



Bike routes alert drivers through signage located along the route



Buffered bike lanes provide greater shy distance between motor vehicles and bicyclists



Shared lane markings indicate bicyclists' presence to drivers and appropriate placement on the roadway



Striping bike facilities through intersections highlights the bicyclist's path of travel

The facility types outlined here cover all of the on-street facilities used in the GO Plan network. More detail on their application and design is provided in the Bicycle Design Guidelines in Appendix A.



Trail

- Path fully separated from a street, shared by bicyclists, pedestrians and others
- Typically paved and marked with a center line
- Located along a separate alignment from street right-of-way
- High-volume or high-speed streets



Sidepath

- Path for use by both bicyclists and pedestrians within street right of way
- At curb level to separate from traffic, preferably with buffer between path and street
- Typically marked with a center line
- High-volume or high-speed streets



Cycle Track

- Provides bike-only facility physically separated from automobile travel lane and sidewalk
- Separated from traffic by curb, bollards, parked cars and/or other vertical elements
- Medium- and high-volume streets



Buffered Bike Lane

- Increases riding space and comfort by adding a painted buffer to standard bike lane
- Buffer located either between the bike lane and automobile travel lane, or between bike lane and parking
- Medium- to high-volume streets



PLAN LEGEND

	PRIMARY TRAIL ALIGNMENT		ALTERNATE TRAIL ALIGNMENT
	SECONDARY TRAIL ALIGNMENT		ALTERNATE TRAIL ALIGNMENT
	ON-STREET BIKEWAY		ON-STREET BIKEWAY
	6" CONCRETE SIDEWALK		EXISTING TRAIL

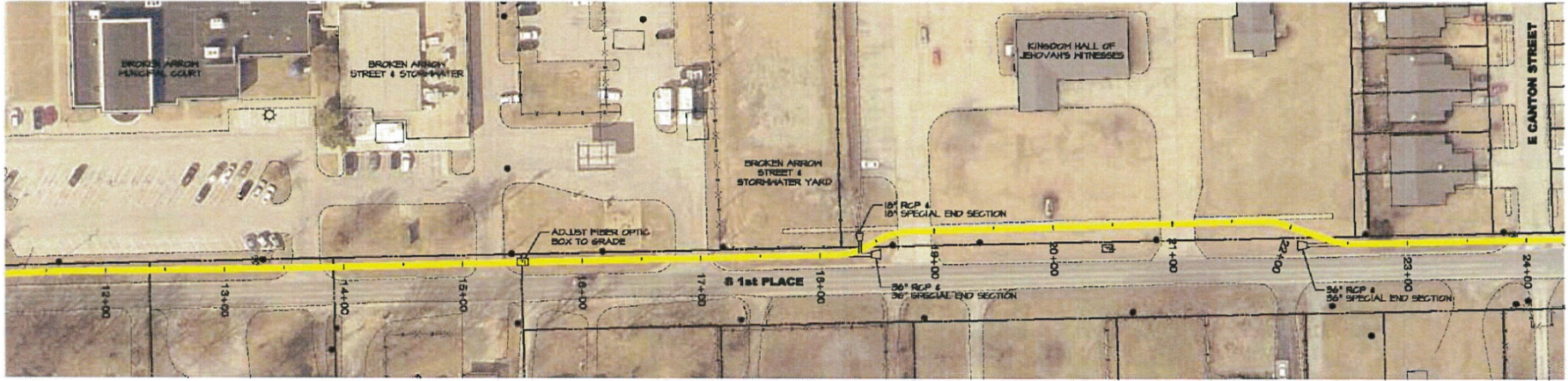


City of Broken Arrow - Phase 2 Broken Arrow Creek Trail
OVERALL PLAN SHEET

R.L. SHEARS COMPANY, P.C.
 Landscape Architects
 1522 SOUTH CARSON AVENUE
 SUITE 200 OKLAHOMA CITY, OK 73119
 TEL: 918.582.0612 FAX: 918.582.0613
 EMAIL: rlshears@rlshearsco.com



A



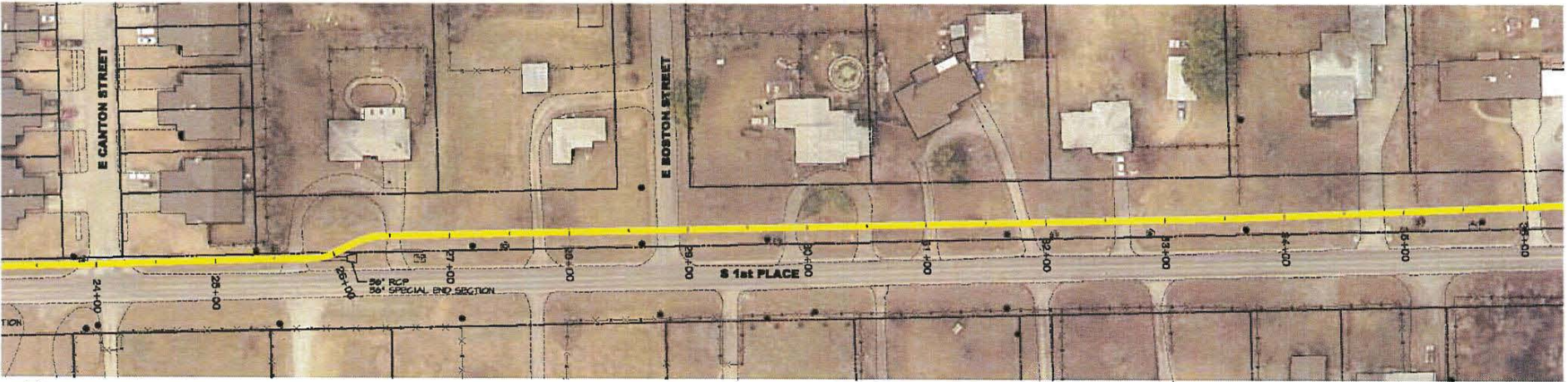
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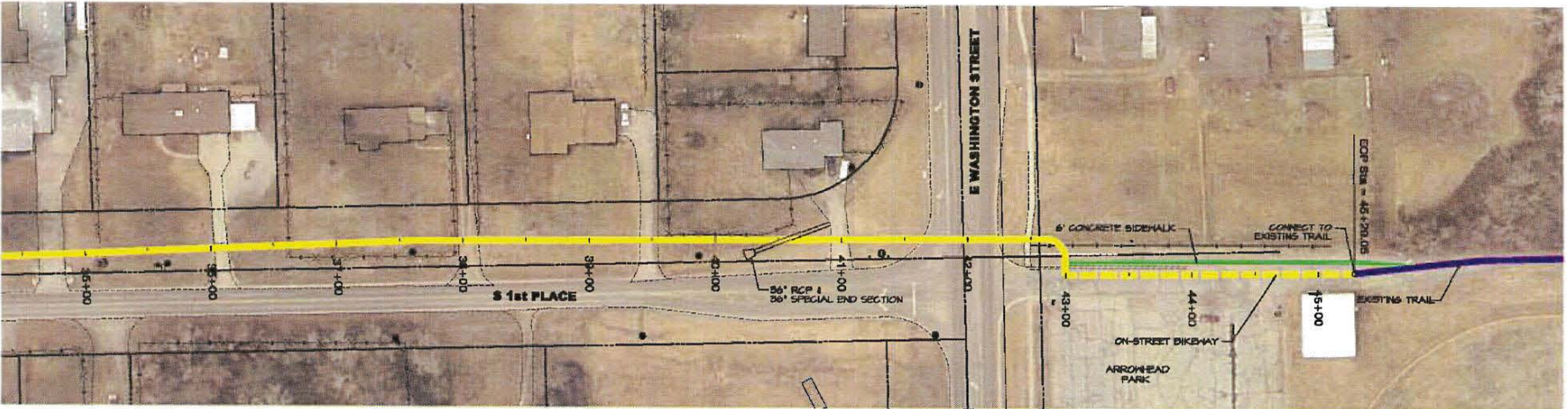
City of Broken Arrow - Phase 2 Broken Arrow Creek Trail
PRIMARY ALIGNMENT - CONCEPTUAL PLAN SHEET 01



R.L. SHEARS COMPANY, P.C.
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 1117 NORTH CAROLAN AVENUE
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A



B



City of Broken Arrow - Phase 2 Broken Arrow Creek Trail

PRIMARY ALIGNMENT - CONCEPTUAL PLAN SHEET 02

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ENGINEER'S ESTIMATE
BROKEN ARROW CREEK TRAIL PHASE 2 - PRIMARY ALIGNMENT
09 SEPTEMBER 2015

ITEM #	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUAN.	UNIT PRICE	AMOUNT
	201 (B)	SELECTIVE CLEARING	LSUM	1	\$5,000.00	\$5,000.00
	202 (A)	UNCLASSIFIED EXCAVATION	CY	993	\$12.00	\$11,916.00
	202 (D)	UNCLASSIFIED BORROW	CY	4257	\$16.00	\$68,112.00
	221 (C)	TEMPORARY SILT FENCE	LF	4997	\$2.00	\$9,994.00
	230 (A)	BERMUDA GRASS SOLID SLAB SOD	SY	10237	\$2.00	\$20,474.00
	303 (A)	AGGREGATE BASE - TYPE A	CY	1181	\$42.00	\$49,602.00
	310 (B)	SUBGRADE METHOD B	SY	5003	\$1.75	\$8,755.25
	325	SEPARATOR FABRIC	SY	500	\$2.50	\$1,250.00
	326 (B)	GEOGRID REINFORCEMENT	SY	500	\$3.50	\$1,750.00
	411 (C)	ASPHALTIC CONCRETE TYPE C	TON	667	\$80.00	\$53,360.00
	414 (B)	ASPHALT CONCRETE PAVING - PAVEMENT REPAIR	SY	309	\$85.00	\$26,265.00
	601 (B)	TYPE I-A PLAIN RIPRAP 12"	TON	24	\$70.00	\$1,680.00
	601 (I)	FILTER FABRIC (RIPRAP)	SY	19	\$35.00	\$665.00
	609 (B)	COMBINED CURB AND GUTTER (6" BARRIER)	LF	1058	\$21.00	\$22,218.00
	610 (A)	5" CONCRETE PAVEMENT	SY	276	\$50.00	\$13,800.00
	610 (B)	6" CONCRETE DRIVEWAY H.E.S.	SY	943	\$75.00	\$70,725.00
	610 (I)	TACTILE WARNING DEVICE	SF	139	\$35.00	\$4,865.00
	611 (A)	MANHOLE 6' ID	EA	7	\$4,000.00	\$28,000.00
	611 (G)	INLET (CI DESIGN 1)	EA	4	\$4,600.00	\$18,400.00
	611 (H)	ADDITIONAL DEPTH INLET (CI DESIGN 1)	VF	6	\$400.00	\$2,400.00
	612 (A)	ADJUST FIBER OPTIC BOX TO GRADE	EA	2	\$1,000.00	\$2,000.00
	612 (A)	ADJUST WATER VALVE BOX TO GRADE	EA	4	\$350.00	\$1,400.00
	613 (A)	18" ROUND REINFORCED CONCRETE PIPE	LF	122	\$50.00	\$6,100.00
	613 (A)	36" ROUND REINFORCED CONCRETE PIPE	LF	1581	\$70.00	\$110,670.00
	613 (C)	18" SPECIAL END SECTION OF REINFORCED CONCRETE	EA	1	\$650.00	\$650.00
	613 (C)	36" SPECIAL END SECTION OF REINFORCED CONCRETE	EA	5	\$750.00	\$3,750.00
	619 (B)	REMOVAL OF CURB	LF	52	\$3.50	\$182.00
	619 (B)	REMOVAL OF DRIVEWAY	SY	663	\$12.00	\$7,956.00
	619 (B)	REMOVAL OF ROADWAY	SY	309	\$19.00	\$5,871.00
	622 (A)	PIPE RAILING (TGIC POLYESTER POWDER COAT)	LF	79	\$65.00	\$5,135.00
	625 (B)	REMOVE AND RECONSTRUCT FENCE	LF	268	\$22.00	\$5,896.00
	642 (B)	CONSTRUCTION STAKING LEVEL II	LSUM	1	\$9,500.00	\$9,500.00
	850 (A)	SHEET ALUMINUM SIGNS	SF	35	\$26.00	\$910.00
	851 (D)	FLANGE CHANNEL POST	LF	128	\$16.00	\$2,048.00
	854 (A)	TRAFFIC STRIPE (PAINT) (4" WIDE) (WHITE)	LF	130	\$1.00	\$130.00
	854 (A)	TRAFFIC STRIPE (PAINT) (4" WIDE)(YELLOW)	LF	1359	\$1.60	\$2,174.40
	855 (A)	TRAFFIC STRIPE (THERMOPLASTIC) (4" WIDE)(WHITE)	LF	2088	\$2.85	\$5,950.80
	855 (D)	TRAFFIC STRIPE (SYMBOLS)	EA	8	\$400.00	\$3,200.00
	880 (J)	CONSTRUCTION TRAFFIC CONTROL	LSUM	1	\$8,000.00	\$8,000.00
	SP	REMOVABLE BOLLARDS	EA	8	\$600.00	\$4,800.00
	SP	(PL) DOUBLE SIDED FIBERGLASS SIGN WITH FRAME	EA	2	\$3,000.00	\$6,000.00
	SP	JUMBO SPLIT RAIL FENCE	LF	320	\$20.00	\$6,400.00
	SP	PROJECT SIGN	EA	2	\$500.00	\$1,000.00
	SP	PREFABRICATED BRIDGE	LF	54	\$2,000.00	\$108,000.00
	641	MOBILIZATION	LSUM	1	\$21,658.63	\$21,658.63

BASE SUB-TOTAL \$748,613.08
 20% CONTINGENCY \$149,722.62
 SURVEY \$12,500.00
 DESIGN \$93,576.64
 INSPECTIONS \$44,916.78
 TESTING \$7,500.00
TOTAL \$1,056,829.12



CITY OF BROKEN ARROW

PLAN OF THE PROPOSED

**BROKEN ARROW
MAIN STREET BIKEWAY TAP FUNDING**

SHEET INDEX

SHEET	TITLE
0	TITLE SHEET
1	MAIN STREET BIKE LANE
2a	MAIN STREET BIKE LANE
2b-2d	E. RICHMOND STREET BIKE ROUTE
3-5	MAIN STREET BIKE LANE
10a-10e	E. MIDWAY STREET BIKE ROUTE
11	MAIN STREET TRANSITION STRIPING
12	TYPICAL BIKEWAY APPLICATIONS

LEGEND

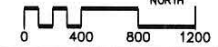
-  BIKE LANE
-  SHARE THE ROAD LANE
-  BIKE ROUTE



CITY OF BROKEN ARROW
POPULATION 103,000
ENTIRE PROJECT IS WITHIN THE CORPORATE
AND URBAN LIMITS OF THE CITY OF BROKEN ARROW



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INCORPORATED
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Tulsa, OK 74107
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BIKE LANES ARE MARKED WITH A BICYCLIST SYMBOL AND ARROW INDICATING DIRECTION OF TRAVEL



BUFFERED BIKE LANES PROVIDE GREATER SHY DISTANCE BETWEEN MOTOR VEHICLES AND BICYCLISTS



BIKE ROUTES ALERT DRIVERS THROUGH SIGNAGE LOCATED ALONG THE ROUTE



SHARED LANE MARKINGS INDICATE BICYCLISTS' PRESENCE TO DRIVERS AND APPROPRIATE PLACEMENT ON THE ROADWAY



COLOR PAVEMENT WITHIN A BICYCLE LANE INCREASES THE VISIBILITY OF THE FACILITY, IDENTIFIES POTENTIAL AREAS OF CONFLICT, AND REINFORCES PRIORITY TO BICYCLISTS



BACK IN PARKING ADJACENT TO BIKE LANES PROVIDE CYCLISTS A SAFER LANE OF TRAVEL AND REDUCES CONFLICT PARKED CARS

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Sheet:

BROKEN ARROW
MAIN STREET BIKEWAY TAP
FUNDING

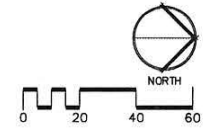
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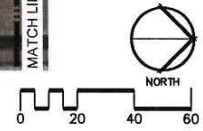
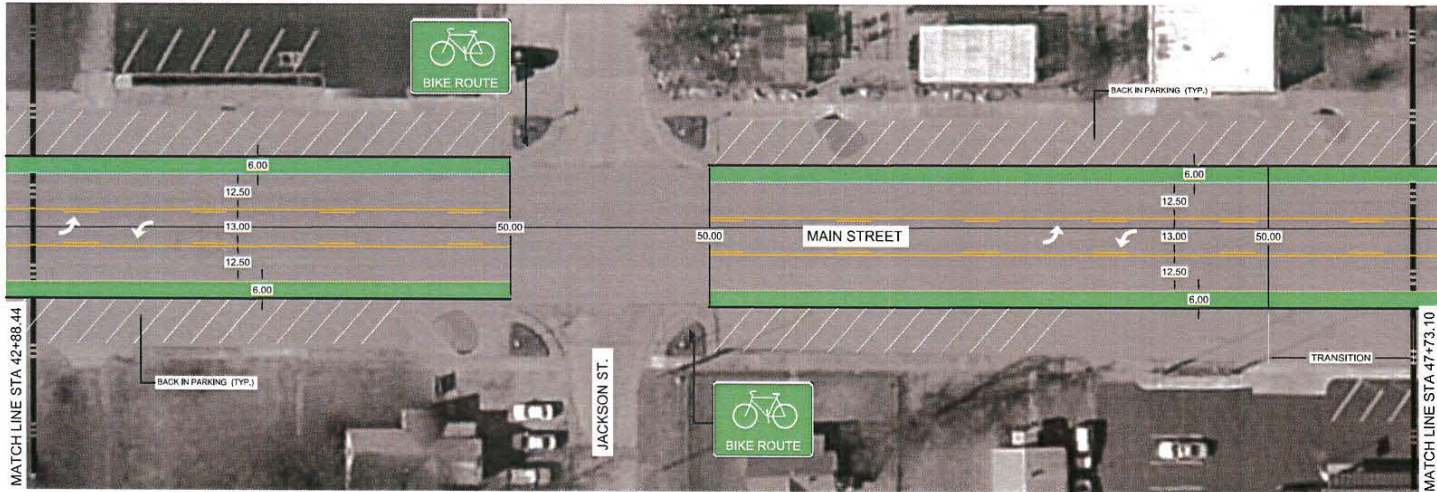
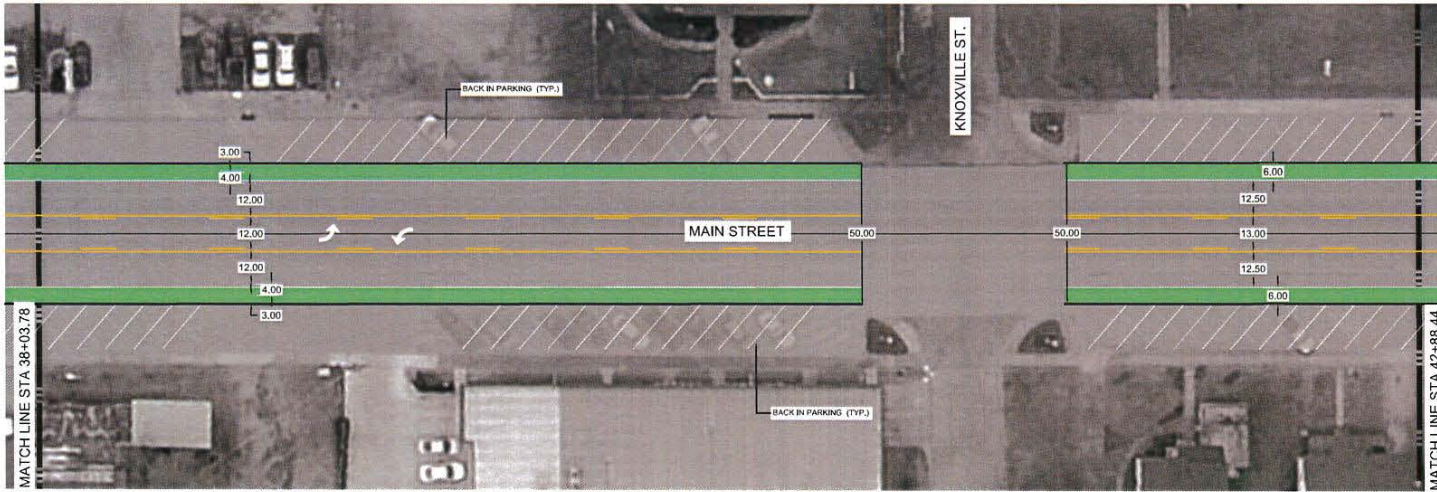
BROKEN ARROW
CONSULTANTS
INC. A TRC COMPANY

Design	MDH 4-6-18
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Approved	
PROJECT NUMBER:	577



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Page 12 of 12





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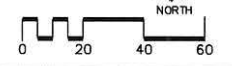
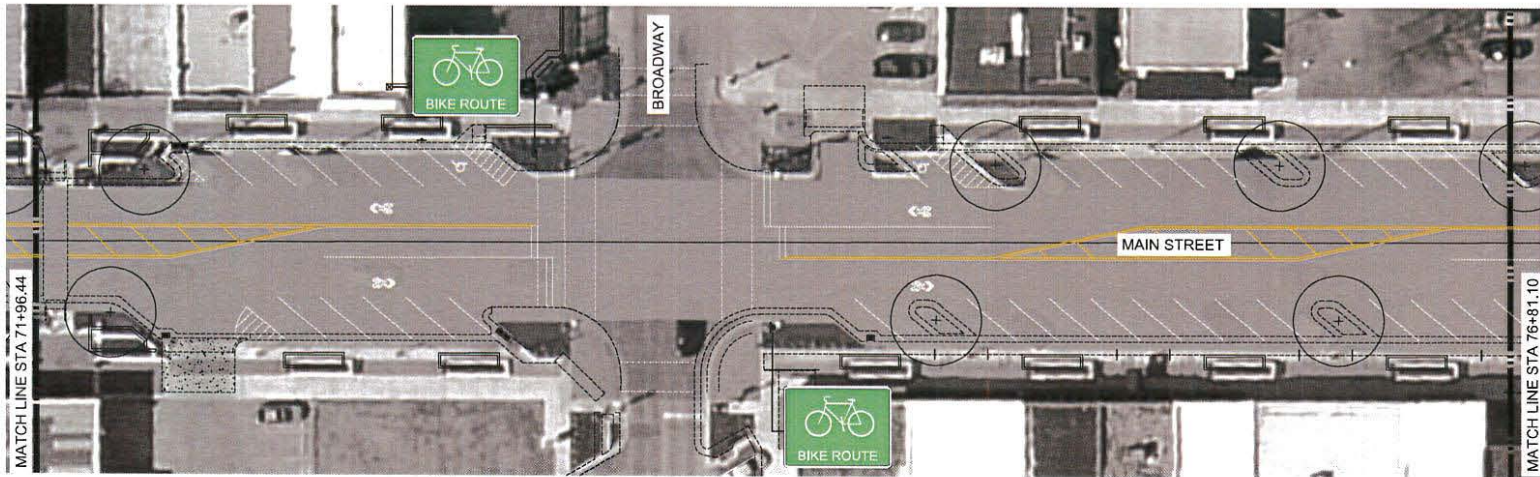
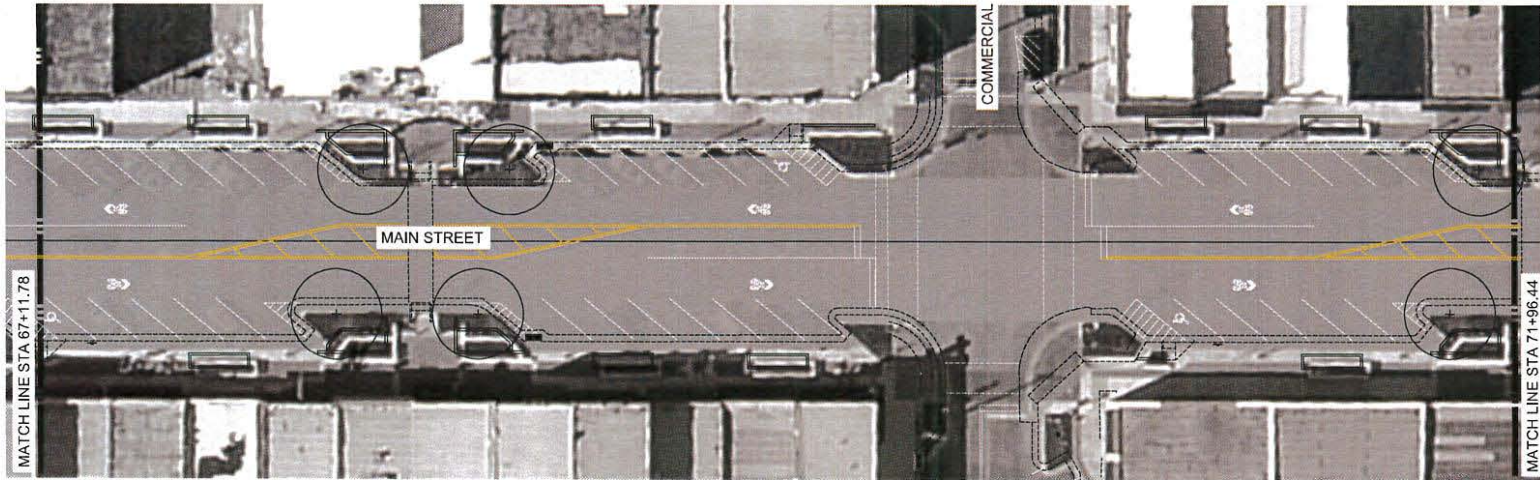
BROKEN ARROW MAIN STREET BIKEWAY TAP FUNDING

Revisions:



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PROJECT NUMBER: 577		





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**BROKEN ARROW
 MAIN STREET BIKEWAY TAP**

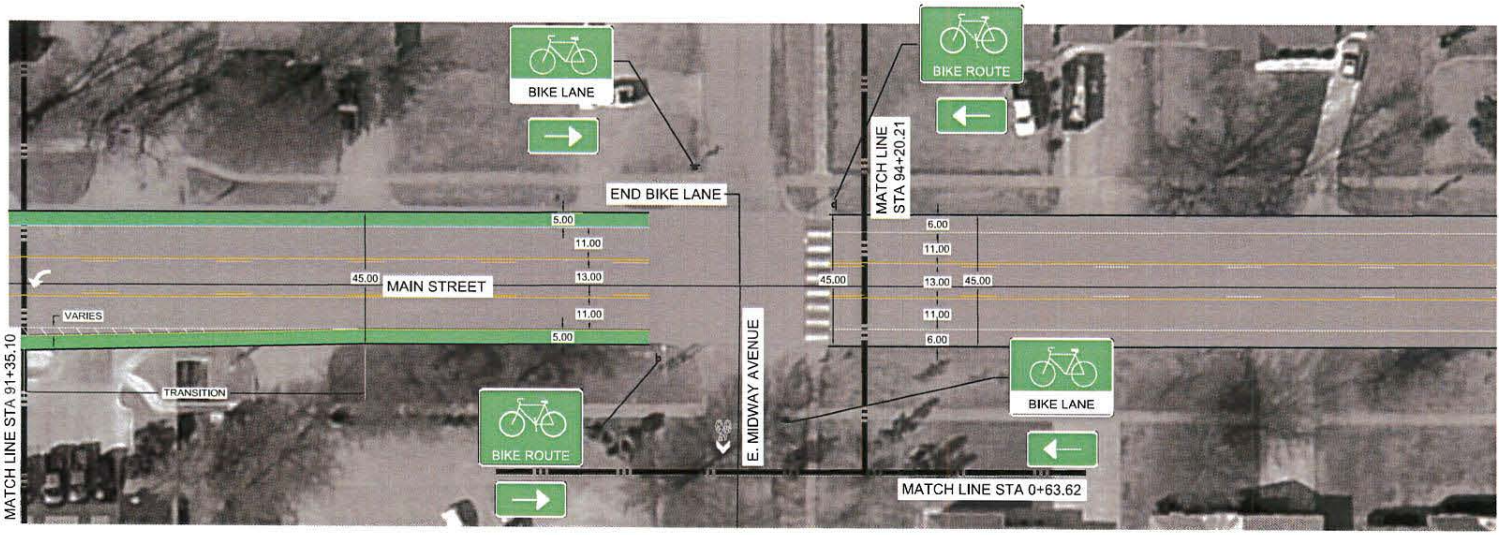
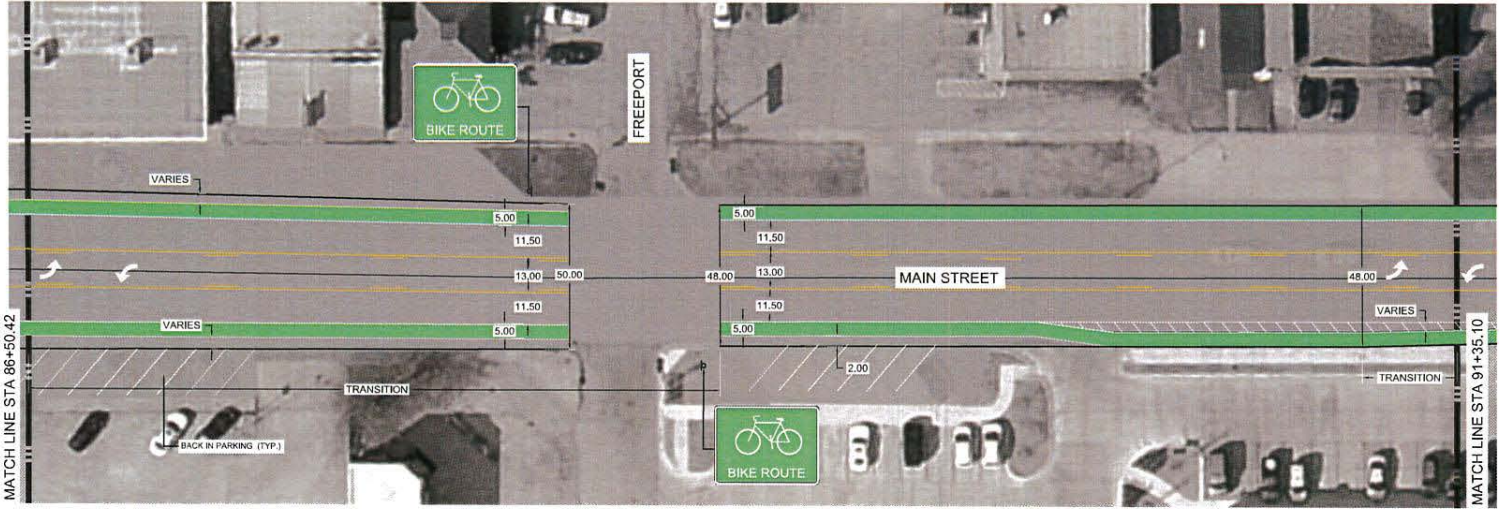
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NO.	DATE	DESCRIPTION

DESIGN
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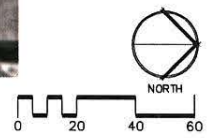
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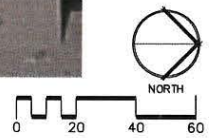
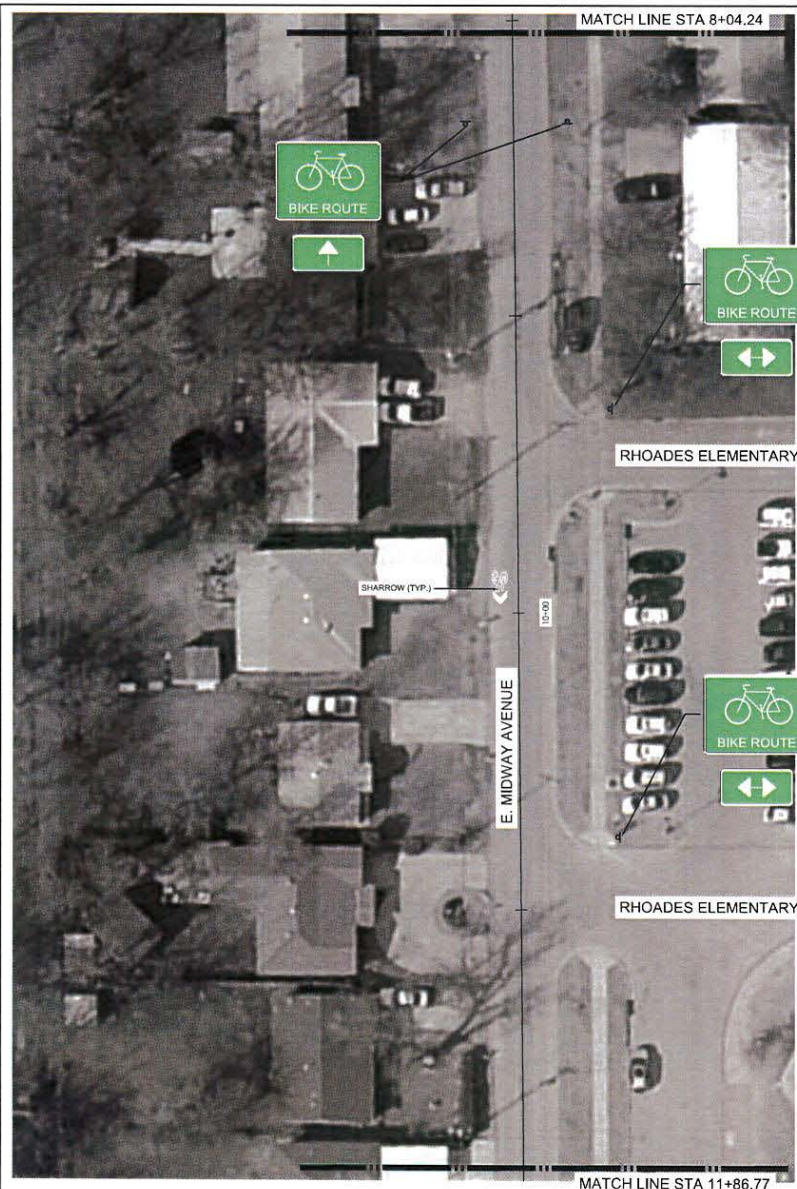
**BROKEN ARROW
 MAIN STREET BIKEWAY TAP
 FUNDING**

Revisions:



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BROKEN ARROW MAIN STREET BIKEWAY TAP FUNDING

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