



DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
TIA PROJECT CONCEPT REPORT

Project Type: Widening
GDOT District: 2
Federal Route Number: _____
State Route Number: SR223

P.I. Number: 0011414
County: Columbia
MPO ID Number: RC07-001212

Project Description (provide a very brief description of the project)
Road widening of Robinson Avenue (SR223) in the City of Grovetown, Columbia County. Project begins near Wrightsboro Road (SR388) and extends toward Gordon Highway (SR10) for approximately 1.8 miles.

Submitted for approval:

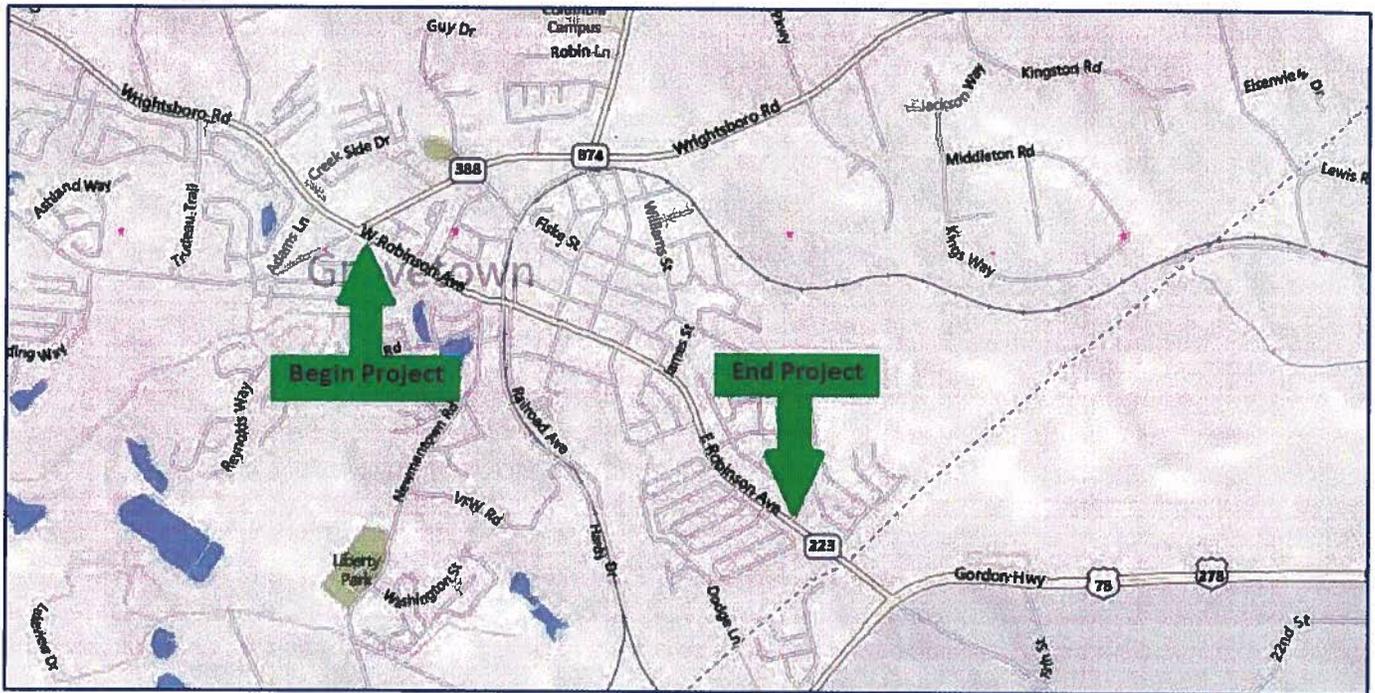
<u>Robert Baudin, W.R. TOOLE ENGINEERS</u>	<u>1/2/14</u>
Consultant & Firm	DATE
<u>Steve S. Tidem</u>	<u>1/8/14</u>
TIA Project Manager	DATE
<u>[Signature]</u>	<u>1/8/14</u>
GDOT TIA Regional Coordinator	DATE
<u>[Signature]</u>	<u>1/8/14</u>
TIA Program Manager	DATE
<u>Michael D. Dove</u>	<u>1/10/2014</u>
GDOT State TIA Administrator	DATE

Approval:

Concur: <u>[Signature]</u>	<u>1/14/2014</u>
GDOT Director of Engineering	DATE
Approve: <u>[Signature]</u>	<u>1-18-14</u>
GDOT Chief Engineer	DATE

PROJECT LOCATION

Project Location Map



PLANNING & BACKGROUND DATA

Description of the proposed project:

Federal Oversight: Exempt State Funded TIA Other

MPO: Augusta Regional Transportation Study (ARTS)
 MPO Project ID

Regional Commission: Central Savannah River RC RC Project ID RC07-001212

Congressional District(s): 12

Projected Traffic: ADT

Current Year (2013): 15,798 Open Year (2016): 16,513 Design Year (2036): 29,820
 Traffic Projections Performed by: Kimley-Horn

Functional Classification (Mainline): Urban Principal Arterial

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

Will Context Sensitive Solutions procedures be utilized? No Yes

DESIGN AND STRUCTURAL DATA - Mainline Design Features: Robinson Avenue (SR223)

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	n/a	2
- Lane Width(s)	12-ft	11 -12-ft	11-ft
- Median Width & Type	n/a	20-ft Raised (4 lane)	12-ft Raised
- Outside Shoulder or Border Area Width	10-ft	10 – 16-ft	10-ft
- Outside Shoulder Slope	Varies	2%	2%
- Sidewalks	5-ft	5-ft	5-ft
- Bike Lanes	4-ft	4-ft	4-ft
Posted Speed	35 mph		35 mph
Design Speed	n/a	35 mph	35 mph
Min Horizontal Curve Radius	400-ft	371-ft	400-ft
Superelevation Rate	Varies	4%	4%
Grade	5%	8%	5%
Access Control	no	n/a	No
Right-of-Way Width	varies	n/a	Varies
Maximum Grade – Crossroad	9%	11%	10%
Design Vehicle	n/a	WB-40 or WB-62	WB-40

*According to current GDOT design policy if applicable

Major Interchanges/Intersections: New Traffic Signal at SR223 / Katherine Street, Realignment of School Street.

Utility Involvements: Water, Sanitary Sewer, Power, Communications

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

SUE Required: No Yes

Railroad Involvement: CSX

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

Warrants met: None Bicycle Pedestrian Transit

Right-of-Way:

Required Right-of-Way anticipated: No Yes Undetermined

Easements anticipated: None Temporary Permanent Utility Other

Anticipated number of impacted parcels:	83
Displacements Anticipated:	5
Businesses:	19
Residences:	53
Other:	11

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: n/a

Design Variances to GDOT Standard Criteria anticipated: 24-inch concrete curb and gutter, 12-foot raised median

ENVIRONMENTAL DATA

Anticipated Environmental Document:

GEPA: Type A Letter Type B Letter
NEPA: CE EA/FONSI

County: Columbia

Project Air Quality: (On-system projects only)

- Is the project located in a PM 2.5 Non-attainment area? No Yes
- Is the project located in an Ozone Non-attainment area? No Yes
- Is a Carbon Monoxide hotspot analysis required? No Yes

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

Environmental Permits/Variations/Commitments/Coordination anticipated: Possible Stream buffer variance at railroad ditches.

NEPA/GEPA Comments & Information:

A 2001 Georgia Historic Resources Survey identified 9 historic resources that occur within the project corridor. The closest wetlands are approximately 0.25 mile from the project corridor according to NWI. Per USGS topographic maps, no blue line streams cross the project corridor. There may be intermittent or small wetland complexes that could be within the project limits. There are at least 4 active churches and no cemeteries along the project corridor. The project could result in impacts to community resources, displacements of residential and/or commercial properties, and impacts to historic resources (avoidance, minimization and mitigation measures would need to be evaluated in consultation with the SHPO as part of the GEPA process and additionally with the USACE if the project requires a 404 Permit).

If the project would result in physical effects to a large enough proportion of historic resources this project would need to be evaluated for exceeding the “significance” threshold under GEPA guidelines. This could impact the preliminary evaluation that the project would qualify as a GEPA Type B Letter and may need to be evaluated as a GEPA Environmental Effects Report, which would significantly extend the period of time needed for environmental approval compared to the GEPA Type B Letter process.

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	W. R. Toole Engineers
Design	W. R. Toole Engineers
Right-of-Way Acquisition	GDOT
Utility Relocation	GDOT
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Detours	W. R. Toole Engineers is responsible for staging and detour plans
Environmental Studies, Documents, and Permits	Edwards Pitman
Environmental Mitigation	GDOT/Edwards Pitman to provide documents
Construction Inspection & Materials Testing	GDOT

Lighting required: No Yes

County: Columbia

Other projects in the area: PI 0008347, Wrightsboro Road Improvements from SR388/Lewiston Road to SR223/Robinson Avenue. This project is a TIA Band 1 project.

Other coordination to date:

1. Kickoff meeting with the City of Grovetown: 3-18-2013
2. Concept review meeting with the City of Grovetown: 6-06-2013
3. Public Information Meeting: 6-27-2013

Project Cost Estimate and Funding Responsibilities:

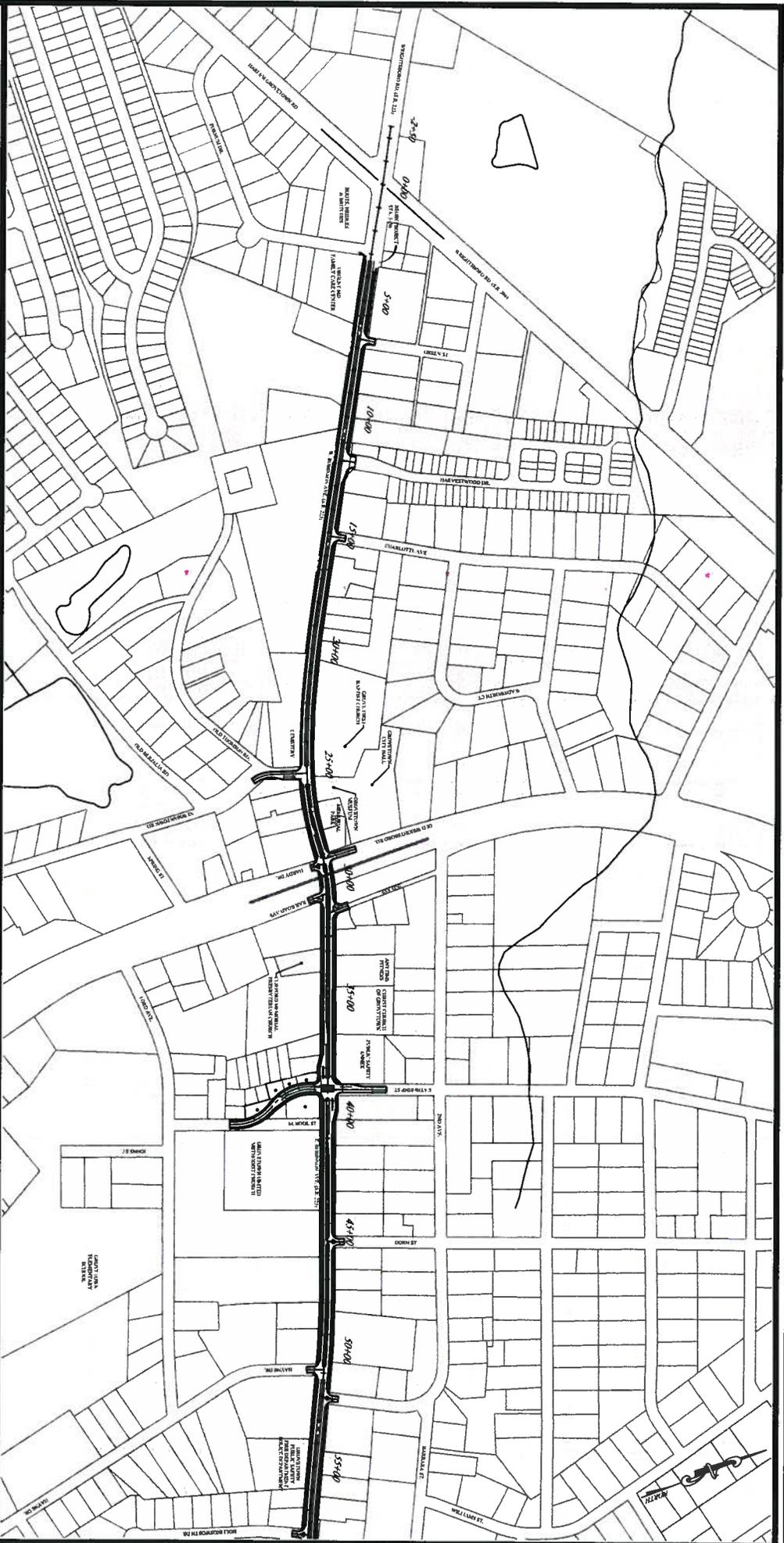
	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
By Whom	WRTE	GDOT	GDOT	WRTE	GDOT	
\$ Amount	498,018	1,100,000	500,000	5,442,042.83	n/a	7,136,121.05
Date of Estimate	10/17/2013	10/17/2013	10/17/2013	10/17/2013	10/17/2013	

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

Comments/additional information: TE Study and Signal Warrant to be completed during preliminary engineering.

Attachments:

1. Concept Layout
 - Project Layout Sheet 1
 - Project Layout Sheet 2
2. Typical sections
 - Typical Section #1
 - Typical Section #2
 - Typical Section #3
 - Typical Section #4
3. Cost Estimate
4. Traffic Study
5. Meeting Minutes
 - Kickoff meeting with the City of Grovetown: 3-18-2013
 - Concept review meeting with the City of Grovetown: 6-04-2013
 - Concept review meeting: sign-in sheet
 - PIM fact sheet: 6-27-2013
 - PIM sign-in sheet: 6-27-2013
 - PIM comment cards: 6-27-2013



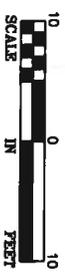
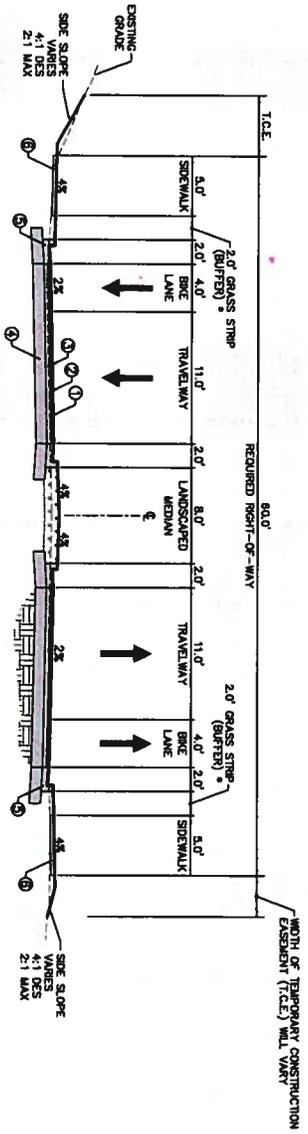
PROJECT LAYOUT
SCALE: 1" = 400'

SHEET 1 OF 2

Robinson Ave. (S.R. 223)
Road Widening & Improvements Project



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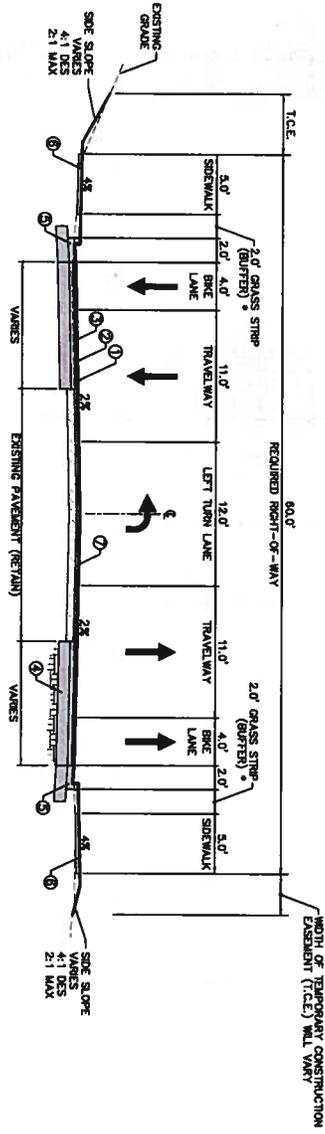
TYPICAL SECTION #1

SCALE: 1" = 10'

*Robinson Ave. (S.R. 223)
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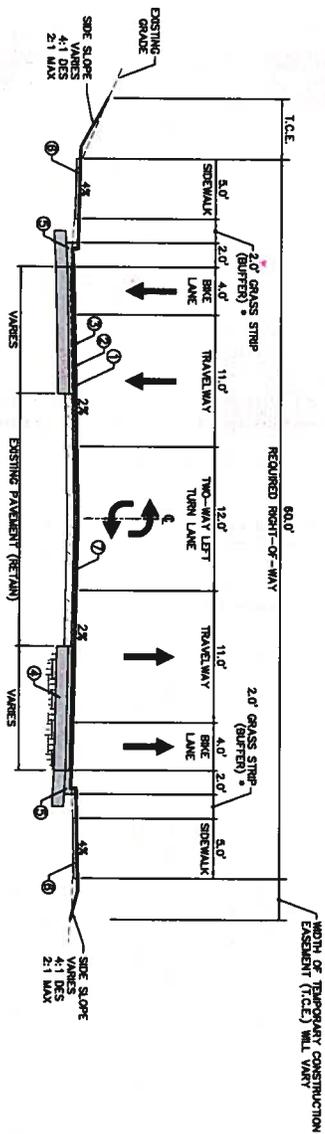
TYPICAL SECTION #2

SCALE: 1" = 10'

Robinson Ave. (S.R. 223)
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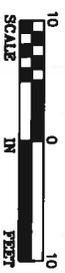
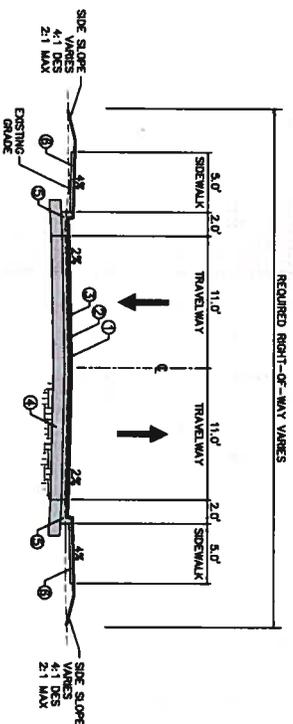
TYPICAL SECTION #3

SCALE: 1" = 10'

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TYPICAL SECTION #4

SCALE: 1" = 10'

Robinson Ave. (S.R. 223)
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Robinson Avenue (SR 223) Widening and Improvements Project

OPINION OF PROBABLE CONSTRUCTION COST

DATE: 12/03/2013

Section 1 - ROADWAY

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	150,000.00	TRAFFIC CONTROL -	\$150,000.00
153-1300	1	EA	65,000.00	FIELD ENGINEERS OFFICE TP 3	\$65,000.00
157-1001	1	LS	50,000.00	CONSTRUCTION STAKING	\$50,000.00
205-0001	2500	CY	8.00	UNCLASS EXCAV	\$20,000.00
207-0203	1000	CY	45.00	FOUND BK FILL MATL, TP 11	\$45,000.00
210-0100	1	LS	100,000.00	GRADING COMPLETE -	\$100,000.00
230-1000	1	LS	100,000.00	LUMP SUM CONSTRUCTION	\$100,000.00
310-1101	12293	TN	18.00	GR AGGR BASE CRS, INCL MATL	\$221,274.00
318-3000	2000	TN	30.00	AGGREGATE SURFACE COURSE	\$60,000.00
402-1812	1673	TN	85.00	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	\$142,205.00
402-3130	5570	TN	85.00	RECYCLED ASPH CONC 12.5MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	\$473,450.00
402-3190	5688	TN	85.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	\$483,480.00
413-1000	10000	GL	5.00	BITUM TACK COAT	\$50,000.00
432-5010	8700	SY	4.00	MILL ASPH CONC PVMT, VARIABLE DEPTH	\$34,800.00
441-0016	1000	SY	40.00	DRIVEWAY CONCRETE, 6 IN TK	\$40,000.00
441-0018	800	SY	50.00	DRIVEWAY CONCRETE, 8 IN TK	\$40,000.00
441-0104	8229	SY	35.00	CONC SIDEWALK, 4 IN	\$288,015.00
441-0748	550	SY	45.00	CONCRETE MEDIAN, 6 IN	\$24,750.00
441-6012	23752	LF	16.00	CONC CURB & GUTTER, 6 IN X 24 IN, TP 2	\$380,032.00
500-3201	200	CY	500.00	CLASS B CONCRETE (RETAINING WALL)	\$100,000.00
500-9999	200	CY	160.00	CLASS B CONC, BASE OR PVMT WIDENING	\$32,000.00
603-2182	500	SY	45.00	STN DUMPED RIP RAP, TP 3, 24 IN	\$22,500.00
603-7000	500	SY	5.00	PLASTIC FILTER FABRIC	\$2,500.00
610-0200	1000	LF	12.00	REM CH LK FENCE, ALL SIZES & TYPES	\$12,000.00
610-0301	20	EA	160.00	REM GATE, ALL SIZES & TYPES	\$3,200.00
611-4001	20	EA	2,000.00	RECONSTRUCT MINOR STRUCTURE	\$40,000.00
611-8050	20	EA	900.00	ADJUST MANHOLE TO GRADE	\$18,000.00
611-8055	10	EA	950.00	ADJUST MINOR STRUCTURE TO GRADE	\$9,500.00
643-8200	10000	LF	2.00	BARRIER FENCE (ORANGE), 4 FT	\$20,000.00
Section Sub Total					\$3,027,706.00

Section 2 - DRAINAGE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
550-1180	5000	LF	40.00	STORM DRAIN PIPE, 18 IN, H 1-10 (R.C.P.)	\$200,000.00
550-1240	3000	LF	40.00	STORM DRAIN PIPE, 24 IN, H 1-10 (R.C.P.)	\$120,000.00
550-1300	1200	LF	50.00	STORM DRAIN PIPE, 30 IN, H 1-10 (R.C.P.)	\$60,000.00
550-1360	800	LF	60.00	STORM DRAIN PIPE, 36 IN, H 1-10 (R.C.P.)	\$48,000.00
550-1420	800	LF	75.00	STORM DRAIN PIPE, 42 IN, H 1-10 (R.C.P.)	\$60,000.00
550-1480	300	LF	95.00	STORM DRAIN PIPE, 48 IN, H 1-10 (R.C.P.)	\$28,500.00
550-4224	3	EA	650.00	FLARED END SECTION 24 IN, STORM DRAIN	\$1,950.00
550-4236	4	EA	1,100.00	FLARED END SECTION 36 IN, STORM DRAIN	\$4,400.00
668-1100	50	EA	2,100.00	CATCH BASIN, GP 1	\$105,000.00
668-1110	180	LF	200.00	CATCH BASIN, GP 1, ADDL DEPTH	\$36,000.00
668-1200	30	EA	2,800.00	CATCH BASIN, GP 2	\$84,000.00
668-1210	120	LF	200.00	CATCH BASIN, GP 2, ADDL DEPTH	\$24,000.00
668-4300	10	EA	1,800.00	STORM SEWER MANHOLE, TP 1	\$18,000.00
668-4311	20	LF	200.00	STORM SEWER MANHOLE, TP 1, ADDL DEPTH, CL 1	\$4,000.00
668-4400	10	EA	3,000.00	STORM SEWER MANHOLE, TP 2	\$30,000.00
668-4411	15	LF	180.00	STORM SEWER MANHOLE, TP 2, ADDL DEPTH, CL 1	\$2,700.00
Section Sub Total					\$826,550.00

Section 3 - EROSION CONTROL

Item Number	Quantity	Units	Unit Price	Item Description	Cost
700-6910	12	AC	1,000.00	PERMANENT GRASSING	\$12,000.00
700-7000	12	TN	100.00	AGRICULTURAL LIME	\$1,200.00
700-8000	2	TN	500.00	FERTILIZER MIXED GRADE	\$1,000.00
700-8100	600	LB	3.00	FERTILIZER NITROGEN CONTENT	\$1,800.00
716-2000	6000	SY	3.00	EROSION CONTROL MATS, SLOPES	\$18,000.00
Section Sub Total					\$34,000.00

Section 4 - TEMPORARY EROSION CONTROL

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	7	AC	1,500.00	TEMPORARY GRASSING	\$10,500.00
163-0240	100	TN	220.00	MULCH	\$22,000.00
163-0300	6	EA	1,200.00	CONSTRUCTION EXIT	\$7,200.00
163-0524	50	EA	250.00	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS - STONE PLAIN RIP RAP/SAND BAGS	\$12,500.00
163-0525	10	EA	500.00	CONSTRUCT AND REMOVE TEMPORARY LEVEL SPREADER	\$5,000.00
163-0530	870	LF	8.00	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	\$6,960.00
163-0531	2	EA	13,000.00	CONSTRUCT AND REMOVE SEDIMENT BASIN COMPLETE (GA CONST DET-22)	\$26,000.00
165-0030	8700	LF	1.00	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	\$8,700.00
163-0550	50	EA	150.00	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	\$7,500.00
165-0040	50	EA	5.00	MAINTENANCE OF EROSION CONTROL CHECKDAMS/DITCH CHECKS	\$250.00
165-0060	2	EA	1,800.00	MAINTENANCE OF TEMPORARY SEDIMENT BASIN	\$3,600.00
165-0070	870	LF	2.00	MAINTENANCE OF BALED STRAW EROSION CHECK	\$1,740.00
165-0101	6	EA	500.00	MAINTENANCE OF CONSTRUCTION EXIT	\$3,000.00
165-0105	50	EA	50.00	MAINTENANCE OF INLET SEDIMENT TRAP	\$2,500.00
167-1000	24	EA	500.00	WATER QUALITY MONITORING AND SAMPLING	\$12,000.00
167-1500	24	MO	560.00	WATER QUALITY INSPECTIONS	\$13,440.00
171-0030	17400	LF	3.00	TEMPORARY SILT FENCE, TYPE C	\$52,200.00
Section Sub Total					\$195,090.00

Section 5 - TRAFFIC SIGNS AND MARKINGS					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	150	SF	15.00	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	\$2,250.00
636-1033	50	SF	19.00	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	\$950.00
636-2070	500	LF	7.00	GALV STEEL POSTS, TP 7	\$3,500.00
652-5451	17400	LF	2.00	SOLID TRAFFIC STRIPE, 5 IN, WHITE	\$34,800.00
652-6501	600	GLF	2.00	SKIP TRAF STRIPE, 5 IN, WHITE	\$1,200.00
653-0120	60	EA	75.00	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	\$4,500.00
653-0210	5	EA	110.00	THERMOPLASTIC PAVEMENT MARKING, WORD, TP 1	\$550.00
653-1501	1300	LF	2.00	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	\$2,600.00
653-1502	17400	LF	2.00	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	\$34,800.00
653-1704	200	LF	4.00	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	\$800.00
653-1804	2800	LF	2.00	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	\$5,600.00
653-3501	700	GLF	2.00	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	\$1,400.00
653-3502	10000	GLF	2.00	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW	\$20,000.00
653-6004	250	SY	2.00	THERMOPLASTIC TRAF STRIPING, WHITE	\$500.00
653-6006	200	SY	2.00	THERMOPLASTIC TRAF STRIPING, YELLOW	\$400.00
654-1001	250	EA	4.00	RAISED PVMT MARKERS TP 1	\$1,000.00
654-1003	100	EA	3.00	RAISED PVMT MARKERS TP 3	\$300.00
682-6233	1000	LF	4.00	CONDUIT, NONMETL, TP 3, 2 IN	\$4,000.00
Section Sub Total					\$119,150.00
Section 6 - SIGNAL & RAILROAD					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
639-3004	4	EA	12,500.00	STEEL STRAIN POLE, TP IV	\$50,000.00
647-1000	1	LS	75,000.00	TRAFFIC SIGNAL INSTALLATION NO - 1	\$75,000.00
999-9999	1	LS	200,000.00	RAILROAD CROSSING	\$200,000.00
Section Sub Total					\$325,000.00
Summary					
Estimated Cost					\$4,527,496.00
5% CONTINGENCY					\$226,374.80
TOTAL ESTIMATED CONSTRUCTION COST					\$4,753,870.80

 Robinson Avenue (SR 223) Widening and Improvements Project		
Summary of Costs		
DATE: 12/03/2013		
Original TIA Budget	Phase / Service	Revised Summary of Costs
\$6,100,000.00	Construction Cost Estimate (Includes 5% Contingency)	\$4,753,870.80
\$600,000.00	PE (Engineering - Surveying - Environmental)	\$498,018.00
\$1,300,000.00	ROW (Including Acquisition Services)	\$1,100,000.00
\$0.00	Program Management (Estimated at 2.5% of ROW)	\$27,500.00
\$0.00	Utilities (Including Water Distribution and Sanitary Sewer)	\$500,000.00
\$0.00	Program Management (Estimated at 2.5% of Utilities)	\$12,500.00
\$0.00	CEI (Estimated at 7% of Construction and 3% for Testing)	\$475,387.08
\$0.00	Program Management (Estimated at 2.5% of Construction)	\$118,846.77
\$8,000,000.00	Total Project Cost	\$7,486,122.65

Traffic Study

Robinson Avenue
Grovetown, Georgia

Prepared for:

WR Toole Engineers, Inc.
City of Grovetown

Prepared by:

Kimley-Horn and Associates, Inc.
2 Sun Court, Suite 450
Norcross, GA 30092
(770) 825-0744

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APPENDICES

Appendix A	Raw Traffic Counts
Appendix B	Intersection Volume Spreadsheets
Appendix C	Synchro Level-of-Service Analyses

1.0 INTRODUCTION

The segment of Robinson Avenue between Newmantown Road and Hollingsworth Drive/Pippin Street located in Grovetown, Columbia County, Georgia has been identified for an operational analysis. This portion of Robinson Avenue is considered the “Downtown Core” and is a critical part of the city. This study was completed in an effort to determine what geometric and operational improvements could be made to improve capacity and traffic flow along the studied roadway. Furthermore, the operations of the corridor were assessed for future traffic conditions and recommendations were made to help relieve projected congestion levels and improve traffic flow.

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained to perform a traffic analysis for Existing 2013 during both the AM and PM peak hour traffic conditions. Projected 2016 and 2036 conditions (with and without improvements) were also a part of this analysis and were analyzed during both the AM and PM peak hours. This report presents Kimley-Horn’s findings and recommendations for improvements required to meet anticipated traffic demands.

Note: This traffic study is for internal City of Grovetown purposes in preparation for the Transportation Investment Act (TIA) project RC07-001212: Improvements to Robinson Avenue/SR 223 from SR 388 to SR 10/Richmond County. This study can be used to give an “advanced” perspective of possible transportation options for Robinson Avenue (prior to the start of the formal TIA project).

2.0 INVENTORY

2.1 Study Area

The study area of Robinson Avenue was identified to include the following six intersections:

1. W. Robinson Avenue (SR 223) at Newmantown Road
2. W. Robinson Avenue (SR 223) at Old Wrightsboro Road/Hardy Drive
3. E. Robinson Avenue (SR 223) at Railroad Avenue/2nd Avenue
4. E. Robinson Avenue (SR 223) at Katherine Street/School Street
5. E. Robinson Avenue (SR 223) at Hayne Drive/2nd Avenue
6. E. Robinson Avenue (SR 223) at Hollingsworth Drive/Pippin Street

The site location is shown in **Figure 1**.



ROBINSON AVENUE
GROVETOWN, GA
TRAFFIC STUDY

SITE LOCATION

FIGURE
1

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2.2 Existing Conditions

The surrounding land uses were primarily residential with some commercial and government uses in the area as well as the Grovetown Elementary School. The Fort Gordon military base also has an entrance approximately 1.15 miles southeast of the Hollingsworth Drive/Pippin Street intersection on Robinson Avenue. Currently, Robinson Avenue is a two-lane urban principal arterial with a posted speed limit of 35 miles per hour (mph) in the study area. Approximately ½ mile east of the study area, the posted speed limit changes to 45 mph. Robinson Avenue has an estimated 2013 average daily traffic (ADT) volume of approximately 11,500 to 15,800 vehicles per day (vpd). Newmantown Road, Old Wrightsboro Road, and Katherine Street are local roads with posted speed limits of 35 mph. Railroad Avenue, 2nd Avenue (west), School Street, and Pippin Street are local streets with posted or assumed speed limits of 25 mph. Hayne Drive, 2nd Avenue (east), and Hollingsworth Drive are local streets with posted school zone speed limits of 20 mph. The existing intersection laneage for the study area can be found in **Figure 2**.

3.0 PROJECTED TRAFFIC VOLUMES

3.1 Existing Traffic

Weekday AM and PM peak hour turning movement counts were conducted by National Data & Surveying Services on Thursday, March 21, 2013, at the six study intersections. W. Robinson Avenue at Newmantown Road, W. Robinson Avenue at Old Wrightsboro Road/Hardy Drive, and E. Robinson Avenue at Hollingsworth Drive/Pippin Street count data was collected from 6:30 AM to 9:00 AM and from 2:00 PM to 6:00 PM. E. Robinson Avenue at Railroad Avenue/2nd Avenue, E. Robinson Avenue at Katherine Street/School Street, and E. Robinson Avenue at Hayne Drive/2nd Avenue count data was collected from 6:30 AM to 9:00 AM and from 3:30 PM to 6:00 PM. The peak hours were 7:00 AM to 8:00 AM and 4:30 PM to 5:30 PM. The Existing 2013 traffic volumes for the peak hour are shown in **Figure 2** for the AM peak hour and **Figure 3** for the PM peak hour. The peak hour turning movement volumes were used in the level-of-service analyses of this project.

Daily traffic volumes were also collected on Thursday, March 21, 2013. There were four 24-hour machine counts at the following locations:

- W. Robinson Avenue between Charlotte Avenue and Old Wrightsboro Road/Hardy Avenue
- Katherine Street south of 3rd Avenue
- E. Robinson Avenue between School Street and Dorn Street
- E. Robinson Avenue between James Street and Woodward Drive

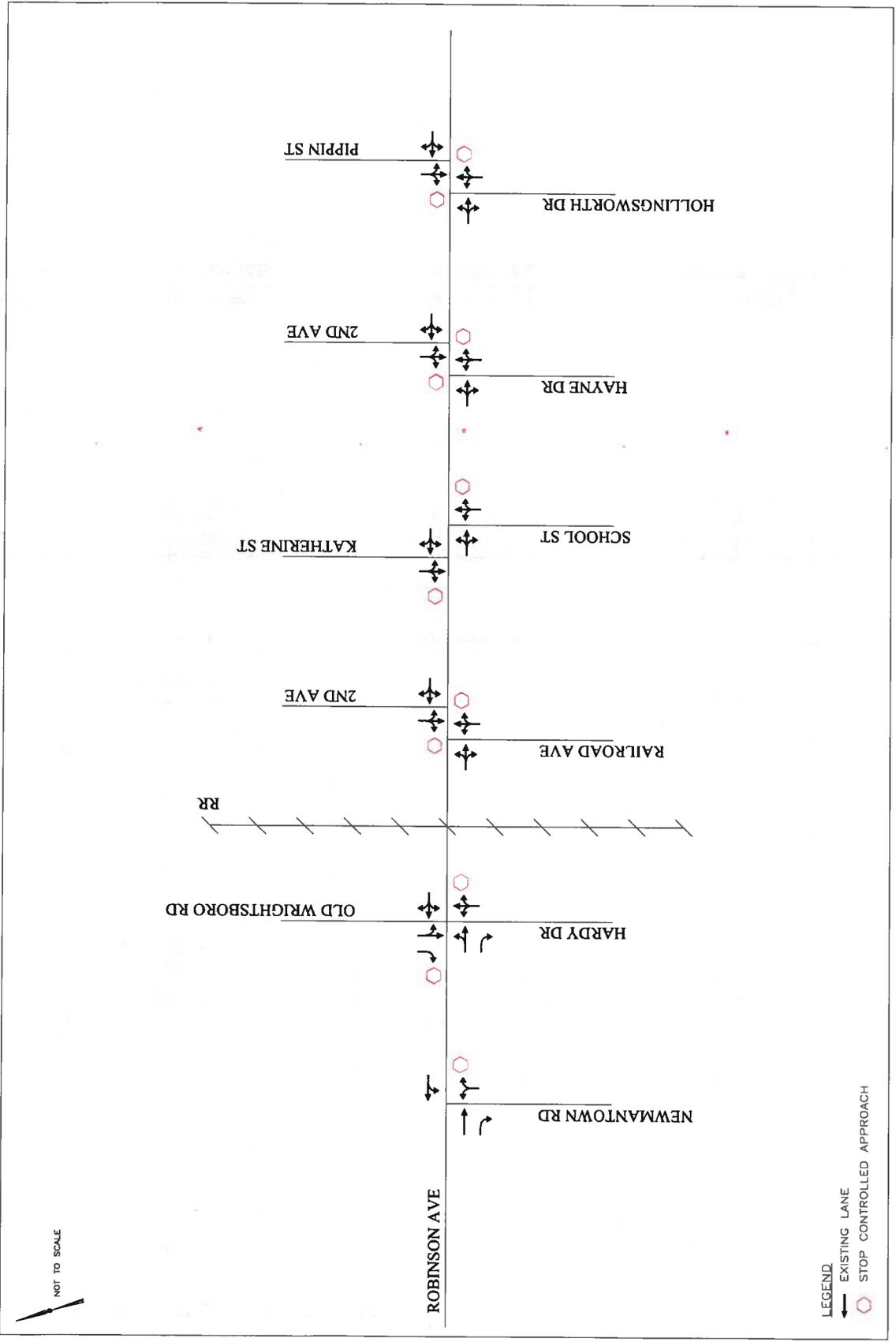
Graphs depicting the bi-directional and total volumes for each 24-hour machine count can be found in **Figure 4, Figure 5, Figure 6, and Figure 7**. Currently during the AM peak hour, 30 percent of the traffic travels in the westbound direction and 70 percent travels in the eastbound direction. However, during the PM peak hour, 78 percent of the traffic travels in the westbound direction and 22 percent of the traffic travels in the eastbound direction. The summarized traffic count data is located in **Appendix A**.



ROBINSON AVENUE
GROVETOWN, GA
TRAFFIC STUDY

EXISTING 2013
INTERSECTION LANEGE

FIGURE
2



NOT TO SCALE

LEGEND
— EXISTING LANE
○ STOP CONTROLLED APPROACH

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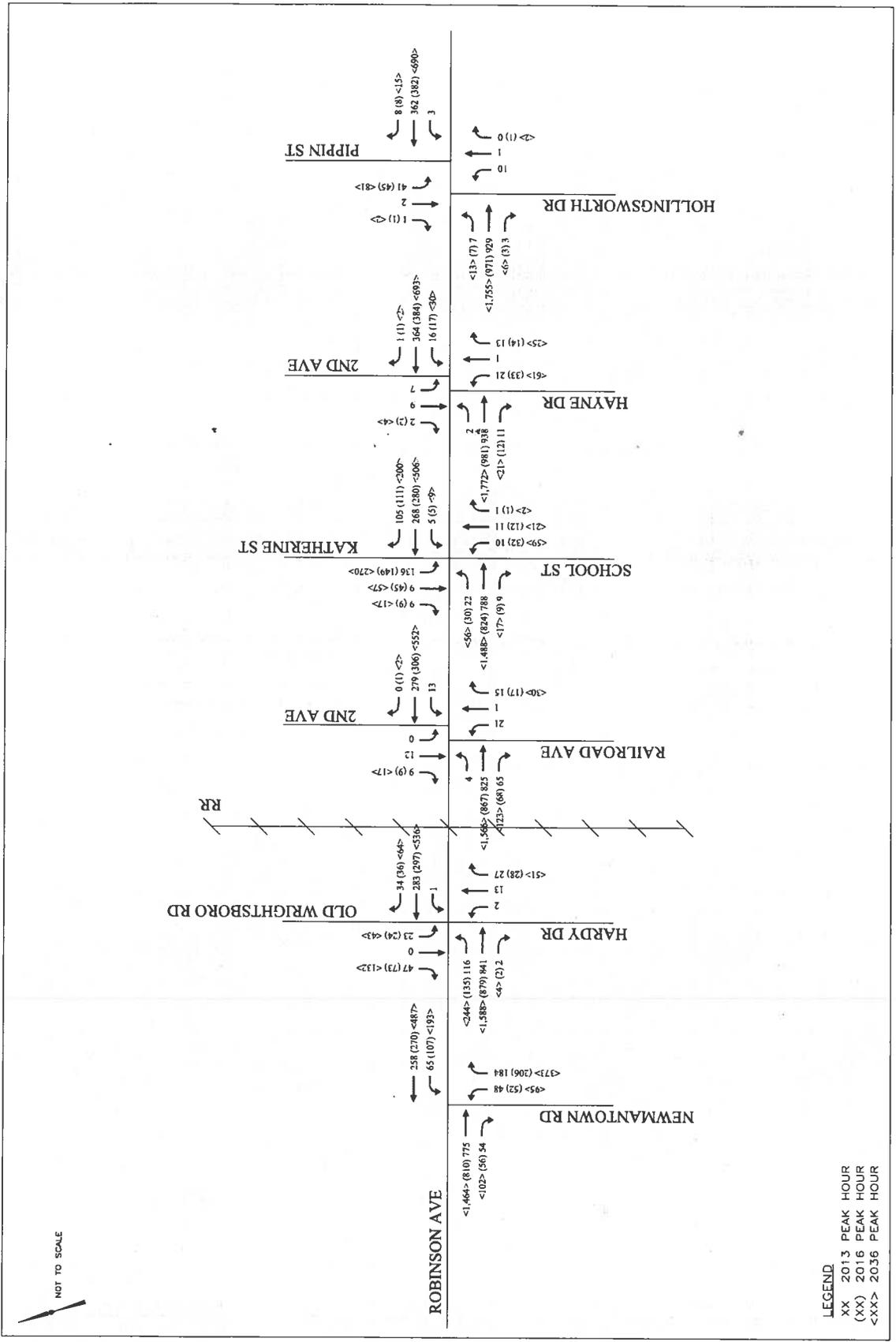


ROBINSON AVENUE
GROVETOWN, GA
TRAFFIC STUDY

AM VOLUMES -
EXISTING 2013, BASE 2016,
DESIGN 2036

FIGURE
3

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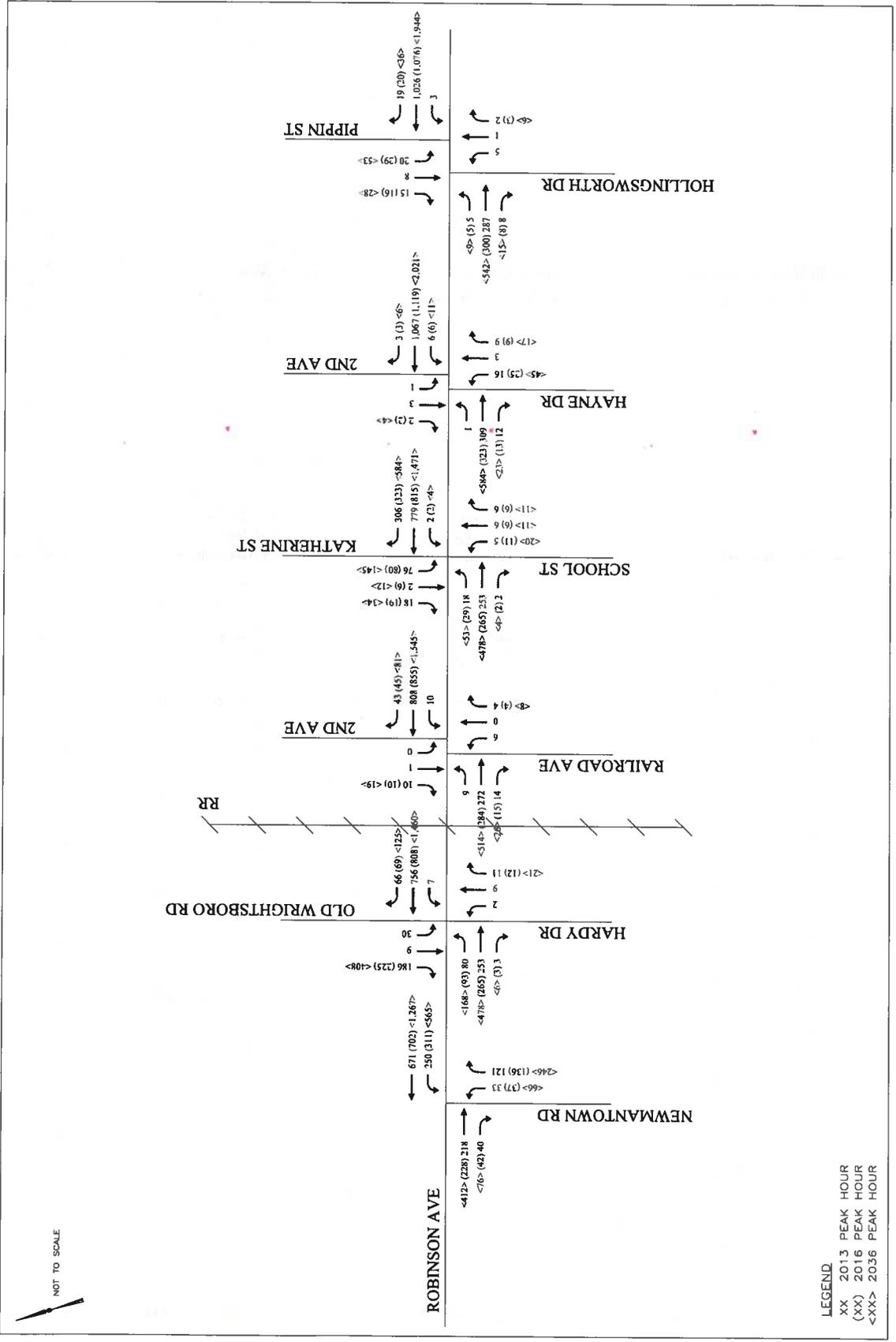




ROBINSON AVENUE
GROVETOWN, GA
TRAFFIC STUDY

PM VOLUMES -
EXISTING 2013, BASE 2016,
DESIGN 2036

FIGURE
4



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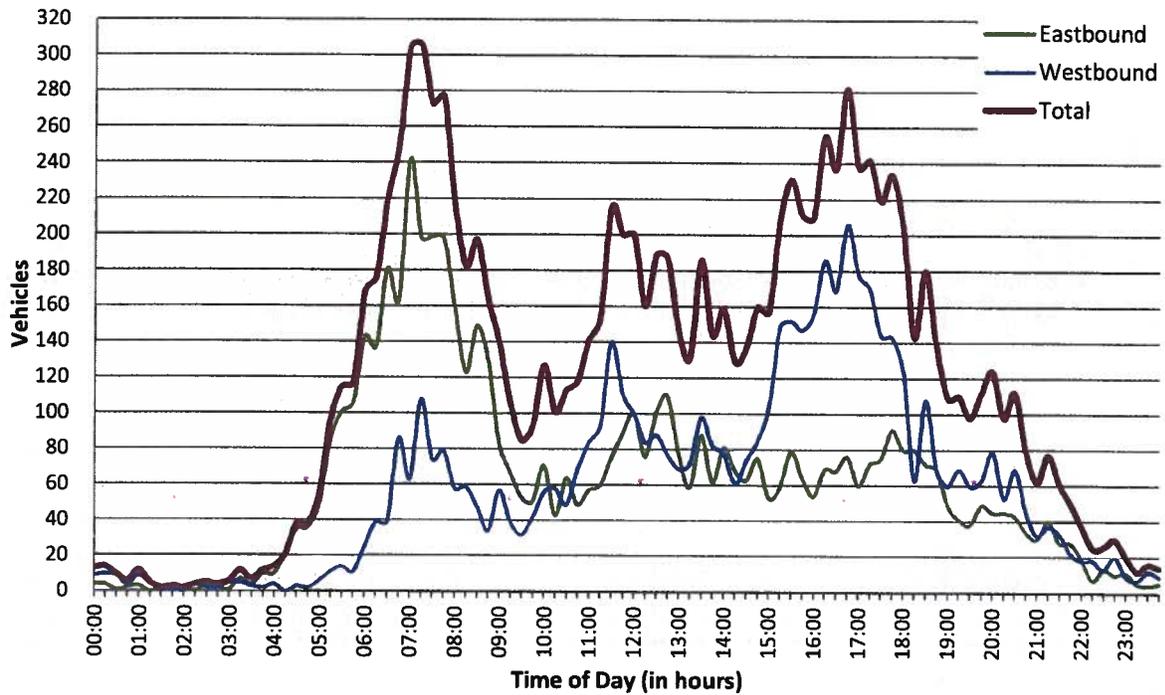


Figure 5: VPH Graph – W. Robinson Ave between Charlotte Ave and Old Wrightsboro Rd

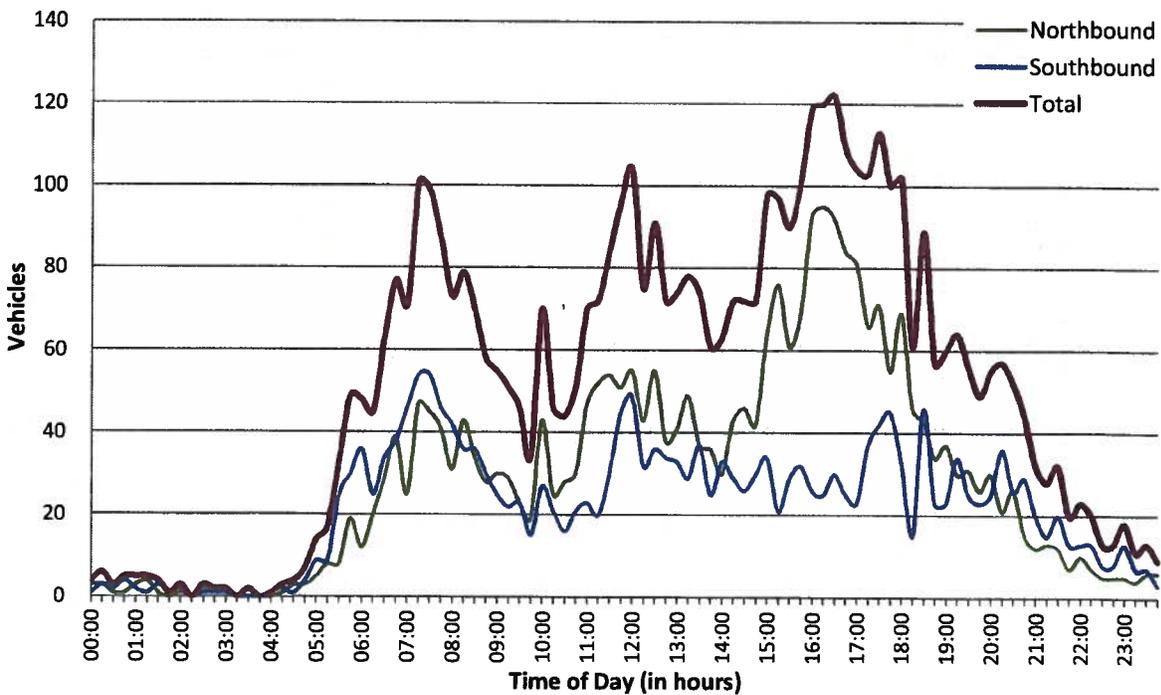


Figure 6: VPH Graph – Katherine St south of 3rd Ave

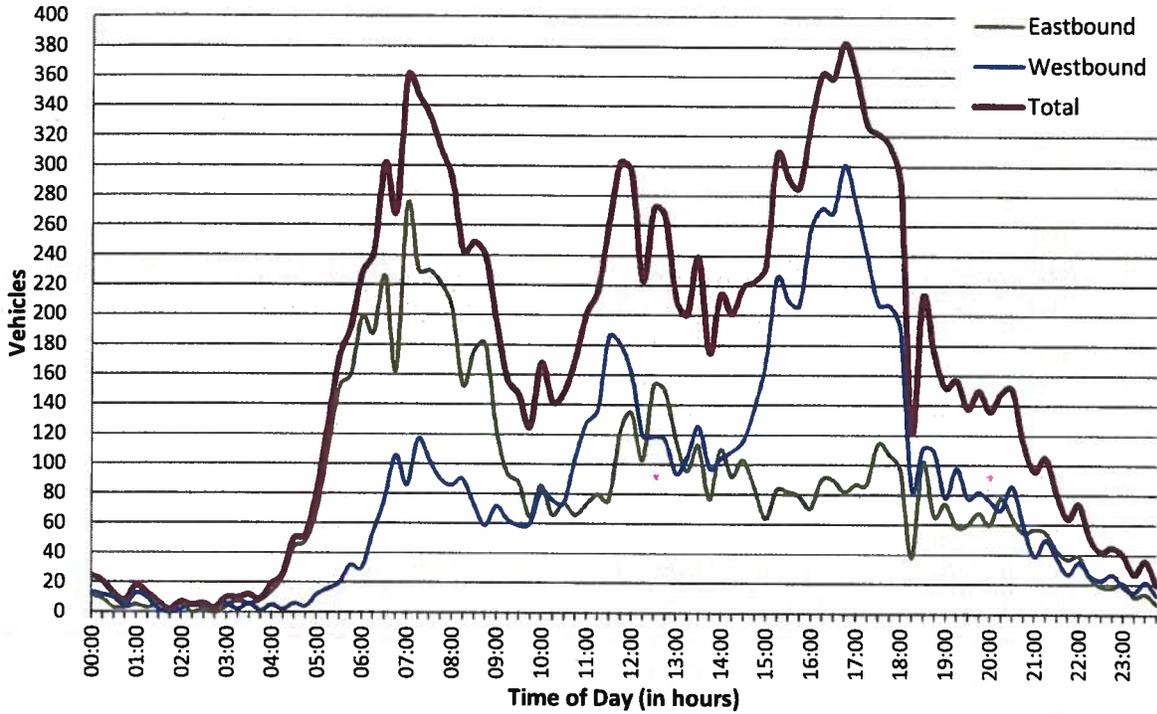


Figure 7: VPH Graph – E. Robinson Ave between School St and Dorn St

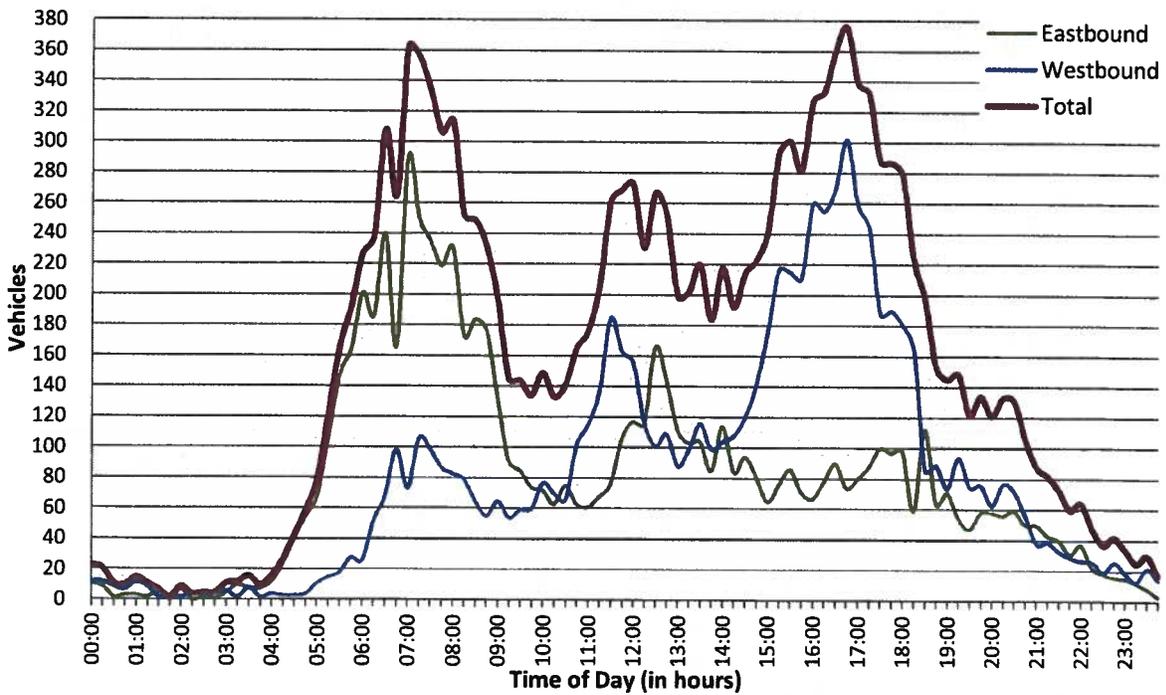


Figure 8: VPH Graph – E. Robinson Ave between James St and Woodward Dr

3.2 Historic Growth Traffic

The intersection traffic growth projections were determined from an evaluation of the past population growth, population projections, and historical traffic growth for the ADT count stations in the project vicinity.

- GDOT Historical AADT, 2006-2011
 - Ranged from 1.59 to 6.87 percent; Average of 4.32 percent growth per year
- Columbia County Population, 2010-2012 actual
 - 2.63 percent growth per year (US Census)
- Columbia County Population Projection, 2010-2030
 - 2.55 percent growth per year (Georgia Office of Planning)
- Richmond County (adjacent count) Population Projection, 2010-2030
 - 0.68 percent growth per year (Georgia Office of Planning)

A growth rate of 3 percent per year for three years was applied to the Existing 2013 peak hour traffic volumes to account for growth in traffic to determine Base 2016 traffic volumes. Additionally, a growth rate of 1.5 percent per year for 20 years was applied to the Base 2016 peak hour traffic volumes to account for growth in traffic to determine the Design 2036 traffic volumes. This corresponds to a 1.89 percent annual growth rate between 2013 and 2036. **Figure 3** shows the Existing 2013, Base 2016, and Design 2036 AM peak hour volumes. **Figure 4** shows the Existing 2013, Base 2016, and Design 2036 PM peak hour volumes. This study did not include any new project trips which means that the No-Build volumes for 2016 and 2036 are equivalent to the Base 2016 and Design 2036 volumes. Intersection volume worksheets can be found in **Appendix B**.

4.0 LEVEL-OF-SERVICE ANALYSIS

Level-of-service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions within a traffic stream. The *2010 Highway Capacity Manual (HCM)* defines six levels-of-service, LOS A through LOS F, with A being the best and F the worst. Intersection analyses were performed using *Synchro Professional, Version 8.0* (signalization optimization and analysis program).

LOS at intersections can be defined as a function of the average overall wait time for a vehicle to pass through the intersection. This way, LOS can be quantitatively measured at any intersection. Shown below are the LOS criteria as defined by the *HCM*.

Signalized Intersections	Unsignalized Intersections
A ≤ 10 sec	A ≤ 10 sec
B 10-20 sec	B 10-15 sec
C 20-35 sec	C 15-25 sec
D 35-55 sec	D 25-35 sec
E 55-80 sec	E 35-50 sec
F ≥ 80 sec	F ≥ 50 sec

LOS for signalized intersections is reported for individual movements as well as for the intersection as a whole. One or more movements at an intersection may experience a low LOS, while the intersection as a whole may operate acceptably. An overall signalized intersection LOS of D or better is generally the desirable threshold for operating conditions.

LOS for unsignalized intersections, with stop control on the minor street only, is reported for the side street approaches. Low and failing levels-of-service for side street approaches are not uncommon, as vehicles may experience significant delay in turning onto a major roadway.

Capacity analyses were performed on the Existing 2013, No-Build 2016, Base 2016, No-Build 2036, and Design 2036 scenarios for each of the study intersections. Detailed capacity analyses can be found in **Appendix C**.

4.1 Existing 2013, No-Build 2016, and Base 2016 Levels-of-Service

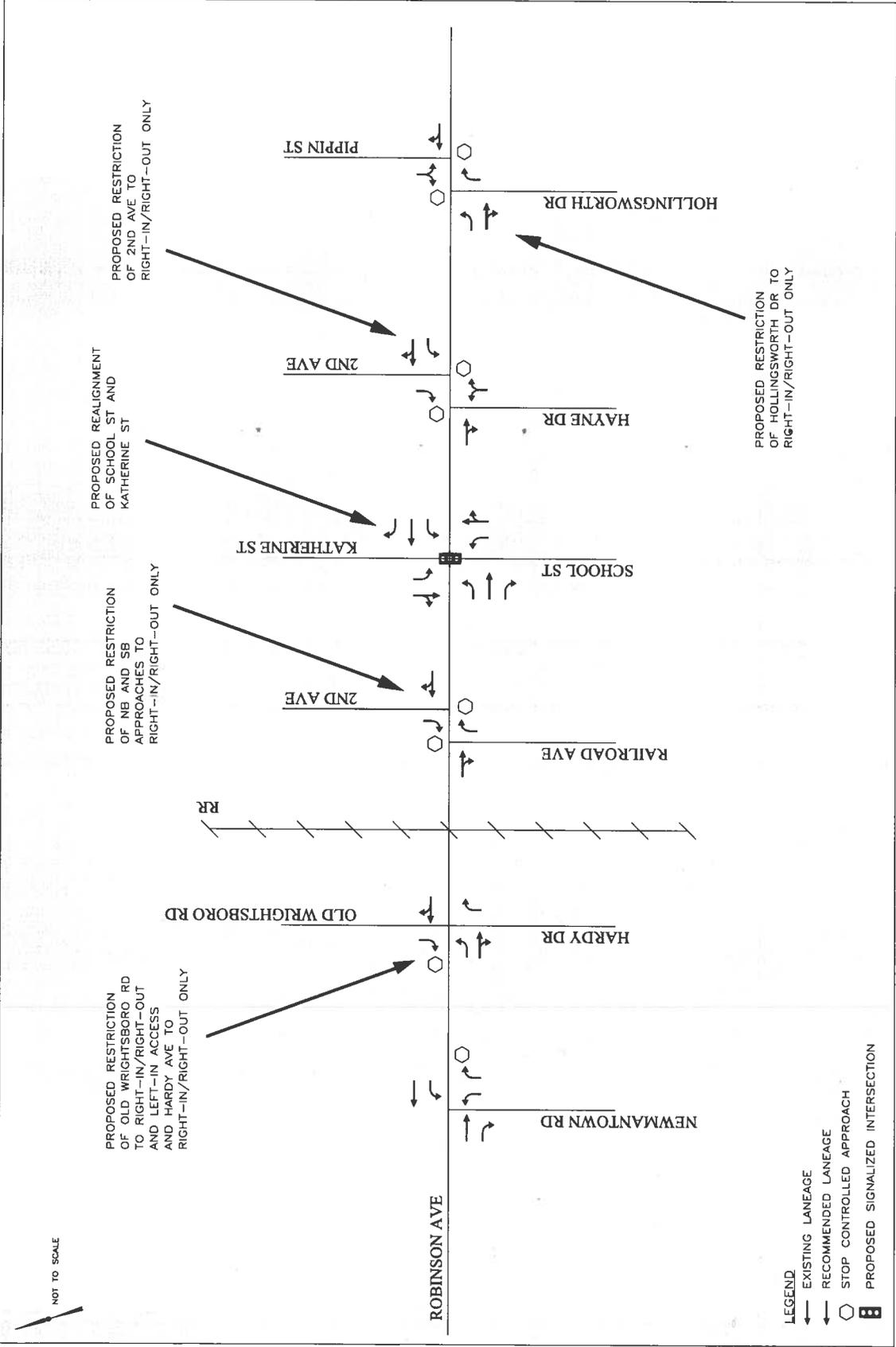
Table 1 summarizes the LOS and delay (seconds per vehicle) for the AM and PM peak hours for the studied intersections for the Existing 2013, No-Build 2016, and Base 2016 scenarios. All Synchro LOS reports can be found in **Appendix C**. The results show that for Existing 2013 during both the AM and PM peak hours, the intersection of E. Robinson Avenue at Katherine Street/School Street southbound approach experiences high levels of delay. Also, during the AM peak hour both the northbound and southbound approach at the intersection of E. Robinson Avenue at Hayne Street/2nd Avenue experience high levels of delay. All other intersections appear to be operating acceptably for Existing 2013. The increased volumes of No-Build 2016 included two additional intersections with approaches experiencing

high levels of delay. These intersection approaches were southbound for W. Robinson Avenue at Wrightsboro Road/Hardy Drive and southbound for E. Robinson Avenue at Hollingsworth Avenue/Pippin Street. Figure 9 shows the recommended Base 2016 intersection laneage.

Table 1: Existing 2013 vs. No-Build 2016 vs. Base 2016 Levels-of-Service

Intersection	Existing Control	Existing 2013 (delay in seconds)		No-Build 2016 (delay in seconds)		Base 2016 (delay in seconds)		
		AM	PM	AM	PM	AM	PM	
1	W. Robinson Ave & Newmantown Rd	NB Stop	E (38.3)	C (20.9)	E (47.8)	C (23.7)	D (28.1)	D (31.7)
2	W. Robinson Ave & Wrightsboro Rd	NB Stop	E (38.1)	E (37.8)	E (45.0)	E (46.6)	C (18.4)	A (10.0)
		SB Stop	E (44.9)	E (39.1)	F (58.3)	E (47.3)	E (47.6)	F (84.5)
3	E. Robinson Ave & Railroad/2nd Ave	NB Stop	D (27.3)	C (20.1)	D (30.1)	C (21.3)	C (16.4)	A (9.9)
		SB Stop	C (19.6)	C (15.6)	C (21.2)	C (16.1)	A (10.0)	C (15.4)
4	E. Robinson Ave & Katherine St	NB Stop	D (29.0)	C (24.9)	D (31.5)	D (26.9)	A (8.9)*	A (6.4)*
		SB Stop	F (103.2)	F (54.8)	F (144.2)	F (68.5)		
5	E. Robinson Ave & Hayne St/2nd Ave	NB Stop	F (71.3)	E (41.9)	F (91.0)	E (49.3)	F (444.4)	F (93.1)
		SB Stop	F (57.4)	D (34.1)	F (67.2)	E (37.4)	B (11.0)	D (25.2)
6	E. Robinson Ave & Hollingsworth Ave	NB Stop	D (34.4)	D (32.0)	E (37.6)	E (35.2)	C (16.8)	A (9.9)
		SB Stop	E (43.6)	D (35.0)	F (50.3)	E (39.2)	E (50.0)	E (40.4)

* Indicates a proposed signalized intersection
 -- Indicates this approach was closed



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The studied improvements for Robinson Avenue were as follows:

W. Robinson Avenue at Newmantown Road:

- Installed a northbound right-turn lane.
- Installed a westbound left-turn lane.

W. Robinson Avenue at Old Wrightsboro Road/Hardy Drive:

- Installed an eastbound left-turn lane.
- Restricted Old Wrightsboro Road to right-in/right-out and left-in access.
- Restricted access to Hardy Avenue to right-in/right-out only.

E. Robinson Avenue at Railroad Avenue/2nd Avenue:

- Restricted access to the southbound approach of 2nd Avenue and the northbound approach of Railroad Avenue to right-in/right-out only.

E. Robinson Avenue at Katherine Street/School Street:

- Aligned the southbound approach of Katherine Street and the northbound approach of School Street.
- Installed a traffic signal.
- Installed northbound, southbound, eastbound and westbound left-turn lanes.
- Installed eastbound and westbound right-turn lanes.

E. Robinson Avenue at Hayne Drive/2nd Avenue:

- Installed a westbound left-turn lane.
- Restricted 2nd Avenue access to right-in/right-out only.

E. Robinson Avenue at Hollingsworth Drive/Pippin Street:

- Restricted access to Hollingsworth Drive to right-in/right-out only.
- Installed an eastbound left-turn lane.

An analysis of W. Robinson Avenue at Katherine Street/School Street was performed to determine feasibility and operational efficiency for either a roundabout or signalized intersection. It was determined that roundabout produced higher levels of delay along E. Robinson Avenue versus a traffic signal. Thus, the Base 2016 analysis included a signalized intersection for E. Robinson Avenue at Katherine Street/School Street. It was also deemed necessary to provide an exclusive left-turn lane for the eastbound and westbound approach to limit blocking of the intersection. Also, an exclusive right-turn lane was studied for the westbound approach to accommodate the heavy movement turning right onto Katherine Street. While installation of the signalized intersection provides a large benefit to the intersection of E. Robinson Avenue at Katherine Street/School Street, there was extra delay associated with a few side streets upstream from the signal. However, due to very low volumes on these side streets, this delay is not considered out of place for a stop controlled side street.

4.2 Levels-of-Service for Existing 2013 and Projected 2016 and 2036 ADT

Table 2 summarizes the LOS by laneage for the Existing 2013, and Projected 2016 and 2036 average daily traffic (ADT) volumes. It was determined that currently the studied roadway system is operating at a LOS of E and will operate similarly with projected Base 2016 ADT volumes. To alleviate this poor level of operation, consideration should be made to provide a three-lane section or reversible third lane to accommodate peak directional demands for the Base 2016 conditions. For the projected 2036 ADT volumes, it is anticipated that both a two-lane and three-lane configuration of the roadway would result in a LOS of F. In order to achieve an acceptable LOS of D, a four-lane divided roadway would be required for projected Design 2036 conditions.

Table 2: Projected Levels-of-Service and Volumes for ADT

Analysis Year	2-Lanes	3-Lanes	4-Lanes (Undivided)	4-Lanes (Divided)/ 5-Lanes
W. Robinson Ave <i>between Charlotte Ave and Old Wrightsboro Rd</i>				
Existing 2013	11,527 ADT			
	C	C	B	B
Base 2016	12,058 ADT			
	C	C	B	B
Design 2036	21,775 ADT			
	F	F	C	B
E. Robinson Ave <i>between School St and Dorn St</i>				
Existing 2013	15,786 ADT			
	E	D	B	B
Base 2016	16,513 ADT			
	E	D	B	B
Design 2036	29,820 ADT			
	F	F	D	C
E. Robinson Ave <i>between James St and Woodward Dr</i>				
Existing 2013	15,368 ADT			
	E	D	B	B
Base 2016	16,075 ADT			
	E	D	B	B
Design 2036	29,031 ADT			
	F	F	D	C

5.0 CONCLUSION

The segment of Robinson Avenue between Newmantown Road and Hollingsworth Drive/Pippin Street located in Grovetown, Columbia County, Georgia has been identified for an operational analysis. This study was completed in an effort to determine what geometric and operational improvements could be made to improve capacity and traffic flow issues on the studied roadway. Furthermore, the operations of the corridor were assessed for future traffic conditions and recommendations were made to help relieve projected congestion levels and improve traffic flow.

Due to the high growth potential of the studied network, future volumes for the design year of 2036 have a large negative impact on Robinson Avenue. Considerations for mitigation of this traffic congestion are detailed in the recommendations. It should be noted that with high levels of delay, drivers will often times look for alternate routes or alter their driving patterns.

5.1 Recommendations

The following is a summary of the recommended operational and roadway improvements for the studied intersections of Robinson Avenue from Newmantown Road to Hollingsworth Drive/Pippin Street:

Base 2016

W. Robinson Avenue at Newmantown Road:

- Consider installation of a northbound right-turn lane.
- Consider installation of a westbound left-turn lane.

W. Robinson Avenue at Old Wrightsboro Road/Hardy Drive:

- Consider installation of an eastbound left-turn lane.
- Consider restricting Old Wrightsboro Road to right-in/right-out and left-in access.
- Consider restricting access to Hardy Drive to right-in/right-out only.

E. Robinson Avenue at Railroad Avenue/2nd Avenue:

- Consider restricting access to the southbound approach of 2nd Avenue and the northbound approach of Railroad Avenue to right-in/right-out only.

E. Robinson Avenue at Katherine Street/School Street:

- Consider aligning the southbound approach of Katherine Street and the northbound approach of School Street.
- Consider installation of a traffic signal.
- Consider installation of northbound, southbound, eastbound and westbound left-turn lanes.
- Consider installation of eastbound and westbound right-turn lanes.

E. Robinson Avenue at Hayne Drive/2nd Avenue:

- Consider installation of a westbound left-turn lane.
- Consider restricting access to 2nd Avenue to right-in/right-out only.

E. Robinson Avenue at Hollingsworth Drive/Pippin Street:

- Consider restricting access to Hollingsworth Drive to right-in/right-out only.
- Consider installation of an eastbound left-turn lane.

Design 2036

Based on the projected Design 2036 volumes, we offer the following:

- Preserve a right-of-way width along Robinson Avenue to accommodate a four-lane roadway if needed in the future.
- Pursue an alternative entrance (ingress and egress) to Fort Gordon military base such that vehicles will have other travel options to the base thus reducing traffic volumes along Robinson Avenue. With this option, further traffic studies would be required to assess overall traffic impacts to Robinson Avenue.



MEETING MINUTES

PROJECT: CITY OF GROVETOWN - ROBINSON AVENUE
TRAFFIC STUDY AND CONCEPTUAL DESIGN PLAN

DATE: 03/18/2013

PROJECT NO.: 13-016

TIME: 10:00 AM

PURPOSE: KICK-OFF MEETING

ATTENDANCE

NAME	FIRM	TELEPHONE	E-Mail
Christian Lentz	CSRA RC	706-210-2009	clentz@csrarc.ga.gov
George James, III	Mayor	706-863-9158	George.James@grovetownga.us
Sonny McDowell	Mayor Pro-Tem	706-863-4576	s.mcdowell@me.com
Gary Owens	Director – Public Safety	706-863-4576	chiefowens@att.net
Shirley Beasley	City Administrator	706-863-4576	sbeasley@grovetownga.us
Mike Woods	Director - Public Works	706-860-5138	mwoods@grovetownga.us
Wayne Kent	Captain - Fire Department	706-863-1212	captkent@att.net
Frank Neal	City Planner	706-860-5094	n/a
Erik Hammarlund	WR Toole Engineers	706-722-4114	ehammarlund@wrtoole.com
Rick Toole	WR Toole Engineers	706-722-4114	rtoole@wrtoole.com
John Walker	Kimley-Horn Assoc	770-825-0744	John.Walker@kimley-horn.com

DISCUSSION SUMMARY

Mr. Erik Hammarlund facilitated the kick-off meeting and “brainstorming” session to discuss alternatives for the proposed improvements. Based on recommendations outlined in Grovetown’s Urban Redevelopment Plan, options were presented for side road realignments, typical road cross-sections, intersection alternatives (traffic signals and roundabouts), pedestrian/bicycle facilities, and overall development of Grovetown’s City Center. Discussion also included the process of implementing improvements to “Downtown Grovetown” within the forthcoming Robinson Avenue Improvements Project.

The following specific issues were noted:

- Intersection of Katherine Street and School Street at Robinson Avenue.
 - Side Road “offset”.
 - Katherine Street – Major connector to the north.
 - School Street – Closed to vehicle traffic for morning/afternoon school bus access - 7:30 AM to 9:00 AM and 2:30 PM to 4:00 PM
 - Alternatives will include traffic signal versus roundabout.
 - Pedestrian crossing important for school children.
 - Possibly the most important intersection within Grovetown City Center.
- Railroad Crossing
 - Quiet Zone still desirable – Keep in mind during concept development.
 - Four side roads adjacent to railroad require modification.



MEETING MINUTES

- 2nd Avenue – Possibly close road adjacent to railroad and construct cul-de-sac. Construct new alignment for 2nd Avenue to intersect Robinson Avenue near Anytime Fitness. Portion of 2nd Avenue that parallels Robinson Avenue is used as a “cut-through” to avoid Robinson Avenue. Obtain traffic counts along Katherine on the north side of 2nd Avenue to pick up the “cut-through” traffic.
- Railroad Avenue – Possible realignment to align with new 2nd Ave intersection at Robinson Avenue.
- Hardy Drive – Possible realignment to tie into Newmantown Road or create one-way traffic.
- Old Wrightsboro Road – Possible realignment away from railroad crossing but sensitive to location (no impacts) to Memorial Park. Identify potential to cul-de-sac the end of the road. Day Care along road utilized by many soldiers/families that work at Fort Gordon.
- Newmantown Road – Sight distance concerns. WRTE will look at sight distance based on horizontal road geometry but it appears that sight distance is compromised by the vertical road geometry. Sight distance concerns will be addressed in more detail during the TIA Project. Options may be limited by Cemetery location.
- Intersection of 2nd Avenue and Hayne Drive at Robinson Avenue.
 - Possible realignment of Hayne Drive to align with 2nd Avenue
 - Possible realignment of Ford Avenue to improve intersection geometry with Hayne Drive.
- Columbia County Board of Education
 - Planned improvements and expansion to Grovetown Elementary
 - Include the BOE in a future stakeholder meeting for sharing of information.
- Identify commercial core of Downtown Grovetown with a different cross-section.
 - Minimum limits from First Baptist Church/Cemetery to Katherine Street
 - Maximum limits from First Baptist Church/Cemetery to Public Safety.
 - Typical section may potentially include the following characteristics:
 - Landscaped median
 - Hardscape features (brick sidewalks or borders)
 - Decorative lighting
 - Two vehicular travel lanes
 - Bicycle lanes
 - Sidewalks
 - Wide sidewalks along most central portion of downtown.



MEETING MINUTES

- Fort Gordon
 - Involve Fort Gordon in future stakeholder workshop
 - Move traffic more efficiently to/from Fort Gordon but not at a higher rate of speed.
 - Protect pedestrians and bicyclists.
 - Identify alternate routes to Fort Gordon such as Newmantown Road to Parham Road and educate the public of such routes.

Anticipated Schedule:

WR Toole Engineers and Kimley-Horn will collect traffic data, develop preliminary traffic findings and alternatives, prepare schematic concept layouts and schedule another review meeting with the City of Grovetown in mid/late April.

Following the review meeting with the City, we will schedule a stakeholder workshop to include Fort Gordon, the Board of Education, and any additional major stakeholders as requested by the City.



MEETING MINUTES

PROJECT: CITY OF GROVETOWN - ROBINSON AVENUE
TRAFFIC STUDY AND CONCEPTUAL DESIGN PLAN
PROJECT NO.: 13-016
PURPOSE: CONCEPT REVIEW MEETING

DATE: 06/04/2013

TIME: 10:00 AM

ATTENDANCE

NAME	FIRM	TELEPHONE	E-Mail
George James, III	Mayor	706-863-4576	George.James@grovetownga.us
Gary Owens	Director – Public Safety	706-863-4576	chiefowens@att.net
Shirley Beasley	City Administrator	706-863-4576	sbeasley@grovetownga.us
Mike Woods	Director - Public Works	706-860-5138	mwoods@grovetownga.us
Frank Neal	City Planner	706-860-5094	fneal@grovetownga.us
Dale Stoddard	City of Grovetown	706-863-4576	DR5250@gmail.com
Dennis Trudeau	City of Grovetown	706-863-4576	DTRudeaul95@gmail.com
Victor Conover	WR Toole Engineers	706-722-4114	vconover@wrtoole.com
Chad Sweeney	WR Toole Engineers	706-722-4114	csweeney@wrtoole.com
Rick Toole	WR Toole Engineers	706-722-4114	rtoole@wrtoole.com

DISCUSSION SUMMARY

Mr. Rick Toole facilitated the meeting to review the concept plan for the Robinson Avenue Improvements Project. The purpose of the meeting was to address any questions or concerns by the City of Grovetown prior to holding a Public Information Open House (PIOH). Questions and comments brought up during the review are noted below:

- The building on the corner of the church property at the intersection of James Street and Robinson Ave. is to be removed if it hasn't already.
- Can either of the right-in right-out restrictions for Dorn Street or Second Avenue be removed? These could be of specific concern to the public.
 - It was determined at the meeting to keep these in place as shown on the concept drawings for the PIOH.
- Future plans show the portion of 2nd Avenue adjacent to the rail road to be closed. Concept plans for widening of Robinson Avenue will continue to show the connection to 2nd Avenue since it is not known when the closure will happen.
- Will the proposed signals be synchronized together?
 - The signals will be connected. It will be determined during design weather or not they are synchronized together.



MEETING MINUTES

- Schedule a Public Information Open House (PIOH) for the end of the month
 - WRTE will provide City of Grovetown with the verbiage to advertise a PIOH.



**MEETING
SIGN-IN SHEET**

Date:	06/04/2013	Time:	10:00 a.m.
Location:	City Hall, Grovetown, GA		
Project No.:	TE 13-016	Project Name:	City of Grovetown - Robinson Avenue Traffic Study & Conceptual Design

ATTENDING

Name	Organization	Phone	Email
Rick Toole	WRTE	706-722-4114	rtoole@wrte.com
Frank Nehr	City of Grovetown		frank@grovetownga.com
Victor Casner	WRTE	706-722-4114	vcasner@wrte.com
Dennis Trudens	City	706-863-1828	DTrudens185@gmail.com
Michael Warr	City	706-863-5138	mike.warr@grovetownga.com
George James	City	706-863-4596	George.James@GrovetownGA.com
Chad Sweeney	WRTE	706-722-4114	CSweeney@wrte.com
DAVE STODARD	City	706-863-4576	DAS250@GMAIL.COM

Public Information Meeting – Project Fact Sheet

Robinson Avenue (SR223) Road Widening and Improvements Project

Grovetown, Georgia

Introduction: The City of Grovetown and the Georgia Department of Transportation welcome you to this public information meeting regarding the proposed widening and improvements along Robinson Avenue (SR 223). Please review the documents presented and provide comment to enable us to better design the project to meet the needs and desires of the community.



Project Need and Purpose: The purpose of the project is to improve safety and reduce congestion along Robinson Avenue through the City Center of Grovetown in accordance with criteria established for the Transportation Investment Act (TIA) Program and the previously approved “*Grovetown Comprehensive Plan*” and the “*Grovetown Urban Redevelopment Plan*”.

Project Characteristics: The project includes sidewalks, bicycle lanes, two travel lanes and a grassed median through the City Center of Grovetown. The grassed median will transition to a two-way left turn lane outside the City Center limits. Intersection improvements are proposed at Robinson Avenue and Katherine Street to include a new traffic signal and realignment of School Street. An improved railroad crossing will also be implemented. Project limits begin near Wrightsboro Road (SR 388) and extend east towards Gordon Highway (SR 10) for approximately 1.8 miles. The project limits shown on the layouts are approximate based on concept level construction cost estimates. Proposed improvements and final project limits outside of Grovetown City Center may vary based on budget constraints.

Project Budget and Funding: The budget for this project including design, utility relocation, right-of-way acquisition, and construction totals \$8.0 million. This project is funded 100% by the Transportation Investment Act of 2010.

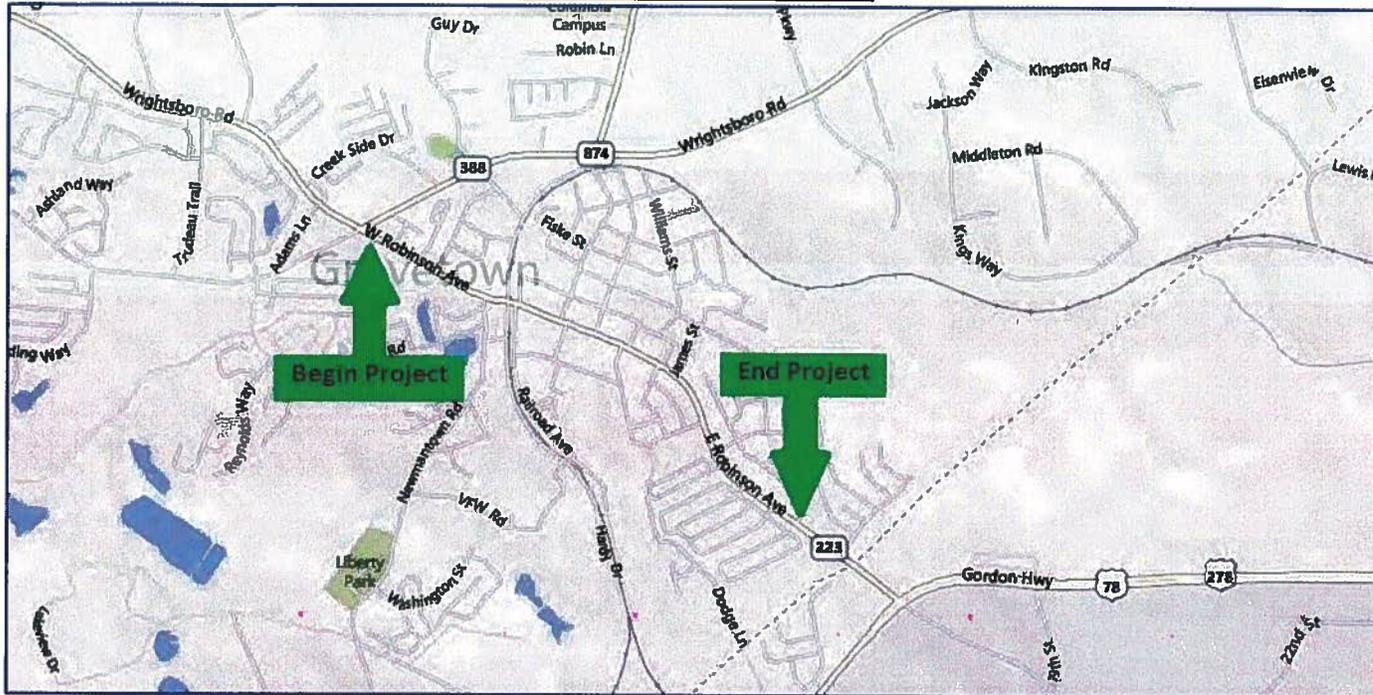
Transportation Investment Act (TIA) of 2010: The Transportation Referendum was voted on and passed in the Central Savannah Region. Subsequently, the Region has now implemented a one percent regional sales tax to fund transportation improvements. Collection of funds began on January 1, 2013 and distributions for projects were initiated in Spring 2013. The Robinson Avenue Road Widening and Improvements Project, designated a Band 1 Project, is prioritized as one of the first projects to be scheduled for design under the TIA Program.

Schedule:

Public Information Meeting.....	June 2013
Design Begins.....	Fall 2013
2 nd Public Information Meeting.....	Spring 2014
Right of Way Acquisition Begins.....	Summer 2014
Construction.....	Winter 2015



Project Location Map



Public Comment: If you would like to submit comments regarding this project, please do so according to one of the following options:

1. Complete a comment card and place it in the comment box at this meeting.
2. Fax comments to W.R. Toole Engineers, Inc. at 706-722-6219.
3. Email comments to ehammarlund@wrtoole.com.
4. Mail comments to:

W.R. Toole Engineers, Inc
 1005 Broad Street, Suite 200
 Augusta, GA 30901

Comments should be submitted no later than July 12, 2013.

Project Contacts		
Design Consultant	City of Grovetown	GDOT TIA Program
Erik Hammarlund, PE Project Manager W.R. Toole Engineers, Inc. 1005 Broad Street Suite 200 Augusta, GA 30901 706-722-4114	Frank Neal Grovetown City Planner Grovetown City Hall 103 Wrightsboro Road PO Box 120 Grovetown, GA 30813 706-396-2093	Tim Matthews, PE TIA Regional Coordinator GDOT – Office of TIA 600 West Peachtree 19 th Floor - RM 1924 Atlanta, GA 30308 404-631-1568

SIGN IN SHEET

CITY OF GROVETOWN

GDOT PUBLIC INPUT MEETING FOR ROBINSON AVE.- JUNE 27, 2013

NAME	ADDRESS	PHONE NUMBER	EMAIL
1. FRANK NEAL	1030 Wrightsboro Rd.	(106) 396-2093	City Planner fneal@Grovetown, GA.us
2. STEVE TIEDEMANN		404-965-9681	STEVE-TIEDEMANN@ACCOM.COM
3. Michael work		706-860-5138	mlwork@6.com
4. Michael Wanko		911-638-5369	michael.wanko@kimley-horn.com
5. ROBERT McQUINN SR.		706-860-7177	DMcQuinn28@gmail.com
6. Erik Hamnerlund		706-722-4114	ehamnerlund@world.com
7. George James		706-863-4576	MAYOR CITY OF GROVETOWN
8. Tim Matthews GOS(MD)		404-631-1568	tmatthews@dot.ga.gov
9. George James		706-863-1867	203 Robinson
10. Paulino Banks		706-863-1908	ketmed45@gmail.com
11. Virginia Perry		706-513-9202	leslie37perry@gmail.com
12. Jonathan Perry		706-231-4145	
13. John Walker (KHA)		404-201-6157	john.walker@kimley-horn.com
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SIGN IN SHEET

CITY OF GROVETOWN

GDOT PUBLIC INPUT MEETING FOR ROBINSON AVE.- JUNE 27, 2013

NAME	ADDRESS	PHONE NUMBER	EMAIL
1. Julie Owen	1506 Cedar Springs Rd. Appling, GA		
2. Waverly Cynthia LYNN	208 W. ROBINSON	706-854-4319	
3. Frank Wilson	114 E ROBINSON	706-855-7500	
4. Terry HUFFMAN HAYS	203 E ROBINSON	706-414-1128	
5. Gary Tuccitto	528 Jackson St.	706-799-3358	
6. Carol Tuccitto	" " "	706-799-8468	
7. Lauren Allen	" " "	706-799-8468	
8. Maurice Highland	506 DORN ST	706-804-2021 maurice@highlandga.com	
9. Teddy Davis	4909 Seikirk Way	tdavis4909@gmail.com	
10. Robert MARTIN	304 HARDY DR	706-863-9512 RR MARTIN 520	
11. William E Nicholas	4918 Cavan Pl.	706-854-9733	EW@link.net
12. Laverne R. Cargill	106 Watten Dr	706-863-8801	
13. Theophilus L. Knight	1017 Salford Pl	706-231-7150	
14. Connie K	104 Harvest Wood Dr	706-733-4348	
15. Barry A Fleming	507 Canterbury Ct	706-434-8770	
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SIGN IN SHEET

CITY OF GROVETOWN

GDOT PUBLIC INPUT MEETING FOR ROBINSON AVE. - JUNE 27, 2013

NAME	ADDRESS	PHONE NUMBER	EMAIL
1. Robert McQuinn	5240 Oak Springs Dr	706 860 7172	dmcquinn20@gmail.com
2. Robert McQuinn Jr	977 Haverhill Dr	706 339 0576	mcquinnrj@gmail.com
3. Chad Sweeney	Glover St	706-722-4411	csweeney@wrtnet.com
4. Dennis Tucker	CITY	706 863 1824	DTUCKER196@gmail.com
5. Patricia Balfour	115 Magnolia Dr.	706 832 0662	balfourpe@yahoo.com
6. Donna Moore	209 E. Robinson Ave	706-414-7478	mooredonna@yahoo.com
7. GEORGE WEISS	108 HARRY-STURD PR	706-910-0623	
8. FRANCES WEISS	"	"	"
9. Mary Ann Navarro	116 Lottie Ln,	706-563-6355	marya49@gmail.com
10. Robin Donchar	500 E Robinson Ave	706-372-8241	robinchar@att.net
11. Sammie Whitmer	201 E Robinson Ave	706-840-1502	-
12. Cherallee Cole	302 E ROBINSON	706 860-4222	
13. Gwen Hoffman	122 2nd Ave	706 284 6902	
14. Bruce Thompson	301 E Robinson Ave	706-650-9333	
15. Ashley Hamkin Boyd	118 Magnolia Dr.	706 305-1636	803 684-3282
16. Doug Wilder	384 GREENLEAF DR	706-513-1379	DOUGWILDER@GMAIL.COM
17. Tommy Braswell	202 E. Robinson Ave	706-678-7672	2293 tbraswell@live.com
18. Larry & Bonnie House	3412 Grove Landing Cir.	(706) 863-9077	
19. Michelle Davidson	502 E. Robinson Ave	(706) 669-2044	
20. Cindy Barnett	512 Butler Springs Court	706-469-0863	
21. Christine VanBennel	512 Butler Springs Court	706-469-0864	
22. GARY OWENS	107 OLD WRIGHTSBRO	706-650-0865	
23. AMANDA OWENS	107 Old Wrightsbro	706-650-0865	
24. HERMAN L. ROSS SR		706 863 1205	

NAME Robert McQuinn Jr

ADDRESS 977 Haverhill Dr
Harlem GA 30814

PROJECT:
Robinson Avenue (SR 223)
Road Widening & Improvements
Grovetown, Georgia

FOR:
City of Grovetown, Georgia

COMMENTS Wrightstboro to Robinson Ave

does not have a Left turn lane. (Needs One)

- Emergency Vehicles having access for places with no left turn
- Side streets that will have more traffic from no left turns, will anything be done to side streets?
- Trying to make a turn onto Railroad ave is going to cause people to ^(PLEASE PRINT) make a U-turn at Hardy Dr.



NAME Mary Ann Navarro

ADDRESS 116 Lottie Ln Grovetown

PROJECT:
Robinson Avenue (SR 223)
Road Widening & Improvements
Grovetown, Georgia

FOR:
City of Grovetown, Georgia

R. Robinson Ave

COMMENTS We desperately need 3-l lane, BMT -

- 1) Left turn at Grovetown/Harlem road needs left turn signals both streets
 - 2) grassy median will cause traffic blocks - not enough opportunities to turn left - so it will cause lots of U-turns. Most travelers will not know the back street options - will cause problems turning into all churches and businesses.
 - 3) Especially difficult for traffic turning out of banks, CR 60, Senior Center, 2nd Ave, RR Ave
 - 4) Light at Keltlyn/Schol will need left turn signals. If median remains as is, there'll be lots of U-turns there.
- Grassy median will look wonderful but cause much traffic congestion during peak drive times



NAME Mrs. BENNIE HUFFMAN
ADDRESS 203 E. Robinson Ave
Grovetown, Ga 30813

PROJECT:
Robinson Avenue (SR 223)
Road Widening & Improvements
Grovetown, Georgia

FOR:
City of Grovetown, Georgia

COMMENTS Want to try + SAVE
brick / granite wall @ front lawn.
Property over 100 yrs old.

(PLEASE PRINT)



NAME ROSA LEE OWENS
ADDRESS 302 W Robinson Ave.
Grovetown, GA 30813
* soon to move down Green St to here st.

PROJECT:
Robinson Avenue (SR 223)
Road Widening & Improvements
Grovetown, Georgia

FOR:
City of Grovetown, Georgia

COMMENTS
I'm excited that there are plans to relieve our
traffic congestion but I'm not convinced that with the
expected growth in the near future that our problem
will be solved.

Rosa Lee Owens

(PLEASE PRINT)



NAME Dennis Trudeau

ADDRESS 404 William Street

PROJECT:
Robinson Avenue (SR 223)
Road Widening & Improvements
Grovetown, Georgia

FOR:
City of Grovetown, Georgia

LEFT TURN ON OLD WAIGTSBORO RD + Robin. Av

COMMENTS LEFT TURN ON DORN ST & 2nd Avenue

Change Curb + Gutter to Roll Curb.

SIGNAL light @ Harlem) GUTN INTERSECTION LEFT TURN

SIGNALS BOTH DIRECTIONS

ⓧ How do you get out @ Regions Bank NO LEFT TURN

(PLEASE PRINT)



NAME Connie K

ADDRESS 104 Harvestwood Dr
Grovetown GA 30813

PROJECT:
Robinson Avenue (SR 223)
Road Widening & Improvements
Grovetown, Georgia

FOR:
City of Grovetown, Georgia

COMMENTS I have lived here over 11 years. The traffic

has increased beyond belief! I sincerely think a

4 lane highway is needed at this time. AND

I think Ft. Gordon money should be generously
given.

(PLEASE PRINT)



NAME FRANK WILSON

ADDRESS 114 E Robinson

PROJECT:
Robinson Avenue (SR 223)
Road Widening & Improvements
Grovetown, Georgia

FOR:
City of Grovetown, Georgia

COMMENTS A "Needed" Project That Needs
TO Move Forward in A Fast Track.
Great Look for The City of Grovetown

(PLEASE PRINT)

