

ORIGINAL TO GENERAL FILES

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 0005829 **OFFICE** Design Policy & Support
STP00-0005-00(829)
Bulloch County
GDOT District 5 - Jesup **DATE** 4/2/2013
SR 26/US 80 FM 5LN @ CR 491 to
CR 423/Old Lee Field Rd

FROM  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:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Ken Thompson, Statewide Location Bureau Chief
Andy Casey, State Roadway Design Engineer
Attn: Dennis Odom, District Design Engineer
Karon Ivery, District Engineer
Brad Saxon, District Preconstruction Engineer
Stephen Thomas, District Utilities Engineer
Brent Moseley, Project Manager
BOARD MEMBER - 12th Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT**

Project Type: Passing & Turn Lanes P.I. Number: 0005829
 GDOT District: 5-Jesup County: Bulloch
 Federal Route Number: 80 State Route Number: 26

This project will provide operational improvements along a two lane undivided section of US 80/ SR26 corridor from Amanda Road to Old Leefield Road to reduce the frequency and severity of crashes and enhance the level of service.

Submitted for approval:

<u>Local Government</u>	DATE
<u>[Signature]</u>	<u>2-18-13</u>
<u>GDOT Concept/Design Phase Office Head & Office</u>	DATE
<u>[Signature]</u>	<u>2-18-13</u>
<u>GDOT Project Manager</u>	DATE
<u>[Signature]</u>	<u>2/22/13</u>
<u>State Program Delivery Engineer</u>	DATE

Recommendation for approval:

* <u>Glenn Bowman</u> <u>[Signature]</u>	DATE
State Environmental Administrator	<u>2/27/2013</u>
* <u>Kathy Zahul</u> <u>[Signature]</u>	DATE
State Traffic Engineer (required for roundabout projects)	<u>3/11/2013</u>
<u>N/A</u>	DATE
State Bridge Design Engineer (required for projects with major structures)	<u>N/A</u>
	DATE

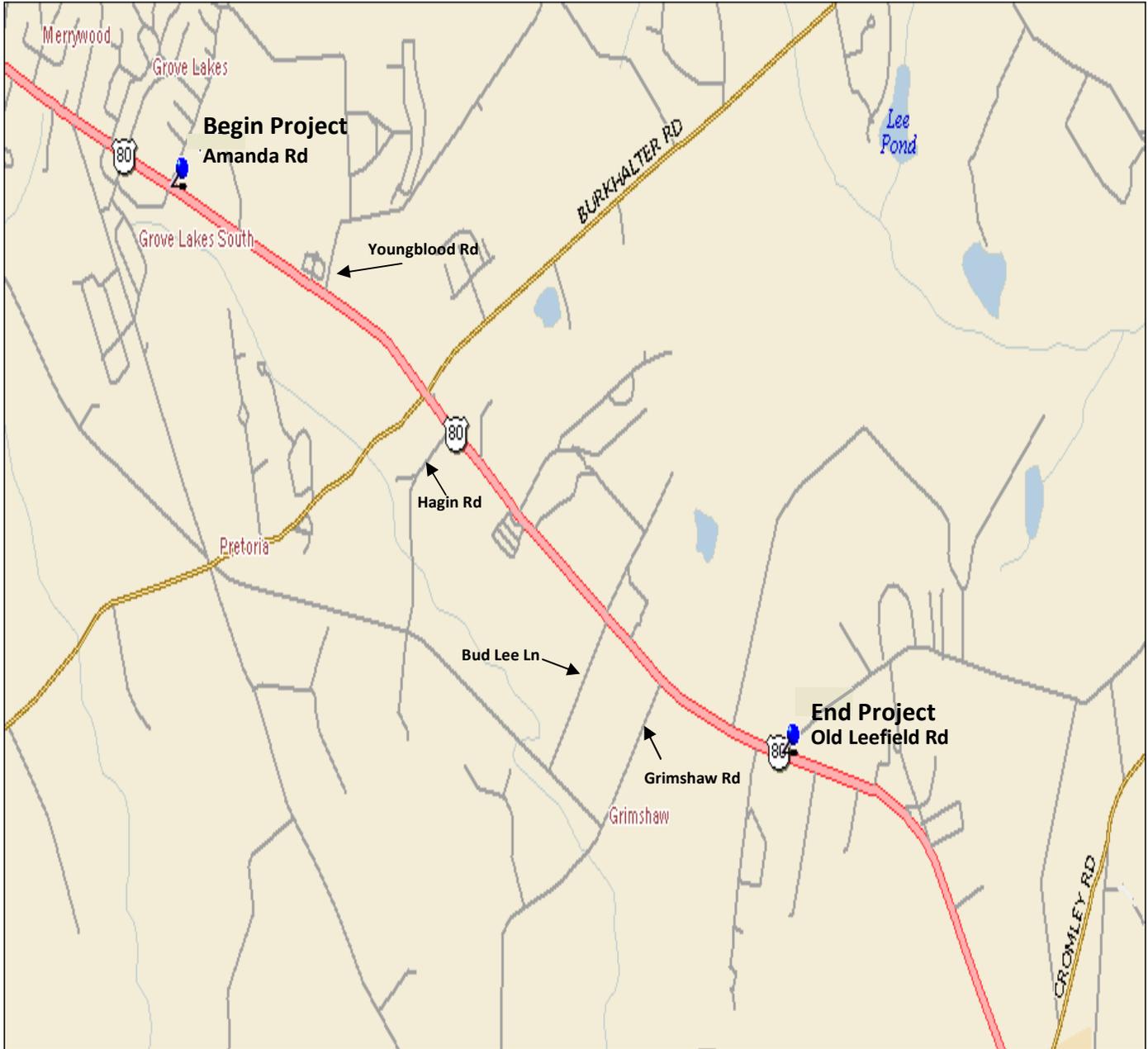
The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

<u>Cynthia L. Naupe</u>	DATE
State Transportation Planning Administrator	<u>3-7-13</u>

Approval:

Concur: <u>[Signature]</u>	DATE
GDOT Director of Engineering	<u>3/26/2013</u>
Approve: <u>[Signature]</u>	DATE
GDOT Chief Engineer	<u>4-1-13</u>

PROJECT LOCATION



PLANNING & BACKGROUND DATA

Project Justification Statement: In Bulloch County, east of the City of Statesboro, SR 26/US 80 is a two-lane rural minor arterial and a designated hurricane evacuation route between CR 491/Amanda Road and CR 423/Old Leefield Road. To the west of Amanda Road, SR 26 widens to four through lanes with a two-way center turn lane, which continues through Statesboro. To the east of Old Leefield Road, SR 26 enters into the downtown area of Brooklet. From a regional perspective, this route roughly parallels I-16 and connects the cities of Statesboro, Brooklet, Bloomingdale, Pooler, and Savannah. GDOT PI 0005829 was added to the work program in 2003 as a capacity improvement project beginning at the end of the five-lane section (near Amanda Road) and ending at Old Leefield Road just outside the City of Brooklet. Preliminary engineering was authorized in FY 2004.

According to approved design-level counts, traffic volumes on this section of SR 26 steadily decline traveling east toward Brooklet. Current (year 2011) volumes range from 9,350 at the beginning of the project near Amanda Road to a low of 6,900 east of Old Leefield. By the year 2038, ADT is expected to increase to 15,950 near Amanda Road and 11,775 east of Old Leefield Road. With respect to statewide performance measures, daily level-of-service on this roadway is expected to decline from LOS “D” in 2011 to “D” and “E” by 2038. See Table 1 for more detail.

	2011 ADT	2011 Daily LOS	2011 AM LOS	2011 PM LOS	2038 ADT	2038 Daily LOS	2038 AM LOS	2038 PM LOS
West of Amanda Rd	9,350	D	D	D	15,950	E	D	D
Amanda Rd	9,150	D	D	D	15,600	E	D	D
Burkhalter Rd	8,475	D	D	D	15,175	E	D	E
Grimshaw Rd	8,325	D	D	D	14,225	E	D	E
Old Leefield Rd	7,625	D	D	D	13,075	D	D	D
East of Old Leefield Rd	6,900	D	C	C	11,775	D	D	D

SR 26/US 80 is a commonly used route for commuters traveling to employment centers in Statesboro, which is reflected in peak hour traffic conditions. According to year 2011 design-level counts near Amanda Road, approximately 68% of AM peak hour traffic is traveling in the westbound direction toward Statesboro. This percentage gradually declines to 59% near Old Leefield Rd and 54% just east of the project area in Brooklet. In the PM peak hour, approximately 60% of traffic near Amanda Road is in the eastbound direction. This percentage gradually declines to 54% near Old Leefield Road and 52% just east of the project area. Again, with respect to statewide performance measures, peak-hour two-way level-of-

County: Bulloch

service is projected to decline from “C” and “D” in 2011 to “D” and “E” in 2038. See Table 1 for more detail.

Between 2006 and 2009, approximately 77 crashes, including 61 injuries and two fatalities, occurred on this section of SR 26. For each of these four years, crash rates have been below the statewide crash rates for rural minor arterials. The most common crash types were “rear-end” (42%), “collisions not with another vehicle” (29%), and “angle” (20%).

Improvements are needed on SR 26 to accommodate future growth in traffic between Statesboro and Brooklet and to improve future travel conditions, particularly during the AM and PM peak periods. The limits of this project are from the end of the existing five-lane section near Amanda Road to Old Leefield Road, just outside Brooklet. These limits are adequate to meet the purpose of this project, which is to improve access to employment and education centers in Statesboro, relieve congestion, and to provide an adequate emergency evacuation route.

Description of the proposed project: State Road 26 / US 80 is a four lane facility with a flush median from Lester Road to Amanda Road. From Amanda Road/Stiles Street to Arcola Road, SR 26 / US 80 is a two lane undivided roadway with no or rural shoulders. The posted speed limit ranges from 35 mph to 55 mph along the corridor. From Veteran Memorial Parkway (SR 73 Bypass) to Amanda Road/Stiles Street, SR 26 / US 80 is classified as an urban minor arterial street. From Amanda Road/Stiles Street to the Bryan County line, the roadway is functionally classified as a rural minor arterial. The truck percentage along this route is estimated to be between 8 and 11%. This roadway is not on the National Highway System (NHS). A passing lane is proposed to be built in the eastern direction beginning approximately 1100 feet east of Burkhalter Rd, and will end at Grimshaw Rd. In the western direction, a passing lane will be added just east of Old Leefield Rd, and will continue to approximately 1000 feet west of Bud Lee Lane/CR 350. Auxiliary lanes, both right and left will be added along the corridor as warranted by traffic data.

Federal Oversight: Exempt State Funded Other

MPO: N/A

MPO Project ID: N/A

Regional Commission: Coastal Georgia RC

RC Project ID: N/A

Congressional District(s): 12

Projected Traffic: ADT

Current Year (2011): 8600 Open Year (2018): 11650 Design Year (2038): 17450
 Traffic Projections Performed by: GDOT

Functional Classification (Mainline): Rural Minor 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: SR 26/US 80

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	2	3
- Lane Width(s)	12'	11'-12'	12'
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder or Border Area Width	6'	10'	10'
- Outside Shoulder Slope	6%	6%	6%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	N/A	N/A	N/A
- Auxiliary Lanes	N/A	11'-12'	12'
- Bike Lanes	N/A	N/A	N/A
Posted Speed	55mph		55mph
Design Speed	55mph	55mph	55mph
Min Horizontal Curve Radius	2864.9	1060	2864.9
Superelevation Rate	2%	6%	6%
Grade	1.789%	4%	4%
Access Control	N/A	N/A	N/A
Right-of-Way Width	100'	100'-175'	100'-175'
Maximum Grade – Crossroad	Unknown	4%	4%
Design Vehicle	SU	SU	SU
<i>Additional Items as needed</i>			

*According to current GDOT design policy if applicable

Major Structures: N/A

Utility Involvements: There are five known utilities within the project limits.

- Frontier Communications
- Georgia Power Distribution
- Northland Cable Vision
- Bulloch Rural Telephone
- Excelsior EMC

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

SUE Required: No Yes

Railroad Involvement: N/A

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:	43
Displacements anticipated: 0	Total:
	Businesses:
	Residences:
	Other:

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: None

Design Variances to GDOT Standard Criteria anticipated: None

ENVIRONMENTAL DATA

Anticipated Environmental Document:

GEPA: NEPA: CE PCE

Project Air Quality:

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

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

Environmental Permits/Variances/Commitments/Coordination anticipated: None anticipated

NEPA/GEPA Comments & Information: No ecology, history, archeology, air & noise, or public involvement studies have been done at this time.

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	<i>GDOT</i>
Design	<i>GDOT</i>
Right-of-Way Acquisition	<i>GDOT</i>
Utility Relocation	<i>Utility Companies</i>
Letting to Contract	<i>GDOT</i>
Construction Supervision	<i>GDOT</i>
Providing Material Pits	<i>Contractor</i>
Providing Detours	<i>Contractor</i>
Environmental Studies, Documents, and Permits	<i>GDOT</i>
Environmental Mitigation	<i>GDOT</i>
Construction Inspection & Materials Testing	<i>GDOT</i>

Lighting required: No Yes

Other projects in the area: Project 0010364 includes a signal installation within the limits of this project at Burkhalter Rd; however it is not a part of this project.

Other coordination to date: None

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
By Whom	GDOT	GDOT	GDOT	GDOT	GDOT	
\$ Amount	849,599.14	1,133,000.00	300,000.00	2,972,593.71	30,000.00	5,285,192.85
Date of Estimate	3/24/2004	1/18/2013	1/17/2013	2/11/2013	1/23/2013	

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

ALTERNATIVES

Preferred Alternative: *Passing lanes. East bound beginning 1100' East of Burkhalter Rd and ending at Grimshaw Rd. West bound beginning just east of Old Leefield Rd and continuing west bound 1000' west of Bud Lee Ln/Co 350. Auxiliary lanes left and right as warranted by traffic needs. LOS from HCS is C for AM conditions and D for PM Conditions.*

Estimated Property Impacts:	43 parcels	Estimated Total Cost:	\$5,285,192.85
Estimated ROW Cost:	\$1,133,000.00	Estimated CST Time:	24 months
Rationale: Highway Capacity Study warrants passing lanes. HCS runs are attached.			

No-Build Alternative: *Existing two-lane roadway; LOS for the no Build condition in 2038 is D & E.*

Estimated Property Impacts:	N/A	Estimated Total Cost:	N/A
Estimated ROW Cost:	N/A	Estimated CST Time:	N/A
Rationale:			

Alternative 1: *Four lane divided roadway from Amanda Rd to Cody Ln. LOS for the build condition in 2038 is B, but traffic counts do not warrant this build condition.*

Estimated Property Impacts:	Unknown	Estimated Total Cost:	\$9,372,592.00
Estimated ROW Cost:	\$3,311,596.00	Estimated CST Time:	Unknown
Rationale: Traffic counts did not warrant a 4 lane divided section. There is also a possible historical impact.			

Attachments:

1. Concept Layout
2. Typical sections
3. Cost Estimates
4. Traffic diagrams or projections
5. Capacity analysis summary
6. Meeting Minutes



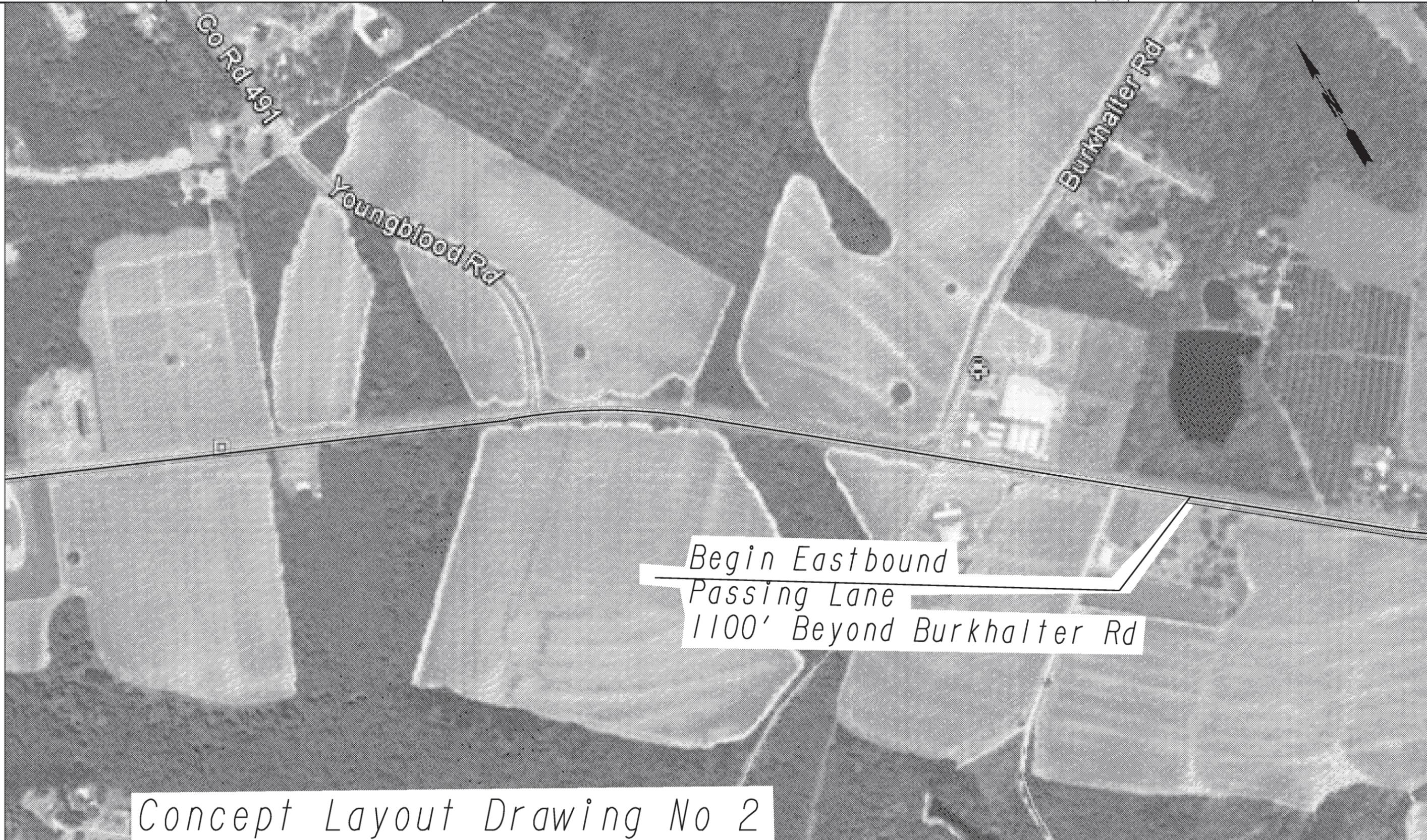
Concept Layout Drawing No 1

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:
MAINLINE PLAN

DRAWING No.
13-

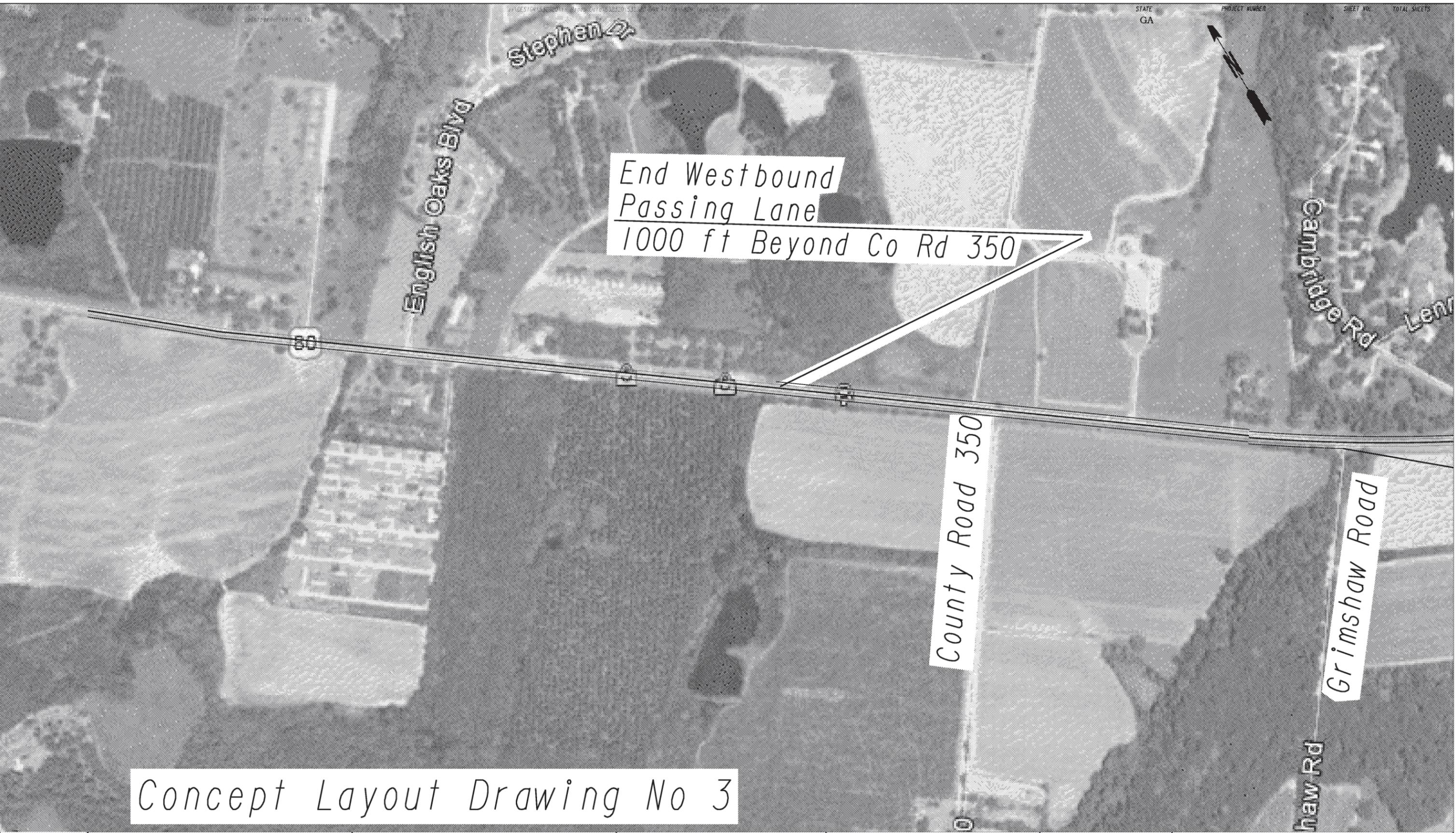


Concept Layout Drawing No 2

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

REVISION DATES		

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE: MAINLINE PLAN
DRAWING No. 13-



End Westbound
 Passing Lane
 1000 ft Beyond Co Rd 350

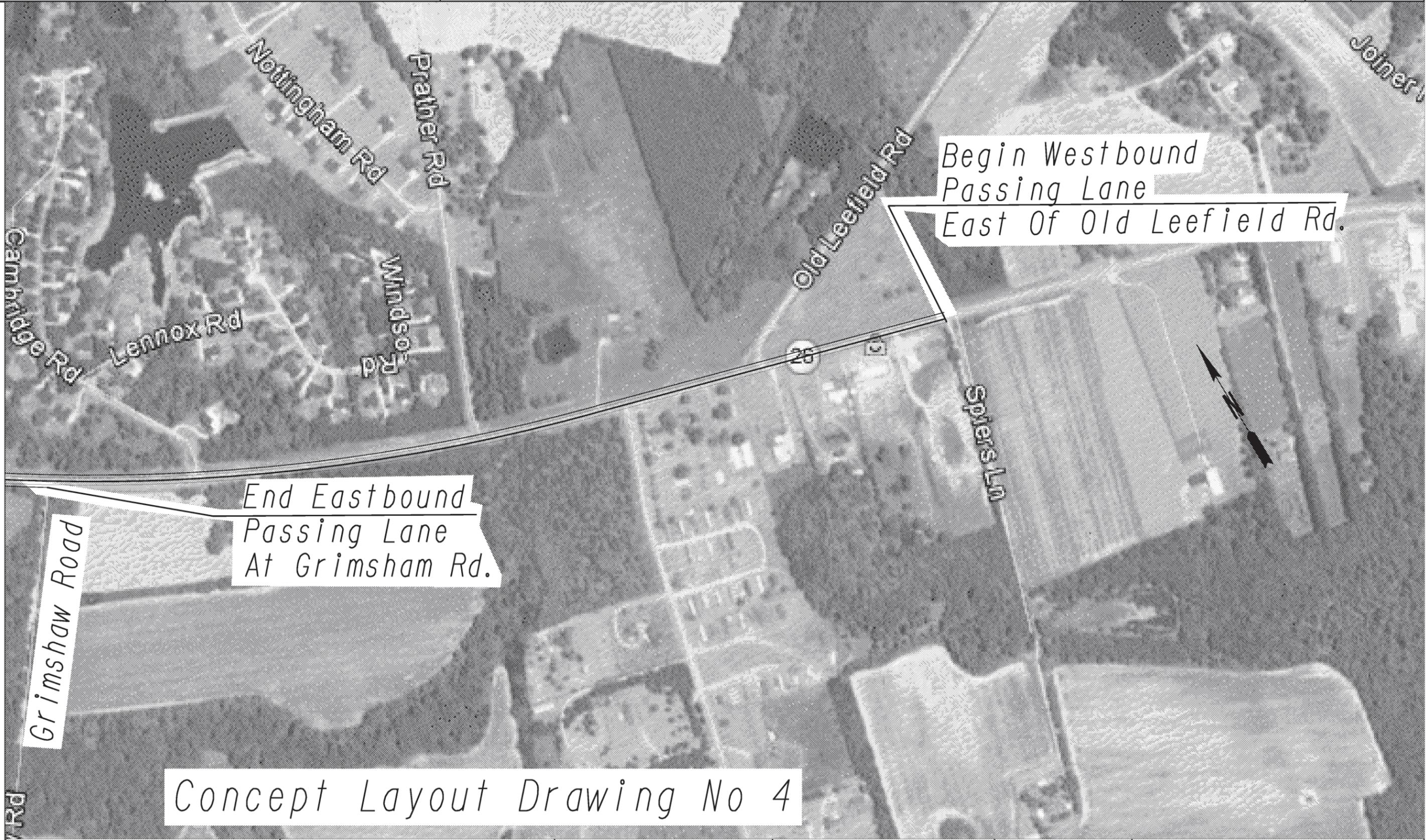
Concept Layout Drawing No 3

GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION

REVISION DATES		

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
MAINLINE PLAN

DRAWING No.
13-



Concept Layout Drawing No 4

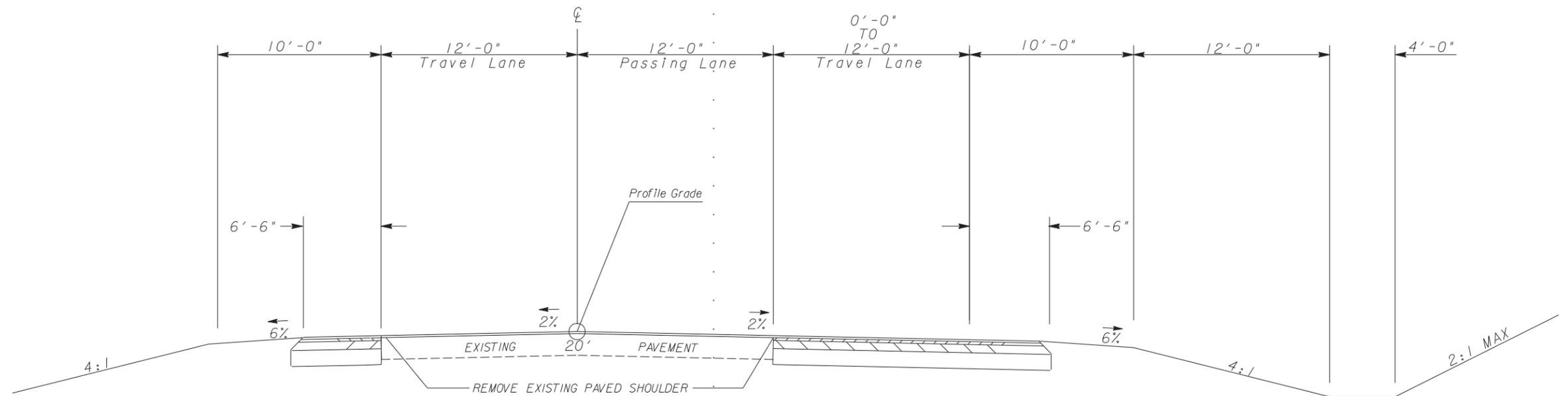
GEORGIA
DEPARTMENT
OF
TRANSPORTATION

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:
MAINLINE PLAN

DRAWING No.
13-

Typical Section for Concept Report Eastbound and Westbound Passing Lanes



				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="3">REVISION DATES</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISION DATES																					STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: District 5 Road Design TYPICAL SECTIONS PI: 0005829 Bulloch County	DRAWING No. 5-
REVISION DATES																											

DETAILED COST ESTIMATE



Job: 0005829

JOB NUMBER 0005829

FED/STATE PROJECT NUMBER STP00-0005-00(829)

SPEC YEAR: 01

DESCRIPTION: SR 26/US 80FM 5LN @ CR491 TO CR423/OLD LEE RD

ITEMS FOR JOB 0005829

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0065	310-5060	9389.000	SY	\$13.59429	GR AGGR BS CRS 6IN INCL MATL	\$127,636.79
0025	310-5120	23556.000	SY	\$22.45084	GR AGGR BS CRS 12IN INCL MATL	\$528,851.99
0015	402-3121	5183.000	TN	\$85.11853	RECYL AC 25MM SP,GP1/2,BM&HL	\$441,169.34
0060	402-3130	2720.000	TN	\$75.00000	RECYL AC 12.5MM SP,GP2,BM&HL	\$204,000.00
0010	402-3190	3625.000	TN	\$84.18950	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	\$305,186.94
0055	413-1000	2826.000	GL	\$2.91312	BITUM TACK COAT	\$8,232.48
0045	653-2501	2.000	LM	\$1,612.98450	THERMO SOLID TRAF ST, 5 IN, WH	\$3,225.97
0050	653-2502	2.000	LM	\$1,664.97495	THERMO SOLID TRAF ST, 5 IN YE	\$3,329.95
0040	653-4502	2.000	GLM	\$967.56095	THERMO SKIP TRAF ST, 5 IN, YEL	\$1,935.12
SUBTOTAL FOR :						\$1,623,568.58

COST GROUP FOR JOB 0005829

LINE NUMBER	UNIT	CALCULATION RULE	QUANTITY	PRICE	COST GROUP ID	DESCRIPTION	AMOUNT
00000003	LF	PCTO	10174.594	\$9.90	DRNGPCTO	DRAINAGE (PERCENT OF JOB)	\$100,728.48
00000004	SY	PCTO	10174.594	\$6.12	EROCPCO	EROSION CONTROL (PERCENT OF JOB)	\$62,268.51
00000005	LS	NORM	1.000	\$620,000.00	ERTHLS	EARTHWORK (LS)	\$620,000.00
00000006	LS	PCTO	10174.594	\$0.18	MISCPCTO	MISCELLANEOUS (PERCENT OF JOB)	\$1,831.43
00000007	LM	PCTO	10174.594	\$0.36	PVMKPCTO	PAVEMENT MARKING (PERCENT OF JOB)	\$3,662.85
00000008	EA	PCTO	10174.594	\$0.39	SIGNPCTO	SIGNS (PERCENT OF JOB)	\$3,968.09
00000011	LS	NORM	1.000	\$225,000.00	TRFT	TRAFFIC CONTROL-TEMPORARY (LS)	\$225,000.00
SUBTOTAL:							\$1,017,459.36

TOTALS FOR JOB 0005829

ITEMS COST:	\$1,623,568.58
COST GROUP COST:	\$1,017,459.36
ESTIMATED COST:	\$2,641,027.94
CONTINGENCY PERCENT:	0.00
ENGINEERING AND INSPECTION:	0.05
ESTIMATED COST WITH CONTINGENCY AND E&I:	\$2,773,079.34

PROJ. NO.: STP00-0005-00(829)

P.I. NO. 0005829

DATE: 2/11/2013

Base Construction Cost		\$	2,641,027.94
E & I	5%	\$	132,051.40
Construction Contingency	0	\$	-
Subtotal Construction Cost		\$	<u>2,773,079.34</u>
Liquid AC Adjustment (50 % cap)		\$	<u>199,514.37</u>
Total Construction Cost		\$	<u>2,972,593.71</u>

PROJ. NO.

STP00-0005-00(829)

CALL NO.

P.I. NO.

0005829

DATE

2/11/2013

INDEX (TYPE)

REG. UNLEADED

Feb-13 \$ 3.683

DIESEL

\$ 3.981

LIQUID AC

\$ 565.00

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)

195399.6

\$

195,399.60

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$ 904.00

Monthly Asphalt Cement Price month project let (APL)

\$ 565.00

Total Monthly Tonnage of asphalt cement (TMT)

576.4

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	2720	5.0%	136
9.5 mm SP		5.0%	0
25 mm SP	5183	5.0%	259.15
19 mm SP	3625	5.0%	181.25
	3625		576.4

BITUMINOUS TACK COAT

Price Adjustment (PA)

\$ 4,114.77

\$

4,114.77

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$ 904.00

Monthly Asphalt Cement Price month project let (APL)

\$ 565.00

Total Monthly Tonnage of asphalt cement (TMT)

12.13795521

Bitum Tack

Gals	gals/ton	tons
2826	232.8234	12.1379552

PROJ. NO.

STP00-0005-00(829)

CALL NO.

P.I. NO.

0005829

DATE

2/11/2013

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)						0	\$	-
Monthly Asphalt Cement Price month placed (APM)		Max. Cap	60%	\$	904.00			
Monthly Asphalt Cement Price month project let (APL)				\$	565.00			
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							\$	199,514.37
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**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. # 0005829 Bulloch County

OFFICE Jesup

DATE 1-17-2013

FROM Stephen Thomas, District Utilities Engineer

TO Brent Moseley, Project Manager

SUBJECT PRELIMINARY UTILITY COST ESTIMATE

As requested by your office, we are furnishing you with a Preliminary Utility Cost Estimate of each Utility with facilities potentially located within the above referenced project limits.

Facility Owner	Non-Reimbursable	Reimbursable	Comments
Georgia Power Distribution	\$ 195,000.00	\$ 300,000.00	
Excelsior EMC	\$ 189,000.00	\$ 0.00	
Bulloch Rural Telephone	\$ 101,700.00	\$ 0.00	
Frontier Communication	\$ 101,700.00	\$ 0.00	
Northland Cable Vision	\$ 81,360.00	\$ 0.00	
Totals	\$ 668,760.00	\$ 300,000.00	
Total Reimbursement		\$ 300,000.00	

CC; Terry, Brigman, Assistant State Utilities Engineer

District Office File

Utilities Office File

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 0005829 **OFFICE** Environmental Services
DATE January 23, 2013
FROM  Glenn Bowman, P.E., State Environmental Administrator
TO Brent Moseley, Project Manager

SUBJECT Preliminary Mitigation Cost Estimate

As requested by your office, we are furnishing you with a preliminary cost estimate for the subject project. The project would provide operational improvements along US 80/SR 26 from Amanda Road to just east of Old LeeField Road in Bulloch County east of Statesboro, Georgia. After reviewing the NWI mapping and based on the information provided, wetlands could be impacted by the proposed construction activity and mitigation will be required. The estimated cost for mitigation is \$30,000.00.

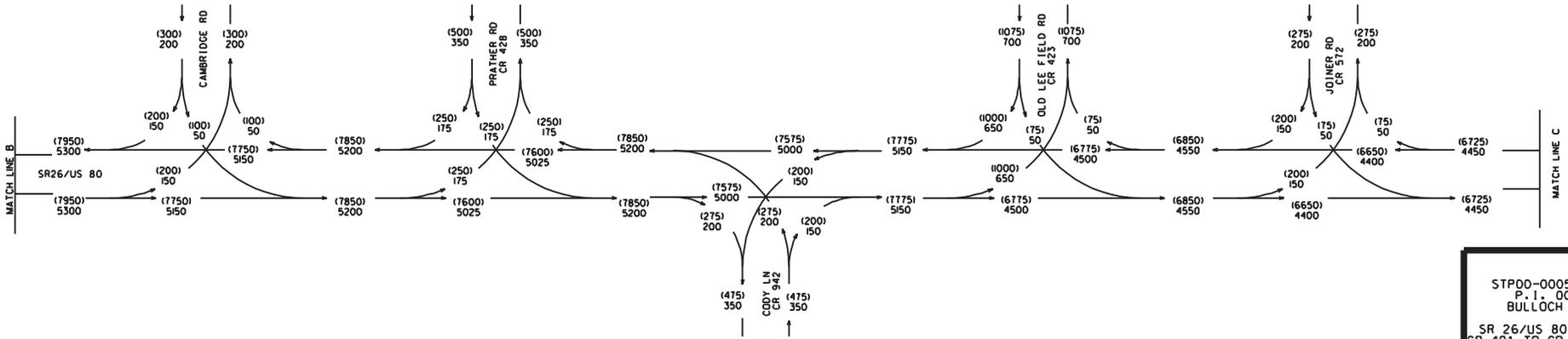
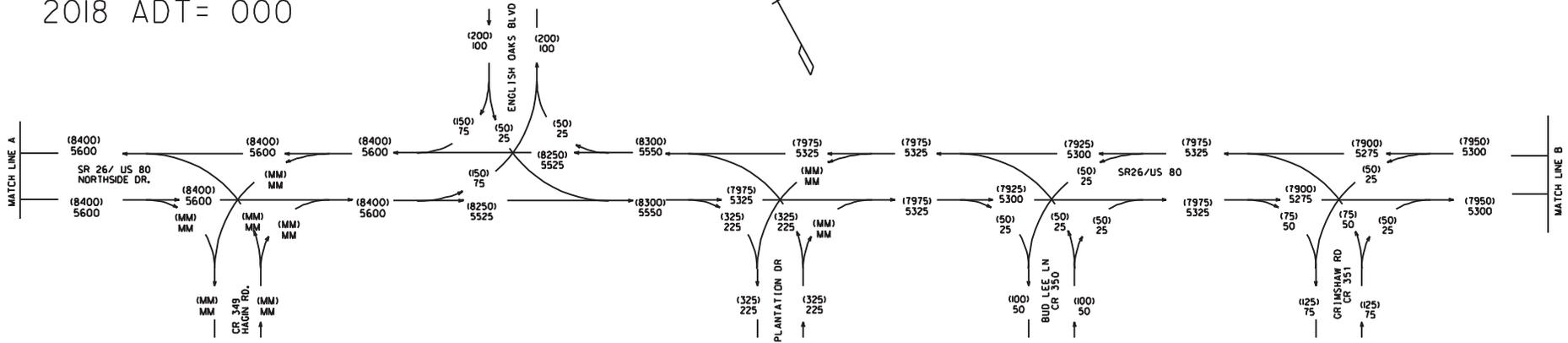
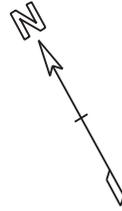
DISCLAIMER: This information is based solely on a desktop review of the information available. Only after a field reconnaissance, can a more detailed and accurate cost be estimated.

Thank you for your cooperation and expeditious handling of this matter. If you have any questions or need additional information, please contact Lisa Westberry (404) 631-1772 of our office.

GB/HDC/lmw

cc: General File
Rebecca Thigpen, GDOT
Michael Murdoch, GDOT NEPA

BUILD
2038 ADT=(000)
2018 ADT= 000

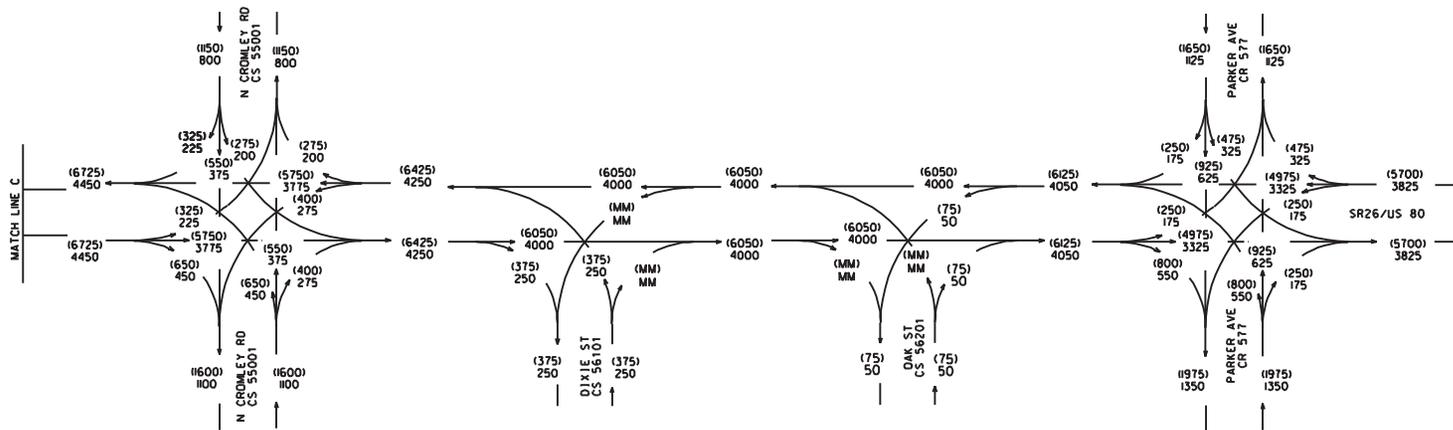
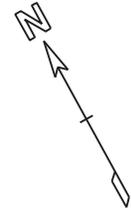


STP00-0005-00(829)
P.L. 0005829
BULLOCH COUNTY
SR 26/US 80 FM SLN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

24-HR. T=7%
S.U. =4%
COMB.=3%

BUILD
2038 ADT=(000)
2018 ADT= 000

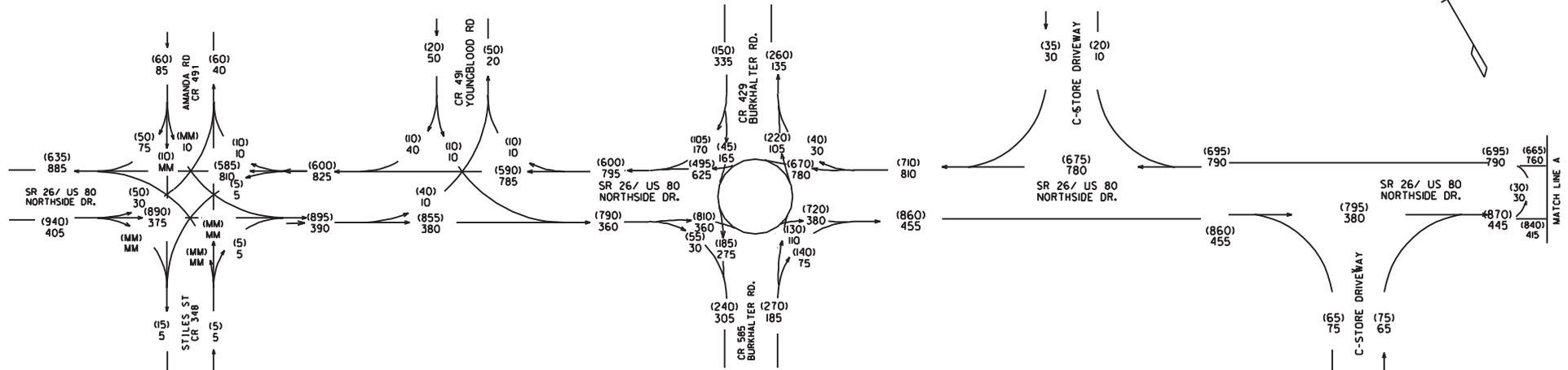
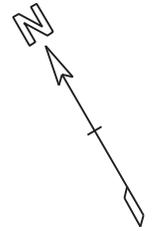
BULLOCH COUNTY



STP00-0005-00(829)
P.L. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.
24-HR. T=7%
S.U. =4%
COMB.=3%

BULLOCH COUNTY

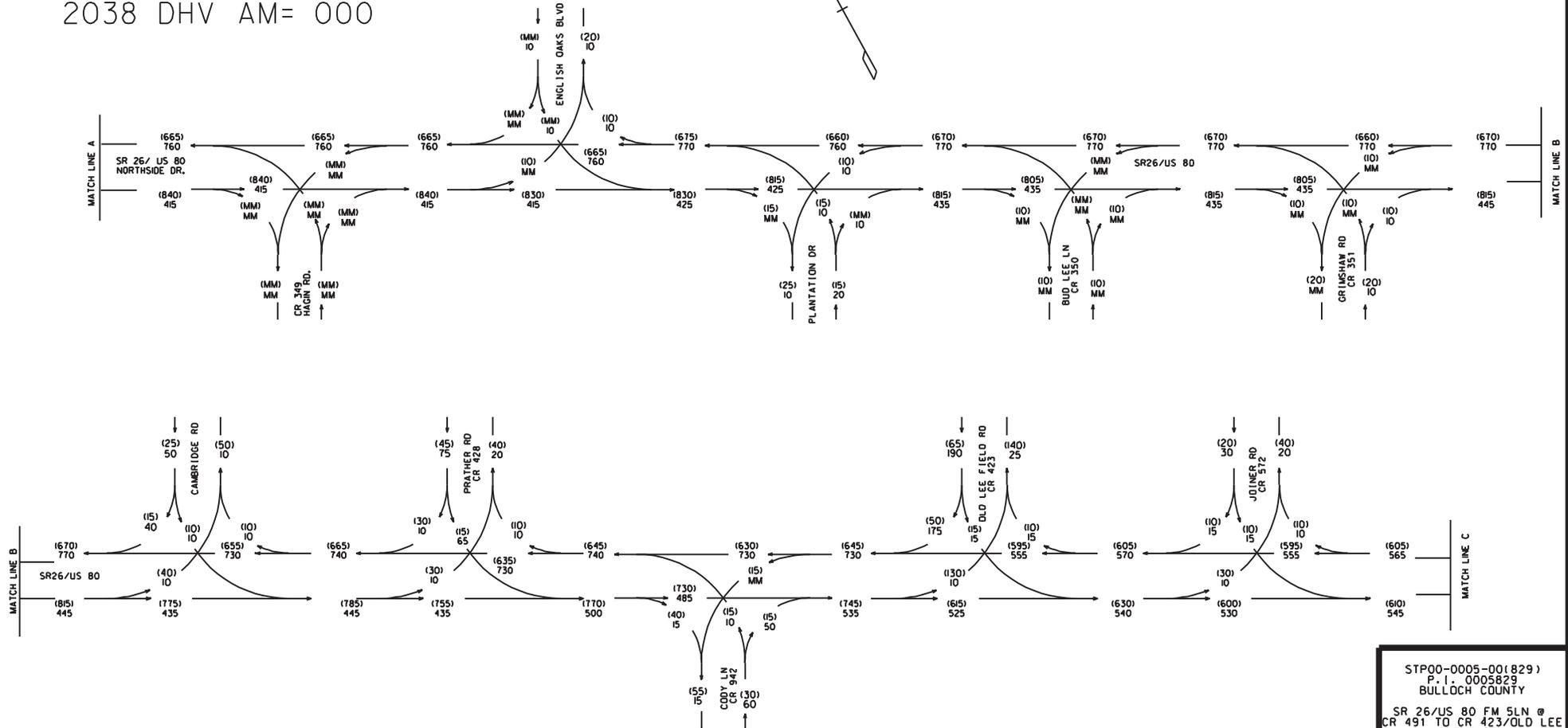
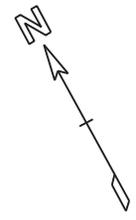
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2038 DHV AM= 000



STP00-0005-00(829)
P.1. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

T =7%
S.U. =4%
COMB. =3%

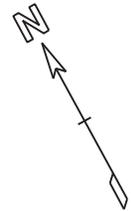
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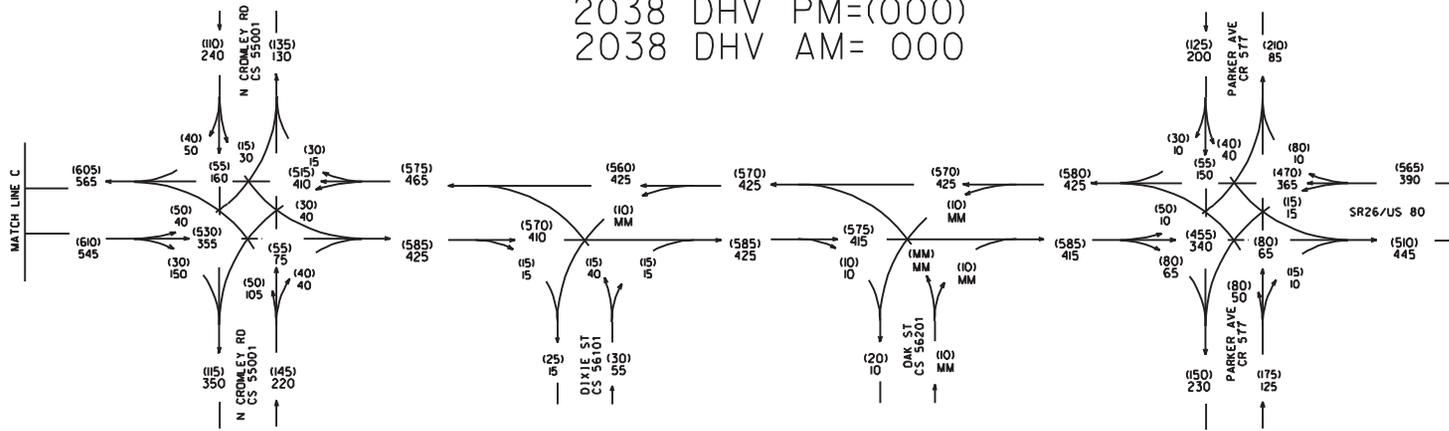
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BULLOCH COUNTY
SR 26/US 80 FM 5LN @
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T = 7%
S.U. = 4%
COMB. = 3%

BULLOCH COUNTY



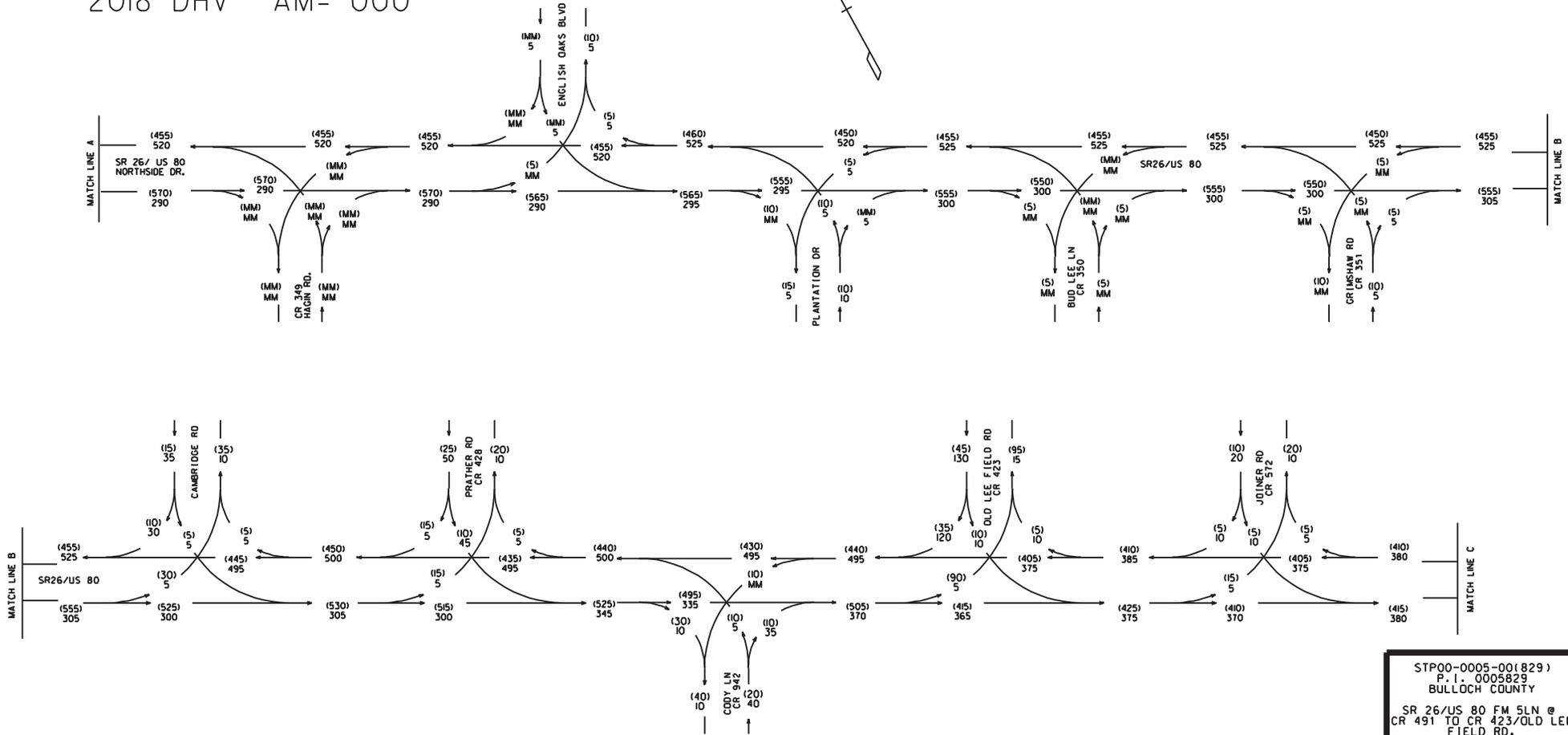
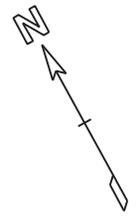
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2038 DHV AM= 000



STP00-0005-001829)
P. I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM SLN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

T = 7%
S. U. = 4%
COMB. = 3%

BUILD
2018 DHV PM= (000)
2018 DHV AM= 000

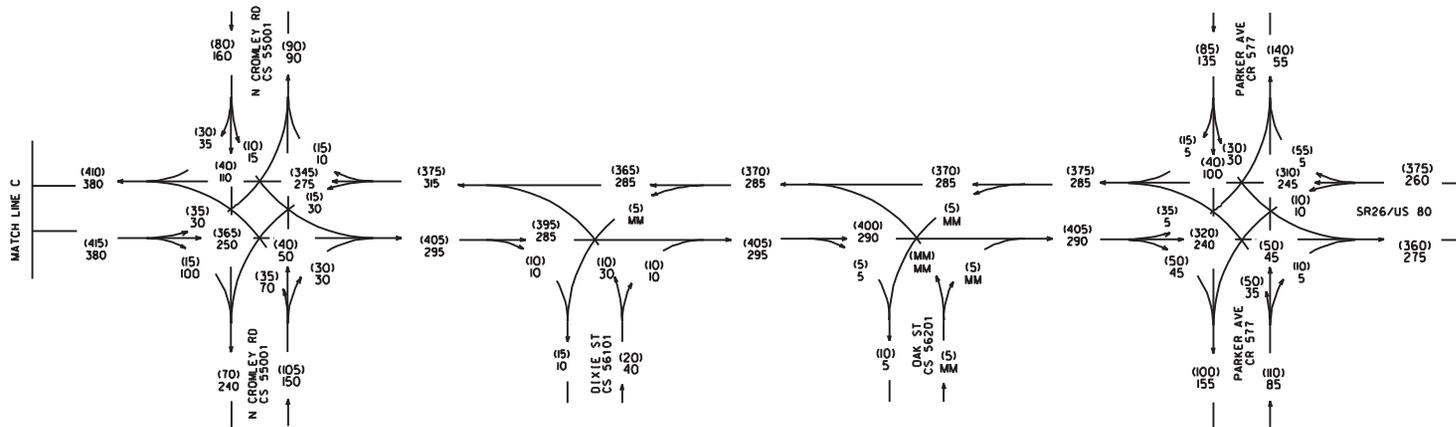
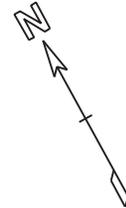


STP00-0005-00(829)
P. I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

T = 7%
S.U. = 4%
COMB. = 3%

BUILD
2018 DHV PM= (000)
2018 DHV AM= 000

BULLOCH COUNTY

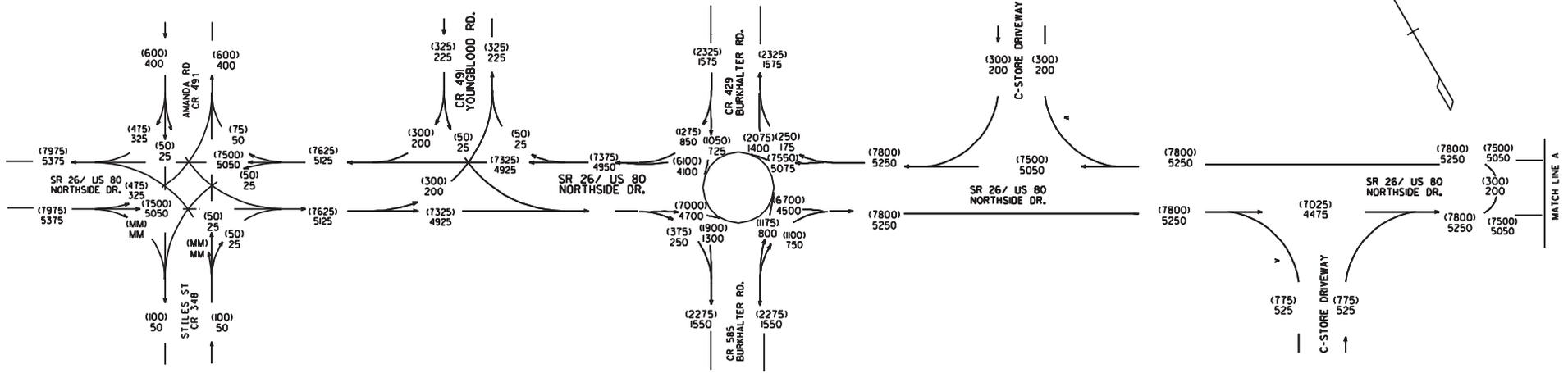
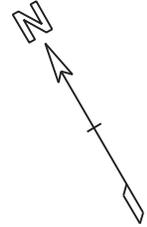


STP00-0005-00(829)
P. I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

T = 7%
S.U. = 4%
COMB. = 3%

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2038 ADT=(000)
2018 ADT= 000

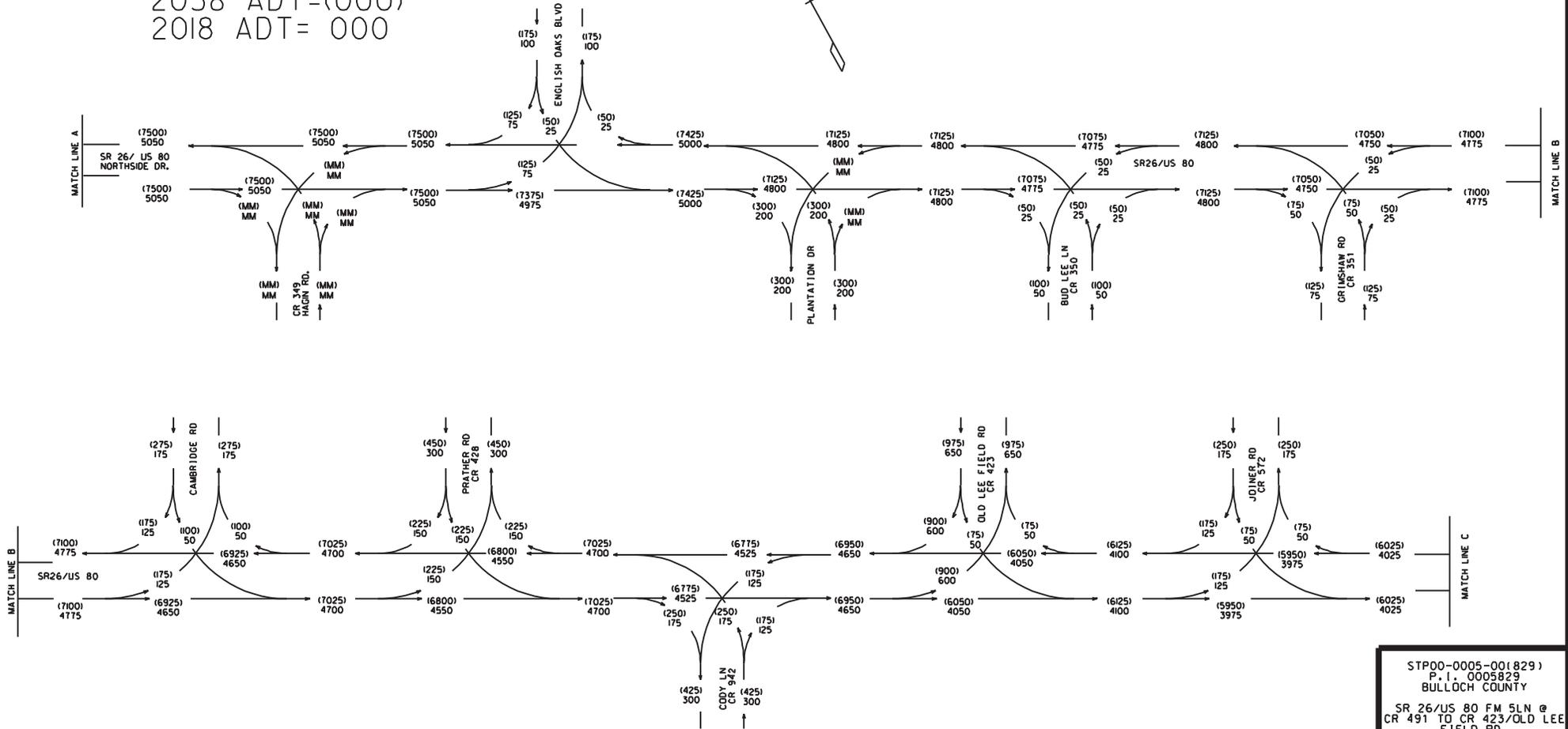
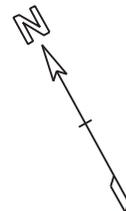
BULLOCH COUNTY



STP00-0005-00(829)
P.L. 0005829
BULLOCH COUNTY
SR 26/US 80 FM SLN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

24-HR. T=7%
S.U. =4%
COMB.=3%

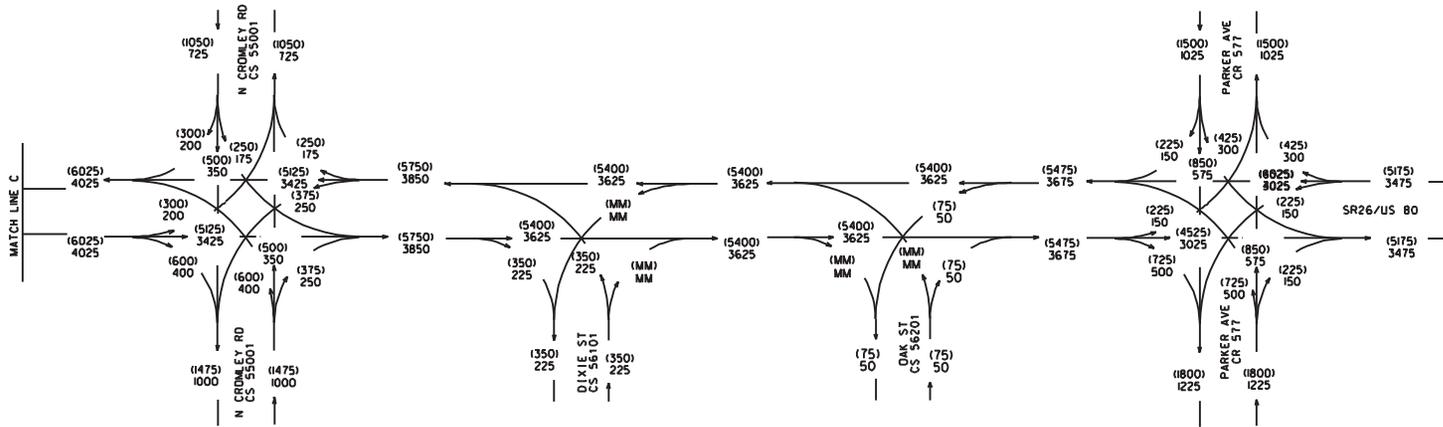
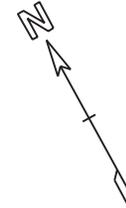
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2038 ADT=(000)
2018 ADT= 000



STP00-0005-00(829)
P.L. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.
24-HR. T=7%
S.U. =4%
COMB.=3%

NO BUILD
2038 ADT=(000)
2018 ADT= 000

BULLOCH COUNTY

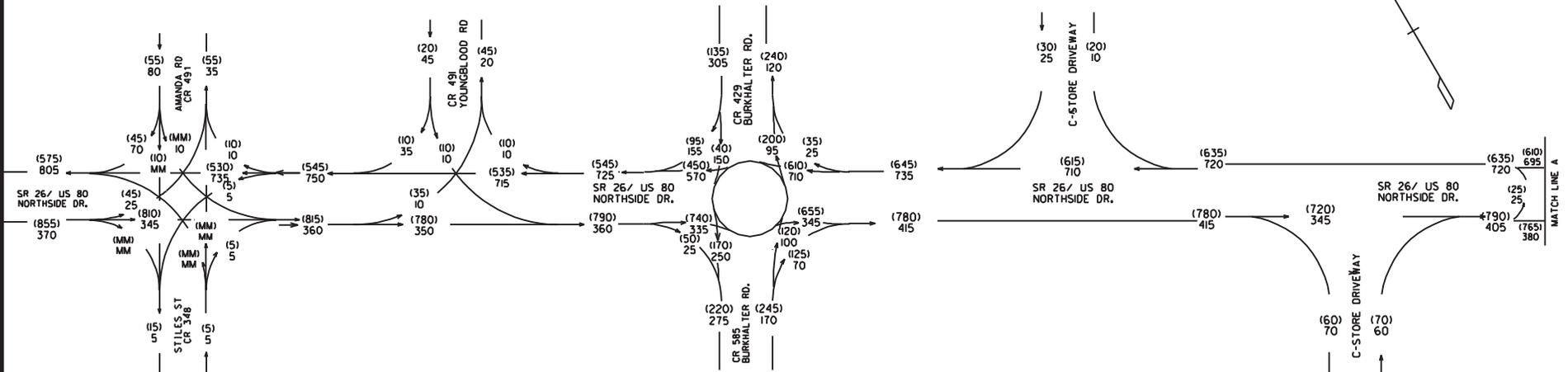
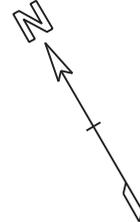


STP00-0005-001829)
P.L. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

24-HR. T=7%
S.U. =4%
COMB.=3%

NO BUILD
2038 DHV PM = (000)
2038 DHV AM = 000

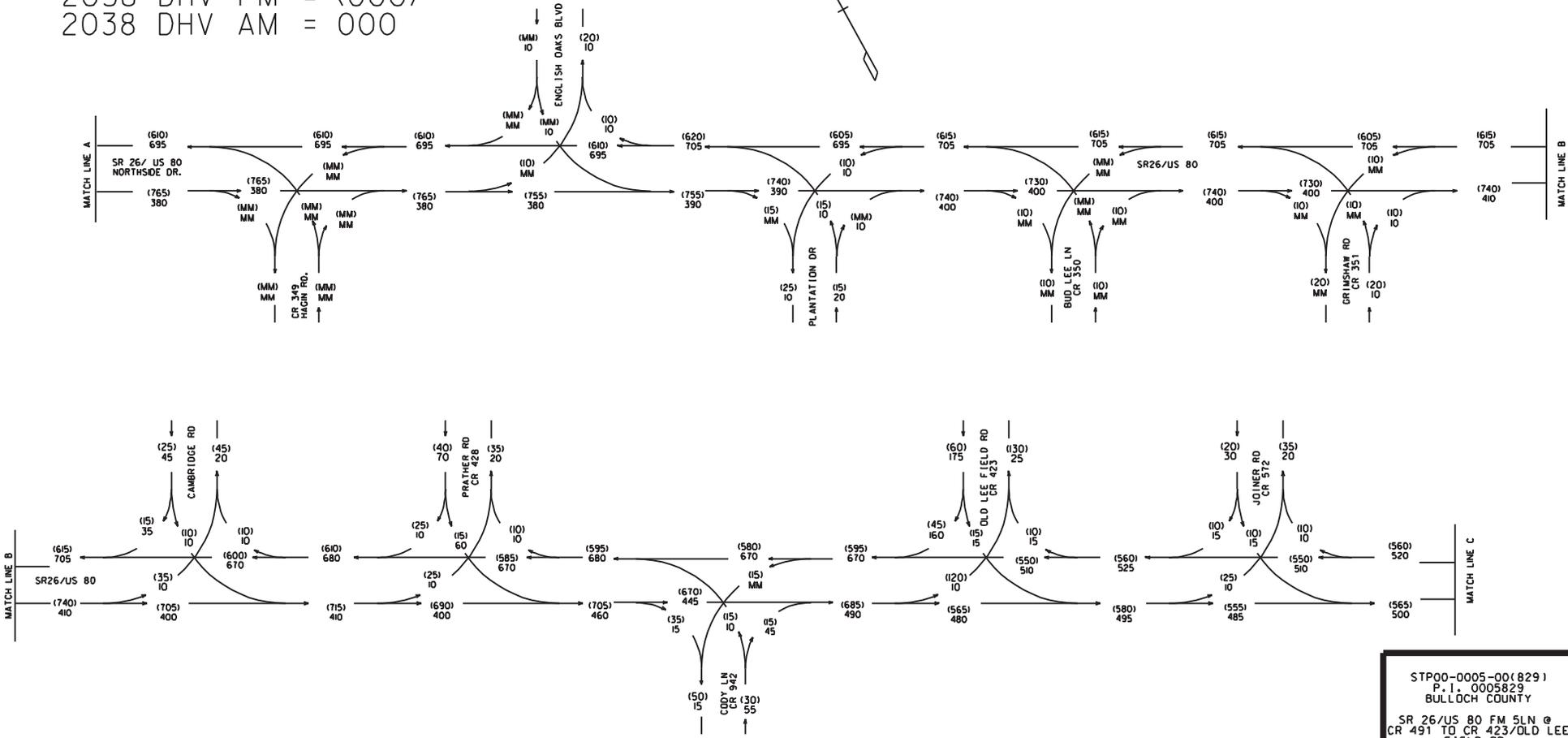
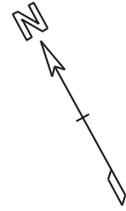
BULLOCH COUNTY



STP00-0005-00(829)
P.I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
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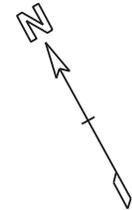
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S.U. = 4%
COMB. = 3%

NO BUILD
2038 DHV PM = (000)
2038 DHV AM = 000

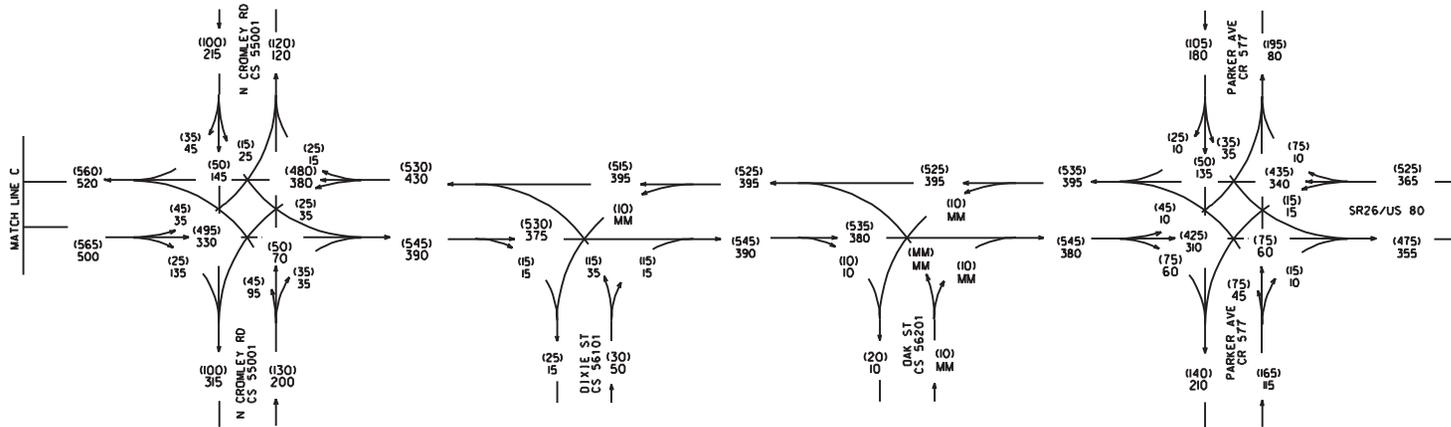


STP00-0005-00(829)
P.I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.
T =7%
S.U. =4%
COMB. =3%

BULLOCH COUNTY



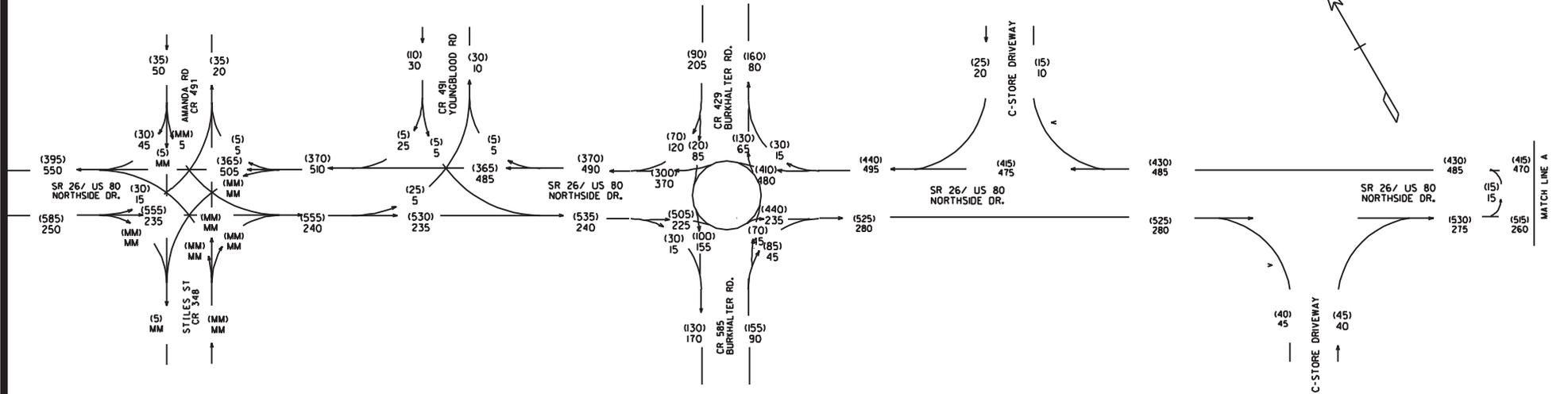
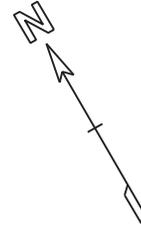
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2038 DHV PM = (000)
2038 DHV AM = 000



STP00-0005-00(829)
P.I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM SLN @
CR 491 TO CR 423/OLD LEE
FIELD RD.
T = 7%
S.U. = 4%
COMB. = 3%

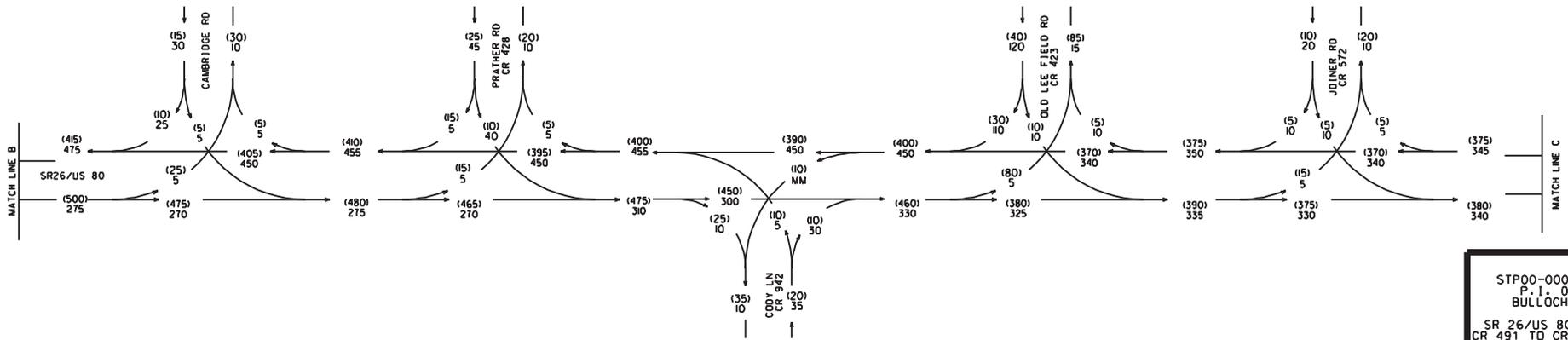
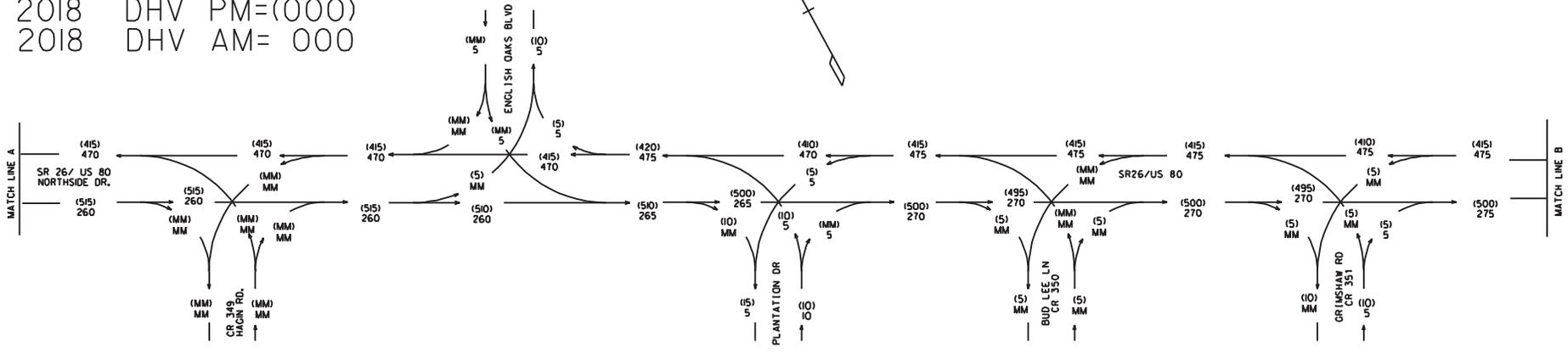
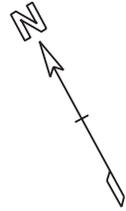
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2018 DHV PM=(000)
2018 DHV AM= 000

BULLOCH COUNTY



STP00-0005-00(829)
P.I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.
T =7%
S.U. =4%
COMB.=3%

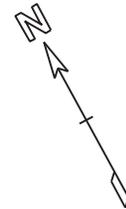
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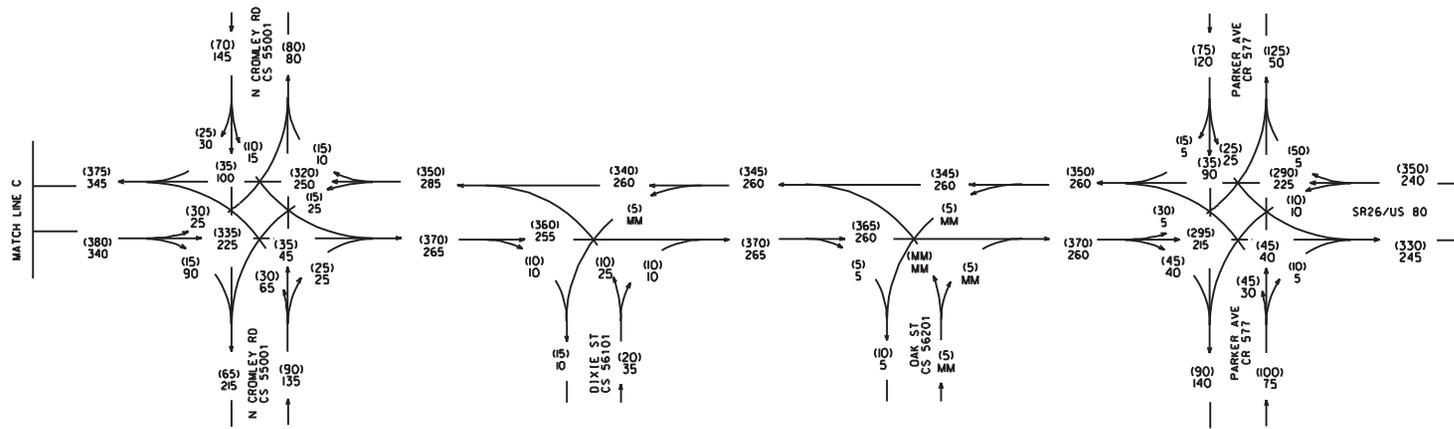
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P.1. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
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FIELD RD.

T =7%
S.U. =4%
COMB.=3%

BULLOCH COUNTY



NO BUILD
2018 DHV PM=(000)
2018 DHV AM= 000

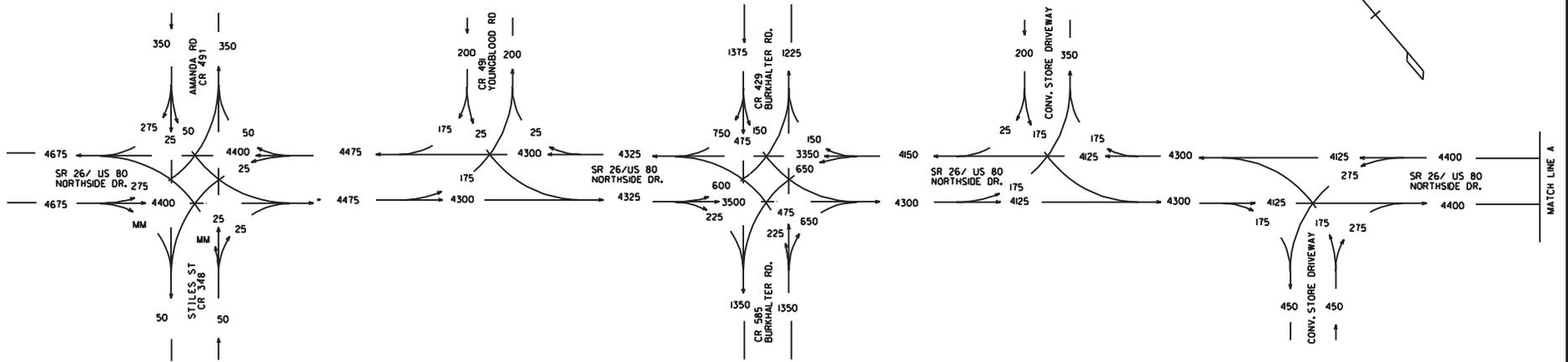
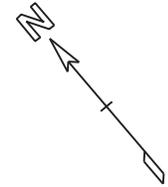


STP00-0005-00(829)
P.I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

T =7%
S.U. =4%
COMB. =3%

EXISTING 2011 ADT

BULLOCH COUNTY

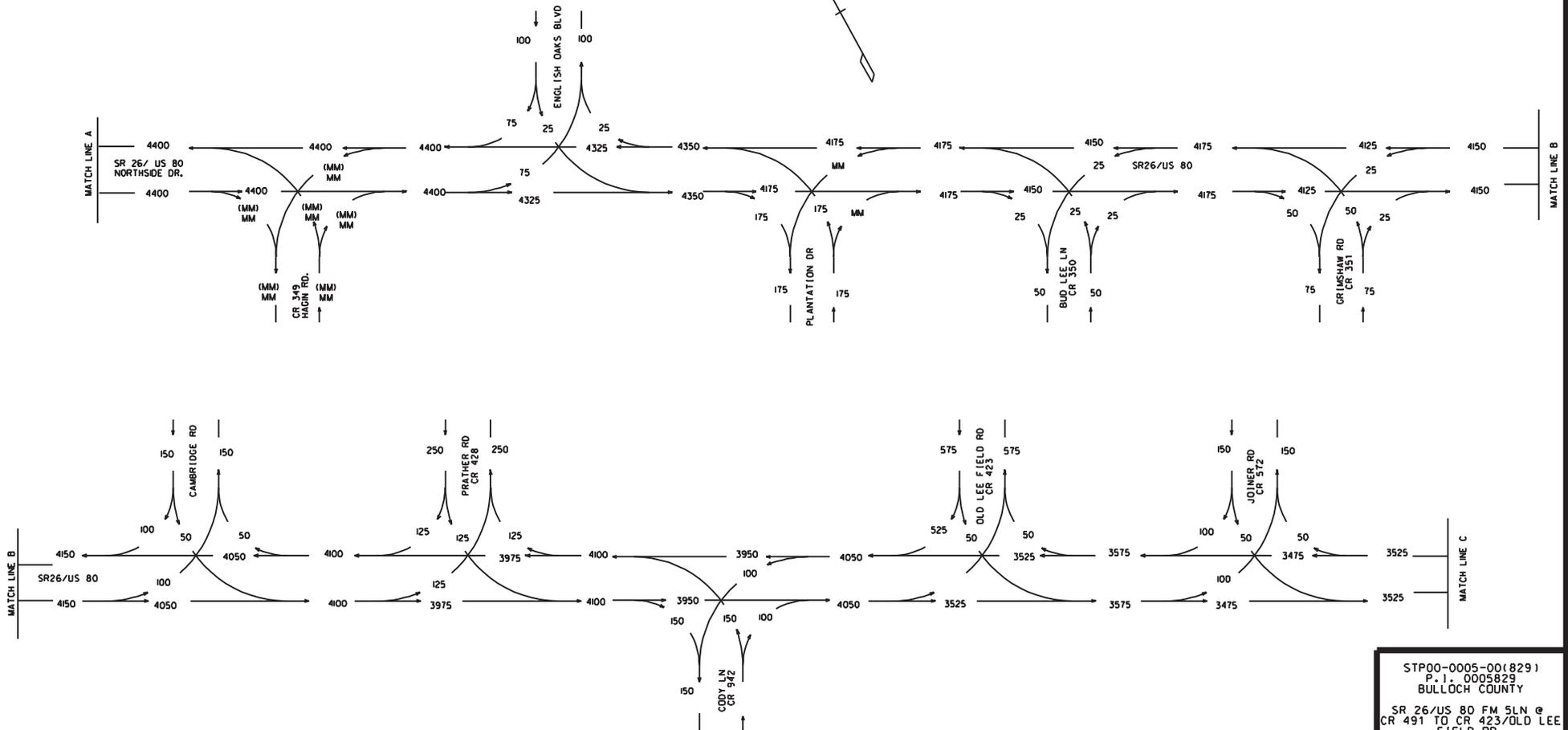
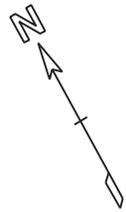


STP00-0005-00(829)
P.I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

24-HR. T = 7%
S.U. = 4%
C.O.M.B. = 3%

RFH
3/22

EXISTING 2011 ADT



STP00-0005-00(829)
 P.I. 0005829
 BULLOCH COUNTY

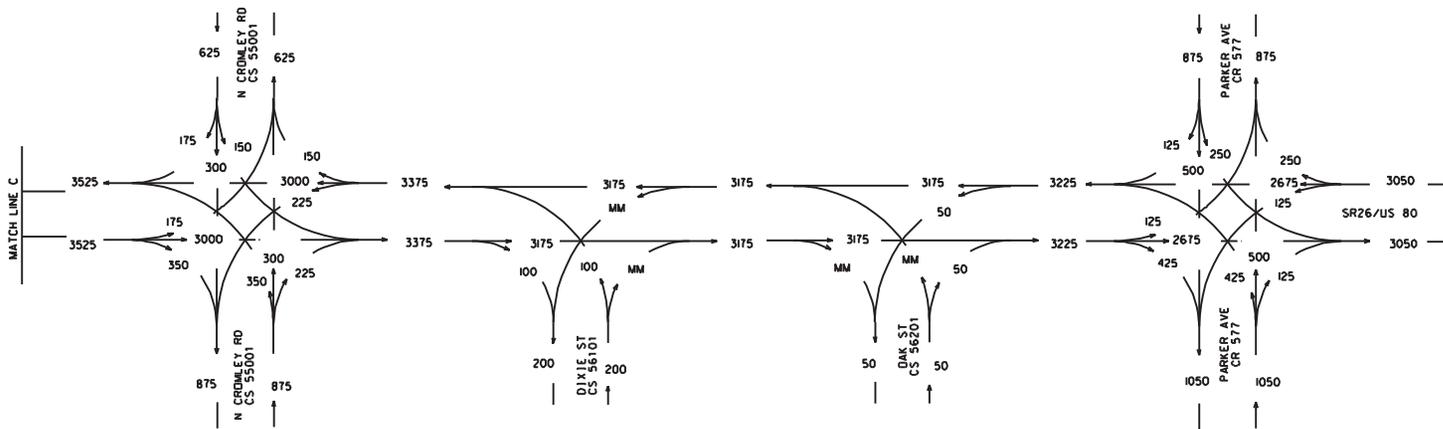
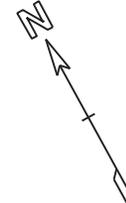
SR 26/US 80 FM 5LN @
 CR 491 TO CR 423/OLD LEE
 FIELD RD.

24-HR. T = 7%
 S.U. = 4%
 COMB. = 3%

RFH
3/12

EXISTING 2011 ADT

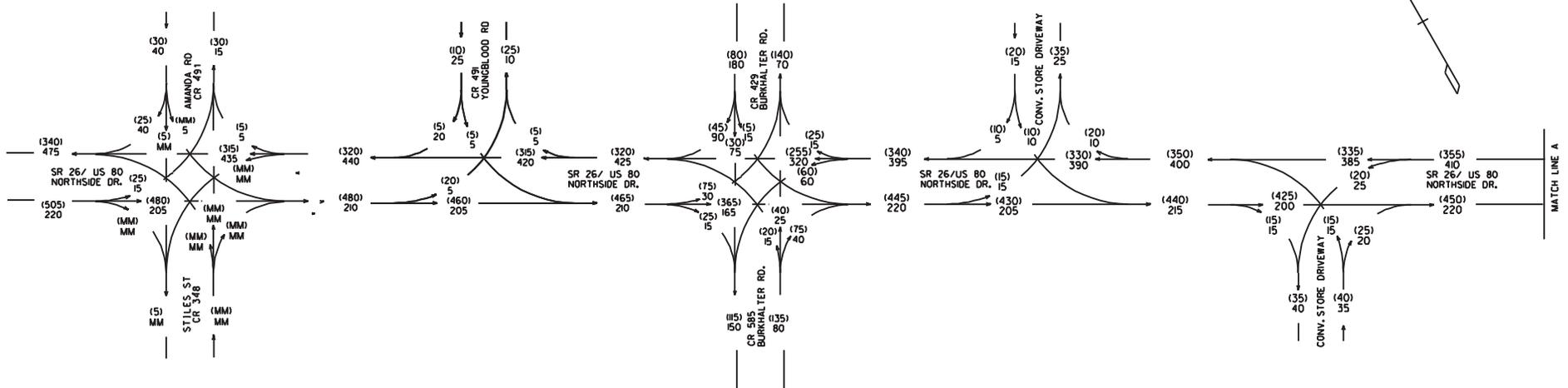
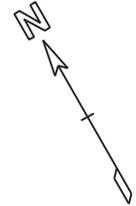
BULLOCH COUNTY



STP00-0005-00(829)
P.I. 0005829
BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
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24-HR. T = 7%
S.U. = 4%
COMB. = 3%
MM
3/2

2011 DHV PM=(000)
2011 DHV AM=000

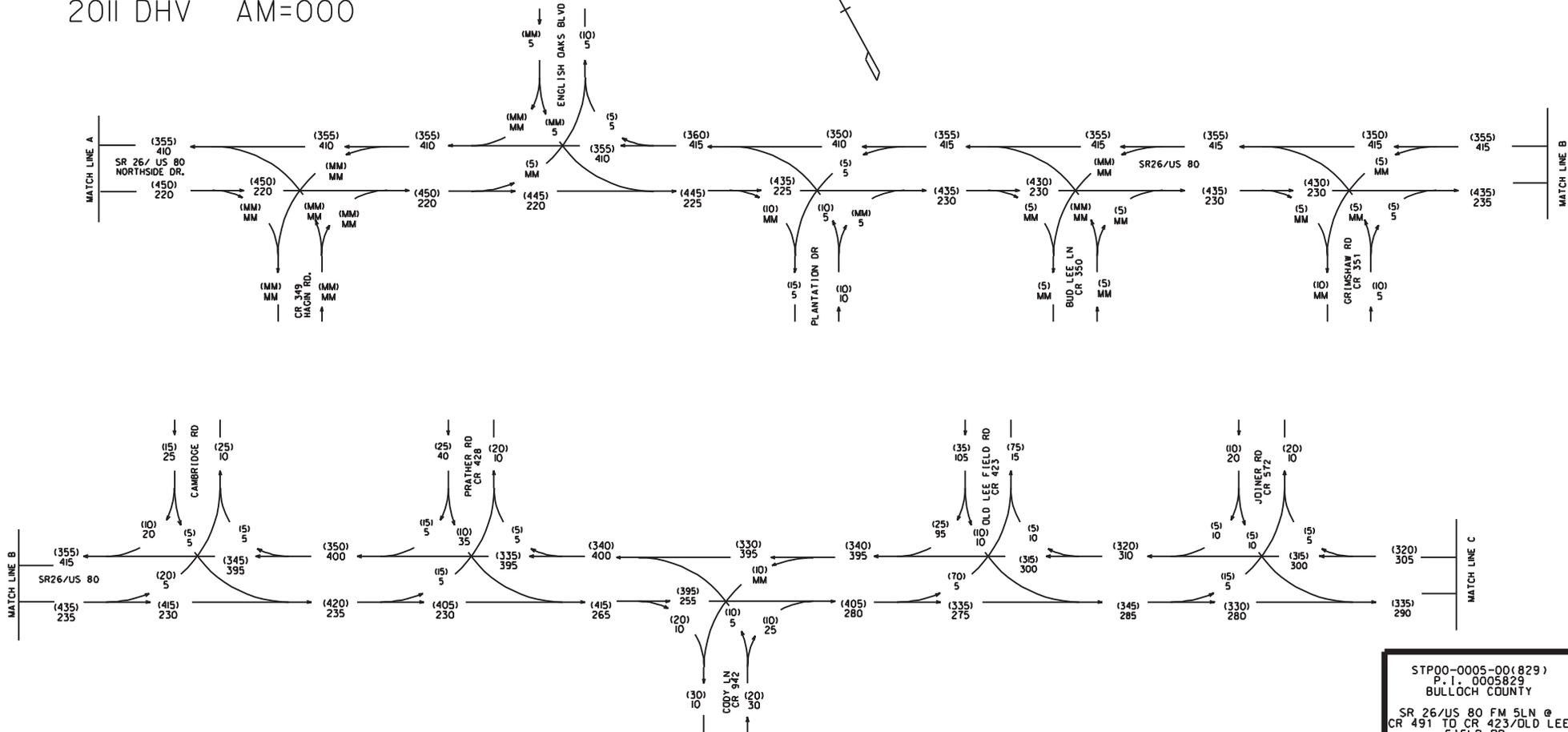
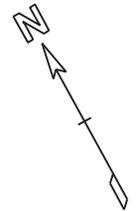
BULLOCH COUNTY



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BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

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S.U. = 4%
CMB. = 3%

2011 DHV PM=(000)
2011 DHV AM=000

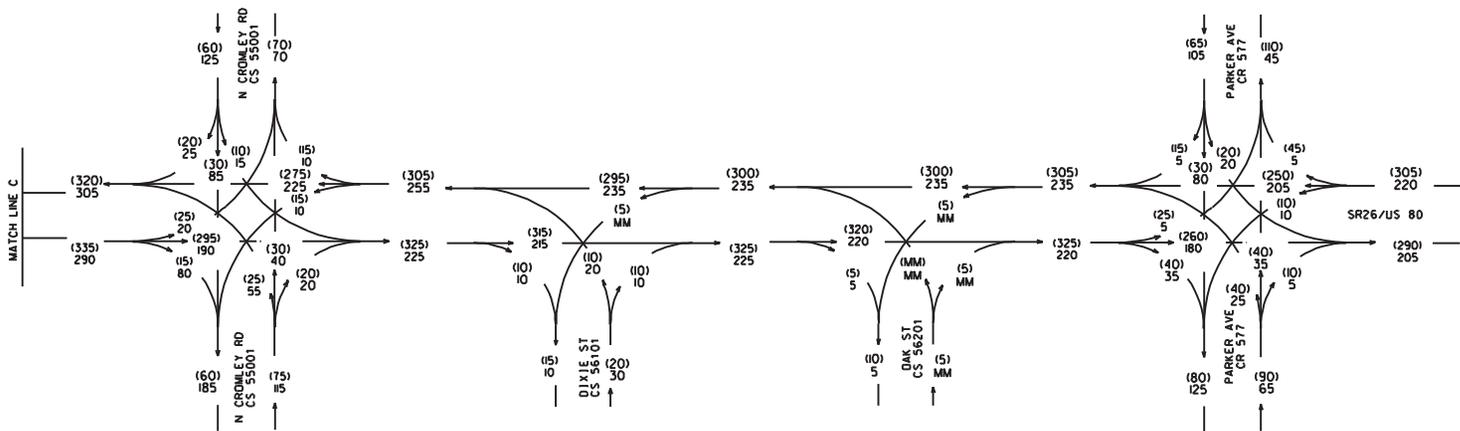
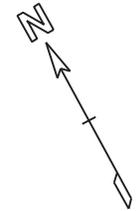


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BULLOCH COUNTY
SR 26/US 80 FM 5LN @
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FIELD RD.

T =7%
S.U. =4%
COMB. =3%

2011 DHV PM=(000)
2011 DHV AM=000

BULLOCH COUNTY



STP00-0005-00(829)
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BULLOCH COUNTY
SR 26/US 80 FM 5LN @
CR 491 TO CR 423/OLD LEE
FIELD RD.

T =7%
S.U. =4%
CDB =3%

Traffic Projections/Forecasting Summary Sheet

STP00-0005-00(829)

P.I. # 0005829

Bulloch County

Year the counts were taken 2011

Growth Factors

Build

No Build

Growth for Build

Growth for No Build

Existing Year to Base Year 2%

Existing to Base Year 2%

Base Year to Design Year 2%

Base to Design Year 2%

K = 10%

K = 9%

D = 55%

D = 55%

Assumptions

- Looked at 10 year trend.
- P.I. # 0010364 (roundabout at Burkhalter Rd) will open in 2016.
- Used P.I. # 0010364 (roundabout at Burkhalter Rd) project traffic turning volumes and truck percentages.
- Changed route of eastbound traffic into convenience store east of Burkhalter Rd to Burkhalter Rd after roundabout project changes entrance to right in/right out only.

Phone: _____ Fax: _____
 E-Mail: _____

_____ Directional Two-Lane Highway Segment Analysis _____

Analyst Brad Saxon
 Agency/Co. GDOT
 Date Performed 7/27/2010
 Analysis Time Period PM
 Highway SR 26
 From/To Burkhalter-Brooklet City Limit
 Jurisdiction Bulloch
 Analysis Year 2038
 Description Westbound - Build with Passing Lane

_____ Input Data _____

Highway class	Class 1		Peak-hour factor, PHF	0.88	
Shoulder width	6.0	ft	% Trucks and buses	7	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	2.1	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Rolling		% Recreational vehicles	0	%
Grade: Length		mi	% No-passing zones	60	%
Up/down		%	Access points/mi	8	/mi

Analysis direction volume, Vd 675 veh/h
 Opposing direction volume, Vo 820 veh/h

_____ Average Travel Speed _____

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	1.5	1.5
PCE for RVs, ER	1.1	1.1
Heavy-vehicle adj. factor, (note-5) fHV	0.966	0.966
Grade adj. factor, (note-1) fG	0.99	0.99
Directional flow rate, (note-2) vi	802 pc/h	974 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, (note-3) S FM - mi/h
 Observed volume, (note-3) Vf - veh/h

Estimated Free-Flow Speed:

Base free-flow speed, (note-3) BFFS 58.0 mi/h
 Adj. for lane and shoulder width, (note-3) fLS 0.0* mi/h
 Adj. for access points, (note-3) fA 2.0 mi/h

Free-flow speed, FFSD 56.0 mi/h

Adjustment for no-passing zones, fnp 1.1* mi/h
 Average travel speed, ATSD 41.1 mi/h

Percent Time-Spent-Following

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor, (note-1) fG	1.00	1.00
Directional flow rate, (note-2) vi	767 pc/h	932 pc/h
Base percent time-spent-following, (note-4) BPTSFD	69.4 %	
Adjustment for no-passing zones, fnp	20.7	
Percent time-spent-following, PTSFD	78.7 %	

Level of Service and Other Performance Measures

Level of service, LOS	D
Volume to capacity ratio, v/c	0.47
Peak 15-min vehicle-miles of travel, VMT15	403 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1417 veh-mi
Peak 15-min total travel time, TT15	9.8 veh-h

Notes:

1. If the highway is extended segment (level) or rolling terrain, fG = 1.0
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only.
4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

Passing Lane Analysis

Total length of analysis segment, Lt	2.1	mi
Length of two-lane highway upstream of the passing lane, Lu	0.2	mi
Length of passing lane including tapers, Lpl	1.2	mi
Average travel speed, ATSD (from above)	41.1	mi/h
Percent time-spent-following, PTSFD (from above)	78.7	
Level of service, (note-1) LOSd (from above)	D	

Average Travel Speed

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	1.70	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-1.00	mi
Adj. factor for the effect of passing lane on average speed, fpl	1.11	
Average travel speed including passing lane, (note-2) ATSpl	44.9	

Percent Time-Spent-Following

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	5.23	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-4.53	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	0.62	
Percent time-spent-following including passing lane, (note-3) PTSFpl	52.3	%

Level of Service and Other Performance Measures (note-4)

Level of service including passing lane, LOSpl	D	
Peak 15-min total travel time, TT15	9.0	veh-h

Notes:

1. If LOSd = F, passing lane analysis cannot be performed.
2. If Ld < 0, use alternative Equation 20-22.
3. If Ld < 0, use alternative Equation 20-20.
4. v/c, VMT15 , and VMT60 are calculated on Directional Two-Lane Highway Segment Worksheet.

* These items have been entered or edited to override calculated value

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst Brad Saxon
Agency/Co. GDOT
Date Performed 1-4-13
Analysis Time Period AM
Highway SR 26
From/To Burkhalter-Brooklet City Limit
Jurisdiction Bulloch County
Analysis Year 2038
Description Westbound - Build with Passing Lane

Input Data

Highway class	Class 1	Peak-hour factor, PHF	0.88	
Shoulder width	6.0 ft	% Trucks and buses	7	%
Lane width	12.0 ft	% Trucks crawling	0.0	%
Segment length	2.2 mi	Truck crawl speed	0.0	mi/hr
Terrain type	Rolling	% Recreational vehicles	0	%
Grade: Length	mi	% No-passing zones	60	%
Up/down	%	Access points/mi	8	/mi

Analysis direction volume, Vd 800 veh/h
Opposing direction volume, Vo 450 veh/h

Average Travel Speed

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	1.5	1.9
PCE for RVs, ER	1.1	1.1
Heavy-vehicle adj. factor, (note-5) fHV	0.966	0.941
Grade adj. factor, (note-1) fG	0.99	0.93
Directional flow rate, (note-2) vi	950 pc/h	584 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, (note-3) S FM - mi/h
Observed volume, (note-3) Vf - veh/h

Estimated Free-Flow Speed:

Base free-flow speed, (note-3) BFFS 58.0 mi/h
Adj. for lane and shoulder width, (note-3) fLS 0.0* mi/h
Adj. for access points, (note-3) fA 2.0 mi/h

Free-flow speed, FFSD 56.0 mi/h

Adjustment for no-passing zones, fnp 1.1* mi/h
Average travel speed, ATSD 43.0 mi/h

Percent Time-Spent-Following

Direction	Analysis (d)	Opposing (o)		
PCE for trucks, ET	1.0	1.5		
PCE for RVs, ER	1.0	1.0		
Heavy-vehicle adjustment factor, fHV	1.000	0.966		
Grade adjustment factor, (note-1) fG	1.00	0.94		
Directional flow rate, (note-2) vi	909	563	pc/h	pc/h
Base percent time-spent-following, (note-4) BPTSFD	71.1	%		
Adjustment for no-passing zones, fnp	23.8			
Percent time-spent-following, PTSFD	85.8	%		

Level of Service and Other Performance Measures

Level of service, LOS	E		
Volume to capacity ratio, v/c	0.56		
Peak 15-min vehicle-miles of travel, VMT15	500	veh-mi	
Peak-hour vehicle-miles of travel, VMT60	1760	veh-mi	
Peak 15-min total travel time, TT15	11.6	veh-h	

Notes:

1. If the highway is extended segment (level) or rolling terrain, fG = 1.0
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only.
4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

Passing Lane Analysis

Total length of analysis segment, Lt	2.2	mi
Length of two-lane highway upstream of the passing lane, Lu	0.2	mi
Length of passing lane including tapers, Lpl	1.2	mi
Average travel speed, ATSD (from above)	43.0	mi/h
Percent time-spent-following, PTSFD (from above)	85.8	
Level of service, (note-1) LOSd (from above)	E	

Average Travel Speed

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	1.70	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-0.90	mi
Adj. factor for the effect of passing lane on average speed, fpl	1.11	
Average travel speed including passing lane, (note-2) ATSpl	46.9	

Percent Time-Spent-Following

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	4.24	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-3.44	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	0.62	
Percent time-spent-following including passing lane, (note-3) PTSFpl	57.3	%

Level of Service and Other Performance Measures (note-4)

Level of service including passing lane, LOSpl	C	
Peak 15-min total travel time, TT15	10.7	veh-h

Notes:

1. If LOSd = F, passing lane analysis cannot be performed.
2. If Ld < 0, use alternative Equation 20-22.
3. If Ld < 0, use alternative Equation 20-20.
4. v/c, VMT15 , and VMT60 are calculated on Directional Two-Lane Highway Segment Worksheet.

* These items have been entered or edited to override calculated value

Phone: _____ Fax: _____
 E-Mail: _____

_____ Directional Two-Lane Highway Segment Analysis _____

Analyst Brad Saxon
 Agency/Co. GDOT
 Date Performed 1-4-13
 Analysis Time Period PM
 Highway SR 26
 From/To Burkhalter-Brooklet City Limit
 Jurisdiction Bulloch County
 Analysis Year 2038
 Description Eastbound - Build with Passing Lane

_____ Input Data _____

Highway class	Class 1		Peak-hour factor, PHF	0.88	
Shoulder width	6.0	ft	% Trucks and buses	7	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	2.1	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Rolling		% Recreational vehicles	0	%
Grade: Length		mi	% No-passing zones	60	%
Up/down		%	Access points/mi	8	/mi

Analysis direction volume, Vd 820 veh/h
 Opposing direction volume, Vo 675 veh/h

_____ Average Travel Speed _____

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	1.5	1.5
PCE for RVs, ER	1.1	1.1
Heavy-vehicle adj. factor, (note-5) fHV	0.966	0.966
Grade adj. factor, (note-1) fG	0.99	0.99
Directional flow rate, (note-2) vi	974 pc/h	802 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, (note-3) S FM	-	mi/h
Observed volume, (note-3) Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, (note-3) BFFS	58.0	mi/h
Adj. for lane and shoulder width, (note-3) fLS	0.0*	mi/h
Adj. for access points, (note-3) fA	2.0	mi/h
Free-flow speed, FFSD	56.0	mi/h
Adjustment for no-passing zones, fnp	1.1*	mi/h
Average travel speed, ATSD	41.1	mi/h

Percent Time-Spent-Following

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor, (note-1) fG	1.00	1.00
Directional flow rate, (note-2) vi	932 pc/h	767 pc/h
Base percent time-spent-following, (note-4) BPTSFD	73.7 %	
Adjustment for no-passing zones, fnp	21.4	
Percent time-spent-following, PTSFD	85.4 %	

Level of Service and Other Performance Measures

Level of service, LOS	E
Volume to capacity ratio, v/c	0.57
Peak 15-min vehicle-miles of travel, VMT15	489 veh-mi
Peak-hour vehicle-miles of travel, VMT60	1722 veh-mi
Peak 15-min total travel time, TT15	11.9 veh-h

Notes:

1. If the highway is extended segment (level) or rolling terrain, fG = 1.0
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only.
4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

Passing Lane Analysis

Total length of analysis segment, Lt	2.1 mi
Length of two-lane highway upstream of the passing lane, Lu	0.2 mi
Length of passing lane including tapers, Lpl	1.0 mi
Average travel speed, ATSD (from above)	41.1 mi/h
Percent time-spent-following, PTSFD (from above)	85.4
Level of service, (note-1) LOSd (from above)	E

Average Travel Speed

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	1.70 mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-0.80 mi
Adj. factor for the effect of passing lane on average speed, fpl	1.11
Average travel speed including passing lane, (note-2) ATSpl	44.7

Percent Time-Spent-Following

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	4.08 mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-3.18 mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	0.62
Percent time-spent-following including passing lane, (note-3) PTSFpl	57.6 %

Level of Service and Other Performance Measures (note-4)

Level of service including passing lane, LOSpl	D	
Peak 15-min total travel time, TT15	10.9	veh-h

Notes:

1. If LOSd = F, passing lane analysis cannot be performed.
2. If Ld < 0, use alternative Equation 20-22.
3. If Ld < 0, use alternative Equation 20-20.
4. v/c, VMT15 , and VMT60 are calculated on Directional Two-Lane Highway Segment Worksheet.

* These items have been entered or edited to override calculated value

Phone: _____ Fax: _____
 E-Mail: _____

_____ Directional Two-Lane Highway Segment Analysis _____

Analyst Brad Saxon
 Agency/Co. GDOT
 Date Performed 1/4/13
 Analysis Time Period AM
 Highway SR 26
 From/To Burkhalter-Brooklet City Limit
 Jurisdiction Bulloch County
 Analysis Year 2038
 Description Eastbound - Build with Passing lane

_____ Input Data _____

Highway class	Class 1		Peak-hour factor, PHF	0.88	
Shoulder width	6.0	ft	% Trucks and buses	7	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	2.1	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Rolling		% Recreational vehicles	0	%
Grade: Length		mi	% No-passing zones	60	%
Up/down		%	Access points/mi	8	/mi

Analysis direction volume, Vd 450 veh/h
 Opposing direction volume, Vo 800 veh/h

_____ Average Travel Speed _____

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	1.9	1.5
PCE for RVs, ER	1.1	1.1
Heavy-vehicle adj. factor, (note-5) fHV	0.941	0.966
Grade adj. factor, (note-1) fG	0.93	0.99
Directional flow rate, (note-2) vi	584 pc/h	950 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, (note-3) S FM - mi/h
 Observed volume, (note-3) Vf - veh/h

Estimated Free-Flow Speed:

Base free-flow speed, (note-3) BFFS 58.0 mi/h
 Adj. for lane and shoulder width, (note-3) fLS 0.0* mi/h
 Adj. for access points, (note-3) fA 2.0 mi/h

Free-flow speed, FFSD 56.0 mi/h

Adjustment for no-passing zones, fnp 1.1* mi/h
 Average travel speed, ATSD 43.0 mi/h

Percent Time-Spent-Following

Direction	Analysis (d)	Opposing (o)		
PCE for trucks, ET	1.5	1.0		
PCE for RVs, ER	1.0	1.0		
Heavy-vehicle adjustment factor, fHV	0.966	1.000		
Grade adjustment factor, (note-1) fG	0.94	1.00		
Directional flow rate, (note-2) vi	563	909	pc/h	pc/h
Base percent time-spent-following, (note-4) BPTSFD	59.7	%		
Adjustment for no-passing zones, fnp	24.3			
Percent time-spent-following, PTSFD	69.0	%		

Level of Service and Other Performance Measures

Level of service, LOS	D		
Volume to capacity ratio, v/c	0.34		
Peak 15-min vehicle-miles of travel, VMT15	268	veh-mi	
Peak-hour vehicle-miles of travel, VMT60	945	veh-mi	
Peak 15-min total travel time, TT15	6.2	veh-h	

Notes:

1. If the highway is extended segment (level) or rolling terrain, fG = 1.0
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only.
4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

Passing Lane Analysis

Total length of analysis segment, Lt	2.1	mi
Length of two-lane highway upstream of the passing lane, Lu	0.2	mi
Length of passing lane including tapers, Lpl	1.0	mi
Average travel speed, ATSD (from above)	43.0	mi/h
Percent time-spent-following, PTSFD (from above)	69.0	
Level of service, (note-1) LOSd (from above)	D	

Average Travel Speed

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	1.70	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-0.80	mi
Adj. factor for the effect of passing lane on average speed, fpl	1.10	
Average travel speed including passing lane, (note-2) ATSpl	46.4	

Percent Time-Spent-Following

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	6.80	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-5.90	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	0.61	
Percent time-spent-following including passing lane, (note-3) PTSFpl	45.4	%

Level of Service and Other Performance Measures (note-4)

Level of service including passing lane, LOSpl	C	
Peak 15-min total travel time, TT15	5.8	veh-h

Notes:

1. If LOSd = F, passing lane analysis cannot be performed.
2. If Ld < 0, use alternative Equation 20-22.
3. If Ld < 0, use alternative Equation 20-20.
4. v/c, VMT15 , and VMT60 are calculated on Directional Two-Lane Highway Segment Worksheet.

* These items have been entered or edited to override calculated value

Phone: _____ Fax: _____
 E-mail: _____

PLANNING ANALYSIS

Analyst: Rebecca Thigpen
 Agency/Co: GDOT
 Date: 2/11/2013
 Analysis Period: AM/PM
 Highway: SR 26
 From/To: Burklalter Rd./Brooklet City L
 Jurisdiction: Bulloch Co.
 Analysis Year: 2038
 Project ID: 4 Lane Divided Median

INPUT DATA

Total AADT volume, AADT	17450	vpd
Proportion AADT during peak hour, K	0.10	
Percent peak-hour traffic in heaviest direction, D	60	%
Trucks	7	%
Terrain type	Rolling	
Base free-flow speed, BFFS	58.0	mph

ANALYSIS

DDHV = AADT x D x K
 DDHV = 17450 x 0.60 x 0.10 = 1047

Volume for :		LOS
4-lane highway = 1047	vph/2 lanes = 523	vphpl B
6-lane highway = 1047	vph/3 lanes = 349	vphpl A

LEVEL OF SERVICE

		Free-Flow Speed = 60 mph					Free-Flow Speed = 50 mph				
		Percent Trucks									
	LOS	0	5	10	15	20	0	5	10	15	20
Terrain Level	A	560	550	530	520	510	440	430	420	410	400
	B	920	900	870	850	840	710	700	680	660	650
	C	1310	1280	1250	1220	1190	1030	1000	980	960	940
	D	1680	1640	1600	1570	1530	1350	1320	1290	1260	1230
	E	1870	1820	1780	1740	1700	1610	1570	1530	1500	1460
Rolling	A	560	520	490	460	430	440	410	380	360	340
	B	920	850	800	750	710	710	660	620	580	550
	C	1310	1220	1140	1070	1010	1030	960	900	840	790
	D	1680	1570	1470	1380	1300	1350	1260	1180	1100	1040
	E	1870	1740	1620	1520	1440	1610	1500	1400	1310	1240
Mountain	A	560	480	420	370	330	440	370	320	290	260

B	920	780	680	600	540	710	610	530	470	420
C	1310	1120	970	860	770	1030	880	760	680	610
D	1680	1430	1250	1100	990	1350	1150	1000	890	800
E	1870	1590	1380	1220	1100	1610	1370	1190	1050	950

Assumptions: highway with 60 mi/h FFS has 8 access points/mi; highway with 50 mi/h FFS has 25 access points/mi; lane width = 12 ft; shoulder width > 6 ft; divided highway; PHF = 0.88; all heavy vehicles are trucks and regular commuters

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

US 80/SR 26 from CR 491/Amanda Rd to CR 423/Old Leefield Rd
STP00-0005-00(829), Bulloch County
P. I. No.: 0005829

February 6, 2013 @ 9:30 AM
Location: Statesboro Area Office

Concept Meeting Minutes

Attendance

Brent Moseley	GDOT/OPD	912-427-5749	bmoseley@dot.ga.gov
Dennis Odom	GDOT/D5 Design	912-427-5716	dodom@dot.ga.gov
Brad Saxon	GDOT/Pre-Construction	912-427-5715	bsaxon@dot.ga.gov
Emily Wingate	GDOT/D5 Design	912-588-2526	ewingate@dot.ga.gov
Christy Lovett	GDOT/Eng Services	912-427-5884	clovett@dot.ga.gov
Maggie Yoder	GDOT/D5 Plan & Prog	912-427-5788	myoder@dot.ga.gov
Ron Nelson	GDOT/Area Engineer	912-871-1103	ronelson@dot.ga.gov
Paul Williams	GDOT/D5 Utilities	912-530-4126	pwilliams@dot.ga.gov
Rob McCall	GDOT/D5 Traf Ops	912-427-5703	rmccall@dot.ga.gov
Michael Murdoch	GDOT/OES	404-631-1178	mmurdoch@dot.ga.gov

Brent Moseley opened the meeting with a brief overview of the project, allowed introductions for everyone in attendance and turned the meeting over to District 5 Design.

The Project Justification Statement was read by Dennis Odom.

The Description of the Proposed Project was also read by Dennis Odom along with the complete Concept Report.

Comments during Meeting

Paul Williams stated that Georgia Power will have reimbursable Utilities.

District Design estimates ROW to be acquired approximately 20' wide throughout project. No displacements are foreseen.

Michael Murdoch asked that the impacts to the two possible historic sites be avoided or minimized to create a no-adverse affect. Design stated that the passing lane will be

constructed on the opposite side of historic sites to reduce impacts. The minor impacts will be due to shoulder widening.

Michael Murdoch and Brent Moseley agreed that no public involvement is necessary due to the minimal ROW impacts with no displacements.

No stream buffers are anticipated.

No VE Study is anticipated.

Design requested to change GDOT to Contractor in the "Providing Detour" & "Providing Material Pits" table section on page 7.

Brad Saxon stated to change the LOS for the No-build alternative on Page 8 from C to D & E.

Brent Moseley asked to verify that the previously scoped 4 Lane project did not have an Approved Concept Report before the project was stopped. If the project has an approved concept, the Revised Concept Report form will need to be used.

The team agreed to include the shoulder widening on opposite roadway side of the passing lanes. The typical section needs to be updated to reflect as well as the cost estimate.

Team visited the project for a site visit and verified that the existing lane width was 12' with a 2' paved shoulder. Table on Page 5 needs to be revised to reflect. No issues were identified during site visit.

The meeting adjourned at 10:30 pm.

After the meeting, the Project Manager requested that the meeting be called the Official Concept Team Meeting due to the project type and low risks involved as long as no objections were made. No one had any objections; therefore, this meeting is the Official Concept Team Meeting.