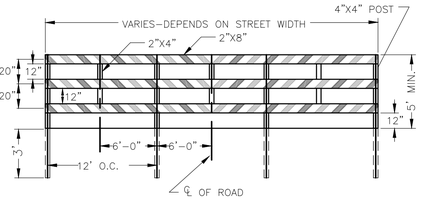
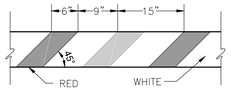


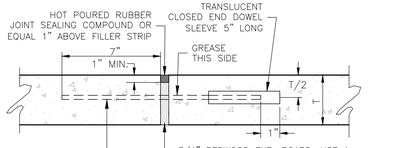


END OF ROAD BARRICADE DETAIL

NOT TO SCALE

NOTES:

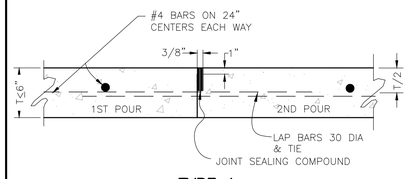
1. REFLECTIVE SHEETING FOR ALL TRAFFIC CONTROL DEVICES SHALL BE OF HIGH INTENSITY PRISMATIC (TYPE IIIA OR IIIB) ALL CHANNELIZATION DEVICES SHALL USE TYPE IIIA REBOUNDABLE SHEETING.
2. ATTACH 2"X 8" BOARDS TO 4"X 4" PRESSURE TREATED POST WITH LAG BOLTS.
3. ATTACH 2"X 4" BRACES TO 2"X 8" BOARDS WITH 10d-NAILS.
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.

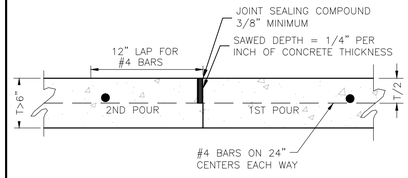
EXPANSION JOINT

NOT TO SCALE



TYPE A

FOR PAVEMENT THICKNESS 6" (OR AS SPECIFIED)

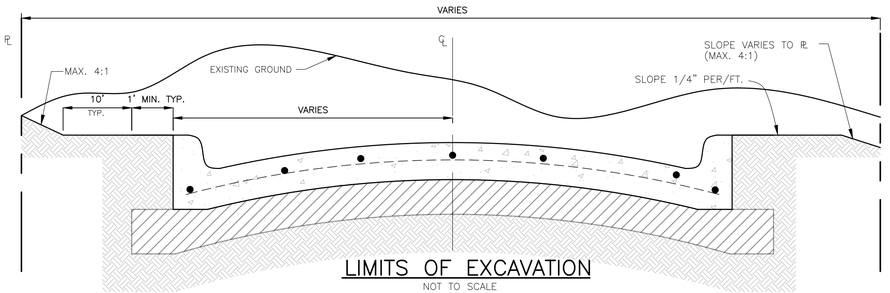


TYPE B

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

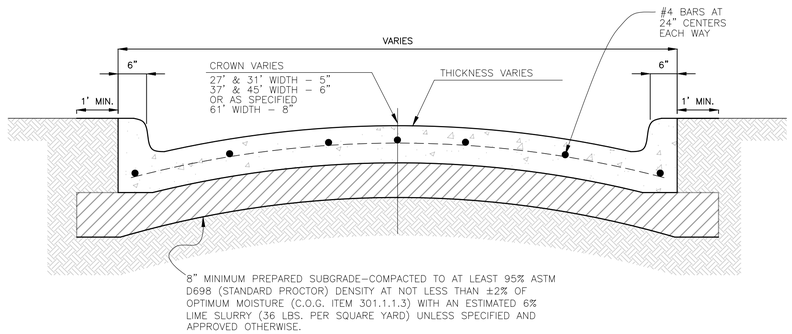
CONSTRUCTION JOINT

NOT TO SCALE



LIMITS OF EXCAVATION

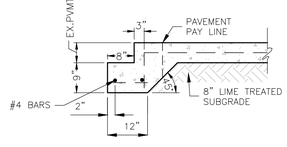
NOT TO SCALE



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

NOT TO SCALE

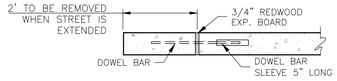
GRADATION: MINIMUM PASSING
#4 SIEVE 60% MINIMUM
PASSING 1" 100%



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

TYPE-A CONCRETE HEADER

NOT TO SCALE

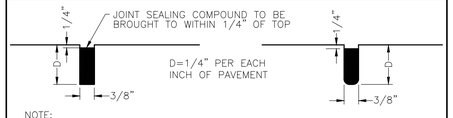


NOTE: TYPE-B HEADER TO BE USED FOR FUTURE STREET EXTENSION OR WHEN SPECIFIED ON PLANS TO BE USED.

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

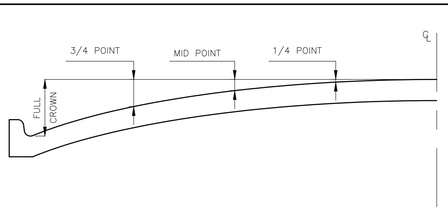
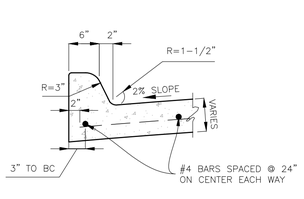


TABLE OF CROWN HEIGHTS AND ORDINATES FOR VARIOUS PARABOLIC STREET

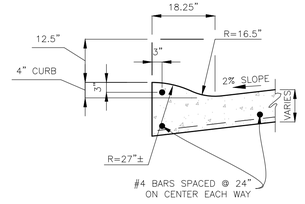
Street Width, BC to BC	Street Crown	Street Half Quarter Point		Street Half Mid Point		Street Half 3/4 Point	
(ft)	(in)	Offset from Centerline (ft)	Offset Down (in)	Offset from Centerline (ft)	Offset Down (in)	Offset from Centerline (ft)	Offset Down (in)
27	5	3.25	5/16	6.50	1 1/4	9.75	2 13/16
31	5	3.75	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)

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 COMPACTION AND SURFACES FREE OF HONEYCOMBS.

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.

No.		Description	Date
4	△		
3	△		
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.

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.		