



MEMORANDUM
Missouri Department of Transportation

DATE: November 30, 2021

TO: Thomas K. Blair, P.E.
District Engineer

FROM: Shirley J. Norris, P.E.
Project Manager

SUBJECT: St. Louis District- Design
Route 30, Franklin and Jefferson Counties
Bridge Replacements, Resurfacing, guardrail upgrades, ADA upgrades from
I-44 (NOR) in Franklin County to Route PP in Jefferson County
Job No. J6S3435
Conceptual Study Report

LOCATION

This project is located on Route 30 beginning in Franklin County at I-44 North Outer Road and ending in Jefferson County at Route PP.
See Attachment A

PURPOSE AND NEED

The purpose of this project is to preserve the deteriorating pavement and extend its useful life, upgrade guardrail to current MGS/MASH standards and replace bridges H0994 and H0995 along Route 30. Extend box culverts at two locations. Pedestrian facilities will also be upgraded to be compliant with the ADA transition plan at Route 30 and Bardot Street.

☒ Major Route

☐ Minor Route

DESIGN TRAFFIC

I-44 North Outer Rd to MO 47 N Jct

ADT (2021) = 6,838
ADT (2041) = 7,555
DHV = 0.6%
D = 50 % SB 50% NB
% Trucks = 8.4%
Operational (Posted) Speed = 35

Route PP to Bardot St.

ADT (2021) = 10,029
ADT (2041) = 11,081
DHV = 2.7%
D = 50 % SB 50% NB
% Trucks = 8.4%
Operational (Posted) Speed = 35

Route K to MO 47 S Jct

ADT (2021) = 6,359
ADT (2041) = 7,026
DHV = 3.7%
D = 50 % SB 50% NB
% Trucks = 12.3%
Operational (Posted) Speed = 55

Route N to Route HH

ADT (2021) = 4,402
ADT (2041) = 4,864
DHV = 4.1%
D = 50.% SB 50% NB
% Trucks = 12.3%
Operational (Posted) Speed = 55

Route Y. to Begin Div. Pavement

ADT (2021) = 5,527
ADT (2041) = 6,107
DHV = 0.4%
D = 50.% SB 50% NB
% Trucks = 9.1%
Operational (Posted) Speed = 55

Routes B/NN to Route PP (East Bound)

ADT (2021) = 11,487
ADT (2041) = 12,692
DHV = 0.4%
D = 50 % SB 50% NB
% Trucks = 16.0%
Operational (Posted) Speed = 60

MO 47 N Jct to Route PP

ADT (2021) = 13,316
ADT (2041) = 14,712
DHV = 2.7%
D = 50.% SB 50 % NB
% Trucks = 8.4%
Operational (Posted) Speed = 35

Bardot St. to Route K

ADT (2021) = 7,741
ADT (2041) = 8,553
DHV = 2.7%
D = 50.% SB 50% NB
% Trucks = 8.4%
Operational (Posted) Speed = 35,45

MO 47 S Jct. to Route N

ADT (2021) = 3,597
ADT (2041) = 3,974
DHV = 4.1%
D = 50.% SB 50% NB
% Trucks = 12.3%
Operational (Posted) Speed = 55

Route HH to Route Y

ADT (2021) = 3,507
ADT (2041) = 3,875
DHV = 6.4%
D = 50 % SB 50% NB
% Trucks = 27.8%
Operational (Posted) Speed = 55

Begin Div. Pavement to Routes B/NN

ADT (2021) = 5,565
ADT (2041) = 6,149
DHV = 0.4%
D = 50 % SB 50% NB
% Trucks = 27.7%
Operational (Posted) Speed = 60

Routes B/NN to Route PP (West Bound)

ADT (2021) = 11,661
ADT (2041) = 12,884
DHV = 0.4%
D = 50.% SB 50% NB
% Trucks = 16.0%
Operational (Posted) Speed = 60

EXISTING FACILITIES

Route 30

Beginning Log Mile	Pavement		Year Built	Roadbed Width	Min. R/W Width	Access Control
	Width	Type				
0.000	40'	1.75" BP-1 9.75" Exist. Bit. Base 4" Exist. Aggr.	1974	2-12' Lanes 2-8' Shoulders	60' (RT) 50' (LT) @ CL	Limited
0.251	34'	1.75" SP125C 9.25" SP190C 4" Type 1 Aggr Asph. Shldr	2009	2-11' Lanes 2-6' Shoulders	30' (RT) 30' (LT) @ CL	Normal
0.769	36'-48'	1.75" SP125C 9.25" SP190C 4" Type 1 Aggr Asph. Shldr 1.75" SP125C 4.5" Asph. Conc. 7' RCCP 4" Gran. Base Asph. Shldr	2009 1932	36'-48' 3-4-11' Lanes 2-6' Shoulders	55' (RT) 40' (LT) @ CL	Normal
1.219	36'	1.75" SP125 4.5" Asph. Conc. 7' RCCP 4" Gran. Base Asph. Shldr	1932	2-12' Lanes 2-6' Shoulders		Normal
	36'-42'	1.75" BP-1 7" PCCP 4" Gran. Base 12.25" PMBB 4" Aggr Base Asph. Shldr	2004	2-12' Lanes Rt Shoulder varies 6'-8' Lt Shoulder varies 6'-10'		Normal
3.459	40'	10" PCCP 4" Aggr. Base Asph. Shldr	2004	2-12' Lanes 6' Lt Shoulder 10' Rt Shoulder		Normal
4.92	36'	3.75" BP-1 8" Conc. Base & Widening 4" Gran. Base Asph. Shldr	1932	2-12' Lanes 2-6' Shoulders	30' (RT) 30' (LT) @ CL	Normal

EXISTING FACILITIES

Route 30

Beginning Log Mile	Pavement		Year Built	Roadbed Width	Min. R/W Width	Access Control
	Width	Type				
6.399	32'-40'	1.75" SP125CLP 4" Bit. Base 8" Conc. 4" Gran. Base Asph. Shldr	1932	2-12' Lanes 1-12' Left Turn Lane 2- 4' Shoulders	30' (RT) 30' (LT) @ CL	Normal
20.259	44'-68'	1.25" SP095CLP 8" NRPCCP 4" Aggr. Base Asph. Shldr	1977	2- 24' to 12' Lanes 2- 10' Shoulders	40' (RT) 40' (LT) @ CL	Normal
20.411	44'-68'	1.25" SP095CLP 8" NRPCCP 4" Aggr. Base Conc Shldr	1978	Westbound Divided 2-12' Thru Lanes 1-12' Right Turn Lane 1-12' Left Turn Lane 2-10' Shoulders	125' (RT) 125' (LT) @ CL Median	Limited
20.411	40' -64'	1.25" SP095CLP 8" NRPCCP 4" Aggr. Base Conc Shldr	1989	Eastbound Divided 2-12' Thru Lanes 1-12' Right Turn Lane 1-12' Left Turn Lane 1-10' Outside Shoulder 1-6' Inside Shoulder	125' Lt 125' Rt @ CL Median	Limited

EXISTING BRIDGES

Route 30

Bridge No.	Location	Type	Length	Width	Year Built	Condition Ratings			
						Deck	Super	Sub	Culv.
A2017	LM 0.029	STRG	195'	40'	1970	5	5	7	N
A7124	LM 0.525	STRG	194.90'	56'	2006	7	7	7	N
A4975	LM 4.418	STRG	905'	38.80'	2001	6	6	6	N
H0995	LM 8.438	T-BM	143'	32'	1932	5	5	5	N
H0994	LM 9.033	T-BM	170'	32'	1932	5	5	5	N
H0992	LM 10.596	BXCU	25'	48.5'	1932	N	N	N	6
A4630	LM 20.952	STRG	203'	38.80'	1988	7	5	7	N
A3105	LM 31.722 (W)	STRG	202'	44'	1974	6	6	6	N
A4629	LM 21.336	STRG	606'	38.80'	1988	6	7	6	N
A3104	LM 31.290 (W)	STRG	606'	44'	1974	6	6	5	N
A2519	LM 23.857	BXCU	26.80'		1974	N	N	N	6
A4628	LM 27.082	STRG	159'	38.80'	1988	7	7	7	N
A3046	LM 25.586 (W)	STRG	162'	44'	1974	6	6	6	N
A4627	LM 27.646	STRG	169'	38.80'	1988	7	6	6	N
A3045	LM 25.050 (W)	STRG	169'	44'	1974	6	6	6	N

PROPOSED DESIGN CRITERIA

Route 30

Functional Classification	Design Speed	No. & Width Of Lanes	Roadbed Width	Right of Way	
				Width	Control
Principal Arterial	35-55	1-12' Lane EB 1-12' Lane WB 2- Variable 4'-10' Shoulders	32'-44'	80' Min.	Normal
Principal Arterial	50	1-12' Lane EB 1-12' Lane WB 2- Variable 4'-10' Shoulders	32'-44'	80' Min.	Normal
Principal Arterial	60	2-12' Lanes EB 2-12' Lanes WB	22'-24'	125' Min.	Limited
Expressway	60	2-12' Lanes EB 1-6' Shoulder inside 1-10' Shoulder outside	40'	125' Min.	Limited
		2-12' Lanes WB 2-10' Shoulders	44'		

PROPOSED DESIGN

From I-44 NOR East to West of Route B (end of the undivided section), the pavement improvements include 2.5” asphalt mill/fill due to curb & gutter and islands with 1.5” SP095CLP over 1” SP048F w/ PG 70-22, extending the mainline treatment onto the shoulders (where applicable) for a minimum of 18” for good rumble stripe and longitudinal joint performance. If shoulders are 4 feet or less; then extend the 2.5” mill/fill mainline SuperPave for the remaining shoulder width. If shoulders are greater than 4 feet; the remaining shoulder widths would receive a 2.5” mill/fill with BP-1 w/ PG 64-22 or 1.75” mill/fill with BP-1 w/ PG 64-22 for shoulders adjacent to PCCP where applicable. Additional improvements include replacing high friction pavement, providing asphalt and concrete pavement repairs, and providing approach repairs at (A4975) Meramec River Bridge. Additionally, resurfacing will be applied to the right of way line on Pond Ford Rd. Center line and edge line rumble strips will be included and the ADA compliance will be evaluated at Bardot St. and Route 30.

There is a location 0.9 miles east of the Meramec River Bridge in the westbound lane of Route 30 that has a dip in the right wheel path of the pavement that will need to be addressed. A further investigation will need to be preformed to determine the cause.

Replace bridge (H0995) Pierce Creek (S. Fork Little Meramec) and realign bridge with the channel. Replace bridge (H0994) Little Meramec River and relocate channel to align with bridge. Add piles and 50’ of rock blanket at both culverts. For each bridge, close half of the bridge at a time and replace half at a time.

There are two box culverts that will be extended approximately twenty feet to improve safety for motorist. The first box culvert is at 7488 Route 30 near Holeshots Saloon west of Dittmer/Ficken Rd. The entrance driveway drainage pipes will also be extended into box culvert on both sides of the roadway. The second box culvert is located east of Oak Grove Church Rd near Diamond Brite Auto.

From west of Route B (beginning of divided section) to east of Route PP, the pavement improvements include a 1.75” overlay with 1.75” SP095CLP w/ PG 76-22 and transitional milling as necessary including side road connectors to the right of way line. Shoulders will have an overlay with 1 ¾” BP-1 w/ PG 64-22.

Existing guardrail and crashworthy end terminals will be evaluated and upgraded based on condition, type and length of need to meet current MASH standards for entire length of the project.

Bridge improvements along Route 30 include:

- A2017 – **except** – FY22 rehab job J6P3291
- A7124 – include concrete crack filler (704 item) to driving surface, but no asphalt overlay
- A4975 – include concrete crack filler (704 item) to driving surface, but no asphalt overlay
- H0995 – **replacement**
- H0994 - **replacement**
- H0992 – UIP- Culvert has roadway pavement on top of it – include with resurfacing work
- A4630 –**except** - new wearing surface applied in 2020 (J6S3287)
- A3105 – include concrete crack filler (704 item) to driving surface, but no asphalt overlay

A4629 – include concrete crack filler (704 item) to driving surface, but no asphalt overlay
A3104 – include concrete crack filler (704 item) to driving surface, but no asphalt overlay
A2519 – UIP-Culvert has roadway pavement on top of it – include with resurfacing work
A4628 - **except** - new wearing surface applied in 2020 (J6S3287)
A3046 - include concrete crack filler (704 item) to driving surface, but no asphalt overlay
A4627 - **except** - new wearing surface applied in 2020 (J6S3287)
A3045 - include concrete crack filler (704 item) to driving surface, but no asphalt overlay

ACCIDENT DATA AND SAFETY ENHANCEMENTS

Project Accident Rate – 216.84 (2019) Undivided
Project Accident Rate – 131.65 (2019) Divided (EB)
Project Accident Rate – 167.99 (2019) Divided (WB)

A summary of accident data is attached. **See Attachment C**

Statewide rate for a similar class of roadway – 202.78
Locations within or adjacent to the project limits which are on the “High Severity Location Lists” in the TMS database:

There are two statewide high severity locations inside the project area and two locations that made the statewide horizontal curve list.

See Attachment D - High Severity Location List

UTILITIES

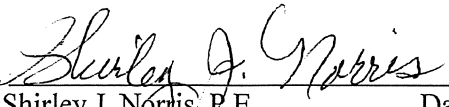
The Route 30 project does not have any known utility conflicts at the present time. There are only three utilities at the bridge replacement areas, all of them are aerial. Relocations are not anticipated, but additional right of way may be needed.

ENVIRONMENTAL SUMMARY

There are no apparent environmental conflicts currently. Requests for Environmental Services will be submitted at all project milestones. Any environmental concerns identified by those requests will be addressed in the design.

TRAFFIC CONTROL


Single lane closures with flagging operations will be used for a two-lane road.
Single lane closures with use of temporary signals will be used for a two-lane road at bridge replacements.
Single lane closure and or shoulder closure will be used on divided roadway section.

 11/30/21

Shirley J. Norris, P.E. Date
Project Manager

 11-30-21


Gary P. Warren Date
Senior Highway Designer

 11/30/21

Leah S. Dittmer, P.E. Date
Transportation Project Designer

Recommendations or Comments: _____

- Attachments: Attachment A: Location Sketch
Attachment B: Title Sheet
Attachment C: Route 30 Crash Summary
Attachment D: High Severity Location List

Approved by  11/30/21

Thomas K. Blair, P.E. Date
District Engineer

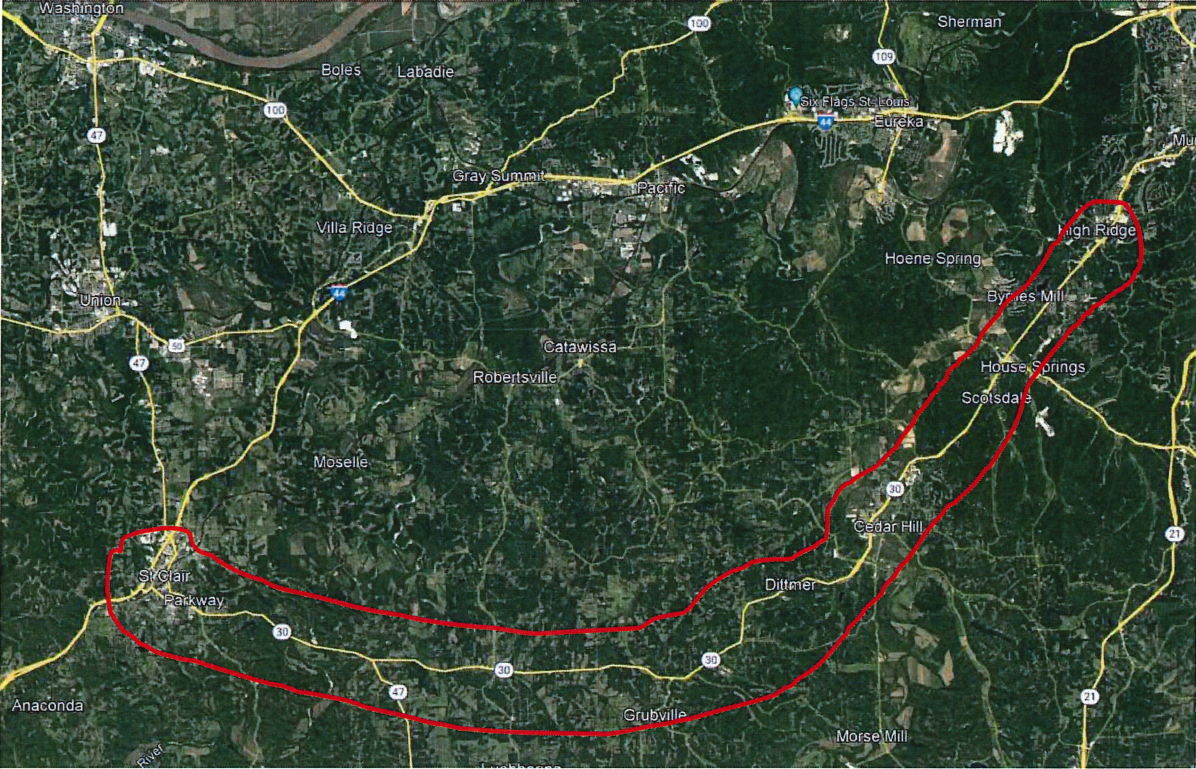
cc: Design Division
Construction and Materials Division
Traffic Division

Attachment A

Location Sketch
Route 30 – Franklin & Jefferson Counties

I-44 North Outer Road (Franklin County) to Route PP (Jefferson County)

RESURFACING, PAVEMENT REPAIRS, GUARDRAIL UPGRADES, BRIDGE REPLACEMENTS
(H0994) & (H0995), ADA FACILITIES
31.42 MILES



DESIGN DESIGNATION

A.A.D.T. - 20XX = XXXX
A.A.D.T. - 20XX = XXXX
D.H.V. = XX%
T = XX%
V = XX M.P.H.
D = XX%

FUNCTIONAL CLASSIFICATION-

FUNCTIONAL CLASSIFICATION-

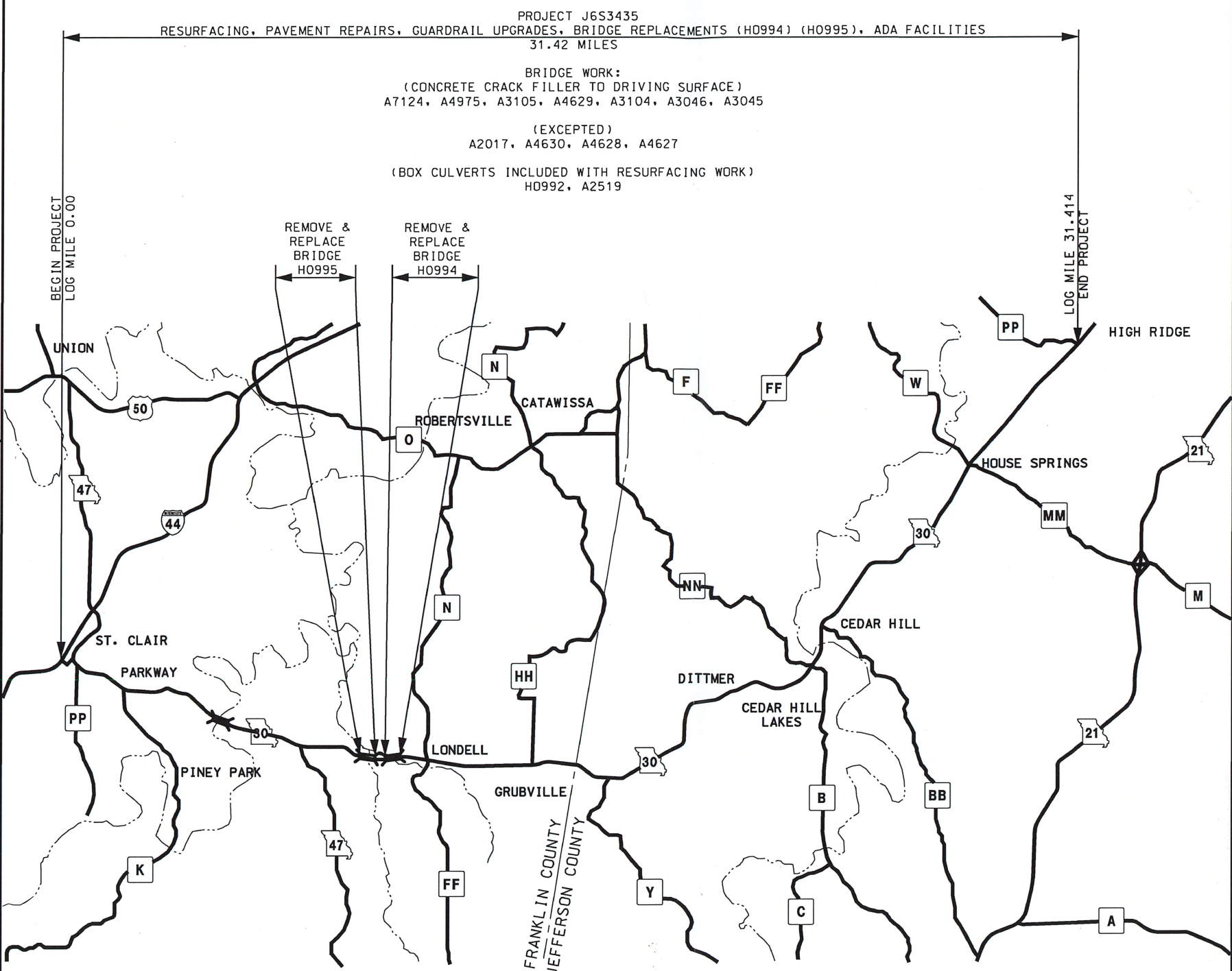
CONVENTIONAL SYMBOLS

(USED IN PLANS)

	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	- FO -	- F0 -
OVERHEAD CABLE TV	- OTV -	- 0+V -
UNDERGROUND CABLE TV	- UTV -	- UT+V -
OVERHEAD TELEPHONE	- OT -	- 0T -
UNDERGROUND TELEPHONE	- UT -	- UT -
OVERHEAD POWER	- OE -	- 0E -
UNDERGROUND POWER	- UE -	- UE -
SANITARY SEWER	- S -	- S -
STORM SEWER	- SS -	- SS -
GAS	- G -	- G -
WATER	- W -	- W -
MANHOLE		 <small>SAN</small>
FIRE HYDRANT		 <small>HYD</small>
WATER VALVE		 <small>WV</small>
WATER METER		 <small>WM</small>
DROP INLET		 <small>DI</small>
DITCH BLOCK		 <small>SIGN</small>
GROUND MOUNTED SIGN		 <small>SIGN</small>
LIGHT POLE		 <small>PED</small>
H-FRAME POWER POLE		 <small>PED</small>
TELEPHONE PEDESTAL		 <small>PED</small>
FENCE		 <small>PED</small>
CHAIN LINK		 <small>PED</small>
WOVEN WIRE		 <small>PED</small>
GATE POST		 <small>PED</small>
BENCHMARK		 <small>BM</small>

NOTE: DASHED OR OPEN SYMBOLS INDICATE
EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
Attachment B STATE HIGHWAY
FRANKLIN-JEFFERSON COUNTY



THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

DESCRIPTION	SHEET NUMBER
TITLE SHEET -----	1
TYPICAL SECTIONS (TS) (XX SHEETS)---	2
QUANTITIES (QU) (XX SHEETS)-----	3
PLAN-PROFILE (PP)-----	4-XX
RIGHT OF WAY (RW)-----	XX-XX
REFERENCE POINTS (RP)-----	XX-XX
COORDINATE POINTS (CP)-----	XX-XX
SPECIAL SHEETS (SS)-----	XX-XX
TRAFFIC CONTROL SHEETS (TC)-----	XX-XX
EROSION CONTROL SHEETS (EC)-----	XX-XX
LIGHTING (LT)-----	XX-XX
SIGNALS (SG)-----	XX-XX
SIGNING (SN)-----	XX-XX
PAVEMENT MARKING (PM)-----	XX-XX
CULVERT SECTIONS (CS)-----	XX-XX
BRIDGE DRAWINGS (B)	
A####-----	XX-XX
A####-----	XX-XX
A####-----	XX-XX
A####-----	XX-XX
CROSS SECTIONS (XS)-----	XX-XX

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA.	XXX + XX.XX
END OF PROJECT	STA.	XXX + XX.XX
APPARENT LENGTH		XXXXX.XX FEET
EQUATIONS AND EXCEPTIONS:		
TOTAL CORRECTIONS		XXXXX.XX FEET
NET LENGTH OF PROJECT		XXXXX.XX FEET
STATE LENGTH		XX.XXX MILES
FOR INFORMATION ONLY		
ESTIMATED DISTURBED ACRES		XX ACRES

[illegible]

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

Attachment C
Crash Summary EB Undivided

OFFSET	TRAVEL WAY ID	DESIGNA TION	TRAVEL WAY NAME	DIRECTIO N	BEGIN LOG	END LOG	BEGIN DISTRICT	END DISTRICT	BEGIN COUNTY	END COUNTY	COUNTY BEGIN LOG	COUNTY END LOG	BEGIN DESCRIPT ION	END DESCRIPT ION
	6370	MO	30	E	0.141	20.384	5	5	FRANKLIN	JEFFERSON	0.141	6.807	.053 mile(s) after RT WW E	.1 mile(s) after PVT DIEHL RD S

TYPE	2015	2016	2017	2018	2019	TOTAL
FATAL	2	1	0	1	4	8
SERIOUS INJURY	3	7	8	4	4	26
MINOR INJURY	26	29	23	18	18	114
PROPERTY DAMAGE ONLY	84	79	62	76	68	369
TOTAL	115	116	93	99	94	517
AADT	4819	4969	5096	5751	5867	

1 Year Statewide Rate

TYPE	2015	2016	2017	2018	2019	Rate Level
CRASH RATE	322.98	315.95	246.99	232.98	216.84	
STATE RATE-MO	209.28	216.73	209.03	210.17	202.78	ROUTE DESG
MORE THAN 1 ROADWAY TYPE	0	0	0	0	0	ROADWAY TYPE

TYPE	2015	2016	2017	2018	2019	TOTAL
ANIMAL DRAWN VEH OR RIDDEN ANIMAL	0	2	0	0	0	2
ANIMAL NOT DEER/DOG/FARM ANIMAL	0	1	0	0	0	1
ANIMAL OTHER THAN DEER	0	0	0	0	0	0
AVOIDING	0	0	1	1	0	2
BACKING	0	0	0	1	0	1
CHANGING LANE	1	0	0	0	1	2
CROSS MEDIAN	0	0	0	0	0	0
DEBRIS	0	0	0	3	1	4
DEER	5	5	2	3	6	21
DOG	0	1	0	0	0	1
DUAL LEFTS COLLIDE	0	0	0	0	0	0
DUAL RIGHTS COLLIDE	0	0	0	0	0	0
FARM ANIMAL	0	3	1	0	0	4
FIXED OBJECT	1	1	1	0	0	3
HEAD ON	7	3	5	4	7	26
JACKKNIFE	0	0	0	1	0	1
LEFT TURN	6	5	5	8	6	30
LEFT TURN RIGHT ANGLE COLLISION	11	13	7	9	10	50
OTHER	3	3	5	2	0	13
OUT OF CONTROL	23	18	19	12	18	90
PARKING OR PARKED CAR	1	1	0	0	0	2
PASSING	3	4	3	2	4	16
PEDALCYCLE	0	0	0	1	0	1
PEDESTRIAN	1	1	1	0	1	4
REAR END	39	45	33	40	30	187
RIGHT ANGLE	8	5	5	4	4	26
RIGHT TURN	0	0	0	1	0	1
RIGHT TURN RIGHT ANGLE COLLISION	1	1	2	1	1	6
SIDESWIPE	4	3	2	6	4	19
TOWED UNIT DISCONNECTS	0	0	0	0	0	0
U - TURN	1	1	1	0	1	4
WRONG WAY ON DIVIDED HIGHWAY	0	0	0	0	0	0
TOTAL	115	116	93	99	94	517

This report contains information that is protected from disclosure by federal law, 23 USC Section 409 and the Missouri Open Records Law (Sunshine Act), Section 610.021 RSMo. Please review MoDOT's policy and procedure manual on the Sunshine Act before releasing any of the information contained herein.

Attachment C
Crash Summary EB Divided

OFFSET	TRAVEL WAY ID	DESIGN ATION	TRAVEL WAY NAME	DIRECTIO N	BEGIN LOG	END LOG	BEGIN DISTRICT	END DISTRICT	BEGIN COUNTY	END COUNTY	COUNTY BEGIN LOG	COUNTY END LOG	BEGIN DESCRIPT ION	END DESCRIPT ION
	6370	MO	30	E	20.384	31.419	5	5	JEFFERSO N	JEFFERSO N	6.807	17.842	.1 mile(s) after PVT DIEHL RD S	RT PP E

TYPE	2015	2016	2017	2018	2019	TOTAL
FATAL	1	1	1	1	0	4
SERIOUS INJURY	6	5	4	5	2	22
MINOR INJURY	13	8	11	9	9	50
PROPERTY DAMAGE ONLY	28	46	54	51	44	223
TOTAL	48	60	70	66	55	299
AADT	10305	10489	10620	10304	10372	

1 Year Statewide Rate

TYPE	2015	2016	2017	2018	2019	Rate Level
CRASH RATE	115.65	142.02	163.65	159.03	131.65	
STATE RATE-MO	209.28	216.73	209.03	210.17	202.78	ROUTE DESG
STATE RATE-EXPRESSWAY	129.27	133.59	127.2	130.67	117.92	ROADWAY TYPE

TYPE	2015	2016	2017	2018	2019	TOTAL
ANIMAL DRAWN VEH OR RIDDEN ANIMAL	0	0	0	0	0	0
ANIMAL NOT DEER/DOG/FARM ANIMAL	0	1	1	0	0	2
ANIMAL OTHER THAN DEER	0	0	0	0	0	0
AVOIDING	1	0	0	0	0	1
BACKING	0	0	0	1	0	1
CHANGING LANE	0	0	0	0	1	1
CROSS MEDIAN	0	0	1	0	1	2
DEBRIS	0	0	0	1	1	2
DEER	0	4	7	7	5	23
DOG	0	1	0	0	0	1
DUAL LEFTS COLLIDE	0	0	0	0	0	0
DUAL RIGHTS COLLIDE	0	0	0	0	0	0
FARM ANIMAL	0	0	0	0	0	0
FIXED OBJECT	0	1	1	0	0	2
HEAD ON	0	2	0	3	0	5
JACKKNIFE	0	0	0	0	0	0
LEFT TURN	3	1	2	3	2	11
LEFT TURN RIGHT ANGLE COLLISION	4	0	2	2	5	13
OTHER	0	0	1	0	2	3
OUT OF CONTROL	9	8	1	4	8	30
PARKING OR PARKED CAR	0	0	2	1	0	3
PASSING	7	11	2	4	6	30
PEDALCYCLE	0	0	0	0	0	0
PEDESTRIAN	0	0	1	0	0	1
REAR END	20	25	35	36	22	138
RIGHT ANGLE	3	3	10	4	2	22
RIGHT TURN	0	0	0	0	0	0
RIGHT TURN RIGHT ANGLE COLLISION	1	2	1	0	0	4
SIDESWIPE	0	1	1	0	0	2
TOWED UNIT DISCONNECTS	0	0	0	0	0	0
U - TURN	0	0	2	0	0	2
WRONG WAY ON DIVIDED HIGHWAY	0	0	0	0	0	0
TOTAL	48	60	70	66	55	299

This report contains information that is protected from disclosure by federal law, 23 USC Section 409 and the Missouri Open Records Law (Sunshine Act), Section 610.021 RSMo. Please review MoDOT's policy and procedure manual on the Sunshine Act before releasing any of the information contained herein.

Attachment C
Crash Summary WB Undivided

OFFSET	TRAVEL WAY ID	DESIGN ATION	TRAVEL WAY NAME	DIRECTIO N	BEGIN LOG	END LOG	BEGIN DISTRICT	END DISTRICT	BEGIN COUNTY	END COUNTY	COUNTY BEGIN LOG	COUNTY END LOG	BEGIN DESCRIPT ION	END DESCRIPT ION
	6371	MO	30	W	21.3	32.334	5	5	JEFFERSON	JEFFERSON	5.581	16.615	.004 mile(s) before RT PP E	.1 mile(s) before PVT DIEHL RD S

TYPE	2015	2016	2017	2018	2019	TOTAL
FATAL	0	0	1	2	1	4
SERIOUS INJURY	5	4	6	4	5	24
MINOR INJURY	10	9	11	13	9	52
PROPERTY DAMAGE ONLY	36	35	41	64	53	229
TOTAL	51	48	59	83	68	309
AADT	10119	10298	10425	9985	10051	

1 Year Statewide Rate

TYPE	2015	2016	2017	2018	2019	Rate Level
CRASH RATE	125.14	115.73	140.52	206.4	167.99	
STATE RATE-MO	209.28	216.73	209.03	210.17	202.78	ROUTE DESG
STATE RATE-EXPRESSWAY	129.27	133.59	127.2	130.67	117.92	ROADWAY TYPE

TYPE	2015	2016	2017	2018	2019	TOTAL
ANIMAL DRAWN VEH OR RIDDEN ANIMAL	0	0	0	0	0	0
ANIMAL NOT DEER/DOG/FARM ANIMAL	0	0	0	0	1	1
ANIMAL OTHER THAN DEER	0	0	0	0	0	0
AVOIDING	0	0	0	1	0	1
BACKING	0	0	0	1	0	1
CHANGING LANE	0	0	0	0	0	0
CROSS MEDIAN	0	0	0	0	0	0
DEBRIS	0	0	0	1	0	1
DEER	2	5	4	4	3	18
DOG	0	0	1	0	0	1
DUAL LEFTS COLLIDE	0	0	0	0	0	0
DUAL RIGHTS COLLIDE	0	0	0	0	0	0
FARM ANIMAL	0	0	0	0	0	0
FIXED OBJECT	1	0	0	0	0	1
HEAD ON	0	0	0	3	1	4
JACKKNIFE	0	0	0	0	0	0
LEFT TURN	1	0	4	1	3	9
LEFT TURN RIGHT ANGLE COLLISION	3	2	3	3	3	14
OTHER	5	2	2	2	1	12
OUT OF CONTROL	12	5	9	8	10	44
PARKING OR PARKED CAR	0	0	0	0	0	0
PASSING	4	5	6	6	3	24
PEDALCYCLE	0	0	0	0	0	0
PEDESTRIAN	0	0	0	0	1	1
REAR END	18	25	25	37	33	138
RIGHT ANGLE	3	4	4	15	8	34
RIGHT TURN	0	0	0	0	1	1
RIGHT TURN RIGHT ANGLE COLLISION	1	0	1	1	0	3
SIDESWIPE	1	0	0	0	0	1
TOWED UNIT DISCONNECTS	0	0	0	0	0	0
U - TURN	0	0	0	0	0	0
WRONG WAY ON DIVIDED HIGHWAY	0	0	0	0	0	0
TOTAL	51	48	59	83	68	309

This report contains information that is protected from disclosure by federal law, 23 USC Section 409 and the Missouri Open Records Law (Sunshine Act), Section 610.021 RSMo. Please review MoDOT's policy and procedure manual on the Sunshine Act before releasing any of the information contained herein.

Attachment D
High Severity Locations

Top Horizontal Curve Locations

Top Horizontal Curve Locations																			
2017-2019																			
Travelway Data												Crash Data							
OBJECT_ID	YEAR	DIST	COUNTY	DESG	NAME	DIR	TWAY_ID	BEGIN_LOG	END_LOG	BEGIN_DESC	END_DESC	LENGTH	STATE_SYSTEM_CLASS	INTERSECTION_IND	FATAL_CRASHES	DI_CRASHES	MI_CRASHES	PDO_CRASHES	SEVERITY_RATING
421774	2019	SL	FRANKLIN	MO	30	E	6370	0.382	0.463	.049 mile(s) after CST WALNUT ST E	.01 mile(s) after MO 47 S	0.081	PRIMARY	Y	0	0	5	16	15
421794	2019	SL	JEFFERSON	MO	30	E	6370	13.848	.054 mile(s) after PVT SYCAMORE GREEN ACRES E	.003 mile(s) before CRD FICKEN RD E	0.078	SUPPLEMENTARY	Y	1	0	2	2	15	2

Top Expressway Intersections Locations

Top Expressway Intersections Locations																	
2017-2019																	
Travelway Data										Crash Data							
OBJECT_ID	YEAR	DIST	COUNTY	SYSTEM	DESG	NAME	DIR	RAVELWAY_ID	LOG	CROSS_ROAD	INTRSC_NUMBER	PED_INTRS	FATAL_CRASH_COUNT	DI_CRASHES	MI_CRASHES	PDO_CRASHES	VERITY_RATING
92420	2019	SL	JEFFERSON	SUPPL	MO	30	W	6371	24.859	CST BYRNES MILL RD N	334054	Y	1	1	9	13	42
92429	2019	SL	JEFFERSON	SUPPL	MO	30	W	6371	21.304	CRD WEST ROCK CREEK RD E	326598	Y	1	3	4	30	39
92444	2019	SL	JEFFERSON	SUPPL	MO	30	W	6371	25.259	RT MM W	334940	Y	0	1	9	49	33

Top HI Severity Intersections Locations

Top HI Severity Intersections Locations																	
2017-2019																	
Travelway Data										Crash Data							
OBJECT_ID	YEAR	DIST	COUNTY	SYSTEM	DESG	NAME	DIR	TWAY_ID	BEGIN_LOG	INTERSECTION_NO	CROSS_STREET	PED_INTRS	FATAL_CRASHES	DI_CRASHES	MI_CRASHES	PDO_CRASHES	VERITY_RATING
1594013	2019	SL	JEFFERSON	SUPPL	MO	30	W	6371	21.304		326598 CRO WEST ROCK CREEK RD E	Y	1	3	4	30	27
1594101	2019	SL	JEFFERSON	SUPPL	MO	30	W	6371	24.859		334054 CST BYRNES MILL RD N	Y	1	1	9	13	15

Top HI Severity 10 mi Range Locations

Top HI Severity 10 mi Range Locations																		
2017-2019																		
Travelway Data											Crash Data							
OBJECT_ID	YEAR	DIST	COUNTY	FWY_ID	DESG	NAME	DIR	TWAY_ID	BEGIN_LOG	END_LOG	BEGIN_DESCRIPTION	DESCRPT	STATE_SYS_CLS	F_CRASHES	DI_CRASHES	MI_CRASHES	PDO_CRASHES	SEVERITY_RATING
2766569	2019	SL	JEFFERSON		10	MO	30	W	6371	20	30 .283 mile(s) before CRD SCHUMACHER	.031 mile(s) SUPPLEMENTARY		2	6	5	71	54

Top Unrestrained Locations

2017-2019																	
Top Untrained Locations										Travelway Data				Crash Data			
OBJECT_ID	YEAR	DIST	COUNTY	DESG	NAME	DIR	RAVELWAY_ID	BEGIN_LOG	END_LOG	BEGIN_DESCRIPTION	END_DESCRIPTION	SYSTEM	FATAL_CRASH_COUNT	DI_CRASHES	MI_CRASHES	PDO_CRASHES	VERITY_RATING
330710	2019	SL	FRANKLIN	MO	30	E	6370	0	10	10 RT WW E	.08 mile(s) after RT FF S	PRIMARY	1	1	6	12	33
330713	2019	SL	FRANKLIN	MO	30	E	6370	10	20	.08 mile(s) after RT FF S	PVT CANDELA S	SUPPL	2	0	5	0	33
330714	2019	SL	JEFFERSON	MO	30	E	6370	15	25	.028 mile(s) after PVT RICKUS LN S	.024 mile(s) before PVT ROVIN ACRE E	SUPPL	1	1	6	2	33
330714	2019	SL	JEFFERSON	MO	30	E	6370	20	30	PVT CANDELA S	.042 mile(s) before CRD GRAVOIS RD S	SUPPL	1	1	3	2	24
328054	2019	SL	ST. LOUIS	MO	30	W	6371	15	25	.261 mile(s) after RP MO41N TO MOSCOW W	.141 mile(s) after CST BYRNES MILL RD	SUPPL	3	5	8	16	81
328059	2019	SL	JEFFERSON	MO	30	W	6371	20	30	.283 mile(s) before CRD SCHUMACHER RD E	.031 mile(s) before CRD CEDAR SPRINGS	SUPPL	3	6	1	6	66

Top Impaired Locations

Top Impaired Locations																
- 2017-2019																
Travelway Data																
OBJECT_ID	YEAR	DIST	COUNTY	DESG	NAME	DIR	TWAY_ID	BEGIN_LOG	END_LOG	STATE_SYS_CLS	TOTAL_AADT	F_CRASHES	DI_CRASHES	MI_CRASHES	PDO_CRASHES	VERITY_RATING
803212	2019	SL	JEFFERSON	MO	30	E	6370	17.5	22.5	SUPPLEMENTARY	6047	1	1	0	1	15
803215	2019	SL	JEFFERSON	MO	30	E	6370	25	30	SUPPLEMENTARY	18615	1	1	0	1	15
803217	2019	SL	JEFFERSON	MO	30	E	6370	30	35	SUPPLEMENTARY	26334	1	1	1	1	18
803218	2019	SL	JEFFERSON	MO	30	E	6370	32.5	37.5	SUPPLEMENTARY	36130	1	1	1	1	18