

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 0011699

OFFICE Design Policy & Support

Richmond County
GDOT District 2 - Tonnille
TIA: SR 104 @ I-20

DATE 4/14/2014

FROM  for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

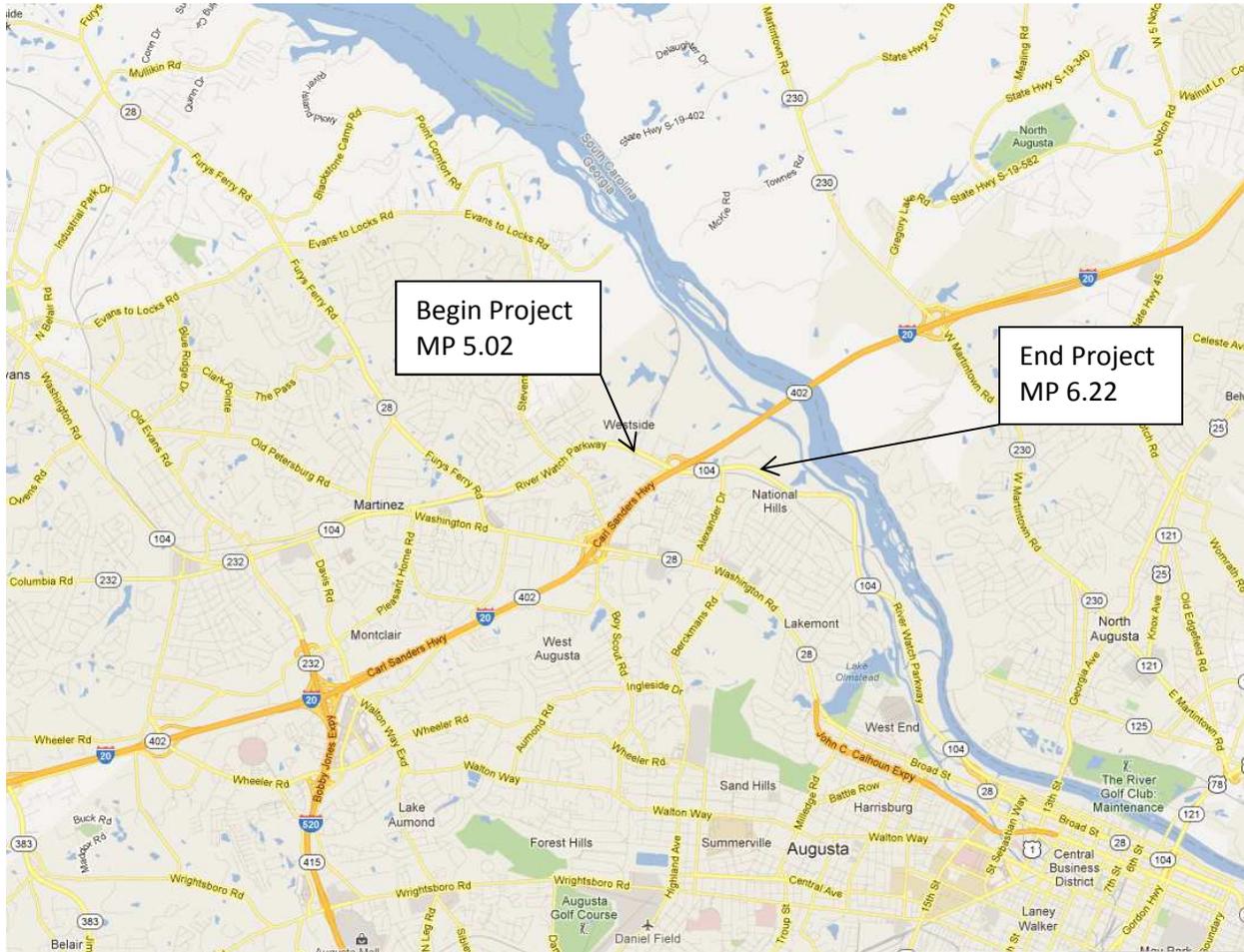
Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Ben Rabun, State Bridge Engineer
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Jeff Fletcher, Statewide Location Bureau Chief
Jimmy Smith, District Engineer
Neal O'Brien, District Preconstruction Engineer
Lynn Bean, District Utilities Engineer
Marshall Troup, Project Manager
BOARD MEMBER - 12th Congressional District

PROJECT LOCATION MAP



S.R. 104/Riverwatch Parkway @ I-20

PLANNING AND BACKGROUND

Project Justification Statement:

The project corridor along S.R. 104/Riverwatch Parkway, from Quarry Road to Rivershoals Parkway, and Interstate 20 are major thoroughfares in the City of Augusta, carrying a significant amount of regional traffic. Within the project limits, Riverwatch Parkway provides a six-lane divided roadway section and drops to a four-lane facility outside the project limits. The existing condition analysis results show that all intersections except the Quarry Road intersection currently operate at an acceptable level of service. The eastbound I-20 on-ramp merge and Riverwatch Parkway arterial also operate at acceptable level of service. The opening year 2018 No-Build scenario shows a deterioration of the operational conditions at all study intersections and in both directions of Riverwatch Parkway due to projected increases in background traffic. This project is needed to provide the existing level of service with the projected increase in traffic for the opening year of 2018.

Existing conditions:

S.R. 104/Riverwatch Parkway between Quarry Road and Rivershoals Parkway currently has six 12-foot lanes with a two foot outside rural paved shoulder and a variable width raised concrete median with left turn lanes on the inside shoulder. The corridor has a design speed of 45 mph except from Gunclub Road to I-20 EB ramps which has a design speed of 35 mph. No sidewalks or bike lanes are present along the corridor. All construction will remain within the existing right of way therefore no utility relocations are anticipated. There are two railroad tracks owned by CSX and run parallel along the south side of Riverwatch Parkway.

Other projects in the area:

PI No. 0008352 – Stevens Creek Rd from Evans to Locks Rd to Claussen Rd
PI No. 227805 – I-20 ATMS/Communication/Surveillance from SR 388/Columbia to SC
PI No. 0011402 – SR 104 from SR 28 to River Shoals Parkway
PI No. 0011403 – SR 28 at SR 104
PI No. 0011404 – SR 104 at CR 564/Stevens Creek Road
PI No. 232020 – SR 104/Riverwatch Parkway from I-20 to/and along Jones Street

MPO: Augusta TMA

MPO Project ID RC07-000142

Regional Commission: Central Savannah River RC

RC Project ID RC07-000142

Congressional District(s): 12

Federal Oversight: Full Oversight Exempt State Funded Other

Projected Traffic: AADT

Current Year (2013): 30,650 Open Year (2018): 33,000 Design Year (2038): 44,500
Traffic Projections Performed by: *Michael Baker Jr., Inc.*

Functional Classification (Mainline): Urban Principal Arterial (Quarry Rd. to I-20)

Functional Classification (Mainline): Urban Freeway and Expressway (I-20 to River Shoals Pkwy.)

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:

Warrants met: None Bicycle Pedestrian Transit

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? No Yes

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required? No Yes
 Preliminary Pavement Type Selection Report Required? No Yes
 Feasible Pavement Alternatives: HMA PCC HMA & PCC

DESIGN AND STRUCTURAL

Description of the proposed project: This project consists of a range of improvements to S.R. 104/Riverwatch Parkway between Quarry Road and Rivershoals Parkway in Augusta, Georgia located in Richmond County. The corridor has a design speed of 45 mph except from Gunclub Road to I-20 EB ramps which has a design speed of 35 mph. The roadway currently has six 12-foot lanes with a two foot outside rural paved shoulder and a variable width raised concrete median with left turn lanes on the inside shoulder. The project includes milling and overlaying the entire 1.2 mile project length of Riverwatch Parkway while also widening to develop a second turn lane onto the I-20 EB ramp. This ramp will be widened to accommodate the dual left turn lanes with two 12-foot lanes and a 10-foot outside rural shoulder. The I-20 WB ramp will be widened to accommodate dual right turns onto Riverwatch Parkway westbound while narrowing the current travel lanes to 11-foot each. Claussen Road will be widened to add a dedicated right turn lane onto Riverwatch Parkway eastbound as well as reconstructing the railroad crossing. All construction will remain within the existing right of way, and there will be no utility relocations.

Major Structures:

Structure	Existing	Proposed
ID # 245-0049-0 I-20 over Riverwatch Pkwy	Four span steel girder bridge measuring approximately 314-ft in length and 152-ft in total width that crosses over Riverwatch Parkway. The existing sufficiency rating is 79.81.	None
Retaining walls	None	265 LF Type 2A and 265 LF Type 2B concrete side barrier along S.R. 104 from Sta. 127+70 to 133+00 RT

Mainline Design Features: S.R. 104/Riverwatch Parkway/ Urban Principal Arterial (Quarry Rd. to I-20) and Urban Freeway and Expressway (I-20 to River Shoals Pkwy.)

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	6	N/A	6
- Lane Width(s)	12-ft	12-ft	12-ft
- Median Width & Type	Variable Raised	20-ft Raised	Variable Raised
- Outside Shoulder or Border Area Width	2-ft Total 2-ft Paved	8-ft Total 2-ft Paved	8-ft Total 2-ft Paved
- Outside Shoulder Slope	Match Travel Lanes	6 %	6 %
- Inside Shoulder Width	None	N/A	None
- Sidewalks	None	N/A	None
- Auxiliary Lanes	None	N/A	None
- Bike Lanes	None	N/A	None
Posted Speed	45		45
*Gun Club Rd. to I-20 EB Ramps	35		35
Design Speed	45	45	45
*Gun Club Rd. to I-20 EB Ramps	35	35	35
Min Horizontal Curve Radius	1625'	643' (45 mph)	1625'
*Gun Club Rd. to I-20 EB Ramps		340' (35 mph)	
Maximum Superelevation Rate	2.2 %	6 %	2.2 %
Maximum Grade	2.2 %	7 %	2.2 %
Maximum Grade – Crossroads			
Riverwest Dr.	2.7 %	11 %	2.7 %
I-20 WB Ramp	2.1 %	5 %	2.1 %

Claussen Rd.	1.8 %	10 %	1.8 %
I-20 EB Ramp	3.9 %	5 %	3.9 %
Access Control	Partial	Partial	Partial
Design Vehicle	WB-67	WB-67	WB-67
Pavement Type	Asphalt	Asphalt	Asphalt

*According to current GDOT design policy if applicable

Major Interchanges/Intersections:

S.R. 104/Riverwatch Parkway @ I-20 is a partial cloverleaf with ramps in two quadrants which are on both sides of I-20. The intersection consists of a steel girder bridge carrying six lanes of I-20 over six lanes of Riverwatch Parkway. Per attached correspondence with FHWA it has been determined that an IMR is not required.

Lighting required: No Yes

Off-site Detours Anticipated: No Undetermined Yes

Transportation Management Plan [TMP] Required: No Yes

If Yes: Project classified as: Non-Significant Significant

TMP Components Anticipated: TTC TO PI

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	NO	Undeter- mined	YES	Appvl Date (if applicable)
1. Design Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Lane Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Shoulder Width**	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Bridge Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Horizontal Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Superelevation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Vertical Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8. Grade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Stopping Sight Distance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Cross Slope	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Vertical Clearance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Lateral Offset to Obstruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Bridge Structural Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**S.R. 104/Riverwatch Parkway heading eastbound under I-20 has an existing one foot shoulder then a barrier, which does meet AASHTO criteria, due to the existing railroad on the other side of the barrier. The design proposes the addition of a second left turn lane on Riverwatch Parkway for turn movements on I-20 EB and therefore must be widened to the south side. To prevent impacts to the railroad the proposed shoulder must match the existing with a one foot shoulder with barrier.

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewing Office	No	Undeter-- mined	Yes	Appvl Date (if applicable)
1. Access Control/Median Openings	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Intersection Sight Distance	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Intersection Skew Angle	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Lateral Offset to Obstruction	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Rumble Strips	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Safety Edge	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Median Usage	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Roundabout Illumination Levels	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Complete Streets	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. ADA & PROWAG	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. GDOT Construction Standards	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. GDOT Drainage Manual	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. GDOT Bridge & Structural Manual	Bridges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

VE Study anticipated: No Yes Completed – Date:

UTILITY AND PROPERTY

Temporary State Route needed: No Yes Undetermined

Railroad Involvement: There are two railroad tracks owned by CSX and run parallel along the south side of Riverwatch Parkway. There will be need for coordination with CSX due to the widening and reconstruction of the railroad crossing at Claussen Road as well as the widening along Riverwatch Parkway to develop the second left turn lane on I-20 EB ramp. There has been no coordination to this date but this process will begin as early as practical.

Utility Involvements: None anticipated

SUE Required: No Yes Undetermined

Public Interest Determination Policy and Procedure recommended (Utilities)? No Yes

Right-of-Way (ROW): Existing width: 230-420 ft

Required Right-of-Way anticipated: None Yes Undetermined

Easements anticipated: None Temporary Permanent Utility Other

Anticipated total number of impacted parcels: 0

Displacements anticipated: Businesses: 0

Residences: 0

Other: 0

Total Displacements: 0

Location and Design approval: Not Required Required

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: None

Context Sensitive Solutions: None

ENVIRONMENTAL & PERMITS

Anticipated Environmental Document:

GEPA: **NEPA:** CE EA/FONSI EIS

MS4 Permit Compliance – Is the project located in a MS4 area? No Yes

Environmental Permits/Variances/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Forest Service/Corps Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. CWA Section 404 Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Tennessee Valley Authority Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Buffer Variance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. NPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. FEMA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

11. Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Other Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Is a PAR required? No Yes Completed – Date:

Environmental Comments and Information:

NEPA/GEPA: A NEPA Categorical Exclusion (CE) is anticipated for this project. Section 4(f) impacts are not anticipated.

Ecology: An ecology assessment will be required to evaluate the presence of any waters of the US and/or threatened or endangered species.

History: The project will be evaluated for historic resources. No impacts to historic resources are anticipated; however, a historic resources survey report will be completed.

Archeology: An archeology survey has not been conducted at this time. The area is highly developed and the potential for archeology sites is low. However, a survey will be conducted.

Air Quality:

Is the project located in a PM 2.5 Non-attainment area? No Yes

Is the project located in an Ozone Non-attainment area? No Yes

Is a Carbon Monoxide hotspot analysis required? No Yes

Noise Effects: The project would not add capacity; therefore, a traffic noise model would not be required.

Public Involvement: Public Information meeting held on October 3, 2012 in the Warren Road Community Center

Major stakeholders: Traveling Public

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: None

Early Completion Incentives recommended for consideration: No Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: N/A

Concept Meeting: December 11, 2013

Other coordination to date: None

Project Activity	Party Responsible for Performing Task(s)
Concept Development	City of Augusta/Michael Baker
Design	City of Augusta/Michael Baker
Right-of-Way Acquisition	N/R
Utility Relocation	Not Anticipated
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, & Permits	City of Augusta/Michael Baker
Environmental Mitigation	City of Augusta/Michael Baker
Construction Inspection & Materials Testing	GDOT

Project Cost Estimate Summary and Funding Responsibilities:

	Breakdown of PE	ROW	Reimb. Utility*	CST*	Env. Mitigation	Total Cost
Funded By	City of Augusta/ TIA	TIA	GDOT/TIA TBD (ERP)	GDOT/TIA	GDOT	(ERP) \$7,285,499
\$ Amount	\$927,549	\$0	\$0 (ERP) \$1,133,100 12/16/2013	\$5,224,849.71	\$0	\$6,152,398.71
Date of Estimate	1/21/2014			1/21/2014		

*CST Cost includes: Construction, Engineering and Inspection, and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION # - REIMBURSABLE RAILROAD COSTS

Alternative selection:

Preferred Alternative: S.R. 104/Riverwatch Parkway @ I-20 (Initial Design) \$7,285,499			
Estimated Property Impacts:	None	Estimated Total Cost:	\$5,393,646.99
Estimated ROW Cost:	\$0	Estimated CST Time:	One Year
Rationale: This alternative was chosen because it improves traffic movements and levels of service at key intersections while requiring minimal widening and reconstruction. This alternative stays within the existing right of way and requires no reconstruction of the I-20 bridge. Though this alternative will not have acceptable levels of service throughout the corridor in the design year 2038 build operating condition, it will improve the levels of service for the design year 2018 build condition while requiring minimal construction costs and no right of way.			

No-Build Alternative: S.R. 104/Riverwatch Parkway @ I-20			
Estimated Property Impacts:	None	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	None
Rationale: This alternative was not chosen because it does not improve any of the traffic movements or levels of service of any of the intersections. With the increase in traffic, the levels of service will deteriorate before the 2018 design year.			

Alternative 1: S.R. 104/Riverwatch Parkway @ I-20 (Intermediate Design)			
Estimated Property Impacts:		Estimated Total Cost:	
Estimated ROW Cost:		Estimated CST Time:	Two Years
<p>Rationale: This alternative would incorporate the same changes as the preferred alternative but will also widen Riverwatch Parkway from an existing six-lane to an eight-lane facility and widen several of the other side roads due to adding additional turn lanes. This alternative is not feasible due to the extremely high construction cost of rebuilding the I-20 bridge over Riverwatch Parkway to accommodate the eight-lane facility below and relocating the CSX railroad tracks that are currently located about 15 feet away from the travel lane of the existing six-lane facility.</p>			

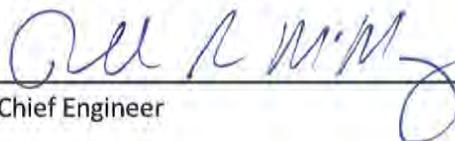
Alternative 2: S.R. 104/Riverwatch Parkway @ I-20 (Ultimate Design)			
Estimated Property Impacts:		Estimated Total Cost:	
Estimated ROW Cost:		Estimated CST Time:	Two Years
<p>Rationale: This alternative would incorporate the same changes as the Intermediate Design alternative but would instead widen Riverwatch Parkway from an existing six-lane to a ten-lane facility between I-20 westbound ramp intersection and the Alexander Drive intersection. It would also widen the existing four-lane facility outside of the project corridor to a proposed six-lane facility. This alternative is not feasible due to the extremely high construction cost of rebuilding the I-20 bridge over Riverwatch Parkway to accommodate the ten-lane facility below and relocating the CSX railroad tracks that are currently located about 15 feet away from the travel lane of the existing six-lane facility.</p>			

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
 - a. Programmed Cost Estimate
 - b. Construction Cost Estimate (CES)
 - c. Completed Fuel & Asphalt Price Adjustment forms
 - d. Preliminary Railroad Cost (Concept Estimate)
4. Crash summaries
5. Traffic diagrams
6. Capacity analysis summary
7. Bridge inventory
8. Concept Team Meeting Minutes – 12/11/2013
9. Lighting Letter from City of Augusta
10. FHWA Concurrence regarding IMR
11. PIOH documentation

APPROVALS

Concur: 
 Director of Engineering

Approve: 
 Chief Engineer

4-8-14
 Date



BEGIN PROJECT STA. 105+55

DESIGN REFINEMENT
ACCEL LANES TOO SHORT. SHOULD BRING RT. TURN INTO MAINLINE RATHER THAN FREE FLOW LANES.
RIVERWEST DR

MARTIN MARIETTA MATERIALS

2006 RIVERWATCH LLC

RAO HOSPITALITY LLC

PILOT DELAWARE LLC

AUGUSTA BASELINE INVESTMENT LLC

CAPITAL LLC

BRANDENBURG CLAUSSEN RD

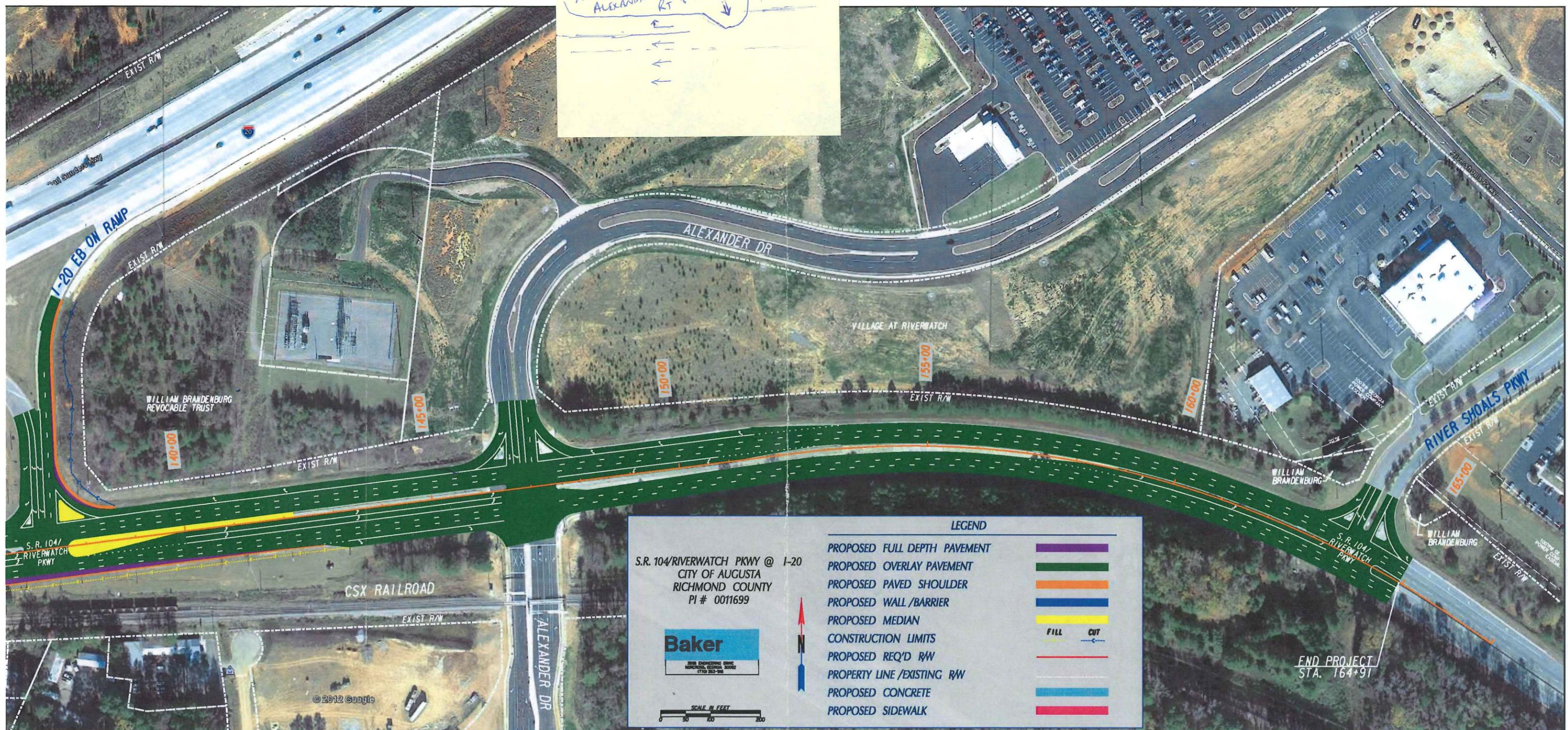
PROPOSED WALL

© 2012 Google

© 2012 Google

DESIGN REFINEMENT

CHECK ACEL DISTANCE & WEAVE (PREFER RIGHT TURN INTO MAINLINE IN URBAN AREAS) ^{ALSO} WHY NOT FIX ALEXANDER W/ 2 THURS + RT & LT?



S.R. 104/RIVERWATCH PKWY @ I-20
CITY OF AUGUSTA
RICHMOND COUNTY
PI # 0011699

Baker
2010 ENGINEERING SERVICE
MEMPHIS, TENNESSEE 38103
9730 853-998

SCALE IN FEET
0 50 100 200

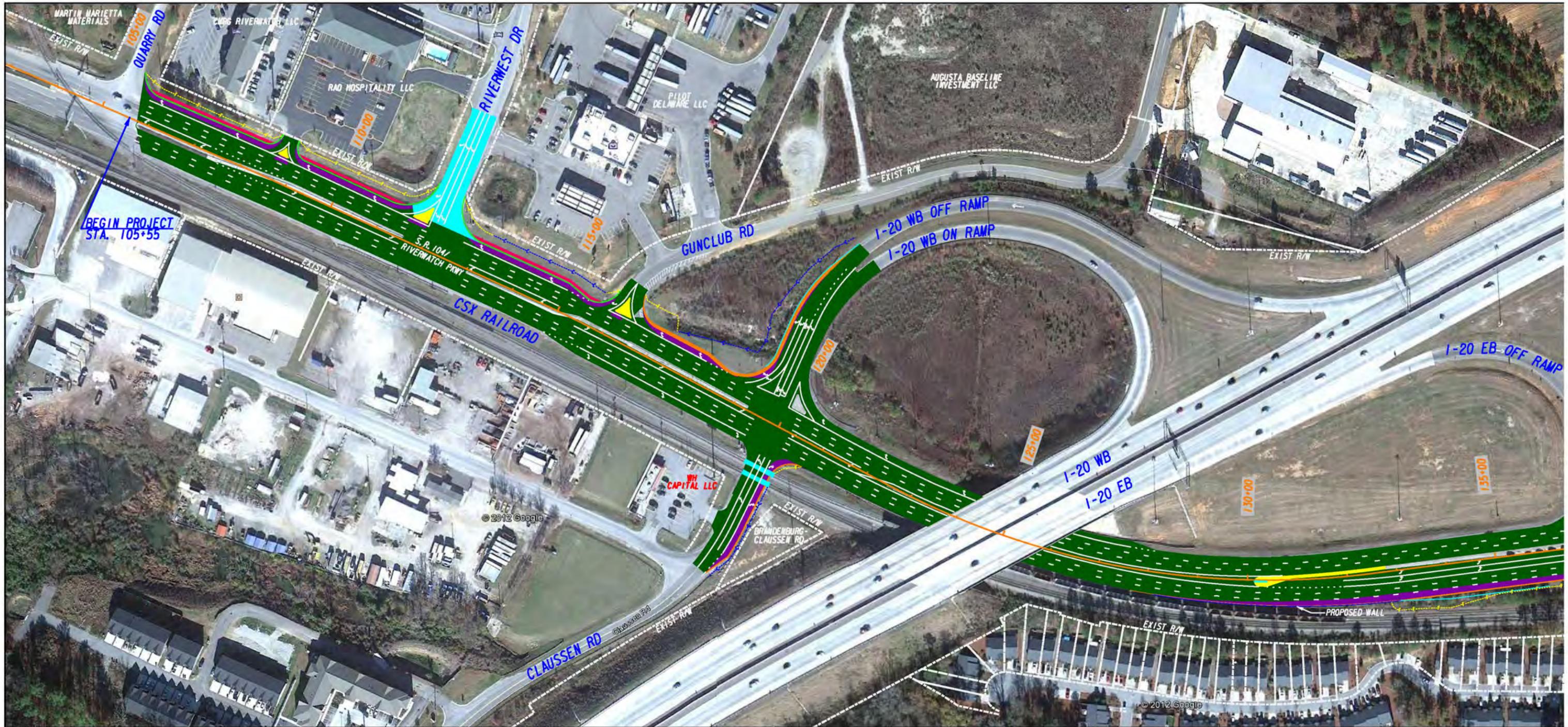
LEGEND

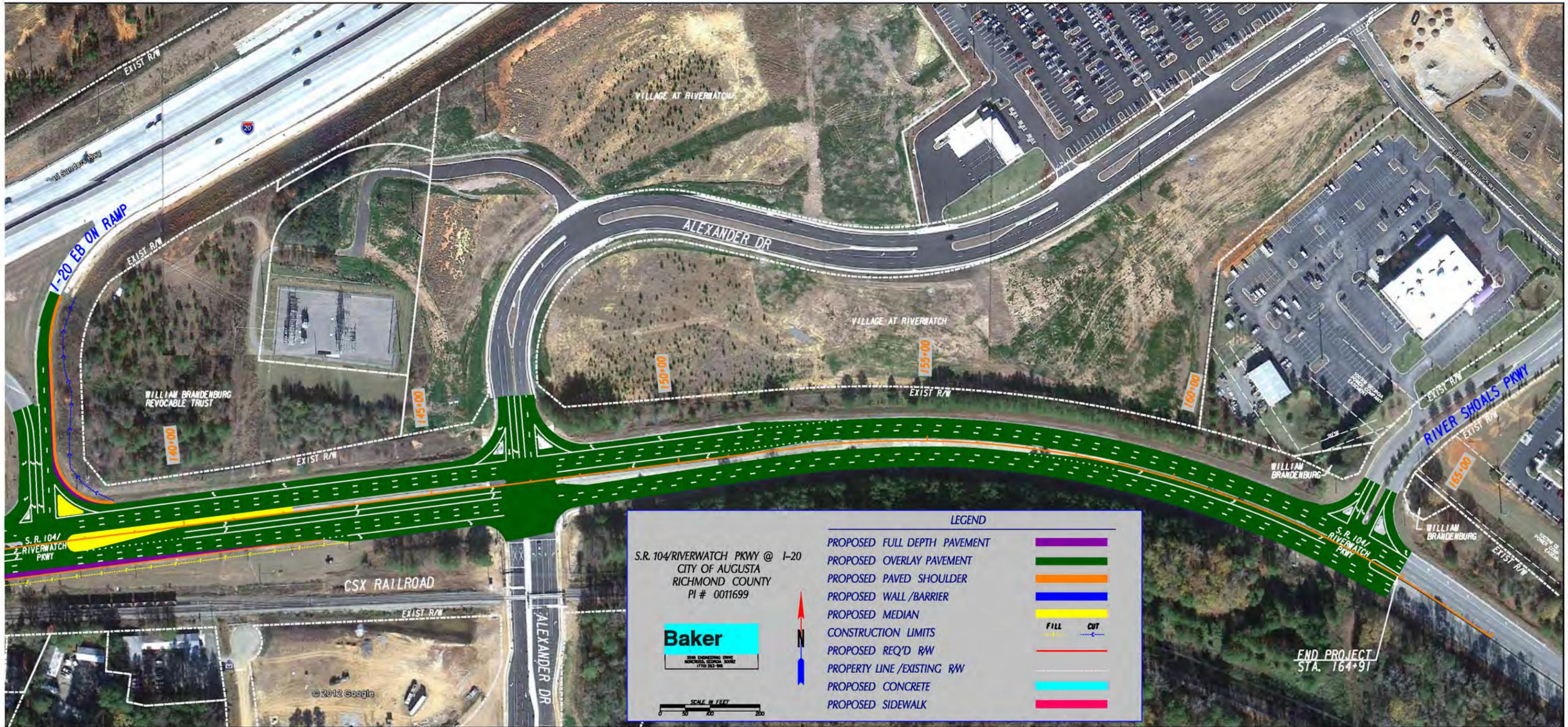
- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED OVERLAY PAVEMENT
- PROPOSED PAVED SHOULDER
- PROPOSED WALL /BARRIER
- PROPOSED MEDIAN
- CONSTRUCTION LIMITS
- PROPOSED REQ'D R/W
- PROPERTY LINE /EXISTING R/W
- PROPOSED CONCRETE
- PROPOSED SIDEWALK

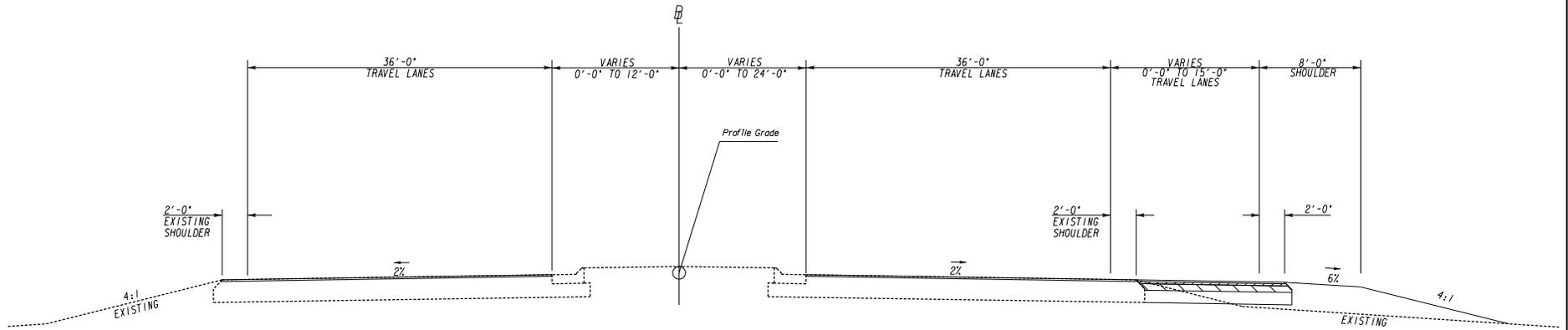
FILL **CUT**

END PROJECT STA. 164+91

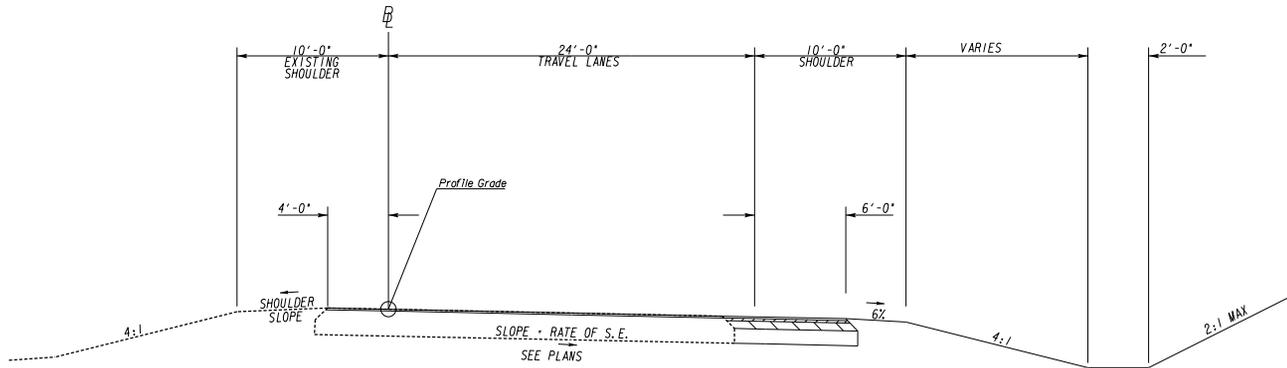
© 2012 Google







S.R. 104/Riverwatch Parkway
Milling, Overlay and Widening
(D.S. 35-45mph)
NORMAL CROWN



1-20 RAMP
Milling, Overlay and Widening
(D.S. 30 mph)
SUPER ELEVATED

3/1/2007
GPM



NOT TO SCALE

REVISION DATES	

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: **TYPICAL SECTIONS**

S.R. 104/RIVERWATCH PARKWAY @ 1-20

DRAWING No.
5-01

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. , **OFFICE**

DATE

P.I. No.

FROM

TO Lisa L. Myers, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER

MNGT LET DATE

MNGT R/W DATE

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$

RIGHT OF WAY \$

UTILITIES \$

* Costs contain % Engineering and Inspection

REASON FOR COST INCREASE

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$ 4,854,406.87	(Base Estimate)
Engineering and Inspection:	\$ 242,720.34	(Base Estimate x 5 %)
Total Liquid AC Adjustment	\$ 127,7422.50	(From attached worksheet)
Construction Total:	\$ 5,224,849.71	

REIMBURSABLE UTILITY COST

Utility Owner

Reimbursable Cost

Attachments

STATE HIGHWAY AGENCY

DATE : 01/21/2014
PAGE : 1

JOB DETAIL ESTIMATE

JOB NUMBER : 0011699_ALT2 SPEC YEAR: 01
DESCRIPTION: S.R. 104/RIVERWATCH PARKWAY @ I-20 ALT2

COST GROUPS FOR JOB 0011699_ALT2

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
LSCP	LANDSCAPING (AC)	1.000	1000000.00000	1000000.00	Y
LTNG	LIGHTING (EA)	1.000	1000000.00000	1000000.00	Y
MISC	MISCELLANEOUS (LS) - RR CROSSING CONSTRUCTION	1.000	1068100.00000	1068100.00	Y
ACTIVE COST GROUP TOTAL				3068100.00	
INFLATED COST GROUP TOTAL				3068100.00	

ITEMS FOR JOB 0011699_ALT2

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0011699	1.000	100000.00	100000.00
0010	210-0100		LS	GRADING COMPLETE - 0011699	1.000	150000.00	150000.00
0015	310-1101		TN	GR AGGR BASE CRS, INCL MATL	1900.000	24.77	47073.81
0020	402-1812		TN	RECYL AC LEVELING, INC BM&HL	100.000	84.59	8459.93
0025	402-3113		TN	RECYL AC 12.5MM SP, GP1/2, BM&HL	6300.000	65.98	415674.00
0030	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	640.000	83.79	53627.16
0035	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	320.000	95.46	30547.80
0040	413-1000		GL	BITUM TACK COAT	3300.000	3.35	11059.98
0044	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	73550.000	0.82	60539.74
0045	439-0026		SY	PLN PC CONC PVMT CL3 12" THK	1750.000	70.58	123523.47
0049	441-0104		SY	CONC SIDEWALK, 4 IN	450.000	44.06	19828.40
0050	441-0206		SY	PLAIN CONC DITCH PAVING, 6 IN	550.000	37.35	20547.62
0055	441-0756		SY	CONC MEDIAN, 8 IN	1600.000	43.03	68849.18
0060	441-6022		LF	CONC CURB & GUTTER, 6"x30"TP2	2800.000	13.14	36814.79
0064	610-0714		SY	REM CONC MEDIAN	4220.000	9.37	39573.68
0065	641-1100		LF	GUARDRAIL, TP T	30.000	93.42	2802.81
0070	641-1200		LF	GUARDRAIL, TP W	620.000	16.93	10502.40
0075	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	2.000	594.00	1188.00
0080	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	1.000	1762.05	1762.06
0085	641-6000		EA	GRDRAIL ANCH TP 10D, SPCL DES	1.000	4270.50	4270.50
0090	441-0301		EA	CONC SPILLWAY, TP 1	2.000	1663.39	3326.80
0095	500-3800		CY	CL A CONC, INCL REINF STEEL	6.000	907.16	5442.98
0100	550-1180		LF	STM DR PIPE 18", H 1-10	50.000	39.02	1951.18
0104	550-1240		LF	STM DR PIPE 24", H 1-10	280.000	35.92	10060.04
0105	550-1300		LF	STM DR PIPE 30", H 1-10	100.000	51.65	5165.86
0109	550-1360		LF	STM DR PIPE 36", H 1-10	250.000	62.04	15512.17
0110	550-1480		LF	STM DR PIPE 48", H 1-10	50.000	85.91	4295.96
0114	550-1540		LF	STM DR PIPE 54", H 1-10	10.000	132.82	1328.24
0115	550-2180		LF	SIDE DR PIPE 18", H 1-10	130.000	26.86	3493.09
0120	550-3318		EA	SAFETY END SECTION 18", STD, 4:1	1.000	499.34	499.34

STATE HIGHWAY AGENCY

DATE : 01/21/2014
 PAGE : 2

JOB DETAIL ESTIMATE

0125	550-4118	EA	FLARED END SECT 18 IN, SIDE DR	1.000	304.76	304.77
0130	576-1010	LF	SLOPE DRAIN PIPE, 10 IN	100.000	39.00	3900.75
0135	603-2012	SY	STN DUMPED RIP RAP, TP 1, 12"	100.000	58.90	5890.00
0140	603-7000	SY	PLASTIC FILTER FABRIC	100.000	3.46	346.87
0144	668-1100	EA	CATCH BASIN, GP 1	7.000	2150.39	15052.78
0145	668-2100	EA	DROP INLET, GP 1	5.000	2041.18	10205.93
0149	668-4300	EA	STORM SEW MANHOLE, TP 1	3.000	1756.88	5270.66
0150	163-0232	AC	TEMPORARY GRASSING	2.000	56.26	112.53
0155	163-0240	TN	MULCH	42.000	227.71	9563.84
0160	163-0300	EA	CONSTRUCTION EXIT	4.000	1164.31	4657.26
0165	163-0503	EA	CONSTR AND REMOVE SILT CONTROL GATE, TP 3	8.000	354.12	2833.02
0170	163-0520	LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	300.000	13.48	4046.47
0175	163-0528	LF	CONSTR AND REM FAB CK DAM -TP C SLT FN	1300.000	3.30	4293.54
0180	163-0541	EA	CONSTR & REM ROCK FILTER DAMS	2.000	337.28	674.58
0185	165-0010	LF	MAINT OF TEMP SILT FENCE, TP A	1120.000	0.68	769.20
0190	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	3760.000	0.62	2351.09
0195	165-0110	EA	MAINT OF ROCK FILTER DAM	2.000	97.14	194.30
0200	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	2.000	196.37	392.74
0205	167-1500	MO	WATER QUALITY INSPECTIONS	24.000	772.11	18530.68
0210	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	1120.000	2.06	2310.03
0215	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	3760.000	3.09	11653.14
0220	700-6910	AC	PERMANENT GRASSING	3.000	460.14	1380.44
0225	700-7000	TN	AGRICULTURAL LIME	8.000	21.62	173.03
0230	700-8000	TN	FERTILIZER MIXED GRADE	2.000	478.93	957.88
0235	700-8100	LB	FERTILIZER NITROGEN CONTENT	130.000	2.88	375.33
0240	716-2000	SY	EROSION CONTROL MATS, SLOPES	3000.000	1.27	3837.18
0245	636-1020	SF	HWY SGN, TP1MAT, REFL SH TP3	50.000	13.97	698.87
0250	636-2070	LF	GALV STEEL POSTS, TP 7	100.000	7.74	774.56
0255	638-1006	LS	STR SUP OVHD SIGN, TPVI, STA - 0011699	1.000	200000.00	200000.00
0260	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	12200.000	0.47	5741.56
0265	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	400.000	0.73	295.03
0270	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	24400.000	0.26	6477.71
0275	654-1001	EA	RAISED PVMT MARKERS TP 1	100.000	3.80	380.54
0280	621-4021	LF	CONCRETE SIDE BARRIER, TY 2A	265.000	333.52	88382.82
0285	621-4022	LF	CONCRETE SIDE BARRIER, TY 2B	265.000	436.81	115756.75
ITEM TOTAL						1786306.87
INFLATED ITEM TOTAL						1786306.87
TOTALS FOR JOB 0011699_ALT2						
ESTIMATED COST:						4854406.87
CONTINGENCY PERCENT (5.0):						242720.34
ESTIMATED TOTAL:						5097127.21

PROJ. NO.

S.R. 104/Riverwatch Pkwy @ I-20

CALL NO.

P.I. NO.

0011699

DATE

1/20/2014

INDEX (TYPE)

REG. UNLEADED

Jan-14

\$ 3.240

DIESEL

\$ 3.828

LIQUID AC

\$ 557.00

Link to Fuel and AC Index:

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)

122985.6

\$

122,985.60

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$ 891.20

Monthly Asphalt Cement Price month project let (APL)

\$ 557.00

Total Monthly Tonnage of asphalt cement (TMT)

368

ASPHALT	Tons	%AC	AC ton
Leveling	100	5.0%	5
12.5 OGFC		5.0%	0
12.5 mm	6300	5.0%	315
9.5 mm SP		5.0%	0
25 mm SP	640	5.0%	32
19 mm SP	320	5.0%	16
	7360		368

BITUMINOUS TACK COAT

Price Adjustment (PA)

\$ 4,736.90

\$

4,736.90

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$ 891.20

Monthly Asphalt Cement Price month project let (APL)

\$ 557.00

Total Monthly Tonnage of asphalt cement (TMT)

14.17383304

Bitum Tack

Gals	gals/ton	tons
3300	232.8234	14.173833

PROJ. NO.

S.R. 104/Riverwatch Pkwy @ I-20

CALL NO.

P.I. NO.

0011699

DATE

1/20/2014

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)						0	\$	-
Monthly Asphalt Cement Price month placed (APM)		Max. Cap	60%	\$	891.20			
Monthly Asphalt Cement Price month project let (APL)				\$	557.00			
Total Monthly Tonnage of asphalt cement (TMT)					0			

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT	\$	127,722.50
-----------------------------------	----	-------------------

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: PI #0011699, Richmond County **OFFICE:** State Utilities Office

FROM:  for:
Michael J. Bolden, State Utility Engineer **DATE:** December 16, 2013

TO: Genetha Rice-Singleton, State Program Delivery Engineer
Attn: George Brewer, Project Manager

SUBJECT: PRELIMINARY RAILROAD COST (CONCEPT ESTIMATE)

A review of railroads located within the project limits on the above referenced project has been conducted based on the proposed concept report provided. Listed below is a breakdown of the estimated railroad costs:

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
CSX – PE for at-grade RR crossing	\$0.00	\$65,000.00
CSX – CE for at-grade RR crossing	\$0.00	\$1,068,100.00
Total Reimbursement Cost:	\$0.00	\$1,133,100.00

Total railroad surface work reimbursable cost for the above project is estimated to be:

\$1,133,100.00.

Please note that this amount does not include other reimbursable utility costs that may be associated with this project. Please keep the railroad costs separate from other utilities in your designer's cost estimate.

If you have any questions, please contact Jill Franks, (404) 631-1370, jfranks@dot.ga.gov or Marcela Coll, (404)631-1372 mcoll@dot.ga.gov.

MJB:jlf

cc: Jun Birnkammer, State Utilities Preconstruction Engineer
Angela Robinson, State Financial Management Administrator
Lynn Bean, District 2 Utilities Engineer
Stanley Mack, Railroad Crossing Program Manager

Crash Summary

The analysis of most recent three year (2007-2009) crash data shows that the corridor as a whole operates below the statewide rates for Principal Arterials. The intersections within the study area are below the FHWA Actual Crash Rate threshold of 150 collisions per 100 million entering vehicles except at the intersection of Riverwatch Parkway and the I-20 Westbound Ramp/Claussen Road. Sixty six crashes occurred at this intersection in the 2007-2009 analysis period. While the majority of all collisions were rear-end collisions (nearly 75 percent), a significant portion of the rear-end collisions occurred on the eastbound approach to the intersection (60 percent). Since the three through lanes and the separate right turn lane on the eastbound approach are controlled only by two signals, it may be possible to reduce the frequency of the occurrence of the rear-end accidents on the eastbound approach by enhancing signal visibility by providing additional signal heads.

Crash History

For the purposes of this analysis, the crash data available for the most recent three years (2007, 2008, and 2009) were used. A summary of the crashes for each year, sorted by location, is shown below in **Table 1**.

Table 1: Study Corridor Crash History

		Year			TOTAL
		2007	2008	2009	
Riverwatch Parkway	East of Rivershoals Parkway	0	0	0	0
	At Rivershoals Parkway	0	0	0	0
	Between Rivershoals Parkway and Alexander Drive	0	1	1	2
	At Alexander Drive	8	11	14	33
	Between Alexander Drive and I-20 EB Ramps	3	3	0	6
	At I-20 EB Ramps	0	3	2	5
	Between I-20 EB Ramps and WB Ramps/Claussen Rd	2	7	5	14
	At I-20 WB Ramps/Claussen Road	20	31	15	66
	Between I-20 WB Ramps/Claussen Rd and Gunclub Road	0	0	0	0
	At Gunclub Road	3	2	0	5
	Between Gunclub Road and Riverwest Drive	0	0	0	0
	At Riverwest Drive	0	0	1	1
	Between Riverwest Drive and Quarry Road	0	0	0	0
	At Quarry Road	1	0	3	4
	West of Quarry Road	0	0	0	0
Riverwatch Parkway Corridor		37	58	41	136

Two intersections in the corridor have a significant number of crashes recorded: Alexander Drive and the I-20 Westbound Ramp/Claussen Road intersections with 33 and 66 crashes respectively. The remaining intersections in the corridor have five or fewer crashes recorded from 2007 through 2009. These intersections, which were not individually analyzed but were included in the segment analyses, include the Riverwatch Parkway intersections with:

- Rivershoals Parkway
- The I-20 Eastbound Ramp
- Gunclub Road
- Riverwest Drive and
- Quarry Road.

Crash Details

To determine the most common types of crashes along the study corridor, all crashes that occurred between 2007 and 2009 were sorted by type of collision. The majority of crashes were *Rear End* collisions (69.1%), which are characteristic of congested urban areas and corridors controlled by closely spaced traffic signals. The second most common crash type in the study corridor was *Sideswipe, Same Direction*, which accounts for 12.5% of crashes. The third most frequent type of crash in the corridor was *Angle*, which totals 9.6% of all the crashes. All crashes for the corridor, sorted by type of collision, are shown in **Table 2**.

The crashes were also quantified by injury status, lighting, and surface condition at the time of collision. As shown in **Table 3**, a large majority of crashes had no injuries (86.8%), occurred during daylight (82.4%) on dry pavement (84.6%).

Table 2: Crash Details – Type of Collision

		Riverwatch Parkway																											Riverwest Parkway Corridor Total																				
		At Rivershoals Parkway			Between Rivershoals and Alexander			At Alexander Dr			Between Alexander Dr and 20 EB Ramps			At I-20 EB Ramps			Between I-20 EB and WB Ramps			At I-20 WB Ramps/Clausson Rd			Between I-20 WB Ramps and Gunclub Rd			At Gunclub Rd			Between Gunclub Rd and Riverwest Dr			At Riverwest Drive			Between Riverwest Dr and Quarry Rd			At Quarry Rd			Riverwest Parkway Corridor Total								
		Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct						
Rear End	2007	0			0			5	8.7	78.8%	2			0			1	0.3	20.0%	5	3.0	64.3%	15	16.3	74.2%	0			1	0.7	33.3%	0			0			0			0			1	0.7	50.0%	25	31.3	69.1%
	2008	0	0.0	0.0%	0	0.0	0.0%	10			3	1.7	83.3%	1			3			26			0			0			0			0			0			0			0			0					
	2009	0			0			11			0			0			0			8			0			0			0			0			0			0			1			3	4.3	9.6%			
Angle	2007	0			1	0.3	50.0%	2	1.7	15.2%	0			0			0			1	0.3	7.1%	1	1.7	7.6%	0			0			0			0			0			0			0	0.3	25.0%	3	4.3	9.6%
	2008	0	0.0	0.0%	0	0.3	50.0%	1	1.7	15.2%	0			0			0			0			0			0			0			0			0			0			0			0					
	2009	0			0			2			0			0			0			0			1			0			0			0			0			0			1			4					
Not a Collision with a motor vehicle	2007	0			0			1			0			0			0			0			1	1.3	6.1%	0			0			0			0			0			0			0			1	3.7	8.1%
	2008	0	0.0	0.0%	0	0.3	50.0%	0	0.7	6.1%	0	0.0	0.0%	0	0.7	40.0%	0	0.0	0.0%	1	1.3	6.1%	0	0.0	0.0%	1	0.3	16.7%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.3	25.0%	0			1			2		
	2009	0			1			0			0			2			0			3			0			0			0			0			0			1			8			0					
Sidesipe - same direction	2007	0			0			0			1	0.3	16.7%	0	0.7	40.0%	1	1.3	28.6%	4	2.7	12.1%	0			1	0.7	33.3%	0			0			0			0			0			0			7	5.7	12.5%
	2008	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	2	0.7	40.0%	1	1.3	28.6%	1	2.7	12.1%	0	0.0	0.0%	0	0.7	33.3%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0			4		
	2009	0			0			0			0			2			3			0			1			0			0			0			0			0			6			0					
Head on	2007	0			0			0			0			0			0			0			0			0			1			0			0			0			0			1	0.3	0.7%			
	2008	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.3	16.7%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0		
	2009	0			0			0			0			0			0			0			0			0			0			0			0			0			0			0					
Unknown	2007	0			0			0			0			0			0			0			0			0			0			0			0			0			0			0					
	2008	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%			
	2009	0			0			0			0			0			0			0			0			0			0			0			0			0			0			0					
Other	2007	0			0			0			0			0			0			0			0			0			0			0			0			0			0			0					
	2008	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%			
	2009	0			0			0			0			0			0			0			0			0			0			0			0			0			0			0					
Total	2007	0			1	0.7	100.0%	8	11.0	100.0%	3	2.0	100.0%	3	1.7	100.0%	2	1.7	100.0%	7	4.7	100.0%	20	22.0	100.0%	0			3	2.0	100.0%	0			0			0			0			1	1.3	100.0%	37	45.3	100.0%
	2008	0	0.0	0.0%	1	0.7	100.0%	11	11.0	100.0%	3	2.0	100.0%	3	1.7	100.0%	7	4.7	100.0%	31	22.0	100.0%	0	0.0	0.0%	2	2.0	100.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	58	45.3	100.0%
	2009	0			1			14			0			2			5			15			0			1			0			0			0			3			41			0					

Table 3: Summary of Crash Statistics

		Total Crashes	Fatal Crashes (Number of Fatalities)	Injury Crashes (Number of Injuries)	Property Damage Only Crashes	Lighting Day (Night)	Pavement Dry (Wet)
Total Riverwatch Parkway Corridor (Segments and Intersections)	2007	37	0 (0)	6 (13)	31	30 (7)	33 (4)
	2008	58	0 (0)	5 (9)	53	50 (8)	49 (9)
	2009	41	0 (0)	7 (11)	34	32 (9)	33 (8)
	Total	136	0 (0)	18 (33)	118	112 (24)	115 (21)
	Percent		0.0%	13.2%	86.8%	82.4%	84.6%

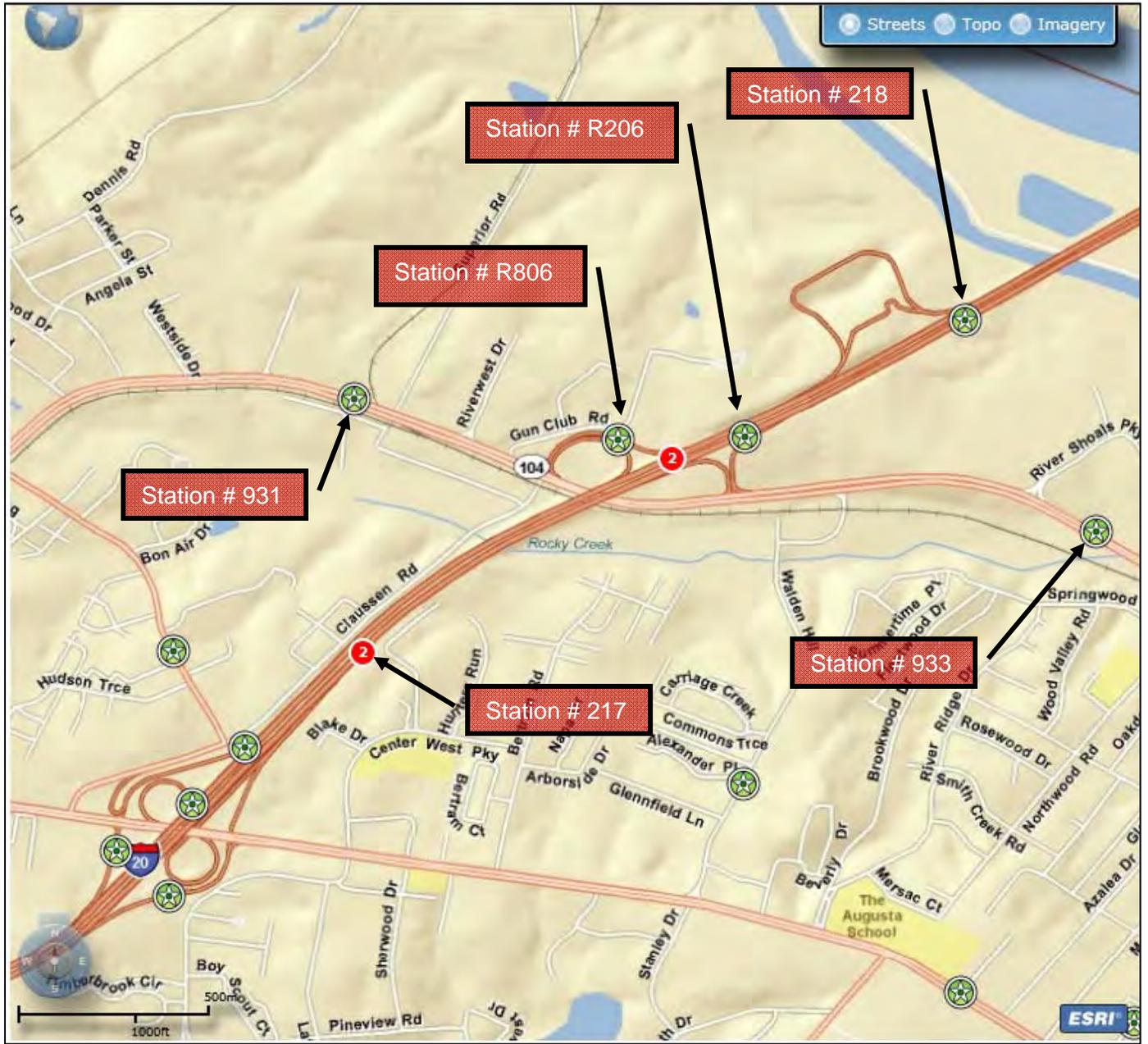
Historical AADT and Traffic Growth Rate

Street Name (GDOT Count ID)	Location	2006 GDOT AADT	2010 GDOT AADT	Calculated Growth Rate (%)	Growth Rate used in the Report	Existing Year (2012) AADT	Opening Year (2018) AADT	Design Year (2038) AADT
Riverwatch Parkway; station # 931	West of Quarry Road intersection	27,400	29,300	1.36%	1.50%	30,200	33,000	44,500
Riverwatch Parkway; station # 933	East of Rivershoals Drive intersection	24,400	20,500	- 3.44%		21,100	23,100	31,100
I-20 Freeway; station # 217	South of Riverwatch Parkway interchange	50,600	48,500	-0.87%	1.0%	49,500	52,500	64,000
I-20 Freeway; station # 218	North of GA welcome center	52,500	50,300	-0.84%		51,300	54,500	66,500
I-20 ramp; station # R206	Eastbound off-ramp	5,900*	4,300	-5.14%		4,400	4,600	5,600
I-20 ramp; station # R806	Westbound off-ramp	6,200*	4,700	-4.41%		4,800	5,100	6,200
Street Name	Location	2011 CEG AADT	2031 CEG AADT	Calculated Growth Rate (%)	Growth Rate used in the Report	Existing Year (2012) AADT	Opening Year (2018) AADT	Design Year (2038) AADT
Alexander Drive**	South leg of Riverwatch Parkway and Alexander Drive intersection	4,165	6,278	2.07%	2.0%	4,300	4,800	7,200

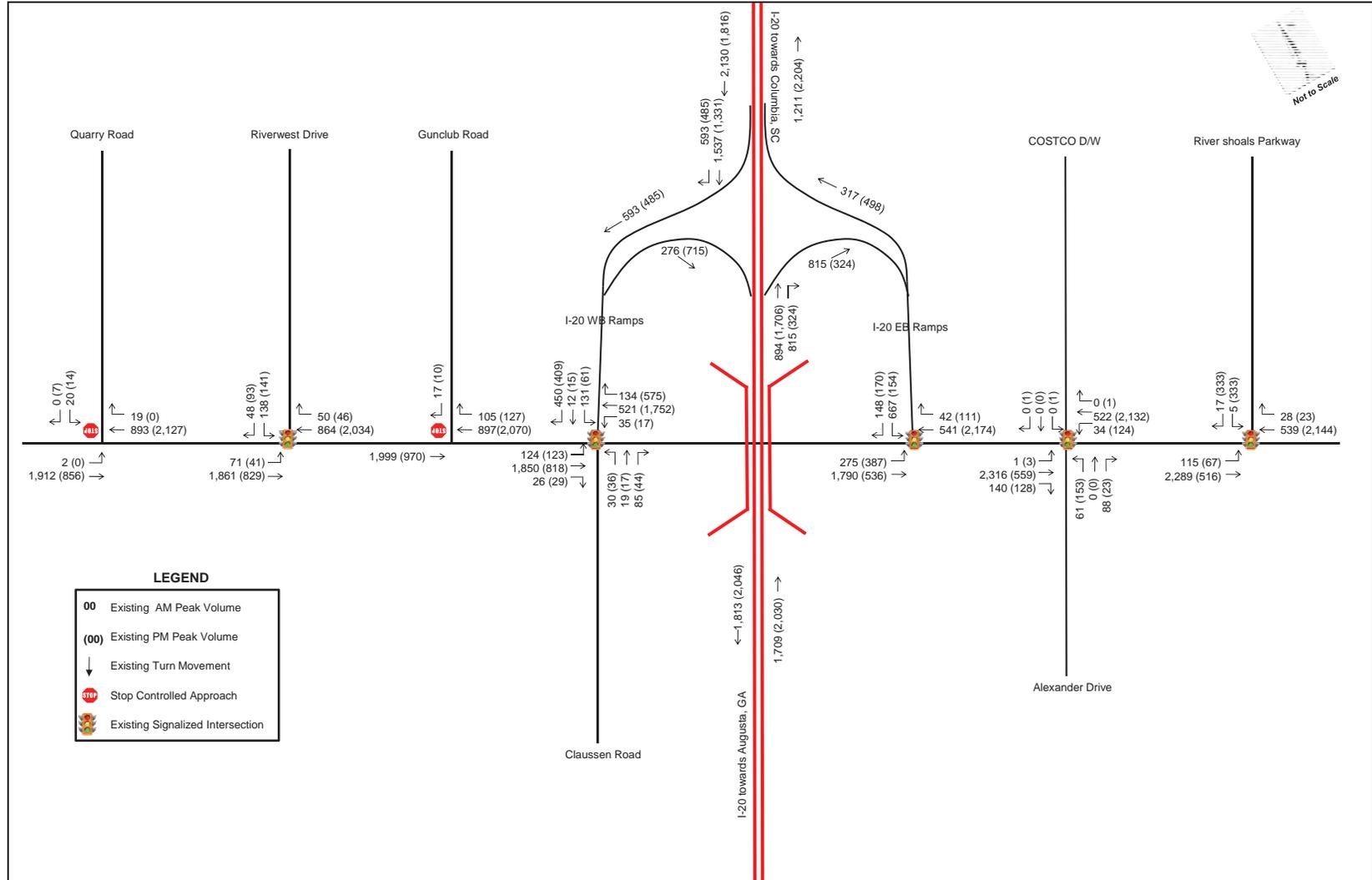
Note: * 2005 AADT was used at the I-20 ramps. The 2006 AADT at the ramps were not available.

** Courtesy: AADT data obtained from Cranston Engineering Group, P.C. (CEG)

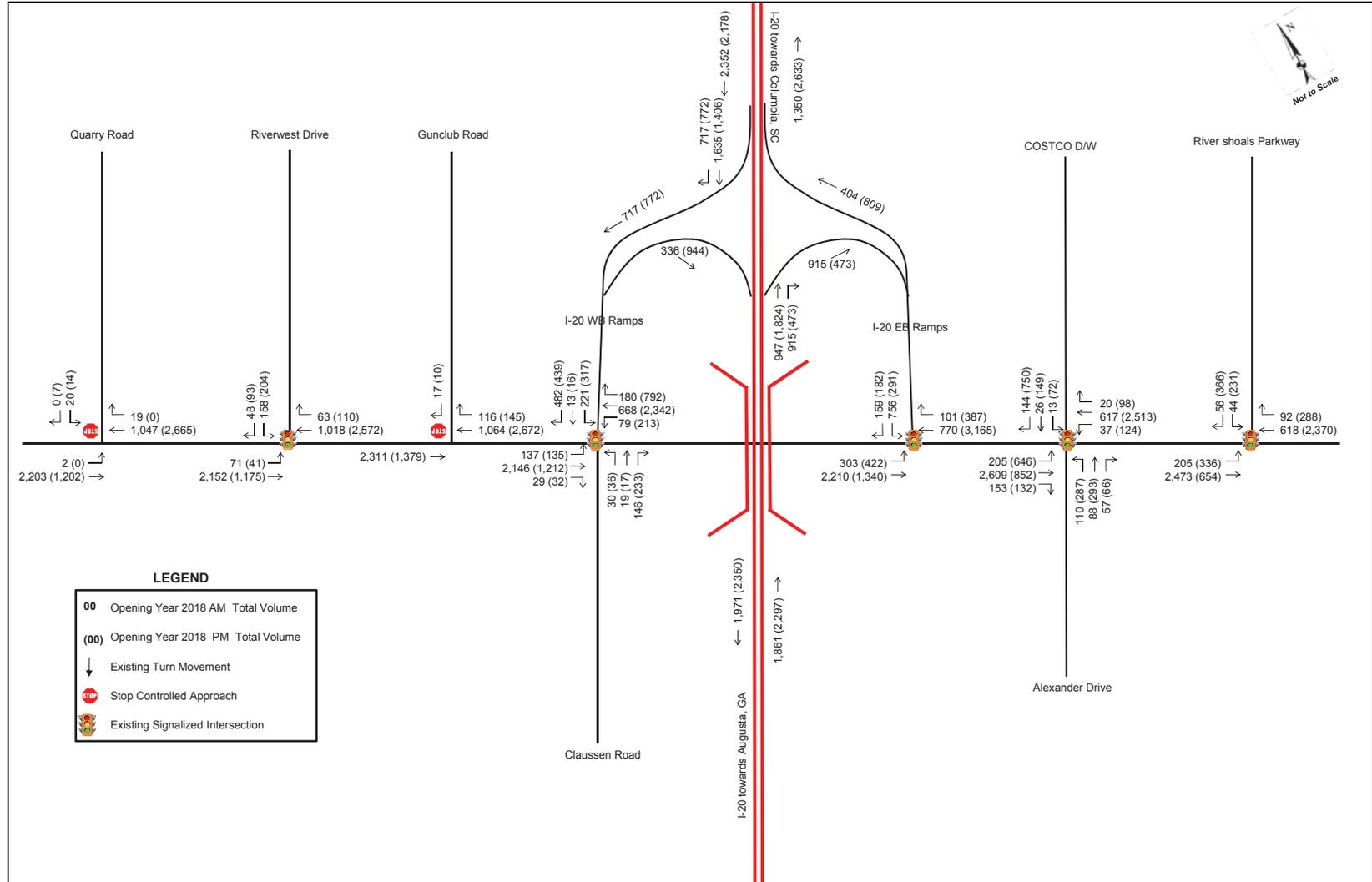
GDOT Count Station Locations



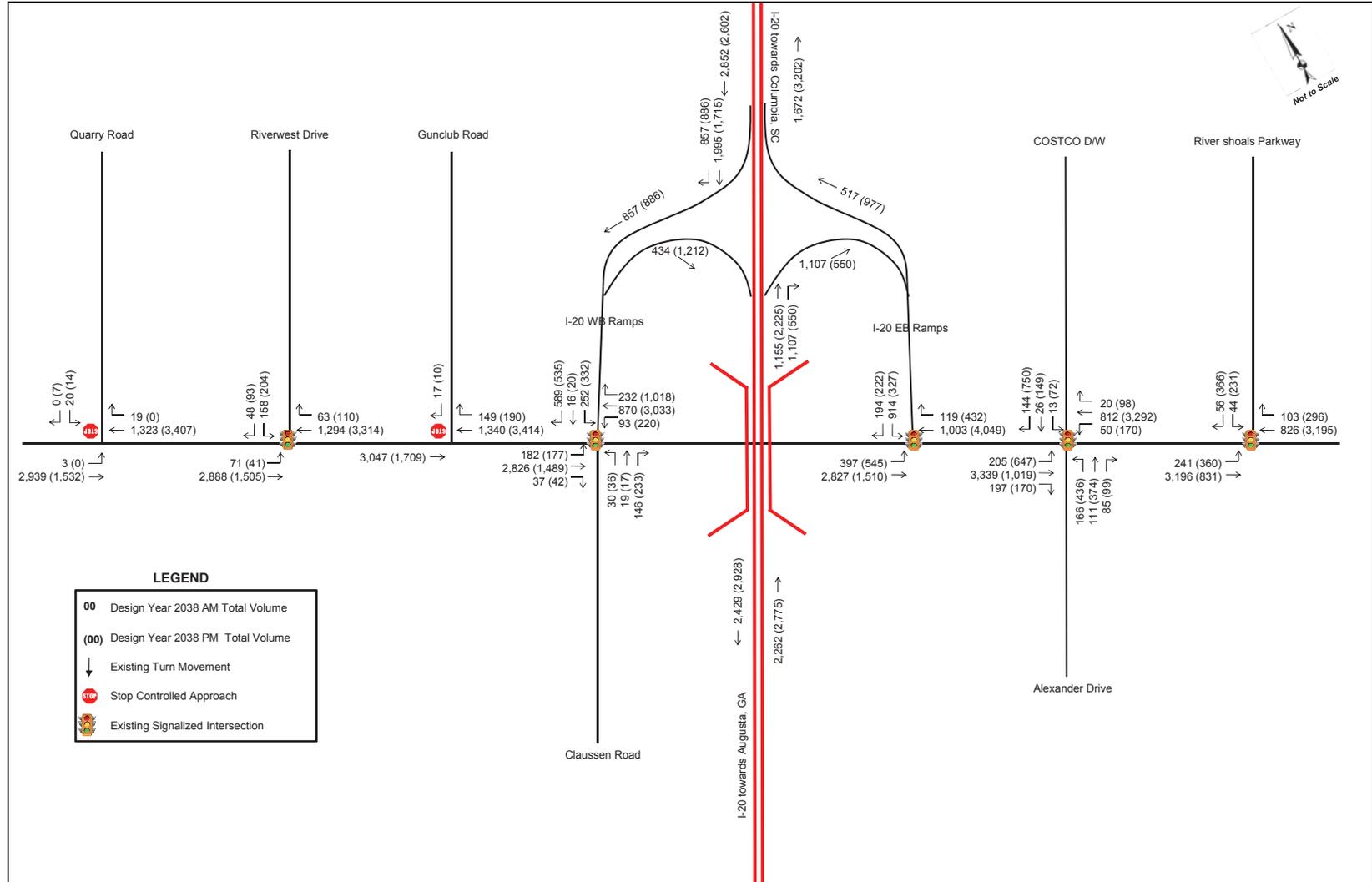
Existing (2012) Peak Hour Traffic Volume - AM (PM)



Opening Year (2018) Total Peak Hour Traffic Volume - AM (PM)



Design Year (2038) Total Peak Hour Traffic Volume - AM (PM)



Capacity Analysis Summary

The existing condition analysis results show that all intersections except the Quarry Road intersection currently operate at an acceptable LOS. The eastbound I-20 on-ramp merge and Riverwatch Parkway arterial also operate at acceptable LOS.

The opening year of a project to improve Riverwatch Parkway was anticipated to be the year 2018 with a design year of 2038. The opening and design year operational analyses include both No-Build and Build condition scenarios.

The opening year No-Build scenario shows a deterioration of the operational conditions at all study intersections and in both directions of Riverwatch Parkway due to assumed increases in background traffic. The Quarry Road approach to Riverwatch Parkway operates at **LOS F** during both the morning and afternoon peak hour. During the afternoon peak hour, the Riverwatch Parkway intersections with Riverwest Drive, I-20 westbound ramp/Claussen Road, I-20 eastbound ramp, and Alexander Drive operate at **LOS E** or **LOS F**. While some segments along the eastbound Riverwatch Parkway arterial operate at **LOS E** or **LOS F** during the morning and afternoon peak hour, the entire arterial operates at LOS D. The westbound arterial operates at LOS C during the morning peak hour with only one segment operating at **LOS E**. During the afternoon peak hour, the westbound Riverwatch Parkway arterial operates at **LOS F**, with all but one segment operating at **LOS E** or **LOS F**. With increasing traffic and no additional capacity provided at intersections or along the corridor, operations worsen by the 2038 design year when all of the currently signalized intersections would operate at **LOS F** during the afternoon peak hour.

The Build scenario was analyzed for both the 2018 opening year and the 2038 design year traffic conditions. The improvement includes widening and shifting the three eastbound through lanes to develop a second left turn lane at the I-20 eastbound ramp intersection, and widening the on-ramp to eastbound I-20 to provide two lanes to accept the two lanes of left turn traffic from eastbound Riverwatch Parkway. It also includes modifying the southbound approach of the I-20 westbound off ramp/Claussen Road intersection to provide a separate left turn lane, a shared left turn-through lane, and two separate right turn lanes and modifying the northbound approach to provide separate left turn, through and right turn lanes. At the intersection of Riverwatch Parkway and Alexander Drive/COSTCO Driveway, a second eastbound to northbound left turn lane is also proposed. The analysis results are summarized below followed by tables:

- The LOS improves from **LOS F** during the 2018 No-Build alternative to LOS D in the 2018 Build concept at the Riverwatch Parkway intersection with the I-20 eastbound ramp due to widening and addition of a second left turn lane.
- The remaining intersections along Riverwatch Parkway generally experience minor *increases* in intersection delay, with the Riverwatch Parkway intersections with

Riverwest Drive, the I-20 westbound ramp/Claussen Road, and Alexander Drive operating at **LOS E** or **LOS F** during the 2018 afternoon peak hour.

- The arterial travel speeds are less than the No-Build arterial travel speeds in both directions during both peak hours with the exception of the westbound direction during the afternoon peak hour.

Intersection Operational Analysis

Intersection	Existing (2012)	Opening (2018)		Design (2038)	
		No-Build	Build	No-Build	Build
Riverwatch Parkway and Quarry Road	F	F	F	F	F
Riverwatch Parkway and Riverwest Drive	C	E	D	F	F
Riverwatch Parkway and Gunclub Road	B	B	B	D	C
Riverwatch Parkway and I-20 WB Ramp/Claussen Road	C	E	D	F	F
Riverwatch Parkway and I-20 EB Ramp	D	F	D	F	F
Riverwatch Parkway and Alexander Drive	B	F	F	F	F
Riverwatch Parkway and Rivershoals Parkway	A	D	D	F	F

Arterial Operational Analysis

Cross Street Intersection	Existing (2012)	Opening (2018)		Design (2038)	
		No-Build	Build	No-Build	Build
Eastbound Riverwatch Parkway					
Riverwest Drive	B	B	B	B	B
I-20 WB Ramp/Claussen Road	F	F	F	F	F
I-20 EB Ramp	B	C	D	E	C
Alexander Drive	D	E	F	F	F
Rivershoals Parkway	A	B	B	B	C
Westbound Riverwatch Parkway					
Rivershoals Parkway	C	E	E	F	F
Alexander Drive	B	F	F	F	F
I-20 EB Ramp	F	F	F	F	F
I-20 WB Ramp/Claussen Road	D	D	C	F	F
Riverwest Drive	B	F	F	F	F

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:245-0049-0

Richmond

SUFF. RATING: 79.81

Location & Geography

Structure ID: 245-0049-0
 200 Bridge Information: 04
 *6A Feature Int: SR 104- CSX RAILROAD
 *6B Critical Bridge: 0
 *7A Route No Carried: SR00402
 *7B Facility Carried: I-20
 9 Location: 14.8 MI N OF HEPHZIBAH
 2 Dot District: 2
 207 Year Photo: 2012
 *91 Inspection Frequency: 24 Date: 01/12/2012
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 0 Date: 02/01/1901
 92C Other Spc. Insp Freq: 0 Date: 02/01/1901
 * 4 Place Code: 04196
 *5 Inventory Route(O/U): 1
 Type: 1
 Designation: 1
 Number: 00020
 Direction: 0
 *16 Latitude: 33 31.2966 HMMS Prefix:SR
 *17 Longitude: 82 -01.8544 HMMS Suffix:00
 98 Border Bridge: 000%Shared:00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 1
 12 Base Highway Network: 1
 13A LRS Inventory Route: 2451040200
 13B Sub Inventory Route: 1
 101 parallel Structure: N
 *102 Direction of Traffic: 2
 *264 Road Inventory Mile Post: 005.22
 *208 Inspection Area: 2 Initials: EFP
 Engineer's Initials: sgm
 * Location ID No: 245-00402D-200.18E

*104 Highway System: 1
 *26 Functional Classification: 11
 *204 Federal Route Type: 1 No: 00202
 105 Federal Lands Highway: 0
 *110 Truck Route: 0
 2006 School Bus Route: 1
 217 Benchmark Elevation: 0000.00
 218 Datum: 0
 *19 Bypass Length: 01
 *20 Toll: 3
 *21 Maintanance: 01
 *22 Owner: 01
 *31 Design Load: 6
 37 Historical Significance: 5
 205 Congressional District: 10
 27 Year Constructed: 1964
 106 Year Reconstructed: 2009
 33 Bridge Medium: 3
 34 Skew: 43
 35 Structure Flared: 1
 38 Navigation Control: N
 213 Special Steel Design: 0
 267 Type of Paint: 5
 *42 Type of Service On: 1
 Type of Service Under: 4
 214 Movable Bridge: 0
 203 Type Bridge: 0
 259 Pile Encasement 3
 *43 Structure Type Main: 4 02
 45 No.Spans Main: 004
 44 Structure Type Appr: 0 00
 46 No Spans Appr: 0000
 226 Bridge Curve Horz 0 Vert: 1
 111 pier Protection 0
 107 Deck Structure Type: 1
 108 Wearing Structure Type: 1
 Membrane Type: 8
 Deck Protection: 8

Signs & Attachments

225 Expansion Joint Type: 15
 242 Deck Drains: 0
 243 Parapet Location: 0
 Height: 0
 Width: 0
 238 Curb Height: 0
 Curb Material: 0
 239 Handrail 9 9
 *240 Medium Barrier Rail: 1
 241 Bridge Median Height: 5
 * Bridge Median Width: 2
 230 Guardrail Loc. Dir. Rear: 6
 Frwd: 6
 Oppo. Dir. Rear: 6
 Oppo. Frwd: 6
 244 Aproach Slab 3
 224 Retaining Wall: 1
 233Posted Speed Limit: 55
 236 Warning Sign: 0.00
 234 Delineator: 0.00
 235 Hazzard Boards: 0
 237 Utilities Gas: 22
 Water: 00
 Electric: 00
 Telephone: 21
 Sewer: 00
 247 Lighting Street: 0
 Navigation: 0
 Aerial: 0
 *248 County Continuity No.: 00

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:245-0049-0

Programming Data		Measurements:				
201 Project No:	IR-ACIR-20-2 (103)	*29ADT	049220	Year:2007	65 Inventory Rating Method:	1
202 Plans Available:	4	109%Trucks:	0		63 Operating Rating Method:	1
249 Prop Proj No:	NH-IM-20-2 (145)	* 28 Lanes On:	07	Under:06	66 Inventory Type:	2 Rating: 26
250 Approval Status:	0000	210 No. Tracks On:	00	Under:02	64 Operating Type:	2 Rating: 26
251 PI Number:	210570-	* 48 Max. Span Length	0098		231 Calculated Loads:	
252 Contract Date:	02/01/1901	* 49 Structure Length:	314		H-Modified:	20 0
260 Seismic No:	00000	51 Br. Rwdy. Width	145.50		HS-Modified:	25 0
75 Type Work:	00 0	52 Deck Width:	151.20		Type 3:	28 0
94 Bridge Imp. Cost:	\$0	* 47 Tot. Horiz. Cl:	66		Type 3s2:	40 0
95 Roadway Imp. Cost:	0	50 Curb / Sidewalk Width	0.00 / 0.00		Timber:	36 0
96 Total Imp Cost:	0	32 Approach Rdwy. Width	126		Piggyback:	40 0
76 Imp Length:	000000	*229 Shoulder Width:			261 H Inventory Rating:	23
97 Imp Year:	0000	Rear Lt:	13.00	Type:2 Rt:14.00	262 H Operating Rating	37
114 Future ADT:	073830 Year:2030	Fwd. Lt:	13.00	Type:2 Rt:14.00	67 Structural Evaluation:	5
Hydraulic Data		Permanent Width:			58 Deck Condition:	6
215 Waterway Data:		Rear:	36.00	Type:2	59 Superstructure Condition:	6
High Water Elev:	0000.0 Year:1900		36.00	Type:1	* 227 Collision Damage:	0
Flood Elev:	0000.0 Freq:00	Intersection Rear:	0	Fwd: 1	60A Substructure Condition:	6
Avg Streambed Elev:	0000.0	36 Safety Features Br. Rail:	1		60B Scour Condition:	N
Drainage Area:	00000	Transition:	1		60C Underwater Condition	N
Area of Opening:	000000	App. G. Rail:	1		71 Waterway Adequacy:	N
113 Scour Critical	N	App. Rail End:	1		61 Channel Protection Cond.:	N
216 Water Depth:	00.0 Br.Height:00.0	53 Minimum Cl. Over:	99' 99 "		68 Deck Geometry:	9
222 Slope Protection:	4	Under:			69 UnderClr. Horz/Vert:	2
221 Slope Protection	0 Fwd:0	*228 Minimum Vertical Cl			72 Appr. Alignment:	8
219 Fender System	0	Act. Odm Dir.:	99' 99"		62 Culvert:	N
220 Dolphin:	0	Oppo. Dir:	99' 99"		Posting Data	
223 Current Cover:	000	Posted Odm. Dir:	00' 00"		70 Bridge Posting Required	5
Type:	0	Oppo. Dir:	00' 00"		41 Struct Open, Posted, CL:	A
No. Barrels:	0	55 Lateral Undercl. Rt:	H 1 1		* 103 Temporary Structure:	0
* Width:	0.00 Height:0.00	56 Lateral Undercl. Lt:	1.30		232 Posted Loads	
* Length:	0 Apron:0	*10 Max Min Vert Cl:	99' 99" Dir:0		H-Modified:	00
265 U/W Insp. Area	0 Diver:ZZZ	39 Nav Vert Cl:	000 Horiz:0000		HS-Modified:	00
Location ID No:	245-00402D-200.18E	116 Nav Vert Cl Closed:	000		Type 3:	00
		245 Deck Thickness Main Deck Thick Approach:	6.60		Type 3s2:	00
		246 Overlay Thickness:	0.00		Timber:	00
		212 Year Last Painted:	Sup:2009Sub:0000		Piggyback	00
					253 Notification Date:	02/01/1901
					258 Fed Notify Date:	2/1/1901 12:00:00AM

Concept Team Meeting
Riverwatch Parkway at I-20 Operational and Safety Improvements
PI 0011699
City of Augusta, Richmond County

December 11, 2013

Meeting notes from the December 11, 2013 concept team meeting at the GDOT Augusta Area Office, 4260 Frontage Road, Augusta, GA 30909 for the Riverwatch Parkway at I-20 Operational and Safety Improvements from Quarry Road to Rivershoals Parkway.

Attendees:

Lynn Bean	GDOT	lbean@dot.ga.gov
Steve Behrend	Augusta Utilities	sbehrend@augustaga.gov
George Brewer	GDOT	gbrewer@dot.ga.gov
Steve Cassell	City of Augusta Engineering	scassell@augustaga.gov
David Griffith	City of Augusta Engineering	david.griffith@jacobs.com
Chad Havens	Michael Baker	chad.havens@mbakercorp.com
Harriet Oxford	GDOT	hoxford@dot.ga.gov
Beth Ann Schwartz	Michael Baker	bschwartz@mbakercorp.com
Steve Tiedemann	GDOT TIA	stiedemann@dot.ga.gov
Marshall Troup	GDOT	mtroup@dot.ga.gov
Rodney Way	GDOT	rway@dot.ga.gov

Meeting Notes:

- Steve Cassell gave an overview of the project layout and intent of the project. Riverwatch Parkway has limited widening options due to the location of the existing railroad and the I-20 Bridge piers therefore the roadway will be restriped to accommodate additional turn lanes.
- Upon approval of the concept report GDOT's Office of Program Delivery will transfer management of the project to the TIA office for project completion.
- Due to the location of the existing railroad coordination with CSX railroad is important and must be started immediately.
- GDOT will start the railroad coordination for encroachment.
- The Riverwatch Parkway corridor will be upgraded for adaptive signals. A new fiber line will be installed during construction.
- Utility impacts are not anticipated due to majority of the project being contained within the existing pavement footprint.
- The raised median will be landscaped where feasible. Any irrigation will need to be directional bored.

- The environmental document will be a CE and no environmental impacts are anticipated. The CE should be sent to FHWA by November 2014.
- The proposed project schedule has been approved by GDOT. The tentative goal is to have a construction letting in September 2015 but with the latest let date of November 2015.
- GDOT has not reviewed the traffic study but Baker will submit to GDOT for their approval.
- The project has approximately \$5.5M combined funding between local, state-aid and TIA. Since TIA funds are included in the project, the project must be designed to meet the Tier 1 schedule and budget.

Concept Report Comments

- Page 3, under Existing Conditions – please proofread the second to last sentence in this section (recommend removing “there will be” from the sentence)
 - *Completed*
- Page 6 – Lighting Required – Is there going to be additional lighting installed as part of the project? If so, has there been a lighting agreement, commitment letter, or LGPA completed? If not, a commitment from the locals to pay for the operation and maintenance of the lighting should be obtained. I also did not see any lighting items in the cost estimate.
 - *Lighting is included and cost was included in the construction cost estimate*
- Page 6 – Design Exceptions table – for Shoulder Width, both Yes and Undetermined are checked.
 - *Corrected*
- Page 7 – Design Variances table - (minor comment) – the DV table in the latest Concept Report has been updated to reflect the recently adopted Complete Streets policy and other minor changes.
 - *Corrected*
- Page 8 – Railroad Involvement – recommend that coordination with RR begin as early as practical and that a cost estimate for RR coordination be developed. RR coordination can be lengthy and expensive.
 - *Railroad Cost Estimate was added to the concept report*
- Page 9 – Noise Effects – Not certain that providing a 2nd turn lane does not add capacity. Please verify.
 - *Verified – noise study is not required.*
- Page 10 – Project Cost Estimate Summary table – from the Project Financial Report, it looks like some federal CST funding is involved. Also recommend including costs for RR coordination.
 - *The railroad cost was added.*
- Attachments – Cost Estimate includes 10% contingency. GDOT standard is to use 5% E&I and Liquid AC adjustment, but no contingency costs.
 - *Removed 10% contingency and added 5% E&I. Liquid AC adjustment was already included*

Baker

- Attachments – Crash data – is more recent crash data available? If available but not yet compiled, recommend including most recent crash numbers for comparison.
 - *Available crash data was included.*

Meeting Minutes prepared by Beth Ann Schwartz



ENGINEERING DEPARTMENT

Abie L. Ladson, P.E.
Director

Steven J. Cassell, P.E.
Assistant Director Traffic Engineering

January 17, 2014

Marshall R. Troup, Jr.
Project Manager
Office of Program Delivery
Georgia Department of Transportation
600 West Peachtree Street
Atlanta, GA 30308

Dear Mr. Troup:

RE: Operational Improvements on Riverwatch Parkway/SR 104
GDOT P.I. Number: 0011699, Richmond
ARC Project Number: 328-04-210328702
File Reference Number: 14-014 (A)

The referenced project will provide operational improvements to Riverwatch Parkway/SR 104 from Quarry Road to River Shoals Parkway.

This corridor is considered one of the primary gateways to Augusta and, as such, Augusta recognizes the importance and benefit of installing street lighting to not only enhance safety but, improve the aesthetics of this corridor. Therefore, Augusta would like to request that street lighting to be included in this project.

It is recognized that, in the future, Augusta, Georgia will be required to enter into a Memorandum of Agreement with Georgia DOT for the maintenance of the streetlights but, in the interim, please accept this letter as an intent on the part of Augusta to be responsible for the energy, maintenance and operation of the street lighting at the completion of this project.

Sincerely,

Steven J. Cassell, PE, PTOE
Assistant Director – Traffic Engineering Division

C: Abie Ladson, PE, Director, Augusta Engineering Department
Hameed Malik, Ph.D., PE, Assistant Director, Augusta Engineering Department
Charles Gifford, Street Lighting Coordinator and Operations Manager, Augusta Traffic Engineering
David Griffith, Acting Project Manager, Augusta Engineering Department
Beth Ann Schwartz, PE, Project Manager, Michael Baker, Jr., Inc.
Project File

Traffic Engineering Section
505 Telfair Street- Augusta, GA 30901
(706) 821-1841 – Fax (706) 821-1724
WWW.AUGUSTAGA.GOV

Beth Ann Schwartz

To: Beth Ann Schwartz (bschwartz@mbakercorp.com)
Subject: FW: Riverwatch Pkwy Intersection Improvements at I-20 (GODT pi # 0011699)

From: Steve Cassell [<mailto:SCassell@augustaga.gov>]
Sent: Tuesday, August 14, 2012 9:20 AM
To: McIntosh, D Tyler; David.Griffith@jacobs.com
Cc: gbrewer@dot.ga.gov
Subject: FW: Riverwatch Pkwy Intersection Improvements at I-20 (GODT pi # 0011699)

Tyler,
See FHWA's concurrence below.

Steven J. Cassell, PE, PTOE
Engineering Department
Assistant Director - Traffic Engineering Division
Phone: (706) 821-1850
Fax: (706) 796-5045

From: Kendra.Fly@dot.gov [<mailto:Kendra.Fly@dot.gov>]
Sent: Tuesday, August 14, 2012 9:12 AM
To: gbrewer@dot.ga.gov
Cc: Steve Cassell; David.Griffith@jacobs.com
Subject: RE: Riverwatch Pkwy Intersection Improvements at I-20 (GODT pi # 0011699)

George,

The analysis in the memo you provided is sufficient and FHWA concurs that an IMR is not needed for this project.

Thanks,

Kendra Fly
Transportation Engineer
FHWA - GA Division
61 Forsyth St SW
Suite 17T100
Atlanta, GA 30303
(404) 562-3644

From: Brewer, George [<mailto:gbrewer@dot.ga.gov>]
Sent: Tuesday, August 14, 2012 8:15 AM
To: Fly, Kendra (FHWA)
Cc: 'Steve Cassell'; 'Griffith, David'
Subject: FW: Riverwatch Pkwy Intersection Improvements at I-20 (GODT pi # 0011699)

Hi Kendra,

I am coordinating with Richmond County on a project that will add a second left turn lane from SR 104 (Riverwatch Parkway) onto the eastbound ramp of I-20. They are planning some minor widening on the ramp to accept the

additional lane and we wanted to make sure that an IMR would not be required. Please see the attached Memo and let me know if you think an IMR will be required.

Thanks.

George M. Brewer
Senior Project Manager
Georgia Department of Transportation
P.O. Box 8
Tennille, GA 31089
(478)538-8604

From: Steve Cassell [<mailto:SCassell@augustaga.gov>]
Sent: Monday, August 13, 2012 10:39 AM
To: Griffith, David; Brewer, George
Subject: FW: Riverwatch Pkwy Intersection Improvements at I-20

Steven J. Cassell, PE, PTOE
Engineering Department
Assistant Director - Traffic Engineering Division
Phone: (706) 821-1850
Fax: (706) 796-5045

From: McIntosh, D Tyler [<mailto:DTMcIntosh@mbakercorp.com>]
Sent: Monday, August 13, 2012 10:34 AM
To: Steve Cassell
Subject: Riverwatch Pkwy Intersection Improvements at I-20

Steve the attached memo documents the changes to the concept layout and the reasons we believe an IMR is not required as discussed in our meeting last week. We have spoken with Harold and he is in agreement with this approach. Please have GDOT forward to FHWA for their concurrence.

I am still working to resolve the Rail Road ROW issue with our surveyor brought up during the meeting and should have something to you shortly regarding this. Please let me know if you have any questions.

Tyler McIntosh, P.E.
Project Manager
THE LPA GROUP INCORPORATED
A Unit of Michael Baker Corporation
3595 Engineering Dr.
Norcross, GA 30092

(770) 263-9118
(770) 263-9145 (FAX)

www.lpagroup.com
www.mbakercorp.com
<image001.gif>

MEMORANDUM

TO: Mr. Steve Cassell, City of Augusta

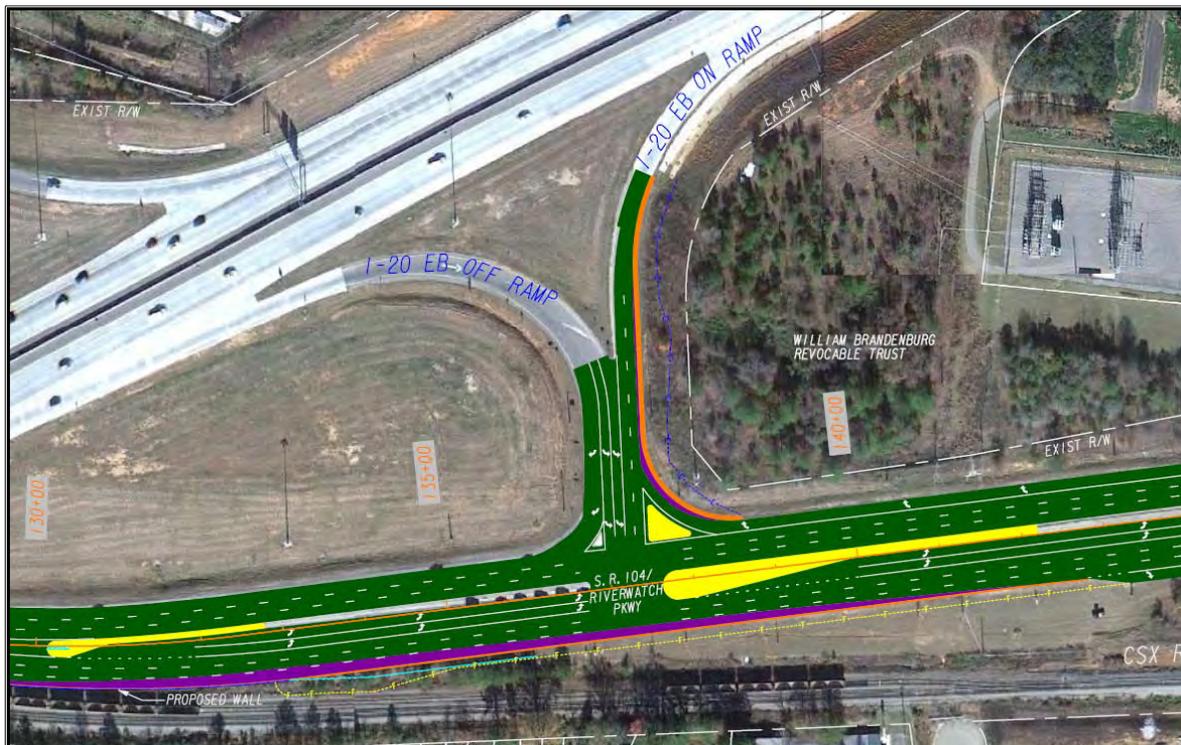
FROM: Tyler McIntosh, P.E.
Kelly M. Cory, P.E.

SUBJECT: Riverwatch Parkway at I-20 EB On-Ramp
Interchange Modification Report Not Needed

DATE: August 10, 2012

After submitting the Traffic Operational Analysis of the Riverwatch Parkway Corridor, the City of Augusta requested that improvements to the interchange not impact the recent paved ditch construction completed on the I-20 mainline. A Concept Layout was drawn to include improvements to the intersection of Riverwatch Parkway at the I-20 EB Ramps that would not impact this area, as shown in Figure 1. Dual left turn lanes from eastbound Riverwatch Parkway to the I-20 EB Ramp are still provided, but these two lanes merge to one lane prior to merging with the I-20 EB mainline. The concept does not involve geometric changes at the merge point and maintains the existing merge condition for traffic traveling onto I-20 EB. This raises the question about whether an Interchange Modification Report (IMR) is necessary for this improvement.

Figure 1: Concept Layout



In the absence of a published GDOT policy on modifying existing interchanges, other state policies were reviewed to help determine if an IMR would be needed. The Florida Department of Transportation (FDOT) policy provides a good reference to approaching interchange modifications, and is cited by FHWA in their documents. According to the FDOT *Policy Resource Document 3, Interchange Modifications Requiring an IMR*, an IMR is not normally required for several types of interchange modifications, including **modifications of the ramp termini at the crossroad to accommodate crossroad improvements. This includes such improvements as the installation of traffic control devices and the addition of dual left-turn lanes from the crossroad to the ramp, or increasing the laneage of ramp segments, provided the merge to the existing number of lanes occurs sufficiently far away from the original existing point of entry on the mainline.**

Based on this guidance, the proposed improvements for the intersection of Riverwatch Parkway at the I-20 EB On-Ramp (dual left turn lanes from the crossroad to the ramp and increased laneage on the ramp) would not normally require an IMR. However with dual left turn lanes, a greater number of vehicles can be processed through the intersection and onto the ramp in a given time period. If there are currently un-served vehicles turning left from Riverwatch Parkway onto the I-20 EB On-Ramp, the volume of vehicles merging onto I-20 could increase with the proposed intersection improvements. As the number of un-served vehicles is unknown, an analysis was done to determine the increase in volume that could be processed with the existing merge geometry.

The afternoon peak hour is the controlling volume for this movement, so the capacity analysis was completed using volumes for this time period. For the Design Year 2038, the projected traffic merging onto I-20 EB from Riverwatch Parkway is 977 vehicles per hour (545 left turns and 432 right turns) and operates at LOS C, with a density of 27.8 pc/mile/lane. An iterative analysis was used to determine the maximum volume of vehicles this merge movement, with its existing one lane geometry, could process with an acceptable LOS. A total ramp volume of 1691 vehicles per hour will result in the merge onto I-20 EB from Riverwatch Parkway operating at LOS D, with a density of 33.7 pc/mile/lane. Assuming the right turn volume onto the ramp remains unchanged, the left turn volume could increase to 1,259 vehicles per hour and the existing merge would operate at an acceptable LOS.

The capacity of the existing merge geometry is 130% greater than the largest peak hour volume in the Design Year. While dual left turn lanes are necessary to provide an acceptable LOS for the intersection of Riverwatch Parkway at the I-20 EB On-Ramp, they do not affect the capacity of the merge onto I-20. The reduction of the on ramp from two lanes to the existing one lane will occur without conflict well before the existing point of entry on the mainline.

Because there are no geometric changes, nor any operational impact, to the merge point of the I-20 EB On-Ramp and the I-20 mainline, an IMR is not needed to accompany the Riverwatch Parkway intersection improvements.

Riverwatch Parkway Corridor Improvement Project

Public Information Open House – October 3, 2012



Project Purpose

The purpose of this project is to improve Riverwatch Parkway between Quarry Road and Rivershoals Parkway. The roadway currently has six travel lanes with a raised concrete median with left turn lanes. The project includes resurfacing the entire 1.2 mile project length of Riverwatch Parkway while also widening to develop a second turn lane for the I-20 EB entrance ramp. This ramp will be widened to accommodate the dual left turn lanes. The I-20 WB ramp will be widened to accommodate dual right turns onto Riverwatch Parkway westbound. Claussen Road will be widened to add a dedicated right turn lane onto Riverwatch Parkway eastbound as well as reconstructing the railroad crossing. All construction will remain within the existing right of way, and there will be no utility relocations. The resulting roadway design and project implementation will provide a cost-effective solution to improve both current and future traffic operations on Riverwatch Parkway and surrounding roadways. The project will cost approximately \$1.9 million and will be fully funded under the TSPLOST program.

Traffic Data (Riverwatch Pkwy):

2012 AADT: 30,200

2018 AADT: 33,000

2038 AADT: 44,500

Anticipated Project Schedule:

2012: Conceptual Plan Development & Traffic Studies

TBD: Construction (approximately 1 year to complete)



**For
Additional
Information:**

Mr. Steven J. Cassell, PE, PTOE
Engineering Department
Assistant Director - Traffic Engineering Division
Phone: (706) 821-1850

City of Augusta

Public Information Open House Comment Card

P.I. No. 0011699, Richmond County

RIVERWATCH PARKWAY CORRIDOR IMPROVEMENT PROJECT

October 3, 2012

Please *print* responses.

Name _____

Mailing Address: Street or P.O. Box _____

City, State, ZIP code _____

Do you support the project? For Against Conditional Uncommitted

Comments _____

How did you hear about this meeting? Radio Newspaper Signs Word of Mouth
 Other _____

Was the location of the meeting convenient for you to attend? Yes No

If no, please suggest a general location that is more convenient to your community.

Was the time of the meeting convenient for you to attend? Yes No

If no, please suggest a time frame that is more convenient for you. _____

Were your questions answered by City of Augusta personnel? Yes No

Do you understand the project after attending this meeting? Yes No

Please share your suggestions on improving the way City of Augusta conducts public meetings.

Mail To:
Mr. Steven J. Cassell, PE
City of Augusta
505 Telfair St.
Augusta, GA 30901

City of Augusta

Public Information Open House Comment Card

P.I. No. 0011699, Richmond County RIVERWATCH PARKWAY CORRIDOR IMPROVEMENT PROJECT

October 3, 2012

Please **print** responses.

Name Barry Bull

Mailing Address: Street or P.O. Box 504 Waterford Drive

City, State, ZIP code Evans, GA 30809

Do you support the project? For Against Conditional Uncommitted

Comments Signage needs to be added for traffic coming out of the hotels / Pilot gas station (Riverwest Drive) to indicate left lane for Atlanta (I-20 WB on-ramp) access. Rationale: traffic (mainly trucks) coming off of Riverwest Drive turn into the center or right lanes of Riverwatch only to discover that they need to be in the left lane to obtain access to I-20 WB. Trucks try to move over into the left hand lane to obtain access to I-20 WB only to end up blocking sometimes two lanes of traffic.

How did you hear about this meeting? Radio Newspaper Signs Word of Mouth
 Other TV

Was the location of the meeting convenient for you to attend? Yes No

If no, please suggest a general location that is more convenient to your community.

Was the time of the meeting convenient for you to attend? Yes No

If no, please suggest a time frame that is more convenient for you.

Were your questions answered by City of Augusta personnel? Yes No

Do you understand the project after attending this meeting? Yes No

Please share your suggestions on improving the way City of Augusta conducts public meetings.

Mail To:

Mr. Steven J. Cassell, PE
City of Augusta
505 Telfair St.
Augusta, GA 30901