

Part III: Guidelines for Conducting a Safety Analysis for Transportation Management Plans and Other Work Zone Activities

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PREFACE

These guidelines are for use by Louisiana Department of Transportation and Development (LADOTD) employees, consultants, metropolitan planning organizations (MPOs), and local jurisdictions conducting safety studies and preparing reports. This document is not intended to establish standards or requirements.

These guidelines will be available on LADOTD's website at

<u>http://www.dotd.la.gov/planning/highway_safety</u>. The Highway Safety Section will maintain and update these guidelines as needed. If you need more information, please contact the Highway Safety Section at <u>DOTD-HighwaySafety@la.gov</u>.

This document is Part III of IV sets of guidelines for varying levels of consideration of safety.

I. INTRODUCTION

These guidelines are intended to aid transportation professionals in the assessment and management of work zone impacts of their road projects on the state highway system. Understanding work zone impacts is critical to developing effective work zone transportation management plans (TMPs) that provide for safety, mobility, and quality in maintaining, rehabilitating, and rebuilding the state's highways.

One of the key components of understanding work zone impacts is recognizing any pre-existing safety issues and safety implications of potential construction approaches. To identify any pre-existing safety issues, the LADOTD currently uses a descriptive method that utilizes historical crash data for determining patterns or trends in crashes in order to direct resources to locations that may require mitigation to impacts created by a work zone.

A. Background

Before beginning a crash data analysis, it is recommended that the analyst have a general understanding of the project and its impacts to the traveling public. Factors to consider may include but are not limited to accessibility, work hour restrictions (i.e. night work only), lane closures, lane width reductions, construction access issues, speed enforcement, and queuing.

B. Suggested Limits of Analysis

Work zone impacts extend beyond the limits of the construction, so the area beyond the project limits needs to be considered during assessment and management. Engineering judgment should be exercised when determining how far the impacts extend beyond the limits of construction. Factors to consider may include but are not limited to the following:

- 1. Temporary traffic control;
- 2. Maximum expected queue;
- 3. Adjacent interchanges;
- 4. Major geometric features, such as bridges or horizontal/vertical curvature;
- 5. Areas with significant recurring congestion;
- 6. And other areas with potential safety implications.

The entire impact area should be analyzed with the same methodology as the limits of construction.

II. METHODOLOGY

Historical crash data within the impact area should be collected for a minimum of three years (five years is desired if there have been no significant changes to the impact area). Where practical, the crash data should be analyzed by the number, rate, severity, and type of crashes in order to adequately assess current safety performance.

A. Number-Rate Method

Using the historical crash data, calculate the crash rate for each segment and/or intersection to determine if the location is considered abnormal. LADOTD uses the term "abnormal location" which is defined as a location having at least five crashes and twice the statewide average crash rate for its functional classification for intersections and spot locations and at least five crashes per mile and twice the statewide average crash rate for its functional classification for sections. Abnormal listings are developed based on statewide average crash rates for each classification. The statewide average crash rates for segments, intersections, and spots are calculated as needed based on a 3 year running average (see Appendix A). Updated tables are distributed annually and are available upon request to the Highway Safety Section.

1. *For roadway segments*: When calculating crash rates for segments, non-intersection crashes only are to be considered in the crash data analysis.

VMT = L x AADT x 365

 $R_{seg} = (C \times 10^{6}) / (T \times VMT)$

Whereas:	VMT = vehicle miles traveled
	L = length of segment
	AADT = annual average daily traffic
	R _{seg} = crash rate
	C = total number of crashes
	T = number of analysis years

When calculating segment crash rates, it is recommended to divide the impact area into homogenous segments by control section log-mile based on functional classification and ADT, as shown in the example Table 1 below. The Surface-Type Log File on LADOTD's intranet (<u>http://engrapps/hwyinfo/tahiwstl/tahiwstl.asp</u>) contains functional classification and ADT for each subsection.

Table 1: Project Limits b	y Control	Section	Log-Mile
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control section	begin log mile	end log mile	functional class	urban rural	adt
450-08	0	8.52	1-Inter	R	40,800
450-08	8.52	11.37	1-Inter	U	40,800
450-08	11.37	12.1	1-Inter	U	59,300

(Source: LADOTD's Surface-Type Log File)

2. *For intersections*: When calculating crash rates for intersections, crashes that are located within a 150' radius of the intersection are to be considered in the crash data analysis. See crash data quality section for more information.

Million Entering Vehicles (MEV) = ADT x 365 / 1,000,000

Crash Rate (crashes per MEV) = Crashes / MEV

It is recommended to identify the intersection by control section log-mile for each of the intersecting routes. (One option is to obtain a latitude/longitude from a GPS and convert it to control section log-mile using <u>http://engrapps/latlong/latlong.asp</u>. Another option is to use the control section log-mile of the intersection which is available on the Highway Safety Section server - 82MilePostMaps on H00001ms017.)

B. Severity

Using the historical crash data, calculate the severity distribution for total crashes and compare it to the statewide average severity distribution by roadway classification (see Appendix A).

C. Location

The crash data should be sorted by log-mile to identify any location with a concentration of crashes. Mapping of the crashes in conjunction with the project limits may be useful for the development of temporary traffic control plans.

D. Overrepresentation

The crash data should be sorted by type of collision to identify any crash type(s) that may be overrepresented, or proportionally larger than the statewide average for that type of crash and highway classification. Statewide average percentages are calculated using a three year running average for intersection only crashes, non-intersection only crashes, and total crashes (see Appendix A). The analyst should exercise engineering judgment when interpreting comparison charts and account for statistical significance. (For example, if there are 5 right turn crashes out of 2000 total crashes on mainline interstate, the 5 right turn crashes may be discarded even if it may be "overrepresented" based on the percentages. The law enforcement officer working the crash may have inaccurately coded the crash report.)

The crash data should also be screened for overrepresentation in other categories, such as nighttime, run off the road (ROR), or wet weather.

III. INDICATIONS AND COUNTERMEASURES

A crash data analysis is a required component of Level 3 and Level 4 TMPs and potential component of Level 2 TMPs, as outlined in the Engineering Directive and Standard for Transportation Management Plans. The crash data analysis is intended to be a resource for the development of strategies within a transportation management plan. Engineering judgment should be used and all components of the TMP should be considered when developing strategies and/or temporary traffic control plans.

The crash data analysis may provide insight to driver behavior and may consideration of additional countermeasures. The following table provides possible causes and countermeasures related to certain crash types.

Crash Type	Possible Cause	Countermeasure		
Access-related	Left-turning vehicles	Install median		
		Install/lengthen left turn lanes		
	Improperly located driveway	Move driveway to side street		
		Install channelizing islands to define		
		driveway location		
		Consolidate adjacent driveways		
	Right-turning vehicles	Provide right turn lanes		
		Increase width of driveways		
		Widen through lanes		
		Increase curb radii		
	Large volume of through traffic	Move driveway to side street		
		Construct a local service road		
	Large volume of driveway traffic	Signalize driveway		
		Provide accel/decel lanes		
		Channelize driveway		
	Restricted sight distance	Remove obstruction		
	Inadequate lighting	Install lighting		
Bridges	Alignment	Realign bridge/roadway		
		Install advance warning signs		
		Improve delineation		
	Narrow roadway	Widen structure		
		Improve delineation		
		Install signing/signals		
	Visibility	Remove obstruction		
		Install advance warning signs		
		Improve delineation		
	Vertical clearance	Rebuild structure/adjust roadway		
	7			

Table 1: Possible Causes and Countermeasures by Crash Type

		grade
		Install advance warning signs
		Improve delineation
		Provide height restriction/warning
	Slippery surface	Resurface deck
	,	Improve skid resistance
		Improve drainage
		Enhance signing
	Rough surface	Resurface deck
	-	Rehabilitate joints
		Regrade approaches
	Inadequate barrier system	Upgrade guardrail
		Upgrade approach rail/terminals
		Upgrade bridge - approach rail
		connections
		Remove hazardous curb
		Improve delineation
	Large volume of left/right turns	
Intersection-related	(from side street)	Widen road
		Channelize intersection
		Install STOP signs
		Install signal/roundabout
		Increase curb radii
	Restricted sight distance	Remove sight obstructions
		Provide adequate channelization
		Provide left/right turn lanes
		Install warning signs
		Install STOP signs
		Install signal/roundabout
		Install advance markings to
		supplement signs
		Install STOP bars
	Slippery surface	Improve skid resistance
		Improve drainage
	Large volume of turning vehicles	Provide left/right turn lanes
		Increase curb radii
		Install signal/roundabout
	Inadequate lighting	Install lighting
	Lack of adequate gaps	Install signal/roundabout
		Install STOP signs
	Crossing pedestrians	Install/improve ped signing/marking

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		Install signal
	Large total intersection volume	Install signal
		Add traffic lane
	Excessive vehicle speed on	
	approaches	Install rumble strips in travel lane
	Inadequate traffic control	
	devices	Upgrade traffic control devices
		Install/enhance advance warning
	Poor visibility of signals	signs
		Install overhead signals
		Install 12" LED signal lenses
		Install visors/backplates
		Relocate signals to far side of
		intersection
		Remove sight obstructions
		Add illuminated/retroreflectorized
		signs
	Unwarranted signals	Remove signals
		Upgrade signal system
	Inadequate signal timing	timing/phasing
		Install/enhance advance warning
Nighttime	Poor visibility	signs
		Install/enhance pavement markings
		Install lighting
Overturn	Roadside features	Flatten slopes/ditches
		Relocate drainage facilities
		Extend culverts
		Provide traversable culvert end
		treatments
		Install/improve traffic barriers
	Inadequate shoulder	Widen shoulder
		Upgrade shoulder surface
		Remove curb/obstruction
	Pavement	Eliminate edge drop-off
Pedestrian/Bicycle	Poor visibility	Remove sight obstructions
		Install pedestrian crossing signs and
		pavement markings
		Install median for refuge
		Add "WALK" phase
		Install lighting
		Install advance warning signs
		Doduco crood limit
		Reduce speed limit

		Install/Improve sidewalks/bicycle naths
		Install/enhance advance warning
Railroad	Restricted sight distance	signs
		Install/enhance pavement markings
		Remove sight obstructions
		Provide preemption
		Install gates
		Install lighting
Rear End	Slippery pavement	Improve pavement condition
		Install high friction surface treatment
	Driver inattention	Provide advance warning signs
		Eliminate unnecessary signing
		Install transverse rumble strips
Right Angle (at		
Unsignalized Intersection)	Restricted sight distance	Install warning signs
		Install STOP signs
		Install yield signs
		Remove sight obstructions
		Install signal/roundabout
		Install lighting
Right Angle (at Signalized		
Intersection)	Poor visibility of signals	Install advance warning signs
		Install back plates
		Remove sight obstructions
		Add signal heads
		Upgrade to 12" LED heads
		Provide protected only left turn
	Inadequate signal timing	phase
		Adjust amber phase
		Provide all-red clearance interval
		Install detection
		Improve coordination
Run off the Road	Slippery pavement/ponded water	Improve pavement condition/skid resistance
		Improve drainage
	Inadequate road design and/or	
	maintenance	Improve superelevation
		Improve shoulders
		Eliminate shoulder drop-off
		Install/improve traffic barriers
		Enhance signing

		Widen lanes
		Flatten slopes/ditches
		Improve alignment/grade
		Remove/Reduce/Delineate roadside
	Poor delineation	Install roadside delineators
		Install advance warning signs
		Improve/install pavement markings
	Poor visibility	Increase sign size
	,	Install lighting
		Evaluate sight distance
	Inadequate road design and/or	Perform necessary road surface
Side Swipe or Head-On	maintenance	repairs
		Install median or guardrail
		Reevaluate no passing zones
		Provide roadside delineators
		Improve alignment/grade
		Widen lanes
		Provide passing lanes
		Improve shoulders
		Install rumble strips
	Excessive vehicle speed	Set speed limit based on speed study
	Inadaguata navamant markings	Install/Improve centerlines, lane
	madequate pavement markings	Install reflectorized markers
		Provide advance direction and
	Inadequate signing	warning signs
		Add illuminated street name signs
	Superfluous signing	Limit signs to meet standards
Wet Weather	Slipperv pavement	Improve pavement condition
		Install high friction surface treatment
		Improve drainage
	Poor visibility	Install raised pavement markers

IV. CRASH DATA QUALITY

Crash data is traffic incident information recorded by various police agencies throughout the State and uploaded to a statewide database, which is maintained by the Louisiana Department of Transportation and Development in conjunction with the Louisiana State University Highway Safety Research Group (LSU HSRG). Crash data listings are available through Crash 1, a user interface developed for easier access of the crash database. In most cases, a crash listing will provide sufficient information to

complete a crash data analysis. However, in some cases it may be necessary to review each individual crash report. LADOTD has been using GPS coordinates to locate crashes to our base map. Before 2008, LADOTD used the control section log mile referencing system.

The crash data file for a given year is open to change until it is officially closed by the LADOTD Highway Safety Section, which is typically one year later. For example, the crash data file for 2008 was not closed until December 31, 2009. This timeframe allows for quality control measures and to allow law enforcement agencies to submit any outstanding crash reports. It is important to note that not all crashes that occur are reported and the crashes that are reported may be reported inadequately. Communication with law enforcement can help identify apparent safety concerns that are not indicated by the crash data. If a project is located within city limits, the local law enforcement agency should be contacted to gather input and support. The Highway Safety Section at LADOTD can assist in contacting the appropriate law enforcement personnel.

A. Data Sampling Size

Because less severe crashes are less likely to appear in crash databases, there is a potential problem of underreporting. Data generated from a small sampling can be misleading because they can be significantly influenced by small variances. A limited amount of data makes this descriptive method of analysis difficult. It is important to exercise engineering judgment when identifying crash patterns. Consultation of a statistician may be beneficial.

B. Confounding Effects

When evaluating the effectiveness of implemented countermeasures, it is often tempting to develop a simplified model with few explanatory variables (for example, using traffic flow as the only explanatory variable in the model). However, as with all traditional statistical estimation methods, leaving out important explanatory variables results in biased parameter estimates that can produce erroneous inferences. This would especially be the case if the omitted variable is correlated with variables included in the specification, which is often the case. For example, if multiple countermeasures were implemented it would be difficult to isolate the effectiveness of one of those countermeasures due to interaction with others.

C. Behavior Elements

Data elements associated with fatal motor vehicle crash reports are usually of very high quality with relatively few missing values. Fatal crashes require investigation of behavioral elements, including but not limited to seatbelt use, speeding, distractions, impairments, etc.

Data elements associated with non-fatal motor vehicle crash reports are usually of lesser quality and behavioral elements are often omitted from the crash report. This leads to underreporting of contributing factors.

D. Intersection Crashes

Law enforcement officers are continuously trained on how to properly fill out a crash report according to their investigation. The level of training for law enforcement personnel varies throughout the state so the interpretation of the uniform crash report may differ across jurisdictions. It is important to note that not all crashes that occur as a result of the intersection will be included within this 150' radius and not all crashes within 150' occurred as a result of the intersection. However, for consistency purposes it is recommended to use the 150' radius.

APPENDIX A: STATEWIDE AVERAGE SAFETY PERFORMANCE

Statewide Average Crash Rates, Segments

Highway Class	Num Sections	Num Crashes Per Yr	Total Miles	Total Mvm Per Yr	Crashes Per Mile Per Yr	Crashes Per Mvm	Fatalities Per Yr	Injuries Per Yr
2-Lane Rural	4486	10322.0	12090.34	9536.09	0.85	1.08	263.3	7043.3
4-Lane Rural	141	153.3	90.05	190.00	1.70	0.81	2.0	108.3
4-Lane Div Rural	304	1372.3	534.76	1975.05	2.57	0.69	30.0	987.7
Interstate Rural	174	3002.0	522.26	5194.40	5.75	0.58	68.0	1892.0
2-Lane Urban	1903	13808.7	2111.87	5900.03	6.54	2.34	112.0	7587.0
4-Lane Urban	476	5291.0	257.14	1529.30	20.58	3.46	12.7	2419.7
4-Lane Div Urban	834	16891.0	748.73	6062.44	22.56	2.79	72.0	7894.0
Interstate Urban	260	8752.0	335.39	6281.37	26.09	1.39	68.0	4271.0
Total	8578	59592.3	16690.54	36668.68	3.57	1.63	628.0	32203.0

(Source: LADOTD Highway Safety Section)

Statewide Average Crash Rates, Intersections

Highway Class	Number Of Locations	Number Of Crashes	Million Vehicles	Crashes Per Location	Acc Per Mv	Number Of Fatalities	Number Of Injuries
2-Lane Rural	54	155.3	135.98	2.88	1.14	0.3	92.3
4-Lane Rural	11	29.3	51.25	2.67	0.57	0.0	25.3
4-Lane Div Rural	41	139.0	264.95	3.39	0.52	0.3	87.3
Interstate Rural	4	11.7	54.31	2.92	0.21	0.0	5.3
2-Lane Urban	634	2425.3	3681.93	3.83	0.66	3.7	1247.7
4-Lane Urban	872	3612.0	6626.06	4.14	0.55	1.7	1942.3
4-Lane Div Urban	1550	7654.0	17260.01	4.94	0.44	9.0	3965.0
Interstate Urban	384	1739.0	11093.26	4.53	0.16	2.0	659.7
Total	3550	15765.6	39167.75	4.44	0.40	17.0	8024.9

Statewide Average Crash Rates, Spots

Highway Class	Number Of Locations	Number Of Crashes	Million Vehicles	Crashes Per Location	Acc Per Mv	Number Of Fatalities	Number Of Injuries
2-Lane Rural	52	122.3	146.50	2.35	0.84	0.3	74.3
4-Lane Rural	1	2.7	3.47	2.67	0.77	0.0	0.3
4-Lane Div Rural	15	46.0	93.00	3.07	0.49	0.0	22.0
Interstate Rural	94	260.3	1392.55	2.77	0.19	0.0	130.3
2-Lane Urban	662	2157.0	4490.77	3.26	0.48	1.0	923.7
4-Lane Urban	490	1611.3	4154.72	3.29	0.39	0.0	697.3
4-Lane Div Urban	1697	6464.6	22357.91	3.81	0.29	7.0	2588.7
Interstate Urban	923	3732.0	31292.80	4.04	0.12	5.3	1564.7
Total	3934	14396.2	63931.72	3.66	0.23	13.6	6001.3

(Source: LADOTD Highway Safety Section)

Statewide Average Crash Rates, Tenths

Highway Class	Number Of Locations	Number Of Crashes	Million Vehicles	Crashes Per Location	Acc Per Mv	Number Of Fatalities	Number Of Injuries
2-Lane Rural	474	1415.0	1152.94	2.99	1.23	13.3	962.7
4-Lane Rural	28	93.7	104.03	3.35	0.90	0.0	73.3
4-Lane Div Rural	188	725.3	1221.11	3.86	0.59	10.7	529.7
Interstate Rural	384	1117.3	5875.70	2.91	0.19	12.3	632.7
2-Lane Urban	2957	13291.9	14716.75	4.50	0.90	48.0	6839.3
4-Lane Urban	1453	10764.7	10050.20	7.41	1.07	20.7	5352.3
4-Lane Div Urban	3221	28116.3	35744.38	8.73	0.79	74.3	13802.7
Interstate Urban	1402	10603.3	34072.61	7.56	0.31	48.3	4782.0
Total	10107	66127.5	102937.72	6.54	0.64	227.6	32974.7

Statewide Average Severities

Crashes	Rural two- lane	Rural four- lane	Rural four- lane divided	Rural interstat e	Urban two-lane	Urban four- lane	Urban four- lane divided	Urban intersta te	Local Roads
Fatal crashes	2.0%	1.1%	1.7%	1.6%	0.6%	0.2%	0.3%	0.5%	0.3%
Injury crashes	41.5%	35.6%	39.2%	34.3%	32.6%	30.1%	29.5%	28.6%	25.5%
PDO crashes	56.5%	63.3%	59.1%	64.1%	66.8%	69.7%	70.1%	70.9%	74.2%
Number of fatalities	2.3%	1.1%	1.9%	1.9%	0.6%	0.2%	0.3%	0.6%	0.3%
Number injured	67.8%	68.3%	71.3%	60.7%	55.1%	50.2%	49.5%	46.9%	39.7%
Total crashes	39343	720	5728	9505	62669	35329	91103	35362	180739

(Source: LADOTD Highway Safety Section)

Statewide Average Percentages by Manner of Collision, Intersection Crashes

Type of Collision				Highway Cl	assificatior	1		
(Intersection)	Rural two- lane	Rural four- lane	Rural four- lane divided	Rural interstate	Urban two- lane	Urban four- lane	Urban four- lane divided	Urban interstate
A: Non-collision w/ MV	18.58%	3.87%	10.16%	27.56%	6.32%	2.85%	3.24%	9.19%
B: Rear-end	25.02%	23.87%	30.04%	36.61%	35.63%	29.87%	38.78%	53.42%
C: Head-on	1.42%	0.97%	0.56%	0.98%	1.28%	1.00%	0.84%	0.54%
D: Right angle	23.17%	20.97%	29.21%	7.28%	23.98%	24.21%	21.99%	6.48%
E: Left turn Angle	5.30%	5.48%	3.78%	1.77%	3.94%	5.20%	2.43%	0.83%
F: Left turn Opp Dir	5.35%	9.35%	6.22%	1.57%	7.71%	9.20%	8.33%	2.95%
G: Left turn Same Dir	2.72%	3.87%	3.05%	0.79%	2.83%	2.33%	2.39%	0.84%
H: Right turn Angle	1.76%	2.58%	2.00%	1.38%	1.96%	1.96%	2.25%	0.89%
I: Right turn Opp Dir	0.58%	0.65%	0.44%	0.20%	0.68%	0.53%	0.40%	0.12%
J: Side swipe Same Dir	4.05%	3.23%	5.72%	10.83%	4.65%	11.12%	9.02%	13.12%
K: Side swipe Opp Dir	1.76%	0.65%	0.33%	0.79%	1.22%	0.74%	0.74%	0.21%
U: Unknown	10.30%	24.52%	8.50%	10.24%	9.79%	10.99%	9.61%	11.41%
Total crashes:	8080	310	1801	508	20795	18360	39031	8671

Statewide Average Percentages by Manner of Collision, Non-Intersection Crashes

Type of Collision				Highway Cl	assification	I		
(Non-Intersection)	Rural two- lane	Rural four- lane	Rural four- lane divided	Rural interstate	Urban two- lane	Urban four- lane	Urban four- lane divided	Urban interstate
A: Non-collision w/ MV	57.74%	28.78%	38.12%	48.72%	21.28%	6.26%	8.02%	21.19%
B: Rear-end	16.19%	23.41%	27.93%	26.60%	43.33%	46.18%	51.09%	47.40%
C: Head-on	2.23%	1.46%	1.45%	0.70%	1.85%	0.95%	0.79%	0.56%
D: Right angle	4.73%	7.80%	6.14%	1.64%	9.65%	10.47%	9.92%	1.08%
E: Left turn Angle	2.27%	2.68%	1.35%	0.18%	2.53%	2.40%	1.38%	0.18%
F: Left turn Opp Dir	1.13%	2.44%	0.74%	0.03%	2.67%	2.75%	2.59%	0.22%
G: Left turn Same Dir	0.86%	1.95%	1.17%	0.08%	1.48%	1.74%	1.39%	0.17%
H: Right turn Angle	0.38%	1.46%	0.64%	0.18%	0.96%	1.23%	1.57%	0.21%
I: Right turn Opp Dir	0.08%	0.00%	0.15%	0.01%	0.29%	0.25%	0.18%	0.03%
J: Side swipe Same Dir	3.37%	11.22%	11.46%	16.25%	5.68%	17.46%	14.91%	19.06%
K: Side swipe Opp Dir	3.86%	2.20%	0.81%	0.54%	2.81%	1.08%	0.76%	0.41%
U: Unknown	7.16%	16.59%	10.03%	5.07%	7.48%	9.22%	7.42%	9.48%
Total crashes:	31263	410	3927	8997	41874	16969	52072	26691

(Source: LADOTD Highway Safety Section)

Statewide Average Percentages by Manner of Collision, All Crashes

			Highway Cla	assification			
Rural two- lane	Rural four- lane	Rural four- lane divided	Rural interstate	Urban two- lane	Urban four- lane	Urban four- lane divided	Urban interstate
49.69%	18.06%	29.33%	47.59%	16.32%	4.49%	5.97%	18.25%
18.01%	23.61%	28.60%	27.13%	40.78%	37.71%	45.81%	48.88%
2.06%	1.25%	1.17%	0.72%	1.66%	0.98%	0.81%	0.56%
8.51%	13.47%	13.39%	1.95%	14.40%	17.61%	15.09%	2.40%
2.89%	3.89%	2.11%	0.26%	3.00%	3.86%	1.83%	0.34%
2.00%	5.42%	2.46%	0.12%	4.35%	6.11%	5.05%	0.89%
1.24%	2.78%	1.76%	0.12%	1.93%	2.04%	1.82%	0.34%
0.66%	1.94%	1.06%	0.24%	1.29%	1.60%	1.86%	0.38%
0.19%	0.28%	0.24%	0.02%	0.42%	0.40%	0.27%	0.05%
3.51%	7.78%	9.65%	15.96%	5.33%	14.16%	12.39%	17.61%
3.43%	1.53%	0.66%	0.56%	2.28%	0.90%	0.75%	0.36%
7.81%	20.00%	9.55%	5.34%	8.24%	10.14%	8.36%	9.95%
39343	720	5728	9505	62669	35329	91103	35362
	Rural two- lane 49.69% 18.01% 2.06% 8.51% 2.89% 2.00% 1.24% 0.66% 0.19% 3.51% 3.43% 7.81% 39343	Rural two- lane Rural four- lane 49.69% 18.06% 18.01% 23.61% 2.06% 1.25% 8.51% 13.47% 2.89% 3.89% 2.00% 5.42% 1.24% 2.78% 0.66% 1.94% 0.19% 0.28% 3.51% 7.78% 3.43% 1.53% 7.81% 20.00%	Rural two- lane Rural four- four- lane Rural four- four- divided 49.69% 18.06% 29.33% 18.01% 23.61% 28.60% 2.06% 1.25% 1.17% 8.51% 13.47% 13.39% 2.89% 3.89% 2.11% 2.00% 5.42% 2.46% 1.24% 2.78% 1.76% 0.66% 1.94% 1.06% 0.19% 0.28% 0.24% 3.51% 7.78% 9.65% 3.43% 1.53% 0.66% 7.81% 20.00% 9.55%	Rural Rural Rural Rural Rural two- four- four- four- interstate lane lane lane interstate 49.69% 18.06% 29.33% 47.59% 18.01% 23.61% 28.60% 27.13% 2.06% 1.25% 1.17% 0.72% 8.51% 13.47% 13.39% 1.95% 2.89% 3.89% 2.11% 0.26% 2.00% 5.42% 2.46% 0.12% 1.24% 2.78% 1.76% 0.12% 0.66% 1.94% 1.06% 0.24% 0.19% 0.28% 0.24% 0.02% 3.51% 7.78% 9.65% 15.96% 3.43% 1.53% 0.66% 0.56% 7.81% 20.00% 9.55% 5.34%	Highway Classification Rural two- lane Rural four- four- lane Rural four- lane Rural four- lane Urban two- lane 49.69% 18.06% 29.33% 47.59% 16.32% 18.01% 23.61% 28.60% 27.13% 40.78% 2.06% 1.25% 1.17% 0.72% 1.66% 8.51% 13.47% 13.39% 1.95% 14.40% 2.89% 3.89% 2.11% 0.26% 3.00% 2.00% 5.42% 2.46% 0.12% 4.35% 1.24% 2.78% 1.76% 0.12% 1.93% 0.66% 1.94% 1.06% 0.24% 1.29% 0.19% 0.28% 0.24% 0.02% 0.42% 3.51% 7.78% 9.65% 15.96% 5.33% 3.43% 1.53% 0.66% 0.56% 2.28% 7.81% 20.00% 9.55% 5.34% 8.24%	Rural two- laneRural four- laneRural four- laneRural four- laneRural four- laneUrban four- lane49.69%18.06%29.33%47.59%16.32%4.49%49.69%18.06%29.33%47.59%16.32%4.49%18.01%23.61%28.60%27.13%40.78%37.71%2.06%1.25%1.17%0.72%1.66%0.98%8.51%13.47%13.39%1.95%14.40%17.61%2.89%3.89%2.11%0.26%3.00%3.86%2.00%5.42%2.46%0.12%4.35%6.11%1.24%2.78%1.76%0.12%1.93%2.04%0.66%1.94%1.06%0.24%0.42%0.40%3.51%7.78%9.65%15.96%5.33%14.16%3.43%1.53%0.66%0.56%2.28%0.90%7.81%20.00%9.55%5.34%8.24%10.14%39343720572895056266935329	Rural two- laneRural four- laneRural four- laneRural four- laneRural four- laneUrban four- laneUrban four- lane49.69%18.06%29.33%47.59%16.32%4.49%5.97%18.01%23.61%28.60%27.13%40.78%37.71%45.81%2.06%1.25%1.17%0.72%1.66%0.98%0.81%8.51%13.47%13.39%1.95%14.40%17.61%15.09%2.89%3.89%2.11%0.26%3.00%3.86%1.83%2.00%5.42%2.46%0.12%1.93%2.04%1.82%0.66%1.94%1.06%0.24%1.29%1.60%1.86%0.19%0.28%0.24%0.02%0.42%0.40%0.27%3.51%7.78%9.65%15.96%5.33%14.16%12.39%3.43%1.53%0.66%0.56%2.28%0.90%0.75%3.934372057289505626693532991103

Type of Crash				Highway Cl	assification			
					assineation			
	Rural two- lane	Rural four- lane	Rural four- lane divided	Rural interstate	Urban two- lane	Urban four- lane	Urban four- lane divided	Urban interstate
Roadway Departure	41.00%	14.31%	23.03%	39.51%	13.62%	3.12%	4.50%	16.24%
Intersection crashes	20.54%	43.06%	31.44%	5.34%	33.18%	51.97%	42.84%	24.52%
Night crashes	39.02%	26.97%	33.25%	35.03%	26.45%	21.73%	22.53%	27.52%
Alcohol involved	10.52%	5.42%	7.04%	6.85%	6.27%	3.33%	3.49%	3.89%
Wet surface	18.29%	15.14%	17.60%	27.60%	17.13%	15.32%	15.29%	17.77%
Total crashes:	39343	720	5728	9505	62669	35329	91103	35362

Table 10: 2007-2009 Statewide Average Percentages by Type of Crash, All Crashes

APPENDIX B: EXAMPLES

Federal Aid Project No. 6108(503) State Project No. 450-08-0057 I-10 (Iberville Parish Line - W. End MS River Bridge) Control Section 450-08 (Beg Log Mi 0.00, End Log Mi 12.10) Transportation Management Plan – Safety Analysis Years 2005 - 2009

This safety analysis is prepared for the Transportation Management Plan (TMP) for State Project No. 450-08-0057. This analysis was conducted by the LADOTD Highway Safety Office with guidance from the FHWA Office of Safety – Louisiana Division.

The Limits of Construction

Initially, the crash data for the limits of construction was collectively analyzed as three data sets based on functional classification and ADT, as shown in Table 1.

Table 1: Functional Classification of	and AADT
---------------------------------------	----------

control section	begin log mile	end log mile	functional class	urban rural	adt
450-08	0	8.52	1-Inter	R	40,800
450-08	8.52	11.37	1-Inter	U	40,800
450-08	11.37	12.1	1-Inter	U	59,300

(Source: Highway Needs File)

The crash rates were calculated for each segment and compared to statewide averages to identify any abnormal locations. An abnormal location is defined as a location having at least five crashes and twice the statewide average crash rate for its functional classification. As shown in Table 2, there were no abnormal sections within the project limits.

Table 2: Ide	ntification	of Abnormal	Locations

begin log mile	end log mile	length	classification	ADT	VMT	Crash Rate	2x State Avg
0	8.52	8.52	Rural	40800	126,879,840	0.93	1.16
8.53	11.37	2.84	Urban	40800	42,293,280	1.94	2.78
11.38	12.1	0.72	Urban	59300	15,584,040	1.42	2.78

(Source: LADOTD Crash 1 Program)

The crash data was then categorized by type of crash, including nighttime, in order to identify any areas with potential for improvement. The crash data indicated that nighttime crashes are slightly overrepresented with respect to the statewide average proportion of nighttime crashes to total crashes as shown in Table 3. A nighttime crash is defined as a crash that occurred under dark lighting conditions and is open to interpretation by law enforcement personnel working the crash.

Table 3: Percent Nighttime Crashes of Total Crashes

	rural		urban
state average	lm 0.00 to lm 8.52	state average	lm 8.53 to lm 12.1
35.03%	36.22%	27.52%	33.51%

(Source: LADOTD Crash 1 Program)

Due to overrepresentation of nighttime crashes, the crash data was compiled by time of day and only the crash data corresponding to the work hour restrictions was reviewed. The work hour restrictions as determined from the queue analysis are proposed to be Monday through Friday from 9:00 pm to 5:00 am and Saturday through Sunday from 9:00 pm to 9:00 am. Further investigation of nighttime crashes indicated that non-collision crashes (which includes roadway departure crashes) represented 58.6% of total crashes.

Table 4: Crash data for restricted work hours, by type of collision

	I	m 0.00 to lm 8.52	2	lm 8.53 to lm 12.10			
type of collision	number of crashes	% of total	rural state average	number of crashes	% of total	urban state average	
Non Coll	92	68.66%	48.72%	54	46.96%	21.19%	
Rear End	22	16.42%	26.60%	26	22.61%	47.40%	
S Swipe (sd)	15	11.19%	16.25%	17	14.78%	19.06%	
Head on	0	0.00	0.56	1	0.87%	0.56%	
Other	4	2.99%	50.70%	12	10.43%	9.48%	
Total	134			115			

(Source: LADOTD Crash 1 Program)

The non-collision crashes that occurred during the work hour restriction time period from 2005 to 2009 within the limits of construction were sorted by logmile to identify any locations with frequent crash occurrences. There were 146 non-collision crashes during this time period. As shown in Figures 1 and 2, there were no locations with a significant crash frequency.



Figure 1: Monday through Friday non-collision crashes by logmile

(Source: LADOTD Crash 1 Program)



Figure 2: Saturday through Sunday non-collision crashes by logmile

(Source: LADOTD Crash 1 Program)

Impact Area

The impact area is considered to be the area beyond the limits of construction that experiences impacts from the construction project. This may be where the temporary traffic control begins or where the maximum expected queue ends.

The impact area for eastbound I-10 is defined by the end of the maximum queue which is 1.98 miles west of the limits of construction. From 2005 to 2009, 4 total crashes occurred within the impact area during the weekday restricted work hours and 6 total crashes occurred within the impact area during the weekend restricted work hours.

The impact area for westbound I-10 is defined by the I-10/I-110 split to the limits of construction. The impact area for westbound I-10 was analyzed as three separate sections: west approach of the Mississippi River Bridge, main span, and east approach.

For the west approach from 2005 to 2009, 24 total crashes occurred during the weekday restricted work hours and 11 total crashes occurred during the weekend restricted work hours. Of the 24 crashes occurring during the weekday restricted work hours, 19 were rear end crashes. As indicated in Figure 3, crashes generally tend to occur near the diverge point at the LA 1 exit.



Figure 3: Crash diagram for westbound I-10, west approach, total crashes

(Source: LADOTD Crash 1 program)

The pavement markings at the LA 1 exit will be modified with a plan change under state project no. 737-96-0087 which has already been let and is expected to be completed before construction begins.

For the main span from 2005 to 2009, 11 total crashes occurred during the weekday restricted work hours and 5 total crashes occurred during the weekend restricted work hours. Of the 11 crashes occurring during the weekday restricted work hours, 7 were rear end crashes. As indicated in Figure 4, crashes generally tend to occur on the downgrade approaching the LA 1 exit.



Figure 4: Crash diagram for westbound I-10, main span, total crashes

(Source: LADOTD Crash 1 program)

For the east approach from 2005 to 2009, 18 total crashes occurred during the weekday restricted work hours and 14 total crashes occurred during the weekend restricted work hours. Of the 18 crashes occurring during the weekday restricted work hours, 9 were rear end crashes. As indicated in Figure 5, the crashes generally tend to occur along the upgrade with no discernible pattern.



Figure 5: Crash diagram for westbound I-10, east approach, total crashes

(Source: LADOTD Crash 1 program)

State Project No. H.003407

I-12 (LA 447 to LA 43)

Control Section 454-02 (Beg Log Mi 7.1, End Log Mi 25.1)

Crash Data Analysis 2008 - 2010

This crash data analysis is prepared for state project H.003424 by the LADOTD Highway Safety Office with guidance from the FHWA Office of Safety – Louisiana Division.

The limits of analysis are from control section 454-02 log-mile 7.1 (I-12 at LA 477/Walker Interchange) to control section 454-02 log-mile 25.1 (I-12 at LA 43/Albany Interchange). The impact area was determined to include a half mile beyond the interchanges.

Figure 1: Vicinity Map, Limits of Analysis



The crash data for the entire impact area was compiled by ½ mile segments. The crash rates were calculated for each segment and compared to statewide averages to identify any abnormal locations. An abnormal location is defined as a location having at least five crashes and twice the statewide average crash rate for its functional classification. As shown in Table 1, there were no abnormal sections within the project limits.

control section	begin log mile	end log mile	length	urban rural	adt	level of service	crashes	MVMT	crash rate	2 x state avg
454-02	7.1	7.66	0.56	U	52,600	D-poor	63	10.75144	1.953227	2.78
454-02	7.66	8.2	0.54	U	48,400	D-poor	30	9.53964	1.048258	2.78
454-02	8.2	8.7	0.5	U	48,400	D-poor	16	8.833	0.603796	2.78
454-02	8.7	9.15	0.45	U	48,400	D-poor	11	7.9497	0.461233	2.78
454-02	9.15	9.65	0.5	R	47,100	D-poor	23	8.59575	0.891914	1.16
454-02	9.65	10.15	0.5	R	47,100	D-poor	9	8.59575	0.34901	1.16
454-02	10.15	10.65	0.5	R	47,100	D-poor	3	8.59575	0.116337	1.16
454-02	10.65	11.15	0.5	R	47,100	D-poor	15	8.59575	0.581683	1.16
454-02	11.15	11.65	0.5	R	47,100	D-poor	24	8.59575	0.930692	1.16
454-02	11.65	12.15	0.5	R	47,100	D-poor	22	8.59575	0.853135	1.16
454-02	12.15	12.65	0.5	R	47,100	D-poor	12	8.59575	0.465346	1.16
454-02	12.65	13.15	0.5	R	47,100	D-poor	9	8.59575	0.34901	1.16
454-02	13.15	13.67	0.52	R	47,100	D-poor	15	8.93958	0.55931	1.16
454-02	13.67	14.2	0.53	R	44,600	C-avg	16	8.62787	0.618152	1.16
454-02	14.2	14.7	0.5	R	44,600	C-avg	17	8.1395	0.696193	1.16
454-02	14.7	15.2	0.5	R	44,600	C-avg	4	8.1395	0.16381	1.16
454-02	15.2	15.7	0.5	R	44,600	C-avg	5	8.1395	0.204763	1.16
454-02	15.7	16.2	0.5	R	44,600	C-avg	7	8.1395	0.286668	1.16
454-02	16.2	16.7	0.5	R	44,600	C-avg	20	8.1395	0.819051	1.16
454-02	16.7	17.2	0.5	R	44,600	C-avg	11	8.1395	0.450478	1.16
454-02	17.2	17.7	0.5	R	44,600	C-avg	22	8.1395	0.900956	1.16
454-02	17.7	18.2	0.5	R	44,600	C-avg	12	8.1395	0.491431	1.16
454-02	18.2	18.7	0.5	R	44,600	C-avg	6	8.1395	0.245715	1.16
454-02	18.7	19.2	0.5	R	44,600	C-avg	11	8.1395	0.450478	1.16
454-02	19.2	19.7	0.5	R	44,600	C-avg	5	8.1395	0.204763	1.16
454-02	19.7	20.2	0.5	R	44,600	C-avg	6	8.1395	0.245715	1.16
454-02	20.2	20.7	0.5	R	44,600	C-avg	9	8.1395	0.368573	1.16
454-02	20.7	21.2	0.5	R	44,600	C-avg	26	8.1395	1.064766	1.16
454-02	21.2	21.7	0.5	R	44,600	C-avg	13	8.1395	0.532383	1.16
454-02	21.7	22.2	0.5	R	44,600	C-avg	8	8.1395	0.32762	1.16
454-02	22.2	22.7	0.5	R	44,600	C-avg	14	8.1395	0.573336	1.16
454-02	22.7	23.2	0.5	R	44,600	C-avg	6	8.1395	0.245715	1.16
454-02	23.2	23.7	0.5	R	44,600	C-avg	18	8.1395	0.737146	1.16
454-02	23.7	24.2	0.5	R	44,600	C-avg	9	8.1395	0.368573	1.16
454-02	24.2	24.7	0.5	R	44,600	C-avg	10	8.1395	0.409526	1.16
454-02	24.7	25.1	0.4	R	44,600	C-avg	13	6.5116	0.665479	1.16

APPENDIX B

Crash Data and Safety Analysis

I-10 High Rise Bridge Rail Modifications

State Project No. H.009211

Control Section 450-90 (Begin Log Mi 8.506, End Log Mi 9.788)

Transportation Management Plan – Safety

Analysis Years 2008 – 2010

This safety analysis is prepared for the Transportation Management Plan (TMP) for State Project No. H.009211, and conducted by the LADOTD District 02 Traffic Operations Section with guidance from the LADOTD Highway Safety Section.

Initially, the crash data for the areas covered by SP H.009211 was analyzed as two separate data sets as shown in Table 1. The crash data used in the analysis were based on records obtained from the State Police database. This database contains information on crashes investigated by State Police and also electronic submissions of other crashes handled by the agency with jurisdiction in the area. Through an agreement with State Police, the crashes are typically investigated by NOPD through this project area and the actual crash reports themselves were not available in any significant amount from the database.

Table 1: Functional Classification and AADT

Control Section	Begin log mile	End log mile	Functional Class	Urban/Rural	Number of Lanes	ADT
450-90	8.14	8.57	1-Inter	U	8	122,700
450-90	8.57	9.86	1-inter	U	6	122,700

(Source: Highway Needs File)

The crash rate was calculated for each segment within the project limits, from log mile 8.51 to log mile 9.79, and compared to the statewide average for the same highway functional class to identify if it is classified as an abnormal location. An abnormal location is defined as a location having at least five crashes and twice the statewide average crash rate for its functional classification. As shown in Table 2, there were no abnormal sections within the project limits.

Begin log mile	End log mile	Length (mile)	Classification	ADT	VMT	Total Crashes	Crash Rate	2x State Avg
8.51	8.57	0.06	Urban	122,700	7,362	8	0.99	2.78
8.58	9.79	1.2	Urban	122,700	148,467	362	2.23	2.78

Table 2: Identification of Abnormal Location within Project Limits

(Source: LADOTD Crash 1 Program)

The crash data was then categorized by type of crash, including nighttime, in order to identify any areas with potential for improvement. The crash data indicated that nighttime and wet surface crashes are overrepresented with respect to their statewide average proportion of crash type to total crashes, as shown in Table 3. A nighttime crash is defined as a crash that occurred under dark lighting conditions and is open to interpretation by law enforcement personnel working the crash.

Table 3: Percent Crash by Crash Type

I-10 Between Log Mile 8.51 and 9.79							
Type of Crash	Total Crashes	Crash Percentage	State Average (Urban)				
Roadway Departure	4	1.81%	16.24%				
Nighttime Crashes	107	28.92%	27.52%				
Wet Surface	75	20.27%	17.77%				

(Source: LADOTD Crash 1 Program)

Within the same limits of study (log mile 8.51 to 9.79), the crashes were analyzed by time of day. The crash frequency gradually increases throughout the day with the peak number of occurrences occurring between the hours of 3:30 PM - 4:30 PM as shown in Figure 1. The crashes were also sorted by travel direction and are shown in Figure 2.

Due to overrepresentation of nighttime and wet surface crashes, the crash data was compiled by time of day and only the crash data corresponding to the allowable work hours was reviewed as listed in Table 4. The allowable work hours as determined from the queue analysis are proposed to be, for the eastbound travel direction, Sunday through Thursday nights from 10:00 PM to 6:15 AM, Friday night from 12:00 AM to 7:00 AM Saturday, and Saturday night from 12:00 AM to 9:00 AM Sunday. The allowable work hours for the westbound travel direction are Sunday through Thursday nights from 7:30 PM to 5:30 AM, Friday night from 9:00 PM to 7:30 AM Saturday, and Saturday, and Saturday, and Saturday, and Saturday, and Saturday of Saturday nights from 9:00 PM to 9:30 AM on Sunday.





⁽Source: LADOTD Crash 1 Program)





⁽Source: LADOTD Crash 1 Program)

Further investingation of the crash data indicated that rear end and side swipe (same direction) crashes were higher than the state average for a urban interstate facility. The rear end and side swipe (same direction) crashes were sorted by logmile to identify locations with frequent crash occurences. Figures 3 and 4 show graphical representations of the rear end and side swipe (same direction) crashes by log mile within the project limits.

Table 4: Crash Data for allowable work hours, by Type of Collision

I-10 Between Logmile 8.51 and 9.79						
Type of Collision	Total Crashes	Crash Percentage	Urban State Average			
Non Collision	24	12.83%	21.19%			
Rear End	90	48.12%	47.40%			
Side Swipe	a contraction of the second					
(Same Direction)	37	19.79%	19.06%			

(Source: LADOTD Crash 1 Program)





⁽Source: LADOTD Crash 1 Program)



Figure 4: Friday through Saturday Rear End and Side Swipe crashes by Logmile

(Source: LADOTD Crash 1 Program)

Although the crash data are well distributed across the project segment, there appears to be a significant concentration of rear end and sideswipe (same direction) crashes occurring near Logmile 8.72 as shown in Figures 3 and 4. An in depth review of available crash reports and site conditions at this location revealed that the majority of the crashes are in the eastbound travel direction at the base of the high rise bridge. Drivers were generally either trying to change lanes to pass up a slow or stalled vehicle when they crashed their vehicle. Vehicle speed differentials may a be contributing factor in many of the crashes as the high rise bridge has a fairly steep grade upon which drivers have difficulty maintaining their vehicle speeds up the bridge compared to the high approach speed to the bridge.

For the purpose of further identifying any other potential safety concerns regarding crashes which may affect the project work zone, additional analyses were performed on a one mile segment entering the project from the east and west approaches. As shown in Table 5, the crash rate for a mile segment in either direction is below the average for what would be considered an abnormal location. Table 6 shows a summary of the percent crash by crash type and also by type of collision. Figures 5 and 6 show the total crashes by log mile, one mile before the beginning of the project in each direction.

Begin log mile	End log mile	Travel Direction	Number of Crashes (2007-2010)	Crash Rate	2x State Avg
7.51	8.51	Eastbound	165	1.23	2.78
9.79	10.79	Westbound	69	0.39	2.78

Table 5: Identification of Abnormal Locations – Beyond Project Limits

(Source: LADOTD Crash 1 Program)

Table 6: Percent Crash by Crash Type and Type of Collision – Beyond Project Limits

Type of Crash /	Logmile 7.51	to 8.51	Logmile 9.79 t	Urban State	
Collision	Total Crashes (Eastbound Only)	Crash Percentage	Total Crashes (Westbound Only)	Crash Percentage	Average
Roadway Departure					
Crash	0	0.00%	1	1.45%	16.24%
Nighttime Crash	57	34.55%	15	21.74%	27.52%
Wet Surface Crash	45	27.27%	15	21.74%	27.60%
Non Collision	25	15.15%	7	10.14%	21.19%
Rear End	71	43.03%	31	44.93%	47.40%
Side Swipe (Same					
Direction)	32	19.39%	11	15.94%	19.06%

(Source: LADOTD Crash 1 Program)

Figure 5: Total Crashes Eastbound by Log mile (7.51 – 8.51)



⁽Source: LADOTD Crash 1 Program)



Figure 5: Total Crashes Westbound by Log mile (9.79 – 10.79)

Data Analysis Summary and Conclusions

The maps on Pages 8 through 13 provide details of the locations of crashes within, and on the approaches to, the work zone. Rear end collisions and side swipe (same direction) crashes are the most common type of collisions with the majority occurring in the eastbound travel direction. The crashes are well distributed across the length of the project; however, a particular area of concern would be at the base of the high rise bridge where there is a high concentration of crashes. It should be noted that the graphical representation does not indicate direction of travel based on the lateral plotting of the crashes

Based on the safety analysis and the resulting focus on nighttime rear end and sideswipe (same direction) crashes, especially during project work hours, it is recommended that project personnel actively manage the maintenance of the temporary traffic control devices to ensure that they are in proper working condition and also provide adequate lighting at the immediate work area as required by the Special Provisions. Police presence should also be included to monitor the back of queue on the jobsite approaches to provide motorists adequate warning. Additional factors which can contribute to safer operation during the project will be the use of MAP Patrols, Portable Message signs, and having a tow truck available on-site to provide assistance in cases of vehicle breakdowns on the bridge.

SCS/BQL 10/11/2011

⁽Source: LADOTD Crash 1 Program)

-10 (Log mile 7.51 – 7.99)



This report is prepared solely for the purpose of identifying, evaluating and planning safety improvements on public roads; and is therefore exempt from discovery or admission under 23 U.S.C. 409.

Multiple crash location

Single crash location

LEGEND:

Page 8

|-10 (Log mile 8.00 – 8.51)



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Multiple crash location

LEGEND:

Page 9

Page 10

State Project H.009211 Crash Data and Safety Analysis

I-10 (Log mile 8.52 – 9.15)



Page 11

State Project H.009211 Crash Data and Safety Analysis

I-10 (Log mile 9.16 – 9.78)



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Multiple crash location

Single crash location

LEGEND:

Page 12

State Project H.009211 Crash Data and Safety Analysis



I-10 (Log mile 10.32 – 10.79)



APPENDIX C: THINKSTREAM USER'S MANUAL

THINKSTREAM LSP Crash Report Images

https://icjis.dps.louisiana.gov/apps.html

This application is used to print or save a copy of crash reports that are written by LSP, Louisiana State Police, Troops statewide both on/off state maintained highways.

THINKSTREAM

M. Connors LA DOTD Highway Safety 2/23/2012



1) INITIAL SCREEN:

Welcome to the Thinkstream Distributed Information Integration Network					
Available Network Applications					
Mobile Blackberry					
Dispatch					
Logger					
Mobile					
Mobile Lite					
Mobile PDA					
Desktop Detective					
Dispatch Deluxe					
E-Justice Case Management System					
Incident Reporting Admin					
Justice Admin					
ladpsreports2					
Lineup	•				
Patrol					
Thinkstream Messaging					

- This page will be displayed after going to the web site, https://icjis.dps.louisiana.gov/app.html, mentioned on the first page.
- Select ladpsreports2 from the selections given.

2) LOG IN SCREEN:

THINKSTREA	4071 4071
Login	Welcome to the LADPS Reports Application. Please log in. User Name: Password: Login Forgot your password? Click here to reset your password.

- This is the log on screen where you will enter your **User Name** and **Password**.
- If you don't have log on credentials you can contact our office and we will submit a request to have one issued.
- If you have forgotten your log on credentials or get locked out, after three attempts, you can call one of the following numbers and tell them that you need your Thinkstream Account reset.
 ***** LA DPS help desk (225-925-6233) or Thinkstream Support at (225-291-5992). *****

3) CHANGE PASSWORD SCREEN:

THINKSTREAM B Preferences
Crash Report Search Shopping Cart DPS Fund Collection System
Login
Change password:
Your password has expired. You must change it before logging in.
Password:
New Password:
Confirm New Password:
Login
Forgot your password? Click here to reset your password.
POWERED BY THINKSTREAM

- Like most programs that we use at the DOTD this one also has, **roughly 30 days**, a password that expires and you must change it before logging in.
- After your password is changed you will get the following screen to start your search for a crash report that is written by LSP, Louisiana State Police.

Logged in as Michael Connors	4071
S Logout M Preferences	
Crash Report Search Shopping Cart DPS Fund Collection System	
Form	
Enter at least one field below to search for Crash Reports; entering more fields will return more accurate results.	
First Name:	
Last Name:	
Parish:select-	
Crash Report number.	
	Clear Search
	POWERED BY THINKSTREAM

4) CRASH REPORT LOOK UP SCREEN:

THINKSTREAM	4071
Crash Report Search Shopping Cart DPS Fund Collection System	
Enter at least one field below to search for Crash Reports; entering more fields will return more accurate results.	
First Name:	
Last Name: Parish:select-	
Crash Report Number: 20110038117	
End Date:	
	Clear Search
	POWERED BY THINKSTREAM

- Select your crash report number.
- Enter crash report number into the **Crash Report Number** field.
- Either hit the **Search Button**, lower right corner, or **Enter Button** on your computer to start search engine.

TUNIVATORAN	Logged in as Michael Connors				4071
THINKSTREAM	🙎 Logout 🛛 🛗 Preferences				
Crash Report Search	Shopping Cart DPS Fund Collection System				
Form Result	is				
			Searching		
					Records: 0
Report #	Date	Vehicles	Drivers	Downloads	Records: 0
Report #	Date	Vehicles	Drivers	Downloads	Records: 0 Cancel Search
Report #	Date	Vehides	Drivers	Downloads	Records: 0
Report #	Date	Vehicles	Drivers	Downloads	Records: 0
Report #	Date	Vehides	Drivers	Downloads	Records: 0
Report #	Date	Vehicles	Drivers	Downloads	Records: 0

Green Box indicates that the program is searching the database for the crash report that you have ٠ entered.

	ogged in as Michael Connors				407
	X Logout 🔛 Preferences				
Crash Report Search	Shopping Cart DPS Fund Collection System				
Form Results					
			iearching		Records: 1
Report # 🔺	Date	Vehicles	Drivers	Downloads	
20110038117	12/26/2011 16:19:00	2002 Nissan Xterra	Courtney F. Smith III	Crash Report	Add To Cart
					POWERED BY THINKSTREA

THINKSTREAM	HINKSTREAM Logged in as Michael Connors 4071 X Logout W Preferences 4071									
Crash Report Search	Shopping Cart DPS Fund Collection System									
Form Results										
					Records: 1					
Report # 🔺	Date	Vehicles	Drivers	Downloads						
20110038117	12/26/2011 16:19:00	2002 Nissan Xterra	Courtney F. Smith III	Crash Report	Add To Cart					
				1						
				-						
					POWERED BY THINKSTREA					

- This screen shows the results of your search.
- Click on Crash Report to review your selection. •

TOTAL NUMBER OF VEHICLES INVOLVED	STATE OF LOUISIANA UNIFORM MOTOR VEHICLE TRAFFIC CRA	20110038117 ASH REPORT
DATE OF CRASH	TIME (0000) DISTRICT TROOP 1619 PARISH CODE I.AT. PARISH CODE 1.6 Indextra fraction 1.7 Indextra fraction 1.7 Indextra fraction 1.7 Indextra fraction 1.6 Indextra fraction 1.6 Indextra fraction 1.7 Indextra fraction 1.6 Indextra fraction 1.7 Indextra fraction 1.7 Indextra fraction 1.6 Indextra fraction 1.6 Indextra fraction 1.6 Indextra fraction 1.6 <	B 2 2 1 7 1 3 0 1 -93.84487 0 0 1 0 1 <td< td=""></td<>
WRITE APPROPRIATE LETTER IN BLOC ROAD SURFACE		

- If you float your mouse over the bottom middle of the screen, then a **Message Box** will appear.
- This message box will allow you to either **Print** or **Save** your crash report.

FREQUENTLY ASKED QUESTION:

• What happens if I click the Add To Cart button?

THINKSTREAM	Logged in as Michael Connors					407l
Crash Report Search	Shopping Cart DP5 Fund Collection System					
Form Results	s					
					Rei	cords: 1
Report # 🔺	Date	Vehicles	Drivers	Downloads		
20110038117	12/26/2011 16:19:00	2002 Nissan Xterra	Courtney F. Smith III	Crash Report	Add To Cart	
Report # ▲ 20110038117	Date 12/26/2011 15:19:00	Vehicles 2002 Nisan Xterra	Drivers Courtney F. Smith III	Downloads Crash Report	Add To Cart	Ke

• Never select Add To Cart feature. This is for internal, DPS, selling of crash reports on-line.

5) NAME LOOK UP:

THINKSTREAM	Logged in as Michael Connors	4071
Crash Report Search	Shopping Cart DPS Fund Collection System	
Form		
	Enter at least one field below to search for Cr	sh Reports; entering more fields wil return more accurate results.
	First Name:	DONNY CONTRACTOR OF CONTRACTON
	Last name: Parish:	-select-
	Crash Report N	mber:
	Start Date:	
	Linu yees	
		Search

- Enter the **First Name** in the appropriate box.
- Enter the **Last Name** in the appropriate box.
- Either hit the **Search Button**, lower right corner or **Enter Button** on your computer to start search engine.
- Click on **Crash Report** to review your selection.
- Any **Supplements**, additional crash information, that are available will be shown as an additional selection.
- Then you can either **Print** or **Save** your crash report.

THINKSTREAM	Logged in as Michael Connors				407
	🗙 Logout 🚆 Preferences				
Crash Report Search	Shopping Cart DPS Fund Collection	n System			
Form Results					
					Records: 1
Report # 🔺	Date	Vehicles	Drivers	Downloads	
20110040630	12/16/2011 19:45:00	2004 Chevrolet TraiBlazer	Donny R Tullier	<u>Crash Report</u> Fatal Narrative, Diagram, Statement	<u>Add To Cart</u>
				1	
				•	
					POWERED BY THINKSTREAM

6) PARISH AND DATE LOOK UP:

1		d in as Michael gout 🛛 🔛 Pre	Connors ferences					4071
	Crash Report Search Sho	opping Cart	DPS Fund Collection System					
	Form							
				Enter at least one field bel	ow to search for Crash Rep	orts; entering more fiel	lids v	will return more accurate results.
					First Name:			
					Last Name:			
					Parish:	select		
					Crash Report Number:	select Acadia	-	
					Start Date:	Allen	I.	H
					End Date:	Ascension Assumption	l	=
						Beauregard		Thus Gauss
						Bienville Bossier	1	
						Caddo		
						Caldwell		POWERED BY THINKSTREAM
						Cameron Catahoula		
						Claiborne		
						De Soto		
						East Baton Rouge		
						EastFeliciana		
						Evangeline		
						Grant		
						Ibena		
						Jackson		
						Jefferson		
						La Salle		
						Lafayette	٠	
							_	

• Select a **Parish** from the drop down menu.

TUNKOTDEAM	Logged in as Michael Connors
THINKSTREAM	🗴 Logout 🕮 Preferences
Crash Report Search	h Shopping Cart DPS Fund Collection System
Form	
	Enter at least one field below to search for Crash Reports; entering more fields will return more accurate results.
	First Name:
	Last Name:
	Parish: East Baton Rouge -
	Crash Report Number:
	Start Date:
	End Date:
	Clear Search
	POWERED BY THINKSTREAM

• Then select a **Start Date** from the pop out window.

THINKSTREAM				4071
Crash Report Search Shopping Cart DPS Fund Collection S	System			
Form	Enter at least one field below to search for Crash Rep	orts; entering more fields v	vil return more accurate results.	
	rist name: Last Name: Parish:	select		
	Crash Report Number: Start Date:			
	End Date:		Y January, 2012 × « Today > > Sun Mon Tue Wed Thu Fri Sat 1 2 3 4 5 6 7	Clear Search
			8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	
			29 30 31 Select date	POWERED BY THINKSTREAM

THINKSTREAM	Logged in as Micha	el Connors references				4071
Crash Report Search	Shopping Cart	DPS Fund Collection System				
Form						
			Enter at least one field below to search for Crash Repo	orts; entering more fields will	return more accurate results.	
			First Name:			
			Last Name:			
			Parish:	select 💌		
			Crash Report Number:			
			Start Date:	20120101		
			End Date:	Ŧ		
						(lear Search
						POWERED BY THINKSTREAM

• Then select an **End Date** from the pop out window.

THINKSTREAM	Logged in as Micha	el Connors						4071
Crash Report Search	Shopping Cart	DPS Fund Collection System						
Form								
			Enter at least one field be	low to search for Crash Rep	oorts; entering more fields	will return more accurate results.		
				First Name:				
				Last Name:				
				Parish:	select			
				Crash Report Number:				
				Start Date:	20120101			
				End Date:				
						? January, 2012 3		
						Sun Mon Tue Wed Thu Fri Si	at	Clear Search
						1 2 3 4 5 6	7	
						8 9 10 11 12 13 15 16 17 18 19 20	21	
						22 23 24 25 26 27	28	POWERED BY THINKSTREAM
						29 30 31 Select date	_	

THINKSTREAM	Logged in as Michae	el Connors			4071
	🗴 Logout 🛛 💾 Pr	eferences			
Crash Report Search	Shopping Cart	DPS Fund Collection System			
Form					
			Enter at least one field below to search for Crash Re	ports; entering more fields	wil return more accurate results.
			First Name:		
			Last Name:		
			Parish:	East Baton Rouge 💌	
			Crash Report Number		
			Start Date:	20120101	I
			End Date:	20120101	=
					Search
					POWERED BY THINKSTREAM

- The query is ready to run.
- Either hit the **Search Button**, lower right corner or **Enter Button** on your computer to start search engine.
- Click on the **Crash Report** you are searching for from one of the selections.
- Then you can either **Print** or **Save** your crash report.

	Logged in as Michael Conno)rs			407
THINKSTREAD	M S Logout Preferences				
Crash Report Sea	rch Shopping Cart DPS Fu	nd Collection System			
Form Res	sults				
					Records: 5
Report # 🔺	Date	Vehicles	Drivers	Downloads	
20120000022	01/01/2012 23:00:00	1998 FORD F-150	Paul Howard Orton	Crash Report Tox Results	Add To Cart
20120000701	01/01/2012 09:10:00	1991 CHEV LUM; 1997 OLDS ACH	William E Womack; Bertie L Thomas	<u>Crash Report</u> Witness Statement	Add To Cart
20120000851	01/01/2012 07:55:00	TOYOTA UNK; 2010 LEXUS RX350	UNK; Donald J Hall	Crash Report	Add To Cart
20120001011	01/01/2012 16:00:00	2011 TOYOTA COROLLA; 1996 HONDA ACCORD	Angela Marie Jones; Marc Jonathan Sobers	Witness Statement Crash Report	Add To Cart
20120001311	01/01/2012 18:24:00	2001 FORD FOCUS; 2006 CHEVROLET EQUINOX	ELIE NYEMBO; DAVID A BENEDICT	<u>Crash Report</u> Witness Statement	Add To Cart
				PO	WERED BY THINKSTREA

7) LOGOUT PROCESS:

- After completing your search for a crash report, you must logout of the system.
- Click the **Logout** button in the top left corner, thus returning you to the main screen.

Logged in as Michael Connors		4071
THINKSTREAM References		
Crash Report Search 5 ng Cart DPS Fund Collection System		
Form		
Enter at least one field	field below to search for Crash Reports; entering more fields will return more accurate results.	
.	First Name:	
	Last Name:	
	Parish: -select-	
	Crash Report Number:	
	Start Date:	
	End Date:	
		Clear Search
	POW	ERED BY THINKSTREAM

If at any time during the process you have a question or need assistance, please don't hesitate to contact my office.

Contact Information:

Michael Connors

Michael.Connors@LA.GOV

Work #: (225) 379-1451

APPENDIX D: CONTENT MANAGER USER'S MANUAL

CONTENT MANAGER Crash Report Images

This application is used to print out or save a copy of crash reports that are written by police departments or local sheriff offices statewide both on/off state maintained highways.



DB2. Content Manager eClient

M. Connors LA DOTD Highway Safety 3/1/2012



1) INITIAL SCREEN:

Difference Dot The Mission Difference Di	LOUISIANA DEPARTMENT OF TRANSPO	RTATION AND DEVELOPMENT	DOTD A-Z	INTRANET	INTERNET	
Intranet Coll Administration DDTD's Mission Coll Compliance Programs Carles and Facilitate economic growth. Correlation Survey Cristiance/Compliant Process Carle and Carlitate economic growth. Create and Service Requese Consumption Street Consumption Street Construction Project Consumption Street Construction Project Consumption Street Construction Project Consumption Street Construction Project Consumption Street Construction Project Consumption Street Construction Project Consumption Street Construction Project Construction Project Consumption Street Construction Project Consumption Street Project Management Project Management Project Management Strection Project Management Street		ET	Search	DOTD	Search	
Administration DOTD's Mission Like Create a "Service Reque and facilitate economic growth. Compliance Programs Emplicit Satisfaction Survey Cortex Resource Control Based Facilitate economic growth. To deliver transportation and public works systems that enhance quality of life and facilitate economic growth. Create a "Service Reque 0 Circle a "Service Reque 0 DotTD's LaGov Information Site 0 DotTD's LaGov Information Site 0 DotTD's Business Processes Circle a "Service Reque 0 Circle A Service Site 225) 379 459 or 3 -169 Workdays 7.45 am -41 Circle 0 Circle a "Service Reque 0 DotTD's Business Processes Department Wide 0 DotTD's LaGov Information 0 Department Wide 0 DotTD - Central Watehouse Closure for 2012 Inventory 0 217/2012 - Central Watehouse Closure for 2012 Inventory 0 214/2012 - Central Watehouse Closure for 2012 Inventory 0 226/2012 - Circle Services 0 Construction 0 The Construction 0 Exampte Title Sector 0 Froject Management 0 Construction 0 Exampte Title Sector 0 Project Management 0 Construction 0 Englose Closure Sector 0 Project Management 0 Construction 0 Englose Closure Sector 0 Project Management 0 Construction Function 0 Project Management Sectorin 0 Project Management Sectorin 0 Project Management Sectorin 0 Project Management Sectorin 0 Project Management 0 Project Management Sectorin 0 Project Management Sectorin 0 Project Management Sectorin 0 Pr	Intranet				<u> </u>	
 Compliance Programs Empl Statistation Survey Content Kanager Satisfaction Survey Report Satisfaction Survey Report Report Report Report Satisfaction Survey Report Rep	Administration	DOTD's Mission		I.T. Help	(225) 379-1690	
Offer of Englesignering Statistation Survey Report as fail 2011 State of DOTD as failed information Site begre folices/status e Deproved scalars e DotD Interdepartmental e DOTD Interdepartmental e DotD Interdepartmental e DotD Interdepartmental e Project Control e Deproved scalars e DotD Letterhead e DOTD Interdepartmental e DOTD Interdepartmental e Project Control e Project Scalars e Project Control e Project Scalars e Project Control e Project Scalars e Project Control e Project Scalars e Project Scalars e Project Control e Project Scalars e Project Control e Project Scalars e Proj	Compliance Programs Empl Satisfaction Survey	To deliver transportation and public and facilitate economic growth.	works systems that enhance quality of life	 Create a "Servi Outlook Generation 	ce Request". al Help	
• Satisfaction Survey Report Br Arai 2011 State of DOTD 2010 Survey Results • DOTD's LaGov Information Site • LaGov Portal (login) • LaGov Help /How To Documents • DOTD's Business Processes • Chein Homes • DotD's Business Processes • Department Wide • Builetin Board Announcements • DotD's Business Processes • Chein Homes • DotD's Business Processes • Chein Homes • DotD's Business Processes • Department Wide • Daty News Articles • Department Wide • Daty News Articles • Department Vide • Daty News Articles • Department State of DOTD • Daty News Articles • Department State • Daty News Articles • Department Manager • Daty News Articles • Daty Articles • Daty News Articles • Daty News A	 Grievance/Complaint Process QCIP 	LaGov Information		 Single Sign-On Client Services 	QuickStart Guide	
Department Wide Builetin Board Announcements Interview Anticles Hardware/Software Proc. Content Manager Daily News Anticles East 5 Announcements Added Interview Structures Interview Structures <td> Satisfaction Survey Report ➡ Fall 2011 State of DOTD ■ 2010 Survey Results </td> <td> DOTD's LaGov Information Site LaGov Portal (login) </td> <td> LaGov Help / How To Documents DOTD's Business Processes </td> <td>(225) 379-1690 Workdays 7:45 Change a Pase</td> <td>) or 3-1690 am - 4:15 pm sword</td>	 Satisfaction Survey Report ➡ Fall 2011 State of DOTD ■ 2010 Survey Results 	 DOTD's LaGov Information Site LaGov Portal (login) 	 LaGov Help / How To Documents DOTD's Business Processes 	(225) 379-1690 Workdays 7:45 Change a Pase) or 3-1690 am - 4:15 pm sword	
Content Manager Last 5 (Cappole) (Causes (Notices (Promot.) Retre.) Events (Surplus) Intermed & Finance Daily News Articles Dept Policies/Manuals 9.217/2012 - Coentral Warehouse Closure for 2012 Inventory 9.217/2012 - Coentral Warehouse Closure for 2012 Inventory <td< td=""><td>Department Wide</td><td>Bulletin Board Announcements</td><td></td><td>Hardware/Software/</td><td>vare Procurement</td></td<>	Department Wide	Bulletin Board Announcements		Hardware/Software/	vare Procurement	
Cuister manager Last 5 Announcements Added Daily News Articles Dept Policies/Manuals Dept Policies/Manuals DEDS Nas Dept Policies/Manuals Project Policies/Manuals	Content Managar	Last 5 Carpools Causes Notices Promot Reti	re Events Surplus	Management & F	inance	
GIS 0 Financial Services 0 Environmental Section Project Development 0 0 Environmental Section 0 Bridge Design Section 0 0 Froject Active Construction 0 Bridge Design Section 0 Project Finance 0 NEW! - Training 0 Construction 0 Design Programs & Documents 0 Project Management 0 Business Cards 0 Consultant Contracts Services 0 Example Title Sheets with H Numbers 0 Aviation 0 DOTD Letterhead 0 Consultant Contracts Services 0 Real Estate Section 0 Highway Functional 0 DOTD Interdepartmental 0 Project Control Project Management 0 Highway Statey 0 Intermodal Transportation 0 Employee Training Records (ETRN) 0 PPMS/URTS - Utilities Relocation Tracking System 0 Stage 0 Studies 0 Project Delivery Manual 0 Material Testing System Queries 0 Stage 0 Studies 0 Stage 0 Studies 0 Sunrise/Sunset 0 Material Te	 Ontent Manager Daily News Articles Dept Policies/Manuals EDSMs EIS - Position Information LEO (now LaGov) Org. Chart Project/Highway Information 	 Last 5 Announcements Added 2/17/2012 - Central Warehouse Closu 2/17/2012 - Holden Family Donations 2/14/2012 - Design the T-Shirt contest 2/9/2012 - 2011 Visidata District File Id 2/9/2012 - Transportation Safety Summer 	ire for 2012 Inventory t winner - order yo ocations mit	 NEW! - Busines 2012 Administrative I Asset Manager Audit & Quality NEW! - Budget Business Servi 	ss Conference Manual nent Control Request Form ices	
 Benchmarks Benchmarks LA DOTD GIS Trns-port Pre-Construction Project Development Trns-port Pre-Construction Project Development Bridge Design Section Construction Construction Construction Home Page Consultant Contracts Services Contract Services Contract S & Specifications Plans and Proposals Project Davelopment Construction Project Management Project Management System Project Delivery Manual Project Delivery Manual Project Delivery Manual Project Number Request Forms Miscellaneous Sunrise/Sunset Construct Sunrise/Sunset Construct Project Sunrise/Sunset Condition Services Santise/Sunset Condition Services Santely Program<td>GIS</td><td>Office of Engineering</td><td></td><td> Financial Servi Human Resource </td><td>Ces</td>	GIS	Office of Engineering		 Financial Servi Human Resource 	Ces	
Projects Construction Design Programs & Documents Multimodal Planning NEW: - Training Construction Home Page Construct Services Business Cards DOTD Letterhead Consultant Contract Services Consultant Contracts Services Contract Services Consultant Contracts Services Consultant Contracts Services Project Management Project Management Section Project Management Section Project Management Section Project Management Section Tracking System Project Number Request Forms Employee Training Records (ETRN) Employee Training Oportunities Material Lab Material Testing System Queries Prefice Engineering Stage 0 Studies Stage 0 Studies	Benchmarks LA DOTD GIS Proposed / Active Construction	 Environmental Section Trns•port Pre-Construction 	Project Development Bridge Design Section CADD	 Human Resources Information Technology Procurement Project Finance 		
Resource Center Construction Home Page ProjectWise Request Forms Real Estate Section Real Estate Section Road Design Section Aviation Dornon Letterhead Contract Services Construction Home Page Construction Home Page Contract Services Consultant Contracts Services Consultant Contracts Services Contract Services Construction Funding Request Federal Authorization Funding Request Federal Funding Grandfather List Employee Training Records (ETRN) LTRC Employee Training Opportunities Material Lab Material Testing System Queries Project Number Request Forms Material Testing System Queries Sunrise/Sunset Credit Unions Dam Safety Program Public Works Dam Safety Program Traffic Engineering Traffic Engineering State Daverage Traffic Engineering State Daverage State Daverage 	Projects NFW! - Training	Construction	Design Programs & Documents	Multimodal Plann	ing	
 Business Cards DOTD Letterhead DOTD Interdepartmental DOTD Image Gallery Federal Authorization Funding Request Federal Funding Grandfather List Project Control Employee Training Records (ETRN) Project Number Request Forms Material Testing System Queries Sunrise/Sunset Sunrise/Sunset Dam Safety Program 	Resource Center	 Construction Home Page Contract Services 	 ProjectWise Request Forms Example Title Sheets with H Numbers Real Estate Section 	 Aviation Demo Fact She 	eets	
 Contracts & Specifications DOTD Interdepartmental DOTD Image Gallery Federal Authorization Funding Request Federal Authorization Funding Request Federal Funding Grandfather List Project Control Employee Training Records (ETRN) Project Number Request Forms Miscellaneous Sunrise/Sunset Sunrise/Sunset Dam Safety Program Pans and Proposals Project Control Project Control Project Management Section Project Management System PPMS/JURTS - Utilities Relocation Tracking System PPMS/JURTS - Utilities Relocation Tracking Miscellaneous Sunrise/Sunset Dam Safety Program 	Business Cards DOTD Letterback	Consultant Contracts Services	Road Design Section	 Highway Funct Classification 	Internet	
 Federal Funding Grandfather List Project Delivery Manual Project Number Request Forms Miscellaneous Sunrise/Sunset Sunrise/Sunset Dam Safety Program Dam Safety Program 	 DOTD Letternead DOTD Interdepartmental DOTD Image Gallery Federal Authorization Funding Request 	 Contracts & Specifications Plans and Proposals Project Control LTRC 	Project Management Project Management Section PPMS - Program & Project Management System PPMS/ETS - Environmental Tracking System	 Highway Safety Intermodal Trai Marine & Rail Ozone Action P 	nsportation rogram	
• Project Number Request Forms • Encontaining opportunities Relocation System • Miscellaneous • Material Lab • Relocation System • Sunrise/Sunset • Dublic Works • Traffic Engineering • 511 Entry (CARS3) • Credit Unions • Dam Safety Program • Traffic Engineering • 511 Entry (CARS4)	 Federal Funding Grandfather List Project Delivery Manual 	Employee Training Records (ETRN) LTRC (internet page) LTRC Training Opportunities	 PPMS/URTS - Utilities Relocation Tracking System PPMS/ARS - Appraisal, Acquisition, & 	 Pavement Man Port Priority Pro Stage 0 Studies 	agement ogram s	
Miscellaneous Material Testing System Queries Traffic Engineering Sunrise/Sunset Credit Unions Dam Safety Program Traffic Engineering Traffic Engineering Still Entry (CARS3) Still Entry (CARS4) District DA/ADA Phone Lis Traffic Engineering Emergency Operations Emergency Operations	Project Number Request Forms	Materials Lab	Relocation System	Operations		
Sunrise/Sunset Public Works Orredit Unions Dam Safety Program Dam Safety Program Traffic Engineering Dam Safety Program	Miscellaneous	Material Testing System Queries	Traffic Engineering	• 511 Entry (CAR)	(S3)	
© Calendars	 Sunrise/Sunset Credit Unions Calendars 	Public Works Dam Safety Program	 Traffic Control Device Database Traffic Engineering 	 511 Entry (CAR District DA/ADA Emergency Op 	S4) Phone List erations	
Image: Statewide Flood Control Program	Calendars Euroh Menu Traffic Downloads	 Statewide Flood Control Program Public Works & Water Resources Water Well Registration Data File 	 Systems Engineering Systems Preservation Utilities Relocation 	 Equipment Information Ferry or Moveable Bridge Sta HQ Maintenance Work Order HQ Rental Car 		

- Go to our **INTRANET** page.
- Click on the **Content Manager Button** on the left, under the Department Wide section.

2) LOG IN SCREEN:



- This is the log on screen where you will enter your User ID (D #) and Password (Mainframe).
- Everyone has access to Content Manager but you will have to contact our office to be granted access to our file, **Crash Reports**, which is in the database.

3) CHANGE PASSWORD SCREEN:

🙆 Error - Windows Internet Explorer

Error Report

Back..

An Error Has Occurred!

An error occurred while processing your request.

Can not connect to the database. The server might not be available or the connection to database can not be authenticated.

Done

📢 Local intranet | Protected Mode: Off 🛛 🍕 👻 🍕 100% 🔻

- Like most programs that we use at the DOTD this one also has, **roughly 30 days**, a password that expires and you must change it before logging in.
- You can reset your **Mainframe Password** by four different ways: through the change password in Content Manager, through Mainframe, through the change password button on our Intranet page or by creating a "Service Request" ticket.
- After your password has been changed go back to the original log on screen, in Content Manager, and re-enter your User ID and new Password.

4) CRASH REPORT LOOK UP SCREEN:

• Click **Search** button from list.

CONTENT Manager eClient		iem.	
	Home	LDTMD82C : D8214	Q tuo pol
	Search		
	Worklists		
	Project Information Search		
Done		🗞 Loca	i intranet Protected Mode: Off 4 a v €,100% v

• Click Crash Reports from list.

Γ

Rem Type List Titlebar - Windows Internet Explorer	
Home : Item Type List	rod ont
Item Type List	
582 Files	
Administrative Documents	
Architect Documents	
Aviation Communication	
Aviation Inspections	
Aviation Projects	
Boring Log Information	
Bridge Design Subject Files	
Bridge Inspection Files	
Bridge Maint, Subject Files	
Bridge Rating Files	
Chief Engineer Orders	
<u>City Agreements</u>	
Construction Project Files	
Construction Subject Files	
Consultant Contracts Projects	
Contract Maint Projects	
Contract Specifications	
Contracts and Specs Projects	
Crash Reports	
DOTD Parish Files	
DOTD Plans	
DOTD Projects Files	
DOTD Route Number	
DOTD Subject Files	
Dam Safety Files	
Design Parish Files	
Design Projects	
Design Subject Files	
District 07 IT Documents	
District 08 Operations Files	
District Business Files	
District Letter Bid Contracts	
Drillers Licensing	
Environmental Documents	
Environmental Files	
Environmental Permits	
Fabrication Insp Files	
Fin Services Documents	
Hydraulics Project Files	
ITS Subject Files	
ITS Subject Files (OLD)	
<u>Joint Use Agreements</u>	
LTRC DCP	
	💊 Local intranet Protected Mode: Off 🛛 🏹 👻 🔍 100% 👻

- You will get the following screen to start your search for crash reports that are written by Police Departments, Investigating Agency Code "B", or local Sheriff Offices, Investigating Agency Code "C".
- You need to remember that State Police, Investigating Agency Code "A", reports are found in the Thinkstream database.

🔗 Basic Search - Windows Internet Exp	lorer	THE OWNER WATER OF			111	1118	- 0 ×
DB2. Content Manag	er eClient			j in.			*
<u>Home</u> : <u>Item Type List</u> : S	earch Crash Repo	orts				Log out 🔘	
Crash Number :	(?,*)		Search				
Year :	(?,*)		Reset				
Crash Date :	(YYYY-MM-DD)		Ø Basic				
Parish Number :	(?,*)		O Advanced				
City Code :	(?,*)		Open in new window				
Highway Type Code :	(?,*)						
Primary Route Number :	(?,*)						
Bypass Code :	(?,*)						
Milepost :							
Scan Id :	(?,*)						
User ID :	(?,*)						
ALL of these words		O ANY of these words					

You can search the database by one of the following criteria or create a query for a specific location by entering several of the options given. If you don't know all of the particular field(s) you are looking for you can enter what you have or know followed by an "*" symbol, except for the **"Crash Date"** and **"Milepost"** fields. For example, 123* will return everything that begins with 123.

- Crash Number:
- Year:
- Crash Date (must be entered in the form of YYYY-MM-DD):
- Parish Number:
- City Code (we have a list of city codes that we can give you upon request to our office):
- Highway Type Code(A = Interstate, B = US Highways, C = Louisiana Routes):
- Primary Route Number:
- Bypass Code (B, X, Y or Z = Business, S = Spurs, LA 611-9):
- Milepost:
- Scan Id (Internal Use):
- User ID (Internal Use):

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* ALL of these words	User ID : (?,*)			

- Select the crash report number that you are searching for. ٠
- Enter the crash report number into the **Crash Number** field. ٠
- Hit the Search Button to start search engine. ٠
- This screen shows the results of your search. ٠
- Click on the **Folded Piece of Paper** in the upper left corner to review your selection. ٠

Search results - Windows Internet Explorer	- 0 ×
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- If you float your mouse over the bottom middle of the screen, then a **Message Box** will appear.
- This message box will allow you to either **Print** or **Save** your crash report.
- Then you can **"X"** out from viewing the report.

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5) TO SEARCH FOR ANOTHER CRASH REPORT:

• Click on Search Crash Reports to return to main search window.

Search results - Window	ws Internet Explorer								
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• Thus starting the process over.



6) LOGOUT PROCESS:

- After completing your search for a crash report, you must logout of the system.
- Click the **Logout** button in the top right corner, thus receiving the following pop up window.

Basic Search - Windows Internet Explorer	the second s	and the local division in the local division		and the second	
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Home : Item Type List : Search	Crash Reports			Log out @	
Crash Number :	(7,*)	Search			
Year :	(7,*)	Reset			
Crash Date : (YYY	Y-MM-DD)	Basic			
Parish Number :	(?,*)	Advanced			
City Code :	(7,*)	Open in new window			
Highway Type Code :	(7,*)				
Primary Route Number :	(7,*)				
Bypass Code :	(7.*)				
Milepost :					
Scan Id :	(2.*)			-	
User ID :	(2.*)				
Done				Succession Local Intranet Protected Mode: Off	fg - €100% -

• Just click **OK** and it will return you to the home screen thus you can exit out of the program.



If at any time during the process you have a question or need assistance, please don't hesitate to contact my office.

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