DESIGN	FED.RD. DIV.NO.	FEDERAL AID No.		HIGHWAY NO.
STV	6			JEFFERSON STREET
GRAPHICS STV	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK STV	TEXAS	DALLAS	DALLAS	1
CHECK STV	CONTROL	SECTION	JOB	
	0918	47	432	

DESIGN SPEEDS = 45 MPH

FINAL PLANS

NAME OF CONTRACTOR: _____

DATE OF LETTING: _____

DATE WORK BEGAN: _____

DATE WORK COMPLETED: _____

DATE WORK ACCEPTED: _____

SUMMARY OF CHANGE ORDERS:

CITY OF GRAND PRAIRIE

PLANS OF PROPOSED ROADWAY RECONSTRUCTION

FEDERAL AID

CITY OF GRAND PRAIRIE W.O. #02113701 CEP-24-0002

CSJ: 0918-47-432

JEFFERSON STREET

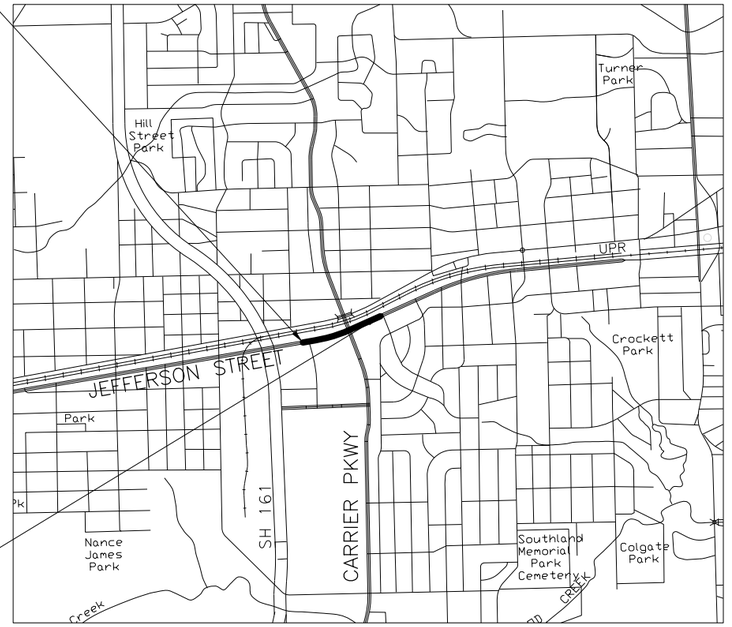
DALLAS COUNTY

LIMITS: ON JEFFERSON STREET
FROM SH 161
TO CIMARRON TRACE

TOTAL LENGTH OF PROJECT = ROADWAY = 1901.68 FT. = 0.360 MI.
TOTAL = 1901.68 FT. = 0.360 MI.

TYPE OF WORK: FOR THE RECONSTRUCTION OF 4 LANE DIVIDED URBAN ARTERIAL CONSISTING OF: 4 LANES WITH SIDEWALKS, DRAINAGE, AND ILLUMINATION

BEGIN PROJECT
CSJ 0918-47-432
STA 12+44.59



N

DALLAS COUNTY
DALLAS DISTRICT

END PROJECT
CSJ 0918-47-432
STA 31+46.28

EQUATIONS: none
EXCEPTIONS: none
RAILROAD CROSSINGS: Union Pacific

NOTE:

CITY OF GRAND PRAIRIE STANDARD CONSTRUCTION DETAILS, DESIGN MANUAL, AND SPECIFICATIONS SHALL GOVERN THIS PROJECT. SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, SEPTEMBER 1, 2024, SHALL SUPPLEMENT THIS PROJECT.

Registered Accessibility Specialist (RAS) inspection required. TDLR No. TABS2024020625

stv
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER

SUBMITTED FOR LETTING: October 3, 2025
_____, P.E.
MICHAEL J. CHISHOLM, PE
PROJECT MANAGER/CONSULTANT
STV, INC.

CONCURRENCE: November 13, 2025
Caryl DeVries
CARYL DEVRIES, PE, PTOE
DIRECTOR TRANSPORTATION & MOBILITY
CITY OF GRAND PRAIRIE

TEXAS DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR LETTING: 1/13/2026
Signed by: _____, P.E.
DIRECTOR OF TRANSPORTATION PLANNING & DEVELOPMENT

RECOMMENDED FOR LETTING: 1/13/2026
DocuSigned by: _____, P.E.
AREA ENGINEER

APPROVED FOR LETTING: 1/14/2026
DocuSigned by: Carson Clemens, P.E.
DISTRICT ENGINEER

WORK WAS COMPLETED ACCORDING TO THE PLANS AND CONTRACT.

_____, P.E.
Signature of Registrant & Date

DATE:

INDEX OF SHEETS

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

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

Michael J Chisholm , P.E. 10.03.2025

Signature of Registrant & Date

CP&Y an STV Company

TEXAS REGISTERED ENGINEERING FIRM F-1741

Texas Department of Transportation

INDEX OF SHEETS

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6			JEFFERSON STREET
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	DALLAS	DALLAS	2
CHECK CPY	CONTROL	SECTION	JOB	
	0918	47	432	

GENERAL NOTES:

1. All work shall be done in accordance with the City of Grand Prairie standards and specifications which has adopted the North Central Texas Council of Governments (N.C.T.C.O.G.) "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" along with all of the latest amendments. Copies may be obtained from the "NORTH CENTRAL COUNCIL OF GOVERNMENTS", PO Drawer 5888,Arlington, Texas, 76005–5888, Phone (817) 640–3300. A copy of thecontract documents plans and specifications shall be available on–site at all times by the Contractor.

2. Prior to submission of the proposal, the Contractor shall have made a careful examination of the work site, the contract documents, and all matters that may affect the cost and time for the completion of the work involved.

3. The location and depth of all utilities shown on the plans are approximate and there may be other unknown existing utilities not shown on the plans. All existing utilities shall be field verified and protected by the Contractor prior to the start of construction. Also see General Note No. 4(D). The contractor shall contact the following utility companies 72 hours prior to doing any work in the area:

(a)	Atmos Gas Line Location	PH (800) 344–8377
(b)	TXUED Electric Line Location	PH (800) 344–8377
(c)	ATT Telephone Line Location	PH (800) 246–8464 – enter 00000
(d)	Time Warner Cable TV	PH (800) 344–8377
(e)	City Utility Mains Line Location	PH (972) 237–8413
(f)	City Utility Mains City Inspector	PH (972) 237–8321
(g)	City Transportation Services	PH (972) 237–8139
(h)	City Fire Administration	PH (972) 237–8302
(i)	Verizon	PH (800) 624–9675
(j)	U.S. Sprint	PH (800) 521–0579
(k)	AT&T	PH (800) 252–1133
(l)	Trinity River Authority	PH (972) 262–5186
(m)	Texas Department of Transportation	PH (972) 291–4043
(n)	City Fiber Optics/Signals	PH (972) 237–8413

4. It shall be the responsibility of the Contractor to perform the following at no additional compensation:

   a) Prevent any property damage to property owner's poles, fences, shrubs, mailboxes, etc.
   b) Provide access to all drives during construction. Provide all–weather access to the construction site throughout the construction period. See Section 10–27–B.
   c) Protect all underground and overhead utilities and repair any damages. Also see General Note No. 3.
   d) Notify all Utility Companies and verify location of all utilities prior to the start of construction.
   e) Cooperate with the Utility Companies where utilities are required or specified to be relocated.
   f) Work in close proximity to and protect existing Utility Mains, traffic lights and poles.

5. All communication between the City andthe CONTRACTOR shall be through the City Inspector only.

6. In the preparation of the plans and specifications, the ENGINEER has endeavored to indicate the location of existing underground utilities. It is not guaranteed that all lines or structures have been shown on the plans.

7. The CONTRACTOR shall install the Capital Improvement Project Signs as specified in Section 10–24 of the Special Conditions of Agreement as per the ENGINEER'S specifications prior to any construction.

8. The successful CONTRACTOR shall submit a sequence of work schedule to the City of Grand Prairie prior to commencing work.

9. The CONTRACTOR shall provide proper barricades and maintain traffic flow as per MUTCD at all times.

10. CONTRACTOR is responsible for all cost involved in disposing of excess materials. The location for the disposal of construction material shall be approved by the City of Grand Prairie Engineering division prior to the start of construction.

11. All phases of construction must be coordinated with the ENGINEER. Field adjustments may be necessary and will be carried out as directed by the ENGINEER, at no extra pay.

12. The CONTRACTOR shall verify, locate, and protect existing water, sanitary sewer, fiber, storm sewer, gas, electric and telephone mains and services and restore service in case of any damage, at no extra pay.

13. The CONTRACTOR shall contact the City of Grand Prairie Transportation Services Department prior to any sign removal. Please See General Note No. 3. Sign removal and reinstallation/relocation shall be in good condition equal to or better than existing condition, and as per the ENGINEER'S specifications, with the cost incidental to the Project Bid Items.

14. All fences, signs, and property corner monuments removed for, or damaged during construction shall be replaced with new material as per the ENGINEER'S specifications. Extra payment shall not be made for this work.

15. The CONTRACTOR shall relocate existing mailboxes in conflict with the proposed improvements and as specified on the plans, in good condition equal to or better than existing condition, complete in place, and with the cost incidental to the Project Bid Items. The mailboxes shall be accessible at all times for mail delivery.

16. The City shall provide backfill, density and concrete testing for all capital improvement projects unless specified otherwise.The CONTRACTOR shall be responsible for notifying the City's testing firm at least 24 hours prior to any required testing.The CONTRACTOR shall coordinate all testing activities with the City and its Inspector and shall facilitate testing firm staff throughout the construction period. All testing results will be submitted tothe CONTRACTOR within 48 hours of testing.The City shall make final decision as to the validity of all testing results.

17. The CONTRACTOR shall be responsible for taking all precautions to protect existing trees outside the scope of this Project.

18. The CONTRACTOR shall be responsiblefor repairing any damage caused byThe CONTRACTOR outside of the designated work area with equal or better–quality material atThe CONTRACTOR'S expense.

19. The CONTRACTOR shall locate, verify working condition and protect all existing sprinkler systems lines and heads (if any). Remove, adjust and reinstall in good condition equal to or better than existing condition; replace, if in direct conflict, with the same or better–quality material and appurtenances, all at no extra pay.

20. All existing grades shown on the plans are approximate and shown based on the best information available.

21. All backfill for ditch lines are to be mechanically tamped as per Item No. 10–25 of the "Special Conditions of Agreement" in the Bid Book to 95% STD Proctor density (ASTM D698), at a moisture content near optimum (–1% to +3%), with the cost incidental to the project.

22. All ditch lines shall be kept filled, as per specifications, by the end of each day at no extra pay.

23. All stations are along the centerline of the proposed pipes as shown on the plans.

24. All pipe shall be kept free of trash and dirt at all time. At the end of each day, the pipe shall be temporarily connected/sealed.

25. All trench widths for water, sanitary sewer and storm drain pipe installation shall be kept to aminimum where possible, and as per the ENGINEER'S specifications. If working in paved street and driveway areas open to trafficThe CONTRACTOR shall provide for a temporary 3" cold mix asphalt surface material as per Item No. 330 "Cold mix limestone rock asphalt pavement (Class A) type "B" of the Texas Department of Highways and Public Transportation, "1993 Standard Specifications for the Construction of Highways, Streets and Bridges", to be placed over the ditch area as per the ENGINEER'S specifications, until the final permanent improvements are made; at no extra pay. Gravel driveway crossings shall be repaired with 6" thick flex base material, as per Item No. 301.5 of the N.C.T.C.O.G. specifications, and at no extra pay.

26. The CONTRACTOR shall keep the existing fire hydrants in service at all time.

27. The CONTRACTOR shall maintain the existing water mains in service during all phases of construction at no extra pay. Leaks caused bythe CONTRACTOR shall be repaired immediately atThe CONTRACTOR'S expense. Leaks along the existing water main, close to the working area, caused by vibration, etc. (during working hours) shall be repaired bythe CONTRACTOR with the City only providing the required parts. The City will repair all leaks ifthe CONTRACTOR is not on the jobsite (primarily after working hours); if the leak is directly caused byThe CONTRACTOR and not repaired, all charges incurred shall be billed toThe CONTRACTOR.

28. All cutting and plugging of the existing water main where specified on the plans shall include all labor, fittings and appurtenances required to perform this work, with the cost incidental to the project. IfThe CONTRACTOR is unable to cut and plug the existing water mains due to the water supply having not been shut down adequately to perform this work within two (2) hours, and as determined by the City Inspector, the City of Grand Prairie Water Utilities Division will plug the water main withThe CONTRACTOR supplying the required parts, with a field note on the As–built plans stating so. Please note that such situations shall be reported to the Water Utilities Division immediately at 972–237–8400.

29. The CONTRACTOR shall maintain the existing sanitary sewer mains and services in operation when installing the proposed sanitary sewer main. This shall include any temporary connections, if required. In areas of conflict, the cost of any sanitary sewer pumping as required shall be subsidiary to the total cost of the project.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
GENERAL NOTES

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	3

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30. The CONTRACTOR shall coordinate with the City Inspector to have the proposed sanitary sewer line televised with a representative present, prior to the final acceptance of this Project. The televising shall be performed bythe CONTRACTOR at CONTRACTOR'S expense. Cost for televising proposed sanitary sewer lines shall be subsidiary to the various bid items for sanitary sewer pipe. All defects revealed shall be repaired/replaced bythe CONTRACTOR prior to the final acceptance.

31. Construction dewatering, if any, is incidental to the Project Bid Items.

32. The CONTRACTOR shall inform the City of Grand Prairie Transportation Services Department through the City Inspector, in writing, a minimum of two weeks in advance of any street closing.

33. The hydro mulch seeding/sodding of any disturbed area to restore it to its original condition shall be as per the "Sodding and Seeding Specifications" Item 10–26 of the Special Conditions of Agreement in the bid book. The CONTRACTOR shall place block sod for all disturbed areas within maintained lawns or channel slopes (where applicable) or as shown on the plans.

34. Disturbed areas shall be cleaned and furnished with seed/sod per specifications, once each section of the proposed project is complete in place.The CONTRACTOR shall not wait until the Completion of the entire project before doing this work.

35. "Sheeting, Shoring and Bracing": the CONTRACTOR shall abide by all applicable federal, state and local laws governing excavation. Trench side slopes shall meet Occupational Safety and Health Administration (OSHA) Standards that are in effect at the time of Bid Opening. Sheeting, Shoring and bracing shall be provided when side slopes standards are not met. A trench box, meeting OSHA Standards, may be acceptable, unless negated by groundwater control measures. The selected proposer shall submit detailed plans and specifications for trench safety system that meet OSHA Standards that are in effect at the time of Proposal Opening. These plans shall be sealed by an Engineer registered by the State of Texas and submitted to the City prior to the formal execution of the Contract. Work under this paragraph will be paid by the Bid Item in Section No. 3 of the Contract Specifications: SHEETING, SHORING AND BRACING and paid for based on the linear feet of trench excavated. Please also refer to Item No. 10–15 of the "Special Conditions of Agreement" in the Bid Book.

36. CONTRACTOR shall conform activities to the SWPPP as specified, including installing, maintaining, and removing pollution controls, conducting and documenting inspections of pollution controls, sprinkling for dust control, maintaining spill response equipment on–site, and "good housekeeping". Pollution controls include silt fences (or erosion control mats), stabilized construction entrance, establishing grass, sprinkling for dust control.The CONTRACTOR shall also be responsible for submitting Notice of Intent (NOI) and Notice of Termination (NOT).

37. The CONTRACTOR isrequired by the Clean Water Act and EPA regulations and the TPDES and NPDES General Permit to develop a site–specific Storm Water Pollution Protection Plan (SWPPP) for the project which includes all disturbed areas by the construction including borrow, staging and storage areas and to secure a permit from TCEQ. The SWPPP with required inspection reports must be kept up to date and kept on the construction site at all times.The CONTRACTOR must prepare a Notice of Intent (NOI) and secure a permit form TCEQ for large construction sites of 5 or more acres of disturbed area with a copy of the NOI and the required Construction Site Notice posted at the construction entrance in clear view of the public during the construction. A copy of the NOI and NOT must be submitted to the**Stormwater Inspection Supervisor** for each permitted project. See State regulations General Permit to Discharge Waste under the Texas Pollution Discharge Elimination System (TPDES) No. TX 150000.

38. All erosion control devices shown on the approved plans shall be installed in accordance with the plan sequencing prior to commencing any earth disturbing activities. Failure to install the approved erosion control devices before starting the earth disturbing activities may result in sanctions including but not limited to withholding of payment, inspections and approvals, suspension of construction activities and citations until the approved erosion control devices are installed and maintained in compliance with the approved plans, City storm water ordinances and/or SWPPP and General Permit.

39. The CONTRACTOR shall maintain the existing water mains and services in operation wheninstalling the proposed water main. This shall include any temporary connections, if required in areas of conflict.

40. All shrubs and landscaping disturbed during construction shall be replaced with the cost subsidiary to the total cost of the project.

41. The CONTRACTOR shall field verify depth and location of all existing City utilities prior to installing the new main.

42. During construction, all drainage ditches, channels, etc. shall be kept drained, insofar as practicable, and the work shall be conducted in a neat workmanlike manner.

43. CONTRACTOR shall provide and have a Traffic Control Plan and/or Detour Plan approved by the City's Transportation Services Department prior to start of construction (972.237.8322).

44. The CONTRACTOR shall coordinate with the City Inspector to have the proposed storm drain line televised with a representative present, prior to the final acceptance of this Project. The televising shall be performed by the CONTRACTOR at CONTRACTOR'S expense. Cost for televising proposed storm drain lines shall be subsidiary to the various bid items for storm drain pipe. All defects revealed shall be repaired/replaced by the CONTRACTOR prior to the final acceptance.

45. Equipment used for transporting concrete within the project limits must be approved by the City Project Manager or his representative prior to starting construction. Concrete from outside the project limits shall be transported to the project site by ready–mix concrete trucks with revolving drums.

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GPS MONUMENT DESCRIPTIONS

GPS MON 55:
STANDARD U.S.C. & G.S. BRASS DISC SET IN CONCRETE ON INLET MARKED "H–269" NEAR A WITNESS MARKER.
U.S. SURVEY FEET – N:6,957,258.15 E:2,428,620.33 ELEV: 528.45

GPS MON 59:
STATION IS A 3–1/2" DIA. ALUMINUM CAP STAMPED GPS #59 SET IN CONCRETE AND INSIDE A WELL WITH AN ALUMINUM ACCESS COVER SET FLUSH WITH GROUND NEAR A WITNESS MARKER.
U.S. SURVEY FEET – N:6,956,924.04 E:2,420,780.15 ELEV: 563.00

GPS MON 77:
STATION IS A U.S.C. & G.S. AZIMUTH MARK SET IN CONCRETE STAMPED "HENSLEY 1947" NEAR A WITNESS MARKER.
U.S. SURVEY FEET – N:6,957,684.30 E:2,439,012.94 ELEV:492.93

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
GENERAL NOTES

GRand PRaIRIe TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	4

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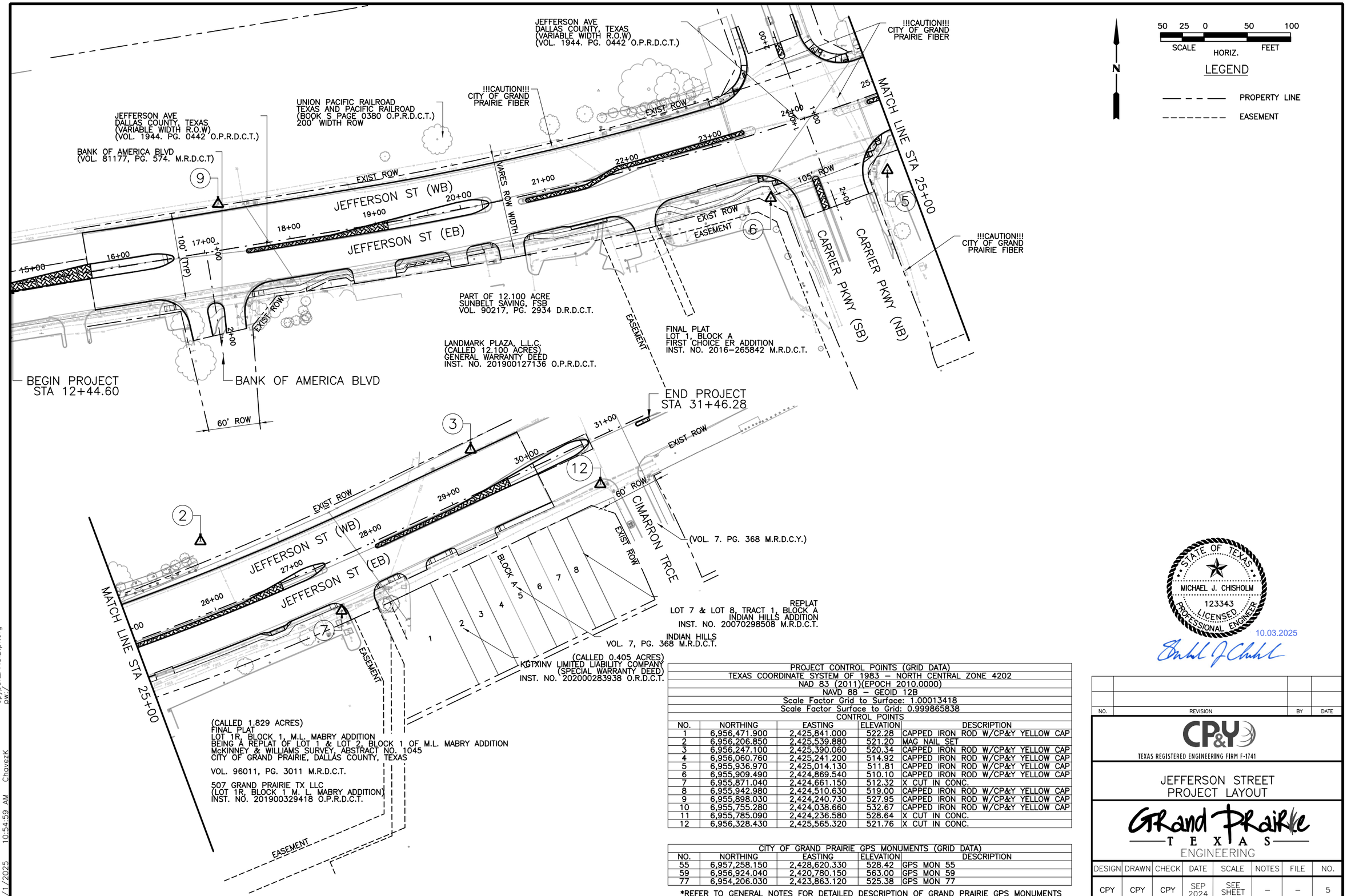

PROJECT CONTROL POINTS (GRID DATA)
TEXAS COORDINATE SYSTEM OF 1983 – NORTH CENTRAL ZONE 4202
NAD 83 (2011)(EPOCH 2010.0000)
NAVD 88 – GEOID 12B
Scale Factor Grid to Surface: 1.00013418
Scale Factor Surface to Grid: 0.999865838
CONTROL POINTS

NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	6,956,471.900	2,425,841.000	522.28	CAPPED IRON ROD W/CP&Y YELLOW CAP
2	6,956,206.850	2,425,539.880	521.20	MAG NAIL SET
3	6,956,247.100	2,425,390.060	520.34	CAPPED IRON ROD W/CP&Y YELLOW CAP
4	6,956,060.760	2,425,241.200	514.92	CAPPED IRON ROD W/CP&Y YELLOW CAP
5	6,955,936.970	2,425,014.130	511.81	CAPPED IRON ROD W/CP&Y YELLOW CAP
6	6,955,909.490	2,424,869.540	510.10	CAPPED IRON ROD W/CP&Y YELLOW CAP
7	6,955,871.040	2,424,661.150	512.32	X CUT IN CONC.
8	6,955,942.980	2,424,510.630	519.00	CAPPED IRON ROD W/CP&Y YELLOW CAP
9	6,955,898.030	2,424,240.730	527.95	CAPPED IRON ROD W/CP&Y YELLOW CAP
10	6,955,755.280	2,424,038.660	532.67	CAPPED IRON ROD W/CP&Y YELLOW CAP
11	6,955,785.090	2,424,236.580	528.64	X CUT IN CONC.
12	6,956,328.430	2,425,565.320	521.76	X CUT IN CONC.

CITY OF GRAND PRAIRIE GPS MONUMENTS (GRID DATA)

NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
55	6,957,258.150	2,428,620.330	528.42	GPS MON 55
59	6,956,924.040	2,420,780.150	563.00	GPS MON 59
77	6,954,206.030	2,423,863.120	525.38	GPS MON 77

*REFER TO GENERAL NOTES FOR DETAILED DESCRIPTION OF GRAND PRAIRIE GPS MONUMENTS

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
PROJECT LAYOUT

GRAND PRAIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	5

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BASE BID – GENERAL					
ITEM NO.	TxDOT BID NO.	DESCRIPTION	UNIT	GENERAL	BID TOTAL
100	0100 – 7002	PREPARING ROW	STA	20	20
101	0500 – 7001	MOBILIZATION	LS	1	1
102	0502 – 7001	BARR, SIGNS, AND TRAFFIC HANDLING	MO	10	10
103	0503 – 7001	PORTABLE CHANGEABLE MESSAGE SIGN	DAY	300	320
104	0681 – 7001	TEMPORARY TRAFFIC SIGNALS	EA	1	1

BASE BID – REMOVAL							
ITEM NO.	TxDOT BID NO.	DESCRIPTION	UNIT	SHEET NO. 1	SHEET NO. 2	SHEET NO. 3	BID TOTAL
200	0104 – 7001	REMOV CONC (PAV)	SY		174		174
201	0104 – 7006	REMOV CONC (RIPRAP)	SY	23			23
202	0104 – 7008	REMOV CONC (MEDIANS)	SY	824	196	106	1126
203	0104 – 7011	REMOV CONC (DRIVEWAYS)	SY	486	221	177	884
204	0104 – 7013	REMOV CONC (SIDEWALK, RAMP OR SUP)	SY		349	109	458
205	0104 – 7017	REMOV CONC (CURB & GUTTER)	LF	653	1338	885	2876
206	0104 – 7041	REMOV CONC (FLUME)	SY		15		15
207	0496 – 7002	REMOV STR (INLET)	EA		4	1	5
208	0690 – 7166	REMOVE ROADWAY ILLUM ASSEMBLY (LED)	EA			1	1

BASE BID – PAVING								
ITEM NO.	TxDOT BID NO.	DESCRIPTION	UNIT	SHEET NO. 1	SHEET NO. 2	SHEET NO. 3	SHEET NO. 4	BID TOTAL
300	0110 – 7001	EXCAV (ROADWAY)	CY					9089
301	0132 – 7006	EMBANK (FNL)(DC)	CY					84
302	0194 – 7007	RDSIDE AMENITY (WHEEL STOP)	EA		4			4
303	0247 – 7067	FL BS (CMP IN PLC)(TYP A GR 1–2)	SY	676	5112	6883	4826	17497
304	0360 – 7006	CONC PVMT (CRCP)(12")	SY	371	4381	6425	4339	15516
305	0432 – 7001	RIPRAP (CONC)(4 IN)	SY	5	20	43	24	92
306	0527 – 7001	COLORED TEXTURED CONC (4")	SY	278	202	156	132	768
307	0529 – 7005	CONC CURB (TY IV)	LF		24			24
308	0529 – 7007	CONC CURB (MONO)(TY II)	LF	522	2029	1731	2080	6362
309	0530 – 7006	DRIVEWAYS (CONC)	SY		165	191	235	591
310	0530 – 7033	INTRSCT, DRVWAYS, & TURNOUT (ACP)	SY		66	8	144	218
311	0531 – 7001	CONC SIDEWALKS (4")	SY		125	407	174	706
312	0531 – 7005	CURB RAMPS (TY 1)	EA			2		2
313	0531 – 7006	CURB RAMPS (TY 2)	EA			2		2
314	0531 – 7010	CURB RAMPS (TY 7)	EA			4		4
315	0531 – 7011	CURB RAMPS (TY 10)	EA		1	3	6	10
316	0536 – 7005	CONCRETE MEDIAN (NOSE)	SY		43	43	86	172
317	0618 – 7041	CONDT (PVC) (SCH 40) (4") (BORE)	LF			105		105
318	0624 – 7001	GROUND BOX TY A (122311)	EA			3		3

BASE BID – SW3P							
ITEM NO.	TxDOT BID NO.	DESCRIPTION	UNIT	SHEET NO. 1	SHEET NO. 2	SHEET NO. 3	BID TOTAL
800		STORMWATER POLLUTION PREVENTION PLAN	LS				1
801	0160 – 7002	FURNISH & PLACING TOPSOIL (4")	SY	906	906	1043	2855
802	0162 – 7002	BLOCK SODDING	SY	906	906	1043	2855
803	0506 – 7004	INLET PROTECTION	EA		11	1	12
804	0506 – 7020	CONSTRUCTION EXITS (INSTALL) (TY 1)	SY	13		13	27
805	0506 – 7024	CONSTRUCTION EXITS (REMOVE)	SY	13		13	27
806	0506 – 7039	TEMP SEDMT CONT FENCE (INSTALL)	LF	438	506	412	1356
807	0506 – 7041	TEMP SEDMT CONT FENCE (REMOVE)	LF	438	506	412	1356
808		TRASH RECEPTACLE	EA	1		1	2
809		CONCRETE TRUCK WASHOUT AREA	EA	3		3	6

BASE BID – ILLUMINATION							
ITEM NO.	TxDOT BID NO.	DESCRIPTION	UNIT	SHEET NO. 1	SHEET NO. 2	SHEET NO. 3	BID TOTAL
500	0416 – 7039	DRILL SHAFT (RDWY ILL POLE) (24 IN)	LF	25	20	25	70
501	0618 – 7030	CONDT (PVC)(SCH 40)(2")	LF	706	346	508	1560
502	0624 – 7001	GROUND BOX TY A (122311)	EA		1	1	2
503	0610 – 7002	RELOCATE RD IL ASM (SHOE–BASE)	EA			1	1
504	0618 – 7030	CONDT (PVC) (SCH 40) (2") (BORE)	LF		56	66	122

BASE BID – DRAINAGE					
ITEM NO.	TxDOT BID NO.	DESCRIPTION	UNIT	SHEET NO. 1	BID TOTAL
400	0432 – 7012	RIPRAP (CONC)(FLUME)	CY	2	2
401	0464 – 7004	RC PIPE (CLIII)(21 IN)	LF	10	10
402	0464 – 7005	RC PIPE (CLIII)(24 IN)	LF	9	9
403	0464 – 7007	RC PIPE (CLIII)(30 IN)	LF	19	19
404	0464 – 7009	RC PIPE (CLIII)(36 IN)	LF	5	5
405	0464 – 7010	RC PIPE (CLIII)(42 IN)	LF	13	13
406	0464 – 7011	RC PIPE (CLIII)(48 IN)	LF	4	4
407	0465 – 7001	5–FT STANDARD CURB INLET (COGP)	EA	1	1
408	0465 – 7001	10–FT STANDARD CURB INLET (COGP)	EA	2	2
409	0465 – 7001	15–FT STANDARD CURB INLET (COGP)	EA	2	2
410	0465 – 7001	15–FT RECESSED CURB INLET (COGP)	EA	1	1
411	0465 – 7001	20–FT STANDARD CURB INLET (COGP)	EA	2	2

FOR INFORMATIONAL PURPOSES – OVERALL QUANTITY FOR CUT/FILL ARE ITEMS 100.110 & 100.132					
EARTHWORK SUMMARY					
CUT			FILL		
STATION	CROSS SECTION AREA (SF)	VOLUME	STATION	CROSS SECTION AREA (SF)	VOLUME (CY)
15+64.18	147	0	15+64.18	1	0
16+00	151	198	16+00	0	1
17+00	264	769	17+00	0	1
18+00	192	845	18+00	3	6
19+00	190	707	19+00	0	6
20+00	152	632	20+00	0	1
21+00	138	537	21+00	2	5
22+00	139	513	22+00	7	16
23+00	153	541	23+00	5	22
24+00	334	902	24+00	0	10
25+00	152	900	25+00	0	0
26+00	155	568	26+00	1	1
27+00	154	571	27+00	0	2
28+00	105	479	28+00	2	5
29+00	119	414	29+00	1	5
30+00	148	494	30+00	1	3
30+03.43	146	19	30+00	1	0
TOTAL CUT (CY) =		9089	TOTAL FILL (CY) =		84

NOTES:

1. PAVEMENT AND SUBGRADE UTILIZED IS BASED ON GEOTECHNICAL REPORT DE21–179 BY ALLIANCE GEOTECHNICAL GROUP, DATED JUNE 30, 2022.
2. ANY DEVIATION FROM ITEMS PROVIED WILL REQUIRE WRITTEN APPROVAL BY THE CITY.
3. THE CITY OF GRAND PRAIRIE TYPICAL STANDARD FOR MAINTENANCE OF SOD PLACED AFTER CONSTRUCTION IS FOR WATERING UNTIL ESTABLISHED.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
QUANTITY SUMMARY

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	6

cpybw_ANSIB.tbl
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TCP TOTALS – FOR INFORMATIONAL PURPOSES ONLY

		105	106	107	108	109	110	111	112	113
		0662	0662	0662	0662	0677	0677	0677	0677	0677
		7061	7064	7075	7097	7001	7004	7008	7009	7015
PHASE	LOCATION	WK ZN PAV MRK REMOV (W) (4") (BRK)	WK ZN PAV MRK REMOV (W) (4") (SLD)	WK ZN PAV MRK REMOV (W) (12")	WK ZN PAV MRK REMOV (Y) (4") (SLD)	ELIM EXT PM & MRKS (4")	ELIM EXT PM & MRKS (8")	ELIM EXT PM & MRKS (24")	ELIM EXT PM & MRKS (ARROW)	ELIM EXT PM & MRKS (WORD)
		LF	LF	LF	LF	LF	LF	LF	EA	EA
PHASE 1	STA 3+50 TO STA 9+00									
PHASE 1	STA 9+00 TO STA 14+50									
PHASE 1	STA 14+50 TO STA 20+00									
PHASE 1	STA 20+00 TO STA 25+50									
PHASE 1	STA 25+50 TO STA 31+00									
PHASE 1	STA 31+00 TO STA 36+00									
PHASE 2	STA 3+50 TO STA 9+00									
PHASE 2	STA 9+00 TO STA 14+50	615			467	676				
PHASE 2	STA 14+50 TO STA 20+00	1220			878	1331			1	
PHASE 2	STA 20+00 TO STA 25+50	816		209	820	633	211	81		
PHASE 2	CARRIER PARKWAY STEP 1	814	48	265	301		294	63	3	2
PHASE 2	CARRIER PARKWAY STEP 2		611	280	679	234			4	
PHASE 2	CARRIER PARKWAY STEP 3	130	208	280	525	339				
PHASE 2	STA 25+50 TO STA 31+00	1105			769	1103				
PHASE 2	STA 31+00 TO STA 36+00	314				394				
PHASE 3	STA 3+50 TO STA 9+00									
PHASE 3	STA 9+00 TO STA 14+50	885			96	68				
PHASE 3	STA 14+50 TO STA 20+00	985			884	114				
PHASE 3	BOA BLVD STEP 1			24	355					
PHASE 3	BOA BLVD STEP 2			22	358					
PHASE 3	STA 20+00 TO STA 25+50	802		231	802					
PHASE 3	CARRIER PARKWAY STEP 1	237	215	215	125					
PHASE 3	CARRIER PARKWAY STEP 2	621	70	204	248	192				
PHASE 3	CARRIER PARKWAY STEP 3	157	65	223	301					
PHASE 3	STA 25+50 TO STA 31+00	1202			1044	195				
PHASE 3	STA 31+00 TO STA 36+00	698				617				
PHASE 4	STA 3+50 TO STA 9+00									
PHASE 4	STA 9+00 TO STA 14+50	623				587				
PHASE 4	STA 14+50 TO STA 20+00	1214								
PHASE 4	BOA BLVD STEP 1			13	310					
PHASE 4	BOA BLVD STEP 2			13	310					
PHASE 4	STA 20+00 TO STA 25+50	769		231						
PHASE 4	CARRIER PARKWAY STEP 1	1038	70	280	586					
PHASE 4	CARRIER PARKWAY STEP 2	566	111		398					
PHASE 4	CARRIER PARKWAY STEP 3	214	106		536					
PHASE 4	STA 25+50 TO STA 31+00	1197								
PHASE 4	STA 31+00 TO STA 36+00	689								
		16911	1504	2490	10792	6483	505	144	8	2

VALUES ON THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE CONSIDERED SUBSIDIARY TO THE BARRICADING AND TRAFFIC CONTROL ITEM

BASE BID – SIGNING AND STRIPING

ITEM NO.	TxDOT BID NO.	DESCRIPTION	UNIT	SHEET NO. 1	SHEET NO. 2	SHEET NO. 3	SHEET NO. 4	BID TOTAL
600	0644 – 7001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA		5	3	3	11
601	0644 – 7009	IN SM RD SN SUP&AM TY10BWG(1)SB(P)	EA		1	5	1	7
700	0666 – 7018	REFL PAV MRK TY I (W) (8") (DOT)(100MIL)	LF			145		145
701	0666 – 7024	REFL PAV MRK TY I (W) (8") (SLD)(100MIL)	LF	134	90	1185	281	1690
702	0666 – 7030	REFL PAV MRK TY I (W) (12") (SLD)(100MIL)	LF		329	741		1070
703	0666 – 7036	REFL PAV MRK TY I (W) (24") (SLD)(100MIL)	LF			177		177
704	0666 – 7042	REFL PAV MRK TY I (W) (ARROW)(100MIL)	EA		1	19	3	23
705	0666 – 7045	REFL PAV MRK TY I (W) (DBL ARROW)(100MIL)	EA			3		3
706	0666 – 7066	REFL PAV MRK TY I (W) (WORD)(100MIL)	EA			2		2
707	0666 – 7220	YELLOW MEDIAN NOSE PAINT	SY		13	18	9	40
708	0666 – 7346	PAVEMENT SLER 4"	LF	1020	2000	1207	2281	6508
709	0666 – 7348	PAVEMENT SLER 8"	LF	134	90	1330	281	1835
710	0666 – 7350	PAVEMENT SLER 12"	LF		329	741		1070
711	0666 – 7352	PAVEMENT SLER 24"	LF			177		177
712	0666 – 7353	PAVEMENT SLER (ARROW)	EA		1	19	3	23
713	0666 – 7354	PAVEMENT SLER (WORD)	EA			2		2
714	0666 – 7356	PAVEMENT SLER (DBL ARROW)	EA			3		3
715	0666 – 7402	REFL PAV MRK TY I (W) 4"(BRK)(100MIL)	LF	1020	2000	1207	2281	6508
716	0666 – 7405	REFL PAV MRK TY I (W) 4"(SLD)(100MIL)	LF			458	79	537
717	0672 – 7004	REFL PAV MRKR TY II-A-A	EA		8	20	16	44
718	0672 – 7006	REFL PAV MRKR TY II-C-R	EA	39	59	134	85	317
719	0678 – 7001	PAV SURF PREP FOR MRK (4")	LF	1020	2000	1207	2281	6508
720	0678 – 7004	PAV SURF PREP FOR MRK (8")	LF	134	90	1330	281	1835
721	0678 – 7006	PAV SURF PREP FOR MRK (12")	LF		329	741		1070
722	0678 – 7008	PAV SURF PREP FOR MRK (24")	LF			177		177
723	0678 – 7009	PAV SURF PREP FOR MRK (ARROW)	EA		1	19	3	23
724	0678 – 7010	PAV SURF PREP FOR MRK (DBL ARROW)	EA			3		3
725	0678 – 7016	PAV SURF PREP FOR MRK (WORD)	EA			2		2

NOTES:

1. PAVEMENT AND SUBGRADE UTILIZED IS BASED ON GEOTECHNICAL REPORT DE21–179 BY ALLIANCE GEOTECHNICAL GROUP, DATED JUNE 30, 2022.

2. ANY DEVIATION FROM ITEMS PROVIED WILL REQUIRE WRITTEN APPROVAL BY THE CITY.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
QUANTITY SUMMARY

GRand PRaiRie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	7

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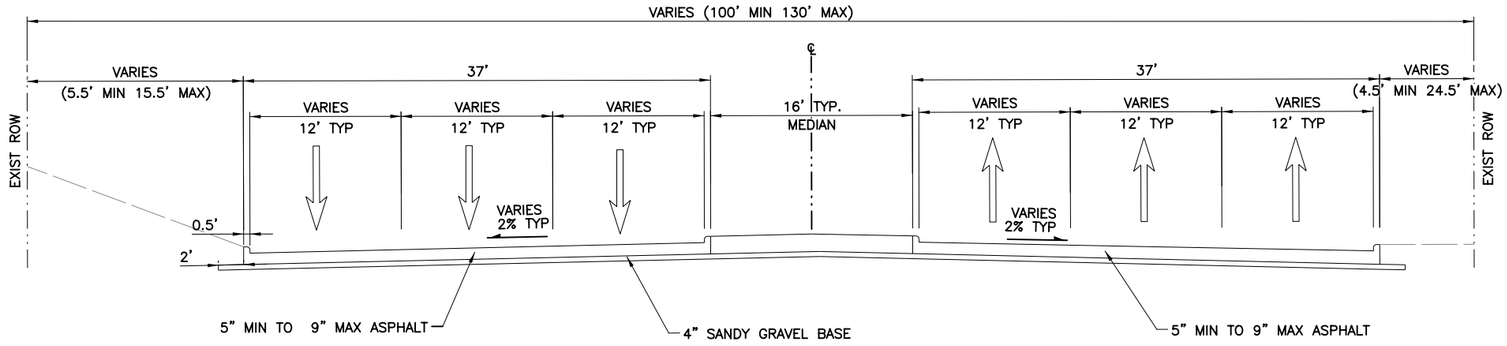
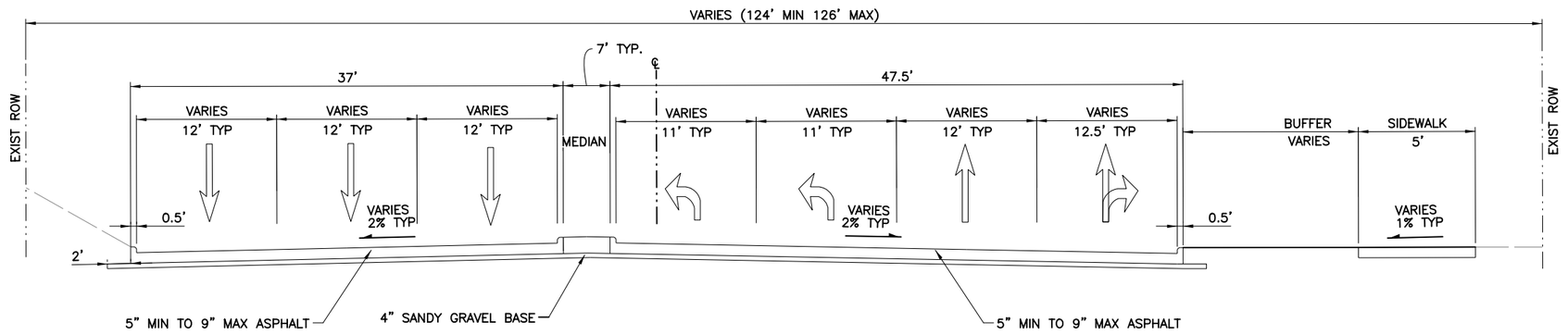


EXISTING TYPICAL SECTION – WEST JEFFERSON ST

STA 12+44.59 TO STA 22+23.04

STA 29+98.91 TO STA 31+46.28



EXISTING TYPICAL SECTION – WEST JEFFERSON ST

STA 22+23.04 TO STA 24+82.97

STATE OF TEXAS
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JEFFERSON STREET
EXISTING TYPICAL SECTIONS

GRand PRaIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	8

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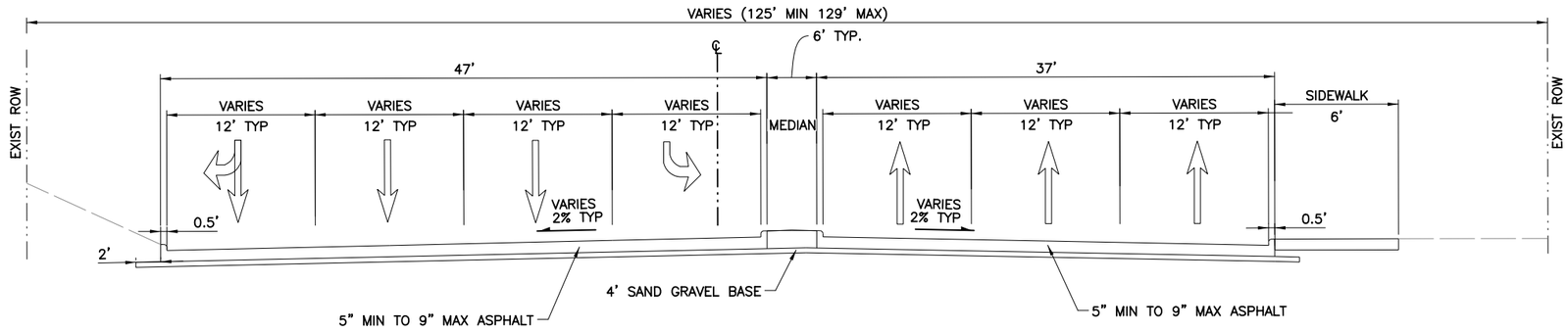
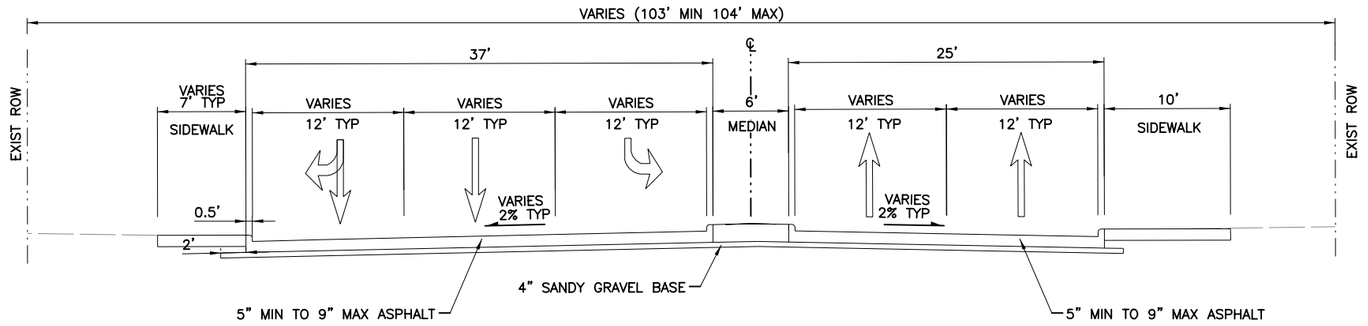


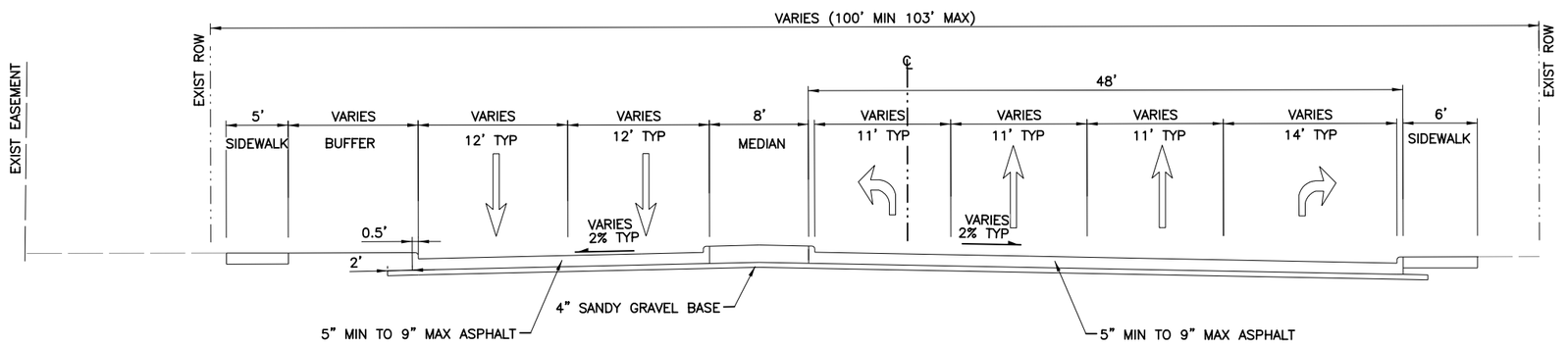
EXISTING TYPICAL SECTION – JEFFERSON ST

STA 24+82.97 TO STA 29+98.91



EXISTING TYPICAL SECTION – CARRIER PKWY NORTH OF JEFFERSON ST

STA 01+92.44 TO STA 01+45.00



EXISTING TYPICAL SECTION – CARRIER PKWY SOUTH OF JEFFERSON ST

STA 01+45.00 TO STA 02+07.51

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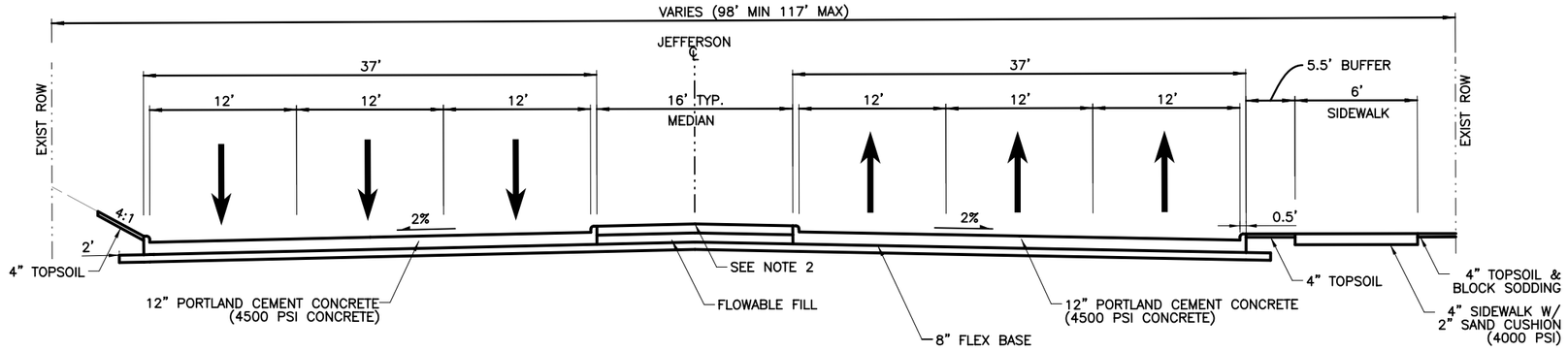
JEFFERSON STREET
EXISTING TYPICAL SECTIONS

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	9

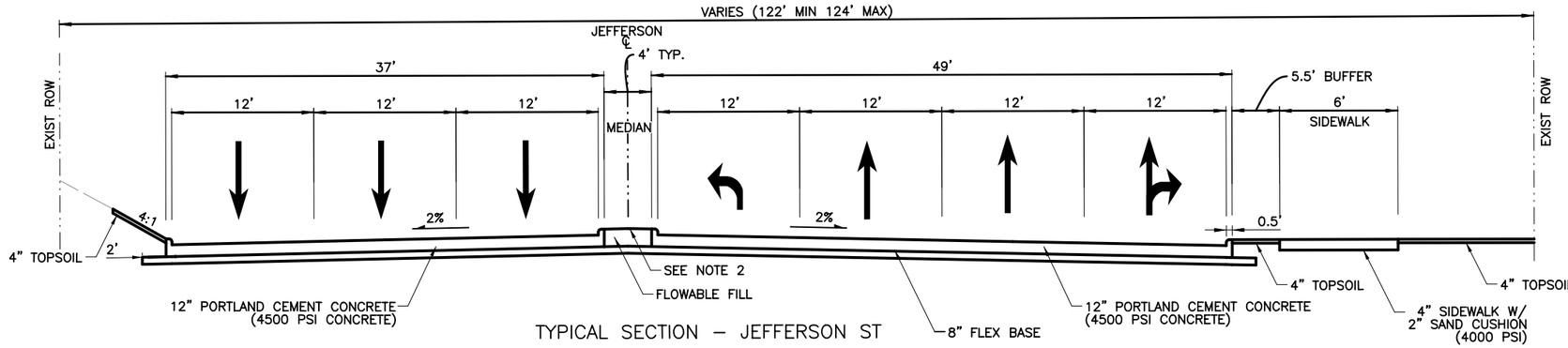


TYPICAL SECTION – JEFFERSON ST

STA 12+44.59 TO STA 17+47.63

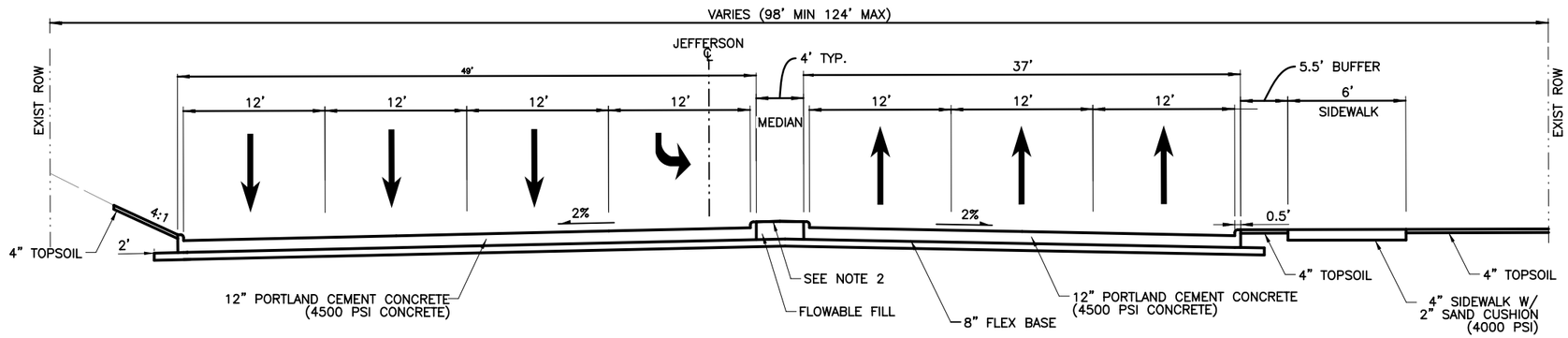
STA 19+89.82 TO STA 20+75.16

STA 27+30.04 TO STA 27+37.98



TYPICAL SECTION – JEFFERSON ST

STA 21+44.57 TO STA 24+85.40



TYPICAL SECTION – JEFFERSON ST

STA 17+47.63 TO STA 19+89.82

STA 20+75.16 TO STA 21+44.57

STA 24+85.40 TO STA 28+98.63

NOTES:

1. GRASS IN MEDIANS AND PARKWAYS SHALL BE FURNISHED WITH SOD: HYDROMULCH FEEDING OF GRASSY MEDIANS IS NOT PERMISSIBLE. USE MIN. 2" TOP SOIL PRIOR TO PLACING SOD.
2. MEDIANS LESS THAN 10' WIDE SHALL BE STAMPED, COLORED CONCRETE WITH FLOWABLE FILL. AREAS GREATER THAN 10' WIDTH SHALL BE BLOCK SODDING W/ TOPSOIL.
3. STAMPED CONCRETE COLOR AND PATTERN SHALL MATCH EXISTING ALONG SOUTH CARRIER PARKWAY (SOUTH SIDE OF INTERSECTION WITH WEST JEFFERSON STREET) AND SHALL MEET REQUIREMENTS IN THE PROJECTS PLANS AND SPECIFICATIONS.
4. THERE SHALL BE ZERO TOLERANCES FOR CONCRETE STRENGTH AND DEPTH. NO VARIANCES ARE ALLOWED. ANY AREAS OF DEFICIENCY SHALL BE PROVED, REMOVED AND REPLACED.
5. STATION LIMITS SHOWN ARE FOR APPROXIMATE AND FOR NORMAL ROADWAY CONDITIONS, FOR WIDENING AND TRANSITIONS, SEE PLAN AND PROFILE SHEETS FOR ADDITIONAL INFORMATION.
6. MINIMUM EARTH GRADE = 1%
   MAXIMUM EARTH GRADE = 25%.
7. REFER TO GEOTECH REPORT DE21–179 PREPARED BY ALLIANCE GEOTECHNICAL GROUP, DATE JUNE 30, 2022 FOR PAVEMENT AND SUBGRADE RECOMMENDATION.
8. ANY DEVIATION FROM ITEMS PROVIDED WILL REQUIRE WRITTEN APPROVAL BY THE CITY.

STATE OF TEXAS
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JEFFERSON STREET
PROPOSED TYPICAL SECTIONS

GRand PRAIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	10

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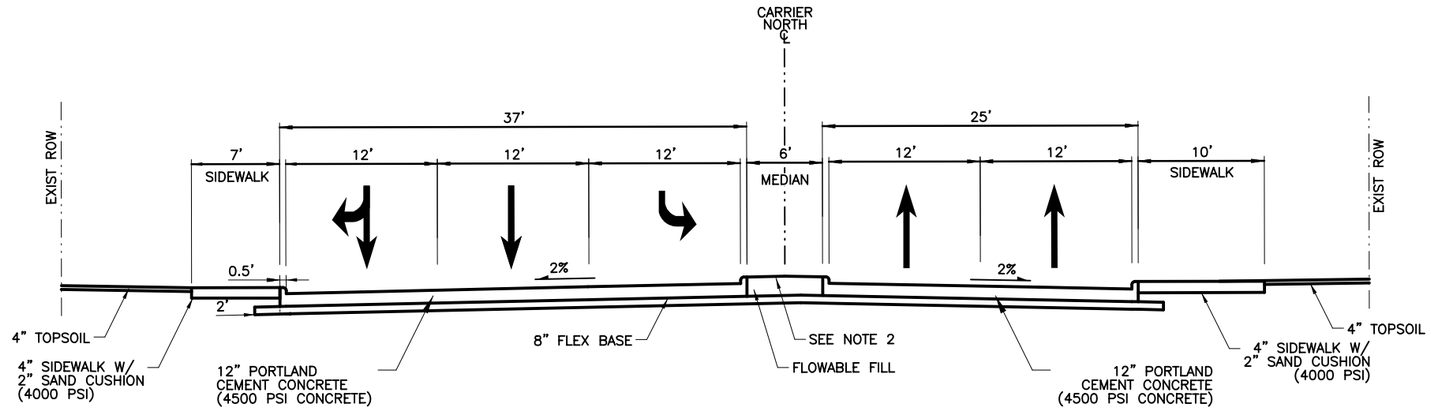
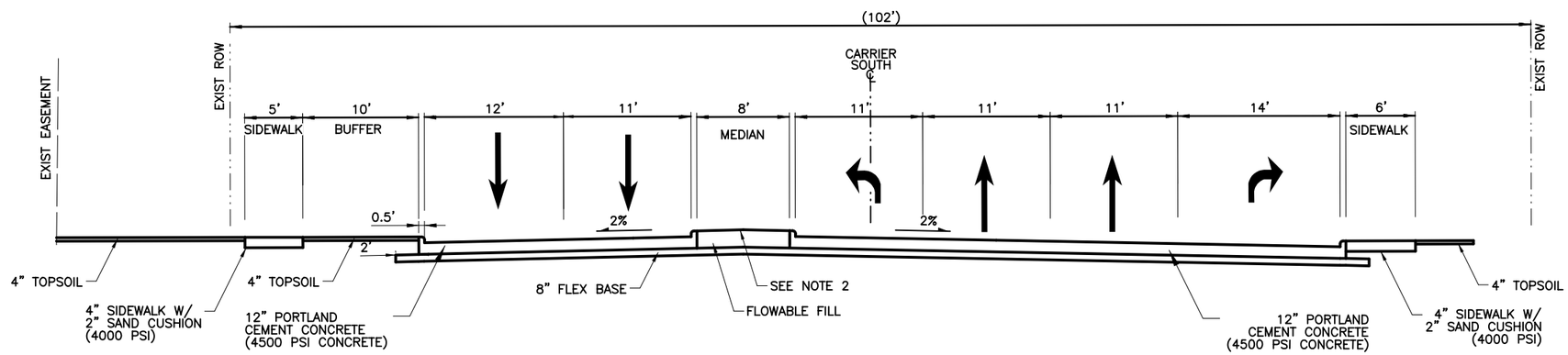


TYPICAL SECTION – CARRIER PKWY NORTH OF JEFFERSON ST

STA 1+45.00 TO STA 1+92.44



TYPICAL SECTION – CARRIER PKWY SOUTH OF JEFFERSON ST

STA 1+45.00 TO STA 2+07.51

NOTES:

1. GRASS IN MEDIANS AND PARKWAYS SHALL BE FURNISHED WITH SOD; HYDROMULCH FEEDING OF GRASSY MEDIANS IS NOT PERMISSIBLE. USE MIN. 2" TOP SOIL PRIOR TO PLACING SOD.
2. MEDIANS LESS THAN 10' WIDE SHALL BE STAMPED, COLORED CONCRETE WITH FLOWABLE FILL. AREAS GREATER THAN 10' WIDTH SHALL BE BLOCK SODDING W/ TOPSOIL.
3. STAMPED CONCRETE COLOR AND PATTERN SHALL MATCH EXISTING ALONG SOUTH CARRIER PARKWAY (SOUTH SIDE OF INTERSECTION WITH WEST JEFFERSON STREET) AND SHALL MEET REQUIREMENTS IN THE PROJECTS PLANS AND SPECIFICATIONS.
4. THERE SHALL BE ZERO TOLERANCES FOR CONCRETE STRENGTH AND DEPTH. NO VARIANCES ARE ALLOWED. ANY AREAS OF DEFICIENCY SHALL BE PROVED, REMOVED AND REPLACED.
5. STATION LIMITS SHOWN ARE FOR APPROXIMATE AND FOR NORMAL ROADWAY CONDITIONS, FOR WIDENING AND TRANSITIONS, SEE PLAN AND PROFILE SHEETS FOR ADDITIONAL INFORMATION.
6. MINIMUM EARTH GRADE = 1%
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7. REFER TO GEOTECH REPORT DE21-179 PREPARED BY ALLIANCE GEOTECHNICAL GROUP, DATE JUNE 30, 2022 FOR PAVEMENT AND SUBGRADE RECOMMENDATION.
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STATE OF TEXAS
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JEFFERSON STREET
PROPOSED TYPICAL SECTIONS

GRand PRAIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	11

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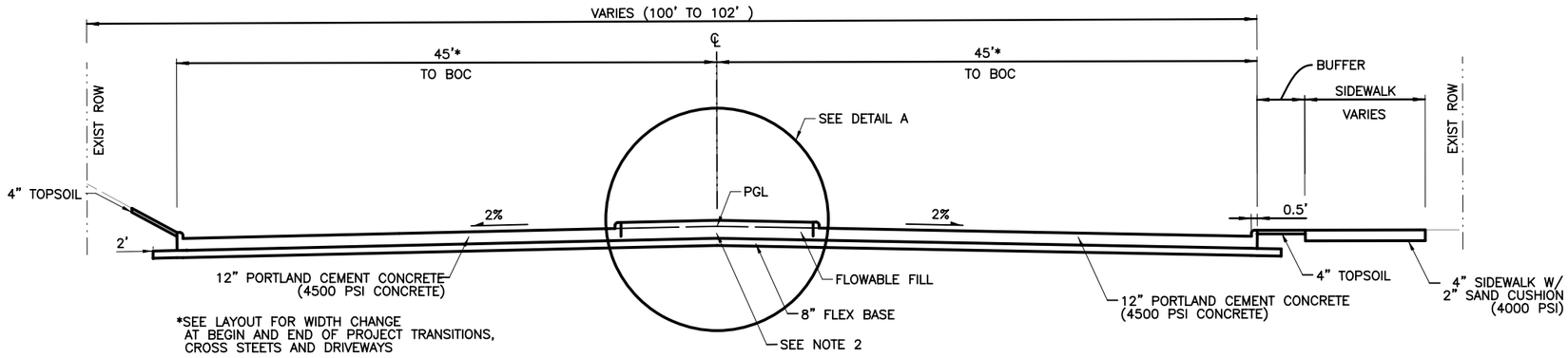
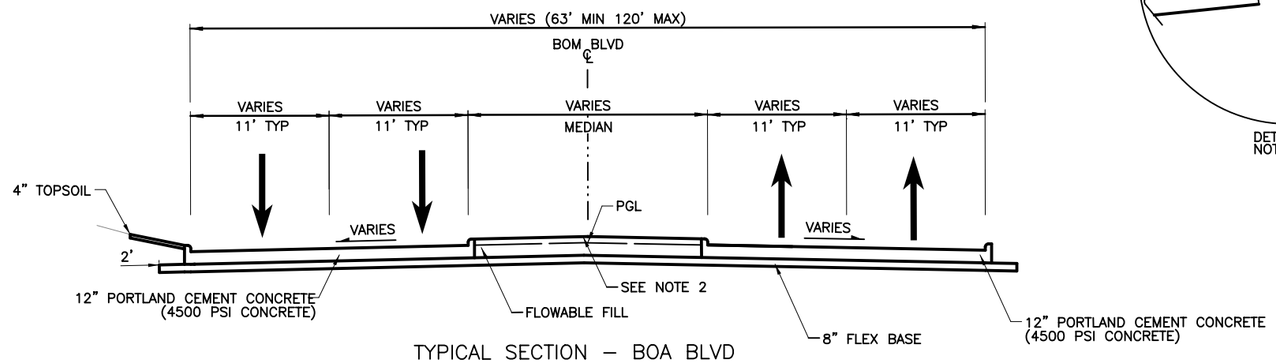


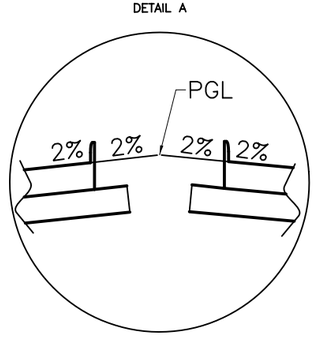
TYPICAL SECTION – WEST JEFFERSON ST



TYPICAL SECTION – BOA BLVD

STA 1+45.00 TO STA 2+25.00

DETAIL A



DETAIL A
NOT TO SCALE

NOTES:

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
PROPOSED TYPICAL SECTIONS

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	12

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TRAFFIC CONTROL PLAN GENERAL NOTES

1. ADVANCED WARNING SIGNS SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADJUST LOCATION OF SIGNS IN ACCORDANCE WITH APPLICABLE BC, TCP, AND WZ STANDARDS AND THE LATEST TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
2. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE TCP, TMUTCD, BC, AND WZ STANDARDS AND/OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR IS REQUIRED TO MAINTAIN ACCESS TO PRIVATE PROPERTIES, NEIGHBORHOODS, AND BUSINESSES AT ALL TIMES.
4. CONTRACTOR SHALL COORDINATE CLOSURES WITH THE ENGINEER, CITY, AND ANY ENTITY INVOLVED OR AFFECTED BY THE CLOSURE. AT NO TIME SHALL AN INTERSECTION BE SHUT DOWN WITHOUT APPROVAL FROM ALL INVOLVED PARTIES. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS FOR ANY PRIVATE, PUBLIC, OR BUSINESS IF A CLOSURE IS UNABLE TO BE REOPENED AT THE END OF THE WORKING DAY. CLOSURES OR TEMPORARY ACCESS SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.
5. EXISTING SIGNS THAT CONFLICT WITH THE PROPOSED CONSTRUCTION SEQUENCING OR TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.
6. THE CONTRACTOR SHALL PLACE A 3:1 SLOPE BETWEEN THE CONSTRUCTION ZONE AND TRAVELED PAVEMENT AT THE END OF EACH DAY IF DROP-OFF EXCEEDS 2 INCHES.
7. CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE THROUGHOUT ALL CONSTRUCTION PHASES.
8. CONTRACTOR SHALL PROTECT EXISTING TREES AND STRUCTURES UNLESS OTHERWISE SPECIFIED ON THE PLANS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE TRAVEL LANES CLEAR OF DEBRIS AT THE END OF EACH WORKING DAY.
10. IMPLEMENT SW3P CONTROLS PRIOR TO SOIL DISTURBANCE OR POTENTIAL POLLUTANT GENERATING ACTIVITIES IN THEIR CONTROL AREA. SW3P MEASURES SHALL ONLY BE PLACED IN AREAS WHERE SOIL DISTURBANCE IS EXPECTED TO HAPPEN WITHIN TWO WEEKS. SW3P CONTROL DEVICES SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE PROJECT AND MAY BE REMOVED IN EACH AREA WITHIN TWO WEEKS OF VEGETATION ESTABLISHMENT OR AS DIRECTED BY THE ENGINEER.
11. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE OF WORK WHICH CONFORMS TO THE SEQUENCE OF WORK SHOWN IN THE PLANS.
12. ANY ALTERNATE SEQUENCE OF WORK BY THE CONTRACTOR SHALL FIRST BE APPROVED BY THE ENGINEER.
13. CONTRACTOR MAY DEVELOP AND SUBMIT ALTERNATE TRAFFIC CONTROL PLAN SIGNED BY AN ENGINEER TO THE CITY FOR APPROVAL. ANY CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE APPROVED BY THE CITY PRIOR TO IMPLEMENTING. ANY REVISIONS TO THE PLANS BECOME THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

NARRATIVE

PHASE 1

1. PLACE TRAFFIC CONTROL DEVICES REQUIRED BY TCP, TMUTCD, BC, AND WZ STANDARDS AND/OR AS DIRECTED BY THE ENGINEER. NECESSARY TO INSTALL TEMPORARY PAVEMENT.
2. REMOVE EXISTING CONCRETE MEDIAN AND CONSTRUCT TEMPORARY PAVEMENT ALONG MEDIAN OF EXISTING ROADWAY AS SHOWN ON TCP PLANS.
3. PRIOR TO ANY CONSTRUCTION, IMPLEMENT SW3P AS SHOWN ON THE SW3P LAYOUTS AND STANDARDS.

PHASE 2

1. PLACE ALL TRAFFIC CONTROL DEVICES REQUIRED BY TCP, TMUTCD, BC, AND WZ STANDARDS AND/OR AS DIRECTED BY THE ENGINEER.
2. PRIOR TO ANY CONSTRUCTION, IMPLEMENT SW3P AS SHOWN ON THE SW3P LAYOUTS AND STANDARDS.
3. CONSTRUCT ANY TEMPORARY DRAINAGE ITEMS NECESSARY FOR PHASE 2 CONSTRUCTION.
4. INSTALL TEMPORARY PAVEMENT MARKINGS AND SIGNS AND TRANSITION/SHIFT TRAFFIC AS SHOWN ON THE TCP PLANS.
5. ADJUST ANY TRAFFIC CONTROL DEVICES, INCLUDING SIGNAL HEADS AND SIGNAL TIMING, FOR PHASE 2 TRAFFIC PATTERN AS SHOWN ON THE TCP PLANS.
6. REMOVE EXISTING PAVEMENT AS SHOWN ON THE TCP PLANS.
7. CONSTRUCT THE PROPOSED STORM SYSTEM IMPROVEMENTS ASSOCIATED WITH PHASE 2 AS SHOWN ON THE STORM DRAIN PLANS.
8. CONSTRUCT PHASE 2 OF THE PROPOSED PAVEMENT AS SHOWN ON THE TCP PLANS AND PAVING PLANS.

CONT'D NARRATIVE

PHASE 3

1. PLACE ALL TRAFFIC CONTROL DEVICES REQUIRED BY TCP, TMUTCD, BC, AND WZ STANDARDS AND/OR AS DIRECTED BY THE ENGINEER.
2. PRIOR TO ANY CONSTRUCTION, IMPLEMENT SW3P AS SHOWN ON THE SW3P LAYOUTS AND STANDARDS.
3. CONSTRUCT ANY TEMPORARY DRAINAGE ITEMS NECESSARY TO CONSTRUCT PHASE 3.
4. INSTALL TEMPORARY PAVEMENT AS SHOWN ON THE TCP PLANS FOR LANE TRANSITIONS/SHIFTS AND TEMPORARY ACCESS.
5. INSTALL TEMPORARY PAVEMENT MARKING AND SIGNS AND TRANSITION/SHIFT TRAFFIC AS SHOWN ON THE TCP PLANS.
6. ADJUST ANY TRAFFIC CONTROL DEVICES, INCLUDING SIGNAL HEADS AND SIGNAL TIMING, FOR PHASE 3 TRAFFIC PATTERN AS SHOWN ON THE TCP PLANS.
7. REMOVE EXISTING PHASE 2 TRAFFIC CONTROL DEVICES AND EXISTING PAVEMENT NOT NEEDED FOR PHASE 3. REFER TO REMOVAL PLANS FOR PAVEMENT REMOVAL LIMITS.
8. CONSTRUCT THE PROPOSED STORM SYSTEM IMPROVEMENTS ASSOCIATED WITH PHASE 3 AS SHOWN ON THE STORM DRAIN PLANS.
9. CONSTRUCT PHASE 3 OF THE PROPOSED PAVEMENT AS SHOWN ON THE TCP PLANS AND PAVING PLANS.

PHASE 4

1. PLACE ALL TRAFFIC CONTROL DEVICES REQUIRED BY TCP, TMUTCD, BC, AND WZ STANDARDS AND/OR AS DIRECTED BY THE ENGINEER.
2. PRIOR TO ANY CONSTRUCTION, IMPLEMENT SW3P AS SHOWN ON THE SW3P LAYOUTS AND STANDARDS.
3. CONSTRUCT ANY TEMPORARY DRAINAGE ITEMS NECESSARY TO CONSTRUCT PHASE 4.
4. INSTALL TEMPORARY PAVEMENT MARKING AND SIGNS AND TRANSITION/SHIFT TRAFFIC AS SHOWN ON THE TCP PLANS.
5. ADJUST ANY TRAFFIC CONTROL DEVICES, INCLUDING SIGNAL HEADS AND SIGNAL TIMING, FOR PHASE 4 TRAFFIC PATTERN AS SHOWN ON THE TCP PLANS.
6. REMOVE EXISTING PHASE 3 TRAFFIC CONTROL DEVICES AND EXISTING PAVEMENT NOT NEEDED FOR PHASE 4. REFER TO REMOVAL PLANS FOR PAVEMENT REMOVAL LIMITS.
7. CONSTRUCT THE PROPOSED STORM SYSTEM IMPROVEMENTS ASSOCIATED WITH PHASE 4 AS SHOWN ON THE STORM DRAIN PLANS.
8. CONSTRUCT PHASE 4 OF THE PROPOSED PAVEMENT AS SHOWN ON THE TCP PLANS AND PAVING PLANS.
9. CONSTRUCT ANY REMAINING DRIVEWAYS, SIDEWALKS, OR ADA RAMPS NOT COMPLETED WITH PHASE 2 OR PHASE 3.
10. INSTALL LANDSCAPING IN MEDIANS AND WITHIN PARKWAY, INCLUDING SEEDING.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP NARRATIVE

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	13

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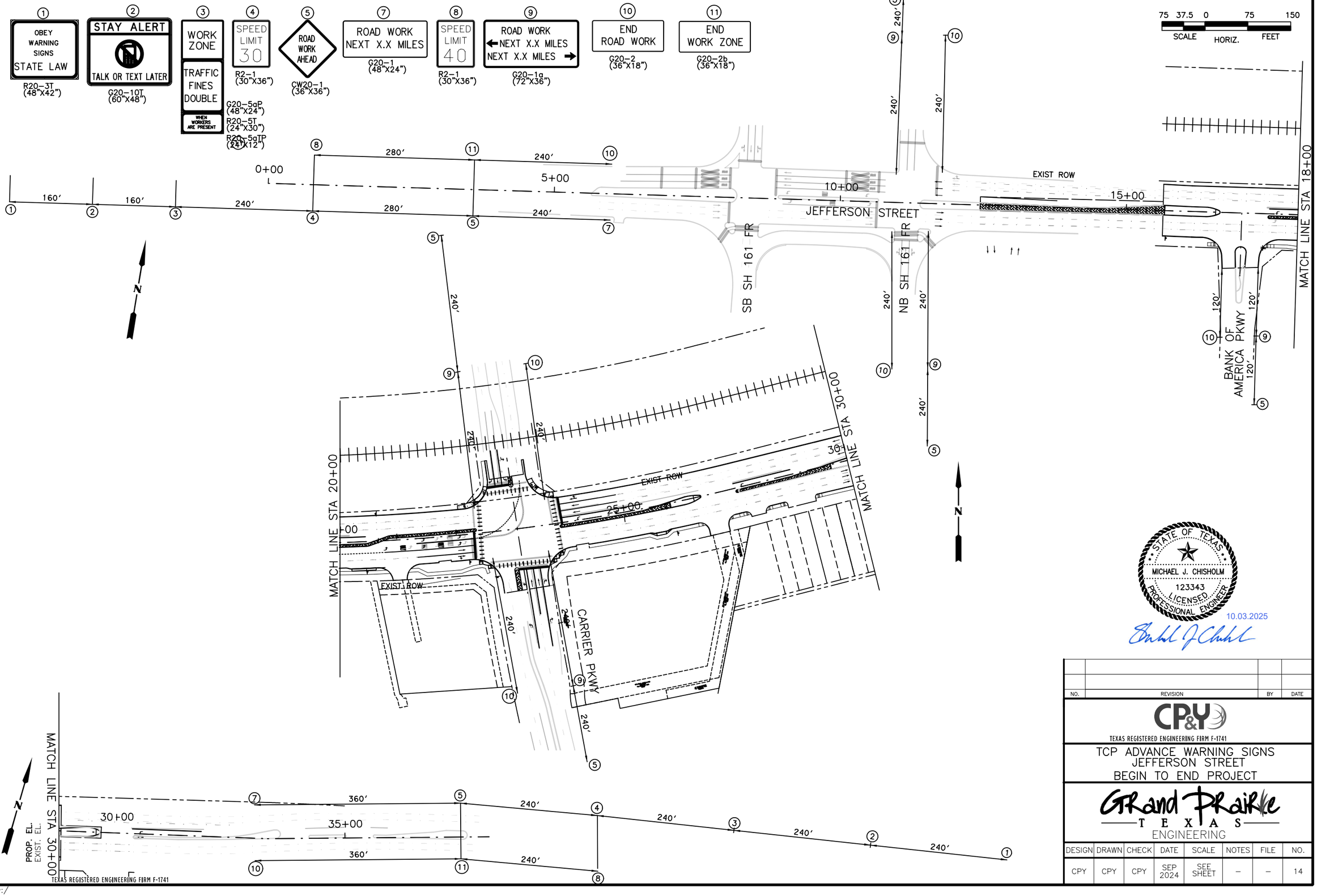

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STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
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10.03.2025

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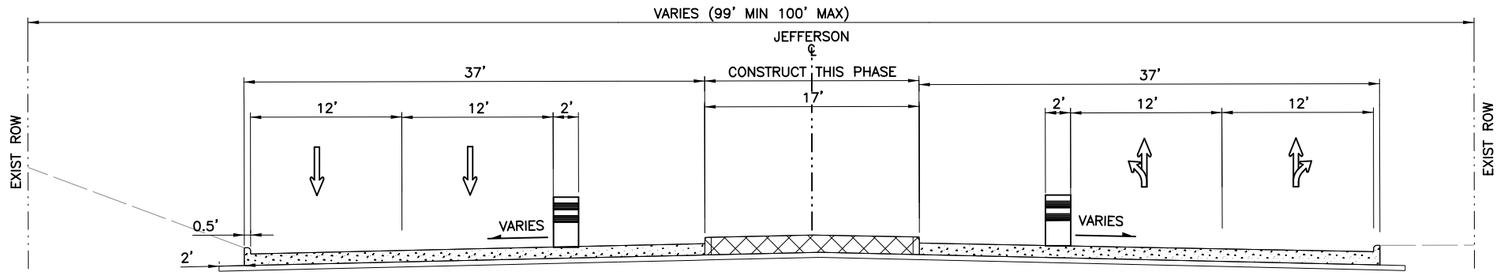
TCP ADVANCE WARNING SIGNS JEFFERSON STREET BEGIN TO END PROJECT

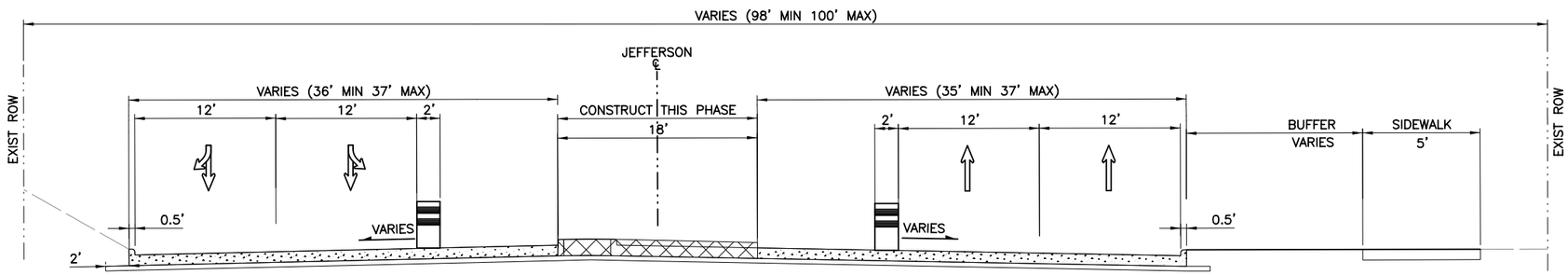
Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	14



TYPICAL SECTION – WEST JEFFERSON ST

STA 15+64.18 TO STA 23+40.63



TYPICAL SECTION – WEST JEFFERSON ST

STA 24+82.90 TO STA 30+03.51

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)
- BARREL/ PLASTIC DRUM
- DIRECTION OF TRAFFIIC
- VERTICAL PANELS

STATE OF TEXAS
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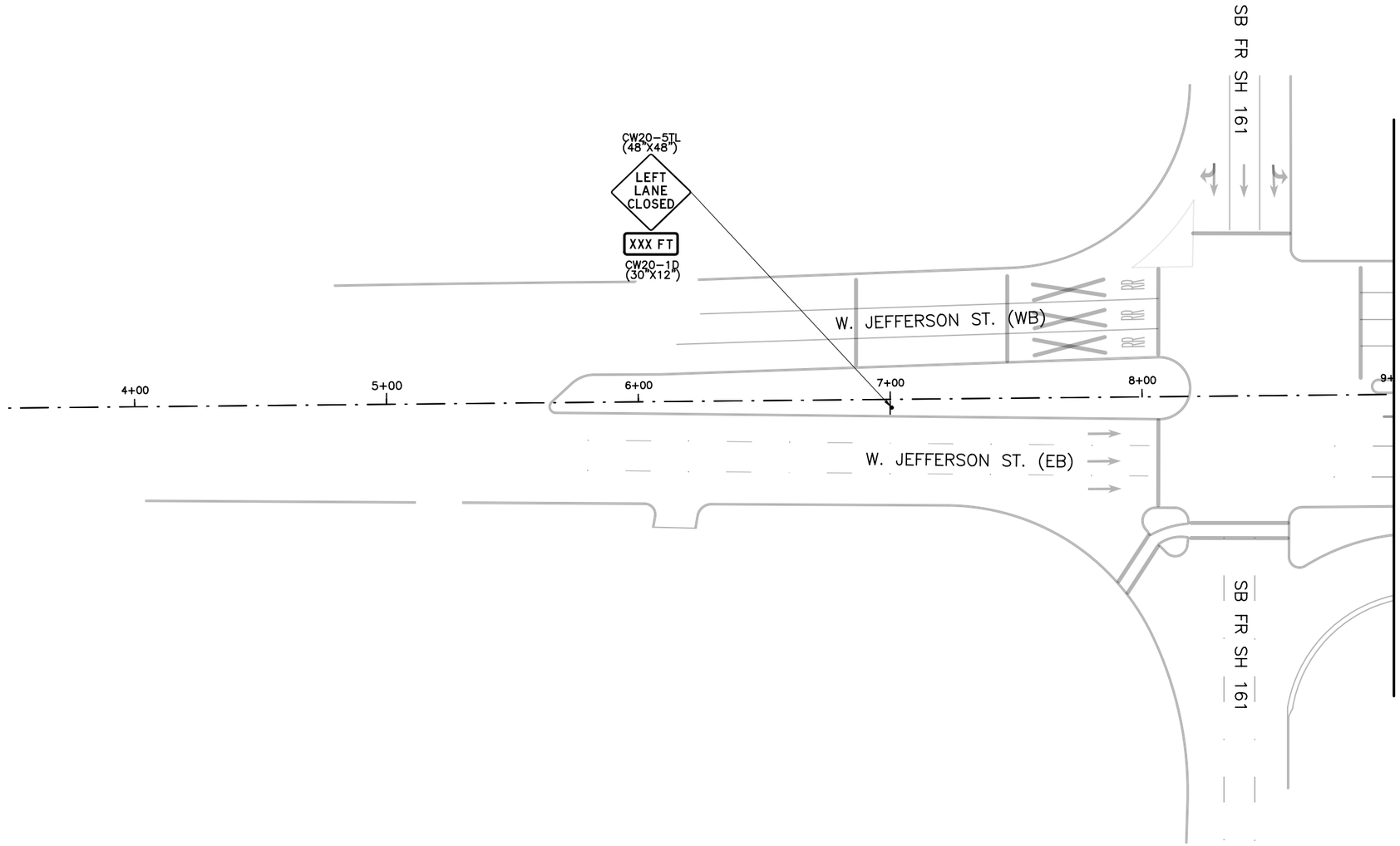
JEFFERSON STREET
TCP PH 1 TYPICAL SECTIONS

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	15



25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 1 STA 3+50 TO STA 9+00

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	16

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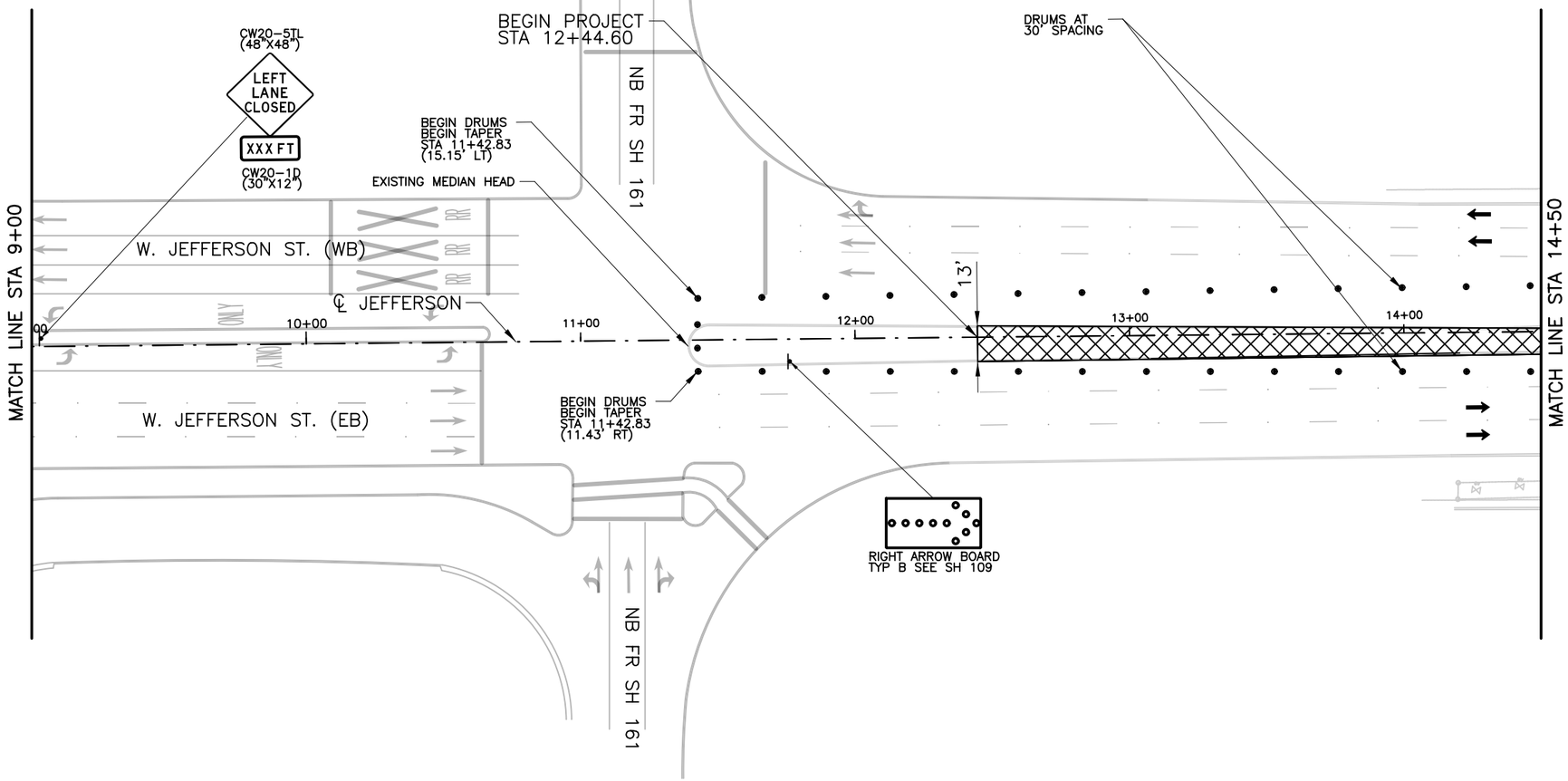

25 12.5 0 25 50

SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
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Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
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10.03.2025

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 1 STA 9+00 TO STA 14+50

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	17

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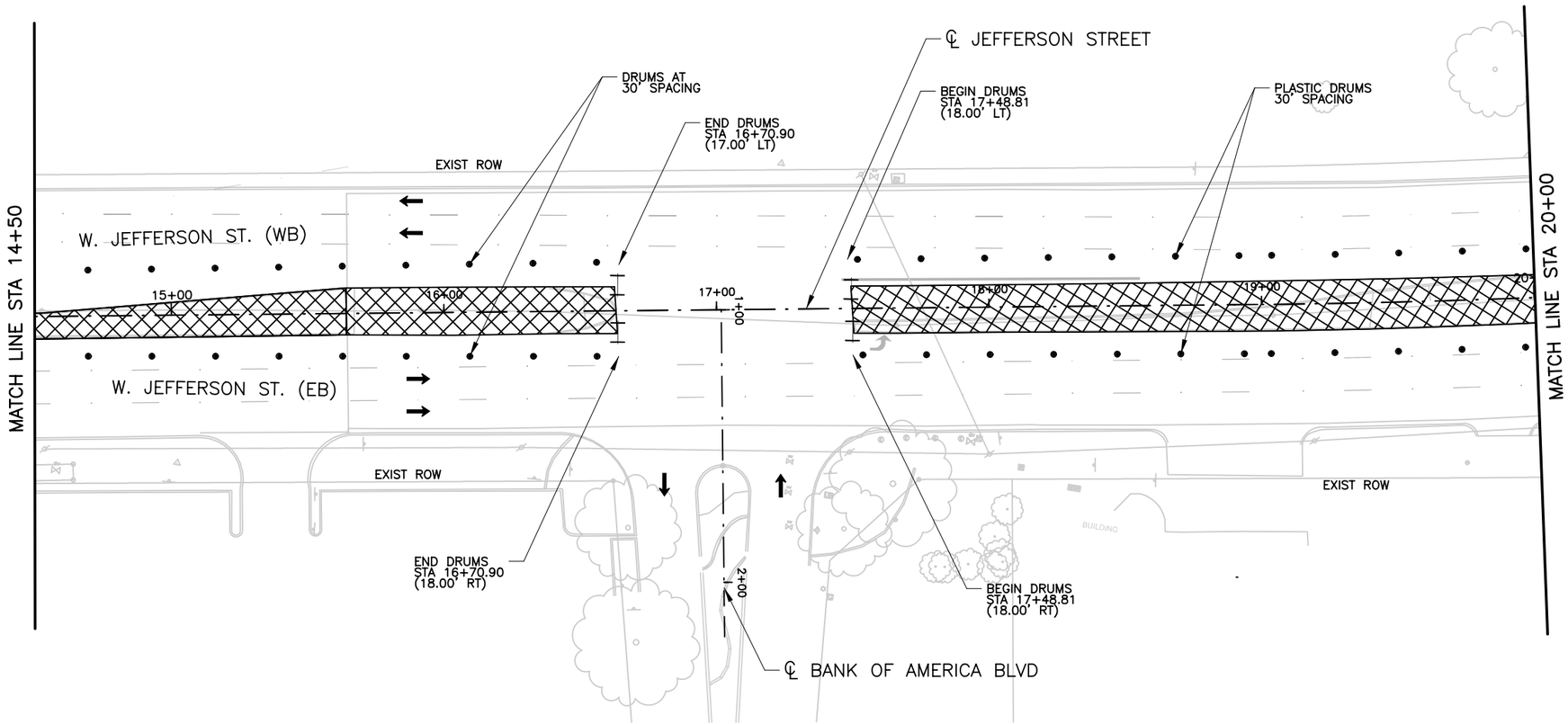

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25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 1 STA 14+50 TO STA 20+00

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	18

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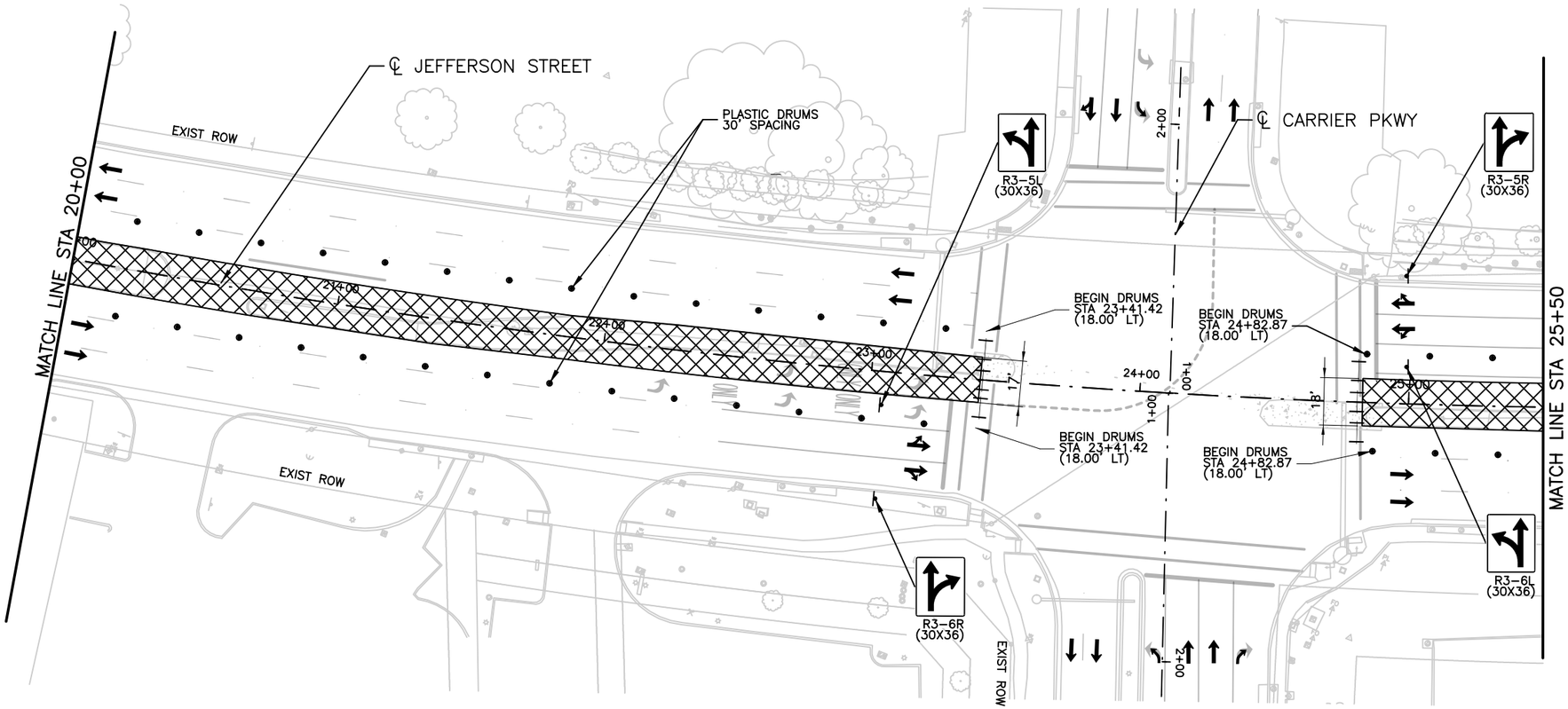

25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
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LICENSED
PROFESSIONAL ENGINEER
10.03.2025

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 1 STA 20+00 TO STA 25+50

GRand PRaiRie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	19

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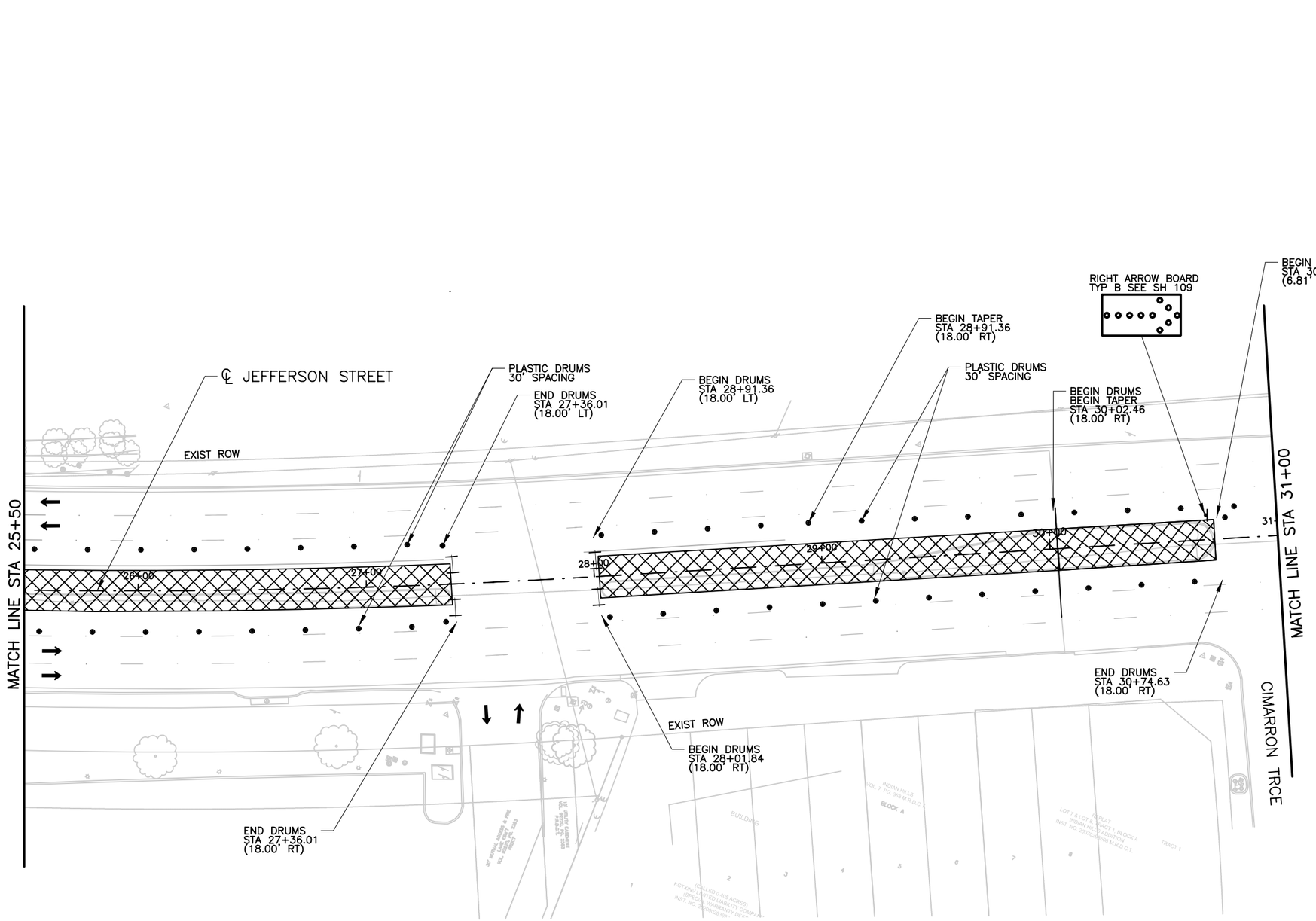

25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
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Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
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Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
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LICENSED
PROFESSIONAL ENGINEER
10.03.2025

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 1 STA 25+50 TO STA 31+00

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	20

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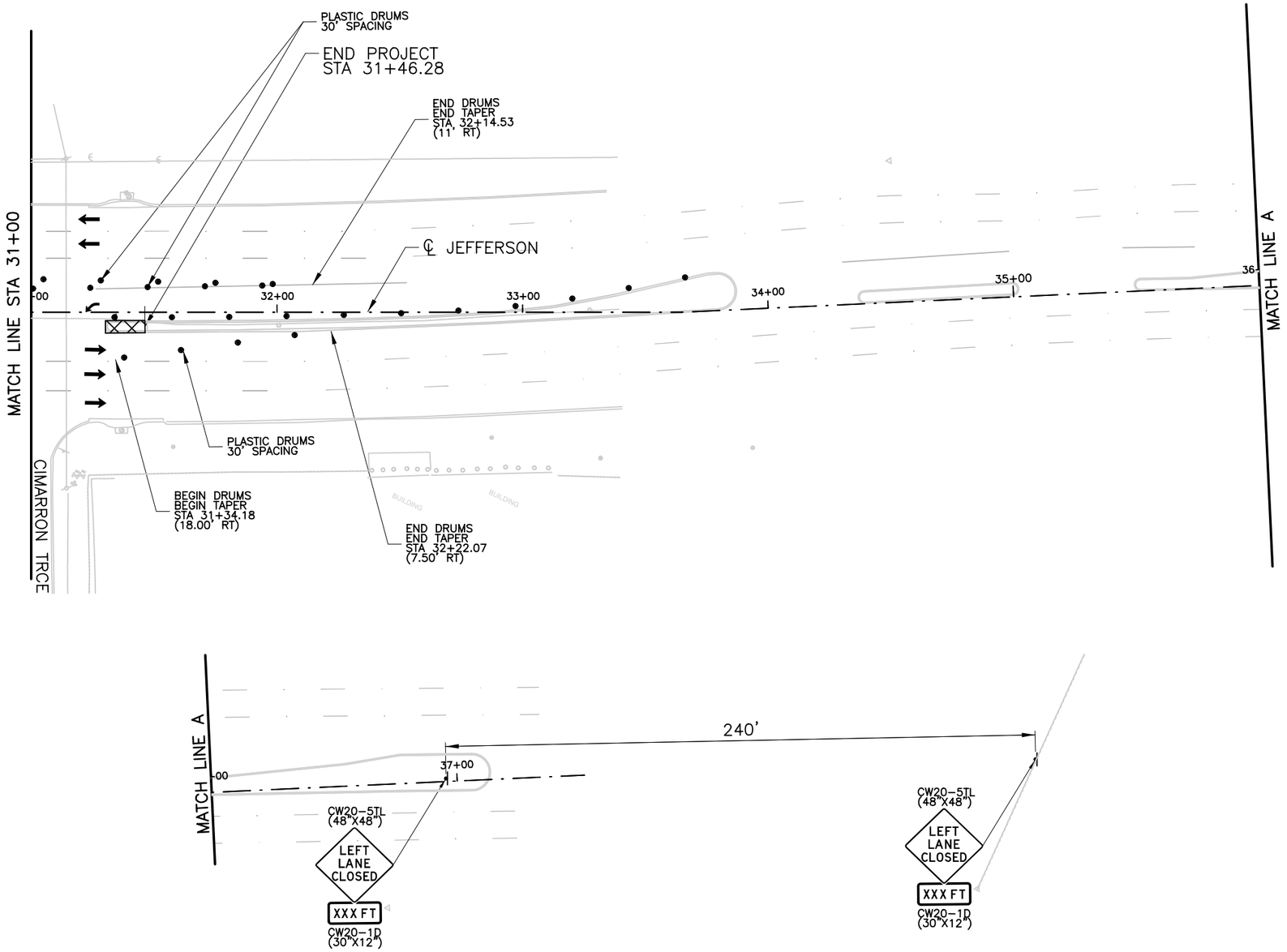

25 12.5 0 25 50

SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 1 STA 31+00 TO END

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	21

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:57:39 AM ChavezK

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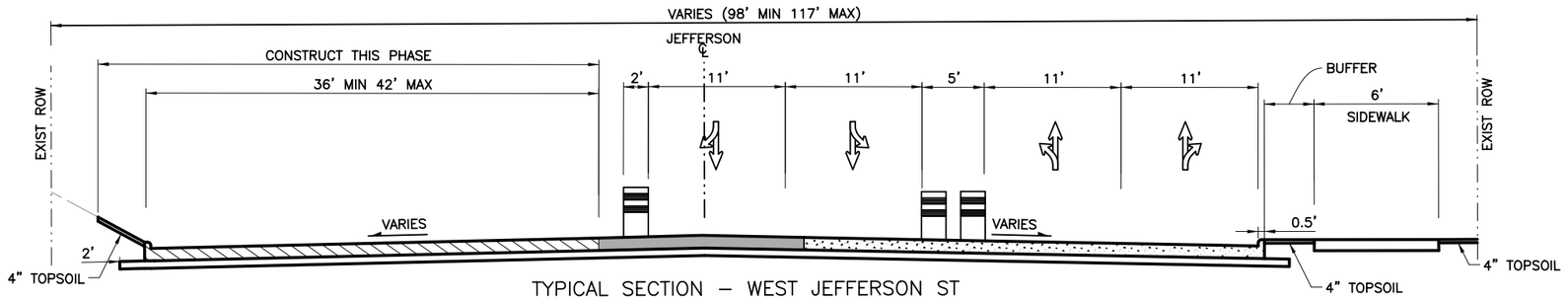
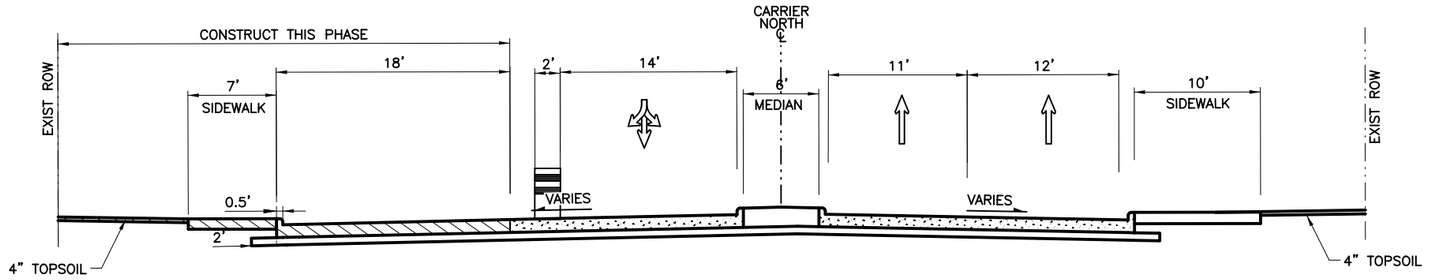


TYPICAL SECTION – WEST JEFFERSON ST

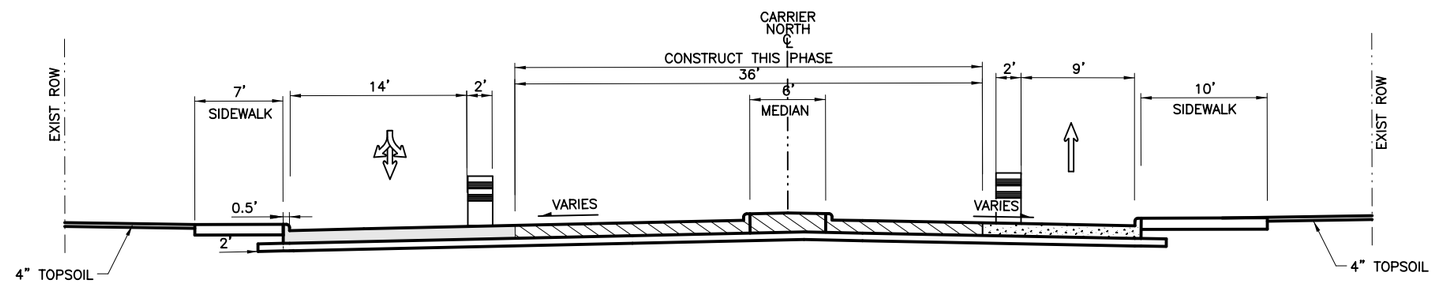
STA 15+64.18 TO STA 23+39.54

STA 24+82.90 TO STA 30+03.51



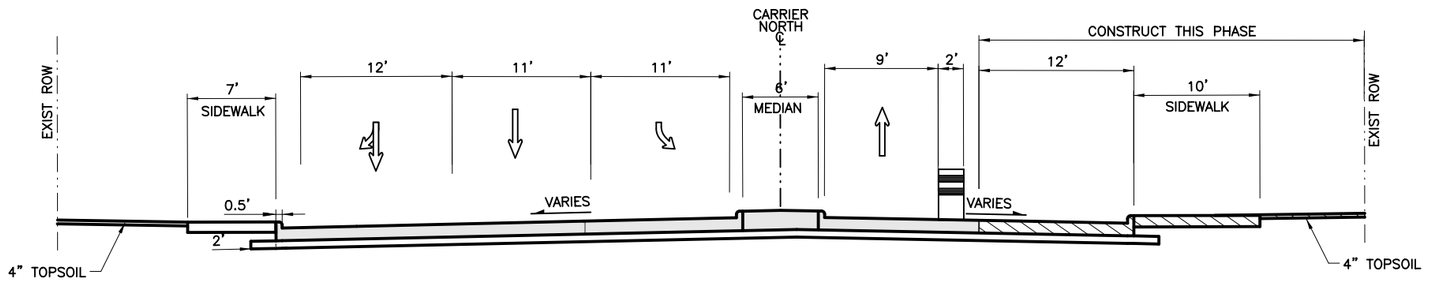
TYPICAL SECTION – PHASE 2 STAGE 1

STA 1+45.00 TO STA 1+92.44



TYPICAL SECTION – PHASE 2 STAGE 2

STA 1+45.00 TO STA 1+92.44



TYPICAL SECTION – PHASE 2 STAGE 3

STA 1+45.00 TO STA 1+92.44

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)
- BARREL/ PLASTIC DRUM
- DIRECTION OF TRAFFIIC
- VERTICAL PANELS

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 2 TYPICAL SECTIONS

GRand PRAIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	22

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cpypdf_ANSIB.pltcfg
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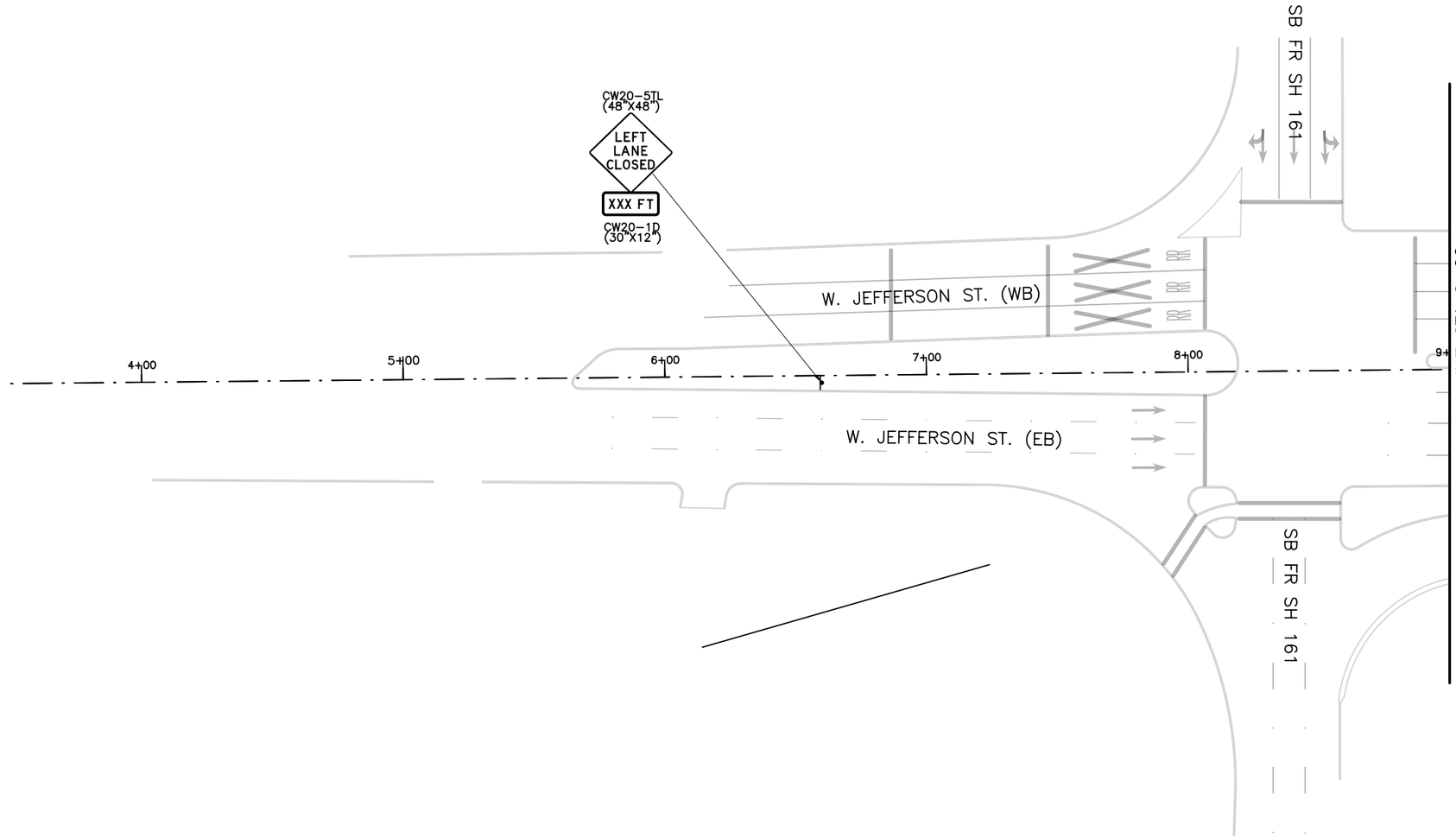

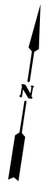

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 2 STA 3+50 TO STA 9+00

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	23

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
pw:/

7/1/2025 10:57:56 AM ChavezK

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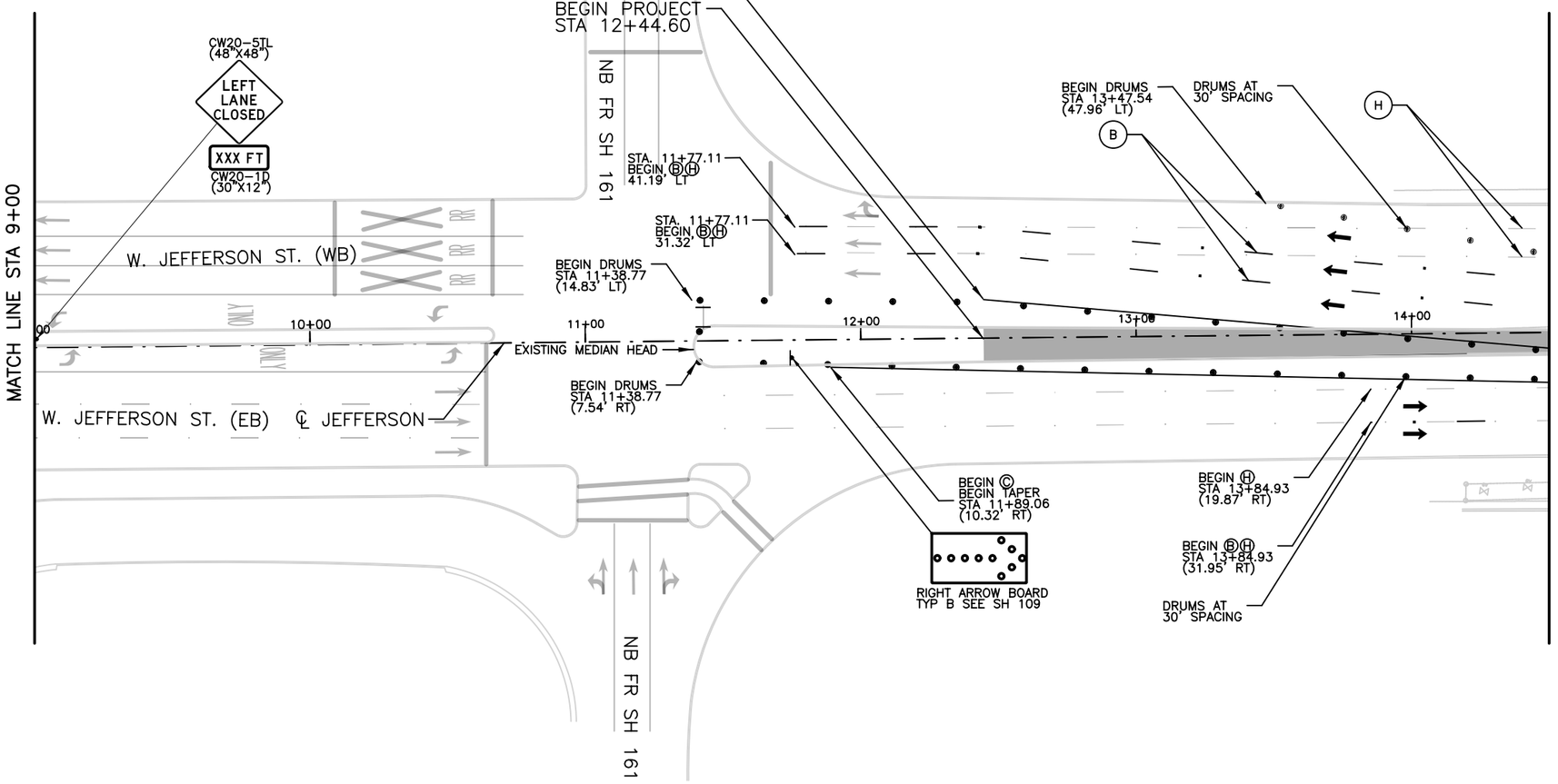
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



N

25 12.5 0 25 50
SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 2 STA 9+00 TO STA 14+50

GRand PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	24

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:58:05 AM ChavezK

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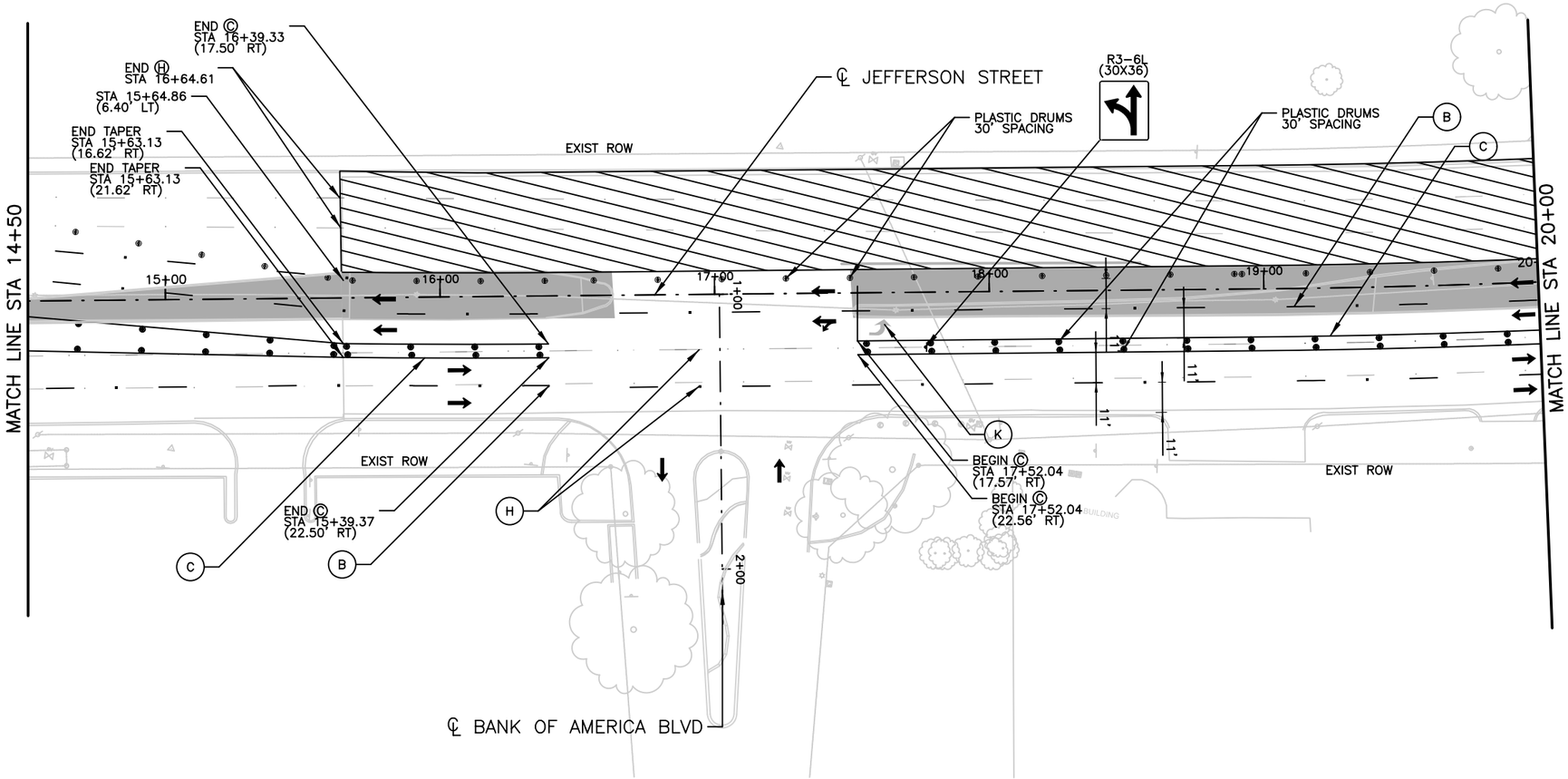
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 2 STA 14+50 TO STA 20+00

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	25

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cpypdf_ANSIB.pltcfg
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7/1/2025 10:58:13 AM ChavezK
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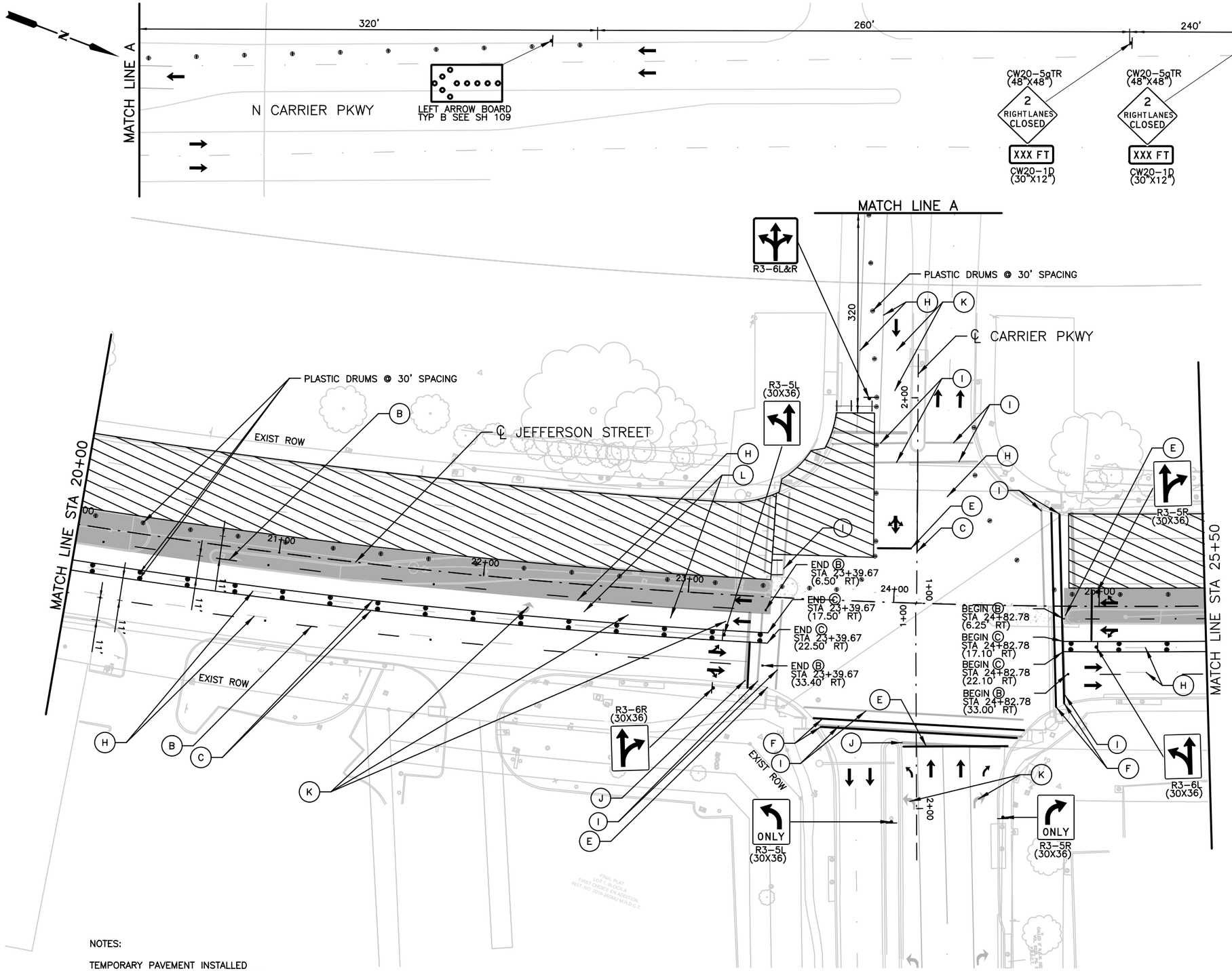

25 12.5 0 25 50
SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
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5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 2 STAGE 1

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	26

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cpypdf_ANSIB.pltcfg
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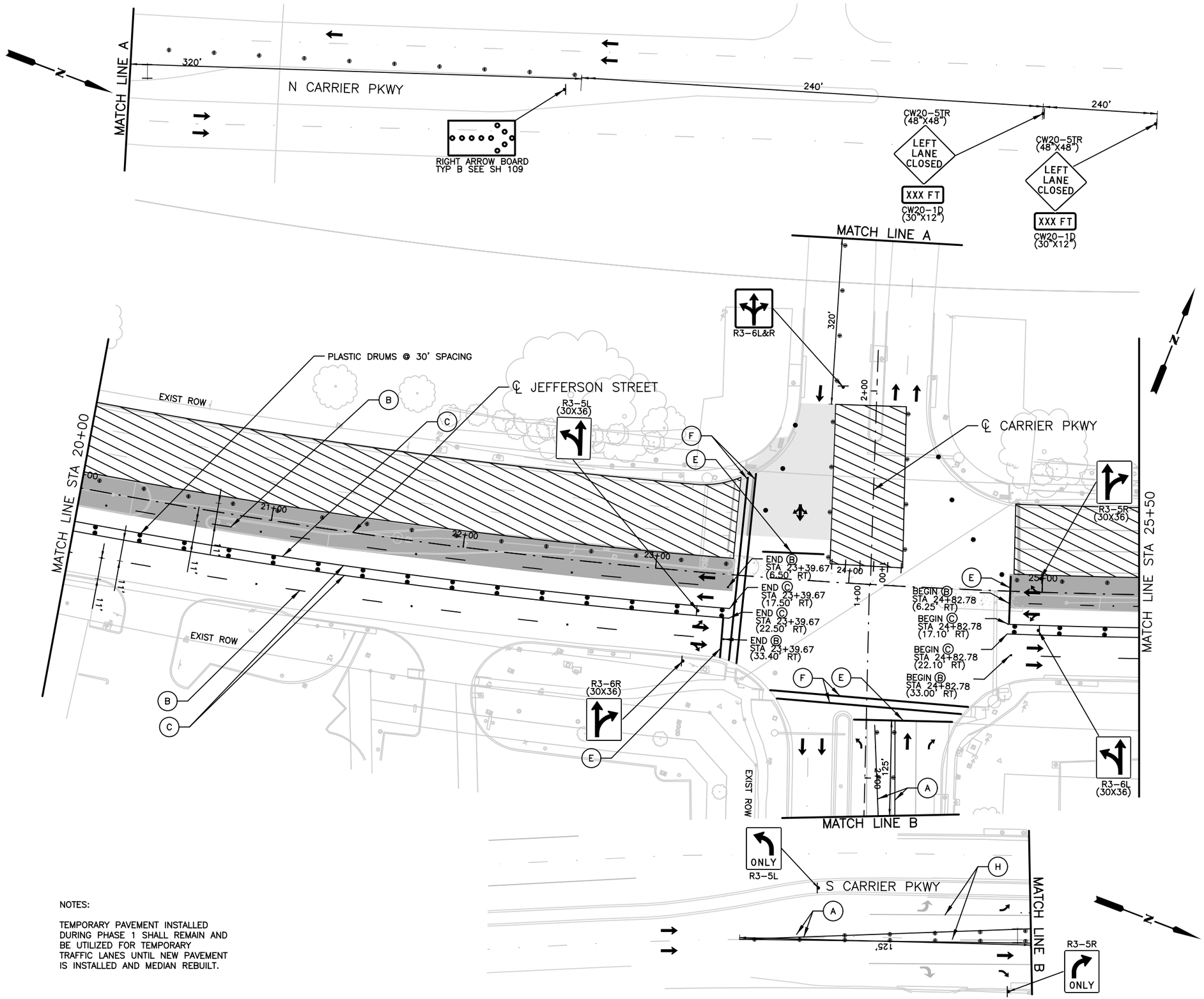

25 12.5 0 25 50
SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 2 STAGE 2

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	27

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:58:31 AM ChavezK
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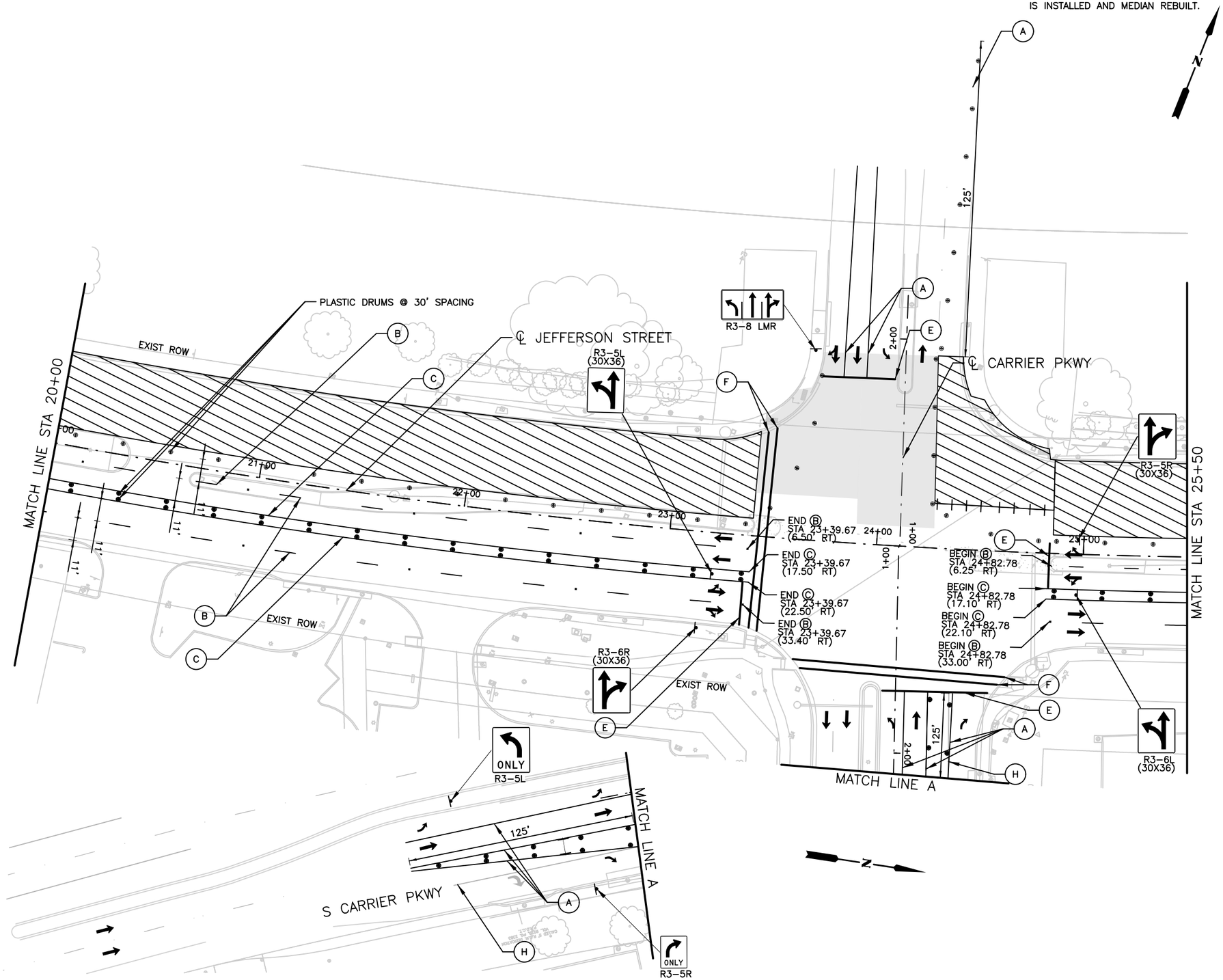
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
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Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 2 STEP 3

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	28

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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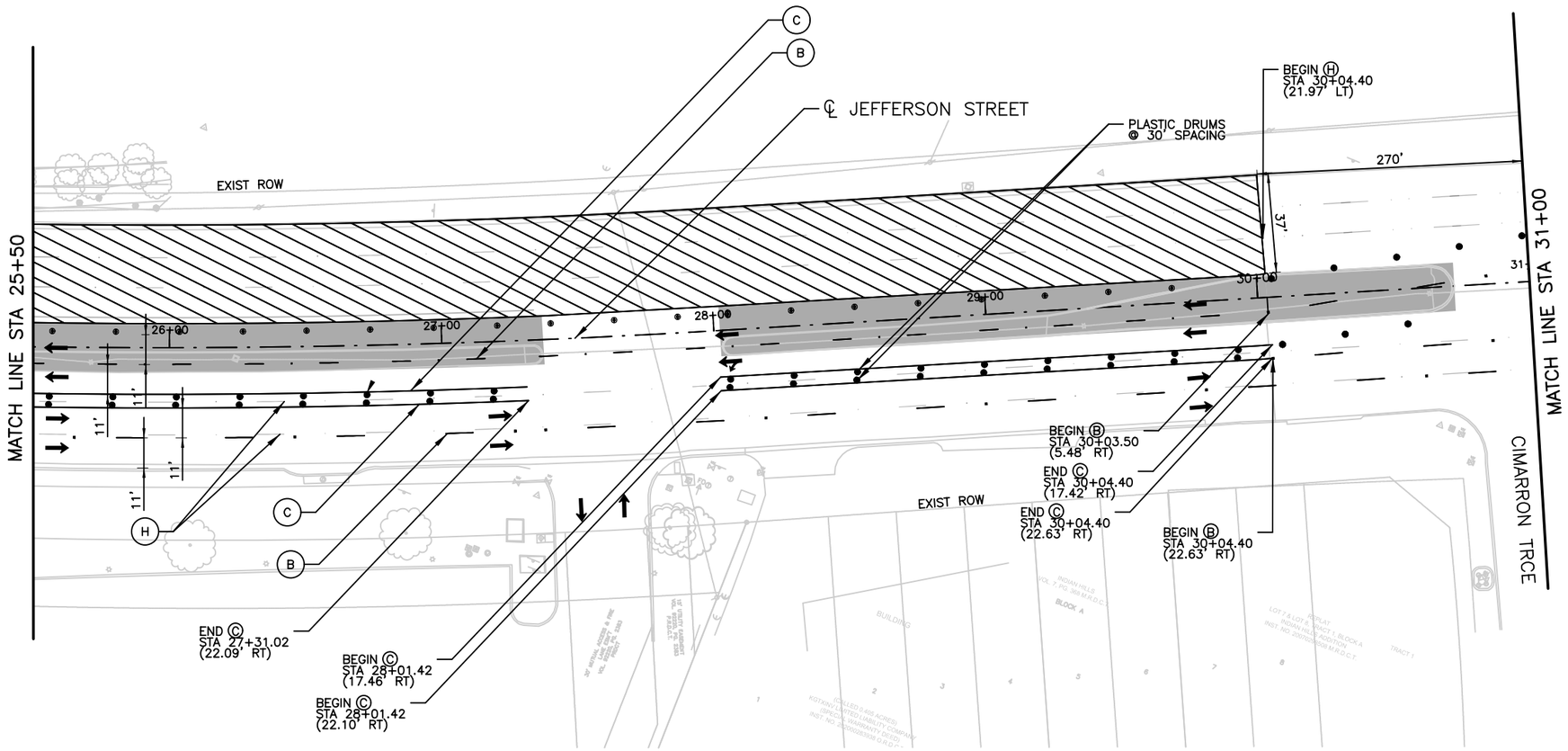
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
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Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 2 STA 25+50 TO STA 31+00

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	29

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:58:48 AM ChavezK

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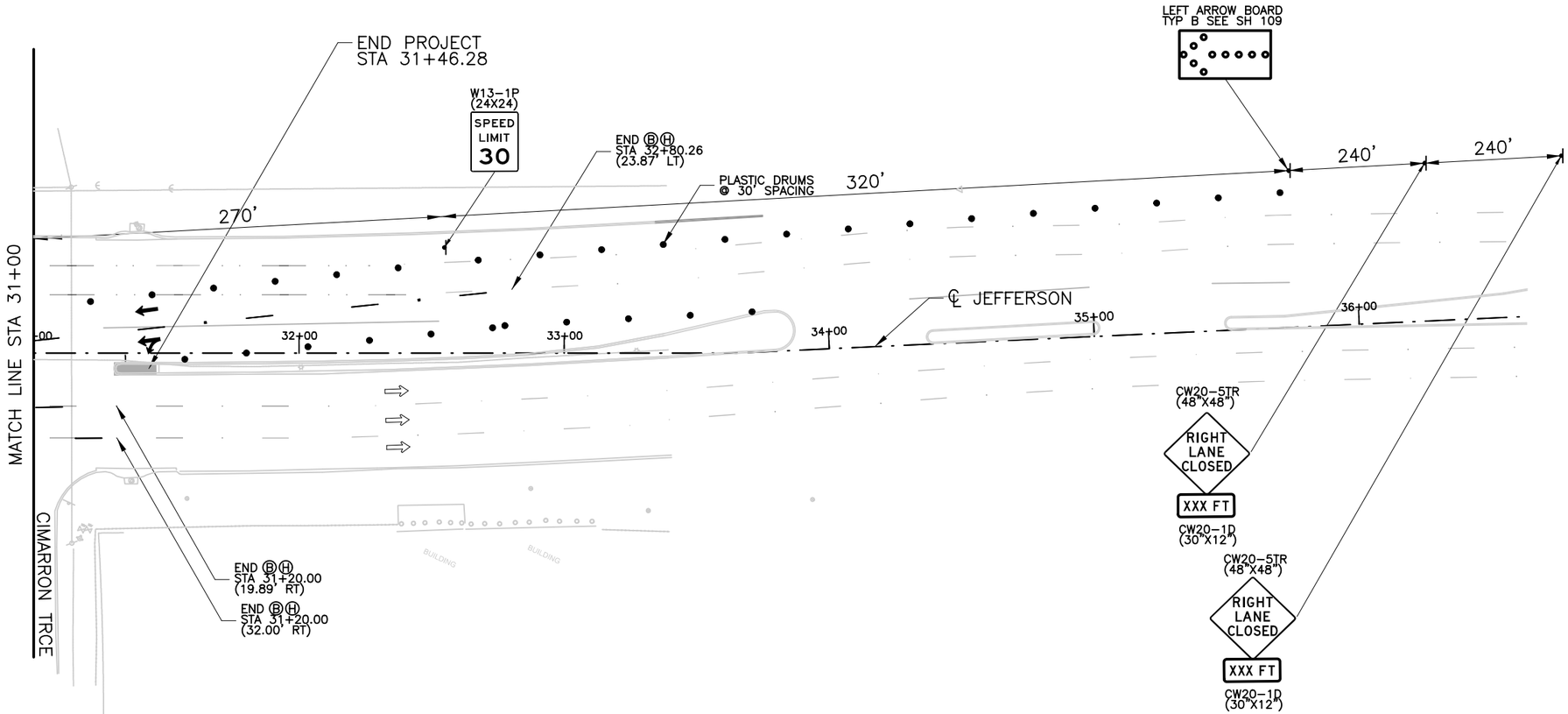
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



N

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 2 STA 31+00 TO STA 36+00

GRand PRaiRie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	30

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:58:58 AM ChavezK

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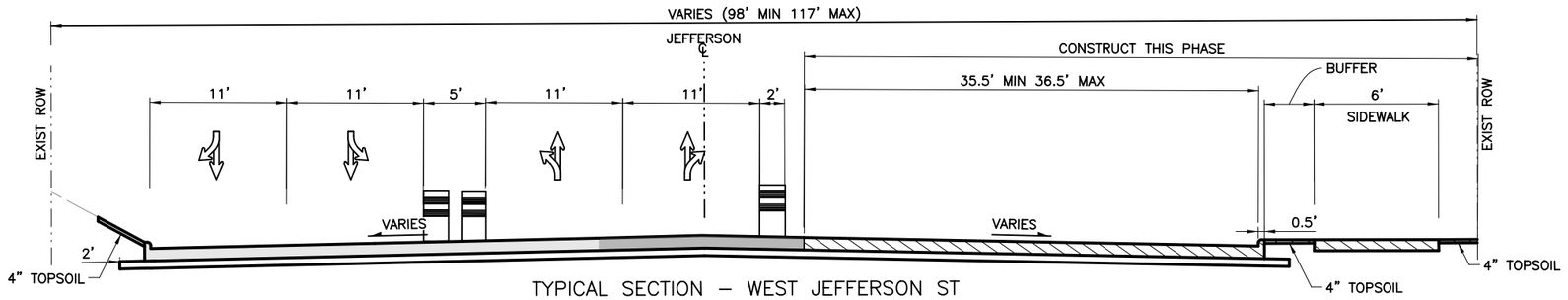
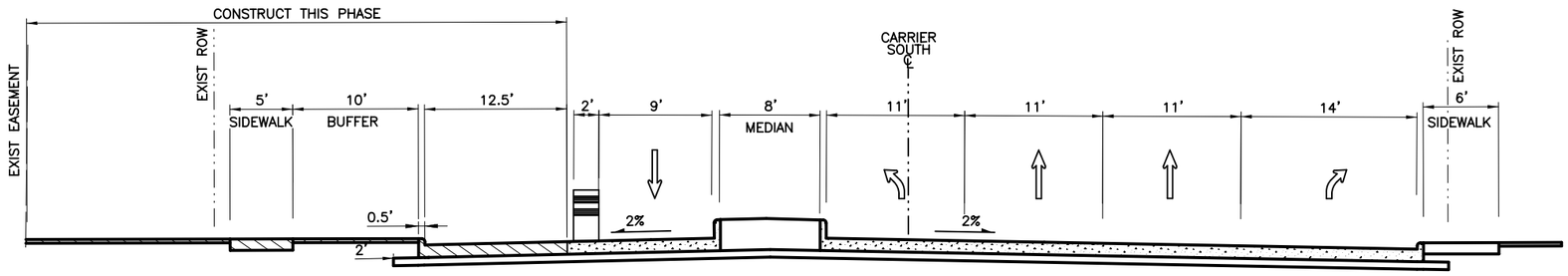


TYPICAL SECTION – WEST JEFFERSON ST

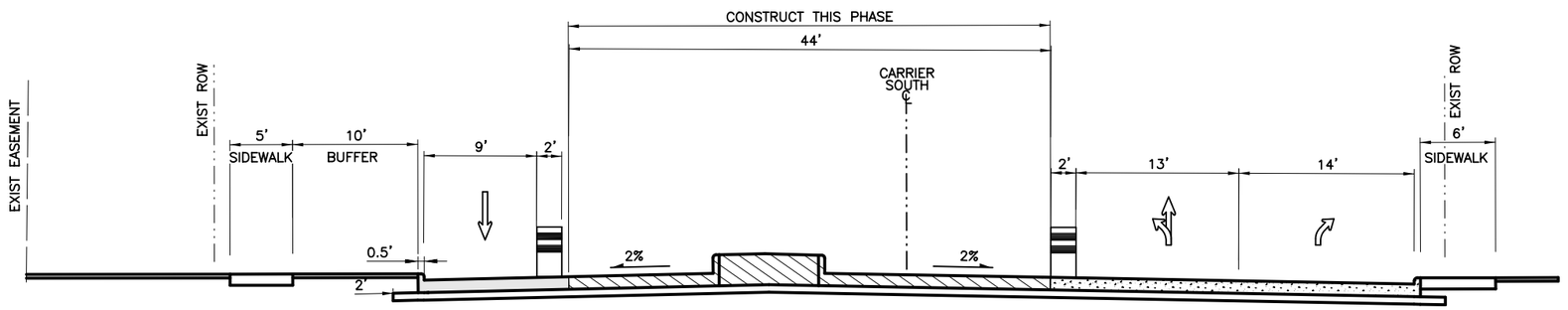
STA 15+64.18 TO STA 23+39.54

STA 24+85.39 TO STA 30+03.51



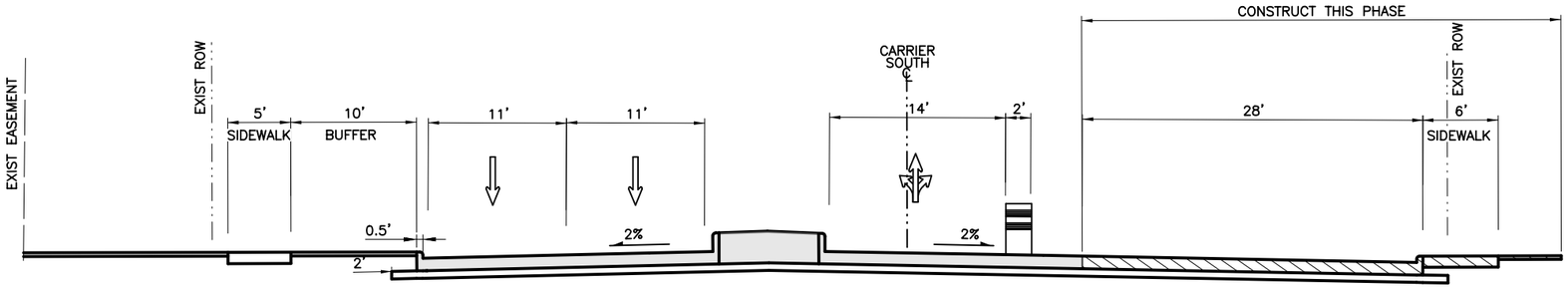
TYPICAL SECTION – PHASE 3 STAGE 1

STA 1+45.00 TO STA 2+07.51



TYPICAL SECTION – PHASE 3 STAGE 2

STA 1+45.00 TO STA 2+07.51



TYPICAL SECTION – PHASE 3 STAGE 3

STA 1+45.00 TO STA 2+07.51

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)
- BARREL/ PLASTIC DRUM
- DIRECTION OF TRAFFIIC
- VERTICAL PANELS

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 3 TYPICAL SECTIONS

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	31

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:59:06 AM ChavezK

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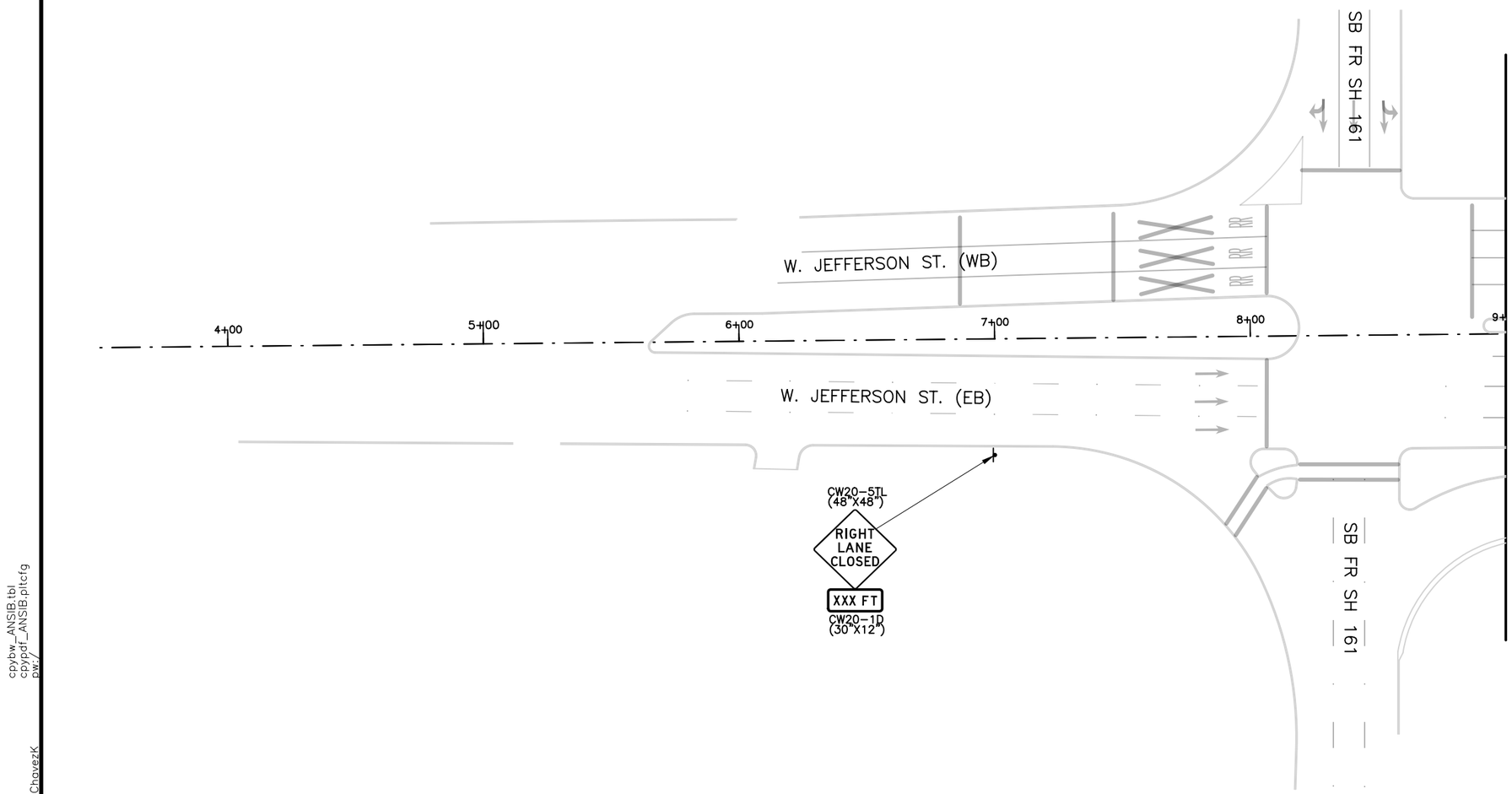
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMOAUN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 3 STA 3+50 TO STA 9+00

GRand PRaiRie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	32

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
pw:/
7/1/2025 10:59:14 AM ChavezK
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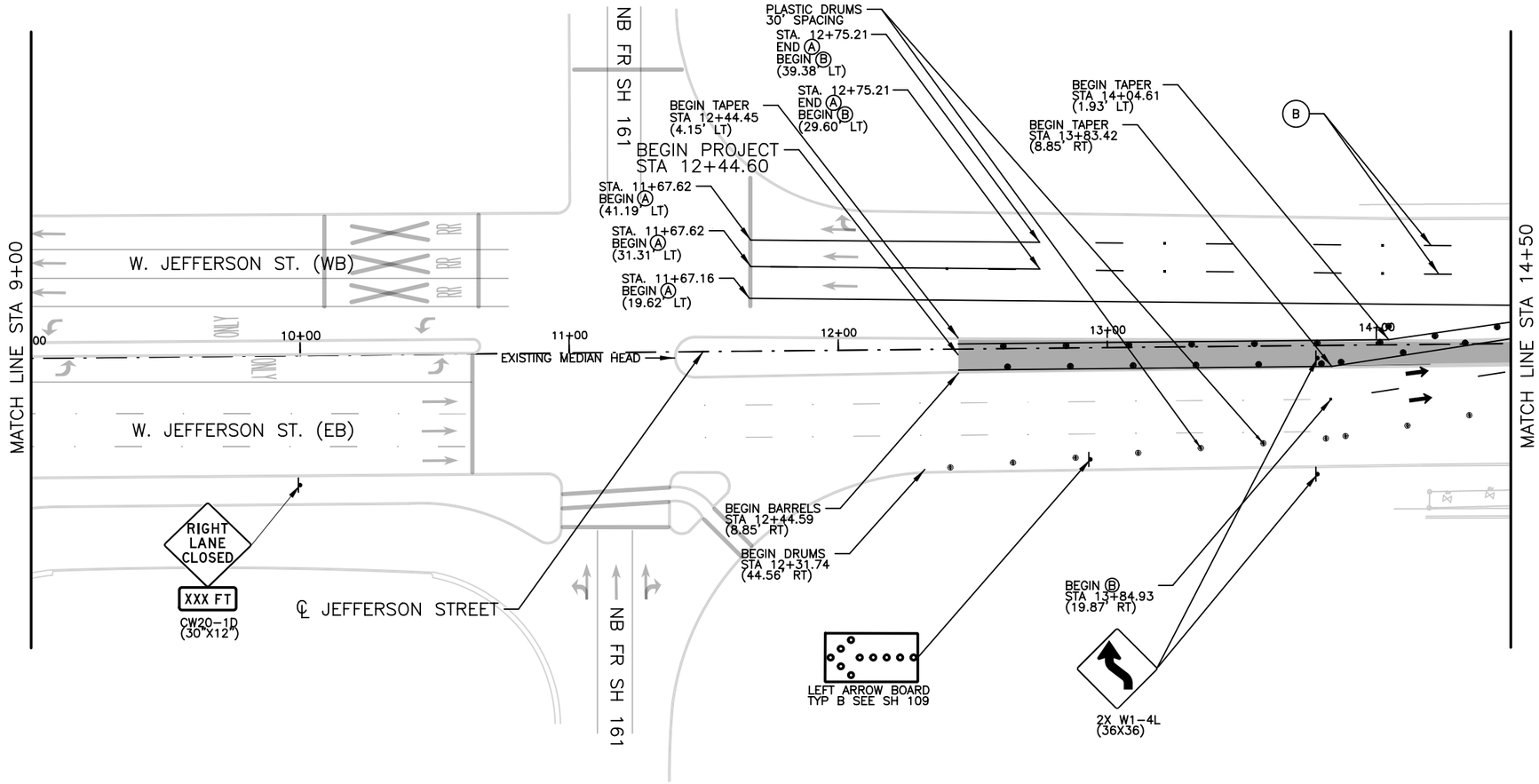
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMOAUN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 3 STA 9+00 TO STA 14+50

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	33

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:59:22 AM ChavezK
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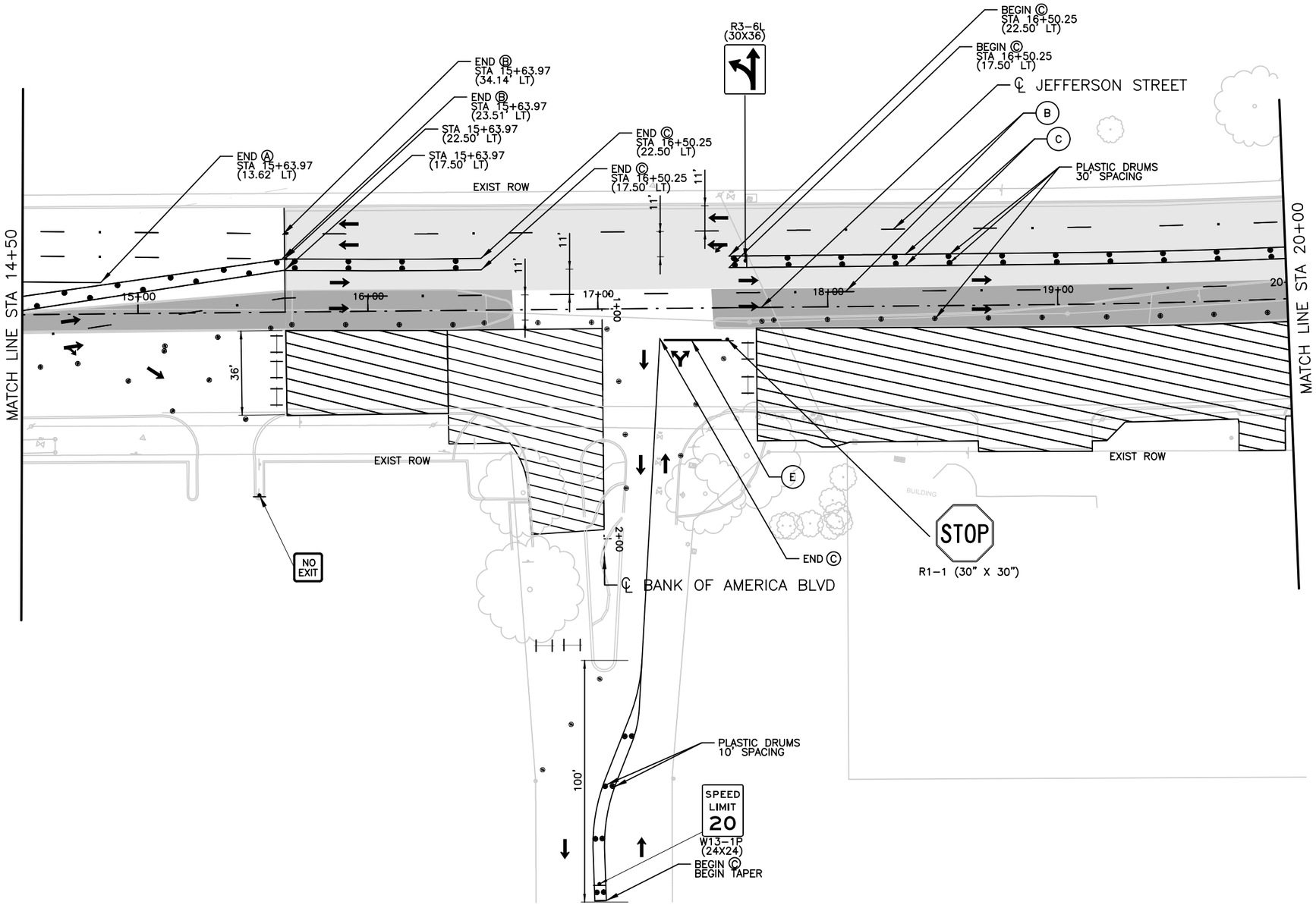
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



25 12.5 0 25 50
SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

(A) WRK. ZN. PAV. MRK. (W) (4") (SLD)
(B) WRK. ZN. PAV. MRK. (W) (4") (BRK)
(C) WRK. ZN. PAV. MRK. (Y) (4") (SLD)
(D) WRK. ZN. PAV. MRK. (W) (4") (DOT)
(E) WRK. ZN. PAV. MRK. (W) (12") (SLD)
(F) WRK. ZN. CROSS WALK (W) (12") (SLD)
(G) WRK. ZN. PAV. MRK. (W) (ARROW)
(H) ELIM. EXT. PAV. MRK. & MRKS. (4")
(I) ELIM. EXT. PAV. MRK. & MRKS. (8")
(J) ELIM. EXT. PAV. MRK. & MRKS. (24")
(K) ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
(L) ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 3 STAGE 4

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	34

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
pw:/

7/1/2025 10:59:32 AM ChavezK

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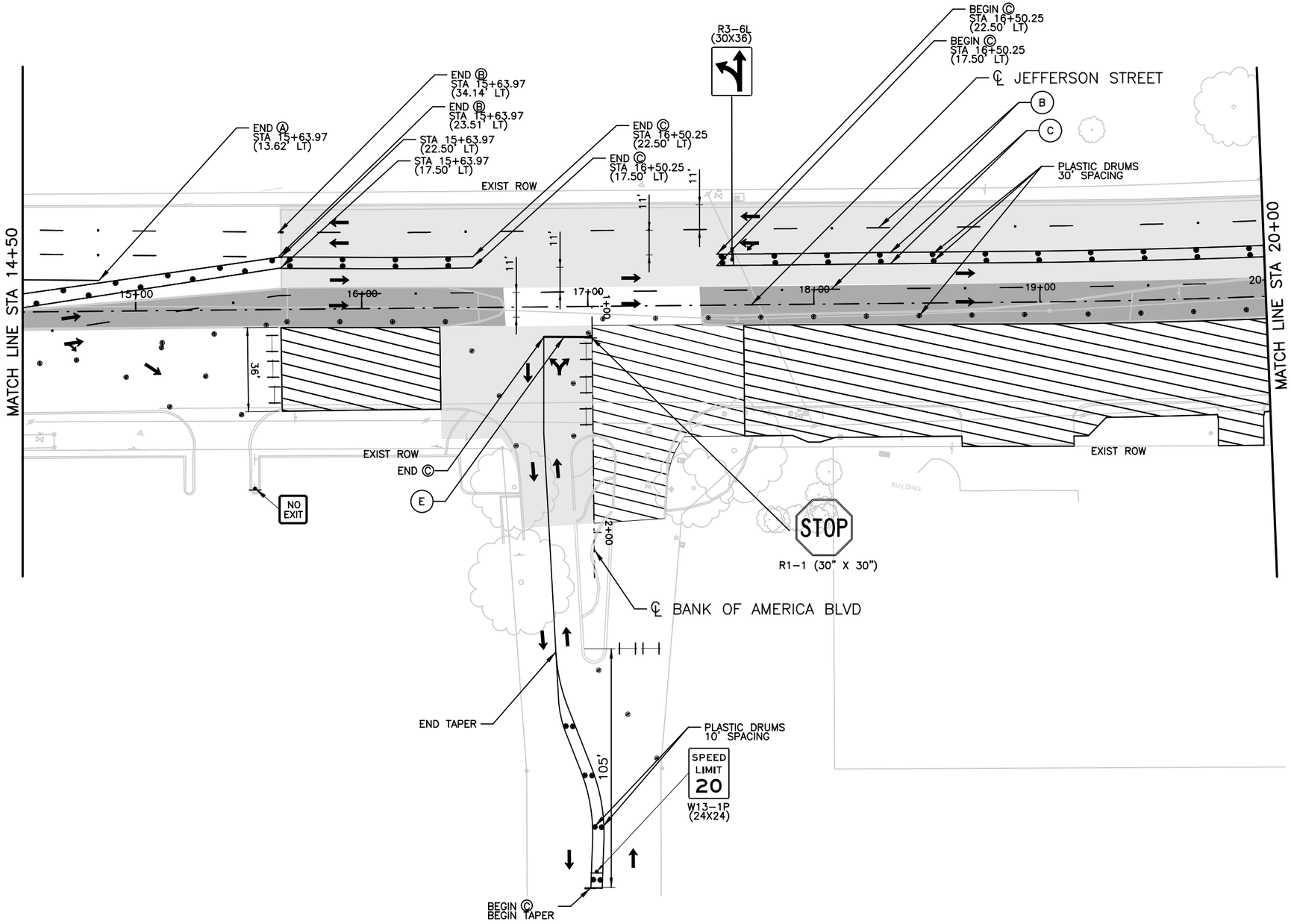
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 3 STAGE 5

GRand PRAIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	35

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:59:42 AM ChavezK
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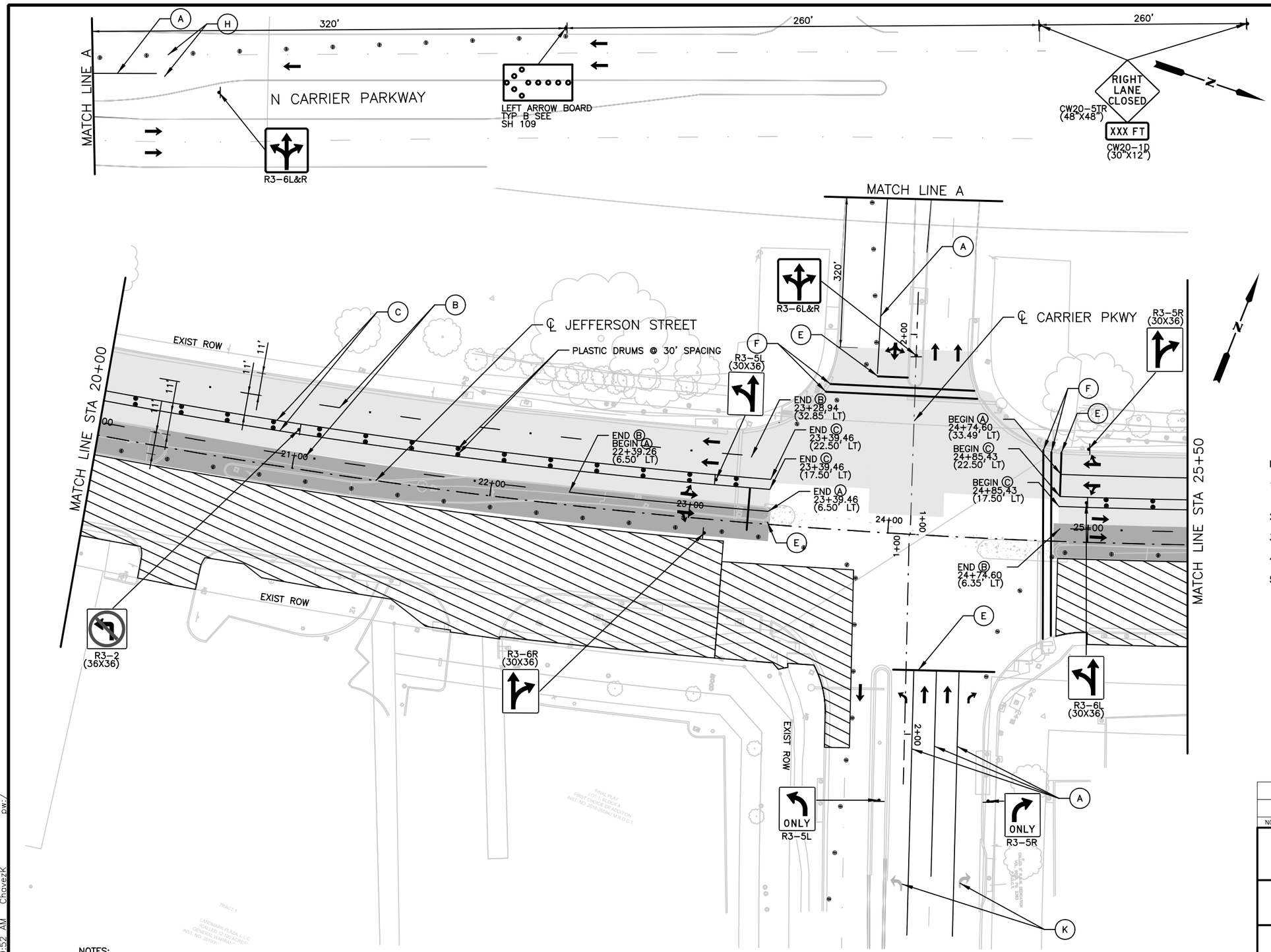

NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.

25 12.5 0 25 50
SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 3 STAGE 1

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	36

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 10:59:52 AM ChavezK
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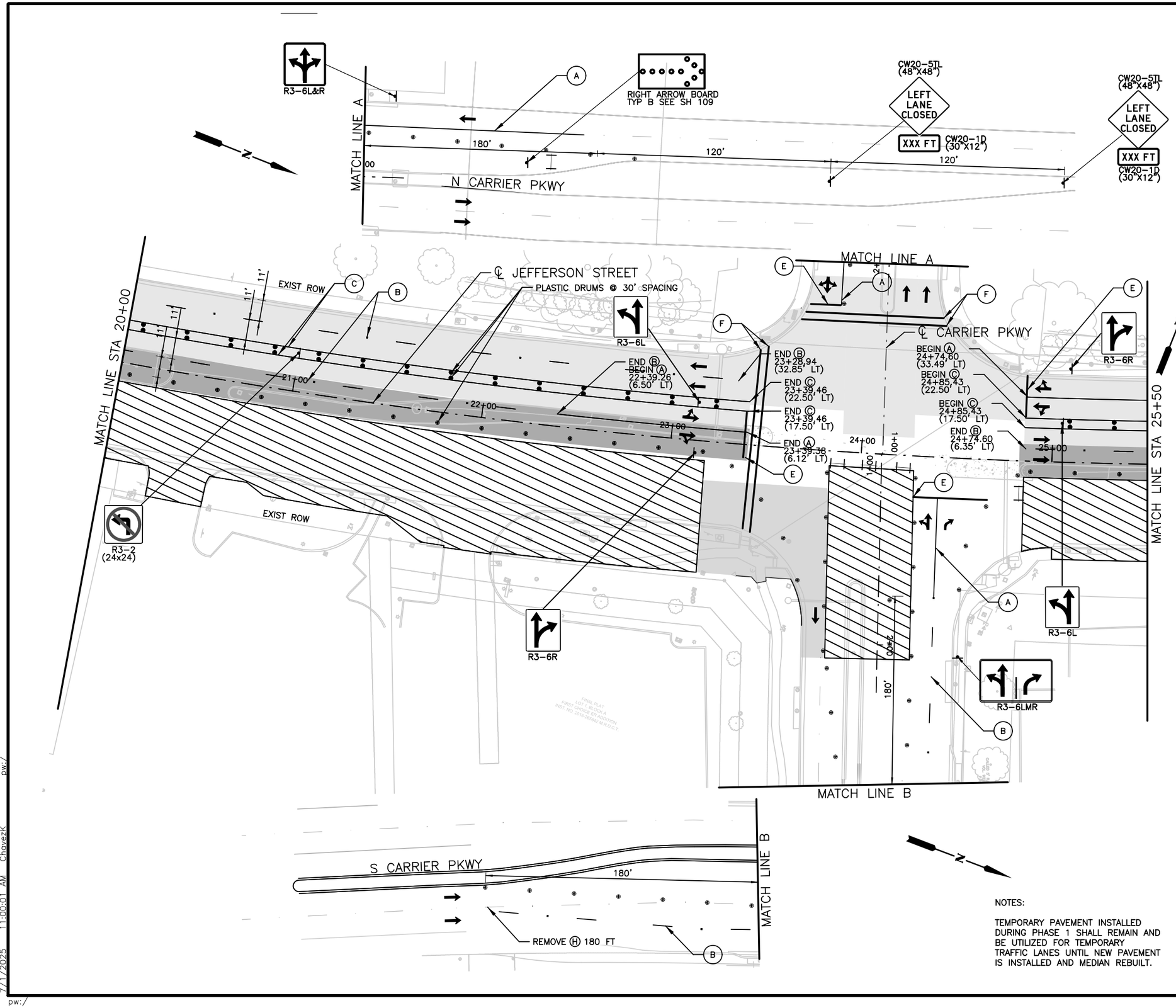

25 12.5 0 25 50
SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
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Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

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5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 3 STAGE 2

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	37

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 11:00:01 AM ChavezK

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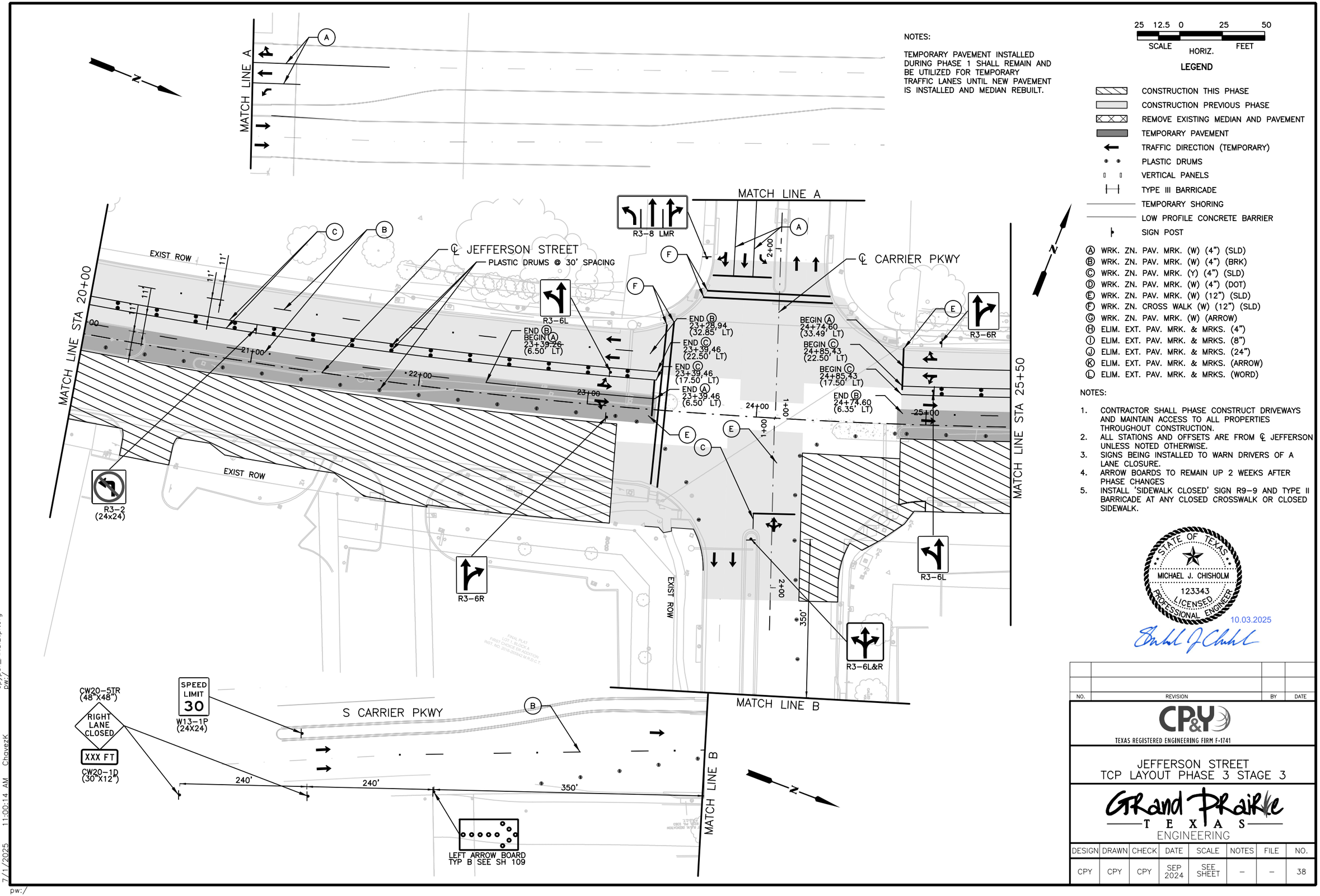

NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.

25 12.5 0 25 50
SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

(A) WRK. ZN. PAV. MRK. (W) (4") (SLD)
(B) WRK. ZN. PAV. MRK. (W) (4") (BRK)
(C) WRK. ZN. PAV. MRK. (Y) (4") (SLD)
(D) WRK. ZN. PAV. MRK. (W) (4") (DOT)
(E) WRK. ZN. PAV. MRK. (W) (12") (SLD)
(F) WRK. ZN. CROSS WALK (W) (12") (SLD)
(G) WRK. ZN. PAV. MRK. (W) (ARROW)
(H) ELIM. EXT. PAV. MRK. & MRKS. (4")
(I) ELIM. EXT. PAV. MRK. & MRKS. (8")
(J) ELIM. EXT. PAV. MRK. & MRKS. (24")
(K) ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
(L) ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 3 STAGE 3

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	38

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
pw:/
7/1/2025 11:00:14 AM ChavezK
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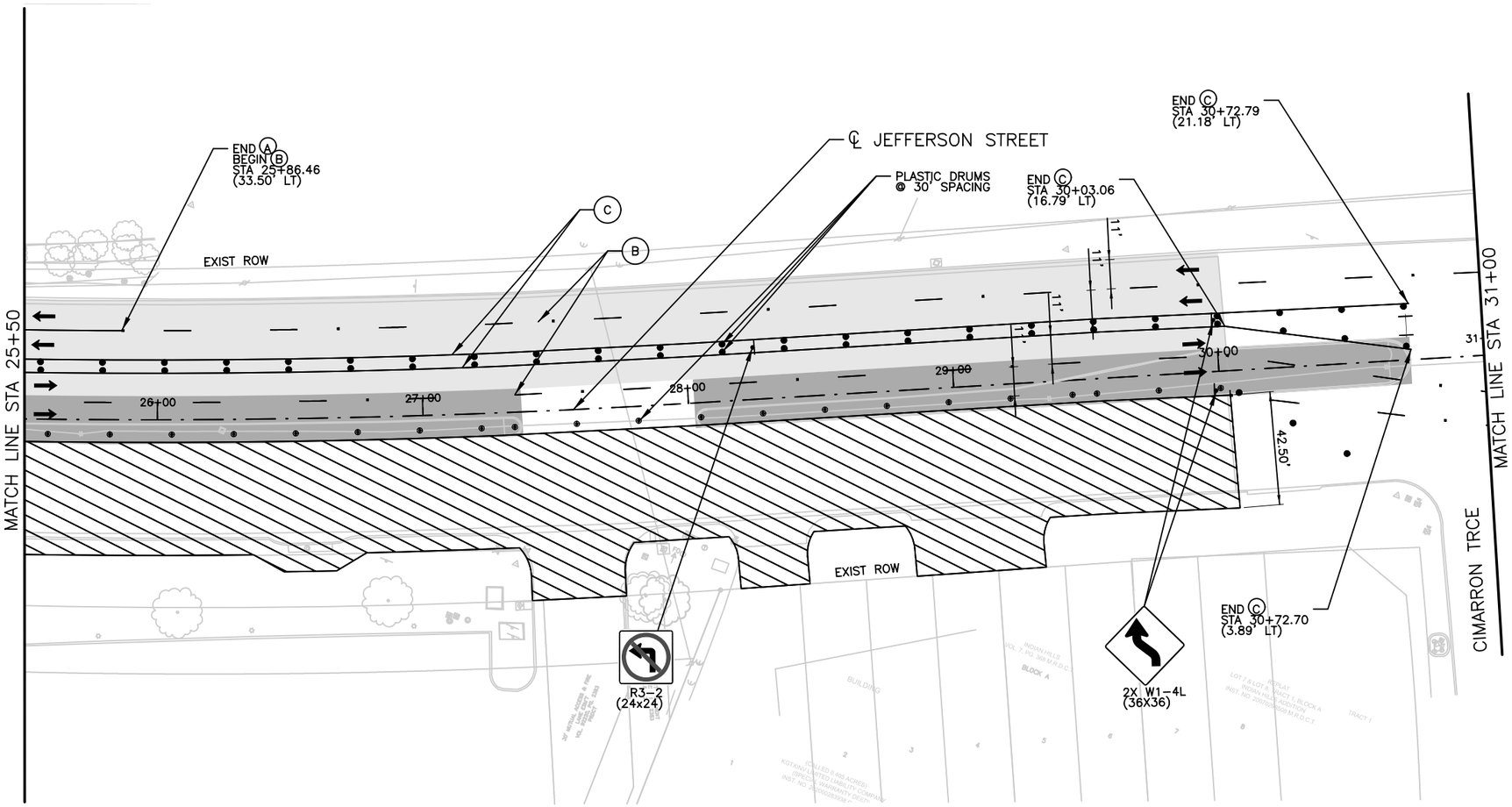
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



N

SCALE HORIZ. 25 12.5 0 25 50 FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 3 STA 25+50 TO STA 31+00

GRand PRAIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	39

cpybw_ANSIB.tbl
cpypdf_ANSIB.pltcfg
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7/1/2025 11:00:24 AM ChavezK

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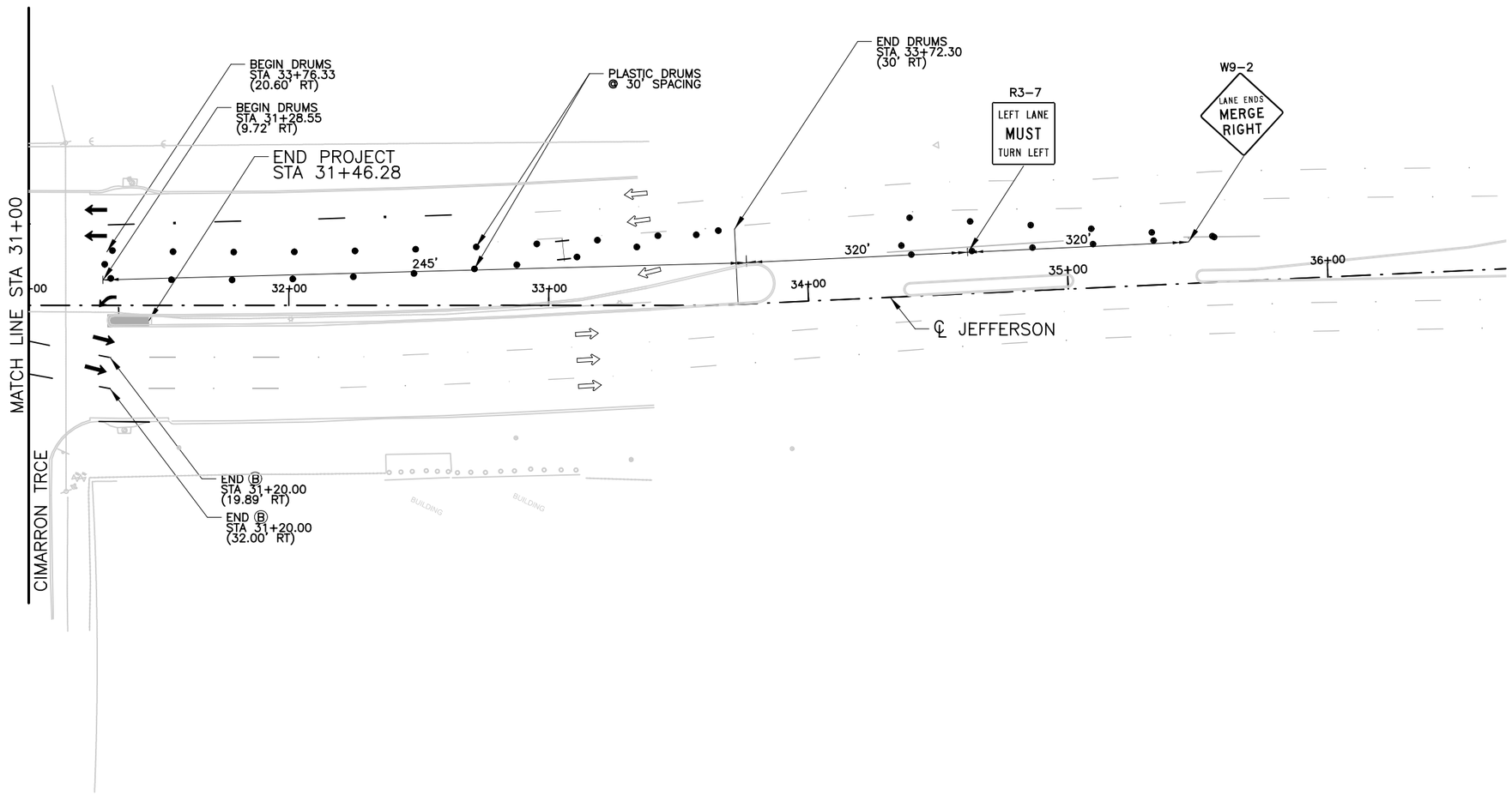
NOTES:

TEMPORARY PAVEMENT INSTALLED DURING PHASE 1 SHALL REMAIN AND BE UTILIZED FOR TEMPORARY TRAFFIC LANES UNTIL NEW PAVEMENT IS INSTALLED AND MEDIAN REBUILT.



25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 3 STA 31+00 TO STA 36+00

GRand PRaiRie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	40

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7/1/2025 11:00:34 AM ChavezK
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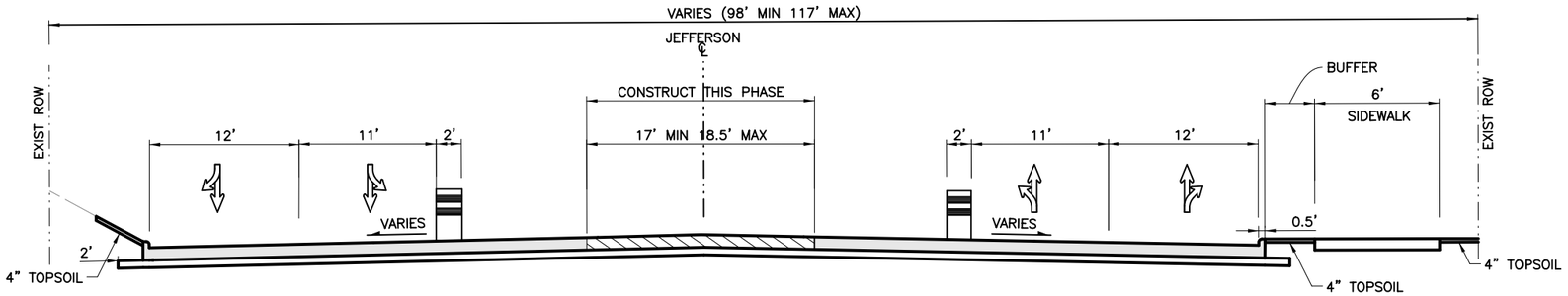

TYPICAL SECTION – WEST JEFFERSON ST

STA 15+64.18 TO STA 23+39.54

STA 24+82.90 TO STA 30+03.51

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)
- BARREL/ PLASTIC DRUM
- DIRECTION OF TRAFFIIC
- VERTICAL PANELS

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 4 TYPICAL SECTIONS

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	41

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7/1/2025 11:00:44 AM ChavezK

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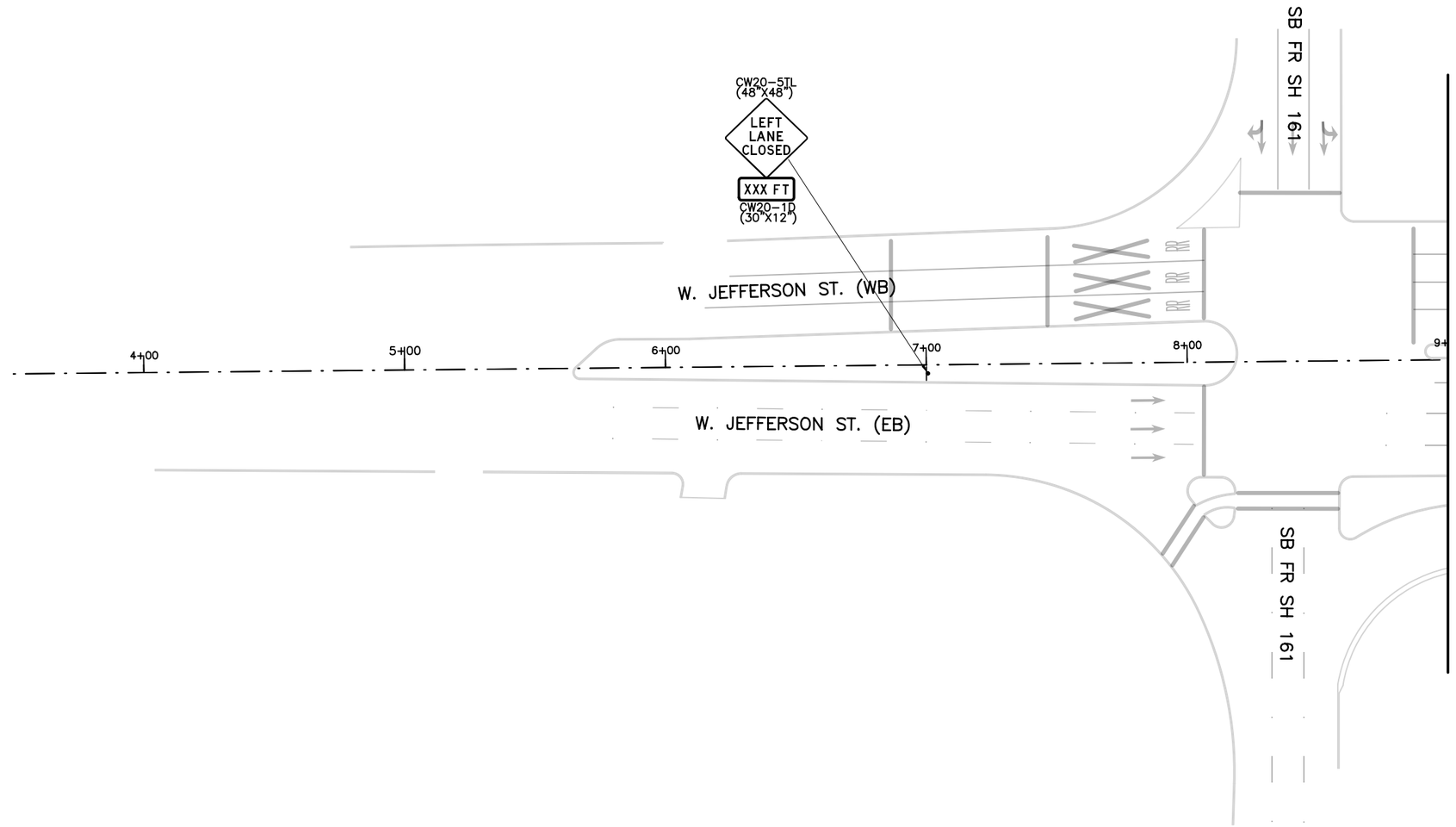

N

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 4 STA 3+50 TO STA 9+00

GRand PRaiRie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	42

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7/1/2025 11:00:53 AM ChavezK
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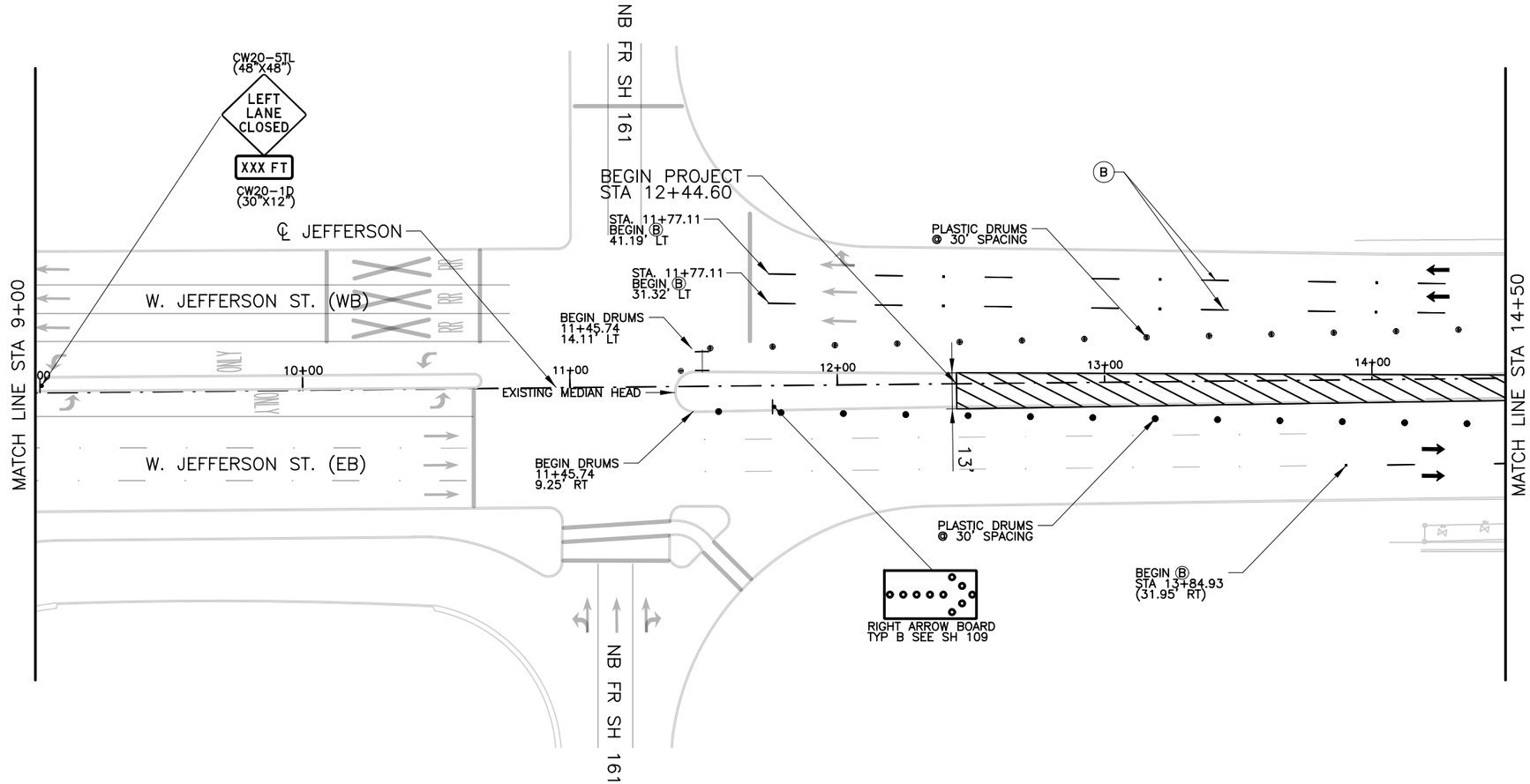

25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 4 STA 9+00 TO STA 14+50

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	43

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cpydf_ANSIB.pltcfg
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7/1/2025 11:01:02 AM ChavezK
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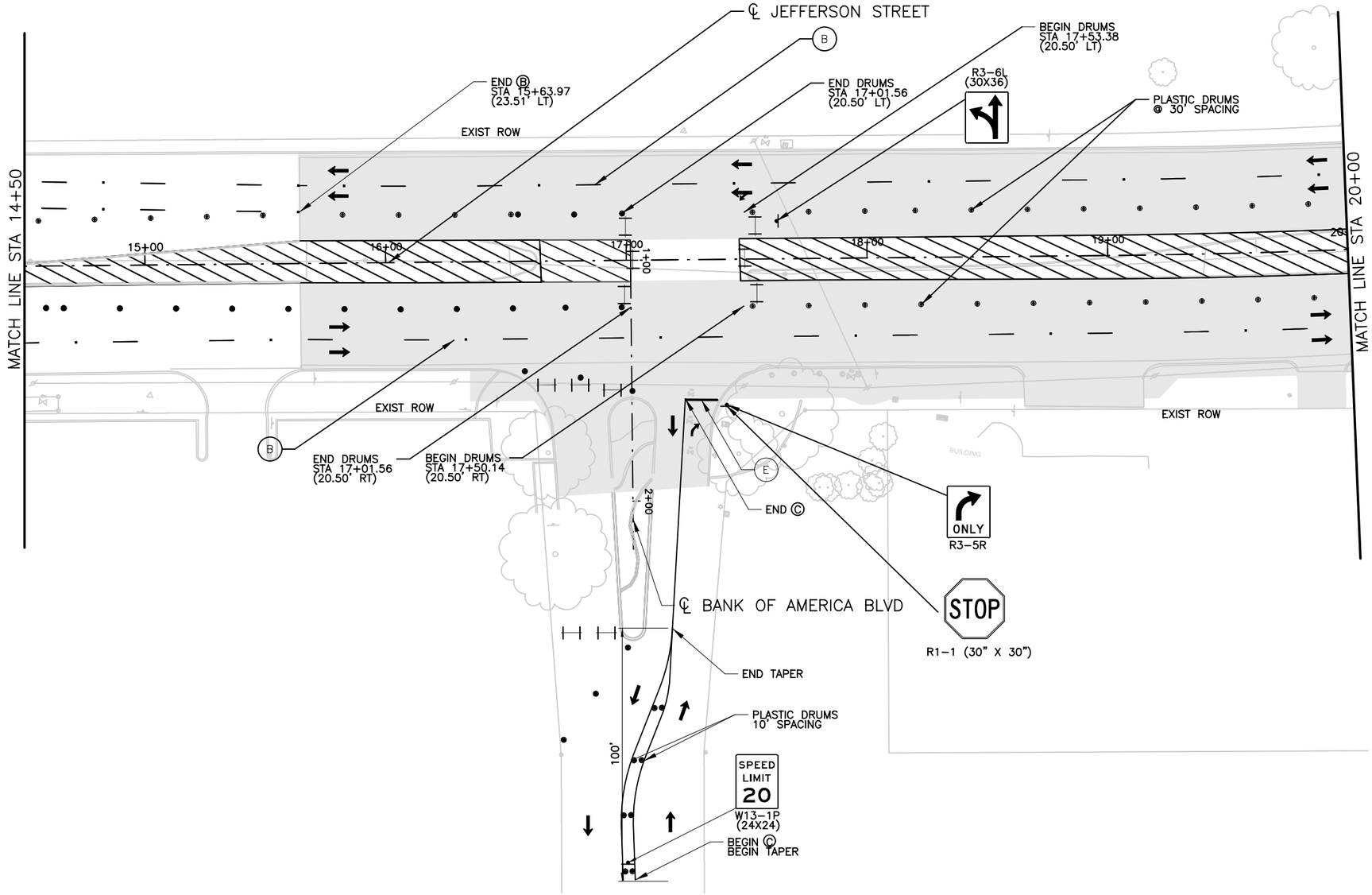

N

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 4 STAGE 4

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	44

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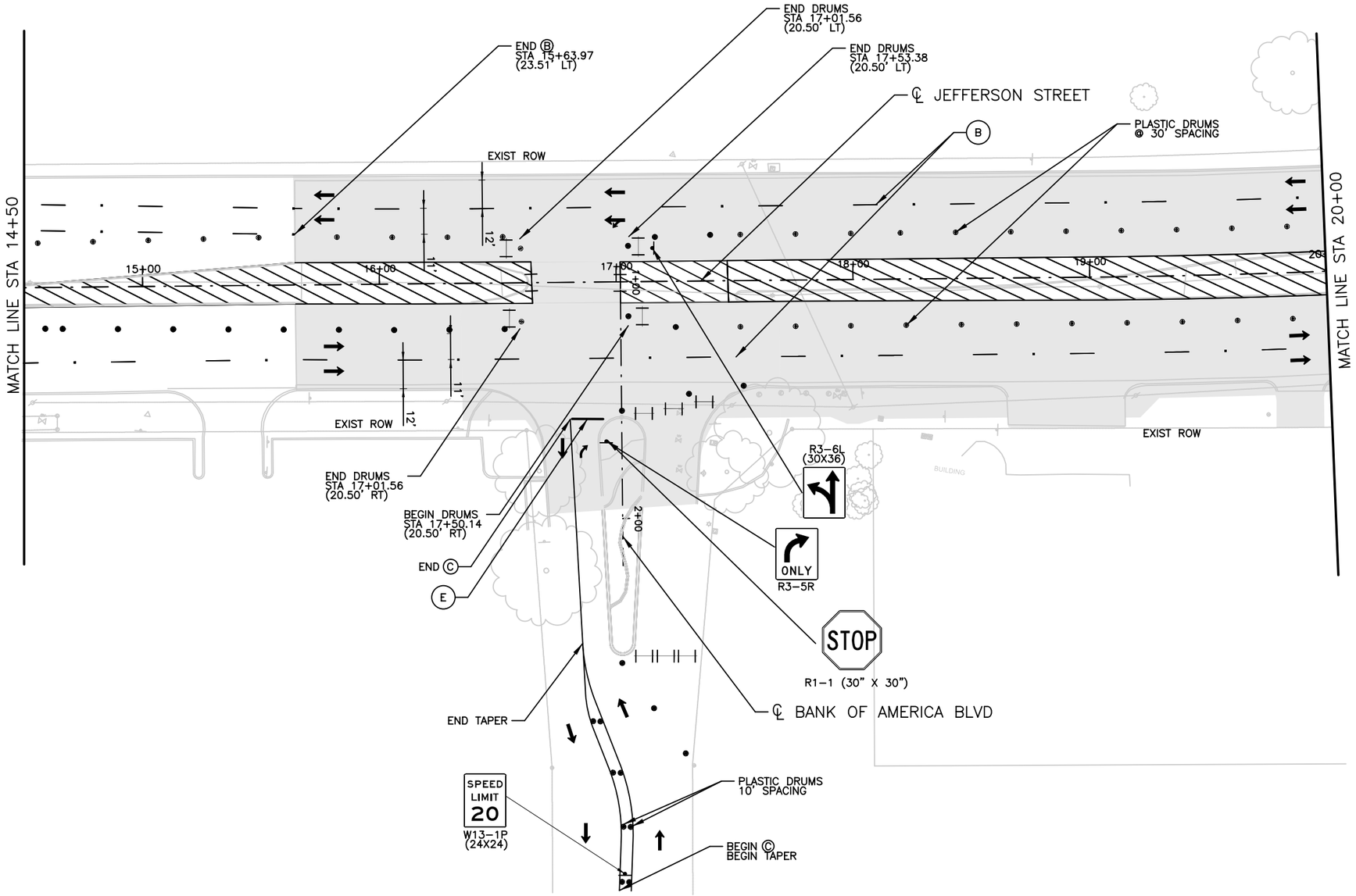

N

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
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STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 4 STAGE 5

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	45

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cpydf_ANSIB.pltcfg
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7/1/2025 11:01:19 AM ChavezK

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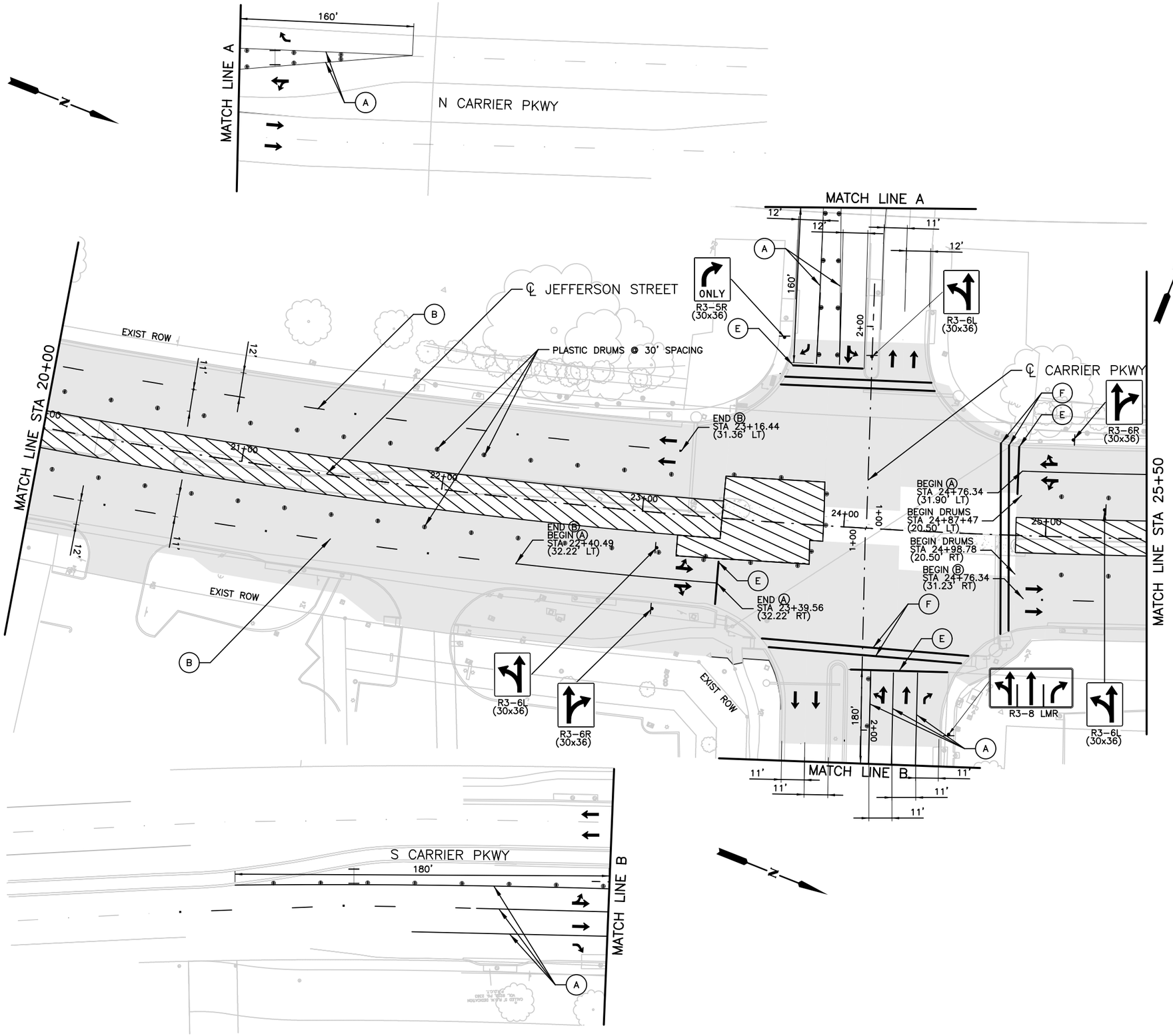

25 12.5 0 25 50
SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

(A) WRK. ZN. PAV. MRK. (W) (4") (SLD)
(B) WRK. ZN. PAV. MRK. (W) (4") (BRK)
(C) WRK. ZN. PAV. MRK. (Y) (4") (SLD)
(D) WRK. ZN. PAV. MRK. (W) (4") (DOT)
(E) WRK. ZN. PAV. MRK. (W) (12") (SLD)
(F) WRK. ZN. CROSS WALK (W) (12") (SLD)
(G) WRK. ZN. PAV. MRK. (W) (ARROW)
(H) ELIM. EXT. PAV. MRK. & MRKS. (4")
(I) ELIM. EXT. PAV. MRK. & MRKS. (8")
(J) ELIM. EXT. PAV. MRK. & MRKS. (24")
(K) ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
(L) ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
2. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
3. SIGNS BEING INSTALLED TO WARN DRIVERS OF A LANE CLOSURE.
4. ARROW BOARDS TO REMAIN UP 2 WEEKS AFTER PHASE CHANGES
5. INSTALL 'SIDEWALK CLOSED' SIGN R9-9 AND TYPE II BARRICADE AT ANY CLOSED CROSSWALK OR CLOSED SIDEWALK.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 4 STAGE 1

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	46

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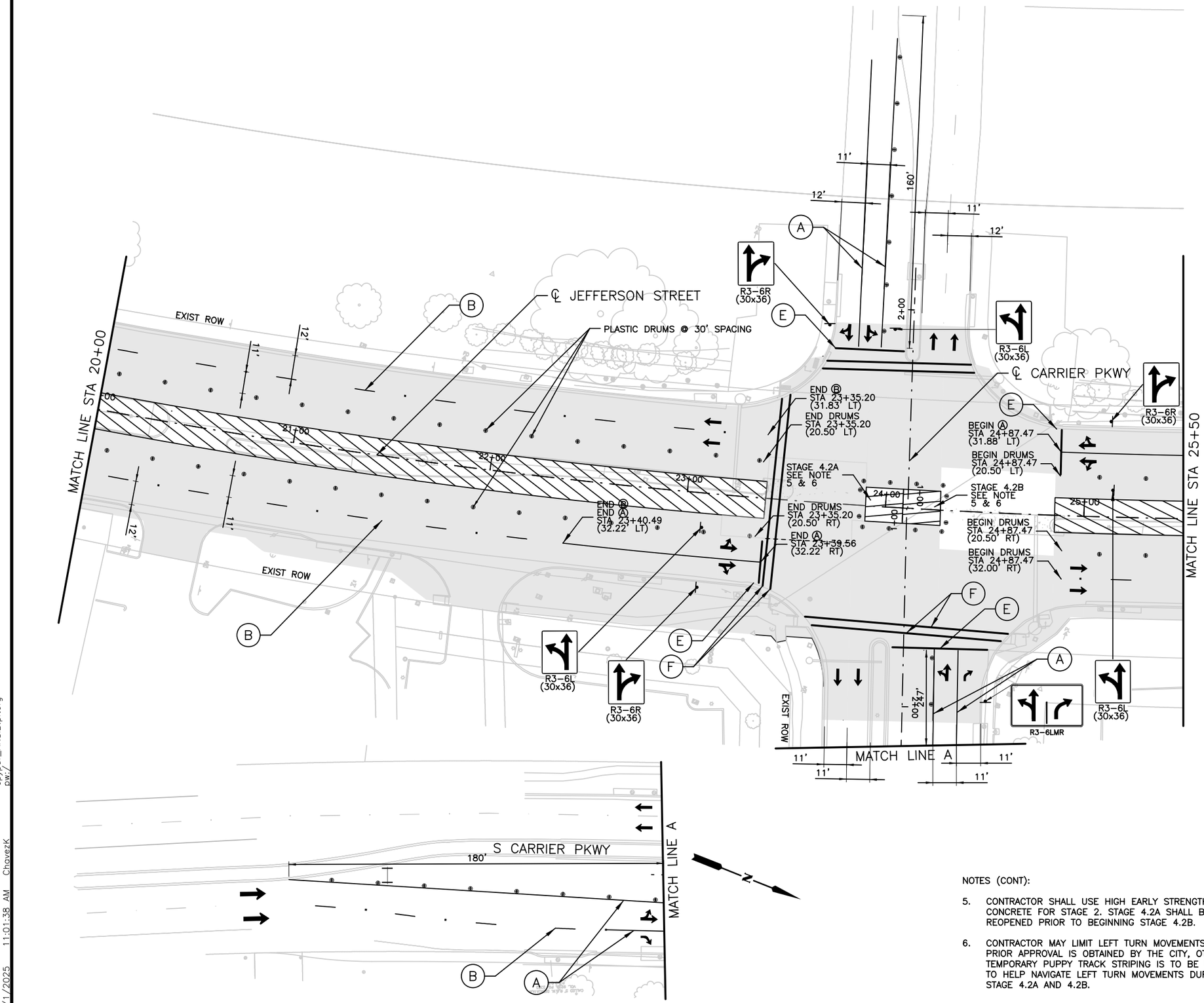

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

(A) WRK. ZN. PAV. MRK. (W) (4") (SLD)
(B) WRK. ZN. PAV. MRK. (W) (4") (BRK)
(C) WRK. ZN. PAV. MRK. (Y) (4") (SLD)
(D) WRK. ZN. PAV. MRK. (W) (4") (DOT)
(E) WRK. ZN. PAV. MRK. (W) (12") (SLD)
(F) WRK. ZN. CROSS WALK (W) (12") (SLD)
(G) WRK. ZN. PAV. MRK. (W) (ARROW)
(H) ELIM. EXT. PAV. MRK. & MRKS. (4")
(I) ELIM. EXT. PAV. MRK. & MRKS. (8")
(J) ELIM. EXT. PAV. MRK. & MRKS. (24")
(K) ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
(L) ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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NOTES (CONT):

5. CONTRACTOR SHALL USE HIGH EARLY STRENGTH (HES) CONCRETE FOR STAGE 2. STAGE 4.2A SHALL BE REOPENED PRIOR TO BEGINNING STAGE 4.2B.
6. CONTRACTOR MAY LIMIT LEFT TURN MOVEMENTS IF PRIOR APPROVAL IS OBTAINED BY THE CITY, OTHERWISE TEMPORARY PUPPY TRACK STRIPING IS TO BE UTILIZED TO HELP NAVIGATE LEFT TURN MOVEMENTS DURING STAGE 4.2A AND 4.2B.

STATE OF TEXAS
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JEFFERSON STREET
TCP LAYOUT PHASE 4 STAGE 2

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	47

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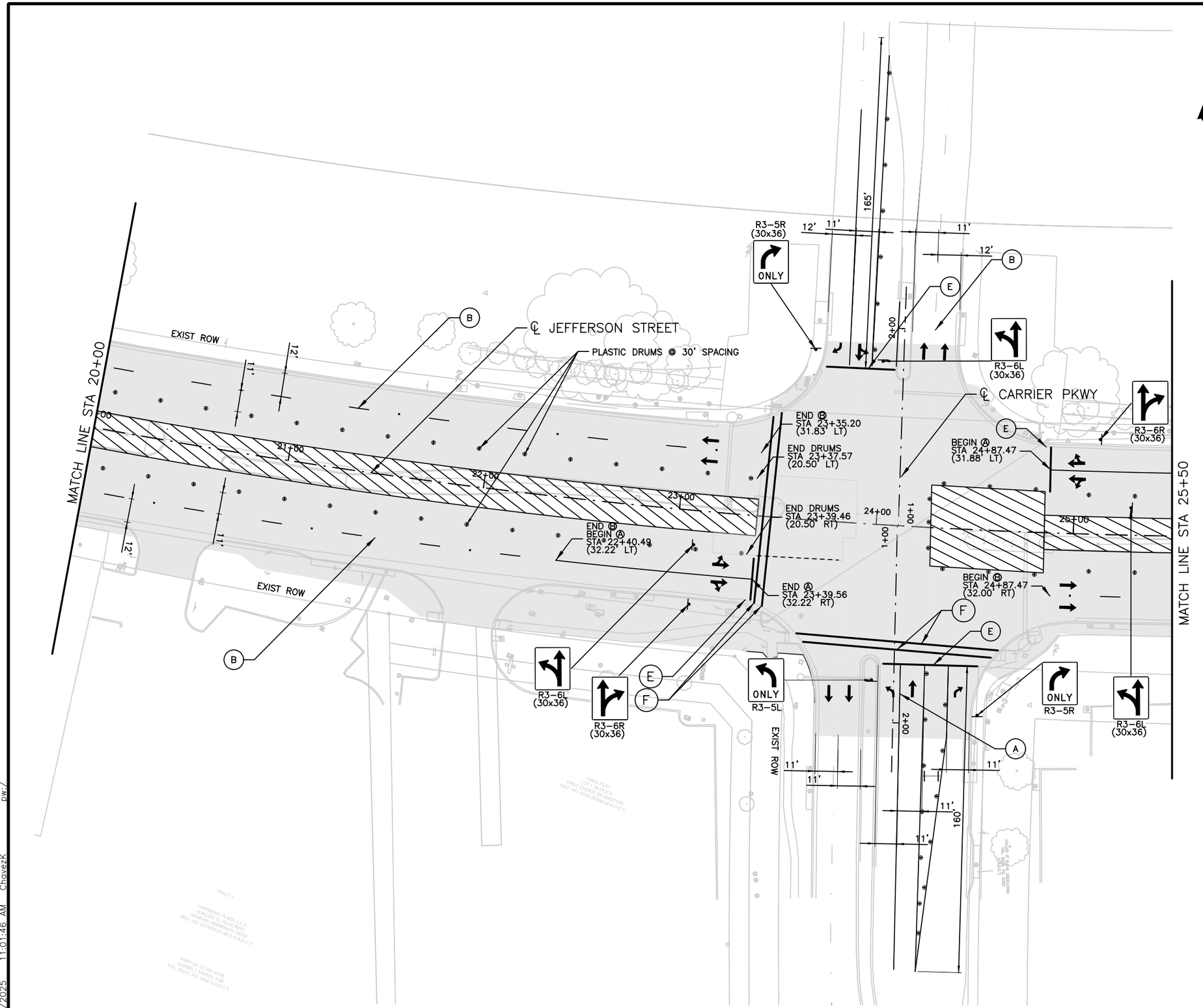

25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
Ⓙ ELIM. EXT. PAV. MRK. & MRKS. (24")
Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

1. CONTRACTOR SHALL PHASE CONSTRUCT DRIVEWAYS AND MAINTAIN ACCESS TO ALL PROPERTIES THROUGHOUT CONSTRUCTION.
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STATE OF TEXAS
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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP LAYOUT PHASE 4 STAGE 3

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	48

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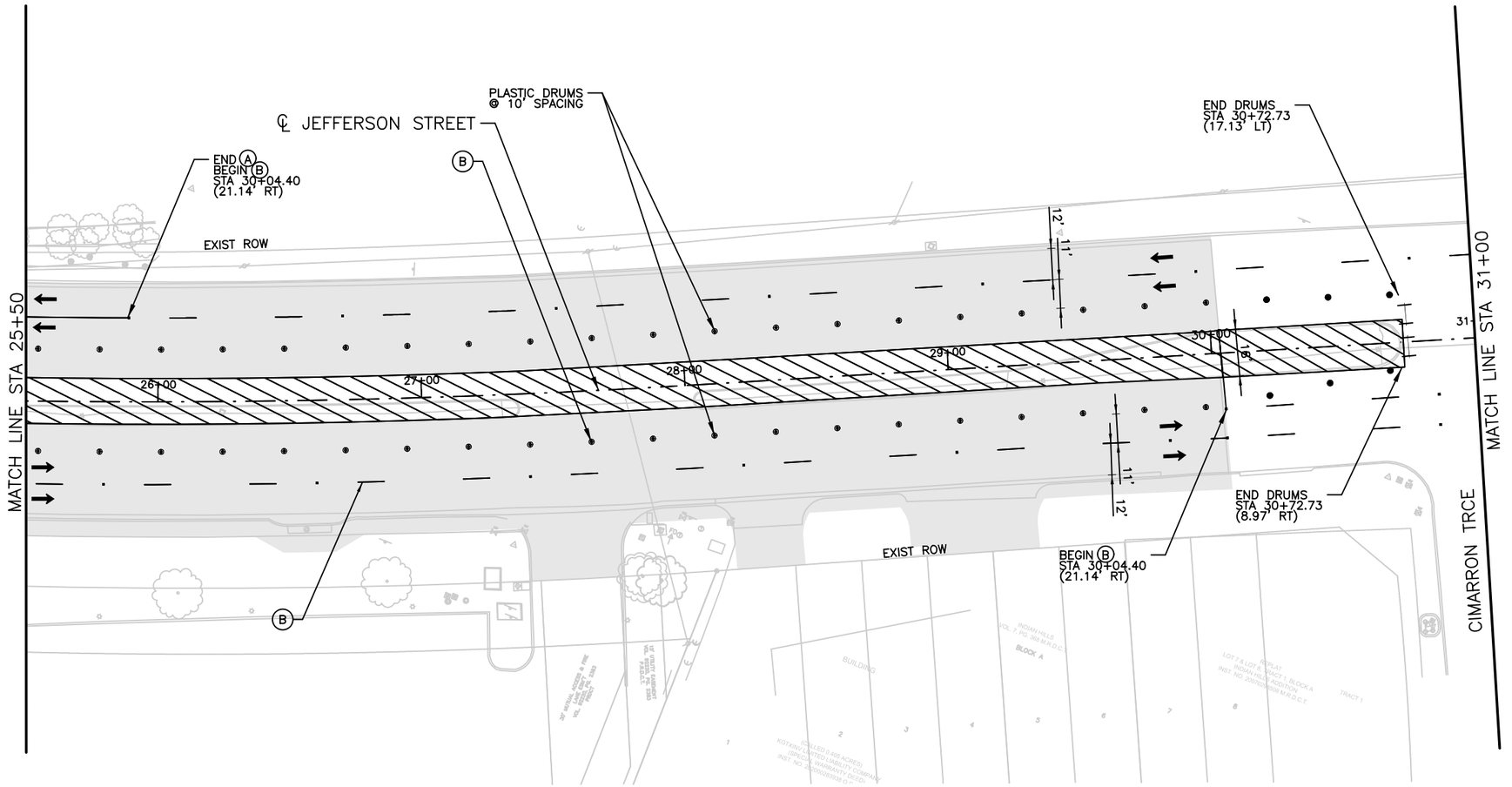

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
- SIGN POST

Ⓐ WRK. ZN. PAV. MRK. (W) (4") (SLD)
Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
Ⓔ WRK. ZN. PAV. MRK. (W) (12") (SLD)
Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
Ⓖ WRK. ZN. PAV. MRK. (W) (ARROW)
Ⓗ ELIM. EXT. PAV. MRK. & MRKS. (4")
Ⓘ ELIM. EXT. PAV. MRK. & MRKS. (8")
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Ⓚ ELIM. EXT. PAV. MRK. & MRKS. (ARROW)
Ⓛ ELIM. EXT. PAV. MRK. & MRKS. (WORD)

NOTES:

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STATE OF TEXAS
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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 4 STA 25+50 TO STA 31+00

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	49

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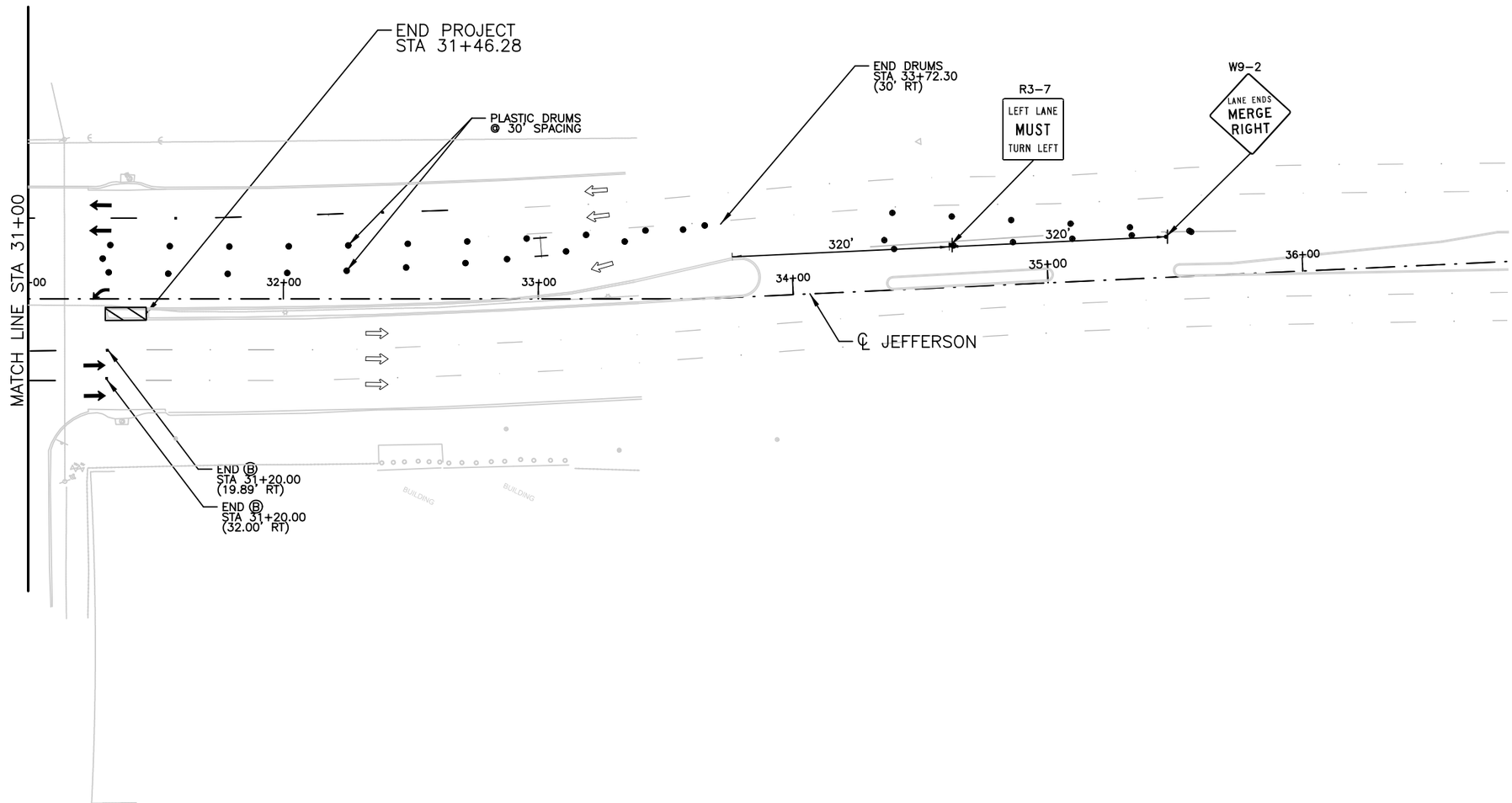

25 12.5 0 25 50
SCALE HORIZ. FEET

N

LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- REMOVE EXISTING MEDIAN AND PAVEMENT
- TEMPORARY PAVEMENT
- TRAFFIC DIRECTION (TEMPORARY)
- PLASTIC DRUMS
- VERTICAL PANELS
- TYPE III BARRICADE
- TEMPORARY SHORING
- LOW PROFILE CONCRETE BARRIER
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Ⓑ WRK. ZN. PAV. MRK. (W) (4") (BRK)
Ⓒ WRK. ZN. PAV. MRK. (Y) (4") (SLD)
Ⓓ WRK. ZN. PAV. MRK. (W) (4") (DOT)
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Ⓕ WRK. ZN. CROSS WALK (W) (12") (SLD)
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CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TCP PH 4 STA 31+00 TO STA 36+00

GRand PRaiRie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	50

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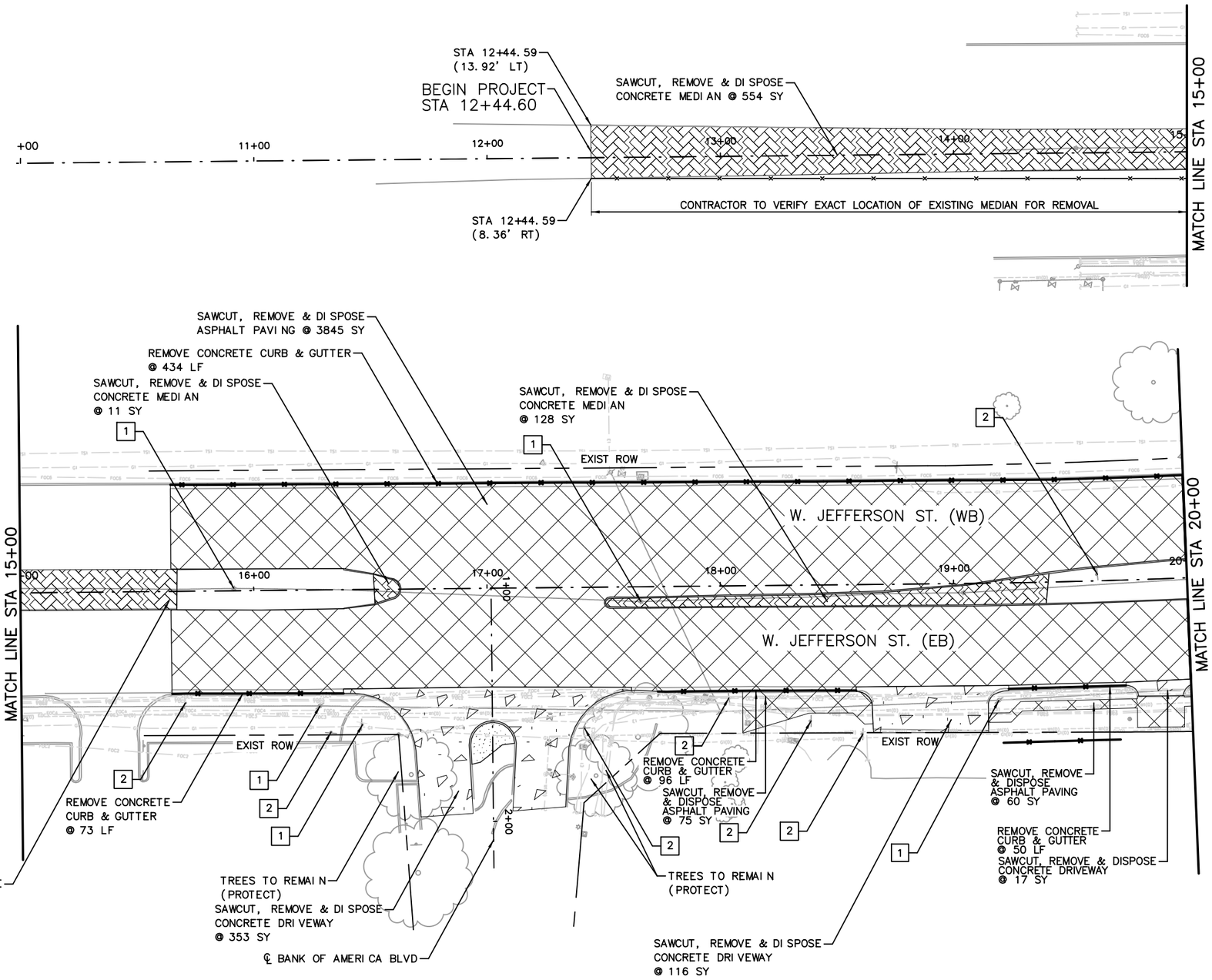

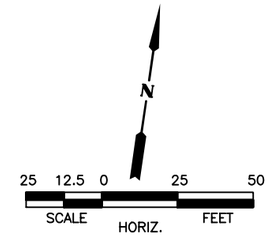

LEGEND

- 1 REMOVE ILLUMINATION POLE
- 2 REMOVE & DISPOSE VARIOUS TRAFFIC SIGNS
- 3 REMOVE BARRIER FREE RAMP
- SAWCUT, REMOVE & DISPOSE CONCRETE RIPRAP
- SAWCUT, REMOVE & DISPOSE ASPHALT PAVING
- SAWCUT, REMOVE & DISPOSE CONCRETE SIDEWALK
- SAWCUT, REMOVE & DISPOSE CONCRETE MEDIAN
- SAWCUT, REMOVE & DISPOSE CONCRETE DRIVEWAY
- SAWCUT, REMOVE & DISPOSE CONCRETE PAVING
- REMOVE CONCRETE CURB & GUTTER

NOTES:

1. CONTRACTOR TO COORDINATE WITH ONCOR BEFORE REMOVING ILLUMINATION POLES
2. ALL SIGNAL POLES SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION, UNLESS OTHERWISE NOTED.
3. CITY TO REMOVE TRASH CANS FROM MEDIANS PRIOR TO CONSTRUCTION.

STATE OF TEXAS
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10.03.2025

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET REMOVAL PLANS

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
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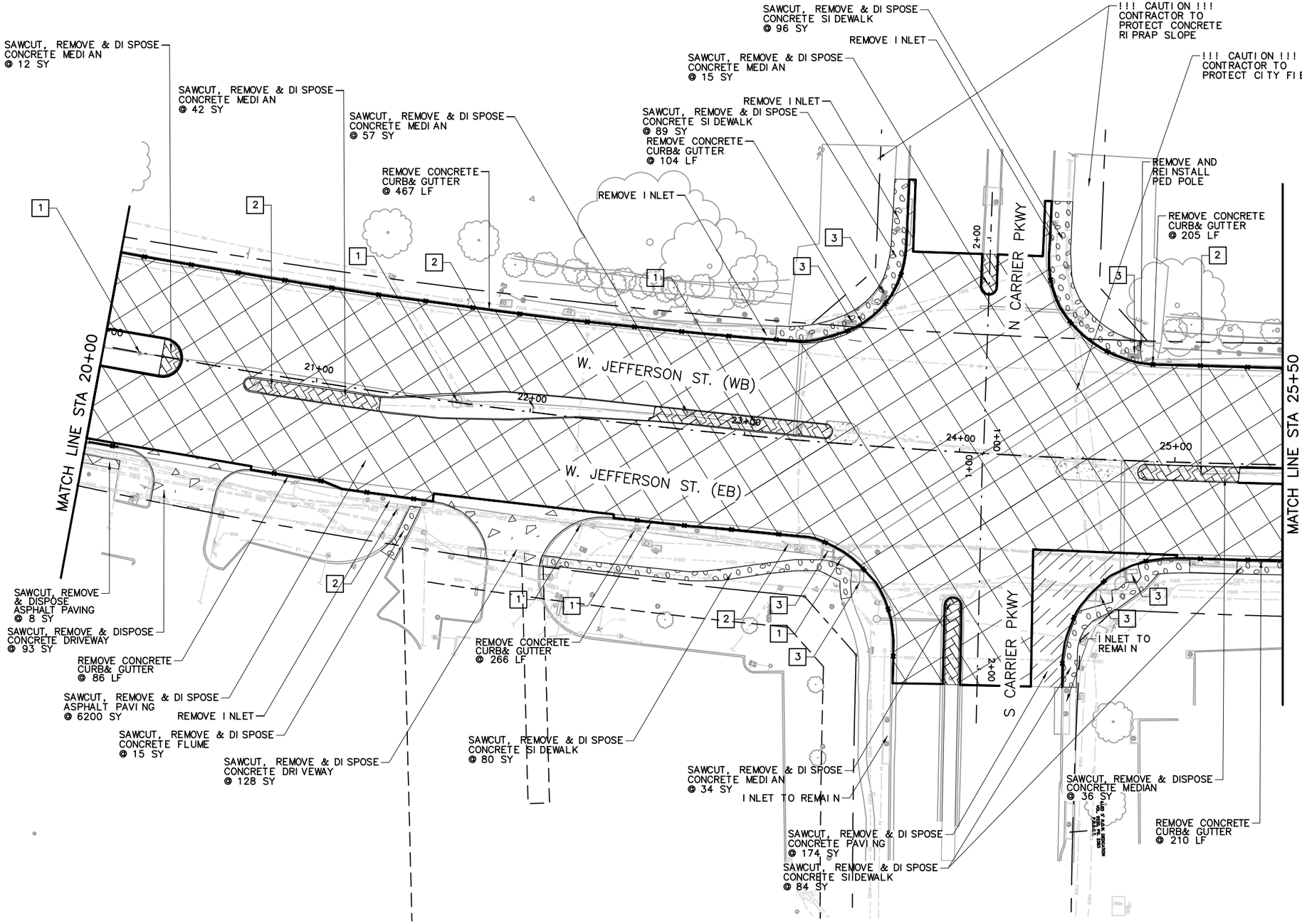

N

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

1. REMOVE ILLUMINATION POLE
2. REMOVE & DISPOSE VARIOUS TRAFFIC SIGNS
3. REMOVE BARRIER FREE RAMP

- SAWCUT, REMOVE & DISPOSE CONCRETE RIPRAP
- SAWCUT, REMOVE & DISPOSE ASPHALT PAVING
- SAWCUT, REMOVE & DISPOSE CONCRETE SIDEWALK
- SAWCUT, REMOVE & DISPOSE CONCRETE MEDIAN
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NO.	REVISION	BY	DATE

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET REMOVAL PLANS

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	52

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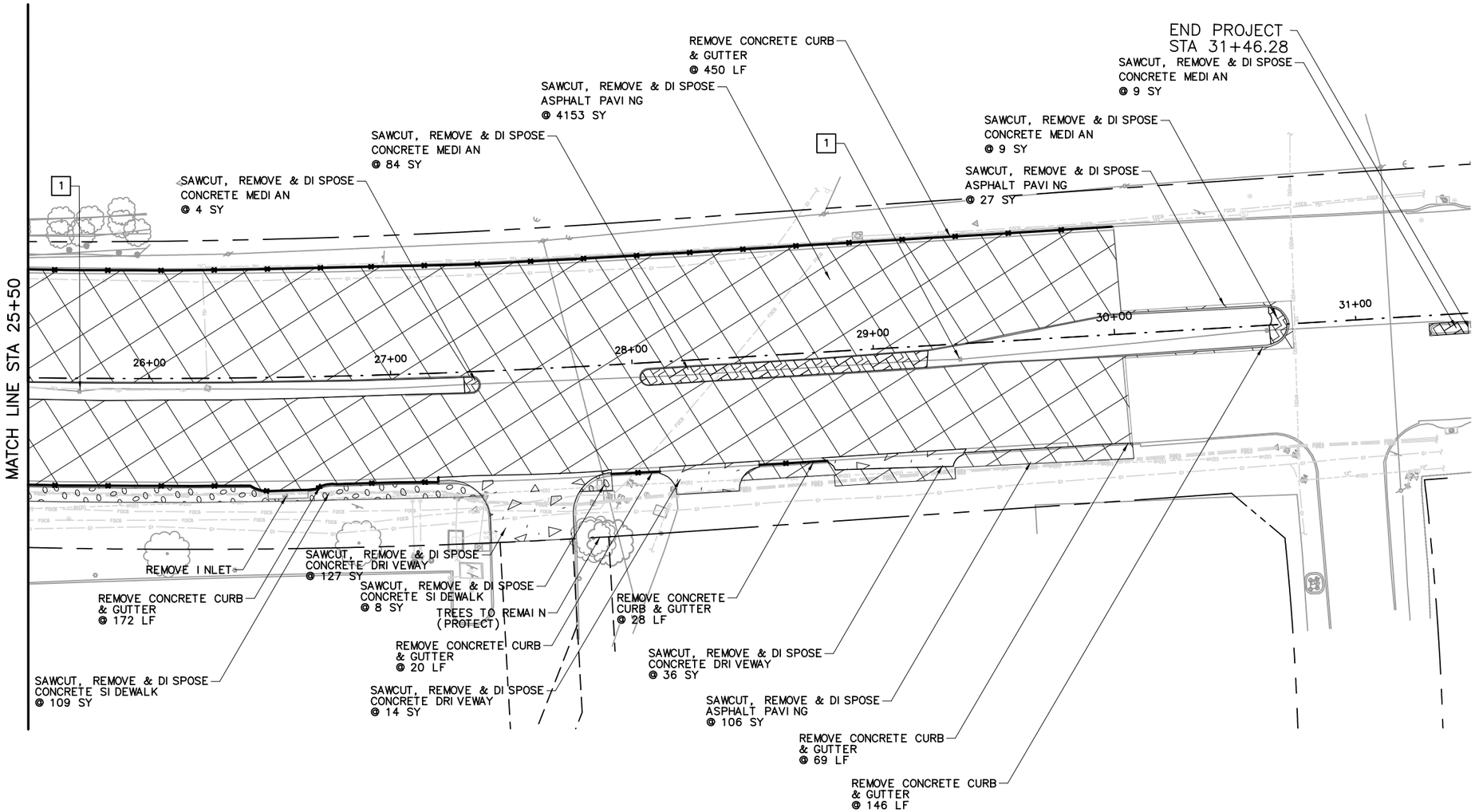

N

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

- 1 REMOVE ILLUMINATION POLE
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- SAWCUT, REMOVE & DISPOSE CONCRETE MEDIAN
- SAWCUT, REMOVE & DISPOSE CONCRETE DRIVEWAY
- SAWCUT, REMOVE & DISPOSE CONCRETE PAVING
- REMOVE CONCRETE CURB & GUTTER

NOTES:

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2. ALL SIGNAL POLES SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION, UNLESS OTHERWISE NOTED.
3. CITY TO REMOVE TRASH CANS FROM

STATE OF TEXAS
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JEFFERSON STREET
REMOVAL PLANS

Grand Prairie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	53

cpybw_ANSIB.tbl
cpydf_ANSIB.pltcfg
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HORIZONTAL ALIGNMENT FOR CL JEFFERSON

Point 17	N	6,956,495.6308	E 2,422,873.7881	Sta 0+00.00

Course from 17 to PC CL JEFFERSON 3 N 80° 33' 21.62" E Dist 1,900.0031

Curve Data

Curve CL JEFFERSON 3					
P.I. Station	23+50.88	N	6,956,881.3716	E	2,425,192.8074
Delta =	15° 38' 39.11" (LT)				
Degree =	1° 44' 44.57"				
Tangent =	450.8789				
Length =	896.1484				
Radius =	3,282.0814				
External =	30.8252				
Long Chord =	893.3673				
Mid. Ord. =	30.5384				
P.C. Station	19+00.00	N	6,956,807.3899	E	2,424,748.0395
P.T. Station	27+96.15	N	6,957,072.5500	E	2,425,601.1486
C.C.		N	6,960,044.9874	E	2,424,209.5043
Back = N	80° 33' 21.62" E				
Ahead = N	64° 54' 42.52" E				
Chord Bear = N	72° 44' 02.07" E				

Course from PT CL JEFFERSON 3 to 18 N 64° 54' 42.52" E Dist 568.3593

Point 18	N	6,957,313.5416	E 2,426,115.8867	Sta 33+64.51

Course from 18 to 19 N 62° 16' 07.64" E Dist 387.3663

Point 19	N	6,957,493.7925	E 2,426,458.7603	Sta 37+51.88

HORIZONTAL ALIGNMENT FOR CL CARRIER PKWY SB

Point 23	N	6,956,929.9700	E 2,425,243.2952	Sta 1+00.00

Course from 23 to 24 S 20° 24' 28.35" E Dist 112.1254

Point 24	N	6,956,824.8823	E 2,425,282.3934	Sta 2+12.13

Course from 24 to 25 S 20° 24' 28.35" E Dist 12.8746

Point 25	N	6,956,812.8157	E 2,425,286.8828	Sta 2+25.00

HORIZONTAL ALIGNMENT FOR CL CARRIER PKWY NB

Point 20	N	6,956,930.1259	E 2,425,243.7650	Sta 1+00.00

Course from 20 to 21 N 19° 48' 47.41" W Dist 105.4092

Point 21	N	6,957,029.2952	E 2,425,208.0361	Sta 2+05.41

Course from 21 to 22 N 19° 48' 47.41" W Dist 19.5908

Point 22	N	6,957,047.7263	E 2,425,201.3957	Sta 2+25.00

HORIZONTAL ALIGNMENT FOR CL BANK OF AMERICA BLVD

Point 26	N	6,956,774.8620	E 2,424,552.4866	Sta 1+00.00

Course from 26 to 27 S 9° 26' 38.38" E Dist 107.9165

Point 27	N	6,956,668.4082	E 2,424,570.1939	Sta 2+07.92

Course from 27 to 28 S 9° 26' 38.38" E Dist 12.0835

Point 28	N	6,956,656.4884	E 2,424,572.1766	Sta 2+20.00

VERTICAL CONTROL POINTS

TRV-11	N: 6956718.417	E: 2424561.864	EL = 528.64
TRV-7	N: 6956804.379	E: 2424986.491	EL = 512.32
TRV-2	N: 6957140.238	E: 2425865.340	EL = 521.20

2016 GPS MONUMENT BENCH MARKS

GRAND ZA1962
DESCRIPTION: GRAND 1947 RESET 1962 N: 6956856.49 E: 2425925.41 EL = 527.10

GPS55
DESCRIPTION: GPS MONUMENT 55 N: 6957258.15 E: 2428620.33 EL = 528.42

STATE OF TEXAS
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JEFFERSON STREET
HORIZONTAL ALIGNMENT DATA

Grand Prairie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	54

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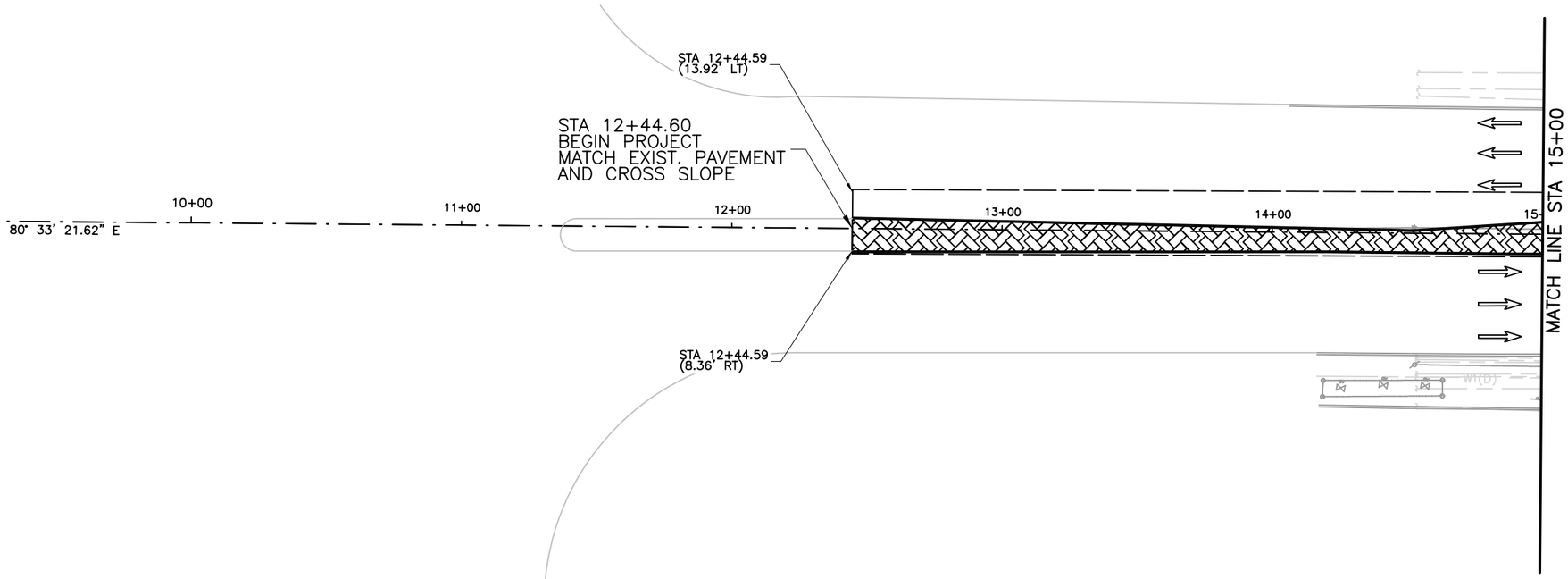
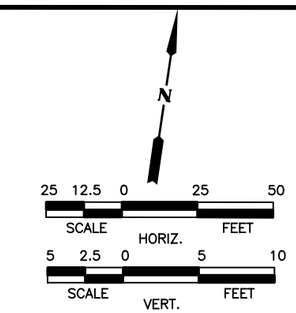




LEGEND

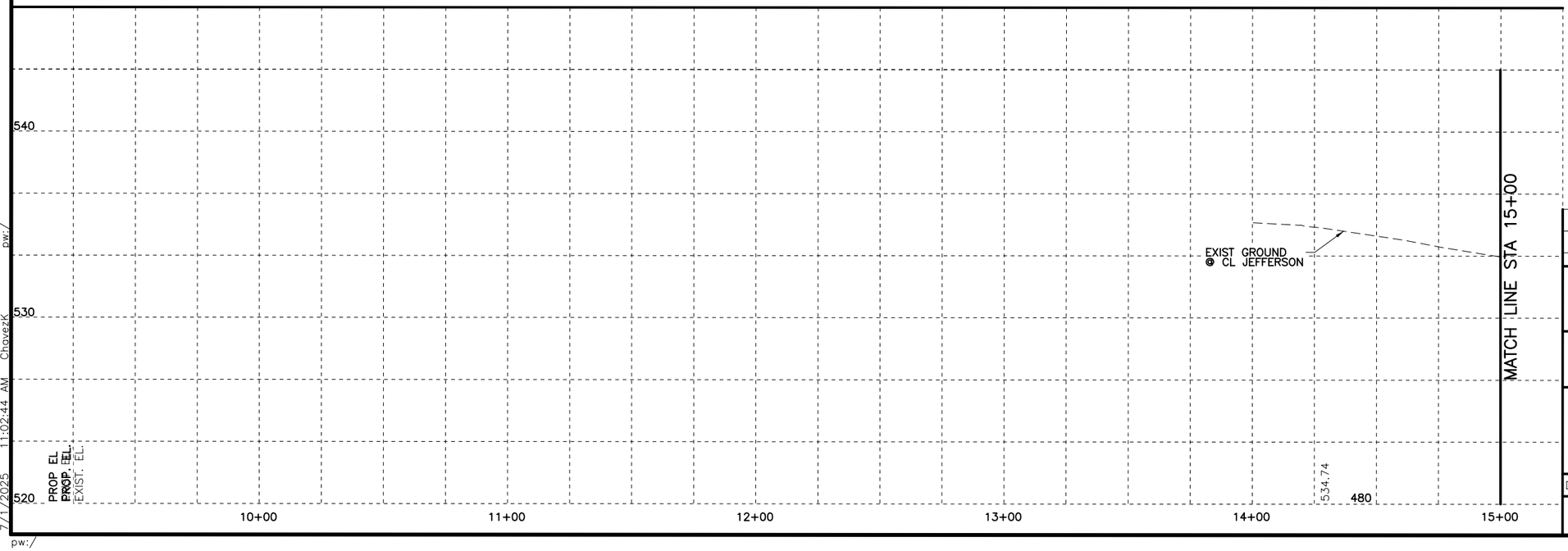
- CONCRETE SIDEWALKS 4"
- CONCRETE RIPRAP TYP
- STAMPED CONCRETE
- ASPHALT
- PROPOSED LANE
- EXISTING LANE
- FOC 2 — FIBER OPTIC (SPECTRUM)
- FOC 3 — FIBER OPTIC (FIBERLIGHT)
- FOC 4 — FIBER OPTIC (MCI)
- FOC 6 — FIBER OPTIC (CITY OF GP)
- TS1 — PEDESTRIAN CROSSING
- W1(D) — WATER (CITY OF GP)
- G1 — GAS (ATMOS)
- GV — GAS VALVE

NOTES:

1. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS ARE TO THE FACE OF CURB.
3. REFER TO HORIZONTAL ALIGNMENT DATA FOR COORDINATES AND ELEVATION INFO OF CONTROL POINTS

UTILITY LOCATION NOTE:
The location of existing utilities shown on these plans are approximate and based on existing plans and data furnished by utility companies. It is the responsibility of the contractor to verify the location and depth of all existing utilities that may conflict with construction. Call 1-800-344-8377 two working days prior to construction for onsite locations. Any damage to existing utilities shall be repaired at contractor's expense, at no additional cost.

10.03.2025



NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
PLAN & PROFILE

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	55

cpybw_ANSIB.tbl
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ChavezK
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7/1/2025
pw:/

STATION, OFFSET & ELEVATION FOR MEDIANS AND SIDEWALK CORNERS

NO	CL STA.	OFFSET	ELEV	DESC
1	16+39.44	8.500 LT	530.42	PC
2	16+61.90	3.17 LT	529.97	PCC
3	16+61.92	3.16 RT	529.96	PCC
4	16+39.48	8.50 RT	530.40	PT
5	17+50.13	3.50 RT	530.10	PT
6	18+47.13	3.50 RT	523.89	PC
7	19+21.89	3.14 LT	521.02	PRC
8	19+96.81	8.50 LT	518.17	PT
9	17+50.13	8.50 RT	529.96	PT
10	19+00.00	8.50 RT	521.72	PT
11	19+62.34	8.50 RT	519.43	PT
12	15+63.98	45.70 LT	531.31	TIE TO EX
13	16+13.98	44.50 LT	530.28	PT
14	19+00.00	44.50 LT	521.02	PT
15	15+64.78	43.93 RT	531.46	TIE TO EX
16	16+34.56	44.50 RT	530.28	PC
17	16+69.46	76.93 RT	529.46	PT
18	16+70.78	97.77 RT	529.41	TIE TO EX
19	17+32.80	94.05 RT	526.28	TIE TO EX
20	17+33.90	77.20 RT	527.06	PC
21	17+68.83	44.50 RT	526.29	PT
22	18+57.62	44.50 RT	522.60	PC
23	18+64.62	51.76 RT	522.20	PT
24	19+14.17	51.99 RT	520.36	PC
25	19+21.06	44.50 RT	520.25	PT
26	19+68.24	44.50 RT	518.52	PC
27	19+77.09	53.78 RT	518.01	PT
28	19+96.85	53.76 RT	517.28	PC
29	17+82.94	53.41 RT	525.97	PT
30	17+96.92	55.00 RT	525.18	PT
31	18+02.16	55.00 RT	524.92	PT
32	18+36.81	45.00 RT	523.47	PT
33	17+82.55	59.41 RT	526.03	PT
34	17+97.07	61.00 RT	525.27	PT
35	18+02.16	61.00 RT	525.01	PT
36	18+36.81	51.00 RT	523.47	PT
37	19+18.75	51.64 RT	520.43	PT
38	19+25.38	45.00 RT	520.09	PT
39	19+23.19	55.72 RT	520.94	PT
40	19+27.80	51.00 RT	520.11	PT

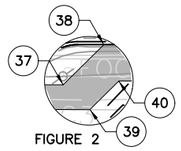


FIGURE 2

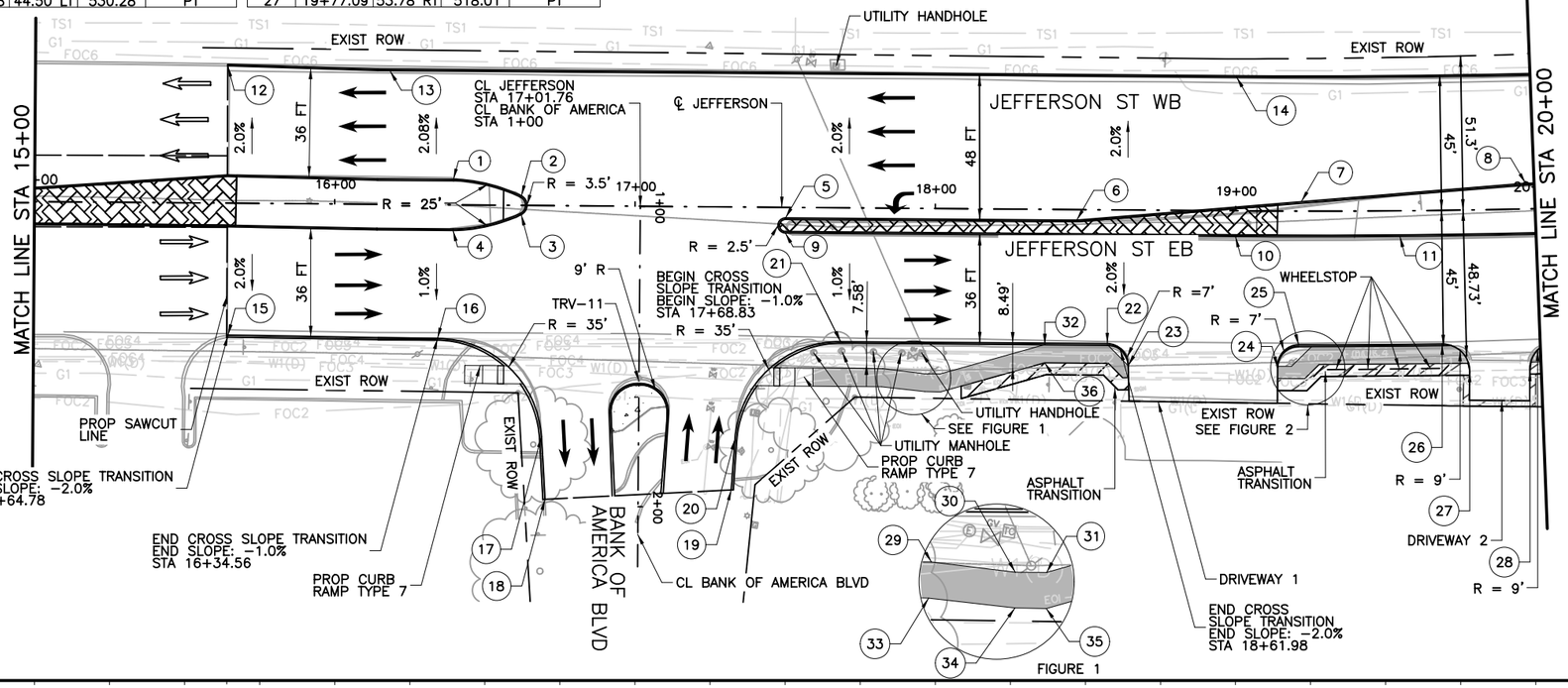
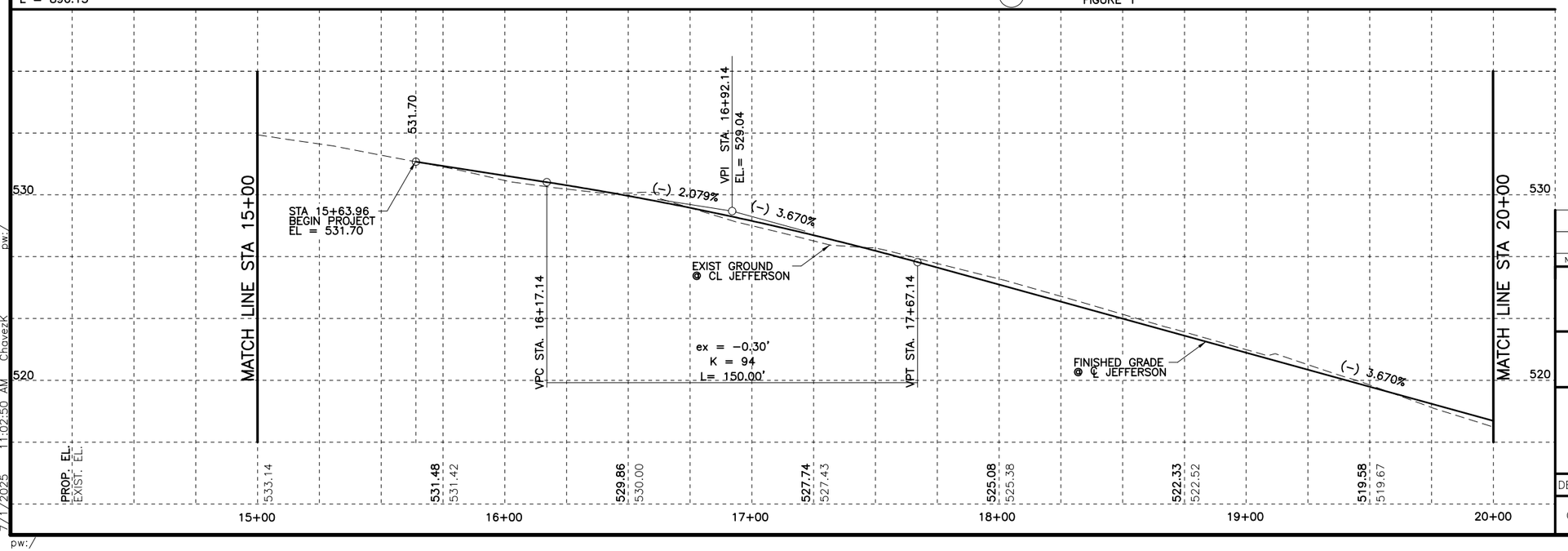
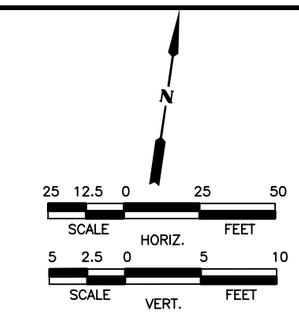


FIGURE 1

CURVE NO.1
PROPOSED ℄ CURVE DATA
PI STA = 23+50.88
N = 6,956,881.3716
E = 2,425,192.8074
Δ= 15° 38' 39" (LT)
R = 3,282.08'
D = 1° 44' 45"
T = 450.88'
L = 896.15'





LEGEND

- CONCRETE SIDEWALKS 4"
- CONCRETE RIPRAP TYP
- STAMPED CONCRETE
- ASPHALT
- PROPOSED LANE
- EXISTING LANE
- FOC 2 —— FIBER OPTIC (SPECTRUM)
- FOC 3 —— FIBER OPTIC (FIBERLIGHT)
- FOC 4 —— FIBER OPTIC (MCI)
- FOC 6 —— FIBER OPTIC (CITY OF GP)
- TS1 —— PEDESTRIAN CROSSING
- W1(D) —— WATER (CITY OF GP)
- G1 —— GAS (ATMOS)
- GV —— GAS VALVE

NOTES:

1. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS ARE TO THE FACE OF CURB.
3. REFER TO HORIZONTAL ALIGNMENT DATA FOR COORDINATES AND ELEVATION INFO OF CONTROL POINTS

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STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
PLAN & PROFILE

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP. 2024	SEE SHEET	–	–	56

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cpypdf_ANSIB.pltcfg
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7/1/2025 11:02:50 AM ChavezK
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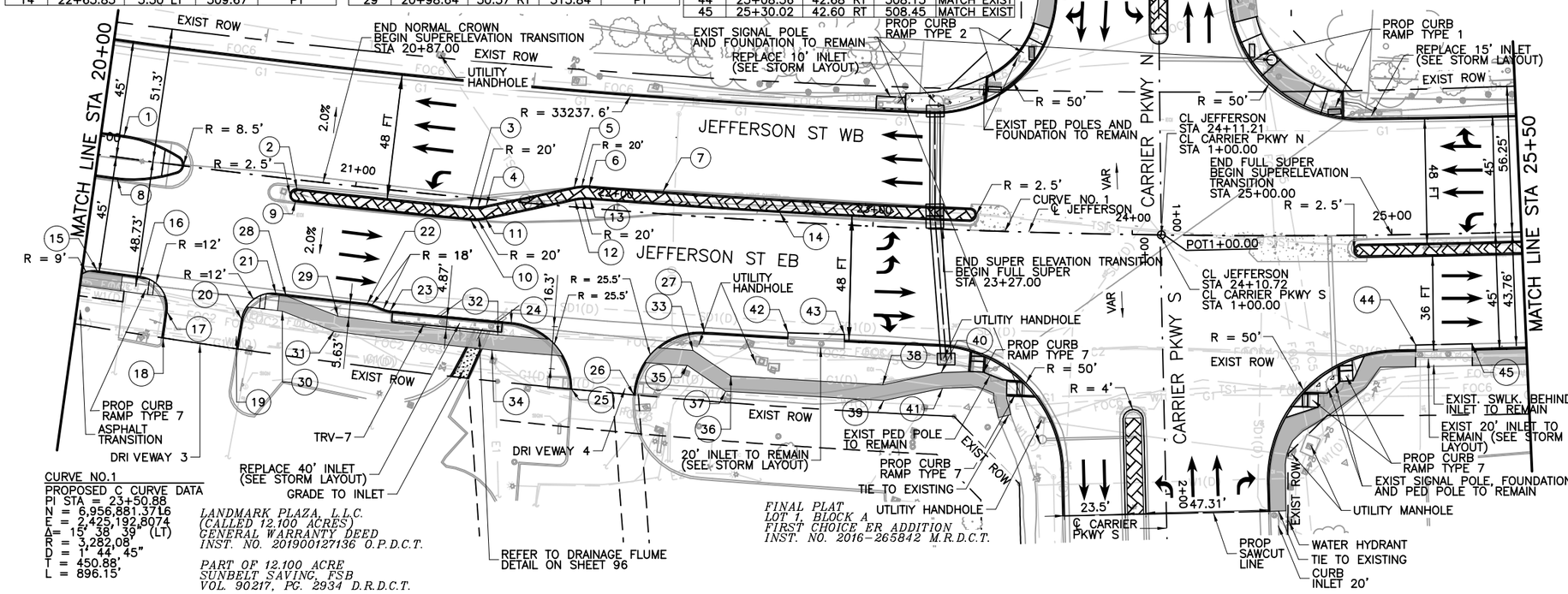
NO	CL STA.	OFFSET	ELEV	DESC
1	20+08.93	8.50 LT	517.73	PC
2	20+77.63	3.50 RT	515.44	PC
3	21+44.57	3.50 RT	512.98	PC
4	21+50.80	3.5 RT	512.74	PT
5	21+83.97	7.63 LT	511.46	PC
6	21+89.80	8.50 LT	511.27	PT
7	22+63.48	8.50 LT	509.46	PT
8	20+08.59	8.50 RT	517.74	PT
9	20+77.59	8.50 RT	515.19	PT
10	21+45.32	8.50 RT	512.73	PC
11	21+51.16	7.62 RT	512.53	PT
12	21+84.72	2.63 LT	511.63	PC
13	21+90.54	3.50 LT	511.47	PT
14	22+63.83	3.50 LT	509.67	PT

NO	CL STA.	OFFSET	ELEV	DESC
15	20+05.72	44.50 RT	517.14	PT
16	20+22.22	44.50 RT	516.53	PC
17	20+34.02	56.63 RT	515.80	PT
18	20+33.89	66.81 RT	515.99	TIE TO EX
19	20+61.85	67.49 RT	514.86	TIE TO EX
20	20+62.43	55.86 RT	514.84	PC
21	20+74.21	44.50 RT	514.60	PT
22	21+09.21	44.50 RT	513.40	PC
23	21+18.10	56.50 RT	513.09	PT
24	21+64.38	46.50 RT	511.59	PC
25	21+89.27	70.00 RT	511.62	PT
26	22+12.88	70.44 RT	510.94	PC
27	22+37.85	44.50 RT	509.78	PT
28	20+78.18	45.00 RT	514.48	PT
29	20+98.64	50.57 RT	513.84	PT

NO	CL STA.	OFFSET	ELEV	DESC
30	20+77.41	51.00 RT	514.60	PT
31	20+97.79	56.56 RT	513.96	PT
32	21+59.60	51.68 RT	511.87	PT
33	22+33.93	51.70 RT	510.52	PT
34	21+57.95	57.65 RT	511.97	PT
35	22+32.14	57.70 RT	510.47	PT
36	22+48.92	60.67 RT	511.11	PT
37	22+47.34	66.67 RT	511.18	PT
38	23+06.49	60.90 RT	510.15	PT
39	23+07.19	66.91 RT	510.24	PT
40	23+29.15	55.34 RT	509.45	PT
41	23+28.42	61.30 RT	509.60	PT
42	22+69.60	42.70 RT	508.80	MATCH EXIST
43	22+91.07	42.20 RT	508.40	MATCH EXIST
44	25+08.56	42.68 RT	508.15	MATCH EXIST
45	25+30.02	42.60 RT	508.45	MATCH EXIST



CURVE NO.1
PROPOSED C CURVE DATA
PI STA = 23+50.88
N = 6,956,881.3716
E = 2,425,192.8074
Δ= 15° 38' 39" (LT)
R = 3,282.08'
D = 1° 44' 45"
T = 450.88'
L = 896.15'

25 12.5 0 25 50
SCALE HORIZ. FEET

5 2.5 0 5 10
SCALE VERT. FEET

LEGEND

- CONCRETE SIDEWALKS 4"
- CONCRETE RIPRAP TYP
- STAMPED CONCRETE
- ASPHALT
- PROPOSED LANE
- EXISTING LANE
- FOC 2 — FIBER OPTIC (SPECTRUM)
- FOC 3 — FIBER OPTIC (FIBERLIGHT)
- FOC 4 — FIBER OPTIC (MCI)
- FOC 6 — FIBER OPTIC (CITY OF GP)
- TS1 — PEDESTRIAN CROSSING
- W1(D) — WATER (CITY OF GP)
- G1 — GAS (ATMOS)
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NOTES:

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4. REFER TO INTERSECTION GRADING SHEET FOR INTERSECTION ELEVATION POINTS

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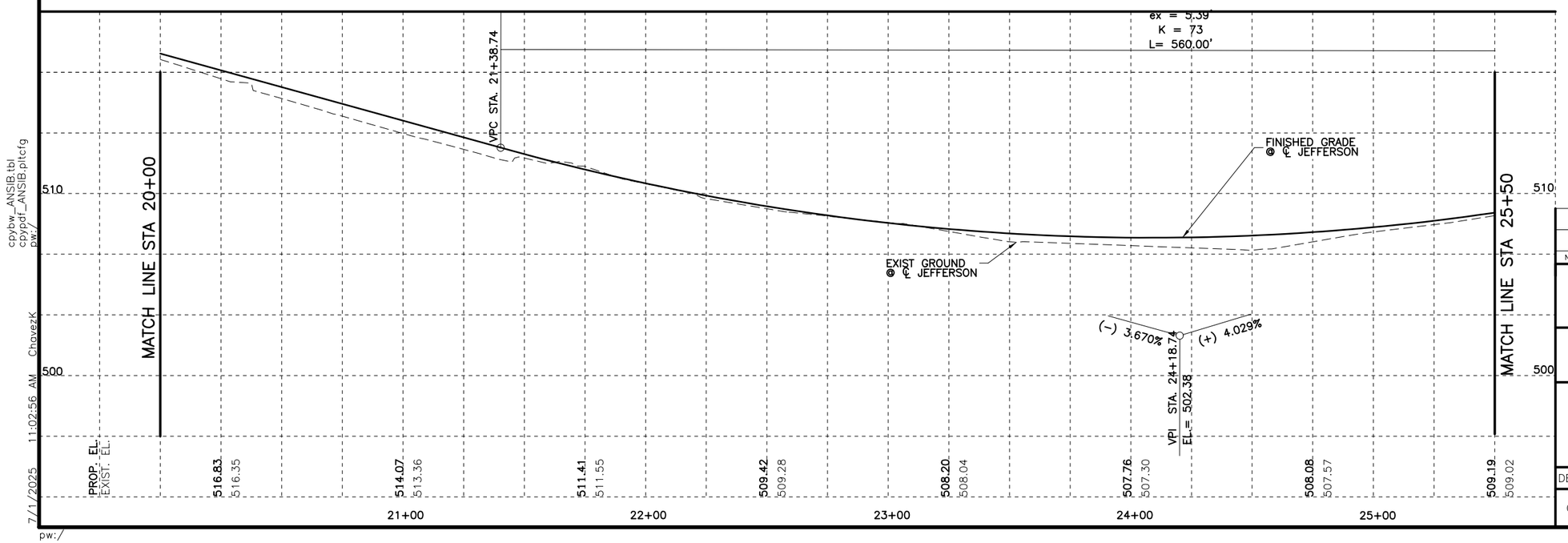

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cpypdf_ANSIB.pltcfg
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ChavezK
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7/1/2025
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STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

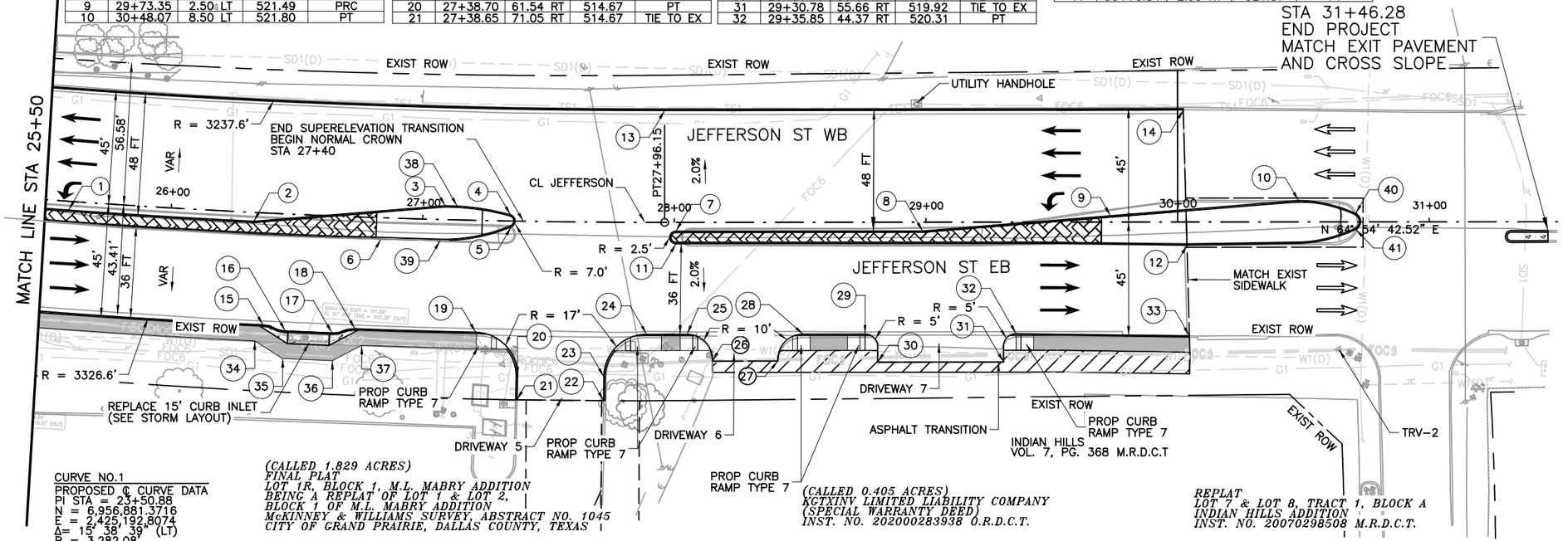
JEFFERSON STREET
PLAN & PROFILE

GRand PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	57

STATION, OFFSET & ELEVATION FOR MEDIANS AND SIDEWALK CORNERS

NO	CL STA.	OFFSET	ELEV	DESC
1	25+59.34	3.50 RT	509.922	PT
2	26+33.04	3.50 RT	511.85	PC
3	27+08.80	5.50 LT	514.41	PRC
4	27+34.81	2.46 LT	515.53	PC
5	27+35.19	2.31 RT	515.43	PT
6	26+83.77	8.50 RT	513.39	PT
7	28+00.63	3.50 RT	515.54	PT
8	28+98.63	3.50 RT	520.67	PC
9	29+73.35	2.50 LT	521.49	PRC
10	30+48.07	8.50 LT	521.80	PT
11	28+00.63	8.50 LT	517.99	PT
12	30+03.75	9.22 RT	521.65	TIE TO EX
13	27+96.15	44.50 LT	517.07	PT
14	30+02.33	44.60 LT	520.94	TIE TO EX
15	26+38.55	44.50 RT	511.40	PT
16	26+47.45	46.50 RT	511.62	PC
17	26+65.75	46.50 RT	512.20	PC
18	26+74.64	44.50 RT	512.49	PT
19	27+22.01	44.50 RT	514.22	PC
20	27+38.70	61.54 RT	514.67	PT
21	27+38.65	71.05 RT	514.67	TIE TO EX
22	27+72.39	71.00 RT	515.84	TIE TO EX
23	27+72.39	61.46 RT	515.84	PC
24	27+89.08	44.50 RT	516.82	PT
25	28+05.10	44.50 RT	517.40	PC
26	28+15.11	55.20 RT	517.31	TIE TO EX
27	28+41.11	55.20 RT	518.09	TIE TO EX
28	28+51.11	44.50 RT	518.68	PT
29	28+75.78	44.50 RT	519.29	PC
30	28+80.78	55.66 RT	519.06	TIE TO EX
31	29+30.78	55.66 RT	519.92	TIE TO EX
32	29+35.85	44.37 RT	520.31	PT
33	30+04.70	45.29 RT	520.94	TIE TO EX
34	26+35.63	51.00 RT	511.37	PT
35	26+46.88	57.53 RT	512.04	PT
36	26+66.31	57.53 RT	512.76	PT
37	26+77.56	51.00 RT	512.68	PT
38	27+13.53	5.50 LT	514.93	PT
39	27+06.24	8.50 RT	514.90	PT
40	30+70.79	3.30 LT	521.37	PT
41	30+70.84	2.95 RT	521.37	PT



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E = 2,425,192.8074
Δ= 15° 38' 39" (LT)
R = 3,282.08'
D = 1° 44' 45"
T = 450.88'
L = 896.15'

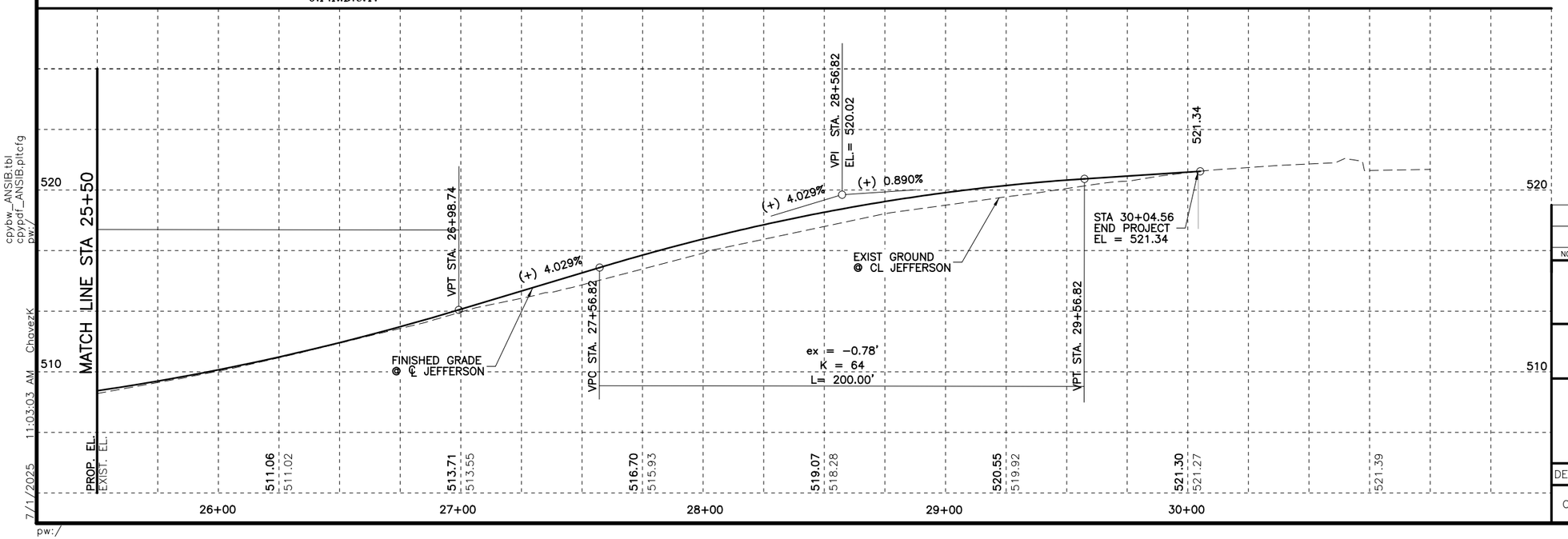
(CALLED 1.829 ACRES)
FINAL PLAT
LOT 1R, BLOCK 1, M.L. MABRY ADDITION
BEING A REPLAT OF LOT 1 & LOT 2,
BLOCK 1 OF M.L. MABRY ADDITION
McKINNEY & WILLIAMS SURVEY, ABSTRACT NO. 1045
CITY OF GRAND PRAIRIE, DALLAS COUNTY, TEXAS

VOL. 96011, PG. 3011 M.R.D.C.T.

507 GRAND PRAIRIE TX LLC
(LOT 1R, BLOCK 1 M. L. MABRY ADDITION)
INST. NO. 201900329418
O.P.R.D.C.T.

(CALLED 0.405 ACRES)
KGTXINV LIMITED LIABILITY COMPANY
(SPECIAL WARRANTY DEED)
INST. NO. 202000283938 O.R.D.C.T.

REPLAT
LOT 7 & LOT 8, TRACT 1, BLOCK A
INDIAN HILLS ADDITION
INST. NO. 20070298508 M.R.D.C.T.



N

SCALE HORIZ. 25 12.5 0 25 50 FEET

SCALE VERT. 5 2.5 0 5 10 FEET

LEGEND

- CONCRETE SIDEWALKS 4"
- CONCRETE RIPRAP TYP
- STAMPED CONCRETE
- ASPHALT
- PROPOSED LANE
- EXISTING LANE
- FOC 2 — FIBER OPTIC (SPECTRUM)
- FOC 3 — FIBER OPTIC (FIBERLIGHT)
- FOC 4 — FIBER OPTIC (MCI)
- FOC 6 — FIBER OPTIC (CITY OF GP)
- TS1 — PEDESTRIAN CROSSING
- W1(D) — WATER (CITY OF GP)
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NOTES:

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10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
PLAN & PROFILE

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	58

cpybw_ANSIB.tbl
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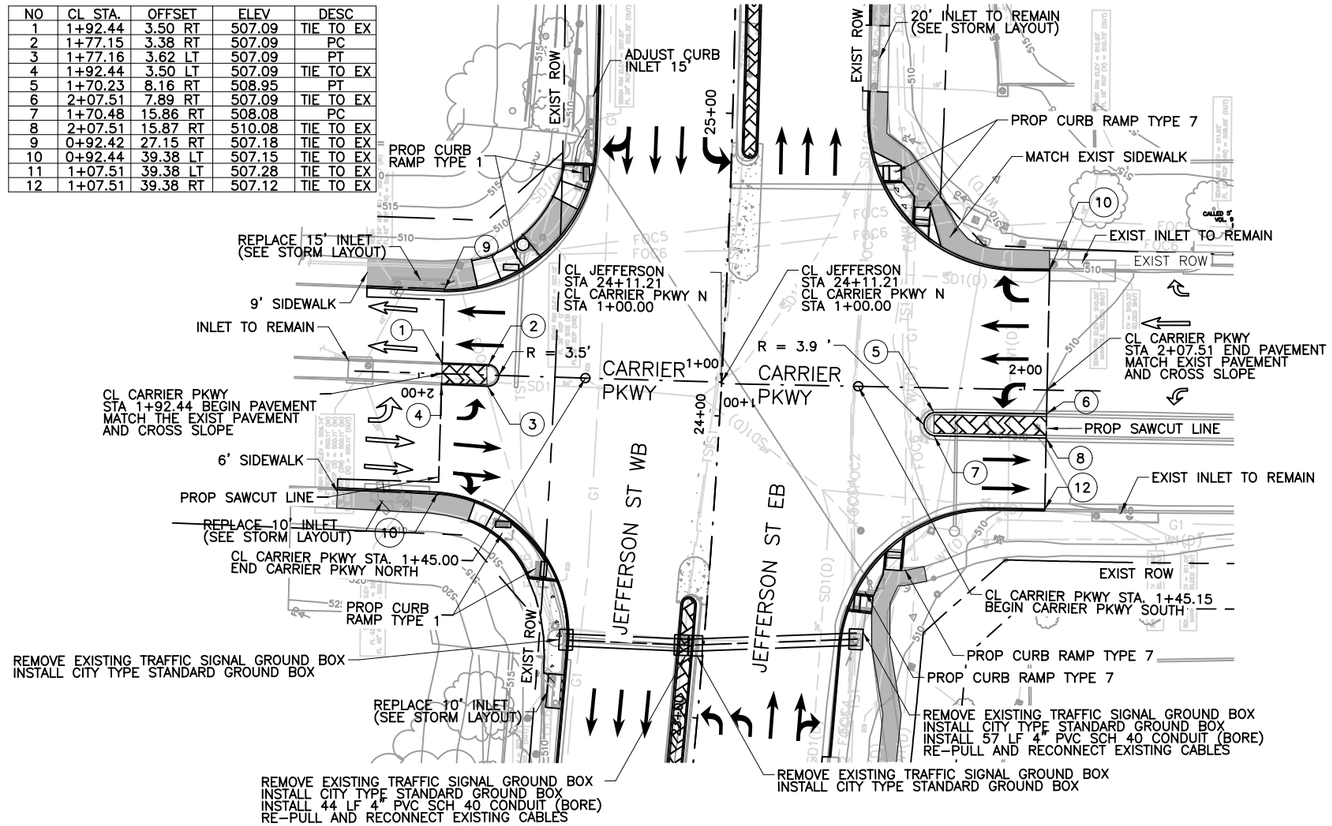
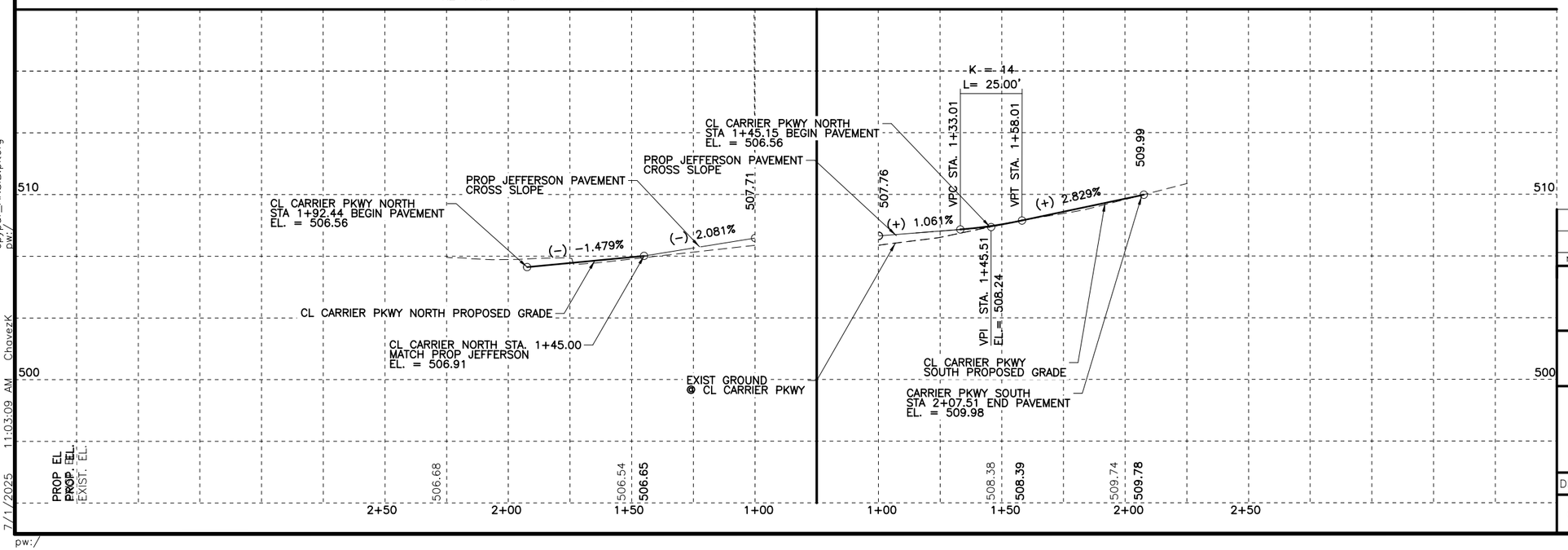
7/1/2025 11:03:03 AM ChavezK
pw:/
500

STATION, OFFSET & ELEVATION FOR MEDIANS AND SIDEWALK CORNERS

NO	CL STA.	OFFSET	ELEV	DESC
1	1+92.44	3.50 RT	507.09	TIE TO EX
2	1+77.15	3.38 RT	507.09	PC
3	1+77.16	3.62 LT	507.09	PT
4	1+92.44	3.50 LT	507.09	TIE TO EX
5	1+70.23	8.16 RT	508.95	PT
6	2+07.51	7.89 RT	507.09	TIE TO EX
7	1+70.48	15.86 RT	508.08	PC
8	2+07.51	15.87 RT	510.08	TIE TO EX
9	0+92.42	27.15 RT	507.18	TIE TO EX
10	0+92.44	39.38 LT	507.15	TIE TO EX
11	1+07.51	39.38 LT	507.28	TIE TO EX
12	1+07.51	39.38 RT	507.12	TIE TO EX





25 12.5 0 25 50
SCALE HORIZ. FEET

5 2.5 0 5 10
SCALE VERT. FEET

LEGEND

- CONCRETE SIDEWALKS 4"
- CONCRETE RIPRAP TYP
- STAMPED CONCRETE
- ASPHALT
- PROPOSED LANE
- EXISTING LANE
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- FOC 3 — FIBER OPTIC (FIBERLIGHT)
- FOC 4 — FIBER OPTIC (MCI)
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NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

CARRIER PKWY AND JEFFERSON STREET PLAN & PROFILE

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	59

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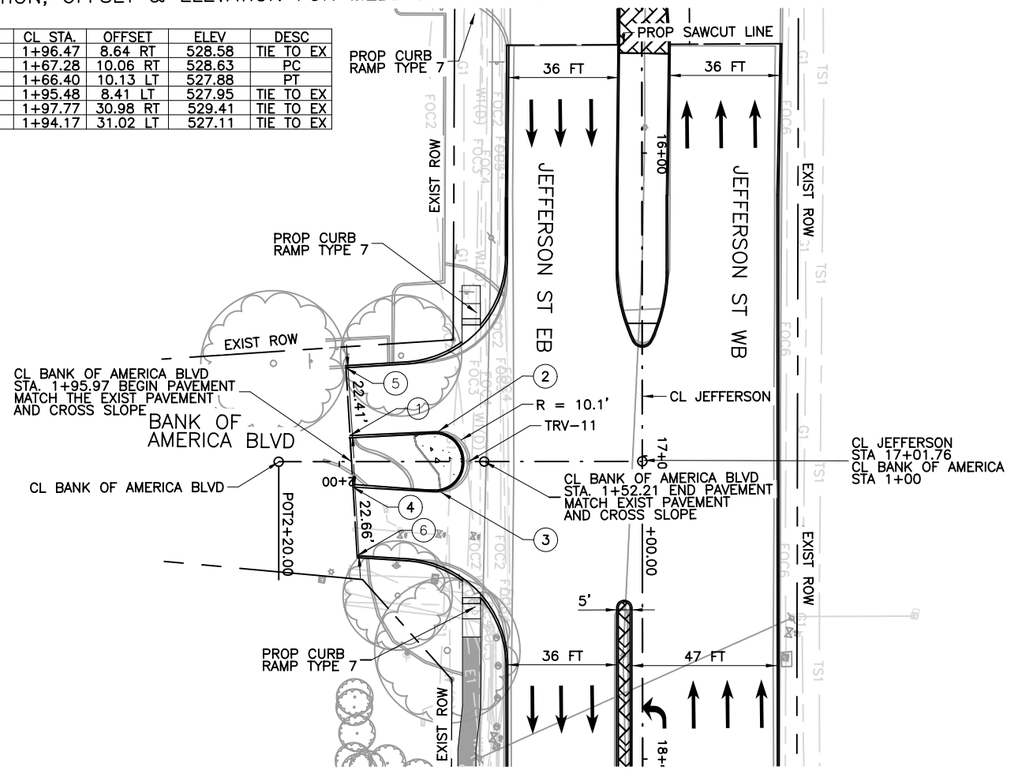
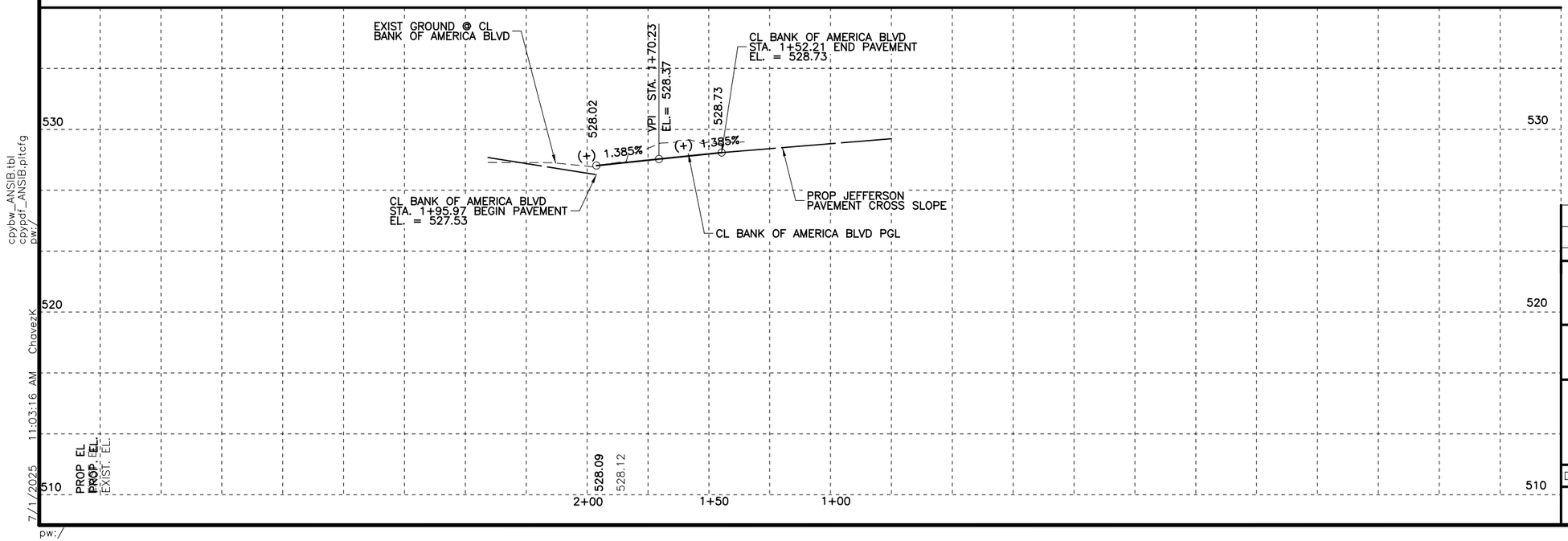
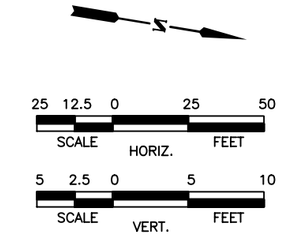
STATION, OFFSET & ELEVATION FOR MEDIANS AND SIDEWALK CORNERS

NO	CL STA.	OFFSET	ELEV	DESC
1	1+96.47	8.64 RT	528.58	TIE TO EX
2	1+67.28	10.06 RT	528.63	PC
3	1+66.40	10.13 LT	527.88	PT
4	1+95.48	8.41 LT	527.95	TIE TO EX
5	1+97.77	30.98 RT	529.41	TIE TO EX
6	1+94.17	31.02 LT	527.11	TIE TO EX







LEGEND

- CONCRETE SIDEWALKS 4"
- CONCRETE RIPRAP TYP
- STAMPED CONCRETE
- ASPHALT
- PROPOSED LANE
- EXISTING LANE
- FOC 2 — FIBER OPTIC (SPECTRUM)
- FOC 3 — FIBER OPTIC (FIBERLIGHT)
- FOC 4 — FIBER OPTIC (MCI)
- FOC 6 — FIBER OPTIC (CITY OF GP)
- TS1 — PEDESTRIAN CROSSING
- W1(D) — WATER (CITY OF GP)
- G1 — GAS (ATMOS)
- GV — GAS VALVE

NOTES:

1. ALL STATIONS AND OFFSETS ARE FROM ℄ JEFFERSON UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS ARE TO THE FACE OF CURB.
3. REFER TO HORIZONTAL ALIGNMENT DATA FOR COORDINATES AND ELEVATION INFO OF CONTROL POINTS

UTILITY LOCATION NOTE:
The location of existing utilities shown on these plans are approximate and based on existing plans and data furnished by utility companies. It is the responsibility of the contractor to verify the location and depth of all existing utilities that may conflict with construction. Call 1-800-344-8377 two working days prior to construction for onsite locations. Any damage to existing utilities shall be repaired at contractor's expense, at no additional cost.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
PLAN & PROFILE

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	60

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cpydr_ANSIB.pltcfg
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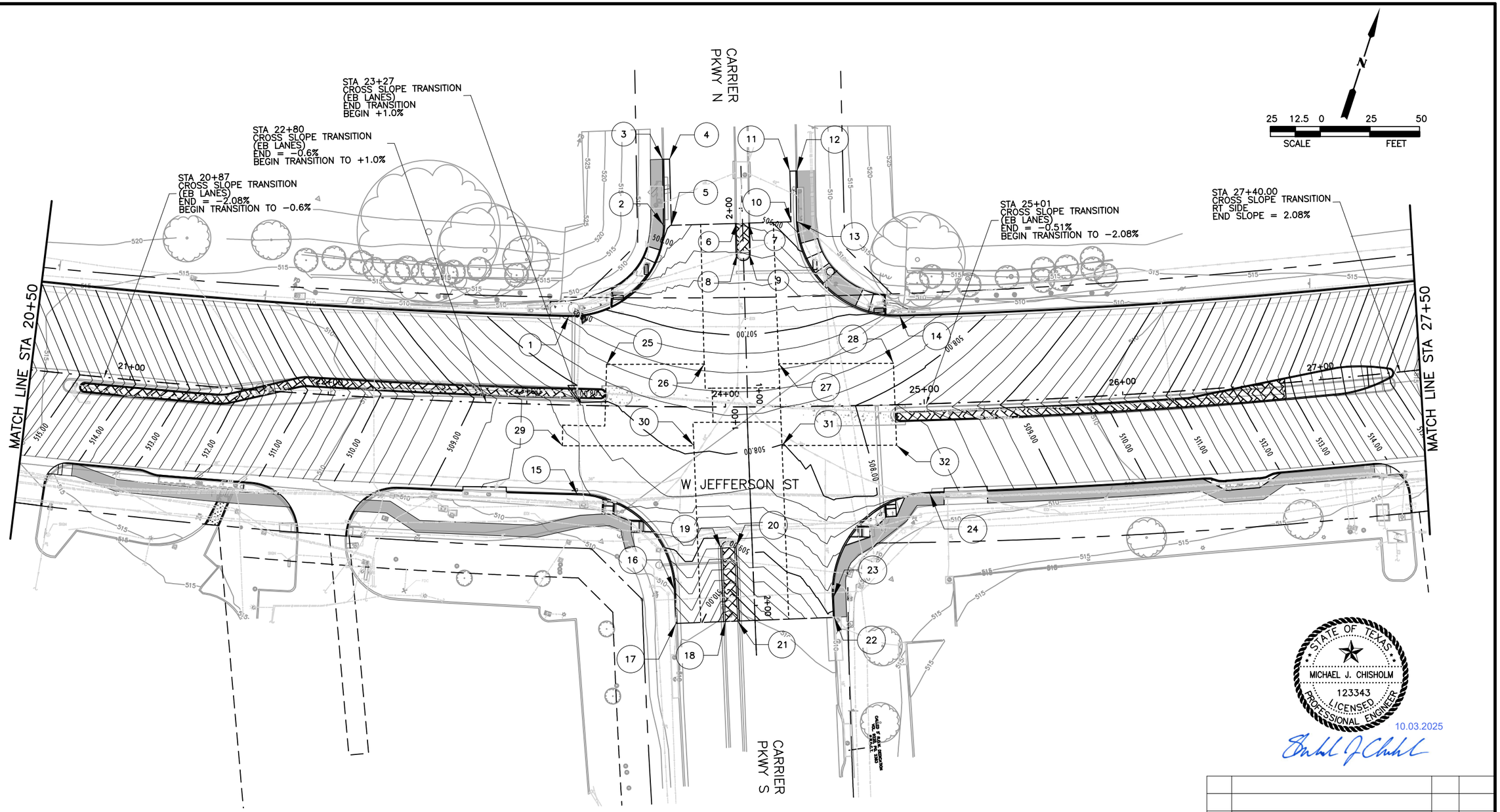
7/1/2025 11:03:16 AM ChavezK
pw:/



NORTH CARRIER PARKWAY				
NO	CL STA.	OFFSET	ELEVATION	DESCRIPTION
1	23+20.23	45.00' LT	507.87	PC BOC
2	23+68.03	91.13' LT	506.52	PT BOC
3	23+67.08	124.43' LT	506.38	BOC
4	23+70.74	124.57' LT	505.88	TIE TO EX
5	23+72.03	91.28' LT	506.00	TIE TO EX
6	24+05.73	92.32' LT	506.67	BOC
7	24+11.90	92.49' LT	505.69	BOC
8	24+06.03	77.06' LT	506.87	PC BOC
9	24+12.17	77.20' LT	506.85	PC BOC
10	24+33.93	92.95' LT	504.94	TIE TO EX
11	24+33.62	118.48' LT	505.79	TIE TO EX
12	24+37.37	118.54' LT	506.29	BOC
13	24+37.26	93.02' LT	505.44	PT BOC
14	24+88.70	45.00' LT	507.79	PC BOC

SOUTH CARRIER PARKWAY				
NO	CL STA.	OFFSET	ELEVATION	DESCRIPTION
15	23+26.56	45.00' RT	509.10	PC BOC
16	23+75.10	92.30' RT	510.07	PT BOC
17	23+75.90	108.89' RT	510.27	BOC
18	23+99.93	108.00' RT	511.07	BOC
19	23+98.46	70.88' RT	509.88	PC BOC
20	24+04.45	70.62' RT	510.00	PC BOC
21	24+05.96	107.76' RT	510.64	BOC
22	24+53.05	106.38' RT	509.42	BOC
23	24+52.75	96.15' RT	509.35	PT BOC
24	25+01.32	45.00' RT	508.68	PC BOC

INTERSECTION GRADING				
NO	CL STA.	OFFSET	ELEVATION	DESCRIPTION
25	2339.82	20.85' LT	507.62	PT
26	2389.23	21.56' LT	507.33	PT
27	2427.01	21.61' LT	507.34	PT
28	2485.04	20.84' LT	507.75	PT
29	231849	20.53' RT	508.45	PT
30	2384.17	19.60' RT	507.97	PT
31	2428.28	19.56' RT	508.02	PT
32	2485.58	20.40' RT	508.17	PT

NOTES:

1. PROPOSED CONTOURS SHOWN EVERY 0.2'. LABELS ARE PROVIDED EVERY 1'
2. POINT DATA PROVIDED IS AT TOP OF CURB/BACK OF CURB UNLESS OTHERWISE NOTED
3. REFER TO TYPICAL SECTIONS AND PAVING PLAN SHEETS FOR DESIGN OF MAIN LANES APPROACHING INTERSECTION
4. INTERSECTION GRADING POINTS (25–32) PROVIDED AT KEY LOCATIONS FOLLOWING TCP PLANS

STATE OF TEXAS
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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET INTERSECTION GRADING PLAN

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	61

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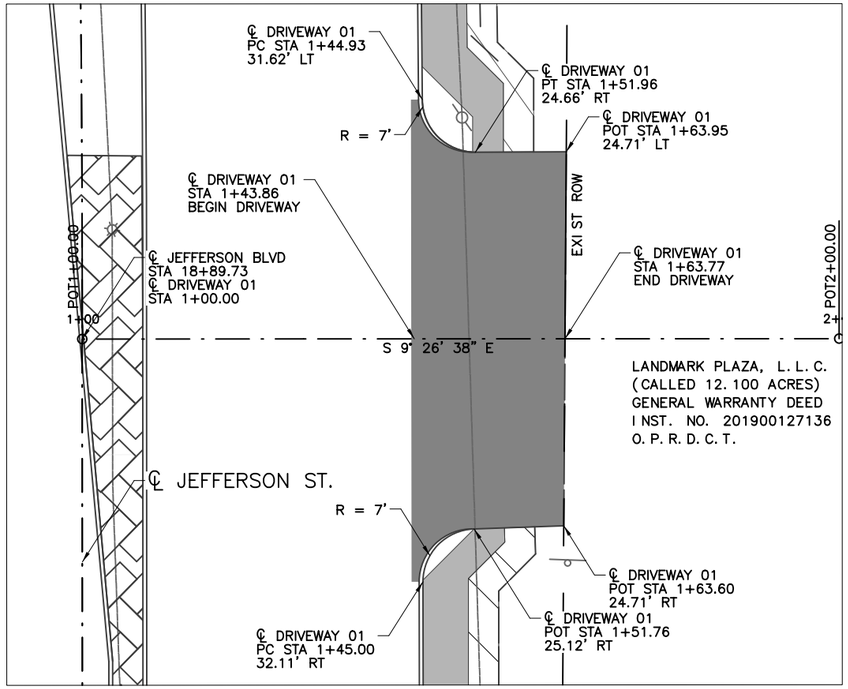
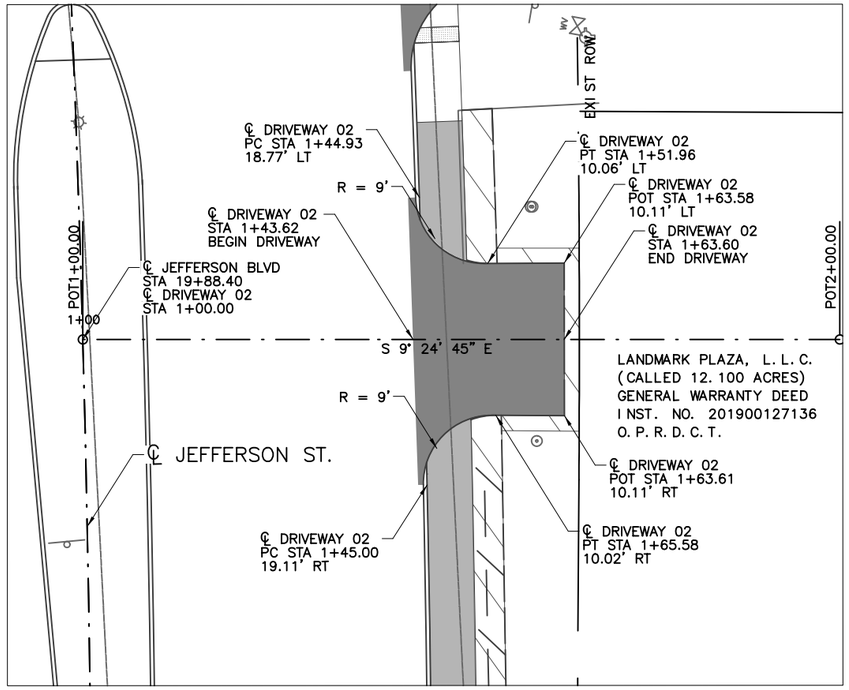


DRIVEWAY 01
STA 18+89.73 CL
JEFFERSON ST.



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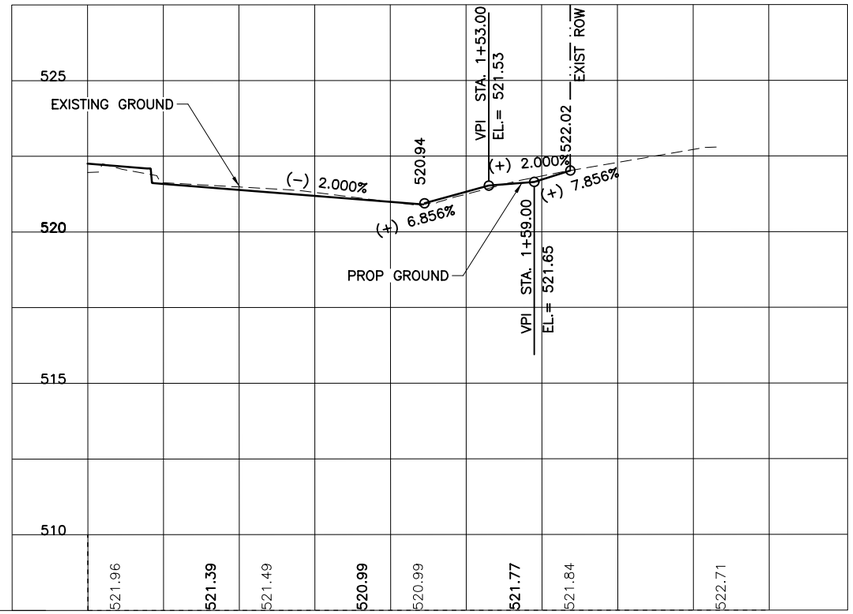
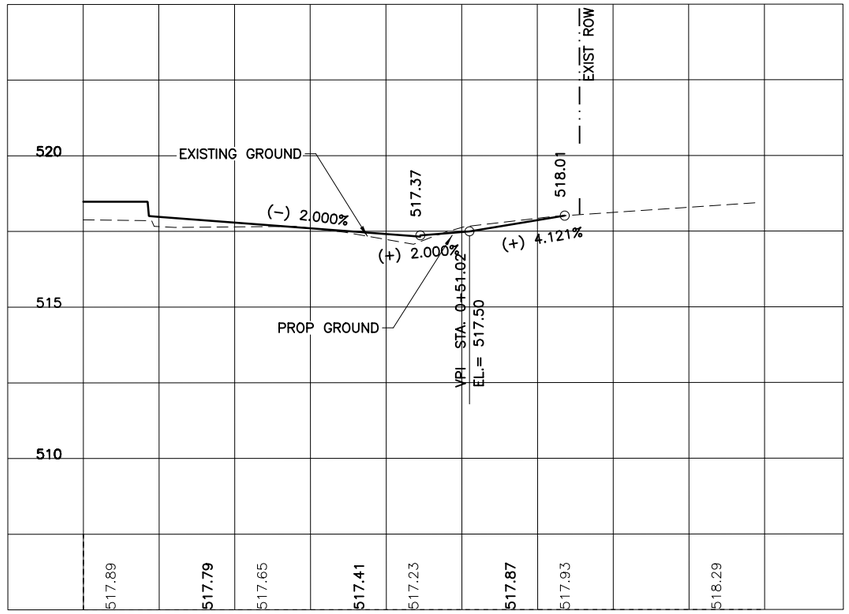
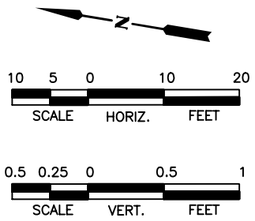
STA 19+88.40 CL
JEFFERSON ST.







LEGEND
- ASPHALT TRANSITION
- DRIVEWAY PAVEMENT
- SIDEWALK PAVEMENT

NOTES:

1. CONNECT TO EXISTING DRIVEWAYS AND/OR PROPOSED PAVEMENT WITH #4 BARS @ 24" CENTERS WITH 15" MIN. LAP. REFER TO CITY OF GRAND PRARIE STANDARD COMMERCIAL AND RESIDENTIAL DRIVEWAY DETAIL FOR MORE INFORMATION

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
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10.03.2025

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CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
DRIVEWAY PLAN AND PROFILE

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	62

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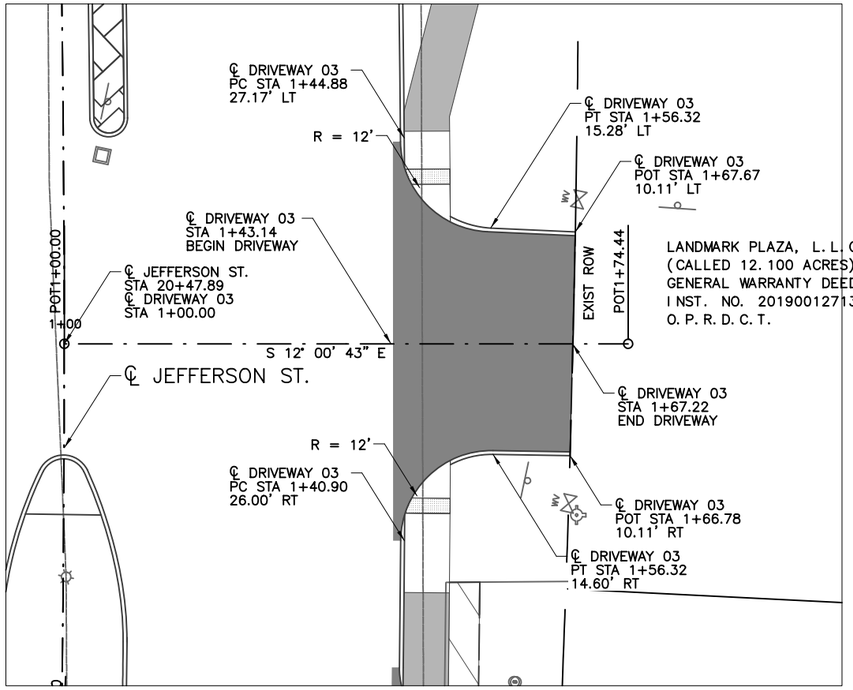
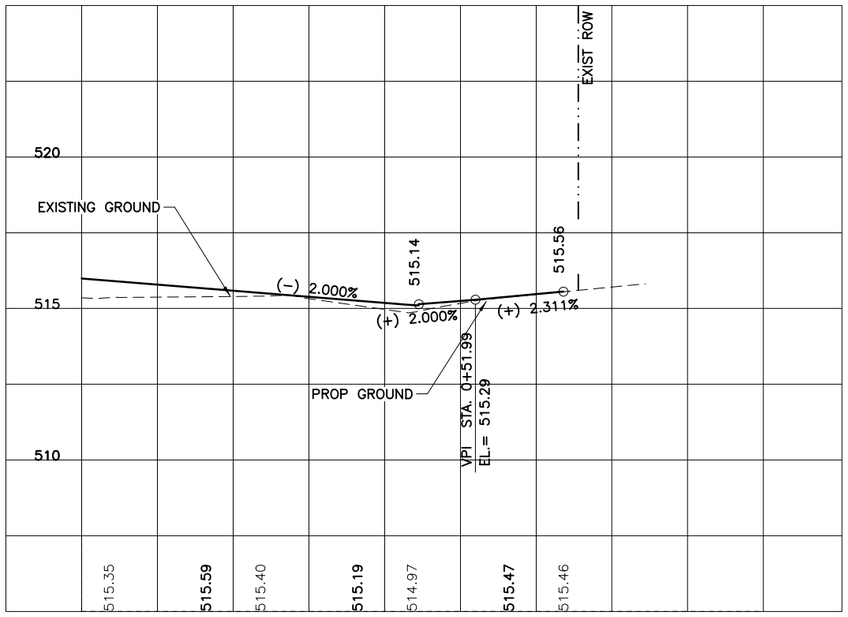
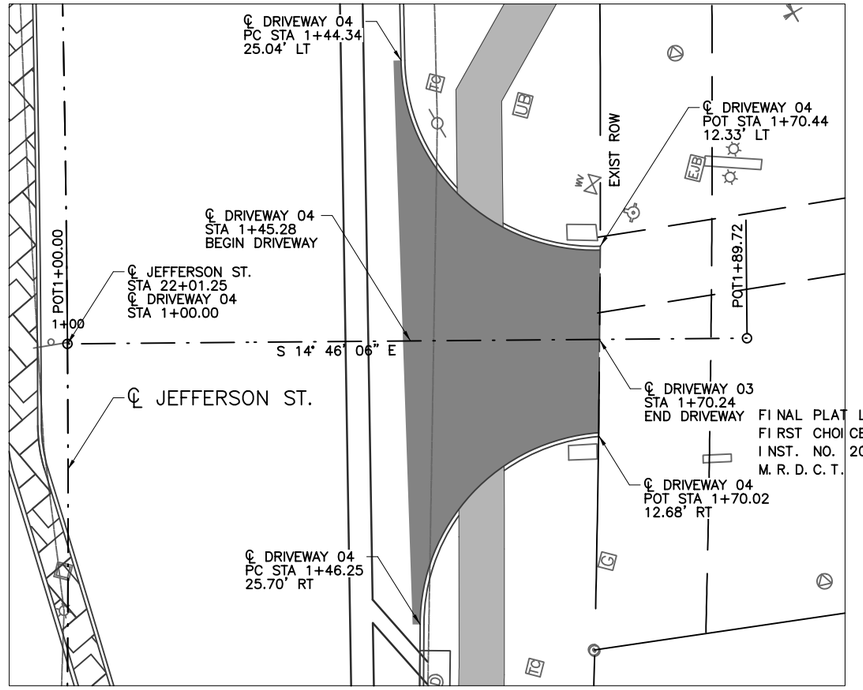
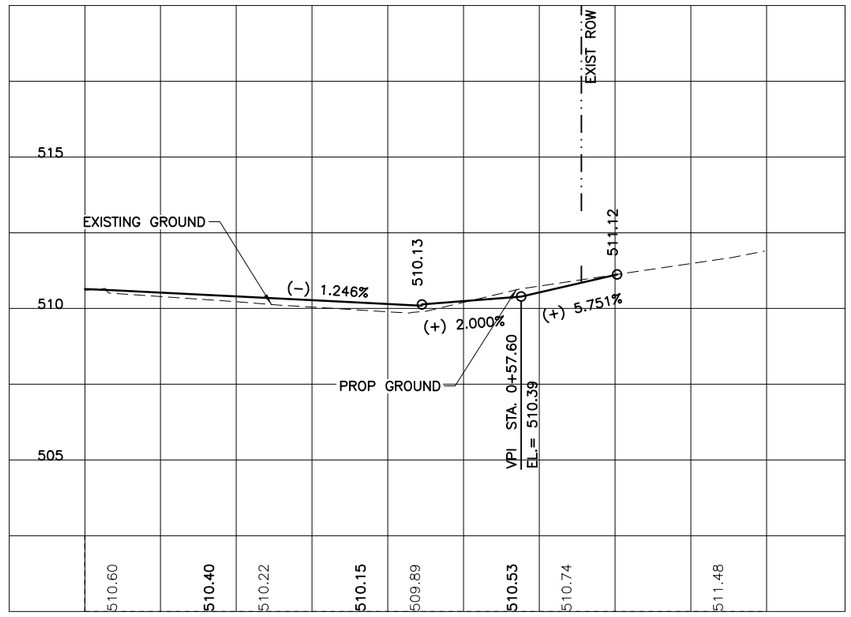


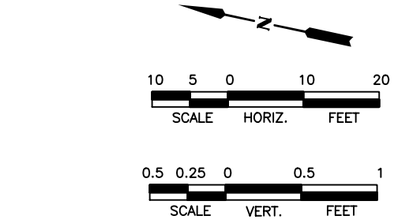
DRIVEWAY 03
STA 20+47.89
JEFFERSON ST.





DRIVEWAY 04
STA 22+01.25 CL
JEFFERSON ST.





NOTES:

1. CONNECT TO EXISTING DRIVEWAYS AND/OR PROPOSED PAVEMENT WITH #4 BARS @ 24" CENTERS WITH 15" MIN. LAP. REFER TO CITY OF GRAND PRARIE STANDARD COMMERCIAL AND RESIDENTIAL DRIVEWAY DETAIL FOR MORE INFORMATION

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

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CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
DRIVEWAY PLAN AND PROFILE

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	63

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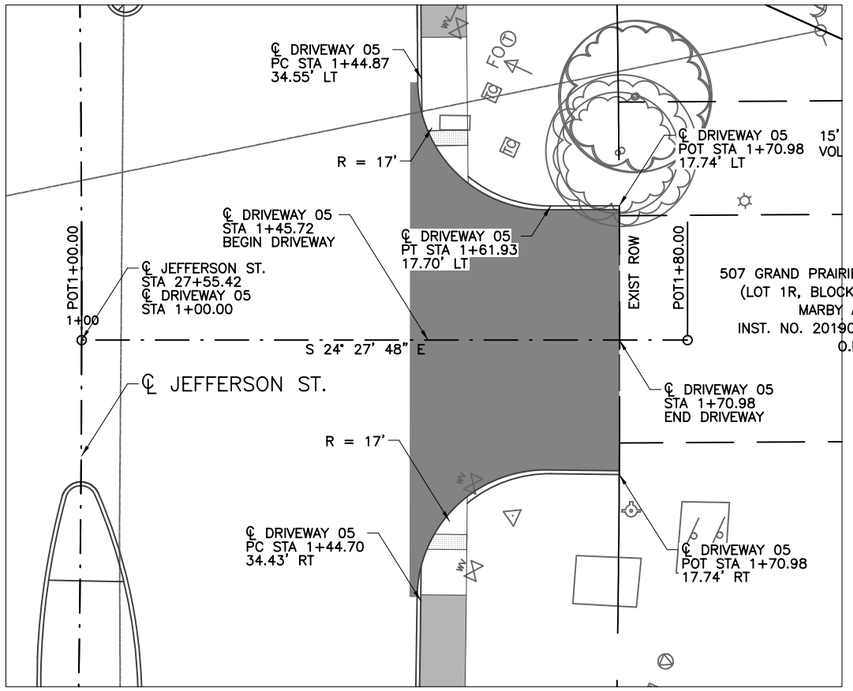
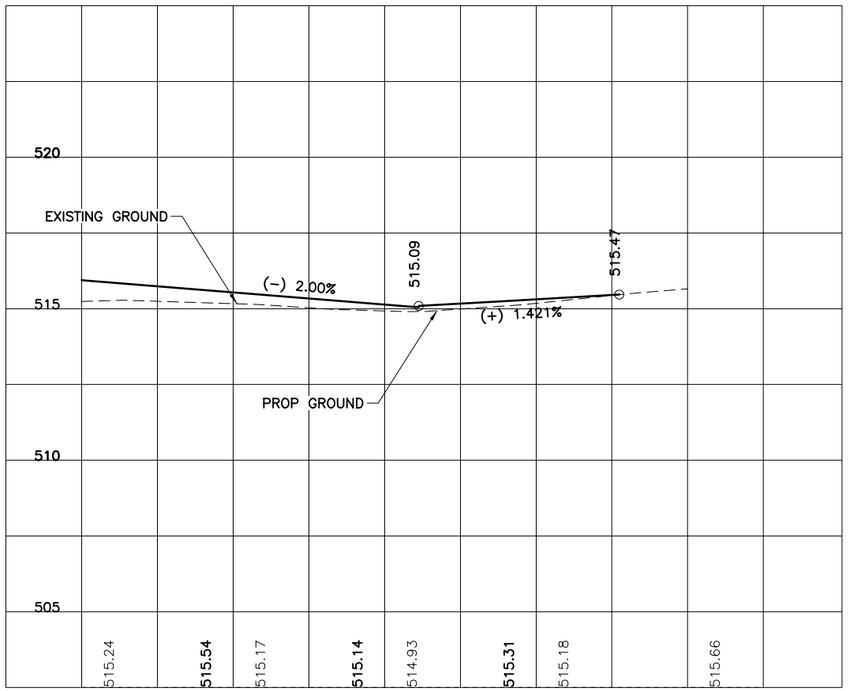
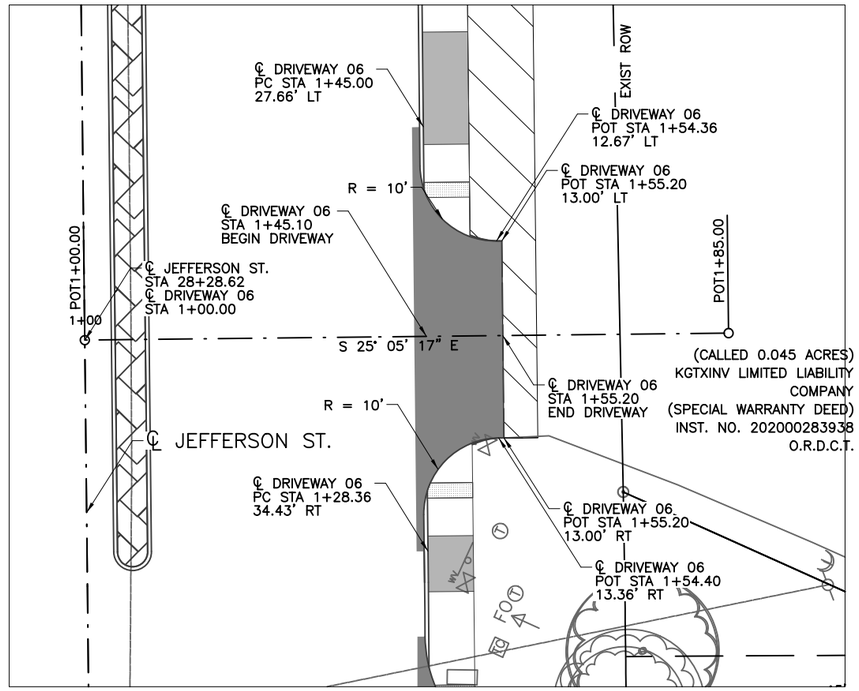
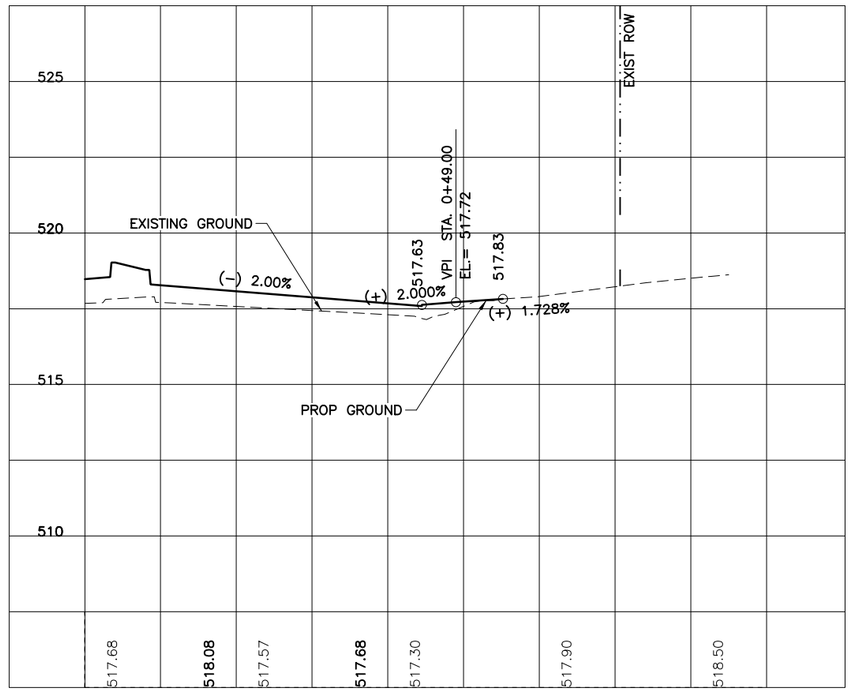


DRIVEWAY 05
STA. 27+55.42 CL
JEFFERSON ST.





DRIVEWAY 06
STA. 28+28.62 CL
JEFFERSON ST.



LEGEND

- ASPHALT TRANSITION
- DRIVEWAY PAVEMENT
- SIDEWALK PAVEMENT

NOTES:

1. CONNECT TO EXISTING DRIVEWAYS AND/OR PROPOSED PAVEMENT WITH #4 BARS @ 24" CENTERS WITH 15" MIN. LAP. REFER TO CITY OF GRAND PRARIE STANDARD COMMERCIAL AND RESIDENTIAL DRIVEWAY DETAIL FOR MORE INFORMATION

STATE OF TEXAS
MICHAEL J. CHISHOLM
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10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
DRIVEWAY PLAN AND PROFILE

GRand PRaiRie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	64

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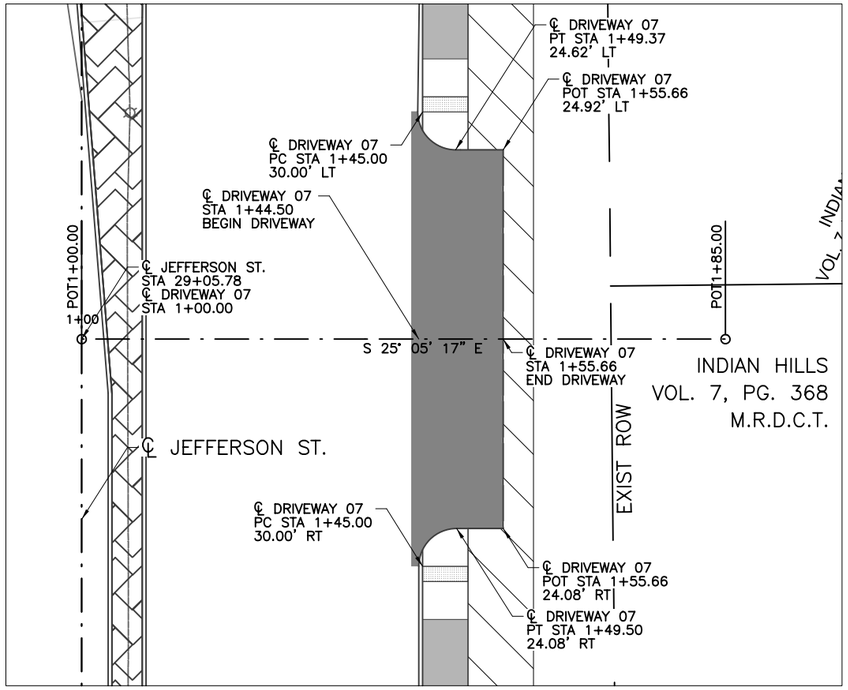
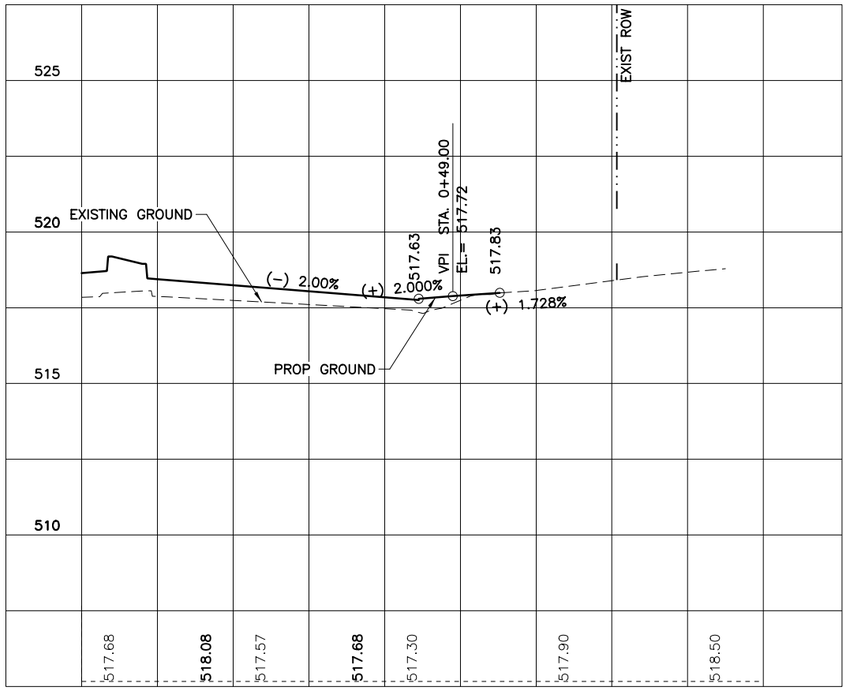
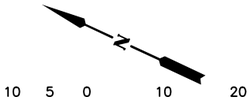


DRIVEWAY 07
STA. 29+05.78 CL
JEFFERSON ST.





LEGEND
- ASPHALT TRANSITION
- DRIVEWAY PAVEMENT
- SIDEWALK PAVEMENT

NOTES:

1. CONNECT TO EXISTING DRIVEWAYS AND/OR PROPOSED PAVEMENT WITH #4 BARS @ 24" CENTERS WITH 15" MIN. LAP. REFER TO CITY OF GRAND PRARIE STANDARD COMMERCIAL AND RESIDENTIAL DRIVEWAY DETAIL FOR MORE INFORMATION

STATE OF TEXAS
MICHAEL J. CHISHOLM
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10.03.2025

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CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
DRIVEWAY PLAN AND PROFILE

GRAND PRAIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	65

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cpypdf_ANSIB.pltcfg
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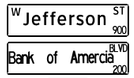
7/1/2025 11:03:49 AM ChavezK
pw:/

SUMMARY OF SMALL SIGNS

PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX) POST TYPE: FRP = Fiberglass, TWT = Thin-Wall, 10BWG = 10 BWG, S80 = Sch 80	POSTS: 1 or 2	ANCHOR TYPE: UA=Universal Conc, UB=Universal Bolt, SA=Slipbase-Conc, SB=Slipbase-Bolt, WS=Wedge Steel, WP=Wedge Plastic	MOUNTING DESIGNATION: PREFABRICATED: P = "Plain", T = "T", U = "U"	MOUNTING DESIGNATION: 1EXT or 2EXT = # of Ext, BM = Extruded Wind Beam, WC = 1.12 #/ft Wing Channel, EXAL= Extruded Alum Sign Panels	BRIDGE MOUNT CLEARANCE SIGNS (See Note 2) TY = TYPE: TY N, TY S
2	1	R3-7L		36" x 36"	X		10BWG	1	SA	P		
2	2	* CUSTOM		*			SALVAGED SIGN					
		* M6-1		21" x 15"	X		10BWG	1	SA	P		
2	3	I-8		24" x 24"	X		10BWG	1	SA	P		
		M5-1R		21" x 15"	X							
		* D3-1		*			SALVAGED SIGN					
2	4	* D3-1		*			SALVAGED SIGN					
		R1-1		36" x 36"	X		10BWG	1	SA	P	BM	
2	5	* CUSTOM		*			SALVAGED SIGN					
		*M6-1		21" x 15"	X		10BWG	1	SA	P		
2	6	R3-7L		36" x 36"	X		10BWG	1	SB	P		
3	1	R3-7L		36" x 36"	X		10BWG	1	SB	P		
3	2	R2-1		30" x 36"	X		10BWG	1	SA	P		
3	3	* M2-1		21" x 15"	X		10BWG	1	SA	P		
		* TOLL		*			SALVAGED SIGN					
		* M1-6T		24" x 24"	X							

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.

http://www.txdot.gov/

NOTE:

1. Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
2. For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS)Standard Sheet.
3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD(GEN).
4. * Denotes sign to be salvaged.

STATE OF TEXAS
MICHEL J. CHIHOUB
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

Texas Department of Transportation

Traffic Operations Division Standard

SUMMARY OF SMALL SIGNS

SOSS

FILE: sums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
4-16	DIST	COUNTY		SHEET NO.
8-16	SAL	DALLAS		66

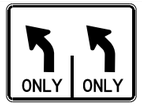
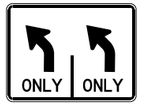
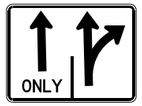
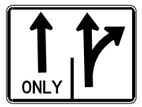
T8

DATE:
FILE:

DATE:
FILE:

SUMMARY OF SMALL SIGNS

SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)

PLAN SHEET NO.	SIGN NO.	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	POST TYPE FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80	POSTS 1 or 2	ANCHOR TYPE UA=Universal Conc UB=Universal Bolt SA=Slipbase-Conc SB=Slipbase-Bolt WS=Wedge Steel WP=Wedge Plastic	MOUNTING DESIGNATION PREFABRICATED P = "Plain" T = "T" U = "U"	1EXT or 2EXT = # of Ext BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels	BRIDGE MOUNT CLEARANCE SIGNS (See Note 2) TY = TYPE TY N TY S
3	4	R2-1		30" x 36"	X		10BWG	1	SB	P		
3	5	R3-8(MOD)		36" x 30"	X		10BWG	1	SB	P		
3	6	R3-8(MOD)		36" x 30"	X		10BWG	1	SB	P		
3	7	R3-8(MOD)		36" x 30"	X		10BWG	1	SB	P		
3	8	R3-8(MOD)		36" x 30"	X		10BWG	1	SA	P		
4	1	R2-1		30" x 36"	X		10BWG	1	SB	P		
4	2	R14-1 M6-3		24" x 18" 21" x 15"	X X		10BWG	1	SA	P		
4	3	I-8 M5-1		24" x 24" 21" x 15"	 X		10BWG	1	SA	P		
4	4	R2-1		30" x 36"	X		10BWG	1	SA	P		

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
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3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD(GEN).
4. * Denotes sign to be salvaged.

STATE OF TEXAS
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10.03.2025

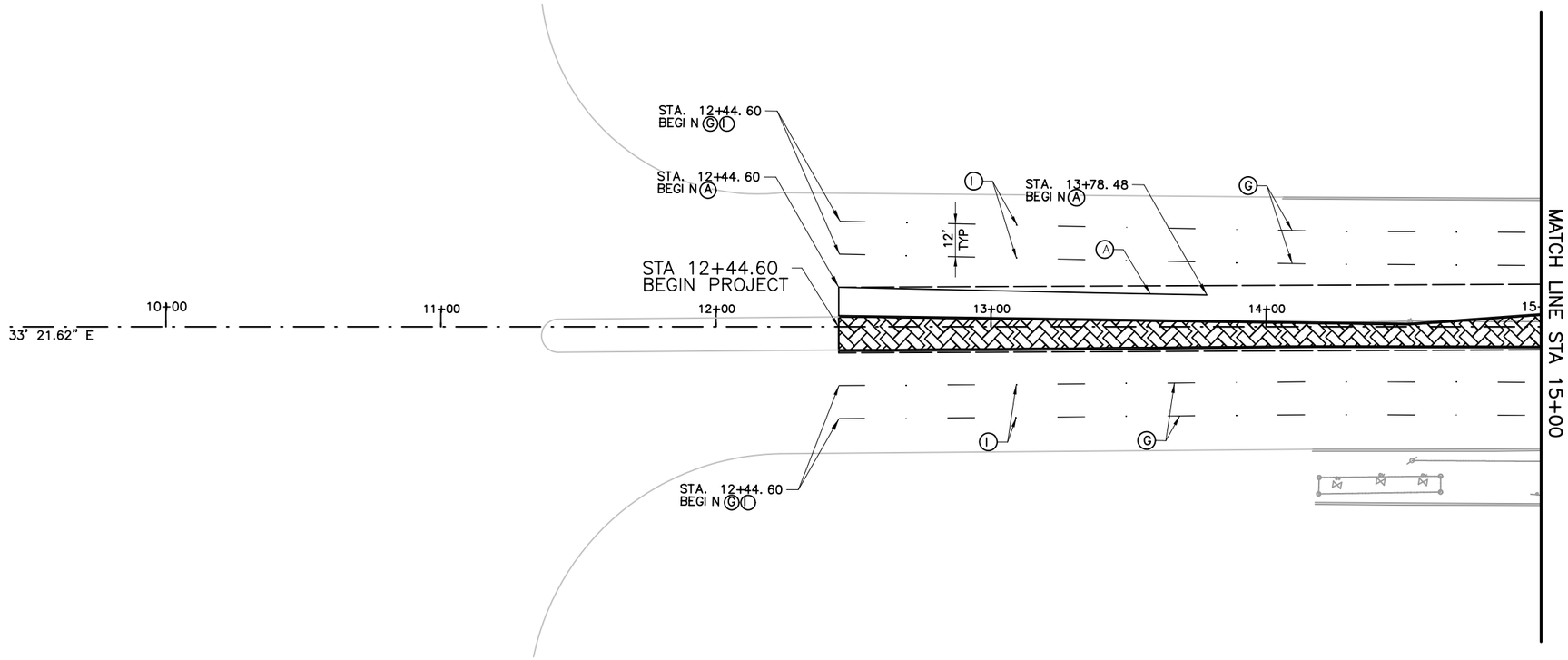
Texas Department of Transportation

Traffic Operations Division Standard

SUMMARY OF SMALL SIGNS

SOSS

FILE: sums16.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT May 1987	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
4-16 8-16	DIST	COUNTY		SHEET NO.
	DAL	DALLAS		67



N

25 12.5 0 25 50

SCALE FEET

HORIZ.

LEGEND

- Ⓐ REFL PAV MRK TY I (W) (8") (SLD)
- Ⓑ REFL PAV MRK TY I (W) (12") (SLD)
- Ⓒ REFL PAV MRK TY I (W) (24")(SLD)
- Ⓓ REFL PAV MRK TY I (W) (ARROW)
- Ⓔ REFL PAV MRK TY I (W) (8") (DOT)
- Ⓕ REFL PAV MRK TY I (W) (WORD)
- Ⓖ RE PM W/RET REQ TY I (W) (4") (BRK)
- Ⓗ RE PM W/RET REQ TY I (W) (4") (SLD)
- Ⓘ REFL PAV MRKR TY II-C-R (40FT ONGOING LANE)(10FT ON TURNING LANE)
- Ⓙ REFL PAV MRKR TY II-A-A (3 FT)
- * SALVAGED SIGNS

NOTES:

1. ALL STA./OFF. ARE BASED OFF ℄ JEFFERSON UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL RELOCATE EXISTING SIGNS AS DIRECTED BY THE ENGINEER. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y

TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
SIGNING AND STRIPING PLANS

Grand Prairie TEXAS ENGINEERING

SHEET 1 OF 4

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	68

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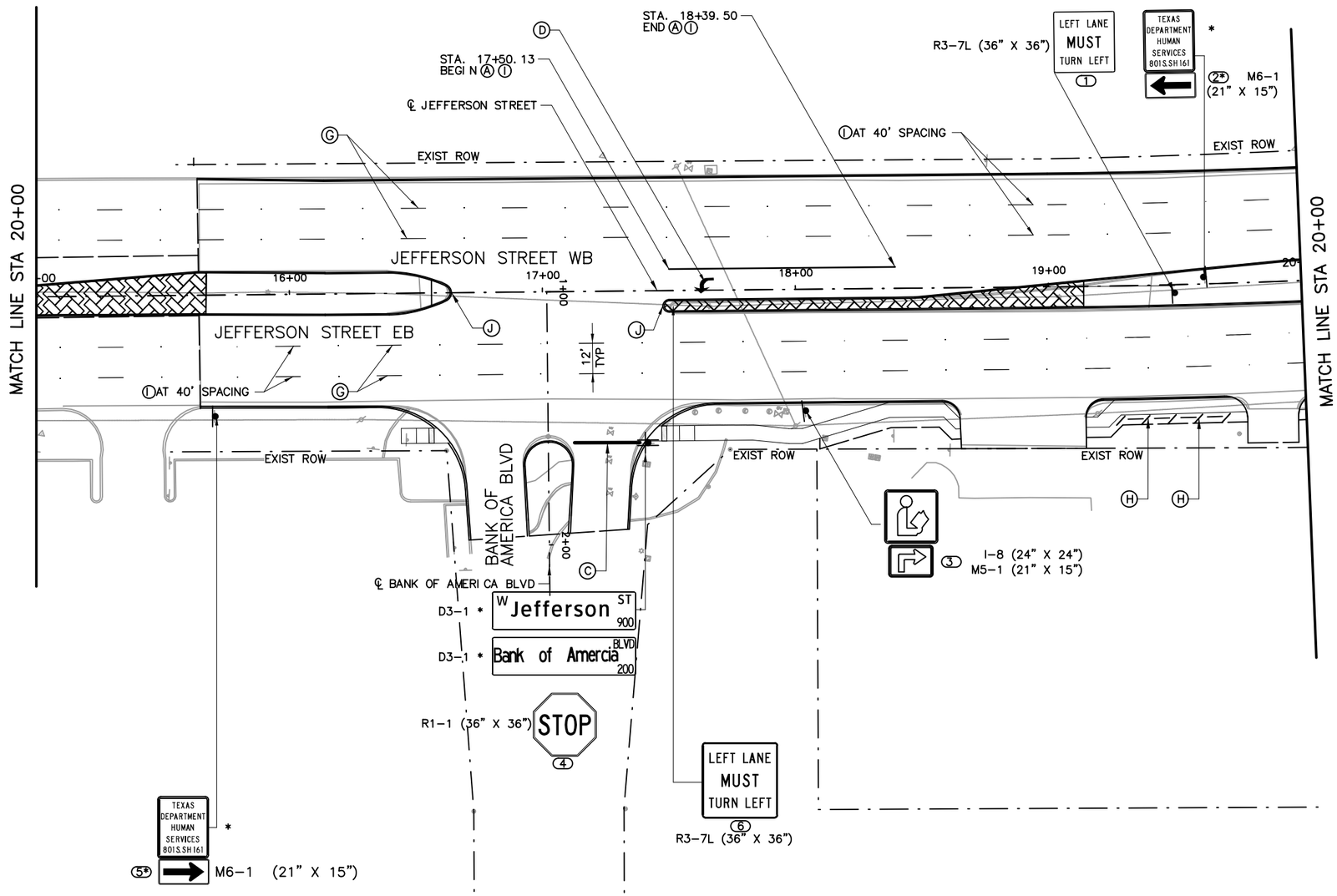

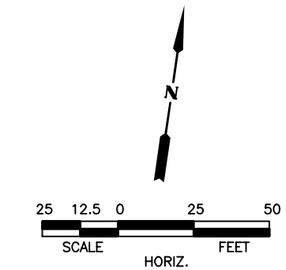

LEGEND

- (A) REFL PAV MRK TY I (W) (8") (SLD)
- (B) REFL PAV MRK TY I (W) (12") (SLD)
- (C) REFL PAV MRK TY I (W) (24")(SLD)
- (D) REFL PAV MRK TY I (W) (ARROW)
- (E) REFL PAV MRK TY I (W) (8") (DOT)
- (F) REFL PAV MRK TY I (W) (WORD)
- (G) RE PM W/RET REQ TY I (W) (4") (BRK)
- (H) RE PM W/RET REQ TY I (W) (4") (SLD)
- (I) REFL PAV MRKR TY II-C-R (40FT ONGOING LANE)(10FT ON TURNING LANE)
- (J) REFL PAV MRKR TY II-A-A (3 FT)
- * SALVAGED SIGNS

NOTES:

1. ALL STA./OFF. ARE BASED OFF ℄ JEFFERSON UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL RELOCATE EXISTING SIGNS AS DIRECTED BY THE ENGINEER. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

STATE OF TEXAS
MICHAEL J. CHISHOLM
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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
SIGNING AND STRIPING PLANS

Grand Prairie TEXAS ENGINEERING

SHEET 2 OF 4

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	69

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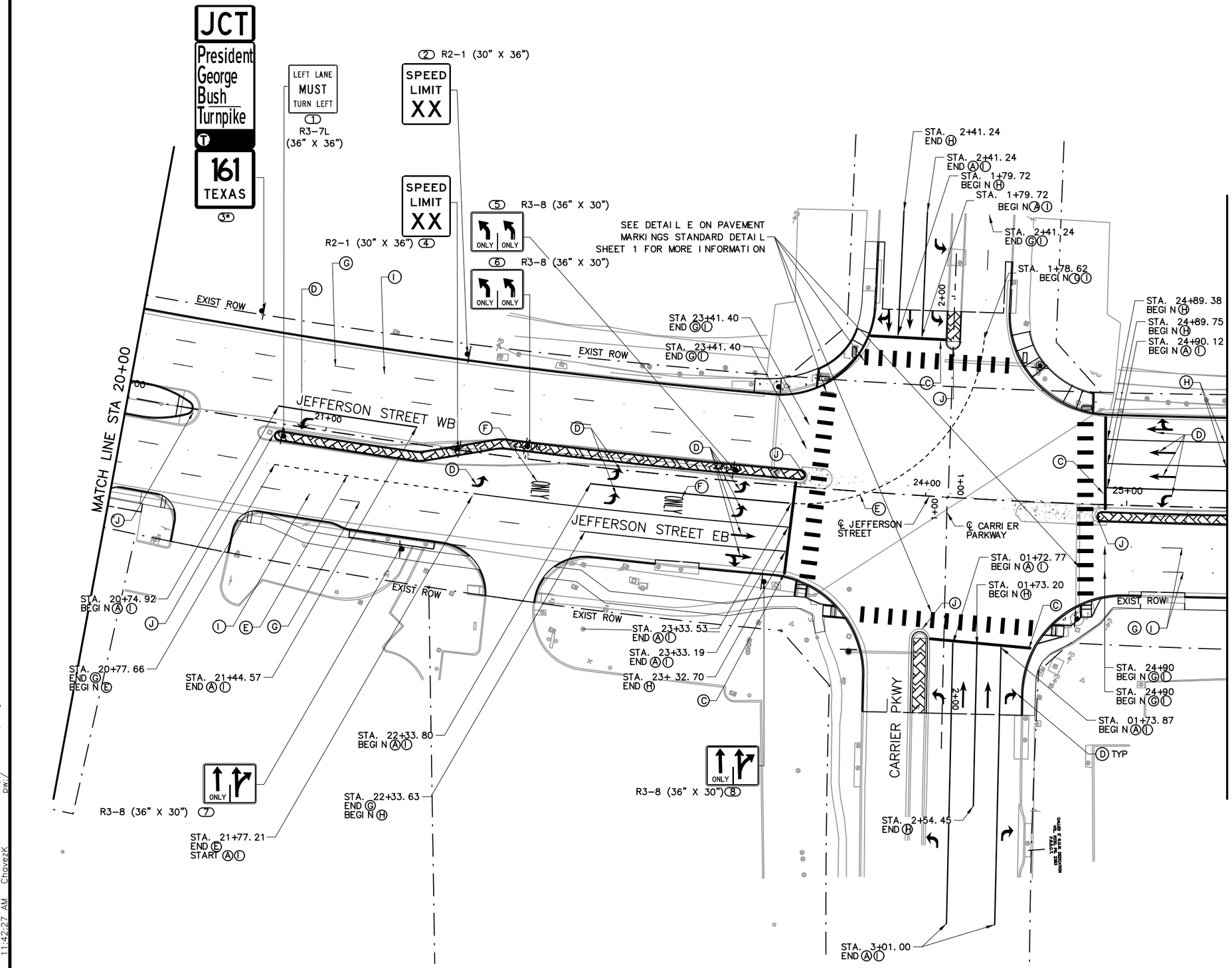

LEGEND

- (A) REFL PAV MRK TY I (W) (8") (SLD)
- (B) REFL PAV MRK TY I (W) (12") (SLD)
- (C) REFL PAV MRK TY I (W) (24")(SLD)
- (D) REFL PAV MRK TY I (W) (ARROW)
- (E) REFL PAV MRK TY I (W) (8") (DOT)
- (F) REFL PAV MRK TY I (W) (WORD)
- (G) RE PM W/RET REQ TY I (W) (4") (BRK)
- (H) RE PM W/RET REQ TY I (W) (4") (SLD)
- (I) REFL PAV MRKR TY II-C-R (40FT ONGOING LANE)(10FT ON TURNING LANE)
- (J) REFL PAV MRKR TY II-A-A (3 FT)

* SALVAGED SIGNS

NOTES:

1. ALL STA./OFF. ARE BASED OFF ℄ JEFFERSON UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL RELOCATE EXISTING SIGNS AS DIRECTED BY THE ENGINEER. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
SIGNING AND STRIPING PLANS

GRAND PRAIRIE TEXAS ENGINEERING

SHEET 3 OF 4

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	70

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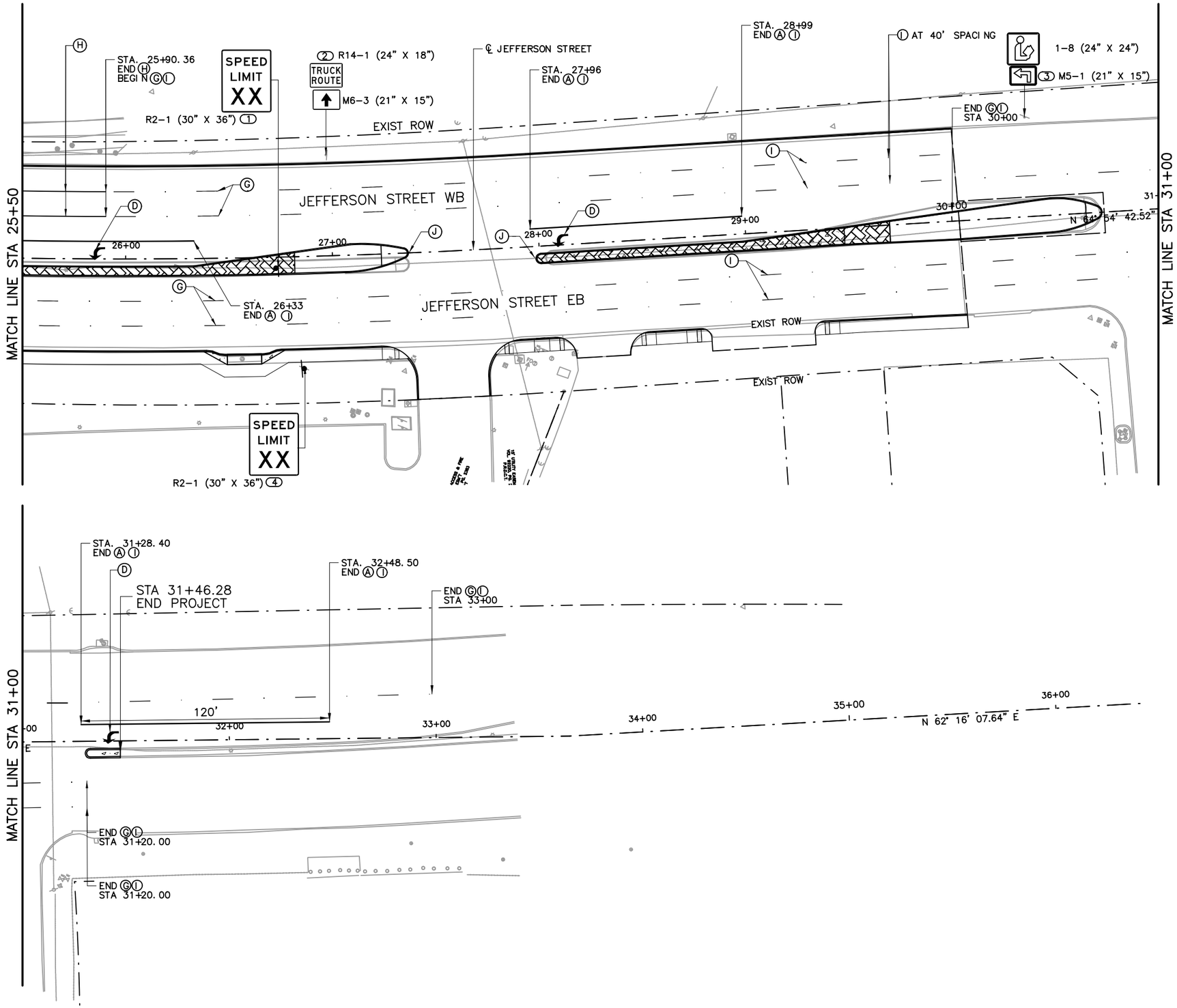

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SCALE FEET
HORIZ.

LEGEND

- (A) REFL PAV MRK TY I (W) (8") (SLD)
- (B) REFL PAV MRK TY I (W) (12") (SLD)
- (C) REFL PAV MRK TY I (W) (24")(SLD)
- (D) REFL PAV MRK TY I (W) (ARROW)
- (E) REFL PAV MRK TY I (W) (8") (DOT)
- (F) REFL PAV MRK TY I (W) (WORD)
- (G) RE PM W/RET REQ TY I (W) (4") (BRK)
- (H) RE PM W/RET REQ TY I (W) (4") (SLD)
- (I) REFL PAV MRKR TY II-C-R (40FT ONGOING LANE)(10FT ON TURNING LANE)
- (J) REFL PAV MRKR TY II-A-A (3 FT)
- * SALVAGED SIGNS

NOTES:

1. ALL STA./OFF. ARE BASED OFF ℄ JEFFERSON UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL RELOCATE EXISTING SIGNS AS DIRECTED BY THE ENGINEER. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
SIGNING & STRIPING PLANS

Grand Prairie TEXAS ENGINEERING

SHEET 4 OF 4

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	71

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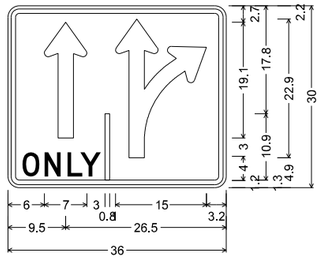

R3-8SM_36x30;
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S h=19.125, s=2.5;
"ONLY", D 50% spacing;
M h=13.25, s=2.5;

SHEET 3, SIGN 7

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
SMALL SIGN DETAILS

Grand Prairie TEXAS ENGINEERING

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.		SHEET NO.
Checked:	CPY							72

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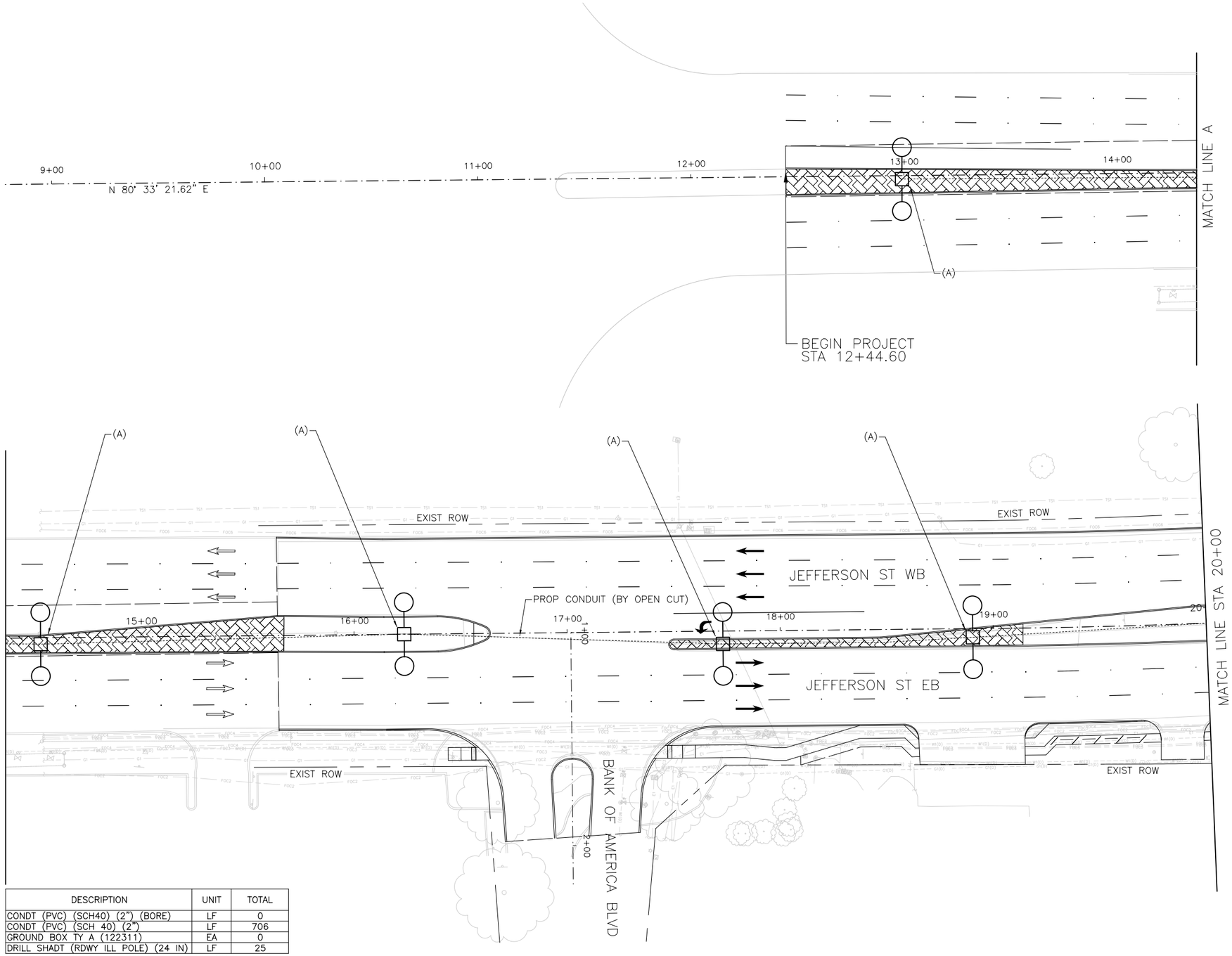

DESCRIPTION	UNIT	TOTAL
CONDT (PVC) (SCH40) (2") (BORE)	LF	0
CONDT (PVC) (SCH 40) (2")	LF	706
GROUND BOX TY A (122311)	EA	0
DRILL SHADT (RDWY ILL POLE) (24 IN)	LF	25

NOTE: QUANTITIES TOTALS ARE FOR THIS SHEET ONLY

N

25 12.5 0 25 50

SCALE HORIZ. FEET

LEGEND

(A) PERM. LUMINAIRES (5' DRILL SHAFT)

PROPOSED CONDUIT (SCH 40 PVC)

NOTES:

1. ONCOR ELECTRIC OWNS/OPERATES ILLUMINATION ALONG PROJECT SITE. FOUNDATIONS, CONDUITS AND PULL BOXES (GROUND BOXES) WILL BE INSTALLED WITH THIS PROJECT. ALL OTHER ILLUMINATION ITEMS WILL BE FURNISHED AND INSTALLED BY ONCOR. ALL ITEMS ARE TO BE INSTALLED PER ONCOR'S CLIENT INSTALLED CIVIL AGREEMENT.
2. DRILL SHAFTS SHALL ALL BE 5–FT DEPTH & ANCHOR BOLT PLACEMENT SHALL BE FOLLOW ONCOR DETAILS & CLIENT INSTALLED CIVIL AGREEMENT.
3. CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES IN FIELD PRIOR TO CONSTRUCTION AND INSTALLATION OF ANY ILLUMINATION ITEMS.
4. ANY UTILITES WITHIN A 5–FT RADIUS SHALL BE EXPOSED AND ADJUSTMENTS MADE PRIOR TO CONSTRUCTION OF PROPOSED DRILLED SHAFT FOUNDATIONS.
5. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY THEIR FAILURE TO LOCATE, PRESERVE, AND PROTECT UNDER–GROUND, ABOVE–GROUND OR OVERHEAD UTILITES.
6. ONCOR SHALL BE NOTIFIED UPON COMPLETION OF WORK INCLUDED IN THE PROJECT SO POLES, WIRES, AND POWER CAN BE INSTALLED.
7. POWER SOURCES FOR THE EXISTING ILLUM SYSTEM ARE THE TRANSFORMER AT JEFFERSON ST & HIGHWAY 161 TO THE WEST (STA 22+56) AND JEFFERSON ST & SW 5TH ST TO THE EAST (STA 22+83).
8. LUMINAIRE EAST OF THE PROJECT LIMITS (STA 30+63) SHALL BE REMOVED & REINSTALLED BY CONTRACTOR.
9. ANY DEVIATION OR CHANGES SHALL BE COORDINATED AND APPROVED BY ONCOR AND CITY.
10. ONCOR PRE–CAST 12X12X12 CONNECTION BOX IS PAID FOR AS TXDOT TYPE A GROUND BOX.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER

10.03.2025

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TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
ILLUMINATION LAYOUTS 1 OF 3

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	73

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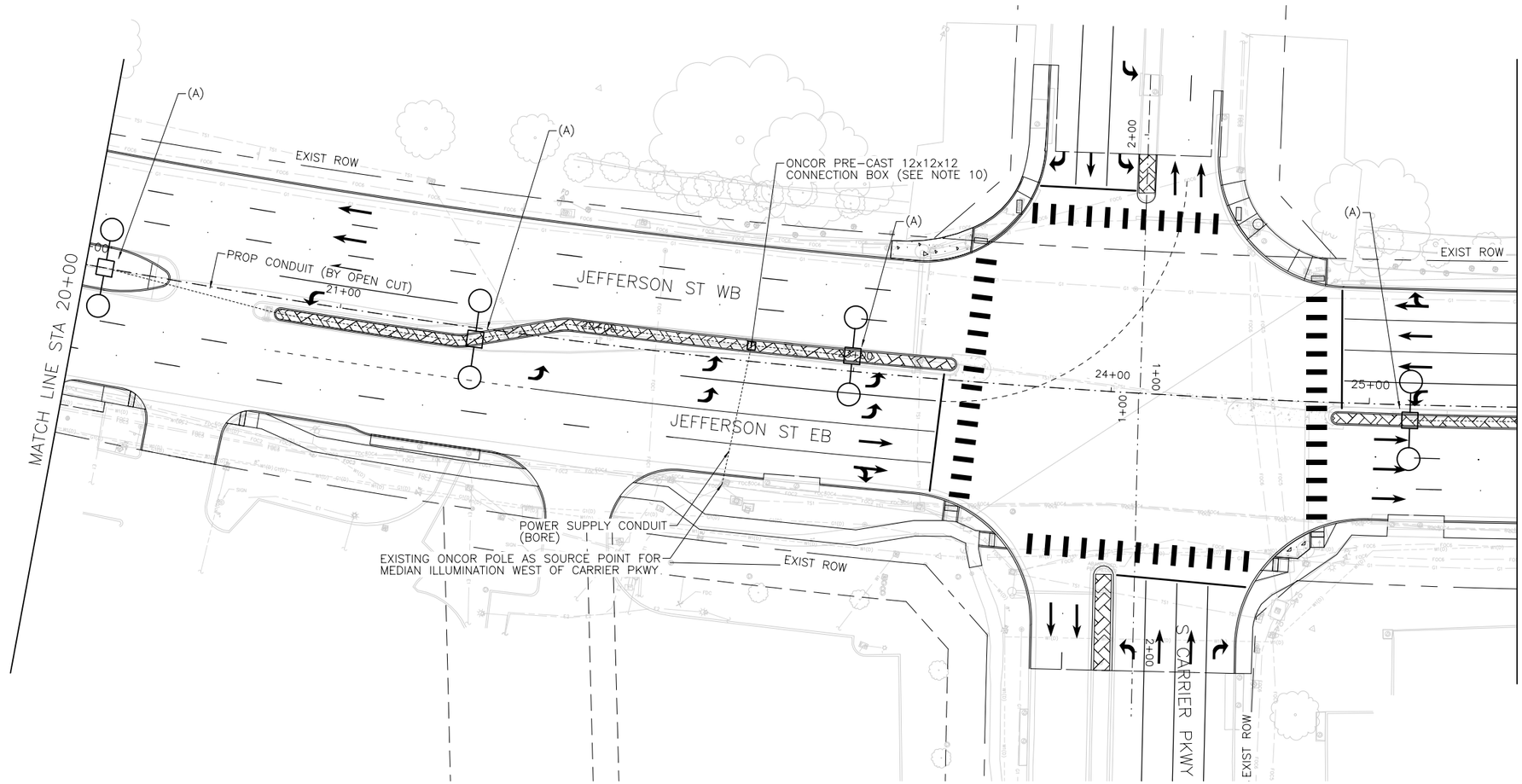

DESCRIPTION	UNIT	TOTAL
CONDT (PVC) (SCH40) (2") (BORE)	LF	56
CONDT (PVC) (SCH 40) (2")	LF	346
GROUND BOX TY A (122311)	EA	1
DRILL SHADT (RDWY ILL POLE) (24 IN)	LF	20

NOTE: QUANTITIES TOTALS ARE FOR THIS SHEET ONLY

25 12.5 0 25 50
SCALE FEET
HORIZ.

LEGEND

(A) PERM. LUMINAIRES (5' DRILL SHAFT)

PROPOSED CONDUIT (SCH 40 PVC)

NOTES:

1. ONCOR ELECTRIC OWNS/OPERATES ILLUMINATION ALONG PROJECT SITE. FOUNDATIONS, CONDUITS AND PULL BOXES (GROUND BOXES) WILL BE INSTALLED WITH THIS PROJECT. ALL OTHER ILLUMINATION ITEMS WILL BE FURNISHED AND INSTALLED BY ONCOR. ALL ITEMS ARE TO BE INSTALLED PER ONCOR'S CLIENT INSTALLED CIVIL AGREEMENT.
2. DRILL SHAFTS SHALL ALL BE 5–FT DEPTH & ANCHOR BOLT PLACEMENT SHALL BE FOLLOW ONCOR DETAILS & CLIENT INSTALLED CIVIL AGREEMENT.
3. CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES IN FIELD PRIOR TO CONSTRUCTION AND INSTALLATION OF ANY ILLUMINATION ITEMS.
4. ANY UTILITES WITHIN A 5–FT RADIUS SHALL BE EXPOSED AND ADJUSTMENTS MADE PRIOR TO CONSTRUCTION OF PROPOSED DRILLED SHAFT FOUNDATIONS.
5. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY THEIR FAILURE TO LOCATE, PRESERVE, AND PROTECT UNDER–GROUND, ABOVE–GROUND OR OVERHEAD UTILITES.
6. ONCOR SHALL BE NOTIFIED UPON COMPLETION OF WORK INCLUDED IN THE PROJECT SO POLES, WIRES, AND POWER CAN BE INSTALLED.
7. POWER SOURCES FOR THE EXISTING ILLUM SYSTEM ARE THE TRANSFORMER AT JEFFERSON ST & HIGHWAY 161 TO THE WEST (STA 22+56) AND JEFFERSON ST & SW 5TH ST TO THE EAST (STA 22+83).
8. LUMINAIRE EAST OF THE PROJECT LIMITS (STA 30+63) SHALL BE REMOVED & REINSTALLED BY CONTRACTOR.
9. ANY DEVIATION OR CHANGES SHALL BE COORDINATED AND APPROVED BY ONCOR AND CITY.
10. ONCOR PRE–CAST 12X12X12 CONNECTION BOX IS PAID FOR AS TXDOT TYPE A GROUND BOX.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
ILLUMINATION LAYOUTS 2 OF 3

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	74

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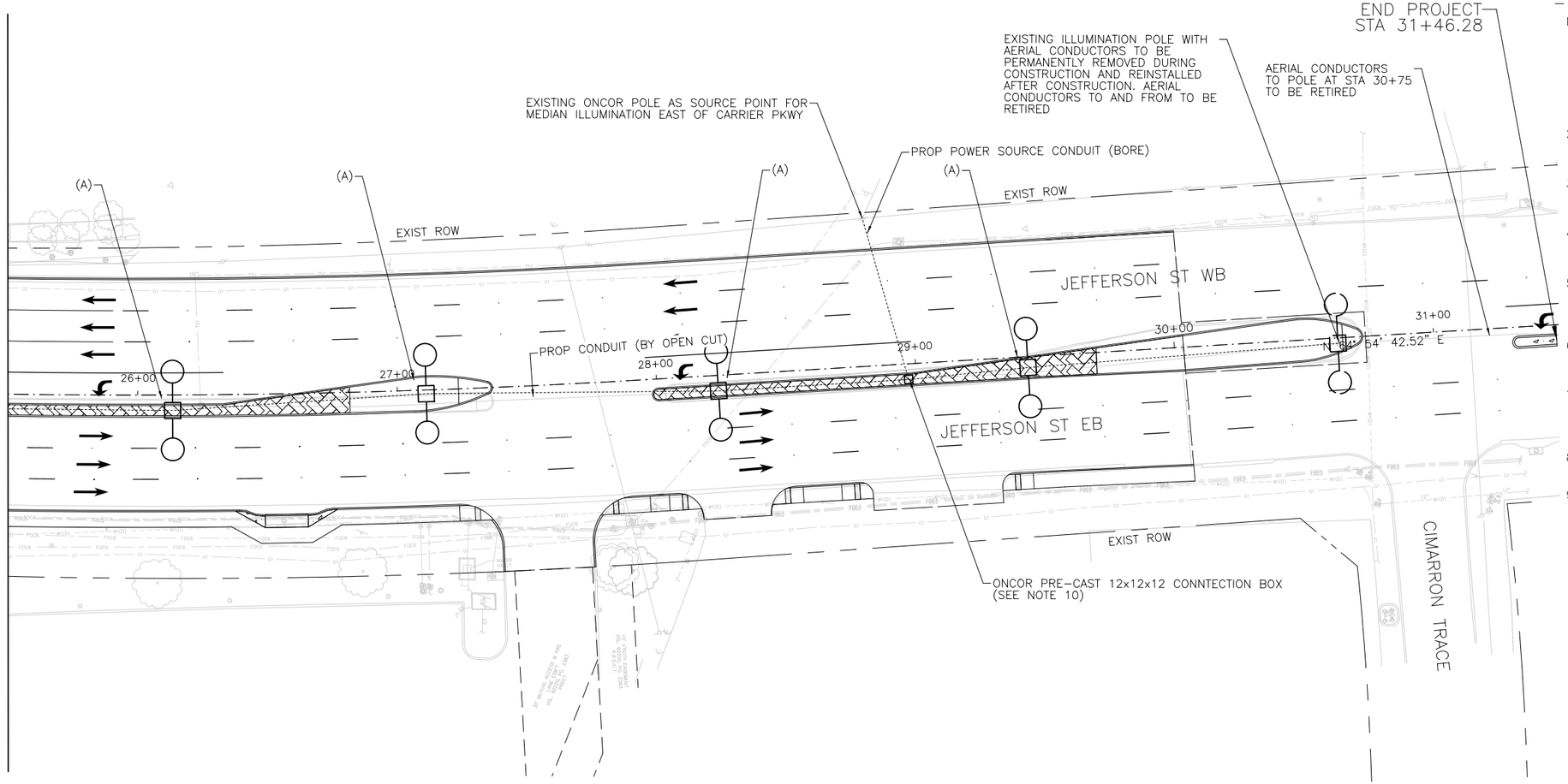

DESCRIPTION	UNIT	TOTAL
CONDT (PVC) (SCH40) (2") (BORE)	LF	66
CONDT (PVC) (SCH 40) (2")	LF	508
GROUND BOX TY A (122311)	EA	1
DRILL SHADT (RDWY ILL POLE) (24 IN)	LF	25
RELOCATE RD IL ASM (SHOE-BASE)	EA	1

NOTE: QUANTITIES TOTALS ARE FOR THIS SHEET ONLY

N

25 12.5 0 25 50

SCALE FEET

HORIZ.

LEGEND

(A) PERM. LUMINAIRES (5' DRILL SHAFT)

PROPOSED CONDUIT (SCH 40 PVC)

NOTES:

1. ONCOR ELECTRIC OWNS/OPERATES ILLUMINATION ALONG PROJECT SITE. FOUNDATIONS, CONDUITS AND PULL BOXES (GROUND BOXES) WILL BE INSTALLED WITH THIS PROJECT. ALL OTHER ILLUMINATION ITEMS WILL BE FURNISHED AND INSTALLED BY ONCOR. ALL ITEMS ARE TO BE INSTALLED PER ONCOR'S CLIENT INSTALLED CIVIL AGREEMENT.
2. DRILL SHAFTS SHALL ALL BE 5-FT DEPTH & ANCHOR BOLT PLACEMENT SHALL BE FOLLOW ONCOR DETAILS & CLIENT INSTALLED CIVIL AGREEMENT.
3. CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES IN FIELD PRIOR TO CONSTRUCTION AND INSTALLATION OF ANY ILLUMINATION ITEMS.
4. ANY UTILITES WITHIN A 5-FT RADIUS SHALL BE EXPOSED AND ADJUSTMENTS MADE PRIOR TO CONSTRUCTION OF PROPOSED DRILLED SHAFT FOUNDATIONS.
5. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY THEIR FAILURE TO LOCATE, PRESERVE, AND PROTECT UNDER-GROUND, ABOVE-GROUND OR OVERHEAD UTILITES.
6. ONCOR SHALL BE NOTIFIED UPON COMPLETION OF WORK INCLUDED IN THE PROJECT SO POLES, WIRES, AND POWER CAN BE INSTALLED.
7. POWER SOURCES FOR THE EXISTING ILLUM SYSTEM ARE THE TRANSFORMER AT JEFFERSON ST & HIGHWAY 161 TO THE WEST (STA 22+56) AND JEFFERSON ST & SW 5TH ST TO THE EAST (STA 22+83).
8. LUMINAIRE EAST OF THE PROJECT LIMITS (STA 30+63) SHALL BE REMOVED & REINSTALLED BY CONTRACTOR.
9. ANY DEVIATION OR CHANGES SHALL BE COORDINATED AND APPROVED BY ONCOR AND CITY.
10. ONCOR PRE-CAST 12X12X12 CONNECTION BOX IS PAID FOR AS TXDOT TYPE A GROUND BOX.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

NO.	REVISION	BY	DATE

CP&Y

TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
ILLUMINATION LAYOUTS 3 OF 3

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	-	-	75

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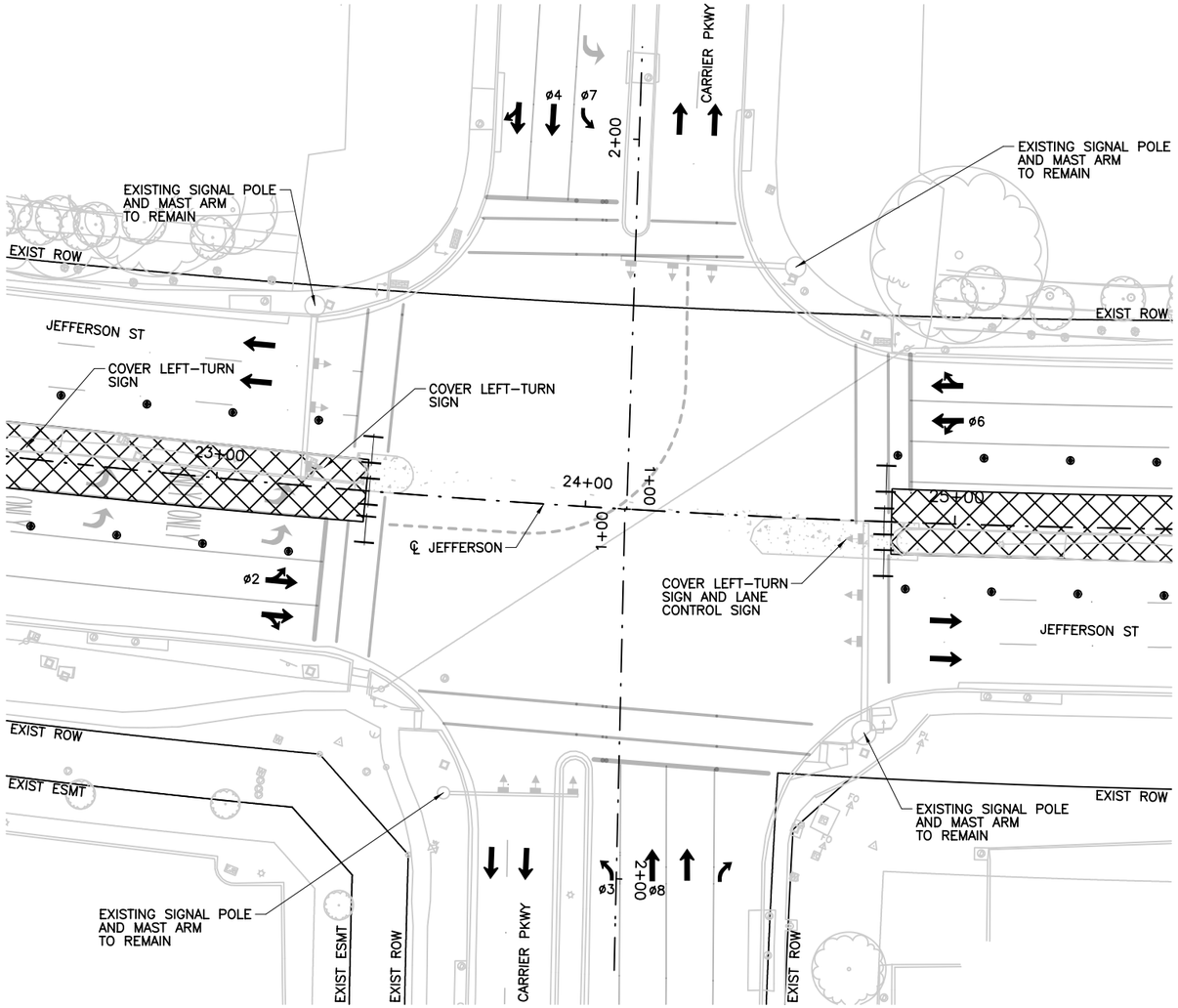

GENERAL TEMPORARY TRAFFIC SIGNAL NOTES:

1. ALL TEMPORARY TRAFFIC WORK SHALL BE COORDINATED DIRECTLY WITH THE CITY OF GRAND PRAIRIE. THE CONTRACTOR SHALL COORDINATE ALL SIGNAL WORK WITH THE ASSIGNED PROJECT INSPECTOR AND PETER JOYCE, TRAFFIC SIGNAL SPECIALIST, AT 972–237–8139 . THE CONTRACTOR MUST GIVE THE CITY AT LEAST 48–HOURS NOTICE PRIOR TO ANY SIGNAL WORK OR ADJUSTMENT.
2. THE CONTRACTOR SHALL UTILIZE, CONFIGURE, AND ADJUST EXISTING SIGNAL EQUIPMENT FOR TEMPORARY SIGNALIZATION THROUGH PHASED CONSTRUCTION AS SHOWN IN THESE PLANS. AT CONCLUSION OF THE PROJECT, THE SIGNAL SHALL BE RETURNED TO EXISTING CONDITION, AS APPROVED BY THE CITY. ALL ASSOCIATED WORK SHALL BE PAID FOR BY "TEMPORARY TRAFFIC SIGNALS," ONE (1) EACH.
3. IF NECESSARY FOR TEMPORARY OPERATION, THE CONTRACTOR SHALL SUPPLY, INSTALL, AND OPERATE SIGNAL EQUIPMENT TO SUPPLEMENT THE EXISTING SIGNALS. THIS EQUIPMENT SHALL REMAIN THE PROPERTY OF THE CONTRACTOR. ALL ASSOCIATED WORK SHALL BE PAID FOR BY "TEMPORARY TRAFFIC SIGNALS," ONE (1) EACH.
4. THE CONTRACTOR SHALL COVER–IN–PLACE ANY SIGNAL HEADS NOT REQUIRED FOR OPERATION IN EACH PHASE/STEP. IF NECESSARY, THE CONTRACTOR SHALL REMOVE, STOCKPILE, PROTECT, AND REINSTALL ANY SIGNAL EQUIPMENT THAT CANNOT REMAIN IN PLACE DURING OPERATION.
5. THE CONTRACTOR SHALL ADJUST SIGNAL HEAD LOCATIONS AND DIRECTIONS TO BE VISIBLE FROM TRAFFIC LANES SHOWN IN THESE PLANS.
6. THE CONTRACTOR SHALL ADJUST VIVDS DETECTION ZONES IN COORDINATION WITH THE CITY INSPECTOR AND TRAFFIC SIGNAL SPECIALIST.
7. THE CONTRACTOR SHALL COVER PEDESTRIAN PUSH BUTTONS AND SIGNAL HEADS FOR ANY PATH NOT USABLE DUE TO CONSTRUCTION AND PLACE R9–9 AT TOP OF RAMP TO DESIGNATE PATH CLOSED. (THIS IS SUBSIDIARY TO THE BARRICADES, SIGNS, AND TRAFFIC HANDLING BID ITEM).
8. THE CONTRACTOR SHALL VERIFY LOCATIONS AND DIMENSIONS OF PERMANENT AND TEMPORARY SIGNAL EQUIPMENT IN THE FIELD. LOCATIONS MAY BE ADJUSTED TO AVOID UTILITIES OR FIT FIELD CONDITIONS, AS APPROVED BY THE ENGINEER.

PHASE 1 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT–TURN SIGNS FOR JEFFERSON ST. APPROACHES.
3. MAINTAIN PEDESTRIAN CROSSINGS ON EAST AND SOUTH LEGS OF INTERSECTION.

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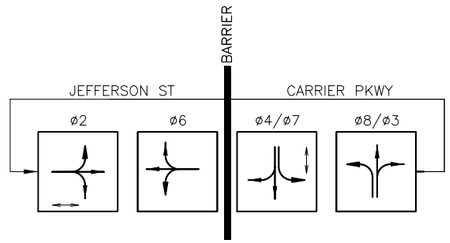
LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
- LUMINAIRE
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- (XX) RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 1

Grand Prairie TEXAS

Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	X	TEXAS					
Drawn:	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.		SHEET NO.
Checked:							76

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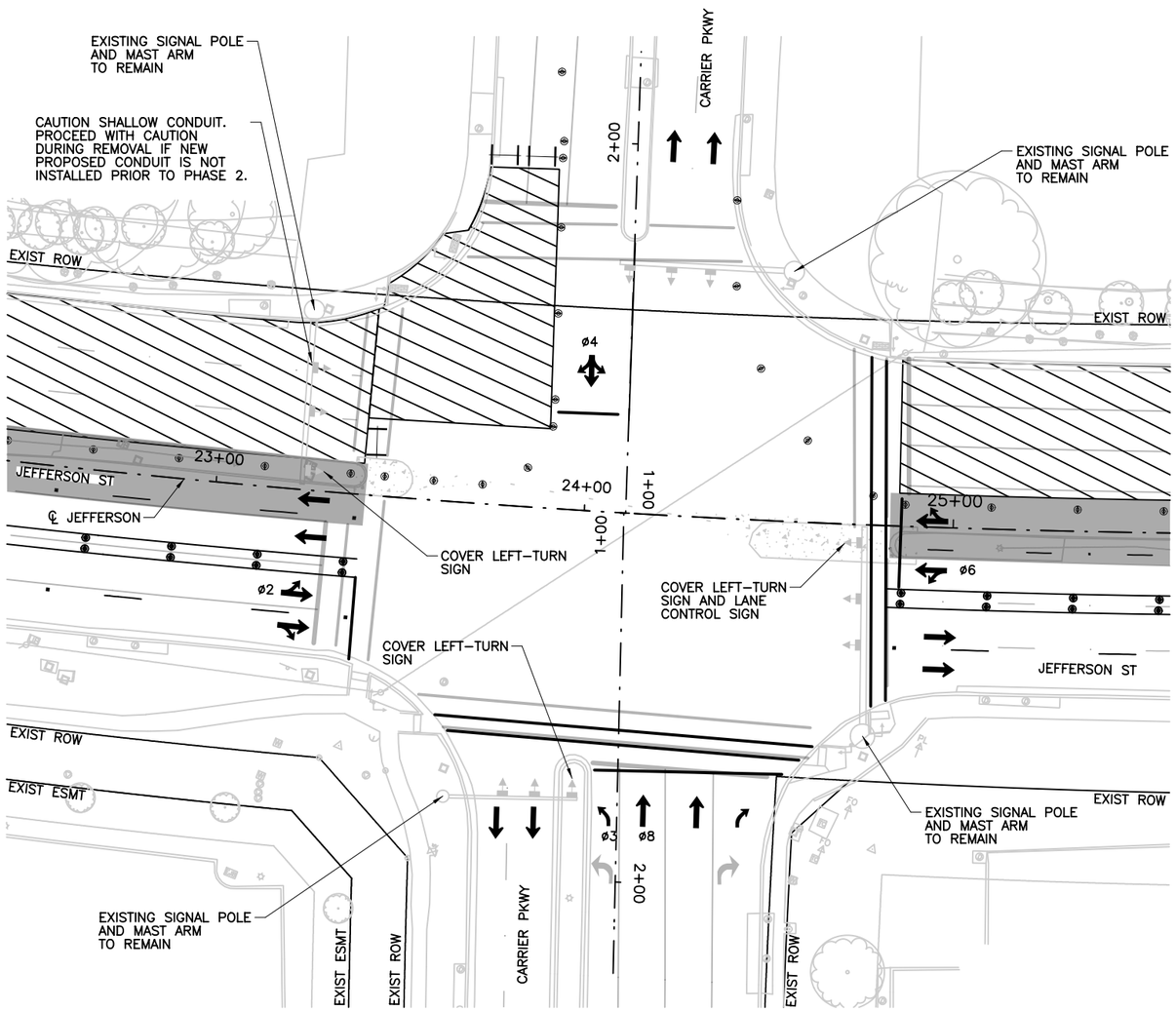


FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

PHASE 2 STEP 1 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT–TURN SIGNS FOR JEFFERSON ST. AND SOUTHBOUND CARRIER PKWY. APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES,
4. MAINTAIN PEDESTRIAN CROSSINGS ON EAST AND SOUTH LEGS OF INTERSECTION.

25 12.5 0 25 50
SCALE FEET

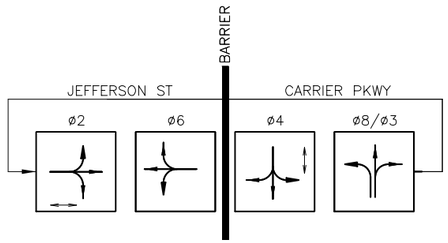
N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
- LUMINAIRE
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- XX RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 2 S1

GRand PRaiRie TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.		SHEET NO.
Checked:	CPY							77

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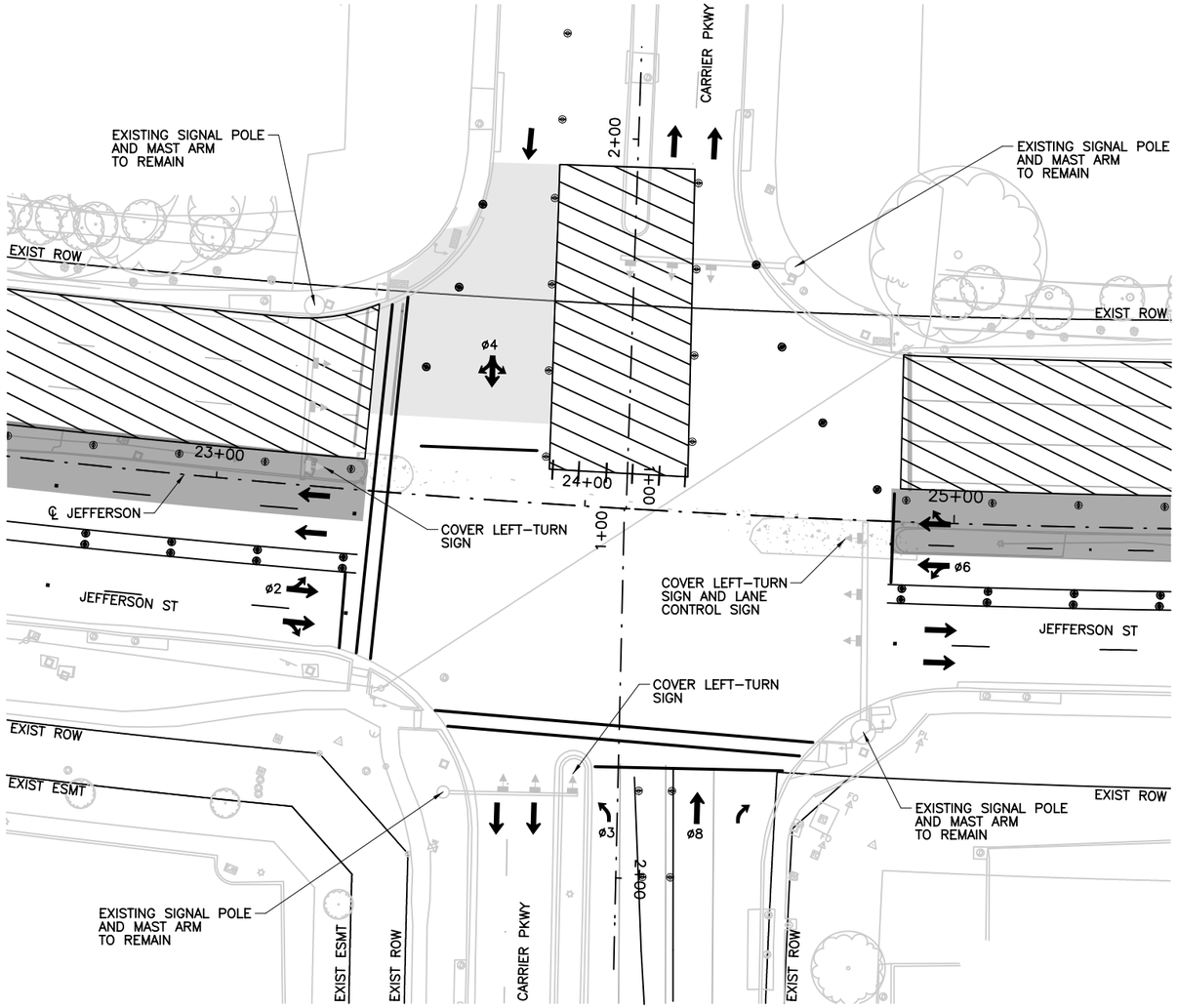


FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

PHASE 2 STEP 2 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT–TURN SIGNS FOR JEFFERSON ST. AND SOUTHBOUND CARRIER PKWY. APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES.
4. MAINTAIN PEDESTRIAN CROSSINGS ON WEST AND SOUTH LEGS OF INTERSECTION.

25 12.5 0 25 50
SCALE FEET

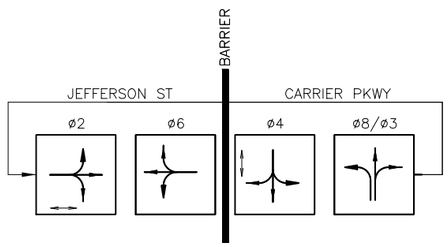
N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
- LUMINAIRE
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- (XX) RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 2 S2

GRand PRAIRIE TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.		SHEET NO.
Checked:	CPY							78

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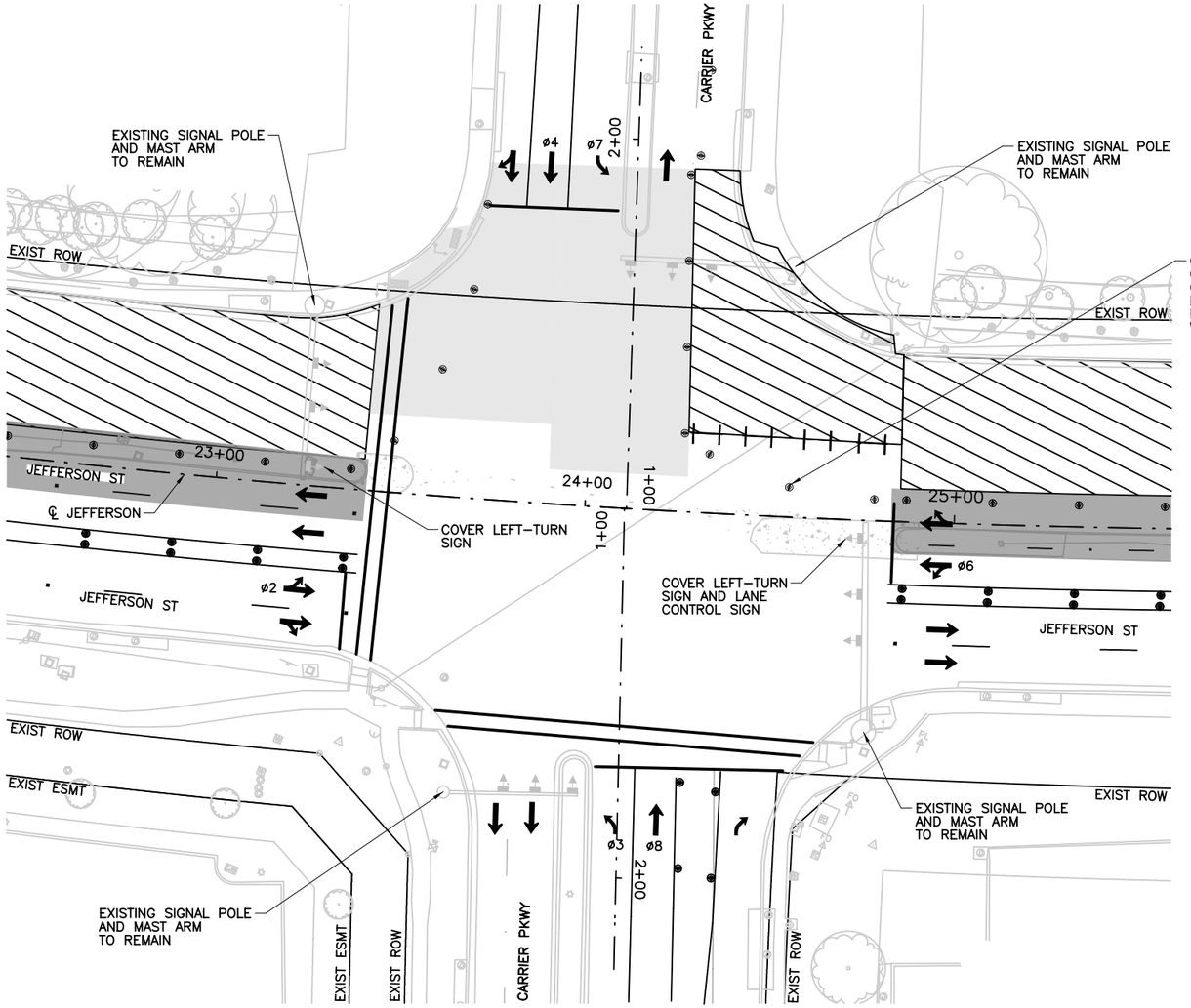


FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

THE CONTRACTOR SHALL ADJUST CHANNELIZING DEVICES TO OPTIMIZE WB RT MOVEMENT RADIUS EXCEPT WHEN NECESSARY FOR CONSTRUCTION.

PHASE 2 STEP 3 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT–TURN SIGNS FOR JEFFERSON ST. APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES.
4. MAINTAIN PEDESTRIAN CROSSINGS ON WEST AND SOUTH LEGS OF INTERSECTION.

25 12.5 0 25 50
SCALE FEET

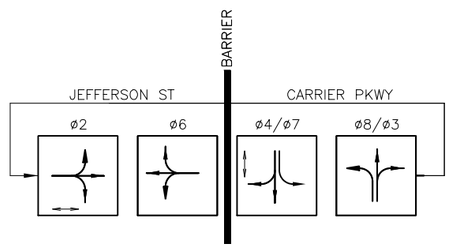
N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
- LUMINAIRE
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- (XX) RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 2 S3

GRAND PRAIRIE TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.		SHEET NO.
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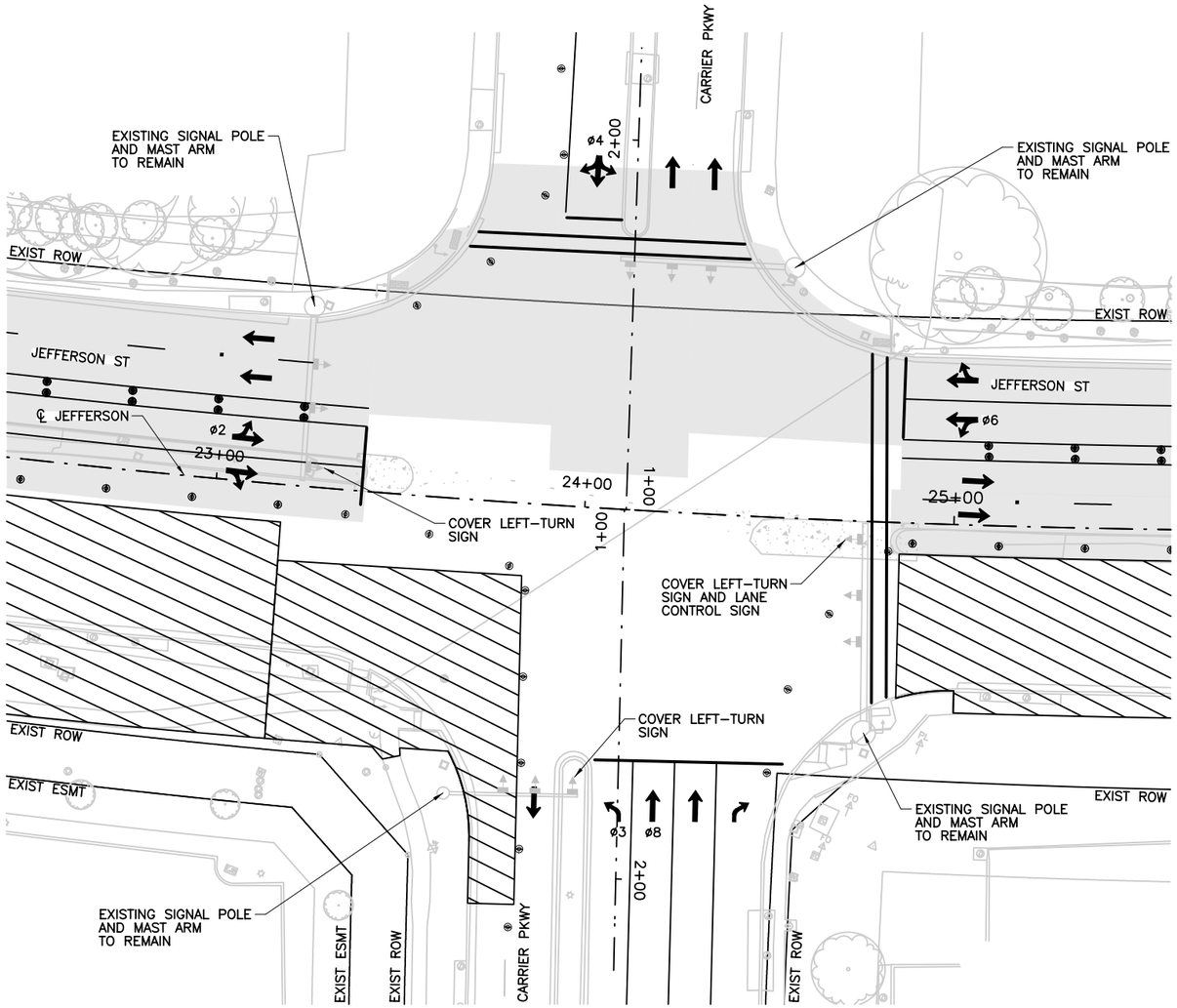


FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

THE CONTRACTOR SHALL ADJUST CHANNELIZING DEVICES TO OPTIMIZE EB RT MOVEMENT RADIUS EXCEPT WHEN NECESSARY FOR CONSTRUCTION.

PHASE 3 STEP 1 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT–TURN SIGNS FOR JEFFERSON ST. AND SOUTHBOUND CARRIER PKWY. APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES.
4. MAINTAIN PEDESTRIAN CROSSINGS ON EAST AND NORTH LEGS OF INTERSECTION.

25 12.5 0 25 50
SCALE FEET

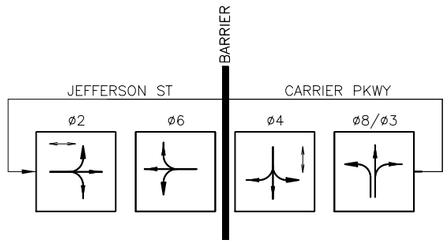
N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
- LUMINAIRE
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- (XX) RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 3 S1

Grand Prairie TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY		CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
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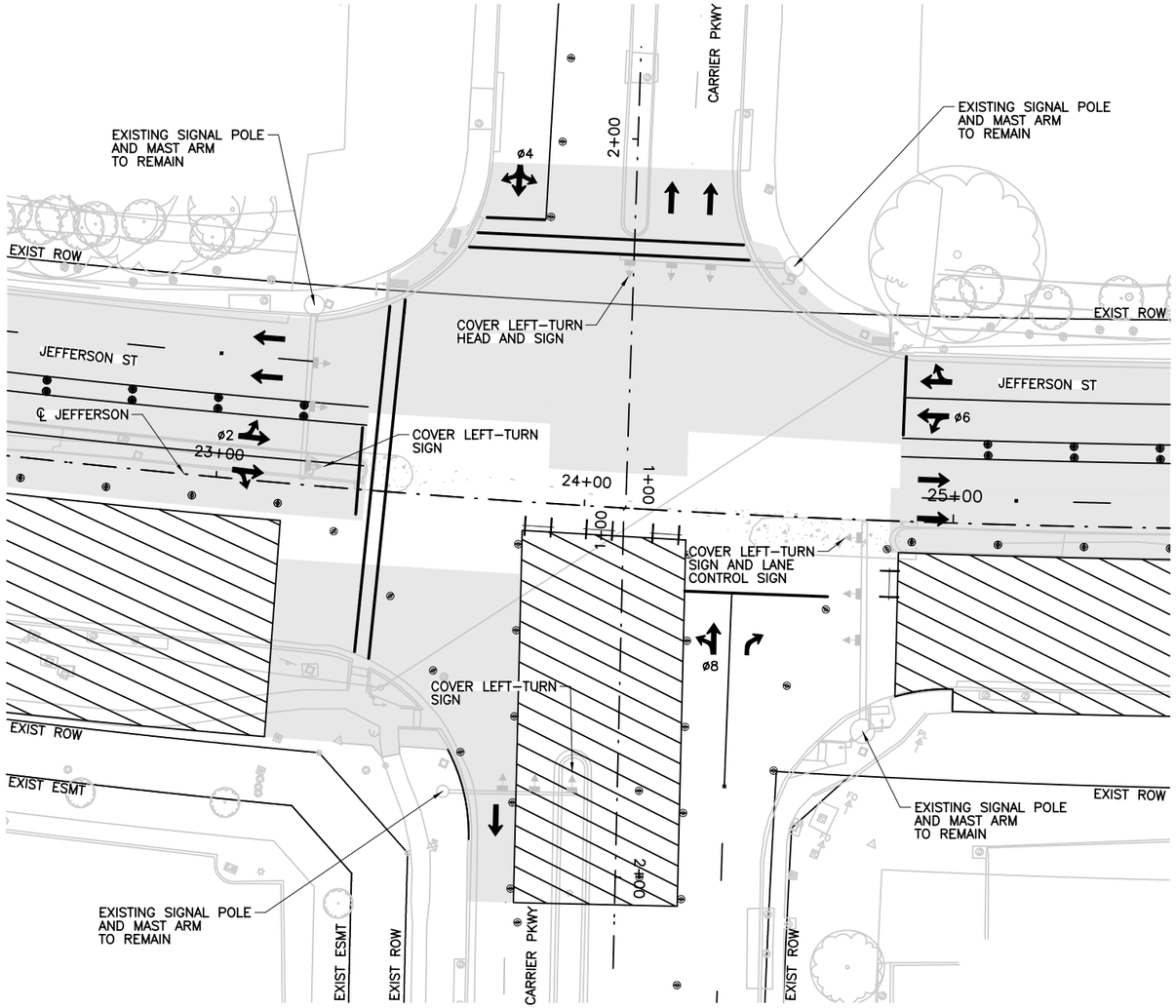

FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

PHASE 3 STEP 2 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT–TURN SIGNS FOR ALL APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES.
4. MAINTAIN PEDESTRIAN CROSSINGS ON WEST AND NORTH LEGS OF INTERSECTION.

25 12.5 0 25 50

SCALE FEET

N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
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- CONDUIT
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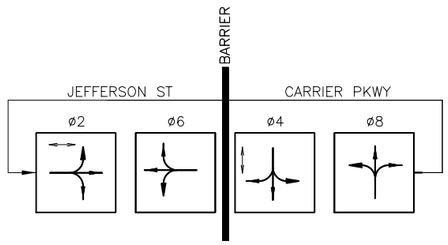
- (XX) RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 3 S2

Grand Prairie TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.		SHEET NO.
Checked:	CPY							81

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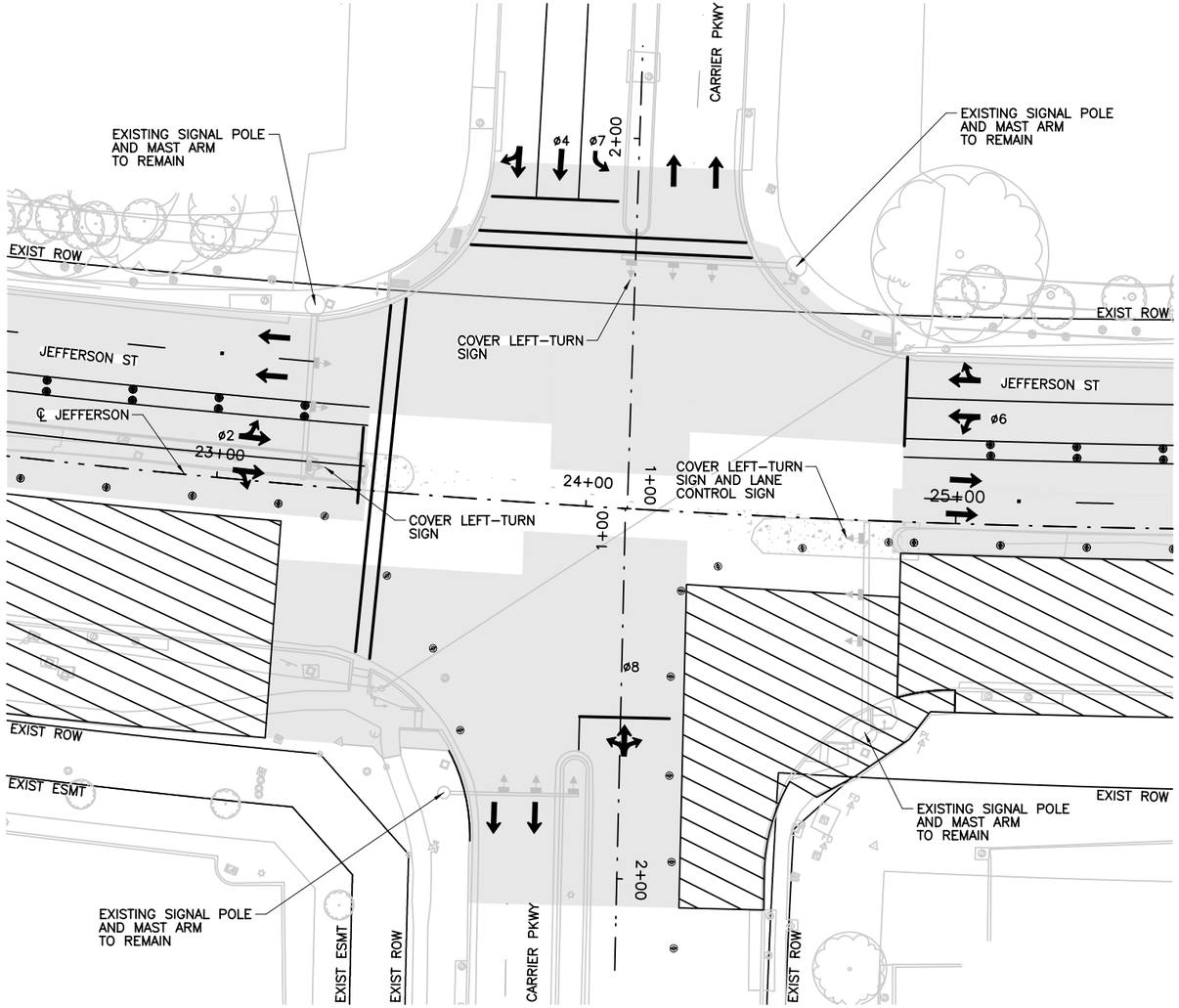


FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

PHASE 3 STEP 3 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT-TURN SIGNS FOR JEFFERSON ST. AND NORTHBOUND CARRIER PKWY. APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES.
4. MAINTAIN PEDESTRIAN CROSSINGS ON WEST AND NORTH LEGS OF INTERSECTION.

25 12.5 0 25 50
SCALE FEET

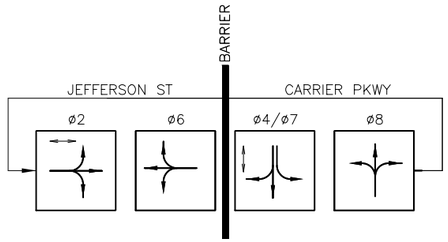
N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
- LUMINAIRE
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- (XX) RUN IDENTIFIER
- X-X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 3 S3

Grand Prairie TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY		CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
Checked:	CPY							82

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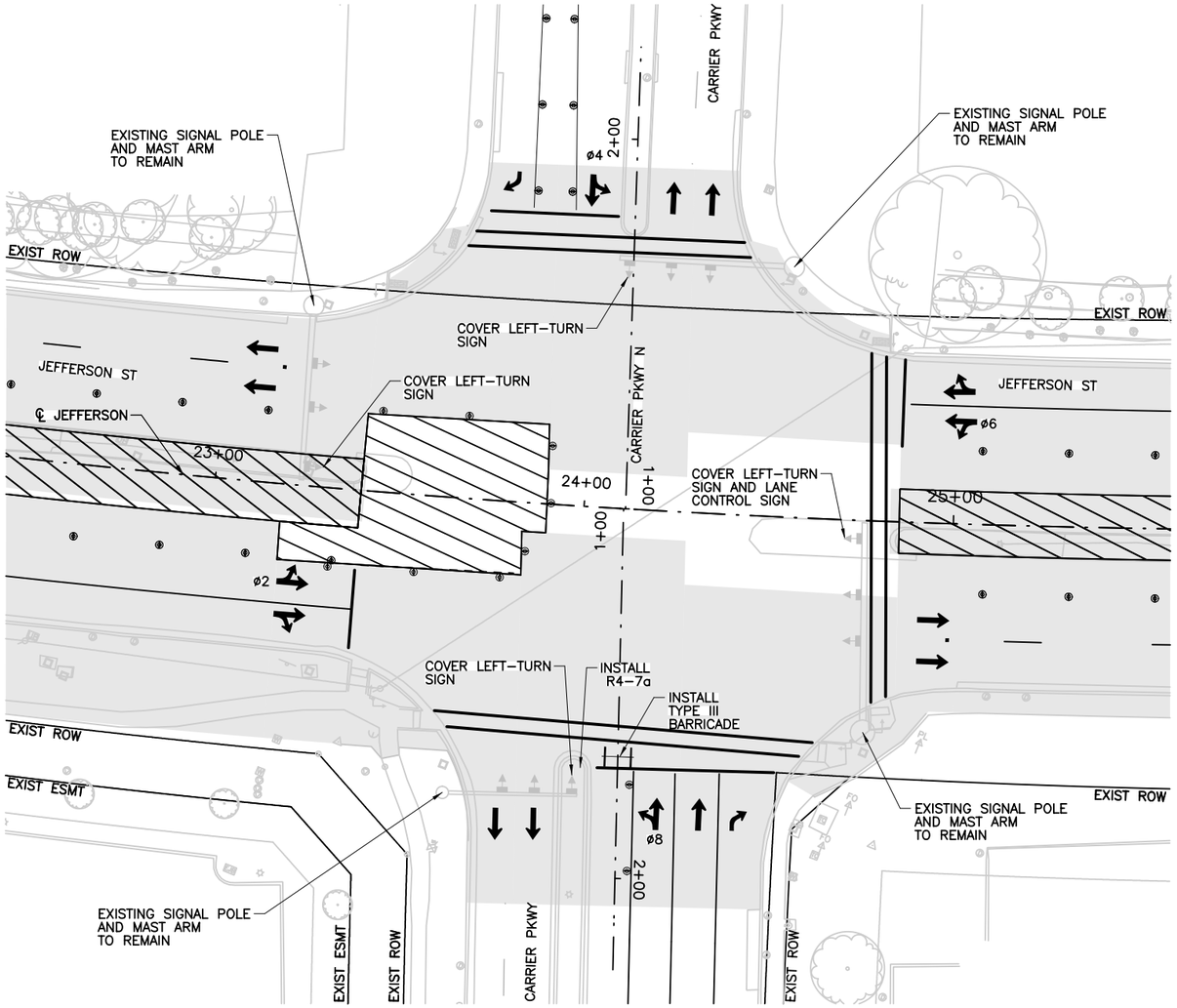


FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

THE CONTRACTOR SHALL ADJUST CHANNELIZING DEVICES TO OPTIMIZE SB THRU MOVEMENT PATH EXCEPT WHEN NECESSARY FOR CONSTRUCTION.

PHASE 4 STEP 1 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT-TURN SIGNS FOR ALL APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES.
4. MAINTAIN PEDESTRIAN CROSSINGS ON NORTH, EAST, AND SOUTH LEGS OF INTERSECTION.

25 12.5 0 25 50
SCALE FEET

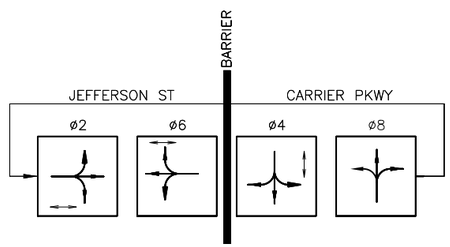
N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
- LUMINAIRE
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- (XX) RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 4 S1

Grand Prairie TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY		CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
Checked:	CPY							83

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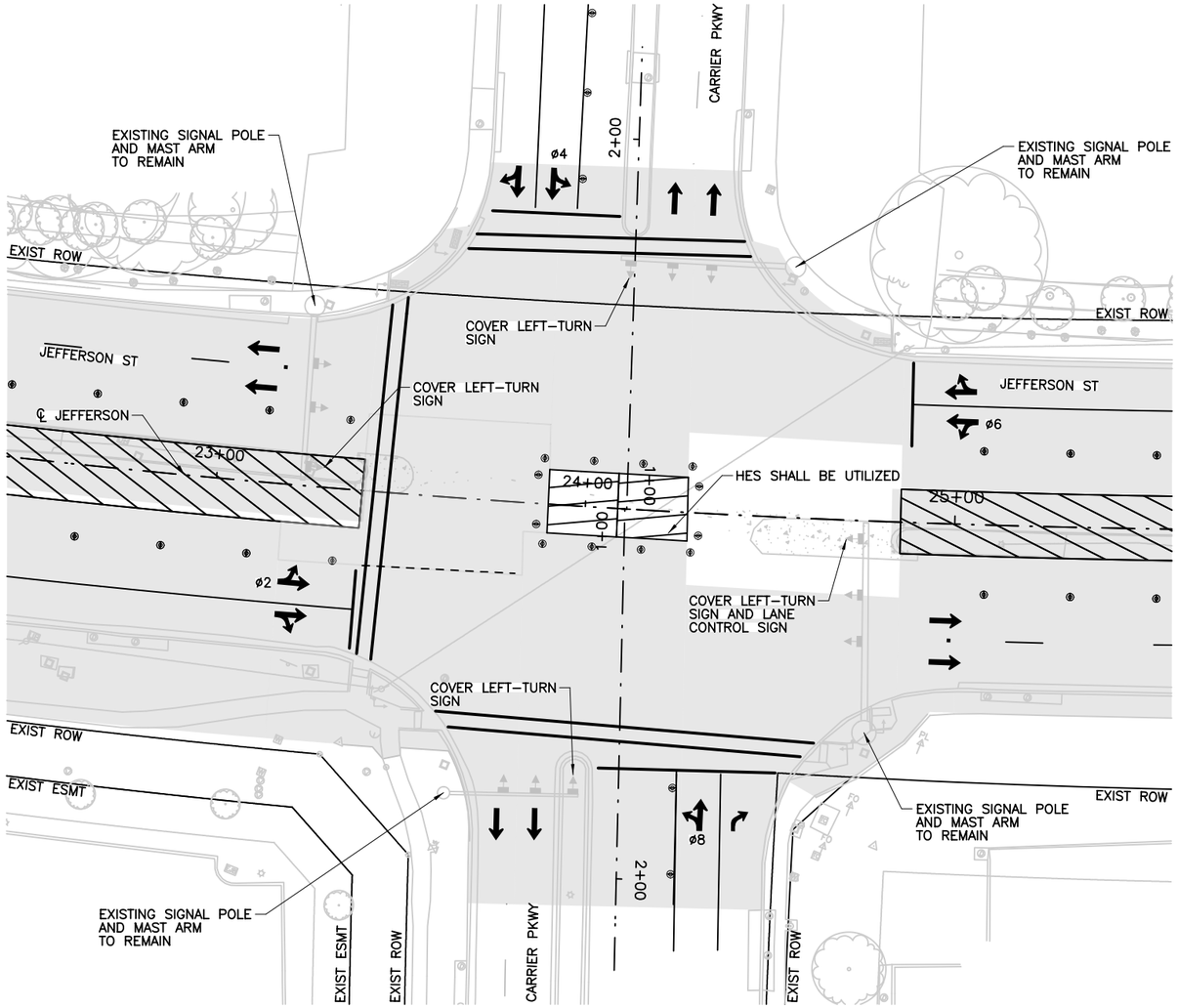

FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

SEE TCP LAYOUT SHEET FOR ADDITIONAL NOTES ABOUT WORK IN CENTER OF INTERSECTION.

PHASE 4 STEP 2 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT–TURN SIGNS FOR ALL APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES.
4. MAINTAIN PEDESTRIAN CROSSINGS ON WEST, NORTH, AND SOUTH LEGS OF INTERSECTION.

25 12.5 0 25 50
SCALE FEET

N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
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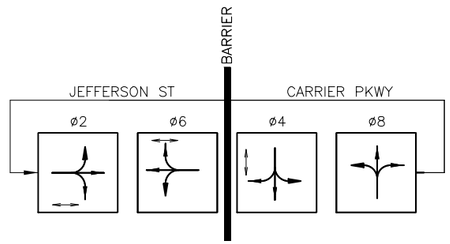
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- XX RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 4 S2

GRAND PRAIRIE TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.		SHEET NO.
Checked:	CPY							84

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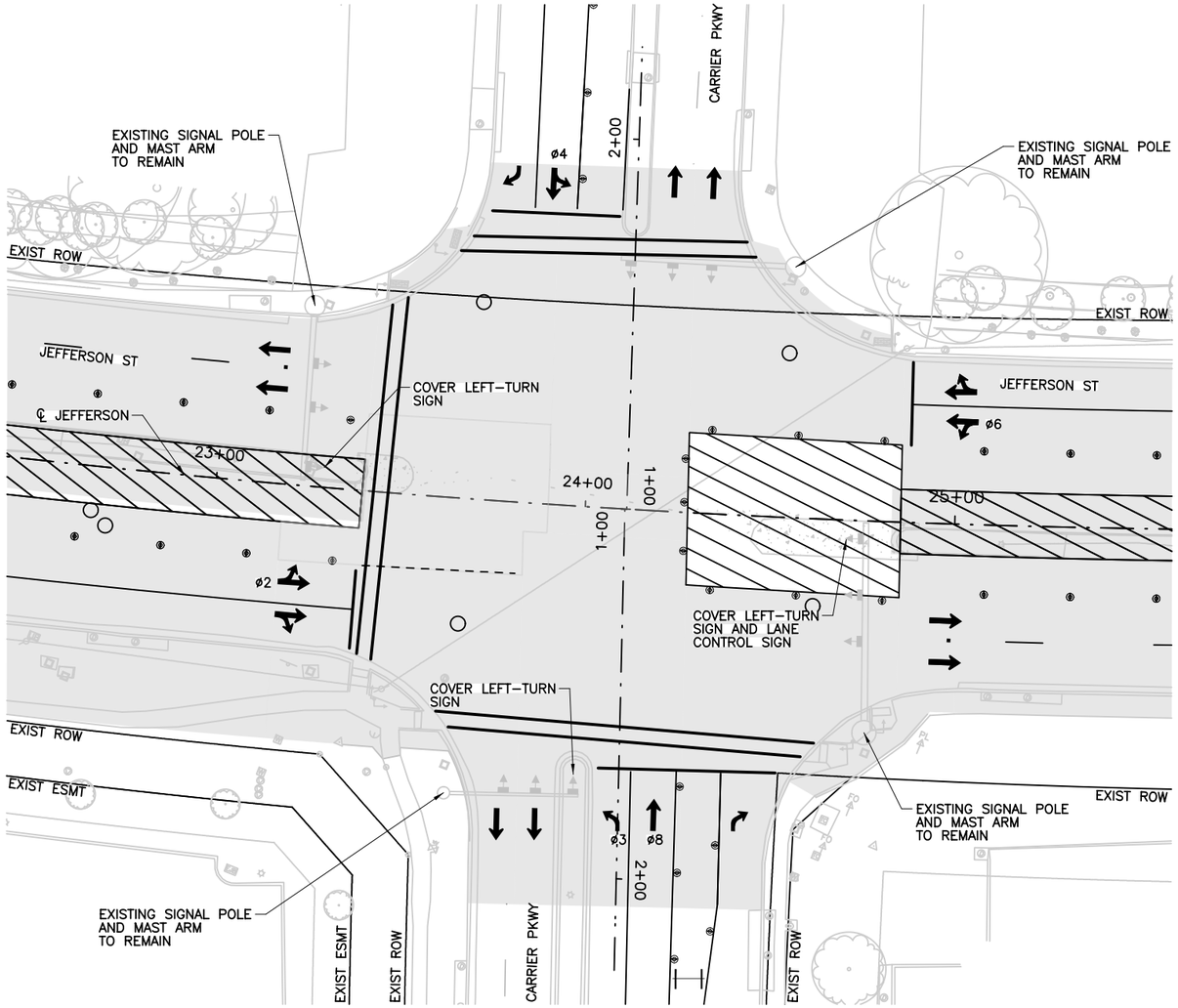


FOR GENERAL TEMPORARY TRAFFIC SIGNAL NOTES, SEE TEMPORARY SIGNAL LAYOUT PHASE 1.

PHASE 4 STEP 3 TEMPORARY SIGNAL NOTES:

1. SPLIT PHASING SHALL BE USED FOR JEFFERSON ST. AND CARRIER PKWY. APPROACHES.
2. COVER LEFT–TURN SIGNS FOR JEFFERSON ST. AND SOUTHBOUND CARRIER PKWY. APPROACHES.
3. ADJUST SIGNAL HEADS AS REQUIRED FOR VISIBILITY FROM ALL TRAVEL LANES.
4. MAINTAIN PEDESTRIAN CROSSINGS ON WEST, NORTH, AND SOUTH LEGS OF INTERSECTION.

25 12.5 0 25 50

SCALE FEET

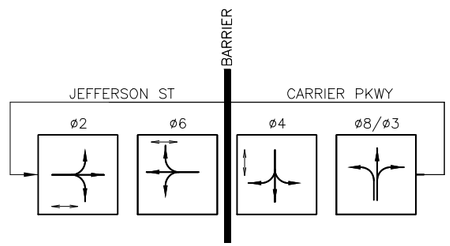
N

LEGEND

- EXISTING PAVEMENT
- CONSTRUCTION THIS PHASE AND STAGE
- CONSTRUCTION PREVIOUS PHASE OR STAGE
- REMOVE EXISTING MEDIANS
- TEMPORARY PAVEMENT PREV PHASE
- CONSTRUCTION THIS PHASE AND STAGE (HIGH EARLY STRENGTH CONCRETE)

LEGEND

- SIGNAL CONTROLLER
- SERVICE METER
- SERVICE CONNECTION
- SIGNAL POLE AND MAST ARM
- PEDESTRIAN POLE
- SIGNAL HEAD (EXISTING) TO REMAIN
- PEDESTRIAN PUSH BUTTON
- VIDEO DETECTION CAMERA
- GROUND BOX
- SIGN
- LUMINAIRE
- PREEMPTION SENSOR
- CONDUIT
- XX SIGNAL HEAD IDENTIFIER
- XX RUN IDENTIFIER
- X–X DETECTION IDENTIFIER
- EXIST. SIGNAL POLE AND MAST ARM
- EXIST. SIGNAL HEAD
- EXIST. PEDESTRIAN PUSH BUTTON
- EXIST. SIGNAL CONTROLLER
- EXIST. GROUND BOX
- EXIST. LUMINAIRE
- EXIST. CONDUIT
- EXIST. SIGN
- EXIST. SERVICE CONNECTION
- EXIST. SERVICE METER
- OE EXIST. OVERHEAD ELECTRIC
- TRAFFIC FLOW DIRECTION



TEMPORARY PHASE DIAGRAM

- PROTECTED MOVEMENT
- PERMITTED MOVEMENT
- PEDESTRIAN MOVEMENT

STATE OF TEXAS
ZACH STONE
132197
PROFESSIONAL ENGINEER
07/24/25

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
TEMPORARY SIGNAL LAYOUT PHASE 4 S3

Grand Prairie TEXAS

Designed:	CPY	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.				HIGHWAY NO.
Checked:	CPY	X	TEXAS					
Drawn:	CPY	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.		SHEET NO.
Checked:	CPY							85

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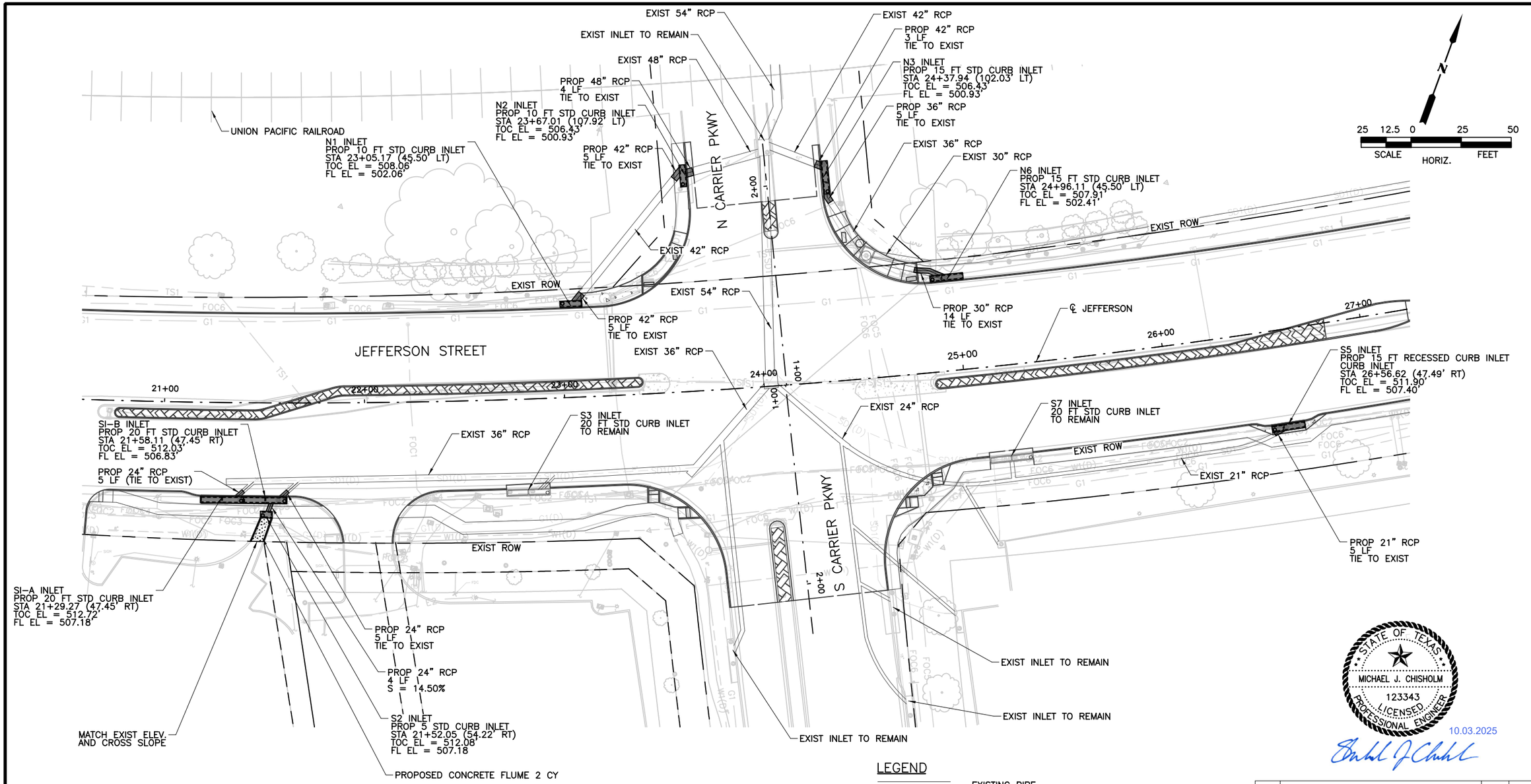

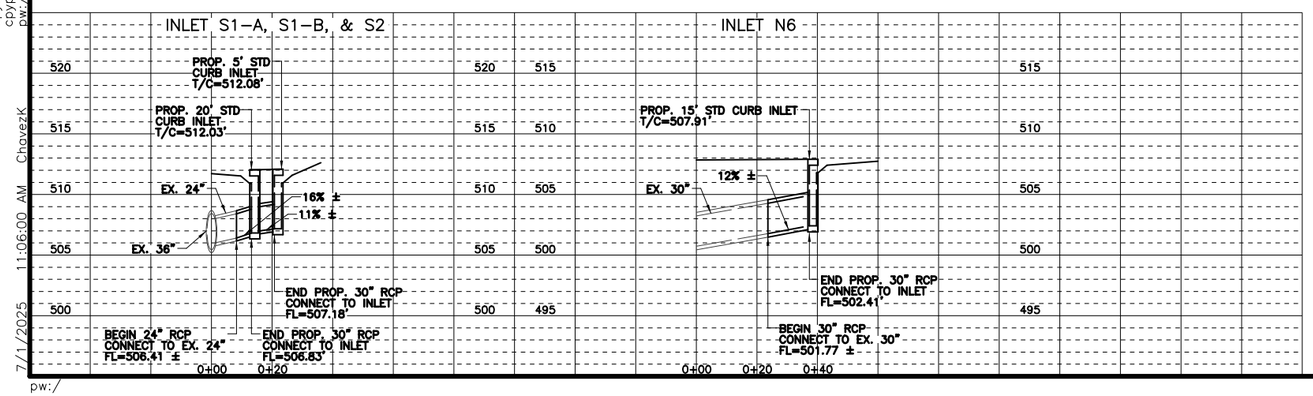

LEGEND

EXISTING PIPE
PROPOSED PIPE
PROPOSED INLET

NOTES

1. LOCATION AND DEPTH OF EXISTING STORM DRAIN PIPES IS APPROXIMATE. CONTRACTOR TO VERIFY EXACT LOCATION AND FLOWLINE BEFORE TYING TO IT.
2. ALL STATIONS AND OFFSETS ARE BASED ON CL JEFFERSON.
3. CONCRETE COLLARS SHALL BE CONSTRUCTED AT ALL PROPOSED PIPE TO EXISTING CONCRETE PIPE CONNECTIONS, AT ALL CONCRETE PIPE SIZE CHANGES, AT ALL CONCRETE PIPE PVI'S AND AT ALL CONCRETE PIPE JOINTS WITH MORE THAN HALF PIPE TONGUE EXPOSURE.
4. FACTORY FABRICATED 15 DEGREE, 30 DEGREE, 45 DEGREE, OR 60 DEGREE BENDS SHALL BE REQUIRED FOR ALL PROPOSED PIPE BENDS.
5. ANY ADDITIONAL PIPE NEEDED TO MAKE CONNECTIONS, BEYOND WHAT IS SHOWN, SHALL BE CONSIDERED INCIDENTAL TO THE COST OF STORM DRAIN ITEMS

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
PROPOSED DRAINAGE LAYOUT

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	86

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Notes To Designer:
1. Do not alter Sheet Design or Font style, size or weight - match text attributes.
2. If additional space is needed for a numbered section, fence and adjust sections up or down as needed for proportioning and readability but do not relocate from its relative position.
3. All areas should be addressed thoroughly and verify the necessary pay items are set up to support actions needed.

Filled Out: XX/XX/XXXX
Prepared by: Name/Section

I. STORMWATER POLLUTION PREVENTION PLAN-CLEAN WATER ACT SECTION 402

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

List adjacent MS 4 Operator(s) that receive discharges from this project. They need to be notified prior to construction activities.
(Note: Leave blank only if no adjacent MS 4 Operator(s) are affected.)

1. CITY OF GRAND PRAIRIE - PHASE II MS4 - CONTACT CINDY MENDEZ

☐ No Action Required ☒ Required Action

Action Number:

1. Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000.
2. Comply with the SW3P and revise when necessary to control pollution or required by the Engineer.
3. Post Construction Site Notice (CSN) with SW3P information on or near the site, accessible to the public and TCEQ, EPA or other inspectors.
4. When Contractor project specific locations (PSL's) increase disturbed soil area to 5 acres or more, submit NOI to TCEQ and the Engineer.

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

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas. No equipment is allowed in any sream channel below the ordinary High Water Mark except on approved temporary stream crossings or drill pads.

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

☒ No Permit Required

☐ Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)

☐ Nationwide Permit 14 - PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)

☐ Individual 404 Permit Required

☐ Other Nationwide Permit Required: NWP# 3(a)

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

1.

2.

3.

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

Best Management Practices for applicable 401 General Conditions:
(Note: If CORP Permit not required, do not check boxes.)

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

III. CULTURAL RESOURCES

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

☒ No Action Required ☐ Required Action

Action Number:

1.

IV. VEGETATION RESOURCES

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

☒ No Action Required ☐ Required Action

Action Number:

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

☐ No Action Required ☒ Required Action

Action Number:

1. Follow Special Notes.

Special Notes:

1. Avoid harming all wildlife species if encountered and allow them to safely leave the project site. Due diligence should be used to avoid killing or harming any wildlife species in the implementation of transportation projects.
2. If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediated area, and contact the Engineer immediately.
3. The Migratory Bird Act of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade or transport any migratory bird, nest, young, feather or egg in part or in whole, without a federal permit issued in accordance within the Act's policies and regulations. The contractor would remove all old migratory bird nests from any structure or trees where work would be done from October 1 to February 15. In addition, the contractor would be prepared to prevent migratory birds from building nest(s) between February 15 to October 1. In the event that migratory birds are encountered on-site during project construction, efforts to avoid adverse impacts on protected birds, active nests, eggs and/or young would be observed.

LIST OF ABBREVIATIONS

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

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

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

Obtain and keep on-site Safety Data Sheets (SDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act. Maintain an adequate supply of on-site spill response materials, as indicated in the SDS. In the event of a spill, take actions to mitigate the spill as indicated in the SDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the following are detected:
* Dead or distressed vegetation (not identified as normal)
* Trash piles, drums, canisters, barrels, etc.
* Undesirable smells or odors
* Evidence of leaching or seepage of substances

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

☐ Yes ☒ No

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

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

☐ Yes ☒ No

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

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

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

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

☒ No Action Required ☐ Required Action

Action Number:

1.

2.

3.

VII. OTHER ENVIRONMENTAL ISSUES

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

☒ No Action Required ☐ Required Action

Action Number:

1.

GENERAL NOTE:

Any change orders and/or deviations from the final design must be reported to the Engineer prior to commencement of construction activities, as additional environmental clearance may be required.

LAST REVISION: 1/15/15

 Texas Department of Transportation
Dallas District

ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS (EPIC)

FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
6	SEE TITLE SHEET		Jefferson Street
STATE	DISTRICT	COUNTY	
TEXAS	DALLAS	DALLAS	
CONTROL	SECTION	JOB	SHEET NO.
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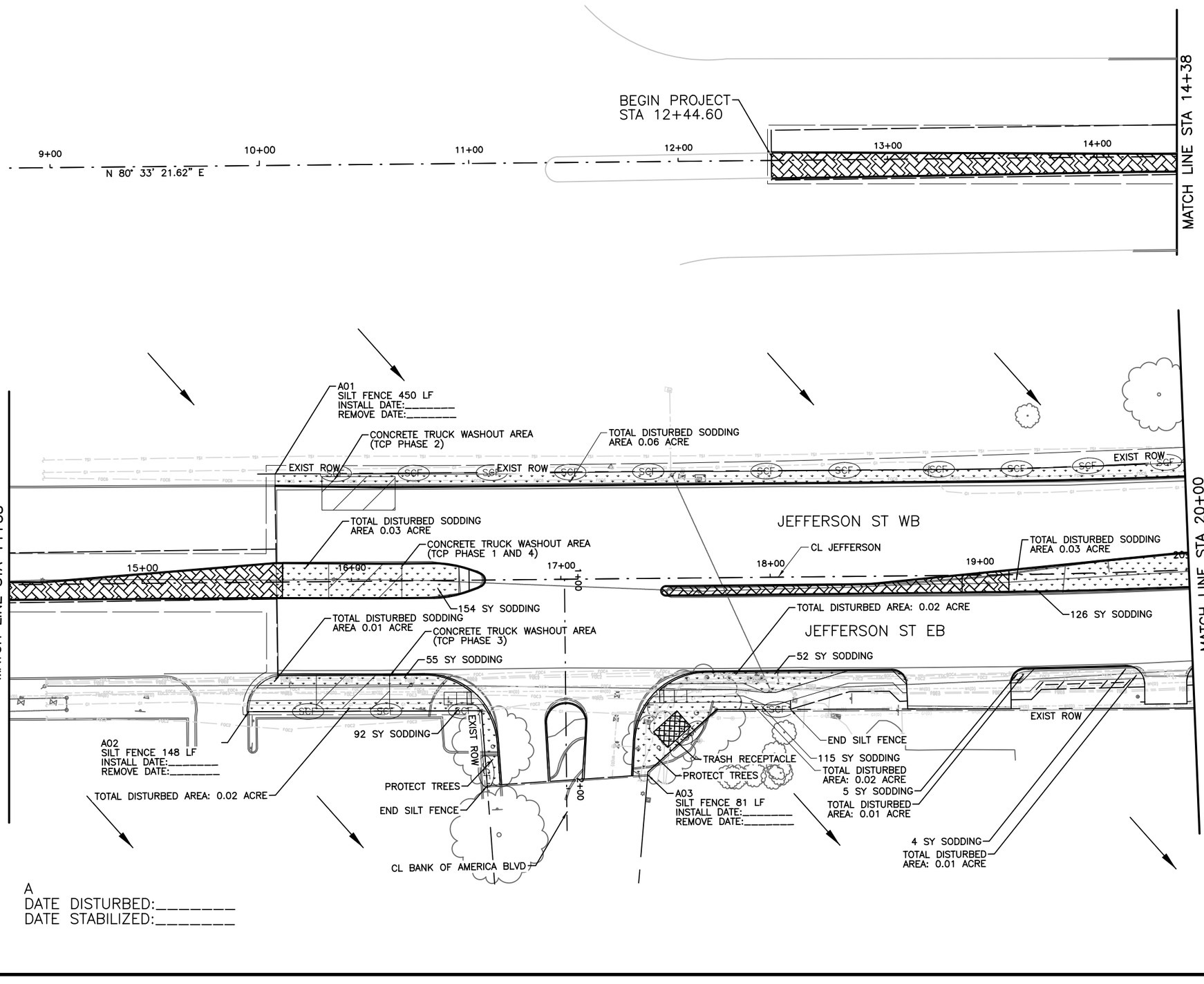
TOTAL DISTURBED AREA (THIS PROJECT) = 0.62 AC



A
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DATE STABILIZED:_____

N

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SCALE HORIZ. FEET

LEGEND

- BERMUDA GRASS SODDING
- FLOW DIRECTION
- SFC — SEDIMENT CONTROL FENCE
- EROSION CONTROL LOG FOR INLET
- TOTAL DISTURBED AREA

NOTES:

1. LOCATIONS OF SILT FENCES AND CONSTRUCTION EXITS SHOWN TO BE APPROXIMATE. THE CONTRACTOR SHALL ADJUST TO ACCOMODATE CONSTRUCTION.
2. STREET MUST BE SWEPT ON A REGULAR BASIS FOR PUBLIC SAFETY.
3. INLET PROTECTION NEEDS TO BE PLACED ON CURB LINE AS SOON AS CURB HAS BEEN BACK FILLED TO PREVENT SILT RUN OFF.
4. ALL STAGING AREAS WILL NEED TO BE RE-VEGETATED BEFORE NOT CAN BE FILED.
5. IF ANY EXISTING STORM NEEDS TO BE CLEANED NOTIFY S.W. ASAP. WE NEED TIME TO SCHEDULE A CONTRACTOR TO PERFORM THIS TASK.
6. CONTRACTOR SHALL POLICE SITE REGULARLY AND KEEP SITE FREE OF TRASH AND CONSTRUCTION DEBREE.
7. ALL EROSION CONTROL DEVICES SHALL BE CONSTRUCTED AND MAINTAINED IN COMPLIANCE WITH CITY STANDARD EROSION CONTROL CONSTRUCTION DETAILS SHEETS ATTACHED TO THESE PLANS.
8. CONTRACTOR SHALL KEEP MUD AND SEDIMENT OUT OF THE PARKING LOT, STREETS AND DRAINAGE WAYS.
9. ALL BMPS SHALL BE REMOVED AND THE GROUND RESTORED AFTER THE SITE DISTURBED AREAS ARE 80% STABILIZED OR MORE.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
EROSION CONTROL

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
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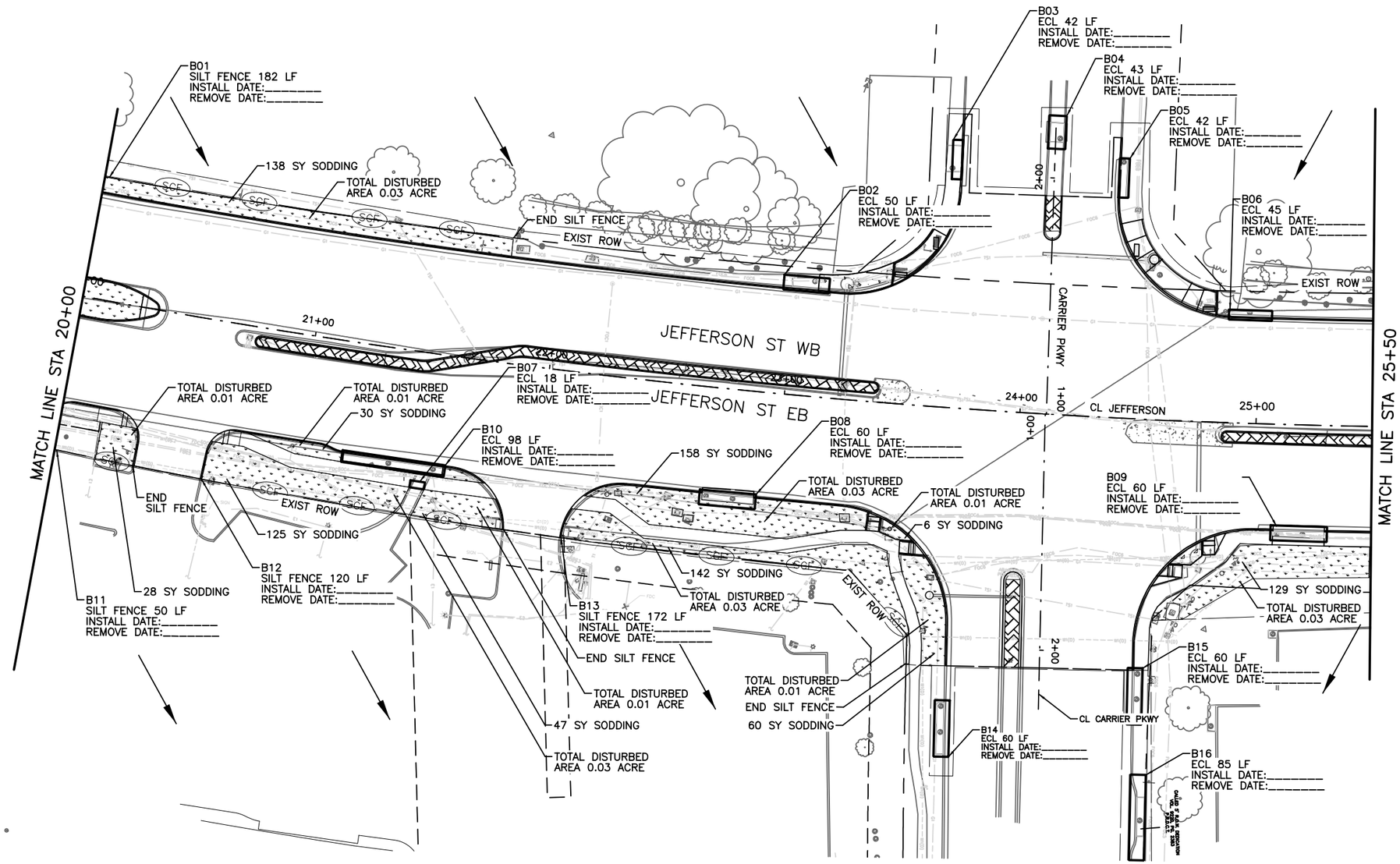

B
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DATE STABILIZED:_____

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SCALE HORIZ. FEET

LEGEND

- BERMUDA GRASS SODDING
- FLOW DIRECTION
- SFC — SEDIMENT CONTROL FENCE
- EROSION CONTROL LOG FOR INLET
- TOTAL DISTURBED AREA

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STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
EROSION CONTROL

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
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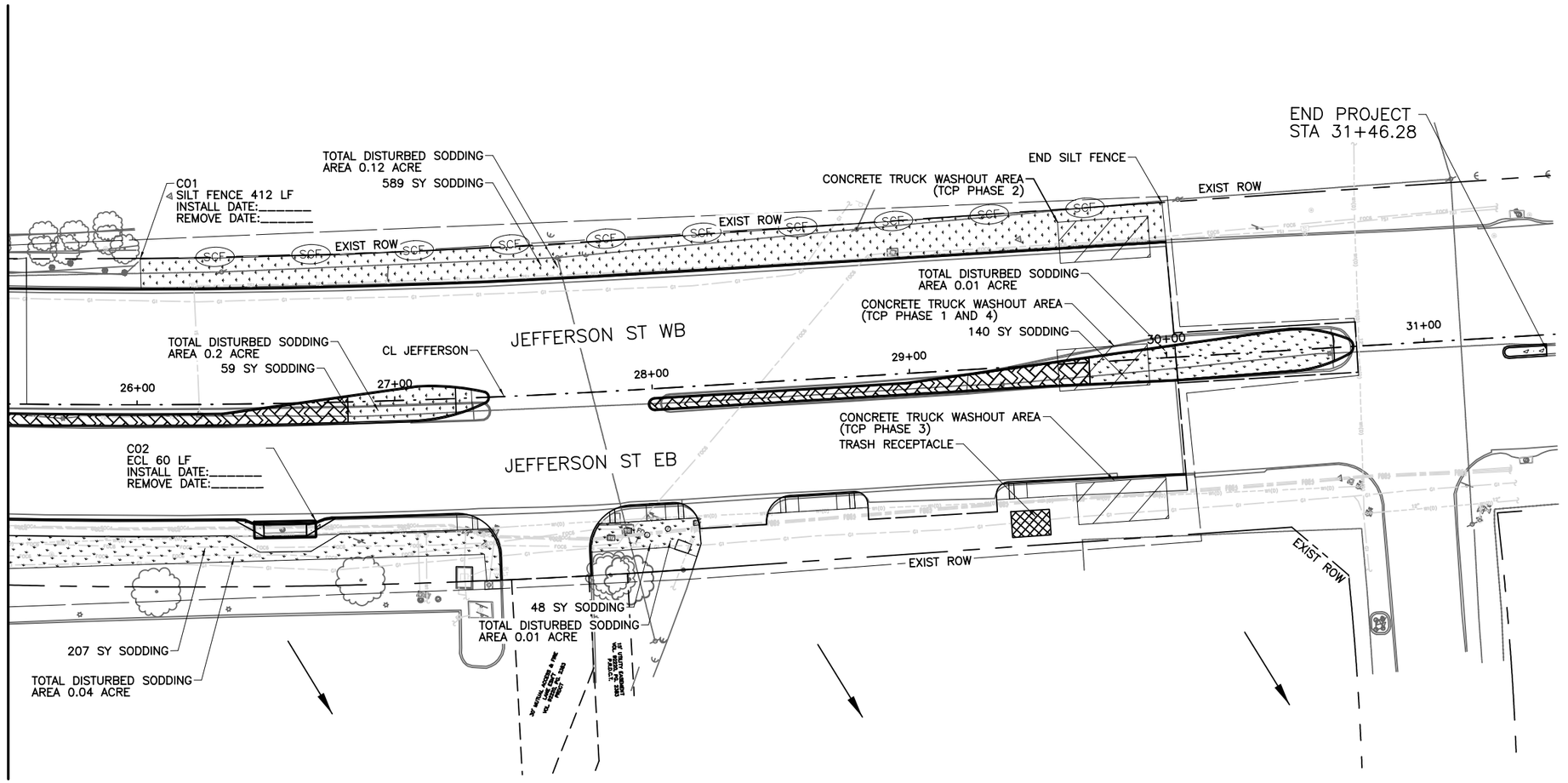

C
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DATE STABILIZED:_____

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SCALE HORIZ. FEET

LEGEND

- BERMUDA GRASS SODDING
- FLOW DIRECTION
- SFC — SEDIMENT CONTROL FENCE
- EROSION CONTROL LOG FOR INLET
- TOTAL DISTURBED AREA

NOTES:

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STATE OF TEXAS
MICHAEL J. CHISHOLM
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JEFFERSON STREET
EROSION CONTROL

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
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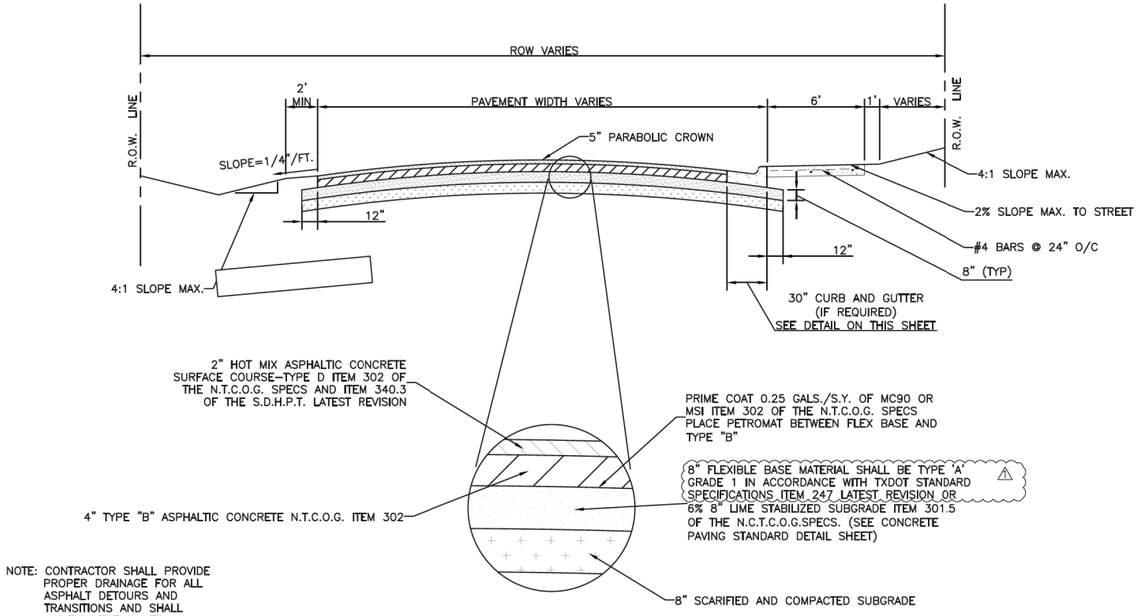
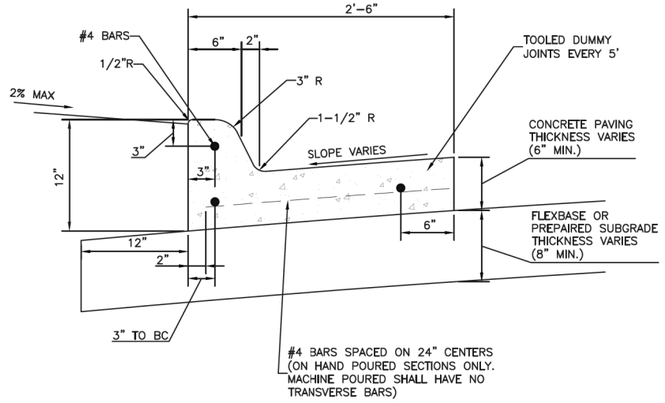


NOTE: CONTRACTOR SHALL PROVIDE PROPER DRAINAGE FOR ALL ASPHALT DETOURS AND TRANSITIONS AND SHALL MAINTAIN THEM UNTIL REMOVAL.

ASPHALT PAVEMENT CROSS SECTION

(FOR EXISTING ASPHALT ROADWAY EXTENSION TEMPORARY DETOURS AND TRANSITIONS)
NOT TO SCALE

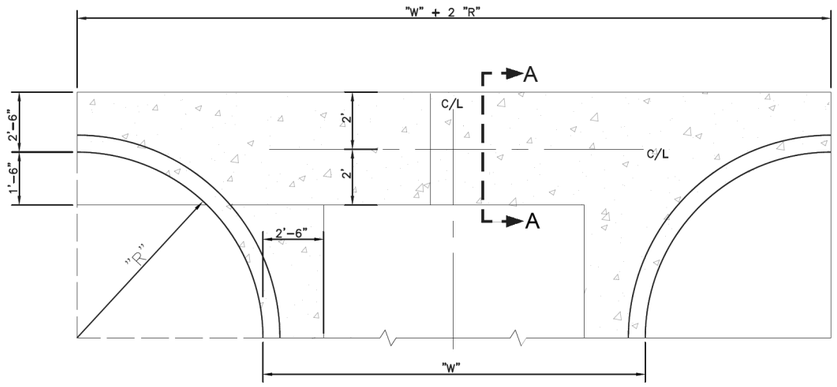


6" MONOLITHIC CONCRETE CURB & GUTTER

NOT TO SCALE

ASPHALT PAVING STANDARD RESIDENTIAL, COMMERCIAL INDUSTRIAL STREETS

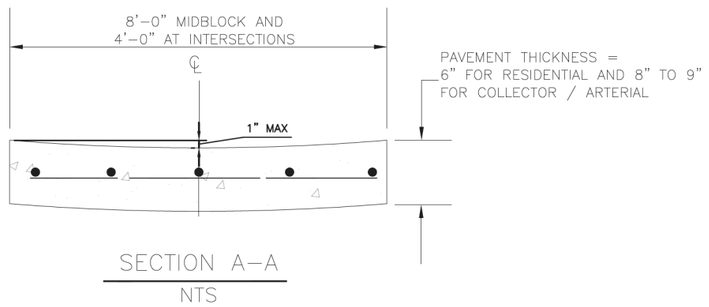
GENERAL:
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF GRAND PRAIRIE, WHICH HAS ALSC ADOPTED THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005–5888 (817) 640–3300. ALSO REFER TO N.C.T.C.O.G. ITEM 303 SPECIFICATIONS THERE SHALL BE NO LEAVE OUTS FOR UTILITY ADJUSTMENTS; ALL MANHOLE, VALVE SETS ETC. SHALL BE CONSTRUCTED TO FINAL GRADE PRIOR TO PAVING.
MEDIANS AND PARKWAYS SHALL BE SODDED. (NO SEEDING)
CONTRACTOR SHALL CONTACT TRANSPORTATION DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT–OF–WAY.
SUBGRADE PREPARATION:
PLEASE REFER TO ITEM 301 OF THE N.C.T.C.O.G. SPECIFICATIONS.
LIME STABILIZED SUBGRADE:
A. PLEASE REFER TO ITEM 301.2 OF THE N.C.T.C.O.G. SPECIFICATIONS. LIME SHALL BE PLACED USING THE SLURRY METHOD, MAY BE MIXED ON–SITE OR TRUCKED IN. PLEASE REFER N.C.T.C.O.G. ITEM 301.2.3.4.2.
B. SEE CITY OF GRAND PRAIRIE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN, AND PAVEMENT CONSTRUCTION.
TESTING:
A. PLEASE REFER TO THE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION DETAIL SHEET.
B. THE CITY WILL PROVIDE BACKFILL DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.
PRIVATE DEVELOPMENT PROJECTS:
THE DEVELOPER/OWNER SHALL PROVIDE ESCROW FUNDS FOR GEOTECHNICAL AND MATERIAL TESTING AS PER CITY ORDINANCE #7951 FOR BACKFILL, DENSITY AND CONCRETE TESTING PRIOR TO BEGINNING ANY CONSTRUCTION.
MATERIAL:
A. ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
B. HOT–MIX ASPHALT CONCRETE PAVEMENT:
1. SPECIFICATION SHALL FOLLOW SECTION 302 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION N.C.T.C.O.G. AND CONFORM TO THE TXDOT STANDARD FOR HOT–MIX ASPHALTIC CONCRETE.
2. THE ASPHALTIC MIXTURE SHALL BE TESTED FOR OVEN BURN OFF/GRADATION AND STABILITY.
3. DENSITY
(a) A RELATIVE DENSITY OF NOT LESS THAN 95% STANDARD PROCTOR AT ±2% OPTIMUM MOISTURE WILL BE REQUIRED AFTER FINAL COMPACTION OF THE IN–PLACE PAVEMENT SECTION.
(b) THE CONTRACTOR SHALL SCHEDULE THE CMT LABORATORY TO COME OUT IN THE FIELD AND ESTABLISH A ROLLING PATTERN.
(c) THE USE OF NUCLEAR FIELD DENSITY DETERMINATIONS SHALL NOT BE ACCEPTED AS THE BASIS FOR ACCEPTANCE WITH RESPECT TO DENSITY.
(d) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT THE COMPACTION OF THE ASPHALTIC CONCRETE IN PLACE WILL ATTAIN BETWEEN 5% AND 9% (FIVE AND NINE PERCENT) AIR VOIDS.
(e) THE CONTRACTORS' RESPONSIBILITY FOR THE REQUIRED COMPACTION INCLUDES THE SELECTION OF ROLLING EQUIPMENT AND SELECTION OF ROLLING PATTERNS TO ACHIEVE THE REQUIRED COMPACTION.
4. HMAC MIX TEMPERATURE RANGE AT TIME OF PLACEMENT SHALL BE BETWEEN 260° AND 325°. THE ASPHALTIC MIXTURE SHALL NOT BE PLACED WHEN THE AIR TEMPERATURE IS BELOW 50°F BUT MAY BE PLACED WHEN THE AIR TEMPERATURE IS ABOVE 40°F AND RISING, THE TEMPERATURE BEING TAKEN IN THE SHADE AND AWAY FROM ARTIFICIAL HEAT.
5. COMPACTION CONTROL
(a) IN–PLACE COMPACTION CONTROL IS REQUIRED FOR ALL MIXTURES.
(b) ASPHALTIC CONCRETE SHOULD BE PLACED AND COMPACTED TO CONTAIN NOT MORE THAN 9% (NINE PERCENT) NOR LESS THAN 5% (FIVE PERCENT) AIR VOID UNLESS OTHERWISE INDICATED.
(c) THE PERCENT AIR VOIDS WILL BE CALIBRATED USING THE MAXIMUM THEORETICAL SPECIFIC GRAVITY OF THE MIXTURE DETERMINED ACCORDING TO TXDOT TEST METHOD TEX–227–F ROADWAY SPECIMEN, WHICH SHALL EITHER BE CORES OR SECTIONS OF PAVEMENT, WILL BE TESTED ACCORDING TO TXDOT TEST METHOD TEX–207F.
(d) THE SAME SPECIMEN SHALL BE USED TO DETERMINING BOTH THE THEORETICAL DENSITY AND FIELD DENSITY.
6. PRIME COAT WILL FOLLOW N.C.T.C.O.G. SPECIFICATIONS 302.7 AND 302.9.6.1.
7. TACK COAT WILL FOLLOW N.C.T.C.O.G. SPECIFICATION 302.9.6.2.
8. HMAC MIX DESIGNS SHALL FOLLOW N.C.T.C.O.G. SPECIFICATION 302.9.3 AND THE GRADING TABLES INCLUDED IN THIS SECTION. THESE MIXTURES WILL BE IN ACCORDANCE WITH TXDOT TEST METHOD TEX–204–F, DESIGN OF BITUMINOUS MIXTURES.
C. CONCRETE CURB AND GUTTER:
1. ALL CONCRETE FOR CURB AND GUTTER SHALL BE 4500 PSI, 5% AIR (±1.5%)
2. EXPANSION JOINTS SHALL BE PLACED AT ALL INTERSECTIONS CR.S, PT.S, DRIVEWAYS, INLETS, AND OTHER CURB AND GUTTER OR EVERY 200 LF.
3. ALL EXPANSION JOINTS SHALL NOT BE LESS THAN 3/4" IN THICKNESS WITH LONGITUDINAL DOWELS.
4. DOWEL BARS SHALL BE THREE NO. 4 SMOOTH BARS, WITH A GREASED EXPANSION CAP WITH LENGTH AS FOLLOWS.
(a) FOR 30" G&G LENGTH EQUALS 24"
(b) FOR 24" G&G LENGTH EQUALS 18"
(c) FOR 18" G&G LENGTH EQUALS 12"
5. ALL LOOSE MATERIAL BETWEEN THE FORM WILL BE REMOVED AND THE GRADE WETTED PRIOR TO THE PLACEMENT OF CONCRETE.
6. AN APPROVED CURING COMPOUND SHALL BE APPLIED TO THE SURFACE.
7. CURB & GUTTER REPLACEMENT IS 30" MONOLITHIC CONC. PLACMENT
TESTING:
A. PLEASE REFER TO THE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION DETAIL SHEET.
B. THE CITY WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.



NOTE:
ALL CONCRETE FOR VALLEY GUTTER SHALL BE CLASS "A"4500 PSI COMPRESSION STRENGTH. REINFORCING STEEL SHALL BE NO. 4 BARS ON 12" CENTERS BOTH WAYS.

CONCRETE VALLEY GUTTER PLAN

NOT TO SCALE



SECTION A–A
NTS

CONCRETE VALLEY GUTTER SECTION

NOT TO SCALE

No.		Description	Date
4			
3			
2			
1		ADDED FLEXIBLE BASE NOTE	04/19/2021

Revisions

CERTIFICATION:
THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.

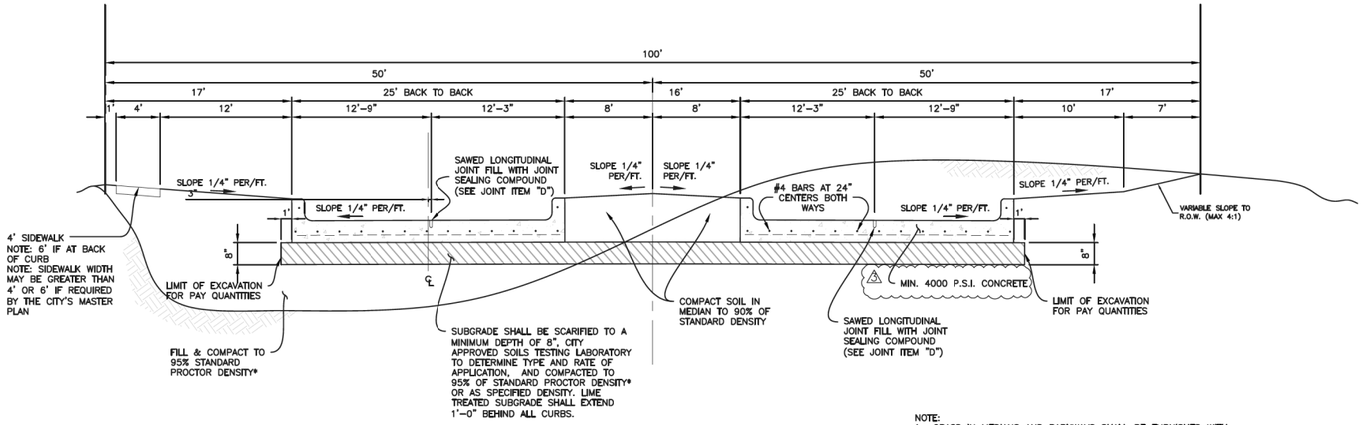
STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

ASPHALT PAVEMENT, DETOURS AND TRANSITIONS STANDARD DETAILS

Grand Prairie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	R.A.K.	JAN. 2021	N.T.S.		91

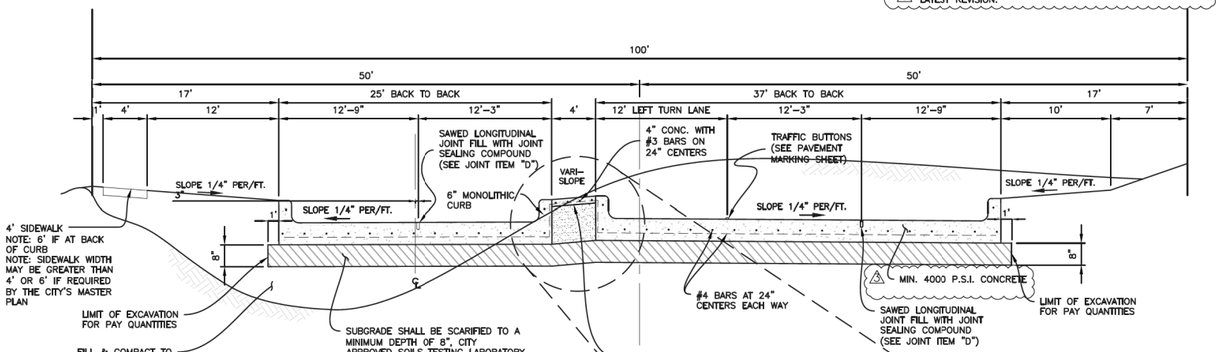


TYPICAL SECTION DIVIDED THOROUGHFARE

NOT TO SCALE

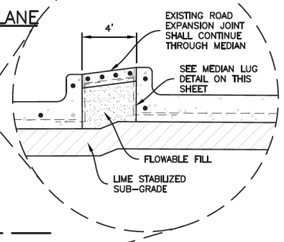
*NOTE: SEE N.C.T.C.O.G.ITEM 301.1.1.3 FOR SUBGRADE COMPACTION.

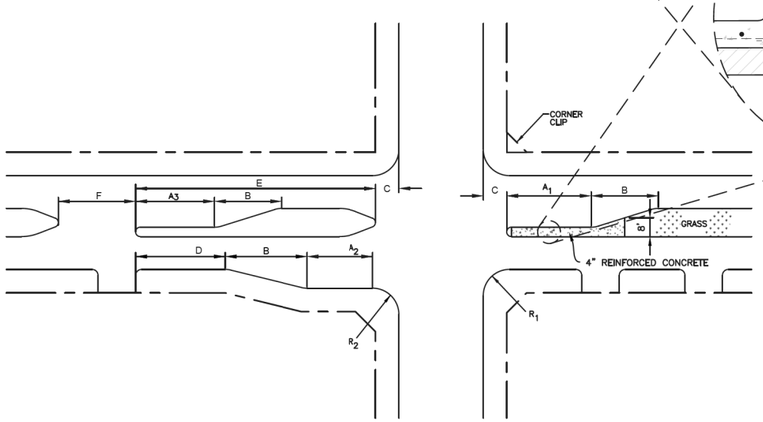
NOTE:
1. GRASS IN MEDIANS AND PARKWAYS SHALL BE FURNISHED WITH SOD; HYDROMULCH FEEDING OF GRASSY MEDIANS IS NOT PERMISSIBLE. USE MIN. 2" TOP SOIL PRIOR TO PLACING SOD.
2. MEDIANS LESS THAN 10' WIDE SHALL BE STAMPED, COLORED CONCRETE.
3. STAMPED CONCRETE COLOR AND PATTERN SHALL CONFORM TO REQUIREMENTS SET FORTH BY CITY STREETSCAPING COORDINATOR AND SHOWN IN THE PROJECT'S PLANS AND SPECIFICATION.
4. THERE SHALL BE ZERO TOLERANCES FOR CONCRETE STRENGTH AND DEPTH. NO VARIANCES ARE ALLOWED. ANY AREAS OF DEFICIENCY SHALL BE PROVED, REMOVED AND REPLACED.
5. FLEXIBLE BASE MATERIAL SHALL BE TYPE 'A' GRADE 1 IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS ITEM 247 LATEST REVISION. ⚠1



TYPICAL SECTION THRU LEFT TURN LANE DIVIDED THOROUGHFARE

NOT TO SCALE





NOTE:
1. GRASS IN MEDIANS AND PARKWAYS SHALL BE FURNISHED WITH SOD; HYDROMULCH FEEDING OF GRASSY MEDIANS IS NOT PERMISSIBLE. USE MIN. 2" TOP SOIL PRIOR TO PLACING SOD.
2. MEDIANS LESS THAN 10' WIDE SHALL BE STAMPED, COLORED CONCRETE.
3. STAMPED CONCRETE COLOR AND PATTERN SHALL CONFORM TO REQUIREMENTS SET FORTH BY CITY STREETSCAPING COORDINATOR AND SHOWN IN THE PROJECT'S PLANS AND SPECIFICATION.
4. THERE SHALL BE ZERO TOLERANCES FOR CONCRETE STRENGTH AND DEPTH. NO VARIANCES ARE ALLOWED. ANY AREAS OF DEFICIENCY SHALL BE PROVED, REMOVED AND REPLACED.
5. FLEXIBLE BASE MATERIAL SHALL BE TYPE 'A' GRADE 1 IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS ITEM 247 LATEST REVISION. ⚠1

INTERSECTION DESIGN STANDARDS **

NOT TO SCALE

TYPICAL PAVING THICKNESS STANDARDS

PRINCIPAL ARTERIALS (P6D, P4D, P7U, & P3U)

- USE MINIMUM 9" REINFORCED CONCRETE PAVEMENT OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
- OVER MINIMUM 8" STABILIZED SUBGRADE
- LONGITUDINAL GRADE MIN=0.60% MAX=6.0%

MINOR ARTERIALS & COLLECTORS (M5U, M4U, C2U)

- USE MINIMUM 8" REINFORCED CONCRETE PAVEMENT OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
- OVER MINIMUM 8" STABILIZED SUBGRADE
- USE MINIMUM 8" REINFORCED CONCRETE PAVEMENT ON STREETS LEADING INTO INDUSTRIAL DISTRICTS OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
- LONGITUDINAL GRADE MIN=0.60% MAX=6.0% ⚠2

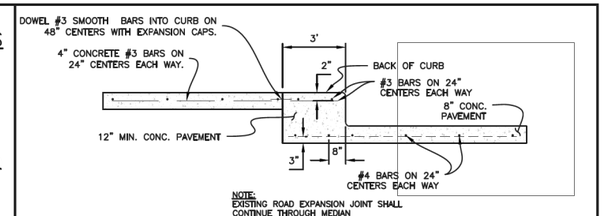
LOCAL & RURAL STREETS (L2U, LU, R2U)

- USE MINIMUM 7" REINFORCED CONCRETE PAVEMENT OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
- OVER MINIMUM 8" STABILIZED SUBGRADE.
- LONGITUDINAL GRADE MIN=0.60% MAX=6.0%

CONTRACTOR
MONTH/YEAR

NOTE: TEXT SHALL BE MIN. 1 1/2" HIGH.

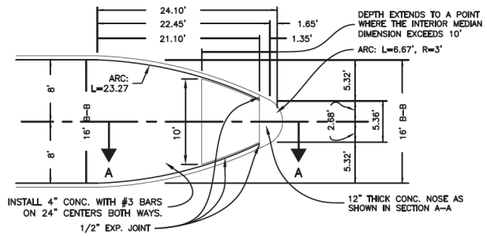
STAMP



NOTE:
EXISTING ROAD EXPANSION JOINT SHALL CONTINUE THROUGH MEDIAN

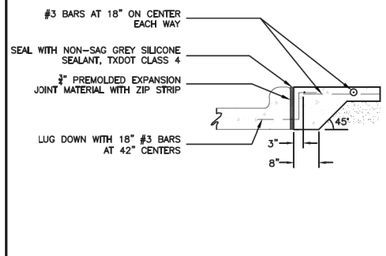
SECTION A–A

NOT TO SCALE



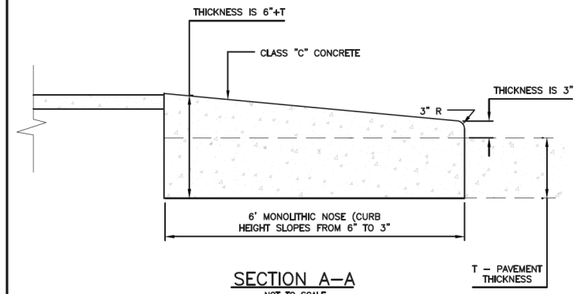
MEDIAN NOSE DETAIL

NOT TO SCALE



MEDIAN LUG DETAIL

NOT TO SCALE



SECTION A–A

NOT TO SCALE

NOTE:
1. USE #4 REBARS WHEN TAPERING MEDIAN NOSE FROM 6" TO 3"
2. ALL MEDIAN NOSES SHALL BE TAPERED AS SHOWN ABOVE

TAPERED MEDIAN NOSE DETAIL

NOT TO SCALE

	A_1*	A_1+	A_1#	A_2*	A_3	B	C	D	E	F	R_1	R_2	Corner Clip
P3U	275'	150'	100'	150'	150'	150'		330'			40'	40'	25' x 25'
P6D	275'	150'	100'	150'	150'	150'	10'	330'	600'	60'	50'	50'	25' x 25'
P4D	200'	150'	100'	150'	150'	150'	10'	330'	600'	60'	50'	50'	25' x 25'
P7U	275'	150'	100'	150'	150'	150'		330'			50'	50'	25' x 25'
M5U	200'	150'	100'	150'	150'	150'		330'			50'	50'	20' x 20'
M4U	150'	150'	100'	150'	150'	150'		300'			50'	50'	20' x 20'
M3U	275'	150'	100'	150'	150'	150'		330'			50'	50'	20' x 20'
C2U	100'	150'	100'	100'	150'	150'		270'			40'	40'	15' x 15'
L2U											25'	25'	10' x 10'
LU											25'	25'	10' x 10'
RU											25'	25'	10' x 10'

Notes:

*: When an Intersecting Street is a Principle or Major Arterial
+: When an Intersecting Street is a Collector or a Rural Road
#: When an Intersecting Street is a Local Street
**: For Dual Left-Turn Standards, Consult Traffic Engineering Division
A1, A2 or A3 may be Increased to Allow for Stacking Truck Traffic
Corner Clip Based on 90 Degree Intersection, may be Adjusted for Angled Intersection
Radius and Corner Clip are Based on the Highest Classification Street at an Intersection

No.	Description	Date
4	⚠	
3	⚠ REMOVED REFERENCE TO CONCRETE THICKNESS	06/19/2023
2	⚠ ADDED MIN. AND MAX GRADE	04/19/2021
1	⚠ ADDED FLEXIBLE BASE NOTE	04/19/2021

Revisions

CERTIFICATION:
THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.

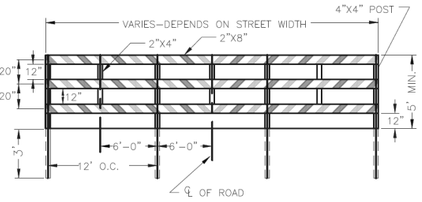
STATE OF TEXAS · MICHAEL J. CHISHOLM · 123343 · LICENSED PROFESSIONAL ENGINEER

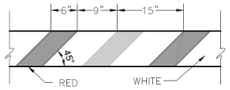
10.03.2025

CONCRETE PAVING
STANDARD DETAILS FOR
DIVIDED THOROUGHFARE

GRand PRAIRIE TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	R.A.K.	JAN. 2021	N.T.S.		92



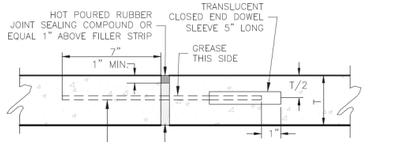


END OF ROAD BARRICADE DETAIL

NOT TO SCALE

NOTES:

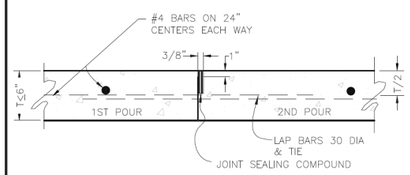
1. REFLECTIVE SHEETING FOR ALL TRAFFIC CONTROL DEVICES SHALL BE OF HIGH INTENSITY PRISMATIC (TYPE IIIA OR IIIB) ALL CHANNELIZATION DEVICES SHALL USE TYPE IIIA REBOUNDABLE SHEETING.
2. ATTACH 2"X 8" BOARDS TO 4"X 4" PRESSURE TREATED POST WITH LAG BOLTS.
3. ATTACH 2"X 4" BRACES TO 2"X 8" BOARDS WITH 10d–NAILS.
4. BARRICADE TO BE FULL WIDTH OF STREET BACK OF CURB TO BACK OF CURB.
5. IF BARRICADE IS USED TO DENOTE END OF ROADWAY, DIAGONAL STRIPES USED SHALL BE RED AND WHITE.



NOTE: SLEEVES FOR DOWELS SHALL HAVE AN INSIDE DIAMETER OF 1/16" GREATER THAN THE DIAMETER OF THE DOWELS AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE. EXPANSION JOINTS TO BE CONSTRUCTED A MAXIMUM OF 500' APART ON STRAIGHT PAVING AND ON ALL RADII, PC, PT AND OR OR OTHERWISE SPECIFIED.

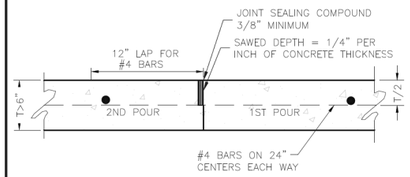
EXPANSION JOINT

NOT TO SCALE



TYPE A

FOR PAVEMENT THICKNESS 6" (OR AS SPECIFIED)

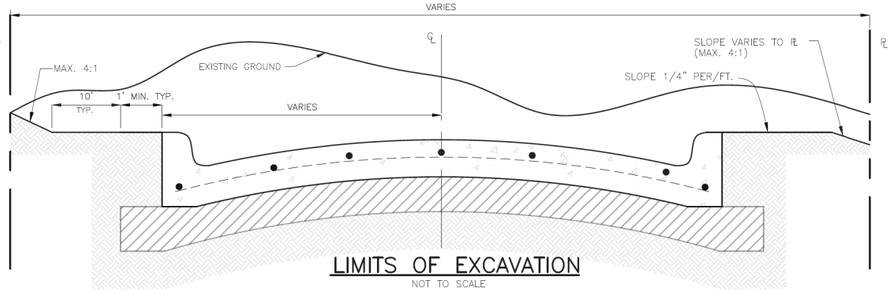


TYPE B

FOR PAVEMENT THICKNESS GREATER THAN 6" (OR AS SPECIFIED)

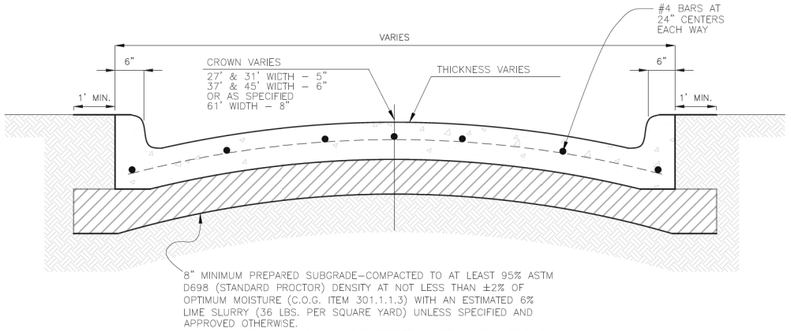
CONSTRUCTION JOINT

NOT TO SCALE



LIMITS OF EXCAVATION

NOT TO SCALE



P.C. CONCRETE STANDARDS
RESIDENTIAL, COMMERCIAL, & INDUSTRIAL STREETS

NOT TO SCALE

GRADATION: MINIMUM PASSING
#4 SIEVE 60% MINIMUM
PASSING 1" 100%

TYPICAL PAVING THICKNESS STANDARDS

PRINCIPAL ARTERIALS (P6D, P4D, P7U, & P3U)

- USE MINIMUM 9" REINFORCED CONCRETE PAVEMENT OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
- OVER MINIMUM 8" STABILIZED SUBGRADE
- LONGITUDINAL GRADE MINIMUM=0.60% MAXIMUM=6.0%

MINOR ARTERIALS & COLLECTORS (M5U, M4U, C2U)

- USE MINIMUM 8" REINFORCED CONCRETE PAVEMENT OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
- OVER MINIMUM 8" STABILIZED SUBGRADE
- USE MINIMUM 8" REINFORCED CONCRETE PAVEMENT ON STREETS LEADING INTO INDUSTRIAL DISTRICTS OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
- LONGITUDINAL GRADE MINIMUM=0.60% MAXIMUM=6.0%

LOCAL & RURAL STREETS (L2U, LU, R2U)

- USE MINIMUM 6" REINFORCED CONCRETE PAVEMENT OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
- OVER MINIMUM 8" STABILIZED SUBGRADE.
- LONGITUDINAL GRADE MINIMUM=0.60% MAXIMUM=6.0%

CONTRACTOR
MONTH/YEAR

NOTE: TEXT SHALL BE MIN. 1 1/2" HIGH.

STAMP

P.C. CONCRETE STANDARD
RESIDENTIAL, COMMERCIAL & INDUSTRIAL STREETS

GENERAL:
(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF GRAND PRAIRIE, WHICH HAS ALSO ADOPTED THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005–5888 (817)640–3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
(B) ALSO REFER TO N.C.T.C.O.G. ITEM 303 SPECIFICATIONS
(C) THERE SHALL BE NO LEAVE OUTS FOR UTILITY ADJUSTMENTS; ALL MANHOLE, VALVE SETS ETC. SHALL BE CONSTRUCTED TO FINAL GRADE PRIOR TO PAVING.
(D) MEDIANS AND PARKWAYS SHALL BE SODDED. (NO SEEDING)
(E) CONTRACTOR SHALL CONTACT TRANSPORTATION DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT–OF–WAY.

SUBGRADE PREPARATION:
PLEASE REFER TO ITEM 301 OF THE N.C.T.C.O.G. SPECIFICATIONS.

LIME STABILIZED SUBGRADE:
(A) PLEASE REFER TO ITEM 301.2 OF THE N.C.T.C.O.G. SPECIFICATIONS. LIME SHALL BE PLACED USING THE SLURRY METHOD, MAY BE MIXED ON–SITE OR TRUCKED IN. PLEASE REFER N.C.T.C.O.G. ITEM 301.2.3.4.2.
(B) SEE CITY OF GRAND PRAIRIE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.

FORMS:
PLEASE REFER TO N.C.T.C.O.G. ITEM 303.4.4

REINFORCEMENT BARS:
ONLY STEEL RODS SHALL BE USED. PLEASE REFER TO ITEM 303.2.9 OF THE N.C.T.C.O.G. SPECIFICATIONS.

REINFORCEMENT BAR CHAIRS:
THE CONTRACTOR SHALL INSTALL SUPPORTING CHAIRS FOR REINFORCING STEEL ON A ONE SQUARE YARD SPACING IN ALL CONCRETE PAVEMENTS. THE CHAIRS ARE TO BE PLASTIC AND INSTALLED AS PER ITEM 303.2.11 OF THE N.C.T.C.O.G. SPECIFICATIONS.

CONCRETE:
(A) PORTLAND CEMENT SHALL BE AS PER N.C.T.C.O.G. ITEM 303.2.2
(B) UP–TO 20% (BY WEIGHT) OF THE CEMENT CONTENT MAY BE REPLACED WITH TYPE C FLY ASH. FLY ASH REPLACEMENT SHALL BE 1.25 POUNDS PER 1.0 POUND OF CEMENT REDUCTION. ALSO REFER TO N.C.T.C.O.G. ITEM 303.2.4
(C) AGGREGATES SHALL BE AS PER N.C.T.C.O.G. ITEM 303.2.1. RIVER ROCK OR BLENDED AGGREGATES SHALL NOT BE ALLOWED.
(D) MANUFACTURED SAND SHALL NOT EXCEED 20% OF THE TOTAL SAND CONTENT IN THE CONCRETE MIX DESIGN.
(E) CONCRETE FOR ALL PAVING AND CURBS WITHIN THE RIGHT–OF–WAY SHALL HAVE A MINIMUM 5 1/2 SACK/CUBIC YARD OF CEMENT CONTENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI WHEN TESTED AT THE AGE OF 28 DAYS. HAND PLACED CONCRETE SHALL HAVE A MINIMUM 6 1/2 SACK/CUBIC YARD OF CEMENT CONTENT AND MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI.
(F) THE DESIGN ENGINEER SHALL APPROVE THE CONCRETE MIX DESIGN IN WRITING PRIOR TO USE.
(G) PAVEMENT CURBS SHALL BE POURED MONOLITHICALLY. PLEASE REFER TO N.C.T.C.O.G. ITEM. 303.5.2.4.
(H) STAMP OR DIE PROJECT PAVING LIMITS INCLUDING ALL STREET INTERSECTIONS TO N.C.T.C.O.G. ITEM. 303.4.2.3 AND DETAIL ON THIS SHEET.
(I) THERE SHALL BE ZERO TOLERANCES FOR CONCRETE STRENGTH AND DEPTH. NO VARIANCES ARE ALLOWED. ANY AREAS OF DEFICIENCY SHALL BE PROVED, REMOVED AND REPLACED.
(J) ALL CURBS AND GUTTERS SHALL BE POURED IN ONE COURSE. CONSTRUCTION CONCRETE SHALL BE PLACED IN FORMS ON COMPACTED, WETTED SUBGRADE AND SHALL BE TAMPED AND SPADED UNTIL MORTAR COVERS THE ENTIRE SURFACE. TAMPING AND SPADING OF NEWLY POURED CONCRETE SHALL BE GIVEN SPECIAL ATTENTION TO ENSURE ADEQUATE CONSOLIDATION AND SURFACES FREE OF HONEYCOMBS.
(K) EQUIPMENT USED FOR TRANSPORTING CONCRETE MUST BE APPROVED BY THE CITY ENGINEER OR ITS REPRESENTATIVES PRIOR TO STARTING CONSTRUCTION. CONCRETE FROM OUTSIDE PROJECT LIMITS SHALL BE TRANSPORTED TO THE PROJECT SITE BY READY –MIX CONCRETE TRUCKS WITH ROTATING DRUMS.

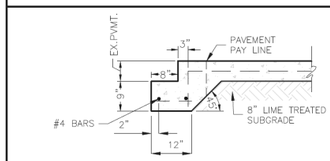
CURING:
(A) PLEASE REFER TO ITEM 303.5.8 AND 303.2.12.1.1 OF THE N.C.T.C.O.G. SPECIFICATIONS.
(B) THE CONTRACTOR SHALL USE A WHITE PIGMENTED LIQUID CURING COMPOUND AS PER N.C.T.C.O.G. ITEM 303.5.8. AND 303.2.12.1.1

JOINTS:
(A) CONSTRUCTION JOINTS SHALL BE USED IN ALL BLOCK–OUTS FOR DRIVEWAYS, INLETS, ETC.
(B) TRANSVERSE JOINTS SHALL BE SAWED ON 15' CENTERS. THE CONCRETE SAW MUST BE STATIONED ON THE JOB–SITE PRIOR TO PLACING THE PAVEMENTS. ALL JOINTS SHALL BE SAWED WITHIN AN EIGHTEEN (18) HOUR PERIOD FROM THE TIME OF THE POUR.
(C) LONGITUDINAL JOINTS SHALL BE SAWED BASED ON THE FOLLOWING:
25' WIDTH (BLVD.) SAW JOINT 3" FROM THE CENTER
27' " SAW JOINT ALONG THE CENTER
31' " SAW JOINT ALONG THE CENTER
37' " TWO EVENLY SPACED JOINTS
OVER 37' WIDTH MINIMUM TWO JOINTS – OUTSIDE JOINTS SAWED AT 12'–6" MAX.
(D) SAW JOINTS TO BE 1/4" DEPTH FOR EACH 1" OF PAVEMENT THICKNESS.
6" PAVEMENT = 1 1/2" DEEP,
7" PAVEMENT = 1 3/4 DEEP",
8" PAVEMENT = 2" DEEP, ETC.

FLEXIBLE BASE:
⚠ FLEXIBLE BASE MATERIAL SHALL BE TYPE 'A' GRADE 1 IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS ITEM 247 LATEST REVISION.

TESTING:
1.) PLEASE REFER TO THE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION DETAIL SHEET.
2.) THE CITY WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE WORKING DAYS.
3.) MATERIAL: ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.

PRIVATE DEVELOPMENT PROJECTS: THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL AND MATERIAL TESTING FOR BACKFILL, DENSITY AND CONCRETE TESTING PRIOR TO BEGINNING ANY CONSTRUCTION.



NOTE: PAVEMENT BARS TO BE BENT DOWN INTO HEADER AND PAVEMENT TO BE MONOLITHIC

TYPE–A CONCRETE HEADER

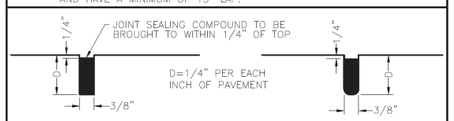
NOT TO SCALE

NOTE: TYPE–B HEADER TO BE USED FOR FUTURE STREET EXTENSION OR WHEN SPECIFIED ON PLANS TO BE USED.

TYPE–B CONCRETE HEADER

NOT TO SCALE

NOTE: UNLESS TYPE 'A' OR 'B' HEADERS ARE SPECIFIED, WHEN CONSTRUCTING NEW PAVEMENT, THE CONTRACTOR MUST A) EXPOSE THE REINFORCING STEEL FROM THE EXISTING PAVEMENT AND TIE IT TO THE PROPOSED STEEL MAT, OR B) DOWEL #3 REINFORCING STEEL BARS INTO THE EXISTING PAVEMENT A A MINIMUM OF (6) SIX INCHES AT 24" CENTERS AND HAVE A MINIMUM OF 15" LAP.



NOTE:
JOINT SEALING COMPOUND SHALL CONFORM TO C.O.G. ITEM 303.2.14 AND SHALL CONSIST OF HOT POURED POLYMER OR READY–MIXED COLD APPLIED SEALANT AS FOLLOWS.
1. CLASS 3–SEALTIGHT 3405
2. CLASS 3–HOT POURED RUBBER JOINT SEALANT # 3405
3. CLASS 4–DOW CORNING 888
4. CLASS 5 & 8 SIKASIL 728–SL
5. CLASS 8 – DOW CORNING 890–SL

JOINT SEALING

NOT TO SCALE

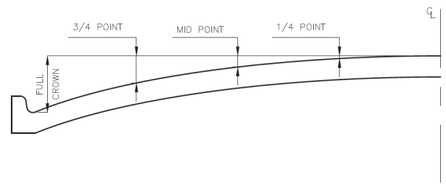
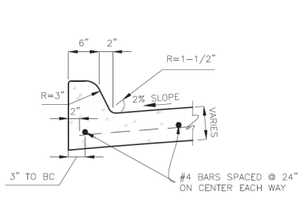


TABLE OF CROWN HEIGHTS AND ORDINATES FOR VARIOUS PARABOLIC STREET

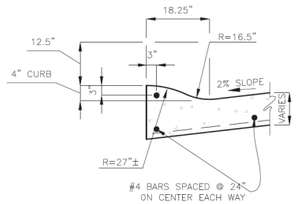
Street Width, BC to BC	Street Crown	Street Half Quarter Point		Street Half Mid Point		Street Half 3/4 Point	
(ft)	(in)	Offset from Centerline (ft)	Offset Down (in)	Offset from Centerline (ft)	Offset Down (in)	Offset from Centerline (ft)	Offset Down (in)
27	5	3.25	5/16	6.50	1 1/4	9.75	2 13/16
31	5	3.75	5/16	7.50	1 1/4	11.25	2 13/16
37	6	4.50	3/8	9.00	1 1/2	13.50	3 3/8
45	7	5.50	7/16	11.00	1 3/4	16.50	15/16
61	8	7.50	1/2	15.00	2	22.50	4 1/2
49	8	6.00	1/2	12.00	2	18.00	4 1/2

TABLE OF CROWN HEIGHTS AND ORDINATES FOR VARIOUS PARABOLIC SECTIONS



6" CURB MONOLITHIC WITH PAVING

NOT TO SCALE



4" ROLLED CURB MONOLITHIC WITH PAVING

NOT TO SCALE

* NOTES:
1. STREET CROWN FOR ROLLED CURB SECTION, SHALL BE 3" ROOF TOP.
2. ENGINEERING PLANS FOR ROLLED CURB CONSTRUCTION MUST BE PRE–APPROVED BY THE CITY ENGINEER FOR DRAINAGE CONVEYANCE AS ADDITIONAL INLETS MAY BE REQUIRED.
3. STREET SECTIONS FOR 4" ROLLED DOWN CURB SHALL HAVE ROOF TOP CROWN.
4. IF THE 4–INCH HIGH CURBED STREET SECTION IS USED, INCREASE THE LINEAR FEET OF INLETS PROVIDED BY 84% TO MEET CURRENT CITY DRAINAGE REQUIREMENTS.
5. AT CURB INLETS, CURB HEIGHT SHALL BE TRANSITIONED FROM 6" TO 4" (TO MATCH THE 4" ROLLED CURB)

No.		Description	Date
4	⚠		
3	⚠	ADDED CONCRETE TRANSPORTATION NOTE	03/14/2024
2	⚠	ADDED MIN. AND MAX GRADE	04/19/2021
1	⚠	ADDED FLEXIBLE BASE NOTE	04/19/2021

Revisions

CERTIFICATION:
THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.

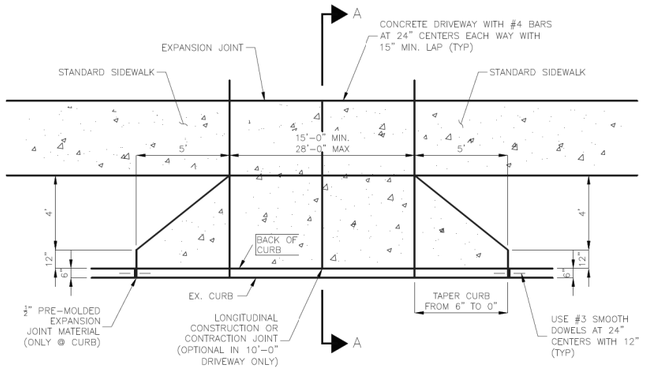
STATE OF TEXAS · MICHAEL J. CHISHOLM · 123343 · LICENSED PROFESSIONAL ENGINEER

10.03.2025

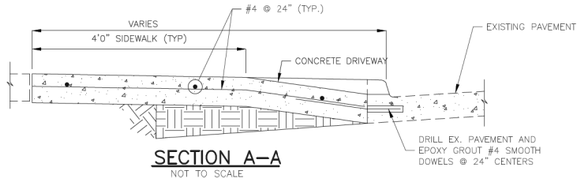
CONCRETE PAVING
STANDARD DETAILS

Grand Prairie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	R.A.K.	JAN. 2021	N.T.S.		93

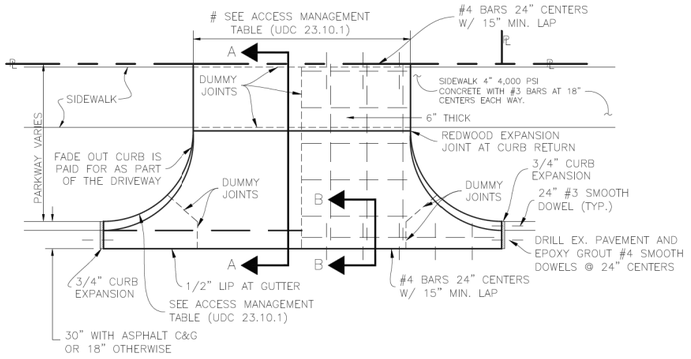


NEW RESIDENTIAL DRIVEWAY DETAIL WITH LAY DOWN CURB (AS DIRECTED BY THE DESIGN ENGINEER)



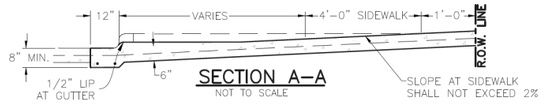
SECTION A–A
NOT TO SCALE

NOTES:
1. SIDEWALK SECTION THROUGH DRIVEWAY SHALL BE POURED SAME THICKNESS AND STEEL REINFORCEMENT AS DRIVEWAY APPROACH (EXISTING SIDEWALK, IF ANY, SHALL BE REMOVED)
2. DRIVEWAY APPROACH THICKNESS SHALL BE A MINIMUM OF 6" (SIX INCHES)
3. DRIVEWAYS CONSTRUCTED ON PRIVATE PROPERTY SHALL TAPER AT A 1:1 RATIO TO INTERSECT APPROACH AT PROPERTY LINE NO GREATER THAN 24' WIDTH.
4. NEW RESIDENTIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 10%. NEW COMMERCIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 6%.

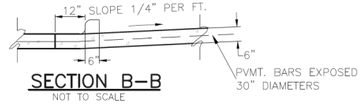


STANDARD COMMERCIAL AND RESIDENTIAL DRIVEWAY DETAIL SEE ACCESS MANAGEMENT TABLE (UDC 23.10.1)

NOTE:
1. SIDEWALK SECTION THROUGH DRIVEWAY SHALL BE POURED SAME THICKNESS AND STEEL REINFORCEMENT AS DRIVEWAY APPROACH (EXISTING SIDEWALK, IF ANY, SHALL BE REMOVED)
2. NEW RESIDENTIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 10%. NEW COMMERCIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 6%.



SECTION A–A
NOT TO SCALE

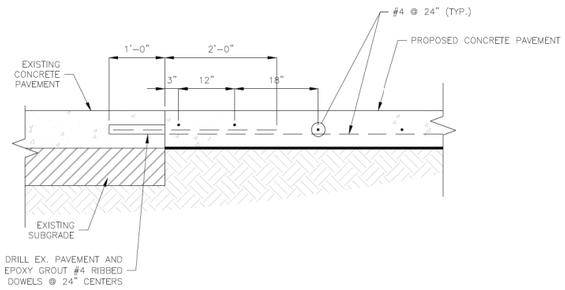


SECTION B–B
NOT TO SCALE

NOTE: CURB, GUTTER, PAVEMENT AND VALLEY TO BE POURED MONOLITHIC THE REINFORCED CONCRETE VALLEY SHALL REPLACE THE CONCRETE PAVING WITH THE SUBGRADE AND BASE TREATMENT REMAINING THE SAME IN ACCORDANCE WITH THE TYPICAL PAVING SECTION. DO NOT DOWEL IN NEW CONCRETE DRIVES INTO EXISTING ASPHALT ROADS. UTILIZE MODIFIED TYPE–A CONCRETE HEADER.

# ACCESS MANAGEMENT TABLE (UDC 23.10.1)					
		LOCAL	COLLECTOR	MINOR ARTERIAL	PRINCIPAL ARTERIAL
RESIDENTIAL DRIVEWAY	THROAT WIDTH	15-28 ft.	15-28 ft.	N/A	N/A
	CURB RADIUS	5 ft.	N/A	N/A	N/A
INDUSTRIAL DRIVEWAY	THROAT WIDTH	40 ft.	40-60 ft.*	40-60 ft.*	40-60 ft.*
	CURB RADIUS	30 ft.	40 ft.	40 ft.	40 ft.
COMMERCIAL DRIVEWAY	THROAT WIDTH	30-40 ft.	30-40 ft.	30-40 ft.	30-40 ft.
	CURB RADIUS	20 ft.	25 ft.	30 ft.	35 ft.

NOTE:
1. NEW RESIDENTIAL DRIVEWAYS SHALL BE 15' (MIN.) WIDTH. 12' MIN. WIDTH IS ALLOWED FOR J–SWING DRIVEWAYS.
2. EXISTING RESIDENTIAL DRIVEWAY APPROACHES SHALL NOT BE RECONSTRUCTED TO LESS THAN 9' WIDTH.
3. CURB RETURNS FOR NEW DRIVES SHALL BE CONSTRUCTED TO 5' RADIUS B.O.C.
4. IN REPLACING EXISTING DRIVES, THE EXISTING DRIVE SHALL BE SAWED AND REMOVED AT A DISTANCE WHICH WILL ASSURE A SMOOTH GRADE, (TO BE SPECIFIED BY THE ENGINEER) AND WILL BE REPLACED TO THAT POINT.
5. NEW RESIDENTIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 10%.
6. NEW COMMERCIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 6%.
7. VERTICAL CURVES SHALL BE USED FOR ALL GRADE BREAKS IN DRIVEWAYS EXCEEDING 12%



PROPOSED PAVING CONNECTION TO EXISTING PAVEMENT

NOT TO SCALE

P.C. CONCRETE STANDARD RESIDENTIAL, COMMERCIAL & INDUSTRIAL STREETS

GENERAL:
(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF GRAND PRAIRIE, WHICH HAS ALSO ADOPTED THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005–5888 (817)640–3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
(B) ALSO REFER TO N.C.T.C.O.G. ITEM 303 SPECIFICATIONS
(C) THERE SHALL BE NO LEAVE OUTS FOR UTILITY ADJUSTMENTS; ALL MANHOLE, VALVE SETS, ETC. SHALL BE CONSTRUCTED TO FINAL GRADE PRIOR TO PAVING.
(D) MEDIANS AND PARKWAYS SHALL BE SODDED. (NO SEEDING)
(E) CONTRACTOR SHALL CONTACT TRANSPORTATION DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT–OF–WAY.

SUBGRADE PREPARATION:
PLEASE REFER TO ITEM 301 OF THE N.C.T.C.O.G. SPECIFICATIONS.

LIME STABILIZED SUBGRADE:
(A) PLEASE REFER TO ITEM 301.2 OF THE N.C.T.C.O.G. SPECIFICATIONS. LIME SHALL BE PLACED USING THE SLURRY METHOD, MAY BE MIXED ON–SITE OR TRUCKED IN. PLEASE REFER N.C.T.C.O.G. ITEM 301.2.3.4.2.
(B) SEE CITY OF GRAND PRAIRIE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.

FORMS:
PLEASE REFER TO N.C.T.C.O.G. ITEM 303.4.4

REINFORCEMENT BARS:
ONLY STEEL RODS SHALL BE USED. PLEASE REFER TO ITEM 303.2.9 OF THE N.C.T.C.O.G. SPECIFICATIONS.

REINFORCEMENT BAR CHAIRS:
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(G) PAVEMENT CURBS SHALL BE POURED MONOLITHICALLY. PLEASE REFER TO N.C.T.C.O.G. ITEM. 303.5.2.4.
(H) STAMP OR DIE PROJECT PAVING LIMITS INCLUDING ALL STREET INTERSECTIONS TO N.C.T.C.O.G. ITEM. 303.4.2.3 AND DETAIL ON THIS SHEET.
(I) THERE SHALL BE ZERO TOLERANCES FOR CONCRETE STRENGTH AND DEPTH. NO VARIANCES ARE ALLOWED. ANY AREAS OF DEFICIENCY SHALL BE PROVED, REMOVED AND REPLACED.
(J) ALL CURBS AND GUTTERS SHALL BE POURED IN ONE COURSE. CONSTRUCTION CONCRETE SHALL BE PLACED IN FORMS ON COMPACTED, WETTED SUBGRADE AND SHALL BE TAMPED AND SPADED UNTIL MORTAR COVERS THE ENTIRE SURFACE. TAMPING AND SPADING OF NEWLY POURED CONCRETE SHALL BE GIVEN SPECIAL ATTENTION TO ENSURE ADEQUATE COMPACTION AND SURFACES FREE OF HONEYCOMBS.
(K) EQUIPMENT USED FOR TRANSPORTING CONCRETE MUST BE APPROVED BY THE CITY ENGINEER OR ITS REPRESENTATIVES PRIOR TO STARTING CONSTRUCTION. CONCRETE FROM OUTSIDE PROJECT LIMITS SHALL BE TRANSPORTED TO THE PROJECT SITE BY READY –MIX CONCRETE TRUCKS WITH ROTATING DRUMS.

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31' " SAW JOINT ALONG THE CENTER
37' " TWO EVENLY SPACED JOINTS
OVER 37' WIDTH MINIMUM TWO JOINTS – OUTSIDE JOINTS SAWED AT 12'–6" MAX.
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No.		Description	Date
4	△		
3	△		
2	△	ADDED CONCRETE TRANSPORTATION NOTE	03/14/2024
1	△	ADDED FLEXIBLE BASE NOTE	04/19/2021

Revisions

CERTIFICATION:
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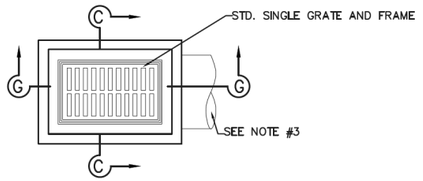
STATE OF TEXAS · MICHAEL J. CHISHOLM · 123343 · LICENSED PROFESSIONAL ENGINEER

10.03.2025

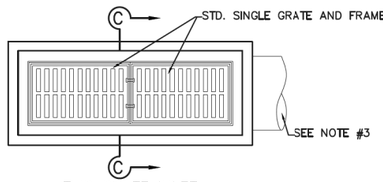
CONCRETE DRIVEWAY STANDARD DETAILS

GRand PRairie TEXAS ENGINEERING

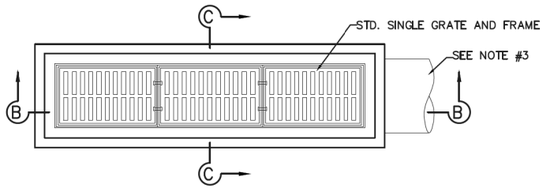
DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	R.A.K.	JAN. 2021	N.T.S.		94



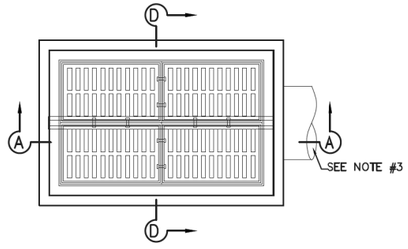
ONE GRATE INLET



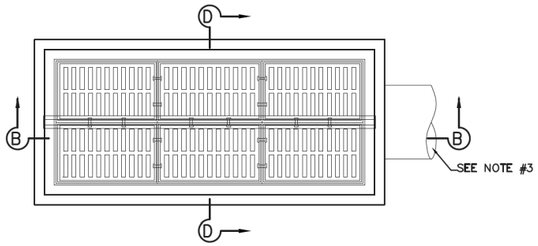
TWO GRATE INLET



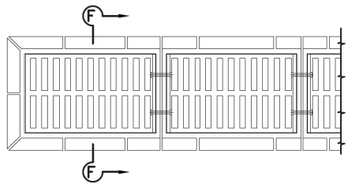
THREE GRATE INLET

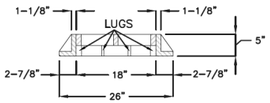


FOUR GRATE INLET



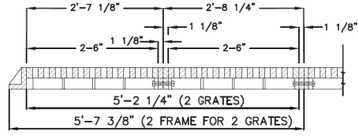
SIX GRATE INLET





SECTION F–F

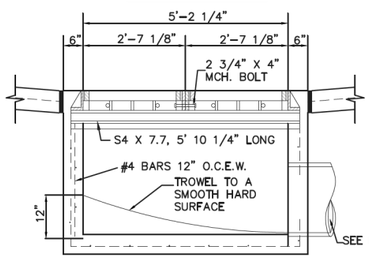
NOTE :
GRATE AND FRAME SHALL BE
- BASS & HAYES FOUNDRY CATALOG NUMBER NO. 814
- NEENAH FOUNDRY CATALOG NUMBER 2440 OR 2444
- OR APPROVED EQUAL.



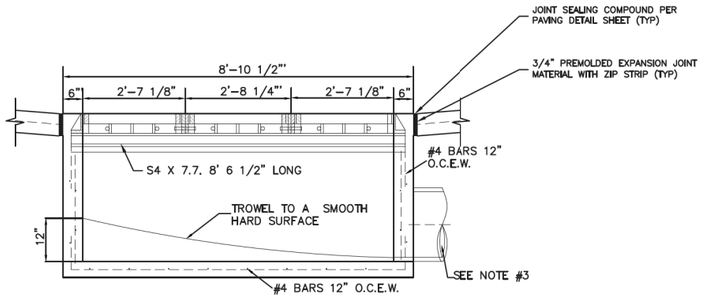
GRATE DETAILS

NOTES

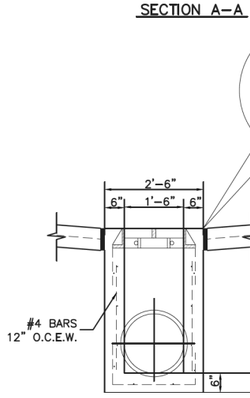
1. ALL LAPS AND EXTENSIONS OF REINFORCING BARS SHALL BE 30 BAR DIAMETERS UNLESS NOTED OTHERWISE.
2. TACK WELD GRATES IN PLACE OR USE GRATE LOCK.
3. PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER ANY CORNER OR BOTTOM.
4. CONCRETE TO BE MIN. OF 4200 PSI.
5. GRATE INLET DESIGN TO BE USED IN PAVED AREAS ONLY.



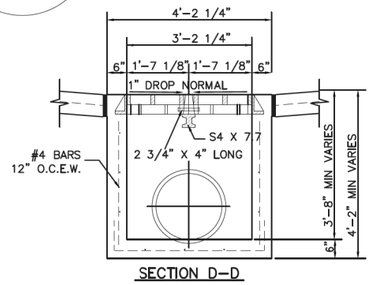
SECTION A–A



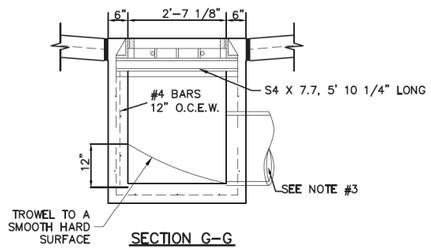
SECTION B–B



SECTION C–C



SECTION D–D



SECTION G–G

GENERAL:
(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF GRAND PRAIRIE, WHICH HAS ALSO ADOPTED THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005–5888. (817) 640–3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM

CLOSED CONDUITS:
(A) CLOSED CONDUITS SHALL BE INSTALLED PER N.C.T.C.O.G. ITEM 508
(B) ONLY REINFORCED CONCRETE PIPE (RCP) OR REINFORCED CONCRETE BOX (RCB) IS APPROVED FOR USE FOR STORM DRAIN CONDUIT, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
(C) CLASS IV RCP SHALL BE USED WHERE THE PIPE COVER IS GREATER THAN 1 FEET AND LESS THAN 2 FEET. CLASS III RCP SHALL BE USED WHERE THE PIPE COVER VARIES FROM 2 FEET TO 6 FEET. THE CLASS OF ALL OTHER RCP SHALL DETERMINED BY AN ENGINEER PER LOADS AND SUPPORTING STRENGTHS, AMERICAN CONCRETE PIPE ASSOCIATION.
(D) C–850 RCB SHALL BE USED WHERE THE COVER IS LESS THAN 3 FEET. C–789 SHALL BE USED WHERE THE COVER VARIES FROM 3 FEET TO 6 FEET. THE DESIGN OF ALL OTHER RCB SHALL BE DETERMINED BY AN ENGINEER.
(E) FOR PIPES, EMBEDMENT SHALL BE PER THE STREET BACKFILL & REPAIR DETAIL ON STORM DRAIN & INLET STANDARD DETAIL SHEET. FOR BOX CULVERTS, EMBEDMENT SHALL BE PER THE BOX CULVERT EMBEDMENT DETAIL ON STORM DRAIN & INLET STANDARD DETAIL SHEET. NOTE THAT FLOWABLE BACKFILL IS ONLY REQUIRED BELOW AREAS TO BE PAVED.
(F) THE CONTRACTOR SHALL SEAL ALL JOINTS ON CLOSED CONDUITS WITH OMNI–FLEX JOINT SEALS OR EQUAL; UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
(G) THE MINIMUM SIZE FOR LATERALS IS 18 INCHES IN DIAMETER. THE MINIMUM SIZE FOR MAINS IS 24 INCHES IN DIAMETER.

FITTINGS COLLARS AND CONNECTIONS:
(A) THE CONTRACTOR SHALL USE ONLY PRE–FABRICATED FITTINGS ON NEW CONSTRUCTION PROJECTS. FIELD CONNECTIONS SHALL BE MADE ONLY TO EXISTING PIPE WITH CITY APPROVAL. THE CONNECTION SHALL BE A SMOOTH CONNECTION AND CONCRETE WRAPPED ON THE OUTSIDE AND INSIDE.
(B) CONCRETE COLLARS SHALL BE CONSTRUCTED PER THE CONCRETE COLLAR DETAILS, ON THE STORM DRAIN AND INLET STANDARD DETAIL SHEET, AT ALL STORM DRAIN SIZE AND AT GRADE CHANGES OR IN CURVES WHERE THE JOINT IS BEING PULLED MORE THAN RECOMMENDED BY THE MANUFACTURER. PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 508.3.4.1.

INLETS:
(A) ALL INLETS SHALL BE POURED IN PLACE. PRECAST INLETS, JUNCTION BOXES, MANHOLES, AND HEADWALLS ARE NOT ALLOWED.
(B) INLETS SHALL NOT BE USED AS JUNCTION BOXES OR PLACED ON A MAIN, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
(C) THE MINIMUM OPENING FOR A CURB INLET SHALL BE 5 FEET. CURB INLETS SHALL BE CONSTRUCTED IN 5 FOOT INCREMENTS. ALL CURB INLETS WITH 15 FEET WIDE OR LARGER OPENINGS SHALL HAVE A CENTER SUPPORT. ALL CURB INLETS GREATER THAN 7 FEET DEEP SHALL BE DESIGNED AND SEALED BY AN ENGINEER.
(D) BOTTOMS, TOPS, AND VARIABLE HEIGHT CURB TO BE SEPARATE POURS (3 POURS) FOR CURB INLETS.
(E) CURB INLET BOTTOMS SHALL BE POURED PRIOR TO ANY PAVING. (F) CURB INLETS SHALL HAVE 10 LINEAR FEET OF VARIABLE HEIGHT CURB ON BOTH SIDES OF THE INLET OPENING.
(G) RING AND COVER ON CURB INLETS TO BE LOCATED DIRECTLY OVER THE OUTLET PIPE.

CONCRETE:
(A) CONCRETE SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS. NO CONTINUOUS VOLUMETRIC MIX CONCRETE ALLOWED IN STRUCTURAL POURS. ALL CONCRETE MUST BE PLANT RUN/TRANSIT MIX CONCRETE. UNLESS OTHERWISE APPROVED BY THE ENGINEER.
(B) ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET–STEEL PER ASTM DESIGNATION A–615, GRADE 60, AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP–88 AND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
(C) THE CONTRACTOR SHALL USE A LIQUID MEMBRANE–FORMING CURING COMPOUND PER N.C.T.C.O.G. ITEM ITEM 303.2.12.1.1.

TESTING:
(A) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
  (a) ALL CLOSED CONDUITS SHALL BE T.V. INSPECTED PER N.C.T.C.O.G. ITEM 507.5.2 METHOD AND BE COMPLETED PRIOR TO PLACING PAVEMENT.
  (b) ALL UTILITY DITCH LINES WITHIN CITY R.O.W. OR EASEMENT SHALL BE TESTED AT A FREQUENCY OF ONE DENSITY PER 6"–8" LIFTS (NOT TO EXCEED 12") AT STAGGERED 100' INTERVALS. ALL LATERALS OR SERVICES SHALL HAVE A MINIMUM OF ONE DENSITY TEST PER FOOT OF LIFT. THE INSPECTOR SHALL HAVE THE RIGHT TO REQUEST ADDITIONAL RANDOM TESTS AS HE/SHE DEEMS NECESSARY.
(B) PLEASE REFER TO THE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION DETAIL SHEET.
(C) THE CITY WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.

MATERIAL: ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.

PRIVATE DEVELOPMENT PROJECTS:
A. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL AND MATERIAL TESTING FOR BACKFILL, DENSITY AND CONCRETE TESTING PRIOR TO BEGINNING ANY CONSTRUCTION.
B. WELD CHAINS TO GRATES OR TACK WELD.

CERTIFICATION:
THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.

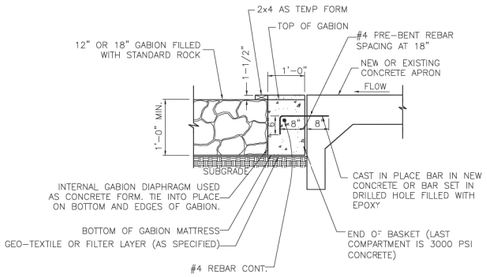
STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

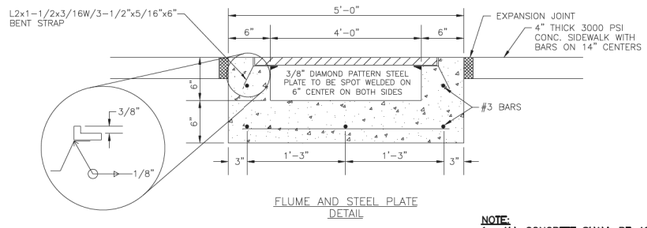
GRATE INLET DETAILS

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
G.F.	J.P.	G.F.	JAN. 2021	N.T.S.			95

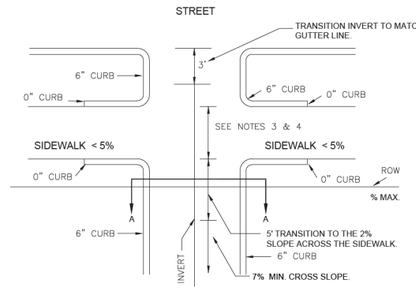


GABION MATTRESS TO CONCRETE ATTACHMENT DETAIL
NTS



FLUME AND STEEL PLATE DETAIL

NOTE:
1. ALL CONCRETE SHALL BE 4000 PSI AT 28 DAYS.
2. ALL STEEL SHALL BE ASTM A36.
3. TOUCH UP SPOT WELDED AREAS W/GALV. BAR

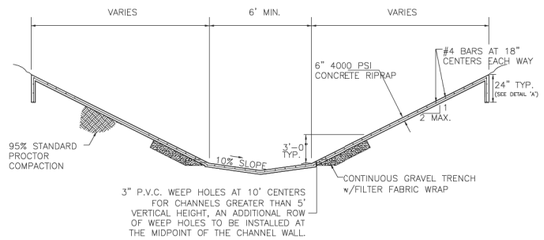


FLUME AND SIDEWALK DETAIL

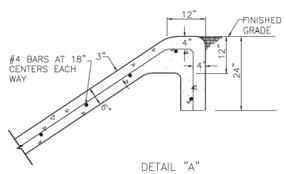
Note:
1. FLOW IS TOWARD STREET, OTHERWISE THE FLUME WILL HAVE TO BE FLARED AT THE STREET.
2. FOR FLUMES 5 FEET OR LESS IN WIDTH A METAL PLATE MAY BE CONSIDERED FOR UNIQUE SITUATIONS IF AUTHORIZED BY THE PUBLIC WORKS DEPARTMENT.
3. LONGITUDINAL FLUME SLOPE ACROSS SIDEWALK MUST BE NO GREATER THAN 2%.
4. THE TRANSVERSE SLOPE OF THE FLUME AT THE SIDEWALK MUST BE LESS THAN 5%.
5. ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI. AT 28 DAYS.
6. ALL STEEL SHALL BE ASTM A36.

GENERAL NOTES:

(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF GRAND PRAIRIE, WHICH HAS ALSO ADOPTED THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
(B) ALL MANHOLES SHALL BE POURED IN PLACE. PRECAST JUNCTION BOXES OR MANHOLES ARE NOT ALLOWED UNLESS SHOP DRAWINGS ARE PRE-APPROVED BY THE CITY ENGINEER.
(C) CONCRETE SHALL BE MADE WITH A MINIMUM OF 5 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
(D) ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION A-615, GRADE 60, AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP-88 AND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
(E) THE CONTRACTOR SHALL USE A LIQUID MEMBRANE-FORMING CURING COMPOUND PER N.C.T.C.O.G. ITEM 2.2.11(1).
(F) LIGHT BROOM FINISH REQUIRED ON ALL EXPOSED MANHOLE TOPS.
(G) MANHOLE FRAME AND COVER SHALL BE INSTALLED AS PER THE DETAILS ON THIS SHEET.
(H) STACKED MANHOLE EXTENSION SHALL BE INSTALLED, WHERE SPECIFIED ON THE PLANS AND AS PER THE DETAILS ON THIS SHEET.
(I) MANHOLES SHALL BE CONSTRUCTED PER DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 6.7.4.1
(J) SOIL TESTING TECHNICIAN MUST PROVIDE WRITTEN PROOF OF 18-24 MONTHS OF RELATED FIELD EXPERIENCE.
(K) PREFABRICATED ROUND MANHOLES SHALL CONFORM TO ASTM C478 SPECIFICATIONS.
(L) PREFABRICATED SQUARE MANHOLES SHALL CONFORM TO ASTM C890 AND ASTM C913 SPECIFICATIONS.
(M) ALL UTILITY DITCH LINES WITHIN CITY R.O.W. OR EASEMENT SHALL BE TESTED AT A FREQUENCY OF ONE DENSITY PER 6"-8" LIFTS (NOT TO EXCEED 12") AT STAGGERED 100' INTERVALS. ALL LATERALS OR SERVICES SHALL HAVE A MINIMUM OF ONE DENSITY TEST PER FOOT OF LIFT. THE INSPECTOR SHALL HAVE THE RIGHT TO REQUEST ADDITIONAL RANDOM TESTS AS HE/SHE DEEMS NECESSARY.
(N) ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
(O) CONTRACTOR SHALL CONTACT TRANSPORTATION DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.
(P) PLEASE REFER TO THE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION DETAIL SHEET.
(Q) THE CITY WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.
(R) PRIVATE DEVELOPMENT PROJECTS: THE DEVELOPER/OWNER SHALL PROVIDE FOR GEOTECHNICAL AND MATERIAL TESTING FOR BACKFILL, DENSITY AND CONCRETE TESTING PRIOR TO BEGINNING ANY CONSTRUCTION.



CONCRETE CHANNEL
LESS THAN 8 VERTICAL FEET IN HEIGHT
NTS



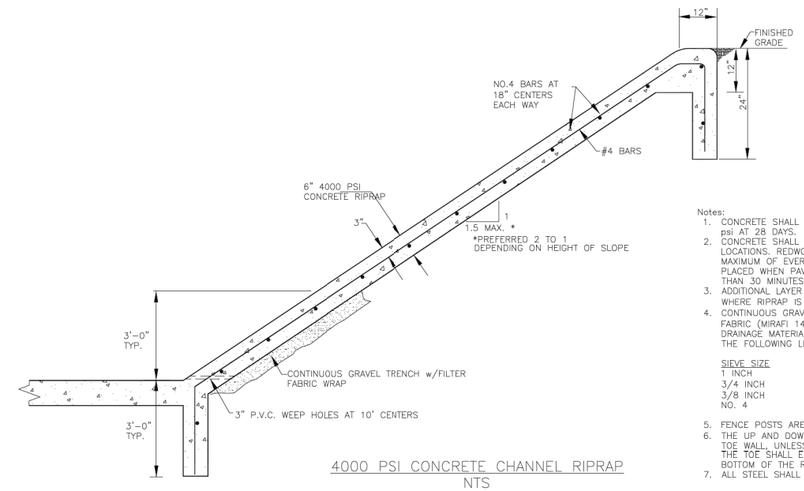
DETAIL "A"
(HEADER BEAM)
NTS

Notes:
1. CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 4,000 psi AT 28 DAYS.
2. CONCRETE SHALL HAVE TRANSVERSE JOINTS AT WEEP HOLE LOCATIONS. REDWOOD EXPANSION JOINTS ARE REQUIRED A MAXIMUM OF EVERY 200 FEET. CONSTRUCTION JOINTS PLACED WHEN PAVING OPERATION HAS CEASED FOR MORE THAN 30 MINUTES.
3. ADDITIONAL LAYER OF WEEP HOLES SHALL BE REQUIRED WHERE RIPRAP IS GREATER THAN 5' VERTICAL HEIGHT.
4. CONTINUOUS GRAVEL TRENCH 6' THICK WRAPPED IN FILTER FABRIC (MIRAFI 140 NS OR FUNCTIONAL EQUIVALENT). DRAINAGE MATERIAL TO CONSIST OF GRAVEL GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	% BY WEIGHT PASSING
1 INCH	100
3/4 INCH	90-100
3/8 INCH	20-55
NO. 4	0-5

5. FENCE POSTS ARE NOT PERMITTED IN THE CONCRETE.
6. THE UP AND DOWNSTREAM ENDS SHALL HAVE A 3' DEEP TOE WALL, UNLESS CONNECTING TO ANOTHER STRUCTURE. THE TOE SHALL EXTEND FROM TOP OF BANK TO THE BOTTOM OF THE RIPRAP.
7. ALL STEEL SHALL BE ASTM A36

CONCRETE CHANNEL
LESS THAN 8 VERTICAL FEET IN HEIGHT
NTS



4000 PSI CONCRETE CHANNEL RIPRAP
NTS

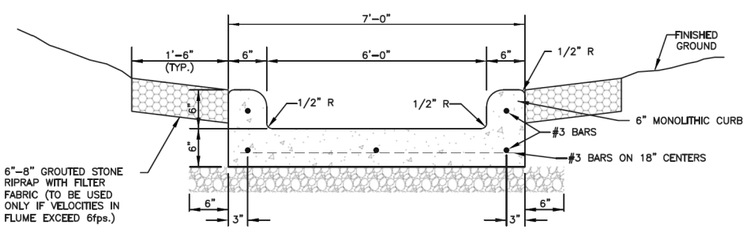
Notes:
1. CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 4,000 psi AT 28 DAYS.
2. CONCRETE SHALL HAVE TRANSVERSE JOINTS AT WEEP HOLE LOCATIONS. REDWOOD EXPANSION JOINTS ARE REQUIRED A MAXIMUM OF EVERY 200 FEET. CONSTRUCTION JOINTS PLACED WHEN PAVING OPERATION HAS CEASED FOR MORE THAN 30 MINUTES.
3. ADDITIONAL LAYER OF WEEP HOLES SHALL BE REQUIRED WHERE RIPRAP IS GREATER THAN 5' VERTICAL HEIGHT.
4. CONTINUOUS GRAVEL TRENCH 6' THICK WRAPPED IN FILTER FABRIC (MIRAFI 140 NS OR FUNCTIONAL EQUIVALENT). DRAINAGE MATERIAL TO CONSIST OF GRAVEL GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	% BY WEIGHT PASSING
1 INCH	100
3/4 INCH	90-100
3/8 INCH	20-55
NO. 4	0-5

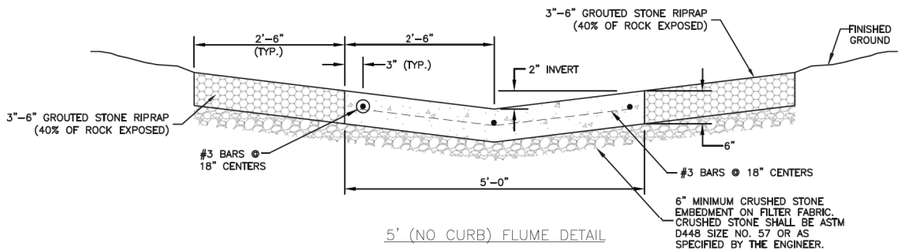
5. FENCE POSTS ARE NOT PERMITTED IN THE CONCRETE.
6. THE UP AND DOWNSTREAM ENDS SHALL HAVE A 3' DEEP TOE WALL, UNLESS CONNECTING TO ANOTHER STRUCTURE. THE TOE SHALL EXTEND FROM TOP OF BANK TO THE BOTTOM OF THE RIPRAP.
7. ALL STEEL SHALL BE ASTM A36

FLUME WITH SIDEWALK CROSSING
NTS

NOTE:
1. ALL CONCRETE SHALL BE 4000 PSI AT 28 DAYS.
2. ALL STEEL SHALL BE ASTM A36.
3. GROUT SHALL BE MIN. 5-SACK 2000 PSI



TYPICAL FLUME CROSS SECTION



5' (NO CURB) FLUME DETAIL

CERTIFICATION:
THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.

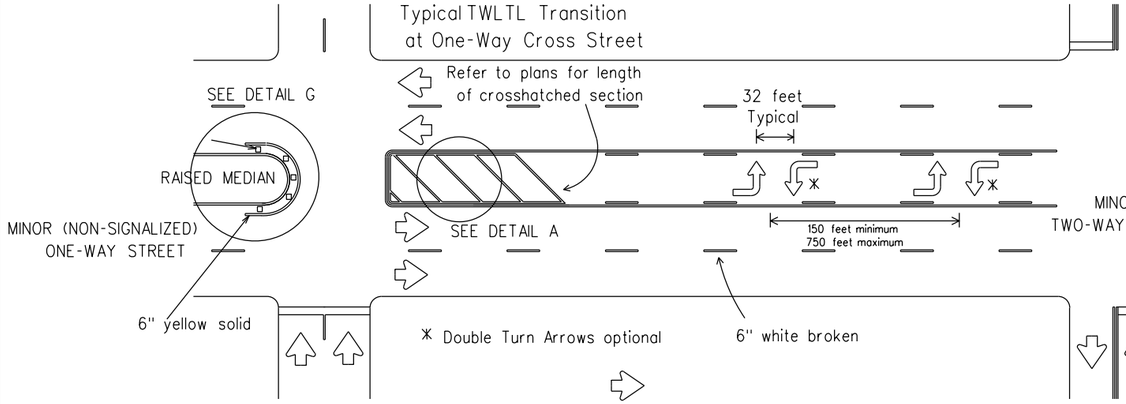
STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

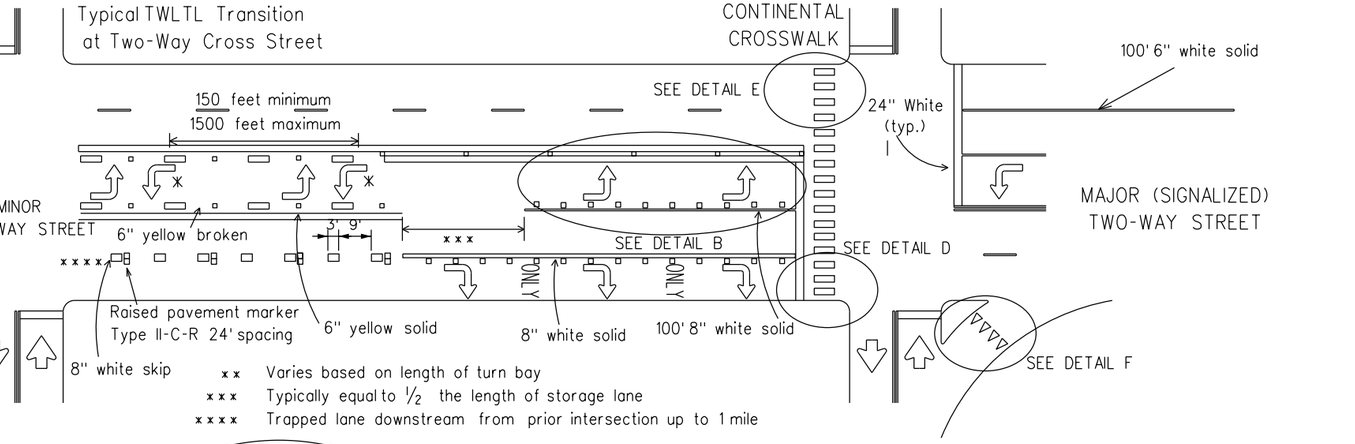
10.03.2025

STORM DRAIN CHANNEL AND FLUME STANDARD DETAILS

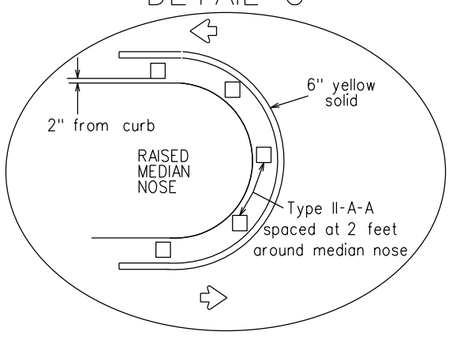
Grand Prairie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	R.A.K.	JAN. 2021	N.T.S.		96



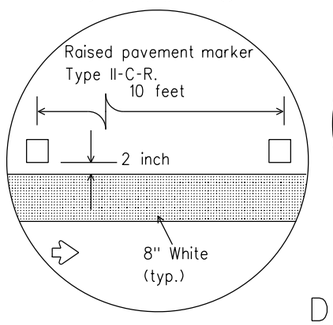


DETAIL G

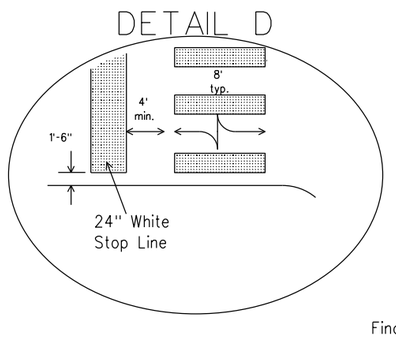


Type II-A-A Markers
to be positioned behind
the crosshatching for the
direction of travel

DETAIL C

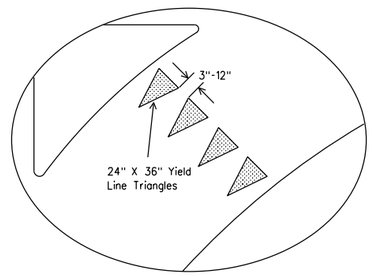


DETAIL D



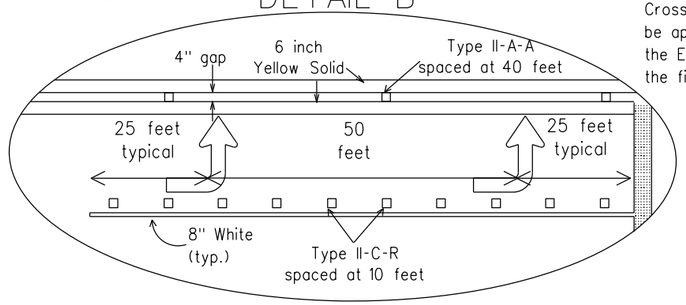
Final placement
of Stop Bar and
Crosswalk shall
be approved by
the Engineer in
the field.

DETAIL F

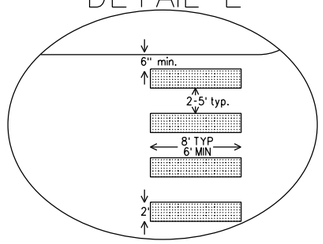


Final placement of the
Yield Line shall be approved
by the Engineer in the field.

DETAIL B

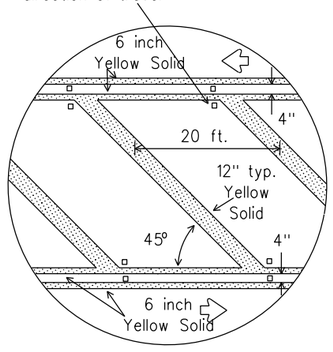


DETAIL E



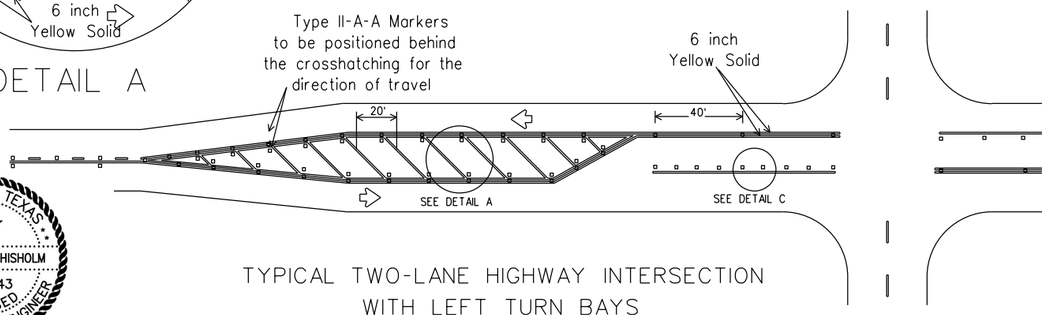
Place markings away
from wheel paths of
passing vehicles.
Final placement of
Crosswalk shall be
approved by the
Engineer in the field.
See Detail E for
spacing from stopline.

DETAIL A

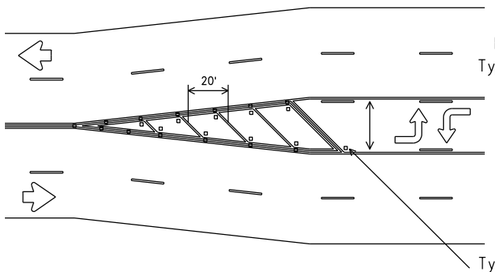


Type II-A-A Markers
to be positioned behind
the crosshatching for the
direction of travel

TYPICAL TWO-LANE HIGHWAY INTERSECTION WITH LEFT TURN BAYS



TYPICAL TRANSITION FOR TWLTL AND DIVIDED HIGHWAY



GENERAL NOTES

Refer elsewhere in plans for additional RPM placement and details.
Details for words and arrows as shown on other sheets.
All pavement marking materials shall meet the Texas Department of Transportation Material Specifications as specified by the plans.

For a left turn bay less than 100 feet in length, two arrows shall be used.
For a left turn bay greater than 100 feet in length, three arrows shall be used. Spacing to be determined by Engineer. Supplement with R3-7 signs.

The use of turn bay arrows are reserved for signalized intersections only.
The use of the word ONLY shall only be used in trapped turn lanes.
Yield line triangles may be 12" X 18" minimum on narrow, low-speed facilities.
Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) may be used.

SPECIFICATION REFERENCE TABLE
TXDOT MATERIAL SPECIFICATIONS

HOT APPLIED THERMOPLASTIC	DMS-8220
TRAFFIC PAINT	DMS-8200
PAVEMENT MARKERS (REFLECT.)	DMS-4200
EPOXY	DMS-6100
BITUMINOUS ADHESIVE FOR PAV. MRKRS.	DMS-6130

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

No.		Description	Date
6	△	Revised TY 11 A/A locations	3/7/25
5	△	Revised 4" to 6" Add median nose	12/6/24
4	△	Revised Continental Crosswalk	6/3/22
3	△	Revised Trap and Auxiliary Lane	6/3/22
2	△	Revised lead up line to 8"	10/7/16
1	△	Removed 12" stop bar	10/7/16

Revisions

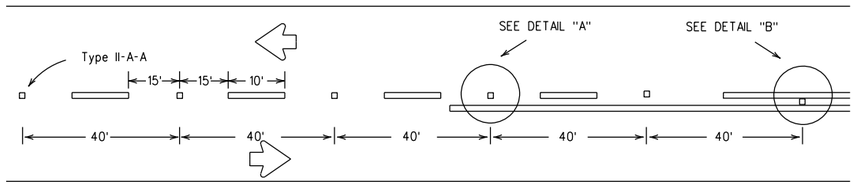
PAVEMENT MARKINGS
STANDARD DETAIL SHEET
TURN LANE & TRANSVERSE MARKINGS

Sheet 1 of 4

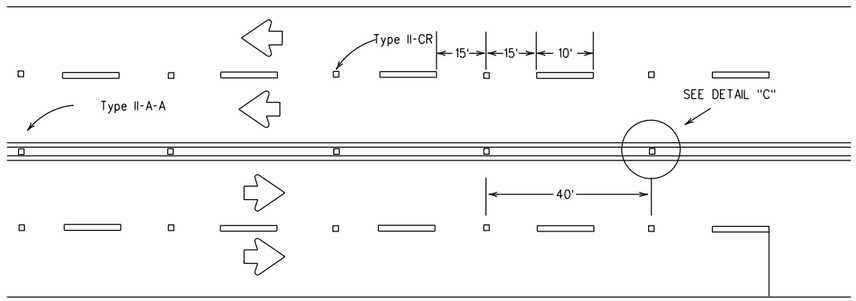
Grand Prairie TEXAS
TRAFFIC ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
PCJ	PCJ	DB	12/6/24	NTS			97

REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE

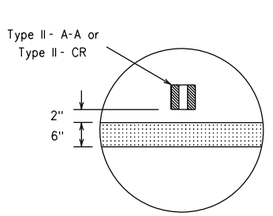


CENTERLINE FOR ALL TWO LANE ROADWAYS

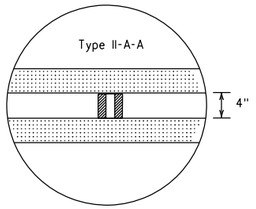


CENTERLINE & LANE LINES
FOR FOUR LANE TWO-WAY HIGHWAYS

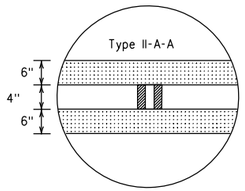
Raised pavement marker Type II-CR, shall have clear side face toward normal traffic. Red side shall face wrong way traffic. Shall be placed on 40' centers.



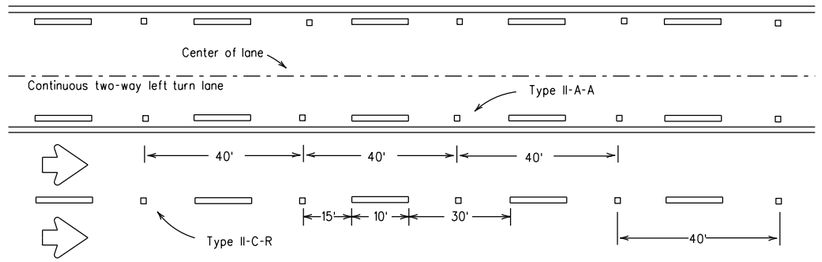
DETAIL "A"



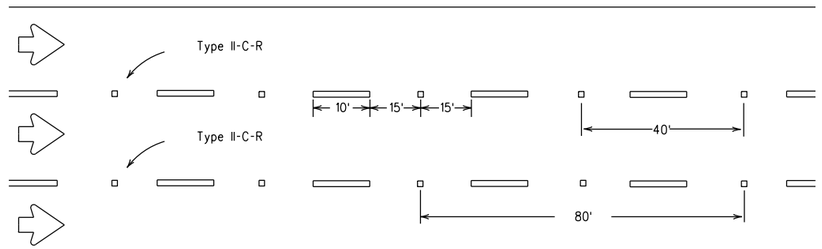
DETAIL "B"



DETAIL "C"



CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE



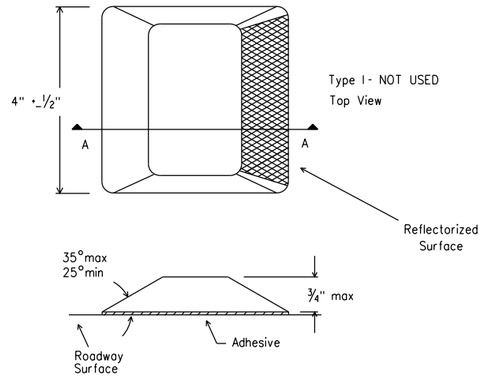
LANE LINES FOR ONE-WAY ROADWAY (NON-FREEWAY FACILITIES)

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

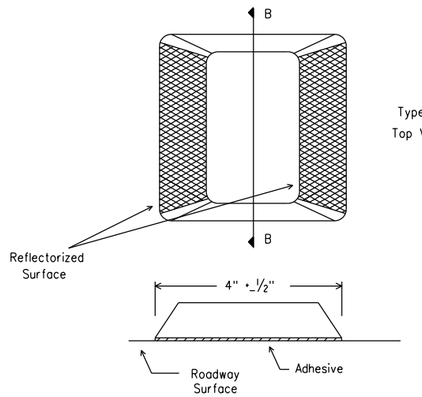
Type I- C markers may NOT be used in Grand Prairie

RAISED PAVEMENT MARKERS

(REFLECTORIZED)

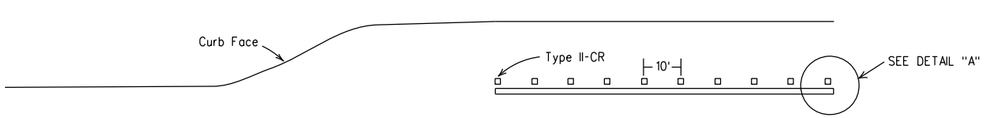


SECTION A

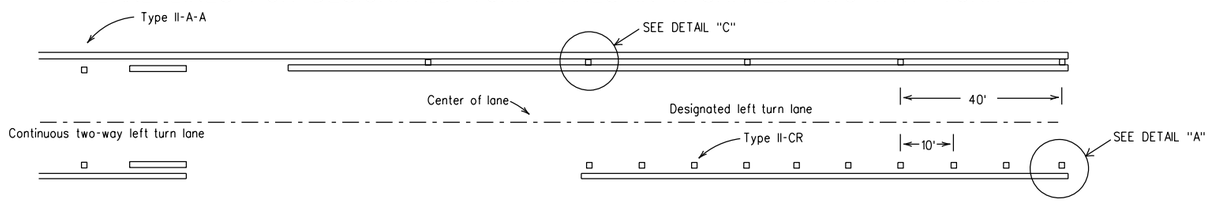


SECTION B

LANE LINES FOR DESIGNATED TURN LANES



LANE LINES FOR DESIGNATED TURN LANES IN A SHARED TWO-WAY TURN LANE



GENERAL NOTES:

All Raised Pavement Markers placed in broken lines shall be placed in line with and midway between the stripes.

On concrete pavements the Raised Pavement Markers should be placed to the same side of the longitudinal joints as the lane line.

All Raised Pavement Markers installed on concrete shall be installed using Epoxy adhesive.

All Raised Pavement Markers installed on asphalt shall be installed using Bituminous adhesive.

All pavement marking materials shall meet the Texas Department of Transportation Material Specifications as specified by the plans.

SPECIFICATION REFERENCE TABLE

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECT.)	DMS-4200
EPOXY	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
HOT APPLIED THERMOPLASTIC	DMS-8200
GLASS TRAFFIC BEADS	DMS-8290
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

STATE OF TEXAS
MICHAEL J. CHISHOLM
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LICENSED
PROFESSIONAL ENGINEER
10.03.2025

No.		Description	Date
5	△		
4	△		
3	△		
2	△		
1	△	All 4" markings replaced with 6"	12/27/24

Revisions

PAVEMENT MARKINGS

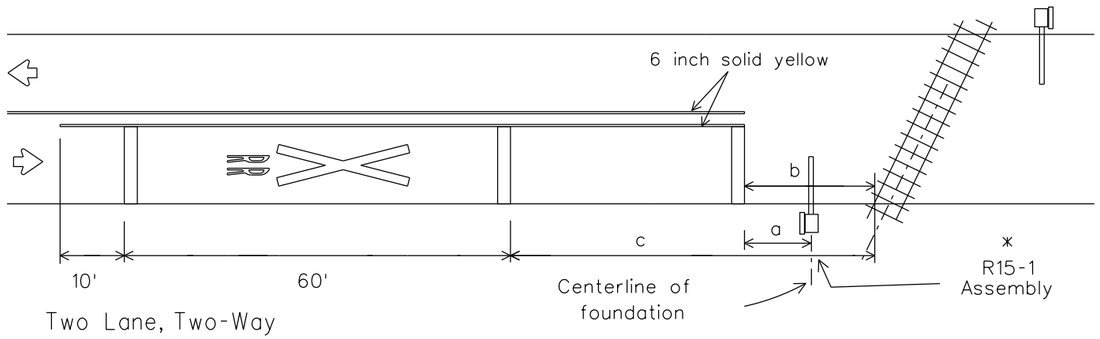
STANDARD DETAIL SHEET

RAISED PAVEMENT MARKERS

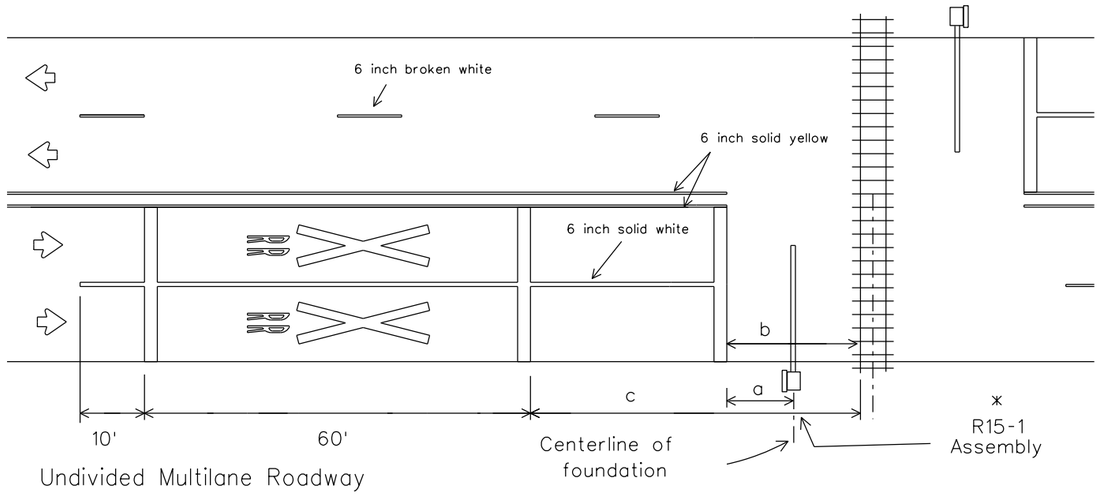
Sheet 2 of 4

Grand Prairie TEXAS
TRAFFIC ENGINEERING

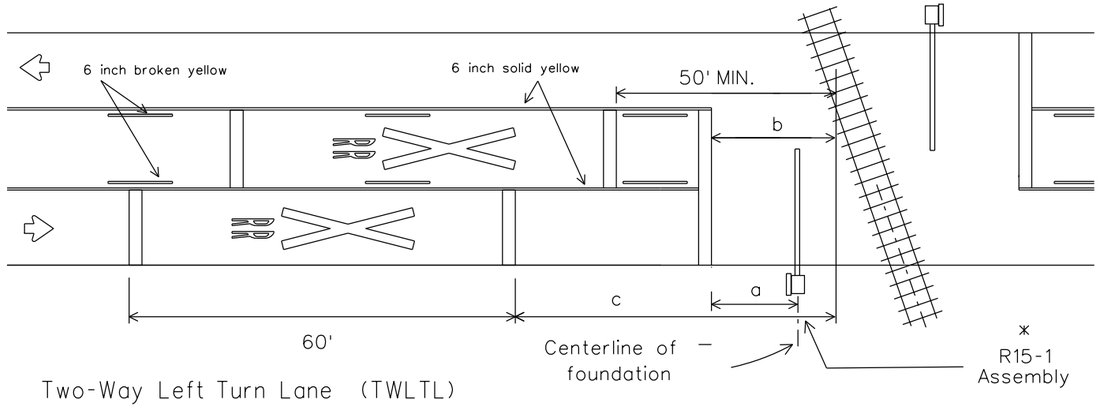
DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
PCJ	PCJ	CD	8/18/21	NTS			98



Two Lane, Two-Way



Undivided Multilane Roadway



Two-Way Left Turn Lane (TWLTL)

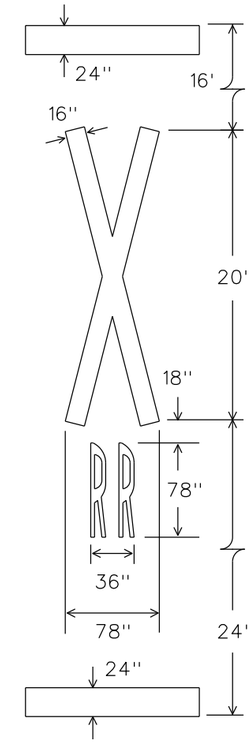
a = Stop lines should be approximately 8 feet in advance of active warning devices (Type A, E or F). Stop line should be approximately 15 feet from near rail if only passive devices (R15-1, plus R15-2 when applicable) are present.

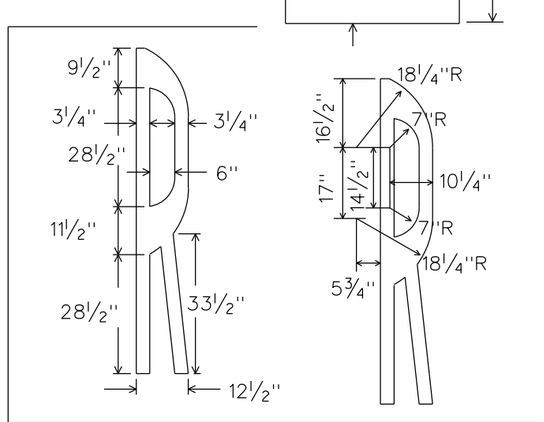
b = 15 feet desirable minimum. R15-1 should be placed between stop line and rails with adequate distance provided for "a".

c = *

Approach Speed(mph)	Desirable Placement (feet)
20	145
25	220
30	295
35	370
40	445
45	520
50	595
55	670
60	745
65	820
70	900

* Local conditions may require alternate placement locations.





ESTIMATED QUANTITIES

(for Contractor Information ONLY)

24 INCH WHITE TRANSVERSE MARKINGS AND STOP LINES

		LANE WIDTH (FT)			
		11	12	13	14
No. of Approach Lanes (Include TWLTL)	1	33	36	39	42
	2	66	72	78	84
	3	99	108	117	126
	4	132	144	156	168

6 INCH SOLID YELLOW NO PASSING LINE = "d" - "c" + 70

For: Two Lane, Two-Way, Single Lane Approach per Direction

6 INCH SOLID WHITE LANE LINE = "d" - "a" + 70

For: Two-Way or One-Way Traffic, 2 or More Approach Lanes in Same Direction (Do NOT Include TWLTL)

GENERAL NOTES

1. The pavement markings on an approach to a railroad grade crossing shall consist of:
   a. The RR Xing symbol,
   b. Three transverse 24" lines, and
   c. Lane lines: a solid no passing line for two-way traffic approaches, or solid lane lines for multilane approaches.
2. For bidding purposes, the RR Xing symbol will be measured and paid for as for each lane in place. The transverse markings and lane lines will be measured and paid for by the lineal foot.
3. Centerlines shall be yellow, other markings shall be white.
4. Approach lanes less than 8 foot width shall NOT have markings.
5. Markings should NOT be placed where less than 110 feet of approach roadway is available for placement.
6. RR Xing symbols should be placed approximately in the center of the approach lane.
7. All transverse markings, including stop lines, shall be placed at right angles to the centerline and across all approach lanes.
8. Existing non-standard markings shall be removed to the fullest extent possible so as not to leave a discernable marking, by any method approved by the engineer. OVERPAINTING WILL NOT BE ALLOWED.
9. Additional markings and placement details may be found in the TMUTCD, Appendix H.
10. The Engineer may require additional longitudinal markings if the distance between the stop lines is greater than 80 feet. Markings are not required across or between the rails unless specified elsewhere in the plans.

* R15-1 Assembly

May consist of one or more of the following:
- R15-1 Crossbuck Sign
- R15-2 Multiple Track Sign
- Type A Mast Flashers
- Type E Cantilevers
- Type F Gates

No.		Description	Date
5			
4			
3			
2			
1		Revised 4 inch with 6 inch markings	12/27/24

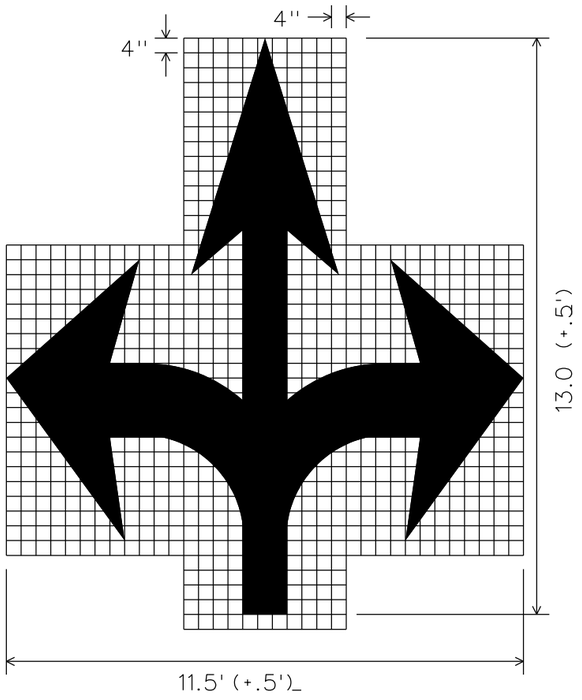
Revisions

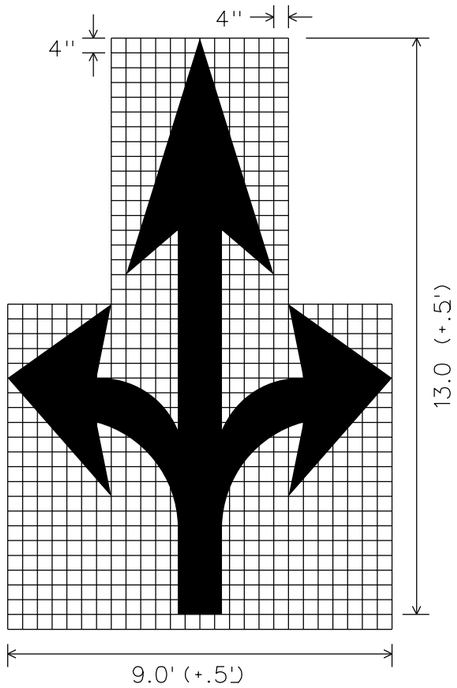
PAVEMENT MARKINGS
STANDARD DETAIL SHEET
RAILROAD CROSSINGS
Sheet 3 of 4

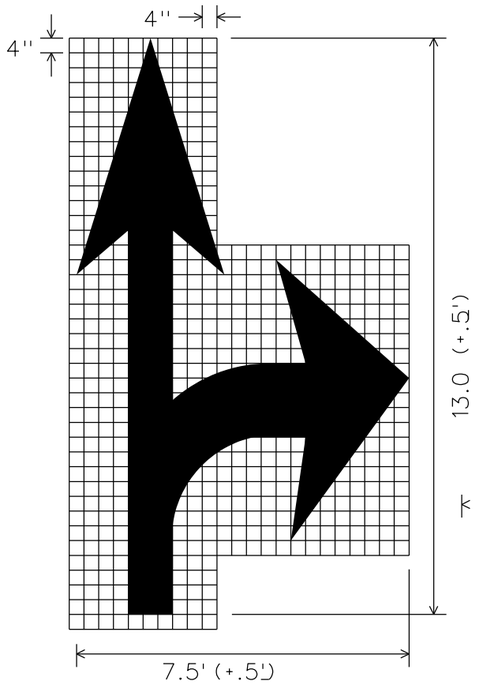
STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

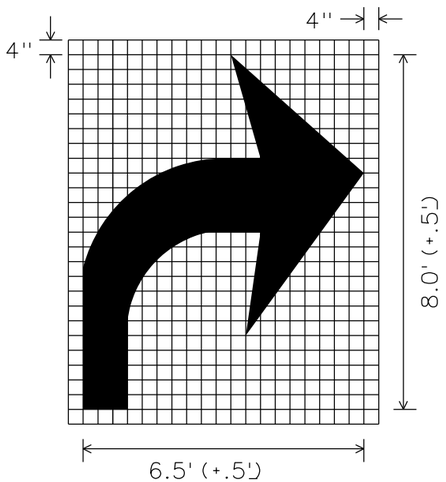
GRand PRairie TEXAS
TRAFFIC ENGINEERING

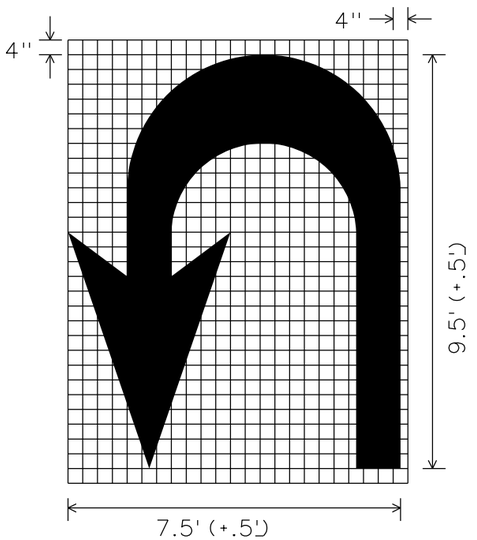
DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
PCJ	PCJ	CD	8/18/21	NTS			99

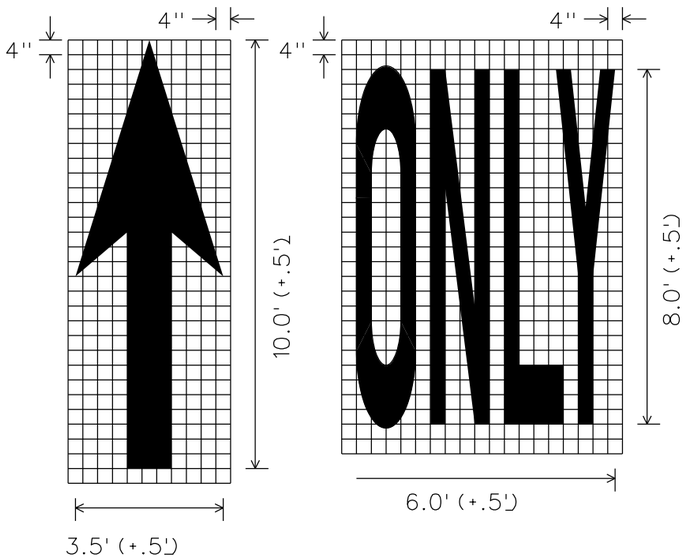












GENERAL NOTES:

1. Minimum 8 foot white markings should be used, unless otherwise noted. If message consists of more than one word, it should be placed with first word nearest the driver.
2. These details are standard size for normal installation; sizes may be reduced approximately one-third for low speed urban conditions; larger sizes may be needed for freeways, above average speed conditions or other critical locations.
3. The longitudinal space between markings should be at least four times the height of the markings, on low speed roads, but should not exceed ten times the height under any condition.
4. Markings considered appropriate for use when warranted include the following:
   - A. Regulatory
     - STOP
     - RIGHT (LEFT) TURN ONLY
     - 25 MPH
     - SYMBOL ARROWS
   - B. Warning
     - STOP AHEAD
     - SIGNAL AHEAD
     - SCHOOL
     - SCHOOL X-ING
     - PED X-ING
     - R X R (see RCPM standard)
   - C. Guide
     - US XXX
     - ROUTE XXX
     - STATE XXX
     - Other words or symbols may be necessary under certain conditions
5. Uncontrolled use of pavement markings can result in driver confusion. Word and symbol markings should be no more than three lines.
6. The word "STOP" shall not be used on the pavement unless accompanied by a Stop line and Stop sign. The word "STOP" shall not be placed on the pavement in advance to a stop line, unless every vehicle is required to stop at all times.
7. Pavement markings should generally be no more than one lane in width, with School messages being the exception. For details of School and School crossing pavement markings, refer to Part VII of the "Texas Manual on Uniform Traffic Control Devices".
8. Spacing between letters should be approximately 4 inches. The width of letters may vary depending on the width of the travel lanes.
9. Lane-Use arrow markings may be used to convey either guidance or mandatory messages. Arrows used to convey a mandatory movement must be accompanied by standard signs. The use of the pavement marking word "ONLY" shall be determined by the Engineer.
10. Pavement markings are to be located as specified elsewhere in the plans.
11. All pavement markings shall be Type I (Thermoplastic) unless specifically specified elsewhere in the plans.

SPACING BETWEEN LINES OF PAVEMENT MARKING	
MPH	SPACING
≤45	MINIMUM 4 TIMES THE LETTER HEIGHT
>45	MINIMUM - 4 TIMES THE LETTER HEIGHT MAXIMUM - 10 TIMES THE LETTER HEIGHT

No.	Description	Date
5		
4		
3		
2		
1		

Revisions

PAVEMENT MARKINGS

STANDARD DETAIL

ARROWS AND SYMBOLS

07.24.2025

Sheet 4 of 4

GRAND PRAIRIE TEXAS

TRAFFIC ENGINEERING

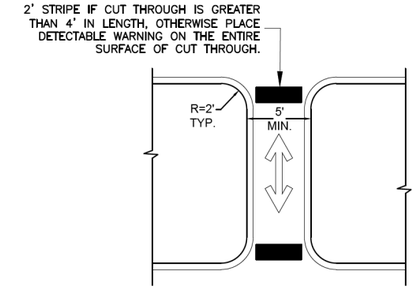
DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
PCJ	PCJ	CD	8/18/21	NTS			100

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

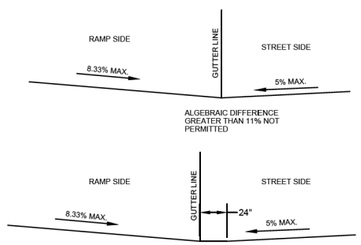
10.03.2025

TRANSPORTATION SERVICES (\\ch-1s1on.gptx.org\(L:)\Microstation)PM_4of4_2021

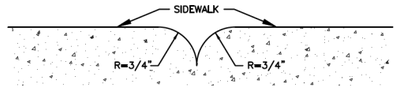
1. NOTE:
2. SEE BARRIER FREE RAMPS SHEET 2 OF 2 FOR DETECTABLE WARNING DETAILS
3. LAY-DOWN CURB LENGTH VARIES (MINIMUM LENGTH AS SHOWN)
4. BARRIER FREE RAMPS SHALL BE DOWELED INTO EXISTING STREET PAVEMENT (MIN. 9") WITH #3 @ 18" O.C. x 24" LONG.
5. BARRIER FREE RAMPS SHALL BE REINFORCED CONCRETE (4000 PSI) FOR A 2 FOOT WIDTH FROM BACK OF CURB & MATCH STREET THICKNESS. THE REMAINDER OF THE BARRIER FREE RAMP SHALL BE 5" REINFORCED CONCRETE (4000 PSI). THE ENTIRE RAMP MAY HAVE A 2" SAND CUSHION.
6. ALL 12:1 RAMPS SHALL NOT EXCEED 6' IN LENGTH.
7. FILL TO BE MINIMUM 95% STANDARD PROCTOR DENSITY AT ± 2% OF OPTIMUM MOISTURE CONTENT AND SHALL BE SELECT FILL WITH P.I. LESS THAN 15.
8. BARRIER FREE RAMPS SHALL BE CONSTRUCTED AT ALL STREET AND ALLEY INTERSECTIONS EVEN IF THE SIDEWALKS ARE NOT INCLUDED IN THE CONSTRUCTION PLANS.



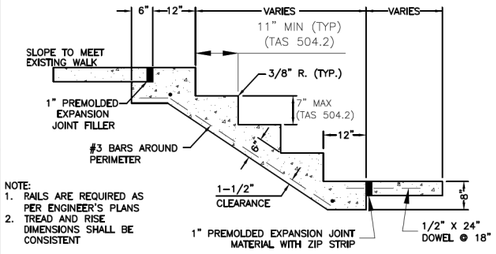
CUT THROUGH AT ISLAND/MEDIAN



COUNTER SLOPE CONDITIONS

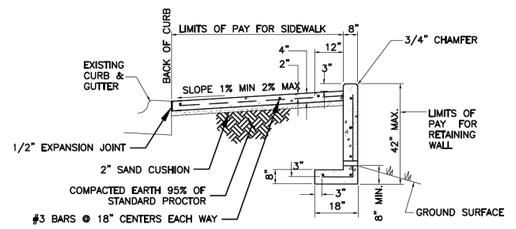


TOOLED JOINT
NOT TO SCALE



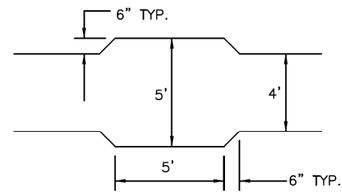
NOTE:
1. RAILS ARE REQUIRED AS PER ENGINEER'S PLANS
2. TREAD AND RISE DIMENSIONS SHALL BE CONSISTENT

SIDEWALK STEPS
NOT TO SCALE



NOTES:
1. STEEL REINFORCING IN WALL SHALL BE #3 BARS @ 12" CENTERS HORIZONTALLY AND #4 BARS @ 8" CENTERS VERTICALLY.
2. REDWOOD JOINTS IN WALL SHALL MATCH REDWOOD JOINTS IN THE SIDEWALK. THE WALL SHALL BE DOUBLE CHAMFERED AT THE REDWOOD LOCATIONS.3. ENDS OF WALL SHALL ALSO BE CHAMFERED.
3. CONCRETE TO HAVE COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.

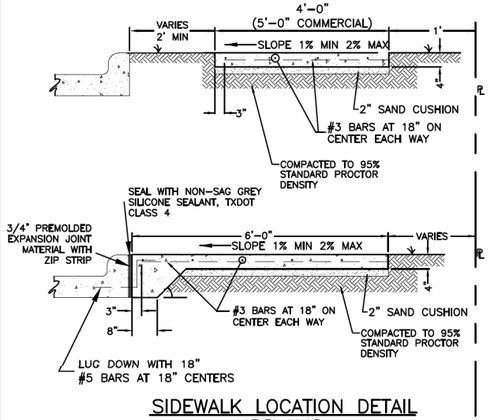
SIDEWALK WITH LOW WALL
NTS



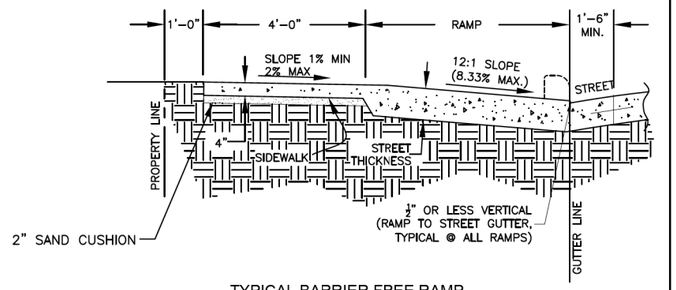
SIDEWALK PASSING AREA *
NOT TO SCALE

NOTE: DRIVEWAY CROSSING QUALIFY AS PASSING AREA. *MAXIMUM 200' INTERVALS

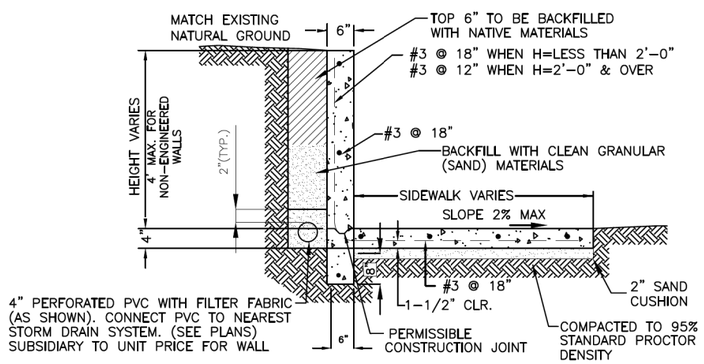
NOTE: NO TREES OR BUSHES SHALL BE PLACED BETWEEN BACK OF CURB AND SIDEWALK



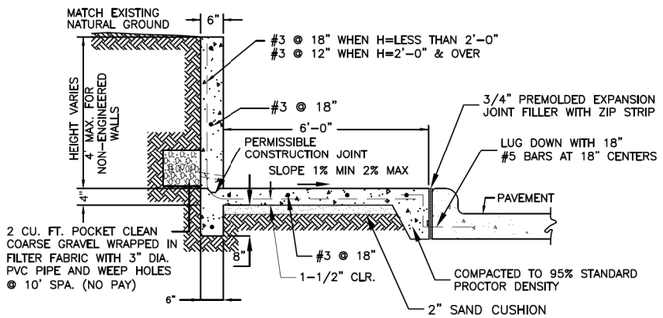
SIDEWALK LOCATION DETAIL
NOT TO SCALE

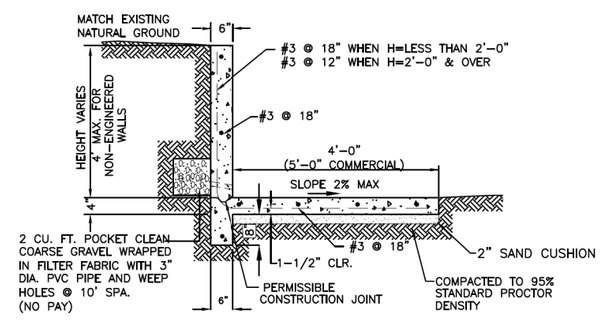


TYPICAL BARRIER FREE RAMP
NOT TO SCALE
NOTE: 4000 PSI CONCRETE REINFORCED W/ #3 @ 14" O.C. EACH WAY W/ 2" SAND CUSHION.



SIDEWALK AND RETAINING WALL
PLAN WITHOUT WEEP HOLES
(DRAINAGE BEHIND WALL TO BE USED WHEN DRAINAGE SYSTEM IS IN NEAR PROXIMITY)
NOT TO SCALE





SIDEWALK AND RETAINING WALL
PLAN WITH WEEP HOLES
(DRAINAGE THROUGH WEEP HOLES, TO BE USED IN THE ABSENCE OF DRAINAGE SYSTEM)

SIDEWALK AND BARRIER RAMPS NOTES:

GENERAL REQUIREMENTS
A. BARRIER FREE RAMPS SHALL BE CONSTRUCTED AS PER THE LATEST REQUIREMENTS AND SPECIFICATIONS OF THE TEXAS ACCESSIBILITY STANDARDS AND THE AMERICANS WITH DISABILITIES ACT.
B. CONTRACTOR SHALL CONTACT THE TRANSPORTATION DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.

LOCATION:
A. BARRIER FREE RAMPS UNDER THESE PROVISIONS, SHALL BE WHEREVER AN ACCESSIBLE ROUTE CROSSES A CURB.

SLOPE:
A. SLOPES ON BARRIER FREE RAMPS SHALL BE AS FOLLOWS:
B. THE SLOPE SHALL BE MEASURED AS SHOWN IN COUNTER SLOPE CONDITION DETAIL & SECTION B-B OF BARRIER FREE RAMP TYPE-VI (DUAL).
C. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
D. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE BARRIER FREE RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
E. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION SHALL BE 1:12. THE MAXIMUM RISE FOR ANY RUN SHALL BE 30" (760 MM). BARRIER FREE RAMPS AND RAMPS TO BE CONSTRUCTED ON EXISTING SITES OR IN EXISTING BUILDING OR FACILITIES MAY HAVE SLOPES AND RISES IF SPACE LIMITATIONS PROHIBIT THE USE OF A 1:12 SLOPE OR LESS, AS FOLLOWS:
1. A SLOPE BETWEEN 1:10 AND 1:12 IS ALLOWED FOR A MAXIMUM RISE OF 6".
2. A SLOPE BETWEEN 1:8 AND 1:10 IS ALLOWED FOR A MAXIMUM OF 3" A SLOPE STEEPER THAN 1:8 IS NOT ALLOWED.

RAMP WIDTH:
A. THE MINIMUM WIDTH OF A BARRIER FREE RAMP SHALL BE 36" EXCLUSIVE OF FLARED SIDES.

SIDEWALK WIDTH:
A. THE MINIMUM SIDEWALK WIDTH SHALL BE 5' IN AREAS ZONED COMMERCIAL AND 4' IN ALL OTHER AREAS AND SHALL BE CONSTRUCTED AS PER THE "SIDEWALK LOCATION DETAIL" ON THIS SHEET.
B. MINIMUM 6' SIDEWALK MAY BE PLACED ADJACENT TO THE CURB, WITH THE APPROVAL OF THE CITY ENGINEER.

SURFACE:
A. SURFACES OF CURB RAMPS, ALONG ACCESSIBLE ROUTES AND IN ACCESSIBLE ROOMS AND SPACES INCLUDING FLOORS, WALKS, RAMPS, STAIRS, AND CURB RAMPS, SHALL BE STABLE, FIRM, AND SLIP RESISTANT.

SIDES OF BARRIER FREE RAMPS:
A. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
B. THE MAXIMUM SLOPE OF THE FLARE SHALL BE 1:10 BARRIER FREE RAMPS WITH RETURNED CURBS MAY BE USED WHERE PEDESTRIANS WOULD NOT WALK ACROSS THE RAMP.

BUILT-UP RAMPS:
A. BUILT-UP BARRIER FREE RAMPS SHALL BE LOCATED SO THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES.

OBSTRUCTIONS:
A. BARRIER FREE RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
B. ALL EFFORT SHALL BE MADE TO ENSURE AN UNOBSTRUCTED ACCESSIBLE ROUTE AND ALL WORK SHALL COMPLY WITH TEXAS ACCESSIBILITY STANDARDS (TAS) AND TDLR REQUIREMENTS.
C. AN UNOBSTRUCTED CLEARANCE SHALL BE PROVIDED ABOVE CONSTRUCTED SIDEWALKS FOR A DISTANCE OF AT LEAST 80 INCHES ABOVE THE SIDEWALK SURFACE AT ALL LOCATIONS. VEGETATION SHALL BE TRIMMED BACK AS NEEDED TO PROVIDE THIS CLEARANCE REQUIREMENT AND PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THIS PAY ITEM UNLESS A SEPARATE PAY ITEM IS PROVIDED IN THE BID PROPOSAL.

LOCATION AT MARKED CROSSINGS:
A. BARRIER FREE RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.

DIAGONAL BARRIER FREE RAMPS:
A. IF DIAGONAL (OR CORNER TYPE) BARRIER FREE RAMPS HAVE RETURNED CURBS OR OTHER WELL DEFINED EDGES, SUCH EDGES SHALL BE PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW.
B. THE BOTTOM OF DIAGONAL BARRIER FREE RAMPS SHALL HAVE 48" (1220 MM) MIN.
C. IF DIAGONAL BARRIER FREE RAMPS ARE PROVIDED AT MARKED CROSSINGS, THE 48" (1220 MM) CLEAR SPACE SHALL BE WITHIN THE MARKINGS.
D. IF DIAGONAL BARRIER FREE RAMPS HAVE FLARED SIDES, THEY SHALL ALSO HAVE AT LEAST A 24" (610 MM) LONG SEGMENT OF STRAIGHT CURB LOCATED ON EACH SIDE OF THE BARRIER FREE RAMP AND WITHIN THE MARKED CROSSING.
E. ANY RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE BARRIER FREE RAMPS AT BOTH SIDES AND A LEVEL AREA AT LEAST 48" (1220 MM) LONG BETWEEN THE BARRIER FREE RAMPS IN THE PART OF THE ISLAND INTERSECTED BY THE CROSSINGS.

CONSTRUCTION:
A. THE CONTRACTOR SHALL SAWCUT, REMOVE AND DISPOSE OFF-SITE THE REQUIRED EXISTING CONCRETE SIDEWALK, CURB AND GUTTER, TO CONSTRUCT THE PROPOSED RAMPS.
B. CONCRETE SIDEWALKS AND RAMPS SHALL BE MINIMUM 5 1/2 SACK/CUBIC YARD OF CEMENT AND MINIMUM 4" THICK 4,000 PSI CONCRETE, REINFORCED WITH #3 BARS AT 18" CENTERS BOTH WAYS, PLACED OVER A 2" THICK SAND CUSHION EMBEDMENT.
C. THE CONTRACTOR SHALL USE 1" PREMOLDED EXPANSION JOINT MATERIAL BETWEEN THE PROPOSED SIDEWALKS AND RAMPS AT THE BACK OF CURBS, AND AT JOINTS AT NO EXTRA PAY.
D. EXPANSION JOINTS AND DUMMY JOINTS
1. FOR 4' SIDEWALK: REDWOOD EXPANSION JOINTS REQUIRED AT EVERY 40' AND DUMMY JOINTS AT EVERY 4'.
2. FOR 5' SIDEWALK: REDWOOD EXPANSION JOINTS REQUIRED AT EVERY 40' AND DUMMY JOINTS AT EVERY 5'.
3. FOR 6' SIDEWALK: REDWOOD EXPANSION JOINTS REQUIRED AT EVERY 42' AND DUMMY JOINTS AT EVERY 6'.
4. FOR 8' SIDEWALK: REDWOOD EXPANSION JOINTS REQUIRED AT EVERY 40' AND DUMMY JOINTS AT EVERY 8'.
E. INSTALL 1/2" SLIP DOWELS (SMOOTH) ALONG LEAD WALKS AND AT BARRIER FREE RAMPS

TESTING:
A. PLEASE REFER TO THE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION DETAIL SHEET.
B. THE CITY WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.

PRIVATE DEVELOPMENT PROJECTS:
A. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL AND MATERIAL TESTING FOR BACKFILL, DENSITY AND CONCRETE TESTING PRIOR TO BEGINNING ANY CONSTRUCTION.
B. ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
C. CONCRETE SHALL BE MADE WITH A MINIMUM OF 5 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.

CERTIFICATION:
THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

SIDEWALK AND BARRIER FREE RAMPS STANDARD DETAILS

Grand Prairie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	G.F.	JAN. 2021	N.T.S.		101

DETECTABLE WARNINGS

General Notes for Detectable Warnings

1. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the Texas Accessibility Standards (TAS). The surface must contrast visually with adjoining surfaces, including side flares. Furnish dark red detectable warning surface adjacent to uncolored concrete, unless specified elsewhere in the plans.

2. Detectable warning surfaces must be slip resistant and not allow water to accumulate.

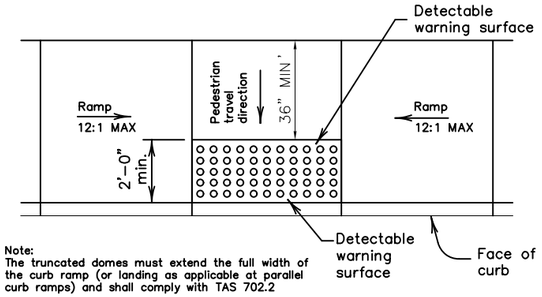
3. Align truncated domes in the direction of pedestrian travel when entering the street.

4. Shaded areas on Sheet 1 OF 2 indicate the approximate location for the detectable warning surface for each curb ramp type.

5. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.

6. Detectable warning surfaces shall be located so that the edge nearest the curb line is a minimum of 6" and a maximum of 10" from the extension of the face of curb. Detectable warning surfaces may be curved along the corner radius.

7. TxDOT maintains a list of Qualified Detectable Warning Materials. Details are provided herein for the placement of landscape pavers. For other materials, refer to the manufacturer's product manual for proper installation.



Note:
The truncated domes must extend the full width of the curb ramp (or landing as applicable at parallel curb ramps) and shall comply with TAS 702.2

Typical placement of detectable warning surface on landing at street edge.

Detectable warning surface

Pedestrian Facilities General Notes

1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. ADJUST CURB RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS AS DIRECTED.
2. THE MINIMUM SIDEWALK WIDTH IS 4'. WHERE THE SIDEWALK IS ADJACENT TO THE BACK OF CURB, A 6' SIDEWALK WIDTH IS REQUIRED. WHERE A 5' SIDEWALK CAN NOT BE PROVIDED DUE TO SITE CONSTRAINTS, 4' SIDEWALKS SHALL HAVE 5' X 5' PASSING AREAS AT INTERVALS NOT TO EXCEED 200' IS REQUIRED.
3. LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
4. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4' X 4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
5. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%. SIDEWALKS SHALL BE PLACED AT A POINT ABOVE THE TOP OF CURB. PARKWAY AND SIDEWALK SHALL NOT BE GRADED IN EXCESS OF 2.0% AND SHALL SLOPE AS REQUIRED AS TO DRAIN TO THE STREET.
6. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDES.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC 68.102.
8. TO SERVE AS A PEDESTRIAN REFUGE AREA, THE MEDIAN SHOULD BE A MINIMUM OF 5' WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR THROUGH THEM.
9. SMALL CHANNELIZATION ISLANDS, WHICH DO NOT PROVIDE A MINIMUM 5'X 5' LANDING AT THE TOP OF CURB RAMPS, SHALL BE CUT THROUGH LEVEL WITH THE SURFACE OF THE STREET.
10. CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, CURB RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER OF RECORD.
11. EXISTING FEATURES THAT COMPLY WITH TAS MAY REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS.
12. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. PROVIDE CURB RAMPS WHEREVER ON ACCESSIBLE ROUTE CROSSES A CURB (BARRIER)
13. SEPARATE CURB RAMP AND LANDINGS FROM ADJACENT SIDEWALK AND ANY OTHER ELEMENTS WITH PREMOLD OR BOARD JOINT OF ¾" UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
14. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMPS CONNECT TO THE STREET.
15. CURBS SHOWN ON SHEET 1 OF 2 WITHIN THE LIMITS OF PAYMENT ARE CONSIDERED PART OF THE CURB RAMP FOR PAYMENT, WHETHER IT IS CONCRETE CURB, GUTTER, OR COMBINED CURB AND GUTTER.
16. ALL WORK SHALL COMPLY WITH CURRENT TEXAS ACCESSIBILITY STANDARDS AND TDLR REQUIREMENTS.
17. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED PARALLEL TO CURB LINE.
18. REFER TO THE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION DETAIL SHEET.

CERTIFICATION:
THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED PROFESSIONAL ENGINEER

10.03.2025

SIDEWALK AND

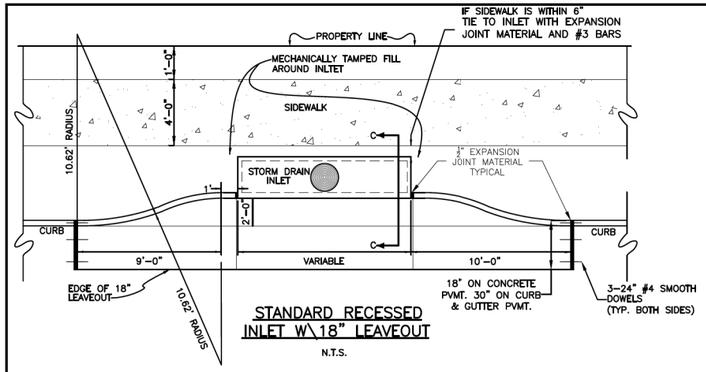
BARRIER FREE RAMPS

STANDARD DETAILS 2 OF 2

JEFFERSON STREET

GRand PRaiRie TEXAS
ENGINEERING

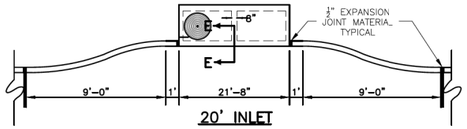
DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	G.F.	JAN. 2021	N.T.S.		102



STANDARD RECESSED INLET W\18" LEAVEOUT

N.T.S.

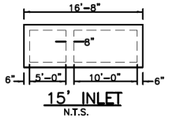
NOTE:
1. ALL 15' AND 20' INLETS WILL REQUIRE A CENTER SUPPORT BEAM.
2. ALL OPEN BACK INLETS GREATER THAN 5' WILL REQUIRE A CENTER BEAM, REGARDLESS OF INLET TYPE OR SIZE.
3. IF DISTANCE FROM BOTTOM OF SUPPORT BEAM TO BOTTOM OF INLET IS LESS THAN 4' THEN ADD A SECOND INLET RING AND COVER.
4. REINFORCEMENT BARS MAY NOT BE SHOWN FOR CLARITY. BARS ARE REQUIRED IN TOP, SIDES ENDS, AND BOTTOM OF ALL STRUCTURES.



20' INLET

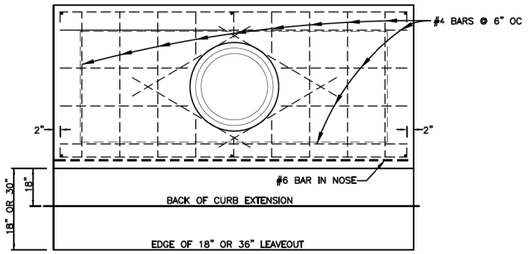
(TO BE BUILT AS A DOUBLE 10' INLET EXCEPT AS SHOWN)

N.T.S.



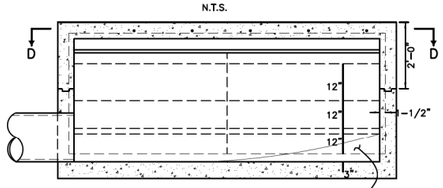
15' INLET

N.T.S.



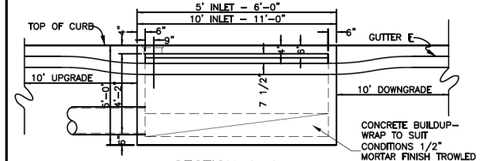
SECTION D-D

N.T.S.



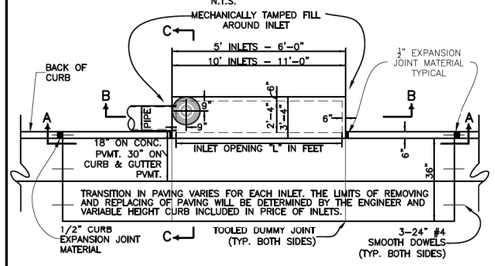
SECTION B-B

N.T.S.



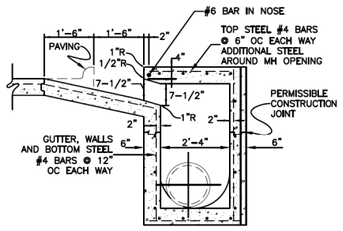
SECTION A-A

N.T.S.



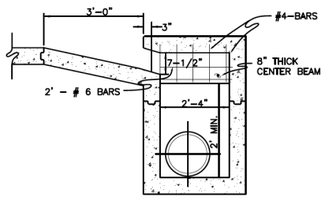
STANDARD CURB INLET W\36" LEAVEOUT

N.T.S.



SECTION C-C

N.T.S.



SECTION E-E

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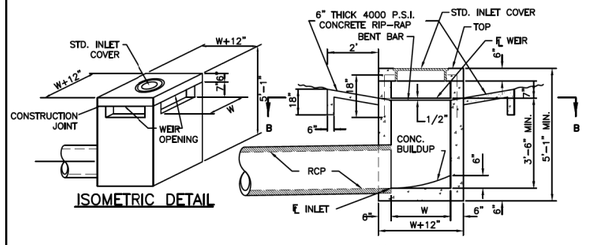
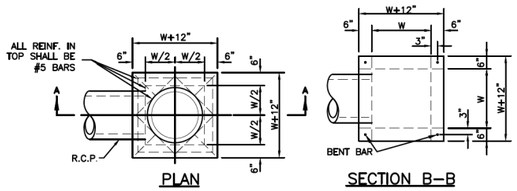


ISOMETRIC DETAIL

SECTION A-A



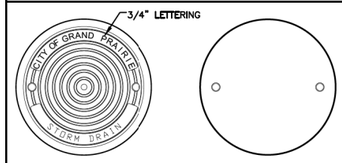
PLAN

SECTION B-B

TYPE Y & SPECIAL TYPE Y INLET

N.T.S.

TYPE Y AND SPECIAL TYPE Y INLET NOTES:
1. SPECIAL TYPE Y INLET HAS WEIR OPENINGS REQUIRED ON TWO SIDES.
2. TYPE Y INLET HAS WEIR OPENINGS REQUIRED ON FOUR SIDES.
3. THE MINIMUM OPENINGS FOR TYPE Y AND SPECIAL TYPE Y INLETS IS W=3'
4. ALL REINFORCING SHALL BE w/ #4 BARS @ 12" CENTERS, EXCEPT IN TOP.



TOP VIEW

BOTTOM VIEW

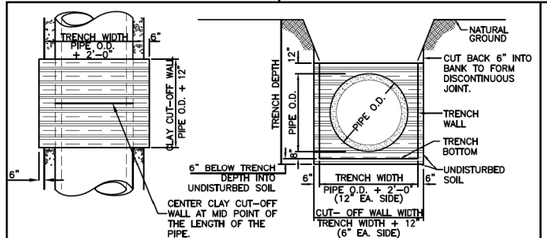
COVER CROSS SECTION

INLET RING & COVER NOTES:

1. THE STD. INLET COVER SHALL BE BASS & HAYES RING & COVER PATTERN No. 226 OR APPROVED EQUAL.
2. APPROXIMATE WEIGHT OF RING=75 lbs. AND LID=155 lbs.
3. TACK WELD LID IN 4 SPOTS AFTER FINAL INSPECTION

INLET RING & COVER

N.T.S.



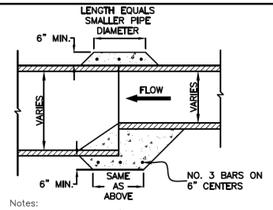
PLAN

TYP. SECTION

CLAY CUT-OFF WALL NOTES:
1. CLAY CUT-OFF WALLS SHALL BE CONSTRUCTED AT APPROXIMATELY 250 FOOT INTERVALS ALONG ALL STORM DRAIN CONDUITS HAVING CRUSHED STONE EMBEDMENT.
2. THE CLAY CUT-OFF WALL SHALL BE PLACED AT THE MID POINT OF THE LENGTH OF THE PIPE BEING PLACED.
3. MATERIAL FOR CLAY CUT-OFF WALL SHALL BE CLEAN MATERIAL WITH NO LUMPS LARGER THAN 3". CLAY SHALL HAVE P.I. OF 30 TO 40. MATERIAL SHALL BE PLACED IN 6" LIFTS, MOISTENED TO OPTIMUM MOISTURE CONTENT AND COMPACTED WITH HAND HELD MECHANICAL TAMPERS, WITHOUT DAMAGING THE PIPE.

CLAY CUT-OFF WALL

N.T.S.

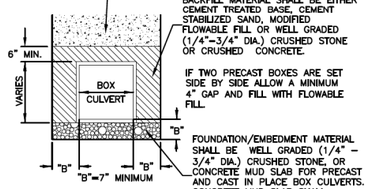


Notes:
1. THIS PROCEDURE/DETAIL WILL ONLY BE USED WHEN A PREFAB REDUCTION IS NOT POSSIBLE.
2. CONCRETE FOR COLLAR WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE VARIOUS OTHER BIDS.
3. CONCRETE SHALL BE 5-1/2 SACK 4000 psi.

CONCRETE COLLAR DETAIL

N.T.S.

MECHANICALLY TAMP NATIVE MATERIAL (6"ø CLODS OR SMALLER IN 6"-8" LIFTS) TO 95% OF THE MAXIMUM DRY DENSITY DETERMINED BY THE STD. PROCTOR TEST, ASTM D698 WITH MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION TO BE NEAR OPTIMUM OR 4% ABOVE PROCTOR OPTIMUM VALUE. MODIFIED FLOWABLE FILL MAY BE USED.



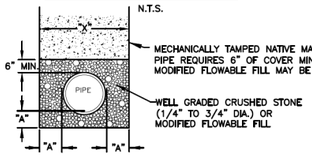
BACKFILL MATERIAL SHALL BE EITHER CEMENT TREATED BASE, CEMENT STABILIZED SAND, MODIFIED FLOWABLE FILL OR WELL GRADED (1/4"-3/4" DIA.) CRUSHED STONE OR CRUSHED CONCRETE.

IF TWO PRECAST BOXES ARE SET SIDE BY SIDE ALLOW A MINIMUM 4" GAP AND FILL WITH FLOWABLE FILL.

FOUNDATION/EMBEDMENT MATERIAL SHALL BE WELL GRADED (1/4" - 3/4" DIA.) CRUSHED STONE, OR CONCRETE MUD SLAB FOR PRECAST AND CAST IN PLACE BOX CULVERTS. CONCRETE MUD SLAB SHALL CONFORM TO N.C.T.C.O.G.ITEM# 504.3.2

TYPICAL BOX CULVERT EMBEDMENT & BACKFILL

N.T.S.



NOTE:
A = 6" FOR PIPE SIZES 18" THROUGH 42"
A = 8" FOR PIPE SIZES 48" THROUGH 72"+

TYPICAL STORM DRAIN PIPE EMBEDMENT AND BACKFILL

N.T.S.

GENERAL:
(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF GRAND PRAIRIE, WHICH HAS ALSO ADOPTED THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
(B) ALL TYPE "A" AND TYPE "S" HEADWALLS SHALL BE CONSTRUCTED AS PER TxDOT STANDARD DETAILS AND SPECIFICATIONS.

CULVERTS:
(A) CLOSED CONDUITS SHALL BE INSTALLED PER N.C.T.C.O.G. ITEM 508
(B) ONLY REINFORCED CONCRETE PIPE (RCP) OR REINFORCED CONCRETE BOX (RCB) IS APPROVED FOR USE, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
(C) CLASS IV RCP SHALL BE USED WHERE THE PIPE COVER IS GREATER THAN 1 FEET AND LESS THAN 2 FEET. CLASS III RCP SHALL BE USED WHERE THE PIPE COVER VARIES FROM 2 FEET TO 6 FEET. THE CLASS OF ALL OTHER RCP SHALL DETERMINED BY AN ENGINEER PER LOADS AND SUPPORTING STRENGTHS, AMERICAN CONCRETE PIPE ASSOCIATION.
(D) C-1433 SHALL BE USED WHERE COVER IS LESS THAN OR EQUAL TO 6 FEET. THE DESIGN OF ALL OTHER RCB SHALL BE DETERMINED BY AN ENGINEER.
(E) FOR PIPES, EMBEDMENT SHALL BE PER THE TYPICAL STORM DRAIN PIPE EMBEDMENT AND BACKFILL DETAIL ON THIS SHEET. FOR BOX CULVERTS, EMBEDMENT SHALL BE PER THE BOX CULVERT EMBEDMENT DETAIL ON THIS SHEET. NOTE THAT FLOWABLE BACKFILL IS ONLY REQUIRED BELOW AREAS TO BE PAVED.
(F) THE CONTRACTOR SHALL SEAL ALL JOINTS ON CLOSED CONDUITS WITH OMNI-FLEX JOINT SEALS, OR EQUAL; UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
(G) THE MINIMUM SIZE FOR LATERALS IS 18 INCHES IN DIAMETER. THE MINIMUM SIZE FOR MAINS IS 24 INCHES IN DIAMETER.
(H) DRIVEWAY CULVERTS SHALL BE 18 INCH DIAMETER RCP OR LARGER AND SHALL HAVE 4 TO 1 SLOPED PRECAST CONCRETE END SECTIONS OR APPROVED EQUAL.
(I) STORM DRAIN PIPES AND CULVERTS WITH SLOPES EXCEEDING 10% SHALL BE BACKFILLED WITH FLOWABLE FILL MATERIAL BETWEEN SPRING LINE AND 6" (INCHES) ABOVE THE STORM DRAIN PIPE.

FITTINGS, COLLARS AND CONNECTIONS:
(A) THE CONTRACTOR SHALL USE ONLY PRE-FABRICATED FITTINGS ON NEW CONSTRUCTION PROJECTS. FIELD CONNECTIONS SHALL BE MADE ONLY TO EXISTING PIPE WITH CITY APPROVAL. THE CONNECTION SHALL BE A SMOOTH CONNECTION AND CONCRETE WRAPPED ON THE OUTSIDE AND INSIDE.
(B) CONCRETE COLLARS SHALL BE CONSTRUCTED PER THE DETAILS ON THIS SHEET AT ALL STORM DRAIN SIZE, GRADE CHANGES, AT PROPOSED-EXISTING PIPE CONNECTIONS AND IN CURVES WHERE THE JOINT IS BEING PULLED MORE THAN RECOMMENDED BY THE MANUFACTURER. PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 508.3.4.1.

INLETS:
(A) ALL INLETS SHALL BE POURED IN PLACE. PRECAST INLETS ARE NOT ALLOWED.
(B) INLETS SHALL NOT BE USED AS JUNCTION BOXES OR PLACED ON A MAIN, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
(C) THE MINIMUM OPENING FOR A CURB INLET SHALL BE 5 FEET. CURB INLETS SHALL BE CONSTRUCTED IN 5 FOOT INCREMENTS. ALL CURB INLETS WITH 15 FEET WIDE OR LARGER OPENINGS SHALL HAVE A CENTER SUPPORT. ALL CURB INLETS GREATER THAN 7 FEET DEEP HALL BE DESIGNED AND SEALED BY AN ENGINEER.
(D) INLETS SHALL BE STAGED IN 2 POURS:
FIRST POUR: INLET BOTTOM AND WALLS
SECOND POUR: INLET TOP AND WINGS MONOLITHIC
(E) CURB INLET BOTTOMS SHALL BE POURED PRIOR TO ANY PAVING.
(F) CURB INLETS SHALL HAVE 10 LINEAR FEET OF VARIABLE HEIGHT CURB ON BOTH SIDES OF THE INLET OPENING.
(G) RING AND COVER ON CURB INLETS TO BE LOCATED DIRECTLY OVER THE OUTLET PIPE.
(H) OPENINGS FOR TYPE Y AND SPECIAL TYPE Y INLETS SHALL BE A MINIMUM OF 3 FT. ALL TYPE Y AND SPECIAL TYPE Y INLETS GREATER THAN 7 FEET DEEP SHALL BE DESIGNED AND SEALED BY AN ENGINEER.
(I) ALL CURB INLETS SHALL BE RECESSED UNLESS OTHERWISE APPROVED BY THE ENGINEER.

CONCRETE:
(A) CURB INLETS SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS. ALL OTHER CONCRETE SHALL BE MADE WITH A MINIMUM OF 5 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
(B) ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION -615, GRADE 60, AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP-66 NO 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
(C) THE CONTRACTOR SHALL USE A LIQUID MEMBRANE-FORMING CURING COMPOUND PER OG ITEM 303.2.12.1.1.
(D) GROUT SHALL BE MIN. 5-SACK 2000 PSI CONCRETE.

TESTING:
A) CONTRACTOR RESPONSIBLE FOR THE FOLLOWING:
1. T.V. INSPECTION SHALL BE AS PER THE N.C.T.C.O.G. ITEM 507.5.2. METHOD AND BE COMPLETED PRIOR TO PLACING PAVEMENT.
2. ALL T.V. INSPECTIONS OF EXISTING OR PROPOSED PIPES SHALL BE PROVIDED ON DVD.
B) PLEASE REFER TO THE STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION DETAIL SHEET.
C) THE CITY WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS IN CITY R.O.W. OR EASEMENT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.

MATERIAL:
ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.

PRIVATE DEVELOPMENT PROJECTS:
A. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL AND MATERIAL TESTING FOR BACKFILL, DENSITY AND CONCRETE TESTING PRIOR TO BEGINNING ANY CONSTRUCTION.
B. WELD CHAINS ON LID OR TACK WELD

No.	Description	Date
1		

Revisions

CERTIFICATION:
THIS CITY OF GRAND PRAIRIE STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF GRAND PRAIRIE.

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER

10.03.2025

STORM DRAIN AND INLET STANDARD DETAILS

GRAND PRAIRIE TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	R.A.K.	JAN. 2021	N.T.S.		103

General Notes

1. Prior to earth disturbing activities, a clearing grubbing, earthwork permit shall be obtained.
2. All erosion control devices shown on the plans released for construction shall be installed in accordance with the SWP3 sequencing prior to commencing any earth disturbing activities.
3. Erosion control devices shall be installed and maintained in compliance with the project plans, City stormwater ordinance and/or SWP3 and Construction General Permit.
4. Contractor(s) shall comply with the SWP3 as specified, including installing, maintaining, and removing all temporary control measures.
5. Contractor(s) shall conduct and document weekly SWP3 inspections and inspections after a half inch (.5") rain event of BMP's and control measures and revise the SWP3 within seven (7) calendar days following the inspection.
6. Hay products, organic or other types are not accepted for use as BMP's within the City of Grand Prairie.
7. Dust Control shall be utilized on a regular basis during dry conditions or as weather dictates the need.
8. Curb cut-backs shall NOT be permitted for the purpose of BMP's ONLY.
9. Curb cut-backs for the purpose of driveway installation will be allowed for a pericd not to exceed 72 hours (maximum) prior to pouring concrete. Backfilling areas shall be performed within 48 hours (maximum).
10. Streets shall be kept free from mud, dirt, or any other construction type debris during the construction operation.
11. Concrete wash-out areas shall be designed and maintained with proper signage/markings in compliance with the City stormwater ordinance and/or SWP3 and Construction General Permit.
12. Grass sod shall be required for stabilization within the City right-of-way. Variations for stabilization in right-of-way shall be in writing and submitted to City Engineer for approval.

Stormwater Pollution Prevention Plan (SWP3) Requirements

Prior to ANY earth disturbing activities, the following conditions shall be submitted and accepted through the City of Grand Prairie Stormwater Department:

1. Land disturbing activities that equal one (1) acre and less than five (5) acres are required by the TPDES Construction General Permit and the City of Grand Prairie (MS4) to submit a SWP3. A signed Small Construction Site Notice from the owner and the operator (contractor) of the project site will also need to be included with the SWP3 submittal. The conditions described in item 1 (above) apply to all SWP3 submittals.
2. A fully executed SWP3 will be submitted for review and acceptance through the Stormwater Department. Fully executed means all signatures will be required with the submittal and authorized in accordance with the 30 Texas Administrative Code (TAC) Subchapters 305.44 & 305.128. The owner of the project and the operator (contractor) hired by the owner are the required signatures needed for a fully executed SWP3.
3. Land disturbing activities that equal five (5) acres or more, or included in a larger project or common plan of development that equals five (5) or more acres are required by the TPDES Construction General Permit and the City of Grand Prairie (MS4) to submit a SWP3, Notice of Intent (NOI) and Construction Site Notice provided by the Primary Operator (Contractor) as defined in the TPDES Construction General Permit as having Day to Day operational control over the site. And if there is a Primary Operator (Owner) having control over construction plans or specifications, they will also need to submit a NOI and Site Notice as defined in the TPDES Construction General Permit. If a Secondary Operator is part of this plan and meets the definition guidelines in accordance with the TPDES Construction General Permit, then they can or should fall under the Primary Operators NOI and sign the Secondary Operator Construction Site Notice.

Notice of Termination Required

Each operator that has submitted a Notice of Intent (NOI) for authorization under the construction general permit must apply to terminate that authorization. The Notice of Termination must be submitted to TCEQ, and a copy of the Notice of Termination provided to the MS4 receiving the discharge (Grand Prairie), within 30 days after any of the following conditions are met:

1. Final stabilization has been achieved and meets the conditions of 80% coverage with no large bare areas on all portions of the site that are the responsibility of the permittee.
2. A transfer of operational control has occurred, or
3. The operator has obtained alternative authorization under an individual TPDES permit or alternative TPDES general permit.
4. For small construction sites and secondary operators that fall under the provisions of the construction general permit, complete the applicable portion of the site notice related to removal of the site notice, and submit a copy of the completed site notice to the operator of the MS4 (City) receiving the discharge.

Vegetation Management

Vegetation is used as a temporary or final stabilization measure for areas disturbed by construction. As a temporary control, vegetation is used to stabilize stockpiles, earthen dikes, and barren areas that are inactive for longer than two weeks. As a final control at the end of construction, grasses and other vegetation provide good protection from erosion along with some filtering for overland runoff.

Temporary Vegetation

The following table lists recommended plant species for the North Central Texas region depending on the season for planting.
Areas receiving temporary seeding and vegetation shall be landscaped, re-seeded or sodded with perennial species to establish final vegetation at the end of construction.

Recommended Grass Mixture for Temporary Vegetation

Season	Common Name	Pure Live Seed Rate (Lbs/Acre)
Sept 1 – Nov 30	Tall Fescue Western Wheat Grass Wheat (Red, Winter)	4.5 5.6 34.0
May 1 – Aug 31	Foxtail Millet	34.0
Feb 15 – May 31 Sept 1 – Dec 31	Annual Rye	20.0

Vegetation for Final Stabilization

Sodding or seeding may be used to establish vegetation for final stabilization of areas disturbed by construction activity. The vegetation must achieve a cover that is 80 percent of the native background vegetative cover to be considered final stabilization.

Grass seed for establishing final stabilization can be sown at the same time as seeding for temporary (annual) vegetation. Drought tolerant native vegetation is recommended rather than exotics as a long-term water conservation measure.

For construction activities that include landscaping in the development plans, the landscape architect should be consulted when specifying vegetation for temporary or final stabilization of disturbed areas.

Where vegetation is used in swales and channels it may be necessary to use sod, rather than seeding, to establish an erosion resistant surface that accommodates rainfall runoff flows.

Table 2.5 Recommended Grass Mixture for Final Stabilization of Upland in Rural Areas

County	Planting Date	Clay Soils Species and Pure Live Seed Rate (Lbs/Acre)		Sandy Soils Species and Pure Live Seed Rate (Lbs/Acre)	
Erath Hood Johnson Palo Pinto Parker Somervell Tarrant Wise	February 1 – May 15	Green Sprangletop Sideoats Grama (El Reno) Bermudagrass Little Bluestem (Native) Blue Grama (Hachita) Illinois Bundleflower	0.3 2.7 0.9 1.0 0.9 1.0	Green Sprangletop Sand Lovegrass Bermudagrass Weeping Lovegrass (Ermelo) Sand Dropseed Partridge Peal	0.3 0.5 1.8 0.8 0.4 1.0
Collin Dallas Denton Ellis Kaufman Navarro Rockwall	February 1 – May 15	Green Sprangletop Bermudagrass Sideoats Grama (El Reno) Little Bluestem (Native) Buffalograss (Texoka) Illinois Bundleflower	0.3 1.2 2.7 2.0 1.6 1.0	Green Sprangletop Bermudagrass Weeping Lovegrass (Ermelo) Sand Lovegrass Sand Dropseed Partridge Pea	0.3 1.8 0.6 0.6 0.4 1.0
Hunt	February 1 – May 15	Green Sprangletop Sideoats Grama (El Reno) Bermudagrass Little Bluestem (Native) Illinois Bundleflower	0.3 3.2 1.8 1.7 1.0	Green Sprangletop Bermudagrass Bahiagrass (Pensacola) Sand Lovegrass Weeping Lovegrass (Ermelo) Partridge Pea	0.3 1.5 6.0 0.6 0.8 1.0

(Source: TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges, Item 164)

Table 2.6 Recommended Grass Mixture for Final Stabilization of Upland in Urban Areas

County	Planting Date	Clay Soils Species and Pure Live Seed Rate (Lbs/Acre)		Sandy Soils Species and Pure Live Seed Rate (Lbs/Acre)	
Erath Hood Johnson Palo Pinto Parker Somervell Tarrant Wise	February 1 – May 15	Green Sprangletop Sideoats Grama (El Reno) Bermudagrass Buffalograss (Texoka)	0.3 3.6 2.4 1.6	Green Sprangletop Sideoats Grama (El Reno) Bermudagrass Sand Dropseed	0.3 3.6 2.1 0.3
Collin Dallas Denton Ellis Kaufman Navarro Rockwall	February 1 – May 15	Green Sprangletop Sideoats Grama (El Reno) Buffalograss (Texoka) Bermudagrass	0.3 3.6 1.6 2.4	Green Sprangletop Buffalograss (Texoka) Bermudagrass Sand Dropseed	0.3 1.6 3.6 0.4
Hunt	February 1 – May 15	Green Sprangletop Bermudagrass Sideoats Grama (Haskell)	0.3 2.4 4.5	Green Sprangletop Bermudagrass	0.3 5.4

(Source: TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges, Item 164)

Vegetation for final stabilization of channels requires grasses that are tolerant of periodic inundation, such as Bermuda grass, Kentucky bluegrass or a grass-legume mixture.

Debris and Trash Management

Debris and trash management is used to minimize floatables and other wastes in stormwater. By controlling the trash and debris onsite, stormwater quality is improved and the need for extensive clean up upon completion of the project is reduced.

1. All waste sources and storage areas shall be located a minimum of 50 feet away from inlets, swales, drainage ways, channels and other waters, if the site configuration provides sufficient space to do so. In no case shall material and waste sources be closer than 20 feet from inlets, swales, drainage ways, channels, and other waters.
2. Construction waste and trash shall be stored in a manner that minimizes its exposure to precipitation and stormwater runoff.
3. Do not allow trash containers to overflow. Do not allow waste materials to accumulate on the ground.
4. Police site daily for litter and debris.
5. Trash and debris shall be removed from the site at regular intervals that are scheduled to empty containers when they are 90 percent full or more frequently.
6. No waste, trash, or debris shall be buried, burned or otherwise disposed of onsite.
7. The following are lists describing the type of targeted materials.

Construction (and Demolition) Debris:
Dimensional lumber
Miscellaneous wood (pallets, plywood, etc.)
Copper (pipe and electrical wiring)
Miscellaneous metal (studs, pipe, conduit, sheathing, nails, etc.)
Insulation
Brick and mortar
Shingles
Roofing materials
Gypsum board
Trash:
Paper and cardboard (packaging, containers, wrappers)
Plastic (packaging, bottles, containers)
Styrofoam (cups, packing, and forms)
Food and beverage containers
Food Waste

Dust Control

Dust Control includes those measures necessary to prevent wind transport of dust from disturbed soil surfaces. Dust control is applied in areas subject to surface and air movement to dust where on-site and off-site impacts including roadways drainage ways and surface waters.

1. Limit dust generation by clearing only those areas where immediate activity will take place, leaving the remaining area(s) in the original condition if stable. Maintain original cover as long as practicable.
2. Construct natural or artificial windbreaks or windscreens. Vegetate areas that will not receive vehicular traffic.
3. Sprinkle the site with water until dampened sufficiently to prevent dust and repeat as necessary. Do not apply water in quantities to cause runoff.

Tree Protection During Construction

A. The subdivider or developer shall ensure that Protected Trees are preserved throughout the development process.
B. *Non-disturbance areas*: Each Non-disturbance area within the development site shall be fenced to ensure that the area will remain in a natural state. Fencing shall be adequate to prevent entry of vehicles or machinery, storage of materials or goods, or any other type of trespass that could harm the preserved area during the construction period, as determined by the Tree Preservation Administrator. Pedestrian access is permitted.
C. *Construction areas*: The following measures shall be put into effect by the subdivider or developer to assure preservation of Protected Trees that are not to be removed during construction (see Stormwater Pollution Prevention Plan (SWPPP) Standard Details).
   1. A four-foot plastic fencing, silt fencing, or other method approved by the Tree Preservation Administrator shall be installed around the drip line of all Protected Tree(s) prior to commencement of construction.
   2. A construction entrance that avoids Protected Trees shall be established prior to commencement of construction.
   3. Construction, placement of fill, excavation, storage of construction materials, vehicles, or machinery, cleaning of equipment, the disposal of waste materials, or other construction related activity is prohibited under the canopy or within the drip line of any Protected Tree, unless expressly authorized in writing by the Tree Preservation Administrator. Major changes of grade (i.e., six (6) inches or greater) within the canopy or drip line is prohibited. A tree shall be considered protected if a minimum of 75% of the critical root zone is maintained at undisturbed natural grade and no more than 25% of the canopy is removed due to building encroachment. When roots more than two (2) inches in diameter are to be cut off, they shall be cut with a medium tooth saw and covered with pruning compound within two (2) hours of initial exposure.
   4. Trenching for utilities shall not be allowed within the critical root zone of existing trees that have been used to receive landscape tree credit, and boring under such trees may be required.
   5. Attachments or wires shall not be attached to any Protected Tree. Cables, tree rods, and similar hardware installation that aid structural integrity of a Protected Tree is exempt from this provision, if approved in writing by the Tree Preservation Administrator.
   6. Any trees removed shall be chipped and used for mulch on site or hauled offsite to the local landfill for proper disposal.

No.	Description	Date
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Revisions

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STATE OF TEXAS · MICHAEL J. CHISHOLM · 123343 · LICENSED PROFESSIONAL ENGINEER

10.03.2025

EROSION CONTROL STANDARD DETAILS

1 OF 4

Grand Prairie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
G.F.	J.P.	G.F.	JAN. 2021	N.T.S.			104

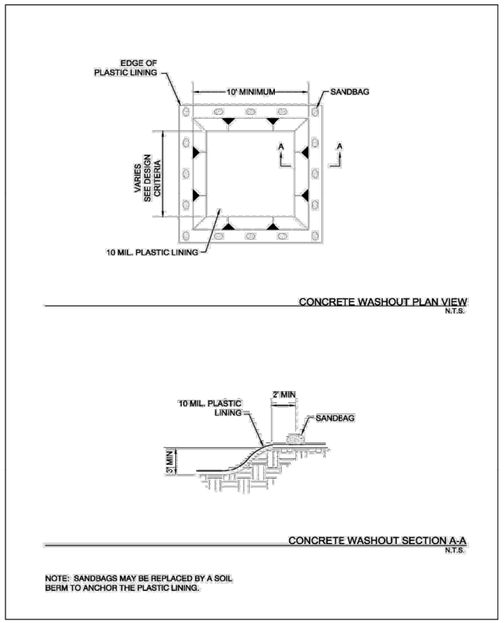


Figure 4.1 Schematics of Concrete Washout Containment

Concrete Truck Washout Requirements

1. Direct discharge of concrete truck washout water to surface water in the state, including discharge to storm sewers, is prohibited.
2. Concrete truck wash out water shall be discharged to areas at the construction site where structural controls have been established to prevent direct discharge to surface waters.
3. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measures to prevent runoff from the construction site.
4. Washout of concrete trucks during rainfall events shall be minimized. The direct discharge of concrete truck wash out water is prohibited at all times, and the operator shall insure that its BMPs are sufficient to prevent the discharge of concrete truck wash out as the result of rainfall or stormwater runoff.
5. The discharge of wash out water must not cause or contribute to groundwater contamination.
6. If a SWP3 is required to be implemented, the SWP3 shall include concrete washout areas on the associated erosion control plan.

Prohibited Concrete Disposal Practices

1. Dumping in vacant areas on the job-site.
2. Illicit dumping onto off-site lots or any other place not permitted to receive construction demolition debris or waste.
3. Dumping into ditches, drainage facilities, or natural water ways.

Stabilized Construction Entrance/Exit

Minimum Entrance/Exit Dimensions

Disturbed Area	Min. Width of Entrance/Exit	Min. Length of Entrance/Exit
< 1 Acre	15 feet	20 feet
> 1 Acre but < 5 Acres	25 feet	50 feet
> 5 Acres	30 feet	50 feet

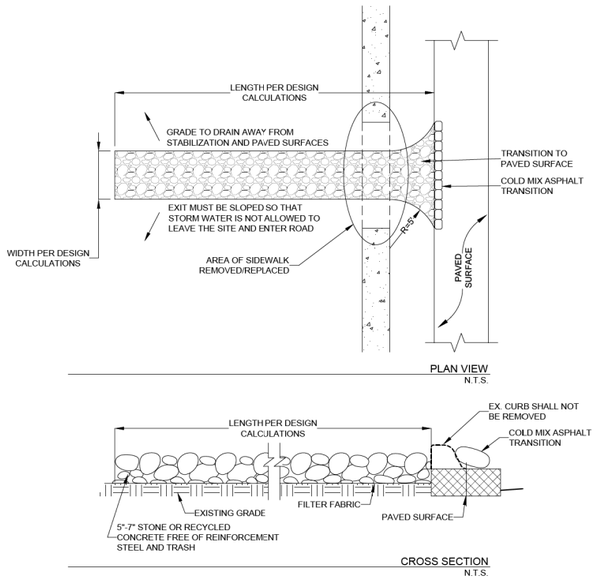
1. Stabilized construction access shall be used on all construction sites with a disturbed area of one acre or larger and are a recommended practice for smaller construction sites.
2. Design the access point(s) to be at the upslope side of the construction site. Do not place construction access at the lowest point on the construction site.
3. The access must be sloped away from the paved surface so that stormwater from the site does not discharge through the exit onto roadways.
4. Minimum width of exit shall be 15 feet.
5. The construction access material shall be a minimum thickness of 6 inches. The stone or recycled concrete used shall be 5 to 7 inches in size with little or no fines.
6. The geotextile fabric shall be installed prior to the rock and must meet the following minimum criteria:

   *Tensile Strength, ASTM D4632 Test Method for Grab Breaking Load and Elongation of Geotextiles, 300 lbs.

   * Puncture Strength, ASTM D4833 Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products, 120 lbs.

   * Mullen Burst Rating, ASTM D3786 Standard Test Method for Hydraulic Bursting Strength of Textile Fabrics-Diaphragm Bursting Strength Tester Method, 600 psi.

   * Apparent Opening Size, ASTM D4751 Test Method for Determining Apparent Opening Size of a Geotextile, U.S. Sieve No. 40 (max).
7. Periodic re-grading and top dressing with additional stone shall be done to keep the efficiency of the exit from diminishing. The rock shall be re-graded when ruts appear. Additional rock shall be added when soil is showing through the rock surface.



SCHEMATICS OF STABILIZED CONSTRUCTION EXIT

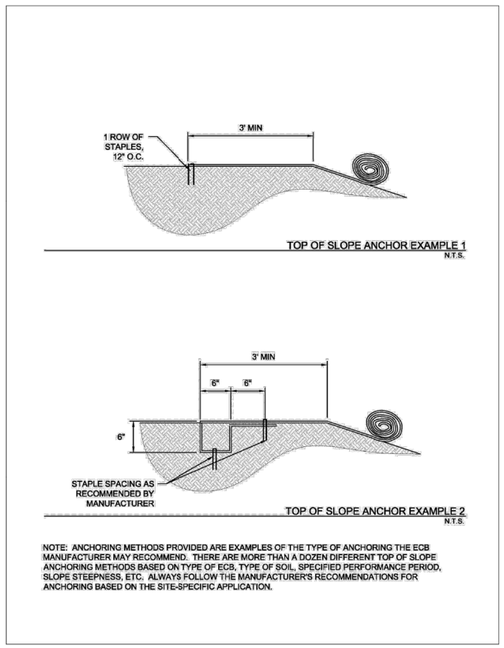


Figure 2.8 Anchor Examples for Erosion Control Blankets
(Sources: American Excelsior Company and Western Excelsior Corporation)

Erosion Control Blankets

Applications: Perimeter Control, Slope Protection, Sediment Barrier, Channel Protection, Temporary Stabilization, and Final Stabilization.

1. Prior to the installation of the ECB, all rocks, dirt clods, stumps, roots, trash and any other obstructions that would prevent the ECB from lying in direct contact with the soil shall be removed.
2. Installation and anchoring shall conform to the recommendations shown within the manufacturer's published literature for the erosion control blanket. Anchors (staples) shall be a minimum of 6 inches in length and 1 inch wide. They shall be made of 11-gauge wire, or equivalent.
3. ECBs may be used as a sediment barrier behind curb in place of silt fence. For Single Family residential lots the width of the ECB shall be ten feet minimum. For Commercial Development applications the width shall be twenty feet minimum, unless otherwise approved by the Stormwater Department.
4. Erosion control blankets should be inspected weekly (in accordance with the SWP3 requirements and the TPDES Construction General Permit) for bare spots caused by weather or other events. Missing or loosened blankets shall be replaced or re-anchored.
5. Erosion control blankets shall not be used as sediment barriers in swales and channels that have shear stresses of more than 2.0 pounds per square foot or slopes greater than 2%. Turf reinforcement mats shall be used in open channels with higher shear stresses and greater slopes.

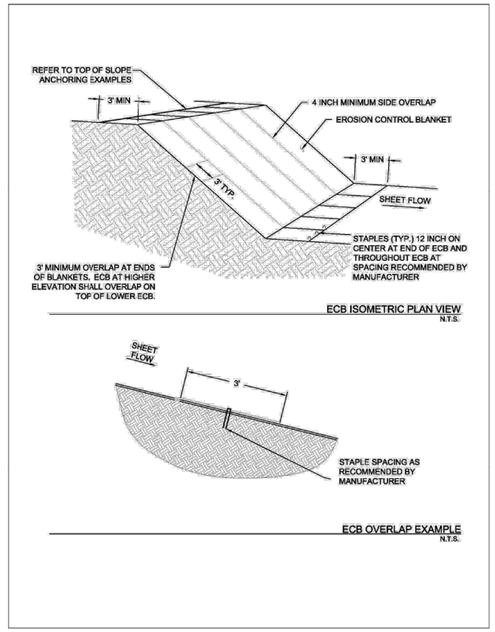


Figure 2.7 Schematics of Erosion Control Blankets

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Revisions

CERTIFICATION:
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STATE OF TEXAS · MICHAEL J. CHISHOLM · 123343 · LICENSED · PROFESSIONAL ENGINEER

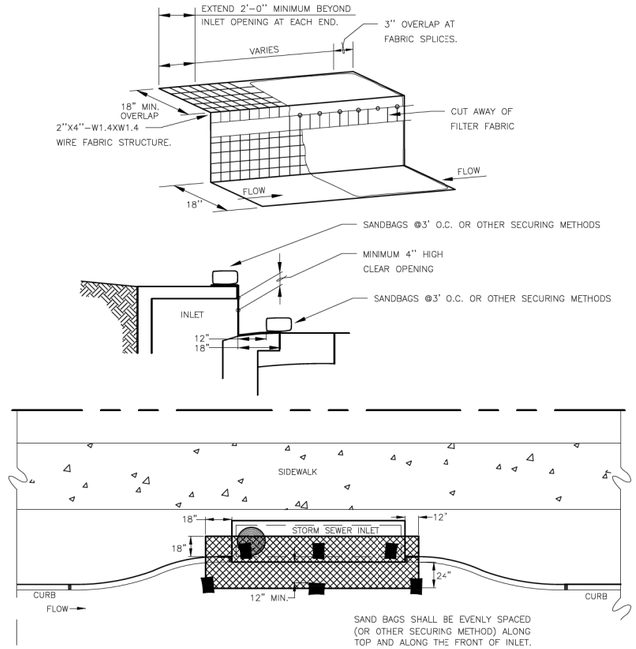
10.03.2025

EROSION CONTROL
STANDARD DETAILS

2 OF 4

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
G.F.	J.P.	G.F.	JAN. 2021	N.T.S.			105

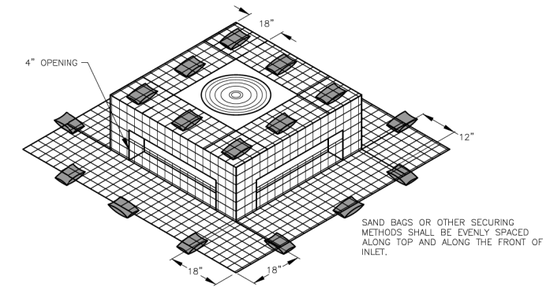


CURB INLET ON GRADE PROTECTION DETAIL

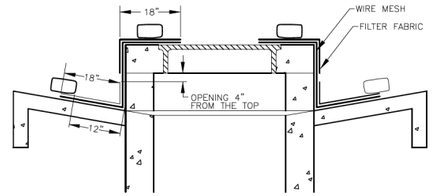
N.T.S.

NOTES:

1. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL TO PROVIDE A 4" MINIMUM CLEAR OPENING. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
2. INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.



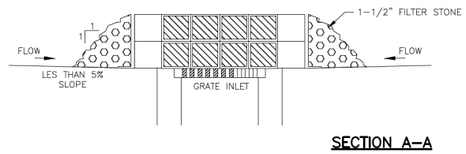
ISOMETRIC VIEW



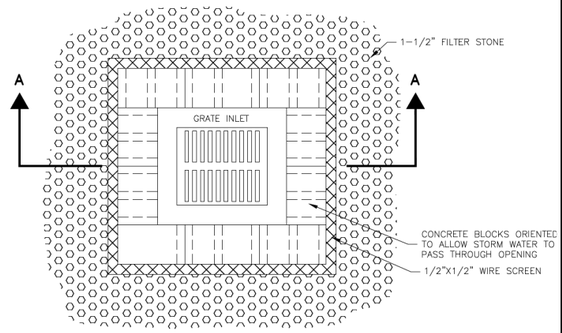
SECTION

FILTER FABRIC WYE INLET PROTECTION

N.T.S.



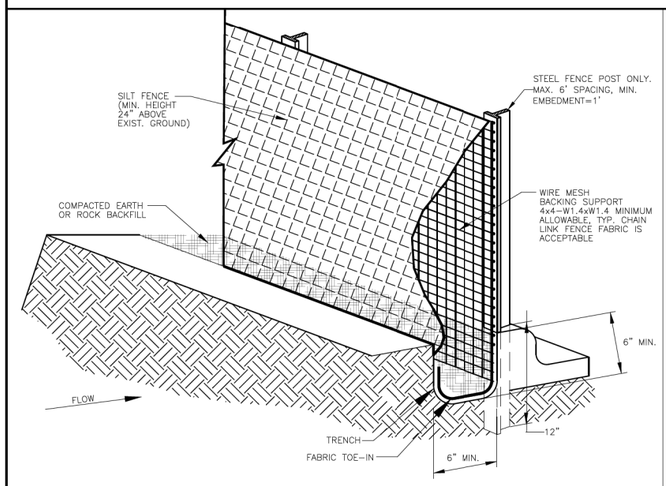
SECTION A-A



PLAN VIEW

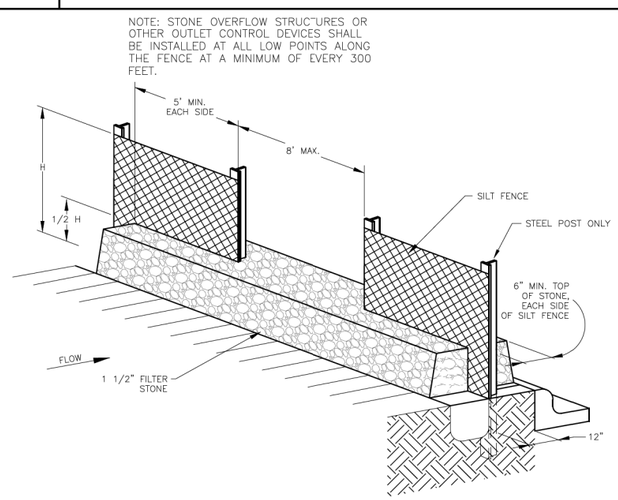
GRATE INLET PROTECTION

N.T.S.



ISOMETRIC PLAN VIEW

N.T.S.



SILT FENCE STONE OVERFLOW STRUCTURE

N.T.S.

Silt Fence General Notes

1. Steel posts only which suppcrt the silt fence shall be installed on a slight angle toward the anticipated runoff source. Post must be embeded a minimum of one foot.
2. The toe of the silt fence shall be trenched-in with spade or mechanical trencher, so that the down slope face of the trench is flat and perpendicular to the line of flow. Where silt fence cannot be trenched-in (e.g. pavement or rock surface), weight fabric flap with rock on uphill side to prevent flow from seeping under fence.
3. The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.
4. Silt fence should be securely fastened to each steel support post or to woven wire which in turn is attached to the steel fence post. There shall be a 3 foot overlap, securely fastened where ends of fabric meet.
5. Reinforced silt fence shall be inspected weekly and maintained when bulges occur or when sediment accumulations reach 50% of the fabric height. The reinforced silt fence should be inspected daily for damage by construction equipment.
6. Silt fence shall be removed when the site is completely stabilized.
7. Silt fence shall not be instaled and used in concentrated high flow discharge areas. Rock Filter Dams shall be installed and maintained in lieu of silt fence.

No.		Description	Date
5	△		
4	△		
3	△		
2	△		
1	△		

Revisions

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STATE OF TEXAS — MICHEL J. CHISHOLM — 123343 — LICENSED PROFESSIONAL ENGINEER

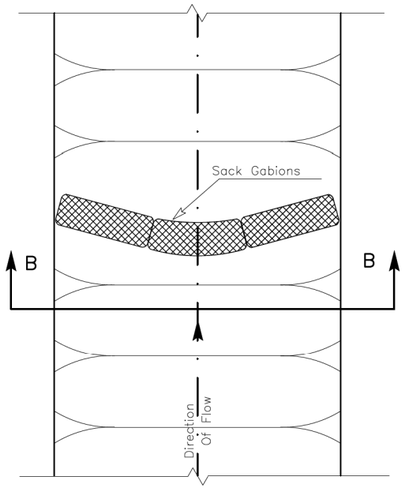
10.03.2025

EROSION CONTROL STANDARD DETAILS

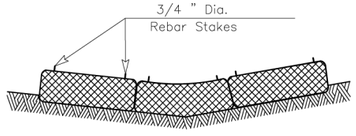
3 OF 4

Grand Prairie TEXAS ENGINEERING

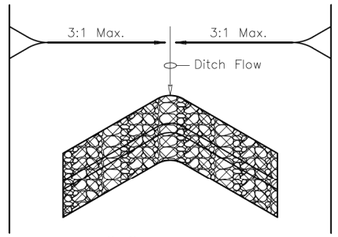
DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	G.F.	JAN. 2021	N.T.S.		106



PLAN VIEW



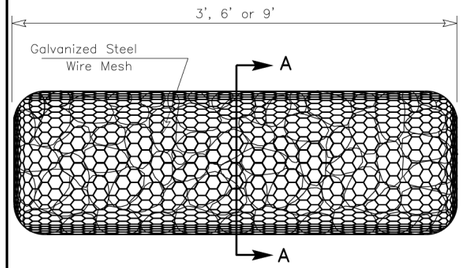
SECTION B–B



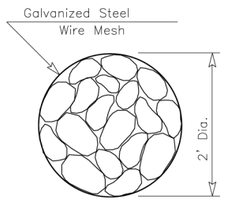
"V" SHAPE
(Plan View)

PLANS SHEET LEGEND

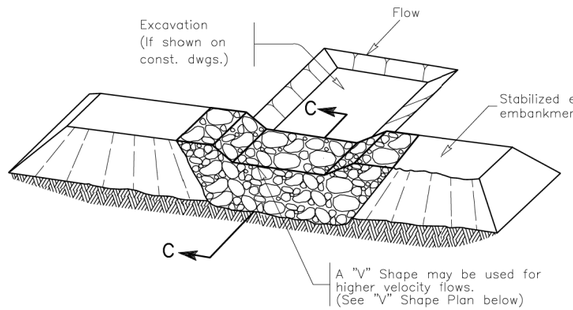
Type 1 Rock Filter Dam	RFD1
Type 2 Rock Filter Dam	RFD2
Type 3 Rock Filter Dam	RFD3



TYPE 4 (SACK GABIONS)

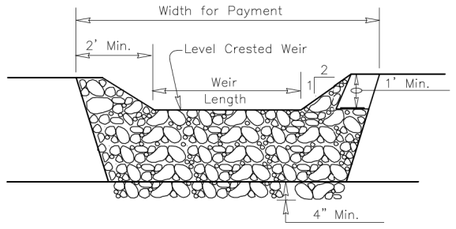


SECTION A–A

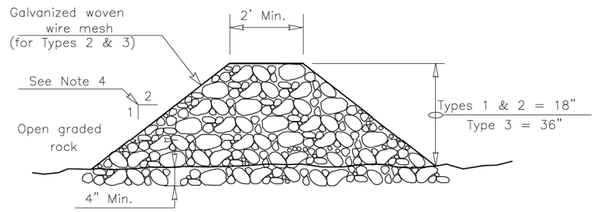


FILTER DAM AT SEDIMENT TRAP

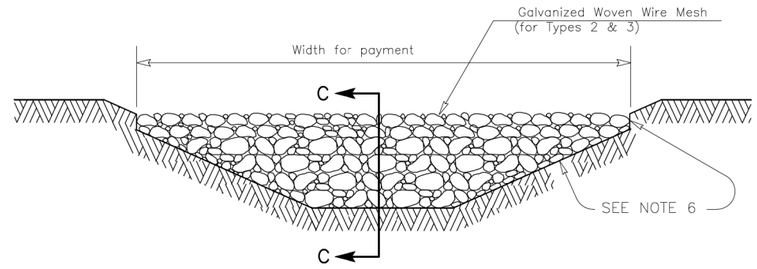
RFD1 OR RFD2
TYPE 1 OR TYPE 2



PROFILE



SECTION C–C



FILTER DAM AT CHANNEL SECTIONS

RFD1 OR RFD2 OR RFD3
TYPE 1 OR TYPE 2

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND/OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR "ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL".
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE SWP3 OR EROSION CONTROL PLANS.
4. STONE SIDE SLOPES SHOULD BE 2:1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6:1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT & SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3/4" DIA. REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).
11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.
12. ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
13. MAX TEMPORARY EARTH SLOPE IS 3:1 WITH 4:1 RECOMMENDED IF PRACTICAL.

ROCK FILTER DAM USAGE GUIDELINES

Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

Type 1 (18" high with no wire mesh): Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approx. 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

Type 2 (18" high with wire mesh): Type 2 may be used in ditches and at dike or swale outlets.

Type 3 (36" high with wire mesh): Type 3 may be used in stream flow and should be secured to the stream bed.

Type 4 (Sack gabions): Type 4 May be used in ditches and smaller channels to form an erosion control dam.

No.	Description	Date
5		
4		
3		
2		
1		

Revisions

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STATE OF TEXAS · MICHAEL J. CHISHOLM · 123343 · LICENSED PROFESSIONAL ENGINEER

10.03.2025

EROSION CONTROL

ROCK FILTER DAM

ADOPTED FROM TXDOT STANDARD

DETAIL EC(2)–93

4 OF 4

GRand PRaiRie TEXAS
ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	FILE	NO.
G.F.	J.P.	R.A.K.	JAN. 2021	N.T.S.		107

DATE:
FILE:

BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

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

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

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

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

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

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

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

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

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

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

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

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

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

WORKER SAFETY NOTES:

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

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

COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES

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

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

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

Texas Department of Transportation

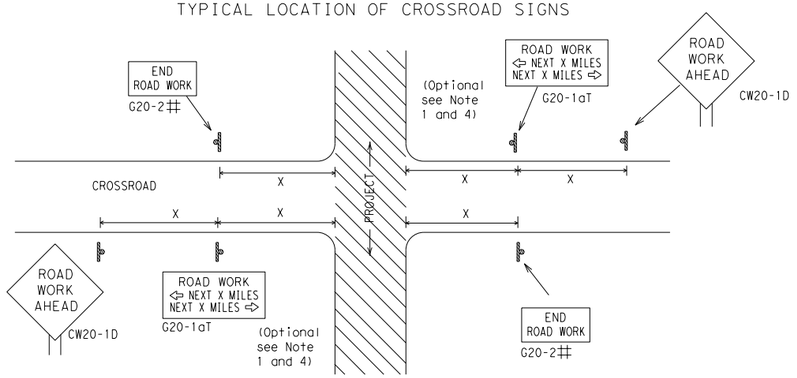
Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS

BC(1)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS 4-03 7-13	0918	47	432	JEFFERSON STREET
9-07 8-14	DIST	COUNTY		SHEET NO.
5-10 5-21	DAL	DALLAS		108

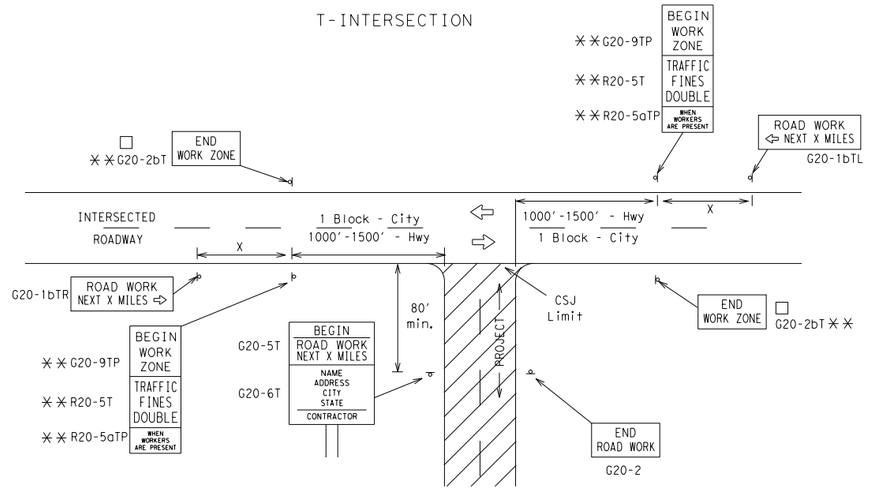
TYPICAL LOCATION OF CROSSROAD SIGNS



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

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

T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

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

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

SIZE

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

SPACING

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

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

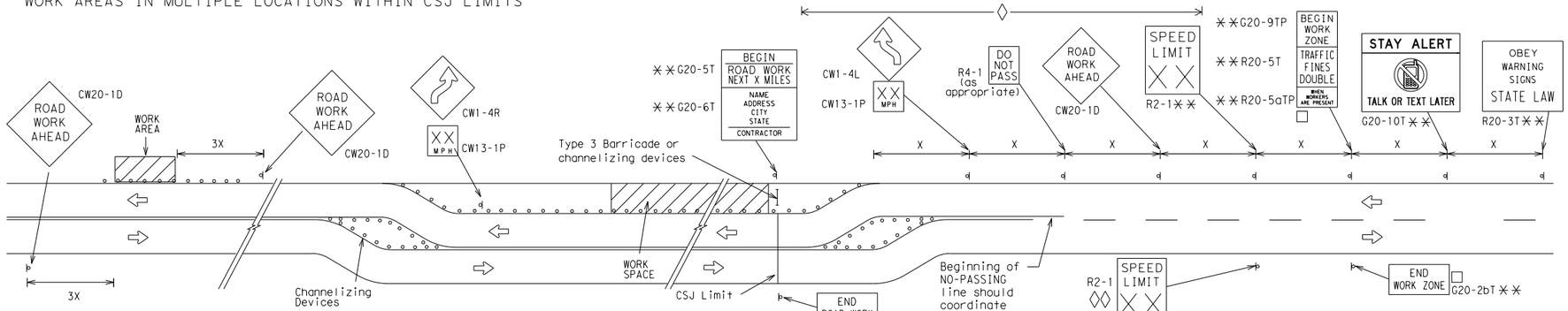
△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

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

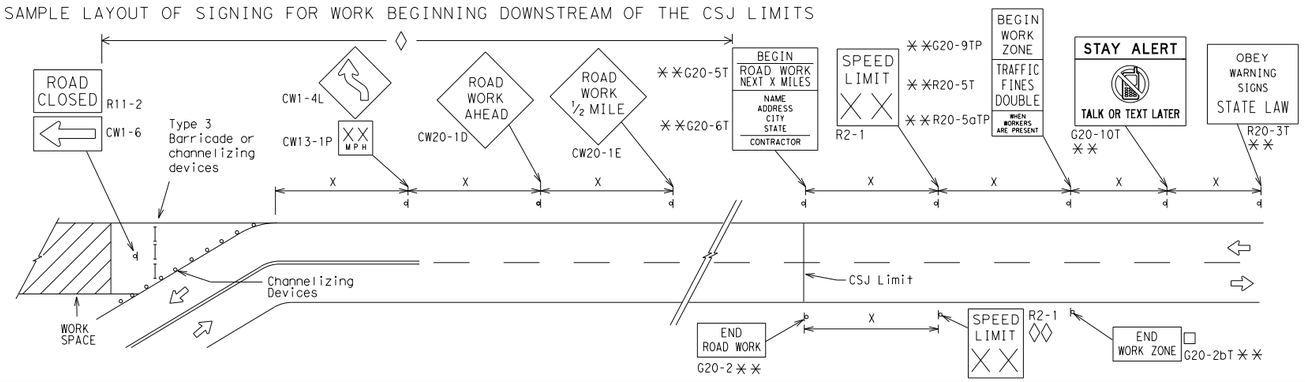
WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS



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

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



NOTES

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

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

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

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

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

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

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
9-07 8-14	DIST	COUNTY		SHEET NO.
7-13 5-21	DAL	DALLAS		109

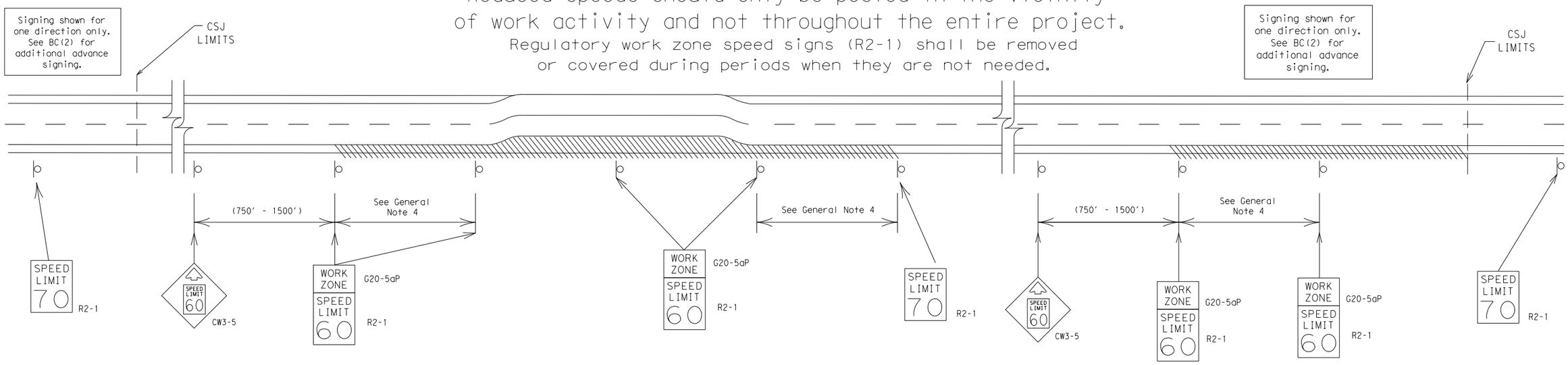
DATE:
FILE:

TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

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

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

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



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

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

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

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

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

SHORT TERM WORK ZONE SPEED LIMITS

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

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

GENERAL NOTES

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

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

BC(3)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS 9-07 8-14 7-13 5-21	0918	47	432	JEFFERSON STREET
	DIST	COUNTY		SHEET NO.
	DAL	DALLAS		110

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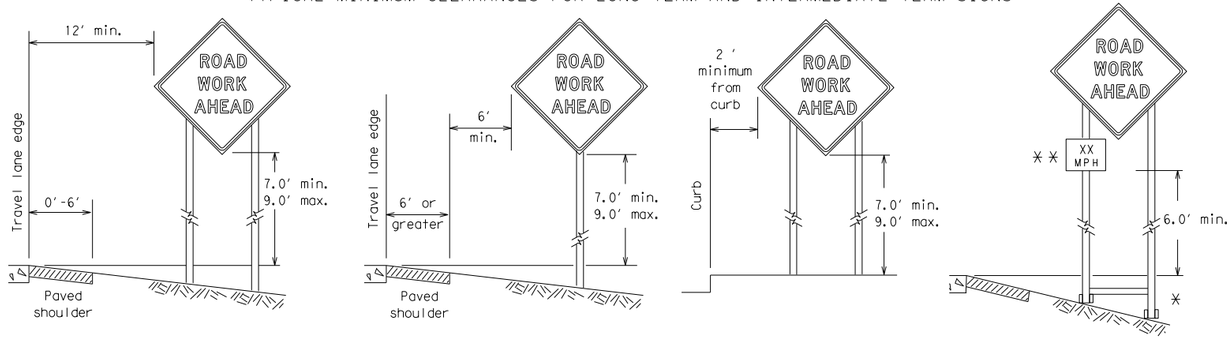
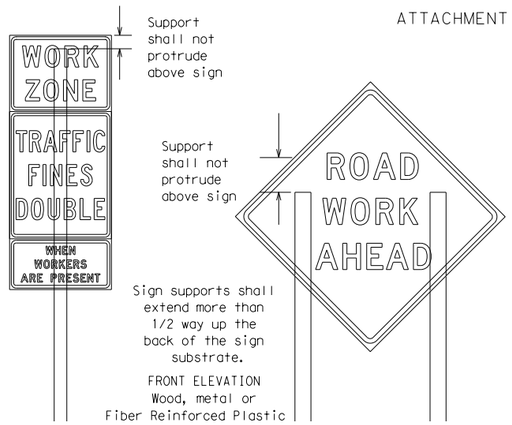
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS

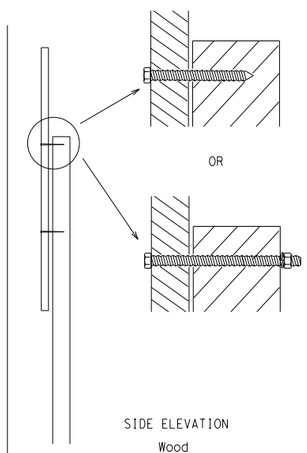


⁎ When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

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

ATTACHMENT FOR SIGN SUPPORTS





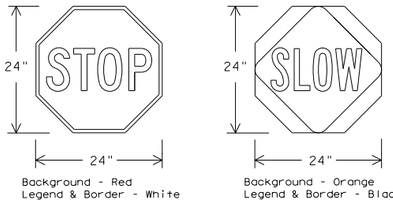
Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

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

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

STOP/SLOW PADDLES

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



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

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

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

GENERAL NOTES FOR WORK ZONE SIGNS

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

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

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

SIGN MOUNTING HEIGHT

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

SIZE OF SIGNS

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

SIGN SUBSTRATES

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

REFLECTIVE SHEETING

1. All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
2. White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
3. Orange sheeting, meeting the requirements of DMS-8300 Type B_{FL} or Type C_{FL}, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

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

REMOVING OR COVERING

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
2. Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
3. Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
4. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face.
7. Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

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

FLAGS ON SIGNS

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

Texas Department of Transportation | Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

BC(4)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
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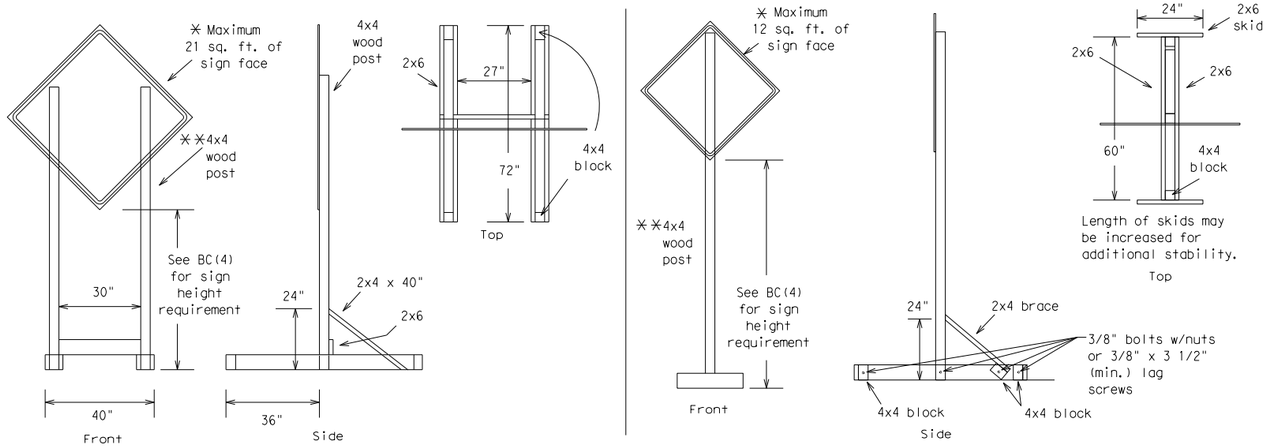
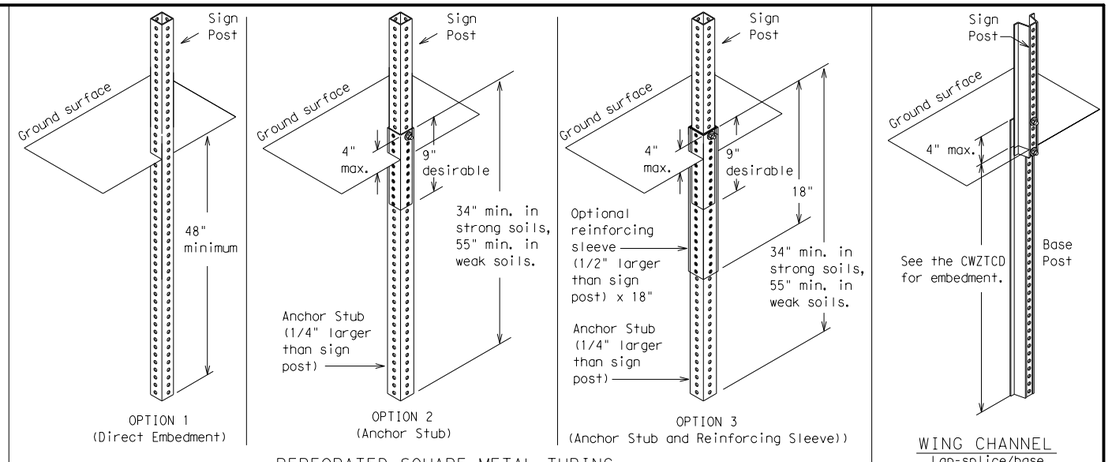
9-07 8-14	DIST	COUNTY		SHEET NO.
7-13 5-21	DAL	DALLAS		111



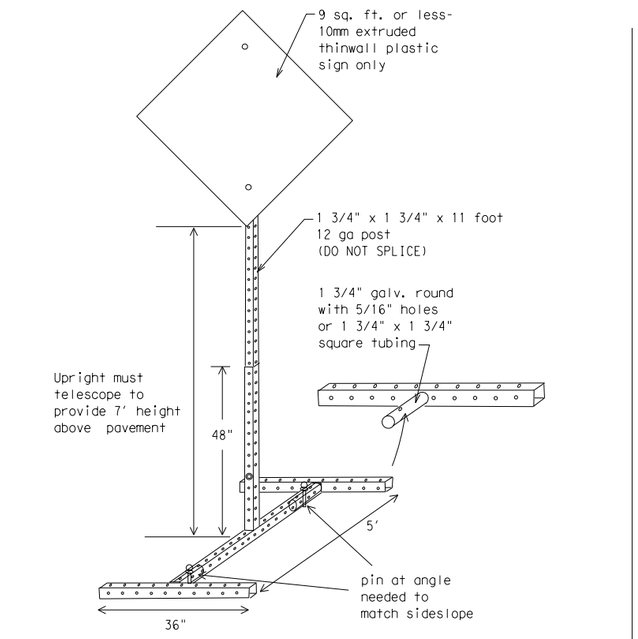
SKID MOUNTED WOOD SIGN SUPPORTS

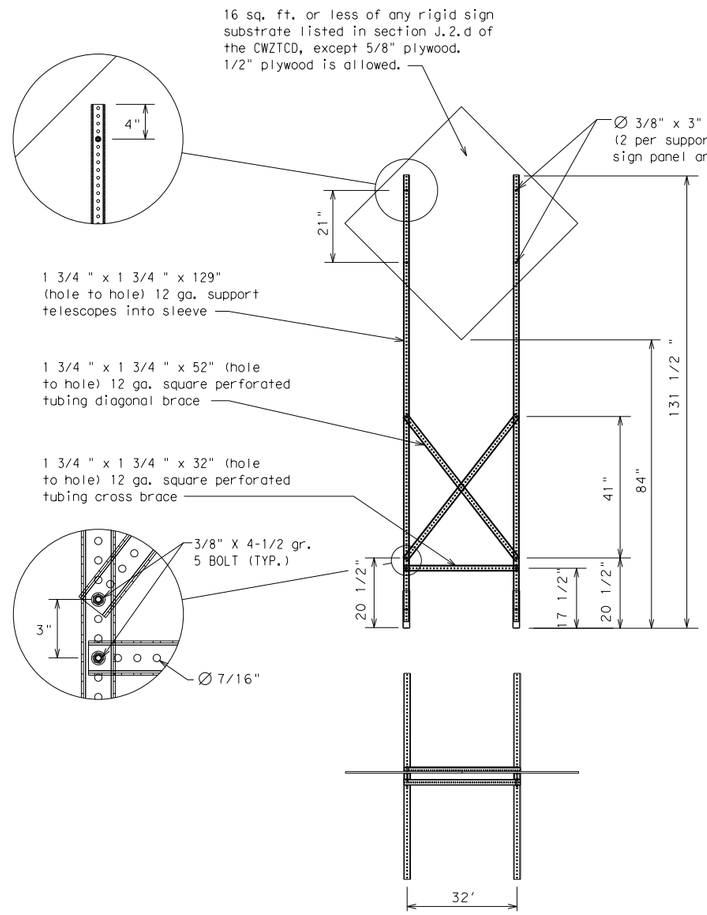
* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS

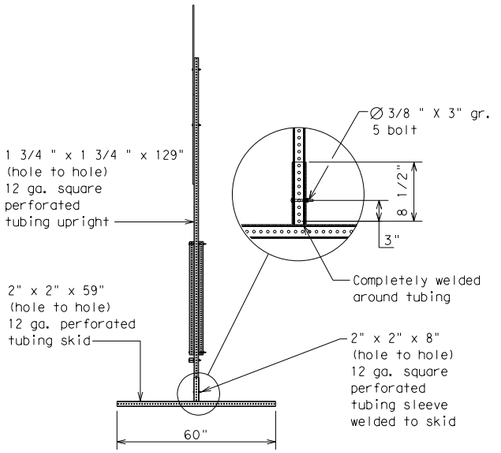


GROUND MOUNTED SIGN SUPPORTS

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







SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS

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

WEDGE ANCHORS

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

OTHER DESIGNS

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

GENERAL NOTES

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

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

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

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

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC(5)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
9-07 8-14	DIST	COUNTY		SHEET NO.
7-13 5-21	DAL	DALLAS		112

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

PORTABLE CHANGEABLE MESSAGE SIGNS

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

WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD
Alternate	ALT
Avenue	AVE
Best Route	BEST RTE
Boulevard	BLVD
Bridge	BRDG
Cannot	CANT
Center	CTR
Construction Ahead	CONST AHD
CROSSING	XING
Detour Route	DETOUR RTE
Do Not	DONT
East	E
Eastbound	(route) E
Emergency	EMER
Emergency Vehicle	EMER VEH
Entrance, Enter	ENT
Express Lane	EXP LN
Expressway	EXPWY
XXXX Feet	XXXX FT
Fog Ahead	FOG AHD
Freeway	FRWY, FWY
Freeway Blocked	FWY BLKD
Friday	FRI
Hazardous Driving	HAZ DRIVING
Hazardous Material	HAZMAT
High-Occupancy	HOV
Vehicle Highway	HWY
Hour(s)	HR, HRS
Information	INFO
It Is	ITS
Junction	JCT
Left	LFT
Left Lane	LFT LN
Lane Closed	LN CLOSED
Lower Level	LWR LEVEL
Maintenance	MAINT

WORD OR PHRASE	ABBREVIATION
Major	MAJ
Miles	MI
Miles Per Hour	MPH
Minor	MNR
Monday	MON
Normal	NORM
North	N
Northbound	(route) N
Parking	PKING
Road	RD
Right Lane	RT LN
Saturday	SAT
Service Road	SERV RD
Shoulder	SHLDR
Slippery	SLIP
South	S
Southbound	(route) S
Speed	SPD
Street	ST
Sunday	SUN
Telephone	PHONE
Temporary	TEMP
Thursday	THURS
To Downtown	TO DWNTN
Traffic	TRAF
Travelers	TRVLRS
Tuesday	TUES
Time Minutes	TIME MIN
Upper Level	UPR LEVEL
Vehicles (s)	VEH, VEHS
Warning	WARN
Wednesday	WED
Weight Limit	WT LIMIT
West	W
Westbound	(route) W
Wet Pavement	WET PVMT
Will Not	WONT

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

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

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

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

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

Other Condition List

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

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

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

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

Location List

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

Warning List

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

** Advance Notice List

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

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

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

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

WORDING ALTERNATIVES

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

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

FULL MATRIX PCMS SIGNS

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

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

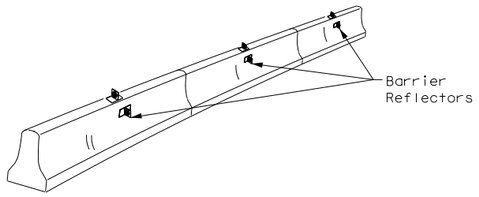
BC(6)-21

FILE:	bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS		0918	47	432	JEFFERSON STREET
9-07 8-14		DIST	COUNTY		SHEET NO.
7-13 5-21		DAL	DALLAS		113

100

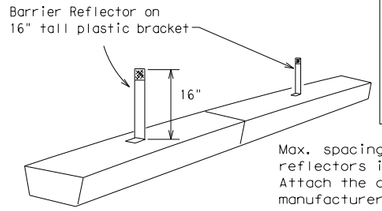
DATE:
FILE:

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



CONCRETE TRAFFIC BARRIER (CTB)

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

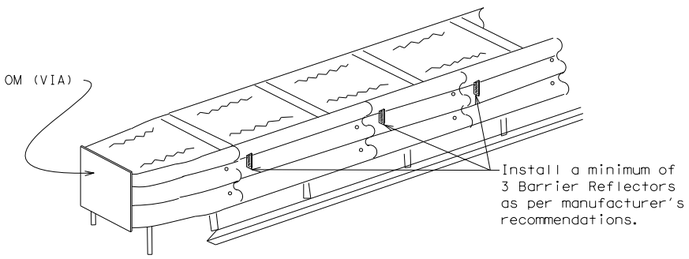


Max. spacing of barrier reflectors is 20 feet. Attach the delineators as per manufacturer's recommendations.

LOW PROFILE CONCRETE BARRIER (LPCB)

LOW PROFILE CONCRETE BARRIER (LPCB) USED IN WORK ZONES

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

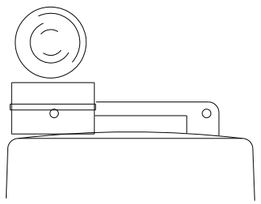


DELINEATION OF END TREATMENTS

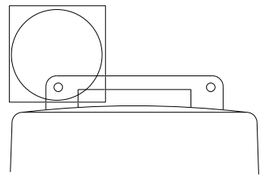
END TREATMENTS FOR CTB'S USED IN WORK ZONES

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

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS



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



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

WARNING LIGHTS

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

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

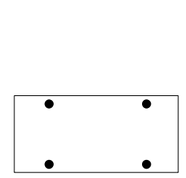
1. Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
2. Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
3. A series of sequential flashing warning lights placed on channelizing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

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

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

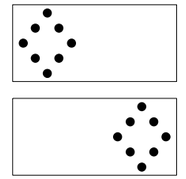
Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

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

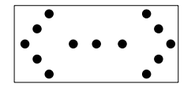


4 CORNER CAUTION

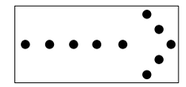
OR



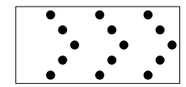
ALTERNATING DIAMOND CAUTION



DOUBLE ARROW



RIGHT/LEFT ARROW
(right arrow shown; left is similar)



RIGHT/LEFT SEQUENTIAL CHEVRON
(right chevron shown; left is similar)

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

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

ATTENTION
Flashing Arrow Boards shall be equipped with automatic dimming devices.

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

FLASHING ARROW BOARDS

TRUCK-MOUNTED ATTENUATORS

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

Texas Department of Transportation

Traffic Safety Division Standard

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

BC(7)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
9-07 8-14	DIST	COUNTY		SHEET NO.
7-13 5-21	DAL	DALLAS		114

101

DATE:
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GENERAL NOTES

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

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

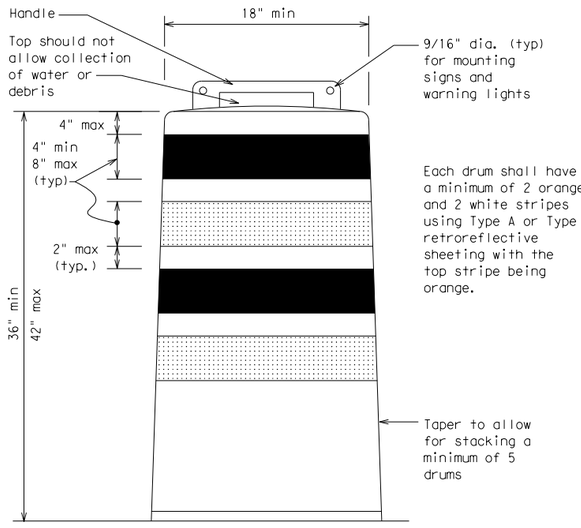
1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents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

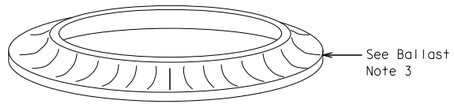
RETROREFLECTIVE SHEETING

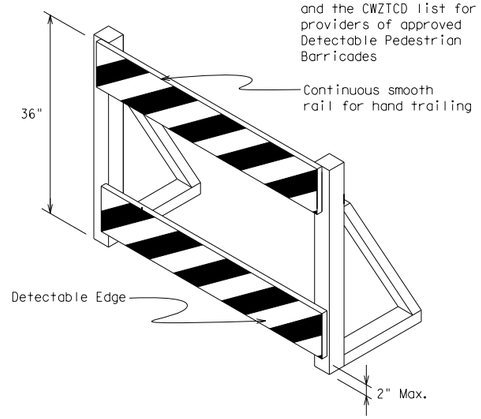
1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A or Type B reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall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

BALLAST

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

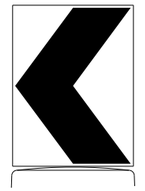




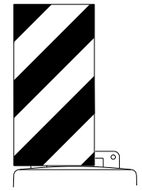


DETECTABLE PEDESTRIAN BARRICADES

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



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



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

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

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

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

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(8)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
4-03 8-14	DIST	COUNTY		SHEET NO.
9-07 5-21	DAL	DALLAS		115
7-13				

DATE:
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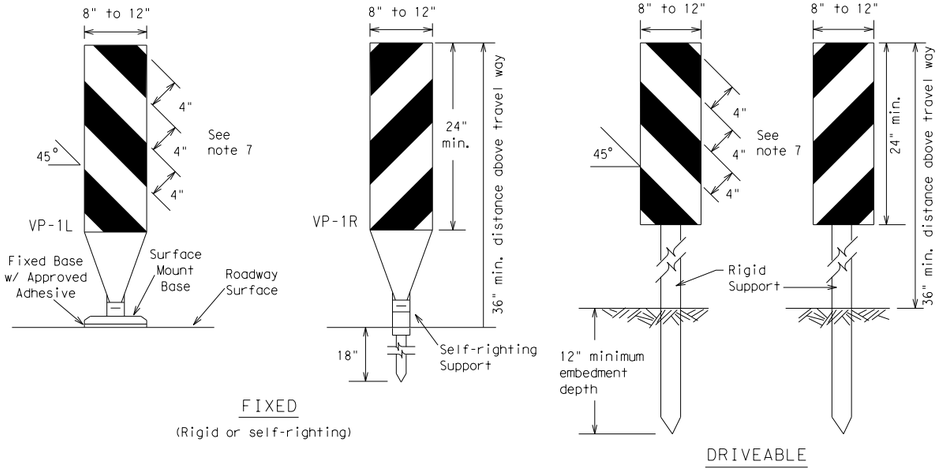
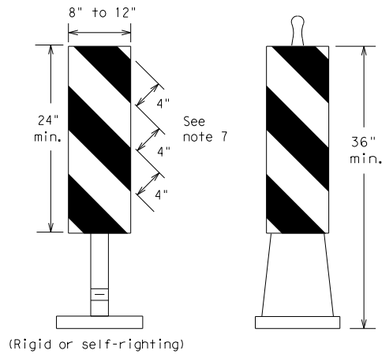


FIXED

(Rigid or self-righting)

DRIVEABLE

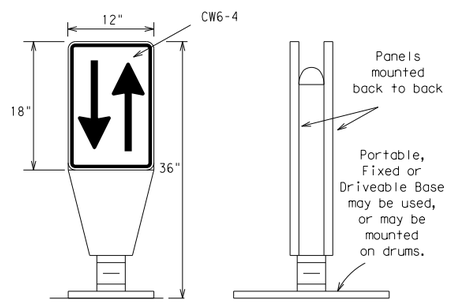


(Rigid or self-righting)

PORTABLE

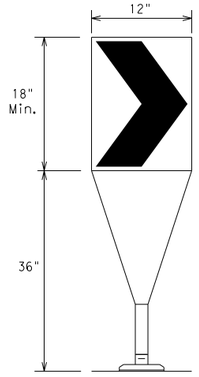
1. Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
2. VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is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

VERTICAL PANELS (VPs)



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

OPPOSING TRAFFIC LANE DIVIDERS (OTLD)



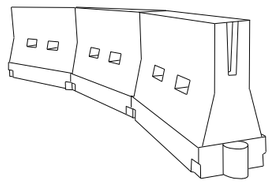
Fixed Base w/ Approved Adhesive (Driveable Base, or Flexible Support can be used)

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

CHEVRONS

GENERAL NOTES

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



LONGITUDINAL CHANNELIZING DEVICES (LCD)

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

WATER BALLASTED SYSTEMS USED AS BARRIERS

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

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

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

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

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

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

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Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(9)-21

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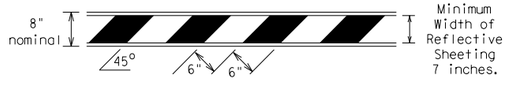
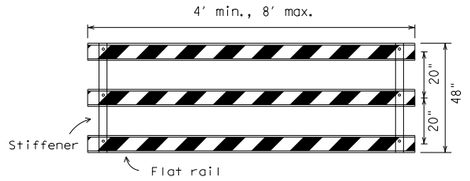
TYPE 3 BARRICADES

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

Barricades shall NOT be used as a sign support.



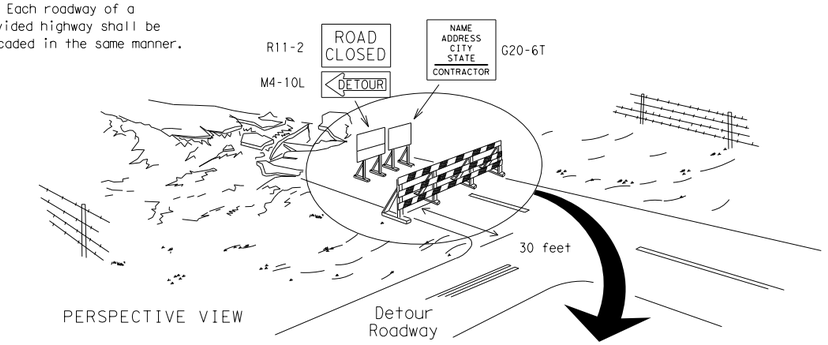
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



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

TYPICAL PANEL DETAIL
FOR SKID OR POST TYPE BARRICADES

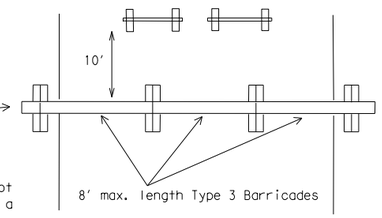
Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic.

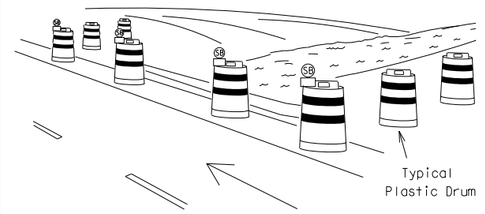
Barricade striping should slant downward in the direction of detour.



PLAN VIEW

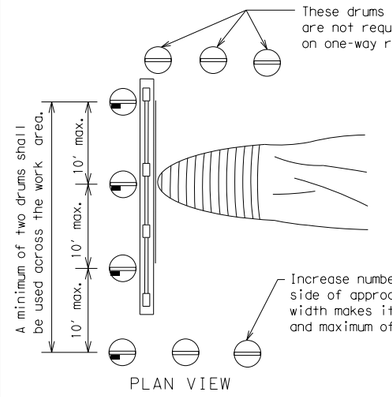
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

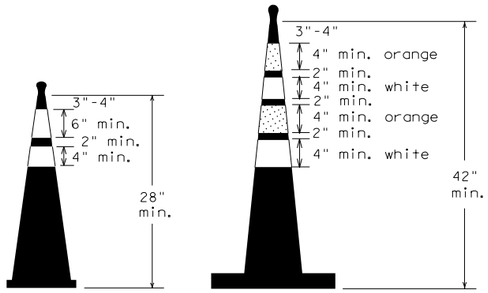
1. Where positive redirectional capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder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



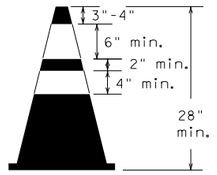
PLAN VIEW

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

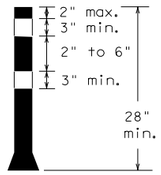
CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



Two-Piece cones



One-Piece cones

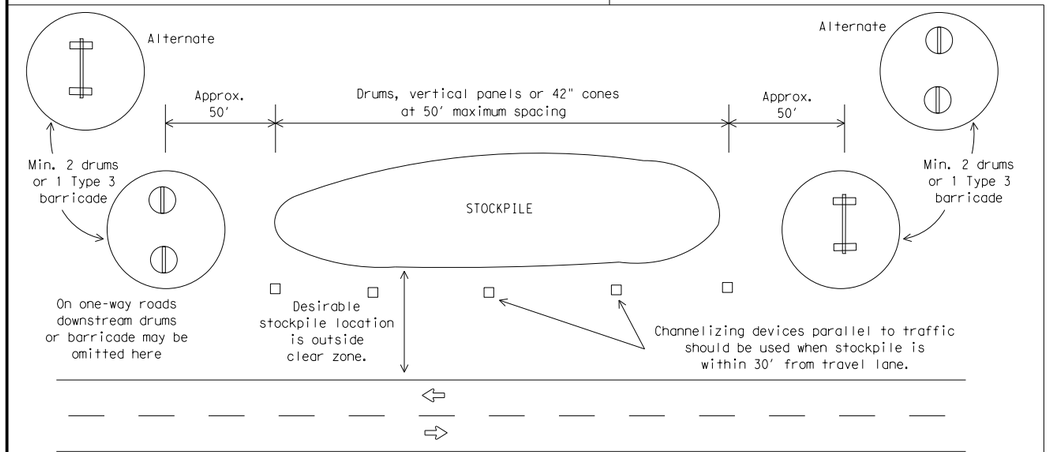


Tubular Marker

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

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

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



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

SHEET 10 OF 12

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(10)-21

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WORK ZONE PAVEMENT MARKINGS

GENERAL

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

RAISED PAVEMENT MARKERS

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

PREFABRICATED PAVEMENT MARKINGS

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

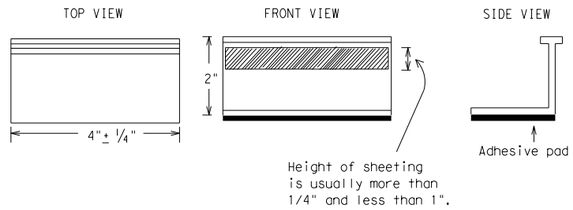
MAINTAINING WORK ZONE PAVEMENT MARKINGS

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

REMOVAL OF PAVEMENT MARKINGS

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

Temporary Flexible-Reflective Roadway Marker Tabs



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

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

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

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

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

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

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

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Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

BC(11)-21

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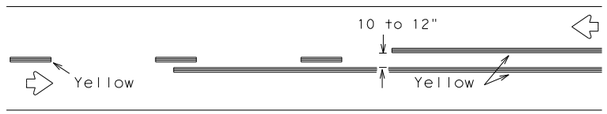
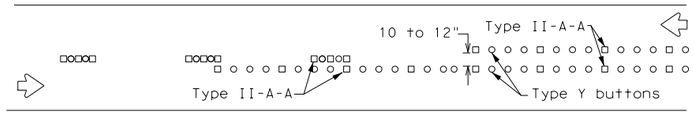
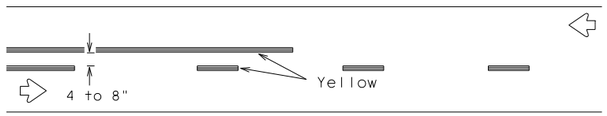
PAVEMENT MARKING PATTERNS



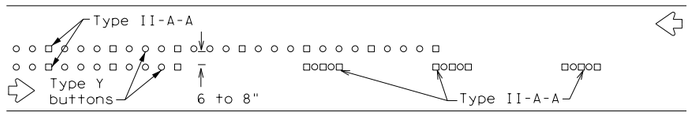
REFLECTORIZED PAVEMENT MARKINGS - PATTERN A



RAISED PAVEMENT MARKERS - PATTERN A



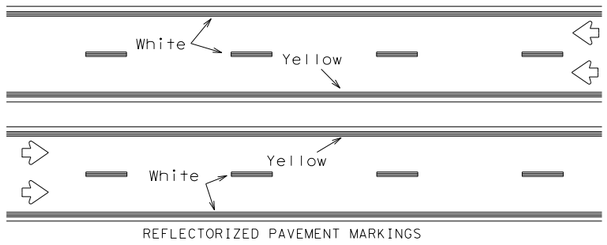
REFLECTORIZED PAVEMENT MARKINGS - PATTERN B



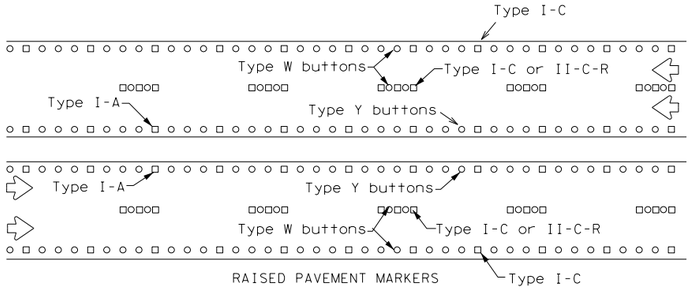
RAISED PAVEMENT MARKERS - PATTERN B

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

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



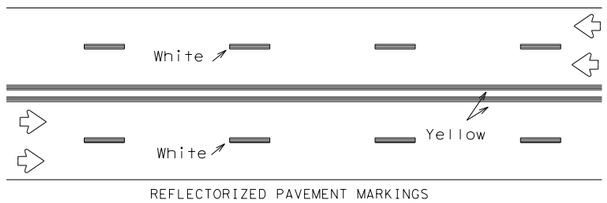
REFLECTORIZED PAVEMENT MARKINGS



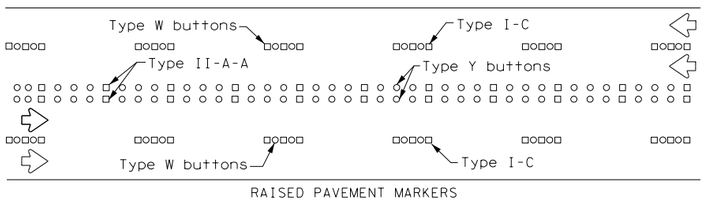
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



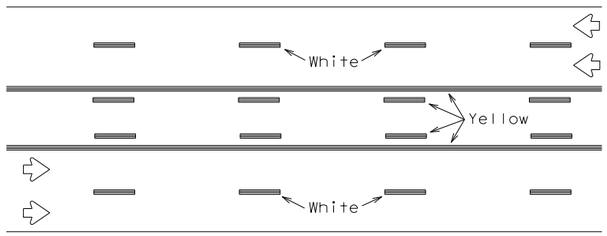
REFLECTORIZED PAVEMENT MARKINGS



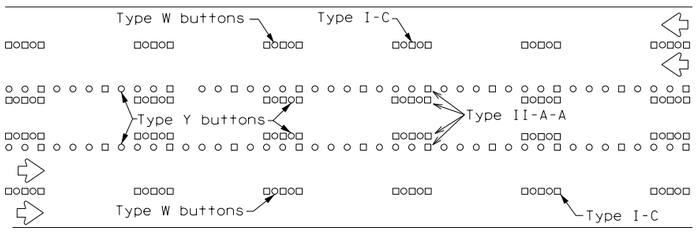
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS



RAISED PAVEMENT MARKERS

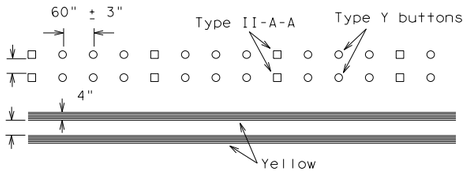
Prefabricated markings may be substituted for reflectorized pavement markings.

TWO-WAY LEFT TURN LANE

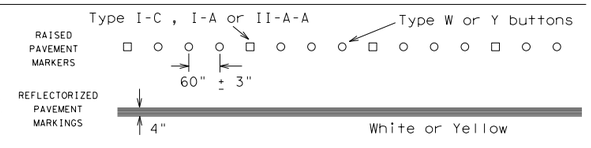
STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS

SOLID LINES

DOUBLE NO-PASSING LINE

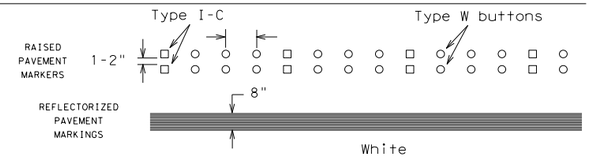


EDGE LINE OR SINGLE NO-PASSING LINE



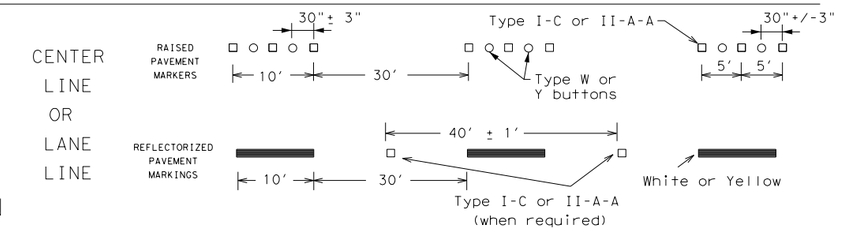
WIDE LINE

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

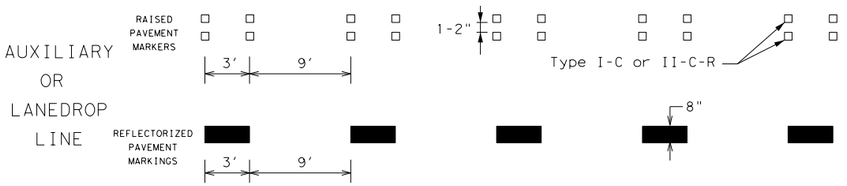


BROKEN LINES

CENTER LINE OR LANE LINE

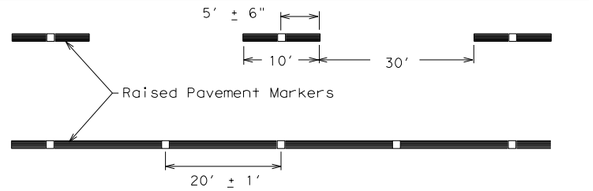


AUXILIARY OR LANEDROP LINE



REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

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



Centerline only - not to be used on edge lines

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

Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

BC(12)-21

FILE: bc-21.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS 1-97 9-07 5-21 2-98 7-13 11-02 8-14	0918	47	432	JEFFERSON STREET
	DIST	COUNTY		SHEET NO.
	DAL	DALLAS		119

106

DATE:
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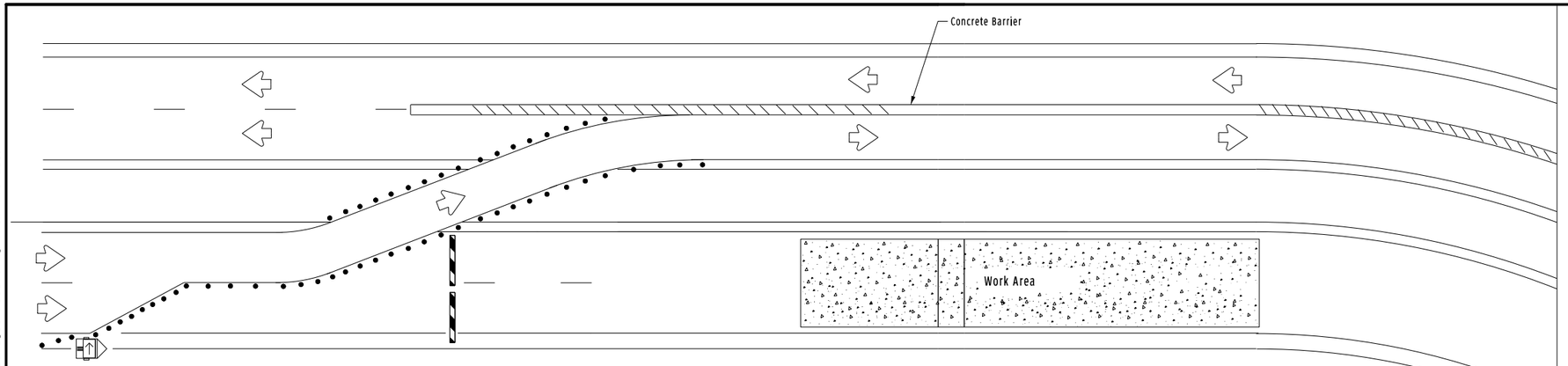


NOTES:

1. Length of Safety Glare screen will be specified elsewhere in the plans.
2. The cumulative nominal length of the modular safety glare screen units shall equal the length of the individual sections of temporary concrete traffic barrier on which they are installed so the joint between barrier sections will not be spanned by any one safety glare screen unit.
3. Screen Panel/blades will be designed such that reflective sheeting conforming with Departmental Material Specification DMS-8300, Sign Face Materials, Type B or C Yellow, minimum size of 2 inches by 12 inches can be attached to the edge of the panel/blade. The sheeting shall be attached to one glare screen panel/blade per section of concrete barrier not to exceed a spacing of 30 feet. Barrier reflectors are not necessary when panel/blades are installed with reflective sheeting as described.
4. Payment for these devices will be under statewide Special Specification "Modular Glare Screens for Headlight Barrier."
5. This detail is only intended to show types of locations where Glare Screens would be appropriate. Required signing and other devices shall be as shown elsewhere in the plans.

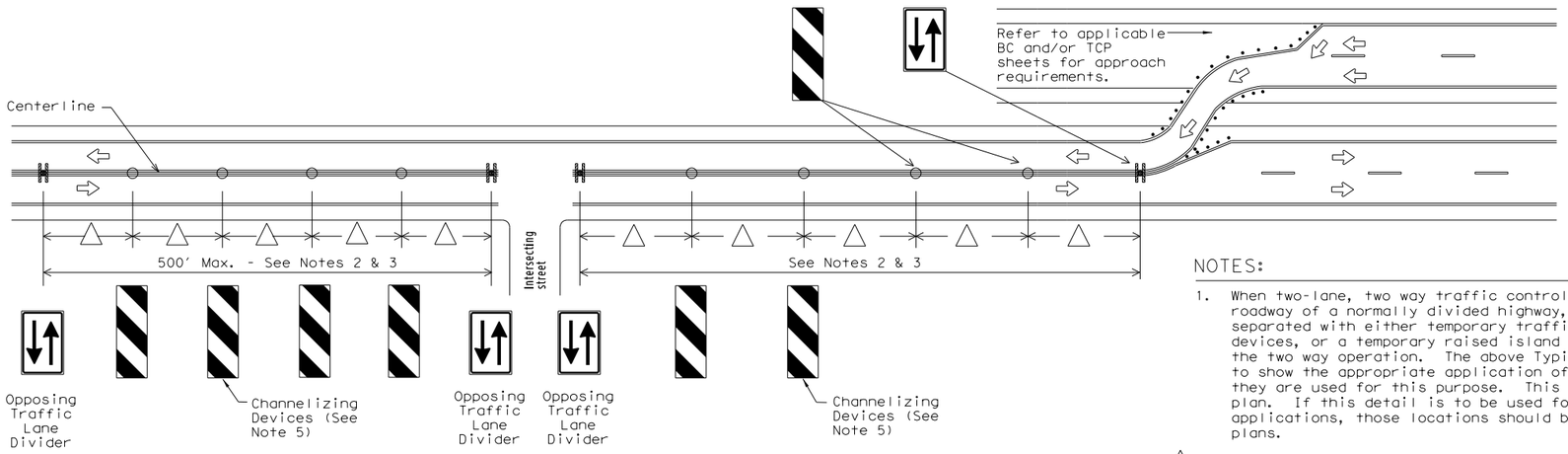
BARRIER DELINEATION WITH MODULAR GLARE SCREENS

LEGEND	
	Type 3 Barricade
• • •	Channelizing Devices
	Trailer Mounted Flashing Arrow Board
	Sign
\\\\	Safety glare screen

DEPARTMENTAL MATERIAL SPECIFICATIONS	
SIGN FACE MATERIALS	DMS-8300
DELINEATORS AND OBJECT MARKERS	DMS-8600
MODULAR GLARE SCREENS FOR HEADLIGHT BARRIER	DMS-8610

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 found at the following web address:

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



VERTICAL PANELS & OPPOSING TRAFFIC LANE DIVIDERS (OTLD) SEPARATING TWO-WAY TRAFFIC ON NORMALLY DIVIDED HIGHWAYS

NOTES:

1. When two-lane, two way traffic control must be maintained on one roadway of a normally divided highway, opposing traffic shall be separated with either temporary traffic barriers, channelizing devices, or a temporary raised island throughout the length of the two way operation. The above Typical Application is intended to show the appropriate application of channelizing devices when they are used for this purpose. This is not a traffic control plan. If this detail is to be used for other types of roads or applications, those locations should be stated elsewhere in the plans.
2. △ Space devices according to the Tangent Spacing shown on the Device Spacing table on BC(9) but not exceeding 100′.
3. Every fifth device should be an OTLD except when spaced closer to accommodate an intersection. An OTLD should be the first device on each side of intersecting streets or roads.
4. Locations where surface mount bases with adhesives or self-righting devices will be required in order to maintain them in their proper position should be noted elsewhere in the plans.
5. Channelizing devices are to be vertical panels, 42" cones or tubular markers that are at least 36" tall. Tubular markers used to separate traffic should have a rubber base weighing at least 30 pounds. Tubular markers that are 42" tall or more shall have four bands of reflective material as detailed for 42" cones on BC(10). Tubular markers less than 42" but at least 36" tall shall have three bands of 3" wide white reflective material spaced 2" apart. Reflective material shall meet DMS-8300, Type A.

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC CONTROL PLAN TYPICAL DETAILS

WZ(TD)-17

FILE: wztd-17.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS 4-98 2-17 3-03 7-13	0918	47	432	JEFFERSON STREET
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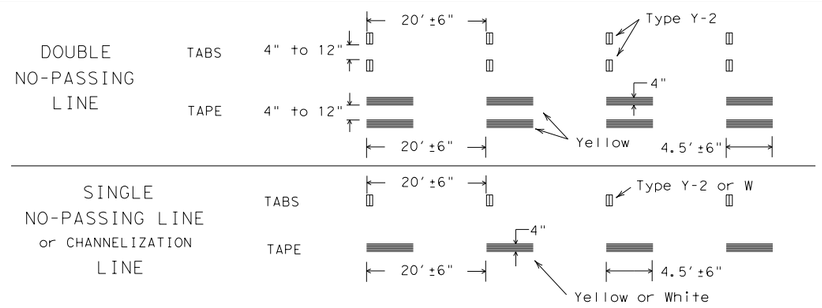
	DAL	DALLAS		120

110

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

WORK ZONE SHORT TERM PAVEMENT MARKINGS DETAILS



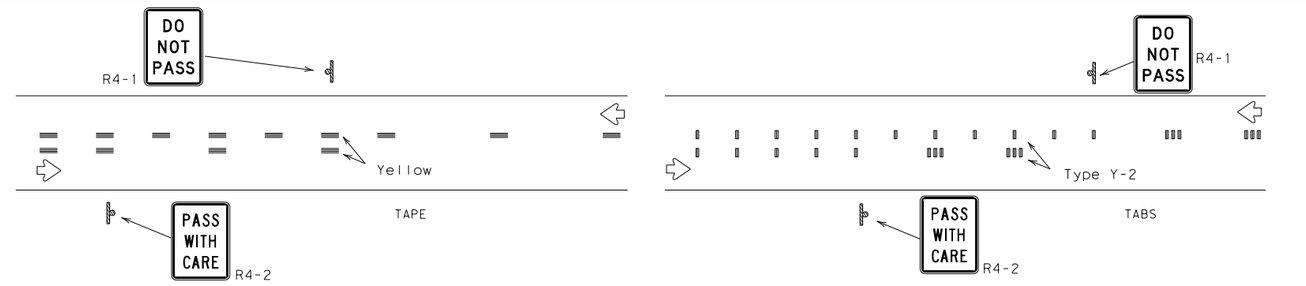
NOTES:

1. Short term pavement markings may be prefabricated markings (stick down tape) or temporary flexible-reflective roadway marker tabs unless otherwise specified elsewhere in plans.
2. Short term pavement markings shall NOT be used to simulate edge lines.
3. Dimensions indicated on this sheet are typical and approximate. Variations in size and height may occur between markers or devices made by manufacturers, by as much as 1/4 inch, unless otherwise noted.
4. Temporary flexible-reflective roadway marker tabs will require normal maintenance replacement when used on roadways with an ADT per lane of up to 7500 vehicles with no more than 10% truck mix. When roadways exceed these values, additional maintenance replacement of devices should be planned.
5. No segment of roadway open to traffic shall remain without permanent pavement markings for a period greater than 14 calendar days. The Contractor will be responsible for maintaining short term pavement markings until permanent pavement markings are in place. When the Contractor is responsible for placement of permanent pavement markings, no segment of roadway shall remain without permanent pavement markings for a period greater than 14 calendar days unless weather conditions prohibit placement. Permanent pavement markings shall be placed as soon as weather permits.
6. For two lane, two-way roadways, DO NOT PASS signs shall be erected to mark the beginning of sections where passing is prohibited and PASS WITH CARE signs shall be erected to mark the beginning of sections where passing is permitted. Signs shall be in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and may be used to indicate the limits of no-passing zones for up to 14 calendar days. Permanent pavement markings should then be placed.
7. For low volume two lane, two-way roadways of 4000 ADT or less, no-passing lines may be omitted when approved by the Engineer. DO NOT PASS and PASS WITH CARE signs shall be erected (see note 6).
8. For exit gores where a lane is being dropped place wide gore markings or retroreflective channelizing devices to guide motorist through the exit. If channelizing devices are to be used it should be noted elsewhere in the plans. One piece cones are not allowed for this purpose.

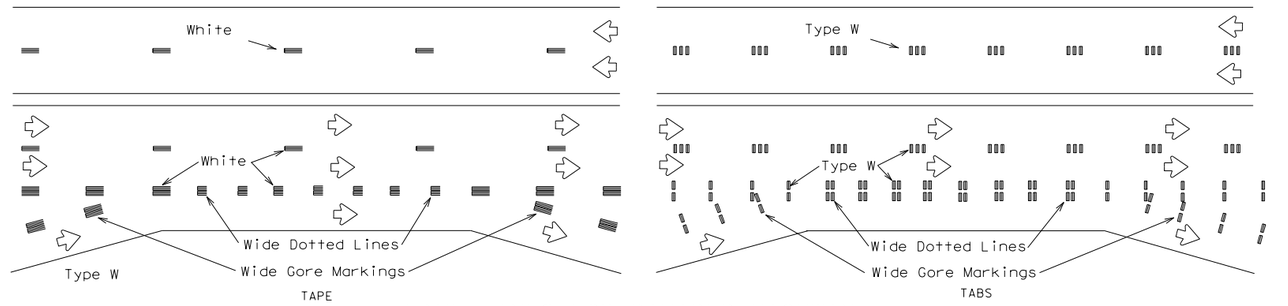
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS (TABS)

1. Temporary flexible-reflective roadway marker tabs detailed on this sheet will be designated Type Y-2 (two amber reflective surfaces with yellow body); Type Y (one amber reflective surface with yellow body); and Type W (one white or silver reflective surface with white body). Additional details may be found on BC(11).
2. Tabs shall meet requirements of Departmental Material Specification DMS-8242.
3. When dry, tabs shall be visible for a minimum distance of 200 feet during normal daylight hours and when illuminated by automobile low-beam head light at night, unless sight distance is restricted by roadway geometrics.
4. No two consecutive tabs nor four tabs per 1000 feet of line shall be missing or fail to meet the visual performance requirements of Note 3.

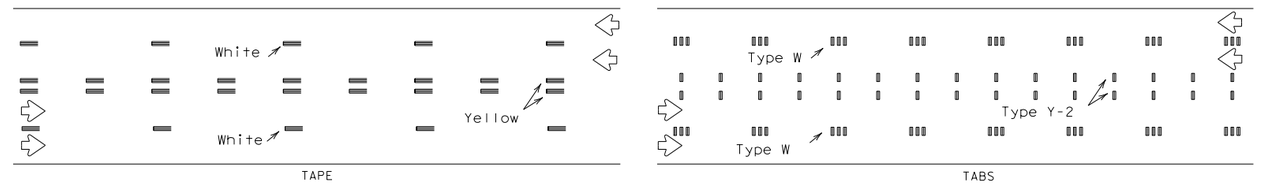
WORK ZONE SHORT TERM PAVEMENT MARKINGS PATTERNS



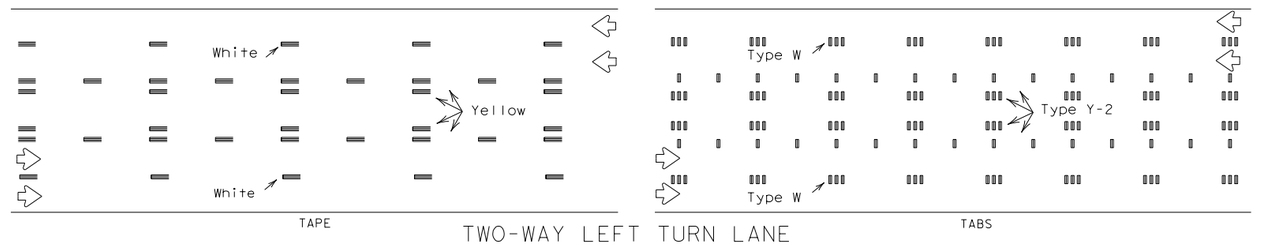
CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO LANE TWO-WAY HIGHWAYS



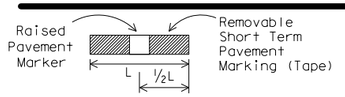
LANE LINES FOR DIVIDED HIGHWAY



LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



TWO-WAY LEFT TURN LANE



If raised pavement markers are used to supplement REMOVABLE short term markings, the markers shall be applied to the top of the tape at the approximate mid length of the tape. This allows an easier removal of raised markers and tape.

PREFABRICATED PAVEMENT MARKINGS

1. Temporary Removable Prefabricated Pavement Markings shall meet the requirements of DMS-8241.
2. Non-removable Prefabricated Pavement Markings shall meet the requirements of either DMS-8240 "Permanent Prefabricated Pavement Markings" or DMS-8243 "Temporary Costruction-Grade Prefabricated Pavement Markings."

RAISED PAVEMENT MARKERS

1. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and DMS-4200.

DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS) & MATERIAL PRODUCER LISTS (MPL)

1. DMSs referenced above can be found along with embedded links to their respective MPLs at the following website:
   http://www.txdot.gov/business/contractors_consultants/material_specifications/default.htm

Texas Department of Transportation

Traffic Operations Division Standard

WORK ZONE SHORT TERM PAVEMENT MARKINGS

WZ(STPM)-13

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©TxDOT	April 1992	CONT	SECT	JOB	HIGHWAY
REVISIONS		0918	47	432	JEFFERSON STREET
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3-03		DAL	DALLAS		121
7-13					

111

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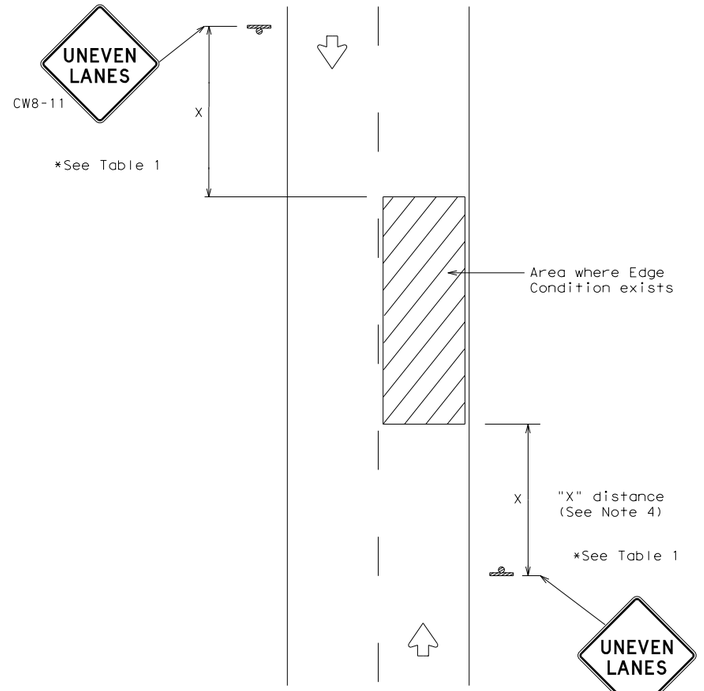
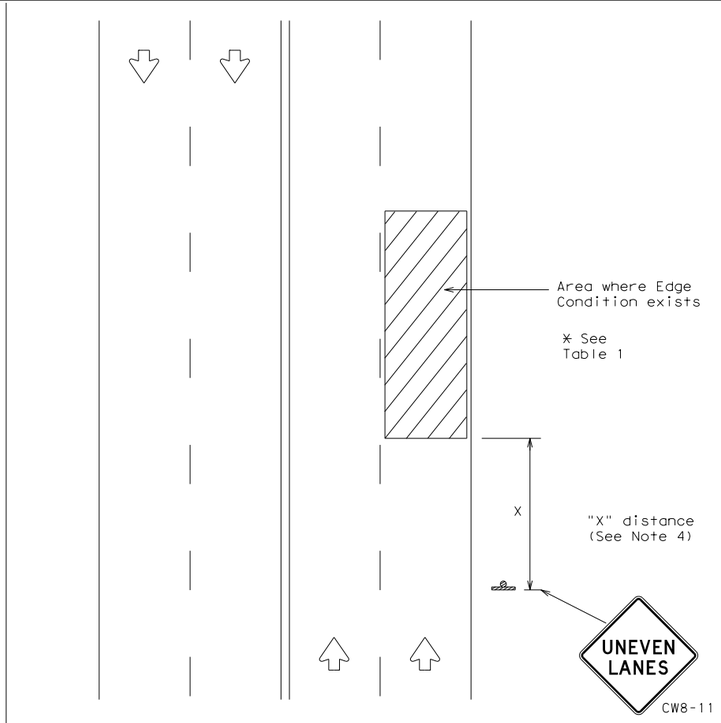
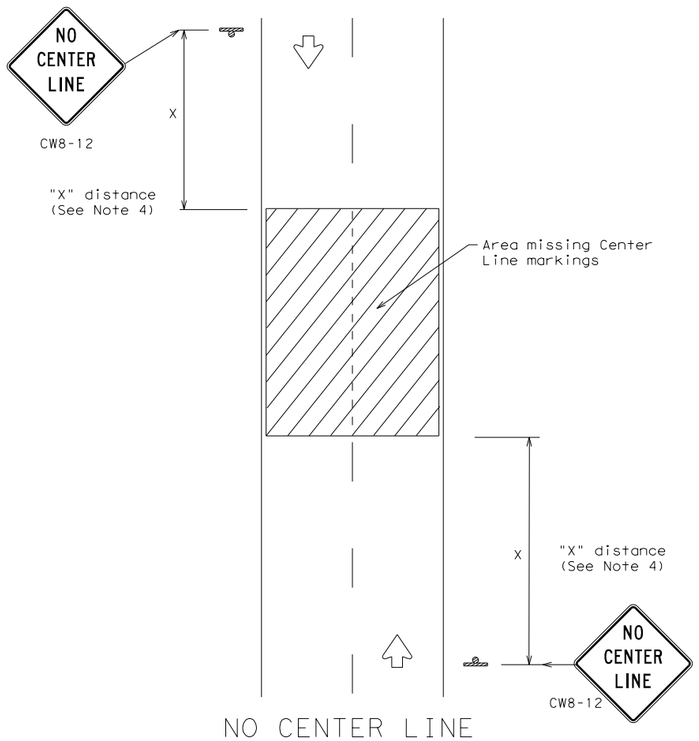


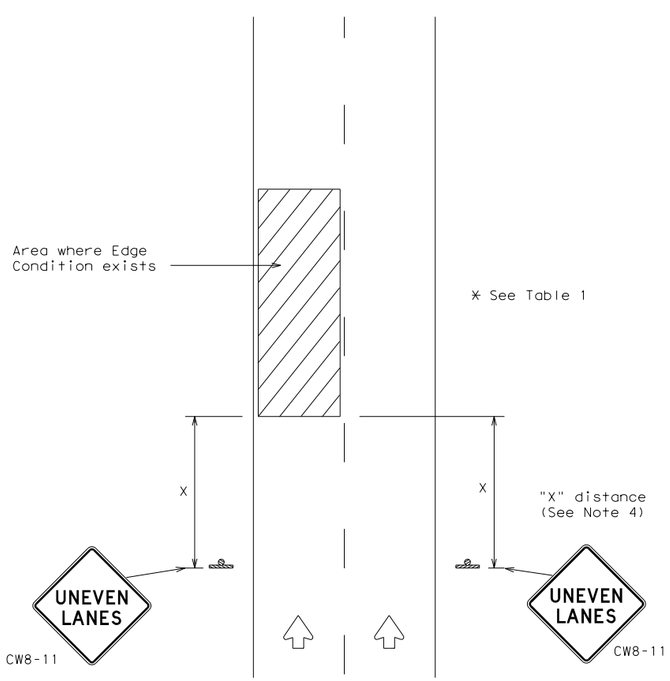
UNEVEN LANES
TWO LANE CONVENTIONAL ROAD



UNEVEN LANES
FOUR LANE CONVENTIONAL ROAD



NO CENTER LINE
TWO LANE CONVENTIONAL ROAD



UNEVEN LANES
DIVIDED ROADWAY

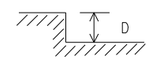
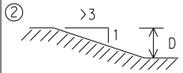
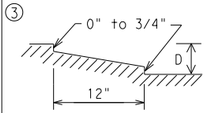
DEPARTMENTAL MATERIAL SPECIFICATIONS	
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY (REMOVABLE) PREFABRICATED PAVEMENT MARKINGS	DMS-8241
SIGN FACE MATERIALS	DMS-8300

COLOR	USAGE	SHEETING MATERIAL
ORANGE	BACKGROUND	TYPE B_{FL} OR TYPE C_{FL} SHEETING
BLACK	LEGEND & BORDERS	ACRYLIC NON-REFLECTIVE SHEETING

GENERAL NOTES

1. If spalling or holes occur, ROUGH ROAD (CW8-8) signs should be placed in advance of the condition and be repeated every two miles where the condition persists.
2. UNEVEN LANES (CW8-11) signs shall be installed in advance of the condition and repeated every mile. Signs installed along the uneven lane condition may be supplemented with the NEXT XX MILES (CW7-3aP) plaque or Advisory Speed (CW13-1P) plaque.
3. NO CENTER LINE (CW8-12) signs and temporary pavement markings as per the WZ(STPM) standard shall be installed if yellow centerlines separating two way traffic are obscured or obliterated. Repeat NO CENTER LINE signs every two miles where the center line markings are not in place. The signs and markings shall remain in place until permanent pavement markings are installed.
4. Signs shall be spaced at the distances recommended as per BC standards.
5. Additional signs may be required as directed by the Engineer. Signs shall remain in place until final surface is applied. Signs shall be considered subsidiary to Item 502 "BARRICADES, SIGNS AND TRAFFIC HANDLING."
6. Signs shall be fabricated and mounted on supports as shown on the BC standards and/or listed on the "Compliant Work Zone Traffic Control Devices" list.
7. Short term markings shall not be used to simulate edge lines.
8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition.

TABLE 1

Edge Condition	Edge Height (D)	* Warning Devices
① 	Less than or equal to: 1¼" (maximum-planing) 1½" (typical-overlay)	Sign: CW8-11
	Distance "D" may be a maximum of 1 1/4 " for planing operations and 2" for overlay operations if uneven lanes with edge condition 1 are open to traffic after work operations cease.	
② 	Less than or equal to 3"	Sign: CW8-11
③  Notched Wedge Joint	Distance "D" may be a maximum of 3" if uneven lanes with edge condition 2 or 3 are open to traffic after work operations cease. Uneven lanes should not be open to traffic when "D" is greater than 3".	

TRAFFIC CONTROL DURING PLANING, OVERLAY AND LEVELING OPERATIONS ARE SHOWN ELSEWHERE IN THE PLANS.

MINIMUM WARNING SIGN SIZE	
Conventional roads	36" x 36"
Freeways/expressways, divided roadways	48" x 48"

Texas Department of Transportation

Traffic Operations Division Standard

SIGNING FOR UNEVEN LANES

WZ(UL)-13

FILE: wzul-13.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT April 1992	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
8-95 2-98 7-13	DIST	COUNTY		SHEET NO.
1-97 3-03	DAL	DALLAS		122

112

DATE:
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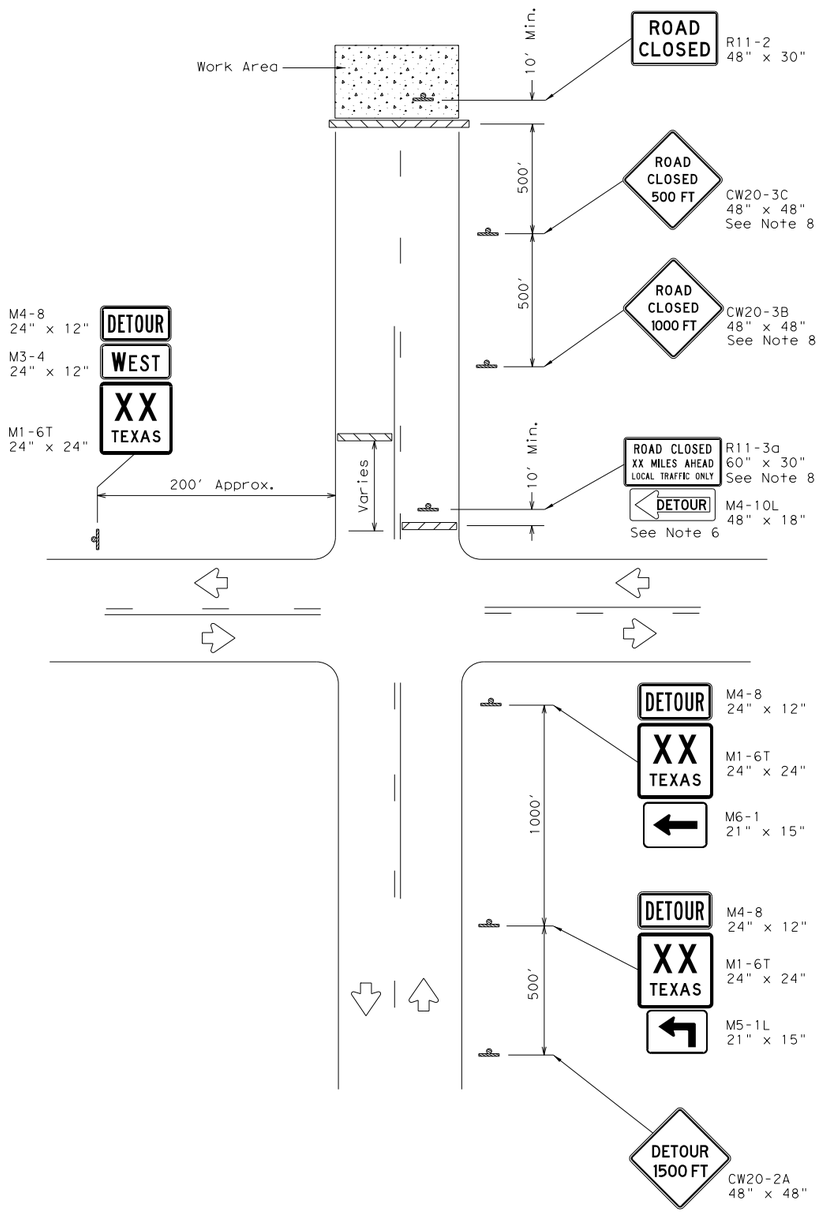
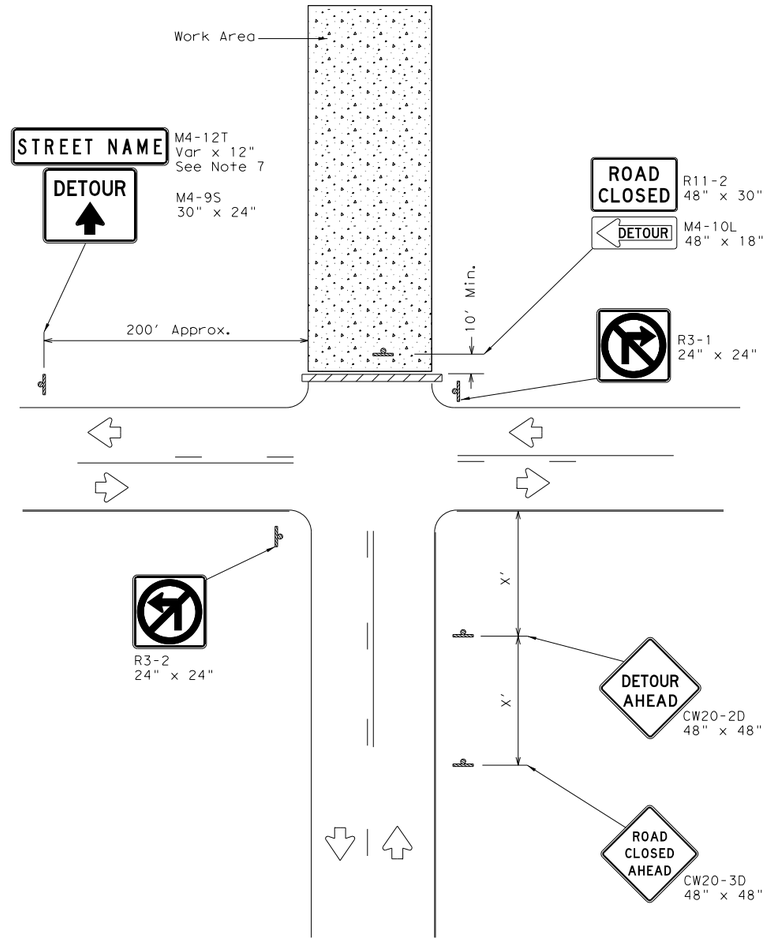


ROAD CLOSURE BEYOND THE INTERSECTION

Signing for a Numbered Route with an Off-Site Detour



ROAD CLOSURE AT THE INTERSECTION

Signing for an Un-numbered Route with an Off-Site Detour

LEGEND	
	Type 3 Barricade
	Sign

Posted Speed *	Minimum Sign Spacing "X" Distance
30	120'
35	160'
40	240'
45	320'
50	400'
55	500'
60	600'
65	700'
70	800'
75	900'

* Conventional Roads Only

GENERAL NOTES

1. This sheet is intended to provide details for temporary work zone road closures. For permanent road closure details see the D&OM standards.
2. Barricades used shall meet the requirements shown on Barricade and Construction Standard BC(10) and listed on the Compliant Work Zone Traffic Control Devices list (CWZTCD).
3. Stockpiled materials shall not be placed on the traffic side of barricades.
4. Barricades at the road closure should extend from pavement edge to pavement edge.
5. Detour signing shown is intended to illustrate the type of signing that is appropriate for numbered routes or un-numbered routes as labeled. It does not indicate the full extent of detour signing required. Detour routes should be signed as shown elsewhere in the plans.
6. If the road is open for a significant distance beyond the intersection or there are significant origin/destination points beyond the intersection, the signs and barricades at this location should be located at the edge of the traveled way.
7. The Street Name (M4-12T) sign is to be placed above the DETOUR (M4-9S) sign.
8. For urban areas where there is a shorter distance between the intersection and the actual closure location, the ROAD CLOSED XX MILES AHEAD (R11-3a) sign may be replaced with a ROAD CLOSED TO THRU TRAFFIC (R11-4) sign. If adequate space does not exist between the intersection and the closure a single ROAD CLOSED AHEAD (CW20-3D) sign spaced as per the table above may replace the ROAD CLOSED 1000 FT (CW20-3B) and ROAD CLOSED 500 FT (CW20-3C) signs.
9. Signs and barricades shown shall be subsidiary to Item 502. Locations where these details will be required shall be as shown elsewhere in the plans.

Texas Department of Transportation

Traffic Operations Division Standard

WORK ZONE ROAD CLOSURE DETAILS

WZ(RCD)-13

FILE: wzrcd-13.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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2-98 3-03	DAL	DALLAS		123

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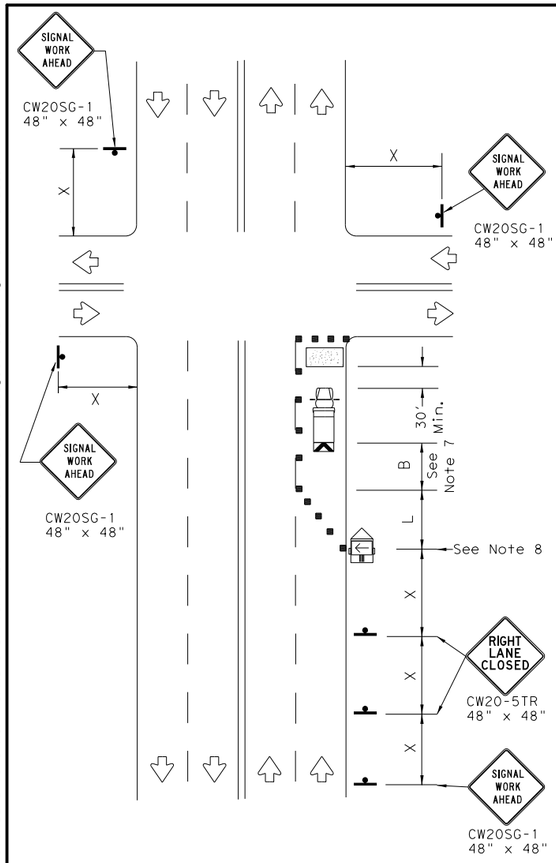
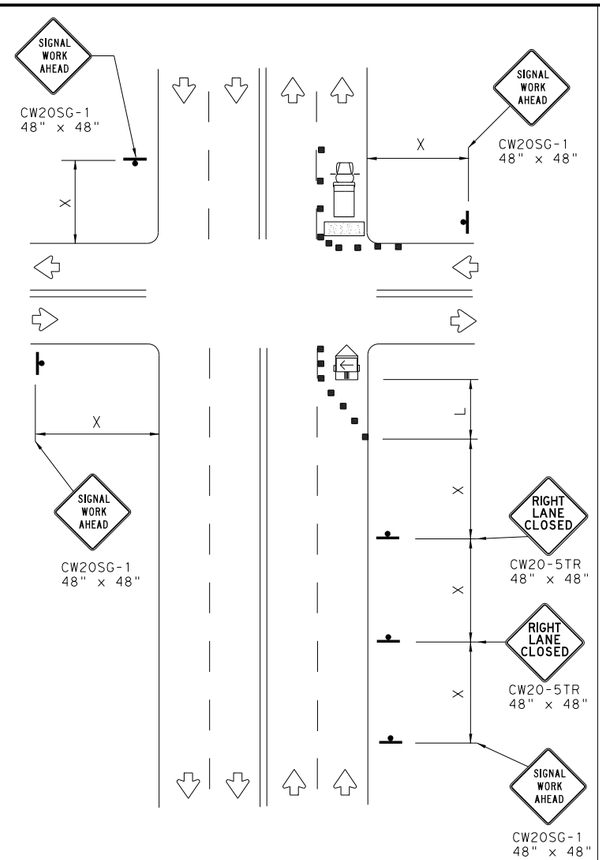


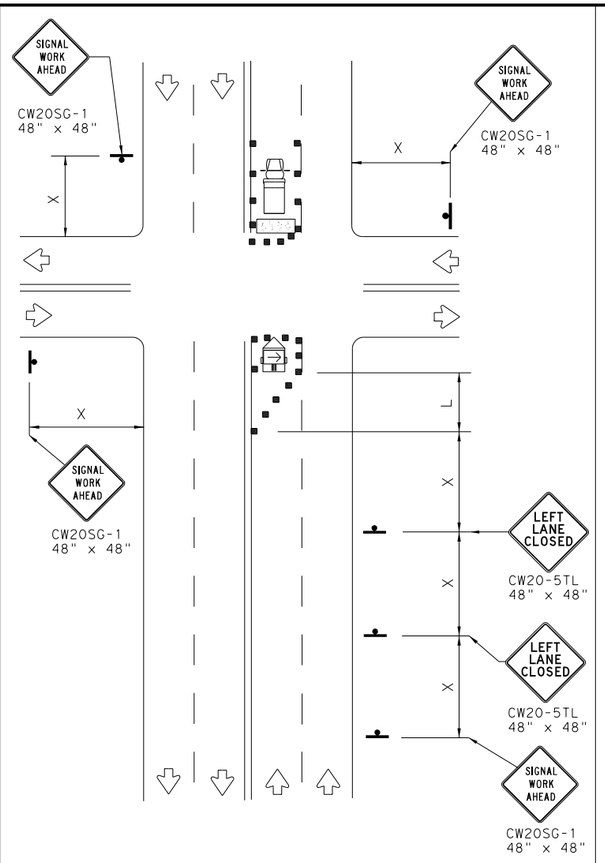
NEAR SIDE LANE CLOSURE

SHORT DURATION OR SHORT TERM STATIONARY



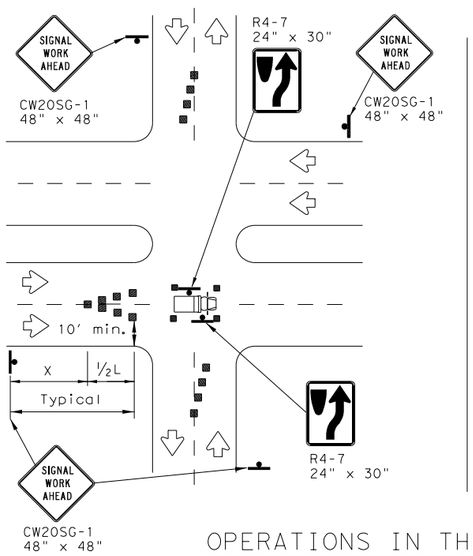
FAR SIDE RIGHT LANE CLOSURE

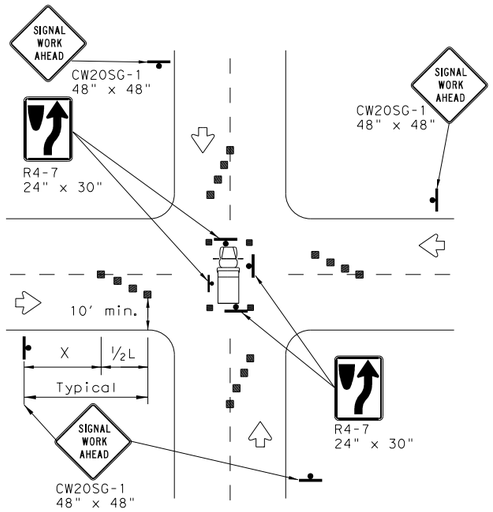
SHORT DURATION OR SHORT TERM STATIONARY



FAR SIDE LEFT LANE CLOSURE

SHORT DURATION OR SHORT TERM STATIONARY





OPERATIONS IN THE INTERSECTION

SHORT DURATION

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

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	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

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

WORKERS IN BUCKET TRUCKS SHALL NOT WORK ABOVE OPEN LANES OF TRAFFIC.

GENERAL NOTES

1. The minimum size channelizing device is the 28" cone. 42" Two-piece cones, drums, vertical panels or barricades will be required when the device must be left unattended at night.
2. Obstructions or hazards at the work area shall be clearly marked and delineated at all times.
3. Flaggers and Flagger Symbol (CW20-7) signs may be required according to field conditions.
4. Vehicles parked in roadway shall be equipped with at least two high intensity rotating, flashing, oscillating or strobe type lights.
5. High level warning devices (flag trees) may be used at corners of the vehicle.
6. When work operations are performed on existing signals, the signals may be placed in flashing red mode when approved by the engineer. If existing signals do not have power, All-Way Stop (R1-1 and R1-3P) signs may be implemented when approved by the engineer.
7. For Short-Term Stationary work the buffer space "B" from the above table should be used if field conditions permit. For Short Duration (less than 1 hour) any buffer space provided will enhance the safety of the setup.
8. The arrow board at this location may be omitted for Short Duration work if the work vehicle has an arrow board in operation. As an option, the arrow board may be placed at the end of the taper in the closed lane if space is not available at the beginning of the taper.
9. Signs and devices for the NEAR SIDE LANE CLOSURE may be altered for a left lane closure by using a LEFT LANE CLOSED (CW20-5TL) and adding channelizing devices on the centerline to protect the work space from opposing traffic.

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC SIGNAL WORK TYPICAL DETAILS

WZ(BTS-1)-13

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REVISIONS	0918	47	432	JEFFERSON STREET
2-98 10-99 7-13	DIST	COUNTY		SHEET NO.
4-98 3-03	DAL	DALLAS		124

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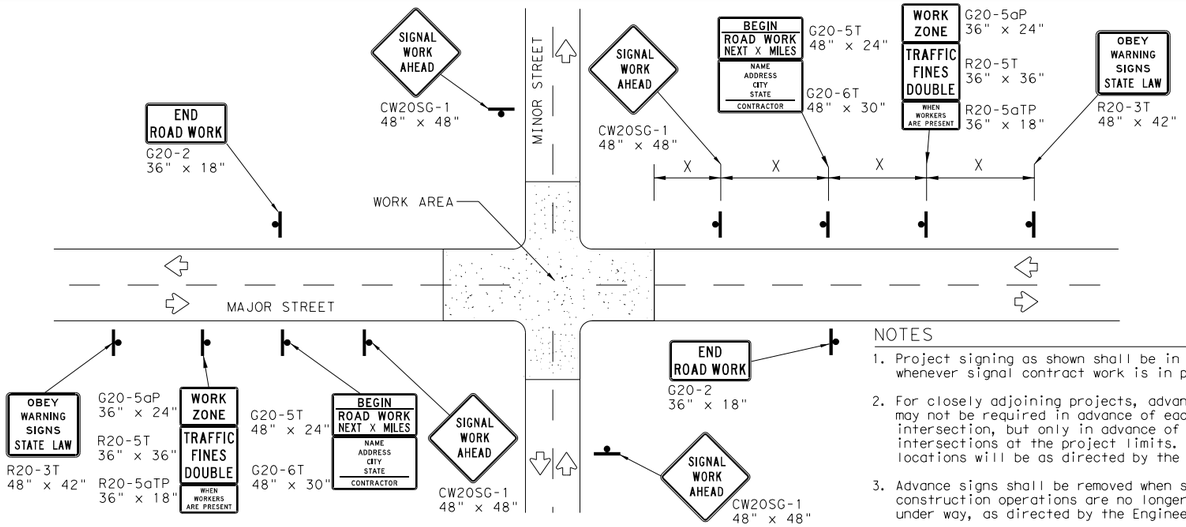


TYPICAL ADVANCE SIGNAL PROJECT SIGNING

FOR LONG TERM and INTERMEDIATE-TERM STATIONARY WORK OPERATIONS

NOTES

1. Project signing as shown shall be in place whenever signal contract work is in progress.
2. For closely adjoining projects, advance signing may not be required in advance of each intersection, but only in advance of the intersections at the project limits. Actual locations will be as directed by the Engineer.
3. Advance signs shall be removed when signal construction operations are no longer under way, as directed by the Engineer.
4. Warning sign spacing shown is typical for both directions.
5. See the Table on sheet 1 of 2 for Typical warning sign spacing.

GENERAL NOTES FOR WORK ZONE SIGNS

1. Signs shall be installed and maintained in a straight and plumb condition.
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.
6. The Contractor shall furnish the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD).
7. The Contractor shall furnish sign supports and substrates listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD), installed as per the manufacturer's recommendations.
8. Temporary signs that have damaged or cracked substrates and/or damaged or marred reflective sheeting shall be replaced as directed by the Engineer.
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. Damaged wood posts shall be replaced. Splicing wood posts will not be allowed.

DURATION OF WORK

1. Work zone durations are defined in Part 6, Section 6G.02 of the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

SIGN MOUNTING HEIGHT

1. Sign height of Long-term/Intermediate-term warning signs shall be as shown on Figure 6F-1 of the TMUTCD.
2. Sign height of Short-term/Short Duration warning signs shall be as shown on Figure 6F-2 of the TMUTCD.
3. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

REMOVING OR COVERING

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered, unless otherwise approved by the Engineer.
2. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night without damaging the sign sheeting. Burlap, or heavy materials such as plywood or aluminum shall not be used to cover signs.
3. Duct tape or other adhesive material shall NOT be affixed to a sign face.
4. Signs and anchor stubs shall be removed and holes back filled upon completion of the work.

REFLECTIVE SHEETING

1. All signs shall be retroreflective and constructed of sheeting meeting the requirements of the DMS and color usage table shown on this sheet.

SIGN SUPPORT WEIGHTS

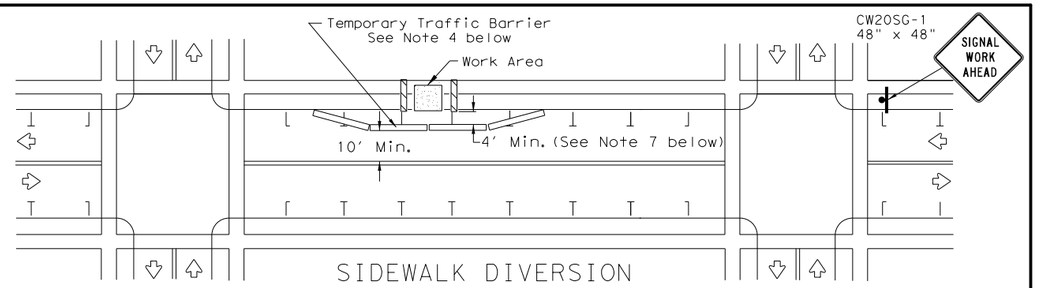
1. Weights used to keep signs from turning over should be sandbags filled with dry, cohesionless material.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects will not be permitted for use as sign support 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. Rubber, such as tire inner tubes, shall not be used.
6. Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
7. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fastners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

LEGEND	
	Sign
	Channelizing Devices
	Type 3 Barricade

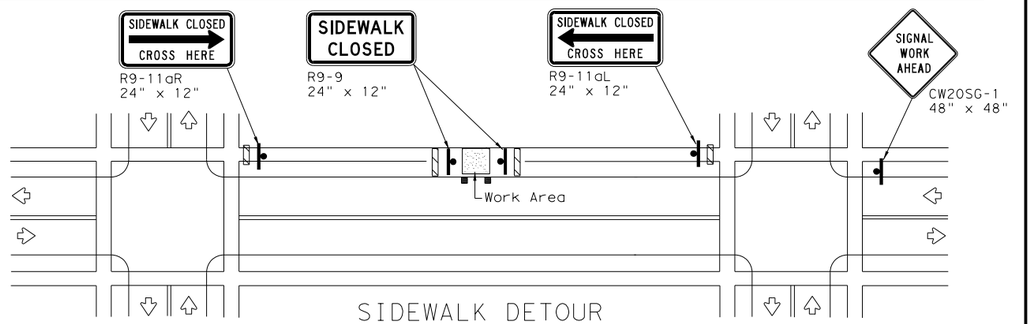
DEPARTMENTAL MATERIAL SPECIFICATIONS	
SIGN FACE MATERIALS	DMS-8300
FLEXIBLE ROLL-UP REFLECTIVE SIGNS	DMS-8310

COLOR	USAGE	SHEETING MATERIAL
ORANGE	BACKGROUND	TYPE B_{FL} OR TYPE C_{FL} SHEETING
WHITE	BACKGROUND	TYPE A SHEETING
BLACK	LEGEND & BORDERS	ACRYLIC NON-REFLECTIVE SHEETING

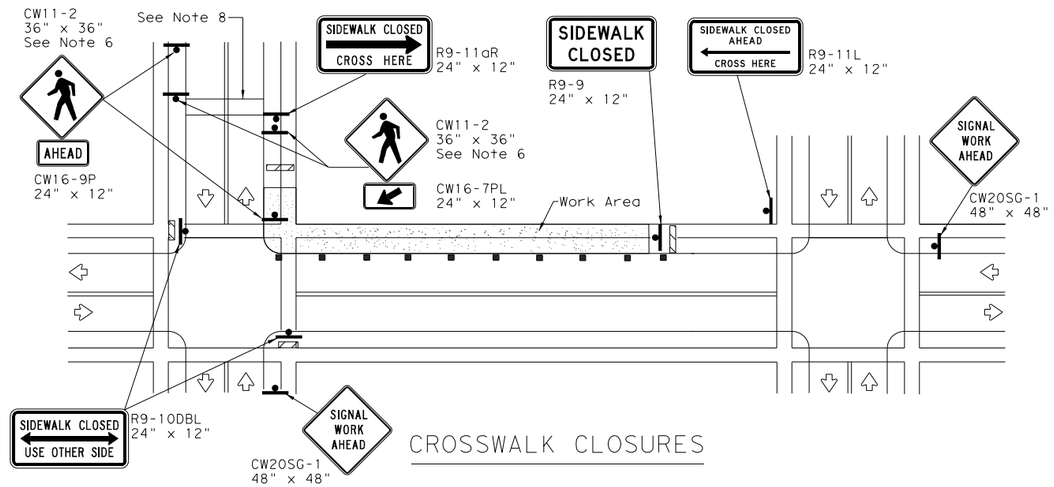
Only pre-qualified products shall be used. A copy of the "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be found at the following web address:
http://www.txdot.gov/txdot_library/publications/construction.htm



SIDEWALK DIVERSION



SIDEWALK DETOUR



CROSSWALK CLOSURES

PEDESTRIAN CONTROL

1. Holes, trenches or other hazards shall be adequately protected by covering, delineating or surrounding the hazard with orange plastic pedestrian fencing or longitudinal channelizing devices, or as directed by the Engineer.
2. "CROSSWALK CLOSURES" as detailed above will require the Engineer's approval prior to installation.
3. R9 series signs shown may be placed on supports detailed on the BC standards or CWZTCD list, or when fabricated from approved lightweight plastic substrates, they may be mounted on top of a plastic drum at or near the location shown.
4. For speeds less than 45 mph longitudinal channelizing devices may be used instead of traffic barriers when approved by the Engineer. Attenuation of blunt ends and installation of water filled devices shall be as per BC(9) and manufacturer's recommendations.
5. Location of devices are for general guidance. Actual device spacing and location must be field adjusted to meet actual conditions.
6. Where pedestrians with visual disabilities normally use the closed sidewalk Detectable Pedestrian Barricades should be used instead of the Type 3 Barricades shown.
7. The width of existing sidewalk should be maintained if practical.
8. Pavement markings for mid-block crosswalks shall be paid for under the appropriate bid items.
9. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.

SHEET 2 OF 2

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC SIGNAL WORK BARRICADES AND SIGNS

WZ(BTS-2)-13

FILE:	wzbts-13.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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REVISIONS		0918	47	432	JEFFERSON STREET
2-98 10-99 7-13		DIST	COUNTY		SHEET NO.
4-98 3-03		DAL	DALLAS		125

DATE:
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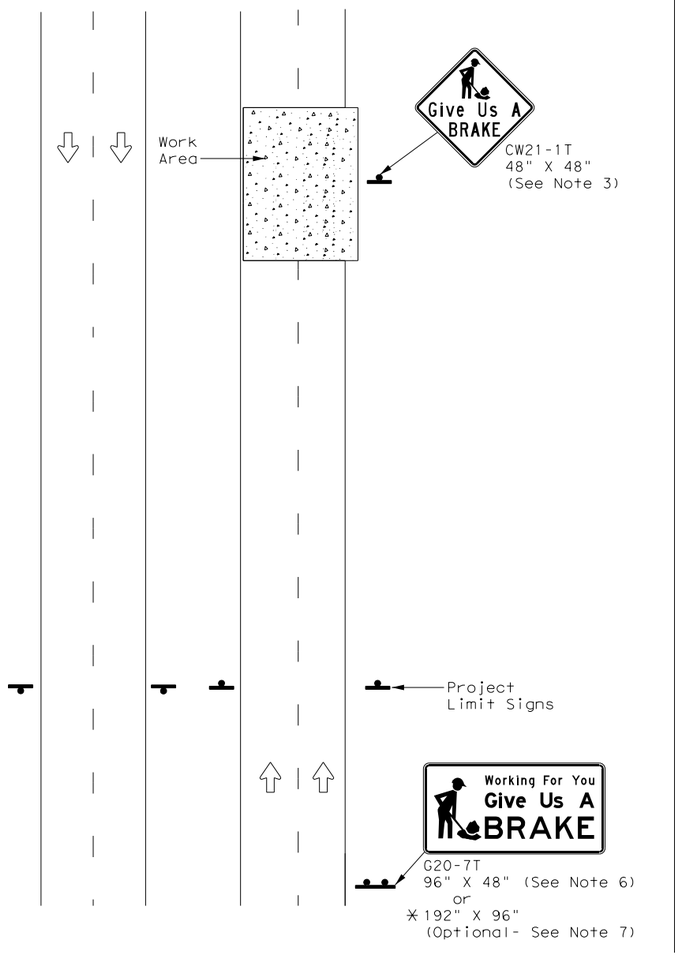
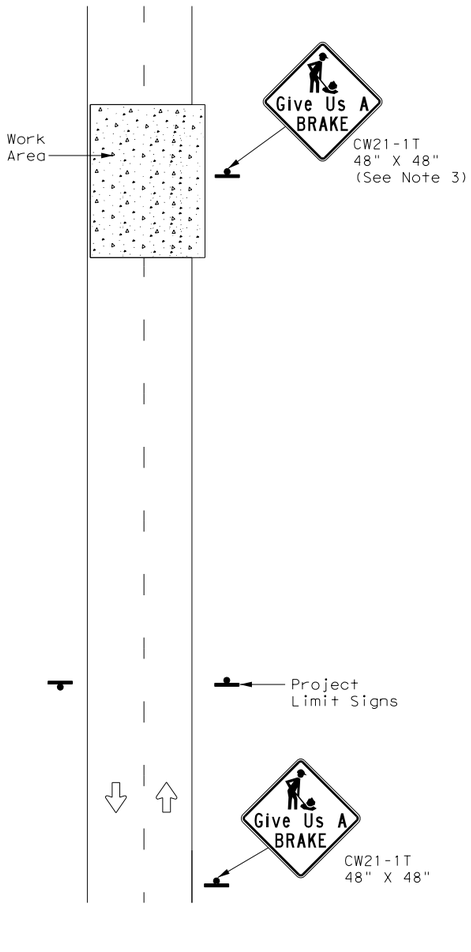


DIVIDED HIGHWAY



UNDIVIDED HIGHWAY

SIGNS ARE SHOWN FOR ONE DIRECTION OF TRAVEL

* When the optional larger WORKING FOR YOU GIVE US A BRAKE (G20-7T) 192" x 96" sign is required, the locations shall be noted elsewhere in the plans.

SUMMARY OF LARGE SIGNS

BACKGROUND COLOR	SIGN DESIGNATION	SIGN	SIGN DIMENSIONS	REFLECTIVE SHEETING	SQ FT	GALVANIZED STRUCTURAL STEEL			DRILLED SHAFT 24" DIA. (LF)
						Size	(LF) ①	(LF) ②	
Orange	G20-7T	Working For You Give Us A BRAKE	96" X 48"	Type B_{FL} or C_{FL}	32	▲	▲	▲	▲
Orange	G20-7T	Working For You Give Us A BRAKE	192" X 96"	Type B_{FL} or C_{FL}	128	W8x18	16	17	12

▲ See Note 6 Below

LEGEND	
⊥	Sign
⊥⊥	Large Sign
⇦	Traffic Flow

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PLYWOOD SIGN BLANKS	DMS-7100
ALUMINUM SIGN BLANKS	DMS-7110
SIGN FACE MATERIALS	DMS-8300

COLOR	USAGE	SHEETING MATERIAL
ORANGE	BACKGROUND	TYPE B_{FL} OR TYPE C_{FL}
BLACK	LEGEND & BORDERS	NON-REFLECTIVE ACRYLIC FILM

GENERAL NOTES

1. See BC and SMD sheets for additional sign support details.
2. Sign locations shall be approved by the Engineer.
3. For projects more than two miles in length, Give Us a BRAKE signs should be repeated halfway through the project. The Give Us a Brake (CW21-1T) may be used for this purpose.
4. Work zone speed limits are sometimes used in conjunction with GIVE US A BRAKE signing. See BC(3) for location and spacing of construction speed zone signing when required.
5. Give Us a Brake (CW21-1T) signs and supports shall be considered subsidiary to Item 502, "Barricades, Signs and Traffic Handling."
6. The 96" X 48" Working For You Give Us A BRAKE (G20-7T) may use a 1/2" or 5/8" plywood substrate or 0.125" aluminum sheeting substrate and may be supported by two 4" x 6" wood posts with drilled holes for breakaway as per BC(5) and will be subsidiary to Item 502.
7. The Working For You Give Us A BRAKE (G20-7T) 192" X 96" sign shall be paid for under the following specification items:
   Item 636 - Aluminum Signs
   Item 647 - Large Roadside Sign Supports and Assemblies.
   Item 416 - Drilled Shaft Foundations
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.

Texas Department of Transportation

Traffic Operations Division Standard

WORK ZONE "GIVE US A BRAKE" SIGNS

WZ(BRK)-13

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6-96 5-98 7-13	DIST	COUNTY		SHEET NO.
8-96 3-03	DAL	DALLAS		126

116

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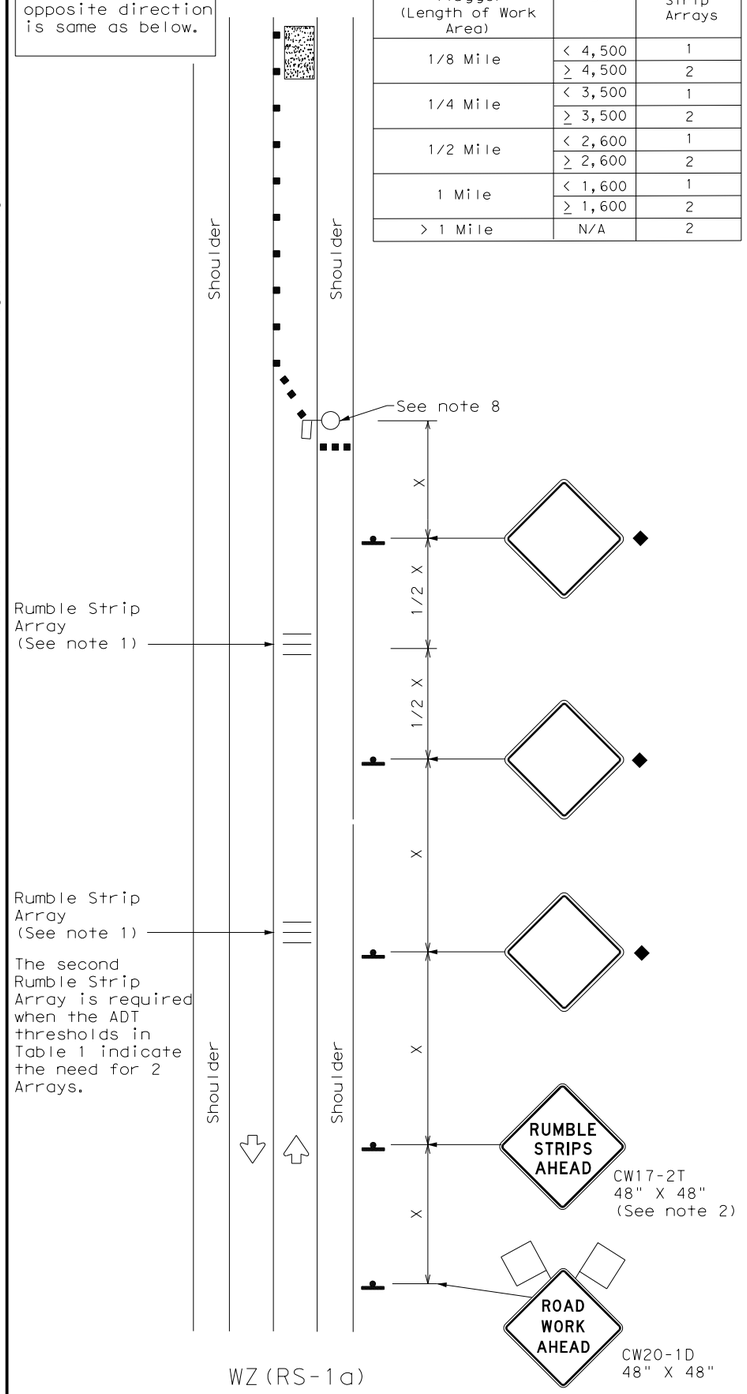
FILE:

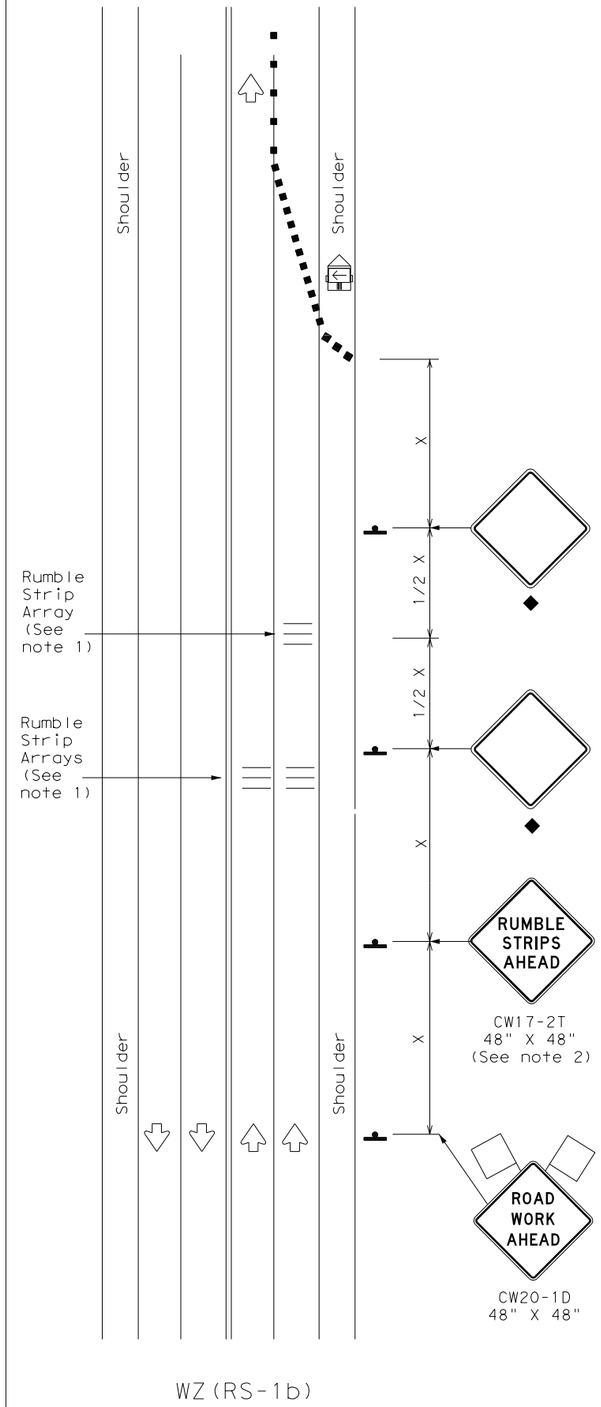
Warning sign and rumble strip sequence in opposite direction is same as below.

TABLE 1		
Flagger to Flagger (Length of Work Area)	ADT	# of Rumble Strip Arrays
1/8 Mile	< 4,500	1
	≥ 4,500	2
1/4 Mile	< 3,500	1
	≥ 3,500	2
1/2 Mile	< 2,600	1
	≥ 2,600	2
1 Mile	< 1,600	1
	≥ 1,600	2
> 1 Mile	N/A	2



WZ(RS-1a)

RUMBLE STRIPS ON ONE-LANE TWO-WAY APPLICATION



WZ(RS-1b)

RUMBLE STRIPS FOR LANE CLOSURE ON CONVENTIONAL ROADWAY

GENERAL NOTES

1. Each Rumble Strip Array should consist of three rumble strips spaced center to center at the spacing shown in Table 2, placed transverse across the lane at locations shown.
2. The CW17-2T "RUMBLE STRIPS AHEAD" sign should be located after the CW20-1D "ROAD WORK AHEAD sign and spaced as shown. If traffic is observed to be queuing, or is expected to queue beyond the Rumble Strips, the CW17-2T sign and the first Rumble Strip Array may be located upstream of the CW20-1D sign as necessary to provide needed warning.
3. Temporary Rumble Strips will be considered subsidiary to Item 502, and shall be a product listed on the Compliant Work Zone Traffic Control Devices.
4. Remove Temporary Rumble Strips before removing the advanced warning signs.
5. Temporary Rumble Strips should not be used on horizontal curves, loose gravel, soft or bleeding asphalt, heavily rutted pavements or unpaved surfaces.
6. Temporary Rumble Strips shall be installed and maintained as per manufacturer's recommendations.
7. This standard sheet shall be used in conjunction with other appropriate TCP standard, TMUTCD typical application or project specific detail for the project.
8. The one-lane two-way application may utilize a flagger, an Automated Flagger Assistance Device (AFAD) or a Portable Traffic Signal (PTS).
9. Replace defective Temporary Rumble Strips as directed by the Engineer.
10. Temporary Rumble Strips may be used on freeways or expressways based on engineering judgment and written direction from the Engineer.

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Panel	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

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	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* 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
	✓	✓		

◆ Signs are for illustrative purposes only. Signs required may vary depending on the TCP, TMUTCD Typical Application, or project specific details for the project.

* For posted speeds in excess of 65 MPH, it is recommended that spacing is increased as speed limits increase. Increasing space between rumble strips will improve effectiveness.

TABLE 2	
Speed	Approximate distance between strips in an array
≤ 40 MPH	10'
> 40 MPH & ≤ 55 MPH	15'
= 60 MPH	20'
≥ 65 MPH	* 35' +

Texas Department of Transportation

Traffic Safety Division Standard

TEMPORARY RUMBLE STRIPS

WZ(RS)-22

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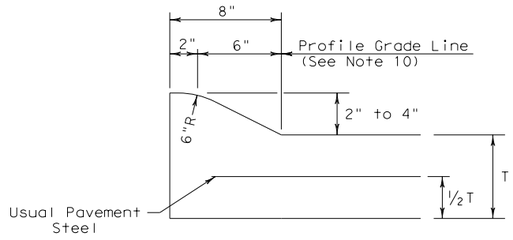
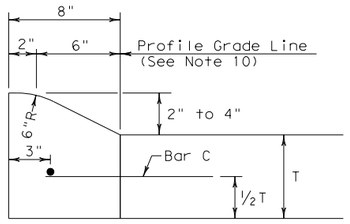


TYPE I CURB (MONOLITHIC)
2" - 4" HEIGHT



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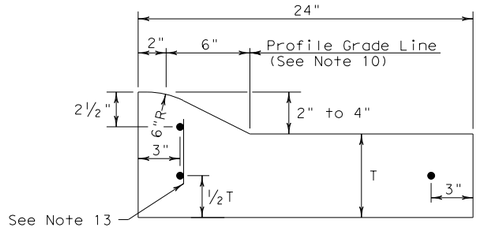
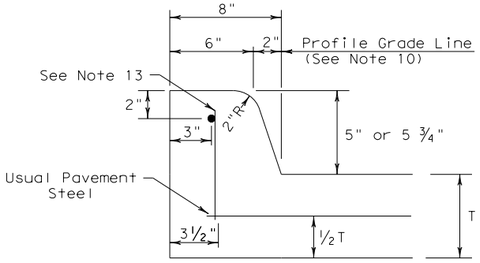
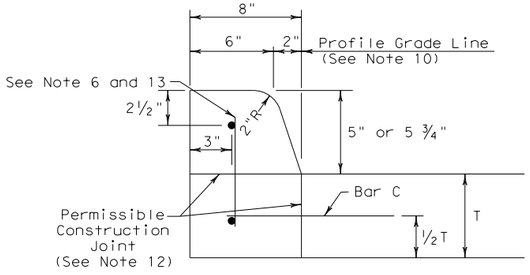


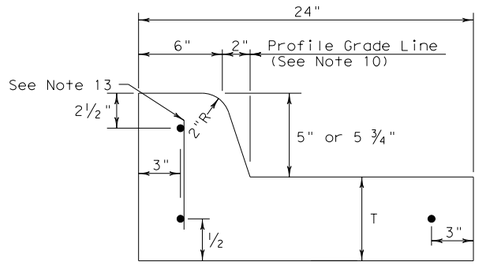
TYPE I CURB AND GUTTER
2" - 4" HEIGHT



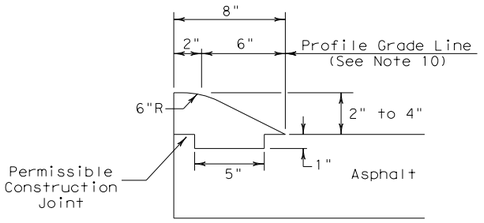
TYPE II CURB (MONOLITHIC)
5" - 5 ¾" HEIGHT



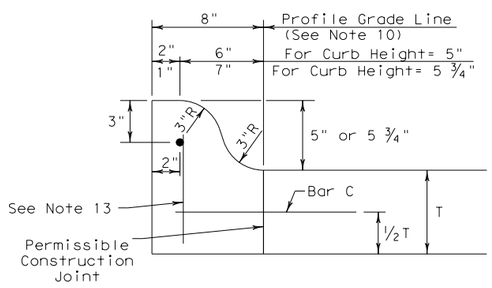
TYPE II CURB
5" - 5 ¾" HEIGHT



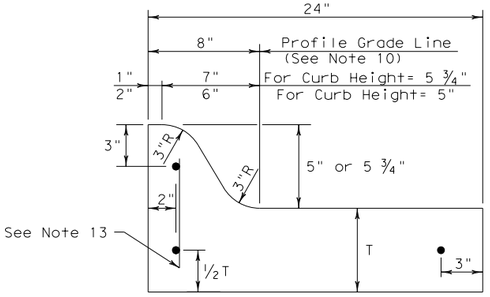
TYPE II CURB AND GUTTER
5" - 5 ¾" HEIGHT



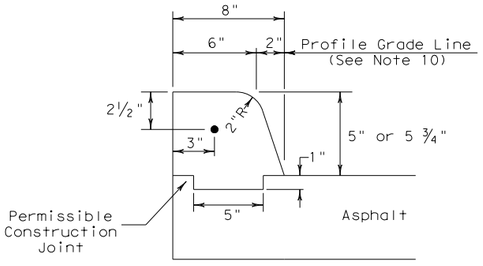
TYPE III CURB (KEYED)
2" - 4" HEIGHT



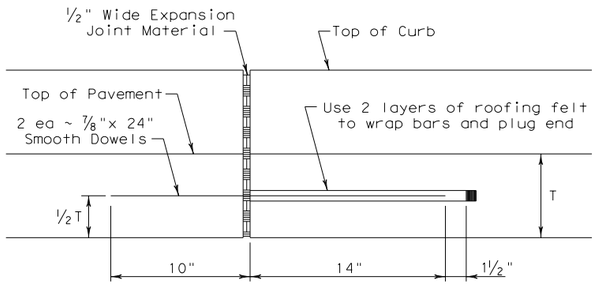
TYPE IIa CURB
5" - 5 ¾" HEIGHT



TYPE IIa CURB AND GUTTER
5" - 5 ¾" HEIGHT

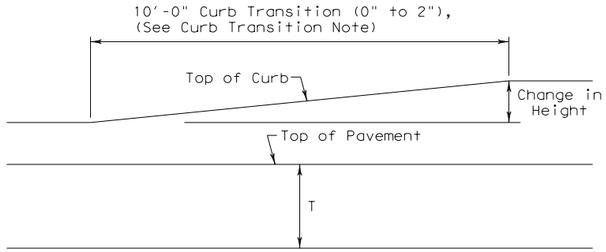


TYPE IV CURB (KEYED)
5" - 5 ¾" HEIGHT



EXPANSION JOINT DETAIL

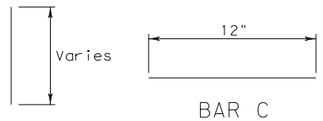
CURB TRANSITION NOTE:
Field conditions may require a longer or shorter transition, and shall be shown elsewhere in the plans, or as directed by the Engineer.



CURB TRANSITION
Note: To be paid for as Highest Curb

GENERAL NOTES

1. All materials and construction shall be in accordance with Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."
2. Concrete shall be Class A.
3. When reinforcing bars are used, they shall be No.4 unless otherwise shown. The use of fiber reinforced concrete in lieu of reinforcing steel is acceptable. Use fibers meeting the requirements of DMS 4550, "Fibers for Concrete," and dose fibers in accordance with Material Producers List (MPL) "Fibers for Class A and B Concrete Applications."
4. Round exposed sharp edges with a rounding tool, to a minimum radius of ¼ inch.
5. All existing curbs and driveways to be removed shall be sawed or removed at existing joints.
6. Where concrete curb is to be placed on existing concrete pavement, Bar B may be drilled and grouted in place, or may be inserted into fresh concrete.
7. Expansion and contraction joints shall be constructed to match pavement joints in all curbs and curb and gutter adjacent to jointed concrete pavement. Where placement of curb or curb and gutter is not adjacent to concrete pavement, expansion joints shall be provided at structures, curb returns at streets, and at locations directed by The Engineer.
8. Vertical and horizontal dowel bars and transverse reinforcing bars shall be placed at four feet C~C.
9. Dimension 'T' shown is the thickness of concrete pavement. When curb is installed adjacent to flexible pavement dimension 'T' is 8" maximum.
10. Usual profile grade line. Refer to typical sections and plan-profile sheets for exact locations.
11. One-half inch expansion joint material shall be provided where curb or curb and gutter is adjacent to sidewalk or riprap.
12. When horizontal permissible construction joints are used, the longitudinal pavement steel shall be placed in accordance with pavement details shown elsewhere in the plans. Reinforcing steel for curb section shall then conform to that required for concrete curb.
13. Bar B placement as needed (typically at four ft. C-C) to support curb reinforcing steel during concrete placement.



BAR B

BAR C

Texas Department of Transportation

Design Division Standard

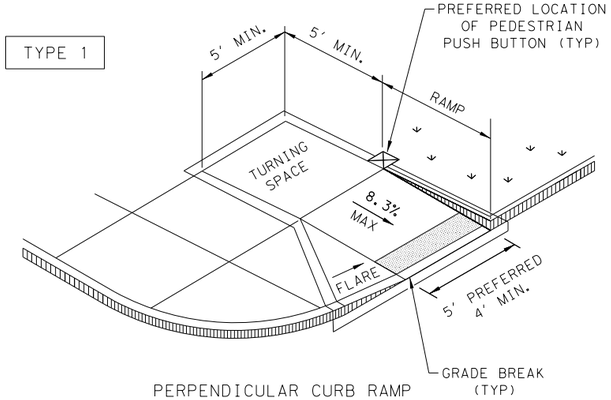
CONCRETE CURB AND CURB AND GUTTER

CCCG-22

FILE: cccg21.dgn	DN: TXDOT	CK: AN	DW: CS	CK: KM
© TxDOT: JUNE 2022	CONT	SECT	JOB	HIGHWAY
REVISIONS	0198	47	482	JEFFERSON STREET
	DIST	COUNTY		SHEET NO.
	DAL	DALLAS		128

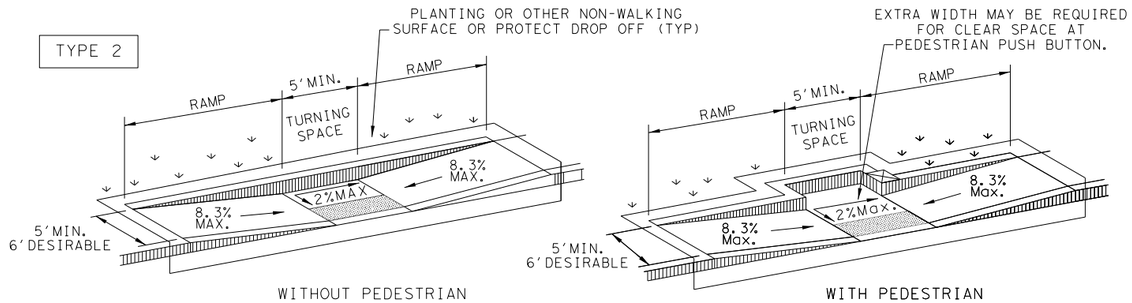
DATE:
FILE:

TYPE 1



PERPENDICULAR CURB RAMP

TYPE 2

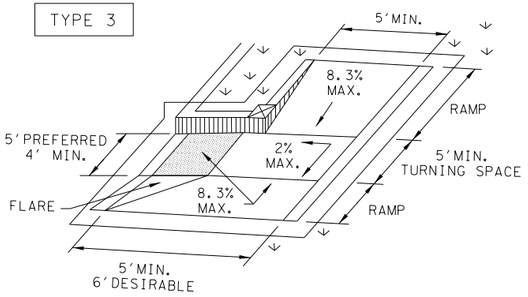


WITHOUT PEDESTRIAN PUSH BUTTON

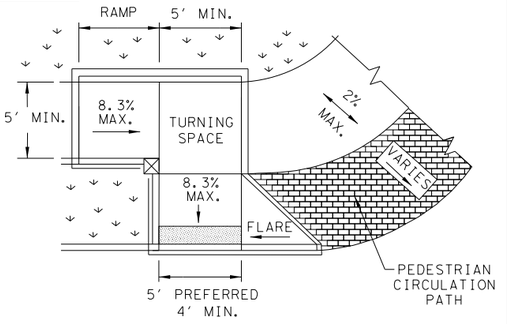
WITH PEDESTRIAN PUSH BUTTON

PARALLEL CURB RAMP

TYPE 3

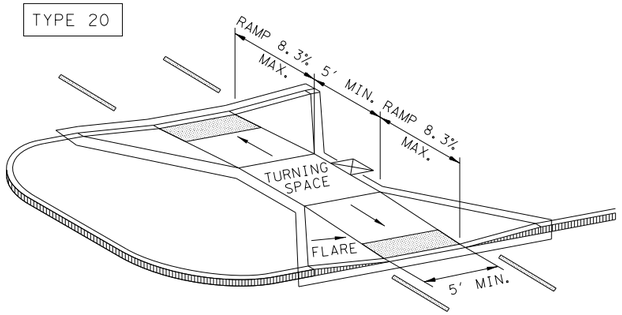


TYPE 6



COMBINATION CURB RAMPS

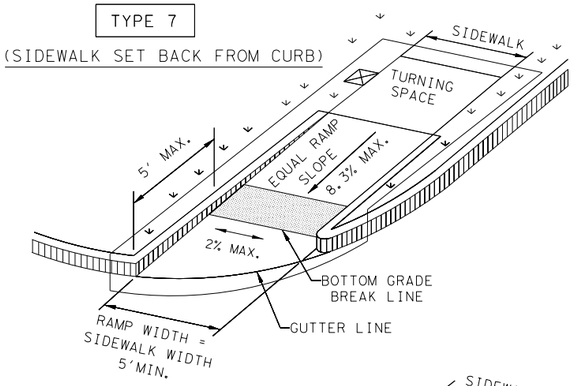
TYPE 20



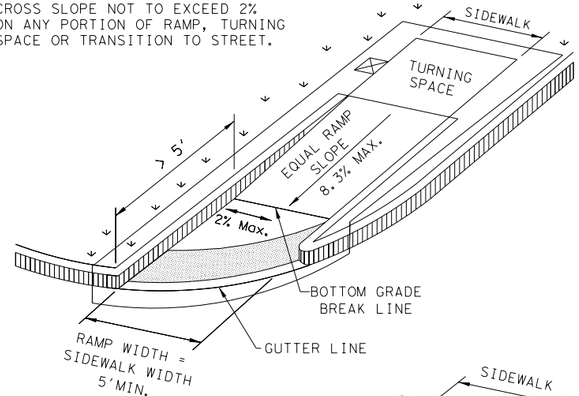
CURB RAMPS AT MEDIAN ISLANDS

TYPE 7

(SIDEWALK SET BACK FROM CURB)

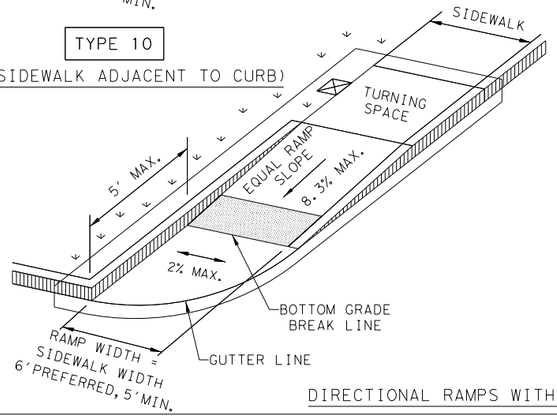


CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP, TURNING SPACE OR TRANSITION TO STREET.

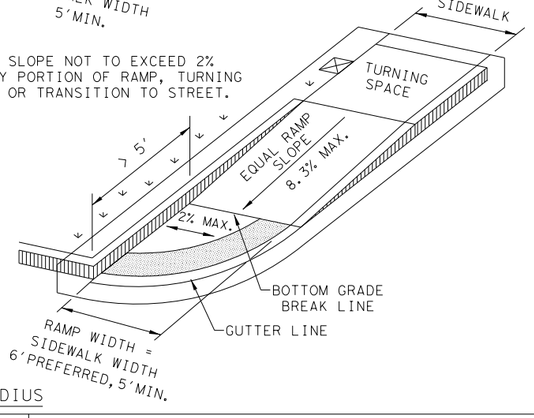


TYPE 10

(SIDEWALK ADJACENT TO CURB)

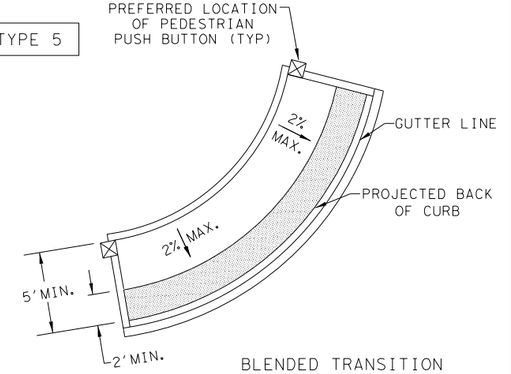


CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP, TURNING SPACE OR TRANSITION TO STREET.



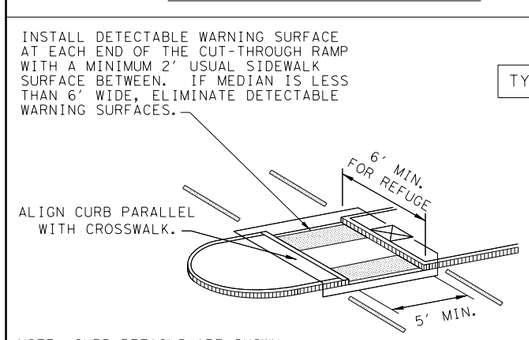
DIRECTIONAL RAMPS WITHIN RADIUS

TYPE 5



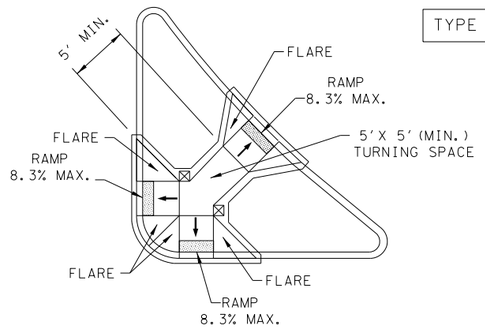
BLENDED TRANSITION
(FLUSH LANDING)

TYPE 21

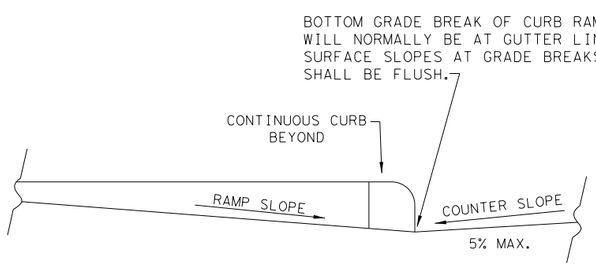


NOTE: CURB DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.

TYPE 22



COMBINATION ISLAND RAMPS



TYPICAL SECTION OF PERPENDICULAR CURB RAMP AT CONNECTION TO ROADWAY

NOTES / LEGEND:

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.

DETECTABLE WARNING SURFACE

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON IF APPLICABLE.

GUTTER LINE

GRADE BREAK

RAMP LIMITS OF PAYMENT

SHEET 1 OF 4

Texas Department of Transportation

Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
REVISED 08,2005 REVISED 06,2012 REVISED 01,2018	DIST	COUNTY		SHEET NO.
	DAL	DALLAS		129

DATE:
FILE:

GENERAL NOTES

CURB RAMPS

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5'x 5' passing areas at intervals not to exceed 200' are required.
5. Turning Spaces shall be 5'x 5' minimum. Cross slope shall be maximum 2%.
6. Clear space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
18. Existing features that comply with applicalble standards may remain in place unless otherwise shown on the plans.

DETECTABLE WARNING MATERIAL

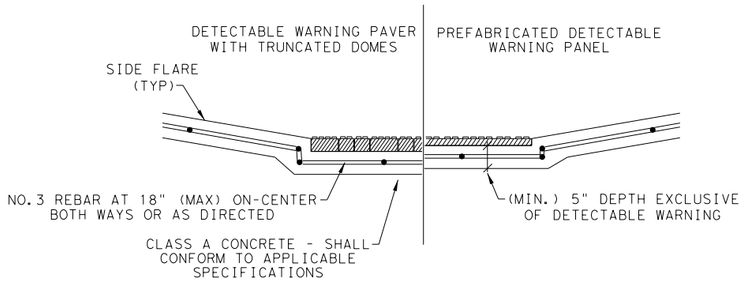
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

DETECTABLE WARNING PAVERS (IF USED)

25. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

SIDEWALKS

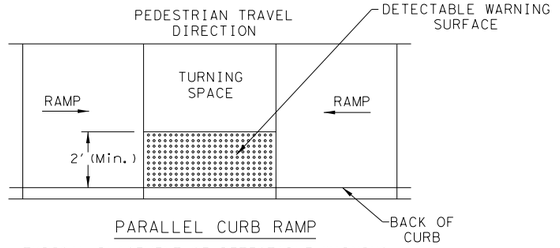
27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than five percent (5%) must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
34. Sidewalk details are shown elsewhere in the plans.



SECTION VIEW DETAIL

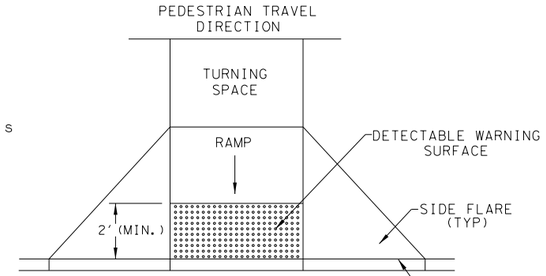
CURB RAMP AT DETECTIBLE WARNINGS

DETECTABLE WARNING SURFACE DETAILS



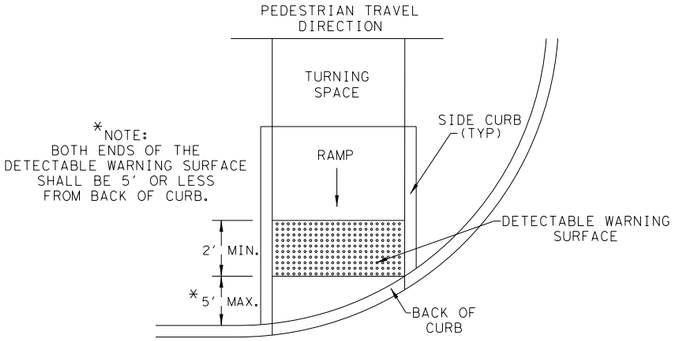
PARALLEL CURB RAMP

TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE.



PERPENDICULAR CURB RAMP

TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.



DIRECTIONAL CURB RAMP

TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.

Texas Department of Transportation

Design Division Standard

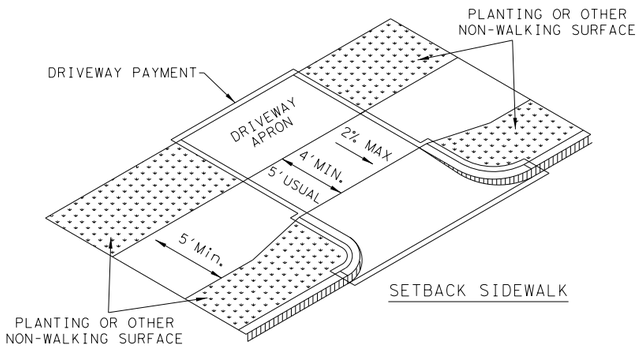
PEDESTRIAN FACILITIES CURB RAMPS

PED-18

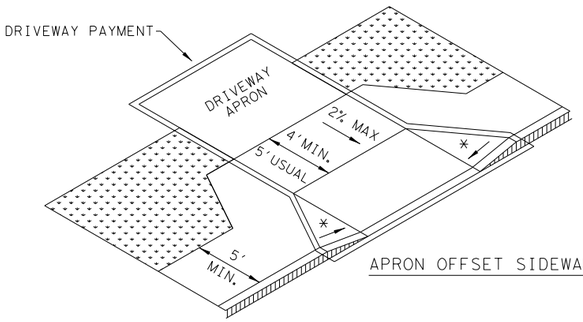
FILE: ped18	DN: TxDOT		DW: VP	CK: KM	CK: PK & JG	
© TxDOT: MARCH, 2002	CONT	SECT	JOB		HIGHWAY	
REVISIONS	0918	47	432		JEFFERSON STREET	
REVISED 08,2005 REVISED 06,2012 REVISED 01,2018	DIST	COUNTY			SHEET NO.	
	DAL	DALLAS			130	

DATE:
FILE:

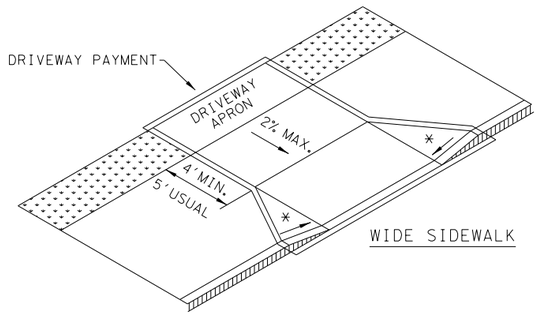
SIDEWALK TREATMENT AT DRIVEWAYS



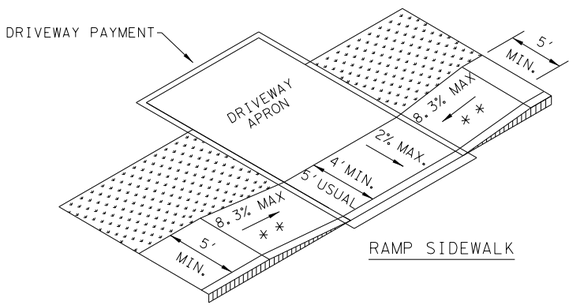
SETBACK SIDEWALK



APRON OFFSET SIDEWALK



WIDE SIDEWALK

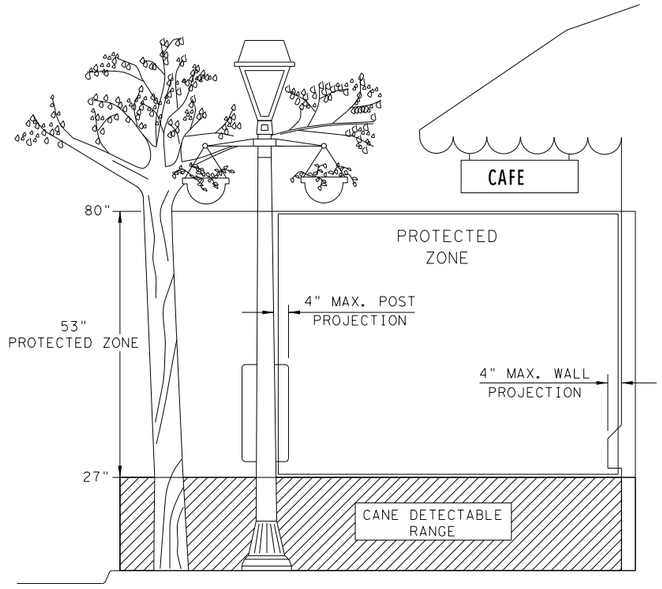


RAMP SIDEWALK

NOTES:

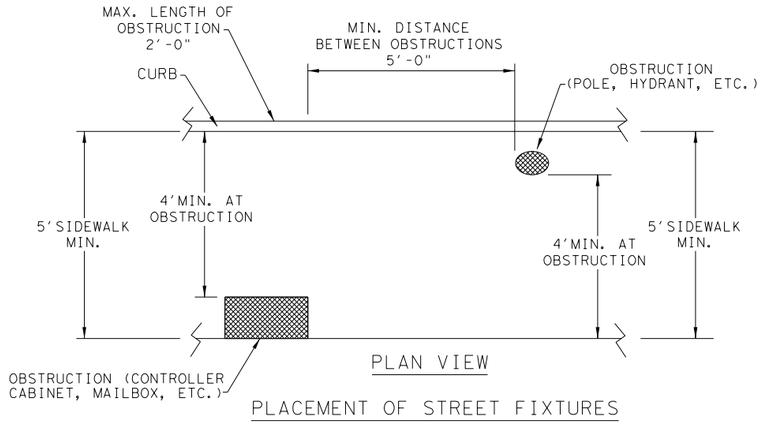
* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.

* * IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.



PROTECTED ZONE

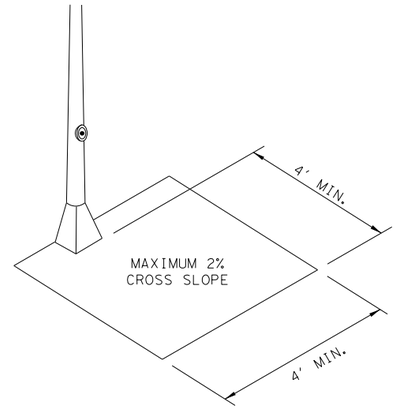
NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.



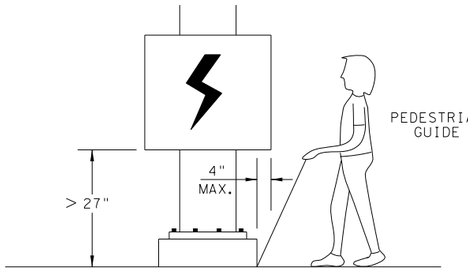
PLAN VIEW

PLACEMENT OF STREET FIXTURES

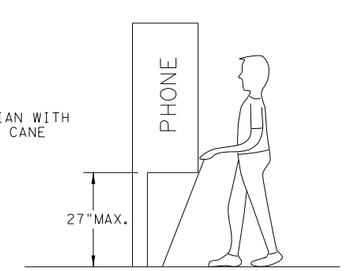
NOTE: ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' X 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.



CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



WHEN AN OBSTRUCTION OF A HEIGHT GREATER THAN 27" FROM THE SURFACE WOULD CREATE A PROTRUSION OF MORE THAN 4" INTO THE PEDESTRIAN CIRCULATION AREA, CONSTRUCT ADDITIONAL CURB OR FOUNDATION AT THE BOTTOM TO PROVIDE A MAXIMUM 4" OVERHANG.



PROTRUDING OBJECTS OF A HEIGHT ≤ 27" ARE DETECTABLE BY CANE AND DO NOT REQUIRE ADDITIONAL TREATMENT.

DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

Texas Department of Transportation

Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-18

FILE: ped18	DN: TxDOT		DW: VP	CK: KM	CK: PK & JG
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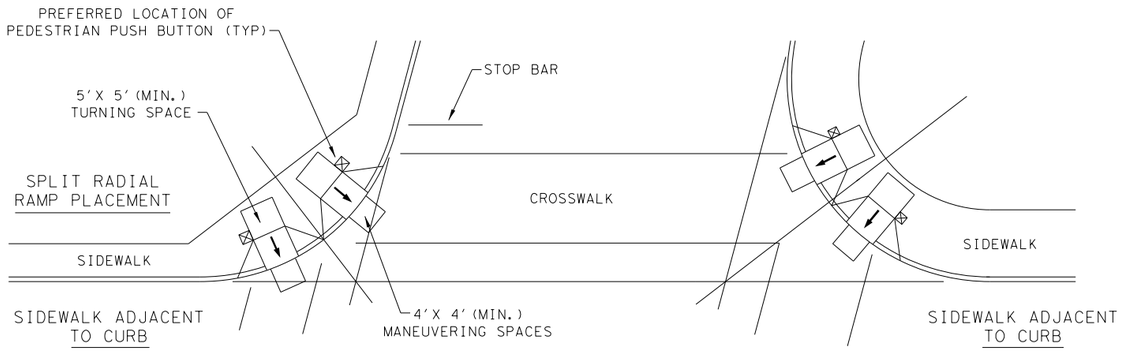
REVISIONS	0918	47	432		JEFFERSON STREET
REVISED 08,2005 REVISED 06,2012 REVISED 01,2018	DIST	COUNTY			SHEET NO.
	DAL	DALLAS			131

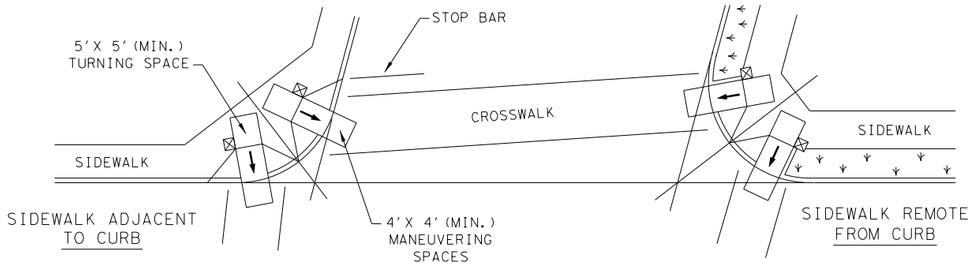
DATE:
FILE:

TYPICAL CROSSING LAYOUTS

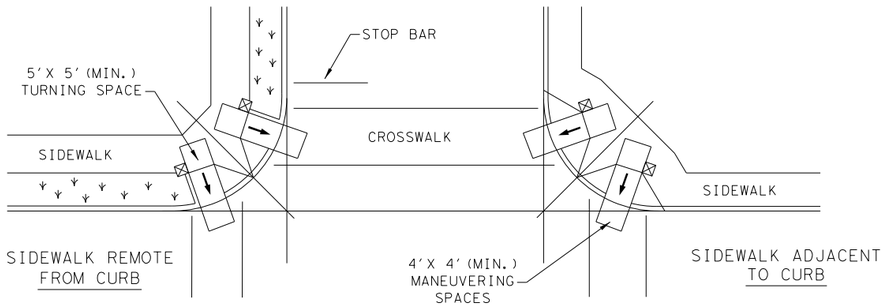
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



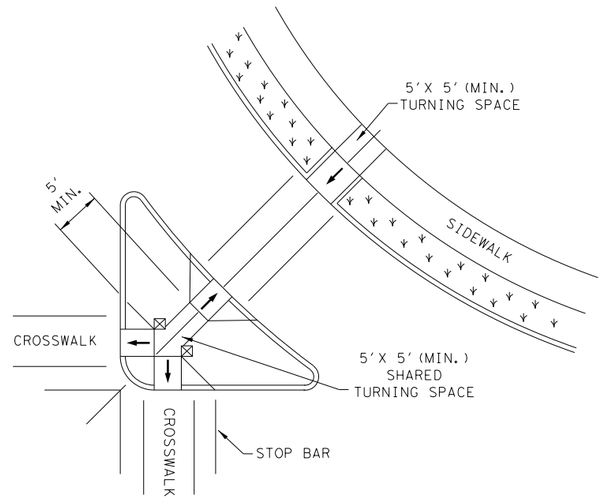
SKEWED INTERSECTION WITH "LARGE" RADIUS



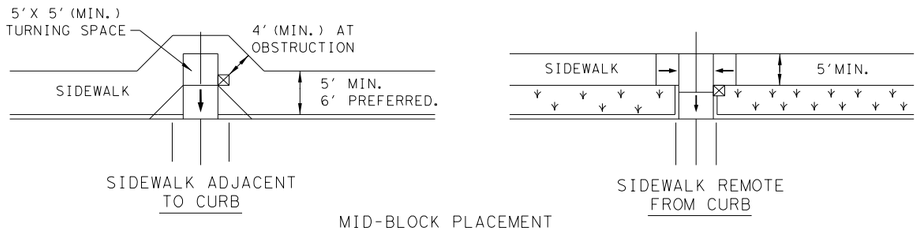
SKEWED INTERSECTION WITH "SMALL" RADIUS



NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT
PERPENDICULAR RAMPS

LEGEND:

SHOWS DOWNWARD SLOPE. →

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON (IF APPLICABLE). ⊠

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.

Texas Department of Transportation

Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-18

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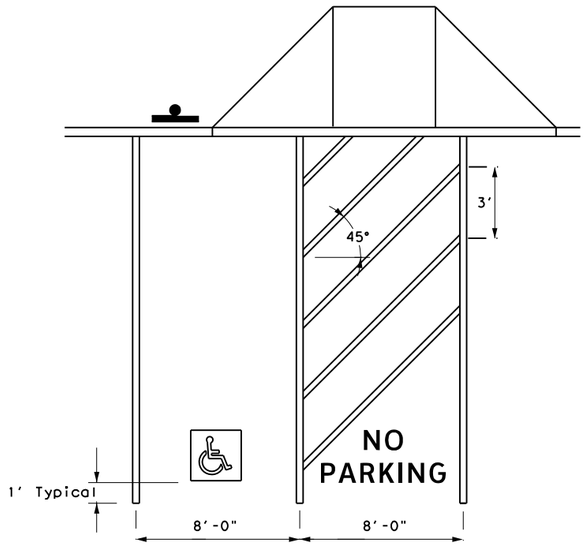
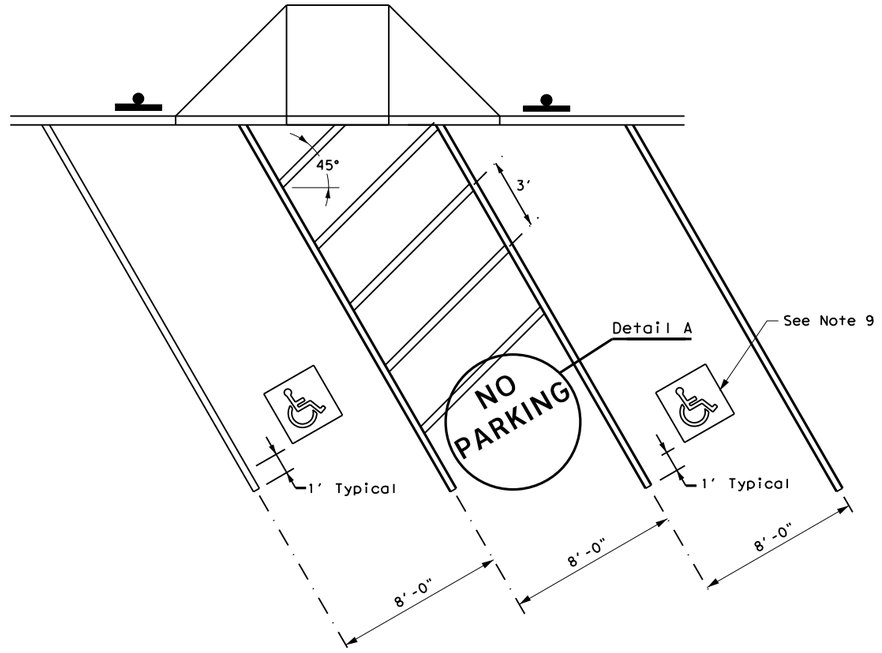
© TxDOT: MARCH, 2002	CONT	SECT	JOB		HIGHWAY
REVISIONS	0918	47	432		JEFFERSON STREET
REVISED 08,2005 REVISED 06,2012 REVISED 01,2018	DIST	COUNTY			SHEET NO.
	DAL	DALLAS			132





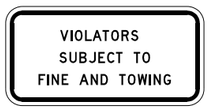
PERPENDICULAR OR ANGLED ACCESSIBLE PARKING SPACE DIMENSIONS

GENERAL NOTES:

1. All paved accessible parking space limit lines shall be 4" solid white lines.
2. Paved accessible parking spaces must include a white International Symbol of Accessibility applied conspicuously on the surface in a color that contrasts the pavement. A blue background with white border may supplement the symbol for additional contrast.
3. The words "NO PARKING" must be applied on any access aisle adjacent to the parking space. The words must be white, applied:
   a) in all capital letters.
   b) centered within each access aisle adjacent to the parking space.
4. RESERVED PARKING (R7-8T) sign including the International Symbol of Accessibility.
   a) shall be REQUIRED for each accessible parking space.
   b) shall NOT be placed between two accessible parking spaces.
   c) shall NOT be placed in a location that restricts movement of wheelchairs within the adjacent sidewalk.
   d) shall have a mounting height of 7 feet to the bottom of the sign.
5. A sign identifying the consequences of parking illegally in a paved accessible parking space. Must:
   a) at a minimum state "VIOLATORS SUBJECT TO FINE AND TOWING" (Plaque)(R7-8aPT).
   b) be mounted on a pole, post, wall or freestanding board.
   c) be no more than eight inches (8") below sign R7-8T a sign required by the Texas Accessibility Standards, 502.6.
   d) be installed so that the bottom edge of the sign is no lower than 48 inches and no higher than 80 inches above the ground level.
6. Signs identifying van parking spaces shall contain the designation "VAN ACCESSIBLE" (R7-8P) Signs shall be 60 inches minimum above the ground level measured to the bottom of the sign.
7. Perpendicular or angled parking spaces shall be 8 feet wide minimum with an access aisle 8 feet minimum wide (van accessible). Two parking spaces are permitted to share a common access aisle.
8. Access aisles shall be at street level, extend the full length of the parking space they serve, follow ADA surface requirements, and marked to discourage parking in the access aisle. Curb ramps shall connect the access aisle to the adjacent pedestrian access route. Curb ramps shall not be located within the access aisle.
9. International Symbol of Accessibility Parking Space Marking and sign details can be found in The Standard Highway Sign Designs for Texas (SHSD) at the following website. http://www.txdot.gov/

R7-8T

R7-8P



R7-8aPT

ACCESSIBLE PARKING SIGNS

Detail A

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080
7.5 to 15	0.100
Greater than 15	0.125

DEPARTMENTAL MATERIAL SPECIFICATIONS	
ALUMINUM SIGN BLANKS	DMS-7110
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
SIGN FACE MATERIALS	DMS-8300

Texas Department of Transportation

Traffic Safety Division Standard

PAVEMENT MARKINGS AND SIGNING FOR ACCESSIBLE PARKING

PM(AP)-21

FILE: pm(ap)-21	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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	DIST	COUNTY		SHEET NO.
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GENERAL NOTES FOR ALL ELECTRICAL WORK

1. The location of all conduits, junction boxes, ground boxes, and electrical services is diagrammatic and may be shifted to accommodate field conditions.

2. Provide new, unused, and undamaged materials. Ensure that all materials and installations comply with the National Electrical Code (NEC), TxDOT standards and specifications, National Electrical Manufacturers Association (NEMA), and are listed by Underwriters Laboratories (UL) or a Nationally Recognized Testing Lab (NRTL). NRTLs such as CSA Group, Intertek Testing Services, or FM Approvals can be considered equivalent to UL. Where reference is made to NEMA listed devices, International Electrotechnical Commission (IEC) listed devices will not be considered an acceptable equal to NEMA. Faulty fabrication or poor workmanship in any material, equipment, or installation is justification for rejection. Replace or reinstall rejected material or equipment at no additional cost to the Department.

3. Miscellaneous nuts, bolts, and hardware, except for high strength bolts, may be stainless steel when plans specify galvanized, provided the bolt size is 1/2 in. or less in diameter.

4. Provide the following test equipment as required by the Engineer to confirm compliance with the contract and the NEC: voltmeter, ammeter, megohm meter (1000 volt DC), ground resistance tester, torque wrenches, and torque screwdrivers. Ensure all equipment has been properly calibrated within the last year. Provide calibration certification to the Engineer upon request. Operate test equipment during inspection as requested by the Engineer.

5. Install grounding as shown on the plans and in accordance with the NEC. Ensure all metallic conduits, metal poles, luminaires, and metal enclosures are bonded to an equipment grounding conductor. Provide stranded bare copper or green insulated grounding conductors. Ground rods, connectors, and bonding jumpers are subsidiary to the various bid items.

6. When required by the Engineer, notify the Department in writing of materials from the Material Producer List (MPL) intended for use on each project. Prequalified materials are listed on the MPL on TxDOT's website under "Roadway Illumination and Electrical Supplies." No substitutions will be allowed for materials on this list.

CONDUIT

A. MATERIALS

1. Provide conduit, junction boxes, fittings, and hardware per TxDOT Departmental Material Specification DMS-11030, "Conduit" and Item 618, "Conduit" of TxDOT's "Standard Specifications for Construction and Maintenance of Highways, Streets, And Bridges," latest edition. Provide conduits listed under Item 618 on the MPL under "Roadway Illumination and Electrical Supplies." Provide conduit types according to the descriptive code or as shown on the plans. Do not substitute other types of conduits for those shown. Provide Liquidtight Flexible Metal Conduit (LFMC) when flexible conduit is called for on galvanized steel Rigid Metal Conduit (RMC) systems. Provide Liquidtight Flexible Nonmetallic Conduit (LFNC) when flexible conduit is called for on Polyvinyl Chloride (PVC) systems.

2. Provide galvanized steel RMC for all exposed conduits, unless otherwise shown on the plans. Properly bond all metal conduits.

3. Unless otherwise shown on the plans, provide junction boxes with a minimum size as shown in the following table, which applies to the greatest number of conductors entering the box through one conduit with no more than four conduits per box. When a mixture of conductor sizes are present, count the conductors as if all are of the larger size. For situations not applicable to this table, size junction boxes per the NEC.

JUNCTION BOX SIZES			
AWG	3 CONDUCTORS	5 CONDUCTORS	7 CONDUCTORS
#1	10" x 10" x 4"	12" x 12" x 4"	16" x 16" x 4"
#2	8" x 8" x 4"	10" x 10" x 4"	12" x 12" x 4"
#4	8" x 8" x 4"	10" x 10" x 4"	10" x 10" x 4"
#6	8" x 8" x 4"	8" x 8" x 4"	10" x 10" x 4"
#8	8" x 8" x 4"	8" x 8" x 4"	8" x 8" x 4"

4. Junction boxes with internal volumes up to 100 cu. in. and that are supported by entering raceways must have threaded entries or hubs identified for the intended purpose and be supported by connection of two or more rigid metal conduits. Secure conduit within 3 ft. of the box or within 18 in. of the box if all conduit entries are on the same side. Mechanically secure all junction boxes with an internal volume greater than 100 cu. in.

5. Provide hot dipped galvanized cast iron or sand cast aluminum outlet boxes for junction boxes containing only 10 AWG or 12 AWG conductors. Do not use die cast aluminum boxes. Size outlet boxes according to the NEC.

6. Do not use Intermediate Metal Conduit (IMC) or Electrical Metallic Tubing (EMT) unless specifically required by the plan sheets. When EMT is called for, provide junction boxes sized as directed above, listed and approved for outdoor use, unless otherwise noted on the plans. Provide junction boxes for IMC conduit systems that meet the same requirements for junction boxes used with RMC systems.

7. Provide PVC junction boxes intended for outdoor use on PVC conduit systems, unless otherwise noted on the plans.

8. Provide PVC elbows, unless otherwise shown in the plans. Use only a flat, high tensile strength polyester fiber pull tape for pulling conductors through the PVC conduit system.

A. MATERIALS (CONTINUED)

9. When galvanized steel RMC elbows are specifically called for in the plans and any portion of the RMC elbow is buried less than 18 in. below grade or bottom of the ground box, ground the RMC elbow with a grounding bushing on a rigid metal extension. Grounding of the rigid metal elbow is not required if the entire RMC elbow is encased in a minimum of 2 in. of concrete. PVC extensions are allowed on these concrete encased rigid metal elbows. Elbows are subsidiary to various bid items.

10. When required, provide High-Density Polyethylene (HDPE) conduit with factory installed internal conductors according to DMS-11060, "Duct Cable." At the Contractor's request and with approval by the Engineer, substitute HDPE conduit with no conductors according to DMS-11030 for PVC conduit bid under Item 618. Provide conduit of the size and schedule as shown on the plans. Do not extend HDPE conduit into ground boxes or foundations. Provide PVC elbows at all ground boxes and foundations.

11. Use two-hole straps or strut straps when supporting 2 in. and larger conduits. On electrical service poles, properly sized stainless steel or hot dipped galvanized strut straps or stand-off straps are allowed on the service riser conduit.

B. CONSTRUCTION METHODS

1. Provide and install expansion joint conduit fittings on all structure-mounted conduits at the structure's expansion joints to allow for movement of the conduit. In addition, provide and install expansion joint fittings on all continuous runs of galvanized steel RMC conduit externally exposed on structures such as bridges at maximum intervals of 150 ft. When requested by the project Engineer, supply manufacturer's specification sheet for expansion joint conduit fittings. Repair or replace expansion joint fittings that do not allow for movement at no additional cost to the Department. Provide the method of determining the amount of expansion to the Engineer upon request. Do not use LFMC or LFNC as a substitute for the required expansion conduit fittings.

2. Space all conduit supports at maximum intervals of 5 ft. Install conduit spacers when attaching metal conduit to surfaces of concrete structures. See "Conduit Mounting Options" on ED(2). Install conduit supports within 3 ft. of all enclosures and conduit terminations.

3. Do not attach conduit supports directly to pre-stressed concrete beams, except as shown specifically in the plans or as approved by the Engineer.

4. Unless otherwise shown on the plans, jack or bore conduit placed beneath existing roadways, driveways, sidewalks, or after the base or surfacing operation has begun. Backfill and compact the bore pits below the conduit per Item 476 "Jacking, Boring, or Tunneling Pipe or Box" prior to installing conduit or duct cable to prevent bending of the connections.

5. When placing conduit in the subgrade of new roadways, backfill all trenches with excavated material unless otherwise noted on the plans. When placing conduit in the subbase of new roadways, backfill all trenches with cement-stabilized base as per requirements of Items: 110, "Excavation;" 400, "Excavation and Backfill for Structures;" 401, "Flowable Backfill;" 402, "Trench Excavation Protection;" and 403, "Temporary Special Shoring."

6. During construction, temporarily cap or plug open ends of all conduit and raceways immediately after installation to prevent entry of dirt, debris and animals. Temporary caps constructed of durable duct tape are allowed. Tightly affix the tape to the conduit opening. Clean out the conduit and prove it clear in accordance with Item 618 prior to installing any conductors.

7. Ensure conduit entry into the top of an enclosure is waterproof by installing conduit sealing hubs or using boxes with threaded bosses. This includes surface mounted safety switches, meter cans, service enclosures, auxiliary enclosures and junction boxes. Grounding bushings on water tight sealing hubs are not required.

8. Fit the ends of all PVC conduit terminations with bushings or bell end fittings. Provide and install a grounding bushing on all metal conduit terminations.

9. Install a bonding jumper from each grounding bushing to the nearest ground rod, grounding lug, or equipment grounding conductor. Ensure all bonding jumpers are the same size as the equipment grounding conductor. Bonding of conduit used as a casing under roadways for duct cable is not required, if the duct extends the full length through the casing.

10. Place conduits entering ground boxes so that the conduit openings are between 3 in. and 6 in. from the bottom of the box. See the ground box detail on sheet ED(4).

11. After completion of conductor installation, immediately seal ends of all conduits emerging from ground with duct seal, expandable foam, or other methods approved by the Engineer. Do not use silicone caulking. Do not use duct tape as a permanent seal.

12. File smooth the cut ends of all mounting strut and conduit. To avoid overspray, paint the field cut ends of all mounting strut and RMC (threaded or non-threaded) with zinc rich paint (94% min. zinc content as specified on DMS-8103 and listed on the MPL for Galvanizing Repair Paints) before installing. Use zinc rich paint to touch up galvanized material as allowed under Item 445 "Galvanizing." Do not paint non-galvanized material with zinc rich paint as an alternative for materials required to be galvanized.

13. For all conduits, ensure the burial depth is 18" min. For conduits placed under a roadway, ensure the burial depth is 24" min.

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS CONDUITS & NOTES

ED(1)-25

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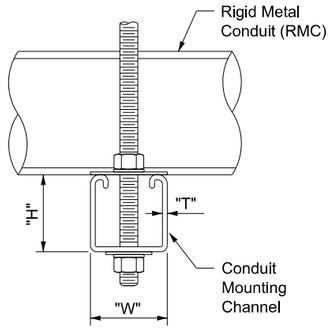
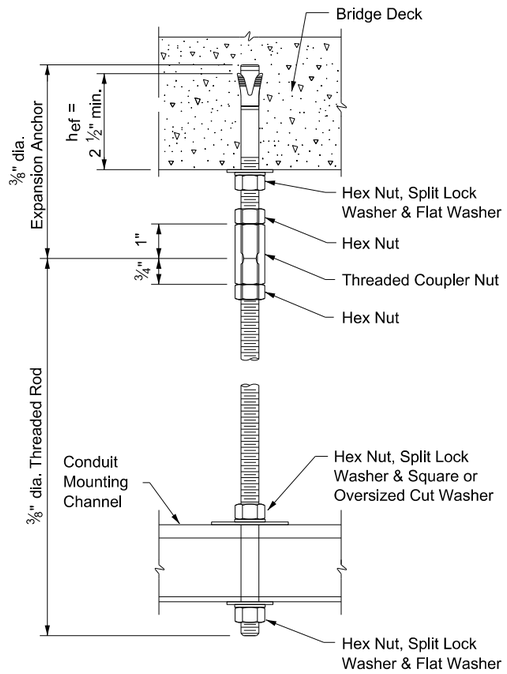
ELECTRIC CONDUIT TO BRIDGE DECK ATTACHMENT

HANGER ASSEMBLY DETAIL

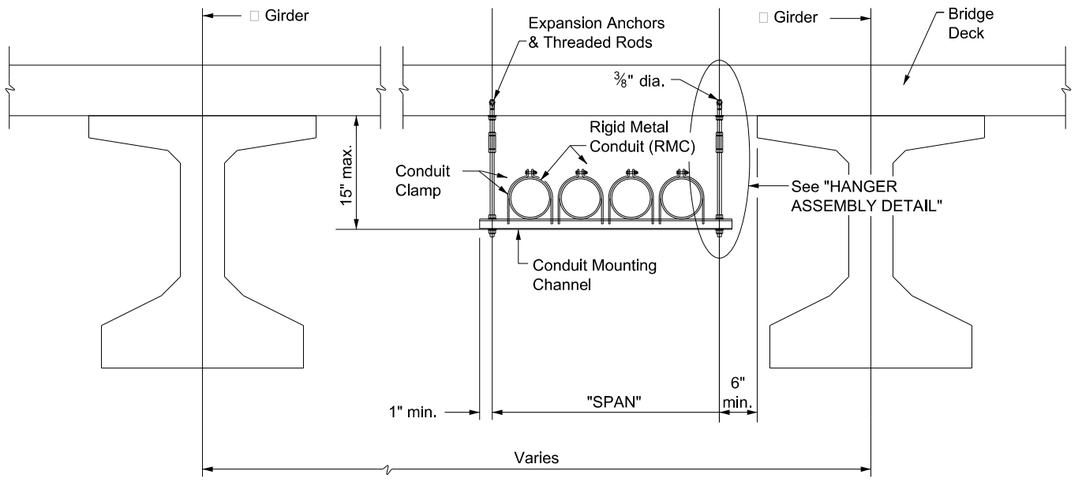
CONDUIT MOUNTING CHANNEL		
"SPAN"	"W" x "H"	"T"
less than 2'	1 5/8" x 1 3/8"	12 ga.
2'-0" to 2'-6"	1 5/8" x 1 5/8"	12 ga.
>2'-6" to 3'-0"	1 5/8" x 2 7/16"	12 ga.

NOTE: Channels with round or short slotted hole patterns are allowed, provided the load carrying capacity is not reduced by more than 15%.



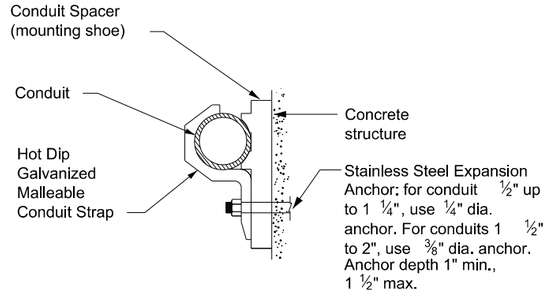


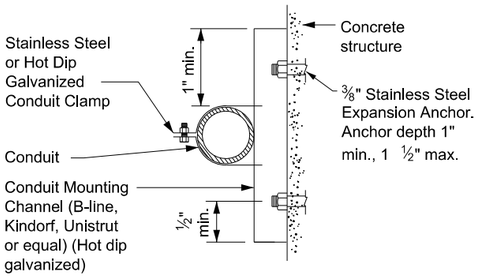
CONDUIT HANGING DETAIL



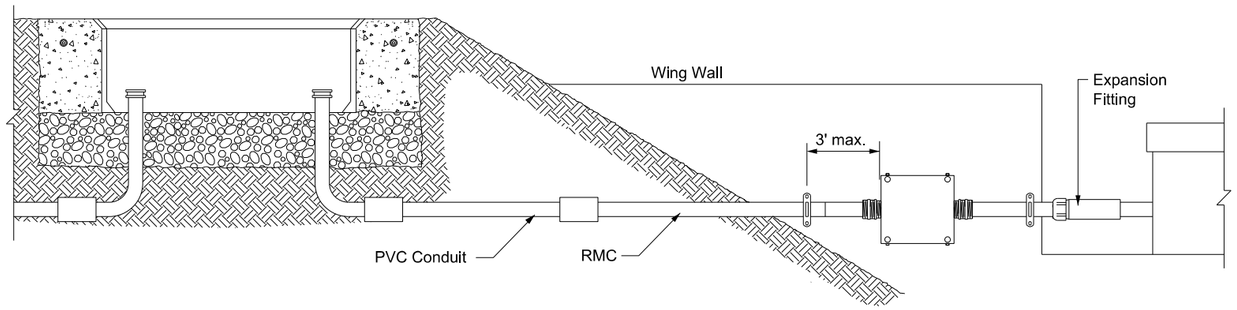
CONDUIT MOUNTING OPTIONS

ATTACHMENT TO CONCRETE SURFACES - SEE ED(1), CONDUIT, NOTE B.2





TYPICAL CONDUIT ENTRY TO BRIDGE STRUCTURE DETAIL



EXPANSION ANCHOR NOTES FOR BRIDGE DECK ATTACHMENT:

1. Use torque controlled mechanical expansion anchors that are approved for use in cracked concrete by the International Code Council, Evaluation Service (ICC-ES). The chosen anchor product shall have a designated ICC-ES Evaluation Report number, and its approval status shall be maintained on the ICC-ES website under Division 031600 for Concrete Anchors.

2. Unless otherwise approved by the Engineer: do not use adhesive anchors; do not use expansion anchors that are not included in the ICC-ES approval list; and do not use expansion anchors that are only approved for use in uncracked concrete.

3. Use anchors manufactured with stainless steel expansion wedges. Anchors manufactured with carbon steel expansion wedges are not allowed. Anchor bodies can be either zinc-plated carbon steel or stainless steel. Provide only stainless steel anchor bodies and expansion wedges for applications in marine environments.

4. Install anchors as shown on the plans and in accordance with the anchor manufacturer's published installation instructions. Arrange a field demonstration test to evaluate the procedures and tools. The test shall be witnessed and approved by the Engineer prior to furnishing anchors on the structure.

5. Prior to hole drilling, use rebar locator to ensure clearing of existing deck strands or reinforcement. Install anchors to ensure a minimum effective embedment depth, (h_{ef}), as shown. Increase (h_{ef}) as needed to ensure sufficient thread length for proper torquing and tightening of anchors.

6. Use anchors of at least 1600 lbs. tensile capacity (minimum of steel, concrete breakout, and concrete pullout strengths as determined by ACI 318 Appendix D) at the required minimum embedment depth (h_{ef}). No lateral loads shall be introduced after conduit installation.

Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS CONDUIT SUPPORTS

ED(2)-25

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ELECTRICAL CONDUCTORS

A. MATERIAL INFORMATION

1. Provide Type XHHW insulated copper conductors in accordance with Departmental Material Specification DMS-11040, "Conductors" and Item 620, "Electrical Conductors." Provide conductors as listed on the Material Producer List (MPL) on the Department web site under "Roadway Illumination and Electrical Supplies" Item 620.

2. Identify grounded (neutral) conductors with white insulation. Identify grounding conductors (ground wires) with green insulation or bare conductors. Identify ungrounded (hot) conductors with any color insulation except green, white, or gray. Keep color scheme consistent throughout the wiring system. Identify conductors 6 American Wire Gauge (AWG) and smaller by continuous color jacket. Identify electrical conductors 4 AWG and larger by continuous color jacket or by colored tape. When identifying conductors with colored tape, mark at least 6 in. of the conductor's insulation with half laps of tape at each accessible location.

3. Insulated grounding conductors may be substituted for bare conductors, unless otherwise shown in the plans. Insulated grounding conductors must be color coded green in accordance with Note 2.

4. Provide a 6 AWG bare solid copper grounding electrode conductor to bond the electrical service equipment to the concrete encased grounding electrode or the ground rod at the service location. Connect the grounding electrode conductor to the ground rod with a UL listed connector in accordance with DMS-11040. Connect the grounding electrode conductor to the concrete encased grounding electrode as shown in the plans.

5. Where two or more circuits are present in one conduit or enclosure, permanently label the conductors of each branch circuit by attaching a non-metallic, weather resistant tag around both circuit conductors at each accessible location. Provide one-piece tags with two $\frac{3}{16}$" straps, large enough to indicate circuit number, letter, or other identification as shown in the plans. Print circuit identification on the tag with a permanent marker.

6. Use listed compression connectors, mechanical lugs, terminal blocks, or split bolt connectors for splicing as specified in DMS-11040. Use hot melt adhesive tape to fill the gap and seal the ends of heat shrink tubing. Provide UL listed gel-filled insulating splice covers. Splicing materials, insulating materials, breakaway disconnects, splice covers, and fuse holders are subsidiary to various bid items.

B. CONSTRUCTION METHODS

1. Use only a flat, high tensile strength polyester fiber pull tape for pulling conductors through the conduit system.

2. Leave 2 ft. to 3 ft. of length for each conductor up to the splice in ground boxes. Leave 3 ft. to 4 ft. of length for each conductor in ground boxes when pulled through with no splice. Leave 1 ft. to 1.5 ft. of length for each conductor at enclosures and pole bases. Leave 1.5 ft. to 3 ft. of length as required by electric utility for conductors exiting weatherheads.

3. Make splices only in junction boxes, ground boxes, pole bases, or electrical enclosures and use only listed compression connectors, mechanical lugs, terminal blocks, or split bolt connectors. Insulate splices with heavy wall heat shrink tubing or gel-filled insulating splice covers to provide a watertight splice. Overlap conductor insulation with heat shrink tubing a minimum of 2 in. past both sides of the splice. Where heat shrink tubing may not shrink sufficiently to provide a watertight seal around the individual conductors, prior to heating the tubing, increase the diameter of the conductor insulation using hot melt adhesive tape to provide a watertight seal between each conductor and the heat shrink tubing. Ensure the tape extends past the heat shrink tubing. Use hot melt adhesive tape to fill the gap and seal the ends of heat shrink tubing. Heat shrink tubing that appears to have been burned or overheated is considered defective and must be replaced.

4. Size and install gel-filled insulating splice covers according to manufacturer's specifications when used in place of heat shrink tubing.

5. Wire nuts with factory applied waterproof sealant may be used for 8 AWG or smaller conductors in above ground junction boxes, but not in pole bases or ground boxes. Install wire nuts in an upright position to prevent the accumulation of water.

6. Support conductors in illumination poles with a J-hook at the top of the pole.

7. When terminating conductors, remove the insulation and jacketing material without nicking the individual strands of the conductor. Conductors with nicked individual conductor strands or removed strands will be considered damaged.

8. Replace conductors and cables that are damaged or that fail an insulation resistance test at no additional cost to the Department.

9. Do not repair damaged conductors with duct tape, electrical tape, or wire nuts. Use only approved splicing methods.

B. CONSTRUCTION METHODS (CONTINUED)

10. Do not terminate more than one conductor under a single lug unless it is rated for multiple conductors. Do not exceed the lug's listing for maximum number and size of conductors allowed.

11. Follow manufacturer's instructions when terminating conductors to breakaway connectors. Properly torque threaded connections. Proper terminations are critical to the safe operation of breakaway devices. Trim waterproofing boots on breakaway connectors to fit snugly around the conductor to ensure a waterproof connection. Only one conductor may enter a single opening in a boot. Provide waterproof boots with the correct number of openings. Leave unused openings factory sealed. Use prequalified breakaway connectors as shown on the MPL.

12. Provide and install a separate stranded equipment grounding conductor (EGC) in all conduits that contain circuit wiring of 50 volts or more. Unless shown elsewhere, size the EGC to be the same size as the largest current carrying conductor in the conduit. Bond all EGCs together at every accessible location. For ITS installations, bond and ground metal ground box covers and other metal equipment as shown on ITS standards.

C. TEMPORARY WIRING

1. Install temporary conductors and electrical equipment in accordance with the NEC article "Temporary Installations" and Department standard sheets.

2. Provide a ground fault circuit interrupter (GFCI) for powering portable electrical equipment, power tools, ice machines, ice storage bins and refrigerators located outdoors at grade. GFCI may be any one of the following: molded cord and plug set, receptacle, or circuit breaker type.

3. Use listed wire nuts with factory applied sealant for temporary wiring where approved.

4. Enclose conductor splices within a listed enclosure or ground box, or ensure the splices are more than 10 ft. above grade vertically and more than 5 ft. horizontally from any metal structure. When installing temporary conductors in areas subject to vehicle traffic or mobile construction equipment, ensure the vertical clearance to ground is at least 18 ft. when measured at the lowest point. Ground messenger wires that support power conductors in conformance with the NEC.

5. Protect and when necessary repair any existing electrical conduits uncovered during the construction process in a timely manner and in conformance with the NEC.

GROUND RODS & GROUNDING ELECTRODES

A. MATERIAL INFORMATION

1. Provide and install a grounding electrode at electrical services. Provide ground rods according to DMS-11040 and the plans. Larger diameter or longer length rods may be called for in some locations. Concrete encased grounding electrodes may be called for in some locations including electrical services — see plan sheets.

B. CONSTRUCTION METHODS

1. Furnish and install ground rods in soil, concrete, or both, as called for in the plans. For ground rods installed in concrete, ensure the connection of the conductor to the ground rod is readily accessible for inspection or repairs. For ground rods installed in soil, ensure that the upper end is between 2 to 4 in. below finished grade.

2. Do not place ground rods in the same drilled hole as a timber or concrete pole.

3. Install ground rods so the imprinted part number is at the upper end of the rod.

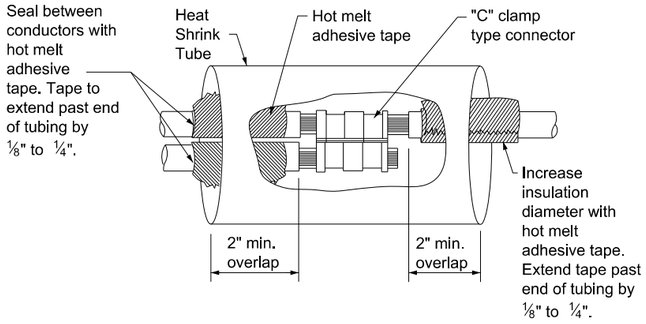
4. Remove all non-conductive material such as concrete splatter from the rod at the clamp location.

5. Route all conductors as short and straight as possible for connection to lightning protection ground rods. When a bend is required, ensure a minimum radius bend of 4 in.

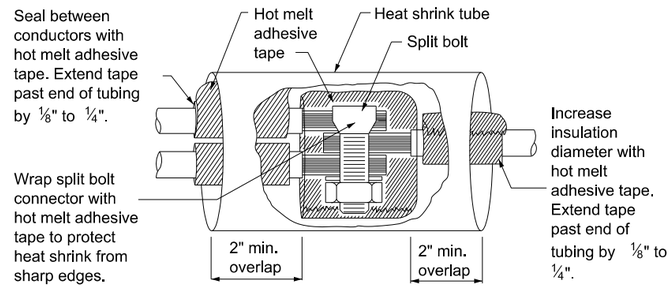
6. Unless otherwise called for in the plans, protect grounding electrode conductors with non-metallic conduit. When protecting grounding electrode conductors with metal conduit, provide and install a grounding bushing and properly sized bonding jumper on each end of the metal conduit.

7. Written authorization is required before installing a ground rod in a horizontal trench for rocky soil or a solid rock bottom.

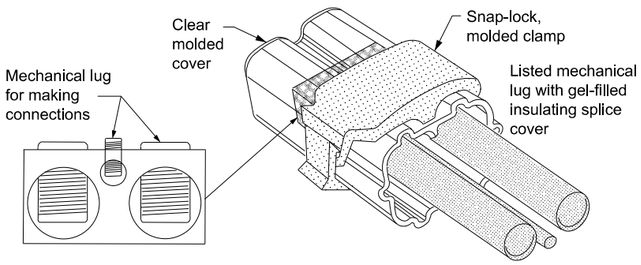
COMPRESSION SPLICE
OPTION 1



SPLIT BOLT SPLICE
OPTION 2



GEL-FILLED INSULATED SPLICE
OPTION 3



Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS CONDUCTORS

ED(3)-25

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		DAL	DALLAS		136

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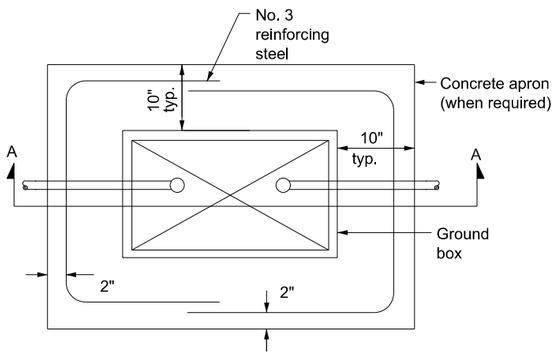
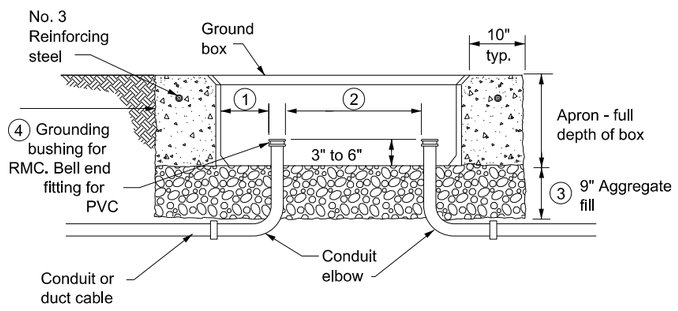
APRON FOR GROUND BOX

PLAN VIEW



SECTION A - A



SECTION A - A NOTES:

(1) Uniformly space ends of conduits within the ground box. Position ends of conduits so that ground box walls do not interfere with the installation of grounding bushings or bell end fittings.

(2) Maintain sufficient space between conduits to allow for proper installation of bushing.

(3) Place aggregate under the box, not in the box. Aggregate should not encroach on the interior volume of the box.

(4) Install a grounding bushing on the upper end of all RMC terminating in a ground box. Ground RMC elbows when any part of the elbow is less than 18 in. below the bottom of the ground box. Install a PVC bushing or bell end fitting on the upper end of all PVC conduits terminating in a ground box.

GROUND BOXES	
TYPE	OUTSIDE DIMENSIONS (Width x Length X Depth)
A	12" X 23" X 11"
B	12" X 23" X 22"
C	16" X 29" X 11"
D	16" X 29" X 22"
E	12" X 23" X 17"

NOTES:

A. MATERIALS

1. Provide polymer concrete ground boxes measuring 16 in. x 30 in. x 24 in. (W x L x D) or smaller in accordance with Departmental Material Specification DMS-11070, "Ground Boxes" and Item 624, "Ground Boxes."
2. Provide Type A, B, C, D, and E ground boxes as shown in the plans and as listed on the Material Producers List (MPL) on the Department web site under "Roadway Illumination and Electrical Supplies," Item 624.
3. Ensure ground box cover is correctly labeled in accordance with DMS-11070.
4. Provide larger ground boxes in accordance with Item 624 and as shown in the plans.

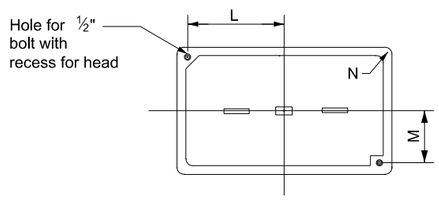
B. CONSTRUCTION METHODS

1. Before setting ground box and after placing and capping conduits, lay an aggregate bed a minimum of 9 in. deep that extends 10 in. beyond the sides of the ground box. Provide coarse aggregate sized 3/4 in. to 2 in., with no more than 20% material passing through a no. 8 sieve, and as defined by the current ASTM C33/33M standard. Clean aggregate and dirt from conduits according to Item 618.
2. Cast ground box aprons in place. Reinforcing steel may be field bent. Ensure the depth of concrete for the apron extends from finished grade to the top of the aggregate bed under the box. Ground box aprons, including concrete and reinforcing steel, are subsidiary to ground boxes when called for by descriptive code.
3. Keep bolt holes in the box clear of dirt. Bolt covers down when not working in ground boxes.
4. Install all conduits and elbows in a professional and skillful manner. Uniformly space conduits so grounding bushings and bell end fittings can easily be installed.
5. Temporarily seal all conduits in the ground box until conductors are installed.
6. Permanently seal conduits immediately after the completion of conductor installation. Permanently seal the ends of all conduits with duct seal, expandable foam, or other method as approved. Do not use duct tape as a permanent conduit seal. Do not use silicone caulk as a sealant.
7. Bond all equipment grounding conductors in a ground box together with listed connectors.
8. When a Type B or D ground box is stacked to meet volume requirements, an appropriately sized hole may be cut for conduit entry in the side wall at least 18 in. below grade.
9. If an existing ground box in the contract has a metal cover, bond the cover to the equipment grounding conductor with a 3 ft. long stranded bonding jumper that is the same size as the grounding conductor. The bonding jumper is subsidiary to various bid items. Verify existing ground boxes with metal covers are shown on the plans, with notes fully describing the work required.
10. If other ground boxes with metal covers are within the project limits but are not part of the contract, the Engineer may direct the Contractor to bond the metal covers, identifying the specific boxes in writing. This work will be paid for separately.
11. Bond metal ground box covers to the grounding conductor with a tank ground type lug.

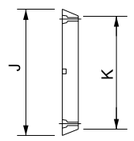
GROUND BOX COVERS								
TYPE	DIMENSIONS							
	H	I	J	K	L	M	N	P
A, B & E	23 ¼"	23"	13 ¾"	13 ½"	9 ⅞"	5 ⅛"	1 ⅜"	2"
C & D	30 ½"	30 ¼"	17 ½"	17 ¼"	13 ¼"	6 ¾"	1 ⅜"	2"

GROUND BOX COVER

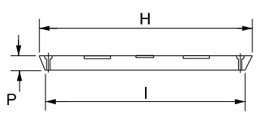
PLAN VIEW



END



SIDE



Texas Department of Transportation

Traffic Safety Division Standard

ELECTRICAL DETAILS GROUND BOXES

ED(4)-25

FILE: ed4-25.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT April 2025	CONT	SECT	JOB	HIGHWAY
REVISIONS	0918	47	432	JEFFERSON STREET
1-92 3-03 4-25 4-98 5-03 12-00 10-14	DIST	COUNTY		SHEET NO.
	DAL	DALLAS		137

71D

1. Trench alignment shall be as straight as conditions permit. Any deviations from planned alignment shall have prior approval by the project engineer/inspector. All trench cuts shall be in accordance with existing safety regulations in effect.
2. Trench bottom should be undisturbed, tamped, or relatively smooth earth. Where excavation is in rock, the conduit should be laid on a layer of clean backfill.
3. All backfill should be free of debris or other material that may damage the conduit system or cause settling. The material should fill the voids around the conduit to prevent hot spots and settling.
4. Backfill should be adequately compacted. Backfill not under pavement should be compacted to the density of the surrounding undisturbed soil. Backfill under pavement should be compacted to not less than 95% of the density of undisturbed soil as determined by ASTM D698.
5. See sheet 9 for instructions for joining PVC conduit.
6. Each conduit run shall be checked by pulling a mandrel through the entire length at the completion of the civil installation.
7. A pull tape shall be left in each conduit. Conduit shall be plugged at both ends.

Approved Full Tapes			
Conduit Size	Manufacturer	Catalog No.	TSN
1", 2" & 3"	Arnco Neptco, Inc.	BL-WP25 WP2500P	321068
4" & 6"	Arnco Neptco, Inc.	BL-WP60 RP6000N	397616

8. Contact company representative for trench dimensions for more than 2 conduits in same ditch.

INSTALLATION OF CONDUITS NOTES AND INSTRUCTIONS

DDS-4 OH DETAIL SHEET 8 OF 16

02 - 24

The chemicals used in solven: welding of conduit are intended to penetrate the surface of both pipe and fitting, which after curing result in a complete fusion at the joint. The over-use or under-use of chemicals results in leaky joints or weakened pipe.

1. Clean conduit by wiping off all dust, dirt and moisture from surfaces to be cemented either by mechanical or chemical cleaning.
   - 1.1. Mechanical cleaning - Fine abrasive paper or cloth (180 grit or finer) or clean oil-free steel wool.
   - 1.2. Chemical cleaning- Cleaner recommended by manufacturer or equivalent (methyl ethyl ketone - Mek).
2. With a non-synthetic bristle brush apply an even coating of cement to the outside of the pipe and inside the socket. Make sure that the amount of cement applied to the conduit is equal to the depth of the socket. Before assembly, if some evaporation of solvent from the surfaces to be joined is noted, reapply cement, then assemble.

   If cement being used has an appreciable change in viscosity or shows signs of jelling, it shall be discarded. In no case shall thinner be used in an attempt to restore jelled PVC cement. Thinner may only be used to change the viscosity of a medium bodied cement to that of a regular bodied cement for application on PVC pipe smaller than 2 1/2" diameter. A medium bodied cement shall be used on 2 1/2" to 6" PVC pipe.

   Use a primer to soften the joining surfaces before applying cement. Allow longer cure time. (See item 5).
3. Join pipe within 20 seconds of applying cement. Turn the pipe 1/4 turn to ensure even distribution of cement on surfaces to be bonded. Make sure that pipe is inserted to the full depth of the socket.
4. Clean off any bead or excess cement that appears at the outer shoulder of the fitting. Excess cement allowed to remain in contact with the material is apt to cause weakening of the material, and subsequent failure.
5. Newly assembled joints should be handled carefully until the cement has cured to the recommended set period. Set periods are related to the ambient temperature as follows:

   30 min. minimum at 60° to 100° F
   1 hr. minimum at 40° to 60° F
   2 hr. minimum at 20° to 40° F
   4 hr. minimum at 0° to 20° F

INSTRUCTIONS FOR JOINING PVC CONDUIT

DDS-4 OH DETAIL SHEET 9 OF 16

02 - 24

Conduit Nominal Size (in.)	Minimum Bend Radius (in.)	Type of Bend Material for Pulls:
1	18	PVC
2	24	PVC
3	24	PVC
4	36 (See notes 3 & 4)	PVC
6	36	PVC

Notes:
1. Sch. 80 PVC conduit shall be used for all above ground installations (pole and meter risers). Sch. 40 may be used for all below ground installations.
2. No field bends.
3. 24" sweep 90s on 4" PVC may be used when the required conduit depth is less than 30" from final grade.
4. 24" sweep 90s on 4" PVC may be used on primary applications when a proper depth of the conduit can not be attained under a deep well pad or deep window application.

(The complete 90 must be below final grade or the pad window)

CONDUIT BEND RADIUS AND MATERIAL

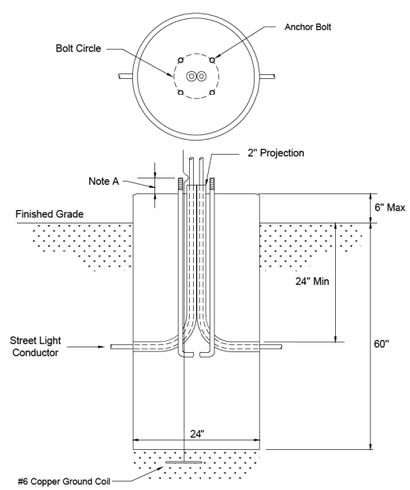
DDS-4 OH DETAIL SHEET 10 OF 16

02 - 24

NOTES:

1. CONTRACTOR SHALL REFER TO ONCOR CUSTOMER INSTALL CIVIL AGREEMENT FOR ADDITIONAL INFORMATION OF NOTES, SPECIFICATIONS, REQUIREMENTS FOR ONCOR ITEMS TO BE INSTALLED.
2. CONCRETE USED FOR FOUNDATION SHALL BE A MINIMUM OF 3600 PSI AT 28 DAYS MAXIMUM AGGREGATE 3/4—INCH. TOP OF FOUNDATION TO BE FLAT AND LEVEL SURFACE. CONCRETE TO SET A MIN OF 72 HOURS BEFORE POLE INSTALLATION.
3. ANY ADDITIONAL INFORMATION TO PROPERLY INTSTALL ONCOR ITEMS, CONTRACTOR SHALL CONTACT ONCOR.

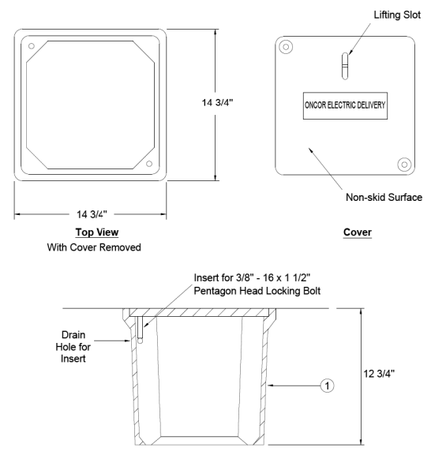
Cobra Head Luminaire Anchor Bolt Foundation Detail — **213 - 108** (08 - 22)



Note:
A. The bolt projection for TSN 398699 is 3". The bolt projection for TSN 398700 is 3.5"

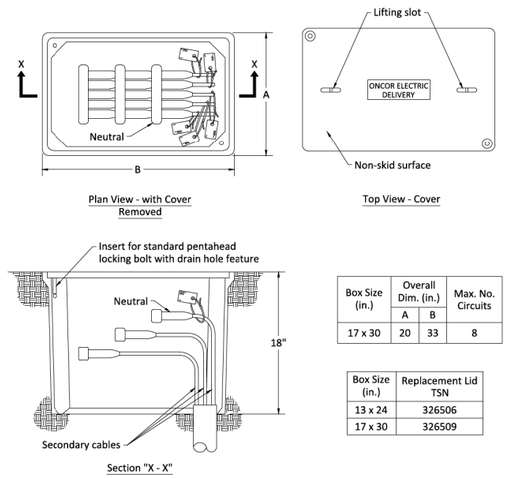
Item	Description	TSN/Ref	CU
1	Precast Foundation, 10 1/2" Bolt Circle, 1" Anchor Bolts, (30' Round Pole)	398699	SLFP25
1	Precast Foundation, 14" Bolt Circle, 1 1/4" Anchor Bolts, (40' Round Pole)	398700	SLFP40

Street Light Secondary Connection Box — **213 - 040** (12 - 19)



Notes :
A. For use when conductor size and number of terminations warrant.
B. H-10 (light vehicular traffic loading).
C. Replacement cover TSN is 326507.

Item	Description	TSN/Ref	CU
1	Box, Secondary 12" x 12" x 12"	300306	SLSCB



Box Size (in.)	Overall Dim. (in.)		Max. No. Circuits
	A	B	
17 x 30	20	33	8

Box Size (in.)	Replacement Lid TSN
13 x 24	326506
17 x 30	326509

Notes:
1. Consult company representative for (1) approved precast secondary subsurface boxes, (2) size of conduit, and (3) routing path of conduit into secondary subsurface box.
2. For installation of conduit to in-service secondary subsurface boxes, consult company representative for details.
3. Reference detail sheet 10 for bend radius for all horizontal and vertical conduit bends.

TYPICAL SERVICE AREA- SUBSURFACE SECONDARY/SERVICE BOX

DDS-4 OH DETAIL SHEET 3 OF 16

02 - 24

STATE OF TEXAS
MICHAEL J. CHISHOLM
123343
LICENSED
PROFESSIONAL ENGINEER
10.03.2025

NO.	REVISION	BY	DATE

CP&Y
TEXAS REGISTERED ENGINEERING FIRM F-1741

JEFFERSON STREET
ONCOR DETAILS

Grand Prairie TEXAS ENGINEERING

DESIGN	DRAWN	CHECK	DATE	SCALE	NOTES	FILE	NO.
CPY	CPY	CPY	SEP 2024	SEE SHEET	–	–	138

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cpypf_ANSID.pltcfg
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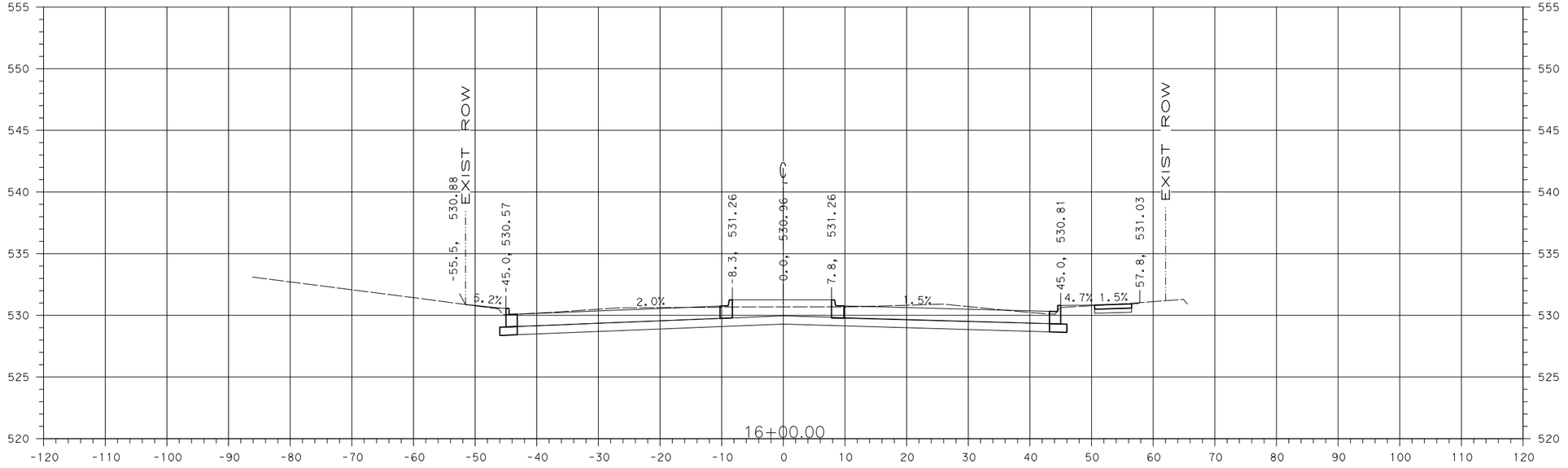

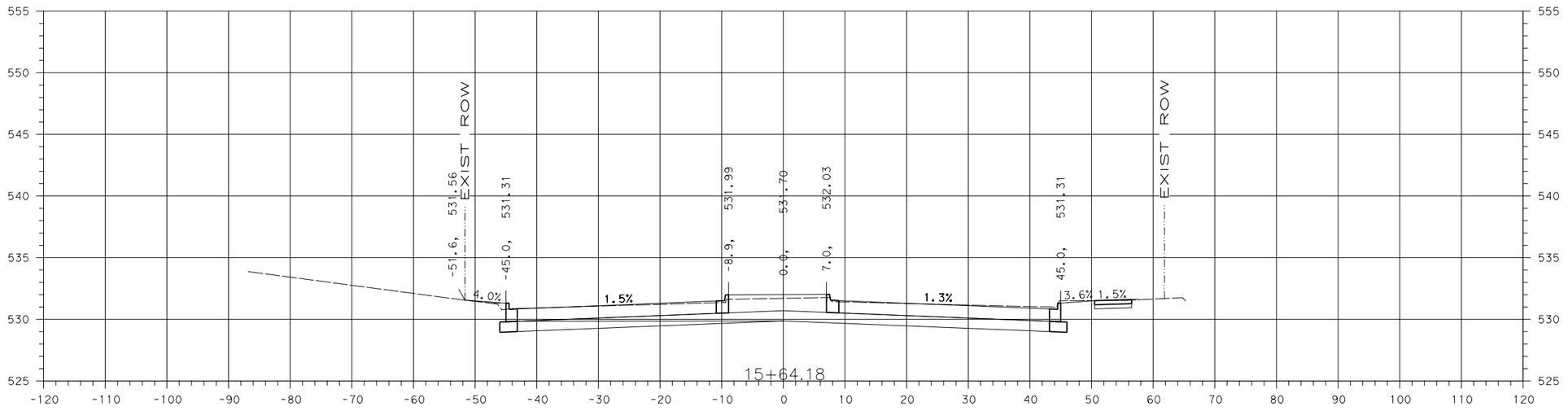

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JEFFERSON STREET
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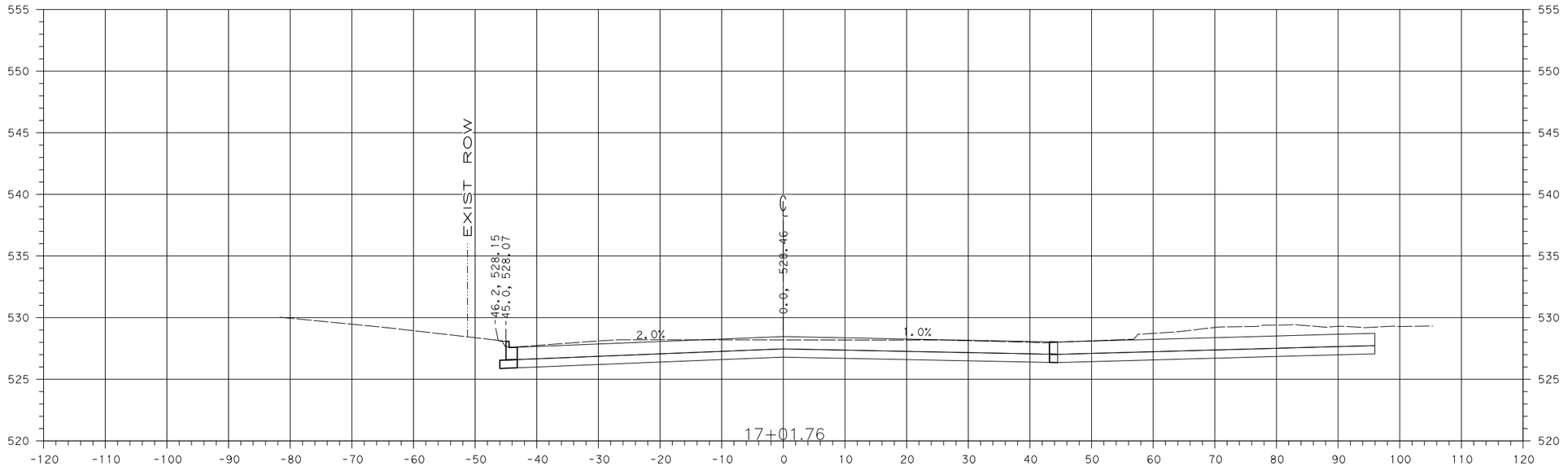

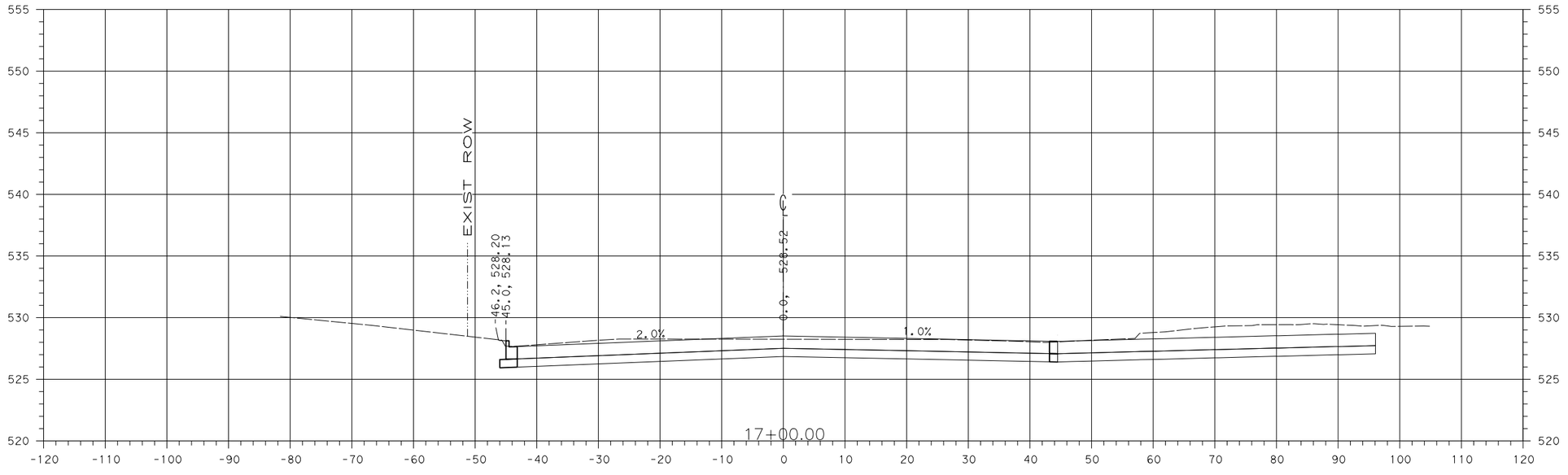

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SHEET 2 OF 13

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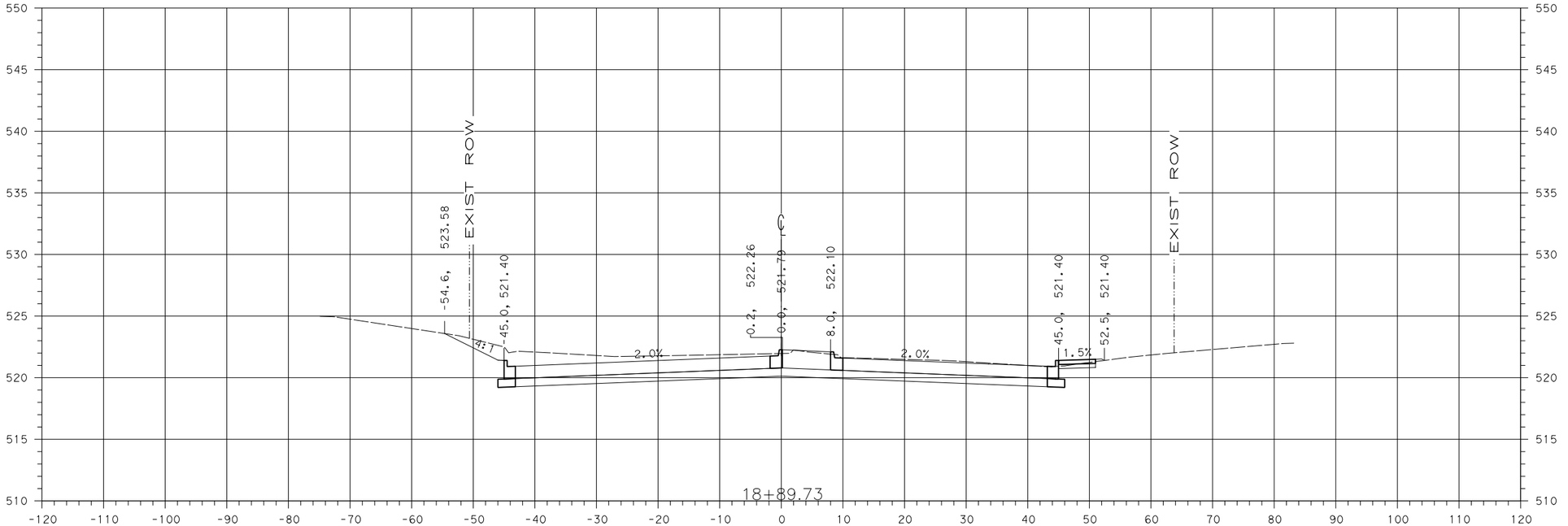

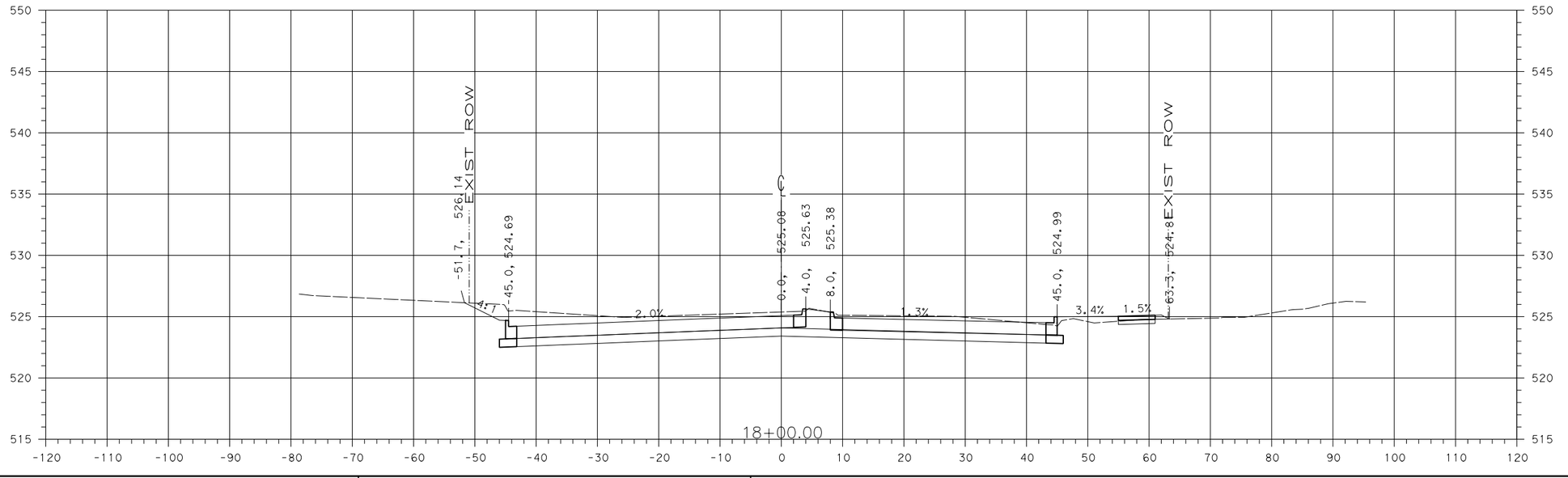

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Grand Prairie TEXAS

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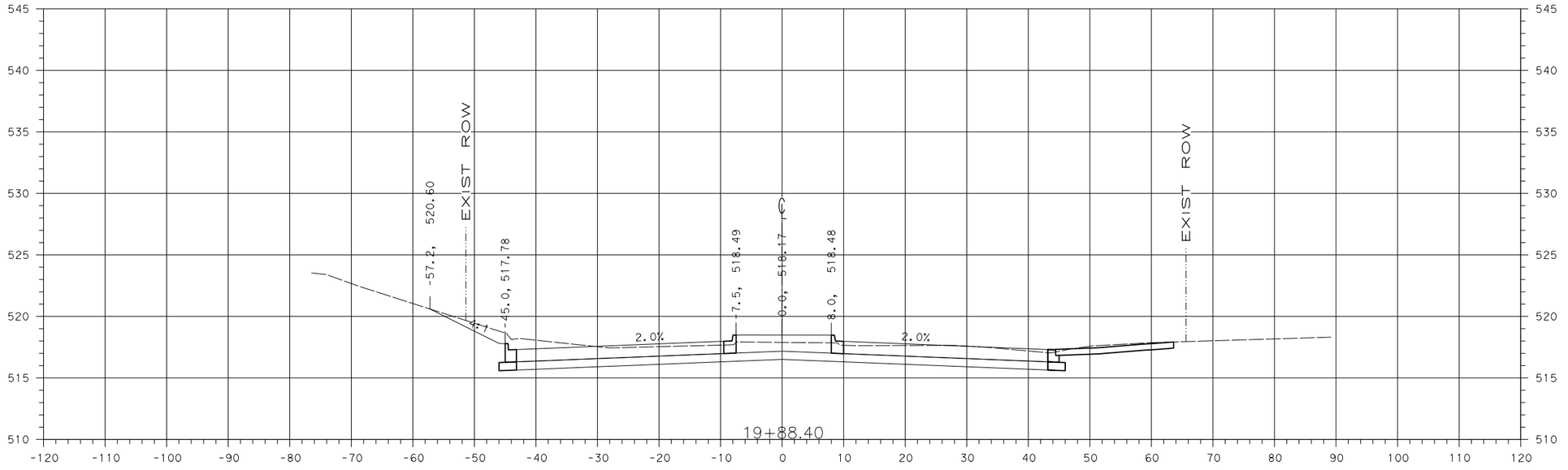

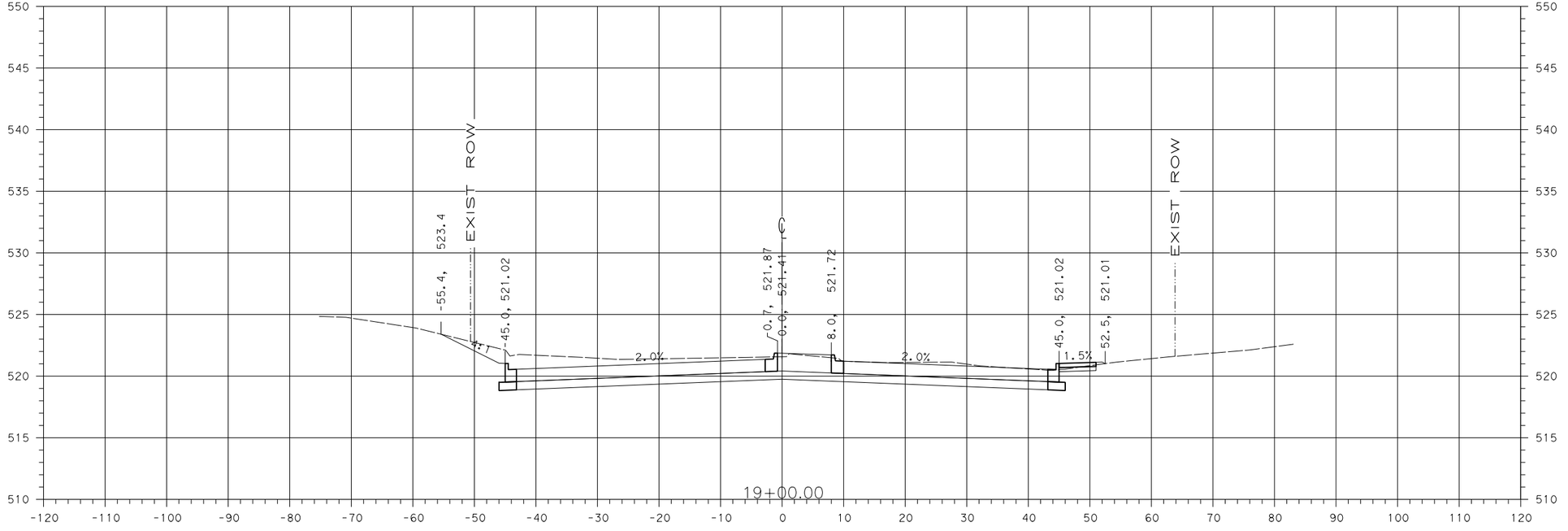

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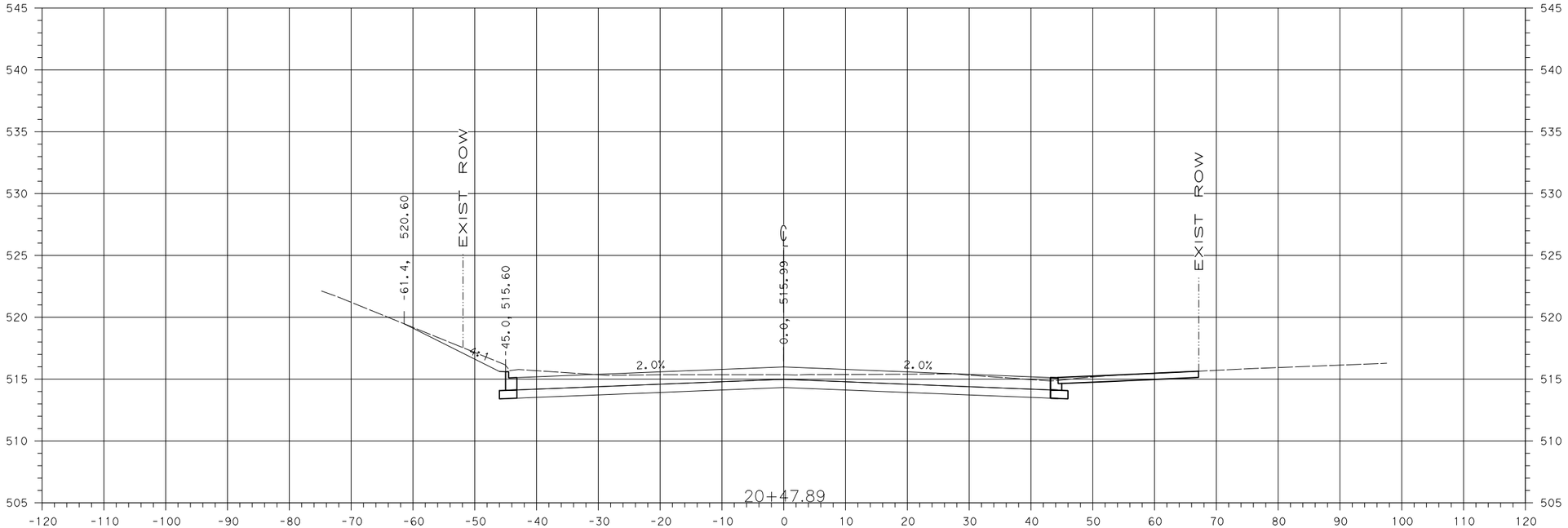
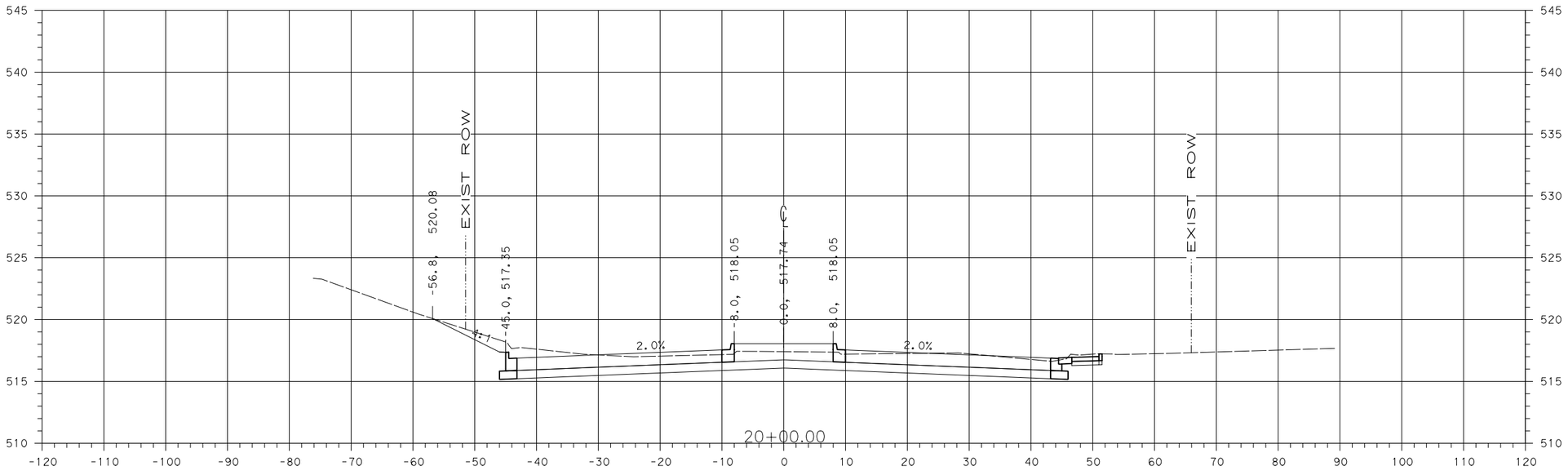
VERT.





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Grand Prairie TEXAS

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HORIZ.

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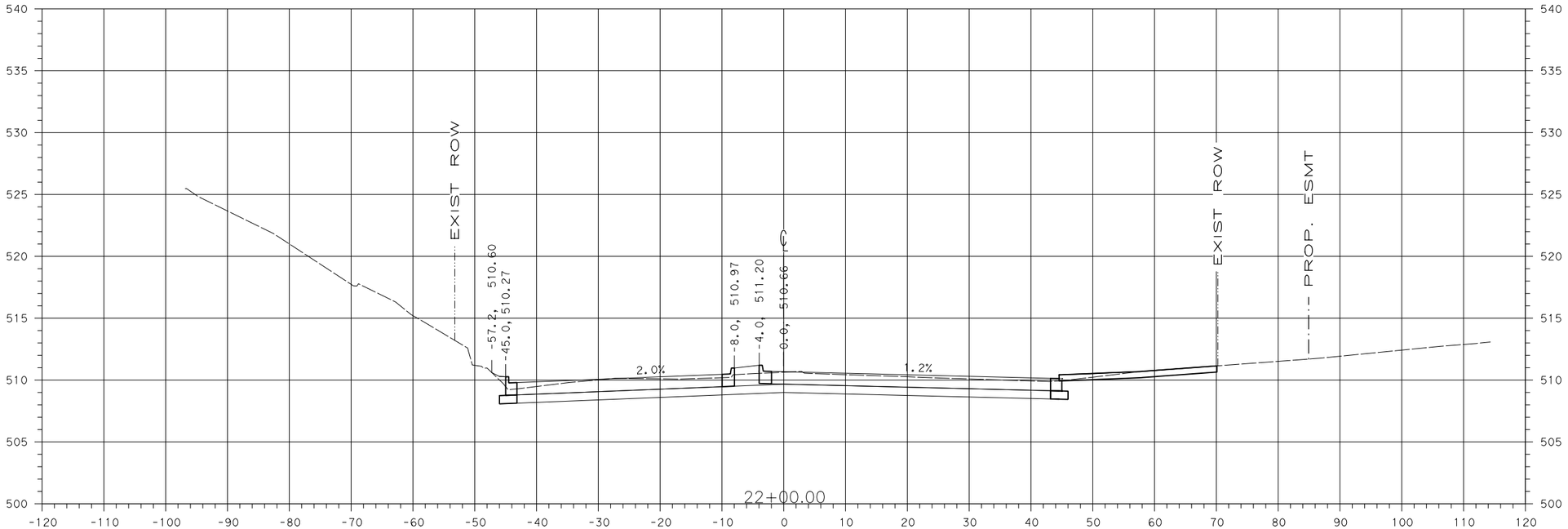

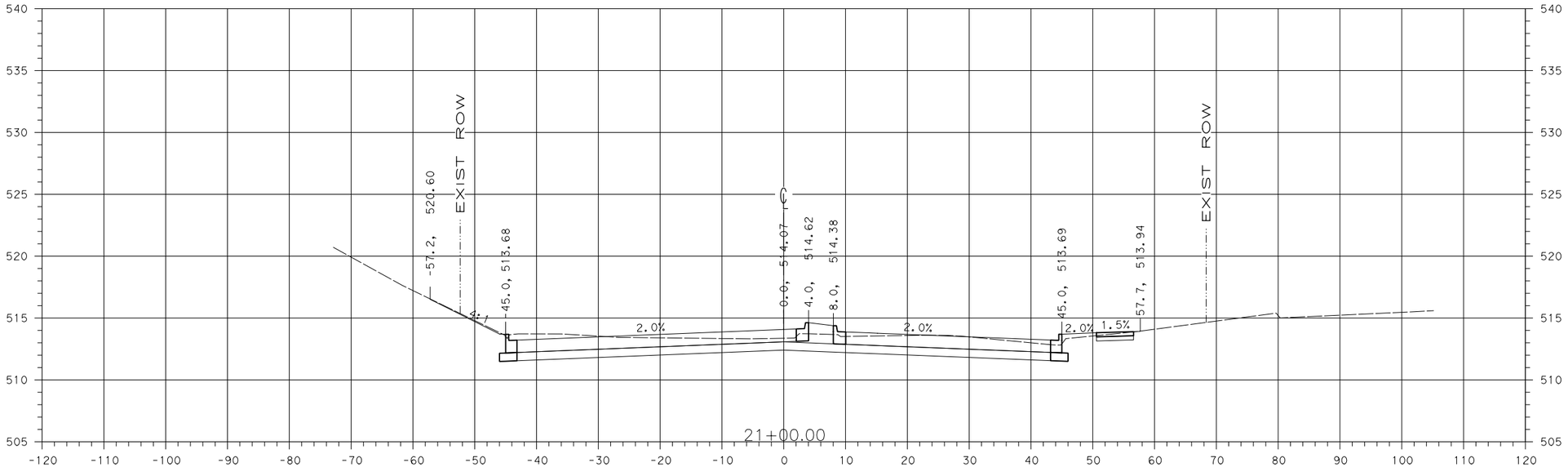

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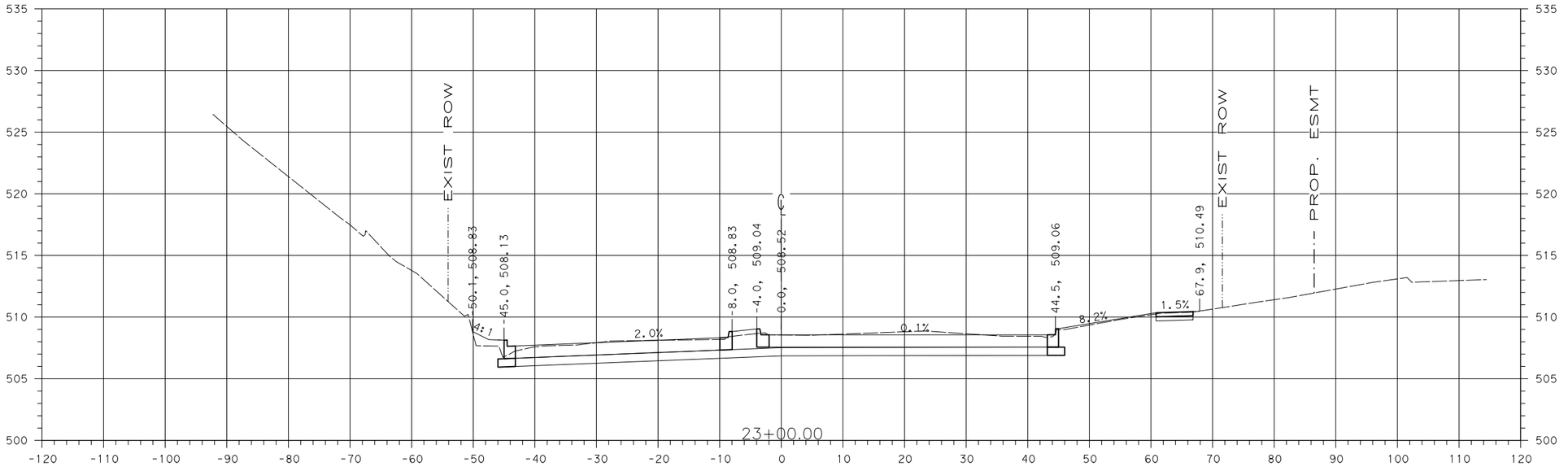

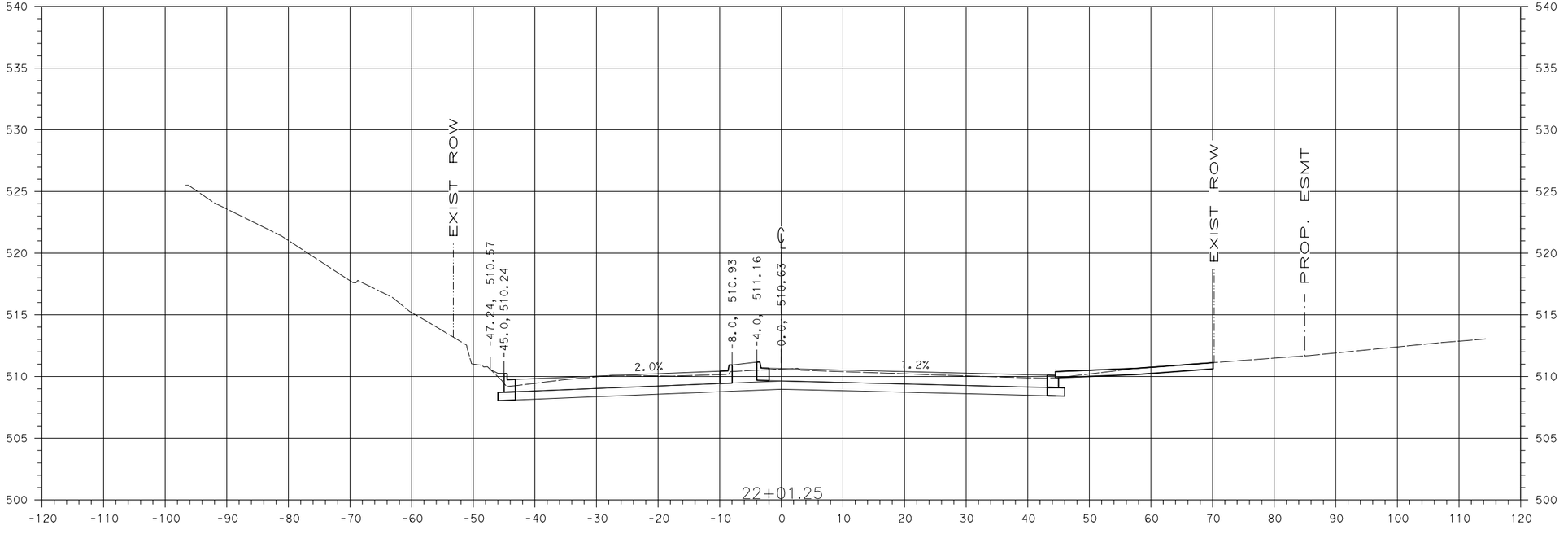

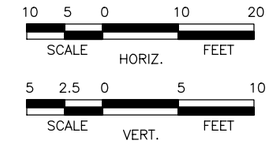

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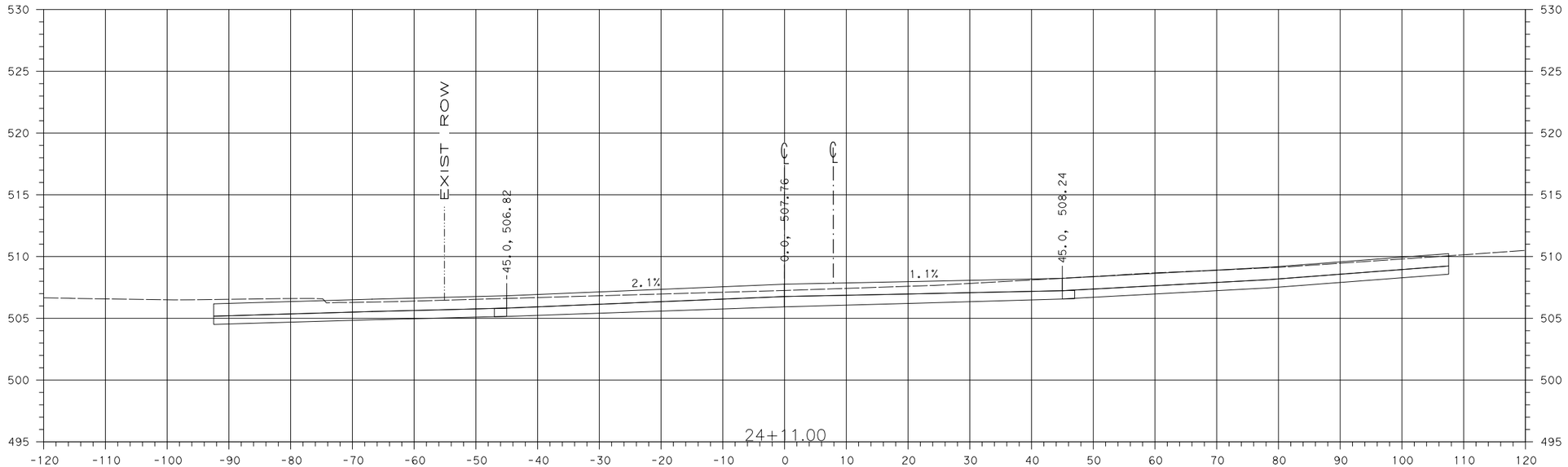

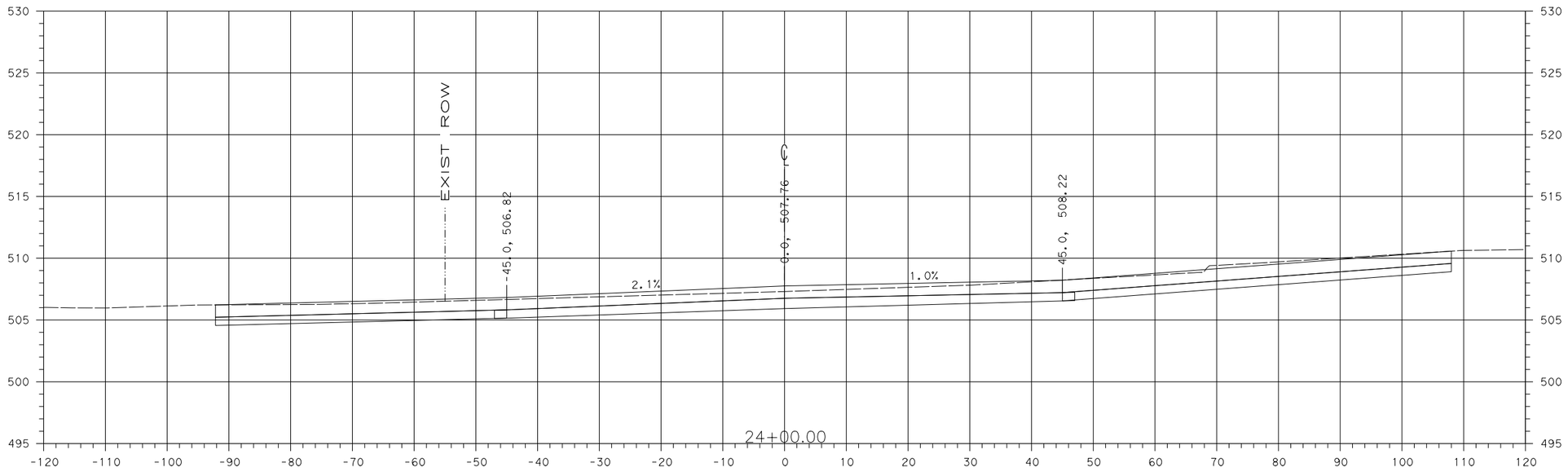

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Grand Prairie TEXAS

JEFFERSON STREET
CROSS SECTIONS

SHEET 8 OF 13

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STA. 25+00.00 TO STA. 26+00.00

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HORIZ.

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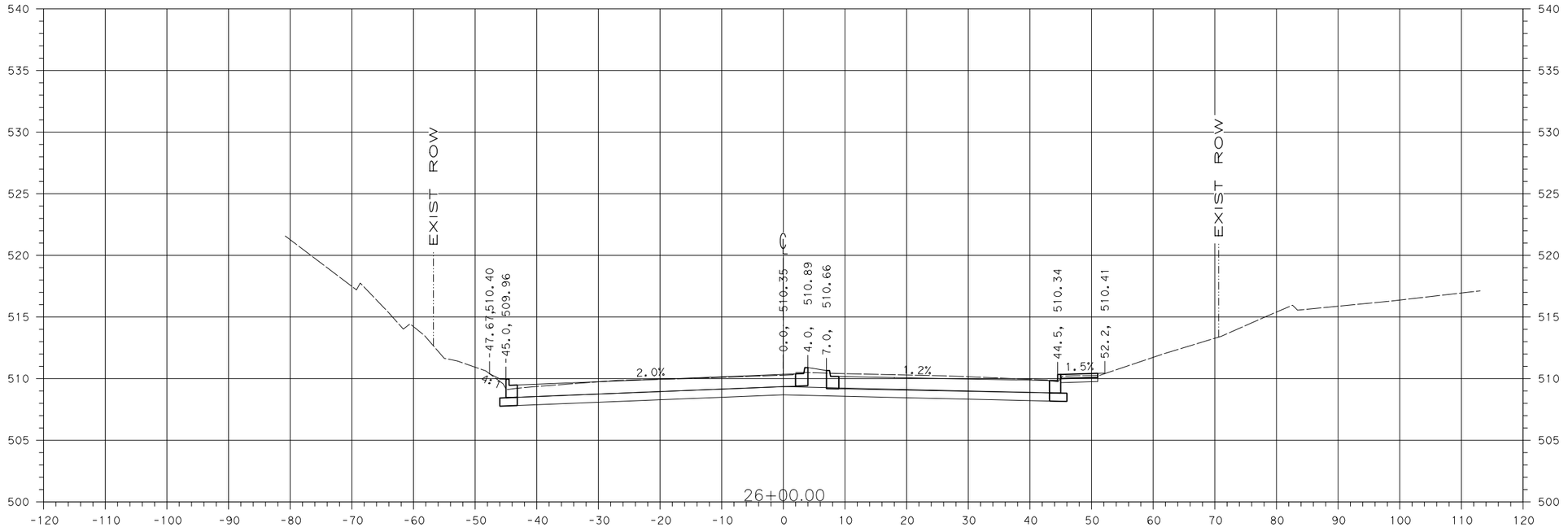

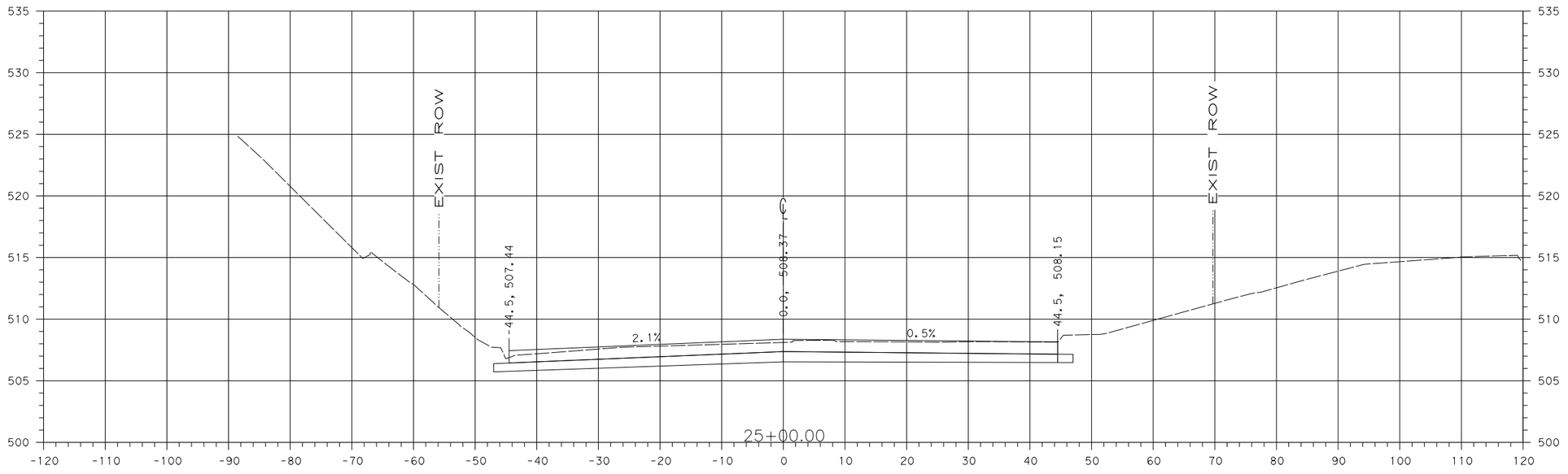

CP&Y

Grand Prairie TEXAS

JEFFERSON STREET
CROSS SECTIONS

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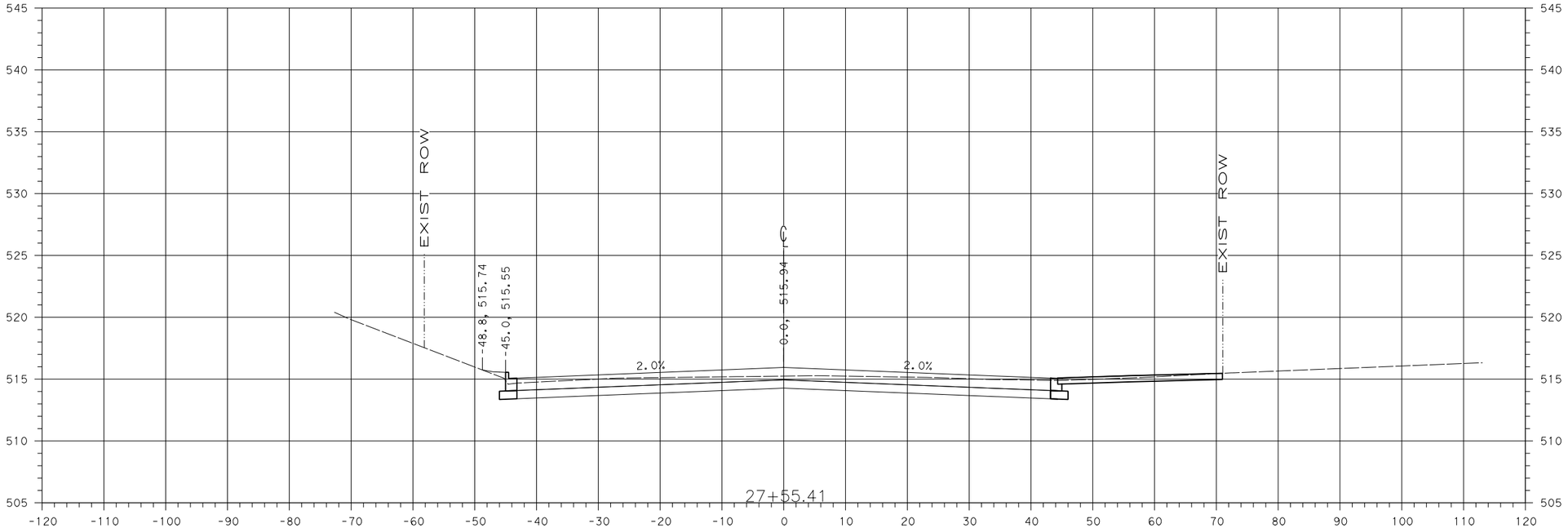

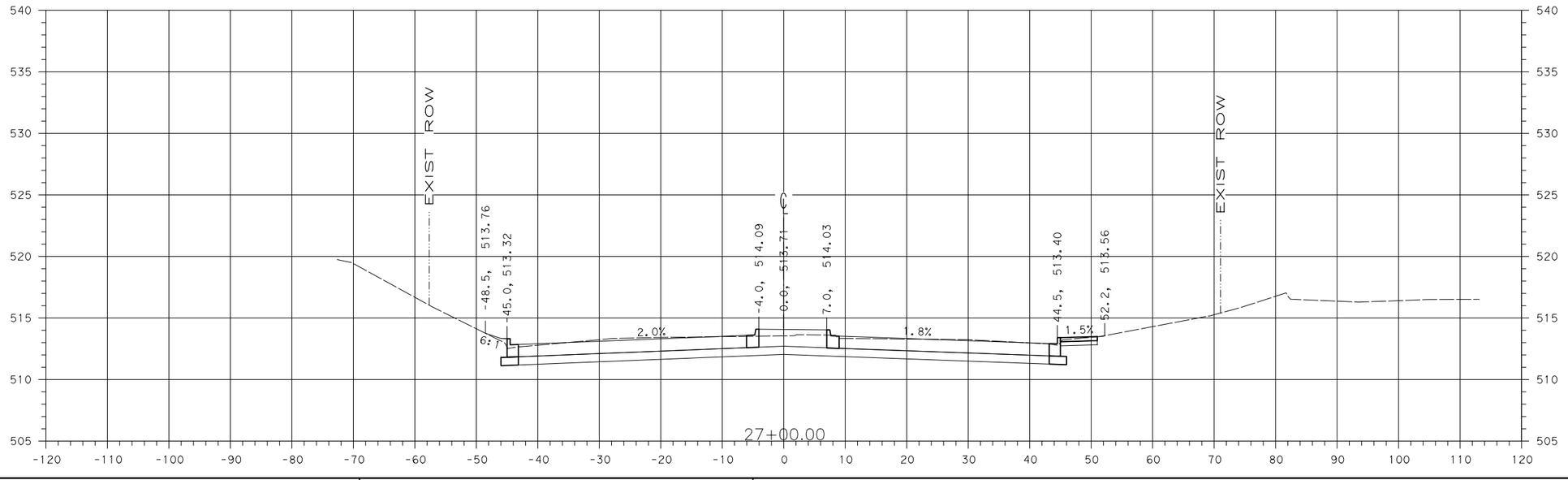

CP&Y

Grand Prairie TEXAS

JEFFERSON STREET
CROSS SECTIONS

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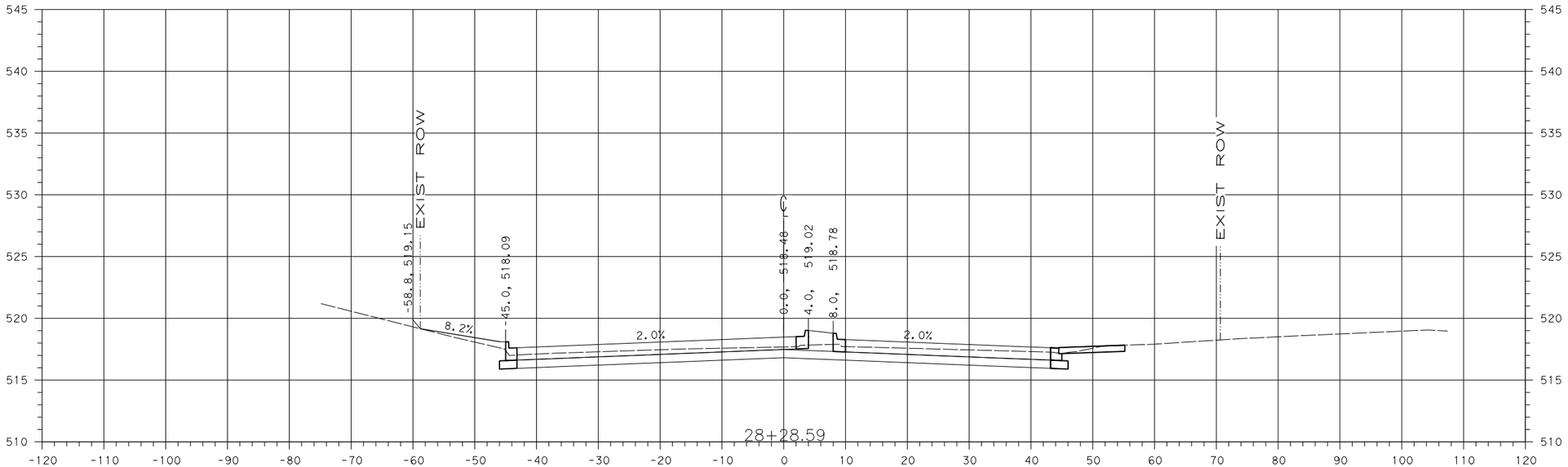
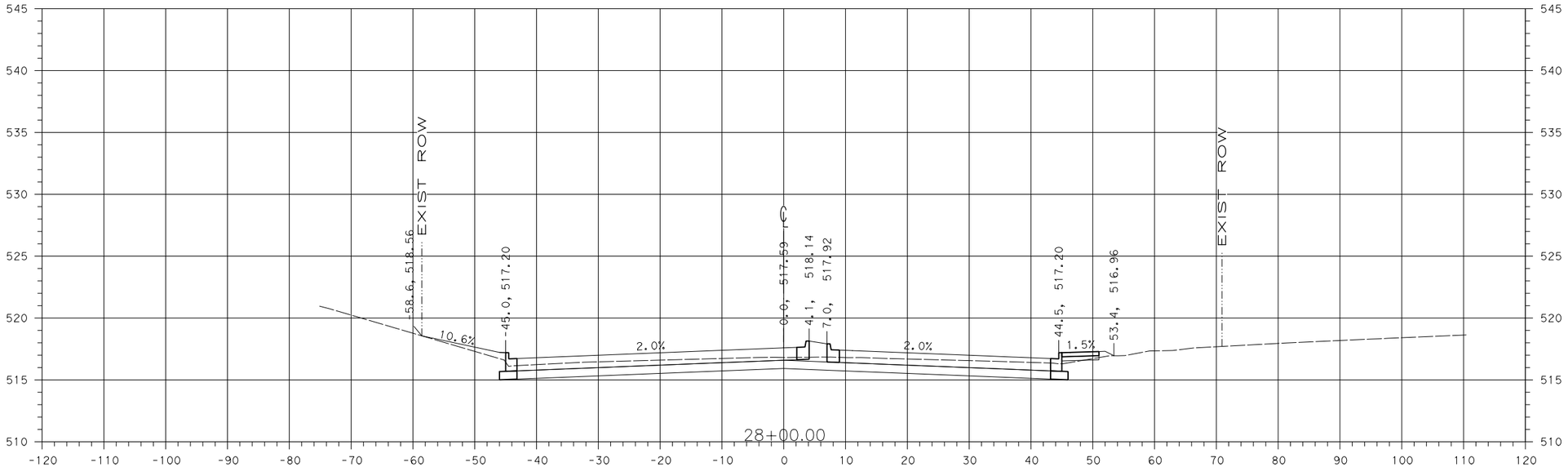
SCALE VERT. 5 2.5 0 5 10 FEET





CP&Y

Grand Prairie TEXAS

JEFFERSON STREET
CROSS SECTIONS

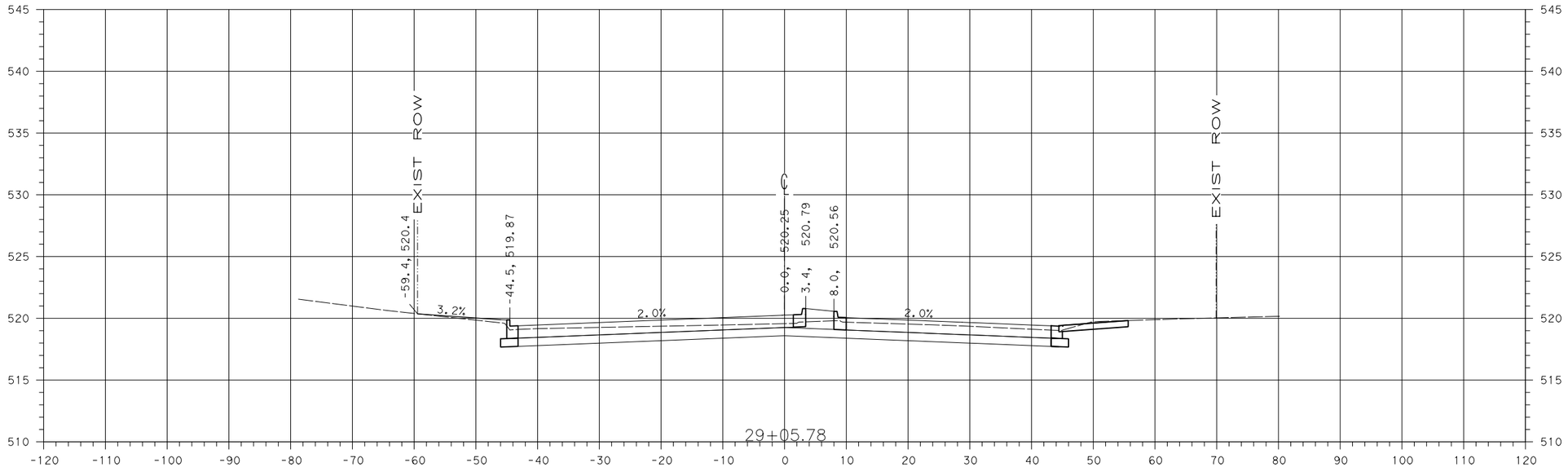
SHEET 11 OF 13

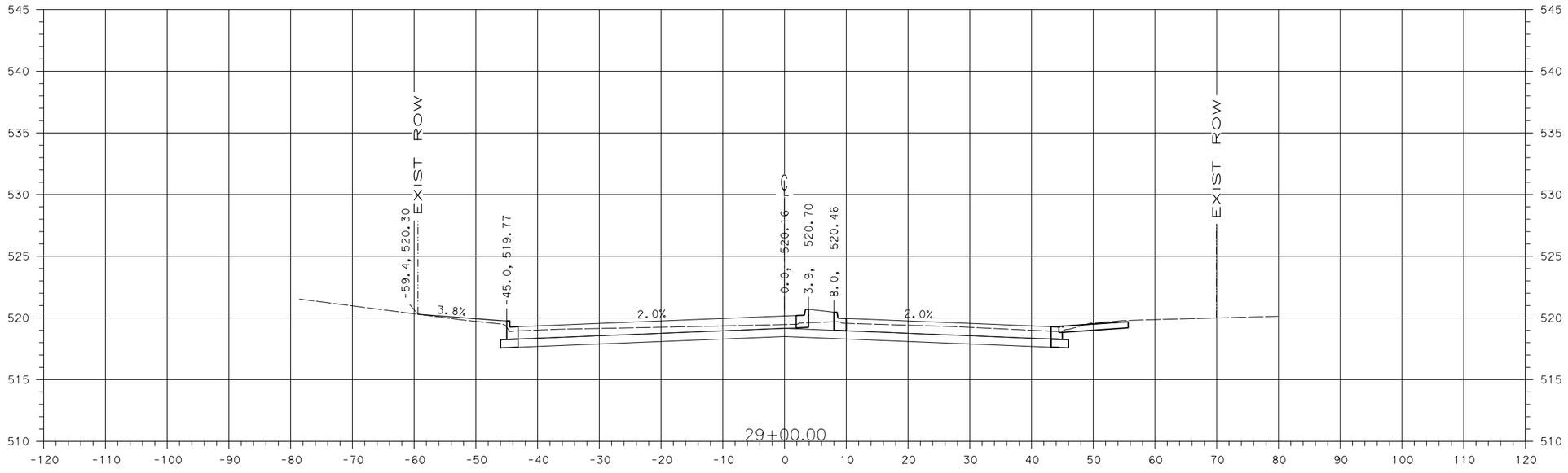
Designed:	CPY
Checked:	CPY
Drawn:	CPY
Checked:	CPY

STA. 29+00.00 TO STA. 29+05.78

SCALE HORIZ. 10 5 0 10 20 FEET

SCALE VERT. 5 2.5 0 5 10 FEET





CP&Y

Grand Prairie TEXAS

JEFFERSON STREET
CROSS SECTIONS

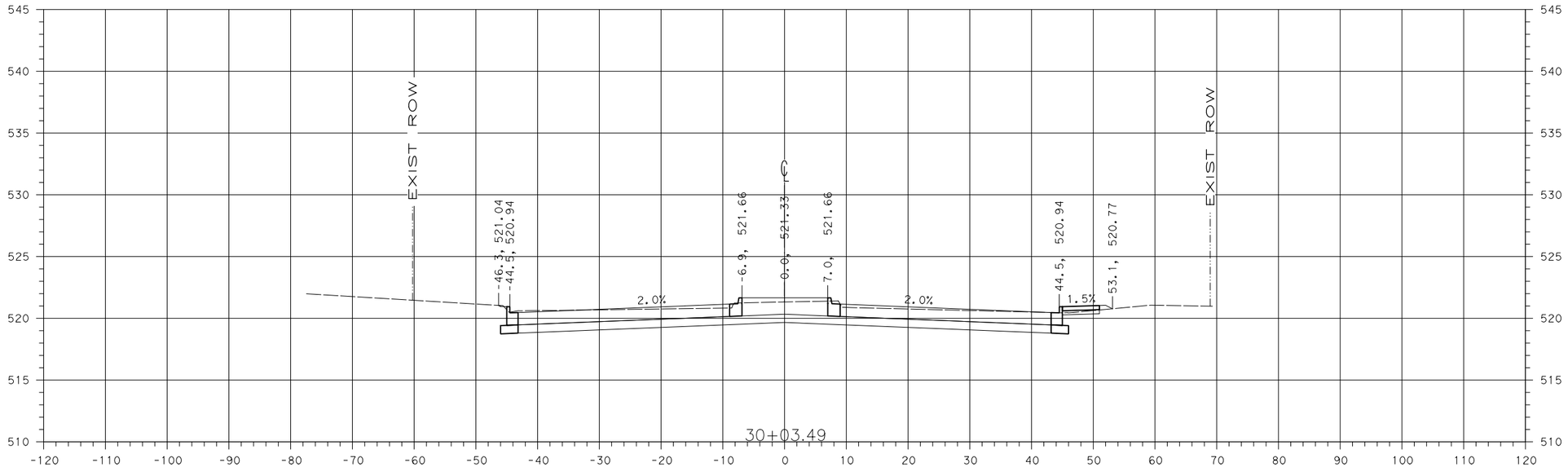
SHEET 12 OF 13

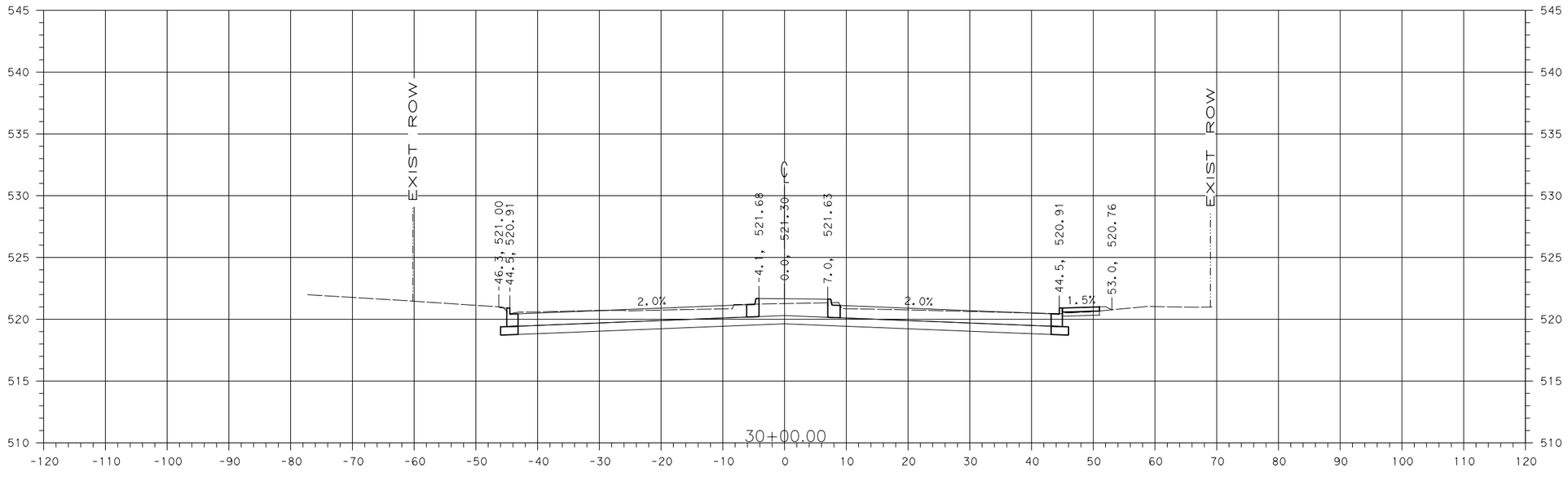
Designed:	CPY
Checked:	CPY
Drawn:	CPY
Checked:	CPY

STA. 30+00.00 TO STA. 30+03.49

SCALE HORIZ. 10 5 0 10 20 FEET

SCALE VERT. 5 2.5 0 5 10 FEET





CP&Y

Grand Prairie TEXAS

JEFFERSON STREET
CROSS SECTIONS

SHEET 13 OF 13

Designed:	CPY
Checked:	CPY
Drawn:	CPY
Checked:	CPY