Texas Department of Transportation
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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 MAINLANE, 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

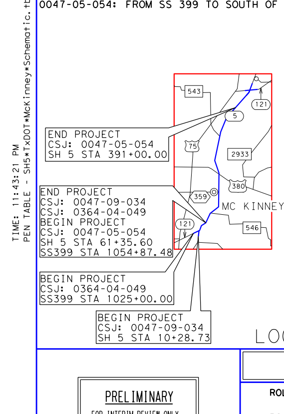
DESIGN SPEED	
60 MPH	SS 399 MAINLANE
40 MPH	SH 5 MAINLANE, RAMPS, FM 1378 (COUNTRY CLUB RD), SPUR 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, FM 546 (HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD, US 380 (W UNIVERSITY DR), SS 195 (WESTON RD)
30 MPH	ALL OTHER STREETS

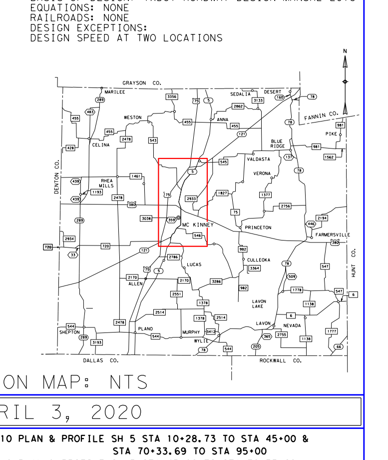
HORIZ. SCALE IN FEET 0 50 100 150 200
VERT. SCALE IN FEET 0 10 20 30 40

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

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





LOCATION MAP: NTS

APRIL 3, 2020

PRELIMINARY
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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
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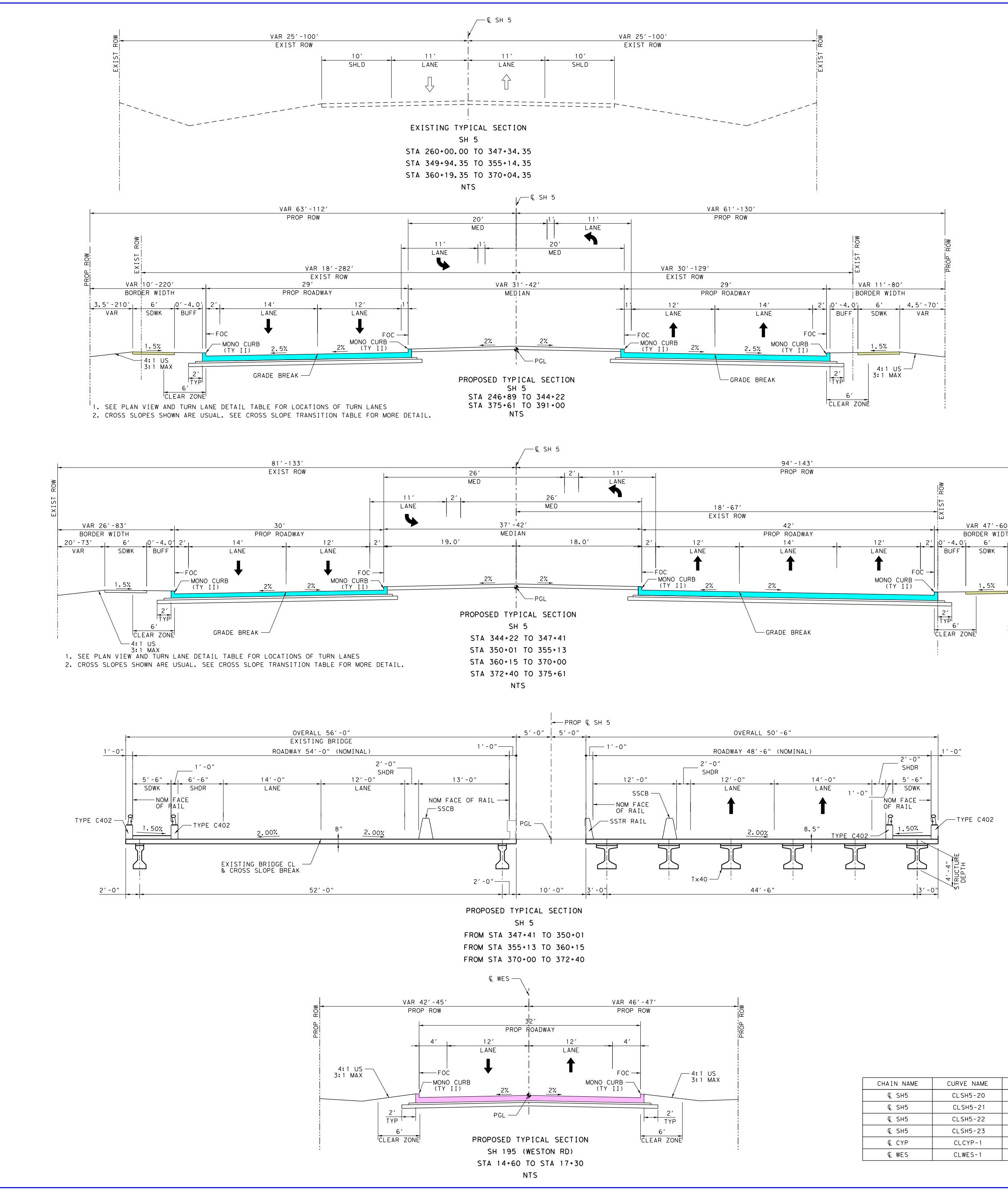
ROLL 9 OF 10 PLAN & PROFILE SH 5 STA 369+00 TO STA END PROJ
ROLL 10 OF 10 PROFILE CROSS STREETS

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

PLAN & PROFILE
SH 5
STA 316+00 TO STA 369+00

ROLL 8 OF 10 ROLLS

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
BAKER	6	XX (XX) XXXX		S-008
DRAWN BY:	STATE	DIST.	COUNTY	
BAKER	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
BAKER	0047	05	054, etc.	SH 5



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
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- 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

PROPERTY OWNERS

SOURCE: COLLIN COUNTY APPRAISAL DISTRICT JULY 2019

ID#	SITE ADDRESS	OWNER	BUSINESS NAME
222B	400 CYPRESS HILL DR	EDUARDO & ELSIE CHAVEZ	
223	401 CYPRESS HILL DR	FRANK S & LORRAINE J BENTLE	
224	MCKINNEY, TX 75071	ASSOCIATION OF TRINITY HEIGHTS HOMEOWNERS INC	
225	3590 N MCDONALD ST	AZAM MIRBAGHERY	
226	3600 N MCDONALD ST	MICKEY BEATTY & JOHN M LOUCEL & KENNETH E LUSK	
227	3827 N MCDONALD ST	CORES INDUSTRIAL PARTNERS LLC	
228	3700 N MCDONALD ST	ALEJANDRO & ALICIA DIAZ	
229	3850 N MCDONALD ST	J GUADALUPE H ROMERO	
230	N MCDONALD ST	PAUL RAY & LINDA IRENE EASTHAM	
231	3874 N MCDONALD ST	GRANTSIE ANN YOUNGBLOOD	
232	N MCDONALD ST	STEFEN DARBY & GLENN	
233	3991 N MCDONALD ST	SEMINOLE BLOOMINFIVE LP	
234	STATE HWY 5	GREATER TEXOMA UTILITY AUTHORITY	
235	4000 N MCDONALD ST	LONE TREE RESOURCES & CONSULTING INC	LONE TREE RESOURCES & CONSULTING
236	FM HWY 543	VICKIE D (CAVE) HUMPHREY TST	
237	MCDONALD ST N	JAMAL & NAZNEEN TALUKDER	
238	1006 FM 543	JAMAL TALUKDER	
239	4177 N MCDONALD ST	MIKE A SCOTT	
240	4080 N MCDONALD ST	M J FAMILY LP	
241		TERRY LACORE	
242		LACORE AGRICULTURE LLC	
243	N MCDONALD ST	TERRY LACORE	

CROSS SLOPE TRANSITION DATA

ALIGNMENT SH5	STA	SB OUTSIDE LANE SLOPE	SB INSIDE LANE SLOPE	NB OUTSIDE LANE SLOPE
BEG TRANSITION	345+50.00	N/A	2.0%	N/A
BEG TRANSITION	347+00.00	2.5%	N/A	-2.5%
END TRANSITION	347+20.00	2.0%	-2.0%	-2.0%
BEG TRANSITION	349+35.78	2.0%	-2.0%	N/A
BEG TRANSITION	351+34.70	-5.5%	-5.5%	N/A
BEG TRANSITION	356+11.32	-5.5%	-5.5%	N/A
END TRANSITION	358+10.16	2.0%	-2.0%	N/A
BEG TRANSITION	372+65.00	2.0%	-2.0%	-2.0%

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

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

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, 2009) 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 1.00015271O.
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.

HORIZONTAL ALIGNMENT DATA

CHAIN NAME	CURVE NAME	P.I. STATION	P.I. EASTING	P.I. NORTHING	RADIUS	DELTA	LENGTH	TANGENT	P.C. STATION	P.T. STATION
℄ SH5	CLSH5-20	321+83.46	2,546,447.64	7,138,368.91	3,820.00'	12° 19' 12.92" LT	821.41'	412.30'	317+71.16	325+92.57
℄ SH5	CLSH5-21	335+44.31	2,546,546.82	7,139,729.33	2,864.79'	8° 14' 35.39" RT	412.16'	206.44'	333+37.87	337+50.03
℄ SH5	CLSH5-22	341+86.13	2,546,684.94	7,140,356.84	11,460.00'	4° 21' 30.63" LT	871.77'	436.09'	337+50.03	346+21.80
℄ SH5	CLSH5-23	353+77.89	2,546,851.99	7,141,537.26	1,876.86'	18° 26' 19.21" RT	604.00'	304.63'	350+73.26	356+77.26
℄ CYP	CLCYP-1	11+50.47	2,546,461.73	7,137,886.42	300.00'	7° 58' 27.54" LT	41.75'	20.91'	11+29.56	11+71.31
℄ WES	CLWES-1	13+38.61	2,546,130.29	7,139,977.27	940.00'	37° 02' 04.17" LT	607.59'	314.83'	10+23.77	16+31.37

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(C)	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		TIME WARNER CABLE

* LINE SIZES ARE FROM BEST AVAIABLE RECORDS

UTILITY LEGEND

- POWER POLE
- POLE RISER
- ELECTRIC JUNCTION BOX
- ELECTRIC PULL BOX
- ELECTRIC METER
- ELECTRIC PED
- TELEPHONE MANHOLE
- TELEPHONE PED
- TELEPHONE JUNCTION BOX
- TELEPHONE HAND HOLE
- GAS VALVE
- GAS METER
- WASTE WATER MANHOLE
- WATER MANHOLE
- WATER METER
- WATER VALVE
- WATER CAP
- FIRE HYDRANT
- STORM MANHOLE
- STORM INLET
- FIBER OPTICS HAND HOLE
- STORM GRATE INLET
- HEAD WALL

COLOR LEGEND

- PROPOSED MAINLANES
- PROPOSED BRIDGE
- PROPOSED DRIVEWAY
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- PROPOSED SIDEWALK AND PAVED MEDIAN
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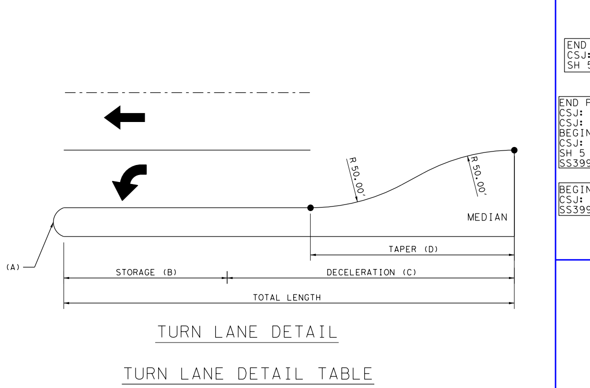
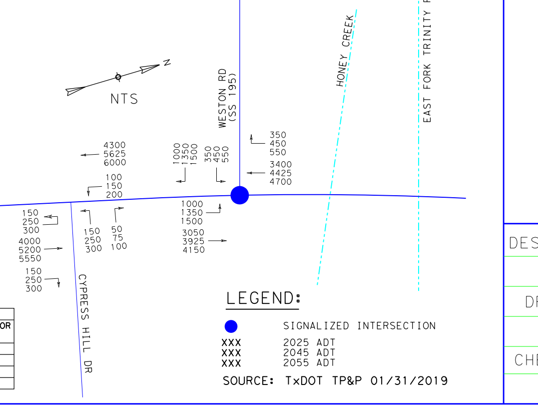


TURN LANE DETAIL

TURN LANE DETAIL TABLE

CROSS STREET	MEDIAN NOSE STA @ SH 5	MEDIAN NOSE RADIUS (FT) (A)	STORAGE (FT) (B)	DECELERATION (FT) (C)	TAPER (FT) (D)	TOTAL LENGTH (FT)	L/R	SB/NB
CYPRESS HILL DR	316+94.84	4	100	275	100	375	L	NB
PRIVATE DRIVEWAY	317+69.57	4	100	275	100	375	L	SB
PRIVATE DRIVEWAY	329+73.59	4	100	275	100	375	L	NB
U TURN LANE	330+33.36	4	100	260	100	360	L	NB
WESTON RD*	337+01.48	4	100	275	100	375	L	NB
WESTON RD*	337+61.48	4	100	275	100	375	L	SB
U TURN LANE	361+99.05	4	0	160	50	160	L	NB
PRIVATE DRIVEWAY	362+59.05	4	100	275	100	375	L	SB

* SIGNALIZED INTERSECTION



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	5.4	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

LEGEND:
● SIGNALIZED INTERSECTION
XXX 2025 ADT
XXX 2045 ADT
XXX 2055 ADT
SOURCE: TxDOT TP&P 01/31/2019

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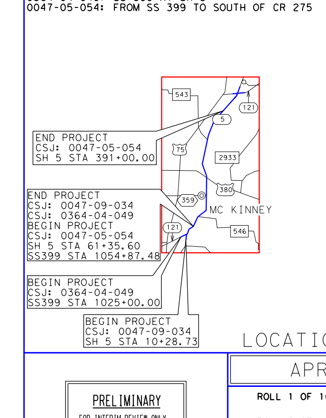

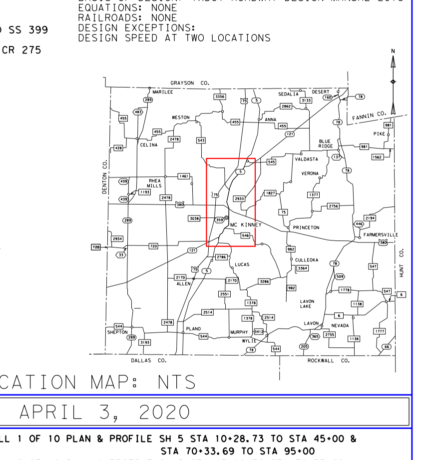

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