Texas Department of Transportation

© 2020 Texas Department of Transportation; all rights reserved

DALLAS DISTRICT

MOHAMED K. BUR, P.E.
DISTRICT ENGINEER

DESIGN SCHEMATIC SH 5

FROM: SOUTH OF FM 1378 TO: SOUTH OF CR 275

COLLIN COUNTY

FUNCTIONAL CLASSIFICATIONS	
URBAN PRINCIPAL ARTERIAL	SS 399 MAINLANE, SH 5 MAINLAINE, US 380 (W UNIVERSITY DR), RAMPS
URBAN MINOR ARTERIAL	FM 1378(COUNTRY CLUB RD), FM 546(HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD
URBAN COLLECTOR	FRISCO RD, STEWART RD, SS 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, E VIRGINIA ST, E LOUISIANA ST, TENNESSEE ST, N CHURCH ST, WILMETH RD
RURAL MAJOR COLLECTOR	SS 195 (WESTON RD)
URBAN/RURAL LOCAL	ALL OTHER STREETS

DESIGN SPEED	
60 MPH	SS 399 MAINLANE
40 MPH	SH 5 MAINLAINE, RAMPS, FM 1378 (COUNTRY CLUB RD), SPUR 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, FM 546 (HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD, US 380 (W UNIVERSITY DR), SS 195 (WESTON RD)
30 MPH	ALL OTHER STREETS

HORIZ. SCALE IN FEET
0 50 100 150 200
0 10 20 30 40
VERT. SCALE IN FEET

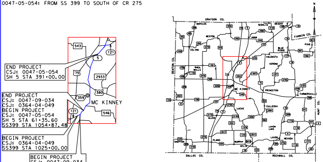
PROJECT LENGTH

7.21 MI

CSJ LIMITS

0047-09-034: FROM SOUTH OF FM 1378 TO SS 399
0364-04-049: SS 399 AT SH 5
0047-05-054: FROM SS 399 TO SOUTH OF CR 275

BASIS OF DESIGN: TxDOT ROADWAY DESIGN MANUAL 2018
EQUATIONS: NONE
RAILROADS: NONE
DESIGN EXCEPTIONS:
DESIGN SPEED AT TWO LOCATIONS


END PROJECT
CSJ: 0047-05-054
SH 5 STA 391+00.00
END PROJECT
CSJ: 0047-09-034
CSJ: 0364-04-049
BEGIN PROJECT
CSJ: 0047-05-054
SH 5 STA 61+35.60
SS399 STA 1054+87.48
BEGIN PROJECT
CSJ: 0364-04-049
SS399 STA 1025+00.00
BEGIN PROJECT
CSJ: 0047-09-034
SH 5 STA 10+28.73
543
121
5
75
2933
380
359
546
MC KINNEY
GRAYSON CO.
FANNIN CO.
DENTON CO.
HUNT CO.
DALLAS CO.
ROCKWALL CO.
WESTON
CELINA
ANNA
MELISSA
PRINCETON
FARMERSVILLE
LUCAS
WYLIE
ALLEN
PLANO
MURPHY
PARKER
LAVON
NEVADA
JOSEPHINE
MC KINNEY
N

LOCATION MAP: NTS

APRIL 3, 2020

INDEX OF ROLLS

ROLL 1 OF 10 PLAN & PROFILE SH 5 STA 10+28.73 TO STA 45+00 &
STA 70+33.69 TO STA 95+00
ROLL 2 OF 10 PLAN & PROFILE SH 5 STA 45+00 TO STA 70+33.69
ROLL 3 OF 10 PLAN & PROFILE SH 5 & SPUR 399 FRONTAGE ROADS
ROLL 4 OF 10 PLAN & PROFILE SH 5 STA 95+00 TO STA 150+00
ROLL 5 OF 10 PLAN & PROFILE SH 5 STA 150+00 TO STA 205+00
ROLL 6 OF 10 PLAN & PROFILE SH 5 STA 205+00 TO STA 260+00
ROLL 7 OF 10 PLAN & PROFILE SH 5 STA 260+00 TO STA 316+00
ROLL 8 OF 10 PLAN & PROFILE SH 5 STA 316+00 TO STA 369+00
ROLL 9 OF 10 PLAN & PROFILE SH 5 STA 369+00 TO STA END PROJ
ROLL 10 OF 10 PROFILE CROSS STREETS

PRELIMINARY
FOR INTERIM REVIEW ONLY.
NOT FOR PERMITTING, BIDDING,
OR CONSTRUCTION.
Prepared by or under the
Direct Supervision of
CAREN D. CHAMBERS P.E. 99772
4/3/2020

Michael Baker
INTERNATIONAL

1501 LBJ Freeway,
Suite 650,
Dallas, TX 75234
TBPE Registration No. F-2677

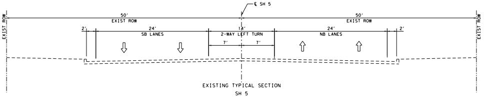
PLAN & PROFILE
SH 5
STA 205+00 TO STA 260+00

ROLL 6 OF 10 ROLLS

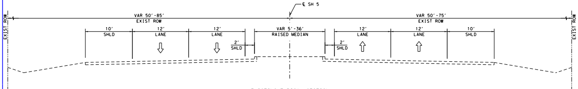
DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
BAKER	6	XX (XX) XXXX		S-006
DRAWN BY:	STATE	DIST.	COUNTY	
BAKER	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
BAKER	0047	05	054, etc.	SH 5

TIME: 11:40:35 PM
PEN TABLE - SH5•TxDOT•McKinney•Schematic.tbl

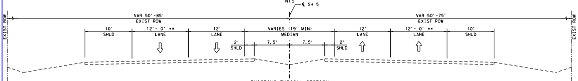
DATE: 4/3/2020
FILE: ...\5RPP00•S106.dgn
ROLLPLOT - V8i•BAKER•WIN•CO•PDF.pltcfg


℄ SH 5
EXIST ROW
50'
EXIST ROW
2'
24'
SB LANES
14'
2-WAY LEFT TURN
7'
7'
24'
NB LANES
50'
EXIST ROW
2'

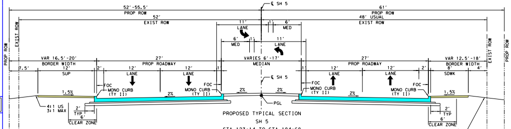
EXISTING TYPICAL SECTION
SH 5
STA 123+18 TO STA 232+41
NTS


℄ SH 5
EXIST ROW
VAR 50'-85'
EXIST ROW
10'
SHLD
12'
LANE
12'
LANE
2'
SHLD
VAR 5'-36'
RAISED MEDIAN
2'
SHLD
12'
LANE
12'
LANE
10'
SHLD
VAR 50'-75'
EXIST ROW

EXISTING TYPICAL SECTION
SH 5
STA 232+41 TO STA 254+15
NTS

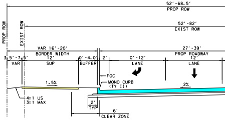

℄ SH 5
EXIST ROW
VAR 50'-85'
EXIST ROW
10'
SHLD
12'-0' **
LANE
12'
LANE
2'
SHLD
VARIES (19' MIN)
MEDIAN
7.5'
7.5'
2'
SHLD
12'
LANE
12'-0' **
LANE
10'
SHLD
VAR 50'-75'
EXIST ROW

EXISTING TYPICAL SECTION
SH 5
STA 254+15 TO STA 260+00
**TRANSITION: STA 254+22 TO 260+00
NTS


℄ SH 5
PROP ROW
EXIST ROW
52'-55.5'
PROP ROW
52'
EXIST ROW
VAR 16.5'-20'
BORDER WIDTH
7.5'
12'
SUP
27'
PROP ROADWAY
2'
12'
LANE
12'
LANE
1'
FOC
MONO CURB
(TY II)
1.5%
2%
4:1 US
3:1 MAX
2'
TYP
6'
CLEAR ZONE
11'
LANE
1'
6'
MED
6'
MED
1'
11'
LANE
VARIES 6'-17'
MEDIAN
℄ SH 5
2%
2%
PGL
61'
PROP ROW
48' USUAL
EXIST ROW
27'
PROP ROADWAY
1'
12'
LANE
12'
LANE
2'
FOC
MONO CURB
(TY II)
VAR 12.5'-18'
BORDER WIDTH
8'
SDWK
4'
1.5%
2'
TYP
6'
CLEAR ZONE
4:1 US
3:1 MAX
EXIST ROW
PROP ROW

1. SEE PLAN VIEW AND TURN LANE DETAIL TABLE FOR LOCATIONS OF TURN LANES
2. CROSS SLOPES SHOWN ARE USUAL. SEE CROSS SLOPE TRANSITION TABLE FOR MORE DETAIL.

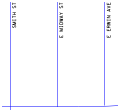
PROPOSED TYPICAL SECTION
SH 5
STA 123+14 TO STA 184+68
STA 186+70 TO STA 229+62
NTS


PROP ROW
EXIST ROW
52'-68.5'
PROP ROW
52'-82'
EXIST ROW
VAR 16'-20'
BORDER WIDTH
3.5'-7.5'
VAR
12'
SUP
0'-4.0'
BUFFER
2'
27'-39'
PROP ROADWAY
0'-12'
LANE
12'
LANE
FOC
MONO CURB
(TY II)
1.5%
2%
4:1 US
3:1 MAX
2'
TYP
6'
CLEAR ZONE

1. SEE PLAN VIEW AND TURN LANE DETAIL TABLE FOR LOCATIONS OF TURN LANES
2. CROSS SLOPES SHOWN ARE USUAL. SEE CROSS SLOPE TRANSITION TABLE FOR MORE

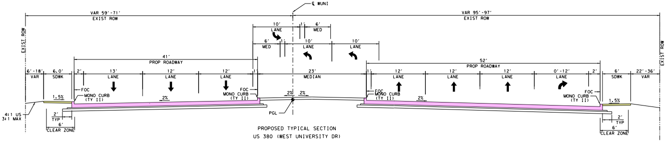
LEGEND:

● SIGNALIZED INTERSECTION
XXX 2025 ADT
XXX 2045 ADT
XXX 2055 ADT

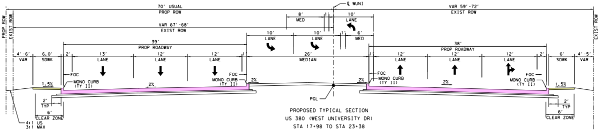

SMITH ST
E MIDWAY ST
E ERWIN AVE

SOURCE OF DATA: TxDOT TP

CHAIN NAME	CURVE NAME	P.I. STATION
℄ SH5	CLSH5-14	214+64.42
℄ SH5	CLSH5-15	239+36.33
℄ SH5	CLSH5-16	252+02.25
℄ NTEN	CLNTEN-1	15+76.64
℄ MLNB	BLMLNB-1	17+11.49
℄ MLNB	BLMLNB-2	19+79.30

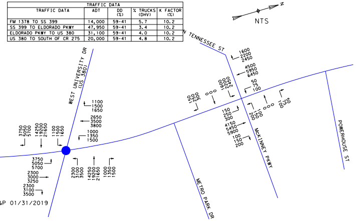

℄ WUNI
VAR 59'-71'
EXIST ROW
EXIST ROW
6'-18'
VAR
6.0'
SDWK
2'
41'
PROP ROADWAY
13'
LANE
12'
LANE
12'
LANE
1'
FOC
MONO CURB
(TY II)
1.5%
2%
4:1 US
3:1 MAX
2'
TYP
6'
CLEAR ZONE
10'
LANE
1'
6'
MED
6'
MED
10'
LANE
10'
LANE
23'
MEDIAN
2%
2%
PGL
VAR 95'-97'
EXIST ROW
52'
PROP ROADWAY
12'
LANE
12'
LANE
12'
LANE
0'-12'
LANE
2'
FOC
MONO CURB
(TY II)
2%
6'
SDWK
22'-36'
VAR
1.5%
2'
TYP
6'
CLEAR ZONE
EXIST ROW

PROPOSED TYPICAL SECTION
US 380 (WEST UNIVERSITY DR)
STA 11+82 TO STA 16+82
NTS


℄ WUNI
PROP ROW
EXIST ROW
70' USUAL
PROP ROW
VAR 67'-68'
EXIST ROW
39'
PROP ROADWAY
4'-6'
VAR
6.0'
SDWK
2'
13'
LANE
12'
LANE
12'
LANE
1'
FOC
MONO CURB
(TY II)
1.5%
2%
2'
TYP
6'
CLEAR ZONE
4:1 US
3:1 MAX
8'
MED
10'
LANE
6'
MED
10'
LANE
10'
LANE
26'
MEDIAN
2%
2%
PGL
VAR 59'-72'
EXIST ROW
38'
PROP ROADWAY
12'
LANE
12'
LANE
12'
LANE
2'
FOC
MONO CURB
(TY II)
2%
6'
SDWK
4'-5'
VAR
1.5%
2'
TYP
6'
CLEAR ZONE
EXIST ROW

PROPOSED TYPICAL SECTION
US 380 (WEST UNIVERSITY DR)
STA 17+98 TO STA 23+38
NTS

TRAFFIC DATA	ADT	DD (%)	% TRUCKS (DHV)	K FACTOR (%)
FM 1378 TO SS 399	14,000	59-41	5.7	10.2
SS 399 TO ELDORADO PKWY	47,950	59-41	3.4	10.2
ELDORADO PKWY TO US 380	31,100	59-41	4.0	10.2
US 380 TO SOUTH OF CR 275	20,000	59-41	4.8	10.2

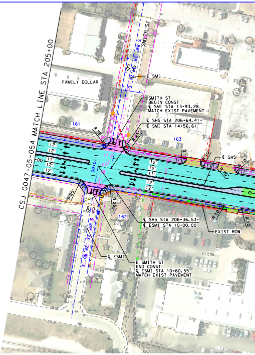

NTS
N
N TENNESSEE ST
WEST UNIVERSITY DR (US 380)
McKINNEY PKWY
METRO PARK DR
POWERHOUSE ST
1600 2200 2450
4500 5950 6450
50 75 100
1100 1500 1650
2650 3500 3800
1000 1350 1500
3750 5050 5700
2300 3000 3250
2300 3100 3500
2300 3100 3500
14250 19200 21650
1000 1350 1500
150 250 300
4150 5450 5900
100 150 200
1500 200
50 75 100
&P 01/31/2019

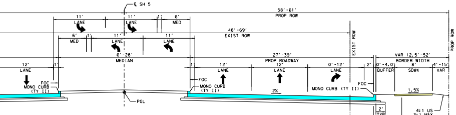
HORIZONTAL ALIGNMENT DATA

P.I. EASTING	P.I. NORTHING	RADIUS	DELTA	LENGTH	TANGENT	P.C. STATION	P.T. STATION
2,546,377.67	7,127,803.28	5,731.58′	9° 59′ 00.00″ LT	998.68′	500.61′	209+63.81	219+62.49
2,545,974.61	7,130,244.67	2,866.80′	1° 51′ 33.89″ LT	93.04′	46.52′	238+89.81	239+82.84
2,545,727.99	7,131,486.34	5,730.00′	11° 37′ 26.77″ RT	1,162.50′	583.25′	246+19.00	257+81.49
2,545,604.84	7,130,910.08	350.00′	63° 15′ 03.58″ RT	386.38′	215.54′	13+61.10	17+47.48
2,545,911.71	7,130,671.72	2,837.00′	1° 51′ 33.89″ LT	92.07′	46.04′	16+65.45	17+57.52
2,545,859.53	7,130,934.41	5,706.50′	0° 31′ 18.38″ RT	51.97′	25.98′	19+53.31	20+05.28

COLOR LEGEND

🟦	PROPOSED MAINLANES
🟧	PROPOSED BRIDGE
🟨	PROPOSED DRIVEWAY
🟪	PROPOSED CROSS STREET
🟫	PROPOSED RAMP
🟦	PROPOSED SIDEWALK AND PAVED MEDIAN
🟩	PROPOSED LANDSCAPED MEDIAN
🟧	FUTURE BY OTHERS
⬛	EXISTING BRIDGE TO REMAIN
🟦	100 YEAR FLOOD PLAIN
🟪	EXISTING PAVEMENT (BY OTHERS)
▨	EXISTING PAVEMENT TO BE REMOVED
☒	POTENTIAL STRUCTURE DISPLACEMENT
— · —	CENTERLINE/BASELINE (CROSS STREETS)
— · —	CENTERLINE (MAINLANE)
— · —	PROPOSED ROW
— —	CITY LIMITS
— · —	EXISTING ROW
——	PROPERTY LINES
—‖—	CONTROL OF ACCESS
┴┴┴┴	PROPOSED RETAINING WALL
——	PROPOSED SSCB
— —	PROPOSED COMBINATION RAIL
←	PROPOSED TRAFFIC FLOW
⇦	EXISTING TRAFFIC FLOW
←	WATER FLOW
(XXXXX-XX)	HORIZONTAL CURVE NAME
XXX	PROPERTY ID NUMBER
▭	EXISTING DRAINAGE STRUCTURES
▭	PROPOSED DRAINAGE STRUCTURES
╪	PROPOSED SIGNALIZED INTERSECTION


CSJ 0047-05-054 MATCH LINE STA 205+00
FAMILY DOLLAR
SMITH ST
℄ SMI
SMITH ST
BEGIN CONST
℄ SMI STA 13+93.28
MATCH EXIST PAVEMENT
℄ SH5 STA 206+64.41=
℄ SMI STA 14+56.61
161
163
162
12′
11′
R 25′
R 10′
℄ SH5
℄ SH5 STA 206+36.53=
℄ ESMI STA 10+00.00
EXIST ROW
℄ ESMI
E SMITH ST
END CONST
℄ ESMI STA 10+60.55
MATCH EXIST PAVEMENT

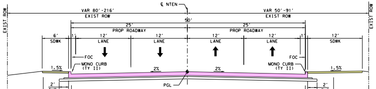

℄ SH 5
58′-61′
PROP ROW
48′-69′
EXIST ROW
EXIST ROW
PROP ROW
11′ LANE
11′ LANE
6′ MED
6′ MED
11′ LANE
11′ LANE
6′-28′ MEDIAN
12′ LANE
27′-39′ PROP ROADWAY
12′ LANE
12′ LANE
0′-12′ LANE
2′
0′-4.0′ BUFFER
VAR 12.5′-52′ BORDER WIDTH
8′ SDWK
4′-15′ VAR
FOC
MONO CURB (TY II)
FOC
MONO CURB (TY II)
MONO CURB (TY II)
FOC
2%
1.5%
PGL
2′ TYP
6′ CLEAR ZONE
4:1 US
3:1 MAX

PROPOSED TYPICAL SECTION
SH 5
STA 229+62 TO STA 238+88
NTS

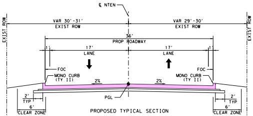
DETAIL.

NOTES:

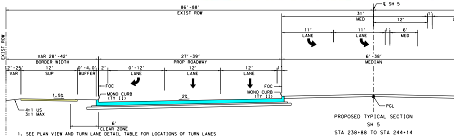
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB, RAIL, UNLESS OTHERWISE NOTED.
2. MEDIAN OPENINGS WERE DETERMINED IN COORDINATION WITH LOCAL GOVERNMENT. FINAL LOCATION OF MEDIAN OPENINGS WILL BE DETERMINED IN THE PS&E DEVELOPMENT PHASE IN COORDINATION WITH THE LOCAL GOVERNMENT.
3. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL UNLESS OTHERWISE NOTED.
4. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE RATE MAP 48085C020J (REV JUNE 7, 2017) AND 48085C0290J (REV JUNE 2, 20009) FOR WILSON CREEK, 48085C0165J (REV JUNE 2, 2009) AND 48085C0280J (REV JUNE 2, 2009) FOR EAST FORK TRINITY RIVER.
5. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM COLLIN COUNTY APPRAISAL DISTRICT OCTOBER 2017.
6. EXISTING CULVERT LOCATION, SIZE, AND ELEVATIONS OBTAINED FROM RECORD DOCUMENTS OR TOPOGRAPHIC SURVEY AND ARE SHOWN FOR INFORMATION PURPOSES ONLY.
7. ADA RAMPS ARE NOT DEPICTED IN THE PLAN.
8. FINAL DRIVEWAY LOCATIONS SHALL BE DETERMINED DURING DETAILED DESIGN IN COORDINATION WITH THE CITY OF McKINNEY.
9. ALL PRIVATE DRIVEWAYS HAVE CURB RADII OF 15FT, UNLESS OTHERWISE NOTED.
10. EXIST TOPO AND AERIAL PHOTOS PROVIDED BY TxDOT.
11. EXIST ROW SHOWN PROVIDED BY TxDOT.
12. PARCEL BOUNDARY LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE.
13. BUILDINGS ARE SHOWN AS POTENTIAL DISPLACEMENT IF THE PROPOSED ROW PHYSICALLY INTERSECTS THE EXISTING BUILDING STRUCTURE.
14. CURBS ON MAINLANES, FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (MONO), UNLESS OTHERWISE SHOWN.
15. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
16. ALL HORIZONTAL COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF 1983 (NAD 83), 2011 ADJUSTMENT, 2010.00 EPOCH. SURFACE DISTANCES AND COORDINATES MAY BE CONVERTED TO GRID BY DIVIDING BY A COMBINED ADJUSTMENT FACTOR OF 1.000152710.
17. ALL COORDINATES AND ELEVATIONS ARE IN U.S. SURVEY FEET.
18. VERTICAL VALUES WERE DETERMINED BY THE TxDOT REAL TIME GPS NETWORK (RTN) (NAD 83 (2011, MA11, PA11) EPOCH 2010.00) WITH THE GEOID12A APPLIED.
19. DRIVEWAYS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO REVIEW, ADJUSTMENT AND/OR CONSOLIDATION BASED ON CORRIDOR ACCESS MANAGEMENT.


℄ NTEN
VAR 80′-216′
EXIST ROW
VAR 50′-91′
EXIST ROW
EXIST ROW
EXIST ROW
50′
25′ PROP ROADWAY
25′ PROP ROADWAY
6′ SDWK
12′ LANE
12′ LANE
12′ LANE
12′ LANE
12′ SDWK
FOC
MONO CURB (TY II)
FOC
MONO CURB (TY II)
1.5%
2%
2%
1.5%
PGL
2′ TYP
6′ CLEAR ZONE
2′ TYP
6′ CLEAR ZONE

PROPOSED TYPICAL SECTION
N TENNESSEE ST
STA 11+21 TO STA 17+15
NTS

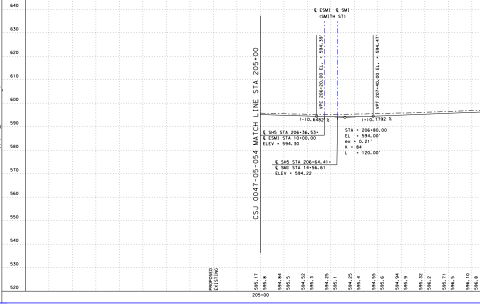

℄ NTEN
VAR 30′-31′
EXIST ROW
VAR 29′-30′
EXIST ROW
EXIST ROW
EXIST ROW
36′
PROP ROADWAY
17′ LANE
17′ LANE
FOC
MONO CURB (TY II)
FOC
MONO CURB (TY II)
2%
2%
PGL
2′ TYP
6′ CLEAR ZONE
2′ TYP
6′ CLEAR ZONE

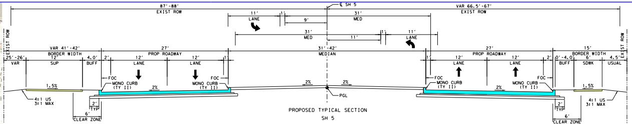
PROPOSED TYPICAL SECTION
N TENNESSEE ST
STA 18+15 TO STA 19+40
NTS


℄ SH 5
86′-88′
EXIST ROW
EXIST ROW
31′ MED
12′
11′ LANE
11′ LANE
6′ MED
VAR 28′-42′ BORDER WIDTH
27′-39′ PROP ROADWAY
6′-38′ MEDIAN
2′-25′ VAR
12′ SUP
0′-4.0′ BUFFER
2′
0′-12′ LANE
12′ LANE
12′ LANE
FOC
MONO CURB (TY II)
FOC
MONO CURB (TY II)
1.5%
2%
PGL
4:1 US
3:1 MAX
6′ CLEAR ZONE

1. SEE PLAN VIEW AND TURN LANE DETAIL TABLE FOR LOCATIONS OF TURN LANES
2. CROSS SLOPES SHOWN ARE USUAL. SEE CROSS SLOPE TRANSITION TABLE FOR MORE DETAIL.

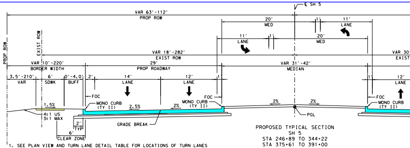
PROPOSED TYPICAL SECTION
SH 5
STA 238+88 TO STA 244+14
NTS




87'-88'
EXIST ROW
℄ SH 5
VAR 66.5'-67'
EXIST ROW
11'
LANE
1'
9'
31'
MED
31'
MED
11'
1'
11'
LANE
EXIST ROW
EXIST ROW
VAR 41'-42'
BORDER WIDTH
25'-26'
VAR
12'
SUP
4.0'
BUFF
2'
27'
PROP ROADWAY
12'
LANE
12'
LANE
1'
31'-42'
MEDIAN
1'
27'
PROP ROADWAY
12'
LANE
12'
LANE
2'
15'
BORDER WIDTH
0'-4.0'
BUFF
6'
SDWK
4.5'
USUAL
FOC
MONO CURB
(TY II)
FOC
MONO CURB
(TY II)
1.5%
2%
2%
2%
2%
1.5%
4:1 US
3:1 MAX
2'
TYP
6'
CLEAR ZONE
PGL
FOC
MONO CURB
(TY II)
FOC
MONO CURB
(TY II)
2'
TYP
6'
CLEAR ZONE
4:1 US
3:1 MAX

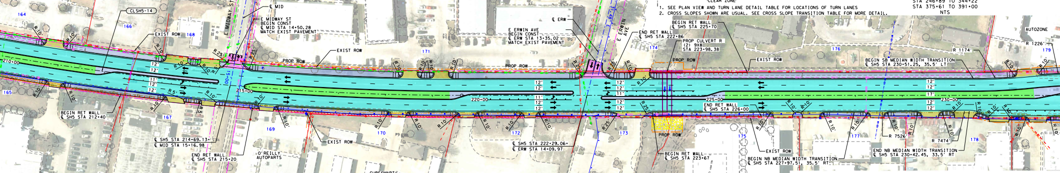
PROPOSED TYPICAL SECTION
SH 5
STA 244+14 TO 246+89
NTS

1. SEE PLAN VIEW AND TURN LANE DETAIL TABLE FOR LOCATIONS OF TURN LANES
2. CROSS SLOPES SHOWN ARE USUAL. SEE CROSS SLOPE TRANSITION TABLE FOR MORE DETAIL.


℄ SH 5
VAR 63'-112'
PROP ROW
20'
MED
1'
11'
LANE
11'
LANE
1'
20'
MED
PROP ROW
EXIST ROW
VAR 18'-282'
EXIST ROW
VAR 30
EXIST
VAR 10'-220'
BORDER WIDTH
29'
PROP ROADWAY
VAR 31'-42'
MEDIAN
3.5'-210'
VAR
6'
SDWK
0'-4.0'
BUFF
2'
14'
LANE
12'
LANE
1'
1'
12'
LANE
FOC
MONO CURB
(TY II)
2.5%
2%
FOC
MONO CURB
(TY II)
2%
2%
FOC
MONO CURB
(TY II)
1.5%
4:1 US
3:1 MAX
2'
TYP
6'
CLEAR ZONE
GRADE BREAK
PGL

PROPOSED TYPICAL SECTION
SH 5
STA 246+89 TO 344+22
STA 375+61 TO 391+00
NTS

1. SEE PLAN VIEW AND TURN LANE DETAIL TABLE FOR LOCATIONS OF TURN LANES
2. CROSS SLOPES SHOWN ARE USUAL. SEE CROSS SLOPE TRANSITION TABLE FOR MORE DETAIL.

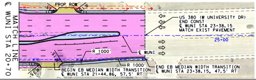

164
166
CLSH5-14
EXIST ROW
168
℄ MID
E MIDWAY ST
E MIDWAY ST
BEGIN CONST
℄ MID STA 14+50.28
MATCH EXIST PAVEMENT
EXIST ROW
PROP ROW
171
210+00
215+00
220+00
225+00
230+00
165
BEGIN RET WALL
℄ SH5 STA 212+40
167
169
℄ SH5 STA 214+69.13=
℄ MID STA 15+16.98
END RET WALL
℄ SH5 STA 215+20
EXIST ROW
O'REILLY
AUTOPARTS
CUBESMART
SELF STORAGE
170
172
℄ SH5 STA 222+29.06=
℄ ERW STA 14+09.97
E ERWIN AVE
BEGIN CONST
℄ ERW STA 13+35.02
MATCH EXIST PAVEMENT
℄ ERW
E ERWIN AVE
END RET WALL
℄ SH5 STA 222+86
PROP CULVERT R
(2) 9X8
STA 223+98.38
BEGIN RET WALL
℄ SH5 STA 225+70
PROP ROW
EXIST ROW
PROP ROW
173
174
175
176
177
178
179
END RET WALL
℄ SH5 STA 226+00
PROP ROW
BEGIN RET WALL
℄ SH5 STA 223+67
EXIST ROW
BEGIN NB MEDIAN WIDTH TRANSITION
℄ SH5 STA 227+97.51, 35.5' RT
END NB MEDIAN WIDTH TRANSITION
℄ SH5 STA 230+42.45, 33.5' RT
BEGIN SB MEDIAN WIDTH TRANSITION
℄ SH5 STA 230+51.25, 35.5' LT
AUTOZONE
R 1174'
R 1226'
R 7526'
R 7474'
R 10'
R 25'
R 5'
12'
11'
17'

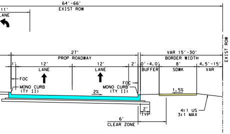
CROSS SLOPE TRANSITION DATA

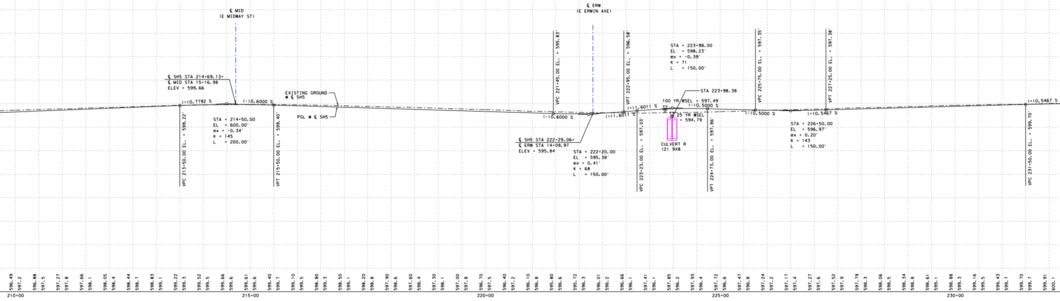
ALIGNMENT	STA	SB OUTSIDE LANE	SB INSIDE LANE	NB OUTSIDE LANE	NB INSIDE LANE
SH5		SLOPE	SLOPE	SLOPE	SLOPE
END TRANSITION	116+15.00	2.0%	2.0%	-2.0%	-2.0%
BEG TRANSITION	247+25.00	2.0%	N/A	-2.0%	N/A
END TRANSITION	247+45.00	2.5%	N/A	-2.5%	N/A

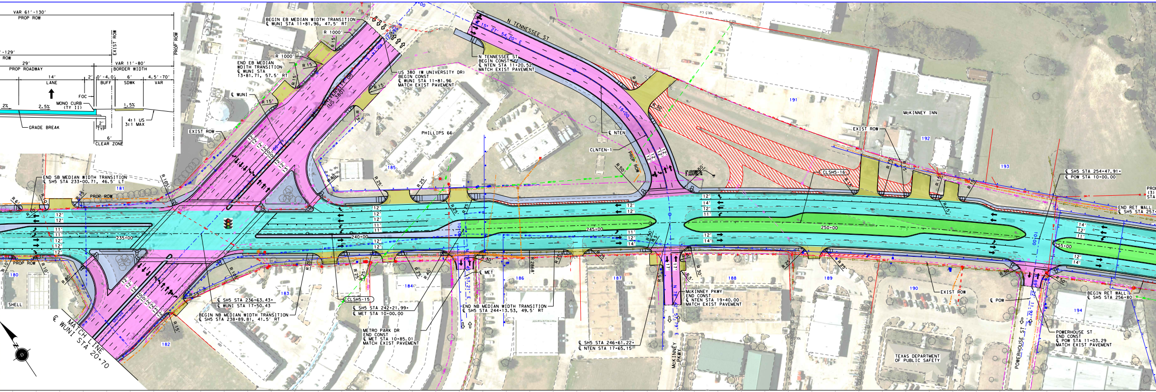
NOTES: SB OUTSIDE LANE ROTATES ABOUT SB GRADE BREAK POINT
NB OUTSIDE LANE ROTATES ABOUT NB GRADE BREAK POINT
SB INSIDE LANE AND NB INSIDE LANE ROTATE ABOUT PGL

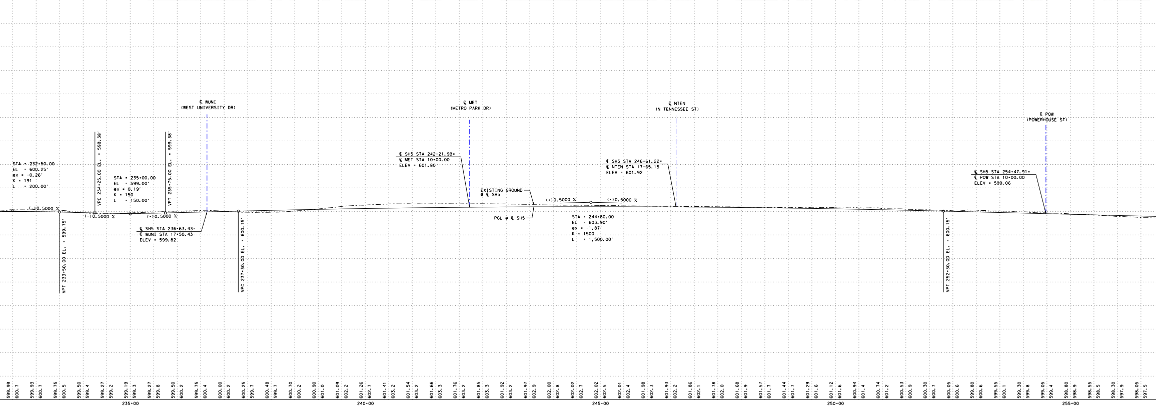
CROSS SLOPE SIGN INDICATION
(-) (+)
(+) (-)

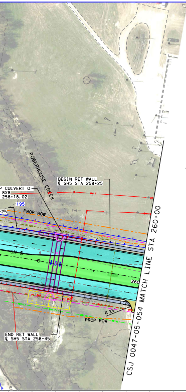

℄ WUNI
MATCH LINE
STA 20+70
PROP ROW
US 380 (W UNIVERSITY DR)
END CONST
℄ WUNI STA 23+38.15
MATCH EXIST PAVEMENT
25+00
R 1000'
℄ WUNI
R 1000'
END EB MEDIAN WIDTH TRANSITION
℄ WUNI STA 23+38.15, 47.5' RT
BEGIN EB MEDIAN WIDTH TRANSITION
℄ WUNI STA 21+44.86, 57.5' RT


64'-66'
EXIST ROW
11'
LANE
EXIST ROW
27'
PROP ROADWAY
1'
12'
LANE
12'
LANE
2'
VAR 15'-30'
BORDER WIDTH
0'-4.0'
BUFFER
8'
SDWK
4.5'-15'
VAR
FOC
MONO CURB
(TY II)
FOC
MONO CURB
(TY II)
2%
1.5%
2'
TYP
6'
CLEAR ZONE
4:1 US
3:1 MAX




VAR 61'-130'
PROP ROW
'-129'
ROW
29'
PROP ROADWAY
EXIST ROW
PROP ROW
VAR 11'-80'
BORDER WIDTH
14'
LANE
2'
0'-4.0'
BUFF
6'
SDWK
4.5'-70'
VAR
FOC
MONO CURB (TY II)
2%
2.5%
1.5%
GRADE BREAK
2'
TYP
4:1 US
3:1 MAX
6'
CLEAR ZONE
BEGIN EB MEDIAN WIDTH TRANSITION
℄ WUNI STA 11+81.96, 47.5' RT
R 1000'
END EB MEDIAN WDITH TRANSITION
℄ WUNI STA 13+81.71, 57.5' RT
R 15'
℄ WUNI
EXIST ROW
WEST UNIVERSITY DR
(US 380)
US 380 (W UNIVERSITY DR)
BEGIN CONST
℄ WUNI STA 11+81.96
MATCH EXIST PAVEMENT
N TENNESSEE ST
N 15° 27' 54.20" E
N TENNESSEE ST
BEGIN CONST
℄ NTEN STA 11+20.52
MATCH EXIST PAVEMENT
PHILLIPS 66
℄ NTEN
CLNTEN-1
PROP ROW
15+00
R 30'
R 50'
R 25'
R 80'
R 105'
R 6'
R 10'
R 5'
R 40'
R 2868'
12'
11'
10'
13'
14'
17'
191
McKINNEY INN
EXIST ROW
192
193
CLSH5-16
℄ SH5 STA 254+47.91=
℄ POW STA 10+00.00
PROP
(3)
STA
END RET WALL
℄ SH5 STA 257+
END SB MEDIAN WIDTH TRANSITION
℄ SH5 STA 233+00.71, 46.5' LT
181
PROP ROW
235+00
240+00
245+00
250+00
255+00
10+00
20+00
180
PROP ROW
SHELL
182
183
MATCH LINE
℄ WUNI STA 20+70
℄ SH5 STA 236+63.43=
℄ WUNI STA 17+50.43
BEGIN NB MEDIAN WIDTH TRANSITION
℄ SH5 STA 238+89.81, 41.5' RT
CLSH5-15
℄ SH5 STA 242+21.99=
℄ MET STA 10+00.00
184
METRO PARK DR
END CONST
℄ MET STA 10+85.01
MATCH EXIST PAVEMENT
℄ MET
N 45° 57.21" E
END NB MEDIAN WIDTH TRANSITION
℄ SH5 STA 244+13.53, 49.5' RT
186
187
℄ SH5 STA 246+61.22=
℄ NTEN STA 17+65.15
N 78° 42' 57.79" E
McKINNEY PKWY
END CONST
℄ NTEN STA 19+40.00
MATCH EXIST PAVEMENT
McKINNEY PKWY
188
189
190
EXIST ROW
TEXAS DEPARTMENT OF PUBLIC SAFETY
℄ POW
POWERHOUSE ST
N 89° 22' 11.92" E
POWERHOUSE ST
END CONST
℄ POW STA 11+03.29
MATCH EXIST PAVEMENT
BEGIN RET WALL
℄ SH5 STA 256+80
194
N





POWERHOUSE CREEK
BEGIN RET WALL
℄ SH5 STA 259+25
CULVERT O
8X8
258+18.02
195
PROP ROW
SH 5
260
R 25
PROP ROW
END RET WALL
℄ SH5 STA 258+45
CSJ 0047-05-054 MATCH LINE STA 260+00

UTILITY LEGEND

	POWER POLE
	POLE RISER
J	ELECTRIC JUNCTION BOX
	ELECTRIC PULL BOX
M	ELECTRIC METER
	ELECTRIC PED
T	TELEPHONE MANHOLE
	TELEPHONE PED
JB	TELEPHONE JUNCTION BOX
HH	TELEPHONE HAND HOLE
GV	GAS VALVE
GM	GAS METER
WW	WASTE WATER MANHOLE
W	WATER MANHOLE
WM	WATER METER
⋈	WATER VALVE
T	WATER CAP
	FIRE HYDRANT
SD	STORM MANHOLE
	STORM INLET
FH	FIBER OPTICS HAND HOLE
	STORM GRATE INLET
	HEAD WALL

UTILITY LEGEND

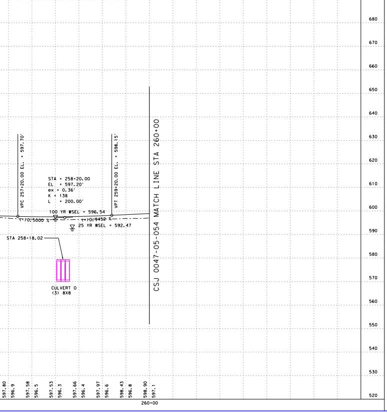
WATER	W1	CITY OF MCKINNEY WATER
WATER	W1 (C)	CITY OF MCKINNEY WATER
WATER	W1 (D)	CITY OF MCKINNEY WATER
WATER	W2 (C)	NORTH TEXAS MUNICIPAL WATER DISTRICT
WATER	W3 (D)	CITY OF IRVING WATER
WATER	W4	NORTH COLLINS WATER SUPPLY
WATER	W4 (C)	NORTH COLLINS WATER SUPPLY
WATER	W4 (D)	NORTH COLLINS WATER SUPPLY
WASTE WATER	WW1	CITY OF MCKINNEY WASTE WATER
WASTE WATER	WW1 (C)	CITY OF MCKINNEY WASTE WATER
WASTE WATER	WW1 (D)	CITY OF MCKINNEY WASTER WATER
STORM DRAIN	SD	CITY OF MCKINNEY STORM
STORM DRAIN	SD (C)	CITY OF MCKINNEY STORM
STORM DRAIN	SD(D)	CITY OF MCKINNEY STORM
ELECTRIC BURIED	E1	ONCOR
OVERHEAD ELECTRIC	OH	ONCOR
OVERHEAD ELECTRIC,TELEPHONE	OH-T	ONCOR, AT&T
OVERHEAD ELECTRIC,COAX	OH1	ONCOR, TIME WARNER CABLE
OVERHEAD ELECTRIC,FIBER,COAX	OH2	ONCOR, AT&T, TIME WARNER CABLE
OH ELECTRIC,FIBER,TELEPHONE,COAX	OH3	ONCOR, AT&T, TIME WARNER CABLE
OVERHEAD ELECTRIC,FIBER	OH4	ONCOR, AT&T
OVERHEAD TELEPHONE, COAX	OH5	AT&T,TIME WARNER CABLE
ELECTRIC BURIED		TRAFFIC SIGNAL TXDOT
TELEPHONE	T1	AT&T
TELEPHONE	T1 (D)	AT&T
OVERHEAD TELEPHONE	T1 OH	AT&T
TELEPHONE DUCT	T-DUCT1	AT&T
SUPPORT STRAND		AT&T
GAS	G1	ATMOS
GAS	G1 (C)	ATMOS
GAS	G1 (D)	ATMOS
FIBER	FOC1	AT&T
FIBER	FOC1 (D)	AT&T
FIBER DUCT	DUCT2	AT&T
FIBER	FOC3	ZAYO
FIBER	FOC4	CITY OF IRVING COMMUNICATIONS
CABLE	CATV	TIME WARNER CABLE

* LINE SIZES ARE FROM BEST AVAIABLE RECORDS

PROPERTY OWNERS

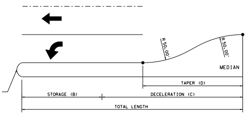
SOURCE:
COLLIN COUNTY APPRAISAL DISTRICT
JULY 2019

ID#	SITE ADDRESS	OWNER	BUSINESS NAME
161	617 N MCDONALD ST	GENNEXT LLC	FAMILY DOLLAR
162	501 SMITH ST	DIANE M ROGERS - LE	
163	701 N MCDONALD ST	SUPER B CAR WASH INC	SUPER B CAR WASH
164	801 N MCDONALD ST	REALEINS PROPERTIES LTD	MCKINNEY PLAZA SHOPPING CENTER
165	708 N MCDONALD ST	JOHN H RATTAN	THE BODY SHOP
166	823 N MCDONALD ST	COLLIN CO HEALTH CARE FND	COLLIN COUNTY GOVERNMENT
167	800 N MCDONALD ST	MCKINNEY ISD	MCKINNEY ISD
168	727 N MCDONALD ST	MARTIN EAGLE OIL CO INC	QUICK TRACK
169	806 N MCDONALD ST	RI CK2 LLC	OREILLY AUTO PARTS
170	812 N MCDONALD ST	CUBESMART LP	CUBESMART
171	901 N MCDONALD ST	AE MCDONALD LLC & AE BODEGA LLC & AE MELISSA LLC	MCDONALD BUSINESS PLAZA
172	814 N MCDONALD ST	NAUGHTY PINES PROPERTIES LTD	BINFORD SUPPLY
173	902 N MCDONALD ST	DG STRATEGIC II LLC	DOLLAR GENERAL
174	411 E ERWIN AVE	WEBB PARTNERS LTD	THUNDER HARLEY REPAIR
175	310 E UNIVERSITY DR	HISUN MOTORS CORP USA	HISUN MOTORS
176	MCKINNEY, TX	CITY OF MCKINNEY	
177	1028 N MCDONALD ST	ACIS PROPERTIES LLC	ACIS INNOVATIVE SOLUTIONS
178	1030 N MCDONALD ST	MEEKS UNLIMITED LLC	GOODYEAR
179	1035 N MCDONALD ST	AUTOZONE INC	AUTOZONE
180	1034 N MCDONALD ST	BASTIAN FUEL LLC	SHELL
181	1220 N TENNESSEE ST	SOUTHERN FOODS GROUP L P	SOUTHWEST ICE CREAM SPECIALTIES
182	E UNIVERSITY DR	AMERCO REAL ESTATE COMPANY	
183	1330 N MCDONALD ST	MCKINNEY CROSSING LLC	MCKINNEY JUNCTION
184	1400 N MCDONALD ST	AMERCO REAL ESTATE COMPANY	COLLIN COUNTY MINI STORAGE
185	215 E UNIVERSITY DR	SILVERSTONE DEVELOPMENT LTD	380 PLACE IN MCKINNEY
186	1404 N MCDONALD ST	DONALD M MOTSENBOCKER	USDA SERVICE CENTER
187	404 MCKINNEY PKWY	DONALD M MOTSENBOCKER	
188	1406 N MCDONALD PKWY	DONALD M MOTSENBOCKER	MCKINNEY BUSINESS CENTER
189	1410 N MCDONALD ST	MCKINNEY 19 LLC	BLUELINE RENTAL
190	400 POWER HOUSE ST	STATE OF TEXAS	TEXAS DEPARTMENT OF PUBLIC SAFETY
191	1425 N TENNESSEE ST	DONALD M & MOTSENBOCKER	ACTION COMPANY
192	1431 N TENNESSEE ST	HUNUMAN MCKINNEY LLC	MCKINNEY INN
193	N MCDONALD ST	DONALD M MOTSENBOCKER	
194	401 POWER HOUSE ST	SILVER CREEK LAND HOLDINGS LTD	POWERHOUSE BUSINESS CENTER
195	1513 N MCDONALD ST	ONCOR ELECTRIC DELIVERY COMPANY	ONCOR



COLOR LEGEND

🟦	PROPOSED MAINLANES
🟧	PROPOSED BRIDGE
🟨	PROPOSED DRIVEWAY
🟪	PROPOSED CROSS STREET
🟫	PROPOSED RAMP
🟦	PROPOSED SIDEWALK AND PAVED MEDIAN
🟩	PROPOSED LANDSCAPED MEDIAN
🟧	FUTURE BY OTHERS
⬛	EXISTING BRIDGE TO REMAIN
🟦	100 YEAR FLOOD PLAIN
🟪	EXISTING PAVEMENT (BY OTHERS)
▨	EXISTING PAVEMENT TO BE REMOVED
☒	POTENTIAL STRUCTURE DISPLACEMENT
-·-·-	CENTERLINE/BASELINE (CROSS STREETS)
-·-·-	CENTERLINE (MAINLANE)
-·-·-	PROPOSED ROW
—-—-	CITY LIMITS
-·-·-	EXISTING ROW
——	PROPERTY LINES
—‖—	CONTROL OF ACCESS
┴┴┴	PROPOSED RETAINING WALL
—═—	PROPOSED SSCB
------	PROPOSED COMBINATION RAIL
←	PROPOSED TRAFFIC FLOW
⇦	EXISTING TRAFFIC FLOW
←	WATER FLOW
(XXXXX-XX)	HORIZONTAL CURVE NAME
XXX	PROPERTY ID NUMBER
╫	EXISTING DRAINAGE STRUCTURES
╫	PROPOSED DRAINAGE STRUCTURES
	PROPOSED SIGNALIZED INTERSECTION



R 50.00'
R 50.00'
MEDIAN
TAPER (D)
SEPARATOR (A)
STORAGE (B)
DECELERATION (C)
TOTAL LENGTH

TURN LANE DETAIL

TURN LANE DETAIL TABLE

CROSS STREET	MEDIAN NOSE STA @ SH 5	MEDIAN NOSE RADIUS (FT)	STORAGE (FT)	DECELERATION (FT)	TAPER (FT)	TOTAL LENGTH (FT)	L/R	SB/NB
		(A)	(B)	(C)	(D)			
SMITH ST	206+16.53	3	100	160	50	260	L	NB
SMITH ST	206+84.45	3	100	160	50	260	L	SB
E MIDWAY ST	214+43.31	3	100	160	50	260	L	NB
E ERWIN AVE	221+99.58	3	100	160	50	260	L	NB
E ERWIN AVE	222+59.58	3	100	160	50	260	L	SB
W UNIVERSITY DR*	N/A	N/A	100	275	120	375	R	NB
W UNIVERSITY DR*	N/A	N/A	100	275	50	375	R	SB
W UNIVERSITY DR*	235+58.71	3	100	275	120	375	L	NB
W UNIVERSITY DR*	237+78.99	3	160	275	70	435	L	SB
N TENNESSEE ST	246+31.23	3	100	275	50	375	L	NB
N TENNESSEE ST	N/A	N/A	405	275	50	680	R	SB
N TENNESSEE ST	246+91.22	3	100	175	50	275	L	SB
POWERHOUSE ST	254+17.91	3	100	275	50	375	L	NB
POWERHOUSE ST	254+77.91	3	100	275	100	375	L	SB

* SIGNALIZED INTERSETION

Texas Department of Transportation
© 2020 Texas Department of Transportation; all rights reserved

DALLAS DISTRICT

MOHAMED K. BUR, P.E.
DISTRICT ENGINEER

DESIGN SCHEMATIC SH 5

FROM: SOUTH OF FM 1378 TO: SOUTH OF CR 275

COLLIN COUNTY

FUNCTIONAL CLASSIFICATIONS	
URBAN PRINCIPAL ARTERIAL	SS 399 MAINLANE, SH 5 MAINLAINE, US 380 (W UNIVERSITY DR), RAMPS
URBAN MINOR ARTERIAL	FM 1378(COUNTRY CLUB RD), FM 546(HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD
URBAN COLLECTOR	FRISCO RD, STEWART RD, SS 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, E VIRGINIA ST, E LOUISIANA ST, TENNESSEE ST, N CHURCH ST, WILMETH RD
RURAL MAJOR COLLECTOR	SS 195 (WESTON RD)
URBAN/RURAL LOCAL	ALL OTHER STREETS

DESIGN SPEED	
60 MPH	SS 399 MAINLANE
40 MPH	SH 5 MAINLAINE, RAMPS, FM 1378 (COUNTRY CLUB RD), SPUR 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, FM 546 (HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD, US 380 (W UNIVERSITY DR), SS 195 (WESTON RD)
30 MPH	ALL OTHER STREETS

HORIZ. SCALE IN FEET: 1" = 100'
0 50 100 150 200
0 10 20 30 40
VERT. SCALE IN FEET: 1" = 20'

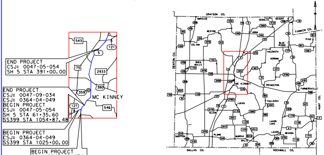
PROJECT LENGTH

7.21 MI

CSJ LIMITS

0047-09-034: FROM SOUTH OF FM 1378 TO SS 399
0364-04-049: SS 399 AT SH 5
0047-05-054: FROM SS 399 TO SOUTH OF CR 275

BASIS OF DESIGN: TxDOT ROADWAY DESIGN MANUAL 2018
EQUATIONS: NONE
RAILROADS: NONE
DESIGN EXCEPTIONS:
DESIGN SPEED AT TWO LOCATIONS



543
121
5
75
2933
380
359
MC KINNEY
121
546
GRAYSON CO.
FANNIN CO.
DALLAS CO.
ROCKWALL CO.
N

END PROJECT
CSJ: 0047-05-054
SH 5 STA 391+00.00

END PROJECT
CSJ: 0047-09-034
CSJ: 0364-04-049
BEGIN PROJECT
CSJ: 0047-05-054
SH 5 STA 61+35.60
SS399 STA 1054+87.48

BEGIN PROJECT
CSJ: 0364-04-049
SS399 STA 1025+00.00

BEGIN PROJECT
CSJ: 0047-09-034
SH 5 STA 10+28.73

LOCATION MAP: NTS

PRELIMINARY
FOR INTERIM REVIEW ONLY.
NOT FOR PERMITTING, BIDDING, OR CONSTRUCTION.
Prepared by or under the Direct Supervision of
CAREN D. CHAMBERS P.E. 99772
4/3/2020

APRIL 3, 2020

INDEX OF ROLLS

ROLL 1 OF 10 PLAN & PROFILE SH 5 STA 10+28.73 TO STA 45+00 & STA 70+33.69 TO STA 95+00
ROLL 2 OF 10 PLAN & PROFILE SH 5 STA 45+00 TO STA 70+33.69
ROLL 3 OF 10 PLAN & PROFILE SH 5 & SPUR 399 FRONTAGE ROADS
ROLL 4 OF 10 PLAN & PROFILE SH 5 STA 95+00 TO STA 150+00
ROLL 5 OF 10 PLAN & PROFILE SH 5 STA 150+00 TO STA 205+00
ROLL 6 OF 10 PLAN & PROFILE SH 5 STA 205+00 TO STA 260+00
ROLL 7 OF 10 PLAN & PROFILE SH 5 STA 260+00 TO STA 316+00
ROLL 8 OF 10 PLAN & PROFILE SH 5 STA 316+00 TO STA 369+00
ROLL 9 OF 10 PLAN & PROFILE SH 5 STA 369+00 TO STA END PROJ
ROLL 10 OF 10 PROFILE RAMPS AND CROSS STREETS

Michael Baker
INTERNATIONAL
1501 LBJ Freeway,
Suite 650,
Dallas, TX 75234
TBPE Registration No. F-2677

PLAN & PROFILE

SH 5

STA 205+00 TO STA 260+00

ROLL 6 OF 10 ROLLS

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
BAKER	6	XX (XX) XXXX		S-006
DRAWN BY:	STATE	DIST.	COUNTY	
BAKER	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
BAKER	0047	05	054, etc	SH 5

FILE: ...\SRPP00-S106.dgn