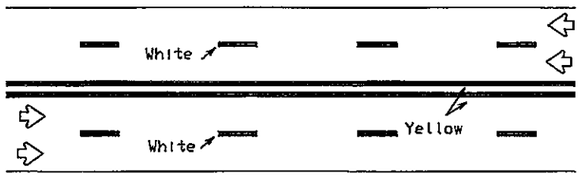
REFLECTORIZED PAVEMENT MARKINGS



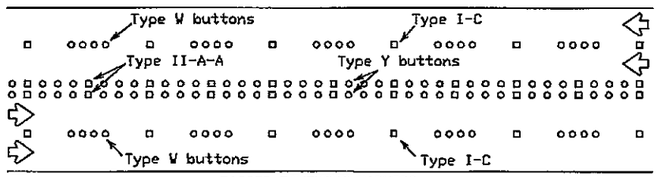
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



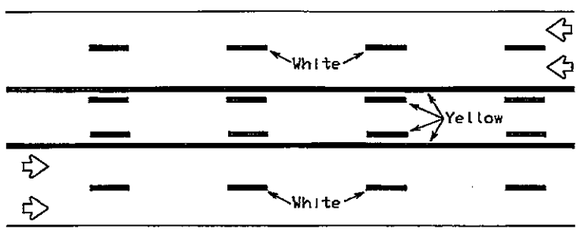
REFLECTORIZED PAVEMENT MARKINGS



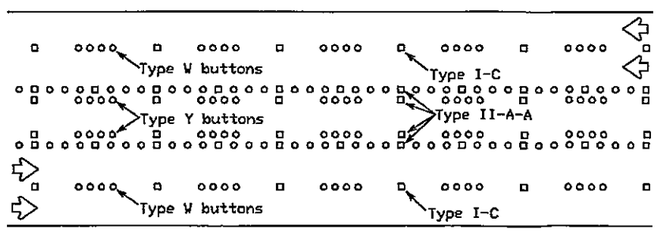
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

TWO-WAY LEFT TURN LANE



REFLECTORIZED PAVEMENT MARKINGS



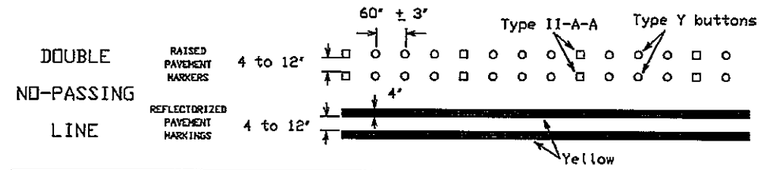
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

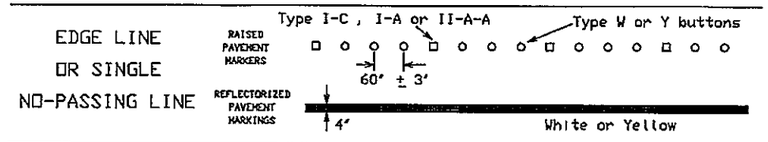
STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS

SOLID LINES

DOUBLE NO-PASSING LINE

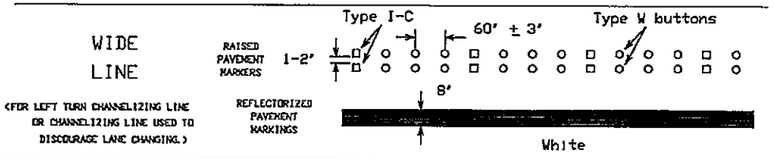


EDGE LINE OR SINGLE NO-PASSING LINE



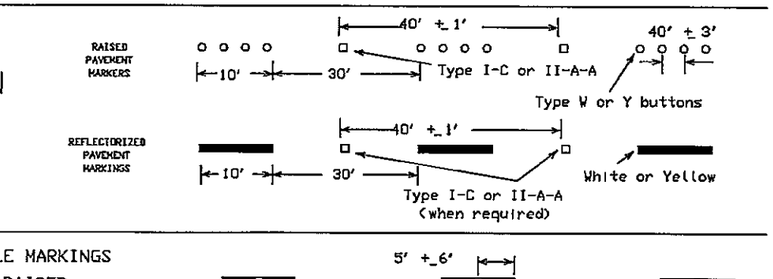
WIDE LINE

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



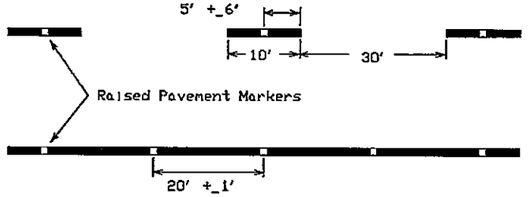
BROKEN LINE

(FOR CENTER LINE OR LANE 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

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.

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

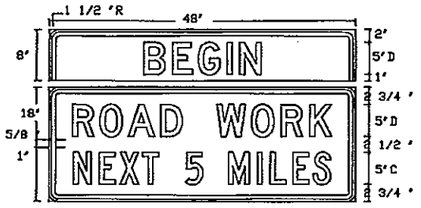
TEXAS DEPARTMENT OF TRANSPORTATION

BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS STANDARD

11 of 12 BC(11)-03

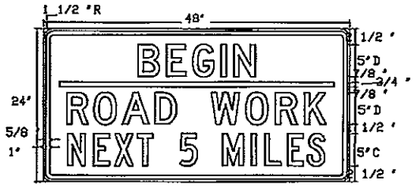
© TxDOT February 1998	DN-LR	CO-DIN	DN-FDN	CO-CAL
REVISIONS	DIST. AUDITED	CONTROL SECT.	FEDERAL AID PROJECT	SHEET
2-94	29	6	COLONIA ACCESS PROJECTS	29
1-97	COUNTY		CSJ	HIGHWAY
2-98	HIDALGO		3C1080406	
11-02				

109B



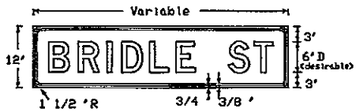
SG20-1 w/plaque
48' X 26'

Letters - Black
Numbers - Black
Border - Black
Background - Orange Refl.



SG20-5T
48' X 24'

Letters - Black
Numbers - Black
Border - Black
Background - Orange Refl.

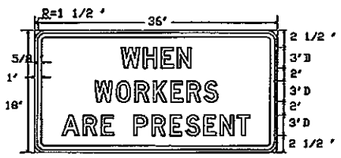


M4-9N
Variable X 12'

Letters - Black
Border - Black
Background - Orange Refl.

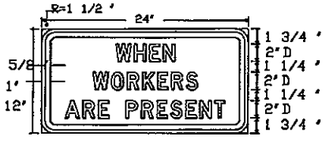
The M4-9R,L or S sign is to be used to detour local streets or roads that are not a State or Federal numbered highway; however, it should not be used in lieu of the M4-10 sign at the beginning of the detour or to detour State or Federal numbered routes.

Also, when the M4-9R,L or S sign is used, a sign (M4-9N) with the name of the street being detoured may be mounted above it.



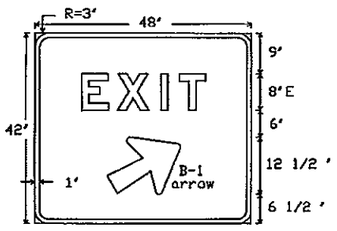
ER20-5
Plaque
36' X 18'

Letters - Black
Border - Black
Background - White Refl.



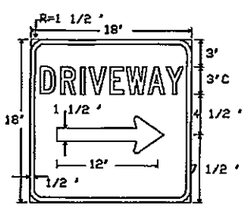
R20-5
Plaque
24' X 12'

Letters - Black
Border - Black
Background - White Refl.



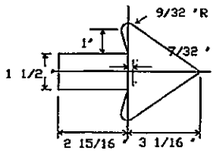
E5-1a
48' X 42'

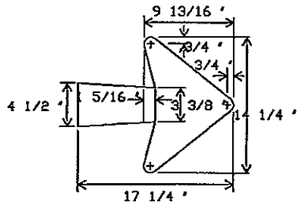
Letters - White Refl.
Arrow - White Refl.
Border - White Refl.
Background - Green Refl.



D-70a
18' X 18'

Letters - White Refl.
Symbol - White Refl.
Border - White Refl.
Background - Blue Refl.





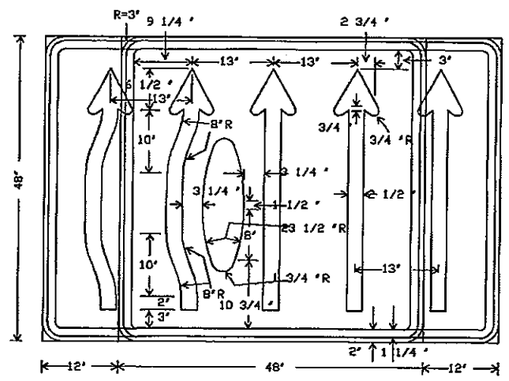
B-1 Arrow Detail

D-70S
42' X 14'

Letters - White Refl.
Symbol - White Refl.
Border - White Refl.
Background - Blue Refl.

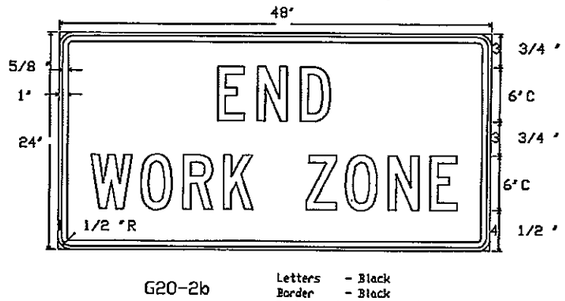
* Alternate first line legend for D-70S

RESTAURANT | D70R 4'C
BUSINESS | D70B 4'C
MOTEL | D70M 4'C
GAS | D70G 4'C



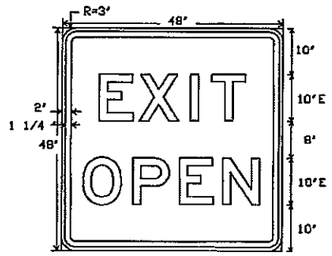
CW24-2
Var. X 48'

A mirror image may be used to show proper lane alignment.



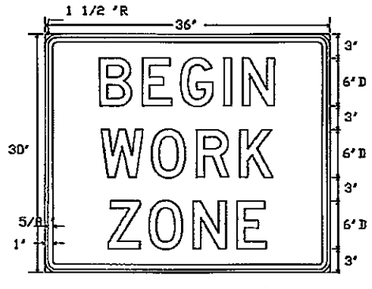
G20-2b
48' X 24'

Letters - Black
Border - Black
Background - Orange Refl.



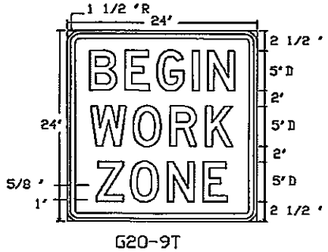
E5-2
48' X 48'

Letters - Black
Border - Black
Background - Orange Refl.



EG20-9T
36' X 30'

Letters - Black
Border - Black
Background - Orange Refl.



G20-9T
24' X 24'

Letters - Black
Border - Black
Background - Orange Refl.

DEPARTMENT MATERIAL SPECIFICATIONS

PLYWOOD SIGN BLANKS	DMS-7100
ALUMINUM SIGN BLANKS	DMS-7110
FLAT SURFACE REFLECTIVE SHEETING	DMS-8300
VINYL NON-REFLECTIVE DECAL SHEETING	DMS-8320

COLOR	USAGE	REFLECTIVE SHEETING OR OTHER MATERIAL
BLUE	BACKGROUND	TYPE C (HIGH SPECIFIC INTENSITY)
RED	BACKGROUND	TYPE C (HIGH SPECIFIC INTENSITY)
GREEN	BACKGROUND	TYPE C (HIGH SPECIFIC INTENSITY)
ORANGE	BACKGROUND	TYPE E (FLUORESCENT PRISMATIC)
WHITE	BACKGROUND	TYPE C (HIGH SPECIFIC INTENSITY)
YELLOW	BACKGROUND	TYPE C (HIGH SPECIFIC INTENSITY)
BLACK	LEGEND & BORDERS	VINYL NON-REFLECTIVE DECAL SHEETING
WHITE	LEGEND & BORDERS	TYPE C (HIGH SPECIFIC INTENSITY)

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Traffic Operations Division - TE
Texas Department of Transportation
125 East 11th Street
Austin, Texas 78701-2483
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This site is printable.

STANDARD PLANS
TEXAS DEPARTMENT OF TRANSPORTATION

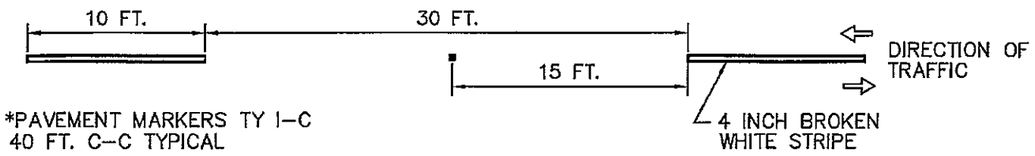
BARRICADE AND CONSTRUCTION REGULATORY & GUIDE SIGNS STANDARDS

12 of 12 BC(12)-03

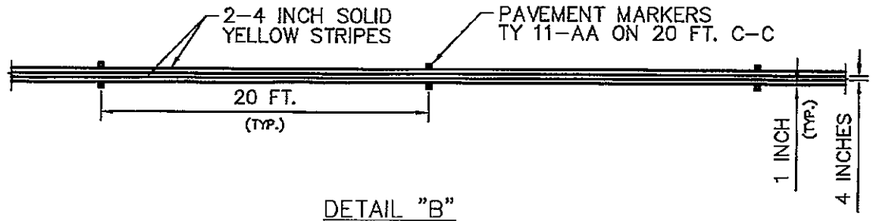
©TxDOT February 1998	DN-GRB	CK-RAS	DW-FDN	CK-CAL
REVISIONS 10-99 11-02	DIST/COUNTY 29	FEDERAL AID PROJECT NO. 6		SHEET NO. 30
	DISTRICT HIDALGO	CONTROL 3C1080406		HIGHWAY

109C

LEVELS DISPLAYED
ACCESS

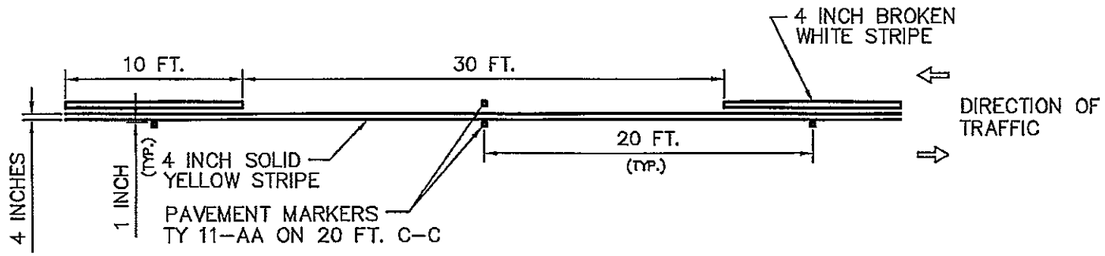


DETAIL "A"

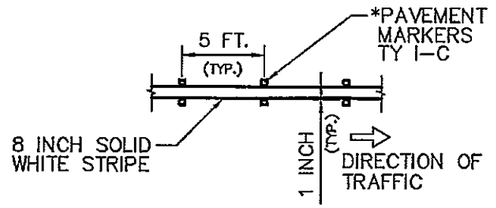


DETAIL "B"

*PAVEMENT MARKERS TY I–C AND TY I–A SHALL BE INSTALLED WITH THE REFLECTIVE FACE TOWARDS THE DIRECTION OF TRAFFIC.



DETAIL "C"



DETAIL "D"

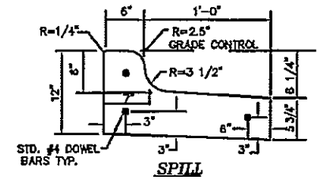
* NOTE:
ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED BY THE CONTRACTOR.

THE PAVEMENT SURFACE SHALL BE FREE OF DELETERIOUS MATERIAL BEFORE APPLICATION OF PERMANENT STRIPING AND PAVEMENT MARKERS. IF THE SURFACE NEEDS TO BE CLEANED, AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE THE SURFACE IN ACCORDANCE WITH ITEM 678, "PAVEMENT SURFACE PREPARATION FOR MARKINGS" EXCEPT FOR "MEASUREMENT" AND "PAYMENT" THE PREPARATION OF PAVEMENT SURFACE SHALL BE SUBSIDIARY TO ITEMS 666, 668 AND 672. ALL PERMANENT MARKINGS SHALL BE THERMOPLASTIC STRIPING MATERIAL AND SHALL BE 90 MIL. REFER TO TxDOT STANDARD HANDBOOK FOR THERMOPLASTIC STRIPPING SPECIFICATIONS.

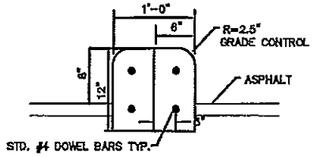
TEXAS DEPARTMENT OF TRANSPORTATION

HIDALGO COLONIA ACCESS PROJECTS THIRD ROUND ALLOCATION FUNDING STRIPING DETAILS

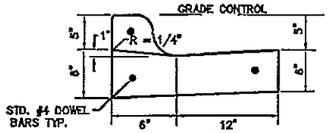
FED RD DIV NO	STATE AID PROJECT NO.		FILE NO.	SHEET NO.
6	HIDALGO COLONIAS PROJECT		ENG. 08 008	31
STATE	STATE DIST. NO.	COUNTY	CSJ#	HIGHWAY NO.
TEXAS	29	HIDALGO	3C1080406	



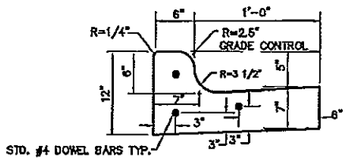
SPILL



BARRIER CURB



LAY DOWN CURB



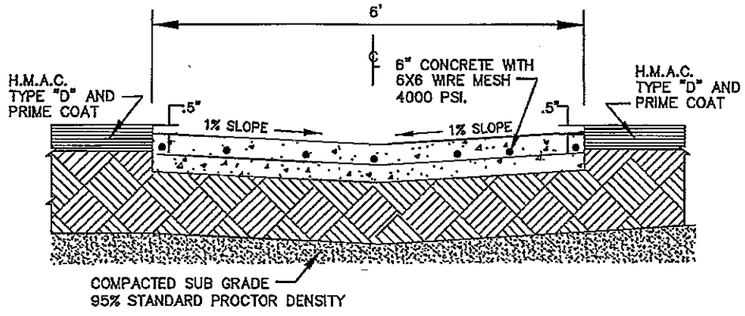
TYPE "A" CURB

NOTES:

1. 1/2" PREFORMED EXPANSION JOINTS SHALL BE PLACED ON 30' CENTERS. DUMMY JOINTS SHALL BE PLACED 10' FROM EACH EXPANSION JOINT.
2. TACK COAT SHALL BE APPLIED TO ANY SURFACE OF CONCRETE IN CONTACT WITH ASPHALT.
3. 3600 PSI CONCRETE SHALL BE USED.

CURB & GUTTER DETAILS

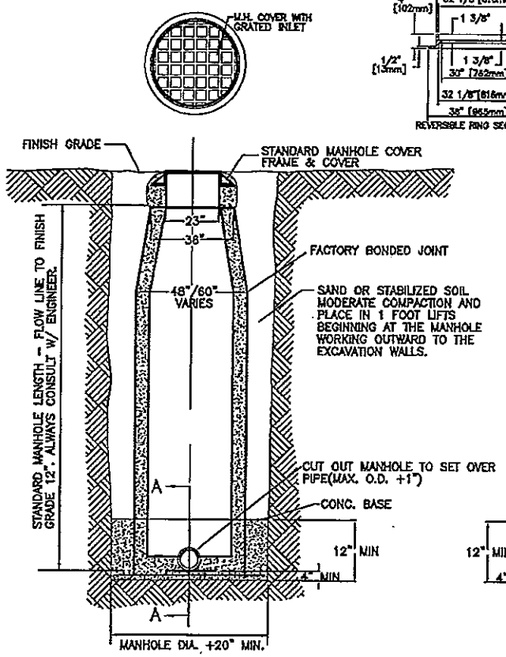
NOT TO SCALE



VALLEY GUTTER

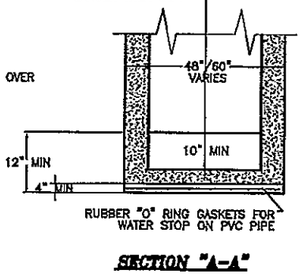
CURB & GUTTER AND VALLEY GUTTER DETAILS

NOT TO SCALE



GENERAL NOTES

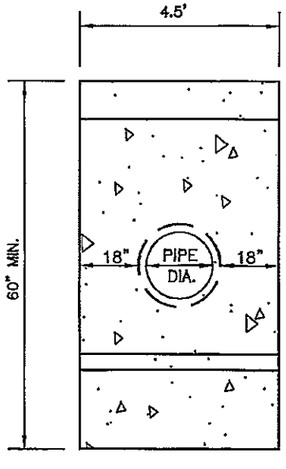
1. BEFORE ATTEMPTING TO INSTALL ANY MANHOLE BE SURE EXCAVATION HAS BEEN SHORED OR SLOPED PROPERLY.
2. CONCRETE BASE TO BE POURED IN PLACE IN TRENCH.
3. MANHOLE CUT-OUT TO BE MADE AT TIME OF INSTALLATION.
4. MANHOLE TO BE INSTALLED BY INSERTING INTO WET CONCRETE BASE.
5. FUTURE CONNECTIONS. IF A SEALANT BETWEEN PIPE & MANHOLE IS NEEDED USE STAUFFER CHEMICAL SWS940RTV SILICONE SEALANT OR EQUAL.
6. USE 4'-0" INSIDE DIAMETER (ID) PRECAST SECTION FOR SEWERS WHOSE NOMINAL SIZE IS 24" OR SMALLER.
7. USE 5'-0" ID SECTION FOR SEWER SIZES 30"-36"
8. USE 6'-0" ID SECTIONS FOR SEWERS LARGER THEN 30".

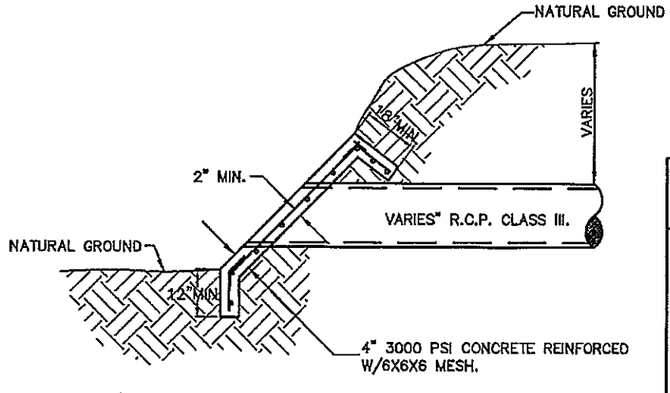


SECTION "A-A"

CONCRETE STORM SEWER MANHOLE

NOT TO SCALE





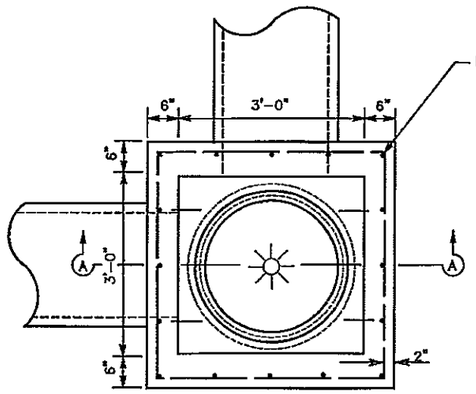
CAST-IN PLACE CONCRETE HEADWALL DETAIL

NOT TO SCALE

TEXAS DEPARTMENT OF TRANSPORTATION

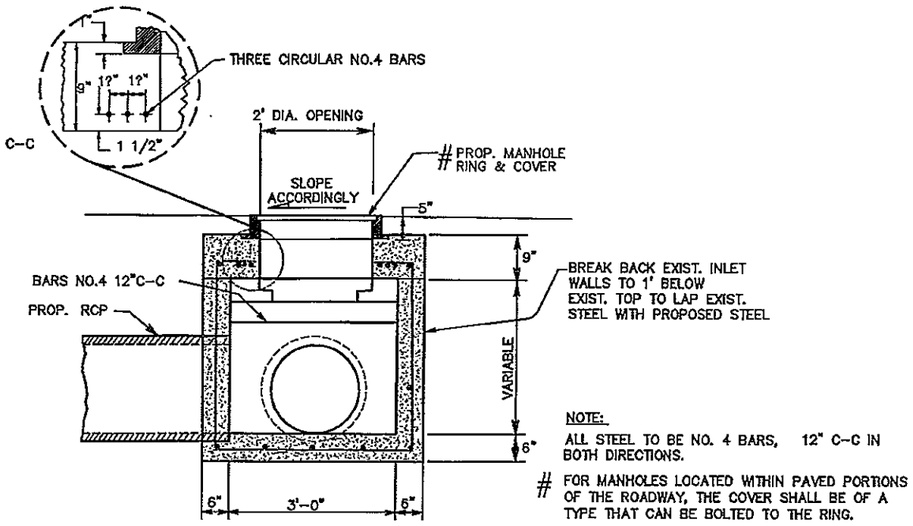
HIDALGO COLONIA ACCESS PROJECTS
THIRD ROUND ALLOCATION FUNDING
TYPICAL STORM DETAILS
(1/3)

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:	6	TEXAS	ENG. 08 008	
DW:	STATE DIST No.	COUNTY	CSJ#	SHEET NO.
CK DW:	29	HIDALGO	3C1080406	32
TR:				
CK TR:				



PLAN VIEW

(TO BE PAID UNDER ITEM 479 "ADJUST INLET (JCT BOX)"

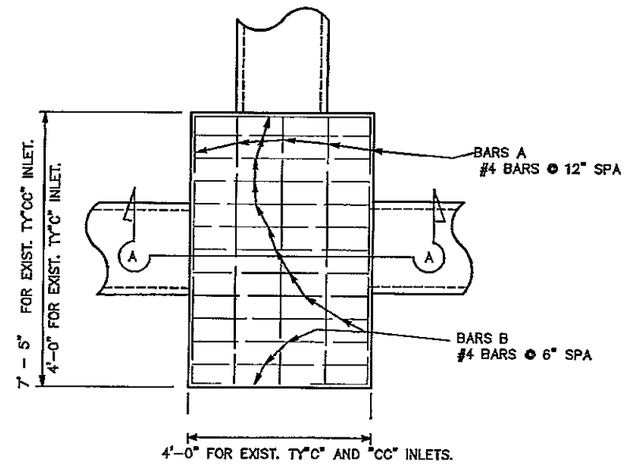


NOTE:

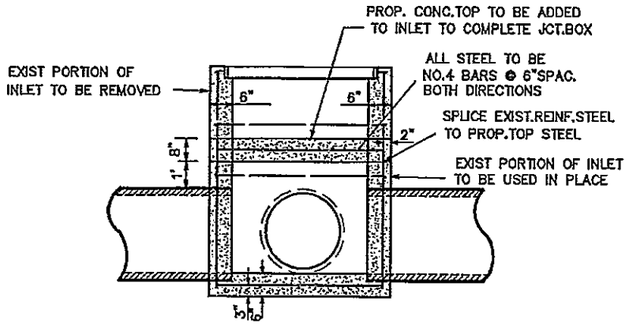
ALL STEEL TO BE NO. 4 BARS, 12" C-C IN BOTH DIRECTIONS.

FOR MANHOLES LOCATED WITHIN PAVED PORTIONS OF THE ROADWAY, THE COVER SHALL BE OF A TYPE THAT CAN BE BOLTED TO THE RING.

SECTION A-A
ADJUST INLET (JUNCT. BOX)

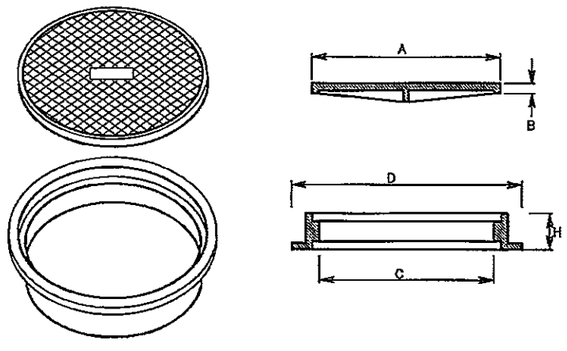


PLAN



EXIST TY "C" OR TY "CC" INLET TO BE CONVERTED TO JCT. BOX

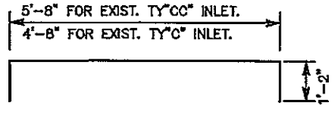
SECTION A-A
ADJ. INLET (CAP)



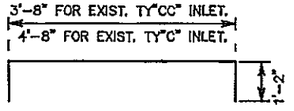
LID			RING		
"A"	"B"	WEIGHT	"C"	"D"	"H"
2'-2"	1"	174 lbs. (min)	2'-0"	2'-7½"	5"

RING & COVER DETAILS
(FOR MANHOLE TY "A" AND "A1")
(NON-PAY)

NOTES: RINGS AND COVERS OF SLIGHTLY DIFFERENT DIMENSIONS BUT APPROXIMATELY THE SAME WEIGHT MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



BARS A

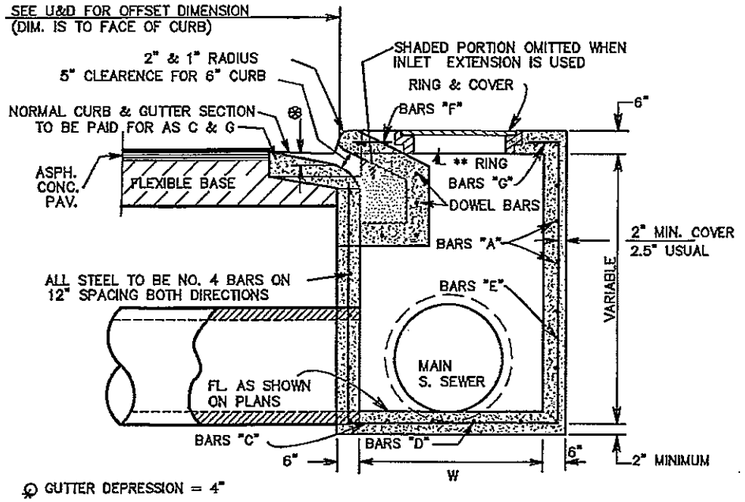


BARS B

TEXAS DEPARTMENT OF TRANSPORTATION

HIDALGO COLONIA ACCESS PROJECTS
THIRD ROUND ALLOCATION FUNDING
INLET AND MANHOLE
CAPPING DETAIL
(2/3)

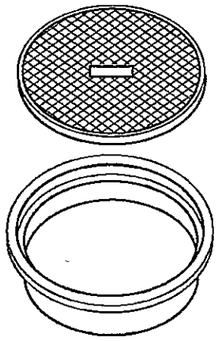
DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:	6	TEXAS	ENG. 04.033	LAS BRISAS ESTATES
DW:	STATE DIST No.	COUNTY	CSJ#	SHEET NO.
CK DW:	29	HIDALGO	301080406	33
TR:				
CK TR:				

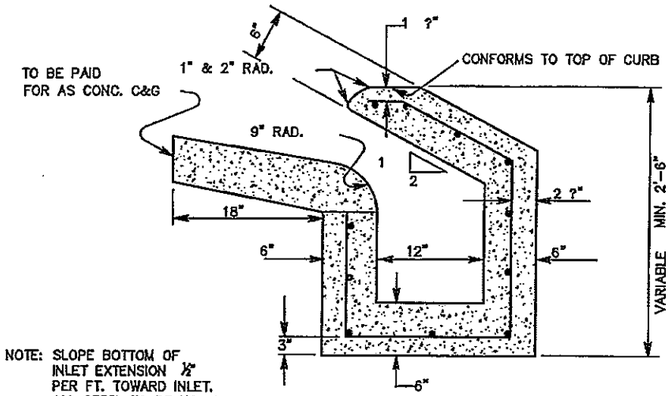


INLET TY "A"
To be used with Curb & Gutter

SECTION A-A

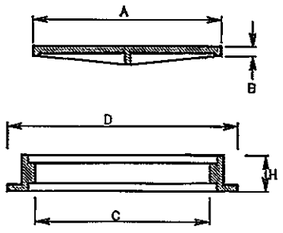
INLET TYPE	W	MAX PIPE SIZE ALLOW (DIA.)
A	3'–0"	24"
A–1	4'–0"	36"
A–2	5'–0"	48"
A–3	6'–0"	60"

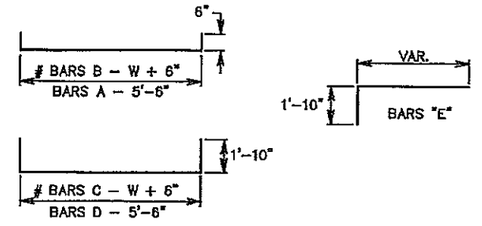




NOTE: SLOPE BOTTOM OF INLET EXTENSION ½" PER FT. TOWARD INLET. ALL STEEL TO BE NO. 4 BARS ON 12" SPACING NORMAL TO THE CROSS SECTION.

SECTION B-B
INLET EXTENSION



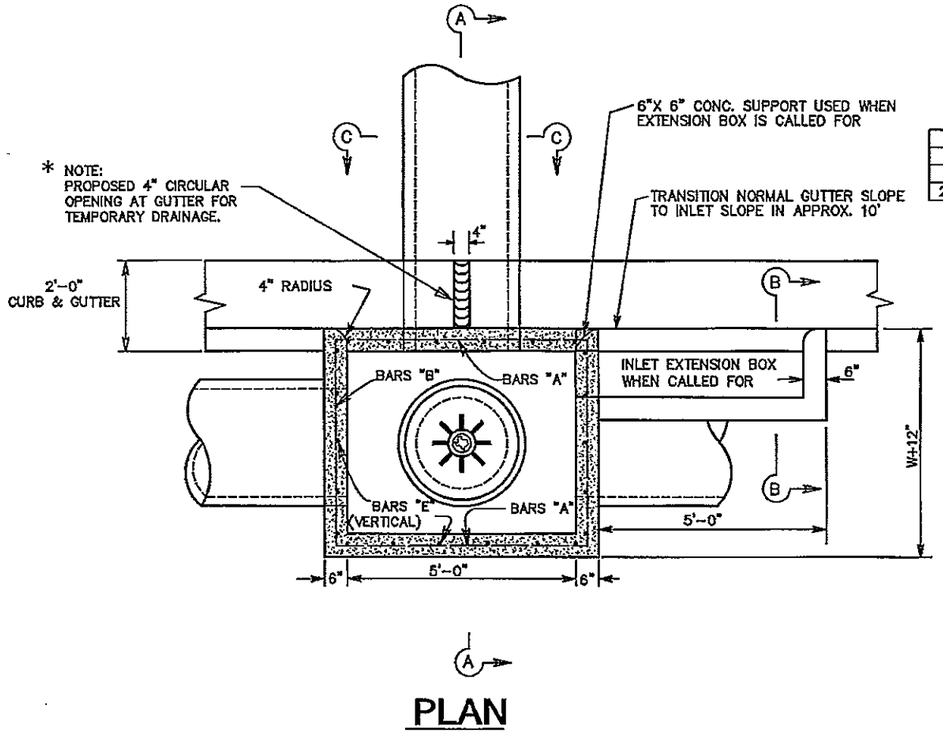


REINFORCING STEEL DETAILS

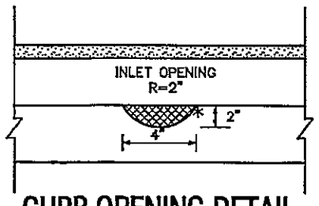
LID			RING				TOTAL WT.
"A"	"B"	WEIGHT	"C"	"D"	"H"	WEIGHT	
25 ?"	1"	125 lbs. (min)	24	32	5	185 lbs.	310 lbs.

RING & COVER

NOTE: RINGS AND COVERS OF SLIGHTLY DIFFERENT DIMENSIONS BUT APPROXIMATELY THE SAME WEIGHT MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER. RING AND COVER TO BE SUBSIDIARY.



PLAN



CURB OPENING DETAIL
SECTION C-C
FRONT

* CURB OPENING TO BE LEFT IN PLACE UNTIL THE FINAL LIFT OF HOT MIX IS IN PLACE. CURB OPENING TO BE FILLED WITH EPOXY & MORTAR AS PER ITEM 421. EPOXY & MORTAR TO BE SUBSIDIARY TO ITEM 465.

TEXAS DEPARTMENT OF TRANSPORTATION

HIDALGO COLONIA ACCESS PROJECTS
THIRD ROUND ALLOCATION FUNDING
INLET TYPE "A" DETAILS
(3/3)

DN:	FED. RD. DIV. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK DN:	6	TEXAS	ENG. 08 008	LAS BRISAS ESTATES
DW:	STATE DIST. No.	COUNTY	CSJ#	SHEET NO.
CK DW:	29	HIDALGO	3C1080406	34
TR:				
CK TR:				