

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

RECEIVED

JUL 13 1990

INTERDEPARTMENT CORRESPONDENCE

PRECONSTRUCTION

FILE: PROJ. NO: HES-001-6(36)/WHITFIELD COUNTY OFFICE: ATLANTA, GEORGIA
P.I. NO: 641680

DATE: JULY 9, 1990

FROM: RON COLVIN, PE, STATE TRAFFIC & SAFETY ENGINEER *RCR*

TO: FELTON RUTLEDGE, PE, DISTRICT ENGINEER - CARTERSVILLE

SUBJ: APPROVED CONCEPT REPORT

ATTACHED IS THE ORIGINAL APPROVED CONCEPT REPORT FOR YOUR FILES.

THIS PROJECT IS LOCATED WITHIN A PROPOSED WIDENING PROJECT FR-001-6(19),
P.I. NO. 620630 SCHEDULED FOR FY 94. RECENT AERIAL PHOTOGRAPHY OF THIS AREA IS
AVAILABLE FOR YOUR USE IN THE DESIGN. PLEASE CONTACT THE OFFICE OF
ENVIRONMENT/LOCATION FOR ASSISTANCE.

RC:RAS:gb

ATTACHMENT

CC: CHARLES LEWIS
JUAN DURRENCE
BOB HUMPHREY, W/ATTACHMENT
J.B. JOHNSON, W/ATTACHMENT
GENE SKEEN, W/ATTACHMENT
BASCOMBE HUGHES



DEPARTMENT OF TRANSPORTATION

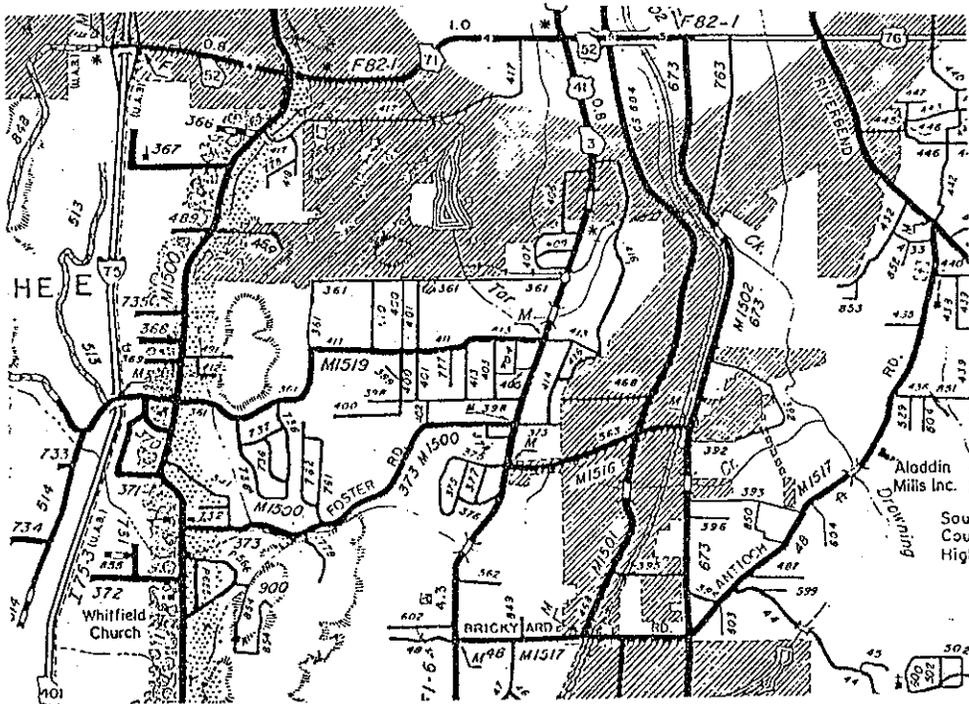
STATE OF GEORGIA

PROJECT CONCEPT REPORT

HES-001-6(36)

WHITFIELD COUNTY

FEDERAL ROUTE NO: 41
STATE ROUTE NO: 3
GADOT P.I. NO: 641680



DATE OF REPORT: 13 JUNE 90

RECOMMENDED:

6/20/90
DATE

Lon Colvin
STATE TRAFFIC AND SAFETY ENGINEER

RECOMMENDED:

6/20/90
DATE

G. C. Lewis
STATE HIGHWAY ENGINEER

APPROVED:

6-28-90
DATE

John G. Hardy
DEPUTY COMMISSIONER

PROJECT CONCEPT REPORT

P.I. NO: 641680 PROJECT NO: HES-001-6(36) WHITFIELD COUNTY ROUTE NO: US 41/SR 3

LOCATION: SR 3 (US 41) AT BRICKYARD RD (CR 48)/POWELL DR - M.P. 8.50

TRAFFIC: SR 3 - 11,980 VPD BRICKYARD RD - 6,465 VPD

EXISTING TYPICAL SECTION: 2-LANE RURAL, 26 FT WIDE WITH 6 FT WIDE GRASS SHOULDERS. BRICKYARD RD IS A 2-LANE RURAL, 24 FT WIDE.

EXISTING TRAFFIC CONTROL: STOP SIGNS ON BRICKYARD RD/POWELL DR.

EXISTING MAJOR STRUCTURES: NONE

STATEMENT OF NEED: TO IMPROVE EFFICIENCY AND SAFETY BY ACCOMMODATING LARGE TRUCKS ENTERING AS WELL AS EXITING BRICKYARD ROAD.

PURPOSE OF PROJECT:

- A. TO WIDEN SR 3 TO ACCOMMODATE THE ADDITION OF LEFT TURN LANES AND A NORTHBOUND RIGHT TURN LANE.
- B. TO WIDEN BRICKYARD RD ON THE NORTH SIDE TO ACCOMMODATE A RIGHT TURN LANE.

LENGTH: INTERSECTION

TERMINI - FROM: 400 FT NORTH OF THE CENTERLINE OF BRICKYARD RD;
THE CENTERLINE OF SR 3.
TO: 400 FT SOUTH OF BRICKYARD RD; 300 FT EAST OF SR 3.

PDP CLASS: MINOR EXISTING FUNCTIONAL CLASS URBAN CONNECTING LINK

MAX DEGREE OF CURVE: 0 DEG. ON SR 3 MAX GRADES: +8% SOUTHBOUND ON SR 3; -6% ON BRICKYARD RD. DESIGN SPEED: 55 MPH

PROPOSED TYPICAL SECTION:

- A. 3-LANE RURAL, 38 FT WIDE ON SR 3 WITH OPPOSING LEFT TURN LANES AND A NORTHBOUND RIGHT TURN LANE
- B. 3-LANE RURAL, 36 FT WIDE ON BRICKYARD RD WITH EXCLUSIVE RIGHT TURN LANE

MAJOR STRUCTURES: NONE

TYPE ACCESS: FREE ACCESS (BY PERMIT)

TRAFFIC CONTROL DURING CONSTRUCTION: EXISTING OPERATIONS TO BE MAINTAINED WHILE UNDER CONSTRUCTION. EXISTING STOP SIGNS NEED TO BE REPLACED AND A STOP AHEAD SIGN IS NEEDED ON BRICKYARD RD. NO SIGNALIZATION AS A PART OF THIS PROJECT.

RIGHT-OF-WAY REQUIREMENT: EXISTING RIGHT-OF-WAY ALONG SR 3 IS 80 FT AND ALONG BRICKYARD RD 40 FT. WHITFIELD COUNTY IS TO PROVIDE ALL ADDITIONAL RIGHTS-OF-WAY FOR THE CONSTRUCTION OF THIS PROJECT.

UTILITIES: WHITFIELD COUNTY IS RESPONSIBLE FOR HAVING RELOCATED ANY AFFECTED UTILITIES.

ESTIMATED COST:

<u>ITEM</u>	<u>TOTAL AMOUNT</u>	
R/W.....#	0	(BY COUNTY)
UTILITIES.....	0	(BY COUNTY)
SUBTOTAL.....	0	
CONSTRUCTION.....	140000	
INFLATION.....	0	
E&C (10%).....	14000	
TOTAL CONSTRUCTION.....#	154000	

PERMITS REQUIRED: GENERAL

LEVEL OF ENVIRONMENTAL ANALYSIS: NOT APPLICABLE

LEVEL OF PUBLIC INVOLVEMENT: NOT APPLICABLE

TIME SAVING PROCEDURES APPROPRIATE: YES (X) NO ()

DESIGN VARIANCES REQUIRED: NONE ANTICIPATED

ALTERNATIVES CONSIDERED: NONE

Rick A. Smith T.E. I
PREPARED BY

sent 11-16

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

HES-001-6(36) FY91 Rdyt/Let 9104
INTERDEPARTMENTAL CORRESPONDENCE

FILE HES- Addition of left turn lanes on SR 3 and a westbound right turn lane on Brickyard Road OFFICE Atlanta, Georgia DATE October 31, 1989 Whitfield County

FROM Ron Colvin, P.E. State Traffic & Safety Engineer

TO Gene Skeen, P.E., State Transportation Programming Engineer

SUBJECT REQUEST ADDITION TO THE WORK PROGRAM

It is requested that Construction Funds be authorized for the subject project as indicated below:

TYPE FUNDS HES

AMOUNT \$350,000.00

WORK DESCRIPTION Addition of left turn lanes on SR 3 and a westbound right turn lane on Brickyard Road.

IMPLEMENTED BY Let Contract

FUNDS NEEDED BY November 1990

If additional information is needed, please contact my office.

RKC:mb
Attachment
cc: Fred McDowell

RECOMMENDED

APPROVED

Alva R. Byrom
Alva Byrom, State Highway Engr.

[Signature]
Hal Rives, Commissioner



Department of Transportation

State of Georgia

No. 2 Capitol Square

Atlanta, Georgia 30334-1002

HAL RIVES
COMMISSIONER
ALVA R. BYROM
STATE HIGHWAY ENGINEER

JAMES D. MCGEE
DEPUTY COMMISSIONER
ARTHUR A. VAUGHN
TREASURER

LOCAL GOVERNMENT PROJECT AGREEMENT

In consideration of the proposed improvements, Whitfield County agrees to provide or perform the following at no cost to the Georgia Department of Transportation for the addition of left turn lanes on SR 3 and a westbound right turn lane on Brickyard Road.

- (X) Provide all necessary rights-of-way and/or easements for the construction of this project and remove existing structures or obstructions within the rights-of-way of this proposed project.
- (X) Make all utility relocations, adjustments or betterments of publicly owned utilities in conflict with this proposed project.
- (X) To cause all privately owned utilities to be relocated or adjusted as necessary to clear construction of this proposed project, including adjustments at railroad crossings if required.
- () Install no traffic signals at new locations on this project without a traffic analysis and concurrence of the need for such signals by the Georgia Department of Transportation.
- () Other -

This 27 day of Sept, 1989

APPROVED Leonard Whaley County Administrator
City/County Official

**Department of Transportation
Traffic Engineering Report
May 30, 1989**

Location: S.R. 3 (U.S. 41) M.L. 8.50 at Brickyard Rd. (C.R. 48)/Powell Drive
County: Whitfield
Requested By: Lenard Whaley, County Administrator
Reason For Investigation: To Determine the Need for a Stop and Go Traffic Signal.

Findings

1. Topography

This is a cross type intersection located 1.83 miles south of the City of Dalton. S.R. 3 is a north/south route, Powell Drive is located on the west side of the intersection and Brickyard Road is on the east side. S.R. 3 (U.S. 41) is a two lane road that is on a tangent at this intersection and runs on an approximate 8% plus grade southbound.

Powell Drive enters S.R. 3 on a 90° angle from the west. This road is not striped, dead ends after a short distance and serves a small number of residential houses.

Brickyard Road is marked as a two lane road that enters S.R. 3 directly across from Powell Drive. It is on a 90° angle to S.R. 3. Brickyard Road is on a vertical curve prior to entering S.R. 3. The last 80-100 ft. into the intersection is on an approximate 6% minus grade.

There are houses located in the southern quadrants of this intersection, while the northern corners are occupied by Carpet Outlet Stores.
(See attached Intersection Sketch and Location Map.)

2. Vehicle Volumes

The average daily traffic along S.R. 3 (U.S. 41) is 11,980 vehicles per day in both directions. The average daily traffic on Brickyard Road in both directions is 6,465 vehicles per day. Counts are not available for Powell Drive. For Hourly Turning Movement Counts, see the attached Manual Traffic Count sheets.

3. Vehicle Speeds

The posted speed limit on S.R. 3 (U.S. 41) is 55 miles per hour. The speed limit is not posted on Brickyard Road or Powell Drive. The attached Spot Speed Study revealed an average 85th percentile speed of 51.46 miles per hour.

4. Pedestrian Movement

Pedestrians were not a problem.

5. Parking

Parking did not appear to be a problem. The Carpet Outlet store in the northwest corner of the intersection has an open paved frontage into S.R. 3 (U.S. 41). However, there is plenty of room so that cars do not park on the right of way.

6. Existing Traffic Control

Brickyard Road and Powell Drive have Stop Signs at their entrance to S.R. 3 (U.S. 41).

7. Accidents

A check of the accident history indicated that there has been 6 accidents at this intersection in the past two years.
(See attached Collision Diagram.)

Three of the accidents were Right Angle, two were Rear End and one was a Sideswipe.

8. Other Information

Sight distance to the north on S.R. 3 (U.S. 41) from this intersection is excellent while sight distance to the south is approximately 630 feet.

As mentioned earlier, S.R. 3, Powell Drive and Brickyard Road are all two lane roads with no additional shoulder paving, except in the northwest corner where the Carpet Outlet Stores frontage is paved out to S.R. 3 (U.S. 41).

The corner radii at this intersection are all relatively small, 20± feet.

There are several industrial plants located east of this intersection on Brickyard Road. However, its biggest use by large trucks and tractor trailers is access to other north/south roads that lead into the heavy industrial area south of S.R. 52 in Dalton.

Because of the topography of this intersection, several problems exist which makes this intersections operation inefficient and potentially hazardous.

The problems associated with this intersection are as follows:

- A. Most of the tractor trailer traffic at this intersection is from S.R. 3 (U.S. 41) north to east on Brickyard Road and its reversal. Because of the small radii and the road widths, trucks making the north to east movement must wait until all vehicles exit Brickyard Road or until someone stops back far enough from the intersection to allow the trucks to make their turn.
- B. Since traffic on S.R. 3 (U.S. 41) is relatively heavy, especially during the morning and afternoon rush hours, the trucks stopping on S.R. 3 (U.S. 41) compound the traffic problems.

To the south of this intersection, approximately 600 ft., there is a vertical curve on

S.R. 3 (U.S. 41). When these trucks stop in the northbound road, traffic backs up rather fast. This increases the possibilities of Rear End accidents and impedes progression.

- C. When vehicles stop in the road on S.R. 3 (U.S. 41) the driver of the second vehicle often goes around, creating a potential head-on collision or a right angle type accident since the truck drivers wave motorists out of Brickyard Road.

From August 1987 until August 1988, there were 13 Right Angle, 13 Rear End, 1 Sideswipe, 4 Off Road and 1 Non Collision accidents in an area 1 mile each side of this intersection on S.R. 3 (U.S. 41).

Conclusion

As indicated on the attached Warrants sheet, when right turn traffic on Brickyard Road is removed, the intersection still meets 8 hours of Interruption of Traffic Warrant #2 and 7 hours of the Four Hour Volumes, Warrant #9.

This intersection could not operate efficiently, if signalized, as the intersection now exists without turn lanes and radius improvements.

Because of the backup in traffic, if signalized, we would purpose that the potential for Rear End accidents would also increase if not provided with proper channelization.

It is therefore our conclusion that to upgrade the safety level and operational level of the intersection turn lanes should be placed on S.R. 3 (U.S. 41) and Brickyard Road and that the radi at the intersection be improved.

The existing 60 ft. right of way on S.R. 3 (U.S. 41) would not accommodate these improvements. Therefore, additional right of way would have to be acquired.

This section of U.S. 41 (S.R. 3) should be reconstructed to a multi lane roadway from S.R. 52 in the City of Dalton south to S.R. 3 connector. A project has previously been in our Work Program (P.I. # 620630, Project No. FR 001-1(19) Whitfield County). See attached letter dated February 23, 1989, from Felton D. Rutledge, District Engineer to Gene Skeen, State Transportation Programing Engineer.

Recommendations

1. It is recommended that a permit for the installation of a stop and go signal be denied at this time.
2. It is recommended that a roadway project be considered to multi lane S.R. 3 from S.R. 52 (Walnut Avenue) south to S.R. 3 connector.
3. If recommendation #2 can not be accomplished, a right turn lane northbound on S.R. 3 and a left turn lane southbound should be constructed with larger radius.
4. It is further recommended that if this project is accomplished, that this intersection be looked at again for possible signalization.
5. The existing Stop signs at this intersection are faded and are in need of replacement. A Stop Ahead sign is also needed on the Brickyard Road approach to S.R. 3 (U.S. 41). The pavement markings in the intersection should be reworked.

Recommended Jerry Chambers
District Traffic Engineer

Date 5 June 89

Recommended _____
State Traffic & Safety Engr.

Date _____

**REVISION REQUEST
FOR THE
CONSTRUCTION WORK PROGRAM**

IN ACCORDANCE WITH THE BOARD RESOLUTION DATED AUGUST 16, 1973,
BOARD APPROVAL IS REQUESTED TO REVISE THE CONSTRUCTION WORK PROGRAM
FOR THE PROJECT AND ACTIVITY OUTLINED BELOW:

- ADDITION TO THE PROGRAM
 - DELETION FROM THE PROGRAM
 - SHIFT IN THE PROGRAM
 - CHANGE IN COST ESTIMATE
 - OTHER
- PE ROW CONST.
 FROM FY _____ To FY _____

PROJECT DATA

COUNTY	PROJECT No. P.I. No.	TYPE WORK	DESCRIPTION
Whitfield	HES-001-6(36) 641680	Turn Lanes	S.R. 3 South of Dalton: Left Turn Lane and Westbound right turn lane on Brickyard Road.

Fund 1 = 141
Fund 2 = 141

ESTIMATED COST (\$1,000's)	LOW ROAD	HIGH ROAD	FISCAL YEAR	CONG. DISTRICT	FIELD DISTRICT
PE ROW CONST \$350	X		1991	9	6

REASON FOR REVISIONS:

To add this project to the Construction Work Program as approved by the Commissioner per letter of October 31, 1989.

RECOMMENDED *Henry Jones*
DIRECTOR, DIVISION OF PLANNING AND PROGRAMMING

RECOMMENDED _____
COMMISSIONER

APPROVED BY
Director of

DEC 12 1989

Planning and
Programming