

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

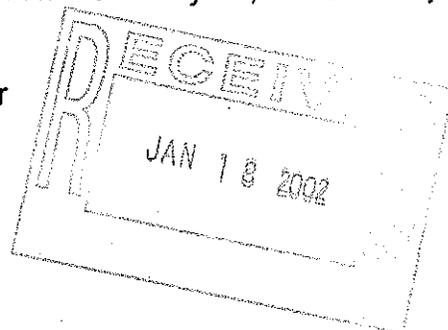
INTERDEPARTMENT CORRESPONDENCE

FILE: STP-0003-00(786) Floyd County
P.I. No.: 0003786
SR 53 @ CR 159/Burlington Road
Safety/Intersection Improvements

OFFICE: Traffic Safety and Design
Atlanta, Georgia
DATE: January 17, 2002

FROM: Phillip M. Allen, State Traffic Safety & Design Engineer

TO: Kent Sager, District Engineer, Cartersville
Attn: Curtis Comer



SUBJECT: APPROVED CONCEPT REPORT

Attached is a copy of the approved concept report on the above listed project for your use and further handling.

This project consists of reconstructing the median cross over on SR 53 to form left turn lanes. CR 159 will be widened 6 ft. symmetrically to provide for the left turn movement. A stop and go traffic signal is warranted.

By copy of this letter, this office is requesting for this project be assigned to Chuck Hasty as Project Manager. The design of this project will be handled under our Consultant Design Contract, STP-0001-00(853).

Should you have any questions, please contact Ken Werho of this office at 404-635-8144.

PMA:kms

Attachments

cc: Frank Danchetz
Tom Turner, w/attach.
David Mulling, w/attach.
[REDACTED]
Herman Griffin, w/attach.
Harvey Keepler, w/attach.
Harry Maddox, w/attach.
General Files

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

FLOYD COUNTY

STP-0003-00(786)

FEDERAL ROUTE NO:

STATE ROUTE NO: 53

GADOT P.I. NO: 0003786

SEE ATTACHED
LOCATION SKETCH

Date of Report: February 3, 1999

RECOMMENDED:

2/3/99
DATE

Marion Hulston
STATE TRAFFIC OPERATIONS ENGINEER

RECOMMENDED:

3/31/99
DATE

Charles Jew
DISTRICT ENGINEER

RECOMMENDED:

4/20/99
DATE

Bill Conubly
CHIEF ENGINEER

APPROVED:

4-22-99
DATE

Wayne Shackelford
COMMISSIONER

Functional Class: S.R. 53 ----- Urban Minor Arterial
C.R. 159 ----- Urban Local Street

Max Degree of Curve: 2 Degrees **Max Grades:** +/- 1.0 %

Design Speed: 55 mph on S.R. 53 & 35 mph on C.R.159

Proposed Typical Section: S.R. 53: 4 – 12’ travel lanes, two in each direction, with offset left turn lanes and right turn lanes constructed in both directions. Shoulders will be 4’ paved, 6’ grassed inside and 10’ paved outside.

C.R. 159: 2 – 12’ travel lanes, one in each direction, with 1 – 12’ left turn lane and curb & gutter.

Proposed major structures: None.

Type Access: By Permit.

Traffic Control During Construction: Existing operation shall be maintained during construction.

Right-of-Way Requirement: Floyd County shall be responsible for the acquisition of all Required Right-of-Way for this project.

Utilities: Floyd County shall be responsible for all Utility adjustments.

Estimated Cost:

<u>Item</u>	<u>Total Amount</u>
R/W -----	\$ 235,000 (By County LGPA)
Utilities -----	\$ 90,000 (By County LGPA)
Estimated LGPA Total -----	\$ 325,000
Construction -----	\$ 219,733
Traffic Signal -----	\$ 35,000
Railroad Equipment -----	\$ 0
E & C 10% -----	\$ 25,473
Total Construction -----	\$ 280,206

Permits Required: None.

Level of Environmental Analysis: Categorical Exclusion.

Level of Public Involvement: None.

Time Saving Procedures Appropriate: Yes (X) No ()

Design Variances Required: None.

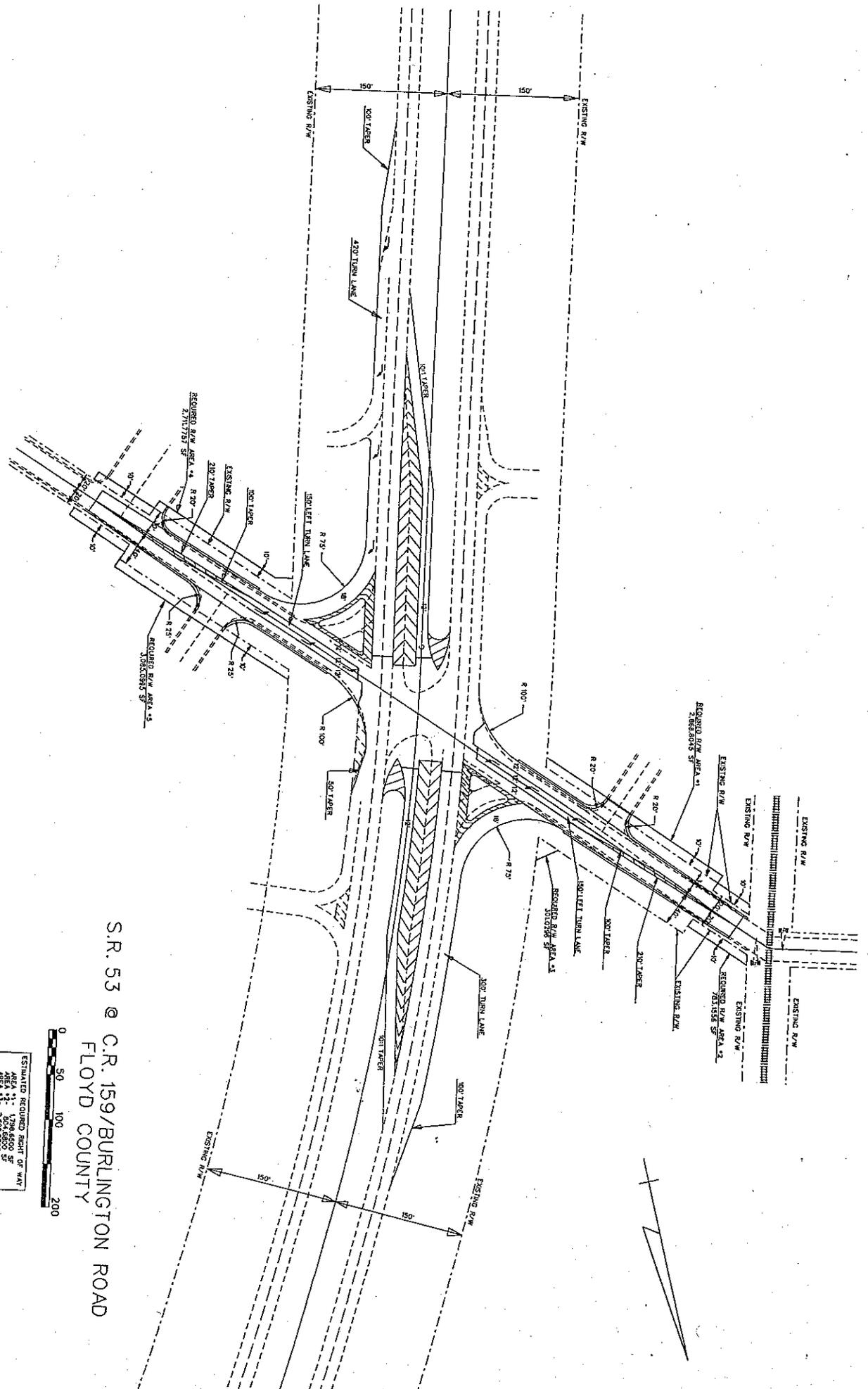
Alternatives Considered: None.

Comments: None.

Prepared By:



Ken Werho



S.R. 53 @ C.R. 159/BURLINGTON ROAD
 FLOYD COUNTY

ESTIMATED REQUIRED RIGHT OF WAY

AREA 1-1	1,728,800 SF
AREA 1-2	2,606,200 SF
AREA 1-3	1,472,744 SF
AREA 1-4	2,283,189 SF
AREA 1-5	1,239,014 SF

0 50 100 200

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE:

OFFICE: District 6

DATE: 9/13/96

FROM: Charles E. Law, P.E., District Engineer

TO: Marion G. Waters, III, P.E., State Traffic Operations Engineer
Attn: Melinda Boothe

SUBJECT: Traffic Engineering Study

Attached is a traffic engineering study for the intersection of State Route 53 @ Burlington Rd. in Floyd County. Seven accidents were documented at this location for the past two years including five right angle type accidents. Warrants # 1, #2, #9, and #11 were met and traffic volume will continue to increase since additional development is underway at this time. It is therefore recommended that this intersection be signalized. Also, it is recommended that the signal poles be set back to allow for a proposed project to offset the center turn lanes on State Route 53 and add left turn lanes on Burlington Rd.

A concept report for the proposed project will be forwarded to your office at a later date.

Please advise if further information is needed.

JF/hm


By: Joseph M. Fletcher
District Traffic Engineer

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

TRAFFIC ENGINEERING INVESTIGATION

CARTERSVILLE, GEORGIA

DISTRICT SIX

September 13, 1996

COUNTY

Floyd

PRIMARY ROUTE

State Route 53

SECONDARY ROUTE

Burlington Rd. (CR 159)

MILE POST

30.1

PREPARED BY:

**HARRY MADDOX
TRANSPORTATION ENGINEER II**

(1)

REQUESTED BY: The subject investigation was initiated by District 6, Traffic Operations due to observed congestion at the intersection.

REASON FOR INVESTIGATION: To determine if a stop and go traffic signal or additional safety features are warranted at this location.

TOPOGRAPHY: The subject intersection is located near the northeast portion of Floyd County which is bordered by Chattooga and Gordon Counties to the North, the State of Alabama to the West, Polk County to the South, and Bartow County to the East.

State Route 53 is generally an East-West arterial route, traversing the center of Floyd County; however, at the subject intersection, State Route 53 runs in a more northerly direction; therefore, a north/south convention for State Route 53 will be used throughout this report. State Route 53 also spans the entire width of District 6 and travels eastward from the Alabama State Line through Floyd, Gordon, and Pickens counties. Development along this corridor consists of agricultural areas, single and multi - family residential developments, and also commercial and industrial property.

At the subject intersection, State Route 53 runs from southwest to northeast and is a four lane roadway consisting of four twelve (12) foot through lanes, a fifty(50) foot grass median with two twelve (12) foot left turn lanes, four (4) foot paved shoulders, and ten (10) foot grass/dirt shoulders. Horizontal alignment is a 3 degree curve to the northeast. The grade at the subject intersection is approximately +1% northbound and -1% southbound on State Route 53. The grade on Burlington Rd. is -1% westbound and 1% eastbound. From the east approach, sight distance along State Route 53 is 1000'+ to the south and 422' to the north. From the west approach, sight distance is 581' to the south and 800' to the north.

Businesses located in the vicinity of the intersection include a Sav-A-Ton convenience store/gas station located in the northeast quadrant, an Exxon convenience store/gas station with car wash located in the southeast quadrant, and an auto parts store located in the southwest quadrant.

EXISTING TRAFFIC CONTROL: Traffic control devices on State Route 53 consist of standard regulatory signing such as "Do Not Enter" and advance warning signs(W2-1). The striping consists of skip white centerline and white edge lines and turn lane striping with white type 2 turn arrows. Markings are in good condition on State Route 53.

Traffic control on Burlington Rd. consists of stop signs, stop bars, and stop ahead signs. The stop bars need to be revitalized.

ADJACENT SIGNALIZED INTERSECTIONS: The nearest signalized intersection on State Route 53 is at the intersection of State Route 140 approximately 2.4 miles to the northeast.

VEHICULAR VOLUMES: The 1995 AADT for this section of State Route 53 is 15,100 vehicles per day. A truck percentage is not available. Peak hour counts are as follows:

	State Route 53 North and South	Burlington Rd. Westbound
0700 - 0800	1091	330
0800 - 0900	894	223
1600 - 1700	1123	265
1700 - 1800	847	301

SPEED STUDY: The posted speed limit on State Route 53 at the subject location is 55 miles per hour. This limit is enforceable by radar surveillance under permit from the Department of Public Safety to The Floyd County Police Department. A spot speed study, conducted in June 1996, revealed an 85th percentile speed of 56 miles per hour and a ten mile per hour pace range of 45 to 54 miles per hour with 47.3% of total sample (observations) within that range. The average speed was calculated to be 47.7 miles per hour.

DELAY STUDY: A calculated delay study was not conducted. On-site observations indicate that delays are moderate during periods from 7:00 - 9:00, and 15:00 - 18:00 Monday - Friday.

ACCIDENT HISTORY: Hard copy accident (1995-1996) reports were obtained from the Floyd County Police Department and the Georgia State Patrol. An analysis of the 17.5 month period, January 1995 to May 15, 1996, revealed that a total of seven (7) accidents , resulting in two (2) non-fatal injuries have occurred at the subject location.

Type of accident is summarized as follows:

	1995	1996
Angle Intersecting	3	2
Rear End	1	0
Sideswipe (SD)	0	0
Left Turn	0	0
Other	1	0

INTERSECTION HISTORY: This is the first traffic engineering study performed at this location within the past few years. Congestion has increased at this location recently due to the construction of the Sav-A-Ton convenience store/gas station.

PROJECTS: No construction projects are programmed for this location at this time.

OTHER INFORMATION: This intersection of State Route 53 and Burlington Rd. is in a rural area with the city of Shannon to the East and Burlington Mills to the West. State Route 53 in this area is a major arterial route connecting the city of Rome to the South with the city of Calhoun to the North. State Route 53 intersects State Route 140 approximately 2.4 miles to the North of the intersection while State Route 1 Loop crosses State Route 53 approximately 5.7 miles to the South.

Old Calhoun Rd. runs parallel to State Route 53 on the East side and provides access to Model High School and to the center of the Shannon community.

CONCLUSIONS: Our findings indicate that volumes on State Route 53 are heavy from 6 AM to 6 PM and that side street volumes are heavy during the AM and PM peak periods. Warrant One was satisfied for 14 hours. Warrant Two was satisfied for 13 hours. Warrant Nine was satisfied for 15 hours. Warrant Eleven was satisfied for 11 hours.

Our investigation revealed that the most hazardous aspect of this intersection is the critical sight distance to the North (which should be improved by cutting bushes in the median) and the fact that too many vehicles are attempting to utilize the median crossover area at the same time, including many large trucks and some buses, thereby limiting visibility for vehicles waiting to make turning movements.

RECOMMENDATIONS

It is recommended that a permit for a stop and go traffic signal at the intersection of State Route 53 and Burlington Rd. be issued to Floyd County and that a project be initiated to provide left turn lanes on Burlington Rd. and offset the turn lanes on State Route 53. The signal should be installed as soon as possible with poles being set back to allow for future construction.

State Route 53 @ Burlington Rd.

Floyd County

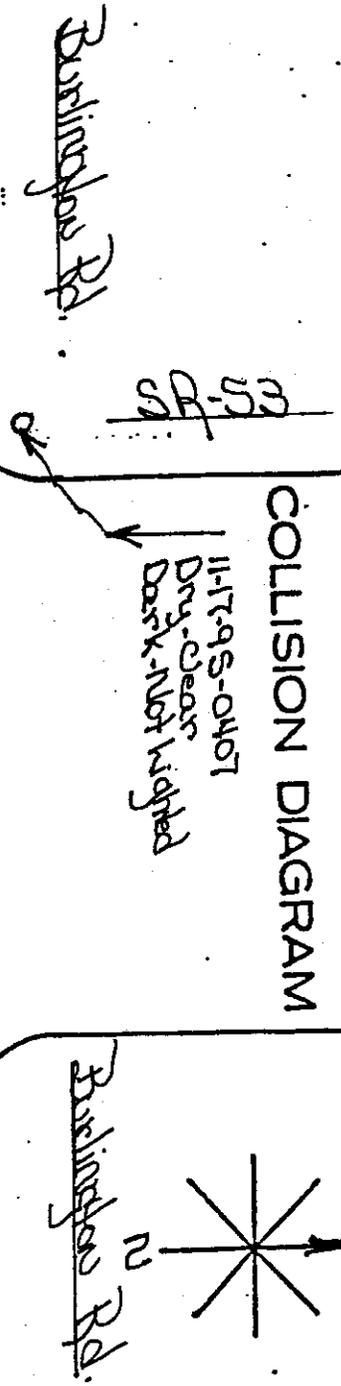
RECOMMENDED BY: Harry A. Maddox DATE 9/13/96
Harry A. Maddox
Transportation Engineer II

RECOMMENDED BY: Joseph M. Fletcher DATE 9/13/96
Joseph M. Fletcher
District Traffic Operations Engineer

RECOMMENDED BY: _____ DATE _____
Marion G. Waters, III, P.E.
State Traffic Operations Engineer

APPROVED BY: _____ DATE _____
Steve Parks
Director of Operations

COLLISION DIAGRAM



11-17-95-0407
Dry-Clear
Dark-Not Lighted

4-14-95-1629
Dry-Clear
D-light

5-12-95-1823
Dry-Clear
D-light

6-30-95-0937
Dry-Clear
Daylight

11-12-95-1434
Clear-Dry
Daylight

- Moving Vehicle
- Pedestrian
- Parked Vehicle
- Parking Vehicle
- Fixed Object
- Rear End Coll...
- Head On Coll.
- Right Angle Coll.

- Left Turn Collision
- Side Swipe
- Out Of Control
- Backing Rear End
- Fatal Accident
- Personal Injury
- Property Damage

INTERSECTION SP-53 @ Burlington Rd.

COUNTY Elford CITY 0334 DIV. Sixth

PERIOD July 95 FROM 1-95 TO 12-31-95 DATE 5-20-96

ACCIDENT SUMMARY

TIME OF DAY	NO. ACCS	DIR OF APPROACH	NO. VEHIS
9 A.M. - 10 A.M.	1	NORTH	2
10 A.M. - 4 P.M.	0	SOUTH	5
4 P.M. - 7 P.M.	3	EAST	0
7 P.M. - 12 MID.	0	WEST	2
12 MID. - 6 A.M.	1	TOTAL	9
WEATHER	NO. ACCS	TYPE ACCIDENT	NO. ACCS
CLEAR	5	SIDESWIPE	0
CLOUDY	0	REAR END	1
RAIN	0	RT. ANGLE	0
FOG	0	LEFT TURN	1
SNOW	0	OTHER	1
TOTAL	9	TOTAL	9
PAVEMENT	NO. ACCS	ACCIDENT SEVERITY	NO. ACCS
DRY	5	FATAL	0
WET	0	NON-FATAL	3
ICY	0	PROR DAM.	6
TOTAL	5	TOTAL	9
TIME OF YEAR	NO. ACCS	TYPE OF VEHICLE	NO. VEHIS
WINTER DEC.-FEB.	0	PASSENGER CAR	0
SPRING MAR.-MAY	2	TRUCKS	0
SUMMER JUNE-AUG	1	OTHER	0
FALL SEPT.-NOV	2	TOTAL	0
TOTAL	5	TOTAL	0

**TRAFFIC ENGINEERING STUDY
TRAFFIC SIGNAL WARRANTS**

NO. _____
DATE. _____

TIME	VOLUMES		WARRANTS			
	MAJOR STREET <i>SR 53</i>	MINOR STREET* <i>Burlington Rd. WB</i>	#1 <i>420/105</i>	#2 <i>620/53</i>	#9	#11
0500	<u>724</u>	<u>100</u>		✓	✓	
0600	<u>1262</u>	<u>193</u>	✓	✓	✓	✓
0700	<u>1691</u>	<u>330</u>	✓	✓	✓	✓
0800	<u>894</u>	<u>223</u>	✓	✓	✓	✓
0900	<u>940</u>	<u>238</u>	✓	✓	✓	✓
1000	<u>826</u>	<u>223</u>	✓	✓	✓	✓
1100	<u>885</u>	<u>258</u>	✓	✓	✓	✓
1200	<u>876</u>	<u>196</u>	✓	✓	✓	✓
1300	<u>893</u>	<u>182</u>	✓	✓	✓	✓
1400	<u>1031</u>	<u>227</u>	✓	✓	✓	✓
1500	<u>1141</u>	<u>260</u>	✓	✓	✓	✓
1600	<u>1123</u>	<u>265</u>	✓	✓	✓	✓
1700	<u>847</u>	<u>301</u>	✓	✓	✓	
1800	<u>563</u>	<u>256</u>	✓		✓	
1900	<u>467</u>	<u>245</u>	✓		✓	
2000	<u>409</u>	<u>143</u>				
2100						
2200						
2300						
2400						
TOTAL	=====	=====				

HOURS WARRANT IS MET: _____

*VOLUMES FOR SINGLE HIGH VOLUME APPROACH ONLY.

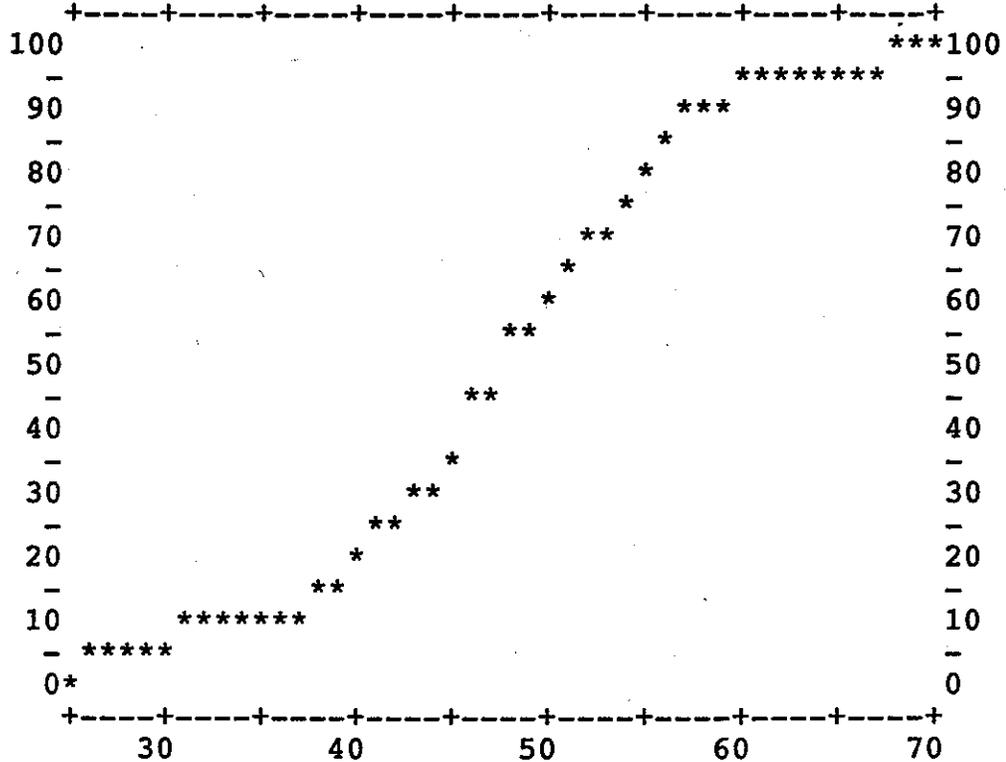
SPEEDPLOT ? Spot Speed Analysis Ver. .00A/McTRANS
 53 e Burlington Rd Floyd County: 30.1

DIRECTION(S).....North/South
 DATE..... 6/ 7/1996
 TIME..... 8:45
 POSTED SPEED LIMIT.55 MPH

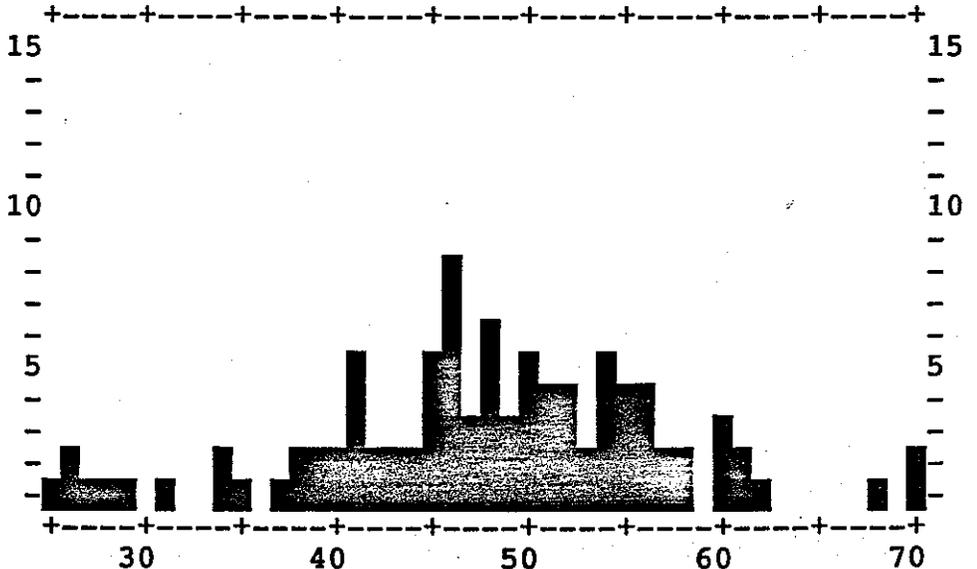
50TH PERCENTILE SPEED.....48
 85TH PERCENTILE SPEED.....56
 10 MPH PACE SPEED.....45 through 54
 PERCENT IN PACE SPEED..... 47.3
 PERCENT OVER PACE SPEED..... 22.6
 PERCENT UNDER PACE SPEED..... 30.1
 RANGE OF SPEEDS.....25 to 70
 VEHICLES OBSERVED.....93
 AVERAGE SPEED.....47.7

MPH	NO.	PCT.	CUM PCT.
<25	0	0.0	0.0
25	1	1.1	1.1
26	2	2.2	3.2
27	1	1.1	4.3
28	1	1.1	5.4
29	1	1.1	6.5
30	0	0.0	6.5
31	1	1.1	7.5
32	0	0.0	7.5
33	0	0.0	7.5
34	2	2.2	9.7
35	1	1.1	10.8
36	0	0.0	10.8
37	1	1.1	11.8
38	2	2.2	14.0
39	2	2.2	16.1
40	2	2.2	18.3
41	5	5.4	23.7
42	2	2.2	25.8
43	2	2.2	28.0
44	2	2.2	30.1
45	5	5.4	35.5
46	7	7.5	43.0
47	3	3.2	46.2
48	6	6.5	52.7
49	3	3.2	55.9
50	5	5.4	61.3
51	4	4.3	65.6
52	4	4.3	69.9
53	2	2.2	72.0
54	5	5.4	77.4
55	4	4.3	81.7
56	4	4.3	86.0
57	2	2.2	88.2
58	2	2.2	90.3
59	0	0.0	90.3
60	3	3.2	93.5
61	2	2.2	95.7
62	1	1.1	96.8
63	0	0.0	96.8
64	0	0.0	96.8
65	0	0.0	96.8
66	0	0.0	96.8
67	0	0.0	96.8
68	1	1.1	97.8
69	0	0.0	97.8
70	2	2.2	100.0
>70	0	0.0	100.0

CUMULATIVE PERCENT VS. SPEED (MPH)



PERCENT VS. SPEED (MPH)



GEORGIA

DEPARTMENT OF TRANSPORTATION

SPEED DATA

DATE: 6-7-96

LOCATION: 53 @ Burlington rd

M.P.: 30.1

SPEED LIMIT: 55 mph

COUNTY: Shannon FLOYD

TIME: 8:45

WEATHER: Clear, DRY

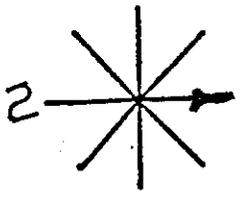
MPH	(N) S E W
70	
69	
68	
67	
66	
65	
64	
63	
62	
61	
60	2
59	
58	1
57	1
56	
55	1
54	1
53	1
52	2
51	3
50	2
49	2
48	4
47	3
46	3
45	4
44	2
43	2
42	2
41	3
40	
39	
38	2
37	1
36	
35	
34	2
33	
32	
31	1
30	
29	1
28	1
27	1
26	1
25	1

MPH	N (E) W	
70		2
69		
68		1
67		
66		
65		
64		
63		
62	1	1
61	2	2
60	1	3
59		
58	1	2
57	1	2
56	4	4
55	3	4
54	4	5
53	1	2
52	2	4
51	1	4
50	3	5
49	1	3
48	2	6
47		3
46	4	7
45	1	5
44		2
43		2
42		2
41	2	5
40	2	2
39	2	2
38		2
37		1
36		
35	1	1
34		2
33		
32		
31		1
30		
29		1
28		1
27		1
26	1	2
25		1

COLLISION DIAGRAM

Burlington Rd.
W. 10th St.

Burlington Rd.



3-14-96-0744
 Clear Dry
 Daylight

4-30-96
 0750
 Clear
 Dry
 Daylight

- Moving Vehicle
- Pedestrian
- Parked Vehicle
- Parking Vehicle
- Fixed Object
- Rear End Coll.
- Head On Coll.
- Right Angle Coll.

- Left Turn Collision
- Side Swipe
- Out Of Control
- Backing Rear End
- Fatal Accident
- Personal Injury
- Property Damage

INTERSECTION SP-53 @ Burlington Rd.

COUNTY Flord CITY 221A DIV. 5114

PERIOD 4/12-4/15/96 FROM 4-9-96 TO 5-15-96 DATE 5-20-96

ACCIDENT SUMMARY

TIME OF DAY	NO. ACCS	DIR OF APPROACH	NO. VEHs
6 A.M.-10 A.M.	2	NORTH	1
10 A.M.-4 P.M.	2	SOUTH	1
4 P.M.-7 P.M.	2	EAST	1
7 P.M.-12 MID.	2	WEST	1
12 MID.-6 A.M.	2	TOTAL	4
WEATHER	NO. ACCS	TYPE ACCIDENT	NO. ACCS
CLEAR	2	SIDESWIPE	2
CLOUDY	2	REAR END	2
RAIN	2	RT. ANGLE	2
FOG	2	LEFT TURN	2
SNOW	2	OTHER	2
TOTAL	2	TOTAL	2
PAVEMENT	NO. ACCS	ACCIDENT SEVERITY	NO. ACCS
DRY	2	FATAL	2
WET	2	NON-FATAL	2
ICY	2	PROP. DAM.	2
TOTAL	2	TOTAL	2
TIME OF YEAR	NO. ACCS	TYPE OF VEHICLE	NO. VEHs
WINTER DEC-FEB.	2	PASSENGER CAR	4
SPRING MAR-MAY	2	TRUCKS	2
SUMMER JUNE-AUG	2	OTHER	2
FALL SEPT-NOV	2	TOTAL	4
TOTAL	2	TOTAL	4

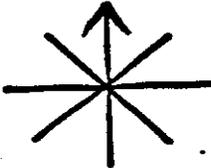
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING AND SAFETY

MANUAL TRAFFIC COUNT

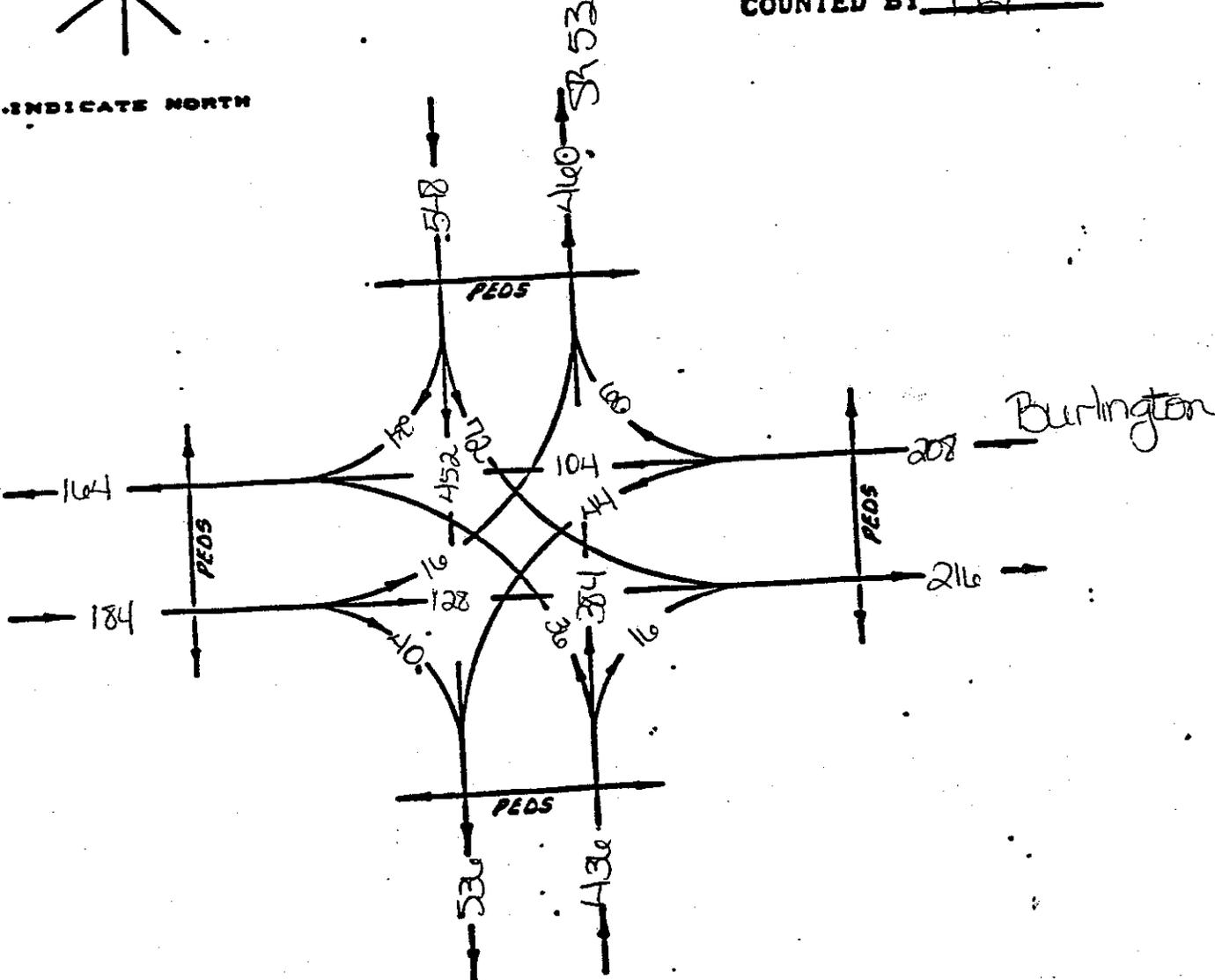
COUNTY Floyd CITY _____

LOCATION SR 53 @ Burlington

DATE 7-10-90
DAY OF WEEK Tues
TIME 4-5
WEATHER Clear
COUNTED BY DB



INDICATE NORTH



VEHICLES PER HOUR ON EACH STREET (TOTAL OF BOTH APPROACHES)
VEHICLES PER HOUR ON HIGHWAY VOLUME, MINOR STREET APPROACH (ONE DIRECTION ONLY)

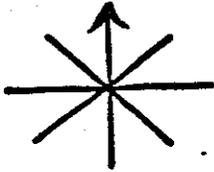
70% W1 W2 _____
ACTUAL _____

DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING AND SAFETY

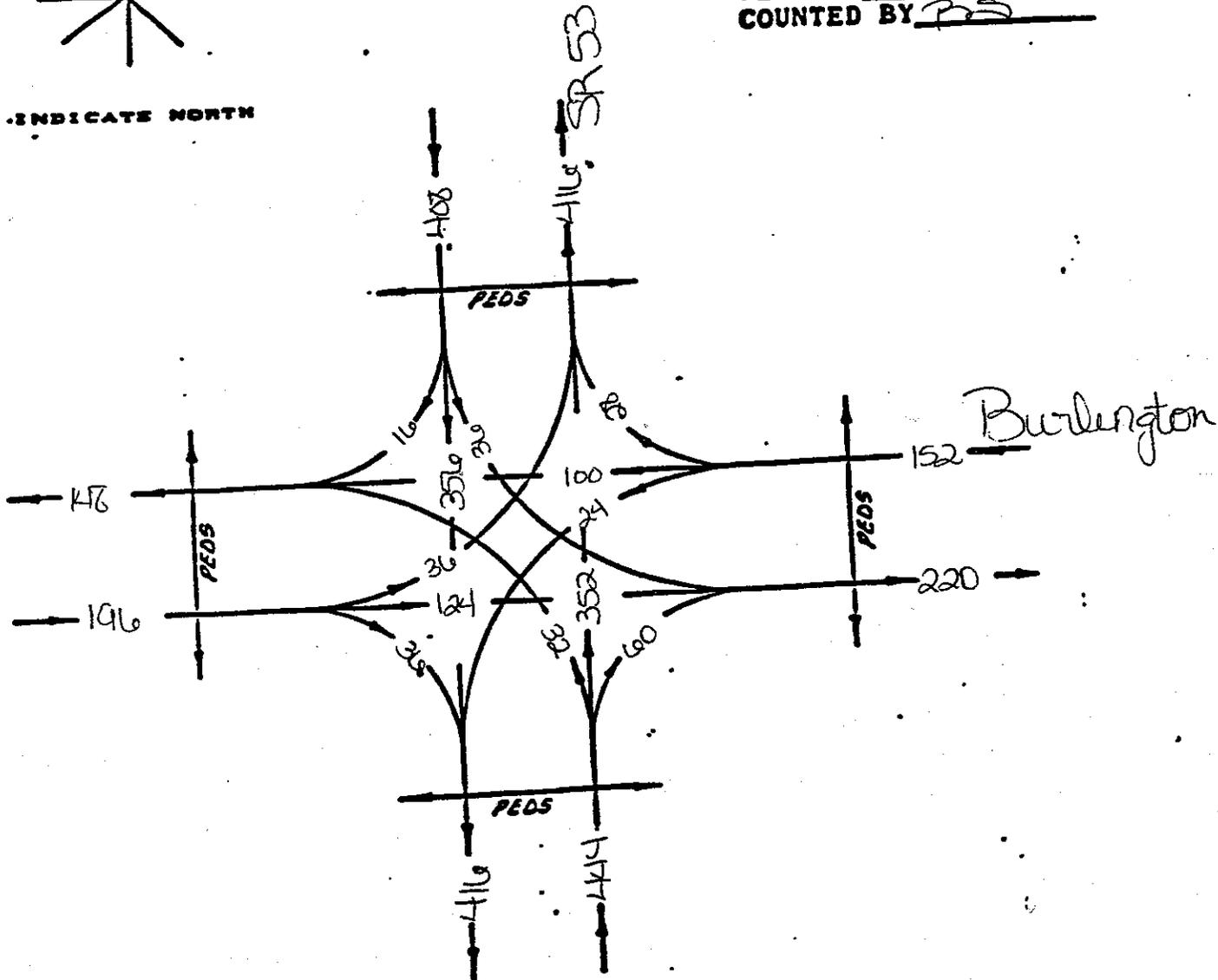
MANUAL TRAFFIC COUNT

COUNTY Floyd CITY _____
LOCATION SR 53 @ Burlington

DATE 7-10-96
DAY OF WEEK Tues
TIME 5-6
WEATHER Clear
COUNTED BY BS

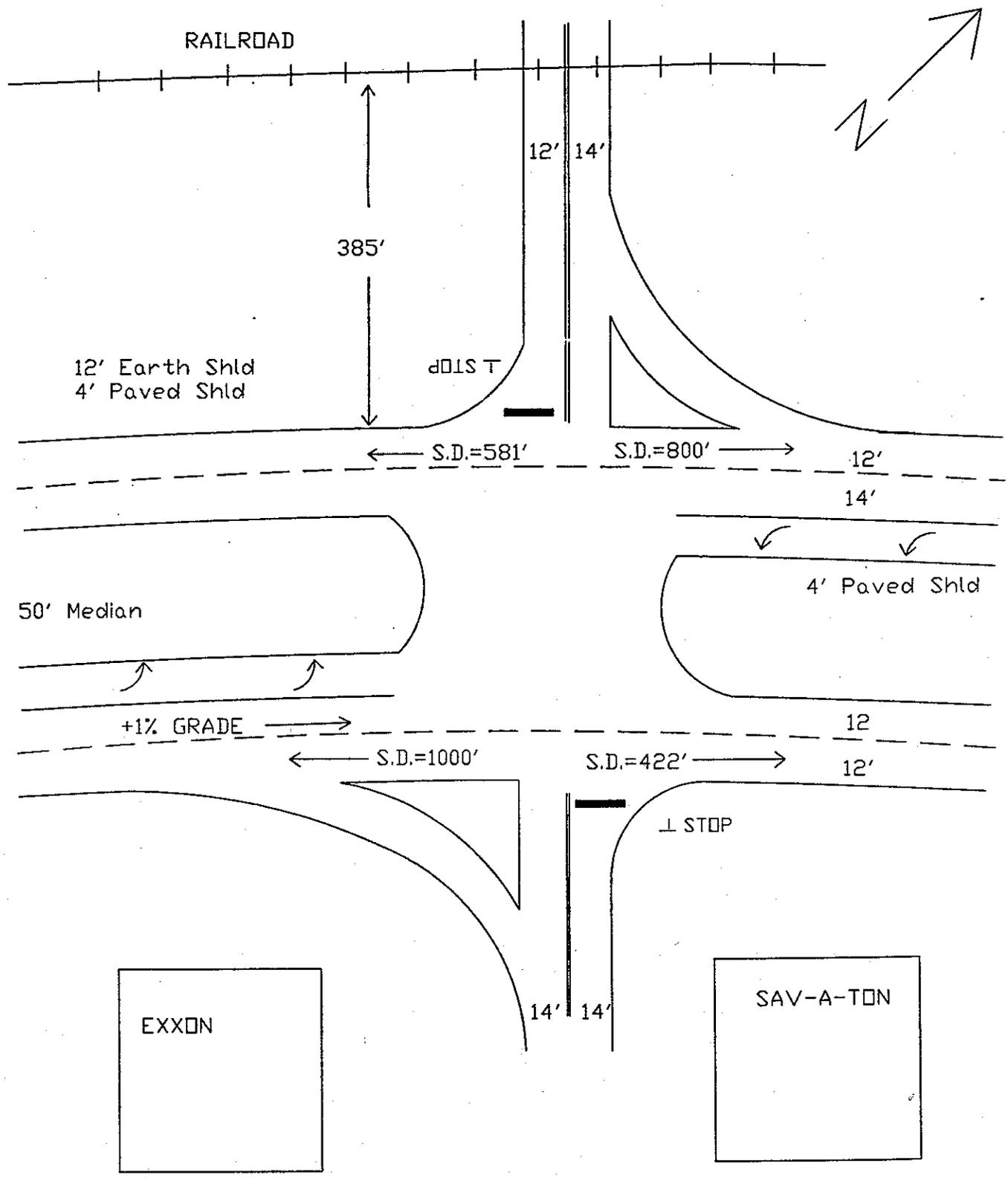


INDICATE NORTH



VEHICLES PER HOUR ON MAJOR STREET (TOTAL OF BOTH APPROACHES)
VEHICLES PER HOUR ON HIGHWAY VOLUME, SINCE STREET APPROACH (ONE DIRECTION ONLY)

TOT W1 W2 _____
ACTUAL _____



SR 53 @ BURLINGTON
MP 30.1
FLOYD COUNTY