

Safety Corridors

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Corridors</SUBJECT><COMM></COMM></TARGET>



SAFETY CORRIDORS AUDIT 2017

STATE OF ALASKA

Department of Transportation and Public Facilities

Department of Public Safety

Accepted: Marc Luiken, Commissioner, DOT&PF *MLC*

Date: 6/26/2017

Accepted: Walt Monegan, Commissioner, DPS *W*

Reviewed: Dave Kemp P.E., Regional Director, DOT&PF *DK*

Reviewed: Colonel Hans Brinke, Director, DPS *H*

From: Safety Corridor Review Team (tasked with coordination, countermeasures)

Tammy Kramer, Administrator, Alaska Highway Safety Office AHSO, DOT/PF HQ Juneau

Lt. Katherine Shuey, Bureau of Highway Patrol, AST HQ Division *KS*

Matt Walker, P.E., Assistant State Traffic & Safety Engineer, DOT/PF HQ Juneau *MW*

Scott Thomas, P.E., Central Region Traffic & Safety Engineer, DOT/PF *ST*

SUBJECT: 11 Years of Safety Corridors – Annual Audit Review through May 2017

Purpose: review status of efforts to reduce fatal and major injury crashes¹; coordinate countermeasures between lead agencies², and gather more input from Central EMS, AST Detachments, and M&O Districts.

2006-2017 RESULTS: Serious crashes declined 46% in Safety Corridors overall^{3,4}

- All Safety Corridors have reduced serious injury crashes overall.
- Fatal crashes on the Seward Highway have not improved
- Fatal crashes have spiked on each corridor at least once in recent years
- Fatal crashes are higher in winter months.
- Serious injury crashes peak in December, usually on poorer road surface conditions.

SAFETY CORRIDOR CANDIDATES and STATUS

- Parks Highway – Wasilla to Houston remains # 1 ranked
- Kenai Spur Highway MP 12.5-20.5, north of Kenai, has moved up to # 2 rank
- Seward, Sterling, and KGB Safety Corridors have moved down in rank as they improve
- There are 11 candidate corridors. Each are being addressed with capital projects in the next few years.
- Trooper funding now decreased within the Bureau of Highway Patrol from 22 officers to 3 full time officers.
- Highway maintenance staffing and funding decreased more than 20 percent from peak levels.

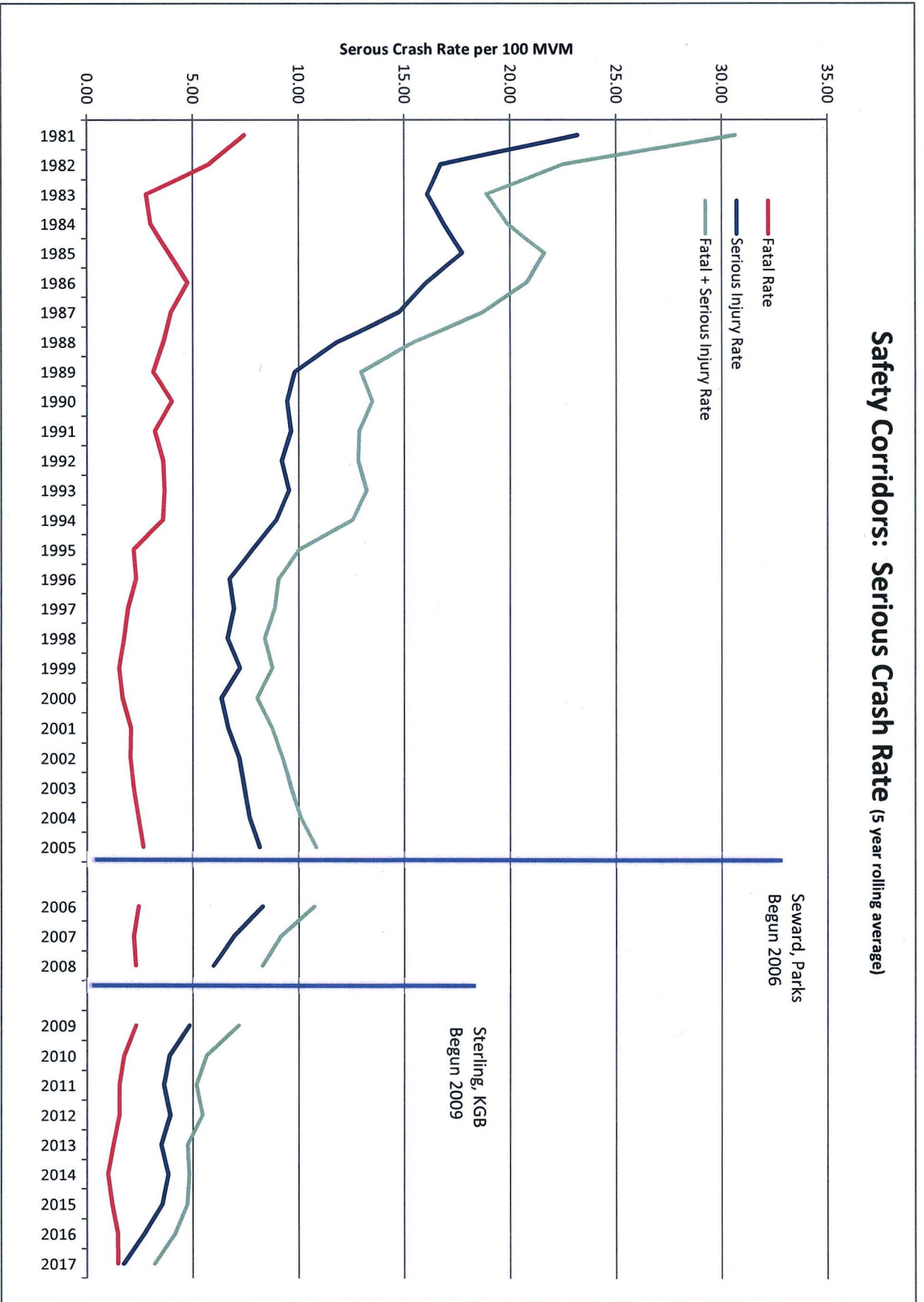
RECOMMENDATIONS going forward

- Seek alternative funding and partnerships for education and enforcement
 - Increase media and public awareness of safer driving, during peak summers and in winter
 - Increase adjacent city police coordination and enforcement partnerships when maintenance and driving for surface conditions is needed
- Exchange local road maintenance within cities to free up resources for main highway winter service
- Decommission half the Parks Highway Safety Corridor when divided highway is complete to Pitman Rd
- Install centerline and shoulder rumble strips and delineators on the Kenai Spur Highway north of Kenai
- Prepare a Study analyzing crash trends north of Kenai in order to recommending further steps

Attachments

cc: Sandra Garcia-Aline, FHWA Division Administrator, Alaska Division, Juneau

Safety Corridors: Serious Crash Rate (5 year rolling average)



CURRENT SAFETY CORRIDORS PERFORMANCE (Through 5/31/2017)

SEWARD HWY MP 87-117	Designated 5/26/06 Extended 10/30/07		3.0 Mi S of Girdwood to Potter Rifle Range		L=30.6 mi
	BEFORE (1/1/96-5/26/06)		AFTER		Overall
	Crashes Per Year	Crashes/ HMVM	Crashes Per Year	Crashes/ HMVM	
Fatal Crashes F	1.9	2.0	2.4 (+23%)	2.3 (+16%)	
Major Injury Crashes MI	7.0	7.3	3.2 (-55%)	3.2 (-57%)	
Serious Crashes F+MI	8.9	9.4	5.5 (-38%)	5.5 (-41%)	-40%
PARKS HWY MP 44.5-53	Designated 10/16/06		Church Rd, Wasilla to LaRae Rd, Houston		L=8.5 mi
	BEFORE (1/1/96- 10/16/06)		AFTER		Overall*
	Crashes Per Year	Crashes/ HMVM	Crashes Per Year	Crashes/ HMVM	
Fatal Crashes F	1.5	3.3	0.9 (-37%)	1.1 (-66%)	
Major Injury Crashes MI	4.7	10.4	2.9 (-38%)	3.4 (-67%)	
Serious Crashes F+MI	6.2	13.6	3.9 (-38%)	4.5 (-67%)	-52%
KNIK-GOOSE BAY RD MP 0.6-17.2	Designated 7/01/09		Palmer-Wasilla Hwy to Pt. MacKenzie Rd		L=16.4 mi
	BEFORE (1999-2008)		AFTER		Overall*
	Crashes Per Year	Crashes/ HMVM	Crashes Per Year	Crashes/ HMVM	
Fatal Crashes F	1.2	1.4	1.0 (-18%)	0.5 (-67%)	
Major Injury Crashes MI	4.0	4.4	3.0 (-24%)	1.4 (-69%)	
Serious Crashes F+MI	5.2	5.8	4.0 (-23%)	1.8 (-68%)	-46%
STERLING HWY MP 83-93	Designated 7/01/09		Sterling to Soldotna		L=9.8 mi
	BEFORE (1999-2008)		AFTER		Overall*
	Crashes Per Year	Crashes/ HMVM	Crashes Per Year	Crashes/ HMVM	
Fatal Crashes F	1.0	3.0	0.6 (-34%)	1.0 (-66%)	
Major Injury Crashes MI	1.8	5.6	0.9 (-51%)	1.4 (-75%)	
Serious Crashes F+MI	2.8	8.6	1.5 (-45%)	2.4 (-72%)	-58%

WEIGHTED TOTAL -46%

HMVM = rate of crashes per hundred million vehicle miles of travel. This helps compare all roads equally.

ATTACHMENTS tracking Safety Corridor Performance

- A. Safety Corridor Candidates and Ranking
- B. Overall Trends. Combined Safety Corridors Charts/Table 1977-2017
- C. Seasonal Variation by Month, Road Surface, Lighting 2006-2014
- D. Engineering Projects Underway 2017 (for each Corridor)
- E. Individual Safety Corridor Charts 1977-2017
- F. Four E's Suggestions/Tracking (Enforcement, Education, Engineering, EMS)
- G. Regulatory Suggestions/Considerations
- H. Four E's Agency Participants, Contacts

NOTES

¹ The purpose of this report and any attached data is for planning safety enhancements for high accident corridors with serious injury crashes. This report is used to monitor, develop, and fund ongoing education, enforcement, and engineering of construction improvements.

² Fatal and major injury crashes are a serious problem in the Safety Corridors. Per AS 19.10.075, DOT/PF and DPS are responsible for designating Safety Corridors and efforts to reduce serious crashes (ATM 2B.17). It is recognized these roads are at or near capacity. Long term, major roadway projects are desirable to address traffic volume growth (see attached project lists). Until lasting long term changes are made, interim enforcement, education, and engineering solutions are recommended to reduce crashes.

³ Fatal and major injury crashes are based on the Dispatch and fatal reporting information currently available. Final crash records for 2013-2015 may change as each year's final record becomes complete.

⁴ Fatal crashes are a very small data sample in each corridor each year and can be a volatile indicator of performance. Combined fatal and major injury crashes is recommended as a better indication of performance. Many factors affect the severity of a crash, including roadway geometrics and road conditions, seatbelt use, vehicle type, impairment, fatigue, aggressive driving, and emergency response resources.

Central Region DOT&PF, DPS

Safety Corridors Performance

A. Safety Corridor Candidates and Ranking

2017

HSIP Safety Corridor Candidates for Projects using Crash Cost Rankings (2008-2012)

PARKS = Yellow = Existing Safety Corridor
GLENN = Design and Construction in progress

High Severity Two-Lane, Two Way Crash Segments (per ATM 2B.17)

Highway Safety Improvement Program (HSIP) Review

(Consider benefit/cost of capital project possibilities: rerouting, medians, traffic control devices, grade separation, etc.)

Sliding Spot using @sumifs Sorting Formula

1 Mile Window (+/- 0.5 mi)

Rank	CDS Route	From MiPt	Road Name	Description	To MiPt	Description	Length (mi)	Fatal Crashes	Serious Injury Crashes	ATM 2B.17		HSIP Crash \$\$	HSIP Crash \$\$/Mile	Comments	
										KSI Crashes/Mile	Wtd Midlife AADT				
1	170000	9.1	PARKS HWY	Wasilla (W of Church Rd)	17.3	Houston (Forest Lake Dr)	8.2	5	18	2.82	15,468	9.97	\$ 26,000,000	\$ 3,182,375	Existing Safety Corridor. Lane Divided Hwy in Construction 2016-2019 ⁴
2	117600	12.7	KENAI SPUR HWY	Kenai Urban (MP 12.5)	20.4	Robert Walker Ave (MP 20.5)	7.7	5	12	2.21	6,377	18.98	\$ 19,000,000	\$ 2,468,174	Rumble strips w/1R pavement preservation project in 2017
3	135000	34.0	GLENN HWY	Parks Hwy JCT	39.0	Palmer (S of Springer/Moore Rd)	5.0	1	10	2.20	12,180	9.90	\$ 12,000,000	\$ 2,400,000	New 4 Ln Divided Hwy in 2018
4	136800	0.5	PALMER-WASILLA HWY	Palmer (Irwin Lp)	9.4	Wasilla (.25 Mi' W of Trent Cir)	9.0	2	16	2.01	14,707	7.48	\$ 21,000,000	\$ 2,341,659	HSIP 3 Ln Construction 2019-2020
5	117600	1.8	KENAI SPUR HWY	Soldotna (N of Big Eddy)	7.8	Kenai Urban	6.0	3	9	2.00	11,500	9.53	\$ 13,000,000	\$ 2,166,667	Rehabilitate with turn lanes and 5 lane roadway in 2019
6	170073	0.0	BIG LAKE RD	Parks Hwy	4.7	Big Lake (500' W of Aero Ln)	4.6	2	7	1.94	4,410	24.15	\$ 11,000,000	\$ 2,375,297	MSB Roundabout built in 2016
7	110000	46.4	STERLING HWY	Sterling (Weigh Station / Marilee)	54.2	Soldotna (MP 91.2)	7.8	6	9	1.93	7,675	13.78	\$ 21,000,000	\$ 2,702,703	Existing Safety Corridor. Lane Divided Hwy, urban transitions funded for 2022 ⁴
8	170044	0.8	KNIK GOOSE BAY RD	Wasilla (S of PW Hwy)	17.3	Pt Mackenzie Rd	16.5	1	20	1.27	7,483	9.33	\$ 22,000,000	\$ 1,334,547	4 Ln Divided Hwy to Settler's Bay to begin in 2020
9	130000	87.1	SEWARD HWY	MP 87	115.5	Anchorage (Potters Marsh/Freeway)	28.4	13	18	1.09	7,300	8.18	\$ 44,000,000	\$ 1,547,661	Existing Safety Corridor. Windy Corner auxiliary lanes 2019.
10	130000	36.4	SEWARD HWY	Sterling JCT	43.3	MP 43.7	7.0	4	3	1.00	4,376	12.58	\$ 11,000,000	\$ 1,579,098	HSIP Passing Lanes MP 37-52 in 2019
11	136000	0.6	OLD GLENN HWY (PALMER ALT)	Glenn Hwy I/C	16.9	Matanuska Lake Park	16.3	5	9	0.86	3,777	12.45	\$ 21,000,000	\$ 1,287,712	HRR Roadway restriping in Planning

Total 116.4 miles

0.851	9.921	\$ 145,000,000	\$ 1,245,426
Safety Corridor crash rate thresholds			
16/20/14 HQ Memorandum			

CDS Milepoints are DOT/PF linear references. Mileposts are historical markers and are not the same. See Descriptions for location. Cost-effectiveness of mitigation strategies should be compared before selecting a solution.

ATM 2B.17	Qualifying Corridor Segments
09c	Interstate, Rural Arterial, Rural Major Collector
	>= 2000 vpd
	> 110% of Statewide Avg serious crashes/mile
	> 110% of Statewide Avg serious crash rate per 100 MVM
	>= 5 miles length

NOTE:

8076.226

The information in this report is compiled for highway safety planning purposes. Federal law prohibits its discovery or admissibility in litigation against state, tribal or local government that involves a location or locations mentioned in the collision data. 23 U.S.C. § 409; 23 U.S.C. § 148(g); *Walden v. DOT*, 27 P.3d 297, 304-305 (Alaska 2001).

**Central Region DOT&PF, DPS
Safety Corridors Performance**

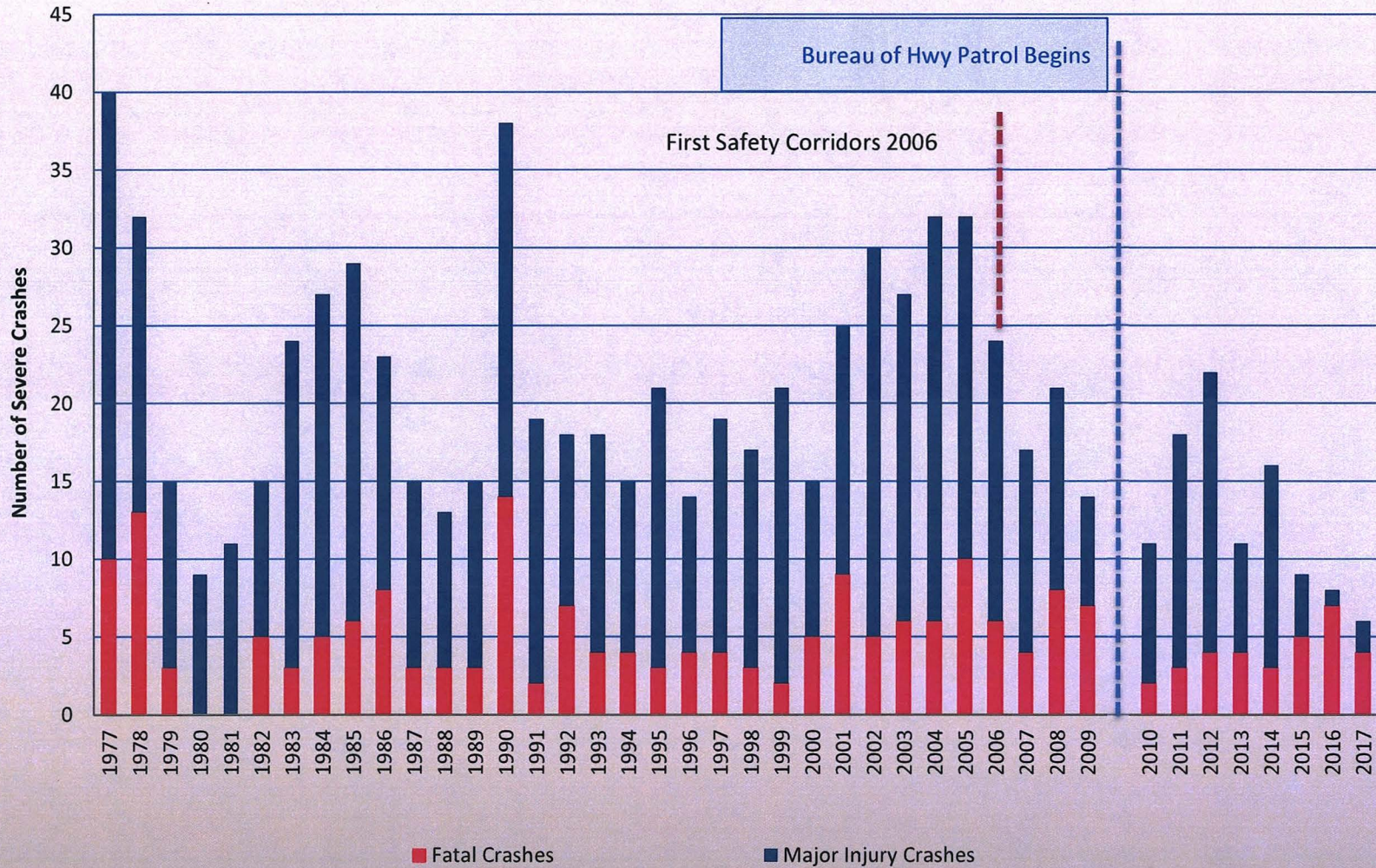
B. Overall Trends

2017

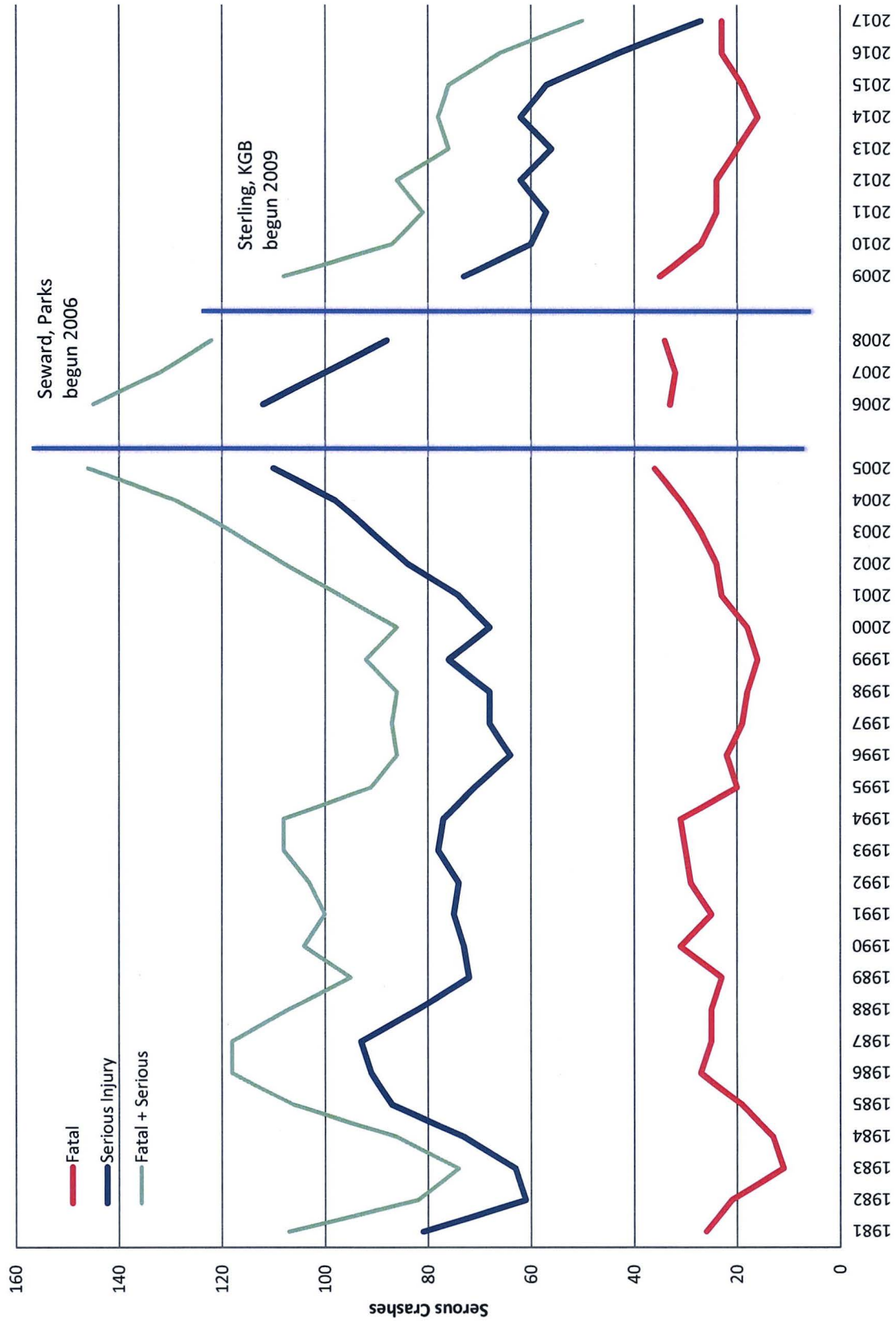
Traffic Safety Corridors Combined

Fatal & Major Injury Crashes: 1977-2017

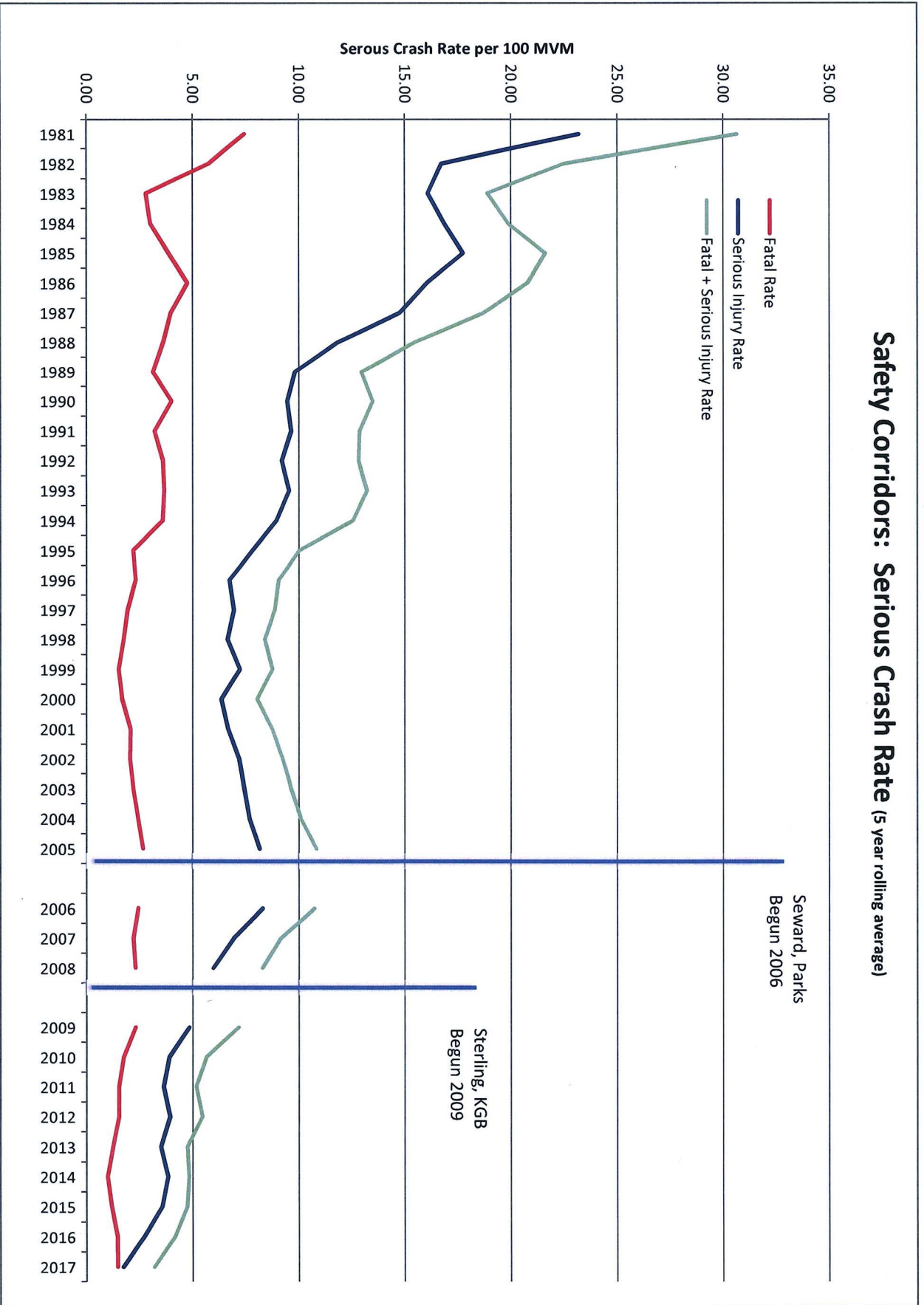
(2015-2017 major injury crashes approximate until reports finalized)



Safety Corridors: Serious Crashes (5 year rolling average)



Safety Corridors: Serious Crash Rate (5 year rolling average)



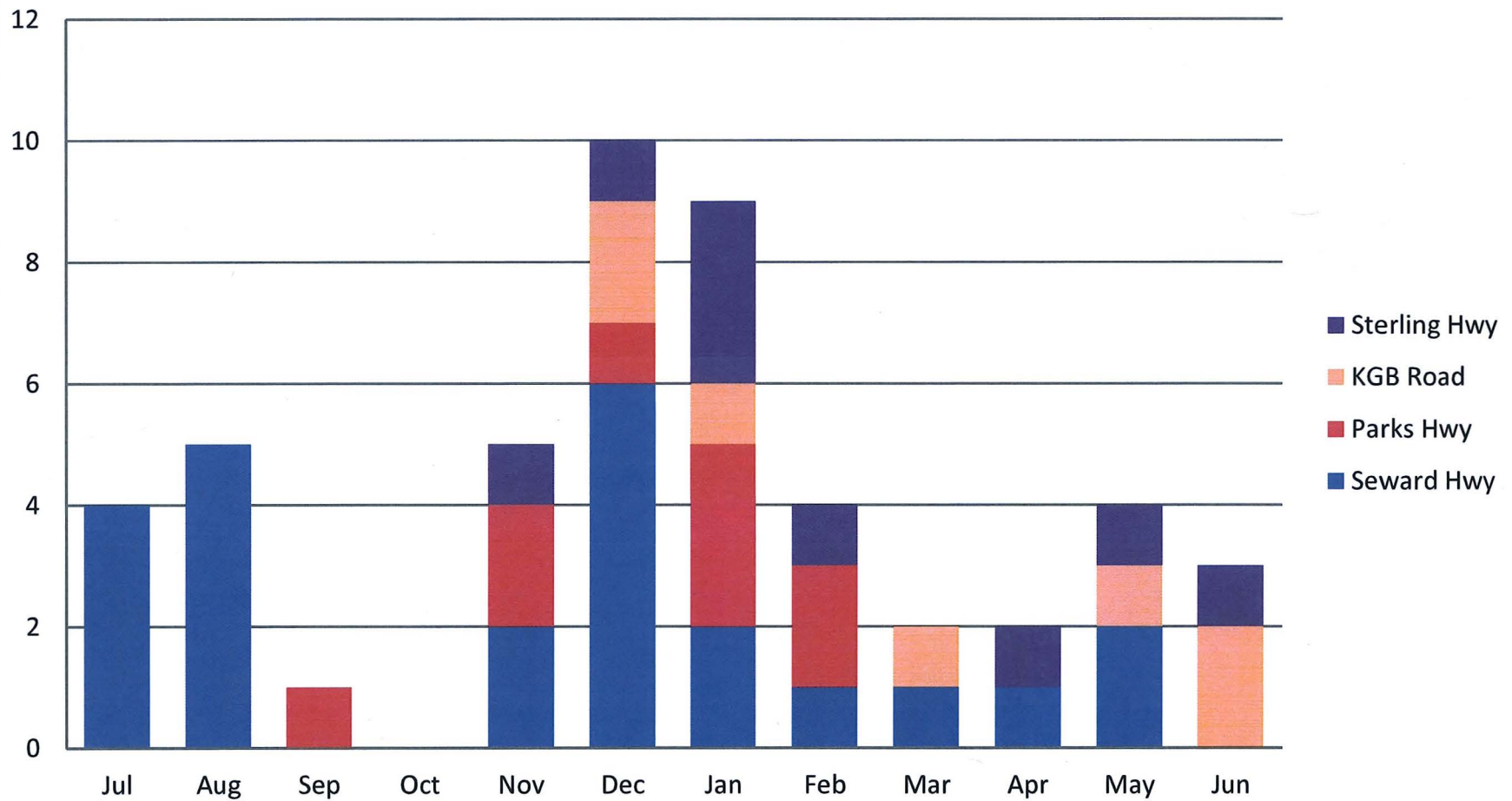
Central Region DOT&PF, DPS

Safety Corridors Performance

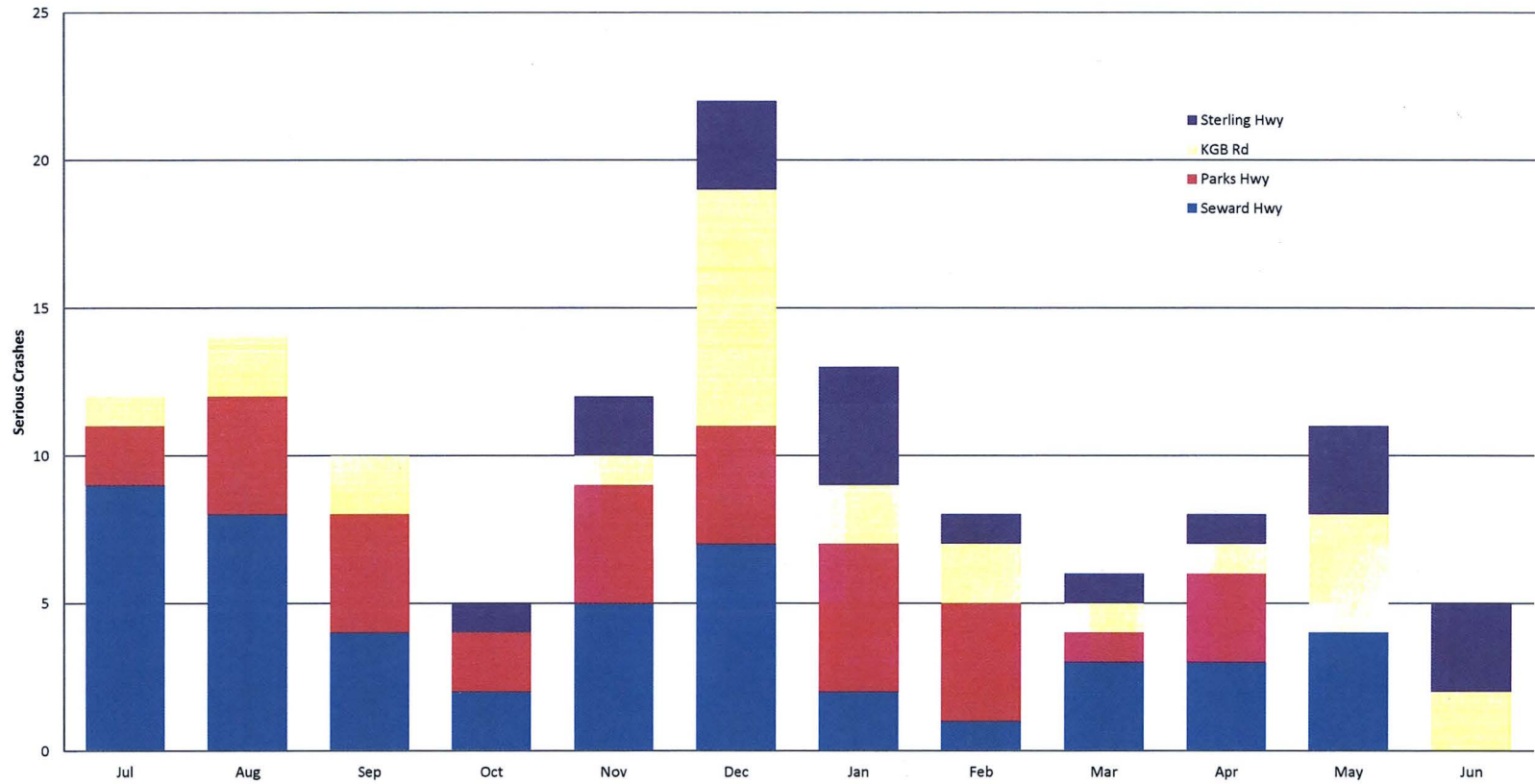
C. Seasonal Variation by Month, Road Surface, Lighting

2017

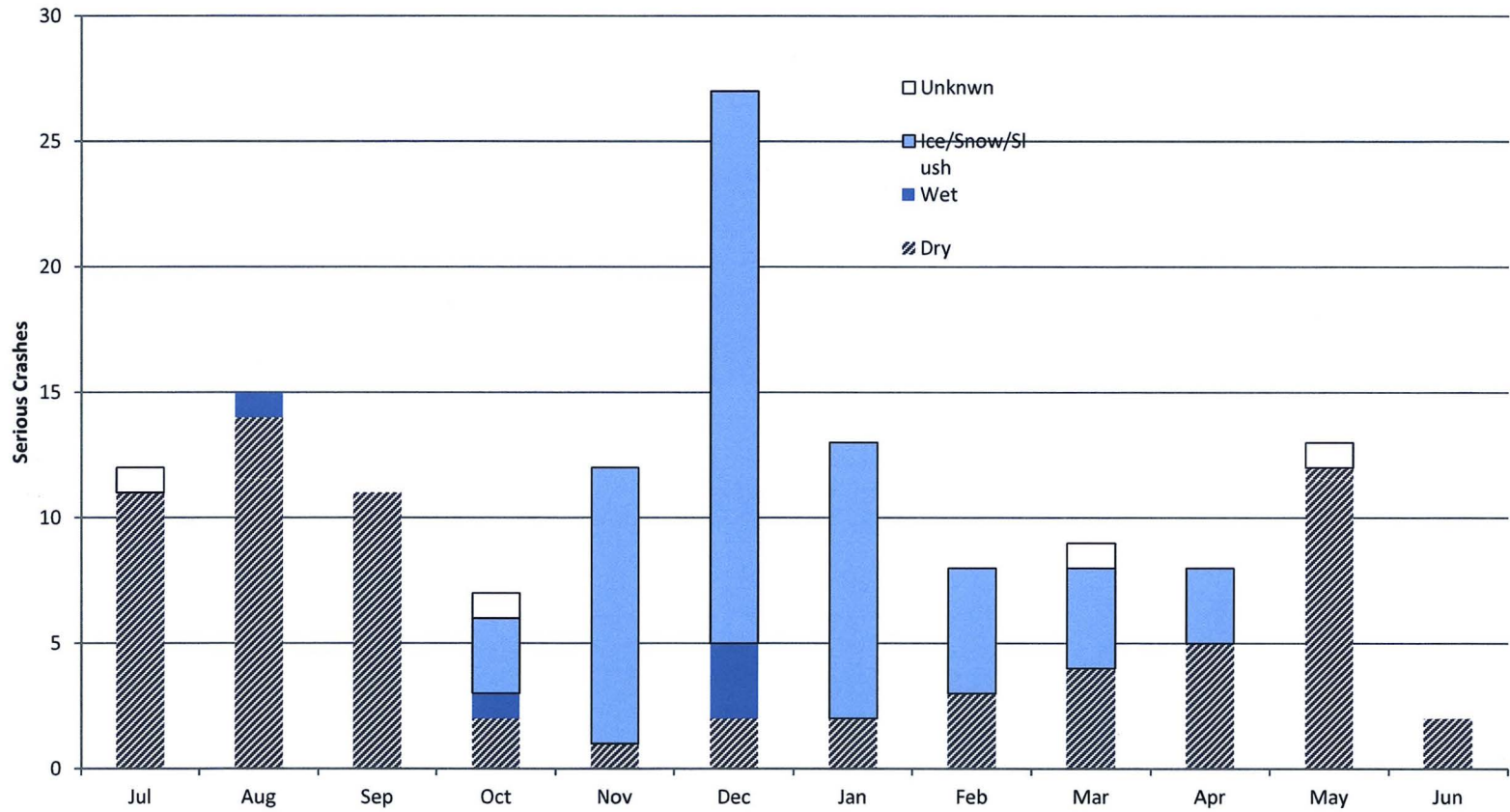
Safety Corridor Fatal Crashes by Month 2006-2016



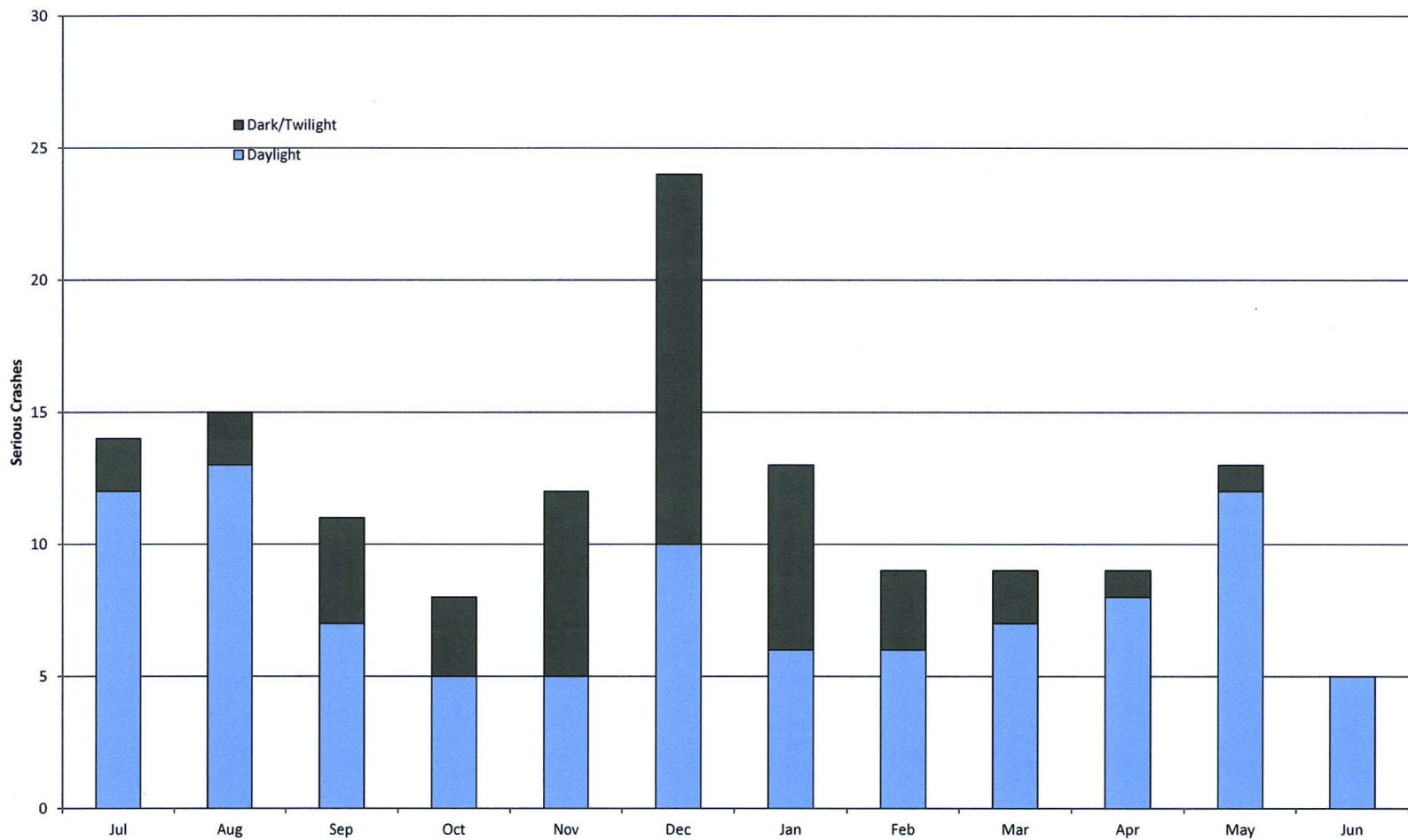
Safety Corridor Crashes by Month (2006-2014)



Safety Corridor Crashes by Road Surface Conditions (2006-2014)



Safety Corridor Crashes by Light Conditions (2006-2014)



Central Region DOT&PF, DPS
Safety Corridors Performance
D. Engineering Projects Underway
2017

DOT/PF Central Region Safety Corridors: 2017 Audit - STIP Budgeting review and estimates

Safety Corridor Candidate (Mileposts)	Investments, Planned funds from 2006 forward	Corridor Length (mi)	Investment plan per mile	Underfunded needs estimated	Underfunded need per mile
Seward Hwy MP 87-117	\$305,986,850	30.6	\$9,999,570	(\$8,000,000)	(\$261,438)
Parks Hwy MP 44-52.5	\$176,721,619	8.2	\$21,551,417	\$0	\$0
Knik-Goose Bay Rd MP 0.6-17.2	\$144,150,993	16.4	\$8,789,695	(\$20,000,000)	(\$1,219,512)
Sterling Hwy MP 83-93	\$13,056,478	9.8	\$1,332,294	(\$69,900,000)	(\$7,132,653)
<i>TOTAL</i>	<i>\$639,915,940</i>	<i>65</i>	<i>\$9,844,861</i>	<i>(\$97,900,000)</i>	<i>(\$1,506,154)</i>

Seward Hwy Safety Corridor - DOT/PF Improvements since Designation May 26, 2006

01/00/00

AKSAS	Project	Scope	Solution	Funding Source Identified through STIP, GF (as of 2012)	Estimated Funding Shortfall, Planned Projects [UNDERFUNDED]	Construction
						Year (Est)
51218	HSIP MP 104-115 Seward Hwy Rut Repair	Hwy Safety Improvement Project: Rut repair, overlay to reduce head-on, SVROR crashes	Completed	\$7,013,000	\$0	2008
51047	HSIP Central Region Rumble Strips, Phase II	Hwy Safety Improvement Centerline/shoulder rumble strips to reduce head-on, SVROR crashes	Completed	\$315,000	\$0	2010
59838	HSIP Small SPOT Improvements	Signing for headlights, REDDI, Mileposts	Completed	\$83,000	\$0	2011 Construction w/NHS Delin
51289	HSIP NHS Delineation	Curves, guardrail, roadside delineation, signing consistency on Parks, Glenn, Seward, Sterling Hwys.	Completed	\$100,000	\$0	2011
52223	ITS Seward Hwy 2009	DMS Sign upgrades to LEDs at Potters Marsh	Completed	\$90,000	\$0	2011 Constr w/CR Signal Upgrades
52491	Seward Hwy Rut Repair MP 115-124 (MP 104-117 in Safety Corridor)	Potter Valley Rd to Dowling Rd Paving and Guardrail	Completed	\$3,214,000	\$0	2011
52991	Seward Hwy MP 89-96.6 Resurfacing	Girdwood to Bird. Repaving, signing, striping, guardrail replacement.	Completed	\$8,980,000	\$0	2012
52121	HSIP MP 88 Curve Improvements	Guardrail removal, slope flattening	Completed	\$1,165,011	\$0	2013
52451	HSIP Passing Lanes, Slow Vehicle Turnouts (Minor fill work)	NB passing lanes Ph I, Bertha Crk to Anchorage. Up to 17 opportunities.	Completed	\$12,830,529	\$0	2013
53425	GF ITS Safety Corridors: Seward Hwy Speed Signs	Dynamic speed signs, power service and pads.	Completed	\$1,071,924	\$0	2013
55750	HSIP CR Guardrail Delineation Enhancements	Upgrades to high intensity web reflectors and to post top delineators on coasts	Completed	\$288,894	\$0	2014
56631	MP 105-115 Rehabilitation	Passing lanes, sheep viewing turnout, hwy and railroad relocation.	Long Term	\$0	Undetermined	As funding is available
	Ph I: MP 105-107 Windy Corner		Short Term	\$73,550,000		2018 (Phase I)
58822	Ph I: MP 99-100 Bird Pt - Bird	NB Bird Point to Bird Passing lanes (HSIP)	Completed	\$9,244,992	\$0	2017 (Phase I)
58389	Ph II: MP 100-105 Bird - Indian	Bird to Indian Rehabilitation	Short Term	\$21,000,000	Undetermined	2018+ (Phase II)
54250	Seward Hwy MP 90-117 Route Development Plan	Long term vision for Seward Hwy to address traffic, safety, growth, and access	Short Term	\$175,000	\$0	2017
57088	HSIP Traffic Safety Corridors Left Turn Lanes	Left turn lanes - Bird (Sawmill Rd) & Indian (Boretide Rd) Build w/Ph I MP99-100	Short Term	\$4,450,000	\$0	2018
CFHWY 00212	Ph I: MP 75-90 Rehabilitation	Rehabilitation, pullouts, new bridges, passing lanes	Medium Term	\$85,700,000	\$0	2018
58105	Ph II: MP 75-90 Rehabilitation	Rehabilitation, pullouts, new bridges, passing lanes	Medium Term	\$70,800,000	\$0	2020+
54619	GF Safety Corridors: Alyeska JCT Intersection Improvements	Split intersection into two directions, unsignalized. In preliminary layout phase.	Medium Term	\$5,000,000	(\$8,000,000)	2020+
59675	Seward Hwy MP 90-117 Right of Way Study	ROW Survey, as-built, and Agreement development on Seward Hwy	Medium Term	\$915,500	\$0	2020+
				\$305,986,850	(\$8,000,000)	TOTAL

Short Term = Interim Improvements 1-2 years

Medium Term = Permanent Improvements within 1-3 years in STIP

Long Term = Beyond committed or certain STIP funds, funds uncertain

KEY:	Completed since Safety Corridor
	In Design
	Under Construction

SAFETY CORRIDOR EXPECTED DECOMMISSIONING PLAN: (for segments as road upgrades occur)

Segment	Decommissioning Plan	Year
MP 87-90	Evaluate Decommissioning for 3 yrs post HSIP MP 88 Curve improvements	2018+
MP 90-99	Consider Decommissioning for 3 yrs post HSIP passing lane improvements	2020+
MP 99-100	Consider Decommissioning 3 yrs after passing lane improvements	2021+
MP 100-104	3 yrs after improvements to be determined, possibly left turn lanes	2021+
MP 104-115	With passing lane improvements	Uncertain

AKSAS	Project	Scope	Solution	Funding Source Identified through STIP, GF	Estimated Funding Shortfall, Planned Projects [UNDERFUNDED]	Construction
						Year (Est)
51097	MP 44-52.3 Parks Hwy Rut Repair	M&O overlay repair Wasilla to Big Lake	Completed	\$5,483,000	\$0	2008
53160	Parks & Vine Signal	Traffic signal installation	Completed	\$1,200,000	\$0	2008
51047	HSIP Central Region Rumble Strips	Hwy Safety Imprvmt Proj: Centerline/shoulder rumble strips	Completed	\$89,000	\$0	2010
59838	HSIP Small SPOT Improvements	Signing for headlights, REDDI, Mileposts	Completed	\$55,000	\$0	2011
51289	HSIP NHS Delineation	Curves, guardrail, roadside delineation, signing consistency on Parks, Glenn, Seward, Sterling Hwys.	Completed	\$100,000	\$0	2011
54453 & 53425	Parks & Stanley Signalization	New traffic signal and turn lanes	Completed	\$3,023,037	\$0	2012 (Dec)
53425	Safety Corridors GF: Parks Hwy Speed Signs	Dynamic speed signs, power service and pads	Completed	\$287,248	\$0	2013
54602	Parks & Pittman Signal Modifications	Retrofit to allow for more efficient mainline operations	Completed	\$205,000	\$0	2013
52914	MP 43.5-44.5 Reconstr. (Ph I)	Lucas Rd to Church Rd: Extend 5 Lane Section	Completed	\$29,799,000	\$0	2014 (Phase I)
52929	MP 44.5-48.8 Reconstr. (Ph II)	Church Rd to Pittman Rd: Four Lane Divided Hwy	Constr	\$79,405,334	\$0	2016 (Phase II)
54373	MP 48.8-52.3 Reconstr. (Ph III)	Pittman Rd to Big lake Rd: Four Lane Divided Hwy	Long Term	\$55,000,000	\$0	2018+ (Phase III)
59273	Parks Hwy Multimodal Corridor Study	Plan for Parks Highway and possible alternate corridors	Medium Term	\$2,075,000	\$0	2018+
				\$176,721,619	\$0	TOTAL

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KEY:	Completed since Safety Corridor
	In Design
	Under Construction

SAFETY CORRIDOR EXPECTED DECOMMISSIONING PLAN: (for segments as road upgrades occur)

MP 43.5-48.8	Decommission to Pittman Rd upon completed divided highway	2016
MP 48.8-52.3	Pending divided highway construction	Uncertain

Knik-Goose Bay Road Safety Corridor - DOT/PF Improvements since Designation July 1, 2009

06/26/17

AKSAS	Project	Scope	Solution	Funding Source Identified through STIP, GF	Estimated Funding Shortfall, Planned Projects [UNDERFUNDED]	Construction
						Year (Est)
50951	KGB & Vine Rd Signalization GF	New Traffic Signal	Completed	\$1,335,000	\$0	2009
50889	KGB & Fairview Lp Signal GF	New Traffic Signal	Completed	\$1,300,000	\$0	2009
51047	HSIP Central Region Rumble Strips	Hwy Safety Improvement Project: Centerline / shoulder rumble strips	Completed	\$174,000	\$0	2010
59838	HSIP Small SPOT Improvements	Signing for headlights, REDDI, Mileposts	Completed	\$55,000	\$0	2011 Construction w/NHS Delin
53425	Safety Corridors: KGB Hwy Speed Signs GF	Dynamic speed signs, power service and pads.	Completed	\$574,495	\$0	2013-2015
51896	KGB & Fern St Signal & Turn Lanes GF (\$1.2M; City \$300k)	Traffic signal, left turn lanes, merge lane extension	Completed	\$5,681,450	\$0	2013
55750	HSIP CR Guardrail Delineation Enhancements	Upgrades to high intensity web reflectors and to post top delineators on coasts	Completed	\$31,048	\$0	2014
52464	KGB Widening MP 0.3-6.8: Centaur to Vine GF + FHWA	Separated 4 lane hwy with at-grade intersections Coordinating with S. Mack project.	Medium Term	\$ 115,000,000	\$0	2020
51717	KGB Widening MP 6.8-: Vine Rd - Settler's Bay GF	Divided 4 lane hwy with at-grade intersections	Medium Term	\$ 20,000,000	(\$20,000,000)	2020
				\$144,150,993	(\$20,000,000)	TOTAL

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KEY:	Completed since Safety Corridor
	In Design
	Under Construction

SAFETY CORRIDOR EXPECTED DECOMMISSIONING PLAN: (for segments as road upgrades occur)		
MP 1-6.8	upon completed multilane construction	2020+
MP 6.8-8	with divided highway construction	2020+

Cumulative Growth Impacts: Housing, Prison, Future Schools, Knik-Arm Crossing, Coal, Wood Resource extraction, Rail terminal

Sterling Hwy Safety Corridor - DOT/PF Improvements since Designation July 1, 2009

06/26/17

AKSAS	Project	Scope	Solution	Funding Source Identified through STIP, GF	Estimated Funding Shortfall, Planned Projects [UNDERFUNDED]	Construction
						Year (Est)
51046	Sterling Hwy Rut Repair, MP 90-94	Surface repaving from Soldotna to Forest Lane	Completed	\$3,043,000	\$0	2009 Phase I
51047	HSIP Central Region Rumble Strips	Hwy Safety Improvement Project: Centerline/shoulder rumble strips	Completed	\$105,000	\$0	2010
52493	Sterling Hwy Resurfacing, MP 82-90	Forest Lane to Sterling resurfacing, guardrail, signing, striping	Completed	\$4,842,682	\$0	2011 (Phase II)
59838	HSIP Small SPOT Improvements	Signing for headlights, REDDI, Mileposts	Completed	\$55,000	\$0	2011 Construction w/NHS Delin
51289	HSIP NHS Delineation	Curves, guardrail, roadside delineation, signing consistency on Parks, Glenn, Seward, Sterling Hwys.	Completed	\$100,000	\$0	2011
53425	Safety Corridors: Sterling Hwy Speed Signs GF	Dynamic speed signs, power service and pads.	Completed	\$343,296	\$0	2013-2015
54830	Safety Corridor Study	Sterling to Soldotna: Four lane options	Long Term	\$600,000	\$0	2017
57088	HSIP Traffic Safety Corridors Left Turn Lanes	Left turn lanes - Jim Dahler Rd / Forest Lane, each direction	Short Term	\$3,967,500	\$0	2018
30130	Sterling Safety Corridor Improvements MP 82.5-94	Widening to a divided 4 lane facility w/limited center TWLTO lanes	Long Term	\$8,500,000	(\$69,900,000)	2019+
				\$13,056,478	(\$69,900,000)	TOTAL

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KEY:

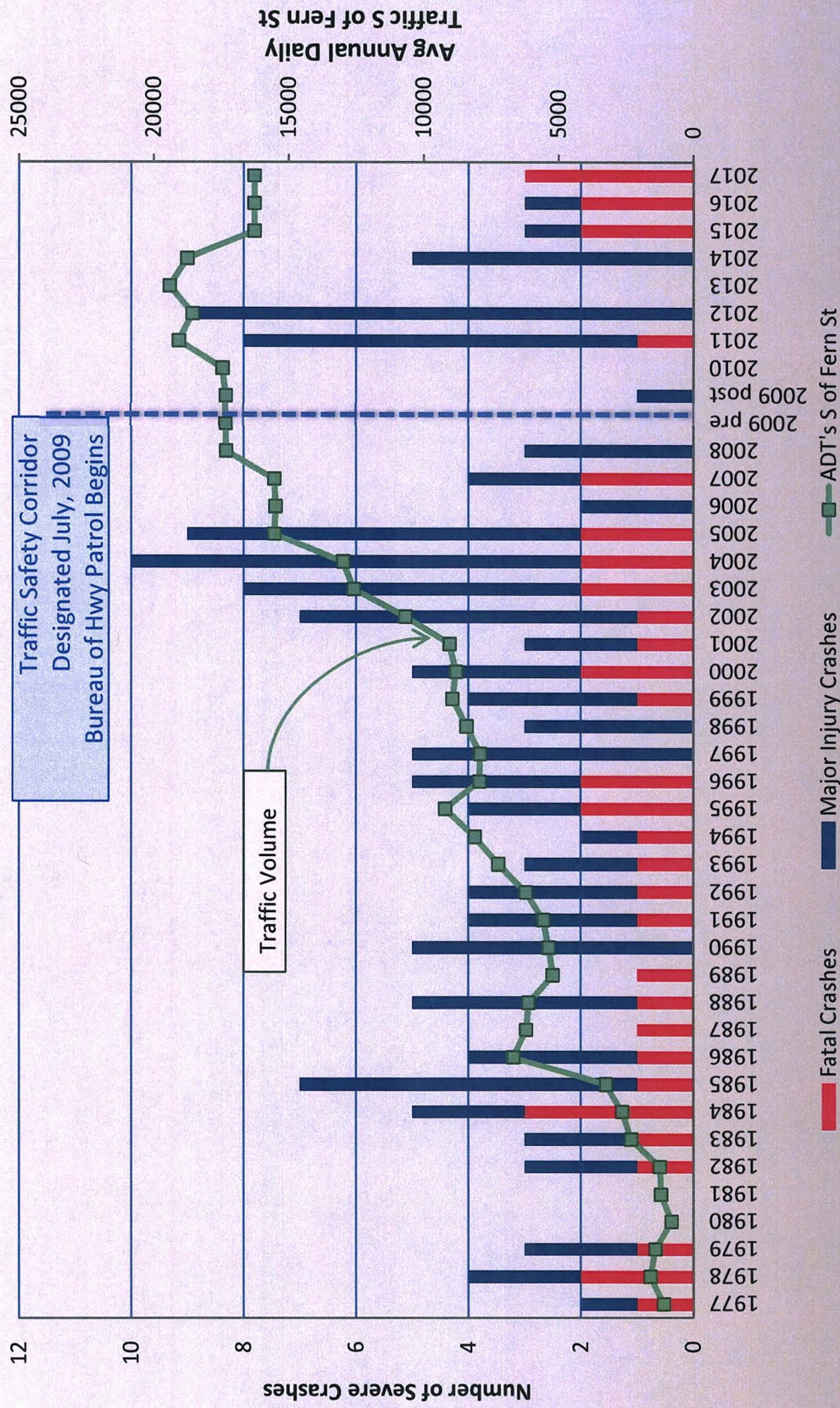
Completed since Safety Corridor
In Design
Under Construction

Central Region DOT&PF, DPS
Safety Corridors Performance
E. Individual Corridors Annual Charts
and
Five Year Rolling Performance Charts
2017

Knik/Goose Bay Road: PW Hwy to Pt. MacKenzie Rd

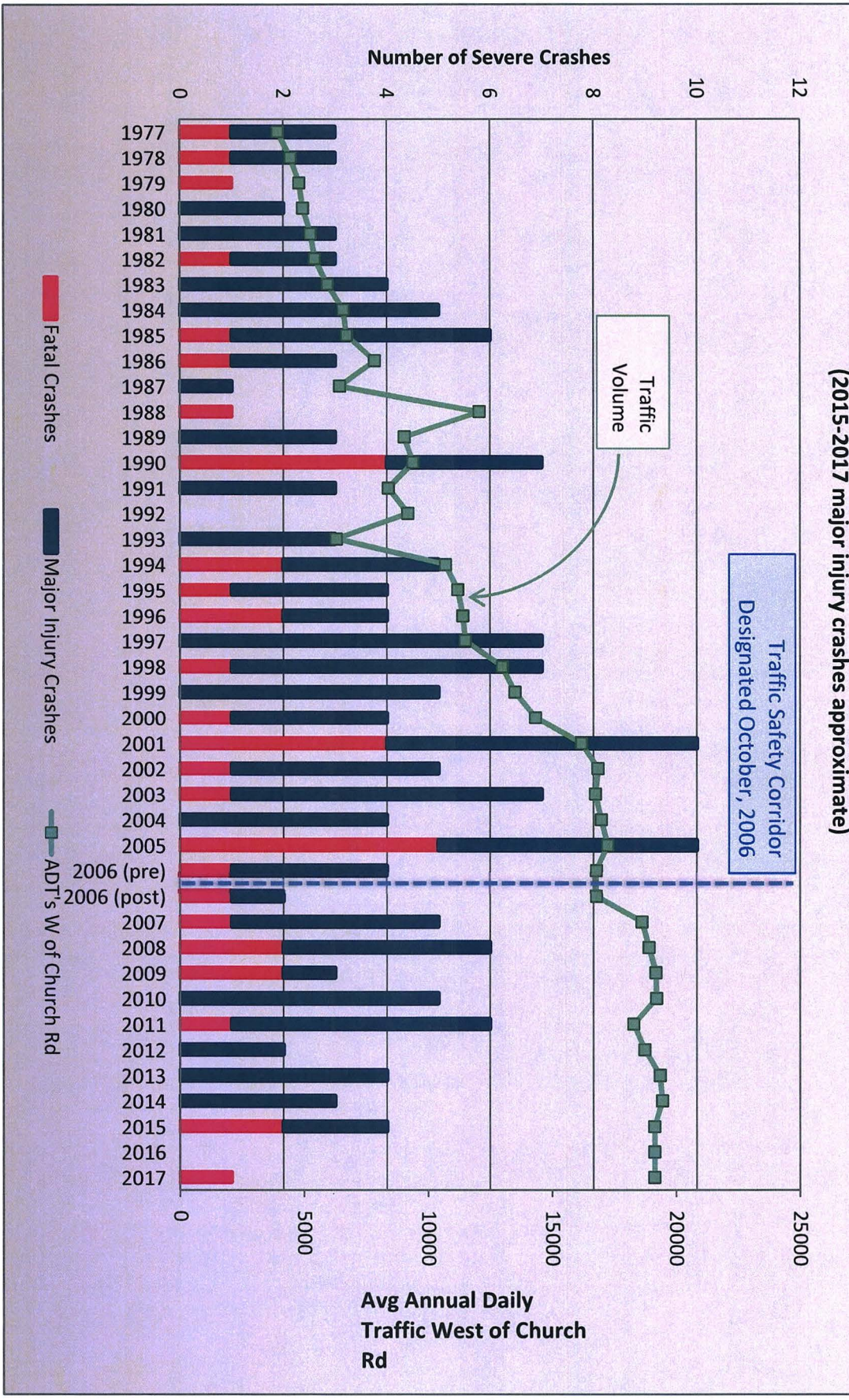
Fatal & Major Injury Crashes: 1977-2017

(2015-2017 serious injury crashes approximate)



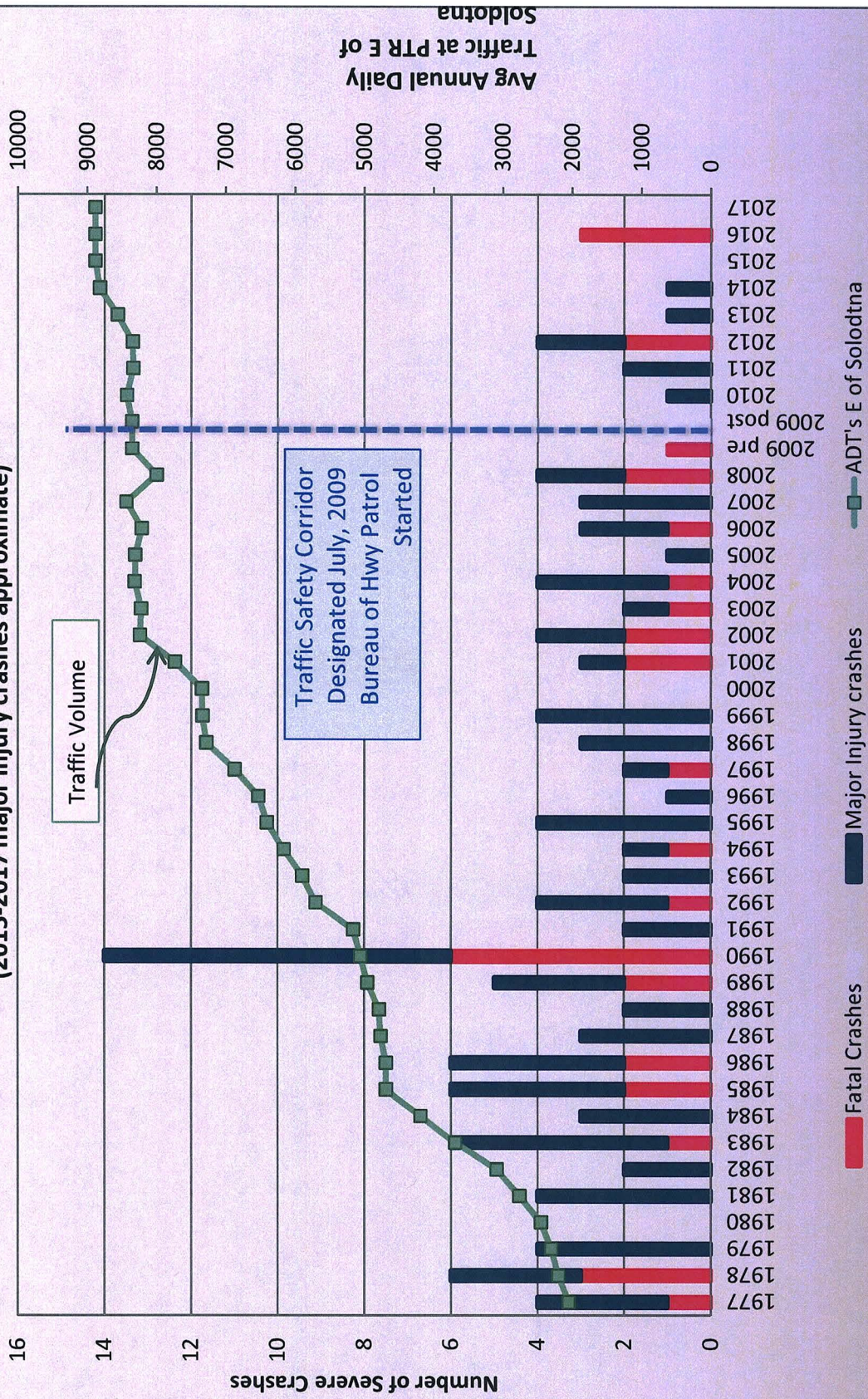
Parks Highway Traffic Safety Corridor Fatal & Major Injury Crashes: 1977-2017

(2015-2017 major injury crashes approximate)



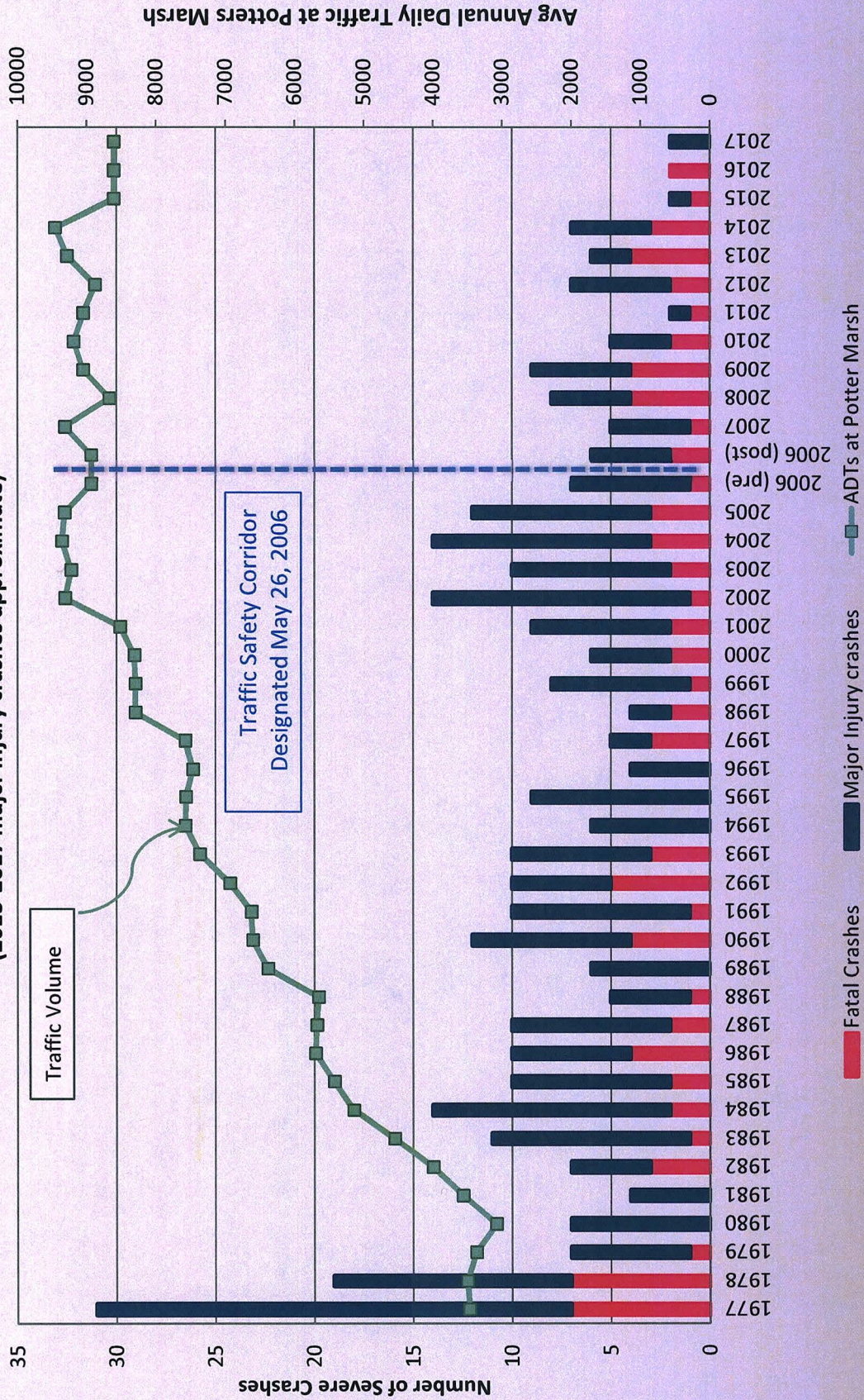
Sterling Highway Traffic Safety Corridor Fatal & Major Injury Crashes: 1977-2017

(2015-2017 major injury crashes approximate)

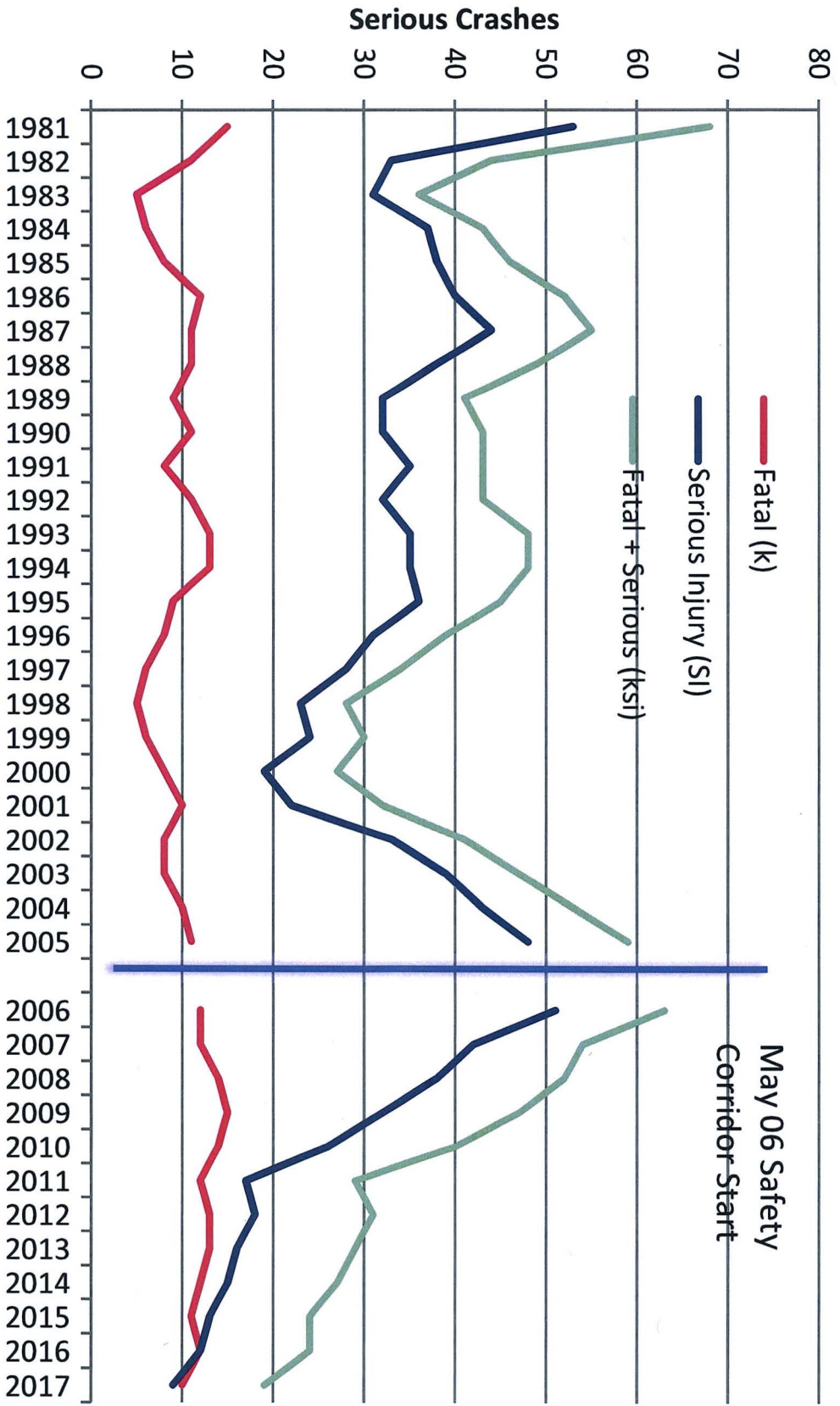


Seward Highway Traffic Safety Corridor Fatal & Major Injury Crashes: 1977-2017

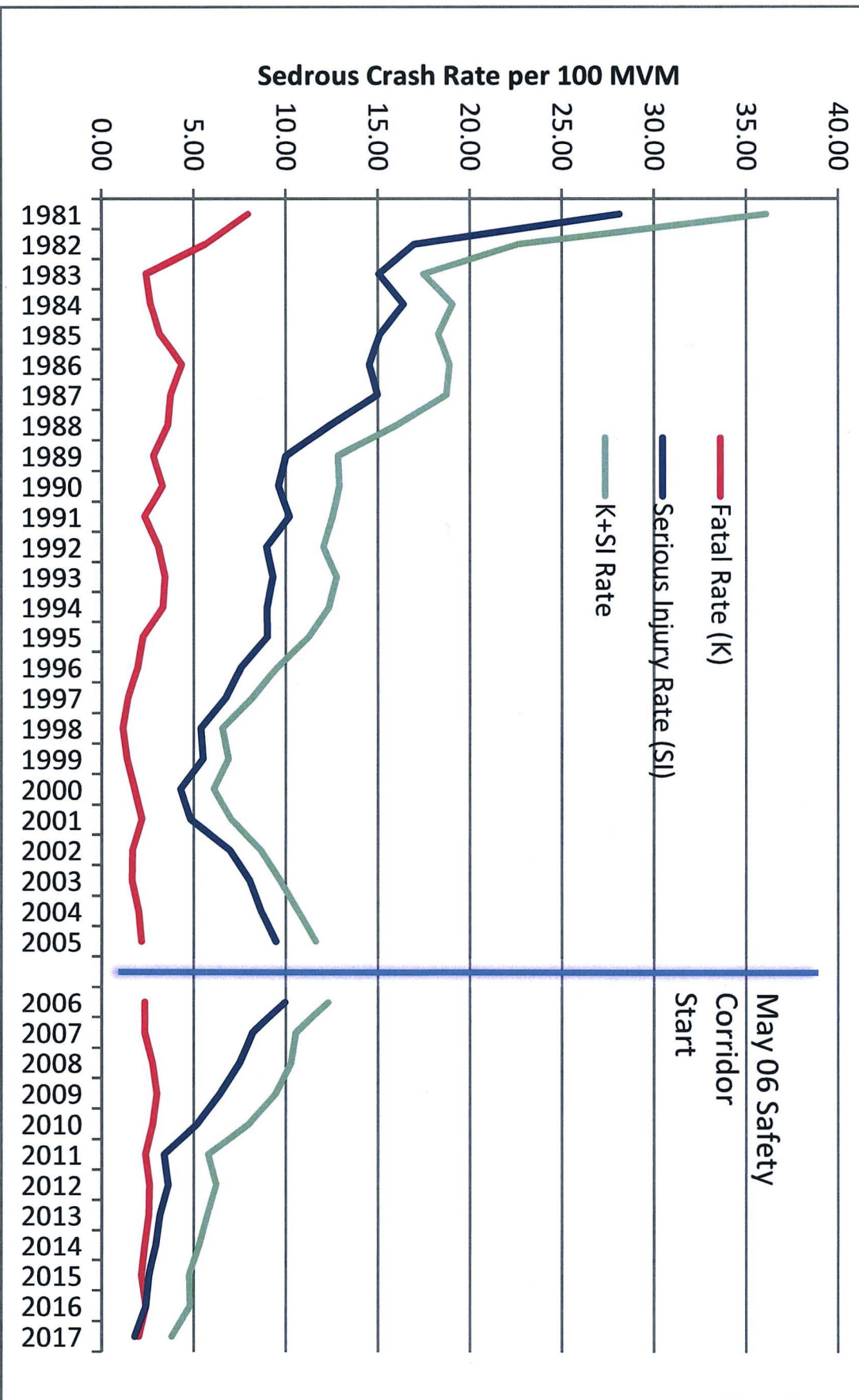
(2015-2017 major injury crashes approximate)



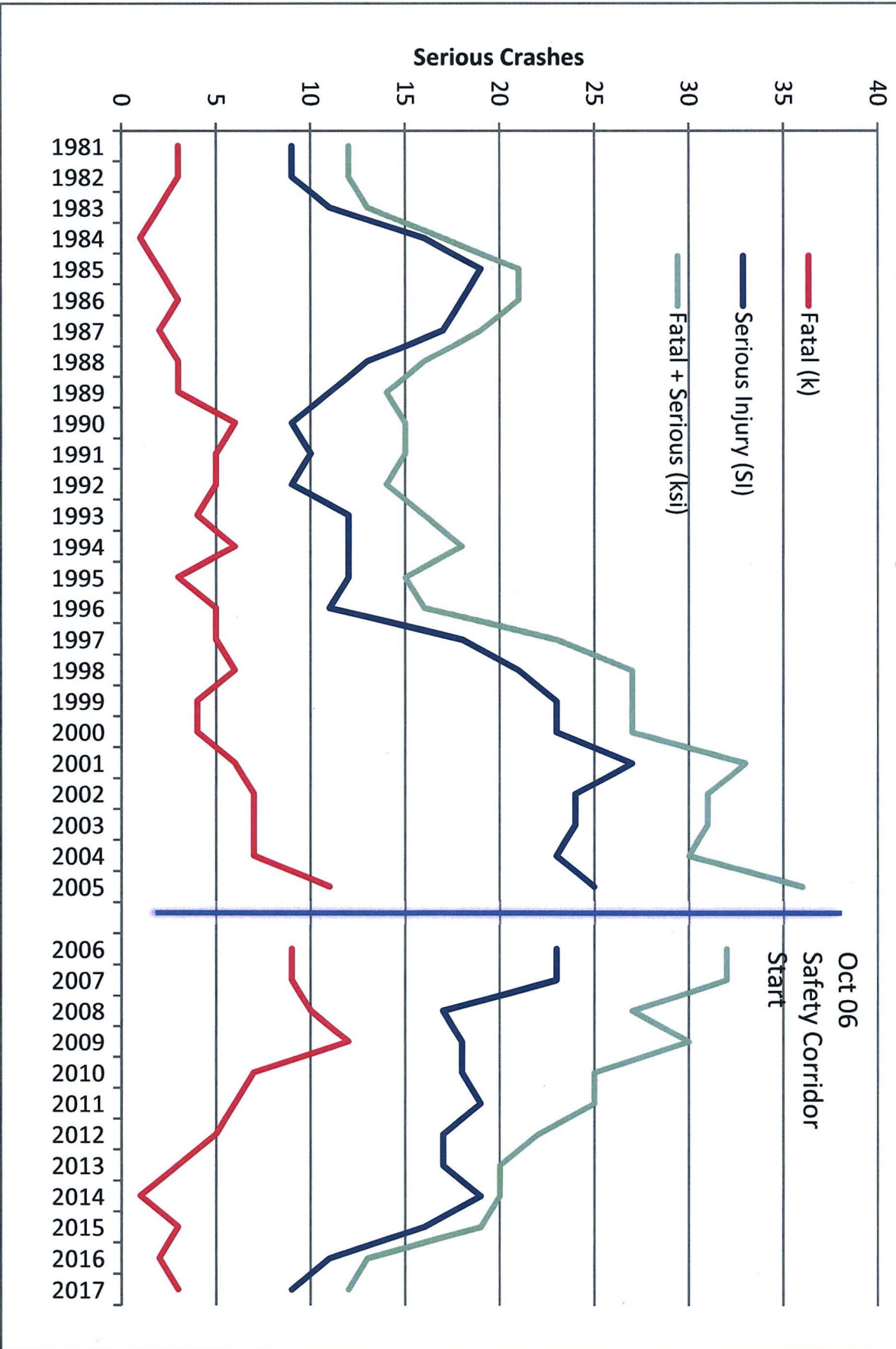
Seward Hwy - KSI Crashes (5 yr rolling)



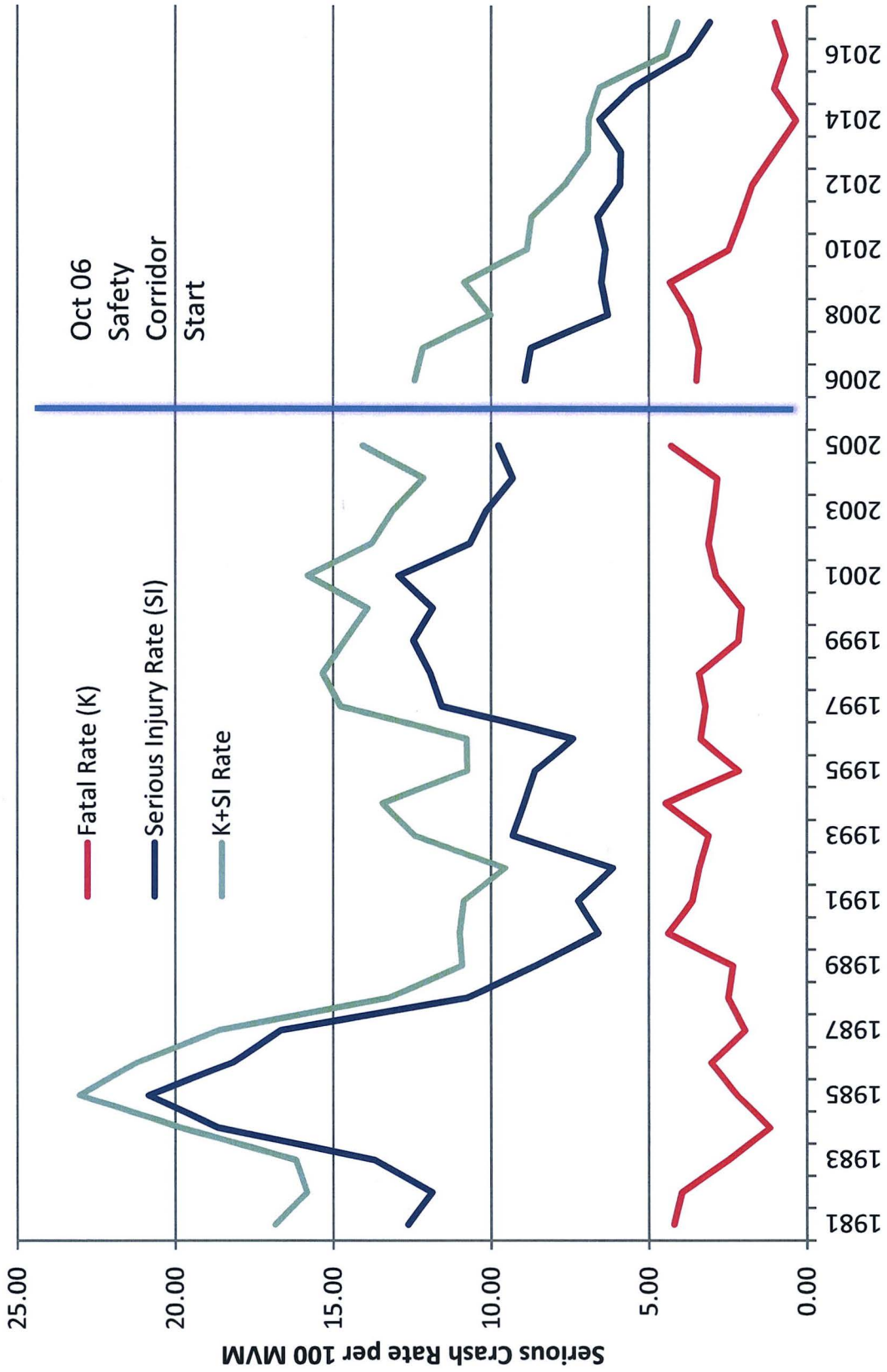
Seward Hwy - KSI Crash Rates (5 yr rolling)



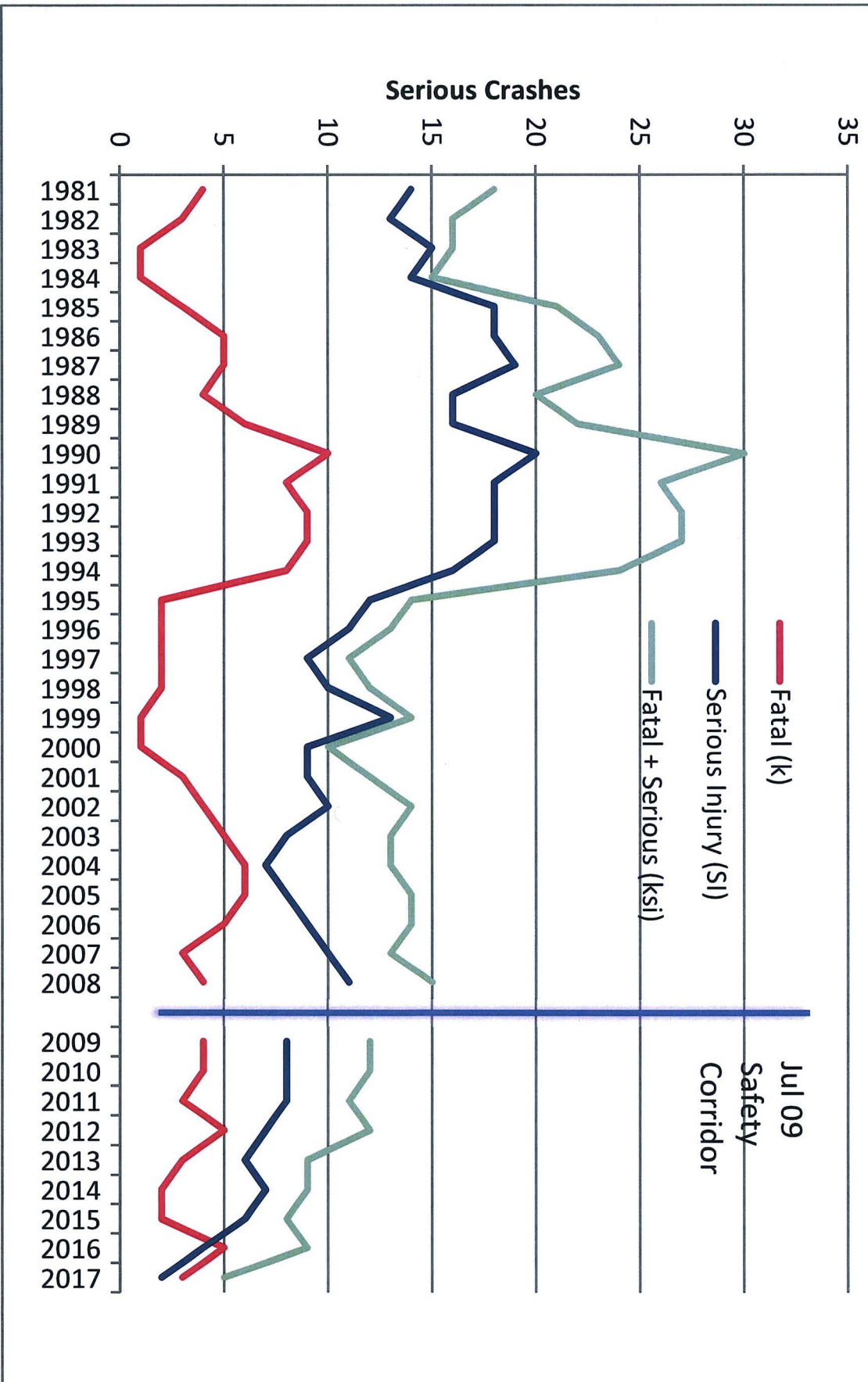
Parks Hwy - KSI Crashes (5 yr rolling)



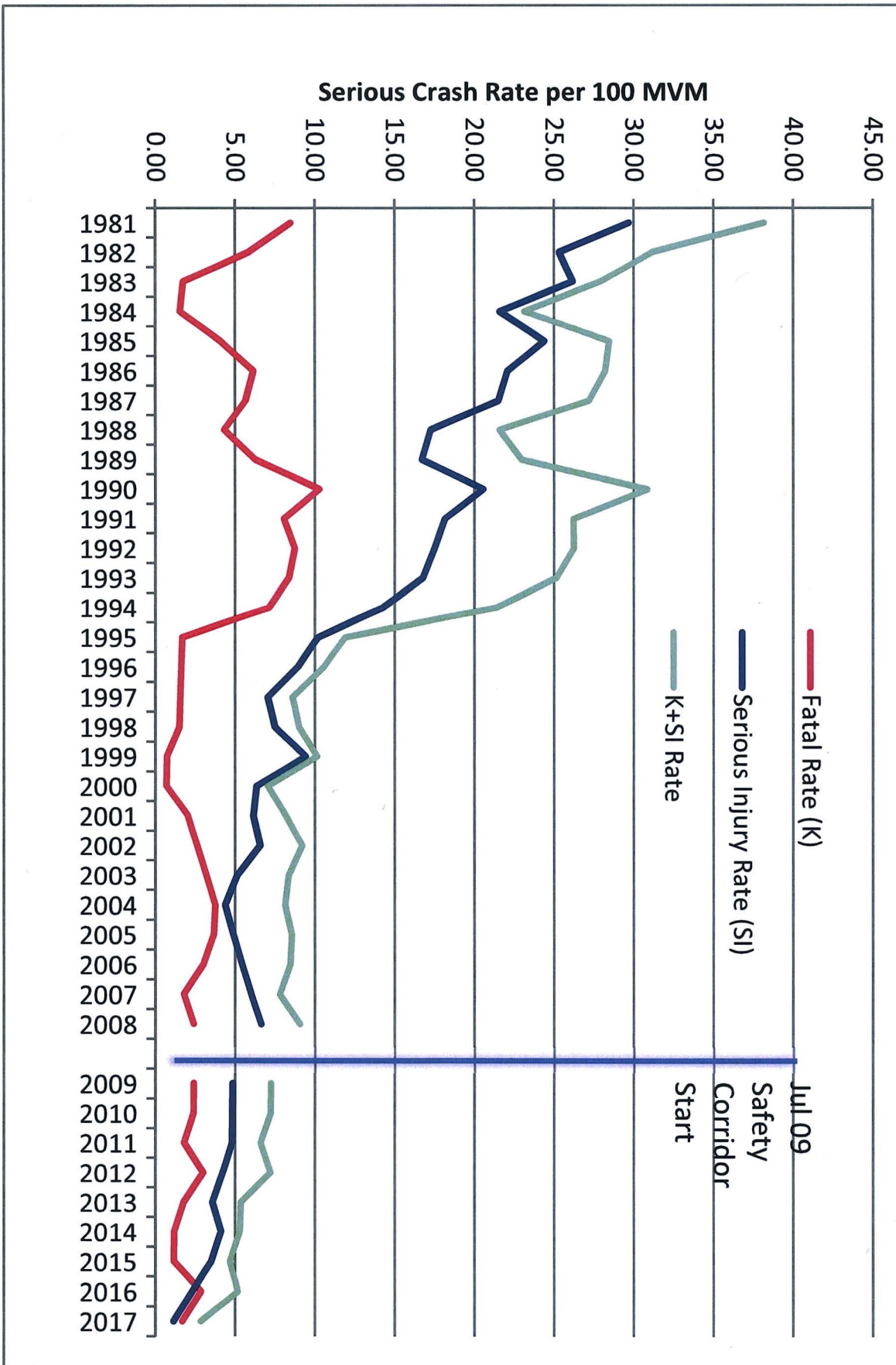
Parks Hwy - KSI Crash Rate (5 yr rolling)



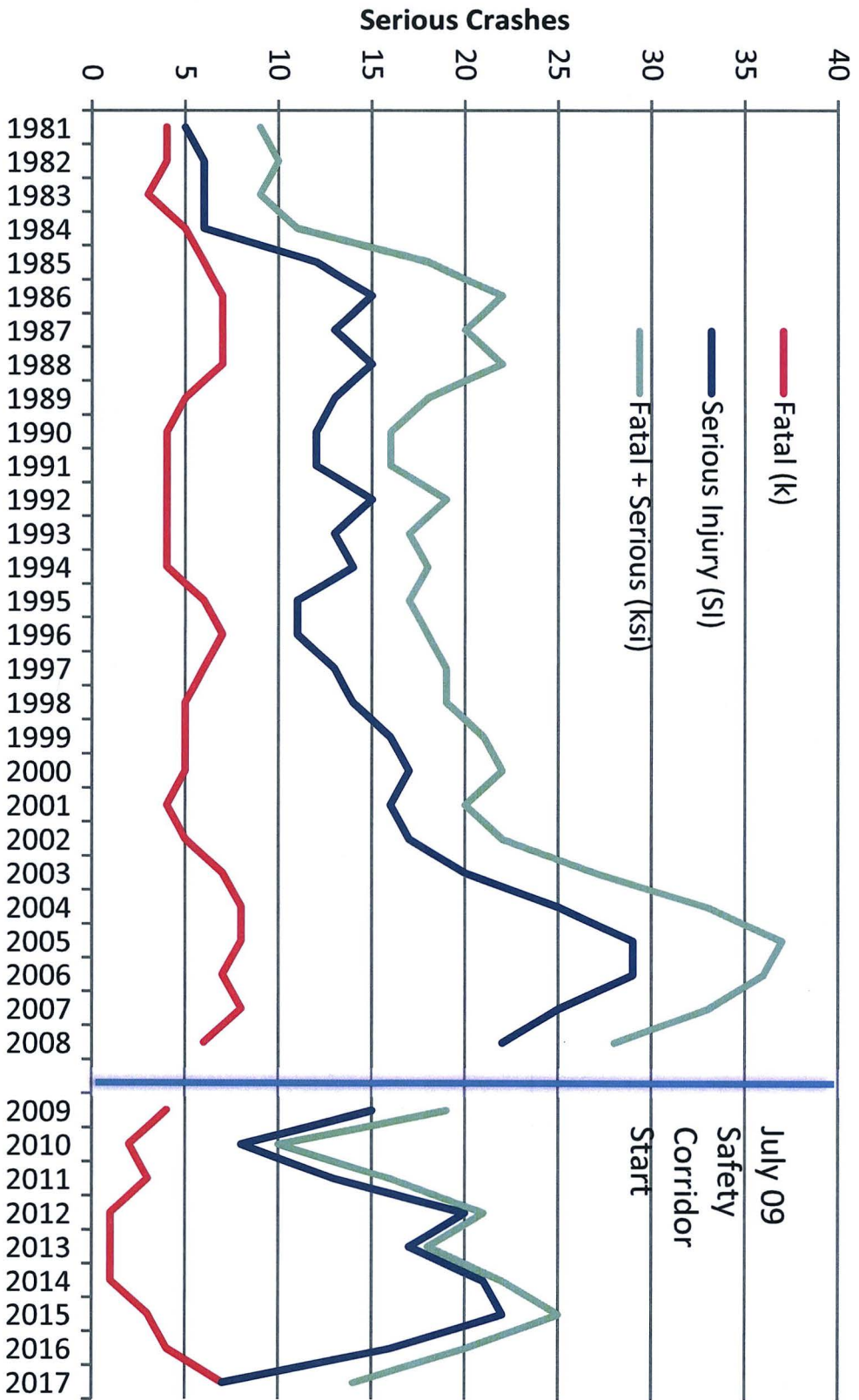
Sterling Hwy - KSI Crashes (5 yr rolling)



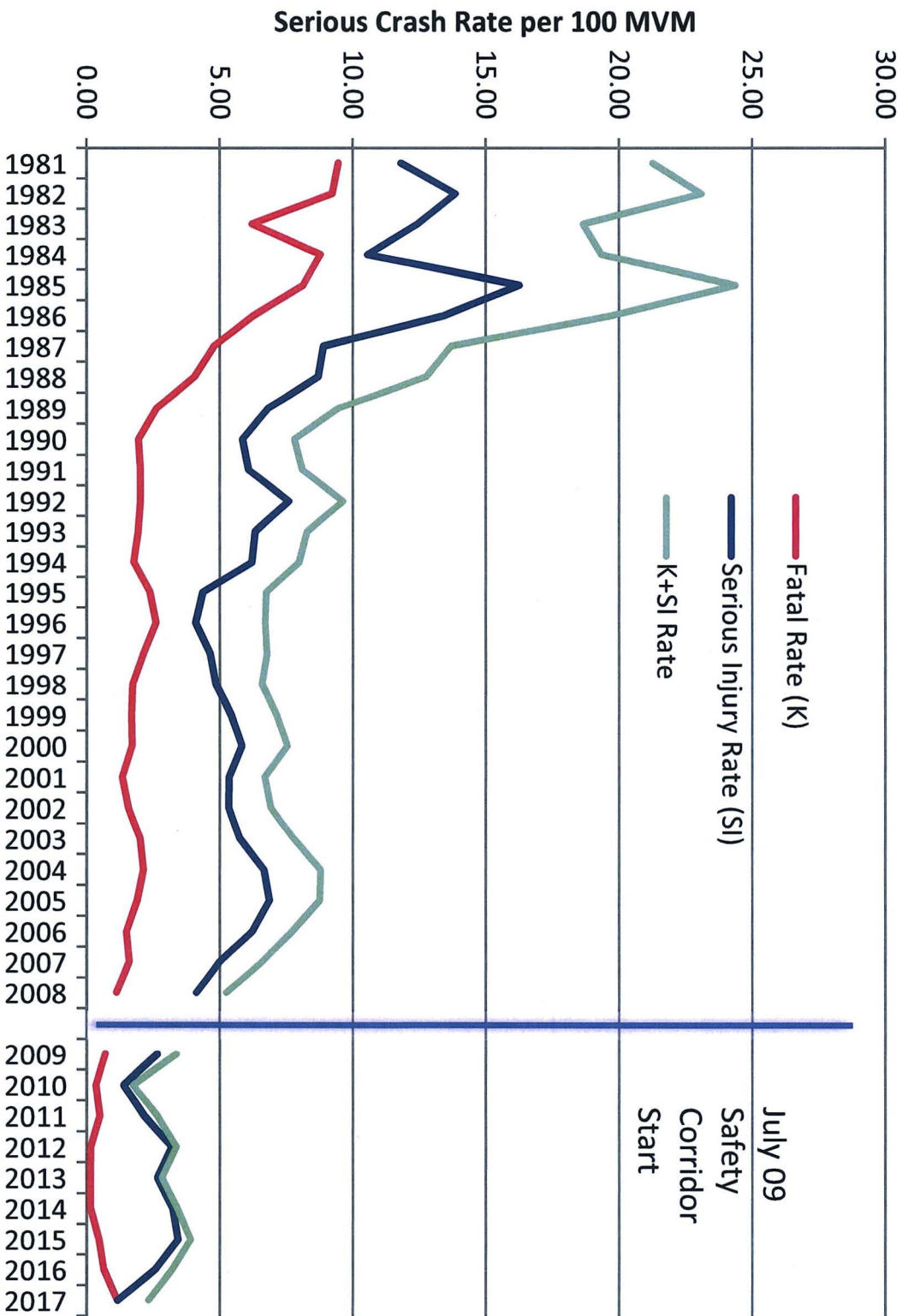
Sterling Hwy - KSI Crash Rates (5 yr rolling)



Knik-Goose Bay Road KSI Crashes (5 yr rolling)



Knik-Goose Bay Road KSI Rates (5 yr rolling)



Central Region DOT&PF, DPS

Safety Corridors Performance

F. Four E's Considerations/Tracking

2017

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
2017 AUDIT

ENFORCEMENT CONSIDERATIONS

Contact: Lt. Kat Shuey, AST – Bureau of Highway Patrol (BHP)
email: kat.shuey@alaska.gov

Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
1	Audit Group 2009, 2010	Increase traffic patrol staff in the Mat-Su focused on and around the Parks Highway Safety Corridor	2006: Opened Pittman Rd office October. Initially added 2 Municipal officers to BHP. 2010: Added 2 full time BHP troopers to Girdwood. 2010-2011: Authorized for more BHP officers up to 26 positions. 2011: DRE grant funds for 4 additional DRE's statewide. Ongoing: Shifting BHP resources as needed to cover events, holidays, and higher risk corridors at desirable shift levels. 2012-2013: No staff increases. Maintain ongoing patrol. 2016: BHP reduced to 3 officers serving the Seward Hwy and Statewide. MatSu West Trooper Post officers will patrol MatSu.	No additional action.
2	Audit Group 2009	Target aggressive, reckless/ improper driving, and speeding	2010: Added staff (see above), and local police agreements to BHP from 2009-2011. Increased Seward Hwy enforcement in 2009, further in 2010 with two BHP units assigned to Girdwood. Purchased 5 smart carts in 2009 – deployed radar trailers for mobile use since 2010. Increased REDDI reporting awareness via radio in 2010, signing by DOT in 2011. 2016 budget cuts are reducing enforcement staffing for highway patrol.	No additional action.
3	Audit Group 2009, 2010	Experiment with aerial enforcement to determine cost-effectiveness in reducing crashes	Tested in 2006, 2008, 2009. Preliminary testing proved challenging due to summer traffic congestion, winter conditions covering aerial markers and lack of full time dedicated staff for areal enforcement. Aerial program not cost-effective. No resources available for a sustained program.	No further action.
4	Audit Group	Tap Safety Corridor fines, agency grants, and legislated funds	2009-2011: Submitted AST Grant request to AHSO for more PCN's. 2012: AHSO funding grants utilized. 2013: No grants available. 2014-2016: Safety funding utilized from DOT for Safety Corridors.	No additional action
5	Audit Group 2009	Explore agreements with local police	2011: Established BHP in four teams Palmer Team Soldotna Team	No additional actions at this time. Additional actions

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
2017 AUDIT

ENFORCEMENT CONSIDERATIONS

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Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
		agencies or rotate staff into traffic work as needed.	Girdwood Team Fairbanks Team Completed agreements in past with KPD, PPD, WPD and FPD APD ~15 hrs/mo McHugh Crk north. 2012: AHSO funding grants utilized. 2013: No grants available. Local agreements on hold 2014: Safety funding available from DOT for Safety Corridors. 2016: BHP Reduced state budgets puts all local agreements on hold. Reduced to 3 BHP officers who patrol the Seward Highway and major special events as needed.	tied to available budgets
6	Audit Group 2009	Increase DUI enforcement on weekends. Corridors to be included in enforcement. Shifts for location focus will be based off data review.	Holidays, weekends are a routine focus. 2009: Citations in B Detachment at 300 DUI's yr, up 50/yr. 2010: Patrol hours up. 2010: BHP Conducted "Sat Nite Blues" plan early SUN am targets. Intercepting more DUI's before the peak crash period, as the DUI affect begins. 2011-2012: AHSO funding grants utilized and concluded. 2013: No grants available. 2014-2016: Safety funding utilized from DOT for Safety Corridors.	Performance Reporting.
7	Audit Group 2009	Seward Highway: Explore Midnight to 2 AM any months, and FEB-APR	2009 Expanded with BHP staff scheduling. 2013+ Continue to review schedules to address alcohol related incidents.	No additional actions
8	Audit Group 2009	Consider a "DUI BATmobile" (Blood Alcohol Testing mobile) on weekends to keep officers on the road while processing offenders	Considered. Added equipment and staff to operate is not cost-effective. All offices now have Datamaster DMT Breath Test Instruments for DUI processing.	Not recommended.

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
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ENFORCEMENT CONSIDERATIONS

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email: kat.shuey@alaska.gov

Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
9	Audit Group 2009	Increase traffic patrol targeting aggressive driving by time of day, month to correlate with higher crash periods	Schedule shifts using DOT/PF times from past crash data, along with local enforcement experience.	No additional actions.
10	Audit Group 2009	Document enforcement efforts and potential effectiveness.	2010: Programmed more tracking measurements. Created beat codes for Safety Corridors event coding. BHP measuring for all fatal crashes and many major injury crashes. 2009: B Detachment is for up to 5,000 citations/yr for speeding, insurance, seatbelts, other factors. 2010: report is for about 4,000 citations. 2013 Research approved for performance reporting in the field. 2014: Need research agreement. Need to update members assigned to research team. 2015+: Multiyear research begun to measure how police presence on roadways affects citations, arrests, and crashes.	Research agreement & startup Initiated in 2015. Followup results will take years.
11	PUBLIC LEGISL 2009	Provide more Troopers Enforce illegal passing.	2009: Established BHP. 2009-2011: Built up staff to goal levels. 2016: State budgets require reducing staffing for this effort.	No additional actions.
12	PUBLIC LEGISL 2009	Provide Hotline to report dangerous drivers	2010: Increased REDDI media. 2011: REDDI signs installed in Safety Corridors.	No additional actions.
13	PUBLIC LEGISL 2009, Girdwood 2020	Install photo/camera radar on the Seward Highway	2009: Considered. Requires legislation to clarify fees, fines, tolerances, enabling staffing, rulemaking. 2016: Discussed in Girdwood 2020 meeting. Requires legislation, equipment, and staffing to maintain and operate.	No additional actions.
14	PUBLIC LEGISL 2009	Place unmanned police cars along road. Mark more cars so they can be seen and reduce citations.	2009: Considered by BHP. Concerns for vandalism, liability. No link to effectiveness.	No further action.

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
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ENFORCEMENT CONSIDERATIONS

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email: kat.shuey@alaska.gov

Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
15	PUBLIC LEGISL 2009	Create routine volunteer patrols to make REDDI call-ins. Advertise REDDI phone number.	2009: Considered. 2010: Increased REDDI media. 2011: REDDI signs installed in Safety Corridors. MatSu calls divided well to 2500/mo-911/EMS calls to Palmer; 1000/mo-911/REDDI calls to Wasilla. Continues REDDI dispatch on separate channels. Kenai Pen KPB/AST all goes to one channel – larger volume of 18,000 911 calls. Concern is that it affects air time available for dispatch. KPB dispatch on same channel limits airspace.	Reviewed KPB Dispatch channel use and methods, after receiving REDDI calls. Explore updating Education to public on REDDI with AST/AHSO
16	PUBLIC LEGISL 2009	Run patrols, pilot cars at 55 MPH and make others follow	Considered. Limited to existing officer resources. No resources for pilot cars. Most motorists are already creating slower speeds in busier Safety Corridors due to high traffic levels.	No further action.
17	PUBLIC LEGISL 2009	Enforce slow vehicles which delay other vehicles.	Enforcing the law where clearly violated and where pullouts available. 2009: Done when obvious, with judgment of traffic levels. Difficulty is to identify the “lead” vehicle on a busy weekend. Executive/regulatory limitations. Not illegal if going the speed limit. 2013-2014: Up to 8 more pullouts constructed with signs.	No additional action.
18	AUDIT GROUP 2010	Increase DRE’s available to law enforcement	2011: Increased with AHSO grants for state and local agencies. Revised and improved the Drug Recognition Expert program to include more local law enforcement input and provide essential recertification of DREs. 2013: 23-25 DRE’s statewide 2015: Expanding to 40 to 45 DRE’s statewide. Trained additional DRE’s in 2015 and planning to train more. DRE’s increasing training to law enforcement for impaired driving detection (ARIDE) and school administrators (DITEP). Annual DRE training is also teaching DRE’s, attorneys, and toxicologists regarding impaired driving prosecution.	DRE increases occurring. No additional action.

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
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ENFORCEMENT CONSIDERATIONS

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Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
19	Audit Group 2017	Work out REDDI calls Seward Hwy. Which agency responds?	Many calls all corridors – officers not always immediately in vicinity to respond. All REDDI calls worthwhile in results. APD and AST are working on routing of calls relative to Turnagain Arm as of 2017.	Resolve REDDI routing alongside field enforcement
20	Audit Group 2017	Kenai Spur #2 feasibility?	Would corridor N of Kenai pose a resource problem if it were a Safety Corridor? = No – works with area assignments and roving.	Consider education and engr resources further. Resolve detailed study of crash types.

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
2017 AUDIT

EDUCATION CONSIDERATIONS

Contact: Tammy Kramer, AHSO

tammy.kramer@alaska.gov

Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
1	Audit Group 2009	Expand education efforts to include aggressive as well as impaired driving.	<p>ANNUALLY: Click it or Ticket May. July , Labor Day, New Years/Xmas - impaired driving, Small one in Nov for Click it or Ticket.</p> <p>2009: TV Ads for new Safety Corridors Jul 1.</p> <p>2009-2011: Radio campaign for drowsy driving. Road-wise headlights ads, September.</p> <p>2010: Hosted teen driving test, "Take the Challenge" on AHSO website</p> <p>2010: KTUU 1 Hr TV/web panel on Seward Hwy Safety Corridors.</p> <p>2010-2011: Contracted with AIPC to produce radio, TV ads with agency officials. No shooting at signs. Distributed bumper sticker selections for public use/preference to encourage courtesy to others.</p> <p>2010-2013: Distracted driving campaign, including texting and using hand-held/hands-free phones for radio and tv media campaign</p> <p>2011-12: Due to federal funding reductions and tighter restrictions the focus is on impaired driving messages.</p> <p>2014-2015+: Contracting out each year and coordinating Statewide Safety messages, and with AST for supplemental messages</p>	Continue media, No additional action.
2	Audit Group 2009	Continue DUI and seatbelt efforts	<p>2009: Seatbelt compliance levels measured at 86.1%, up 1.6%</p> <p>2010: 86.8%</p> <p>2011: at 89.3%.</p> <p>2015: ~ 90% seatbelt compliance in survey http://www.dot.state.ak.us/stwdplng/hwysafety/pubs.shtml</p> <p>Promoting seatbelt messages on the four "corner" holidays each year.</p>	Continue surveys, otherwise no additional actions.
3	Audit Group 2009; 2010	Target improper passing and speeding. Explain how and when to pass safely, esp. 3 Lane sgmts.	<p>2009: Contracted with AK Injury Prevention Center to produce radio and TV ads with agency officials. Commissioners of DPS/DOT/DOL/ participating in ads.</p> <p>2011-2013: Unable to fund messages other than impaired driving. DOT/PF projects will</p>	No additional actions.

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HIGHWAY SAFETY CORRIDORS
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EDUCATION CONSIDERATIONS

Contact: Tammy Kramer, AHSO

tammy.kramer@alaska.gov

Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
		Explain how to use Slow Vehicle Turnouts.	promote use of SVT's through project education. 2017: Observed usage on Sterling Hwy S of Soldotna is SVT's working for larger, slower vehicles, as intended. Used by school buses after miles of highway stops – releases the traffic load. Also trailered vehicles.	
4	Audit Group 2009; 2010	Encourage citizen reports of reckless and aggressive driving at the time of occurrence. REDDI reports have contributed to the overall success of past enforcement	2009-2012: AST produced REDDI media ads with Governor, Commissioners, managers including DOT&PF/DPS/Law and Labor in 2009, 2010, 2011, 2012. 2011: REDDI signs incorporated into corridors. 2013: GFD – REDDI is working in their view, AST E Det – more education on REDDI reporting desired by more means: radio, schools. More REDDI reports than can be assigned/followed up. What is a REDDI report (911 call) and what is not? No “vendetta” reporting, real serious risks only.	Consider update to REDDI education efforts in 2016, otherwise no additional actions.
5	Audit Group 2009	Consider terminology effect – be blunt vs. softpedaling - are crashes “deaths”, “murder”, “disfiguring”, “handicapping”	2009-2011: Grants made to BHP, and to AIPC for media campaigns underway. Newer ads were blunt and serious.	No additional action.
6	Audit Group 2009	Involve DA's office in Education plan. Help with understanding of agency efforts prior to judging how serious a citation is.	2009-2011: The Municipality of Anchorage has a Traffic Safety Resource Prosecutor who assists and educates state and municipal Prosecutors, the court system, law enforcement agencies and the public primarily in Anchorage where most crashes are and a significant share of the traffic injury and fatalities. 2012-2013: No TSRP staff. 2015: TSRP staff unlikely given current budgets.	Considered TSRP at the state level. Tabled for budget reductions.
7	Audit Group 2009	Consider educational materials to be given out at the	2009-2011: Grant agreements are being developed with AST, AIPC, Market Wise and Soldotna PD for media campaigns. No data to suggest RV's, port of entry visitors are a	No additional actions.

DOT/PF & DPS
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EDUCATION CONSIDERATIONS				
Contact: Tammy Kramer, AHSO				
<u>tammy.kramer@alaska.gov</u>				
Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
		border, ports of entry. CD's brochures,...etc.	major crash problem. 2011: Ads in Milepost, on Buses and on Facebook. 2012-2013: No grants available to AST due to reporting requirements. AIPC and Marketwise active. 2014-2015: New annual contract media work.	
8	Audit Group 2009	Determine effect of cell phone use on crashes.	Lack of data due to existing crash report forms, however, using national studies to back up TV and radio ads to discourage cell phone use. As of 2011, Subcommittee has revised the 12-200 crash report forms and local agencies have begun to test this data point. 2013 implemented a new crash form with cel phone fields.	Analyze data when available (anticipated in 2016).
9	Audit Group 2009	Take status reporting to Anchorage Assembly, Public Safety Advisory Committee, other groups.	2009: Met with AMSAC Motorcycle Safety Committee. (AMSAC no longer functional past few years 2014-2015.) 2010: Met with ATA Trucking Association about passing, visibility, and speeds. 2011: Limited staffing available for field meetings. Transportation funding is being reduced. 2016: Briefing community groups, Girdwood 2020 and media upon request.	Will report as requested, otherwise, posting web reports.
10	Audit Group 2009	Measure education efforts	2010: Completed Alaska 2010 Highway Safety Phone Survey Report: survey: http://www.dot.state.ak.us/stwdplng/hwysafety/stats.shtml Annual: Federal survey is being conducted annually. AST, Market Wise and AIPC will combine resources to have AIPC produce one single survey 2015: Annual AHSO survey awareness – results . Annual seatbelt survey result – usage increased to almost 90% Navigator survey 2016 (Dittman) reflects positive awareness of work zones, message boards, radio, web-based, and social media notices.	No additional actions.
11	PUBLIC LEGISL 2009	Gather public and legislative input.	2009: Met with Girdwood public at AFD Chief request. Briefed Senate Transportation Committee. Presented to Joint Judiciary &	Continue briefings as meetings and invites occur

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
2017 AUDIT

EDUCATION CONSIDERATIONS

Contact: Tammy Kramer, AHSO

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Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
			<p>Transportation Committee. Toured with House Transportation Committee Seward Hwy Corridor.</p> <p>2010: Ch 2 News Hour Special Input Panel. Expanded Safety Corridors website info.</p> <p>2011: Secretary of Transportation LaHood and Commissioner of DOT/PF conducted Girdwood roundtable. Legislative briefing by Commissioners of DPS, DOT/PF.</p> <p>2013-2015: Girdwood 2020 Community updates by Special Project Manager for DOT.</p> <p>Annual: Audits of year to date. Staff booths at each year at Alaska State Fair and MatSu and Anchorage Transportation Fairs.</p>	
12	PUBLIC LEGISL 2009	Use SYLVIA sign at Potters Marsh more frequently for education.	<p>Considered. Will use for education as prescribed by Joint agency signing manual once sign is rebuilt.</p> <p>2010: Sign was "down" in 2010 due to parts obsolete, unavailable</p> <p>2011: October. Sign replaced and functional.</p> <p>2012: No education planned messages.</p> <p>2013: Sign upgrades to link to 511.</p> <p>2014-2015: Commissioner liason preplanned messages for the year.</p>	Annual safety campaign messages occur each year at 4 major holidays
13	PUBLIC LEGISL 2009	Education at border; in schools; vehicle & RV rental shops	2009-2010: Pursued additional media options besides TV and media grants to AIPC, BHP, including bumper stickers, fliers.	No additional recommendation
14	PUBLIC LEGISL 2009	Education for teens, stricter age restrictions	<p>2004: Passed Graduated Drivers License program.</p> <p>DOT&PF and DPS Commissioners directly involved in "Every 15 Min." (EFM)high school mock crash program</p> <p>2010: Driver License "Take the Challenge"(TTC) online practice test available on AHSO main webpage.</p> <p>2011: Funding for grantees for teen education in high schools about impaired driving.</p> <p>2007-2013: Updated the SHSP with youth safety strategies.</p>	Continued programs. Measure outreach levels.

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EDUCATION CONSIDERATIONS

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Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
			2015 : Buckle Up annual by AIPC for teens. Recent news - recent education – Service HS.	
15	PUBLIC LEGISL 2009	Public shaming, stickers on license, plates	2010-2011: Voluntary bumper stickers distributed for those supporting courtesy, safe driving	No additional action w/o legislation.
16	PUBLIC LEGISL 2009	Promote video conferencing rather than road travel	2009: Considered. Conferencing determined by economics. This is occurring for various government staff meetings.	No additional action.
17	PUBLIC LEGISL 2009	Mass text to all texters that texting kills	2009: Evaluated internet, cell media other messages. Law passed in AK against texting. 2010: Distracted driving message on CMS signs “No texting zone”.	No additional actions.
18	PUBLIC LEGISL 2009	Set up “break stops” along the highway	2009-2010: Set up stops in Turnagain Pass with BHP/AST. July 4. No plans for dedicating highway stops or information. No indication of effectiveness. REACT has provided this in past.	No additional actions.
19	PUBLIC LEGISL 2009	Set up a Highway Watch as a nonprofit oversight group Girdwood. Fund equipment, volunteer shifts to observe and make REDDI reports on regular basis.	2009: Considered. Focused instead on funding BHP, REDDI program, education programs, engineering projects, and EMS coordination, and not diverting agency time.	Not recommended.
20	PUBLIC LEGISL 2009	Public Service Announcement on school bus safety.	Considered reports by ASD on rural passing on the Seward Hwy.	Considered but not possible because of a lack of funding.
21	PUBLIC LEGISL 2009	Reinstate activities bus for Girdwood to reduce extracurricular driving, vehicles on road.	2009-2013: Reinstated by ASD. Big in early season and track, drops other times. Continued use as funding allows.	No additional action at this time.
22	PUBLIC LEGISL 2009	Eliminate school bus strobes – blinding drivers?	None. No frequent concerns noted at the State level.	Not recommended at this time.

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2017 AUDIT

EDUCATION CONSIDERATIONS				
Contact: Tammy Kramer, AHSO				
<u>tammy.kramer@alaska.gov</u>				
Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
23	PUBLIC LEGISL 2009	Hire a traffic psychologist, behavior specialist	Considered. AHSO coordinates with NHTSA to gain benefits of these insights. No positions available at this time for added staff.	No additional actions.
24	PUBLIC LEGISL 2009	More education on following distance, following too close.	2009-2015: Primary media funding limited to DUI efforts.	Not recommended at this time.
25	PUBLIC LEGISL 2009	Mandatory defensive driving, or education in schools	Moved to LEGISLATIVE CONSIDERATIONS for tracking.	No additional action. Forward to the executive or legislative level.
26	PUBLIC LEGISL 2009	What about wildlife crashes in Safety Corridors, these are a large percentage?	Moved to ENGINEERING CONSIDERATIONS for tracking	No additional actions.
27	PUBLIC LEGISL 2009	Eliminate “delay of 5 vehicles” rule. Doesn’t work if you are driving the speed limit. Makes the safe driver a lawbreaker.	2009-2015: Primary media funding limited to DUI efforts. Not considered delay or a rule to pull over if driving the speed limit. 2014: New messages planned with projects for Slow Vehicle Turnouts on the Seward, Sterling Hwys 2016: CR to release summer PR w/Passing Lane field tests – Shannon, Anna?	Increase education messages
28	PUBLIC LEGISL 2009	Apply photo radar to the Seward Highway	2014: DOT testing driver feedback signs, not enforcement signs with legislated funds. First must be sure of effectiveness of radar for length of corridor, not just radar site. Next must link to crash reduction. Requires hardware, staffing to maintain. If results are proven, then requires a regulatory effort before engineering, education, or enforcement.	No action at this time.
29	AUDIT GROUP 2010	Increase DRE’s available to law enforcement	Moved to EDUCATION CONSIDERATIONS for tracking	No additional actions.
30	AUDIT GROUP 2010	Examine need for Claims Agencies to collect fines	2009: Reviewed court system collections effectiveness.	No action recommended at this time.
31	AUDIT GROUP	Are “blue” high	Headlight type studies are unknown at this	No action

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EDUCATION CONSIDERATIONS

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Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
	2010	intensity headlights a safety problem	time. Requires national review as this is not only common to Alaska.	recommended at this time
32	Audit Group 2017	Promote Apps for Education	Can DOT or AHSO promote or team up with apps for safer driving? Such as Everdrive for speed and phone use guidance.	Explore public/private tool linkage
33	Audit Group 2017	Kenai Spur #2 feasibility?	Would corridor N of Kenai pose a resource problem if it were a Safety Corridor? Currently has standard education plan – could require focused messaging.	Consider education and engr resources further. Resolve detailed study of crash types.
34	Audit Group 2017	Revise 511 reporting to avoid duplication and mass notifications on text alerts	511 alerts can vary by the hour and by the staff persons during that hour – leading to slight variations on the same event.	Explore ways to cut down 511 duplicate messaging, minor revisions to conditions, termini

DOT/PF & DPS
HIGHWAY SAFETY CORRIDORS
2017 AUDIT

ENGINEERING CONSIDERATIONS

Contact: Scott Thomas, DOT/PF

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Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
1	Audit Group 2009	Build low cost road projects, while scheduling major upgrades:	Significant series of projects are attached to this audit. Additional funding sought for major long term project upgrades, as documented in the 2011 STSP Draft. 2009-2013: Hooligan fishery speed zone 45 MPH approved for each May annually. 2009-2013: Additional permanent CMS message boards on the NHS Highways at Alyeska Junction and west of Wasilla not recommended due to ongoing costs. See attached projects lists.	Nearly all projects listed for Safety Corridors are already completed or underway.
2	Audit Group 2009	Improve winter sanding/plowing	2009: Paving ruts saved M&O 20% on sanding runs, 50% on Parks. Houston plowing routes to school 30 minutes after DOT plowing. 2009-2010: Reviewed EMS concerns with Soldotna M&O. Sanding/roads improved by EMS observation thru 2013. 2009: M&O testing aggregate sizes, prewetting salts, and D-1 use on Kenai, added chemicals in Mat-Su. Review salt use. 2013: Budget limitations limit salt options. Salt/sand storage areas being improved. Anti-icing technologies being reviewed statewide. 2016: Budget cuts reduced overall M&O, Safety Corridors remain Priority 1.	No additional actions beyond current investigation.
3	Audit Group 2009	Cut roadside brush for visibility at night	Prioritizing Safety Corridors, Moose Corridors. 2009: Budgets down by 1/3 in Mat-Su. Parks, KGB Corridors cut. 2010: Parks, Sterling cut. 2013: Statewide vegetation management plan developed, alternatives being reviewed besides cutting, including herbicides. 2015: HSIP Project expanded clearing of Roadside for additional view, thawing over time.	No additional actions beyond current investigation.
4	Audit Group 2009	Move edge of traveled way, increase shoulder?	Considered. 12' lanes provide width for traffic movement, rut avoidance. Planned rumble strips dictate EOTW location.	No narrowing recommended.
5	Audit Group 2009	Consider Whittier Tunnel operations:	2009, 2013: Tunnel operation considered – serious implications with changes – Safehouse capacity, spacing, safety in tunnel requires	No further action.

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HIGHWAY SAFETY CORRIDORS
2017 AUDIT

ENGINEERING CONSIDERATIONS

Contact: Scott Thomas, DOT/PF
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Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
		Release cars first? Then buses and trucks don't lead to a bunch of passing maneuvers.	releasing buses at larger gaps/headways and leading the pack is the most efficient way to ensure this. Easier to control 8 buses a shot and leave space for remaining citizens, than vice versa, cutting off citizens for buses. Reviewed crash data, no significant correlation to large vehicles or tunnel traffic. 2015-2016 – Acceleration lane upgrades in Design for the Seward Hwy MP 75-90 Project.	
6	Audit Group 2009	Reevaluate speed limit in Sterling. Traffic goes faster.	2009: Higher limit unlikely given urban design standards. Would take more highway upgrades in the area to reconsider. Some urban businesses, no significant change in commercial use over time.	No further action.
7	PUBLIC LEGISL 2009, 2011, Girdwood 2020	Build 4 lanes divided hwy now, or Build a Turnagain Arm Crossing as an alternative route.	2009: See Attached major long term projects list as projects are begun and completed. 2016: Discussed at Girdwood 2020 = major funding constraints limit project initiation and selection.	No additional action for Auditing.
8	PUBLIC LEGISL 2009, 2011; Girdwood 2020 (2016)	Install continuous median barrier. Concrete or steel rail.	2009: Considered full length. Costly. Impacts access, shoulder use, emergency response, road width is inadequate without losing shoulders. Not recommended on most of Seward Highway, Knik-Goose Bay Road without widening. Parks, Sterling have access and scheduling concerns. Cost appears to be more efficiently spent on full widening of at least one more passing lane rather than 6-8 foot for a barrier. 2013: Partial barrier to be evaluated in corridor studies. Initial review shows space is too limited, secondary impacts to access, drainage, shoulders, rumble strips, plowing, all appear significant. 2015: Barrier considered in MP 75-90 Rehabilitation, Passing Lane project design options. Rejected in Design phase due to cost, impact, width vs project scope, schedule, and budget. 2016: Girdwood request considered – requires a 6 foot wide footprint minimum, leading to loss of shoulders or widening of roadway. Also requires median breaks and a large quantity of	Considered. Declined due to cost, schedule, budget, M&O, and EMS needs

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			expensive crash cushions.	
9	PUBLIC LEGISL 2009	Make entire corridors No Passing zones, double yellow. Reduce passing opportunities or ban passing.	Considered. Striping must command respect, serve a purpose. Continuous DY does not remove aggressive or poor driving and is not demonstrated to reduce crashes. Concern is it makes it worse.	Not recommended.
10	PUBLIC LEGISL 2009	Make passing lanes double yellow.	Considered. Not recommended systemwide as it does not command respect, does not guide motorists. Our practice is to stripe for guidance and allow driver judgement, expecting greater compliance and respect. Exception made for Turnagain Hill in 2009 based on fatal crash concentrations unique to hill and this site.	Not recommended.
11	PUBLIC LEGISL 2009	Use transverse markings/ chevron striping along corridor.	Considered with HSIP NHS Delineation project. Considered spot location possibility, applied to Swd MP 88 median, and Turnagain Pass divided Hwy. Continuous application not found in practice.	Not recommended for continuous use.
12	PUBLIC LEGISL 2009	Lower speed limit. One suggestion at 40 MPH. Evaluate Bird and Indian areas at 45 MPH.	Speed limit reductions not accepted effective national practice for solving Safety Corridors. Past zones in rural highway communities have not worked as intended at less than 45 MPH. 2011: Field observations of traffic on the Seward MP 87-90 suggests current speed limits match rural condition of road. MP 88 will be treated individually as per existing devices and pending projects. 2012-2013: Speed Limit Review of Bird and Indian completed. Met w/Community Council May 2013. Final report to sent to City, community October 2013. 2015+ Turn lanes in Design	No change recommended
13	PUBLIC LEGISL 2009	Larger speed limit/ TSC signs.	Considered. Wind loading, post sizes would be costly, problematic, and greater targets. Sign legend is already sized for conventional roadway speeds. BEGIN legend is large two post sign. Added education, enforcement appear to best boost public awareness beyond more engineering features.	Not recommended.
14	PUBLIC LEGISL	Signs to report	2011: Installed REDDI CALL 911 signs in	No additional

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	2009	reckless drivers every 20 miles or signs with eyes	Safety Corridors. Program works per GFD, APD, BHP with real field results preventing crashes.	actions.
15	PUBLIC LEGISL 2009, 2011	Build the roads to 4 lanes	2011: Long term projects being pursued for more lanes on all the major corridors. See attached project lists for corridors.	No additional actions.
16	PUBLIC LEGISL 2009, 2011	Better marked pullouts. Larger parking/pullout signs/markings. More "Delay of 5 Vehicle signs" or change message	2009: SVT's must meet standard first, more planned above. Signing projects underway above. Newer Seward Hwy pullouts are marked. Missing signs on older ones. Parking addressed with advance signs and signs as projects come through. 2010: Two HSIP projects for pullouts initiated. 2013-2014: Slow Vehicle Turnouts, passing lane upgrades.	No additional work.
17	PUBLIC LEGISL 2009	Build more pullouts	2013-2014: Slow Vehicle Turnouts, passing lane upgrades.	No additional actions.
18	PUBLIC LEGISL 2009	Signs: No texting, No stopping for wildlife, # of road fatalities.	Considered. Sign clutter an issue. No link to texting as the main cause of crashes in corridors. Wildlife stops are part of corridor's scenic purpose. No link to fatal posting and crash reduction effectiveness (see moose program). Corridor space should be reserved for site specific messages, not statewide issues.	Not recommended.
19	PUBLIC LEGISL 2009	Widen, straighten curves in Cooper Landing.	Ongoing: Major road project in final environmental impact statement EIS stages. Crash data shows shoulders also needed. Is a head-on crash concentration area. Environmental Document for new alignments being drafted. Interim design underway with striping visibility tests.	No additional actions.
20	PUBLIC LEGISL 2009	Ferry from Anchorage to Nikiski	MSB ferry was intended for testing this route. MSB ferry cancelled for use.	No additional actions.
21	PUBLIC LEGISL 2009	Light rail, Anchorage to Seward, Anchorage to Palmer.	Studies completed for ARRC both routes. Considered by DOT/PF H2H project.	No additional short term action available by audit.
22	PUBLIC LEGISL 2009, 2010	Eliminate all 3 lane highway segments -	Studies show crash reduction value of 3 lane segments. These improved the overall highway flow and travel time. 3 Lanes in Design:	No additional actions.

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		confusing. Use 2 or 4 lanes.	Seward Hwy. 4 Lanes in Design: Parks Hwy, KGB Road. Funding for Sterling Hwy 4 lane being sought. Funding needs are documented and being pursued.	
23	PUBLIC LEGISL 2009	Install reflective striping	Best available materials used, durability greatly improving. Upkeep is difficult given plowing conditions. See attached projects list for delineation projects.	No additional actions.
24	PUBLIC LEGISL 2009	Reduce construction delays.	DOT limits to night work, off-peak work and minimizes impact each season, compared to daytime work, weekdays, commuting times. 2012: Some daytime work tested.	No additional actions.
25	PUBLIC LEGISL 2009	Increase road maintenance, staffing. Sanding requests don't all go directly to M&O.	Sanding and staffing is at levels as funded each year. Plowing, sanding are within budget allowed, and are priority level 1 over other winter maintenance.	No additional actions beyond annual funding requests.
26	PUBLIC LEGISL 2009	Plow pullouts during winter months.	Slow Vehicle Turnouts meeting standards, and Passing Lanes are plowed. Other turnouts not meeting speed criteria are selected for plowing based on use. 2016: Pullouts are going to be lower priority than turning lanes and thru lanes due to reduced budgets.	No additional actions.
27	PUBLIC LEGISL 2009	Add lighting, reflectors	Continuous lighting expensive to install, maintain. Not a short term solution. Nighttime crash patterns not dominant, so crash/benefit not established. Lighting depends on legislation, funding for addition, otherwise reserved for high crash areas. See attached project lists for delineation, reflectors.	No additional actions.
28	PUBLIC LEGISL 2009	Consider YOUR SPEED IS ... informational signs such as in Whittier Tunnel	2010: Legislated funds for signs. 2015: Signs completed in Safety Corridors. Ongoing M&O required, calibration, power reserve required. Signs on solar power shut down in winter. 2 or more signs have stopped working. Some signs show errors due to localized radar interference and need occasional adjustment.	No additional actions.
29	PUBLIC LEGISL	Install light up	2011: Upgraded signing and delineation	No additional

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	2009	warning signs	Regionwide on main highways. Active warning signs are the next step up after static measures. Will reserve for highest crash, anomalous curves only after trying all other low tech measures. Requires significant work to hook up power source and maintain.	actions.
30	Audit Group 2010	Expand cel coverage through Turnagain Pass to Cooper Landing for 911 call response time improvements. Cooper Landing is all volunteer.	Moved to EMS Considerations.	No additional action.
31	Audit Group 2010	Examine pavements to reduce icing	Rut repairs demonstrated to improve plowing, traction. Deicing asphalts being investigated 2011. Rubberized asphalt being tested. 2016: High friction surface treatment will be tested in Construction.	No additional actions.
32	Audit Group 2010	Develop an edge drop standard for Alaska (federal emphasis area)	Safety Corridors repaved by 2010. All with new edges. 2010: M&O repaired/flattened ditches at Big Johns Tesoro. Current studies show no statistically significant benefit in mandating a Safety Edge. However, DOT has drafted a standard drawing for use of devices versus roadside conditions. Safety Edge paving will be considered in that process.	No additional actions.
33	Audit Group 2010	Consider adaptive signal control for special events (federal emphasis area)	2009: Hired signals expert. Building interconnect and web based software, comm. 2010- 2013: Installing upgrade hardware in Mat-Su, Kenai. 2012-2017: Anchorage funded for multiyear changeout. Parks Hwy signal progression started in Nov 2012 and is being adjusted actively.	Timing improvements occurring with hardware upgrades.
34	Audit Group 2010, 2011	Add changeable message boards for Kenai travel at the Wye, Sterling	With AHSO funding, MSCVE obtained portable CMS for the Sterling Weigh Station, delivered in October 2011. No sign planned for the Wye due to M&O costs, other than the portable use.	No additional action without ongoing funding.

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35	Audit Group 2010	Concerned for truck offtracking in Cooper Landing	Paving projects, realignment projects in Design phases. Reviewed curve radii for truck turning with current design projects, geometry is adequate. New reconstruction work recommended for long term. 2015: Paving completed, truck tracking observed and pavement width held the same as before.	No additional actions.
36	AUDIT GROUP 2010	Concerned for Kenai Spur	2006: Last tracking put it at #10 behind 5 other corridors. HSIP evaluation of crashes continuing. No clear solutions as of yet. Project study underway for Kenai Spur options between Soldotna and Sterling. HQ reprogramming of corridor rankings in progress in 2014. 2015: Candidate corridors reranked in 2015 Audit. Kenai Spur recommended for further Study of crash characteristics. 2016: Rumble strips and delineators added to pending pavement rehabilitation project.	Safety Corridor Study recommended as of 2016.
37	AUDIT GROUP 2011	Finish ARR/Hwy MP conversion.	2006: Done after EMS concern raised. 2012: Rechecked another MP 82 sign, corridor for other signs in 2012 and fixed as needed.	No additional actions.
26	PUBLIC LEGISL 2009	What about wildlife crashes in Safety Corridors, these are a large percentage?	<i>Moved here from EDUCATION CONSIDERATIONS</i> Annual: Brush cutting by DOT/PF as funding allows. Existing media and high crash area signs in use. 3 corridors rank as high moose-vehicle crash areas. Multiagency coordination is ongoing. Mitigation is considered in major projects. Wildlife crashes not a significant cause of fatal/major injury crashes, but remain a concern. 2013: SHSP Strategies for wildlife updated.	No additional actions.
27	AUDIT GROUP 2013	Curve N of Rainbow Icy	2013: EMS: Fix curve, super? DOT:Swd Hwy MP 99-105 Project will examine super, signing, crash history as part of project design.	No additional actions.
28	Girdwood 2020	2016: No Headlight Signs?	15 new signs installed in 2011 by HSIP funds spring 2014.	Review Seward Hwy signs in field. KGB review underway in 2017.
29	Girdwood 2020; GFD 2017	2016: Remove MP 109 Waterspout	Community input. Reviewed with DNR, AST, M&O current and past conflicts. Documented mountainside parking encroachment and frequent ped crossing to designated parking.	Prohibit parking inland and require pullout use. Not making roadside

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			Recreation along Arm with off road parking and good judgment is allowed for many uses and leads to ped xing – hiking trailheads, water sports, wildlife viewing, fishing. Complete prohibition requires consistency for all uses and is counter to most uses. 2017: GFD concurs this is a problem location.	recreation illegal with good judgment. Place signs in Summer 2017.
30	Audit Group 2017	Repair SPEED LIMIT sign at Alyeska SB	Static sign missing. Reinstall sign.	Instruction sent to Girdwood Station. Staffing is reduced, as available.
31	Audit Group 2017	Missing Headlights signs KGB	1 st Headlight Sign noted at MP 4.2. Should be one at corridor Start.	KGB signing repairs, trials of new signs planned for Summer 2017.
32	Audit Group 2017	Improve winter maintenance Sterling	Per KPB Station, M&O using prewetted sands, brine. MDSS smart sensors in trucks are gathering weather data as they drive, along with NOAA, NWS, RWIS and other input data to focus road application of deicing, sanding at best locations, best times, ahead of storms for best performance. This is cutting costs. 56” in 2016-2017 Crown Point was a cost increase, and snow haul increased expense in Seward required work with City.	Continual improvement
33	Audit Group 2017	Mailbox location	Locate mailboxes off main highway. Improves plowing times, and is safer for errant traffic.	Continue current practice with major highway projects. Not in paving preservation scope/budget.
34	Audit Group 2017	Review Sterling Speed Transition	Sterling to Robinson Loop. Under consideration with Design project development for Sterling Hwy Soldotna to Sterling.	Review interim potential vs project potential
35	Audit Group 2017	Kenai Spur #2 feasibility?	Would corridor N of Kenai pose a resource problem if it were a Safety Corridor? Requires significant signing and delineation investment. Rumble strips already planned with as much work as possible to mitigate with upcoming MP 12-18 paving preservation in 2017-18.	Consider education and engr resources further. Resolve detailed study of crash types.
36	Audit Group	Consider	Depth and width is a common feature. Newer	Pending

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	2017	reduced rumble strips?	CA, MN Mumble Strip variations are pending in preliminary testing that are considered effective, less noisier, and slightly shallower. See TRB Webinar 17-03-28 not yet published.	conclusions and formal completion of national research in multiple states.
37	Audit Group 2017	Add RT accel lane at Mackey Lk Rd	Forwarded to Design Team for Sterling Hwy upgrades.	Forward to Design Project to consider criteria.
38	Girdwood 2020	2016: More guardrail reflectors	Federal funds installed continuous guardrail reflectors in web and on post tops using federal funds regionwide in 2014 – mainly on inlet side. Mountainside reflectors can be evaluated for funding, and in between guardrails.	Evaluate gaps and funding availability
39	Girdwood 2020	2016: More signing and turnoffs/pullouts to south, incl. AK Wildlife Center, MP 80.5, MP 81.7 Hooligan fishery Bird Creek Motel/Gas Station; Windy Corner	Every federal aid project with signing scope adds pullout signing. Seward Hwy MP 75-90 Design initiated before serious/fatal crashes had occurred. Includes signing for all pullouts and and turn lanes for AWCC entrance. AWCC has worked with DOT/PF for a relocated and safer entrance to open in 2017. Project also includes upgrades to 20 Mile signing and Hooligan fishery parking and walkways. Bird Creek businesses have advance signs. DOT/PF has a turn lane project in Design that includes turning lanes and signing using federal safety funds, as well as for Boretide Road in Indian. This Audit shows significant funding in Design for Windy Corner as well.	No additional sources. Continue ongoing project efforts as the principal funding source.
40	Girdwood 2020	2016: More signing and turnoffs on north end for Bird Ridge Trail, Baseball fields Indian; McHugh Creek.	These sites are not currently funded with a major federal project and are significant in scope. M&O tree delimiting performed at ballfield entrance. DOT/PF is working to schedule future improvements in these areas.	No additional sources. Continue seeking federal funding sources as available.
41	Girdwood 2020	2016: Summer months, much traffic turns left over double yellow lines	Turning left across double yellow lines is a legal maneuver with judgment. Most scenic opportunities are on the west side of the highway. DOT/PF minimizes closure of public opportunities for recreation.	Review with DNR ways to maximize east side opportunities.
42	Girdwood 2020	2016: Mitigate black ice	See item 32 above. DOT/PF is increasing data driven snow and ice responses to maximize use	No added plowing action. Examine

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		changes, high wind areas MP 105-107	of resources. Seasonal changes regionwide require driver judgment of conditions.	warning signs at key transition points.
43	Girdwood 2020	2016: Monitor and mitigate Ice and rock fall	Ice fall is monitored and MP 113.2 detours are placed each winter as space allows. Rockfall is monitored on M&O drive throughs as staff allows. DOT/PF has a project planned for rockfall slope mitigation, but inadequate federal funds at this time to begin the project.	No added action. Continue seeking federal funding sources as available.
44	Girdwood 2020	2016: End passing zones before any turn	Standards allow passing on shallow curves as long as visibility criteria is met. These maneuvers have been monitored and successfully observed with good judgment and lighter traffic. DOT/PF is conducting research studies at this time to affect standards which could then lead to reconsideration of passing on some curves.	Conclude research findings – testing already performed.
45	Knik-Fvw CC	Can Foothills Dr be a signal?	To be reviewed with KGB Centaur-Vine project Design phase, once traffic counts are in and forecasts have been reviewed.	Design analysis
46	Knik-Fvw CC	Can Old Knik Rd connect to 3 Bears future signal?	To be reviewed with KGB Centaur-Vine project Design phase, once traffic counts are in and forecasts have been reviewed.	Design analysis
47	AFD	More signs?	DOT/PF is looking into more signing towards crash patterns, starting with KGB Road.	Inventory Turnagain Arm signs
48	AFD	Repair bollards at Beluga Pt	Off highway repairs are between DNR and DOT. Outside clear zone.	No Hwy Action. Outside CZ is not a mainline public safety concern. Fwd to DOT/DNR for maintenance.
49	GFD	Why passing in 3 lanes MP 91-94?	Standard to allow driver judgment under lower traffic volumes.	Revisit segment vs crash history and curvature.
50	GFD; Girdwood 2020	2016: More reflectors, both sides, 100% of guardrail	Consider mountainside delineators – have inlet side guardrail reflectors – Turnagain Arm. Federal funds funded 2X the density of new reflectors, but no replacement of old reflectors.	Review w/M&O on inland side methods, needs for space
51	GFD	Put rumble strips back at Potters Marsh,	Removed in past with repaving, was on hold for next available areawide rumble strip project. Now we allow rumble strips on a per project	Explore project funding options – 1R, state funds,

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		Bird-Gird	basis.	standalone work.
52	MSB EMS	Maximize u-turn capability KGB to shorten fire response. Consider Donna Dr, Edlund Rd?	DOT/PF looking at ½ mile typical gap spacing for left turns/u-turns. Transition between 2 projects solves gaps when both projects are done.	Review draft plans for ½ mile opportunities
53	Girdwood 2020	2016: Add passing lane NB MP 104-106; MP 110-111 w/o much blasting	Neither site is long enough for a 1 mile passing lane without blasting. Slow Vehicle Turnouts have already been selected for sites that required minimal fill to the inland side at MP 106, 108 and 111.	Requires future major widening project.
54	Girdwood 2020	2016: Add inland lane w/o cutting/blasting at MP 92.7-93.7 and MP 95-97(Bird Pt).	One 6000' passing lane has been added at MP 94-95 NB w/o blasting, or not too close to ARRC. MP 92.7-93.7 encroaches too close to ARRC tracks on curves, would require relocating ARRC. MP 95-97 cuts into material staging area for ARRC, ARRC tunnel, and ARRC ROW/planned double track area.	Requires future major widening project. Review with ARRC.
55	Girdwood 2020	2016: Build interchange at Alyeska JCT	DOT/PF pursuing divided at-grade intersection, or two stage left turns on a lower budget. Precursor to an eventual interchange.	No further action. Other intersections warrant an interchange prior to this site.

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EMS/FIRE CONSIDERATIONS Mat-Su, Kenai, Anchorage Chiefs				
Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
1	AUDIT GROUP 2010	Improve Preempt emitter equipment for signals	MatSu at 60-65% of fleet emitters working. Ambulances 1 st . All new ALMR equipment as replaced. 1 st EMS vehicle. Not for volunteer private rigs. Still trains for signal approach with full caution/speed reduction. All new equipment gets emitters.	No additional action.
2	AUDIT GROUP 2010	Improve radio communications between stations	<p>Good internal agency radio coverage in Safety Corridors. Older radios no longer a problem. MSB: Looking at more repeaters from MP 9.5 south on Pt. MacKenzie. 2 more in the works. MSB developing master plan for cel towers. Many more private towers going in in the MatSu.</p> <p>AFD: AFD, GFD on ALMR no communications problems. Legacy channels about gone on Turnagain Arm, have all new radios. Solved with changing channels, scanning along Turnagain Arm.</p> <p>KPB: ALMR improved Cooper Landing comm. Uses radio to dispatch first, then ALMR.</p> <p>Emergencies properly routing through Dispatch, not ALMR. Some overlap in Dispatch worked out. Proper incident command channel priority, encryption are in place.</p> <p>DOT reachable by EMS thru ALMR. DOT 100% on ALMR can talk to any camp.</p> <p>2016: GFD concerns for radio gaps at base of Turnagain Arm, up Turnagain Pass, even with ALMR.</p>	Improved with ALMR. Explore funding ALMR mobile boosters in GFD vehicles to fill gaps.
3	AUDIT GROUP 2010	Air ambulances are key to "golden hour" of life saving	2011: Down to one air ambulance service. At Wolf Lake, Mat Su. LifeMed flights, 1 in Soldotna. Mngd. By Providence and YKHC. No availability problems on Kenai Peninsula. "Guardian-" service on Trunk Road N of 3 Bears no longer in service due to low call volume.	No additional actions.
4	AUDIT GROUP 2010, 2011	Extraction training critical to time.	2010: AFD MacInnes Sta only dedicated truck to extraction equipment, major MOA support. Most training. 8 units have the equipment. New cars always changing structure. Serves MP 104 N out of Anchorage, Jointly with	On track. No additional actions.

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EMS/FIRE CONSIDERATIONS				
Mat-Su, Kenai, Anchorage Chiefs				
Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
			Girdwood to MP 100. Breakpoint south is at Ingram Creek, but EMS serves farther as needed. GFD: More extraction/training grants in progress for 2012. AFD has instructors to train GFD staff. (\$22k for 30 person training.) 2013: GFD moving to wireless extraction equipment, major improvement. 2011: MSB reports good distribution of equipment. jaws of life (~\$4800 item) at 4 stations, available on Safety Corridors – esp. KGB.	
5	AUDIT GROUP 2010, 2011	Unclear where dispatches change APD/ Kenai to AFD	Girdwood EMS works south of Ingram in times of need. All calls go through Dispatch, and are coordinated with Soldotna as needed. Clarified. Internal workings ok.	No additional action.
6	AUDIT GROUP 2011	Safety vests for responders GFD and others	Could use in field for improved visibility, shortage of vests. 2015: AHSO grant for \$17,000 in safety vests provided.	Jackets granted in 2015: No additional action.
7	Audit Group 2010	Expand cel coverage through Turnagain Pass to Cooper Landing for 911 call response time improvements. Cooper Landing is all volunteer.	<i>Moved here from ENGINEERING CONSIDERATIONS 2011.</i>	<i>Moved into Regulatory/Policy CONSIDERATIONS 2017.</i>
8	Audit Group 2013	Maintain, enhance training	2013-2014: Training program begun for trainers. Traffic control techniques for highways. Training more drivers and trainees seasonally in GFD.	First responder training begun, ongoing
9	Audit Group 2009	EMS access to Turnagain Arm	GFD: Desires highway access to rescue recreational incidents, other water problems next to highway on Arm. 20 Mile R is limited. 2013-2015: DOT has draft access design under consideration with the Seward Hwy Windy Corner project.	No additional action.
10	Audit Group 2017	Review ALMR usage in MatSu, Kenai	Channels not working out well for MatS EMS use to date. Distribute multiagency guidance on use of ALMR channel switching rather than require new radio frequency bands.	

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EMS/FIRE CONSIDERATIONS				
Mat-Su, Kenai, Anchorage Chiefs				
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11	Audit Group 2017	Review EMS service KPB/MOA	KPB ordinance passed supporting mutual aid agreement. MOA and KPB has coordinated. A Hwy Corridor Service area has been established to cover Kenai Anchorage transition.	Done
12	Audit Group 2017	Long term Fire Station Access Sterling	New station planned. Short term direct Sterling Access. Long term – plan on route to Robinson Loop that allows long term signalization, preemption to get onto Hwy.	Plan future site for Robinson Loop option.
13	MSB EMS	Pt Mack Repeater	Look into the possibility for ALMR repeater	Moved to ALMR Working Group Task List
14	MSB EMS	GPS Preempt not fitting in light bars, now it does	Review light bars and emitters with EMS for compatibility with current signal receivers.	C Wagner assigned.
15	Audit Group 2017	Examine sight distance inside curve at Donvan Dr	Reviewed with Construction. Evaluating signing and striping, next initiative package.	Prepare signing, striping recommendations

Central Region DOT&PF, DPS

Safety Corridors Performance

G. Regulatory Suggestions/Considerations

2017

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REGULATORY CONSIDERATIONS (Executive level considerations, beyond technical/staff authority)				
Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
1	PUBLIC LEGISL 2009	Consider a "scofflaw" law for seizure of vehicles when there is no license or no insurance for the driver.	2009: Houston reports seizure of 17 vehicles within the Safety Corridor and City limits. There is an apparent high incidence of unlicensed/uninsured drivers on Alaska roads. Examine the first cause of investigation to lead to seizure? The measured correlation to severe crashes is uncertain.	No further action.
2	PUBLIC LEGISL 2009	Require CDL for RV's	Not established: link established between RV's experience, crashes	No further action.
3	PUBLIC LEGISL 2009	More action on headlight use, make it mandatory	In legislature for review statewide. 1995: Exists for Seward Hwy. 2011: DOT/PF, DPS added requirement to Safety Corridors under executive authority.	No further action.
4	PUBLIC LEGISL 2009	No stopping for wildlife rule and signs.	Wildlife stops are part of corridor's scenic purpose and Alaska corridors in general.	Not recommended.
5	PUBLIC LEGISL 2009	Double or increase severity of points, sentences, or triple fines for rural driving problems. Consider removing driving privileges 15 years to life when there is a fatal crash.	Fines are doubled in Safety Corridors. Points increase for improper passing. Added points or more extreme penalties requires executive consideration. 2011: Revisited with STSP Update. Safety Corridor results demonstrate serious crash reduction without change in penalties, thus no recommendation from staff.	Not recommended.
6	PUBLIC LEGISL 2009	Write a "No Passing while towing" law	No established overrepresentation of towing vehicles, commercial vehicles and crashes	No further action.
7	PUBLIC LEGISL 2009	Create a stricter tailgate rule.	Like DELAY OF 5 VEHICLES regulations, can be difficult to write a rule that makes sense and is easily observed, enforced in the field. Safety Corridor results demonstrate serious crash reduction without change in penalties, thus no recommendation from staff. Instead, understanding of safer following distances may be lacking. Look at education considerations instead of regulatory work.	Not recommended.
8	PUBLIC	Email request to	DOT/PF Strategic Hwy Safety Plan makes	No other actions

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REGULATORY CONSIDERATIONS (Executive level considerations, beyond technical/staff authority)				
Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
	LEGISL 2009	establish multiagency leadership to govern highway safety Set up a Highway Watch Board with agency representatives. Work with Insurance companies.	recommendations on this. 2006: DOT/PF, DPS has multiagency process for Safety Corridors by legislation.	Recommendations at Executive level.
9	PUBLIC LEGISL 2009	Require senior citizen driving tests annually, set age reqmt	2010: Voluntary web "Take the Challenge" on the DOT/PF website. Because crashes also spike for younger drivers, impaired drivers, and new resident drivers, staff recommends not singling out one age group for required testing. Instead, any testing program should be considered as part of the entire renewal program for all users.	Not recommended for Seniors only.
10	PUBLIC LEGISL 2009	Increase the gas tax and revenues for highway work	There is no dedicated state funding for highway work. Alaska's current fuel tax would provide less than 15 percent of the annual highway program. By itself, the current gas tax will not be sufficient to meet Alaska's highway infrastructure needs.	No new actions. State and federal funding sources reexamined annually at the Executive level.
11	PUBLIC LEGISL 2009	Ban cell phone use [in vehicles or while driving]	Studies show it "impairs" driving. Legislation has occurred for some restrictions on cel phone use in terms of texting and driving.	Has been considered at Legislative Level.
12	PUBLIC LEGISL 2009	Run breathalyzer checkpoints on each end of the highway, remove most of the problem.	Cannot run without legislative authorization. Recommend testing BHP impact, DUI Teams during earlier hours, and increased REDDI reporting, as well as bar checks.	Not recommended.
13	AUDIT GROUP 2011	Is it possible to mandate cel phone service in unserved main corridors?	Such as Turnagain Pass. Can 911 be a required service as a means of doing business in Alaska? Added cost or existing 911 surcharges?	No mandate authority. Executive level exploring 911 service options.
14	PUBLIC	Mandatory	<i>Moved from EDUCATION CONSIDERATIONS</i>	No new actions.

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REGULATORY CONSIDERATIONS (Executive level considerations, beyond technical/staff authority)				
Item	Request From	Suggestion / Comment	Related Actions	Recommendations for further Action
	LEGISL 2009	defensive driving, or education in schools	<p>2011. Driver performance is part of driver's test. Driver's training is optional. 2011: A driver education strategy is in the Strategic Traffic Safety Plan (STSP) Update: "Educate youth on Responsible Behavior and Driving". Because crashes also spike for younger drivers, impaired drivers, and new resident drivers, staff recommends not singling out one age group for required testing. Instead, any testing program should be considered as part of the entire renewal program for all users.</p>	<p>2015 State budgets means this remains a deferred consideration for future Legislative and Executive officials.</p>
15	Audit Group 2010	Expand cel coverage through Turnagain Pass to Cooper Landing for 911 call response time improvements. Cooper Landing is all volunteer.	<p><i>Moved here from ENGINEERING CONSIDERATIONS 2011. Moved into Regulatory/Policy CONSIDERATIONS 2017.</i> 2010: Mat-Su Borough has a Tower Master Plan for radio, cel, ALMR. MP 7 south on KGB Road becomes hit or miss for cel signal. Other Safety Corridors have coverage. Date: AHSO has investigated crashes versus coverage areas. 2013: DOA explored status of private cel service with phone companies. No plan to fill gaps at this time. GFD supports more callboxes as an option, but cel coverage preferable. 2013 Governor's Safety Initiative assigns callbox review for consideration, expansion potential. 2016: Staffing levels and coverage between Girdwood and Cooper Landing are of concern, restaffing efforts underway. 2017: Continuing concern – elevated to Governor's Safety Initiatives 2017</p>	<p>Regulatory/ Policy consideration is first step.</p>
16	AFD	Radar enforcement cameras?	<p>Sign capability is in place using legislated funds. Actual use for enforcement requires legislation.</p>	<p>Defer to Regulatory actions.</p>

Central Region DOT&PF, DPS

Safety Corridors Performance

H. Agency Participants/Contacts

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