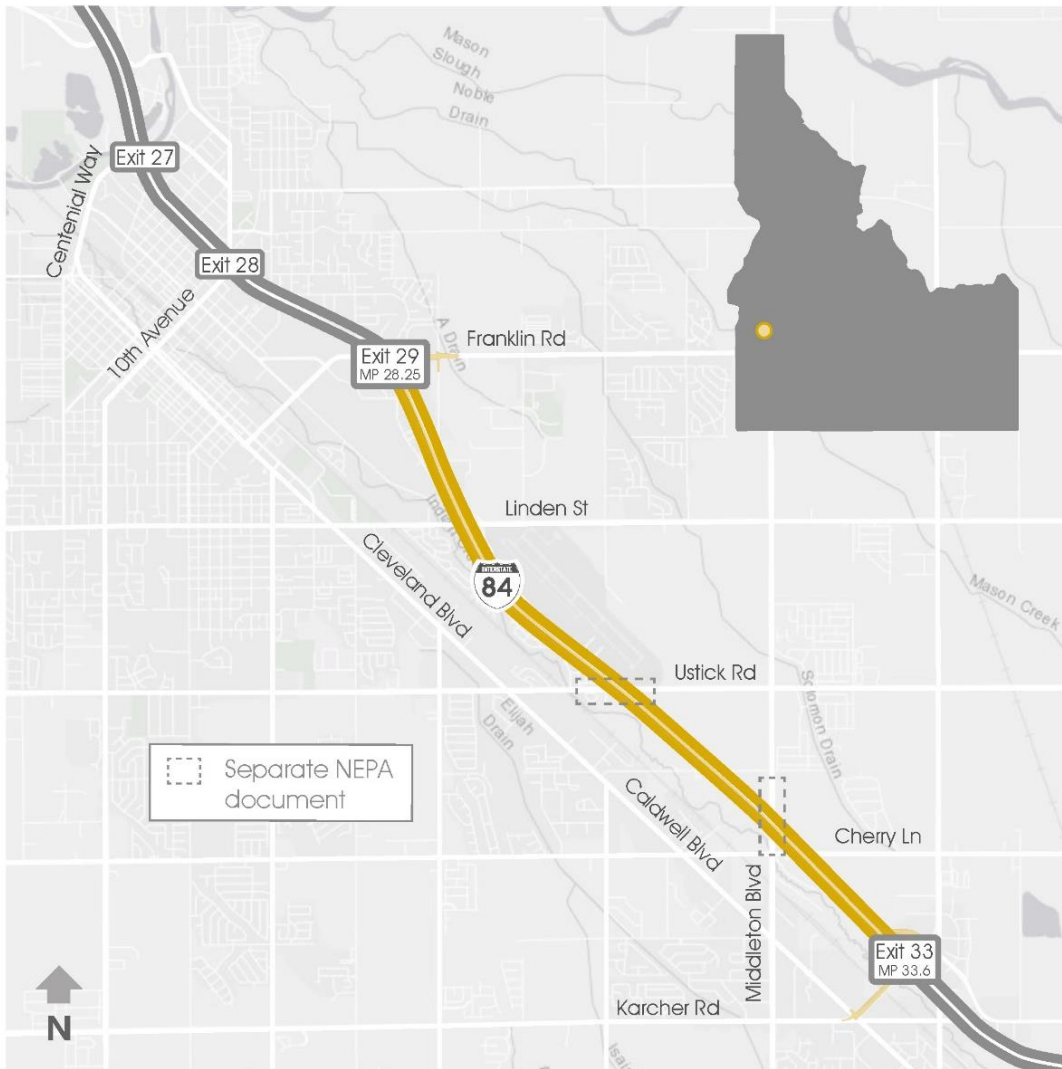


2022

# Freight Program Project Application

I-84, Franklin IC to Karcher IC,  
Canyon County



Projects selected for freight formula funds require a minimum of 7.73% match for interstate projects and 7.34% match for projects not on an interstate.

Submit applications via electronic means to [scott.luekenga@itd.idaho.gov](mailto:scott.luekenga@itd.idaho.gov). When transmitting the application include all supporting maps, letters and other documents, as a pdf. If the file size exceeds e-mail transmittal capabilities (15MB), submit using a thumb drive and send via FedEx/UPS delivery to the following address:

Idaho Transportation Department  
Attn: Scott Luekenga  
HQ – Highway Planning Service  
P.O. Box 7129  
Boise, Id. 83707-1129

### **Applicant Information**

Applicant: Idaho Transportation Department, Bonding Group

Mailing Address: P.O. Box 7129  
City: Boise  
State: Idaho  
Zip Code: 83707

Contact person: Amy Schroeder  
Title: Transportation Program Manager  
Phone: 208-334-8206  
Email: [Amy.Schroeder@itd.idaho.gov](mailto:Amy.Schroeder@itd.idaho.gov)

Co-Applicant (if different from Applicant): Idaho Transportation Department, District 3

Mailing Address: 8150 Chinden Blvd  
City: Boise  
State: Idaho  
Zip Code: 83714

Contact Person: Caleb Lakey  
Title: District Engineer  
Phone: 208-334-8301  
Email: [Caleb.Lakey@itd.idaho.gov](mailto:Caleb.Lakey@itd.idaho.gov)

## **Application Specifics**

### **Project Cost Estimate:**

I-84, Franklin IC (Exit 29) to Karcher IC (Exit 33) expansion project, sponsored by the Idaho Transportation Department Headquarters Bonding Group along with District 3, is located in Canyon County, on I-84 between MP 28.23 and MP 33.4. This portion of I-84 will be reconstructed to widen eastbound and westbound lane to consist of three travel lanes in each direction.

The construction of the I-84 Franklin IC to Karcher IC, Canyon County project has started. In order to best utilize the GARVEE funds in conjunction with the Freight funds, the Bonding Group is requesting \$8,633,000 of CN funds be de-obligated from the US-95, Granite North project and applied to the I-84, Franklin IC to Karcher IC project.

This project was separated into two construction projects, Franklin IC to Karcher IC – West and Franklin IC to Karcher IC – East. The contract was awarded for the Franklin IC to Karcher IC – West, May 24, 2021. The contract for Franklin IC to Karcher IC – East, was awarded May 12, 2021. The total cost of CN for both projects came to \$103,345,873 (see appendix A for cost details).



### **Project Details:**

This project, sponsored by the Idaho Transportation Department, Bonding Group and District 3 will widen and reconstruct approximately 5 miles of I-84 between MP 28.23 and MP 33.4.

The proposed project includes the following improvements:

- The addition of one general purpose travel lane in each direction on I-84 between Franklin IC and Karcher IC. The proposed urban typical section will replace the existing rural typical section and reconstruction will add travel lanes in the existing 68-foot center drainage swale and reconstruct the existing lanes.
- Ramp modifications to the Franklin Road IC to accommodate new I-84 typical section.
- The modification of Linden Street to widen the shoulders. Also reconstruction of two I-84 mainline overpass bridges at Linden Street to accommodate the I-84 widening and to improve safety and design features.
- The replacement of two box culverts and four pipe culverts associated with irrigation or drainage conveyance within the project area.
- Storm water drainage improvements, including the construction of an urban storm drain system on I-84 with infiltration ponds.



Improvements to I-84 would be contained within the existing right-of-way, with the possible exception of ancillary features such as drainage ponds. The existing overpass structures at Middleton Road and Ustick Road will be modified from the existing five-span structures to two-span structures in order to remove the supporting piers that currently exist in the median. The bridge modifications will be addressed in the I-84; Ustick Road and Middleton Road Overpasses, Canyon County project and are not included in this project.

I-84 between Nampa and Caldwell serves as a major freight route for local and interstate traffic, making it an important factor in the regional economy. Increased congestion on I-84 in the project area would impair freight movements and the regional economy. In the design year, 2042 at the Franklin IC, delays for the p.m. peak hour would be up to 74.9 seconds, while at Karcher IC, delays would range from 87.1 seconds during the a.m. peak hour to greater than 124 seconds for the p.m. peak hour.

### **Safety, Economic and Mobility Improvement Details:**

Analysis shows that nearly all of I-84 in the study area exceeds the Historical Average Injury Crash Rate. In the time period between 2016-2022 a total of 525 crashes in the study area resulted in 10 fatalities and 232 injuries. Rear-end crashes are the most prevalent crash type making up 46% of all crashes in the corridor. The majority of the rear-end crashes are between Karcher Road IC and the Ustick Road overcrossing in the eastbound lanes and attributed to the am peak hour congestion.

Interstate 84 between Nampa and Caldwell serves as a major freight route for local and interstate traffic, making it a significant factor in the regional economy. Congestion is expected to worsen dramatically on I-84 in the study area which would negatively impact freight movements, transit operations, and the regional economy. Peak hour congestion is significant in the westbound direction during the PM peak hours where I-84 mainline during the AM peak hours is congested eastbound west of the Karcher IC. Key Number 20315 I-84, Karcher Road to Franklin Boulevard project widened the I-84 mainline to three general purpose lanes with auxiliary lanes from east of the Franklin Boulevard IC to west of the Karcher Road IC. The widening of I-84 by way of the Key Number 20315 project only partially addresses the peak hour congestion issue. Acceptable level of service is not achieved until widening of the mainline is completed in both eastbound and westbound direction from Karcher Road IC (Exit 33) to Centennial Way IC (Exit 27).

I-84 carries 85% of all freight shipments into and through Idaho. Improvements to interstate conditions and enhancements to operational levels of service are integral to the efficient movement of people, goods and services at local, regional and national scales. I-84 connects the Pacific Coast Ports to the Intermountain West region and carries over \$80 billion worth of freight through the study area annually. The ITD and COMPASS have prioritized the improvements to the I-84 corridor where the greatest needs exists. This Nampa to Caldwell section completes the final phases on interstate corridor improvement to ensure the Treasure Valley is adequately served by I-84 into the design year of 2045.



# Appendix A Cost Estimates

State of Idaho  
 Idaho Transportation Department  
 Schedule of Items

LINE NUMBER	ITEM NUMBER	QUANTITY	UNIT	UNIT PRICE	EXTENSION PRICE
SECTION 0001					
ROADWAY WORK BY CONTRACT					
0005	105-010A	99000.000	CA	\$1.00000	\$99,000.00
	DISPUTE REVIEW BOARD-3 MEMBER (CONT ITEM)				
0010	110-005A	8400.000	HR	\$0.80000	\$6,720.00
	TRAINING				
0015	201-005A	24.000	ACRE	\$1,588.61000	\$38,126.64
	CLEARING & GRUBBING				
0020	202-005A	16.000	EACH	\$869.19000	\$13,907.04
	SELECTIVE REM OF TREES INCLUDING STUMPS				
0025	203-005A	1.000	LS	\$3,259.52000	\$3,259.52
	REM OF OBSTRUCTIONS				
0030	203-015A	151356.000	SY	\$3.15000	\$476,771.40
	REM OF BITUMINOUS SURF				
0035	203-020A	2.000	EACH	\$100,000.00000	\$200,000.00
	REM OF BRIDGE (LINDEN STREET)				
0040	203-025A	10.000	EACH	\$923.91000	\$9,239.10
	REM OF CATCH BASIN				
0045	203-035A	1.000	EACH	\$66,950.00000	\$66,950.00
	REM OF CONC CULV (MONOLITHIC) (NOTUS #1 CROSSING)				
0050	203-050A	2.000	EACH	\$1,119.61000	\$2,239.22
	REM OF CONC HEADWALL				
0055	203-055A	8814.900	SY	\$4.75000	\$41,870.78
	REM OF CONC PAV				
0060	203-065A	838.000	FT	\$7.78000	\$6,519.64
	REM OF CURB				
0065	203-075A	7995.000	FT	\$1.29000	\$10,313.55
	REM OF FENCE				
0070	203-080A	4187.000	FT	\$1.03000	\$4,312.61
	REM OF GUARDRAIL/BARRIER (METAL)				
0075	203-080B	8860.000	FT	\$1.03000	\$9,125.80
	REM OF GUARDRAIL/BARRIER (CONC)				
0080	203-090A	1.000	EACH	\$1,119.61000	\$1,119.61
	REM OF INLET				
0085	203-095A	4.000	EACH	\$2,121.80000	\$8,487.20
	REM OF MANHOLE				
0090	203-105A	1.000	EACH	\$2,482.30000	\$2,482.30
	REM OF MISC IRR STR				
0095	203-130A	93573.000	FT	\$0.36000	\$33,686.28
	REMOVAL OF PAV MARKINGS				
0100	203-135A	29.000	EACH	\$154.50000	\$4,480.50
	REMOVAL OF SIGN				
0105	203-140A	1.000	EACH	\$8,240.00000	\$8,240.00



REM OF SIGN (OVERHEAD)					
0110	205-005A	169900.000	CY	\$9.68000	\$1,644,632.00
	EXCAVATION				
0115	205-005B	22570.000	CY	\$81.62000	\$1,842,163.40
	EXCAVATION (ROCK)				
0120	205-060A	7930.000	MG	\$0.00000	\$0.00
	WATER FOR DUST ABATEMENT				
0125	205-095A	100000.000	CA	\$1.00000	\$100,000.00
	SOFT SPOT REPAIR				
0130	210-005A	2522.000	CY	\$28.56000	\$72,028.32
	STR EXCAVATION SCH NO. 1				
0135	210-010A	8773.000	CY	\$28.56000	\$250,556.88
	STR EXCAVATION SCH NO. 2				
0140	210-010B	1282.000	CY	\$148.67000	\$190,594.94
	STR EXCAVATION SCH NO. 2 (ROCK)				
0145	210-015A	2989.000	CY	\$52.91000	\$158,147.99
	COMPACTING BACKFILL				
0150	212-011A	11701.000	FT	\$2.21000	\$25,859.21
	FIBER WATTLE				
0155	212-060A	12.000	EACH	\$870.91000	\$10,450.92
	STABILIZED CONST ENTRANCE				
0160	212-095A	183.000	EACH	\$97.85000	\$17,906.55
	INLET PROTECTION (FILTER INSERT)				
0165	212-095B	23.000	EACH	\$103.00000	\$2,369.00
	INLET PROTECTION (FIBER WATTLE)				
0170	212-105A	50000.000	CA	\$1.00000	\$50,000.00
	WATER POLLUTION AND EROSION CONTROL				
0175	212-110A	1.000	LS	\$5,150.00000	\$5,150.00
	WATER POLLUTION CONTROL MANAGER				
0180	213-005A	20878.000	CY	\$12.07000	\$251,997.46
	TOPSOIL (6")				
0185	213-005B	1702.000	CY	\$13.60000	\$23,147.20
	TOPSOIL (12")				
0190	251-005A	15000.000	CA	\$1.00000	\$15,000.00
	MIGRATORY BIRD COMPLIANCE				
0195	301-005A	194497.000	TON	\$13.43000	\$2,612,094.71
	GRANULAR SUBBASE				
0200	303-022A	109454.000	TON	\$15.78000	\$1,727,184.12
	3/4" AGGR TY B FOR BASE				
0205	307-012A	25960.000	TON	\$16.78000	\$435,608.80
	OPEN-GRADED BASE CLASS III				
0210	401-020A	1580.000	GAL	\$4.33000	\$6,841.40
	CSS-1 DIL EMUL ASPH FOR TACK COAT				
0215	405-240A	109.000	SY	\$28.84000	\$3,143.56
	MISC PAV				
0220	405-245A	3.000	EACH	\$4,037.60000	\$12,112.80
	APPROACH				
0225	405-410A	10090.000	TON	\$80.69000	\$814,162.10

SUPERPAVE HMA PAV CL SP-T (CL 3T INCL ASPH&ADD)					
0230	405-415A	25450.000	TON	\$65.09000	\$1,656,540.50
SUPERPAVE HMA PAV CL SP-NS (LEVELING COURSE INCL ASPH&ADD)					
0235	405-435A	110.000	TON	\$131.89000	\$14,507.90
SUPERPAVE HMA PAV INCL ASPH&ADD CL SP-3					
0240	409-015A	224320.000	SY	\$56.56000	\$12,687,539.20
CONC PAV					
0245	431-005A	4110.000	SY	\$6.51000	\$26,756.10
COLD MILLING					
0250	502-015A	76.000	CY	\$292.52000	\$22,231.52
CONC CL 30					
0255	502-025A	510.000	CY	\$829.15000	\$422,866.50
CONC CL 40-A					
0260	502-065A	6094.300	CY	\$603.58000	\$3,678,397.59
CONC CL 40 AF					
0265	502-140A	625.000	CY	\$911.55000	\$569,718.75
CONC CL 40-A SCH NO. 1					
0270	502-310A	453.000	CY	\$1,344.15000	\$608,899.95
CONC CL 40 AF SCH NO. 2					
0275	502-375A	936.000	FT	\$484.10000	\$453,117.60
PRESTR BULB TEE GIRDER (42")					
0280	502-430A	304.300	FT	\$222.52000	\$67,712.84
CONC PARAPET (42" HIGH)					
0285	502-435A	1058.000	SY	\$169.17000	\$178,981.86
APPROACH SLAB					
0290	503-005A	299118.000	LB	\$1.02000	\$305,100.36
METAL REINF					
0295	503-010A	165625.000	LB	\$1.12000	\$185,500.00
METAL REINF SCH NO. 1					
0300	503-015A	23339.000	LB	\$0.98000	\$22,872.22
METAL REINF SCH NO. 2					
0305	503-020A	404447.000	LB	\$1.42000	\$574,314.74
EPOXY COATED METAL REINF					
0310	507-005A	24.000	EA	\$45.32000	\$1,087.68
BRIDGE BEARINGS PLAIN (Size__ ) (1/2-IN X 11-IN X 24-IN)					
0315	511-005A	326.000	SY	\$64.89000	\$21,154.14
CONC WATERPROOF SYS (TYPE D)					
0320	551-005A	2045.000	SY	\$83.43000	\$170,614.35
PREPARED & PLACED PPC OVERLAY					
0325	551-010A	50.000	CY	\$2,528.65000	\$126,432.50
PPC OVERLAY MATERIAL					
0330	560-005A	1.000	LS	\$87,550.00000	\$87,550.00
DEWATERING FOUNDATION					
0335	566-005A	254.000	FT	\$45.32000	\$11,511.28
COMPRESSION EXPANSION JOINT (1" JEENE JOINT)					
0340	575-005A	1289.000	SY	\$17.51000	\$22,570.39
TEXTURED CONCRETE SURFACE					
0345	576-005A	1390.000	FT	\$1.04000	\$1,445.60

(GFRP) REINFORCEMENT

0350	584-005B	1.000	LS	\$109,700.92000	\$109,700.92
	TEMPORARY SHORING (LINDEN ST BRIDGE)				
0355	584-005C	1.000	LS	\$192,100.92000	\$192,100.92
	TEMPORARY SHORING (NOTUS #1 CROSSING)				
0360	584-005E	1.000	LS	\$285,230.31000	\$285,230.31
	TEMPORARY SHORING (FOR TEMPORARY TRAFFIC CONTROL)				
0365	586-005A	1.000	LS	\$46,350.00000	\$46,350.00
	UTILITY CONDUIT (COMPLETE INSTALLATION)				
0370	604-045A	1486.000	FT	\$174.07000	\$258,668.02
	24" IRR PIPE				
0375	605-015A	4.000	FT	\$553.11000	\$2,212.44
	8" STORM SEWER PIPE				
0380	605-045A	14765.000	FT	\$84.25000	\$1,243,951.25
	24" STORM SEWER PIPE				
0385	605-055A	2877.000	FT	\$131.84000	\$379,303.68
	30" STORM SEWER PIPE				
0390	605-065A	132.000	FT	\$224.54000	\$29,639.28
	36" STORM SEWER PIPE				
0395	605-450A	7.000	EACH	\$8,652.00000	\$60,564.00
	MANHOLE (72" FLAT TOP)				
0400	605-467A	3.000	EACH	\$6,777.40000	\$20,332.20
	MANHOLE TY D				
0405	605-470A	8.000	EACH	\$7,735.30000	\$61,882.40
	SEDIMENT & OIL TRAP MANHOLE				
0410	605-630A	15.000	EACH	\$6,334.50000	\$95,017.50
	INLET TY 8				
0415	606-115A	4815.000	FT	\$18.54000	\$89,270.10
	URBAN EDGE DRAIN				
0420	606-120A	957.000	FT	\$18.54000	\$17,742.78
	RURAL EDGE DRAIN				
0425	609-025B	2.000	EACH	\$4,532.00000	\$9,064.00
	MINOR STR 24" INLET HEADWALL				
0430	609-025G	1.000	EACH	\$6,643.50000	\$6,643.50
	MINOR STR (4'x4' BOX)				
0435	610-030A	2369.000	FT	\$3.97000	\$9,404.93
	FENCE TY 3 B				
0440	610-035A	2805.000	FT	\$36.57000	\$102,578.85
	FENCE TY 4 (72")				
0445	610-170A	6.000	EACH	\$2,729.50000	\$16,377.00
	STL GATE (OBSOLETE 2019) TY 3 (24 FT DBL LEAF)				
0450	610-250A	52.000	EACH	\$309.00000	\$16,068.00
	BRACES				
0455	612-005D	1212.000	FT	\$18.54000	\$22,470.48
	W-BEAM GUARDRAIL				
0460	612-110A	2.000	EACH	\$1,545.00000	\$3,090.00
	GUARDRAIL ANCHOR				
0465	612-115B	10.000	EACH	\$2,575.00000	\$25,750.00

GUARDRAIL TERMINAL, FLARED					
0470	612-120B	9.000	EACH	\$2,575.00000	\$23,175.00
GUARDRAIL TRANSITION, HIGH SPEED					
0475	612-150A	18800.000	FT	\$77.25000	\$1,452,300.00
CONCRETE BARRIER					
0480	612-155A	10.000	EACH	\$772.07000	\$7,720.70
CONCRETE TERMINAL TY A					
0485	612-175A	184.700	FT	\$240.30000	\$44,383.41
CAST-IN-PLACE CONCRETE BARRIER (BRIDGE MEDIAN)					
0490	613-030A	3.000	EACH	\$41,200.00000	\$123,600.00
CRASH CUSHION, PARTIALLY REUSABLE					
0495	616-010A	228.000	SF	\$18.91000	\$4,311.48
SIGNS TY B					
0500	616-015A	1298.000	SF	\$32.23000	\$41,834.54
SIGNS TY C					
0505	616-031B	2.000	EACH	\$87,550.00000	\$175,100.00
OVERHEAD CANTILEVER SIGN STRUCTURE (35' SPAN)					
0510	616-031C	2.000	EACH	\$92,700.00000	\$185,400.00
OVERHEAD CANTILEVER SIGN STRUCTURE (45' SPAN)					
0515	616-035A	429.000	LB	\$4.64000	\$1,990.56
SIGN BRACKETS & BRACE ANGLES					
0520	616-040A	2365.000	LB	\$4.64000	\$10,973.60
BRKAWY STL SIGN POST TY A					
0525	616-045A	1570.000	LB	\$4.64000	\$7,284.80
BRKAWY STL SIGN POST TY B					
0530	616-060A	8.000	EACH	\$1,802.50000	\$14,420.00
BRKAWY STL SIGN POST INST TY A					
0535	616-065A	13.000	EACH	\$1,802.50000	\$23,432.50
BRKAWY STL SIGN POST INST TY B					
0540	617-005A	82.000	EACH	\$26.78000	\$2,195.96
DELINEATOR TY 1					
0545	617-010A	15.000	EACH	\$30.90000	\$463.50
DELINEATOR TY 2					
0550	617-020A	2.000	EACH	\$30.90000	\$61.80
DELINEATOR TY 4					
0555	617-045A	1095.000	EACH	\$16.48000	\$18,045.60
DELINEATOR TY 9					
0560	617-050A	4.000	EACH	\$412.00000	\$1,648.00
MILEPOST TY 1					
0565	618-020A	3.000	EACH	\$154.50000	\$463.50
WITNESS POST					
0570	619-010A	1.000	LS	\$350,340.08000	\$350,340.08
ILLUMINATION TY 2 (ROADWAY LIGHTING)					
0575	620-020A	5.000	EACH	\$798.25000	\$3,991.25
PLANTING TREE (SEEDLING or CONTAINER) (DECIDUOUS)					
0580	621-005A	29.450	ACRE	\$206.00000	\$6,066.70
SEED BED PREPARATION					
0585	621-010A	3.200	ACRE	\$511.91000	\$1,638.11

		SEEDING (TYPE 1)			
0590	621-010B	25.800 ACRE		\$744.69000	\$19,213.00
		SEEDING (TYPE 2)			
0595	621-010C	0.450 ACRE		\$744.69000	\$335.11
		SEEDING (TYPE 3)			
0600	621-035A	26.250 ACRE		\$792.07000	\$20,791.84
		FERTILIZING			
0605	621-060A	29.450 ACRE		\$2,004.38000	\$59,028.99
		MULCH PLUS TACKIFIER			
0610	624-005B	203.000 CY		\$110.86000	\$22,504.58
		LOOSE RIPRAP (D50=9")			
0615	626-010A	3127.000 SF		\$6.70000	\$20,950.90
		TEMPORARY TRAFFIC CONTROL SIGNS			
0620	626-040A	24.000 EACH		\$53.56000	\$1,285.44
		BARRICADE TY 3			
0625	626-050A	200.000 EACH		\$5.15000	\$1,030.00
		DRUMS			
0630	626-076A	2400.000 HR		\$0.01000	\$24.00
		ARROW BOARD TY C			
0635	626-100B	20000.000 CA		\$1.00000	\$20,000.00
		MISC TEMPORARY TRAF CONT ITEMS			
0640	626-105A	3200.000 HR		\$41.20000	\$131,840.00
		TRAF CNTL MAINTENANCE			
0645	626-112A	5000.000 HR		\$16.36000	\$81,800.00
		FLOOD LIGHTS			
0650	626-114A	24000.000 HR		\$2.58000	\$61,920.00
		PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)			
0655	626-116A	51357.000 FT		\$62.00000	\$3,184,134.00
		TEMP CONCRETE BARRIER			
0660	626-117A	42062.000 FT		\$5.67000	\$238,491.54
		R&R TEMP CONCRETE BARRIER			
0665	626-118A	6.000 EACH		\$3,090.00000	\$18,540.00
		TEMP CRASH CUSHION			
0670	626-120A	200.000 HR		\$36.05000	\$7,210.00
		FLAGGER CONTROL			
0675	626-121A	10.000 EACH		\$360.50000	\$3,605.00
		R&R TEMP CRASH CUSHION			
0680	626-135A	600.000 EACH		\$10.30000	\$6,180.00
		WEIGHTED BASE TUBULAR MARKERS			
0685	630-020B	346.000 SF		\$12.07000	\$4,176.22
		PAV MKG ? PREFORMED THERMOPLASTIC			
0690	630-025A	434963.000 FT		\$0.11000	\$47,845.93
		LONGITUDINAL PAV MKG- WATERBORNE			
0695	640-005A	15445.000 SY		\$3.20000	\$49,424.00
		DRAINAGE GEOTEXTILE (TYPE II)			
0700	640-010A	499.000 SY		\$10.32000	\$5,149.68
		RIPRAP/EROSION CONT GEOTEXTILE (TYPE II)			
0705	640-015A	274835.000 SY		\$1.79000	\$491,954.65

SUBGRADE SEPARATION GEOTEXTILE (TYPE III)					
0710	645-010A	1.000	LS	\$119,616.00000	\$119,616.00
	C3 FIELD LAB				
0715	651-010A	26360.000	SF	\$1.55000	\$40,858.00
	LAWN CONST (SODDED)				
0720	652-005A	1.000	LS	\$36,050.00000	\$36,050.00
	UNDERGROUND SPRINKLER SYS				
0725	675-005A	1.000	LS	\$350,795.34000	\$350,795.34
	SURVEY				
0730	675-010A	50000.000	CA	\$1.00000	\$50,000.00
	DIRECTED SURVEYING OFFICE COMPUTATIONS				
0735	675-015A	100000.000	CA	\$1.00000	\$100,000.00
	DIRECTED SURVEYING CREW				
0740	S203-26A	20.000	EACH	\$653.07000	\$13,061.40
	REM OF (OBSOLETE 2018) LUMINAIRE				
0745	S203-27A	2955.000	FT	\$32.65000	\$96,480.75
	REM OF (OBSOLETE 2018) PIPE				
0750	S501-17A	12028.000	SF	\$85.42000	\$1,027,431.76
	MSE RETAINING WALL				
0755	S501-18A	257.000	FT	\$222.00000	\$57,054.00
	COPING FOR MSE WALL				
0760	S501-30A	1911.000	FT	\$1,120.64000	\$2,141,543.04
	SP BRIDGE SOUNDWALL 1				
0765	S501-30B	2520.000	FT	\$1,093.86000	\$2,756,527.20
	SP BRIDGE SOUNDWALL 2				
0770	S501-30C	433.000	FT	\$11.33000	\$4,905.89
	SP BRIDGE PLASTIC WATERSTOP				
0775	S501-51A	14034.000	SF	\$1.80000	\$25,261.20
	SP BRIDGE ANTI-GRAFFITI COATING				
0780	S601-05A	1124.000	FT	\$155.53000	\$174,815.72
	SLOTTED DRAIN (12")				
0785	S605-10A	1.000	EACH	\$1,133.00000	\$1,133.00
	CONC COLLAR (ANTI-SEEPAGE)				
0790	S626-30A	527.000	DAY	\$206.00000	\$108,562.00
	TRAF CNTL MANAGER				
0795	S900-50B	15000.000	CA	\$1.00000	\$15,000.00
	CONTINGENCY AMOUNT WATERING				
0800	S900-50C	10000.000	CA	\$1.00000	\$10,000.00
	CONTINGENCY AMOUNT WEED CONTROL				
0805	S900-50D	15810.000	CA	\$1.00000	\$15,810.00
	CONTINGENCY AMOUNT FERTILIZER & SOIL ANALYSIS				
0810	S901-05A	114.000	EACH	\$7,117.30000	\$811,372.20
	SP CATCH BASIN, 36" VANE GRATE				
0815	S901-05C	6.000	EACH	\$5,785.51000	\$34,713.06
	SP CAST-IN-PLACE CONC BARRIER TRANSITION				
0820	S901-05D	1.000	EACH	\$21,954.45000	\$21,954.45
	SP CAST-IN-PLACE CONC BARRIER DUAL END				
0825	S901-05E	4.000	EACH	\$4,738.00000	\$18,952.00

SP PARAPET TO CONC BARRIER TRANSITION					
0830	S901-05F	2.000	EACH	\$25,850.94000	\$51,701.88
SP CCTV CAMERA POLE AND LOWER SYSTEM					
0835	S901-05G	2.000	EACH	\$8,350.21000	\$16,700.42
SP CCTV VIDEO SYSTEM					
0840	S901-05H	1.000	EACH	\$18,956.12000	\$18,956.12
SP RADAR DETECTION SYSTEM					
0845	S901-05I	4.000	EACH	\$127.72000	\$510.88
SP FUSION SPLICE					
0850	S901-05J	1.000	EACH	\$4,370.29000	\$4,370.29
SP SPLICE VAULT					
0855	S901-05K	24.000	EACH	\$99.91000	\$2,397.84
SP FIBER TERMINATION					
0860	S901-05L	28.000	EACH	\$35.02000	\$980.56
SP TEST FIBER OPTIC CABLE					
0865	S901-05M	4.000	EACH	\$43.26000	\$173.04
SP FIBER OPTIC WORKSHEET					
0870	S901-05O	2.000	EACH	\$14,919.55000	\$29,839.10
SP TYPE 334 CABINET					
0875	S901-05P	2.000	EACH	\$2,418.44000	\$4,836.88
SP ETHERNET SWITCH					
0880	S901-05Q	2.000	EACH	\$467.62000	\$935.24
SP HIGH POE POWER INJECTOR					
0885	S901-05S	2.000	EACH	\$4,367.20000	\$8,734.40
SP REMOVE AND RESET LUMINAIRE					
0890	S901-05T	3.000	EACH	\$1,151.54000	\$3,454.62
SP JUNCTION BOX TYPE S45T WITH RISER					
0895	S901-05U	57.000	EACH	\$10,475.10000	\$597,080.70
SP CATCH BASIN, 72" VANE GRATE					
0900	S901-05Y	15.000	EACH	\$1,666.58000	\$24,998.70
SP SWALE BERM AND DRAIN ROCK CHANNEL					
0905	S901-05Z	1.000	EACH	\$3,790.40000	\$3,790.40
SP REMOVE AND RESET EXISTING RADAR SYSTEM					
0910	S901-06A	6.000	EACH	\$5,716.50000	\$34,299.00
SP DITCH INLET					
0915	S901-06E	18.000	EACH	\$1,586.20000	\$28,551.60
SP INFILTRATION WINDOW					
0920	S901-06H	2.000	EACH	\$6,025.50000	\$12,051.00
SP TEMPORARY TY 8 INLET					
0925	S904-05B	1.000	LS	\$139,050.00000	\$139,050.00
SP PRESSURE IRR XING					
0930	S904-05D	1.000	LS	\$714.73000	\$714.73
SP FAA AND AIRPORT COORDINATION					
0935	S904-05E	1.000	LS	\$10,514.24000	\$10,514.24
SP SIGNAL TIMING TEMP MODS					
0940	S904-05F	1.000	LS	\$10,300.00000	\$10,300.00
SP TURBIDITY MONITORING					
0945	S911-05A	2215.000	FT	\$9.35000	\$20,710.25

SP CONDUIT (2" RPC)					
0950	S911-05B	250.000	FT	\$9.84000	\$2,460.00
SP INSTALL 12 FIBER CABLE					
0955	S911-05C	221.000	FT	\$154.50000	\$34,144.50
SP TEMPORARY SEEPAGE BED					
0960	S911-05D	218.000	FT	\$810.61000	\$176,712.98
SP JACKING OF 24" PIPE					
0965	S911-05E	165.000	FT	\$1,318.40000	\$217,536.00
SP JACKING OF 30" PIPE					
0970	S911-05F	50.000	FT	\$1,246.30000	\$62,315.00
SP JACKING OF 36" PIPE					
0975	S911-05H	282.000	FT	\$576.80000	\$162,657.60
SP 42" SLIP LINER PIPE					
0980	S911-05I	224.000	FT	\$821.94000	\$184,114.56
SP 60" SLIP LINER PIPE					
0985	S911-05J	1006.000	FT	\$4.12000	\$4,144.72
SP TEMPORARY FENCING					
0990	S911-05O	773.000	FT	\$26.78000	\$20,700.94
SP CONCRETE MOWSTRIP					
0995	S911-05P	14824.000	FT	\$0.18000	\$2,668.32
SP CONTRAST BLACK PAVEMENT MARKINGS					
1000	S913-05A	5359.000	CY	\$35.84000	\$192,066.56
SP FILTER SAND					
1005	Z629-05A	1.000	LS	\$5,839,125.0000	\$5,839,125.00
MOBILIZATION					
Section 0001 Total					\$59,293,309.73
Item Total					\$59,293,309.73



State of Idaho  
Idaho Transportation Department  
Schedule of Items

LINE NUMBER	ITEM NUMBER	QUANTITY	UNIT	UNIT PRICE	EXTENSION PRICE
SECTION 0001					
Roadway Work by Contract					
0005	105-010A	106000.000	CA	\$1.00000	\$106,000.00
	DISPUTE REVIEW BOARD-3 MEMBER (CONT ITEM)				
0010	110-005A	5900.000	HR	\$0.80000	\$4,720.00
	TRAINING				
0015	201-005A	42.000	ACRE	\$5,201.00000	\$218,442.00
	CLEARING & GRUBBING				
0020	202-005A	30.000	EACH	\$412.50000	\$12,375.00
	SELECTIVE REM OF TREES INCLUDING STUMPS INCLUDING STUMPS				
0025	203-005A	1.000	LS	\$25,971.00000	\$25,971.00
	REM OF OBSTRUCTIONS				
0030	203-015A	153791.000	SY	\$3.50000	\$538,268.50
	REM OF BITUMINOUS SURF				
0035	203-035B	1.000	EACH	\$60,845.00000	\$60,845.00
	REM OF CONC CULV (MONOLITHIC) (NOTUS #2 CROSSING)				
0040	203-075A	2549.000	FT	\$6.00000	\$15,294.00
	REM OF FENCE				
0045	203-080A	4211.000	FT	\$3.00000	\$12,633.00
	REM OF GUARDRAIL/BARRIER (METAL)				
0050	203-080B	9863.000	FT	\$9.90000	\$97,643.70
	REM OF GUARDRAIL/BARRIER (CONC)				
0055	203-090A	6.000	EACH	\$503.00000	\$3,018.00
	REM OF INLET				
0060	203-125A	1.000	LS	\$37,770.00000	\$37,770.00
	REM OF MISCELLANEOUS ITEMS (2-FT DIA & 5.1-FT X 3.1-FT CMP)				
0065	203-125B	10.000	EA	\$1,267.00000	\$12,670.00
	REM OF MISCELLANEOUS ITEMS				
0070	203-130A	158722.000	FT	\$0.35000	\$55,552.70
	REMOVAL OF PAV MARKINGS				
0075	203-135A	10.000	EACH	\$251.50000	\$2,515.00
	REMOVAL OF SIGN				
0080	205-005A	161308.000	CY	\$10.00000	\$1,613,080.00
	EXCAVATION				
0085	205-060A	24557.000	MG	\$0.01000	\$245.57
	WATER FOR DUST ABATEMENT				
0090	205-095A	100000.000	CA	\$1.00000	\$100,000.00
	SOFT SPOT REPAIR				
0095	209-005A	58.000	FT	\$1.00000	\$58.00
	SMALL DITCH				
0100	210-005A	3816.000	CY	\$34.50000	\$131,652.00
	STR EXCAVATION SCH NO. 1				
0105	210-015A	2461.000	CY	\$13.00000	\$31,993.00

COMPACTING BACKFILL					
0110	212-011A	7789.000	FT	\$2.20000	\$17,135.80
	FIBER WATTLE				
0115	212-060A	2.000	EACH	\$2,514.00000	\$5,028.00
	STABILIZED CONST ENTRANCE				
0120	212-095A	154.000	EACH	\$92.00000	\$14,168.00
	INLET PROTECTION (FILTER INSERT)				
0125	212-095B	9.000	EACH	\$92.00000	\$828.00
	INLET PROTECTION (FIBER WATTLE)				
0130	212-105A	10000.000	CA	\$1.00000	\$10,000.00
	WATER POLLUTION AND EROSION CONTROL				
0135	212-110A	1.000	LS	\$13,588.00000	\$13,588.00
	WATER POLLUTION CONTROL MANAGER				
0140	213-005A	18061.000	CY	\$20.00000	\$361,220.00
	TOPSOIL (6")				
0145	251-005A	15000.000	CA	\$1.00000	\$15,000.00
	MIGRATORY BIRD COMPLIANCE				
0150	301-005A	211071.000	TON	\$6.60000	\$1,393,068.60
	GRANULAR SUBBASE				
0155	303-022A	88037.000	TON	\$19.00000	\$1,672,703.00
	3/4" AGGR TY B FOR BASE				
0160	401-020A	2859.000	GAL	\$3.50000	\$10,006.50
	CSS-1 DIL EMUL ASPH FOR TACK COAT				
0165	405-245A	2.000	EACH	\$2,514.00000	\$5,028.00
	APPROACH				
0170	405-410A	1631.000	TON	\$276.50000	\$450,971.50
	SUPERPAVE HMA PAV CL SP-T (CL 3T INCL ASPH&ADD)				
0175	405-415A	22006.000	TON	\$85.50000	\$1,881,513.00
	SUPERPAVE HMA PAV CL SP-NS (LEVELING COURSE INCL ASPH&ADD)				
0180	405-435A	2559.000	TON	\$85.50000	\$218,794.50
	SUPERPAVE HMA PAV INCL ASPH&ADD CL SP-3				
0185	409-015A	199089.000	SY	\$62.50000	\$12,443,062.50
	CONC PAV 11.5"				
0190	502-025A	791.400	CY	\$576.00000	\$455,846.40
	CONC CL 40-A				
0195	503-005A	159570.000	LB	\$1.00000	\$159,570.00
	METAL REINF				
0200	511-005A	1020.000	SY	\$33.25000	\$33,915.00
	CONC WATERPROOF SYS (TYPE D)				
0205	560-005A	1.000	LS	\$139,877.00000	\$139,877.00
	DEWATERING FOUNDATION				
0210	578-005A	1.000	LS	\$353,227.00000	\$353,227.00
	PRECAST CONCRETE CULVERT (8-FT X 5.5-FT X 325-FT STIFFLEG)				
0215	584-005A	1.000	LS	\$74,790.00000	\$74,790.00
	TEMPORARY SHORING ( HIGHLINE CANAL)				
0220	584-005D	1.000	LS	\$72,891.00000	\$72,891.00
	TEMPORARY SHORING (NOTUS #2 CROSSING)				
0225	584-005E	1.000	LS	\$193,475.00000	\$193,475.00

TEMPORARY SHORING (FOR TEMPORARY TRAFFIC CONTROL)

0230	604-045A	1460.000 FT		\$166.00000	\$242,360.00
	24" IRR PIPE				
0235	605-025A	48.000 FT		\$45.25000	\$2,172.00
	12" STORM SEWER PIPE				
0240	605-030A	296.000 FT		\$40.25000	\$11,914.00
	15" STORM SEWER PIPE				
0245	605-035A	29.000 FT		\$63.25000	\$1,834.25
	18" STORM SEWER PIPE				
0250	605-045A	11739.000 FT		\$81.50000	\$956,728.50
	24" STORM SEWER PIPE				
0255	605-055A	1954.000 FT		\$176.00000	\$343,904.00
	30" STORM SEWER PIPE				
0260	605-455A	23.000 EACH		\$3,520.00000	\$80,960.00
	MANHOLE TY A				
0265	605-467A	2.000 EACH		\$6,034.00000	\$12,068.00
	MANHOLE TY D				
0270	605-470A	4.000 EACH		\$6,638.00000	\$26,552.00
	SEDIMENT & OIL TRAP MANHOLE				
0275	605-630A	8.000 EACH		\$4,416.00000	\$35,328.00
	INLET TY 8				
0280	608-035A	1.000 EACH		\$653.50000	\$653.50
	18" APRON FOR PIPE				
0285	608-210A	6.000 EACH		\$1,659.00000	\$9,954.00
	METAL SAFETY APRON (CROSS DRAINAGE)				
0290	609-025C	1.000 EACH		\$3,520.00000	\$3,520.00
	MINOR STR 12" INLET HEADWALL				
0295	610-035A	2281.000 FT		\$49.25000	\$112,339.25
	FENCE TY 4 (72")				
0300	610-170A	2.000 EACH		\$3,822.00000	\$7,644.00
	STL GATE (OBSOLETE 2019) TY 3 (20 FT DBL LEAF)				
0305	612-005D	617.000 FT		\$27.25000	\$16,813.25
	W-BEAM GUARDRAIL				
0310	612-115B	9.000 EACH		\$3,067.00000	\$27,603.00
	GUARDRAIL TERMINAL, FLARED				
0315	612-120B	9.000 EACH		\$2,715.00000	\$24,435.00
	GUARDRAIL TRANSITION, HIGH SPEED				
0320	612-150A	17356.000 FT		\$93.25000	\$1,618,447.00
	CONCRETE BARRIER				
0325	612-155A	11.000 EACH		\$1,911.00000	\$21,021.00
	CONCRETE TERMINAL TY A				
0330	613-030A	2.000 EACH		\$32,151.00000	\$64,302.00
	CRASH CUSHION, PARTIALLY REUSABLE				
0335	616-010A	44.000 SF		\$22.25000	\$979.00
	SIGNS TY B				
0340	616-015A	742.000 SF		\$37.00000	\$27,454.00
	SIGNS TY C				
0345	616-030A	1.000 EACH		\$180,850.00000	\$180,850.00

OVERHEAD BRIDGE SIGN STRUCTURE (80' SPAN DMS)					
0350	616-031A	1.000	EACH	\$81,913.00000	\$81,913.00
OVERHEAD CANTILEVER SIGN STRUCTURE (35' SPAN DMS)					
0355	616-031B	1.000	EACH	\$74,661.00000	\$74,661.00
OVERHEAD CANTILEVER SIGN STRUCTURE (35' SPAN)					
0360	616-035A	180.520	LB	\$7.90000	\$1,426.11
SIGN BRACKETS & BRACE ANGLES					
0365	616-040A	1160.000	LB	\$7.10000	\$8,236.00
BRKAWY STL SIGN POST TY A					
0370	616-045A	593.000	LB	\$10.25000	\$6,078.25
BRKAWY STL SIGN POST TY B					
0375	616-060A	6.000	EACH	\$2,766.00000	\$16,596.00
BRKAWY STL SIGN POST INST TY A					
0380	616-065A	3.000	EACH	\$2,605.00000	\$7,815.00
BRKAWY STL SIGN POST INST TY B					
0385	616-080A	2.000	EACH	\$3,017.00000	\$6,034.00
REINSTALL SIGNS					
0390	617-005A	108.000	EACH	\$42.25000	\$4,563.00
DELINEATOR TY 1					
0395	617-010A	23.000	EACH	\$45.25000	\$1,040.75
DELINEATOR TY 2					
0400	617-045A	928.000	EACH	\$12.00000	\$11,136.00
DELINEATOR TY 9					
0405	617-050A	6.000	EACH	\$352.00000	\$2,112.00
MILEPOST TY 1					
0410	619-010A	1.000	LS	\$70,458.00000	\$70,458.00
ILLUMINATION TY 2 (ROADWAY LIGHTING)					
0415	621-005A	23.810	ACRE	\$1,127.00000	\$26,833.87
SEED BED PREPARATION					
0420	621-010A	1.420	ACRE	\$500.00000	\$710.00
SEEDING (TYPE 1)					
0425	621-010B	22.390	ACRE	\$727.00000	\$16,277.53
SEEDING (TYPE 2)					
0430	621-035A	22.390	ACRE	\$773.50000	\$17,318.67
FERTILIZING					
0435	621-060A	23.810	ACRE	\$1,957.00000	\$46,596.17
MULCH PLUS TACKIFIER					
0440	624-005B	131.000	CY	\$115.50000	\$15,130.50
LOOSE RIPRAP (D50=9")					
0445	626-010A	1816.000	SF	\$6.00000	\$10,896.00
TEMPORARY TRAFFIC CONTROL SIGNS					
0450	626-040A	8.000	EACH	\$50.25000	\$402.00
BARRICADE TY 3					
0455	626-050A	225.000	EACH	\$5.00000	\$1,125.00
DRUMS					
0460	626-076A	1200.000	HR	\$0.01000	\$12.00
ARROW BOARD TY C					
0465	626-100B	20000.000	CA	\$1.00000	\$20,000.00

MISC TEMPORARY TRAF CONT ITEMS					
0470	626-105A	2500.000	HR	\$40.25000	\$100,625.00
	TRAF CNTL MAINTENANCE				
0475	626-112A	2000.000	HR	\$18.00000	\$36,000.00
	FLOOD LIGHTS				
0480	626-114A	24000.000	HR	\$2.00000	\$48,000.00
	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)				
0485	626-116A	41594.000	FT	\$32.00000	\$1,331,008.00
	TEMP CONCRETE BARRIER				
0490	626-117A	47343.000	FT	\$6.60000	\$312,463.80
	R&R TEMP CONCRETE BARRIER				
0495	626-118A	8.000	EACH	\$3,017.00000	\$24,136.00
	TEMP CRASH CUSHION				
0500	626-120A	120.000	HR	\$35.25000	\$4,230.00
	FLAGGER CONTROL				
0505	626-121A	12.000	EACH	\$251.50000	\$3,018.00
	R&R TEMP CRASH CUSHION				
0510	626-135A	500.000	EACH	\$10.00000	\$5,000.00
	WEIGHTED BASE TUBULAR MARKERS				
0515	630-025A	415195.000	FT	\$0.15000	\$62,279.25
	LONGITUDINAL PAV MKG- WATERBORNE				
0520	640-005A	2532.000	SY	\$4.00000	\$10,128.00
	DRAINAGE GEOTEXTILE (TYPE II)				
0525	640-010A	260.000	SY	\$4.50000	\$1,170.00
	RIPRAP/EROSION CONT GEOTEXTILE (TYPE II)				
0530	640-015A	206013.000	SY	\$1.80000	\$370,823.40
	SUBGRADE SEPARATION GEOTEXTILE (TYPE III)				
0535	645-004A	1.000	LS	\$37,654.00000	\$37,654.00
	C1 AGG & SOILS FIELD LAB				
0540	645-010A	1.000	LS	\$101,014.00000	\$101,014.00
	C3 FIELD LAB				
0545	675-005A	1.000	LS	\$266,332.00000	\$266,332.00
	SURVEY				
0550	675-010A	100000.000	CA	\$1.00000	\$100,000.00
	DIRECTED SURVEYING OFFICE COMPUTATIONS				
0555	675-015A	100000.000	CA	\$1.00000	\$100,000.00
	DIRECTED SURVEYING CREW				
0560	S203-26A	3.000	EACH	\$511.00000	\$1,533.00
	REM OF (OBSOLETE 2018) LUMINAIRE				
0565	S203-27A	740.000	FT	\$43.25000	\$32,005.00
	REM OF (OBSOLETE 2018) PIPE				
0570	S501-30B	1314.000	FT	\$1,093.00000	\$1,436,202.00
	SP BRIDGE SOUND WALL 2				
0575	S501-30C	572.000	FT	\$13.00000	\$7,436.00
	SP BRIDGE PLASTIC WATERSTOP				
0580	S501-40A	1148.000	CY	\$108.00000	\$123,984.00
	SP BRIDGE FOUNDATION SUBGRADE PREPARATION				
0585	S626-30A	501.000	DAY	\$21.25000	\$10,646.25

TRAF CNTL MANAGER

0590	S900-50B	15000.000	CA	\$1.00000	\$15,000.00
	CONTINGENCY AMOUNT WATERING				
0595	S900-50C	10000.000	CA	\$1.00000	\$10,000.00
	CONTINGENCY AMOUNT WEED CONTROL				
0600	S900-50D	13434.000	CA	\$1.00000	\$13,434.00
	CONTINGENCY AMOUNT FERTILIZER & SOIL ANALYSIS				
0605	S901-05A	154.000	EACH	\$5,678.00000	\$874,412.00
	SP CATCH BASIN, 36" VANE GRATE				
0610	S901-05F	3.000	EACH	\$25,242.00000	\$75,726.00
	SP CCTV CAMERA POLE AND LOWER SYSTEM				
0615	S901-05G	3.000	EACH	\$4,886.00000	\$14,658.00
	SP CCTV VIDEO SYSTEM				
0620	S901-05H	1.000	EACH	\$12,288.00000	\$12,288.00
	SP RADAR DETECTION SYSTEM				
0625	S901-05I	6.000	EACH	\$115.00000	\$690.00
	SP FUSION SPLICE				
0630	S901-05J	1.000	EACH	\$4,113.00000	\$4,113.00
	SP SPLICE VAULT				
0635	S901-05K	36.000	EACH	\$99.75000	\$3,591.00
	SP FIBER TERMINATION				
0640	S901-05L	42.000	EACH	\$31.75000	\$1,333.50
	SP TEST FIBER OPTIC CABLE				
0645	S901-05M	6.000	EACH	\$41.00000	\$246.00
	SP FIBER OPTIC WORKSHEET				
0650	S901-05N	2.000	EACH	\$15,017.00000	\$30,034.00
	SP DMS CONTROLLER UNIT				
0655	S901-05O	3.000	EACH	\$19,473.00000	\$58,419.00
	SP TYPE 334 CABINET				
0660	S901-05P	3.000	EACH	\$2,249.00000	\$6,747.00
	SP ETHERNET SWITCH				
0665	S901-05Q	3.000	EACH	\$434.00000	\$1,302.00
	SP HIGH POE POWER INJECTOR				
0670	S901-05R	2.000	EACH	\$99,129.00000	\$198,258.00
	SP DYNAMIC MESSAGE SIGN				
0675	S901-05S	4.000	EACH	\$914.00000	\$3,656.00
	SP REMOVE AND RESET LUMINAIRE				
0680	S901-05T	7.000	EACH	\$1,574.00000	\$11,018.00
	SP JUNCTION BOX TYPE S45T WITH RISER				
0685	S901-05W	1.000	EACH	\$8,649.00000	\$8,649.00
	SP HIGH FLOW BYPASS MANHOLE				
0690	S901-05X	3.000	EACH	\$81,197.00000	\$243,591.00
	SP CAST IN PLACE SPLIT BARRIER AT PIER				
0695	S901-05Y	75.000	EACH	\$1,861.00000	\$139,575.00
	SP SWALE BERM AND DRAIN ROCK CHANNEL				
0700	S904-05D	1.000	LS	\$11,896.00000	\$11,896.00
	SP FAA AND AIRPORT COORDINATION				
0705	S904-05E	1.000	LS	\$10,385.00000	\$10,385.00

SP SIGNAL TIMING TEMP MODS					
0710	S911-05A	5880.000	FT	\$6.70000	\$39,396.00
SP CONDUIT (2" RPC)					
0715	S911-05B	2425.000	FT	\$2.60000	\$6,305.00
SP INSTALL 12 FIBER CABLE					
0720	S911-05D	433.000	FT	\$696.00000	\$301,368.00
SP JACKING OF 24" PIPE					
0725	S911-05E	72.000	FT	\$776.00000	\$55,872.00
SP JACKING OF 30" PIPE					
0730	S911-05K	361.000	FT	\$85.50000	\$30,865.50
SP 24" TEMPORARY DRAINAGE PIPE					
0735	S911-05P	14044.000	FT	\$0.50000	\$7,022.00
SP CONTRAST BLACK PAVEMENT MARKINGS					
0740	S912-05D	44.000	SY	\$201.00000	\$8,844.00
SP LANDSCAPE AND IRRIGATION REPAIR					
0745	S913-05A	1498.000	CY	\$46.25000	\$69,282.50
SP FILTER SAND					
0750	Z629-05A	1.000	LS	\$3,207,502.0000	\$3,207,502.00
MOBILIZATION					
Section 0001 Total					\$37,354,826.07
Item Total					\$37,354,826.07

# Appendix B

## Safety Analysis



## SAFETY ANALYSIS - I-84; MP 24.7 TO MP 34.0

This section addresses the crash history and characteristics on I-84 from MP 24.7 to MP 34.0. ITD provided crash data for the most recent five years for which data is available, 2012-2016. The analysis of this data includes the following:

- A review of existing crash data trends for the corridor
- An analysis of crash rates compared to historical crash averages published by ITD

The crash severity of a crash event is determined by the worst injury that occurred. The levels of crash severity are based on the following scale:

- Fatal: Injury results in death within 30 days of when injury occurred.
- Injury A: Incapacitating injury that prevents the injured person from normally continuing the activities the person was capable of performing prior to the injury, including severe lacerations, broken or distorted limbs, and skull or chest injuries.
- Injury B: Non-incapacitating injury that is evident to observers at the scene. Includes bumps, bruises, and minor lacerations.
- Injury C: Possible injury that includes claim of injuries not evident, limping, complaint of pain, nausea, or hysteria.
- Property-damage only (PDO): Reportable property damage in excess of \$750.

## CRASH TYPE ANALYSIS

There were a total of 394 crashes on I-84 between 24.7 to MP 34.0 including 5 fatalities and 316 injuries. A summary of the crash types and severities are shown in Table 31. The crash severity and crash types for I-84 are displayed in Figures 38 and 39.

Table 31 - I-84 Crash Summary

Severity	Rear-End	Collision with Fixed Object	Side Swipe	Overturn	Other
Fatal	1	0	1	2	1
Injury A	13	5	4	11	2
Injury B	18	11	11	18	6
Injury C	50	22	13	14	4
PDO	38	58	41	11	39
<b>TOTAL</b>	<b>120</b>	<b>96</b>	<b>70</b>	<b>56</b>	<b>52</b>

## **Rear-End**

Rear-end crashes were the most prevalent crash type on I-84, with approximately 30% of all crashes being reported as such. According to the crash data, 49% of rear-end crashes were caused by following too closely, while 25% were caused by driver inattention. The fatal rear-end crash was a DUI. In addition to the fatal crash there were 13 crashes that resulted in an incapacitating injury (injury A). Of the rear-end crashes, 53% are clustered towards the east end of the study area between MP 32 and MP 34 with a majority of the crashes occurring in eastbound lanes. According to the *Highway Safety Manual*, potential contributing factors to rear-end crashes include driver inattention, slippery pavement, unexpected lane change, narrow lanes, restricted sight distance, or excessive speed.

## **Collision with Fixed Object**

Of the 394 crashes, 96 resulted in a collision with a fixed object including barrier, sign posts, trees, etc. 36% of the crashes occurred in dark conditions. 32% of the crashes occurred on adverse road conditions. None of the collisions with fixed objects resulted in a fatality, but five resulted in an Injury A severity.

According to the *Highway Safety Manual*, potential contributing factors to fixed object or run-off-the-road collisions include narrow lanes, narrow medians, narrow shoulders, poor delineation, inadequate lighting, pavement markings, or signs, slippery pavement, inadequate clear zone, roadway geometry, and excessive speed.

## **Side Swipe**

Side Swipe crashes accounted for 18% of all crashes on I-84. There was one fatal side swipe crash near MP 30.9 on snowy roads. Further investigation of side swipe crashes on adverse road conditions did not reveal a trend. There were four additional side swipe crashes that resulted in an incapacitating injury (injury A). A majority of side swipe crashes were caused by an improper lane change or driver inattention.

According to the *Highway Safety Manual*, potential contributing factors to side swipe crashes are roadway geometry, narrow shoulders, excessive speed, inadequate pavement markings or signing.

## **Overturn**

14% of crashes on I-84 resulted in an overturn. Two of the overturn crashes between MP 30 and MP 30.5 resulted in fatality. In both cases vehicles were traveling westbound. There is a slight horizontal curve through this section of I-84 which may have contributed to the crashes. In addition to the fatal crashes, there were 11 overturn crashes in the study area that were classified as an injury A severity. There is a small cluster of overturn crashes near MP 29.

According to the *Highway Safety Manual*, potential contributing factors to overturn crashes are narrow shoulders, excessive speed, pavement condition, or roadside designs including side slopes, pavement edge drop off, etc.

## Other Crashes

The only other fatal crash on I-84 was a collision with a pedestrian in the lanes. It was the only pedestrian crash on the route and was not indicative of a trend. Other crashes that did not appear to be a trend on the route include animal collisions, collisions with non-fixed objects, equipment failure, jackknife, and head-on collisions.

## CRASH RATE ANALYSIS

The following section examines where on the corridor crashes are occurring. The corridor was divided into six segments aligning with the segment breaks of the AADT volumes provided on IPLAN. Two measures were examined to review the safety performance of the I-84 corridor:

### Observed Crash Rate

This is the number of reported annual crashes per 100 million vehicle miles traveled on each segment. The formula used to calculate is as follows:

$$\text{Crash Rate, (100 MVMT)} = \frac{\text{Crashes}}{\text{AADT} \times 365 \times \text{Length} \times \# \text{ Years}} \times 10^8$$

### Historical Average Crash Rate

These are historical average crash rates for interstate highways in 2016 as published in the ITD Idaho Traffic Crashes 2016. Table 32 shows a comparison of the observed crash rate versus the historical average crash rates for each segment.

Table 32 - I-84 Crash Rate Analysis

Segment	Observed Injury Crash Rate	Observed Fatality Crash Rate	Historical Average Injury Crash Rate	Historical Average Fatal Crash Rate
MP 24.86-26.01	13.2	0.0	23.9	1.1
MP 26.01-26.75	21.5	0.0		
MP 26.75-27.61	14.2	0.0		
MP 27.61-28.68	27.8	1.0		
MP 28.68-33.60	26.0	0.8		
MP 33.60-34.99	26.3	0.0		

As shown in Table 32, the observed crash rates on segments from MP 27.61 to MP 34.00 exceed the historical average injury crash rate. All five severe crashes occurred on these three segments, however the observed fatality rates are less than the historical average fatal crash rate on similar facilities. Based on the general crash trends discussed in the previous section, the I-84 segments with high crash rates align with the observed clusters of rear-end crashes.

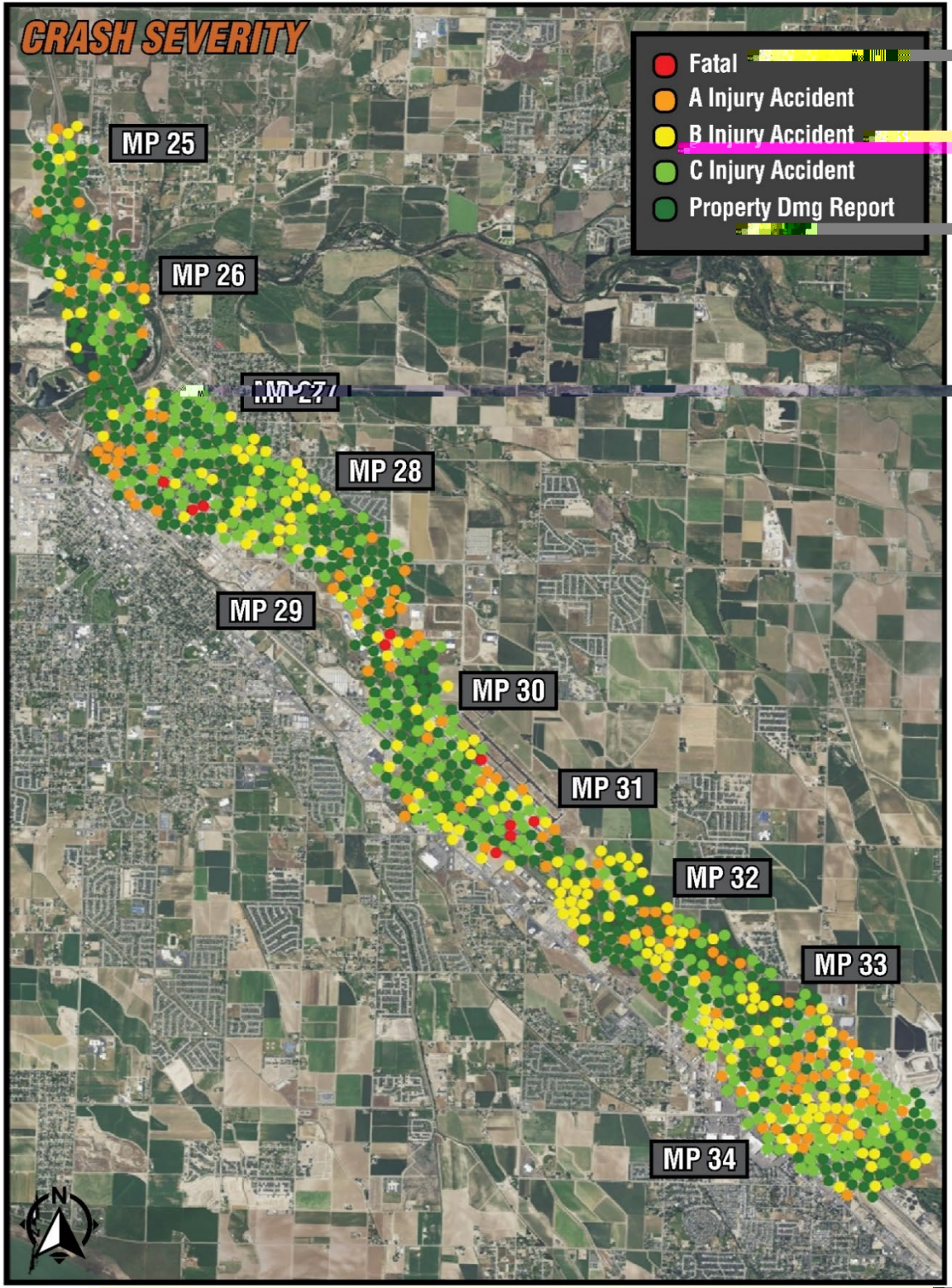


Figure 38 - Caldwell to Karcher Crash Severity

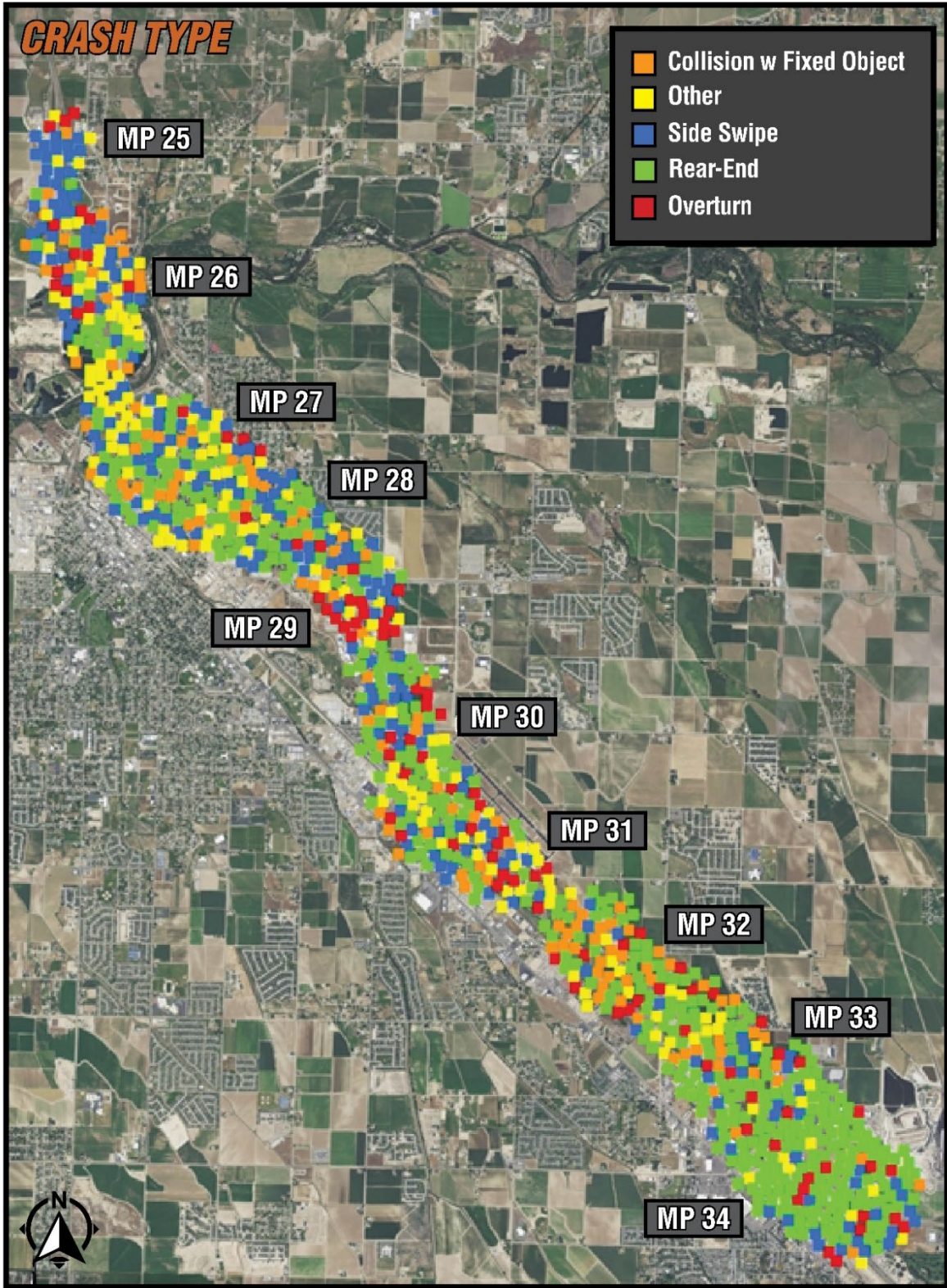


Figure 39 - Caldwell to Karcher Crash Severity

## **SAFETY ANALYSIS – INTERSECTIONS AND RAMPS**

This section addresses the crash history at various intersections and ramps at I-84 interchanges. ITD provided crash data for the most recent five years for which data is available, 2012-2016. The analysis of this data includes a review of existing crash data trends specifically identifying trends involving fatal or injury A crashes.

### **INTERSECTIONS**

#### **10<sup>th</sup> Avenue and Elgin St**

There were a total of 14 crashes at the intersection of 10<sup>th</sup> Avenue and Elgin Street. None of the crashes were fatal. Of the 14 crashes, nine were angle or head-on collisions.

#### **Centennial and Freeport**

Six crashes occurred at the intersection of Centennial and Freeport. None of the crashes resulted in a fatality. Crash types at this intersection include angle, head-on, rear-end, and collision with a fixed object.

#### **Centennial and Kearney**

There was only one crash at the intersection of Centennial and Kearney. The collision was a rear-end crash that occurred when one vehicle slowed to make a U-turn.

#### **Franklin and Commercial**

There were four crashes reported at the intersection of Franklin Road and Commercial Way, none of which were fatal. Crash types include angle and rear-end.

#### **Freeport and 10<sup>th</sup> Avenue**

There were 18 crashes at the intersection of Freeport Street and 10<sup>th</sup> Avenue. Half of the crashes were angle or head-on collisions. None of the collisions resulted in a fatality.

#### **Marble Front Road and Illinois Avenue**

There were a total of 22 crashes at the intersection of Marble Front Road and Illinois Avenue. 17 of the crashes were a turning angle or head-on collision. None of the crashes resulted in a fatality or Injury A severity.

#### **US-20 and Old US-30**

There were three crashes at the intersection of US-20 and Old US-30. One crash was classified as Injury A when an alcohol impaired driver ran off the road into a ditch.

#### **US-20 and Aviation**

There were three crashes at the intersection of US-20 and Aviation Way. All three of the crashes were angle crashes, but none resulted in a fatality or incapacitating injury.

### **Highway 44 and Old US-30**

There were 16 crashes at the intersection of Highway 44 and Old US-30. There was one head-on crash that resulted in an incapacitating injury when a vehicle turned left in front of a thru vehicle. Two other head-on collisions occurred at the intersection. No fatalities were reported at the intersection. Reported crash types at the intersection are angle, head-on, rear-end, and side swipe.

### **Midland Blvd and Marketplace Blvd**

There were 84 total crashes at Midland Blvd and Marketplace Blvd as shown in Figure 40. There was one side swipe crash classified as an injury A severity at the parking lot entrance just east of the Midland Blvd. It was the only side swipe crash at parking lot entrance; the majority of crashes at the parking lot entrance were angle crashes. The second injury A severity crash was a rear-end crash at the traffic signal at Midland Blvd & Marketplace Blvd. There were a total of 14 rear-end crashes at the traffic signal. The other prevalent crash types at the traffic signal were angle and head-on crashes.

According to the *Highway Safety Manual*, possible contributing factors for rear-end crashes at signalized intersections include approach speed, sight distance, unexpected lane changes or stops, narrow lanes, or slippery pavement.

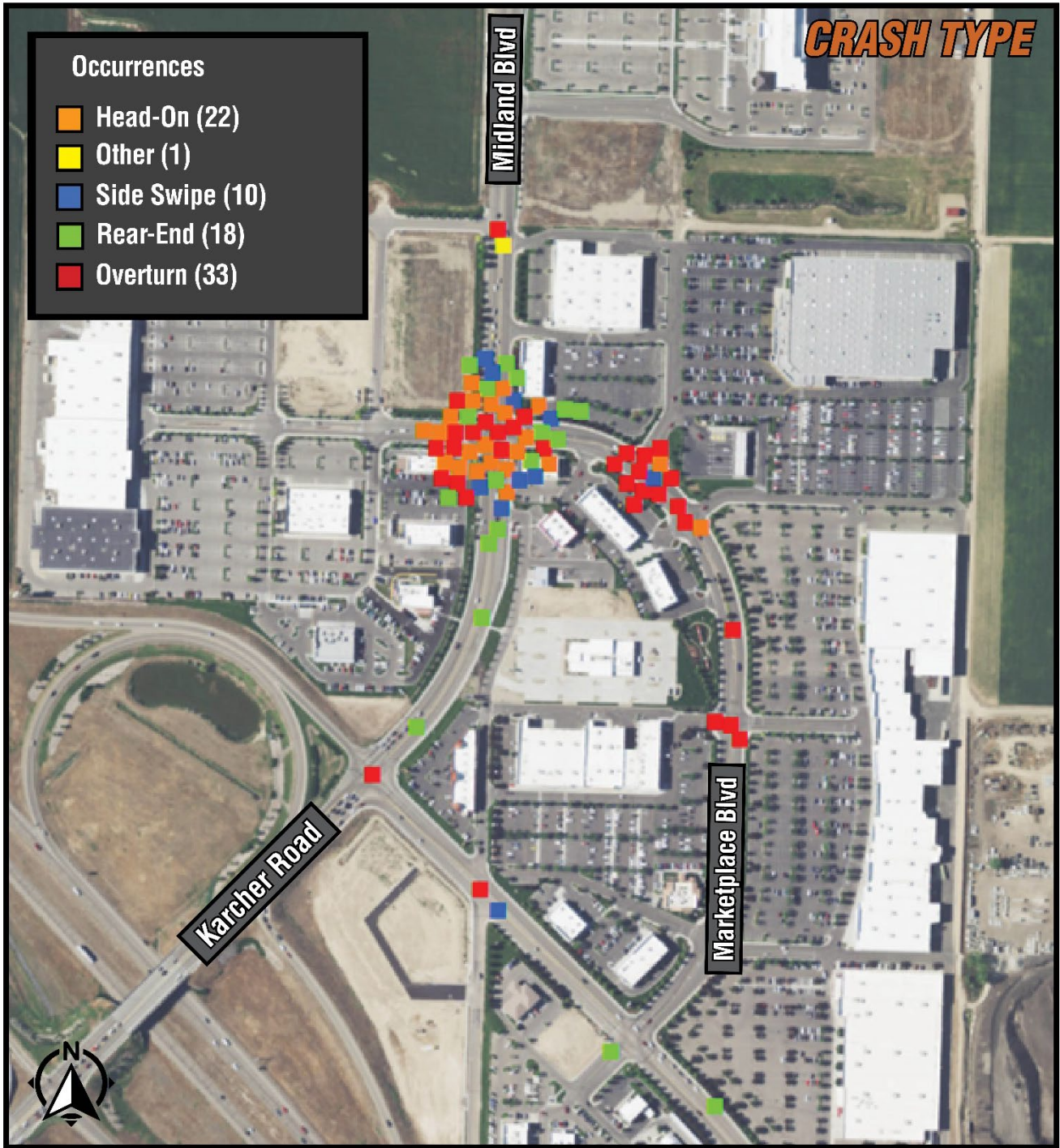


Figure 40 - Crash Type - Midland Blvd & Marketplace Blvd



### Karcher Rd and Caldwell Blvd

There were a total of 236 crashes at the intersection of Karcher Rd and Caldwell Blvd. As shown in Figure 41, rear-end crashes are the most prevalent crash type at the intersection including four that were classified as an injury A severity. The other injury A crashes include angle, head-on, and an overturn crash. None of the crashes at the intersection resulted in a fatality. The intersection has an existing traffic signal.

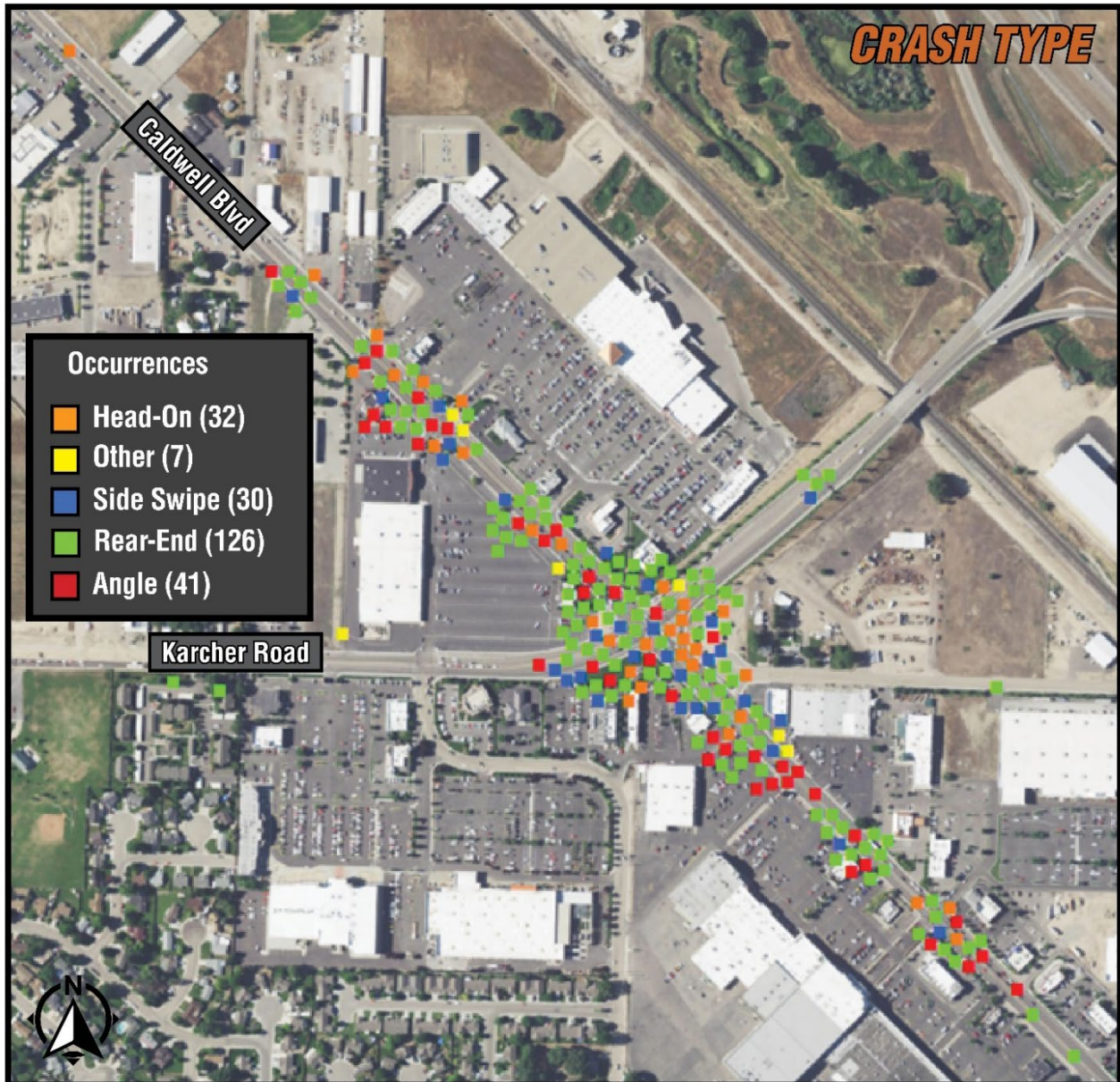


Figure 41 - Crash Type - Karcher Rd & Caldwell Blvd

## **RAMPS**

The observed crash trends at each interchange (IC) are discussed below. Maps displaying the crash type and severity of crashes on the ramps at interchanges 25, 26, 27, 28, 29, and 33 are shown in figures 42 and 43. As seen in the figures, interchange crashes tend to follow a similar trend as the mainline I-84 and intersection crashes where crash frequency increases on the east end of the project at IC 29 and IC 33.

### **IC 25**

There were 13 total crashes at IC 25 at Highway 44. There were eight crashes on the westbound off-ramp and five crashes on the eastbound on-ramp. One of the crashes on the westbound off-ramp was classified as an injury A severity. The severe crash was an angle crash that occurred during foggy conditions when a northbound vehicle ran a stop sign and collided with a westbound vehicle. There were two other less severe angle crashes at the westbound off-ramp that involved vehicles turning onto the ramp from Highway 44. Since there were only three angle crashes total in a five-year period, ramp crashes were not investigated further at IC 25.

### **IC 26**

There were five crashes at IC 26 at US-20. There was one crash on each ramp except the westbound on-ramp which had two crashes. None of the crashes were classified as fatal or injury A severity.

### **IC 27**

At IC 27, there were a total of 42 crashes on the ramps. There were five crashes on each ramp except the westbound off-ramp which had 27 crashes. A majority of the crashes on the westbound off-ramp were angle crashes at the ramp terminal intersection. None of the crashes on the westbound ramps resulted in a fatality or incapacitating injury (Injury A).

Although there were only five crashes on the eastbound on-ramp, one resulted in a fatality and one resulted in an Injury A severity. Both of these crashes involved motorcycles negotiating the curve. There was one additional less severe overturn crash on a vehicle negotiating the curve. There were no fatal or injury A crashes on the eastbound off-ramp.

### **IC 28**

There were 26 total crashes at IC 28 at 10<sup>th</sup> Avenue. Seven of the 26 crashes occurred on the westbound ramps. Since there were so few westbound crashes and none were severe or injury A, eastbound ramps were not further investigated.

Eight crashes occurred on the eastbound off-ramp. None of the crashes were fatal or serious injury. Five of the eight crashes were rear-end rashes, two were angle crashes, and one was a bicycle crash.

A total of 11 crashes occurred on the eastbound on-ramp. Seven of these crashes were head-on collisions involving a left-turning vehicles at the ramp terminal intersection. None of the crashes resulted in fatality or injury A severity.

### **IC 29**

At IC 29, near Franklin Rd, there were a total of 55 crashes at the interchange. Crashes occurred on all four ramps with a majority occurring on the off-ramps. None of the 55 crashes resulted in a fatality or incapacitating injury (injury A).

The eastbound off-ramp had 17 crashes, 10 of which were rear-end crashes. Other crash types on the ramp include side swipe and angle collisions.

The eastbound on-ramp had eight total crashes all of which were property-damage only. Crash types on this ramp include rear-end, head-on, and side swipe collisions.

The westbound off-ramp had 19 crashes, 12 of which were rear-end collisions. Other crash types on the ramp include angle and side swipe collisions.

There were 11 crashes on the westbound on-ramp. Five of the 11 crashes were collisions with a fixed object. Other crash types on the ramp include rear-end and head-on collisions.

### **IC 33**

As seen in figures 42 and 43, IC 33 at Midland Blvd had the most crashes of the interchanges with 151 crashes. There were no fatal crashes on the ramps, but there were five crashes classified as injury A severity.

The eastbound off-ramp had a total of 19 crashes including two injury A crashes. Both of the crashes were angle crashes involving a left-turning vehicle. There were five angle crashes on this ramp. The most prevalent crash type on the ramp was rear-end crashes (10 collisions). The other crash types on this ramp include barrier and side swipe collisions.

The eastbound on-ramp had a total of 27 crashes including one injury A crash. The incapacitating injury crash occurred when a vehicle hit the attenuator while merging onto I-84. There was one other barrier collision on the ramp. Rear-end collisions accounted for 22 of the total crashes on the ramp. The other crash types on the ramp include head-on and sideswipe.

The westbound on-ramp had 16 crashes, including eight rear-end collisions. Other crash types on the ramp include fixed object, head-on, and side swipe collisions.

The westbound off-ramp is split into two ramps – ramp A accesses northbound Midland Blvd, while ramp B accesses southbound Midland Blvd. Ramp A had 22 crashes. Ramp B had 67 crashes including two rear-end crashes that resulted in incapacitating injury.

All but 16 of the crashes on the both off-ramps were rear-end collisions. Other crash types on the westbound off-ramp include angle, side swipe, bicycle, and fixed object collisions.

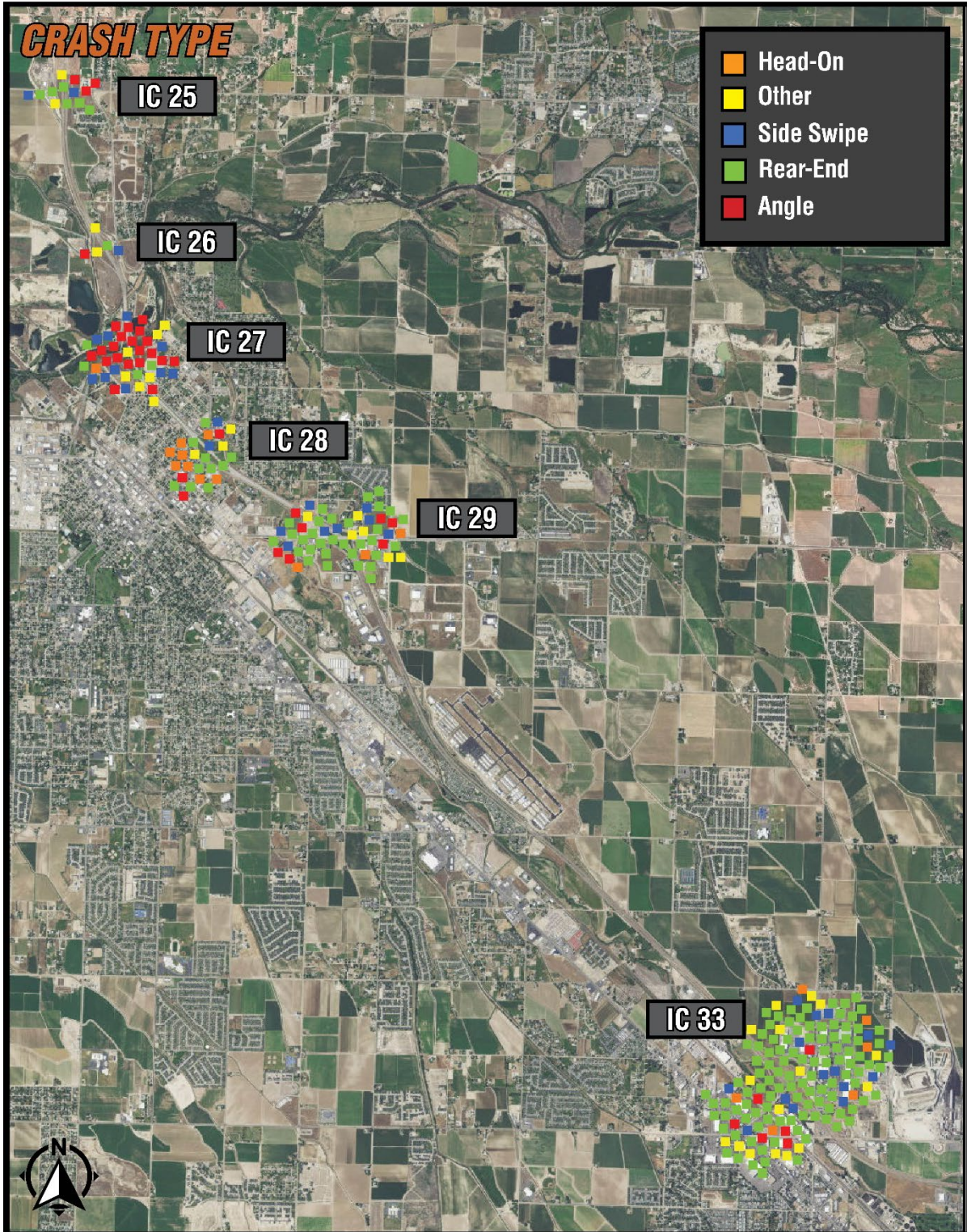


Figure 42 - I-84 Ramps Crash Type

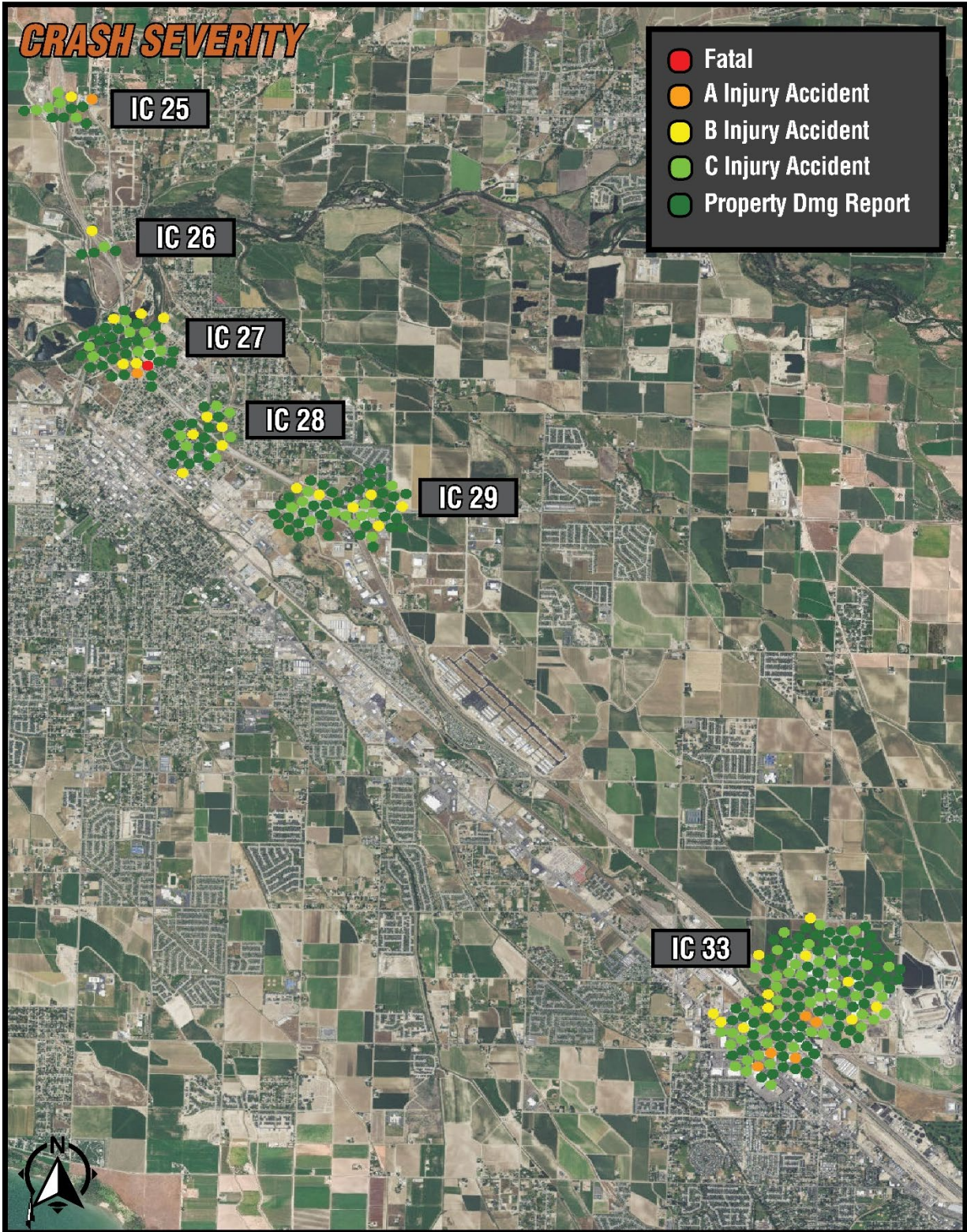


Figure 43 - I-84 Ramps Crash Severity

## CRASH REDUCTION ANALYSIS

Based on the Crash Modifications Factors Clearinghouse, the Crash Modification factors (CMF) for the proposed roadway improvements are as follows:

- addition of a travel lane CMF = 0.76,
- install a traffic signal CMF = 0.56,

The safety evaluation quantifies the safety benefit expected with the addition of a travel lane on both eastbound and westbound I-84 and the addition of traffic signals at the westbound ramp terminal intersections at Centennial Way interchange (Exit 27) and the US 20 interchange (Exit 26). The CMF of 0.76 equates to a 24 percent reduction in crashes with the proposed roadway improvements. The proposed I-84 improvements will mitigate rear-end crashes which represent a majority of crashes on in the study area. The CMF of 0.56 equates to a 44 percent reduction in crashes with the proposed intersection improvements. The proposed intersection improvements will primarily mitigate angle, head-on, and sideswipe crashes.

## SUMMARY AND CONCLUSIONS

Under current conditions, the I-84 corridor operates with acceptable delays between the SH-44 and Franklin Road interchanges. Delays increase for eastbound traffic during the AM peak period, east of the Franklin Road interchange, with the worst congestion occurring near the Karcher Road interchange. Likewise, PM peak period traffic experiences heavy congestion between the Karcher and Franklin Road interchanges.

For the design year (2045), we expect that congestion at these locations will continue to occur during the AM and PM peak hours, with additional bottlenecking at the Franklin Road, Centennial Way, and US-20/26 interchanges. The design year operational analysis indicates that the following mainline and interchange improvements will provide an acceptable LOS D or better for the projected traffic volumes:

### MAINLINE

Widen mainline I-84 to three general purpose lanes in each direction between the Centennial Way interchange (Exit 27) and the Karcher Road interchange (Exit 33). Operations for the 2045 design year function at an appropriate LOS for the I-84 mainline west of Centennial Way (Exit 27). Two general purpose lanes and an auxiliary lane already exist between the Centennial Way interchange (Exit 27) and the US 20/26 interchange (Exit 26) this existing geometry will operate at an acceptable LOS with the projected 2045 volumes. The existing two general purpose lanes from the US 20/26 interchange (Exit 26) to the SH-44 interchange (Exit 25) will also operate at an acceptable LOS with the projected 2045 volumes.

### KARCHER ROAD INTERCHANGE (EXIT 33)

Redirect loop ramp into a dedicated 3rd lane and remove free right-turn at eastbound off ramp.

### **FRANKLIN ROAD INTERCHANGE (EXIT 29)**

Extend the existing seven-lane cross section of Franklin Road from east of Aviation Way to the westbound ramp terminal intersection with free running right turn at the ramp terminal.

### **10<sup>TH</sup> AVENUE INTERCHANGE (EXIT 28)**

Reconfigure the interchange to a modified trumpet style interchange. Remove the secondary westbound on-ramp, while maintaining the loop ramp connection for westbound traffic in order to increase separation between gore points for westbound traffic between 10<sup>th</sup> Avenue and Centennial Way.

### **CENTENNIAL WAY INTERCHANGE (EXIT 27)**

Install new traffic signal at the westbound ramp terminal intersection.

### **US-20/26 INTERCHANGE (EXIT 26)**

Install new traffic signal at the westbound ramp terminal intersection.

### **SH-44 INTERCHANGE (EXIT 25)**

Construct right turn lane at the westbound ramp terminal intersection.