Texas Department of Transportation®

DALLAS DISTRIC
DESIGN SCHEMATIC
MOHAMED K. BUR, P.E.
DISTRIC ENGINEER
COLLIN COUNTY

FM 428
ALTERNATIVE 1

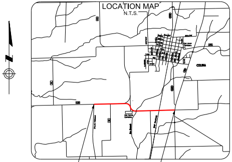
FROM: DALLAS PARKWAY TO
SH 289/PRESTON ROAD
CSJ: 2678-01-011

FUNCTIONAL CLASS: URBAN COLLECTOR

DESIGN SPEED: 45 MPH (FM 428, CR 52, CR 55)
30 MPH (CR 1117, GLEN CROSSING DR,
LOCAL STREETS)

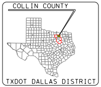
PROJECT LENGTH: 1.8 MILES

FEBRUARY 2022


LOCATION MAP
N.T.S.
CELINA

BEGIN PROJECT
CSJ: 2678-01-011
STA 300+57.50

END PROJECT
CSJ: 2678-01-011
STA 398+40.09


COLLIN COUNTY
TXDOT DALLAS DISTRICT

TEXAS COUNTY MAP
N.T.S.

PRELIMINARY

FOR INTERIM REVIEW ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

RYAN J. LAGSDING	113021	FEBRUARY 10, 2022
NAME	P.E. NO.	DATE

HNTB CORPORATION
TBPE FIRM #F-420

HNTB Corporation
The HNTB Companies
Engineers Architects Planners

0 100 200
HORIZONTAL
0 10 20
VERTICAL

DATE SUBMITTED:
DATE APPROVED:

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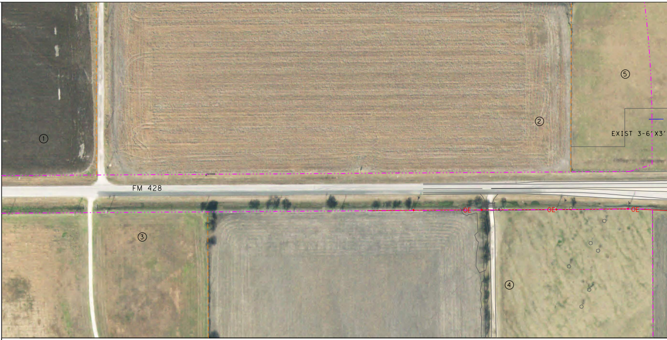
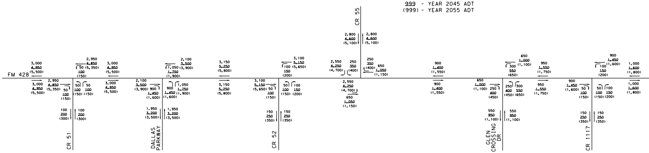
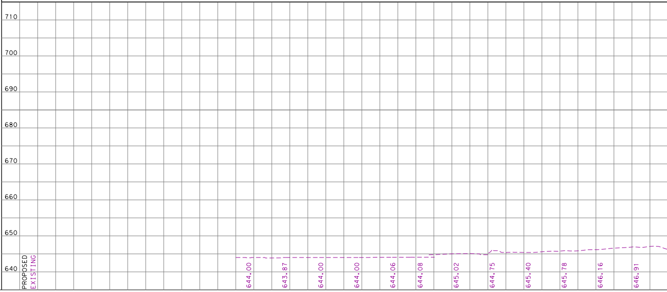
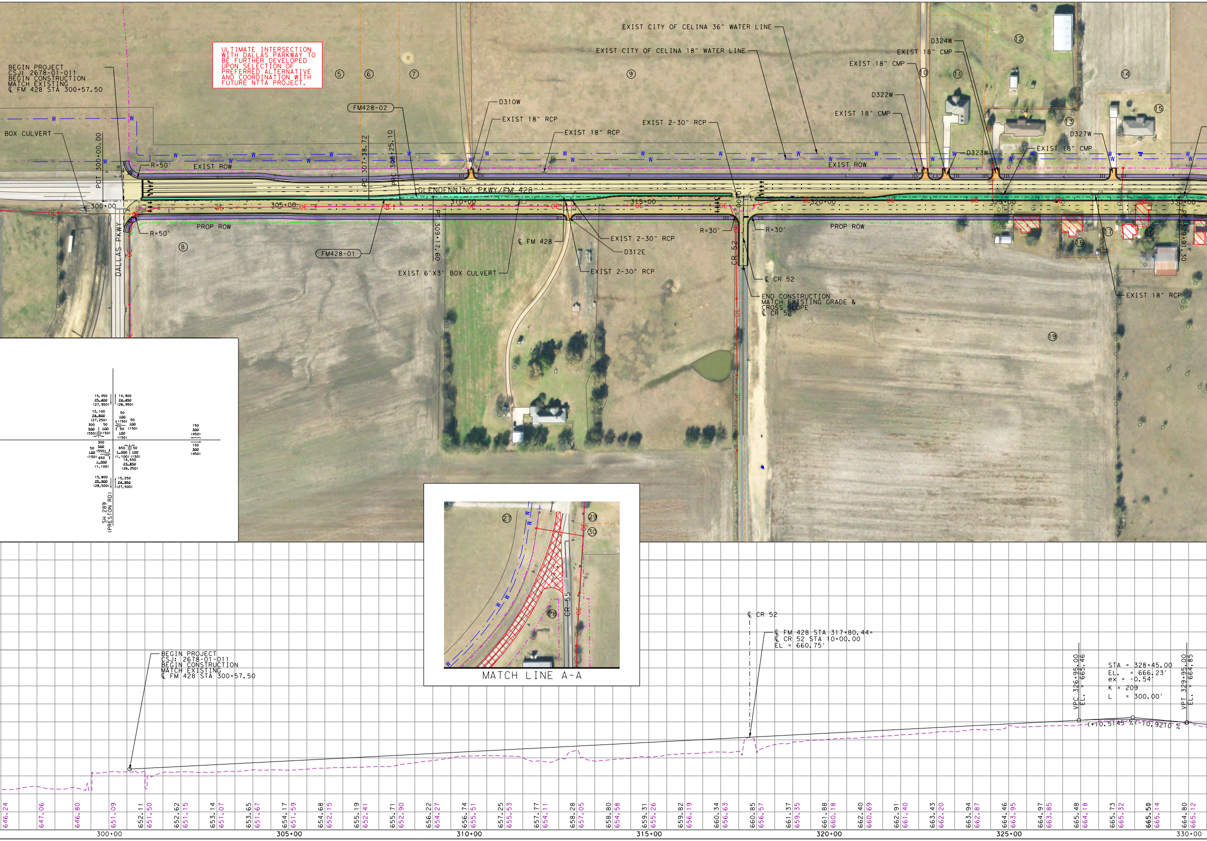
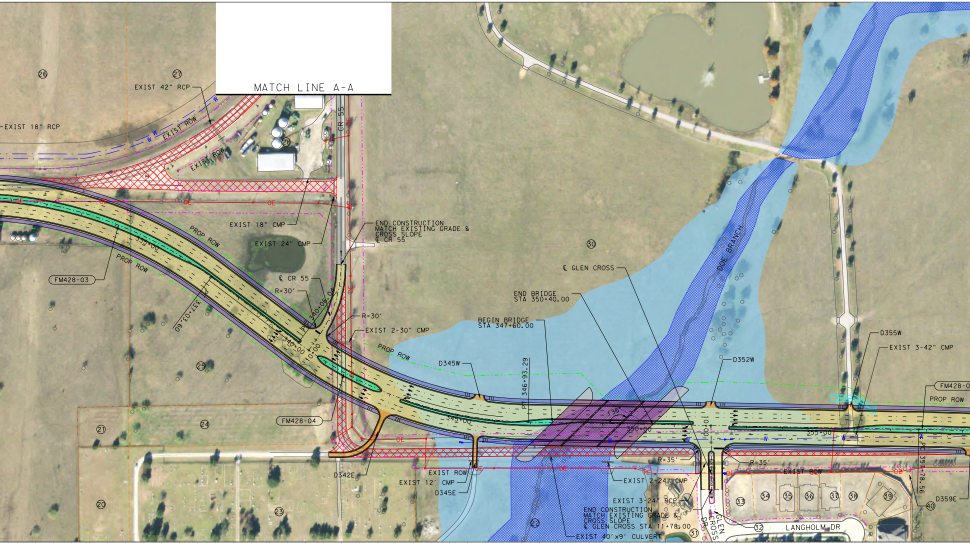

①
②
③
④
⑤
FM 428
EXIST 3-6' X3'
OE

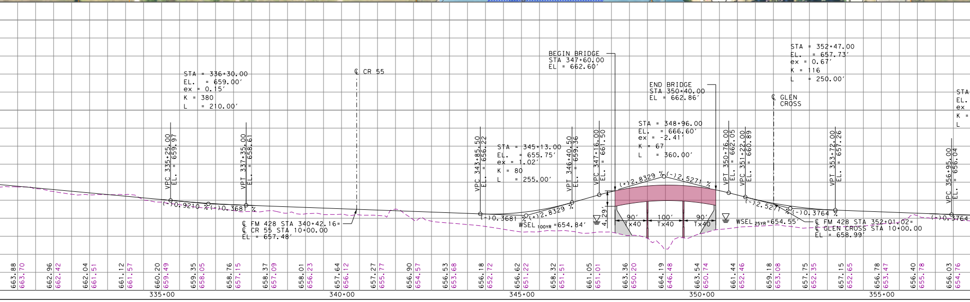
LEGEND:
999 - YEAR 2025 ADT
999 - YEAR 2045 ADT
(999) - YEAR 2055 ADT


FM 428
CR 51
DALLAS PARKWAY
CR 52
CR 55
GLEN CROSSING DR
CR 1117
3,000 4,950 (5,500)
2,950 4,850 (5,350)
50 100 (150)
100 200 (300)
2,100 3,500 (3,900)
1,050 1,750 (1,900)
900 1,450 (1,600)
1,950 3,200 (3,500)
3,150 5,250 (5,800)
3,100 5,150 (5,650)
100 150 (200)
150 250 (350)
2,800 4,600 (5,100)
2,550 4,250 (4,700)
250 350 (400)
650 1,050 (1,150)
900 1,400 (1,550)
650 1,000 (1,100)
300 550 (650)
250 400 (450)
550 950 (1,100)
950 1,550 (1,750)
900 1,450 (1,600)
1,000 1,600 (1,800)



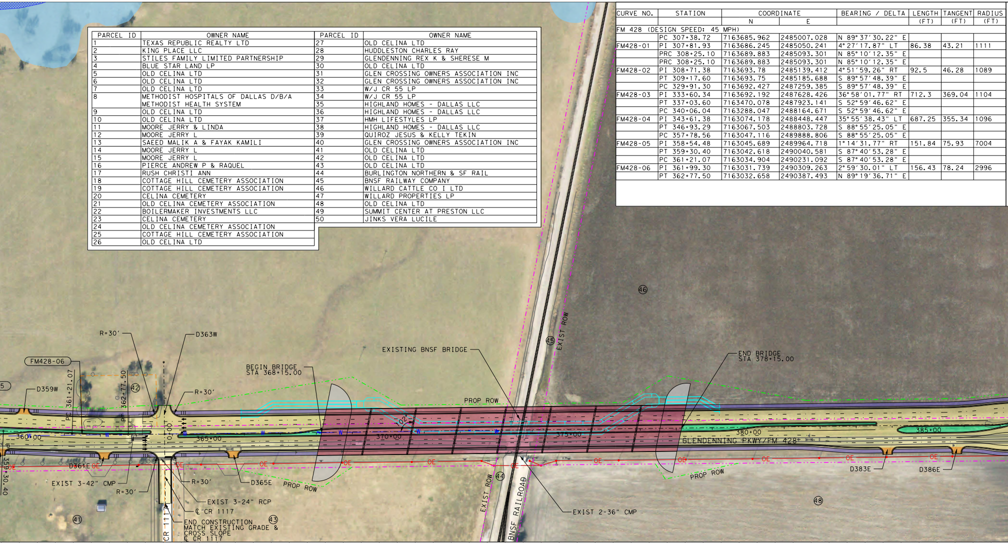

BEGIN PROJECT
CSJ: 2678-01-011
BEGIN CONSTRUCTION
MATCH EXISTING
℄ FM 428 STA 300+57.50
ULTIMATE INTERSECTION WITH DALLAS PARKWAY TO BE FURTHER DEVELOPED UPON SELECTION OF PREFERRED ALTERNATIVE AND COORDINATION WITH FUTURE NTTA PROJECT.
⑤
⑥
⑦
⑨
EXIST CITY OF CELINA 36" WATER LINE
EXIST CITY OF CELINA 18" WATER LINE
D324W
EXIST 18" CMP
EXIST 18" CMP
⑩
⑪
⑫
⑬
⑭
⑮
D322W
EXIST 18" CMP
D323W
D327W
EXIST 18" CMP
EXIST ROW
FM428-02
D310W
EXIST 18" RCP
EXIST 18" RCP
EXIST 2-30" RCP
BOX CULVERT
POT 300+00.00
PC 307+38.72
PRC 308+25.10
R=50'
EXIST ROW
GLENDENNING PKWY/FM 428
300+00
305+00
310+00
315+00
320+00
325+00
330+00
OE
W
R=50'
PROP ROW
⑧
DALLAS PKWY
FM428-01
PT 309+17.60
EXIST 6'X3' BOX CULVERT
℄ FM 428
EXIST 2-30" RCP
D312E
EXIST 2-30" RCP
R=30'
R=30'
CR 52
℄ CR 52
END CONSTRUCTION
MATCH EXISTING GRADE &
CROSS SLOPE
℄ CR 52
PROP ROW
⑯
⑰
⑱
⑲
EXIST 18" RCP
PT 329+91.30
15,450
25,400
(27,950)
14,900
24,450
(26,950)
15,100
24,800
(27,250)
300
500
(550)
50
100
(150)
50
100
(150)
50
100
(150)
50
100
(150)
150
300
(450)
150
300
(450)
300
500
(550)
50
100
(150)
650
1,000
(1,100)
650
1,000
(1,100)
50
100
(150)
14,550
23,850
(26,250)
15,800
25,900
(28,500)
15,250
24,950
(27,500)
SH 289
(PRESTON RD)
㉗
㉘
㉙
㉚
CR 55
OE
W
MATCH LINE A-A
BEGIN PROJECT
CSJ: 2678-01-011
BEGIN CONSTRUCTION
MATCH EXISTING
℄ FM 428 STA 300+57.50
℄ CR 52
℄ FM 428 STA 317+80.44=
℄ CR 52 STA 10+00.00
EL = 660.75'
VPC 326+95.00
EL. = 665.46
STA = 328+45.00
EL. = 666.23'
ex = -0.54'
K = 209
L = 300.00'
VPT 329+95.00
EL. = 664.85
(+)0.5145 %
(-)0.9210 %
646.24
647.06
646.80
651.09
652.11
651.50
652.62
651.15
653.14
651.07
653.65
651.67
654.17
651.59
654.68
652.15
655.19
652.41
655.71
652.90
656.22
654.27
656.74
655.51
657.25
655.53
657.77
654.11
658.28
657.05
658.80
654.58
659.31
655.26
659.82
656.19
660.34
656.63
660.85
656.57
661.37
659.35
661.88
660.18
662.40
660.69
662.91
661.40
663.43
662.20
663.94
662.87
664.46
663.95
664.97
663.85
665.48
664.18
665.73
665.32
665.50
665.14
664.80
665.12
300+00
305+00
310+00
315+00
320+00
325+00
330+00

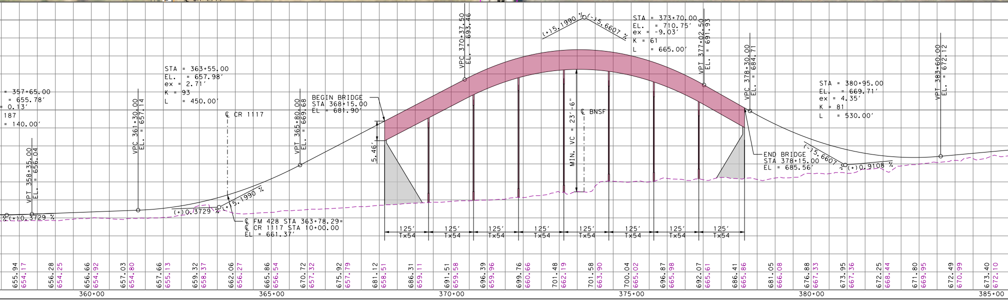

MATCH LINE A-A
26
27
28
25
24
21
20
23
22
30
31
32
33
34
35
36
37
38
39
40
EXIST 42" RCP
EXIST 18" RCP
W
EXIST ROW
EXIST ROW
OE
CR 55
EXIST 18" CMP
EXIST 24" CMP
END CONSTRUCTION
MATCH EXISTING GRADE &
CROSS SLOPE
℄ CR 55
PROP ROW
PROP ROW
335+00
FM428-03
337+03.60
℄ CR 55
R=30'
PT 340+06.04
R=30'
EXIST 2-30" CMP
340+00
10+00
PROP ROW
FM428-04
D342E
EXIST ROW
EXIST 12' CMP
D345E
D345W
345+00
PT 346+93.29
BEGIN BRIDGE
STA 347+60.00
END BRIDGE
STA 350+40.00
℄ GLEN CROSS
DOE BRANCH
135'
350+00
10+00
D352W
R=35'
R=35'
EXIST 2-24" CMP
EXIST 3-24" RCP
END CONSTRUCTION
MATCH EXISTING GRADE &
CROSS SLOPE
℄ GLEN CROSS STA 11+78.00
EXIST 40'x9' CULVERT
GLEN CROSS DR
LANGHOLM DR
EXIST ROW
355+00
D355W
EXIST 3-42" CMP
FM428-0
PROP ROW
PC 354+78.56
D359E


STA = 336+30.00
EL. = 659.00'
ex = 0.15'
K = 380
L = 210.00'
VPC 335+25.00
EL. = 659.97
VPT 337+35.00
EL. = 658.61
(-)0.9210 %
(-)0.368 %
℄ CR 55
℄ FM 428 STA 340+42.16=
℄ CR 55 STA 10+00.00
EL = 657.48'
VPC 343+85.50
EL. = 656.22
STA = 345+13.00
EL. = 655.75'
ex = 1.02'
K = 80
L = 255.00'
(-)0.3681 %
(+)2.8329 %
WSEL 100YR =654.84'
VPT 346+40.50
EL. = 659.36
VPC 347+16.00
EL. = 661.50
BEGIN BRIDGE
STA 347+60.00
EL = 662.60'
4.29'
END BRIDGE
STA 350+40.00
EL = 662.86'
STA = 348+96.00
EL. = 666.60'
ex = -2.41'
K = 67
L = 360.00'
(+)2.8329 %
(-)2.5271 %
90'
Tx40
100'
Tx40
90'
Tx40
WSEL 25YR =654.55'
VPT 350+76.00
EL. = 662.05
VPC 351+22.00
EL. = 660.89
(-)2.5271 %
℄ GLEN CROSS
℄ FM 428 STA 352+01.02=
℄ GLEN CROSS STA 10+00.00
EL = 658.99'
STA = 352+47.00
EL. = 657.73'
ex = 0.67'
K = 116
L = 250.00'
(-)0.3764 %
VPT 353+72.00
EL. = 657.26
VPC 356+95.00
EL. = 656.04
(-)0.3764
STA
EL.
ex
K =
L
663.88
663.70
662.96
662.42
662.04
661.51
661.12
661.57
660.20
659.49
659.35
658.05
658.76
657.15
658.37
657.09
658.01
656.23
657.64
656.12
657.27
655.77
656.90
654.57
656.53
653.68
656.18
652.72
656.62
651.22
658.32
651.51
661.05
651.01
663.36
650.20
664.19
646.48
663.54
650.74
661.44
652.46
659.18
653.08
657.75
652.35
657.15
652.65
656.78
653.47
656.40
655.78
656.03
654.76
335+00
340+00
345+00
350+00
355+00

PARCEL ID	OWNER NAME	PARCEL ID	OWNER NAME
1	TEXAS REPUBLIC REALTY LTD	27	OLD CELINA LTD
2	KING PLACE LLC	28	HUDDLESTON CHARLES RAY
3	STILES FAMILY LIMITED PARTNERSHIP	29	GLENDENNING REX K & SHERESE M
4	BLUE STAR LAND LP	30	OLD CELINA LTD
5	OLD CELINA LTD	31	GLEN CROSSING OWNERS ASSOCIATION INC
6	OLD CELINA LTD	32	GLEN CROSSING OWNERS ASSOCIATION INC
7	OLD CELINA LTD	33	W/J CR 55 LP
8	METHODIST HOSPITALS OF DALLAS D/B/A	34	W/J CR 55 LP
	METHODIST HEALTH SYSTEM	35	HIGHLAND HOMES - DALLAS LLC
9	OLD CELINA LTD	36	HIGHLAND HOMES - DALLAS LLC
10	OLD CELINA LTD	37	HMH LIFESTYLES LP
11	MOORE JERRY & LINDA	38	HIGHLAND HOMES - DALLAS LLC
12	MOORE JERRY L	39	QUIROZ JESUS & KELLY TEKIN
13	SAEED MALIK A & FAYAK KAMILI	40	GLEN CROSSING OWNERS ASSOCIATION INC
14	MOORE JERRY L	41	OLD CELINA LTD
15	MOORE JERRY L	42	OLD CELINA LTD
16	PIERCE ANDREW P & RAQUEL	43	OLD CELINA LTD
17	RUSH CHRISTI ANN	44	BURLINGTON NORTHERN & SF RAIL
18	COTTAGE HILL CEMETERY ASSOCIATION	45	BNSF RAILWAY COMPANY
19	COTTAGE HILL CEMETERY ASSOCIATION	46	WILLARD CATTLE CO I LTD
20	CELINA CEMETERY	47	WILLARD PROPERTIES LP
21	OLD CELINA CEMETERY ASSOCIATION	48	OLD CELINA LTD
22	BOILERMAKER INVESTMENTS LLC	49	SUMMIT CENTER AT PRESTON LLC
23	CELINA CEMETERY	50	JINKS VERA LUCILE
24	OLD CELINA CEMETERY ASSOCIATION		
25	COTTAGE HILL CEMETERY ASSOCIATION		
26	OLD CELINA LTD		

CURVE NO.	STATION	COORDINATE		BEARING / DELTA	LENGTH (FT)	TANGENT (FT)	RADIUS (FT)
		N	E				
FM 428 (DESIGN SPEED: 45 MPH)							
	PC 307+38.72	7163685.962	2485007.028	N 89° 37′ 30.22" E			
FM428-01	PI 307+81.93	7163686.245	2485050.241	4° 27′ 17.87" LT	86.38	43.21	1111
	PRC 308+25.10	7163689.883	2485093.301	N 85° 10′ 12.35" E			
	PRC 308+25.10	7163689.883	2485093.301	N 85° 10′ 12.35" E			
FM428-02	PI 308+71.38	7163693.78	2485139.412	4° 51′ 59.26" RT	92.5	46.28	1089
	PT 309+17.60	7163693.75	2485185.688	S 89° 57′ 48.39" E			
	PC 329+91.30	7163692.427	2487259.385	S 89° 57′ 48.39" E			
FM428-03	PI 333+60.34	7163692.192	2487628.426	36° 58′ 01.77" RT	712.3	369.04	1104
	PT 337+03.60	7163470.078	2487923.141	S 52° 59′ 46.62" E			
	PC 340+06.04	7163288.047	2488164.671	S 52° 59′ 46.62" E			
FM428-04	PI 343+61.38	7163074.178	2488448.447	35° 55′ 38.43" LT	687.25	355.34	1096
	PT 346+93.29	7163067.503	2488803.728	S 88° 55′ 25.05" E			
	PC 357+78.56	7163047.116	2489888.806	S 88° 55′ 25.05" E			
FM428-05	PI 358+54.48	7163045.689	2489964.718	1° 14′ 31.77" RT	151.84	75.93	7004
	PT 359+30.40	7163042.618	2490040.581	S 87° 40′ 53.28" E			
	PC 361+21.07	7163034.904	2490231.092	S 87° 40′ 53.28" E			
FM428-06	PI 361+99.30	7163031.739	2490309.263	2° 59′ 30.01" LT	156.43	78.24	2996
	PT 362+77.50	7163032.658	2490387.493	N 89° 19′ 36.71" E			


R=30′
D363W
FM428-06
D359W
PC 361+21.07
PT 362+77.50
42
R=30′
360+00
365+00
10+00
359+30.40
D361E
OE
EXIST 3-42" CMP
R=30′
R=30′
D365E
PROP ROW
EXIST 3-24" RCP
℄ CR 1117
END CONSTRUCTION
MATCH EXISTING GRADE &
CROSS SLOPE
℄ CR 1117
CR 1117
41
43
BEGIN BRIDGE
STA 368+15.00
EXISTING BNSF BRIDGE
PROP ROW
370+00
375+00
W
EXIST ROW
45
46
44
EXIST ROW
BNSF RAILROAD
EXIST 2-36" CMP
END BRIDGE
STA 378+15.00
380+00
385+00
GLENDENNING PKWY/FM 428
D383E
D386E
PROP ROW
48


= 357+65.00
= 655.78′
= 0.13′
187
= 140.00′
VPT 358+35.00
EL. = 656.04
(+)0.3729 %
VPC 361+30.00
EL. = 657.14
STA = 363+55.00
EL. = 657.98′
ex = 2.71′
K = 93
L = 450.00′
℄ CR 1117
(+)0.3729 %
(+)5.1990 %
℄ FM 428 STA 363+78.29=
℄ CR 1117 STA 10+00.00
EL = 661.37′
VPT 365+80.00
EL. = 669.68
BEGIN BRIDGE
STA 368+15.00
EL = 681.90′
5.46′
VPC 370+37.50
EL. = 693.46
(+)5.1990 %
(-)5.6607 %
STA = 373+70.00
EL. = 710.75′
ex = -9.03′
K = 61
L = 665.00′
MIN. VC = 23′-6"
℄ BNSF
VPT 377+02.50
EL. = 691.93
VPC 378+30.00
EL. = 684.71
125′ Tx54
125′ Tx54
125′ Tx54
125′ Tx54
125′ Tx54
125′ Tx54
125′ Tx54
125′ Tx54
END BRIDGE
STA 378+15.00
EL = 685.56′
(-)5.6607 %
(+)0.9108 %
STA = 380+95.00
EL. = 669.71′
ex = 4.35′
K = 81
L = 530.00′
VPT 383+60.00
EL. = 672.12
655.94 654.17
656.28 654.25
656.66 654.92
657.03 654.80
657.66 655.13
659.32 658.37
662.06 656.27
665.86 656.54
670.72 657.32
675.92 657.79
681.12 658.51
686.31 659.11
691.51 659.58
696.39 659.96
699.76 660.66
701.48 662.19
701.58 663.90
700.04 665.02
696.87 665.98
692.07 665.61
686.41 665.86
681.05 666.08
676.88 667.33
673.95 667.36
672.25 668.44
671.80 669.95
672.49 670.99
673.40 672.10
360+00
365+00
370+00
375+00
380+00
385+00

GENERAL NOTES:

1. FINAL LOCATION OF MEDIAN OPENINGS WILL BE DETERMINED IN THE PS&E DEVELOPMENT PHASE IN COORDINATION WITH TXDOT AND THE CITY OF CELINA.
2. DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR NOMINAL FACE OF CURB, RAIL, BARRIER, OR WALL.
3. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE RATE MAPS FIRM PANEL 48085C0120J, EFFECTIVE 06/02/2009.
4. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM COLLIN COUNTY APPRAISAL DISTRICT (APRIL, 2020).
5. ADA RAMPS AND SIDEWALKS ARE DIAGRAMMATIC ONLY AND WILL BE DESIGNED DURING PS&E.
6. BUILDINGS ARE SHOWN AS POTENTIAL DISPLACEMENT IF THE PROPOSED ROW PHYSICALLY INTERSECTS THE EXISTING BUILDING STRUCTURE.
7. CURBS ARE TYPE II (5").
8. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
9. TYPICAL DRIVEWAY CURB RETURN RADII IS 15 FEET UNLESS NOTED OTHERWISE.
10. STORAGE LENGTHS FOR DEDICATED TURN BAYS ARE DESIGNED IN COMPLIANCE WITH BOTH THE CITY OF CELINA ENGINEERING CONSTRUCTION DETAILS AND TXDOT ROADWAY DESIGN MANUAL.

LEGEND

🟨	PROPOSED PAVEMENT
🟩	PROPOSED MEDIAN
🟪	PROPOSED SIDEWALK
🟧	PROPOSED DRIVEWAY
🟥	PROPOSED BRIDGE
☐	PROPOSED RIP RAP
▨	POTENTIAL DISPLACEMENT
☒	PAVEMENT REMOVAL
— · — · —	PROPOSED CENTERLINE
— · · — · · —	EXISTING ROW
— — —	EXISTING PROPERTY LINE
— · · — · · —	PROPOSED ROW
——	PROPOSED DRAINAGE
🟦	FEMA FLOOD ZONE AE
▨	FEMA FLOODWAY SECTION
▬	BNSF
— OE —	EXISTING OVERHEAD ELECTRIC
— W —	EXISTING WATER LINE
→	TRAFFIC FLOW
(#)	PARCEL ID
(XXXX-X)	CURVE NUMBER

Texas Department of Transportation®

DALLAS DISTRIC
DESIGN SCHEMATIC
MOHAMED K. BUR, P.E.
DISTRIC ENGINEER
COLLIN COUNTY

FM 428
ALTERNATIVE 1

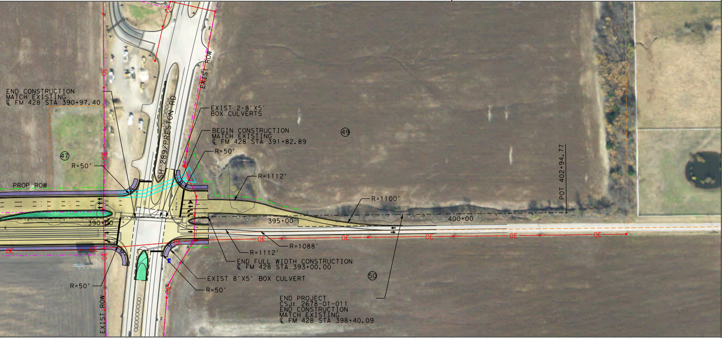
FROM: DALLAS PARKWAY TO
SH 289/PRESTON ROAD
CSJ: 2678-01-011

FUNCTIONAL CLASS: URBAN COLLECTOR

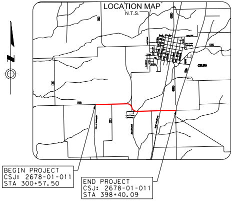
DESIGN SPEED: 45 MPH (FM 428, CR 52, CR 55)
30 MPH (CR 1117, GLEN CROSSING DR, LOCAL STREETS)

PROJECT LENGTH: 1.8 MILES

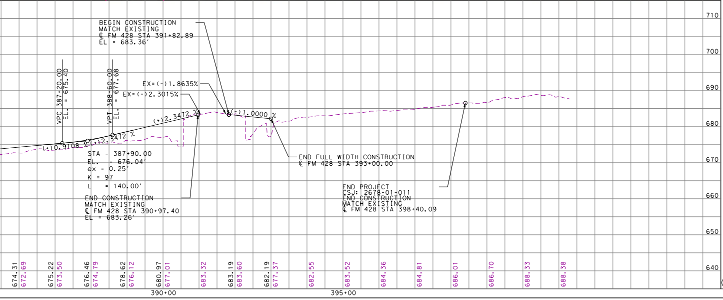
FEBRUARY 2022



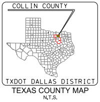
END CONSTRUCTION
MATCH EXISTING
℄ FM 428 STA 390+97.40
EXIST ROW
EXIST 2-8'X5' BOX CULVERTS
BEGIN CONSTRUCTION
MATCH EXISTING
℄ FM 428 STA 391+82.89
R=50'
SH 289/PRESTON RD
49
47
R=50'
R=1112'
POT 402+94.77
PROP ROW
R=1100'
390+00
395+00
400+00
OE
R=1088'
R=1112'
END FULL WIDTH CONSTRUCTION
℄ FM 428 STA 393+00.00
EXIST 8'X5' BOX CULVERT
50
R=50'
R=50'
END PROJECT
CSJ: 2678-01-011
END CONSTRUCTION
MATCH EXISTING
℄ FM 428 STA 398+40.09
EXIST ROW



LOCATION MAP
N.T.S.
CELINA
BEGIN PROJECT
CSJ: 2678-01-011
STA 300+57.50
END PROJECT
CSJ: 2678-01-011
STA 398+40.09



BEGIN CONSTRUCTION
MATCH EXISTING
℄ FM 428 STA 391+82.89
EL = 683.36'
VPC 387+20.00
EL. = 675.40
VPT 388+60.00
EL. = 677.68
EX=(-)1.8635%
EX=(-)2.3015%
(+)2.3472 %
(-)1.0000 %
(+)0.9108 %
(+)2.3472 %
STA = 387+90.00
EL. = 676.04'
ex = 0.25'
K = 97
L = 140.00'
END CONSTRUCTION
MATCH EXISTING
℄ FM 428 STA 390+97.40
EL = 683.26'
END FULL WIDTH CONSTRUCTION
℄ FM 428 STA 393+00.00
END PROJECT
CSJ: 2678-01-011
END CONSTRUCTION
MATCH EXISTING
℄ FM 428 STA 398+40.09
710
700
690
680
670
660
650
640
674.31
672.69
675.22
673.50
676.46
674.79
678.62
676.12
680.97
677.01
683.32
683.19
683.60
682.19
677.37
682.55
683.52
684.36
684.81
686.01
686.70
688.33
688.38
390+00
395+00



COLLIN COUNTY
TXDOT DALLAS DISTRICT
TEXAS COUNTY MAP
N.T.S.

PRELIMINARY

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NAME	P.E. NO.	DATE
RYAN J. LAGSDING	113021	FEBRUARY 10, 2022

HNTB CORPORATION
TBPE FIRM #F-420

HNTB Corporation
The HNTB Companies
Engineers Architects Planners

0 100 200
HORIZONTAL
0 10 20
VERTICAL

DATE SUBMITTED: ☐

DATE APPROVED: ☐

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