

APPENDIX A
TIER 1 ANALYSIS

The following worksheets analyze various project alternatives at various locations. In this Tier 1 analysis, mainline alternatives were compared to like projects as is the same with interchange projects. Each comparative category is given a comparative analysis level. Those levels are defined below. Within those categories may exist several factors taken into consideration. If any one of those factors has a level higher than the others, the highest level will govern that category.

MAINLINE INTERSTATE ALTERNATIVES

TRAFFIC OPERATIONS

High – Expected to improve operations at major bottleneck points and throughout the entire project area
Moderate – Expected to improve operations through a portion of the project area
Low – Expected to improve operations in spot locations only.

SAFETY IMPROVEMENT

Major - Expected to result in significant improvement
Moderate - Expected to result in moderate improvement
None - Expected to result in no improvement

RIGHT-OF-WAY

Right of way analysis takes into account several factors including impact to actual acreage, impacts to residential structures, impacts to businesses, and impacts to public buildings which includes churches, libraries, etc.

Impact levels are as follows:

<u>Acreage (ac)</u>		<u>Residences, Businesses, Public Buildings (per occurrence)</u>	
Low:	0-10	Low:	0-5 Residential, 0-2 Businesses, 0-2 Public Building
Moderate:	10-25	Moderate:	6-25 Residential, 3-10 Businesses, 3-6 Public Building
High:	25+	High:	26+ Residential, 11+ Businesses, 7+ Public Building

ENVIRONMENTAL/SOCIAL IMPACTS

This analysis takes into account several factors including impact to wetlands, environmental justice communities, 4f properties, historic properties and visual aesthetics.

Impact levels are as follows:

<u>Wetlands (ac)</u>	<u>EJ Impacts (per)</u>	<u>4f (ac)</u>	<u>Historic Structures (per)</u>	<u>Visual</u>
Low: 0-3	Low: 0-3	Low: 0-3	Low: 0-1	Low: Little to no change
Moderate: 3-10	Moderate: 3-10	Moderate: 3-10	Moderate: 1-3	Moderate: Some change
High: 10+	High: 10+	High: 10+	High: 3+	High: Major change

COSTS

Low: Under \$250M
Moderate: \$250M - \$500M
High: \$500M +

INTERCHANGE ALTERNATIVES*

TRAFFIC OPERATIONS

High – Expected to accommodate the heavy demand movement with free flow and/or partially constrained operations
Moderate – Expected to provide adequate operations for some but not all movements
Low – Expected to provide poor operational conditions.

SAFETY

Major - Expected to result in significant improvement
Moderate - Expected to result in moderate improvement
None - Expected to result in no improvement

RIGHT-OF-WAY

Right of way analysis takes into account several factors including impact to actual acreage, impacts to residential structures, impacts to businesses, and impacts to public buildings

Impact levels are as follows:

<u>Acreage (ac)</u>		<u>Residences, Businesses, Public Buildings (per occurrence)</u>	
Low:	0-5	Low:	0-5 Residential, 0-2 Businesses, 0-2 Public Building
Moderate:	5-10	Moderate:	6-10 Residential, 3-6 Businesses, 3-6 Public Building
High:	10+	High:	10+ Residential, 6+ Businesses, 6+ Public Building

ENVIRONMENTAL/SOCIAL IMPACTS

This analysis takes into account several factors including impact to wetlands, environmental justice communities, 4f properties, historic properties and visual aesthetics.

Impact levels are as follows:

<u>Wetlands (ac)</u>	<u>EJ Impacts (per)</u>	<u>4f (ac)</u>	<u>Historic Structures (per)</u>	<u>Visual</u>
Low: 0-3	Low: 0-3	Low: 0-2	Low: 0-1	Low: Little to no change
Moderate: 3-10	Moderate: 3-6	Moderate: 2-5	Moderate: 1-3	Moderate: Some change
High: 10+	High: 6+	High: 5+	High: 3+	High: Major change

COSTS



Low: Under \$30M
Moderate: \$30M - \$60M
High: \$60M +

**Interchange alternatives were developed to a very conceptual nature to be able to qualify the level of various categories. These interchange alternatives were not developed to design level detail*


MAINLINE ALTERNATIVES

ALTERNATIVE CONCEPT	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
One Additional Lane	MODERATE CAPACITY	MAJOR	LOW	LOW	LOW	YES	YES	Interchange modification will be required to add additional lane. Additional lane concept excludes adding lane to the bridge.	YES
Multi-Lane Addition	HIGH CAPACITY	MAJOR	HIGH	HIGH	HIGH	YES	YES	Requires MRB modification to include additional lane in both directions.	NO
New Adjacent Bridge	HIGH CAPACITY	MAJOR	MODERATE	HIGH	HIGH	NO	YES	Reconfiguration of I-10/110 Interchange required. Requires at least 1 but likely 2 or more additional lanes in each direction on I-10 from I-110 to Split.	NO
High Pass	HIGH CAPACITY	MAJOR	MODERATE	HIGH	HIGH	NO	YES	ROW Impacts depend on design speed of high pass. Visual impacts to the adjacent communities are extreme.	NO
Movable Barrier	LOW CAPACITY	NONE	NONE	LOW	LOW	NO	NO	PM volumes are very balanced. AM volumes may be a better alternative, but cost/benefit is low.	NO
I-110 Westbank Connection	MODERATE CAPACITY	MODERATE	MODERATE	MODERATE	HIGH	NO	YES	Traffic volumes TBD. Cost/Benefit questionable. If a new bridge is built with required ROW for tie-in, better served for I-10 traffic.	NO
LA1/LA30 Direct Connection	LOW CAPACITY	MODERATE	LOW	MODERATE	HIGH	NO	YES	High cost for potential low volume of traffic.	NO
I-110 Frontage Roads	MODERATE CAPACITY	MODERATE	MODERATE	HIGH	LOW	YES	NO	Provide frontage roads connecting Government St and Dalrymple utilizing existing infrastructure as much as possible. Would continue 9th and 10th. Reconfigure traffic signals to treat frontage as major movement.	YES


LA HIGHWAY 415

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL /SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION?	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	LA 415	TandY							N/A		Does not apply for 4 legged interchange.	NO
	LA 415	Diamond		LOW CAPACITY	NONE				N/A		Current configuration.	N/A
	LA 415	Cloverleaf		HIGH CAPACITY	MAJOR	HIGH	LOW	MODERATE	N/A	YES	Right of way impacts extremely high	NO
	LA 415	PartialCloverleaf	PAR CLO-A	HIGH CAPACITY	MAJOR	MODERATE	LOW	LOW	N/A	YES	Potentially req'd for south side only. Diamond ramps on north.	YES
	LA 415	Directional		HIGH CAPACITY	MAJOR	LOW	LOW	MODERATE	N/A	YES	Current needs are sb to eb for directional ramp. With 415 connector, the nb to eb have to converge at I-10.	YES


LA HIGHWAY 1

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION?	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	Hwy. 1	TandY							N/A		Does not apply.	NO
	Hwy. 1	Diamond		LOW CAPACITY	NONE				N/A		Less capacity than existing.	NO
	Hwy. 1	Partial Cloverleaf		MODERATE CAPACITY	NONE				N/A		Less capacity than existing.	NO
	Hwy. 1	Cloverleaf	CLOVERLEAF WITH C-D ROADS	MODERATE CAPACITY	NONE				N/A		Limited by railroad	NO
	Hwy. 1	Directional	ALL-DIRECTIONAL	HIGH CAPACITY	NONE	LOW	LOW	HIGH	N/A	YES	Consider reconfiguration. One option is to eliminate the I-10 EB ramp and force traffic to use LA 415 connector.	YES


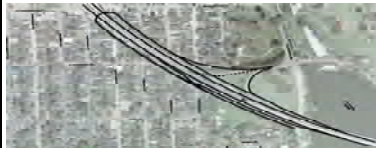

HIGHLAND - NICHOLSON

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL /SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION?	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	Highland - Nicholson	TandY							N/A		Does not apply.	NO
	Highland - Nicholson	Diamond		LOW CAPACITY	NONE				N/A		Half diamond exist. Full diamond proximity to other interchanges violates spacing creating unsafe conditions.	NO
	Highland - Nicholson	Partial Cloverleaf		MODERATE CAPACITY	NONE				N/A		Violates spacing creating unsafe conditions.	NO
	Highland - Nicholson	Cloverleaf		HIGH CAPACITY	NONE				N/A		Violates spacing creating unsafe conditions.	NO
	Highland - Nicholson	Directional		HIGH CAPACITY	NONE				N/A		Violates spacing creating unsafe conditions.	NO
	Highland - Nicholson_Closure				MAJOR				N/A		Interchange not currently hurting capacity of mainline.	NO
	Highland - Nicholson_Ramp Modification			MODERATE CAPACITY	NONE	LOW	LOW	LOW	N/A	YES	Adding additional lane for I-10 EB Nicholson. Extend WB accel lane to overhead truss portion of the bridge.	YES


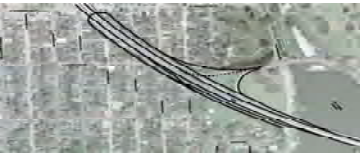
I-110

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/ SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION?	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	I-110 _Flatten Curves	TandY	DIRECTIONAL-Y	HIGH CAPACITY	MODERATE	HIGH	HIGH	HIGH	N/A	YES	Alternative proposed to reconfigure interchange to provide 50 mph design speed for ramps. Cost/benefit questionable. High right of way impacts and costs.	NO
	I-110	Diamond							N/A		Does not apply.	NO
	I-110	PartialCloverleaf							N/A		Does not apply.	NO
	I-110	Cloverleaf							N/A		Does not apply.	NO
	I-110	Directional							N/A		Does not apply.	NO

WASHINGTON - DALRYMPL

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	Washington Modification 1			MODERATE CAPACITY	MODERATE	NONE	LOW	MODERATE	N/A	YES	new left exit for Washington Street off of I-110.	YES
	Washington Modification 2	TandY							N/A		Does not apply.	NO
	Washington Modification 2	Diamond		LOW CAPACITY	NONE	HIGH	HIGH	HIGH	N/A	YES	Current configuration split diamond. Modification to full diamond would worsen current interchange spacing.	NO
	Washington Modification 2	PartialCloverleaf		MODERATE CAPACITY	MODERATE	HIGH	HIGH	HIGH	N/A	YES	High row impact. Proximity violation.	NO
	Washington Modification 2	Cloverleaf		HIGH CAPACITY	MAJOR	HIGH	HIGH	HIGH	N/A	YES	High row impact. Proximity violation.	NO
	Washington Modification 2	Directional		HIGH CAPACITY	MAJOR	HIGH	HIGH	HIGH	N/A	YES	High row impact. Proximity violation.	NO
	Dalrymple Modification_Direct	Diamond	TIGHT URBAN DIAMOND	MODERATE CAPACITY	NONE	HIGH	HIGH	MODERATE	N/A	YES	Alternative provides direct access ramp for Dalrymple across lakes to I-10 EB. High social impact for adding ramp. High right of way costs for acquisition on east side of lakes.	NO
	Dalrymple Modification	TandY							N/A		Does not apply.	NO
	Dalrymple Modification	PartialCloverleaf		MODERATE CAPACITY	MODERATE	HIGH	HIGH	HIGH	N/A	YES	High row impact. Proximity violation.	NO
	Dalrymple Modification	Cloverleaf		HIGH CAPACITY	MAJOR	HIGH	HIGH	HIGH	N/A	YES	High row impact. Proximity violation.	NO
	Dalrymple Modification	Directional		HIGH CAPACITY	MAJOR	HIGH	HIGH	HIGH	N/A	YES	High row impact. Proximity violation.	NO
	Dalrymple Modification_Braided	Diamond	SPLIT DIAMOND	HIGH CAPACITY	MAJOR	LOW	MODERATE	HIGH	N/A	YES	Provide an EB on ramp for Dalrymple. Route entering traffic to use current WB on ramp at Dalrymple and continue with a frontage road to Washington St. where a u-turn will be located. Entrance ramp would then be introduced and be braided with current EB Dalrymple exit.	YES
	Dalrymple Modification_Braided - No Frontage	Diamond	SPLIT DIAMOND	HIGH CAPACITY	MODERATE	LOW	MODERATE	HIGH	N/A	YES	Provide an EB on ramp for Dalrymple. Route entering traffic to use existing Washington Street. Entrance ramp would then be introduced and be braided with current EB Dalrymple exit.	YES




WASHINGTON - DALRYMPLE

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/SOCI AL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	Dalrymple/Washington Consolidated Interchange	Diamond	SPLIT DIAMOND	HIGH CAPACITY	MAJOR	HIGH	LOW	MODERATE	N/A	YES	Reconfigured interchange would serve both Washington and Dalrymple. Restrict EB exit at Washington to I-10 only. This would now serve Washington and Dalrymple. I-110 would use relocated Washington exit. Traffic destined for Dalrymple would then continue via frontage road to Dalrymple. Frontage roads would be constructed for both directions along I-10. Traffic wanting to use EB on ramp from Dalrymple would use existing WB Dalrymple on ramp but continue on frontage. U-turn location at Washington. EB on ramp located off of frontage. Current EB exit at Dalrymple would be closed to accommodate EB on ramp. Washington Street WB on ramp would be closed and traffic would be rerouted to use existing Dalrymple on ramp.	YES
	Dalrymple/Washington Braided Ramps Interchange _Relocate Washington EB exit	Diamond	SPLIT DIAMOND	HIGH CAPACITY	MAJOR	LOW	MODERATE	HIGH	N/A	YES	Same as "Dalrymple Modification - Braided" but relocates the existing EB Washington Street exit further west on I-10 to eliminate the ability to access it from I-110	YES

PERKINS ROAD

ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL /SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
Perkins_Closure				MODERATE				N/A		Partial interchange. Closure of both WB on-ramp and EB off-ramp due to its proximity to Acadian	YES
Perkins_Full Access Interchange	TandY							N/A		Does not apply.	NO
Perkins	Diamond		LOW CAPACITY	NONE	HIGH	HIGH	LOW	N/A	YES	High right of way impact and associated cost. Violates spacing creating unsafe conditions.	NO
Perkins	Partial Cloverleaf		MODERATE CAPACITY	NONE	HIGH	HIGH	MODERATE	N/A	YES	High right of way impact and associated cost. Violates spacing creating unsafe conditions.	NO
Perkins	Cloverleaf		HIGH CAPACITY	NONE	HIGH	HIGH	MODERATE	N/A	YES	High right of way impact and associated cost. Violates spacing creating unsafe conditions.	NO
Perkins	Directional		HIGH CAPACITY	NONE	HIGH	HIGH	MODERATE	N/A	YES	High right of way impact and associated cost. Violates spacing creating unsafe conditions.	NO

ACADIAN THRUWAY

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	Acadian Modification	TandY							N/A		Does not apply	NO
	Acadian Modification	Diamond	TIGHT URBAN DIAMOND	MODERATE CAPACITY	NONE	NONE	LOW	LOW	N/A	NO	Current configuration	N/A
	Acadian Modification - Ramp Lengthening	Diamond	TIGHT URBAN DIAMOND	MODERATE CAPACITY	MODERATE	LOW	LOW	LOW	N/A	NO	Lengthen acceleration/deceleration lengths of the current ramps to provide a safe merging distance.	YES
	Acadian Modification	Diamond	SINGLE-POINT DIAMOND	MODERATE CAPACITY	MODERATE	NONE	LOW	LOW	N/A	YES	May require additional right of way	YES
	Acadian Modification	Diamond	DDI	HIGH CAPACITY	MODERATE	LOW	LOW	LOW	N/A	YES	Potentially require moving southern ramp terminals.	YES
	Acadian Modification	Diamond	Displaced Left	HIGH CAPACITY	MODERATE	MODERATE	LOW	LOW	N/A	YES	Available right of way and proximity of railroad underpass makes this option difficult to construct.	NO
	Acadian Modification	PartialCloverleaf	PAR CLO-A	HIGH CAPACITY	MODERATE	HIGH	HIGH	MODERATE	N/A	YES	Right of way impacts and associated costs are high	NO
	Acadian Modification	Cloverleaf		HIGH CAPACITY	MAJOR	HIGH	HIGH	MODERATE	N/A	YES	Right of way impacts and associated costs are high	NO
	Acadian Modification	Directional		HIGH CAPACITY	MAJOR	HIGH	HIGH	MODERATE	N/A	YES	Right of way impacts and associated costs are high	NO


COLLEGE DRIVE

ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
College Modification	TandY			MAJOR				N/A		Does not apply	NO
College Modification	Diamond	TIGHT URBAN DIAMOND	MODERATE CAPACITY	NONE	NONE		LOW	N/A	NO	Current configuration with 2 quad par clo on north half.	NO
College Modification	Diamond	TIGHT URBAN DIAMOND	MODERATE CAPACITY	NONE	MODERATE	LOW	LOW	N/A	YES	Provide WB on ramp in standard diamond fashion. Would move WB off ramp closer to I-10. Would require row on the nw quadrant. Would require braided ramps with Acadian Interchange to not violate spacing.	NO
College Modification	Diamond	SINGLE-POINT DIAMOND	LOW CAPACITY	MODERATE	HIGH	LOW	LOW	N/A	YES	Right of way impacts and associated costs are high. Potentially have to widen span. Would affect Constitution Ave.	NO
College Modification	Diamond	DDI	LOW CAPACITY	MODERATE	HIGH	MODERATE	LOW	N/A	YES	Right of way impacts and associated costs are high. Potentially have to widen span. Would affect Constitution Ave.	NO
College Modification	Diamond	Displaced Left	MODERATE CAPACITY	MODERATE	HIGH	MODERATE	LOW	N/A	YES	Right of way impacts and associated costs are high. Potentially have to widen span. Would affect Constitution Ave.	NO
College Modification	PartialCloverleaf	PAR CLO-A	HIGH CAPACITY	MODERATE	HIGH	HIGH	MODERATE	N/A	YES	Right of way impacts and associated costs are high	NO
College Modification	Cloverleaf		HIGH CAPACITY	MAJOR	HIGH	HIGH	HIGH	N/A	YES	Right of way impacts and associated costs are high	NO
College Modification	Directional		HIGH CAPACITY	MAJOR	HIGH	HIGH	HIGH	N/A	YES	Right of way impacts and associated costs are high	NO

ACADIAN THRUWAY - COLLEGE DRIVE

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	College/Acadian Frontage	Diamond	TIGHT URBAN DIAMOND	HIGH CAPACITY	MAJOR	MODERATE	HIGH	MODERATE	N/A	YES	Construct frontage roads connecting College and Acadian for EB. Westbound ramps would have substantial impact. Eastbound ramps would have substantial visual impact and potential noise impact to park. Project would serve a small segment of metro area population and not greater Baton Rouge or corridor thru-traffic.	NO

I-10 / I-12 SPLIT

INTERCHANGE FORM	ALTERNATIVE CONCEPT	INTERCHANGE TYPE	INTERCHANGE FORM	TRAFFIC OPERATIONS	SAFETY	RIGHT-OF-WAY	ENVIRONMENTAL/SOCIAL IMPACTS	COSTS	ABLE TO PHASE CONSTRUCTION	INTERCHANGE MODIFICATION REPORT REQ'D	REMARKS	CONSIDERATION TIER 2
	I-10 I-12 Split_College Directional Ramps			HIGH CAPACITY	MAJOR	NONE	LOW	MODERATE	N/A	YES	Provide dedicated exit lanes to College Drive and separate from I-10/12 WB prior to 10/12 merge. This would eliminate current weaving issue at merge.	YES