ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0006934
CSSTP-0006-00(934)
Rockdale County
GDOT District 7 - Metro Atlanta
New Location: Salem Gate Extension from
Iris Drive to Old Covington Highway

OFFICE Design Policy & Support

DATE 4/1/2015

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
Andrew Heath, 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
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Richard Cobb, Statewide Location Bureau Chief
Kathy Zahul, District Engineer
Scott Lee, District Preconstruction Engineer
Jeff Simmons, Project Manager
BOARD MEMBER - 4th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

Project Type:	New Roadway	P.I. Number:	0006934
GDOT District:	7	County:	Rockdale
Federal Route Number:	N/A	State Route Number:	N/A
		Project Number:	CSSTP-0006-00(934)

The project consists of a new 3-lane undivided roadway from Old Covington Highway to Flat Shoals Road, for a total of 1.5 miles. The roadway will bridge over I-20 1200' east of Courtesy Parkway, and will include connection roadways to tie to Iris Drive.

Submitted for approval: *(email to "Concept Reports"; delete any inapplicable signature lines)*

Alexander R. Stone, PE – Mulkey Engineers and Consultants	5/15/14 DATE
Local Government Sponsor	05/21/14 DATE
State Program Delivery Engineer	5-20-14 DATE
GDOT Project Manager	5/15/14 DATE

Recommendation for approval: *(Delete any inapplicable signature lines)*

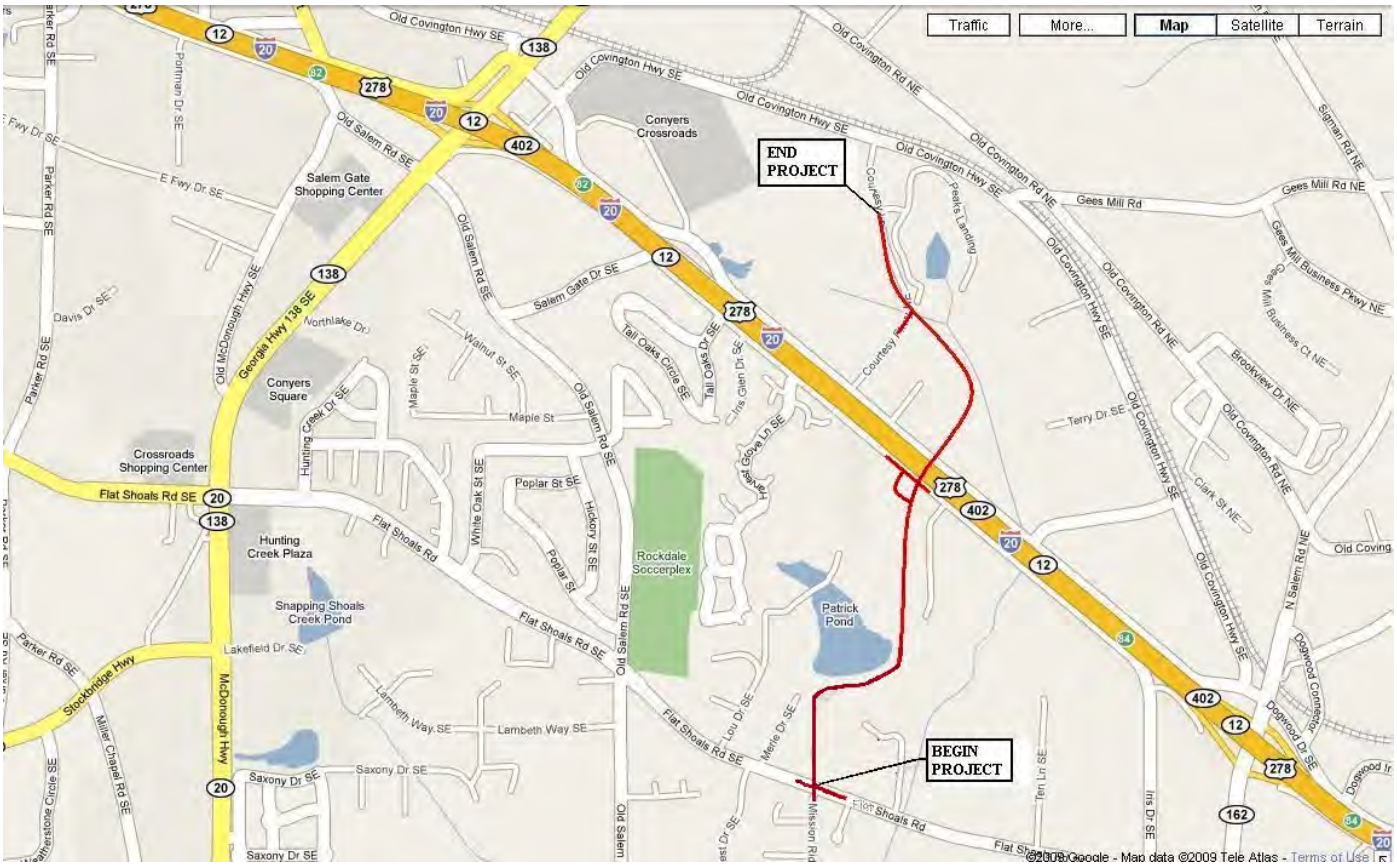
Program Control Administrator	DATE
* HIRAL PATEL State Environmental Administrator	5/28/2014 DATE
* KATHY ZAHUL State Traffic Engineer	6/4/2014 DATE
* LISA MYERS Project Review Engineer	5/28/2014 DATE
* JUN BIRNKAMMER for State Utilities Engineer	6/6/2014 DATE
District Engineer	DATE
* BEN RABUN State Bridge Design Engineer	5/28/2014 DATE
State Transportation Financial Management Administrator	DATE

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

* CYNTHIA L. VANDYKE State Transportation Planning Administrator	6/4/2014 DATE

* RECOMMENDATION ON FILE -

PROJECT LOCATION



Project Description: Courtesy Parkway Extension from Old Covington Hwy to Flat Shoals Road

PLANNING & BACKGROUND DATA

Project Justification Statement:
Rockdale County PI 0006934
I-20 Crossing from Old Covington Highway to Flat Shoals Road

The new, non-access I-20 crossing is included in the Atlanta Regional Commission's (ARC) Plan 2040 Regional Transportation Plan (RTP) (ARC Project No. RO-243; GDOT PI No. 0006934). In the Plan 2040 RTP, a new crossing over I-20 is recommended to provide an alternative route for traffic from south Rockdale County to and from major traffic generators on the north side of I-20, including large shopping centers containing major retailers such as Home Depot, Wal-Mart, and Kohl's, among others. The project is included in the *Rockdale County and City of Conyers Comprehensive Transportation Plan* (CTP) and in the *Rockdale County 2020 Comprehensive Land Use Plan*, which shows the SR 138/I-20 interchange as an area experiencing heavy traffic congestion. In the land use plan, the proposed project was included in the 2004-2009 Short Term Work Program (STWP) that identifies and prioritizes critical projects for the county. Additionally, the project was identified in Rockdale County's SPLOST project list passed in November 2004. Georgia Regional Transit Authority (GRTA) Xpress Routes 423 and 425 operate in the project area, and an Xpress park-and-ride lot is located on the Springfield Baptist Church property on Iris Drive in the project area.

The goal of the proposed project is to provide an additional non-access crossing of I-20 that would serve as an alternative to and bypass of the heavily congested SR 138/I-20 interchange for north-south traffic, and to simultaneously improve access to the area's major retail centers and alternative modes of transportation for residents of south Rockdale County.

The City of Conyers and Rockdale County are experiencing decreasing levels of service (LOS) along SR 138 due to heavy traffic congestion, including in the project corridor (see Table 1). SR 138 currently provides access to I-20 and is one of the few I-20 crossings available for through traffic in Conyers. North-south connectivity across the interstate is hindered, as there are few available crossings of I-20 in this heavily developed area of Rockdale County. Other interchanges with I-20 in the Conyers area include Klondike Road, which is approximately 1.6 miles west of SR 138, and the Salem Road interchange located approximately 2 miles east of SR 138. Parker Road provides an additional non-access crossing of I-20 approximately 0.9 miles west of SR 138.

Table 1 – Existing LOS
SR 138 from Old Salem Road to Dogwood Drive

Main Roadway	Intersecting Roadway	2013 Existing		2013 Existing	
		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS
SR 138	Old Salem Rd SE	15	B	17	B
	I-20 EB Off/On-Ramp	19	B	29	C
	I-20 WB Off/On-Ramp	63	E	17	B
	Dogwood Dr SE	19	B	35	C

Traffic congestion and delays experienced by drivers utilizing SR 138 near I-20 are compounded by the high demand of local trips accessing the various commercial developments lining SR 138 and the major retail center located just northeast of the SR 138/I-20 interchange and along Dogwood Drive.

Improvements are needed to relieve congestion at the existing I-20 interchanges and reduce the frequency and severity of crashes, particularly rear-end collisions. Based on the current traffic study, under current and future predicted traffic conditions, the SR 138/I-20 interchange and the SR 138/Dogwood Drive intersection will remain heavily congested and therefore an impediment to through-traffic travelling between north and south Rockdale County (see Table 2 and report by Amy Diaz, Jacobs Engineering Group, Inc., to GDOT Office of Planning, Courtesy Parkway Overpass Methodology and Volumes, May 22, 2013).

Table 2 – Design year 2040 LOS (No build)
SR 138 from Old Salem Road to Dogwood Drive

Main Roadway	Intersecting Roadway	2040 No Build		2040 No Build	
		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS
SR 138	Old Salem Rd SE	19	B	22	C
	I-20 EB Off/On-Ramp	20	C	61	E
	I-20 WB Off/On-Ramp	142	F	33	C
	Dogwood Dr SE	36	D	40	D

Other programmed projects in the vicinity include SR 138 signal upgrades at Old McDonough Road and Old Salem Road (ARC Project No. RO-257, GDOT PI No. 0012816), as well as I-20 at SR 138/SR 20 interchange improvements (ARC Project No. RO-AR-138, GDOT PI No. 731048), which would widen the existing interchange from four through-lanes to six. The proposed project, intended to serve as an alternative to and bypass of the heavily congested SR 138/SR 20 interchange at I-20, could potentially reduce the size and scope of the proposed SR 138/SR 20 interchange improvement project.

Crash history analysis for the project corridor has been conducted for the most current three years with associated statewide average rates. From 2007 through 2009, the crash rate in the project corridor is a minimum 130 percent higher than the state average overall (see Table 3). The project corridor's functional classification changes at the I-20 westbound ramp from a principal urban arterial to the south to a minor urban arterial to the north; therefore, both statewide averages are provided in the table. During this period, rear-end collisions constituted 60 percent of crashes in this section of the SR 138 corridor.

Table 3 – Crash History
SR 138 from Old Salem Road to Dogwood Drive

Year	Crashes	Crash Rate*	Injuries	Injury Rate*	Fatalities	Fatality Rate*
2007	81	2,143	12	317	0	0
2007 Statewide Average: Urban Minor Arterial		513		126		1.36
2007 Statewide Average: Urban Principal Arterial		649		151		1.51
2008	93	2,271	17	415	0	0
2008 Statewide Average: Urban Minor Arterial		469		117		1.33
2008 Statewide Average: Urban Principal Arterial		612		142		1.27
2009	68	1,384	17	346	0	0
2009 Statewide Average: Urban Minor Arterial		463		115		1.08
2009 Statewide Average: Urban Principal Arterial		603		141		1.26

* All crash rates shown are per 100 million vehicle miles travelled.

There is also a need for improved access to the GRTA Xpress park-and-ride lot on Iris Drive. Current access for traffic coming from SR 138 is limited and mobility is impacted by congestion in the SR 138 corridor. Improved access to the park-and-ride lot could increase transit ridership while enhancing the mobility within the project area. An additional benefit of the proposed project could be to support future potential growth in regional transit demands on the transportation network, as a new crossing of the interstate in the project area could accommodate a future HOV/HOT only interchange in the vicinity of the existing park-and-ride lot.

The proposed project would also provide transportation infrastructure to support economic development in the project area. The 2013 average unemployment rate in Rockdale County was 9.0 percent, compared to 8.2 percent statewide and 7.4 percent nationally (Georgia Department of Labor, Rockdale County Area Labor Profile, August 2014). The median household income in the City of Conyers is 16 percent less than that of the State of Georgia, and 20 percent of the population is living below the poverty level, compared to 17 percent statewide (U.S. Census Bureau, State and County Quick Facts). The proposed project would provide access to developable land in the project area, facilitating economic growth in Rockdale County.

The project's proposed termini, Flat Shoals Road on the south and Old Covington Highway on the north, are important east-west corridors connecting SR 138 on the west and Salem Road/Sigman Road on the east. By terminating at these two roads, the proposed crossing connects to additional north-south travel routes in the area. Currently, both roadways are two-lane, undivided facilities. Flat Shoals Road is programmed to be widened to four through lanes as part of the Rockdale County CTP and the ARC Plan 2040 RTP as a long-range project (GDOT PI No. 752360).

In summary, the purpose of this project is to improve north-south connectivity by providing an option to bypass the congestion at the existing I-20 interchanges at SR 138 and SR 162/Salem Road. The project is also intended to improve multimodal access and mobility, support economic development in Rockdale County, and provide some congestion relief at the existing I-20 interchanges at SR 138 and SR 162/Salem Rd.

Existing conditions: In the vicinity of the project, I-20 currently has six through lanes, separated by a barrier. There are frontage roads on each side of I-20; Dogwood Drive is on the north side, and it is a 2-lane undivided roadway with various auxiliary lanes for turning movements. Iris Drive is located on the south side, and it is also a 2-lane roadway with various auxiliary lanes.
On the northern terminus of the project, Courtesy Parkway is an urban 3-lane, undivided section of roadway, that connects Old Convington Highway with Dogwood Drive. It currently has sidewalk on the east side of the roadway. At the southern terminus, the project ties with Flat Shoals Road, which is a rural 2-lane undivided roadway with various auxiliary lanes for turning movements.

Other projects in the area:

- Old Covington Highway Connection under SR 138, PI #752270, currently advertised for bid by Rockdale County.
- I-20 at SR 138 Interchange Improvements, PI #731048, currently in conceptual development.
- Salem Road Connector (Old Salem Road realignment), PI #721582, currently in design

MPO: Atlanta Regional Commission (ARC) TIP #: RO-243

Congressional District(s): 4

Federal Oversight: ☐ PoDI ☒ Exempt ☐ State Funded ☐ Other

Projected Traffic: ADT 24 HR T: 9 %

Current Year (2013): N/A Open Year (2020): 7548 Design Year (2040): 9211
Traffic Projections Performed by: *Jacobs Engineering Group, Inc.*

Functional Classification (Mainline): Urban minor collector

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

Warrants met: ☐ None ☒ Bicycle ☒ Pedestrian ☒ Transit

Pedestrian – the proposed roadways will be curb and gutter, and there is an elementary school at the southern terminus of the project. Sidewalks will be added to all curb and gutter roadways.

Bicycle – Flat Shoals Road will be studied to add a multi-use sidewalk on the south side of the roadway, where improvements will occur.

Transit – there are no current local bus or train routes in the project area, or in the County. However, there is a GRTA Park and Ride lot along Iris Drive, associated with a GRTA Express Route that operates on the I-20 corridor. Construction of an expanded park and ride facility is planned by GRTA. This project will provide improved access to/from this facility. The proposed bridge over I-20 could be designed to include a future HOV / HOT ramp to/from I-20.

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

Per the attached PTS, PCC pavement has been recommended for the mainline pavement structure.

DESIGN AND STRUCTURAL

Description of the proposed project: The project consists of a new 3-lane undivided urban roadway from Old Covington Highway to Flat Shoals Road, for a total of 1.5 miles. The roadway will bridge over I-20 1200' east of Courtesy Parkway, and will include connection roadways to tie to Iris Drive. The proposed bridge will have width for 5 lanes to account for future traffic needs and HOV/HOT connection. The roadway will intersect with Courtesy Parkway, 1000' north of Dogwood Drive, and will use the existing Courtesy Parkway alignment from this intersection north to Old Covington Highway. The project will include intersection improvements on Flat Shoals Road, Old Covington Highway, and Iris Drive for additional turn lanes. The typical section of the roadway will include curb and gutter and sidewalk. The project is located in Rockdale County, and the portion of the project north of I-20 is located within the City of Conyers.

Major Structures: *(If no major structures on project, N/A and delete table below)*

Structure	Existing	Proposed
Proposed Bridge over I-20, Iris Drive and Dogwood Road	*N/A*	*340' long, 75' wide typical section including with 12' lanes, gutter, and 5.5' wide sidewalk parapet. Design could include a future connection to HOV / HOT facility.*
Retaining walls	*N/A*	*End bent MSE walls to be used to minimize bridge footprint. GDOT standard retaining walls to be used to reduce impacts to ecological / historical resources.*

Mainline Design Features: ***Courtesy Parkway Extension – Urban Collector***

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**N/A**	**2**	**2**
- **Lane Width(s)**	**N/A**	**11-12'**	**11'**
- **Median Width & Type**	**N/A**	**N/A**	**14' flush**
- **Outside Shoulder or Border Area Width**	**N/A**	**10'-16' URBAN**	**12'-16'**
- **Outside Shoulder Slope**	**N/A**	**2%**	**2%**
- **Inside Shoulder Width**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**N/A**	**5'**	**5'**
- **Auxiliary Lanes**	**N/A**	**N/A**	**Where warranted**
- **Bike Lanes**	**N/A**	**None**	**None**
Posted Speed	**N/A**		**35**
Design Speed	**N/A**	**35**	**35**
Min Horizontal Curve Radius	**N/A**	**371'**	**530'**
Max Superelevation Rate	**N/A**	**4%**	**4%**
Max Grade	**N/A**	**9%**	**8%**
Access Control	**N/A**	**Permitted**	**Permitted**
Design Vehicle	**N/A**	**WB-40**	**WB-40**
Pavement Type	**N/A**	**PCC**	**PCC**

*According to current GDOT design policy if applicable

Side Road Design Features: ***Old Covington Highway, Courtesy Parkway, and Iris Drive Connector-Urban Collectors***

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**N/A**	**2**	**2**
- **Lane Width(s)**	**N/A**	**11-12'**	**11'**
- **Median Width & Type**	**N/A**	**N/A**	***14' flush**
- **Outside Shoulder or Border Area Width**	**N/A**	**10'-16' URBAN**	**12'-16'**
- **Outside Shoulder Slope**	**N/A**	**2%**	**2%**
- **Inside Shoulder Width**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**N/A**	**5'**	**5'**
- **Auxiliary Lanes**	**N/A**	**N/A**	**Where warranted**
- **Bike Lanes**	**N/A**	**None**	**None**
Posted Speed	**N/A**		**35**
Design Speed	**N/A**	**35**	**35**
Min Horizontal Curve Radius	**N/A**	**371'**	**530'**
Max Superelevation Rate	**N/A**	**4%**	**4%**
Max Grade	**N/A**	**9%**	**9%**
Access Control	**N/A**	**Permitted**	**Permitted**
Design Vehicle	**WB-40**	**WB-40**	**WB-40**
Pavement Type	**Asphalt**	**Asphalt**	**Asphalt**

***14' wide for continuous flush median, 12' for center lane for left turning movements.**

Side Road Design Features: ***Flat Shoals Road – Urban Minor Arterial***

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**2**	**2**	**2**
- **Lane Width(s)**	**12'**	**12'**	**12'**
- **Median Width & Type**	**N/A**	**N/A**	**N/A**
- **Outside Shoulder or Border Area Width**	**6' Rural**	**10'-16' URBAN**	**12'-16'**
- **Outside Shoulder Slope**	**6%**	**2%**	**2%**
- **Inside Shoulder Width**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**None**	**5'**	**5'**
- **Auxiliary Lanes**	**Right turn lane**	**Where warranted**	**Where warranted**
- **Bike Lanes**	**None**	**None**	**Possible**
Posted Speed	**45**		**45**
Design Speed	**45**	**45**	**45**
Min Horizontal Curve Radius	**711'**	**711'**	**711'**
Maximum Superelevation Rate	**6%**	**6%**	**6%**
Maximum Grade	**6%**	**6%**	**6%**
Access Control	**Permitted**	**Permitted**	**Permitted**
Design Vehicle	**WB-40**	**WB-40**	**WB-40**
Pavement Type	**Asphalt**	**Asphalt**	**Asphalt**

Major Interchanges/Intersections: *N/A*

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	☒	☐	☐	
2. Lane Width	☒	☐	☐	
3. Shoulder Width	☒	☐	☐	
4. Bridge Width	☒	☐	☐	
5. Horizontal Alignment	☒	☐	☐	
6. Superelevation	☒	☐	☐	
7. Vertical Alignment	☒	☐	☐	
8. Grade	☒	☐	☐	
9. Stopping Sight Distance	☒	☐	☐	
10. Cross Slope	☒	☐	☐	
11. Vertical Clearance	☒	☐	☐	
12. Lateral Offset to Obstruction	☒	☐	☐	
13. Bridge Structural Capacity	☒	☐	☐	

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	☒	☐	☐	
2. Intersection Sight Distance	DP&S	☒	☐	☐	
3. Intersection Skew Angle	DP&S	☒	☐	☐	
4. Lateral Offset to Obstruction	DP&S	☒	☐	☐	
5. Rumble Strips	DP&S	☒	☐	☐	
6. Safety Edge	DP&S	☒	☐	☐	
7. Median Usage	DP&S	☒	☐	☐	
8. Roundabout Illumination Levels	DP&S	☒	☐	☐	
9. Complete Streets	DP&S	☒	☐	☐	
10. ADA & PROWAG	DP&S	☒	☐	☐	
11. GDOT Construction Standards	DP&S	☒	☐	☐	
12. GDOT Drainage Manual	DP&S	☒	☐	☐	
13. GDOT Bridge & Structural Manual	Bridges	☒	☐	☐	

VE Study anticipated: ☒ No ☐ Yes ☐ Completed – Date:

UTILITY AND PROPERTY

Temporary State Route needed: ☒ No ☐ Yes ☐ Undetermined

Right of Way is programmed as local acquisition at this time.

Railroad Involvement: CSX Railroad runs parallel to the north side of Old Covington Highway. Any improvements to Old Covington Highway would occur on the south side of the roadway to avoid railroad involvement.

Utility Involvements:

AT&T: Telecommunications
AGL: Gas
Georgia Power: Electric
Comcast: TV / Communications
Level 3: Fiber / Communications
Verizon Business: Fiber / Communications
Rockdale County: Water and Sanitary Sewer
Snapping Shoals EMC: Electric

SUE Required: ☒ No ☐ Yes

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

Right-of-Way (ROW): Existing width: N/A Proposed width: 60-80 ft
Required Right-of-Way anticipated: ☐ No ☒ Yes ☐ Undetermined
Easements anticipated: ☐ None ☒ Temporary ☒ Permanent ☐ Utility ☐ Other

Anticipated number of impacted parcels:		11
Displacements anticipated:	Total:	2
	Businesses:	1
	Residences:	
	Other:	1 (activity center for Church)

Location and Design approval: ☐ Not Required ☒ Required

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: Project impacts include encroachment into wetlands and stream buffers, and agricultural cultural resources. This project also affords the opportunity to create a gateway structure over I-20, and this element will need to be discussed with the City of Conyers and Rockdale County.

Context Sensitive Solutions Proposed: Minimize impacts to environmental resources, coordination with local governments and property owners, possible aesthetic improvements to the proposed bridge over I-20.

ENVIRONMENTAL & PERMITS

Anticipated Environmental Document:

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

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

Detention Ponds / Sediment Basins have been added at the stream crossing downstream of Patrick Pond. Also the existing detention ponds behind the Courtesy Ford property will be modified and expanded as necessary to handle additional flows as a result of the road construction.

Environmental Permits/Variances/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	☒	☐	
2. Forest Service/Corps Land	☒	☐	
3. CWA Section 404 Permit	☐	☒	Impacts to streams / wetlands
4. Tennessee Valley Authority Permit	☒	☐	
5. Buffer Variance	☐	☒	Roadway will parallel buffered streams
6. Coastal Zone Management Coordination	☒	☐	
7. NPDES	☐	☒	EA/FONSI will be required
8. FEMA	☒	☐	
9. Cemetery Permit	☒	☐	
10. Other Permits	☐	☐	
11. Other Commitments	☐	☐	
12. Other Coordination	☐	☒	Section 106 Coordination

Is a PAR required? ☒ No ☐ Yes ☐ Completed – Date:

This project will be eligible to be included under Regional Permit 1. Thus, the impacts to state waters is below the threshold of an Individual Permit, and PAR is not required.

Environmental Comments and Information:

NEPA/GEPA: There is no active documentation at this time.

Ecology: Ecology field visits and research has been completed, and the ecological resources have been identified on the Concept Layout. There are impacts to open waters (detention ponds), wetlands, streams and their buffers.

History: History field visits and research has been completed, and the resources have been identified on the Concept Layout. There is one potentially eligible property that is near the project area, but the alignment has been shifted to avoid.

Archeology: Archeology studies will be completed during preliminary design activities.

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?	☒ Required	☐ Not Required	☐ TBD

The proposed Concept differs from the ARC's Plan 2040 model as the alignment has been shifted to the east from the model. The original alignment connected SR 138/20 with Salem Gate Drive, then bridging I-20 north to Old Covington Highway, with four through lanes. The current concept crosses I-20 approximately 0.75 miles east of the original alignment, to connect Flat Shoals Road and Old Covington Highway via a portion of Courtesy Parkway north of I-20. The proposed concept includes 2 through lanes. Both the model and the current concept are in long-range; thus the open year is similar.

Noise Effects: This project is a Type I project for Noise Assessments; therefore, a Noise Impact Assessment will be required for this project.

Public Involvement:
April 2006: *Presented two possible options to SPLOST committee*
July 2006: *Presented Need and Purpose, layouts of alternatives to SPLOST Committee*
January 2007: *Initial Concept Team Meeting – original scope / model*
May 2012: *Presented new location alternatives to SPLOST committee.*
November 2013: *Initial Concept Meeting with GDOT – new location*
Future Public Involvement Meetings: PIOH and PHOH will be necessary, per EA/FONSI requirements.

Major stakeholders: Rockdale County (including Rockdale County SPLOST Committee), City of Conyers, Atlanta Regional Commission, GDOT, GRTA (park and ride lot), Springfield Baptist Church, travelling public, Rockdale Chamber of Commerce.

CONSTRUCTION

Issues potentially affecting constructability/construction schedule:
The project terminus at Flat Shoals Road is next to Flat Shoals Elementary School. Ingress/Egress must be maintained during the school year. The construction of the bridge overpass and associated walls will have to be staged as to avoid any lane closures during rush hours on I-20. Beams will have to be placed during nights and weekends.

Early Completion Incentives recommended for consideration: ☒ No ☐ Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: Initial Concept Meeting was held November 13, 2013 between Mulkey PM and GDOT PM. The meeting went over the proposed schedule, project issues, and background / history of the project. Minutes attached.

Other coordination to date: Feasibility Study was presented to Rockdale County SPLOST Committee Meeting on May 16, 2012. Committee agreed to move forward with Concept Development, based on two preferred alternates near Courtesy Parkway.

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Rockdale County (Mulkey)
Design	Rockdale County
Right-of-Way Acquisition	Rockdale County
Utility Relocation	Utility owners
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	GDOT
Providing Detours	GDOT
Environmental Studies, Documents, & Permits	Rockdale County
Environmental Mitigation	Rockdale County
Construction Inspection & Materials Testing	GDOT

Project Cost Estimate Summary and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
Funded By	Rockdale County/ Federal Earmark	Rockdale County	TBD	TBD	TBD	
$ Amount	549,915.00	$9,083,000.00	$48,000.00	$12,774,559.47	$46,875.00	$22,502,349.47
Date of Estimate	3/24/2010	3/31/2014	4/17/2014	2/23/2015	4/15/2014	

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

ALTERNATIVES DISCUSSION

Alternative selection: *Compare and contrast the various alternatives studied in summary and reason(s) why each alternative was or was not selected. Discussion should include no-build and preferred alternatives, and should compare various factors such as total cost, environmental and social impacts, time requirements, PE requirements, etc. as appropriate to the decision process. Please use the following format:*

Preferred Alternative(1A): *A new 3-lane roadway spanning I-20 just east of Courtesy Parkway, extending north to tie to Courtesy Parkway, and south to Flat Shoals Road at Flat Shoals Elementary School. The work includes a quadrant roadway to tie to Iris Drive, and a tie-in to Dogwood Road via existing Courtesy Parkway.*			
Estimated Property Impacts:	**13**	**Estimated Total Cost:**	**$22,502,349.47**
Estimated ROW Cost:	**9,083,000.00**	**Estimated CST Time:**	**30 months**
Rationale: This alternative was chosen because it adequately satisfies the need of providing an alternate route for traffic along Dogwood Road and Iris Drive to avoid the SR 138 corridor, and it slightly reduces congestion on the SR 138 corridor. This route also minimizes ecological and historical impacts, while avoiding any construction or impacts to Old Covington Highway and the CSX Railroad.			

No-Build Alternative:			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**0**
Estimated ROW Cost:	**0**	**Estimated CST Time:**	**0**
Rationale: With traffic volumes along SR 138 and Dogwood Road expected to rise and congestion to worsen, a no-build is not a viable option.			

Alternative 2A: *A new 3-lane roadway spanning I-20 just east of Courtesy Parkway, between the Penske and Courtesy Ford properties, extending north to tie to the intersection of Gees Mill Road and Old Covington Highway, and south to Flat Shoals Road at Flat Shoals Elementary School. The work includes a quadrant roadway to tie to Iris Drive, and a connector road to access Dogwood Road via existing Courtesy Parkway.*			
Estimated Property Impacts:	**15**	**Estimated Total Cost:**	**$24,600,000.00**
Estimated ROW Cost:	**$12,000,000.00**	**Estimated CST Time:**	**36 months**
Rationale: *This alternative will affect more properties, incur more ecological, historical, and potential hazardous material sites. This alternative would also involve the re-design of the intersection with Gees Mill Road and Old Covington Highway, which would impact the Railroad Crossing, resulting in delays associated with coordination with the Railroad.*			

Feasibility Alternates: *Per the attached feasibility study layout, several alternates located further east of the preferred alternate were studied. Most of the alternates impacted the Snapping Shoals Creek and associated wetlands, which would result in more mitigation costs and would require a PAR, which could result in another alternate being chosen to minimize impacts to US Waters.*			
Estimated Property Impacts:	**12-15**	**Estimated Total Cost:**	**$25 to $35 million**
Estimated ROW Cost:	**Varies**	**Estimated CST Time:**	**36 months**
Rationale: *This alternative will affect more properties, incur more ecological, historical, and potential hazardous material sites. This alternative would also involve the re-design of the intersection with Gees Mill Road and Old Covington Highway, which would impact the Railroad Crossing, resulting in delays associated with coordination with the Railroad.*			

LIST OF ATTACHMENTS/SUPPORTING DATA *(List supporting data in attached order)*

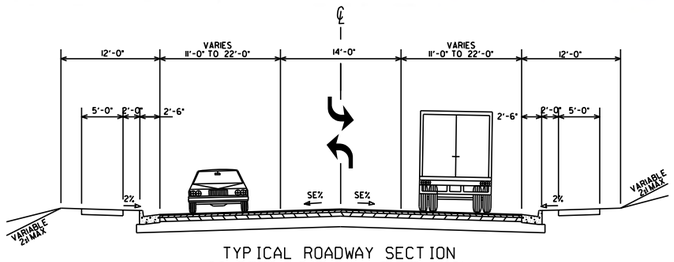
1. Concept Layout and Typical Sections (Preferred Alternate 1A)
2. Alternatives Layout (Alt. 2A)
3. Feasibility Study Alternatives
4. Detailed Cost Estimates:
    a. Construction including Engineering and Inspection
    b. Completed Fuel & Asphalt Price Adjustment forms
    c. Right-of-Way
    d. Utilities
    e. Mitigation Cost Estimate
5. Traffic diagrams
6. Capacity analysis summary *(tabular format)*
7. Preliminary Pavement Type Selection Report
8. Conforming plan's network schematics showing thru lanes.
9. Minutes of Concept meetings
10. PFA

APPROVALS

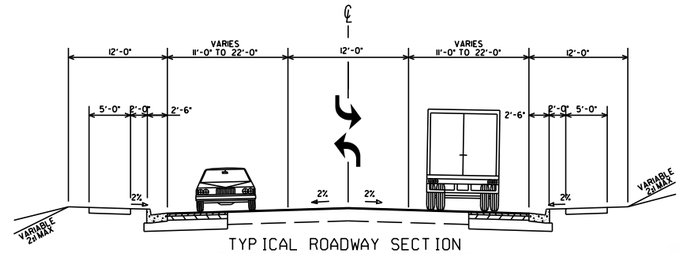
Concur: _____ *
Director of Engineering

* 5-LANE BRIDGE OVER I-20 MUST BE JUSTIFIED OR CHANGED TO 3-LANE. During NEPA MBP

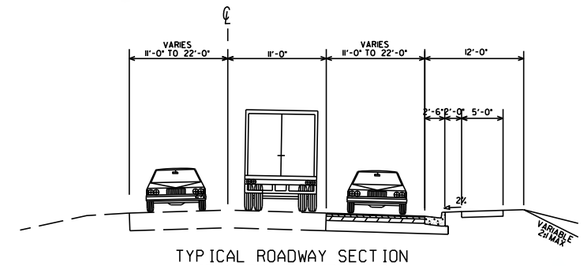
Approve: Margaret B. Pinkel 3·29·15
Chief Engineer Date



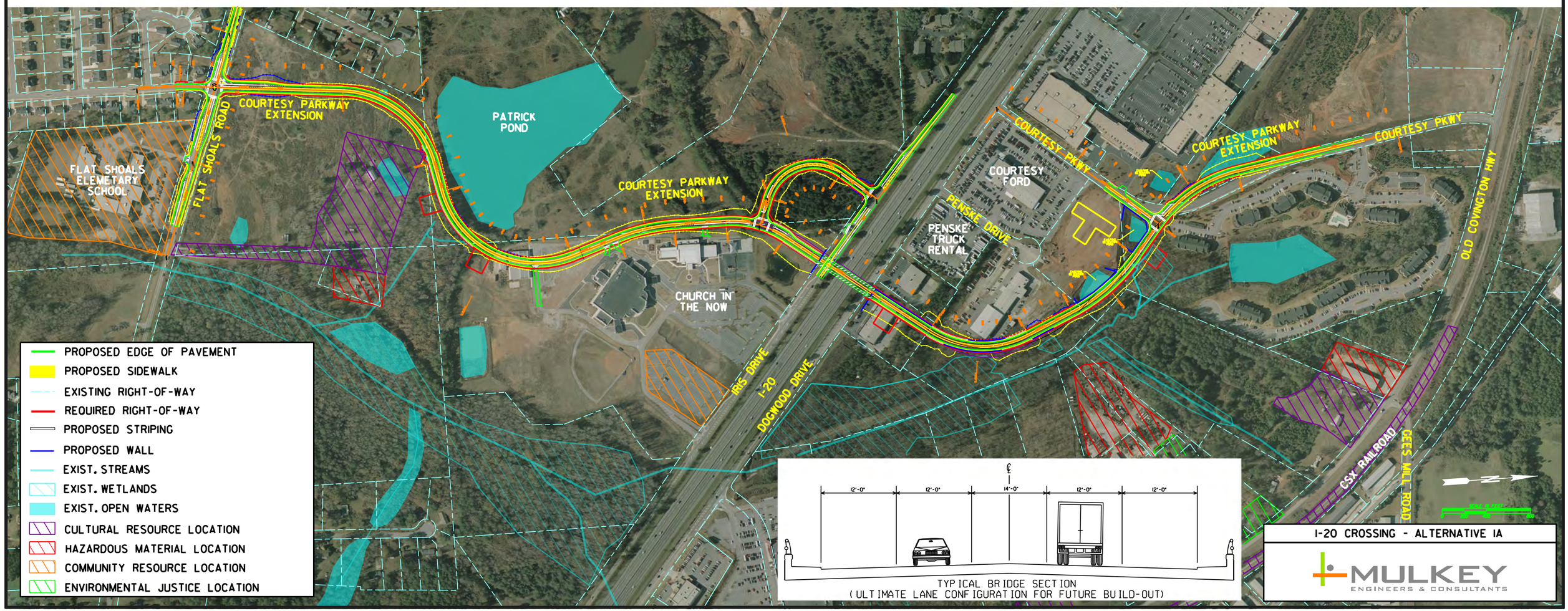
TYPICAL ROADWAY SECTION
COURTESY PARKWAY EXTENSION
RAMP TO IRIS DRIVE
TIE TO COURTESY PARKWAY SOUTH



TYPICAL ROADWAY SECTION
FLAT SHOALS ROAD WIDENING

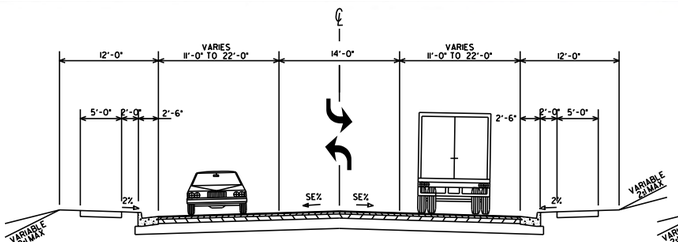


TYPICAL ROADWAY SECTION
IRIS DRIVE WIDENING

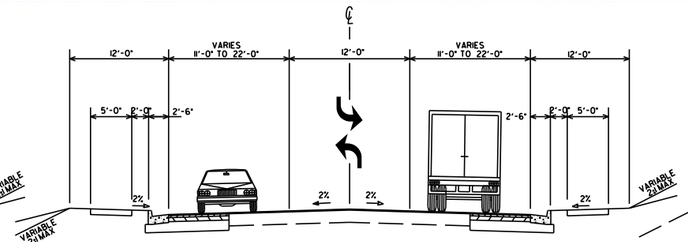


I-20 CROSSING - ALTERNATIVE IA

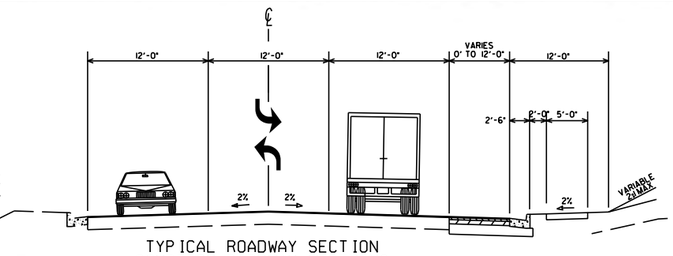
MULKEY
ENGINEERS & CONSULTANTS



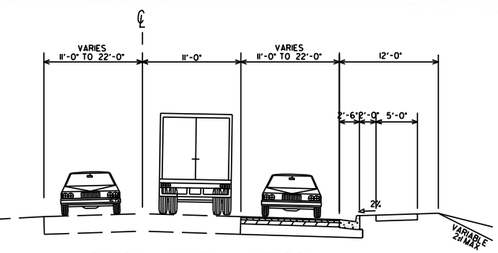
TYPICAL ROADWAY SECTION
COURTESY PARKWAY EXTENSION
RAMP TO IRIS DRIVE
RAMP TO COURTESY PARKWAY



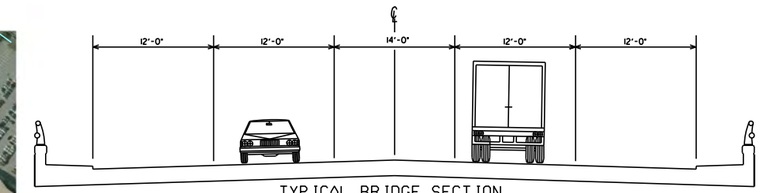
TYPICAL ROADWAY SECTION
FLAT SHOALS ROAD WIDENING
OLD COVINGTON HIGHWAY WIDENING (NO S/W ON N SIDE)



TYPICAL ROADWAY SECTION
COURTESY PARKWAY WIDENING



TYPICAL ROADWAY SECTION
IRIS DRIVE WIDENING



TYPICAL BRIDGE SECTION
(ULTIMATE LANE CONFIGURATION - FUTURE BUILD-OUT)

FLAT SHOALS ROAD
COURTESY PARKWAY EXTENSION
FLAT SHOALS ELEMETARY SCHOOL
PATRICK POND
CHURCH IN THE NOW
IRIS DRIVE
I-20
DOGWOOD DRIVE
PENSKE TRUCK RENTAL
COURTESY FORD
COURTESY PKWY
COURTESY PARKWAY EXTENSION
OLD COVINGTON HWY
CSX RAILROAD
GEES MILL ROAD

- PROPOSED EDGE OF PAVEMENT
- PROPOSED SIDEWALK
- EXISTING RIGHT-OF-WAY
- REQUIRED RIGHT-OF-WAY
- PROPOSED STRIPING
- EXIST. STREAMS/WETLANDS/PONDS
- CULTURAL RESOURCE LOCATION
- HAZARDOUS MATERIAL LOCATION
- COMMUNITY RESOURCE LOCATION
- ENVIRONMENTAL JUSTICE LOCATION

I-20 CROSSING - ALTERNATIVE 2A

MULKEY ENGINEERS & CONSULTANTS

I-20 CROSSING | FEASIBILITY ALTERNATES

MULKEY
ENGINEERS & CONSULTANTS

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. **CSSTP-0006-00(934)**

OFFICE Program Delivery

PROJECT DESCRIPTION

Courtesy Parkway Extension / I-20 Crossing

DATE February 23, 2015

From:

To: Lisa L. Myers, State Project Review Engineer

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Jeff Simmons

MGMT LET DATE LR

MGMT ROW DATE LOCL

PROGRAMMED COSTS (TPro W/OUT INFLATION)			**LAST ESTIMATE UPDATE**	
CONSTRUCTION	$	12,100,000.00	DATE	12/7/2007
RIGHT OF WAY	$	10,000,000.00	DATE	
UTILITIES	$	N/A	DATE	

REVISED COST ESTIMATES

CONSTRUCTION*	$	12,774,559.47
RIGHT OF WAY	$	9,083,000.00
UTILITIES	$	48,000.00

*Cost Contains **10** % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

Cost Estimate Update

CONTINGENCY SUMMARY

A.	CONSTRUCTION COST ESTIMATE:	$ 11,019,286.39	Base Estimate From CES		
B.	ENGINEERING AND INSPECTION (E & I):	$ 550,964.32	Base Estimate (A) x	5	%
C.	CONTINGENCY:	$ 1,157,025.07	Base Estimate (A) + E & I (B) x See % Table in "Risk Based Cost Estimation" Memo	10	%
D.	TOTAL LIQUID AC ADJUSTMENT:	$ 47,283.69	Total From Liquid AC Spreadsheet		
E.	CONSTRUCTION TOTAL:	$ **12,774,559.47**	(A + B + C + D = E)		

REIMBURSABLE UTILTY COSTS

UTILITY OWNER	REIMBURSABLE COST
Snapping Shoals EMC	$48,000.00
TOTAL	**$ 48,000.00**

ATTACHMENTS:

Detailed Cost Estimate Printout
Liquid AC Adjustment Spreadsheet

PROJ. NO.	CSSTP-0006-00(934)	CALL NO.	9/29/2009
P.I. NO.	0006934		
DATE	2/23/2015		

INDEX (TYPE)	**DATE**	**INDEX**
REG. UNLEADED	Feb-15	$ 1.998
DIESEL		$ 2.777
LIQUID AC		$ 534.00

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)				**46458**	**$**	**46,458.00**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	854.40		
Monthly Asphalt Cement Price month project let (APL)			$	534.00		
Total Monthly Tonnage of asphalt cement (TMT)				145		

ASPHALT	**Tons**	**%AC**	**AC ton**
Leveling	600	5.0%	30
12.5 OGFC		5.0%	0
12.5 mm		5.0%	0
9.5 mm SP	1200	5.0%	60
25 mm SP	700	5.0%	35
19 mm SP	400	5.0%	20
	2900		**145**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$**	**825.69**	**$**	**825.69**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	854.40		
Monthly Asphalt Cement Price month project let (APL)			$	534.00		
Total Monthly Tonnage of asphalt cement (TMT)				2.577060553		

Bitum Tack Gals	gals/ton	tons
600	232.8234	2.57706055

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$**	**-**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	854.40		
Monthly Asphalt Cement Price month project let (APL)			$	534.00		
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	**$**	**47,283.69**

JOB DETAIL ESTIMATE

JOB NUMBER : 2005424.00 CONC SPEC YEAR: 01
DESCRIPTION: I- 20 CROSSING CONCRETE

COST GROUPS FOR JOB 2005424.00 CONC

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
STRO	STRUCTURES, OTHER (SF)	25000.000	125.00000	3125000.00	Y
TRFT	TRAFFIC CONTROL-TEMPORARY (LS)	1.000	500000.00000	500000.00	Y
ERTHLS	EARTHWORK (LS)	1.000	2835000.00000	2835000.00	Y
SIGNPCTO	SIGNS (PERCENT OF JOB)	66884.397	1.50000	100326.60	Y
ACTIVE COST GROUP TOTAL				6560326.60	
INFLATED COST GROUP TOTAL				6560326.60	

ITEMS FOR JOB 2005424.00 CONC

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	163-0232		AC	TEMPORARY GRASSING	9.000	174.62	1571.58
0010	163-0240		TN	MULCH	252.000	180.38	45455.76
0015	163-0300		EA	CONSTRUCTION EXIT	8.000	1315.27	10522.16
0020	163-0531		EA	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 1	4.000	12936.99	51747.96
0025	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	87.000	111.12	9667.44
0030	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	8820.000	0.47	4145.40
0035	165-0060		EA	MAINT OF TEMP SEDIMENT BASIN,STA NO -	4.000	1419.46	5677.84
0040	165-0101		EA	MAINT OF CONST EXIT	8.000	522.90	4183.20
0045	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	87.000	43.33	3769.71
0050	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	2.000	273.95	547.90
0055	167-1500		MO	WATER QUALITY INSPECTIONS	30.000	509.95	15298.50
0060	171-0030		LF	TEMPORARY SILT FENCE, TYPE C	19440.000	2.80	54432.00
0070	310-1101		TN	GR AGGR BASE CRS, INCL MATL	24150.000	16.41	396301.50
0075	402-1802		TN	RECYL AC PATCHING, INCL BM&HL	100.000	134.77	13477.00
0080	402-1812		TN	RECYL AC LEVELING,INC BM&HL	500.000	79.57	39785.00
0085	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	700.000	69.62	48734.00
0090	402-3103		TN	REC AC 9.5 MM SP,TPII,GP2, INCL BM & HL	1200.000	78.83	94596.00
0095	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	400.000	72.24	28896.00
0100	413-1000		GL	BITUM TACK COAT	600.000	6.68	4008.00
0105	432-5010		SY	MILL ASPH CONC PVMT,VARB DEPTH	2000.000	3.69	7380.00
0110	433-1100		SY	REF CONC APPR SL/INCL CURB	400.000	145.07	58028.00
0115	430-0180		SY	PLN PC CONC PVMT/CL1C/ 8" TK	31500.000	35.00	1102500.00
0120	441-0104		SY	CONC SIDEWALK, 4 IN	10500.000	19.03	199815.00
0125	441-4030		SY	CONC VALLEY GUTTER, 8 IN	284.000	28.97	8227.48
0130	441-6222		LF	CONC CURB & GUTTER/ 8"X30"TP2	21000.000	9.83	206430.00

JOB DETAIL ESTIMATE

0135	446-1100	LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	2700.000	3.90	10530.00
0140	500-3115	LF	CLASS A CONCRETE, TYPE P2, RETAINING WAL	915.000	460.64	421485.60
0145	627-1010	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 1	9450.000	48.32	456624.00
0150	500-9999	CY	CL B CONC,BASE OR PVMT WIDEN	50.000	174.92	8746.00
0155	550-1180	LF	STM DR PIPE 18",H 1-10	16800.000	28.54	479472.00
0160	550-1240	LF	STM DR PIPE 24",H 1-10	5460.000	30.61	167130.60
0165	641-1100	LF	GUARDRAIL, TP T	170.000	59.55	10123.50
0170	641-1200	LF	GUARDRAIL, TP W	3450.000	15.93	54958.50
0175	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	3.000	830.84	2492.52
0180	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	3.000	1989.27	5967.81
0190	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	70.000	60.80	4256.00
0195	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	25640.000	0.37	9486.80
0200	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	15640.000	0.34	5317.60
0205	653-1704	LF	THERM SOLID TRAF STRIPE,24",WH	325.000	5.08	1651.00
0210	653-1804	LF	THERM SOLID TRAF STRIPE, 8",WH	2800.000	1.72	4816.00
0215	653-6004	SY	THERM TRAF STRIPING, WHITE	1000.000	4.70	4700.00
0220	653-6006	SY	THERM TRAF STRIPING, YELLOW	1500.000	3.94	5910.00
0225	668-1100	EA	CATCH BASIN, GP 1	87.000	2130.71	185371.77
0230	700-6910	AC	PERMANENT GRASSING	17.000	611.50	10395.50
0235	700-7000	TN	AGRICULTURAL LIME	50.000	21.50	1075.00
0240	700-8000	TN	FERTILIZER MIXED GRADE	15.000	607.40	9111.00
0245	700-8100	LB	FERTILIZER NITROGEN CONTENT	840.000	1.76	1478.40
0250	716-2000	SY	EROSION CONTROL MATS, SLOPES	10500.000	1.29	13454.00
0255	627-1140	LF	TRAFFIC BARRIER V, WALL NO - 1	721.000	234.56	169117.76

ITEM TOTAL 4458959.79
INFLATED ITEM TOTAL 4458959.79

TOTALS FOR JOB 2005424.00 CONC

ESTIMATED COST: 11019286.39
E & I PERCENT (5.0): 550964.32
ESTIMATED TOTAL: 11570250.70

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 3/31/2014 Project: 0006934
Revised: County: Fulton
PI: 0006934

Description: Courtesy Parkway Extension
Project Termini: Courtesy Parkway Extension

Existing ROW:
Parcels: 11 Required ROW:

Land and Improvements		$8,691,750.00
Proximity Damage	*$175,000.00*	
Consequential Damage	*$480,000.00*	
Cost to Cures	*$240,000.00*	
Trade Fixtures	*$0.00*	
Improvements	*$1,775,000.00*	
Valuation Services		$81,875.00
Legal Services		$82,425.00
Relocation		$132,000.00
Demolition		$0.00
Administrative		$94,500.00
TOTAL ESTIMATED COSTS		$9,082,550.00
TOTAL ESTIMATED COSTS (ROUNDED)		***$9,083,000.00***

Preparation Credits	Hours	Signature

Prepared By: Lathrone Alexander CG#: 286999 03/31/2014 (DATE)
Approved By: Lathrone Alexander CG#: 286999 03/31/2014 (DATE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

allsop

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTER-DEPARTMENT CORRESPONDENCE

FROM: Patrick Allen, P.E.
District Utilities Engineer

DATE: April 17, 2014

TO: Jeff Simmons, Project Manager

SUBJECT: PRELIMINARY UTILITY COST ESTIMATE
P.I. 0006934 Rockdale County

As requested by your office, we are furnishing you with a Preliminary Cost Estimate for each utility with facilities potentially located with the project limits.

FACILITY OWNER	REIMBURSABLE	NON-REIMBURSABLE	TOTAL
Snapping Shoal EMC	$48,000.00	$0.00	$48,000.00
Rockdale County Water & Sewer	$0.00	$431,442.00	$431,442.00
AT&T		$143,814.00	$143,814.00
AGL		$143,814.00	$143,814.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
			$0.00
TOTAL	$48,000.00	$719,070.00	$767,070.00

This estimate is based upon the current information. We will provide an updated estimate when the plans are further developed.

If you have any questions, please contact _Wade Woodard_____ at 770-986-1117

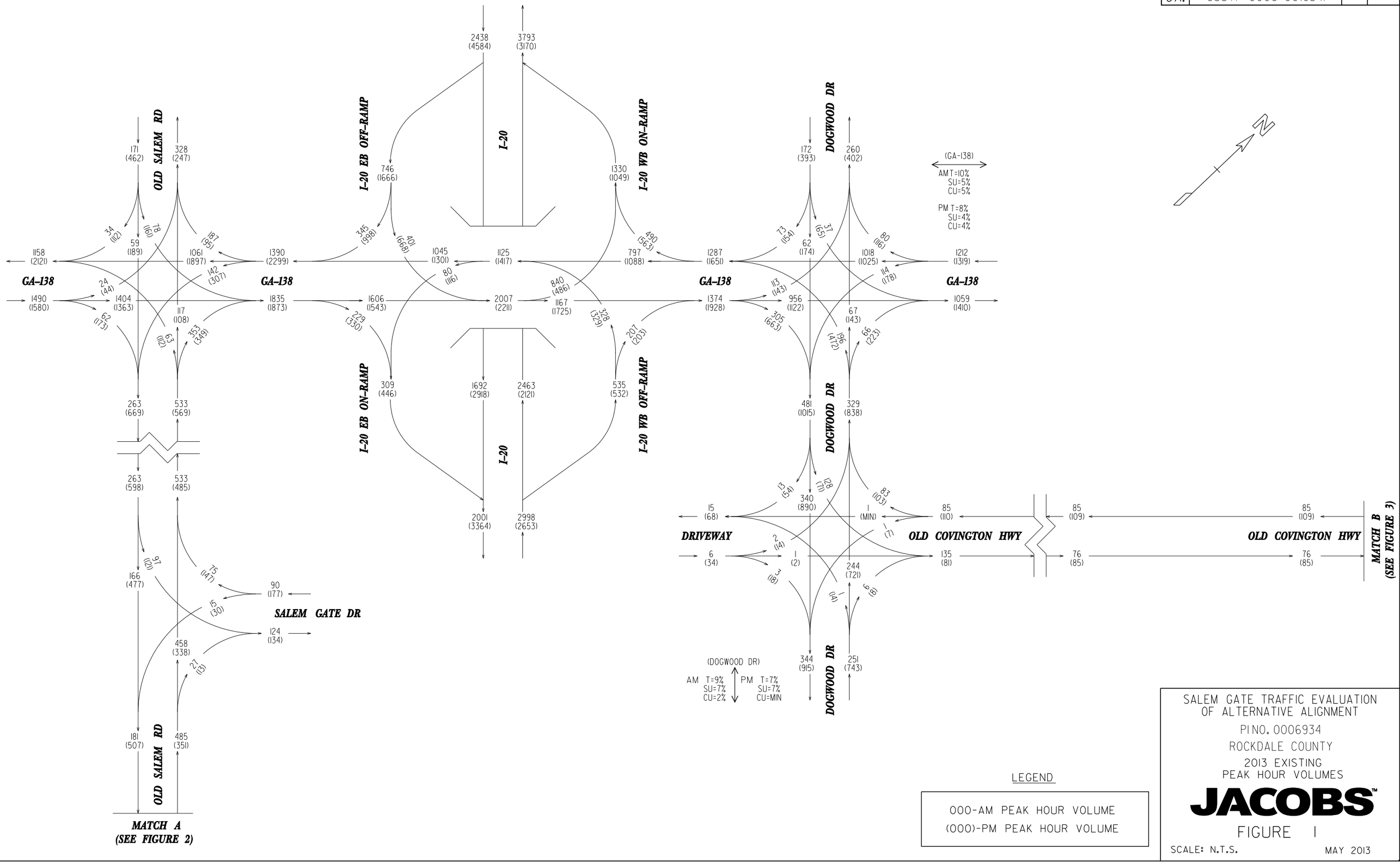
RSB/PA/SW/_WW_

Cc: Michael J. Bolden, State Utilities Engineer

Environmental Mitigation Cost Estimate
Project CSSTP-0006-00(934)
PI #0006934
I-20 Crossing from Old Covington Highway to Flat Shoals Road
4/15/2014

Type of Impact	Impact Area	Credits	Estimated $/ Credit	Multiplier	Subtotal
Wetland Impacts (acres)	0.5	2	$ 18,000.00	1	$ 36,000.00
Direct Stream Impacts (linear ft.)	410	6	$ 1,500.00	1	$ 9,000.00
Stream Buffer Impacts (square ft.)	4000	0.5	$ 1,500.00	2.5	$ 1,875.00
Total Mitigation Costs					**$ 46,875.00**

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2013 EXISTING
PEAK HOUR VOLUMES

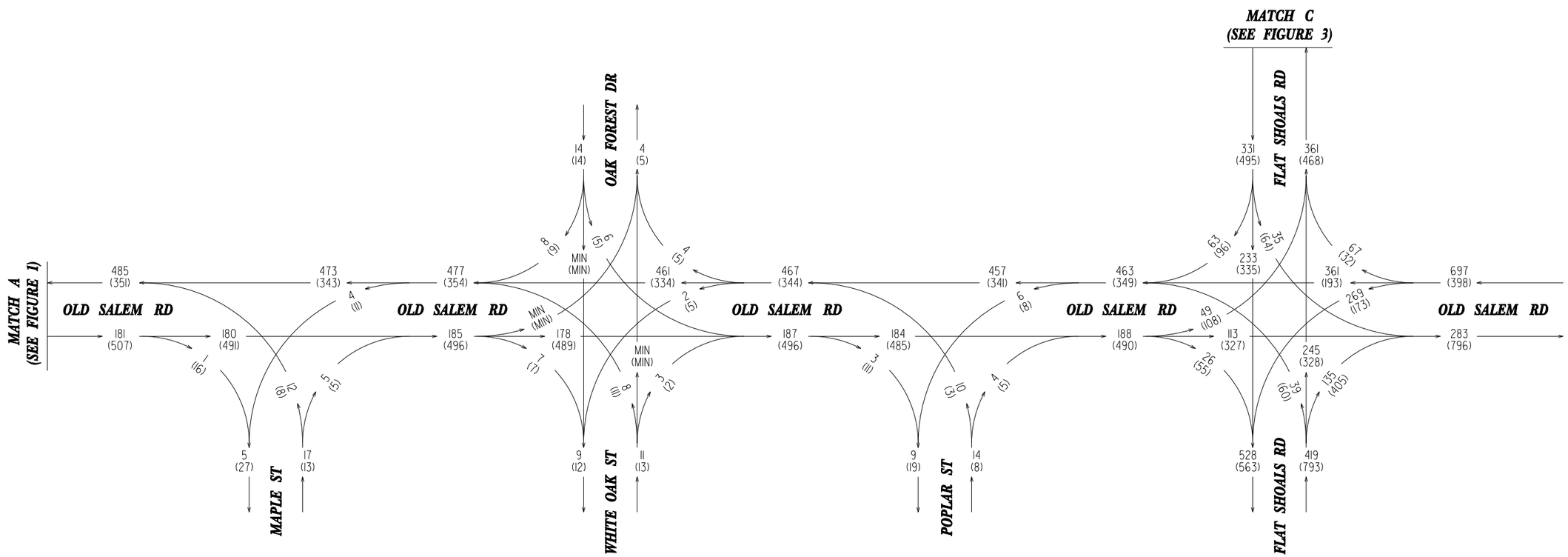
JACOBS™

FIGURE 1

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2013 EXISTING
PEAK HOUR VOLUMES

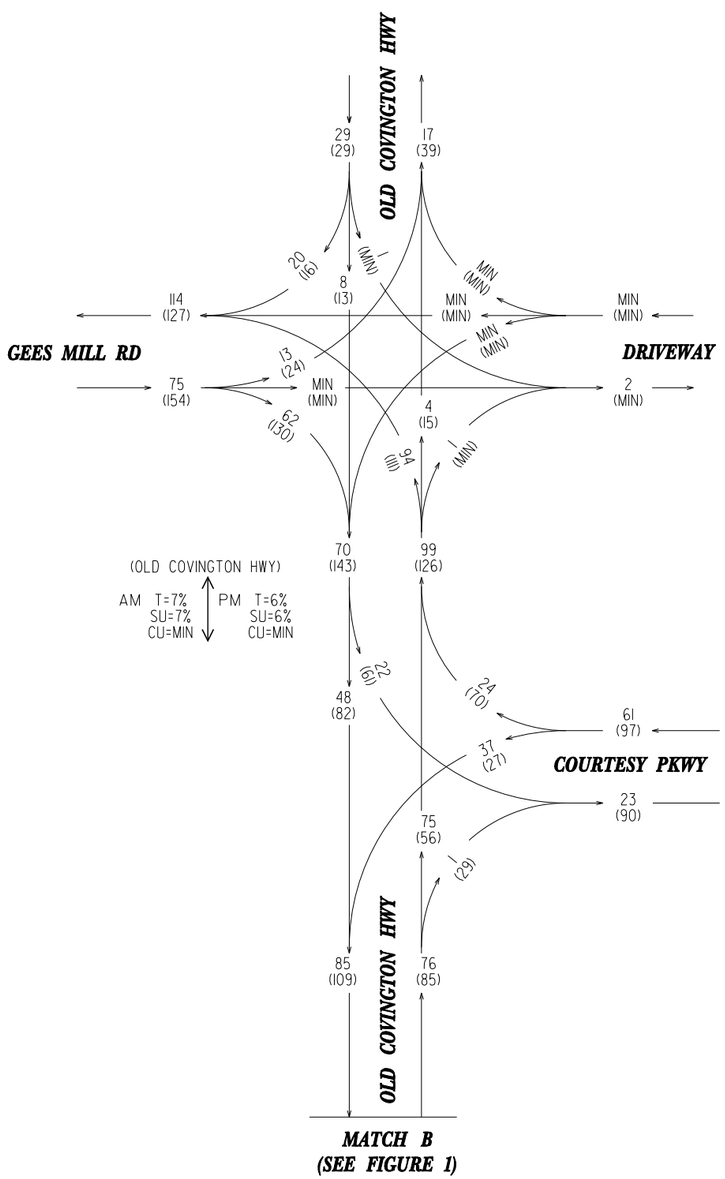
JACOBS™

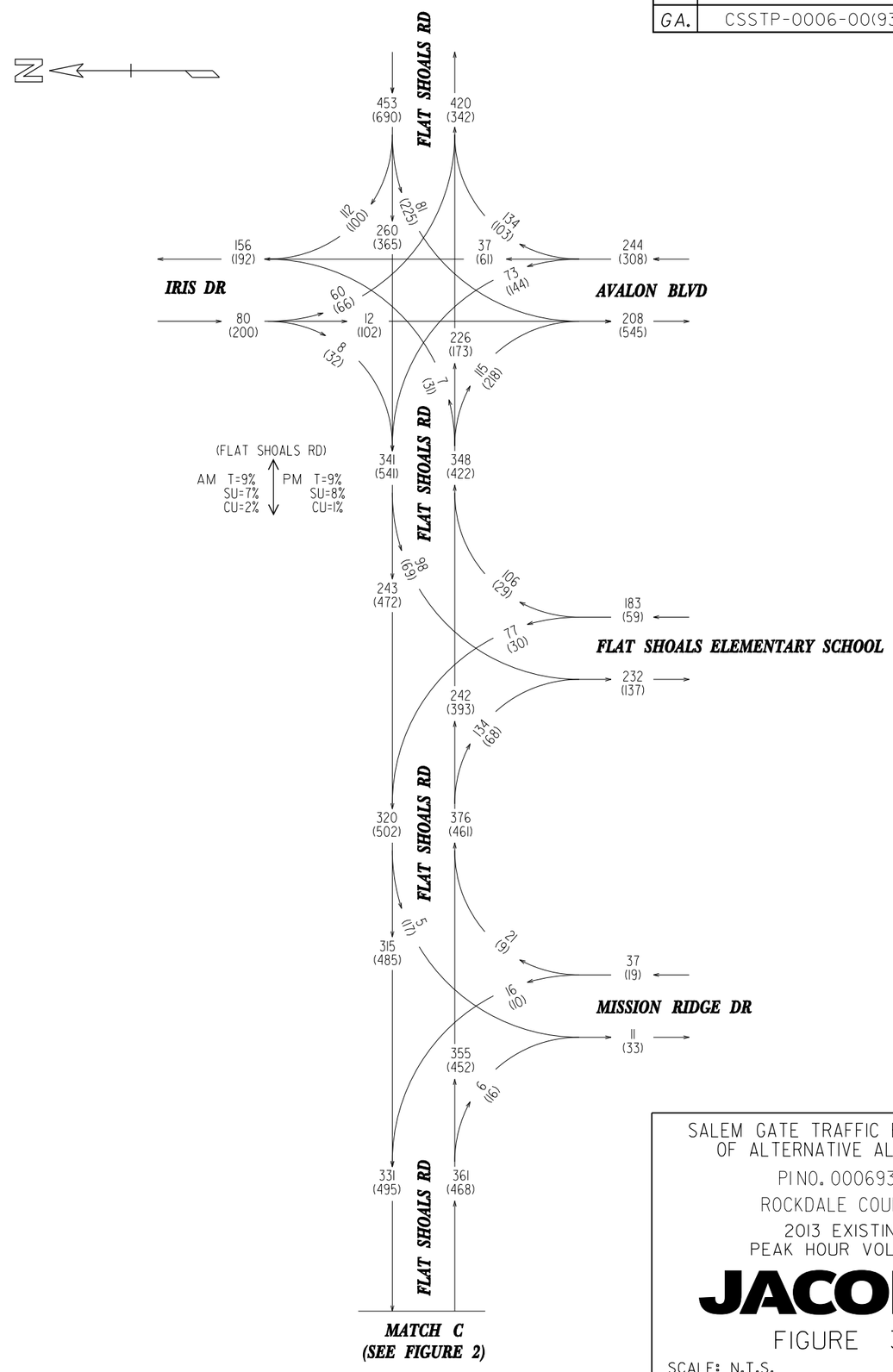
FIGURE 2

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		





LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2013 EXISTING
PEAK HOUR VOLUMES

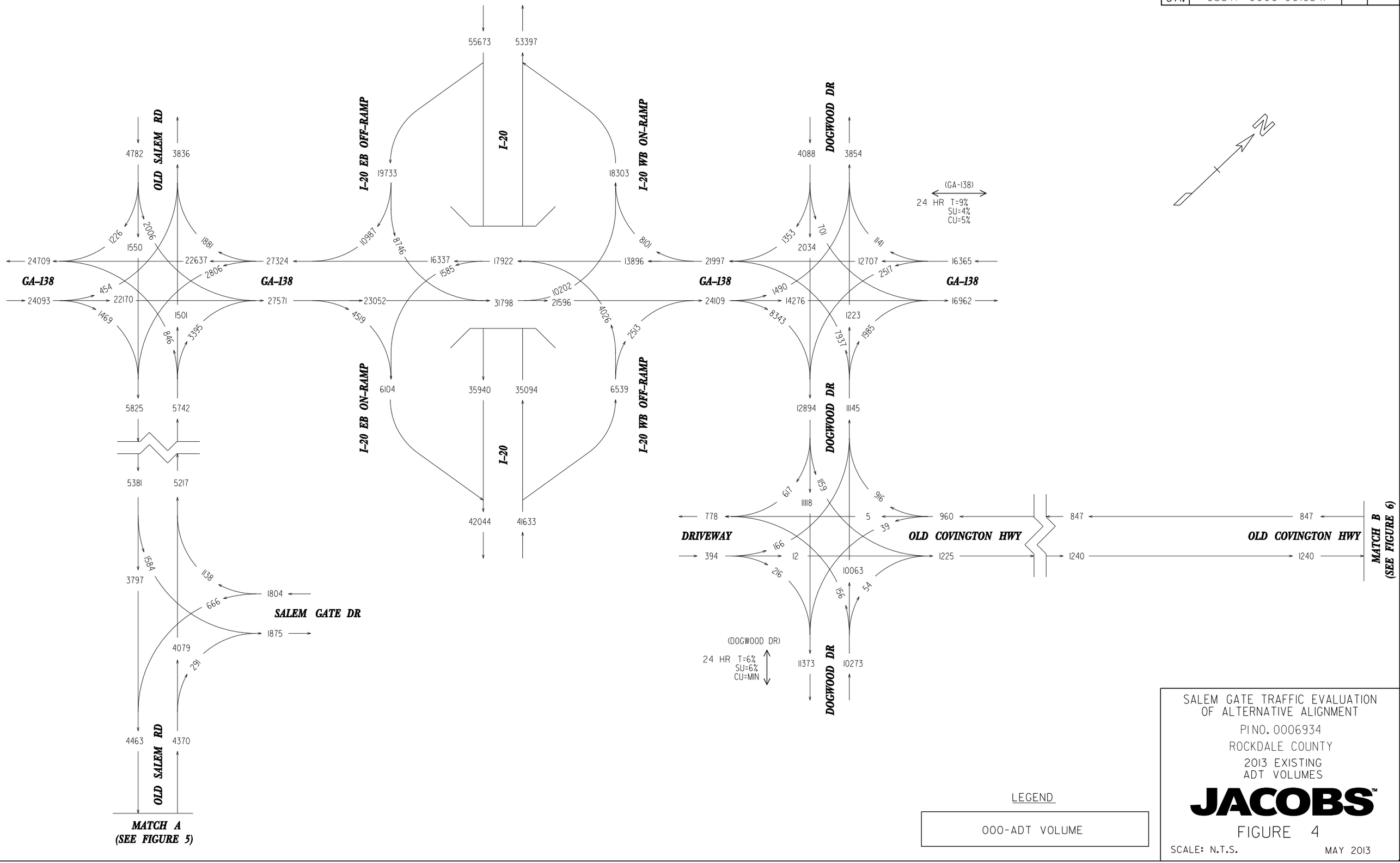
JACOBS™

FIGURE 3

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2013 EXISTING
ADT VOLUMES

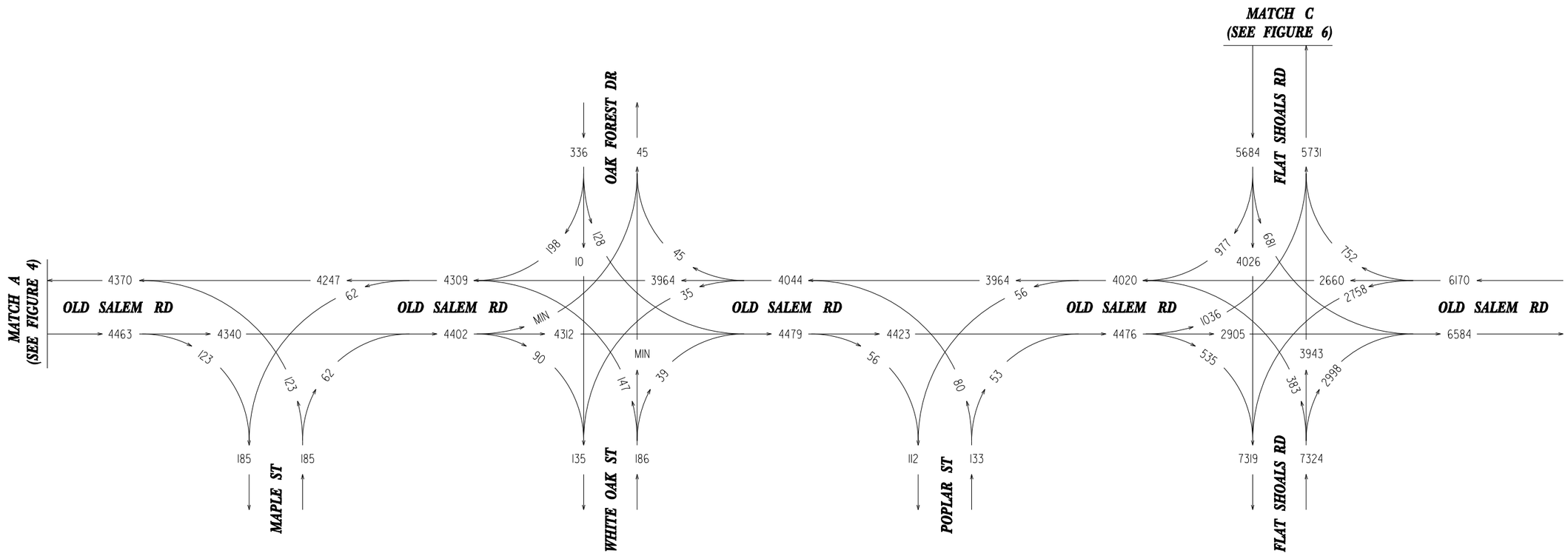
JACOBS™

FIGURE 4

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2013 EXISTING
ADT VOLUMES

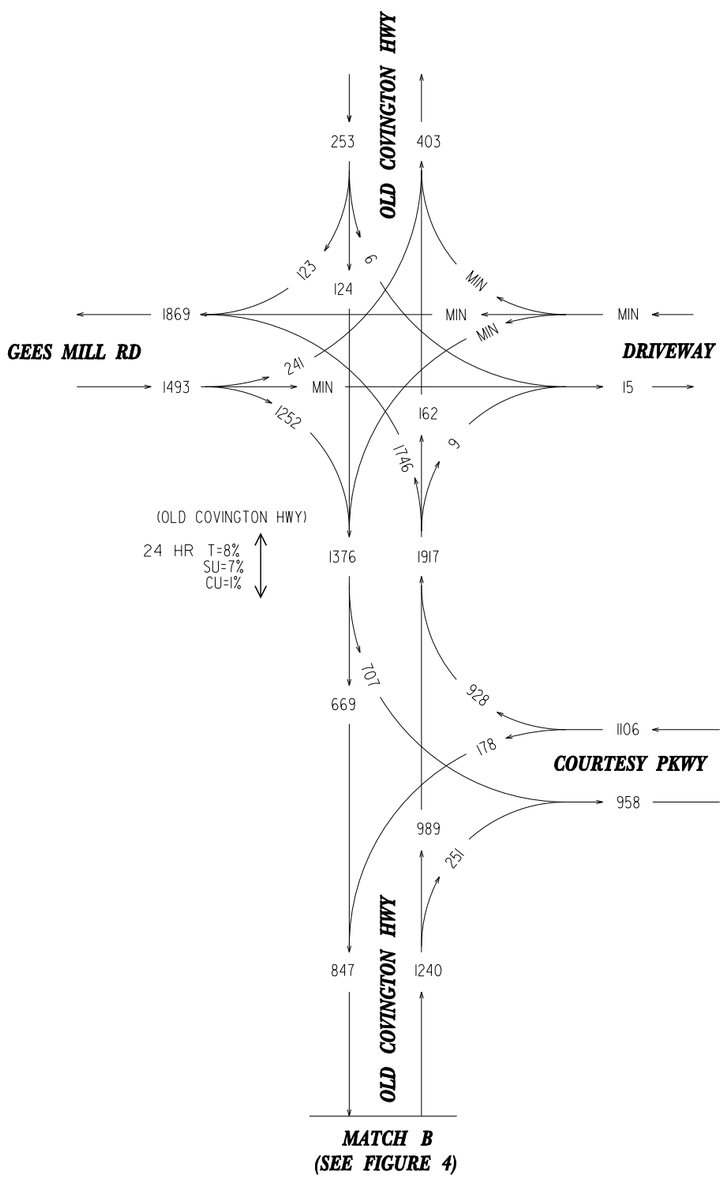
JACOBS™

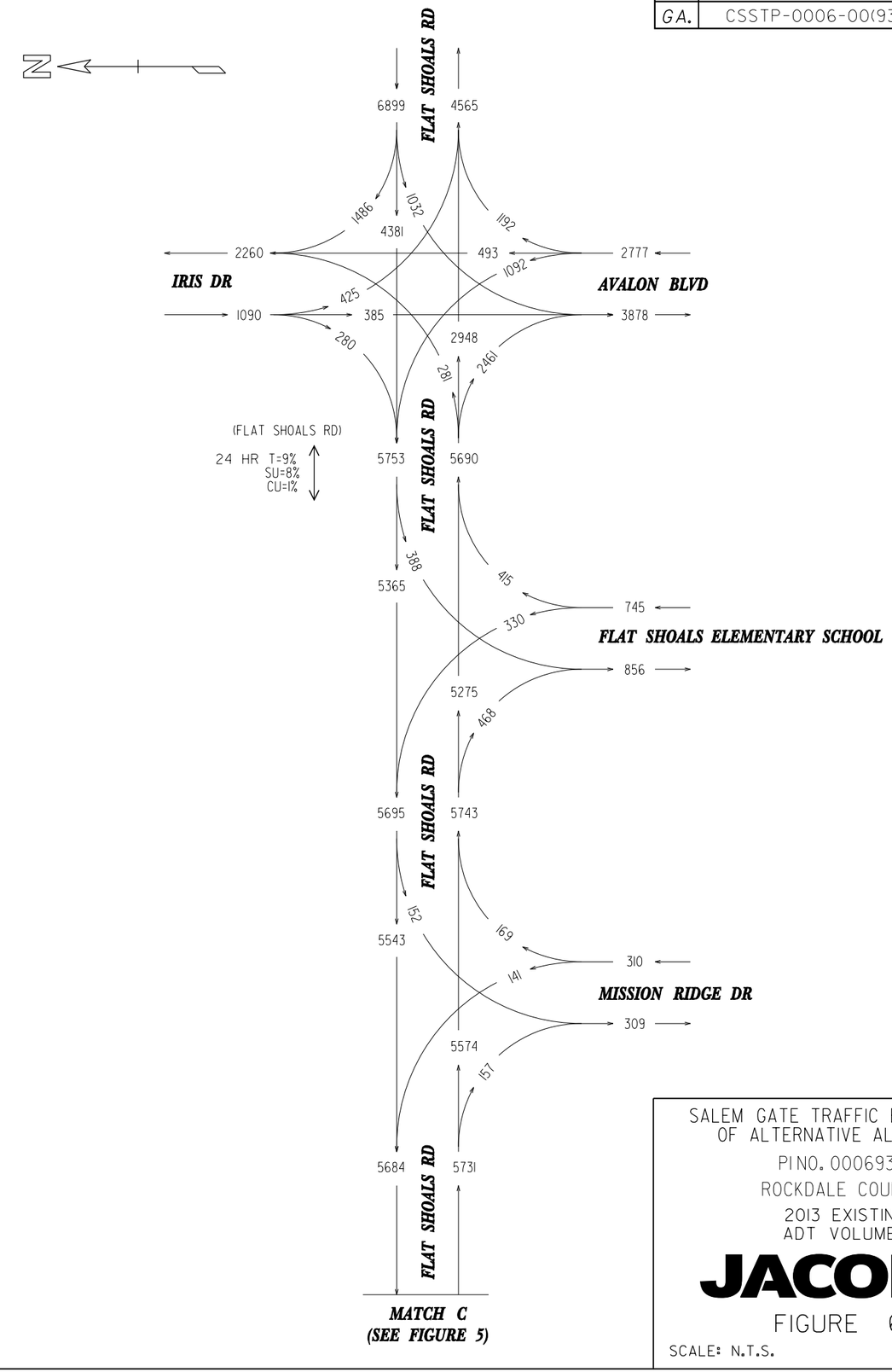
FIGURE 5

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		





LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2013 EXISTING
ADT VOLUMES

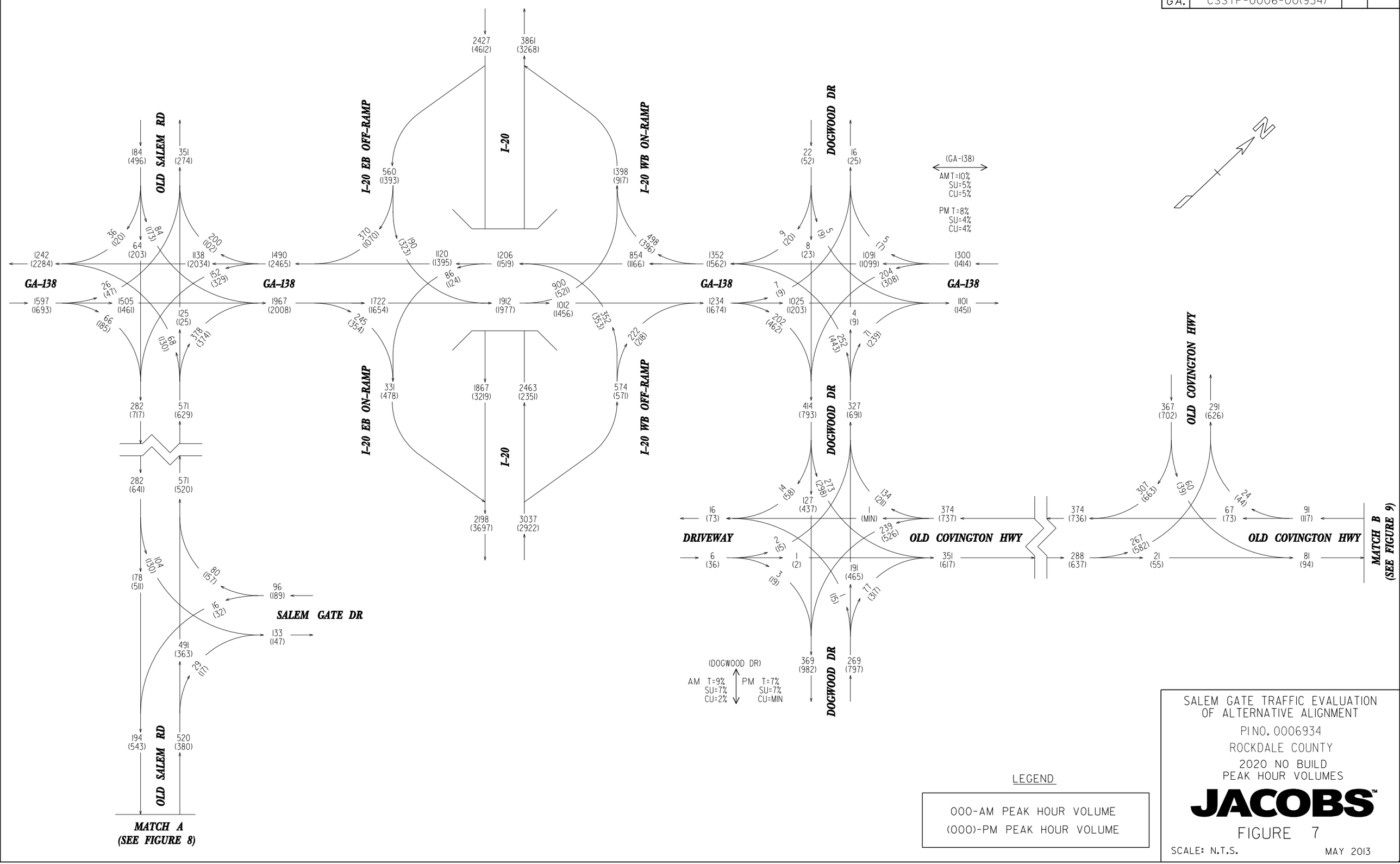
JACOBS™

FIGURE 6

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 NO BUILD
PEAK HOUR VOLUMES

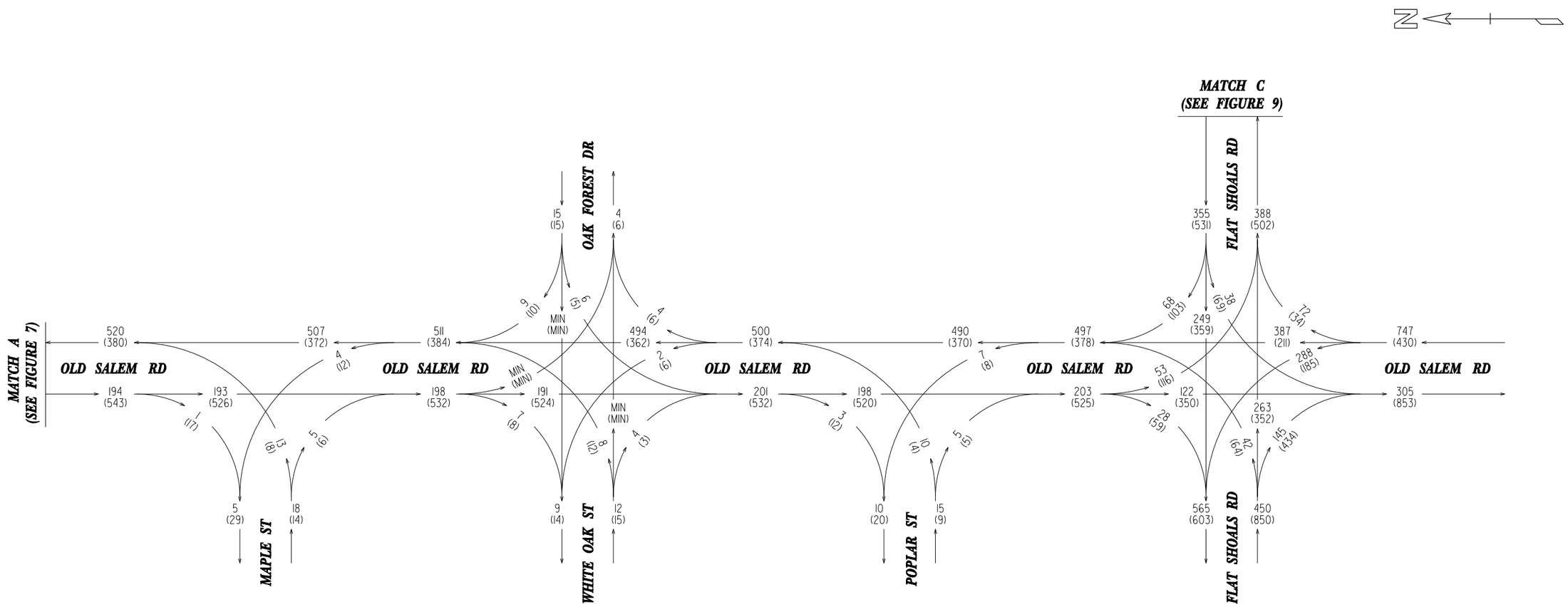
JACOBS™

FIGURE 7

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 NO BUILD
PEAK HOUR VOLUMES

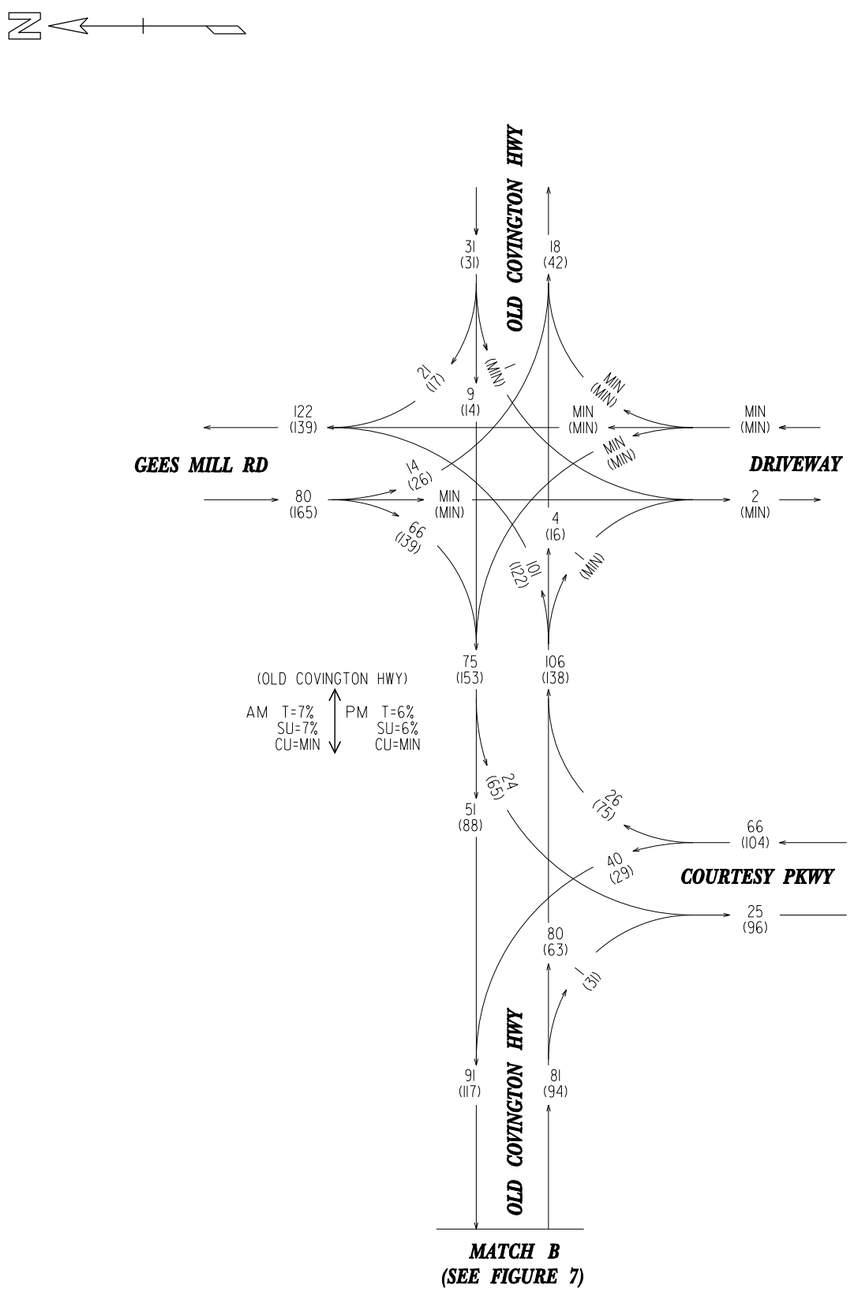
JACOBS™

FIGURE 8

SCALE: N.T.S.

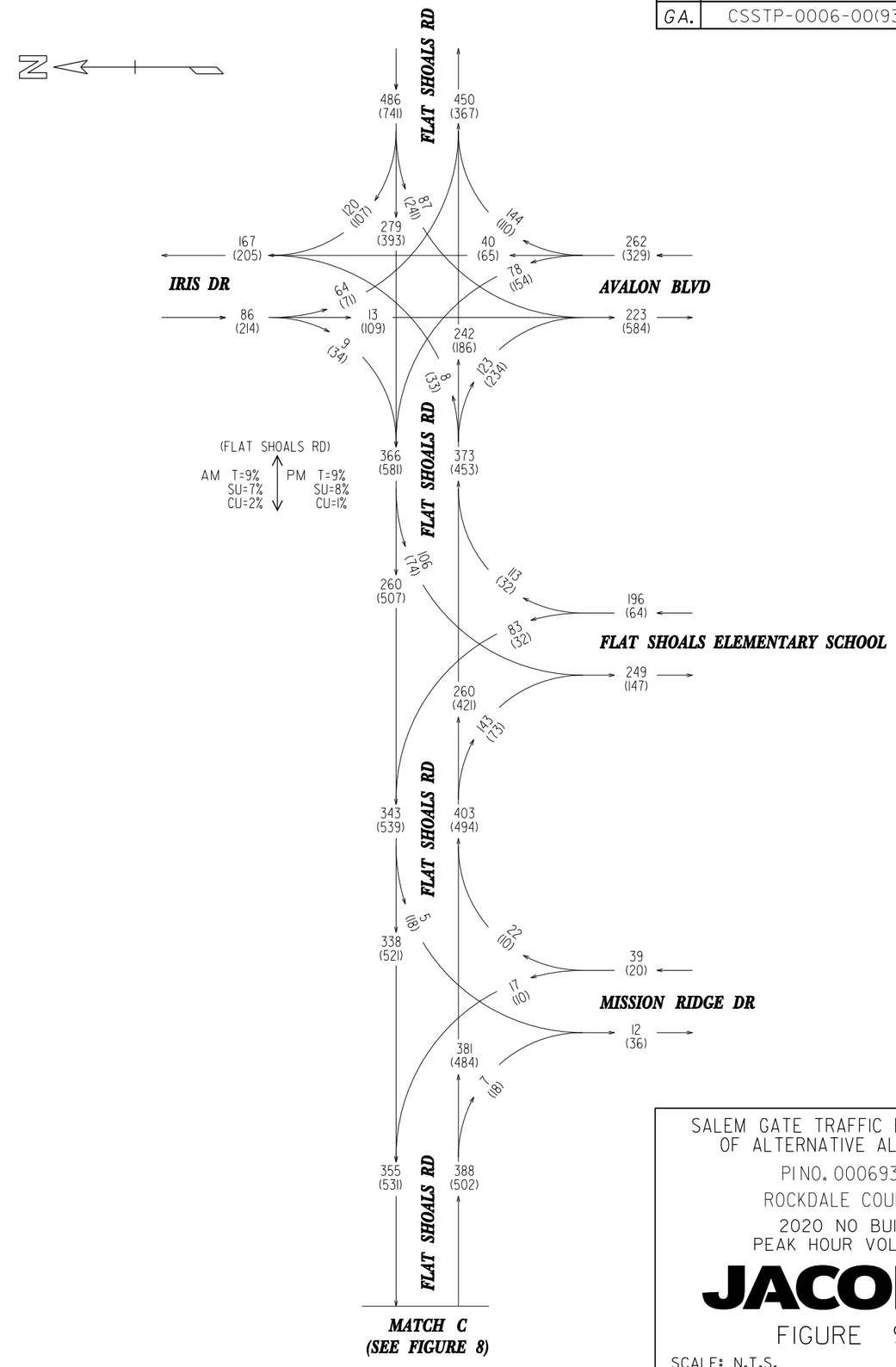
MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME



SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 NO BUILD
PEAK HOUR VOLUMES

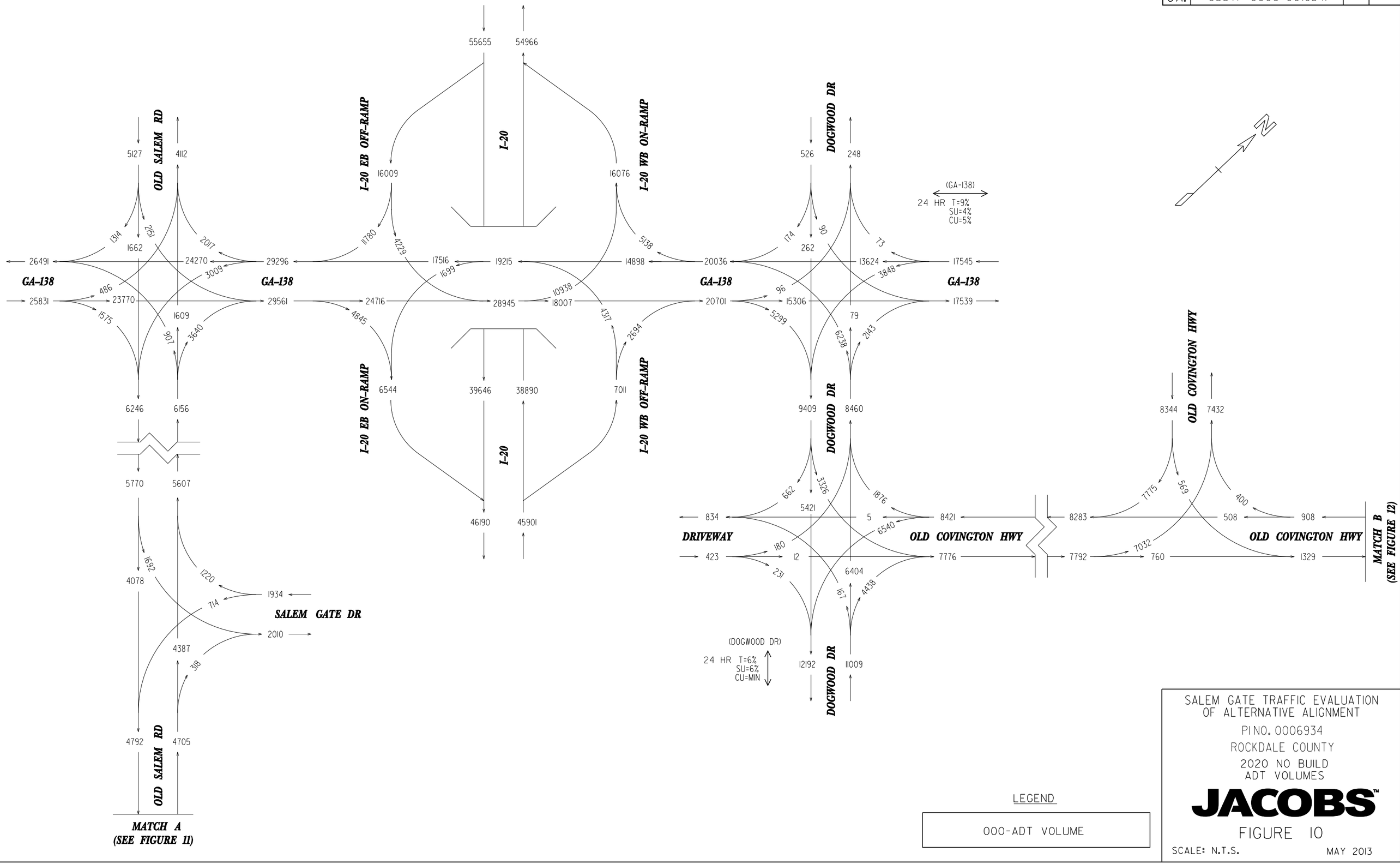
JACOBS™

FIGURE 9

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 NO BUILD
ADT VOLUMES

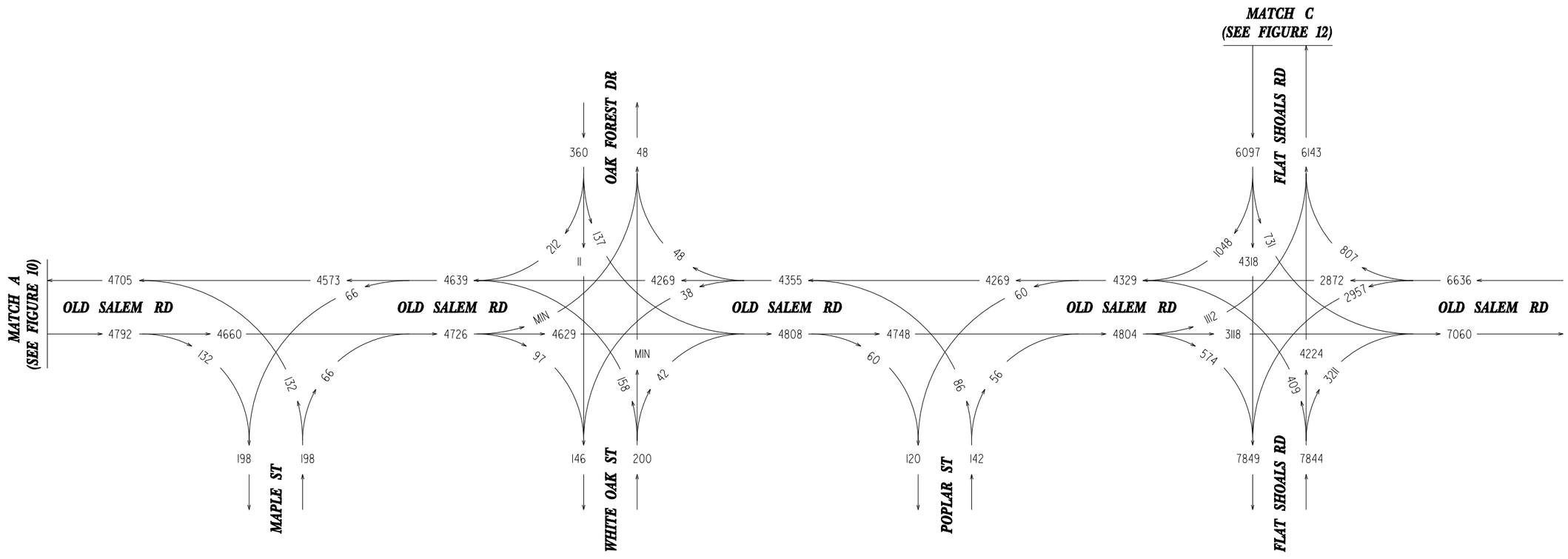
JACOBS™

FIGURE 10

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 NO BUILD
ADT VOLUMES

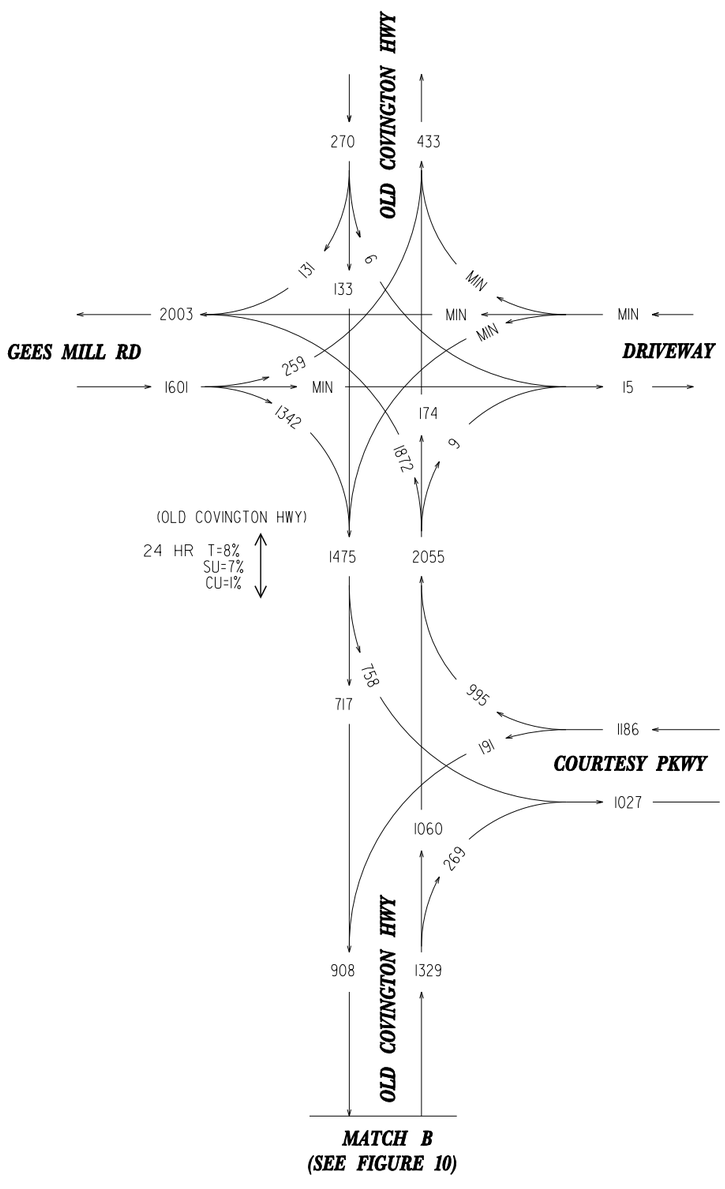
JACOBS™

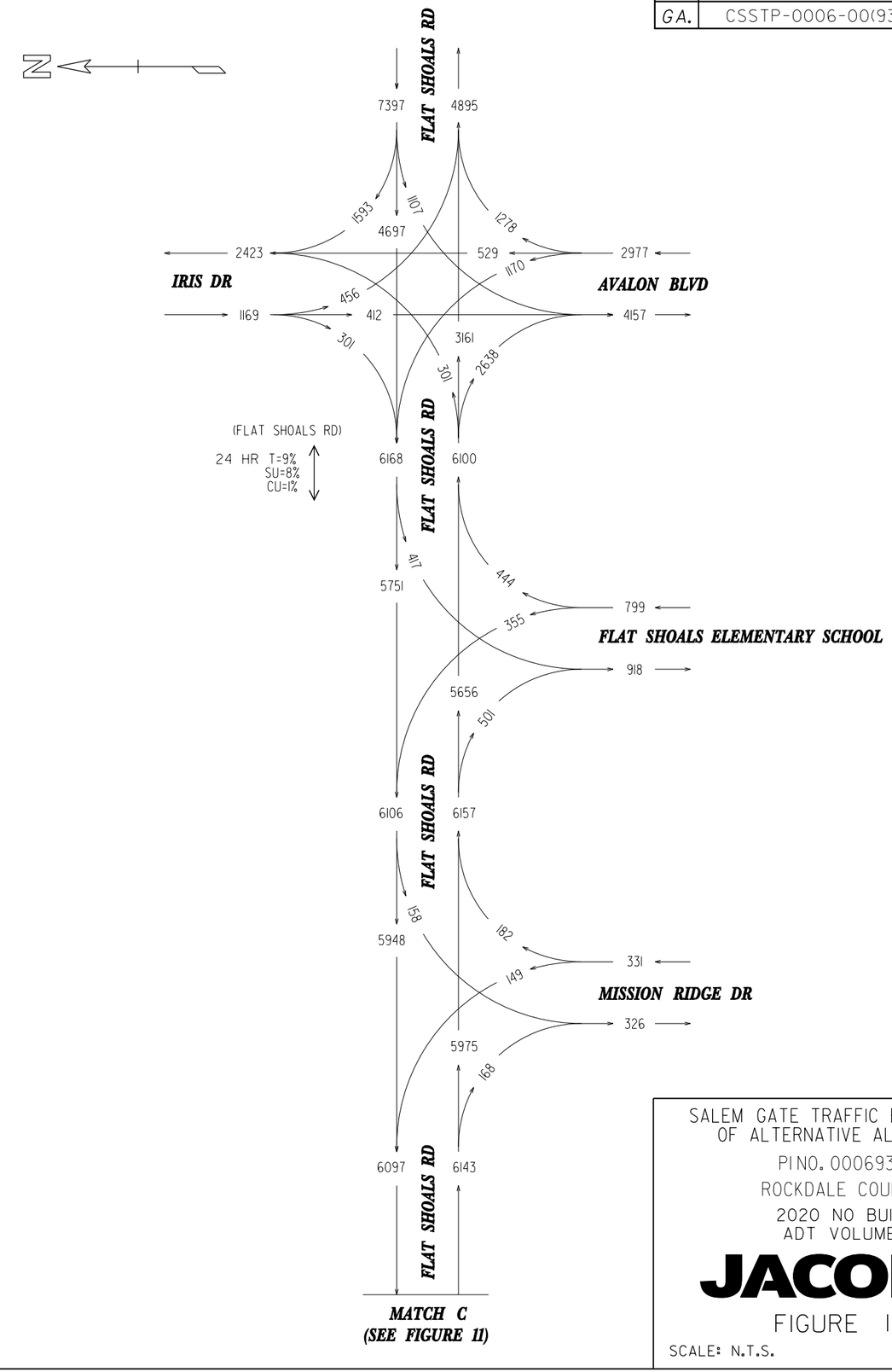
FIGURE 11

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		





LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 NO BUILD
ADT VOLUMES

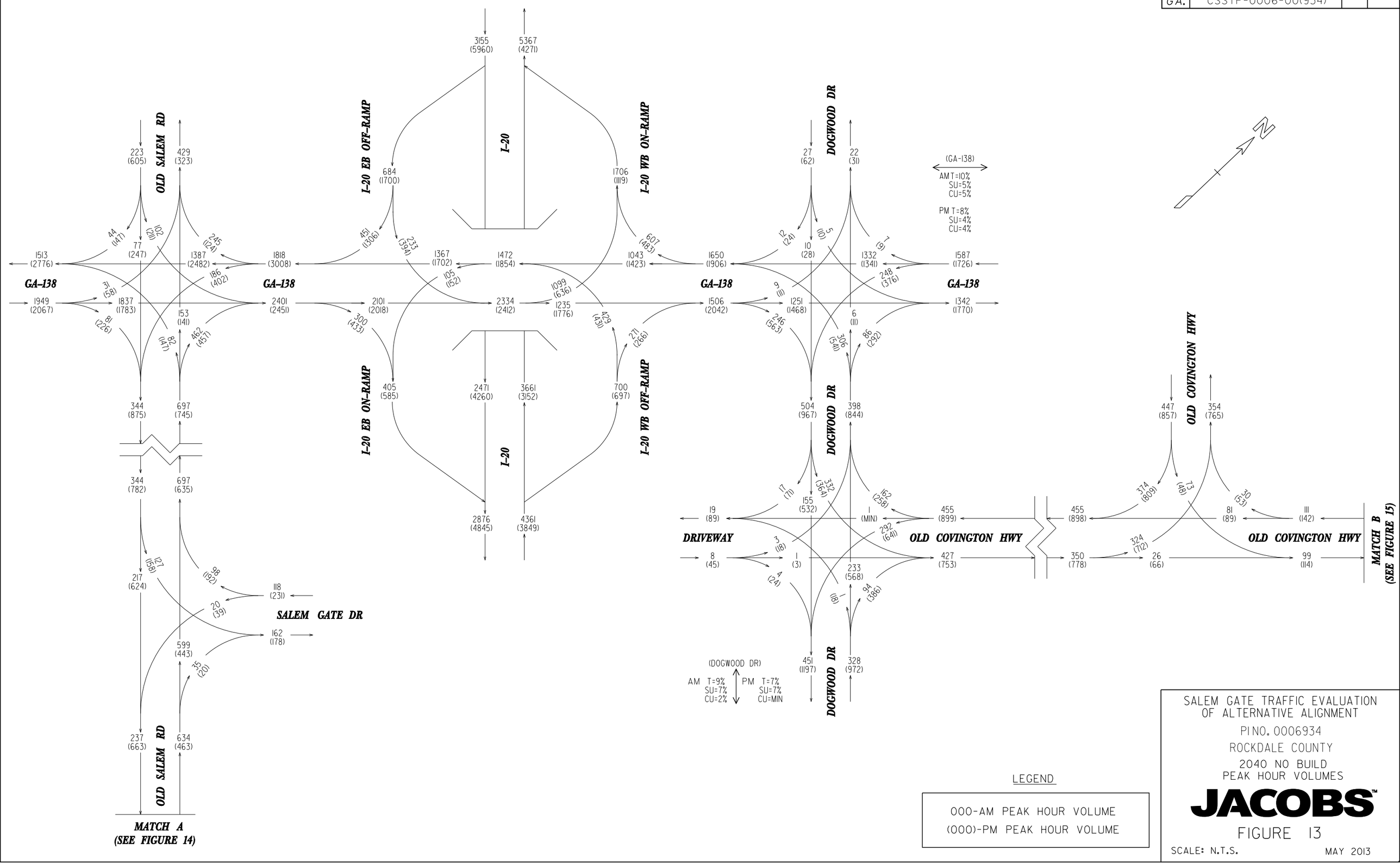
JACOBS™

FIGURE 12

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 NO BUILD
PEAK HOUR VOLUMES

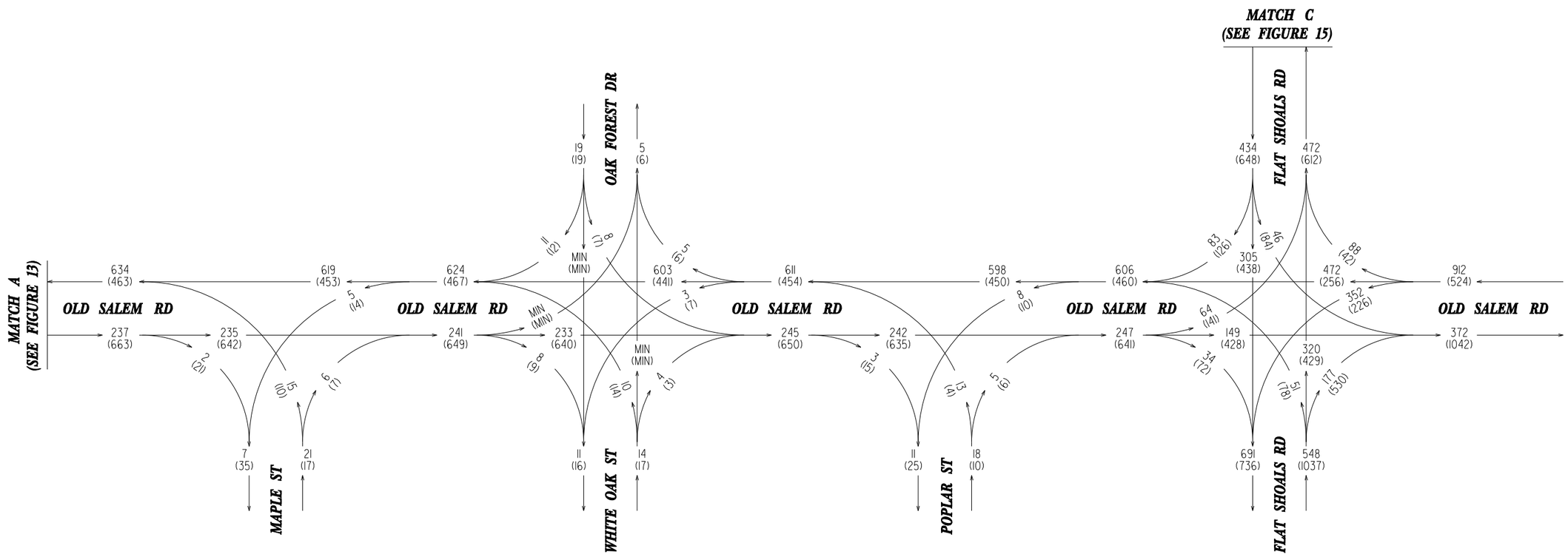
JACOBS™

FIGURE 13

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 NO BUILD
PEAK HOUR VOLUMES

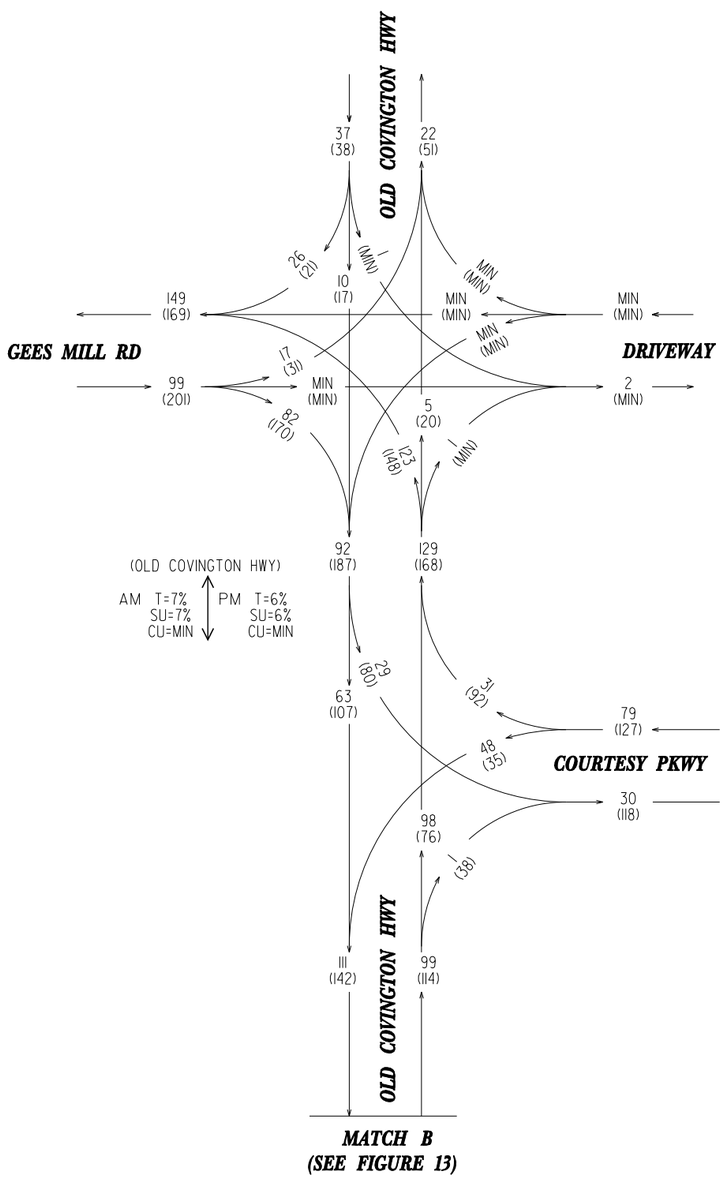
JACOBS™

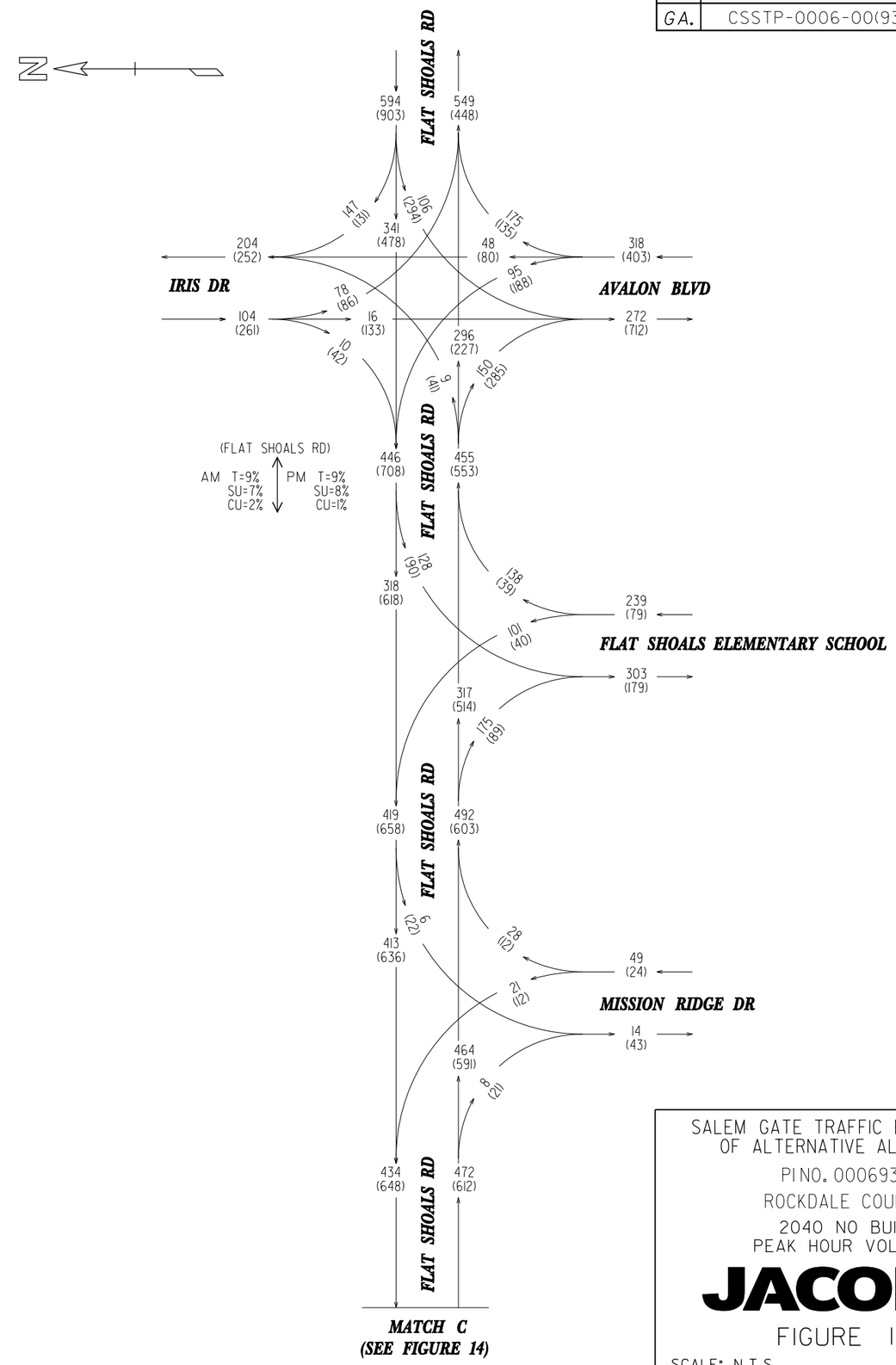
FIGURE 14

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		





LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 NO BUILD
PEAK HOUR VOLUMES

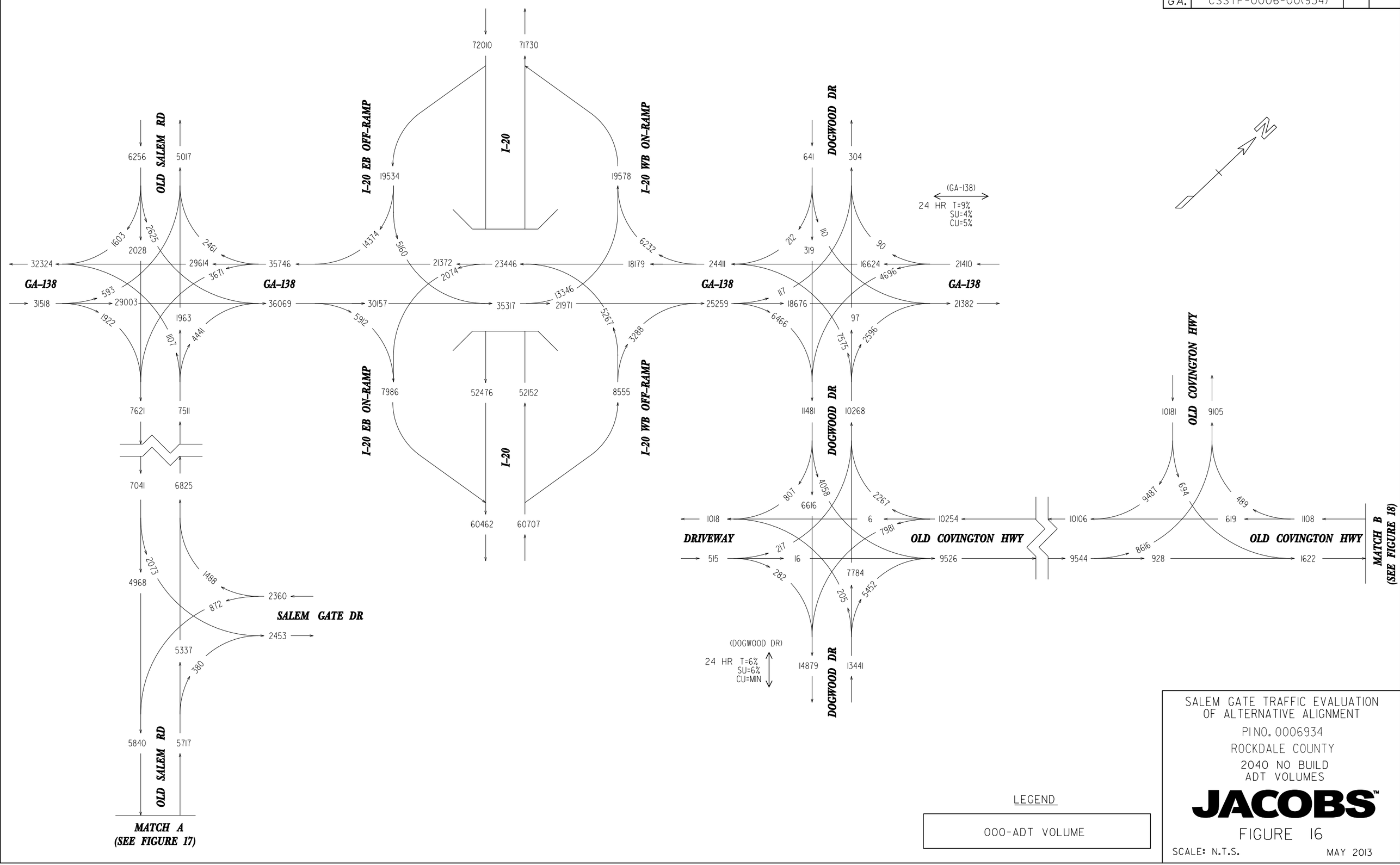
JACOBS™

FIGURE 15

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 NO BUILD
ADT VOLUMES

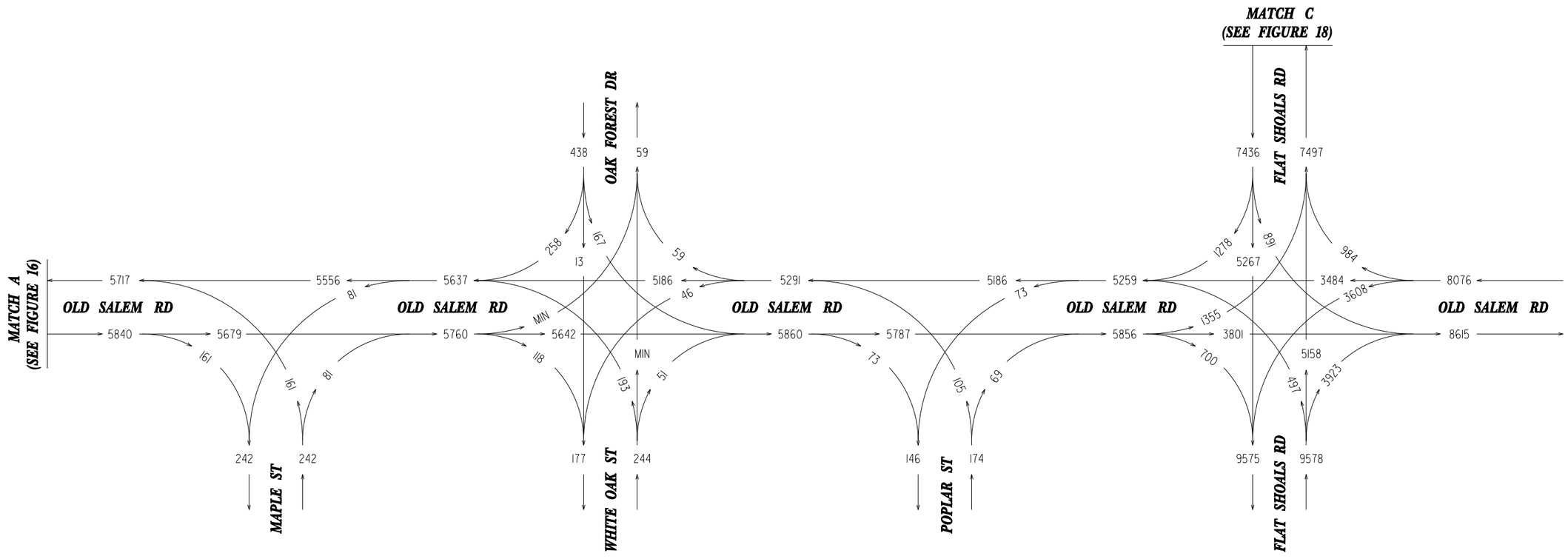
JACOBS™

FIGURE 16

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 NO BUILD
ADT VOLUMES

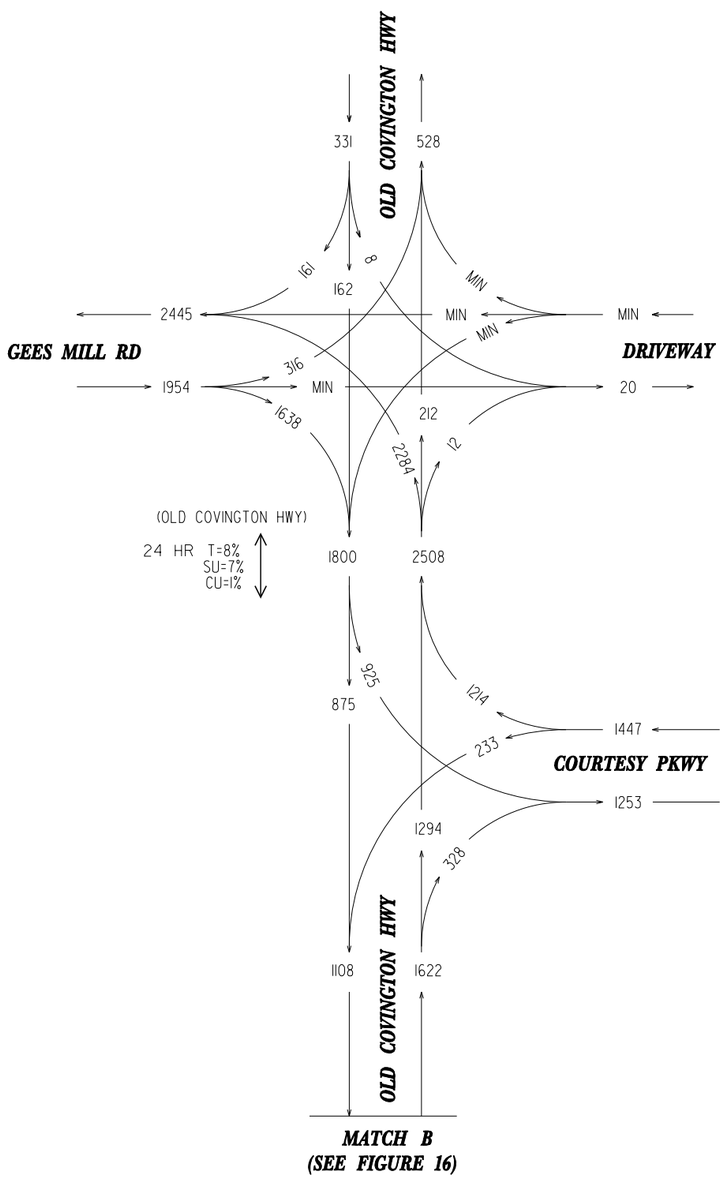
JACOBS™

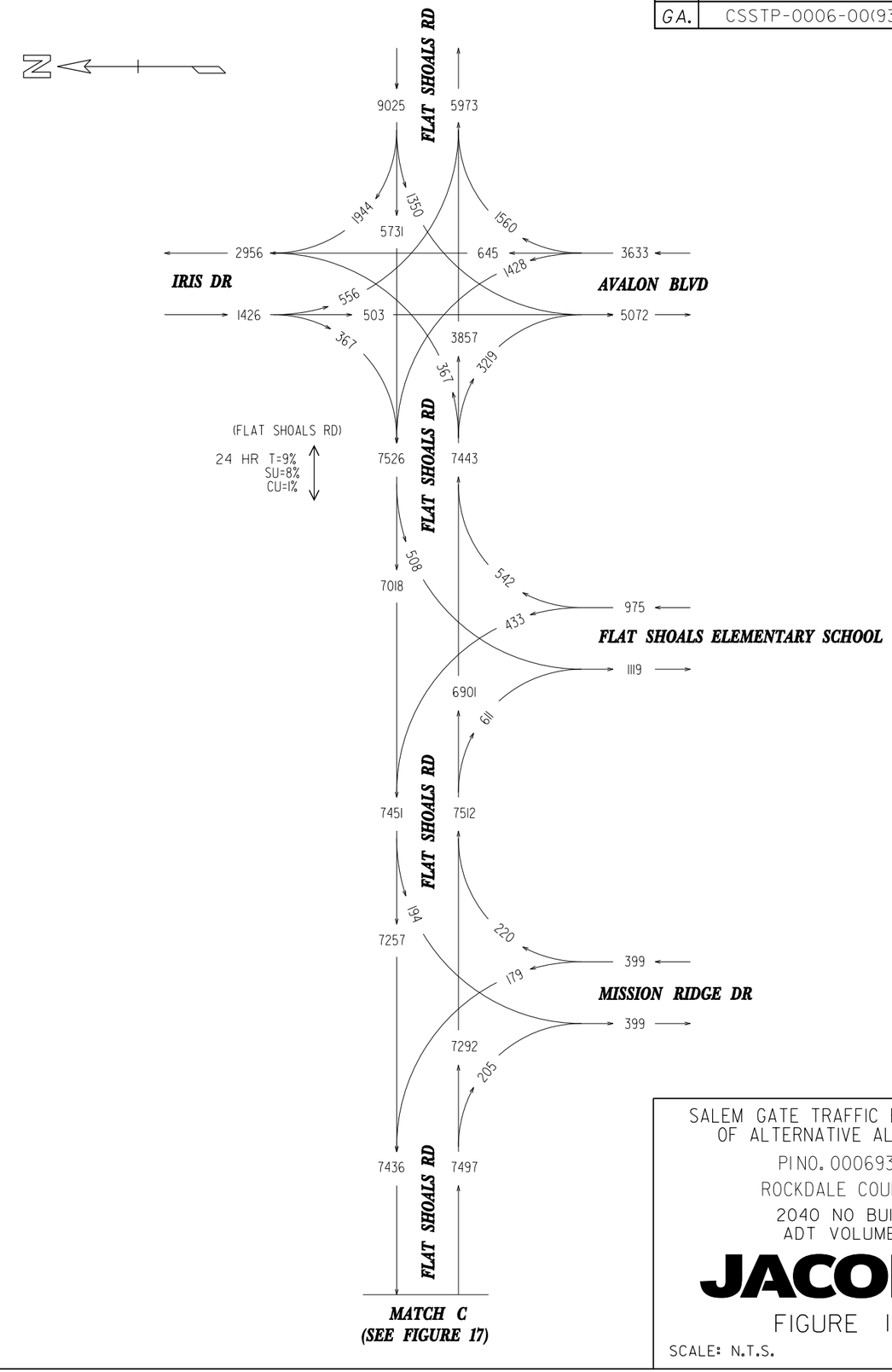
FIGURE 17

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		





LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 NO BUILD
ADT VOLUMES

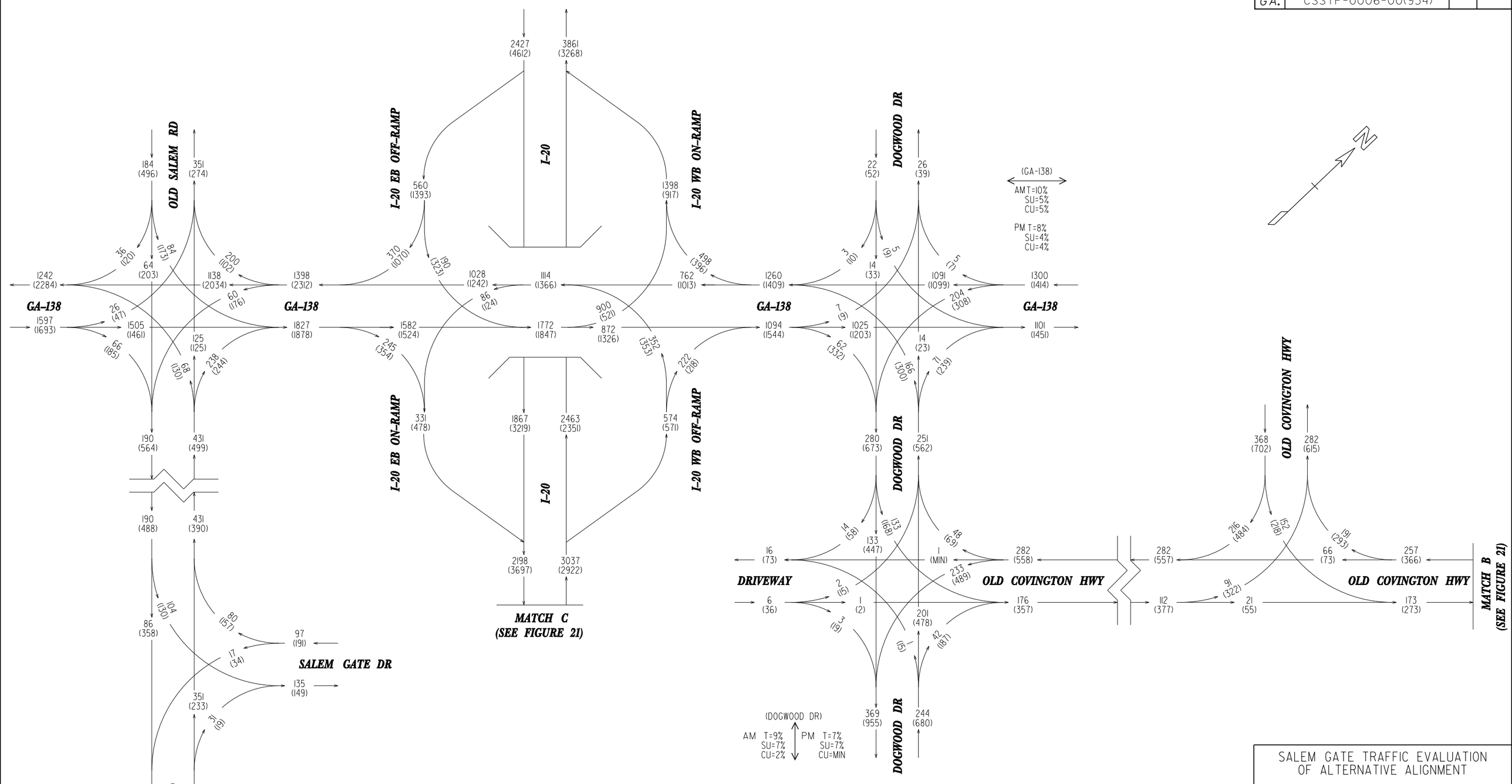
JACOBS™

FIGURE 18

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 BUILD
PEAK HOUR VOLUMES

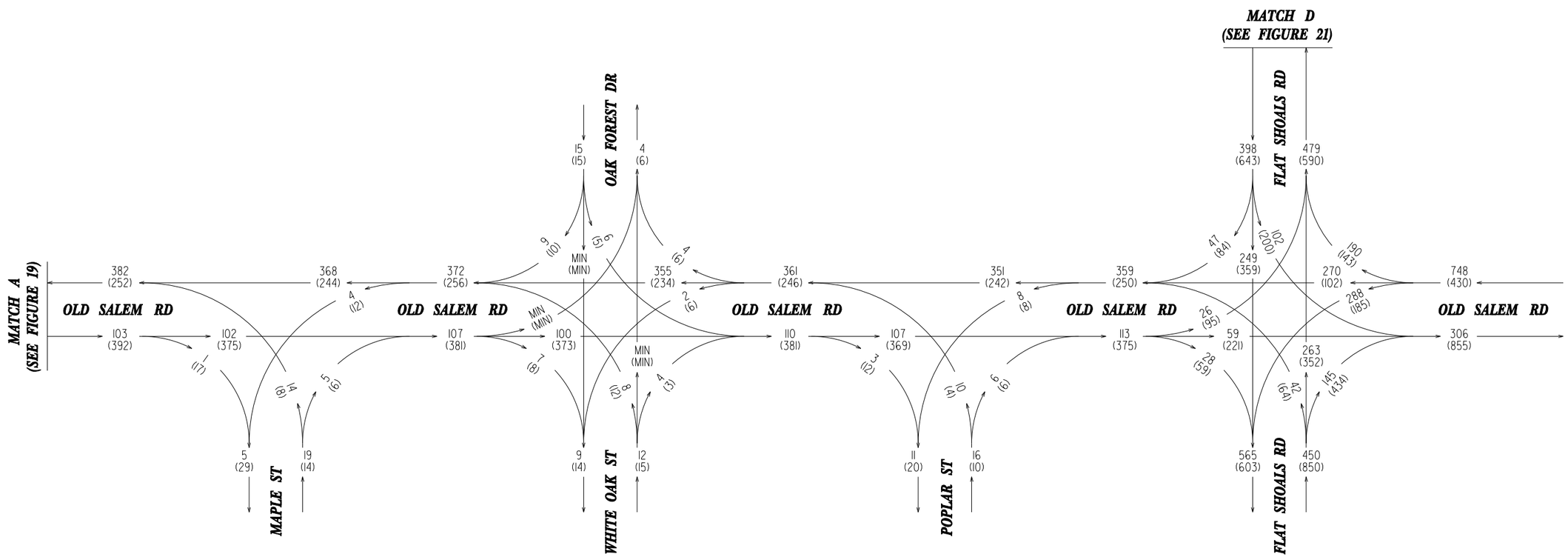
JACOBS™

FIGURE 19

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 BUILD
PEAK HOUR VOLUMES

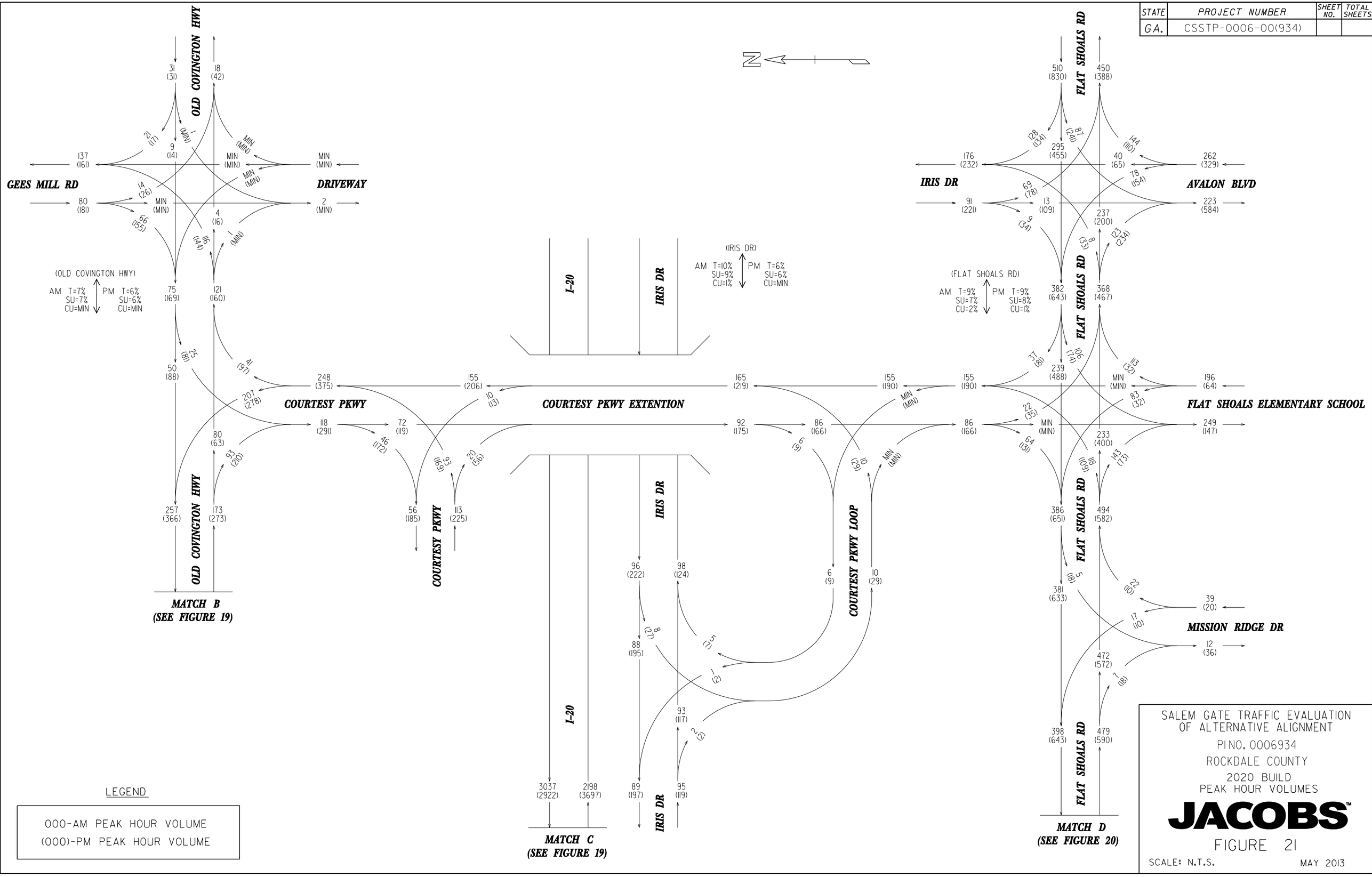
JACOBS™

FIGURE 20

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 BUILD
PEAK HOUR VOLUMES

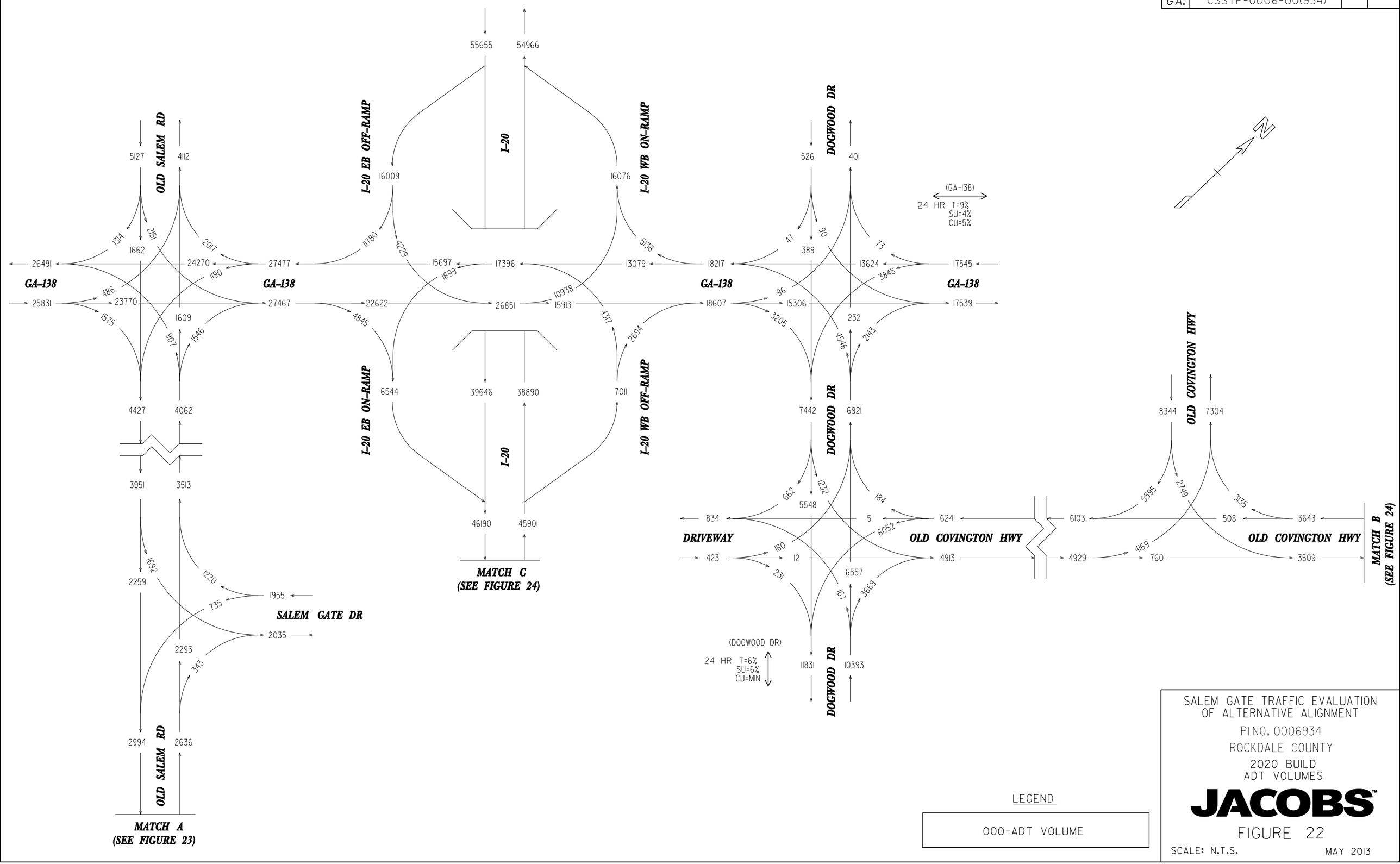
JACOBS™

FIGURE 21

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 BUILD
ADT VOLUMES

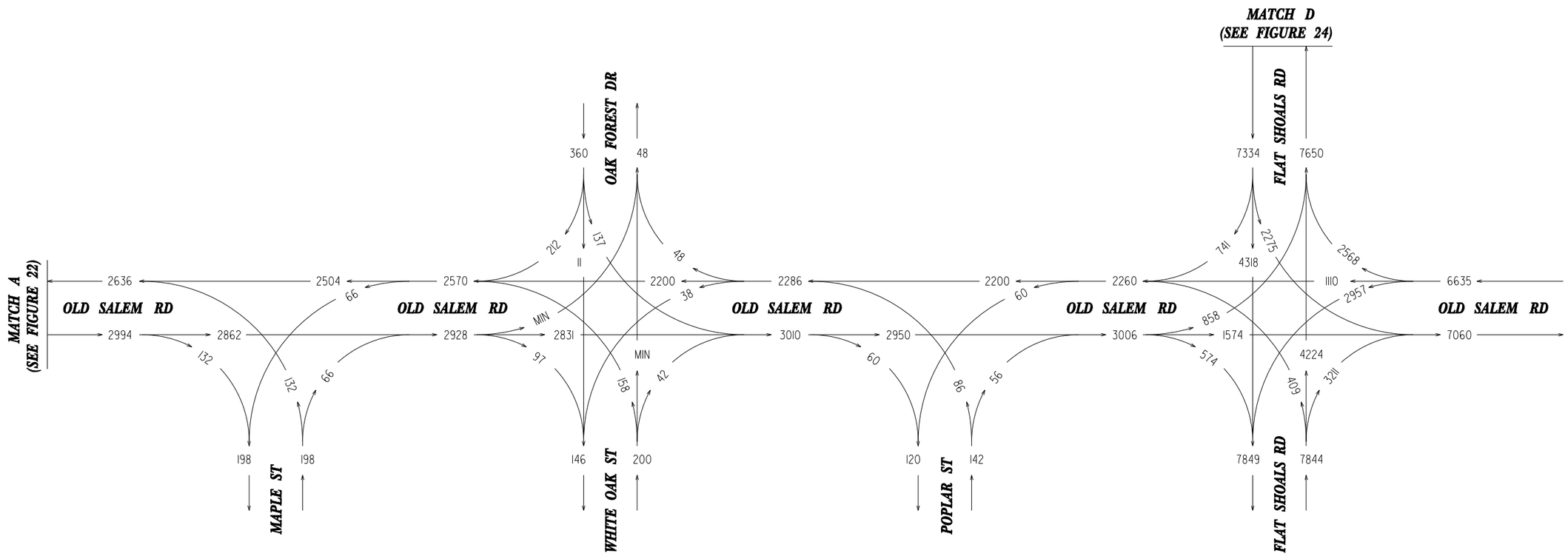
JACOBS™

FIGURE 22

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 BUILD
ADT VOLUMES

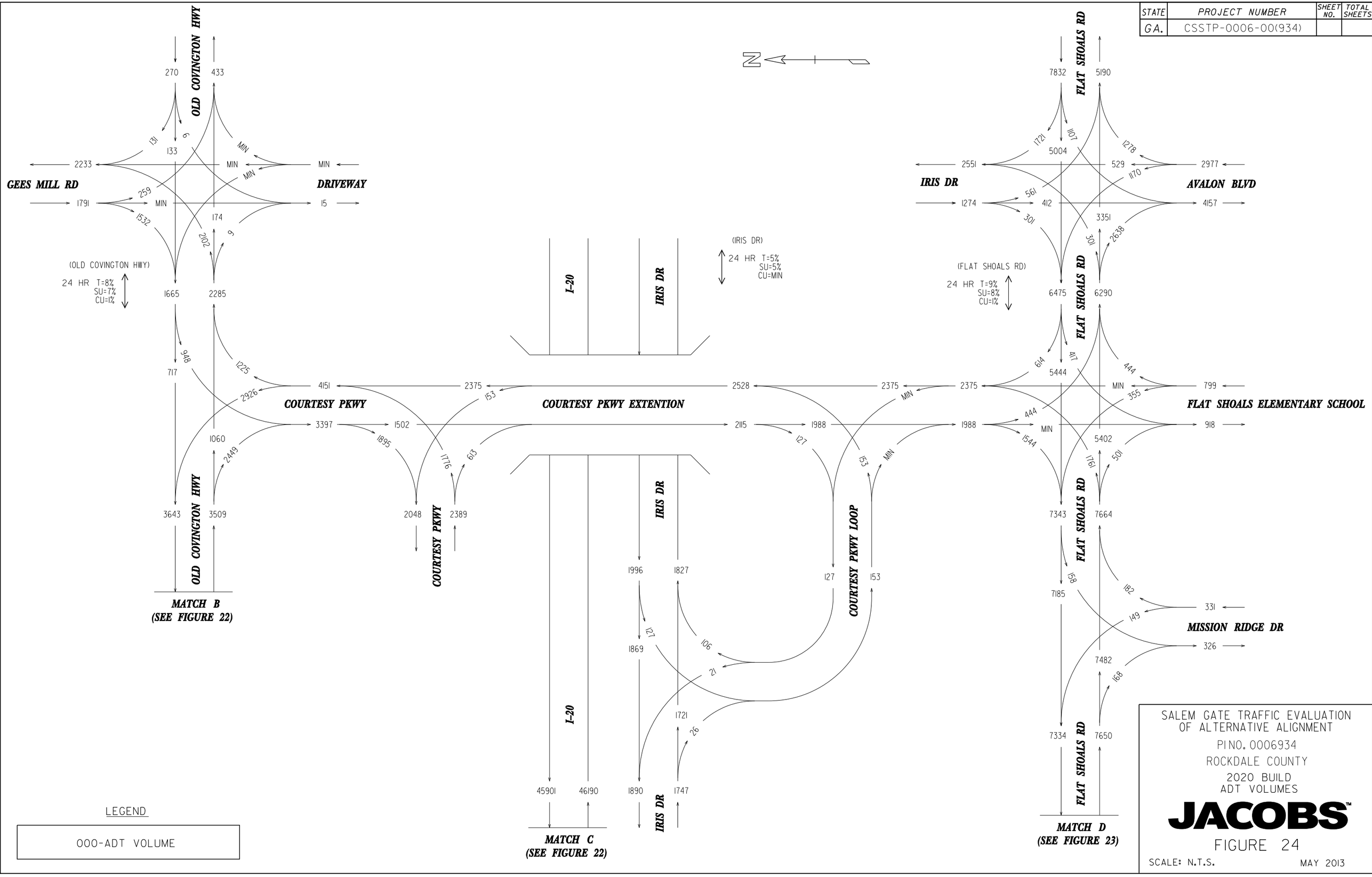
JACOBS™

FIGURE 23

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2020 BUILD
ADT VOLUMES

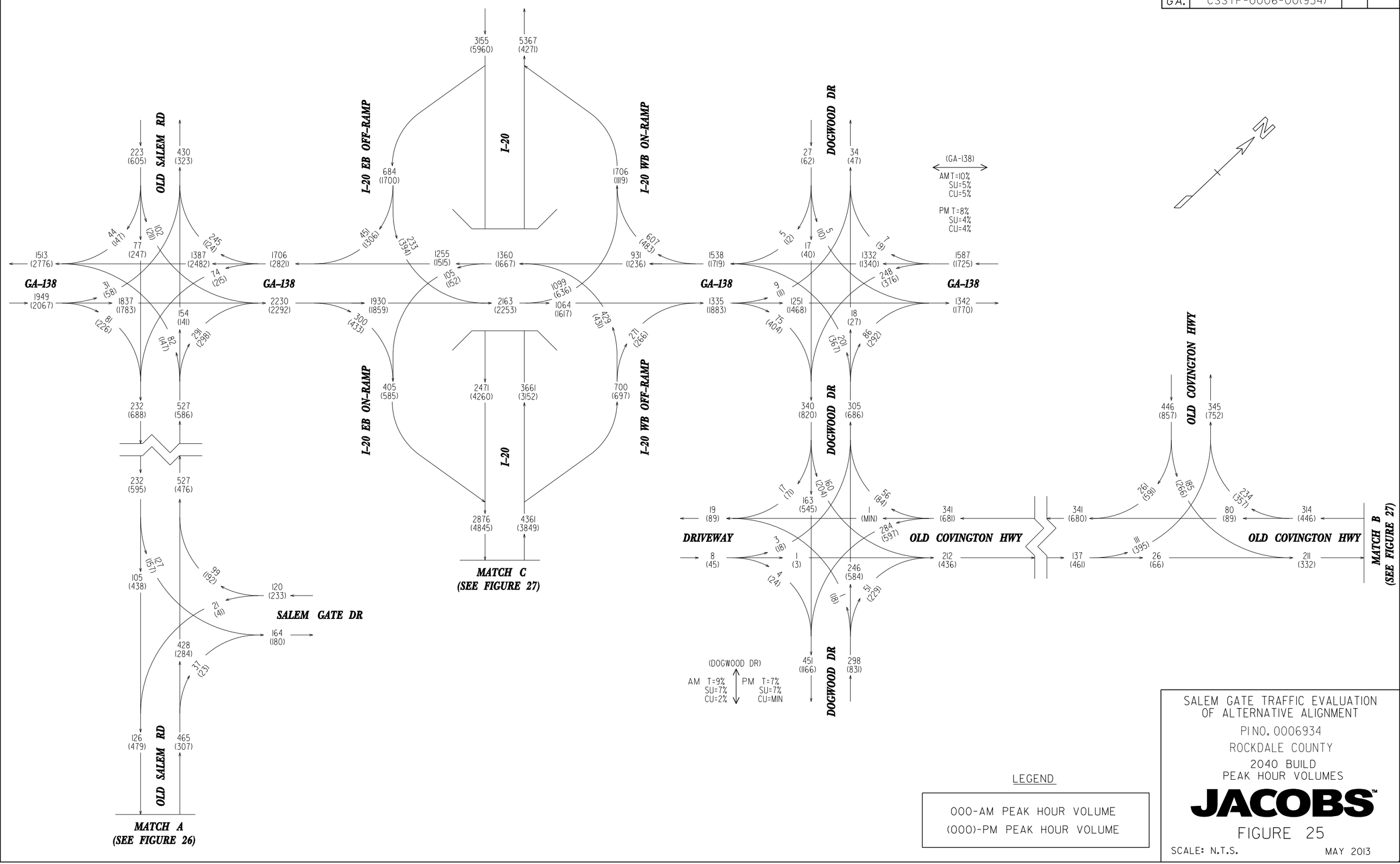
JACOBS™

FIGURE 24

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 BUILD
PEAK HOUR VOLUMES

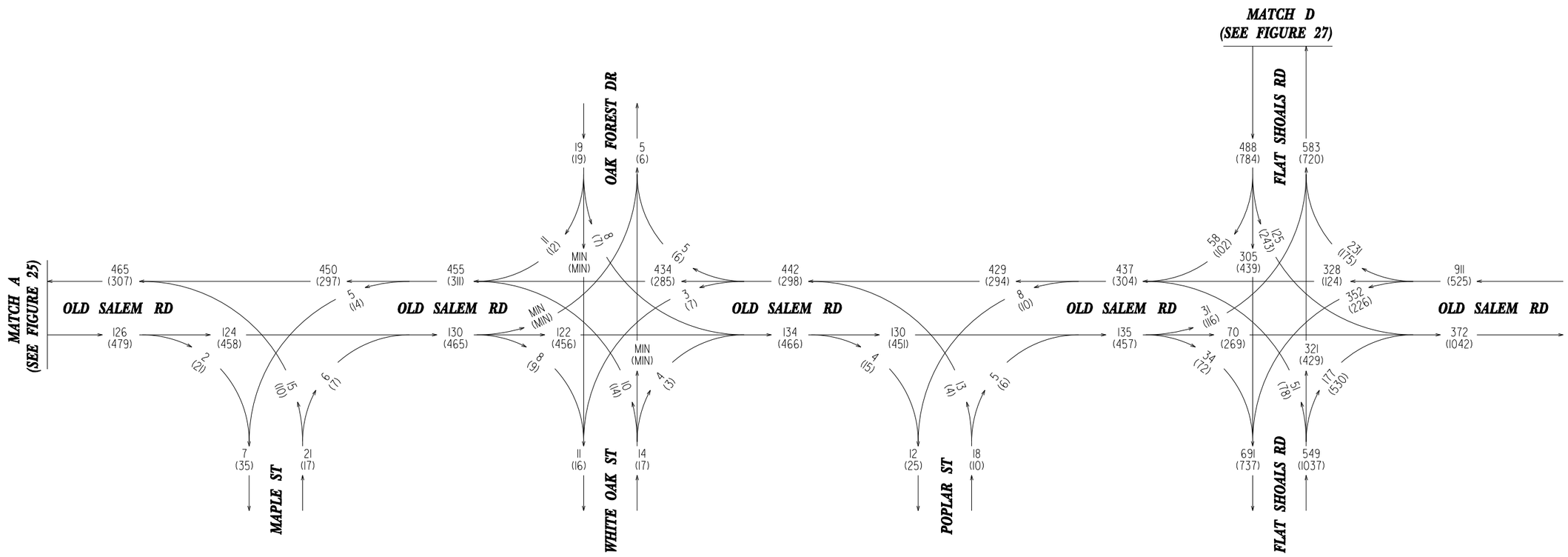
JACOBS™

FIGURE 25

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 BUILD
PEAK HOUR VOLUMES

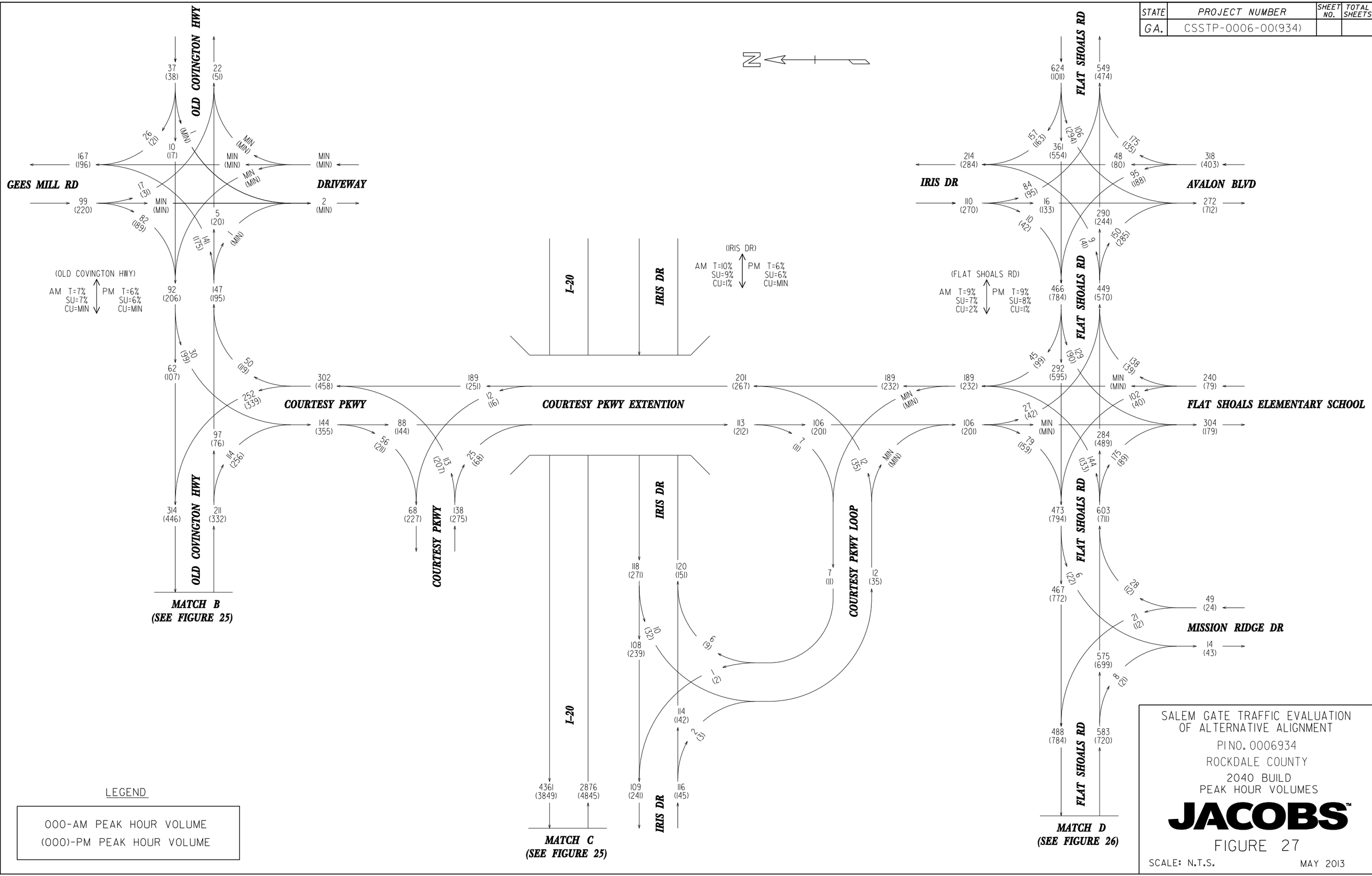
JACOBS™

FIGURE 26

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 BUILD
PEAK HOUR VOLUMES

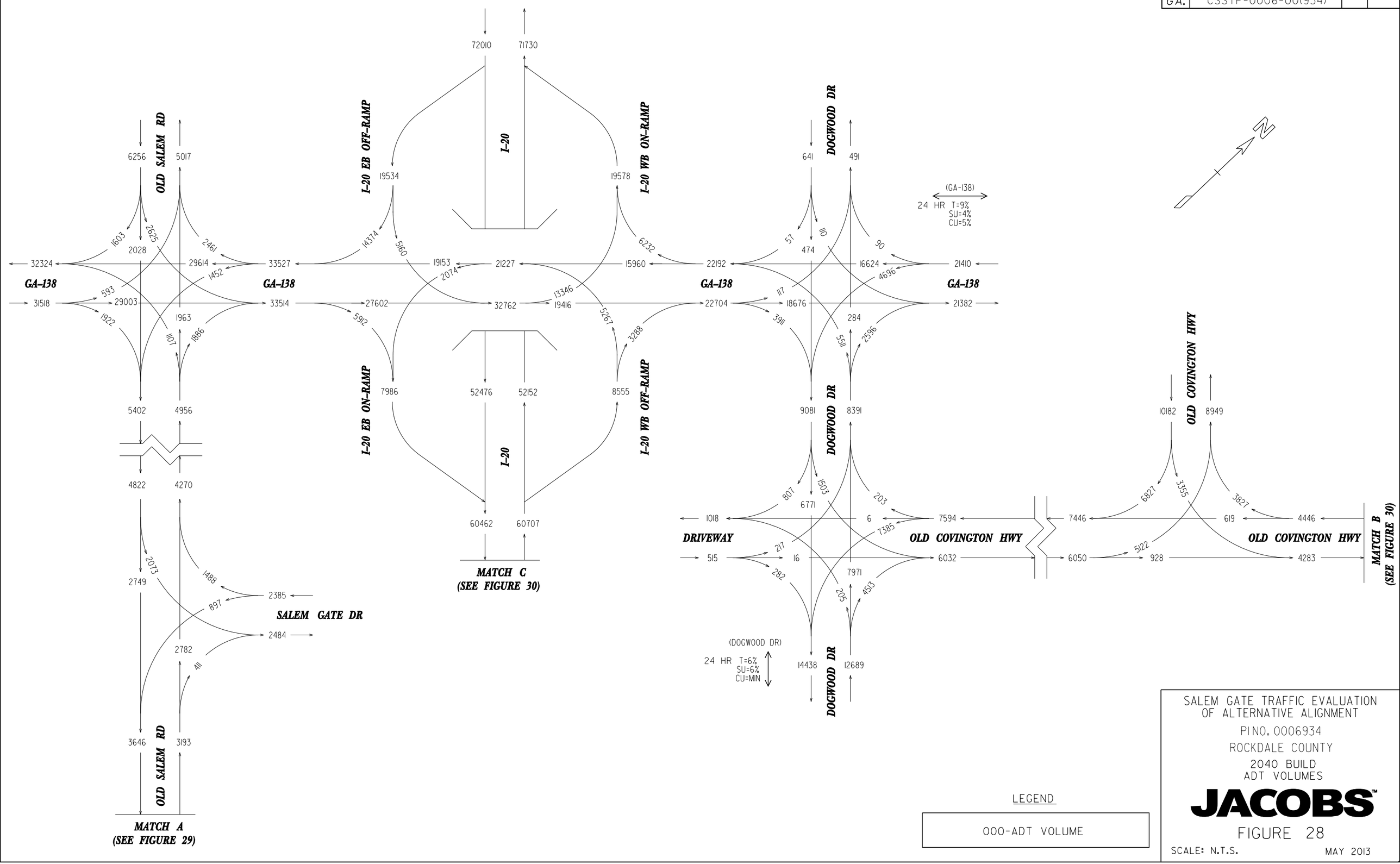
JACOBS™

FIGURE 27

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 BUILD
ADT VOLUMES

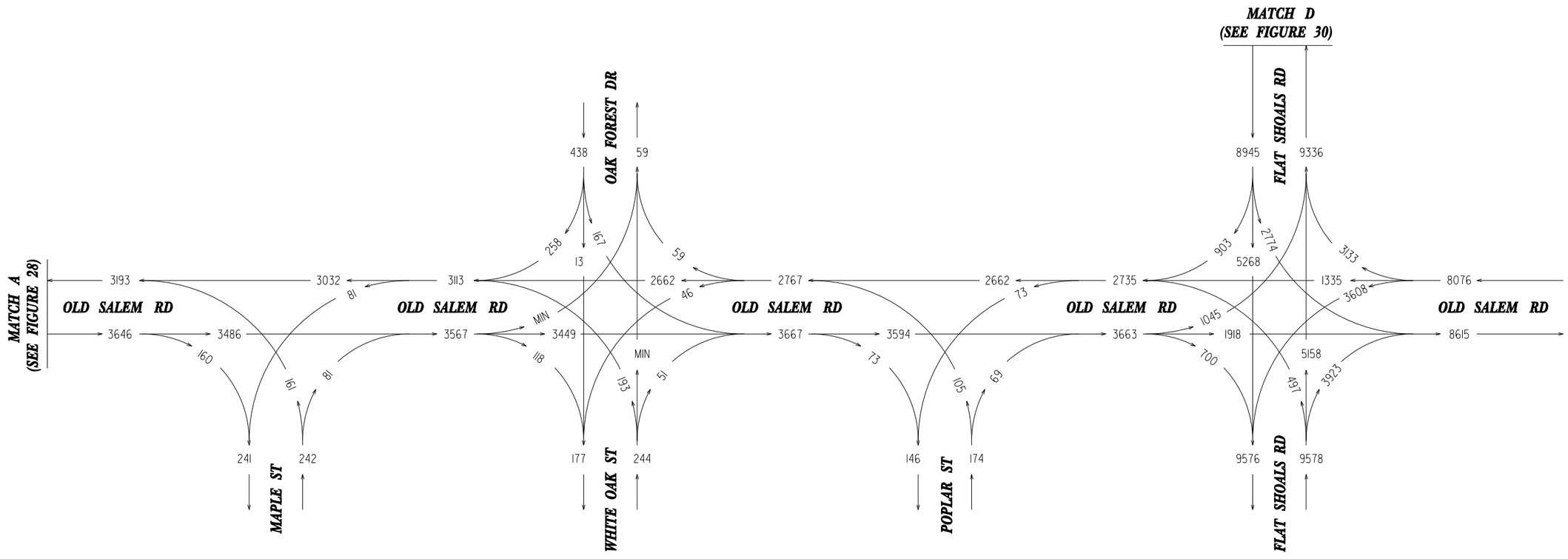
JACOBS™

FIGURE 28

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 BUILD
ADT VOLUMES

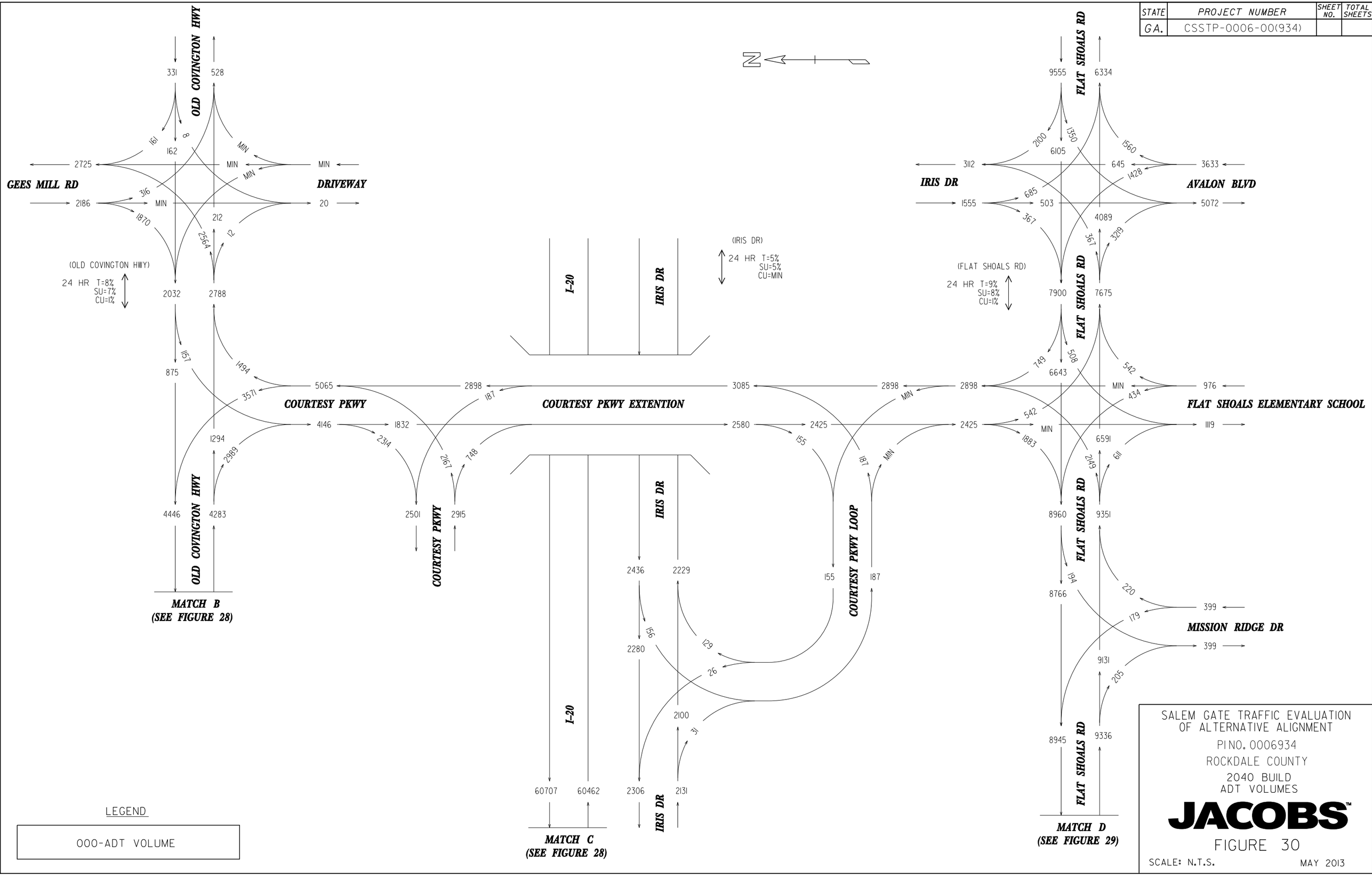
JACOBS™

FIGURE 29

SCALE: N.T.S.

MAY 2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSSTP-0006-00(934)		



LEGEND

000-ADT VOLUME

SALEM GATE TRAFFIC EVALUATION
OF ALTERNATIVE ALIGNMENT

PI NO. 0006934

ROCKDALE COUNTY

2040 BUILD
ADT VOLUMES

JACOBS™

FIGURE 30

SCALE: N.T.S.

MAY 2013

Main Roadway	Intersecting Roadway	2013 Existing		2013 Existing	
		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS
SR 138	Old Salem Rd SE	15	B	17	B
	I-20 EB Off/On-Ramp	19	B	29	C
	I-20 WB Off/On-Ramp	63	E	17	B
	Dogwood Dr SE	19	B	35	C
Flat Shoals Road	Old Salem Rd SE	23	C	30	C
	Avalon Blvd/W Iris Dr SE	13	B	15	B

Main Roadway	Intersecting Roadway	2020 No Build		2020 No Build		2020 Build		2020 Build	
		AM		PM		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
SR 138	Old Salem Rd SE	15	B	19	B	14	B	17	B
	I-20 EB Off/On-Ramp	17	B	32	C	17	B	30	C
	I-20 WB Off/On-Ramp	86	F	20	C	85	F	18	B
	Dogwood Dr SE	29	C	35	C	28	C	28	C
Flat Shoals Road	Old Salem Rd SE	24	C	32	C	22	C	29	C
	Avalon Blvd/W Iris Dr SE	13	B	16	B	13	B	16	B

Main Roadway	Intersecting Roadway	2040 No Build		2040 No Build		2040 Build		2040 Build	
		AM		PM		AM		PM	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
SR 138	Old Salem Rd SE	19	B	22	C	16	B	33	C
	I-20 EB Off/On-Ramp	20	C	61	E	26	C	56	E
	I-20 WB Off/On-Ramp	142	F	33	C	135	F	29	C
	Dogwood Dr SE	36	D	40	D	33	C	32	C
Flat Shoals Road	Old Salem Rd SE	31	C	68	E	27	C	54	D
	Avalon Blvd/W Iris Dr SE	15	B	19	B	15	B	21	C

Main Roadway	Intersecting Roadway	Direction	2013 Existing AM Delay (s)	2013 Existing AM LOS	2013 Existing PM Delay (s)	2013 Existing PM LOS
Old Covington Hwy SE	Dogwood Dr SE (Unsignalized)	EBL	10	B	13	B
		WBL	8	A	10	B
		NB	17	C	41	E
		SB	11	B	18	C
	Courtesy Pkwy SE (Unsignalized)	WBL	7	A	7	A
		NB	10	A	9	A
	Gees Mill Rd SE (Unsignalized)	EBL	7	A	8	A
		SB	9	A	10	A
Flat Shoals Road	Mission Ridge Dr SE (Unsignalized)	WBL	8	A	9	A
		NB	15	C	28	D
	Flat Shoals Elementary School (Unsignalized)	WBL	9	A	9	A
		NB	*	F	36	E
Old Salem Rd SE	Poplar St SE (Unsignalized)	EB	15	B	17	C
		NBL	8	A	9	A
	White Oak St SE/ Oak Forest Dr SE (Unsignalized)	EB	14	B	19	C
		WB	14	B	14	B
		NBL	8	A	8	A
		SBL	MIN	A	MIN	A
	Maple St SE (Unsignalized)	EB	16	C	23	C
		NBL	8	A	9	A
	Salem Gate Dr SE (Unsignalized)	WB	15	B	15	B
		SBL	9	A	8	A

Main Roadway	Intersecting Roadway	Direction	2020 No Build AM Delay (s)	2020 No Build AM LOS	2020 No Build PM Delay (s)	2020 No Build PM LOS	2020 Build AM Delay (s)	2020 Build AM LOS	2020 Build PM Delay (s)	2020 Build PM LOS
Old Covington Hwy SE	Dogwood Dr SE (Unsignalized)	EBL	12	B	26	D	10	B	15	B
		WBL	8	A	8	A	8	A	8	A
		NB	20	C	100	F	13	B	26	D
		SBL	230	F	*	F	41	E	*	F
	Courtesy Pkwy SE (Unsignalized)	WBL	7	A	7	A	7	A	7	A
		NB	10	A	10	A	12	B	14	B
	Gees Mill Rd SE (Unsignalized)	EBL	8	A	8	A	8	A	8	A
		SB	9	A	10	A	10	A	10	A
	Old Covington Hwy (Unsignalized)	EBL	8	A	9	A	8	A	9	A
		SB	12	B	23	C	12	B	77	F
Flat Shoals Road	Mission Ridge Dr SE (Unsignalized)	WBL	8	A	9	A	9	A	10	A
		NB	16	C	32	D	19	C	50	E
	Flat Shoals Elementary School (Unsignalized)	EBL					10	A	10	B
		WBL	10	A	9	A	9	A	9	A
		NB	*	F	47	E	*	F	*	F
		SB					*	F	*	F
Old Salem Rd SE	Poplar St SE (Unsignalized)	EB	15	C	19	C	12	B	14	B
		NBL	8	A	9	A	8	A	9	A
	White Oak St SE/ Oak Forest Dr SE (Unsignalized)	EB	15	B	20	C	12	B	14	B
		WB	14	B	14	B	12	B	11	B
		NBL	8	A	9	A	7	A	8	A
		SBL	MIN	A	MIN	A	MIN	A	MIN	A
	Maple St SE (Unsignalized)	EB	17	C	25	C	13	B	16	C
		NBL	8	A	10	A	8	A	9	A
	Salem Gate Dr SE (Unsignalized)	WB	16	C	16	C	13	B	13	B
		SBL	9	A	9	A	9	A	8	A
Courtesy Pkwy Loop	Courtesy Pkwy Extension (Unsignalized)	EB					10	B	11	B
		NBL					MIN	A	MIN	A
	Iris Dr SE (Unsignalized)	NE					9	A	9	A
		NWL					7	A	8	A
Courtesy Pkwy Extension	Courtesy Pkwy (Unsignalized)	NE					11	B	15	C
		NWL					7	A	8	A

Main Roadway	Intersecting Roadway	Direction	2040 No Build AM Delay (s)	2040 No Build AM LOS	2040 No Build PM Delay (s)	2040 No Build PM LOS	2040 Build AM Delay (s)	2040 Build AM LOS	2040 Build PM Delay (s)	2040 Build PM LOS
Old Covington Hwy SE	Dogwood Dr SE (Unsignalized)	EBL	13	B	71	F	11	B	19	C
		WBL	8	A	9	A	8	A	9	A
		NB	29	D	*	F	15	B	51	F
		SBL	*	F	*	F	151	F	*	F
	Courtesy Pkwy SE (Unsignalized)	WBL	7	A	8	A	7	A	8	A
		NB	10	B	10	A	13	B	19	C
	Gees Mill Rd SE (Unsignalized)	EBL	8	A	8	A	8	A	8	A
		SB	10	A	10	B	10	A	10	B
	Old Covington Hwy (Unsignalized)	EBL	8	A	10	B	8	A	11	B
		SB	14	B	60	F	14	B	253	F
Flat Shoals Road	Mission Ridge Dr SE (Unsignalized)	WBL	9	A	10	B	9	A	11	B
		NB	21	C	60	F	28	D	140	F
	Flat Shoals Elementary School (Unsignalized)	EBL					11	B	12	B
		WBL	11	B	10	A	10	B	10	A
		NB	*	F	218	F	*	F	*	F
		SB					*	F	*	F
Old Salem Rd SE	Poplar St SE (Unsignalized)	EB	20	C	25	D	14	B	16	C
		NBL	8	A	10	A	8	A	9	A
	White Oak St SE/ Oak Forest Dr SE (Unsignalized)	EB	18	C	27	D	13	B	17	C
		WB	17	C	18	C	13	B	13	B
		NBL	8	A	9	A	7	A	8	A
		SBL	MIN	A	MIN	A	MIN	A	MIN	A
	Maple St SE (Unsignalized)	EB	22	C	38	E	15	B	20	C
		NBL	8	A	10	B	8	A	9	A
	Salem Gate Dr SE (Unsignalized)	WB	21	C	22	C	15	C	15	B
		SBL	10	B	9	A	9	A	8	A
Courtesy Pkwy Loop	Courtesy Pkwy Extension (Unsignalized)	EB					11	B	12	B
		NBL					MIN	A	MIN	A
	Iris Dr SE (Unsignalized)	NE					9	A	10	A
		NWL					7	A	8	A
Courtesy Pkwy Extension	Courtesy Pkwy (Unsignalized)	NE					12	B	21	C
		NWL					8	A	8	A

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE CSSTP-0006-00(934) Rockdale
PI No. 0006934
Salem Gate Extension

OFFICE Materials & Testing
Forest Park, Georgia
DATE April 04, 2014

D.E.T. for

FROM Charles A. Hasty, P.E., State Materials Engineer

TO Genetha Rice-Singleton, Office of Program Delivery
Attention: Jeff Simmons, Project Manager

SUBJECT **Life Cycle Cost Analysis and Pavement Type Selection Recommendation**
Salem Gate Extension from Iris Drive to Old Covington HWY and I-20

The Office of Materials and Testing (OMAT) has completed the Life Cycle Cost Analysis and Pavement Type Selection (PTS) Recommendation for the above referenced project.

Project Description and Location

This project is the proposed widening and realignment of Salem Gate Extension from Iris Drive to Old Covington HWY and I-20. The proposed construction would consist of 12-ft through lanes (one northbound and one southbound). The total length of the project is 0.8 mile. The project is located in Rockdale County.

Pavement Design Alternatives Considered

The LCCA analyzed the costs of the project by comparing two alternative pavement types. Alternative 'A' uses full-depth Hot Mix Asphalt (HMA) pavement, while Alternative 'B' uses full-depth Portland Cement Concrete (PCC) pavement.

Pavement Type Recommendation

The PTS concludes that Alternative B - Full Depth Portland Cement Concrete (PCC) pavement is the preferred alternative, considering the economics of construction costs, maintenance costs, pavement performance and other factors over the analysis period. However, this office recommends that the existing pavement type be matched.

The alternates are listed in Table 1.

Table 1: Pavement Design Alternatives

Design Alternates	Profile	Surface	Intermediate (Binder)	Base	Subbase
Alternate A, (Full-Depth HMA)	Mainline	12.5 mm Superpave (1.50")	19 mm Superpave (2.00")	25 mm Superpave (4.00")	Graded Aggregate Base (12.00")
Alternate B, (Full-Depth PCC)	Mainline	PCC (8.00")	19 mm Superpave (0.00)	---	Graded Aggregate Base (10.00")

The LCCA is based on the following:

- Staging costs and durations for staging were *not* considered.
- Discount Rate of 4 %.
- The analysis periods were 40 years and 50 years. Recommendations were based on the 40-year analysis.
- The service life prior to first major maintenance activities were as follows:
    - 10 years for Asphaltic Concrete Pavements (AC)
    - 20 years for Portland Cement Concrete Pavements (PCC)
- Deterministic approach to LCCA is based on the guidelines in the following document:
    - Federal Highway Administration Publication No. FHWA-SA-98-079, "Life-Cycle Cost Analysis in Pavement Design."
- Average Plant Production rates were determined from historical project information within the Georgia Department of Transportation. They are:
    - Asphalt Concrete plant production rate of 200 tons per hour.
    - Ready Mix Concrete plant production rate of 6000 square yards per day in addition to the following:
        - A 4000 linear feet of paving for a 12-foot wide lane
        - A 2500 linear feet of paving for a 24-foot wide lane

Tables 2 and 3 summarize the total Agency Costs and User Costs respectively.

Table 2: Agency Costs

Design Alternates	Agency Costs		Total Costs
	Initial Agency Costs (A)	Future Maintenance Costs (B)	(A)+ (B)
Alternate A, Full-Depth HMA	$600,339	$162,800	$763,139
Alternate B, Full-Depth PCC	$464,527	$141,188	$605,715

Table 3: User Costs

Design Alternates	User Costs		Total Costs
	Initial User * Costs (A)	Future User Costs (B)	(A) + (B)
Alternate A, Full-Depth HMA	0	$1,762	$1,762
Alternate B, Full-Depth PCC	0	$580	$580

* *For analysis purposes the initial user cost has been set at zero because both pavement alternatives will have comparable impact.*

Table 4 summarizes the Total Scores and Ranking from the Decision Matrix. The scores were determined from the LCCA using a 40-year Analysis Period.

Table 4: Total Score

Design Alternates	Rank	Total Score
Alternate B, Full-Depth PCC	1	97.0
Alternate A, Full-Depth HMA	2	75.6

The detailed analysis is on file and available on request. If additional information is needed, please contact Palliambil Geetha of the Geotechnical Environmental Pavement Bureau at (404) 608-4774.

CAH: PRG

Attachments

1. Flexible Pavement Design
2. Rigid Pavement Design
3. Decision Matrix

Copy: File

Flexible Pavement Design Analysis

PI Number	0006934	**County(s)**	Rockdale
Project Number	CSSTP-0006-00(934)	**Design Name**	Salem Gate Extn.
Project Description	Salem Gate Ext from Iris Dr to Old Covington HWY & I-20		

Traffic Data (AADTs are one-way)						**Miscellaneous Data**	
Initial Design Year	2020	**Initial AADT, VPD**	4,151	**24 Hour Truck %**	9.00	**Lanes in one direction**	1
Final Design Year	2040	**Final AADT, VPD**	5,065	**SU Truck %**	8.00	**Curb & Gutter/Barrier**	Yes
		Mean AADT, VPD	4,608	**MU Truck %**	1.00		

Design Data					
Lane Distribution Factor (%)	100.00	**Soil Support Value**	2.50	**Single Unit ESAL**	0.40
Terminal Serviceability Index	2.50	**Regional Factor**	1.60	**Multiple Unit ESAL**	1.50
		User Defined 18-KIP ESAL	0.00	**Calculated 18-KIP ESAL**	0.52
Non-Standard Value Comment					

Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	**LDF (%)**	**Vehicle Type**	**Volume (%)**	**ESAL Factor**	**Daily ESAL**
4,608	100.00	Single Unit Truck	8.00	0.40	148
		Multi Unit Truck	1.00	1.50	70
				Total Daily ESALs	218
				Total Design Period ESALs	1,591,400

Proposed Flexible Full Depth Pavement Structure				
Course	**Material**	**Thickness (inches)**	**Structural Coefficient**	**Structural Value**
Course 1	12.5 mm Superpave	1.50	0.4400	0.66
Course 2	19 mm Superpave	2.00	0.4400	0.88
Course 3	25 mm Superpave	1.00	0.4400	0.44
		3.00	0.3000	0.90
Course 4	Graded Aggregate Base	12.00	0.1600	1.92

Required SN 4.86 **Proposed pavement is 1.27% Underdesigned** **Proposed SN** 4.80

Design Remarks	Full-depth design

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Palliambil Geetha **Date**

Recommended By

State Roadway Design Engineer **Date**

Approved By

State Pavement Engineer **Date**

Filename: R:\PavementDesign\Project\PMB Active Projects\Counties - O thru Z\Rockdale\0006934\0006934PTS\0006934_PTS\Designs_&_Reports\GDOT Pavem
GDOT Pavement Design Tool - Version 2.0

Rigid Pavement Design Analysis

PI Number	0006934	**County(s)**	Rockdale		
Project Number	CSSTP-0006-00(934)	**Design Name**	Salem Gate Ext.		
Project Description	Salem Gate Ext from Iris Dr to Old Covington HWY & I-20				
Section Location	Salem Gate Ext from Iris Dr to Old Covington HWY & I-20			**Type Section**	JPCP
Begin Section Station	++++	**End Section Station**	++++	**Section Length**	0.80 mile

Traffic Data (AADTs are one-way)						**Miscellaneous Data**	
Initial Design Year	2020	**Initial AADT, VPD**	4,151	**24 Hour Truck %**	9.00	**Lanes in one direction**	1
Final Design Year	2040	**Final AADT, VPD**	5,065	**SU Truck %**	8.00	**Curb & Gutter/Barrier**	Yes
		Mean AADT, VPD	4,608	**MU Truck %**	1.00	**Interstate**	No

Design Loading (Calculated 18-KIP ESAL)

Mean AADT, VPD	**LDF (%)**	**Vehicle Type**	**Volume (%)**	**ESAL Factor**	**Daily ESAL**
4,608	100	Other Vehicles	91.00	0.004	17
		Single Unit Truck	8.00	0.500	185
		Multi Unit Truck	1.00	2.680	124
				Total Daily ESALs	326
				Total Design Period ESALs	2,379,800

Design Data

Terminal Serviceability Index (P_t)	2.50	**Working Stress (psi)**	450	**Modulus of Elasticity (psi)**	3,200,000		
Soil Support Value	2.50	**Subgrade Modulus (k)**	130	**Subbase Modulus (k_1)**	195	**Subbase Modulus (k_{eff})**	195
Trial Depth of PCC Pavement (inches)	8.00	**Calculated Stress from Equation (psi)**	448.28				
% Understressed	0.38	**% Overdesigned**	0.38	**Balanced Thickness (inches)**	7.98		
Non-Standard Value Comment							

Proposed Rigid Pavement Structure

Material	**Thickness (inches)**
JPCP - Jointed Portland Cement Concrete Pavement	8.00
19 mm Superpave Asphaltic Concrete Interlayer	0.00
Graded Aggregate Base	10.00

JPCP - Dowel Bar Size and Spacing

Refer to GDOT Standard 5046H:
Joint Details for Portland Cement Concrete Paving

Design Remarks	Rigid design

Prepared By 2/10/2014 4:19 PM

Palliambil Geetha **Date**

Recommended By

State Roadway Design Engineer **Date**

Approved By

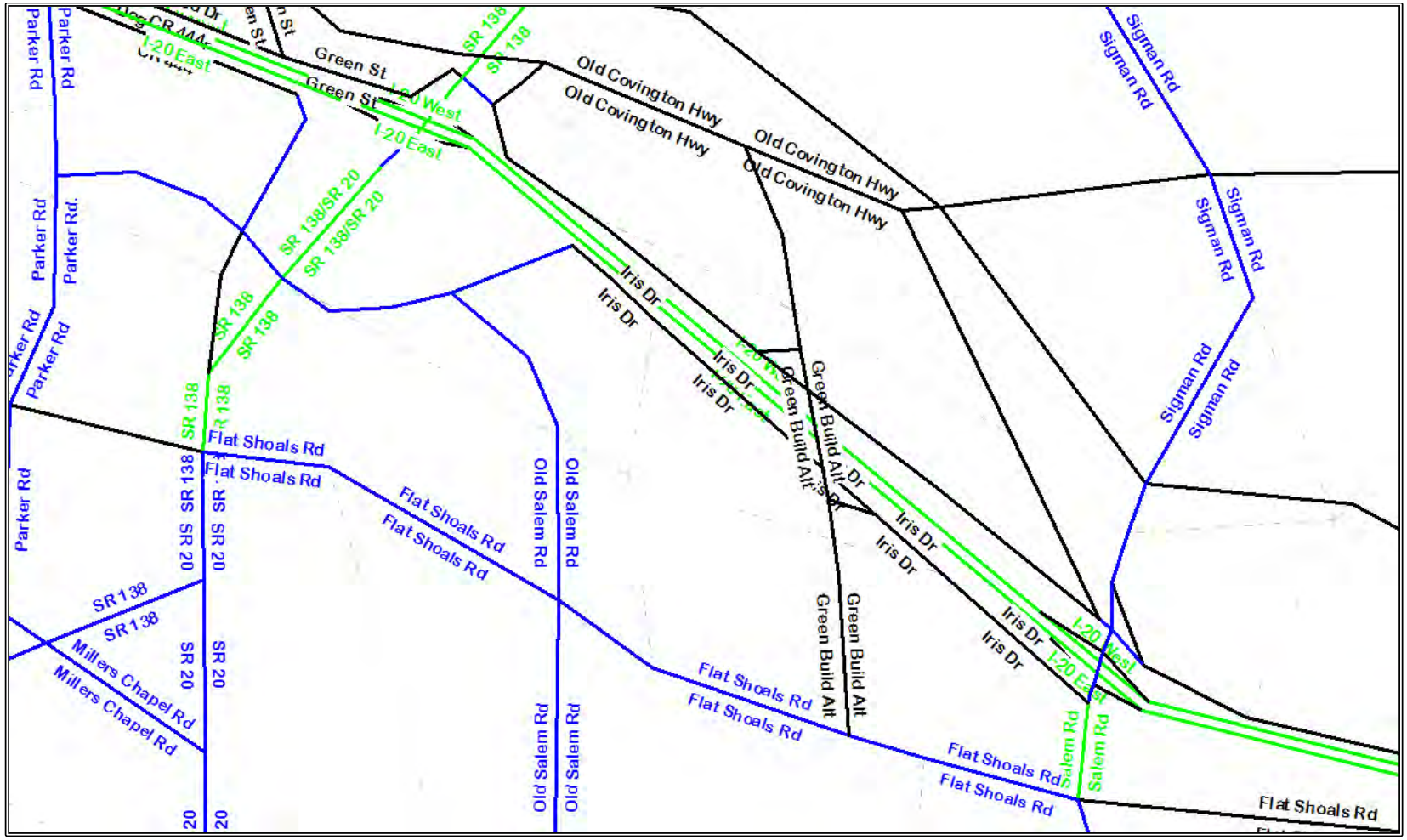
State Pavement Engineer **Date**

Filename: C:\Users\pgeetha\Desktop\GDOT Pavement Design Tool v2.0_0006934.xlsm
GDOT Pavement Design Tool - Version 2.0

DECISION MATRIX

	DECISION FACTOR										Total Score	Rank
	Initial Construction Agency Costs	Maintenance Costs (nominal / discounted)	Annualized Agency Costs (LCC)	Annualized User Costs (LCC)	Salvage Value	Expected Life (Rehabilitation Frequency)	Construction (production rate - initial days)	Ease of Repairing / Maintaining (production rate - rehab days)	Constructibility / Traffic Control (Lifts)	Proven Design in Agency		
Relative Importance	50%	25%	5%	5%	2%	2%	2%	2%	2%	5%		
ALTERNATIVE A-HMA Full Depth Mainline	0.77 38.7	0.85 21.2	0.78 3.9	0.32 1.6	0.00	0.50 1.0	1.00 2.0	0.33 0.7	0.75 1.5	1.00 5.0	75.6	2
ALTERNATIVE B-PCC Full Depth Mainline	1.00 50.0	1.00 25.0	1.00 5.0	1.00 5.0	0.50	1.00 2.0	0.50 1.0	1.00 2.0	1.00 2.0	1.00 5.0	97.0	1

2040 Build Network



Legend (Directional Number of Lanes)

1

2

3

MEETING MINUTES

Mulkey Engineers & Consultants
1255 Canton Street, Suite G
Roswell, Georgia 30075
(678) 461-3511 Fax (678) 461-3494
e-mail: astone@mulkeyinc.com

Rockdale County
I-20 Overpass

DATE: November 13, 2013 10 am

SUBJECT: Initial Concept Team Meeting

LOCATION: GDOT 25th Floor Conf Room

ATTENDEES: Alex Stone, Mulkey. Jeff Simmons, GDOT OPD (Project Manager)

Background:

I-20 Crossing (CSSTP-0006-00(934) PI 0006934) –Mulkey Engineers & Consultants is under contract with Rockdale County to develop a concept report, complete traffic analysis, and prepare the environmental screening for this extension of a new location roadway over I-20 (non-access crossing) to connect to Old Covington Highway with Flat Shoals Road.

Project Justification: (see attached PJS)

- Issues:
  - Severe congestion on SR 138/SR 20/Walnut Grove Road Corridor
  - Severe congestion on Dogwood Road at SR 138 intersection
  - Delays to/from large retail areas along Dogwood Road.
  - Accident rates are higher than statewide averages
  - Limited crossings of I-20 for traffic to travel between north and south Rockdale County.

NEPA Issues:

- Ecology / History / Hazardous Materials
- Indirect & Cumulative Affects
- Logical Termini
- Air/Noise impacts

Project Status:

- Programming – project is included in ARC's Plan 2040 Regional Transportation Plan. Right of Way is locally funded, Construction is programmed in long range 1.
- Work completed to date:
  - Feasibility study of several alternates – January through April 2012
  - Environmental Screening – January 2012
  - SPLOST Committee meeting and approvals of final alternates – June 2012
  - Traffic Analysis – January through May 2013, approved by Abby at GDOT
  - Project Justification Statement – approved October 2013
- Schedule:
  - Concept Development – November 2013 through March 2014.

MEETING MINUTES

Mulkey Engineers & Consultants
1255 Canton Street, Suite G
Roswell, Georgia 30075
(678) 461-3511 Fax (678) 461-3494
e-mail: astone@mulkeyinc.com

Rockdale County
I-20 Overpass

Project Tasks:

1. Initial Concept Meeting / Kickoff Meeting
2. Alternatives / Cost Analysis
3. Completion of Draft Concept Report
4. Concept Team Meeting
5. Approval of Concept

- Public Involvement: Mulkey is not currently scoped for a PIOH at this time.

Follow up: Meetings and/or Action Items

Keith Golden, P.E., Commissioner

GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000

March 18, 2013

Mr. Richard A. Oden
Commission Chairman
Rockdale County Board of Commissioners
962 Milstead Avenue
Conyers, GA 30012

Dear Mr. Oden:

I am returning for your files an executed agreement between the Georgia Department of Transportation and Rockdale County for the following project:

Rockdale County, PI# 0006934

We look forward to working with you on the successful completion of the joint project.
Should you have any questions, please contact the Project Manager Derrick Brown at (404) 631-1571.

Sincerely,

Angela Robinson,
Financial Management Administrator

AR:kp

Enclosure

c: Bob Rogers
Rachel Brown – District 7 Engineer
Vicki Gavalas – District 7 Planning & Programming Engineer
Jonathan Walker – District 7 Utilities Engineer
Mike Bolden – State Utilities Engineer

AGREEMENT

BETWEEN

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

AND

ROCKDALE COUNTY

FOR

TRANSPORTATION FACILITY IMPROVEMENTS

This Framework Agreement is made and entered into this 13th day of March, 2013, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the **ROCKDALE COUNTY,** acting by and through its Board of Commissioners, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment "A", attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of certain portions of the PROJECT and the DEPARTMENT has relied upon such representations; and

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

WHEREAS, the DEPARTMENT has provided an estimated cost to the LOCAL GOVERNMENT for its participation in certain activities of the PROJECT; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another "for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide." Ga. Constitution Article IX, §III, ¶I(a).

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. The LOCAL GOVERNMENT has applied for and received "Qualification Certification" to administer federal-aid projects. The GDOT Local Administered Project (LAP) Certification Committee has reviewed, confirmed and approved the certification for the LOCAL GOVERNMENT to develop federal project(s) within the scope of its certification using the DEPARTMENT'S Local Administered Project Manual procedures. The LOCAL GOVERNMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities,

hereinafter referred to as "PE", all reimbursable utility relocations, all non-reimbursable utilities owned by the LOCAL GOVERNMENT, railroad costs, right of way acquisitions and construction, as specified in Attachment "A", affixed hereto and incorporated herein by reference. In addition, the September 17, 2010 Planning Office memorandum titled "Preliminary Engineering Oversight for Project Managers/Project Delivery Staff", outlines the five (5) conditions when the LOCAL GOVERNMENT will be requested to fund the PE oversight activities at 100%, and is enclosed as Attachment "C" and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT prior to the execution of this AGREEMENT or subsequent funding agreements shall not be considered for reimbursement by the DEPARTMENT. PE expenditures incurred by the LOCAL GOVERNMENT after execution of this AGREEMENT shall be reimbursed by the DEPARTMENT once a written notice to proceed is given by the DEPARTMENT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the PE, right of way acquisitions, reimbursable utility relocations, railroad costs, or construction (specified in Attachment "A") affixed hereto and incorporated herein by reference, and none of the five (5) conditions apply from the Planning Office memorandum dated September 17, 2010 (specified in Attachment "C").

3. The DEPARTMENT shall provide a PE Oversight Estimate to the LOCAL GOVERNMENT, if appropriate, appended as Attachment "D" and incorporated by reference as if fully set out herein. The LOCAL GOVERNMENT will be responsible for

providing payment, which represents100% of the DEPARTMENT's PE Oversight Estimate at the time of the Project Framework Agreement execution.

If at any time the PE Oversight funds are depleted within $5,000 of the remaining PE Oversight balance and project activities and tasks are still outstanding, the LOCAL GOVERNMENT shall, upon request, make additional payment to the DEPARTMENT. The payment shall be determined by prorating the percentage complete and using the same estimate methodology as provided in Attachment "D". If there is an unused balance after completion of all tasks and phases of the project, then pending a final audit, the remainder will be refunded to the sponsor.

4. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the PE. The Right of Way and Construction funding estimate levels as specified in Attachment "A" are provided herein for planning purposes and do not constitute a funding commitment for right of way and construction. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for funding applicable to other activities when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds if the PROJECT does not proceed forward to completion due to a lack of available funding in future PROJECT phases, changes in local priorities or

cancellation of the PROJECT by the LOCAL GOVERNMENT without concurrence by the DEPARTMENT.

5. In accordance with Georgia Code 32-2-2, The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance and operations of any and all sidewalks and the grass strip between the curb and sidewalk within the PROJECT limits. The LOCAL GOVERNMENT shall also be responsible for the continual maintenance and operation of all lighting systems installed to illuminate any roundabouts constructed as part of this PROJECT. Furthermore, the LOCAL GOVERNMENT shall also be responsible for the maintaining of all landscaping installed as part of any roundabout constructed as part of this PROJECT.

6. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation Improvement Program/State Transportation Improvement Program, hereinafter referred to as "TIP/STIP". Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment "B" and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the PROJECT's implementation until funds can be re-identified for right of way or construction phases, as applicable.

7. The LOCAL GOVERNMENT shall certify that the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, and FEDERAL AUDIT REQUIREMENTS" are understood and will comply in full with said provisions.

8. The LOCAL GOVERNMENT shall accomplish the PE activities for the PROJECT. The PE activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process hereinafter referred to as "PDP", the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications Construction of Transportation Systems, and all applicable design guidelines and policies of the DEPARTMENT to produce a cost effective PROJECT. Failure to follow the PDP and all applicable guidelines and policies will jeopardize the use of Federal Funds in some or all categories outlined in this agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. The LOCAL GOVERNMENT's responsibility for PE activities shall include, but is not limited to the following items:

a. Prepare the PROJECT Concept Report and Design Data Book in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be updated or modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of PE due to updated guidelines, public input, environmental requirements, Value Engineering recommendations, Public Interest Determination (PID) for utilities, utility/railroad conflicts, or right of way considerations.

b. Prepare a Traffic Study for the PROJECT that includes Average Daily Traffic, hereinafter referred to as "ADT", volumes for the base year (year the PROJECT is expected to be open to traffic) and design year (base year plus 20 years) along with Design Hour Volumes, hereinafter referred to as "DHV", for the design year. DHV includes morning (AM) and evening (PM) peaks and other significant peak times. The Study shall show all through and turning movement volumes at intersections for the ADT and DHV volumes and shall indicate the percentage of trucks on the facility. The Study shall also include signal warrant evaluations for any additional proposed signals on the PROJECT.

c. Prepare environmental studies, documentation reports and complete Environmental Document for the PROJECT along with all environmental re-

evaluations required that show the PROJECT is in compliance with the provisions of the National Environmental Policy Act or the Georgia Environmental Policy Act as per the DEPARTMENT's Environmental Procedures Manual, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, community involvement, environmental justice, flood plains, underground storage tanks, and hazardous waste site studies required. The completed Environmental Document approval shall occur prior to Right of Way funding authorization. A re-evaluation is required for any design change as described in Chapter 7 of the Environmental Procedures Manual. In addition, a re-evaluation document approval shall occur prior to any Federal funding authorizations if the latest approved document is more than 6 months old. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all studies, documents and reports for review and approval by the DEPARTMENT, the FHWA and other environmental resource agencies. The LOCAL GOVERNMENT shall provide Environmental staff to attend all PROJECT related meetings where Environmental issues are discussed. Meetings include, but are not limited to, concept, field plan reviews and value engineering studies.

d. Prepare all PROJECT public hearing and public information displays and conduct all required public hearings and public information meetings with appropriate staff in accordance with DEPARTMENT practice.

e. Perform all surveys, mapping, soil investigations and pavement evaluations needed for design of the PROJECT as per the appropriate DEPARTMENT Manual.

f. Perform all work required to obtain all applicable PROJECT permits, including, but not limited to, Cemetery, TVA and US Army Corps of Engineers permits, Stream Buffer Variances and Federal Emergency Management Agency (FEMA) approvals. The LOCAL GOVERNMENT shall provide all mitigation required for the project, including but not limited to permit related mitigation. All mitigation costs are considered PE costs. PROJECT permits and non-construction related mitigation must be obtained and completed 3 months prior to the scheduled let date. These efforts shall be coordinated with the DEPARTMENT.

g. Prepare the stormwater drainage design for the PROJECT and any required hydraulic studies for FEMA Floodways within the PROJECT limits. Acquire of all necessary permits associated with the Hydrology Study or drainage design.

h. Prepare utility relocation plans for the PROJECT following the DEPARTMENT's policies and procedures for identification, coordination and conflict resolution of existing and proposed utility facilities on the PROJECT. These policies and procedures, in part, require the Local Government to submit all requests for existing, proposed, and relocated facilities to each utility owner within the project area. Copies of all such correspondence, including executed agreements for reimbursable utility/railroad relocations, shall be forwarded to the DEPARTMENT's Project Manager and the District Utilities Engineer and require that any conflicts with the PROJECT be resolved by the LOCAL GOVERNMENT. If it is determined that the PROJECT is located on an on-system route or is a DEPARTMENT LET PROJECT, the LOCAL GOVERNMENT and the District Utilities Engineer shall ensure that permit applications are approved for each utility company in conflict with

the project. If it is determined through the DEPARTMENT's Project Manager and State Utilities Office during the concept or design phases the need to utilize Overhead/Subsurface Utility Engineering, hereinafter referred to as "SUE", to obtain the existing utilities, the LOCAL GOVERNMENT shall be responsible for acquiring those services. SUE costs are considered PE costs.

i. Prepare, in English units, Preliminary Construction plans, Right of Way plans and Final Construction plans that include the appropriate sections listed in the Plan Presentation Guide, hereinafter referred to as "PPG", for all phases of the PDP. All drafting and design work performed on the project shall be done utilizing Microstation V8i and InRoads software respectively using the DEPARTMENT's Electronic Data Guidelines. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the final right of way plans and construction plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to acquire the right of way and construct the PROJECT.

j. Prepare PROJECT cost estimates for construction, Right of Way and Utility/railroad relocation along with a Benefit Cost, hereinafter referred to as "B/C ratio" at the following project stages: Concept, Preliminary Field Plan Review, Right of Way plan approval (Right of Way cost only), Final Field Plan Review and Final Plan submission using the applicable method approved by the DEPARTMENT. The cost estimates and B/C ratio shall also be updated annually if the noted project stages occur at a longer frequency. Failure of the LOCAL GOVERNMENT to provide timely and accurate cost estimates and B/C ratio may delay the PROJECT's

implementation until additional funds can be identified for right of way or construction, as applicable.

k. Provide certification, by a Georgia Registered Professional Engineer, that the Design and Construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT Design Policies.

l. Provide certification, by a Level II Certified Design Professional that the Erosion Control Plans have been prepared under the guidance of the certified professional in accordance with the current Georgia National Pollutant Discharge Elimination System.

m. Provide a written certification that all appropriate staff (employees and consultants) involved in the PROJECT have attended or are scheduled to attend the Department's PDP Training Course. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

9. The Primary Consultant firm or subconsultants hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. The LOCAL GOVERNMENT shall comply with all applicable state and federal regulations for the procurement of design services and in accordance

with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act, for any consultant hired to perform work on the PROJECT.

10. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the LOCAL GOVERNMENT of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals as deemed necessary with information furnished by the LOCAL GOVERNMENT.

11. The LOCAL GOVERNMENT shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the hydraulic and hydrological studies and the design of the bridge(s). The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

12. The LOCAL GOVERNMENT unless otherwise noted in Attachment "A" shall be responsible for funding all LOCAL GOVERNMENT owned utility relocations and all other reimbursable utility/railroad costs. The utility costs shall include but are not limited to PE, easement acquisition, and construction activities necessary for the utility/railroad to accommodate the PROJECT. The terms for any such reimbursable relocations shall be laid out in an agreement that is supported by plans, specifications, and itemized costs of the work agreed upon and shall be executed prior to certification by the

DEPARTMENT. The LOCAL GOVERNMENT shall certify via written letter to the DEPARTMENT's Project Manager and District Utilities Engineer that all Utility owners' exsiting and proposed facilities are shown on the plans with no conflicts 3 months prior to advertising the PROJECT for bids and that any required agreements for reimbursable utility/railroad costs have been fully executed. Further, this certification letter shall state that the LOCAL GOVERNMENT understands that it is responsible for the costs of any additional reimbursable utility/railroad confilcts that arise during construction.

13. The DEPARTMENT will be responsible for all railroad coordination on DEPARTMENT Let and/or State Route (On-System) projects; the LOCAL GOVERNMENT shall address concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT. If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A" on off-system routes, the LOCAL GOVERNMENT shall be responsible for all railroad coordination and addressing concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT for PROJECT.

14. The LOCAL GOVERNMENT shall be responsible for acquiring a Value Engineering Consultant for the DEPARTMENT to conduct a Value Engineering Study if the total estimated PROJECT cost is $10 million or more. The Value Engineering Study cost is considered a PE cost. The LOCAL GOVERNMENT shall provide project related design data and plans to be evaluated in the study along with appropriate staff to present and answer questions about the PROJECT to the study team. The LOCAL

GOVERNMENT shall provide responses to the study recommendations indicating whether they will be implemented or not. If not, a valid response for not implementing shall be provided. Total project costs include PE, right of way, and construction, reimbursable utility/railroad costs.

15. The LOCAL GOVERNMENT, unless shown otherwise on Attachment "A", shall acquire the Right of way in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way

costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. The LOCAL GOVERNMENT shall certify that all required right of way is obtained and cleared of obstructions, including underground storage tanks, 3 months prior to advertising the PROJECT for bids.

16. The DEPARTMENT unless otherwise shown in Attachment "A" shall be responsible for Letting the PROJECT to construction, solely responsible for executing any agreements with all applicable utility/railroad companies and securing and awarding the construction contract for the PROJECT when the following items have been completed and submitted by the LOCAL GOVERNMENT:

a. Submittal of acceptable PROJECT PE activity deliverables noted in this agreement.
b. Certification that all needed rights of way have been obtained and cleared of obstructions.
c. Certification that the environmental document is current and all needed permits and mitigation for the PROJECT have been obtained.
d. Certification that all Utility/Railroad facilities, existing and proposed, within the PROJECT limits are shown, any conflicts have been resolved and reimbursable agreements, if applicable, are executed.

If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A", the LOCAL GOVERNMENT shall provide the above deliverables and certifications and

shall follow the requirements stated in Chapters 10, 11, 12 and 13 of the DEPARTMENT"s Local Administered Project Manual. The LOCAL GOVERNMENT shall be responsible for providing qualified construction oversight with their personnel or by employing a Consultant firm prequalified in Area Class 8.01 to perform construction oversight. The LOCAL GOVERNMENT shall be responsible for employing a GDOT prequalified consultant in area classes 6.04a and 6.04b for all materials testing on the PROJECT, with the exception of field concrete testing. All materials testing, including field concrete testing shall be performed by GDOT certified technicians who are certified for the specific testing they are performing on the PROJECT. The testing firm(s) and the individual technicians must be submitted for approval prior to Construction.

17. The LOCAL GOVERNMENT shall provide a review and recommendation by the engineer of record concerning all shop drawings prior to the DEPARTMENT review and approval. The DEPARTMENT shall have final authority concerning all shop drawings.

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to

use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

19. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all reports, designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the reports, designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors, omissions or deficiencies within 30 days of notification shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays and supplemental agreements caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law that is attributable to errors, omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement.

20. The DEPARTMENT shall be furnished with a copy of all contracts and agreements between the LOCAL GOVERNMENT and any other agency or contractor associated with construction activities. The DEPARTMENT's Project Manager shall be the primary point of contact unless otherwise specified.

21. The LOCAL GOVERNMENT shall provide the DEPARTMENT with a detailed project schedule that reflects milestones, deliverables with durations for all pertinent activities to develop critical path elements. An electronic project schedule shall be submitted to the Project Manager after execution of this agreement.

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

DEPARTMENT OF TRANSPORTATION

BY: _____
Commissioner

ATTEST:

_____
Treasurer

ROCKDALE COUNTY

BY: _____
Richard A. Oden
Chairman & CEO

Signed, sealed and delivered this 23rd day of October, 2012, in the presence of:

_____
Witness

_____
Notary Public

This Agreement approved by Rockdale County the 23rd day of October, 2012.

Attest

_____
Jennifer Rutledge, County Clerk

Approved as to form

_____
M. Qader A. Baig, County Attorney

FEIN: 58-800068

Revised: 12/2011

Attachment "A" Funding Sources and Distribution

Project No.: 0006934 Sponsor: Rockdale County

Attach "Project Manager" Project Charging Form for Approval

Preliminary Engineering Phase I

	Preliminary Engineering - Phase I[1]					GDDT Oversight for PE (Phase I)[2]			Preliminary Engineering Grand Total (Phase I)	
	Percentage	PE Amount	Maximum PE Participation Amount ($)	Participant	PE Activity Sponsor	Percentage	Amount	Participant	Percentage	Amount
1	100%	$499,915.00	$499,915.00	Federal	Local Government	80%	$40,000.00	Federal	98%	$539,915.00
2	0%	$0.00	$0.00	State		20%	$10,000.00	State	2%	$10,000.00
3	0%	$0.00	N/A	Local		0%	$0.00	Local	0%	$0.00
4	0%	$0.00	$0.00	Other		0%	$0.00	Other	0%	$0.00
Total	100%	$499,915.00				100%	$50,000.00		100%	$549,915.00

Right of Way Phase II

	Right of Way - Phase II[3]					
	Percentage	ROW Amount	Maximum ROW Participation Amount ($)	Participant	Acquisition By:	Acquisition Fund By:
1	0%	$0.00	$0.00	Federal	Local Government	Local Government
2	0%	$0.00	$0.00	State		
3	100%	$10,000,000.00	N/A	Local		
4	0%	$0.00	$0.00	Other		
Total	100%	$10,000,000.00				

Utility Phase IV

Utility Relocation - Phase IV	
Utility Funding By:	Railroad Funding By:
Local Government	Local Government
100%	100%

Construction Phase III

	Construction - Phase III[3]				
	Percentage	CST Amount	Maximum CST Participation Amount ($)	Participant	Letting By:
1	80%	$9,680,000.00	$9,680,000.00	Federal	Local Govt
2	0%		$0.00	State	
3	20%	$2,420,000.00	N/A	Local	
4	0%	$0.00	$0.00	Other	
Total	100%	$12,100,000.00			

Construction Oversight Phases V & VI

GDOT Oversight for CST (Phase III)[2]	
Testing (Phase V) Funding By:	Inspection (Phase VI) Funding By:
Local Government	Local government
100%	100%

Summary of Phases I Through III

	Grand Total - All Phases I through III			
	Percentage	Total Amount	Maximum Participation Amount ($)	Participant
1	42%	$9,140,085.00	$9,140,085.00	Federal
2	0%	$10,000.00	$10,000.00	State
3	58%	$12,420,000.00	N/A	Local
4	0%	$0.00	$0.00	Other
Total	100%	$21,570,085.00		

[1]The maximum allowable GDOT participating amounts for PE phase are shown above. The local government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated.

[2]GDOT Oversight for PE (Phase I) is detailed in Attachment "D".

[3]Right-of-Way and Construction amounts shown are for budget planning purposes only.

Revised: 12/2011

NOTE: Separate GDOT P.O.s will be established for each funding phase.

ATTACHMENT "C"

PI 0006934 Rockdale County

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE **OFFICE** Planning

DATE September 17, 2010

FROM Angela T. Alexander, State Transportation Planning Administrator

TO Todd I. Long, PE, PTOE, Director of Planning
Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner

SUBJECT Preliminary Engineering Oversight for Project Managers/Project Delivery Staff

Note: This memo supersedes the previous PE Oversight Memo, dated August 17, 2010. PE Oversight funding for Safe Route to School (SRTS) projects are eligible for PE Oversight funds, paid for with funding from the SRTS program. No other changes were made to the memo.

As you are aware, the Department is unable to continue funding PE oversight with 100% motor fuel funds due to the decline in motor fuel revenues. As a result, the Department needs an established procedure detailing the circumstances under which the Department will fund PE oversight with federal-aid funds (matched with state motor fuel funds) and when the Department will request that the local government/project sponsor fund the Department's expenses associated with PE oversight. The PE Oversight funds will be used to fund staff man-hours and any other associated expenses incurred by any GDOT employee working on the project. Please note that the process detailed below applies equally to routes both on and off the state highway system.

GDOT Funds PE Oversight with Federal-Aid:

The Department will fund PE oversight with federal-aid funds (and matching motor fuel funds), only if a subsequent project phase (ROW, UTL, CST) is programmed within the first 4 active years of the currently approved TIP/STIP. The source of federal-aid funds to be used for the PE oversight activities is as follows:

1) Projects on the National Highway System will use NHS funds (L050) to finance GDOT's PE oversight expenses

2) Projects *not* on the National Highway System but eligible for Surface Transportation Program (STP) funds, will follow one of the scenarios below:

   a) Projects in urban areas between 5,000 and 199,999 in population will use L200 funds (with MPO approval, if applicable)

   b) Projects in urban areas with a population greater than 200,000 will use L230 funds (with MPO approval)

   c) Projects in rural areas with a population less than 5,000 will use L250 funds

   d) The Department may, at the joint discretion of the Chief Engineer and Director of Planning, apply L240 funds to any federal-aid eligible project

3) Projects which have received an earmark in federal legislation, will use a portion of the earmark funding for GDOT's PE oversight expenses, pending MPO approval if applicable. (Note: earmark funded projects could receive PE oversight funding regardless of the funding being programmed within the first 4 active years of a currently approved TIP/STIP).

4) Projects funded with Safe Route to School (SRTS) funds will use SRTS funds to finance GDOT's PE oversight expenses, regardless of whether or not a subsequent phase of the project appears in the STIP/TIP.

GDOT Requests Local Government/Project Sponsor to Fund PE Oversight:

The Department will request that the local government fund PE oversight with 100% local funds under the following conditions:

1) A subsequent phase of the project is not programmed within the first 4 active years of the Currently approved TIP/STIP

2) The MPO has elected to not approve the use of L200 or L230 funds for GDOT's PE oversight expenses

3) The project is funded with CMAQ funds

4) The project is funded with an earmark identified in federal legislation and the local government/entity which secured the earmark (or MPO, if applicable) declines to allow GDOT to use a portion of the earmark for PE oversight expenses

5) The project is currently funded entirely with local funds; however, the local government intends to secure federal funding at a future date

Once the PE oversight process is implemented, it will be the responsibility of the GDOT Project Manager to work with the GDOT Office of Financial Management to establish an appropriate amount of federal-aid funded PE oversight funding, or work with the local government to secure locally sourced PE oversight funds.

If you approve of this process, please sign below. Once an acceptable process is developed and approved by both the Chief Engineer and Director of Planning, we will provide the finalized process to the Office of Program Control for distribution to the GDOT Project Managers and incorporation into future Project Framework Agreements. If you have any questions, please contact Matthew Fowler at 404-631-1777.

Approved: _____ 9/27/10
Todd I. Long, PE, PTOE, Director of Planning — Date

Approved: _____ 10/7/20
Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner — Date

ATA:MF

ATTACHMENT "D"

GDOT Oversight Estimate for Locally Administered Project

Friday, July 27, 2012 7:12 AM

PI Number	0006934	**Project Number**	CSSTP-0006-00(934)
County	Rockdale	**Project Length**	.800 **Miles**
Project Manager	Brown, Derrick M.	**Project Cost**	$12,649,915.00
Project Type	Rural Arterial/Collector (Widen/Reconstruct/New)		
Project Description	Salem Gate Extfrom Iris Dr to Old Covington Hwy & I-20 Overpass		
Expected Life of Project	3.00 **Years**		

Project Phase	Oversight Hours		Oversight Cost
1. Project Initiation	60	$	3,000.00
2. Concept Development	187	$	9,000.00
3. Database Preparation	40	$	2,000.00
4. Preliminary Design	275	$	12,000.00
5. Environmental	302	$	11,000.00
6. Final Design	280	$	12,000.00
Travel Expenses		$	-
Total Oversight Estimate	**1,145**	**$**	**50,000.00**
Percentage of Project Cost	0.40%		

Note: The project cost is greater that $10,000,000.00. Therefore, a Value Engineering Study is required and the estimated cost for the oversight of this study is $5,250.00 which is included in the Concept Development Phase.

W:\DPPE\PFA'S\Local PE PFA\Rockdale\oversight Estimate 6934.xlsm

ATTACHMENT E--GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Name of Contracting Entity: Rockdale County

Contract No. and Name: PI# 0006934

By executing this affidavit, the undersigned person or entity verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm, or entity which is contracting with the Georgia Department of Transportation has registered with, is authorized to participate in, and is participating in the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

The undersigned person or entity further agrees that it will continue to use the federal work authorization program throughout the contract period, and it will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the undersigned with the information required by O.C.GA. § 13-10-91(b).

The undersigned person or entity further agrees to maintain records of such compliance and provide a copy of each such verification to the Georgia Department of Transportation within five (5) business days after any subcontractor is retained to perform such service.

381341
E-Verify / Company Identification Number

12/28/2010
Date of Authorization

Signature of Authorized Officer or Agent

Jennifer Rutledge
Printed Name of Authorized Officer or Agent

County Clerk
Title of Authorized Officer or Agent

01/5/2012
Date

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

11 DAY OF January, 2013

Notary Public

My Commission Expires: April 15, 2014

[NOTARY SEAL]

KIM N HEYMAN
MY COMMISSION EXPIRES
NOTARY PUBLIC
APRIL 5, 2014
ROCKDALE COUNTY, GEORGIA

Revised: 12/2011

ATTACHMENT "F"

TITLE VI INTRODUCTION

As a sub-recipient of federal funds from Georgia Department of Transportation, all municipalities are required to comply with Title VI of the Civil Rights Act of 1964 which provides that:

"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied the benefits of, or be subjected To discrimination under any program or activity receiving federal assistance under This title or carried out under this title."

Additionally, the Civil Rights Restoration Act of 1987, expanded the definition of the terms "programs and activities" to include all programs or activities of federal recipients, subrecipients, and contractors, whether or not such programs and activities are federally assisted.

The provisions of Title VI apply to all contractors, subcontractors, consultants and suppliers. And is a condition for receiving federal funds. All sub recipients must sign Title VI assurances that they will not discriminate as stated in Title VI of the Civil Rights Act of 1964.

In the event that the sub recipient distributes federal aid funds to second tier entity, the sub-recipient shall include Title VI language in all written documents and will monitor for compliance. If, these assurances are not signed, the City or County government may be subjected to the loss of federal assistance.

All sub recipients that receive federal assistance must also include Federal Highways Administrations 1273 in their contracts. The FHWA 1273 sets out guidance for ensuring non discrimination and encouraging minority participation and outreach.

Enclosed you will find Title VI acknowledgment form and the Title VI assurances. The Title VI acknowledgment form and Title VI assurances must be signed by your local government official if it has not been signed.

ATTACHMENT "F"

TITLE VI ACKNOWLEDGEMENT FORM

The Rockdale County, GA assures that no person shall on the grounds or race, color, national origin or sex as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration Act of 1987 be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any City or County sponsored program or activity.
The Rockdale County, GA assures that every effort will be made to ensure non discrimination in all of its programs or activities, whether those programs are federally funded or not.

Assurance of compliance therefore falls under the proper authority of the City Council or the County Board of Commissioners. The Title VI Coordinator or Liaison is authorized to ensure compliance with provisions of this policy and with the Law, including the requirements of 23 Code of Federal Regulations (CFR) 200 and 49 CFR 21.

Sandra Ruffin, County Clerk — 12/5/2012

Official Name and Title — Date

Citations:
Title VI of the Civil Rights Act of 1964; 42 USC 2000d to 2000d-4;42 USC 4601to 4655;23 USC 109(h); 23 USC 324; DOT Order 1050.2; EO 12250; EO 12898; 28CFR 50.3

Other Nondiscrimination Authorities Expanded the range and scope of Title VI coverage and applicability

The 1970 Uniform Act (42 USC 4601)
Section 504 of the 1973 Rehabilitation Act (29 USC 790)
The 1973 Federal-aid Highway Act (23 USC 324)
The 1975 Age Discrimination Act (42 USC 6101)
Implementing Regulations (49 CFR 21 & 23 CFR 200)
Executive Order 12898 on Environmental Justice (EJ)
Executive Order 13166 on Limited English Proficiency (LEP)